

Attachment 02.04.03-08C
TVA letter dated February 9, 2010
RAI Response

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment 02.04.03-8C: SOCH Model Calibration, Watts Bar CDQ000020080037

(140 Pages including Cover Sheet)

Attachment 02.04.03-08C
TVA letter dated February 12, 2010
RAI Response

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment 02.04.03-8C: SOCH Model Calibration, Watts Bar CDQ000020080037

(157 Pages including Cover Sheet)

NPG CALCULATION COVERSHEET/CCRIS UPDATE

REV 0 EDMS/RIMS NO L58 090814 002				EDMS TYPE Calculations (nuclear)		EDMS ACCESSION NO (N/A for REV. 0) L58 091230 009				
Calc Title: SOCH Model Calibration, Watts Bar										
CALC ID	TYPE	ORG	PLANT	BRANCH	NUMBER	CUR REV	NEW REV	REVISION APPLICABILITY		
CURRENT	CN	NUC	GEN	CFR	CD0000020080037	0	1	Entire calc <input checked="" type="checkbox"/> Selected pages <input type="checkbox"/>		
NEW										
ACTION	NEW REVISION <input checked="" type="checkbox"/>	DELETE <input type="checkbox"/>	RENAME <input type="checkbox"/>	SUPERSEDE <input type="checkbox"/>	DUPLICATE <input type="checkbox"/>	CCRIS UPDATE ONLY <input type="checkbox"/>	(Verifier Approval Signatures Not Required)			No CCRIS Changes <input type="checkbox"/> (For calc revision, CCRIS been reviewed and no CCRIS changes required)
UNITS	SYSTEMS			UNIDS						
N/A	N/A			N/A						
UCN,EDC,N/A EDCN 22404A (SON) EDCN 54018A (W6N), LATER (BFN)					APPLICABLE DESIGN DOCUMENT(S)			CLASSIFICATION		
N/A					N/A			E		
QUALITY RELATED?	SAFETY RELATED?	UNVERIFIED ASSUMPTION	SPECIAL REQUIREMENTS AND/OR LIMITING CONDITIONS?		DESIGN OUTPUT ATTACHMENT?	SAR/TS and/or ISFSI SAR/CoC AFFECTED				
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	(If yes, QIR = yes) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
PREPARER ID	PREPARER PHONE NO	PREPARING ORG (BRANCH)		VERIFICATION METHOD	NEW METHOD OF ANALYSIS					
clstokes	615-252-4343	CFR		See Page 5	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
PREPARER SIGNATURE		DATE	CHECKER SIGNATURE		DATE					
Carrie L Stokes <i>Carrie Stokes</i>		12/14/09	L Yu Lin <i>L. Lin</i>		12/14/09					
VERIFIER SIGNATURE		DATE	APPROVAL SIGNATURE		DATE					
L. Yu Lin <i>L. Lin</i>		12/14/09	K.R. Spates <i>K.R. Spates</i>		12/23/09					
STATEMENT OF PROBLEM/ABSTRACT										
<p style="text-align: center;"><i>revised</i></p> <p>TVA's Simulated Open Channel Hydraulics (SOCH) Model has been developed and used for flood routing calculations for the Tennessee River and tributaries. The SOCH Model Calibrations for each reservoir calculate Manning's N values so that the SOCH model will accurately model the river discharges and elevations of known events. The SOCH Model can then reliably predict flood conditions for events of other magnitudes. This calculation presents the SOCH Model Calibration for the Watts Bar Reservoir.</p>										
This calculation contains electronic attachments and must be stored in EDMS as an ADOBE.PDF file to maintain the ability to retrieve the electronic attachments.										
MICROFICHE/EFICHE Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> FICHE NUMBER(S)										
<input type="checkbox"/> LOAD INTO EDMS AND DESTROY <input checked="" type="checkbox"/> LOAD INTO EDMS AND RETURN CALCULATION TO CALCULATION LIBRARY. ADDRESS: LP 4D-C <input type="checkbox"/> LOAD INTO EDMS AND RETURN CALCULATION TO:										


NPG CALCULATION COVERSHEET/CCRIS UPDATE

REV 0 EDMS/RIMS NO. L58 090814 002				EDMS TYPE: Calculations (nuclear)		EDMS ACCESSION NO (N/A for REV. 0) N/A	
Calc Title: SOCH Model Calibration, Watts Bar							
CALC ID	TYPE	ORG	PLANT	BRANCH	NUMBER	CUR REV	NEW REV
CURRENT	CN	NUC	GEN				
NEW	CN	NUC	GEN	CEB	CDQ000020080037	N/A	0
ACTION		NEW REVISION <input checked="" type="checkbox"/>	DELETE RENAME <input type="checkbox"/>	SUPERSEDE <input type="checkbox"/>	DUPLICATE <input type="checkbox"/>	CCRIS UPDATE ONLY <input type="checkbox"/>	(Verifier Approval Signatures Not Required)
							No CCRIS Changes <input type="checkbox"/> (For calc revision, CCRIS been reviewed and no CCRIS changes required)
UNITS		SYSTEMS		UNIDS			
N/A		N/A		N/A			
DCN.EDC N/A EDCN 22404A (SON) EDCN 54018A (WBN), LATER (BLN)				APPLICABLE DESIGN DOCUMENT(S) N/A		CLASSIFICATION E	
QUALITY RELATED? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	SAFETY RELATED? (If yes, QR = yes) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	UNVERIFIED ASSUMPTION Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	SPECIAL REQUIREMENTS AND/OR LIMITING CONDITIONS? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		DESIGN OUTPUT ATTACHMENT? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	SAR/TS and/or ISFSI SAR/CoC AFFECTED Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
PREPARER ID Andrew C. Murr	PREPARER PHONE NO. (205) 298-6074	PREPARING ORG (BRANCH) CEB		VERIFICATION METHOD Design Review	NEW METHOD OF ANALYSIS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
PREPARER SIGNATURE <i>Andrew C. Murr</i>		DATE 8/6/09	CHECKER SIGNATURE <i>Bryant Bondurant</i>		DATE 8/6/09		
VERIFIER SIGNATURE <i>L. Lin</i>		DATE 8/6/09	APPROVAL SIGNATURE <i>K.E. Spates</i>		DATE 8/14/09		
STATEMENT OF PROBLEM/ABSTRACT <i>OK 8/14/09</i>							
TVA's Simulated Open Channel Hydraulics (SOCH) Model has been developed and used for flood routing calculations for the Tennessee River and tributaries. The SOCH Model Calibrations for each reservoir calculate Manning's N values so that the SOCH model will accurately model the river discharges and elevations of known events. The SOCH Model can then reliably predict flood conditions for events of other magnitudes. This calculation presents the SOCH Model Calibration for the Watts Bar Reservoir.							
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MICROFICHE/EFICHE Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> FICHE NUMBER(S)							
<input type="checkbox"/> LOAD INTO EDMS AND DESTROY <input checked="" type="checkbox"/> LOAD INTO EDMS AND RETURN CALCULATION TO CALCULATION LIBRARY. ADDRESS: LP 4D-C <input type="checkbox"/> LOAD INTO EDMS AND RETURN CALCULATION TO:							

NPG CALCULATION RECORD OF REVISION	
Calculation Identifier: CDQ000020080037	
Title SOCH Model Calibration, Watts Bar	
Revision No.	DESCRIPTION OF REVISION
0	Initial issue: 66 pages
1	<p>This calculation was revised to address the following:</p> <ul style="list-style-type: none"> • PER 203951. The verification of the original calculation was completed by personnel who had not completed the required NEDP-7 Job Performance Record (JPR). A verification JPR is now in place for all personnel engaged in verification tasks. Checking includes only changes made in this revision as the checking of the calculation was not impacted by PER 203951. The verification is inclusive of work completed prior to this revision. • PER 203872 – Replaced NEDP-2 forms pages 2 through 12 with the forms from the NEDP-2 Revision in effect at the time of calculation issuance. • Updated References 2.8, 2.9, 2.10 and 2.16. <p>Note: Dam rating curves were used in this calculation as a common starting point between two models. Any changes to the dam rating curves will have no impact on the calibration effort and does not require revision of the calibration.</p> <p>Significant changes in Revision 1 are noted with a right margin revision bar. Administrative changes and typos are excluded.</p> <p>Pages Added: 1a & 5a Pages Replaced: 1-12, 13, 15, 22, 27, 47, and 48</p> <p>Total pages of calculation hard copy for Revision 1= 68</p>

TVAN CALCULATION TABLE OF CONTENTS		
Calculation Identifier: CDQ000020080037		Revision: 1
TABLE OF CONTENTS		
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7	Results/Conclusions	65
Appendix		
A	Final Manning's n, Final SOCH Geometry, Profiles and Calibration Graphs	N/A
B	SOCH Input Files, Steady State (.dat, .bnd)	N/A
C	SOCH Input Files, March 1973 Flood (.dat, .loc)	N/A
D	SOCH Input File May 2003 Flood (.dat, .loc)	N/A
E	SOCH Output Files, Steady-State (.out)	N/A
F	SOCH Output Files, March 1973 (.out, .prt)	N/A
G	SOCH Output Files, May 2003 (.out, .prt)	N/A
H	Calibrated Steady State HEC-RAS Models	N/A
I	Convey and SOCH Geometry Files	N/A
J	Drainage Areas for Streams in the Tennessee River Basin	N/A
Attachments		
1	HEC-RAS Geometry Files	N/A
2	Ft. Loudoun Dam Rating Curve	N/A
3	Melton Hill Dam Rating Curve	N/A
4	Watts Bar Dam Rating Curve	N/A
5	March 1973 Flood Elevations and Flows	N/A
6	May 2003 Flood Elevations and Flows	N/A
7	Local Inflows Developed from Unit Hydrographs	N/A
8	SOCH Geometry Files	N/A
9	SOCH Input Preprocessor, Steady State	N/A
10	SOCH Input Preprocessor, March 1973 Flood	N/A
11	SOCH Input Preprocessor, May 2003 Flood	N/A
12	Excel Macro File for SOCH Input Preprocessor	N/A
13	Excel Macro Files for Extraction of SOCH Output	N/A
14	Clinch River Flood Insurance Study	N/A
15	SOCH Model Geometry Configuration	N/A
16	Chilhowee 1973 Flood Routing	N/A
17	Native Word Calculation File	N/A

NPG CALCULATION VERIFICATION FORM	
Calculation Identifier: CDQ000020080037	Revision: 1
Method of verification used:	
1. Design Review <input checked="" type="checkbox"/>	Verifier: <u>L. Yu Lin</u> Date <u>12/14/09</u> <u>L. Lin</u>
2. Alternate Calculation <input type="checkbox"/>	
3. Qualification Test <input type="checkbox"/>	
Comments:	
<p>This calculation entitled, SOCH Model Calibration, Watts Bar was verified by independent design review. The process involved a critical review of the calculation to ensure that it is correct and complete, uses appropriate methodologies, and achieves its intended purpose. The inputs were reviewed and determined to be appropriate inputs for this calculation. The results of the calculation were reviewed and were found to be reasonable and consistent with the inputs provided. Backup files and documents were consulted as necessary to verify data and analysis details found in the calculation.</p> <p>Detailed comments and editorial suggestions for the changes made in this revision were transmitted to the author and reviewer by email along with a marked up copy of the calculation.</p> <p>(Note: The design verification of this calculation revision is for the total calculation, not just the changes made in the revision. This complete re-verification is performed to disposition PER 203951 as described in the Calculation Revision Log on Page 3)</p>	

NPG CALCULATION VERIFICATION FORM	
Calculation Identifier	CDQ000020080037
Revision 0	
Method of verification used:	
1. Design Review	<input checked="" type="checkbox"/>
2. Alternate Calculation	<input checked="" type="checkbox"/>
3. Qualification Test	<input type="checkbox"/>
Verifier <u>L. Yu Lin</u> Date <u>8-6, 2009</u> 	
Comments:	
<p>The purpose of this calculation is to calibrate the Simulated Open Channel Hydraulics Model (SOCH) developed by TVA, so that the SOCH model can be reliably used to predict other magnitudes of flood. The fundamental design view process for this calculation was a design review of the data collection, model simulation, model calibration and model verification. Alternate calculations were conducted to verify this design process as described below:</p> <p>As discussed on Page 18, two steady-state model segments of Watts Bar Reservoir were developed using the U.S. Army Corps of Engineers Hydrologic Engineering Center's River Analysis System (HEC-RAS) version 3.1.3. The Manning's values in the HEC-RAS models were calibrated to match the high-water marks for the 1973 and 2003 flood events. The Manning's values were also verified using V.T. Chow's Open Channel Hydraulics (1959) and Roughness Characteristics of Natural Channels: Geological Survey Water-Supply Paper 1849 (1967) as alternate design process. The Manning's values from the SOCH and HEC-RAS models were consistent with the values listed in both reference books. It concluded that the Manning's values in the SOCH and the HEC-RAS models were properly used for the Watts Bar Reservoir calculation.</p> <p>Since a difference source was used to verify the input data for the TVA model, compliance with NEDP-2, Section 3.1.J.2 is achieved.</p> <p>As shown in Appendix H, steady-state HEC-RAS model segments of the Watts Bar Reservoir and the Clinch River were developed to demonstrate that given the same inputs as SOCH models, the results showed that HEC-RAS models produce equivalent results as SOCH models.</p> <p>Since a difference source was used to verify the results of the models, compliance with NEDP-2, Section 3.1.J.2 is achieved.</p>	

**NPG COMPUTER INPUT FILE
STORAGE INFORMATION SHEET**

Document CDQ000020080037

Rev. 1

Plant: GEN

Subject: SOCH Model Calibration, Watts Bar

 Electronic storage of the input files for this calculation is not required. Comments:

 Input files for this calculation have been stored electronically and sufficient identifying information is provided below for each input file. (Any retrieved file requires re-verification of its contents before use.)

These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.

Appendix A

1. WattsBar_FinalManningsn.xls
2. WattsBar_HEC_RAS_SteadyState_Profiles.xls
3. Clinch_HEC_RAS_SteadyState_Profiles.xls
4. WattsBar_HECRAS_SOCH_SteadyState_Profiles.xls
5. Clinch_HECRAS_SOCH_SteadyState_Profiles.xls
6. Observed vs. SOCH Mar 1973 Hydrographs.xls
7. Observed vs. SOCH May 2003 Hydrographs.xls
8. Watts Bar 060109.geo
9. LowerClinch060109.geo
10. LLT20090610cal.geo

Appendix B

11. Watts Bar_Calibrate_Step.dat
12. WattsBarCal.bnd
13. Clinch_Calibrate_100Kto800K.dat
14. MeltonHill100Kto800K.bnd

 Microfiche/eFiche

**NPG COMPUTER INPUT FILE
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These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.			
Appendix C 15. Mar1973LocalInflowHydrograph_WattsBar.loc 16. WattsBar_Calibrate_Mar1973.dat			
Appendix D 17. May2003LocalInflowHydrograph_WattsBar.loc 18. Watts Bar_Calibrate_May2003.dat			
Appendix E 19. Clinch_Calibrate_100Kto800K.out 20. Watts Bar_Calibrate_Step.out			
Appendix F 21. WattsBar_Calibrate_Mar1973.out 22. WattsBar_Calibrate_Mar1973.prt			
Appendix G 23. WattsBar_Calibrate_May2003.out 24. WattsBar_Calibrate_May2003.prt			
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These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.			
Appendix H			
25. WattsBar061709.f01			
26. WattsBar061709.g03			
27. WattsBar061709.p03			
28. WattsBar061709.prj			
29. L_Clinch.f02			
30. L_Clinch.g01			
31. L_Clinch.p02			
32. L_Clinch.prj			
Appendix I			
33. WattsBarMerge20090528.xls			
34. LowerClinchConvey20090601.dat			
35. LowerClinchConvey20090601.out			
36. LowerClinchConvey20090601.xls			
37. WattsBarConvey20090528.xls			
38. WattsBarConvey20090528.dat			
39. WattsBarConvey20090528.out			
40. WattsBarConvey20090528.prt			
41. Watts Bar 20090528.geo			
42. LowerClinch20090528.geo			
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Appendix J			
43. DistributionRev4 031209.xls			
44. DrainageAreasTR.pdf			
Attachment 1			
45. LowerClinch042209.g02.pdf			
46. WattsBar061709.g03.pdf			
Attachment 2			
47. Fort Loudoun DRC.xls			
Attachment 3			
48. Melton Hill Rating Curve (Turbines Added).xls			
Attachment 4			
49. Watts Bar Rating Curve.xls			
Attachment 5			
50. All_Watts_Bar_Flows_&_Elevations_Mar1973_rev0.xls			
51. Chilhowee_Total_Discharges_March_1973_Rev.0.xls			
52. Emory@Oakdale_Mar1973 bihourly stream.pdf			
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NPG COMPUTER INPUT FILE STORAGE INFORMATION SHEET			
Document	CDQ000020080037	Rev. 1	Plant: GEN
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These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.			
Attachment 6			
53. All_Watts_Bar_Flows_&_Elevations_Mar2003_rev1.xls			
54. EmoryAtOakdale_rev0.xls			
Attachment 7			
55. Watts Bar Reservoir Locals (Basins 25, 33, 34, 36 and 37).xls			
56. Fort Loudoun – Tellico (8, 16, 17, 18, & 24) hydrographs.xls			
Attachment 8			
57. WattsBar20090528.pdf			
58. LLT20090610.pdf			
59. LowerClinch20090528.pdf			
Attachment 9			
60. Clinch_100steps_BuildSOCHdata.xls			
61. Watts Bar_StepCalibrate_BuildSOCHdata.xls			
Attachment 10			
62. Watts Bar_Mar1973_BuildSOCHdata.xls			
Attachment 11			
63. Watts Bar_May2003_BuildSOCHdata.xls			
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**NPG COMPUTER INPUT FILE
STORAGE INFORMATION SHEET**

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<p>These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.</p> <p>Attachment 12 64. SOCH_Macros.xls</p> <p>Attachment 13 65. 1973_Flood_ExtractedSOCHOutoutHydrographs.xls 66. 2003_Flood_ExtractedSOCHOutoutHydrographs.xls</p> <p>Attachment 14 67. Clinch.f01 68. Clinch.g02 69. Clinch.O02 70. Clinch.p02 71. Clinch.prj 72. Clinch.r02 73. FIS_Roane_Cover.pdf 74. FIS_Roane_Flows.pdf 75. FIS_Roane_Profiles.pdf</p>			
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These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.			
Attachment 15			
76. SOCHGeometryFinal.jpg			
Attachment 16			
77. Little T 1973 Local.xls			
Attachment 17			
78. CDQ0000200800037_Rev_1.doc			
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TVA

Calculation No. CDQ000020080037	Rev: 1	Plant: GEN	Page: 13
Subject: SOCH Model Calibration, Watts Bar		Prepared	CLS
		Checked	LYL

1. Purpose

TVA's Simulated Open Channel Hydraulics (SOCH) Model has been developed and used for flood routing calculations for the Tennessee River and selected tributaries. The SOCH Model is calibrated for each reservoir so that the model will accurately replicate observed river discharges and elevations for known historic events. The SOCH model can then be used to reliably predict flood elevations and discharges for events of other magnitudes. This calculation presents the SOCH model calibration for the Watts Bar Reservoir (Figure 1).

History

Tennessee Valley Authority (TVA) developed the method of analysis, procedures and computer programs needed to determine the design basis flood levels for nuclear plant sites in the 1970s. Determination of maximum flood levels included consideration of the most severe flood conditions that may be reasonably predicted to occur at a site as a result of both severe hydro meteorological conditions and seismic activity. This process was followed to meet Nuclear Regulatory Guide 1.59. At that time there were no standard computer programs (codes) available that would handle unsteady flow characteristics and dam failure analysis. As a result of this early work TVA developed a runoff and stream course modeling process for the TVA reservoir system that provided the basis for currently licensed plants (Sequoyah Nuclear Plant, Watts Bar Nuclear Plant and Browns Ferry Nuclear Plant). The Bellefonte Nuclear Plant (BLN) Unit 1 and Unit 2 Final Safety Analysis Report (FSAR) was also based on this process.

The BLN Unit 3 and Unit 4 Combined Operating License Application (COLA) were submitted using data and analysis that were determined for the original BLN FSAR (Unit 1 and Unit 2) and were documented in a 1998 reassessment.

The purpose of this calculation is to calibrate the Watts Bar Reservoir portion of the SOCH model so that it can be reliably used to predict flood elevations and discharges for events of varying magnitudes and to validate the unit hydrograph local inflows. Inputs to this calculation include channel geometry, local inflow hydrographs, dam rating curves, and historic flood elevations and discharges. The result of this calculation will be the final Manning's n values for the Watts Bar Reservoir and the final SOCH geometry file for the Watts Bar Reservoir to be used in the SOCH PMF determination for TVA Nuclear Plant sites. In the SOCH PMF determination and other subsequent analyses such as seismic failure evaluations, the Watts Bar Reservoir model will be run in series with models of other reservoirs. As a result, additional modification to the SOCH geometry for Watts Bar Reservoir may be required. However, any required changes will be made during that phase and the calibration (final Manning's n values) will remain valid.

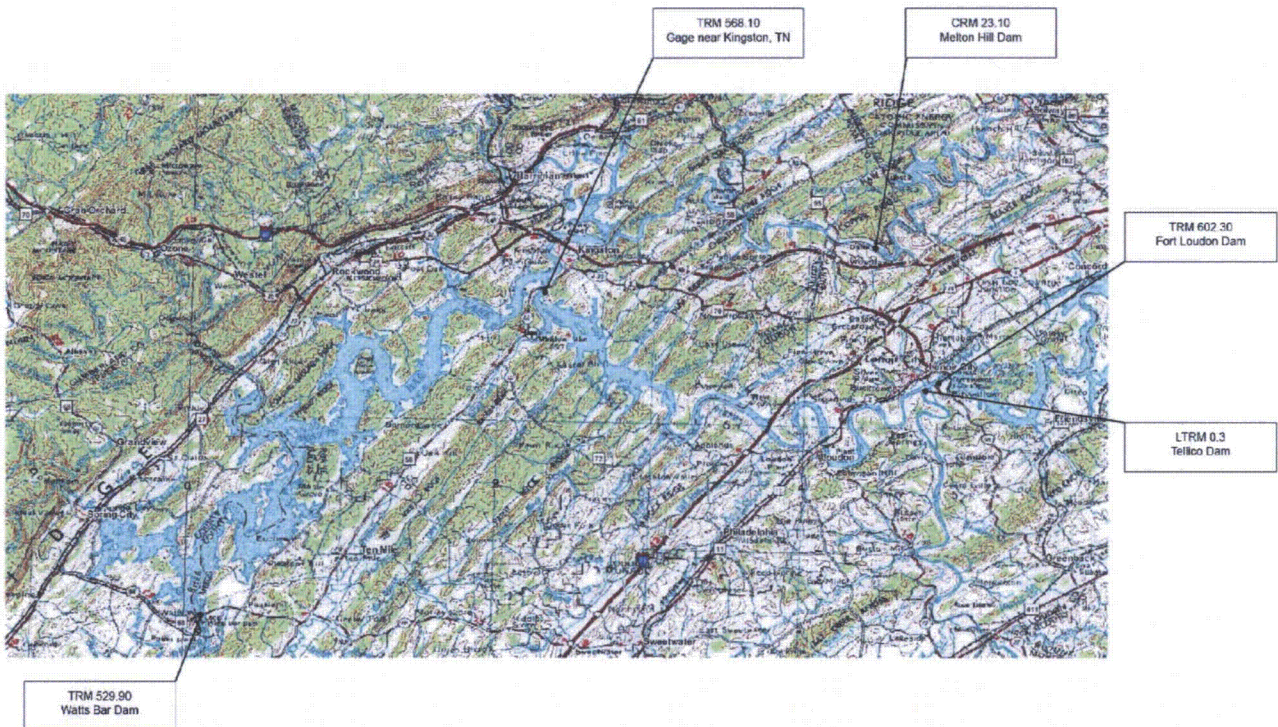


Figure 1. Watts Bar Reservoir

TVA

Calculation No. CDQ000020080037	Rev: 1	Plant: GEN	Page: 15
Subject: SOCH Model Calibration, Watts Bar		Prepared	CLS
		Checked	LYL

2. References

- 2.1 *Drainage Areas for Streams in Tennessee River Basin*, Report No. 0-5829-R-2, Tennessee Valley Authority, division of Water Control Planning, Hydraulic Data Branch, Knoxville, TN, March 1970
- 2.2 “Bellefonte Nuclear Plant, White Paper – Hydrologic Analysis, Revision 1”, Tennessee Valley Authority, July 25, 2008. (EDMS No. L58 081219800) FOR INFORMATION ONLY
- 2.3 “Dam Rating Curve – Fort Loudoun” CDQ000020080009 Revision 0 (EDMS No. L58 090304 001)
- 2.4 “Dam Rating Curve – Melton Hill” CDQ000020080013 Revision 0 (EDMS No. L58 090210 002)
- 2.5 “Dam Rating Curve – Watts Bar” CDQ000020080020 Revision 0 (EDMS No. L58 090224 002)
- 2.6 “Bellefonte Units 3 and 4 Hydrology Project Request for Information (RFI) Response Information Continuation Sheet,” RFI Number BE21125160B019, Rev. 0. TVA River Operations, TVA River Operations, River Scheduling Hourly Water Records Database – Microfilm Book 295-20.00 (EDMS No. L58 090224 801)
- 2.7 “Bellefonte Units 3 and 4 Hydrology Project Request for Information (RFI) Response Information Continuation Sheet,” RFI Number BE21125160B019, Rev. 0. TVA River Operations, TVA River Operations, River Scheduling Hourly Water Records Database. (EDMS No. L58 090224 801)
- 2.8 “SOCH Geometry Verification for Watts Bar Reservoir” CDQ000020080037 Revision 1
- 2.9 “Sub basin (25, 33, 34, 36, 37) Watts Bar Basins Unit Hydrograph Validation” CDQ000020080065 Revision 2
- 2.10 “Sub basin (8, 16, 17, 18, 24) Ft Loudoun-Tellico Unit Hydrograph Validation” CDQ000020080069 Revision 2
- 2.11 “Software Verification and Validation Report (SVVR) Simulated Open Channel Hydraulics (SOCH) Version 1.0” (EDMS No. L58 090528 004)
- 2.12 “Simulated Open Channel Hydraulics (SOCH) 2009, Users Manual”, Version 1.0, (EDMS No. L58 090528 002)
- 2.13 *HEC-RAS, River Analysis System Hydraulic Reference Manual*, Revision 3.1, Report No. CPD-69, U.S. Army Corps of Engineers Hydraulic Engineering Center, November 2002.
- 2.14 NUREG 0800, Standard Review Plan, Section 2.41
- 2.15 “Weighted Width (WWIDTH) Version 1.0 Conveyance (CONVEY) Version 1.0 User’s Manual.” Revision 0 (EDMS No. L58 090213 001)
- 2.16 “SOCH Geometry Verification for Tellico Reservoir” CDQ000020080025 Revision 1
- 2.17 “Bellefonte Units 3 and 4 Hydrology Project Request for Information (RFI) Response Information Continuation Sheet,” RFI Number BE21147150B031, Rev. 0. TVA HEC2 and HECRAS files used to develop the FEMA flood profiles. (EDMS No. L58 090604 800)
- 2.18 “Bellefonte Units 3 and 4 Hydrology Project Request for Information (RFI) Response Information Continuation Sheet,” RFI Number BE21205000B037, Rev 0. TVA, 1973 discharge flows from Chilhowee Dam and routing files. (EDMS L58 090701 801)

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- 2.18 "Bellefonte Units 3 and 4 Hydrology Project Request for Information (RFI) Response Information Continuation Sheet," RFI Number BE21205000B037, Rev 0. TVA, 1973 discharge flows from Chilhowee Dam and routing files. (EDMS L58 090701 801)
- 2.19 "Bellefonte Units 3 and 4 Hydrology Project Request for Information (RFI) Response Information Continuation Sheet," RFI Number BE21145140B018, Rev 3. TVA, Corrected Watts Bar discharges for the May 2003 flood and problem report for gage at TRM 484.7. (EDMS L58 090701 802)

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3. Assumptions and Methodology

3.1 General Assumptions

1. Assumption: Flow, elevation and date information used in this calculation are acceptable for use in the development of the TVA design basis PMF analysis.

Technical Justification: The flow, elevation and other input data were not obtained via a 10 CFR 50 Appendix B program; however they represent the best and most complete data set available. Based on the Acceptance Criteria Section of NUREG 800 Standard Review Plan (SRP) 2.4.1 (Reference 2.14), these data are expected to meet the requirements of an Appendix B program, excerpt follows:

“Data collected, maintained, and distributed by Federal and State agencies, such as USGS, NOAA, NRCS, USACE, and various State water resources departments, are adequate for safety evaluation of the plant.”

TVA is the Federal agency responsible for flood control in watersheds of concern and minimal data are available from the other Federal agencies delineated in the SRP. Historical data from TVA records are used to calibrate the models to the 1973 and 2003 historical floods of record. TVA, NWS, and USGS were responsible for operating the majority of the gages in the Tennessee Valley at the time of these floods.

3.2 Unverified Assumptions (UVA) - None

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3.3 Methodology

The purpose of this calculation is to calibrate the Watts Bar Reservoir portion of the SOCH model so that it can be reliably used to predict flood elevations and discharges for events of varying magnitudes and to validate one concentrated and four distributed local unit hydrographs. An overview of the calibration process is depicted in Figure 2.

The objective of calibrating a model is to adjust model parameters so that the model will accurately predict the outcome of a known historic event. The model will therefore be considered reliable to predict the outcome of events of other magnitudes. In the case of the SOCH model, the model results must accurately replicate observed elevations and discharges for known historic flood events. Because the model will ultimately be used to predict PMF flood levels, large recorded flood events should be used to calibrate the model. The two flood events on record for the Watts Bar Reservoir were the storms that occurred in March of 1973 and in May of 2003. These two storms were used for SOCH model calibration.

The following describes the methodology of the calibration process in detail:

3.3.1 HEC-RAS Steady-State Calibration

The reservoir is made up of two steady-state model segments that were first developed using the U.S. Army Corps of Engineers Hydrologic Engineering Center's River Analysis System (HEC-RAS) version 3.1.3. One model segment represents the sections of Watts Bar Reservoir on the Tennessee River and the second model segment represents the sections of Watts Bar Reservoir on the Clinch River up to Melton Hill Dam at CRM 23.1. A review performed of subsequent versions of HEC-RAS (up to the most recent version) did not identify any changes that would affect the results and conclusions developed in this calculation (Section 2.12 of Reference 2.11). The steady-flow data used initially to set-up the HEC-RAS model for each historic flood was determined by using the recorded peak elevation and approximate peak flows from Fort Loudoun Dam and Watts Bar Dam (Reference 2.6 and 2.7) for the upstream and downstream flows, respectively in the Tennessee River. The flow distribution for the remaining cross-sections in the Tennessee River portion were then estimated based on an historical distribution taken from TVA records (Appendix J). The flows and flow distributions for the Clinch River model portion came from the HEC-RAS files used to develop the FEMA flood profiles (Reference 2.17 - Attachment 14). It should be noted that the Flood Insurance Study (FIS) documentation and the HEC-RAS model have a slight discrepancy between the two for the flows and elevations for the 100-year and 500-year events.

The HEC-RAS model was then adjusted by varying the Manning's n values, using good engineering judgment, to match the high-water marks for the 1973 and 2003 flood events at available river gage stations along the Tennessee River and to match the FIS model profiles for the 100-year and 500-year events for the Clinch River. The upstream boundary was more closely matched to the 2003 storm since it was after the completion of the Tellico dam (closure in 1979) on the Little Tennessee River and more closely represents the current condition in this reach of the reservoir.

3.3.2 HEC-RAS Steady-State Profiles

Following calibration of the model, HEC-RAS was run with uniform flow to produce steady-state water surface profiles ranging from 100,000 cfs to 1,200,000 cfs in 100,000 cfs or 200,000 cfs increments along the Tennessee River portion and ranging from 100,000 cfs to 800,000 cfs in 100,000 cfs increments along the Clinch River portion. The 1,200,000 cfs profile is expected to be above the PMF level along the Tennessee River and the 800,000 cfs profile is expected to be above the PMF level along the Clinch River. These values were set as the upper bound of the calibration. The downstream boundary conditions for the Tennessee River Section were set at the surcharge level for Watts Bar, 747 ft, until the flow increased to 600,000 cfs, the point at which the water-surface elevation intersects the dam rating curve (Attachment 4). The boundary conditions then followed the dam rating curve. The downstream boundary conditions for the Clinch River Section were set at the anticipated elevations at the confluence of the Clinch River with the Tennessee River based upon the Tennessee River Section HEC-RAS model.

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It was during this process that additional modifications to cross-sections were required because some cross-sections did not extend high enough to contain the 800,000 cfs flow in the Clinch River. Three sections were examined by using the Digital Raster Graphic (DRG) maps (Reference 2.8). If the slope appeared to be constant, then the cross-section was extended up the slope to the desired elevation. If it appeared that the slope got flatter or was cut off for ineffective flow, then the section was extended vertically.

After completion of the HEC-RAS steady-state calibration, the CONVEY program (Reference 2.15) was re-run to compute a new $R^{2/3}$ term and the SOCH geometry was re-built as described in Appendix A of Reference 2.8.

3.3.3 SOCH Steady-State Calibration

Calibration of the SOCH model is accomplished by adjusting the Manning's n value as described in Section 2.4 of Reference 2.12. In SOCH, the Manning's n values are the only parameter that can be adjusted and are based on vertical segments of the cross-section.

Manning's n values were determined by running the SOCH model under steady-state conditions with the HEC-RAS n values first and comparing the profile to the steady-state profiles from HEC-RAS. A steady-state model was run for both the Tennessee River portion and Clinch River portion of the Watts Bar Reservoir.

1. Tennessee River - Based on the comparison of the SOCH and HEC-RAS profiles from the first run, the Manning's n values were adjusted and the model was re-run until the profiles closely resembled each other for flow conditions ranging from 100,000 to PMF level flows of 1,200,000 cfs. The downstream boundary conditions were set at the surcharge level for the Watts Bar Reservoir, 747 ft, to account for the reservoir pool until the flow increased to about 600,000 cfs at which the surcharge level intersects the dam rating curve. (Attachment 4, case 1). From 600,000 cfs to 1,200,000 cfs, the boundary conditions followed the dam rating curve. Calibration efforts were based on matching the profiles at the PMF flow (1,200,000 cfs); however the lower flow profiles matched closely as well.

2. Clinch River - Based on the comparison of the SOCH and HEC-RAS profiles from the first run, the Manning's n values were adjusted and the model was re-run until the profiles closely resembled each other for flow conditions ranging from 100,000 to PMF level flows of 800,000 cfs. The downstream boundary conditions were set at the anticipated elevations of the Tennessee River at the mouth of the Clinch River for each flow level to account for the Watts Bar reservoir pool. Because the calibration efforts were based on matching the profiles at the PMF flow (800,000 cfs), the lower flow profiles did not match as closely. However, in general the SOCH profiles were conservatively higher than the HEC-RAS profiles.

Since much iteration to the Manning's n values were performed to achieve calibration, only the final Manning's n values are shown. These Manning's n values were then combined in the SOCH input file to evaluate the steady-state calibration against the historic floods in 1973 and 2003.

3.3.4 SOCH Unsteady-State Historic Runs

After calibrating the SOCH model to steady-state conditions, the same Manning's n values were used to run the model under unsteady flow conditions to compare to the March 1973 and May 2003 flood events. The unsteady model was configured with 5 channels for the 2003 flood event and 4 for the 1973 event since Tellico Dam was not constructed until after 1973 (Attachment 15). This is the more appropriate way to model the system because steady-state flow is never achieved in the reservoirs throughout the Tennessee River system due to the series of dams, short river reaches, and short storm durations. Recorded discharges for the Fort Loudoun Dam, Tellico Dam and the Melton Hill Dam (Attachment 5 and 6) were used as the upstream flow (upstream boundary condition) and recorded elevations for the Watts Bar Reservoir were used as the downstream boundary condition. Recorded discharges for the Emory River were included in the model at CRM 4.4. The flows for the Emory River were scaled by 1.1 to account for drainage area from the gage, at Oakdale, TN, just upstream of where the Emory River intersects the Clinch River. The gage at Oakdale represents 88.3% of the drainage area for the Emory

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where the Emory River intersects the Clinch River. The gage at Oakdale represents 88.3% of the drainage area for the Emory River. Local inflows for the Little Tennessee River and sub-basins 25, 33, 34, 36 and 37 are also included in the model to accurately account for all flows entering the Watts Bar Reservoir. The Little Tennessee River inflows were used in the 1973 historic run because Tellico Dam was not constructed until after this time. Also included with the Little Tennessee River inflows were the historical discharges from Chilhowee Dam for the 1973 storm. These flows were routed by a Little Tennessee River only SOCH model without Tellico Reservoir storage to get an approximate travel time for these discharges to the mouth of the Little Tennessee River, Reference 2.18. Recorded flows from Tellico Dam were used in the 2003 model run. The geometry for the Little Tennessee River for the three tenths of a mile below the location of Tellico Dam was taken from the geometry package for the Tellico reservoir, Reference 2.16. Calculated flows from SOCH were compared to the observed flow at Watts Bar Dam to ensure the model could accurately reproduce the historic floods and complete the calibration process.

After completion of the SOCH calibration, the annotation in the SOCH geometry file was updated to include the final Manning's n values for the SOCH model. This geometry file was then considered to be the final SOCH geometry file for the Watts Bar Reservoir.

3.3.5 Validation of Local Inflows Developed from Unit Hydrographs (Basins 25, 33, 34, 36, 37 and Little Tennessee River)

The local inflows to the Watts Bar Reservoir for sub-basins 25, 33, 34, 36, 37, and the Little Tennessee River (1973 storm only) were compared with the observed data (Fort Loudoun observed discharge and tailwater elevation, Melton Hill observed discharge and tailwater elevation, Tellico observed discharge (2003 storm only), Emory River observed discharge, and Watts Bar observed discharge and headwater elevation) for the historic flood events. These data reproduced the observed elevations at gage locations along the reservoir and as a result the unit hydrographs developed for basins 25, 33, 34, 36, 37, and the Little Tennessee River (References 2.9 and 2.10) were validated and are adequate for use in developing flood inflows for other events including the PMF.

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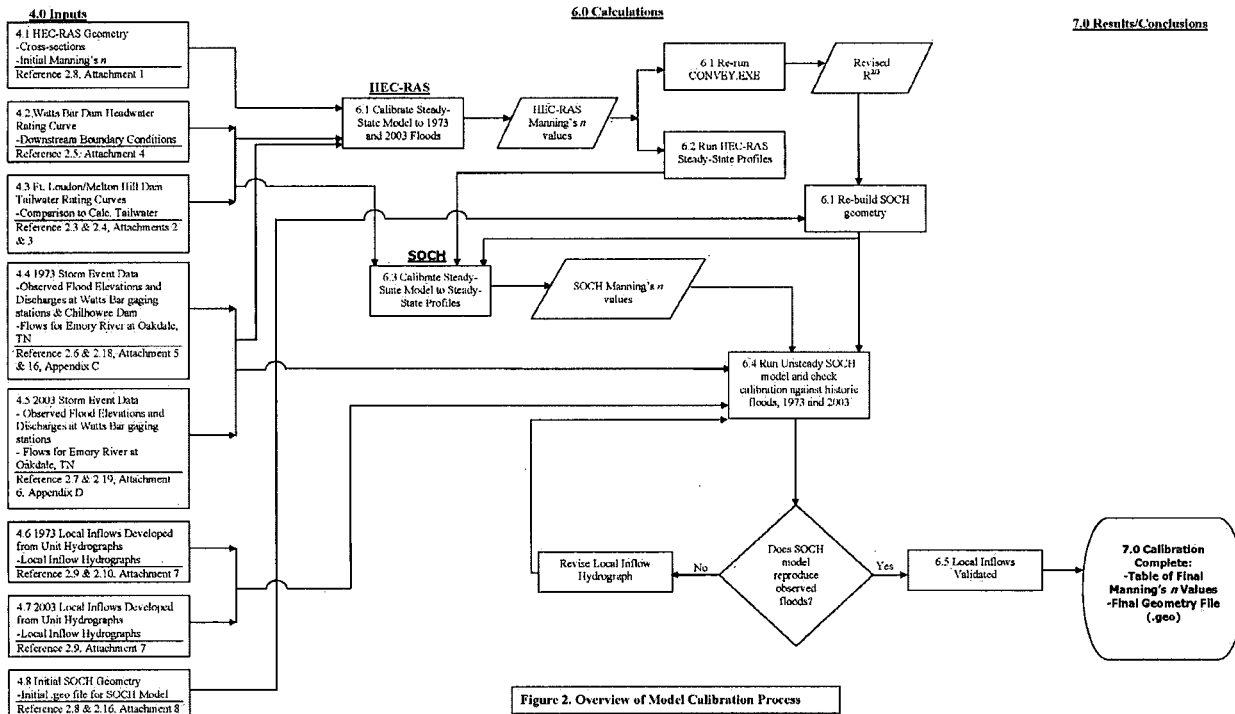


Figure 2. Overview of Model Calibration Process

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4.0 Design Inputs

Section	Input Parameter	Description	Reference	Location
4.1	Initial HEC-RAS Geometry	Initial HEC-RAS geometry was provided in the "SOCH Geometry Verification for Watts Bar Reservoir" calculation and used in the HEC-RAS steady-state model.	2.8	Attachment 1
4.2	Watts Bar Dam Headwater Rating Curve	The dam rating curve was provided in the "Dam Rating Curve – Watts Bar" calculation and was used to establish boundary conditions in the HEC-RAS and SOCH steady-state models.	2.5	Attachment 4
4.3	Fort Loudoun Dam and Melton Hill Dam Tailwater Rating Curves	The tailwater rating curves were provided in the "Dam Rating Curve – Fort Loudoun" and "Dam Rating Curve – Melton Hill" calculations and were used to compare results of the HEC-RAS and SOCH steady-state models.	2.3 & 2.4	Attachments 2 and 3
4.4	1973 Storm Event Data			
4.4.1	Elevations for gaging stations in the Watts Bar Reservoir	The Watts Bar Reservoir 1973 observed flood elevations originated from TVA's Hourly Water Records and were used as boundary conditions in the HEC-RAS and SOCH models and used to compare the SOCH model results.	2.6	Attachment 5
4.4.2	Discharges at gaging stations in the Watts Bar Reservoir & Chilhowee Dam	The Watts Bar Reservoir and Chilhowee Dam 1973 observed flood elevations originated from TVA's Hourly Water Records and were used as boundary conditions in the HEC-RAS and SOCH models and used to compare the SOCH model results.	2.6 & 2.18	Attachments 5 & 16
4.4.3	Flow for the Emory River at Oakdale, TN	The 1973 observed flows in the Emory River originated from TVA's Bi-Hourly Streamflow Reports and were used as inflow in the SOCH model.	2.6	Attachment 5
4.5	2003 Storm Event Data			
4.5.1	Elevations for gaging stations in the Watts Bar Reservoir	The Watts Bar Reservoir 2003 observed flood elevations originated from TVA's Hourly Water Records and were used as boundary conditions in the HEC-RAS and SOCH models and used to compare the SOCH model results.	2.7 & 2.19	Attachment 6
4.5.2	Discharges at gaging stations in the Watts Bar Reservoir	The Watts Bar Reservoir 2003 observed flood elevations originated from TVA's Hourly Water Records and were used as boundary conditions in the HEC-RAS and SOCH models and used to compare the SOCH model results.	2.7	Attachment 6
4.5.3	Flows for the Emory River at Oakdale, TN	The 2003 observed flows in the Emory River originated from TVA's Bi-Hourly Streamflow Reports and were used as inflow in the SOCH model.	2.7	Attachment 6

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Section	Input Parameter	Description	Reference	Location
4.6	1973 Local Inflows Developed from Unit Hydrographs	The local inflows for basins 25, 33, 34, 36, 37 and the Little Tennessee River were provided as part of the "Sub basin (25, 33, 34, 36, 37) Watts Bar Basins Unit Hydrograph Validation" and "Sub basin (19-23) Ft Loudoun-Tellico Watershed Unit Hydrograph Validation" calculations and were used as local inflows in the SOCH model and to validate the unit hydrographs.	2.9 & 2.10	Attachment 7
4.7	2003 Local Inflows Developed from Unit Hydrographs	The local inflows for basins 25, 33, 34, 36, 37 were provided as part of the "Sub basin (25, 33, 34, 36, 37) Watts Bar Basins Unit Hydrograph Validation" calculations and were used as local inflows in the SOCH model and to validate the unit hydrographs.	2.9	Attachment 7
4.8	Initial SOCH Geometry	The initial SOCH geometry was provided in the "SOCH geometry Verification for Watts Bar Reservoir" calculation and is used in the SOCH model	2.8	Attachment 8

5.0 Special Requirements/Limiting Conditions

N/A

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6.0 Calculations

6.1 HEC-RAS Steady-State Calibration

Two steady-state HEC-RAS models were set up for the Watts Bar Reservoir using the initial HEC-RAS geometry and the initial Manning's n values determined in Attachment 13 of Reference 2.8 (Attachment 1). One model was for the Tennessee River (Watts Bar dam TRM 529.9 to Fort Loudoun dam TRM 602.3) and the other model was for the Clinch River (CRM 0.0 up to Melton Hill dam CRM 23.1). The flow profiles used in the HEC-RAS model for each historic flood in the Tennessee River were initially determined by using approximated peak upstream flows from Fort Loudoun Dam and Tellico Dam and peak downstream flows for Watts Bar Dam (Attachments 2.6 and 2.7). The Clinch River model was set up based on FIS data for Roane County for the 100 and 500 year events (Attachment 14). The flow distribution profile for the remaining cross-sections were then estimated to account for local inflow based on the portion of drainage area draining at a given cross-section for the Tennessee River (Appendix J) or to match the FIS flow distribution for the Clinch River (Attachment 14). The reach boundary conditions were set as the recorded peak elevations of the downstream water surface at Watts Bar Dam, in Table 3, for the Tennessee River model and at approximate levels for the mouth of the Clinch at the Tennessee River for similar size events for the Clinch River model. The HEC-RAS models were then calibrated by adjusting the flow distribution and varying Manning's n values beginning from the downstream cross-section and working upstream to match the high-water marks from the 2003 flood event at river gage stations and comparing the high-water marks to the 1973 flood event. Changing the flow values in the flow distribution will more accurately model the conditions in the reservoir at the time of the recorded flood. Several iterations of adjusting the flow distribution and Manning's n values were run to achieve calibration. These iterations are not shown in this calculation; only the last iteration is shown. The last iteration of Manning's n values are shown in Table 1 and the last iteration of the flow distribution is shown in Table 2.

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Table 1 - Initial Manning's "n" Values and Calibrated Manning's "n" Values in HEC-RAS Steady-State Model

Tennessee River Mile	Initial Manning's "n" (Reference 2.8)	Calibrated Manning's "n"	Tennessee/ Clinch River Mile	Initial Manning's "n" (Reference 2.8)	Calibrated Manning's "n"
602.30	0.030	0.024	557.58	0.030	0.032
602.00	0.030	0.024	555.45	0.028	0.027
601.70	0.030	0.024	553.32	0.027	0.027
601.40	0.030	0.024	551.20	0.027	0.027
601.10	0.030	0.028	549.07	0.027	0.028
600.17	0.028	0.035	546.94	0.028	0.028
598.04	0.028	0.035	544.81	0.026	0.028
595.91	0.028	0.035	542.68	0.027	0.028
593.78	0.028	0.035	540.55	0.030	0.028
591.56	0.028	0.035	537.74	0.027	0.028
589.52	0.032	0.038	536.29	0.027	0.028
587.39	0.032	0.038	534.16	0.032	0.028
585.27	0.035	0.039	532.03	0.031	0.028
583.14	0.035	0.035	529.90	0.028	0.028
581.01	0.035	0.035	CRM 23.10	0.023	0.027
578.88	0.035	0.035	21.00	0.023	0.027
576.72	0.035	0.035	18.90	0.023	0.027
574.62	0.035	0.035	16.80	0.028	0.027
573.00	0.032	0.032	14.70	0.027	0.020
571.30	0.032	0.032	12.60	0.027	0.020
570.70	0.032	0.032	10.50	0.023	0.020
568.93	0.032	0.032	8.40	0.023	0.020
567.70	0.026	0.032	6.30	0.023	0.020
565.97	0.027	0.032	4.20	0.023	0.020
563.97	0.026	0.032	2.10	0.023	0.023
561.84	0.027	0.032	1.22	0.023	0.023
559.71	0.029	0.032	0.00	0.023	0.023

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Table 2 – Flow Distribution for Historic Floods in HEC-RAS Steady-State Model

Tennessee River Mile	1973 Flood Event Flow (cfs)	2003 Flood Event Flow (cfs)	Clinch River Mile	100 Yr. Flood Event Flow (cfs)	500 Yr. Flood Event Flow (cfs)
602.30	90,000	64,134	23.10	53,500	63,000
601.10	122,186	90,587	21.00	53,969	63,566
593.78	123,757	91,752	18.90	54,443	64,134
589.52	125,814	93,277	16.80	54,917	64,702
585.27	127,808	94,755	14.70	55,391	65,270
581.01	129,922	96,322	12.60	55,865	65,838
576.72	131,126	97,215	10.50	63,198	76,198
573.00	133,168	98,729	8.40	63,474	76,474
567.70	176,331	130,730	6.30	63,750	76,750
563.97	176,732	131,027	4.20	190,000	219,000
559.71	177,086	131,290	2.10	190,000	219,000
555.45	177,154	131,340	1.22	190,000	219,000
551.20	177,058	131,269	0.00	190,000	219,000
546.94	176,905	131,155			
542.68	176,181	130,619			
537.74	174,740	129,550			
534.16	173,255	128,449			
529.90	180,000	133,450			

Table 3 – Reach Boundary Conditions at Watts Bar Dam and Mouth of Clinch River for Historic Floods in HEC-RAS Steady-State Model

Boundary Watts Bar Dam	1973 Flood Event	2003 Flood Event
Flow (cfs)	180,000	133,450
Water Surface Elevation (ft)	745.40	747.35
Boundary Clinch River	100-yr Flood Event	500-yr Flood Event
Flow (cfs)	190,000	219,000
Water Surface Elevation (ft)	746.30	747.30

6.1.1 HEC-RAS Steady-State for the May 2003 Storm (Tennessee River)

The HEC-RAS profile of the 2003 flood was calibrated to the observed flood marks for the May 2003 flood event to within a half-foot of the flood marks at all gage locations. The HEC-RAS profile and observed flood marks are shown in Figure 6 and tabulated in Table 6.

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6.1.2 HEC-RAS Steady-State for the March 1973 Storm (Tennessee River)

The HEC-RAS profile of the 1973 flood was compared to the observed flood marks for the March 1973 flood event and was less than a half foot of the flood marks at all gage locations except Fort Loudoun dam tailwater where it was approximately 1.5 feet low. The HEC-RAS profile and observed flood marks are shown in Figure 7 and tabulated in Table 7.

6.1.3 HEC-RAS Steady-State for the 100-yr and 500-yr event (Clinch River)

The HEC-RAS profiles for the 100-yr and the 500-yr events were compared to the FIS model output for the 100-yr and 500-yr events. Figure 8 and Table 8 show that the HEC-RAS profiles are within 1.5 feet for all locations and within one foot in most cases.

6.2 HEC-RAS Steady-State Profiles

The calibrated HEC-RAS models of the Watts Bar Reservoir were run to produce steady-state water surface profiles ranging from 100,000 cfs to 1,200,000 cfs. The 1,200,000 cfs profile is expected to be above the PMF level for the Tennessee River portion and was set as the upper bounds of the calibration for the Tennessee River model, and the 800,000 cfs profile is expected to be above the PMF level for the Clinch River portion and was set as the upper bounds of the calibration for the Clinch River model. Uniform, steady-flow was specified in 100,000 or 200,000 cfs increments so no local inflows were used. The downstream boundary conditions were set at the surcharge level, 747 feet, for Watts Bar Reservoir to account for the reservoir pool until the flow increased to 600,000 cfs, the point at which surcharge elevation intersects the dam rating curve (Attachment 4, Case 1). The boundary conditions then followed the dam rating curve. The boundary conditions for the Clinch River were set at an approximate elevation of the Tennessee River at the mouth of the Clinch River for the corresponding flow based on initial model runs. The downstream boundary conditions for both the Tennessee and Clinch Rivers are shown in Table 4.

Table 4 – Reach Boundary Conditions at Watts Bar Dam (Tennessee) and Clinch River Mouth (Clinch) for Steady-State Profiles

	Tennessee	Clinch
Flow (cfs)	Elevation (ft)	Elevation (ft)
100,000	747.00	747.39
200,000	747.00	748.48
300,000	747.00	750.09
400,000	747.00	752.01
500,000	N/A	754.09
600,000	747.00	756.25
700,000	N/A	760.53
800,000	758.80	766.36
1,000,000	764.12	N/A
1,100,000	766.13	N/A
1,200,000	767.90	N/A

6.2.1 HEC-RAS Steady-State Profiles in 100K and 200K Increments

The calibrated HEC-RAS models were run in flow increments of 100,000 cfs or 200,000 cfs up to 1,200,000 cfs for the Tennessee River portion and 800,000 cfs for the Clinch River portion. The 1,200,000 cfs profile and the 800,000 cfs profiles

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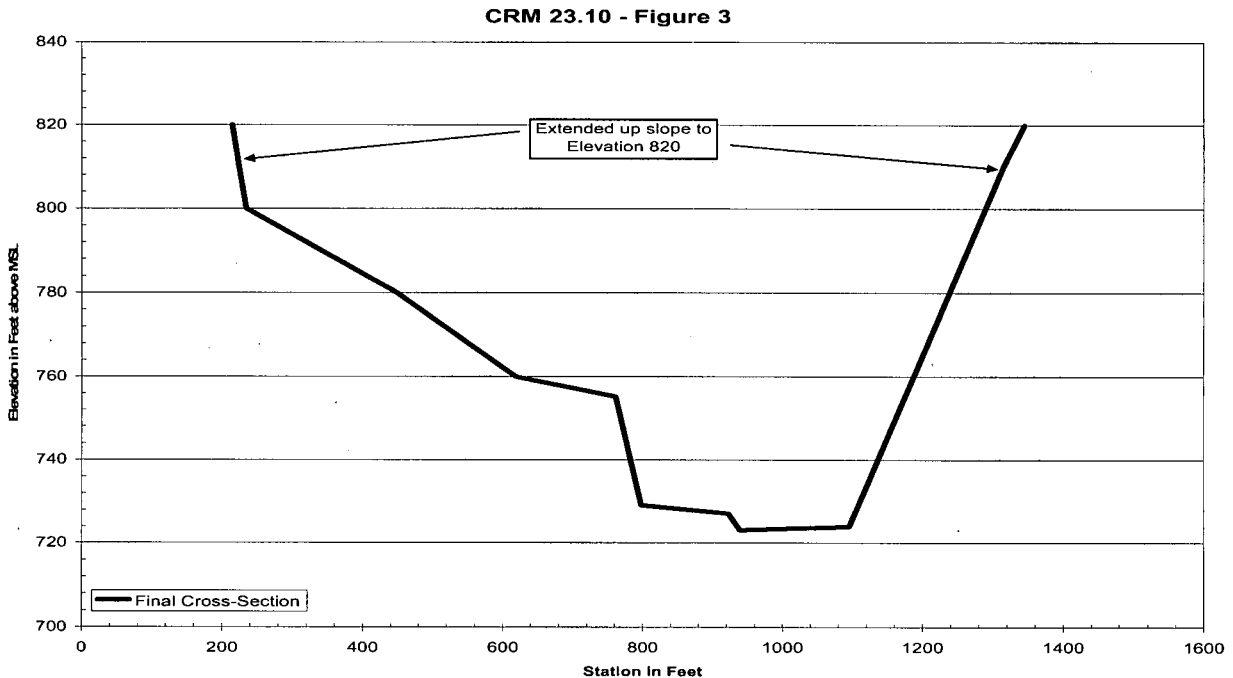
are expected to be above the PMF level and were set as the upper bounds of the calibration. The steady-state profiles are shown in Figures 9 and 10 and tabulated in Tables 9 and 10 for the Tennessee River Portion and Figures 11 and 12 for the Clinch River with the tabulation shown in Tables 11 and 12. Figure 13 and Table 13 show the elevations of the HEC-RAS steady-state profiles at Fort Loudoun Dam, TRM 602.30, compared to the tailwater rating curve for Fort Loudoun Dam (Attachment 2). Figure 14 and Table 14 show the elevations of the HEC-RAS steady-state profiles at Melton Hill Dam, CRM 23.1, compared to the tailwater rating curve for Melton Hill Dam (Attachment 3).

It was at this time that the cross-sections were evaluated to ensure that the water surface calculated at the 1,200,000 cfs flow and the 800,000 cfs flow did not extend above the top elevations of the cross-sections. While HEC-RAS will automatically extend the sections vertically and continue to run, SOCH will stop running if this occurs. Three cross-sections were found to be too low to contain the 800,000 cfs flow in the Clinch River. The DRG maps (Reference 2.8) were examined to determine how best to extend the sections. If the slope appeared to be constant, then the slope was extended up at the same slope. If the slope flattened out or needed to be cut off for ineffective flow, the slope was extended vertically up. This is a conservative approach and will result in higher water surfaces. Table 5 shows the sections that were changed and what changes were made. Figures 3 through 5 show the modified sections. The "Final Section" plots and the ineffective flow areas were taken directly from Reference 2.8.

After the steady-state HEC-RAS model was calibrated and cross-sections were extended, the CONVEY Version 1.0 program was re-run to compute revised $R^{2/3}$ values and the SOCH geometry file was re-built as described in Appendix A of Reference 2.8.

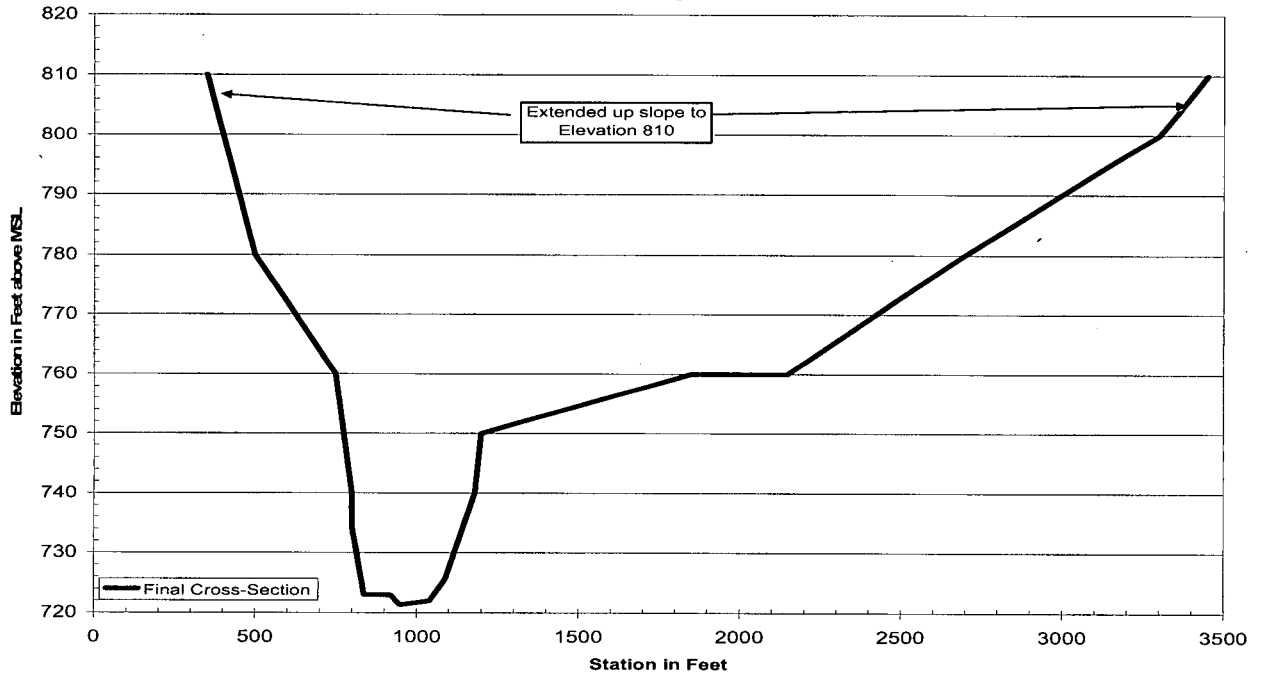
Table 5 – Clinch River Cross-Section Modifications

Location	Left Side Extension	Ride Side Extension
CRM 23.1	Extended up slope from 800 to 820	Extended up slope from 810 to 820
CRM 21.0	Extended up slope from 800 to 810	Extended up slope from 800 to 810
CRM 18.9	Extended up slope from 800 to 810	Extended up slope from 800 to 810

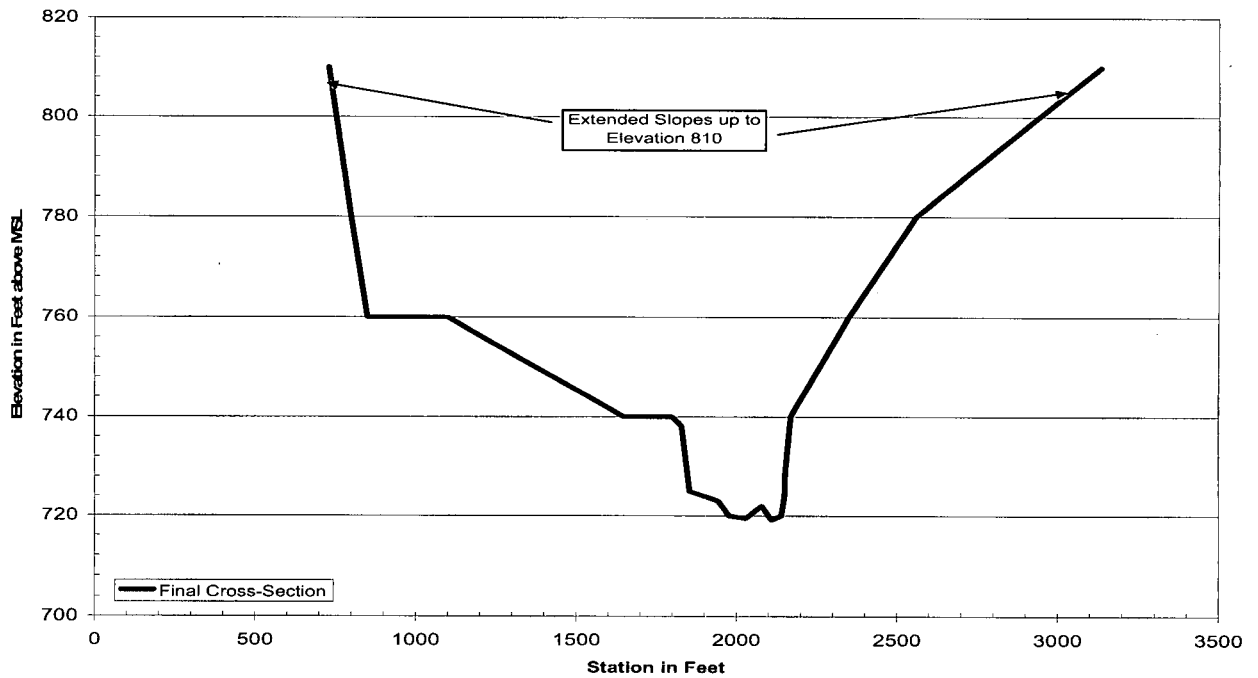


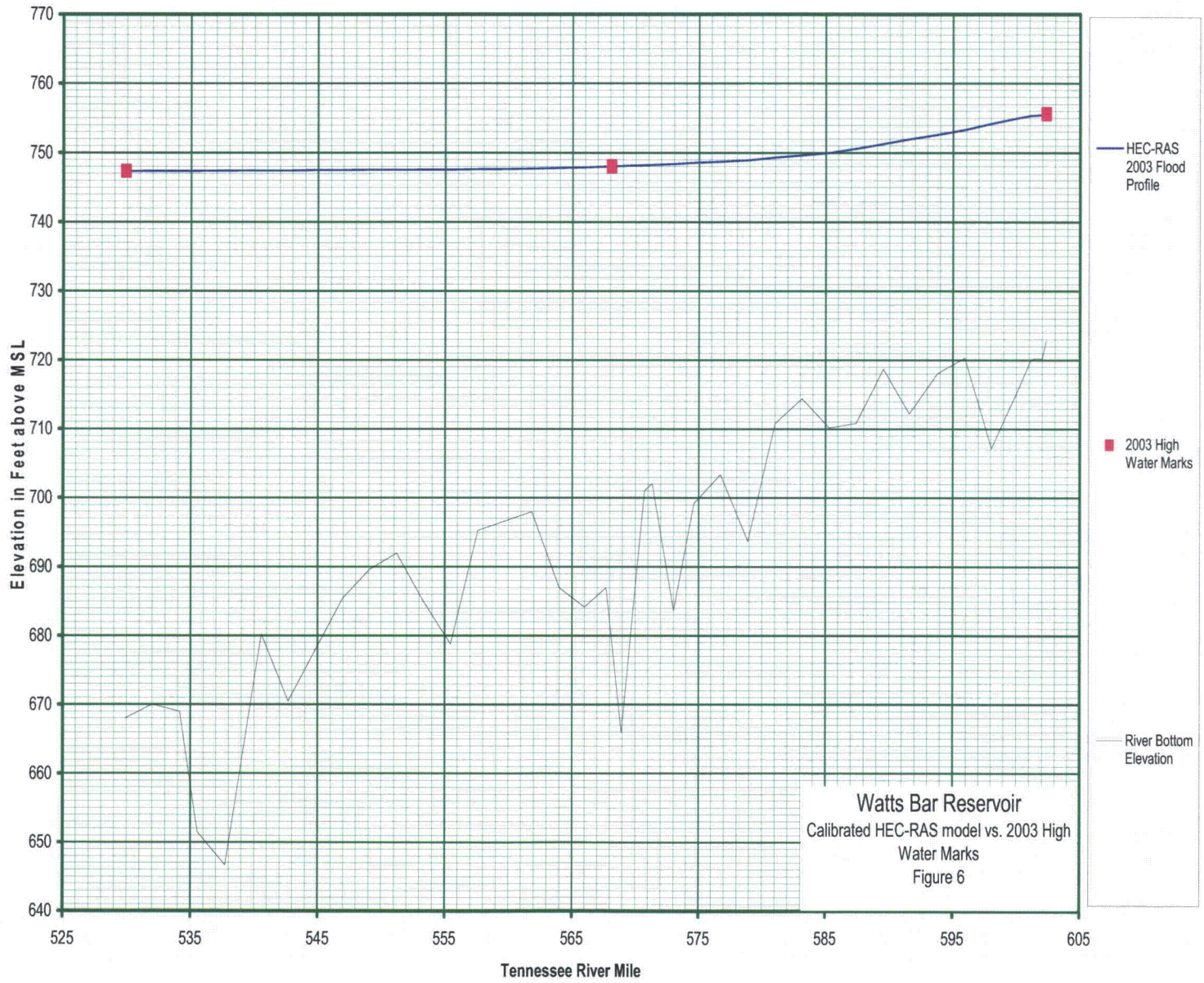
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CRM 21.00 - Figure 4



CRM 18.90 - Figure 5



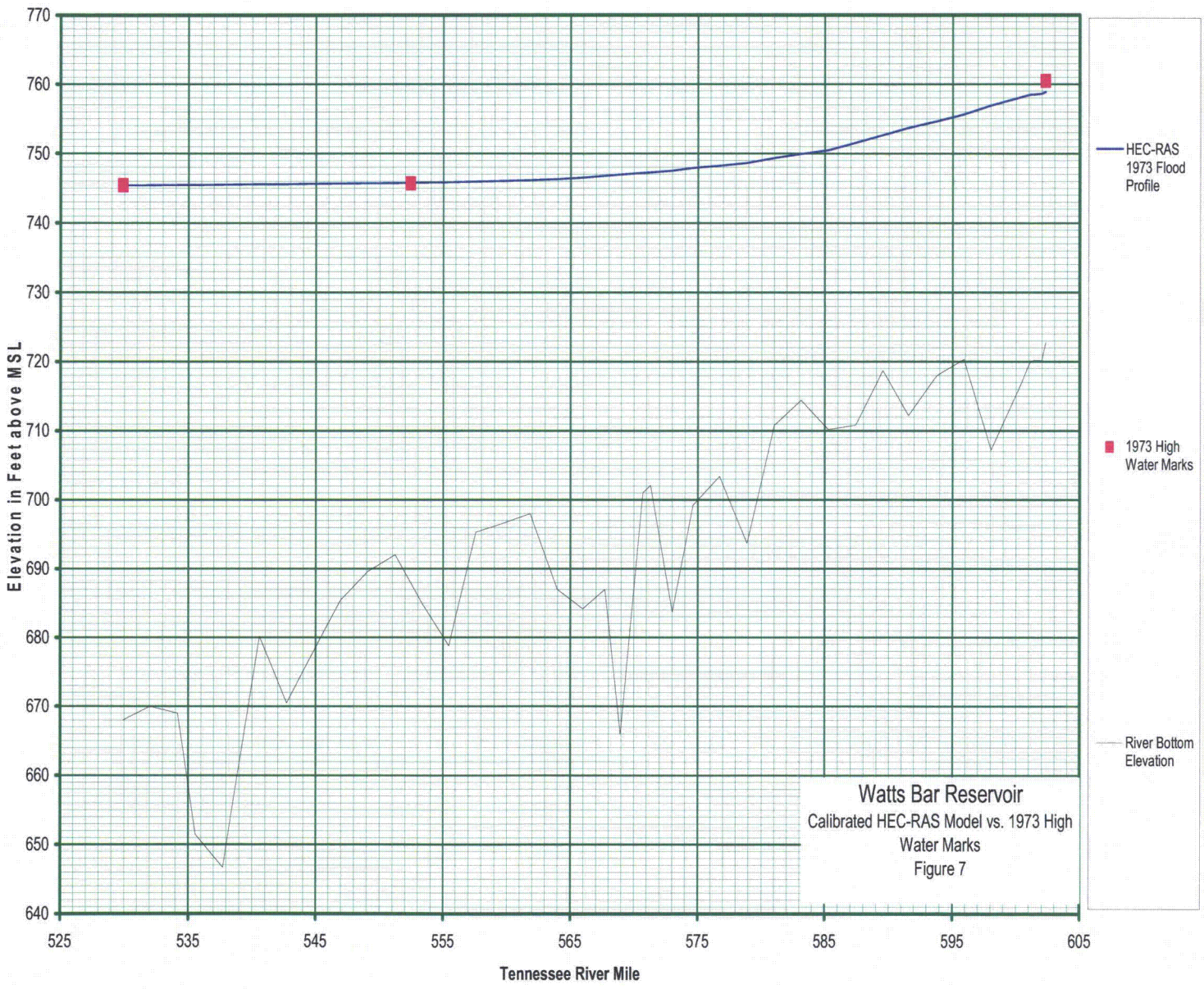


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Table 6. Watts Bar (Tennessee River), Calibrated HEC-RAS MODEL vs. 2003 High Water Marks

Tennessee River Mile	HEC-RAS 2003 Flood Profile	2003 High-Water Marks ¹	River Bottom Elevation
602.30	755.62	755.62	722.80
602.00	755.46		720.20
601.70	755.41		720.20
601.40	755.36		720.20
601.10	755.34		720.00
600.17	755		715.90
598.04	754.2		707.20
595.91	753.33		720.30
593.78	752.61		718.00
591.56	751.97		712.20
589.52	751.29		718.70
587.39	750.62		710.80
585.27	749.98		710.20
583.14	749.66		714.40
581.01	749.33		710.80
578.88	748.95		693.70
576.72	748.73		703.40
574.62	748.58		699.20
573.00	748.37		683.70
571.30	748.25		702.10
570.70	748.22		701.00
568.93	748.1		666.00
568.10	748.04 ²	748.00	680.20 ²
567.70	748.01		687.00
565.97	747.9		684.20
563.97	747.79		687.00
561.84	747.72		698.00
559.71	747.65		696.60
557.58	747.61		695.30
555.45	747.56		678.80
553.32	747.54		685.00
551.20	747.52		692.00
549.07	747.51		689.60
546.94	747.49		685.40
544.81	747.48		677.90
542.68	747.44		670.50
540.55	747.44		680.20
537.74	747.41		646.70
535.55	747.38		651.50
534.16	747.38		669.00
532.03	747.37		670.00
529.90	747.35	747.35	668.00

¹ High-water marks determined from Ref 2.7 ² Interpolated

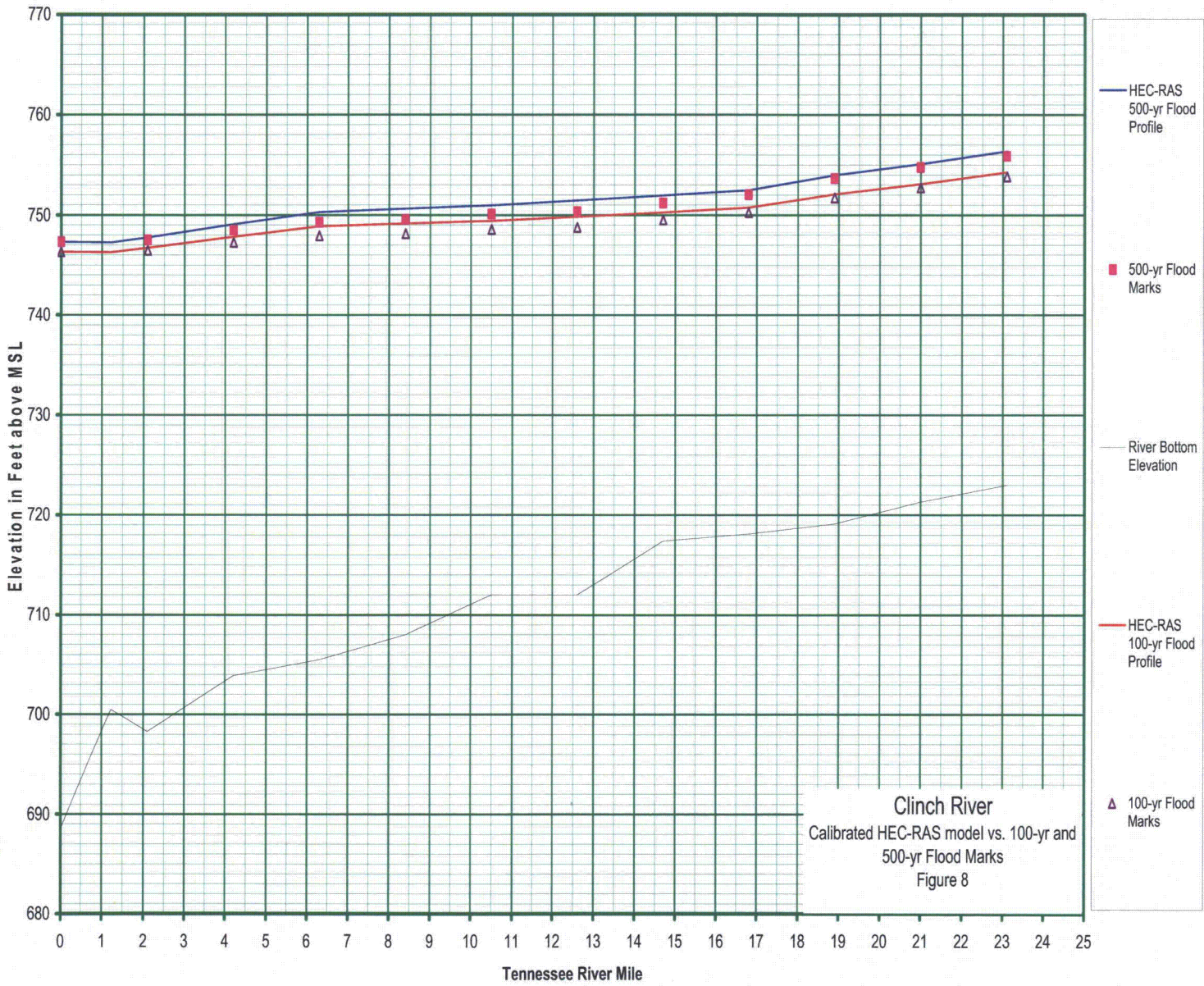


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Table 7. Watts Bar (Tennessee River), Calibrated HEC-RAS MODEL vs. 1973 High Water Marks

Tennessee River Mile	HEC-RAS 1973 Flood Profile	1973 High Water Marks ¹	River Bottom Elevation
602.30	758.9	760.51	722.80
602.00	758.64		720.20
601.70	758.58		720.20
601.40	758.51		720.20
601.10	758.5		720.00
600.17	758.03		715.90
598.04	756.9		707.20
595.91	755.66		720.30
593.78	754.65		718.00
591.56	753.7		712.20
589.52	752.66		718.70
587.39	751.58		710.80
585.27	750.5		710.20
583.14	749.95		714.40
581.01	749.36		710.80
578.88	748.65		693.70
576.72	748.24		703.40
574.62	747.94		699.20
573.00	747.53		683.70
571.30	747.28		702.10
570.70	747.22		701.00
568.93	746.97		666.00
567.70	746.79		687.00
565.97	746.55		684.20
563.97	746.33		687.00
561.84	746.18		698.00
559.71	746.04		696.60
557.58	745.95		695.30
555.45	745.85		678.80
553.32	745.79		685.00
552.40	745.77 ²	745.68	688.00 ²
551.20	745.74		692.00
549.07	745.72		689.60
546.94	745.69		685.40
544.81	745.66		677.90
542.68	745.59		670.50
540.55	745.59		680.20
537.74	745.52		646.70
535.55	745.46		651.50
534.16	745.45		669.00
532.03	745.44		670.00
529.90	745.4	745.40	668.00

¹ High-water marks determined from Ref 2.6 ² Interpolated



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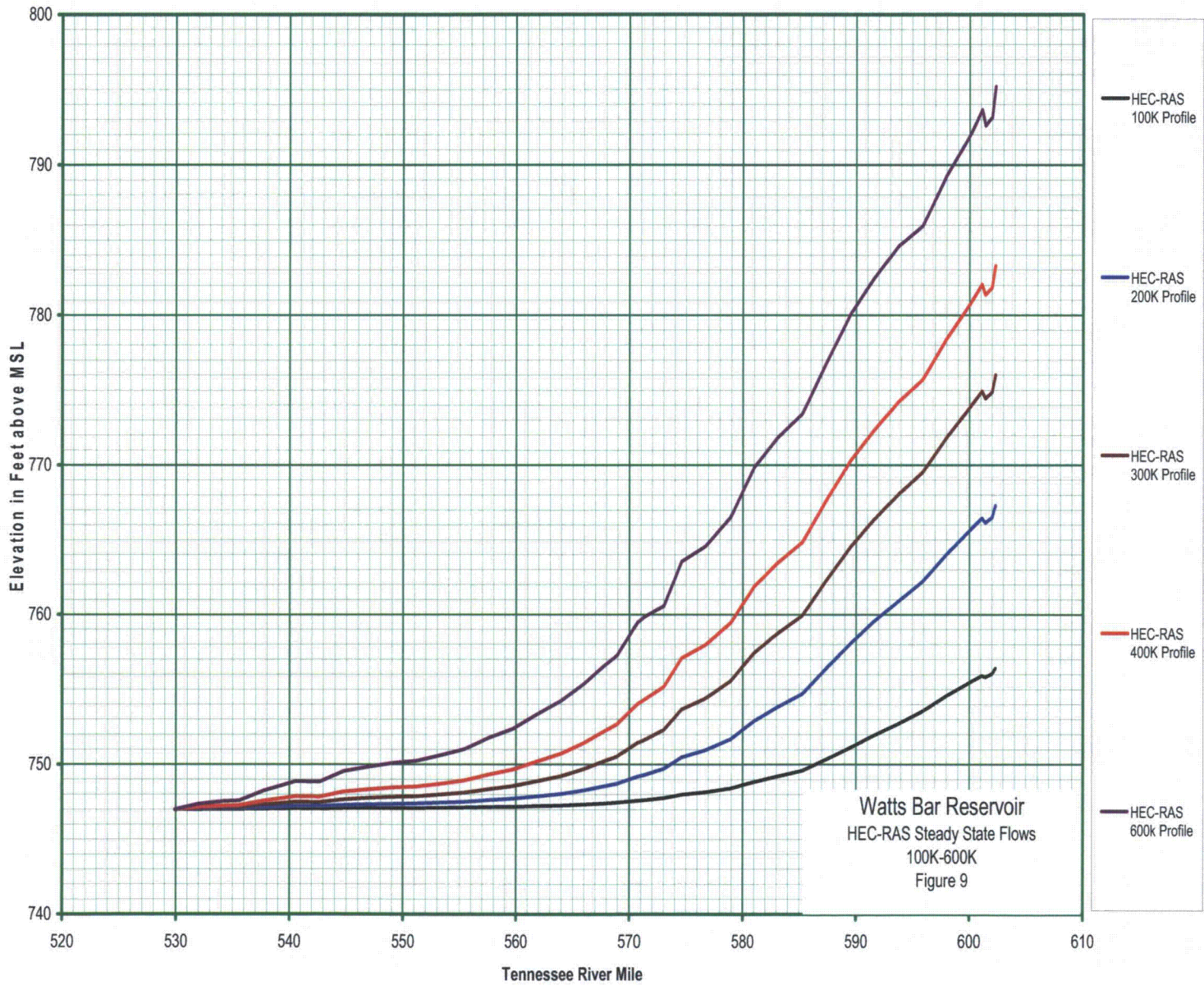
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		Checked	WBB

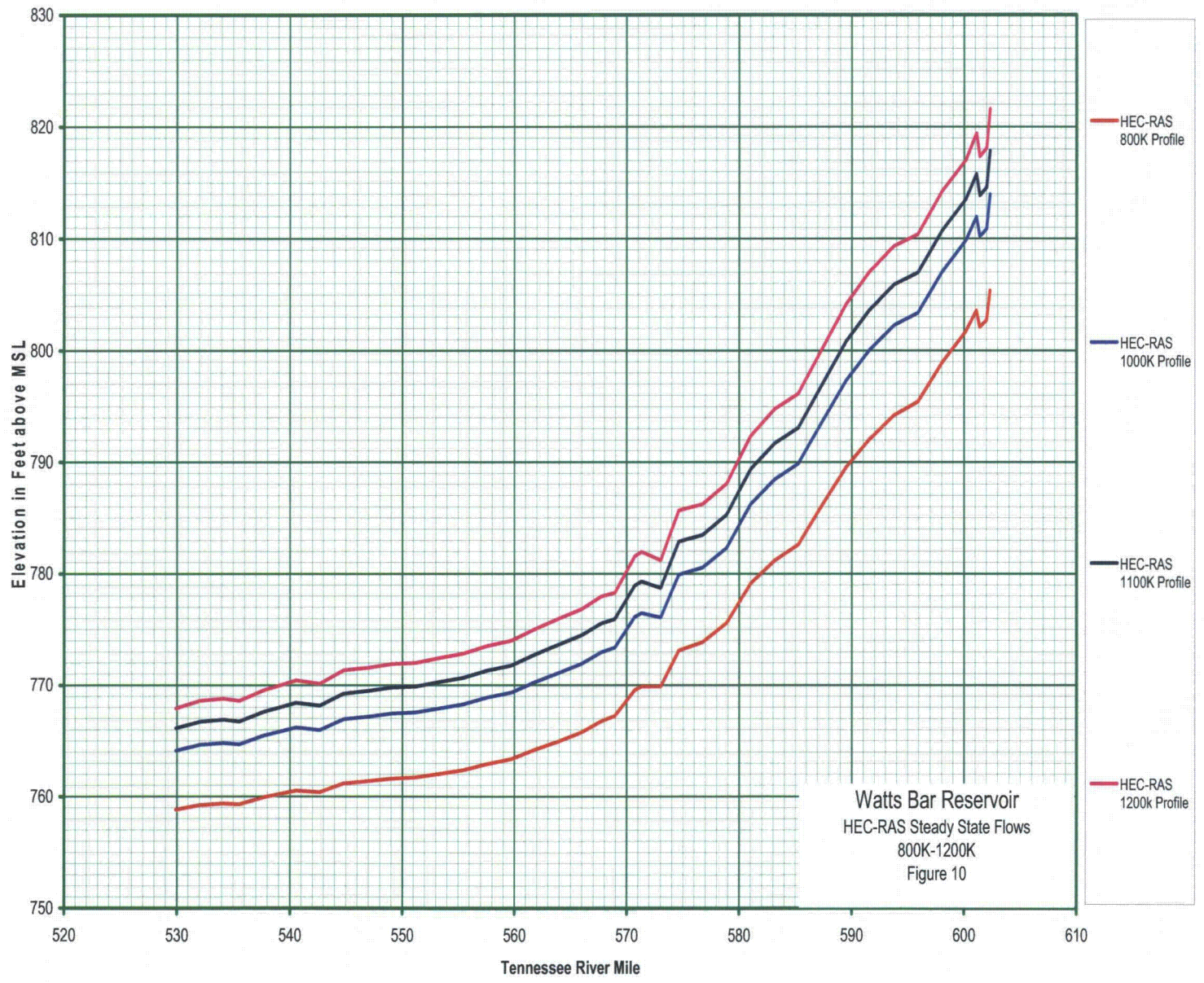
Table 8. Watts Bar (Clinch River), Calibrated HEC-RAS MODEL vs. 100- Yr & 500 YR- Profile

Clinch River Mile	HEC-RAS 500-yr Flood Profile	500-yr Flood Marks ¹	HEC-RAS 100-Yr Flood Profile	100-yr Flood Marks ¹	River Bottom Elevation
23.10	756.37	755.91	754.29	753.87	723.00
21.00	755.1	754.78	753.12	752.75	721.30
18.90	754	753.66	752.09	751.74	719.10
16.80	752.5	752.06	750.76	750.30	718.10
14.70	751.97	751.22	750.28	749.53	717.40
12.60	751.46	750.34	749.84	748.78	712.00
10.50	750.97	750.11	749.43	748.59	712.00
8.40	750.64	749.54	749.15	748.15	708.00
6.30	750.3	749.26	748.87	747.93	705.50
4.20	749.09	748.48	747.83	747.27	703.90
2.10	747.75	747.48	746.70	746.47	698.30
1.22	747.26		746.27		700.50
0.00	747.3	747.30	746.30	746.30	688.60

1. 100-yr and 500-yr flood marks are from FIS HEC-RAS model (Attachment 14)

Note: Cross-section at CRM 1.22 not included in FIS HEC-RAS model





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Table 9. Watts Bar (Tennessee River), HEC-RAS Steady-State Flows 100k-600K

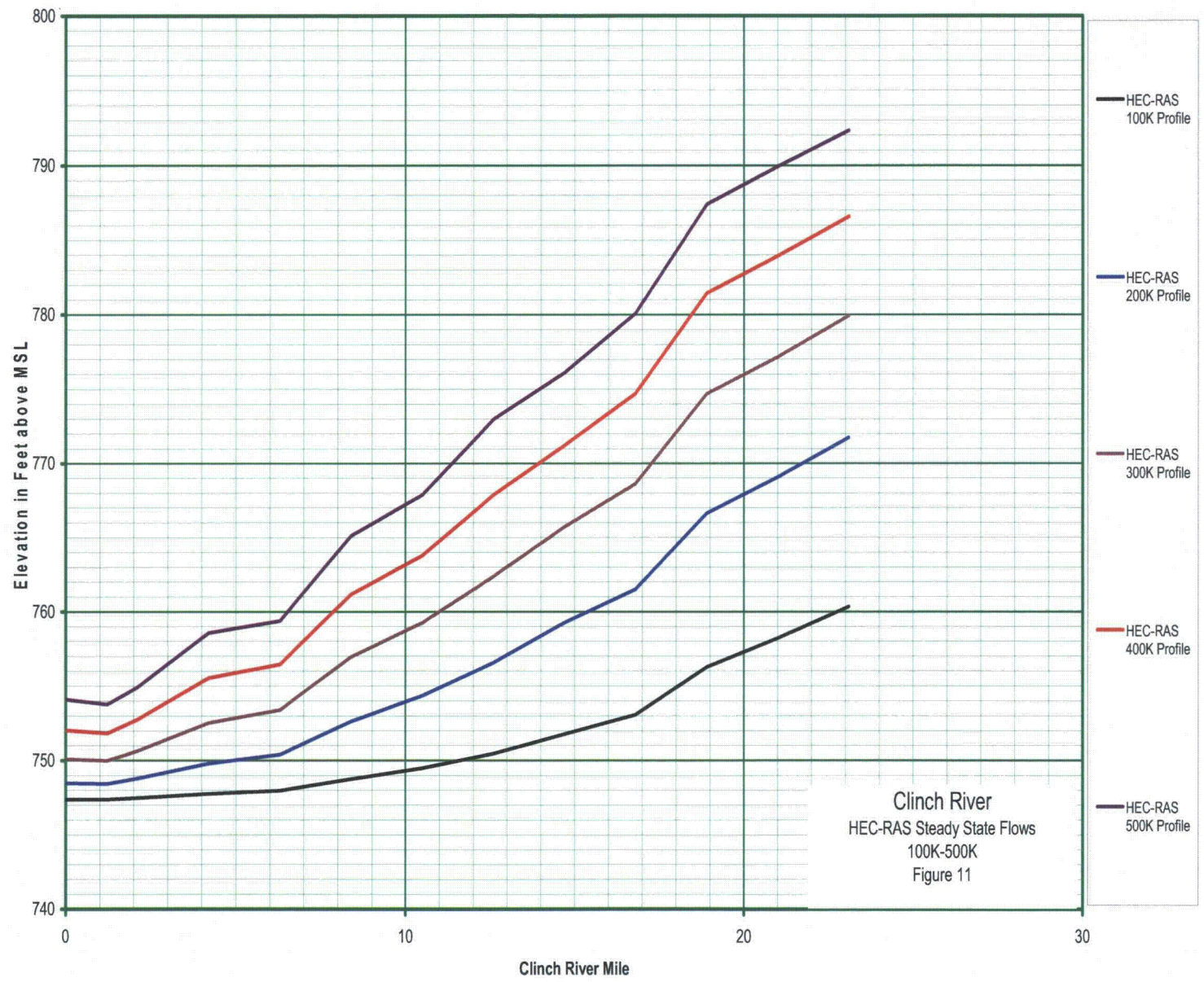
Tennessee River Mile	HEC-RAS 100K Profile	HEC-RAS 200K Profile	HEC-RAS 300K Profile	HEC-RAS 400K Profile	HEC-RAS 600K Profile
602.30	756.4	767.31	776.03	783.30	795.21
602.00	756.02	766.49	774.87	781.84	793.17
601.70	755.91	766.32	774.66	781.61	792.90
601.40	755.80	766.14	774.44	781.37	792.61
601.10	755.90	766.45	774.95	782.06	793.68
600.17	755.51	765.74	773.99	780.88	792.14
598.04	754.57	764.06	771.87	778.45	789.33
595.91	753.54	762.24	769.54	775.71	785.97
593.78	752.70	760.91	768.06	774.23	784.61
591.56	751.93	759.54	766.35	772.31	782.43
589.52	751.13	758.08	764.55	770.30	780.09
587.39	750.34	756.41	762.31	767.66	776.83
585.27	749.59	754.70	759.95	764.85	773.42
583.14	749.22	753.84	758.78	763.51	771.88
581.01	748.84	752.90	757.45	761.89	769.86
578.88	748.40	751.68	755.54	759.43	766.49
576.72	748.16	750.96	754.39	757.96	764.57
574.62	747.99	750.48	753.66	757.08	763.56
573.00	747.76	749.72	752.30	755.16	760.57
571.30	747.62	749.30	751.63	754.30	759.84
570.70	747.59	749.19	751.44	754.02	759.47
568.93	747.46	748.72	750.53	752.67	757.27
567.70	747.40	748.53	750.18	752.15	756.51
565.97	747.33	748.27	749.68	751.41	755.34
563.97	747.27	748.04	749.22	750.71	754.23
561.84	747.23	747.88	748.89	750.19	753.34
559.71	747.18	747.72	748.56	749.66	752.37
557.58	747.16	747.62	748.35	749.32	751.76
555.45	747.13	747.51	748.12	748.93	751.03
553.32	747.11	747.45	747.99	748.71	750.61
551.20	747.10	747.40	747.88	748.52	750.24
549.07	747.09	747.37	747.83	748.45	750.09
546.94	747.09	747.34	747.76	748.32	749.84
544.81	747.08	747.30	747.67	748.18	749.56
542.68	747.05	747.22	747.48	747.84	748.84
540.55	747.06	747.22	747.49	747.86	748.88
537.74	747.04	747.14	747.32	747.57	748.25
535.55	747.02	747.07	747.15	747.26	747.58
534.16	747.02	747.06	747.13	747.24	747.54
532.03	747.01	747.04	747.09	747.16	747.36
529.90	747.00	747.00	747.00	747.00	747.00

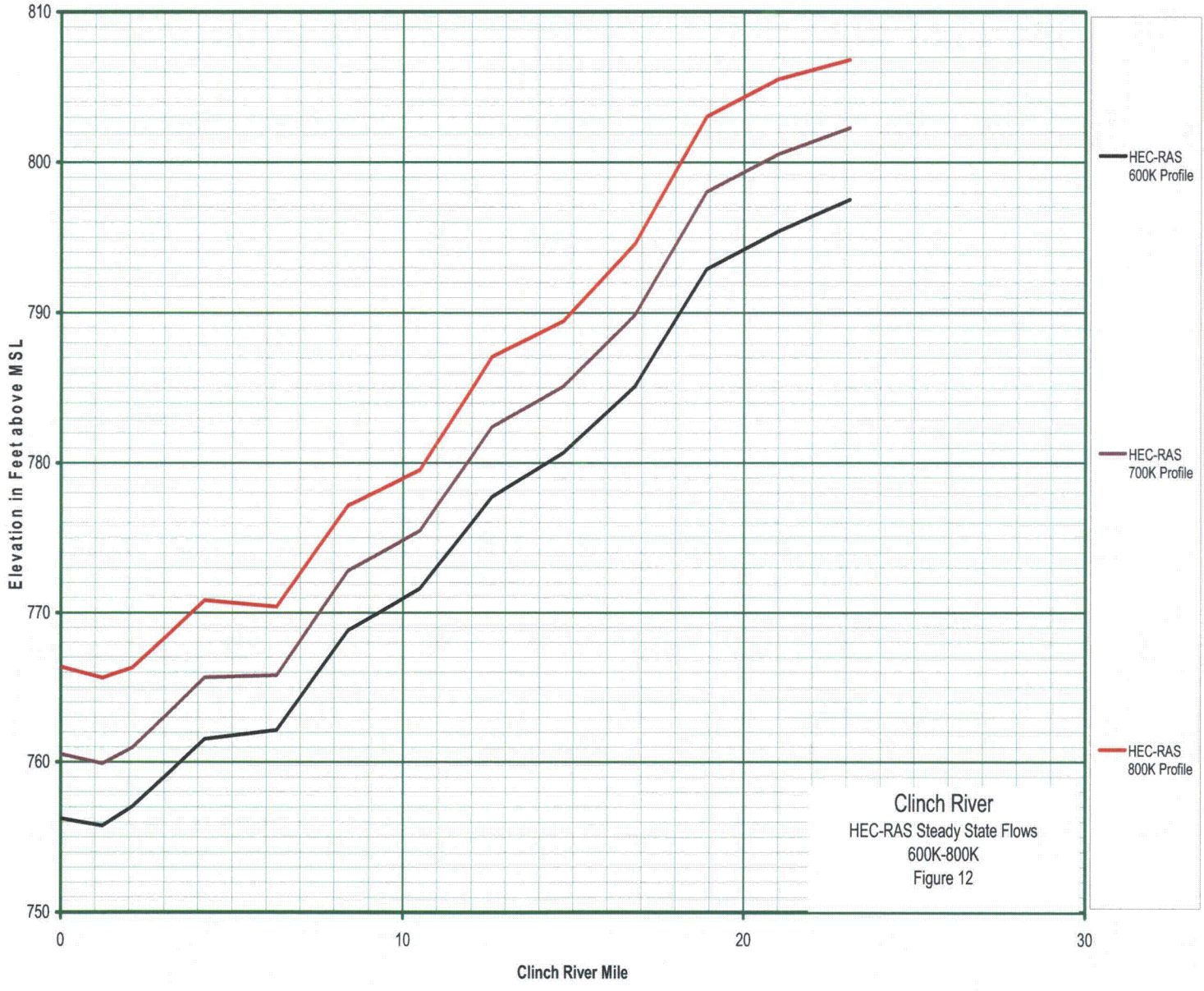
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Table 10. Watts Bar (Tennessee River), HEC-RAS Steady-State Flows 800k-1200K

Tennessee River Mile	HEC-RAS 800K Profile	HEC-RAS 1000K Profile	HEC-RAS 1100K Profile	HEC-RAS 1200K Profile
602.30	805.39	813.98	817.90	821.62
602.00	802.74	810.88	814.59	818.10
601.70	802.42	810.54	814.24	817.74
601.40	802.10	810.20	813.88	817.37
601.10	803.58	811.98	815.81	819.44
600.17	801.73	809.86	813.55	817.05
598.04	798.92	807.02	810.73	814.25
595.91	795.43	803.36	806.97	810.40
593.78	794.22	802.25	805.90	809.36
591.56	792.05	800.01	803.62	807.04
589.52	789.58	797.35	800.85	804.17
587.39	786.11	793.57	796.92	800.08
585.27	782.62	789.86	793.09	796.14
583.14	781.20	788.47	791.71	794.78
581.01	779.13	786.23	789.37	792.34
578.88	775.59	782.32	785.29	788.07
576.72	773.85	780.55	783.48	786.23
574.62	773.11	779.92	782.89	785.68
573.00	769.86	776.08	778.73	781.19
571.30	769.86	776.48	779.31	781.95
570.70	769.54	776.12	778.93	781.55
568.93	767.23	773.38	775.94	778.30
567.70	766.73	772.94	775.55	777.95
565.97	765.75	771.91	774.47	776.82
563.97	764.94	771.10	773.64	775.98
561.84	764.19	770.27	772.76	775.03
559.71	763.36	769.34	771.77	773.99
557.58	762.91	768.89	771.31	773.51
555.45	762.35	768.28	770.66	772.83
553.32	762.02	767.92	770.28	772.43
551.20	761.70	767.55	769.88	772.00
549.07	761.60	767.45	769.79	771.90
546.94	761.36	767.17	769.48	771.56
544.81	761.15	766.95	769.25	771.33
542.68	760.38	765.98	768.16	770.11
540.55	760.52	766.20	768.42	770.42
537.74	759.93	765.48	767.63	769.55
535.55	759.28	764.68	766.74	768.57
534.16	759.35	764.81	766.91	768.77
532.03	759.20	764.64	766.72	768.57
529.90	758.80	764.12	766.13	767.90





Clinch River
HEC-RAS Steady State Flows
600K-800K
Figure 12

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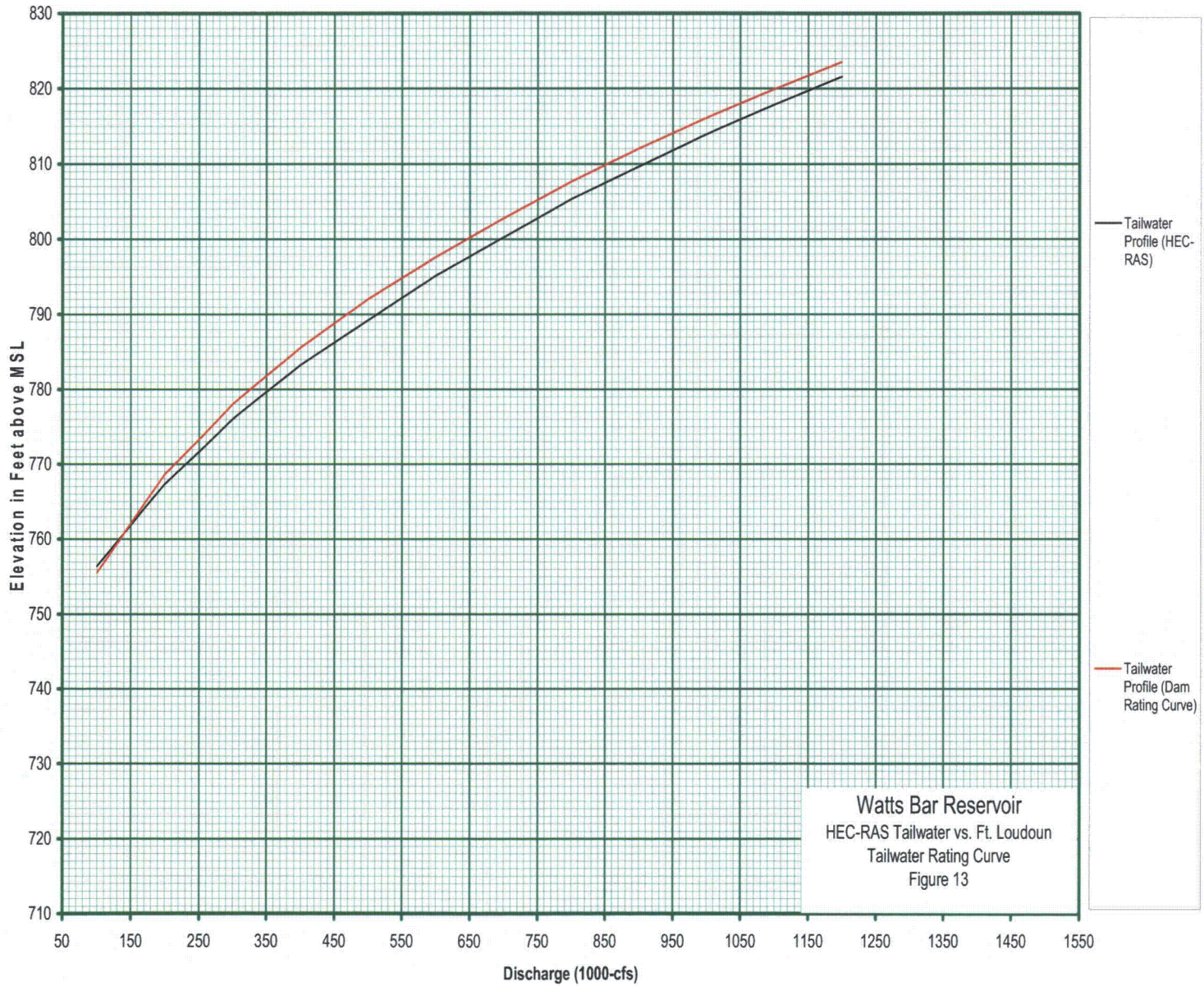
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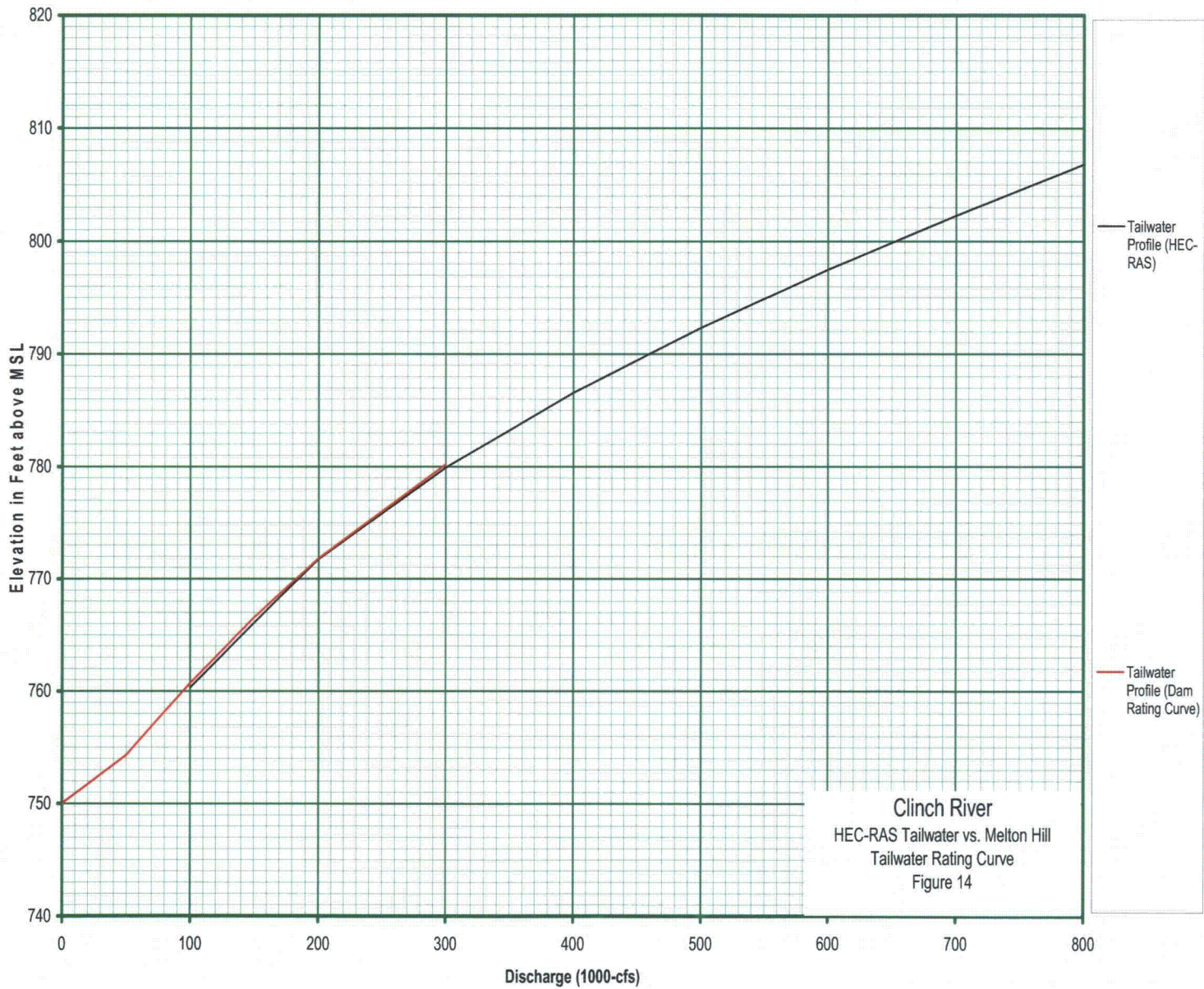
Table 11. Watts Bar (Clinch River), HEC-RAS Steady-State Flows 600k-800K

Clinch River Mile	HEC-RAS 100K Profile	HEC-RAS 200K Profile	HEC-RAS 300K Profile	HEC-RAS 400K Profile	HEC-RAS 500K Profile
23.10	760.35	771.75	779.93	786.59	792.35
21.00	758.22	769.07	777.16	783.94	789.93
18.90	756.26	766.63	774.68	781.44	787.41
16.80	753.06	761.50	768.63	774.69	780.09
14.70	751.77	759.26	765.72	771.2	776.09
12.60	750.48	756.56	762.39	767.86	772.97
10.50	749.49	754.34	759.25	763.76	767.86
8.40	748.76	752.64	756.98	761.18	765.13
6.30	747.99	750.40	753.39	756.44	759.37
4.20	747.77	749.80	752.53	755.52	758.56
2.10	747.48	748.79	750.63	752.72	754.89
1.22	747.38	748.44	749.99	751.81	753.76
0.00	747.39	748.48	750.09	752.01	754.09

Table 12. Watts Bar (Clinch River), HEC-RAS Steady-State Flows 600k-800K

Clinch River Mile	HEC-RAS 600K Profile	HEC-RAS 700K Profile	HEC-RAS 800K Profile
23.10	797.52	802.30	806.83
21.00	795.41	800.55	805.52
18.90	792.89	798.04	803.03
16.80	785.09	789.86	794.59
14.70	780.67	785.09	789.44
12.60	777.73	782.40	787.07
10.50	771.62	775.47	779.51
8.40	768.83	772.82	777.14
6.30	762.15	765.82	770.39
4.20	761.55	765.69	770.82
2.10	757.05	760.97	766.31
1.22	755.76	759.90	765.63
0.00	756.25	760.53	766.36





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Table 13. Watts Bar (Tennessee River), HEC-RAS Ft. Loudoun Tailwater vs. Fort Loudoun Tailwater Rating Curve

Discharge-1000 cfs (HEC-RAS)	Tailwater Profile (HEC-RAS)	Discharge-1000 cfs (Dam Rating Curve)	Tailwater Profile (Dam Rating Curve)
100	756.40	100	755.51
200	767.31	200	768.61
300	776.03	300	777.99
400	783.30	400	785.60
		500	792.03
600	795.21	600	797.65
		700	802.80
800	805.39	800	807.67
		900	812.04
1000	813.98	1000	816.13
1100	817.90	1100	819.96
1200	821.62	1200	823.58

Note: HEC-RAS profile not ran for 500,000,700,000, and 900,000 cfs

Table 14. Watts Bar (Clinch River), HEC-RAS Melton Hill Tailwater vs. Melton Hill Tailwater Rating Curve

Discharge-1000 cfs (HEC-RAS)	Tailwater Profile (HEC-RAS)	Discharge-1000 cfs (Dam Rating Curve)	Tailwater Profile (Dam Rating Curve)
100	760.35	0	750
200	771.75	50	754.3
300	779.93	100	760.7
400	786.59	150	766.5
500	792.35	200	771.8
600	797.52	300	780.2
700	802.3		
800	806.83		

Note: Melton Hill tailwater curve only goes to 300,000 cfs

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6.3 SOCH Steady-State Calibration

The SOCH model was run under steady-state conditions and the results were compared to the steady-state profiles from HEC-RAS. The downstream boundary conditions, Table 4, were set at the surcharge level, 747 feet, for Watts Bar Reservoir to account for the reservoir pool until the flow increased to 600,000 cfs, the point at which surcharge elevation intersects the dam rating curve (Attachment 4, Case 1). The boundary conditions then followed the dam rating curve. Uniform, steady-state flow in 100,000 cfs or 200,000 cfs increments was specified so no local inflows were used. The Manning's n values were adjusted so the SOCH steady-state profiles closely followed the HEC-RAS steady-state profiles in the range of the PMF, 1,000,000 cfs to 1,200,000 cfs. The downstream boundary for the Clinch River portion of the model was set at the starting elevations from the HEC-RAS profiles based on Tennessee River elevations at the mouth of the Clinch River. Several iterations of the Manning's n values were run in SOCH to achieve calibration of each model. All iterations are not shown in this calculation; only the final run with the final Manning's n values are shown. The Manning's n values calibrated for the SOCH model are compared to the Manning's n values calibrated for the HEC-RAS steady-state model in Table 15.

6.3.1 SOCH Steady-State Profiles in 100K Increments

The SOCH model was calibrated to the steady-state profiles in the range of the PMF by only adjusting the Manning's n values. The profile at 1,200,000 cfs flow, the PMF range, coincided with the HEC-RAS profile to within one foot at all but one location of elevation on the Tennessee River. Also, the profile at 800,000 cfs flow, the PMF range, coincided with the HEC-RAS profile to within a foot of elevation on the Clinch River. Steady-state profiles were then run in 100,000 cfs or 200,000 cfs increments (Figures 15 through 17) at profiles ranging from 100,000 cfs to 1,200,000 cfs on the Tennessee River and 100,000 cfs to 800,000 cfs profile at 100,000cfs increments (Figures 18 and 19) on the Clinch River. Because the calibration process was based on matching the profiles at the PMF level, the lower flow profiles do not match as closely as the 1,200,000 cfs and 800,000 cfs profiles for each model. However, in most cases, the SOCH profiles were conservatively higher than the HEC-RAS profiles. A closer calibration for the Clinch River model was obtained by SOCH interpolation of cross-sections between each of the original sections. Figures 20 and 21 along with Tables 20 and 21 show the elevations of HEC-RAS and SOCH steady-state profiles at Fort Loudoun Dam (TRM 602.3) and Melton Hill Dam (CRM 23.1), compared to the dam rating curves for each (Attachments 2 and 3)

6.4 SOCH Unsteady-State Historic Runs

The calibrated SOCH model, with the revised Manning's n values used to achieve steady-state calibration, was run under unsteady-flow conditions and then compared against the March 1973 and May 2003 flood events. Recorded Fort Loudoun and Melton Hill discharges were used as the upstream boundary flows for the 1973 flood while recorded discharges for Fort Loudoun, Melton Hill and Tellico were used as the upstream boundary flows for the 2003 flood. Recorded Watts Bar elevations were used as the downstream boundary conditions for both historic floods (Attachments 5 and 6). Recorded flows from the Emory River (Attachment 5 and 6) were input with a scale factor of 1.1 to account for drainage area from the gage at Oakdale, TN to the junction at the Clinch River. For the 1973 flood, recorded flows from Chilhowee Dam were also incorporate into the model at the mouth of the Little Tennessee River after being routed through a SOCH model of the Little Tennessee River to approximate travel time (Attachment 16).

The local inflow hydrographs developed from unit hydrographs (Attachments 7) were used as input to account for all local inflow to the Watts Bar Reservoir. As tabulated in Attachment 7, six hydrographs comprise all the local inflows. Total local runoff from sub-basin 34 is the inflow hydrograph that drains from Poplar Creek. The total local runoff from sub-basin 36 is the inflow hydrograph that drains to the upper portion of the Clinch River and was evenly distributed from CRM 23.1 to CRM 16.8. The total Local runoff from sub-basin 33 is the inflow hydrograph that drains to the downstream portion of the Clinch River and was evenly distributed from CRM 16.8 to CRM 0.00, the mouth of the Clinch River. The total local inflow from sub-basin 25 is the inflow hydrograph that drains to the northern part of the reservoir and was evenly distributed from TRM 602.30 to 568.23. The total local runoff from sub-basin 37 is the inflow hydrograph that drains to the southern portion of the reservoir and was evenly distributed from TRM 568.23 to 529.90. The additional direct runoff from rainfall on the

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of the reservoir and was evenly distributed from TRM 568.23 to 529.90. The additional direct runoff from rainfall on the reservoir was distributed based on surface areas at a normal pool elevation of 747 and input over three segments in the reservoir to account for the larger surface areas closer to Watts Bar Dam. The inflow hydrographs were developed in a separate calculation (References 2.9 and 2.10) and are validated in this calculation (See Section 6.5).

The SOCH model accounts for reservoir storage in the weighted width value in the SOCH geometry. The initial SOCH geometry was developed in a separate calculation (Reference 2.8) and was updated to include a revised $R^{2/3}$ term. The SOCH geometry was also updated to account for additional area, elevation and weighted width terms that were a result of the extension of three cross-sections.

6.4.1 SOCH 1973 Run

The calibrated SOCH model was run under unsteady-conditions and compared to the observed 1973 flood (Appendix A) at 3 gage locations. The modeled peak flood elevations were within a quarter of a foot of the peak elevations at two of the gage locations and 1.1 feet high at the other (Figure 22).

6.4.2 SOCH 2003 Run

The calibrated SOCH model was run under unsteady-conditions and compared to the observed 2003 flood (Appendix A) at three gage locations. The modeled peak flood elevations were conservatively above the observed elevations at each gage station and within one and a half feet of the peak elevation at all gage locations (Figures 24 & 25). The SOCH model is expected to be slightly above the observed elevations because the model was calibrated for much higher flow, in the range of the PMF and the steady-state profiles in the range of the historic floods were slightly above the calibrated HEC-RAS profiles.

6.5 Validation of Local Inflows Developed from Unit Hydrographs

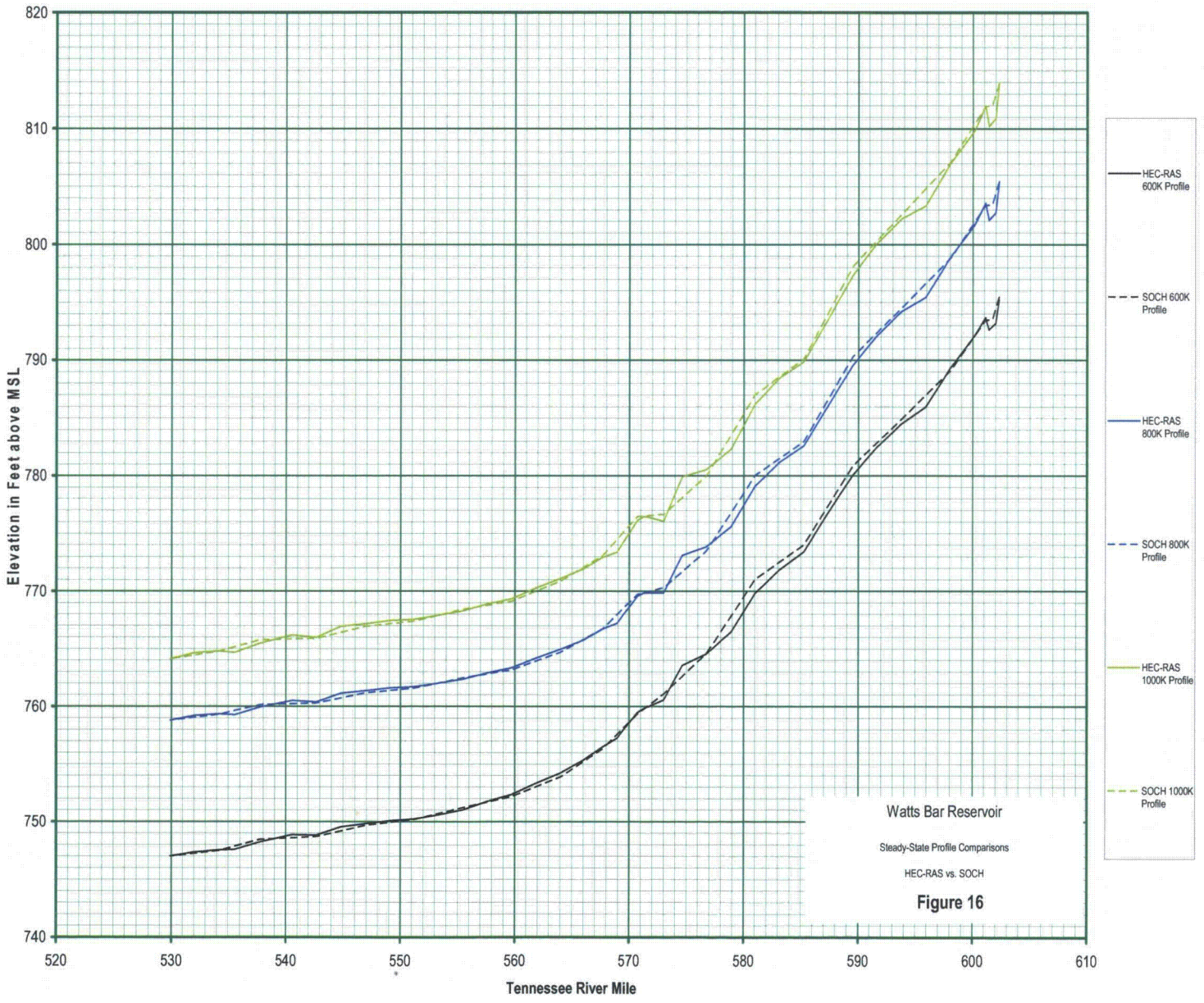
The local inflows to the Watts Bar Reservoir were computed using unit hydrographs and storm rainfall for sub-basins 25, 33, 34, 36, and 37 along with the local inflow for sub-basin 24 for the Little Tennessee River for the 1973 storm and the 1973 discharge from Chilhowee Dam (References 2.9, 2.10, 2.18) and combined with the observed data for the historic floods and reproduced the observed elevations at gage locations along the reservoir as shown in Figures 23 and 26 for the 1973 and 2003 floods, respectively. It is concluded that the use of these local inflows in combination with the observed data confirms the SOCH model's replication of these events. As a result, the unit hydrographs developed for the sub-basins listed above have been indirectly validated and are satisfactory for use in developing local inflows for other events, including the PMF for the TVA Nuclear Plant sites.

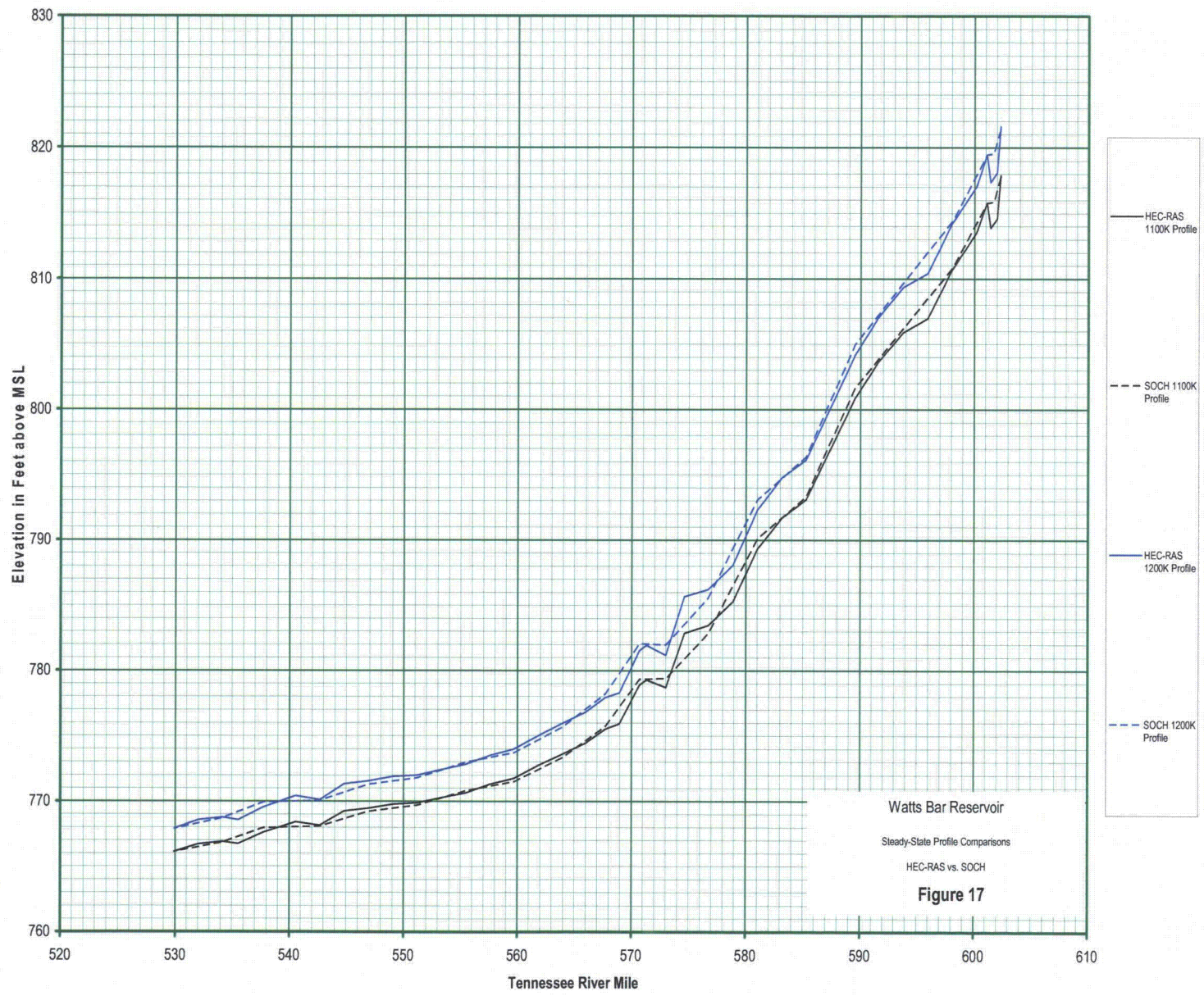
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Table 15. SOCH Manning's "n" Values Compared to HEC-RAS Manning's n Value

Tennessee/Little Tennessee/Clinch River Mile	HEC-RAS Manning's "n"	SOCH Manning's "n"	Tennessee/Little Tennessee/Clinch River Mile	HEC-RAS Manning's "n"	SOCH Manning's "n"
602.30	0.024	0.046	537.74	0.028	0.028
602.00	0.024	0.046	536.29	0.028	0.028
601.70	0.024	0.046	534.16	0.028	0.028
601.40	0.024	0.034	532.03	0.028	0.028
601.10	0.028	0.032	529.90	0.028	0.028
600.17	0.035	0.032	CRM 23.10	0.027	0.024
598.04	0.035	0.028	22.05		0.026
595.91	0.035	0.028	21.00	0.027	0.026
593.78	0.035	0.032	19.95		0.027
591.56	0.035	0.035	18.90	0.027	0.028
589.52	0.038	0.038	17.85		0.031
587.39	0.038	0.038	16.80	0.027	0.029
585.27	0.039	0.039	15.75		0.022
583.14	0.035	0.037	14.70	0.020	0.020
581.01	0.035	0.034	13.65		0.020
578.88	0.035	0.035	12.60	0.002	0.020
576.72	0.035	0.037	11.55		0.020
574.62	0.035	0.042	10.50	0.020	0.019
573.00	0.032	0.037	9.45		0.016
571.30	0.032	0.038	8.40	0.020	0.017
570.70	0.032	0.038	7.35		0.018
568.93	0.032	0.026	6.30	0.020	0.020
567.70	0.032	0.026	5.25		0.021
565.97	0.032	0.030	4.20	0.020	0.021
563.97	0.032	0.030	3.15		0.021
561.84	0.032	0.028	2.10	0.023	0.023
559.71	0.032	0.028	1.66		0.023
557.58	0.032	0.028	1.22	0.023	0.023
555.45	0.027	0.028	0.61		0.024
553.32	0.027	0.028	0.00	0.023	0.023
551.20	0.027	0.028	LTR 0.30*		0.030
549.07	0.028	0.028	0.23		0.030
546.94	0.028	0.028	0.15		0.030
544.81	0.028	0.028	0.08		0.030
542.68	0.028	0.029	0.00		0.030
540.55	0.028	0.028			

*Little Tennessee River Sections below Tellico Dam not modeled in HEC-RAS





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Table 16. Watts Bar (Tennessee River) Steady-State Profile Comparisons, HEC-RAS vs. SOCH

Tennessee River Mile	HEC-RAS 100K Profile	SOCH 100K Profile	HEC-RAS 200K Profile	SOCH 200K Profile	HEC-RAS 300K Profile	SOCH 300K Profile	HEC-RAS 400K Profile	SOCH 400K Profile
602.30	756.40	756.57	767.31	767.51	776.03	776.20	783.30	783.48
601.70	755.91	755.58	766.32	765.82	774.66	774.41	781.61	781.61
601.10	755.90	755.42	766.45	765.71	774.95	774.24	782.06	781.47
598.04	754.57	753.96	764.06	763.17	771.87	771.03	778.45	777.77
593.78	752.70	752.56	760.91	760.82	768.06	768.05	774.23	774.29
589.52	751.13	751.24	758.08	758.42	764.55	765.00	770.30	770.84
585.27	749.59	749.73	754.70	755.07	759.95	760.44	764.85	765.38
581.01	748.84	749.10	752.90	753.57	757.45	758.36	761.89	762.92
576.72	748.16	748.32	750.96	751.30	754.39	754.72	757.96	758.17
573.00	747.76	747.77	749.72	749.77	752.30	752.43	755.16	755.36
570.70	747.59	747.51	749.19	748.93	751.44	751.04	754.02	753.58
567.70	747.40	747.36	748.53	748.40	750.18	749.96	752.15	751.88
563.97	747.27	747.23	748.04	747.92	749.22	749.00	750.71	750.40
559.71	747.18	747.16	747.72	747.64	748.56	748.42	749.66	749.46
555.45	747.13	747.12	747.51	747.49	748.12	748.11	748.93	748.95
551.20	747.10	747.09	747.40	747.36	747.88	747.81	748.52	748.44
546.94	747.09	747.07	747.34	747.29	747.76	747.66	748.32	748.19
542.68	747.05	747.04	747.22	747.17	747.48	747.40	747.84	747.72
537.74	747.04	747.04	747.14	747.15	747.32	747.34	747.57	747.61
534.16	747.02	747.01	747.06	747.05	747.13	747.11	747.24	747.21
529.90	747.00	747.00	747.00	747.00	747.00	747.00	747.00	747.00

Note: SOCH Model results taken from odd nodes only (every other cross-section). Even node points used to advance computation. Since interpolated sections were used in SOCH, the elevation at each original section is usable.

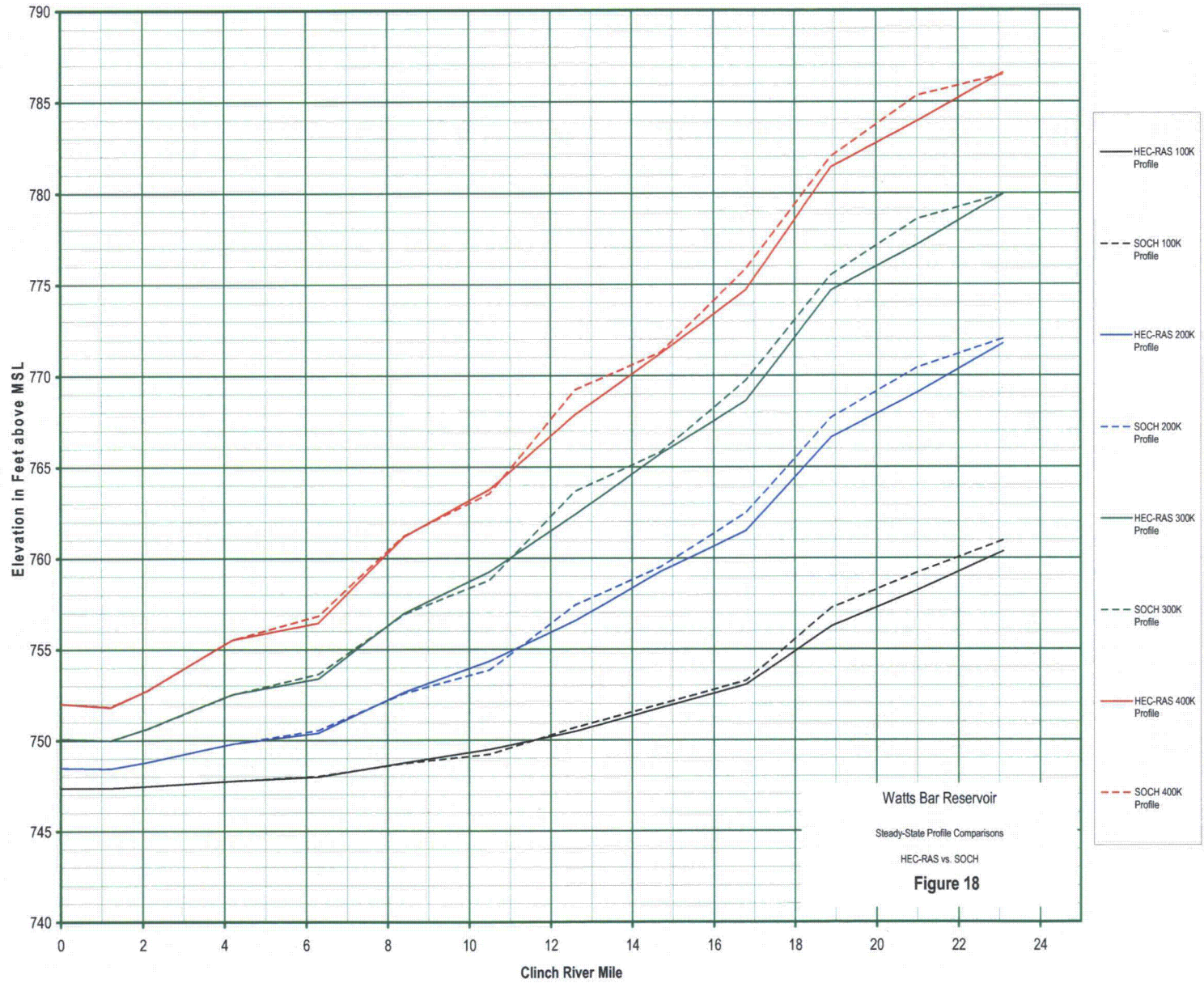
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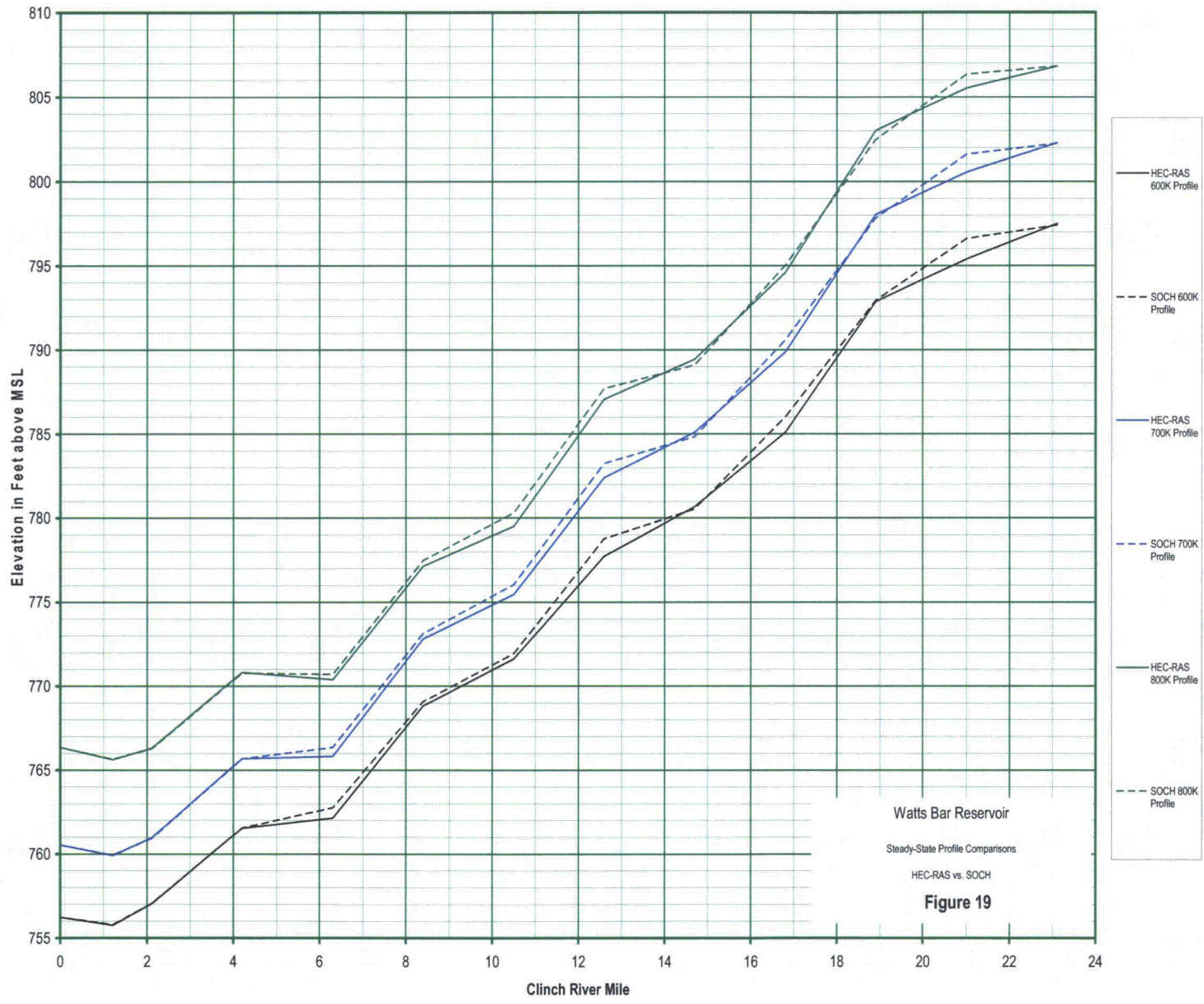
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Table 17. Watts Bar (Tennessee River) Steady-State Profile Comparisons, HEC-RAS vs. SOCH

Tennessee River Mile	HEC-RAS 600K Profile	SOCH 600K Profile	HEC-RAS 800K Profile	SOCH 800K Profile	HEC-RAS 1000K Profile	SOCH 1000K Profile	HEC-RAS 1100K Profile	SOCH 1100K Profile	HEC-RAS 1200K Profile	SOCH 1200K Profile
602.30	795.21	795.51	805.39	805.49	813.98	813.98	817.90	817.80	821.62	821.42
601.70	792.90	793.50	802.42	803.47	810.54	812.03	814.24	815.88	817.74	819.55
601.10	793.68	793.43	803.58	803.38	811.98	811.94	815.81	815.79	819.44	819.47
598.04	789.33	789.09	798.92	798.82	807.02	807.13	810.73	810.82	814.25	814.39
593.78	784.51	784.92	794.22	794.51	802.25	802.61	805.90	806.21	809.36	809.69
589.52	780.09	780.89	789.58	790.34	797.35	798.14	800.85	801.64	804.17	804.98
585.27	773.42	774.03	782.62	782.99	789.86	790.13	793.09	793.32	796.14	796.37
581.01	769.86	771.06	779.13	780.06	786.23	787.05	789.37	790.15	792.34	793.11
576.72	764.57	764.60	773.85	773.48	780.55	780.00	783.48	782.87	786.23	785.58
573.00	760.57	761.11	769.86	770.31	776.08	776.66	778.73	779.42	781.19	781.99
570.70	759.47	759.35	769.54	769.72	776.12	776.47	778.93	779.36	781.55	782.07
567.70	756.51	756.35	766.73	766.76	772.94	773.10	775.55	775.77	777.95	778.23
563.97	754.23	753.89	764.94	764.69	771.10	770.85	773.64	773.38	775.98	775.70
559.71	752.37	752.18	763.36	763.17	769.34	769.12	771.77	771.53	773.99	773.72
555.45	751.03	751.23	762.35	762.47	768.28	768.42	770.66	770.81	772.83	772.99
551.20	750.24	750.20	761.70	761.58	767.55	767.40	769.88	769.71	772.00	771.80
546.94	749.84	749.70	761.36	761.18	767.17	766.95	769.48	769.24	771.56	771.30
542.68	748.84	748.71	760.38	760.29	765.98	765.90	768.16	768.10	770.11	770.06
537.74	748.25	748.47	759.93	760.15	765.48	765.78	767.63	767.97	769.55	769.94
534.16	747.54	747.49	759.35	759.30	764.81	764.77	766.91	766.86	768.77	768.72
529.90	747.00	747.00	758.80	758.80	764.12	764.12	766.13	766.13	767.90	767.90

Note: SOCH Model results taken from odd nodes only (every other cross-section). Even node points used to advance computation. Since interpolated sections were used in SOCH, the elevation at each original section is usable.





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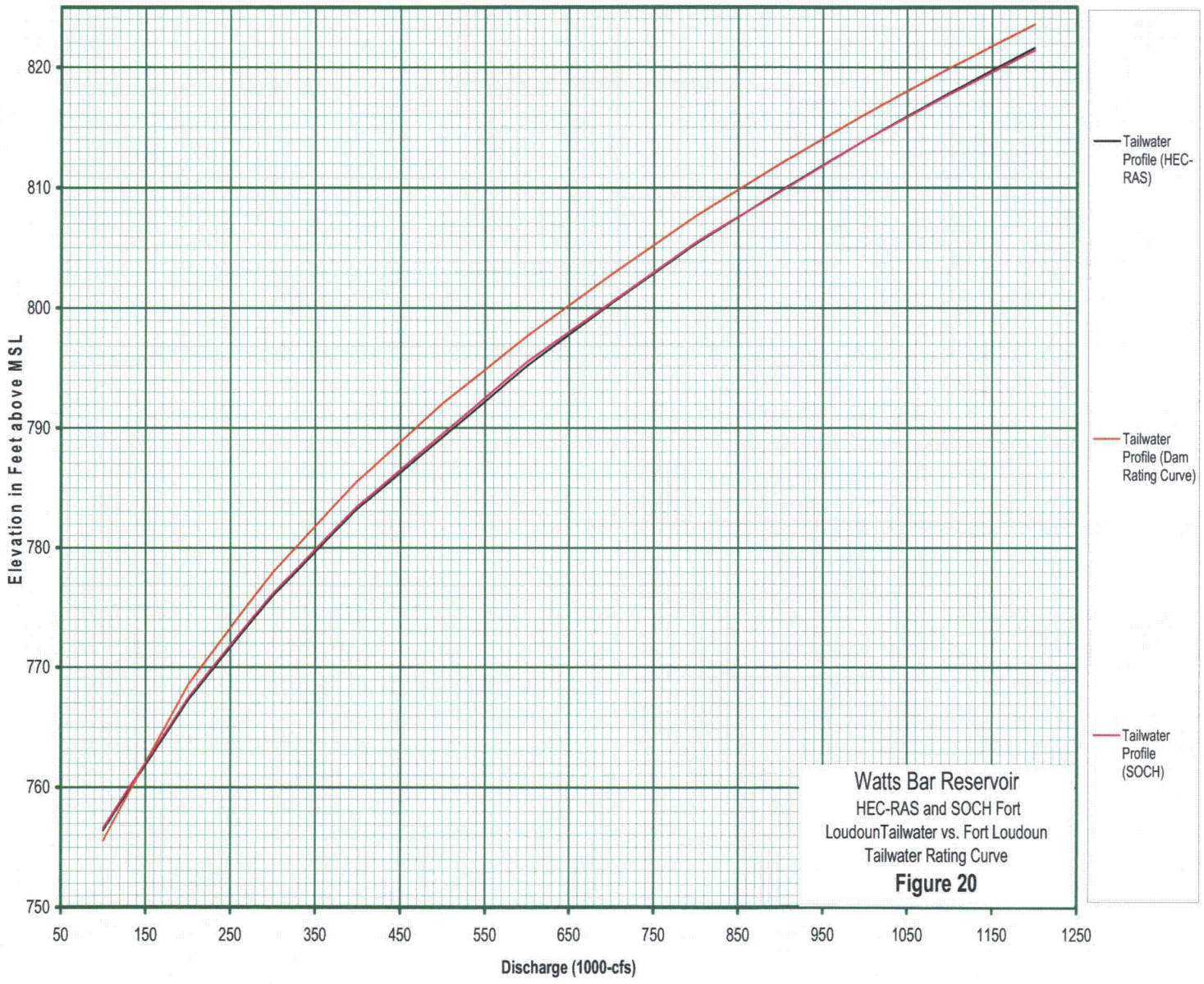
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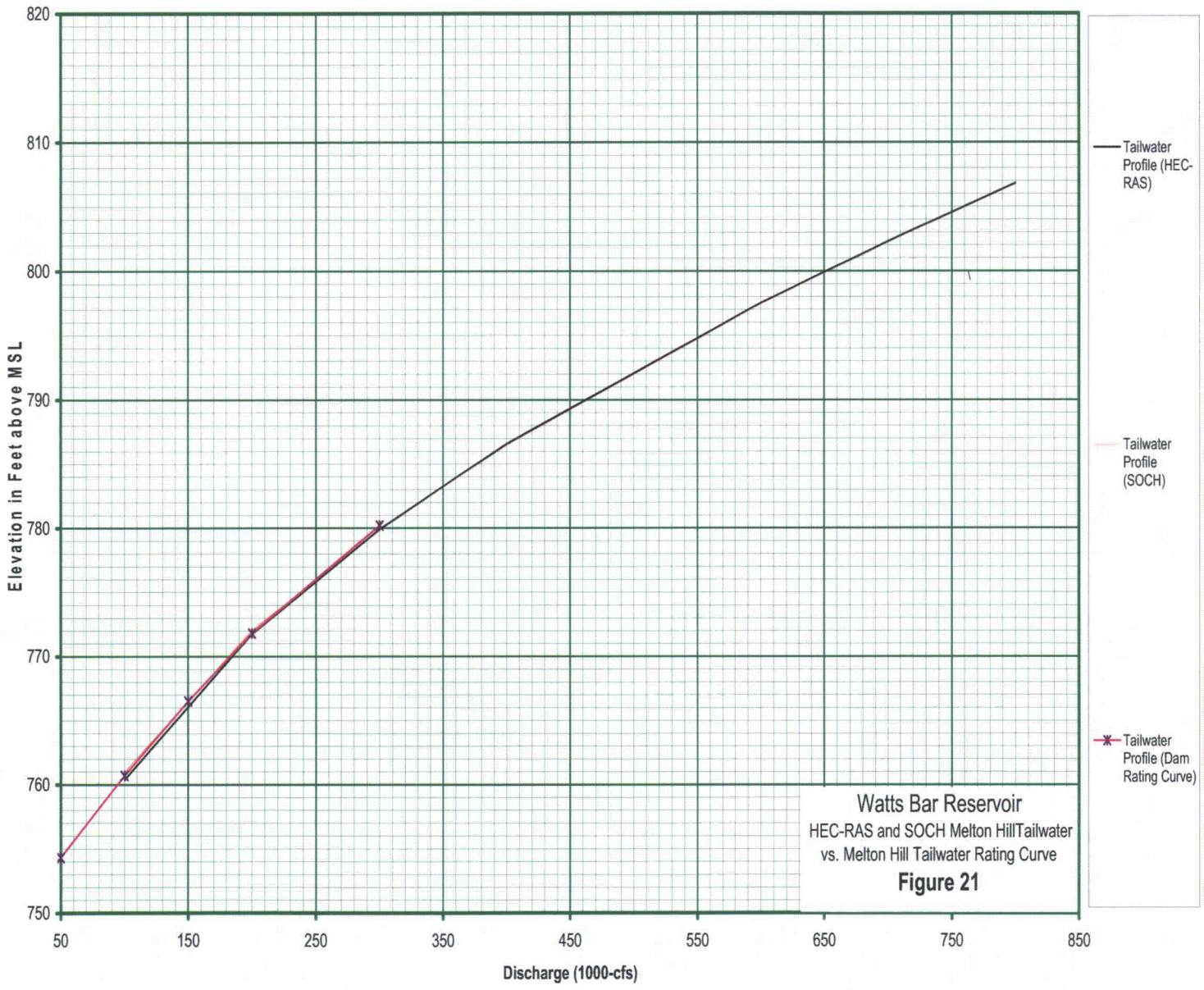
Table 18. Watts Bar (Clinch River) Steady-State Profile Comparisons, HEC-RAS vs. SOCH

Clinch River Mile	HEC-RAS 100K Profile	SOCH 100K Profile	HEC-RAS 200K Profile	SOCH 200K Profile	HEC-RAS 300K Profile	SOCH 300K Profile	HEC-RAS 400K Profile	SOCH 400K Profile
23.10	760.35	760.96	771.75	772.01	779.93	779.92	786.59	786.48
21.00	758.22	759.20	769.07	770.44	777.16	778.58	783.94	785.35
18.90	756.26	757.27	766.63	767.72	774.68	775.53	781.44	782.03
16.80	753.06	753.28	761.50	762.50	768.63	769.75	774.69	775.84
14.70	751.77	751.97	759.26	759.51	765.72	765.82	771.2	771.27
12.60	750.48	750.70	756.56	757.43	762.39	763.68	767.86	769.23
10.50	749.49	749.23	754.34	753.86	759.25	758.79	763.76	763.54
8.40	748.76	748.73	752.64	752.57	756.98	756.93	761.18	761.24
6.30	747.99	748.03	750.40	750.55	753.39	753.65	756.44	756.83
4.20	747.77	747.77	749.80	749.80	752.53	752.52	755.52	755.52
2.10	747.48	747.48	748.79	748.79	750.63	750.62	752.72	752.71
1.22	747.38	747.38	748.44	748.45	749.99	750.00	751.81	751.84
0.00	747.39	747.39	748.48	748.48	750.09	750.09	752.01	752.01

Table 19. Watts Bar (Clinch River) Steady-State Profile Comparisons, HEC-RAS vs. SOCH

Clinch River Mile	HEC-RAS 600K Profile	SOCH 600K Profile	HEC-RAS 700K Profile	SOCH 700K Profile	HEC-RAS 800K Profile	SOCH 800K Profile
23.10	797.52	797.43	802.30	802.26	806.83	806.83
21.00	795.41	796.63	800.55	801.61	805.52	806.34
18.90	792.89	792.97	798.04	797.83	803.03	802.49
16.80	785.09	786.01	789.86	790.59	794.59	795.03
14.70	780.67	780.55	785.09	784.83	789.44	789.10
12.60	777.73	778.78	782.40	783.24	787.07	787.70
10.50	771.62	771.94	775.47	776.06	779.51	780.31
8.40	768.83	769.09	772.82	773.15	777.14	777.49
6.30	762.15	762.77	765.82	766.36	770.39	770.71
4.20	761.55	761.56	765.69	765.68	770.82	770.79
2.10	757.05	757.07	760.97	760.94	766.31	766.28
1.22	755.76	755.81	759.90	759.93	765.63	765.66
0.00	756.25	756.25	760.53	760.53	766.36	766.36





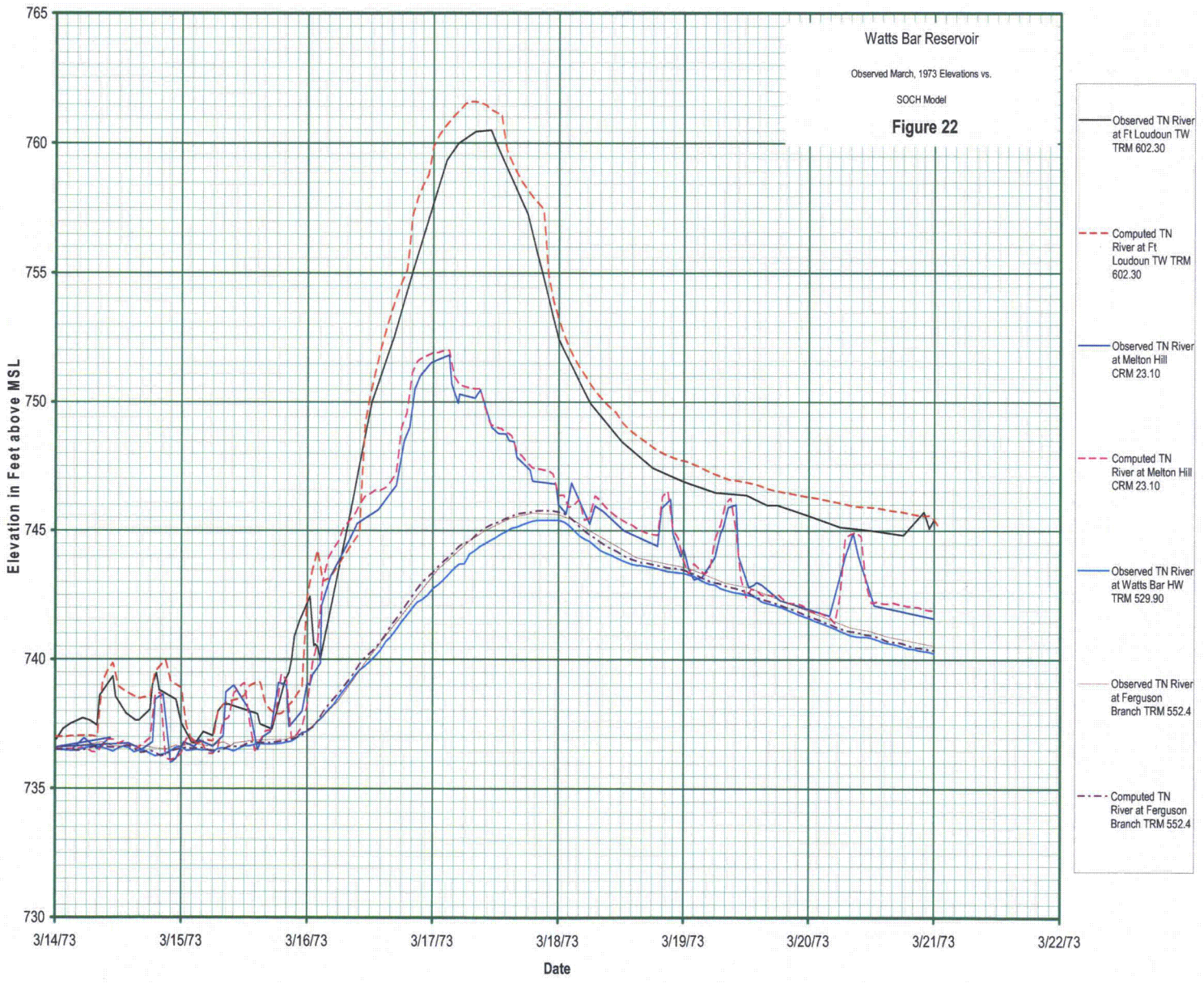
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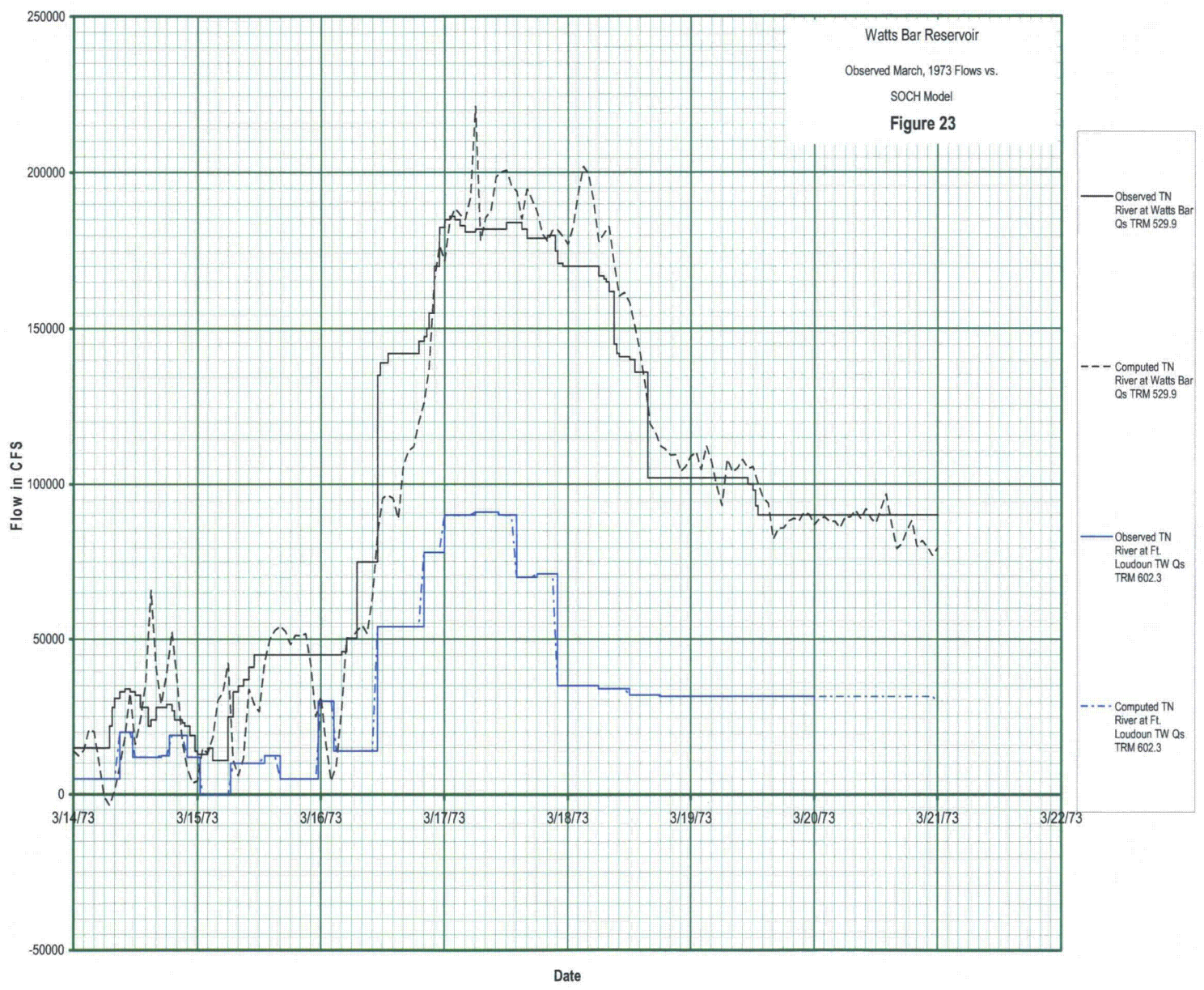
Table 20. Watts Bar (Tennessee River), HEC-RAS and SOCH Ft. Loudoun Tailwater vs. Ft. Loudoun Tailwater Rating Curve

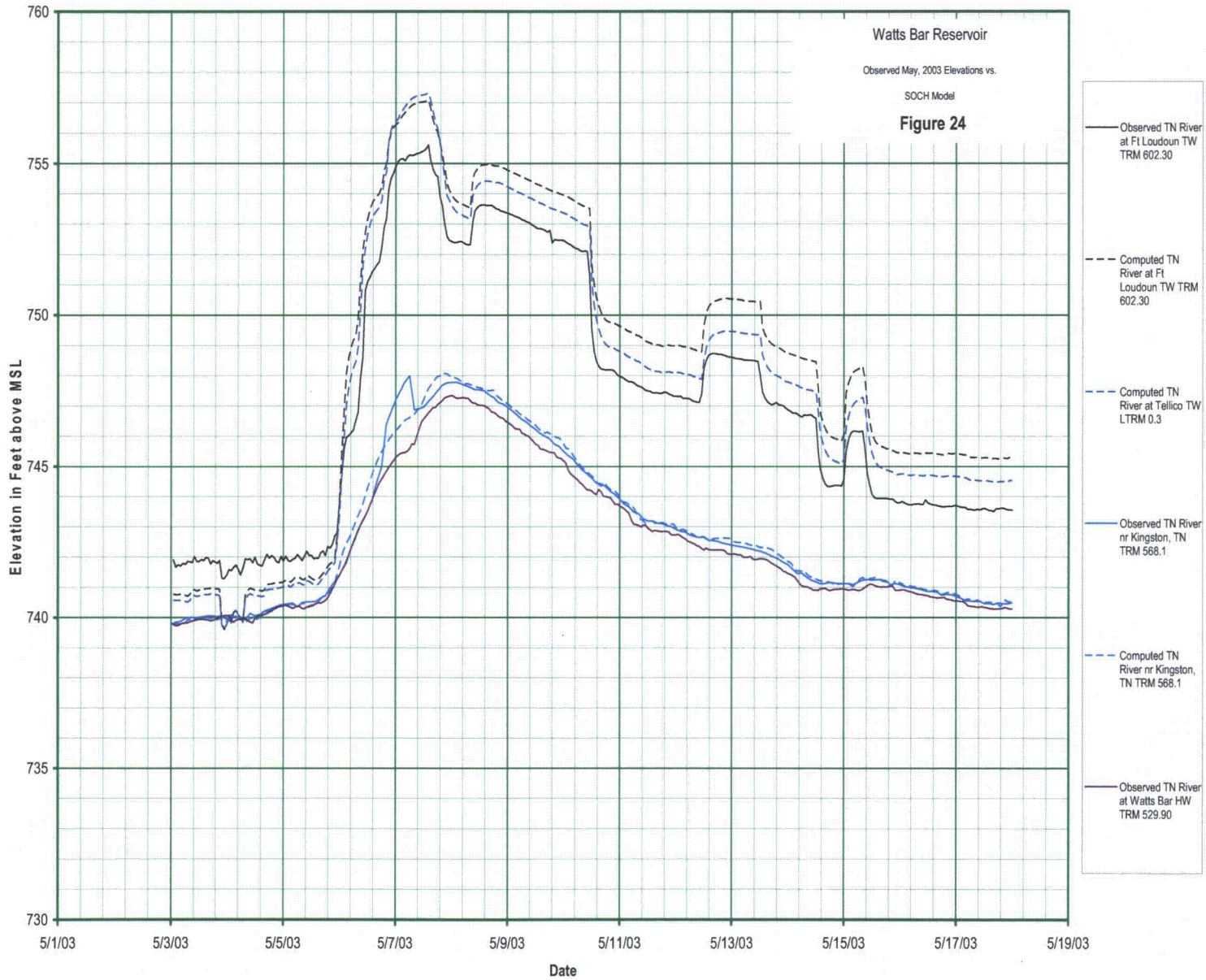
Discharge-1000 cfs (HEC-RAS)	Tailwater Profile (HEC-RAS)	Discharge-1000 cfs (Dam Rating Curve)	Tailwater Profile (Dam Rating Curve)	Discharge-1000 cfs (SOCH)	Tailwater Profile (SOCH)
100	756.40	100	755.51	100	756.57
200	767.31	200	768.61	200	767.51
300	776.03	300	777.99	300	776.20
400	783.30	400	785.60	400	783.48
600	795.20	500	792.03	600	795.51
700	800.42	600	797.65	800	805.49
800	805.35	700	802.80	1000	813.98
900	809.79	800	807.67	1100	817.80
1000	813.93	900	812.04	1200	821.42
1100	817.84	1000	816.13		
1200	821.54	1100	819.96		
		1200	823.58		

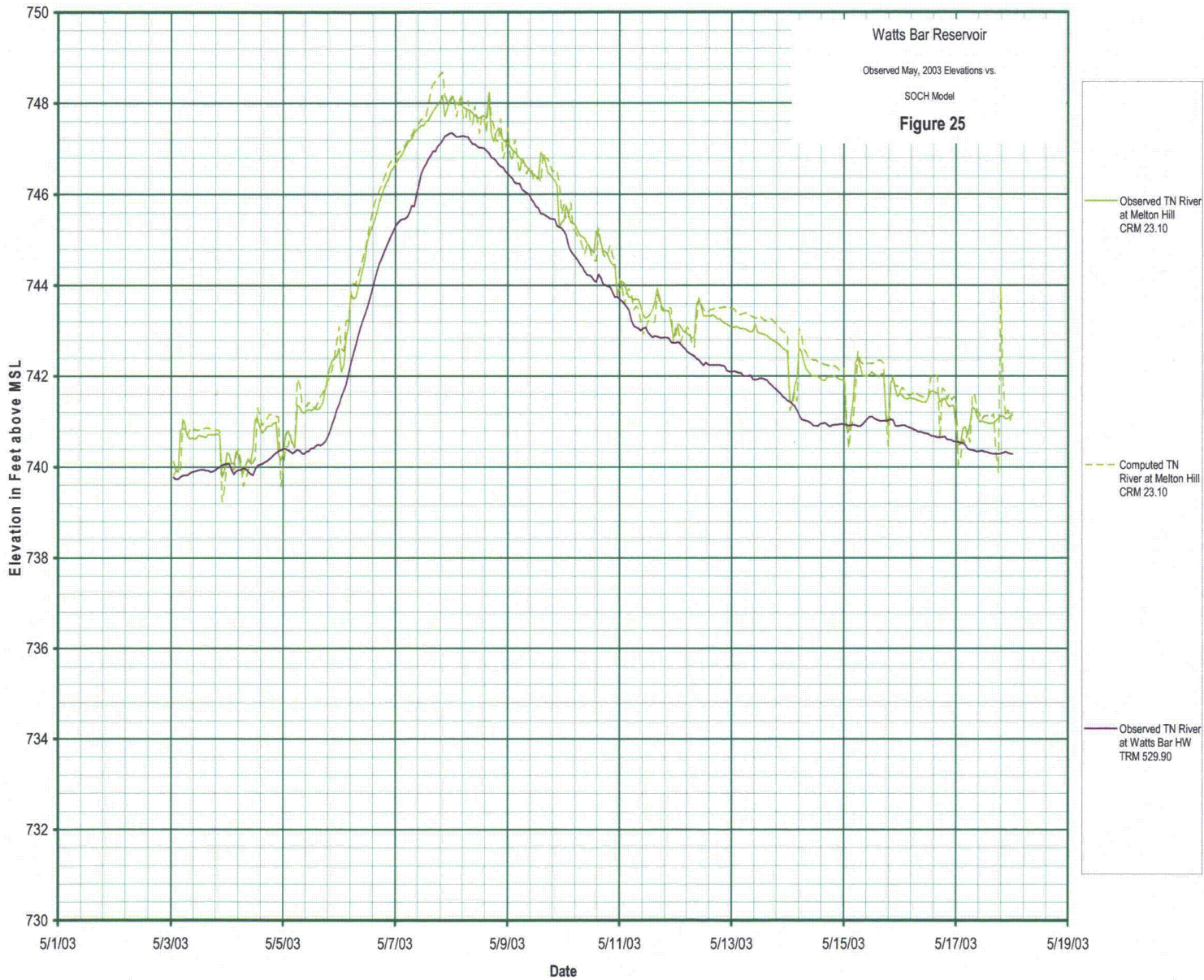
Table 21. Watts Bar (Clinch River), HEC-RAS and SOCH Melton Hill Tailwater vs. Melton Hill Tailwater Rating Curve

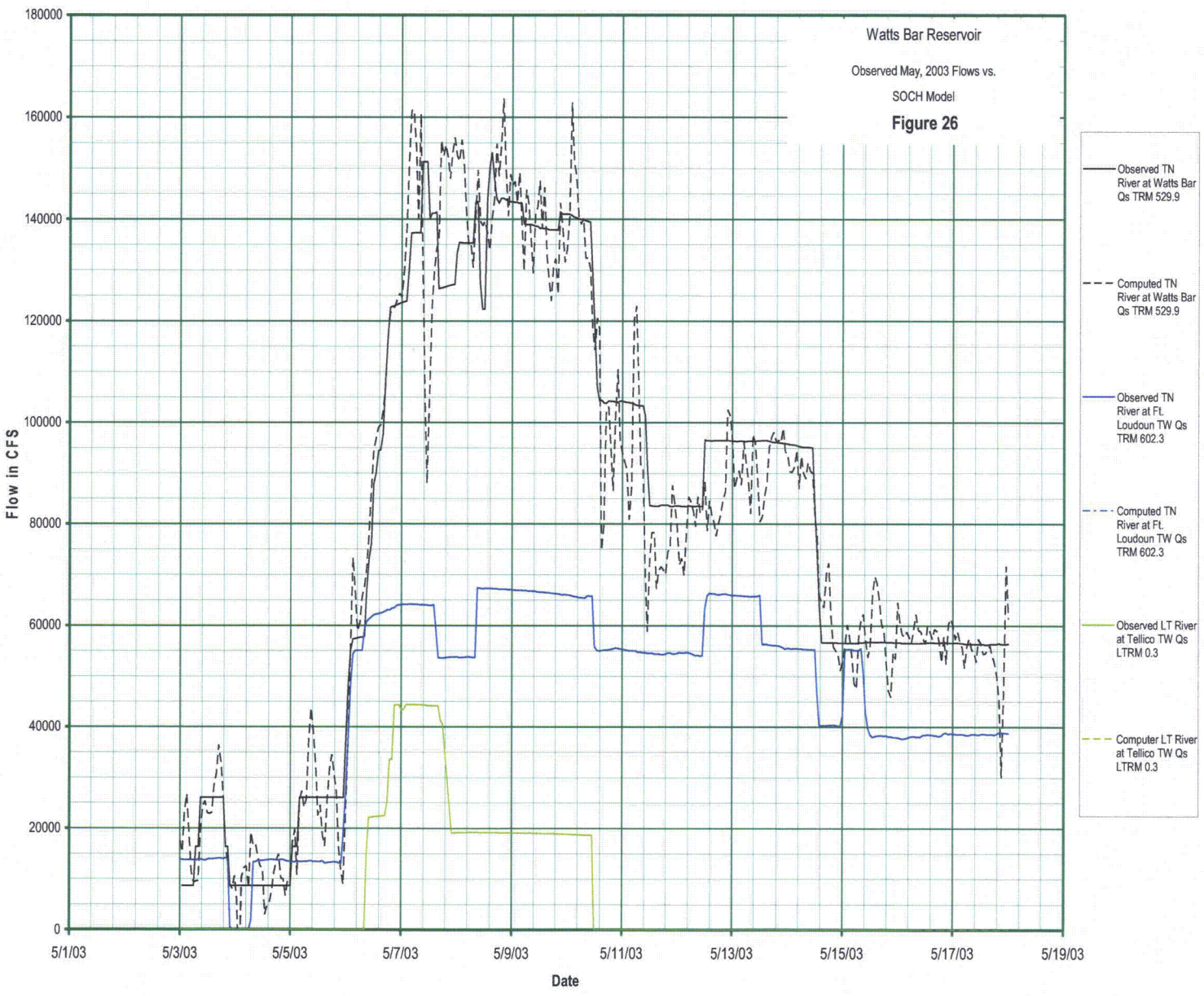
Discharge-1000 cfs (HEC-RAS)	Tailwater Profile (HEC-RAS)	Discharge-1000 cfs (Dam Rating Curve)	Tailwater Profile (Dam Rating Curve)	Discharge-1000 cfs (SOCH)	Tailwater Profile (SOCH)
100	760.35	0	750.00	100	760.98
200	771.75	50	754.30	200	772.02
300	779.93	100	760.70	300	779.92
400	786.59	150	766.50	400	786.48
600	797.52	200	771.80	600	797.43
700	802.30	300	780.20	700	802.26
800	806.83			800	806.83











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7.0 Results/Conclusions

This calibration process provided model results that reproduced the historic floods (March 1973 and May 2003) to within one foot of the peak elevation at most gage stations and within one and a half feet at all gage stations. The SOCH model accurately replicated observed elevations and discharges for two large historic flood events. Peak flood elevations were at, or slightly above, the historic flood peak elevations representing an accurate model calibration. Because the model accurately replicated two historic floods that occurred 30 years apart, it is shown that the SOCH model performs well in predicting flood elevations and discharges. The SOCH model can confidently be used to accurately predict flood elevations and discharges for events of other magnitudes and is adequate for use in predicting flood elevations and discharges for the PMF.

A verification of the time-step was conducted as described in Section 4 of Reference 2.8. A 60-second time step was the longest stable time step. The results using a 5 second time step were comparable to the results using a 60 second time step so the 5 second time step is acceptable.

The local inflows to the Watts Bar Reservoir for sub-basins 25, 33, 34, 36, and 37, when combined with observed flood data, reproduced the observed flood elevations. The unit hydrographs developed for the sub-basins listed above have therefore been validated and are adequate for use in developing flood inflows for other events. When using inflows developed from the unit hydrographs, the inflows for sub-basin 25 should be evenly distributed from TRM 602.3 to 567.7. The inflow for basin 33 should be evenly distributed between CRM 23.1 to 16.8. The inflow for basin 34 should input into the model at CRM 12.0. The inflow for basin 36 should be evenly distributed between CRM 16.8 to 0.0. The inflow for basin 37 should be evenly distributed between TRM 567.7 to 529.9. The rainfall directly on the basin was distributed based on surface area with 11.3% being evenly distributed between CRM 23.1 and 0.0, 66.0% being evenly distributed between TRM 563.97 and 529.9, and 22.7% being evenly distributed between TRM 602.30 and 563.97.

The final Manning's n values for the SOCH model for the Watts Bar Reservoir, Tennessee River Miles 602.30 to 529.90 and Clinch River Miles 23.10 to 0.00, determined by this calibration process are provided in Table 22. The final calibrated SOCH geometry files are named WattsBar060109.geo, LowerClinch060109.geo, and LLT20090610cal.geo. These are provided in Appendix A. The final Manning's n values and geometry file are to be used in the SOCH PMF determination. In conjunction with using LowerClinch060109.geo, interpolated sections should be computed internally within SOCH runs to be used as even-numbered cross-sections.

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Subject: SOCH Model Calibration, Watts Bar		Prepared	ACM
		Checked	WBB

Table 22. Final Manning's "n", Watts Bar Reservoir

Tennessee/Little Tennessee/Clinch River Mile	Manning's "n"	Tennessee/Little Tennessee/Clinch River Mile	Manning's "n"
602.30	0.046	537.74	0.028
602.00	0.046	536.29	0.028
601.70	0.046	534.16	0.028
601.40	0.034	532.03	0.028
601.10	0.032	529.90	0.028
600.17	0.032	CRM 23.10	0.024
598.04	0.028	22.05*	0.026
595.91	0.028	21.00	0.026
593.78	0.032	19.95*	0.027
591.56	0.035	18.90	0.028
589.52	0.038	17.85*	0.031
587.39	0.038	16.80	0.029
585.27	0.039	15.75*	0.022
583.14	0.037	14.70	0.020
581.01	0.034	13.65*	0.020
578.88	0.0345	12.60	0.020
576.72	0.037	11.55*	0.020
574.62	0.0415	10.50	0.019
573.00	0.037	9.45*	0.016
571.30	0.038	8.40	0.017
570.70	0.038	7.35*	0.018
568.93	0.026	6.30	0.020
567.70	0.026	5.25*	0.021
565.97	0.03	4.20	0.021
563.97	0.03	3.15*	0.021
561.84	0.028	2.10	0.023
559.71	0.028	1.66*	0.023
557.58	0.028	1.22	0.023
555.45	0.028	0.61*	0.024
553.32	0.028	0.00	0.023
551.20	0.028	LTR 0.30	0.030
549.07	0.028	0.23	0.030
546.94	0.028	0.15	0.030
544.81	0.028	0.08	0.030
542.68	0.029	0.00	0.030
540.55	0.028		

*SOCH interpolated section.

CDQ000020080037 Rev 0

Appendix A – Final Manning’s N, Final SOCH Geometry, Profiles and Calibration Graphs

WattsBar_FinalManningsn.xls
Watts Bar HEC_RAS_SteadyState_Profiles.xls
Clinch_HEC_RAS_SteadyState_Profiles.xls
WattsBar_HECRAS_SOCH_SteadyState_Profiles.xls
Clinch_HECRAS_SOCH_SteadyState_Profiles.xls
Observed vs. SOCH Mar 1973 Hydrographs.xls
Observed vs. SOCH May 2003 Hydrographs.xls
Watts Bar 060109.geo
LowerClinch060109.geo
LLT20090610cal.geo

CDQ000020080037 Rev 0

Appendix B - SOCH Input Files, Steady State (.dat, .bnd)

Watts Bar_Calibrate_Step.dat

WattsBarCal.bnd

Clinch_Calibrate_100Kto800K.dat

MeltonHill100Kto800K.bnd

CDQ000020080037 Rev 0
Appendix C - SOCH Input Files, March 1973 Flood (.dat, .loc)

Mar1973LocalInflowHydrograph_WattsBar.loc
WattsBar_Calibrate_Mar1973.dat

CDQ000020080037 Rev 0

Appendix D - SOCH Input File May 2003 Flood (.dat, .loc)

May2003LocalInflowHydrograph_Watts Bar.loc
Watts Bar_Calibrate_May2003.dat

CDQ000020080037 Rev 0
Appendix E - SOCH Output Files, Steady-State (.out)

Clinch_Calibrate_100Kto800K.out
WattsBar_Calibrate_Step.out

CDQ000020080037 Rev 0
Appendix F - SOCH Output Files, March 1973 (.out, .prt)

WattsBar_Calibrate_Mar1973.out
WattsBar_Calibrate_Mar1973.prt

CDQ000020080037 Rev 0
Appendix G - SOCH Output Files, May 2003 (.out, .prt)

Watts Bar_Calibrate_May2003.out
Watts Bar_Calibrate_May2003.prt

CDQ000020080037 Rev 0

Appendix H - Calibrated Steady State HEC-RAS Models

WattsBar061709.f01
WattsBar061709.g03
WattsBar061709.p03
WattsBar061709.prj
L_Clinch.f02
L_Clinch.g01
L_Clinch.p02
L_Clinch.prj

CDQ000020080037 Rev 0
Appendix I - Convey and SOCH Geometry Files

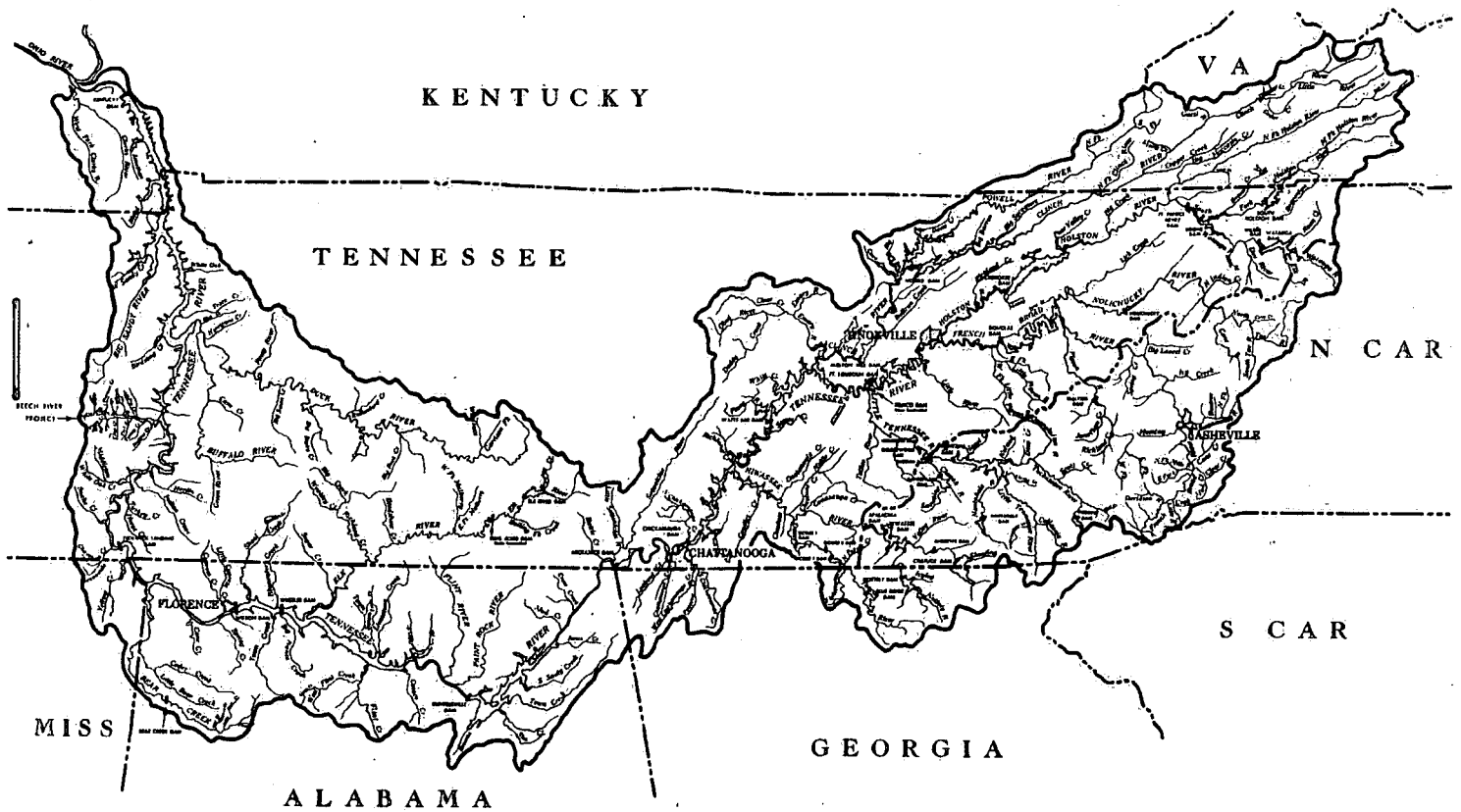
Watts Bar Merge 20090528.xls
LowerClinchCONVEY20090601.dat
LowerClinchCONVEY20090601.out
LowerClinchCONVEY20090601.xls
WattsBarCONVEY20090528.xls
WattsBarCONVEY20090528.dat
WattsBarCONVEY20090528.out
WattsBarCONVEY20090528.prt
WattsBar20090528.geo
LowerClinch20090528.geo

CDQ000020080037 Rev 0

Appendix J - Drainage Areas for Streams in the Tennessee River Basin

DistributionRev4 031209.xls
DrainageAreasTR.pdf

DRAINAGE AREAS FOR STREAMS IN TENNESSEE RIVER BASIN



TENNESSEE VALLEY AUTHORITY

TABLE 1
DRAINAGE AREAS
TENNESSEE RIVER - MOUTH TO HEAD OF RIVER AT KNOXVILLE, TENNESSEE

Quad. Map No.	River Mile	Name of Stream	Location Reference	Drainage Area (Sq. Mi.)
68SW	305.0	Tennessee River	USGS stream gage at Decatur	26,900
68SW	308.4		Above Flint Creek	26,430
68SW	310.7		Former TVA stream gage at Limestone Creek	26,140
68SW	310.7		Above Limestone Creek	26,140
68SE	317.1		Former USGS stream gage at Bluff City	26,110
75SW	319.1	Tennessee River	Above Colaco Creek	25,860
75SW	320.9		Former TVA stream gage at Triana below Indian Creek	25,850
75SW	321.0		Former TVA stream gage at Triana above Indian Creek	25,660
75SW	326.1		Former TVA stream gage at Lewis Bluff	25,650
75SE	332.8		Former TVA stream gage at Burdine Bar	25,610
75SE	333.3	Tennessee River	USGS stream gage at Whitesburg (measuring section 0.5 mile below gage)	25,610
75SE	337.0		Former TVA stream gage at head of Hobbs Island	25,530
75NE	339.1		Above Flint River	24,960
83NW	343.2		Above Paint Rock River	24,490
83NW	340.0		Guntersville Dam	24,450
83NE	353.9	Tennessee River	Former TVA stream gage at Guntersville site "E"	24,410
83NE	355.7		Former TVA stream gage at Beards Reef	24,340
83SE	358.0		TVA stream gage at Guntersville	24,340
90NW	360.8		Above Town and Short Creeks	23,820
90NW	366.8		Former TVA stream gage at Gunters Landing	23,800
89SW	371.3	Tennessee River	Former TVA stream gage at Boshart Creek	23,780
89SW	372.5		Above South Sauty Creek	23,600
96NW	385.1		Former TVA stream gage at Chisenhalls Bar	23,430
96NW	385.8		TVA stream gage near Scottsboro	23,430
96NW	394.2		Former TVA stream gage at Mud Creek	23,330
95SE	401.2	Tennessee River	Above Crow Creek	22,830
95NE	407.6		Former USWB stream gage at Widows Bar	22,820
95NE	407.6		USGS stream gage at Widows Bar	22,820
101NW	410.0		3.0 miles south of Bridgeport, Alabama	22,770
101NW	412.1		At Reese Ferry below Bridgeport	22,680
101NW	414.4	Tennessee River	Former USWB stream gage at Bridgeport, Alabama	22,670
101NW	416.5		Tennessee-Alabama state line	22,650
100SW	418.1		USGS gage at South Pittsburg	22,640
100SW	418.7		Above Battle Creek	22,470
100SW	421		Across Burns Island 3 miles NE of South Pittsburg	22,460
100SW	422.7	Tennessee River	Above Sequatchie River	21,870
100SE	424.7		At Nickajack Dam 6 miles below Hales Bar	21,870
101NE	425.8		Former TVA stream gage at Shellmound	21,830
100SE	429.7		Former USGS stream gage at U. S. Hwys 41, 64, 72 bridge below Hales Bar Dam	21,800
100SE	431.1		Hales Bar Dam (abandoned and removed)	21,790
105SW	444.6	Tennessee River	TVA stream gage above Kellys Ferry	21,730
105SE	453.5		TVA stream gage at Shoal Creek	21,690
105SE	459.8		Above Lookout Creek	21,480
105SE	460.7		Above Chattanooga Creek	21,400
105SE	464.2		USWB stream gage at Chattanooga (Walnut Street)	21,400
105SE	465.5	Tennessee River	USGS stream gage at Citico Bar	21,390
105SE	467.6		USGS stream gage at Meadow Lake	21,390
105SE	467.9		Former TVA stream gage at Sherman Hill	21,390
105SE	468.2		Above South Chickamauga Creek	20,920
112SW	470.7		Former USGS stream gage at Southern Ry. bridge	20,920
112SW	470.8	Tennessee River	Above North Chickamauga Creek	20,790
112SW	471.0		Chickamauga Dam	20,790
112SW	471.7		Former TVA stream gage at Chickamauga Dam site	20,790
112NW	478.6		Above Wolftever Creek	20,670
112NE	484.5		Sequoyah Nuclear Steam Plant	20,650
112NE	485.4	Tennessee River	Former TVA stream gage at U. S. Quarry	20,640
111SE	487.5		Above Soddy Creek	20,570
111SE	488.4		Former TVA stream gage near Birchwood	20,560
111SE	494.7		Above Sale Creek	20,380
111SE	495.0		Former TVA stream gage 0.2 mile above Sale Creek	20,380
111NE	497.2	Tennessee River	TVA stream gage at Doughtys Ferry	20,380
111NE	499.4		Above Hiwassee River	17,670
119NW	503.6		Former TVA stream gage at Armstrong Ferry	17,650
119NW	504.4		Above Richland Creek	17,570
119NW	510.7		Former TVA stream gage at Kelly Shoals	17,550
118SE	523.2	Tennessee River	TVA stream gage at Breedenton	17,460
118SE	524.6		Above Sewee Creek	17,330
118SE	529.9		Watts Bar Dam	17,310
118SE	530.2		Former TVA stream gage at Watts Bar Dam site	17,310
118NE	532.3		Above Piney River	17,160

TABLE 1
DRAINAGE AREAS
TENNESSEE RIVER - MOUTH TO HEAD OF RIVER AT KNOXVILLE, TENNESSEE

Quad. Map No.	River Mile	Name of Stream	Location Reference	Drainage Area (Sq. Mi.)
124NW	543.2	Tennessee River	Former TVA stream gage 1.5 miles below Whites Creek	17,130
123SW	544.7		Above Whites Creek	16,980
123SW	551.4		TVA stream gage at Ferguson Branch	16,960
123SW	553.1		Former USWB stream gage near Rockwood	16,950
123SE	567.8		Above Clinch River	12,470
123SE	568.2	Tennessee River	TVA stream gage at Kingston	12,470
130SW	574.9		Former TVA stream gage at Seven Islands	12,420
130SW	578.9		500 feet above Polecat Creek	12,360
131NE	585.5		Above Sweetwater Creek	12,230
131NE	587.0		Former USGS stream gage near Loudon	12,230
131NE	591.6	Tennessee River	Former USGS stream gage at Loudon	12,220
130SE	600.5		Former USGS stream gage at Lenoir City	12,200
130SE	601.1		Above Little Tennessee River	9,570
138SW	602.0		Former TVA stream gage near Lenoir City	9,550
138SW	602.3		Fort Loudoun Dam	9,550
138SW	603.6	Tennessee River	Former TVA stream gage at Bussell Shoals	9,546
138SW	605.4		Former TVA stream gage at Sister Islands	9,541
138SW	607.2		Blount-Loudon county line, 2.7 miles NNW of Friendsville	9,522
138SW	610.3		At Knox-Loudon county line, 3.5 miles NW of Friendsville	9,515
138SW	615.8		Below Holder Branch	9,485
138SE	625.0	Tennessee River	0.7 mile NW of Louisville	9,411
138SE	630.4		Former TVA stream gage, 0.6 mile above George Creek	9,380
147NW	634.7		Former TVA stream gage at Little River Shoals	9,374
147NW	635.6		Above Little River	8,992
147NW	645.1		USGS stream gage below Knoxville	8,963
147NW	647.7	Tennessee River	At Knoxville (Gay Street)	8,934
147NW	648.2		Former USGS stream gage at Knoxville	8,913
147NE	651.4		USGS stream gage at Knoxville	8,902
147NE	652.2		Head at junction Holston and French Broad Rivers	8,900

Ingage
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CDQ000020080037 Rev 0
Attachment 1 - HEC-RAS Geometry Files
Reference 2.8

LowerClinch042209.g02.pdf
WattsBar052209.g03.pdf

Attachment 1-1

HEC-RAS File

Calculation No. CDQ000020080037

Geom Title=LowerClinchWusaceSB
 Program Version=3.13
 Viewing Rectangle= 0 , 1 , 1 , 0

River Reach=RIVER-1 ,Reach-1
 Reach XY= 2

.5 .95 .5 .05
 Rch Text X Y=0.5,0.725
 Reverse River Text= 0

Type RM Length L Ch R = 1 ,23.1 ,10700,10600,10500

Node Last Edited Time=Apr/22/2009 09:15:25

#Sta/Elev= 12

235	800	450	780	620	760	762	755.2	782	741
798.8	729.1	923.4	727	940	723	1095.8	723.8	1150	741
1172	759	1315	810.1						

#Mann= 3 , 0 , 0

235	.08	0	782	.023	0	1150	.08	0
-----	-----	---	-----	------	---	------	-----	---

Bank Sta=782,1150

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,21 ,10000,10100,10800

Node Last Edited Time=Apr/22/2009 09:09:07

#Sta/Elev= 16

400	800	500	780	750	760	800	740	801	734.3
838	723	920	723	948	721.3	1040	722	1089	725.7
1180	740	1200	750	1850	760	2150	760	2700	780
3300	800								

#Mann= 3 , 0 , 0

400	.12	0	800	.023	0	1200	.1	0
-----	-----	---	-----	------	---	------	----	---

Bank Sta=800,1200

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,18.9 ,10300,10500,10500

Node Last Edited Time=Apr/22/2009 09:08:49

#Sta/Elev= 20

750	800	800	780	850	760	1100	760	1650	740
1800	740	1830	738	1855	725	1945	723	1978	720
2030	719.4	2080	722	2111	719.1	2142	720	2151	724
2153	729	2170	740.1	2350	760	2560	780	2950	800

#Mann= 3 , 0 , 0

750	.06	0	1830	.023	0	2170	.1	0
-----	-----	---	------	------	---	------	----	---

Bank Sta=1830,2170

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,16.8 ,10900,10700,10800

Node Last Edited Time=Apr/22/2009 09:08:35

#Sta/Elev= 15

737	800	805	740	870	723.7	876	720.9	913	720.9
1000	718.1	1049	718.4	1080	721.5	1110	723.7	1170	740
1200	750	1800	754.5	2000	760	2100	780	2200	800

#Mann= 3 , 0 , 0

737	.12	0	805	.028	0	1170	.08	0
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Bank Sta=805,1170

Attachment 1

HEC-RAS File

Calculation No. CDQ000020080037

Attachment 1-1

HEC-RAS File

Calculation No. CDQ000020080037

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,14.7 ,10600,10500,10900

Node Last Edited Time=Apr/22/2009 09:08:13

#Sta/Elev= 16

390	800	580	780	700	760	750	740	820	720.5
840	720.2	860	720.4	1000	719	1100	718.7	1172	717.4
1178	720.5	1210	740	1520	740	1680	760	1750	780
1810	800								

#Mann= 3 , 0 , 0

390	.09	0	750	.027	0	1210	.08	0	
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Bank Sta=750,1210

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,12.6 ,10200,10700,11500

Node Last Edited Time=Apr/22/2009 09:07:54

#Sta/Elev= 15

300	800	600	780	800	760	1770	740	1830	716.8
1863	712.5	1899	712	2010	712.6	2100	722.1	2145	730
2170	740	2600	750	3100	760	3300	780	3700	800

#Mann= 3 , 0 , 0

300	.11	0	1770	.027	0	2170	.08	0	
-----	-----	---	------	------	---	------	-----	---	--

Bank Sta=1770,2170

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,10.5 ,10450,10400,10000

BEGIN DESCRIPTION:

Elevation 800 at station 0 chosen to limit effective width based on floodplain widths upstream and downstream

END DESCRIPTION:

Node Last Edited Time=Apr/22/2009 09:07:39

#Sta/Elev= 18

0	800	200	780	300	760	650	740	765	734.2
783	727.7	860	723	900	721.3	1000	715.3	1100	713.7
1135	712	1153	716.1	1169	720	1225	733	1230	740
1250	760	1300	780	1370	800				

#Mann= 3 , 0 , 0

0	.12	0	650	.023	0	1230	.12	0	
---	-----	---	-----	------	---	------	-----	---	--

Bank Sta=650,1230

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,8.4 ,11000,11050,10750

Node Last Edited Time=Apr/22/2009 09:07:17

#Sta/Elev= 18

0	800	80	780	200	760	450	741	600	740
812	720	840	711.8	870	709.7	930	708	980	711
1010	708	1062	710.3	1145	719.4	1200	741	1252	760
1305	780	1354	800	1400	805				

#Mann= 3 , 0 , 0

0	.1	0	450	.023	0	1200	.1	0	
---	----	---	-----	------	---	------	----	---	--

Bank Sta=450,1200

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,6.3 ,11000,11000,11200

Attachment 1

HEC-RAS File

Calculation No. CDQ000020080037

Attachment 1-1

HEC-RAS File

Calculation No. CDQ000020080037

Node Last Edited Time=Mar/06/2009 12:24:57

#Sta/Elev= 16

600	800	630	780	650	760	700	741	720	740
834	726.4	894	707.5	985	705.5	1024	706	1194	724
1254	729	1384	734	1450	740	1510	755.2	1530	760
1740	800								

#Mann= 3 , 0 , 0

600	.12	0	700	.023	0	1450	.12	0	
-----	-----	---	-----	------	---	------	-----	---	--

Bank Sta=700,1450

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,4.201 ,10550,11250,11800

Node Last Edited Time=Mar/03/2009 16:38:29

#Sta/Elev= 22

854	800	1008	780	1453	760	1629	741	1722	732
1745	726.5	1778	712	1852	705	2000	703.9	2165	704.9
2180	705.5	2230	710	2265	713.5	2300	716.5	2306	720
2370	733.9	2420	734.8	2600	731.5	2750	735.3	2800	737.5
2870	741	3120	800						

#Mann= 3 , 0 , 0

854	.1	0	1629	.023	0	2870	.1	0	
-----	----	---	------	------	---	------	----	---	--

Bank Sta=1629,2870

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,2.1 ,4650,4700,4700

Node Last Edited Time=Mar/03/2009 16:38:15

#Sta/Elev= 16

900	800	1400	780	1500	760	1590	741	1709	720
1826	703	1900	700.5	1960	699.1	2000	698.3	2122	698.3
2203	703	2326	730.3	2520	741	2600	760	2900	780
3120	800								

#Mann= 3 , 0 , 0

900	.1	0	1590	.023	0	2520	.1	0	
-----	----	---	------	------	---	------	----	---	--

Bank Sta=1590,2520

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,1.22 ,6650,6000,5250

Node Last Edited Time=Mar/03/2009 16:38:05

#Sta/Elev= 14

500	800	700	780	900	760	1100	741	1608	731.8
1826	706.4	1900	700.5	1972	701	2000	701	2122	701
2228	702	2326	730.3	2350	741	2460	800		

#Mann= 3 , 0 , 0

500	.1	0	1100	.023	0	2350	.1	0	
-----	----	---	------	------	---	------	----	---	--

Bank Sta=1100,2350

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,0 ,0,0,0

Node Last Edited Time=Mar/06/2009 12:24:24

#Sta/Elev= 21

200	800	340	780	452	760	550	741	550	733
608	721.1	668	712.7	788	708.7	876	698.8	920	691.3
979	693.1	1026	688.6	1076	690.4	1190	696.5	1336	700.9
1740	726.8	2111	730	2470	726	2576	729	2620	741

Attachment 1

HEC-RAS File

Calculation No. CDQ000020080037

Attachment 1-1

HEC-RAS File

Calculation No. CDQ000020080037

2820 800
#Mann= 3 , 0 , 0
200 .1 0 550 .023 0 2620 .12 0
Bank Sta=550,2620
Exp/Cntr=0.3,0.1

Chan Stop Cuts=-1
Use User Specified Reach Order=0
User Specified Reach Order=RIVER-1 ,Reach-1

1

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

Geom Title=WattsBarWcoeDataRev0
 Program Version=3.13
 Viewing Rectangle= 0 , 1 , 1 , 0

River Reach=RIVER-1 ,Reach-1
 Reach XY= 2

.5 .95 .5 .05
 Rch Text X Y=0.5,0.725
 Reverse River Text= 0

Type RM Length L Ch R = 1 ,602.3 ,3000,3000,3000

BEGIN DESCRIPTION:

Assumed no overflow so left side cut off vertically

END DESCRIPTION:

Node Last Edited Time=May/13/2009 17:45:54

#Sta/Elev= 19

1900	840	1900	800	2000	750.2	2030	738.7	2090	723.4
2150	723	2382	722.8	2409	726.9	2451	727.9	2488	731
2632	730.8	2836	729	3145	727	3178	725.6	3179	730
3220	737.9	3280	749	3340	785.9	3410	840		

#Mann= 3 , 0 , 0

1900	.08	0	2030	.03	0	3220	.09	0	
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Bank Sta=2030,3220

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,601.7 ,3000,3000,3000

Node Last Edited Time=May/13/2009 11:00:27

#Sta/Elev= 18

0	840	0	819	430	794	670	796	810	787
920	766	1000	763	1580	766	1650	770	1716	741
1740	731	1790	725	2040	720.7	2200	720.2	2307	731
2310	743	2390	799	2490	840				

#Mann= 3 , 0 , 0

0	.08	0	1716	.03	0	2310	.09	0	
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Bank Sta=1716,2310

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,601.1 ,4600,4600,4900

Node Last Edited Time=May/13/2009 11:04:09

#Sta/Elev= 19

160	840	270	803	390	762	506	741	560	728
640	725	700	725	780	724	890	727	980	720
1170	721	1310	732	1514	733	1553	741	1651	761
2900	768	4000	791	4260	807	4590	840		

#Mann= 3 , 0 , 0

160	.08	0	506	.03	0	1553	.09	0	
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Bank Sta=506,1553

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,600.17 ,11600,11050,10450

Node Last Edited Time=Apr/22/2009 08:48:37

#Sta/Elev= 20

1090	840	1100	800	1200	780	1600	760	1750	742
1833	723	1848	720.9	2029	715.9	2065	716.7	2128	716.2
2179	720.7	2199	720.7	2225	717.9	2385	720	2410	730

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

2440 745.3 2590 760 2980 780 3200 800 3400 840
 #Mann= 3 , 0 , 0
 1090 .09 0 1750 .028 0 2440 .09 0
 Bank Sta=1750,2440
 Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,598.04 ,10700,11450,12150

Node Last Edited Time=Mar/12/2009 09:27:47

#Sta/Elev= 26

0	840	450	820	770	800	870	780	900	760
980	740	985	732	1030	716	1059	712	1123	711
1165	709.2	1189	710.3	1226	707.2	1326	715.3	1471	720.9
1550	724.5	1576	732	1625	741	1690	760	2050	760
2750	780	3050	780	3190	780	3819	804.3	3986.8	824.8
4130	840								

#Mann= 3 , 0 , 0

0 .12 0 980 .028 0 1625 .08 0

Bank Sta=980,1625

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,595.91 ,11000,10970,11000

Node Last Edited Time=Apr/22/2009 08:48:08

#Sta/Elev= 26

0	820	300	800	450	780	1280	780	1780	760
1800	741	1830	730.3	1875	726	1917	721.7	1952	721.6
1982	721	2015	721.5	2032	721.9	2073	721.9	2092	723.5
2129	723.2	2201	720.3	2278	720.8	2299	722.3	2440	721.5
2446	720.7	2540	721.7	2580	730.3	2590	740	2680	780
2850	820								

#Mann= 3 , 0 , 0

0 .08 0 1800 .028 0 2590 .12 0

Bank Sta=1800,2590

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,593.78 ,13700,12300,11500

Node Last Edited Time=Apr/22/2009 08:47:13

#Sta/Elev= 30

70	820	120	780	300	741	360	729	369	724
389	718.4	554	720.2	625	720.6	741	718	853	720.7
865	722	910	723	939	727.5	970	724.5	1001	727.2
1030	727.4	1100	740	1225	760	1370	765	1500	760
1800	740	1830	728	1875	724	1900	721	1975	728
2000	740	2150	760	2850	780	3050	800	3500	820

#Mann= 5 , -1 , 0

70 .1 0 300 .028 0 1100 .09 0
1800 .029 0 2000 .12 0

Bank Sta=300,1100

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,591.56 ,11100,11200,11500

BEGIN DESCRIPTION:

High ground us and ds limits effective flow on left justifying high n value

END DESCRIPTION:

Node Last Edited Time=Apr/22/2009 08:46:49

#Sta/Elev= 25

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

0	820	50	800	320	780	1270	765	1650	760
1730	741	1883	721.8	1915.7	715.5	1956	715.6	2038	712.2
2067	712.7	2097	713.6	2207	717.5	2250	716.7	2292	717.9
2509	720.5	2528	721.8	2608	727.5	2768	732.3	2800	740
2870	750.1	3170	755.3	4070	780	4260	800	4490	820

#Mann= 5 , -1 , 0
 0 .3 0 50 .3 0 1270 .12 0
 1730 .028 0 2800 .08 0
 Bank Sta=1730,2800
 Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 , 589.52 , 9850,10800,11800

Node Last Edited Time=Apr/24/2009 14:24:50

#Sta/Elev= 21

50	815	120	780	200	760	260	741	373	722.5
543	721.5	606.8	719.7	637	718.7	665	719	679	719.8
800	718.7	940	721.8	1150	723.2	1262	723.6	1286	732
1350	741	1400	746.6	1680	746.6	1850	760	1980	780
2150	815								

#Mann= 3 , 0 , 0
 50 .12 0 260 .032 0 1350 .07 0
 Bank Sta=260,1350
 Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 , 587.39 , 13200,11550,10400

Node Last Edited Time=Apr/24/2009 14:23:40

#Sta/Elev= 21

90	810	125	800	330	780	530	760	1025	741
1088	727.4	1200	715.5	1310	714	1342	714.9	1452	713.3
1536	711.4	1604	710.8	1703	712	1794	715	1836	714.7
1886	721	1950	741	2000	760	2050	780	2100	800
2175	810								

#Mann= 3 , 0 , 0
 90 .08 0 1025 .032 0 1950 .09 0
 Bank Sta=1025,1950
 Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 , 585.27 , 11100,11100,11600

Node Last Edited Time=Mar/03/2009 16:32:15

#Sta/Elev= 22

0	800	250	780	280	760	310	741	360	733.3
430	715	470	714.6	515	711.7	617	710.2	666.9	711.1
774	711	830	712	862	711.3	935	712.7	1030	715.7
1078	718.6	1163	719.3	1209	724.7	1246	733.3	1400	741
1900	760	2020	800						

#Mann= 3 , 0 , 0
 0 .09 0 310 .035 0 1400 .08 0
 Bank Sta=310,1400
 Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 , 583.14 , 10000,10800,12000

BEGIN DESCRIPTION:

Section turns downstream on right to reach high ground. Model is forshortened on right to account for downstream hill.

END DESCRIPTION:

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

Node Last Edited Time=Apr/22/2009 08:45:36

#Sta/Elev= 28

450	800	550	780	950	756	1180	741	1300	717
1375	716	1500	716	1620	716.5	1621	720	1700	735.2
1733	733.6	1852	720	1900	717.7	2052	717	2179	715.1
2252	715.1	2365	716.8	2389	716.8	2401	716.6	2521	714.4
2679	717	2722	721.8	2800	730.2	2875	735.2	2980	741
3090	759.5	3150	780	3260	800				

#Mann= 3 , 0 , 0

450	.08	0	1180	.035	0	2980	.08	0
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Bank Sta=1180,2980

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,581.01 ,12300,11200,11000

Node Last Edited Time=Mar/04/2009 10:37:21

#Sta/Elev= 21

2140	800	2220	773.4	2250	750.2	2350	741	2496	733.3
2654	720	2746	713	2804	710.8	2925	710.8	2950	712
3100	713.6	3190	714.1	3492	714.1	3538	720	3597	732.2
3700	740.8	3740	742	3860	734.8	3960	741	4100	760
4220	800								

#Mann= 3 , 0 , 0

2140	.09	0	2350	.035	0	3960	.12	0
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Bank Sta=2350,3960

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,578.88 ,11650,11300,11400

BEGIN DESCRIPTION:

Section turns ds on left to reach high ground. Model is cut off at elevation 800, 120 ft from bank top to account for bluff downstream

END DESCRIPTION:

Node Last Edited Time=Mar/12/2009 09:29:02

#Sta/Elev= 17

840	800	920	740.5	957	721.4	1047	702	1066	693.7
1183	693.7	1404	702	1481	705	1542	705.8	1614	711.1
1660	714.8	1700	725.5	1750	732.8	2050	741	2240	760
2860	780	3050	800						

#Mann= 3 , 0 , 0

840	.1	0	920	.035	0	2050	.08	0
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Bank Sta=920,2050

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,576.72 ,10800,10300,10900

Node Last Edited Time=Mar/03/2009 16:30:46

#Sta/Elev= 30

250	800	1500	780	1700	760	2110	760	2220	741
2300	720	2320	710.8	2400	703.5	2500	703.4	2580	710.8
2600	712	2750	720	2975	740	3010	742	3033	739.2
3183	720	3235	715	3252	712.5	3280	708.1	3350	707
3470	706.4	3624	707.4	3750	708.4	3787	708.9	3806	710
3857	709.7	3866	712	3879	720	3950	741	4060	820

#Mann= 3 , 0 , 0

250	.12	0	2220	.035	0	3950	.12	0
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Bank Sta=2220,3950

Exp/Cntr=0.3,0.1

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

Type RM Length L Ch R = 1 ,574.62 ,9300,8560,8300

Node Last Edited Time=Mar/03/2009 16:30:31

#Sta/Elev= 28

0	800	700	760	1370	741	1850	735	2200	741
2500	744	2690	742.3	2960	733	3130	731.8	3220	716.5
3379	709.9	3500	708.9	3560	708.5	3753	708.6	3810	711
3863	718.8	3963	738	4200	737	4420	737	4600	719.3
4620	706	4870	699.2	4880	701.5	4970	705.3	4980	712.5
4990	719.3	5150	742	5600	800				

#Mann= 5 , -1 , 0

0	.12	0	1370	.042	0	2200	.06	0	
2690	.035	0	5150	.12	0				

Bank Sta=2690,5150

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,573.00 ,9500,8900,8800

Node Last Edited Time=Apr/22/2009 08:36:59

#Sta/Elev= 23

50	800	60	793.5	70	785.9	80	777.9	90	768.3
100	759	110	750.1	125	741	160	718	250	701.9
400	683.7	520	685.7	620	689.3	720	698.5	820	726.1
900	732	1140	731.3	1180	735.6	1230	741	1360	754.7
1510	753.1	1750	760.9	2043	800				

#Mann= 3 , 0 , 0

50	.12	0	125	.032	0	1230	.12	0	
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Bank Sta=125,1230

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,571.3 ,2020,3200,3650

BEGIN DESCRIPTION:

Manning n needs to be adjuisted for island

END DESCRIPTION:

Node Last Edited Time=Mar/06/2009 12:04:32

#Sta/Elev= 24

0	800	140	747.1	165	741	250	720	350	718
600	718	900	720	1000	725	1200	721	1500	734.9
1630	741	1920	752.2	2350	752.2	2900	740	3300	740
3570	734.4	4080	702.1	4170	702.1	4280	709.5	4360	732.4
4480	735.8	4516	741	4590	751.5	4750	800		

#Mann= 3 , 0 , 0

0	.12	0	165	.032	0	4516	.12	0	
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Bank Sta=165,4516

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,570.7 ,11100,9600,8750

Node Last Edited Time=Apr/22/2009 08:43:47

#Sta/Elev= 28

0	800	70	780	100	760	400	741	420	734.5
640	734.5	1000	724.3	1102	711.2	1235	703.5	1350	701.6
1480	702.9	1530	708.5	1611	720	1655	731.6	2026	731.2
2359	732	2850	731	2911	730.8	2977	720	3038	711.6
3241	703	3323	701	3380	701	3440	702	3500	703.5
3550	720	3600	741	3710	800				

#Mann= 3 , 0 , 0

0	.12	0	400	.032	0	3600	.12	0	
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Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

Bank Sta=400,3600
Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,568.93 ,6620,6315,6400

Node Last Edited Time=May/13/2009 11:28:47

#Sta/Elev= 15

90	800	150	747.7	164	741	270	690.7	400	674.5
430	666	500	666.7	850	709.5	890	717.4	1110	727.5
1350	728	1490	739.2	1498	741	1750	790.8	1830	800

#Mann= 3 , 0 , 0

90	.12	0	164	.032	0	1498	.12	0
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Bank Sta=164,1498

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,567.7 ,8100,8600,9800

Node Last Edited Time=May/13/2009 13:55:02

#Sta/Elev= 14

0	800	10	790	610	768	946	770	1270	771
1500	761	1950	743	2680	731	2900	715	3190	687
3850	700	4040	733	4054	741	4160	800		

#Mann= 3 , 0 , 0

0	.12	0	1950	.026	0	4054	.12	0
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Bank Sta=1950,4054

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,565.97 ,12000,10700,9100

Node Last Edited Time=Apr/22/2009 08:43:13

#Sta/Elev= 27

1140	780	1190	760	1280	741	1420	720	1450	718
1500	720	1560	740	1700	740	1860	730	2064	729.3
2124	720	2150	712.9	2190	705.8	2240	701.5	2289	697
2440	689.5	2620	685.4	2810	684.2	2940	687.7	3010	694.8
3070	712.9	3098	716.8	3282	726	3530	740.4	3540	741
3600	760	3740	780						

#Mann= 3 , 0 , 0

1140	.12	0	1280	.027	0	3540	.12	0
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Bank Sta=1280,3540

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,563.97 ,8500,9500,11600

Node Last Edited Time=Mar/12/2009 09:32:14

#Sta/Elev= 21

85	780	225	741	445	726.7	677	727.2	951	696
985	695.5	1126	689	1304	687	1454	690.5	1494	691.7
1545	692.3	1773	696	1808	702	1945	720	2030	728
2280	727	2645	730	3016	732	3295	741	3395	745
3570	780								

#Mann= 3 , 0 , 0

85	.12	0	225	.026	0	3295	.12	0
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Bank Sta=225,3295

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,561.84 ,11900,10900,10000

Node Last Edited Time=Apr/22/2009 08:42:25

#Sta/Elev= 19

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

25	780	125	741	194.36	726.9	265	726	570	724
865	712.6	885	706.5	1060	698.6	1220	698	1390	701.8
1455	703.8	1850	699.8	2065	699.1	2340	700	2507	719
2575	718.5	2625	720	2725	741	2850	780		
#Mann= 3 , 0 , 0									
25	.12	0	125	.027	0	2725	.12	0	

Bank Sta=125,2725
Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,559.71 ,11500,10750,10200

Node Last Edited Time=Mar/03/2009 16:28:43

#Sta/Elev= 21

50	780	150	741	250	724	320	719	430	713.8
570	707.1	805	703.7	980	701.5	1210	699.4	1335	698.7
1490	698.1	1550	697.7	1625	697.5	1845	696.6	1950	698
2000	700	2150	719.2	2500	719.2	2650	739.5	2720	760
2800	780								
#Mann= 3 , 0 , 0									
50	.12	0	150	.029	0	2650	.12	0	

Bank Sta=150,2650
Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,557.58 ,12400,10900,9600

Node Last Edited Time=Mar/12/2009 09:30:29

#Sta/Elev= 26

500	780	1100	760	1600	741	1850	737	2200	741
2450	744	2625	741	2800	720	2875	714.3	3108	712.5
3242	700	3317	695.7	3475	695.3	3775	696.2	3800	695.9
4392	696.8	4692	698.7	4800	707.3	4850	717	4900	720.5
4950	720	5298	718.6	5550	717.1	5708	721.6	5925	741
6050	780								
#Mann= 3 , 0 , 0									
500	.12	0	2625	.03	0	5925	.12	0	

Bank Sta=2625,5925
Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,555.45 ,8700,9600,10600

BEGIN DESCRIPTION:

Model ignores flow behind Theif Neck Island

END DESCRIPTION:

Node Last Edited Time=Mar/03/2009 16:27:46

#Sta/Elev= 23

5050	780	5250	760	5550	760	5850	741	6000	720
6100	720	6260	700	6330	691.2	6360	686.9	6400	687.3
6510	686.9	6880	678.8	7030	684.8	7200	687.7	7260	695.4
7270	691.3	7300	700	7400	720	8370	728.7	9050	737.2
9250	741	9650	760	9950	780				
#Mann= 3 , 0 , 0									
5050	.12	0	5850	.028	0	9250	.12	0	

Bank Sta=5850,9250
Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,553.32 ,10300,11300,12600

BEGIN DESCRIPTION:

Model ignores flow behind Theif Neck Island

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

END DESCRIPTION:

Node Last Edited Time=Mar/03/2009 16:27:24

#Sta/Elev= 21

5050	780	5150	760	6050	741	6200	720	6710	716.7
6970	690.7	7200	686	7500	685	7690	689.9	7980	690
8050	708.6	8224	711.4	8299	715.5	8510	712.5	8735	710.2
8886	713.8	8900	716.3	8980	720	9250	741	9350	760
9400	780								

#Mann= 3 , 0 , 0

5050	.12	0	6050	.027	0	9250	.12	0	
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Bank Sta=6050,9250

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,551.2 ,9300,9100,9000

BEGIN DESCRIPTION:

Model ignores flow behind Theif Neck Island

END DESCRIPTION:

Node Last Edited Time=Mar/03/2009 16:27:05

#Sta/Elev= 18

4720	780	4810	741	4900	720	5026	712.9	5184	700
5333	695.2	5640	692.9	6000	692.3	6570	692	6825	693.9
6886	700	6939	710	7044	710	7158	703.5	7518	702.6
7737	720	7780	741	7880	780				

#Mann= 3 , -1 , 0

4720	.12	0	4810	.027	0	7780	.12	0	
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Bank Sta=4810,7780

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,549.07 ,9500,8000,6500

Node Last Edited Time=Mar/03/2009 16:26:50

#Sta/Elev= 35

40	780	70	760	210	741	351	720	476	712.3
750	711.6	865	700	900	694	965	692.8	1071	692.6
1128	695.2	1147	700	1278	708.2	1373	710.9	1513	711.7
2088	710.3	2287	707.7	2387	697.5	2437	691.1	2700	690.3
2960	690.2	3459	689.6	3600	690.2	3716	700	3780	710
3812	713.4	3878	714.3	3966	712.4	4088	708.5	4161	709.4
4200	710	4292	720	4500	741	4600	760	4760	780

#Mann= 3 , 0 , 0

40	.12	0	210	.027	0	4500	.12	0	
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Bank Sta=210,4500

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,546.94 ,10300,10650,11500

Node Last Edited Time=Mar/03/2009 16:26:37

#Sta/Elev= 25

0	780	100	760	170	750	200	741	675	720
920	689.6	990	688.8	1107	690.9	1188	698.2	1229	705.3
1429	708.9	1509	712.7	1775	708.8	2023	708.6	2190	690
2373	686.9	2658	687.3	3160	685.6	3325	685.4	3380	686.9
3420	691.1	3475	711	3710	741	3770	760	3800	780

#Mann= 3 , 0 , 0

0	.14	0	200	.028	0	3710	.12	0	
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Bank Sta=200,3710

Exp/Cntr=0.3,0.1

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

Type RM Length L Ch R = 1 ,544.81 ,11250,11200,11200

BEGIN DESCRIPTION:

Data to left of station 4000 is from adjacent topo map. Right side cut off for steep bank 1500 ft downstream.

END DESCRIPTION:

Node Last Edited Time=Apr/22/2009 08:41:16

#Sta/Elev= 29

0	780	100	760	1000	760	1200	741	1500	720
1800	720	1850	710	2000	720	3000	720	3500	741
4000	780	6000	780	6120	760	6150	741	6380	720
6567	712.3	6702	707.8	6910	708	7090	686	7210	678.8
7617	677.9	7940	678.8	8045	679	8100	681.5	8160	700
8241	706.9	8368	706.1	8400	741.5	8500	780		

#Mann= 4 , -1 , 0

0	.08	0	1500	.026	0	6150	.026	0	
8400	.08	0							

Bank Sta=6150,8400

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,542.68 ,11100,11200,13000

Node Last Edited Time=Mar/03/2009 16:25:55

#Sta/Elev= 21

50	780	110	760	150	741	232	714	304	712.6
400	700	498	690	595	675.8	664	674	750	672.5
924	670.5	1240	673.4	1378	676.7	1460	686.1	1525	693.3
1558	704	1654	708.7	1810	708	2094	741	2600	760
2800	780								

#Mann= 3 , 0 , 0

50	.12	0	150	.027	0	2094	.1	0	
----	-----	---	-----	------	---	------	----	---	--

Bank Sta=150,2094

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,540.55 ,19500,15200,10100

Node Last Edited Time=Apr/22/2009 08:39:39

#Sta/Elev= 28

920	780	970	764.2	1150	741	1620	715.5	1950	705.7
2250	702.8	2320	700	2480	690.4	2570	680.2	2690	680.2
3100	682	3380	681.1	3640	681.1	3880	704	4150	712.6
4350	709.6	4580	707.9	4960	700	5150	706	5600	712.6
5940	712.6	6430	705	6573	698.9	6740	706	6850	706.6
7000	741	7140	760	7240	780				

#Mann= 3 , 0 , 0

920	.12	0	1150	.03	0	7000	.1	0	
-----	-----	---	------	-----	---	------	----	---	--

Bank Sta=1150,7000

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,537.74 ,9000,11100,12600

Node Last Edited Time=Apr/22/2009 08:39:25

#Sta/Elev= 21

7370	780	7380	774	7390	761.1	7400	748.2	7407	741
7670	702.3	7830	668.1	7920	653.9	8100	646.7	8190	654.8
8310	676.1	8450	687.6	8640	705.5	8990	715	9120	715
9375	723.9	9550	729.7	9740	730.2	9910	720	10390	740.1
10700	780								

#Mann= 3 , 0 , 0

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

7370 .1 0 7407 .027 0 10390 .1 0
 Bank Sta=7407,10390
 Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,535.55 ,7300,7200,7000

BEGIN DESCRIPTION:

Insignificant flow area to left of island was cut off

END DESCRIPTION:

Node Last Edited Time=Mar/03/2009 16:24:40

#Sta/Elev= 23

9610	780	9710	760	9810	741	9850	716	10160	704.3
10301	699.8	10410	695.1	10499	686	10593	666	10662	653.8
10736	651.5	10849	659	10910	661.4	10997	665.6	11086	660
11136	664	11230	670.5	11271	672.8	11294	680	11388	709.2
11920	741	11940	760	12000	780				

#Mann= 3 , 0 , 0

9610	.14	0	9810	.027	0	11920	.14	0
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Bank Sta=9810,11920

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,534.16 ,10200,11200,12300

Node Last Edited Time=May/22/2009 13:46:32

#Sta/Elev= 30

0	780	110	760	760	741	1140	730	2300	730
3155	721.4	3220	718.8	3300	719	3490	716.6	3750	705.8
3840	682.3	3910	680.6	3950	681.1	4010	692.9	4180	698
4270	691.2	4280	680	4400	673	4500	672.2	4625	671
4800	669.5	5040	669	5140	673	5270	680	5360	700
5800	700	5900	720	5910	741	5950	760	6050	780

#Mann= 3 , 0 , 0

0	.14	0	760	.032	0	5910	.14	0
---	-----	---	-----	------	---	------	-----	---

Bank Sta=760,5910

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,532.03 ,11200,10800,10900

BEGIN DESCRIPTION:

Insignificant flow area to right of island was ignored

END DESCRIPTION:

Node Last Edited Time=Apr/22/2009 08:38:12

#Sta/Elev= 37

0	780	70	760	190	740.5	450	716	670	701.8
750	704.2	840	704.2	920	697	1040	697.4	1120	700.3
1170	698.6	1280	688	1300	676.8	1450	672.7	2080	672.7
2320	704	2490	704	2590	703.4	2670	704.4	2880	702.8
3090	689.5	3130	678.7	3260	671	3350	670	3480	686.5
3520	698.6	3590	700.6	3750	707	3900	706	4070	704.2
4250	705.4	4470	709.2	4620	712	4680	716	4710	741
4860	760	5000	780						

#Mann= 3 , 0 , 0

0	.14	0	190	.031	0	4710	.1	0
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Bank Sta=190,4710

Exp/Cntr=0.3,0.1

Type RM Length L Ch R = 1 ,529.9 ,0,0,0

Node Last Edited Time=Mar/12/2009 09:20:10

Attachment 1-2

HEC-RAS File

Calculation No. CDQ000020080037

#Sta/Elev= 19

7290	780	7400	760	7440	741	7480	714.6	7730	709.7
8100	693.3	8140	681.1	8310	678.2	8437	677	8610	671.8
8708	671	8890	668	9070	668.5	9204	669.8	9439	669.1
9600	687.6	9654	690.2	9825	741	9845	780		

#Mann= 3 , 0 , 0

7290	.12	0	7440	.028	0	9825	.12	0
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Bank Sta=7440,9825

Exp/Cntr=0.3,0.1

Chan Stop Cuts=-1

Use User Specified Reach Order=0

User Specified Reach Order=RIVER-1 ,Reach-1

CDQ000020080037 Rev 0
Attachment 2 - Ft. Loudon Dam Rating Curve
Reference 2.3

Ft. Loudon DRC.xls

CDQ000020080037 Rev 0
Attachment 3 – Melton Hill Dam Rating Curve
Reference 2.4

Melton Hill Rating Curve(Turbines Added).xls

CDQ000020080037 Rev 0
Attachment 4 – Watts Bar Dam Rating Curve
Reference 2.5

Watts Bar Rating Curve.xls

CDQ000020080037 Rev 0
Attachment 5 – March 1973 Flood Elevations and Flows
Reference 2.6

All_Watts_Bar_Flows_&_Elevations_Mar1973_rev0.xls
Chilhowee_Total_Discharges_March_1973_Rev.0.xls
Emory@Oakdale_Mar 1973 bihourly stream.pdf

Abstracted 10/29/08 JMF
Emory River @ Oakdale

Date	Source	
	Microfilm Streamflow Report Gage Height	Microfilm Streamflow Report Flow (CFS)
3/12/73 23:00	8.49	4208
3/13/73 1:00	8.37	4064
3/13/73 3:00	8.23	3896
3/13/73 5:00	8.11	
3/13/73 7:00	8.01	3651
3/13/73 9:00	7.88	3508
3/13/73 11:00	7.79	3409
3/13/73 13:00	7.70	3310
3/13/73 15:00	7.62	3230
3/13/73 17:00	7.54	3150
3/13/73 19:00	7.46	3070
3/13/73 21:00	7.38	2990
3/13/73 23:00	7.30	2910
3/14/73 1:00	7.23	2840
3/14/73 3:00	7.16	2770
3/14/73 5:00	NA	
3/14/73 7:00	NA	
3/14/73 9:00	NA	
3/14/73 11:00	6.90	2530
3/14/73 13:00	6.85	2480
3/14/73 15:00	6.80	2440
3/14/73 17:00	6.75	2400
3/14/73 19:00	6.67	2320
3/14/73 21:00	6.63	2270
3/14/73 23:00	6.58	2240
3/15/73 1:00	6.52	2190
3/15/73 3:00	6.49	2160
3/15/73 5:00	6.45	2120
3/15/73 7:00	7.03	2647
3/15/73 9:00	8.30	3980
3/15/73 11:00	10.78	7576
3/15/73 13:00	13.39	12340
3/15/73 15:00	16.17	18488
3/15/73 17:00	17.36	21648
3/15/73 19:00	17.19	21172
3/15/73 21:00	16.49	19314
3/15/73 23:00	16.48	19288
3/16/73 1:00	17.08	21144
3/16/73 3:00	18.58	25412
3/16/73 5:00	20.84	33848
3/16/73 7:00	23.60	46620
3/16/73 9:00	25.79	58444
3/16/73 11:00	26.38	61164
3/16/73 13:00	26.39	61822
3/16/73 15:00	26.94	64432
3/16/73 17:00	27.31	67158
3/16/73 18:30	27.81	69600 taken from " Water Resources Data for Tennessee, 1973"
3/16/73 19:00	27.78	68840
3/16/73 21:00	26.77	63026
3/16/73 23:00	26.26	61076
3/17/73 1:00	24.92	53604
3/17/73 3:00	23.41	45670

Abstracted 10/29/08 JMF
Emory River @ Oakdale

Date	Source	
	Microfilm Streamflow Report Gage Height	Microfilm Streamflow Report Flow (CFS)
3/17/73 5:00	21.89	38396
3/17/73 7:00	20.47	32360
3/17/73 9:00	19.25	27740
3/17/73 11:00	18.44	24948
3/17/73 13:00	17.36	21648
3/17/73 15:00	16.65	19730
3/17/73 17:00	16.00	18080
3/17/73 19:00	15.40	16640
3/17/73 21:00	14.78	15256
3/17/73 23:00	14.21	14002
3/18/73 1:00	13.72	13000
3/18/73 3:00	13.14	11840
3/18/73 5:00	12.68	10962
3/18/73 7:00	12.18	10024
3/18/73 9:00	11.81	9358
3/18/73 11:00	11.53	8854
3/18/73 13:00	11.20	8290
3/18/73 15:00	NA	
3/18/73 17:00	10.77	6752
3/18/73 19:00	10.53	7168
3/18/73 21:00	10.34	6864
3/18/73 23:00	10.08	6448
3/19/73 1:00	9.92	6200
3/19/73 3:00	9.72	5900
3/19/73 5:00	9.56	5670
3/19/73 7:00	9.44	5480
3/19/73 9:00	9.27	5238
3/19/73 11:00	9.12	5028
3/19/73 13:00	9.01	4874
3/19/73 15:00	8.86	4678
3/19/73 17:00	8.74	4522
3/19/73 19:00	8.61	4353
3/19/73 21:00	8.50	4220
3/19/73 23:00	8.40	4100
3/20/73 1:00	8.29	3968
3/20/73 3:00	8.20	3860
3/20/73 5:00	8.10	3750
3/20/73 7:00	8.02	3662
3/20/73 9:00	7.93	3563
3/20/73 11:00	7.88	3508
3/20/73 13:00	7.82	3442

CDQ000020080037 Rev 0
Attachment 6 – May 2003 Flood Elevations and Flows
Reference 2.7

All_Watts_Bar_Flows_&_Elevations_May2003_rev1.xls
EmoryAtOakdale_rev0.xls

CDQ000020080037 Rev 0

Attachment 7 - Local Inflows Developed from Unit Hydrographs
Reference 2.9 and 2.10

Watts Bar Reservoir Locals (Basins 25, 33, 34, 36, and 37).xls
Fort Loudoun-Tellico (8, 16, 17, 18, & 24) hydrographs.xls

CDQ000020080037 Rev 0
Attachment 8 - SOCH Geometry

WattsBar20090528.pdf
LLT20090610.pdf
LowerClinch20090528.pdf

				LLT20090610cal.geo	
				0.3	#01
725	0	0	0	0.03	
730	512	2.13	0		
735	1480	3.5	0		
740	2710	4.69	0		
745	4101	5.76	0		
750	5622	6.7	0		
755	7277	7.48	0		
760	10477	4.57	0		
765	16656	5.52	0		
770	23104	6.81	0		
775	29684	7.98	0		
780	36407	9.04	0		
785	43294	10.01	0		
790	50349	10.91	0		
795	57541	11.75	0		
800	64835	12.55	0		
810	79688	14.04	0		
820	94943	15.41	0		
830	110704	16.66	0		
840	126666	17.86	0		
850	142784	19.01	0		
725	0	0	0	0.23	#02
730	512	2.13	0	0.03	
735	1480	3.5	0		
740	2710	4.69	0		
745	4101	5.76	0		
750	5622	6.7	0		
755	7277	7.48	0		
760	10477	4.57	0		
765	16656	5.52	0		
770	23104	6.81	0		
775	29684	7.98	0		
780	36407	9.04	0		
785	43294	10.01	0		
790	50349	10.91	0		
795	57541	11.75	0		
800	64835	12.55	0		
810	79688	14.04	0		
820	94943	15.41	0		
830	110704	16.66	0		
840	126666	17.86	0		
850	142784	19.01	0		
725	0	0	0	0.15	#03
730	512	2.13	0	0.03	
735	1480	3.5	0		
740	2710	4.69	0		
745	4101	5.76	0		
750	5622	6.7	0		
755	7277	7.48	0		
760	10477	4.57	0		
765	16656	5.52	0		
770	23104	6.81	0		
775	29684	7.98	0		
780	36407	9.04	0		
785	43294	10.01	0		
790	50349	10.91	0		
795	57541	11.75	0		
800	64835	12.55	0		
810	79688	14.04	0		
820	94943	15.41	0		
830	110704	16.66	0		
840	126666	17.86	0		
850	142784	19.01	0		
725	0	0	0	0.08	#04
730	512	2.13	0	0.03	
735	1480	3.5	0		
740	2710	4.69	0		
745	4101	5.76	0		
750	5622	6.7	0		
755	7277	7.48	0		
760	10477	4.57	0		
765	16656	5.52	0		
770	23104	6.81	0		
775	29684	7.98	0		
780	36407	9.04	0		
785	43294	10.01	0		
790	50349	10.91	0		
795	57541	11.75	0		
800	64835	12.55	0		

LLT20090610cal.geo

810	79688	14.04	0
820	94943	15.41	0
830	110704	16.66	0
840	126666	17.86	0
850	142784	19.01	0
725	0	0	0
730	512	2.13	0
735	1480	3.5	0
740	2710	4.69	0
745	4101	5.76	0
750	5622	6.7	0
755	7277	7.48	0
760	10477	4.57	0
765	16656	5.52	0
770	23104	6.81	0
775	29684	7.98	0
780	36407	9.04	0
785	43294	10.01	0
790	50349	10.91	0
795	57541	11.75	0
800	64835	12.55	0
810	79688	14.04	0
820	94943	15.41	0
830	110704	16.66	0
840	126666	17.86	0
850	142784	19.01	0

0.00 #05
0.03

Attachment 8

SOCH Geometry

Calculation No: CDQ000020080037

723	0	0	77	23.1	#40
725	259	1.34	88	0.023	
730	1415	2.7	118		
735	3061	4.29	306		
740	4821	5.54	346		
745	6680	6.79	403		
750	8605	7.92	465		
755	10597	8.93	527		
760	12979	9.6	589		
765	15894	9.99	717		
770	19092	10.31	845		
775	22572	10.59	972		
780	26335	10.82	1100		
785	30408	11.01	1201		
790	34820	11.16	1302		
795	39570	11.28	1403		
800	44660	11.38	1505		
805	49953	11.55	1608		
810	55317	11.73	1711		
810.1	0	0	0		
820	0	0	0		
721.3	0	0	75	21	#41
725	618	1.83	100	0.023	
730	2002	3.52	134		
735	3628	4.75	312		
740	5446	5.82	352		
745	7403	6.96	663		
750	9471	7.94	1042		
755	12440	8.39	1422		
760	17096	8.11	1801		
765	24596	7.31	2136		
770	33096	6.9	2470		
775	42596	6.67	2805		
780	53096	6.53	3139		
785	64534	6.45	3573		
790	76846	6.41	4006		
795	90034	6.4	4440		
800	104096	6.41	4873		
800.1	0	0	0		
810	0	0	0		
815	0	0	0		
820	0	0	0		
719.1	0	0	91	18.9	#42
720	37	0.5	100	0.023	
725	1030	2.28	150		
730	2541	4.02	200		
735	4130	5.33	399		
740	5832	6.46	449		
745	8884	6.65	851		
750	12850	6.69	1341		
755	17729	6.7	1830		
760	23523	6.71	2320		
765	31185	6.55	2769		
770	39173	6.68	3218		

775	47485	6.87	3666		
780	56123	7.09	4115		
785	65198	7.29	4733		
790	74823	7.48	5351		
795	84998	7.67	5968		
800	95723	7.84	6586		
800.1	0	0	0		
810	0	0	0		
815	0	0	0		
718.1	0	0	103	16.8	#43
720	154	1.16	127	0.028	
725	1212	2.86	190		
730	2557	4.26	253		
735	4095	5.36	471		
740	5824	6.28	532		
745	7701	7.48	740		
750	9681	8.52	984		
755	13381	8.36	1229		
760	19001	7.84	1473		
765	25166	7.71	1750		
770	31484	7.8	2026		
775	37956	7.99	2303		
780	44581	8.23	2579		
785	51359	8.49	2918		
790	58291	8.76	3257		
795	65376	9.03	3596		
800	72614	9.31	3934		
800.1	0	0	0		
810	0	0	0		
815	0	0	0		
717.4	0	0	137	14.7	#44
720	311	1.08	186	0.027	
725	2133	3.14	278		
730	4106	4.63	371		
735	6210	5.83	542		
740	8445	6.87	611		
745	12426	7.1	918		
750	16670	7.5	1285		
755	21176	7.91	1652		
760	25945	8.32	2019		
765	30963	8.73	2285		
770	36220	9.11	2552		
775	41713	9.48	2818		
780	47445	9.82	3084		
785	53451	10.13	3390		
790	59770	10.42	3697		
795	66401	10.68	4003		
800	73345	10.93	4310		
800.1	0	0	0		
810	0	0	0		
815	0	0	0		
712	0	0	60	12.6	#45
715	449	1.78	150	0.027	
720	1582	3.34	301		
725	3009	4.55	451		
730	4651	5.58	601		
735	6461	6.61	764		

740	8397	7.51	861		
745	11541	7.86	1794		
750	16972	7.34	2936		
755	24778	6.71	4079		
760	35047	6.2	5221		
765	46797	6.01	7140		
770	59047	6.01	9058		
775	71797	6.09	10977		
780	85047	6.22	12896		
785	98985	6.32	14977		
790	113797	6.43	17059		
795	129485	6.53	19140		
800	146047	6.64	21222		
800.1	0	0	0		
810	0	0	0		
712	0	0	101	10.5	#46
715	147	1.09	195	0.023	
720	1122	2.73	354		
725	2654	3.75	512		
730	4693	4.86	670		
735	6957	5.93	811		
740	9600	6.44	913		
745	12731	7.54	1684		
750	16325	8.35	2622		
755	20381	8.96	3560		
760	24900	9.43	4498		
765	29744	9.84	6364		
770	34775	10.25	8230		
775	39994	10.63	10096		
780	45400	11	11963		
785	51069	11.31	14023		
790	57075	11.59	16084		
795	63419	11.83	18144		
800	70100	12.04	20205		
800.1	0	0	0		
810	0	0	0		
708	0	0	102	8.4	#47
710	168	1.02	128	0.023	
715	1358	2.89	259		
720	2893	4.2	391		
725	4730	5.16	523		
730	6896	5.99	654		
735	9390	6.73	750		
740	12213	7.42	844		
745	16014	7.55	954		
750	20280	8.5	1068		
755	24944	9.28	1182		
760	30005	9.93	1296		
765	35374	10.51	1519		
770	40958	11.04	1742		
775	46759	11.54	1965		
780	52775	12	2188		
785	58981	12.45	2561		
790	65348	12.87	2934		
795	71876	13.27	3306		
800	78565	13.66	3679		
800.1	0	0	0		

705.5	0	0	675	6.3	#48
710	569	2.19	1228	0.023	
715	1606	3.55	1804		
720	2957	4.55	2381		
725	4626	5.37	2957		
730	6694	5.79	3534		
735	9497	6.05	4048		
740	12905	6.75	4557		
745	16715	7.83	5551		
750	20699	8.88	6665		
755	24847	9.81	7780		
760	29162	10.65	8894		
765	33640	11.41	10325		
770	38274	12.1	11755		
775	43065	12.75	13186		
780	48012	13.35	14616		
785	53121	13.9	16015		
790	58399	14.41	17414		
795	63846	14.89	18813		
800	69462	15.33	20213		
800.1	0	0	0		
703.9	0	0	617	4.2	#49
705	180	0.69	778	0.023	
710	2062	2.84	1509		
715	4438	4.22	2089		
720	7107	5.51	2669		
725	9925	6.6	3250		
730	12925	7.51	3830		
735	16776	6.33	4386		
740	22441	6.97	4938		
745	28738	8.04	6029		
750	35382	9.07	7254		
755	42363	9.97	8480		
760	49682	10.77	9706		
765	57501	11.45	11209		
770	65982	12.02	12712		
775	75125	12.5	14215		
780	84930	12.9	15718		
785	95215	13.27	17062		
790	105799	13.64	18405		
795	116682	13.99	19749		
800	127862	14.32	21093		
698.3	0	0	55	2.1	#50
700	301	1.2	66	0.023	
705	1997	2.92	367		
710	4138	4.34	667		
715	6564	5.45	790		
720	9274	6.39	912		
725	12254	7.27	1035		
730	15489	8.05	1157		
735	19128	8.35	1326		
740	23362	8.69	1492		
745	28071	9.61	1733		
750	33012	10.56	1992		
755	38177	11.41	2252		
760	43565	12.18	2511		
765	49315	12.84	2795		

770	55565	13.39	3080		
775	62315	13.84	3364		
780	69565	14.21	3649		
785	77515	14.47	3870		
790	86365	14.63	4092		
800	106765	14.74	4535		
700.5	0	0	322	1.22	#51
705	1419	2.34	462	0.023	
710	3568	3.91	617		
715	6021	5.1	731		
720	8776	6.09	845		
725	11832	6.95	959		
730	15189	7.73	1073		
735	19072	7.59	1230		
740	24317	7.43	1384		
745	30637	8.36	1555		
750	37290	9.37	1731		
755	44252	10.27	1906		
760	51524	11.08	2082		
765	59100	11.81	2281		
770	66972	12.48	2479		
775	75141	13.09	2677		
780	83606	13.66	2876		
785	92368	14.18	3015		
790	101426	14.67	3155		
795	110781	15.13	3294		
800	120433	15.55	3434		
688.6	0	0	0	0	#52
690	37	0.79	47	0.023	
695	873	2.22	287		
700	2589	3.25	527		
705	5171	4.3	619		
710	8390	5.09	710		
715	12545	5.76	837		
720	17351	6.61	964		
725	22708	7.41	1090		
730	30077	6.05	1217		
735	40249	7.27	1393		
740	50535	8.39	1568		
745	60952	9.48	1795		
750	71580	10.48	2035		
755	82421	11.42	2275		
760	93476	12.29	2516		
765	104751	13.12	2783		
770	116250	13.89	3050		
780	139922	15.31	3584		
790	164564	16.6	3919		
800	190244	17.75	4253		

Attachment 8

SOCH Geometry

Calculation No: CDQ000020080037

722.8	0	0	201	602.3	#01
725	616	1.57	236	0.03	
730	3214	2.38	314		
735	8730	3.83	733		
740	14646	5.3	832		
745	20769	6.61	970		
750	27092	7.75	1118		
755	33543	8.79	1266		
760	40086	9.76	1414		
765	46719	10.67	2351		
770	53443	11.53	3287		
775	60258	12.34	4223		
780	67164	13.11	5160		
785	74161	13.85	6312		
790	81245	14.56	7464		
795	88413	15.25	8617		
800	95663	15.91	9769		
810	110310	17.18	12506		
820	125086	18.4	15243		
830	139992	19.56	18838		
840	155027	20.67	22432		
720.2	0	0	181	601.67	#02
725	1379	2.09	266	0.03	
730	3895	3.69	354		
735	6742	5.12	813		
740	9663	6.37	920		
745	12652	7.56	1060		
750	15728	8.65	1208		
755	18897	9.64	1356		
760	22158	10.55	1505		
765	25952	11.17	2241		
770	32770	10.86	2978		
775	40101	10.77	3714		
780	47599	10.85	4450		
785	55263	11.01	5254		
790	63141	11.2	6057		
795	71491	11.27	6860		
800	81514	11.24	7663		
810	103152	11.4	9214		
820	126746	11.62	10766		
830	151280	12.04	12869		
840	176058	12.51	14972		
720	0	0	182	600.88	#03
725	1175	1.98	272	0.03	
730	4428	3.31	363		
735	8766	4.27	726		
740	13843	5.61	818		
745	19157	6.88	961		
750	24731	8	1117		
755	30565	8.98	1274		
760	36660	9.86	1430		
765	44392	10.33	1865		
770	56315	10.14	2299		
775	70095	10	2734		

780	85144	9.93	3168		
785	101461	9.92	3516		
790	119047	9.93	3864		
795	137650	10.01	4212		
800	156747	10.15	4560		
810	196354	10.5	5052		
820	237411	10.93	5544		
830	279765	11.38	6152		
840	323416	11.84	6760		
715.9	0	0	170	600.17	#04
720	931	1.58	247	0.028	
725	3668	3.44	341		
730	6620	4.9	436		
735	9737	6.11	540		
740	13012	7.17	608		
745	16464	8.2	718		
750	20255	9.16	839		
755	24510	9.92	960		
760	29228	10.52	1081		
765	34672	10.92	1319		
770	41103	11.13	1557		
775	48522	11.22	1795		
780	56928	11.24	2033		
785	66028	11.29	2174		
790	75528	11.39	2314		
800	95728	11.64	2594		
810	116991	12.01	2890		
820	138778	12.45	3187		
830	161091	12.91	3332		
840	183928	13.38	3477		
707.2	0	0	28	598.04	#05
710	109	1.03	39	0.028	
715	1195	2.6	124		
720	2979	3.63	209		
725	5447	4.61	294		
730	8261	5.86	380		
735	11231	6.93	610		
740	14352	7.87	688		
745	17652	8.92	795		
750	21138	9.88	910		
755	24810	10.72	1025		
760	28667	11.47	1141		
765	34874	11.45	1338		
770	41992	11.39	1536		
780	58967	11.23	1931		
790	83711	10.6	2203		
800	111544	10.43	2475		
810	142728	10.42	2789		
820	176494	10.56	3102		
830	213020	10.71	3330		
840	252724	10.87	3558		
720.3	0	0	166	595.91	#06
725	2185	2.2	241	0.028	
730	5723	3.89	321		
735	9515	5.33	678		
740	13403	6.58	763		
745	17388	7.78	908		

750	21457	8.88	1069		
755	25608	9.88	1229		
760	29842	10.82	1389		
765	34457	11.59	1567		
770	39754	12.15	1745		
775	45732	12.57	1923		
780	52392	12.87	2101		
785	63689	12.32	2271		
790	75279	12.1	2440		
795	87164	12.03	2610		
800	99342	12.05	2779		
805	111907	12.11	2994		
810	124954	12.18	3208		
815	138482	12.28	3422		
820	152492	12.39	3637		
718	0	0	185	593.78	#07
720	294	0.94	231	0.028	
725	2963	2.83	347		
730	6809	4.07	463		
735	11216	5.3	700		
740	16002	6.34	788		
745	21395	7.42	993		
750	27624	8.23	1226		
755	34686	8.84	1460		
760	42582	9.32	1694		
765	52078	9.53	1988		
770	63252	9.67	2283		
775	75417	9.8	2577		
780	88572	9.92	2871		
785	102362	10.08	3144		
790	116434	10.27	3418		
795	130787	10.49	3691		
800	145422	10.72	3964		
805	160493	10.93	4278		
810	176159	11.12	4592		
820	209272	11.49	5219		
712.2	0	0	61	591.56	#08
715	251	1.32	139	0.028	
720	2068	2.35	278		
725	5365	3.83	417		
730	9277	4.83	556		
735	14055	5.81	904		
740	19214	6.88	1019		
745	24680	8.02	1218		
750	30427	9.05	1438		
755	37062	9.8	1658		
760	45009	10.29	1879		
765	54871	10.47	2161		
770	67385	10.4	2443		
775	82394	10.2	2725		
780	99896	9.96	3008		
785	118934	9.82	3272		
790	138547	9.78	3537		
795	158734	9.8	3802		
800	179497	9.86	4067		
810	222296	10.05	4732		
820	266496	10.33	5397		

718.7	0	0	278	589.52	#09
720	195	0.82	320	0.032	
725	3303	2.36	479		
730	7956	4.11	639		
735	12853	5.44	981		
740	18072	6.54	1105		
745	23612	7.7	1256		
750	30428	8.51	1414		
755	38084	9.17	1571		
760	46136	9.8	1729		
765	54517	10.41	1890		
770	63161	10.99	2051		
775	72067	11.55	2211		
780	81236	12.08	2372		
785	90622	12.6	2582		
790	100179	13.1	2792		
795	109907	13.59	3001		
800	119807	14.06	3211		
805	129879	14.52	3515		
810	140122	14.97	3819		
810.1	0	0	0		
710.8	0	0	30	587.39	#10
715	1140	1.53	185	0.032	
720	4517	3.4	371		
725	8298	4.8	556		
730	12381	6	742		
735	16673	7.1	870		
740	21161	8.07	980		
745	26012	9.08	1180		
750	31569	9.88	1403		
755	37843	10.5	1627		
760	44835	11	1850		
765	52341	11.45	2086		
770	60160	11.89	2322		
775	68291	12.31	2558		
780	76735	12.72	2793		
785	85494	13.1	3141		
790	94572	13.46	3489		
795	103969	13.81	3837		
800	113685	14.14	4185		
805	123697	14.48	4630		
810	133985	14.81	5075		
710.2	0	0	9	585.27	#11
715	1750	2.09	236	0.035	
720	5018	3.52	472		
725	8963	4.92	708		
730	13157	6.15	943		
735	17581	7.07	1270		
740	22567	7.64	1430		
745	28227	8.62	1773		
750	34584	9.49	2161		
755	41638	10.2	2550		
760	49389	10.79	2939		
765	57545	11.37	3335		
770	65814	11.95	3731		
775	74195	12.53	4127		
780	82689	13.09	4523		

785	91433	13.62	5041		
790	100564	14.1	5559		
795	110083	14.55	6076		
800	119989	14.97	6594		
800.1	0	0	0		
810	0	0	0		
714.4	0	0	245	583.14	#12
715	20	0.45	278	0.035	
720	4387	2.38	556		
725	10687	4	834		
730	17692	5.23	1112		
735	25481	6.17	1483		
740	34076	7.14	1671		
745	43235	8.25	1958		
750	52926	9.26	2270		
755	63150	10.15	2583		
760	73916	10.95	2895		
765	85201	11.68	3228		
770	96977	12.35	3560		
775	109242	12.97	3893		
780	121997	13.54	4226		
785	135128	14.1	4631		
790	148522	14.64	5036		
795	162178	15.17	5441		
800	176097	15.68	5847		
800.1	0	0	0		
810	0	0	0		
710.8	0	0	406	581.01	#13
715	1512	1.56	577	0.035	
720	5671	3.45	779		
725	10299	4.83	982		
730	15346	5.97	1185		
735	20850	6.8	1383		
740	27513	6.97	1557		
745	35598	7.81	1826		
750	44241	8.86	2118		
755	53230	9.8	2410		
760	62435	10.67	2702		
765	71802	11.49	3026		
770	81276	12.28	3351		
775	90860	13.03	3676		
780	100584	13.75	4001		
785	110458	14.43	4371		
790	120483	15.09	4742		
795	130658	15.72	5112		
800	140983	16.33	5483		
800.1	0	0	0		
810	0	0	0		
693.7	0	0	64	578.88	#14
695	176	1.09	87	0.035	
700	1310	2.67	173		
705	3174	3.68	379		
710	5872	4.62	585		
715	9037	5.62	737		
720	12512	6.7	888		
725	16179	7.72	1040		
730	20022	8.57	1192		

735	24156	8.9	1365		
740	29136	8.87	1537		
745	34862	9.73	1779		
750	40884	10.68	2038		
755	47189	11.53	2298		
760	53779	12.3	2558		
765	60914	12.94	2849		
770	68858	13.45	3139		
775	77611	13.85	3430		
780	87172	14.18	3721		
790	107645	14.85	4368		
800	129203	15.52	5015		
703.4	0	0	394	576.72	#15
705	181	1.22	556	0.035	
710	2511	2.09	1061		
715	7050	3.71	1299		
720	12368	4.87	1536		
725	18426	5.9	1773		
730	25141	6.8	2010		
735	32512	7.6	2303		
740	40539	8.33	2593		
745	49191	9.25	2915		
750	58075	10.27	3246		
755	67138	11.21	3576		
760	76380	12.1	3906		
765	87905	12.63	4316		
770	99714	13.17	4726		
775	111809	13.7	5136		
780	124188	14.2	5546		
790	152426	14.86	6553		
800	187052	15.15	7559		
810	224944	15.5	8878		
820	262974	15.99	10198		
699.2	0	0	470	574.62	#16
700	13	0.54	495	0.035	
705	809	1.91	1026		
710	3021	2.48	1557		
715	7381	3.88	1835		
720	12486	5.11	2112		
725	18200	6.04	2390		
730	24621	6.87	2668		
735	32219	7.05	3054		
740	44317	6.61	3440		
745	62025	7.27	3912		
750	82285	8	4405		
755	103620	8.71	4898		
760	126030	9.37	5391		
765	149294	10.01	6027		
770	173190	10.62	6662		
775	197717	11.2	7297		
780	222875	11.76	7933		
785	248665	12.29	8731		
790	275086	12.79	9530		
800	329823	13.74	11126		
683.7	0	0	78	573	#17
685	57	0.75	106	0.032	
690	1052	2.42	211		

695	2688	3.71	350		
700	4794	4.76	490		
705	7229	5.83	1086		
710	9898	6.78	1682		
715	12798	7.62	2099		
720	15920	8.46	2515		
725	19189	9.31	2931		
730	22663	9.77	3347		
735	27314	8.77	3829		
740	32650	9.54	4314		
745	38259	10.49	4874		
750	44146	11.4	5454		
755	50525	12.15	6033		
760	58243	12.63	6612		
770	75106	13.44	8131		
780	92832	14.24	9649		
790	111428	15	11590		
800	130907	15.7	13531		
702.1	0	0	374	571.3	#18
705	389	1.68	890	0.032	
710	1666	2.96	1779		
715	3539	4.11	2279		
720	6795	3.23	2778		
725	13755	4.07	3278		
730	22678	5.22	3777		
735	32837	6.01	4322		
740	45066	6.6	4869		
745	61314	6.84	5469		
750	79608	7.57	6081		
755	100824	7.99	6694		
760	123310	9.08	7307		
765	145945	10.1	8056		
770	168729	11.07	8806		
775	191662	11.98	9556		
780	214743	12.86	10305		
785	237973	13.7	11227		
790	261351	14.51	12149		
795	284878	15.29	13071		
800	308554	16.04	13993		
701	0	0	1171	570.7	#19
705	1547	1.88	1439	0.032	
710	5208	3.31	1775		
715	9991	4.55	2106		
720	15429	5.63	2437		
725	21439	6.55	2767		
730	28385	7.05	3098		
735	40986	5.5	3548		
740	56891	6.8	3997		
745	73029	8	4538		
750	89603	9.08	5079		
755	106618	10.06	5631		
760	124075	10.97	6182		
765	141794	11.83	6806		
770	159597	12.65	7430		
775	177484	13.45	8054		
780	195456	14.22	8678		
785	213537	14.97	9375		

790	231751	15.69	10072		
795	250100	16.38	10769		
800	268583	17.06	11466		
666	0	0	135	568.93	#20
670	328	2.05	225	0.032	
675	1030	3.28	273		
680	2092	4.07	321		
685	3559	4.82	450		
690	5431	5.52	578		
695	7654	6.38	784		
700	10135	7.17	990		
705	12873	7.89	1161		
710	15868	8.57	1331		
715	19073	9.32	1569		
720	22515	9.65	1807		
725	26505	9.75	2045		
730	31590	8.84	2282		
740	44196	10.26	2945		
750	57820	12.13	3732		
760	72092	13.79	4533		
770	86985	15.26	5449		
780	102498	16.59	6365		
790	118633	17.79	7413		
800	135542	18.86	8460		
687	0	0	117	567.36	#21
690	275	1.31	167	0.026	
695	1956	2.52	351		
700	5165	3.48	535		
705	9339	4.84	627		
710	13917	5.95	719		
715	18897	6.92	847		
720	24323	7.7	976		
725	30236	8.43	1104		
730	36637	9.1	1232		
735	43895	9.05	1410		
740	52711	9.08	1589		
745	63021	9.61	1707		
750	74162	10.57	1824		
755	85973	11.4	1935		
760	98453	12.14	2046		
765	111588	12.8	2186		
770	125734	13.33	2326		
780	162520	13.75	2606		
790	202387	14.19	2904		
800	243848	14.7	3202		
684.2	0	0	83	565.97	#22
685	62	0.54	99	0.027	
690	2002	2.42	197		
695	5040	3.79	454		
700	8699	5.02	711		
705	12735	6.09	834		
710	17092	7.13	956		
715	21678	8.06	1127		
720	26673	8.26	1297		
725	32714	8.56	1467		
730	39706	8.25	1638		
735	48580	8.7	1874		

740	58526	9.17	2111		
745	69878	9.8	2320		
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720	38088	9.47	2287		
725	46571	8.15	2587		
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735	71810	8.33	3308		
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780	226810	20.34	8761		

CDQ000020080037 Rev 0
Attachment 9 – SOCH Input Preprocessor, Steady State

Clinch_100steps_BuildSOCHdata.xls
Watts Bar_StepCalibrate_BuildSOCHdata.xls

CDQ000020080037 Rev 0
Attachment 10 – SOCH Input Preprocessor, March 1973 Flood

Watts Bar_Mar1973_Build_SOCH_data.xls

CDQ000020080037 Rev 0
Attachment 11 – SOCH Input Preprocessor, May 2003 Flood

Watts Bar_May2003_BuildSOCHdata.xls

CDQ000020080037 Rev 0
Attachment 12 – Excel Macro File for SOCH Input Preprocessor

SOCH_Macro.xls

CDQ000020080037 Rev 0

Attachment 13 - Excel Macro Files for Extraction of SOCH Output

1973_Flood_ExtractSelectedSOCHOutputHydrographs.xls

2003_Flood_ExtractSelectedSOCHOutputHydrographs.xls

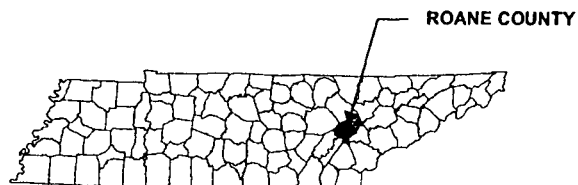
CDQ000020080037 Rev 0
Attachment 14 - Clinch River Flood Insurance Study
Reference 2.17

Clinch.f01
Clinch.g02
Clinch.O02
Clinch.p02
Clinch.prj
Clinch.r02
FIS_Roane_Cover.pdf
FIS_Roane_Flows.pdf
FIS_Roane_Profiles.pdf

FLOOD INSURANCE STUDY



ROANE COUNTY, TENNESSEE, AND INCORPORATED AREAS



COMMUNITY NAME	COMMUNITY NUMBER
HARRIMAN, CITY OF	475427
KINGSTON, CITY OF	470274
OAK RIDGE, CITY OF	475441
ROCKWOOD, CITY OF	475443
ROANE COUNTY	470267

(UNINCORPORATED AREAS)

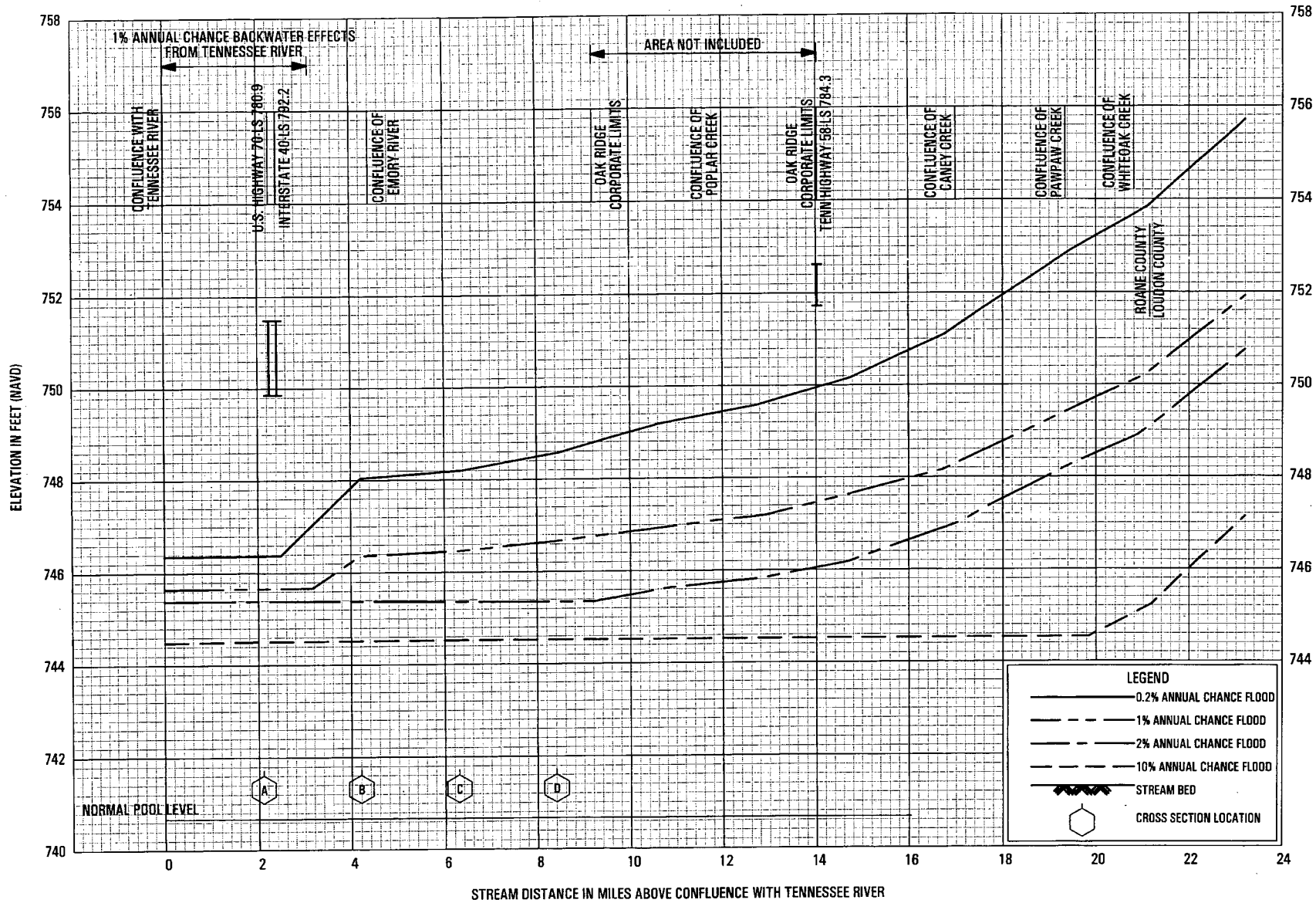
September 28, 2007



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER

47145CV000A



FLOOD PROFILES

CLINCH RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

**ROANE COUNTY, TN
AND INCORPORATED AREAS**

Table 6 – Summary of Discharges

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>			
		<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent- Annual-Chance</u>	<u>0.2-Percent- Annual-Chance</u>
Caney Creek					
At Mouth	8.27	2,300	3,050	3,300	4,500
About 0.07 mile upstream of Buttermilk Road	7.80	2,200	2,400	3,200	4,300
About 0.04 mile downstream of Eblen Cave Road	6.55	1,950	2,550	2,800	3,800
Clinch River					
At Mouth	4,413	120,000	185,000	220,000	300,000
Just below confluence with Emory River	4,405	120,000	185,000	22,000	300,000
Just above confluence with Emory River	3,540	42,750	52,750	56,500	82,500
East Fork Black Creek					
At confluence with Black Creek	1.33	536	769	885	1,150
At Gateway Avenue	0.74	321	457	522	672
At North Front Avenue	0.38	181	255	289	367
East Fork Poplar Creek					
About 3.3 miles above mouth	19.5	3,000	4,660	5,500	7,800
At U.S. Department of Energy boundary	18.1	2,900	4,600	5,400	7,350
Just above Gum Hollow Branch	14.6	2,650	4,000	4,800	6,550
Just above Mill Branch	9.27	1,950	3,000	3,500	5,000
At upstream Oak Ridge Turnpike Crossing	6.59	1,500	2,300	2,700	3,900
At Tulsa Road	3.48	900	1,400	1,650	2,100
Emory River					
At mouth	865	112,000	172,000	205,000	285,000
Just above confluence with Little Emory River	811	107,000	163,000	197,000	275,000
About 0.05 mile downstream of Harriman Corporate Limits Extended	802	107,000	163,000	197,000	275,000
About 0.15 mile upstream of Southern Railway	785	107,000	163,000	197,000	275,000
Indian Creek					
At Mouth	22.6	5,400	9,700	12,000	17,000
About 1.4 miles above mouth	21.1	5,200	9,100	11,200	16,500

Attachment 15

SOCH Model Geometry Configuration

CDQ000020080037 Rev 0
Attachment 16 – Chilhowee 1973 Flood Routing
Reference 2.18

Little T 1973 Local.xls

Attachment 02.04.03-08D
TVA letter dated February 12, 2010
RAI Response

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment 02.04.03-8D: SOCH Model Calibration, Melton Hill CDQ000020080038

(1458 Pages including Cover Sheet)

NPG CALCULATION COVERSHEET/CCRIS UPDATE

REV 0 EDMS/RIMS NO. L58 090812 001		EDMS TYPE: calculations(nuclear)		EDMS ACCESSION NO (N/A for REV. 0) L58 091230 010			
Calc Title: SOCH Model Calibration, Melton Hill							
<u>CALC ID</u>	<u>TYPE</u>	<u>ORG</u>	<u>PLANT</u>	<u>BRANCH</u>	<u>NUMBER</u>	<u>CUR REV</u>	<u>NEW REV</u>
CURRENT	CN	NUC	GEN	CEB	CDQ000020080038	0	1
NEW	CN	NUC					
							REVISION APPLICABILITY Entire calc <input checked="" type="checkbox"/> Selected pages <input type="checkbox"/>
ACTION	NEW REVISION <input type="checkbox"/> <input checked="" type="checkbox"/>	DELETE RENAME <input type="checkbox"/> <input type="checkbox"/>	SUPERSEDE DUPLICATE <input type="checkbox"/> <input type="checkbox"/>	CCRIS UPDATE ONLY <input type="checkbox"/> (Verifier Approval Signatures Not Required)		No CCRIS Changes <input type="checkbox"/> (For calc revision, CCRIS been reviewed and no CCRIS changes required)	
UNITS N/A	SYSTEMS N/A		UNIDS N/A				
DCN,EDC,N/A EDCN 22404A (SQN), EDCN 54018A (WBN), LATER (BFN)				APPLICABLE DESIGN DOCUMENT(S) N/A		CLASSIFICATION E	
QUALITY RELATED? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	SAFETY RELATED? (If yes, QR = yes) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	UNVERIFIED ASSUMPTION Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	SPECIAL REQUIREMENTS AND/OR LIMITING CONDITIONS? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		DESIGN OUTPUT ATTACHMENT? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	SAR/TS and/or ISFSI SAR/CoC AFFECTED Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
PREPARER ID clstokes	PREPARER PHONE NO 615-252-4343	PREPARING ORG (BRANCH) CEB		VERIFICATION METHOD Design Review	NEW METHOD OF ANALYSIS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
PREPARER SIGNATURE Carrie L. Stokes <i>Carrie L. Stokes</i>	DATE 12/14/09	CHECKER SIGNATURE Andrew Murr <i>Andrew Murr</i>		DATE 12/14/09			
VERIFIER SIGNATURE Andrew Murr <i>Andrew Murr</i>	DATE 12/14/09	APPROVAL SIGNATURE <i>K.R. Stokes</i> <i>K.R. Stokes</i>		DATE 12/23/09			
STATEMENT OF PROBLEM/ABSTRACT <i>K.R. Stokes</i> TVA's Simulated Open Channel Hydraulics (SOCH) Model has been developed and used for flood routing calculations for the Tennessee River and tributaries. The SOCH Model Calibrations for each reservoir calculate Manning's n values so that the SOCH Model will accurately model the river discharges and elevations of known events. The SOCH Model can then reliably predict flood conditions for events of other magnitudes. This calculation presents the SOCH Model Calibration for the Melton Hill Reservoir.							
This calculation contains electronic attachments and must be stored in EDMS as an Adobe.pdf file to maintain the ability to retrieve the electronic attachments.							
MICROFICHE/EFICHE Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> FICHE NUMBER(S)							
<input type="checkbox"/> LOAD INTO EDMS AND DESTROY				ADDRESS: LP 4D-C			
<input checked="" type="checkbox"/> LOAD INTO EDMS AND RETURN CALCULATION TO CALCULATION LIBRARY.							
<input type="checkbox"/> LOAD INTO EDMS AND RETURN CALCULATION TO:							

NPG CALCULATION COVERSHEET/CCRIS UPDATE

REV 0 EDMS/RIMS NO. L58 090812 001				EDMS TYPE: calculations(nuclear)		EDMS ACCESSION NO (N/A for REV. 0) N/A	
Calc Title: SOCH Model Calibration, Melton Hill							
CALC ID	TYPE	ORG	PLANT	BRANCH	NUMBER	CUR REV	NEW REV
CURRENT	CN	NUC					
NEW	CN	NUC	GEN	CEB	CDQ000020080038	N/A	0
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UNITS N/A		SYSTEMS N/A		UNIDS N/A			
DCN,EDC,N/A EDCN 2240A (SQN), EDCN 54018A (WBN), LATER (BLN)				APPLICABLE DESIGN DOCUMENT(S) N/A		CLASSIFICATION E	
QUALITY RELATED? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	SAFETY RELATED? (If yes, QR = yes) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		UNVERIFIED ASSUMPTION Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		SPECIAL REQUIREMENTS AND/OR LIMITING CONDITIONS? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		DESIGN OUTPUT ATTACHMENT? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
PREPARER ID Adrian Ward		PREPARER PHONE NO 615-252-4329		PREPARING ORG (BRANCH) CEB		VERIFICATION METHOD Design Review	
PREPARER SIGNATURE <i>Adrian Ward</i> Adrian Ward		DATE 8/6/09		CHECKER SIGNATURE <i>Andrew Murr</i> ANDREW MURR		DATE 8/6/09	
VERIFIER SIGNATURE <i>Andrew Murr</i> ANDREW MURR		DATE 8/6/09		APPROVAL SIGNATURE <i>K.R. Spates</i> K.R. Spates		DATE 8/12/09	
STATEMENT OF PROBLEM/ABSTRACT <i>MR 8/12/09</i> TVA's Simulated Open Channel Hydraulics (SOCH) Model has been developed and used for flood routing calculations for the Tennessee River and tributaries. The SOCH Model Calibrations for each reservoir calculate Manning's <i>n</i> values so that the SOCH Model will accurately model the river discharges and elevations of known events. The SOCH Model can then reliably predict flood conditions for events of other magnitudes. This calculation presents the SOCH Model Calibration for the Melton Hill Reservoir.							
This calculation contains electronic attachments and must be stored in EDMS as an Adobe.pdf file to maintain the ability to retrieve the electronic attachments.							
MICROFICHE/EFICHE Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> FICHE NUMBER(S)							
<input type="checkbox"/> LOAD INTO EDMS AND DESTROY <input checked="" type="checkbox"/> LOAD INTO EDMS AND RETURN CALCULATION TO CALCULATION LIBRARY. <input type="checkbox"/> LOAD INTO EDMS AND RETURN CALCULATION TO: ADDRESS:							

NPG CALCULATION COVERSHEET/CCRIS UPDATE

CALC ID	<u>TYPE</u>	<u>ORG</u>	<u>PLANT</u>	<u>BRANCH</u>	<u>NUMBER</u>	<u>REV</u>
	CN	NUC	GEN	CEB	CDQ000020080038	1

ALTERNATE CALCULATION IDENTIFICATION

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CATEGORIES N/A					

KEY NOUNS (A-add, D-delete)

<u>ACTION</u> (A/D)	<u>KEY NOUN</u>	<u>A/D</u>	<u>KEY NOUN</u>

CROSS-REFERENCES (A-add, C-change, D-delete)

<u>ACTION</u> (A/C/D)	<u>XREF</u> <u>CODE</u>	<u>XREF</u> <u>TYPE</u>	<u>XREF</u> <u>PLANT</u>	<u>XREF</u> <u>BRANCH</u>	<u>XREF</u> <u>NUMBER</u>	<u>XREF</u> <u>REV</u>
A	P	CO	GEN	CEB	SOCH Version 1.0	
A	P	CO	GEN	CEB	CONVEY Version 1.0	

CCRIS ONLY UPDATES:
Following are required only when making keyword/cross reference CCRIS updates and page 1 of form NEDP-2-1 is not included:

PREPARER SIGNATURE	DATE	CHECKER SIGNATURE	DATE
PREPARER PHONE NO.	EDMS ACCESSION NO.		

NPG CALCULATION RECORD OF REVISION	
CALCULATION IDENTIFIER CDQ000020080038	
Title SOCH Model Calibration, Melton Hill	
Revision No.	DESCRIPTION OF REVISION
0	Initial issue (47 pages)
1	<p>This calculation was revised to address the following:</p> <ul style="list-style-type: none"> • PER 203951-The verification of the original calculation was completed by personnel who had not completed the required NEDP-7 Job Performance Record (JPR). A verification JPR is now in place for all personnel engaged in verification tasks. Checking included only changes made in this revision as the checking of the calculation was not impacted by PER 203951. The verification is inclusive of work completed prior to this revision. • PER 203872- replace NEDP-2 forms on Pages 1 through 11 with the forms from the NEDP-2 Revision in effect at the time of calculations issuance. <p>Note: Dam rating curves were used in this calculation as a common starting point between two models. Any changes to the dam rating curves will have no impact on the calibration effort and does not require revision of the calibration.</p> <p>Pages added: 1a and 6a Pages Replaced: 1-11& 14</p> <p>Total pages of calculation hard copy for Revision 1= 49</p>

NPG CALCULATION TABLE OF CONTENTS		
Calculation Identifier: CDQ000020080038		Revision: 1
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	Coversheet	1
	CCRIS Update Sheet	2
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1	Purpose	12
2	References	14
3	Assumptions and Methodology	15
4	Design Input	20
5	Special Requirements/Limiting Conditions	21
6	Calculations	22
7	Results/Conclusions	46
Appendix		
A	Final Manning's n , SOCH Geometry, Profiles, and Calibration Graphs	N/A
B	SOCH Input Files, Steady-State (.dat, .bnd)	2 pages
C	SOCH Input Files, March 1973 Flood (.dat, .loc)	5 pages
D	SOCH Input Files, May 2003 Flood (.dat, .loc)	7 pages
E	SOCH Output File, Steady-State (.out)	677 pages
F	SOCH Output Files, March 1973 (.out, .prt)	244 pages
G	SOCH Output Files, May 2003 (.out, .prt)	416 pages
H	Calibrated Steady-State HEC-RAS Model	N/A
I	Convey and SOCH Geometry Files	N/A
J	Cross-Section Modifications	9 pages
K	Dam Rating Curve Extrapolation	N/A

NPG CALCULATION TABLE OF CONTENTS

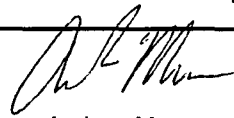
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ATTACHMENT	TITLE	PAGE
1	Original HEC-RAS Geometry	10 pages
2	CDQ000020080013 Dam Rating Curve Melton Hill	N/A
3	CDQ000020080015 Dam Rating Curve Norris	N/A
4	All Melton Hill Flows and Elevations1973	4 pages
5	All Melton Hill Flows and Elevations2003	9 pages
6	Total Local Hydrograph Development	N/A
7	Original SOCH Geometry	15 pages
8	SOCH Input Preprocessor, Steady-State	N/A
9	SOCH Input Preprocessor, March 1973	N/A
10	SOCH Input Preprocessor, May 2003	N/A
11	Macro File for SOCH Input Preprocessor	N/A
12	Macro File for Extraction of SOCH Output	N/A
13	Clinch_River_FIS_HEC2_File	6 pages
14	Anderson Co TN FIS	6 pages
15	Loudon Co TN FIS	5 pages
16	Final Flow Distribution	3 pages
17	Native Word Calculation File	N/A

Note: N/A indicated electronically attached file(s).

NPG CALCULATION VERIFICATION FORM	
Calculation Identifier	CDQ000020080038
	Revision 1
Method of verification used:	
1. Design Review	<input checked="" type="checkbox"/>
2. Alternate Calculation	<input type="checkbox"/>
3. Qualification Test	<input type="checkbox"/>
	 Verifier <u>Andrew Murr</u> Date <u>12/14/09</u>
<p>Comments:</p> <p>This calculation entitled, SOCH Model Calibration, Melton Hill was verified by independent design review. The process involved a critical review of the calculation to ensure that it is correct and complete, uses appropriate methodologies, and achieves its intended purpose. The inputs were reviewed and determined to be appropriate inputs for this calculation. The results of the calculation were reviewed and were found to be reasonable and consistent with the inputs provided. Backup files and documents were consulted as necessary to verify data and analysis details found in the calculation.</p> <p>Detailed comments and editorial suggestions for the changes made in this revision were transmitted to the author and reviewer by email along with a marked up copy of the calculation.</p> <p>(Note: The design verification of this calculation revision is for the total calculation, not just the changes made in the revision. This complete re-verification is performed to disposition PER 203951 as described in the Calculation Revision Log on Page 3).</p>	

NPG CALCULATION VERIFICATION FORM

Calculation Identifier CDQ000020080038

Revision 0

Method of verification used:

- 1. Design Review
- 2. Alternate Calculation
- 3. Qualification Test

Verifier *Andrew Murr* Date 8/6/09
ANDREW MURR

Comments:

NPG COMPUTER INPUT FILE STORAGE INFORMATION SHEET			
Document	CDQ000020080038	Rev. 1	Plant: GEN
Subject: SOCH Model Calibration, Melton Hill			
<input type="checkbox"/> Electronic storage of the input files for this calculation is not required. Comments:			
<input checked="" type="checkbox"/> Input files for this calculation have been stored electronically and sufficient identifying information is provided below for each input file. (Any retrieved file requires re-verification of its contents before use.)			
<p>These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.</p> <p>Appendix A</p> <ol style="list-style-type: none"> 1. Melton Hill_FinalManningsn.xls 2. Melton Hill Rev4.geo 3. Melton Hill HEC_RAS_SteadyState_FEMA_Profiles.xls 4. Final 5 secTS_Melton Hill SOCH_SteadyState_100Kto600K_Profiles.xls 5. Observed vs. SOCH Mar 1973 Hydrographs.xls 6. Observed vs. SOCH May 2003 Hydrographs.xls <p>Appendix B</p> <ol style="list-style-type: none"> 7. Final_MeltonHill_Calibrate_100Kto600K-61SOCHInterp.dat 8. Final_Norris100Kto600K-61SOCHInterp.bnd <p>Appendix C</p> <ol style="list-style-type: none"> 9. Melton Hill_Calibrate_Mar1973-61sections.dat 10. Mar1973LocalInflowHydrograph_Melton Hill-61 sections.loc <p>Appendix D</p> <ol style="list-style-type: none"> 11. Melton Hill_Calibrate_May2003-61 sections.dat 12. May2003LocalInflowHydrograph_Melton Hill-61sections.loc <p>Appendix E</p> <ol style="list-style-type: none"> 13. Final_MeltonHill_Calibrate_100Kto600K-61SOCHInterp.out 			
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**NPG COMPUTER INPUT FILE
STORAGE INFORMATION SHEET**

Document CDQ000020080038

Rev. 1

Plant: GEN

Subject:
SOCH Model Calibration, Melton Hill
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These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.

Appendix F

- 14. Melton Hill_Calibrate_Mar1973-61sections.out
- 15. Melton Hill_Calibrate_Mar1973-61sections.prt

Appendix G

- 16. Melton Hill_Calibrate_May2003-61 sections.out
- 17. Melton Hill_Calibrate_May2003-61 sections.prt

Appendix H

- 18. MH031809FEMA.f02
- 19. MH031809FEMA.g11
- 20. MH031809FEMA.p30
- 21. MH031809FEMA.prj

Appendix I

- 22. Melton Hill CONVEY 20090710.xls
- 23. Melton Hill Merge 20090710.xls
- 24. Melton Hill CONVEY.dat
- 25. Melton Hill CONVEY.out
- 26. Melton Hill CONVEY.prt
- 27. MeltonHill20090624.geo
- 28. Melton Hill Rev3.geo

 Microfiche/eFiche

NPG COMPUTER INPUT FILE STORAGE INFORMATION SHEET			
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<p>These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.</p> <p>Appendix J 29. Appendix J_Cross-Section_Modifications.pdf 30. Modified Cross-Sections.xls</p> <p>Appendix K 31. Dam Rating Curve Extrapolation.xls</p> <p>Attachment 1 32. MeltonHill.g04</p> <p>Attachment 2 33. Melton Hill Rating Curve (Turbines Added).xls</p> <p>Attachment 3 34. Norris Rating Curve.xls</p> <p>Attachment 4 35. All Melton Hill Flows and Elevations1973.xls</p> <p>Attachment 5 36. All Melton Hill Flows and Elevations2003.xls</p> <p>Attachment 6 37. Total Local Hydrograph Development.xls</p>			
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<p>These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.</p> <p>Attachment 7 38. MeltonHill20090624.geo</p> <p>Attachment 8 39. Final_MeltonHill100Kto600KBuildSOCHdata61sections.xls</p> <p>Attachment 9 40. MeltonHill_Mar1973_BuildSOCHdata-61sections.xls</p> <p>Attachment 10 41. MeltonHill_May2003_BuildSOCHdata-61sections.xls</p> <p>Attachment 11 42. SOCH_Macros.xls</p> <p>Attachment 12 43. Flood_ExtractSelectedSOCHOutputHydrographs.xls</p> <p>Attachment 13 44. MHCLINCH.dat</p> <p>Attachment 14 45. Attachment_14_Anderson Co TN FIS.pdf</p> <p>Attachment 15 46. Attachment_15_Loudon Co TN FIS.pdf</p>			
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Document CDQ000020080038

Rev. 1

Plant: GEN

Subject:
SOCH Model Calibration, Melton Hill

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These files are electronically attached to the parent ADOBE.pdf calculation file. All files are therefore stored in an unalterable medium and are retrievable through the EDMS number for this calculation.

Attachment 16

47. FinalFlowDistribution.xls

Attachment 17

48. CDQ000020080038_Rev_1.doc

Microfiche/eFiche

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 12
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
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1. Purpose

TVA's Simulated Open Channel Hydraulics (SOCH) Model has been developed and used for flood routing calculations for the Tennessee River and selected tributaries. The SOCH Model is calibrated for each reservoir so that the model will accurately replicate observed river discharges and elevations for known historic events. The SOCH model can then be used to reliably predict flood elevations and discharges for events of other magnitudes. This calculation presents the SOCH model calibration for Melton Hill Reservoir (Figure 1).

History

Tennessee Valley Authority (TVA) developed the method of analysis, procedures and computer programs needed to determine the design basis flood levels for nuclear plant sites in the 1970s. Determination of maximum flood levels included consideration of the most severe flood conditions that may be reasonably predicted to occur at a site as a result of both severe hydrometeorological conditions and seismic activity. This process was followed to meet Nuclear Regulatory Guide 1.59. At that time there were no standard computer programs (codes) available that would handle unsteady flow and dam failure analysis. As a result of this early work TVA developed a runoff and stream course modeling procedure for the TVA reservoir system that provided the basis for currently licensed plants (Sequoyah Nuclear Plant, Watts Bar Nuclear Plant and Browns Ferry Nuclear Plant). The Bellefonte Nuclear Plant (BLN) Unit 1 and Unit 2 Final Safety Analysis Report (FSAR) were also based on this process.

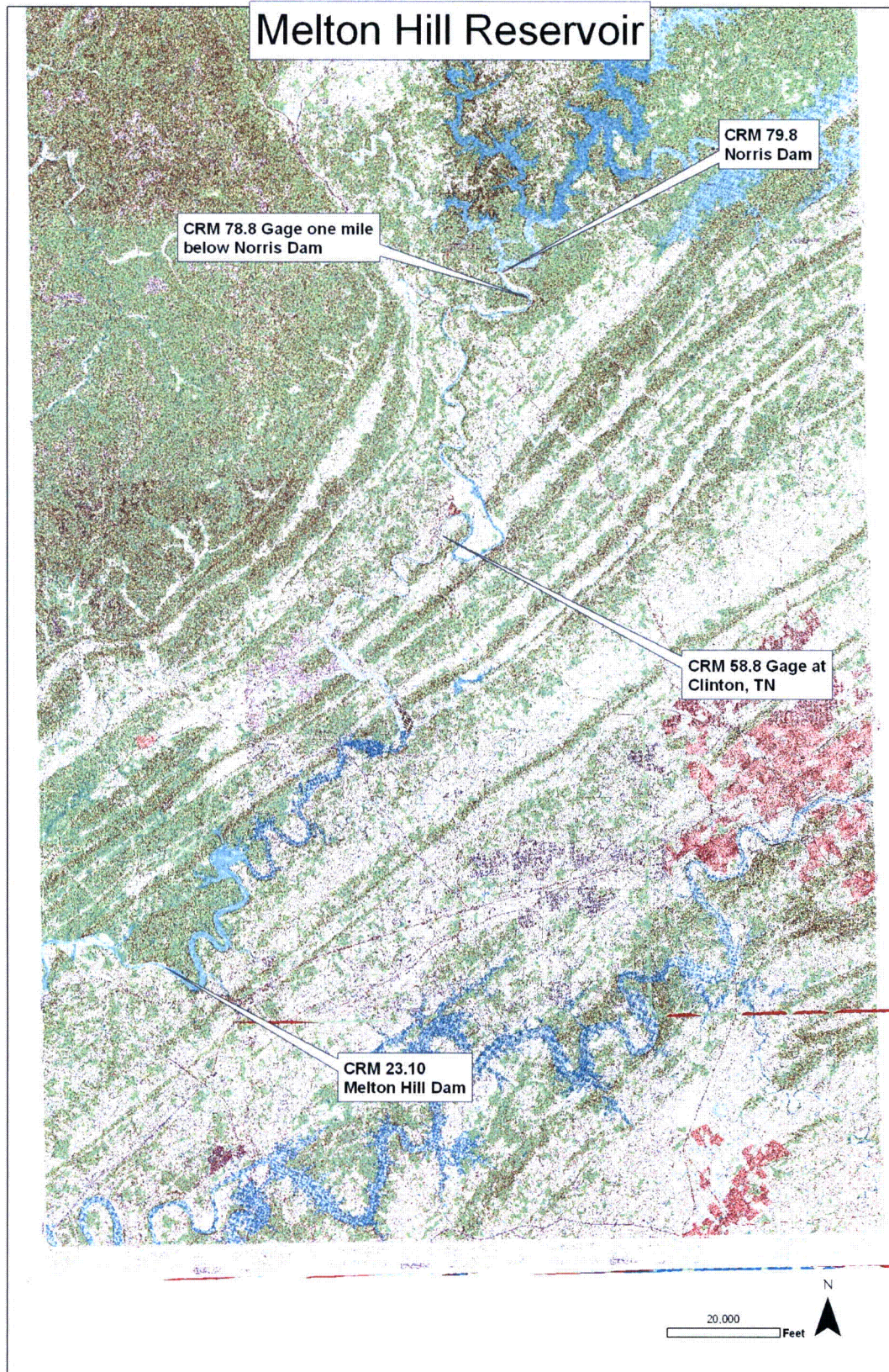
The BLN Unit 3 and Unit 4 Combined Operating License Application (COLA) was submitted using data and analysis that was determined for the original BLN FSAR (Unit 1 and Unit 2) and was documented in a 1998 reassessment calculation.

A quality assurance audit conducted by NRC staff in early 2008 raised several documentation questions related to past work regarding design basis flood level determinations because TVA's nuclear organization was not able to readily produce supporting materials for the review. While there is supporting data and analysis available to document the work, it is stored in multiple file books and on microfilm stored in both Knoxville and Chattanooga. This calculation supports and documents the procedure followed to calibrate the Melton Hill Reservoir SOCH model.

The purpose of this calculation is to calibrate the Melton Hill Reservoir portion of the SOCH model so that it can be reliably used to predict flood elevations and discharges for events of varying magnitudes and to validate the unit hydrograph local inflows. Inputs to this calculation include channel geometry, local inflow hydrographs, dam rating curves and historic flood elevations and discharges. The result of this calculation will be the final Manning's n values for the Melton Hill Reservoir and the final SOCH geometry file for the Melton Hill Reservoir to be used in the SOCH PMF determination for TVA Nuclear Plant sites. In the SOCH PMF determination and other subsequent analyses such as seismic failure evaluations, the Melton Hill Reservoir model will be run in series with models of other reservoirs. As a result, additional modification to the SOCH geometry for Melton Hill Reservoir may be required. However, any required changes will be made during that phase and the calibration (final Manning's n values) will remain valid.

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Figure 1.



TVA

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		Checked	ACM

2. References

- 2.1 *Drainage Areas for Streams in Tennessee River Basin*, Report No. 0-5829-R-2, Tennessee Valley Authority, Division of Water Control Planning, Hydraulic Data Branch, Knoxville, TN, March 1970.
- 2.2 "Bellefonte Nuclear Plant, White Paper –Hydrologic Analysis, Revision 1", Tennessee Valley Authority, July 25, 2008. (EDMS No. L58 081219 800) FOR INFORMATION ONLY
- 2.3 "Dam Rating Curve – Melton Hill" CDQ000020080013 Revision 1 (EDMS No. L58 090210 002)
- 2.4 "Dam Rating Curve – Norris" CDQ000020080015 Revision 0 (EDMS No. L58 090210 001)
- 2.5 "Bellefonte Units 3 and 4 Hydrology Project Request for Information (RFI) Response Information Continuation Sheet," RFI Number BE2150100B020, Rev. 0. (EDMS No. L58 090224 802)
- 2.6 "SOCH Geometry Verification for Melton Hill Reservoir" CDQ000020080029 Revision 1
- 2.7 "Calculation of Initial Flood Flows from Subbasin 27 (Melton Hill Local) for Use in the SOCH Model Calibration and Subsequent Unit Hydrograph Validation, CDQ000020080068 Revision 1
- 2.8 "Software Verification and Validation Report (SVVR) Simulated Open Channel Hydraulics (SOCH) Version 1.0" (EDMS No. L58 090528 004)
- 2.9 "User's Manual Simulated Open Channel Hydraulics (SOCH) Version 1.0", (EDMS No. L58 090525 002)
- 2.10 *HEC-RAS, River Analysis System Hydraulic Reference Manual*, Revision 3.1, Report No. CPD-69, U.S. Army Corps of Engineers Hydraulic Engineering Center, November 2002.
- 2.11 NUREG 0800, Standard Review Plan, Section 2.4.1
- 2.12 "Flood Insurance Study, Anderson County, Tennessee", Flood Insurance Study No. 47001CV000B, Federal Emergency Management Agency, Washington, D.C., May 4, 2009.
- 2.13 "Flood Insurance Study, Loudon County, Tennessee", Flood Insurance Study No. 47105CV000A, Federal Emergency Management Agency, Washington, D.C., May 16, 2007.
- 2.14 "Weighted Width (WWIDTH) Version 1.0 Conveyance (CONVEY) Version 1.0 User Manual." Revision 0 (EDMS No. L58 090213 001)
- 2.15 "Bellefonte Units 3 and 4 Hydrology Project Request for Information (RFI) Response Information Continuation Sheet," RFI Number BE21147150B031, Rev. 0. (EDMS No. L58 090604 800)

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		Checked	ACM

3. Assumptions and Methodology

3.1 Assumptions

3.1.1 Assumption: Flow, elevation and date information used in this calculation are acceptable for use in the development of the TVA design basis PMF analysis.

Technical Justification: The flow, elevation and other input data were not obtained via a 10 CFR 50 Appendix B program; however they represent the best and most complete data set available. Based on the Acceptance Criteria Section of NUREG 800 Standard Review Plan (SRP) 2.4.1 (Reference 2.11), these data are expected to meet the requirements of an Appendix B program, excerpt follows:

“Data collected, maintained, and distributed by Federal and State agencies, such as USGS, NOAA, NRCS, USACE, and various State water resources departments, are adequate for safety evaluation of the plant.”

TVA is the Federal agency responsible for flood control in watersheds of concern and minimal data are available from the other Federal agencies delineated in the SRP. Historical data from TVA records are used to calibrate the models to the 1973 and 2003 historical floods of record. TVA, NWS, and USGS were responsible for operating the majority of the gages in the Tennessee Valley at the time of these floods.

3.2 Unverified Assumptions - None

TVA

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		Checked	ACM

3.3 Methodology

The purpose of this calculation is to calibrate the Melton Hill Reservoir portion of the SOCH model so that it can be reliably used to predict flood elevations and discharges for events of varying magnitudes and to validate the local unit hydrograph (Subbasin 27). An overview of the calibration process is depicted in Figure 2.

The objective of calibrating a model is to adjust model parameters so that the model will accurately predict the outcome of known historic events and published Federal Emergency Management Agency National Flood Insurance Program (FEMA NFIP) profiles. The model will therefore be considered reliable to predict the outcome of events of other magnitudes. In the case of the SOCH model, the model results must accurately replicate observed elevations and discharges for known historic flood events. Because the model will ultimately be used to predict PMF flood levels, large recorded flood events should be used to calibrate the model. The Melton Hill calibration is based on replication of the March 1973 and May 2003 flood events and a comparison with published FEMA profiles. The March 1973 flood is one of the largest recorded flood events.

The following describes the methodology of the calibration process in detail.

3.3.1 HEC-RAS Steady-State Calibration

A steady-state model of the reservoir was setup using the U.S. Army Corps of Engineers Hydrologic Engineering Center's River Analysis System (HEC-RAS) version 3.1.3. A review performed of subsequent versions of HEC-RAS (up to the most recent version) did not identify any changes that would affect the results and conclusions developed in this calculation (Section 2.12 of Reference 2.8). Typically, two large recorded flood events are used to calibrate the HEC-RAS steady-state model. Due to limited data availability in Melton Hill, the 100-year (1 Percent Annual Chance) and 500-year (0.2 Percent Annual Chance) flood insurance study profiles (References 2.12 and 2.13) were used to calibrate the initial HEC-RAS model. The steady-flow data used initially to set-up the HEC-RAS model for the 100-year and 500-year floods came from Federal Emergency Management Agency (FEMA) flood insurance studies (References 2.12 and 2.13). Since, the most upstream flows for the 100-year and 500-year floods for the reservoir were not available from the flood insurance studies, they were taken from a HEC2 file developed by TVA for the (FEMA) (Reference 2.15). The 100-year and 500-year HEC-RAS profiles were compared to the published FEMA profiles (References 2.12 and 2.13).

Data for the 1973 event was determined by using the recorded peak elevations and the associated flows from Norris Dam and Melton Hill Dam (Reference 2.5) for the upstream and downstream flows, respectively. The upstream inflow was subtracted from the outflow and difference between these two was the contribution from the local inflow for the 1973 event. The local inflow was then distributed along the reservoir based on drainage area at each section (Reference 2.1) and combined with the inflow from Norris Dam (Attachment 16). The peak recorded flow for Melton Hill Dam was not used as this flow occurs as the reservoir is being drawn down and the elevation is dropping. The percent of total flow occurring at a cross-section was multiplied by the recorded downstream discharge occurring at the peak elevation. The downstream starting water surface elevation for the 1973 event was the recorded peak elevation (Attachment 4). The downstream starting water surface elevations for the 100-year and 500-year flood profiles were the published FEMA elevations (Reference 2.13).

The HEC-RAS model was then adjusted by varying Manning's n values, using good engineering judgment, to match the water-surface elevations of the 100-year and 500-year flood events and the high-water marks for the 1973 flood event at available gage locations.

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3.3.2 HEC-RAS Steady-State Profiles

Following calibration of the model, HEC-RAS was run with uniform flow to produce steady-state water surface profiles ranging from 100,000 cfs to 600,000 cfs in 100,000 cfs increments. The 600,000 cfs profile is expected to be above the PMF level and was set as the upper bound of the calibration. The starting elevation at Melton Hill was determined from the Dam Rating Curve (DRC) (See Table 4 and Attachment 2, Case 1). After this, the boundary conditions followed the Melton Hill dam rating curve up to 300,000 cfs (Attachment 2, Case 1). Above 300K, the DRC was extrapolated to define elevation and discharge up to 600,000 cfs. This is above the expected PMF flow of approximately 300,000 cfs, and allowed the model to be tested at higher flows in the range of those expected from seismic failure of the upstream dam (Norris).

It was during this process that additional modifications to cross-sections were required because some cross-sections did not extend high enough to contain the 600,000 cfs steady-state flow. Twelve sections were examined by using the DRG maps (Reference 2.6). If the slope appeared to be constant, then the cross-section was extended up the slope to the desired elevation. If it appeared that the slope got flatter or was cut off for ineffective flow, then the section was extended vertically. See Appendix J for a description of extensions made to selected cross-sections.

After completion of the HEC-RAS steady-state calibration, the CONVEY program (Reference 2.14) was rerun to compute a new $R^{2/3}$ term and the SOCH geometry was re-built as described in Appendix B of Reference 2.6. The weighted-width terms had been computed high enough to account for the new top elevations at the modified cross-sections, so they were not changed.

3.3.3 SOCH Steady-State Calibration

Calibration of the SOCH model is accomplished by adjusting the Manning's n value as described in Section 2.4 of Reference 2.9. In SOCH, the Manning's n value is based on vertical segments of the cross-sections. The Manning's n value is the primary parameter in SOCH that may be adjusted in the calibration phase. However, during this phase other adjustments to the cross sections, cross section spacing, and effective flow areas may be identified. To determine the Manning's n values, the SOCH model was run under steady-state conditions and compared to the steady-state profiles from HEC-RAS. Because the dam rating curve only goes to 300,000 cfs, it was extrapolated up to 600,000 cfs in order to be able to model a larger flood event expected from assumed seismic failure of the upstream dam (Norris). The Manning's n values were adjusted so that the SOCH steady-state profiles coincided with the HEC-RAS steady-state profile at 600,000 cfs. The peak flow in Melton Hill Reservoir was approximately 43,000 cfs during the 1973 event and approximately 21,000 cfs during the 2003 flood event. However, because Melton Hill Reservoir will be susceptible to a large flood wave due to the assumed seismic failure of Norris Dam, the model was calibrated for a best fit of historic and steady state profiles. However, the SOCH profiles were conservatively higher than the HEC-RAS profiles. Several iterations of Manning's n value were run to achieve calibration. These iterations are not shown in this calculation; only the final Manning's n values are shown. The Manning's n values were then combined in the SOCH input file to evaluate the calibrations against the historic floods.

3.3.4 SOCH Unsteady-State Historic Runs

The calibrated SOCH model, with the revised Manning's n values, was run under unsteady flow conditions to replicate the 1973 and 2003 flood events. Observed Norris discharges (Attachments 4 and 5) were used as the upstream flow (upstream boundary condition). However, Norris Dam is a tributary project. It is frequently operated for zero discharge during the early portion of flood events in an effort to reduce flows entering the Tennessee River until the peak has passed when possible. When there is zero discharge in the upper end of the reservoir, the SOCH model will not run in a dry channel. To overcome this problem, a baseflow of 2000 cfs was added to the inflow hydrograph at Norris and then removed at River Mile 59.9. This allows the model to run without affecting the results at the gage at River Mile 59.9. The recorded Melton Hill elevations (Attachments 4 and 5) were used as the downstream boundary condition. The local inflows (Subbasin 27) were input to account for rain on reservoir and local inflow (developed from unit hydrographs,

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Reference 2.7). Calculated flood elevations were compared to the observed elevations at gage stations (three gage locations for the 1973 flood and two gage locations for the 2003 flood) and calculated flow from SOCH was compared to the observed flow at Melton Hill Dam (Attachments 4 and 5). The model reproduced the historic floods with good agreement at the gage locations for the two historic events so the calibration was considered complete.

After completion of the calibration, the annotation in the SOCH geometry file was updated to include the final Manning's n values for the SOCH model. This geometry file was then considered the final SOCH geometry file for Melton Hill Reservoir.

3.3.5 Validation of Local Inflows Developed from Unit Hydrographs (Subbasin 27)

The local inflows to Melton Hill Reservoir for subbasin 27 were combined with the observed data (Norris observed discharge and tailwater elevation and Melton Hill observed discharge and headwater elevation) for the flood events and reproduced the observed elevations at gage locations along the reservoir. As a result the unit hydrograph developed for subbasin 27 (Reference 2.7) was validated and is adequate for use in developing the flood inflow for other events including the PMF.

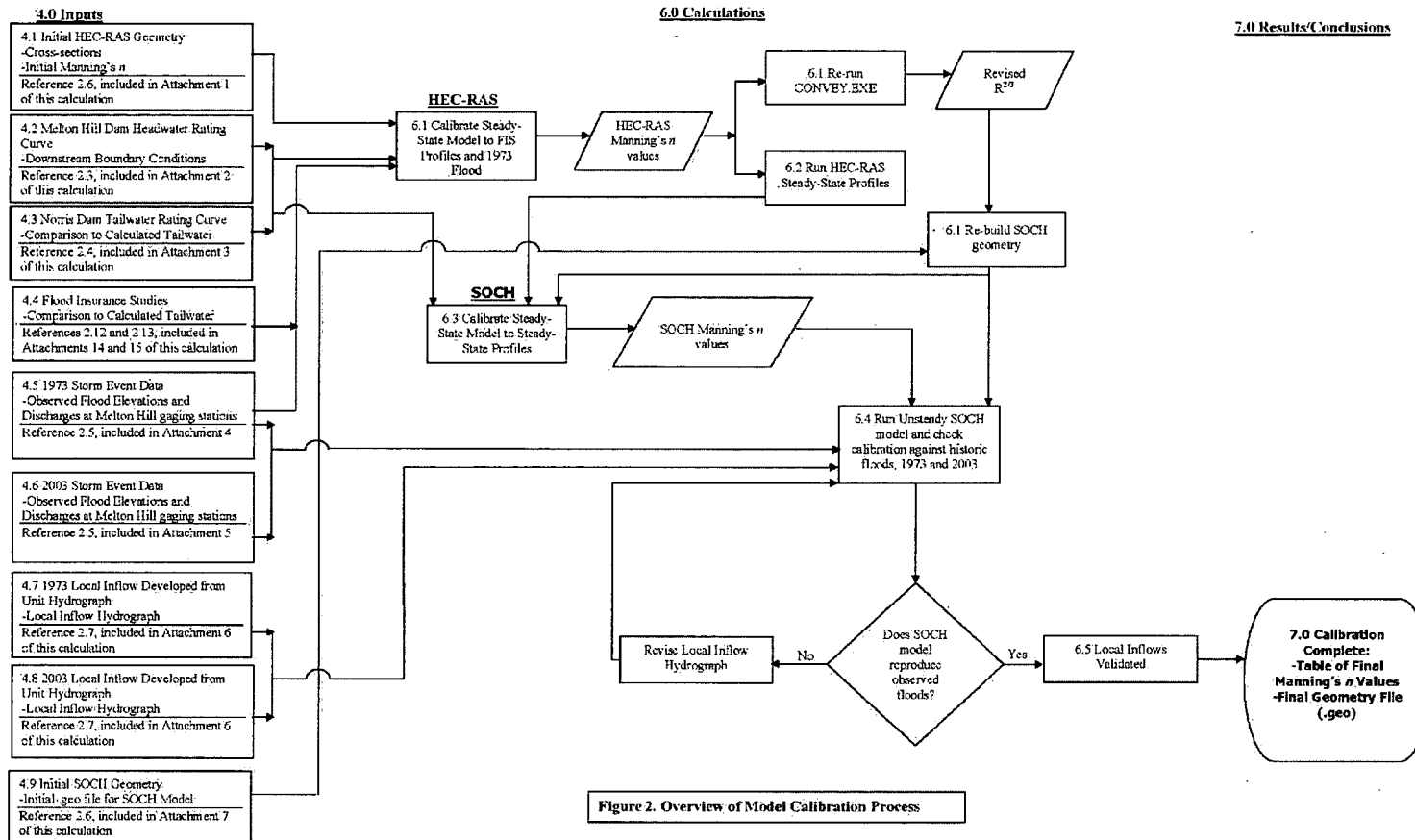


Figure 2. Overview of Model Calibration Process

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4. Design Input

4.0 Historical data included in appendices, attachments and references.

Sect.	Input Parameter	Source	Location	Description
4.1	Initial HEC-RAS Geometry	Reference 2.6	Attachment 1 of this calculation	Initial HEC-RAS geometry was provided in the "SOCH Geometry Verification for Melton Hill Reservoir" calculation and used in the HEC-RAS steady-state model.
4.2	Melton Hill Dam Headwater Rating Curve	Reference 2.3	Attachment 2 of this calculation	The dam rating curve was provided in the "Dam Rating Curve-Melton Hill" calculation in the sheet named "Results" under "2008 Rating Case 1" and was used to establish boundary conditions in the HEC-RAS and SOCH steady-state models.
4.3	Norris Dam Tailwater Rating Curve	Reference 2.4	Attachment 3 of this calculation	The tailwater rating curve was provided in the "Dam Rating Curve – Norris" calculation and was used to compare results of the HEC-RAS and SOCH steady-state models.
4.4	Flood Insurance Studies	References 2.12 and 2.13	Attachments 14 and 15 of this calculation	The 100-year and 500-year profiles published in the Flood Insurance Studies were used to calibrate the HEC-RAS steady-state model.
4.5	1973 Storm Event Data			
	4.5.1 Elevations for gaging stations in Melton Hill Reservoir	Reference 2.5	Attachment 4 of this calculation	The Melton Hill Reservoir 1973 flood observed elevations originated from TVA's Hourly Water Records and were used as boundary conditions in the HEC-RAS and SOCH models and used to compare the SOCH model results.
	4.5.2 Discharges at gaging stations in Melton Hill Reservoir	Reference 2.5	Attachment 4 of this calculation	The Melton Hill Reservoir 1973 flood observed flows originated from TVA's Hourly Water Records and were used as boundary conditions in the HEC-RAS and SOCH models and used to compare the SOCH model results.
4.6	2003 Storm Event Data			
	4.6.1 Elevations for gaging stations in Melton Hill Reservoir	Reference 2.5	Attachment 5 of this calculation	The Melton Hill Reservoir 2003 flood observed elevations originated from TVA's Hourly Water Records and were used as boundary conditions in the SOCH model and used to compare the SOCH model results.
	4.6.2 Discharges at gaging stations in Melton Hill Reservoir	Reference 2.5	Attachment 5 of this calculation	The Melton Hill Reservoir 2003 flood observed flows originated from TVA's Hourly Water Records and were used as boundary conditions in the HEC-RAS and SOCH models and used to compare the SOCH model results.

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Sect.	Input Parameter	Source	Location	Description
4.7	1973 Local Inflow Developed from Unit Hydrograph	Reference 2.7	Attachment 6 of this calculation	The local inflow for subbasin 27 was provided as part of the "Calculation of Initial Flood Flows from Subbasin 27 (Melton Hill Local) for Use in the SOCH Model Calibration and Subsequent Unit Hydrograph Validation" calculation and was used as local inflow in the SOCH model and to validate the unit hydrographs.
4.8	2003 Local Inflow Developed from Unit Hydrograph	Reference 2.7	Attachment 6 of this calculation	The local inflow for subbasin 27 was provided as part of the "Calculation of Initial Flood Flows from Subbasin 27 (Melton Hill Local) for Use in the SOCH Model Calibration and Subsequent Unit Hydrograph Validation" calculation and was used as local inflow in the SOCH model and to validate the unit hydrographs.
4.9	Initial SOCH Geometry	Reference 2.6	Attachment 7 of this calculation	The initial SOCH geometry was provided in the "SOCH Geometry Verification for Melton Hill Reservoir" calculation and used in the SOCH model.

5. Special Requirements/Limiting Conditions

N/A

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6. Calculations

6.1 HEC-RAS Steady-State Calibration

A steady-state HEC-RAS model was set-up for the Melton Hill Reservoir using the initial HEC-RAS geometry and the initial Manning’s *n* values determined in Reference 2.6 (Attachment 1). Typically, two large recorded flood events are used to calibrate the HEC-RAS steady-state model. Due to the limited gage data available for the 2003 event, the 100-year (1 Percent Annual Chance) and 500-year (0.2 Percent Annual Chance) flood insurance study profiles (References 2.12 and 2.13) were used to calibrate the initial HEC-RAS model. The steady-flow data used initially to set-up the HEC-RAS model for the 100-year and 500-year floods came from Federal Emergency Management Agency (FEMA) flood insurance studies (References 2.12 and 2.13). Since, the most upstream flows for the 100-year and 500-year floods for the reservoir were not available from the flood insurance studies, they were taken from a HEC2 file developed by TVA for the (FEMA) (Reference 2.15). The 100-year and 500-year HEC-RAS profiles were compared to the published FEMA profiles (References 2.12 and 2.13).

The flow profile used in the HEC-RAS model for the 1973 flood was initially determined by using the flow at the peak elevations from Norris Dam tailwater and Melton Hill Dam headwater for the upstream and downstream flows, respectively (Attachments 4 and 5). The upstream inflow was subtracted from the outflow and difference between these two was the contribution from the local inflow for the 1973 event. The local inflow was then distributed along the reservoir based on drainage area at each section (Reference 2.1) and combined with the inflow from Norris Dam (Attachment 16). The starting elevations for the 100-year and 500-year events were set as the published elevations in the flood insurance study (Table 3). For the 1973 flood, the starting elevation was set as the observed peak headwater elevation at Melton Hill Dam (Table 3). The HEC-RAS model was then calibrated by adjusting the Manning’s *n* values beginning from the downstream cross-section and working upstream to match the high-water marks from the 1973 flood events at river gage stations. The calibrated model was then used to run the 100-yr and 500-yr profiles and compared to the published FEMA profiles (References 2.12 and 2.13).

Table 1. Initial Manning’s *n* Values and Calibrated Manning’s *n* Values in HEC-RAS Steady-State Model (Appendix H)

Clinch River Mile	Initial Manning's <i>n</i>	Calibrated Manning's <i>n</i>	Clinch River Mile	Initial Manning's <i>n</i>	Calibrated Manning's <i>n</i>
	Reference 2.6			Reference 2.6	
79.8	0.036	0.036	46.2	0.020	0.023
77.7	0.035	0.036	44.1	0.022	0.023
75.6	0.033	0.036	43.7	0.022	0.023
73.5	0.028	0.037	42.0	0.022	0.023
71.4	0.025	0.037	39.1	0.022	0.023
69.3	0.035	0.037	37.0	0.022	0.023
67.2	0.020	0.037	36.0	0.022	0.023
65.1	0.030	0.037	34.6	0.022	0.023
63.0	0.030	0.037	33.6	0.024	0.023
60.9	0.030	0.037	31.5	0.024	0.023
58.8	0.025	0.037	30.1	0.024	0.023
57.0	0.025	0.023	29.0	0.024	0.023
55.0	0.024	0.023	27.3	0.024	0.023
53.1	0.021	0.023	25.2	0.024	0.023
51.0	0.020	0.023	23.1	0.024	0.023
48.3	0.020	0.023			

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Table 2. Flow Distribution for 1973 Historic Flood and FEMA 100-yr and 500-yr Flood Frequency Profiles in HEC-RAS Steady-State Model (Appendix H)

Clinch River Mile	1973 Flood	100-yr Flood	500-yr Flood	Clinch River Mile	1973 Flood	100-yr Flood	500-yr Flood
	Flow (cfs)	Flow (cfs)	Flow (cfs)		Flow (cfs)	Flow (cfs)	Flow (cfs)
79.8	8890	31000	35000	48.3	18805	45600	52300
77.7	9118	31000	35000	46.2	19774	45600	52300
75.6	10770	31000	35000	44.1	22338	45600	52300
73.5	12366	31000	35000	42.0	24845	45600	52300
71.4	11739	31000	35000	39.1	30145	45600	52300
69.3	12138	31000	35000	37.0	31228	45600	52300
67.2	12594	31000	35000	36.0	31342	45600	52300
65.1	13962	31000	35000	34.6	31513	45600	52300
63.0	16127	31000	35000	33.6	31684	45600	52300
60.9	16925	45600	52300	31.5	32025	45600	52300
58.8	17096	45600	52300	30.1	32253	45600	52300
57.0	17381	45600	52300	29.0	32481	45600	52300
55.0	17665	45600	52300	27.3	32766	45600	52300
53.1	17893	45600	52300	25.2	33108	45600	52300
51.0	18178	45600	52300	23.1	33450	46200	65000

Table 3. Starting Elevations at Melton Hill Dam for Historic 1973 Historic Flood and FEMA 100-yr and 500-yr Flood Frequency Profiles in HEC-RAS Steady-State Model (Appendix H)

Boundary	1973 Flood Event	100-yr Flood Event	500-yr Flood Event
Flow (cfs)	33,450	46,200	65,000
Water Surface Elevation (ft)	796.33	795.70	795.70

6.1.1 HEC-RAS Steady-State for 1973 Storm

The HEC-RAS profile of the 1973 flood was calibrated to observed flood marks for the March 1973 flood to gage locations. The HEC-RAS profile and observed flood marks are shown in Figure 3 and tabulated in Table 5.

6.1.2 HEC-RAS Steady-State for 100-yr and 500-yr Flood

The HEC-RAS profiles of the 100-yr and 500-yr floods were compared to the published FEMA profiles (References 2.12 and 2.13). The 100-yr profile was a maximum of 0.72 feet above and 1.00 feet below the published 100-yr profile with the lowest point occurring at river mile 57. The 500-yr profile varied from 0.73 feet high to -1.49 feet low, with the low elevations again occurring at river mile 57. River mile 58.8 is the location of a gage for the 1973 flood and because there is recorded data there and the 1973 flood profile is 0.15 feet higher than the recorded data, it was determined that the model was calibrated to the best available data. The HEC-RAS profiles and observed flood marks are shown in Figure 4 and tabulated in Table 6.

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6.2 HEC-RAS Steady-State Profiles

The calibrated HEC-RAS model of the Melton Hill Reservoir was then run to produce steady-state water surface profiles ranging from 100,000 cfs to 600,000 cfs. The 600,000 cfs profile is expected to be above the PMF level and was set as the upper bound of the calibration. Uniform, steady-flow was specified in 100,000 cfs increments so no local inflows were used. The downstream starting elevations are shown in Table 4. The starting elevations were taken from the Melton Hill DRC up to 300,000 cfs (Attachment 2, Case 1). Because the DRC only went to 300,000 cfs and it was desired to run the steady-state profiles to 600,000 cfs, the DRC was extrapolated up to 600,000 cfs. The DRC was developed up to elevation 820, above the expected PMF levels. For events larger than this, the dam would be assumed to fail.

**Table 4. Melton Hill Dam Starting Elevations for Steady-State Profiles (Attachment 2)
(From DRC: CDQ000020080013)**

Elevation (ft)	Flow (cfs)
793.50 ¹	100,000
809.86	200,000
819.49	300,000
825.91 ²	400,000
832.32 ²	500,000
838.74 ²	600,000

¹Normal operating pool.

²Elevations extrapolated based on rate of change of last two values in DRC (Attachment 2, Case 1).

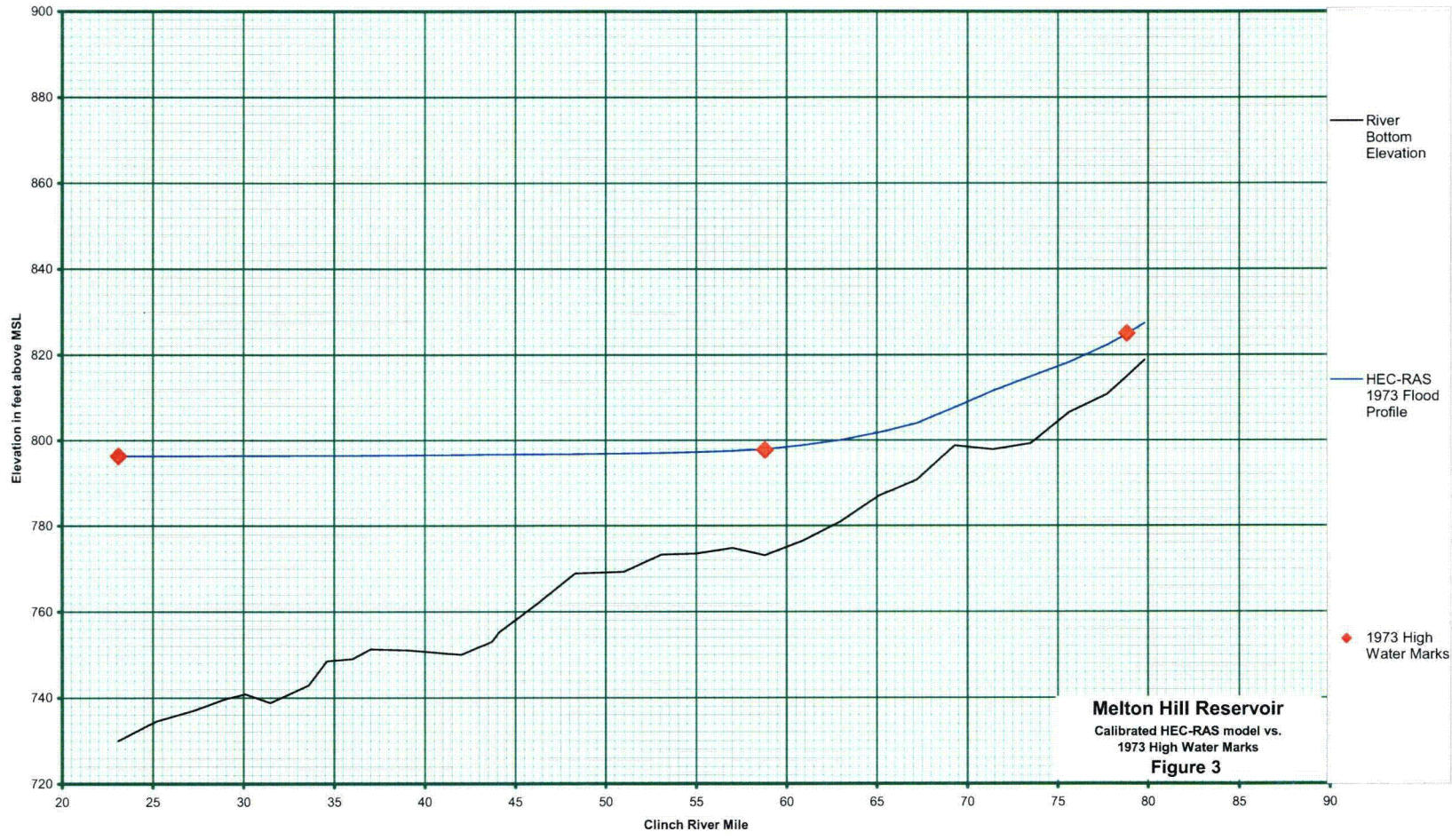
6.2.1 HEC-RAS Steady-State Profiles in 100K Increments

The 600,000 cfs profile is expected to be above the PMF level and was set as the upper bound of the calibration. The steady-state profiles are shown in Figure 5 and tabulated in Table 7. Figure 6 and Table 8 show the elevations of the HEC-RAS steady-state profiles at Norris Dam, RM 79.8, compared to the tailwater rating curve for Norris Dam (Attachment 3).

At this phase the cross-sections were evaluated to ensure that the water surface calculated at the 600,000 cfs flow did not extend above the top elevation of each cross-section. While HEC-RAS will automatically extend the sections vertically and continue to run, SOCH will stop running if this occurs. Twelve cross-sections were found to be too low to contain the 600,000 cfs flow and were extended as described in Appendix J.

After the steady-state HEC-RAS model was calibrated and cross-sections were extended, the CONVEY Version 1.0 program was re-run to compute revised R^{2/3} values and the SOCH geometry file was re-built as described in Appendix B of Reference 2.6.

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Melton Hill Reservoir
 Calibrated HEC-RAS model vs.
 1973 High Water Marks
Figure 3

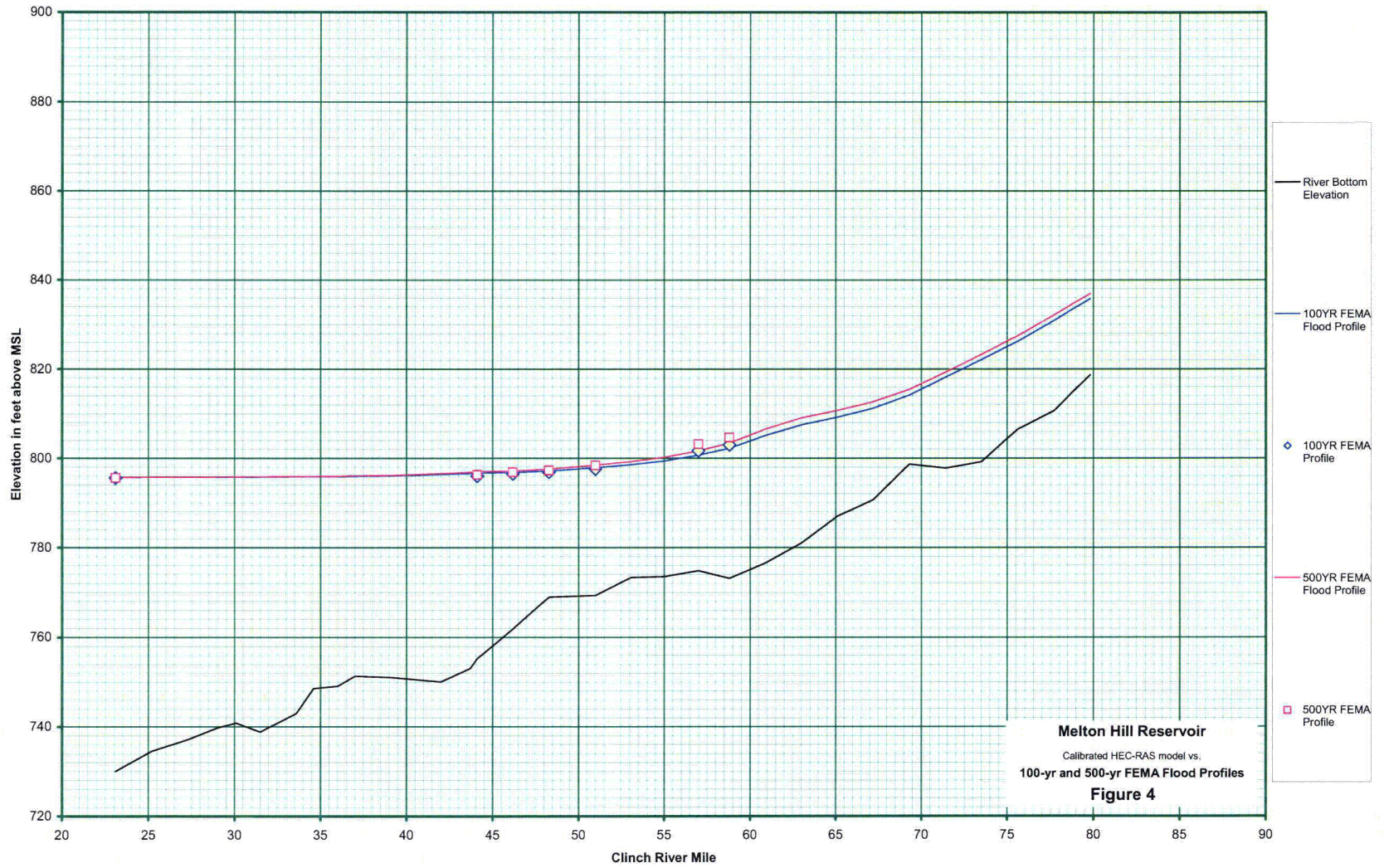
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Table 5. Melton Hill Reservoir, Calibrated HEC-RAS Model vs. 1973 High-Water Marks (Appendix A)

Clinch River Mile	HEC-RAS 1973 Flood Profile	1973 High-Water Marks ¹	River Bottom Elevation	Manning's <i>n</i>
	Elevation (ft)	Elevation (ft)	Elevation (ft)	
79.8	827.36		818.70	0.036
78.8 ²	824.79	825.01	814.89	0.036
77.7	822.21		810.70	0.036
75.6	818.24		806.50	0.036
73.5	814.84		799.20	0.037
71.4	811.55		797.80	0.037
69.3	807.67		798.70	0.037
67.2	803.98		790.70	0.037
65.1	801.81		787.00	0.037
63.0	800.06		781.00	0.037
60.9	798.84		776.52	0.037
58.8	797.91	797.76	773.08	0.037
57.0	797.52		774.80	0.023
55.0	797.24		773.50	0.023
53.1	797.07		773.28	0.023
51.0	796.94		769.29	0.023
48.3	796.80		768.92	0.023
46.2	796.73		761.80	0.023
44.1	796.71		755.20	0.023
43.7	796.68		753.00	0.023
42.0	796.62		750.00	0.023
39.1	796.50		751.00	0.023
37.0	796.46		751.30	0.023
36.0	796.42		749.00	0.023
34.6	796.41		748.50	0.023
33.6	796.41		742.90	0.023
31.5	796.38		738.80	0.023
30.1	796.37		740.80	0.023
29.0	796.36		739.70	0.023
27.3	796.35		737.10	0.023
25.2	796.34		734.50	0.023
23.1	796.33	796.33	730.00	0.023

1. High-Water Marks determined from Reference 2.5, 2. Interpolated

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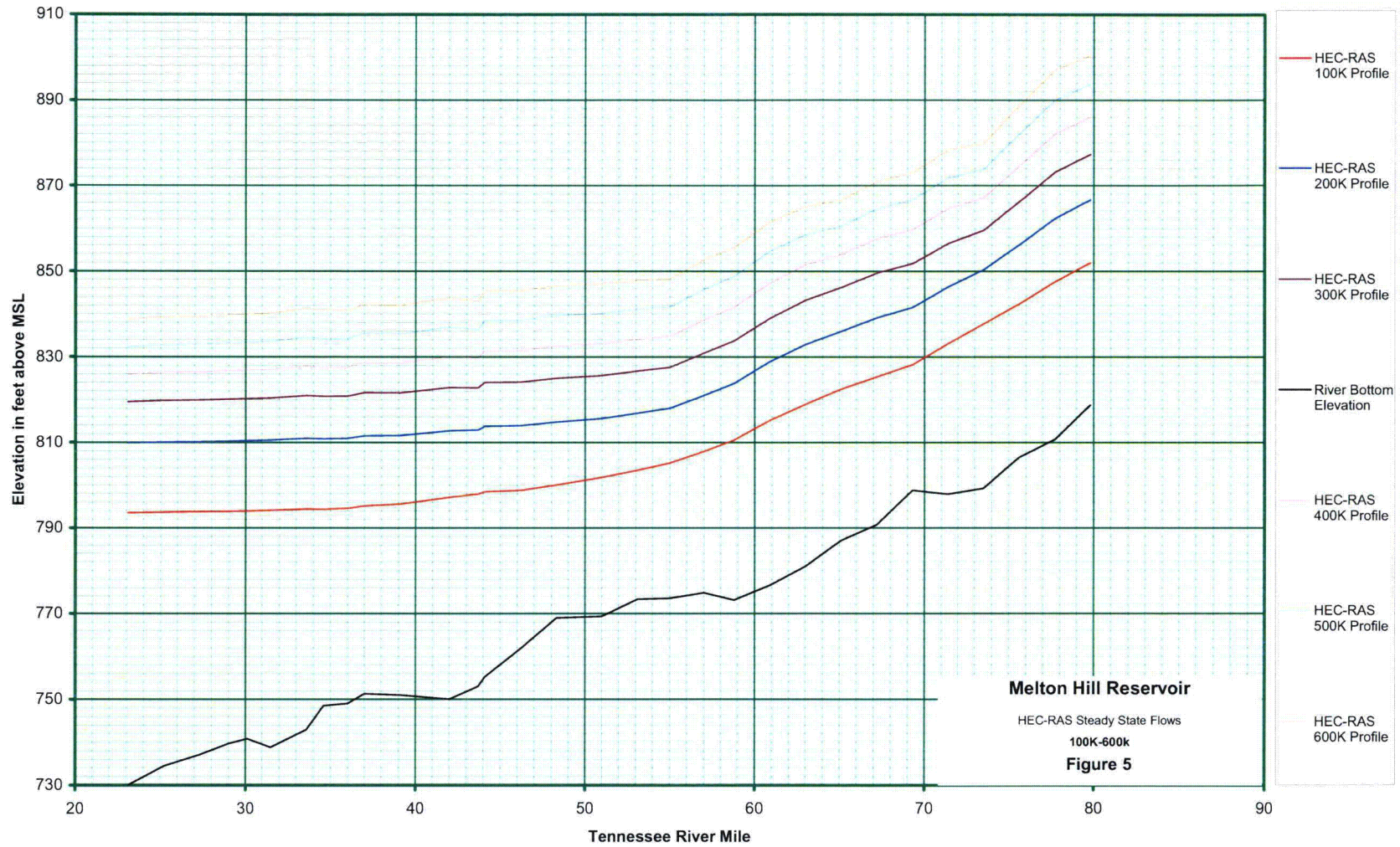
Table 6. Melton Hill Reservoir, Calibrated HEC-RAS Model vs. 100-yr and 500-yr Published FEMA Profiles (Appendix A)

Clinch River Mile	HEC-RAS 100-yr Flood Profile	HEC-RAS 500-yr Flood Profile	100-yr FEMA Profile ¹	500-yr FEMA Profile ¹	River Bottom Elevation	Manning's <i>n</i>
	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	
79.8	835.76	836.98			818.70	0.036
77.7	830.89	832.20			810.70	0.036
75.6	826.24	827.53			806.50	0.036
73.5	822.10	823.33			799.20	0.037
71.4	818.19	819.40			797.80	0.037
69.3	814.15	815.47			798.70	0.037
67.2	811.23	812.75			790.70	0.037
65.1	809.21	810.80			787.00	0.037
63.0	807.50	809.11			781.00	0.037
60.9	805.16	806.63			776.52	0.037
58.8	802.23	803.43	803.00	804.70	773.08	0.037
57.0	800.70	801.71	801.70	803.20	774.80	0.023
55.0	799.42	800.24			773.50	0.023
53.1	798.59	799.27			773.28	0.023
51.0	797.92	798.48	797.60	798.40	769.29	0.023
48.3	797.19	797.61	796.90	797.30	768.92	0.023
46.2	796.80	797.13	796.50	796.90	761.80	0.023
44.1	796.72	797.03	796.00	796.30	755.20	0.023
43.7	796.59	796.86			753.00	0.023
42.0	796.40	796.62			750.00	0.023
39.1	796.06	796.19			751.00	0.023
37.0	795.99	796.10			751.30	0.023
36.0	795.89	795.97			749.00	0.023
34.6	795.86	795.93			748.50	0.023
33.6	795.86	795.93			742.90	0.023
31.5	795.80	795.86			738.80	0.023
30.1	795.78	795.83			740.80	0.023
29.0	795.76	795.81			739.70	0.023
27.3	795.74	795.78			737.10	0.023
25.2	795.73	795.76			734.50	0.023
23.1	795.70	795.70	795.70	795.70	730.00	0.023

1. Flood Insurance Profiles determined from Reference 2.12

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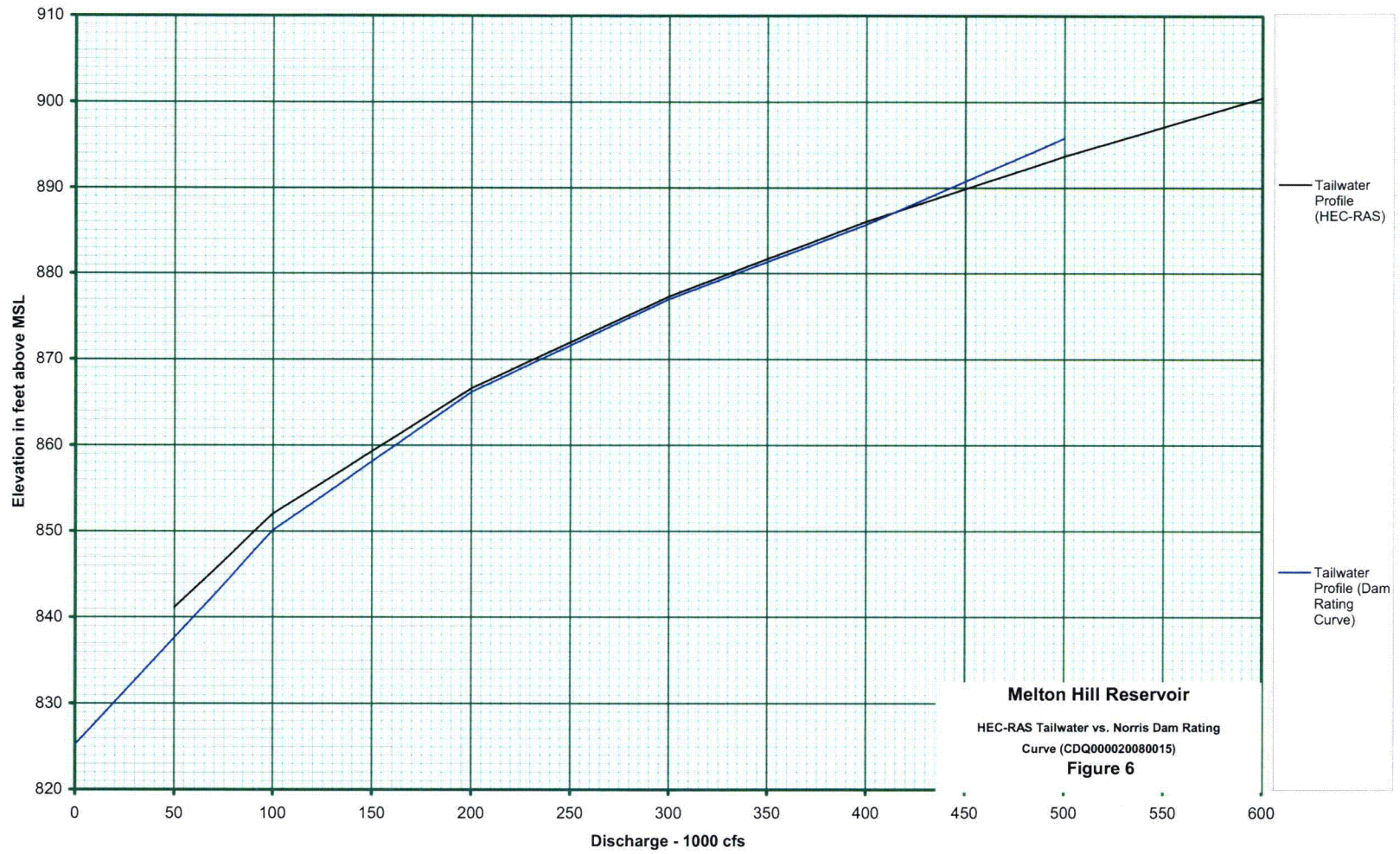


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Table 7. Melton Hill Reservoir, HEC-RAS Steady-State Flows 100K-600K (Appendix A)

Clinch River Mile	HEC-RAS 100K Profile	HEC-RAS 200K Profile	HEC-RAS 300K Profile	HEC-RAS 400K Profile	HEC-RAS 500K Profile	HEC-RAS 600K Profile
	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
79.8	852.01	866.62	877.30	886.06	893.69	900.49
77.7	847.62	862.29	873.20	882.20	890.03	897.10
75.6	842.45	856.15	866.29	874.67	882.03	888.75
73.5	837.74	850.28	859.55	867.14	873.74	879.82
71.4	833.14	846.34	856.44	864.63	871.77	878.39
69.3	828.23	841.55	851.80	859.78	866.65	873.03
67.2	825.40	839.09	849.57	857.59	864.52	871.02
65.1	822.51	835.96	846.24	853.89	860.46	866.65
63.0	818.99	832.92	843.26	851.52	858.50	865.08
60.9	815.21	828.87	839.02	847.22	854.64	861.54
58.8	810.58	823.82	833.76	841.61	848.78	855.54
57.0	807.89	821.00	830.88	838.59	845.76	852.59
55.0	805.23	818.01	827.57	834.80	841.61	848.19
53.1	803.52	816.85	826.71	834.09	841.10	847.86
51.0	801.85	815.6	825.62	833.04	840.13	847.00
48.3	800.04	814.78	824.99	832.47	839.63	846.57
46.2	798.77	813.93	824.10	831.46	838.54	845.43
44.1	798.48	813.77	824.00	831.39	838.52	845.46
43.7	797.92	812.90	822.75	829.68	836.38	842.94
42.0	797.14	812.72	822.82	829.99	836.95	843.77
39.1	795.54	811.63	821.60	828.54	835.32	842.00
37.0	795.12	811.53	821.61	828.63	835.50	842.27
36.0	794.56	810.94	820.83	827.59	834.24	840.82
34.6	794.38	810.84	820.75	827.53	834.22	840.84
33.6	794.39	810.94	820.93	827.80	834.57	841.28
31.5	794.09	810.55	820.37	827.03	833.62	840.16
30.1	793.95	810.42	820.22	826.86	833.43	839.96
29.0	793.86	810.32	820.10	826.70	833.25	839.77
27.3	793.74	810.17	819.91	826.46	832.97	839.47
25.2	793.65	810.07	819.79	826.32	832.81	839.30
23.1	793.50	809.86	819.49	825.91	832.32	838.74

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Table 8. Melton Hill Reservoir, HEC-RAS Norris Tailwater vs. Norris Tailwater Rating Curve (Attachment 3)

Tailwater Elevation (Dam Rating Curve)	Discharge (Dam Rating Curve)	Tailwater Elevation (HEC-RAS)	Discharge- (HEC-RAS)
Elevation (ft)	1000 cfs	Elevation (ft)	1000 cfs
825.20	0	841.16	50
850.10	100	852.01	100
866.20	200	866.62	200
877.00	300	877.30	300
885.70	400	886.06	400
895.80	500	893.69	500
		900.49	600

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6.3 SOCH Steady-State Calibration

The SOCH model was run under steady-state conditions and compared to the steady-state profiles from HEC-RAS. The downstream starting elevations were taken from Table 4. Uniform, steady-state flow in 100,000 cfs increments was specified so no local inflows were used. The SOCH model was also set up to interpolate a section between every original HEC-RAS cross-section. Because only the output from the odd number cross-sections are used to determine elevation and discharge, this ensured that the same number of points are available to plot the results generated by SOCH as compared to the HEC-RAS output. The interpolation of sections also allows for a smoother transition from section to section and will improve the model's stability when larger flows are applied such as during a PMF analysis. The Manning's n values were adjusted so the SOCH steady-state profiles coincided with the HEC-RAS steady-state profiles in the range of 600,000 cfs. Several iterations of Manning's n value were run to achieve calibration. These iterations are not shown in this calculation; only the runs using the final Manning's n values are shown. The Manning's n values calibrated for the SOCH model are compared to the Manning's n values calibrated for the HEC-RAS steady-state model in Table 10.

6.3.1 SOCH Steady-State Profiles in 100K Increments

The SOCH model was calibrated to the steady-state profiles by adjusting the Manning's n values. Steady-state profiles were then run in 100,000 cfs increments (Figure 7, Tables 10 and 11) at profiles ranging from 100,000 cfs to 600,000 cfs. Because the calibration is focused on matching the profiles at the higher flow level, the lower flow profiles in the historic flood range may not match as closely as the 600,000 cfs profile. However, the SOCH profiles were conservatively higher than the HEC-RAS profiles. Figure 8 and Table 12 show the elevations of the HEC-RAS and SOCH steady-state profiles at Norris Dam compared to the tailwater rating curve for Norris Dam (Attachment 4).

6.4 SOCH Unsteady-State Historic Simulations

The calibrated SOCH model, with the revised Manning's n values, was run under unsteady-flow conditions and compared to the 1973 and 2003 flood events. Recorded Norris discharges were used as the upstream boundary flows (upstream boundary condition) and recorded Melton Hill elevations were used as the downstream boundary condition (Attachments 4 and 5). An additional baseflow of 2000 cfs was added to the inflow at Norris because the discharge from the dam frequently goes to zero and the SOCH model will not run in dry channel conditions. The 2000 cfs baseflow was removed at river mile 58.9, just before the gage location, so that the hydrograph at 58.8 was not affected. The baseflow can be removed at this point because the model has adequate depth below this location.

The local inflow hydrographs developed from unit hydrographs (Attachment 6) were input to account for local and rain on reservoir inflows. As tabulated in Attachment 6, one hydrograph comprises the local inflow for each flood event. It was evenly distributed from River Mile 79.8 to 23.1. The hydrograph from rain falling directly on the reservoir was also calculated in Attachment 6. It was distributed from River Mile 68.0 to 23.1. CRM 68.0 is where the 800 foot contour crosses the water surface. The river system transitions from flat pool storage to a sloping river between CRM 67.2 and 69.3 (Reference 2.6). The 800 foot contour serves as the break line between the flat pool storage portion and the sloping river portion. The hydrographs were developed in a separate calculation (Reference 2.7) and are validated in this calculation (Section 6.5).

The SOCH model accounts for reservoir storage in the weighted-width value in the SOCH geometry (Reference 2.14). The initial SOCH geometry was developed in a separate calculation (Reference 2.6) and was updated to include a revised $R^{2/3}$ term in Section 6.2.1. The SOCH geometry was also updated to account for the additional area, elevation and weighted width terms that were a result of the extension of twelve cross-sections.

Calculated flood elevations were compared to the measured elevations at gage stations and calculated flow was compared to observed flow at Melton Hill Dam. After completion of the two unsteady-state historic simulations, the annotation in

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the SOCH geometry file (Section 6.5) was updated to include the final Manning's n values for the SOCH model. This geometry file was then considered the final SOCH geometry file for Melton Hill Reservoir.

6.4.1 SOCH 1973 Simulation

The calibrated SOCH model was run under unsteady-conditions and compared to the observed 1973 flood (Appendix A) at two gage locations. The modeled peak flood elevations were within one foot of the peak elevation at all gage locations (Figures 9 and 10). A comparison of the observed discharge to computed discharge at Melton Hill Dam, CRM 23.1, is shown in Figure 11.

6.4.2 SOCH 2003 Simulation

The calibrated SOCH model was run under unsteady-conditions and compared to the observed 2003 flood (Appendix A) at two gage locations. The modeled peak flood elevations track along the observed data within one foot (Figure 12). A comparison of the observed discharge to computed discharge at Melton Hill Dam, CRM 23.1, is shown in Figure 13. The SOCH model is expected to be slightly above the observed elevations because the model was calibrated with a focus on flows in the range of the PMF and the steady-state profiles in the range of the historic floods were slightly above the calibrated HEC-RAS profiles.

6.5 Validation of Local Inflows Developed from Unit Hydrographs (Subbasin 27)

The local inflows to Melton Hill Reservoir computed using a unit hydrograph and storm rainfall for subbasin 27 (Reference 2.7), when combined with the observed data for the floods, reproduce the observed elevations at gage locations along the reservoir as shown in Figures 9 and 10 for the 1973 flood and Figure 12 for the 2003 flood. It is thus concluded that use of these local inflows in combination with the observed data (Norris observed discharge and tailwater elevation and Melton Hill observed discharge and headwater elevation) confirms the SOCH model's replication of these events. As a result, the unit hydrograph developed for subbasin 27 has been indirectly validated by this study and is adequate for use in developing local inflows for other events including the PMF for the TVA Nuclear Plant sites.

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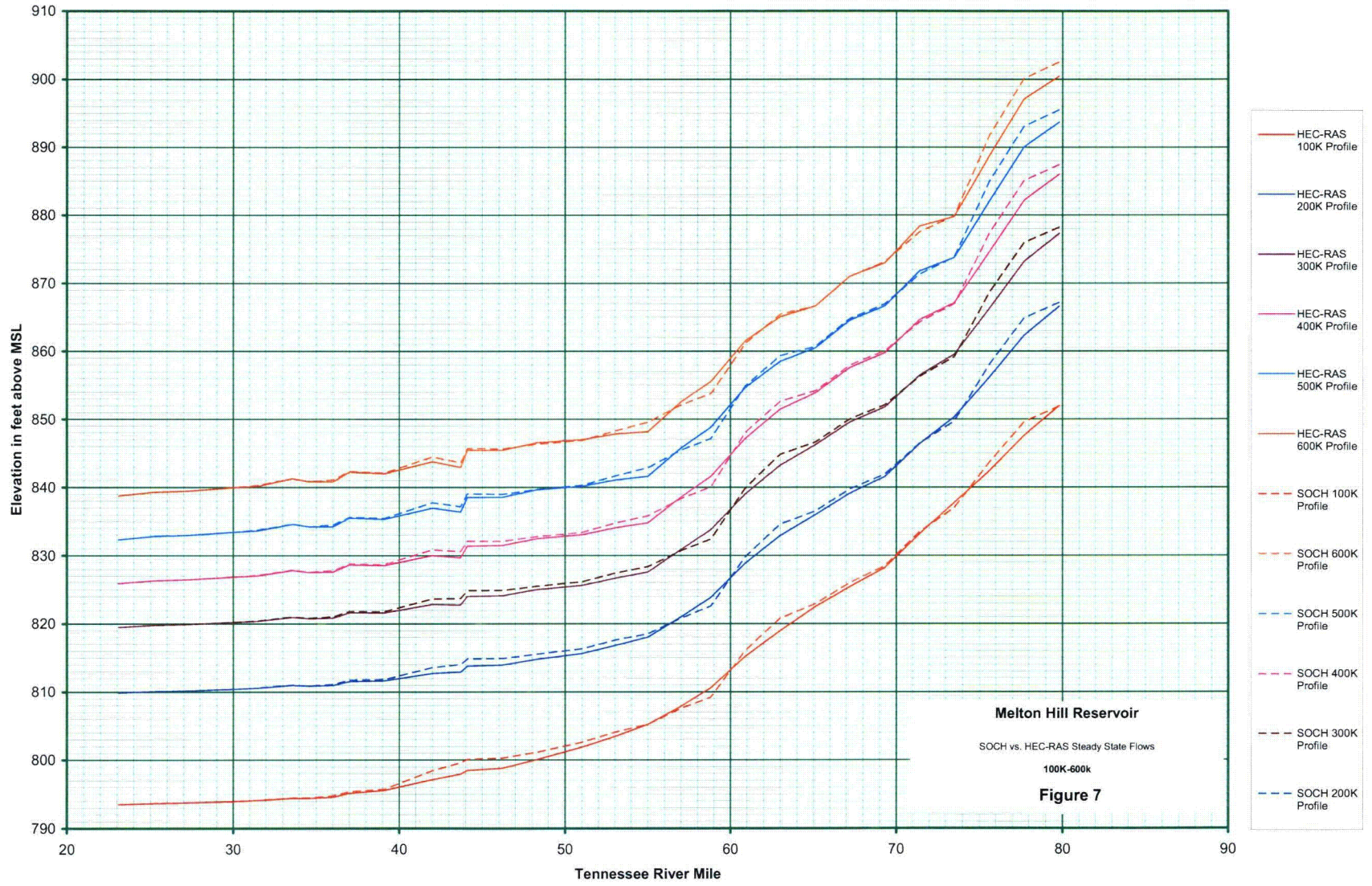
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Table 9. SOCH Manning's *n* Values Compared to HEC-RAS Manning's *n* values (Appendices A and H)

Clinch River Mile	HEC-RAS Manning's <i>n</i>	SOCH Manning's <i>n</i>	Clinch River Mile	HEC-RAS Manning's <i>n</i>	SOCH Manning's <i>n</i>
79.80	0.036	0.029	47.25 ¹		0.020
78.75 ¹		0.025	46.20	0.023	0.020
77.70	0.036	0.040	45.15 ¹		0.020
76.65 ¹		0.040	44.10	0.023	0.030
75.60	0.036	0.040	43.90 ¹		0.030
74.55 ¹		0.040	43.70	0.023	0.030
73.50	0.037	0.033	42.85 ¹		0.030
72.45 ¹		0.033	42.00	0.023	0.030
71.40	0.037	0.040	40.55 ¹		0.030
70.35 ¹		0.036	39.10	0.023	0.023
69.30	0.037	0.034	38.05 ¹		0.023
68.25 ¹		0.034	37.00	0.023	0.028
67.20	0.037	0.034	36.50 ¹		0.028
66.15 ¹		0.040	36.00	0.023	0.028
65.10	0.037	0.032	35.30 ¹		0.028
64.05 ¹		0.032	34.60	0.023	0.028
63.00	0.037	0.040	34.10 ¹		0.028
61.95 ¹		0.045	33.60	0.023	0.029
60.90	0.037	0.045	32.55 ¹		0.029
59.85 ¹		0.045	31.50	0.023	0.025
58.80	0.037	0.040	30.80 ¹		0.025
57.90 ¹		0.020	30.10	0.023	0.020
57.00	0.023	0.020	29.55 ¹		0.020
56.00 ¹		0.020	29.00	0.023	0.020
55.00	0.023	0.020	28.15 ¹		0.020
54.05 ¹		0.020	27.30	0.023	0.023
53.10	0.023	0.020	26.25 ¹		0.023
52.05 ¹		0.020	25.20	0.023	0.023
51.00	0.023	0.020	24.15 ¹		0.023
49.65 ¹		0.020	23.10	0.023	0.023
48.30	0.023	0.020			

¹SOCH interpolated section.

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- HEC-RAS 100K Profile
- HEC-RAS 200K Profile
- HEC-RAS 300K Profile
- HEC-RAS 400K Profile
- HEC-RAS 500K Profile
- HEC-RAS 600K Profile
- - - SOCH 100K Profile
- - - SOCH 600K Profile
- - - SOCH 500K Profile
- - - SOCH 400K Profile
- - - SOCH 300K Profile
- - - SOCH 200K Profile

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Table 10. Melton Hill Reservoir, Steady-State Profile Comparisons, HEC-RAS vs. SOCH*, 100K – 400K (Appendices A and E)

Clinch River Mile	HEC-RAS 100K Profile	SOCH 100K Profile*	HEC-RAS 200K Profile	SOCH 200K Profile*	HEC-RAS 300K Profile	SOCH 300K Profile*	HEC-RAS 400K Profile	SOCH 400K Profile*
	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
79.8	852.01	851.98	866.62	867.19	877.30	878.24	886.06	887.48
77.7	847.62	849.63	862.29	864.87	873.20	875.96	882.20	885.11
75.6	842.45	843.73	856.15	858.03	866.29	868.71	874.67	877.42
73.5	837.74	837.05	850.28	849.69	859.55	859.19	867.14	867.01
71.4	833.14	833.47	846.34	846.43	856.44	856.27	864.63	864.29
69.3	828.23	828.51	841.55	841.93	851.80	852.15	859.78	860.11
67.2	825.40	825.99	839.09	839.72	849.57	850.04	857.59	857.95
65.1	822.51	822.94	835.96	836.51	846.24	846.64	853.89	854.20
63.0	818.99	820.84	832.92	834.59	843.26	844.86	851.52	852.67
60.9	815.21	816.10	828.87	829.83	839.02	839.92	847.22	848.12
58.8	810.58	809.22	823.82	822.60	833.76	832.40	841.61	840.07
57.0	807.89	807.59	821.00	820.83	830.88	830.73	838.59	838.36
55.0	805.23	805.23	818.01	818.50	827.57	828.36	834.80	835.82
53.1	803.52	804.14	816.85	817.64	826.71	827.44	834.09	834.78
51.0	801.85	802.59	815.60	816.32	825.62	826.14	833.04	833.39
48.3	800.04	801.14	814.78	815.52	824.99	825.49	832.47	832.76
46.2	798.77	800.27	813.93	814.89	824.10	824.86	831.46	832.08
44.1	798.48	800.10	813.77	814.82	824.00	824.84	831.39	832.10
43.7	797.92	799.58	812.90	814.01	822.75	823.70	829.68	830.57
42.0	797.14	798.42	812.72	813.59	822.82	823.64	829.99	830.82
39.1	795.54	795.72	811.63	811.79	821.60	821.76	828.54	828.68
37.0	795.12	795.37	811.53	811.73	821.61	821.79	828.63	828.78
36.0	794.56	794.76	810.94	811.12	820.83	821.03	827.59	827.82
34.6	794.38	794.44	810.84	810.89	820.75	820.79	827.53	827.56
33.6	794.39	794.45	810.94	811.01	820.93	821.00	827.80	827.86
31.5	794.09	794.11	810.55	810.59	820.37	820.42	827.03	827.11
30.1	793.95	793.90	810.42	810.40	820.22	820.21	826.86	826.85
29.0	793.86	793.84	810.32	810.31	820.10	820.08	826.70	826.69
27.3	793.74	793.74	810.17	810.18	819.91	819.92	826.46	826.47
25.2	793.65	793.66	810.07	810.08	819.79	819.79	826.32	826.30
23.1	793.50	793.50	809.86	809.86	819.49	819.49	825.91	825.91

*SOCH Model results taken from odd nodes only (every other cross-section). Even node points used to advance computation. Since interpolated sections were used in SOCH, the elevation at each original section is usable.

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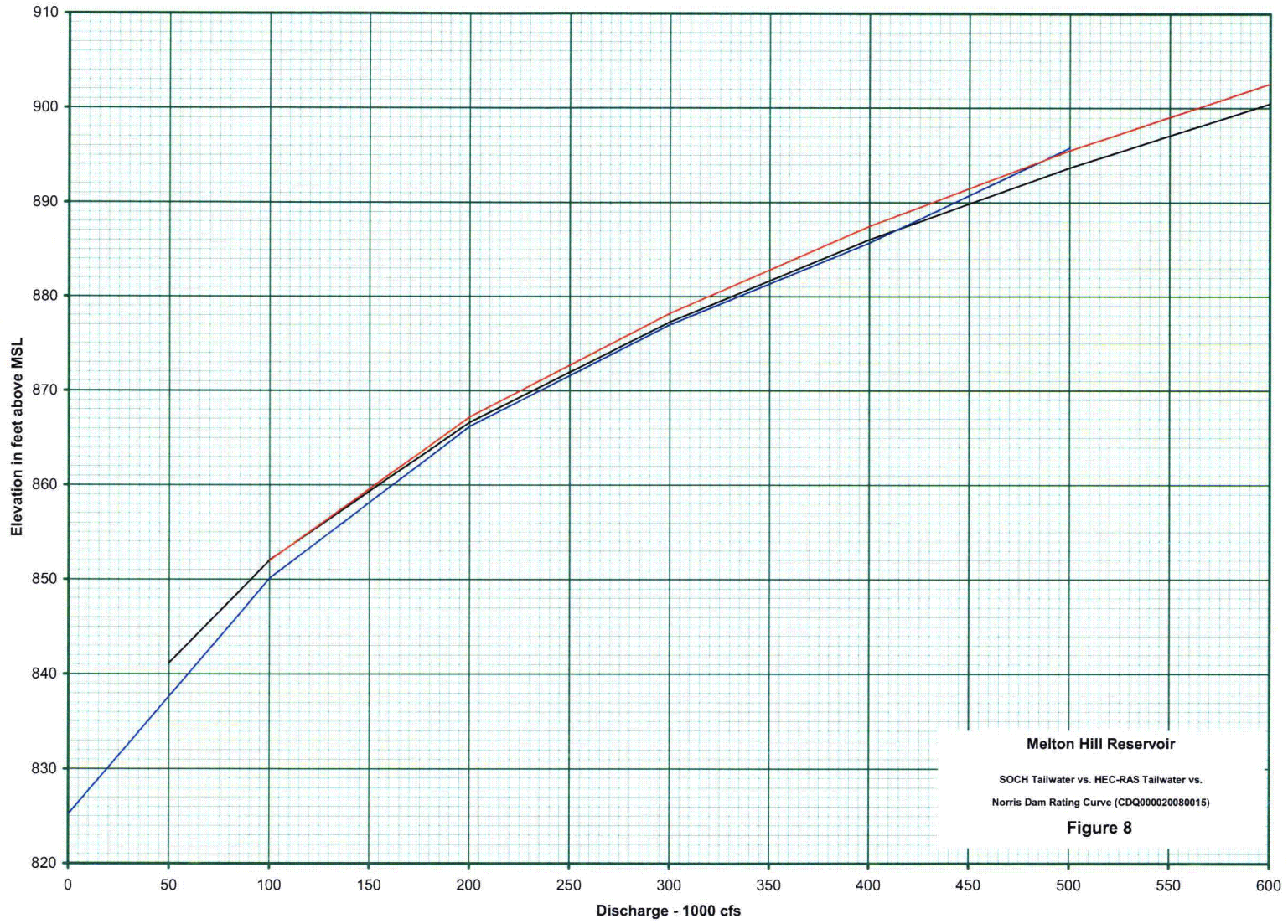
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Table 11. Melton Hill Reservoir, Steady-State Profile Comparisons, HEC-RAS vs. SOCH*, 500K-600K (Appendices A and E)

Clinch River Mile	HEC-RAS 500K Profile	SOCH 500K Profile*	HEC-RAS 600K Profile	SOCH 600K Profile*
	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
79.8	893.69	895.53	900.49	902.60
77.7	890.03	893.07	897.10	900.12
75.6	882.03	884.98	888.75	891.74
73.5	873.74	873.85	879.82	879.94
71.4	871.77	871.29	878.39	877.56
69.3	866.65	866.97	873.03	873.19
67.2	864.52	864.78	871.02	870.99
65.1	860.46	860.70	866.65	866.65
63.0	858.50	859.33	865.08	865.47
60.9	854.64	854.89	861.54	861.18
58.8	848.78	847.13	855.54	853.77
57.0	845.76	845.46	852.59	852.15
55.0	841.61	842.85	848.19	849.56
53.1	841.10	841.71	847.86	848.34
51.0	840.13	840.28	847.00	846.91
48.3	839.63	839.68	846.57	846.35
46.2	838.54	838.97	845.43	845.65
44.1	838.52	839.04	845.46	845.74
43.7	836.38	837.18	842.94	843.60
42.0	836.95	837.75	843.77	844.48
39.1	835.32	835.46	842.00	842.11
37.0	835.50	835.62	842.27	842.35
36.0	834.24	834.51	840.82	841.11
34.6	834.22	834.22	840.84	840.82
33.6	834.57	834.62	841.28	841.29
31.5	833.62	833.73	840.16	840.29
30.1	833.43	833.44	839.96	840.00
29.0	833.25	833.25	839.77	839.79
27.3	832.97	832.98	839.47	839.48
25.2	832.81	832.78	839.30	839.25
23.1	832.32	832.32	838.74	838.74

*SOCH Model results taken from odd nodes only (every other cross-section). Even node points used to advance computation. Since interpolated sections were used in SOCH, the elevation at each original section is usable.

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Melton Hill Reservoir
 SOCH Tailwater vs. HEC-RAS Tailwater vs.
 Norris Dam Rating Curve (CDQ000020080015)
Figure 8

— Tailwater Profile (HEC-RAS)

— Tailwater Profile (Dam Rating Curve)

— Tailwater Profile (SOCH)

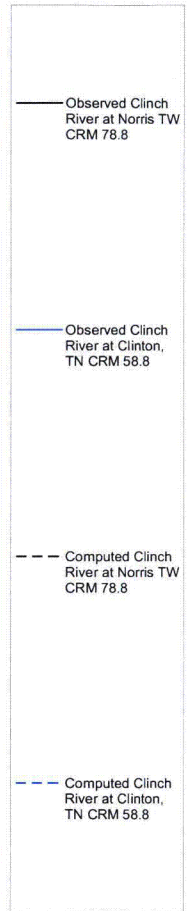
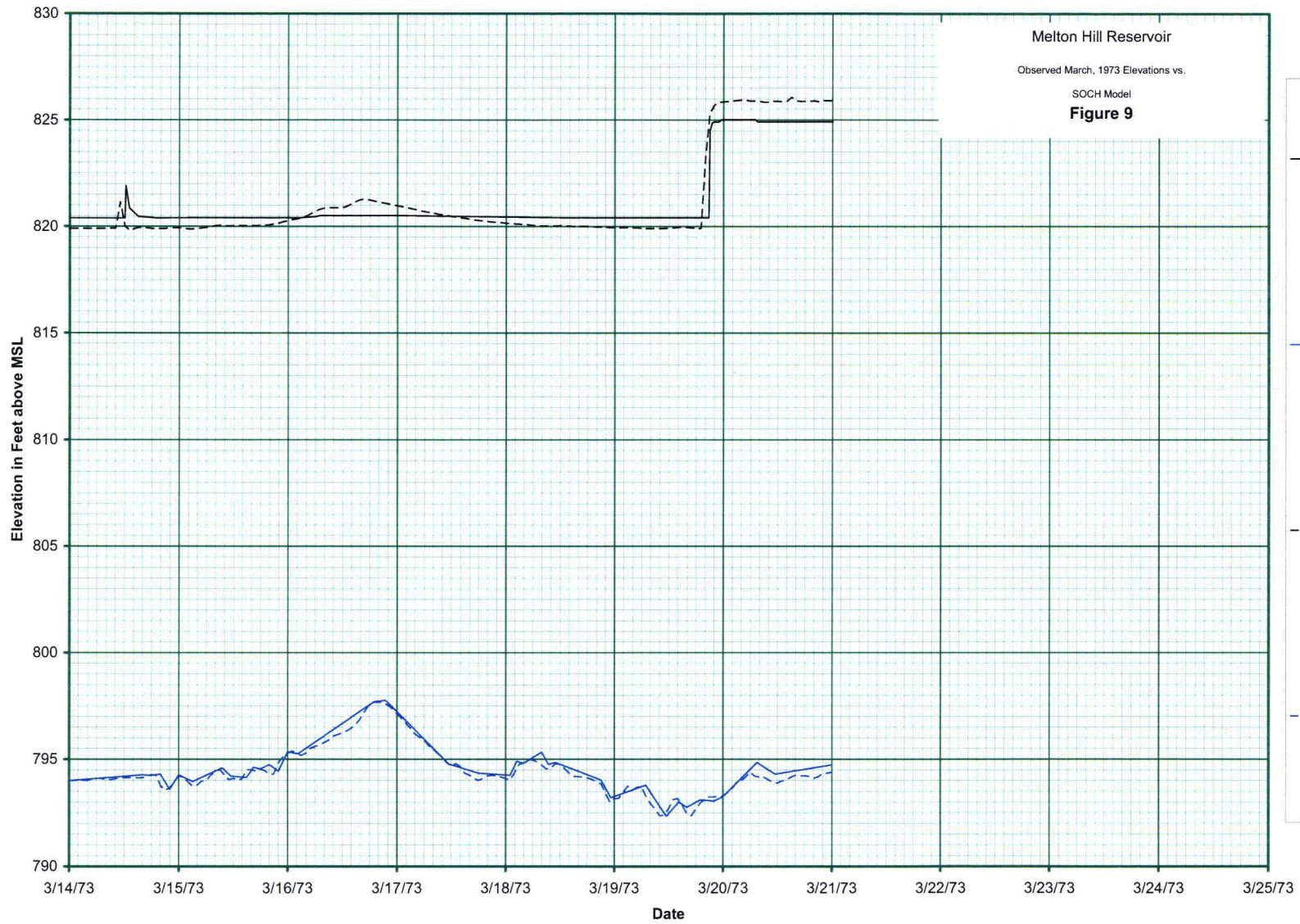
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Table 12. Melton Hill Reservoir, HEC-RAS and SOCH Norris Tailwater vs. Norris Tailwater Rating Curve (Attachment 3)

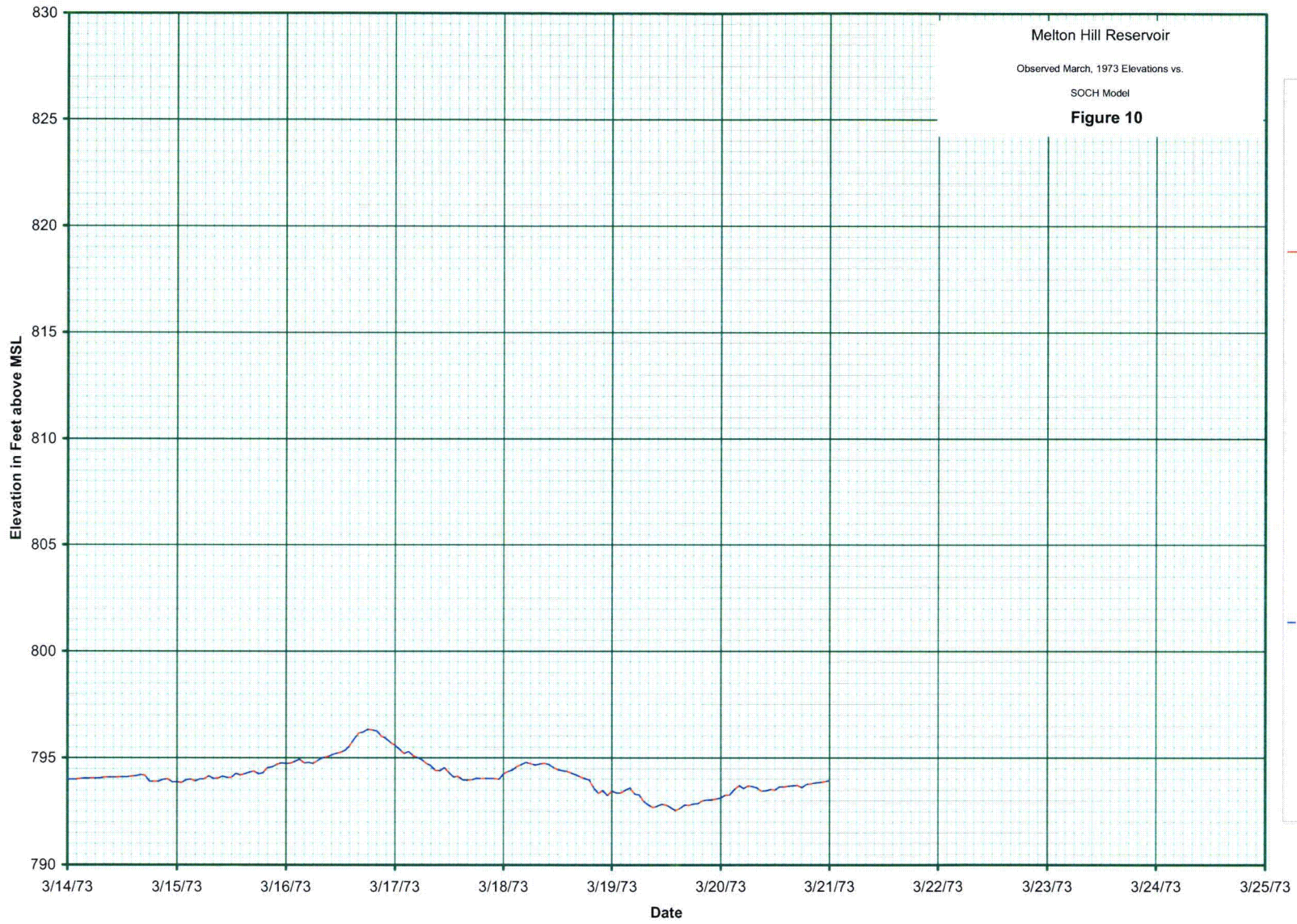
Tailwater Elevation (Dam Rating Curve)	Discharge (Dam Rating Curve)	Tailwater Elevation (HEC-RAS)	Discharge (HEC-RAS)	Tailwater Elevation (SOCH)	Discharge- (SOCH)
Elevation (ft)	1000 cfs	Elevation (ft)	1000 cfs	Elevation (ft)	1000 cfs
825.20	0				
		841.16	50		
850.10	100	852.01	100	851.98	100
866.20	200	866.62	200	867.19	200
877.00	300	877.30	300	878.24	300
885.70	400	886.06	400	887.48	400
895.80	500	893.69	500	895.53	500
		900.49	600	902.60	600

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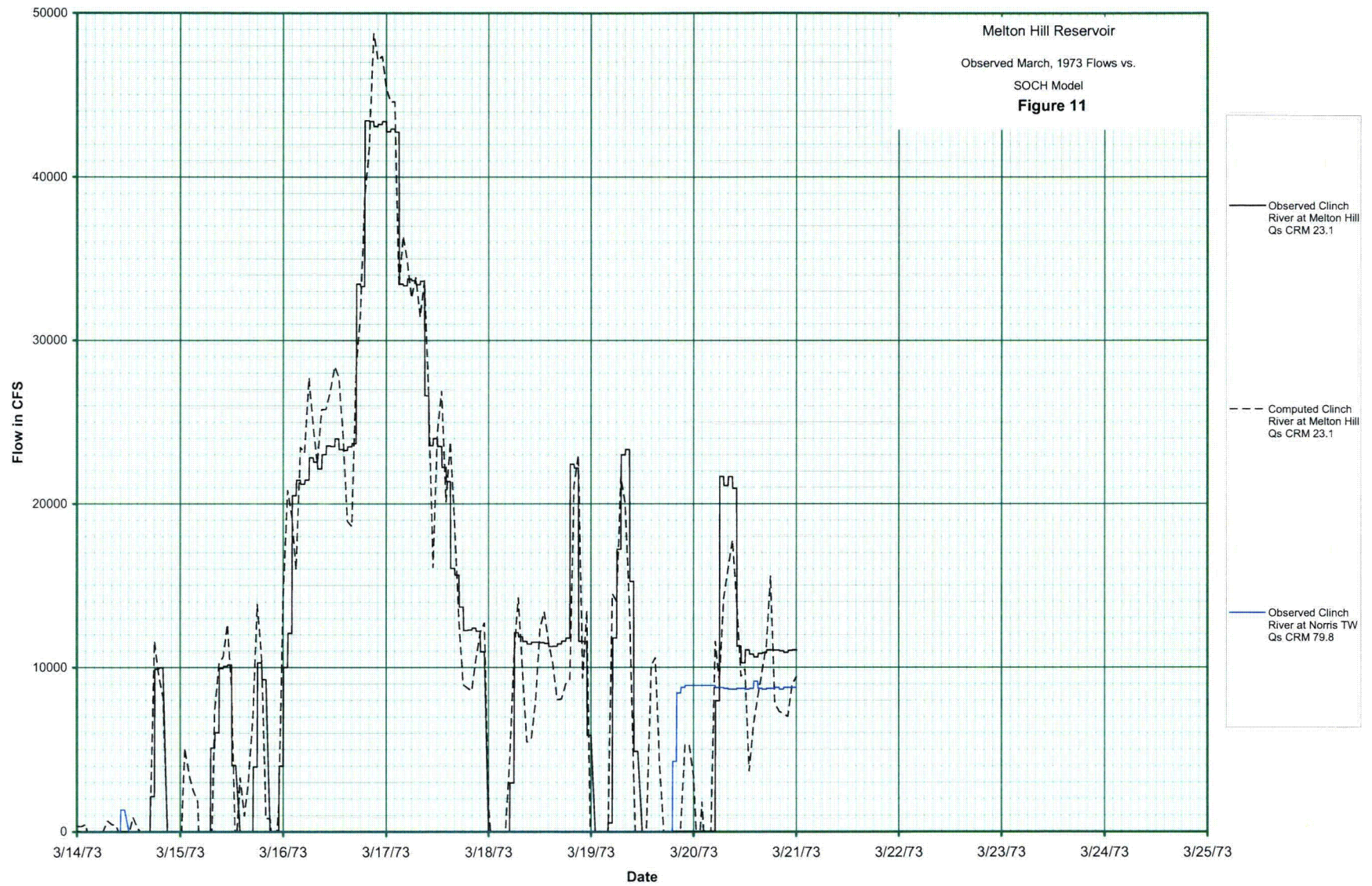


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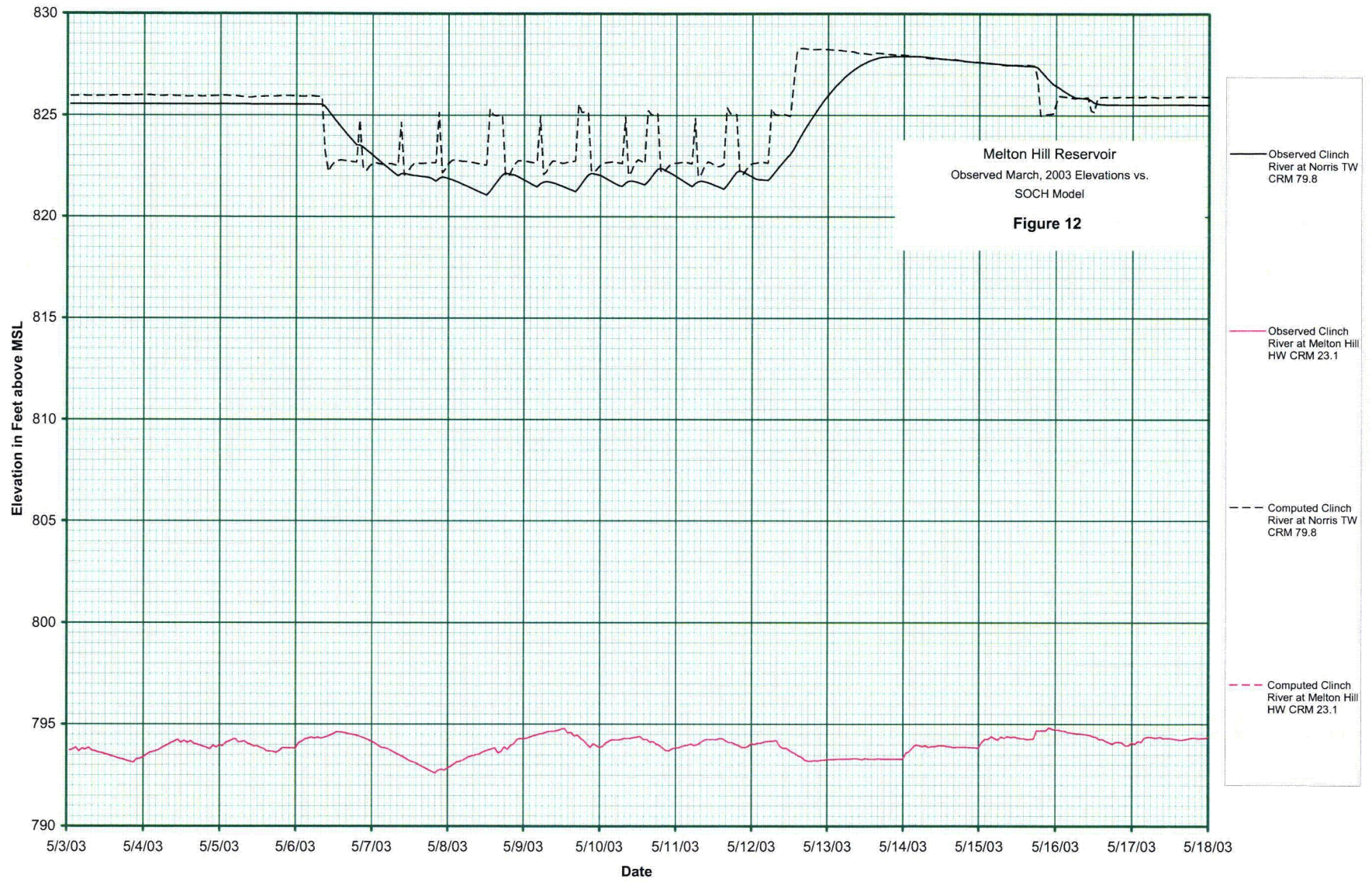
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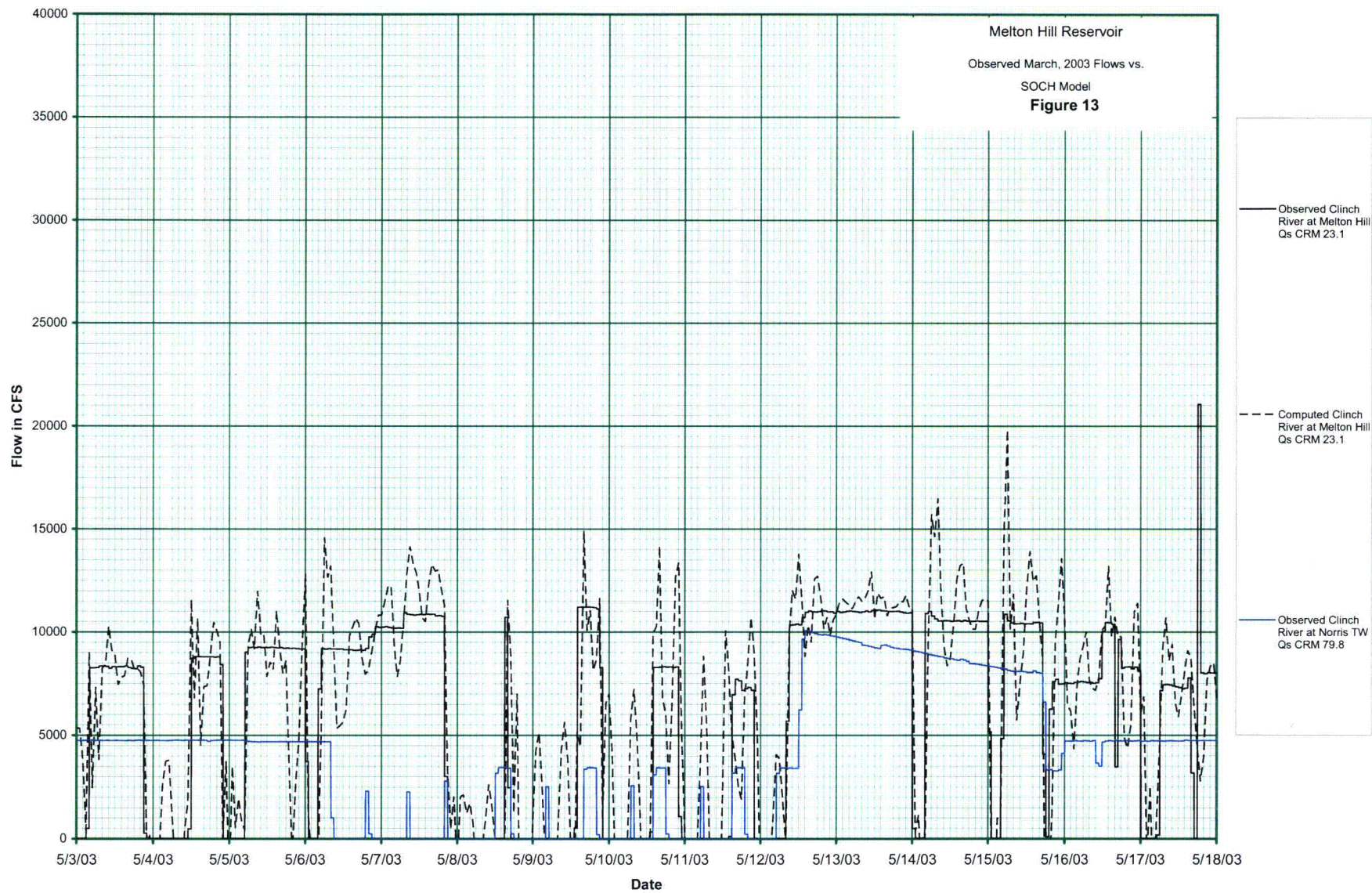
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7. Results/Conclusions

This calibration process provided model results that reproduced the historic floods (1973 and 2003) to within one foot of the peak elevation at all gage stations. The SOCH model accurately replicated observed elevations and discharges for two large historic flood events. Peak flood elevations were at or slightly above the historic flood peak elevations representing an accurate and conservative calibration. Because the model accurately replicated two historic floods that occurred 30 years apart, it is shown that the SOCH model performs well in predicting flood elevations and discharges. The SOCH model can thus be used to reliably predict flood elevations and discharges for events of other magnitudes and is adequate for use in predicting flood elevations and discharges for the PMF.

A verification of the time-step was conducted as described in Section 4 of Reference 2.8. A 60 second time step was the longest stable time step. The results using a 5 second time step were comparable to the results using a 60 second time step so the 5 second time step is acceptable.

The local inflows to Melton Hill Reservoir for subbasin 27, when distributed over the appropriate portion of the reservoir and combined with observed flood data, reproduced the observed flood elevations. The "direct runoff with baseflow" portion of the local inflow was distributed over the entire reservoir (CRM 79.8 to CRM 23.1). The "rain on reservoir" portion of the local inflow was distributed from CRM 68.0 to CRM 23.1 (Section 6.4). The unit hydrograph developed for subbasin 27 has therefore been validated and is adequate for use in developing flood inflows for other events.

The final Manning's n values for the SOCH model for Melton Hill Reservoir, Clinch River Miles 79.8 to 23.1, determined by this calibration process are provided in Table 13. The final calibrated SOCH geometry file is named "Melton Hill Rev4.geo" and is included in Appendix A. The final Manning's n values and the "Melton Hill Rev4.geo" file are to be used in the SOCH PMF determination. In conjunction with using "Melton Hill Rev4.geo", interpolated sections should be computed internally within SOCH runs to be used as the even-numbered sections.

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Table 13. Final Manning's n , Melton Hill Reservoir (Appendix A)

Clinch River Mile	Manning's n	Clinch River Mile	Manning's n
79.80	0.029	47.25 ¹	0.020
78.75 ¹	0.025	46.20	0.020
77.70	0.040	45.15 ¹	0.020
76.65 ¹	0.040	44.10	0.030
75.60	0.040	43.90 ¹	0.030
74.55 ¹	0.040	43.70	0.030
73.50	0.033	42.85 ¹	0.030
72.45 ¹	0.033	42.00	0.030
71.40	0.040	40.55 ¹	0.030
70.35 ¹	0.036	39.10	0.023
69.30	0.034	38.05 ¹	0.023
68.25 ¹	0.034	37.00	0.028
67.20	0.034	36.50 ¹	0.028
66.15 ¹	0.040	36.00	0.028
65.10	0.032	35.30 ¹	0.028
64.05 ¹	0.032	34.60	0.028
63.00	0.040	34.10 ¹	0.028
61.95 ¹	0.045	33.60	0.029
60.90	0.045	32.55 ¹	0.029
59.85 ¹	0.045	31.50	0.025
58.80	0.040	30.80 ¹	0.025
57.90 ¹	0.020	30.10	0.020
57.00	0.020	29.55 ¹	0.020
56.00 ¹	0.020	29.00	0.020
55.00	0.020	28.15 ¹	0.020
54.05 ¹	0.020	27.30	0.023
53.10	0.020	26.25 ¹	0.023
52.05 ¹	0.020	25.20	0.023
51.00	0.020	24.15 ¹	0.023
49.65 ¹	0.020	23.10	0.023
48.30	0.020		

¹SOCH interpolated section.

CDQ000020080038 Rev 0

Appendix A_Final Manning's n, Final SOCH Geometry, Profiles and Calibration Graphs
with files:

Melton Hill_FinalManningsn.xls
Final 5 secTS_Melton Hill SOCH_SteadyState_100Kto600K_Profiles.xls
Melton Hill HEC_RAS_SteadyState_FEMA_Profiles.xls
Melton Hill Rev4.geo
Observed vs. SOCH Mar 1973 Hydrographs.xls
Observed vs. SOCH May 2003 Hydrographs.xls

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 1 of 2
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix B		Checked	ACM

SOCH Input Files, Steady State

Final_MeltonHill_Calibrate_100Kto600K-61SOCHInterp.dat

Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

08 09 27 0 5 60
08 10 31 0
08 09 27 0 -1 -1 1
1 0 31 0 21 0 0
61 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
79.80 0
5544 5544 5544 5544 5544 5544 5544 5544
5544 5544 5544 5544 5544 5544 5544 5544
5544 5544 5544 5544 4752 4752 5280 5280
5016 5016 5544 5544 7128 7128 5544 5544
5544 5544 1056 1056 4488 4488 7656 7656
5544 5544 2640 2640 3696 3696 2640 2640
5544 5544 3696 3696 2904 2904 4488 4488
5544 5544 5544 5544

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0.00 0 0.00 0 0.00 0 0.00 0
0.00 0 0.00 0 0.00 0 0.00 0
0.00 0 0.00 0 0.00 0 0.00 0
0.00 0 0.00 0 0.00 0 0.00 0
0.00 0 0.00 0 0.00 0 0.00 0
0.00 0 0.00 0 0.00 0 0.00 0
0.00 0 0.00 0 0.00 0 0.00 0
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0.00 0 0.00 0 0.00 0 0.00 0

793.50 0
1 15
793.5 793.5 793.5 809.86 809.86 819.49 819.49 825.91
825.91 832.32 832.32 838.74 838.74 849.85 849.85
0. 96. 216. 240. 336. 360. 456. 480.
576. 600. 696. 720. 816. 840. 1176.
0.029 0.025 0.04 0.04 0.04 0.04 0.033 0.033
0.04 0.036 0.034 0.034 0.034 0.04 0.032 0.032
0.04 0.045 0.045 0.045 0.04 0.02 0.02 0.02
0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02
0.02 0.02 0.03 0.03 0.03 0.03 0.03 0.03
0.023 0.023 0.028 0.028 0.028 0.028 0.028 0.028
0.029 0.029 0.025 0.025 0.02 0.02 0.02 0.02
0.023 0.023 0.023 0.023 0.023

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 2 of 2
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix B		Checked	ACM

Final_Norris100Kto600K-61SOCHInterp.bnd

1 12
100000 100000 200000 200000 300000 300000 400000 400000
500000 500000 600000 600000
0. 216. 240. 336. 360. 456. 480. 576.
600. 696. 720. 816.

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 2 of 5
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix C		Checked	ACM

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 10890 10890 10890 10890 10890 10760 10770 10720
 10660 10660 10720 10720 10660 10720 11160 10720
 10660 10720 10720 10780 10660 10780 10780 10780
 1 170
 794. 794. 794. 794. 794.04 794.05 794.05 794.05
 794.06 794.09 794.1 794.1 794.1 794.11 794.11 794.14
 794.16 794.21 794.19 793.9 793.9 793.9 793.99 794.01
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 794.15 794.03 794.05 794.14 794.08 794.08 794.27 794.19
 794.26 794.33 794.38 794.25 794.3 794.54 794.58 794.68
 794.76 794.73 794.75 794.83 794.93 794.76 794.78 794.73
 794.87 795. 795.04 795.13 795.2 795.25 795.34 795.55
 795.87 796.15 796.2 796.33 796.3 796.26 796.01 795.9
 795.71 795.58 795.4 795.2 795.29 795.1 795.01 794.9
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 794. 794.25 794.36 794.43 794.59 794.68 794.78 794.74
 794.66 794.71 794.75 794.68 794.55 794.44 794.4 794.37
 794.28 794.2 794.11 794.03 793.97 793.59 793.34 793.48
 793.24 793.45 793.36 793.36 793.5 793.6 793.31 793.27
 792.96 792.8 792.69 792.75 792.84 792.8 792.67 792.55
 792.65 792.8 792.79 792.85 792.87 793. 793.04 793.05
 793.09 793.13 793.26 793.27 793.54 793.71 793.57 793.7
 793.66 793.6 793.45 793.47 793.53 793.5 793.65 793.65
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 793.9 793.94
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 119. 120. 121. 122. 123. 124. 125. 126.

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 4 of 5
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix C		Checked	ACM

-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
-2000	-2000	-2000	-2000	-2000	-2000	-2000	-2000
181	2						
533	533	533	533	533	533	533	533
533	533	533	533	533	533	533	533
533	533	533	533	533	533	533	533
533	533	533	533	533	533	533	533
533	533	533	533	533	533	533	533
533	561	589	617	644	672	700	728
756	784	812	839	867	895	923	2016
7843	8126	7833	7533	7501	7855	9225	12604
16818	19976	23968	30914	33656	32679	31937	38647
43533	40412	37551	35080	31841	28603	25344	22398
20135	18179	16009	13961	12529	11409	10373	9545
8801	8015	7249	6605	6129	5715	5235	4773
4478	4275	4090	3948	3822	3686	3539	3394
3247	3101	2955	2814	2688	2580	2480	2397
2349	2302	2244	2192	2191	2207	2202	2201
2204	2204	2204	2204	2204	2204	2204	2204
2204	2204	2204	2204	2204	2204	2204	2204
2204	2204	2204	2204	2204	2204	2204	2204
2204	2204	2204	2204	2204	2204	2204	2204
2204	2204	2204	2204	2204	2204	2204	2204
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2204	2204	2204	2204	2204	2204	2204	2204
181	2						
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0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	959
959	226	28	28	0	113	113	395

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 2 of 7
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix D		Checked	ACM

6749	6749	6749	6749	6749	6749	6749	6749
6749	6749	6749	6749	6749	6749	6749	6749
6749	6749	6749	6749	6749	6749	6749	6749
6749	6744	6753	6759	6764	6754	6748	6756
6745	6750	6746	6748	6750	6749	6748	6742
6751	6741	6752	6765	6753	6749	6756	6743
6750	6755	6745	6747	6736	6750	6763	6769
6761	6752	6766	6758	6767	6763	6767	6766
6763	6713	6743	6763	6764	6766	6764	6766
6768	6758	6762	6761	6764	6728	6705	6689
6688	6683	6689	6691	6694	6694	6691	6691
6690	6687	6690	6692	6692	6692	6690	6692
6690	6688	6695	6690	6691	6692	6693	6695
3011	2000	2000	2000	2000	2000	2000	2000
2000	2000	2012	4297	2236	2000	2000	2000
2000	2000	2000	2000	2000	2000	2000	2000
4266	2000	2000	2000	2000	2000	2000	2000
2000	2000	2000	2000	4792	2000	2000	2000
2000	2000	2000	2000	2000	2000	2000	2000
2000	2000	2000	2012	5162	5441	5436	5433
5411	2237	2000	2000	2000	2000	2000	2000
2000	2000	2000	2014	4516	2000	2000	2000
2000	2000	2000	2000	2000	2011	2000	2004
5363	5432	5433	5421	2202	2000	2009	2000
2000	2000	2000	2000	2000	2000	2014	4569
2000	2000	2000	2000	2000	2012	5091	5430
5420	5427	2243	2000	2000	2000	2000	2000
2000	2000	2000	2000	2012	4531	2000	2000
2000	2000	2000	2000	2000	2000	2012	5180
5431	5433	5433	2229	2000	2000	2000	2000
2000	2000	2000	2000	2013	5162	5426	5424
5406	5424	5407	5412	8219	11652	12063	12020
11975	11925	11871	11869	11870	11849	11811	11785
11752	11717	11682	11647	11606	11568	11524	11489
11363	11342	11309	11271	11231	11199	11354	11368
11319	11257	11224	11199	11171	11165	11156	11121
11079	11058	11024	10983	10957	10912	10876	10852
10812	10793	10743	10723	10709	10658	10632	10686
10645	10580	10472	10457	10442	10419	10393	10368
10340	10322	10289	10257	10229	10199	10144	10109
10095	10092	10091	10069	10044	10047	10117	10033
10006	8601	5325	5330	5280	5270	5321	6123
6723	6719	6716	6738	6725	6716	6739	6733
6709	6744	5661	5502	6678	6722	6741	6725
6757	6730	6727	6748	6735	6718	6735	6742
6710	6723	6709	6737	6729	6730	6734	6716
6730	6737	6730	6726	6727	6731	6768	6746
6745	6745	6745	6745	6745	6745	6745	6745
1	362						
793.72	793.72	793.72	793.76	793.86	793.67	793.82	793.76
793.85	793.71	793.68	793.62	793.6	793.54	793.5	793.44

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 3 of 7
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix D		Checked	ACM

793.4 793.34 793.3 793.26 793.21 793.16 793.13 793.3
 793.31 793.38 793.49 793.6 793.64 793.68 793.75 793.85
 793.93 794.01 794.1 794.16 794.25 794.09 794.2 794.09
 794.18 794.05 794.01 793.96 793.9 793.85 793.78 793.96
 793.86 793.99 793.93 794.1 794.16 794.23 794.29 794.13
 794.14 794.17 794.06 794. 793.92 793.93 793.85 793.8
 793.68 793.67 793.66 793.6 793.69 793.84 793.83 793.83
 793.83 793.81 794.08 794.15 794.27 794.31 794.36 794.3
 794.36 794.31 794.34 794.41 794.46 794.53 794.62 794.61
 794.6 794.56 794.52 794.5 794.47 794.42 794.36 794.3
 794.23 794.16 794.07 793.97 793.87 793.84 793.8 793.72
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 793.01 792.92 792.85 792.76 792.68 792.6 792.73 792.79
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 793.41 793.46 793.5 793.54 793.62 793.69 793.74 793.79
 793.84 793.59 793.67 793.89 793.76 793.96 794.03 794.24
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 793.95 793.87 793.91 794.08 794.16 794.24 794.23 794.23
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 794.29 794.19 794.11 794.11 794.02 793.97 793.87 793.87
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 793.31 793.31 793.6 793.67 793.84 794. 793.97 793.91
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 793.9 793.87 793.89 793.88 793.88 793.88 793.87 793.86
 793.85 793.84 794.12 794.28 794.27 794.41 794.31 794.23
 794.39 794.32 794.41 794.36 794.39 794.34 794.31 794.31
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 794.77 794.73 794.73 794.68 794.68 794.61 794.59 794.58
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 794.27 794.17 794.11 794.04 794.13 794.14 794.1 793.97
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TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 4 of 7
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix D		Checked	ACM

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 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02
 0.02 0.02 0.03 0.03 0.03 0.03 0.03 0.03
 0.023 0.023 0.028 0.028 0.028 0.028 0.028 0.028
 0.029 0.029 0.025 0.025 0.02 0.02 0.02 0.02
 0.023 0.023 0.023 0.023 0.023

1 2

1 58.90
 1 79.80 23.10
 1 68.00 23.10

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 1 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

SOCH Input Files, Steady State

Final_MeltonHill_Calibrate_100Kto600K-61SOCHInterp.out

SOCH - QA REV1.0 - 03/24/2009

1-----
Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

THIS RUN STARTS ON 9-27-2008 AT TIME 0.000

IT ENDS ON 10-31-2008 AT TIME 0.000

ALL THE HYDROGRAPHS
START ON 9-27-2008 AT TIME 0.000

THE COMPUTATION TIME STEP IS 5. SECONDS
THE PRINT INTERVAL IS 60. MINUTES
THE COMPLETE RUN LASTS 34.0 DAY(S)

+ THE NON-BOUNDARY LINE POINTS ARE NOT PRINTED

ALL LOCAL INFLOWS ARE ZERO

SOCH INPUT DATA ARE READ FROM FILE F:\34\34107\3410702\SOCH Calibrations\Melton Hill SOCH Calibration\Calibration-05-06-09\Steady State\Final_MeltonHill_Calibrate_100Kto600K-61SOCHInterp.dat

SOCH OUTPUT LISTING IS WRITTEN TO FILE F:\34\34107\3410702\SOCH Calibrations\Melton Hill SOCH Calibration\Calibration-05-06-09\Steady State\Final_MeltonHill_Calibrate_100Kto600K-61SOCHInterp.out

ALL U.S. BOUNDARY HYDROGRAPHS ARE READ FROM FILE F:\34\34107\3410702\SOCH Calibrations\Melton Hill SOCH Calibration\Calibration-05-06-09\Steady State\Final_Norris100Kto600K-61SOCHInterp.bnd

THE MOST D.S. HYDROGRAPH IS SAVED TO FILE F:\34\34107\3410702\SOCH Calibrations\Melton Hill SOCH Calibration\Calibration-05-06-09\Steady State\Final_MeltonHill_Calibrate_100Kto600K-61SOCHInterp.sto

THE GEOMETRY IS READ FROM FILE F:\34\34107\3410702\SOCH Calibrations\Melton Hill SOCH Calibration\Calibration-05-06-09\Steady State\Melton Hill Rev4.geo

NUMBER OF CHANNEL(S): 1 NUMBER OF JUNCTION(S): 0
+ _____

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 2 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
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31 CROSS SECTIONS IN GEOMETRY FILE, EACH WITH 21 ENTRIES
 THE COMPUTED ELEVATION FIRST ESTIMATED ABOVE ENTRY 0

CHANNEL 1 HAS 61 NODES, IT IS CHARACTERIZED BY:

+ _____

BOUNDARY CONDITIONS PRESCRIBED (AT THE BEGINNING OF RUN):

UPSTREAM: KUBC= 1 (0:ELEVATION; 1:DISCHARGE; 2:RATING TABLE; 3:JUNCTION)

DOWNSTRM: KDBC= 0 (IF A TABLE IS USED, IT IS TABLE NO. 0)

KRULE= 0 (0:NO FIXED RULE OPERATION; 1:FIXED RULE REGULAR; 2:FIXED RULE PMF)

IF A FAILURE OCCURS ,IT IS OF TYPE KTOTFL= 0 (0:FOR PARTIAL FAILURE THEN USE TABLE 4, IF NOT PRESENT, THE RUN WILL STOP;

1:FOR TOTAL FAILURE, DOWNSTREAM CHANNEL NEEDED)

KODEN= 0 (0:MANNING N CONSTANT; 1:VARY WITH ELEVATION; 2:VARY WITH DISCHARGE)

NUTP= 0 (NUMBER OF POINTS IN THE UPSTREAM RATING TABLE)

NDTP= 0 (NUMBER OF POINTS IN THE DOWNSTRM RATING TABLE)

NDTP2= 0 (NO. OF PTS IN THE 2 ND DOWNSTRM RATING TABLE)

NDTP3= 0 (NO. OF PTS IN THE 3 RD DOWNSTRM RATING TABLE)

NDTP4= 0 (NO. OF PTS IN THE 4 TH DOWNSTRM RATING TABLE)

KUFAX= 0 KDFAX= 0 (HOURLY FAX SHEETS DISCHARGES USED RESPECTIVELY US & DS IF KUFAX=1 & KDFAX=1)

KSTRT= 0 (0:STARTING LINES READ WITH DATA; 1:READ FROM FILE NA)

KEND= 0 (0:ENDING LINE NOT SAVED; 1:SAVED IN FILE NA)

THE MODEL HAS A TOTAL NUMBER OF 61 COMPUTATION NODES

+ _____

CHANNEL 1 UPSTREAM MILE: 79.80

REACH LENGTH US TO DS IN FEET

REACH DX

- 1 5544.00
- 2 5544.00
- 3 5544.00
- 4 5544.00
- 5 5544.00
- 6 5544.00
- 7 5544.00

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8 5544.00
9 5544.00
10 5544.00
11 5544.00
12 5544.00
13 5544.00
14 5544.00
15 5544.00
16 5544.00
17 5544.00
18 5544.00
19 5544.00
20 5544.00
21 4752.00
22 4752.00
23 5280.00
24 5280.00
25 5016.00
26 5016.00
27 5544.00
28 5544.00
29 7128.00
30 7128.00
31 5544.00
32 5544.00
33 5544.00
34 5544.00
35 1056.00
36 1056.00
37 4488.00
38 4488.00
39 7656.00
40 7656.00
41 5544.00
42 5544.00
43 2640.00
44 2640.00
45 3696.00
46 3696.00
47 2640.00
48 2640.00
49 5544.00
50 5544.00
51 3696.00
52 3696.00
53 2904.00
54 2904.00
55 4488.00
56 4488.00
57 5544.00
58 5544.00

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59 5544.00
60 5544.00

- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 1 & 2
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 2 & 3
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 3 & 4
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 4 & 5
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 5 & 6
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 6 & 7
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 7 & 8
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 8 & 9
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 9 & 10
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 10 & 11
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 11 & 12
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 12 & 13
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 13 & 14
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 14 & 15
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 15 & 16
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 16 & 17
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 17 & 18
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 18 & 19
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 19 & 20
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 20 & 21
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 21 & 22
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 22 & 23
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 23 & 24
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 24 & 25
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 25 & 26
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 26 & 27
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 27 & 28
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 28 & 29
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 29 & 30
- 1 INTERPOLATED SECTIONS INSERTED BETWEEN GEOMETRY SECTIONS 30 & 31

A TOTAL OF 30 INTERPOLATED SECTIONS ARE ADDED AS SHOWN ABOVE AND ARE PART OF 61 NODES

ALL THE HYDROGRAPHS START ON 9-27-2008 AT TIME 0.000 SKIP 0.0 HOURS
+ _____

PRESCRIBED UPSTREAM BOUNDARY, CHANNEL 1

DISCHARGE HOURS DAY TIME

100000. 0.00 27 0.00
100000. 216.00 5 24.00
200000. 240.00 6 24.00

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200000. 336.00 10 24.00
 300000. 360.00 11 24.00
 300000. 456.00 15 24.00
 400000. 480.00 16 24.00
 400000. 576.00 20 24.00
 500000. 600.00 21 24.00
 500000. 696.00 25 24.00
 600000. 720.00 26 24.00
 600000. 816.00 30 24.00

PRESCRIBED DOWNSTREAM BOUNDARY, CHANNEL 1

ELEVATION HOURS DAY TIME

793.50 0.00 27 0.00
 793.50 96.00 30 24.00
 793.50 216.00 5 24.00
 809.86 240.00 6 24.00
 809.86 336.00 10 24.00
 819.49 360.00 11 24.00
 819.49 456.00 15 24.00
 825.91 480.00 16 24.00
 825.91 576.00 20 24.00
 832.32 600.00 21 24.00
 832.32 696.00 25 24.00
 838.74 720.00 26 24.00
 838.74 816.00 30 24.00
 849.85 840.00 31 24.00
 849.85 1176.00 14 24.00

ROUGHNESS FACTORS IN CHANNEL 1

0.0290 0.0250 0.0400 0.0400 0.0400 0.0400 0.0330 0.0330
 0.0400 0.0360 0.0340 0.0340 0.0340 0.0400 0.0320 0.0320
 0.0400 0.0450 0.0450 0.0450 0.0400 0.0200 0.0200 0.0200
 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200
 0.0200 0.0200 0.0300 0.0300 0.0300 0.0300 0.0300 0.0300
 0.0230 0.0230 0.0280 0.0280 0.0280 0.0280 0.0280 0.0280
 0.0290 0.0290 0.0250 0.0250 0.0200 0.0200 0.0200 0.0200
 0.0230 0.0230 0.0230 0.0230 0.0230 0.0230 0.0000

THE INITIAL CONDITIONS ARE:

+ _____

ODATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 0.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3)

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 6 of 665
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MILE	79.80	858.54	100000.	6.73	14855.	778.	8.74
MILE	77.70	856.12	100000.	5.40	18516.	938.	9.65
MILE	75.60	849.61	100000.	5.81	17219.	1357.	8.97
MILE	73.50	840.86	100000.	6.40	15619.	949.	8.71
MILE	71.40	837.66	100000.	5.05	19821.	903.	7.69
MILE	69.30	834.80	100000.	4.82	20748.	930.	8.62
MILE	67.20	833.33	100000.	3.05	32756.	1959.	8.18
MILE	65.10	830.47	100000.	3.95	25333.	2450.	8.78
MILE	63.00	827.66	100000.	3.63	27530.	2012.	8.41
MILE	60.90	822.78	100000.	4.78	20911.	1550.	9.06
MILE	58.80	815.45	100000.	5.51	18150.	1094.	8.44
MILE	57.00	811.41	100000.	6.30	15882.	1048.	8.79
MILE	55.00	808.85	100000.	7.10	14087.	1007.	8.45
MILE	53.10	807.68	100000.	4.84	20661.	1178.	7.86
MILE	51.00	806.36	100000.	4.93	20281.	1605.	7.25
MILE	48.30	804.51	100000.	3.71	26965.	2930.	7.35
MILE	46.20	802.77	100000.	4.17	23990.	2873.	8.55
MILE	44.10	802.12	100000.	2.60	38500.	1886.	9.50
MILE	43.70	801.51	100000.	5.27	18964.	1720.	9.50
MILE	42.00	799.46	100000.	3.80	26294.	1571.	7.17
MILE	39.10	796.07	100000.	5.04	19838.	1447.	8.19
MILE	37.00	795.58	100000.	2.91	34395.	1174.	7.63
MILE	36.00	795.03	100000.	4.87	20545.	932.	8.44
MILE	34.60	794.60	100000.	3.27	30587.	1251.	9.71
MILE	33.60	794.60	100000.	1.57	63535.	2185.	8.22
MILE	31.50	794.18	100000.	3.27	30618.	1767.	10.40
MILE	30.10	793.88	100000.	3.13	31947.	879.	9.89
MILE	29.00	793.83	100000.	2.81	35588.	1048.	10.75
MILE	27.30	793.73	100000.	2.71	36841.	1044.	11.13
MILE	25.20	793.65	100000.	2.19	45593.	1040.	11.95
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35

TIME 0.0014 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3)

MILE	78.75	856.97	100000.	6.11	16376.	852.	9.19
MILE	76.65	853.46	100000.	5.49	18213.	1177.	9.36
MILE	74.55	845.07	100000.	6.12	16333.	1150.	8.82
MILE	72.45	838.92	100000.	5.63	17762.	911.	8.15
MILE	70.35	836.03	100000.	4.99	20053.	911.	8.14
MILE	68.25	833.98	100000.	3.81	26242.	1399.	8.38
MILE	66.15	832.50	100000.	3.34	29958.	2244.	8.54
MILE	64.05	828.87	100000.	3.85	25945.	2236.	8.62
MILE	61.95	825.84	100000.	4.00	24973.	1815.	8.76
MILE	59.85	819.13	100000.	5.09	19631.	1312.	8.70
MILE	57.90	812.31	100000.	6.35	15744.	1032.	8.73
MILE	56.00	810.24	100000.	6.66	15022.	1031.	8.65
MILE	54.05	808.12	100000.	5.76	17362.	1089.	8.15
MILE	52.05	807.11	100000.	4.83	20702.	1386.	7.55
MILE	49.65	805.42	100000.	4.20	23788.	2300.	7.36

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MILE	47.25	803.73	100000.	3.86	25876.	2915.	8.00
MILE	45.15	802.27	100000.	3.27	30554.	2453.	9.03
MILE	43.90	801.98	100000.	3.34	29896.	1809.	9.47
MILE	42.85	800.19	100000.	4.40	22731.	1629.	8.28
MILE	40.55	798.11	100000.	4.35	22981.	1524.	7.75
MILE	38.05	795.70	100000.	3.70	27049.	1304.	7.88
MILE	36.50	795.42	100000.	3.51	28528.	1053.	8.21
MILE	35.30	794.77	100000.	3.91	25546.	1092.	9.07
MILE	34.10	794.60	100000.	2.22	45015.	1665.	8.96
MILE	32.55	794.50	100000.	2.03	49328.	1977.	9.42
MILE	30.80	793.99	100000.	3.18	31490.	1269.	10.18
MILE	29.55	793.86	100000.	2.95	33872.	944.	10.34
MILE	28.15	793.78	100000.	2.76	36213.	1046.	10.94
MILE	26.25	793.69	100000.	2.43	41098.	1031.	11.57
MILE	24.15	793.59	100000.	2.41	41482.	1053.	11.65

ODATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	854.36	100000.	7.82	12783.	731.	8.34	0.0290	0.	36.	0.33
MILE	77.70	852.43	104484.	6.49	16091.	883.	9.39	0.0400	0.	42.	0.27
MILE	75.60	847.45	111843.	7.01	15954.	1257.	8.79	0.0400	0.	41.	0.35
MILE	73.50	841.44	119154.	7.47	15948.	968.	8.77	0.0330	0.	42.	0.32
MILE	71.40	838.40	124420.	6.06	20519.	923.	7.76	0.0400	0.	41.	0.23
MILE	69.30	834.16	128014.	6.33	20217.	913.	8.55	0.0340	0.	35.	0.24
MILE	67.20	832.15	131542.	4.21	31208.	1873.	8.06	0.0340	0.	41.	0.18
MILE	65.10	829.29	135626.	5.61	24191.	2344.	8.70	0.0320	0.	42.	0.31
MILE	63.00	827.29	138590.	5.13	26996.	1991.	8.40	0.0400	0.	46.	0.25
MILE	60.90	822.38	140275.	6.82	20559.	1528.	9.04	0.0450	0.	46.	0.33
MILE	58.80	814.71	141696.	8.15	17386.	1068.	8.48	0.0400	0.	42.	0.36
MILE	57.00	812.51	143228.	8.52	16809.	1091.	8.81	0.0200	0.	38.	0.38
MILE	55.00	809.51	144952.	9.95	14563.	1032.	8.50	0.0200	0.	36.	0.47
MILE	53.10	808.13	145901.	6.89	21162.	1199.	7.90	0.0200	0.	35.	0.29
MILE	51.00	806.06	149328.	7.47	19983.	1587.	7.22	0.0200	0.	37.	0.37
MILE	48.30	804.28	149036.	5.59	26648.	2899.	7.30	0.0200	0.	35.	0.33
MILE	46.20	803.21	147289.	6.02	24446.	2929.	8.63	0.0200	0.	41.	0.37
MILE	44.10	803.07	142763.	3.57	39954.	1929.	9.64	0.0300	0.	48.	0.14
MILE	43.70	802.23	142455.	7.33	19430.	1754.	9.63	0.0300	0.	49.	0.39
MILE	42.00	800.79	139915.	4.94	28305.	1628.	7.42	0.0300	0.	51.	0.21
MILE	39.10	797.16	134510.	6.47	20782.	1495.	8.42	0.0230	0.	46.	0.31
MILE	37.00	796.77	132185.	3.64	36353.	1207.	7.90	0.0280	0.	45.	0.12
MILE	36.00	795.84	130924.	6.17	21234.	946.	8.61	0.0280	0.	47.	0.23
MILE	34.60	795.32	129830.	4.15	31316.	1277.	9.83	0.0280	0.	47.	0.15
MILE	33.60	795.33	128809.	1.97	65505.	2231.	8.38	0.0290	0.	52.	0.06
MILE	31.50	794.80	126022.	4.04	31178.	1805.	10.48	0.0250	0.	56.	0.17
MILE	30.10	794.47	124963.	3.84	32559.	898.	9.99	0.0200	0.	54.	0.11

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MILE	29.00	794.31	124495.	3.45	36063.	1065.	10.83	0.0200	0.	55.	0.10
MILE	27.30	794.05	124475.	3.35	37151.	1056.	11.18	0.0230	0.	57.	0.10
MILE	25.20	793.78	125119.	2.74	45726.	1044.	11.97	0.0230	0.	59.	0.07
MILE	23.10	793.50	125003.	3.35	37356.	1064.	11.35	0.0230	0.	64.	0.10

ODATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 2.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	853.18	100000.	8.19	12217.	714.	8.21	0.0290	0.	34.	0.35
MILE	77.70	851.10	101888.	6.67	15271.	862.	9.29	0.0400	0.	40.	0.28
MILE	75.60	845.89	104845.	6.95	15081.	1186.	8.66	0.0400	0.	39.	0.34
MILE	73.50	839.91	108229.	7.18	15078.	917.	8.61	0.0330	0.	41.	0.31
MILE	71.40	836.87	111205.	5.82	19099.	882.	7.63	0.0400	0.	39.	0.22
MILE	69.30	832.86	114013.	5.95	19175.	878.	8.42	0.0340	0.	34.	0.22
MILE	67.20	830.97	117945.	3.97	29706.	1788.	7.94	0.0340	0.	40.	0.17
MILE	65.10	828.33	124065.	5.33	23256.	2257.	8.62	0.0320	0.	41.	0.29
MILE	63.00	826.42	130058.	5.05	25771.	1943.	8.38	0.0400	0.	45.	0.24
MILE	60.90	821.68	134779.	6.76	19950.	1490.	9.02	0.0450	0.	45.	0.33
MILE	58.80	814.20	137640.	8.18	16819.	1049.	8.50	0.0400	0.	41.	0.36
MILE	57.00	812.09	138909.	8.44	16452.	1074.	8.80	0.0200	0.	37.	0.38
MILE	55.00	809.25	140047.	9.74	14373.	1022.	8.48	0.0200	0.	36.	0.46
MILE	53.10	808.04	140706.	6.68	21052.	1195.	7.89	0.0200	0.	35.	0.28
MILE	51.00	806.14	141299.	7.04	20058.	1592.	7.23	0.0200	0.	37.	0.35
MILE	48.30	804.54	141296.	5.23	27008.	2934.	7.36	0.0200	0.	36.	0.30
MILE	46.20	803.50	140941.	5.69	24749.	2966.	8.68	0.0200	0.	42.	0.35
MILE	44.10	803.33	140352.	3.48	40347.	1941.	9.67	0.0300	0.	48.	0.13
MILE	43.70	802.52	140225.	7.15	19619.	1768.	9.69	0.0300	0.	50.	0.38
MILE	42.00	801.14	139891.	4.85	28865.	1644.	7.48	0.0300	0.	51.	0.20
MILE	39.10	797.46	139906.	6.65	21041.	1508.	8.49	0.0230	0.	46.	0.31
MILE	37.00	796.99	139884.	3.81	36718.	1213.	7.95	0.0280	0.	46.	0.12
MILE	36.00	795.95	140090.	6.57	21331.	948.	8.64	0.0280	0.	47.	0.24
MILE	34.60	795.35	140659.	4.49	31348.	1278.	9.83	0.0280	0.	47.	0.16
MILE	33.60	795.36	141118.	2.15	65595.	2233.	8.38	0.0290	0.	52.	0.07
MILE	31.50	794.73	142167.	4.57	31115.	1801.	10.47	0.0250	0.	56.	0.19
MILE	30.10	794.32	142866.	4.41	32408.	893.	9.97	0.0200	0.	54.	0.13
MILE	29.00	794.20	142856.	3.97	35956.	1061.	10.81	0.0200	0.	55.	0.12
MILE	27.30	794.00	142745.	3.85	37105.	1054.	11.17	0.0230	0.	57.	0.11
MILE	25.20	793.83	142592.	3.11	45781.	1046.	11.97	0.0230	0.	59.	0.08
MILE	23.10	793.50	142978.	3.83	37356.	1064.	11.35	0.0230	0.	64.	0.11

ODATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

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	TIME 3.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	852.72	100000.	8.33	12002.	708.	8.16	0.0290	0.	34.	0.36
MILE	77.70	850.51	100794.	6.76	14913.	853.	9.25	0.0400	0.	40.	0.28
MILE	75.60	845.04	102069.	6.98	14621.	1147.	8.59	0.0400	0.	39.	0.34
MILE	73.50	838.92	103740.	7.15	14506.	884.	8.50	0.0330	0.	40.	0.31
MILE	71.40	835.82	105485.	5.81	18155.	853.	7.54	0.0400	0.	38.	0.22
MILE	69.30	831.77	107555.	5.87	18315.	849.	8.30	0.0340	0.	33.	0.22
MILE	67.20	829.85	110899.	3.92	28308.	1706.	7.84	0.0340	0.	39.	0.17
MILE	65.10	827.27	116547.	5.24	22248.	2160.	8.55	0.0320	0.	40.	0.29
MILE	63.00	825.39	122609.	5.03	24373.	1887.	8.36	0.0400	0.	44.	0.25
MILE	60.90	820.77	127649.	6.65	19193.	1441.	8.99	0.0450	0.	44.	0.32
MILE	58.80	813.61	130811.	8.08	16185.	1028.	8.53	0.0400	0.	41.	0.36
MILE	57.00	811.65	132262.	8.23	16079.	1057.	8.79	0.0200	0.	37.	0.37
MILE	55.00	808.98	133586.	9.42	14184.	1012.	8.46	0.0200	0.	35.	0.44
MILE	53.10	807.85	134599.	6.46	20840.	1186.	7.87	0.0200	0.	35.	0.27
MILE	51.00	806.06	135826.	6.80	19984.	1588.	7.22	0.0200	0.	37.	0.34
MILE	48.30	804.55	137440.	5.09	27019.	2935.	7.36	0.0200	0.	36.	0.30
MILE	46.20	803.53	138801.	5.60	24780.	2970.	8.69	0.0200	0.	42.	0.34
MILE	44.10	803.35	139829.	3.46	40384.	1942.	9.67	0.0300	0.	48.	0.13
MILE	43.70	802.54	139968.	7.13	19637.	1770.	9.69	0.0300	0.	50.	0.38
MILE	42.00	801.15	140386.	4.86	28880.	1644.	7.48	0.0300	0.	51.	0.20
MILE	39.10	797.40	140901.	6.71	20992.	1506.	8.48	0.0230	0.	46.	0.32
MILE	37.00	796.93	141189.	3.86	36607.	1212.	7.94	0.0280	0.	46.	0.12
MILE	36.00	795.87	141266.	6.64	21262.	947.	8.62	0.0280	0.	47.	0.25
MILE	34.60	795.28	141284.	4.52	31278.	1276.	9.82	0.0280	0.	47.	0.16
MILE	33.60	795.30	141302.	2.16	65430.	2230.	8.37	0.0290	0.	52.	0.07
MILE	31.50	794.67	141441.	4.55	31063.	1797.	10.46	0.0250	0.	56.	0.19
MILE	30.10	794.29	141402.	4.37	32368.	892.	9.96	0.0200	0.	53.	0.13
MILE	29.00	794.17	141525.	3.94	35924.	1060.	10.81	0.0200	0.	54.	0.12
MILE	27.30	793.97	141538.	3.82	37077.	1053.	11.17	0.0230	0.	57.	0.11
MILE	25.20	793.81	141647.	3.10	45761.	1045.	11.97	0.0230	0.	59.	0.08
MILE	23.10	793.50	141626.	3.79	37356.	1064.	11.35	0.0230	0.	64.	0.11

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 4.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	852.53	100000.	8.39	11914.	705.	8.14	0.0290	0.	34.	0.36
MILE	77.70	850.24	100369.	6.80	14751.	849.	9.23	0.0400	0.	40.	0.29
MILE	75.60	844.60	100988.	7.03	14375.	1126.	8.55	0.0400	0.	38.	0.35
MILE	73.50	838.32	101935.	7.20	14166.	864.	8.43	0.0330	0.	39.	0.31
MILE	71.40	835.13	103043.	5.87	17555.	834.	7.48	0.0400	0.	37.	0.23
MILE	69.30	830.94	104543.	5.91	17678.	827.	8.22	0.0340	0.	32.	0.23
MILE	67.20	828.95	107155.	3.95	27132.	1640.	7.75	0.0340	0.	38.	0.17
MILE	65.10	826.33	111677.	5.22	21386.	2076.	8.48	0.0320	0.	39.	0.29

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	824.44	116765.	5.07	23021.	1834.	8.37	0.0400	0.	43.	0.25
MILE	60.90	819.89	121248.	6.57	18467.	1394.	8.96	0.0450	0.	43.	0.32
MILE	58.80	812.96	124230.	8.01	15511.	1005.	8.58	0.0400	0.	40.	0.36
MILE	57.00	811.12	125740.	8.04	15645.	1036.	8.78	0.0200	0.	36.	0.36
MILE	55.00	808.59	127195.	9.15	13909.	997.	8.43	0.0200	0.	35.	0.43
MILE	53.10	807.51	128434.	6.27	20470.	1170.	7.85	0.0200	0.	34.	0.26
MILE	51.00	805.82	130037.	6.59	19746.	1573.	7.20	0.0200	0.	37.	0.33
MILE	48.30	804.37	132661.	4.95	26774.	2911.	7.32	0.0200	0.	35.	0.29
MILE	46.20	803.39	135089.	5.49	24628.	2951.	8.66	0.0200	0.	42.	0.33
MILE	44.10	803.20	137028.	3.41	40160.	1935.	9.65	0.0300	0.	48.	0.13
MILE	43.70	802.42	137287.	7.02	19557.	1764.	9.67	0.0300	0.	49.	0.37
MILE	42.00	801.05	138106.	4.81	28711.	1640.	7.46	0.0300	0.	51.	0.20
MILE	39.10	797.34	139141.	6.64	20940.	1503.	8.46	0.0230	0.	46.	0.31
MILE	37.00	796.87	139585.	3.82	36522.	1210.	7.92	0.0280	0.	46.	0.12
MILE	36.00	795.84	139731.	6.58	21233.	946.	8.61	0.0280	0.	47.	0.24
MILE	34.60	795.26	139856.	4.47	31254.	1275.	9.81	0.0280	0.	47.	0.16
MILE	33.60	795.28	139980.	2.14	65363.	2229.	8.36	0.0290	0.	52.	0.07
MILE	31.50	794.66	140277.	4.52	31050.	1796.	10.46	0.0250	0.	56.	0.19
MILE	30.10	794.28	140379.	4.34	32357.	892.	9.96	0.0200	0.	53.	0.13
MILE	29.00	794.16	140419.	3.91	35914.	1060.	10.80	0.0200	0.	54.	0.12
MILE	27.30	793.97	140473.	3.79	37071.	1053.	11.17	0.0230	0.	57.	0.11
MILE	25.20	793.81	140487.	3.07	45759.	1045.	11.97	0.0230	0.	59.	0.08
MILE	23.10	793.50	140531.	3.76	37356.	1064.	11.35	0.0230	0.	64.	0.11

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	5.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	852.44	100000.	8.42	11870.	704.	8.13	0.0290	0.	34.	0.36
MILE	77.70	850.10	100208.	6.83	14667.	847.	9.22	0.0400	0.	39.	0.29
MILE	75.60	844.35	100570.	7.06	14239.	1115.	8.53	0.0400	0.	38.	0.35
MILE	73.50	837.95	101167.	7.25	13956.	852.	8.39	0.0330	0.	39.	0.32
MILE	71.40	834.67	101917.	5.94	17163.	822.	7.44	0.0400	0.	37.	0.23
MILE	69.30	830.33	103014.	5.98	17216.	811.	8.15	0.0340	0.	32.	0.23
MILE	67.20	828.24	105003.	4.00	26242.	1589.	7.69	0.0340	0.	38.	0.17
MILE	65.10	825.58	108507.	5.24	20705.	2007.	8.43	0.0320	0.	39.	0.29
MILE	63.00	823.65	112547.	5.14	21882.	1791.	8.38	0.0400	0.	43.	0.26
MILE	60.90	819.14	116160.	6.50	17864.	1363.	8.92	0.0450	0.	43.	0.32
MILE	58.80	812.33	118678.	7.98	14872.	983.	8.64	0.0400	0.	39.	0.36
MILE	57.00	810.58	120077.	7.89	15212.	1016.	8.77	0.0200	0.	36.	0.36
MILE	55.00	808.16	121479.	8.93	13605.	980.	8.40	0.0200	0.	35.	0.42
MILE	53.10	807.11	122754.	6.13	20036.	1151.	7.82	0.0200	0.	34.	0.26
MILE	51.00	805.49	124465.	6.41	19426.	1554.	7.17	0.0200	0.	36.	0.32
MILE	48.30	804.09	127566.	4.84	26381.	2874.	7.25	0.0200	0.	35.	0.28
MILE	46.20	803.13	130582.	5.36	24361.	2918.	8.62	0.0200	0.	41.	0.33
MILE	44.10	802.95	133066.	3.35	39765.	1924.	9.62	0.0300	0.	48.	0.13
MILE	43.70	802.20	133401.	6.87	19409.	1753.	9.63	0.0300	0.	49.	0.36

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 11 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	800.84	134511.	4.74	28385.	1631.	7.43	0.0300	0.	51.	0.20
MILE	39.10	797.21	136024.	6.53	20830.	1497.	8.43	0.0230	0.	46.	0.31
MILE	37.00	796.75	136733.	3.76	36324.	1207.	7.90	0.0280	0.	45.	0.12
MILE	36.00	795.75	136970.	6.47	21157.	945.	8.60	0.0280	0.	47.	0.24
MILE	34.60	795.19	137188.	4.40	31181.	1273.	9.80	0.0280	0.	47.	0.16
MILE	33.60	795.21	137415.	2.11	65169.	2225.	8.35	0.0290	0.	52.	0.07
MILE	31.50	794.60	137937.	4.45	31004.	1793.	10.46	0.0250	0.	56.	0.19
MILE	30.10	794.24	138070.	4.27	32319.	890.	9.95	0.0200	0.	53.	0.12
MILE	29.00	794.13	138129.	3.85	35882.	1059.	10.80	0.0200	0.	54.	0.12
MILE	27.30	793.94	138233.	3.73	37049.	1052.	11.17	0.0230	0.	57.	0.11
MILE	25.20	793.79	138300.	3.02	45744.	1045.	11.97	0.0230	0.	59.	0.08
MILE	23.10	793.50	138336.	3.70	37356.	1064.	11.35	0.0230	0.	64.	0.11

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	6.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	852.38	100000.	8.44	11843.	703.	8.12	0.0290	0.	34.	0.36
MILE	77.70	850.01	100142.	6.85	14617.	845.	9.21	0.0400	0.	39.	0.29
MILE	75.60	844.20	100398.	7.09	14156.	1108.	8.51	0.0400	0.	38.	0.35
MILE	73.50	837.71	100828.	7.30	13821.	844.	8.37	0.0330	0.	39.	0.32
MILE	71.40	834.36	101377.	6.00	16902.	814.	7.42	0.0400	0.	37.	0.23
MILE	69.30	829.88	102193.	6.05	16885.	799.	8.11	0.0340	0.	31.	0.23
MILE	67.20	827.72	103713.	4.05	25592.	1551.	7.64	0.0340	0.	37.	0.18
MILE	65.10	824.99	106403.	5.27	20192.	1954.	8.39	0.0320	0.	38.	0.29
MILE	63.00	823.05	109544.	5.21	21029.	1757.	8.41	0.0400	0.	42.	0.27
MILE	60.90	818.53	112378.	6.47	17381.	1338.	8.89	0.0450	0.	42.	0.32
MILE	58.80	811.77	114431.	7.99	14322.	963.	8.70	0.0400	0.	39.	0.37
MILE	57.00	810.08	115588.	7.80	14821.	996.	8.77	0.0200	0.	35.	0.36
MILE	55.00	807.73	116841.	8.78	13309.	964.	8.38	0.0200	0.	34.	0.42
MILE	53.10	806.71	118031.	6.02	19597.	1132.	7.79	0.0200	0.	33.	0.26
MILE	51.00	805.13	119683.	6.27	19076.	1533.	7.13	0.0200	0.	36.	0.31
MILE	48.30	803.75	122882.	4.74	25913.	2829.	7.17	0.0200	0.	35.	0.28
MILE	46.20	802.81	126096.	5.25	24029.	2877.	8.56	0.0200	0.	41.	0.32
MILE	44.10	802.63	128782.	3.28	39277.	1909.	9.57	0.0300	0.	47.	0.13
MILE	43.70	801.91	129147.	6.72	19222.	1739.	9.57	0.0300	0.	49.	0.36
MILE	42.00	800.57	130387.	4.66	27965.	1619.	7.38	0.0300	0.	51.	0.20
MILE	39.10	797.04	132110.	6.39	20678.	1490.	8.40	0.0230	0.	46.	0.30
MILE	37.00	796.59	132918.	3.69	36053.	1202.	7.86	0.0280	0.	45.	0.12
MILE	36.00	795.62	133189.	6.33	21054.	943.	8.57	0.0280	0.	47.	0.24
MILE	34.60	795.09	133431.	4.29	31081.	1271.	9.78	0.0280	0.	47.	0.15
MILE	33.60	795.11	133678.	2.06	64905.	2220.	8.33	0.0290	0.	52.	0.07
MILE	31.50	794.54	134240.	4.34	30943.	1789.	10.45	0.0250	0.	56.	0.18
MILE	30.10	794.19	134384.	4.16	32269.	889.	9.94	0.0200	0.	53.	0.12
MILE	29.00	794.09	134450.	3.75	35842.	1057.	10.79	0.0200	0.	54.	0.11
MILE	27.30	793.92	134546.	3.63	37021.	1051.	11.16	0.0230	0.	57.	0.11
MILE	25.20	793.77	134610.	2.94	45724.	1044.	11.97	0.0230	0.	59.	0.08

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
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MILE 23.10 793.50 134648. 3.60 37356. 1064. 11.35 0.0230 0. 64. 0.11

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	7.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
INFLOW	DEPTH	FROUDE							
MILE	79.80	852.33	100000.	8.46	11821.	703.	8.12	0.0290	0. 34. 0.36
MILE	77.70	849.95	100116.	6.87	14582.	844.	9.21	0.0400	0. 39. 0.29
MILE	75.60	844.10	100328.	7.11	14102.	1103.	8.50	0.0400	0. 38. 0.35
MILE	73.50	837.56	100667.	7.33	13733.	839.	8.35	0.0330	0. 38. 0.32
MILE	71.40	834.15	101088.	6.04	16727.	808.	7.40	0.0400	0. 36. 0.23
MILE	69.30	829.57	101706.	6.11	16650.	791.	8.07	0.0340	0. 31. 0.23
MILE	67.20	827.34	102856.	4.09	25124.	1523.	7.61	0.0340	0. 37. 0.18
MILE	65.10	824.55	104899.	5.31	19772.	1915.	8.36	0.0320	0. 38. 0.29
MILE	63.00	822.58	107353.	5.26	20390.	1732.	8.43	0.0400	0. 42. 0.27
MILE	60.90	818.05	109572.	6.45	17001.	1318.	8.86	0.0450	0. 42. 0.32
MILE	58.80	811.29	111213.	8.02	13869.	946.	8.76	0.0400	0. 38. 0.37
MILE	57.00	809.65	112180.	7.73	14515.	979.	8.73	0.0200	0. 35. 0.35
MILE	55.00	807.33	113258.	8.69	13036.	948.	8.35	0.0200	0. 34. 0.41
MILE	53.10	806.32	114320.	5.96	19184.	1114.	7.77	0.0200	0. 33. 0.25
MILE	51.00	804.77	115811.	6.19	18707.	1512.	7.10	0.0200	0. 35. 0.31
MILE	48.30	803.39	118854.	4.67	25427.	2782.	7.09	0.0200	0. 34. 0.27
MILE	46.20	802.47	121954.	5.15	23678.	2834.	8.50	0.0200	0. 41. 0.31
MILE	44.10	802.29	124582.	3.21	38762.	1893.	9.53	0.0300	0. 47. 0.13
MILE	43.70	801.60	124941.	6.57	19021.	1725.	9.52	0.0300	0. 49. 0.35
MILE	42.00	800.28	126171.	4.59	27515.	1606.	7.33	0.0300	0. 50. 0.20
MILE	39.10	796.85	127889.	6.23	20516.	1481.	8.36	0.0230	0. 46. 0.30
MILE	37.00	796.41	128693.	3.60	35765.	1197.	7.82	0.0280	0. 45. 0.12
MILE	36.00	795.50	128961.	6.16	20945.	941.	8.54	0.0280	0. 46. 0.23
MILE	34.60	794.99	129196.	4.17	30979.	1268.	9.76	0.0280	0. 46. 0.15
MILE	33.60	795.01	129433.	2.00	64630.	2215.	8.30	0.0290	0. 52. 0.07
MILE	31.50	794.47	129974.	4.21	30881.	1785.	10.44	0.0250	0. 56. 0.18
MILE	30.10	794.14	130105.	4.04	32219.	887.	9.93	0.0200	0. 53. 0.12
MILE	29.00	794.05	130170.	3.64	35802.	1056.	10.79	0.0200	0. 54. 0.11
MILE	27.30	793.89	130254.	3.52	36994.	1050.	11.16	0.0230	0. 57. 0.10
MILE	25.20	793.76	130318.	2.85	45704.	1043.	11.96	0.0230	0. 59. 0.08
MILE	23.10	793.50	130349.	3.49	37356.	1064.	11.35	0.0230	0. 64. 0.10

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	8.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
INFLOW	DEPTH	FROUDE							
MILE	79.80	852.29	100000.	8.47	11800.	702.	8.11	0.0290	0. 34. 0.36

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 13 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	849.91	100102.	6.88	14555.	844.	9.20	0.0400	0.	39.	0.29
MILE	75.60	844.03	100290.	7.13	14065.	1100.	8.50	0.0400	0.	38.	0.35
MILE	73.50	837.45	100573.	7.36	13673.	835.	8.34	0.0330	0.	38.	0.32
MILE	71.40	834.00	100912.	6.08	16605.	804.	7.39	0.0400	0.	36.	0.24
MILE	69.30	829.34	101393.	6.15	16479.	784.	8.04	0.0340	0.	31.	0.24
MILE	67.20	827.05	102281.	4.13	24780.	1503.	7.58	0.0340	0.	36.	0.18
MILE	65.10	824.22	103857.	5.34	19458.	1884.	8.33	0.0320	0.	37.	0.29
MILE	63.00	822.22	105763.	5.31	19910.	1712.	8.45	0.0400	0.	41.	0.27
MILE	60.90	817.66	107493.	6.43	16706.	1302.	8.84	0.0450	0.	41.	0.32
MILE	58.80	810.90	108803.	8.06	13503.	932.	8.82	0.0400	0.	38.	0.37
MILE	57.00	809.28	109606.	7.68	14266.	965.	8.69	0.0200	0.	34.	0.35
MILE	55.00	806.98	110519.	8.63	12799.	935.	8.33	0.0200	0.	33.	0.41
MILE	53.10	805.97	111440.	5.92	18817.	1097.	7.74	0.0200	0.	33.	0.25
MILE	51.00	804.43	112748.	6.14	18356.	1493.	7.07	0.0200	0.	35.	0.31
MILE	48.30	803.05	115485.	4.63	24961.	2737.	7.01	0.0200	0.	34.	0.27
MILE	46.20	802.14	118298.	5.07	23339.	2792.	8.44	0.0200	0.	40.	0.31
MILE	44.10	801.97	120705.	3.15	38266.	1878.	9.48	0.0300	0.	47.	0.12
MILE	43.70	801.30	121035.	6.43	18825.	1710.	9.46	0.0300	0.	48.	0.34
MILE	42.00	800.00	122174.	4.51	27080.	1594.	7.28	0.0300	0.	50.	0.19
MILE	39.10	796.67	123766.	6.08	20359.	1473.	8.32	0.0230	0.	46.	0.29
MILE	37.00	796.25	124510.	3.51	35487.	1193.	7.78	0.0280	0.	45.	0.11
MILE	36.00	795.38	124757.	5.99	20841.	938.	8.51	0.0280	0.	46.	0.22
MILE	34.60	794.90	124969.	4.05	30885.	1264.	9.75	0.0280	0.	46.	0.14
MILE	33.60	794.91	125184.	1.94	64373.	2208.	8.28	0.0290	0.	52.	0.06
MILE	31.50	794.41	125668.	4.08	30824.	1781.	10.43	0.0250	0.	56.	0.17
MILE	30.10	794.10	125786.	3.91	32175.	886.	9.93	0.0200	0.	53.	0.11
MILE	29.00	794.01	125839.	3.52	35765.	1054.	10.78	0.0200	0.	54.	0.11
MILE	27.30	793.86	125914.	3.41	36968.	1049.	11.15	0.0230	0.	57.	0.10
MILE	25.20	793.74	125968.	2.76	45685.	1043.	11.96	0.0230	0.	59.	0.07
MILE	23.10	793.50	125994.	3.37	37356.	1064.	11.35	0.0230	0.	64.	0.10

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	9.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	852.24	100000.	8.49	11781.	701.	8.11	0.0290	0.	34.	0.37
MILE	77.70	849.87	100092.	6.89	14531.	843.	9.20	0.0400	0.	39.	0.29
MILE	75.60	843.98	100260.	7.14	14036.	1098.	8.49	0.0400	0.	37.	0.35
MILE	73.50	837.37	100503.	7.37	13628.	833.	8.33	0.0330	0.	38.	0.32
MILE	71.40	833.90	100782.	6.10	16516.	801.	7.38	0.0400	0.	36.	0.24
MILE	69.30	829.17	101164.	6.19	16353.	780.	8.02	0.0340	0.	30.	0.24
MILE	67.20	826.84	101861.	4.15	24522.	1487.	7.56	0.0340	0.	36.	0.18
MILE	65.10	823.96	103093.	5.36	19220.	1861.	8.32	0.0320	0.	37.	0.29
MILE	63.00	821.95	104588.	5.35	19546.	1697.	8.47	0.0400	0.	41.	0.28
MILE	60.90	817.36	105950.	6.43	16476.	1290.	8.83	0.0450	0.	41.	0.32
MILE	58.80	810.58	107000.	8.10	13208.	921.	8.88	0.0400	0.	38.	0.38
MILE	57.00	808.98	107663.	7.66	14059.	953.	8.66	0.0200	0.	34.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 14 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	806.67	108425.	8.61	12597.	923.	8.31	0.0200	0.	33.	0.41
MILE	53.10	805.66	109207.	5.90	18500.	1083.	7.72	0.0200	0.	32.	0.25
MILE	51.00	804.12	110324.	6.11	18046.	1476.	7.04	0.0200	0.	35.	0.31
MILE	48.30	802.74	112700.	4.59	24540.	2697.	6.94	0.0200	0.	34.	0.27
MILE	46.20	801.84	115159.	5.00	23030.	2753.	8.38	0.0200	0.	40.	0.30
MILE	44.10	801.67	117272.	3.10	37814.	1865.	9.44	0.0300	0.	46.	0.12
MILE	43.70	801.03	117563.	6.31	18646.	1697.	9.41	0.0300	0.	48.	0.34
MILE	42.00	799.75	118568.	4.44	26708.	1583.	7.23	0.0300	0.	50.	0.19
MILE	39.10	796.51	119974.	5.93	20217.	1466.	8.28	0.0230	0.	46.	0.28
MILE	37.00	796.10	120629.	3.42	35237.	1188.	7.75	0.0280	0.	45.	0.11
MILE	36.00	795.27	120845.	5.82	20749.	937.	8.49	0.0280	0.	46.	0.22
MILE	34.60	794.82	121028.	3.93	30802.	1260.	9.74	0.0280	0.	46.	0.14
MILE	33.60	794.83	121213.	1.89	64146.	2202.	8.27	0.0290	0.	52.	0.06
MILE	31.50	794.35	121630.	3.95	30774.	1778.	10.42	0.0250	0.	56.	0.17
MILE	30.10	794.06	121730.	3.79	32136.	885.	9.92	0.0200	0.	53.	0.11
MILE	29.00	793.98	121776.	3.41	35734.	1053.	10.77	0.0200	0.	54.	0.10
MILE	27.30	793.84	121839.	3.30	36946.	1048.	11.15	0.0230	0.	57.	0.10
MILE	25.20	793.72	121885.	2.67	45669.	1042.	11.96	0.0230	0.	59.	0.07
MILE	23.10	793.50	121908.	3.26	37356.	1064.	11.35	0.0230	0.	64.	0.10

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	10.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	852.21	100000.	8.50	11763.	701.	8.10	0.0290	0.	34.	0.37
MILE	77.70	849.83	100083.	6.90	14510.	842.	9.19	0.0400	0.	39.	0.29
MILE	75.60	843.93	100233.	7.15	14013.	1096.	8.49	0.0400	0.	37.	0.35
MILE	73.50	837.31	100442.	7.39	13595.	831.	8.32	0.0330	0.	38.	0.32
MILE	71.40	833.81	100675.	6.12	16449.	799.	7.37	0.0400	0.	36.	0.24
MILE	69.30	829.04	100983.	6.21	16257.	776.	8.00	0.0340	0.	30.	0.24
MILE	67.20	826.68	101537.	4.17	24326.	1475.	7.55	0.0340	0.	36.	0.18
MILE	65.10	823.77	102515.	5.39	19037.	1844.	8.30	0.0320	0.	37.	0.30
MILE	63.00	821.74	103701.	5.38	19267.	1685.	8.49	0.0400	0.	41.	0.28
MILE	60.90	817.12	104783.	6.43	16296.	1280.	8.82	0.0450	0.	41.	0.32
MILE	58.80	810.32	105629.	8.14	12970.	911.	8.93	0.0400	0.	37.	0.38
MILE	57.00	808.72	106172.	7.65	13888.	943.	8.64	0.0200	0.	34.	0.35
MILE	55.00	806.41	106803.	8.59	12426.	913.	8.30	0.0200	0.	33.	0.41
MILE	53.10	805.40	107456.	5.89	18231.	1071.	7.71	0.0200	0.	32.	0.25
MILE	51.00	803.86	108395.	6.10	17780.	1460.	7.02	0.0200	0.	35.	0.31
MILE	48.30	802.47	110408.	4.57	24170.	2661.	6.88	0.0200	0.	34.	0.27
MILE	46.20	801.58	112500.	4.94	22758.	2719.	8.33	0.0200	0.	40.	0.30
MILE	44.10	801.40	114308.	3.05	37418.	1853.	9.40	0.0300	0.	46.	0.12
MILE	43.70	800.78	114558.	6.20	18488.	1685.	9.36	0.0300	0.	48.	0.33
MILE	42.00	799.52	115420.	4.37	26382.	1573.	7.18	0.0300	0.	50.	0.19
MILE	39.10	796.37	116622.	5.80	20094.	1460.	8.25	0.0230	0.	45.	0.28
MILE	37.00	795.96	117179.	3.35	35022.	1185.	7.72	0.0280	0.	45.	0.11
MILE	36.00	795.17	117362.	5.68	20670.	935.	8.47	0.0280	0.	46.	0.21

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 15 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.75	117514.	3.82	30732.	1257.	9.73	0.0280	0.	46.	0.14
MILE	33.60	794.76	117669.	1.84	63954.	2196.	8.25	0.0290	0.	52.	0.06
MILE	31.50	794.30	118017.	3.84	30732.	1775.	10.41	0.0250	0.	56.	0.16
MILE	30.10	794.03	118099.	3.68	32104.	884.	9.91	0.0200	0.	53.	0.11
MILE	29.00	793.95	118137.	3.31	35708.	1052.	10.77	0.0200	0.	54.	0.10
MILE	27.30	793.82	118189.	3.20	36928.	1048.	11.15	0.0230	0.	57.	0.09
MILE	25.20	793.71	118227.	2.59	45655.	1042.	11.96	0.0230	0.	59.	0.07
MILE	23.10	793.50	118246.	3.17	37356.	1064.	11.35	0.0230	0.	64.	0.09

ODATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	11.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	852.17	100000.	8.51	11747.	700.	8.10	0.0290	0.	33.	0.37
MILE	77.70	849.80	100074.	6.91	14492.	842.	9.19	0.0400	0.	39.	0.29
MILE	75.60	843.90	100206.	7.16	13995.	1094.	8.49	0.0400	0.	37.	0.35
MILE	73.50	837.26	100386.	7.40	13569.	829.	8.32	0.0330	0.	38.	0.32
MILE	71.40	833.75	100582.	6.13	16396.	797.	7.37	0.0400	0.	36.	0.24
MILE	69.30	828.94	100834.	6.23	16183.	774.	7.99	0.0340	0.	30.	0.24
MILE	67.20	826.55	101280.	4.19	24173.	1466.	7.54	0.0340	0.	36.	0.18
MILE	65.10	823.61	102066.	5.40	18894.	1830.	8.29	0.0320	0.	37.	0.30
MILE	63.00	821.57	103019.	5.41	19048.	1676.	8.50	0.0400	0.	41.	0.28
MILE	60.90	816.93	103889.	6.43	16154.	1272.	8.81	0.0450	0.	40.	0.32
MILE	58.80	810.10	104575.	8.18	12779.	904.	8.97	0.0400	0.	37.	0.38
MILE	57.00	808.51	105018.	7.64	13748.	935.	8.61	0.0200	0.	34.	0.35
MILE	55.00	806.20	105533.	8.59	12287.	905.	8.28	0.0200	0.	33.	0.41
MILE	53.10	805.18	106072.	5.89	18005.	1060.	7.69	0.0200	0.	32.	0.25
MILE	51.00	803.64	106848.	6.09	17555.	1448.	7.00	0.0200	0.	34.	0.31
MILE	48.30	802.24	108526.	4.55	23853.	2631.	6.82	0.0200	0.	33.	0.27
MILE	46.20	801.35	110275.	4.90	22525.	2690.	8.29	0.0200	0.	40.	0.30
MILE	44.10	801.18	111794.	3.02	37079.	1842.	9.37	0.0300	0.	46.	0.12
MILE	43.70	800.57	112005.	6.10	18352.	1675.	9.32	0.0300	0.	48.	0.32
MILE	42.00	799.33	112731.	4.32	26104.	1565.	7.14	0.0300	0.	49.	0.19
MILE	39.10	796.25	113738.	5.69	19991.	1454.	8.23	0.0230	0.	45.	0.27
MILE	37.00	795.86	114203.	3.28	34842.	1182.	7.69	0.0280	0.	45.	0.11
MILE	36.00	795.10	114354.	5.55	20605.	934.	8.45	0.0280	0.	46.	0.21
MILE	34.60	794.69	114480.	3.73	30674.	1255.	9.72	0.0280	0.	46.	0.13
MILE	33.60	794.70	114607.	1.80	63794.	2192.	8.24	0.0290	0.	52.	0.06
MILE	31.50	794.27	114891.	3.74	30698.	1773.	10.41	0.0250	0.	55.	0.16
MILE	30.10	794.01	114958.	3.58	32078.	883.	9.91	0.0200	0.	53.	0.10
MILE	29.00	793.93	114989.	3.22	35686.	1052.	10.77	0.0200	0.	54.	0.10
MILE	27.30	793.81	115031.	3.12	36913.	1047.	11.14	0.0230	0.	57.	0.09
MILE	25.20	793.70	115062.	2.52	45644.	1041.	11.96	0.0230	0.	59.	0.07
MILE	23.10	793.50	115078.	3.08	37356.	1064.	11.35	0.0230	0.	64.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 16 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 12.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	852.14	100000.	8.52	11733.	700.	8.10	0.0290	0.	33. 0.37
MILE 77.70	849.77	100065.	6.91	14476.	841.	9.19	0.0400	0.	39. 0.29
MILE 75.60	843.87	100182.	7.17	13979.	1093.	8.48	0.0400	0.	37. 0.35
MILE 73.50	837.22	100338.	7.41	13548.	828.	8.31	0.0330	0.	38. 0.32
MILE 71.40	833.70	100504.	6.14	16356.	796.	7.36	0.0400	0.	36. 0.24
MILE 69.30	828.86	100712.	6.25	16125.	772.	7.98	0.0340	0.	30. 0.24
MILE 67.20	826.45	101075.	4.20	24052.	1458.	7.53	0.0340	0.	36. 0.18
MILE 65.10	823.49	101711.	5.42	18782.	1818.	8.28	0.0320	0.	36. 0.30
MILE 63.00	821.43	102483.	5.43	18876.	1668.	8.51	0.0400	0.	40. 0.28
MILE 60.90	816.78	103182.	6.43	16040.	1266.	8.80	0.0450	0.	40. 0.32
MILE 58.80	809.93	103724.	8.20	12650.	898.	8.98	0.0400	0.	37. 0.38
MILE 57.00	808.34	104095.	7.64	13634.	929.	8.59	0.0200	0.	34. 0.35
MILE 55.00	806.02	104521.	8.59	12172.	898.	8.27	0.0200	0.	33. 0.41
MILE 53.10	804.99	104960.	5.89	17816.	1052.	7.68	0.0200	0.	32. 0.25
MILE 51.00	803.45	105607.	6.08	17367.	1437.	6.98	0.0200	0.	34. 0.31
MILE 48.30	802.05	106990.	4.54	23585.	2605.	6.77	0.0200	0.	33. 0.27
MILE 46.20	801.16	108435.	4.86	22328.	2665.	8.25	0.0200	0.	39. 0.30
MILE 44.10	800.99	109692.	2.98	36794.	1833.	9.34	0.0300	0.	46. 0.12
MILE 43.70	800.40	109867.	6.02	18237.	1667.	9.29	0.0300	0.	47. 0.32
MILE 42.00	799.17	110469.	4.27	25869.	1558.	7.10	0.0300	0.	49. 0.18
MILE 39.10	796.15	111300.	5.59	19906.	1450.	8.20	0.0230	0.	45. 0.27
MILE 37.00	795.77	111682.	3.22	34693.	1179.	7.67	0.0280	0.	44. 0.10
MILE 36.00	795.03	111807.	5.44	20551.	933.	8.44	0.0280	0.	46. 0.20
MILE 34.60	794.64	111909.	3.65	30627.	1253.	9.71	0.0280	0.	46. 0.13
MILE 33.60	794.65	112012.	1.76	63664.	2189.	8.23	0.0290	0.	52. 0.06
MILE 31.50	794.24	112244.	3.66	30670.	1771.	10.40	0.0250	0.	55. 0.15
MILE 30.10	793.99	112298.	3.50	32056.	883.	9.91	0.0200	0.	53. 0.10
MILE 29.00	793.91	112323.	3.15	35669.	1051.	10.76	0.0200	0.	54. 0.10
MILE 27.30	793.79	112357.	3.04	36901.	1047.	11.14	0.0230	0.	57. 0.09
MILE 25.20	793.69	112382.	2.46	45635.	1041.	11.96	0.0230	0.	59. 0.07
MILE 23.10	793.50	112396.	3.01	37356.	1064.	11.35	0.0230	0.	64. 0.09

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 13.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	852.11	100000.	8.53	11720.	700.	8.09	0.0290	0.	33. 0.37
MILE 77.70	849.75	100057.	6.92	14462.	841.	9.18	0.0400	0.	39. 0.29
MILE 75.60	843.85	100159.	7.17	13967.	1092.	8.48	0.0400	0.	37. 0.35
MILE 73.50	837.19	100293.	7.41	13532.	827.	8.31	0.0330	0.	38. 0.32
MILE 71.40	833.66	100433.	6.15	16323.	795.	7.36	0.0400	0.	36. 0.24

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 69.30	828.80	100603.	6.26	16079.	770.	7.97	0.0340	0.	30.	0.24
MILE 67.20	826.36	100898.	4.21	23955.	1452.	7.52	0.0340	0.	36.	0.18
MILE 65.10	823.39	101410.	5.43	18691.	1809.	8.28	0.0320	0.	36.	0.30
MILE 63.00	821.33	102029.	5.45	18737.	1662.	8.52	0.0400	0.	40.	0.29
MILE 60.90	816.66	102587.	6.43	15948.	1261.	8.80	0.0450	0.	40.	0.32
MILE 58.80	809.80	103019.	8.19	12576.	893.	8.97	0.0400	0.	37.	0.38
MILE 57.00	808.20	103320.	7.63	13542.	923.	8.58	0.0200	0.	33.	0.35
MILE 55.00	805.88	103669.	8.58	12077.	893.	8.27	0.0200	0.	32.	0.41
MILE 53.10	804.84	104031.	5.90	17640.	1044.	7.67	0.0200	0.	32.	0.25
MILE 51.00	803.29	104562.	6.08	17211.	1428.	6.97	0.0200	0.	34.	0.31
MILE 48.30	801.88	105706.	4.52	23362.	2583.	6.73	0.0200	0.	33.	0.27
MILE 46.20	801.00	106899.	4.82	22164.	2645.	8.22	0.0200	0.	39.	0.29
MILE 44.10	800.83	107939.	2.95	36555.	1826.	9.32	0.0300	0.	46.	0.12
MILE 43.70	800.25	108084.	5.96	18141.	1660.	9.26	0.0300	0.	47.	0.32
MILE 42.00	799.03	108582.	4.23	25674.	1552.	7.07	0.0300	0.	49.	0.18
MILE 39.10	796.07	109268.	5.51	19836.	1446.	8.19	0.0230	0.	45.	0.26
MILE 37.00	795.69	109584.	3.17	34572.	1177.	7.65	0.0280	0.	44.	0.10
MILE 36.00	794.98	109687.	5.35	20508.	931.	8.43	0.0280	0.	46.	0.20
MILE 34.60	794.60	109768.	3.59	30588.	1251.	9.71	0.0280	0.	46.	0.13
MILE 33.60	794.61	109851.	1.73	63559.	2186.	8.23	0.0290	0.	52.	0.06
MILE 31.50	794.21	110035.	3.59	30648.	1769.	10.40	0.0250	0.	55.	0.15
MILE 30.10	793.97	110077.	3.44	32039.	882.	9.90	0.0200	0.	53.	0.10
MILE 29.00	793.90	110097.	3.09	35655.	1050.	10.76	0.0200	0.	54.	0.09
MILE 27.30	793.78	110124.	2.99	36891.	1046.	11.14	0.0230	0.	57.	0.09
MILE 25.20	793.69	110144.	2.41	45628.	1041.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	110155.	2.95	37356.	1064.	11.35	0.0230	0.	64.	0.09

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	14.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL	
INFLOW	DEPTH	FROUDE								
MILE 79.80	852.09	100000.	8.54	11709.	699.	8.09	0.0290	0.	33.	0.37
MILE 77.70	849.73	100049.	6.92	14450.	841.	9.18	0.0400	0.	39.	0.29
MILE 75.60	843.83	100135.	7.18	13955.	1091.	8.48	0.0400	0.	37.	0.35
MILE 73.50	837.17	100246.	7.42	13518.	826.	8.30	0.0330	0.	38.	0.32
MILE 71.40	833.63	100362.	6.16	16296.	794.	7.36	0.0400	0.	36.	0.24
MILE 69.30	828.74	100502.	6.27	16041.	769.	7.96	0.0340	0.	30.	0.24
MILE 67.20	826.30	100741.	4.22	23875.	1447.	7.51	0.0340	0.	36.	0.18
MILE 65.10	823.31	101157.	5.43	18617.	1802.	8.27	0.0320	0.	36.	0.30
MILE 63.00	821.24	101658.	5.46	18625.	1657.	8.53	0.0400	0.	40.	0.29
MILE 60.90	816.56	102110.	6.43	15874.	1256.	8.79	0.0450	0.	40.	0.32
MILE 58.80	809.69	102461.	8.19	12517.	889.	8.95	0.0400	0.	37.	0.38
MILE 57.00	808.09	102707.	7.63	13467.	919.	8.57	0.0200	0.	33.	0.35
MILE 55.00	805.76	102992.	8.58	12001.	888.	8.26	0.0200	0.	32.	0.41
MILE 53.10	804.71	103289.	5.90	17496.	1038.	7.66	0.0200	0.	31.	0.25
MILE 51.00	803.16	103723.	6.07	17084.	1420.	6.96	0.0200	0.	34.	0.31
MILE 48.30	801.75	104661.	4.52	23177.	2565.	6.70	0.0200	0.	33.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 18 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	800.86	105640.	4.80	22028.	2628.	8.20	0.0200	0.	39.	0.29
MILE 44.10	800.69	106495.	2.93	36358.	1820.	9.30	0.0300	0.	45.	0.12
MILE 43.70	800.13	106614.	5.90	18061.	1654.	9.23	0.0300	0.	47.	0.31
MILE 42.00	798.92	107024.	4.19	25513.	1547.	7.05	0.0300	0.	49.	0.18
MILE 39.10	796.00	107586.	5.44	19778.	1444.	8.17	0.0230	0.	45.	0.26
MILE 37.00	795.63	107844.	3.13	34472.	1176.	7.64	0.0280	0.	44.	0.10
MILE 36.00	794.94	107927.	5.27	20473.	930.	8.42	0.0280	0.	46.	0.20
MILE 34.60	794.57	107994.	3.53	30557.	1250.	9.70	0.0280	0.	46.	0.13
MILE 33.60	794.58	108061.	1.70	63473.	2183.	8.22	0.0290	0.	52.	0.06
MILE 31.50	794.19	108211.	3.53	30629.	1768.	10.40	0.0250	0.	55.	0.15
MILE 30.10	793.96	108245.	3.38	32026.	882.	9.90	0.0200	0.	53.	0.10
MILE 29.00	793.89	108261.	3.04	35644.	1050.	10.76	0.0200	0.	54.	0.09
MILE 27.30	793.77	108282.	2.94	36883.	1046.	11.14	0.0230	0.	57.	0.09
MILE 25.20	793.68	108298.	2.37	45622.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	108305.	2.90	37356.	1064.	11.35	0.0230	0.	64.	0.09

ODATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 15.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	852.07	100000.	8.55	11699.	699.	8.09	0.0290	0.	33.	0.37
MILE 77.70	849.71	100040.	6.93	14440.	840.	9.18	0.0400	0.	39.	0.29
MILE 75.60	843.81	100111.	7.18	13946.	1090.	8.48	0.0400	0.	37.	0.35
MILE 73.50	837.15	100203.	7.42	13506.	825.	8.30	0.0330	0.	38.	0.32
MILE 71.40	833.60	100298.	6.16	16273.	793.	7.36	0.0400	0.	36.	0.24
MILE 69.30	828.70	100412.	6.27	16009.	767.	7.96	0.0340	0.	30.	0.24
MILE 67.20	826.24	100607.	4.23	23810.	1443.	7.51	0.0340	0.	36.	0.18
MILE 65.10	823.24	100947.	5.44	18556.	1796.	8.27	0.0320	0.	36.	0.30
MILE 63.00	821.17	101356.	5.47	18533.	1653.	8.54	0.0400	0.	40.	0.29
MILE 60.90	816.47	101725.	6.43	15813.	1253.	8.79	0.0450	0.	40.	0.32
MILE 58.80	809.60	102012.	8.18	12469.	886.	8.94	0.0400	0.	37.	0.38
MILE 57.00	808.00	102213.	7.62	13407.	915.	8.56	0.0200	0.	33.	0.35
MILE 55.00	805.66	102446.	8.58	11939.	884.	8.25	0.0200	0.	32.	0.41
MILE 53.10	804.60	102688.	5.91	17379.	1033.	7.65	0.0200	0.	31.	0.25
MILE 51.00	803.06	103044.	6.07	16981.	1414.	6.95	0.0200	0.	34.	0.31
MILE 48.30	801.64	103810.	4.51	23026.	2551.	6.67	0.0200	0.	33.	0.26
MILE 46.20	800.75	104610.	4.77	21916.	2614.	8.17	0.0200	0.	39.	0.29
MILE 44.10	800.58	105309.	2.91	36197.	1815.	9.28	0.0300	0.	45.	0.11
MILE 43.70	800.03	105406.	5.86	17996.	1649.	9.22	0.0300	0.	47.	0.31
MILE 42.00	798.83	105742.	4.17	25381.	1543.	7.03	0.0300	0.	49.	0.18
MILE 39.10	795.95	106199.	5.38	19732.	1441.	8.16	0.0230	0.	45.	0.26
MILE 37.00	795.58	106408.	3.09	34392.	1174.	7.63	0.0280	0.	44.	0.10
MILE 36.00	794.91	106476.	5.21	20446.	929.	8.42	0.0280	0.	46.	0.20
MILE 34.60	794.55	106529.	3.49	30532.	1249.	9.70	0.0280	0.	46.	0.12
MILE 33.60	794.55	106583.	1.68	63404.	2182.	8.21	0.0290	0.	52.	0.05
MILE 31.50	794.17	106703.	3.49	30615.	1767.	10.40	0.0250	0.	55.	0.15
MILE 30.10	793.95	106731.	3.33	32015.	881.	9.90	0.0200	0.	53.	0.10

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 19 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.88	106743.	3.00	35635.	1050.	10.76	0.0200	0.	54.	0.09
MILE	27.30	793.77	106761.	2.90	36877.	1046.	11.14	0.0230	0.	57.	0.09
MILE	25.20	793.68	106773.	2.34	45617.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	106780.	2.86	37356.	1064.	11.35	0.0230	0.	64.	0.09

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 16.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	852.05	100000.	8.55	11692.	699.	8.09	0.0290	0.	33.	0.37
MILE	77.70	849.69	100033.	6.93	14432.	840.	9.18	0.0400	0.	39.	0.29
MILE	75.60	843.79	100091.	7.18	13938.	1090.	8.48	0.0400	0.	37.	0.35
MILE	73.50	837.13	100166.	7.42	13496.	825.	8.30	0.0330	0.	38.	0.32
MILE	71.40	833.58	100243.	6.17	16254.	792.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.67	100337.	6.28	15984.	767.	7.96	0.0340	0.	30.	0.24
MILE	67.20	826.20	100497.	4.23	23756.	1440.	7.50	0.0340	0.	35.	0.18
MILE	65.10	823.19	100774.	5.45	18507.	1791.	8.26	0.0320	0.	36.	0.30
MILE	63.00	821.11	101110.	5.48	18458.	1650.	8.54	0.0400	0.	40.	0.29
MILE	60.90	816.41	101412.	6.43	15764.	1250.	8.79	0.0450	0.	40.	0.32
MILE	58.80	809.53	101647.	8.18	12430.	883.	8.94	0.0400	0.	36.	0.38
MILE	57.00	807.92	101811.	7.62	13357.	912.	8.55	0.0200	0.	33.	0.35
MILE	55.00	805.58	102002.	8.58	11888.	881.	8.25	0.0200	0.	32.	0.41
MILE	53.10	804.52	102200.	5.91	17284.	1030.	7.65	0.0200	0.	31.	0.25
MILE	51.00	802.97	102490.	6.07	16896.	1409.	6.94	0.0200	0.	34.	0.31
MILE	48.30	801.54	103115.	4.50	22902.	2539.	6.65	0.0200	0.	33.	0.26
MILE	46.20	800.66	103767.	4.75	21825.	2602.	8.16	0.0200	0.	39.	0.29
MILE	44.10	800.50	104337.	2.89	36065.	1811.	9.27	0.0300	0.	45.	0.11
MILE	43.70	799.94	104417.	5.82	17944.	1645.	9.20	0.0300	0.	47.	0.31
MILE	42.00	798.75	104690.	4.14	25274.	1540.	7.01	0.0300	0.	49.	0.18
MILE	39.10	795.91	105062.	5.33	19694.	1439.	8.15	0.0230	0.	45.	0.25
MILE	37.00	795.54	105231.	3.07	34327.	1173.	7.62	0.0280	0.	44.	0.10
MILE	36.00	794.88	105286.	5.16	20423.	928.	8.42	0.0280	0.	46.	0.19
MILE	34.60	794.53	105329.	3.45	30512.	1248.	9.70	0.0280	0.	46.	0.12
MILE	33.60	794.53	105372.	1.66	63348.	2180.	8.21	0.0290	0.	52.	0.05
MILE	31.50	794.16	105470.	3.45	30603.	1766.	10.39	0.0250	0.	55.	0.15
MILE	30.10	793.94	105492.	3.30	32006.	881.	9.90	0.0200	0.	53.	0.10
MILE	29.00	793.87	105502.	2.96	35628.	1049.	10.76	0.0200	0.	54.	0.09
MILE	27.30	793.76	105516.	2.86	36872.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.67	105527.	2.31	45613.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	105532.	2.83	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 20 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 17.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	852.04	100000.	8.56	11686.	699.	8.09	0.0290	0.	33.	0.37
MILE	77.70	849.68	100027.	6.93	14425.	840.	9.18	0.0400	0.	39.	0.29
MILE	75.60	843.78	100074.	7.18	13932.	1089.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.11	100135.	7.42	13488.	824.	8.30	0.0330	0.	38.	0.32
MILE	71.40	833.56	100199.	6.17	16239.	792.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.64	100275.	6.28	15963.	766.	7.95	0.0340	0.	30.	0.24
MILE	67.20	826.16	100406.	4.23	23712.	1437.	7.50	0.0340	0.	35.	0.18
MILE	65.10	823.14	100633.	5.45	18466.	1787.	8.26	0.0320	0.	36.	0.30
MILE	63.00	821.06	100908.	5.49	18397.	1647.	8.55	0.0400	0.	40.	0.29
MILE	60.90	816.35	101156.	6.43	15724.	1248.	8.78	0.0450	0.	40.	0.32
MILE	58.80	809.48	101348.	8.17	12398.	881.	8.93	0.0400	0.	36.	0.38
MILE	57.00	807.86	101483.	7.62	13317.	910.	8.54	0.0200	0.	33.	0.35
MILE	55.00	805.52	101639.	8.58	11847.	879.	8.25	0.0200	0.	32.	0.41
MILE	53.10	804.45	101800.	5.92	17207.	1026.	7.64	0.0200	0.	31.	0.25
MILE	51.00	802.90	102037.	6.06	16827.	1405.	6.94	0.0200	0.	34.	0.31
MILE	48.30	801.47	102546.	4.50	22800.	2529.	6.63	0.0200	0.	33.	0.26
MILE	46.20	800.59	103077.	4.74	21751.	2593.	8.14	0.0200	0.	39.	0.29
MILE	44.10	800.42	103542.	2.88	35958.	1807.	9.26	0.0300	0.	45.	0.11
MILE	43.70	799.88	103607.	5.79	17902.	1642.	9.19	0.0300	0.	47.	0.31
MILE	42.00	798.69	103830.	4.12	25186.	1537.	7.00	0.0300	0.	49.	0.18
MILE	39.10	795.87	104132.	5.30	19664.	1438.	8.14	0.0230	0.	45.	0.25
MILE	37.00	795.51	104269.	3.04	34275.	1172.	7.61	0.0280	0.	44.	0.10
MILE	36.00	794.86	104314.	5.11	20406.	928.	8.42	0.0280	0.	46.	0.19
MILE	34.60	794.51	104349.	3.42	30496.	1248.	9.70	0.0280	0.	46.	0.12
MILE	33.60	794.52	104384.	1.65	63303.	2179.	8.21	0.0290	0.	52.	0.05
MILE	31.50	794.15	104463.	3.41	30594.	1766.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.93	104481.	3.27	31999.	881.	9.89	0.0200	0.	53.	0.10
MILE	29.00	793.87	104489.	2.93	35622.	1049.	10.76	0.0200	0.	54.	0.09
MILE	27.30	793.76	104501.	2.83	36868.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.67	104509.	2.29	45610.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	104514.	2.80	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 18.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	852.03	100000.	8.56	11680.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.67	100022.	6.94	14419.	840.	9.18	0.0400	0.	39.	0.30
MILE	75.60	843.77	100061.	7.18	13927.	1089.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.10	100111.	7.43	13482.	824.	8.30	0.0330	0.	38.	0.32
MILE	71.40	833.54	100163.	6.17	16226.	791.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.61	100225.	6.29	15945.	765.	7.95	0.0340	0.	30.	0.24
MILE	67.20	826.13	100332.	4.24	23676.	1435.	7.50	0.0340	0.	35.	0.18
MILE	65.10	823.11	100519.	5.45	18433.	1784.	8.26	0.0320	0.	36.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 21 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	821.02	100744.	5.49	18347.	1645.	8.55	0.0400	0.	40.	0.29
MILE	60.90	816.31	100947.	6.43	15691.	1246.	8.78	0.0450	0.	40.	0.32
MILE	58.80	809.43	101105.	8.17	12372.	880.	8.92	0.0400	0.	36.	0.38
MILE	57.00	807.81	101215.	7.62	13284.	908.	8.54	0.0200	0.	33.	0.35
MILE	55.00	805.46	101342.	8.58	11814.	877.	8.24	0.0200	0.	32.	0.41
MILE	53.10	804.39	101474.	5.92	17143.	1024.	7.64	0.0200	0.	31.	0.25
MILE	51.00	802.85	101667.	6.06	16771.	1402.	6.93	0.0200	0.	34.	0.31
MILE	48.30	801.41	102082.	4.49	22718.	2521.	6.62	0.0200	0.	32.	0.26
MILE	46.20	800.53	102514.	4.73	21690.	2585.	8.13	0.0200	0.	39.	0.29
MILE	44.10	800.36	102893.	2.87	35870.	1805.	9.25	0.0300	0.	45.	0.11
MILE	43.70	799.82	102946.	5.76	17867.	1640.	9.17	0.0300	0.	47.	0.31
MILE	42.00	798.64	103127.	4.11	25115.	1535.	6.99	0.0300	0.	49.	0.18
MILE	39.10	795.84	103373.	5.26	19639.	1436.	8.14	0.0230	0.	45.	0.25
MILE	37.00	795.49	103484.	3.02	34232.	1171.	7.60	0.0280	0.	44.	0.10
MILE	36.00	794.84	103520.	5.08	20391.	927.	8.42	0.0280	0.	46.	0.19
MILE	34.60	794.50	103548.	3.40	30482.	1247.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.50	103577.	1.64	63267.	2178.	8.20	0.0290	0.	52.	0.05
MILE	31.50	794.14	103641.	3.39	30586.	1765.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.93	103656.	3.24	31993.	881.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.86	103663.	2.91	35617.	1049.	10.76	0.0200	0.	54.	0.09
MILE	27.30	793.76	103672.	2.81	36865.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.67	103679.	2.27	45607.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	103683.	2.78	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 19.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	852.02	100000.	8.56	11676.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.66	100018.	6.94	14415.	840.	9.18	0.0400	0.	39.	0.30
MILE	75.60	843.76	100050.	7.19	13922.	1088.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.09	100091.	7.43	13476.	823.	8.30	0.0330	0.	38.	0.32
MILE	71.40	833.53	100134.	6.18	16216.	791.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.59	100185.	6.29	15931.	765.	7.95	0.0340	0.	30.	0.24
MILE	67.20	826.10	100273.	4.24	23647.	1433.	7.50	0.0340	0.	35.	0.18
MILE	65.10	823.08	100425.	5.46	18406.	1781.	8.26	0.0320	0.	36.	0.30
MILE	63.00	820.99	100610.	5.50	18306.	1643.	8.56	0.0400	0.	40.	0.29
MILE	60.90	816.27	100776.	6.43	15664.	1245.	8.78	0.0450	0.	40.	0.32
MILE	58.80	809.39	100906.	8.17	12351.	878.	8.92	0.0400	0.	36.	0.38
MILE	57.00	807.77	100995.	7.62	13257.	906.	8.53	0.0200	0.	33.	0.35
MILE	55.00	805.42	101099.	8.58	11786.	875.	8.24	0.0200	0.	32.	0.41
MILE	53.10	804.35	101207.	5.92	17092.	1021.	7.64	0.0200	0.	31.	0.26
MILE	51.00	802.80	101365.	6.06	16726.	1399.	6.93	0.0200	0.	34.	0.31
MILE	48.30	801.36	101702.	4.49	22651.	2514.	6.61	0.0200	0.	32.	0.26
MILE	46.20	800.48	102054.	4.72	21641.	2579.	8.12	0.0200	0.	39.	0.29
MILE	44.10	800.32	102363.	2.86	35799.	1803.	9.25	0.0300	0.	45.	0.11
MILE	43.70	799.78	102406.	5.74	17839.	1637.	9.17	0.0300	0.	47.	0.31

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 22 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 42.00	798.60	102554.	4.09	25057.	1533.	6.98	0.0300	0.	49.	0.18
MILE 39.10	795.82	102753.	5.24	19619.	1435.	8.13	0.0230	0.	45.	0.25
MILE 37.00	795.46	102844.	3.01	34198.	1171.	7.60	0.0280	0.	44.	0.10
MILE 36.00	794.83	102873.	5.05	20379.	927.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.49	102896.	3.38	30472.	1247.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.49	102919.	1.63	63238.	2177.	8.20	0.0290	0.	52.	0.05
MILE 31.50	794.14	102971.	3.37	30580.	1765.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.92	102983.	3.22	31989.	881.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.86	102988.	2.89	35613.	1049.	10.76	0.0200	0.	54.	0.09
MILE 27.30	793.75	102996.	2.79	36862.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	103002.	2.26	45605.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	103005.	2.76	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 20.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	852.01	100000.	8.57	11673.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.66	100015.	6.94	14411.	840.	9.18	0.0400	0.	39.	0.30
MILE 75.60	843.76	100041.	7.19	13919.	1088.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.09	100075.	7.43	13472.	823.	8.30	0.0330	0.	38.	0.32
MILE 71.40	833.52	100110.	6.18	16208.	791.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.58	100152.	6.29	15920.	764.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.08	100224.	4.24	23623.	1432.	7.49	0.0340	0.	35.	0.18
MILE 65.10	823.05	100349.	5.46	18383.	1779.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.96	100501.	5.50	18272.	1642.	8.56	0.0400	0.	40.	0.29
MILE 60.90	816.24	100637.	6.43	15642.	1243.	8.78	0.0450	0.	40.	0.32
MILE 58.80	809.36	100743.	8.17	12334.	877.	8.92	0.0400	0.	36.	0.38
MILE 57.00	807.74	100816.	7.62	13236.	905.	8.53	0.0200	0.	33.	0.35
MILE 55.00	805.39	100901.	8.58	11764.	874.	8.24	0.0200	0.	32.	0.41
MILE 53.10	804.31	100989.	5.92	17050.	1020.	7.63	0.0200	0.	31.	0.26
MILE 51.00	802.76	101117.	6.06	16689.	1397.	6.92	0.0200	0.	33.	0.31
MILE 48.30	801.32	101392.	4.49	22596.	2509.	6.60	0.0200	0.	32.	0.26
MILE 46.20	800.44	101679.	4.71	21601.	2574.	8.12	0.0200	0.	39.	0.29
MILE 44.10	800.28	101930.	2.85	35741.	1801.	9.24	0.0300	0.	45.	0.11
MILE 43.70	799.74	101965.	5.72	17816.	1636.	9.16	0.0300	0.	47.	0.31
MILE 42.00	798.57	102086.	4.08	25009.	1532.	6.97	0.0300	0.	49.	0.18
MILE 39.10	795.80	102248.	5.22	19603.	1435.	8.13	0.0230	0.	45.	0.25
MILE 37.00	795.45	102321.	2.99	34170.	1170.	7.60	0.0280	0.	44.	0.10
MILE 36.00	794.82	102345.	5.02	20370.	926.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.48	102364.	3.36	30463.	1246.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.48	102383.	1.62	63214.	2176.	8.20	0.0290	0.	52.	0.05
MILE 31.50	794.13	102425.	3.35	30575.	1765.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.92	102434.	3.20	31985.	881.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.86	102439.	2.88	35610.	1049.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.75	102445.	2.78	36860.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	102450.	2.25	45604.	1040.	11.95	0.0230	0.	59.	0.06

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
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MILE 23.10 793.50 102452. 2.74 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 21.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	852.00	100000.	8.57	11670.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.65	100012.	6.94	14408.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.75	100034.	7.19	13916.	1088.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.08	100062.	7.43	13469.	823.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.51	100091.	6.18	16201.	791.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.57	100125.	6.29	15910.	764.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.07	100184.	4.24	23603.	1431.	7.49	0.0340	0.	35.	0.18
MILE 65.10	823.03	100287.	5.46	18365.	1777.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.94	100411.	5.50	18245.	1641.	8.56	0.0400	0.	40.	0.29
MILE 60.90	816.22	100523.	6.43	15624.	1242.	8.78	0.0450	0.	40.	0.32
MILE 58.80	809.33	100609.	8.17	12320.	876.	8.91	0.0400	0.	36.	0.38
MILE 57.00	807.71	100669.	7.62	13218.	904.	8.53	0.0200	0.	33.	0.35
MILE 55.00	805.36	100739.	8.58	11746.	873.	8.24	0.0200	0.	32.	0.41
MILE 53.10	804.28	100810.	5.92	17016.	1018.	7.63	0.0200	0.	31.	0.26
MILE 51.00	802.73	100915.	6.06	16659.	1395.	6.92	0.0200	0.	33.	0.31
MILE 48.30	801.29	101139.	4.48	22551.	2505.	6.59	0.0200	0.	32.	0.26
MILE 46.20	800.41	101373.	4.70	21568.	2570.	8.11	0.0200	0.	39.	0.29
MILE 44.10	800.24	101577.	2.85	35693.	1799.	9.24	0.0300	0.	45.	0.11
MILE 43.70	799.71	101606.	5.71	17798.	1634.	9.15	0.0300	0.	47.	0.30
MILE 42.00	798.54	101704.	4.07	24971.	1530.	6.97	0.0300	0.	49.	0.18
MILE 39.10	795.78	101836.	5.20	19590.	1434.	8.12	0.0230	0.	45.	0.25
MILE 37.00	795.43	101896.	2.98	34147.	1170.	7.59	0.0280	0.	44.	0.10
MILE 36.00	794.81	101915.	5.01	20362.	926.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.47	101930.	3.35	30456.	1246.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.48	101945.	1.61	63195.	2176.	8.20	0.0290	0.	52.	0.05
MILE 31.50	794.13	101980.	3.34	30571.	1764.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.92	101987.	3.19	31982.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.85	101991.	2.86	35608.	1049.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.75	101996.	2.77	36858.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	102000.	2.24	45602.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	102002.	2.73	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 22.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 852.00 100000. 8.57 11668. 698. 8.08 0.0290 0. 33. 0.37

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 24 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 77.70	849.65	100010.	6.94	14405.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.75	100028.	7.19	13914.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.07	100051.	7.43	13466.	823.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.51	100075.	6.18	16195.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.56	100103.	6.29	15903.	764.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.05	100152.	4.25	23587.	1430.	7.49	0.0340	0.	35.	0.18
MILE 65.10	823.02	100236.	5.46	18350.	1776.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.92	100338.	5.51	18223.	1640.	8.56	0.0400	0.	40.	0.29
MILE 60.90	816.20	100429.	6.43	15609.	1242.	8.78	0.0450	0.	40.	0.32
MILE 58.80	809.31	100500.	8.17	12308.	876.	8.91	0.0400	0.	36.	0.38
MILE 57.00	807.69	100549.	7.62	13203.	903.	8.53	0.0200	0.	33.	0.35
MILE 55.00	805.33	100606.	8.58	11731.	872.	8.24	0.0200	0.	32.	0.41
MILE 53.10	804.25	100664.	5.93	16988.	1017.	7.63	0.0200	0.	31.	0.26
MILE 51.00	802.70	100750.	6.06	16634.	1394.	6.92	0.0200	0.	33.	0.31
MILE 48.30	801.26	100932.	4.48	22515.	2501.	6.58	0.0200	0.	32.	0.26
MILE 46.20	800.38	101123.	4.69	21541.	2566.	8.10	0.0200	0.	39.	0.29
MILE 44.10	800.22	101289.	2.84	35655.	1798.	9.23	0.0300	0.	45.	0.11
MILE 43.70	799.69	101313.	5.70	17783.	1633.	9.15	0.0300	0.	47.	0.30
MILE 42.00	798.52	101392.	4.07	24940.	1529.	6.96	0.0300	0.	49.	0.18
MILE 39.10	795.77	101500.	5.18	19579.	1433.	8.12	0.0230	0.	45.	0.25
MILE 37.00	795.42	101548.	2.98	34129.	1170.	7.59	0.0280	0.	44.	0.10
MILE 36.00	794.80	101564.	4.99	20356.	926.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.47	101576.	3.34	30451.	1246.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.47	101589.	1.61	63180.	2175.	8.20	0.0290	0.	52.	0.05
MILE 31.50	794.12	101617.	3.32	30568.	1764.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	101623.	3.18	31980.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.85	101626.	2.85	35606.	1049.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.75	101630.	2.76	36857.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	101633.	2.23	45601.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	101635.	2.72	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-27-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	852.00	100000.	8.57	11666.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.64	100008.	6.94	14403.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.74	100023.	7.19	13912.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.07	100042.	7.43	13463.	823.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.50	100062.	6.18	16191.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.55	100085.	6.30	15896.	763.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.04	100125.	4.25	23574.	1429.	7.49	0.0340	0.	35.	0.18
MILE 65.10	823.00	100194.	5.46	18338.	1774.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.90	100278.	5.51	18204.	1639.	8.56	0.0400	0.	40.	0.29
MILE 60.90	816.18	100353.	6.43	15597.	1241.	8.78	0.0450	0.	40.	0.32
MILE 58.80	809.29	100411.	8.16	12299.	875.	8.91	0.0400	0.	36.	0.38
MILE 57.00	807.67	100451.	7.61	13191.	903.	8.52	0.0200	0.	33.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 25 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.31	100497.	8.58	11719.	871.	8.24	0.0200	0.	32.	0.41
MILE	53.10	804.23	100545.	5.93	16965.	1016.	7.63	0.0200	0.	31.	0.26
MILE	51.00	802.68	100615.	6.06	16614.	1393.	6.92	0.0200	0.	33.	0.31
MILE	48.30	801.24	100764.	4.48	22485.	2498.	6.58	0.0200	0.	32.	0.26
MILE	46.20	800.36	100919.	4.69	21520.	2563.	8.10	0.0200	0.	39.	0.29
MILE	44.10	800.20	101054.	2.84	35623.	1797.	9.23	0.0300	0.	45.	0.11
MILE	43.70	799.67	101073.	5.69	17770.	1632.	9.14	0.0300	0.	47.	0.30
MILE	42.00	798.50	101138.	4.06	24914.	1529.	6.96	0.0300	0.	49.	0.18
MILE	39.10	795.76	101226.	5.17	19570.	1433.	8.12	0.0230	0.	45.	0.25
MILE	37.00	795.41	101265.	2.97	34114.	1170.	7.59	0.0280	0.	44.	0.10
MILE	36.00	794.79	101278.	4.98	20351.	926.	8.41	0.0280	0.	46.	0.19
MILE	34.60	794.46	101288.	3.33	30446.	1246.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.47	101298.	1.60	63167.	2175.	8.20	0.0290	0.	52.	0.05
MILE	31.50	794.12	101321.	3.31	30565.	1764.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.91	101326.	3.17	31978.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.85	101329.	2.85	35604.	1049.	10.75	0.0200	0.	54.	0.09
MILE	27.30	793.75	101332.	2.75	36856.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	101335.	2.22	45600.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	101336.	2.71	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	0.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.99	100000.	8.57	11664.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.64	100007.	6.94	14401.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.74	100019.	7.19	13910.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.07	100035.	7.43	13461.	823.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.50	100051.	6.18	16187.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.54	100070.	6.30	15891.	763.	7.94	0.0340	0.	30.	0.24
MILE	67.20	826.03	100103.	4.25	23563.	1428.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.99	100160.	5.46	18328.	1773.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.89	100229.	5.51	18190.	1638.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.17	100290.	6.43	15588.	1240.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.28	100338.	8.16	12291.	874.	8.91	0.0400	0.	36.	0.38
MILE	57.00	807.65	100371.	7.61	13182.	902.	8.52	0.0200	0.	33.	0.35
MILE	55.00	805.30	100408.	8.58	11709.	870.	8.24	0.0200	0.	32.	0.41
MILE	53.10	804.22	100447.	5.93	16947.	1015.	7.63	0.0200	0.	31.	0.26
MILE	51.00	802.67	100504.	6.06	16598.	1392.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.22	100626.	4.48	22461.	2496.	6.57	0.0200	0.	32.	0.26
MILE	46.20	800.34	100752.	4.69	21502.	2561.	8.10	0.0200	0.	39.	0.28
MILE	44.10	800.18	100863.	2.83	35598.	1796.	9.23	0.0300	0.	45.	0.11
MILE	43.70	799.65	100878.	5.68	17760.	1631.	9.14	0.0300	0.	47.	0.30
MILE	42.00	798.49	100931.	4.05	24893.	1528.	6.96	0.0300	0.	48.	0.18
MILE	39.10	795.75	101002.	5.16	19563.	1432.	8.12	0.0230	0.	45.	0.25
MILE	37.00	795.41	101035.	2.96	34102.	1169.	7.59	0.0280	0.	44.	0.10
MILE	36.00	794.79	101045.	4.97	20347.	925.	8.41	0.0280	0.	46.	0.19

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 26 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.46	101053.	3.32	30443.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.46	101061.	1.60	63157.	2175.	8.20	0.0290	0.	52.	0.05
MILE	31.50	794.12	101080.	3.31	30563.	1764.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.91	101084.	3.16	31976.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.85	101086.	2.84	35603.	1049.	10.75	0.0200	0.	54.	0.09
MILE	27.30	793.75	101089.	2.74	36855.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	101091.	2.22	45600.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	101092.	2.71	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.99	100000.	8.57	11663.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.64	100006.	6.94	14400.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.74	100016.	7.19	13909.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.06	100029.	7.43	13460.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.49	100042.	6.18	16184.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.53	100058.	6.30	15887.	763.	7.94	0.0340	0.	30.	0.24
MILE	67.20	826.02	100085.	4.25	23555.	1428.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.98	100132.	5.47	18320.	1773.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.88	100188.	5.51	18177.	1638.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.15	100239.	6.43	15580.	1240.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.27	100278.	8.16	12285.	874.	8.91	0.0400	0.	36.	0.38
MILE	57.00	807.64	100305.	7.61	13174.	902.	8.52	0.0200	0.	33.	0.35
MILE	55.00	805.29	100335.	8.57	11701.	870.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.20	100367.	5.93	16932.	1015.	7.63	0.0200	0.	31.	0.26
MILE	51.00	802.65	100414.	6.05	16584.	1391.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.21	100513.	4.48	22441.	2494.	6.57	0.0200	0.	32.	0.26
MILE	46.20	800.33	100616.	4.68	21487.	2559.	8.09	0.0200	0.	39.	0.28
MILE	44.10	800.16	100706.	2.83	35577.	1796.	9.22	0.0300	0.	45.	0.11
MILE	43.70	799.64	100719.	5.67	17752.	1631.	9.14	0.0300	0.	47.	0.30
MILE	42.00	798.48	100762.	4.05	24876.	1528.	6.95	0.0300	0.	48.	0.18
MILE	39.10	795.75	100820.	5.16	19558.	1432.	8.12	0.0230	0.	45.	0.25
MILE	37.00	795.40	100846.	2.96	34092.	1169.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.78	100855.	4.96	20344.	925.	8.41	0.0280	0.	46.	0.19
MILE	34.60	794.46	100862.	3.31	30439.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.46	100868.	1.60	63149.	2175.	8.20	0.0290	0.	52.	0.05
MILE	31.50	794.11	100883.	3.30	30561.	1764.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.91	100887.	3.16	31975.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.85	100888.	2.83	35602.	1049.	10.75	0.0200	0.	54.	0.09
MILE	27.30	793.75	100891.	2.74	36854.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100892.	2.21	45599.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100893.	2.70	37356.	1064.	11.35	0.0230	0.	64.	0.08

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 27 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	2.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.99	100000.	8.57	11662.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.64	100005.	6.95	14399.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.74	100013.	7.19	13908.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.06	100024.	7.43	13458.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.49	100035.	6.18	16181.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.53	100048.	6.30	15884.	763.	7.94	0.0340	0.	30.	0.24
MILE	67.20	826.02	100070.	4.25	23547.	1427.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.97	100109.	5.47	18313.	1772.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.87	100155.	5.51	18167.	1637.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.15	100196.	6.43	15573.	1239.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.26	100229.	8.16	12280.	874.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.63	100250.	7.61	13167.	901.	8.52	0.0200	0.	33.	0.35
MILE	55.00	805.28	100276.	8.57	11694.	870.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.19	100302.	5.93	16919.	1014.	7.63	0.0200	0.	31.	0.26
MILE	51.00	802.64	100340.	6.05	16573.	1390.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.19	100421.	4.48	22425.	2492.	6.57	0.0200	0.	32.	0.26
MILE	46.20	800.32	100505.	4.68	21476.	2558.	8.09	0.0200	0.	39.	0.28
MILE	44.10	800.15	100578.	2.83	35560.	1795.	9.22	0.0300	0.	45.	0.11
MILE	43.70	799.63	100589.	5.67	17745.	1630.	9.14	0.0300	0.	47.	0.30
MILE	42.00	798.47	100624.	4.05	24863.	1527.	6.95	0.0300	0.	48.	0.18
MILE	39.10	795.74	100671.	5.15	19553.	1432.	8.11	0.0230	0.	45.	0.25
MILE	37.00	795.40	100693.	2.95	34084.	1169.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.78	100700.	4.95	20341.	925.	8.41	0.0280	0.	46.	0.19
MILE	34.60	794.45	100705.	3.31	30437.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.46	100711.	1.59	63142.	2174.	8.20	0.0290	0.	52.	0.05
MILE	31.50	794.11	100723.	3.30	30560.	1764.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.91	100726.	3.15	31974.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.85	100727.	2.83	35601.	1048.	10.75	0.0200	0.	54.	0.09
MILE	27.30	793.74	100729.	2.73	36853.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100730.	2.21	45599.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100731.	2.70	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	3.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11661.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100004.	6.95	14398.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.74	100011.	7.19	13907.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.06	100020.	7.43	13457.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.49	100029.	6.18	16179.	790.	7.35	0.0400	0.	36.	0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 28 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 69.30	828.53	100040.	6.30	15881.	763.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.01	100058.	4.25	23542.	1427.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.97	100089.	5.47	18308.	1771.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.87	100128.	5.51	18159.	1637.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.14	100162.	6.43	15568.	1239.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.25	100188.	8.16	12275.	873.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.62	100206.	7.61	13162.	901.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.27	100227.	8.57	11689.	869.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.18	100248.	5.93	16909.	1014.	7.63	0.0200	0.	31.	0.26
MILE 51.00	802.63	100279.	6.05	16565.	1390.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.18	100345.	4.48	22412.	2491.	6.56	0.0200	0.	32.	0.26
MILE 46.20	800.31	100414.	4.68	21466.	2557.	8.09	0.0200	0.	39.	0.28
MILE 44.10	800.14	100474.	2.83	35546.	1795.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.62	100482.	5.66	17740.	1630.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.46	100511.	4.04	24851.	1527.	6.95	0.0300	0.	48.	0.18
MILE 39.10	795.74	100550.	5.14	19549.	1432.	8.11	0.0230	0.	45.	0.25
MILE 37.00	795.39	100567.	2.95	34078.	1169.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.78	100573.	4.94	20339.	925.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.45	100577.	3.30	30435.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100582.	1.59	63136.	2174.	8.20	0.0290	0.	52.	0.05
MILE 31.50	794.11	100592.	3.29	30559.	1764.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	100594.	3.15	31973.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.85	100595.	2.83	35600.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100597.	2.73	36853.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100598.	2.21	45598.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100599.	2.69	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 4.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11660.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100003.	6.95	14397.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100009.	7.19	13906.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.06	100016.	7.43	13456.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.48	100024.	6.18	16177.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.52	100033.	6.30	15878.	763.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.01	100048.	4.25	23537.	1426.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.96	100074.	5.47	18303.	1771.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.86	100105.	5.51	18152.	1637.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.13	100133.	6.43	15563.	1239.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.25	100155.	8.16	12272.	873.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.62	100169.	7.61	13158.	901.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.26	100186.	8.57	11685.	869.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.17	100204.	5.93	16901.	1013.	7.63	0.0200	0.	31.	0.26
MILE 51.00	802.62	100229.	6.05	16557.	1389.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.18	100283.	4.48	22401.	2490.	6.56	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 29 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	800.30	100339.	4.68	21458.	2556.	8.09	0.0200	0.	39.	0.28
MILE 44.10	800.14	100389.	2.83	35534.	1794.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.61	100395.	5.66	17735.	1630.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.45	100419.	4.04	24842.	1526.	6.95	0.0300	0.	48.	0.18
MILE 39.10	795.73	100451.	5.14	19546.	1432.	8.11	0.0230	0.	45.	0.25
MILE 37.00	795.39	100465.	2.95	34072.	1169.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100470.	4.94	20337.	925.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.45	100473.	3.30	30433.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100477.	1.59	63132.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100485.	3.29	30558.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	100487.	3.14	31972.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.85	100488.	2.82	35600.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100489.	2.73	36852.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100490.	2.20	45598.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100490.	2.69	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	5.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE 79.80	851.98	100000.	8.58	11660.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100003.	6.95	14396.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100007.	7.19	13905.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.06	100014.	7.43	13456.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.48	100020.	6.18	16176.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.52	100027.	6.30	15877.	763.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.01	100039.	4.25	23533.	1426.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.96	100061.	5.47	18300.	1770.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.86	100087.	5.52	18147.	1636.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.13	100110.	6.43	15559.	1239.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.24	100127.	8.16	12269.	873.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.61	100139.	7.61	13154.	900.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.25	100153.	8.57	11681.	869.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.17	100168.	5.93	16894.	1013.	7.63	0.0200	0.	31.	0.26
MILE 51.00	802.62	100188.	6.05	16551.	1389.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.17	100233.	4.48	22392.	2489.	6.56	0.0200	0.	32.	0.26
MILE 46.20	800.29	100278.	4.67	21452.	2555.	8.09	0.0200	0.	38.	0.28
MILE 44.10	800.13	100319.	2.82	35525.	1794.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.61	100324.	5.66	17732.	1629.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.45	100344.	4.04	24835.	1526.	6.95	0.0300	0.	48.	0.18
MILE 39.10	795.73	100369.	5.14	19543.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.39	100381.	2.95	34068.	1169.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100385.	4.94	20335.	925.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.45	100388.	3.30	30432.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100391.	1.59	63128.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100398.	3.29	30557.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	100399.	3.14	31972.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 30 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.85	100400.	2.82	35599.	1048.	10.75	0.0200	0.	54.	0.09
MILE	27.30	793.74	100401.	2.72	36852.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100402.	2.20	45598.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100402.	2.69	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	6.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
	INFLOW	DEPTH	FROUDE								
MILE	79.80	851.98	100000.	8.58	11659.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100002.	6.95	14396.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100006.	7.19	13905.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100011.	7.43	13455.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.48	100016.	6.18	16175.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.52	100022.	6.30	15875.	763.	7.94	0.0340	0.	30.	0.24
MILE	67.20	826.00	100032.	4.25	23529.	1426.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.96	100050.	5.47	18297.	1770.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.85	100071.	5.52	18142.	1636.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.12	100090.	6.43	15557.	1239.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.24	100105.	8.16	12267.	873.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.61	100115.	7.61	13151.	900.	8.52	0.0200	0.	33.	0.35
MILE	55.00	805.25	100126.	8.57	11678.	869.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.16	100138.	5.93	16889.	1013.	7.63	0.0200	0.	31.	0.26
MILE	51.00	802.61	100155.	6.05	16547.	1389.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.16	100191.	4.48	22385.	2488.	6.56	0.0200	0.	32.	0.26
MILE	46.20	800.29	100229.	4.67	21446.	2554.	8.09	0.0200	0.	38.	0.28
MILE	44.10	800.12	100262.	2.82	35518.	1794.	9.22	0.0300	0.	45.	0.11
MILE	43.70	799.60	100266.	5.66	17729.	1629.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.44	100282.	4.04	24828.	1526.	6.95	0.0300	0.	48.	0.18
MILE	39.10	795.73	100303.	5.13	19541.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.38	100313.	2.94	34064.	1169.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100316.	4.93	20334.	925.	8.41	0.0280	0.	46.	0.19
MILE	34.60	794.45	100318.	3.30	30431.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100321.	1.59	63125.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100326.	3.28	30556.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.91	100327.	3.14	31971.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100328.	2.82	35599.	1048.	10.75	0.0200	0.	54.	0.09
MILE	27.30	793.74	100329.	2.72	36852.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100329.	2.20	45598.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100330.	2.69	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 31 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 7.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11659.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100002.	6.95	14395.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100005.	7.19	13904.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100009.	7.43	13455.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.48	100013.	6.18	16174.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.52	100018.	6.30	15874.	763.	7.94	0.0340	0.	30.	0.24
MILE	67.20	826.00	100027.	4.25	23527.	1426.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.95	100041.	5.47	18294.	1770.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.85	100059.	5.52	18138.	1636.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.12	100074.	6.43	15554.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.23	100086.	8.16	12265.	873.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.60	100094.	7.61	13149.	900.	8.52	0.0200	0.	33.	0.35
MILE	55.00	805.25	100104.	8.57	11676.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.16	100113.	5.93	16884.	1013.	7.63	0.0200	0.	31.	0.26
MILE	51.00	802.61	100127.	6.05	16543.	1388.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.16	100157.	4.48	22379.	2488.	6.56	0.0200	0.	32.	0.26
MILE	46.20	800.29	100188.	4.67	21442.	2554.	8.09	0.0200	0.	38.	0.28
MILE	44.10	800.12	100215.	2.82	35511.	1794.	9.22	0.0300	0.	45.	0.11
MILE	43.70	799.60	100218.	5.65	17726.	1629.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.44	100231.	4.04	24823.	1526.	6.95	0.0300	0.	48.	0.18
MILE	39.10	795.73	100249.	5.13	19540.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.38	100257.	2.94	34061.	1169.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100259.	4.93	20333.	925.	8.41	0.0280	0.	46.	0.19
MILE	34.60	794.45	100261.	3.29	30430.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100263.	1.59	63123.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100268.	3.28	30556.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.91	100269.	3.14	31971.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100269.	2.82	35599.	1048.	10.75	0.0200	0.	54.	0.09
MILE	27.30	793.74	100270.	2.72	36852.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100270.	2.20	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100271.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 8.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11658.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100002.	6.95	14395.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100004.	7.19	13904.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100008.	7.43	13454.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.48	100011.	6.18	16173.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100015.	6.30	15873.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	826.00	100022.	4.25	23524.	1426.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.95	100034.	5.47	18292.	1770.	8.25	0.0320	0.	36.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 32 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 63.00	820.85	100048.	5.52	18135.	1636.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.12	100061.	6.43	15552.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.23	100071.	8.16	12263.	873.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.60	100078.	7.61	13147.	900.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.24	100085.	8.57	11674.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.16	100093.	5.93	16880.	1013.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.61	100105.	6.05	16539.	1388.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.16	100129.	4.48	22374.	2487.	6.56	0.0200	0.	32.	0.26
MILE 46.20	800.28	100154.	4.67	21439.	2553.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.12	100176.	2.82	35506.	1793.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.59	100179.	5.65	17724.	1629.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.44	100190.	4.04	24819.	1526.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.73	100204.	5.13	19538.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.38	100211.	2.94	34059.	1169.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100213.	4.93	20332.	925.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.44	100214.	3.29	30429.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100216.	1.59	63121.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100220.	3.28	30555.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	100220.	3.13	31970.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100221.	2.82	35598.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100221.	2.72	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100222.	2.20	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100222.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	9.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL	
INFLOW	DEPTH	FROUDE								
MILE 79.80	851.98	100000.	8.58	11658.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100001.	6.95	14395.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100003.	7.19	13904.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100006.	7.43	13454.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.48	100009.	6.18	16173.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100013.	6.30	15872.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.00	100018.	4.25	23523.	1426.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.95	100028.	5.47	18290.	1770.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.85	100040.	5.52	18133.	1636.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.11	100050.	6.43	15550.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.23	100059.	8.16	12262.	873.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.60	100064.	7.61	13145.	900.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.24	100070.	8.57	11672.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.15	100077.	5.93	16877.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.60	100086.	6.05	16537.	1388.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.15	100106.	4.47	22370.	2487.	6.56	0.0200	0.	32.	0.26
MILE 46.20	800.28	100127.	4.67	21436.	2553.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.11	100145.	2.82	35502.	1793.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.59	100147.	5.65	17723.	1629.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 33 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 42.00	798.43	100156.	4.04	24816.	1526.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100168.	5.13	19537.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.38	100173.	2.94	34057.	1169.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100175.	4.93	20332.	925.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.44	100176.	3.29	30429.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100177.	1.59	63119.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100180.	3.28	30555.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	100181.	3.13	31970.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100181.	2.81	35598.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100182.	2.72	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100182.	2.20	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100182.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 10.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11658.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100001.	6.95	14394.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100003.	7.19	13904.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100005.	7.43	13454.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.48	100008.	6.18	16172.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100010.	6.30	15871.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	826.00	100015.	4.25	23521.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.95	100023.	5.47	18289.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.85	100033.	5.52	18131.	1636.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.11	100042.	6.43	15549.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.23	100048.	8.16	12261.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.60	100053.	7.61	13144.	900.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.24	100058.	8.57	11671.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.15	100063.	5.93	16875.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.60	100071.	6.05	16534.	1388.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.15	100087.	4.47	22367.	2487.	6.56	0.0200	0.	32.	0.26
MILE 46.20	800.28	100104.	4.67	21433.	2552.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.11	100119.	2.82	35499.	1793.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.59	100121.	5.65	17721.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.43	100128.	4.04	24813.	1526.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100138.	5.13	19536.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.38	100142.	2.94	34055.	1169.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100143.	4.93	20331.	925.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.44	100145.	3.29	30428.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100146.	1.59	63118.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100148.	3.28	30555.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	100149.	3.13	31970.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100149.	2.81	35598.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100149.	2.72	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100150.	2.20	45597.	1040.	11.95	0.0230	0.	59.	0.06

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 34 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100150. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 11.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11658.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100001.	6.95	14394.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100002.	7.19	13903.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100004.	7.43	13453.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.48	100006.	6.18	16172.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100008.	6.30	15870.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100012.	4.25	23520.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.95	100019.	5.47	18288.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100027.	5.52	18129.	1636.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.11	100034.	6.43	15548.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100040.	8.16	12260.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100043.	7.61	13143.	900.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.24	100048.	8.57	11670.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.15	100052.	5.93	16873.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.60	100058.	6.05	16533.	1388.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.15	100072.	4.47	22364.	2486.	6.56	0.0200	0.	32.	0.26
MILE 46.20	800.27	100086.	4.67	21431.	2552.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.11	100098.	2.82	35496.	1793.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.59	100100.	5.65	17720.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.43	100105.	4.03	24811.	1526.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100113.	5.12	19535.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.38	100117.	2.94	34054.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100118.	4.92	20331.	925.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.44	100119.	3.29	30428.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100120.	1.59	63116.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100122.	3.28	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	100122.	3.13	31970.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100122.	2.81	35598.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100123.	2.72	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100123.	2.20	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100123.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 12.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 35 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 77.70	849.63	100001.	6.95	14394.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100002.	7.19	13903.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100004.	7.43	13453.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.48	100005.	6.18	16171.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100007.	6.30	15870.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100010.	4.25	23519.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100016.	5.47	18287.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100022.	5.52	18128.	1636.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.11	100028.	6.43	15547.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100033.	8.16	12259.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100036.	7.61	13142.	900.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.24	100039.	8.57	11669.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.15	100043.	5.93	16871.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.60	100048.	6.05	16531.	1388.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.15	100059.	4.47	22362.	2486.	6.56	0.0200	0.	32.	0.26
MILE 46.20	800.27	100070.	4.67	21430.	2552.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.11	100080.	2.82	35493.	1793.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.59	100082.	5.65	17719.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.43	100087.	4.03	24809.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100093.	5.12	19535.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.38	100096.	2.94	34053.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100097.	4.92	20330.	925.	8.41	0.0280	0.	46.	0.19
MILE 34.60	794.44	100098.	3.29	30428.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100098.	1.59	63115.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100100.	3.28	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.91	100100.	3.13	31970.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100101.	2.81	35598.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100101.	2.72	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100101.	2.20	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100101.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 13.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100001.	6.95	14394.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100002.	7.19	13903.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100003.	7.43	13453.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.48	100004.	6.18	16171.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100006.	6.30	15870.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100008.	4.25	23518.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100013.	5.47	18286.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100018.	5.52	18126.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.11	100023.	6.43	15546.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100027.	8.16	12259.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100029.	7.61	13141.	900.	8.52	0.0200	0.	33.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 36 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100032.	8.57	11668.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.15	100035.	5.93	16870.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.60	100039.	6.05	16530.	1388.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.15	100048.	4.47	22360.	2486.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100058.	4.67	21428.	2552.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.11	100066.	2.82	35492.	1793.	9.22	0.0300	0.	45.	0.11
MILE	43.70	799.59	100067.	5.65	17719.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.43	100071.	4.03	24807.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100076.	5.12	19534.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.38	100079.	2.94	34052.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100080.	4.92	20330.	925.	8.41	0.0280	0.	46.	0.19
MILE	34.60	794.44	100080.	3.29	30427.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100081.	1.59	63115.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100082.	3.28	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.91	100083.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100083.	2.81	35598.	1048.	10.75	0.0200	0.	54.	0.09
MILE	27.30	793.74	100083.	2.72	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100083.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100083.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 14.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14394.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100001.	7.19	13903.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100002.	7.43	13453.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.48	100003.	6.18	16171.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100005.	6.30	15869.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100007.	4.25	23517.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100011.	5.47	18286.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100015.	5.52	18125.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.11	100019.	6.43	15546.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100022.	8.16	12258.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100024.	7.61	13141.	900.	8.52	0.0200	0.	33.	0.35
MILE	55.00	805.23	100027.	8.57	11667.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.15	100029.	5.93	16869.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100032.	6.05	16529.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.15	100040.	4.47	22359.	2486.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100048.	4.67	21427.	2552.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.11	100054.	2.82	35490.	1793.	9.22	0.0300	0.	45.	0.11
MILE	43.70	799.58	100055.	5.65	17718.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.43	100059.	4.03	24806.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100063.	5.12	19534.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.38	100065.	2.94	34051.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100065.	4.92	20330.	925.	8.41	0.0280	0.	46.	0.18

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 37 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 34.60	794.44	100066.	3.29	30427.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100066.	1.59	63114.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100068.	3.28	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100068.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100068.	2.81	35598.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100068.	2.72	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100068.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100068.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 15.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW DEPTH	FROUDE									
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14394.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100001.	7.19	13903.	1087.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100002.	7.43	13453.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.48	100003.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100004.	6.30	15869.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100006.	4.25	23517.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100009.	5.47	18285.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100012.	5.52	18125.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.11	100016.	6.43	15545.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100018.	8.16	12258.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100020.	7.61	13140.	900.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.23	100022.	8.57	11667.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100024.	5.93	16868.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100027.	6.05	16528.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100033.	4.47	22358.	2486.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100039.	4.67	21426.	2552.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.11	100045.	2.82	35489.	1793.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.58	100045.	5.65	17717.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.43	100048.	4.03	24805.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100052.	5.12	19533.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.38	100053.	2.94	34051.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100054.	4.92	20330.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100054.	3.29	30427.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100055.	1.59	63114.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100056.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100056.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100056.	2.81	35598.	1048.	10.75	0.0200	0.	54.	0.09
MILE 27.30	793.74	100056.	2.72	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100056.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100056.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 38 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	16.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100001.	7.19	13903.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100002.	7.43	13453.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.48	100002.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100003.	6.30	15869.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100005.	4.25	23516.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100007.	5.47	18285.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100010.	5.52	18124.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.11	100013.	6.43	15545.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100015.	8.16	12258.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100016.	7.61	13140.	899.	8.52	0.0200	0.	33.	0.35
MILE	55.00	805.23	100018.	8.57	11666.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100020.	5.93	16867.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100022.	6.05	16527.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100027.	4.47	22357.	2486.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100032.	4.67	21426.	2552.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100037.	2.82	35488.	1793.	9.22	0.0300	0.	45.	0.11
MILE	43.70	799.58	100037.	5.65	17717.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.43	100040.	4.03	24804.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100043.	5.12	19533.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100044.	2.94	34050.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100044.	4.92	20330.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100045.	3.29	30427.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100045.	1.59	63113.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100046.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100046.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100046.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100046.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100046.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100046.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	17.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100001.	7.19	13903.	1087.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100001.	7.43	13453.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.48	100002.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 39 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 69.30	828.51	100003.	6.30	15869.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100004.	4.25	23516.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100006.	5.47	18284.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100008.	5.52	18123.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.11	100011.	6.43	15544.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100012.	8.16	12257.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100013.	7.61	13139.	899.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.23	100015.	8.57	11666.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100016.	5.93	16866.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100018.	6.05	16527.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100022.	4.47	22356.	2486.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100026.	4.67	21425.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100030.	2.82	35487.	1793.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.58	100031.	5.65	17717.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100033.	4.03	24803.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100035.	5.12	19533.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100036.	2.94	34050.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.77	100036.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100037.	3.29	30427.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100037.	1.59	63113.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100038.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100038.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100038.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100038.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100038.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100038.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 18.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100001.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100001.	7.43	13453.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100002.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100002.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100003.	4.25	23516.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100005.	5.47	18284.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100007.	5.52	18123.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.11	100009.	6.43	15544.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100010.	8.16	12257.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100011.	7.61	13139.	899.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.23	100012.	8.57	11666.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100013.	5.93	16866.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100015.	6.05	16526.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100018.	4.47	22355.	2486.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 40 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	46.20	800.27	100022.	4.67	21425.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100025.	2.82	35486.	1793.	9.22	0.0300	0.	45.	0.11
MILE	43.70	799.58	100025.	5.65	17716.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100027.	4.03	24803.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100029.	5.12	19533.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100030.	2.94	34050.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100030.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100030.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100030.	1.58	63113.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100031.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100031.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100031.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100031.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100031.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100031.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 19.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100001.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100001.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100002.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100003.	4.25	23515.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100004.	5.47	18284.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100006.	5.52	18123.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.11	100007.	6.43	15544.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100008.	8.16	12257.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100009.	7.61	13139.	899.	8.52	0.0200	0.	33.	0.35
MILE	55.00	805.23	100010.	8.57	11666.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100011.	5.93	16865.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100012.	6.05	16526.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100015.	4.47	22355.	2486.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100018.	4.67	21424.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100020.	2.82	35485.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100021.	5.65	17716.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100022.	4.03	24802.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100024.	5.12	19533.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100024.	2.94	34049.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100025.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100025.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100025.	1.58	63112.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100025.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100026.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 41 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100026.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100026.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100026.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100026.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 20.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100001.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100001.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100001.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100002.	4.25	23515.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100003.	5.47	18284.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100005.	5.52	18122.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.11	100006.	6.43	15544.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100007.	8.16	12257.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100007.	7.61	13139.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100008.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100009.	5.93	16865.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100010.	6.05	16526.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100012.	4.47	22354.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100015.	4.67	21424.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100017.	2.82	35485.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100017.	5.65	17716.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100018.	4.03	24802.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100019.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100020.	2.94	34049.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100020.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100020.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100021.	1.58	63112.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100021.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100021.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100021.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100021.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100021.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100021.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 42 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 21.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100001.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100001.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100001.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100002.	4.25	23515.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100003.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100004.	5.52	18122.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.11	100005.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100006.	8.16	12257.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100006.	7.61	13139.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100007.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100007.	5.93	16865.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100008.	6.05	16525.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100010.	4.47	22354.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100012.	4.67	21424.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100014.	2.82	35485.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100014.	5.65	17716.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100015.	4.03	24802.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100016.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100016.	2.94	34049.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100017.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100017.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100017.	1.58	63112.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100017.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100017.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100017.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100017.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100017.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100017.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 22.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100001.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100001.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100001.	4.25	23515.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100002.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 43 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100003.	5.52	18122.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.11	100004.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100005.	8.16	12257.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100005.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100006.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100006.	5.93	16864.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100007.	6.05	16525.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100008.	4.47	22353.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100010.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100011.	2.82	35484.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100012.	5.65	17716.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100012.	4.03	24801.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100013.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100014.	2.94	34049.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100014.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100014.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100014.	1.58	63112.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100014.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100014.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100014.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100014.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100014.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100014.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-28-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100001.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100001.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100001.	4.25	23515.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100002.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100003.	5.52	18122.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100003.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100004.	8.16	12257.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100004.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100005.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100005.	5.93	16864.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100006.	6.05	16525.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100007.	4.47	22353.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100008.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100009.	2.82	35484.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100010.	5.65	17716.	1628.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 44 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100010.	4.03	24801.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100011.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100011.	2.94	34049.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100011.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100011.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100011.	1.58	63112.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100012.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100012.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100012.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100012.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100012.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100012.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 0.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100001.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100001.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100001.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100002.	5.52	18122.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100003.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100003.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100003.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100004.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100004.	5.93	16864.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100005.	6.05	16525.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100006.	4.47	22353.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100007.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100008.	2.82	35484.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100008.	5.65	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100008.	4.03	24801.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100009.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100009.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.77	100009.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100009.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100009.	1.58	63112.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100010.	3.27	30554.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100010.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100010.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100010.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100010.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 45 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100010. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
INFLOW	DEPTH	FROUDE							
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0. 33. 0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0. 39. 0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0. 37. 0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0. 38. 0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0. 36. 0.24
MILE	69.30	828.51	100001.	6.30	15868.	762.	7.94	0.0340	0. 30. 0.24
MILE	67.20	825.99	100001.	4.25	23514.	1425.	7.49	0.0340	0. 35. 0.18
MILE	65.10	822.94	100001.	5.47	18283.	1769.	8.25	0.0320	0. 36. 0.30
MILE	63.00	820.84	100002.	5.52	18122.	1635.	8.57	0.0400	0. 40. 0.29
MILE	60.90	816.10	100002.	6.43	15543.	1238.	8.77	0.0450	0. 40. 0.32
MILE	58.80	809.22	100003.	8.16	12256.	872.	8.90	0.0400	0. 36. 0.38
MILE	57.00	807.59	100003.	7.61	13138.	899.	8.51	0.0200	0. 33. 0.35
MILE	55.00	805.23	100003.	8.57	11665.	868.	8.23	0.0200	0. 32. 0.41
MILE	53.10	804.14	100003.	5.93	16864.	1012.	7.62	0.0200	0. 31. 0.26
MILE	51.00	802.59	100004.	6.05	16525.	1387.	6.91	0.0200	0. 33. 0.31
MILE	48.30	801.14	100005.	4.47	22353.	2485.	6.55	0.0200	0. 32. 0.26
MILE	46.20	800.27	100006.	4.67	21423.	2551.	8.08	0.0200	0. 38. 0.28
MILE	44.10	800.10	100006.	2.82	35484.	1793.	9.21	0.0300	0. 45. 0.11
MILE	43.70	799.58	100006.	5.65	17715.	1628.	9.13	0.0300	0. 47. 0.30
MILE	42.00	798.42	100007.	4.03	24801.	1525.	6.94	0.0300	0. 48. 0.18
MILE	39.10	795.72	100007.	5.12	19532.	1431.	8.11	0.0230	0. 45. 0.24
MILE	37.00	795.37	100008.	2.94	34048.	1168.	7.58	0.0280	0. 44. 0.10
MILE	36.00	794.76	100008.	4.92	20329.	925.	8.41	0.0280	0. 46. 0.18
MILE	34.60	794.44	100008.	3.29	30426.	1245.	9.69	0.0280	0. 46. 0.12
MILE	33.60	794.45	100008.	1.58	63112.	2174.	8.19	0.0290	0. 52. 0.05
MILE	31.50	794.11	100008.	3.27	30553.	1763.	10.39	0.0250	0. 55. 0.14
MILE	30.10	793.90	100008.	3.13	31969.	880.	9.89	0.0200	0. 53. 0.09
MILE	29.00	793.84	100008.	2.81	35597.	1048.	10.75	0.0200	0. 54. 0.08
MILE	27.30	793.74	100008.	2.71	36851.	1045.	11.14	0.0230	0. 57. 0.08
MILE	25.20	793.66	100008.	2.19	45597.	1040.	11.95	0.0230	0. 59. 0.06
MILE	23.10	793.50	100008.	2.68	37356.	1064.	11.35	0.0230	0. 64. 0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	2.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
INFLOW	DEPTH	FROUDE							
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0. 33. 0.37

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 46 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100001.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100001.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100001.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100002.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100002.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100002.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100003.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100003.	5.93	16864.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100003.	6.05	16525.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100004.	4.47	22353.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100005.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100005.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100005.	5.65	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100006.	4.03	24801.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100006.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100006.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100006.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100006.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100006.	1.58	63112.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100006.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100006.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100006.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100007.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100007.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100007.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 3.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100001.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100001.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100001.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100001.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100002.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100002.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 47 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100002.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100002.	5.93	16864.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100003.	6.05	16525.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100003.	4.47	22353.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100004.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100004.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100004.	5.65	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100005.	4.03	24801.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100005.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100005.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100005.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100005.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100005.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100005.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100005.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100005.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100005.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100005.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100005.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 4.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100001.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100001.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100001.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100001.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100002.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100002.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100002.	5.93	16864.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100002.	6.05	16525.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100003.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100003.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100004.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100004.	5.65	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100004.	4.03	24801.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100004.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100004.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100004.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 48 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.44	100004.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100004.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100004.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100004.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100004.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100004.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100004.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100004.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	5.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100001.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100001.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100001.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100001.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100001.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100001.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100002.	5.93	16864.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100002.	6.05	16525.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100002.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100003.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100003.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100003.	5.65	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100003.	4.03	24801.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100003.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100003.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100003.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100004.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100004.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100004.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100004.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100004.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100004.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100004.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100004.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 49 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	6.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW	DEPTH	FROUDE							
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36. 0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30
MILE	63.00	820.84	100001.	5.52	18121.	1635.	8.57	0.0400	0.	40. 0.29
MILE	60.90	816.10	100001.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE	58.80	809.22	100001.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE	57.00	807.59	100001.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE	55.00	805.23	100001.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE	53.10	804.14	100001.	5.93	16864.	1012.	7.62	0.0200	0.	31. 0.26
MILE	51.00	802.59	100001.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE	48.30	801.14	100002.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE	46.20	800.27	100002.	4.67	21423.	2551.	8.08	0.0200	0.	38. 0.28
MILE	44.10	800.10	100002.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE	43.70	799.58	100002.	5.65	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE	42.00	798.42	100003.	4.03	24800.	1525.	6.94	0.0300	0.	48. 0.18
MILE	39.10	795.72	100003.	5.12	19532.	1431.	8.11	0.0230	0.	45. 0.24
MILE	37.00	795.37	100003.	2.94	34048.	1168.	7.58	0.0280	0.	44. 0.10
MILE	36.00	794.76	100003.	4.92	20329.	925.	8.41	0.0280	0.	46. 0.18
MILE	34.60	794.44	100003.	3.29	30426.	1245.	9.69	0.0280	0.	46. 0.12
MILE	33.60	794.45	100003.	1.58	63111.	2174.	8.19	0.0290	0.	52. 0.05
MILE	31.50	794.11	100003.	3.27	30553.	1763.	10.39	0.0250	0.	55. 0.14
MILE	30.10	793.90	100003.	3.13	31969.	880.	9.89	0.0200	0.	53. 0.09
MILE	29.00	793.84	100003.	2.81	35597.	1048.	10.75	0.0200	0.	54. 0.08
MILE	27.30	793.74	100003.	2.71	36851.	1045.	11.14	0.0230	0.	57. 0.08
MILE	25.20	793.66	100003.	2.19	45597.	1040.	11.95	0.0230	0.	59. 0.06
MILE	23.10	793.50	100003.	2.68	37356.	1064.	11.35	0.0230	0.	64. 0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	7.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW	DEPTH	FROUDE							
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36. 0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 50 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100001.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100001.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100001.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100001.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100001.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100001.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100001.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100001.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100002.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100002.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100002.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100002.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100002.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100002.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100002.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100002.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100002.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100002.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100002.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100002.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100002.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100002.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100002.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-6ISOCH Interpolated-Final

TIME	8.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL	
INFLOW	DEPTH	FROUDE								
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100001.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100001.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100001.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100001.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100001.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100001.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100001.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 51 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	46.20	800.27	100001.	4.67	21423.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100002.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100002.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100002.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100002.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100002.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100002.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100002.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100002.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100002.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100002.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100002.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100002.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100002.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100002.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 9.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100001.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100001.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100001.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100001.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100001.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100001.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100001.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100001.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100001.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100001.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100002.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100002.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100002.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100002.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100002.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100002.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100002.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 52 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100002.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100002.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100002.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100002.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 10.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100001.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100001.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100001.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100001.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100001.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100001.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100001.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100001.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100001.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100001.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100001.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100001.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100001.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100001.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100001.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100001.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100001.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100001.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100001.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 53 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 11.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100001.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100001.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100001.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100001.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100001.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100001.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100001.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100001.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100001.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100001.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100001.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100001.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100001.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100001.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100001.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100001.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100001.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 12.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 54 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100001.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100001.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100001.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100001.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100001.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100001.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100001.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100001.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100001.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100001.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100001.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100001.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100001.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100001.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100001.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100001.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 13.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100001.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100001.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100001.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 55 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100001.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100001.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100001.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100001.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100001.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100001.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100001.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100001.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100001.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100001.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100001.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100001.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 14.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100001.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100001.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100001.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100001.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100001.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100001.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100001.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100001.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100001.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100001.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100001.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100001.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 56 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100001. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 15.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	790.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100001.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100001.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100001.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100001.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100001.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100001.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 16.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 57 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 17.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 58 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 18.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 59 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 19.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 60 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 20.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40. 0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31. 0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38. 0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48. 0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45. 0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44. 0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46. 0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46. 0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52. 0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55. 0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53. 0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54. 0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57. 0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59. 0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64. 0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 21.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 61 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 22.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 62 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-29-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 63 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 0.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 64 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 2.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 65 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 3.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 66 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 4.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 67 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40. 0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31. 0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38. 0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48. 0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45. 0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44. 0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46. 0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46. 0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52. 0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55. 0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53. 0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54. 0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57. 0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59. 0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64. 0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 68 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 7.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 69 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 8.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 70 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	9.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 71 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 10.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40. 0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31. 0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38. 0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48. 0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45. 0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44. 0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46. 0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46. 0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52. 0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55. 0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53. 0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54. 0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57. 0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59. 0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64. 0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 11.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 72 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 12.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 73 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 13.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 74 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 14.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 75 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 15.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 16.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 76 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 17.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 77 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 18.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 78 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 19.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 20.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 79 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 21.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 80 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 22.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 81 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 9-30-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 82 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	0.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 83 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 2.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 84 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 3.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 85 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 4.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 86 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

TIME	5.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	6.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 87 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	7.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL	
INFLOW	DEPTH	FROUDE								
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 88 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	8.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 89 of 665
Subject: SOCH Model Calibration, Melton Hill			Prepped
Appendix E			Checked
			JAW
			ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 9.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37
 MILE 77.70 849.63 100000. 6.95 14393. 839. 9.17 0.0400 0. 39. 0.30
 MILE 75.60 843.73 100000. 7.19 13903. 1086. 8.47 0.0400 0. 37. 0.35
 MILE 73.50 837.05 100000. 7.43 13452. 822. 8.29 0.0330 0. 38. 0.32
 MILE 71.40 833.47 100000. 6.18 16170. 789. 7.35 0.0400 0. 36. 0.24
 MILE 69.30 828.51 100000. 6.30 15868. 762. 7.94 0.0340 0. 30. 0.24
 MILE 67.20 825.99 100000. 4.25 23514. 1425. 7.49 0.0340 0. 35. 0.18
 MILE 65.10 822.94 100000. 5.47 18283. 1769. 8.25 0.0320 0. 36. 0.30
 MILE 63.00 820.84 100000. 5.52 18121. 1635. 8.57 0.0400 0. 40. 0.29
 MILE 60.90 816.10 100000. 6.43 15543. 1238. 8.77 0.0450 0. 40. 0.32
 MILE 58.80 809.22 100000. 8.16 12256. 872. 8.90 0.0400 0. 36. 0.38
 MILE 57.00 807.59 100000. 7.61 13138. 899. 8.51 0.0200 0. 33. 0.35
 MILE 55.00 805.23 100000. 8.57 11665. 868. 8.23 0.0200 0. 32. 0.41
 MILE 53.10 804.14 100000. 5.93 16863. 1012. 7.62 0.0200 0. 31. 0.26
 MILE 51.00 802.59 100000. 6.05 16524. 1387. 6.91 0.0200 0. 33. 0.31
 MILE 48.30 801.14 100000. 4.47 22352. 2485. 6.55 0.0200 0. 32. 0.26
 MILE 46.20 800.27 100000. 4.67 21422. 2551. 8.08 0.0200 0. 38. 0.28
 MILE 44.10 800.10 100000. 2.82 35483. 1793. 9.21 0.0300 0. 45. 0.11
 MILE 43.70 799.58 100000. 5.64 17715. 1628. 9.13 0.0300 0. 47. 0.30
 MILE 42.00 798.42 100000. 4.03 24800. 1525. 6.94 0.0300 0. 48. 0.18
 MILE 39.10 795.72 100000. 5.12 19532. 1431. 8.11 0.0230 0. 45. 0.24
 MILE 37.00 795.37 100000. 2.94 34048. 1168. 7.58 0.0280 0. 44. 0.10
 MILE 36.00 794.76 100000. 4.92 20329. 925. 8.41 0.0280 0. 46. 0.18
 MILE 34.60 794.44 100000. 3.29 30426. 1245. 9.69 0.0280 0. 46. 0.12
 MILE 33.60 794.45 100000. 1.58 63111. 2174. 8.19 0.0290 0. 52. 0.05
 MILE 31.50 794.11 100000. 3.27 30553. 1763. 10.39 0.0250 0. 55. 0.14
 MILE 30.10 793.90 100000. 3.13 31969. 880. 9.89 0.0200 0. 53. 0.09
 MILE 29.00 793.84 100000. 2.81 35597. 1048. 10.75 0.0200 0. 54. 0.08
 MILE 27.30 793.74 100000. 2.71 36851. 1045. 11.14 0.0230 0. 57. 0.08
 MILE 25.20 793.66 100000. 2.19 45597. 1040. 11.95 0.0230 0. 59. 0.06
 MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 10.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 90 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 11.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 91 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 12.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 13.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 93 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 14.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40. 0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31. 0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38. 0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48. 0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45. 0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44. 0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46. 0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46. 0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52. 0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55. 0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53. 0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54. 0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57. 0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59. 0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64. 0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 15.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 94 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 16.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 95 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 17.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 18.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

TIME 19.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 20.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 98 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 21.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 99 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 22.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 100 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

ODATE 10-01-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 0.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 101 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 102 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	2.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 103 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	3.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 104 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	4.0000	FROUDE									
	INFLOW	DEPTH									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	5.0000	FROUDE									
	INFLOW	DEPTH									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 105 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 6.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 106 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 7.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 107 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 8.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 108 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

TIME 9.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 10.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 109 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 11.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 110 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 12.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 111 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 13.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 14.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 112 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 15.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 113 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 16.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 114 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	17.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 115 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 18.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40. 0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31. 0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38. 0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48. 0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45. 0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44. 0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46. 0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46. 0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52. 0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55. 0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53. 0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54. 0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57. 0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59. 0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64. 0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 19.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 116 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 20.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 117 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 21.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 118 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 22.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-02-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 119 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

TIME 23.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 0.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 120 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 121 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 2.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 122 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 3.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37
MILE 77.70 849.63 100000. 6.95 14393. 839. 9.17 0.0400 0. 39. 0.30
MILE 75.60 843.73 100000. 7.19 13903. 1086. 8.47 0.0400 0. 37. 0.35
MILE 73.50 837.05 100000. 7.43 13452. 822. 8.29 0.0330 0. 38. 0.32
MILE 71.40 833.47 100000. 6.18 16170. 789. 7.35 0.0400 0. 36. 0.24
MILE 69.30 828.51 100000. 6.30 15868. 762. 7.94 0.0340 0. 30. 0.24
MILE 67.20 825.99 100000. 4.25 23514. 1425. 7.49 0.0340 0. 35. 0.18
MILE 65.10 822.94 100000. 5.47 18283. 1769. 8.25 0.0320 0. 36. 0.30
MILE 63.00 820.84 100000. 5.52 18121. 1635. 8.57 0.0400 0. 40. 0.29
MILE 60.90 816.10 100000. 6.43 15543. 1238. 8.77 0.0450 0. 40. 0.32
MILE 58.80 809.22 100000. 8.16 12256. 872. 8.90 0.0400 0. 36. 0.38
MILE 57.00 807.59 100000. 7.61 13138. 899. 8.51 0.0200 0. 33. 0.35
MILE 55.00 805.23 100000. 8.57 11665. 868. 8.23 0.0200 0. 32. 0.41
MILE 53.10 804.14 100000. 5.93 16863. 1012. 7.62 0.0200 0. 31. 0.26
MILE 51.00 802.59 100000. 6.05 16524. 1387. 6.91 0.0200 0. 33. 0.31
MILE 48.30 801.14 100000. 4.47 22352. 2485. 6.55 0.0200 0. 32. 0.26
MILE 46.20 800.27 100000. 4.67 21422. 2551. 8.08 0.0200 0. 38. 0.28
MILE 44.10 800.10 100000. 2.82 35483. 1793. 9.21 0.0300 0. 45. 0.11
MILE 43.70 799.58 100000. 5.64 17715. 1628. 9.13 0.0300 0. 47. 0.30
MILE 42.00 798.42 100000. 4.03 24800. 1525. 6.94 0.0300 0. 48. 0.18
MILE 39.10 795.72 100000. 5.12 19532. 1431. 8.11 0.0230 0. 45. 0.24
MILE 37.00 795.37 100000. 2.94 34048. 1168. 7.58 0.0280 0. 44. 0.10
MILE 36.00 794.76 100000. 4.92 20329. 925. 8.41 0.0280 0. 46. 0.18
MILE 34.60 794.44 100000. 3.29 30426. 1245. 9.69 0.0280 0. 46. 0.12
MILE 33.60 794.45 100000. 1.58 63111. 2174. 8.19 0.0290 0. 52. 0.05
MILE 31.50 794.11 100000. 3.27 30553. 1763. 10.39 0.0250 0. 55. 0.14
MILE 30.10 793.90 100000. 3.13 31969. 880. 9.89 0.0200 0. 53. 0.09
MILE 29.00 793.84 100000. 2.81 35597. 1048. 10.75 0.0200 0. 54. 0.08
MILE 27.30 793.74 100000. 2.71 36851. 1045. 11.14 0.0230 0. 57. 0.08
MILE 25.20 793.66 100000. 2.19 45597. 1040. 11.95 0.0230 0. 59. 0.06
MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 4.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 123 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 5.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 124 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	6.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL	
	INFLOW	DEPTH	FROUDE								
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 125 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	7.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL	
INFLOW	DEPTH	FROUDE								
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 126 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	8.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	9.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 127 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 10.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 128 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 12.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 130 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

TIME 13.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 14.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 131 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 15.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 132 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 16.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 133 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 17.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 18.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 134 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 19.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 135 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 20.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 136 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 21.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 137 of 665
Subject: SOCH Model Calibration, Melton Hill			Prepped JAW
Appendix E			Checked ACM

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 22.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0. 33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0. 39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0. 37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0. 38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0. 36. 0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0. 30. 0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0. 35. 0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0. 36. 0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0. 40. 0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0. 40. 0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0. 36. 0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0. 33. 0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0. 32. 0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0. 31. 0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0. 33. 0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0. 32. 0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0. 38. 0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0. 45. 0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0. 47. 0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0. 48. 0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0. 45. 0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0. 44. 0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0. 46. 0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0. 46. 0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0. 52. 0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0. 55. 0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0. 53. 0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0. 54. 0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0. 57. 0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0. 59. 0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0. 64. 0.08

0DATE 10-03-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
INFLOW DEPTH	FROUDE							
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0. 33. 0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0. 39. 0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0. 37. 0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0. 38. 0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0. 36. 0.24

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 138 of 665
Subject: SOCH Model Calibration, Melton Hill			Prepped
Appendix E			Checked
			JAW
			ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	0.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 139 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 140 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
	INFLOW	DEPTH	FROUDE								
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 141 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 3.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 4.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 142 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	5.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 143 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 6.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 144 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

ODATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	7.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40. 0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31. 0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38. 0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48. 0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45. 0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44. 0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46. 0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46. 0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52. 0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55. 0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53. 0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54. 0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57. 0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59. 0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64. 0.08

ODATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	8.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 145 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	9.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 146 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 10.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 147 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 11.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 148 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	12.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	13.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 149 of 665
Subject: SOCH Model Calibration, Melton Hill			Prepped
Appendix E			Checked
			JAW
			ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 14.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 150 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 15.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 151 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 16.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 152 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 17.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 18.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 153 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	19.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 154 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 20.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 155 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 21.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37
MILE 77.70 849.63 100000. 6.95 14393. 839. 9.17 0.0400 0. 39. 0.30
MILE 75.60 843.73 100000. 7.19 13903. 1086. 8.47 0.0400 0. 37. 0.35
MILE 73.50 837.05 100000. 7.43 13452. 822. 8.29 0.0330 0. 38. 0.32
MILE 71.40 833.47 100000. 6.18 16170. 789. 7.35 0.0400 0. 36. 0.24
MILE 69.30 828.51 100000. 6.30 15868. 762. 7.94 0.0340 0. 30. 0.24
MILE 67.20 825.99 100000. 4.25 23514. 1425. 7.49 0.0340 0. 35. 0.18
MILE 65.10 822.94 100000. 5.47 18283. 1769. 8.25 0.0320 0. 36. 0.30
MILE 63.00 820.84 100000. 5.52 18121. 1635. 8.57 0.0400 0. 40. 0.29
MILE 60.90 816.10 100000. 6.43 15543. 1238. 8.77 0.0450 0. 40. 0.32
MILE 58.80 809.22 100000. 8.16 12256. 872. 8.90 0.0400 0. 36. 0.38
MILE 57.00 807.59 100000. 7.61 13138. 899. 8.51 0.0200 0. 33. 0.35
MILE 55.00 805.23 100000. 8.57 11665. 868. 8.23 0.0200 0. 32. 0.41
MILE 53.10 804.14 100000. 5.93 16863. 1012. 7.62 0.0200 0. 31. 0.26
MILE 51.00 802.59 100000. 6.05 16524. 1387. 6.91 0.0200 0. 33. 0.31
MILE 48.30 801.14 100000. 4.47 22352. 2485. 6.55 0.0200 0. 32. 0.26
MILE 46.20 800.27 100000. 4.67 21422. 2551. 8.08 0.0200 0. 38. 0.28
MILE 44.10 800.10 100000. 2.82 35483. 1793. 9.21 0.0300 0. 45. 0.11
MILE 43.70 799.58 100000. 5.64 17715. 1628. 9.13 0.0300 0. 47. 0.30
MILE 42.00 798.42 100000. 4.03 24800. 1525. 6.94 0.0300 0. 48. 0.18
MILE 39.10 795.72 100000. 5.12 19532. 1431. 8.11 0.0230 0. 45. 0.24
MILE 37.00 795.37 100000. 2.94 34048. 1168. 7.58 0.0280 0. 44. 0.10
MILE 36.00 794.76 100000. 4.92 20329. 925. 8.41 0.0280 0. 46. 0.18
MILE 34.60 794.44 100000. 3.29 30426. 1245. 9.69 0.0280 0. 46. 0.12
MILE 33.60 794.45 100000. 1.58 63111. 2174. 8.19 0.0290 0. 52. 0.05
MILE 31.50 794.11 100000. 3.27 30553. 1763. 10.39 0.0250 0. 55. 0.14
MILE 30.10 793.90 100000. 3.13 31969. 880. 9.89 0.0200 0. 53. 0.09
MILE 29.00 793.84 100000. 2.81 35597. 1048. 10.75 0.0200 0. 54. 0.08
MILE 27.30 793.74 100000. 2.71 36851. 1045. 11.14 0.0230 0. 57. 0.08
MILE 25.20 793.66 100000. 2.19 45597. 1040. 11.95 0.0230 0. 59. 0.06
MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 22.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 156 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-04-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 157 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	0.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 159 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	2.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	3.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 160 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	4.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 161 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	5.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 162 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 6.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 163 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 7.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 8.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 164 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	9.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL	
INFLOW	DEPTH	FROUDE								
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 165 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 10.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 166 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 11.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37
MILE 77.70 849.63 100000. 6.95 14393. 839. 9.17 0.0400 0. 39. 0.30
MILE 75.60 843.73 100000. 7.19 13903. 1086. 8.47 0.0400 0. 37. 0.35
MILE 73.50 837.05 100000. 7.43 13452. 822. 8.29 0.0330 0. 38. 0.32
MILE 71.40 833.47 100000. 6.18 16170. 789. 7.35 0.0400 0. 36. 0.24
MILE 69.30 828.51 100000. 6.30 15868. 762. 7.94 0.0340 0. 30. 0.24
MILE 67.20 825.99 100000. 4.25 23514. 1425. 7.49 0.0340 0. 35. 0.18
MILE 65.10 822.94 100000. 5.47 18283. 1769. 8.25 0.0320 0. 36. 0.30
MILE 63.00 820.84 100000. 5.52 18121. 1635. 8.57 0.0400 0. 40. 0.29
MILE 60.90 816.10 100000. 6.43 15543. 1238. 8.77 0.0450 0. 40. 0.32
MILE 58.80 809.22 100000. 8.16 12256. 872. 8.90 0.0400 0. 36. 0.38
MILE 57.00 807.59 100000. 7.61 13138. 899. 8.51 0.0200 0. 33. 0.35
MILE 55.00 805.23 100000. 8.57 11665. 868. 8.23 0.0200 0. 32. 0.41
MILE 53.10 804.14 100000. 5.93 16863. 1012. 7.62 0.0200 0. 31. 0.26
MILE 51.00 802.59 100000. 6.05 16524. 1387. 6.91 0.0200 0. 33. 0.31
MILE 48.30 801.14 100000. 4.47 22352. 2485. 6.55 0.0200 0. 32. 0.26
MILE 46.20 800.27 100000. 4.67 21422. 2551. 8.08 0.0200 0. 38. 0.28
MILE 44.10 800.10 100000. 2.82 35483. 1793. 9.21 0.0300 0. 45. 0.11
MILE 43.70 799.58 100000. 5.64 17715. 1628. 9.13 0.0300 0. 47. 0.30
MILE 42.00 798.42 100000. 4.03 24800. 1525. 6.94 0.0300 0. 48. 0.18
MILE 39.10 795.72 100000. 5.12 19532. 1431. 8.11 0.0230 0. 45. 0.24
MILE 37.00 795.37 100000. 2.94 34048. 1168. 7.58 0.0280 0. 44. 0.10
MILE 36.00 794.76 100000. 4.92 20329. 925. 8.41 0.0280 0. 46. 0.18
MILE 34.60 794.44 100000. 3.29 30426. 1245. 9.69 0.0280 0. 46. 0.12
MILE 33.60 794.45 100000. 1.58 63111. 2174. 8.19 0.0290 0. 52. 0.05
MILE 31.50 794.11 100000. 3.27 30553. 1763. 10.39 0.0250 0. 55. 0.14
MILE 30.10 793.90 100000. 3.13 31969. 880. 9.89 0.0200 0. 53. 0.09
MILE 29.00 793.84 100000. 2.81 35597. 1048. 10.75 0.0200 0. 54. 0.08
MILE 27.30 793.74 100000. 2.71 36851. 1045. 11.14 0.0230 0. 57. 0.08
MILE 25.20 793.66 100000. 2.19 45597. 1040. 11.95 0.0230 0. 59. 0.06
MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 12.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 851.98 100000. 8.58 11657. 698. 8.08 0.0290 0. 33. 0.37

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 167 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 13.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 168 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 14.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 169 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 15.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW DEPTH	FROUDE									
MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 170 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 16.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 17.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 171 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 18.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 172 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE 29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE 27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE 25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE 23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 19.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE 79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE 77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE 75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE 73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE 71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE 69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE 67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE 65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE 55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE 46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE 44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE 43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE 42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE 39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE 37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE 36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE 34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE 33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE 31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE 30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 173 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 20.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL			
INFLOW DEPTH	FROUDE										
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 174 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

TIME	21.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40. 0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31. 0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38. 0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48. 0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45. 0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44. 0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46. 0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46. 0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52. 0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55. 0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53. 0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54. 0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57. 0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59. 0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64. 0.08

ODATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	22.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33. 0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39. 0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37. 0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38. 0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36. 0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30. 0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35. 0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36. 0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 175 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

0DATE 10-05-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 176 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06
MILE	23.10	793.50	100000.	2.68	37356.	1064.	11.35	0.0230	0.	64.	0.08

ODATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 0.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	851.98	100000.	8.58	11657.	698.	8.08	0.0290	0.	33.	0.37
MILE	77.70	849.63	100000.	6.95	14393.	839.	9.17	0.0400	0.	39.	0.30
MILE	75.60	843.73	100000.	7.19	13903.	1086.	8.47	0.0400	0.	37.	0.35
MILE	73.50	837.05	100000.	7.43	13452.	822.	8.29	0.0330	0.	38.	0.32
MILE	71.40	833.47	100000.	6.18	16170.	789.	7.35	0.0400	0.	36.	0.24
MILE	69.30	828.51	100000.	6.30	15868.	762.	7.94	0.0340	0.	30.	0.24
MILE	67.20	825.99	100000.	4.25	23514.	1425.	7.49	0.0340	0.	35.	0.18
MILE	65.10	822.94	100000.	5.47	18283.	1769.	8.25	0.0320	0.	36.	0.30
MILE	63.00	820.84	100000.	5.52	18121.	1635.	8.57	0.0400	0.	40.	0.29
MILE	60.90	816.10	100000.	6.43	15543.	1238.	8.77	0.0450	0.	40.	0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36.	0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33.	0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31.	0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32.	0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38.	0.28
MILE	44.10	800.10	100000.	2.82	35483.	1793.	9.21	0.0300	0.	45.	0.11
MILE	43.70	799.58	100000.	5.64	17715.	1628.	9.13	0.0300	0.	47.	0.30
MILE	42.00	798.42	100000.	4.03	24800.	1525.	6.94	0.0300	0.	48.	0.18
MILE	39.10	795.72	100000.	5.12	19532.	1431.	8.11	0.0230	0.	45.	0.24
MILE	37.00	795.37	100000.	2.94	34048.	1168.	7.58	0.0280	0.	44.	0.10
MILE	36.00	794.76	100000.	4.92	20329.	925.	8.41	0.0280	0.	46.	0.18
MILE	34.60	794.44	100000.	3.29	30426.	1245.	9.69	0.0280	0.	46.	0.12
MILE	33.60	794.45	100000.	1.58	63111.	2174.	8.19	0.0290	0.	52.	0.05
MILE	31.50	794.11	100000.	3.27	30553.	1763.	10.39	0.0250	0.	55.	0.14
MILE	30.10	793.90	100000.	3.13	31969.	880.	9.89	0.0200	0.	53.	0.09
MILE	29.00	793.84	100000.	2.81	35597.	1048.	10.75	0.0200	0.	54.	0.08
MILE	27.30	793.74	100000.	2.71	36851.	1045.	11.14	0.0230	0.	57.	0.08
MILE	25.20	793.66	100000.	2.19	45597.	1040.	11.95	0.0230	0.	59.	0.06

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 177 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 23.10 793.50 100000. 2.68 37356. 1064. 11.35 0.0230 0. 64. 0.08

ODATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE	79.80	852.36	104167.	8.80	11834.	703.	8.12	0.0290	0.	34. 0.38
MILE	77.70	849.93	102976.	7.07	14571.	844.	9.20	0.0400	0.	39. 0.30
MILE	75.60	843.89	101781.	7.27	13991.	1094.	8.49	0.0400	0.	37. 0.36
MILE	73.50	837.12	100992.	7.48	13493.	824.	8.30	0.0330	0.	38. 0.33
MILE	71.40	833.52	100544.	6.20	16207.	791.	7.35	0.0400	0.	36. 0.24
MILE	69.30	828.53	100315.	6.32	15881.	763.	7.94	0.0340	0.	30. 0.24
MILE	67.20	826.00	100171.	4.26	23522.	1426.	7.49	0.0340	0.	35. 0.18
MILE	65.10	822.94	100054.	5.47	18284.	1769.	8.25	0.0320	0.	36. 0.30
MILE	63.00	820.84	100012.	5.52	18122.	1635.	8.57	0.0400	0.	40. 0.29
MILE	60.90	816.10	100002.	6.43	15543.	1238.	8.77	0.0450	0.	40. 0.32
MILE	58.80	809.22	100000.	8.16	12256.	872.	8.90	0.0400	0.	36. 0.38
MILE	57.00	807.59	100000.	7.61	13138.	899.	8.51	0.0200	0.	33. 0.35
MILE	55.00	805.23	100000.	8.57	11665.	868.	8.23	0.0200	0.	32. 0.41
MILE	53.10	804.14	100000.	5.93	16863.	1012.	7.62	0.0200	0.	31. 0.26
MILE	51.00	802.59	100000.	6.05	16524.	1387.	6.91	0.0200	0.	33. 0.31
MILE	48.30	801.14	100000.	4.47	22352.	2485.	6.55	0.0200	0.	32. 0.26
MILE	46.20	800.27	100000.	4.67	21422.	2551.	8.08	0.0200	0.	38. 0.28
MILE	44.10	800.10	99998.	2.82	35483.	1793.	9.21	0.0300	0.	45. 0.11
MILE	43.70	799.58	99995.	5.64	17715.	1628.	9.13	0.0300	0.	47. 0.30
MILE	42.00	798.43	99957.	4.03	24804.	1525.	6.94	0.0300	0.	48. 0.18
MILE	39.10	795.75	99475.	5.09	19562.	1432.	8.12	0.0230	0.	45. 0.24
MILE	37.00	795.47	97826.	2.86	34214.	1171.	7.60	0.0280	0.	44. 0.09
MILE	36.00	794.93	97138.	4.75	20461.	930.	8.42	0.0280	0.	46. 0.18
MILE	34.60	794.66	95878.	3.13	30649.	1254.	9.72	0.0280	0.	46. 0.11
MILE	33.60	794.68	94397.	1.48	63754.	2191.	8.24	0.0290	0.	52. 0.05
MILE	31.50	794.44	90449.	2.93	30851.	1783.	10.43	0.0250	0.	56. 0.12
MILE	30.10	794.31	88675.	2.74	32392.	893.	9.96	0.0200	0.	54. 0.08
MILE	29.00	794.29	87541.	2.43	36040.	1064.	10.82	0.0200	0.	55. 0.07
MILE	27.30	794.25	85493.	2.29	37351.	1063.	11.21	0.0230	0.	57. 0.07
MILE	25.20	794.24	83281.	1.80	46230.	1061.	12.03	0.0230	0.	60. 0.05
MILE	23.10	794.18	81073.	2.13	38003.	1090.	11.46	0.0230	0.	64. 0.06

ODATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	2.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE	79.80	852.95	108333.	8.95	12109.	711.	8.19	0.0290	0.	34. 0.38

TVA

Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 178 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 77.70	850.50	106834.	7.17	14906.	853.	9.25	0.0400	0.	40.	0.30
MILE 75.60	844.34	105162.	7.39	14233.	1114.	8.53	0.0400	0.	38.	0.36
MILE 73.50	837.43	103815.	7.60	13661.	835.	8.33	0.0330	0.	38.	0.33
MILE 71.40	833.77	102891.	6.27	16410.	797.	7.37	0.0400	0.	36.	0.24
MILE 69.30	828.67	102274.	6.40	15989.	767.	7.96	0.0340	0.	30.	0.25
MILE 67.20	826.09	101702.	4.30	23635.	1433.	7.50	0.0340	0.	35.	0.19
MILE 65.10	822.99	101010.	5.51	18331.	1774.	8.25	0.0320	0.	36.	0.30
MILE 63.00	820.87	100498.	5.53	18165.	1637.	8.57	0.0400	0.	40.	0.29
MILE 60.90	816.12	100213.	6.44	15556.	1238.	8.77	0.0450	0.	40.	0.32
MILE 58.80	809.22	100096.	8.16	12260.	872.	8.90	0.0400	0.	36.	0.38
MILE 57.00	807.59	100069.	7.62	13141.	900.	8.52	0.0200	0.	33.	0.35
MILE 55.00	805.23	100045.	8.58	11666.	868.	8.23	0.0200	0.	32.	0.41
MILE 53.10	804.14	100027.	5.93	16866.	1012.	7.62	0.0200	0.	31.	0.26
MILE 51.00	802.59	99985.	6.05	16528.	1387.	6.91	0.0200	0.	33.	0.31
MILE 48.30	801.15	99732.	4.46	22371.	2487.	6.56	0.0200	0.	32.	0.26
MILE 46.20	800.31	99084.	4.62	21464.	2556.	8.09	0.0200	0.	39.	0.28
MILE 44.10	800.16	98256.	2.76	35574.	1795.	9.22	0.0300	0.	45.	0.11
MILE 43.70	799.67	98115.	5.52	17770.	1632.	9.14	0.0300	0.	47.	0.29
MILE 42.00	798.61	97240.	3.88	25066.	1533.	6.98	0.0300	0.	49.	0.17
MILE 39.10	796.27	94615.	4.73	20012.	1455.	8.23	0.0230	0.	45.	0.22
MILE 37.00	796.03	92413.	2.63	35136.	1187.	7.73	0.0280	0.	45.	0.09
MILE 36.00	795.57	91484.	4.35	21008.	942.	8.56	0.0280	0.	47.	0.16
MILE 34.60	795.35	89937.	2.87	31351.	1278.	9.83	0.0280	0.	47.	0.10
MILE 33.60	795.37	88228.	1.34	65605.	2233.	8.38	0.0290	0.	52.	0.04
MILE 31.50	795.16	83918.	2.66	31508.	1823.	10.54	0.0250	0.	56.	0.11
MILE 30.10	795.05	81922.	2.47	33169.	915.	10.10	0.0200	0.	54.	0.07
MILE 29.00	795.02	80776.	2.20	36777.	1090.	10.94	0.0200	0.	55.	0.07
MILE 27.30	794.97	78862.	2.07	38060.	1089.	11.32	0.0230	0.	58.	0.06
MILE 25.20	794.93	76581.	1.63	46994.	1086.	12.13	0.0230	0.	60.	0.04
MILE 23.10	794.86	74156.	1.92	38652.	1115.	11.56	0.0230	0.	65.	0.06

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	3.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE 79.80	853.60	112500.	9.06	12419.	720.	8.26	0.0290	0.	35.	0.38
MILE 77.70	851.15	110887.	7.25	15299.	863.	9.29	0.0400	0.	40.	0.30
MILE 75.60	844.90	109003.	7.49	14545.	1141.	8.58	0.0400	0.	38.	0.37
MILE 73.50	837.87	107377.	7.72	13908.	849.	8.38	0.0330	0.	39.	0.34
MILE 71.40	834.16	106189.	6.34	16737.	808.	7.40	0.0400	0.	36.	0.25
MILE 69.30	828.96	105296.	6.50	16196.	774.	7.99	0.0340	0.	30.	0.25
MILE 67.20	826.32	104326.	4.36	23901.	1449.	7.52	0.0340	0.	36.	0.19
MILE 65.10	823.15	103006.	5.57	18477.	1788.	8.26	0.0320	0.	36.	0.31
MILE 63.00	821.01	101841.	5.56	18332.	1645.	8.55	0.0400	0.	40.	0.29
MILE 60.90	816.22	101056.	6.47	15625.	1242.	8.78	0.0450	0.	40.	0.32
MILE 58.80	809.28	100644.	8.19	12289.	874.	8.91	0.0400	0.	36.	0.38
MILE 57.00	807.63	100478.	7.63	13168.	901.	8.52	0.0200	0.	33.	0.35

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Appendix E		Checked	ACM

MILE	55.00	805.27	100286.	8.58	11690.	869.	8.23	0.0200	0.	32.	0.41
MILE	53.10	804.19	100067.	5.92	16916.	1014.	7.63	0.0200	0.	31.	0.26
MILE	51.00	802.66	99704.	6.01	16589.	1391.	6.91	0.0200	0.	33.	0.31
MILE	48.30	801.26	98673.	4.38	22519.	2501.	6.58	0.0200	0.	32.	0.26
MILE	46.20	800.46	97273.	4.50	21619.	2576.	8.12	0.0200	0.	39.	0.27
MILE	44.10	800.33	95809.	2.68	35816.	1803.	9.25	0.0300	0.	45.	0.11
MILE	43.70	799.86	95585.	5.34	17893.	1641.	9.18	0.0300	0.	47.	0.29
MILE	42.00	798.90	94484.	3.71	25485.	1546.	7.05	0.0300	0.	49.	0.16
MILE	39.10	796.82	91876.	4.48	20492.	1480.	8.35	0.0230	0.	46.	0.21
MILE	37.00	796.62	89865.	2.49	36095.	1203.	7.87	0.0280	0.	45.	0.08
MILE	36.00	796.20	89029.	4.13	21542.	953.	8.69	0.0280	0.	47.	0.15
MILE	34.60	796.00	87661.	2.74	32023.	1296.	9.96	0.0280	0.	48.	0.10
MILE	33.60	796.02	86134.	1.28	67368.	2267.	8.53	0.0290	0.	53.	0.04
MILE	31.50	795.82	82297.	2.56	32132.	1848.	10.67	0.0250	0.	57.	0.11
MILE	30.10	795.72	80600.	2.38	33905.	922.	10.22	0.0200	0.	55.	0.07
MILE	29.00	795.69	79607.	2.13	37461.	1104.	11.07	0.0200	0.	56.	0.06
MILE	27.30	795.65	77865.	2.01	38734.	1101.	11.44	0.0230	0.	59.	0.06
MILE	25.20	795.61	75641.	1.58	47746.	1099.	12.25	0.0230	0.	61.	0.04
MILE	23.10	795.54	73407.	1.87	39312.	1133.	11.68	0.0230	0.	66.	0.06

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 4.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	854.27	116667.	9.16	12742.	730.	8.33	0.0290	0.	36.	0.39
MILE	77.70	851.83	114988.	7.32	15716.	873.	9.34	0.0400	0.	41.	0.30
MILE	75.60	845.52	112962.	7.59	14880.	1169.	8.63	0.0400	0.	39.	0.37
MILE	73.50	838.38	111211.	7.83	14195.	866.	8.44	0.0330	0.	39.	0.34
MILE	71.40	834.63	109884.	6.41	17135.	821.	7.44	0.0400	0.	37.	0.25
MILE	69.30	829.33	108809.	6.60	16474.	784.	8.04	0.0340	0.	31.	0.25
MILE	67.20	826.65	107522.	4.43	24297.	1473.	7.54	0.0340	0.	36.	0.19
MILE	65.10	823.43	105662.	5.64	18725.	1813.	8.28	0.0320	0.	36.	0.31
MILE	63.00	821.25	103877.	5.57	18642.	1658.	8.53	0.0400	0.	40.	0.29
MILE	60.90	816.42	102561.	6.50	15771.	1251.	8.79	0.0450	0.	40.	0.32
MILE	58.80	809.41	101780.	8.23	12362.	879.	8.92	0.0400	0.	36.	0.39
MILE	57.00	807.76	101407.	7.65	13248.	906.	8.53	0.0200	0.	33.	0.35
MILE	55.00	805.39	100989.	8.58	11765.	874.	8.24	0.0200	0.	32.	0.41
MILE	53.10	804.32	100559.	5.90	17058.	1020.	7.64	0.0200	0.	31.	0.25
MILE	51.00	802.80	99904.	5.97	16729.	1399.	6.93	0.0200	0.	34.	0.30
MILE	48.30	801.45	98331.	4.32	22773.	2526.	6.63	0.0200	0.	33.	0.25
MILE	46.20	800.68	96425.	4.41	21845.	2605.	8.16	0.0200	0.	39.	0.27
MILE	44.10	800.56	94538.	2.61	36157.	1814.	9.28	0.0300	0.	45.	0.10
MILE	43.70	800.11	94256.	5.22	18053.	1653.	9.23	0.0300	0.	47.	0.28
MILE	42.00	799.23	92972.	3.58	25954.	1560.	7.12	0.0300	0.	49.	0.15
MILE	39.10	797.35	90141.	4.30	20944.	1503.	8.46	0.0230	0.	46.	0.20
MILE	37.00	797.17	87929.	2.38	37003.	1218.	7.99	0.0280	0.	46.	0.08
MILE	36.00	796.79	87031.	3.95	22043.	963.	8.82	0.0280	0.	48.	0.15

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	796.61	85604.	2.62	32658.	1314.	10.09	0.0280	0.	48.	0.09
MILE	33.60	796.63	83995.	1.22	69041.	2299.	8.67	0.0290	0.	54.	0.04
MILE	31.50	796.46	79938.	2.44	32727.	1872.	10.79	0.0250	0.	58.	0.10
MILE	30.10	796.37	78149.	2.26	34621.	930.	10.33	0.0200	0.	56.	0.07
MILE	29.00	796.35	77087.	2.02	38129.	1117.	11.20	0.0200	0.	57.	0.06
MILE	27.30	796.31	75238.	1.91	39398.	1113.	11.57	0.0230	0.	59.	0.06
MILE	25.20	796.28	72989.	1.51	48489.	1110.	12.38	0.0230	0.	62.	0.04
MILE	23.10	796.23	70655.	1.77	39975.	1149.	11.80	0.0230	0.	66.	0.05

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TIME	5.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	854.96	120833.	9.24	13076.	739.	8.41	0.0290	0.	36.	0.39
MILE	77.70	852.51	119134.	7.38	16146.	884.	9.40	0.0400	0.	42.	0.30
MILE	75.60	846.15	117038.	7.69	15227.	1198.	8.68	0.0400	0.	40.	0.38
MILE	73.50	838.92	115187.	7.94	14503.	884.	8.50	0.0330	0.	40.	0.35
MILE	71.40	835.15	113759.	6.47	17574.	835.	7.48	0.0400	0.	37.	0.25
MILE	69.30	829.78	112548.	6.70	16804.	796.	8.09	0.0340	0.	31.	0.26
MILE	67.20	827.06	111013.	4.48	24788.	1503.	7.58	0.0340	0.	36.	0.19
MILE	65.10	823.79	108714.	5.70	19058.	1846.	8.30	0.0320	0.	37.	0.31
MILE	63.00	821.59	106417.	5.58	19079.	1677.	8.50	0.0400	0.	41.	0.29
MILE	60.90	816.71	104644.	6.54	15991.	1263.	8.80	0.0450	0.	40.	0.32
MILE	58.80	809.63	103537.	8.29	12483.	887.	8.95	0.0400	0.	37.	0.39
MILE	57.00	807.97	102986.	7.69	13385.	914.	8.55	0.0200	0.	33.	0.35
MILE	55.00	805.58	102371.	8.61	11890.	881.	8.25	0.0200	0.	32.	0.41
MILE	53.10	804.52	101753.	5.89	17289.	1030.	7.65	0.0200	0.	31.	0.25
MILE	51.00	803.02	100830.	5.95	16939.	1412.	6.94	0.0200	0.	34.	0.30
MILE	48.30	801.70	98699.	4.27	23118.	2559.	6.69	0.0200	0.	33.	0.25
MILE	46.20	800.97	96194.	4.35	22137.	2641.	8.22	0.0200	0.	39.	0.26
MILE	44.10	800.85	93774.	2.56	36597.	1827.	9.32	0.0300	0.	46.	0.10
MILE	43.70	800.43	93416.	5.12	18258.	1669.	9.29	0.0300	0.	47.	0.27
MILE	42.00	799.61	91832.	3.46	26513.	1577.	7.20	0.0300	0.	50.	0.15
MILE	39.10	797.91	88533.	4.13	21437.	1528.	8.58	0.0230	0.	47.	0.19
MILE	37.00	797.76	86104.	2.27	37979.	1235.	8.12	0.0280	0.	46.	0.07
MILE	36.00	797.41	85126.	3.77	22577.	974.	8.96	0.0280	0.	48.	0.14
MILE	34.60	797.26	83611.	2.51	33327.	1332.	10.22	0.0280	0.	49.	0.09
MILE	33.60	797.28	81908.	1.16	70798.	2332.	8.81	0.0290	0.	54.	0.04
MILE	31.50	797.12	77642.	2.33	33347.	1898.	10.92	0.0250	0.	58.	0.10
MILE	30.10	797.04	75750.	2.14	35364.	938.	10.45	0.0200	0.	56.	0.06
MILE	29.00	797.02	74648.	1.92	38818.	1131.	11.33	0.0200	0.	57.	0.06
MILE	27.30	796.99	72767.	1.82	40075.	1125.	11.69	0.0230	0.	60.	0.05
MILE	25.20	796.96	70468.	1.43	49240.	1122.	12.51	0.0230	0.	62.	0.04
MILE	23.10	796.91	68088.	1.68	40637.	1165.	11.93	0.0230	0.	67.	0.05

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Appendix E		Checked	ACM

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	TIME 6.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	855.64	125000.	9.33	13405.	747.	8.47	0.0290	0.	37. 0.39
MILE 77.70	853.20	123297.	7.44	16581.	895.	9.45	0.0400	0.	42. 0.30
MILE 75.60	846.79	121159.	7.78	15581.	1227.	8.73	0.0400	0.	40. 0.38
MILE 73.50	839.47	119232.	8.04	14822.	902.	8.56	0.0330	0.	40. 0.35
MILE 71.40	835.69	117723.	6.53	18040.	850.	7.53	0.0400	0.	38. 0.25
MILE 69.30	830.26	116396.	6.78	17167.	809.	8.15	0.0340	0.	32. 0.26
MILE 67.20	827.53	114679.	4.52	25353.	1537.	7.62	0.0340	0.	37. 0.20
MILE 65.10	824.22	112045.	5.76	19458.	1884.	8.33	0.0320	0.	37. 0.32
MILE 63.00	822.01	109349.	5.57	19619.	1700.	8.47	0.0400	0.	41. 0.29
MILE 60.90	817.09	107206.	6.59	16273.	1279.	8.82	0.0450	0.	41. 0.33
MILE 58.80	809.93	105827.	8.37	12648.	897.	8.98	0.0400	0.	37. 0.39
MILE 57.00	808.25	105113.	7.74	13572.	925.	8.58	0.0200	0.	33. 0.36
MILE 55.00	805.85	104313.	8.65	12062.	892.	8.27	0.0200	0.	32. 0.41
MILE 53.10	804.80	103504.	5.88	17604.	1043.	7.67	0.0200	0.	32. 0.25
MILE 51.00	803.30	102300.	5.94	17223.	1428.	6.97	0.0200	0.	34. 0.30
MILE 48.30	802.03	99556.	4.22	23565.	2603.	6.77	0.0200	0.	33. 0.25
MILE 46.20	801.33	96417.	4.28	22504.	2688.	8.28	0.0200	0.	40. 0.26
MILE 44.10	801.22	93455.	2.52	37147.	1844.	9.38	0.0300	0.	46. 0.10
MILE 43.70	800.81	93024.	5.03	18508.	1687.	9.37	0.0300	0.	48. 0.27
MILE 42.00	800.06	91184.	3.36	27170.	1597.	7.29	0.0300	0.	50. 0.14
MILE 39.10	798.51	87548.	3.99	21959.	1555.	8.71	0.0230	0.	48. 0.19
MILE 37.00	798.37	84973.	2.18	39001.	1252.	8.26	0.0280	0.	47. 0.07
MILE 36.00	798.06	83951.	3.63	23127.	985.	9.09	0.0280	0.	49. 0.13
MILE 34.60	797.92	82395.	2.42	34010.	1350.	10.35	0.0280	0.	49. 0.09
MILE 33.60	797.94	80646.	1.11	72592.	2367.	8.96	0.0290	0.	55. 0.04
MILE 31.50	797.79	76284.	2.25	33975.	1923.	11.05	0.0250	0.	59. 0.09
MILE 30.10	797.72	74368.	2.06	36115.	946.	10.56	0.0200	0.	57. 0.06
MILE 29.00	797.70	73256.	1.85	39509.	1145.	11.45	0.0200	0.	58. 0.06
MILE 27.30	797.66	71360.	1.75	40754.	1137.	11.82	0.0230	0.	61. 0.05
MILE 25.20	797.64	69005.	1.38	49994.	1133.	12.63	0.0230	0.	63. 0.04
MILE 23.10	797.59	66616.	1.61	41300.	1181.	12.05	0.0230	0.	68. 0.05

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	TIME 7.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL
	INFLOW DEPTH	FROUDE							
MILE 79.80	856.32	129167.	9.40	13735.	754.	8.53	0.0290	0.	38. 0.39
MILE 77.70	853.88	127463.	7.49	17019.	905.	9.50	0.0400	0.	43. 0.30
MILE 75.60	847.42	125292.	7.86	15940.	1256.	8.79	0.0400	0.	41. 0.39
MILE 73.50	840.03	123302.	8.14	15147.	921.	8.62	0.0330	0.	41. 0.35
MILE 71.40	836.23	121743.	6.57	18524.	864.	7.57	0.0400	0.	38. 0.25

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	830.77	120339.	6.86	17554.	823.	8.20	0.0340	0.	32.	0.26
MILE	67.20	828.03	118472.	4.56	25974.	1573.	7.67	0.0340	0.	37.	0.20
MILE	65.10	824.70	115569.	5.81	19908.	1927.	8.37	0.0320	0.	38.	0.32
MILE	63.00	822.47	112555.	5.56	20242.	1725.	8.44	0.0400	0.	41.	0.29
MILE	60.90	817.53	110100.	6.63	16604.	1297.	8.84	0.0450	0.	41.	0.33
MILE	58.80	810.31	108455.	8.37	12959.	911.	8.93	0.0400	0.	37.	0.39
MILE	57.00	808.59	107609.	7.80	13801.	938.	8.62	0.0200	0.	34.	0.36
MILE	55.00	806.19	106649.	8.69	12278.	905.	8.28	0.0200	0.	33.	0.42
MILE	53.10	805.15	105660.	5.88	17980.	1059.	7.69	0.0200	0.	32.	0.25
MILE	51.00	803.66	104208.	5.93	17578.	1449.	7.00	0.0200	0.	34.	0.30
MILE	48.30	802.43	100926.	4.19	24107.	2655.	6.86	0.0200	0.	34.	0.24
MILE	46.20	801.76	97221.	4.24	22941.	2742.	8.36	0.0200	0.	40.	0.26
MILE	44.10	801.66	93779.	2.48	37798.	1864.	9.44	0.0300	0.	46.	0.10
MILE	43.70	801.26	93282.	4.96	18797.	1708.	9.45	0.0300	0.	48.	0.26
MILE	42.00	800.56	91203.	3.26	27950.	1619.	7.38	0.0300	0.	51.	0.14
MILE	39.10	799.13	87290.	3.88	22498.	1582.	8.84	0.0230	0.	48.	0.18
MILE	37.00	799.01	84576.	2.11	40048.	1269.	8.40	0.0280	0.	48.	0.07
MILE	36.00	798.71	83512.	3.53	23683.	996.	9.23	0.0280	0.	50.	0.13
MILE	34.60	798.58	81919.	2.36	34697.	1369.	10.48	0.0280	0.	50.	0.08
MILE	33.60	798.60	80123.	1.08	74399.	2401.	9.10	0.0290	0.	56.	0.03
MILE	31.50	798.46	75645.	2.19	34605.	1949.	11.17	0.0250	0.	60.	0.09
MILE	30.10	798.40	73702.	2.00	36869.	953.	10.68	0.0200	0.	58.	0.06
MILE	29.00	798.37	72571.	1.81	40201.	1159.	11.58	0.0200	0.	59.	0.05
MILE	27.30	798.34	70632.	1.70	41433.	1149.	11.95	0.0230	0.	61.	0.05
MILE	25.20	798.32	68255.	1.34	50747.	1145.	12.75	0.0230	0.	64.	0.04
MILE	23.10	798.27	65824.	1.57	41963.	1197.	12.17	0.0230	0.	68.	0.05

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TIME 8.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	856.99	133333.	9.48	14066.	761.	8.60	0.0290	0.	38.	0.39
MILE	77.70	854.55	131629.	7.54	17459.	916.	9.55	0.0400	0.	44.	0.30
MILE	75.60	848.05	129422.	7.94	16301.	1285.	8.84	0.0400	0.	42.	0.39
MILE	73.50	840.59	127372.	8.24	15462.	939.	8.68	0.0330	0.	41.	0.36
MILE	71.40	836.79	125777.	6.61	19020.	879.	7.62	0.0400	0.	39.	0.25
MILE	69.30	831.30	124313.	6.92	17956.	837.	8.26	0.0340	0.	33.	0.26
MILE	67.20	828.55	122313.	4.59	26632.	1612.	7.72	0.0340	0.	38.	0.20
MILE	65.10	825.20	119159.	5.85	20376.	1973.	8.40	0.0320	0.	38.	0.32
MILE	63.00	822.97	115935.	5.54	20926.	1753.	8.41	0.0400	0.	42.	0.28
MILE	60.90	818.01	113260.	6.67	16975.	1317.	8.86	0.0450	0.	41.	0.33
MILE	58.80	810.75	111446.	8.34	13363.	927.	8.85	0.0400	0.	38.	0.39
MILE	57.00	809.00	110468.	7.85	14074.	954.	8.66	0.0200	0.	34.	0.36
MILE	55.00	806.58	109349.	8.72	12537.	920.	8.31	0.0200	0.	33.	0.42
MILE	53.10	805.56	108199.	5.88	18394.	1078.	7.72	0.0200	0.	32.	0.25
MILE	51.00	804.08	106518.	5.92	17999.	1473.	7.04	0.0200	0.	35.	0.30
MILE	48.30	802.88	102726.	4.15	24730.	2715.	6.97	0.0200	0.	34.	0.24

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	46.20	802.24	98512.	4.20	23435.	2804.	8.45	0.0200	0.	40.	0.26
MILE	44.10	802.14	94651.	2.46	38534.	1887.	9.51	0.0300	0.	47.	0.10
MILE	43.70	801.75	94099.	4.92	19120.	1732.	9.54	0.0300	0.	49.	0.26
MILE	42.00	801.11	91823.	3.19	28805.	1642.	7.47	0.0300	0.	51.	0.13
MILE	39.10	799.77	87650.	3.80	23055.	1611.	8.97	0.0230	0.	49.	0.18
MILE	37.00	799.65	84810.	2.06	41122.	1287.	8.54	0.0280	0.	48.	0.06
MILE	36.00	799.38	83707.	3.45	24247.	1007.	9.37	0.0280	0.	50.	0.12
MILE	34.60	799.25	82072.	2.32	35392.	1388.	10.61	0.0280	0.	51.	0.08
MILE	33.60	799.27	80230.	1.05	76228.	2436.	9.24	0.0290	0.	56.	0.03
MILE	31.50	799.14	75644.	2.15	35239.	1974.	11.30	0.0250	0.	60.	0.09
MILE	30.10	799.08	73660.	1.96	37630.	961.	10.80	0.0200	0.	58.	0.06
MILE	29.00	799.06	72510.	1.77	40896.	1173.	11.71	0.0200	0.	59.	0.05
MILE	27.30	799.02	70548.	1.68	42115.	1161.	12.07	0.0230	0.	62.	0.05
MILE	25.20	799.00	68136.	1.32	51503.	1157.	12.88	0.0230	0.	64.	0.03
MILE	23.10	798.95	65672.	1.54	42625.	1213.	12.30	0.0230	0.	69.	0.05

ODATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	9.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
INFLOW	DEPTH	FROUDE									
MILE	79.80	857.65	137500.	9.55	14400.	769.	8.66	0.0290	0.	39.	0.39
MILE	77.70	855.21	135780.	7.59	17900.	926.	9.60	0.0400	0.	45.	0.30
MILE	75.60	848.67	133566.	8.02	16663.	1314.	8.89	0.0400	0.	42.	0.40
MILE	73.50	841.14	131480.	8.33	15779.	958.	8.74	0.0330	0.	42.	0.36
MILE	71.40	837.34	129849.	6.65	19526.	894.	7.67	0.0400	0.	40.	0.25
MILE	69.30	831.84	128335.	6.98	18374.	851.	8.31	0.0340	0.	33.	0.26
MILE	67.20	829.10	126234.	4.62	27328.	1651.	7.77	0.0340	0.	38.	0.20
MILE	65.10	825.73	122911.	5.90	20839.	2021.	8.44	0.0320	0.	39.	0.32
MILE	63.00	823.50	119504.	5.52	21660.	1782.	8.39	0.0400	0.	42.	0.28
MILE	60.90	818.53	116674.	6.71	17378.	1338.	8.89	0.0450	0.	42.	0.33
MILE	58.80	811.24	114746.	8.30	13820.	944.	8.77	0.0400	0.	38.	0.38
MILE	57.00	809.45	113649.	7.90	14381.	972.	8.71	0.0200	0.	35.	0.36
MILE	55.00	807.03	112396.	8.76	12834.	937.	8.33	0.0200	0.	34.	0.42
MILE	53.10	806.01	111103.	5.89	18864.	1100.	7.75	0.0200	0.	33.	0.25
MILE	51.00	804.54	109217.	5.91	18478.	1500.	7.08	0.0200	0.	35.	0.30
MILE	48.30	803.39	104962.	4.13	25423.	2782.	7.09	0.0200	0.	34.	0.24
MILE	46.20	802.77	100277.	4.18	23982.	2872.	8.55	0.0200	0.	41.	0.25
MILE	44.10	802.68	96044.	2.44	39347.	1911.	9.58	0.0300	0.	47.	0.09
MILE	43.70	802.29	95444.	4.90	19471.	1757.	9.64	0.0300	0.	49.	0.26
MILE	42.00	801.68	92998.	3.13	29725.	1667.	7.57	0.0300	0.	52.	0.13
MILE	39.10	800.42	88602.	3.75	23642.	1640.	9.10	0.0230	0.	49.	0.17
MILE	37.00	800.31	85656.	2.03	42229.	1306.	8.69	0.0280	0.	49.	0.06
MILE	36.00	800.05	84523.	3.41	24821.	1019.	9.51	0.0280	0.	51.	0.12
MILE	34.60	799.93	82850.	2.30	36093.	1407.	10.74	0.0280	0.	51.	0.08
MILE	33.60	799.95	80966.	1.04	78074.	2471.	9.39	0.0290	0.	57.	0.03
MILE	31.50	799.82	76291.	2.13	35876.	2000.	11.43	0.0250	0.	61.	0.09
MILE	30.10	799.76	74276.	1.93	38397.	969.	10.91	0.0200	0.	59.	0.05

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Appendix E		Checked	ACM

MILE	29.00	799.74	73112.	1.76	41592.	1187.	11.83	0.0200	0.	60.	0.05
MILE	27.30	799.71	71124.	1.66	42798.	1173.	12.20	0.0230	0.	63.	0.05
MILE	25.20	799.68	68684.	1.31	52259.	1169.	13.00	0.0230	0.	65.	0.03
MILE	23.10	799.63	66188.	1.53	43288.	1229.	12.42	0.0230	0.	70.	0.05

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 10.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	858.31	141667.	9.61	14736.	776.	8.72	0.0290	0.	40.	0.39
MILE	77.70	855.87	139955.	7.63	18348.	934.	9.64	0.0400	0.	45.	0.30
MILE	75.60	849.29	137725.	8.09	17028.	1342.	8.94	0.0400	0.	43.	0.40
MILE	73.50	841.69	135610.	8.43	16091.	976.	8.80	0.0330	0.	42.	0.37
MILE	71.40	837.91	133983.	6.68	20050.	909.	7.72	0.0400	0.	40.	0.25
MILE	69.30	832.40	132442.	7.04	18805.	866.	8.37	0.0340	0.	34.	0.27
MILE	67.20	829.66	130270.	4.64	28051.	1692.	7.82	0.0340	0.	39.	0.20
MILE	65.10	826.26	126814.	5.95	21323.	2069.	8.48	0.0320	0.	39.	0.33
MILE	63.00	824.04	123274.	5.49	22438.	1812.	8.37	0.0400	0.	43.	0.28
MILE	60.90	819.07	120309.	6.76	17804.	1360.	8.92	0.0450	0.	43.	0.33
MILE	58.80	811.76	118292.	8.26	14318.	963.	8.70	0.0400	0.	39.	0.38
MILE	57.00	809.94	117093.	7.96	14715.	991.	8.76	0.0200	0.	35.	0.36
MILE	55.00	807.51	115720.	8.79	13161.	955.	8.36	0.0200	0.	34.	0.42
MILE	53.10	806.51	114298.	5.90	19384.	1123.	7.78	0.0200	0.	33.	0.25
MILE	51.00	805.05	112205.	5.90	19004.	1529.	7.12	0.0200	0.	36.	0.30
MILE	48.30	803.94	107566.	4.11	26173.	2854.	7.22	0.0200	0.	35.	0.24
MILE	46.20	803.33	102471.	4.17	24569.	2944.	8.65	0.0200	0.	42.	0.25
MILE	44.10	803.25	97910.	2.43	40223.	1937.	9.66	0.0300	0.	48.	0.09
MILE	43.70	802.86	97269.	4.90	19845.	1785.	9.75	0.0300	0.	50.	0.26
MILE	42.00	802.29	94680.	3.08	30701.	1694.	7.67	0.0300	0.	52.	0.13
MILE	39.10	801.08	90098.	3.72	24251.	1669.	9.22	0.0230	0.	50.	0.17
MILE	37.00	800.98	87058.	2.01	43365.	1324.	8.82	0.0280	0.	50.	0.06
MILE	36.00	800.72	85896.	3.38	25420.	1031.	9.64	0.0280	0.	52.	0.12
MILE	34.60	800.61	84196.	2.29	36823.	1426.	10.86	0.0280	0.	52.	0.08
MILE	33.60	800.63	82277.	1.03	79960.	2507.	9.53	0.0290	0.	58.	0.03
MILE	31.50	800.50	77517.	2.12	36537.	2026.	11.55	0.0250	0.	62.	0.09
MILE	30.10	800.44	75478.	1.93	39175.	977.	11.02	0.0200	0.	60.	0.05
MILE	29.00	800.42	74299.	1.76	42302.	1201.	11.96	0.0200	0.	61.	0.05
MILE	27.30	800.39	72286.	1.66	43492.	1185.	12.32	0.0230	0.	63.	0.05
MILE	25.20	800.36	69823.	1.32	53028.	1180.	13.12	0.0230	0.	66.	0.03
MILE	23.10	800.32	67297.	1.53	43972.	1246.	12.53	0.0230	0.	70.	0.05

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

TIME	11.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE	79.80	858.95	145833.	9.68	15070.	783.	8.78	0.0290	0.	40. 0.39
MILE	77.70	856.52	144138.	7.67	18796.	943.	9.68	0.0400	0.	46. 0.30
MILE	75.60	849.90	141909.	8.16	17395.	1370.	8.99	0.0400	0.	43. 0.40
MILE	73.50	842.22	139781.	8.52	16399.	994.	8.85	0.0330	0.	43. 0.37
MILE	71.40	838.47	138141.	6.71	20579.	925.	7.76	0.0400	0.	41. 0.25
MILE	69.30	832.95	136577.	7.10	19244.	880.	8.43	0.0340	0.	34. 0.27
MILE	67.20	830.22	134346.	4.67	28776.	1733.	7.87	0.0340	0.	40. 0.20
MILE	65.10	826.81	130813.	5.99	21827.	2119.	8.51	0.0320	0.	40. 0.33
MILE	63.00	824.60	127173.	5.47	23263.	1843.	8.36	0.0400	0.	44. 0.27
MILE	60.90	819.61	124092.	6.80	18238.	1383.	8.95	0.0450	0.	43. 0.33
MILE	58.80	812.30	121989.	8.22	14844.	982.	8.64	0.0400	0.	39. 0.37
MILE	57.00	810.45	120681.	7.99	15112.	1011.	8.77	0.0200	0.	36. 0.36
MILE	55.00	808.02	119199.	8.82	13510.	975.	8.40	0.0200	0.	35. 0.42
MILE	53.10	807.03	117658.	5.90	19946.	1147.	7.82	0.0200	0.	34. 0.25
MILE	51.00	805.59	115417.	5.91	19523.	1560.	7.18	0.0200	0.	36. 0.29
MILE	48.30	804.51	110417.	4.09	26969.	2930.	7.35	0.0200	0.	36. 0.24
MILE	46.20	803.93	104986.	4.17	25191.	3020.	8.76	0.0200	0.	42. 0.25
MILE	44.10	803.84	100163.	2.43	41150.	1965.	9.74	0.0300	0.	49. 0.09
MILE	43.70	803.46	99489.	4.92	20237.	1813.	9.86	0.0300	0.	50. 0.26
MILE	42.00	802.92	96782.	3.05	31721.	1721.	7.78	0.0300	0.	53. 0.13
MILE	39.10	801.75	92046.	3.70	24870.	1699.	9.35	0.0230	0.	51. 0.17
MILE	37.00	801.66	88925.	2.00	44515.	1343.	8.96	0.0280	0.	50. 0.06
MILE	36.00	801.41	87738.	3.37	26024.	1042.	9.77	0.0280	0.	52. 0.12
MILE	34.60	801.29	86011.	2.29	37560.	1445.	10.98	0.0280	0.	53. 0.08
MILE	33.60	801.32	84059.	1.03	81859.	2542.	9.67	0.0290	0.	58. 0.03
MILE	31.50	801.19	79220.	2.13	37210.	2052.	11.66	0.0250	0.	62. 0.09
MILE	30.10	801.13	77154.	1.93	39963.	985.	11.13	0.0200	0.	60. 0.05
MILE	29.00	801.11	75963.	1.77	43020.	1215.	12.08	0.0200	0.	61. 0.05
MILE	27.30	801.07	73926.	1.67	44196.	1197.	12.44	0.0230	0.	64. 0.05
MILE	25.20	801.05	71430.	1.33	53808.	1192.	13.24	0.0230	0.	67. 0.03
MILE	23.10	801.00	68876.	1.54	44680.	1262.	12.64	0.0230	0.	71. 0.05

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TIME	12.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL
INFLOW	DEPTH	FROUDE								
MILE	79.80	859.59	150000.	9.74	15406.	790.	8.84	0.0290	0.	41. 0.39
MILE	77.70	857.17	148299.	7.71	19244.	951.	9.72	0.0400	0.	46. 0.30
MILE	75.60	850.50	146027.	8.23	17747.	1398.	9.04	0.0400	0.	44. 0.41
MILE	73.50	842.74	143917.	8.61	16707.	1011.	8.91	0.0330	0.	44. 0.37
MILE	71.40	839.02	142287.	6.74	21112.	940.	7.81	0.0400	0.	41. 0.25
MILE	69.30	833.50	140714.	7.15	19686.	895.	8.48	0.0340	0.	35. 0.27
MILE	67.20	830.79	138444.	4.70	29481.	1774.	7.93	0.0340	0.	40. 0.20
MILE	65.10	827.37	134823.	6.03	22343.	2170.	8.55	0.0320	0.	40. 0.33

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	825.17	131045.	5.44	24081.	1874.	8.36	0.0400	0.	44.	0.27
MILE	60.90	820.15	127943.	6.85	18684.	1407.	8.97	0.0450	0.	44.	0.33
MILE	58.80	812.85	125841.	8.17	15394.	1001.	8.59	0.0400	0.	40.	0.37
MILE	57.00	810.99	124402.	8.01	15538.	1031.	8.78	0.0200	0.	36.	0.36
MILE	55.00	808.55	122841.	8.85	13881.	995.	8.43	0.0200	0.	35.	0.42
MILE	53.10	807.58	121218.	5.90	20543.	1173.	7.85	0.0200	0.	34.	0.25
MILE	51.00	806.16	118859.	5.92	20074.	1593.	7.23	0.0200	0.	37.	0.29
MILE	48.30	805.11	113546.	4.08	27800.	3009.	7.49	0.0200	0.	36.	0.24
MILE	46.20	804.54	107796.	4.17	25838.	3099.	8.87	0.0200	0.	43.	0.25
MILE	44.10	804.46	102737.	2.44	42117.	1993.	9.83	0.0300	0.	49.	0.09
MILE	43.70	804.07	102035.	4.94	20641.	1843.	9.97	0.0300	0.	51.	0.26
MILE	42.00	803.56	99226.	3.03	32777.	1749.	7.88	0.0300	0.	54.	0.12
MILE	39.10	802.43	94352.	3.70	25497.	1729.	9.47	0.0230	0.	51.	0.17
MILE	37.00	802.34	91159.	2.00	45677.	1362.	9.10	0.0280	0.	51.	0.06
MILE	36.00	802.09	89950.	3.38	26633.	1054.	9.90	0.0280	0.	53.	0.12
MILE	34.60	801.98	88199.	2.30	38302.	1464.	11.10	0.0280	0.	53.	0.08
MILE	33.60	802.00	86216.	1.03	83767.	2578.	9.81	0.0290	0.	59.	0.03
MILE	31.50	801.87	81304.	2.15	37885.	2078.	11.78	0.0250	0.	63.	0.09
MILE	30.10	801.81	79215.	1.94	40755.	993.	11.23	0.0200	0.	61.	0.05
MILE	29.00	801.79	78012.	1.78	43740.	1229.	12.20	0.0200	0.	62.	0.05
MILE	27.30	801.76	75953.	1.69	44900.	1209.	12.55	0.0230	0.	65.	0.05
MILE	25.20	801.73	73437.	1.35	54589.	1204.	13.36	0.0230	0.	67.	0.04
MILE	23.10	801.68	70854.	1.56	45391.	1278.	12.75	0.0230	0.	72.	0.05

ODATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 13.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	860.23	154167.	9.80	15738.	796.	8.90	0.0290	0.	42.	0.39
MILE	77.70	857.80	152479.	7.74	19693.	959.	9.76	0.0400	0.	47.	0.30
MILE	75.60	851.09	150202.	8.30	18098.	1425.	9.08	0.0400	0.	45.	0.41
MILE	73.50	843.26	148073.	8.70	17014.	1028.	8.96	0.0330	0.	44.	0.38
MILE	71.40	839.57	146428.	6.76	21645.	954.	7.86	0.0400	0.	42.	0.25
MILE	69.30	834.05	144839.	7.20	20129.	910.	8.54	0.0340	0.	35.	0.27
MILE	67.20	831.36	142526.	4.72	30193.	1816.	7.98	0.0340	0.	41.	0.20
MILE	65.10	827.93	138829.	6.07	22873.	2221.	8.59	0.0320	0.	41.	0.33
MILE	63.00	825.74	135007.	5.43	24846.	1906.	8.37	0.0400	0.	45.	0.27
MILE	60.90	820.73	131836.	6.88	19156.	1439.	8.99	0.0450	0.	44.	0.33
MILE	58.80	813.39	129685.	8.13	15952.	1021.	8.55	0.0400	0.	40.	0.36
MILE	57.00	811.51	128174.	8.03	15964.	1051.	8.79	0.0200	0.	37.	0.36
MILE	55.00	809.09	126540.	8.87	14259.	1016.	8.47	0.0200	0.	36.	0.42
MILE	53.10	808.13	124831.	5.90	21163.	1199.	7.90	0.0200	0.	35.	0.25
MILE	51.00	806.74	122343.	5.92	20652.	1626.	7.28	0.0200	0.	37.	0.29
MILE	48.30	805.73	116787.	4.08	28658.	3090.	7.62	0.0200	0.	37.	0.24
MILE	46.20	805.17	110797.	4.18	26509.	3180.	8.98	0.0200	0.	43.	0.26
MILE	44.10	805.09	105559.	2.45	43125.	2022.	9.91	0.0300	0.	50.	0.09
MILE	43.70	804.70	104840.	4.98	21055.	1873.	10.09	0.0300	0.	52.	0.26

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 187 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	42.00	804.21	101946.	3.01	33863.	1778.	7.99	0.0300	0.	54.	0.12
MILE	39.10	803.10	96956.	3.71	26130.	1759.	9.59	0.0230	0.	52.	0.17
MILE	37.00	803.03	93700.	2.00	46847.	1381.	9.24	0.0280	0.	52.	0.06
MILE	36.00	802.77	92473.	3.39	27245.	1066.	10.02	0.0280	0.	54.	0.12
MILE	34.60	802.66	90699.	2.32	39046.	1484.	11.23	0.0280	0.	54.	0.08
MILE	33.60	802.69	88686.	1.04	85680.	2614.	9.95	0.0290	0.	60.	0.03
MILE	31.50	802.56	83706.	2.17	38562.	2104.	11.90	0.0250	0.	64.	0.09
MILE	30.10	802.50	81591.	1.96	41551.	1000.	11.34	0.0200	0.	62.	0.05
MILE	29.00	802.47	80376.	1.81	44461.	1242.	12.32	0.0200	0.	63.	0.05
MILE	27.30	802.44	78295.	1.72	45606.	1221.	12.67	0.0230	0.	65.	0.05
MILE	25.20	802.41	75753.	1.37	55370.	1215.	13.48	0.0230	0.	68.	0.04
MILE	23.10	802.36	73140.	1.59	46103.	1294.	12.85	0.0230	0.	72.	0.05

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 14.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
 INFLOW DEPTH FROUDE

MILE	79.80	860.85	158333.	9.86	16062.	803.	8.95	0.0290	0.	42.	0.39
MILE	77.70	858.42	156669.	7.78	20142.	967.	9.80	0.0400	0.	48.	0.30
MILE	75.60	851.67	154410.	8.37	18450.	1452.	9.12	0.0400	0.	45.	0.41
MILE	73.50	843.77	152314.	8.79	17323.	1045.	9.01	0.0330	0.	45.	0.38
MILE	71.40	840.11	150778.	6.80	22187.	969.	7.92	0.0400	0.	42.	0.25
MILE	69.30	834.60	149080.	7.24	20583.	924.	8.60	0.0340	0.	36.	0.27
MILE	67.20	831.92	146702.	4.74	30919.	1857.	8.04	0.0340	0.	41.	0.20
MILE	65.10	828.50	142939.	6.10	23417.	2272.	8.64	0.0320	0.	41.	0.34
MILE	63.00	826.32	139063.	5.43	25629.	1938.	8.38	0.0400	0.	45.	0.26
MILE	60.90	821.31	135841.	6.92	19639.	1470.	9.01	0.0450	0.	45.	0.33
MILE	58.80	813.93	133646.	8.09	16527.	1040.	8.51	0.0400	0.	41.	0.36
MILE	57.00	812.04	132073.	8.05	16403.	1072.	8.80	0.0200	0.	37.	0.36
MILE	55.00	809.63	130368.	8.90	14649.	1037.	8.50	0.0200	0.	36.	0.42
MILE	53.10	808.70	128583.	5.90	21805.	1226.	7.94	0.0200	0.	35.	0.25
MILE	51.00	807.32	125983.	5.93	21248.	1660.	7.34	0.0200	0.	38.	0.29
MILE	48.30	806.35	120183.	4.07	29530.	3173.	7.75	0.0200	0.	37.	0.24
MILE	46.20	805.81	113941.	4.19	27208.	3261.	9.08	0.0200	0.	44.	0.26
MILE	44.10	805.73	108528.	2.45	44219.	2052.	9.97	0.0300	0.	51.	0.09
MILE	43.70	805.34	107786.	5.02	21477.	1903.	10.20	0.0300	0.	52.	0.26
MILE	42.00	804.87	104825.	3.00	34968.	1806.	8.09	0.0300	0.	55.	0.12
MILE	39.10	803.78	99738.	3.73	26767.	1789.	9.72	0.0230	0.	53.	0.17
MILE	37.00	803.71	96429.	2.01	48020.	1400.	9.38	0.0280	0.	52.	0.06
MILE	36.00	803.46	95187.	3.42	27858.	1078.	10.15	0.0280	0.	54.	0.12
MILE	34.60	803.35	93393.	2.35	39791.	1503.	11.35	0.0280	0.	55.	0.08
MILE	33.60	803.38	91357.	1.04	87594.	2650.	10.09	0.0290	0.	60.	0.03
MILE	31.50	803.24	86320.	2.20	39240.	2130.	12.01	0.0250	0.	64.	0.09
MILE	30.10	803.18	84183.	1.99	42350.	1008.	11.44	0.0200	0.	62.	0.05
MILE	29.00	803.16	82957.	1.84	45182.	1256.	12.43	0.0200	0.	63.	0.05
MILE	27.30	803.12	80856.	1.75	46311.	1234.	12.79	0.0230	0.	66.	0.05
MILE	25.20	803.10	78290.	1.39	56151.	1227.	13.59	0.0230	0.	69.	0.04

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Subject: SOCH Model Calibration, Melton Hill			Prepped
Appendix E			Checked
			ACM

MILE 23.10 803.04 75646. 1.62 46818. 1310. 12.96 0.0230 0. 73. 0.05

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 15.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80	861.44	162500.	9.92	16376.	810.	8.99	0.0290	0.	43.	0.39
MILE 77.70	859.03	160897.	7.82	20584.	975.	9.84	0.0400	0.	48.	0.30
MILE 75.60	852.25	158733.	8.44	18802.	1478.	9.16	0.0400	0.	46.	0.42
MILE 73.50	844.28	156731.	8.89	17629.	1062.	9.07	0.0330	0.	45.	0.38
MILE 71.40	840.63	155224.	6.83	22717.	983.	8.03	0.0400	0.	43.	0.25
MILE 69.30	835.15	153523.	7.30	21035.	939.	8.65	0.0340	0.	36.	0.27
MILE 67.20	832.49	151106.	4.77	31652.	1898.	8.09	0.0340	0.	42.	0.21
MILE 65.10	829.06	147240.	6.14	23968.	2323.	8.68	0.0320	0.	42.	0.34
MILE 63.00	826.89	143275.	5.42	26430.	1969.	8.39	0.0400	0.	46.	0.26
MILE 60.90	821.89	139992.	6.95	20131.	1502.	9.03	0.0450	0.	45.	0.33
MILE 58.80	814.48	137756.	8.04	17124.	1059.	8.49	0.0400	0.	41.	0.35
MILE 57.00	812.58	136106.	8.07	16864.	1093.	8.81	0.0200	0.	38.	0.36
MILE 55.00	810.18	134276.	8.92	15054.	1058.	8.53	0.0200	0.	37.	0.42
MILE 53.10	809.28	132428.	5.89	22473.	1253.	7.98	0.0200	0.	36.	0.25
MILE 51.00	807.92	129752.	5.94	21860.	1695.	7.40	0.0200	0.	39.	0.29
MILE 48.30	806.98	123711.	4.07	30412.	3256.	7.89	0.0200	0.	38.	0.23
MILE 46.20	806.45	117236.	4.20	27917.	3343.	9.18	0.0200	0.	45.	0.26
MILE 44.10	806.38	111651.	2.46	45335.	2082.	10.03	0.0300	0.	51.	0.09
MILE 43.70	805.98	110889.	5.06	21905.	1933.	10.31	0.0300	0.	53.	0.27
MILE 42.00	805.53	107849.	2.99	36094.	1835.	8.18	0.0300	0.	56.	0.12
MILE 39.10	804.46	102656.	3.75	27407.	1819.	9.84	0.0230	0.	53.	0.17
MILE 37.00	804.40	99288.	2.02	49197.	1419.	9.51	0.0280	0.	53.	0.06
MILE 36.00	804.14	98028.	3.44	28473.	1090.	10.28	0.0280	0.	55.	0.12
MILE 34.60	804.04	96209.	2.37	40539.	1522.	11.46	0.0280	0.	56.	0.08
MILE 33.60	804.06	94142.	1.05	89512.	2685.	10.23	0.0290	0.	61.	0.03
MILE 31.50	803.93	89032.	2.23	39920.	2156.	12.12	0.0250	0.	65.	0.09
MILE 30.10	803.87	86870.	2.01	43154.	1016.	11.54	0.0200	0.	63.	0.05
MILE 29.00	803.84	85631.	1.87	45903.	1270.	12.55	0.0200	0.	64.	0.05
MILE 27.30	803.81	83504.	1.78	47018.	1246.	12.90	0.0230	0.	67.	0.05
MILE 25.20	803.78	80911.	1.42	56932.	1239.	13.71	0.0230	0.	69.	0.04
MILE 23.10	803.73	78237.	1.65	47534.	1327.	13.06	0.0230	0.	74.	0.05

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 16.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE 79.80 862.02 166667. 9.99 16684. 816. 9.04 0.0290 0. 43. 0.39

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 189 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	77.70	859.61	165092.	7.86	21016.	983.	9.87	0.0400	0.	49.	0.30
MILE	75.60	852.80	162951.	8.51	19144.	1504.	9.20	0.0400	0.	46.	0.42
MILE	73.50	844.77	160957.	8.98	17925.	1078.	9.12	0.0330	0.	46.	0.39
MILE	71.40	841.14	159454.	6.86	23229.	997.	8.14	0.0400	0.	43.	0.25
MILE	69.30	835.68	157774.	7.35	21474.	953.	8.70	0.0340	0.	37.	0.27
MILE	67.20	833.04	155362.	4.80	32380.	1938.	8.15	0.0340	0.	42.	0.21
MILE	65.10	829.62	151495.	6.18	24520.	2374.	8.72	0.0320	0.	43.	0.34
MILE	63.00	827.46	147525.	5.42	27241.	2001.	8.40	0.0400	0.	46.	0.26
MILE	60.90	822.46	144214.	6.99	20631.	1533.	9.05	0.0450	0.	46.	0.34
MILE	58.80	815.03	141893.	8.00	17738.	1079.	8.47	0.0400	0.	42.	0.35
MILE	57.00	813.13	140220.	8.08	17343.	1115.	8.83	0.0200	0.	38.	0.36
MILE	55.00	810.74	138320.	8.94	15480.	1080.	8.53	0.0200	0.	37.	0.42
MILE	53.10	809.87	136393.	5.89	23164.	1281.	8.03	0.0200	0.	37.	0.24
MILE	51.00	808.52	133612.	5.94	22491.	1729.	7.46	0.0200	0.	39.	0.29
MILE	48.30	807.61	127343.	4.07	31305.	3339.	8.02	0.0200	0.	39.	0.23
MILE	46.20	807.09	120632.	4.21	28637.	3426.	9.28	0.0200	0.	45.	0.26
MILE	44.10	807.03	114884.	2.47	46472.	2112.	10.09	0.0300	0.	52.	0.09
MILE	43.70	806.62	114104.	5.11	22336.	1964.	10.42	0.0300	0.	54.	0.27
MILE	42.00	806.19	110994.	2.98	37240.	1864.	8.27	0.0300	0.	56.	0.12
MILE	39.10	805.15	105695.	3.77	28053.	1849.	9.95	0.0230	0.	54.	0.17
MILE	37.00	805.08	102264.	2.03	50379.	1438.	9.65	0.0280	0.	54.	0.06
MILE	36.00	804.83	100984.	3.47	29090.	1102.	10.40	0.0280	0.	56.	0.12
MILE	34.60	804.72	99140.	2.40	41288.	1541.	11.58	0.0280	0.	56.	0.08
MILE	33.60	804.75	97041.	1.06	91433.	2721.	10.36	0.0290	0.	62.	0.03
MILE	31.50	804.62	91859.	2.26	40602.	2182.	12.24	0.0250	0.	66.	0.09
MILE	30.10	804.55	89672.	2.04	43961.	1024.	11.64	0.0200	0.	64.	0.05
MILE	29.00	804.53	88420.	1.90	46625.	1284.	12.67	0.0200	0.	65.	0.06
MILE	27.30	804.49	86269.	1.81	47725.	1258.	13.02	0.0230	0.	67.	0.05
MILE	25.20	804.46	83648.	1.45	57713.	1251.	13.82	0.0230	0.	70.	0.04
MILE	23.10	804.41	80944.	1.68	48252.	1343.	13.17	0.0230	0.	74.	0.05

ODATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	17.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	862.59	170833.	10.05	16991.	822.	9.08	0.0290	0.	44.	0.39
MILE	77.70	860.18	169247.	7.90	21436.	990.	9.91	0.0400	0.	49.	0.30
MILE	75.60	853.34	167118.	8.58	19482.	1529.	9.24	0.0400	0.	47.	0.42
MILE	73.50	845.24	165106.	9.07	18210.	1096.	9.16	0.0330	0.	46.	0.39
MILE	71.40	841.63	163615.	6.89	23730.	1010.	8.24	0.0400	0.	44.	0.25
MILE	69.30	836.20	161945.	7.39	21907.	967.	8.74	0.0340	0.	38.	0.27
MILE	67.20	833.58	159505.	4.82	33101.	1977.	8.20	0.0340	0.	43.	0.21
MILE	65.10	830.17	155572.	6.21	25051.	2423.	8.76	0.0320	0.	43.	0.34
MILE	63.00	828.01	151568.	5.40	28047.	2031.	8.42	0.0400	0.	47.	0.26
MILE	60.90	823.03	148170.	7.01	21130.	1564.	9.07	0.0450	0.	47.	0.34
MILE	58.80	815.59	145705.	7.97	18289.	1099.	8.43	0.0400	0.	43.	0.34
MILE	57.00	813.70	144048.	8.07	17843.	1137.	8.85	0.0200	0.	39.	0.36

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 190 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	55.00	811.32	142176.	8.93	15923.	1102.	8.54	0.0200	0.	38.	0.41
MILE	53.10	810.46	140213.	5.89	23820.	1308.	8.07	0.0200	0.	37.	0.24
MILE	51.00	809.13	137412.	5.94	23141.	1764.	7.51	0.0200	0.	40.	0.29
MILE	48.30	808.25	130996.	4.07	32208.	3423.	8.15	0.0200	0.	39.	0.23
MILE	46.20	807.74	124103.	4.23	29368.	3509.	9.37	0.0200	0.	46.	0.26
MILE	44.10	807.68	118232.	2.48	47633.	2142.	10.15	0.0300	0.	52.	0.09
MILE	43.70	807.26	117438.	5.16	22772.	1995.	10.53	0.0300	0.	54.	0.27
MILE	42.00	806.86	114269.	2.98	38407.	1893.	8.36	0.0300	0.	57.	0.12
MILE	39.10	805.83	108865.	3.79	28712.	1880.	10.07	0.0230	0.	55.	0.17
MILE	37.00	805.77	105373.	2.04	51573.	1457.	9.78	0.0280	0.	54.	0.06
MILE	36.00	805.51	104075.	3.50	29719.	1114.	10.52	0.0280	0.	57.	0.12
MILE	34.60	805.41	102206.	2.43	42047.	1560.	11.70	0.0280	0.	57.	0.08
MILE	33.60	805.44	100074.	1.07	93372.	2757.	10.49	0.0290	0.	63.	0.03
MILE	31.50	805.30	94814.	2.30	41295.	2208.	12.35	0.0250	0.	67.	0.09
MILE	30.10	805.24	92597.	2.07	44775.	1032.	11.74	0.0200	0.	64.	0.06
MILE	29.00	805.21	91330.	1.93	47353.	1298.	12.78	0.0200	0.	66.	0.06
MILE	27.30	805.17	89153.	1.84	48436.	1270.	13.13	0.0230	0.	68.	0.05
MILE	25.20	805.14	86505.	1.48	58494.	1262.	13.93	0.0230	0.	71.	0.04
MILE	23.10	805.09	83764.	1.71	48972.	1359.	13.27	0.0230	0.	75.	0.05

ODATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 18.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL			
INFLOW DEPTH	FROUDE										
MILE	79.80	863.15	175000.	10.11	17303.	828.	9.13	0.0290	0.	44.	0.39
MILE	77.70	860.75	173418.	7.94	21843.	997.	9.95	0.0400	0.	50.	0.30
MILE	75.60	853.87	171276.	8.64	19821.	1553.	9.28	0.0400	0.	47.	0.43
MILE	73.50	845.71	169230.	9.15	18488.	1115.	9.21	0.0330	0.	47.	0.40
MILE	71.40	842.11	167709.	6.92	24224.	1023.	8.34	0.0400	0.	44.	0.25
MILE	69.30	836.71	166022.	7.43	22337.	981.	8.79	0.0340	0.	38.	0.27
MILE	67.20	834.11	163554.	4.84	33815.	2016.	8.25	0.0340	0.	43.	0.21
MILE	65.10	830.69	159581.	6.25	25545.	2471.	8.80	0.0320	0.	44.	0.34
MILE	63.00	828.55	155558.	5.39	28845.	2061.	8.44	0.0400	0.	48.	0.25
MILE	60.90	823.58	152164.	7.04	21629.	1594.	9.09	0.0450	0.	47.	0.34
MILE	58.80	816.16	149713.	7.94	18859.	1120.	8.39	0.0400	0.	43.	0.34
MILE	57.00	814.28	148021.	8.06	18363.	1159.	8.87	0.0200	0.	39.	0.36
MILE	55.00	811.91	146100.	8.91	16391.	1125.	8.55	0.0200	0.	38.	0.41
MILE	53.10	811.05	144099.	5.89	24477.	1336.	8.11	0.0200	0.	38.	0.24
MILE	51.00	809.74	141214.	5.93	23809.	1800.	7.57	0.0200	0.	40.	0.29
MILE	48.30	808.89	134625.	4.06	33119.	3508.	8.29	0.0200	0.	40.	0.23
MILE	46.20	808.39	127558.	4.24	30108.	3593.	9.47	0.0200	0.	47.	0.26
MILE	44.10	808.33	121558.	2.49	48812.	2172.	10.21	0.0300	0.	53.	0.09
MILE	43.70	807.91	120752.	5.20	23211.	2026.	10.64	0.0300	0.	55.	0.27
MILE	42.00	807.53	117535.	2.97	39591.	1922.	8.45	0.0300	0.	58.	0.12
MILE	39.10	806.51	112055.	3.81	29376.	1910.	10.18	0.0230	0.	56.	0.17
MILE	37.00	806.45	108523.	2.06	52770.	1476.	9.91	0.0280	0.	55.	0.06
MILE	36.00	806.20	107214.	3.53	30355.	1126.	10.64	0.0280	0.	57.	0.12

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	34.60	806.09	105327.	2.46	42813.	1580.	11.81	0.0280	0.	58.	0.08
MILE	33.60	806.13	103174.	1.08	95323.	2792.	10.62	0.0290	0.	63.	0.03
MILE	31.50	805.99	97861.	2.33	42000.	2234.	12.45	0.0250	0.	67.	0.09
MILE	30.10	805.92	95626.	2.10	45597.	1040.	11.84	0.0200	0.	65.	0.06
MILE	29.00	805.90	94350.	1.96	48091.	1312.	12.90	0.0200	0.	66.	0.06
MILE	27.30	805.86	92153.	1.87	49159.	1282.	13.24	0.0230	0.	69.	0.05
MILE	25.20	805.83	89480.	1.51	59275.	1274.	14.05	0.0230	0.	71.	0.04
MILE	23.10	805.77	86713.	1.74	49694.	1375.	13.38	0.0230	0.	76.	0.05

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	19.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	863.72	179167.	10.17	17615.	834.	9.18	0.0290	0.	45.	0.39
MILE	77.70	861.31	177589.	7.98	22251.	1003.	9.98	0.0400	0.	51.	0.30
MILE	75.60	854.40	175435.	8.70	20160.	1578.	9.32	0.0400	0.	48.	0.43
MILE	73.50	846.17	173361.	9.24	18766.	1135.	9.25	0.0330	0.	47.	0.40
MILE	71.40	842.58	171822.	6.95	24714.	1036.	8.44	0.0400	0.	45.	0.25
MILE	69.30	837.22	170133.	7.47	22766.	994.	8.83	0.0340	0.	39.	0.28
MILE	67.20	834.64	167654.	4.86	34527.	2054.	8.30	0.0340	0.	44.	0.21
MILE	65.10	831.21	163658.	6.29	26038.	2517.	8.84	0.0320	0.	44.	0.34
MILE	63.00	829.09	159617.	5.38	29652.	2091.	8.46	0.0400	0.	48.	0.25
MILE	60.90	824.12	156207.	7.06	22121.	1623.	9.12	0.0450	0.	48.	0.34
MILE	58.80	816.72	153756.	7.91	19440.	1140.	8.37	0.0400	0.	44.	0.34
MILE	57.00	814.86	152029.	8.05	18892.	1181.	8.89	0.0200	0.	40.	0.35
MILE	55.00	812.50	150061.	8.89	16871.	1148.	8.57	0.0200	0.	39.	0.41
MILE	53.10	811.65	147998.	5.88	25152.	1364.	8.16	0.0200	0.	38.	0.24
MILE	51.00	810.36	145024.	5.93	24465.	1836.	7.63	0.0200	0.	41.	0.29
MILE	48.30	809.54	138279.	4.06	34039.	3593.	8.42	0.0200	0.	41.	0.23
MILE	46.20	809.04	131057.	4.25	30858.	3676.	9.57	0.0200	0.	47.	0.26
MILE	44.10	808.99	124950.	2.50	50011.	2202.	10.27	0.0300	0.	54.	0.09
MILE	43.70	808.56	124133.	5.25	23652.	2057.	10.74	0.0300	0.	56.	0.27
MILE	42.00	808.19	120864.	2.96	40794.	1951.	8.54	0.0300	0.	58.	0.11
MILE	39.10	807.19	115300.	3.84	30043.	1940.	10.29	0.0230	0.	56.	0.17
MILE	37.00	807.14	111713.	2.07	53972.	1495.	10.04	0.0280	0.	56.	0.06
MILE	36.00	806.88	110387.	3.56	30992.	1137.	10.75	0.0280	0.	58.	0.12
MILE	34.60	806.78	108480.	2.49	43581.	1599.	11.92	0.0280	0.	58.	0.08
MILE	33.60	806.81	106298.	1.09	97277.	2828.	10.75	0.0290	0.	64.	0.03
MILE	31.50	806.67	100918.	2.36	42708.	2260.	12.56	0.0250	0.	68.	0.10
MILE	30.10	806.61	98659.	2.13	46423.	1047.	11.94	0.0200	0.	66.	0.06
MILE	29.00	806.58	97371.	1.99	48831.	1326.	13.01	0.0200	0.	67.	0.06
MILE	27.30	806.54	95153.	1.91	49883.	1294.	13.35	0.0230	0.	69.	0.05
MILE	25.20	806.51	92457.	1.54	60056.	1286.	14.16	0.0230	0.	72.	0.04
MILE	23.10	806.45	89663.	1.78	50417.	1392.	13.48	0.0230	0.	76.	0.05

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Appendix E		Checked	ACM

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 20.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	864.27	183333.	10.23	17926.	840.	9.22	0.0290	0.	46.	0.39
MILE	77.70	861.87	181763.	8.02	22660.	1009.	10.02	0.0400	0.	51.	0.30
MILE	75.60	854.93	179603.	8.76	20502.	1602.	9.36	0.0400	0.	48.	0.43
MILE	73.50	846.62	177501.	9.32	19040.	1154.	9.29	0.0330	0.	47.	0.40
MILE	71.40	843.05	175928.	6.98	25195.	1049.	8.53	0.0400	0.	45.	0.25
MILE	69.30	837.71	174258.	7.51	23195.	1008.	8.88	0.0340	0.	39.	0.28
MILE	67.20	835.15	171742.	4.88	35226.	2091.	8.36	0.0340	0.	44.	0.21
MILE	65.10	831.72	167738.	6.32	26534.	2564.	8.88	0.0320	0.	45.	0.35
MILE	63.00	829.61	163690.	5.37	30467.	2120.	8.48	0.0400	0.	49.	0.25
MILE	60.90	824.65	160264.	7.09	22607.	1652.	9.14	0.0450	0.	48.	0.34
MILE	58.80	817.27	157790.	7.88	20025.	1159.	8.35	0.0400	0.	44.	0.33
MILE	57.00	815.43	155994.	8.02	19440.	1204.	8.88	0.0200	0.	41.	0.35
MILE	55.00	813.09	153999.	8.87	17360.	1170.	8.58	0.0200	0.	40.	0.41
MILE	53.10	812.26	151895.	5.88	25841.	1393.	8.20	0.0200	0.	39.	0.24
MILE	51.00	810.98	148860.	5.93	25113.	1872.	7.69	0.0200	0.	42.	0.29
MILE	48.30	810.19	141956.	4.06	34966.	3679.	8.55	0.0200	0.	41.	0.23
MILE	46.20	809.70	134565.	4.26	31616.	3760.	9.67	0.0200	0.	48.	0.26
MILE	44.10	809.65	128342.	2.51	51228.	2233.	10.33	0.0300	0.	54.	0.09
MILE	43.70	809.21	127513.	5.29	24097.	2088.	10.85	0.0300	0.	56.	0.27
MILE	42.00	808.87	124196.	2.96	42014.	1981.	8.63	0.0300	0.	59.	0.11
MILE	39.10	807.87	118555.	3.86	30714.	1971.	10.40	0.0230	0.	57.	0.17
MILE	37.00	807.83	114923.	2.08	55177.	1514.	10.16	0.0280	0.	57.	0.06
MILE	36.00	807.57	113584.	3.59	31633.	1149.	10.87	0.0280	0.	59.	0.12
MILE	34.60	807.46	111658.	2.52	44352.	1618.	12.03	0.0280	0.	59.	0.08
MILE	33.60	807.50	109452.	1.10	99236.	2864.	10.88	0.0290	0.	65.	0.03
MILE	31.50	807.36	104017.	2.40	43419.	2287.	12.66	0.0250	0.	69.	0.10
MILE	30.10	807.29	101738.	2.15	47254.	1055.	12.03	0.0200	0.	66.	0.06
MILE	29.00	807.26	100440.	2.03	49572.	1340.	13.12	0.0200	0.	68.	0.06
MILE	27.30	807.23	98204.	1.94	50609.	1307.	13.46	0.0230	0.	70.	0.05
MILE	25.20	807.19	95485.	1.57	60837.	1298.	14.27	0.0230	0.	73.	0.04
MILE	23.10	807.13	92665.	1.81	51143.	1408.	13.58	0.0230	0.	77.	0.05

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 21.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	864.83	187500.	10.28	18243.	846.	9.27	0.0290	0.	46.	0.39
MILE	77.70	862.43	185905.	8.06	23071.	1016.	10.05	0.0400	0.	52.	0.30
MILE	75.60	855.45	183672.	8.82	20830.	1625.	9.40	0.0400	0.	49.	0.43
MILE	73.50	847.06	181550.	9.40	19305.	1172.	9.33	0.0330	0.	48.	0.41
MILE	71.40	843.49	179979.	7.02	25653.	1061.	8.62	0.0400	0.	46.	0.25

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	69.30	838.22	178323.	7.55	23632.	1021.	8.92	0.0340	0.	40.	0.28
MILE	67.20	835.67	175829.	4.90	35892.	2129.	8.41	0.0340	0.	45.	0.21
MILE	65.10	832.23	171819.	6.36	27032.	2610.	8.92	0.0320	0.	45.	0.35
MILE	63.00	830.14	167718.	5.37	31260.	2149.	8.51	0.0400	0.	49.	0.25
MILE	60.90	825.17	164318.	7.11	23097.	1680.	9.16	0.0450	0.	49.	0.34
MILE	58.80	817.83	161876.	7.85	20633.	1179.	8.33	0.0400	0.	45.	0.33
MILE	57.00	815.99	160060.	8.01	19994.	1226.	8.86	0.0200	0.	41.	0.35
MILE	55.00	813.68	158017.	8.85	17856.	1193.	8.60	0.0200	0.	40.	0.40
MILE	53.10	812.86	155855.	5.87	26542.	1421.	8.24	0.0200	0.	40.	0.24
MILE	51.00	811.60	152735.	5.93	25775.	1908.	7.75	0.0200	0.	42.	0.28
MILE	48.30	810.83	145656.	4.06	35897.	3764.	8.67	0.0200	0.	42.	0.23
MILE	46.20	810.36	138077.	4.26	32384.	3845.	9.76	0.0200	0.	49.	0.26
MILE	44.10	810.31	131748.	2.51	52478.	2263.	10.38	0.0300	0.	55.	0.09
MILE	43.70	809.87	130907.	5.33	24542.	2119.	10.96	0.0300	0.	57.	0.28
MILE	42.00	809.54	127547.	2.95	43250.	2010.	8.72	0.0300	0.	60.	0.11
MILE	39.10	808.56	121831.	3.88	31389.	2001.	10.51	0.0230	0.	58.	0.17
MILE	37.00	808.51	118153.	2.10	56386.	1533.	10.29	0.0280	0.	57.	0.06
MILE	36.00	808.25	116801.	3.62	32276.	1161.	10.98	0.0280	0.	59.	0.12
MILE	34.60	808.15	114856.	2.55	45125.	1637.	12.14	0.0280	0.	60.	0.09
MILE	33.60	808.19	112626.	1.11	101198.	2899.	11.01	0.0290	0.	65.	0.03
MILE	31.50	808.04	107136.	2.43	44131.	2313.	12.77	0.0250	0.	69.	0.10
MILE	30.10	807.98	104836.	2.18	48089.	1063.	12.13	0.0200	0.	67.	0.06
MILE	29.00	807.95	103528.	2.06	50315.	1354.	13.23	0.0200	0.	68.	0.06
MILE	27.30	807.91	101272.	1.97	51336.	1319.	13.56	0.0230	0.	71.	0.06
MILE	25.20	807.88	98532.	1.60	61618.	1309.	14.38	0.0230	0.	73.	0.04
MILE	23.10	807.82	95685.	1.84	51871.	1424.	13.68	0.0230	0.	78.	0.05

0DATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 22.0000 ELEVATION DISCHARGE VELOCITY AREA WIDTH R(2/3) MANN N LOCAL
INFLOW DEPTH FROUDE

MILE	79.80	865.39	191667.	10.33	18555.	851.	9.31	0.0290	0.	47.	0.39
MILE	77.70	862.98	190079.	8.09	23489.	1022.	10.09	0.0400	0.	52.	0.30
MILE	75.60	855.96	187844.	8.88	21160.	1649.	9.43	0.0400	0.	49.	0.44
MILE	73.50	847.49	185701.	9.49	19573.	1190.	9.37	0.0330	0.	48.	0.41
MILE	71.40	843.94	184114.	7.05	26114.	1073.	8.71	0.0400	0.	46.	0.25
MILE	69.30	838.71	182448.	7.58	24073.	1035.	8.97	0.0340	0.	40.	0.28
MILE	67.20	836.18	179927.	4.92	36565.	2166.	8.46	0.0340	0.	45.	0.21
MILE	65.10	832.74	175874.	6.39	27542.	2657.	8.95	0.0320	0.	46.	0.35
MILE	63.00	830.67	171766.	5.37	31987.	2178.	8.54	0.0400	0.	50.	0.25
MILE	60.90	825.72	168340.	7.13	23602.	1710.	9.17	0.0450	0.	49.	0.34
MILE	58.80	818.37	165885.	7.81	21233.	1199.	8.32	0.0400	0.	45.	0.33
MILE	57.00	816.54	164042.	7.98	20546.	1247.	8.85	0.0200	0.	42.	0.35
MILE	55.00	814.26	161955.	8.82	18355.	1216.	8.62	0.0200	0.	41.	0.40
MILE	53.10	813.45	159748.	5.86	27249.	1449.	8.29	0.0200	0.	40.	0.24
MILE	51.00	812.22	156572.	5.92	26444.	1943.	7.81	0.0200	0.	43.	0.28
MILE	48.30	811.48	149342.	4.06	36829.	3849.	8.80	0.0200	0.	43.	0.23

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 194 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 46.20	811.01	141608.	4.27	33163.	3928.	9.84	0.0200	0.	49.	0.26
MILE 44.10	810.96	135165.	2.51	53764.	2293.	10.41	0.0300	0.	56.	0.09
MILE 43.70	810.52	134314.	5.37	24991.	2150.	11.06	0.0300	0.	58.	0.28
MILE 42.00	810.20	130902.	2.94	44495.	2039.	8.80	0.0300	0.	60.	0.11
MILE 39.10	809.24	125113.	3.90	32066.	2031.	10.62	0.0230	0.	58.	0.17
MILE 37.00	809.20	121390.	2.11	57596.	1552.	10.41	0.0280	0.	58.	0.06
MILE 36.00	808.93	120024.	3.65	32920.	1173.	11.10	0.0280	0.	60.	0.12
MILE 34.60	808.83	118058.	2.57	45900.	1656.	12.25	0.0280	0.	60.	0.09
MILE 33.60	808.87	115800.	1.12	103162.	2935.	11.14	0.0290	0.	66.	0.03
MILE 31.50	808.73	110243.	2.46	44846.	2339.	12.87	0.0250	0.	70.	0.10
MILE 30.10	808.66	107919.	2.21	48928.	1071.	12.22	0.0200	0.	68.	0.06
MILE 29.00	808.63	106597.	2.09	51059.	1368.	13.34	0.0200	0.	69.	0.06
MILE 27.30	808.59	104319.	2.00	52063.	1331.	13.67	0.0230	0.	71.	0.06
MILE 25.20	808.56	101553.	1.63	62399.	1321.	14.49	0.0230	0.	74.	0.04
MILE 23.10	808.50	98677.	1.88	52600.	1440.	13.78	0.0230	0.	78.	0.05

ODATE 10-06-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 23.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW DEPTH	FROUDE									
MILE 79.80	865.93	195833.	10.38	18861.	855.	9.34	0.0290	0.	47.	0.39
MILE 77.70	863.53	194268.	8.13	23906.	1028.	10.12	0.0400	0.	53.	0.30
MILE 75.60	856.48	192061.	8.94	21493.	1673.	9.46	0.0400	0.	50.	0.44
MILE 73.50	847.93	189925.	9.57	19846.	1208.	9.42	0.0330	0.	49.	0.42
MILE 71.40	844.39	188338.	7.09	26582.	1085.	8.80	0.0400	0.	47.	0.25
MILE 69.30	839.22	186668.	7.61	24524.	1048.	9.01	0.0340	0.	41.	0.28
MILE 67.20	836.70	184131.	4.94	37250.	2204.	8.51	0.0340	0.	46.	0.21
MILE 65.10	833.26	180042.	6.42	28063.	2704.	8.99	0.0320	0.	46.	0.35
MILE 63.00	831.19	175907.	5.38	32726.	2207.	8.58	0.0400	0.	50.	0.25
MILE 60.90	826.26	172470.	7.15	24114.	1740.	9.19	0.0450	0.	50.	0.34
MILE 58.80	818.91	170001.	7.78	21847.	1218.	8.32	0.0400	0.	46.	0.32
MILE 57.00	817.10	168107.	7.96	21116.	1268.	8.84	0.0200	0.	42.	0.34
MILE 55.00	814.84	165955.	8.80	18862.	1238.	8.64	0.0200	0.	41.	0.40
MILE 53.10	814.05	163680.	5.85	27971.	1477.	8.34	0.0200	0.	41.	0.24
MILE 51.00	812.84	160441.	5.92	27120.	1979.	7.86	0.0200	0.	44.	0.28
MILE 48.30	812.12	153041.	4.05	37759.	3934.	8.92	0.0200	0.	43.	0.23
MILE 46.20	811.66	145122.	4.28	33946.	4012.	9.92	0.0200	0.	50.	0.26
MILE 44.10	811.62	138546.	2.52	55064.	2323.	10.45	0.0300	0.	56.	0.09
MILE 43.70	811.17	137681.	5.41	25440.	2181.	11.17	0.0300	0.	58.	0.28
MILE 42.00	810.87	134212.	2.93	45743.	2068.	8.88	0.0300	0.	61.	0.11
MILE 39.10	809.92	128340.	3.92	32745.	2061.	10.73	0.0230	0.	59.	0.17
MILE 37.00	809.88	124572.	2.12	58807.	1571.	10.54	0.0280	0.	59.	0.06
MILE 36.00	809.62	123193.	3.67	33566.	1184.	11.21	0.0280	0.	61.	0.12
MILE 34.60	809.52	121209.	2.60	46676.	1676.	12.35	0.0280	0.	61.	0.09
MILE 33.60	809.56	118929.	1.13	105127.	2970.	11.26	0.0290	0.	67.	0.03
MILE 31.50	809.41	113317.	2.49	45563.	2365.	12.97	0.0250	0.	71.	0.10
MILE 30.10	809.34	110972.	2.23	49771.	1079.	12.31	0.0200	0.	69.	0.06

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	29.00	809.32	109640.	2.12	51803.	1382.	13.44	0.0200	0.	70.	0.06
MILE	27.30	809.28	107342.	2.03	52792.	1343.	13.78	0.0230	0.	72.	0.06
MILE	25.20	809.24	104553.	1.65	63179.	1333.	14.60	0.0230	0.	75.	0.04
MILE	23.10	809.18	101648.	1.91	53331.	1456.	13.88	0.0230	0.	79.	0.06

0DATE 10-07-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN	N	LOCAL	
	INFLOW	DEPTH	FROUDE								
MILE	79.80	866.47	200000.	10.44	19164.	859.	9.38	0.0290	0.	48.	0.39
MILE	77.70	864.07	198462.	8.16	24319.	1034.	10.16	0.0400	0.	53.	0.30
MILE	75.60	856.99	196289.	8.99	21827.	1696.	9.50	0.0400	0.	50.	0.44
MILE	73.50	848.37	194170.	9.65	20122.	1226.	9.46	0.0330	0.	49.	0.42
MILE	71.40	844.84	192591.	7.12	27055.	1098.	8.89	0.0400	0.	47.	0.25
MILE	69.30	839.73	190929.	7.64	24981.	1062.	9.06	0.0340	0.	41.	0.28
MILE	67.20	837.22	188390.	4.97	37942.	2242.	8.56	0.0340	0.	47.	0.21
MILE	65.10	833.78	184291.	6.45	28590.	2751.	9.03	0.0320	0.	47.	0.35
MILE	63.00	831.72	180146.	5.38	33477.	2236.	8.61	0.0400	0.	51.	0.25
MILE	60.90	826.80	176690.	7.17	24636.	1769.	9.20	0.0450	0.	50.	0.34
MILE	58.80	819.45	174170.	7.75	22484.	1237.	8.32	0.0400	0.	46.	0.32
MILE	57.00	817.66	172202.	7.93	21711.	1290.	8.84	0.0200	0.	43.	0.34
MILE	55.00	815.42	169948.	8.77	19368.	1260.	8.64	0.0200	0.	42.	0.39
MILE	53.10	814.65	167640.	5.84	28705.	1505.	8.38	0.0200	0.	41.	0.24
MILE	51.00	813.45	164333.	5.91	27806.	2014.	7.92	0.0200	0.	44.	0.28
MILE	48.30	812.76	156759.	4.05	38690.	4018.	9.04	0.0200	0.	44.	0.23
MILE	46.20	812.31	148663.	4.28	34732.	4095.	10.01	0.0200	0.	51.	0.26
MILE	44.10	812.27	141962.	2.52	56379.	2353.	10.48	0.0300	0.	57.	0.09
MILE	43.70	811.81	141083.	5.45	25890.	2211.	11.27	0.0300	0.	59.	0.28
MILE	42.00	811.54	137557.	2.93	47004.	2097.	8.95	0.0300	0.	62.	0.11
MILE	39.10	810.60	131585.	3.94	33433.	2092.	10.83	0.0230	0.	60.	0.17
MILE	37.00	810.56	127755.	2.13	60021.	1590.	10.66	0.0280	0.	59.	0.06
MILE	36.00	810.30	126358.	3.69	34217.	1196.	11.32	0.0280	0.	61.	0.12
MILE	34.60	810.20	124348.	2.62	47456.	1695.	12.46	0.0280	0.	62.	0.09
MILE	33.60	810.25	122037.	1.14	107098.	3006.	11.38	0.0290	0.	67.	0.03
MILE	31.50	810.09	116352.	2.51	46283.	2391.	13.07	0.0250	0.	71.	0.10
MILE	30.10	810.03	113978.	2.25	50617.	1086.	12.40	0.0200	0.	69.	0.06
MILE	29.00	810.00	112629.	2.14	52549.	1396.	13.55	0.0200	0.	70.	0.06
MILE	27.30	809.96	110302.	2.06	53522.	1355.	13.88	0.0230	0.	73.	0.06
MILE	25.20	809.93	107481.	1.68	63960.	1345.	14.71	0.0230	0.	75.	0.04
MILE	23.10	809.86	104539.	1.93	54064.	1473.	13.98	0.0230	0.	80.	0.06

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 196 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

	TIME 1.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	866.73	200000.	10.35	19316.	861.	9.40	0.0290	0.	48.	0.39
MILE	77.70	864.38	199482.	8.12	24559.	1038.	10.18	0.0400	0.	54.	0.29
MILE	75.60	857.37	198530.	8.99	22079.	1714.	9.52	0.0400	0.	51.	0.44
MILE	73.50	848.76	197263.	9.69	20365.	1242.	9.49	0.0330	0.	50.	0.42
MILE	71.40	845.26	196102.	7.13	27500.	1109.	8.97	0.0400	0.	47.	0.25
MILE	69.30	840.21	194707.	7.66	25414.	1075.	9.10	0.0340	0.	42.	0.28
MILE	67.20	837.73	192361.	4.98	38626.	2278.	8.61	0.0340	0.	47.	0.21
MILE	65.10	834.29	188441.	6.47	29118.	2797.	9.07	0.0320	0.	47.	0.35
MILE	63.00	832.24	184360.	5.39	34233.	2265.	8.64	0.0400	0.	51.	0.24
MILE	60.90	827.34	180917.	7.19	25163.	1799.	9.22	0.0450	0.	51.	0.34
MILE	58.80	820.00	178370.	7.71	23134.	1257.	8.32	0.0400	0.	47.	0.32
MILE	57.00	818.23	176359.	7.90	22321.	1312.	8.83	0.0200	0.	43.	0.34
MILE	55.00	816.00	174044.	8.75	19886.	1282.	8.63	0.0200	0.	43.	0.39
MILE	53.10	815.25	171662.	5.83	29430.	1533.	8.43	0.0200	0.	42.	0.23
MILE	51.00	814.07	168272.	5.90	28506.	2050.	7.98	0.0200	0.	45.	0.28
MILE	48.30	813.40	160512.	4.05	39627.	4102.	9.16	0.0200	0.	44.	0.23
MILE	46.20	812.96	152224.	4.28	35527.	4178.	10.09	0.0200	0.	51.	0.26
MILE	44.10	812.92	145476.	2.52	57710.	2383.	10.52	0.0300	0.	58.	0.09
MILE	43.70	812.46	144631.	5.49	26338.	2242.	11.37	0.0300	0.	59.	0.28
MILE	42.00	812.18	141616.	2.94	48245.	2125.	9.03	0.0300	0.	62.	0.11
MILE	39.10	811.17	138287.	4.06	34021.	2117.	10.92	0.0230	0.	60.	0.18
MILE	37.00	811.08	137670.	2.26	60951.	1604.	10.75	0.0280	0.	60.	0.06
MILE	36.00	810.76	137486.	3.97	34662.	1204.	11.39	0.0280	0.	62.	0.13
MILE	34.60	810.61	137411.	2.87	47925.	1706.	12.52	0.0280	0.	62.	0.10
MILE	33.60	810.65	137231.	1.27	108260.	3027.	11.45	0.0290	0.	68.	0.04
MILE	31.50	810.41	136752.	2.93	46628.	2403.	13.12	0.0250	0.	72.	0.12
MILE	30.10	810.29	136698.	2.68	50942.	1089.	12.44	0.0200	0.	69.	0.07
MILE	29.00	810.22	136816.	2.59	52797.	1401.	13.58	0.0200	0.	71.	0.07
MILE	27.30	810.12	137353.	2.56	53695.	1358.	13.91	0.0230	0.	73.	0.07
MILE	25.20	810.02	137992.	2.15	64063.	1346.	14.72	0.0230	0.	76.	0.06
MILE	23.10	809.86	137897.	2.55	54064.	1473.	13.98	0.0230	0.	80.	0.07

0DATE 10-07-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

	TIME 2.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
	INFLOW DEPTH	FROUDE									
MILE	79.80	866.86	200000.	10.32	19385.	862.	9.41	0.0290	0.	48.	0.38
MILE	77.70	864.52	199727.	8.10	24666.	1040.	10.19	0.0400	0.	54.	0.29
MILE	75.60	857.56	199208.	8.97	22206.	1723.	9.53	0.0400	0.	51.	0.44
MILE	73.50	849.00	198447.	9.67	20517.	1252.	9.52	0.0330	0.	50.	0.42
MILE	71.40	845.54	197660.	7.11	27812.	1117.	9.02	0.0400	0.	48.	0.25
MILE	69.30	840.60	196621.	7.64	25752.	1085.	9.14	0.0340	0.	42.	0.28
MILE	67.20	838.16	194711.	4.97	39212.	2310.	8.65	0.0340	0.	47.	0.21
MILE	65.10	834.76	191404.	6.47	29602.	2839.	9.11	0.0320	0.	48.	0.35

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Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE	63.00	832.73	187787.	5.37	34941.	2291.	8.68	0.0400	0.	52.	0.24
MILE	60.90	827.85	184604.	7.19	25672.	1826.	9.24	0.0450	0.	51.	0.34
MILE	58.80	820.54	182044.	7.68	23702.	1281.	8.31	0.0400	0.	47.	0.31
MILE	57.00	818.80	180137.	7.85	22948.	1334.	8.84	0.0200	0.	44.	0.33
MILE	55.00	816.59	177937.	8.71	20419.	1305.	8.63	0.0200	0.	43.	0.39
MILE	53.10	815.83	175803.	5.84	30109.	1560.	8.47	0.0200	0.	43.	0.23
MILE	51.00	814.65	173043.	5.93	29171.	2084.	8.04	0.0200	0.	45.	0.28
MILE	48.30	813.95	168103.	4.16	40426.	4174.	9.27	0.0200	0.	45.	0.24
MILE	46.20	813.44	163114.	4.52	36119.	4240.	10.15	0.0200	0.	52.	0.27
MILE	44.10	813.36	159452.	2.72	58630.	2404.	10.55	0.0300	0.	58.	0.10
MILE	43.70	812.81	159011.	5.98	26586.	2259.	11.42	0.0300	0.	60.	0.31
MILE	42.00	812.47	157832.	3.23	48804.	2138.	9.06	0.0300	0.	62.	0.12
MILE	39.10	811.23	156568.	4.59	34082.	2120.	10.92	0.0230	0.	60.	0.20
MILE	37.00	811.16	155886.	2.55	61087.	1606.	10.76	0.0280	0.	60.	0.07
MILE	36.00	810.76	155681.	4.49	34665.	1204.	11.39	0.0280	0.	62.	0.15
MILE	34.60	810.60	155624.	3.25	47913.	1706.	12.52	0.0280	0.	62.	0.11
MILE	33.60	810.66	155587.	1.44	108294.	3027.	11.46	0.0290	0.	68.	0.04
MILE	31.50	810.38	155590.	3.34	46594.	2401.	13.11	0.0250	0.	72.	0.13
MILE	30.10	810.25	155648.	3.06	50889.	1089.	12.43	0.0200	0.	69.	0.08
MILE	29.00	810.18	155651.	2.95	52751.	1400.	13.58	0.0200	0.	70.	0.08
MILE	27.30	810.09	155629.	2.90	53662.	1358.	13.90	0.0230	0.	73.	0.08
MILE	25.20	810.01	155538.	2.43	64055.	1346.	14.72	0.0230	0.	76.	0.06
MILE	23.10	809.86	155258.	2.87	54064.	1473.	13.98	0.0230	0.	80.	0.08

ODATE 10-07-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	3.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	866.93	200000.	10.30	19426.	863.	9.41	0.0290	0.	48.	0.38
MILE	77.70	864.60	199823.	8.08	24727.	1040.	10.20	0.0400	0.	54.	0.29
MILE	75.60	857.67	199477.	8.95	22281.	1728.	9.54	0.0400	0.	51.	0.44
MILE	73.50	849.16	198941.	9.65	20617.	1259.	9.53	0.0330	0.	50.	0.42
MILE	71.40	845.74	198350.	7.08	28029.	1122.	9.05	0.0400	0.	48.	0.25
MILE	69.30	840.89	197538.	7.59	26010.	1093.	9.16	0.0340	0.	42.	0.27
MILE	67.20	838.50	195986.	4.94	39680.	2335.	8.68	0.0340	0.	48.	0.21
MILE	65.10	835.14	193265.	6.44	29991.	2874.	9.14	0.0320	0.	48.	0.35
MILE	63.00	833.13	190292.	5.35	35539.	2314.	8.71	0.0400	0.	52.	0.24
MILE	60.90	828.29	187666.	7.19	26119.	1851.	9.25	0.0450	0.	52.	0.34
MILE	58.80	821.01	185621.	7.67	24209.	1303.	8.30	0.0400	0.	48.	0.31
MILE	57.00	819.27	184333.	7.85	23479.	1353.	8.84	0.0200	0.	44.	0.33
MILE	55.00	817.02	182924.	8.79	20821.	1322.	8.63	0.0200	0.	44.	0.39
MILE	53.10	816.23	181603.	5.94	30581.	1579.	8.50	0.0200	0.	43.	0.24
MILE	51.00	815.00	179835.	6.08	29581.	2104.	8.07	0.0200	0.	46.	0.29
MILE	48.30	814.27	176307.	4.31	40904.	4217.	9.33	0.0200	0.	45.	0.24
MILE	46.20	813.73	172757.	4.74	36484.	4277.	10.18	0.0200	0.	52.	0.29
MILE	44.10	813.66	170046.	2.87	59255.	2418.	10.57	0.0300	0.	58.	0.10
MILE	43.70	813.05	169707.	6.34	26750.	2270.	11.46	0.0300	0.	60.	0.33

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Calculation No. CDQ000020080038	Rev: 0	Plant: GEN	Page: 198 of 665
Subject: SOCH Model Calibration, Melton Hill		Prepped	JAW
Appendix E		Checked	ACM

MILE 42.00	812.69	168595.	3.42	49236.	2147.	9.08	0.0300	0.	63.	0.13
MILE 39.10	811.33	167039.	4.89	34185.	2124.	10.94	0.0230	0.	60.	0.21
MILE 37.00	811.27	166454.	2.72	61279.	1609.	10.78	0.0280	0.	60.	0.08
MILE 36.00	810.82	166260.	4.79	34724.	1205.	11.40	0.0280	0.	62.	0.16
MILE 34.60	810.65	166079.	3.46	47974.	1707.	12.53	0.0280	0.	62.	0.12
MILE 33.60	810.72	165842.	1.53	108486.	3031.	11.47	0.0290	0.	68.	0.05
MILE 31.50	810.42	165255.	3.54	46642.	2403.	13.12	0.0250	0.	72.	0.14
MILE 30.10	810.28	165076.	3.24	50936.	1089.	12.44	0.0200	0.	69.	0.08
MILE 29.00	810.22	165007.	3.13	52790.	1400.	13.58	0.0200	0.	71.	0.09
MILE 27.30	810.12	164953.	3.07	53693.	1358.	13.91	0.0230	0.	73.	0.09
MILE 25.20	810.03	164875.	2.57	64082.	1347.	14.72	0.0230	0.	76.	0.07
MILE 23.10	809.86	164902.	3.05	54064.	1473.	13.98	0.0230	0.	80.	0.09

ODATE 10-07-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME 4.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW DEPTH	FROUDE									
MILE 79.80	866.98	200000.	10.28	19455.	863.	9.42	0.0290	0.	48.	0.38
MILE 77.70	864.65	199865.	8.07	24770.	1041.	10.20	0.0400	0.	54.	0.29
MILE 75.60	857.74	199596.	8.94	22331.	1731.	9.55	0.0400	0.	51.	0.44
MILE 73.50	849.27	199173.	9.63	20689.	1264.	9.54	0.0330	0.	50.	0.42
MILE 71.40	845.89	198702.	7.05	28190.	1126.	9.08	0.0400	0.	48.	0.25
MILE 69.30	841.11	198057.	7.56	26210.	1099.	9.18	0.0340	0.	42.	0.27
MILE 67.20	838.76	196821.	4.91	40046.	2354.	8.71	0.0340	0.	48.	0.21
MILE 65.10	835.44	194658.	6.43	30288.	2901.	9.16	0.0320	0.	48.	0.35
MILE 63.00	833.45	192315.	5.34	36013.	2331.	8.73	0.0400	0.	52.	0.24
MILE 60.90	828.63	190270.	7.19	26466.	1869.	9.26	0.0450	0.	52.	0.34
MILE 58.80	821.35	188711.	7.68	24577.	1318.	8.30	0.0400	0.	48.	0.31
MILE 57.00	819.60	187722.	7.87	23859.	1366.	8.84	0.0200	0.	45.	0.33
MILE 55.00	817.33	186641.	8.84	21109.	1333.	8.63	0.0200	0.	44.	0.39
MILE 53.10	816.52	185608.	6.00	30925.	1592.	8.52	0.0200	0.	43.	0.24
MILE 51.00	815.27	184195.	6.17	29874.	2120.	8.10	0.0200	0.	46.	0.29
MILE 48.30	814.53	181301.	4.39	41277.	4250.	9.37	0.0200	0.	46.	0.25
MILE 46.20	813.96	178482.	4.85	36775.	4307.	10.21	0.0200	0.	52.	0.29
MILE 44.10	813.90	176286.	2.95	59749.	2428.	10.58	0.0300	0.	59.	0.10
MILE 43.70	813.24	176020.	6.55	26887.	2279.	11.49	0.0300	0.	60.	0.34
MILE 42.00	812.87	175219.	3.53	49593.	2155.	9.10	0.0300	0.	63.	0.13
MILE 39.10	811.42	174240.	5.08	34277.	2128.	10.95	0.0230	0.	60.	0.22
MILE 37.00	811.36	173725.	2.83	61445.	1612.	10.80	0.0280	0.	60.	0.08
MILE 36.00	810.88	173571.	4.99	34781.	1206.	11.41	0.0280	0.	62.	0.16
MILE 34.60	810.70	173461.	3.61	48028.	1709.	12.53	0.0280	0.	62.	0.12
MILE 33.60	810.78	173317.	1.60	108648.	3034.	11.48	0.0290	0.	68.	0.05
MILE 31.50	810.45	172988.	3.71	46674.	2404.	13.12	0.0250	0.	72.	0.15
MILE 30.10	810.30	173006.	3.40	50958.	1089.	12.44	0.0200	0.	70.	0.09
MILE 29.00	810.23	172998.	3.28	52805.	1401.	13.58	0.0200	0.	71.	0.09
MILE 27.30	810.12	172944.	3.22	53703.	1358.	13.91	0.0230	0.	73.	0.09
MILE 25.20	810.04	172923.	2.70	64090.	1347.	14.73	0.0230	0.	76.	0.07

TVA

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Appendix E		Checked	ACM

MILE 23.10 809.86 172899. 3.20 54064. 1473. 13.98 0.0230 0. 80. 0.09

ODATE 10-07-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	5.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	867.02	200000.	10.27	19479.	863.	9.42	0.0290	0.	48.	0.38
MILE	77.70	864.69	199889.	8.06	24803.	1042.	10.20	0.0400	0.	54.	0.29
MILE	75.60	857.80	199669.	8.93	22369.	1734.	9.55	0.0400	0.	51.	0.44
MILE	73.50	849.36	199325.	9.61	20743.	1267.	9.55	0.0330	0.	50.	0.42
MILE	71.40	846.00	198947.	7.03	28313.	1129.	9.10	0.0400	0.	48.	0.25
MILE	69.30	841.29	198436.	7.53	26365.	1104.	9.20	0.0340	0.	43.	0.27
MILE	67.20	838.97	197463.	4.90	40330.	2369.	8.73	0.0340	0.	48.	0.21
MILE	65.10	835.67	195761.	6.41	30519.	2922.	9.18	0.0320	0.	49.	0.35
MILE	63.00	833.69	193920.	5.33	36385.	2345.	8.75	0.0400	0.	53.	0.24
MILE	60.90	828.89	192319.	7.19	26731.	1883.	9.27	0.0450	0.	52.	0.34
MILE	58.80	821.61	191096.	7.69	24865.	1329.	8.29	0.0400	0.	49.	0.31
MILE	57.00	819.86	190308.	7.88	24158.	1376.	8.85	0.0200	0.	45.	0.33
MILE	55.00	817.57	189444.	8.88	21340.	1343.	8.63	0.0200	0.	44.	0.39
MILE	53.10	816.75	188626.	6.05	31202.	1603.	8.53	0.0200	0.	43.	0.24
MILE	51.00	815.48	187524.	6.23	30111.	2132.	8.11	0.0200	0.	46.	0.29
MILE	48.30	814.73	185297.	4.46	41573.	4277.	9.41	0.0200	0.	46.	0.25
MILE	46.20	814.15	183053.	4.95	37005.	4331.	10.24	0.0200	0.	52.	0.30
MILE	44.10	814.08	181362.	3.02	60134.	2437.	10.59	0.0300	0.	59.	0.11
MILE	43.70	813.39	181154.	6.71	26992.	2286.	11.51	0.0300	0.	60.	0.34
MILE	42.00	813.01	180497.	3.62	49867.	2161.	9.12	0.0300	0.	63.	0.13
MILE	39.10	811.49	179626.	5.23	34348.	2132.	10.96	0.0230	0.	60.	0.23
MILE	37.00	811.43	179263.	2.91	61568.	1614.	10.81	0.0280	0.	60.	0.08
MILE	36.00	810.92	179146.	5.14	34820.	1207.	11.41	0.0280	0.	62.	0.17
MILE	34.60	810.73	179054.	3.73	48066.	1709.	12.54	0.0280	0.	62.	0.12
MILE	33.60	810.82	178939.	1.65	108763.	3036.	11.48	0.0290	0.	68.	0.05
MILE	31.50	810.48	178666.	3.83	46697.	2405.	13.12	0.0250	0.	72.	0.15
MILE	30.10	810.32	178586.	3.50	50978.	1090.	12.44	0.0200	0.	70.	0.09
MILE	29.00	810.24	178554.	3.38	52822.	1401.	13.59	0.0200	0.	71.	0.10
MILE	27.30	810.14	178522.	3.32	53715.	1358.	13.91	0.0230	0.	73.	0.09
MILE	25.20	810.05	178475.	2.78	64101.	1347.	14.73	0.0230	0.	76.	0.07
MILE	23.10	809.86	178473.	3.30	54064.	1473.	13.98	0.0230	0.	80.	0.10

ODATE 10-07-08 Steady State - 100K to 600K Melton Hill-61SOCH Interpolated-Final

TIME	6.0000	ELEVATION	DISCHARGE	VELOCITY	AREA	WIDTH	R(2/3)	MANN N	LOCAL		
INFLOW	DEPTH	FROUDE									
MILE	79.80	867.05	200000.	10.26	19499.	864.	9.42	0.0290	0.	48.	0.38