



July 13, 2012

Mr. Doug Mandeville
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
Two White Flint North, Mailstop T8-F5
Rockville, MD 20852-2738

CAMECO RESOURCES

*Smith Ranch-Highland
Operation*

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CERTIFIED MAIL # 7011 0470 0001 0202 2047 RETURN RECEIPT REQUESTED

Re: Submittal of Alternate Decommissioning Schedule
Source Material License # SUA-1548
NRC Inspection Report 040-08964/09-002

Dear Mr. Mandeville:

Power Resources, Inc. d/b/a Cameco Resources (Cameco) is herein providing a current version of an alternate decommissioning schedule for the Smith Ranch-Highland Uranium Project as requested by the U.S. Nuclear Regulatory Commission (NRC) in a letter dated June 22, 2012 and received by Cameco on June 29, 2012. Attached are restoration schedules, water balances, and water balance assumptions submitted to the Wyoming Department of Environmental Quality (WDEQ) – Land Quality Division (LQD) under Permit 633 and 603 as submitted April 30, 2012 that are pending review and approval.

Please contact me at 307-358-6541, ext. 476 or email Kenneth_Garoutte@cameco.com if you have any questions.

Respectfully,

A handwritten signature in black ink, appearing to read "Ken Garoutte".

Ken Garoutte
Safety, Health, Environment, Quality (SHEQ) Manager

KG/kg

Attachments: Restoration Schedules, Water Balances, and Assumptions

cc: File SR 4.6.4.1
Document Control Desk, NRC – CERTIFIED MAIL # 7011 0470 0001 0202 2030
ec: Cameco-Cheyenne

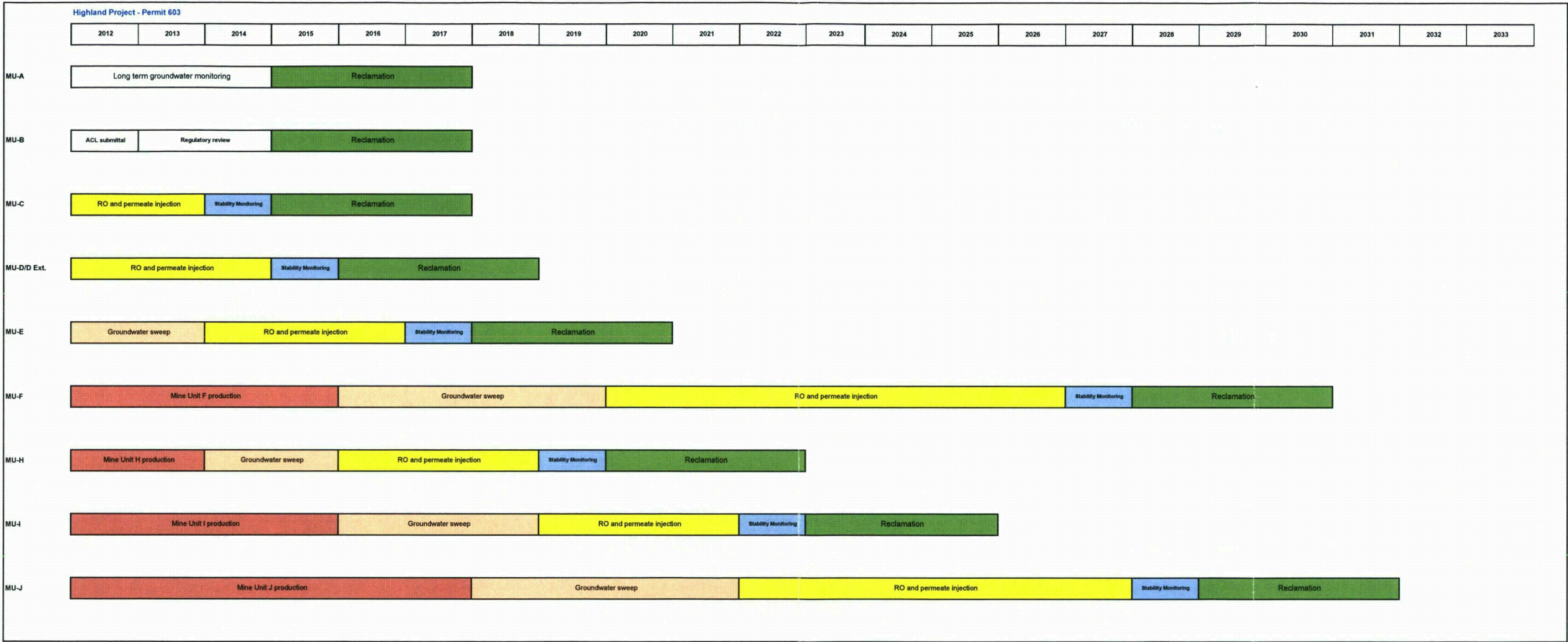
Highland Water Balance Assumptions (Permit 603)

Revision 6

2/3/2012

1. The Ground Water Sweep is calculated on the volume of water withdrawn from the formation.
2. The 8 pore volumes of RO treatment were calculated on the volume of permeate injected not the volume of water withdrawn from the formation.
3. Did not assume any production RO's are installed **to treat** the mine unit bleed. The final production center for Highland at Sat 3 is several miles from the CPP and there are not any connecting pipelines to the Highland Central Processing Plant.
4. The Highland Central Processing Plant will process elutions from third party toll milling, North Butte, and will dry slurry from Gas Hills.
5. A mine unit control bleed of 40 gpm has been included in the water balance for use anywhere on the Highland side of the property. The control bleed is a provision for excursion control.
6. The ground water sweep is used for RO make up water in the water balance. A provision has been included for an up to 5% bleed to be used during the RO phase for hydraulic control.
7. The recovery on the RO's will be 80%
8. Concentrate will be blended with GWS and sent to the land application disposal circuit.
9. The pore volume assumptions came from the 2010/2011 (Rev 3) approved surety estimate.
10. The DDW disposal volumes are the most recent volumes to date from the mine.
11. The assumed disposal capacity is maintained for the life of the project.
12. The assumed disposal includes land application for the life of the project.
13. The colored bars show the timeline of the restoration for each mine unit.
14. The red outline shows the period of GWS.
15. The water balance assumes that the current installed RO capacity remains constant for the restoration effort at Highland.
16. Beginning 2028 water from Smith Ranch will be disposed at HUP.
17. The assumed production bleed was 1 %.
18. Future internal production plans were used in the water balance to calculate production disposal required but are not shown on the water balance spreadsheet.

ATTACHMENT 1
PROPOSED RESTORATION SCHEDULE (12-9-11)
Smith Ranch/Highland Project
Permit 603



Highland Water Balance Permit 603

5-Feb-12
Rev. 6

Year				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	24
				2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2035
Production Flows																												
Total Production Flow (gpm)				4850	4440	5150	4026	2920	1230	580	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Production Bleed (gpm)				48.5	44.4	51.5	40.3	29.2	12.3	5.8	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Control Bleed (gpm)				40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	0							
Restoration Flows																												
MU C (gal) (RO)	PV With Flair (Kgal)	GWS PV to Finish	RO PV to Finish																									
GWS (gal)	88652	0	3	200	400																							
Total Disposal (gal)				50	100																							
MU D (gal) (RO)	28046	0	5	200	200																							
GWS (gal)				50	50																							
Total Disposal (gal)	17296	0	5		200	200																						
MU E (gal) (RO)					50	50																						
GWS (gal)	81658	1	8			152	760	400																				
Total Disposal (gal)				150	140																							
MU F (gal) (RO)	221800	1	8	70	20	38	190	100																				
GWS (gal)								100	100	100	160		320	320	720	720	720	520	320									
Total Disposal (gal)				0	0	0	0	0	0	10		80	80	180	180	180	130	80										
MU H (gal) (RO)	94815	1	8					360	840	600																		
GWS (gal)				100	100			0	0																			
Total Disposal (gal)				0	0			90	210	150																		
MU I (gal) (RO)	115820	1	8																									
GWS (gal)								80	80	80		760	600	600														
Total Disposal (gal)								10	10	60		190	150	150														
MU J (gal) (RO)	86995	1	8																									
GWS (gal)																												
Total Disposal (gal)																												
MU K (gal) (RO)	84209	1	8																									
GWS (gal)																												
Total Disposal (gal)																												
Total Restoration Disposal (gpm)																												
				170	170	88	190	200	220	230	230	230	230	230	230	230	230	230	230	80	0	0	0	0	0	0	0	0
Restoratio Water From Smith Ranch (gpm)																				140	180	140	140	140	180	140	0	0
Installed RO Capacity (gpm) (feed)																				220	180	140	140	140	180	140	0	0
Total RO Capacity (gpm)																												
Deep Disposal Well Capacity (gpm)																												
Morton 1-20 (gpm)				147	28																							
DDW 9 (gpm)				158	28																							
Volmen 33-27 (gpm)				50	50																							
PSR2 Evaporation (gpm)				105	20																							
Irrigator Circle 2 (gpm)					180																							
					180																							
Total Available					306																							
					306																							
HUP Resin Transfer																												
Total Production Bleed (gpm)				0	8.1	10.2	11	11	11	11	11	11	11	11	11	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	0
Control Bleed (gpm)				48.5	44.4	51.5	40.3	29.2	12.3	5.8	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Restoration Disposal (gpm)				40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	0	0	0	0	0	0	0	0
Total Disposal Required (gpm)				170	170	88	190	200	220	230	230	230	230	230	230	230	230	230	220	180	140	140	140	180	140	0	0	0
				258.5	262.5	189.7	281.3	280.2	283.3	286.8	281.8	281	281	281	281	281	280.2	280.2	280.2	270.2	190.2	150.2	150.2	150.2	190.2	150.2	10.2	0
Total Disposal Balance																												
				48	44	116	25	26	23	19	24	25	25	25	25	26	26	26	36	116	156	156	156	116	156	296	306	

Footnote: Mine Unit K (from permit 633) is included in this water balance table for permit 603,Reclamation Plan to show its dependency on the Highland Uranium Project disposal network during restoration.

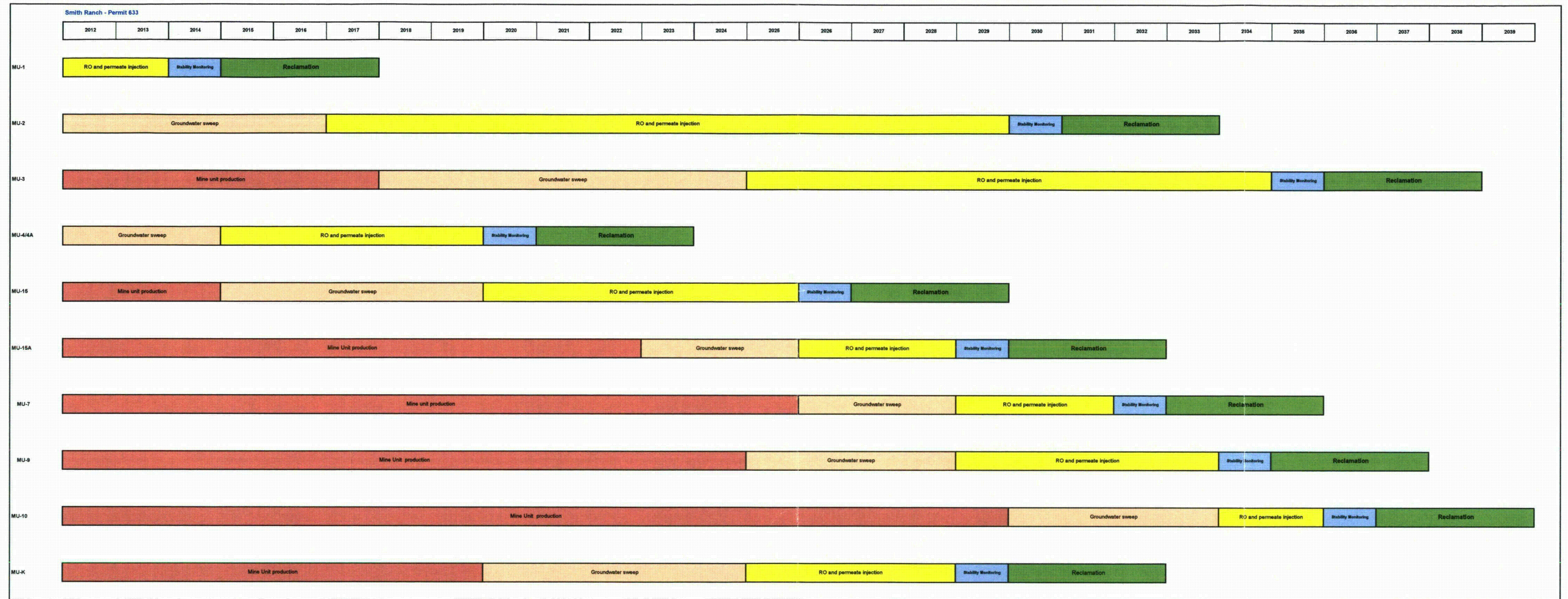
Smith Ranch Water Balance Assumptions (Permit 633)

Revision 6

2/3/2012

1. The Ground Water Sweep is calculated on the volume of water withdrawn from the formation.
2. The 8 pore volumes of RO treatment were calculated on the volume of permeate injected not the volume of water withdrawn from the formation.
3. Production RO's are installed to treat all Mine Unit Bleed at the SRH. The water is to be used as process water in the plant. The goal is to eliminate the use of fresh water in the plant.
4. The water balance assumes that Reynolds Ranch Production is processed at the Smith Ranch CPP.
5. A mine unit control bleed of 20 gpm has been included in the water balance for use anywhere on the site. The control bleed is a provision for excursion control.
6. The ground water sweep is used for RO make up water in the water balance. A provision has been included for an up to 5% bleed to be used during the RO phase for hydraulic control.
7. The recovery on the RO's is assumed to be 80%.
8. The pore volume assumptions came from the 2010/2011 approved surety estimate (Rev 3).
9. The DDW disposal volumes are the most recent volumes to date from the mine.
10. The assumed disposal capacity is maintained for the life of the project.
11. The colored bars show the timeline of the restoration for each mine unit.
12. The red outline shows the period of GWS.
13. The water balance assumes that the 500 gpm (feed) RO will be installed at SR in 2028.
14. 250 gpm (feed) RO is added at SR2 in 2029 and an additional 500gpm (feed) is installed at SR2 in 2032 for the restoration of Mine Units 9, 10.
15. Mine Units 9 and 10 need to be restored together because they are in the same sand units.
16. The assumed production bleed is 1 %
17. Future internal production plans were used in the water balance to calculate production disposal required but are not shown on the water balance spreadsheet.

ATTACHMENT 1
PROPOSED RESTORATION SCHEDULE (12-9-11)
Smith Ranch/Highland Project
Permit 633



3-Feb-12
Rev. 6

Footnote: Mine Unit K (from permit 633) is included in the water balance table for permit 603, Reclamation Plan to show its dependency on the Highland Uranium Project disposal network during restoration.