VOLUME 3 OF 3 – APPENDICES D, E AND F

HOMESTAKE MINING COMPANY OF CALIFORNIA

GRANTS RECLAMATION PROJECT

GROUNDWATER CORRECTIVE ACTION PROGRAM

DECEMBER 18, 2019

U.S. NUCLEAR REGULATORY COMMISSION LICENSE SUA-1471

STATE OF NEW MEXICO DP-200

Appendix D

Groundwater Flow and Transport Model Status Addendum

HOMESTAKE MINING COMPANY OF CALIFORNIA

Grants Reclamation Project

GROUNDWATER FLOW AND TRANSPORT MODEL STATUS ADDENDUM

June 2019

U.S. Nuclear Regulatory Commission License SUA-1471
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List of Abbreviations

BC	Brown and Caldwell
CAP	Corrective Action Plan
COCs	constituents of concern
d	day(s)
DEM	digital elevation model
DDM	Drain Down Model
ft	foot/feet
GHBs	general head boundaries
GIS	geographic information system
GRP	Grants Reclamation Project
HE	Hydro—Engineering, LLC.
HMC	Homestake Mining Company of California
L	liter(s)
LTP	large tailings pile
NRC	U.S. Nuclear Regulatory Commission
PRISM	Parameter-Elevation Regressions on Independent Slopes Model
Rio Algom	RAML
RMM	reformulated mixing model
RMSE	root mean squared error
SAG	San Andres/Glorieta
SMC	San Mateo Creek
STP	small tailings pile
U.S. DOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

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Section 1: Introduction

Homestake Mining Company of California (HMC) has developed a combined Groundwater Flow and Transport Model of the San Mateo Creek (SMC) Basin in west-central New Mexico, which includes HMC's Grants Reclamation Project (GRP) at the HMC Mill site (Site), located near Grants, New Mexico. The model is based on the Hydrogeologic Site Conceptual Model (BC, 2018) and was developed as generally described in the Groundwater Flow and Transport Modeling Work Plan and associated updates (HMC 2018a, HMC 2018b).The model will continue to be used to evaluate GRP groundwater restoration activities and as a tool to predict the effectiveness of future remediation efforts, including fate and transport of site constituents of concern (COCs). This includes supporting completion of a revised Groundwater Corrective Action Plan (CAP) for the GRP and, thus, the model includes simulation of the following key hydrogeologic components of the site conceptual model:

- Groundwater flow and hydraulic heads within the alluvial and bedrock (upper, middle and lower Chinle and San Andres-Glorieta [SAG]) aquifers beneath the GRP.
- Fate and transport of site COCs associated with the GRP.

In March 2019, HMC submitted a Preliminary Groundwater Flow and Transport Model Status Report (Model Status Report) to the U.S. Nuclear Regulatory Commission (NRC) (HMC, 2019). The Model Status Report discussed in detail model construction, development, and preliminary calibration results for both groundwater flow and transport simulations within the general vicinity of the HMC Mill Site.

This addendum discusses updates to the model performed since March 2019, including simulation of alluvial saturation in the Upper SMC Basin, preliminary results of uranium transport southward from Upper SMC Basin toward the HMC Mill Site, and adjustment of model parameterizations that have contributed to improved flow and transport calibration results at the HMC Mill Site. In this addendum, only updates to the model and recent groundwater flow and transport results are discussed. Therefore, the reader is referred to the March 2019 Model Status Report for a full discussion of model construction and development. In addition, because of the inclusion of regional-scale flow calibration, the combined MODFLOW-NWT groundwater flow and MT3D-USGS transport models are now collectively referred to as the SMC Basin model. It is important to recognize that calibration for the SMC Basin model was achieved despite the limitation that only estimates of injection and extraction are available within the GRP area over time and exact historical flow records for individual wells are unavailable.

Section 2: SMC Basin Model Updates

This section describes the six model updates performed since March 2019. It should be noted that the model calibration period remains unchanged from the previous model construct and covers the years 2013 through 2017.

2.1 Revisions to Hydraulic Conductivity

Initial parameter values for the SMC basin hydrostratigraphic units were based on the results from previous calibration efforts (HMC, 2019). Once the revised layer geometry was established in the SMC Basin model in this update (see Section 2.2, below), hydraulic conductivity values were then adjusted to typically observed or expected ranges to better match observed groundwater-level data and interpreted flow directions in accordance with standard manual calibration practices. Table 2-1, provided below, shows the hydraulic conductivity values for each hydrostratigraphic unit in the current SMC Basin model.

Table 2-1 - SMC Basin Model Hydraulic Parameterization Summary

Model Layer Number	Hydrostratigraphic Unit	Horizontal Hydraulic Conductivity Values (feet/day)
1	Alluvium	2.0 - 215
2	Bedrock above the Chinle Group	0.04
3	Upper Chinle Shale	0.25 - 0.0005
4	Upper Chinle Aquifer	1.0 – 10
5	Upper Middle Chinle Shale	0.25 - 0.0002
6	Middle Chinle Aquifer	1.0 - 10
7	Lower Middle Chinle Shale	0.0009
8	Lower Chinle Aquifer	0.5 - 10
9	Lower Chinle Shale	0.004
10	SAG	10 - 500

Figures 2-1 through 2-10 provide the hydraulic conductivity values associated with each respective hydrostratigraphic model layer and pixelated coloration is used to show areas of nominal layer thickness, as described previously in HMC (2019). Zonation of parameter values within a given layer was used to improve the match between simulated groundwater elevations, flow directions, and constituent transport with observed data and is a standard calibration technique used in numerical modeling (Anderson et al. 2015).

2.2 Adjustments to San Mateo Fault Representation

The Model Status Report identified that placement of the San Mateo Fault representations north of the GRP in the groundwater model were positioned further east than depicted by Weston (2018). Therefore, the geologic model developed using Leapfrog was revised by combining fault depictions at the local scale interpreted by HydroEngineering (HE, 2016) with Weston's (2018) interpretation in the Upper SMC Basin. Modifications to the Leapfrog model resulted in an updated interpolation of hydrostratigraphic unit geometry and, consequently, revised top and bottom layer elevations were imported into the SMC Basin model for all layers.

The model construction approach of defining layers by hydrostratigraphy remains unchanged from previous efforts. Thus, where geologic units are absent at a location due to erosion, the corresponding model layers retain both nominal thicknesses of 1 foot each and the hydraulic properties of the uppermost existing geologic unit as described in the Model Status Report (HMC, 2019).

To represent the San Mateo Fault as a continuous barrier to flow in the groundwater flow and transport model, the MODFLOW Hydraulic Flow Barrier (HFB) Package was placed vertically along cell faces following the lateral centerline of the fault splays with their interpreted dips inherited from the previous site-scale geologic model (HMC, 2019). A vertical representation of the fault is necessary to avoid simulating vertical bypass of groundwater flow between model layers where using flow barriers located based on the dips of the faults would be offset laterally. To limit simulated horizontal hydraulic flow across the faults, HFB conductance values were assigned in all HFB package locations in Layers 2 through 10 using the hydraulic conductivity originally assigned to the adjacent model cells and scaling that conductivity by the relative overlap of the model layers on either side of the fault. Where faults completely offset a model layer, the HFB hydraulic conductivity was assigned a minimum value of 1e-10 feet/day (ft/d). HFB conductance values were adjusted in specific locations during the calibration process. The HFB Package is also applied only in Layers 2 through 9 where layer thicknesses are greater than 1 ft.

Representation of the San Mateo Fault structure using the HFB package is represented in Figures 2-11 through 2-19.

2.3 Revisions to Recharge and Large Tailings Pile Seepage Estimates

Groundwater recharge is primarily simulated in the model based on spatial precipitation data obtained from the Parameter-Elevation Regressions on Independent Slopes Model (PRISM) (PRISM Group 2004). The PRISM method interpolates a database of climate records onto a spatial grid covering the coterminous United States (Daly et al., 2008). PRISM calculates a climate-elevation regression for each gridded spatial location based on data from nearby climate stations where long-term records are available and on a digital elevation model (DEM). Factors considered in the regression used for interpolation of precipitation include location, elevation, coastal proximity, topographic facet orientation, vertical atmospheric layer, topographic position, and orographic effectiveness of the terrain. Previously, PRISM precipitation data for 2016 were obtained for the PRISM 4-kilometer stable data grid and further spatially interpolated using GIS-based methods. The 2016 recharge rates were then applied for all model stress periods. For this update the same PRISM precipitation product was obtained for each month of the calibration period (2013 through 2017), averaged over each model stress period, and then scaled to develop groundwater recharge rates as described in HMC (2019). Thus, recharge in the model now varies both spatially and temporally within the calibration period.

Seepage from the Large Tailings Pile (LTP) represents an important source of both recharge and chemical mass loading to the local groundwater system. A separate seepage model (the reformulated mixing model [RMM]) was previously developed to assess long-term changes in both seepage flow rates and constituent mass loading (HDR, 2016, Appendix G). Assessments of past LTP seepage rates, along with predictions of future seepage rates, were developed based on vadose modeling using the VADOSE/W code. The RMM was recently replaced by a Drain Down Model (DDM) that incorporates the Brooks and Corey method to estimate seepage and toe drain rates (Brooks and Corey 1964; HE, 2019). The revised seepage estimates developed from the DDM model were incorporated into this SMC Basin model update to simulate seepage from the LTP into the underlying local groundwater system.

2.4 Addition of New Groundwater Level Target Locations

In the March 2019 Model Status Report, a database query error led to the omission of additional well locations that could be used for groundwater elevation calibration targets. For the current model update, the query was restructured and run, which has resulted in additional target locations and their associated datasets in the SMC Basin model as shown in Figures 2-20 through 2-24.

Alluvial groundwater elevation target locations for the Upper SMC Basin model were also added and are shown in Figure 2-25 (Rio Algom [RAML], 2013; RAML, 2014a; RAML, 2014b; RAML, 2015a; RAML, 2015b; RAML, 2016a; RAML 2016b; RAML, 2017a; RAML, 2017b). A recognized limitation for groundwater flow calibration in the Alluvial aquifer north of the GRP but south of Ambrosia Lake is the general lack of available water table elevation measurements.

2.5 Adjustments and Addition of General Head Boundaries

2.5.1 Upper San Mateo Basin General Head Boundaries

Historical groundwater levels in the alluvial aquifer have been artificially raised due to surface discharge associated with legacy mining activities in portions of the SMC Basin north of the GRP (Weston, 2018). Therefore, alluvial groundwater elevations in this general area of the basin cannot be accurately simulated through only parameterization of naturally occurring recharge to groundwater.

To simulate initial alluvial groundwater elevations in the Upper SMC Basin at the beginning of the simulation period (2013), general head boundaries (GHBs) were parameterized using average groundwater elevations in the Ambrosia Lake area spanning 2008 through first quarter 2012 (RAML, 2008; RALM 2009a; RALM, 2009b; RALM 2010a; RALM 2010b; RALM 2011a; RALM, 2011b; RALM, 2012a; RALM 2012b). This averaging approach over multiple years is suggested by Anderson et al. (2015) when a true steady state initial condition is not present. South of the Ambrosia Lake area closer to Sand Curve, prescribed water elevations in the GHBs were assigned using 2015 data reported in Weston (2018). The GHBs were only implemented in the first stress period (steady state) to establish an initial condition for the transient simulation period and placement is provided in Figure 2-26. For the remaining stress periods, these GHBs are turned off. Other consultant Alluvial aquifer contour maps used to parameterize GHBs for the purpose of establishing initial conditions are provided in Appendix A. Any alluvial groundwater levels used to parameterize the GHBs were omitted from the target calibration datasets.

2.5.2 Regional Aquifer Systems Inflow and Outflow

In the current model update, GHBs remain in use to simulate regional groundwater flows for major aquifer units in the SMC Basin. GHBs for the Mesozoic bedrock above the Chinle Group in model layer 2 were developed using published groundwater-level contour maps for the Entrada Complex (also known as the San Rafael Group) and Morrison Formation (Brod and Stone, 1981; Frenzel and Lyford, 1982; Stone et al. 1983), as presented and discussed in the Work Plan (HMC 2018a). These GHBs allow simulated groundwater in model layer 2 (bedrock above the Chinle group) to flow to the northeast in the northern portion of the SMC Basin and to the east in the southeastern portion of the SMC Basin, as depicted on previously published groundwater level maps (Figure 2-11).

Little regional flow information exists for the Chinle Group because it represents a regional aquitard even if the water-bearing units observed in the vicinity of the GRP site are important to local-scale groundwater flow at the site. As such, the GHBs developed for the model layers representing the Chinle Group (Figures 2-12 through 2-18) are based on the overlying and underlying units and primarily provide model solution stability rather than simulation of the uncertain regional groundwater flow in the Chinle Group. The upper Chinle shale (model layer 3; Figure 2-12) GHBs were developed using GHBs of the bedrock above the Chinle Group (model layer 2; Figure 2-11). The lower Chinle shale (model layer 9; Figure 2-18) GHBs were developed using the GHBs of the SAG (model layer 10; Figure 2-19). The GHBs in model layers 3 and 9 provide a mechanism for the model to simulate observed downward vertical gradients across the Chinle Group regional aquitard. The remaining general head boundaries in the Chinle Group are only placed in the water-bearing units (model layers 4, 6, and 8) on the eastern side of the SMC Basin and are intended to provide model solution stability (Figures 2-13, 2-15, and 2-17). The upper and lower Middle Chinle shale have no GHBs, as shown on Figures 2-14 and 2-16.

Similarly, GHBs for the San Andres/Glorieta (SAG) aquifer in model layer 10 were developed using a published groundwater-level contour map for the SAG aquifer (Baldwin and Anderholm, 1992; HMC, 2018a) and boundary condition locations are provided in Figure 2-19.

Locations of regional GHBs remained unchanged from earlier versions of the model; however, slight adjustments to prescribed heads in the GHBs were made to improve calibration for both the Chinle Group and the SAG aquifer.

2.6 Removal of Rio San Jose Representation

Historical daily average streamflow records for the Rio San Jose at Grants, New Mexico, gauge (08343000) were obtained from the United States Geological Survey (USGS) National Water Information System (USGS, 2019). Although the period of record for the gauge does not correspond with the SMC Basin model calibration period, very little baseflow is observed in the historical record with surface flow occurring primarily in response to large storm precipitation events.

Since Rio San Jose surface water/groundwater interactions are expected to be minimal over the long-term, the stream package that previously represented downstream reaches of the Rio San Jose has been removed from the SMC Basin model.

Section 3: SMC Basin Model Results

3.1 Groundwater Flow Model Results

Model calibration objectives for the 2013-2017 simulation period focused on four primary areas:

- Reasonable simulation of wetting and drying of alluvium associated with GRP remediation activities.
- Simulation of observed groundwater elevations and flow directions, especially for the alluvial aquifer in the vicinity of the GRP area.
- Simulation of generally observed groundwater elevations and flow directions within the alluvial aquifer north of the GRP and for the Upper SMC Basin.
- Development of a groundwater flow solution that allowed calibration to observed uranium and molybdenum concentrations within the GRP area.

For this model update, only the adjustments discussed in Section 2 were implemented to obtain agreement with observed conditions. The final calibration represents a balance between the calibration objectives, as certain parameter modifications may have improved the model's ability to simulate one condition (such as improved simulation of groundwater elevations) while degrading the model's match in other areas (such as degraded matches to observed constituent concentrations). The current set of model parameters achieves a good balance between all model calibration objectives but will likely change as additional future updates are made to the model.

The SMC Basin model was manually calibrated such that simulated heads generally match observed groundwater elevations. The head target dataset consists of 142 locations in the alluvium (Layer 1; 1,009 observations), 20 locations in the Upper Chinle aquifer (Layer 4; 234 observations), 34 locations in the Middle Chinle aquifer (Layer 6; 277 observations), 18 Lower Chinle aquifer locations (Layer 8; 113 observations), and 11 San Andres/Glorieta locations (Layer 10, 48 observations). Figures 2-20 through 2-25 provide groundwater flow targets used for calibration. The additional alluvial groundwater targets for the Ambrosia Lake area that are included in this model update (Figure 2-25) were obtained from Rio Algom semi-annual reporting (RALM, 2013; RALM, 2014a; RALM, 2014b; RALM, 2015a; RALM, 2015b; RALM, 2016a; RALM, 2016b; RALM, 2017a; RALM 2017b).

Analysis of how well the model simulates observed conditions is based on statistics related to model residuals (the difference between simulated and observed groundwater levels). Standard calibration statistics include the average residual, absolute average residual, root mean squared error (RMSE, which gives greater weight to larger residuals), and the scaled RMSE (RMSE divided by the total change in measured head, a measure of how well the model simulates groundwater flow gradients). Table 3-1 provides a summary of these statistics for the overall model and for only the alluvial aquifer, since the calibration for the alluvium is especially critical for estimation of remediation timeframes at the GRP.

It is important to note that an industry-defined statistical range that quantifies a well-calibrated model does not exist, since modeling by necessity requires subjectivity and the acceptability of a calibration is directly dependent on the modeling objective (Anderson et al., 2015). In general terms, however, regional models typically strive for percentage error metrics (e.g., scaled RMSE) of less than 10% whereas local scale models attempt for scaled statistics less than 5%. In the case of the GRP model, when all layers are included, the model has regional characteristics and thus a scaled RMSE of 3.17% is well below generally accepted values for a well calibrated simulation. The residual mean also indicates that on average, there is some low bias to the solution and the absolute residual mean suggests that the groundwater flow solution is typically within 10.5 feet of the observed value.

For the alluvial aquifer alone, most of the targets are in the vicinity of the GRP so the calibration process aimed for minimizing both the residual mean and the absolute residual mean with scaled statistic values of less than 5%. In the current model version, the residual mean indicates that simulated alluvial heads are, on average, slightly low (positive values indicate over-estimation) while the absolute residual mean shows that the solution is typically within 5.96 feet of observed alluvial groundwater elevations. Scaled statistics range from 1.27% to 1.65% for Layer 1, which are well below 5% and thus indicate a well calibrated model.

Table 3-1 – Bulk Simulated Groundwater Elevation Calibration Statistics

Statistic	All Layers	Model Layer 1 (Alluvial Aquifer)
Residual Mean (feet)	4.90	3.05
Absolute Residual Mean (feet)	10.51	5.96
Sum of Square Residuals (feet^2)	416,571	60,858
Root Mean Squared RMS Error (feet)	15.74	7.77
Minimum Residual (feet)	-78.86	-42.63
Maximum Residual (feet)	84.70	33.84
Number of Observations	1,681	1,009
Range in Observations (feet)	496.00	470.61
Scaled RMS error (%)	3.17	1.65
Scaled Absolute Mean (%)	2.12	1.27
Scaled Residual Standard Deviation (%)	3.02	1.52

Figure 3-1 presents a scatter plot comparing simulated and observed groundwater elevations. For all layers, simulated groundwater elevations relative to target values generally fall near the 1:1 line especially for targets within the general GRP area, which is indicative of good calibration. However, there is a cluster of observations in the Alluvial aquifer around the observed elevation of 6,880 feet amsl that are associated with target wells in the Ambrosia Lake area of the Upper SMC basin (shown on Figure 2-25) where additional scatter is present around the 1:1 line. Model calibration in this area of the SMC Basin model is less critical for the current modeling objectives, which include estimating GRP remediation timeframes associated with alternatives to be determined as part of the CAP.

Simulated contours for the alluvial aquifer near the GRP and at the regional scale are provided in Figures 3-2 through 3-5. The simulated contours for the GRP in both 2015 and 2017 approximate both observed groundwater elevations and key groundwater flow directions reflected in the observed data. This includes:

- Southerly groundwater flow from the upgradient portions of the SMC Basin toward the GRP
- Westerly groundwater flow directions west of the NRC License Boundary
- Southerly groundwater flow south of the Small Tailings Pile
- Divergent groundwater flow around the bedrock high located southwest of the GRP

Hydrographs for all simulated targets are provided in Appendix B and all groundwater elevation target values are provided in table format as Appendix C.

Given the overall objectives of the current version to simulate remediation timeframes for the GRP, the SMC Basin model is considered well calibrated to observed water levels and the general hydraulic gradients.

3.2 Transport Model Results

Geochemical modeling and MT3D-USGS parameterization remain unchanged in the current version from the March 2019 model construct. The transport model was rerun using the new groundwater flow model solution described above in Section 3.1. The transport model results for uranium and molybdenum were evaluated based upon visual comparison of simulated contours and well chemographs to observed data. Results for uranium transport, followed by molybdenum, are described below. Transport calibration target locations for both uranium and molybdenum are provided in Figures 3-6 through 3-10.

3.2.1 Grants Reclamation Project Area Uranium Transport Calibration Results

Simulated uranium concentrations by the transport model generally reflect both observed plume footprints and plume concentration changes through time in the GRP vicinity when compared to uranium concentration contours and well chemographs derived from GRP analytical data.

Figures 3-11 through 3-18 provide comparisons of observed versus simulated uranium contours for the different aquifer units in years 2015 and 2017. For year 2015, the transport model simulates uranium contours greater than 0.1 mg/L extending westward from the GRP that are consistent with observed values (Figure 3-11). Simulated uranium contours within the LTP and STP footprint and southeast of the STP are also reflective of contours derived from analytical data. On the east side of the bedrock high, the transport model simulates the plume extending south and southwestward through a narrow zone of alluvium saturation, although simulated concentrations of uranium are generally slightly lower than observed values (Figure 3-11). The model simulates a lobe of elevated uranium concentrations northwest of the LTP, which is a result of deriving the initial condition from analytical data that captures naturally occurring elevated uranium concentrations in the area of the DD and DD2 wells (HMC, 2018c)

Simulated 2015 uranium contours for the Upper Chinle (Figure 3-12), Middle Chinle (Figure 3-13), and Lower Chinle (Figure 3-14) aquifers are generally consistent with observed contours included in GRP annual reports (HE, 2016).

In 2017, transport model results approximate uranium concentrations from annual reporting (HMC and HE, 2018) for locations extending west from the LTP, within the general footprints of the LTP and STP and southeast of the STP (Figure 3-15). Adjacent to the bedrock high, the model simulates uranium concentrations in the southern portion of the plume that are slightly less than observed data. Figure 3-16 provides Upper Chinle aquifer simulated uranium contours for 2017 that are consistent with those derived based on analytical data. Figure 3-17 shows that the model replicates Middle Chinle concentrations consistent with data collected from areas west of the LTP and south of the NRC License boundary. Approximately 0.5 mi northwest of the LTP, the model continues to simulate an area of slightly elevated uranium concentrations that, while present in 2015, is no longer observed in 2017 (Figure 3-17). For the Lower Chinle aquifer, the model simulates uranium concentrations that are generally consistent with analytical data values for this hydrostratigraphic unit (Figure 3-18).

Figures 3-19 through 3-34 provide select time series uranium chemographs for well target locations, which are shown on the previous uranium concentration contour maps (chemographs for all target locations are provided in Appendix D and all transport target data is provided as a table in Appendix E). For alluvial well MQ-Al located in plume area west of the LTP, the model simulates uranium concentrations and trends generally consistent with analytical data collected from this well (Figure 3-19). Moving downgradient along the centerline of the plume in the North Restoration Area (i.e., plume footprint west of the LTP), simulated transport results are consistent with both general uranium concentration magnitudes and trends as observed in analytical data collected from these wells (Figures 3-20 through 3-23). Simulated results at alluvial aquifer wells 0491-Al, 0497-Al, 0862-Al, and 0864-Al are provided as representative of the South Off Site area (Figures 3-24 through 3-27). Simulated concentrations during the calibration period at these target locations are also generally consistent with analytical data from each respective location. Simulated uranium concentrations at 0497-Al are slightly lower than observed data, however, the model replicates a decreasing trend that is consistent with observed data. Additional Alluvial aquifer chemographs are provided for well C7-Al (western edge of the STP) and well 0802-Al (southwest of the LTP) (Figures 3-28 and 3-29). The uranium transport model simulates concentrations that generally match those from samples collected at C7-Al. At Well 0802-Al, the model replicates the general observed trend in uranium concentrations over time and magnitudes are just slightly lower than concentrations from water quality samples collected at this location.

Select chemographs for target locations in the Upper, Middle, and Lower Chinle aquifers are provided in Figures 3-30 through 3-34, respectively. In the Upper Chinle aquifer, the transport model simulates both uranium concentrations and trends that are consistent with observed data (Figures 3-30 and 3-31). At target location CW61-MC in the Middle Chinle aquifer, the model simulates concentrations that are consistent observed magnitude and trends in uranium (Figure 3-32). A Well 0493-MC has an unusually high variability in uranium concentrations, but the transport model does simulate the overall declining trend in concentrations (Figure 3-33). In the Lower Chinle aquifer, the model simulates concentrations at Well CW29-LC that are consistent with the analytical data (Figure 3-34).

All concentrations simulated for the SAG aquifer are equal to model initialization values for the entire simulation period.

Overall, the SMC Basin transport model simulates distribution and changes in uranium concentrations at the GRP for all four aquifer units (alluvium, Upper Chinle, Middle Chinle, and Lower Chinle) that are consistent with observed conditions.

3.2.2 Molybdenum Transport Calibration Results

Simulated molybdenum transport results are generally reflective of both observed plume footprints and plume concentration changes through time as illustrated by molybdenum concentration contours and well chemographs derived from analytical data included in GRP annual reporting.

Figures 3-35, 3-36 and 3-37 provide comparisons of observed versus simulated 2015 molybdenum contours for the alluvial, Upper Chinle and Middle Chinle aquifers, respectively. All other aquifer units are unaffected by molybdenum concentrations that exceed GRP cleanup standards. For year 2015, the transport model simulates alluvial molybdenum concentrations of greater than 0.1 mg/L extending slightly westward from the GRP, which is consistent with observed values (Figure 3-35). Simulated alluvium molybdenum contours within the LTP and STP footprint and southeast of the STP are also reflective of contours derived from analytical data that were previously included in annual reporting (HE 2016). Simulated 2015 molybdenum contours for the Upper Chinle (Figure 3-36) are also consistent with observed contours developed for GRP annual reports (HE 2016). Figure 3-37 provides simulated molybdenum contours for the Middle Chinle where model derived concentrations are consistent with analytical data collected from GRP observation wells.

In year 2017, transport model results approximate observed alluvium aquifer molybdenum contours for locations extending west from the LTP, within the general footprints of the LTP and STP, and southeast of the STP (Figure 3-38; HMC and HE, 2018). Similarly, the transport model generates concentrations resulting in Upper Chinle aquifer molybdenum contours that are consistent with observed data (Figure 3-39). In the Middle Chinle aquifer, simulated 2017 concentrations west of the LTP are similar to those calculated by the model in 2015 (Figure 3-40).

Figures 3-41 through 3-47 provide select timeseries chemographs for well target locations, which are shown on the previous the molybdenum concentration contour maps (chemographs for all target locations are provided in Appendix C and molybdenum target data as Appendix F). For alluvial aquifer well MQ-Al, the model simulates concentrations over time that are consistent with analytical data from groundwater samples. At well D1-Al, the model underestimates molybdenum concentrations but does simulate a decreasing trend consistent with analytical data collected from these wells. For S2-Al (west of the LTP) the model slightly underestimates observed concentrations but does simulate a gradual decline in concentrations that is similar to the analytical data timeseries. At C8-Al (northwest edge of the small tailings pile [STP]), simulated results capture concentrations and trends that are consistent with analytical data at this location within the Alluvial aquifer. At wells CE6-UC and CE15-UC, which are both screened in the Upper Chinle aquifer, simulated molybdenum concentrations through time are consistent with observed data (Figures 3-45 and 3-46). For the Middle Chinle aquifer well CW62-MC, the model simulates concentrations consistent with observed data in early time but the model maintains higher concentrations through 2017 while analytical data show a decreasing trend (Figure 3-47).

All molybdenum concentrations simulated for the Lower Chinle and SAG aquifers are equal to background values for the entire simulation period.

Overall, the SMC Basin model simulates distribution and changes in molybdenum concentrations at the GRP for all three aquifer units (alluvium, Upper Chinle, and Middle Chinle) that are consistent with observed conditions.

3.2.3 Preliminary Regional Alluvial Aquifer Uranium Transport Results

A single preliminary uranium transport simulation was performed for the alluvial aquifer in the portion of the SMC Basin upgradient of the GRP. Initial conditions were established north of the GRP using data from Weston (2018) and from the Ambrosia Lake area (Rio Algom 2012a; Rio Algom 2012b), and these data are provided as Appendix G.

In addition, initial uranium concentrations were not applied within the GRP area of the model, which allows for the evaluation of only down-valley transport from upper areas of SMC Basin. Transport model parameterization (e.g., effective porosity, dispersivity, and Freundlich sorption parameters) for regional uranium transport followed the same methodology as for the GRP vicinity as described in HMC (2019). As minimal uranium concentration data are available at distances greater than a couple miles north of the GRP, once initial conditions were set, additional observations were unavailable for use as calibration targets. Therefore, the transport model for the upper SMC Basin is currently uncalibrated.

Preliminary regional uranium transport results are provided in Figure 3-48. As additional data become available, calibration and refined transport parameterization for areas in the SMC Basin upgradient of the GRP may be performed as part of future modeling efforts.

Section 4: Summary and Future Work

The SMC Basin groundwater flow and transport model has been updated and calibrated to available and observed GRP groundwater conditions between years 2013 and 2017. The model updates since March 2019 included:

- Revisions to hydraulic conductivity to better match observed groundwater-level data and interpreted flow directions
- Adjustments to the model representation of the San Mateo Fault north of the GRP to position it further east as per recent data from Weston (2018) and then scaling the HFB conductance values to limit simulated horizontal hydraulic flow across the faults
- Revisions to PRISM-derived recharge rates such that they now vary both spatially and temporally within the 2013-2017 calibration period. In addition, the revised LTP seepage estimates developed from the DDM by HE (2019) were incorporated into the model update since LTP seepage is an important source of both recharge and chemical mass loading to the local groundwater system.
- Addition of new target groundwater level locations and their associated datasets, including Alluvial aquifer target locations in the Upper SMC Basin in the general vicinity of Ambrosia Lake
- Adjustments and addition of GHBs to simulate elevated historical groundwater levels in the alluvial aquifer of the Upper SMC Basin that have been artificially raised due to surface discharge associated with legacy mining activities.
- Removal of representation of the Rio San Jose, since very little baseflow is observed in the historical record.

Comparisons of the updated model's simulated groundwater elevations to observed target groundwater elevations and general hydraulic gradients indicates good correlation in the general GRP area. The current model is therefore well-suited to the model objectives of simulating the fate and transport of CoCs and estimating remediation timeframes for the GRP, as well as supporting completion of a revised CAP. It is important to recognize that the current calibration was achieved despite the limitation that only estimates of injection and extraction are available within the GRP area over time and exact historical flow records for individual wells are unavailable.

Without changing the March 2019 geochemical modeling or MT3D-USGS parameterization, the transport model was then rerun using the new groundwater flow model solution described above. The transport model results for uranium and molybdenum were evaluated based upon visual comparison of simulated contours and well chemographs to observed data.

In the GRP area, simulated uranium concentrations generally reflect both observed plume footprints and concentration changes in the annual reports (HE 2016; HMC and HE 2018) through the 2015-2017 timeframe in all four of the aquifer units of interest (Alluvial and Upper, Middle, and Lower Chinle), including replicating declining trends in some wells in the vicinity of restoration activities. Simulated molybdenum concentrations also generally reflect observed water quality data in the three aquifer units with concentrations above the GRP cleanup standards (Alluvial and Upper and Middle Chinle).

Since only minimal uranium concentration data are available at distances greater than a few miles north of the GRP, once initial conditions were set, additional observations were unavailable for use as calibration targets. Therefore, the transport model for the upper SMC Basin is currently uncalibrated. A single preliminary uranium transport simulation was performed for the alluvial aquifer in the portion of the SMC Basin upgradient of the GRP.

Future improvements to the model may include, but may not be limited to:

- Subdivision of bedrock units above the Chinle Group into representative hydrostratigraphic units.
- Increase in the overall calibration period to include previous years if pumping and injection can be reliably estimated.
- Advancing understanding of potential attenuation mechanisms for the Chinle Formation through supplemental geochemical characterization.
- Inclusion of the historical pumping records for the SAG Aquifer if they can be obtained from the New Mexico State Engineer's Office or other data sources.
- Incorporation of any revisions associated with seepage or mass loading from the Drain Down Model for the LTP.
- Model calibration refinement (and initial calibration at the regional scale) if data availability allows additional updates to either the flow or transport modeling.

Future groundwater modeling efforts will include the following tasks:

- Predictive flow and transport simulations to evaluate GRP remedial timeframes for both the existing collection/injection system and alternatives associated with the 2019 Corrective Action Plan (CAP).
- Calibration of the regional groundwater flow model and performing regional transport calibration and simulations of southward plume migration from the upgradient portions of the SMC Basin to the vicinity of GRP.

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Figures

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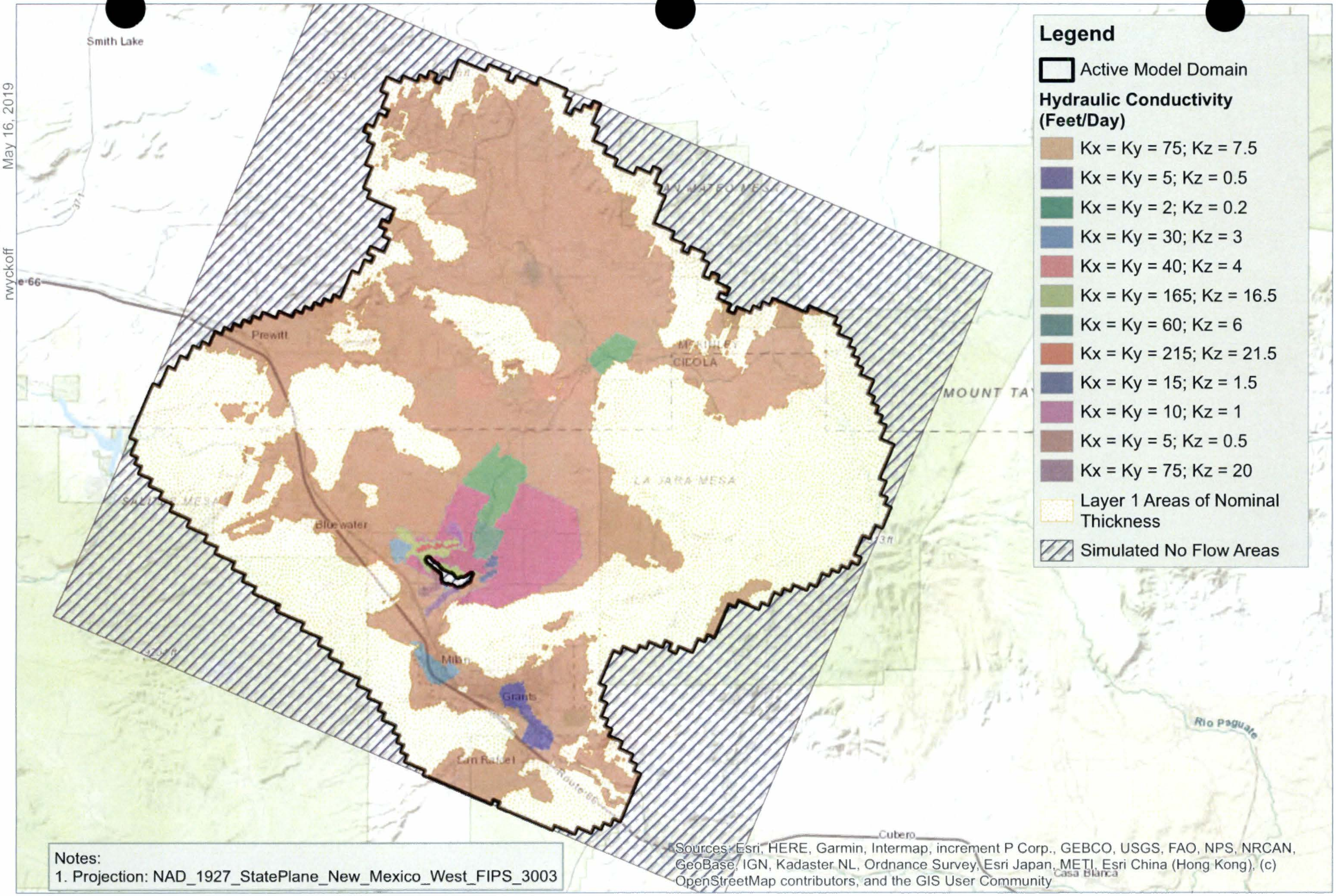

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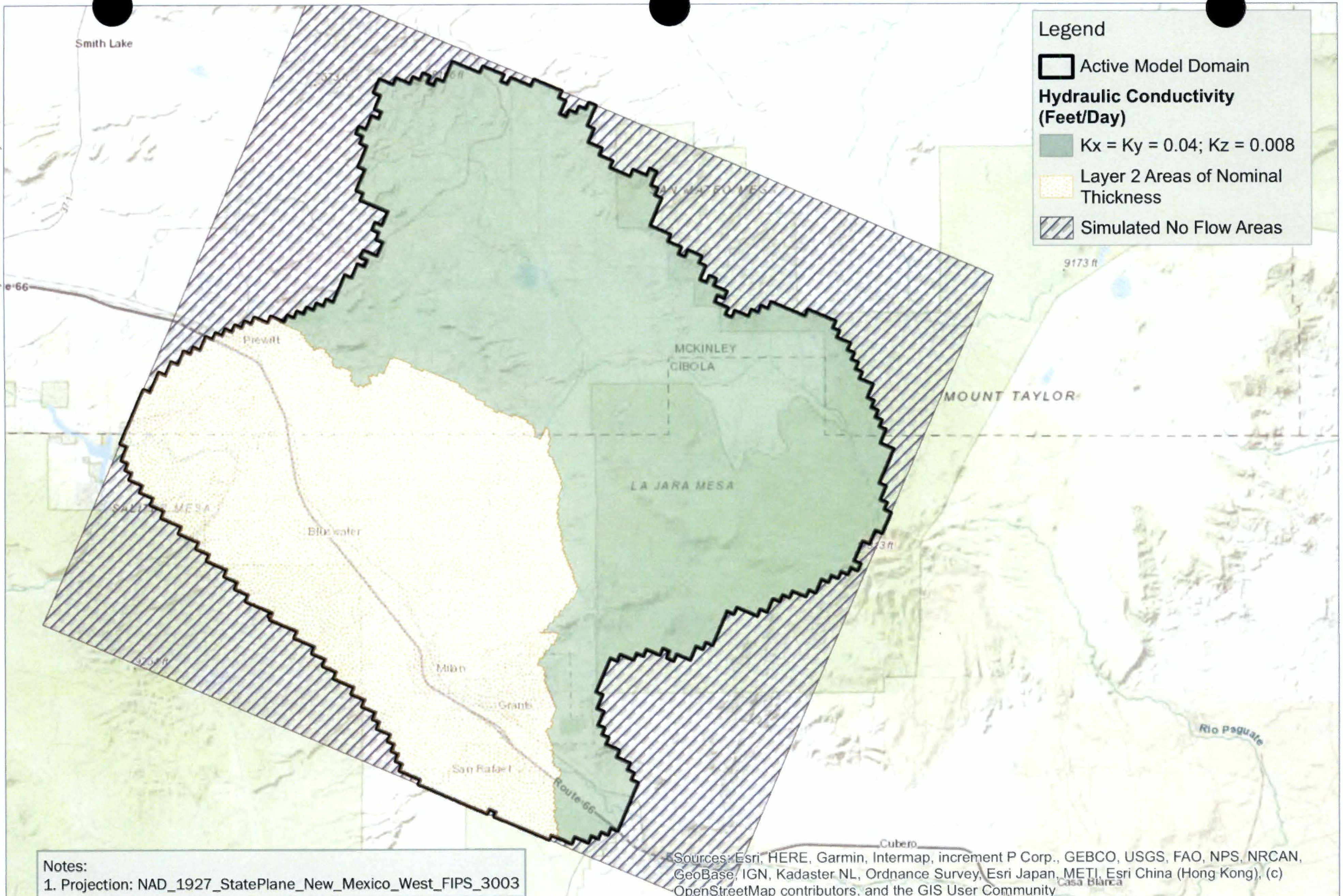
0 2.5 5 Miles

N

Figure 2-1

Layer 1 (Alluvial Aquifer) Hydraulic Conductivity



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0 2.5 5 Miles

N

Figure 2-2

Layer 2 (Bedrock above the Chinle Group) Hydraulic Conductivity

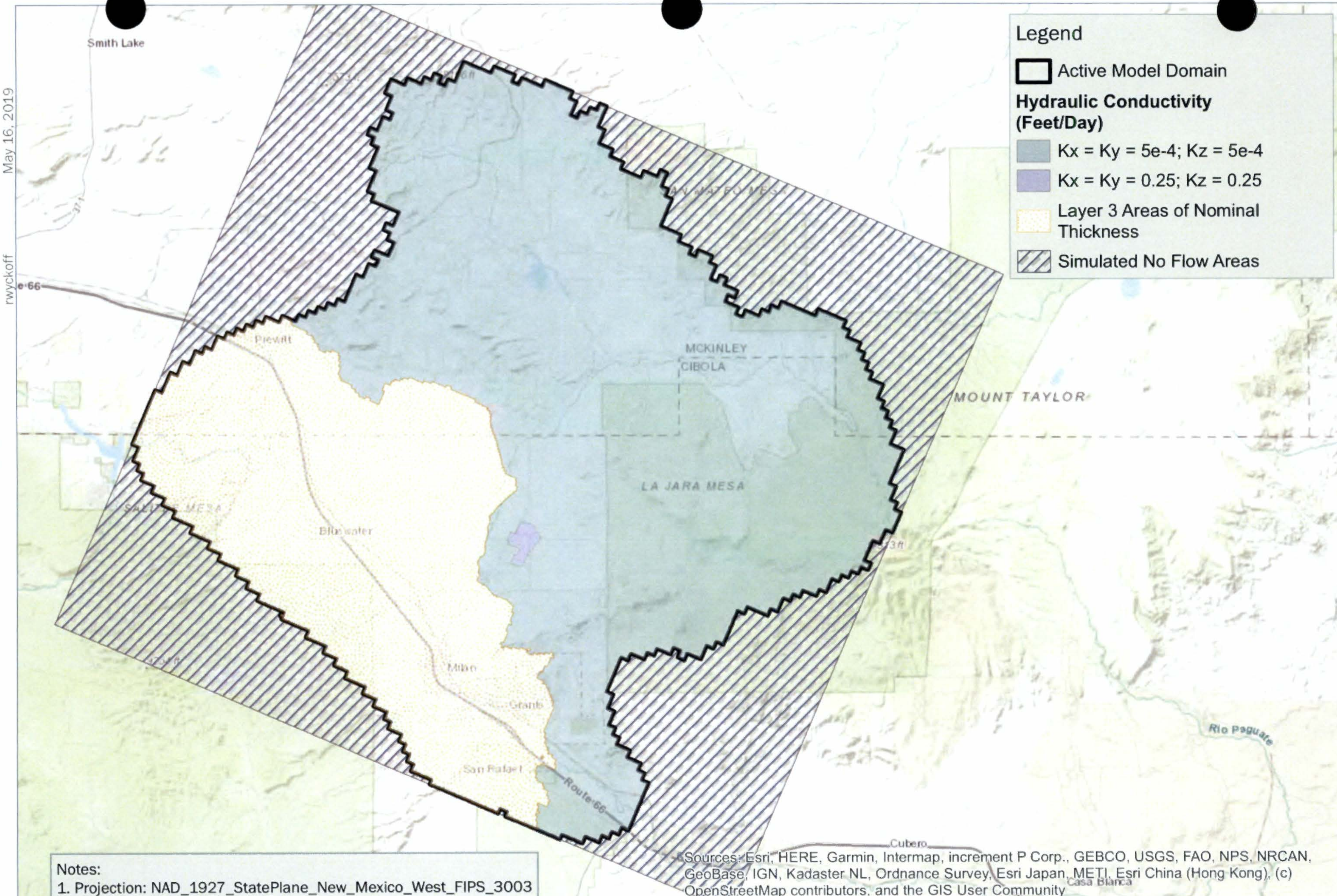

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Figure 2-3

Layer 3 (Upper Chinle Shale) Hydraulic Conductivity

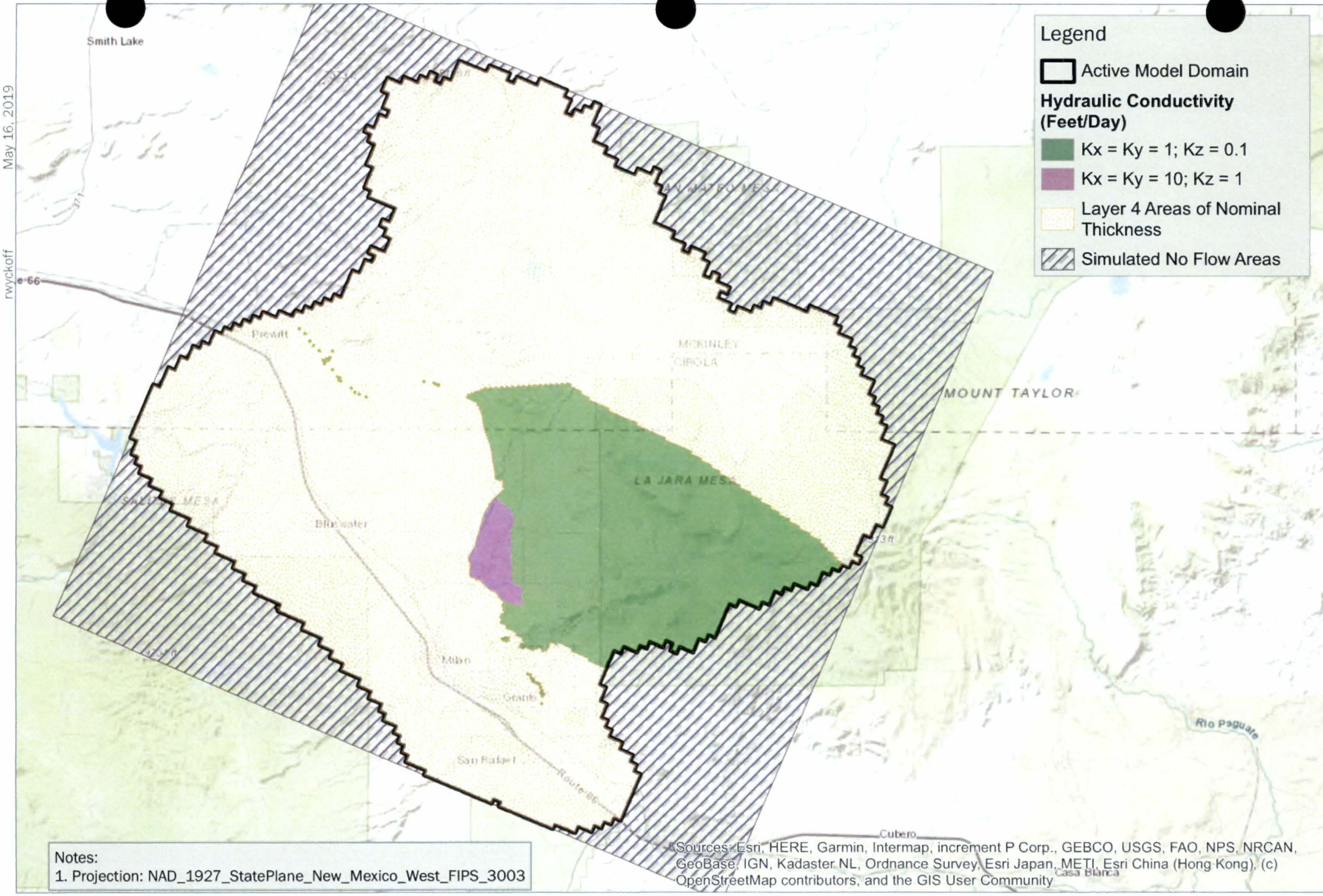

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Figure 2-4

Layer 4 (Upper Chinle Aquifer) Hydraulic Conductivity

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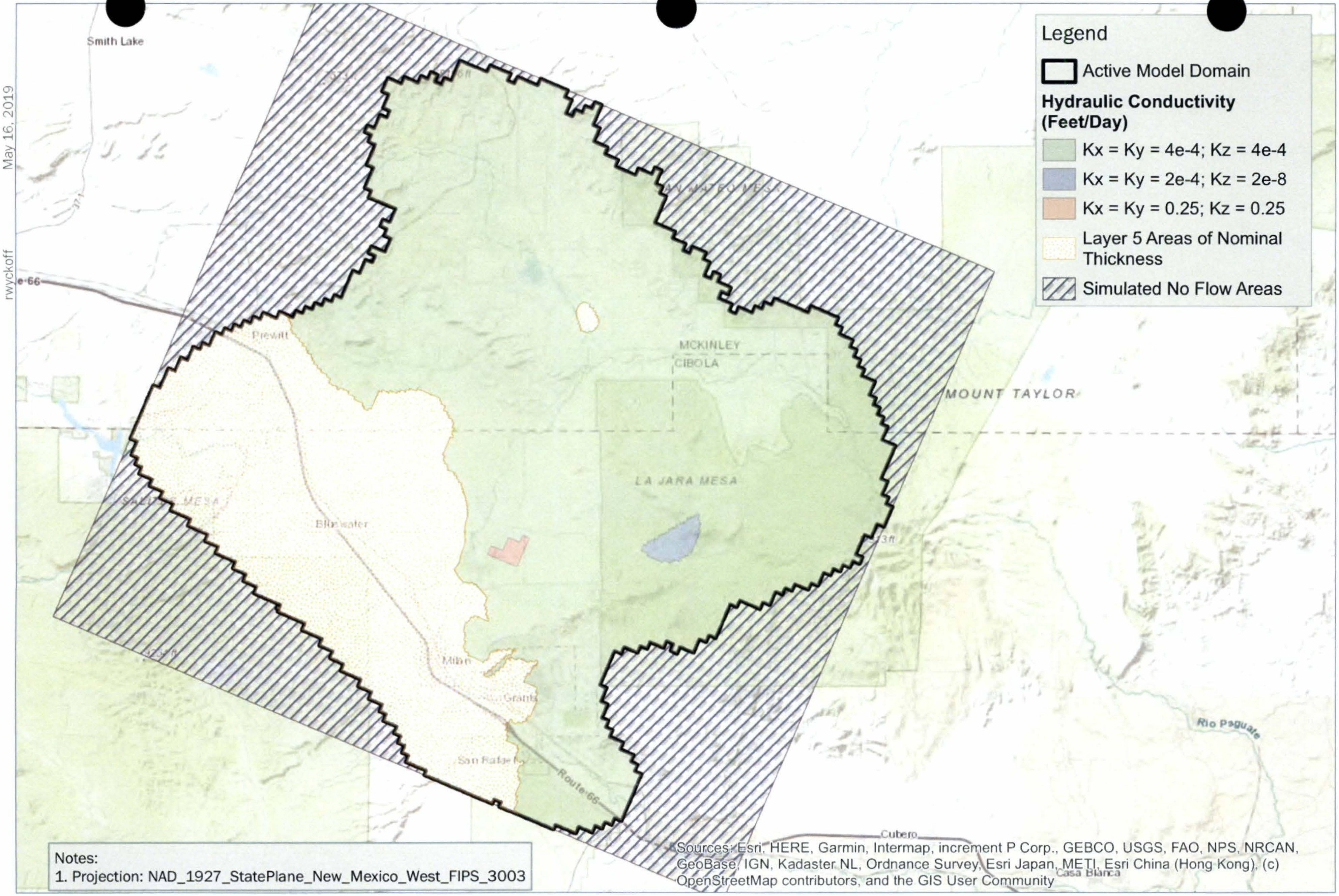

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Figure 2-5

Layer 5 (Middle Chinle Shale) Hydraulic Conductivity

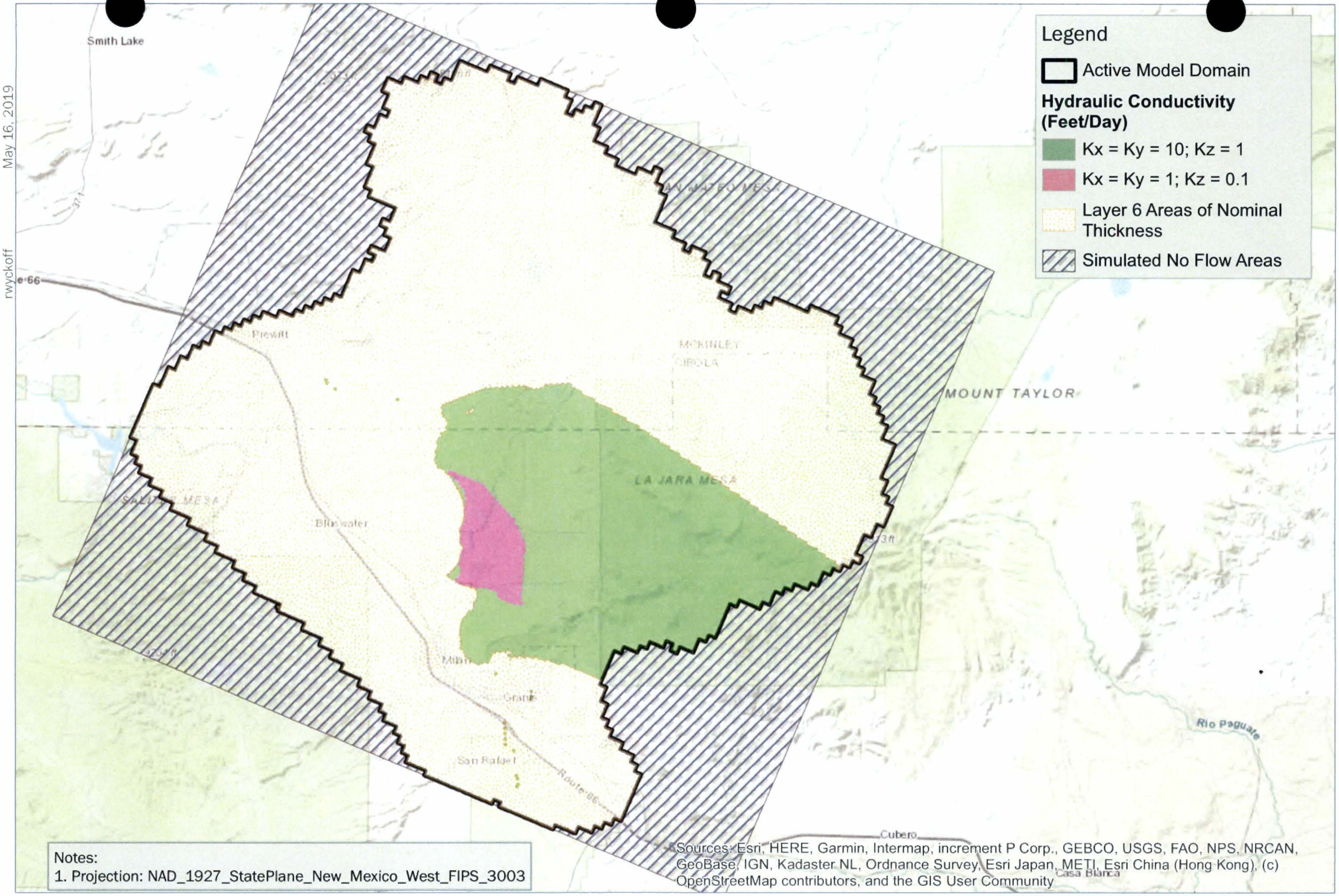

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Figure 2-6

Layer 6 (Middle Chinle Aquifer) Hydraulic Conductivity

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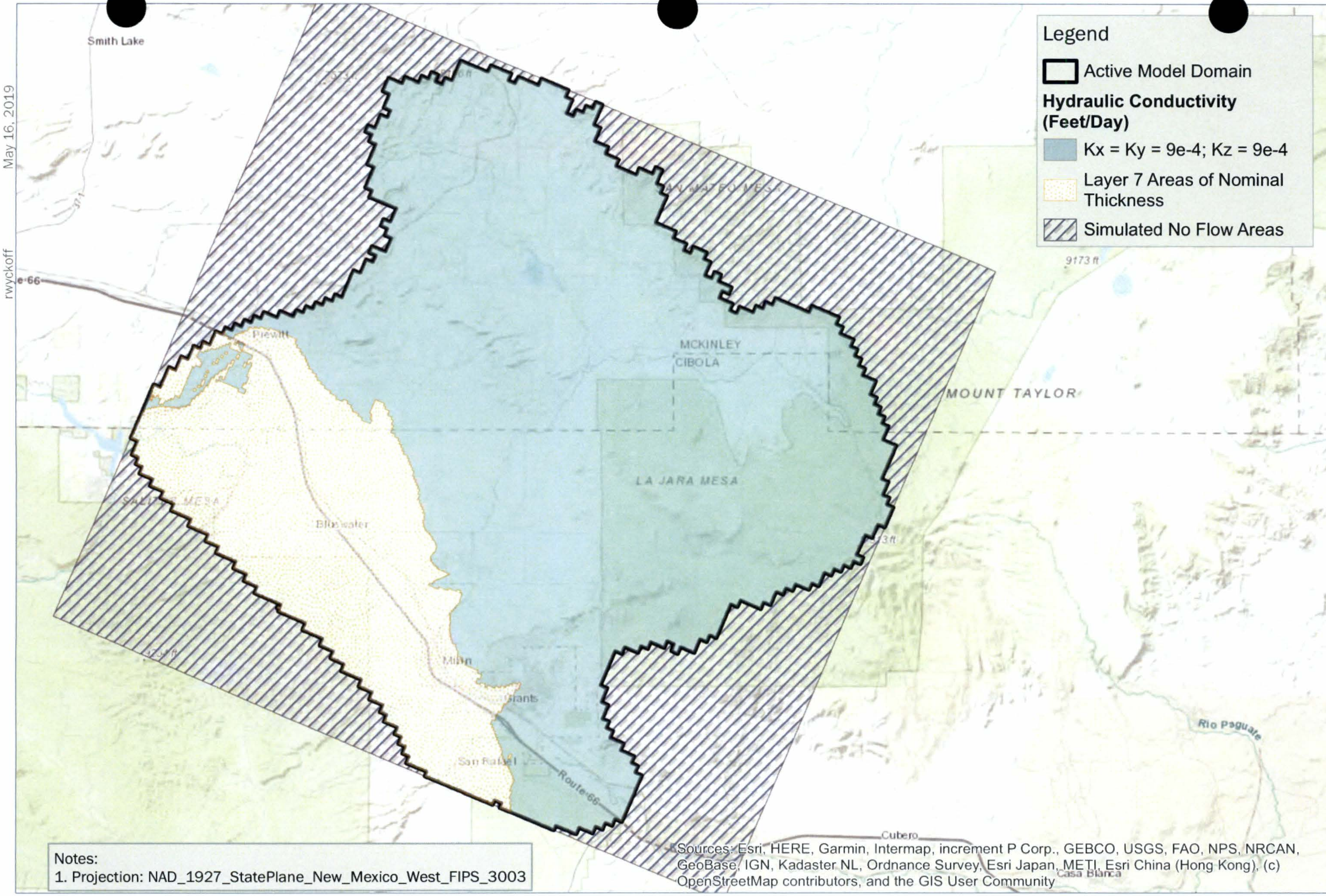

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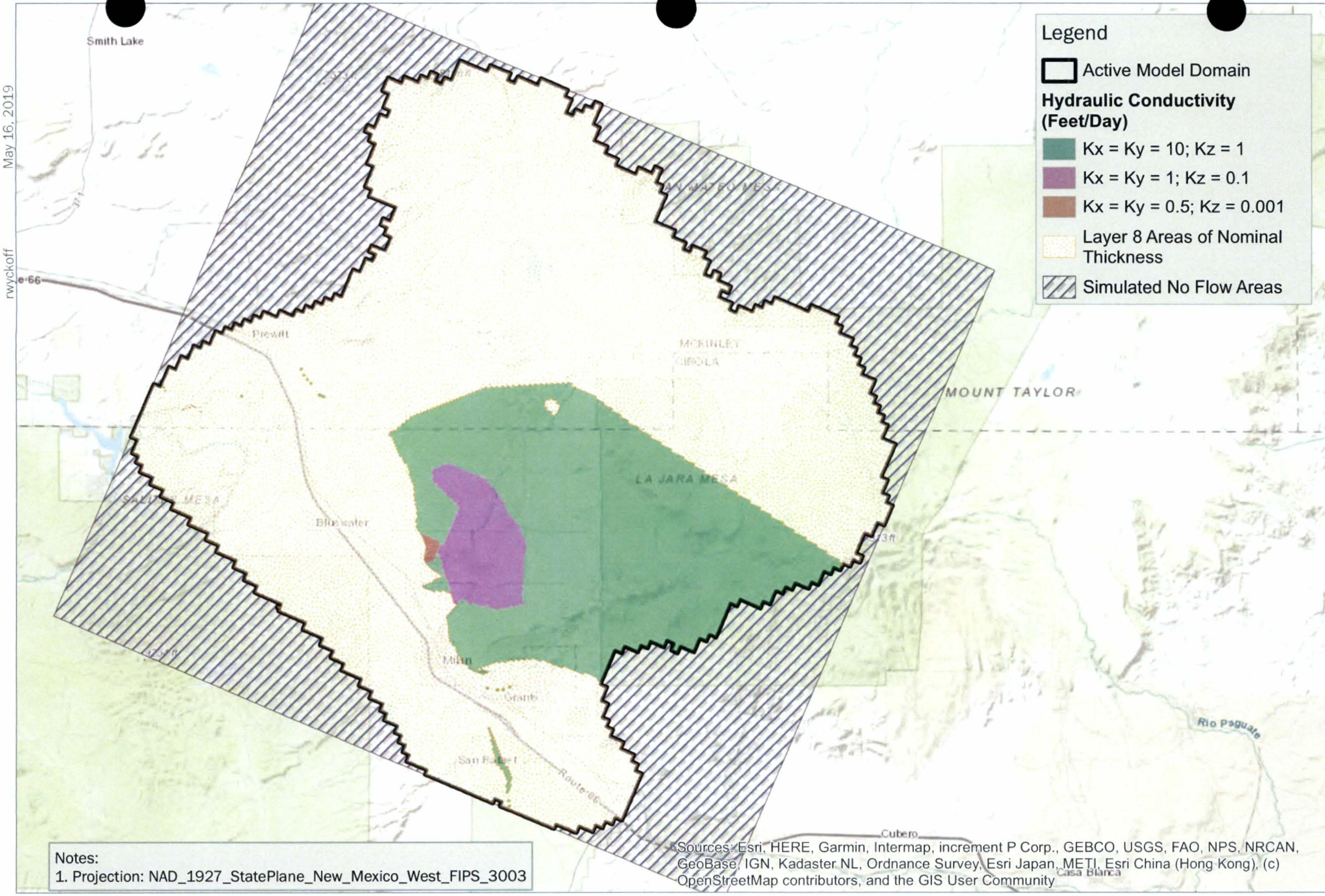
0 2.5 5 Miles

N

Figure 2-7

Layer 7 (Middle Chinle Shale) Hydraulic Conductivity



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

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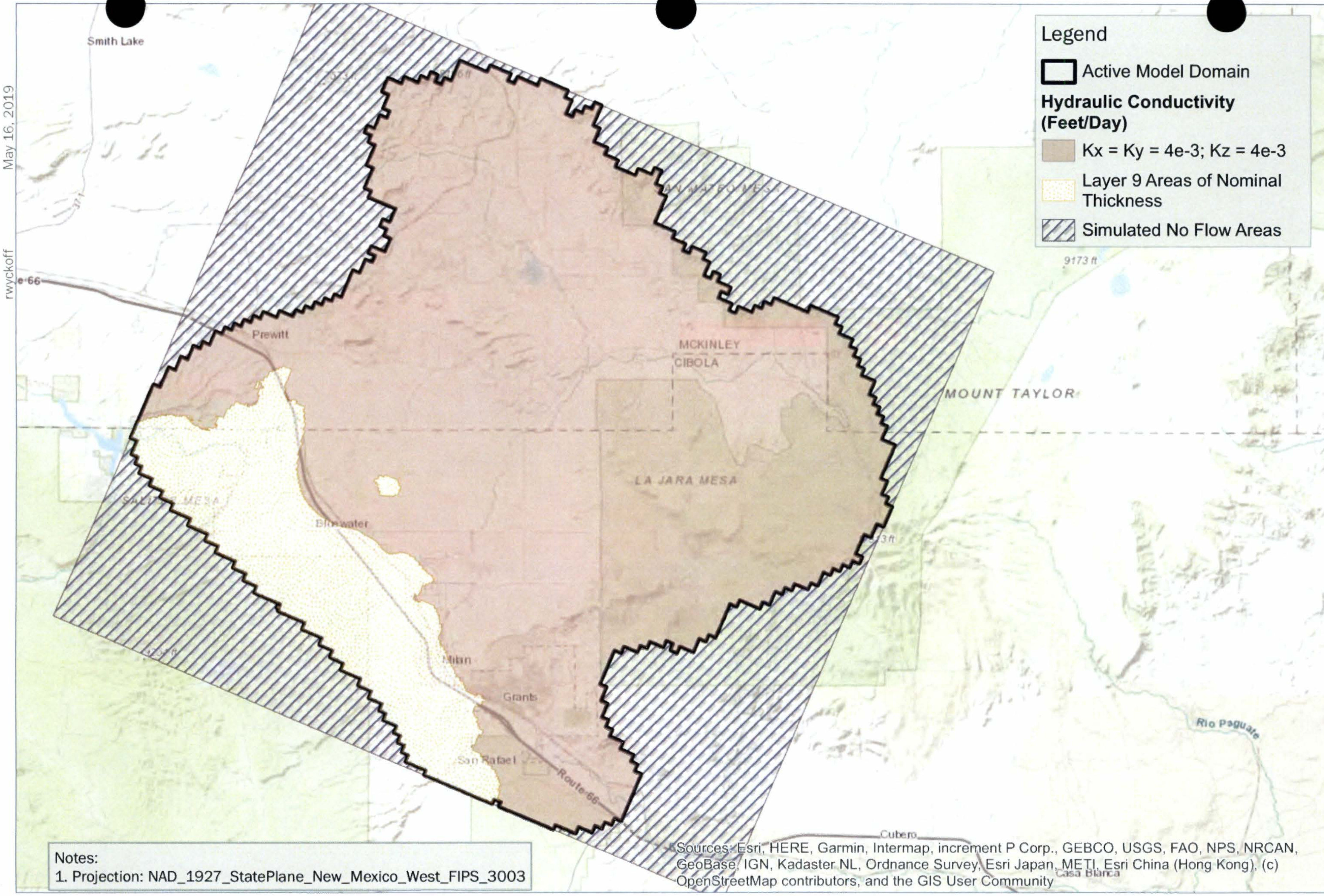
Figure 2-8

Layer 8 (Lower Chinle Aquifer) Hydraulic Conductivity



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

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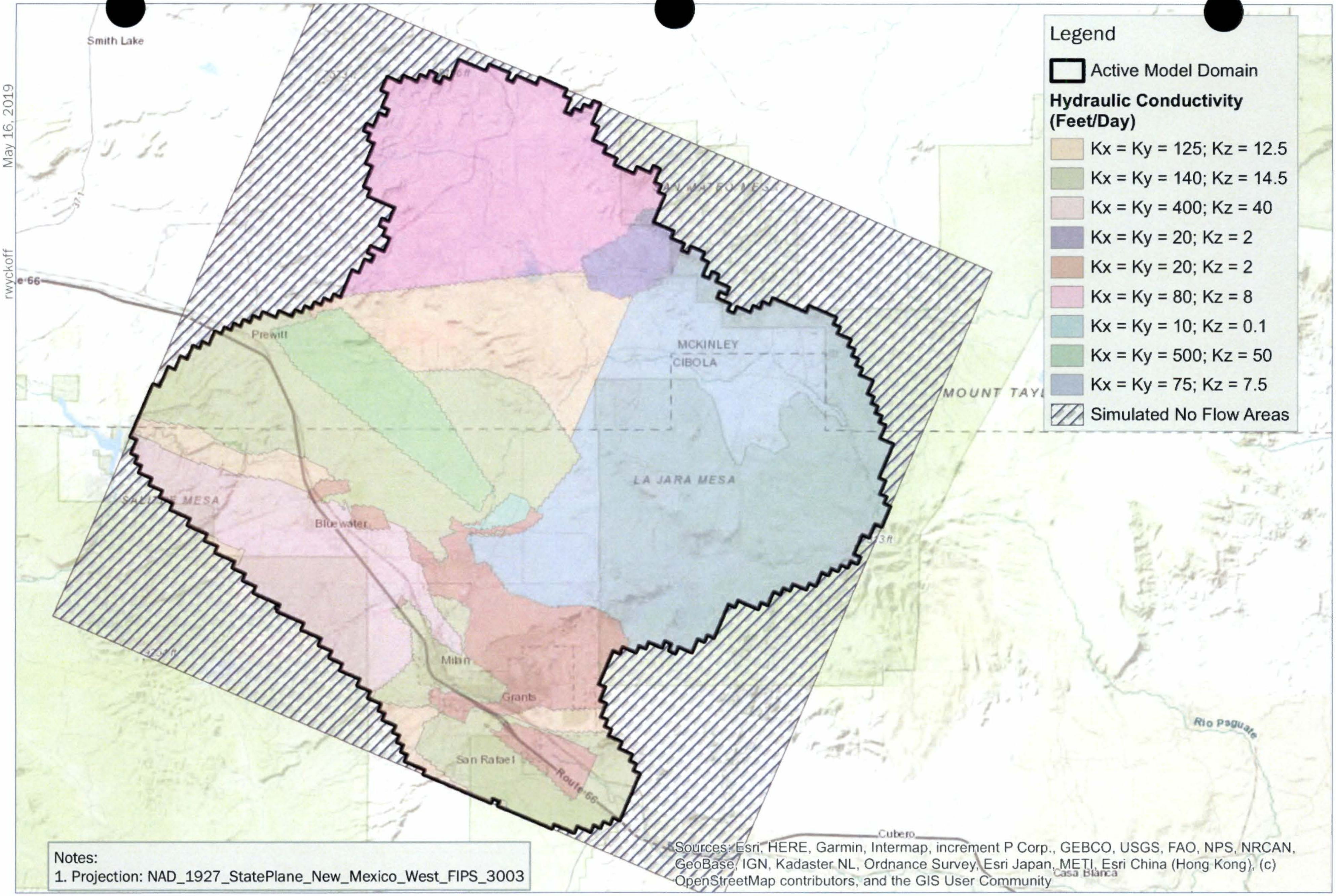
0 2.5 5 Miles

N

Figure 2-9

Layer 9 (Lower Chinle Shale) Hydraulic Conductivity



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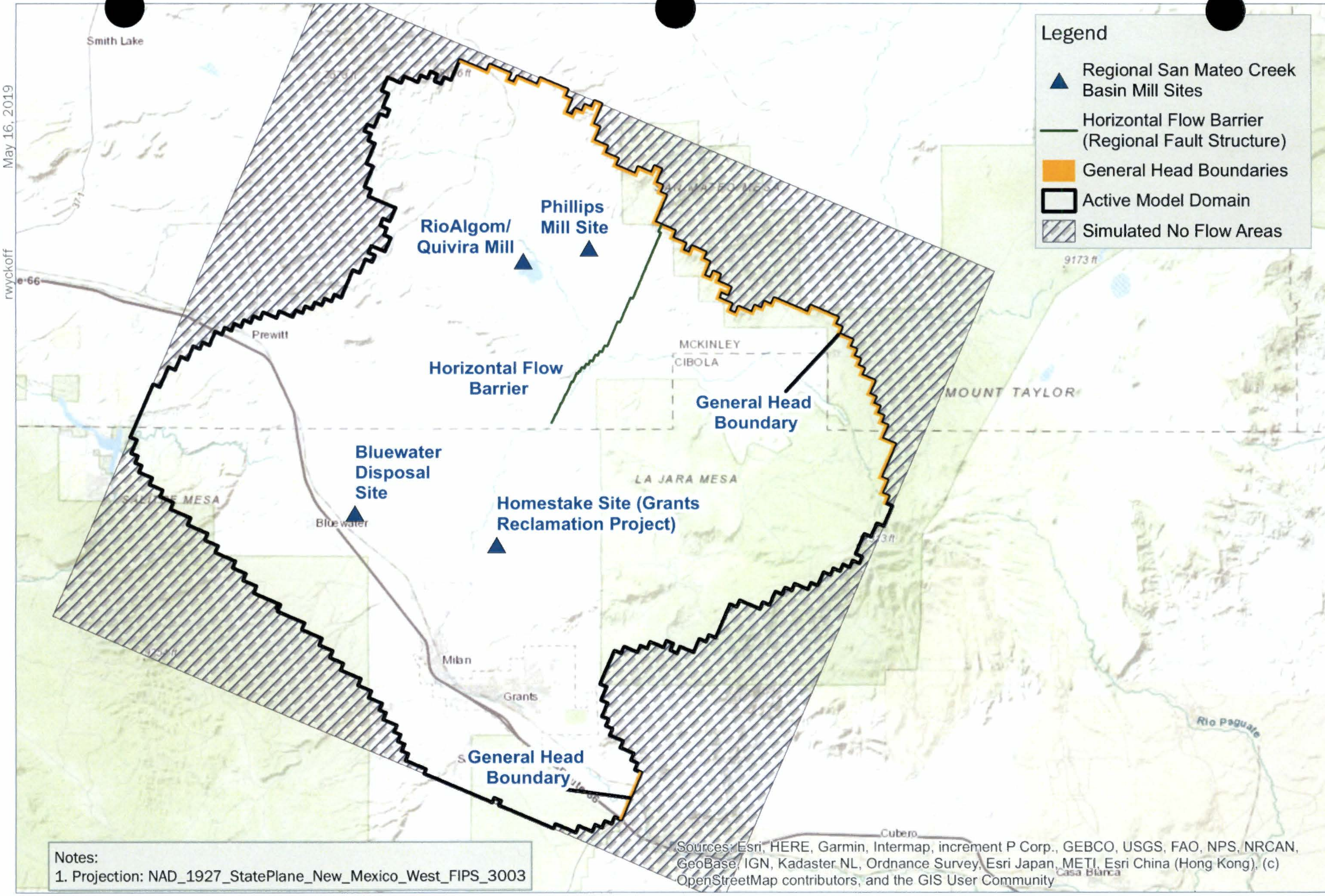
0 2.5 5 Miles

N

Figure 2-10

Layer 10 (San Andres/Glorieta Aquifer) Hydraulic Conductivity



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

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Figure 2-11

Layer 2 (Bedrock Above Chinle Group) Boundary Conditions

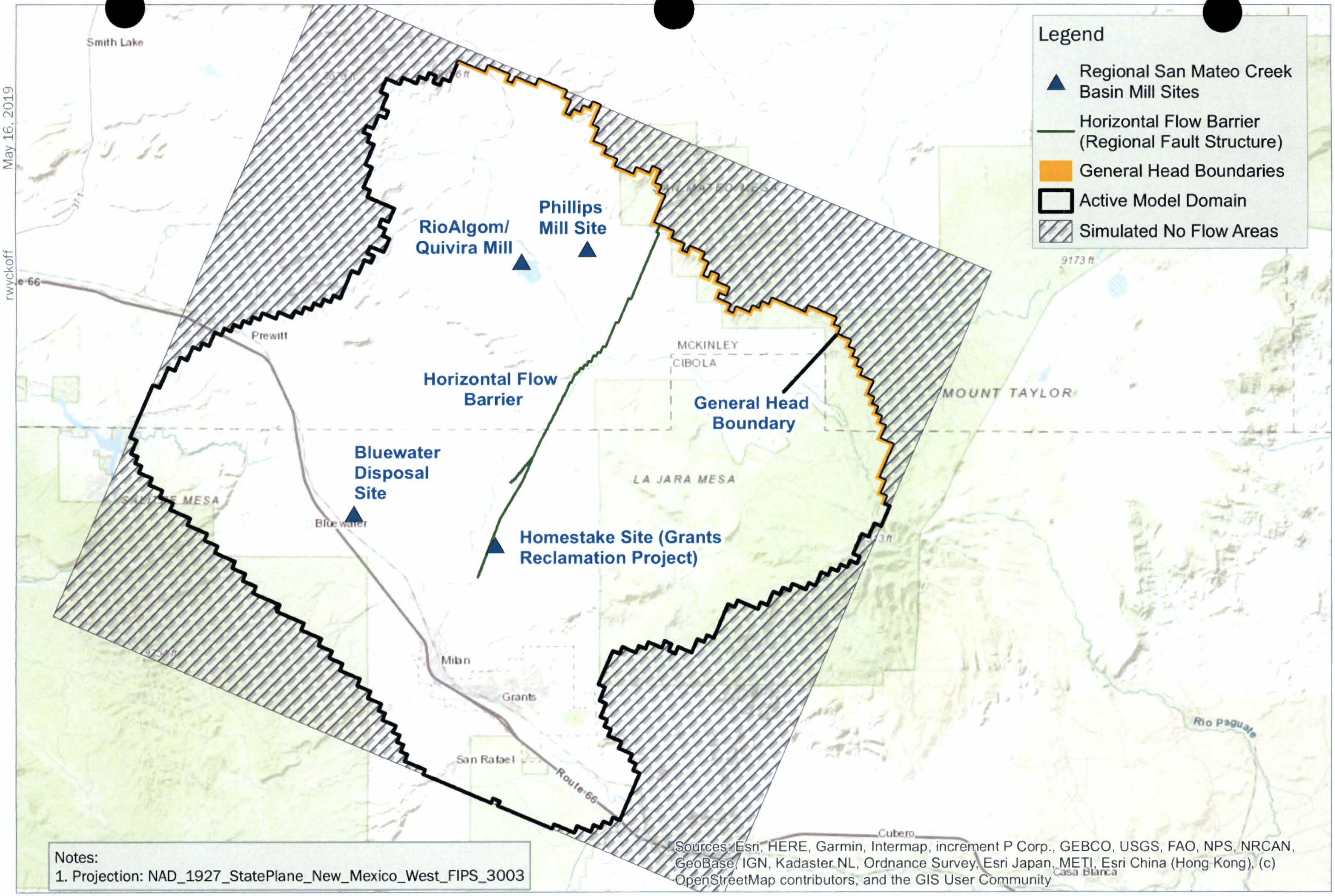

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Figure 2-12

Layer 3 (Upper Chinle Shale) Boundary Conditions

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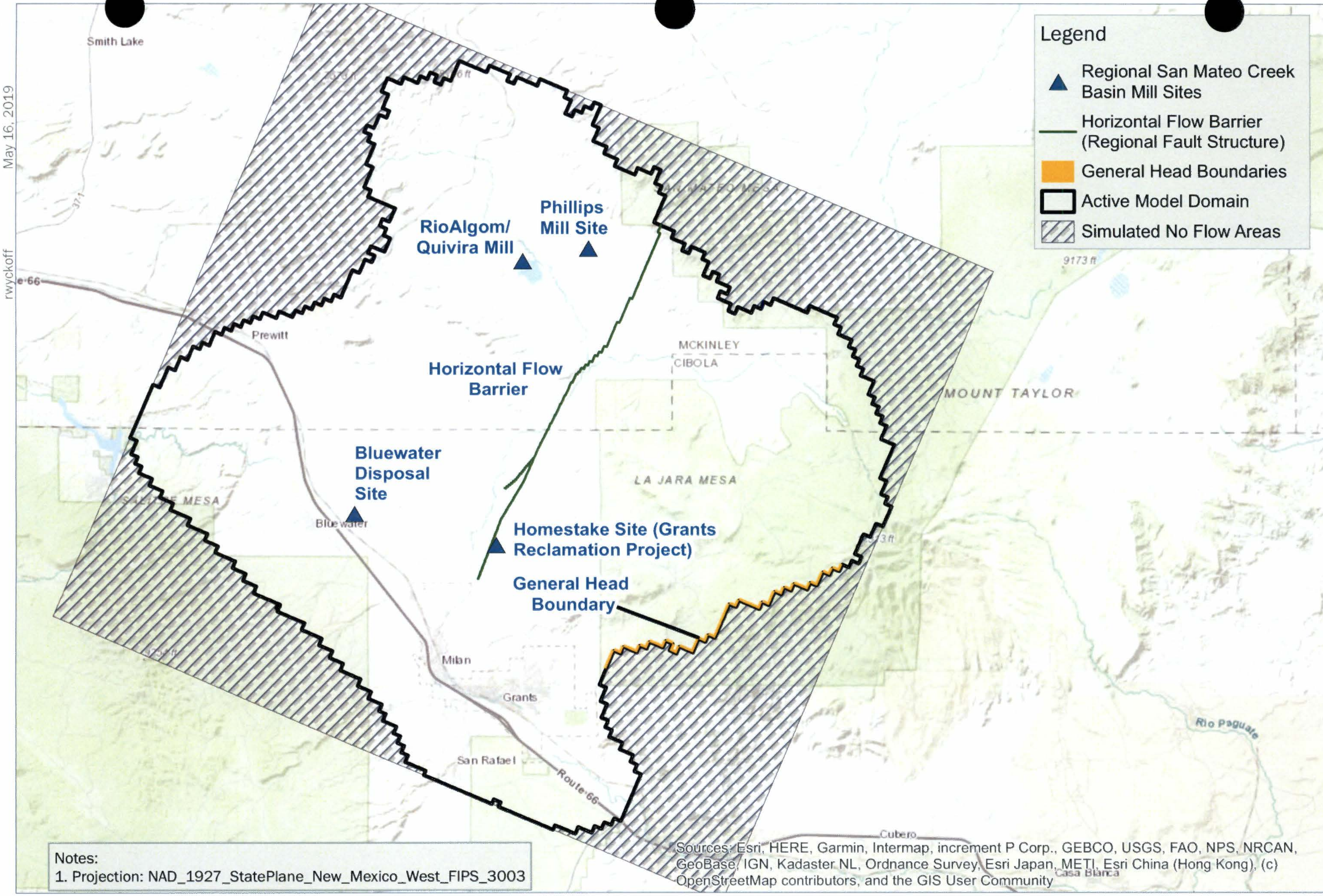

Notes:
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0 2.5 5 Miles

N

Figure 2-13

Layer 4 (Upper Chinle Aquifer) Boundary Conditions

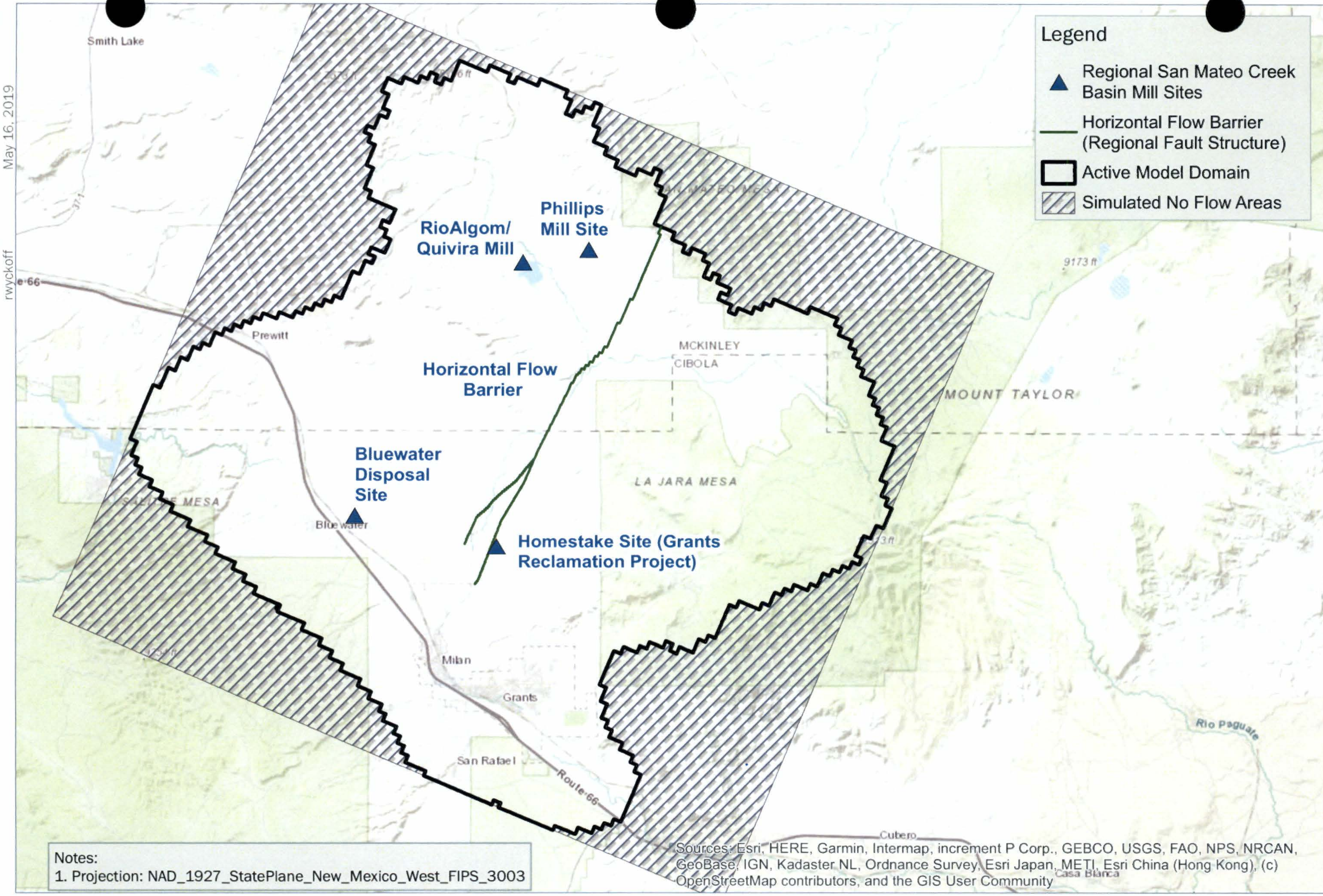

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Figure 2-14

Layer 5 (Middle Chinle Shale) Boundary Conditions

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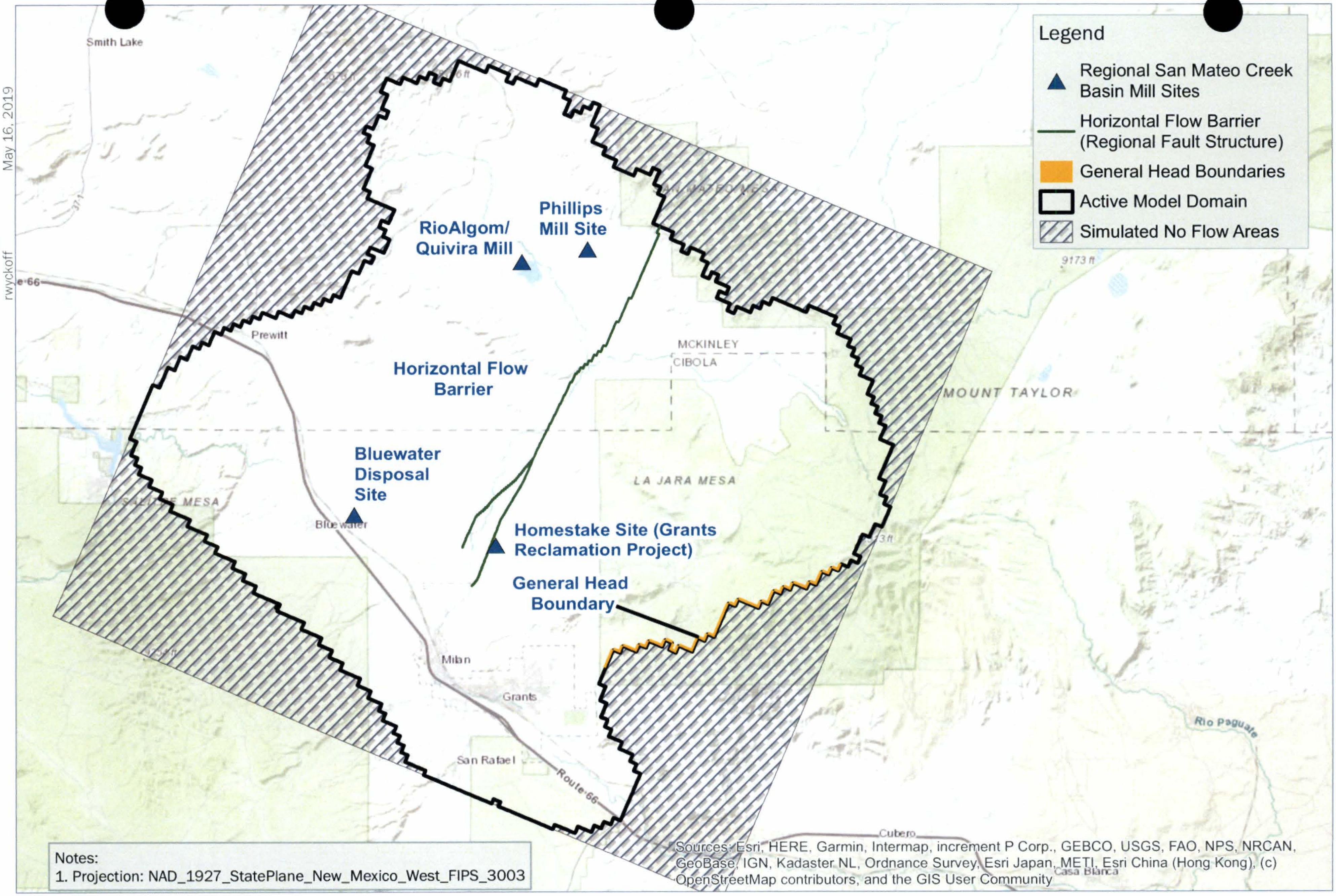

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0 2.5 5 Miles

N

Figure 2-15

Layer 6 (Middle Chinle Aquifer) Boundary Conditions

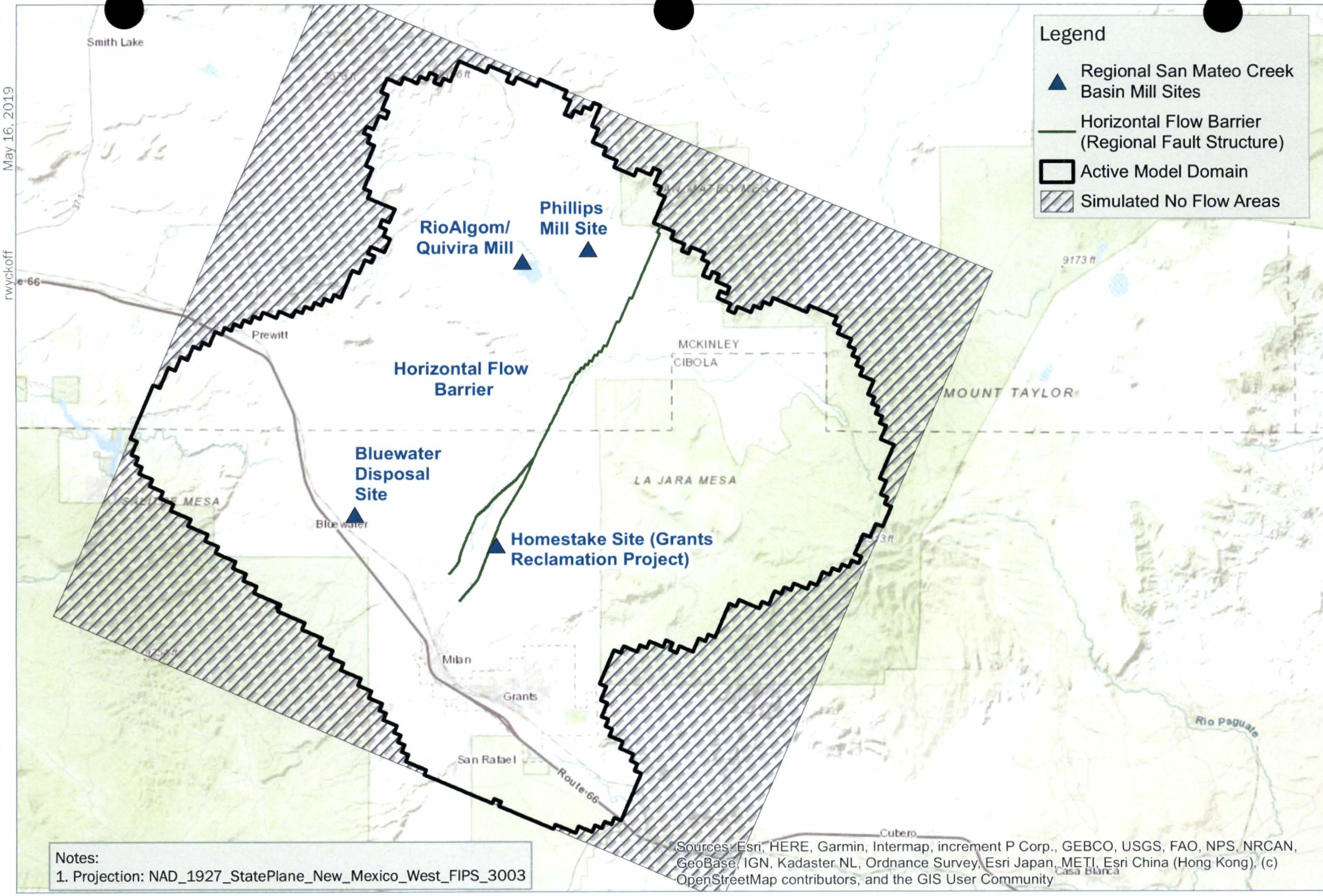

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Figure 2-16

Layer 7 (Middle Chinle Shale) Boundary Conditions

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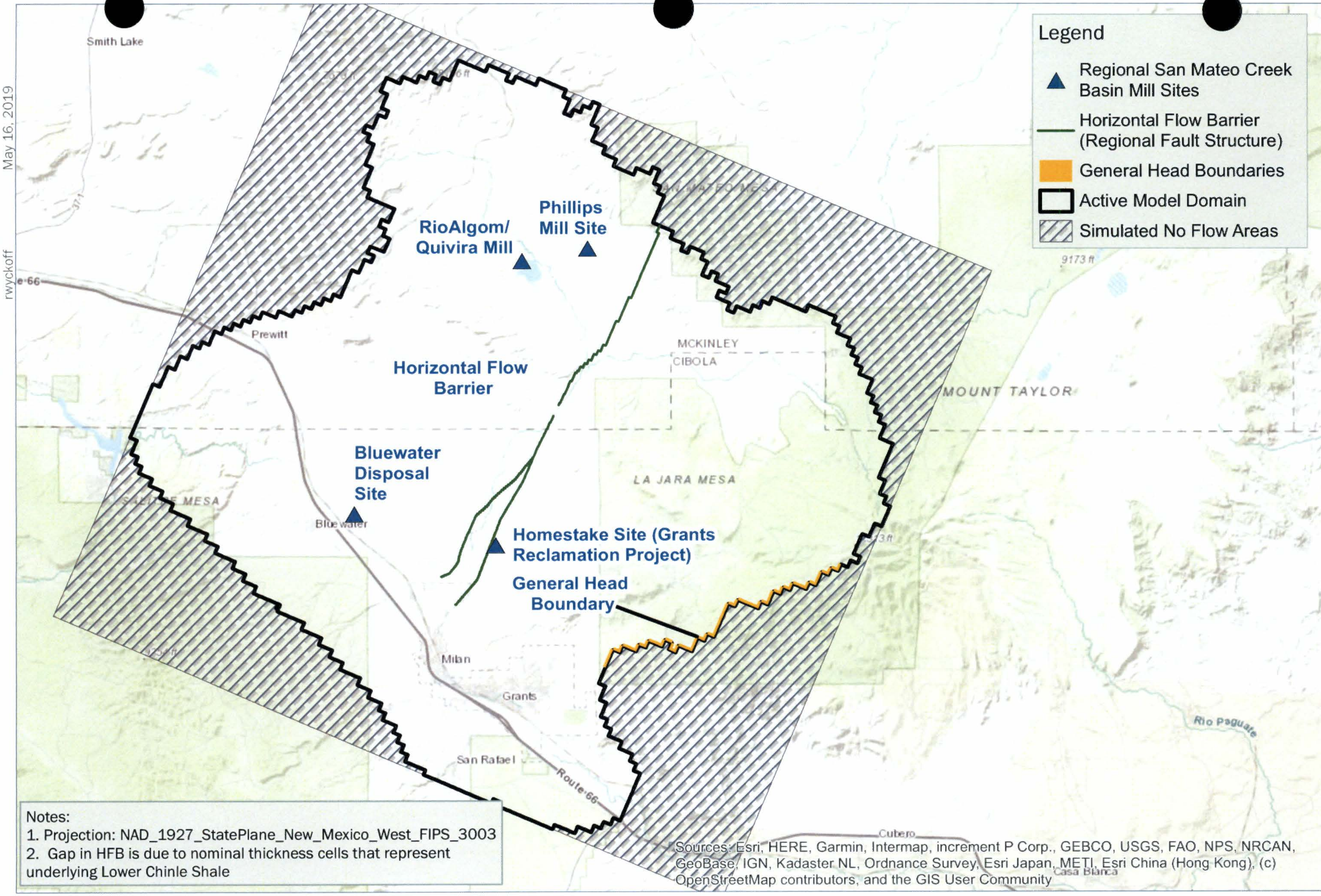

Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003
2. Gap in HFB is due to nominal thickness cells that represent underlying Lower Chinle Shale

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0 2.5 5 Miles

N

Figure 2-17

Layer 8 (Lower Chinle Aquifer) Boundary Conditions

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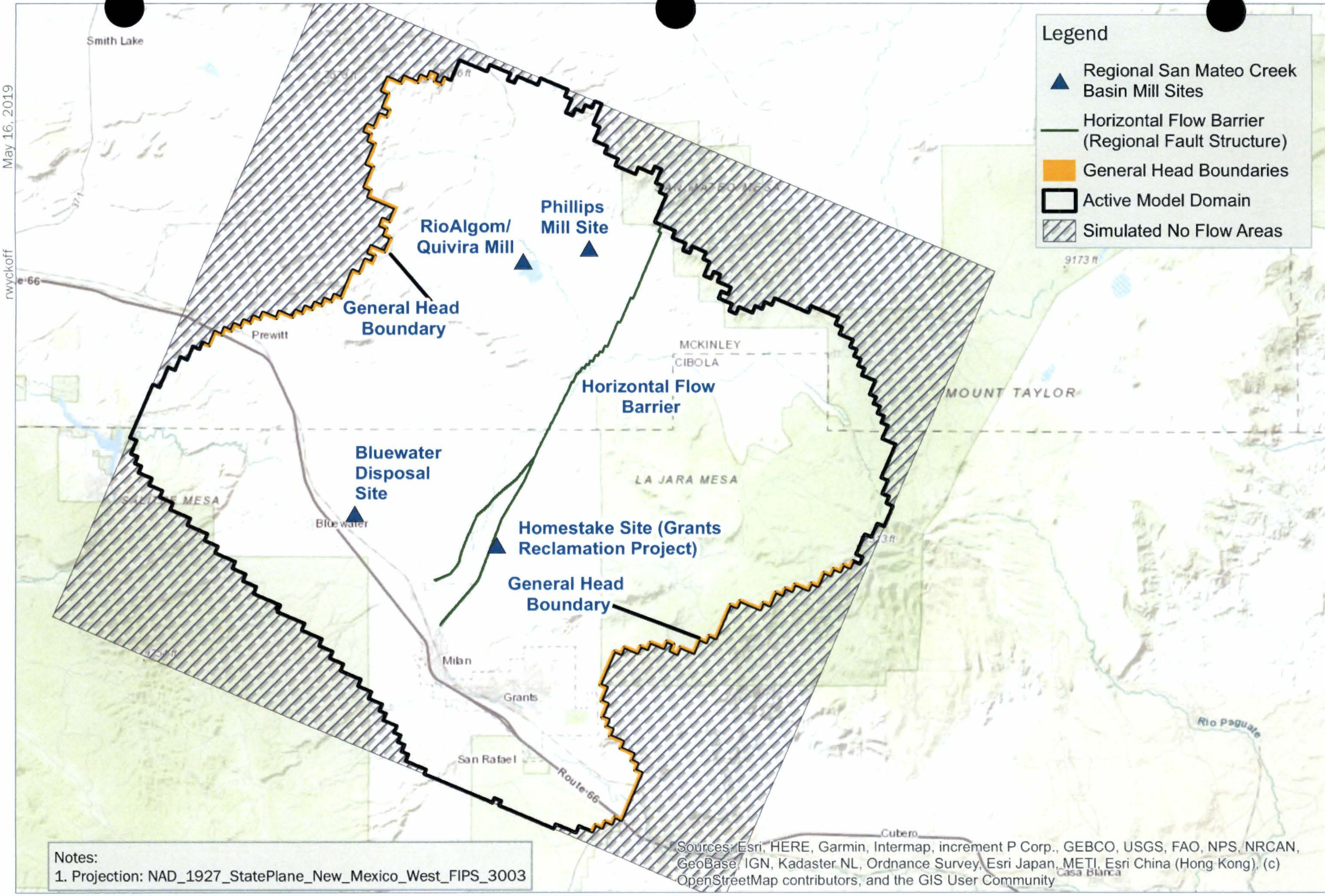

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Figure 2-18

Layer 9 (Lower Chinle Shale) Boundary Conditions

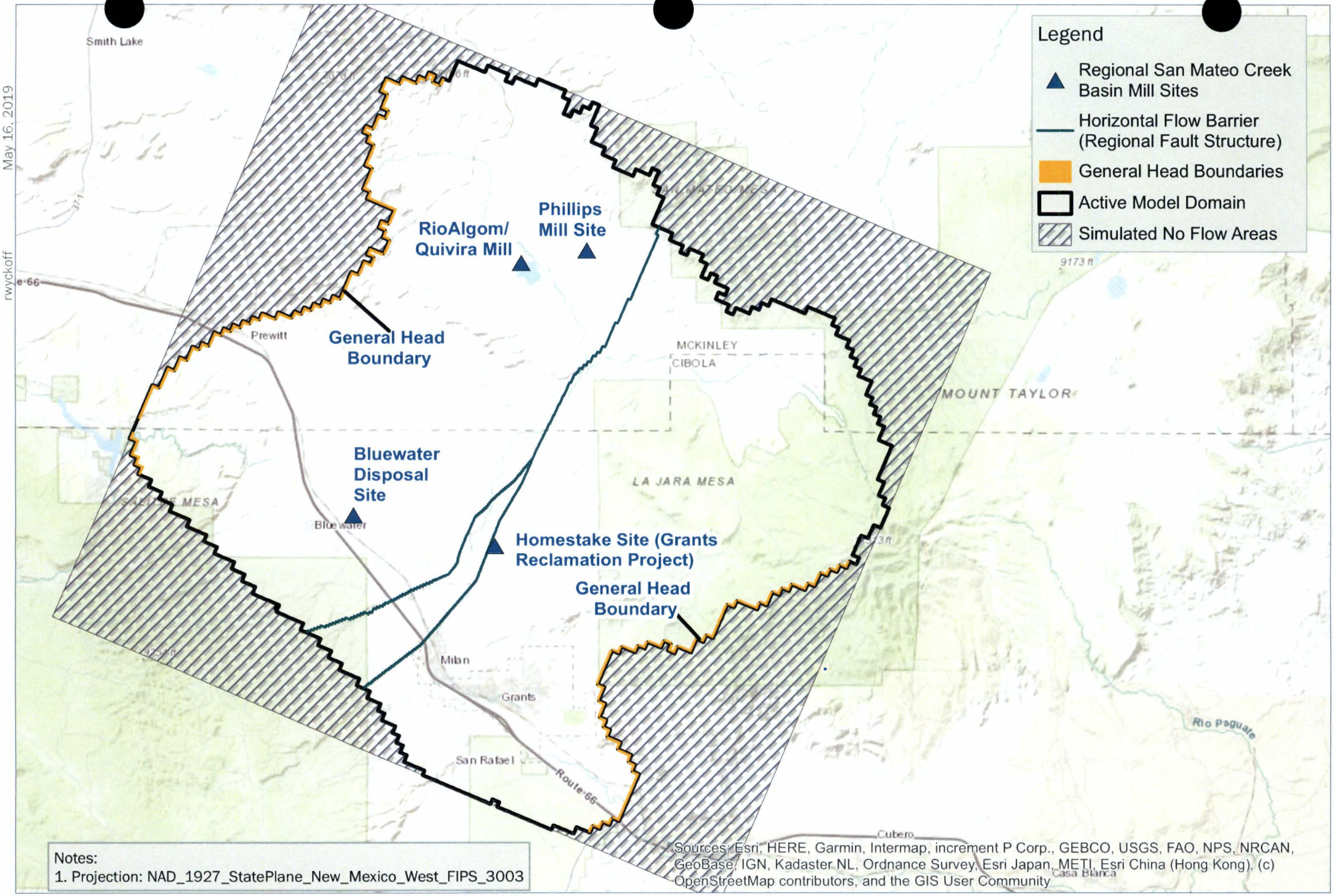

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Figure 2-19

Layer 10 (San Andres/Glorieta Aquifer) Boundary Conditions

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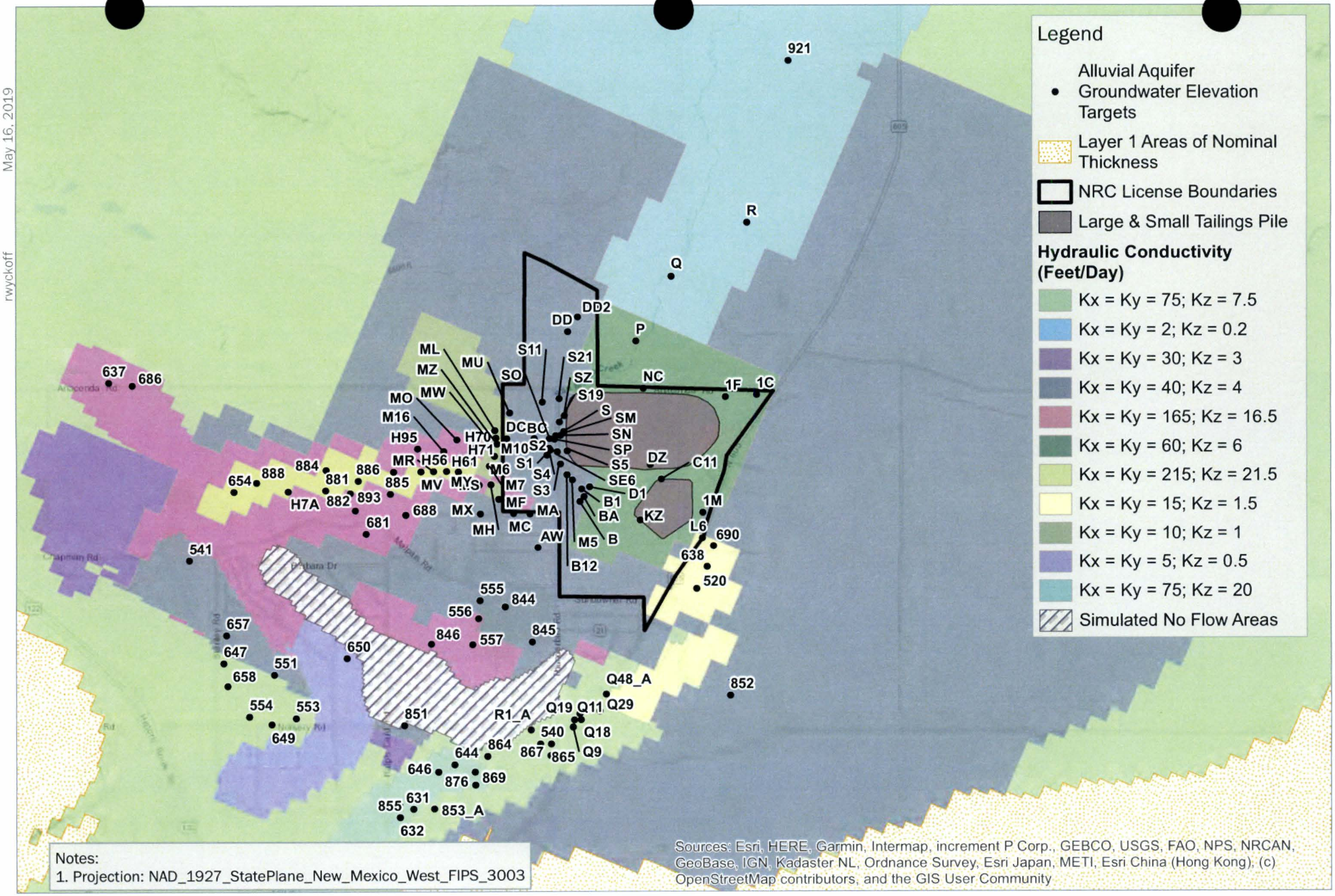

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Date: June 2019

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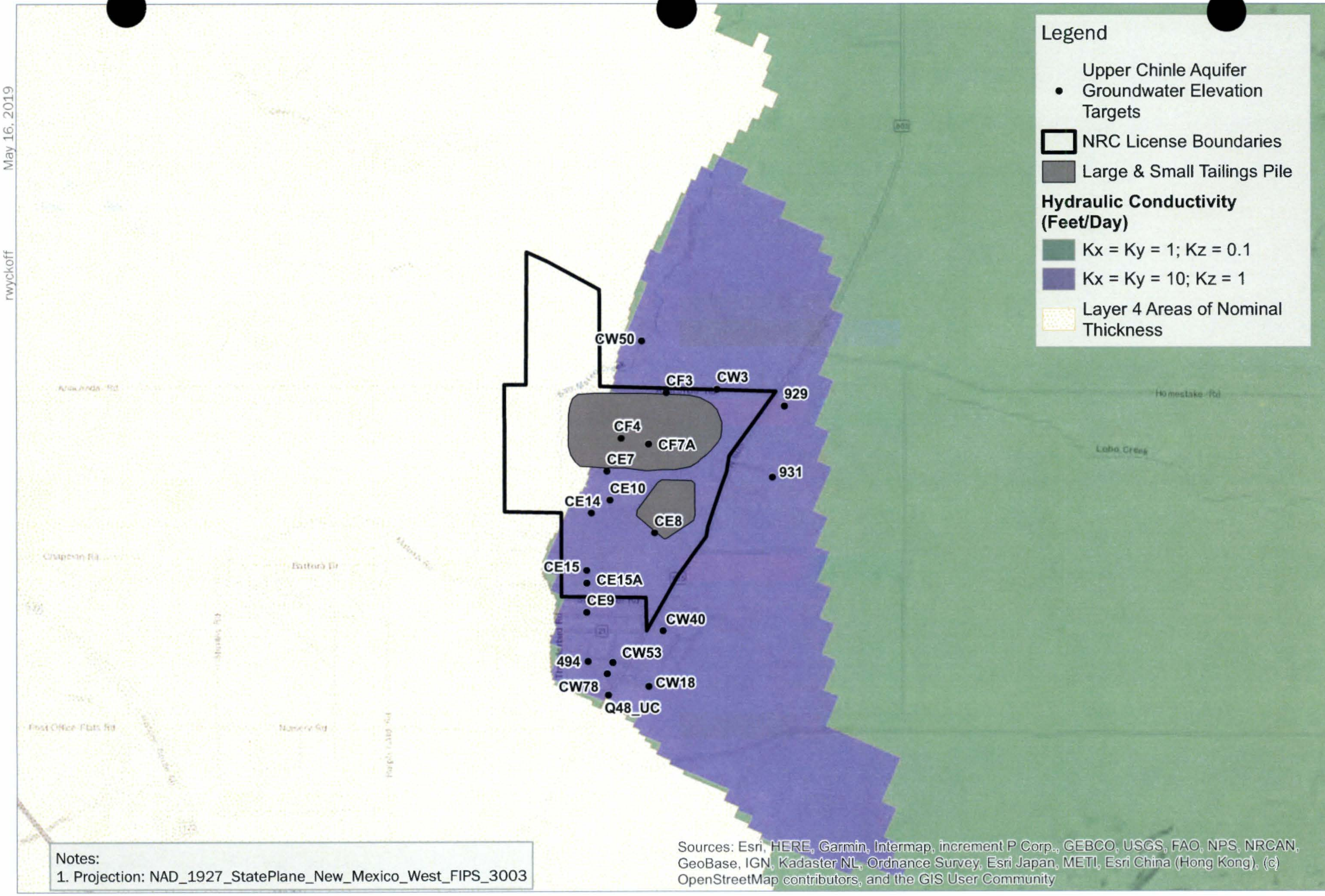
0 2,000 4,000 Feet

N

Figure 2-20

Layer 1 (Alluvial Aquifer) Hydraulic Conductivity and Groundwater Elevation Targets - HMC Mill Site Area



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0 2,000 4,000 Feet

N

Figure 2-21

Layer 4 (Upper Chinle Aquifer) Hydraulic Conductivity and Groundwater Elevation Targets

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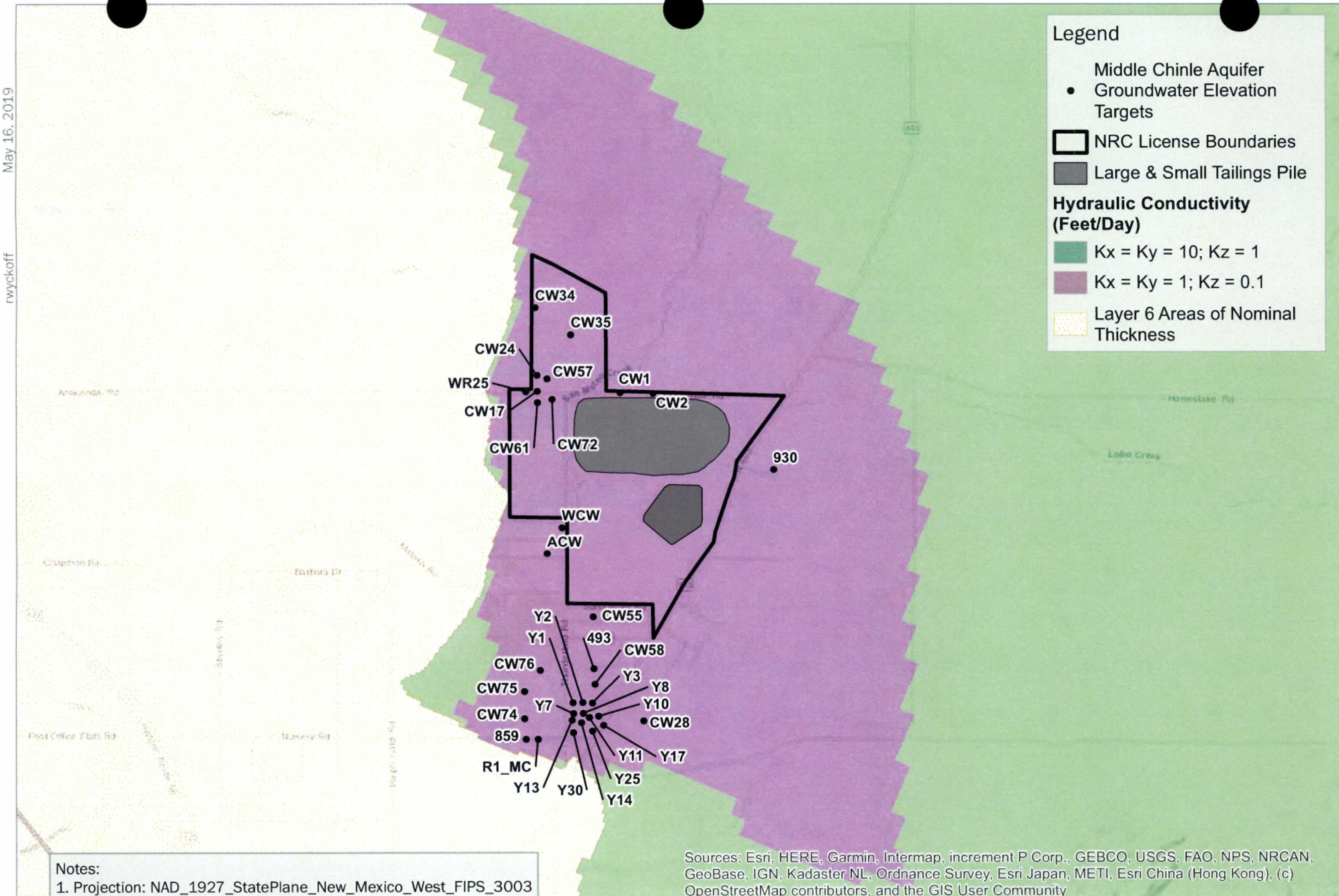

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0 2,000 4,000
Feet

N

Figure 2-22

Layer 6 (Middle Chinle Aquifer) Hydraulic Conductivity and Groundwater Elevation Targets

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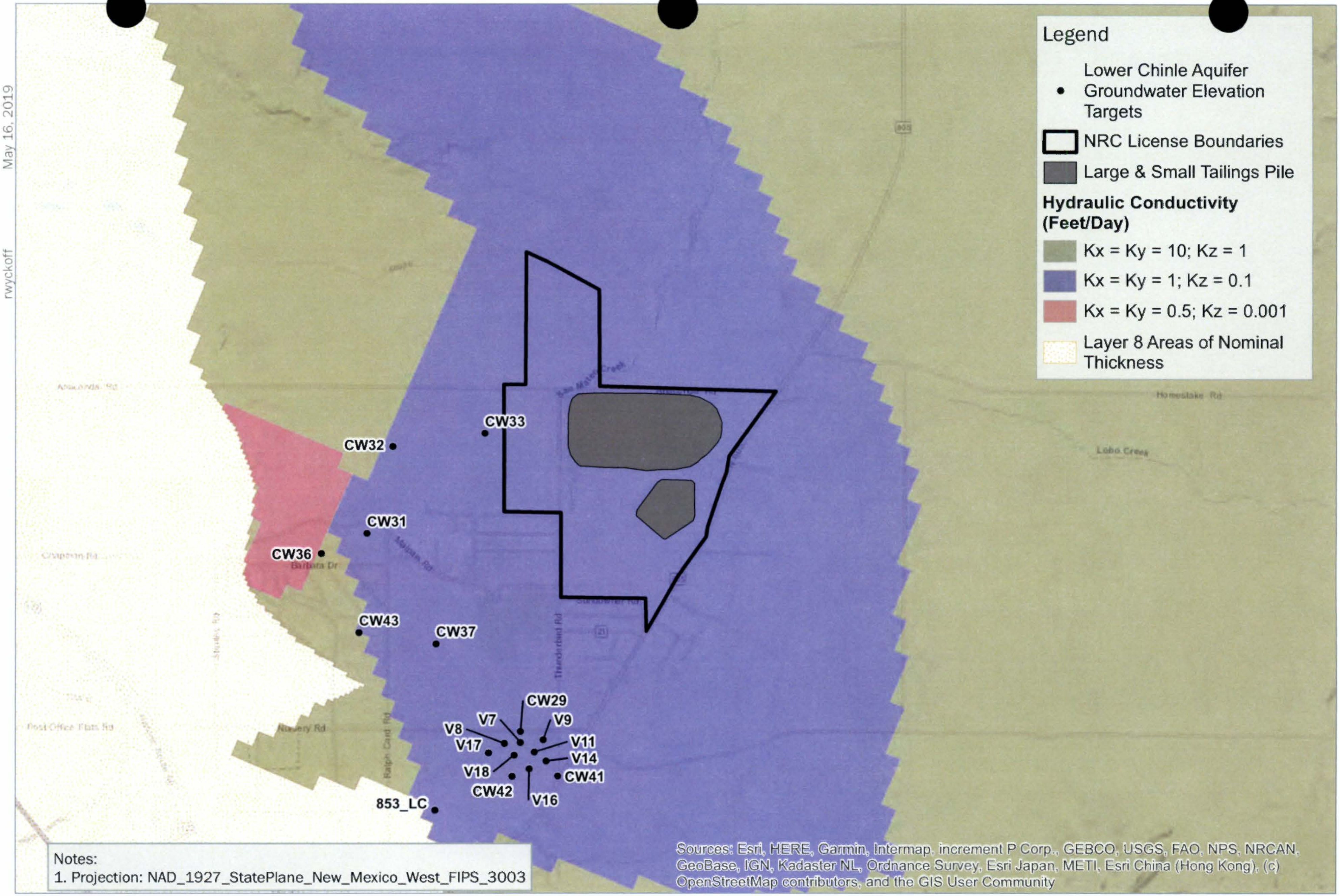

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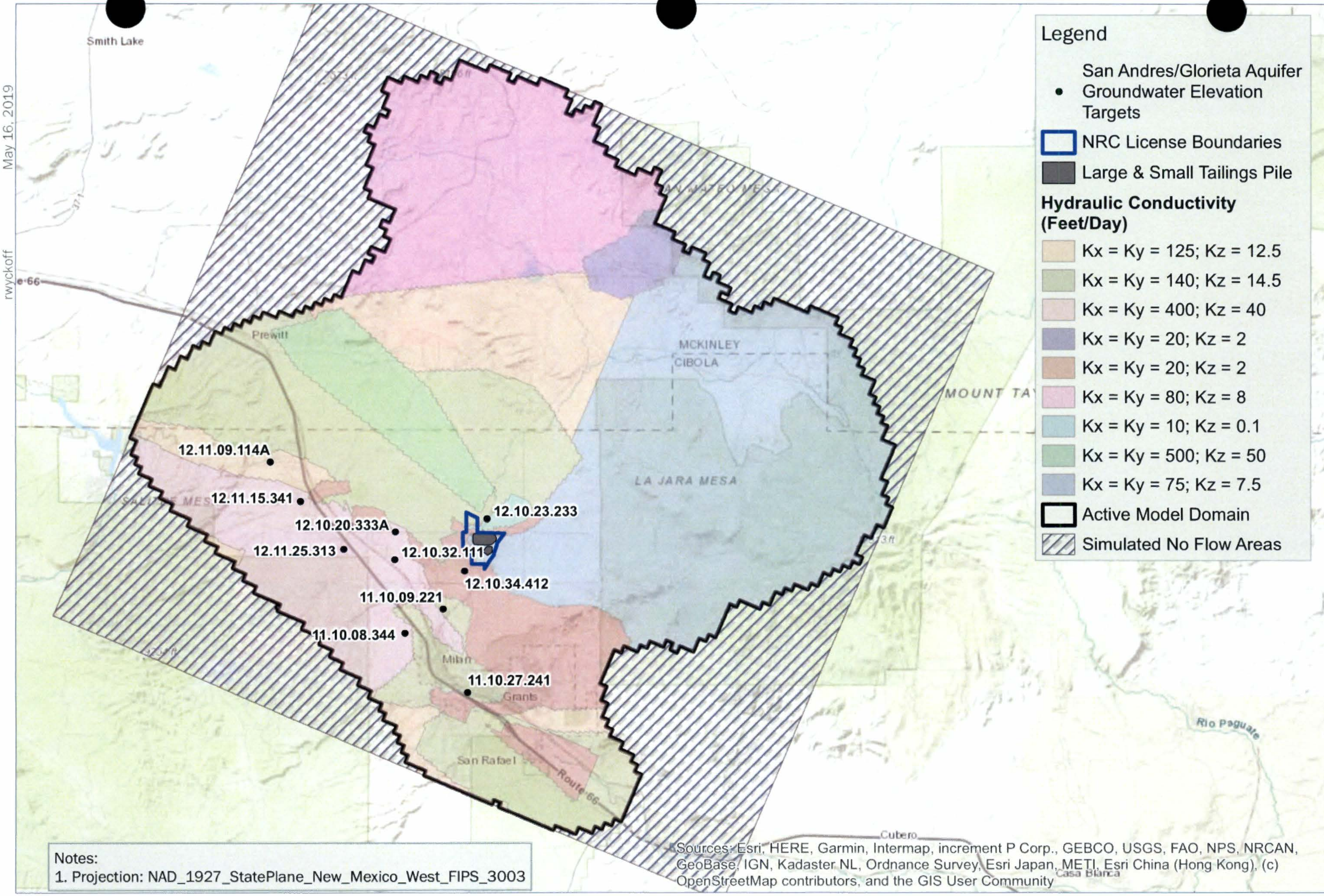
Project: 152816

0 2,000 4,000
Feet

N

Figure 2-23

Layer 8 (Lower Chinle Aquifer) Hydraulic Conductivity and Groundwater Elevation Targets



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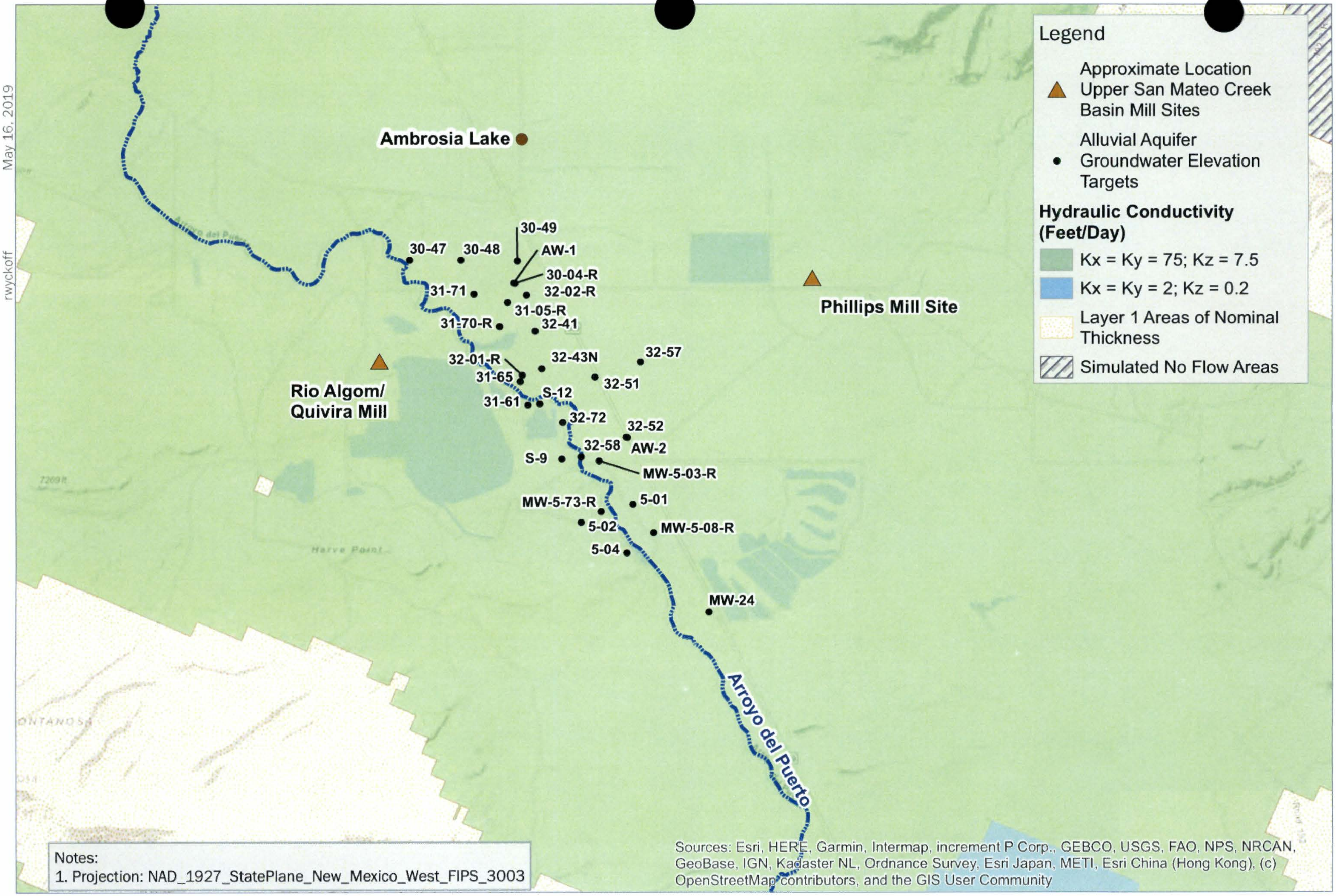
Project: 152816

0 2.5 5 Miles

N

Figure 2-24

Layer 10 (San Andres/Glorieta Aquifer) Hydraulic Conductivity and Groundwater Elevation Targets



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0 2,000 4,000 Feet

N

Figure 2-25

Layer 1 (Alluvial Aquifer) Hydraulic Conductivity and Groundwater Elevation Targets - Upper San Mateo Creek Basin

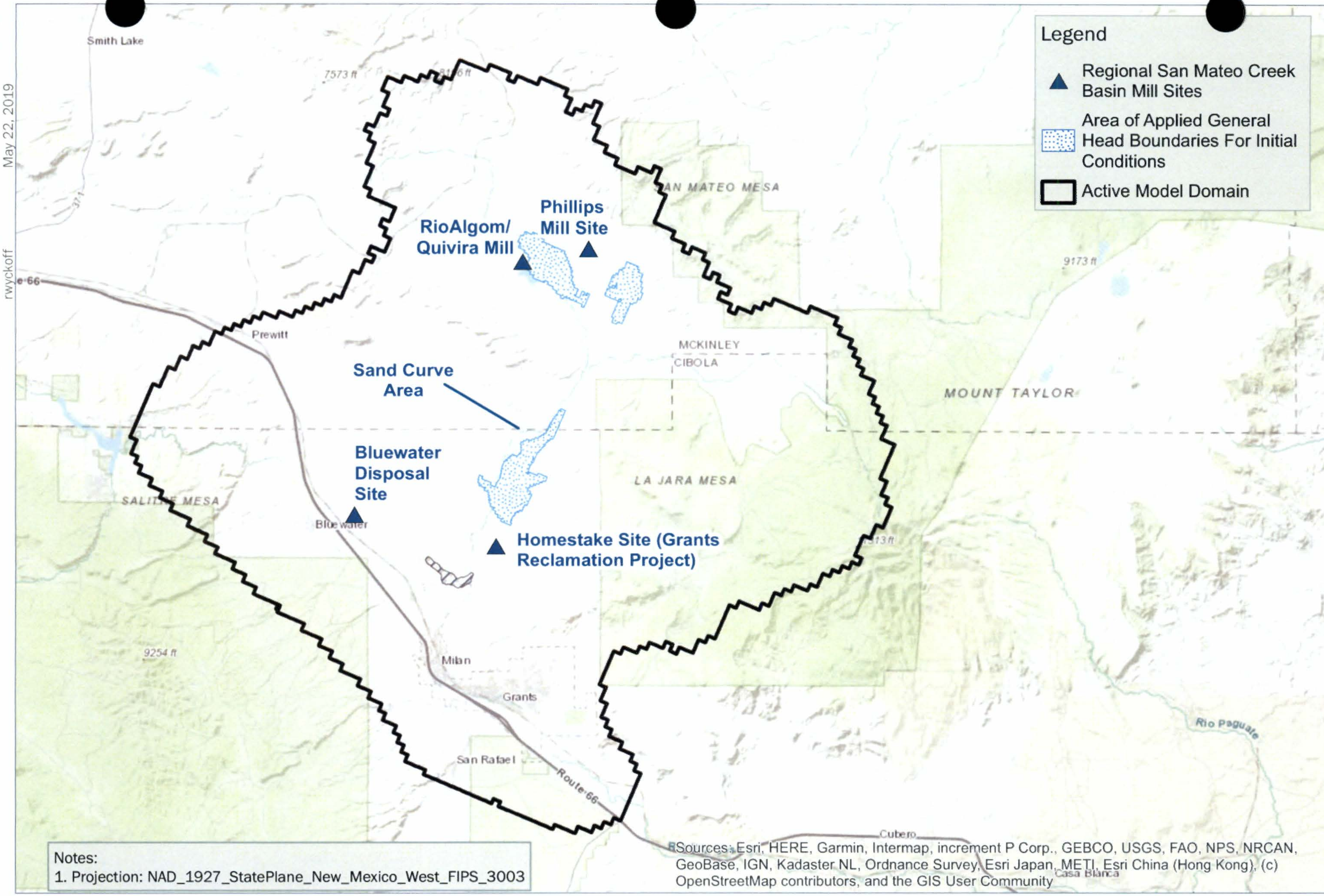

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Figure 2-26

Layer 1 (Alluvial Aquifer) General Head Boundaries for Establishing Initial Upper SMC Basin Groundwater Elevations

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure2_26_Ly01_Upper_SMC_B
rwyckoff
May 22, 2019

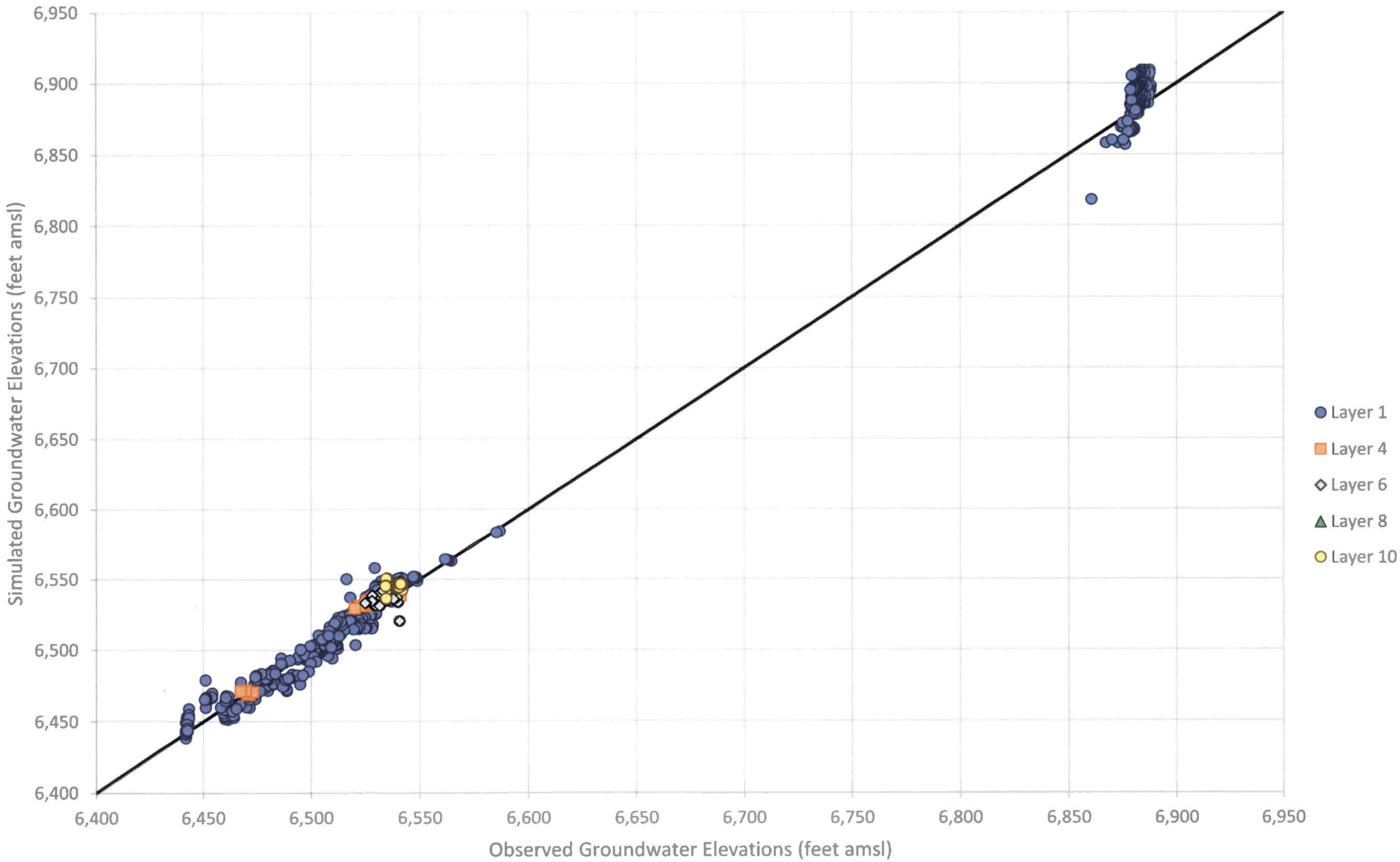

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Figure 3-1

Scatterplot of Simulated versus Observed Groundwater Elevations

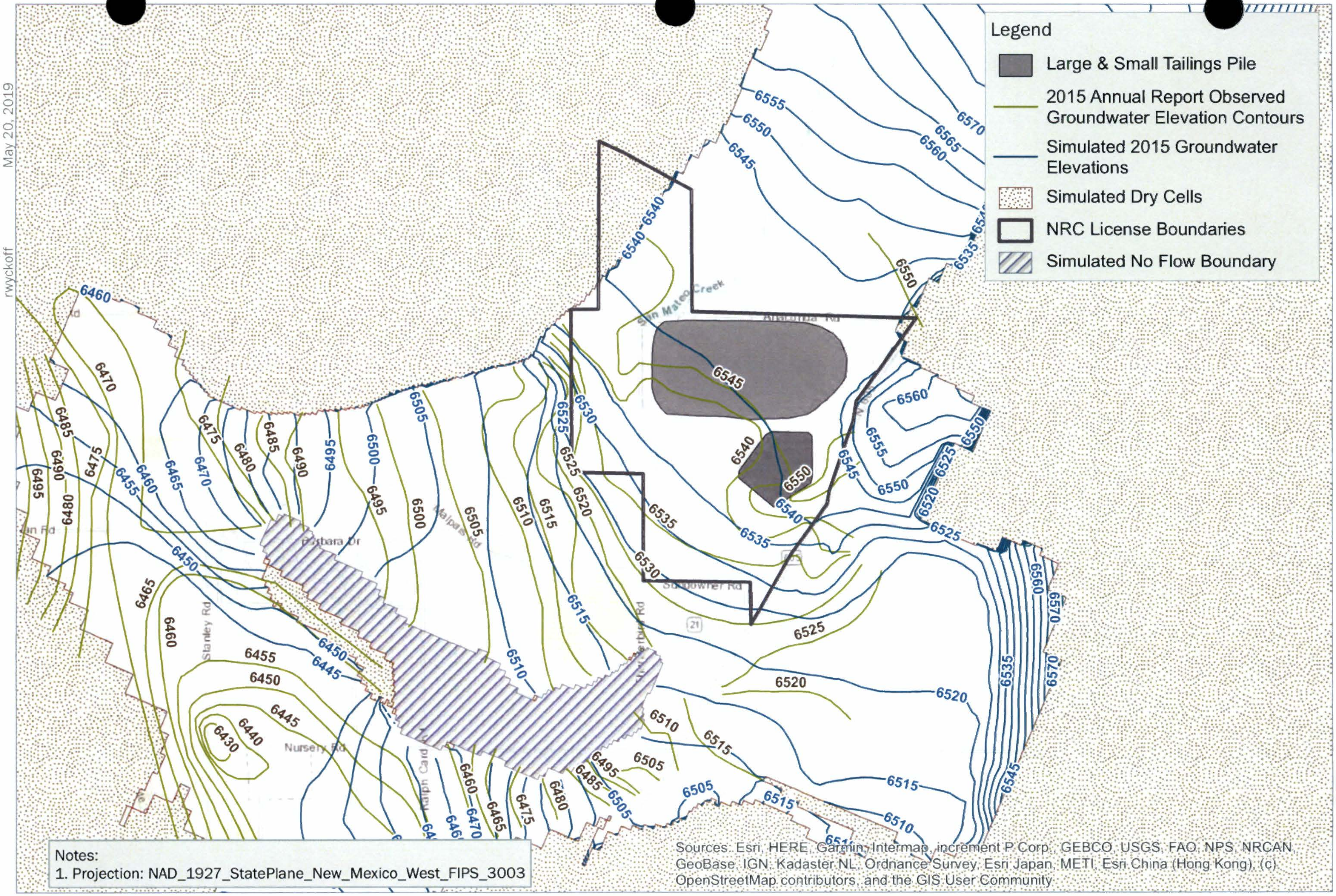

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Figure 3-2
Alluvial Aquifer Simulated vs. Observed 2015 Groundwater Elevation Contours - GRP Vicinity

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_3_2015RegContours.mx
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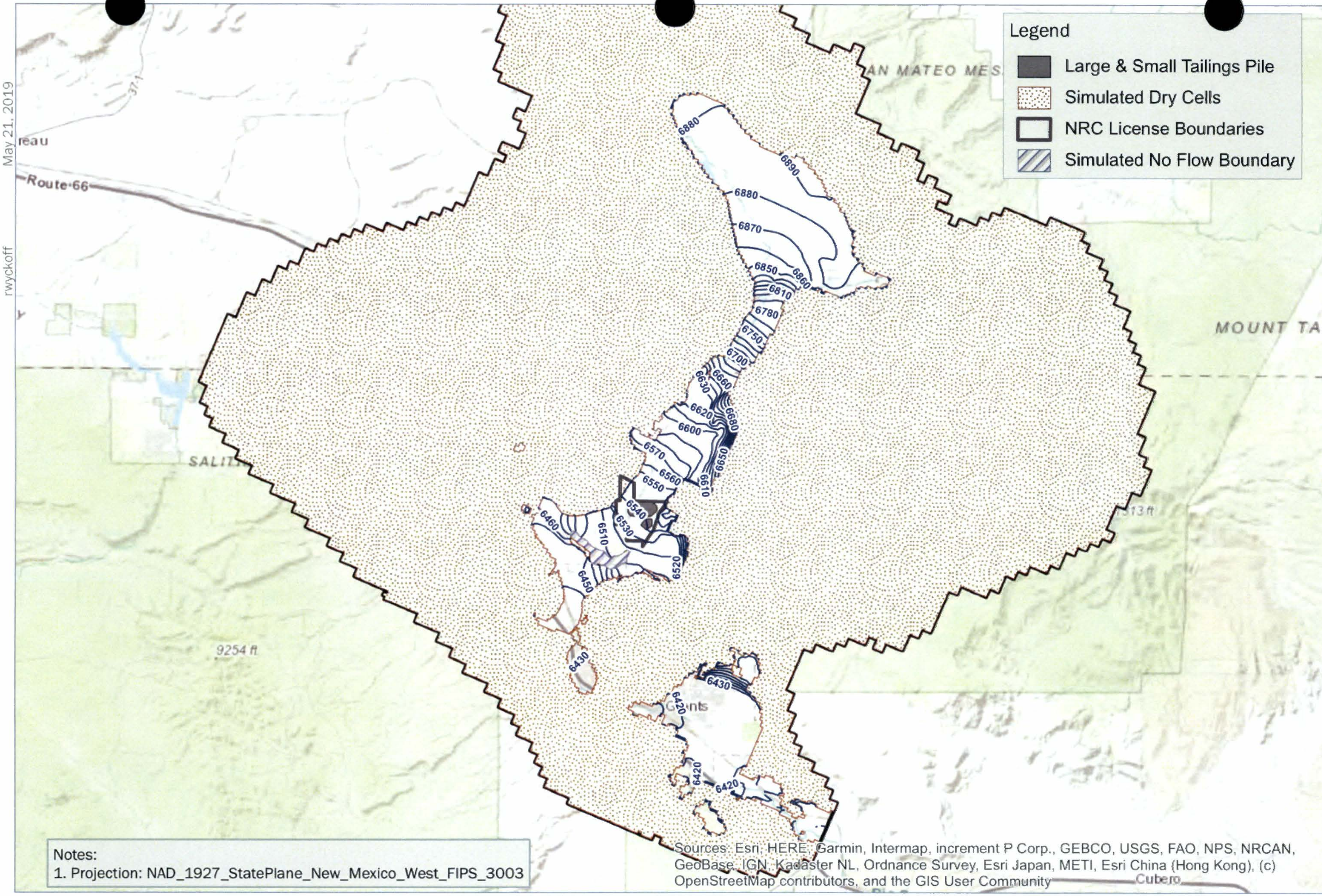

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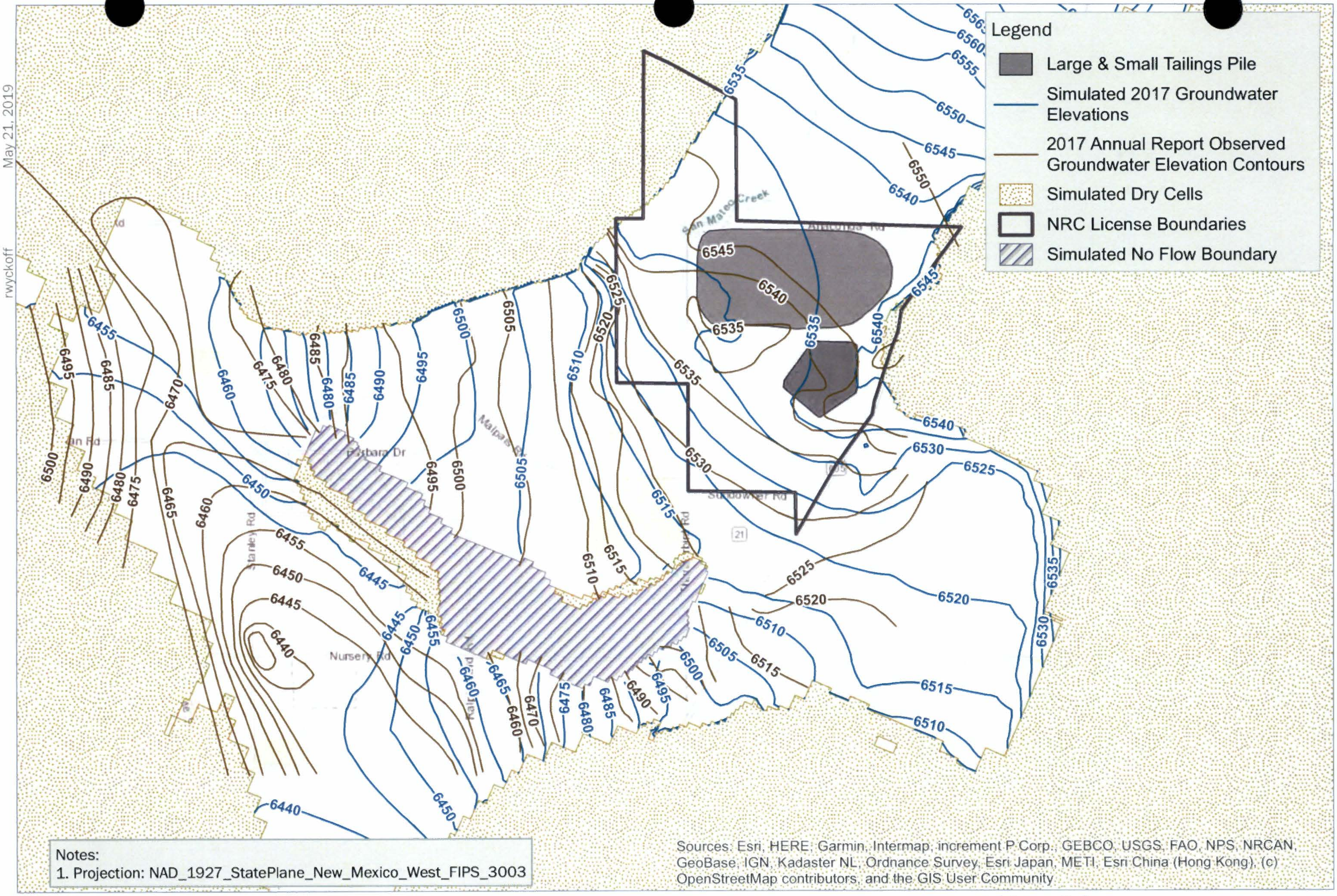
0 2 4 Miles

N

Figure 3-3
Alluvial Aquifer Simulated 2015 Groundwater Elevation Contours - San Mateo Creek Basin



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May 21, 2019
rwyckoff

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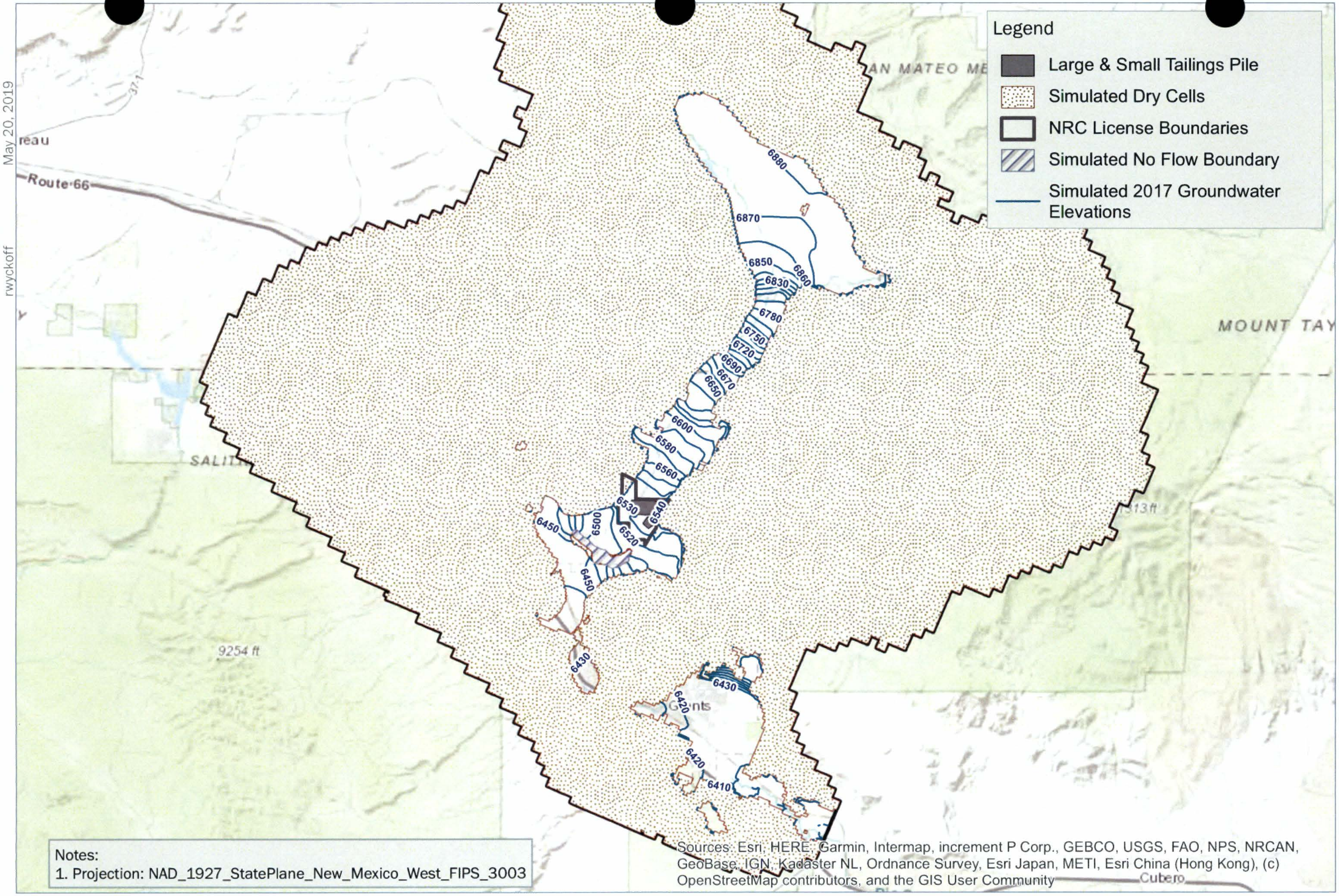
0 0.5 1 Miles

N

Figure 3-4
Alluvial Aquifer Simulated vs. Observed 2017 Groundwater Elevation Contours - GRP Vicinity

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_5_2017RegContours.mx
May 20, 2019
rwyckoff



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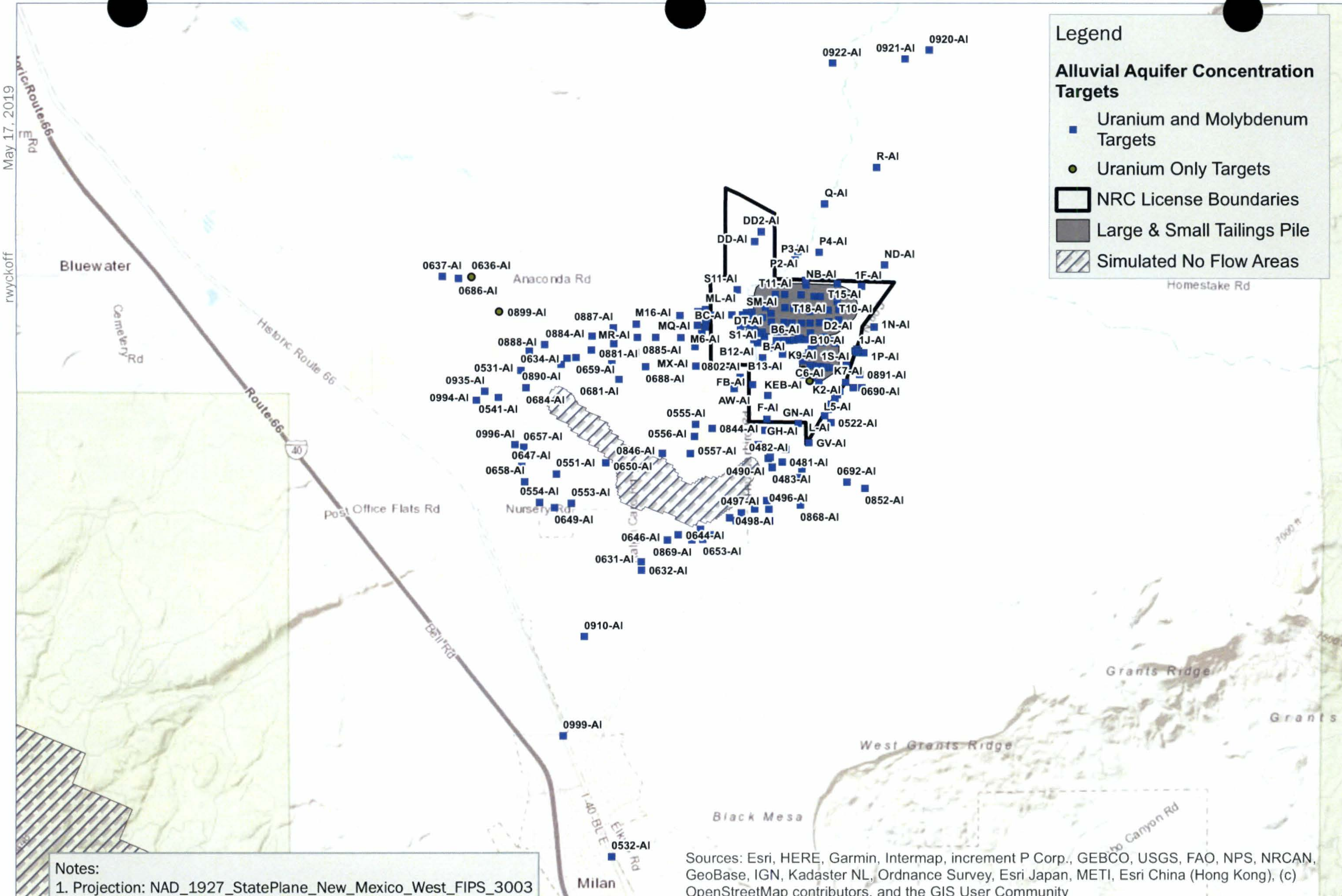
0 2 4 Miles

N

Figure 3-5

Alluvial Aquifer Simulated 2017 Groundwater Elevation Contours - SMC Basin



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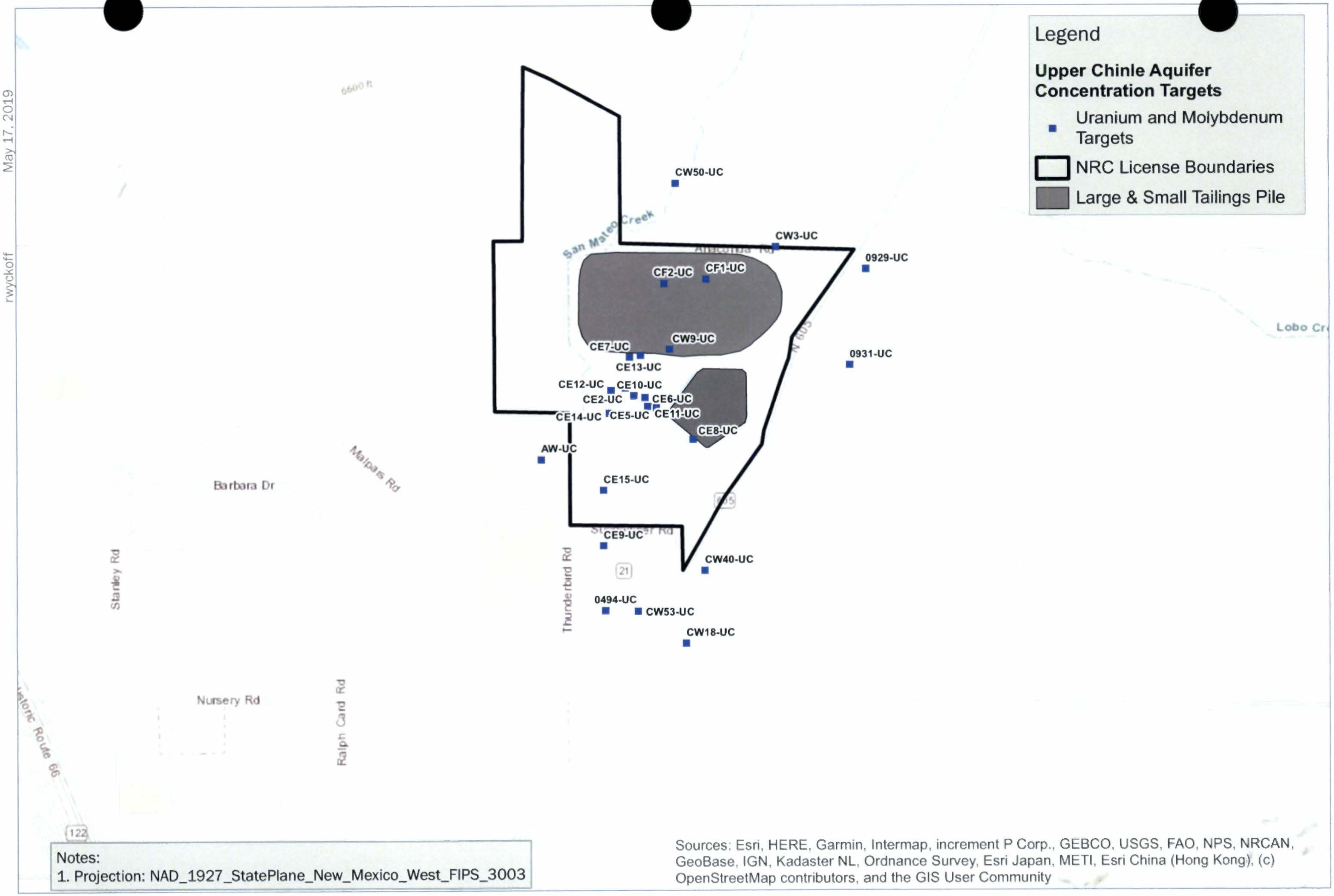
0 3,000 6,000 Feet

N

Figure 3-6

Layer 1 (Alluvial Aquifer) Uranium and Molybdenum Concentration Targets

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_7_Ly04_HydraulicKandConcTargs.mxd May 17, 2019 rwyckoff



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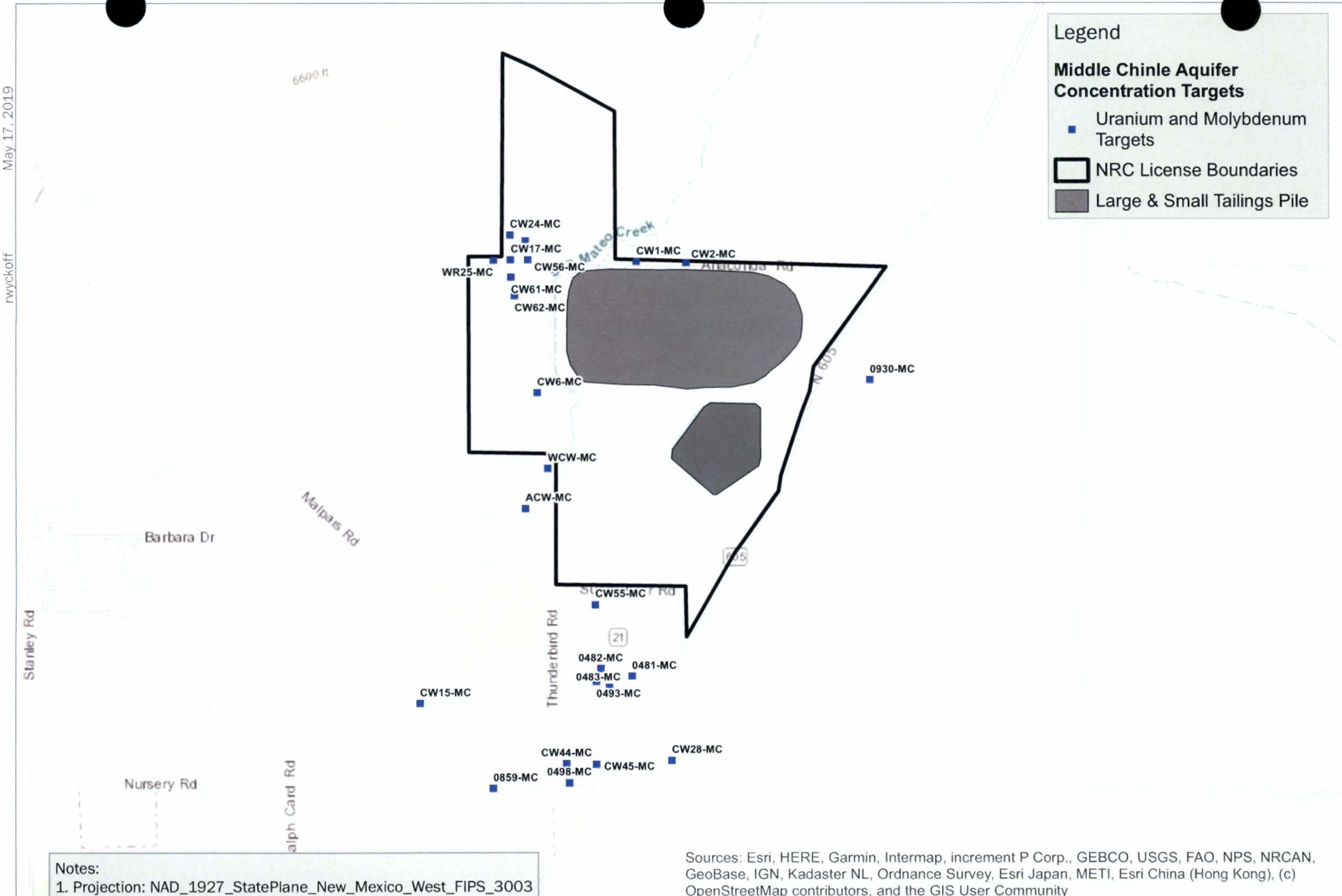
0 0.25 0.5 Miles

N

Figure 3-7

Layer 4 (Upper Chinle Aquifer) Uranium and Molybdenum Concentration Targets



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

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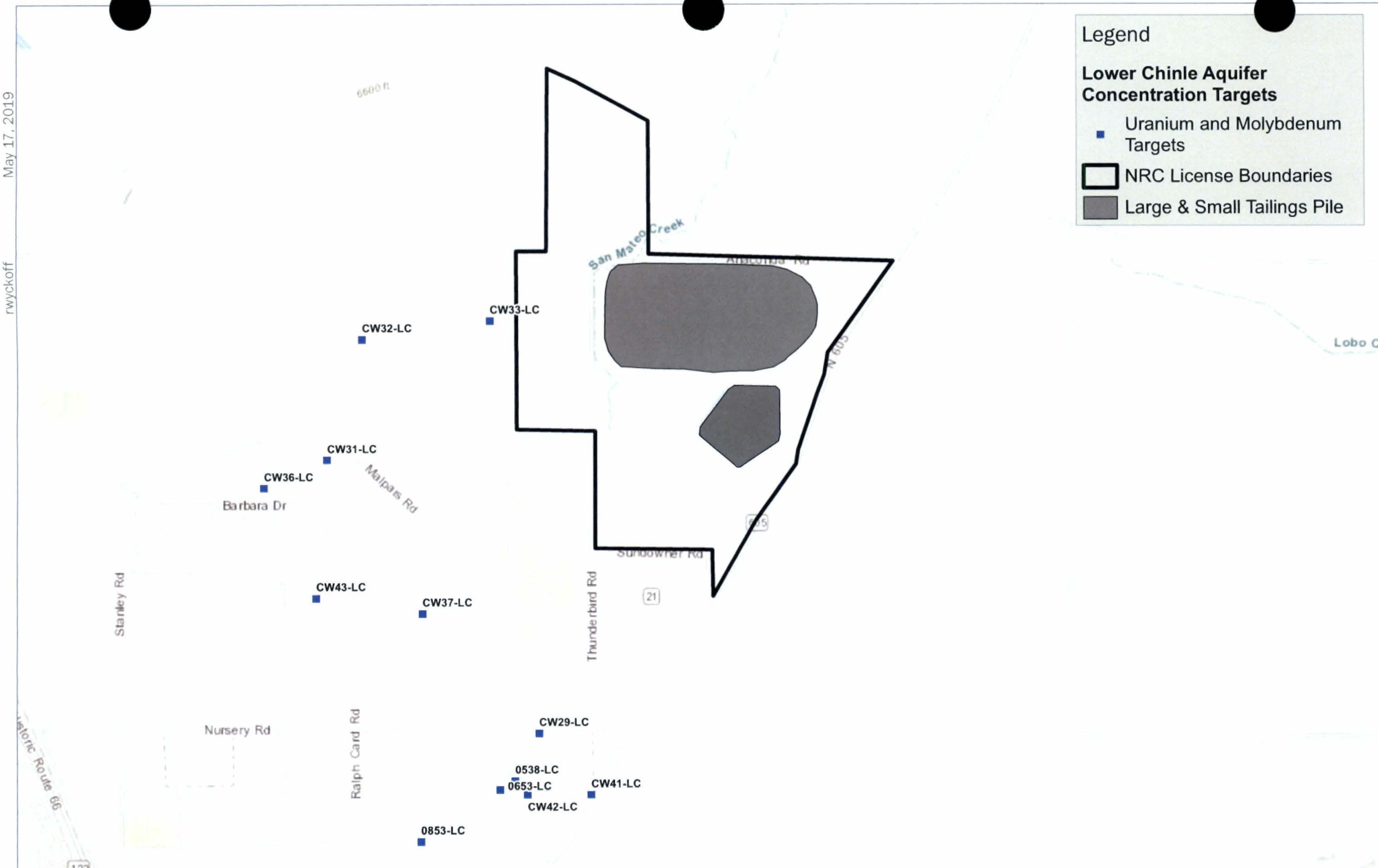
Figure 3-8

Layer 6 (Middle Chinle Aquifer) Uranium and Molybdenum Concentration Targets



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_9_Ly08_HydraulicKandConcTargs.mxd rwyckoff May 17, 2019

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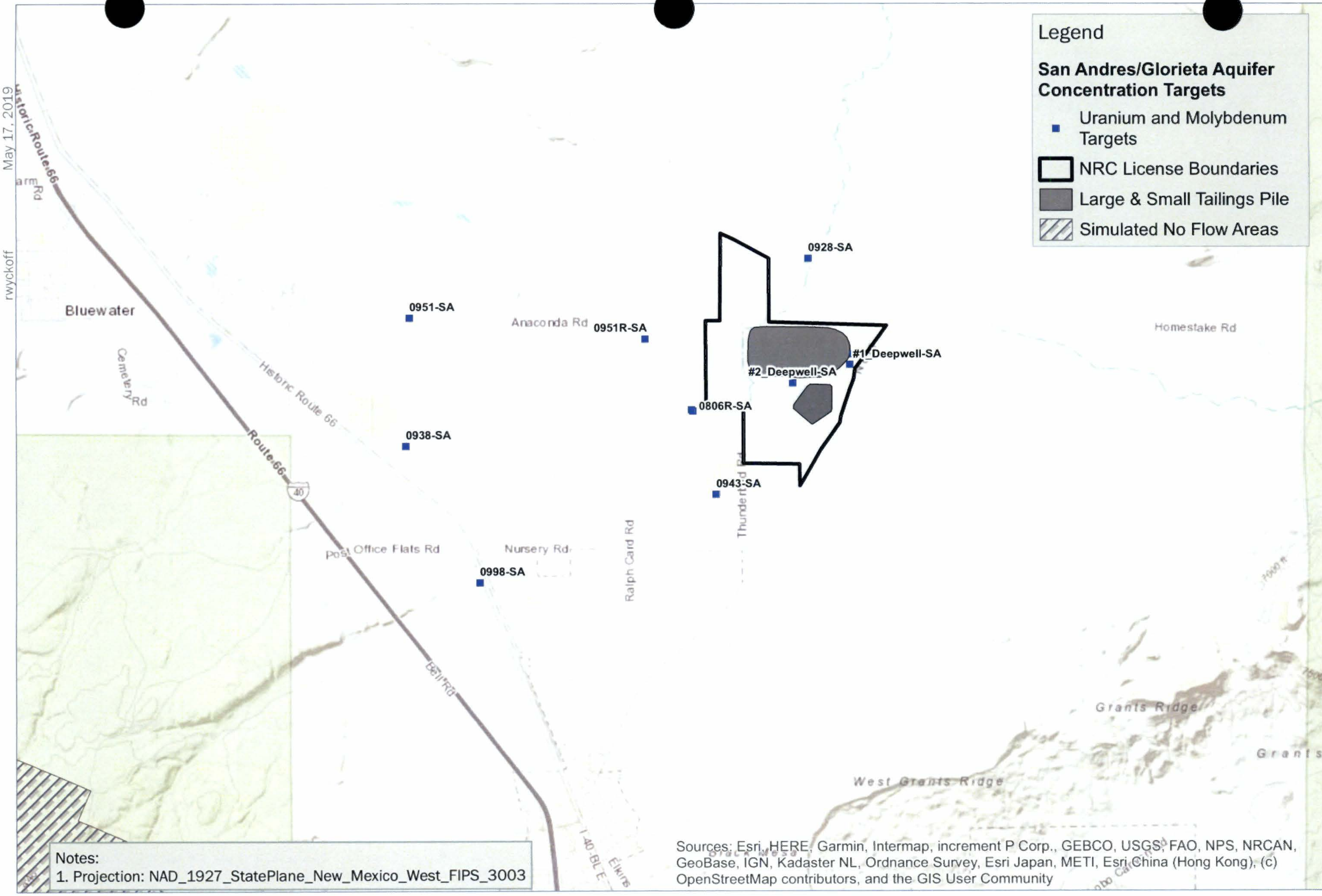
0 2,000 4,000 Feet

N

Figure 3-9

Layer 8 (Lower Chinle Aquifer) Uranium and Molybdenum Concentration Targets



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0 3,000 6,000
Feet

N

Figure 3-10

Layer 10 (San Andres/Glorieta Aquifer) Uranium and Molybdenum Concentration Targets

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_10_Ly10_HydraulicKandConcTargs.mxd rwyckoff May 17, 2019

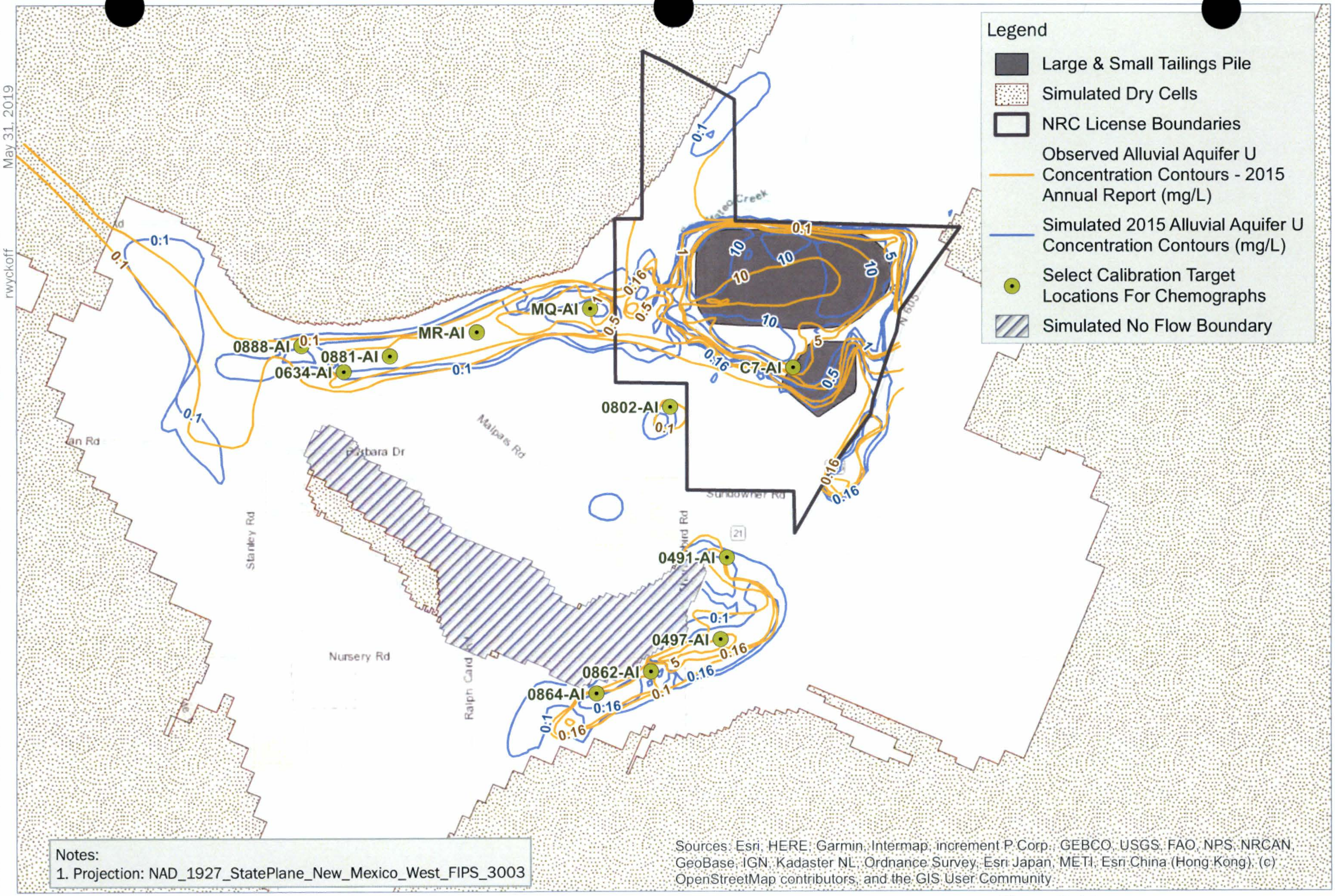

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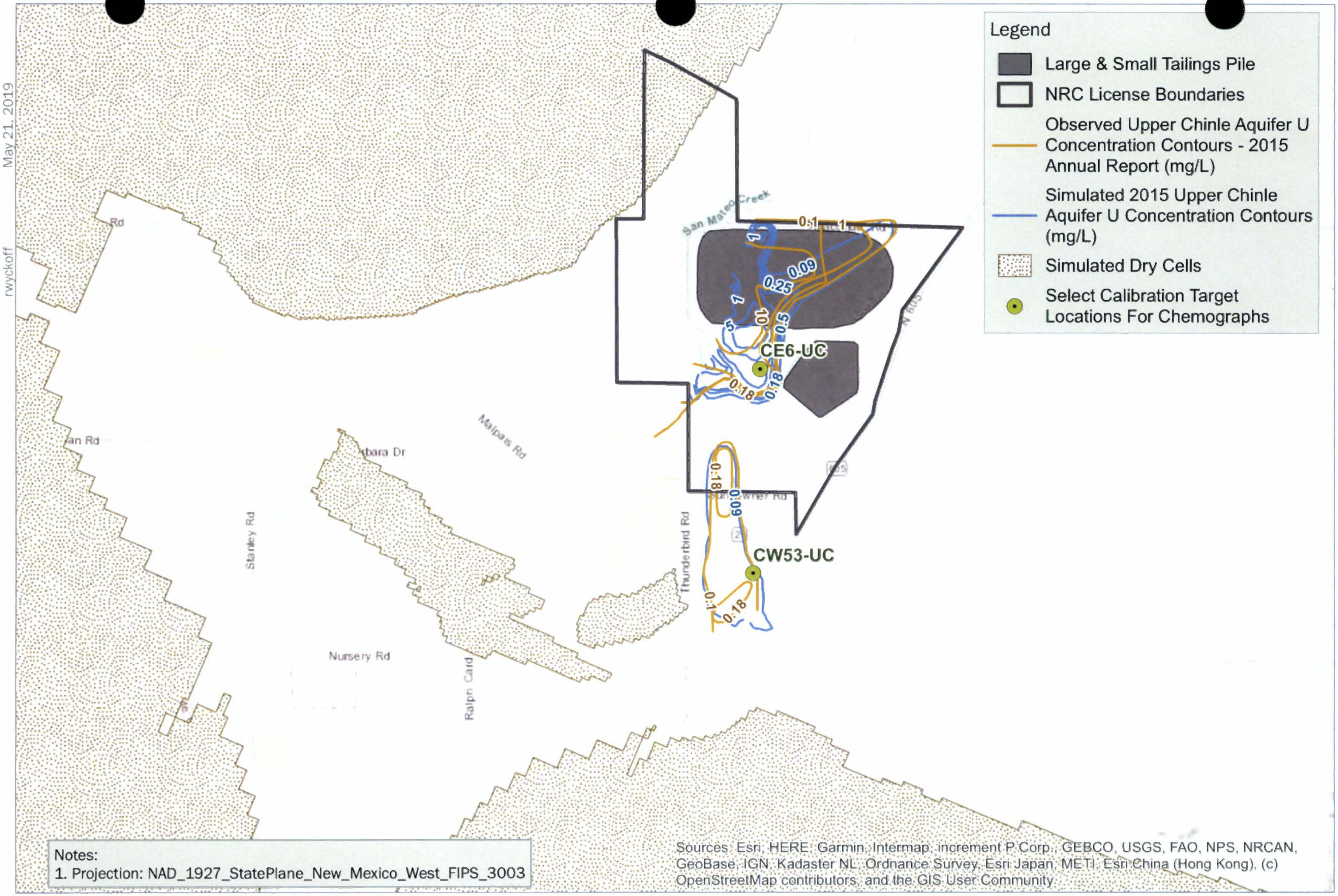
Figure 3-11

Alluvial Aquifer Simulated vs. Observed 2015 Uranium Concentration Contours



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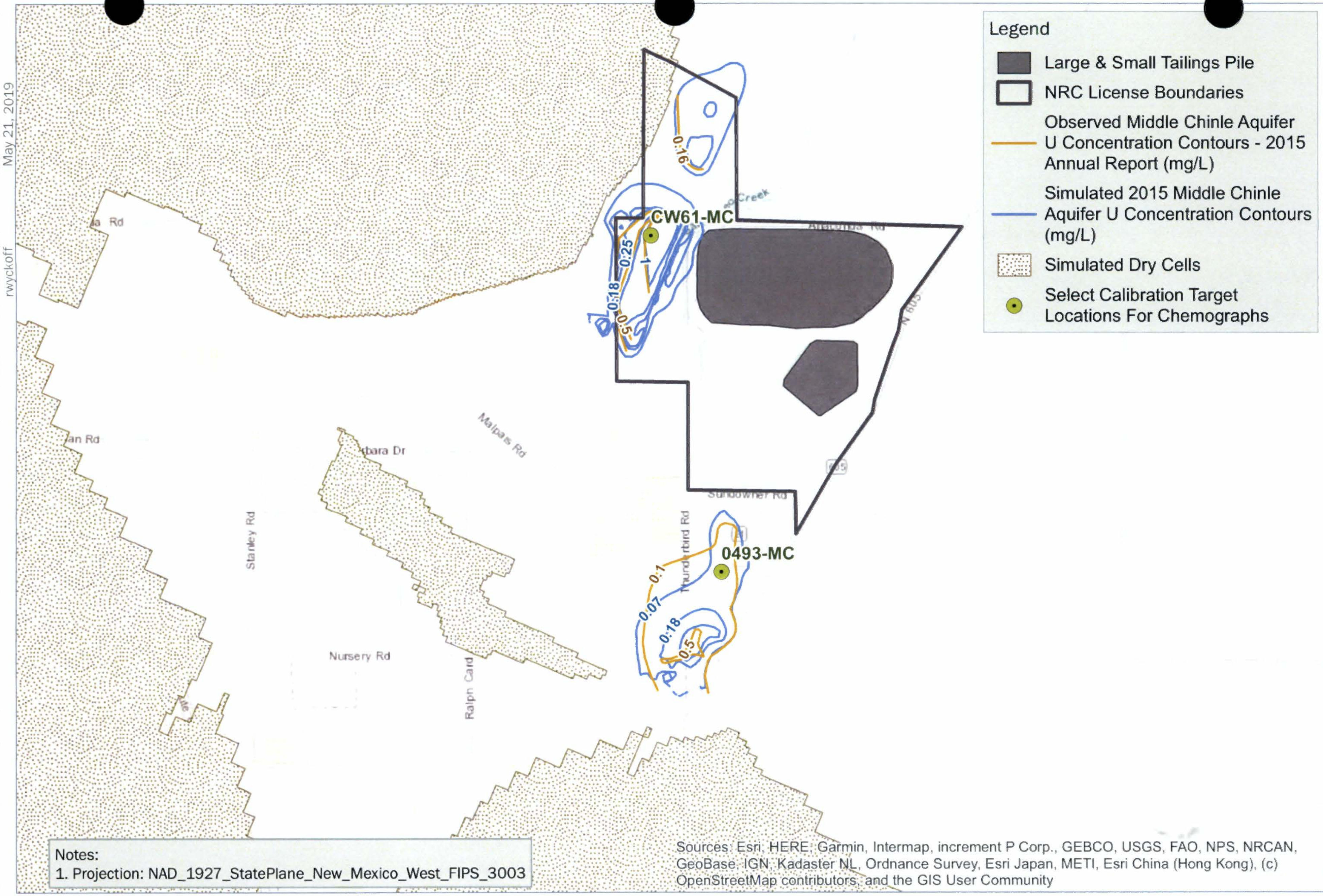
0 0.5 1 Miles

N

Figure 3-12
Upper Chinle Aquifer Simulated vs. Observed 2015 Uranium Concentration Contours



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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Figure 3-13
Middle Chinle Aquifer Simulated vs. Observed 2015 Uranium Concentration Contours

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_14_2015SiteLC_UConto
rwyckoff
May 21, 2019

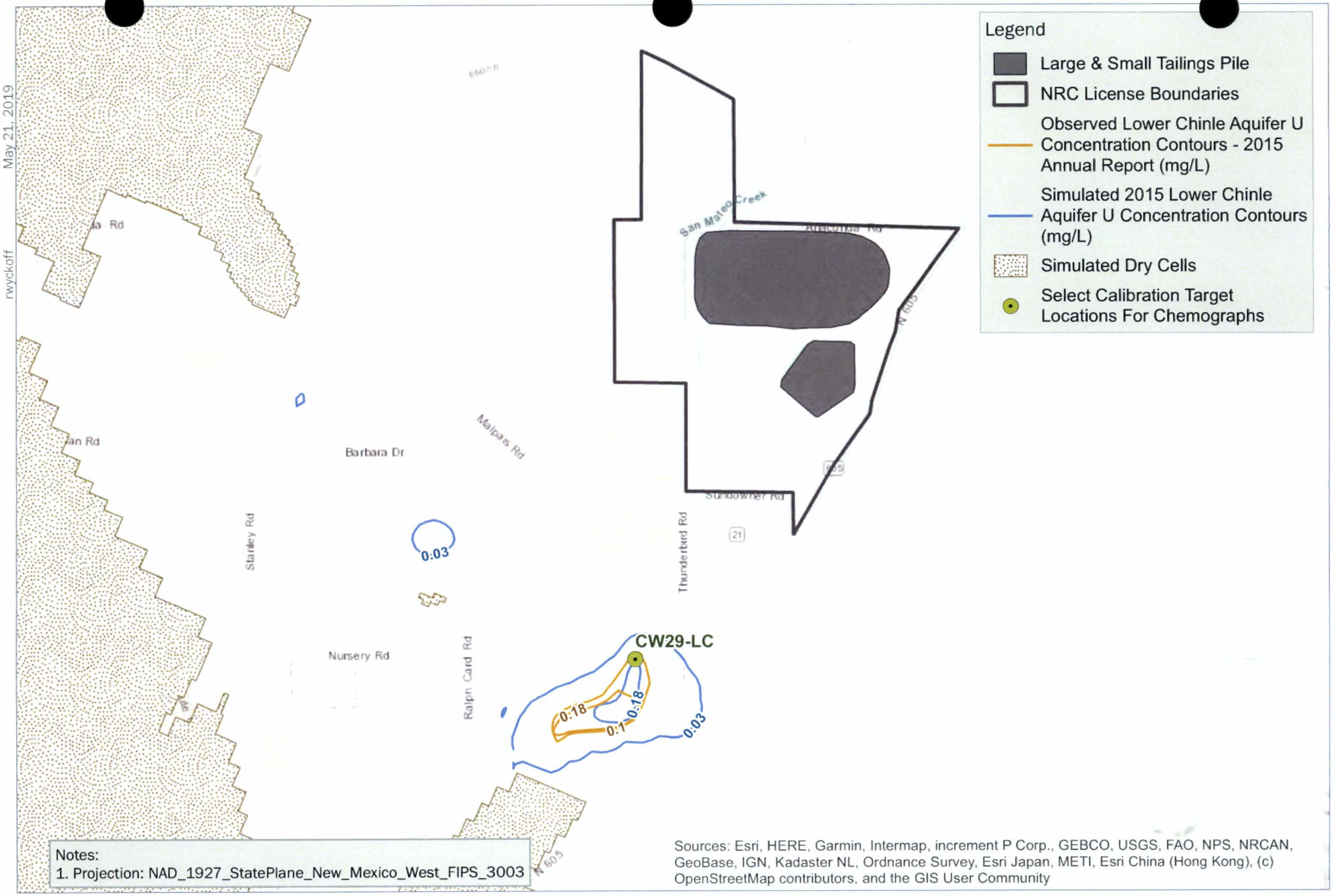

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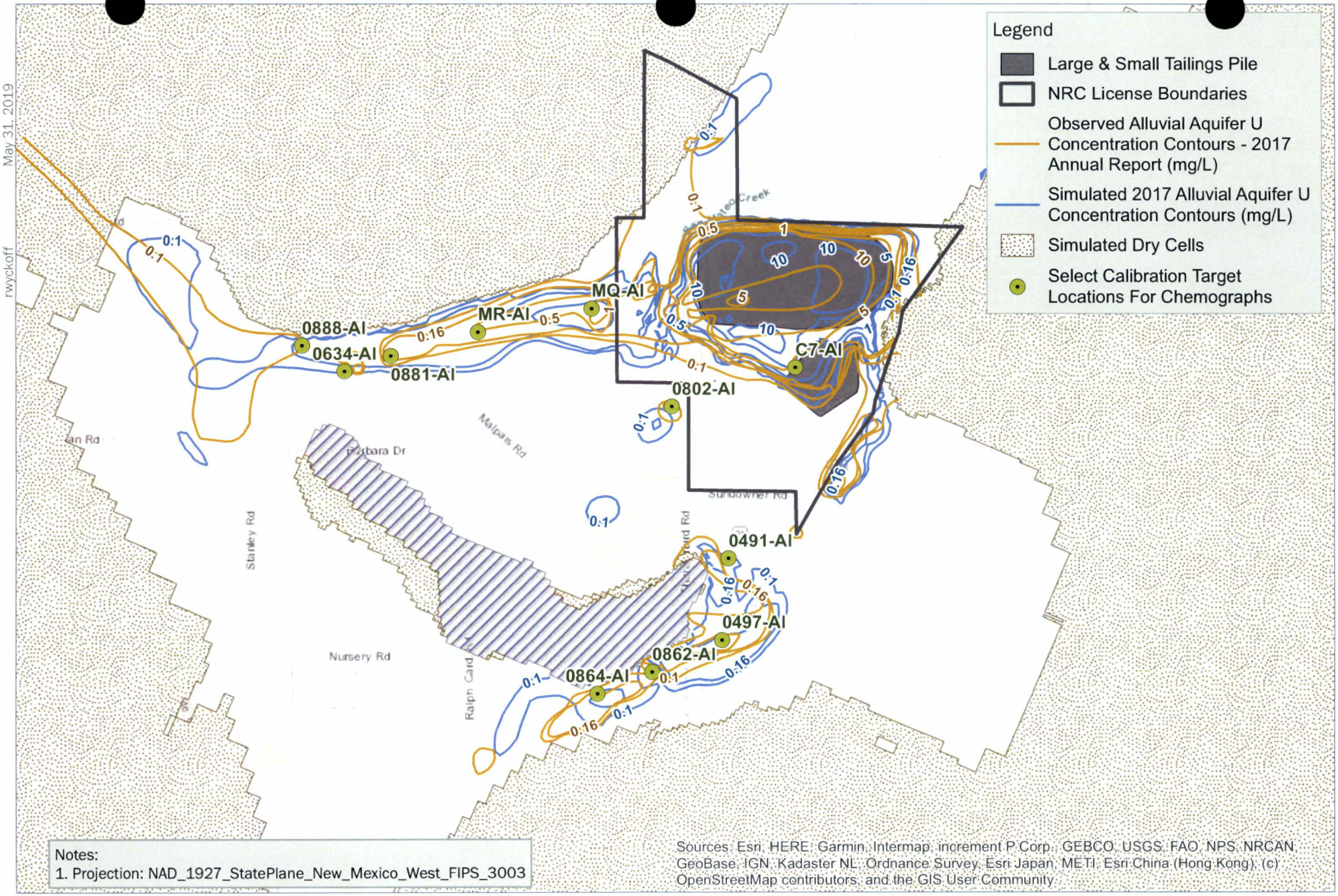
Figure 3-14

Lower Chinle Aquifer Simulated vs. Observed 2015 Uranium Concentration Contours

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_15_2017SiteAl_UContou
May 31, 2019
rwyckoff



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0 0.5 1 Miles

N

Figure 3-15
Alluvial Aquifer Simulated vs. Observed 2017 Uranium Concentration Contours

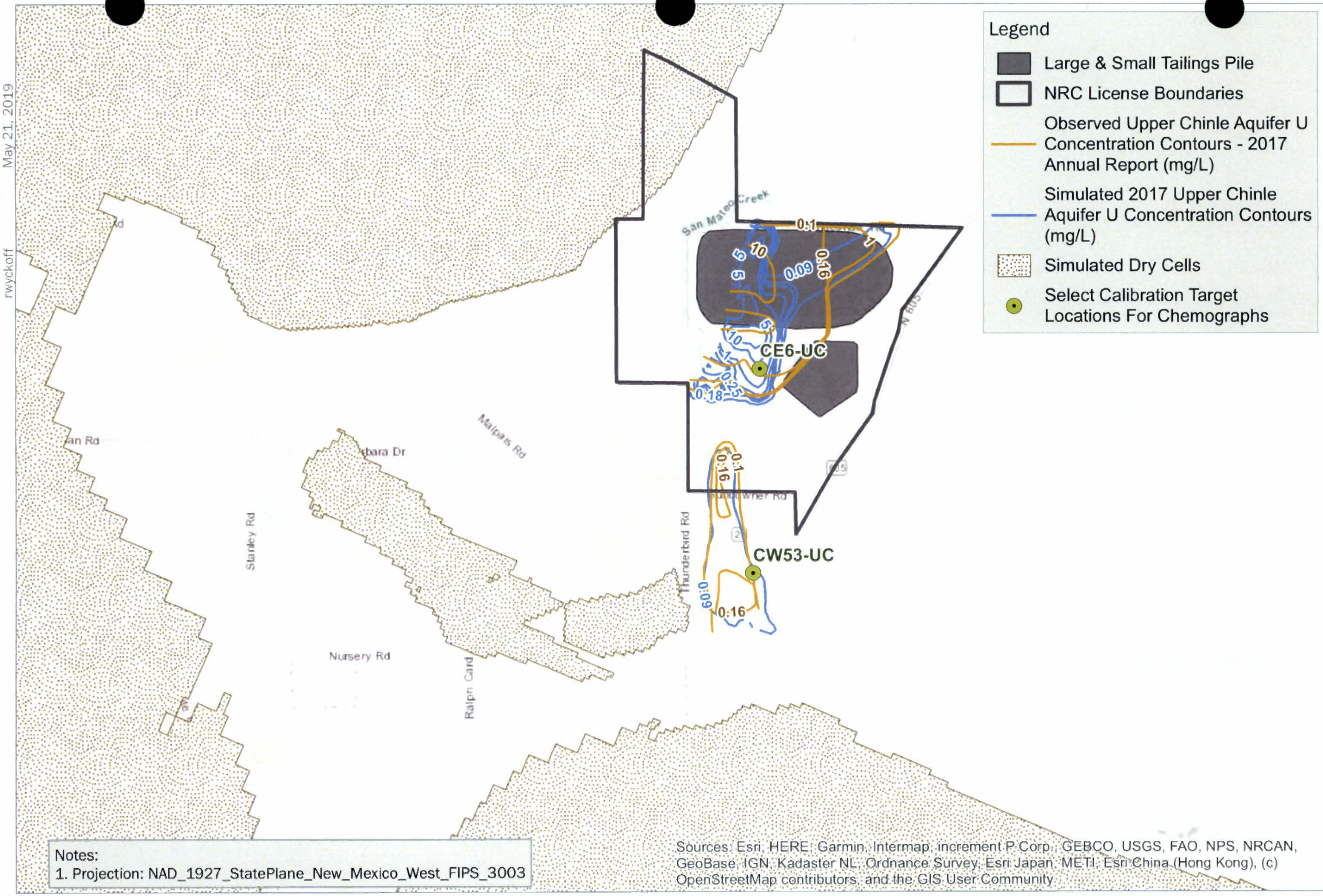

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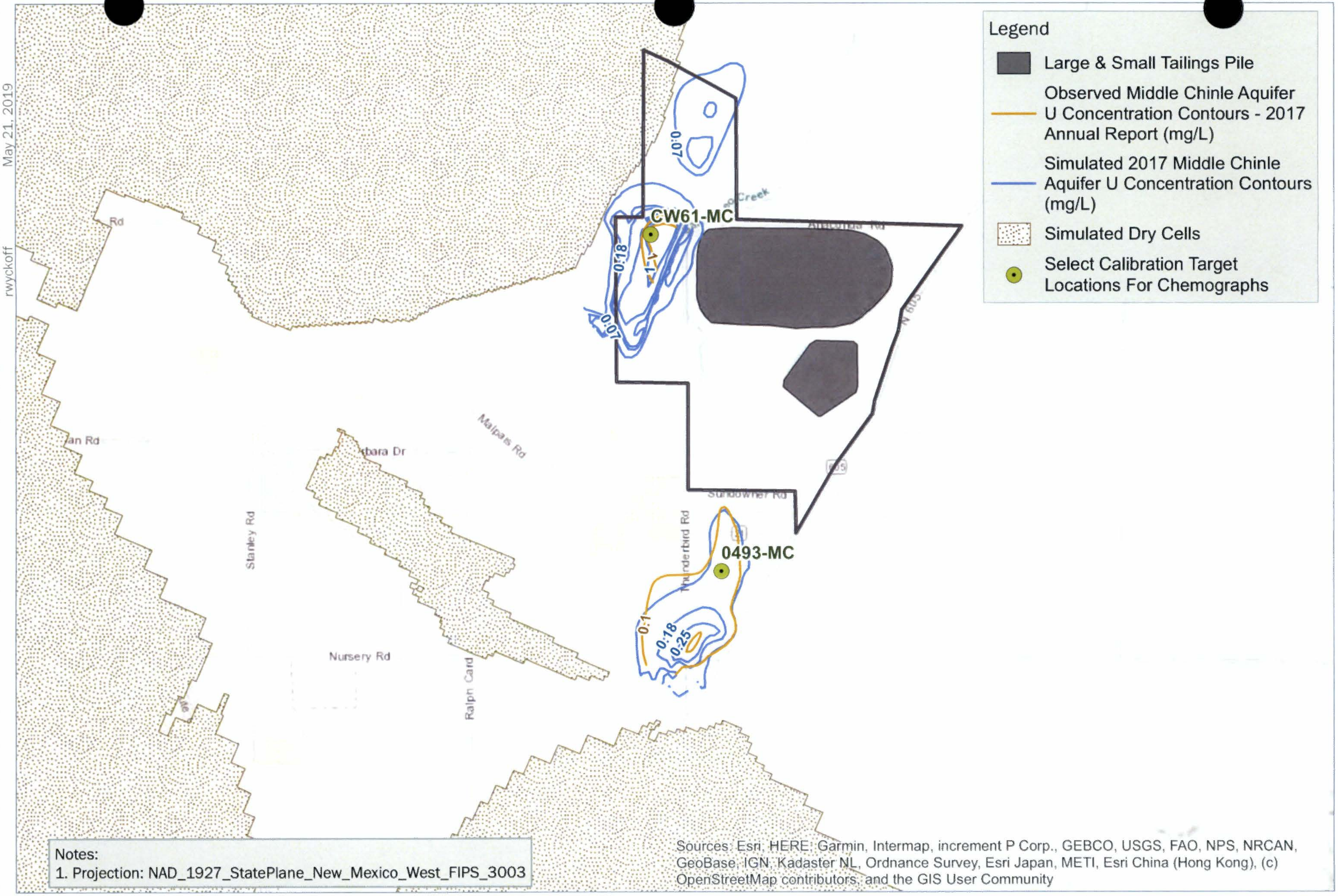
Figure 3-16
Upper Chinle Aquifer Simulated vs. Observed 2017 Uranium Concentration Contours



[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_17_2017SiteMC_UConc rwyckoff May 21, 2019

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Figure 3-17
Middle Chinle Aquifer Simulated vs. Observed 2017 Uranium Concentration Contours

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_18_2017SiteLC_UConto
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May 21, 2019

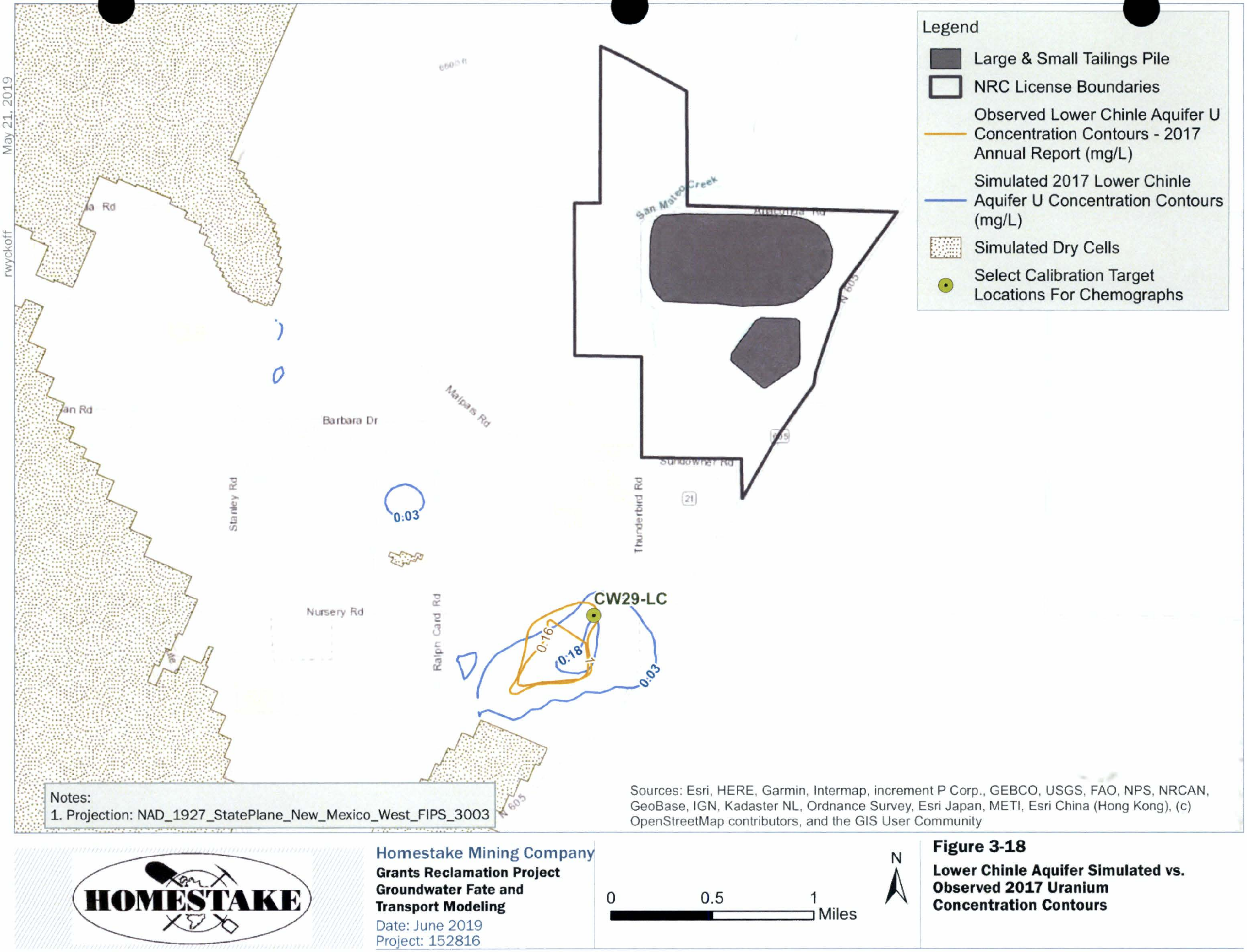

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Figure 3-18

Lower Chinle Aquifer Simulated vs. Observed 2017 Uranium Concentration Contours

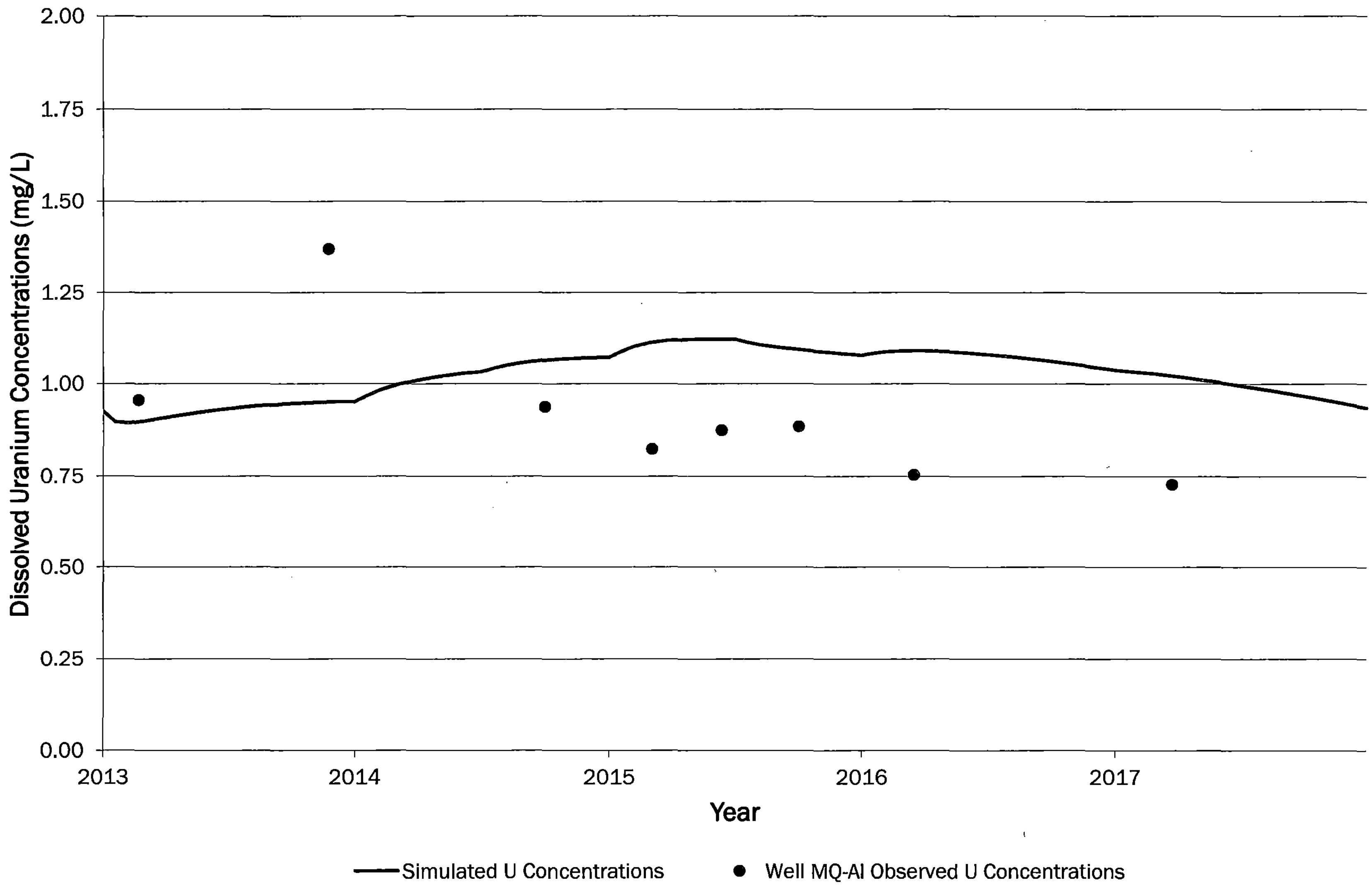

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Figure 3-19

Simulated versus Observed Uranium Concentrations - Well MQ-AI

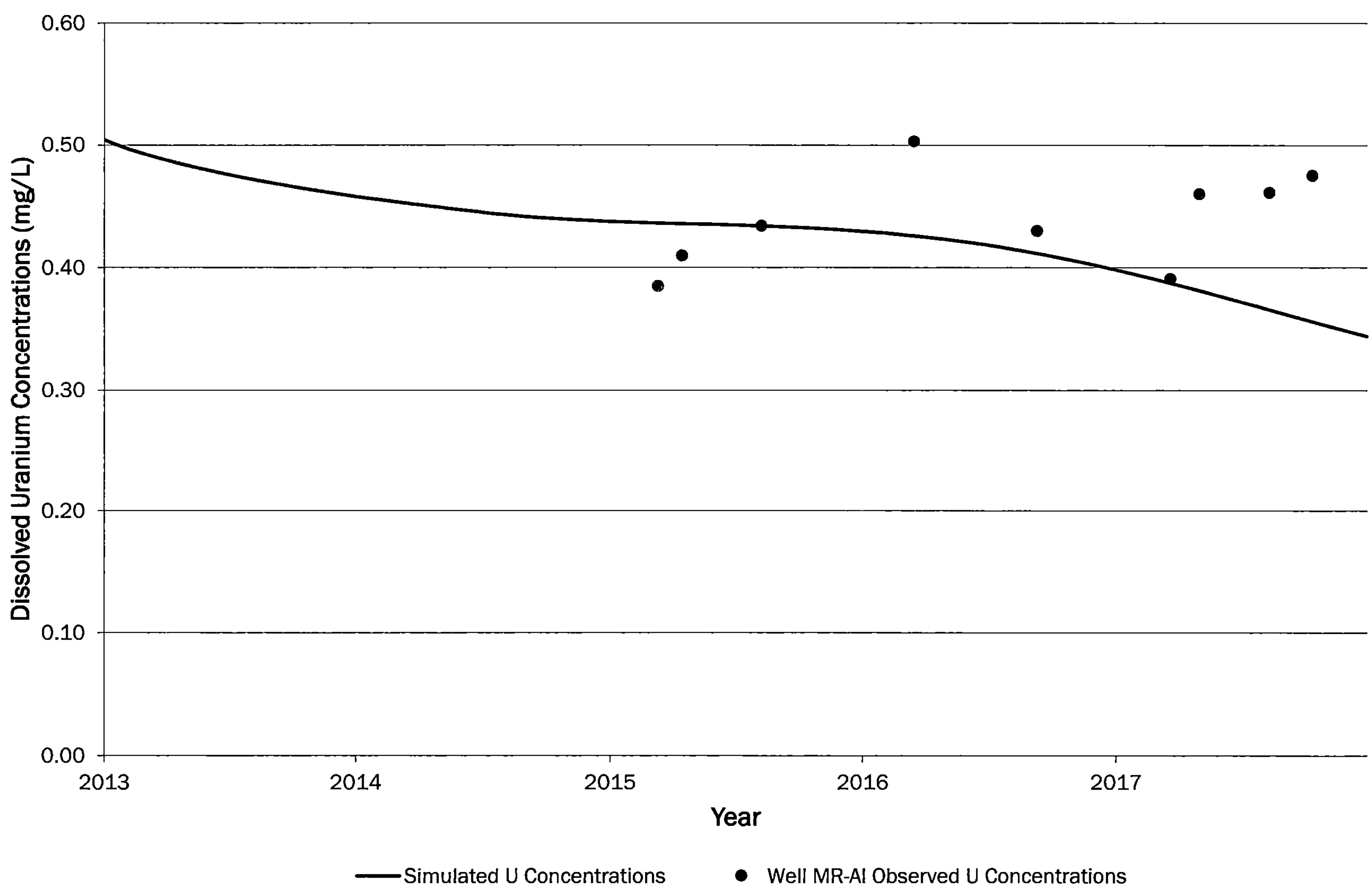

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Figure 3-20

Simulated versus Observed Uranium Concentrations - Well MR-AI

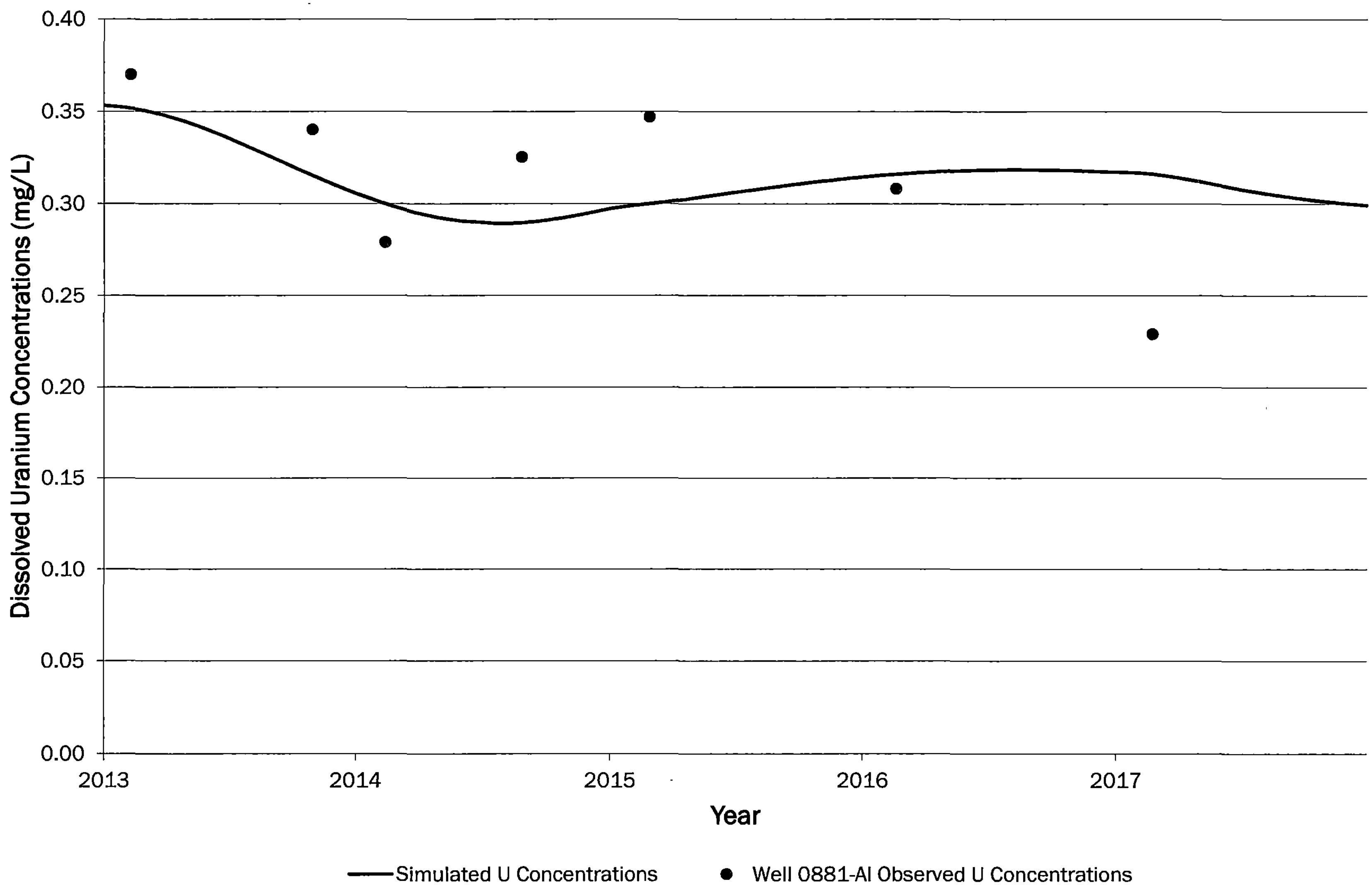

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Figure 3-21

Simulated versus Observed Uranium Concentrations - Well 0881-AI

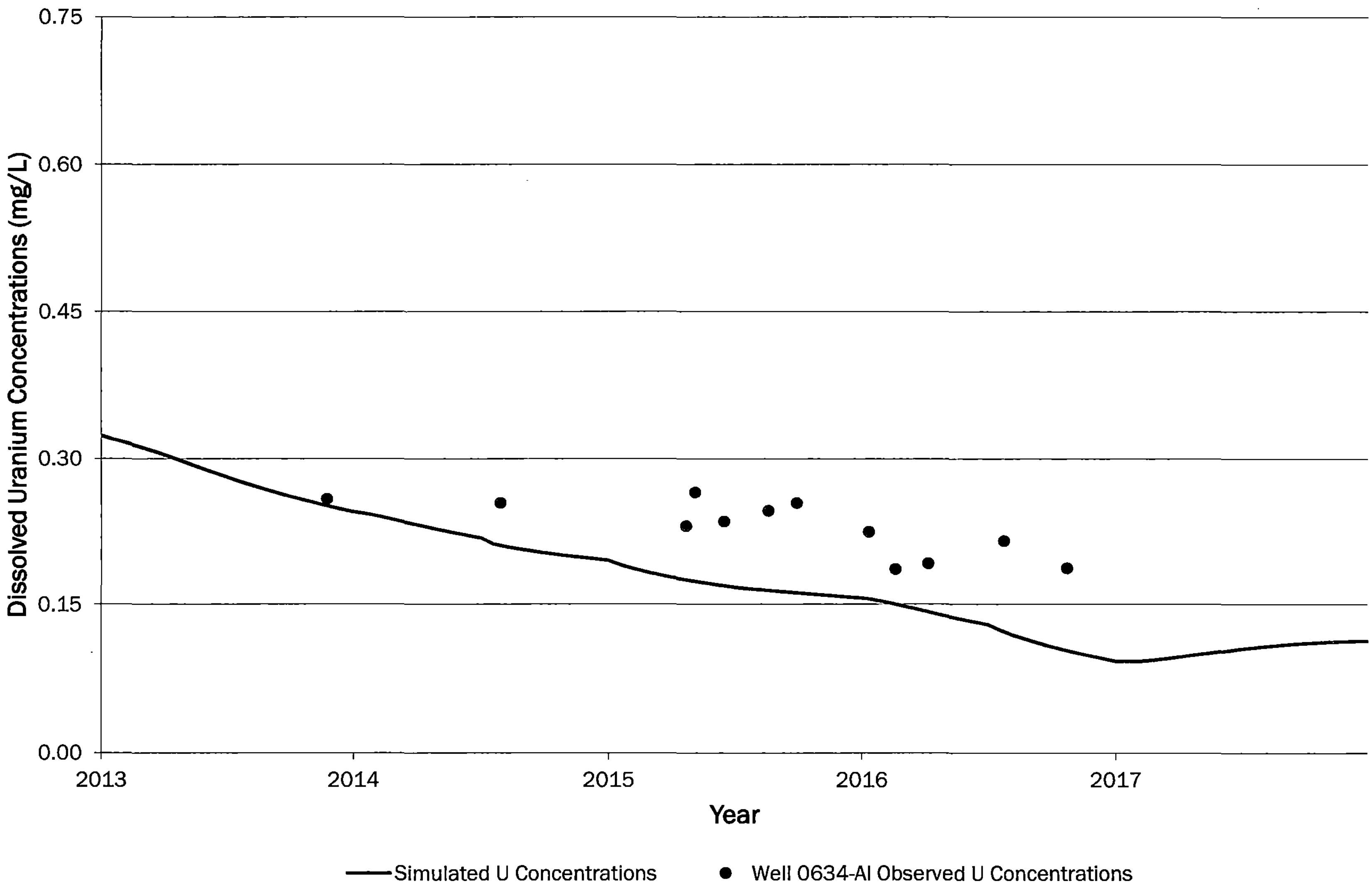

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Figure 3-22

Simulated versus Observed Uranium Concentrations - Well 0634-AI

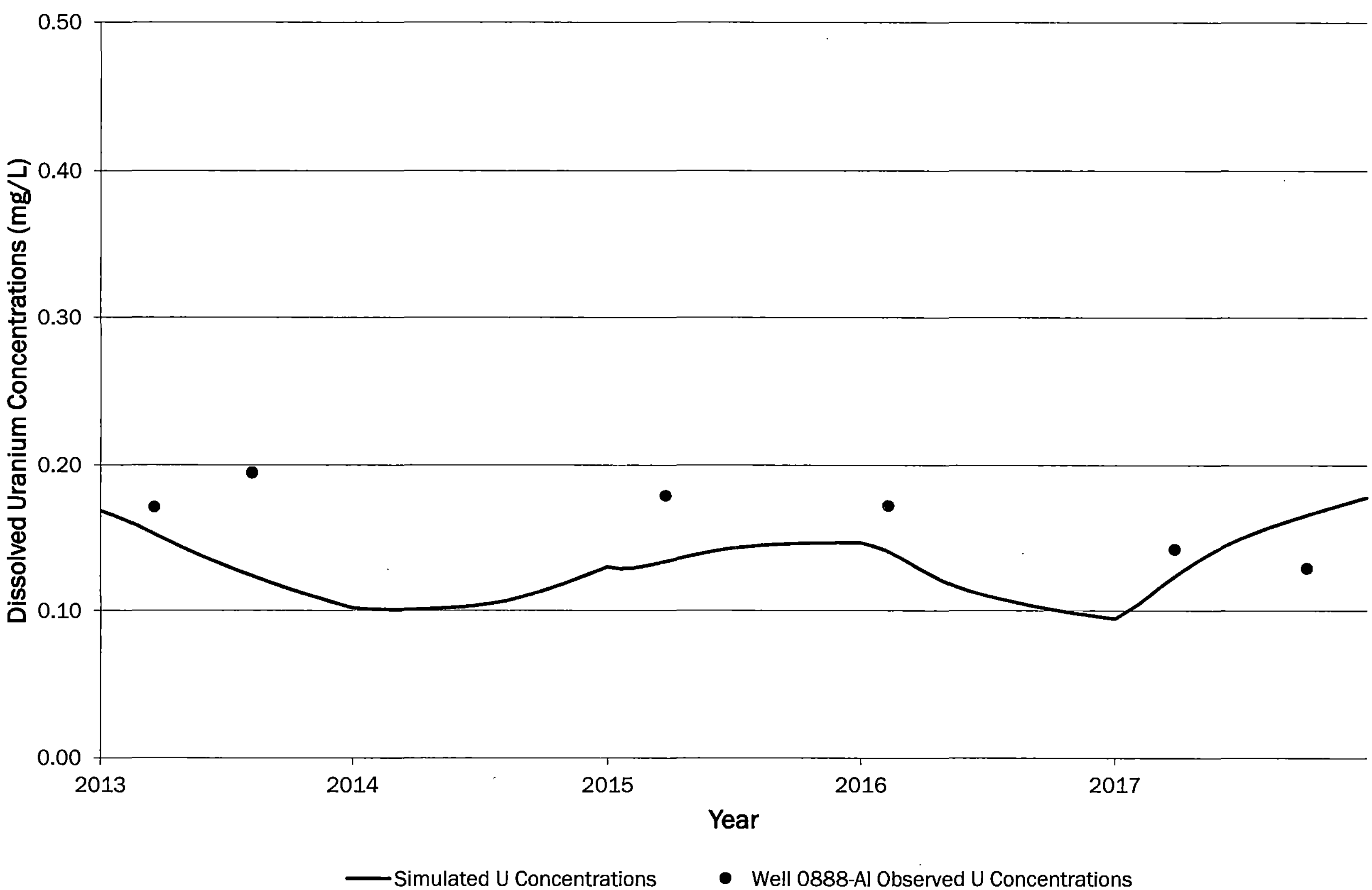

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Figure 3-23

Simulated versus Observed Uranium Concentrations - Well 0888-AI

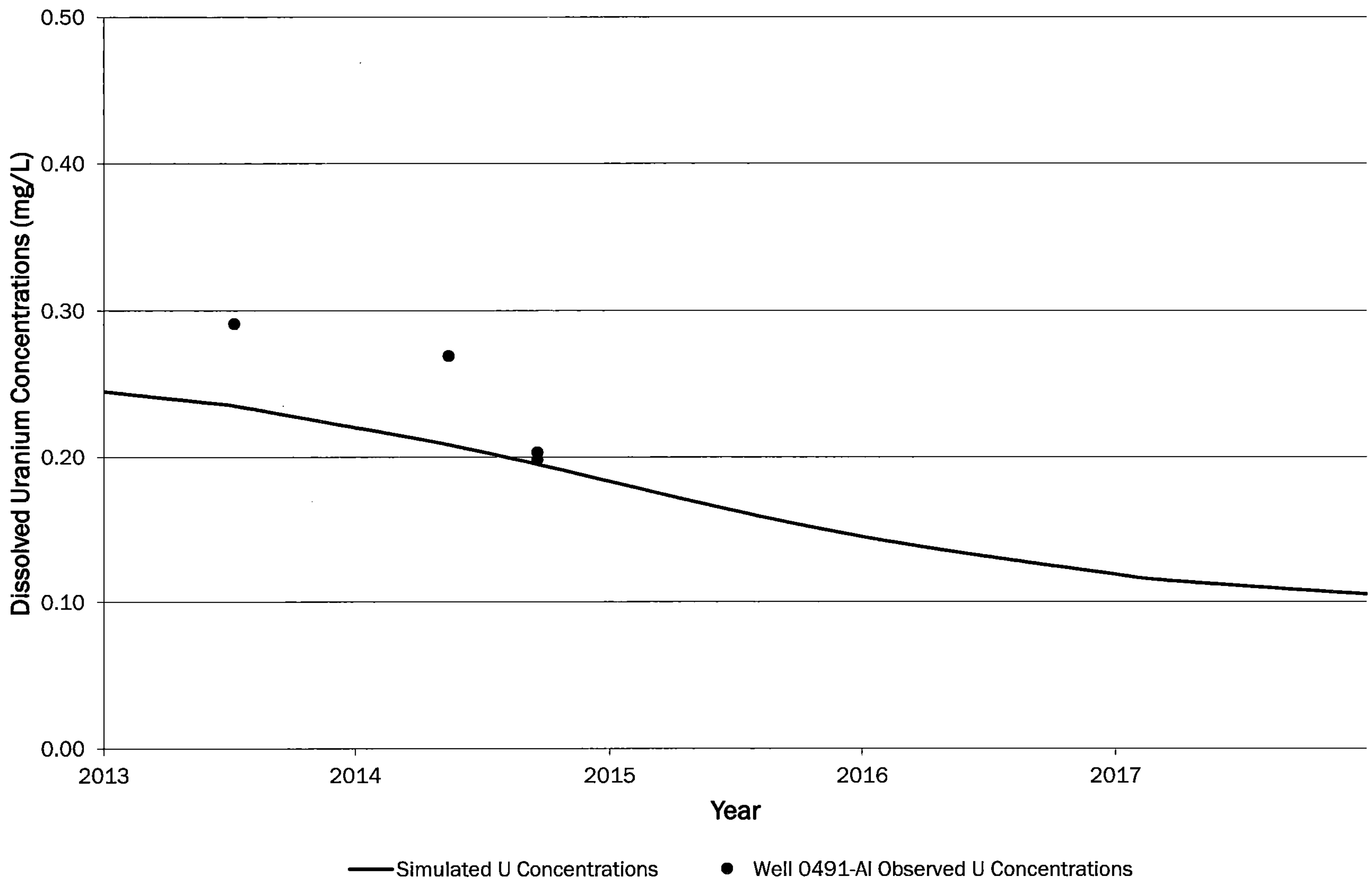

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Figure 3-24

Simulated versus Observed Uranium Concentrations - Well 0491-AI

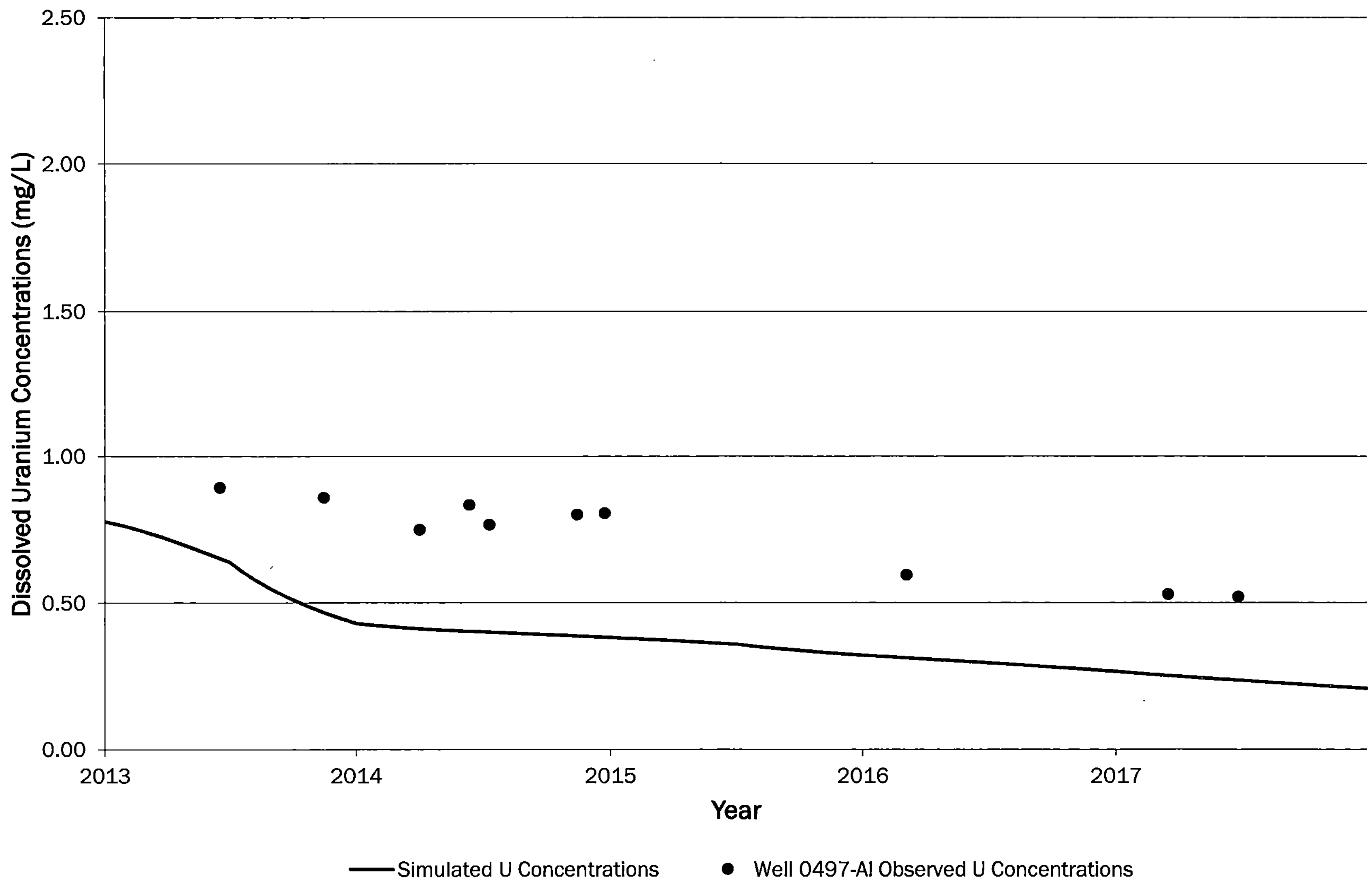

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Figure 3-25

Simulated versus Observed Uranium Concentrations - Well 0497-AI

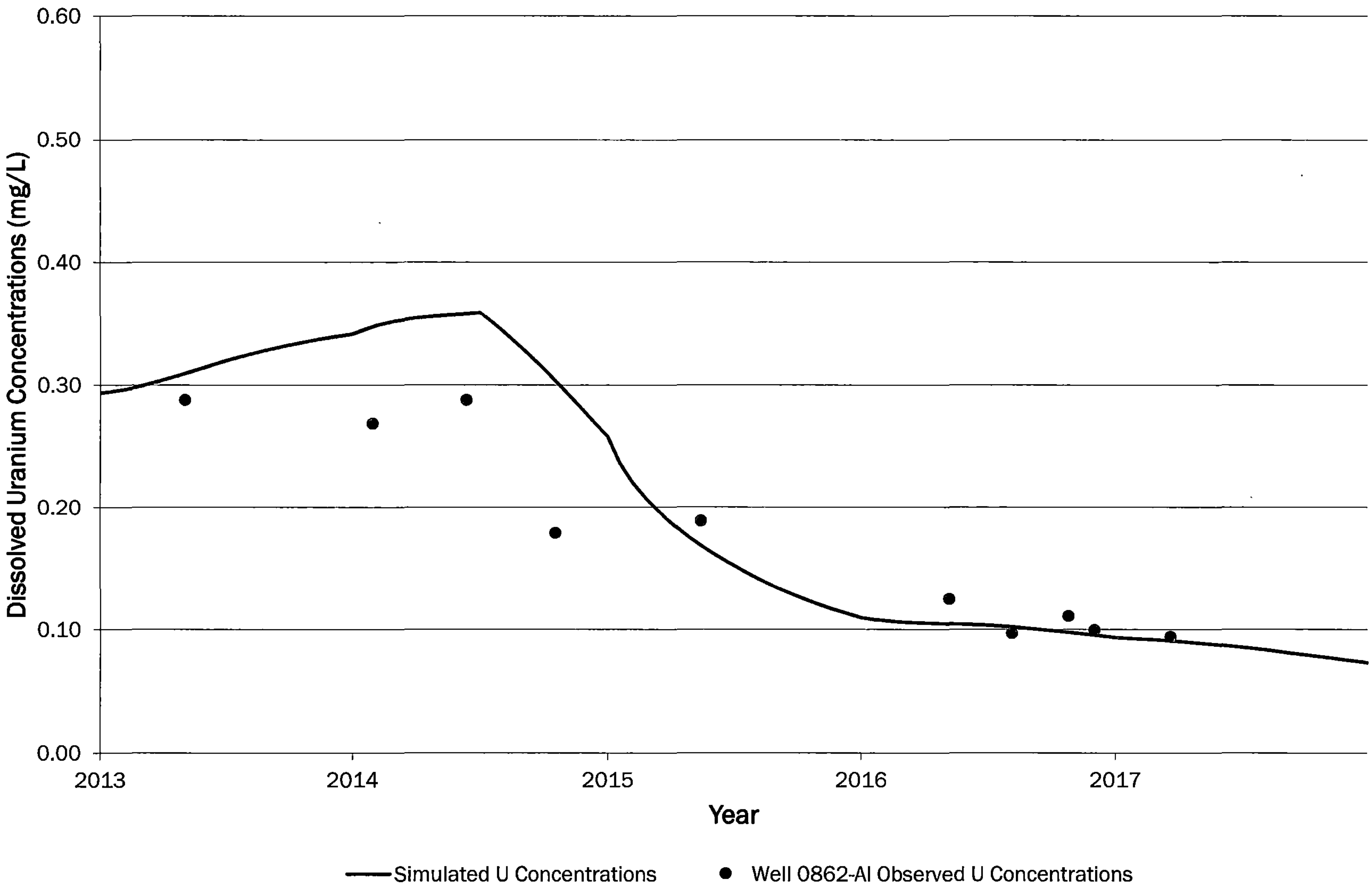

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Figure 3-26

Simulated versus Observed Uranium Concentrations - Well 0862-AI

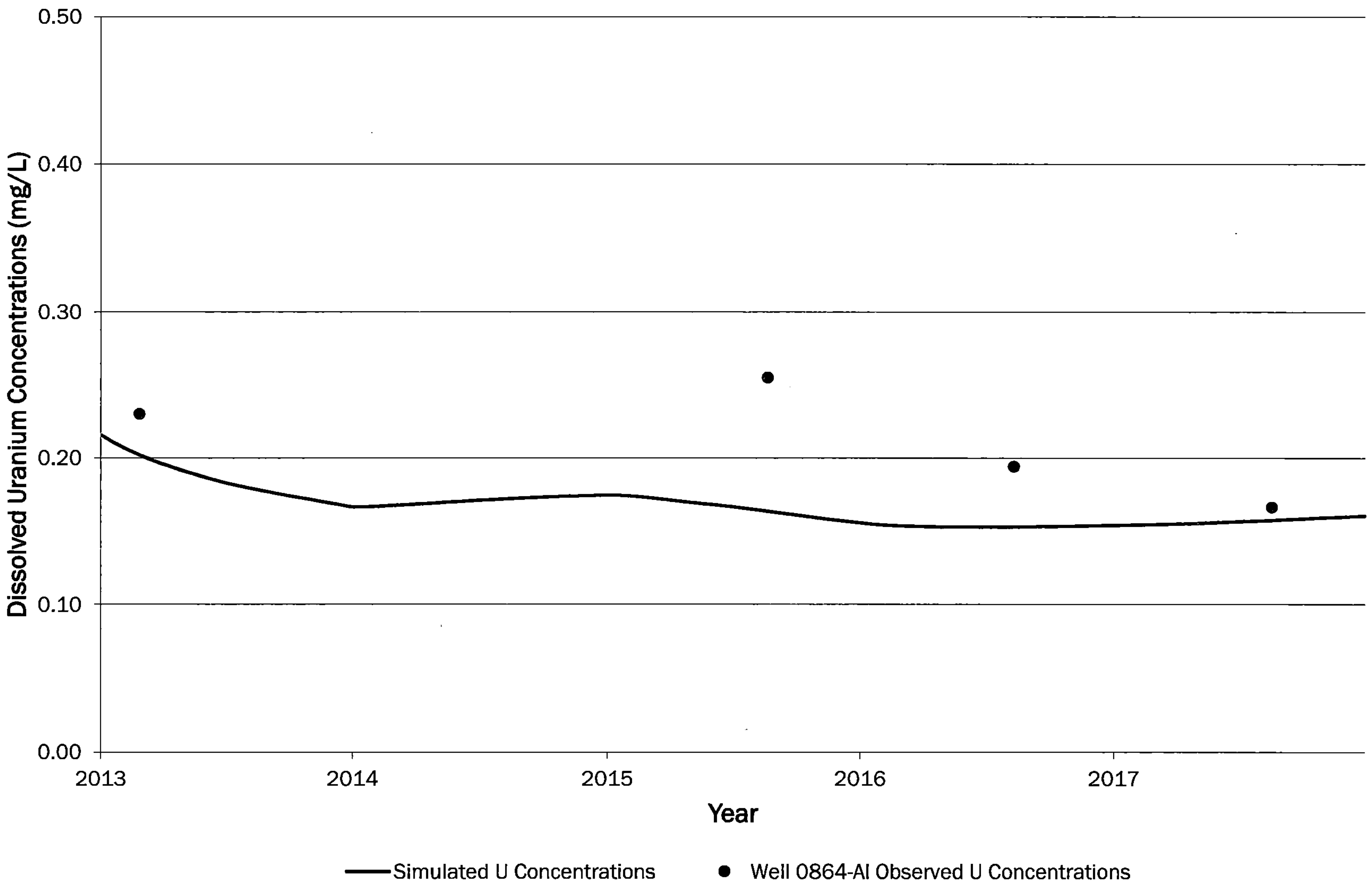

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Figure 3-27

Simulated versus Observed Uranium Concentrations - Well 0864-AI

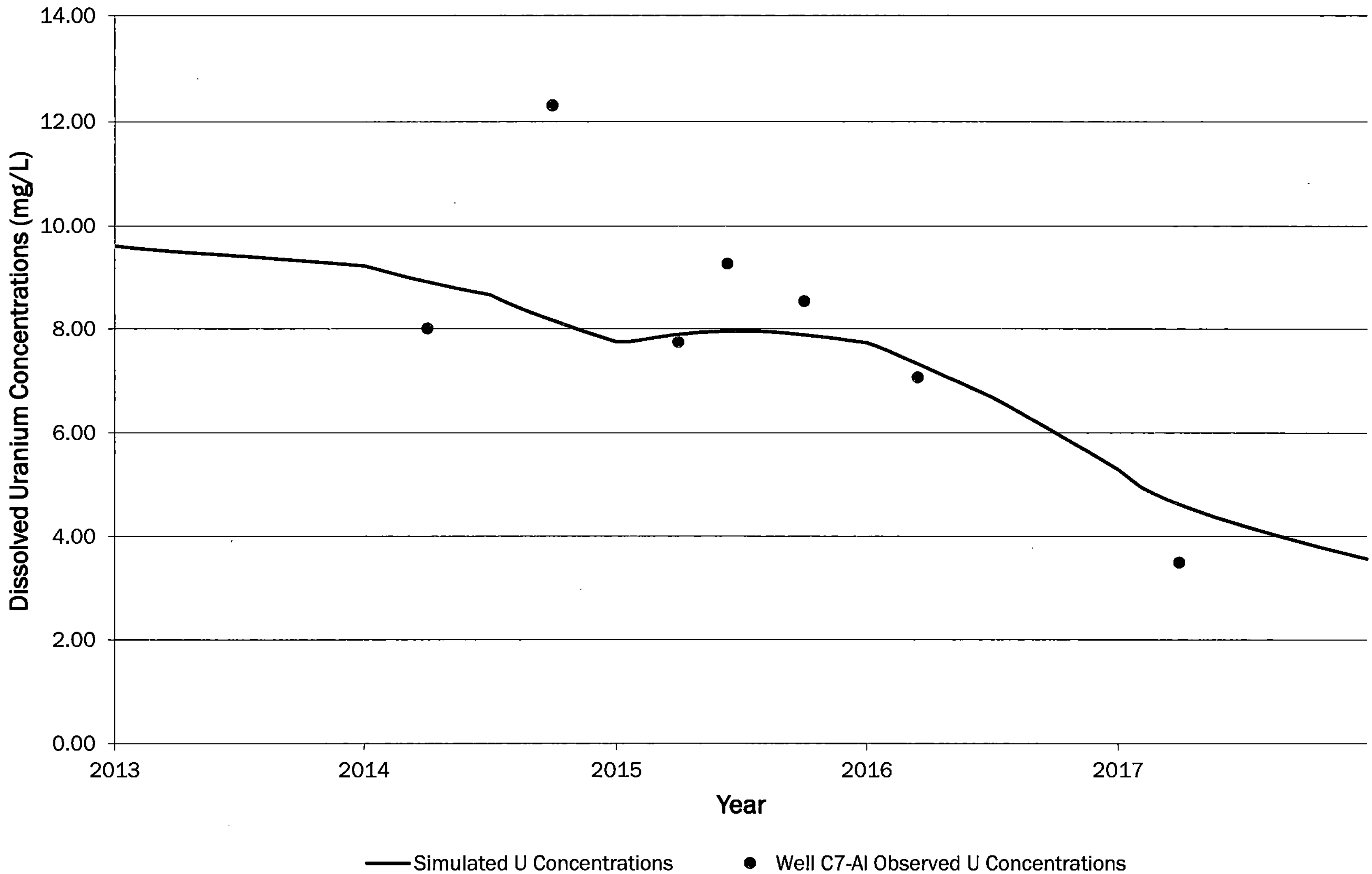

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Figure 3-28

Simulated versus Observed Uranium Concentrations - Well C7-AI

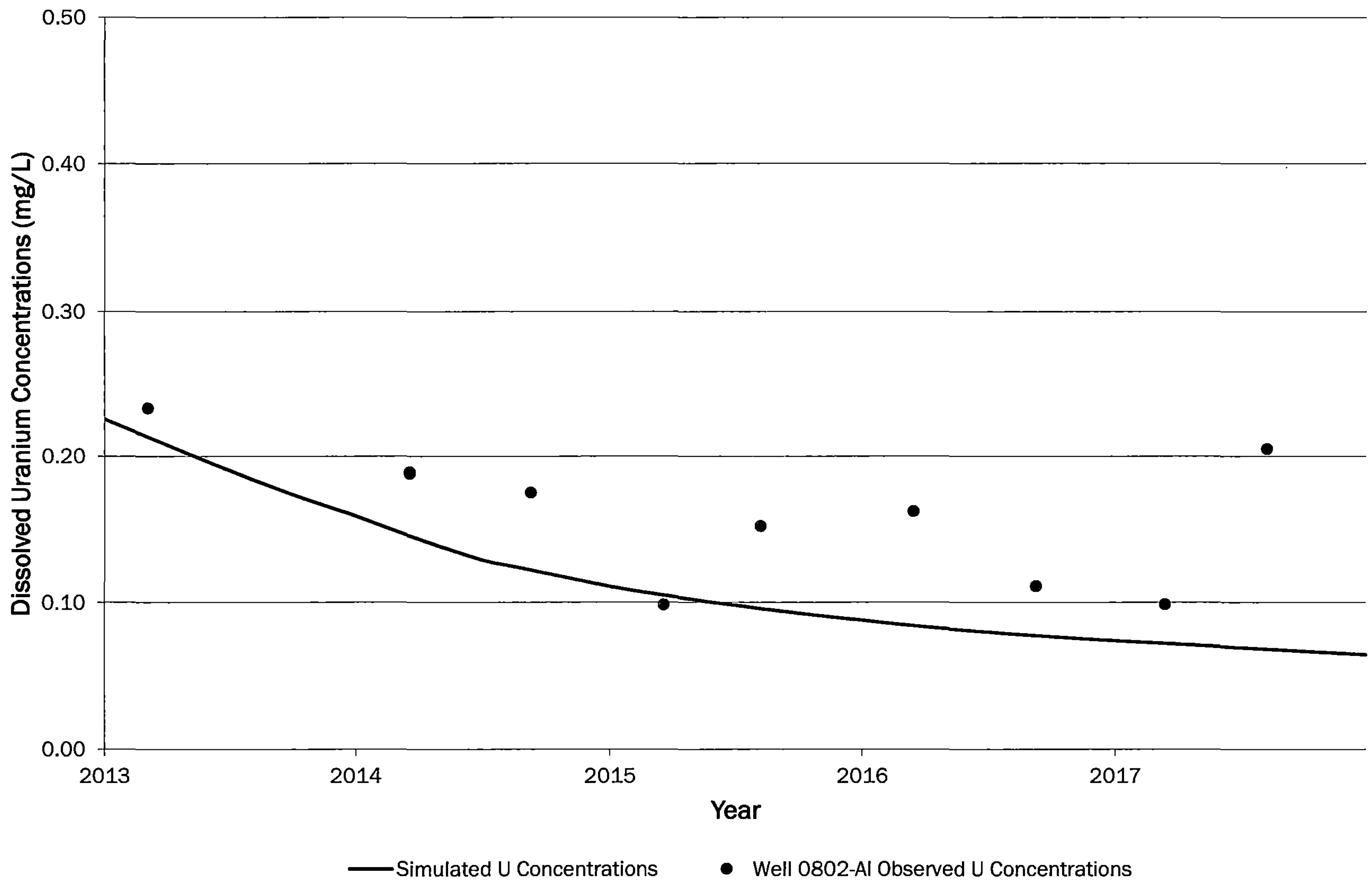

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Figure 3-29

Simulated versus Observed Uranium Concentrations - Well 0802-AI

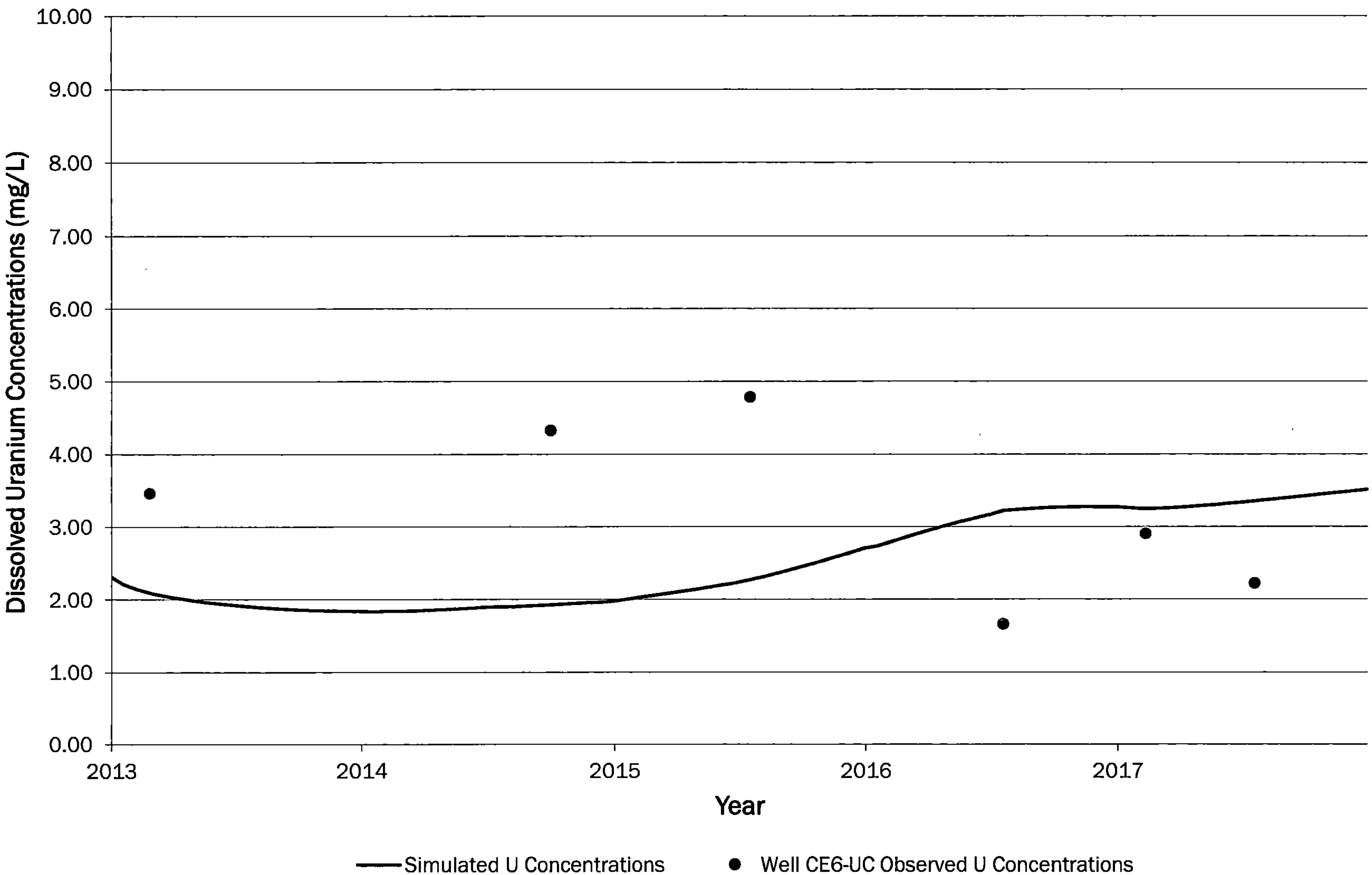

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Figure 3-30

Simulated versus Observed Uranium Concentrations - Well CE6-UC

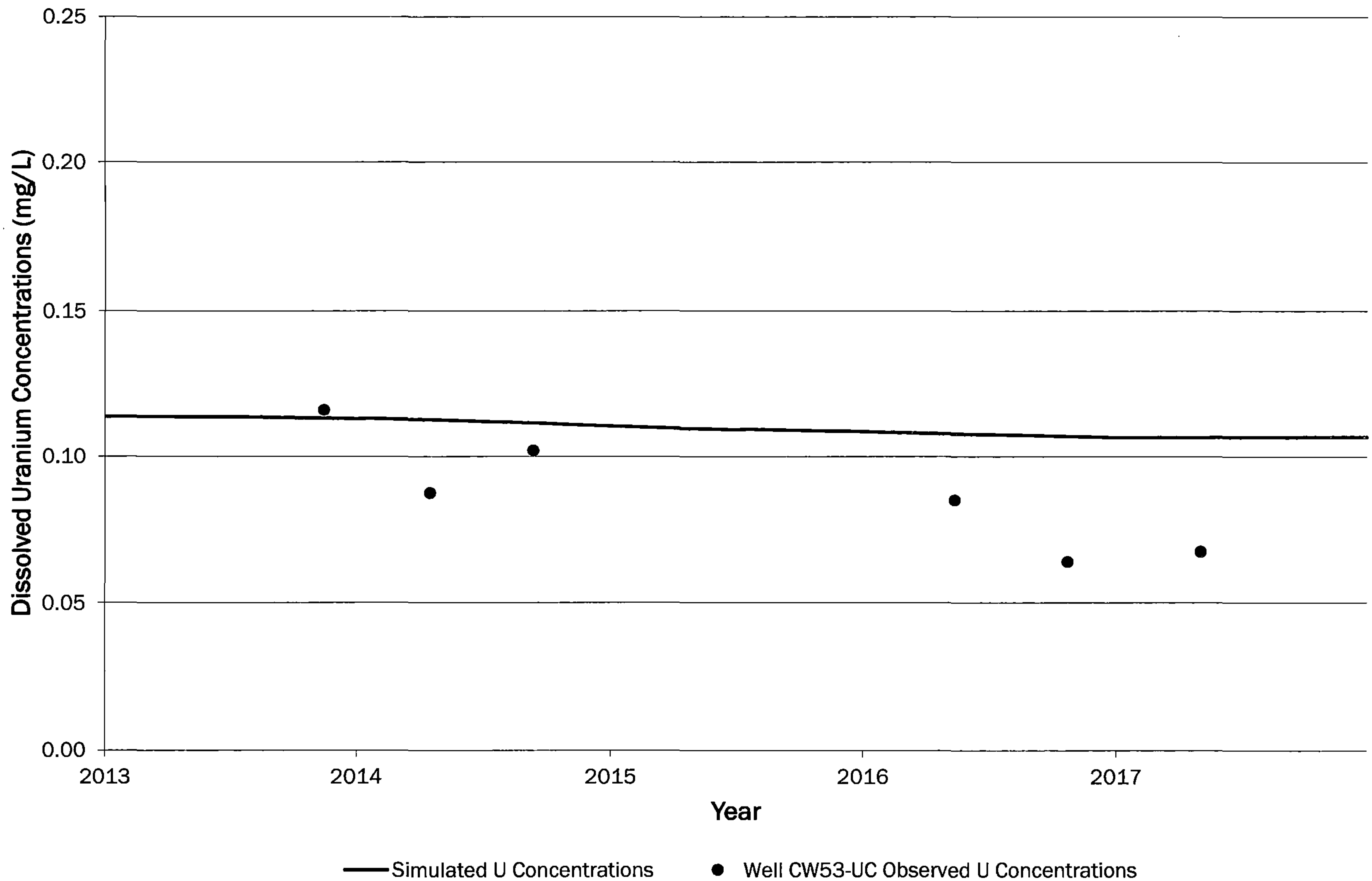

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Figure 3-31

Simulated versus Observed Uranium Concentrations - Well CW53-UC

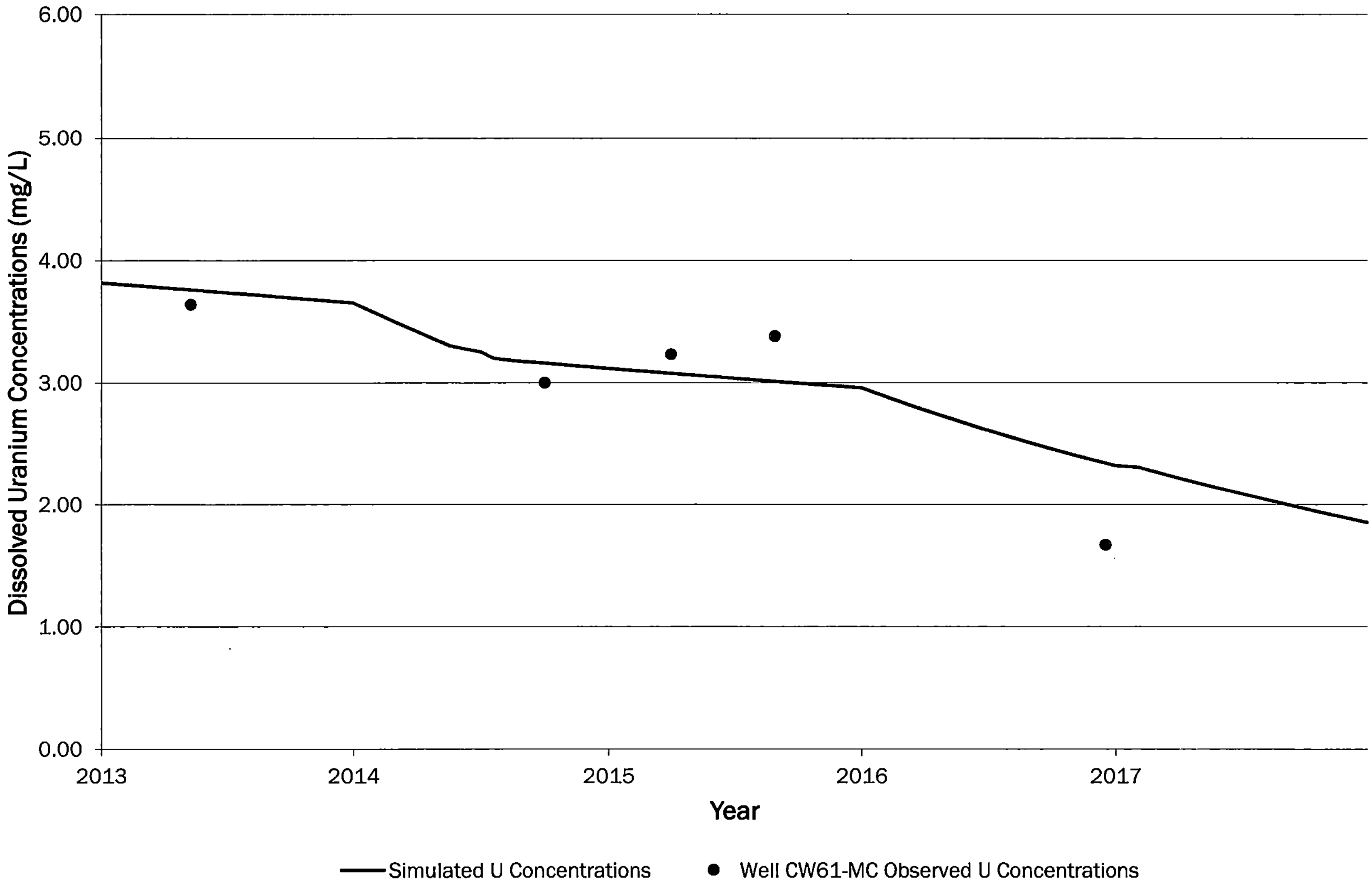

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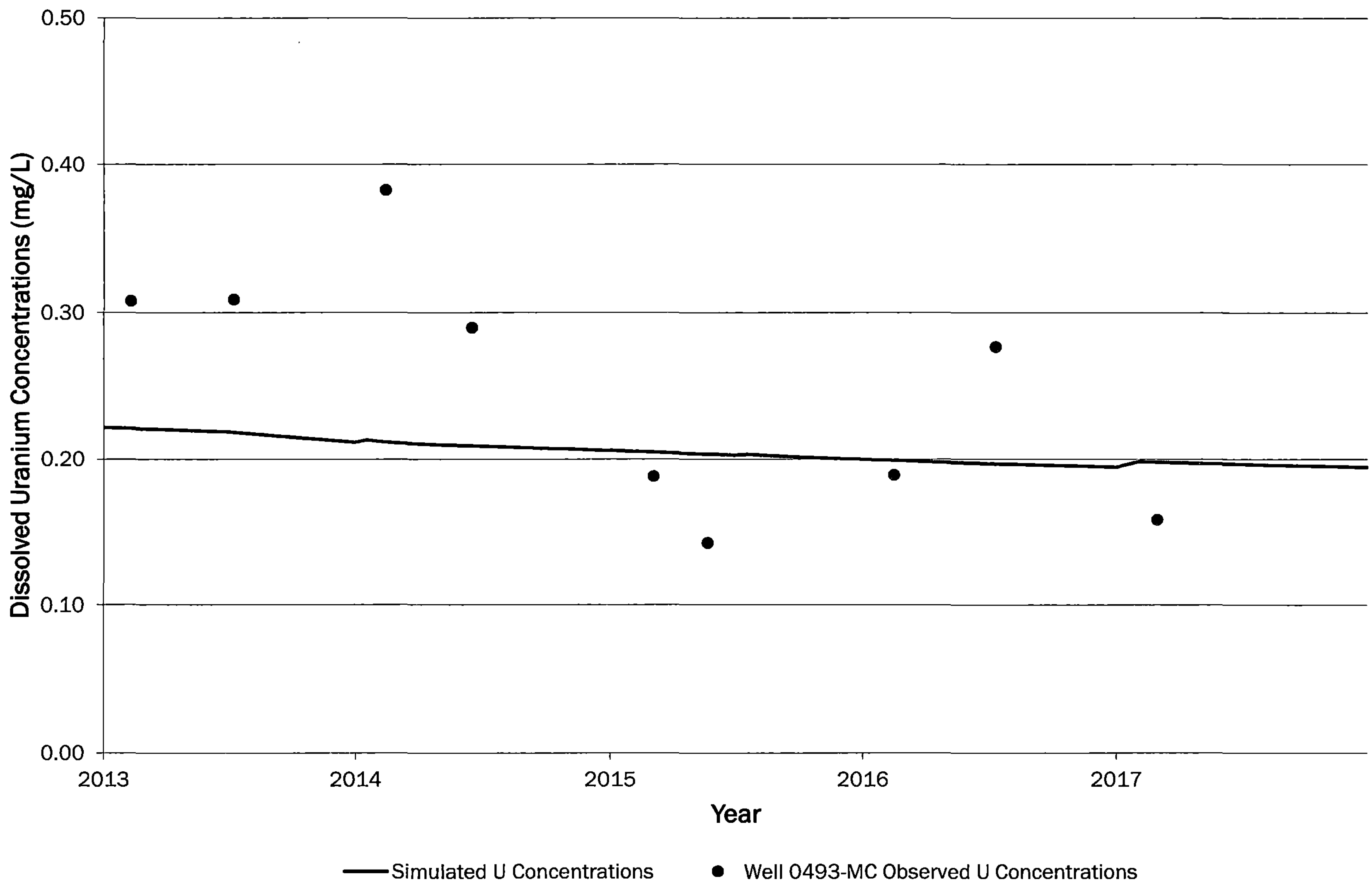
Figure 3-32

Simulated versus Observed Uranium Concentrations - Well CW61-MC



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Project: 152816

Figure 3-33

Simulated versus Observed Uranium Concentrations - Well 0493-MC

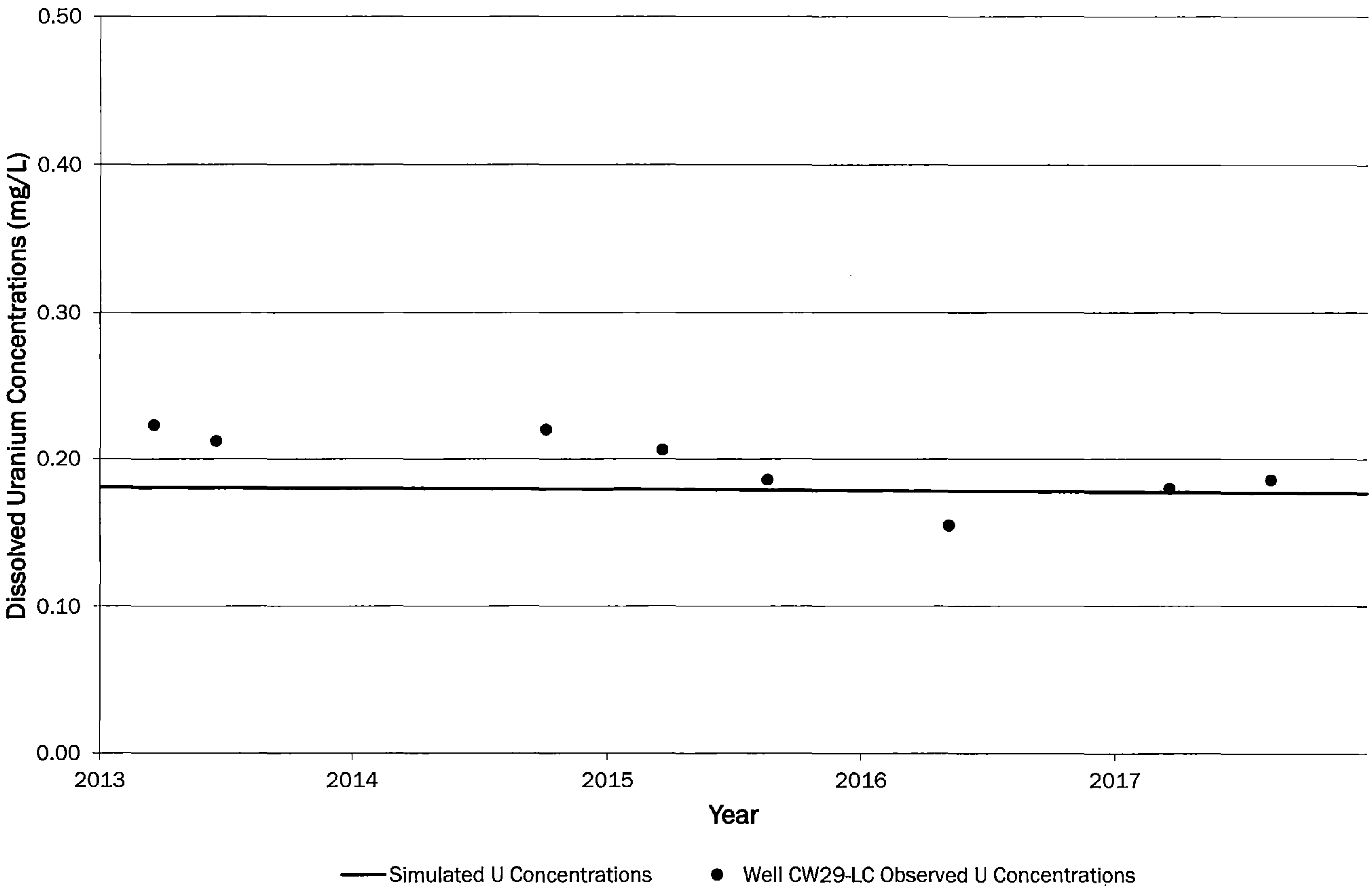

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Figure 3-34

Simulated versus Observed Uranium Concentrations - Well CW29-LC

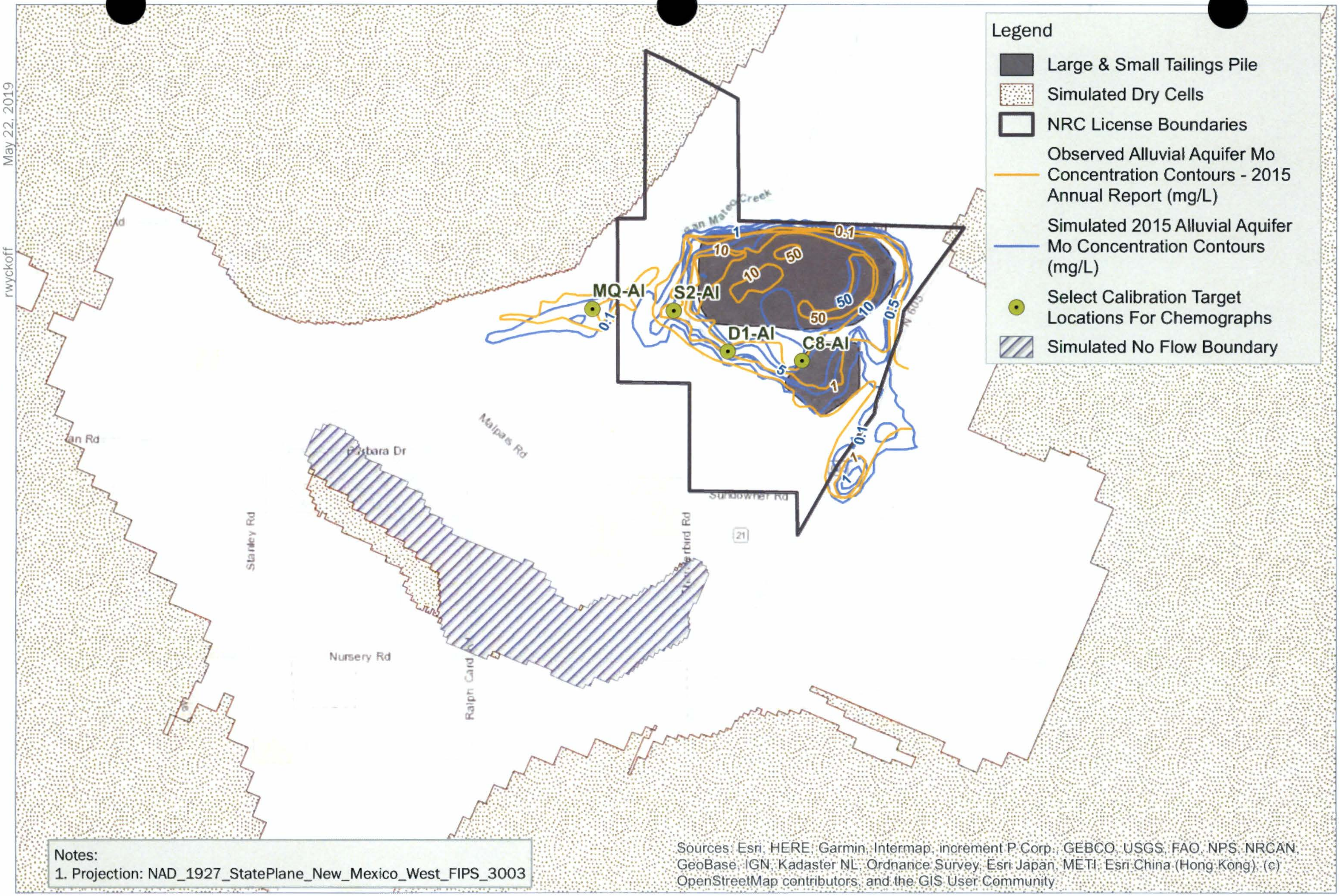

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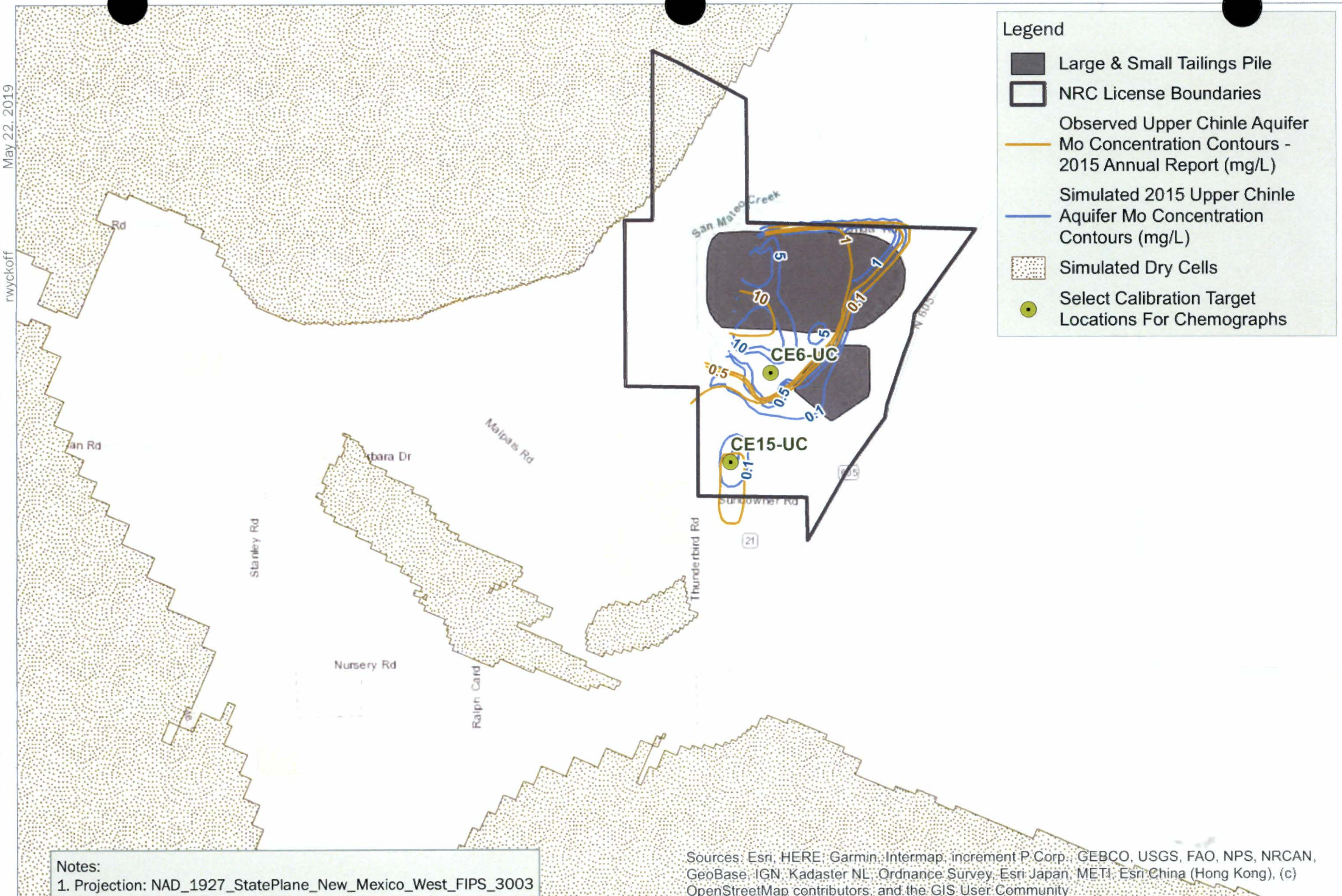
Figure 3-35
Alluvial Aquifer Simulated vs. Observed 2015 Molybdenum Concentration Contours



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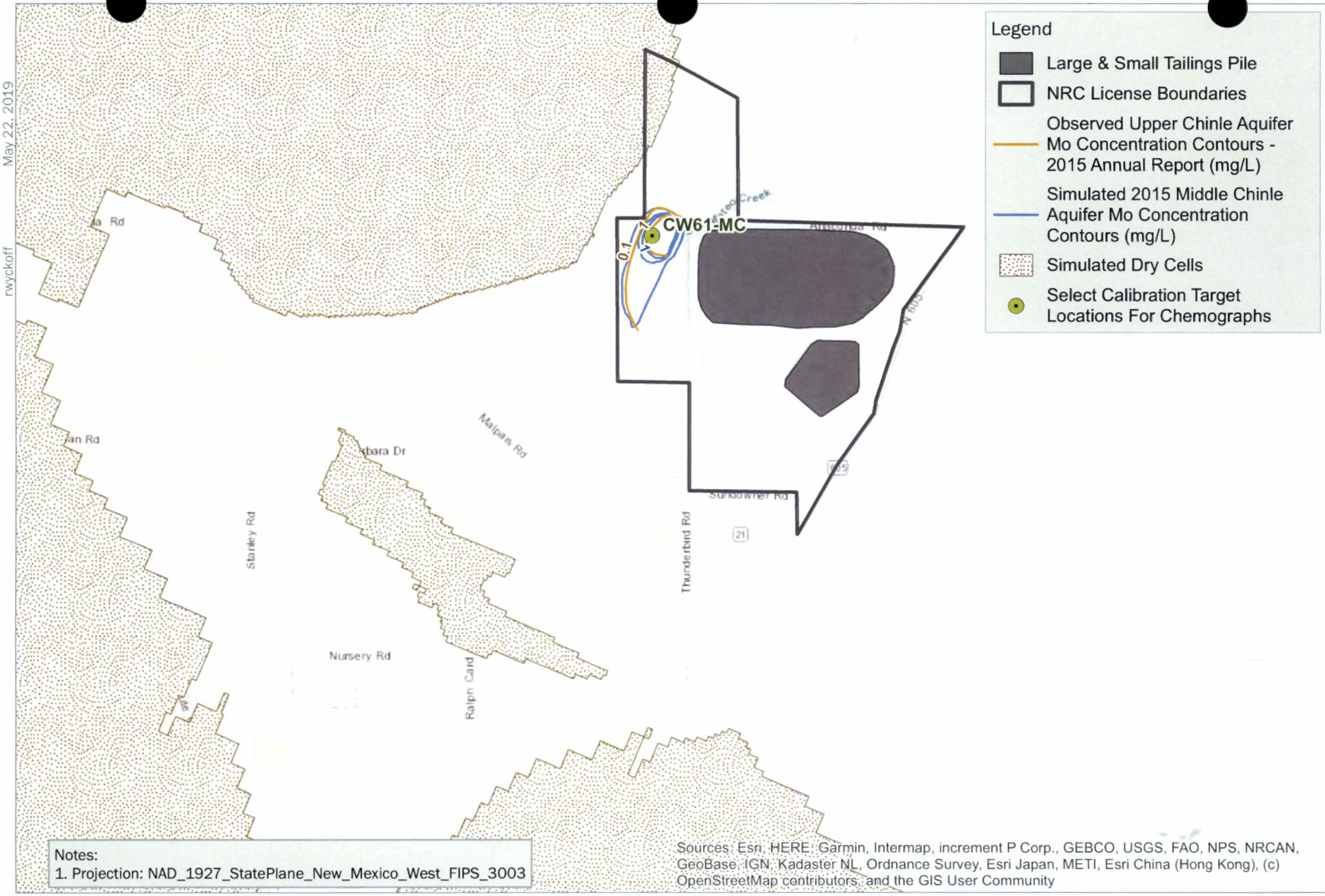
Project: 152816

0 0.5 1 Miles

N

Figure 3-36

Upper Chinle Aquifer Simulated vs. Observed 2015 Molybdenum Concentration Contours



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May 22, 2019
rwyckoff

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Figure 3-37

Middle Chinle Aquifer Simulated 2015 Molybdenum Concentration Contours

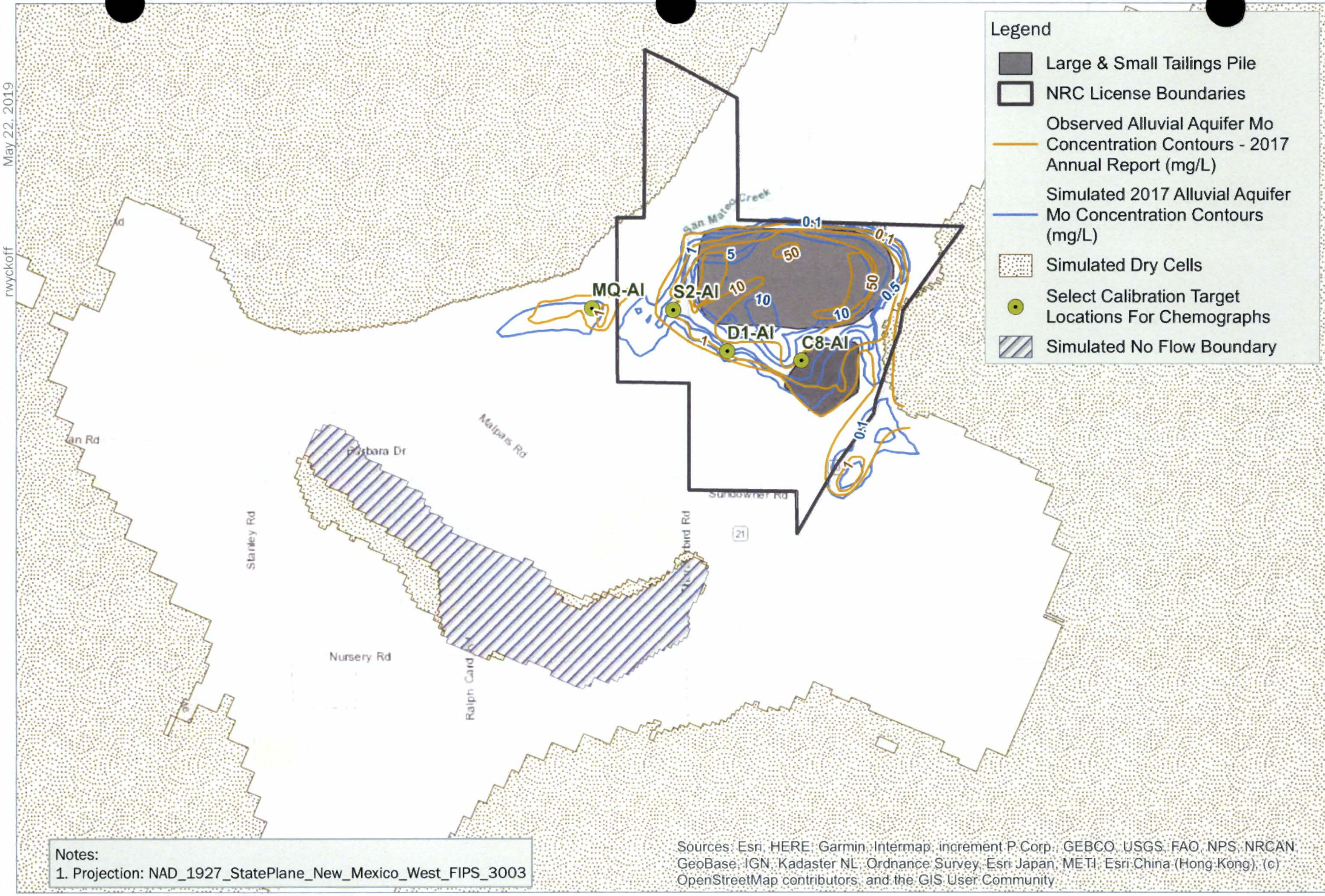

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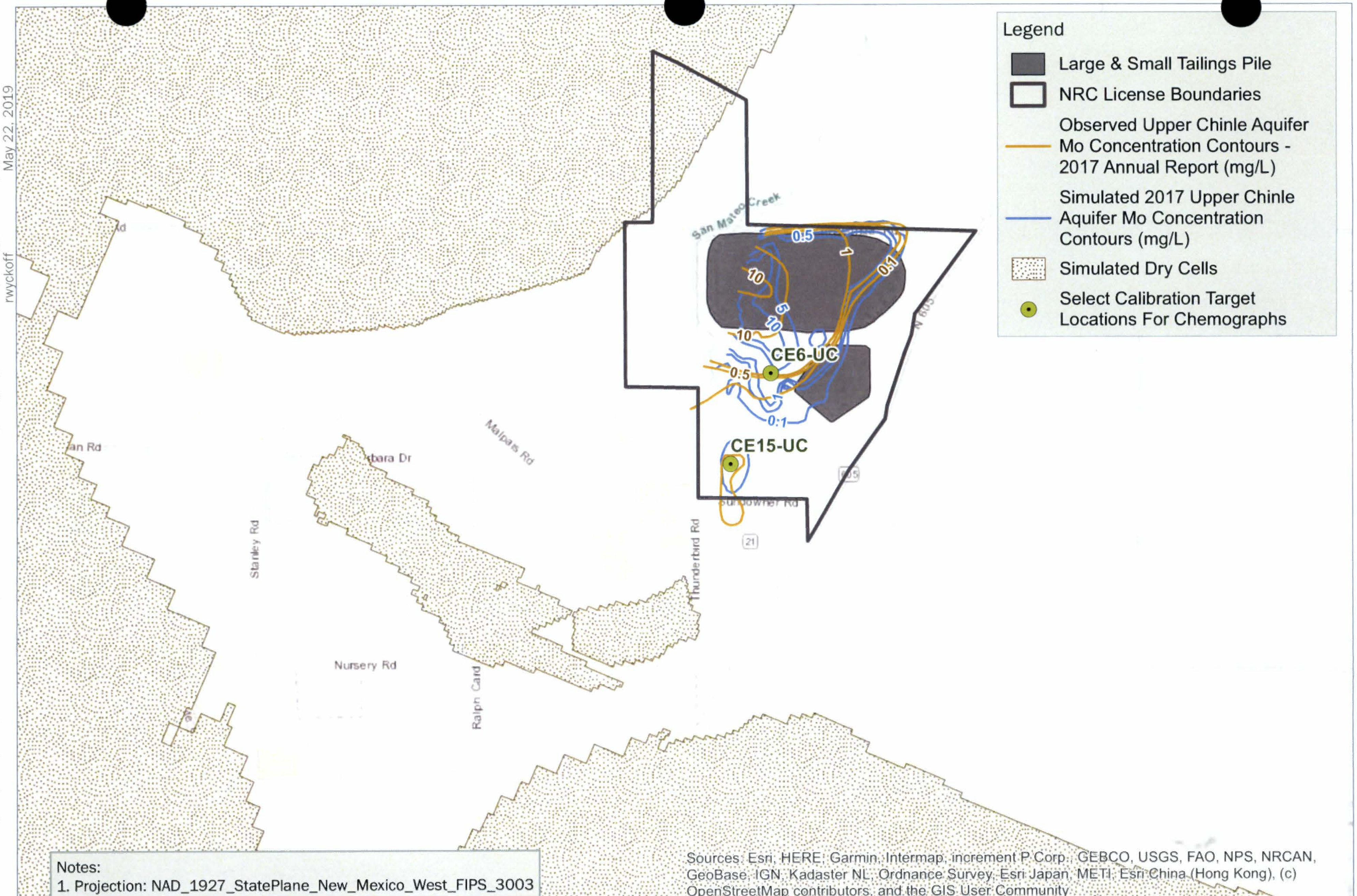
Figure 3-38

Alluvial Aquifer Simulated vs. Observed 2017 Molybdenum Concentration Contours



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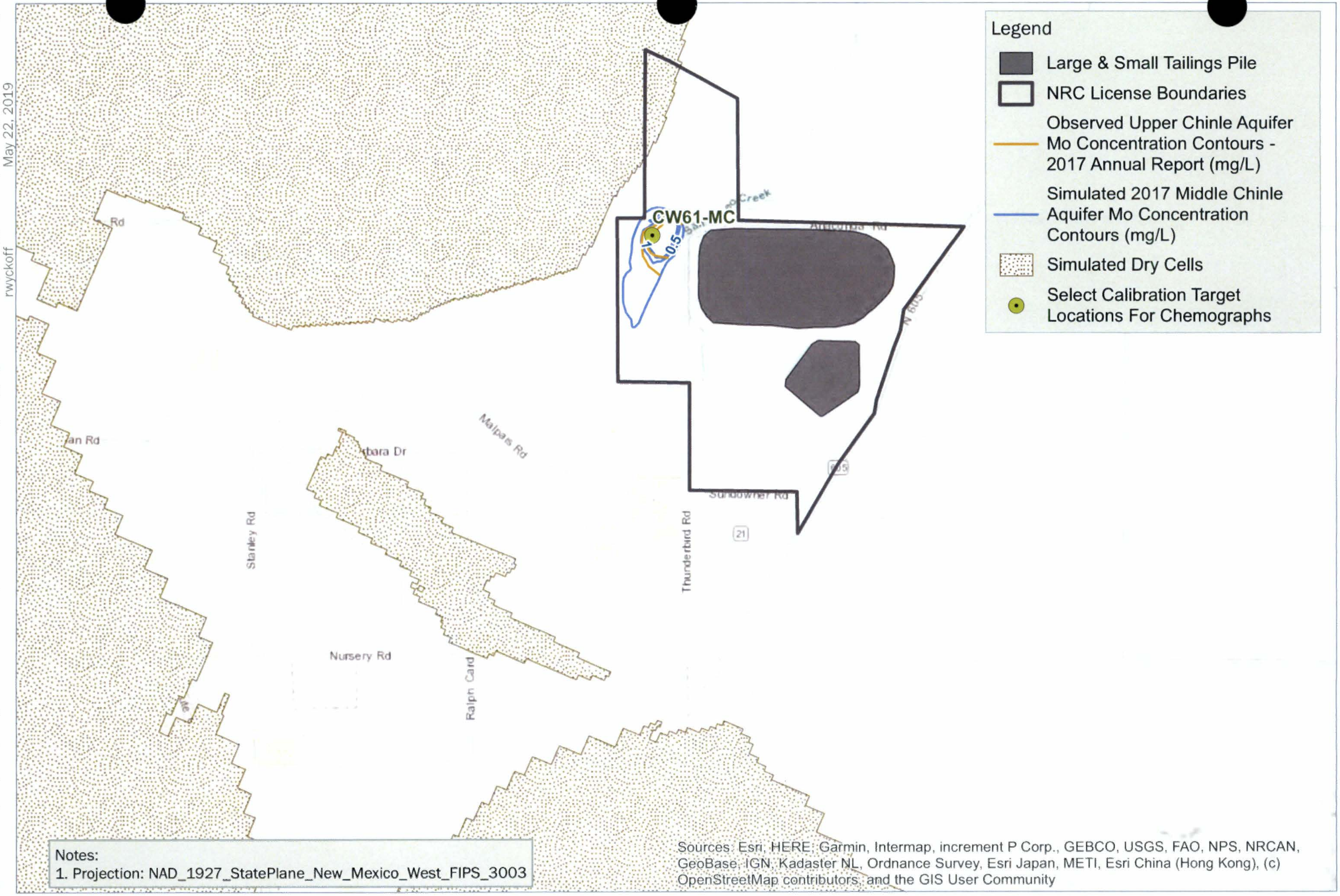
Project: 152816

Figure 3-39
Upper Chinle Aquifer Simulated vs. Observed 2017 Molybdenum Concentration Contours



[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_40_2017SiteMC_MoCon
rwyckoff
May 22, 2019

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Homestake Mining Company

Grants Reclamation Project Groundwater Fate and Transport Modeling

Date: June 2019

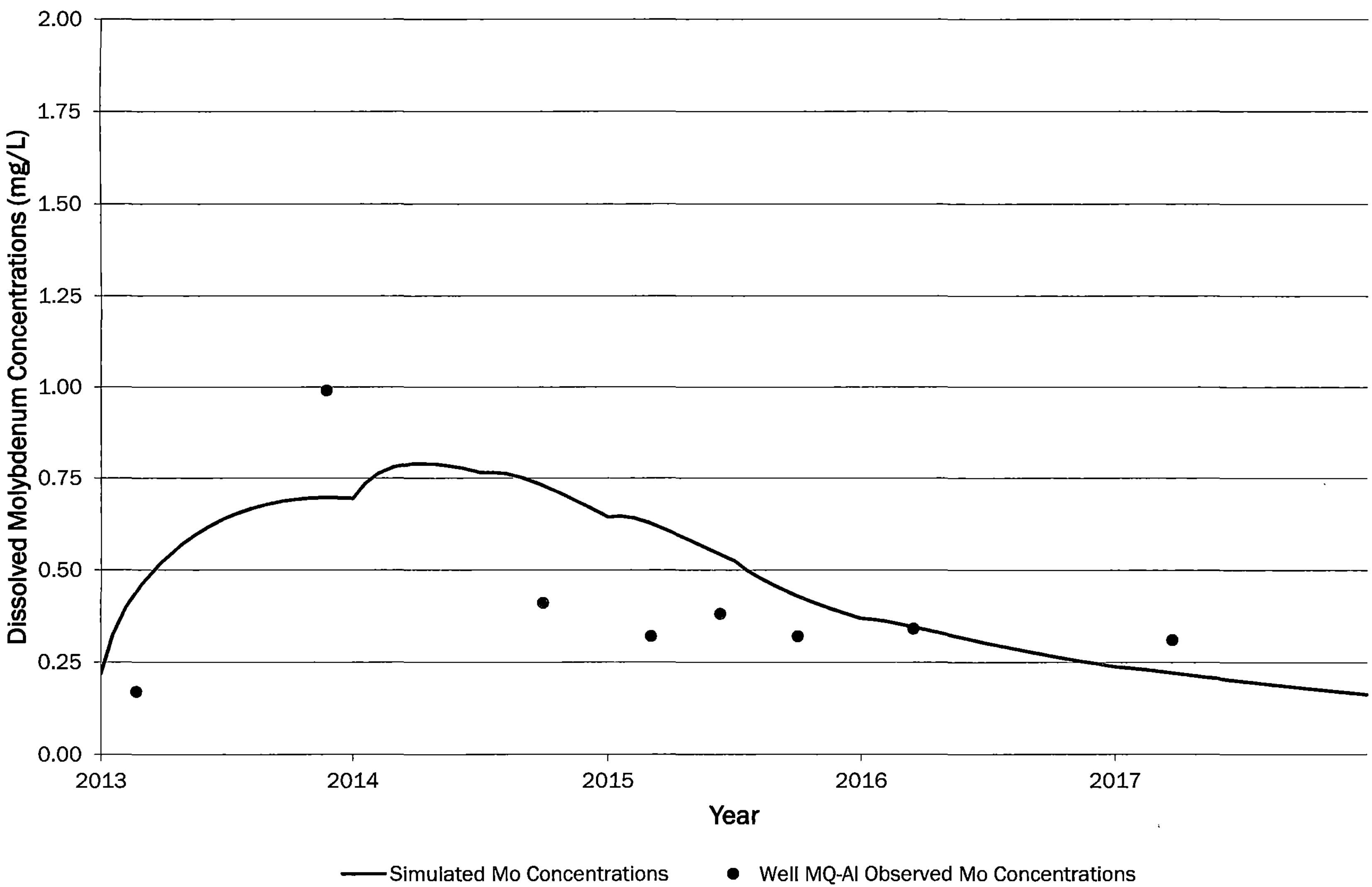
Project: 152816

0 0.5 1 Miles

N

Figure 3-40

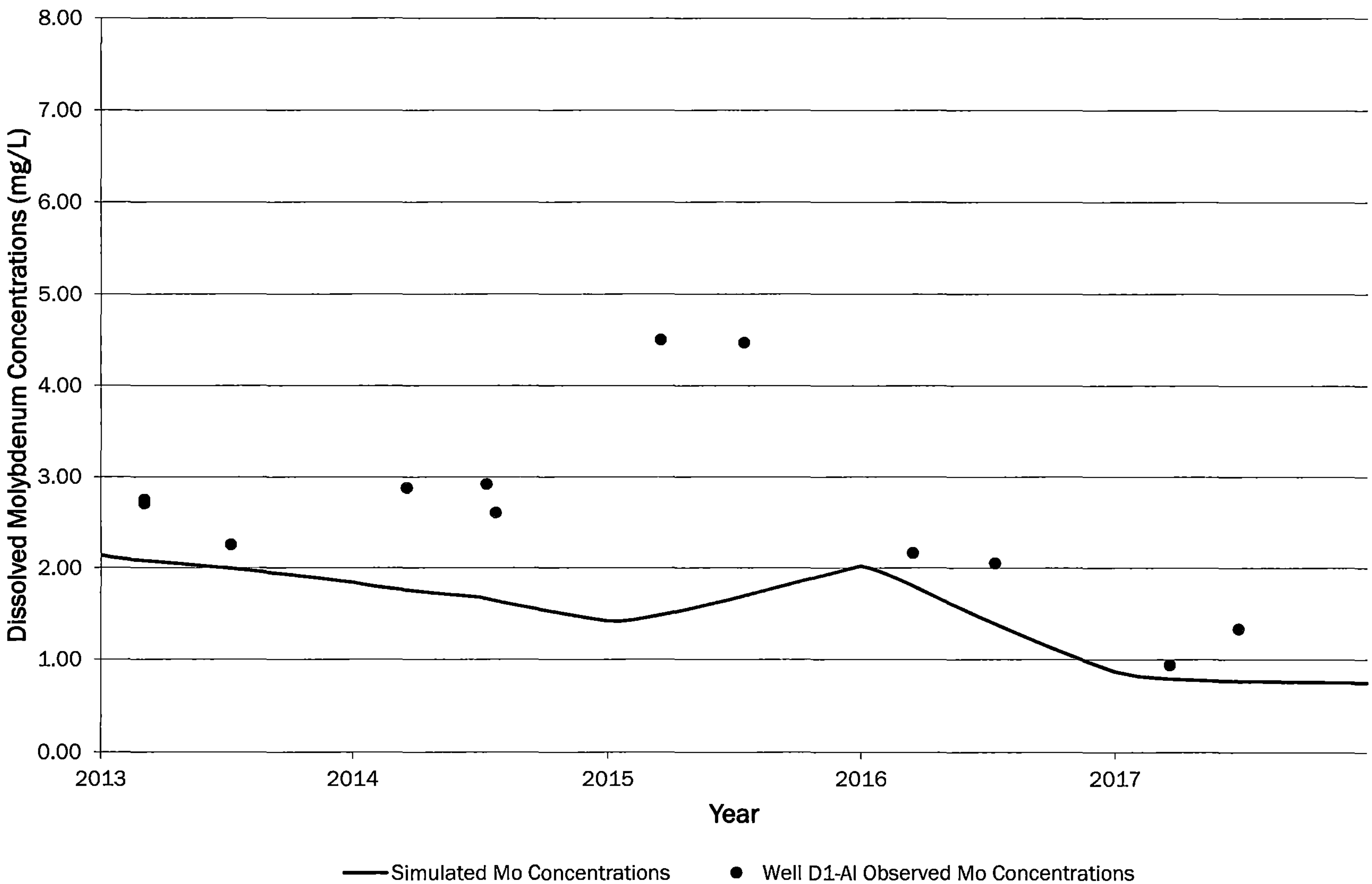
Middle Chinle Aquifer Simulated 2017 Molybdenum Concentration Contours



Homestake Mining Company
Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: June 2019
Project: 152816

Figure 3-41

Simulated versus Observed Molybdenum Concentrations - Well MQ-AI



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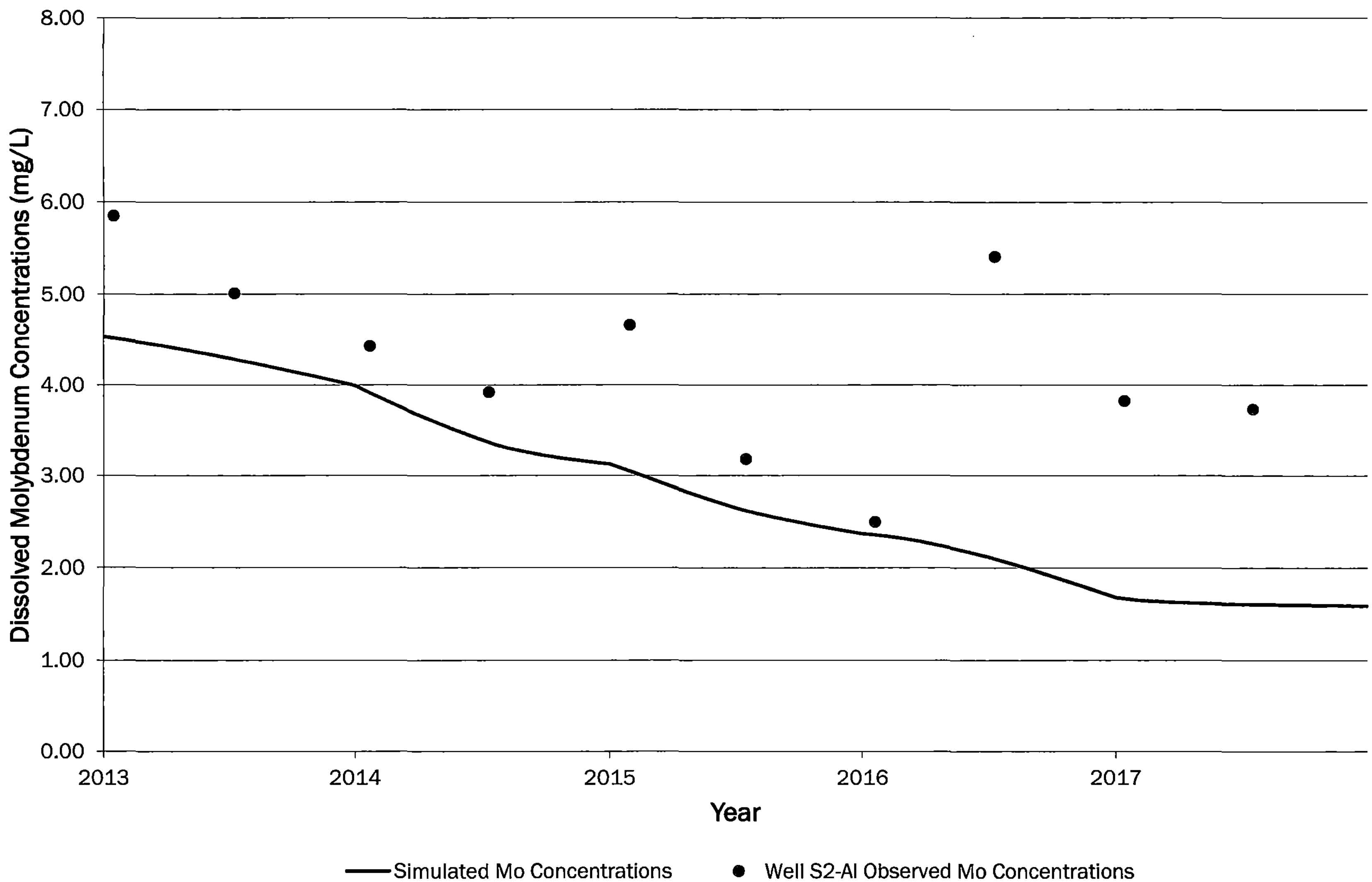
Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: June 2019
Project: 152816

Figure 3-42

Simulated versus Observed Molybdenum Concentrations - Well D1-AI



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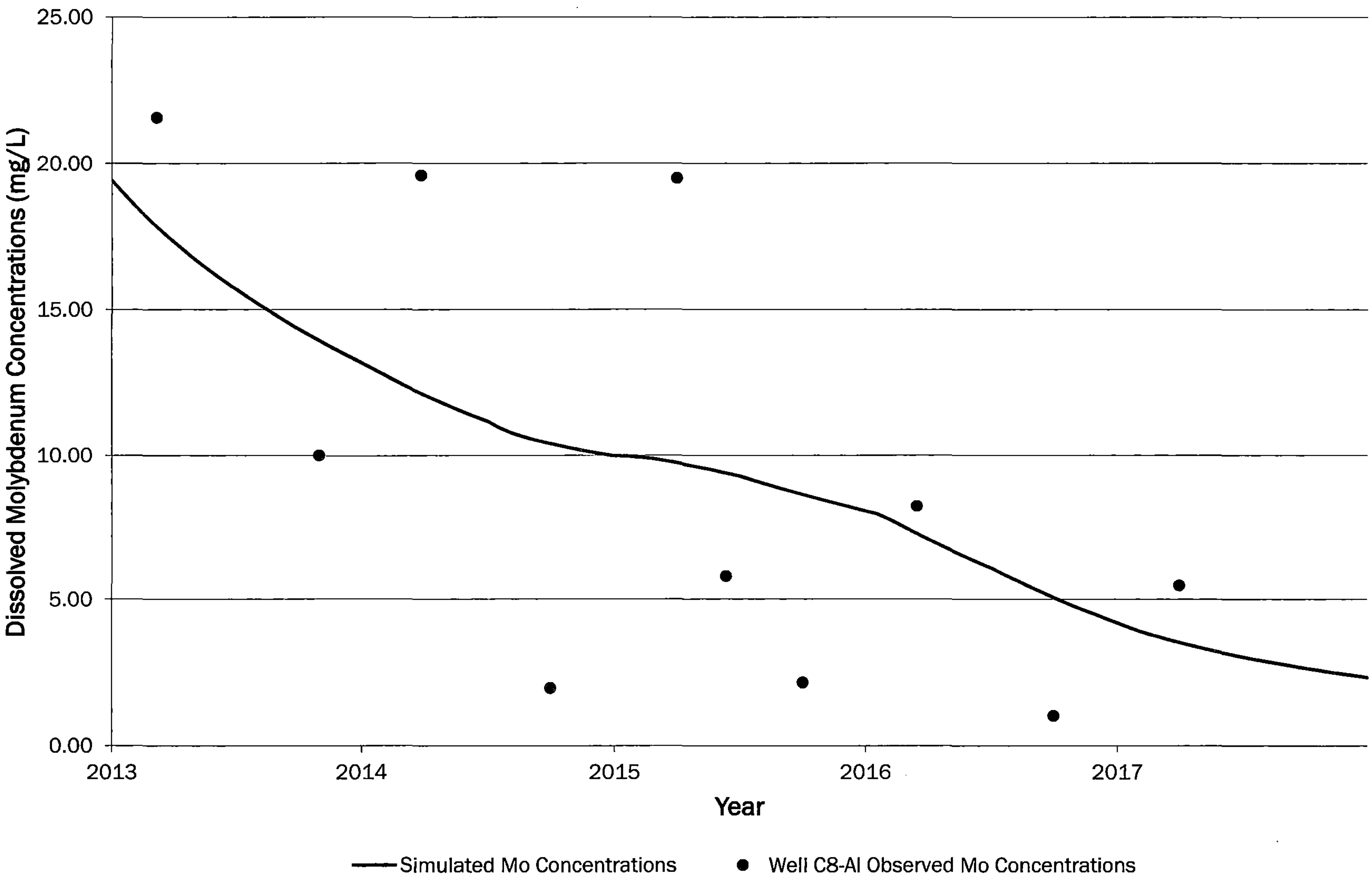
Homestake Mining Company
Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: June 2019
Project: 152816

Figure 3-43

Simulated versus Observed Molybdenum Concentrations - Well S2-AI



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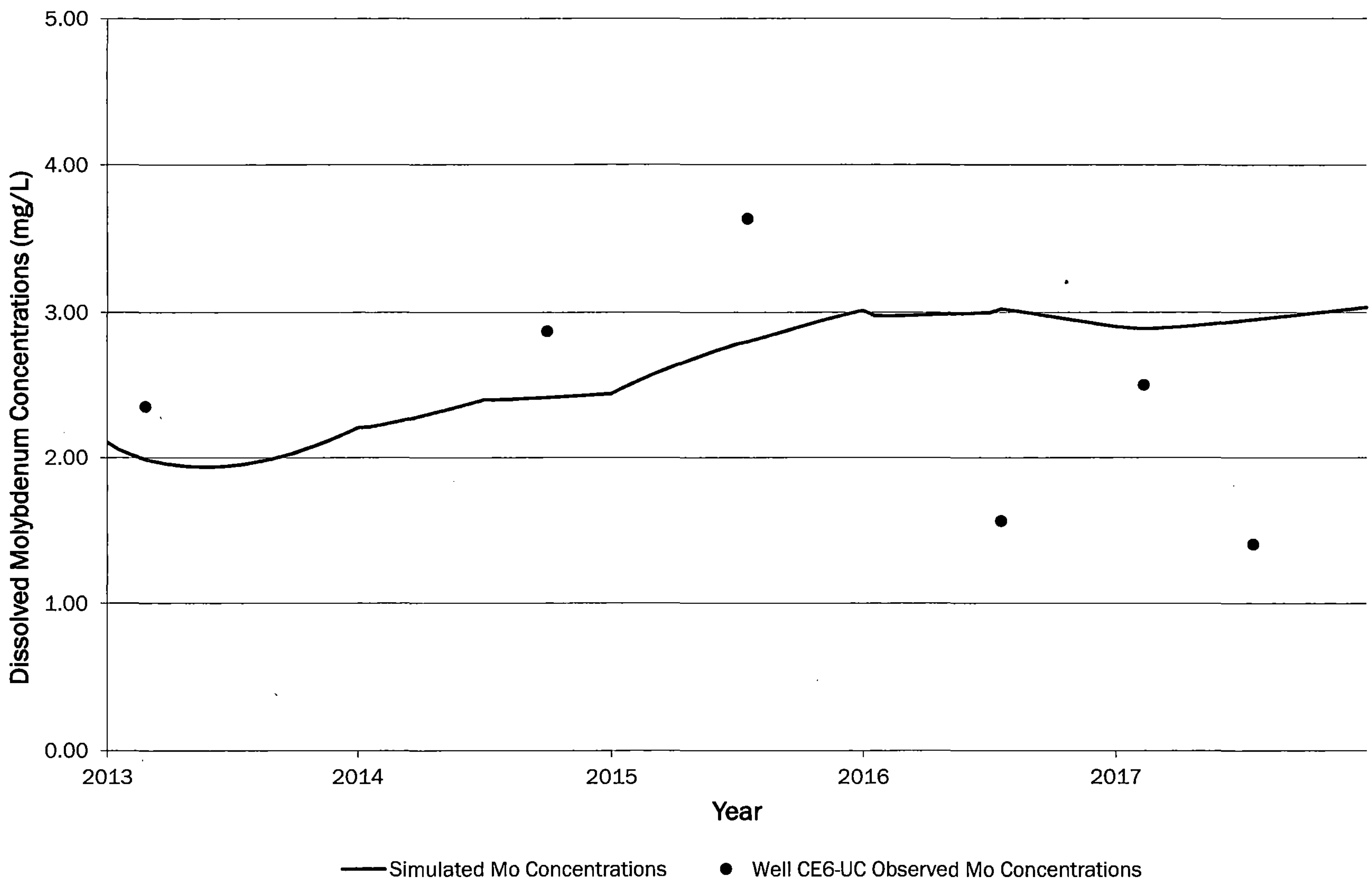
Homestake Mining Company
Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: June 2019
Project: 152816

Figure 3-44

Simulated versus Observed Molybdenum Concentrations - Well C8-AI



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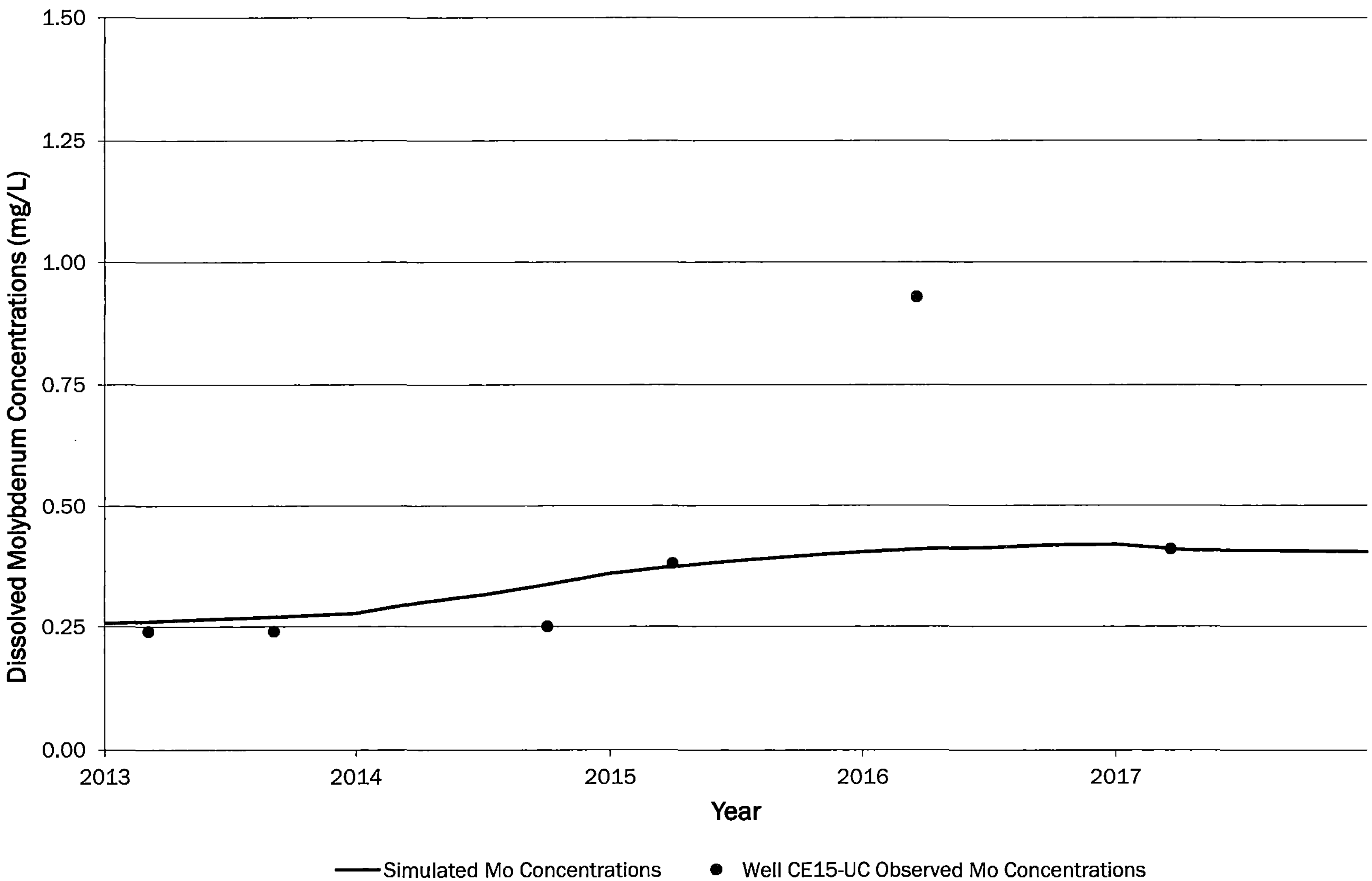
Homestake Mining Company
Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: June 2019
Project: 152816

Figure 3-45

Simulated versus Observed Molybdenum Concentrations - Well CE6-UC



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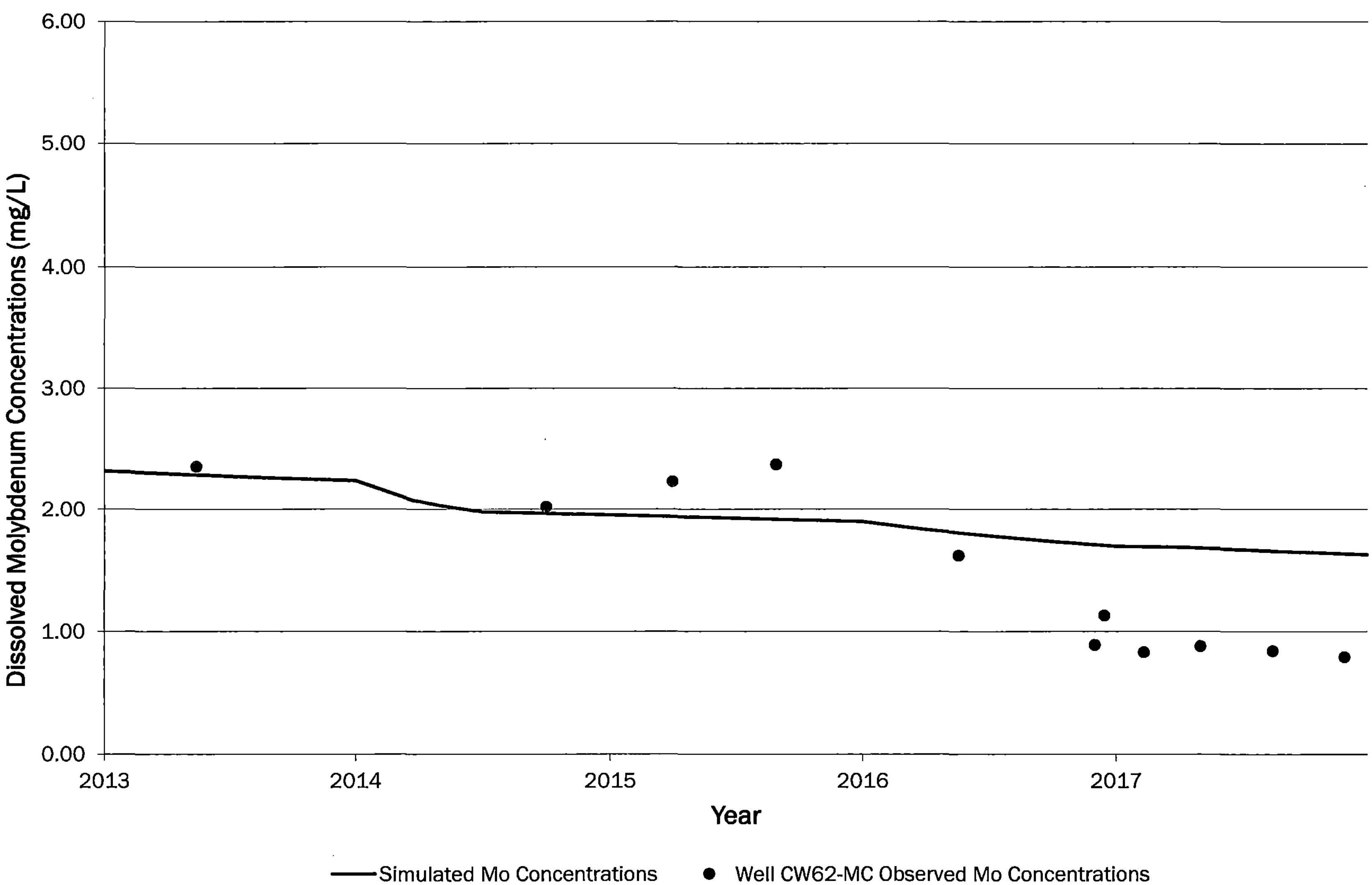
Homestake Mining Company
Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: June 2019
Project: 152816

Figure 3-46

Simulated versus Observed Molybdenum Concentrations - Well CE15-UC



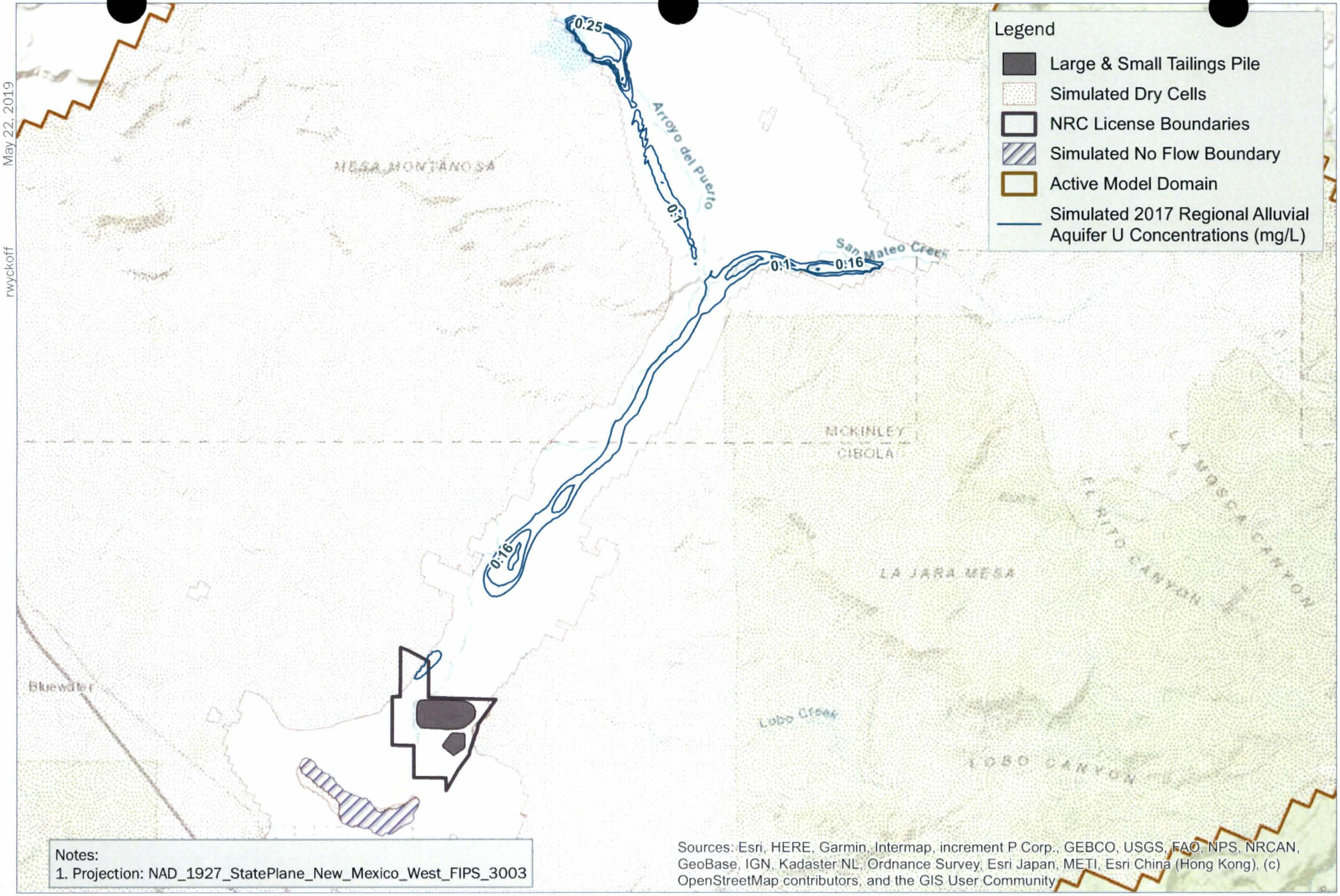
HOMESTAKE

Homestake Mining Company
Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: March 2019
Project: 152816

Figure 3-47

Simulated versus Observed Molybdenum Concentrations - Well CW62-MC

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\Grants Groundwater Model\GIS_RegionalModelReporting_062019\Figure3_48_2017RegQal_UConc
rwyckoff
May 22, 2019



HOMESTAKE

Homestake Mining Company
Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: June 2019
Project: 152816

0 1 2 Miles

N

Figure 3-48
Alluvial Aquifer Simulated 2017 Regional Uranium Concentrations (Preliminary) - SMC Basin

Appendix A: Groundwater Elevation Data for General Head Boundary Initial Conditions

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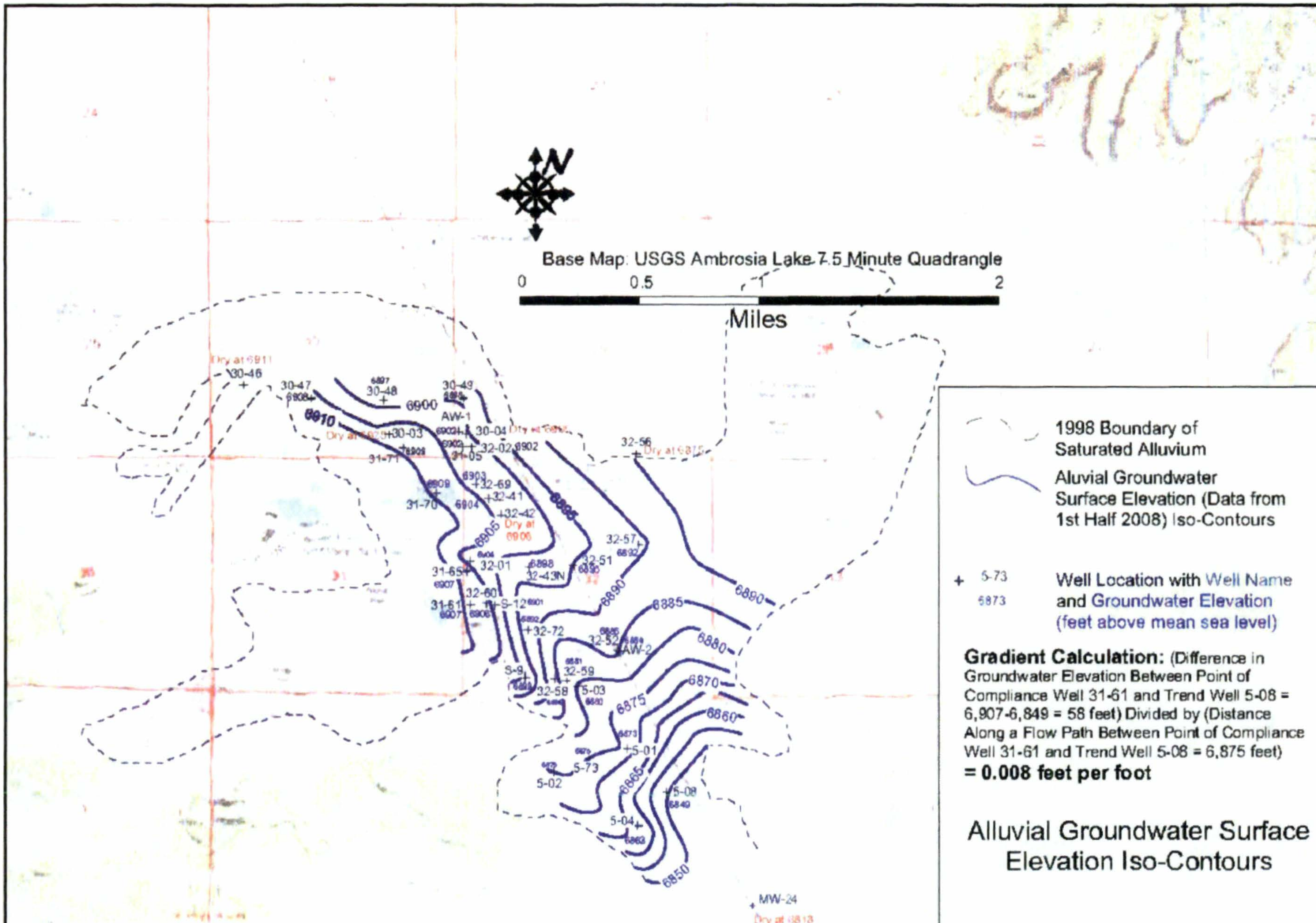
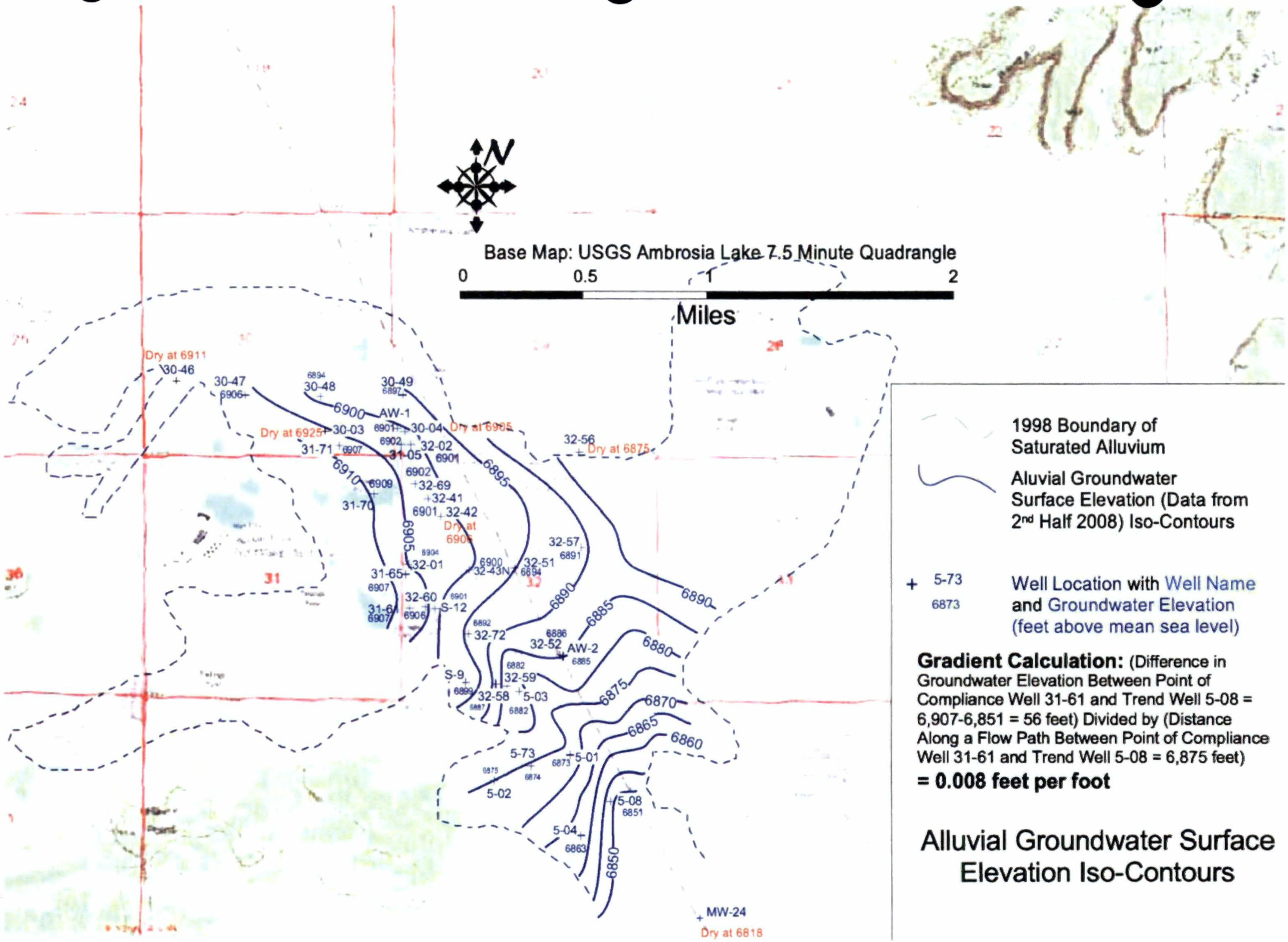


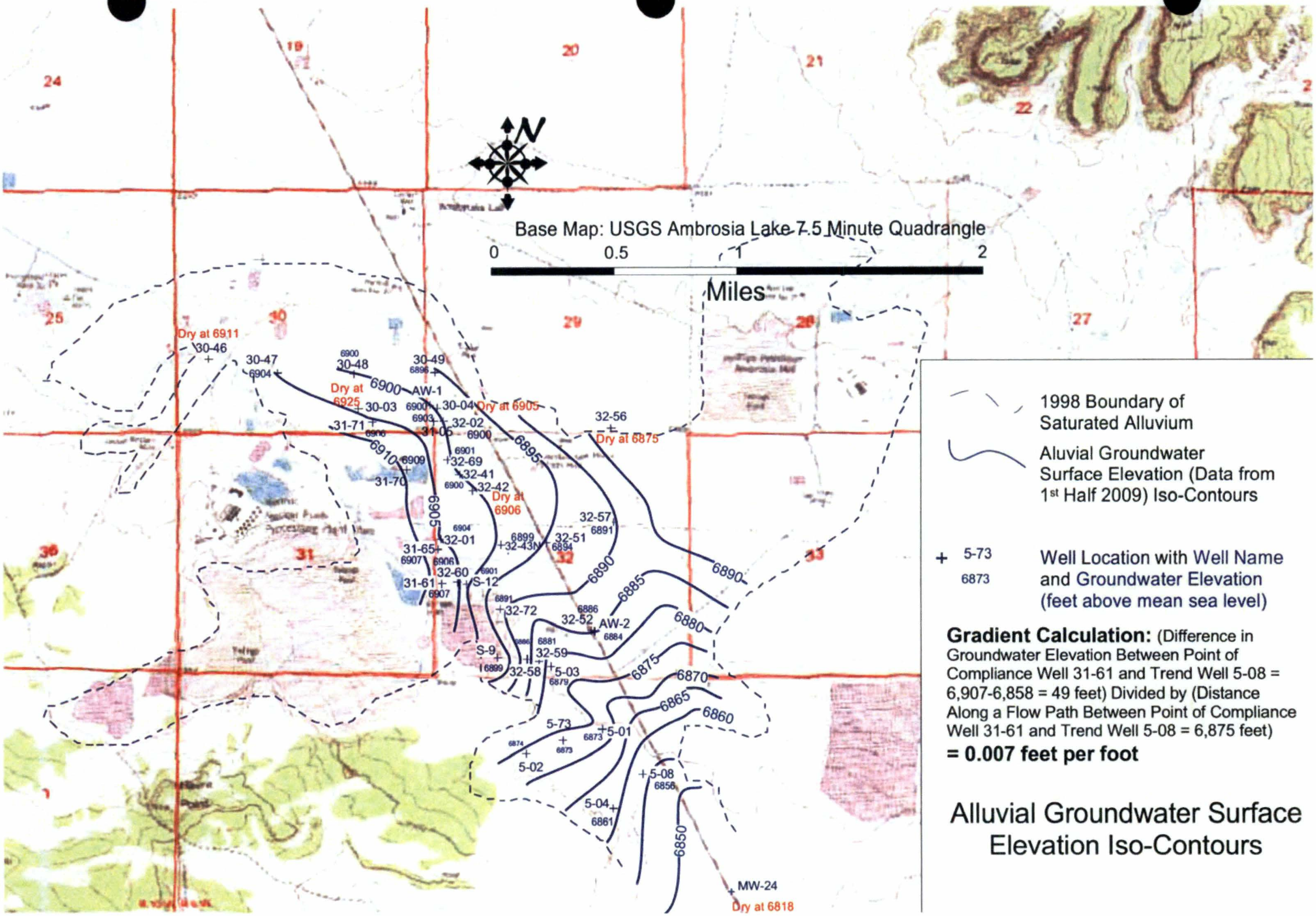
Alluvial Groundwater Surface Elevation Iso-Contours



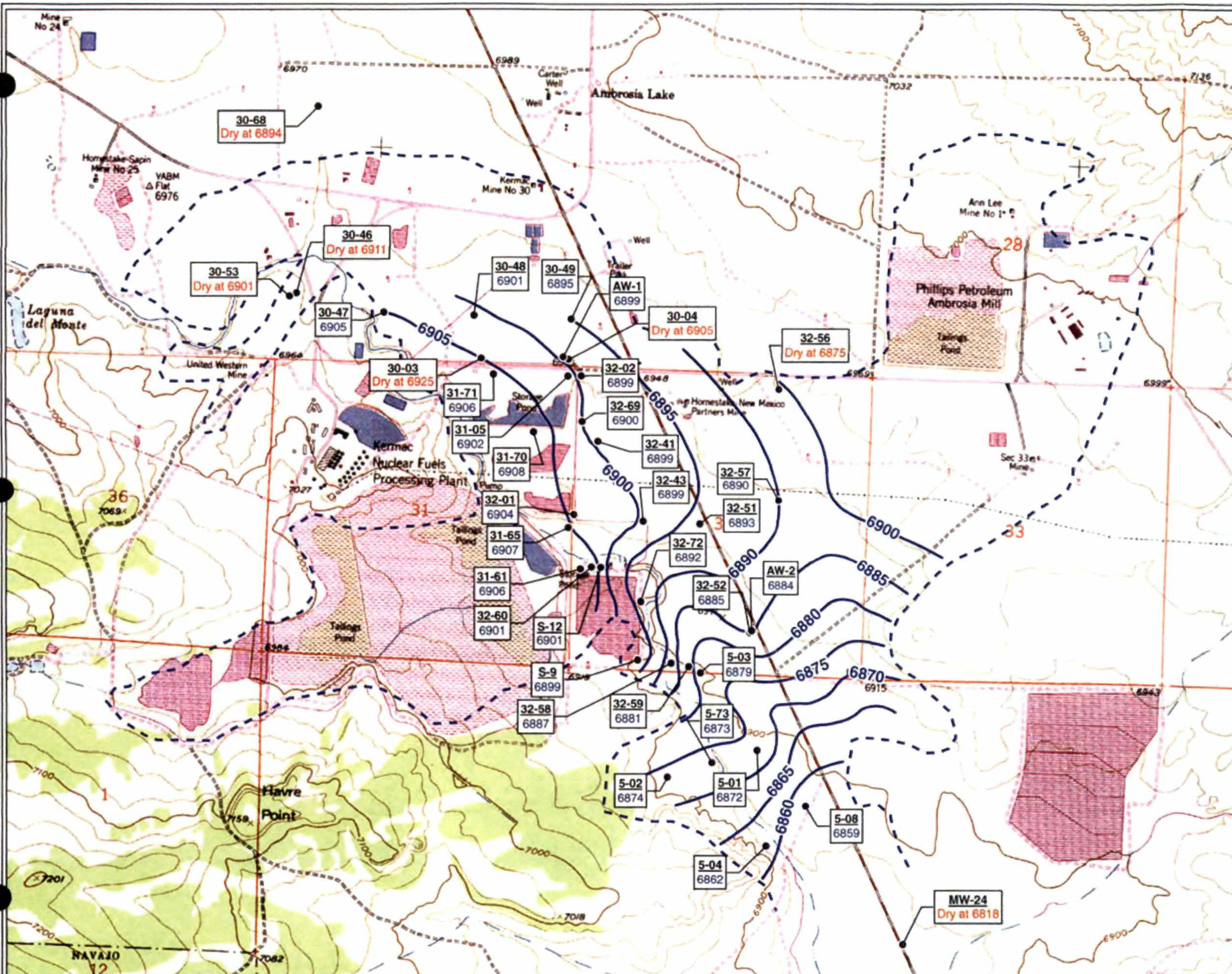
Gradient Calculation: (Difference in Groundwater Elevation Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,907-6,851 = 56 feet) Divided by (Distance Along a Flow Path Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,875 feet)

= 0.008 feet per foot

Alluvial Groundwater Surface Elevation Iso-Contours



N
Base Map: USGS Ambrosia Lake 7.5 Minute Quadrangle
0
0.5
1
2
Miles
1998 Boundary of Saturated Alluvium
Aluvial Groundwater Surface Elevation (Data from 1st Half 2009) Iso-Contours
5-73
6873
Well Location with Well Name and Groundwater Elevation (feet above mean sea level)
Gradient Calculation: (Difference in Groundwater Elevation Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,907-6,858 = 49 feet) Divided by (Distance Along a Flow Path Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,875 feet)
= 0.007 feet per foot
Alluvial Groundwater Surface Elevation Iso-Contours
Dry at 6911
30-46
30-47
6904
30-48
30-49
Dry at 6925
30-03
AW-1
30-04
Dry at 6905
31-71
31-05
32-02
32-56
Dry at 6875
32-69
32-41
32-42
Dry at 6906
31-70
32-57
32-01
32-43N
32-51
31-65
31-61
32-60
S-12
32-72
32-52
AW-2
S-9
32-59
32-58
5-03
5-73
5-01
5-02
5-08
5-04
MW-24
Dry at 6818
6910
6905
6900
6895
6890
6885
6880
6875
6870
6865
6860
6850



N

0 850 1,700 3,400 Feet

USGS 7.5 Minute Topographic Maps:
Ambosia Lake Quadrangle, 1957/rev.1980;
Contour Interval 20 Feet

Legend

- Alluvial Monitoring Well Location
- 1998 Boundary of Saturated Alluvium
- Alluvial Groundwater Surface Elevation (ft amsl)

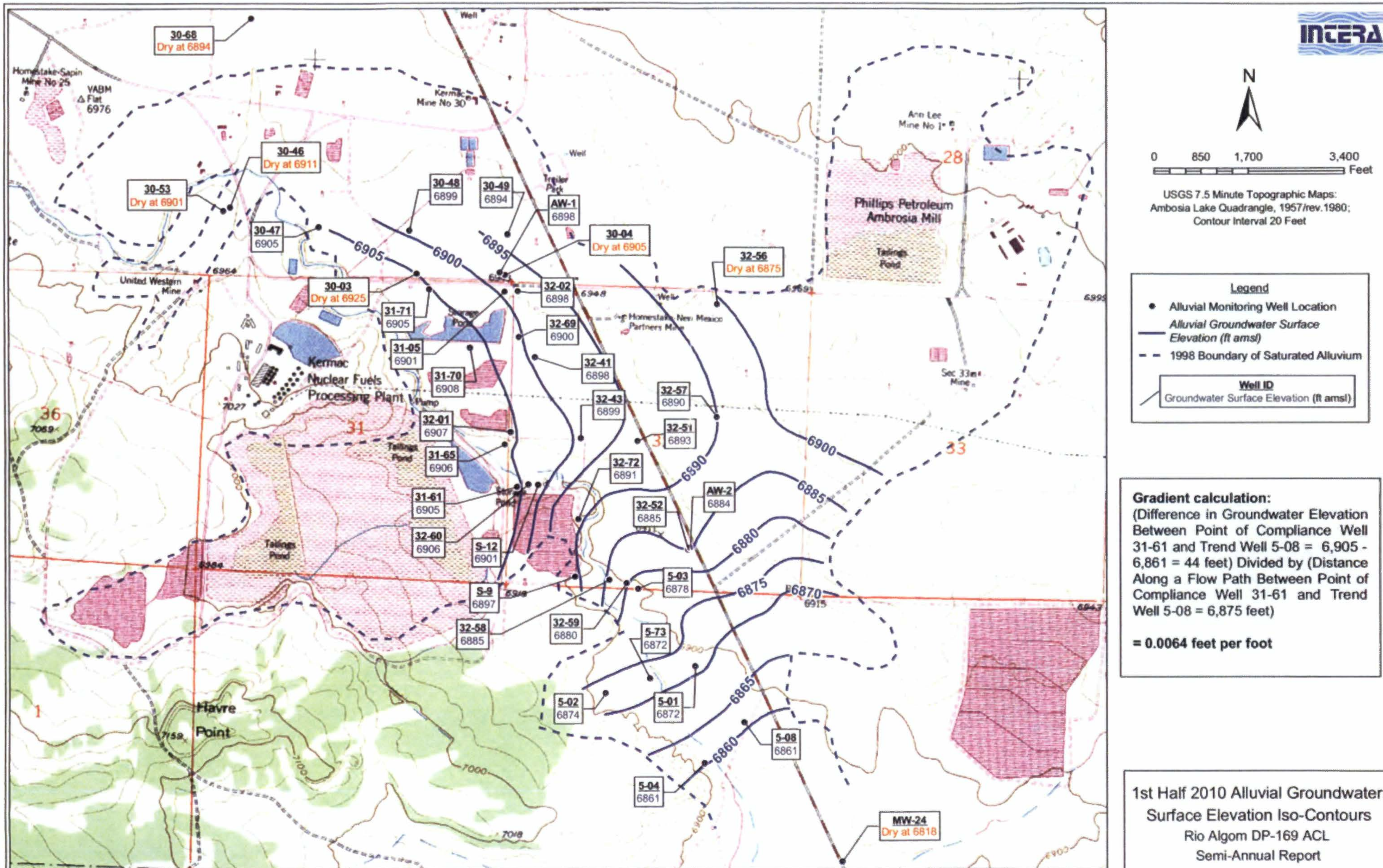
Well ID
Groundwater Surface Elevation (ft amsl)

Gradient calculation:
(Difference in Groundwater Elevation Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,906 - 6,859 = 47 feet) Divided by (Distance Along a Flow Path Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,875 feet)

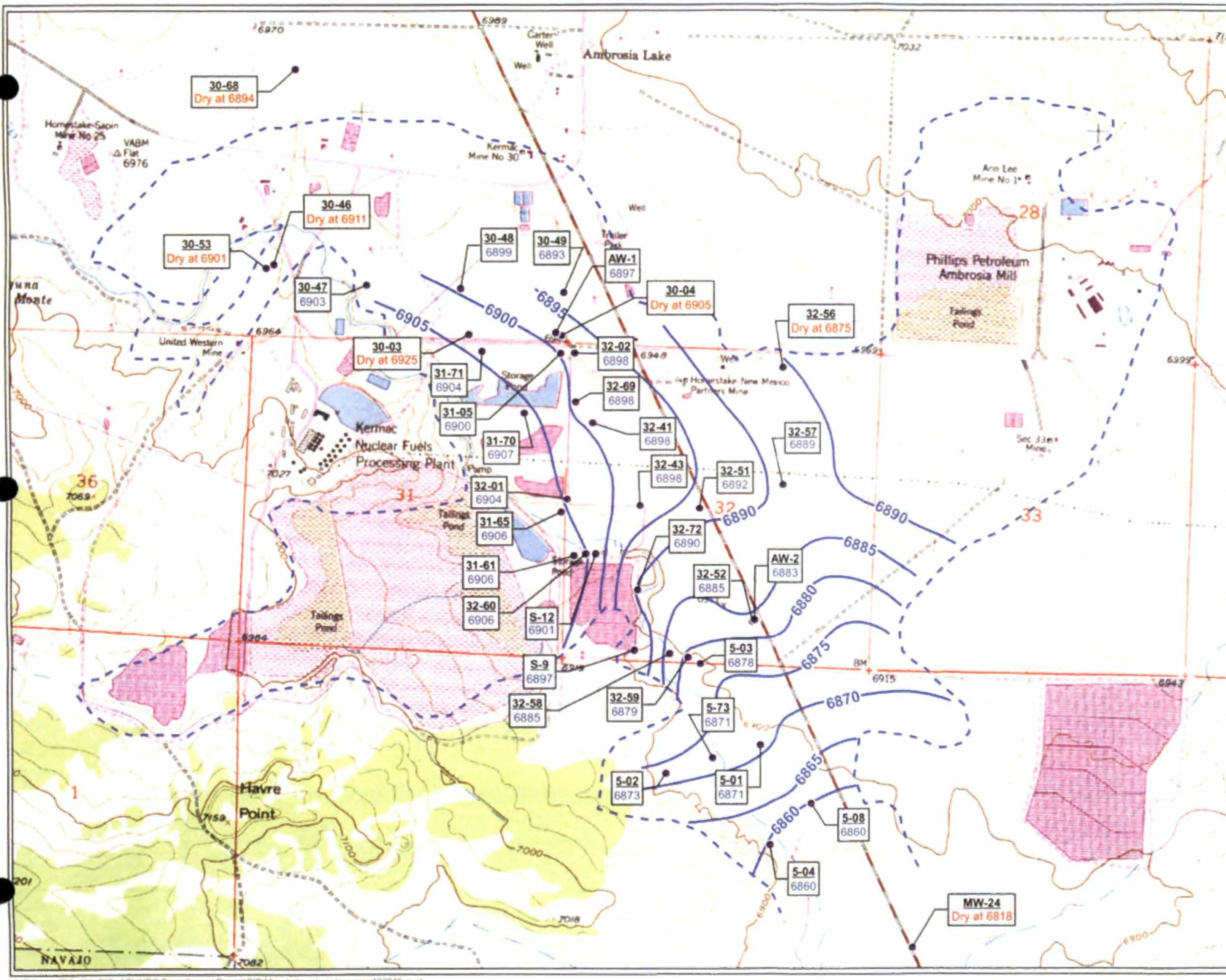
= 0.007 feet per foot

2nd Half 2009 Alluvial Groundwater Surface Elevation Iso-Contours
Rio Algom DP-169 ACL
Semi-Annual Report

S:\Projects\RIO-169_RIO_ACL\NRC Semi-Annual Report\GIS\Maps\alluvial-contour-map.mxd



S:\Projects\RIO-169_RIO_ACL\NRC Semi-Annual Report\GIS\Maps\alluvial-contour-map.mxd



INTERA

N

0 800 1,600 3,200 Feet

USGS 7.5 Minute Topographic Maps: Ambosia Lake Quadrangle, 1957/rev.1980; Contour Interval 20 Feet

Legend

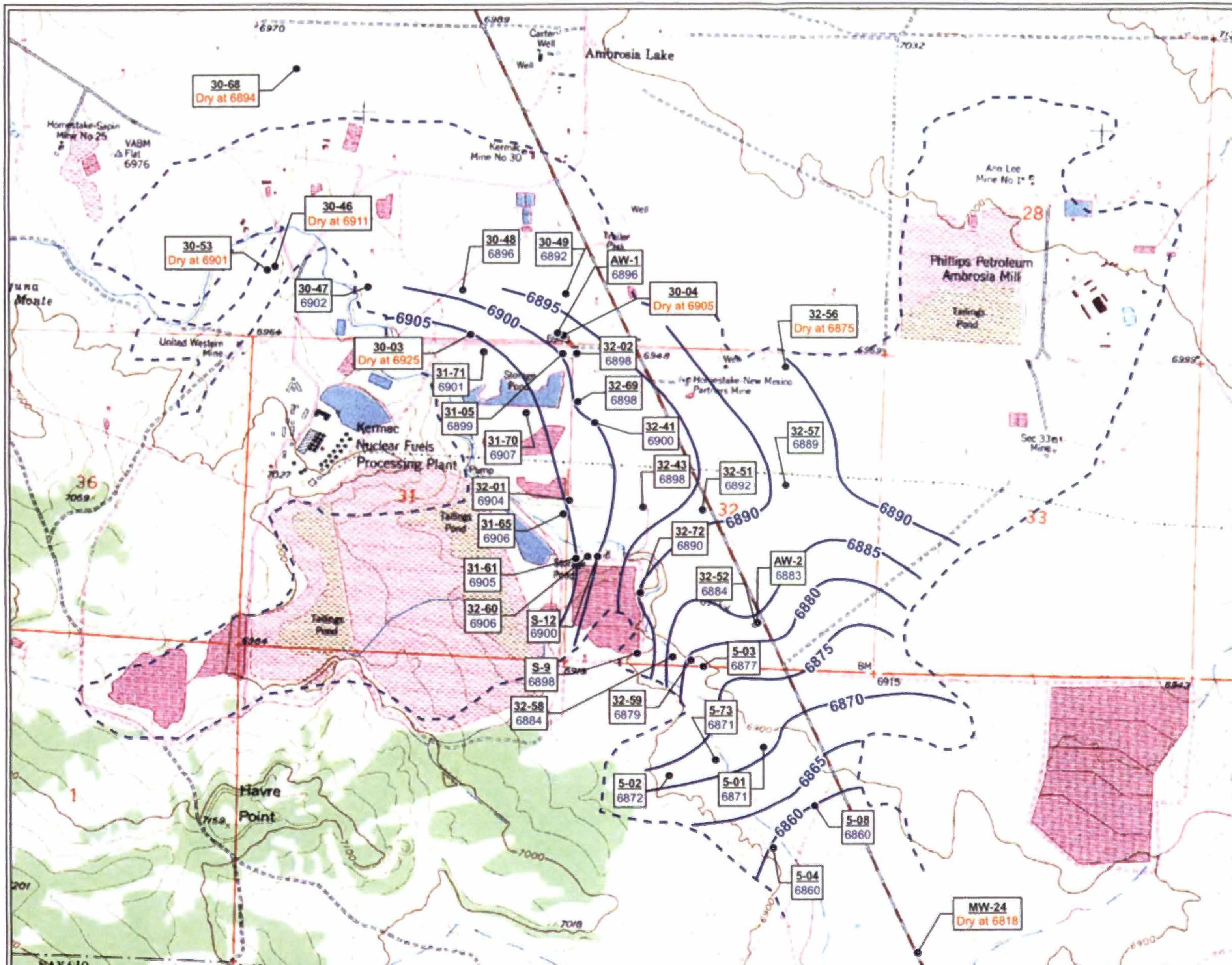
- Alluvial Monitoring Well Location
- Alluvial Groundwater Surface Elevation (ft amsl)
- 1998 Boundary of Saturated Alluvium

Well ID
Groundwater Surface Elevation (ft amsl)

Gradient calculation:
(Difference in Groundwater Elevation Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,906 - 6,860 = 46 feet) Divided by (Distance Along a Flow Path Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,875 feet)

= 0.007 feet per foot

2nd Half 2010 Alluvial Groundwater Surface Elevation Iso-Contours
Rio Algom DP-169 ACL
Semi-Annual Report



INTERA

N

0 800 1,600 3,200 Feet

USGS 7.5 Minute Topographic Maps: Ambosia Lake Quadrangle, 1957/rev.1980; Contour Interval 20 Feet

Legend

- Alluvial Monitoring Well Location
- Alluvial Groundwater Surface Elevation (ft amsl)
- 1998 Boundary of Saturated Alluvium

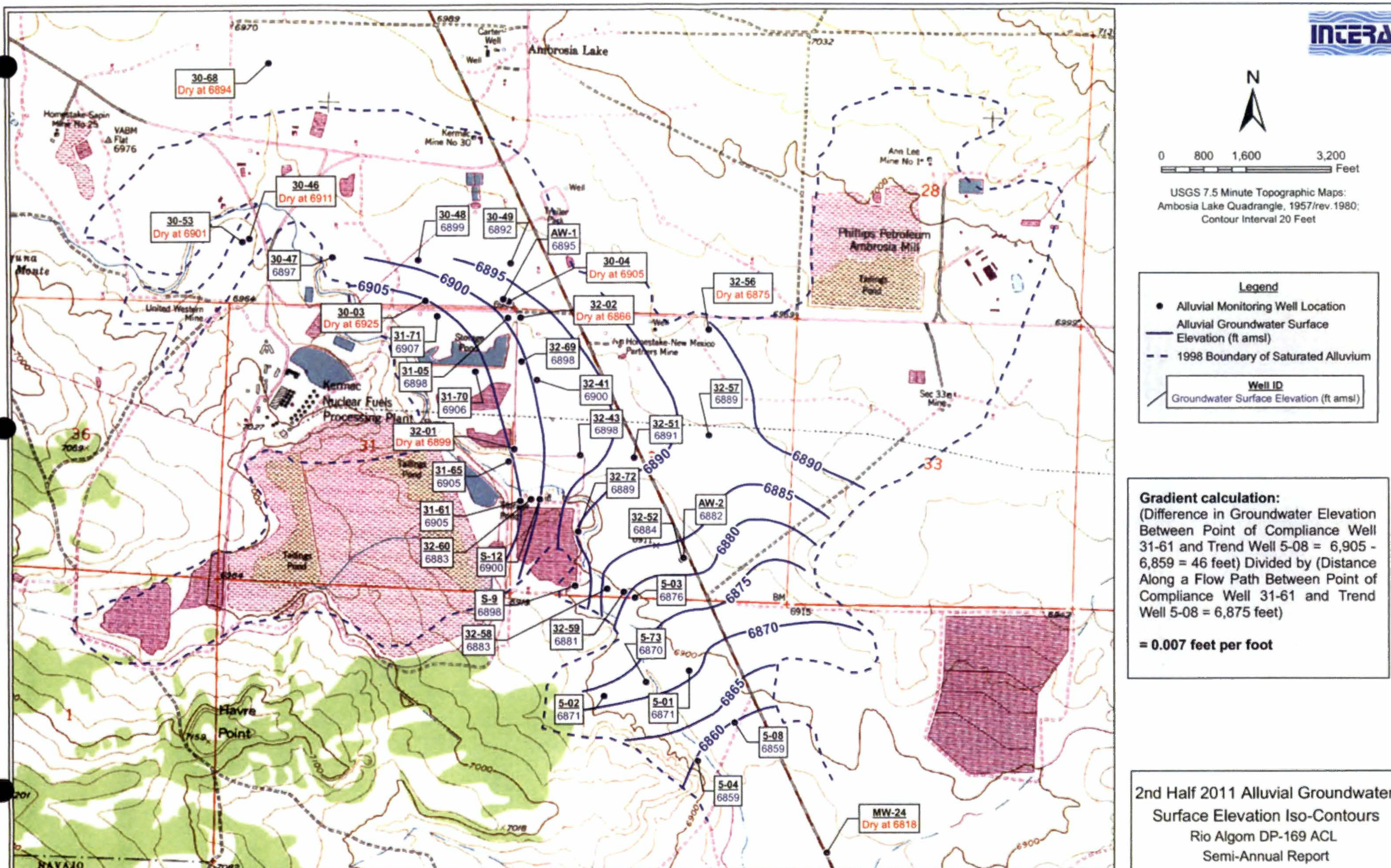
Well ID
Groundwater Surface Elevation (ft amsl)

Gradient calculation:
(Difference in Groundwater Elevation Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,905 - 6,860 = 45 feet) Divided by (Distance Along a Flow Path Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,875 feet)

= 0.007 feet per foot

1st Half 2011 Alluvial Groundwater Surface Elevation Iso-Contours
Rio Algom DP-169 ACL
Semi-Annual Report

S:\Projects\RIO-169_RIO_ACL\NRC Semi-Annual Report\GIS\Maps\FirstQrt2011\alluvial-contour-map20110727.mxd



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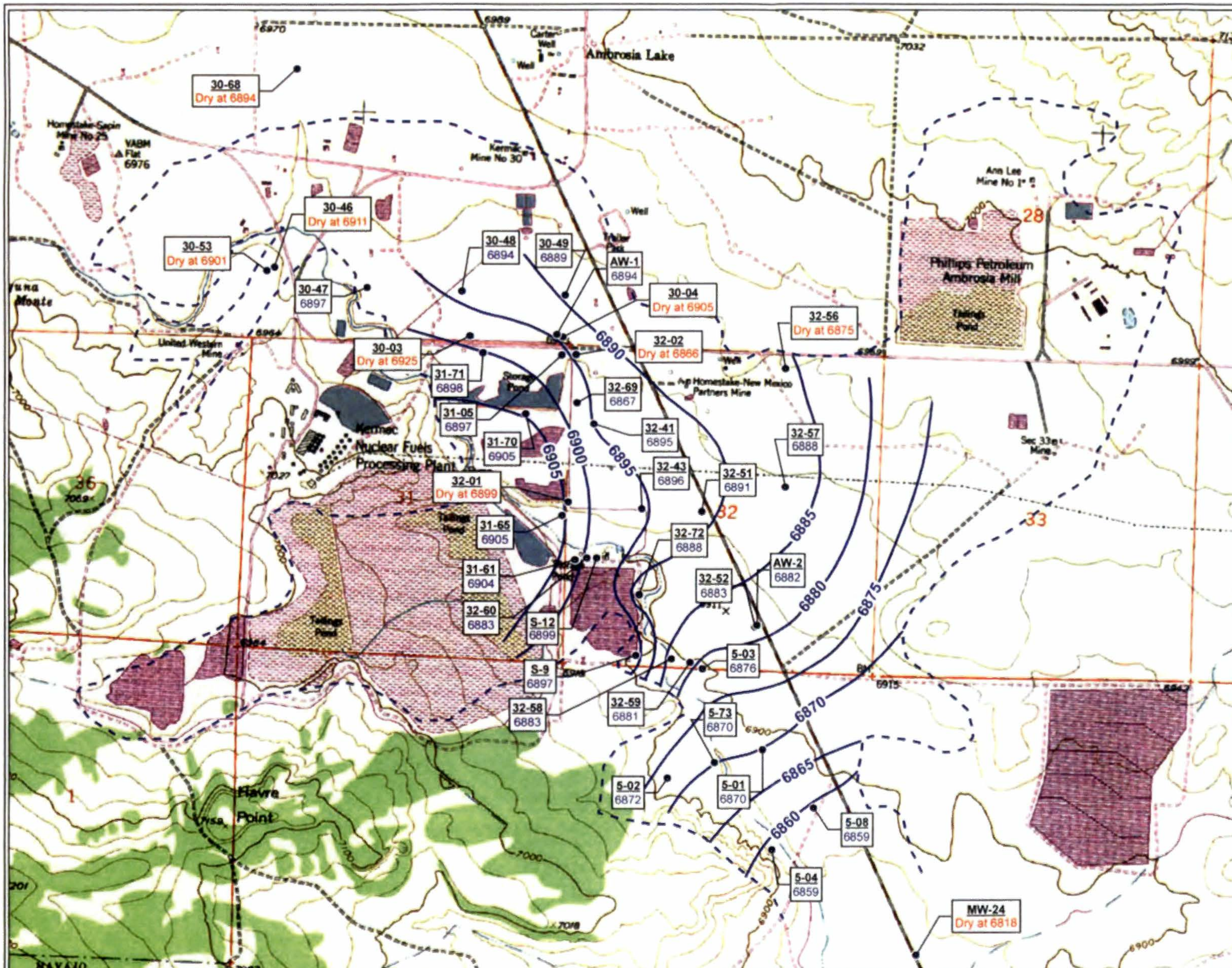


S:\Projects\RIO-169_RIO_ACL\NRC Semi-Annual Report\GIS\Maps\1stHalf2012\alluvial-contour-map20120713.mxd

INTERA

N

0 800 1,600 3,200 Feet

USGS 7.5 Minute Topographic Maps: Ambosia Lake Quadrangle, 1957/rev.1980; Contour Interval 20 Feet

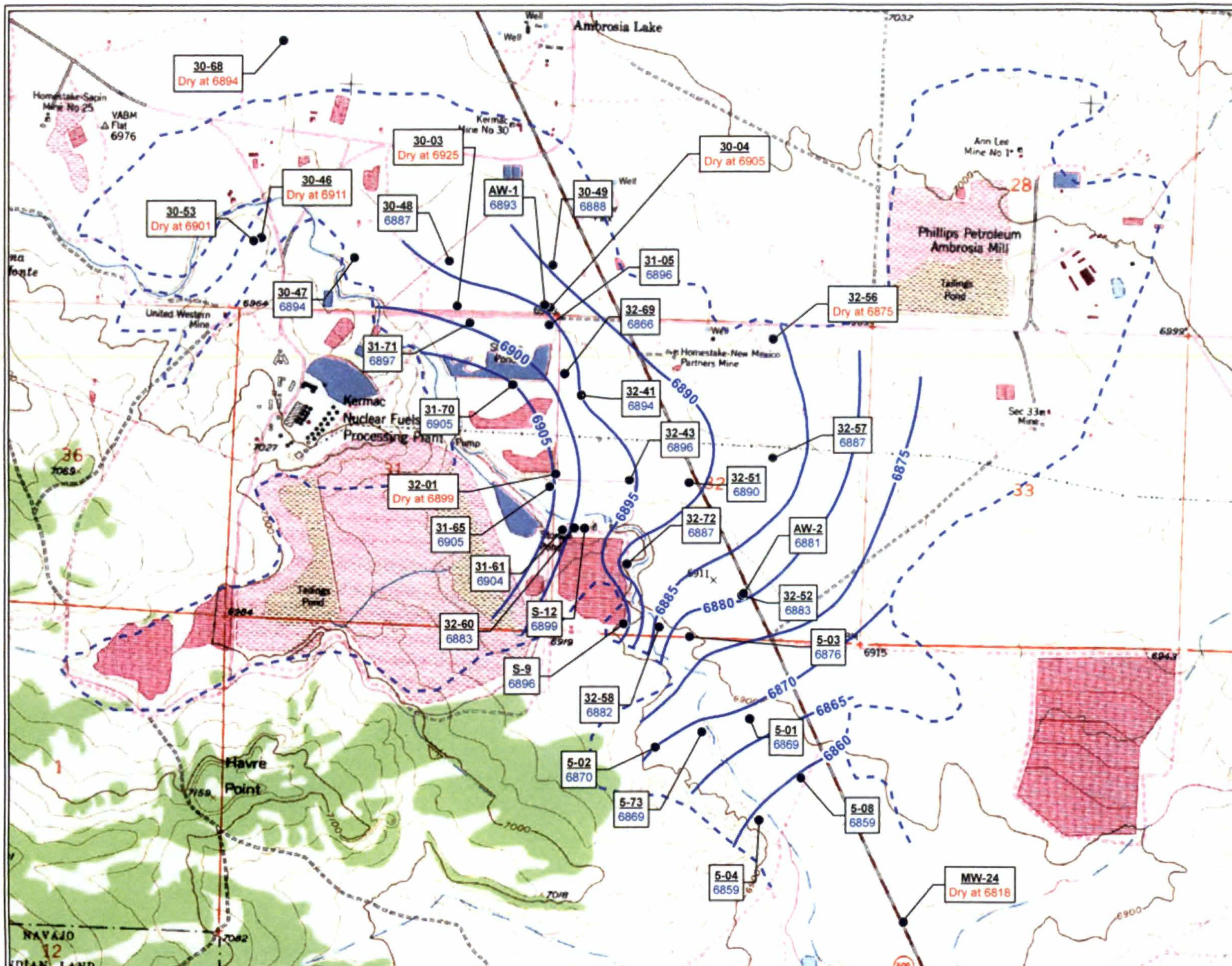
Legend

- ● Alluvial Monitoring Well Location
- Alluvial Groundwater Surface Elevation (ft amsl)
- 1998 Boundary of Saturated Alluvium
- Well ID / Groundwater Surface Elevation (ft amsl)

Gradient calculation:
(Difference in Groundwater Elevation Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,904 - 6,859 = 45 feet) Divided by (Distance Along a Flow Path Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,875 feet)

= 0.007 feet per foot

1st Half 2012 Alluvial Groundwater Surface Elevation Iso-Contours
Rio Algom DP-169 ACL
Semi-Annual Report



Gradient calculation:
(Difference in Groundwater Elevation Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,904 - 6,859 = 45 feet) Divided by (Distance Along a Flow Path Between Point of Compliance Well 31-61 and Trend Well 5-08 = 6,875 feet)

= 0.007 feet per foot

2nd Half 2012 Alluvial Groundwater Surface Elevation Iso-Contours
Rio Algom DP-169 ACL
Semi-Annual Report

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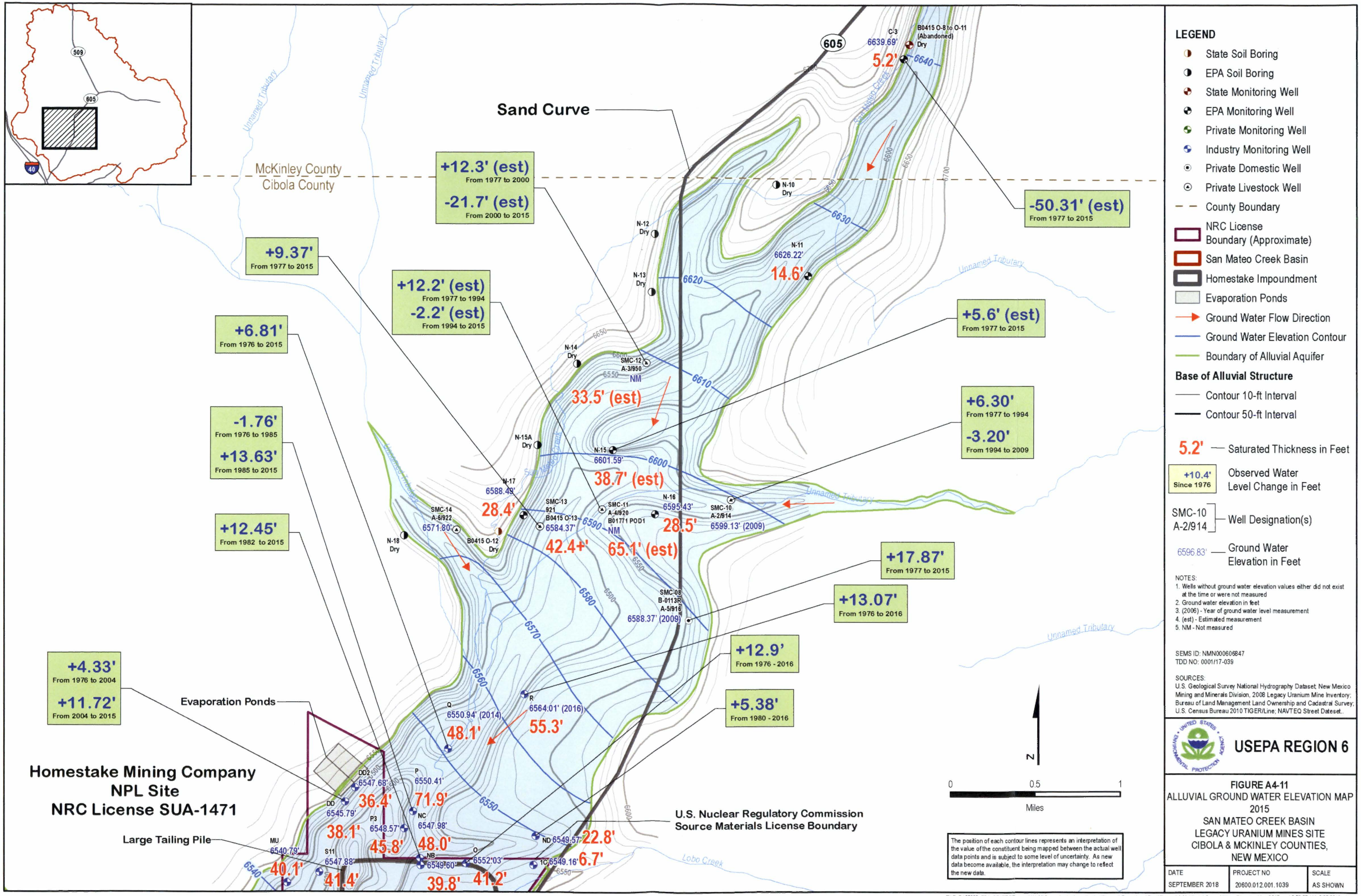

FIGURE A4-11
ALLUVIAL GROUND WATER ELEVATION MAP 2015
SAN MATEO CREEK BASIN
LEGACY URANIUM MINES SITE
CIBOLA & MCKINLEY COUNTIES, NEW MEXICO

FILE: D:\20600_EPA_START4\Tronox NAUM\Groundwater Investigation\Phase II Report\mxd\Final\Figure A4-11 Alluvial Ground Water Elevation Map-2015.mxd 8:56:25 AM 9/25/2018 wdeen

Appendix B: Simulated Groundwater Hydrographs

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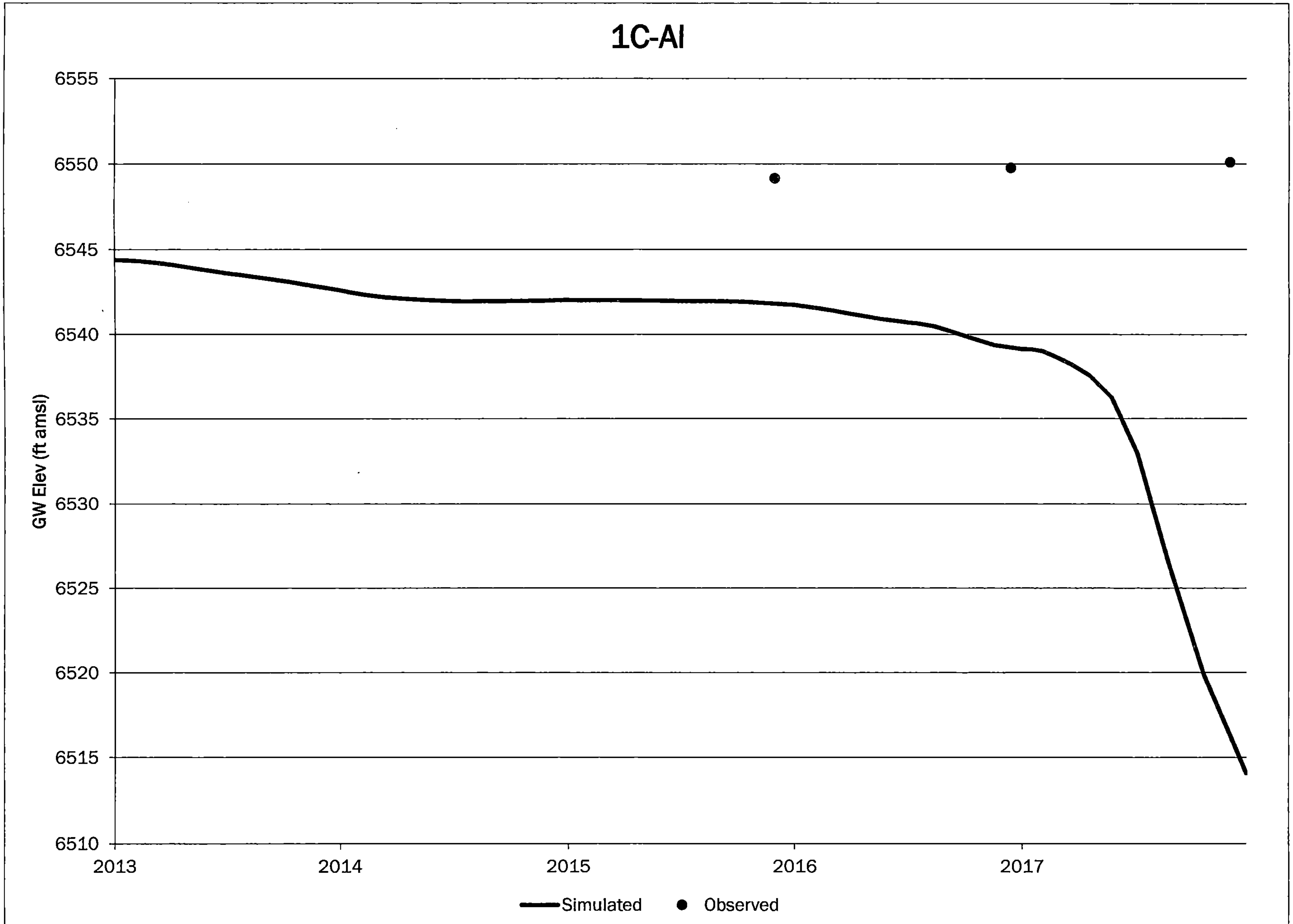
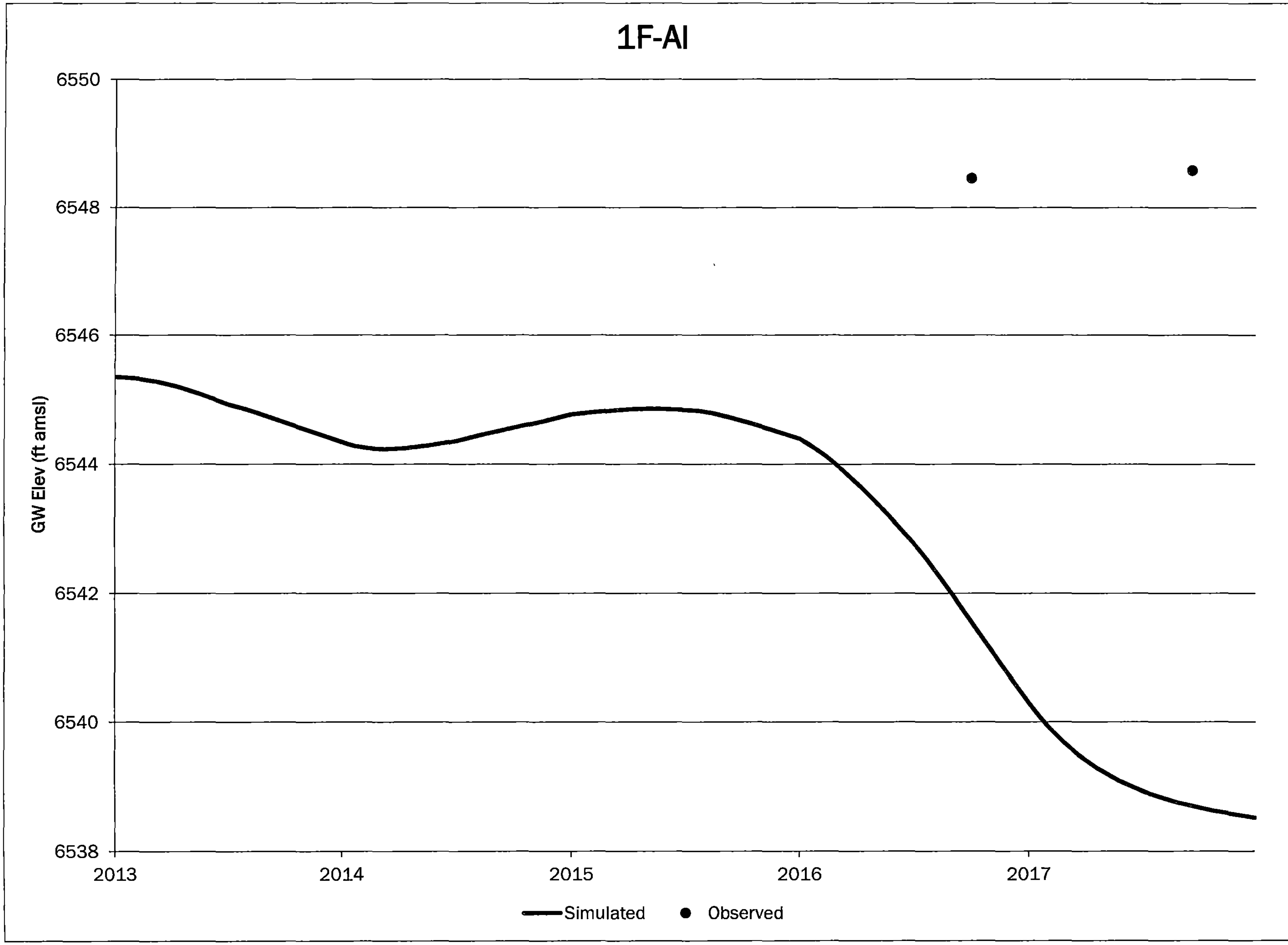
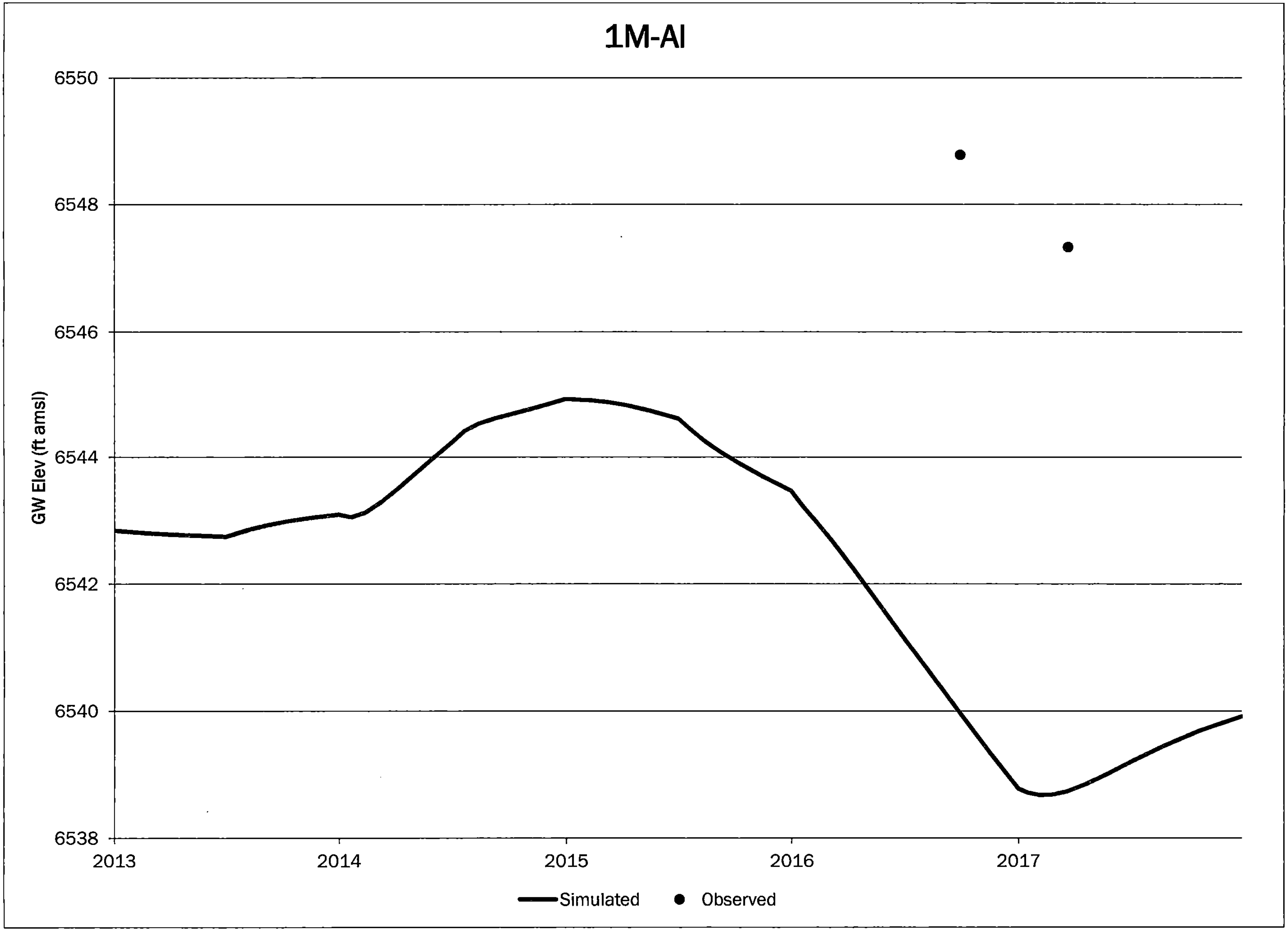
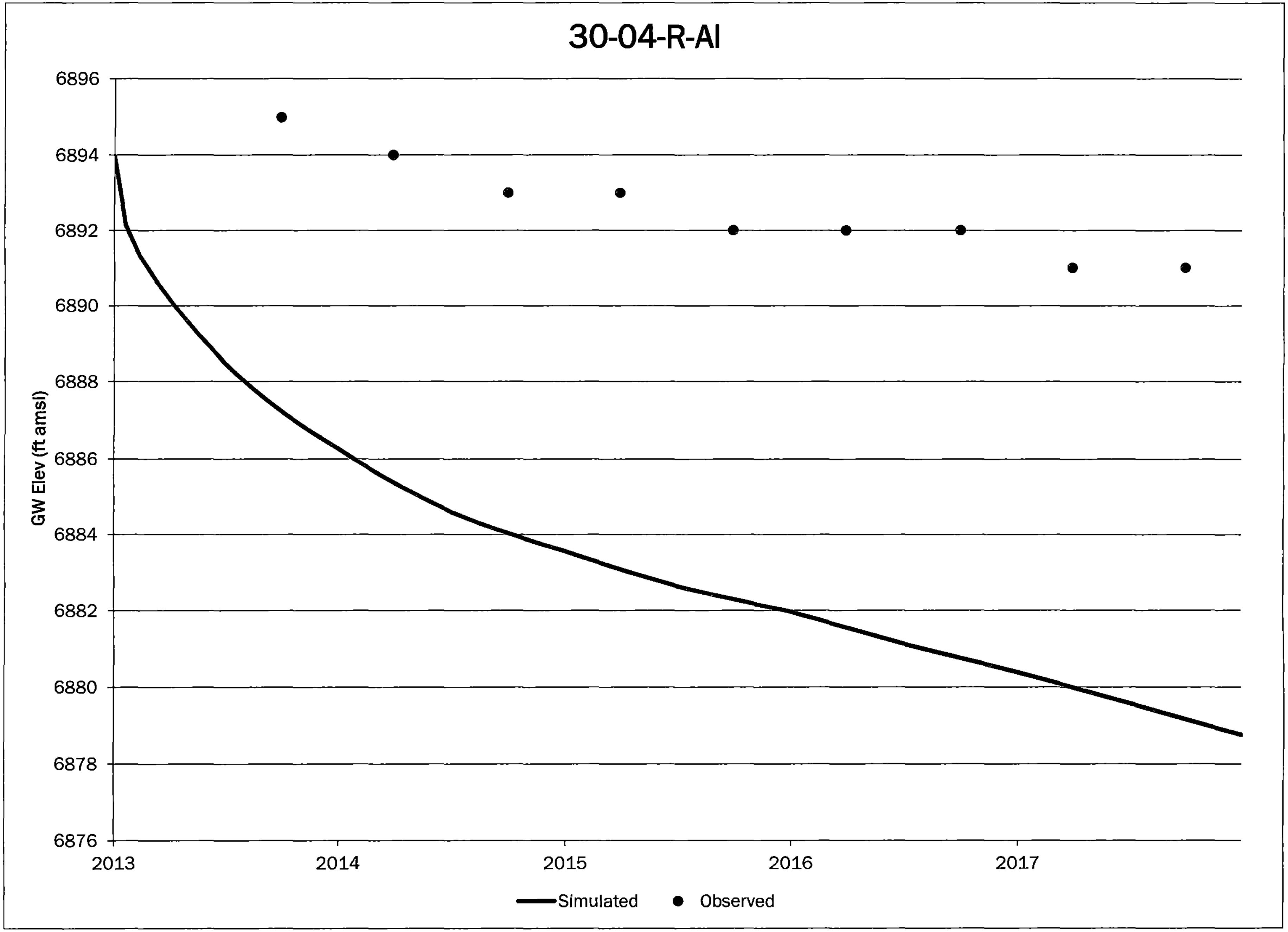
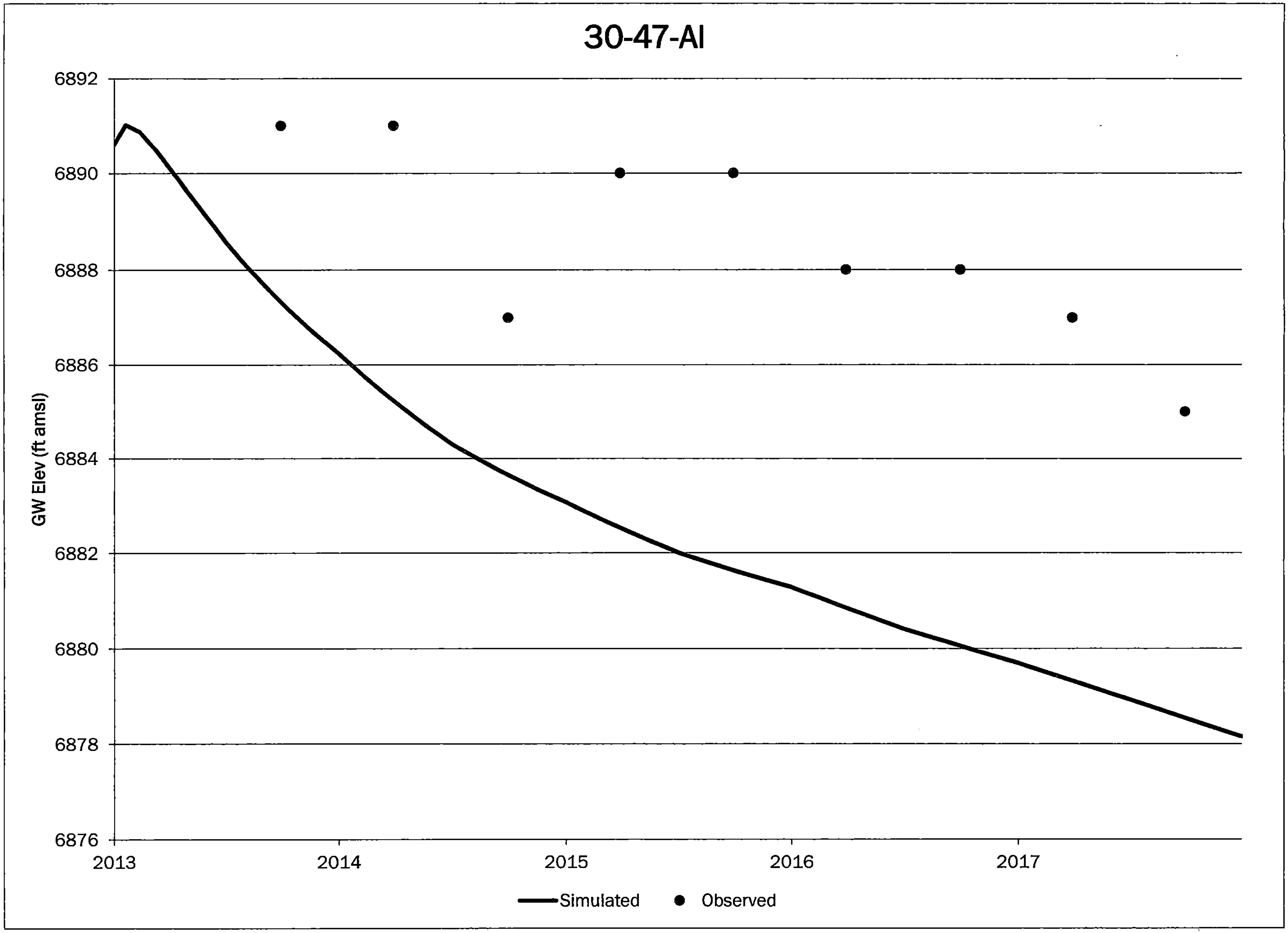

1C-AI
GW Elev (ft amsl)
6555
6550
6545
6540
6535
6530
6525
6520
6515
6510
2013
2014
2015
2016
2017
Simulated
Observed


1F-AI
GW Elev (ft amsl)
6550
6548
6546
6544
6542
6540
6538
2013
2014
2015
2016
2017
Simulated
Observed

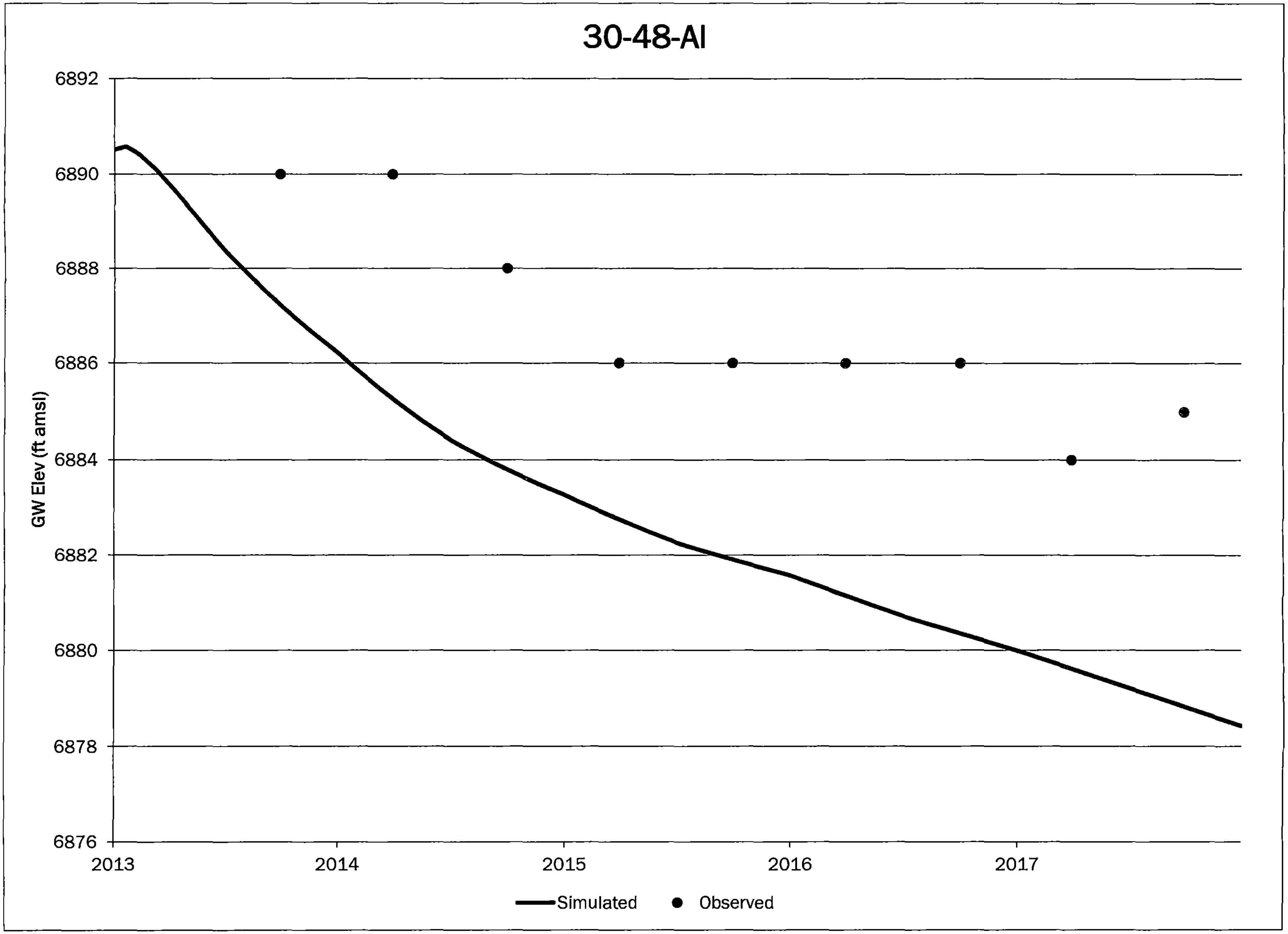

1M-AI
6550
6548
6546
6544
6542
6540
6538
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

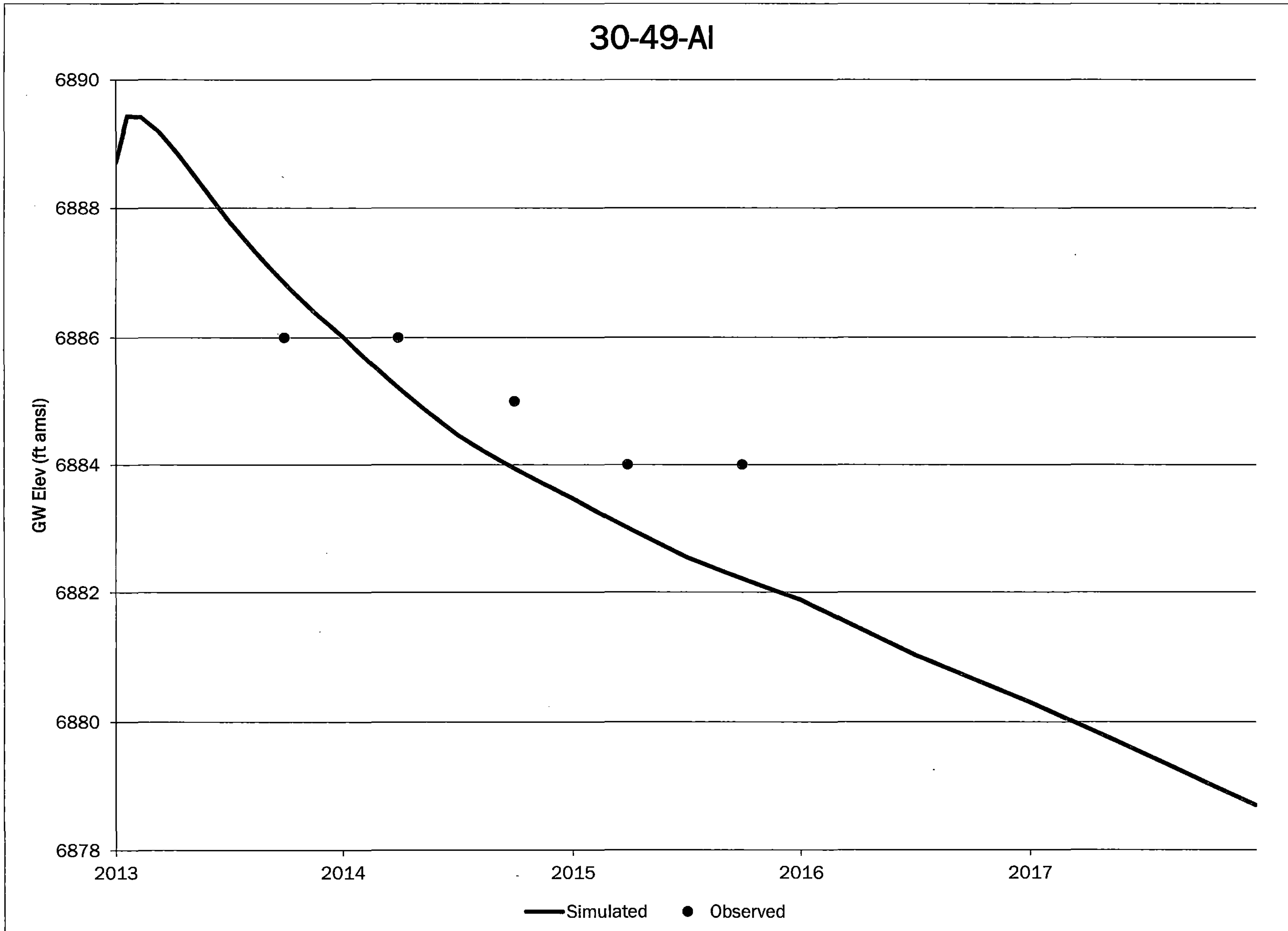


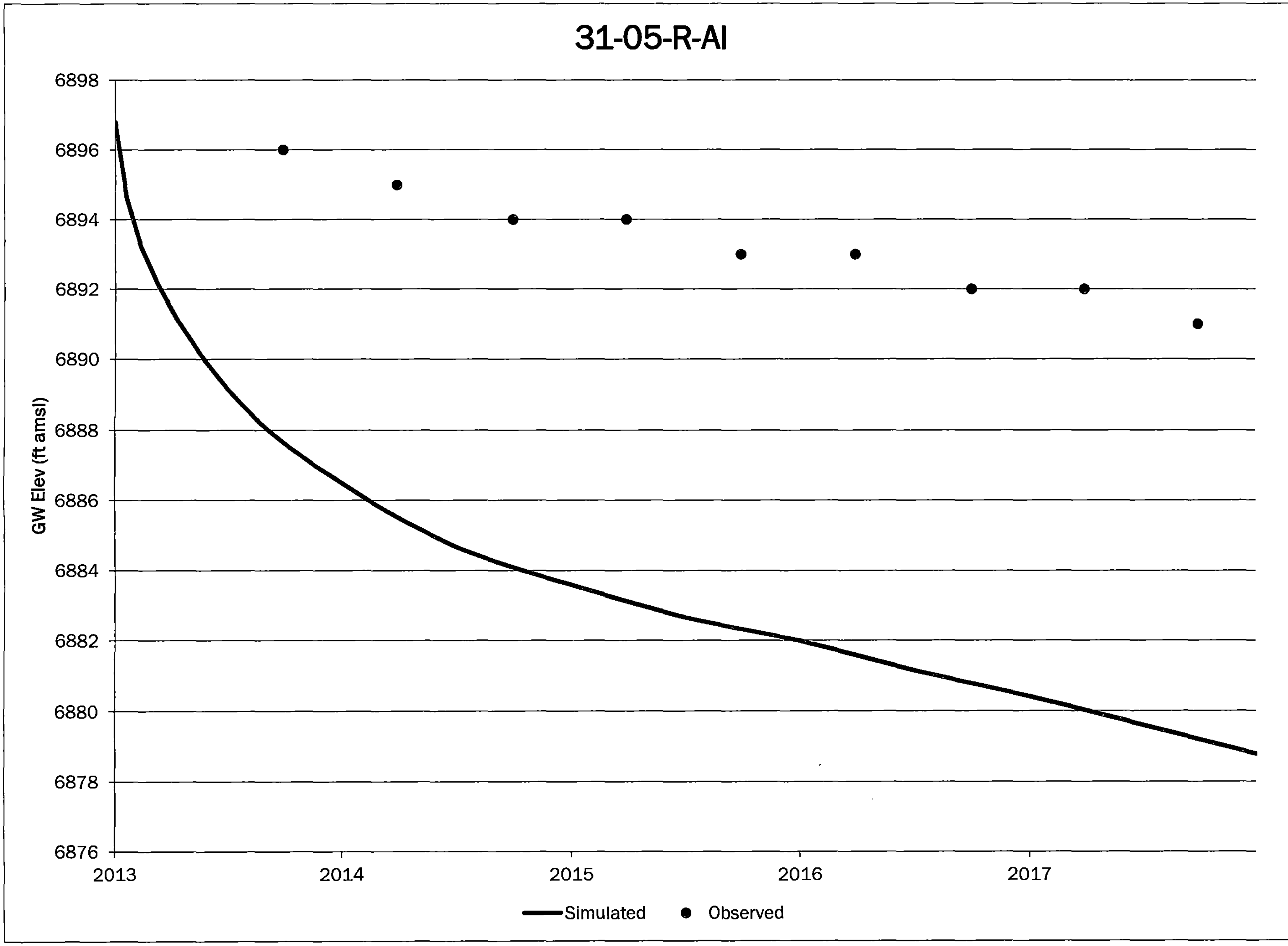
30-04-R-AI
GW Elev (ft amsl)
6896
6894
6892
6890
6888
6886
6884
6882
6880
6878
6876
2013
2014
2015
2016
2017
Simulated
Observed



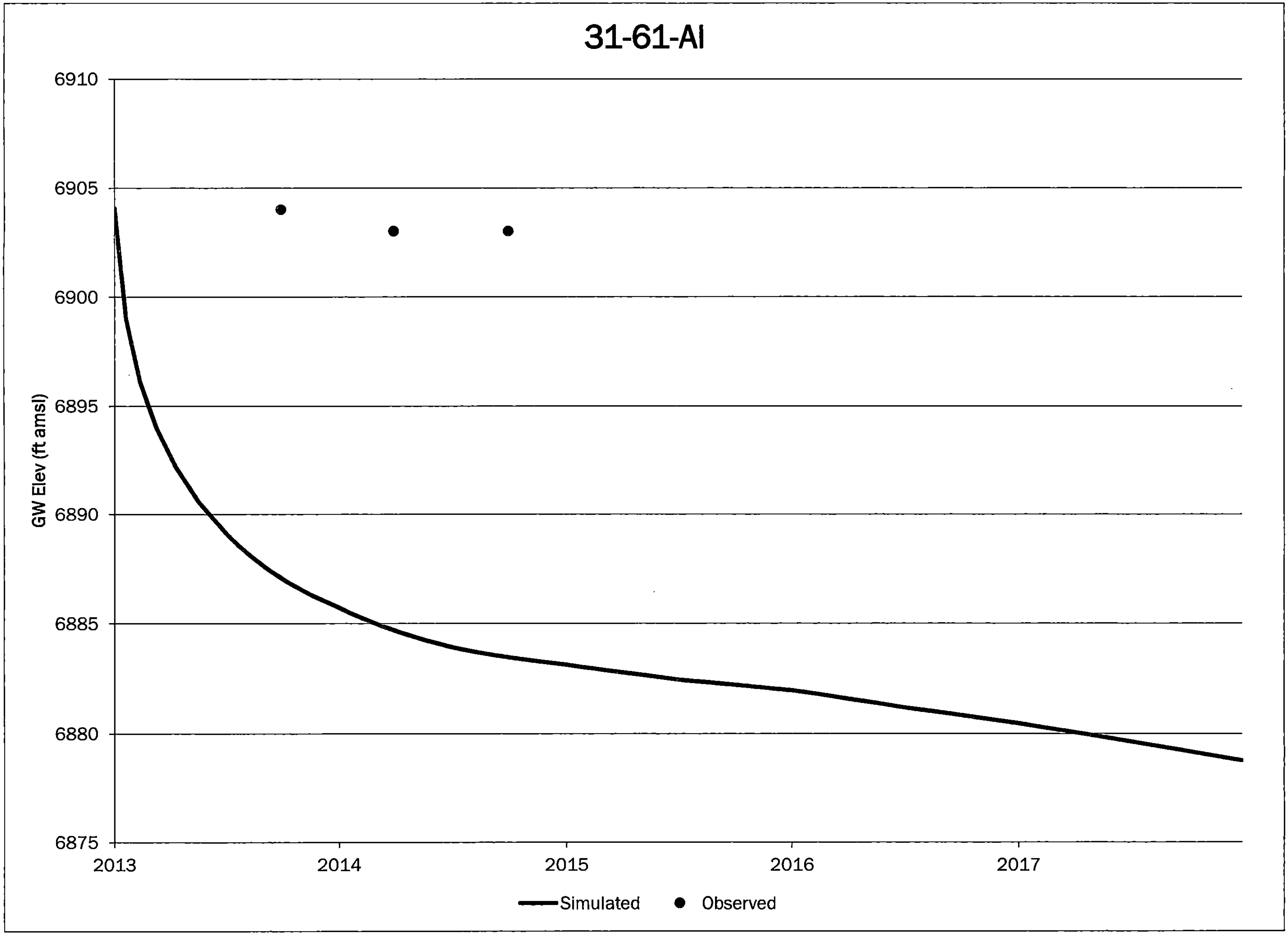
30-47-AI
GW Elev (ft amsl)
6892
6890
6888
6886
6884
6882
6880
6878
6876
2013
2014
2015
2016
2017
Simulated
Observed

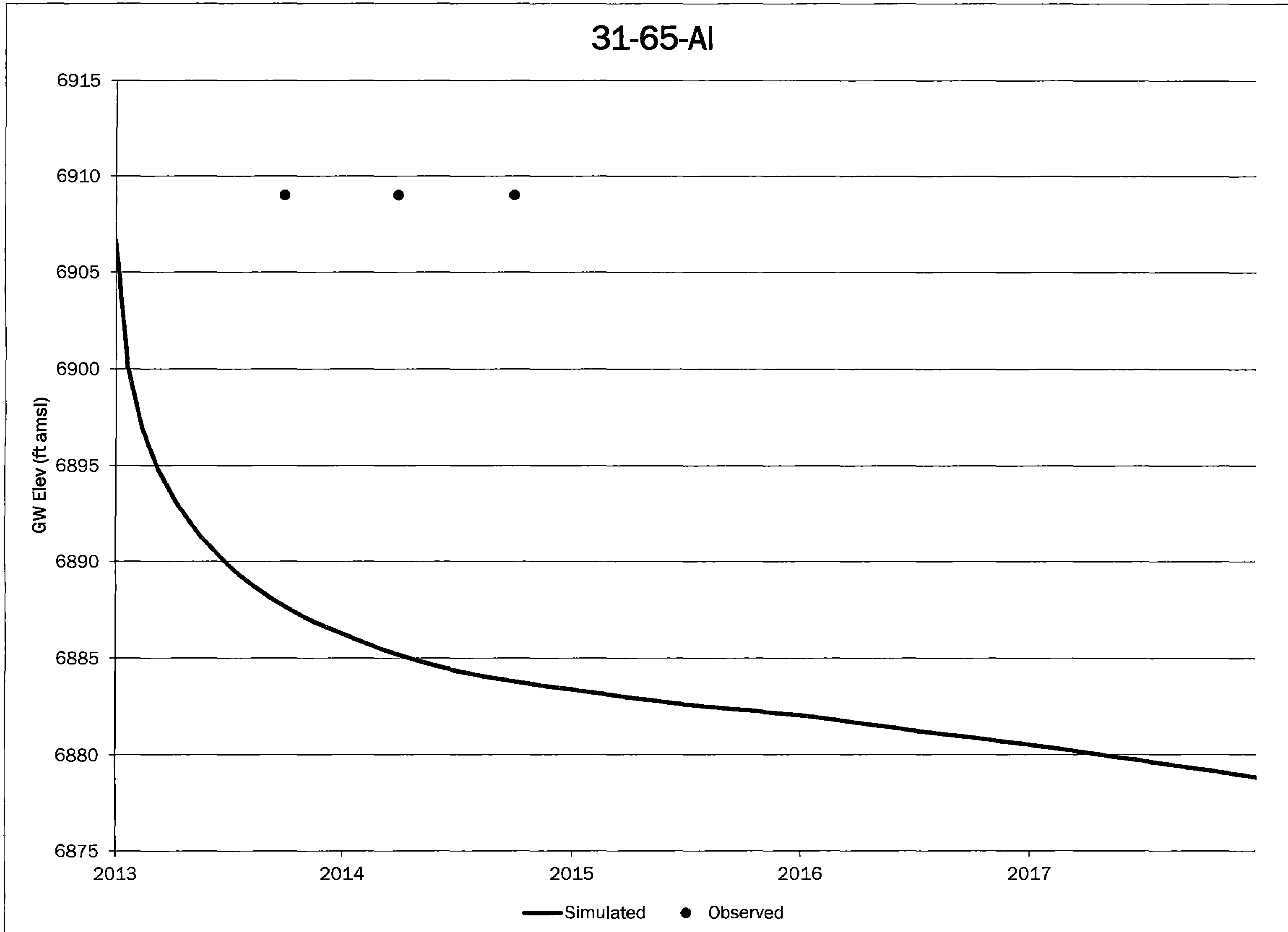

30-48-AI
GW Elev (ft amsl)
6892
6890
6888
6886
6884
6882
6880
6878
6876
2013
2014
2015
2016
2017
Simulated
Observed

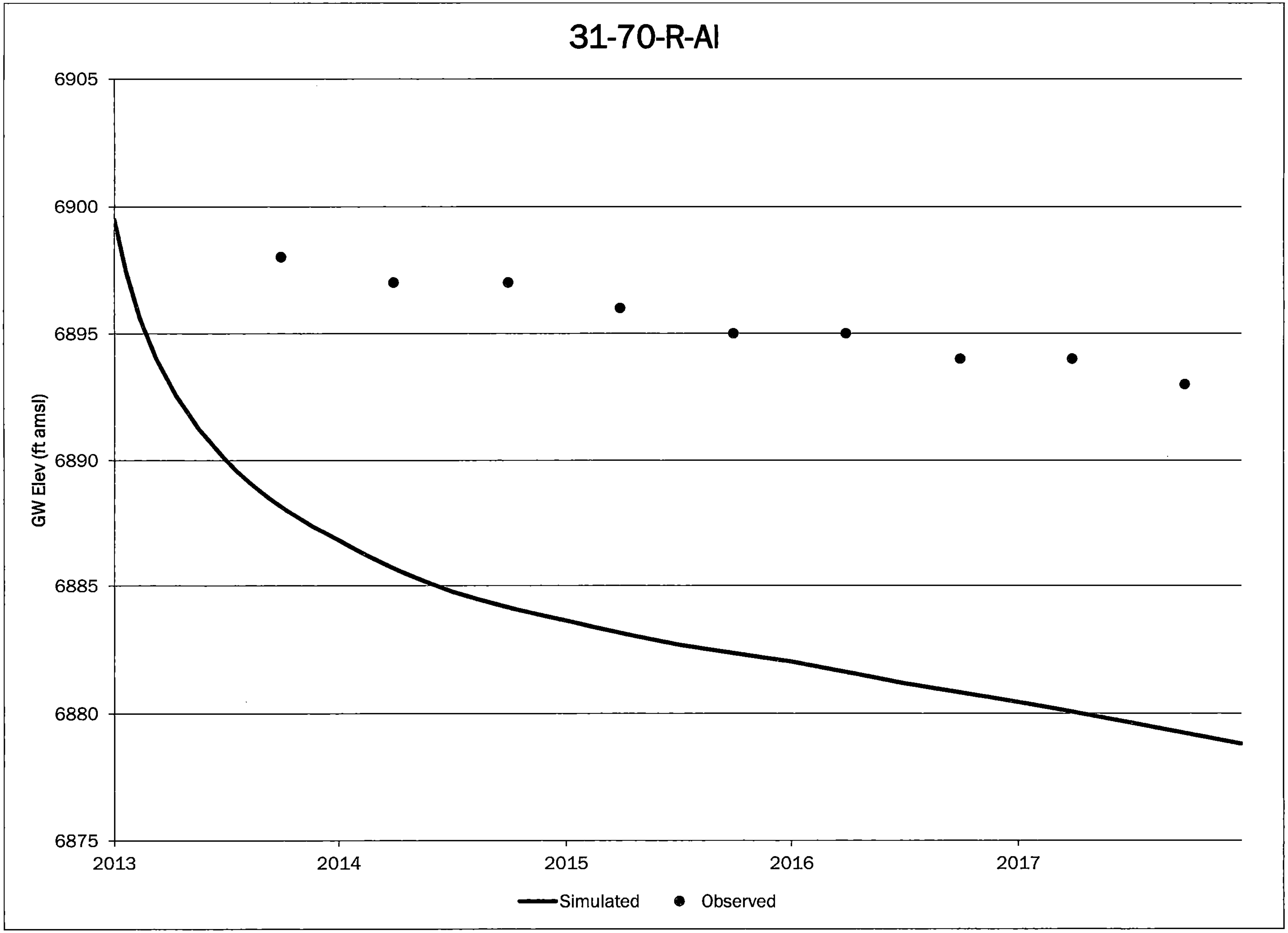

30-49-AI
GW Elev (ft amsl)
6890
6888
6886
6884
6882
6880
6878
2013
2014
2015
2016
2017
Simulated
Observed

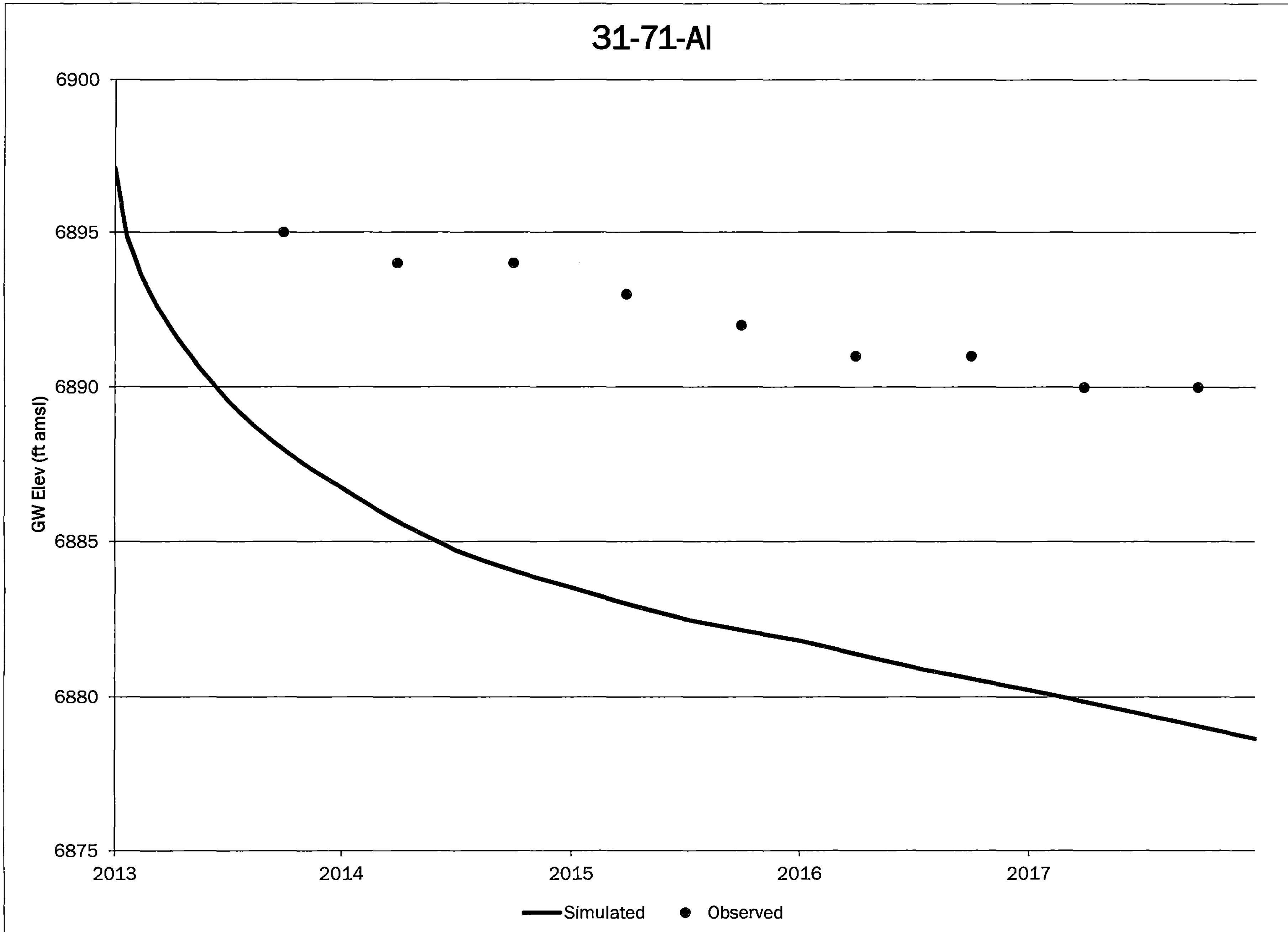


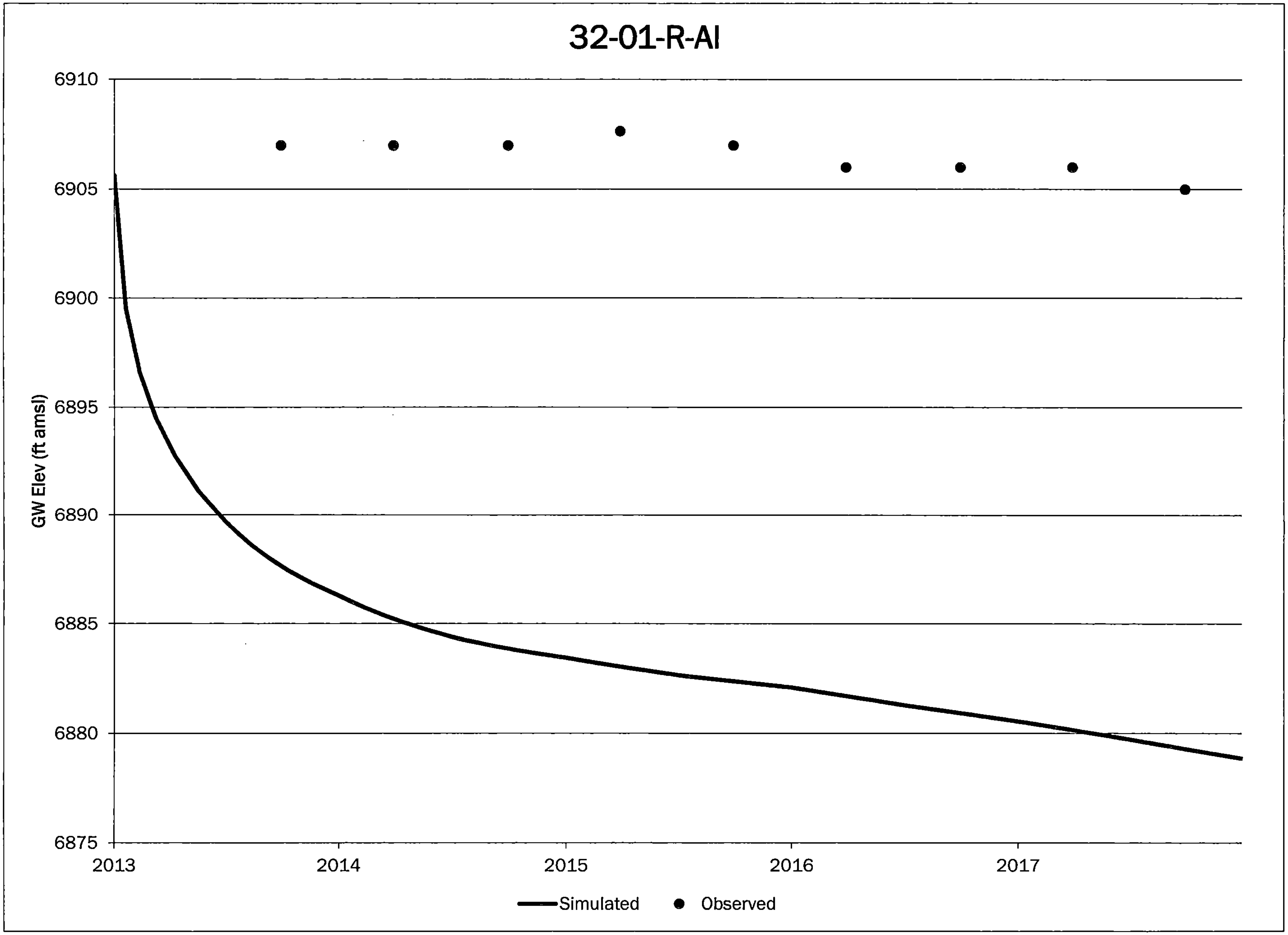
31-05-R-AI
GW Elev (ft amsl)
6898
6896
6894
6892
6890
6888
6886
6884
6882
6880
6878
6876
2013
2014
2015
2016
2017
Simulated
Observed

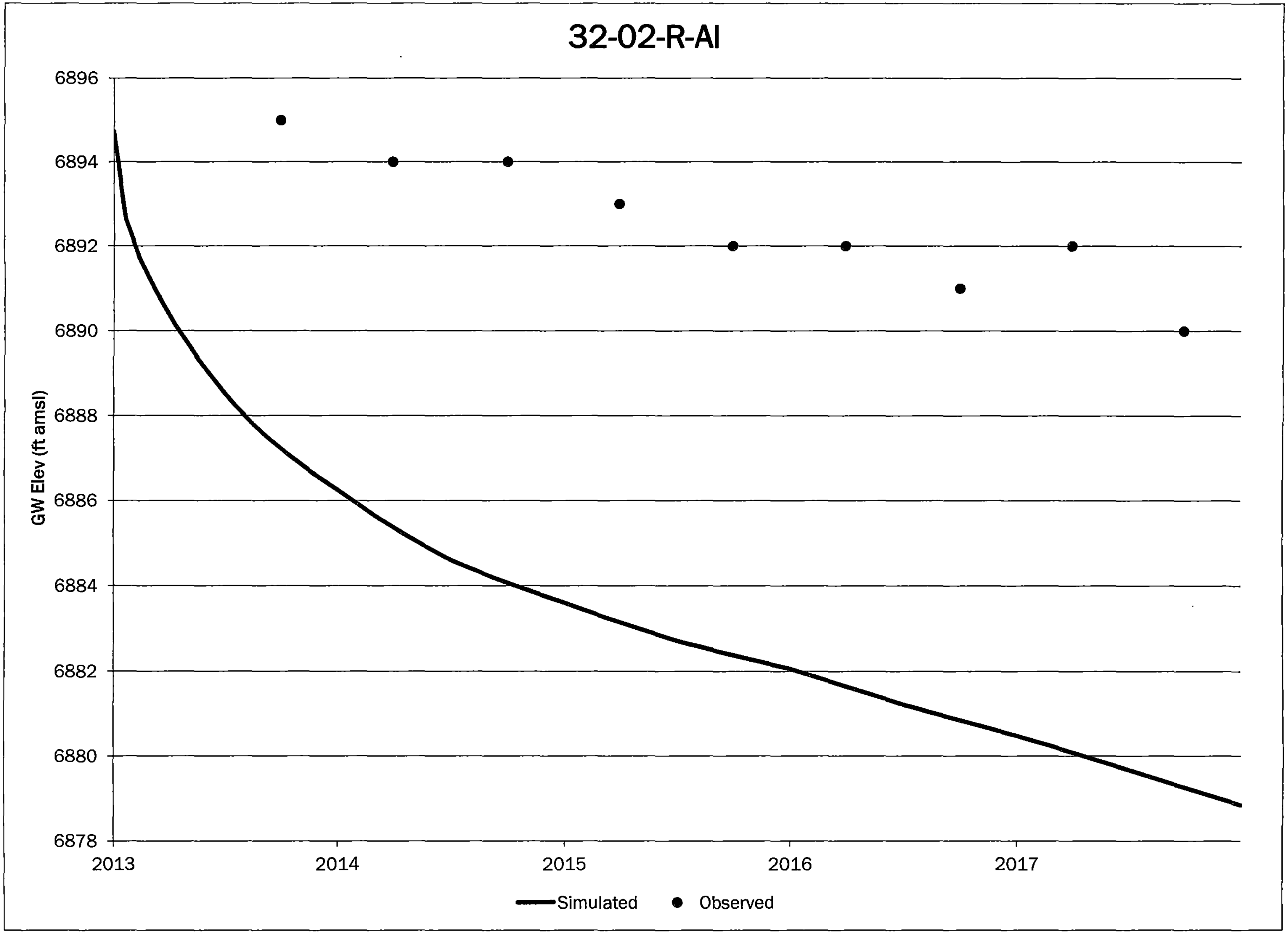

31-61-AI
6910
6905
6900
6895
6890
6885
6880
6875
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


31-65-AI
6915
6910
6905
6900
6895
6890
6885
6880
6875
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

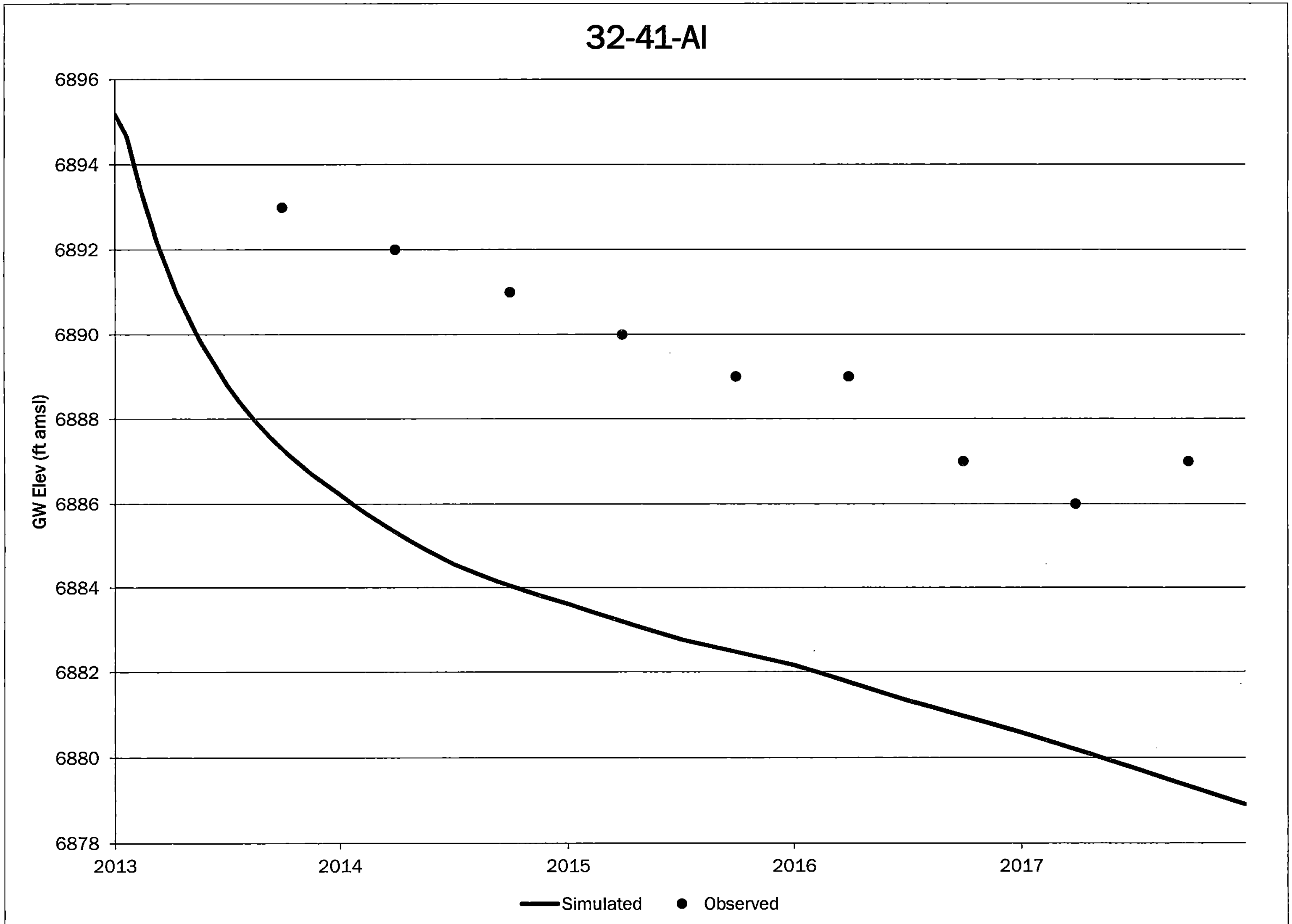

31-70-R-AI
6905
6900
6895
6890
6885
6880
6875
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


31-71-AI
GW Elev (ft amsl)
6900
6895
6890
6885
6880
6875
2013
2014
2015
2016
2017
Simulated
Observed

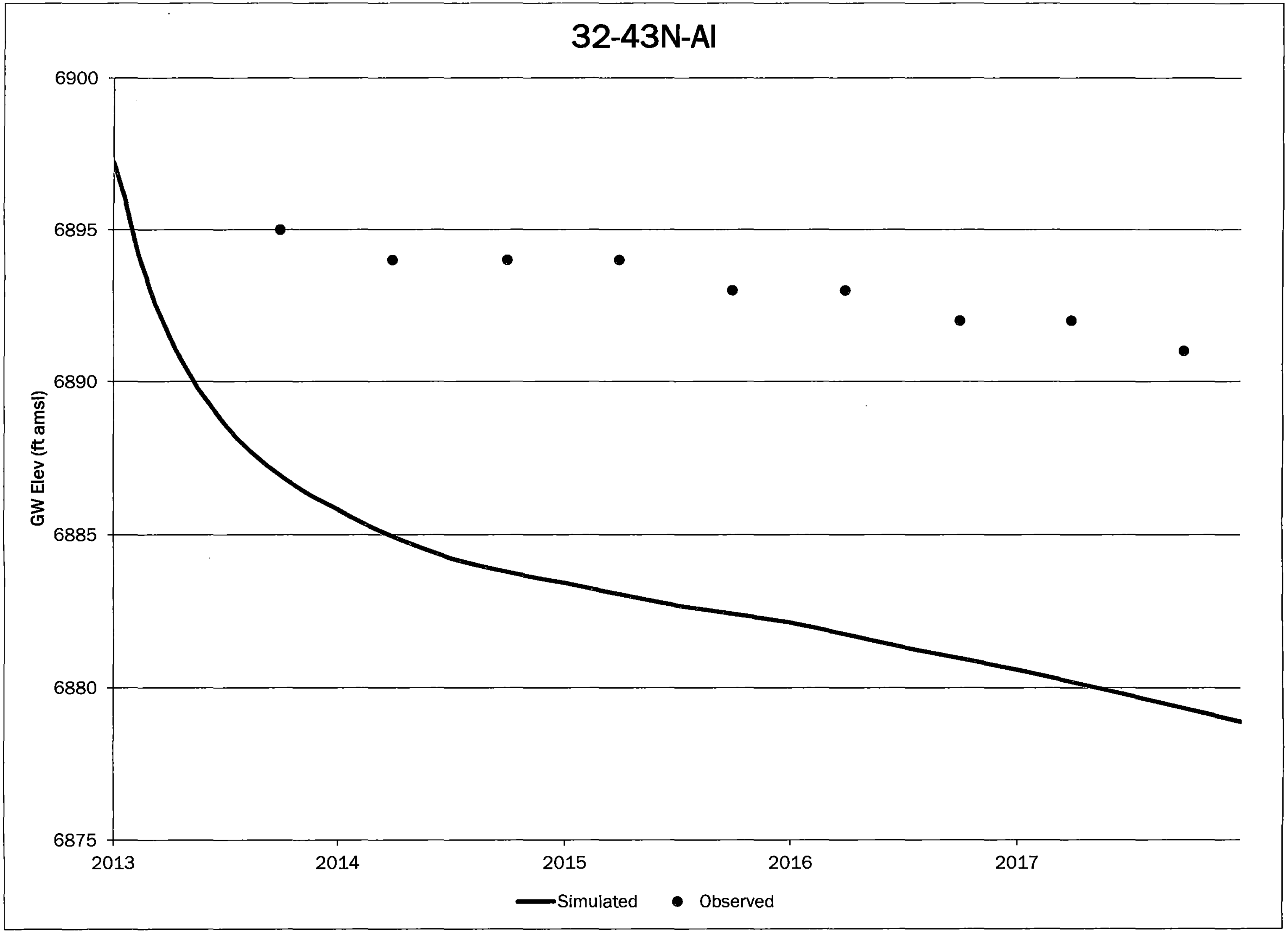

32-01-R-AI
GW Elev (ft amsl)
6910
6905
6900
6895
6890
6885
6880
6875
2013
2014
2015
2016
2017
Simulated
Observed



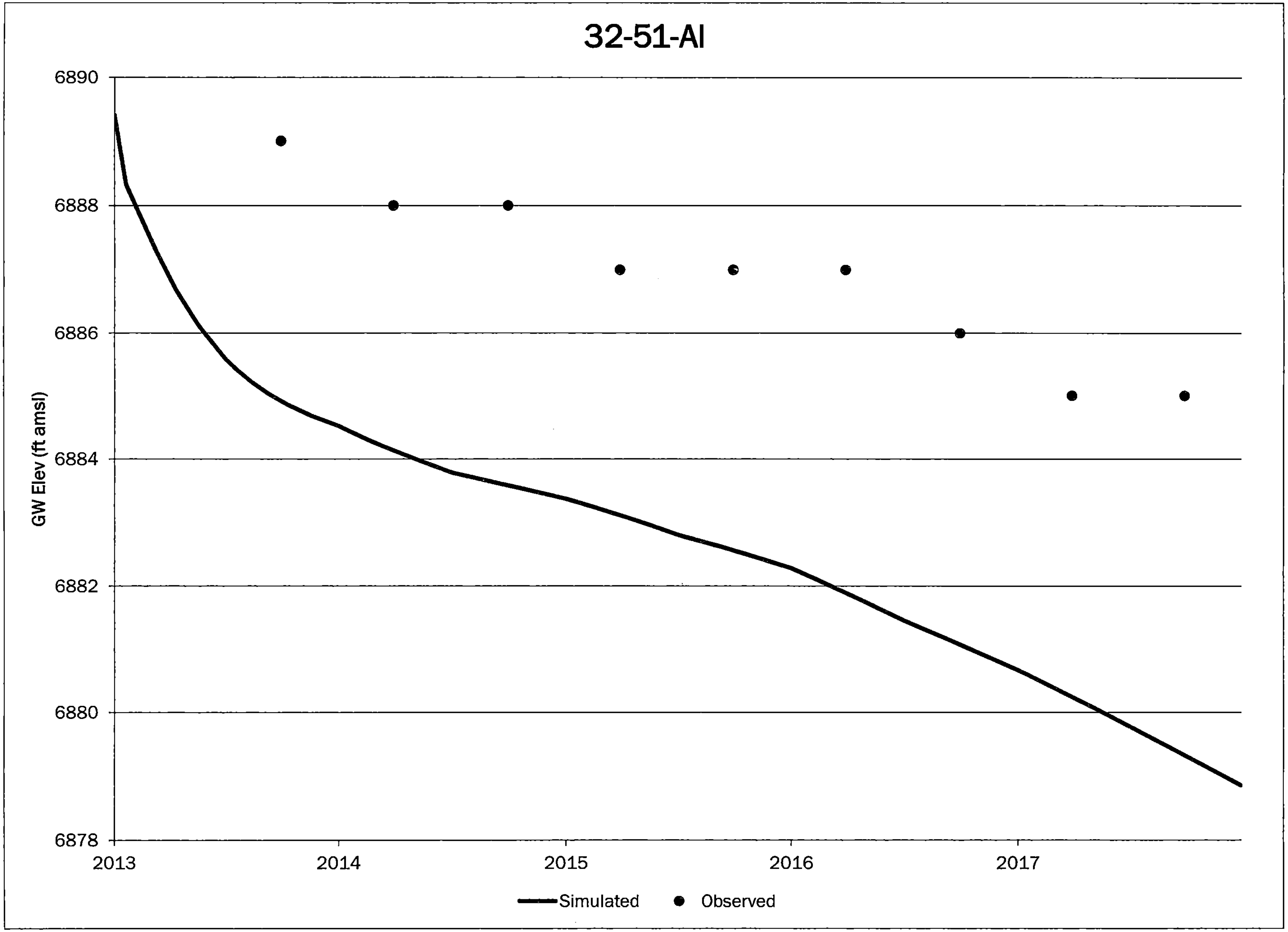
32-02-R-AI
GW Elev (ft amsl)
6896
6894
6892
6890
6888
6886
6884
6882
6880
6878
2013
2014
2015
2016
2017
Simulated
Observed



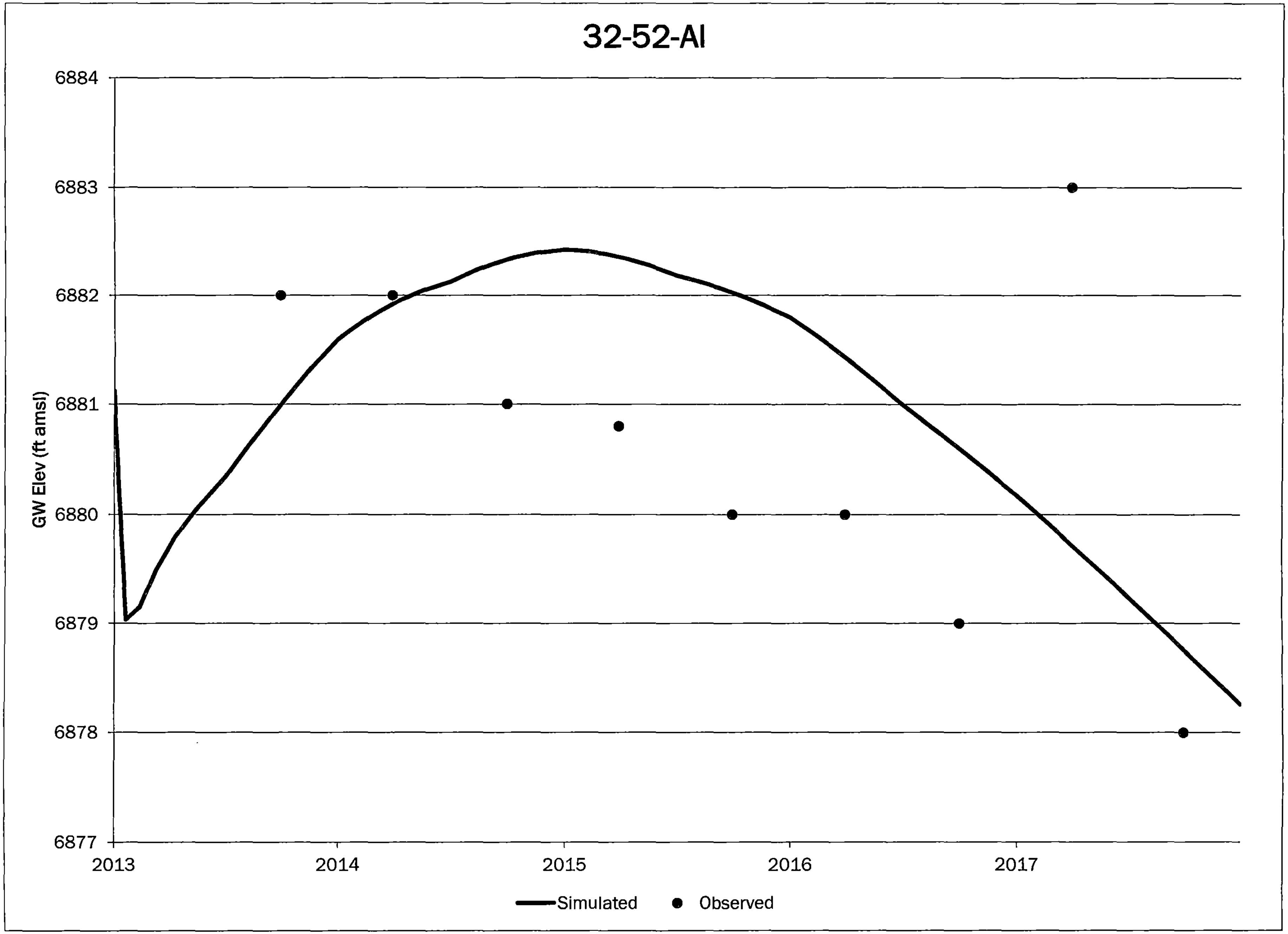
32-41-Al
GW Elev (ft amsl)
6896
6894
6892
6890
6888
6886
6884
6882
6880
6878
2013
2014
2015
2016
2017
Simulated
Observed



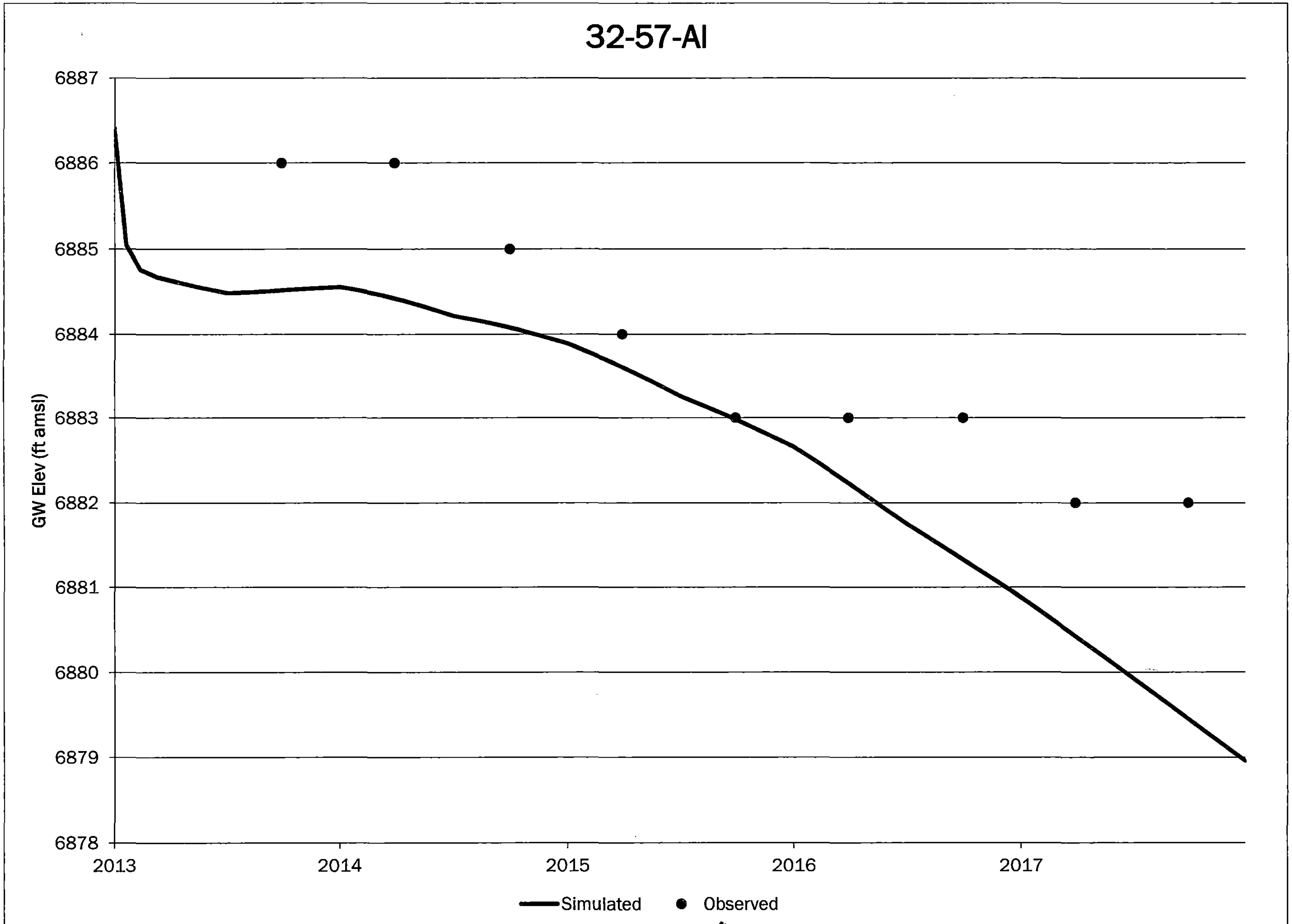
32-43N-AI
GW Elev (ft amsl)
6900
6895
6890
6885
6880
6875
2013
2014
2015
2016
2017
Simulated
Observed



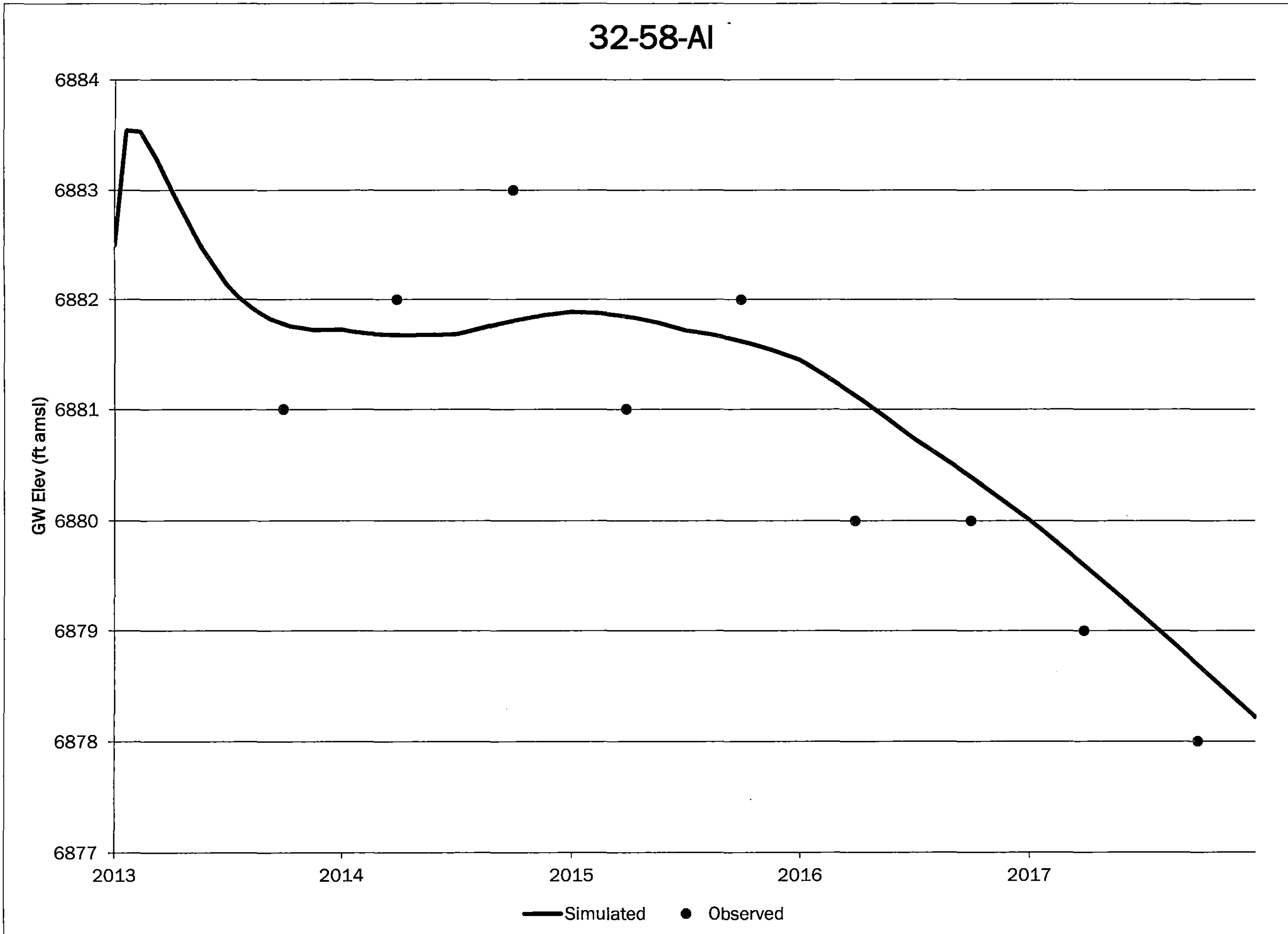
32-51-Al
GW Elev (ft amsl)
6890
6888
6886
6884
6882
6880
6878
2013
2014
2015
2016
2017
Simulated
Observed



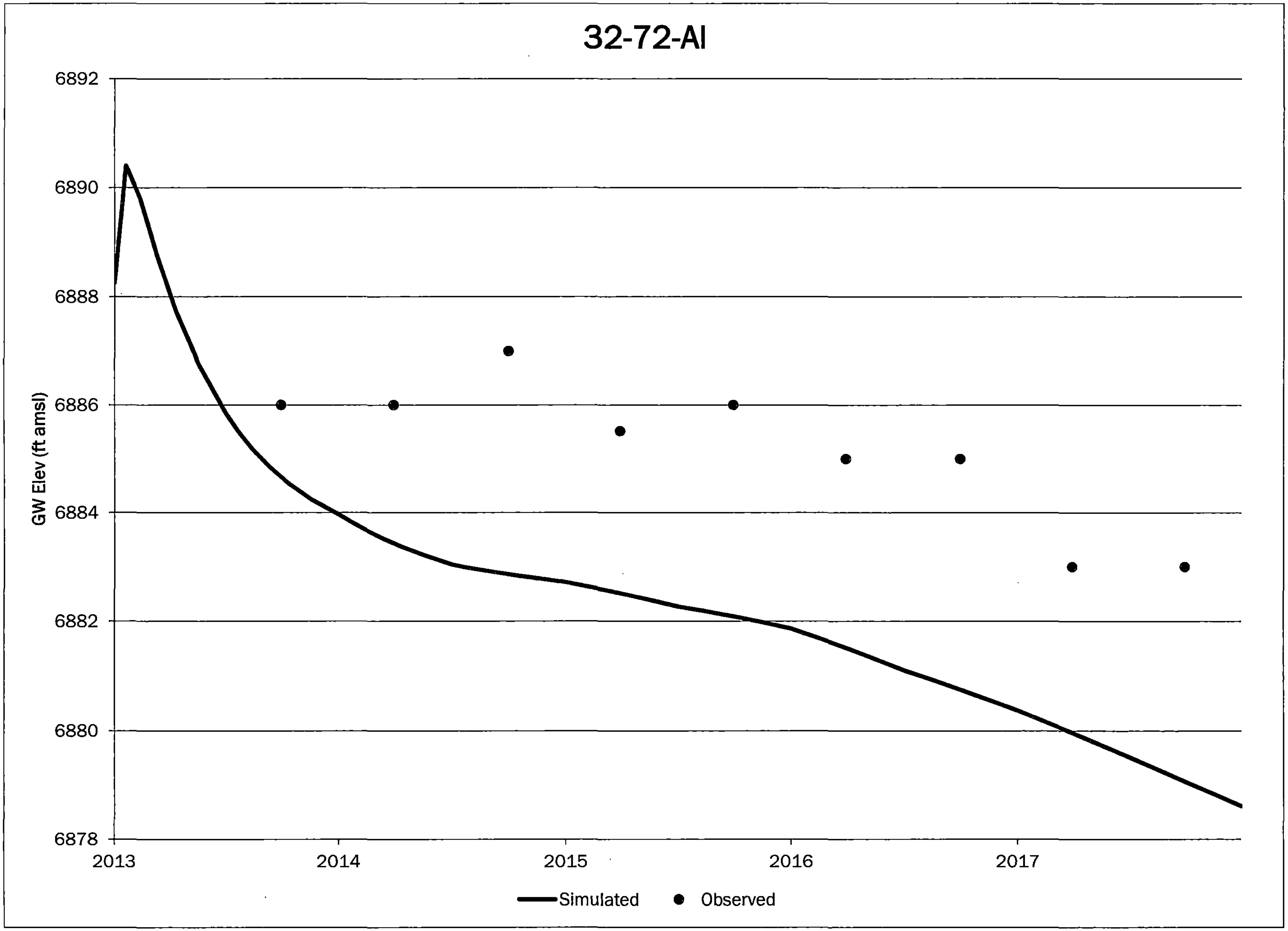
32-52-AI
GW Elev (ft amsl)
6884
6883
6882
6881
6880
6879
6878
6877
2013
2014
2015
2016
2017
Simulated
Observed

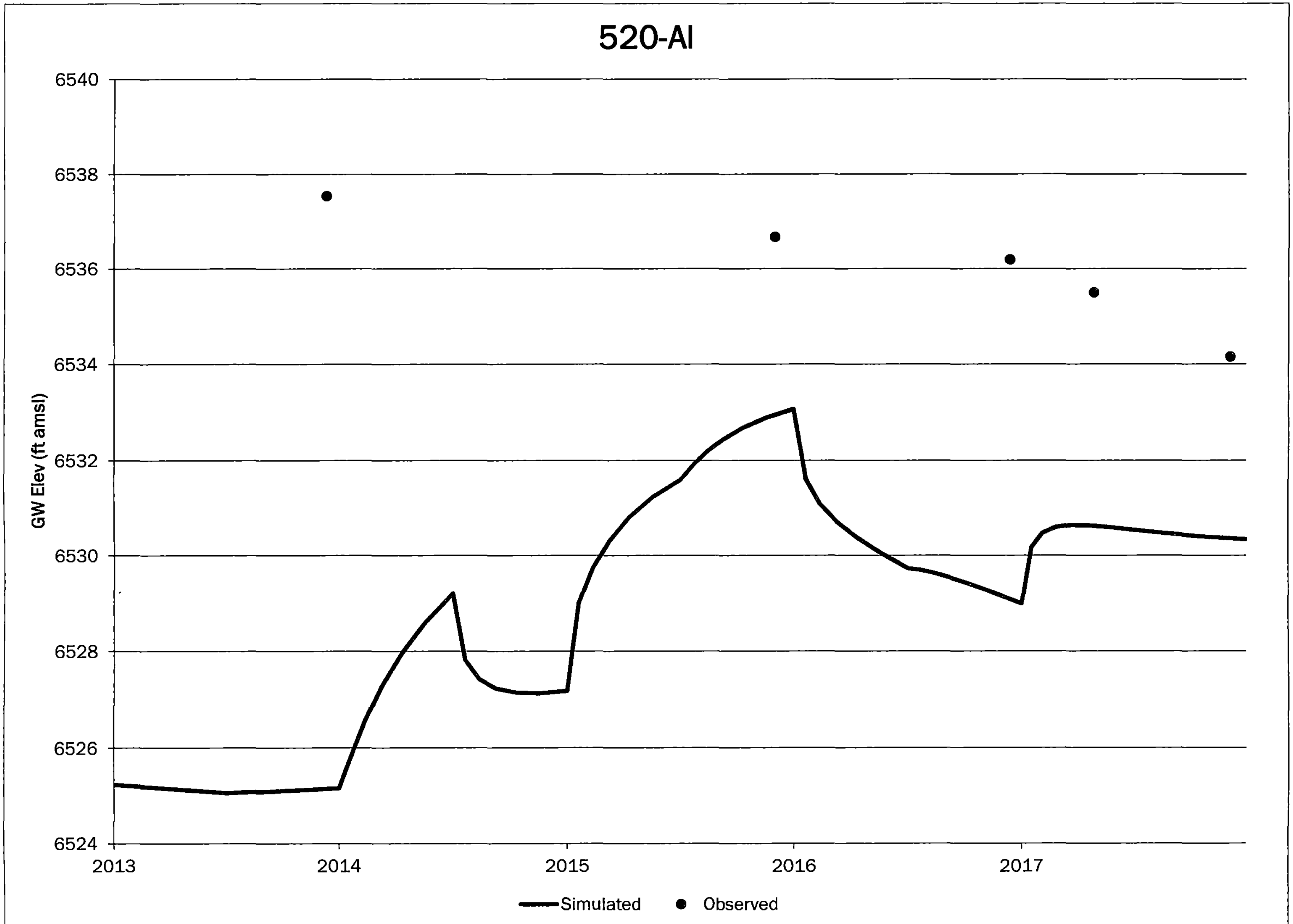


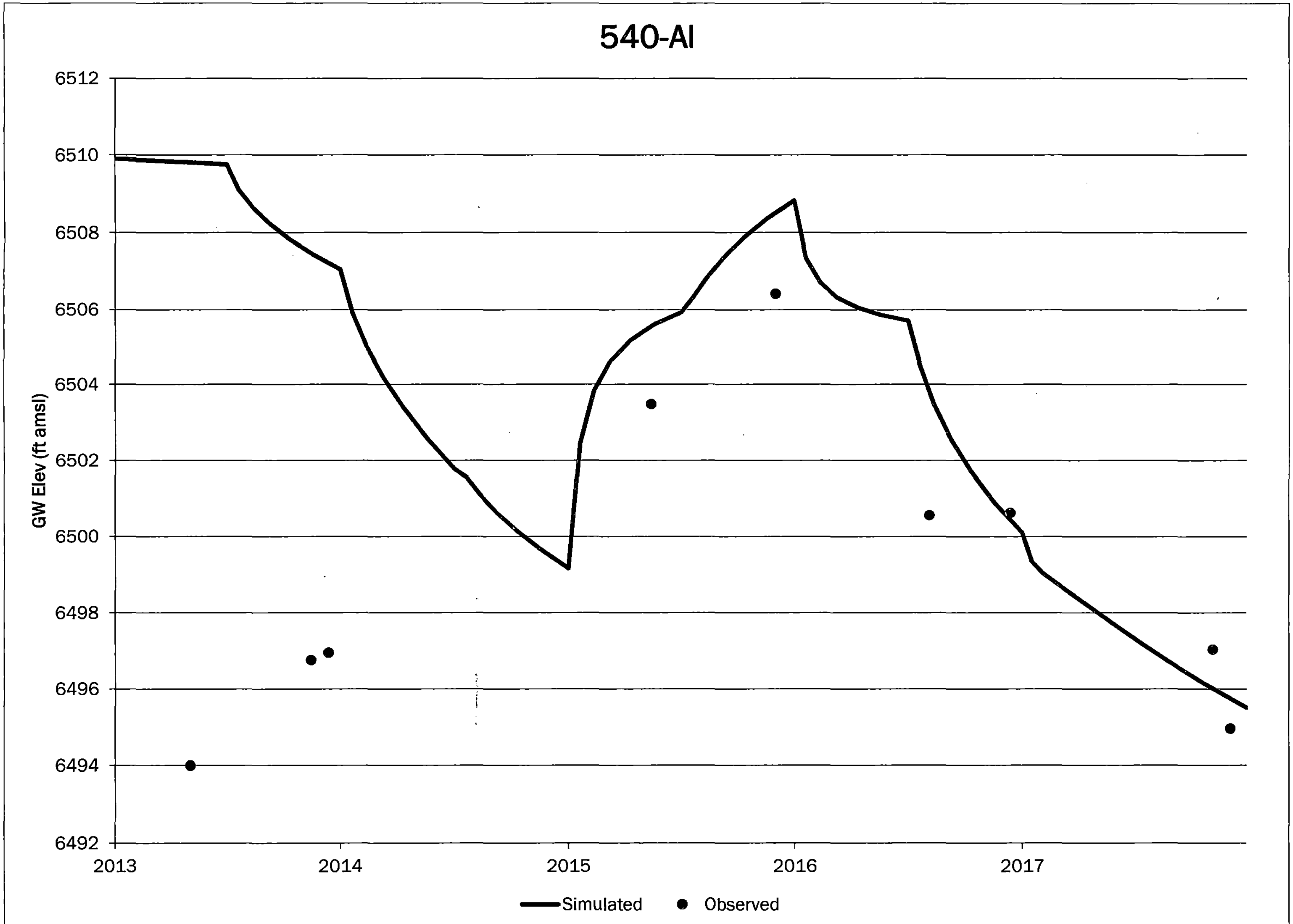
32-57-AI
GW Elev (ft amsl)
6887
6886
6885
6884
6883
6882
6881
6880
6879
6878
2013
2014
2015
2016
2017
Simulated
Observed

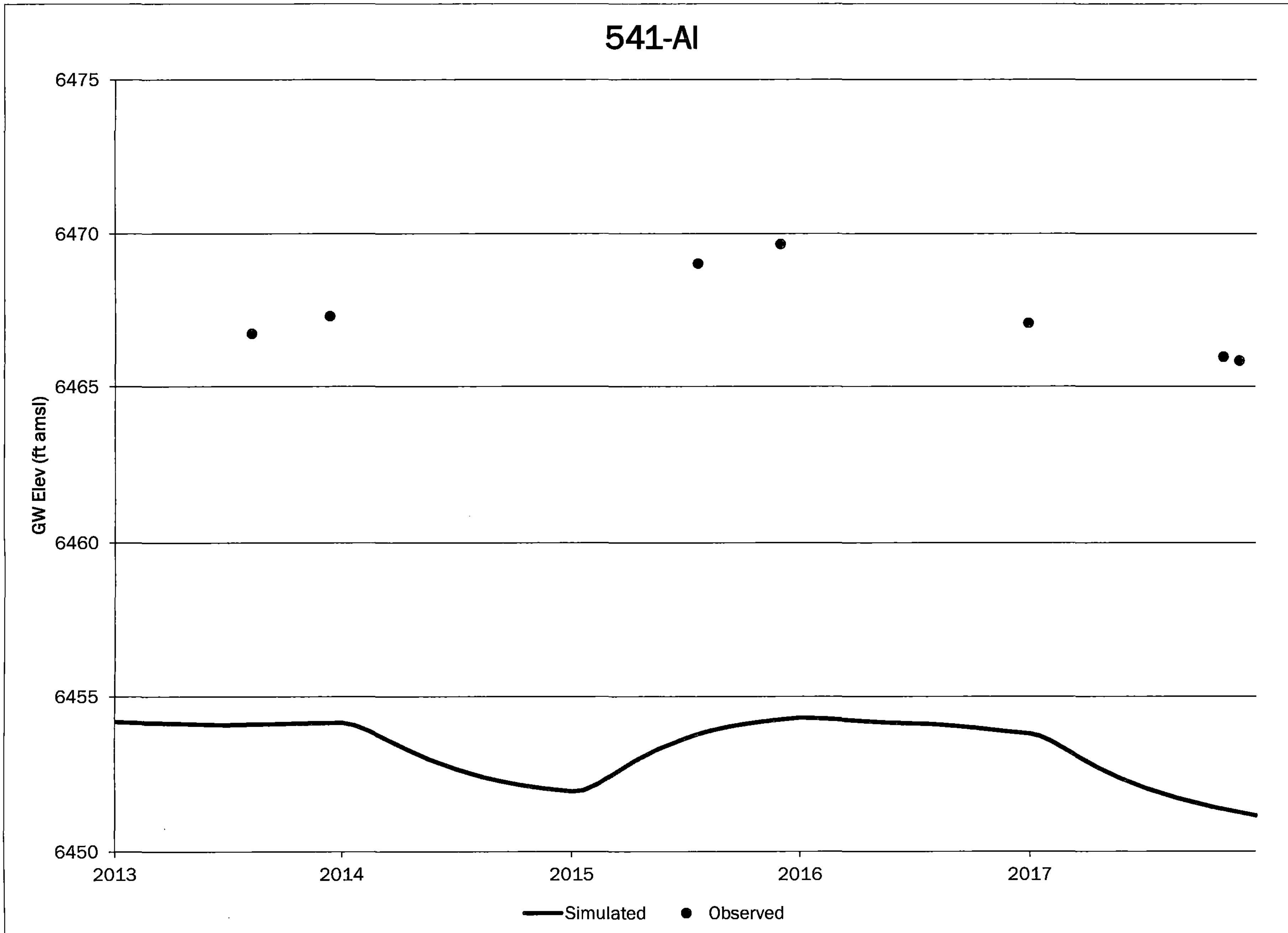


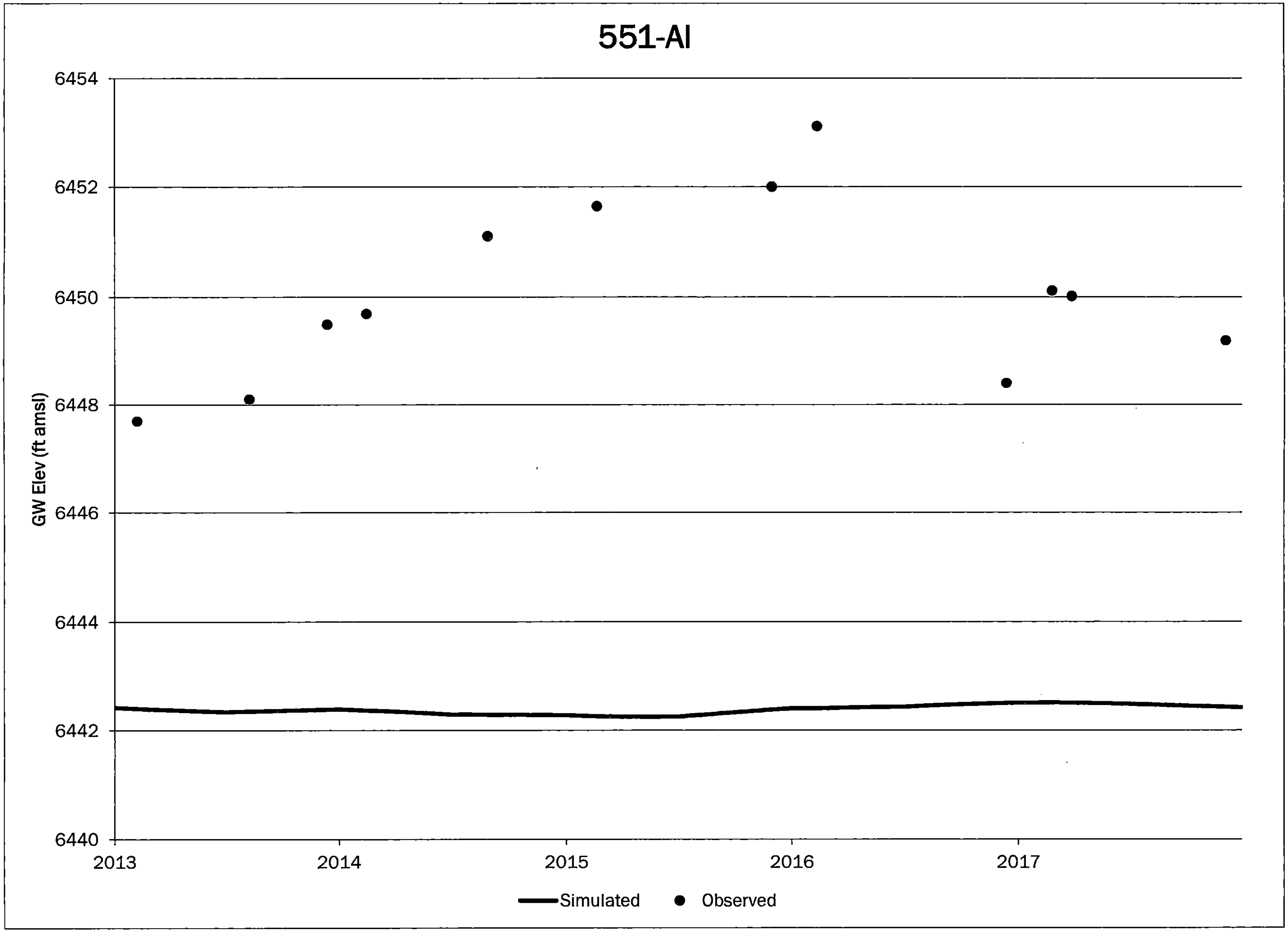
32-58-AI
6884
6883
6882
6881
6880
6879
6878
6877
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

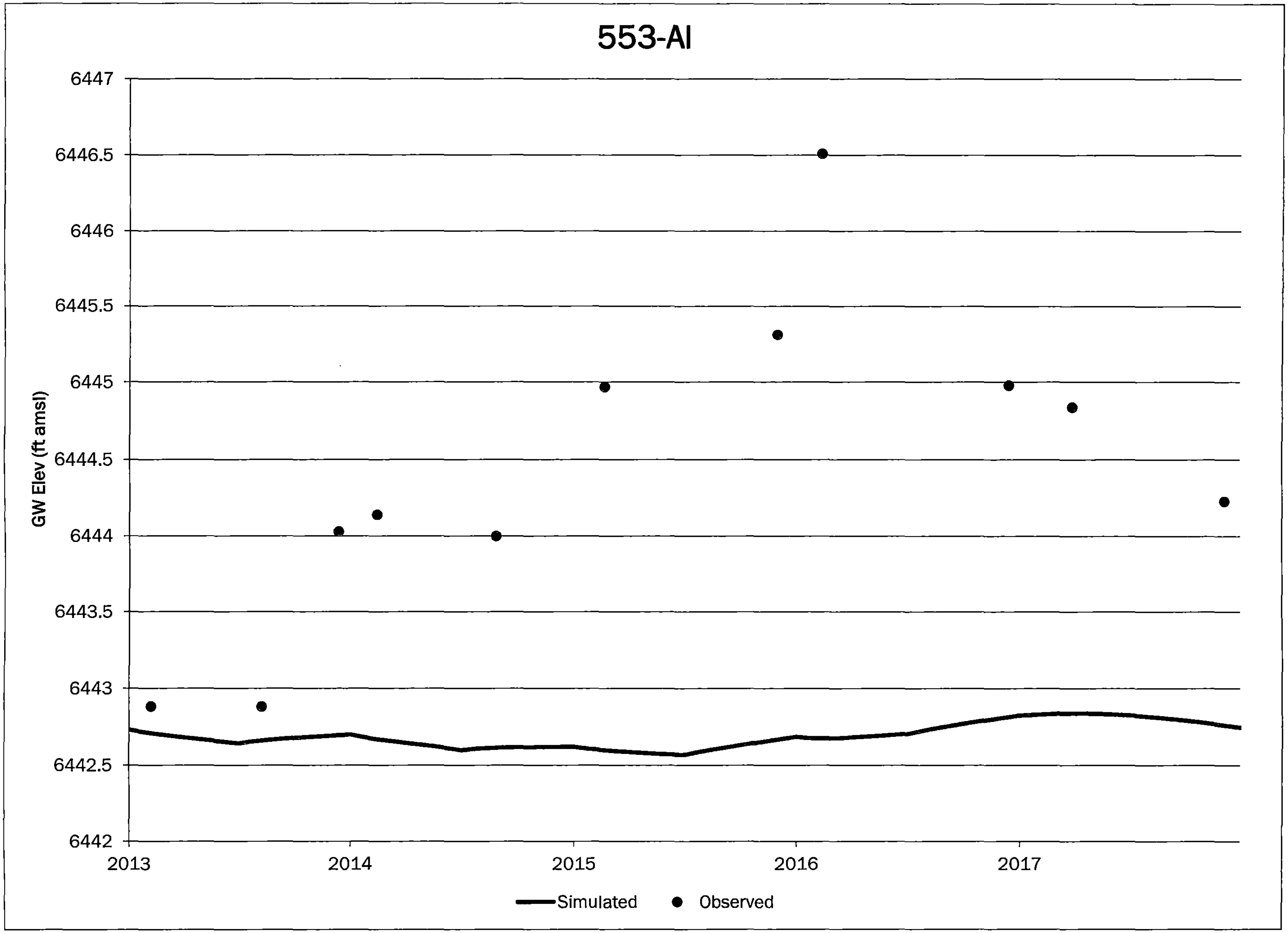

32-72-AI
GW Elev (ft amsl)
6892
6890
6888
6886
6884
6882
6880
6878
2013
2014
2015
2016
2017
Simulated
Observed

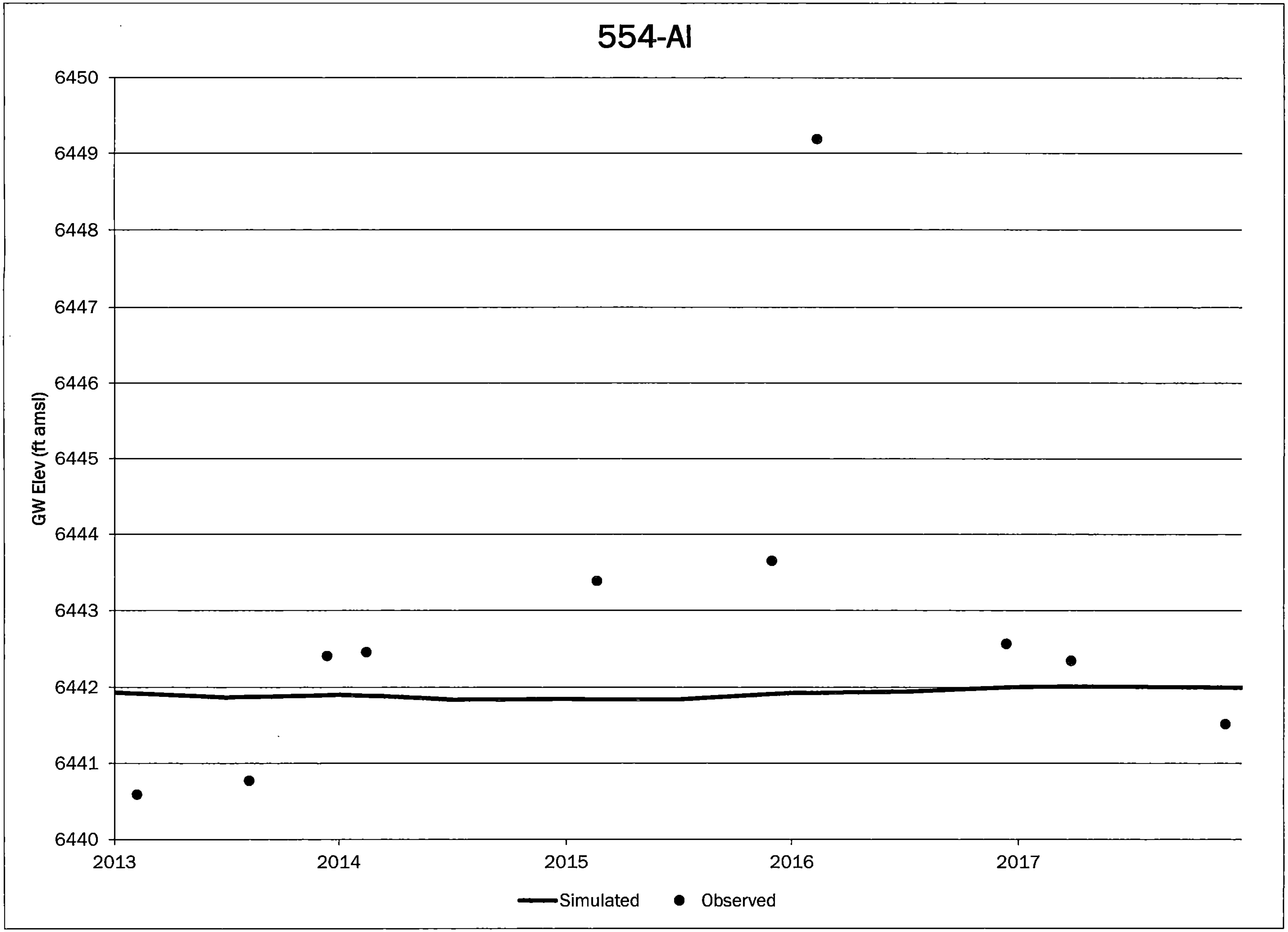

520-AI
GW Elev (ft amsl)
6540
6538
6536
6534
6532
6530
6528
6526
6524
2013
2014
2015
2016
2017
Simulated
Observed

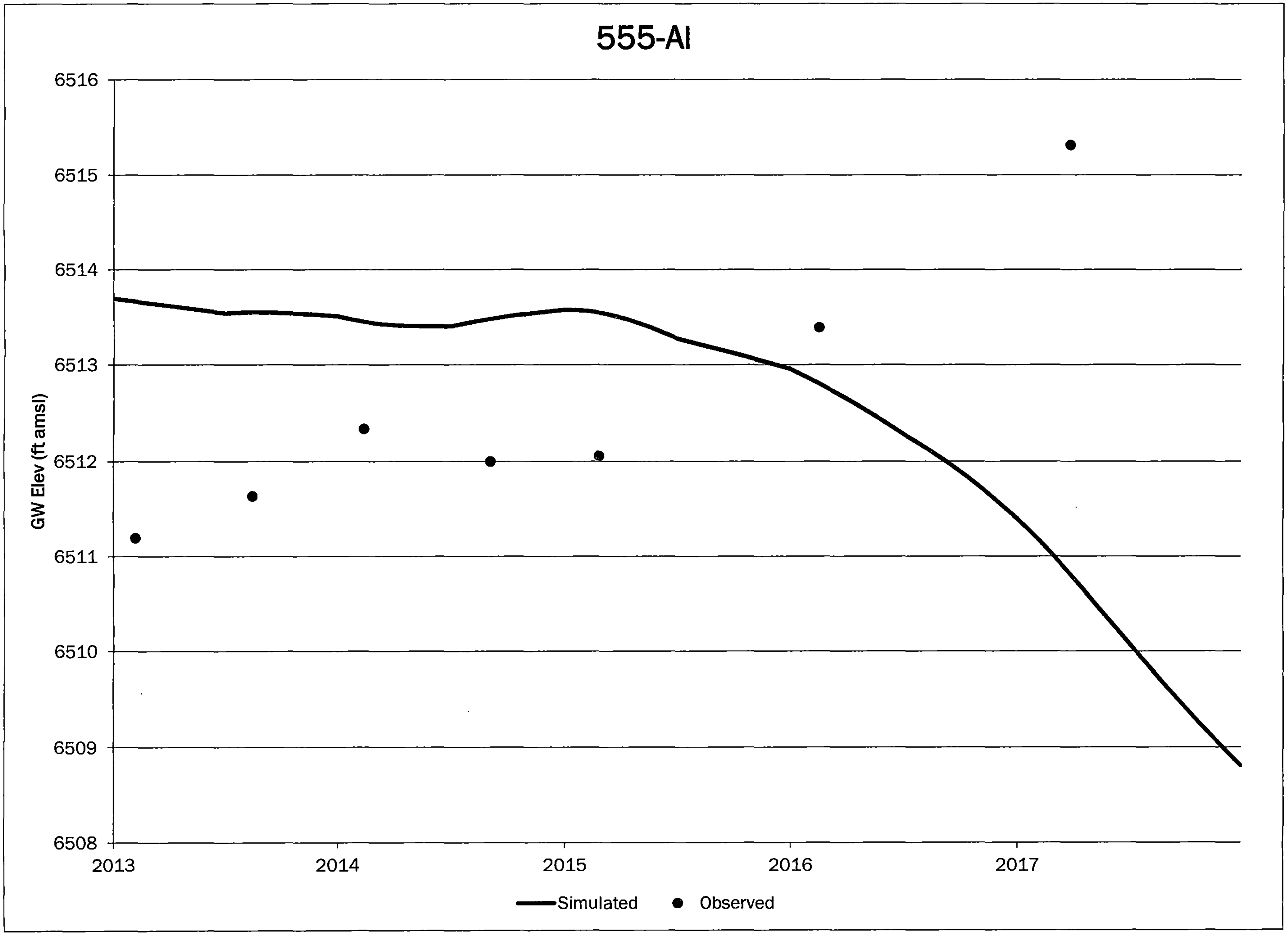

540-Al
6512
6510
6508
6506
6504
6502
6500
6498
6496
6494
6492
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

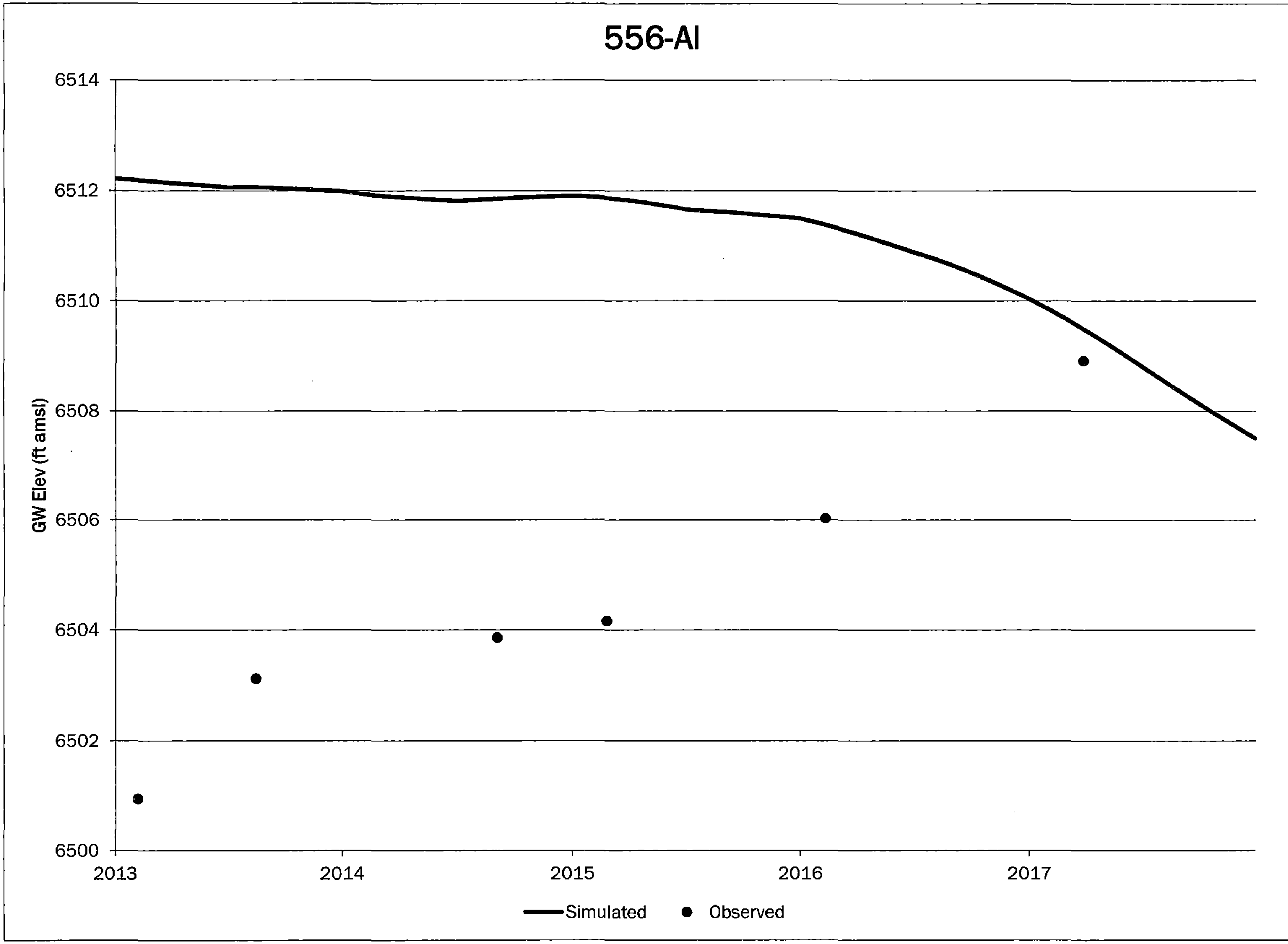

541-AI
6475
6470
6465
6460
6455
6450
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


551-Al
GW Elev (ft amsl)
6454
6452
6450
6448
6446
6444
6442
6440
2013
2014
2015
2016
2017
Simulated
Observed

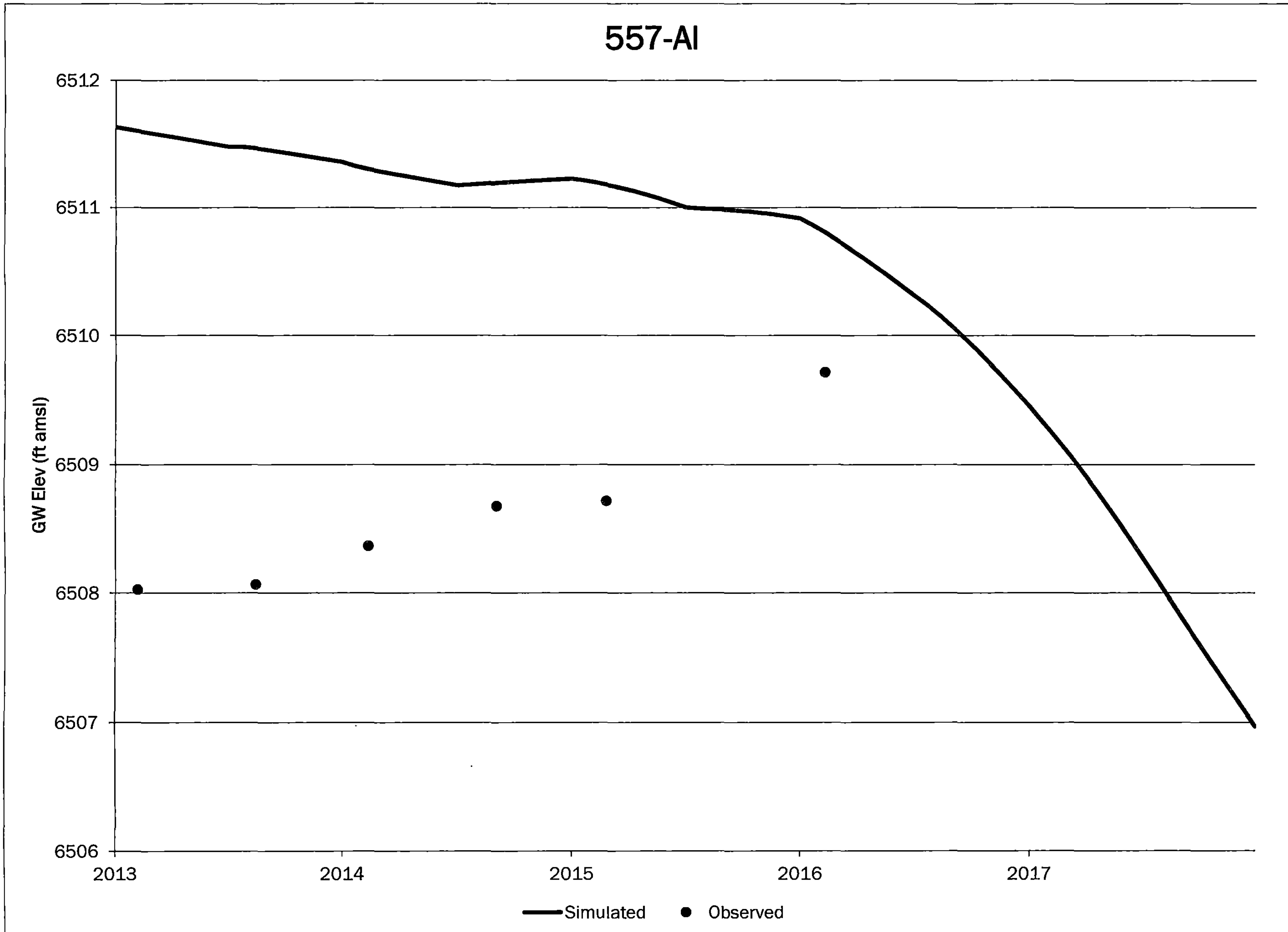

553-AI
GW Elev (ft amsl)
6447
6446.5
6446
6445.5
6445
6444.5
6444
6443.5
6443
6442.5
6442
2013
2014
2015
2016
2017
Simulated
Observed

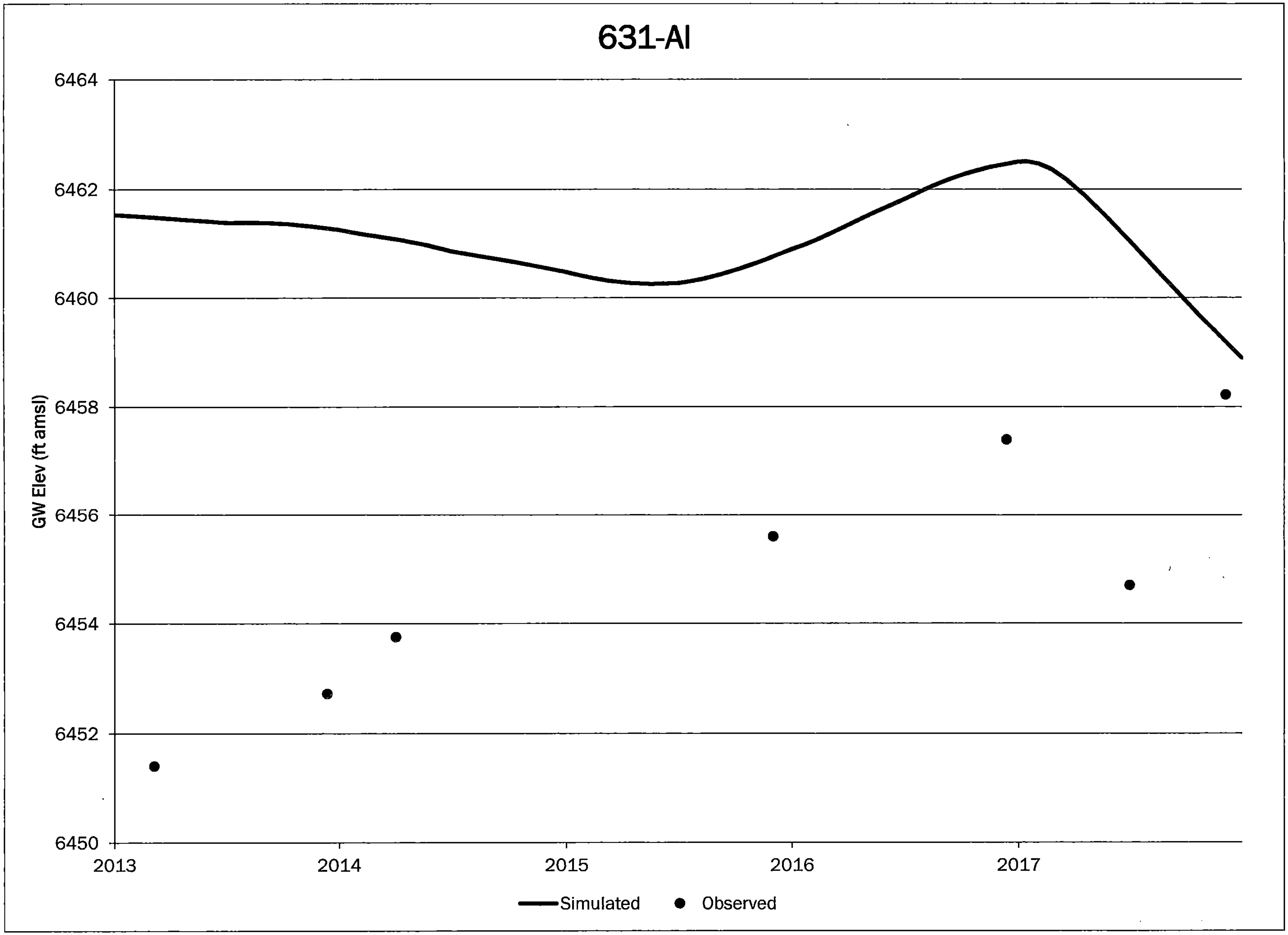

554-AI
GW Elev (ft amsl)
6450
6449
6448
6447
6446
6445
6444
6443
6442
6441
6440
2013
2014
2015
2016
2017
Simulated
Observed


555-AI
6516
6515
6514
6513
6512
6511
6510
6509
6508
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

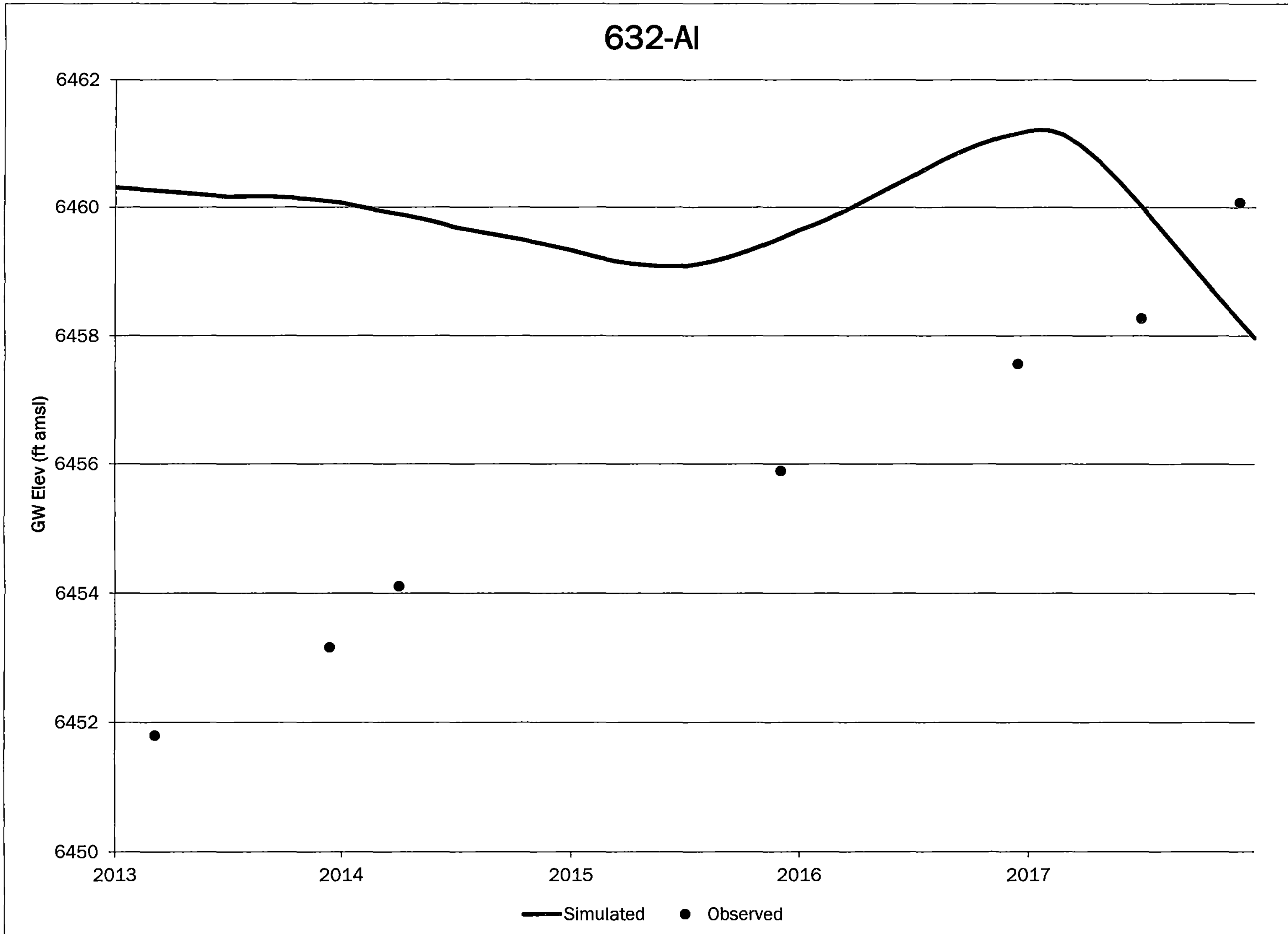


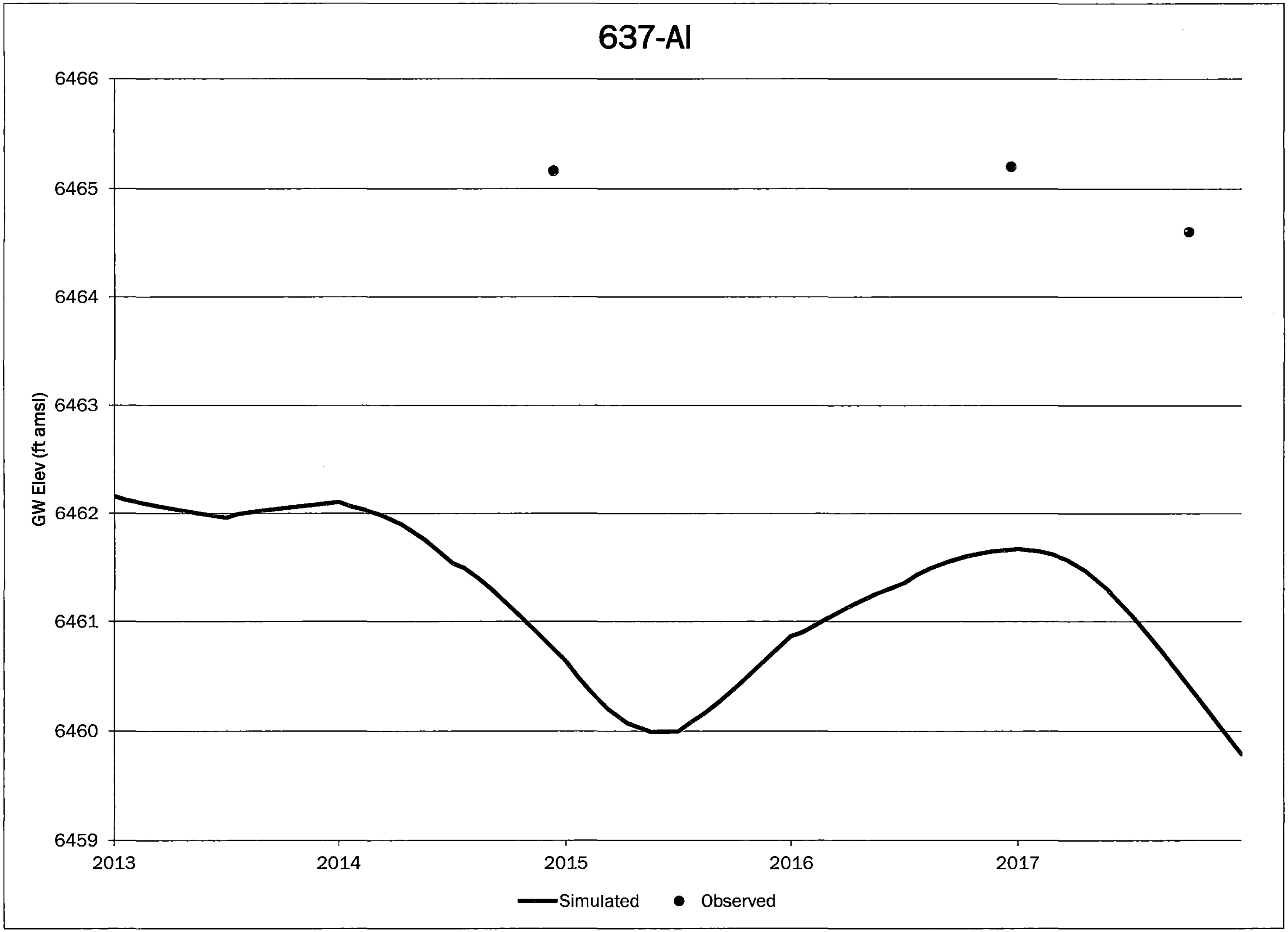
556-AI
GW Elev (ft amsl)
6514
6512
6510
6508
6506
6504
6502
6500
2013
2014
2015
2016
2017
Simulated
Observed


557-AI
GW Elev (ft amsl)
6512
6511
6510
6509
6508
6507
6506
2013
2014
2015
2016
2017
Simulated
Observed

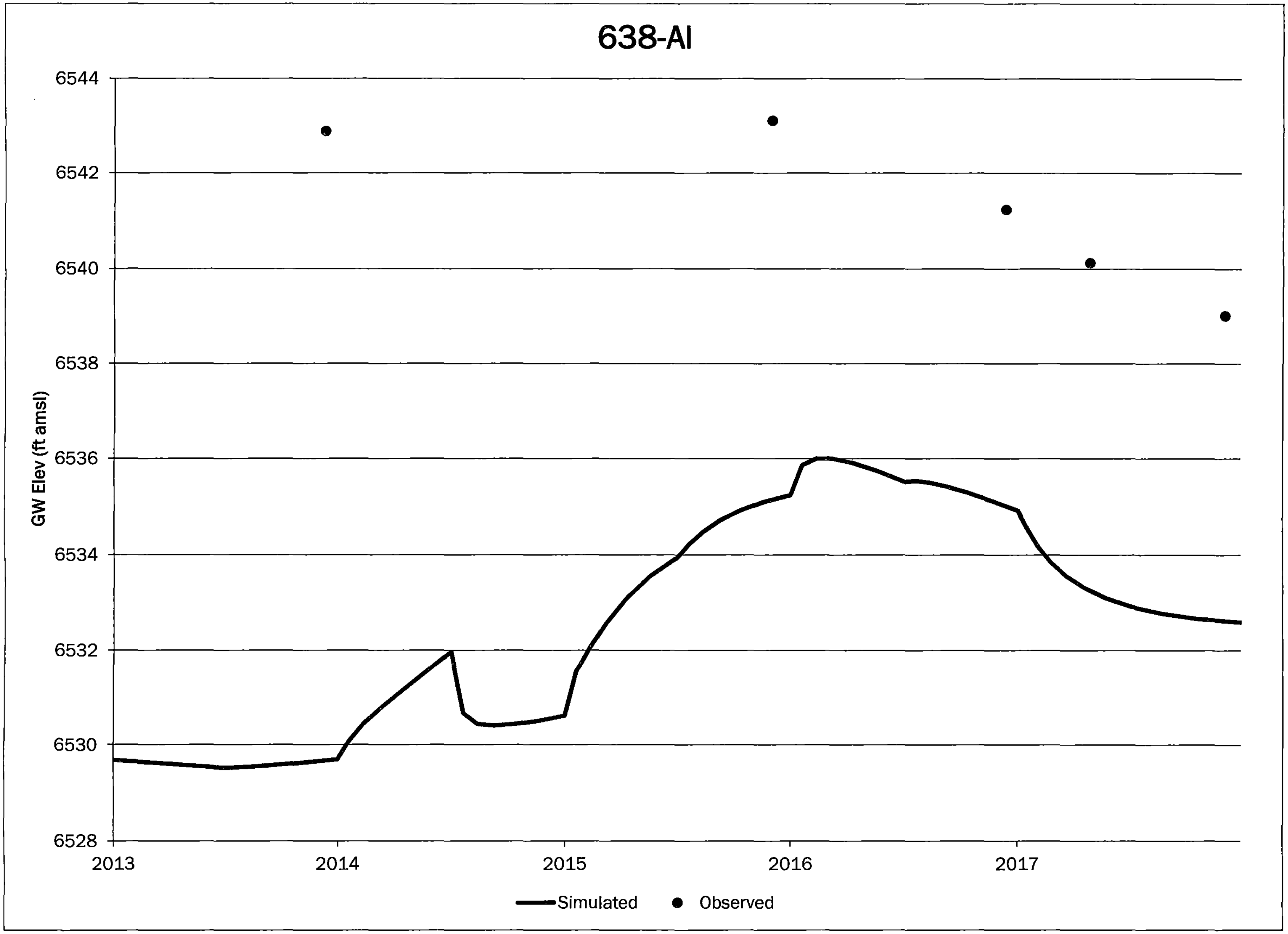


631-AI
6464
6462
6460
6458
6456
6454
6452
6450
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

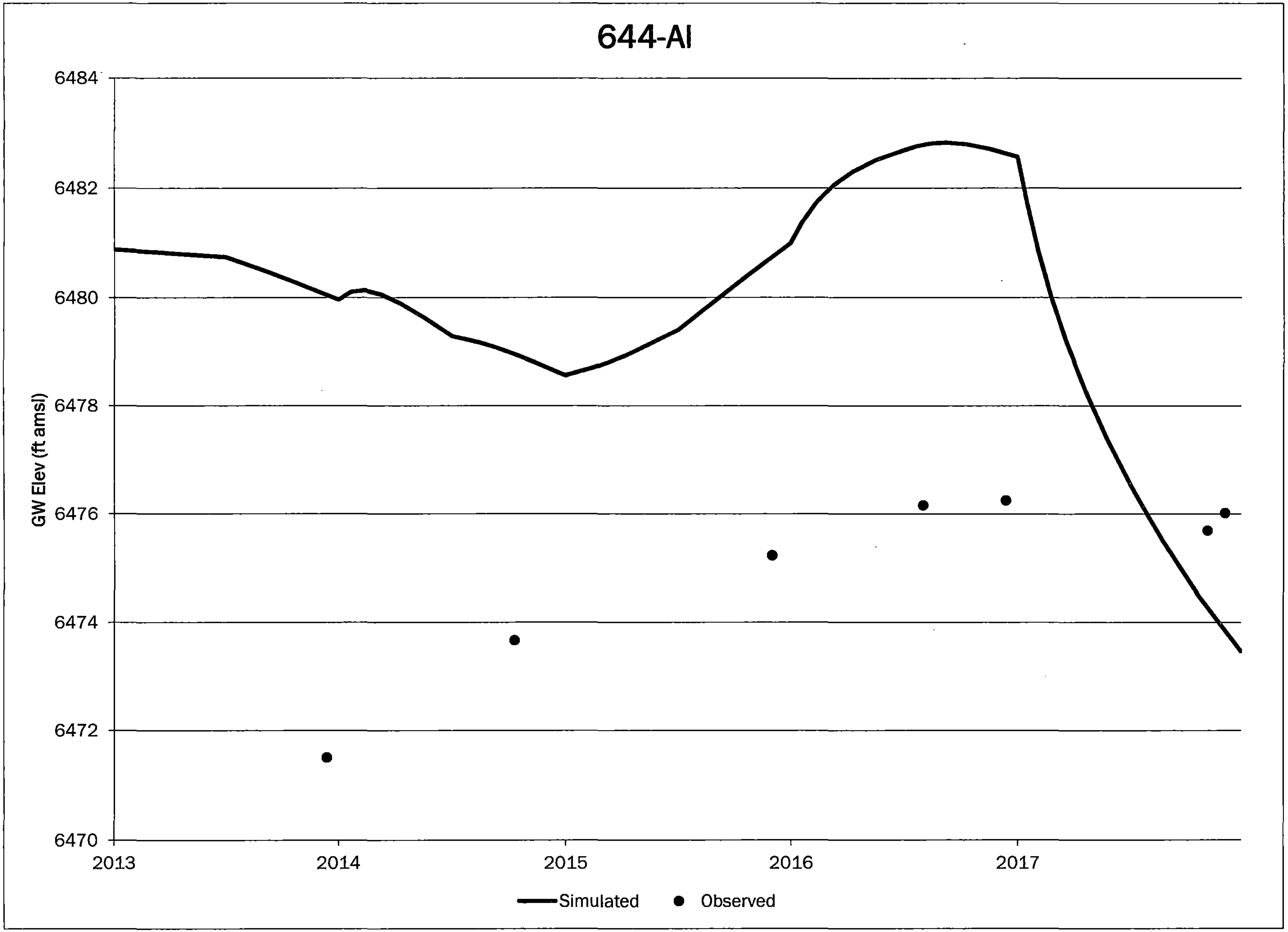

632-AI
GW Elev (ft amsl)
6462
6460
6458
6456
6454
6452
6450
2013
2014
2015
2016
2017
Simulated
Observed



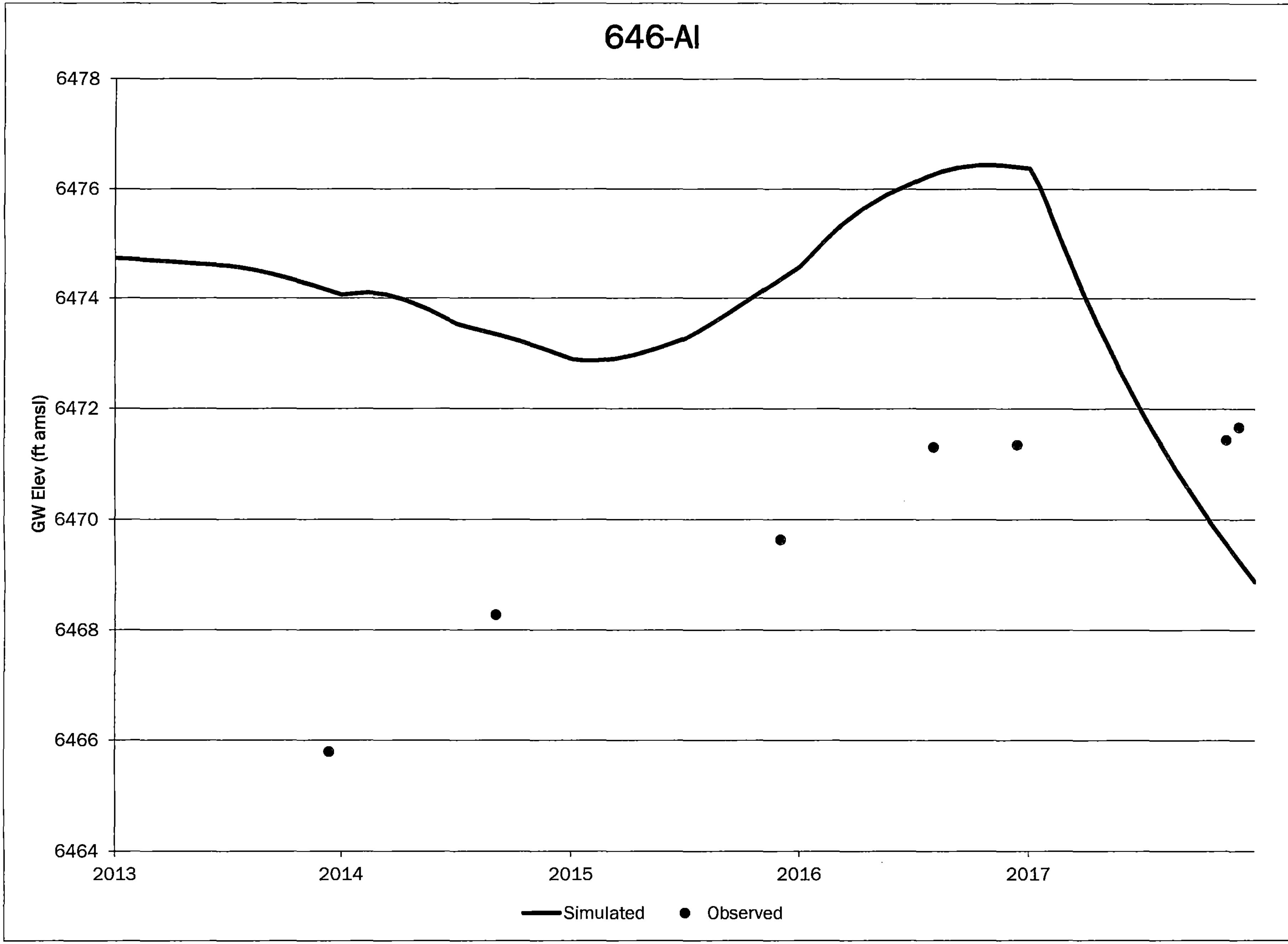
637-AI
GW Elev (ft amsl)
6466
6465
6464
6463
6462
6461
6460
6459
2013
2014
2015
2016
2017
Simulated
Observed

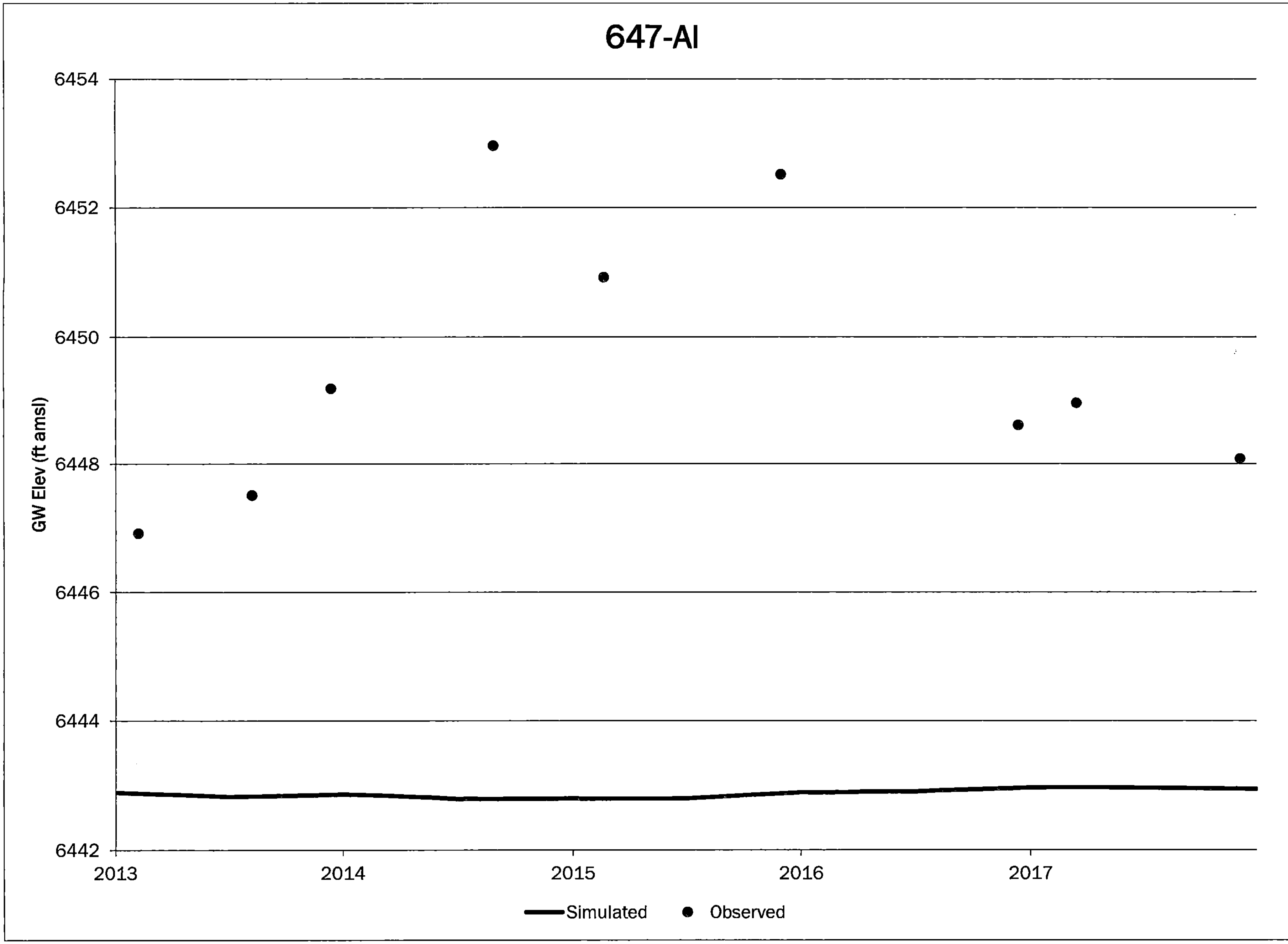


638-AI
6544
6542
6540
6538
6536
6534
6532
6530
6528
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

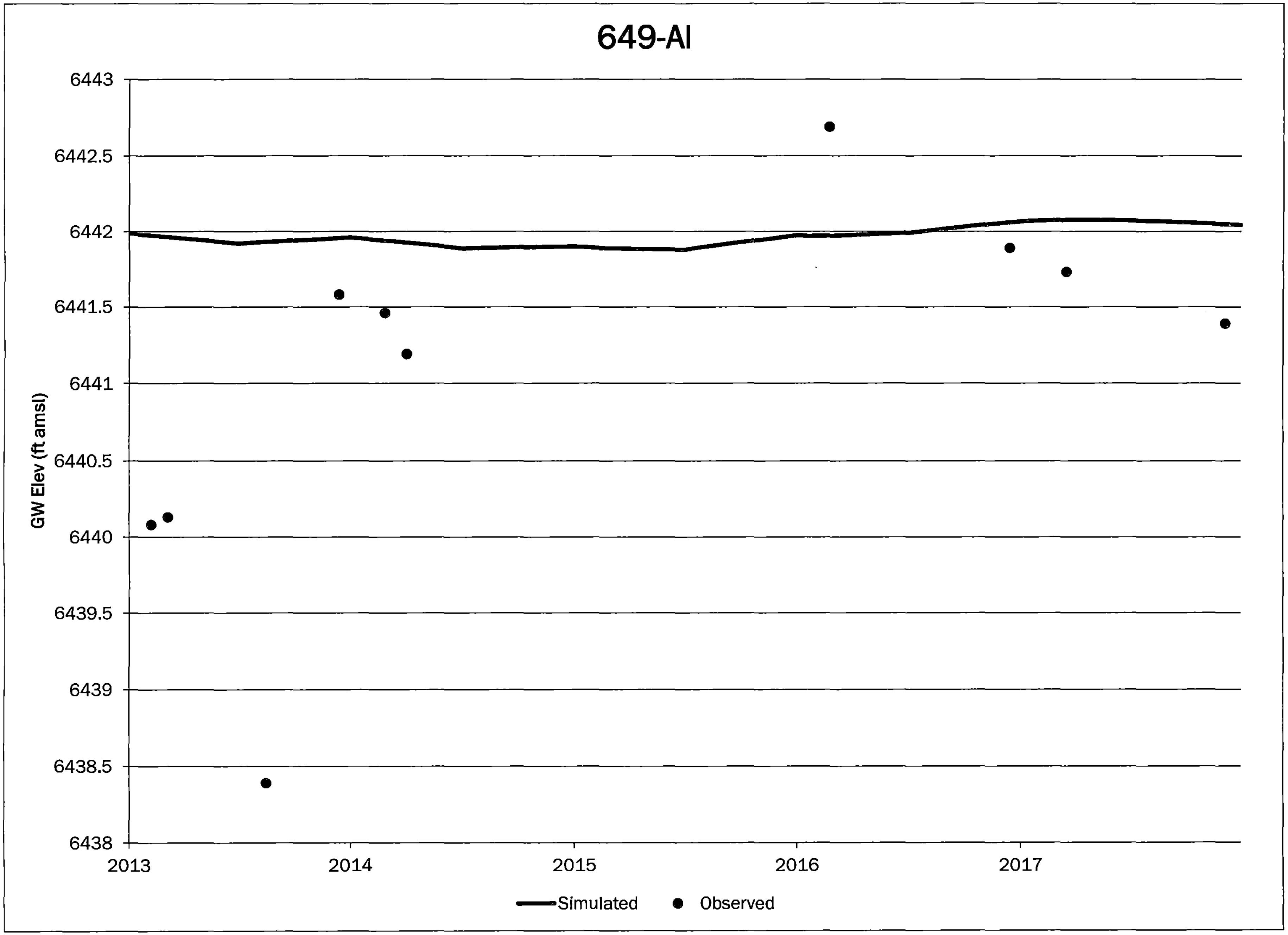


644-AI
GW Elev (ft amsl)
6484
6482
6480
6478
6476
6474
6472
6470
2013
2014
2015
2016
2017
Simulated
Observed

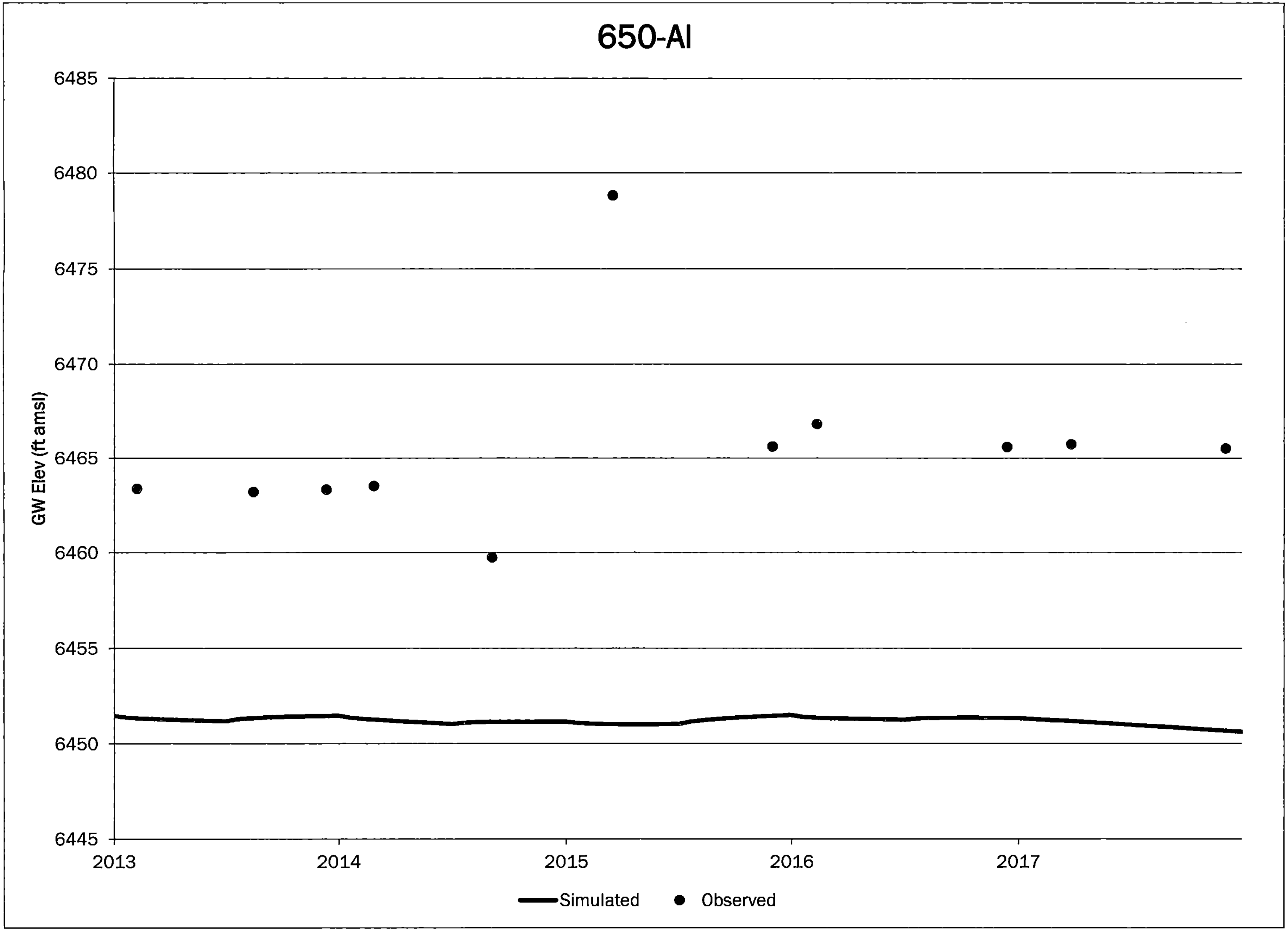

646-Al
GW Elev (ft amsl)
6478
6476
6474
6472
6470
6468
6466
6464
2013
2014
2015
2016
2017
Simulated
Observed



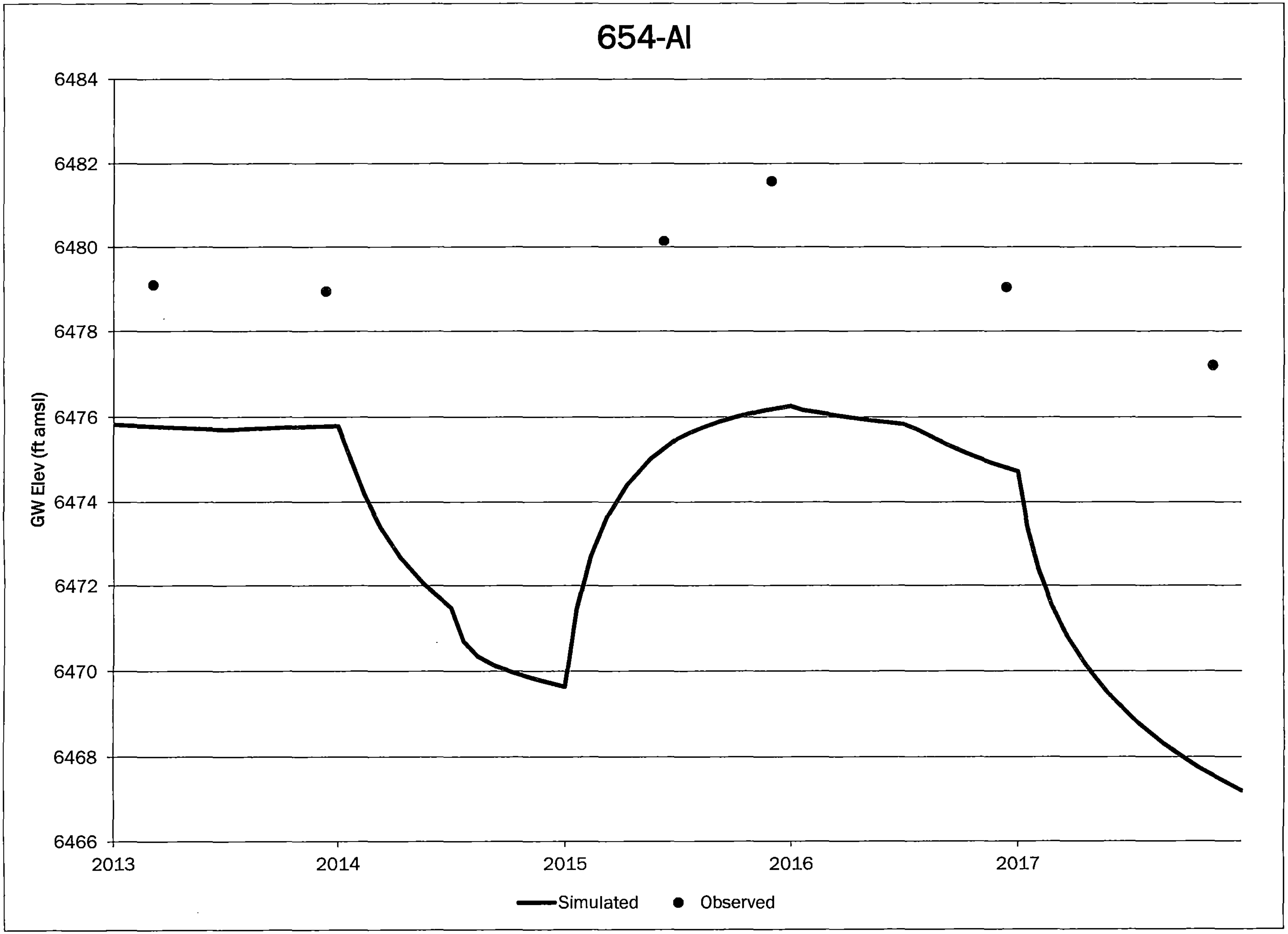
647-AI
GW Elev (ft amsl)
6454
6452
6450
6448
6446
6444
6442
2013
2014
2015
2016
2017
Simulated
Observed



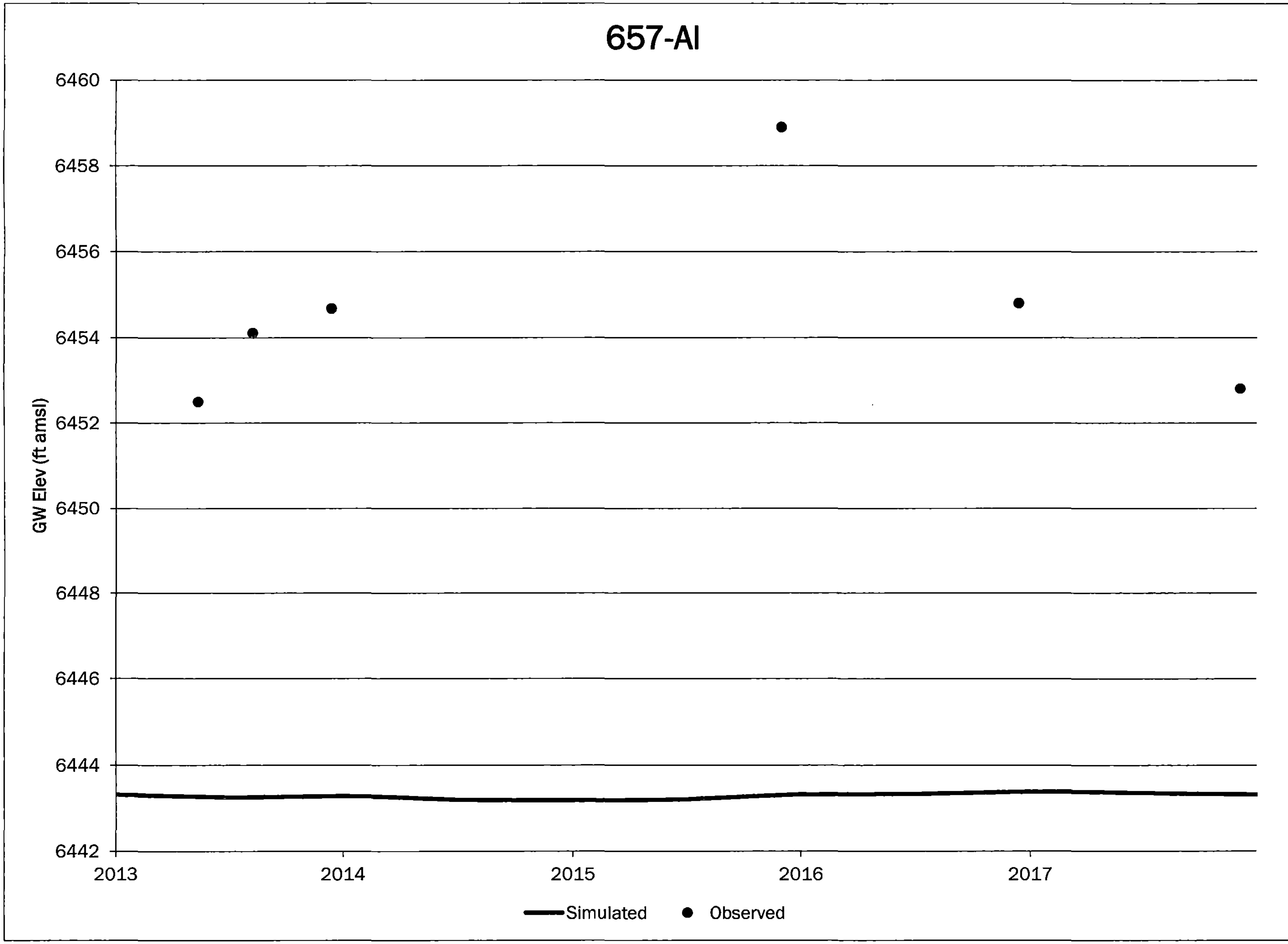
649-AI
GW Elev (ft amsl)
6443
6442.5
6442
6441.5
6441
6440.5
6440
6439.5
6439
6438.5
6438
2013
2014
2015
2016
2017
Simulated
Observed

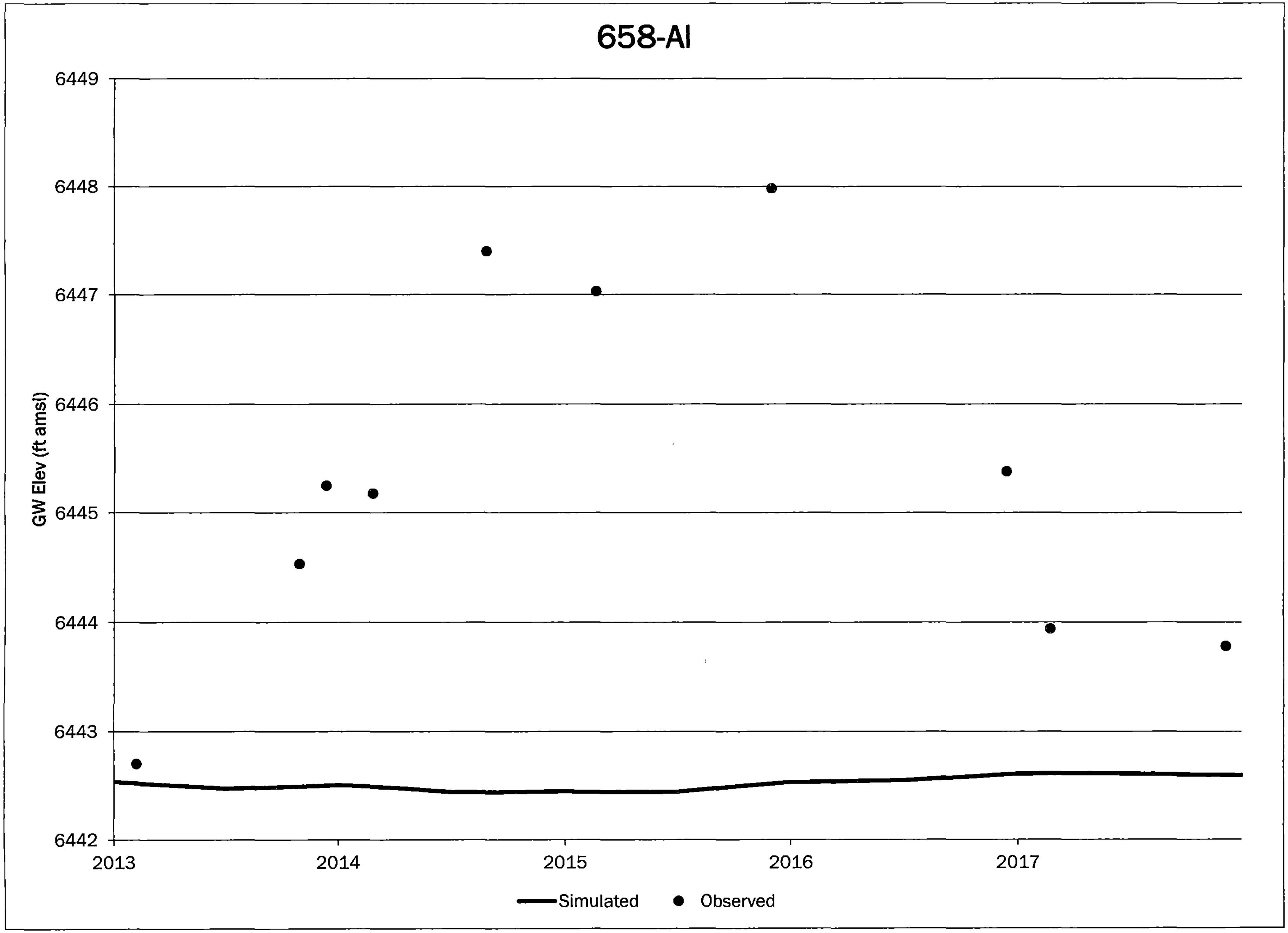


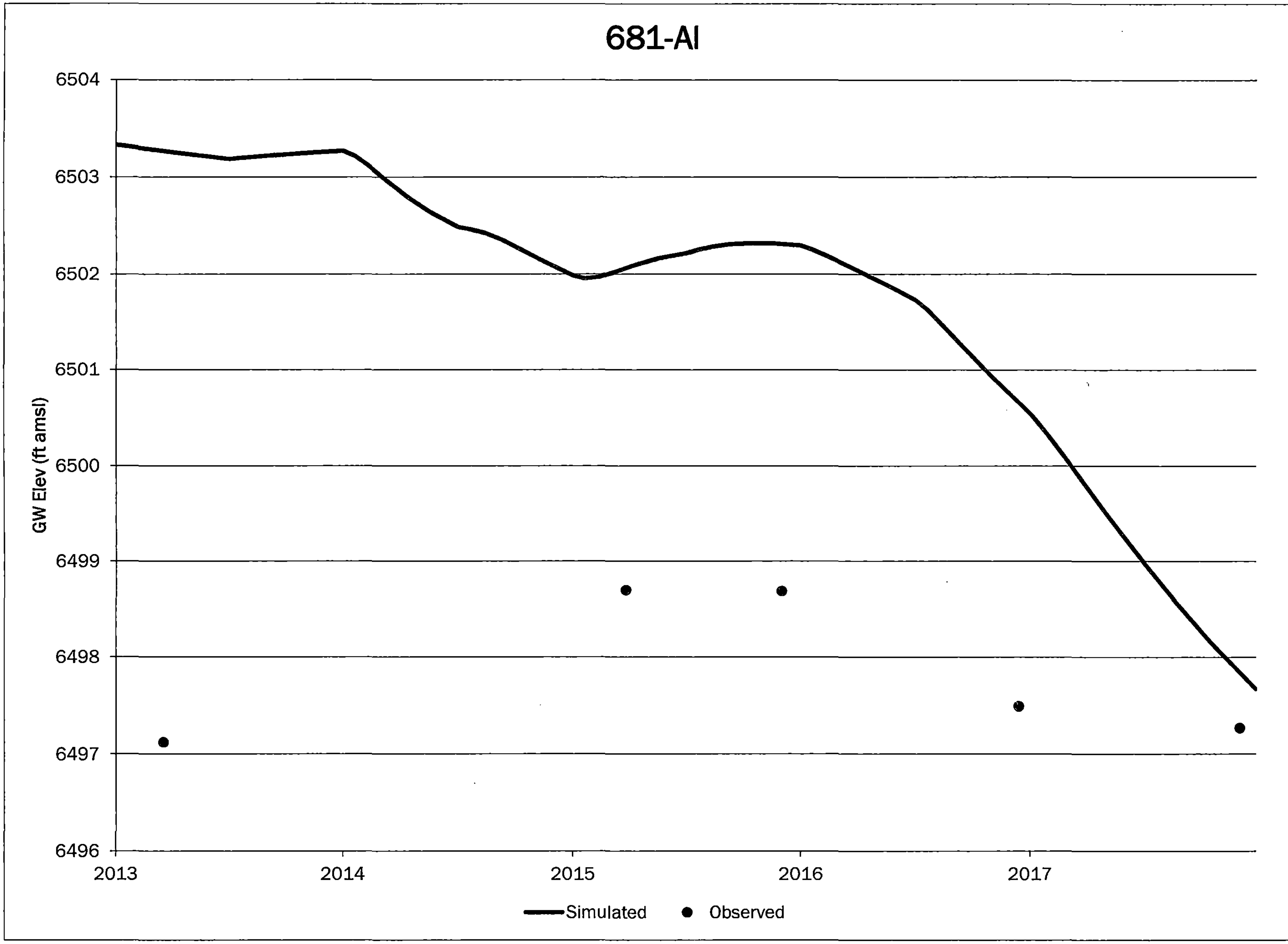
650-AI
6485
6480
6475
6470
6465
6460
6455
6450
6445
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



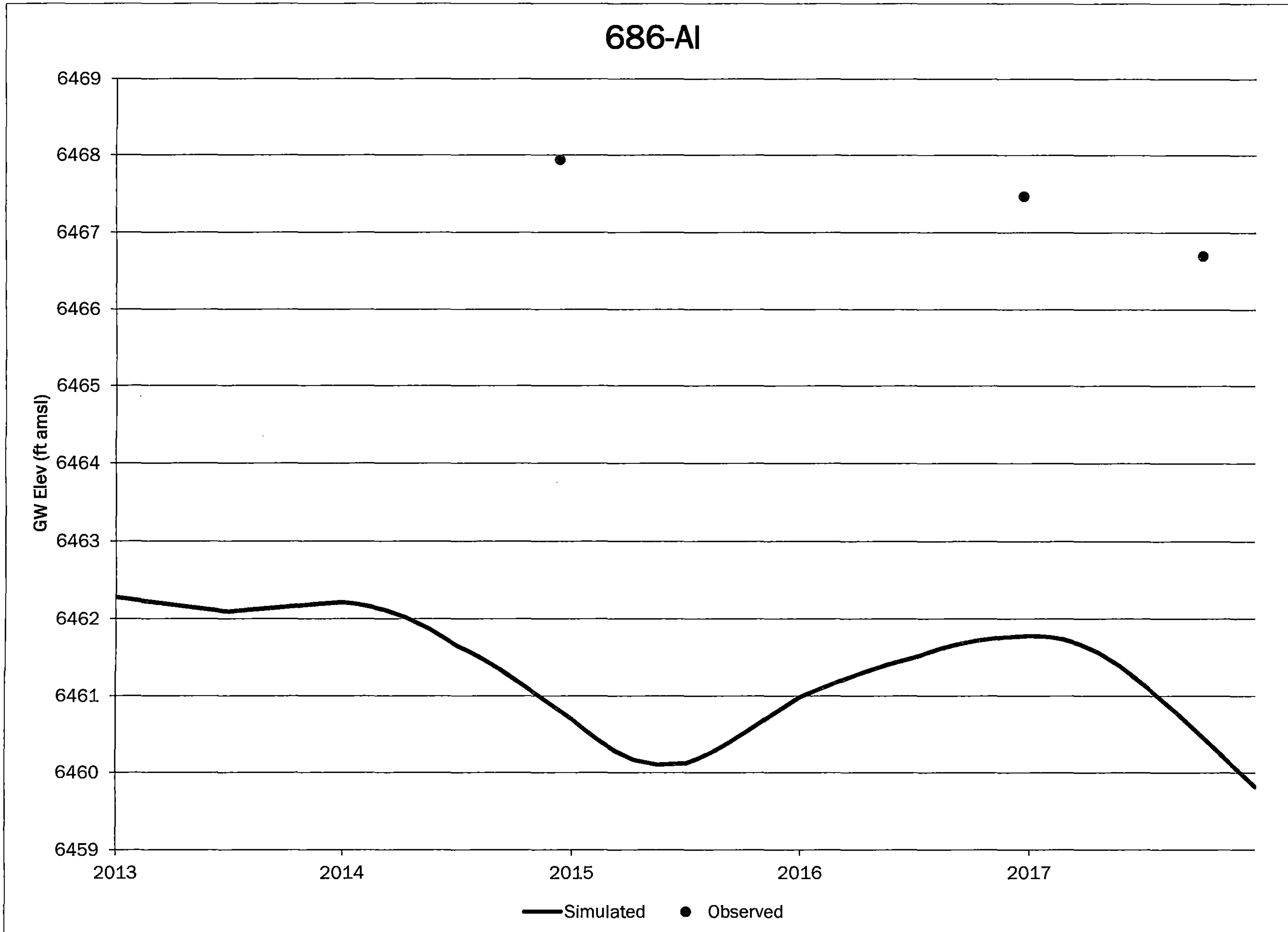
654-AI
6484
6482
6480
6478
6476
6474
6472
6470
6468
6466
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


657-Al
6460
6458
6456
6454
6452
6450
6448
6446
6444
6442
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

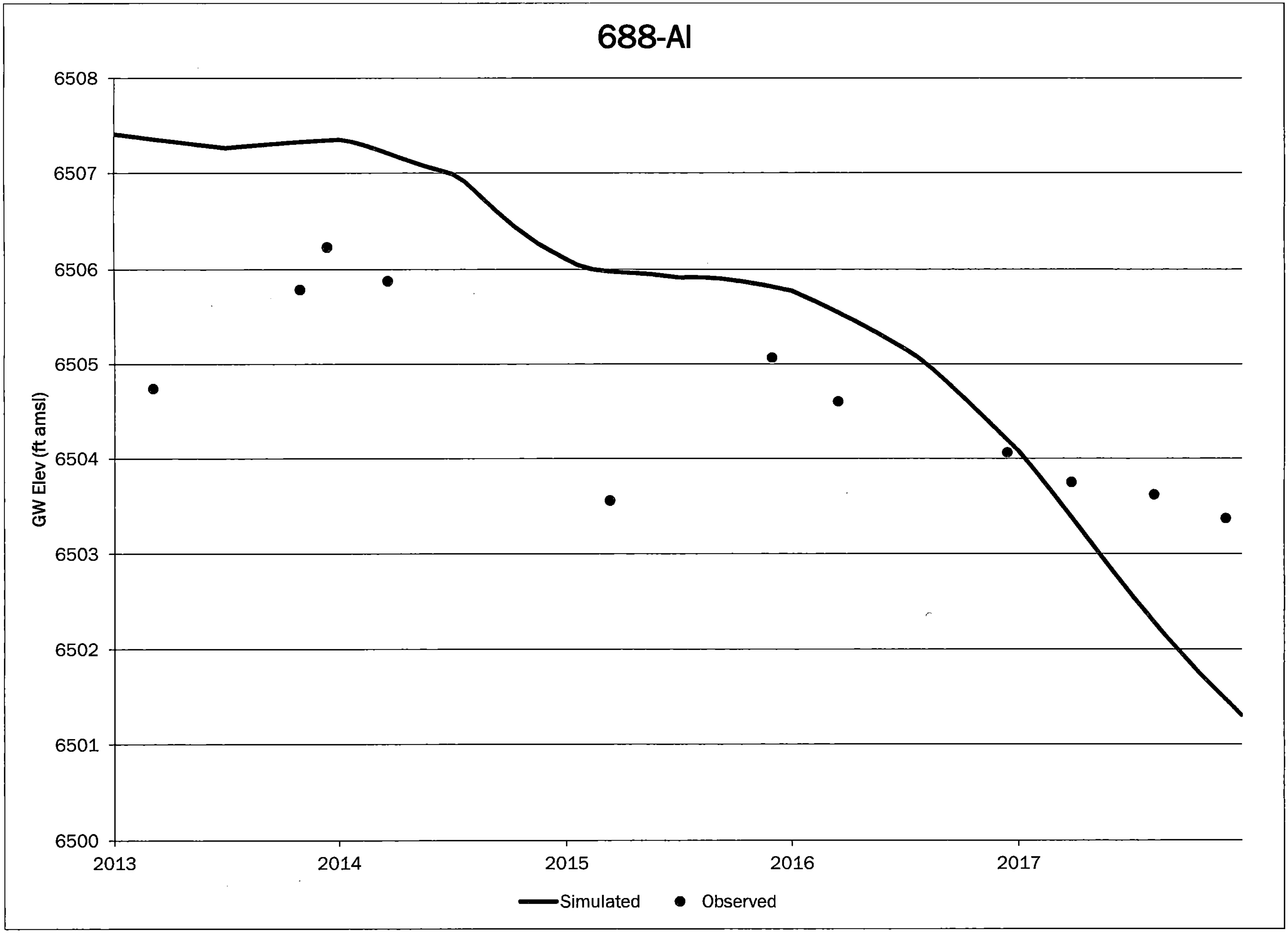

658-AI
GW Elev (ft amsl)
6449
6448
6447
6446
6445
6444
6443
6442
2013
2014
2015
2016
2017
Simulated
Observed



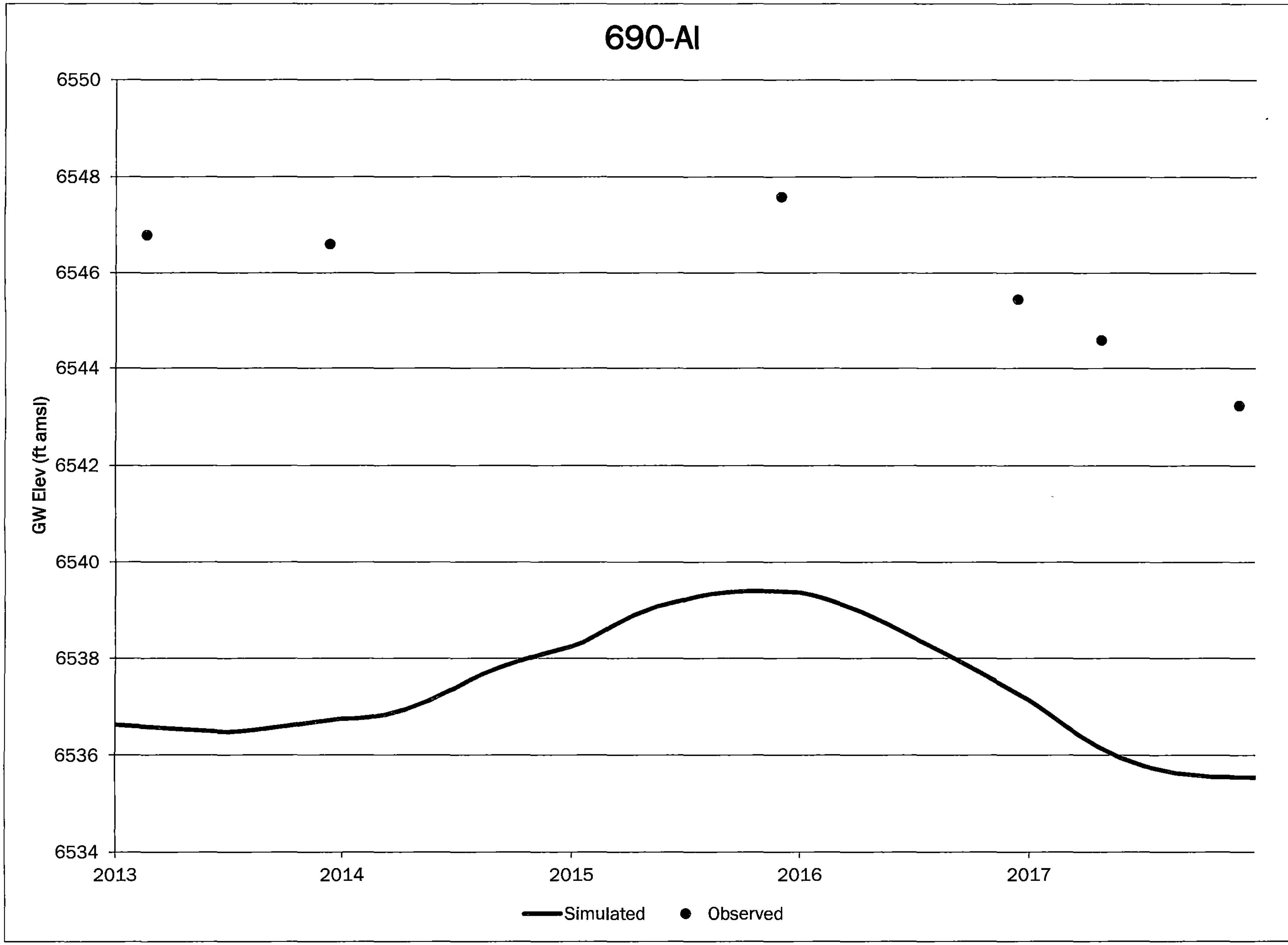
681-Al
GW Elev (ft amsl)
6504
6503
6502
6501
6500
6499
6498
6497
6496
2013
2014
2015
2016
2017
Simulated
Observed



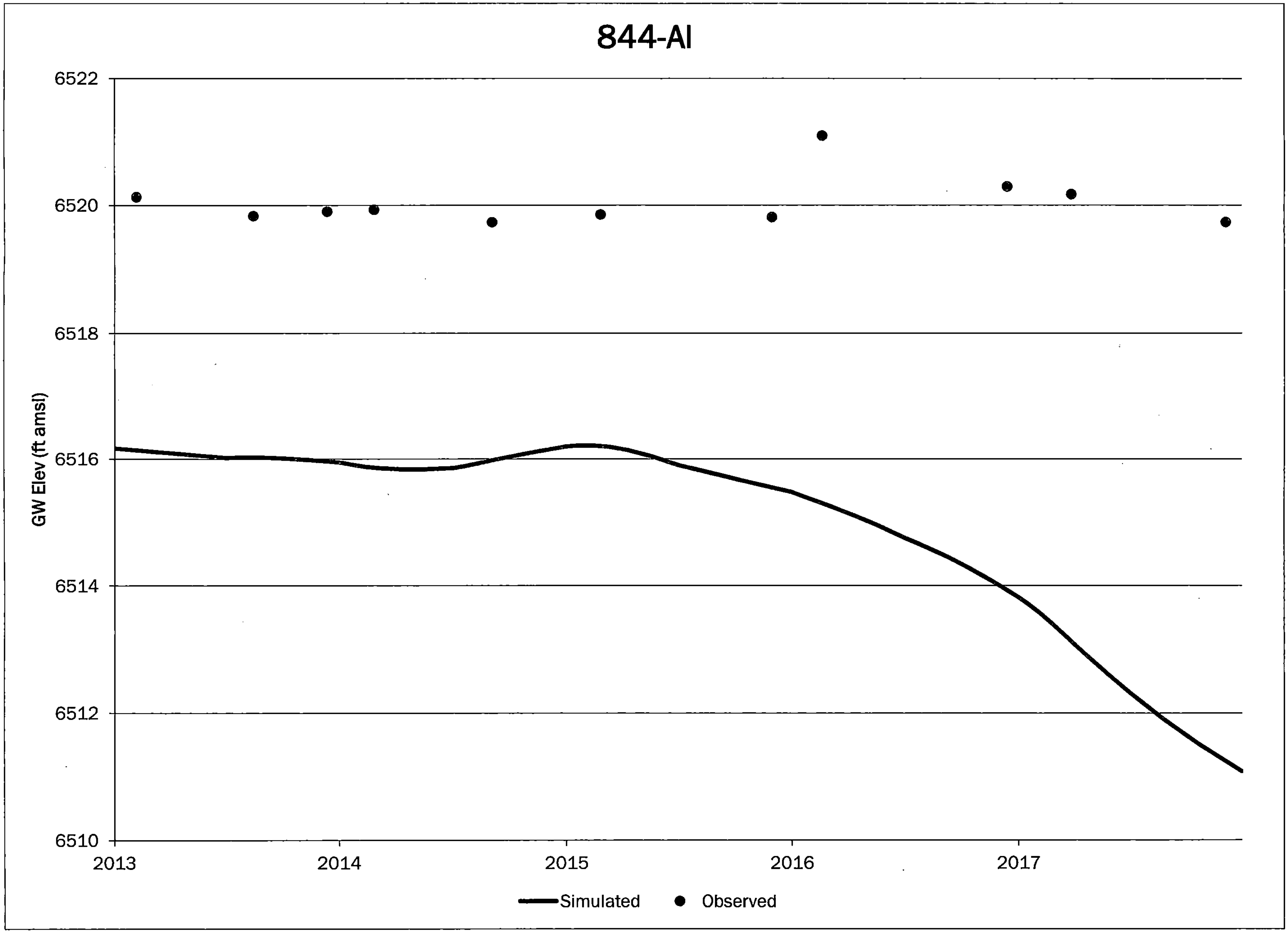
686-AI
GW Elev (ft amsl)
6469
6468
6467
6466
6465
6464
6463
6462
6461
6460
6459
2013
2014
2015
2016
2017
Simulated
Observed



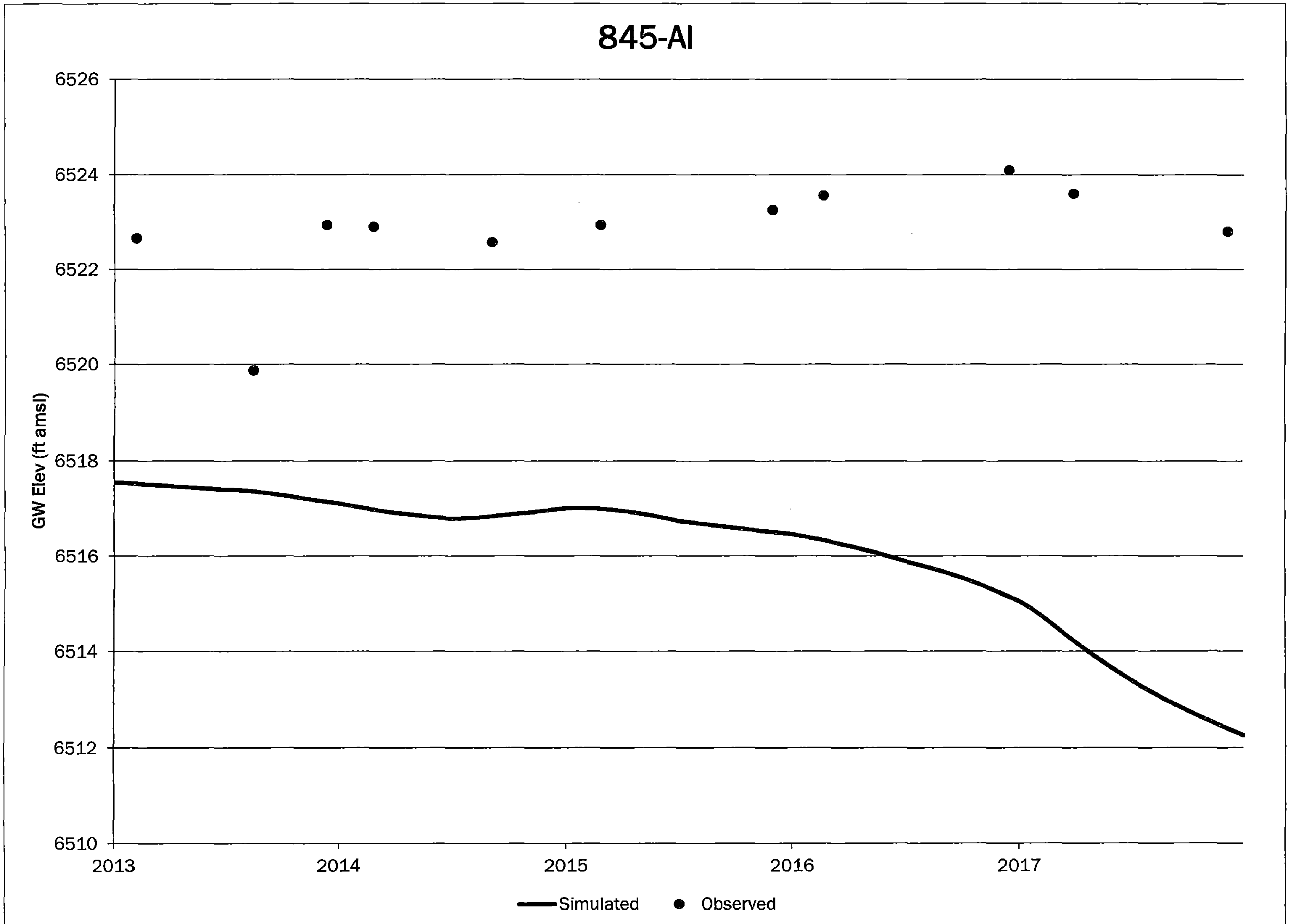
688-AI
6508
6507
6506
6505
6504
6503
6502
6501
6500
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



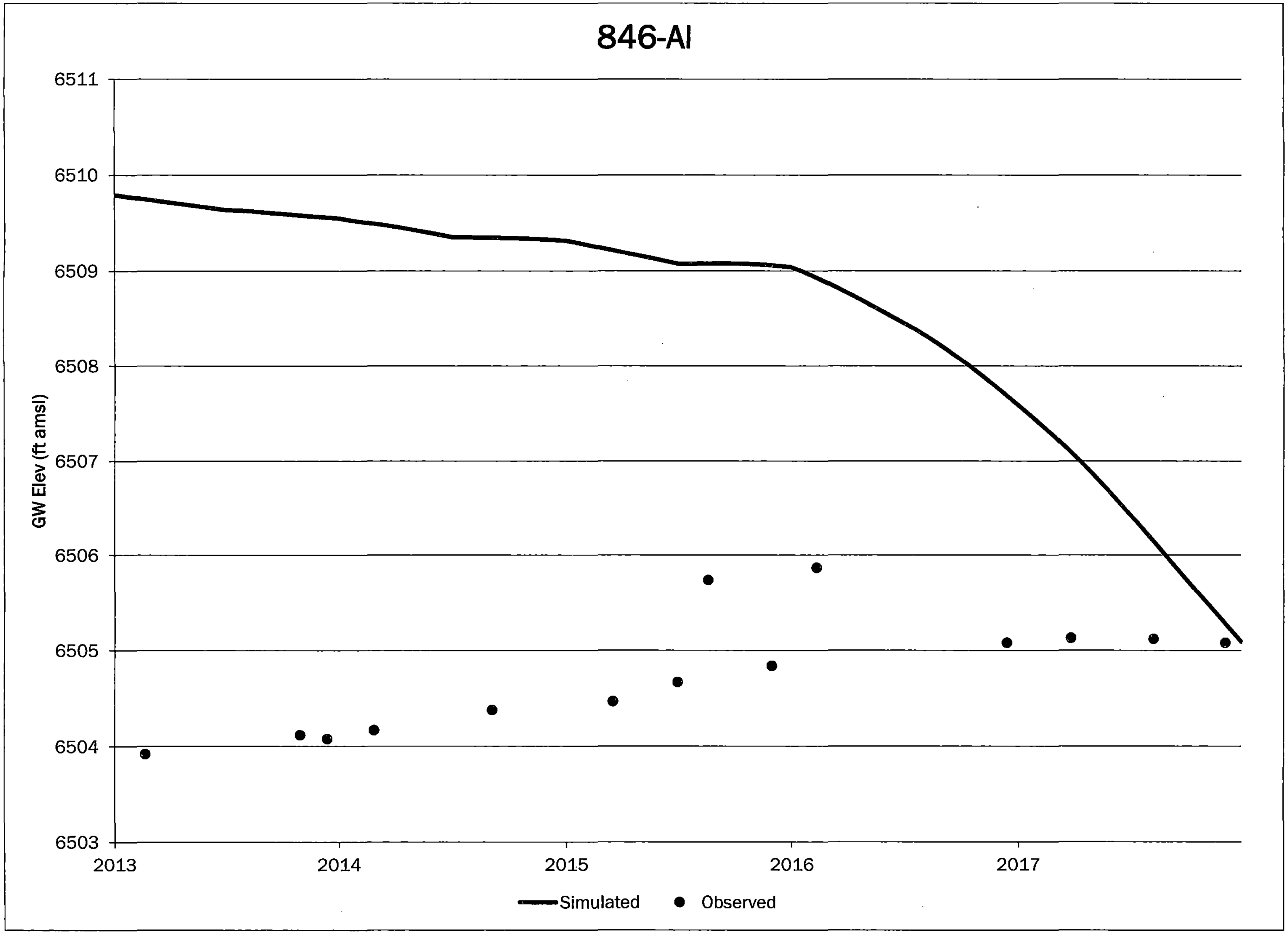
690-AI
6550
6548
6546
6544
6542
6540
6538
6536
6534
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



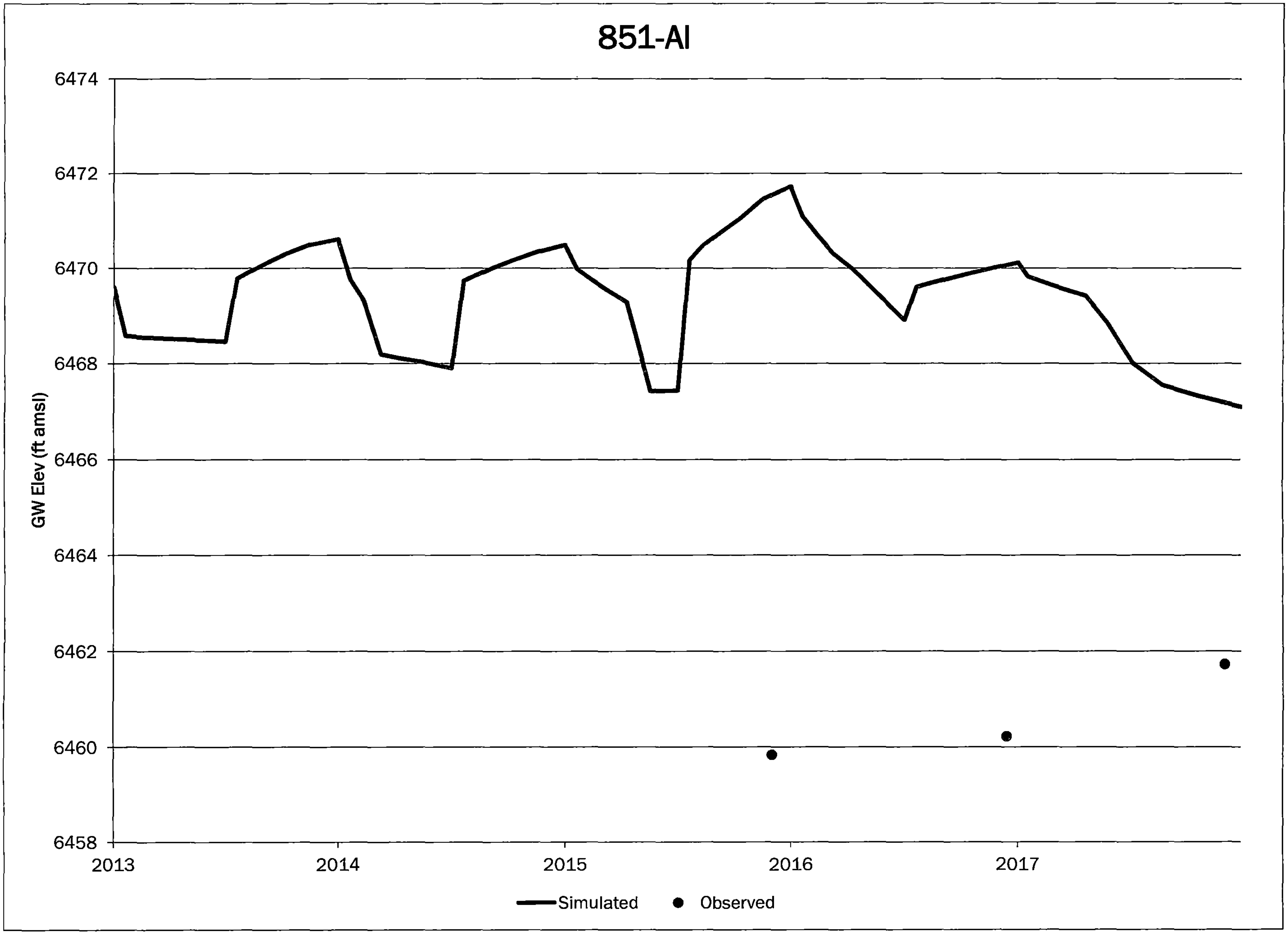
844-Al
GW Elev (ft amsl)
6522
6520
6518
6516
6514
6512
6510
2013
2014
2015
2016
2017
Simulated
Observed



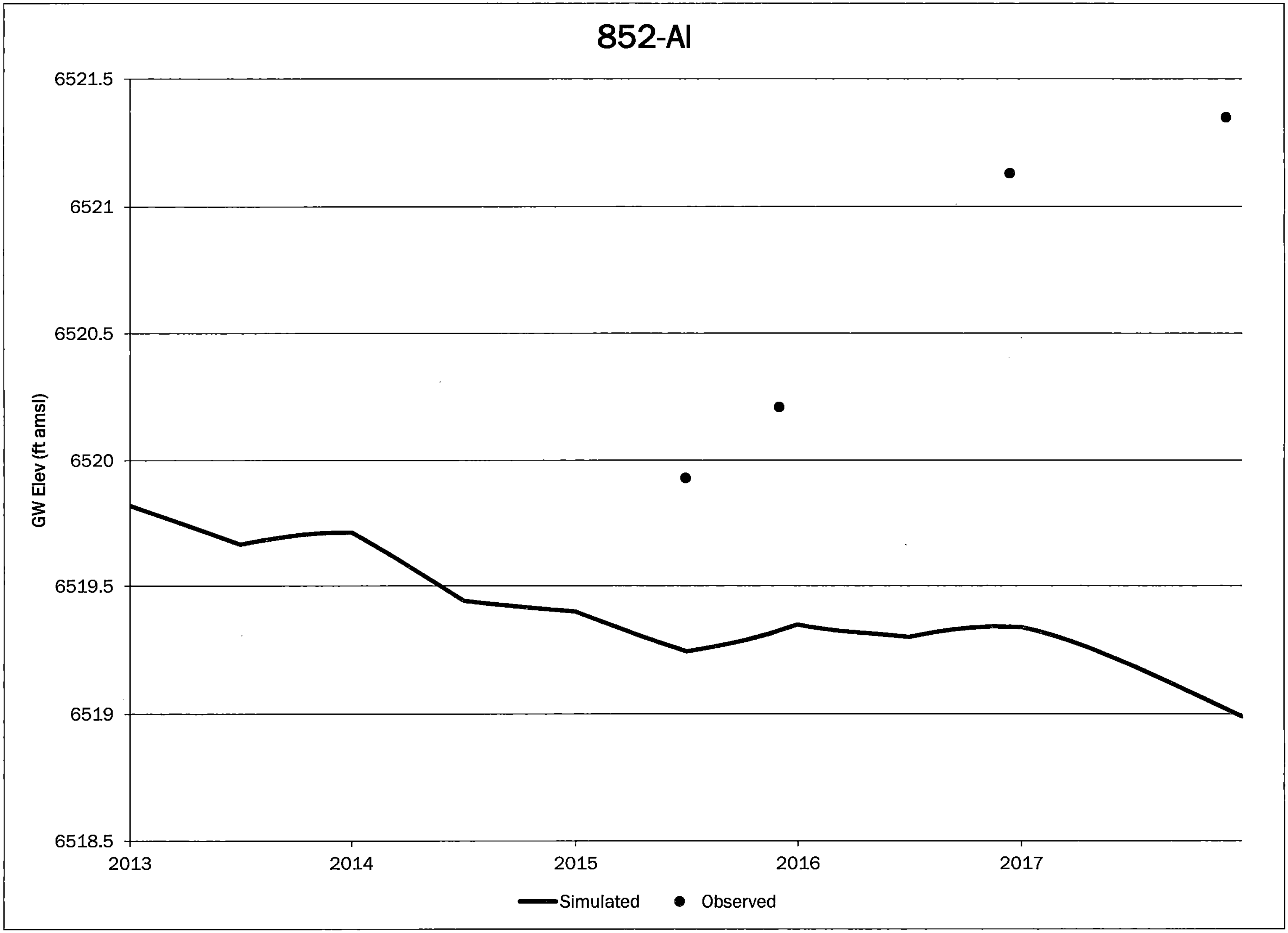
845-AI
GW Elev (ft amsl)
6526
6524
6522
6520
6518
6516
6514
6512
6510
2013
2014
2015
2016
2017
Simulated
Observed

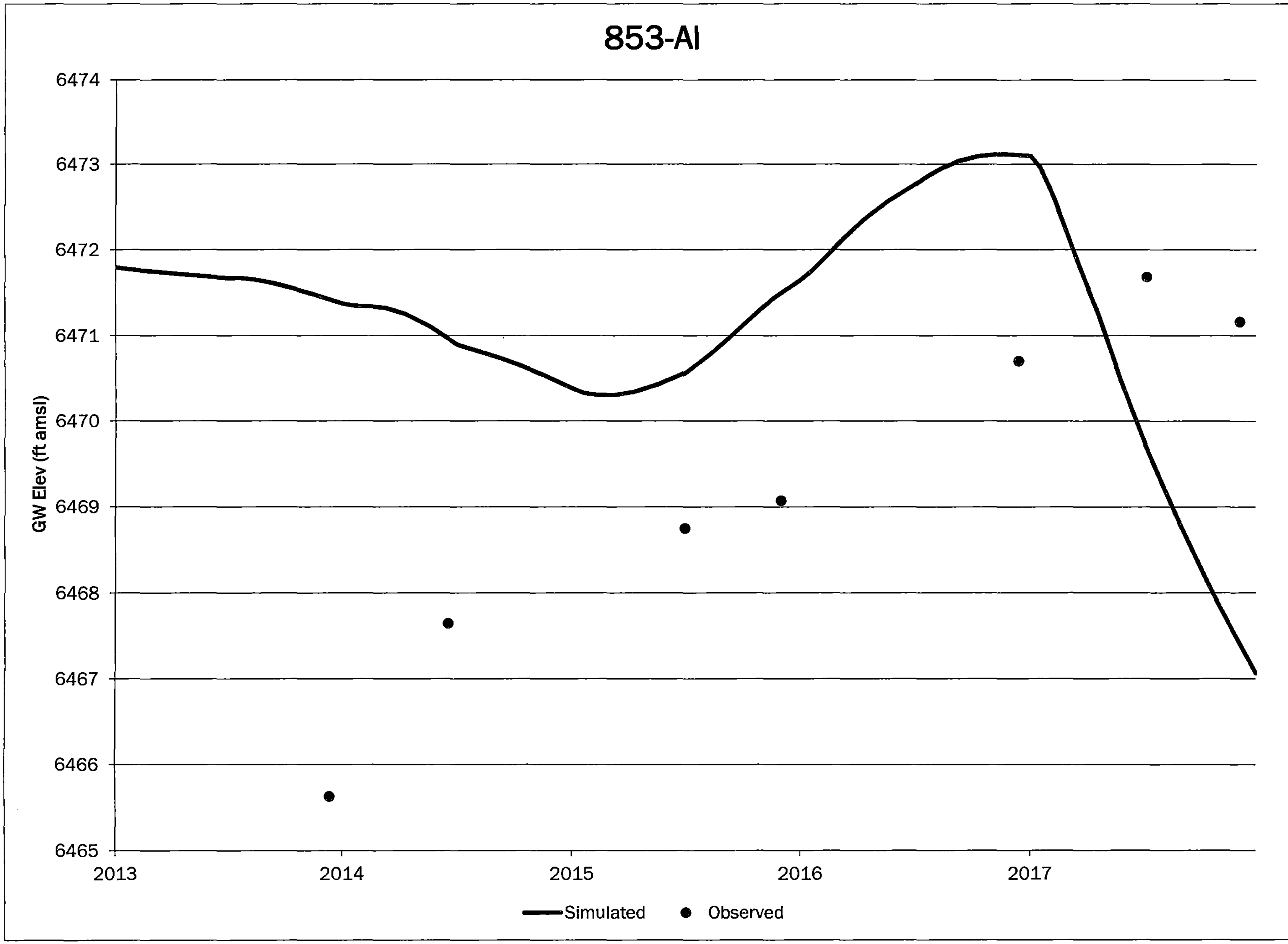


846-AI
GW Elev (ft amsl)
6511
6510
6509
6508
6507
6506
6505
6504
6503
2013
2014
2015
2016
2017
Simulated
Observed

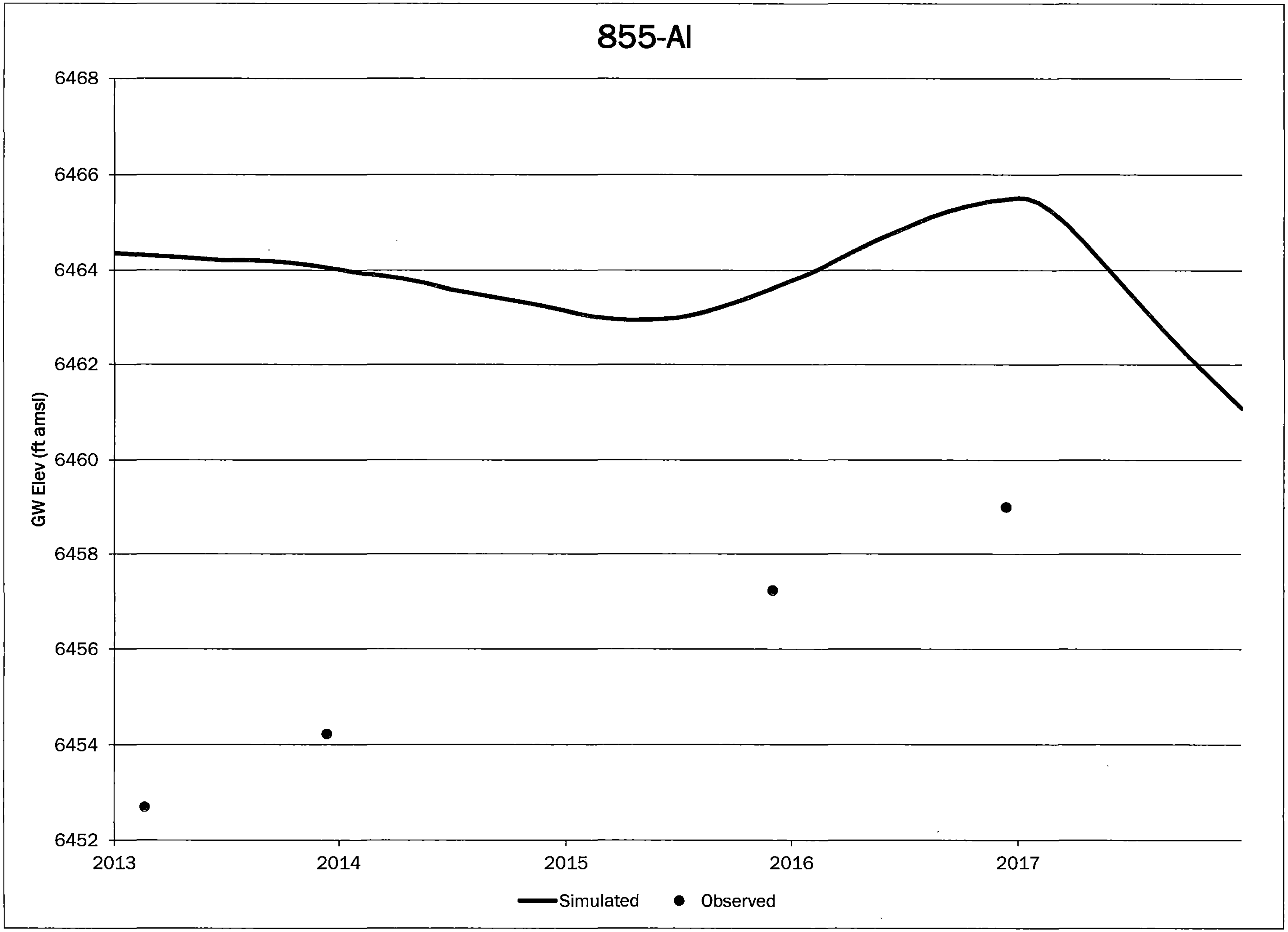


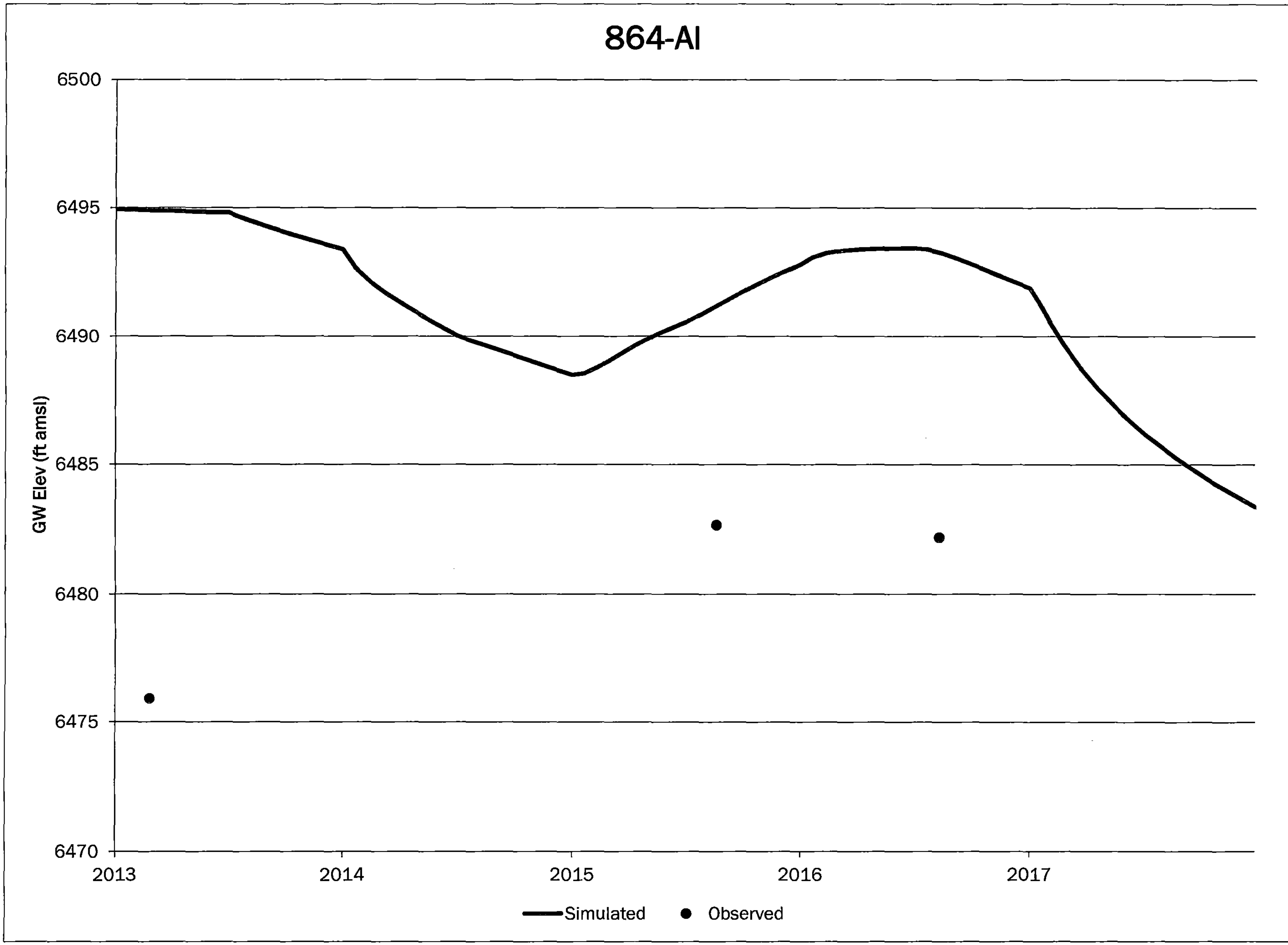
851-AI
GW Elev (ft amsl)
6474
6472
6470
6468
6466
6464
6462
6460
6458
2013
2014
2015
2016
2017
Simulated
Observed


852-AI
6521.5
6521
6520.5
6520
6519.5
6519
6518.5
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

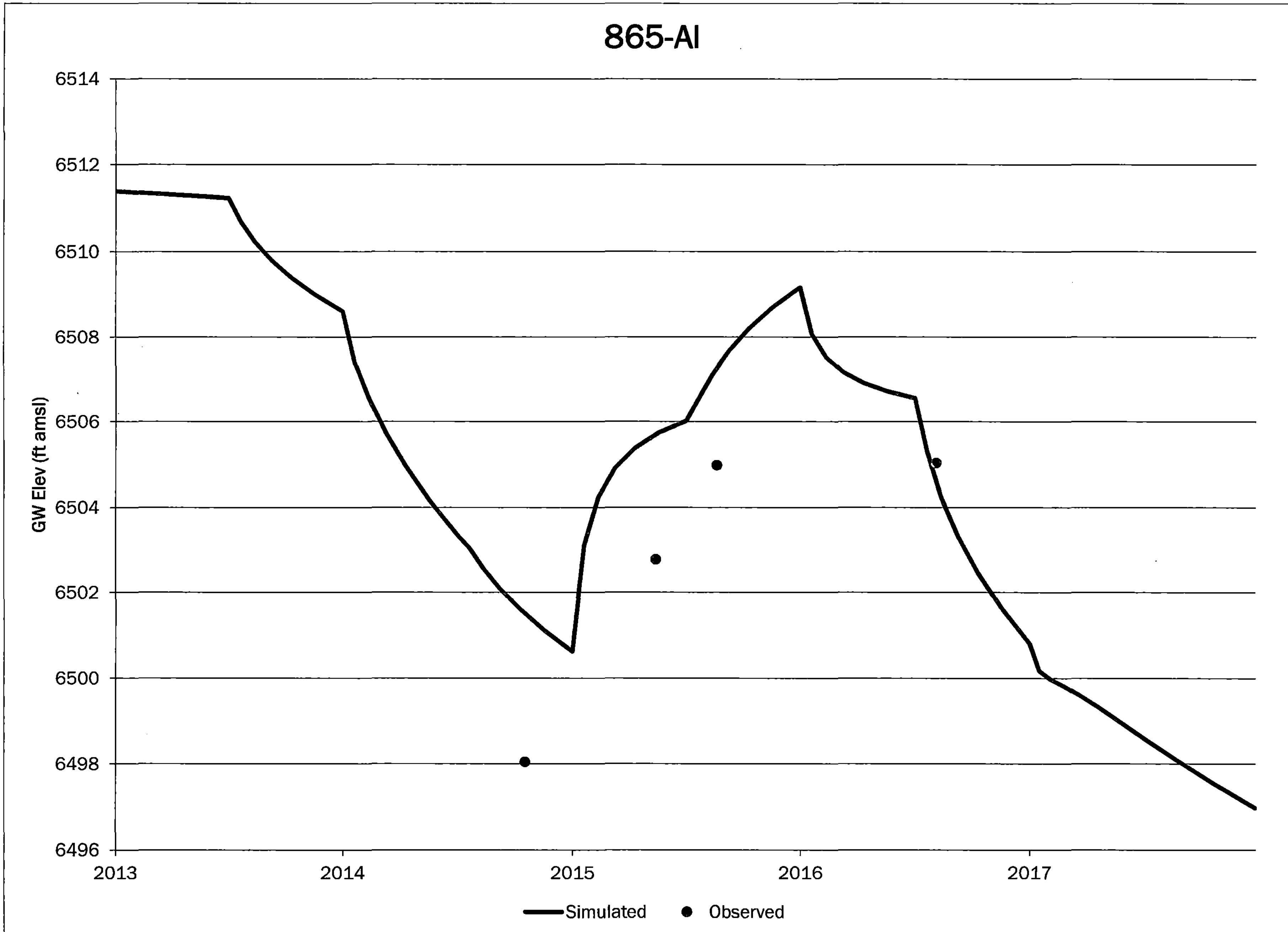


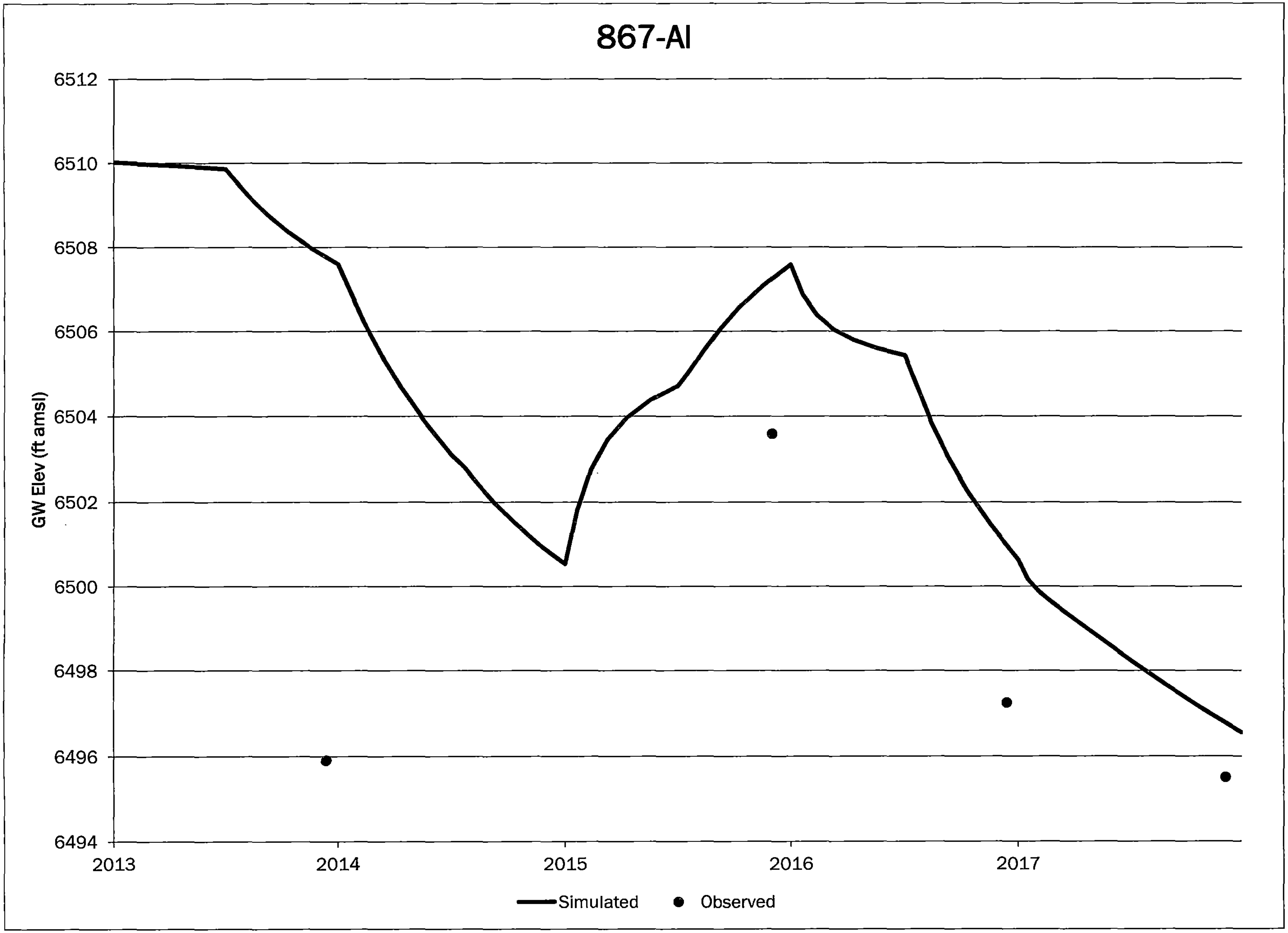
853-AI
6474
6473
6472
6471
6470
6469
6468
6467
6466
6465
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

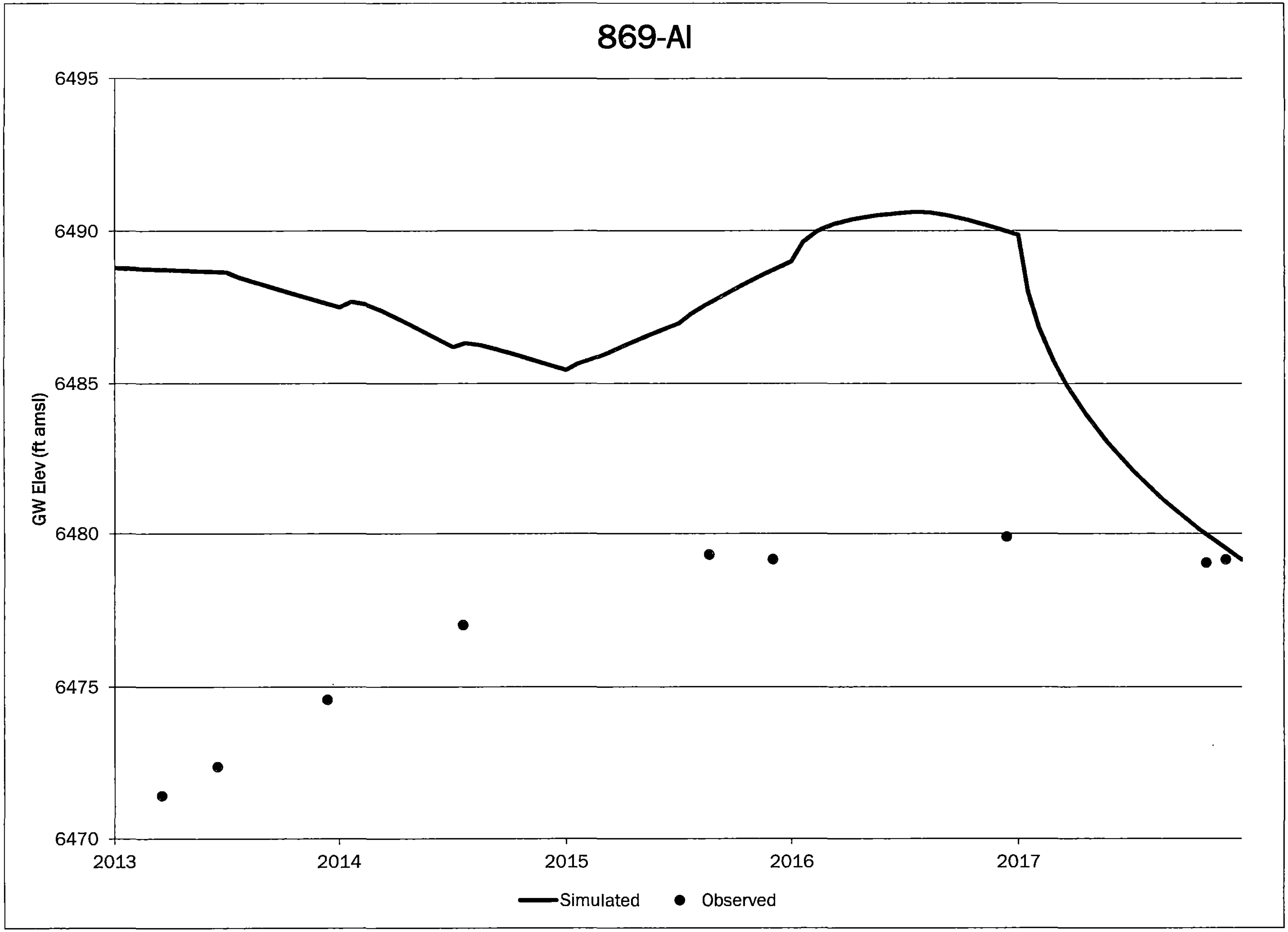

855-Al
GW Elev (ft amsl)
6468
6466
6464
6462
6460
6458
6456
6454
6452
2013
2014
2015
2016
2017
Simulated
Observed



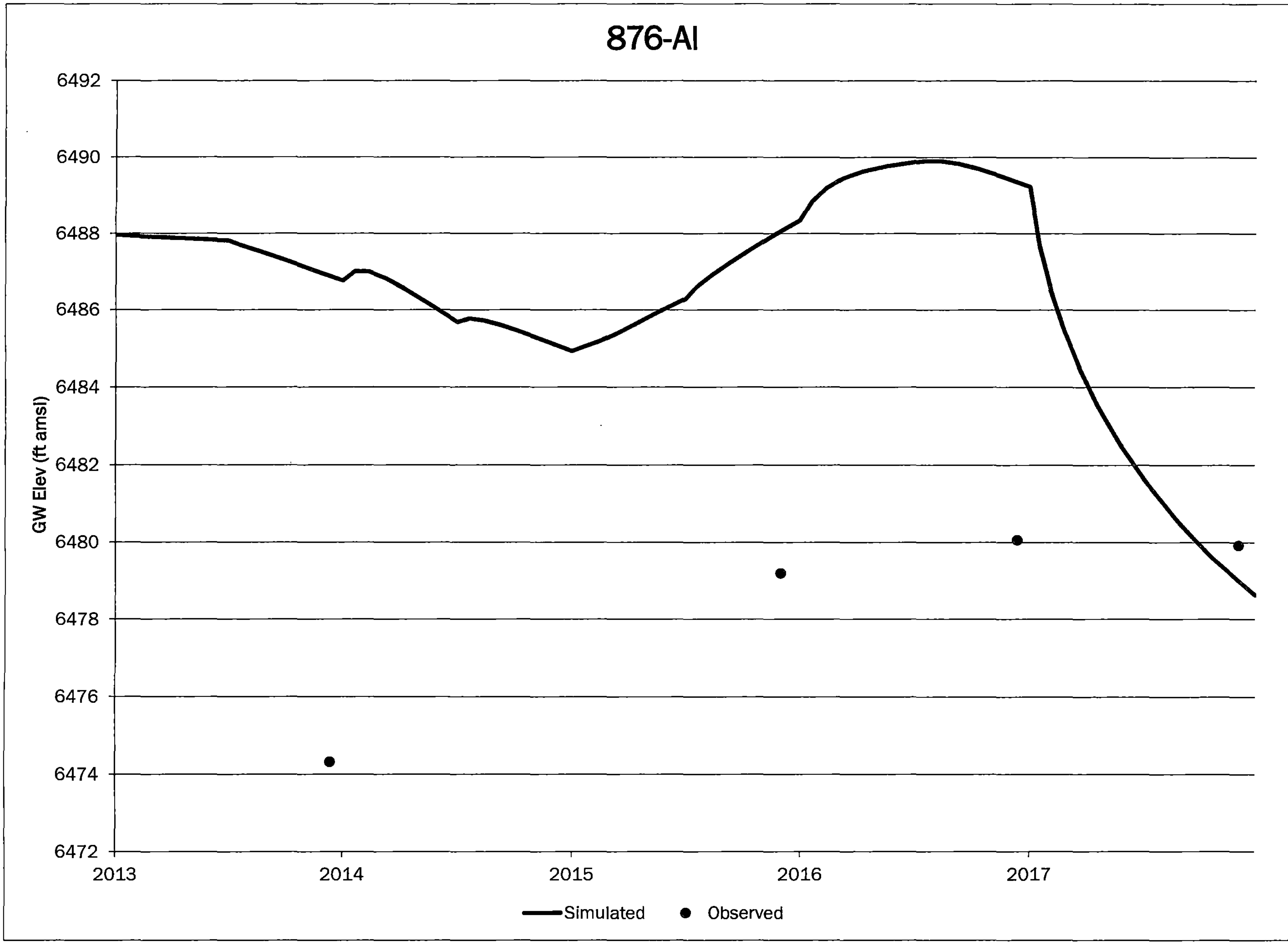
864-AI
6500
6495
6490
6485
6480
6475
6470
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

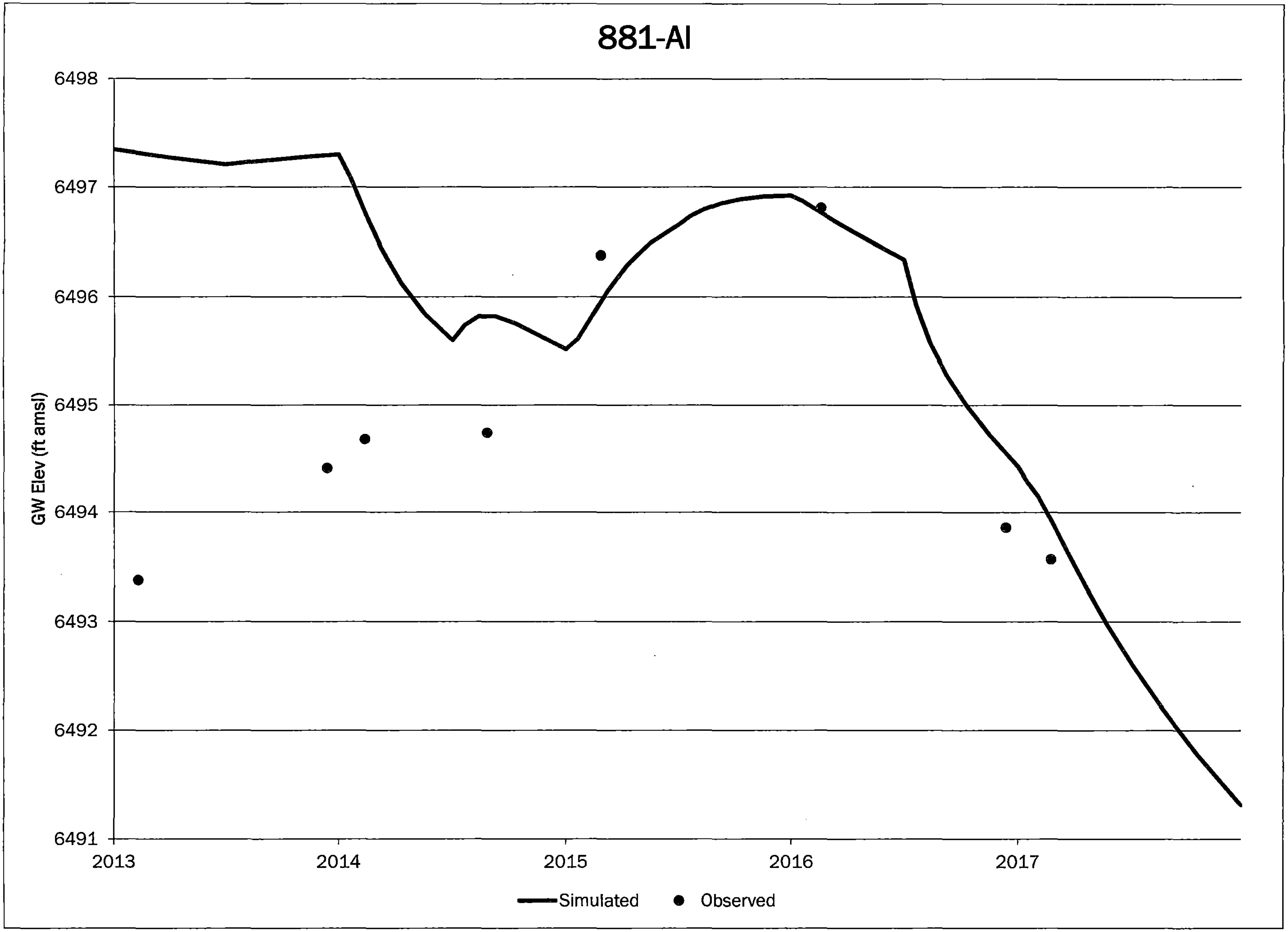

865-AI
GW Elev (ft amsl)
6514
6512
6510
6508
6506
6504
6502
6500
6498
6496
2013
2014
2015
2016
2017
Simulated
Observed

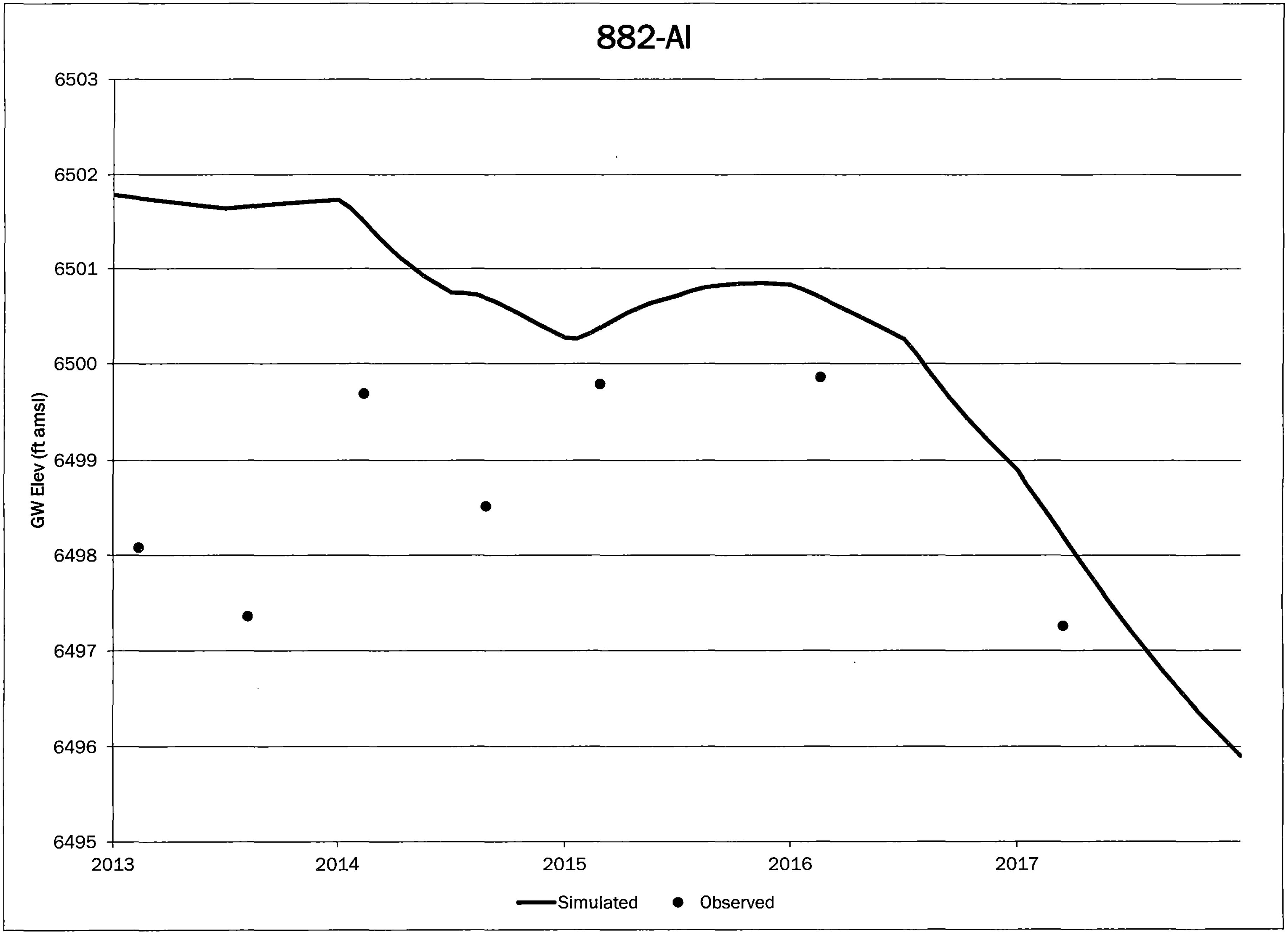

867-Al
GW Elev (ft amsl)
6512
6510
6508
6506
6504
6502
6500
6498
6496
6494
2013
2014
2015
2016
2017
Simulated
Observed

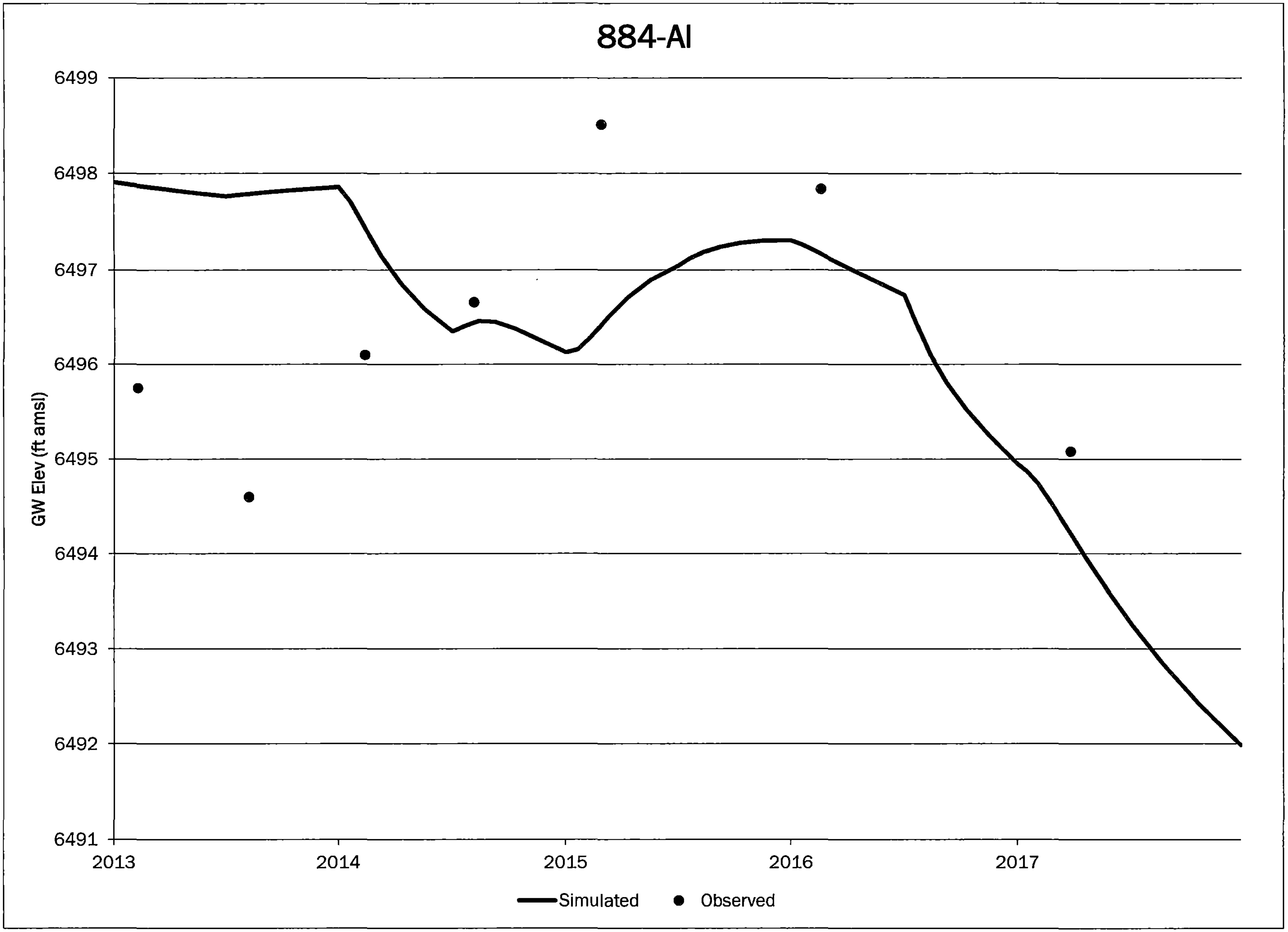


869-Al
6495
6490
6485
6480
6475
6470
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

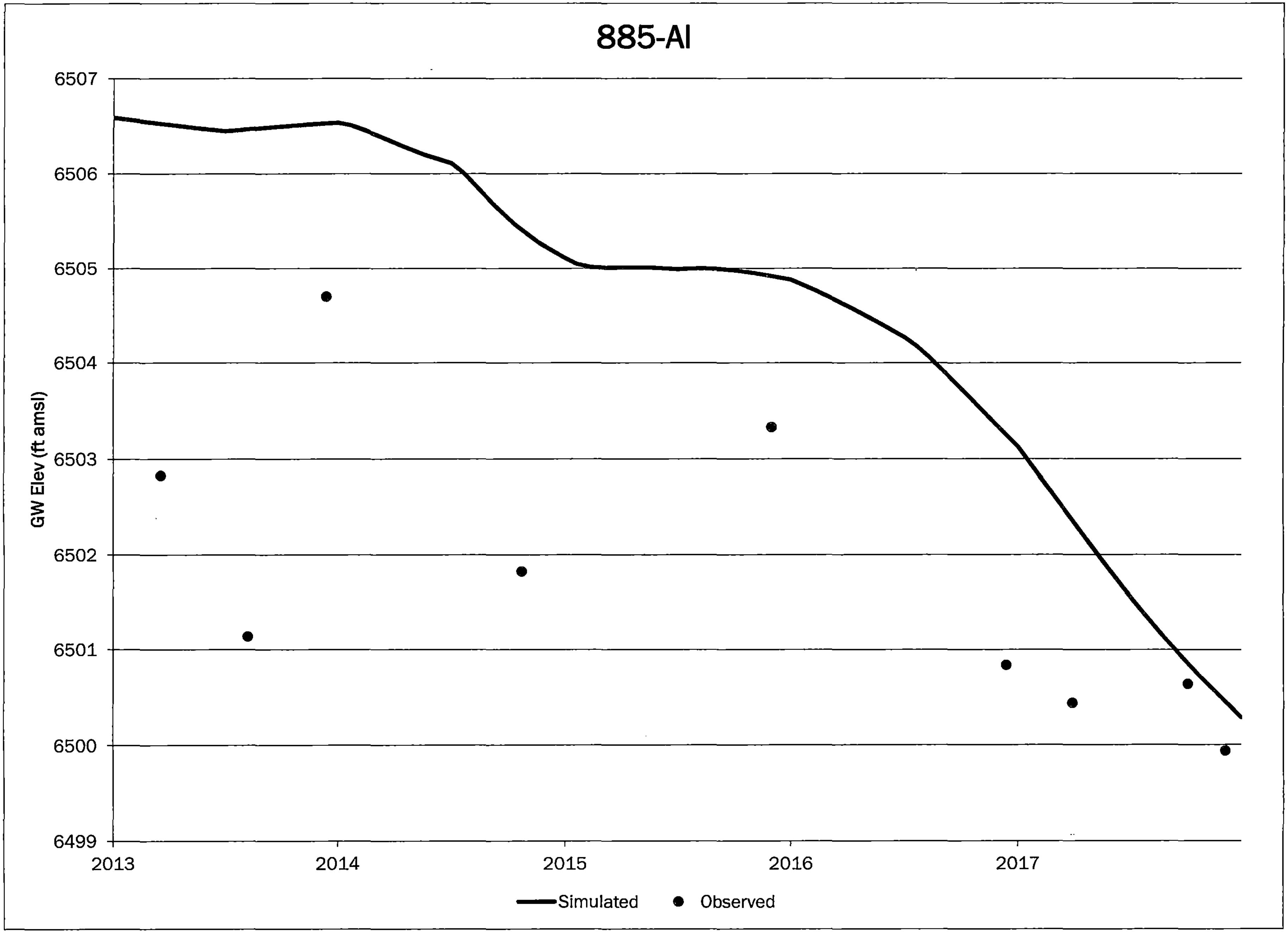

876-AI
GW Elev (ft amsl)
6492
6490
6488
6486
6484
6482
6480
6478
6476
6474
6472
2013
2014
2015
2016
2017
Simulated
Observed


881-AI
GW Elev (ft amsl)
6498
6497
6496
6495
6494
6493
6492
6491
2013
2014
2015
2016
2017
Simulated
Observed

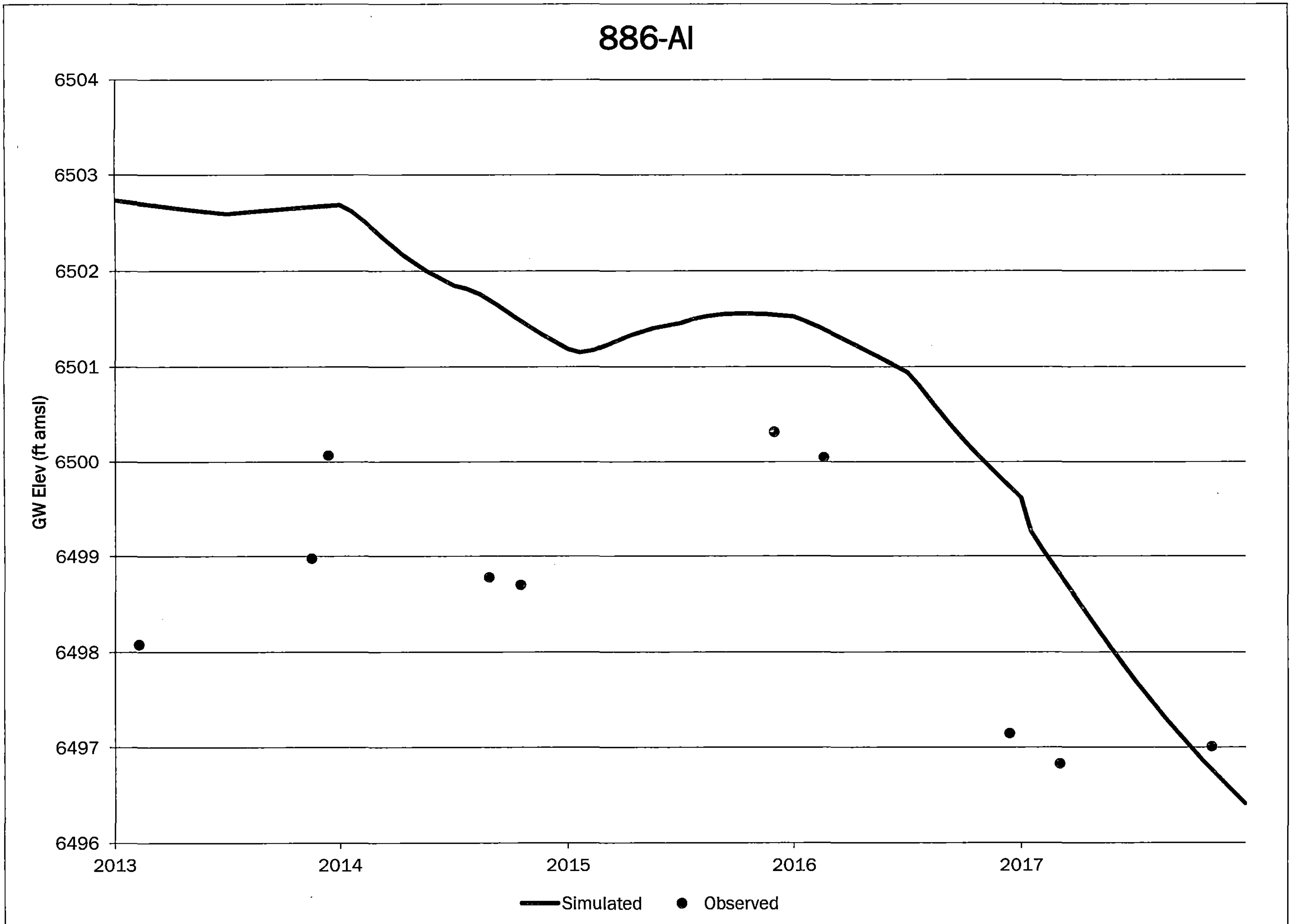

882-AI
GW Elev (ft amsl)
6503
6502
6501
6500
6499
6498
6497
6496
6495
2013
2014
2015
2016
2017
Simulated
Observed



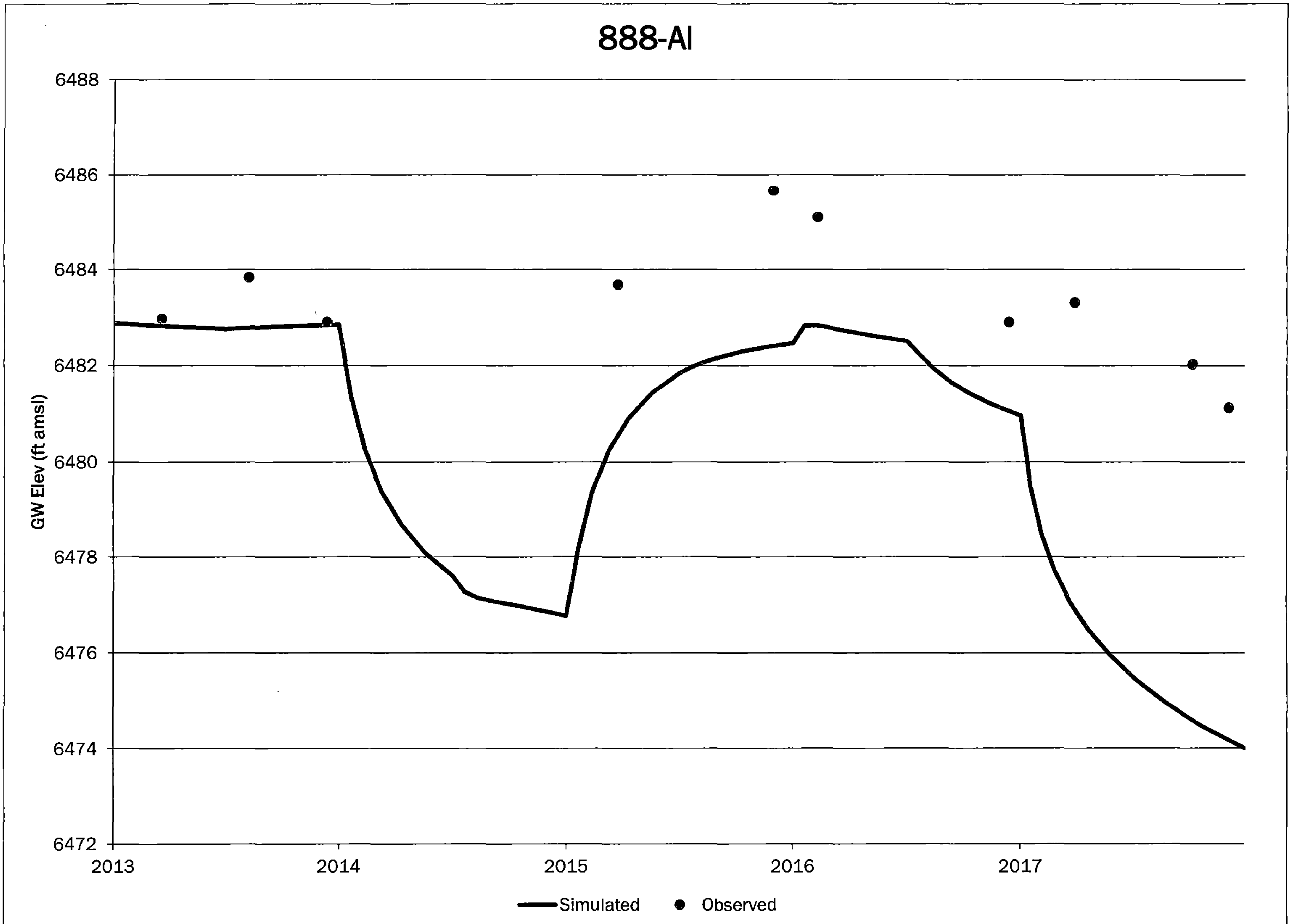
884-AI
GW Elev (ft amsl)
6499
6498
6497
6496
6495
6494
6493
6492
6491
2013
2014
2015
2016
2017
Simulated
Observed



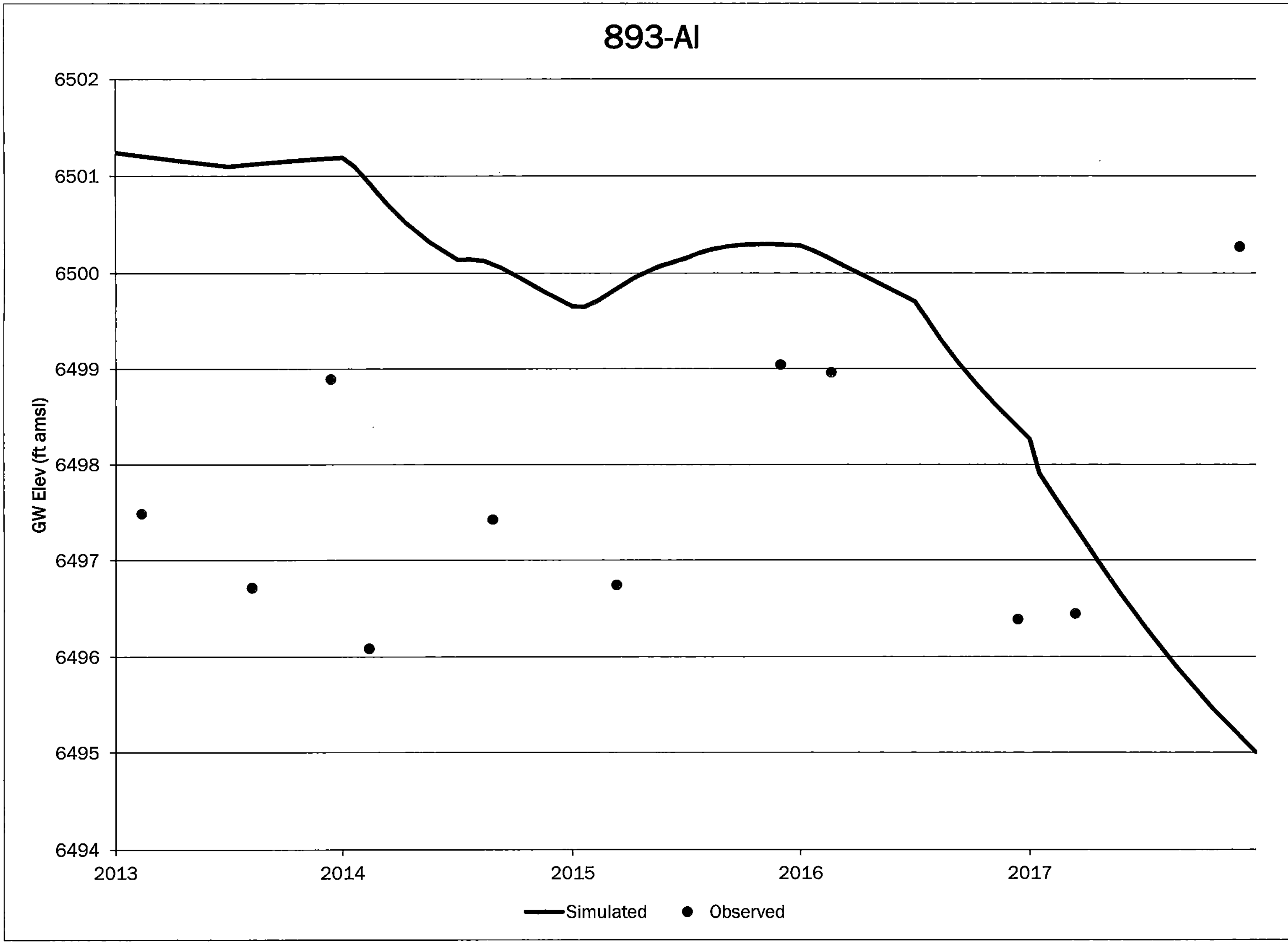
885-AI
6507
6506
6505
6504
6503
6502
6501
6500
6499
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



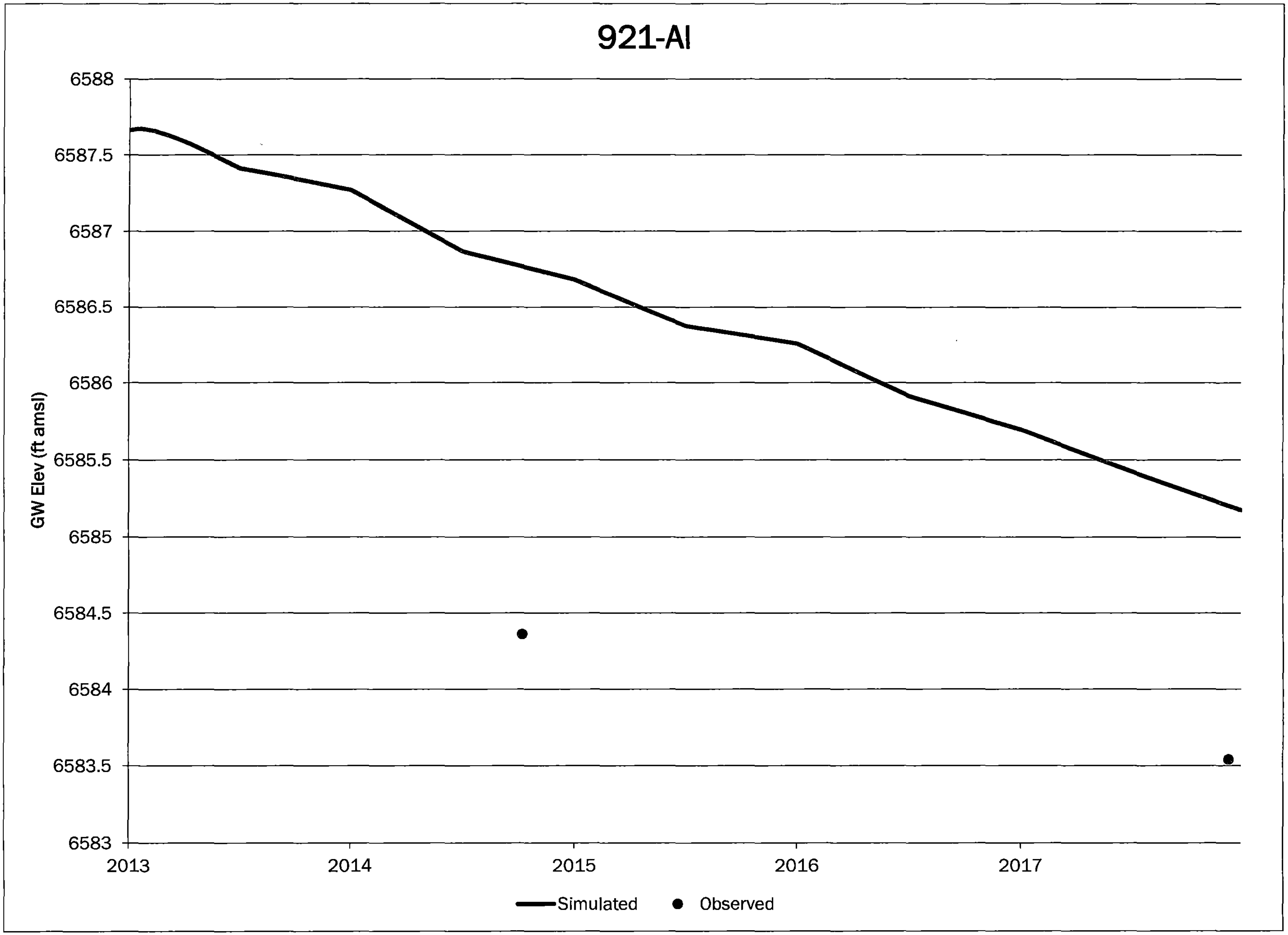
886-AI
GW Elev (ft amsl)
6504
6503
6502
6501
6500
6499
6498
6497
6496
2013
2014
2015
2016
2017
Simulated
Observed



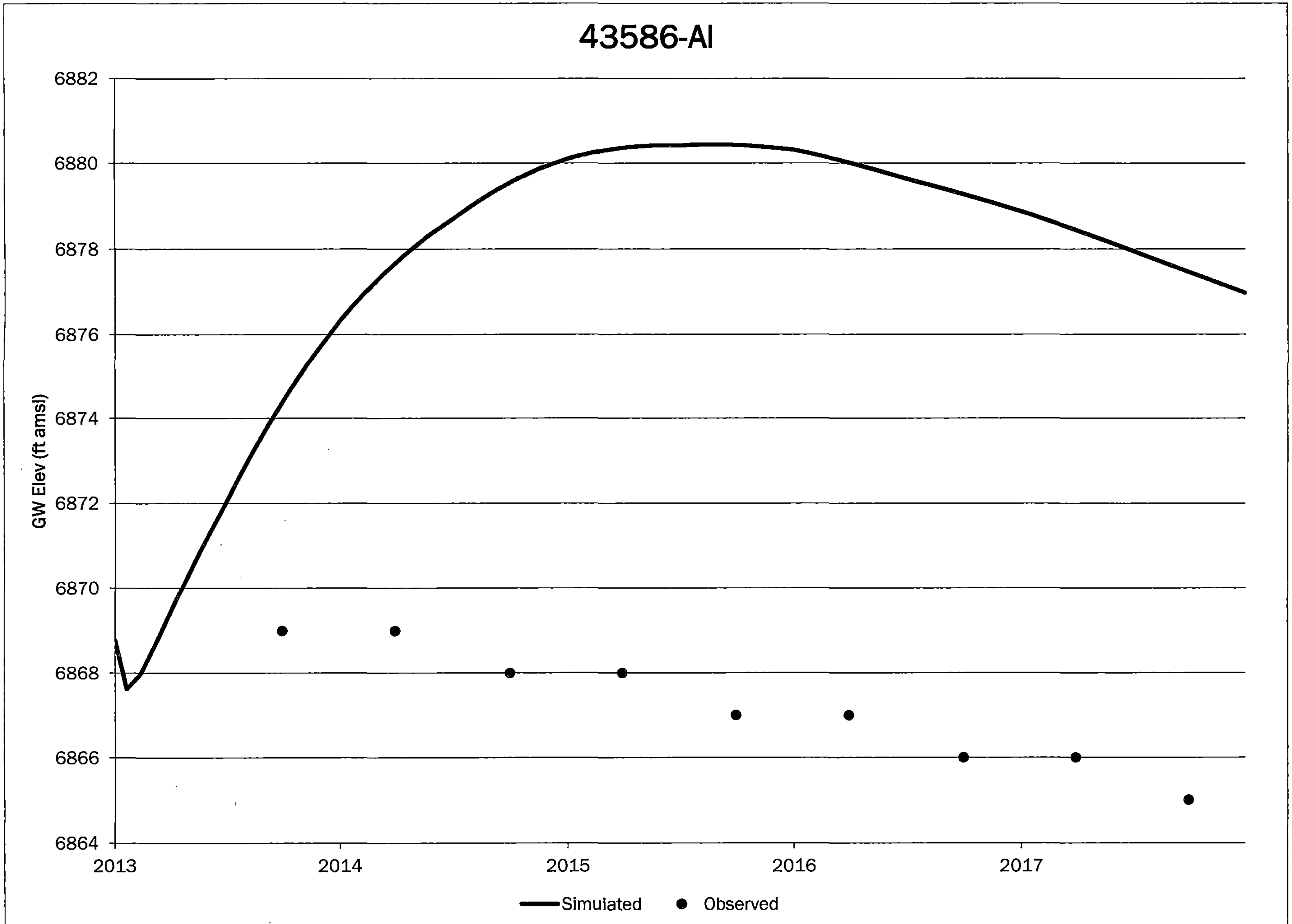
888-AI
6488
6486
6484
6482
6480
6478
6476
6474
6472
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



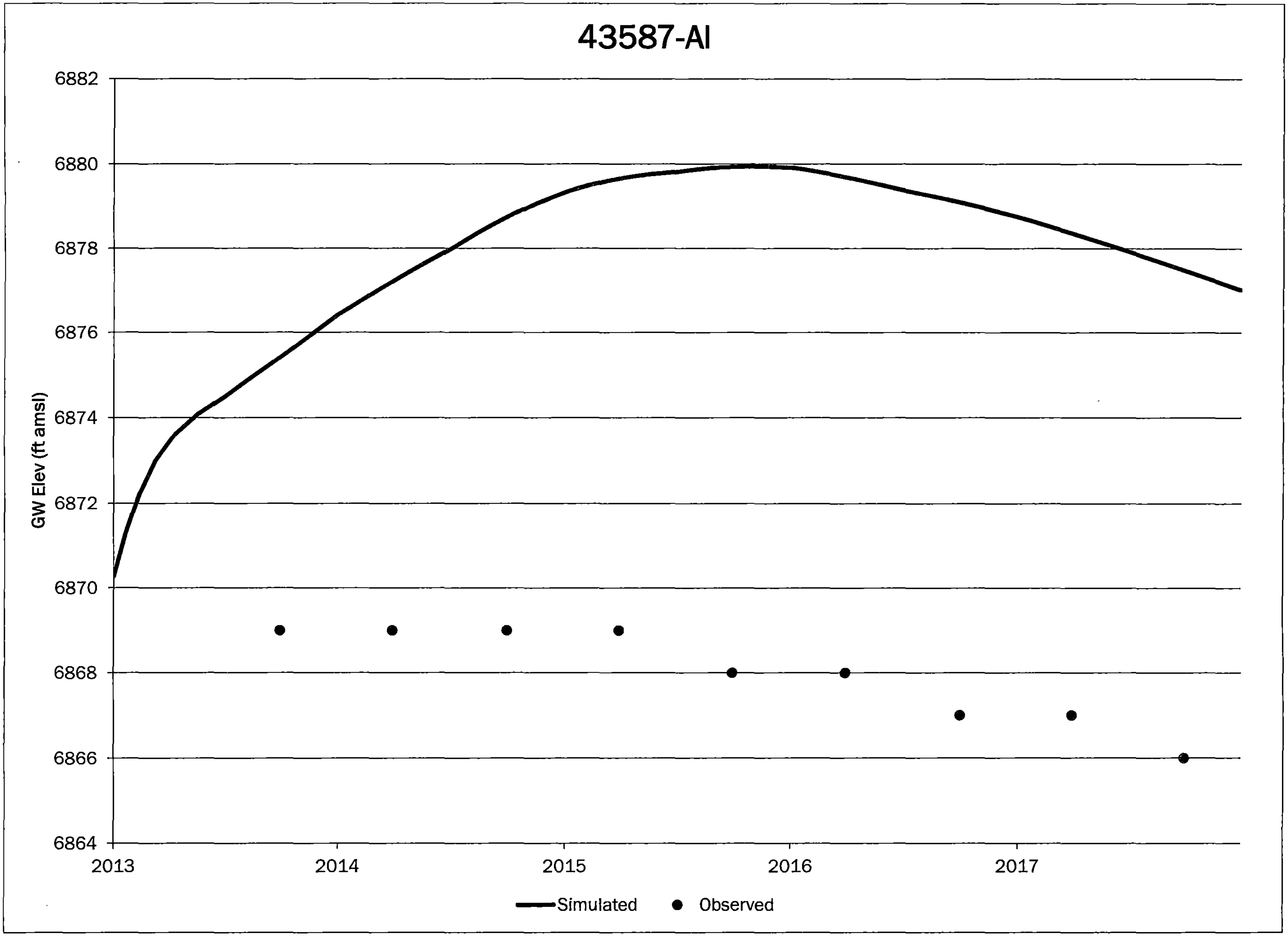
893-Al
6502
6501
6500
6499
6498
6497
6496
6495
6494
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

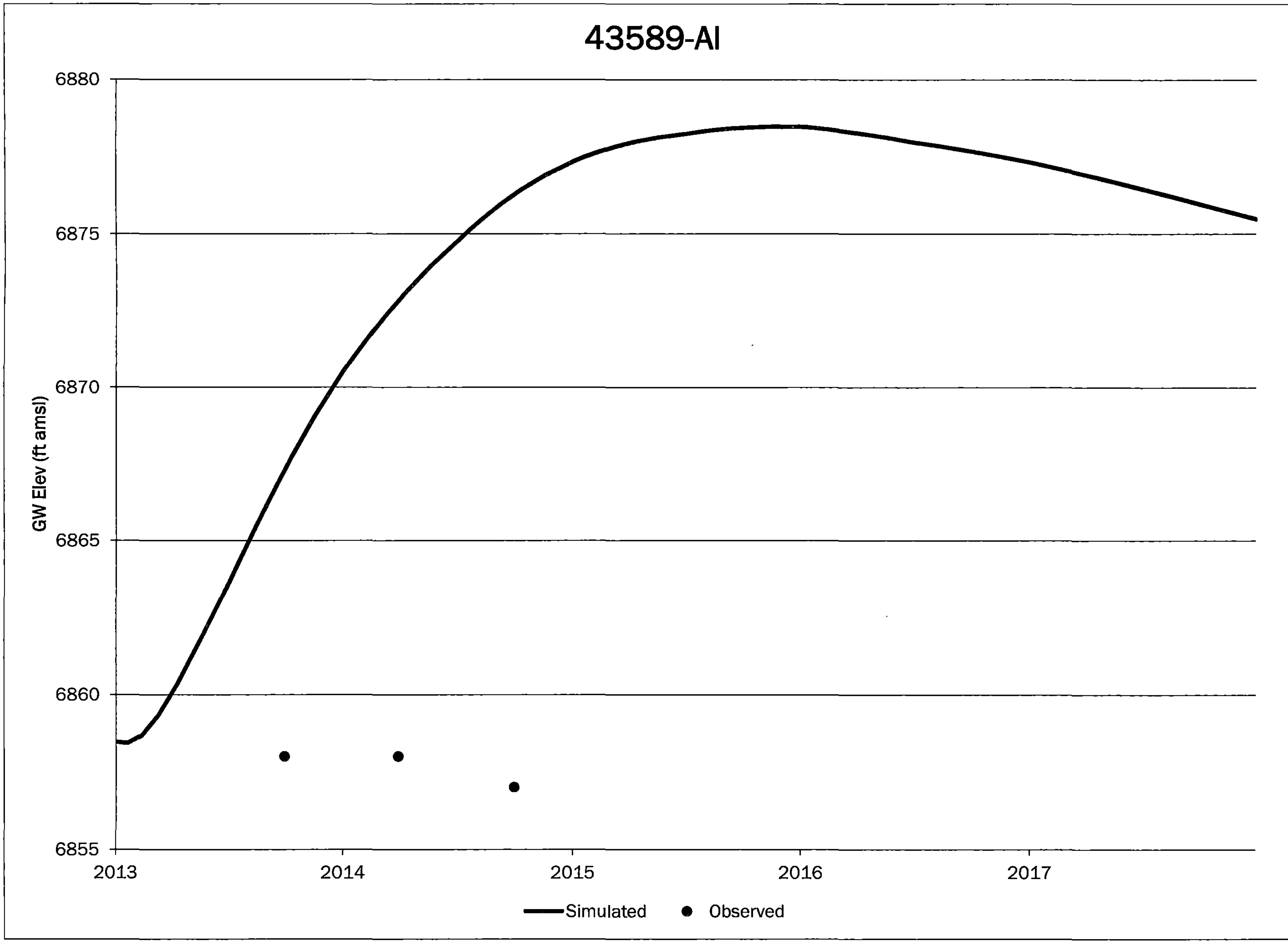


921-AI
6588
6587.5
6587
6586.5
6586
6585.5
6585
6584.5
6584
6583.5
6583
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



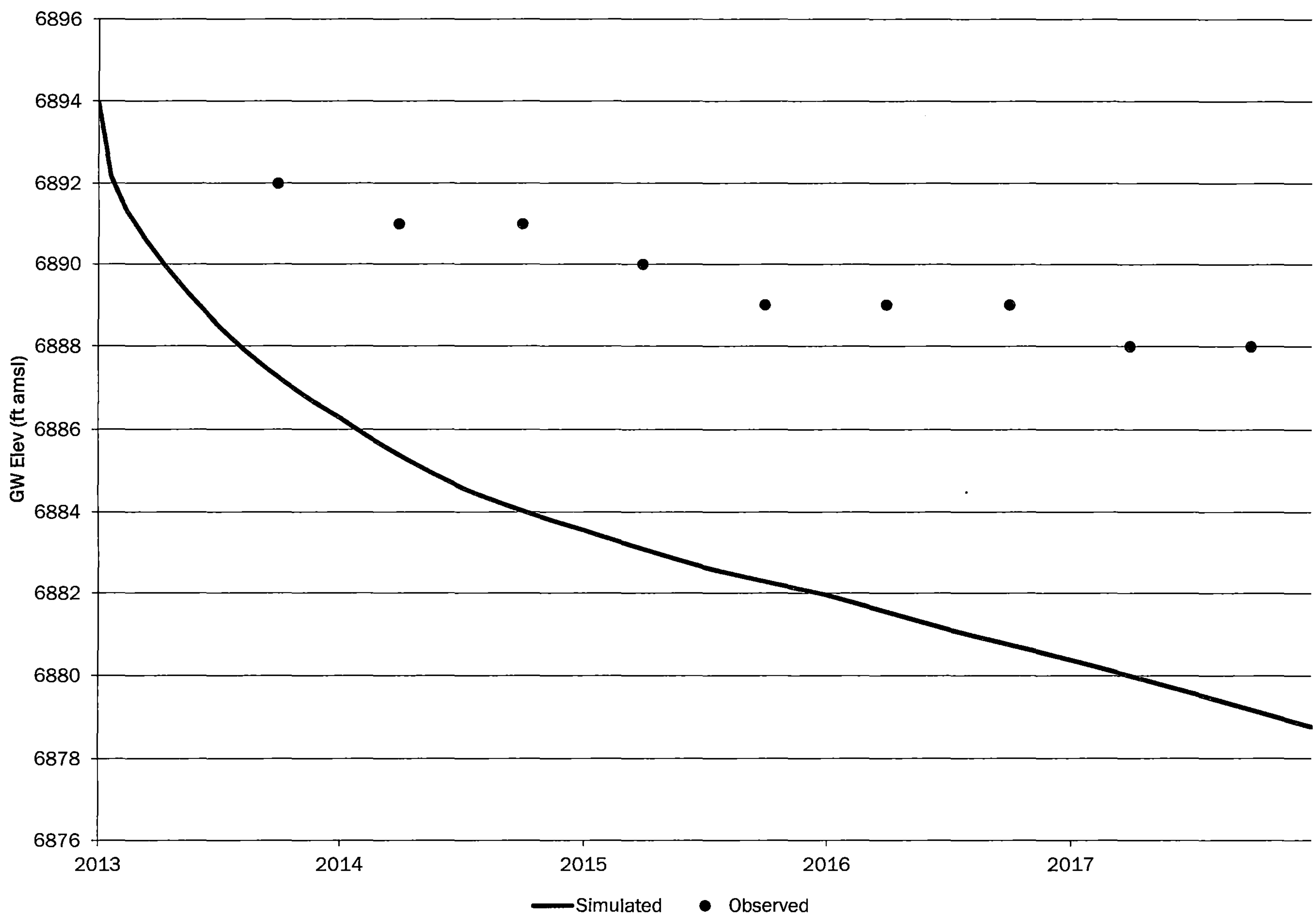
43586-AI
GW Elev (ft amsl)
6882
6880
6878
6876
6874
6872
6870
6868
6866
6864
2013
2014
2015
2016
2017
Simulated
Observed

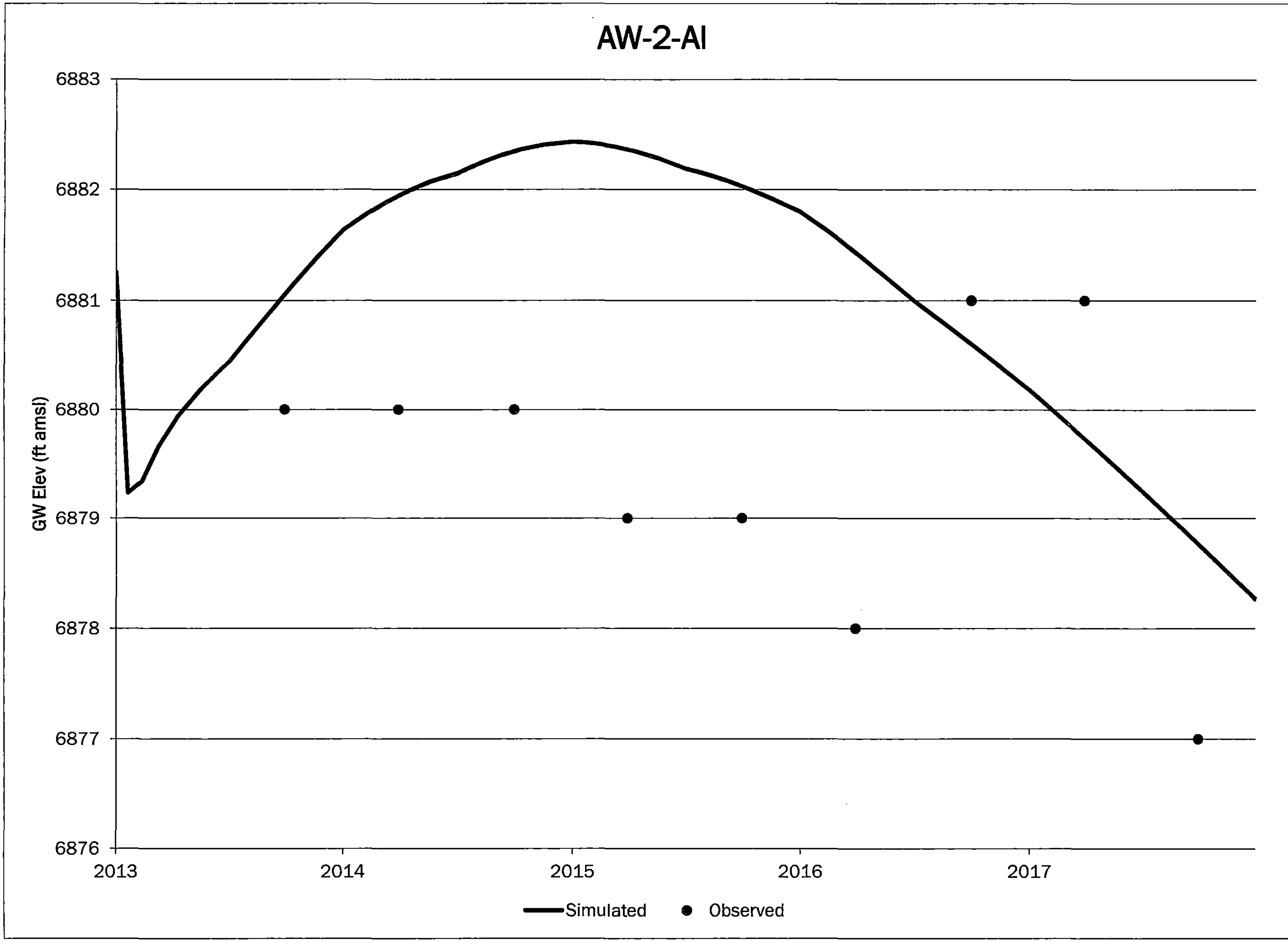

43587-Al
6882
6880
6878
6876
6874
6872
6870
6868
6866
6864
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



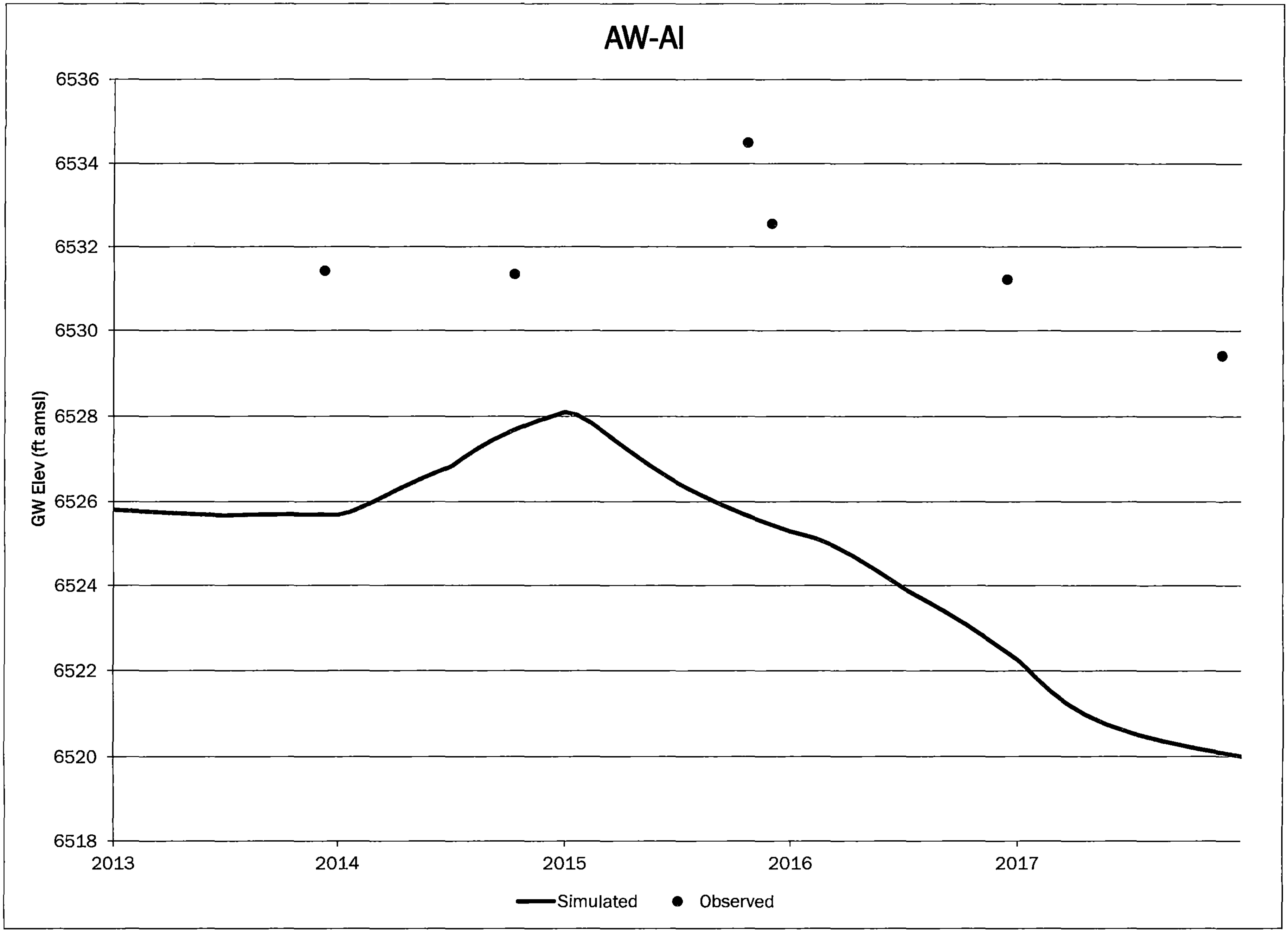
43589-AI
6880
6875
6870
6865
6860
6855
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

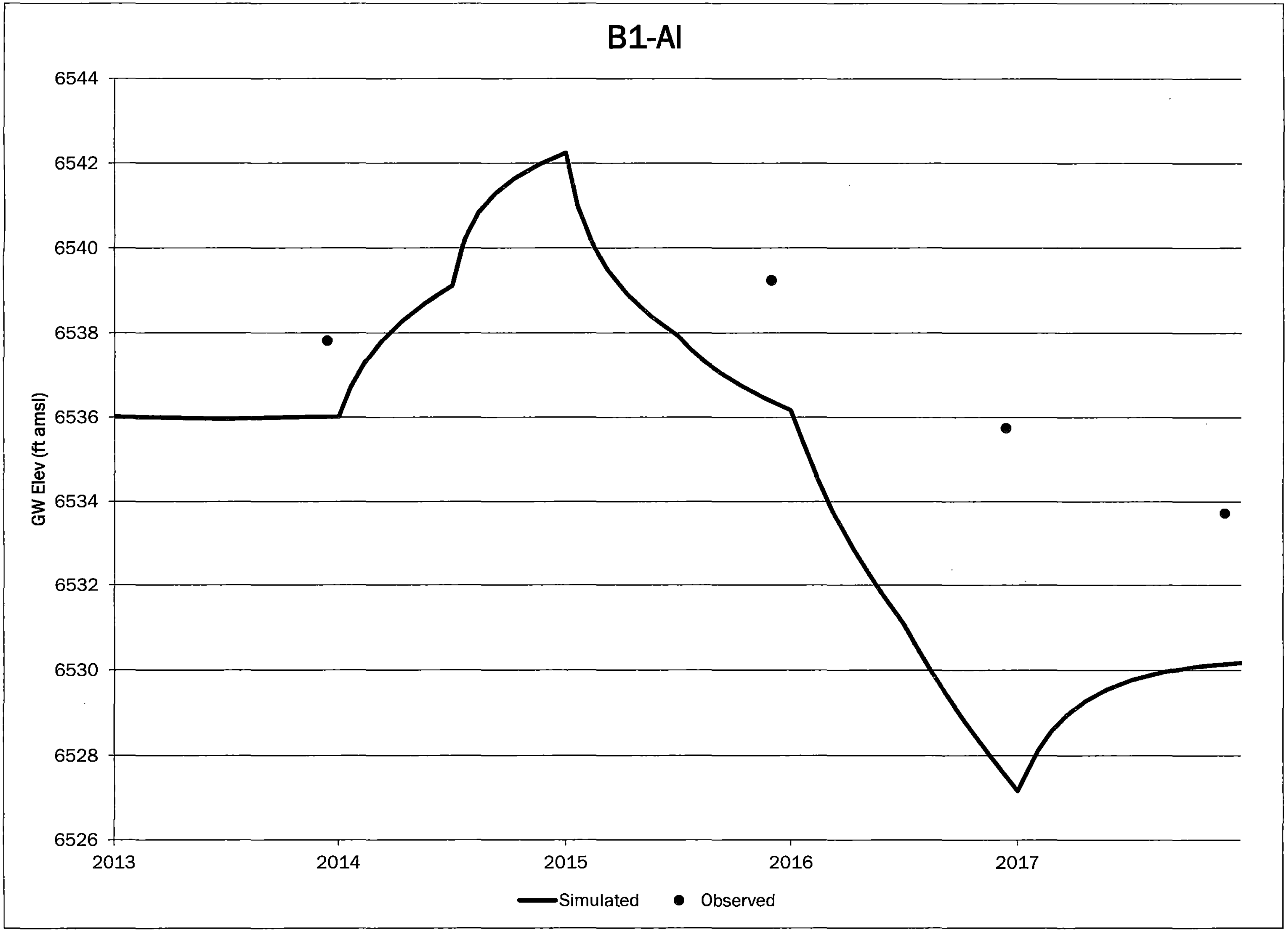
AW-1-AI

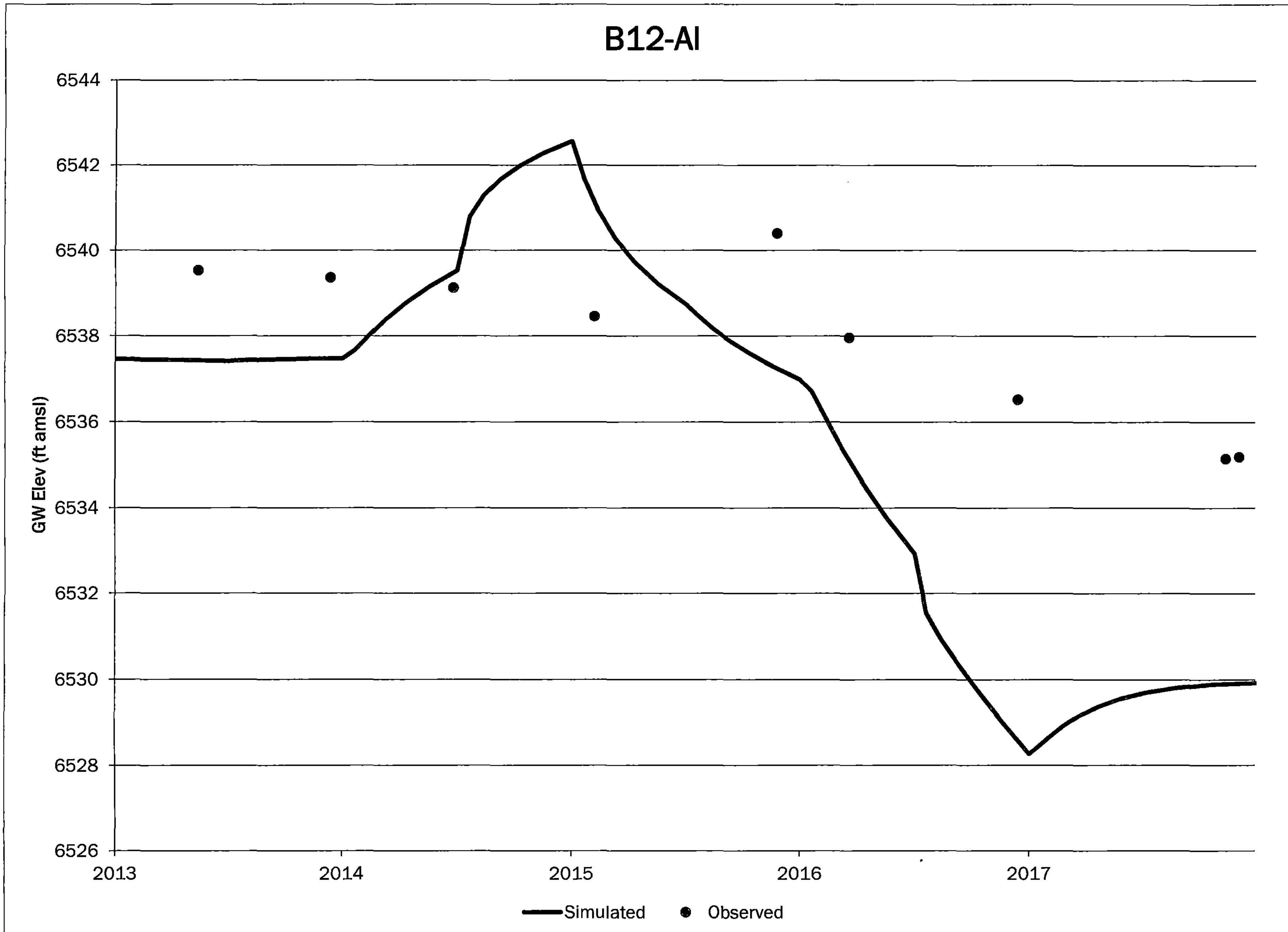

6896
6894
6892
6890
6888
6886
6884
6882
6880
6878
6876
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

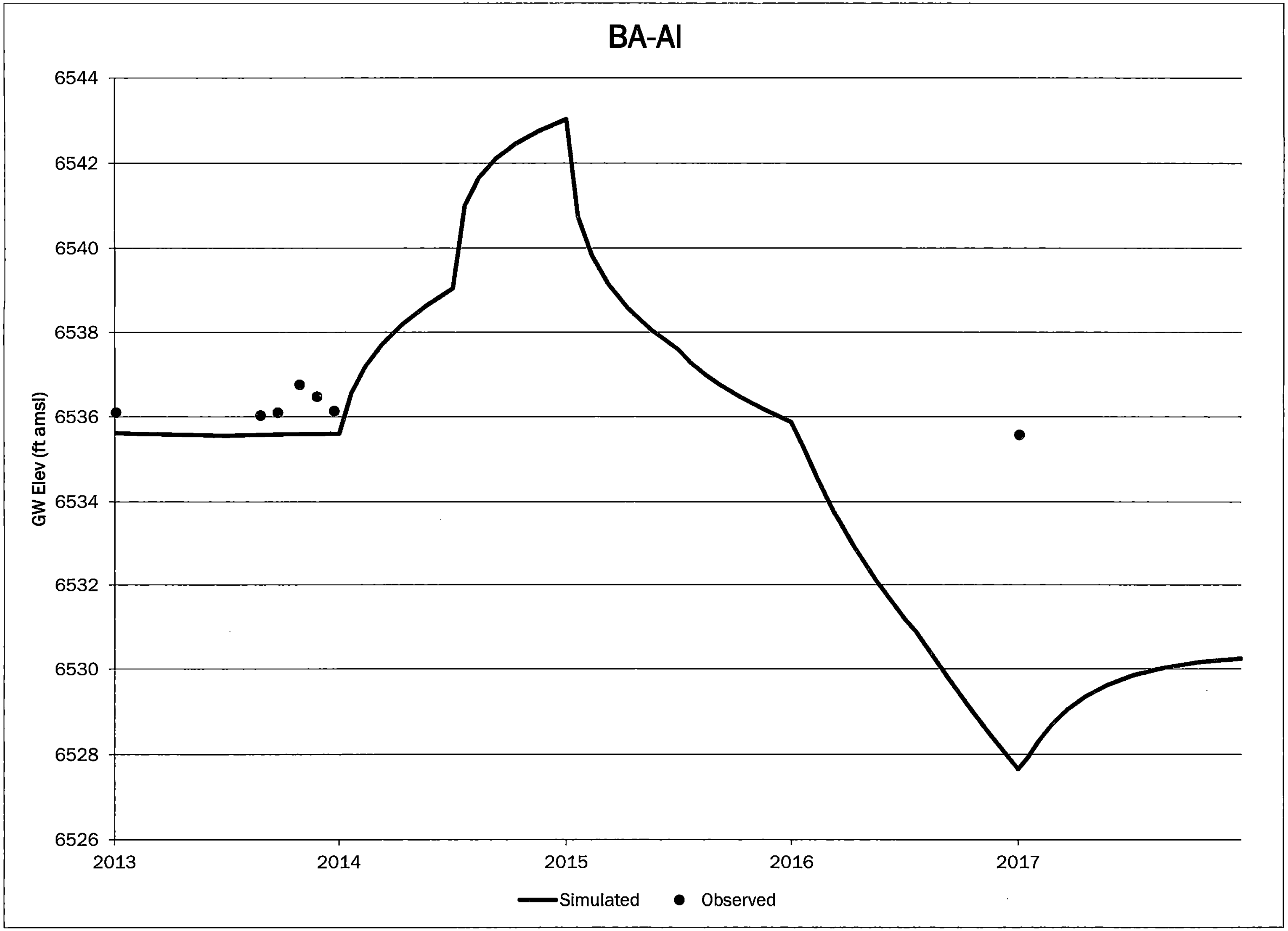


AW-2-AI
GW Elev (ft amsl)
6883
6882
6881
6880
6879
6878
6877
6876
2013
2014
2015
2016
2017
Simulated
Observed

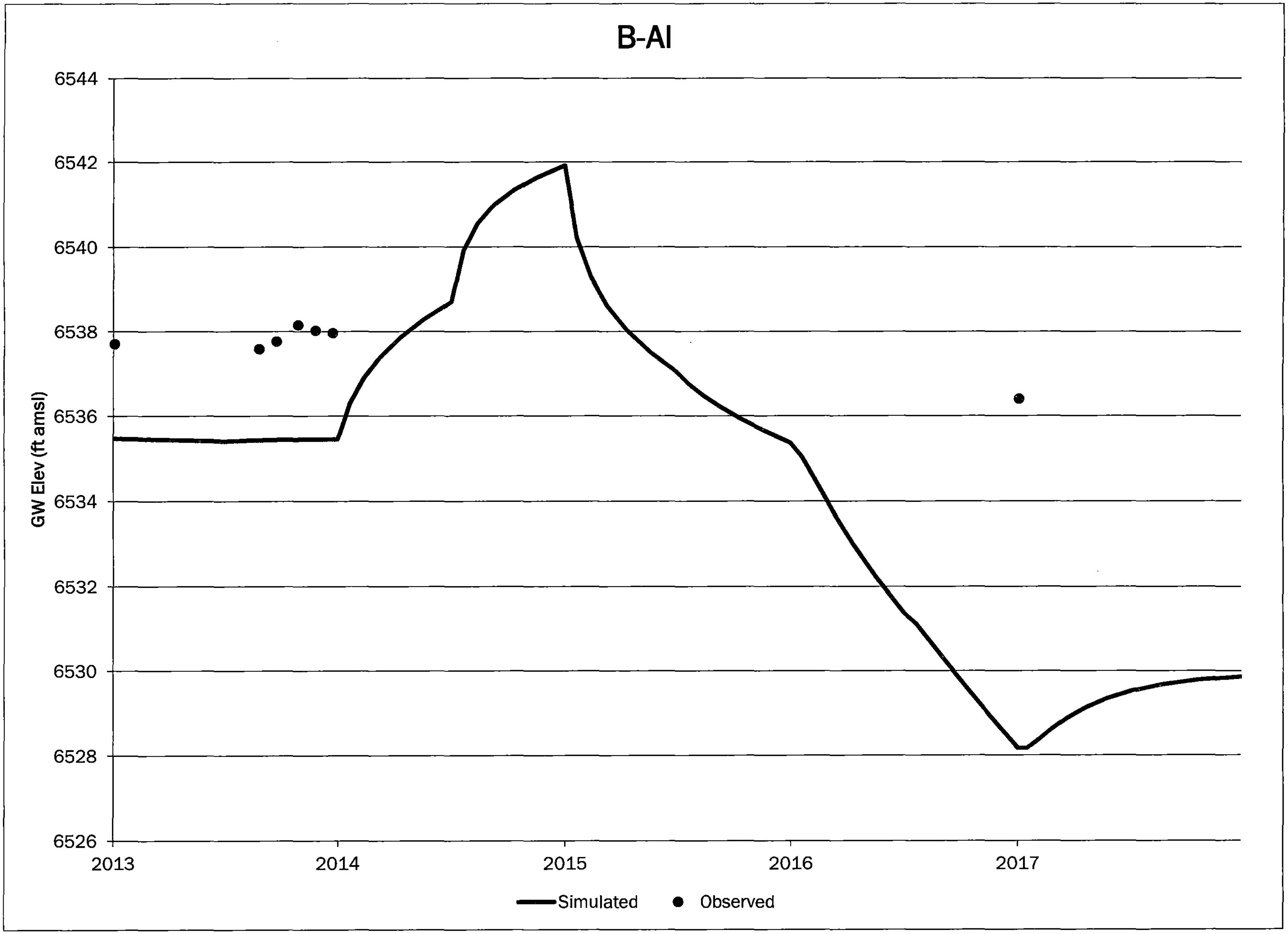

AW-AI
6536
6534
6532
6530
6528
6526
6524
6522
6520
6518
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

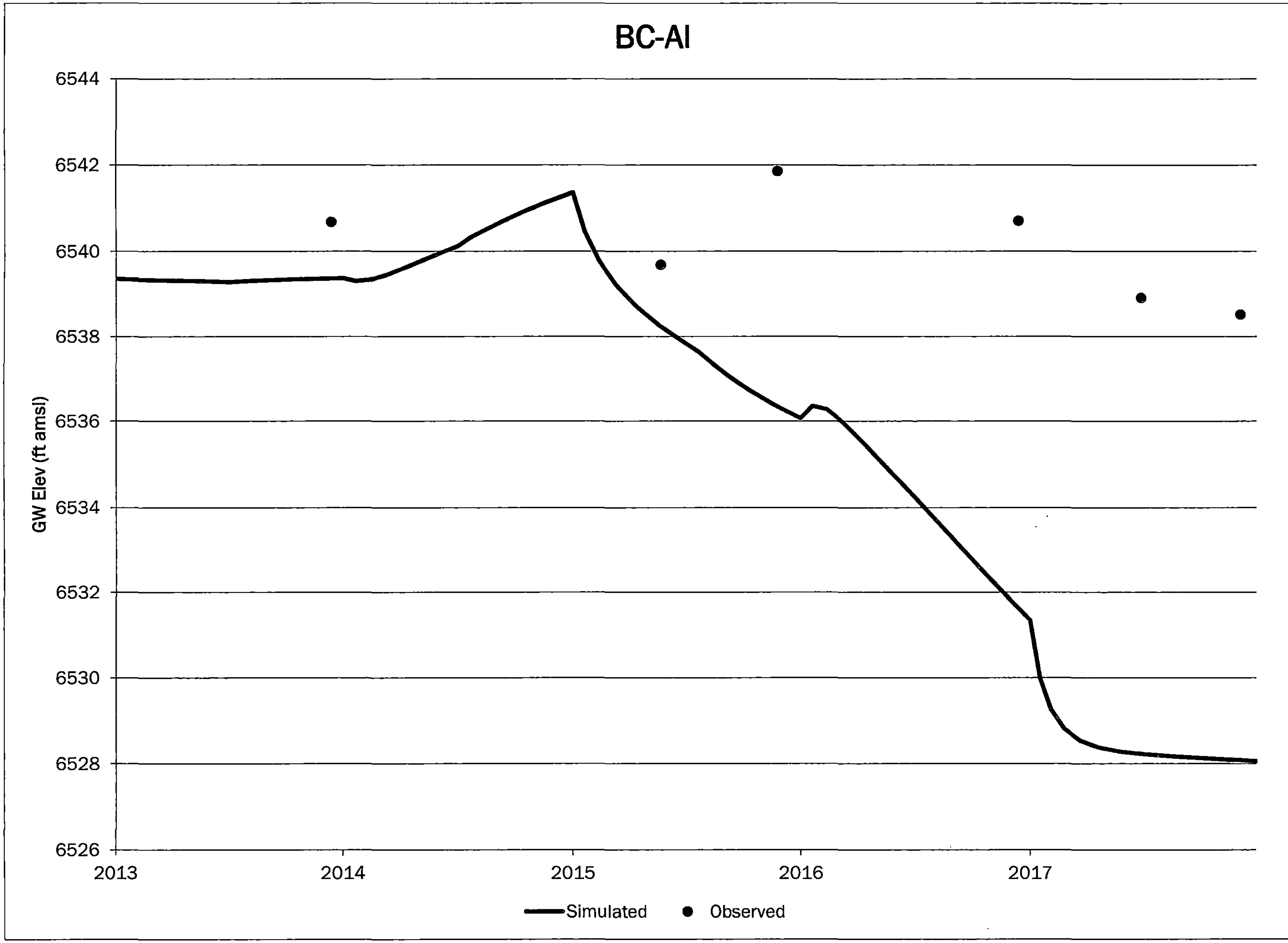

B1-AI
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

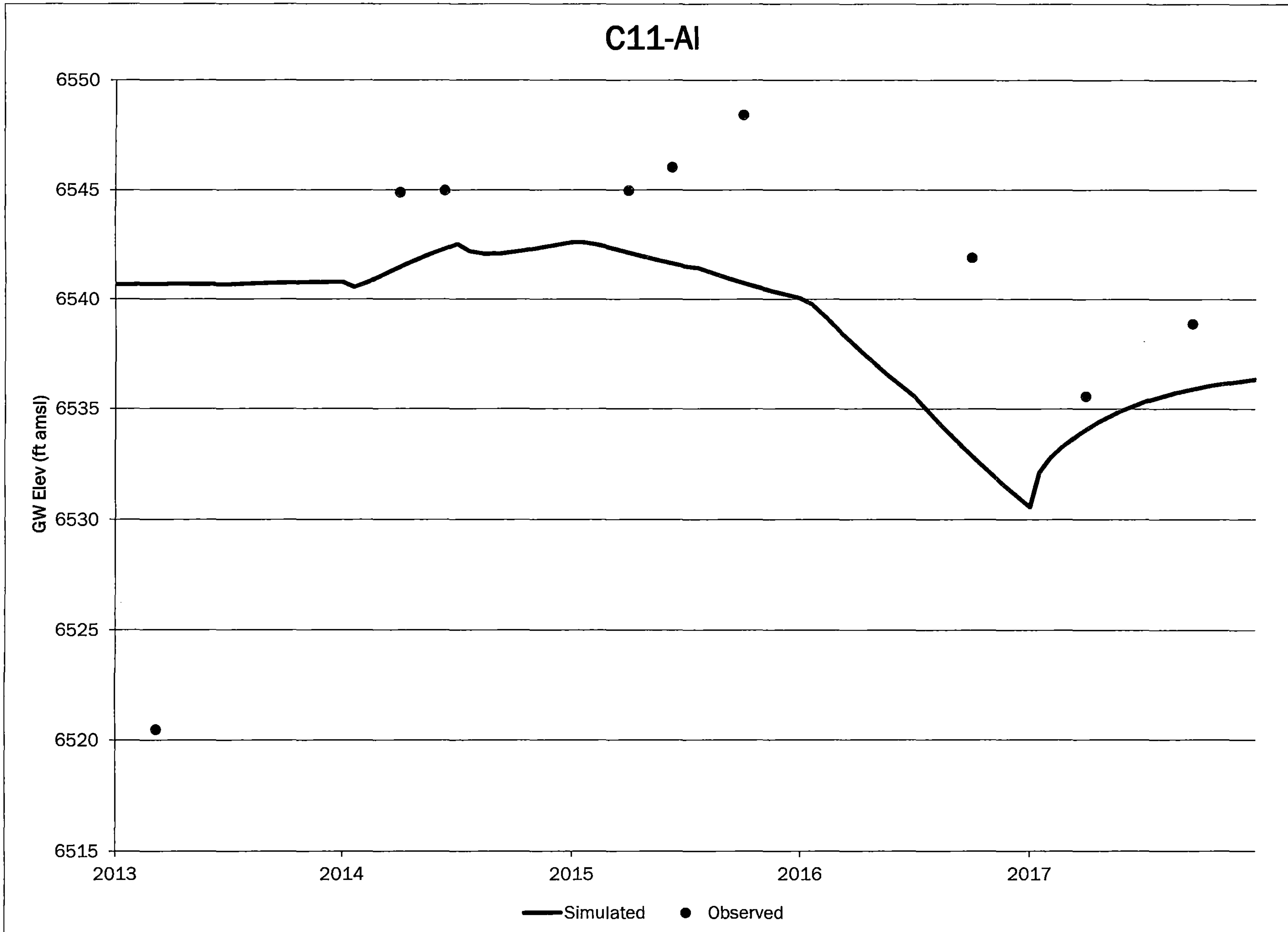

B12-AI
GW Elev (ft amsl)
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed

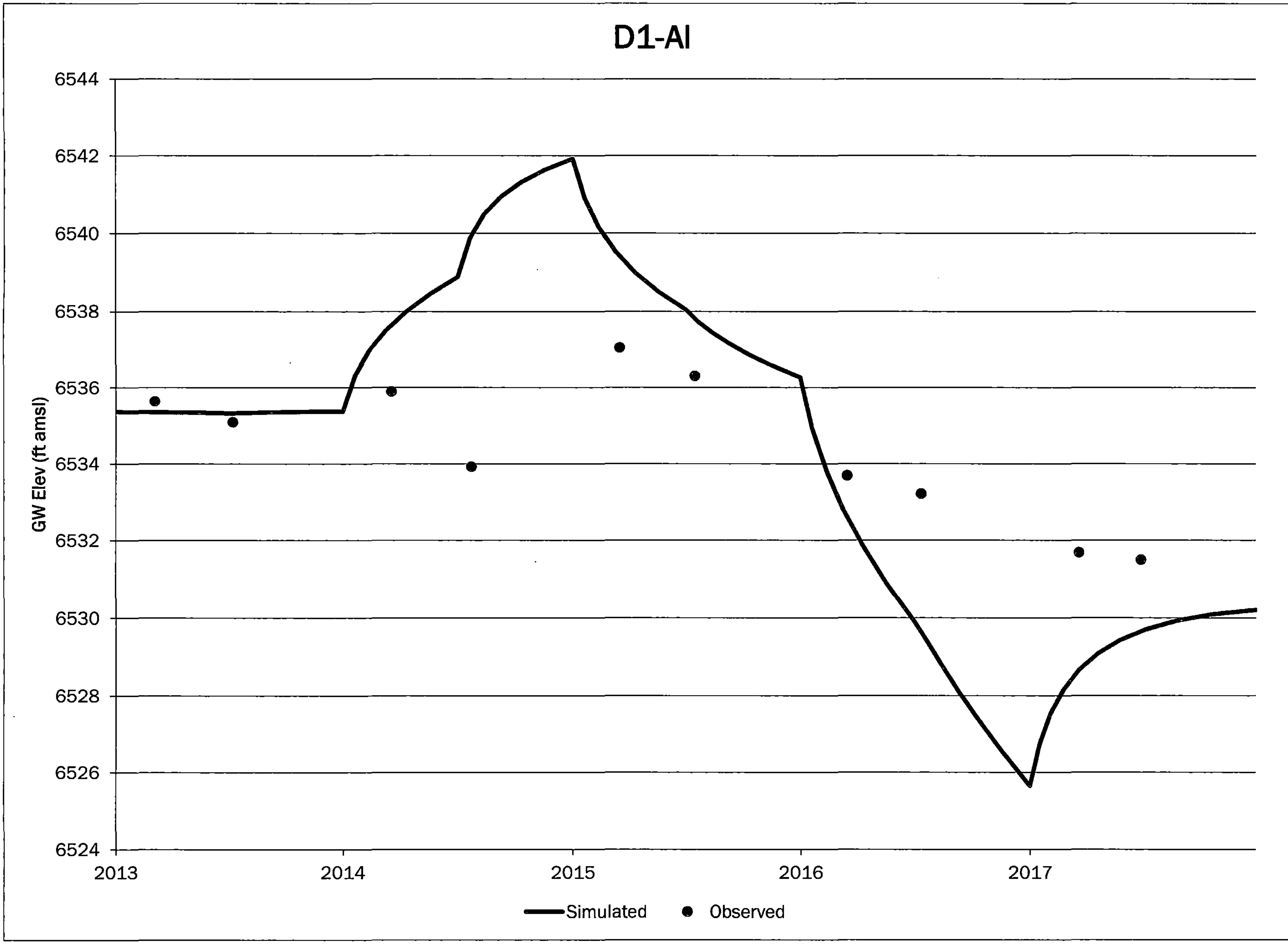


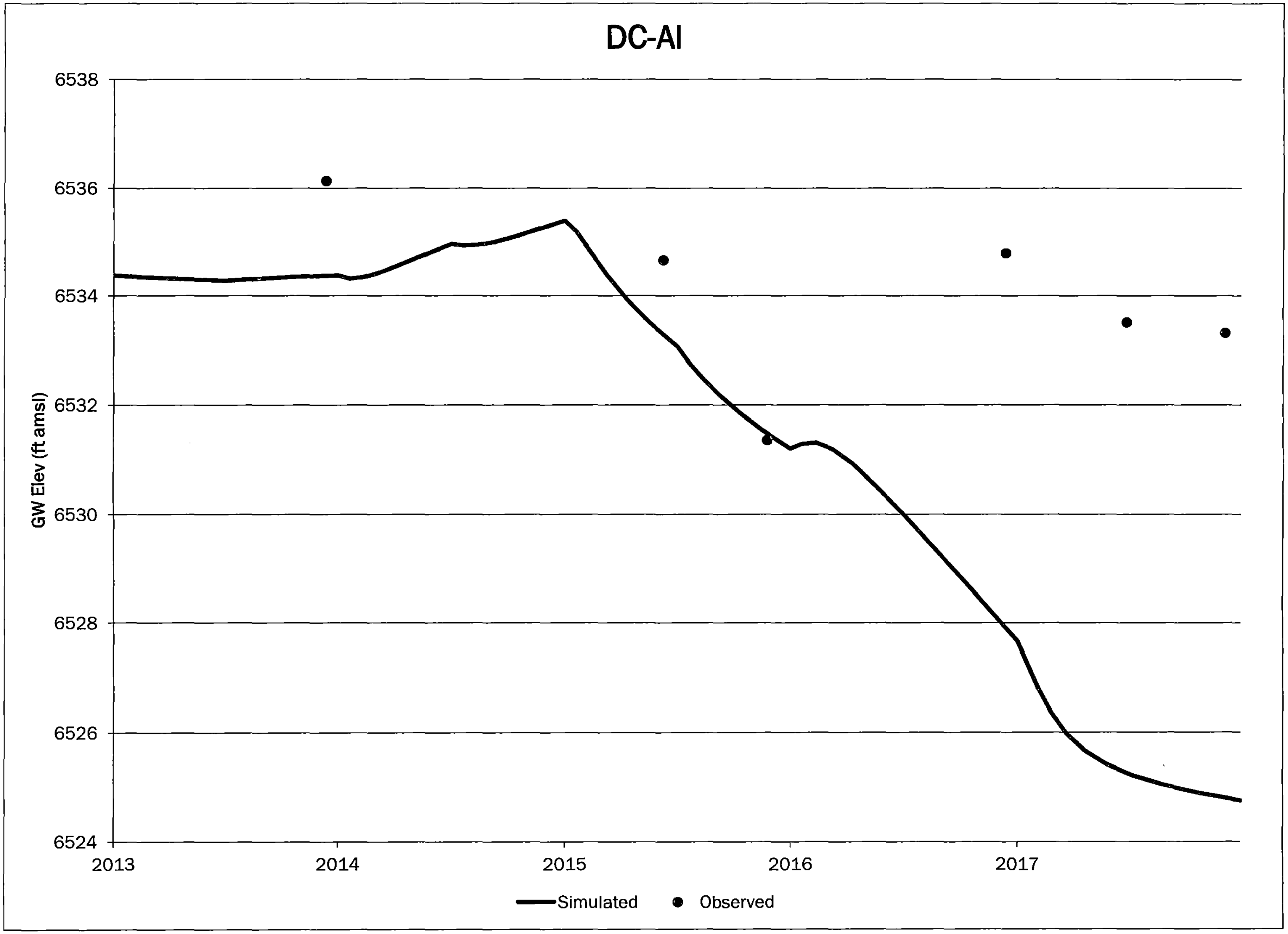
BA-AI
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


B-AI
GW Elev (ft amsl)
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed

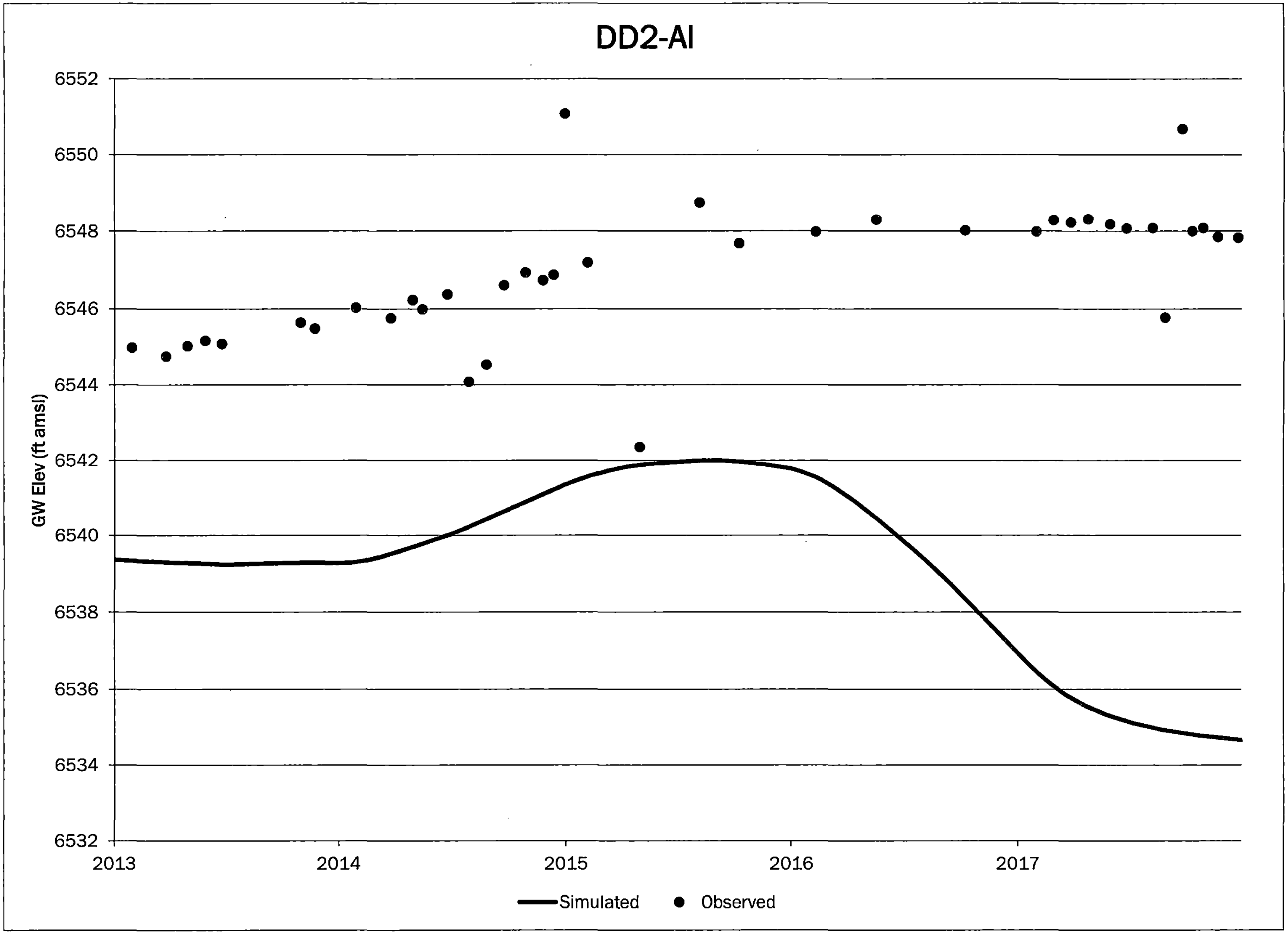

BC-AI
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

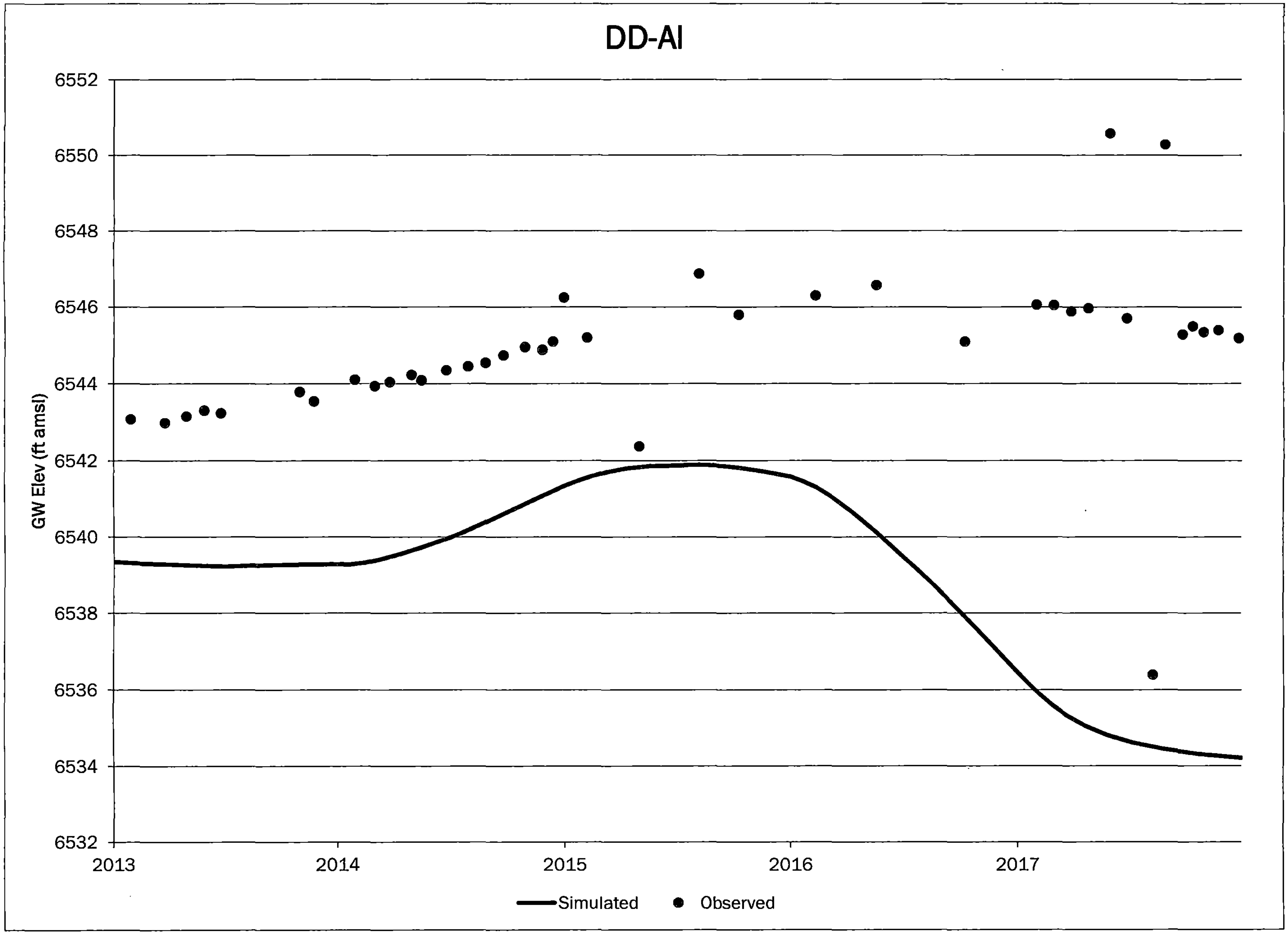

C11-AI
6550
6545
6540
6535
6530
6525
6520
6515
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


D1-AI
GW Elev (ft amsl)
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
6524
2013
2014
2015
2016
2017
Simulated
Observed

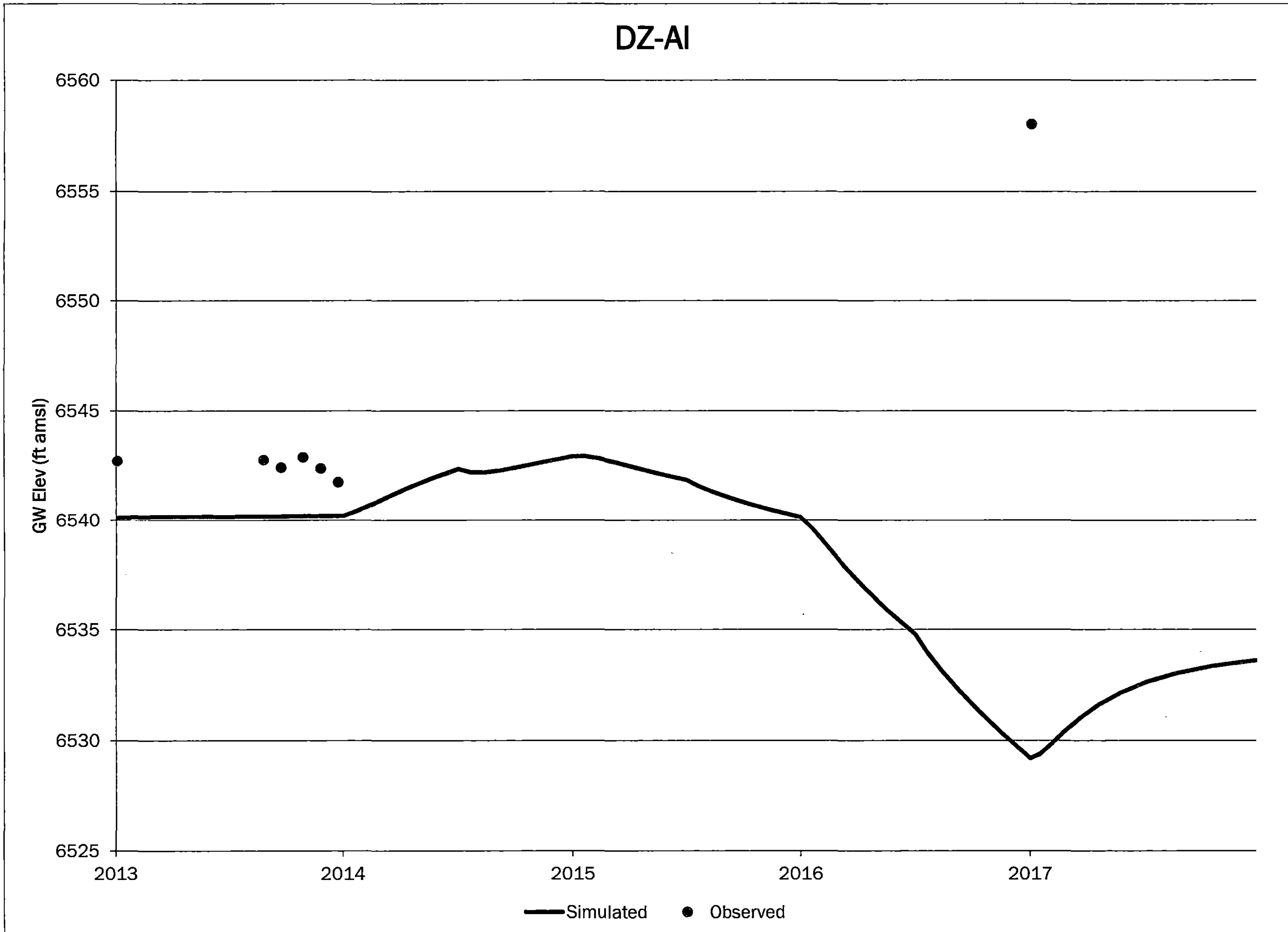


DC-AI
6538
6536
6534
6532
6530
6528
6526
6524
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

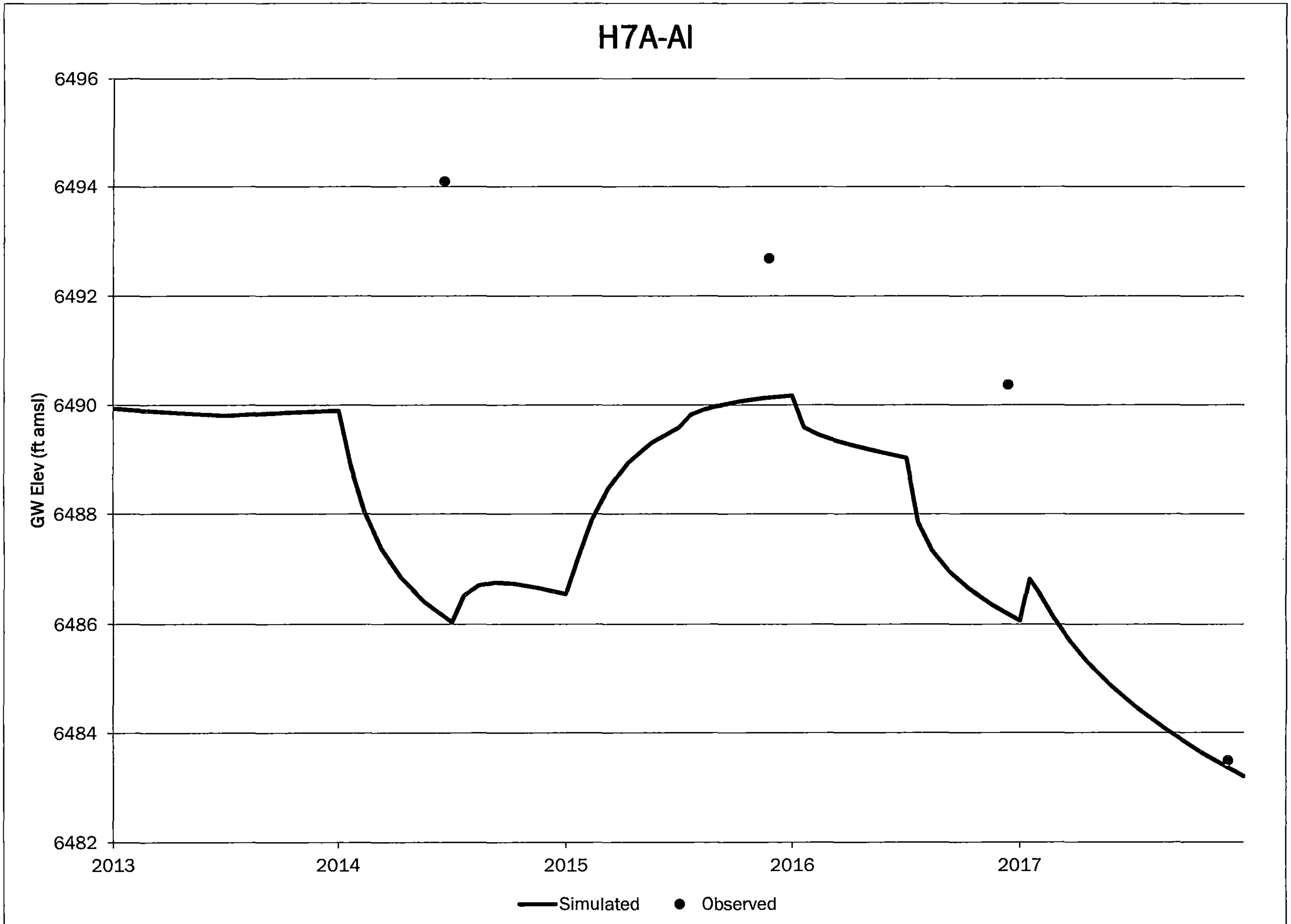

DD2-AI
GW Elev (ft amsl)
6552
6550
6548
6546
6544
6542
6540
6538
6536
6534
6532
2013
2014
2015
2016
2017
Simulated
Observed

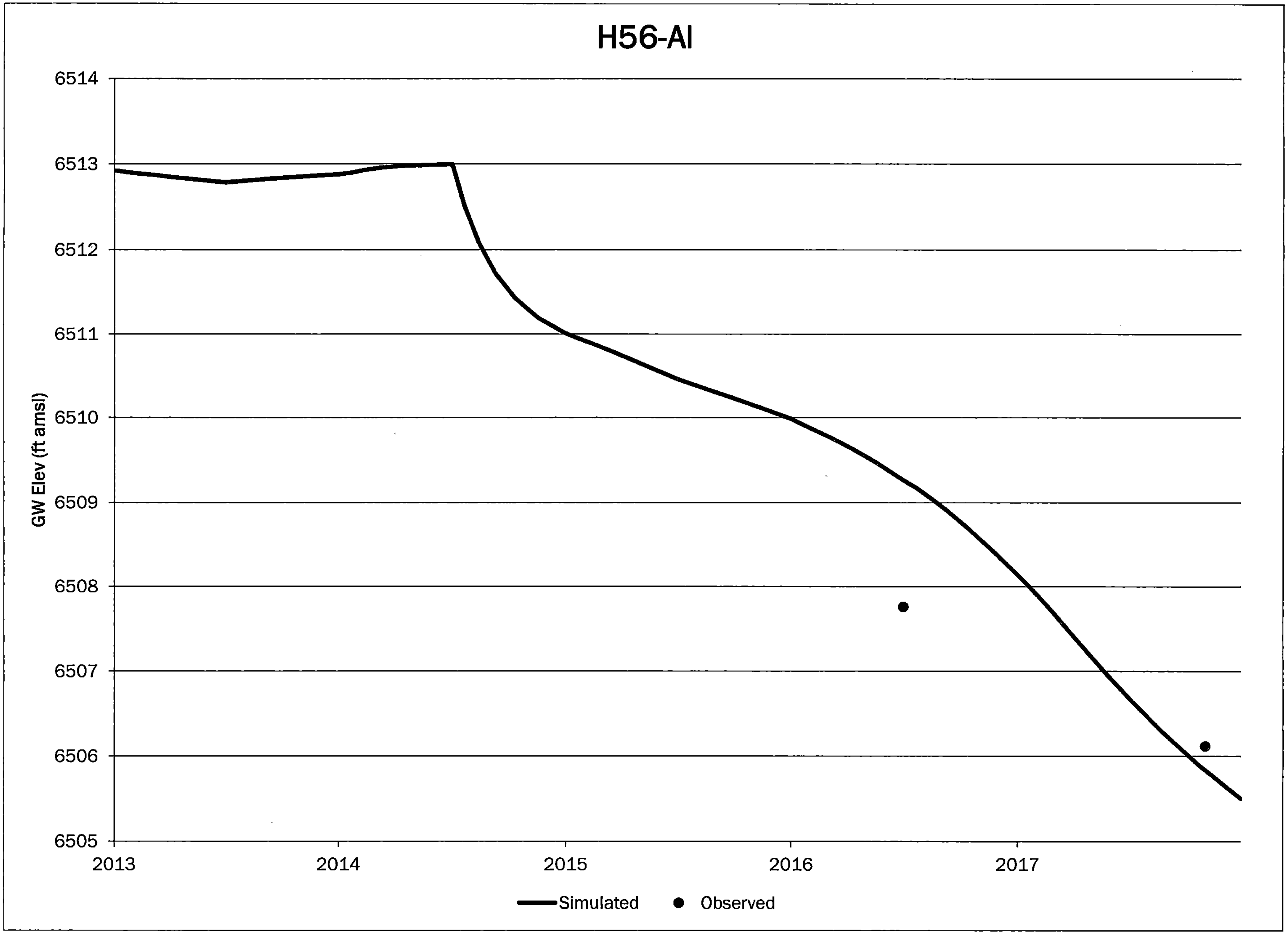


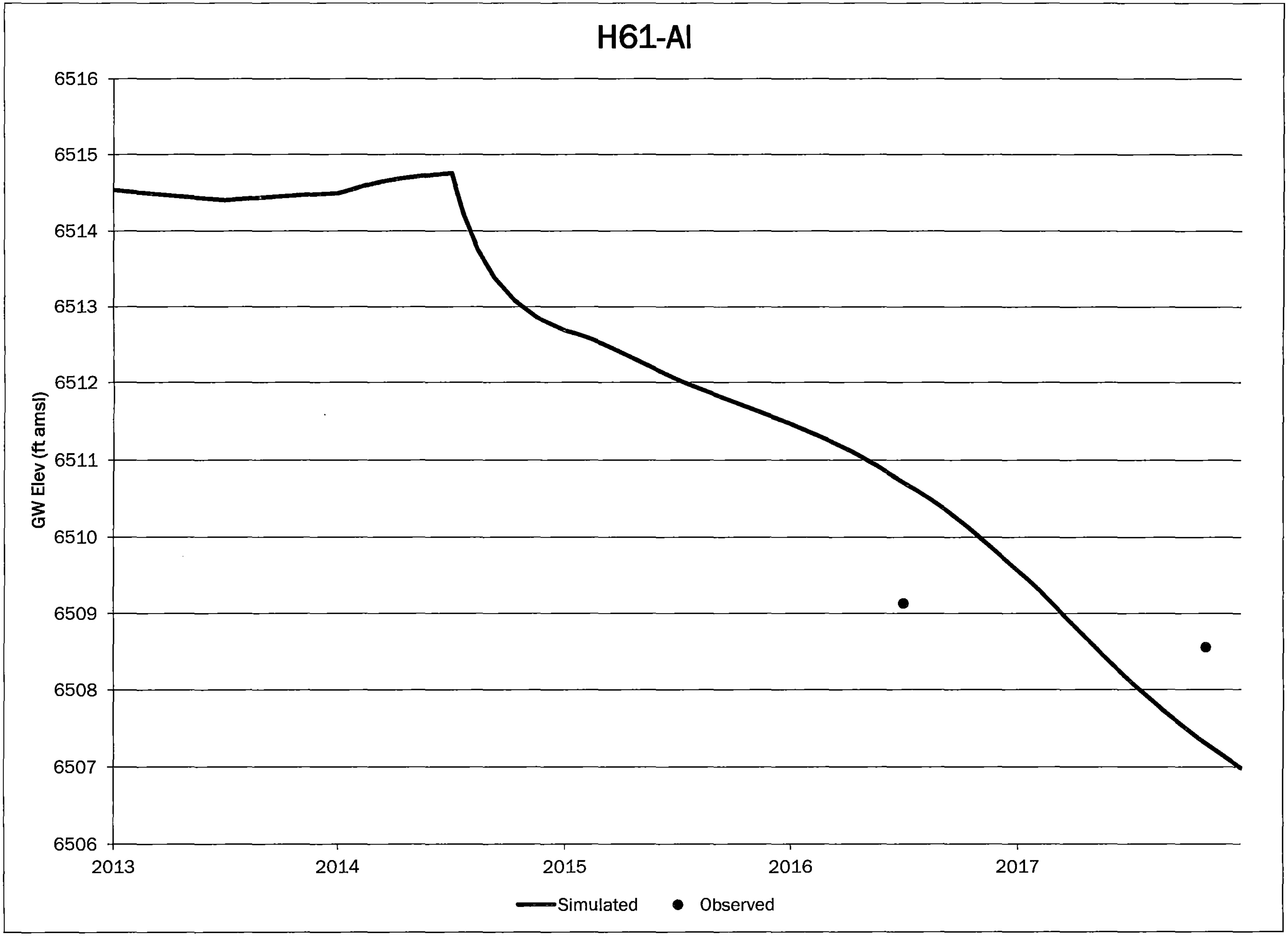
DD-AI
GW Elev (ft amsl)
6552
6550
6548
6546
6544
6542
6540
6538
6536
6534
6532
2013
2014
2015
2016
2017
Simulated
Observed



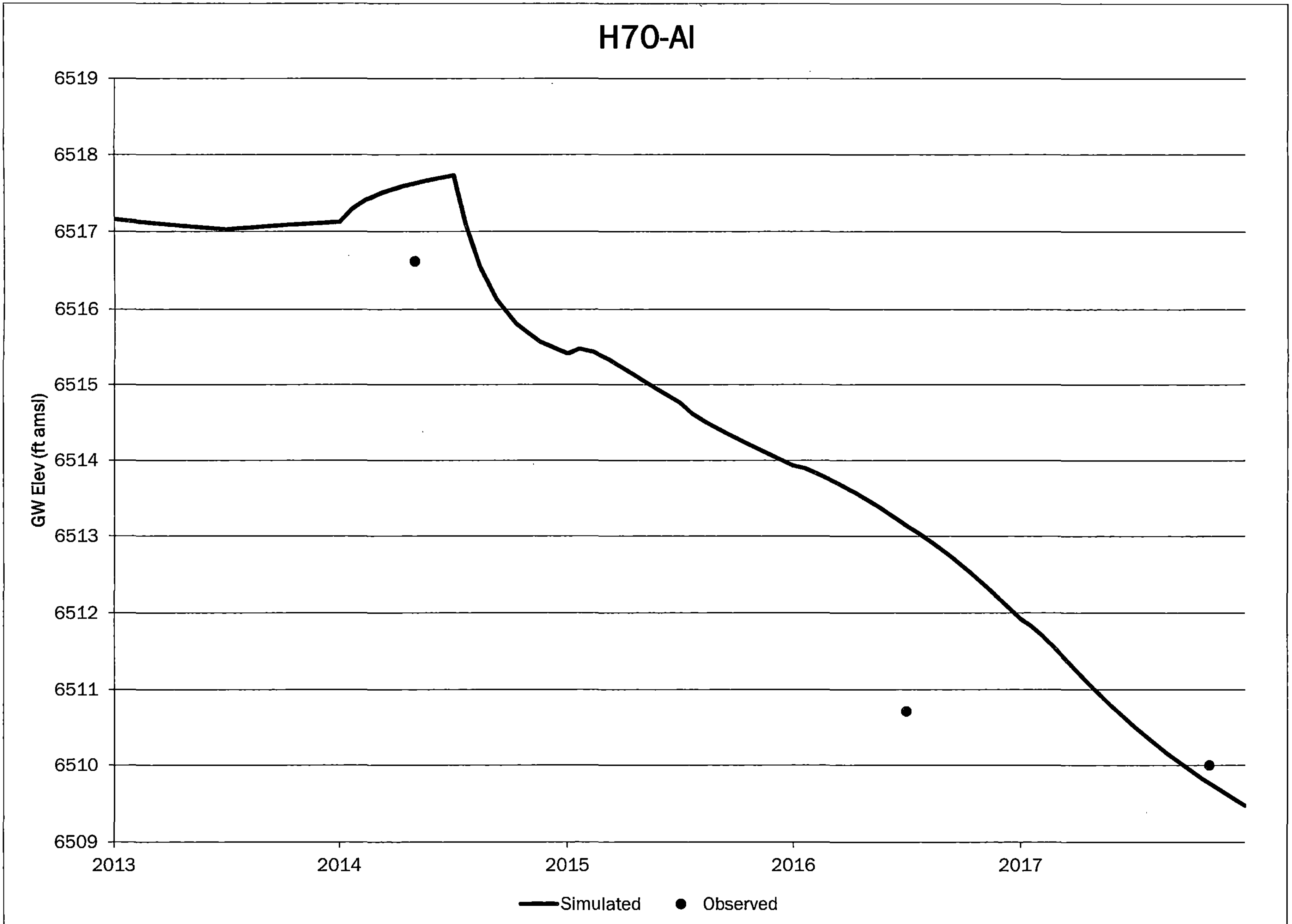
DZ-AI
GW Elev (ft amsl)
6560
6555
6550
6545
6540
6535
6530
6525
2013
2014
2015
2016
2017
Simulated
Observed


H7A-AI
GW Elev (ft amsl)
6496
6494
6492
6490
6488
6486
6484
6482
2013
2014
2015
2016
2017
Simulated
Observed

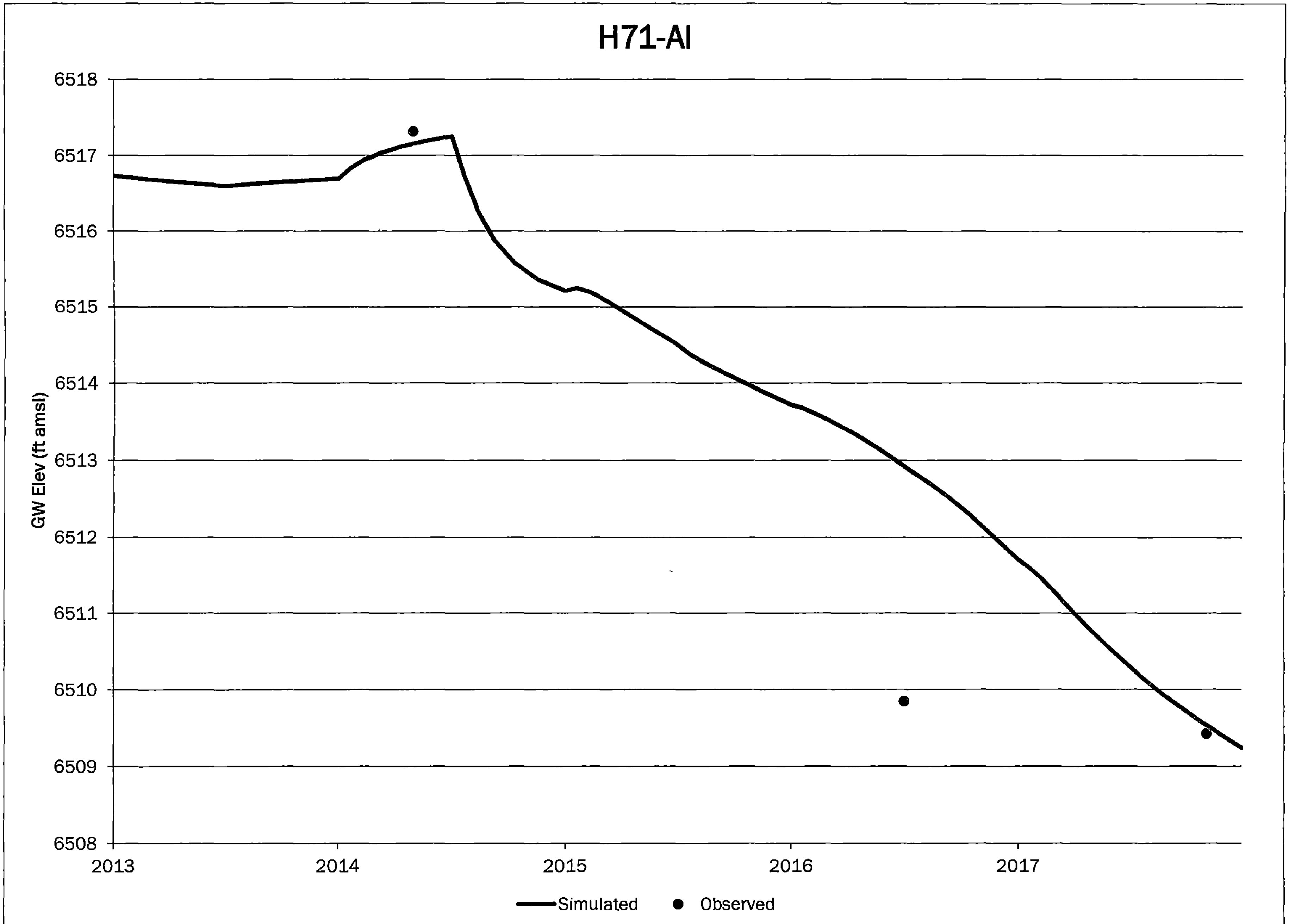

H56-AI
GW Elev (ft amsl)
6514
6513
6512
6511
6510
6509
6508
6507
6506
6505
2013
2014
2015
2016
2017
Simulated
Observed



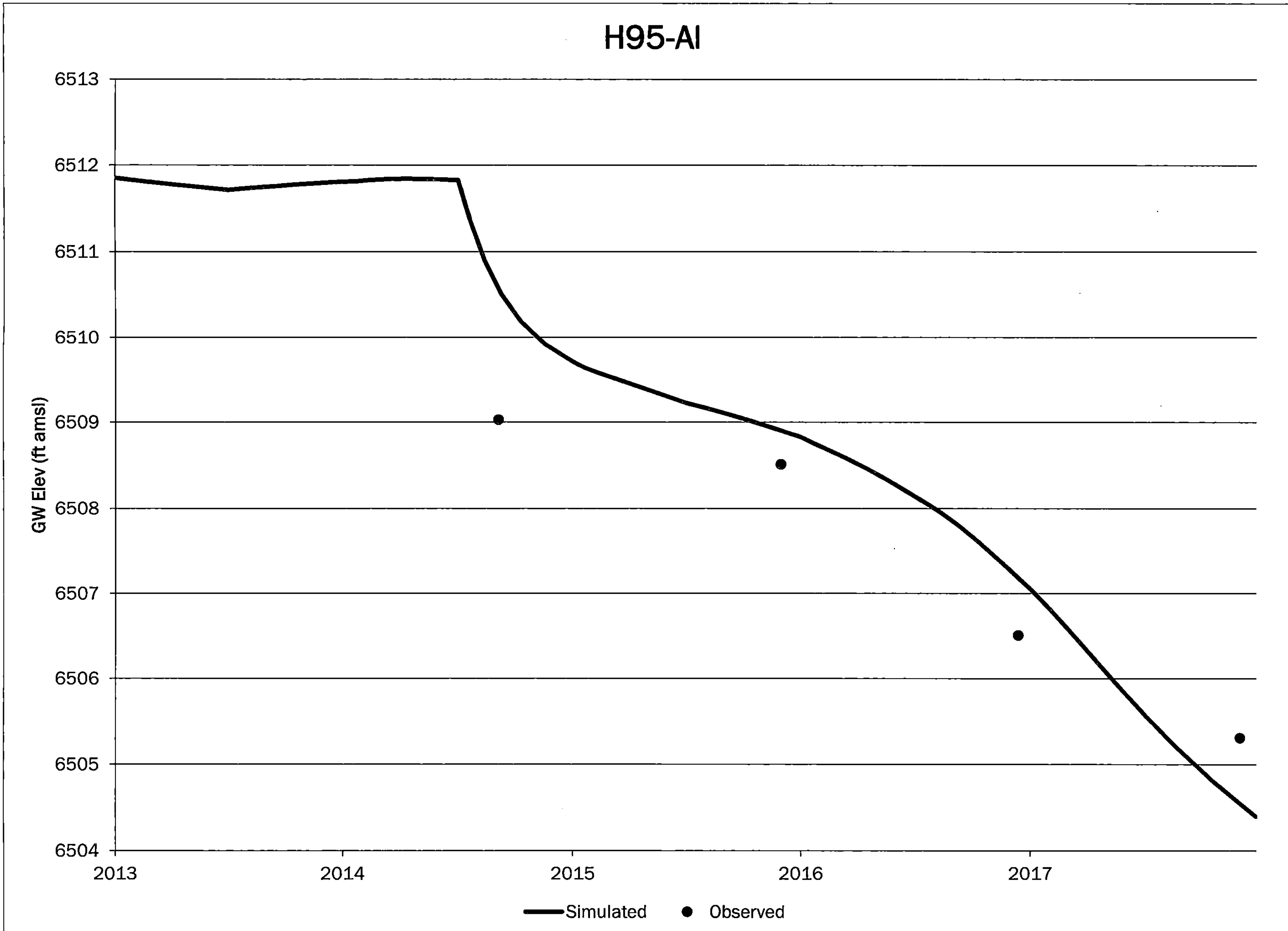
H61-AI
GW Elev (ft amsl)
6516
6515
6514
6513
6512
6511
6510
6509
6508
6507
6506
2013
2014
2015
2016
2017
Simulated
Observed



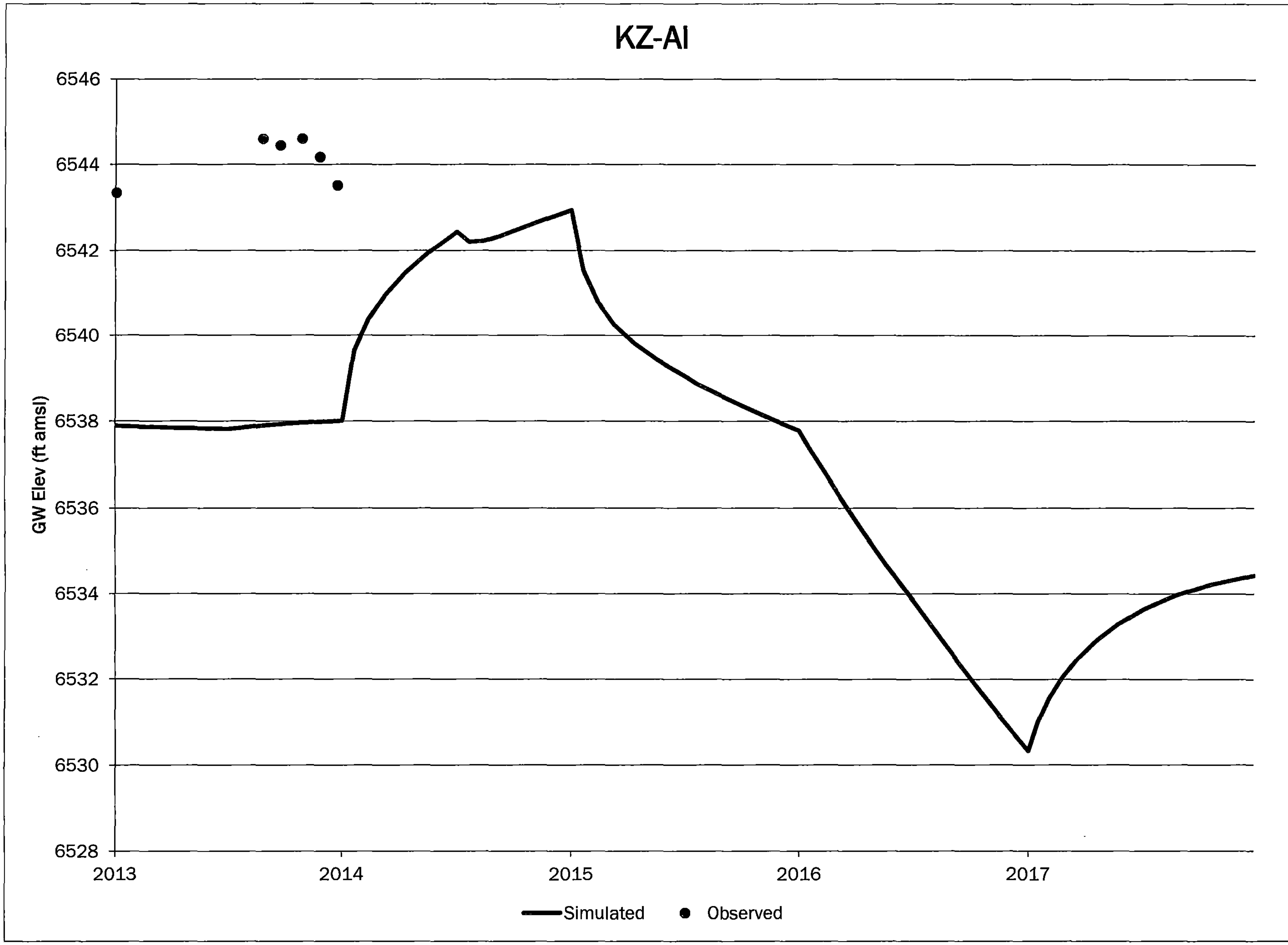
H70-AI
GW Elev (ft amsl)
6519
6518
6517
6516
6515
6514
6513
6512
6511
6510
6509
2013
2014
2015
2016
2017
Simulated
Observed



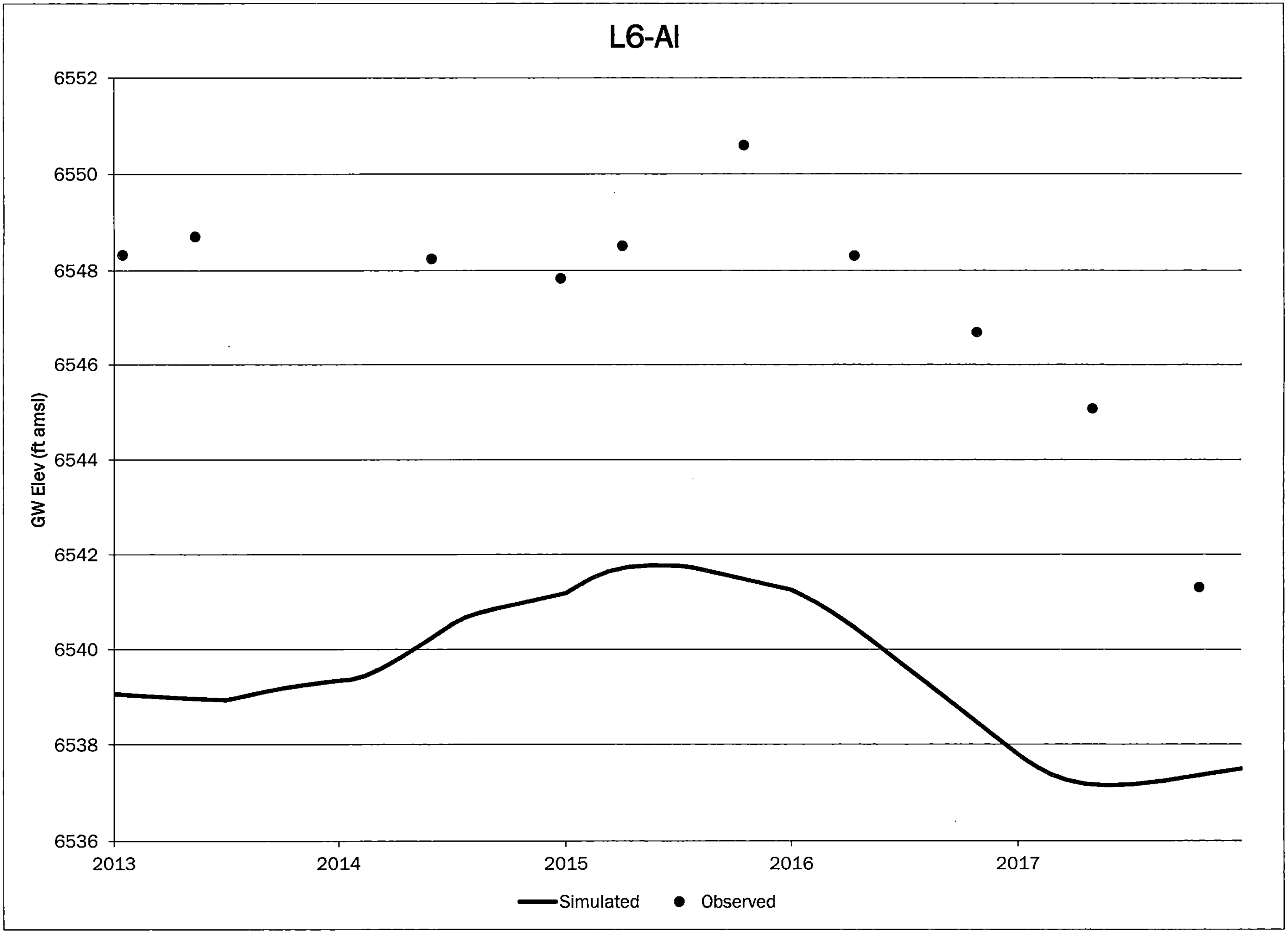
H71-AI
GW Elev (ft amsl)
6518
6517
6516
6515
6514
6513
6512
6511
6510
6509
6508
2013
2014
2015
2016
2017
Simulated
Observed



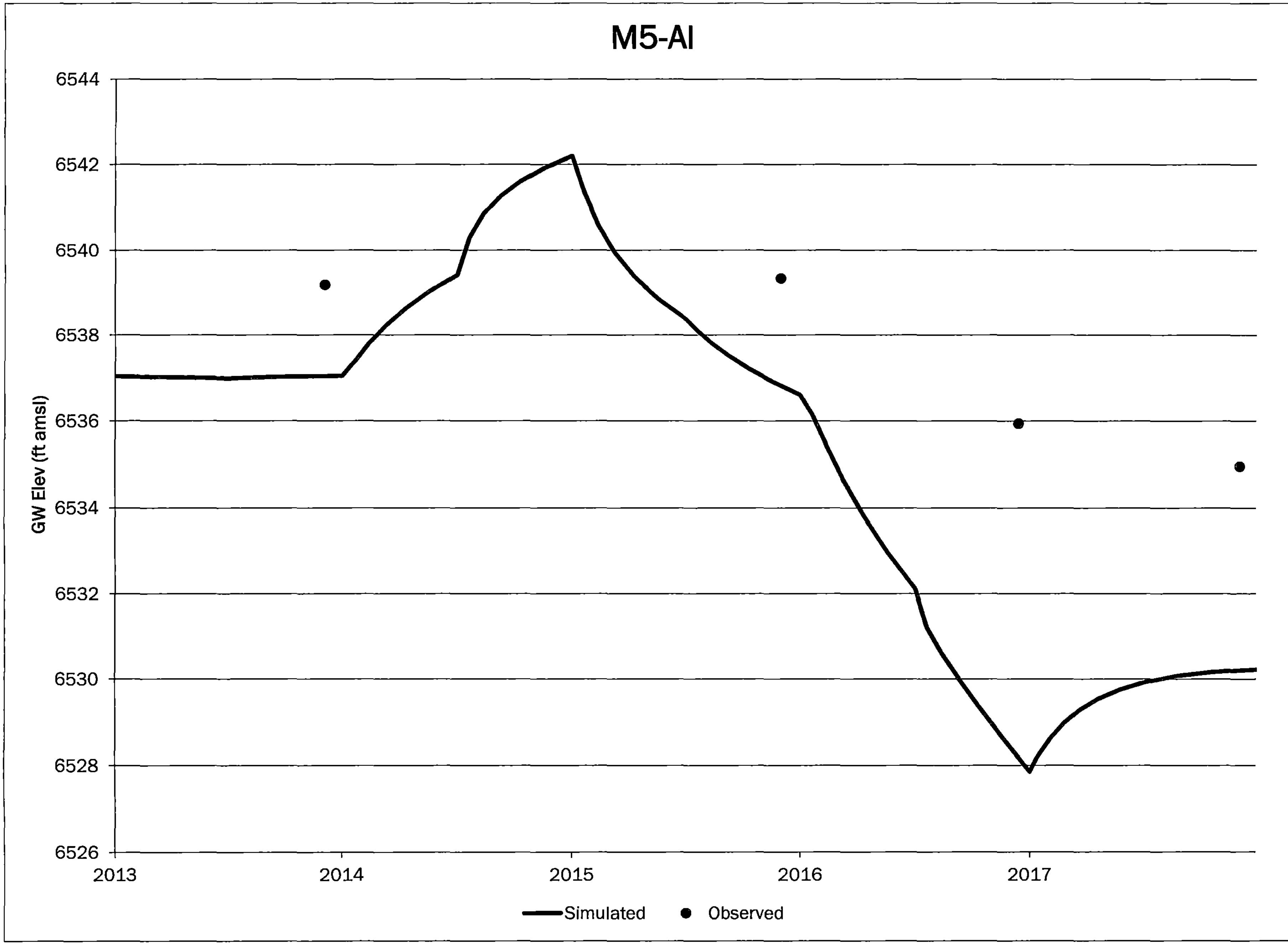
H95-AI
GW Elev (ft amsl)
6513
6512
6511
6510
6509
6508
6507
6506
6505
6504
2013
2014
2015
2016
2017
Simulated
Observed

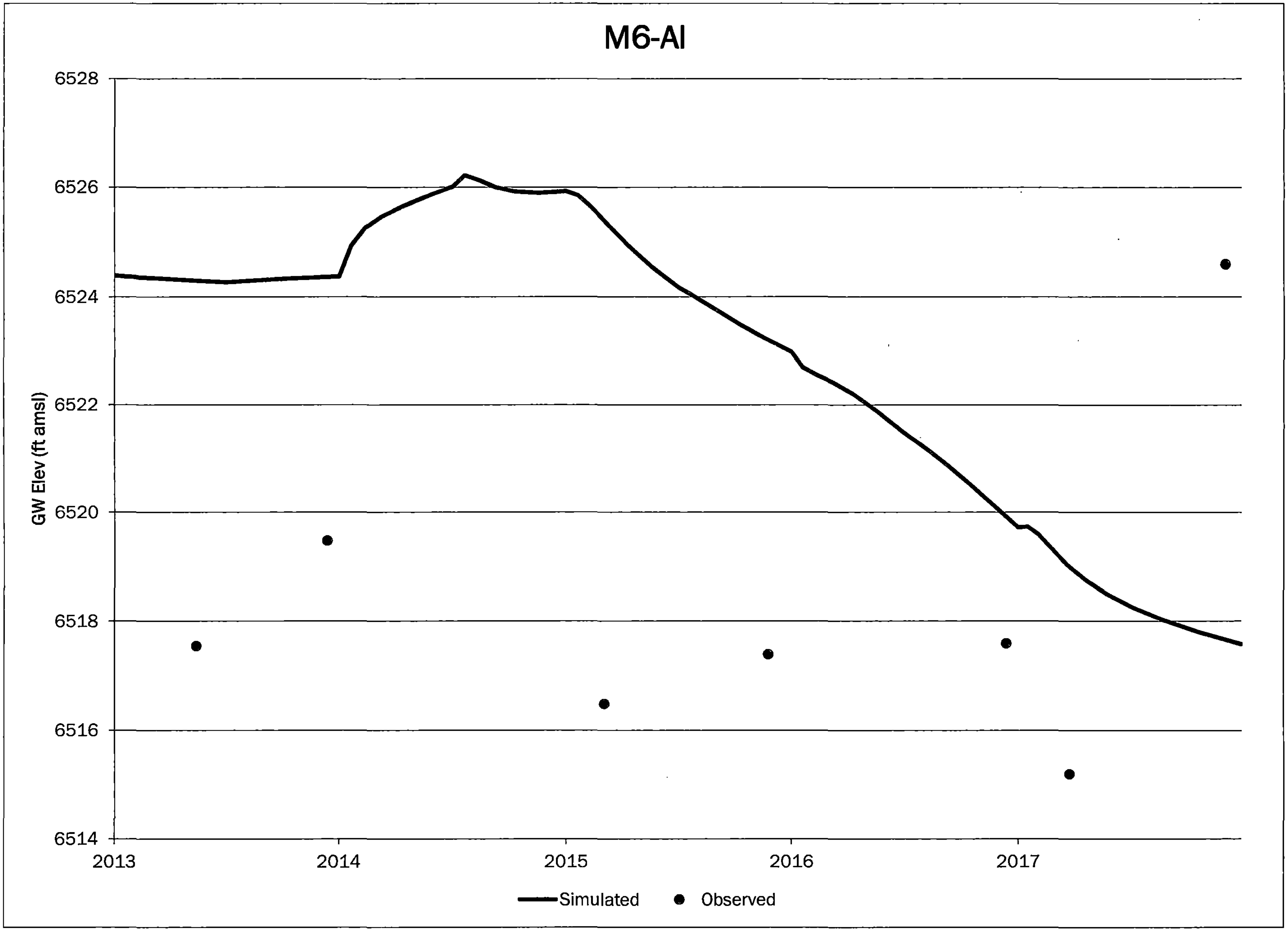


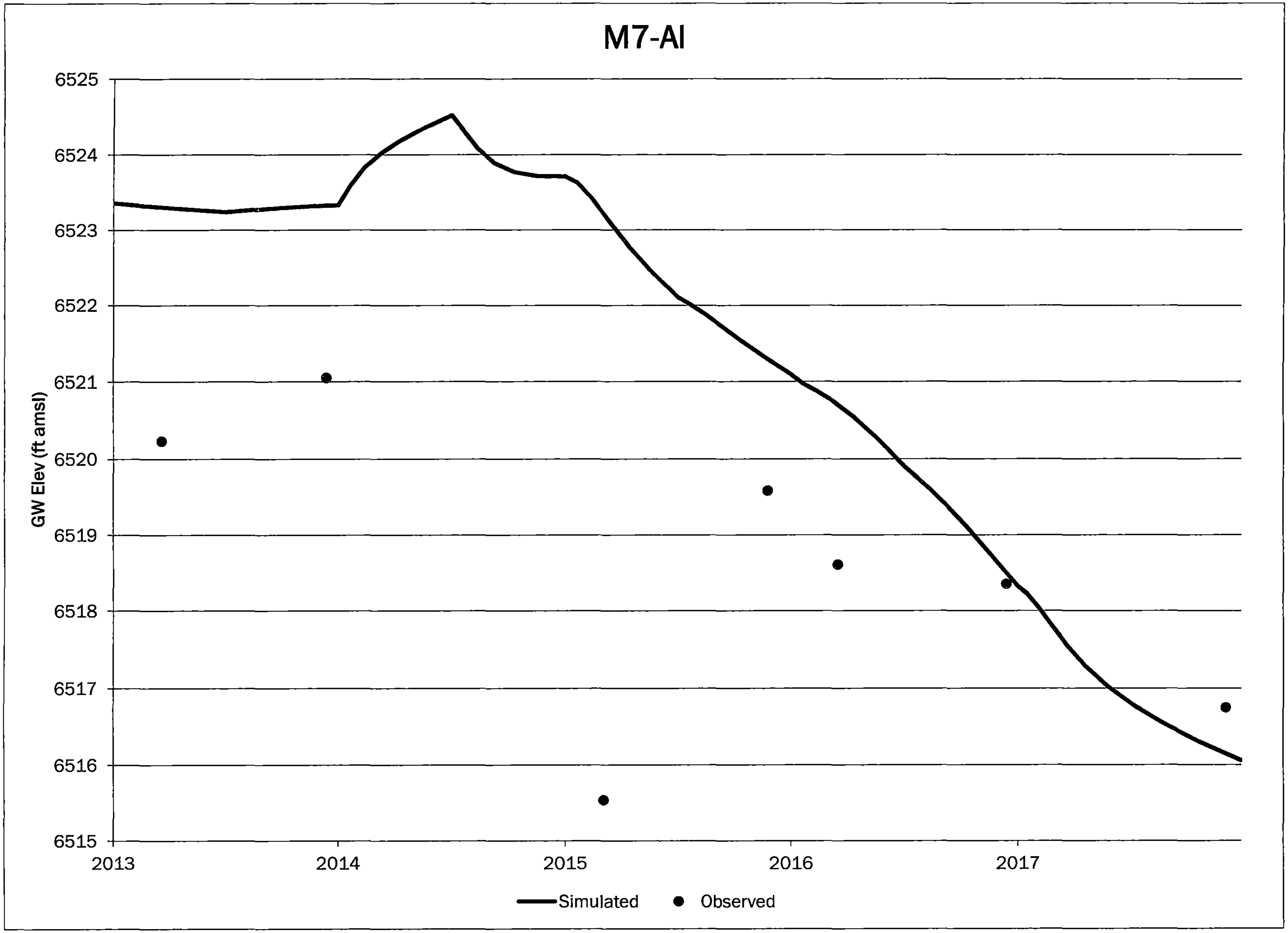
KZ-AI
6546
6544
6542
6540
6538
6536
6534
6532
6530
6528
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



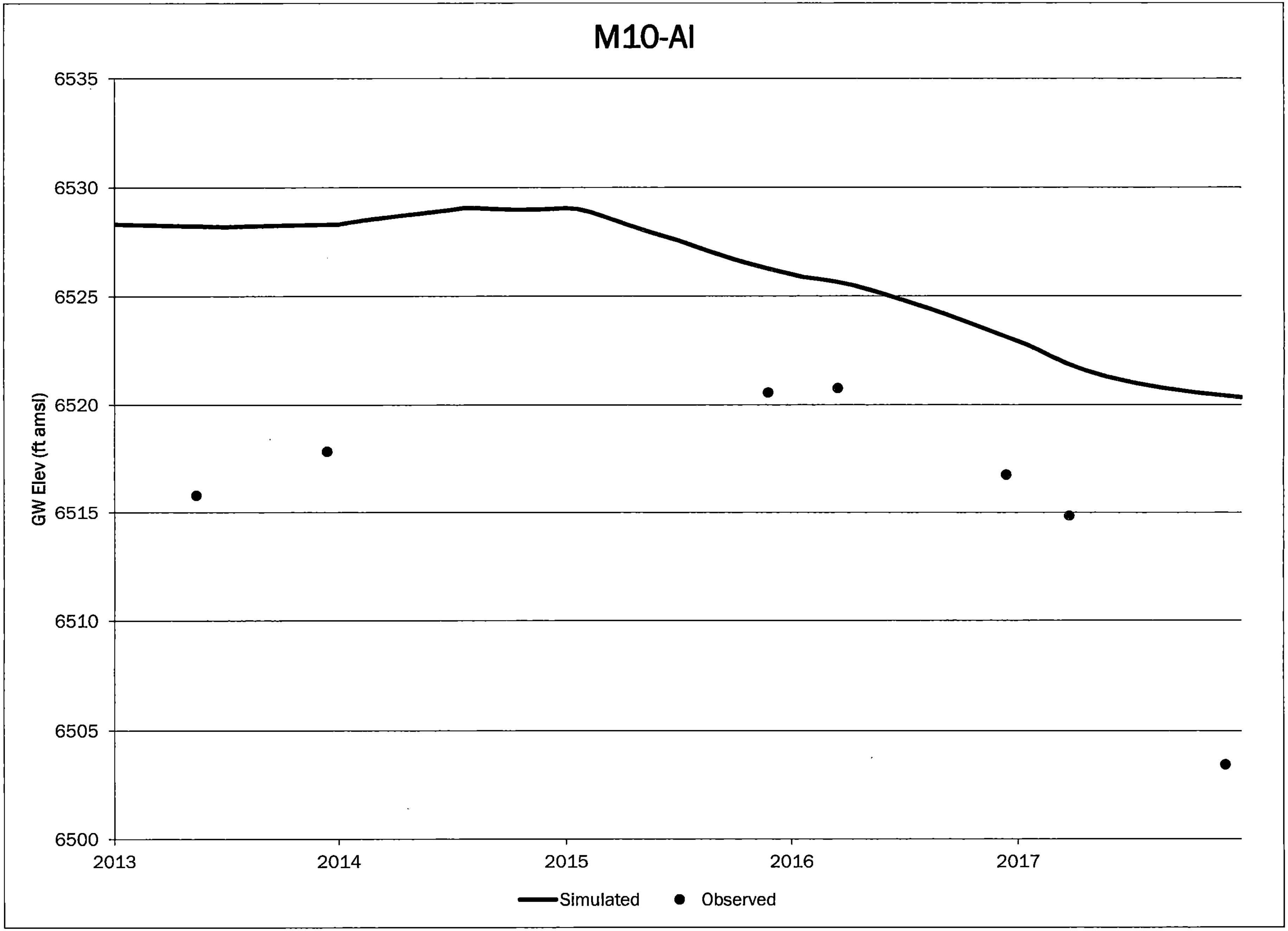
L6-AI
GW Elev (ft amsl)
6552
6550
6548
6546
6544
6542
6540
6538
6536
2013
2014
2015
2016
2017
Simulated
Observed


M5-AI
GW Elev (ft amsl)
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed

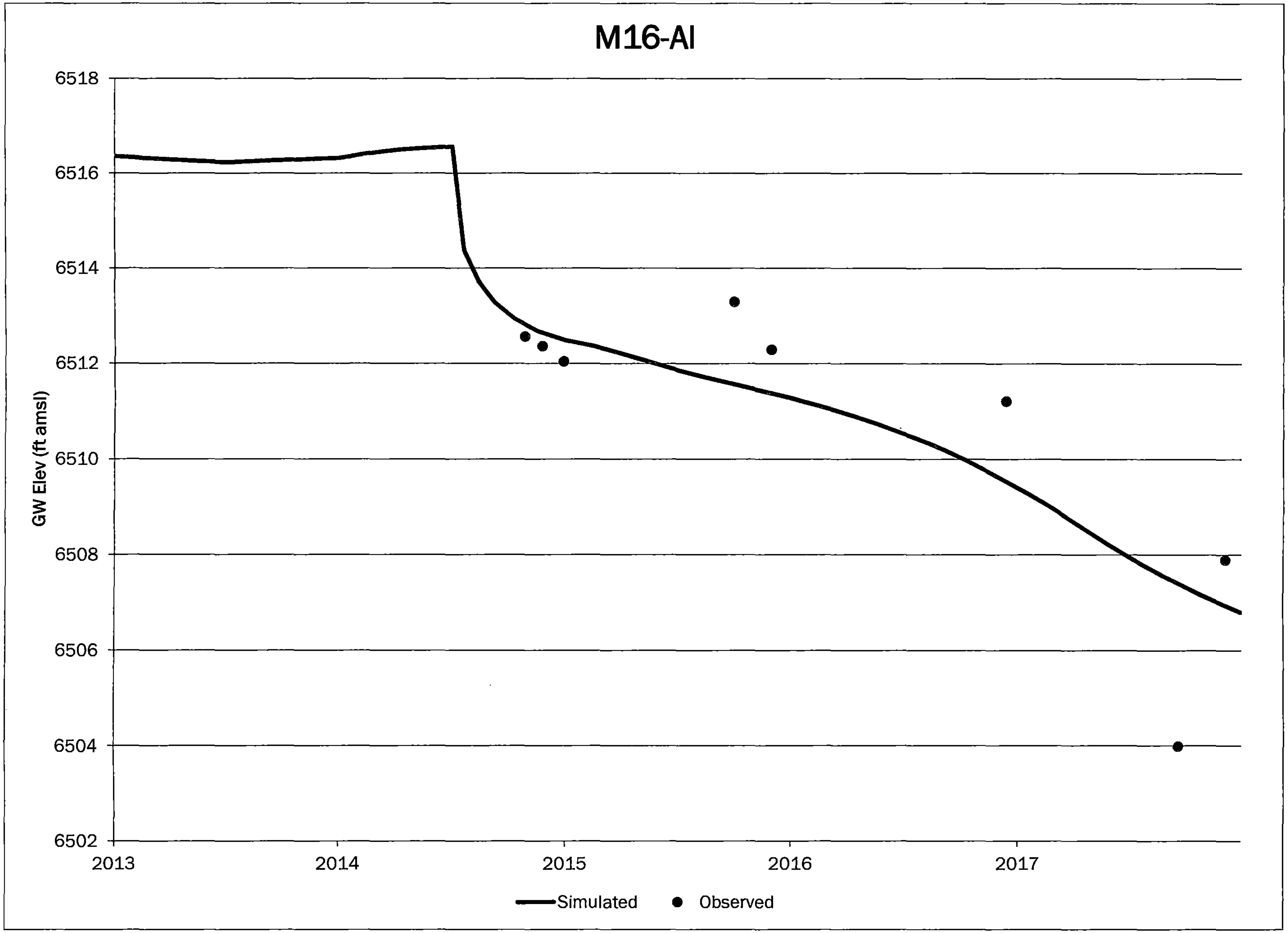

M6-Al
6528
6526
6524
6522
6520
6518
6516
6514
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

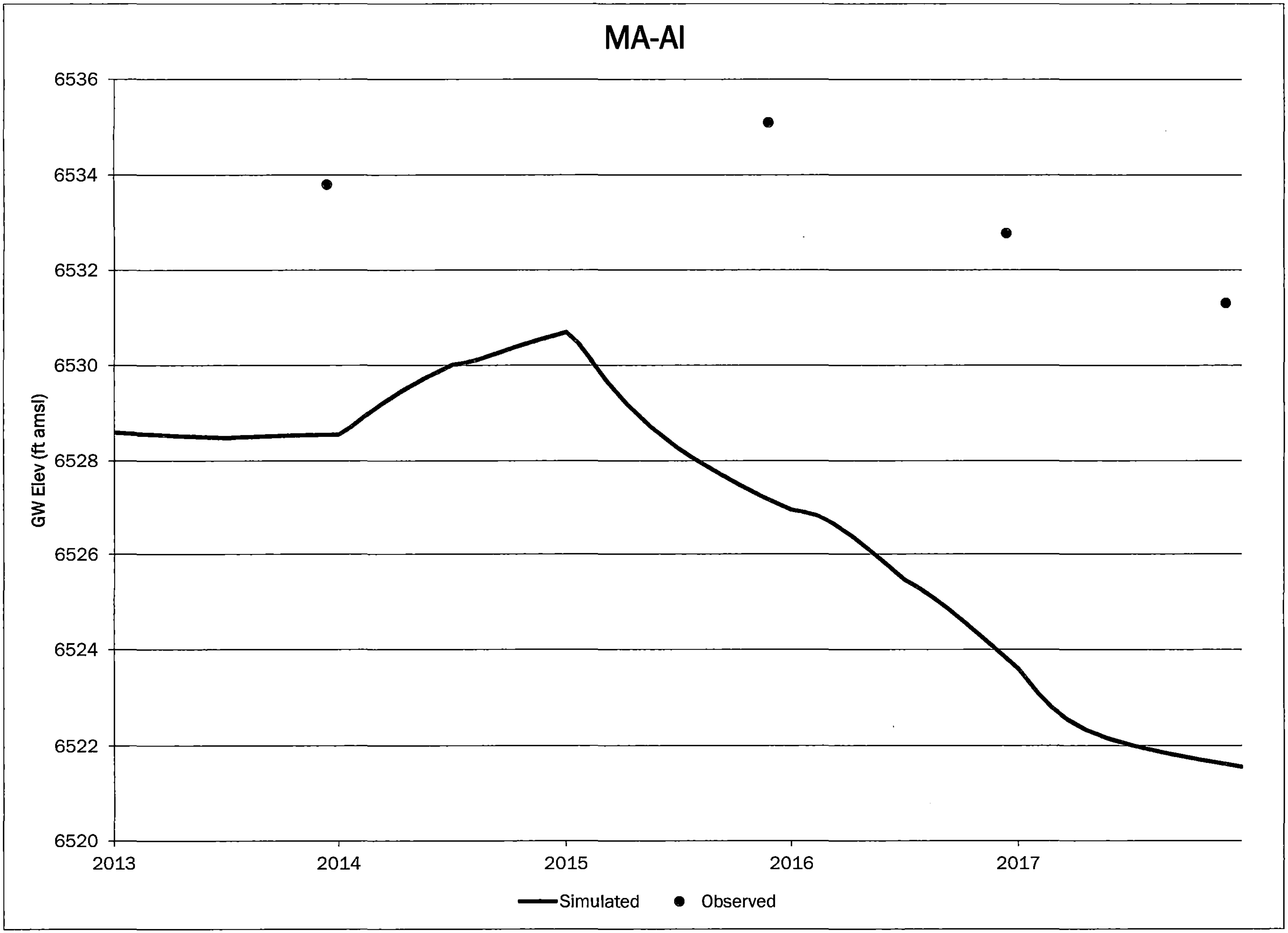


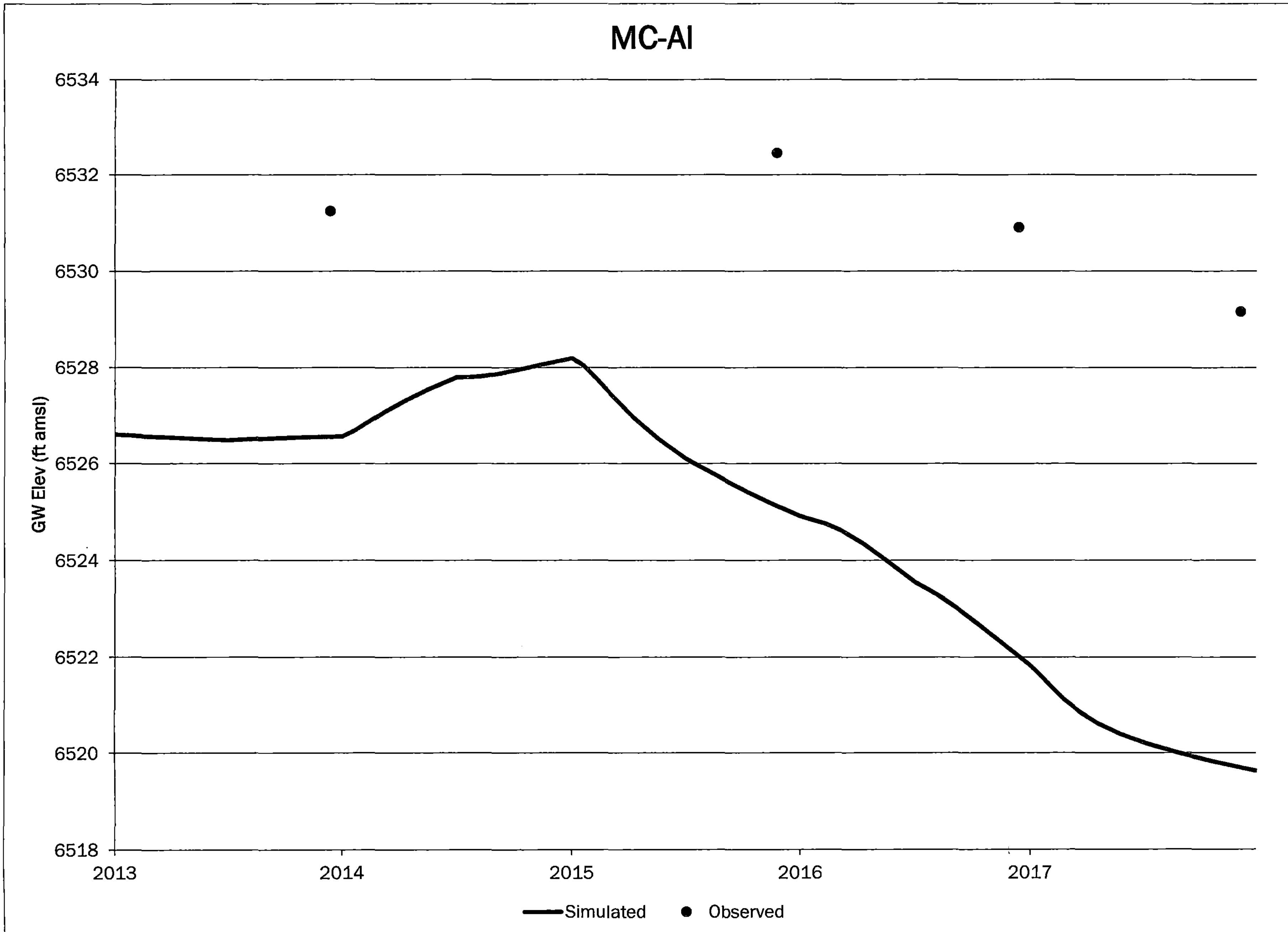
M7-AI
GW Elev (ft amsl)
6525
6524
6523
6522
6521
6520
6519
6518
6517
6516
6515
2013
2014
2015
2016
2017
Simulated
Observed

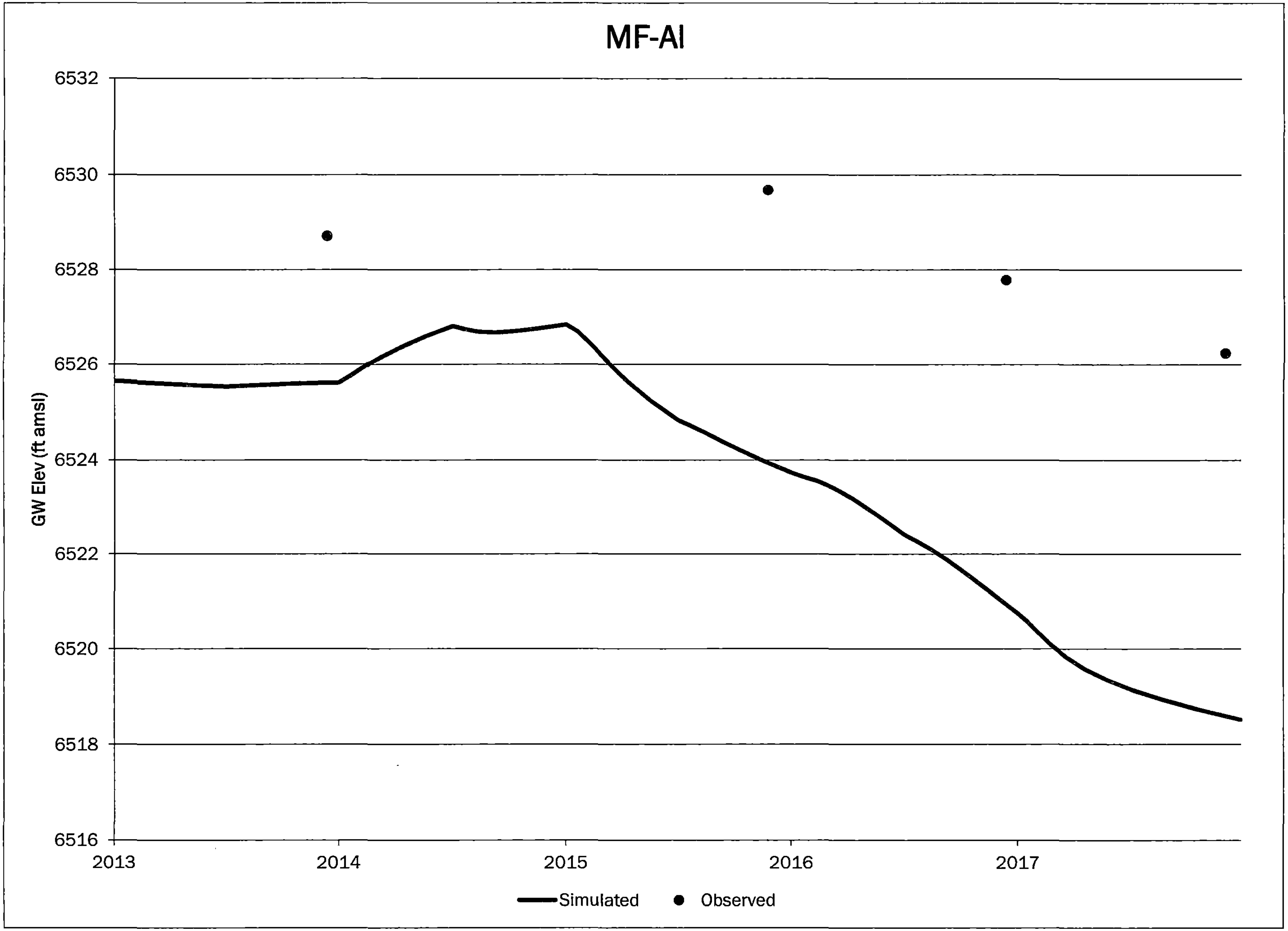


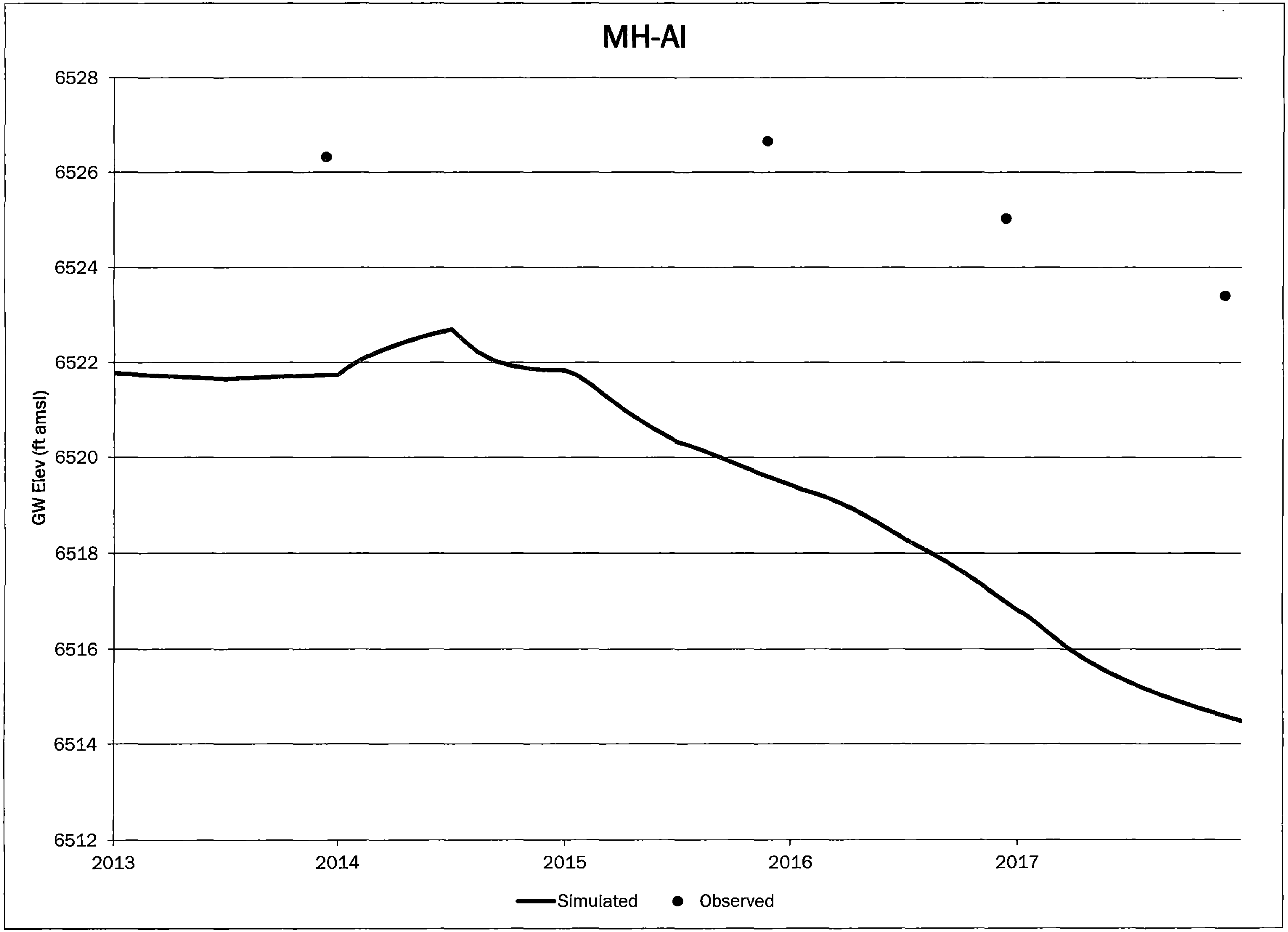
M10-AI
6535
6530
6525
6520
6515
6510
6505
6500
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


M16-AI
GW Elev (ft amsl)
6518
6516
6514
6512
6510
6508
6506
6504
6502
2013
2014
2015
2016
2017
Simulated
Observed

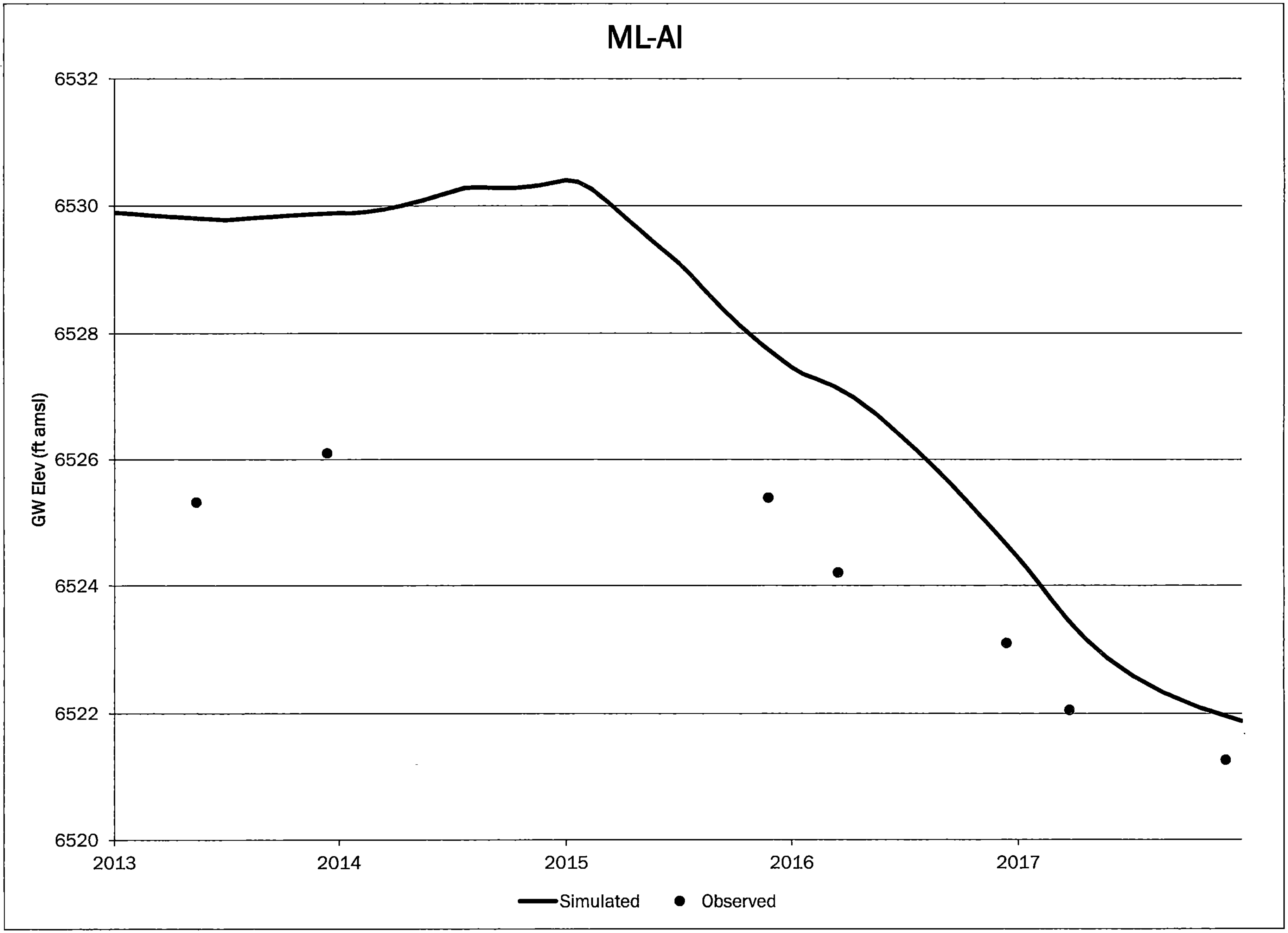

MA-AI
6536
6534
6532
6530
6528
6526
6524
6522
6520
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


MC-AI
6534
6532
6530
6528
6526
6524
6522
6520
6518
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

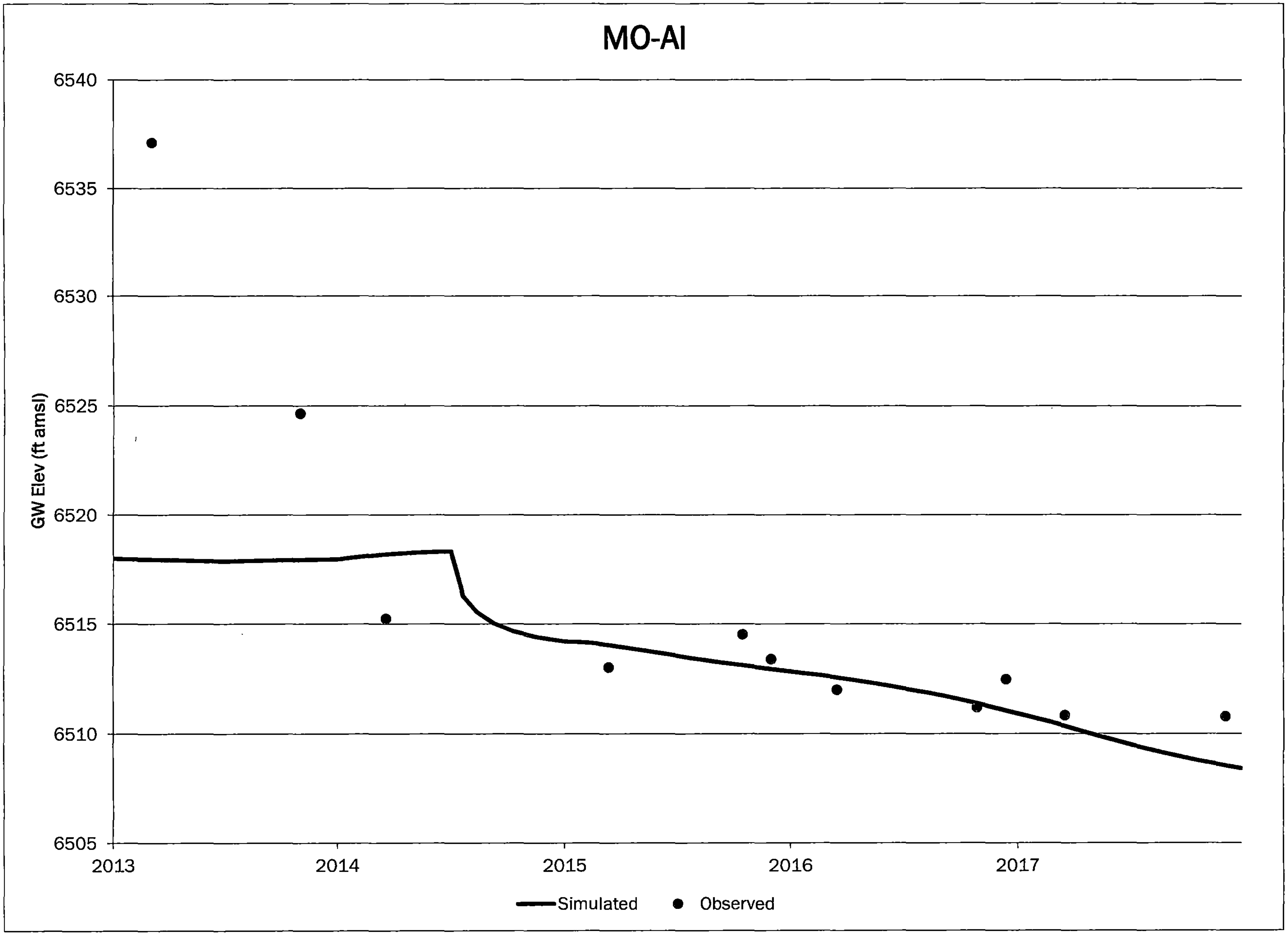

MF-AI
GW Elev (ft amsl)
6532
6530
6528
6526
6524
6522
6520
6518
6516
2013
2014
2015
2016
2017
Simulated
Observed

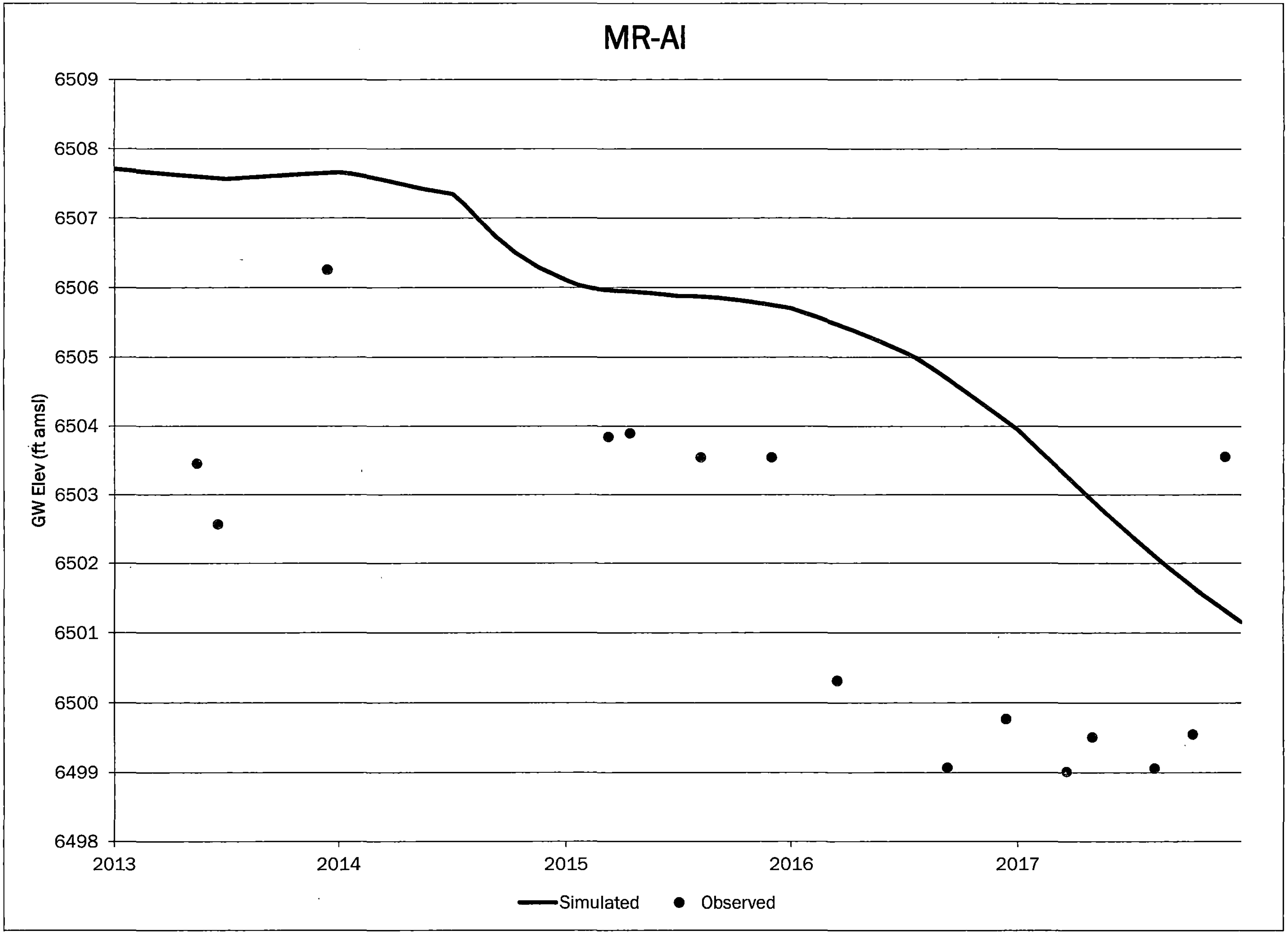


MH-AI
6528
6526
6524
6522
6520
6518
6516
6514
6512
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

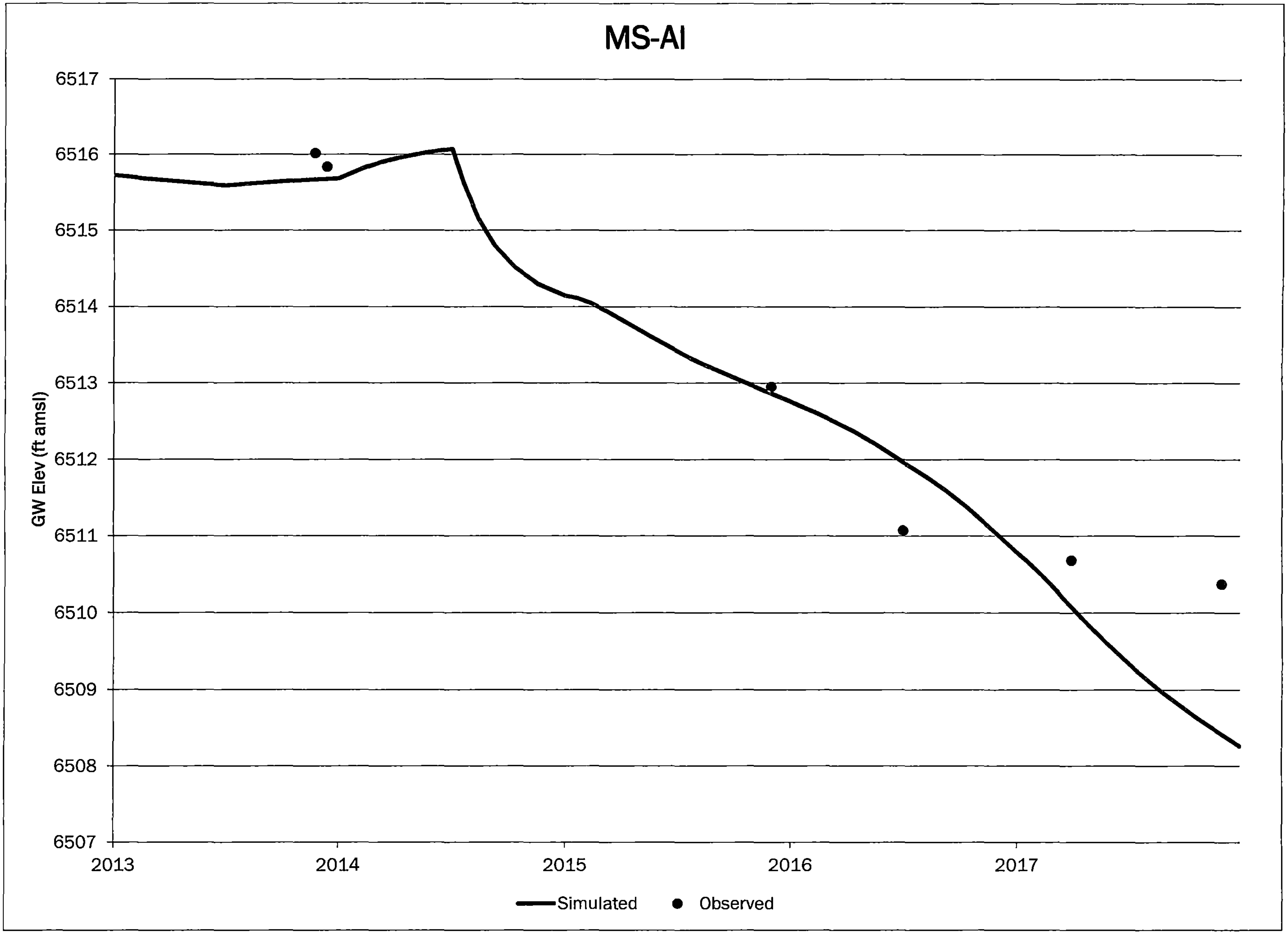


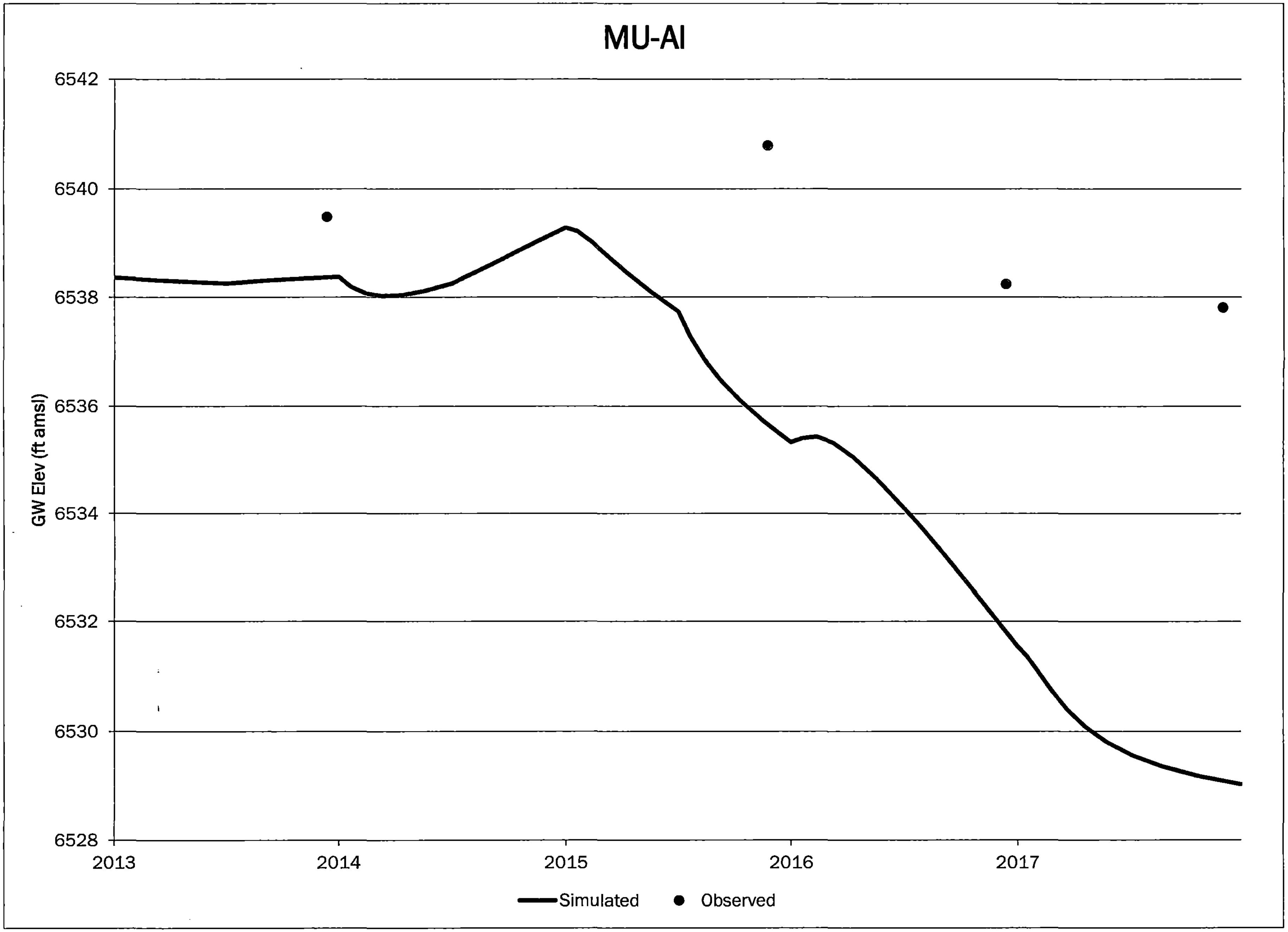
ML-AI
6532
6530
6528
6526
6524
6522
6520
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

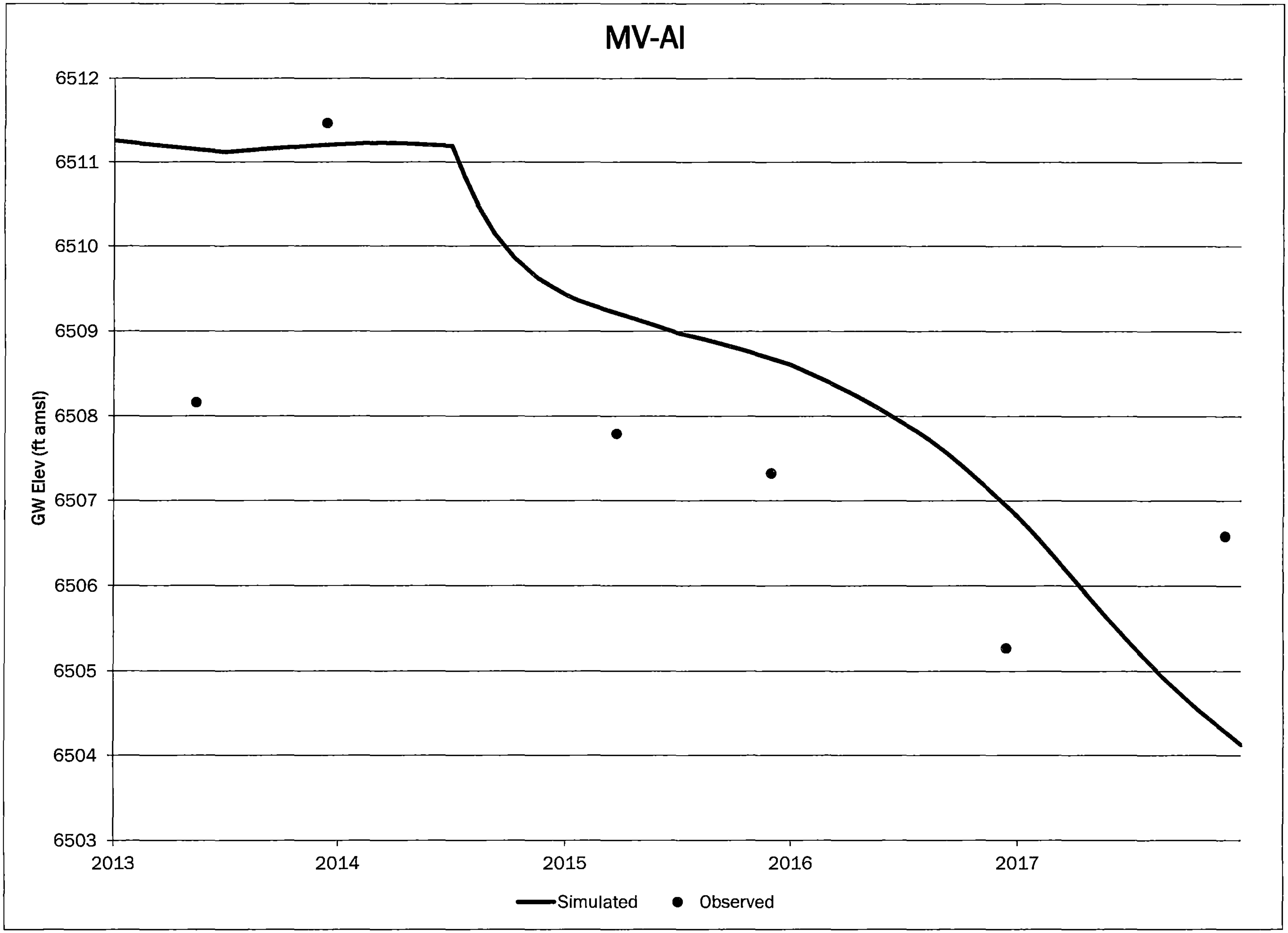

MO-AI
6540
6535
6530
6525
6520
6515
6510
6505
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

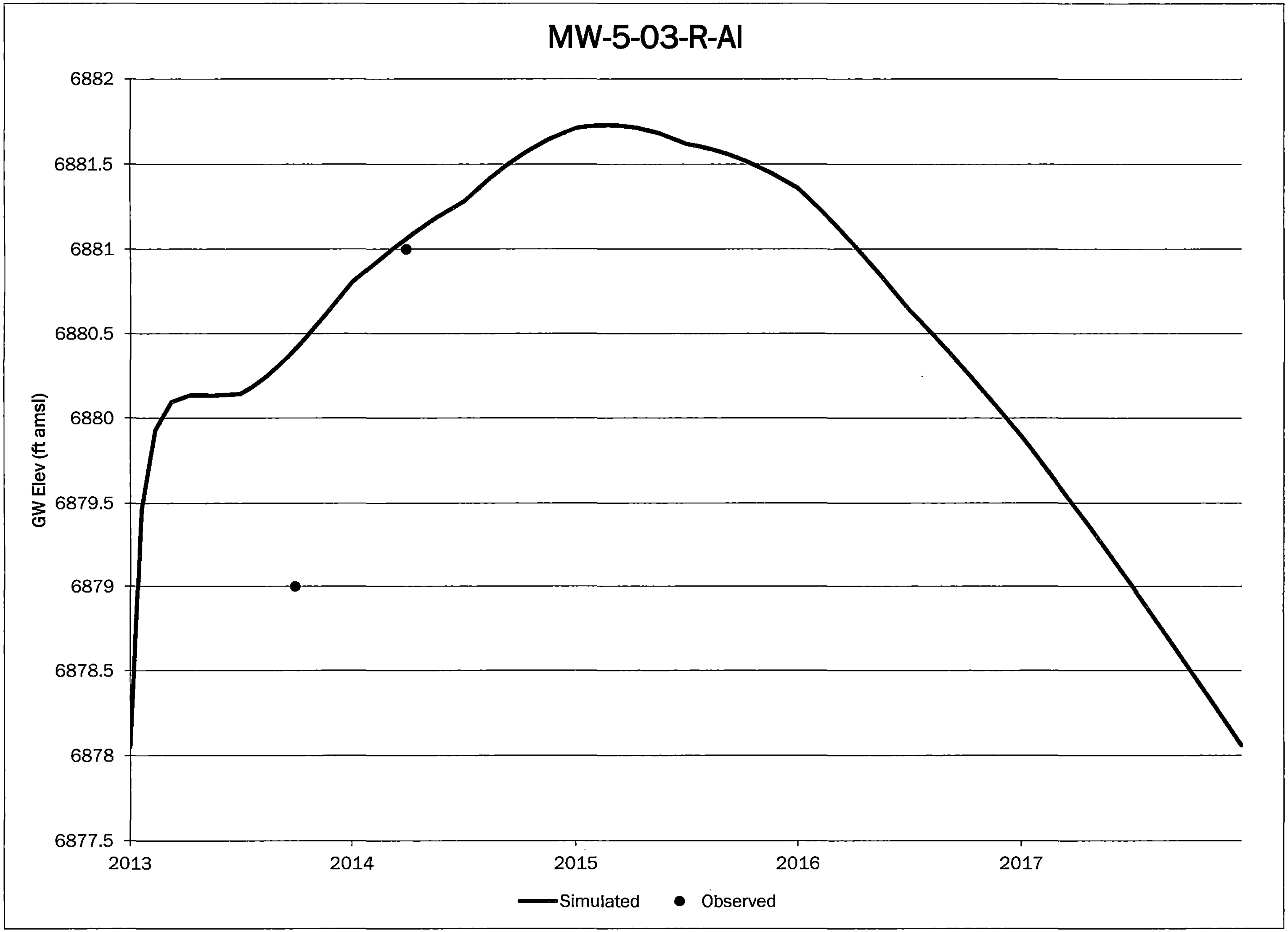


MR-AI
GW Elev (ft amsl)
6509
6508
6507
6506
6505
6504
6503
6502
6501
6500
6499
6498
2013
2014
2015
2016
2017
Simulated
Observed

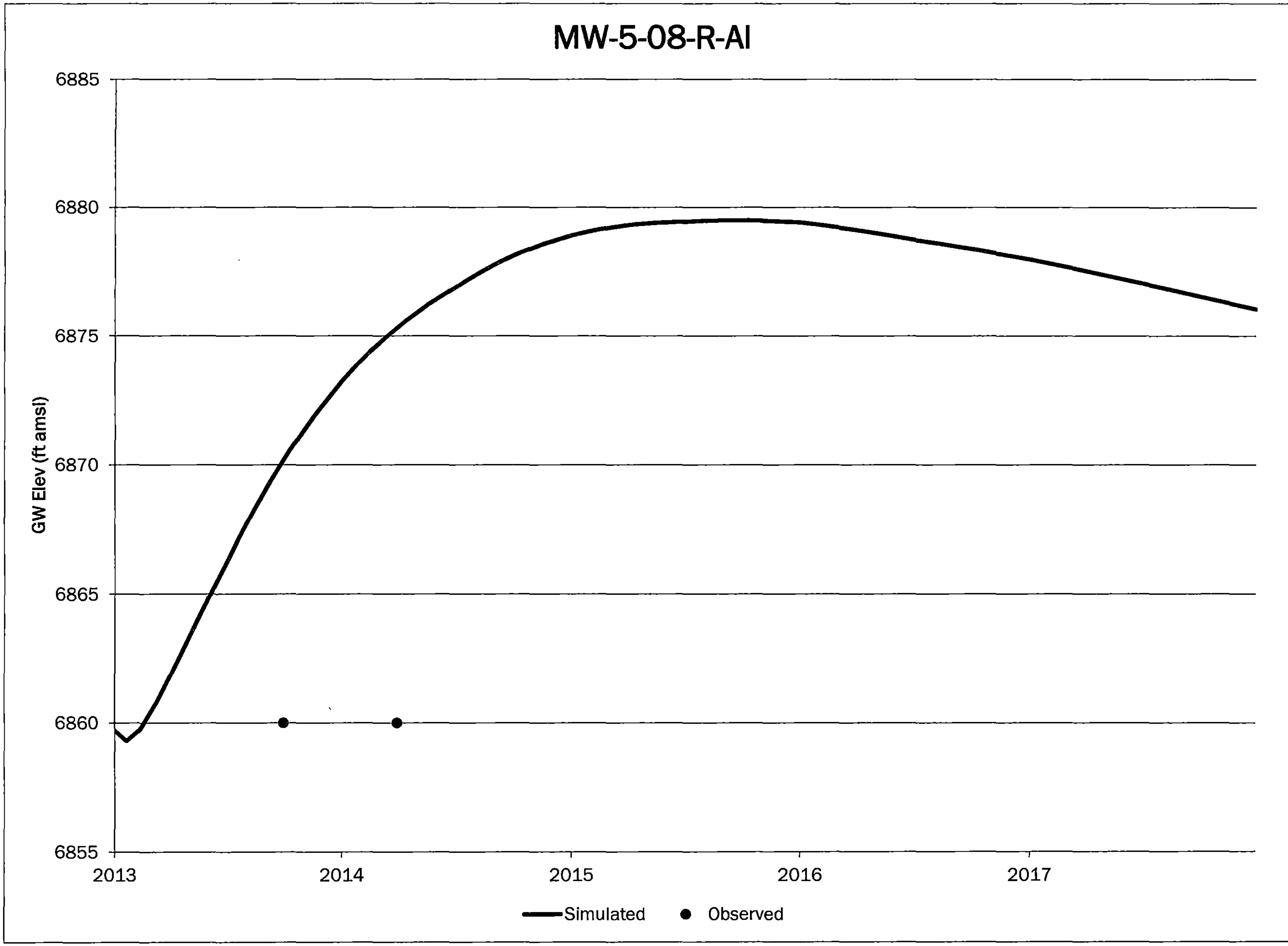

MS-AI
6517
6516
6515
6514
6513
6512
6511
6510
6509
6508
6507
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


MU-AI
GW Elev (ft amsl)
6542
6540
6538
6536
6534
6532
6530
6528
2013
2014
2015
2016
2017
Simulated
Observed

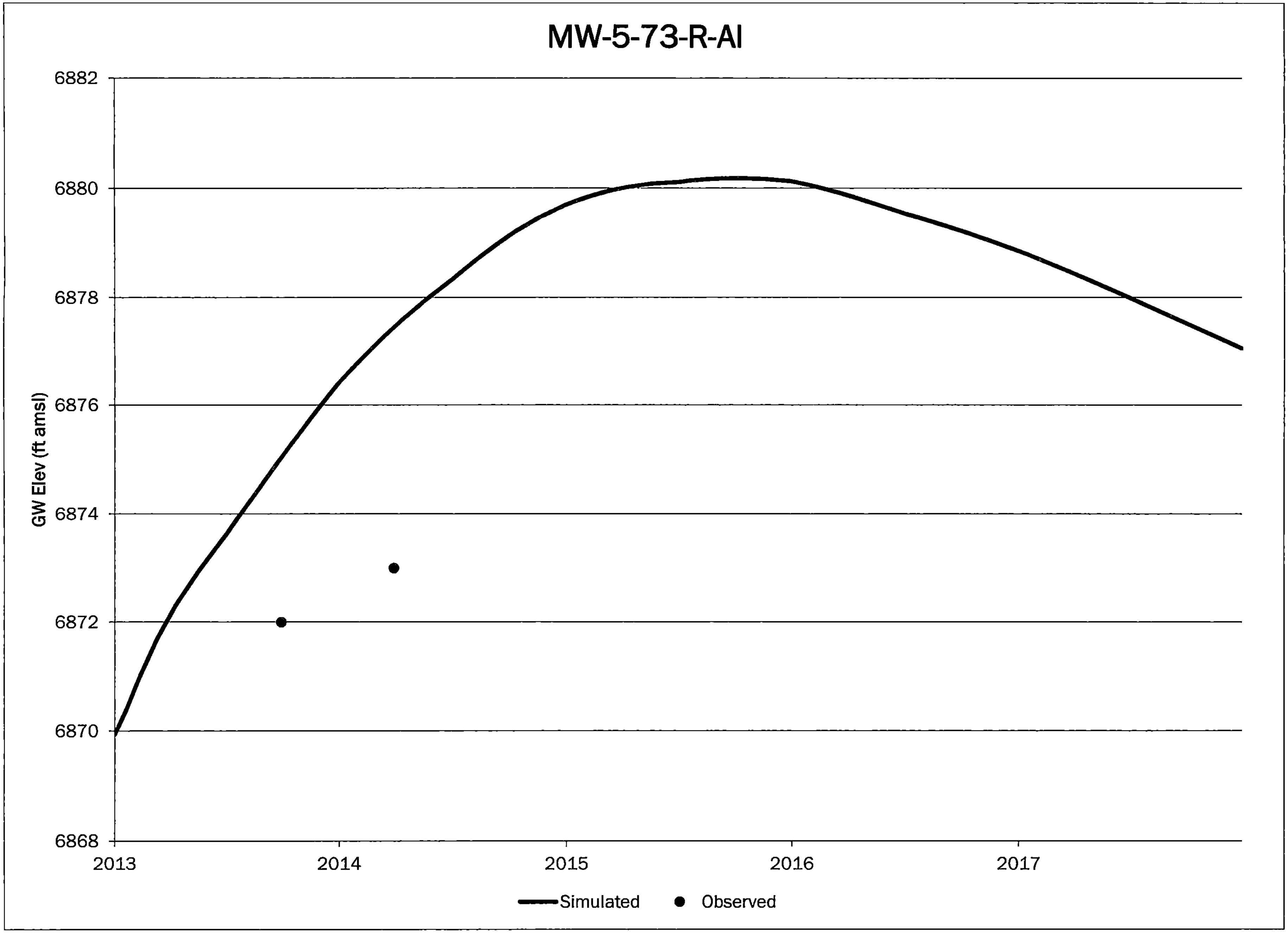

MV-AI
6512
6511
6510
6509
6508
6507
6506
6505
6504
6503
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



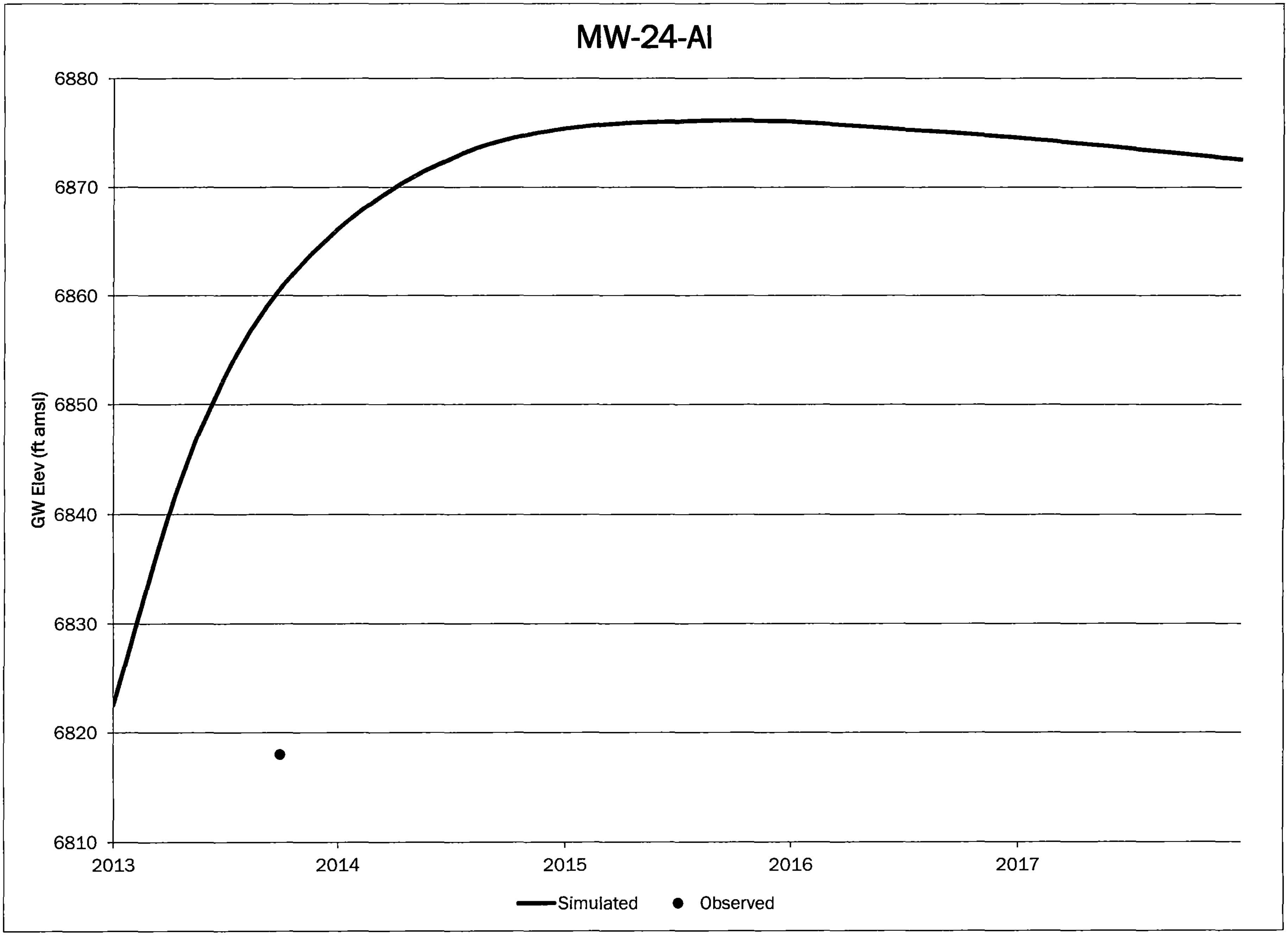
MW-5-03-R-AI
GW Elev (ft amsl)
6882
6881.5
6881
6880.5
6880
6879.5
6879
6878.5
6878
6877.5
2013
2014
2015
2016
2017
Simulated
Observed



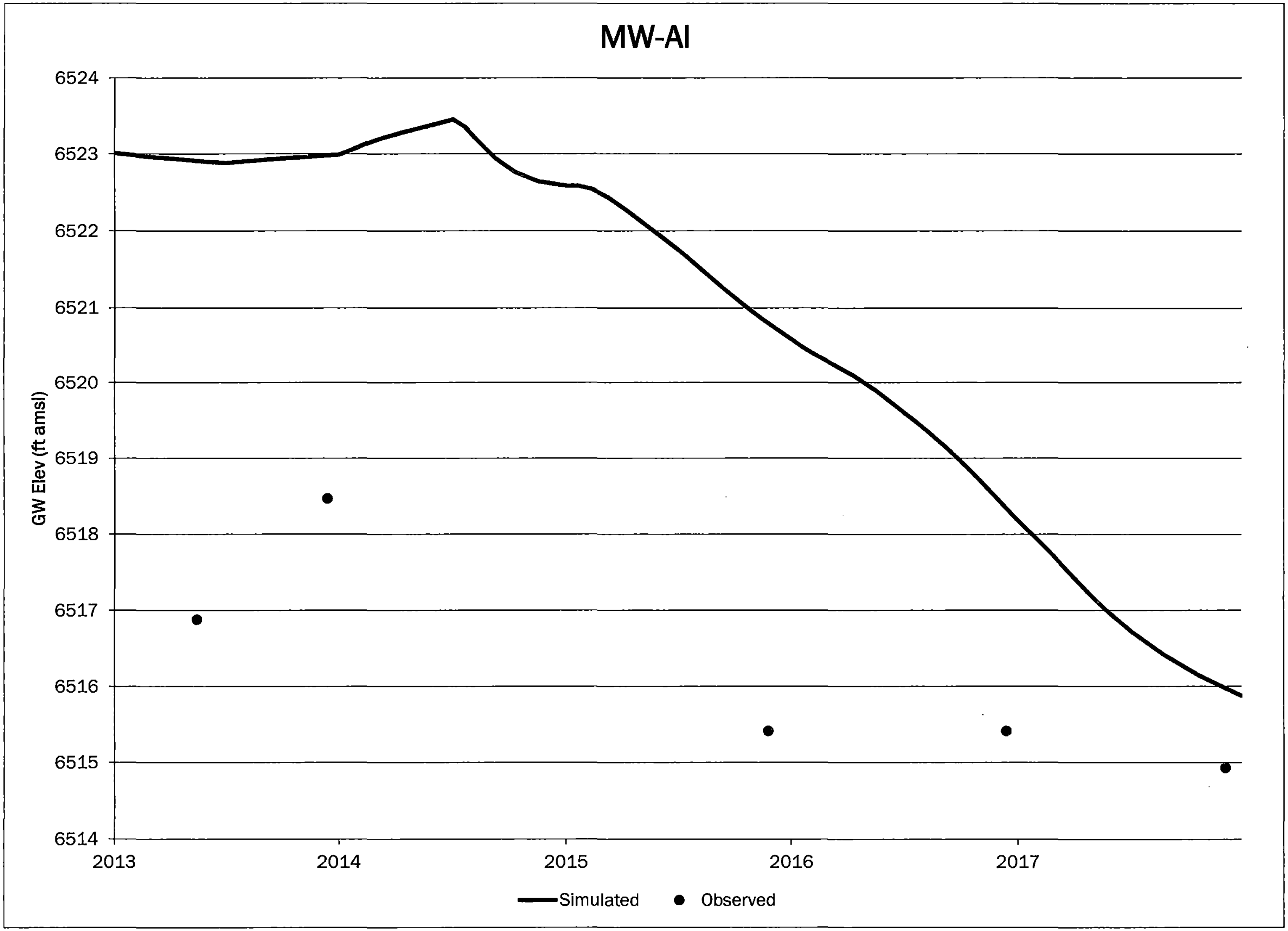
MW-5-08-R-AI
GW Elev (ft amsl)
6885
6880
6875
6870
6865
6860
6855
2013
2014
2015
2016
2017
Simulated
Observed

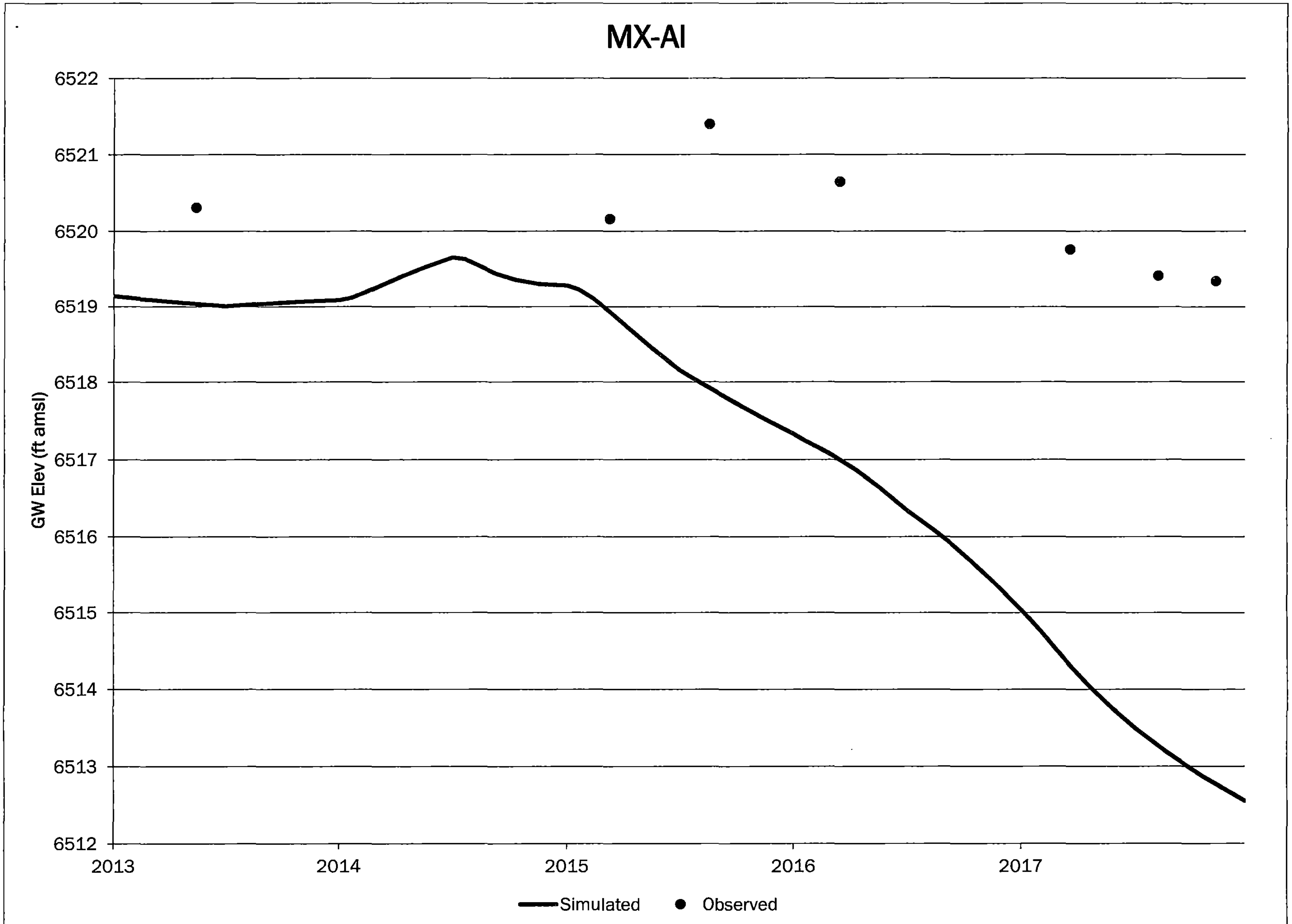


MW-5-73-R-AI
GW Elev (ft amsl)
6882
6880
6878
6876
6874
6872
6870
6868
2013
2014
2015
2016
2017
Simulated
Observed

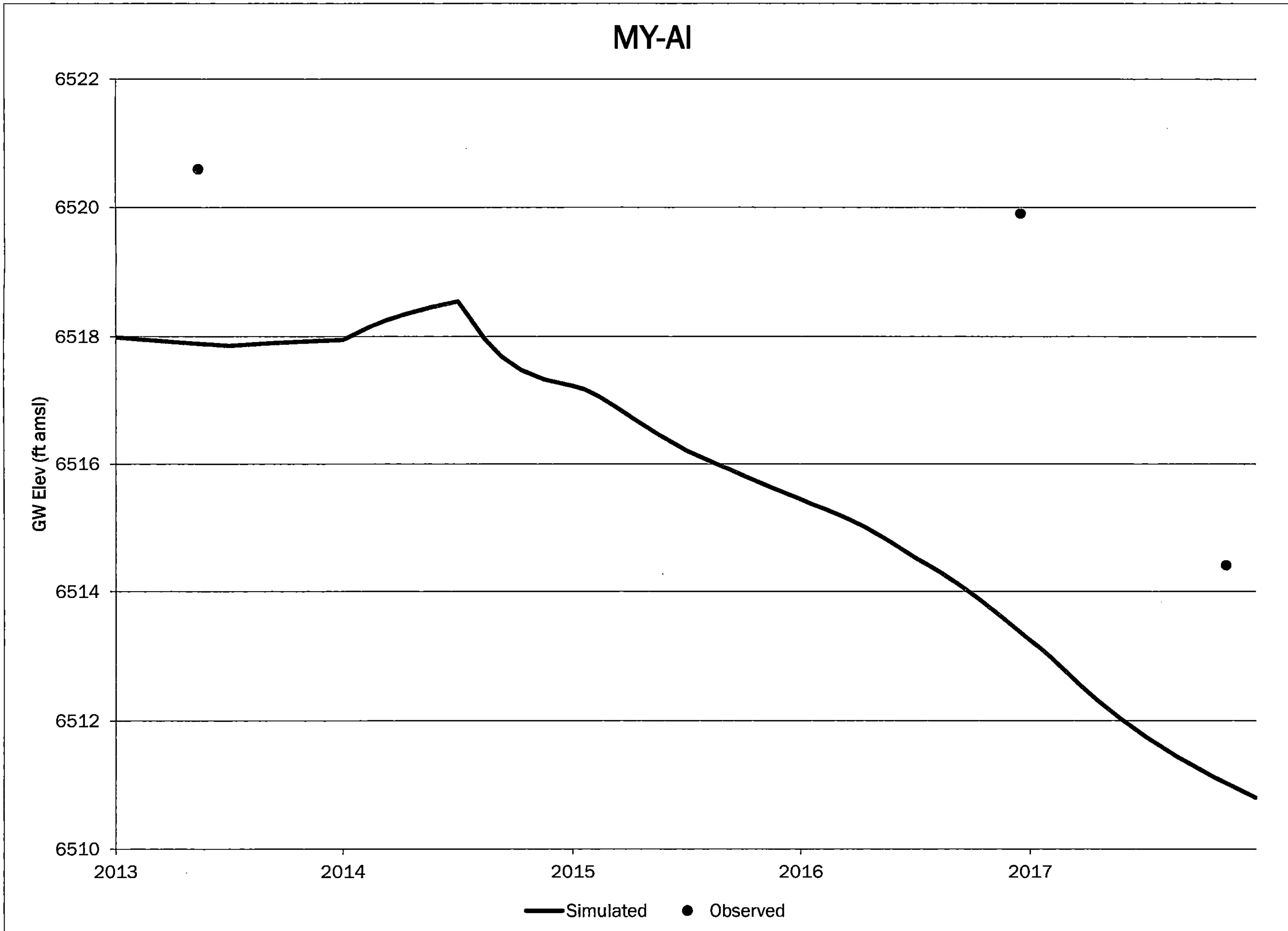


MW-24-AI
6880
6870
6860
6850
6840
6830
6820
6810
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

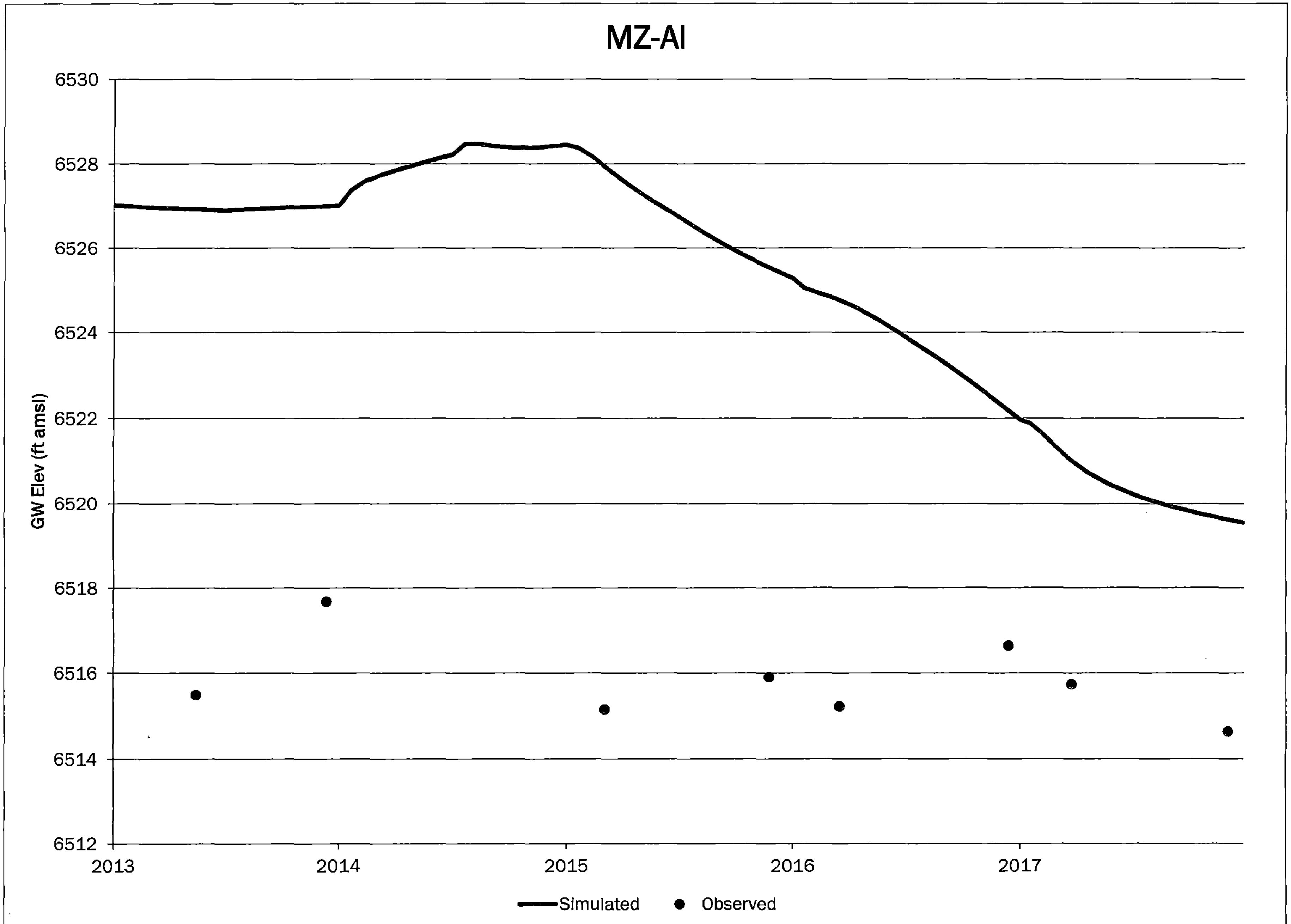

MW-AI
6524
6523
6522
6521
6520
6519
6518
6517
6516
6515
6514
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

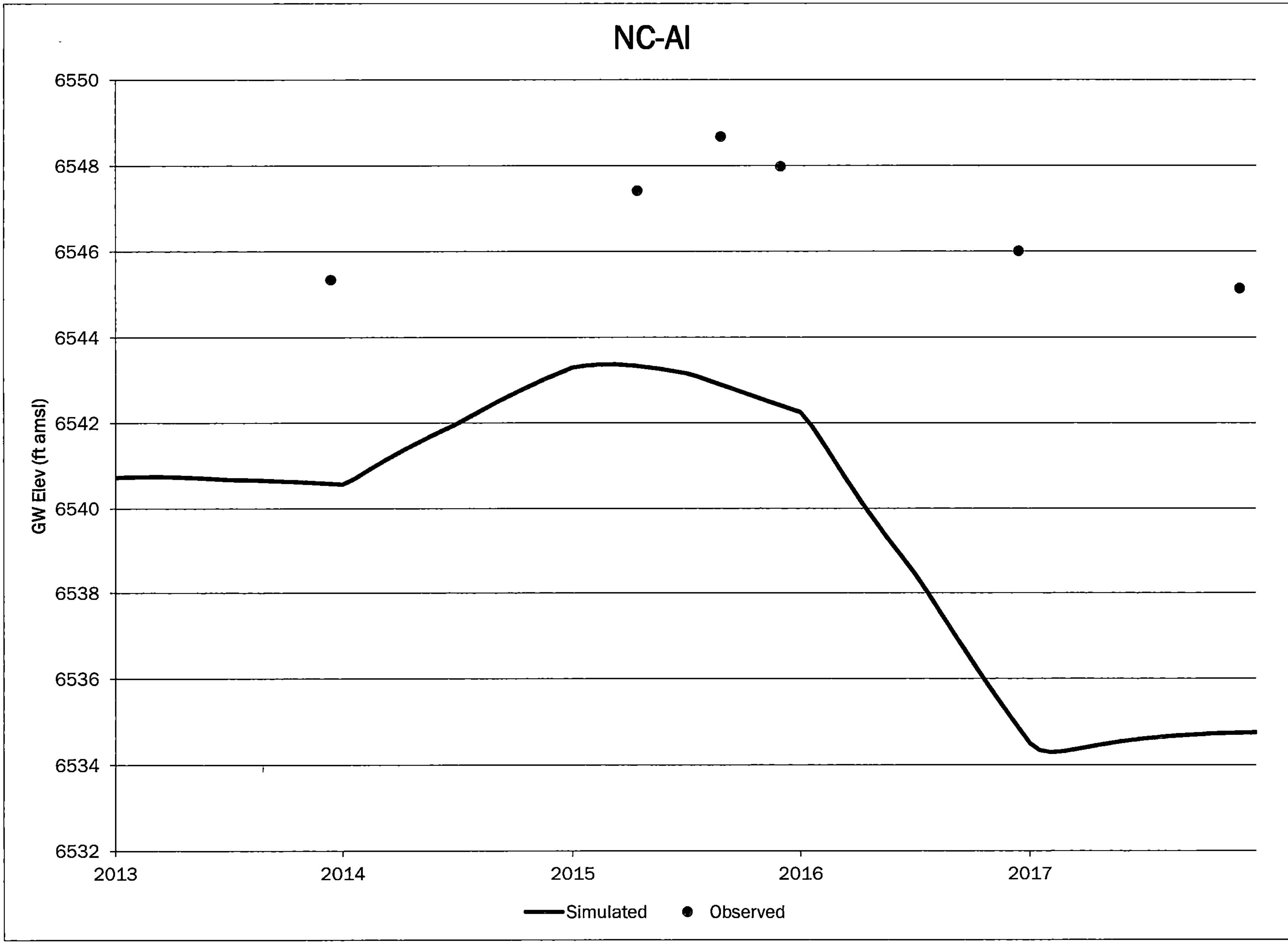


MX-AI
GW Elev (ft amsl)
6522
6521
6520
6519
6518
6517
6516
6515
6514
6513
6512
2013
2014
2015
2016
2017
Simulated
Observed

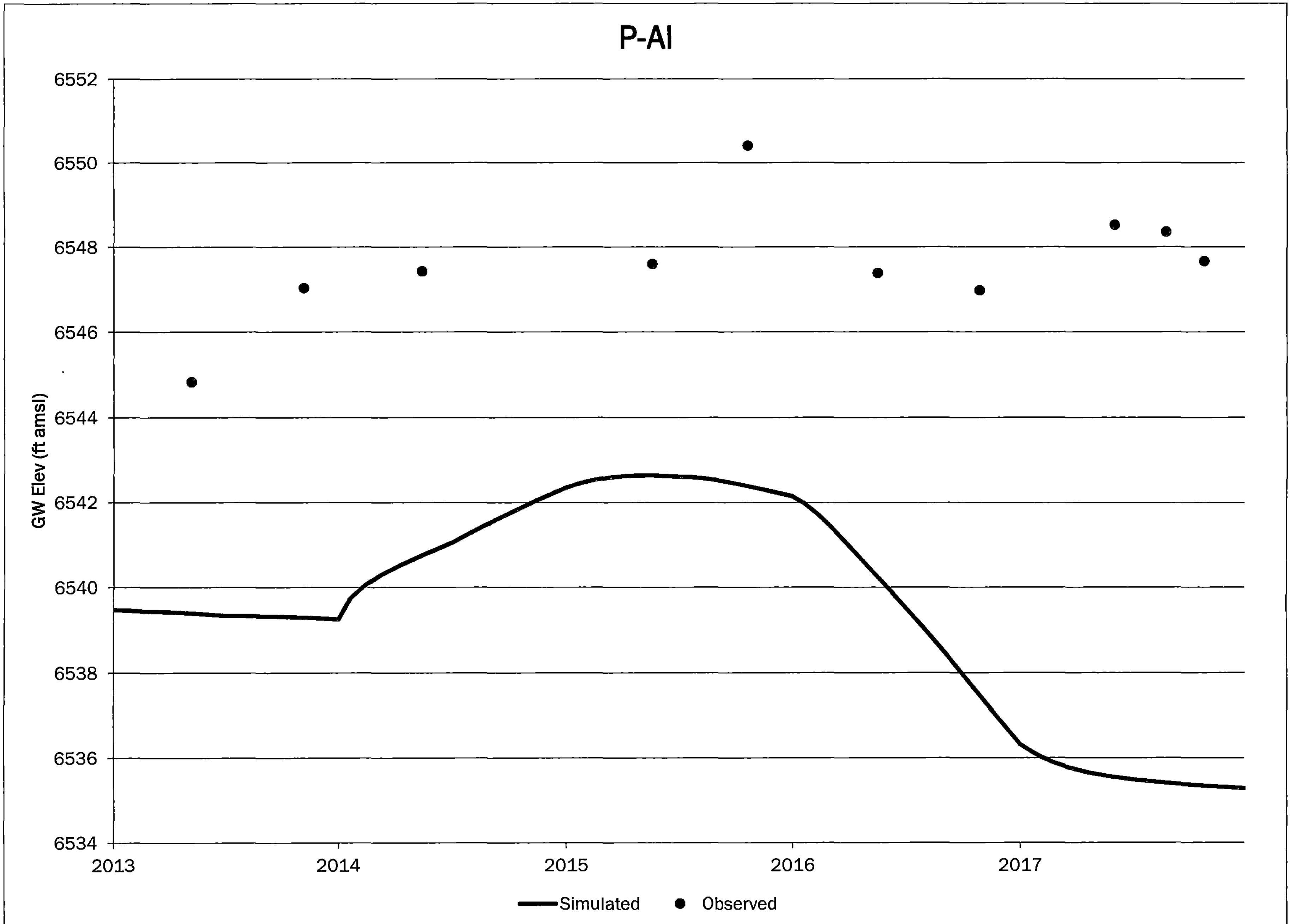


MY-AI
GW Elev (ft amsl)
6522
6520
6518
6516
6514
6512
6510
2013
2014
2015
2016
2017
Simulated
Observed

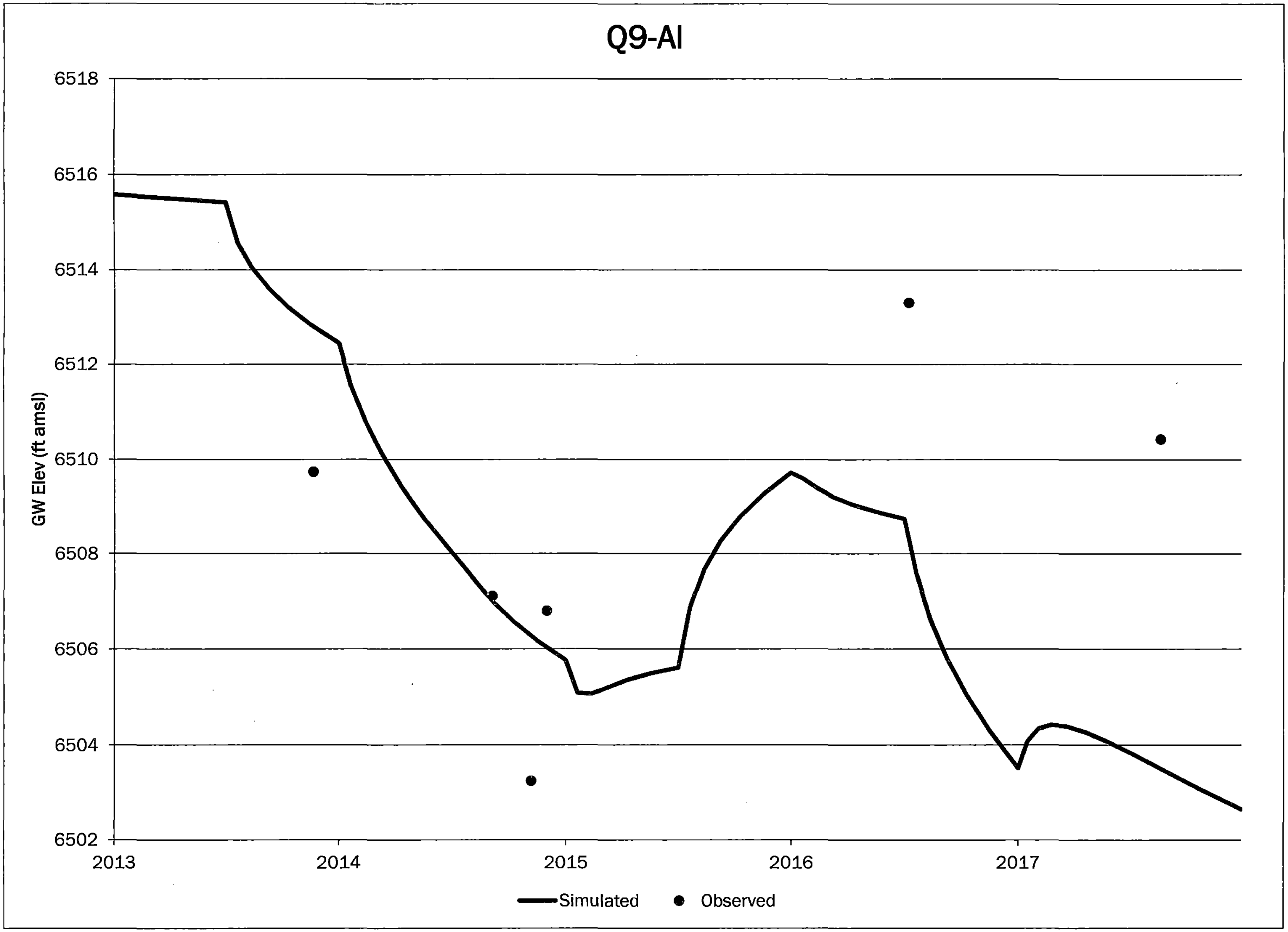

MZ-AI
6530
6528
6526
6524
6522
6520
6518
6516
6514
6512
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



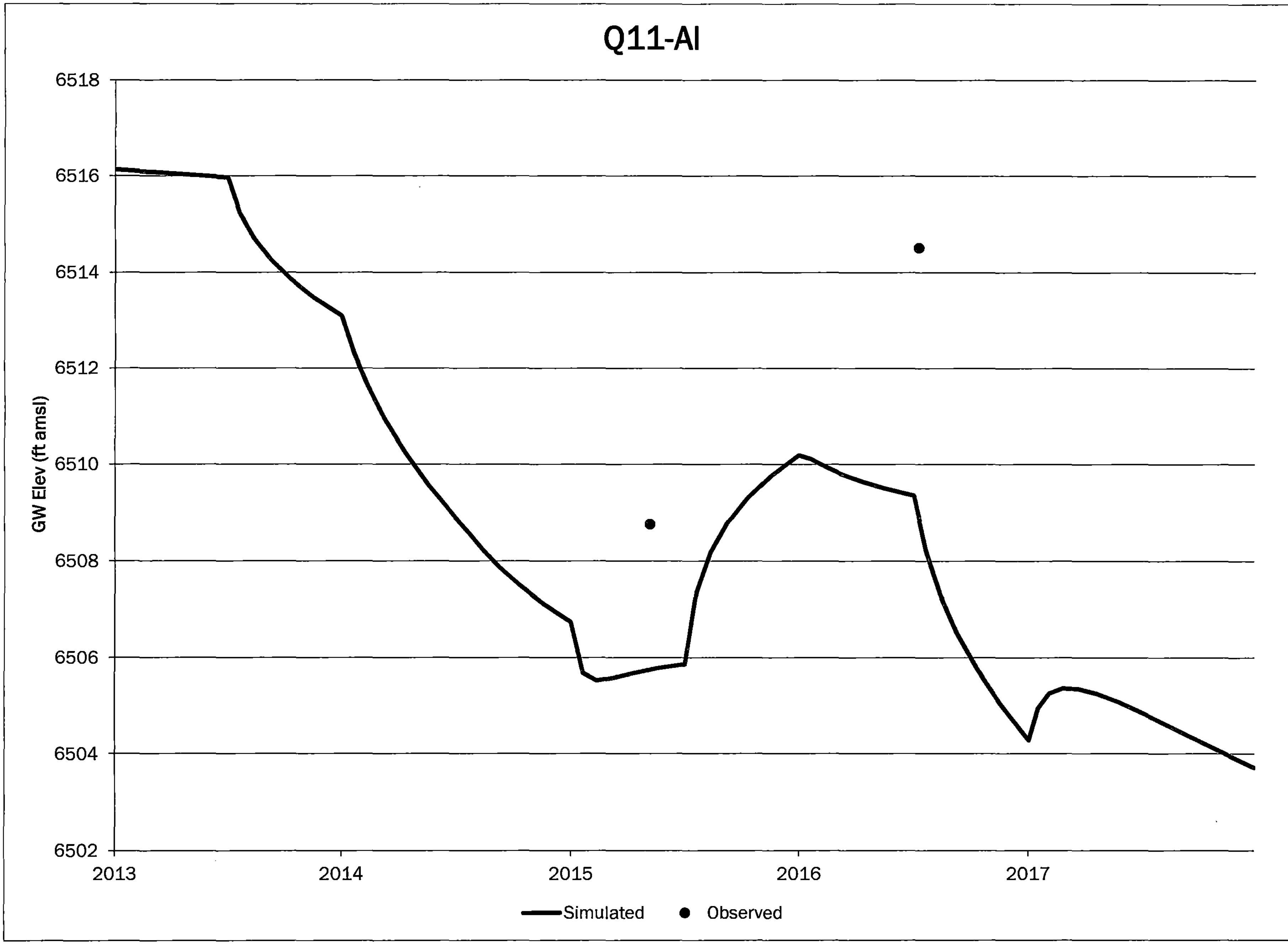
NC-AI
6550
6548
6546
6544
6542
6540
6538
6536
6534
6532
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



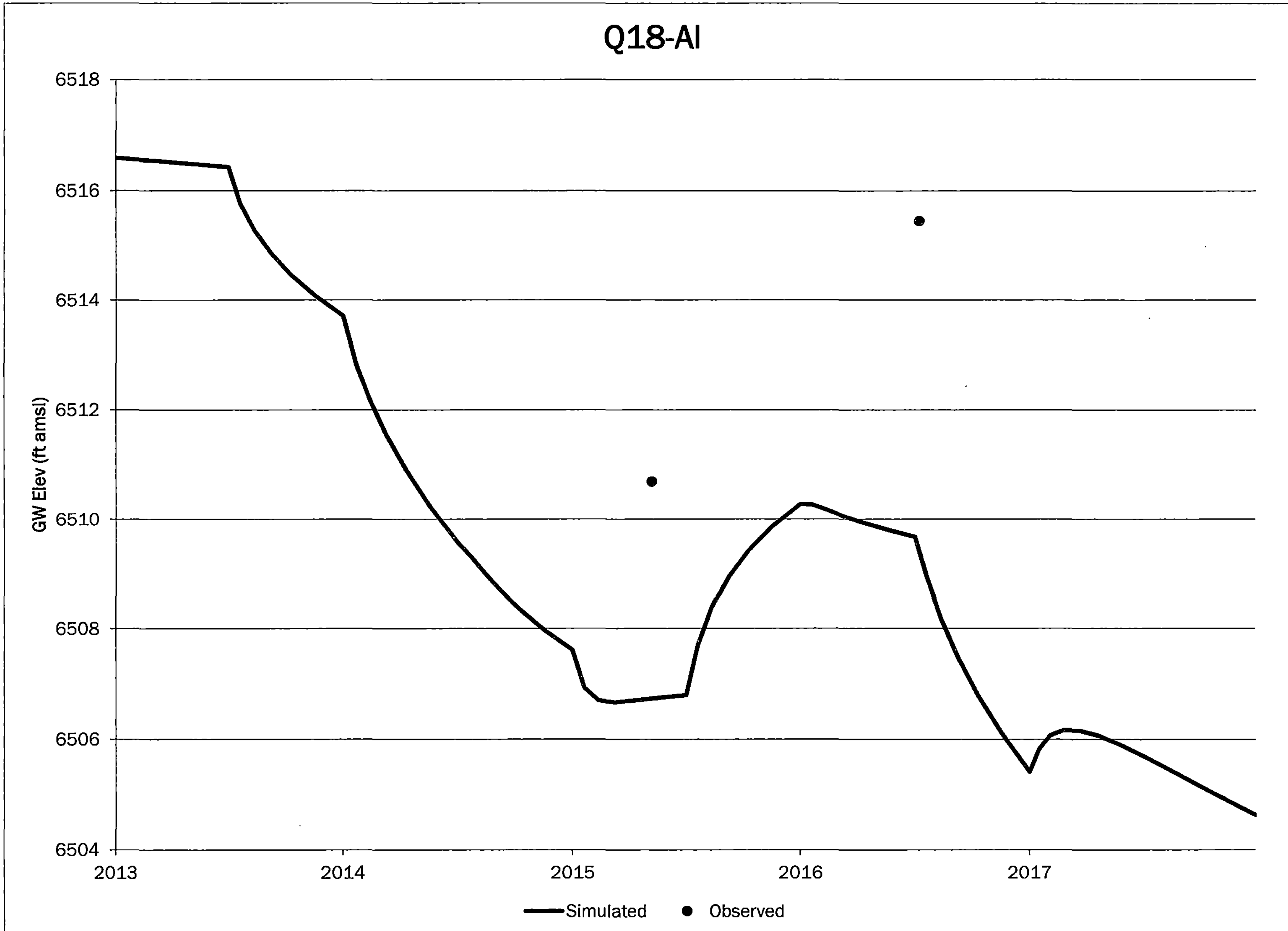
P-AI
6552
6550
6548
6546
6544
6542
6540
6538
6536
6534
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



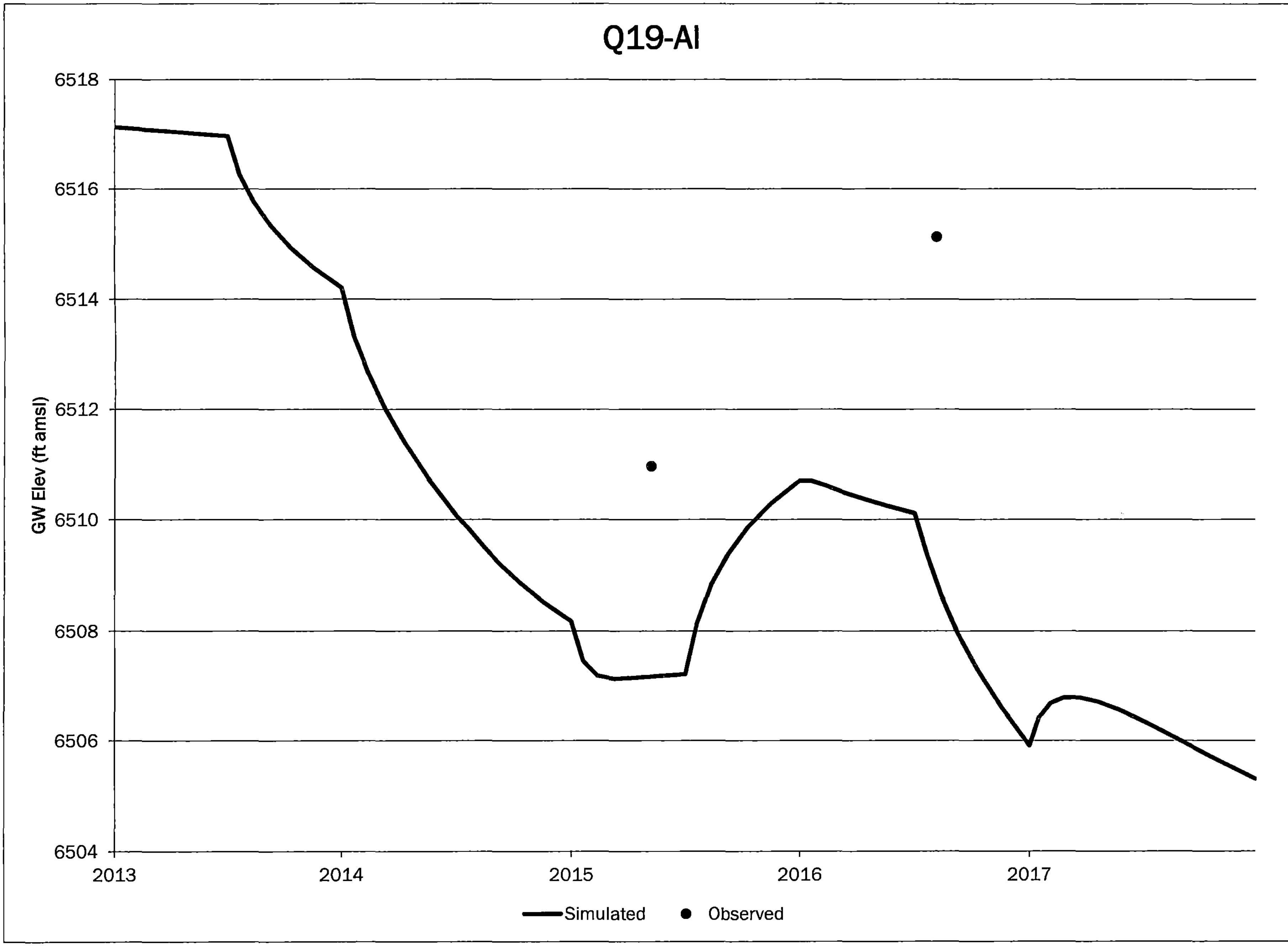
Q9-AI
6518
6516
6514
6512
6510
6508
6506
6504
6502
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



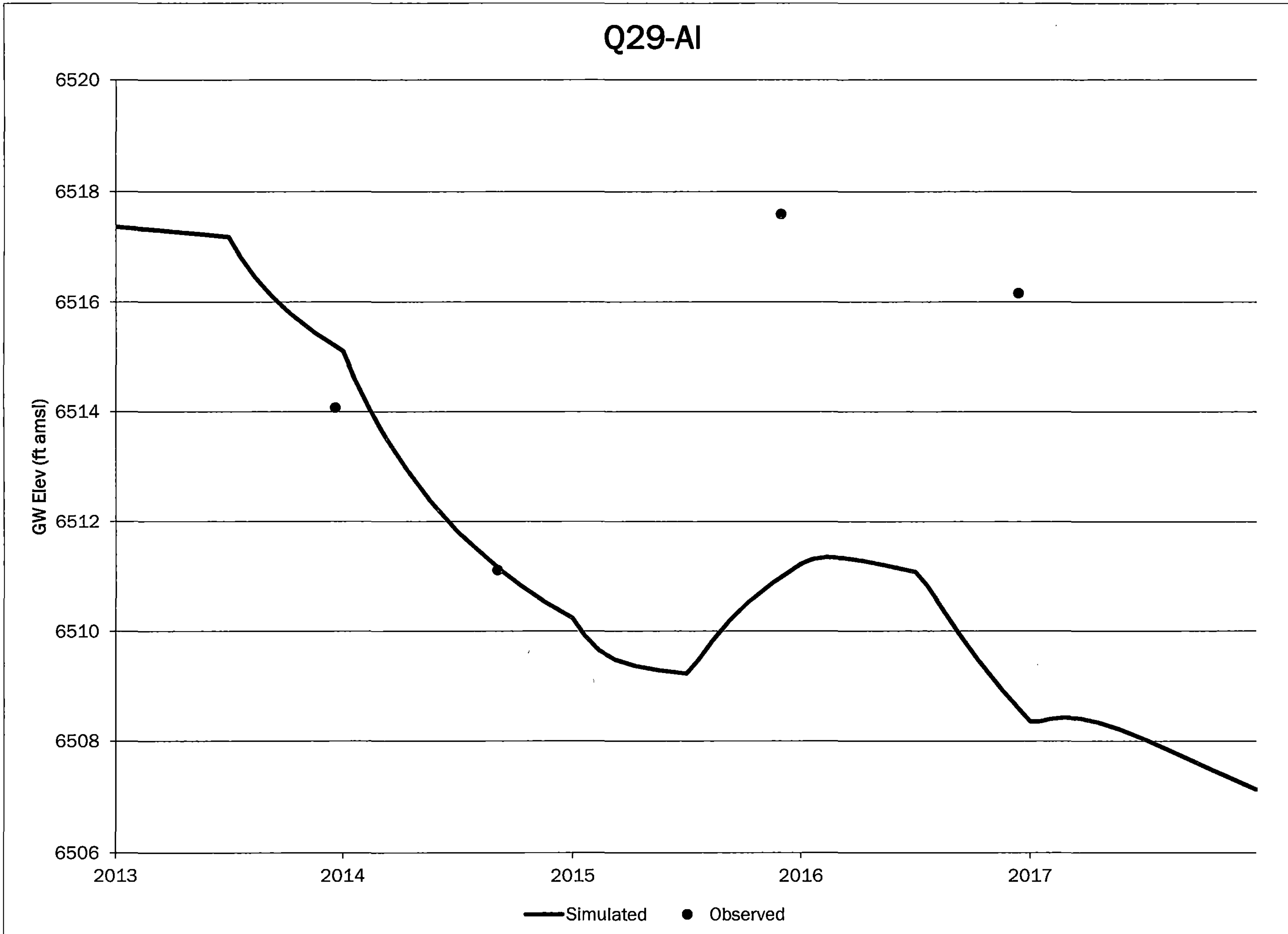
Q11-Al
6518
6516
6514
6512
6510
6508
6506
6504
6502
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

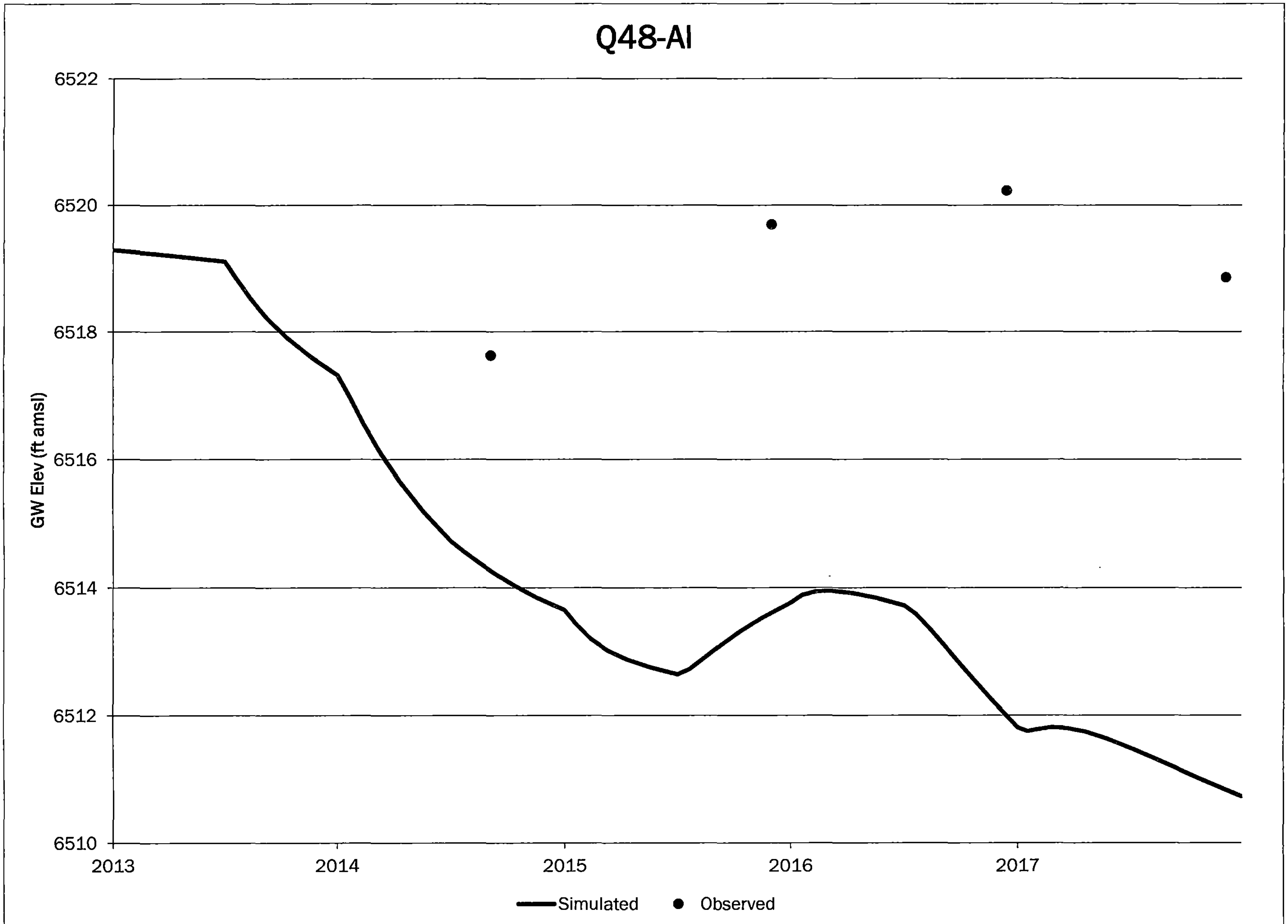


Q18-Al
GW Elev (ft amsl)
6518
6516
6514
6512
6510
6508
6506
6504
2013
2014
2015
2016
2017
Simulated
Observed

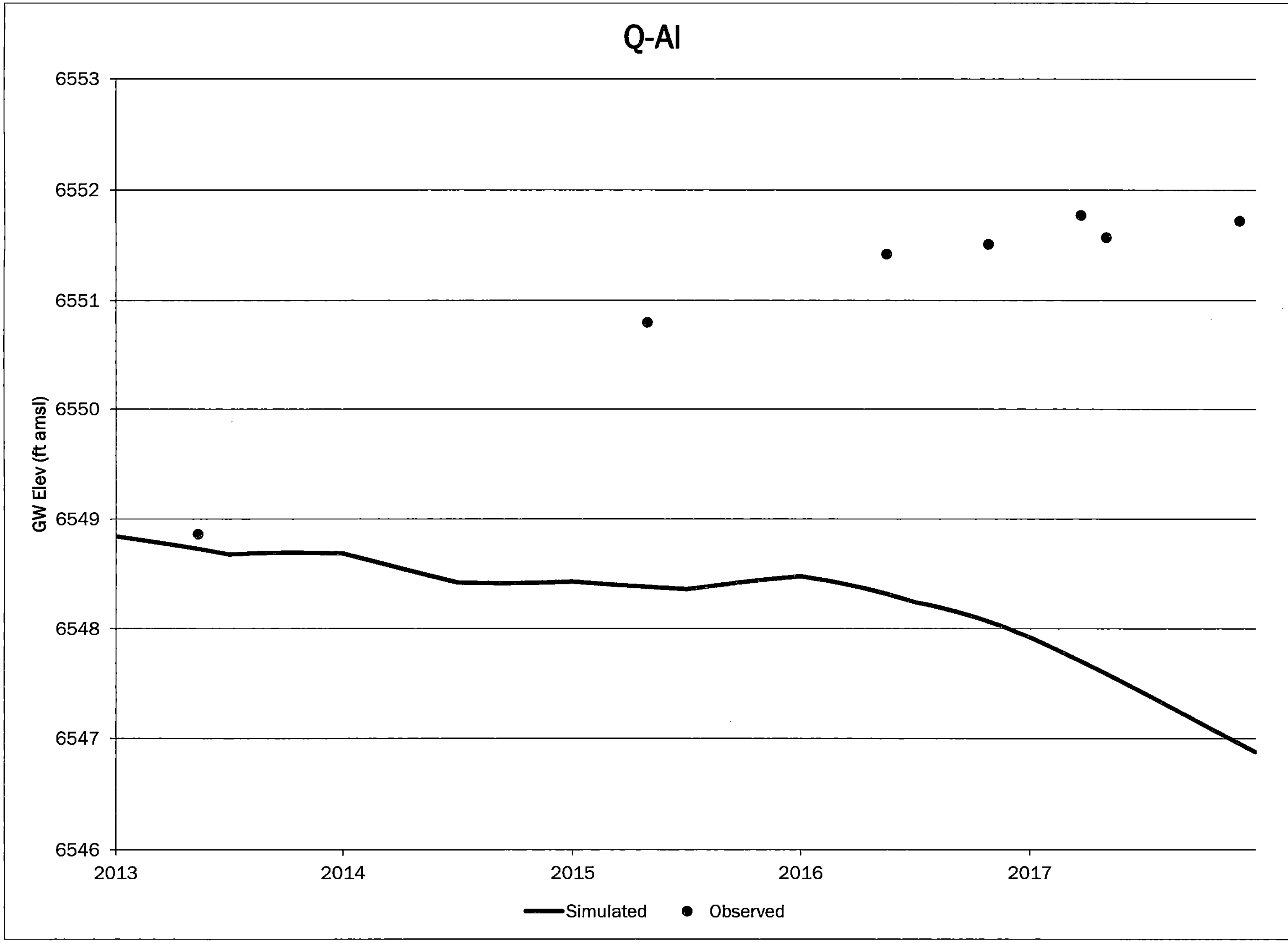


Q19-AI
GW Elev (ft amsl)
6518
6516
6514
6512
6510
6508
6506
6504
2013
2014
2015
2016
2017
Simulated
Observed

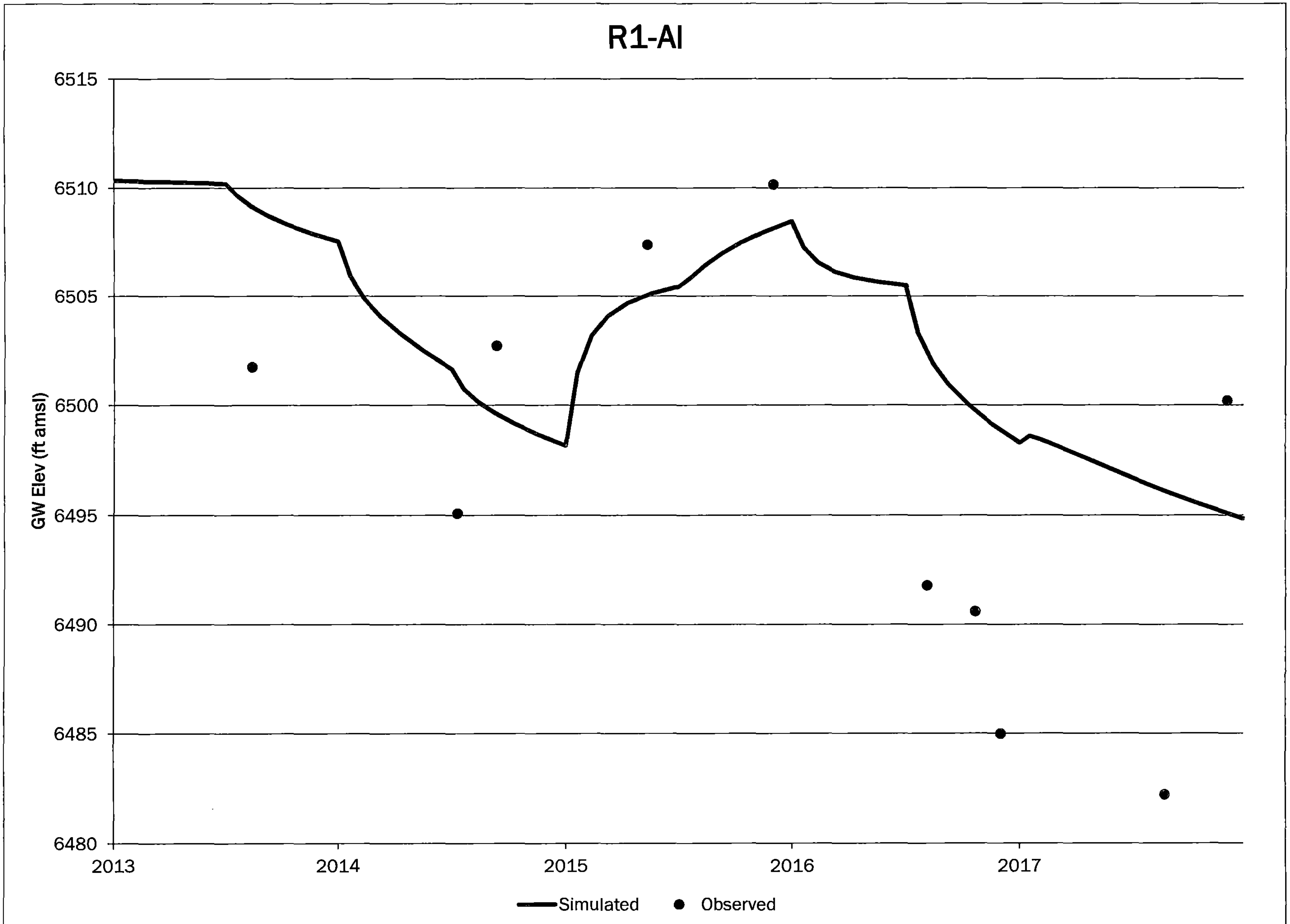

Q29-AI
GW Elev (ft amsl)
6520
6518
6516
6514
6512
6510
6508
6506
2013
2014
2015
2016
2017
Simulated
Observed

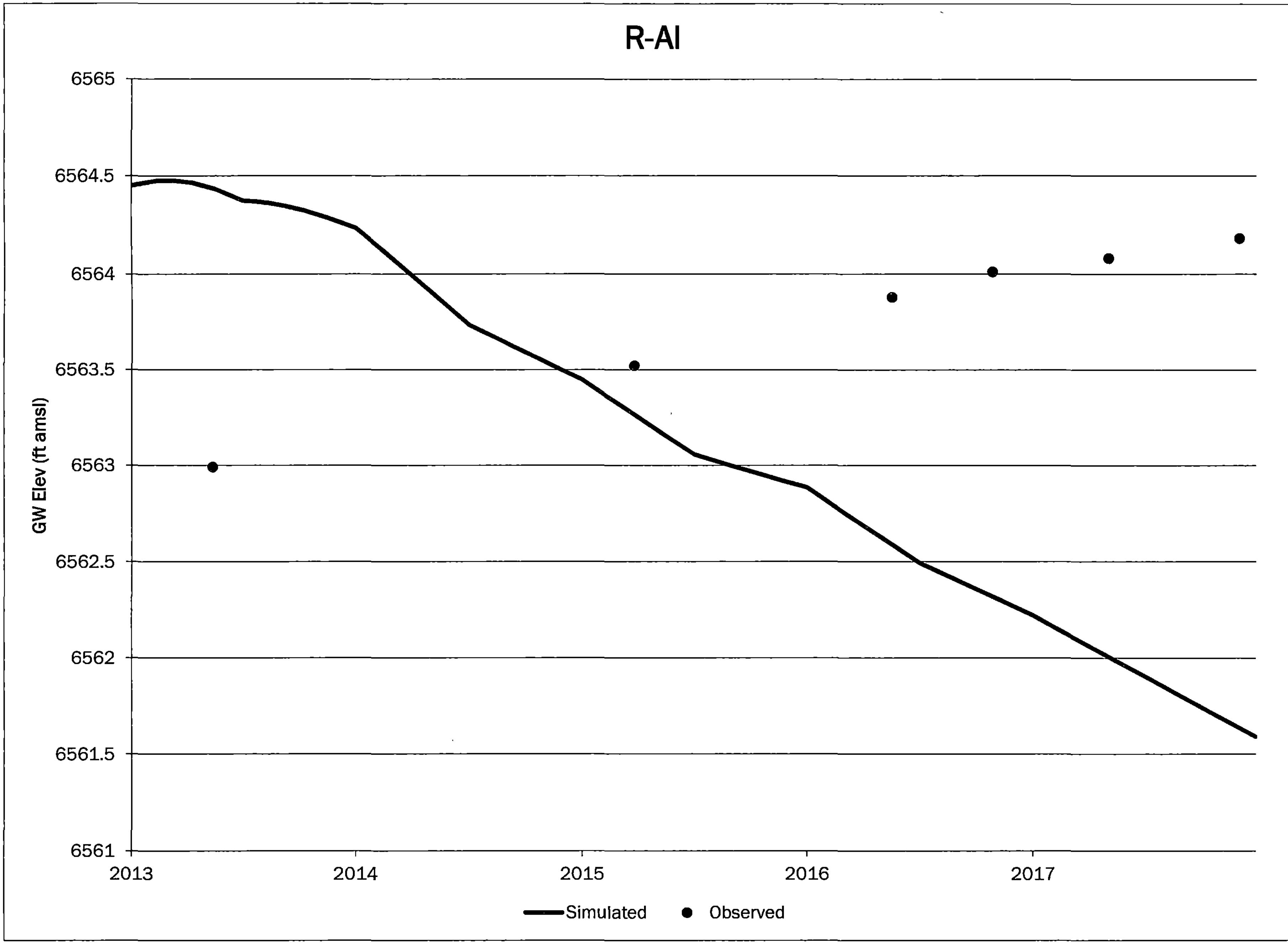


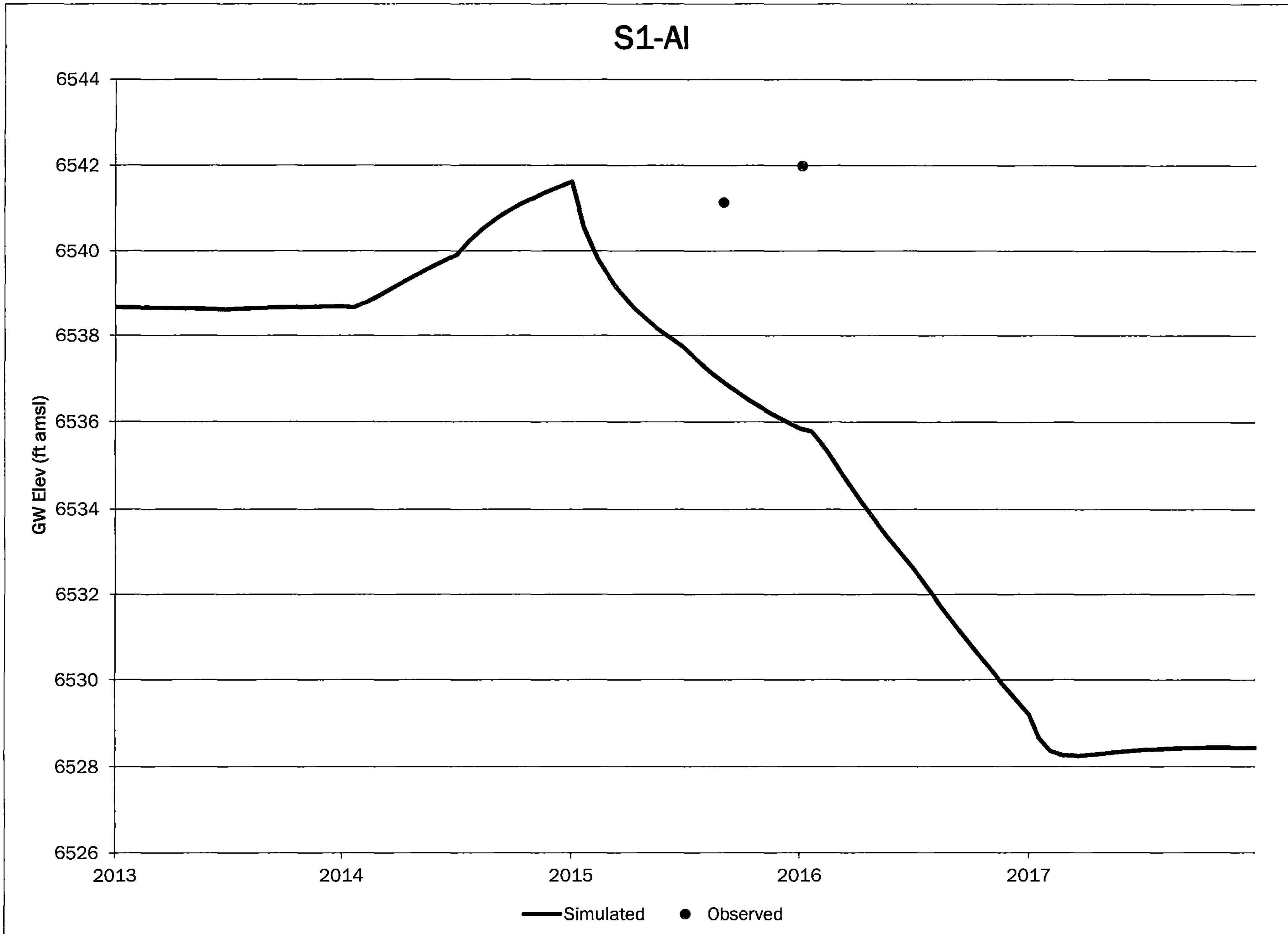
Q48-AI
6522
6520
6518
6516
6514
6512
6510
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

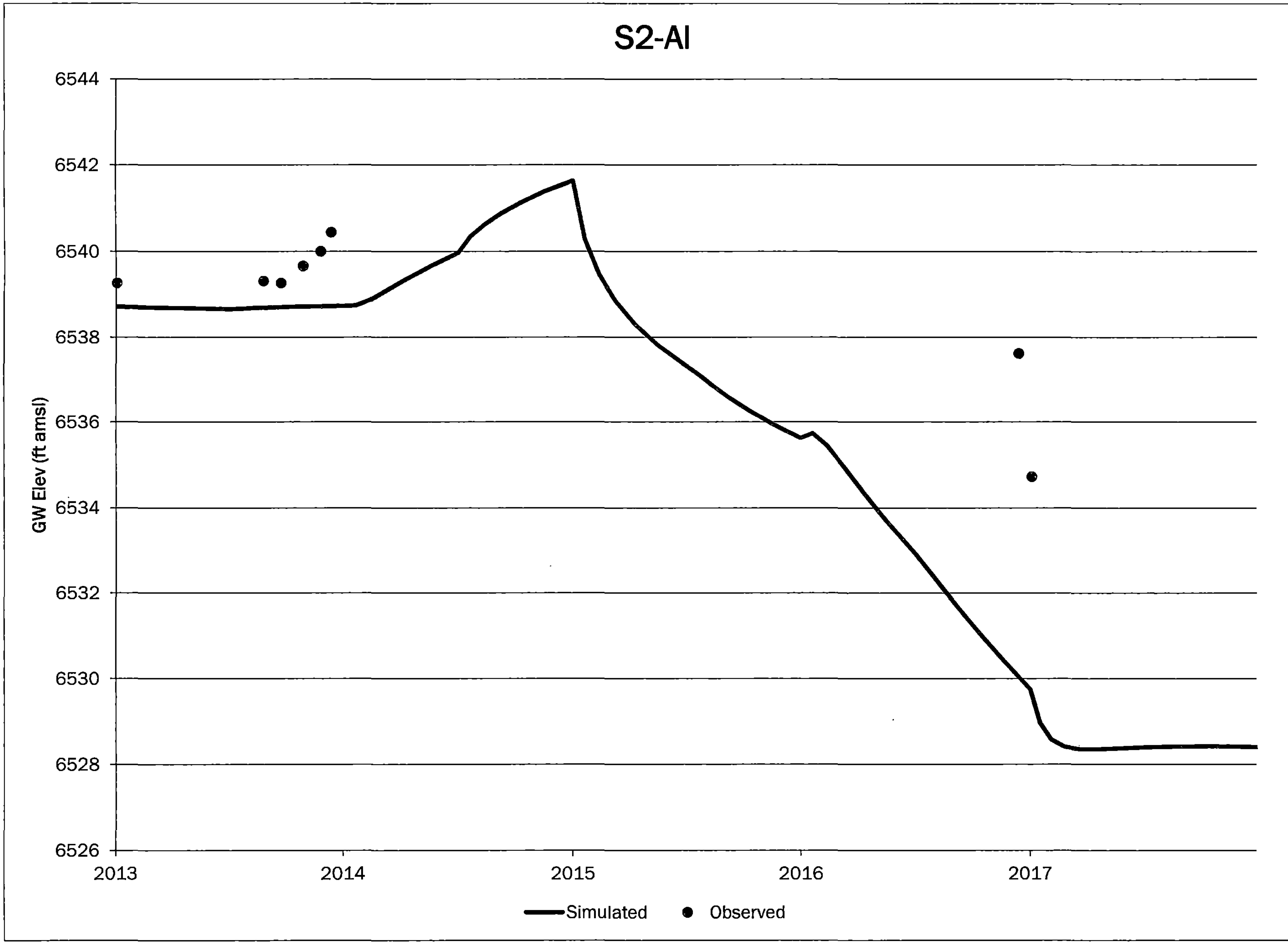


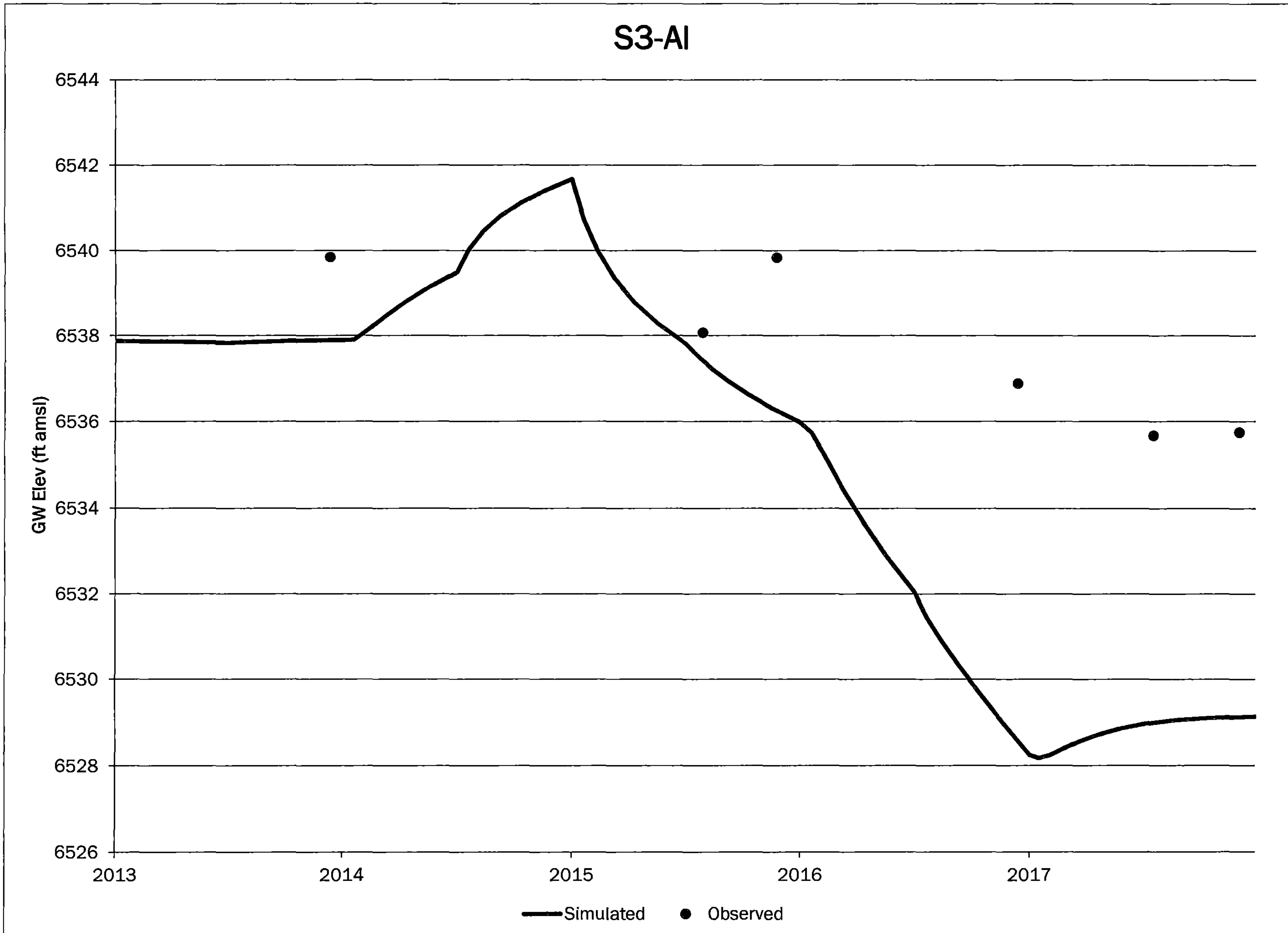
Q-AI
GW Elev (ft amsl)
6553
6552
6551
6550
6549
6548
6547
6546
2013
2014
2015
2016
2017
Simulated
Observed


R1-AI
6515
6510
6505
6500
6495
6490
6485
6480
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

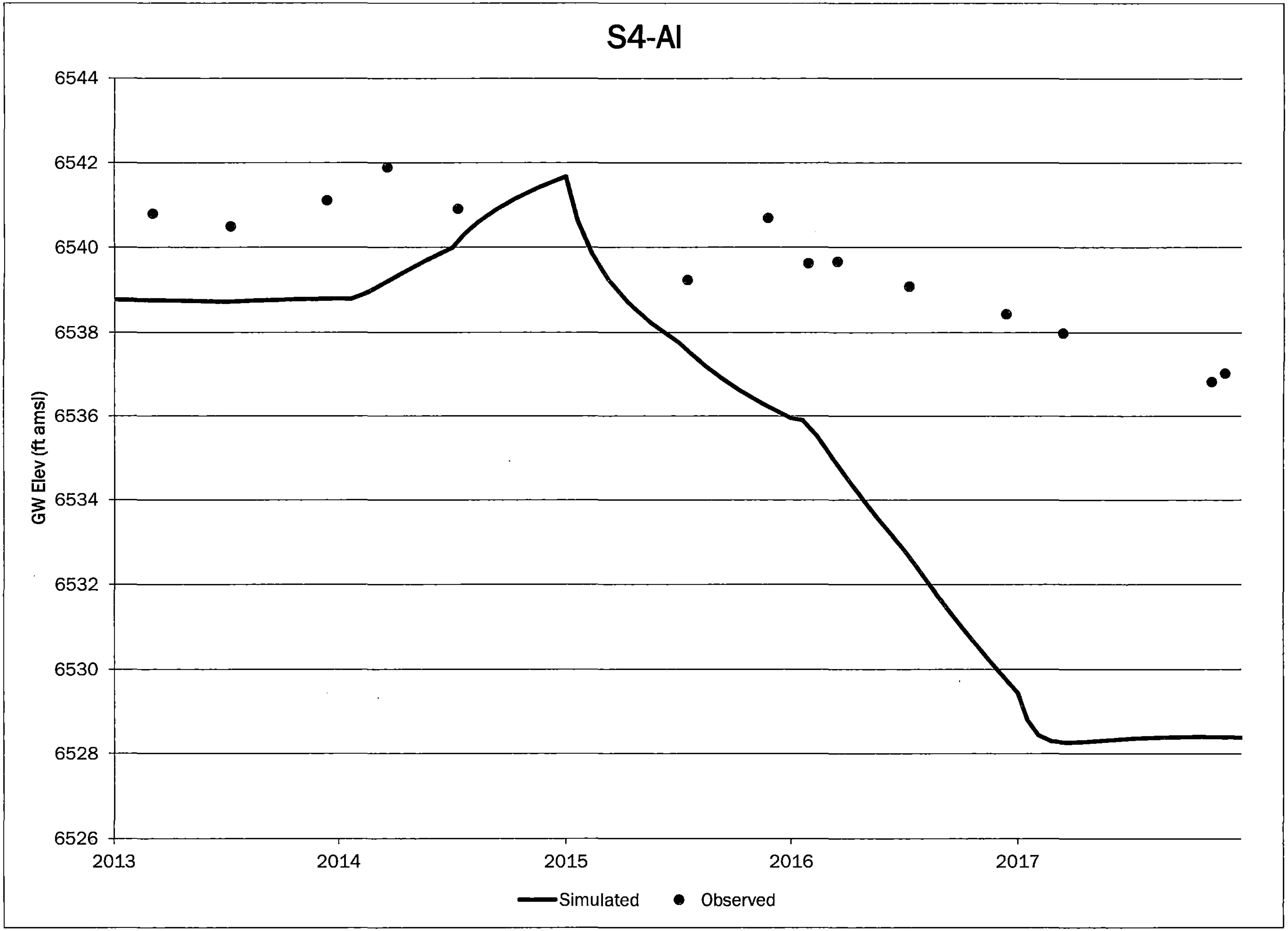

R-Al
6565
6564.5
6564
6563.5
6563
6562.5
6562
6561.5
6561
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

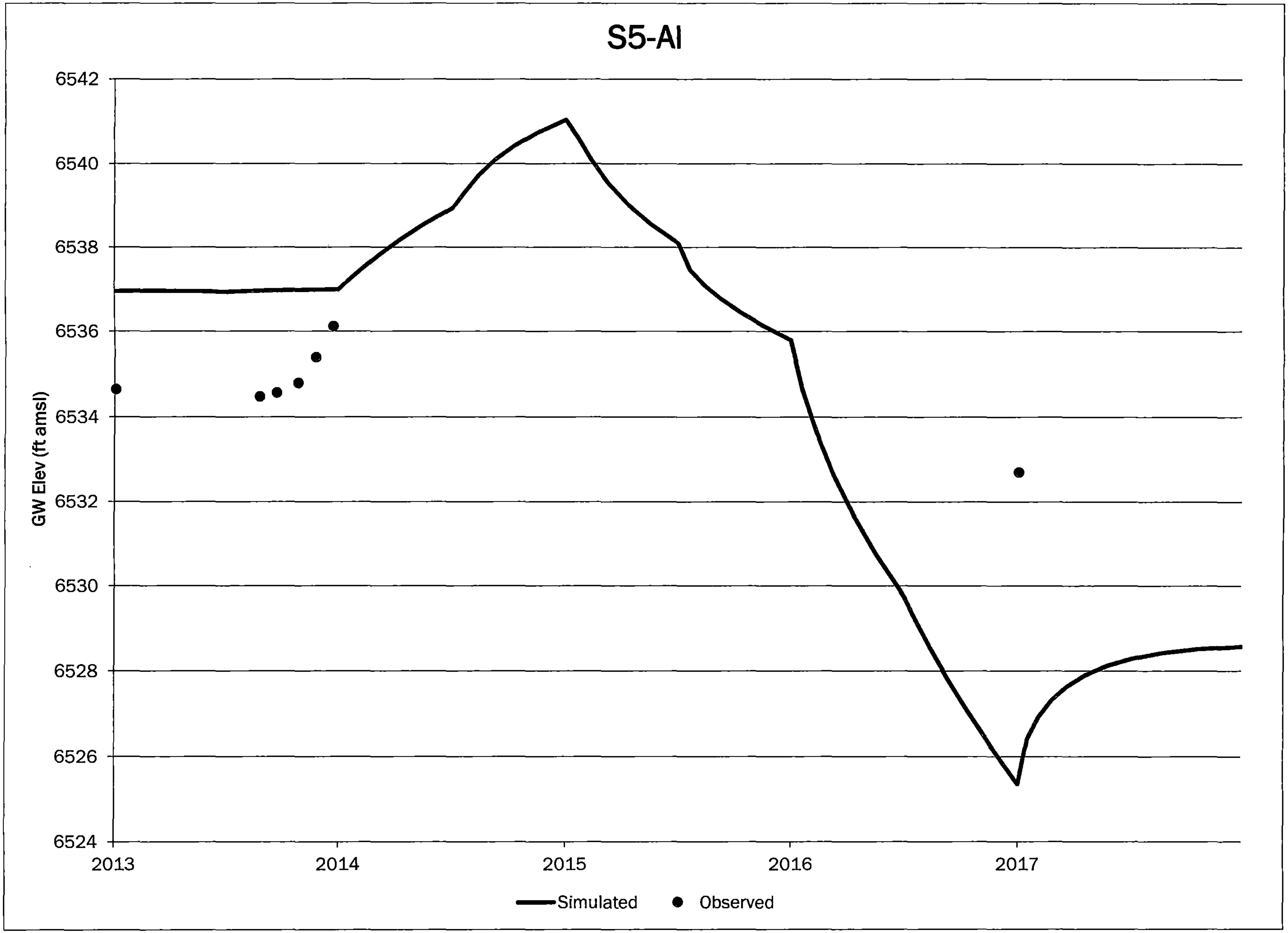

S1-AI
GW Elev (ft amsl)
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed

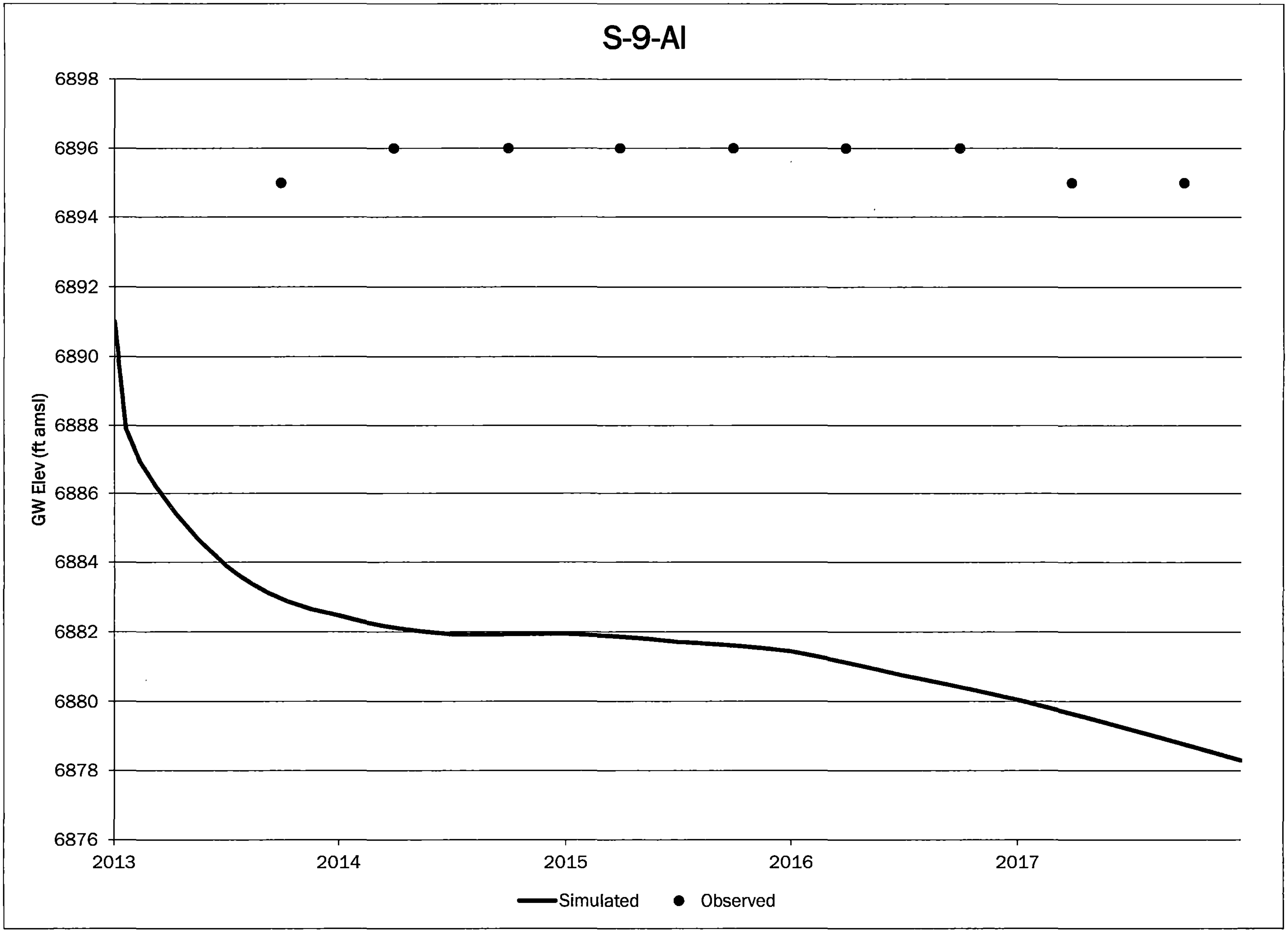

S2-AI
GW Elev (ft amsl)
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed



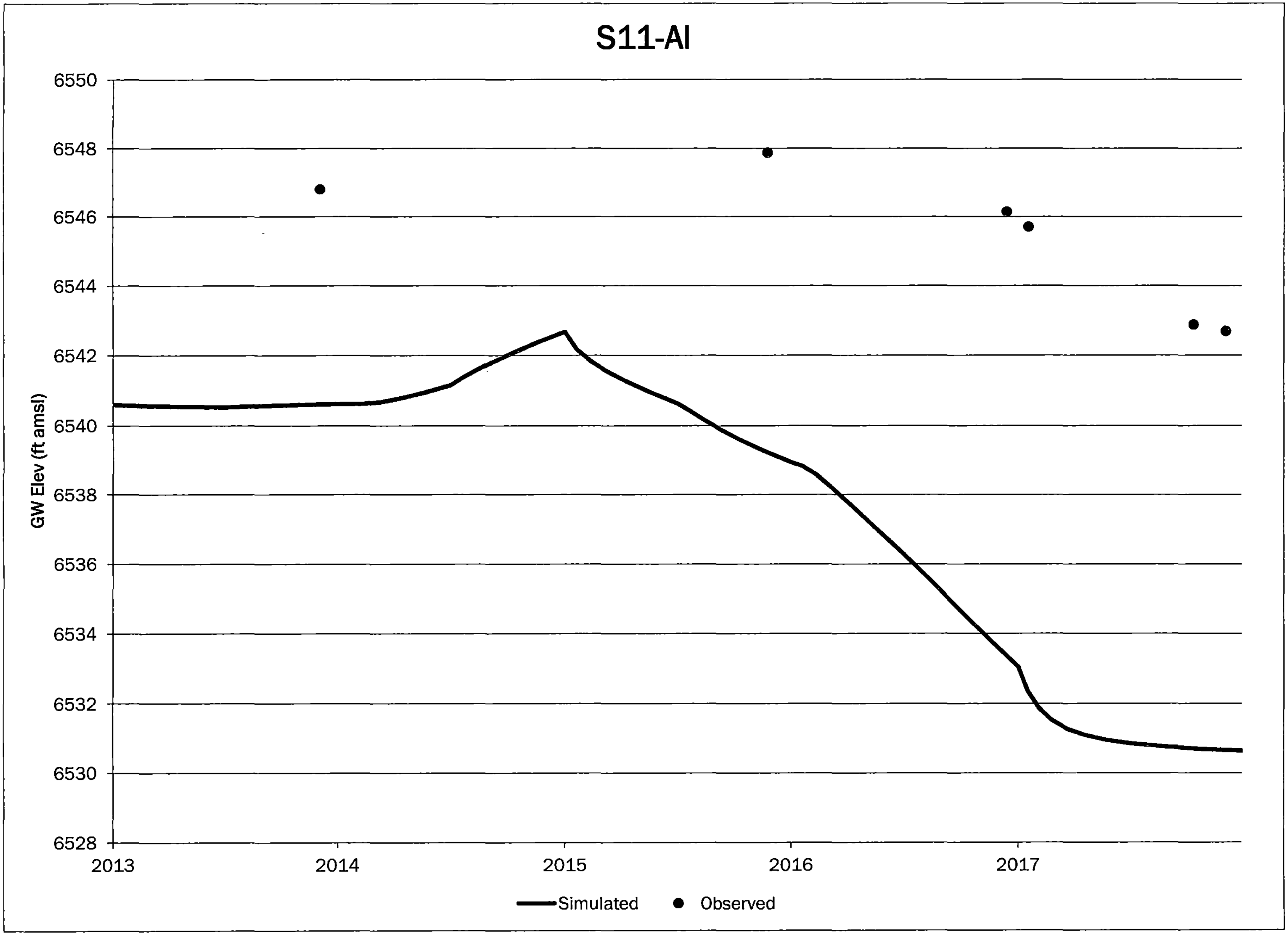
S3-Al
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


S4-AI
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

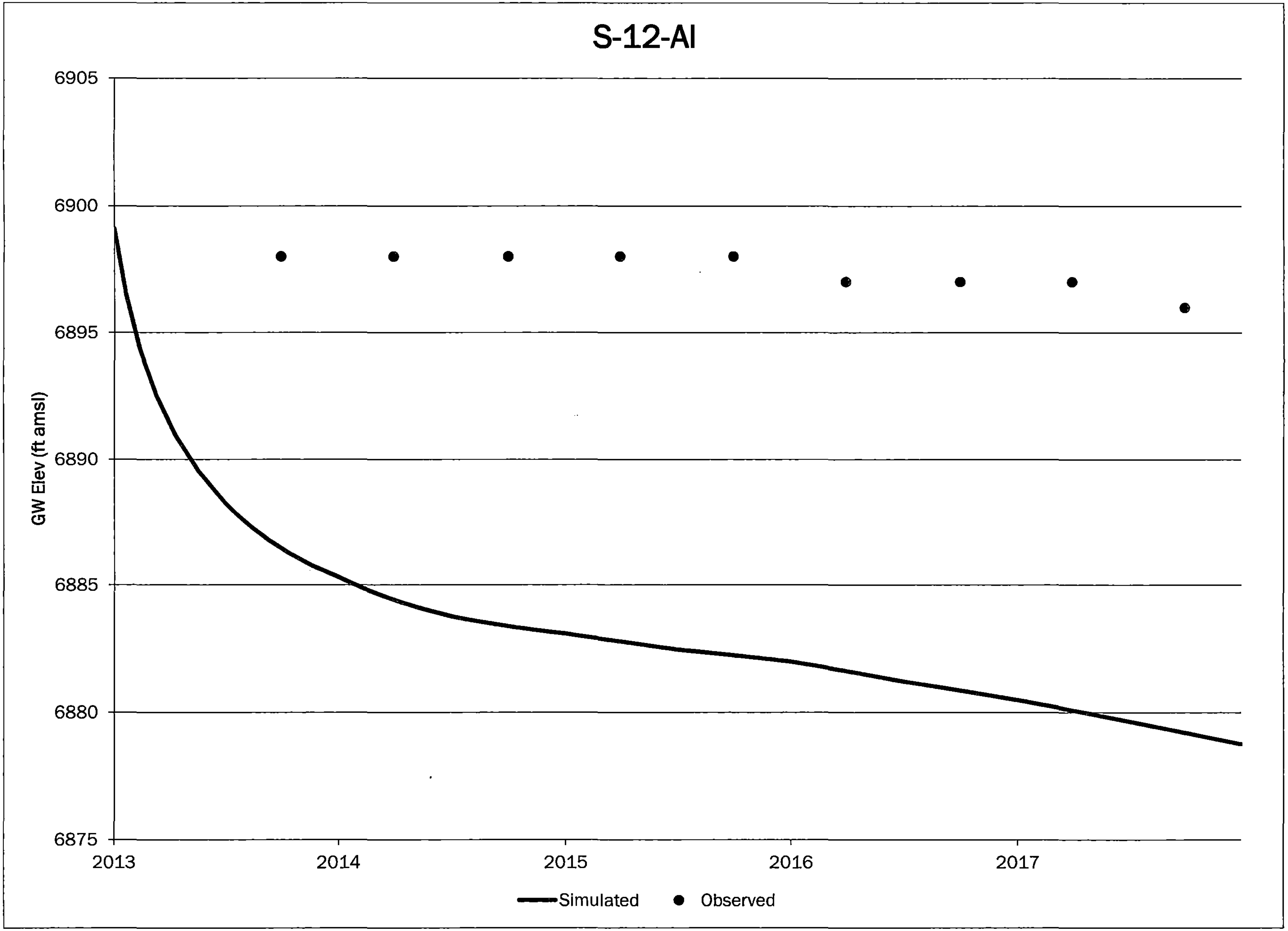

S5-AI
GW Elev (ft amsl)
6542
6540
6538
6536
6534
6532
6530
6528
6526
6524
2013
2014
2015
2016
2017
Simulated
Observed



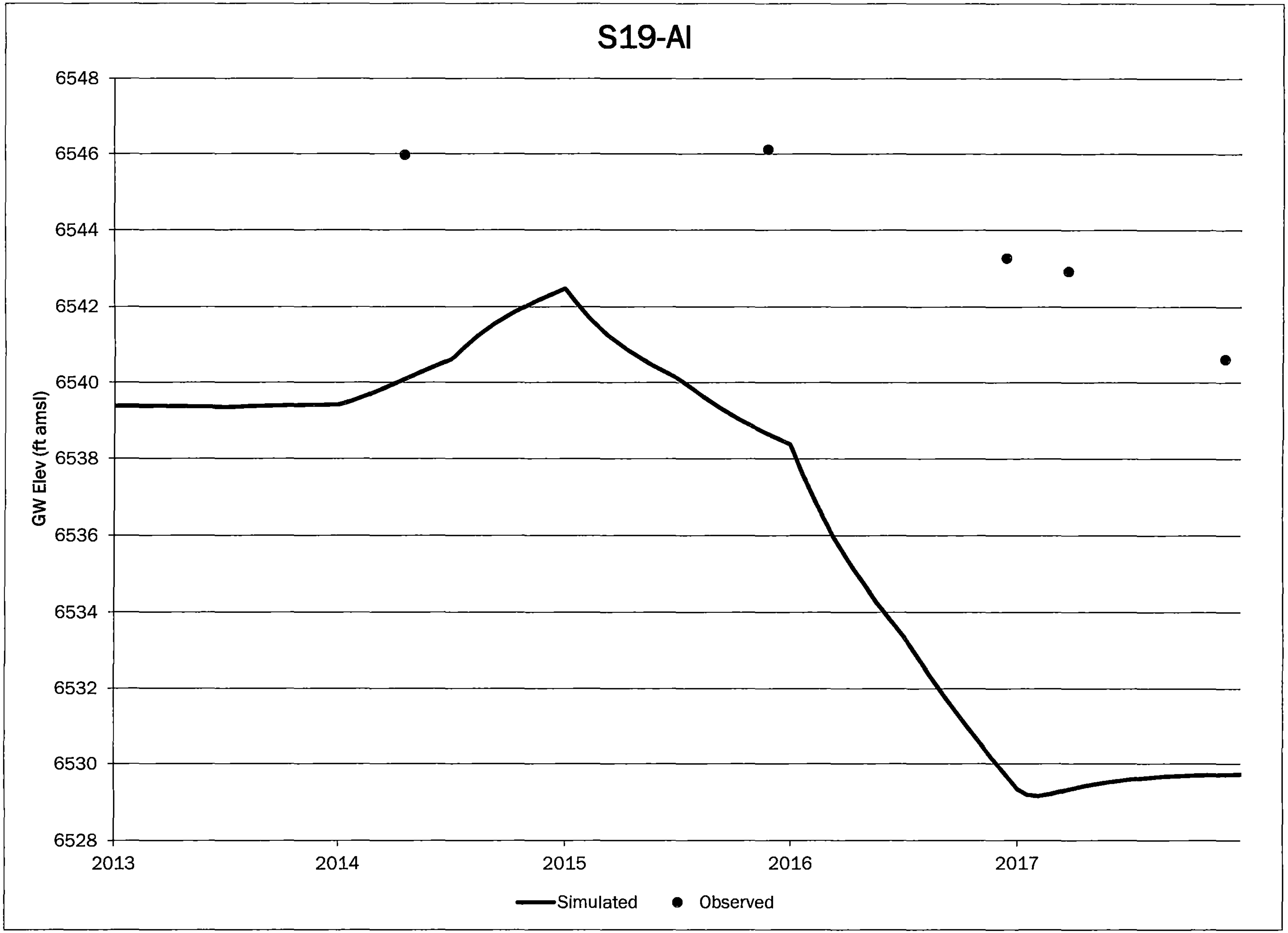
S-9-AI
GW Elev (ft amsl)
6898
6896
6894
6892
6890
6888
6886
6884
6882
6880
6878
6876
2013
2014
2015
2016
2017
Simulated
Observed



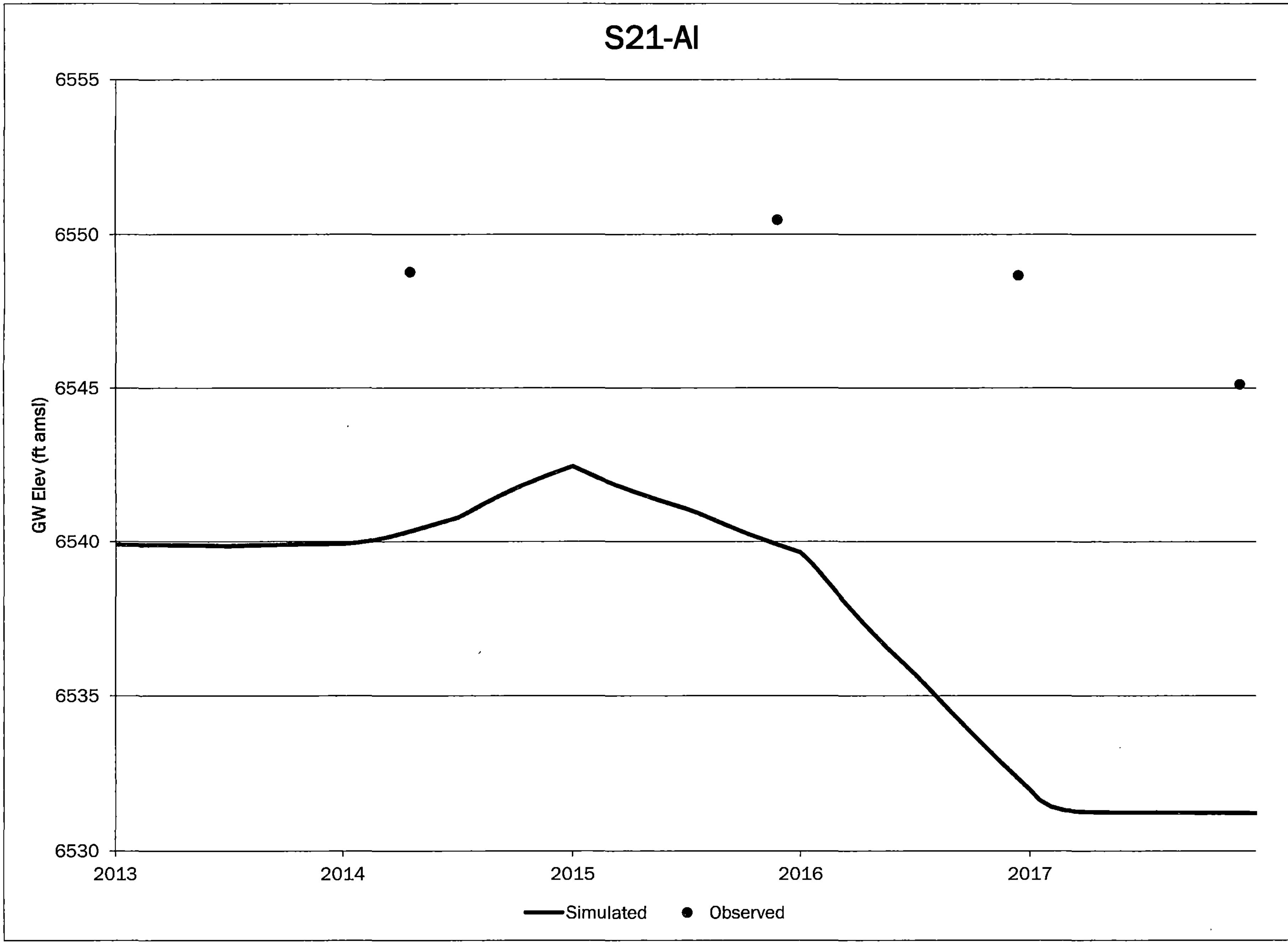
S11-AI
GW Elev (ft amsl)
6550
6548
6546
6544
6542
6540
6538
6536
6534
6532
6530
6528
2013
2014
2015
2016
2017
Simulated
Observed



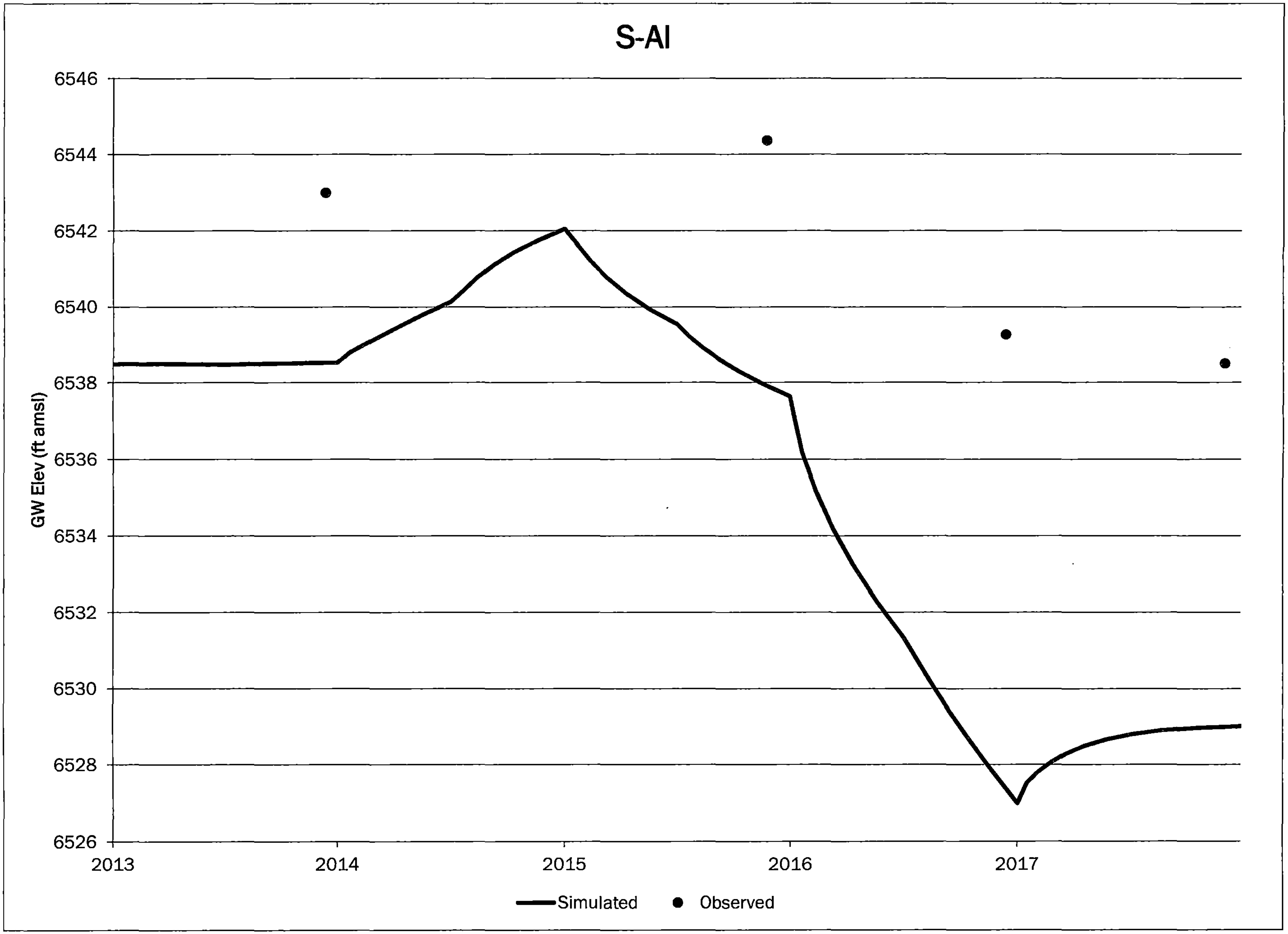
S-12-AI
6905
6900
6895
6890
6885
6880
6875
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

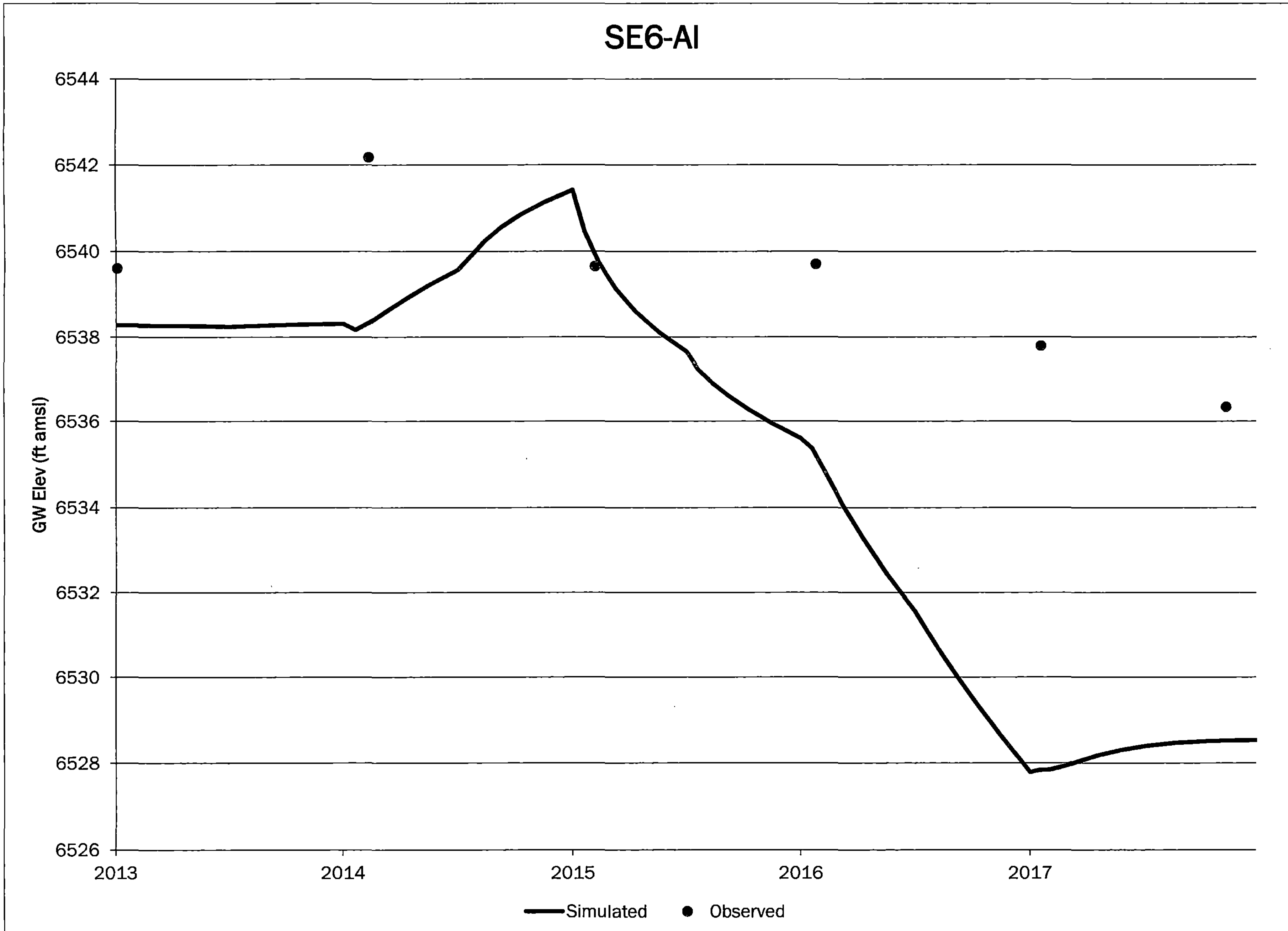


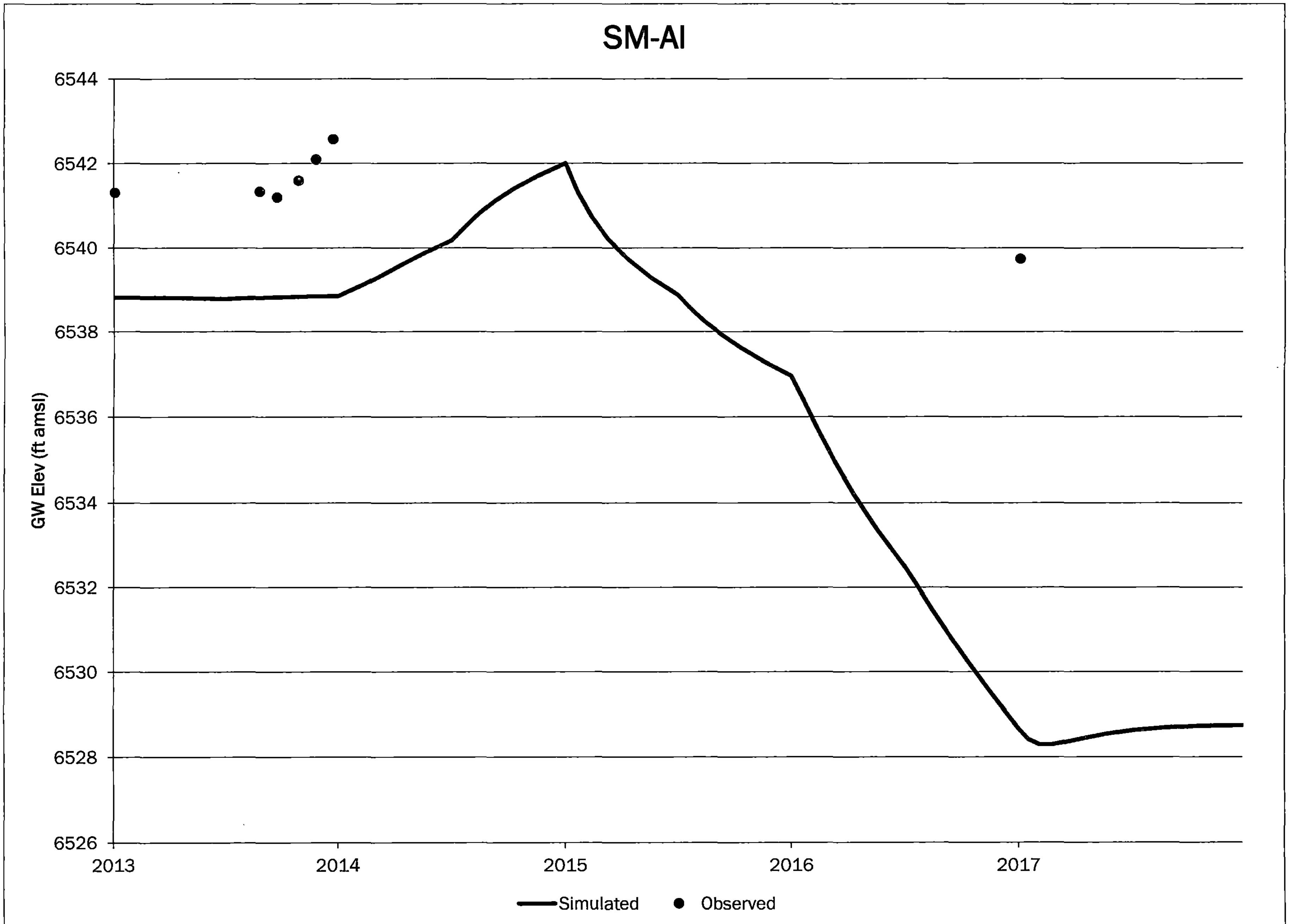
S19-AI
6548
6546
6544
6542
6540
6538
6536
6534
6532
6530
6528
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

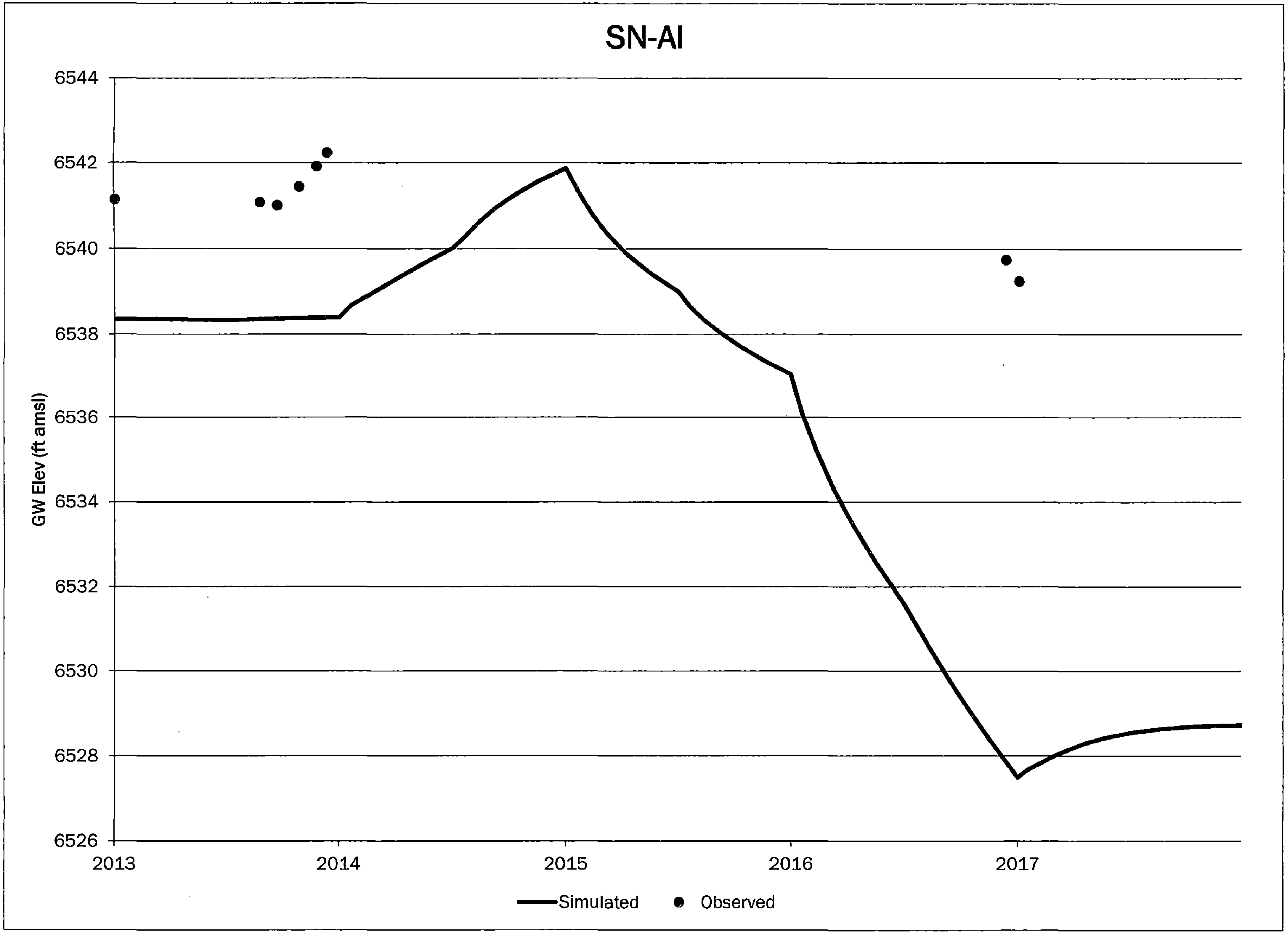


S21-AI
6555
6550
6545
6540
6535
6530
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

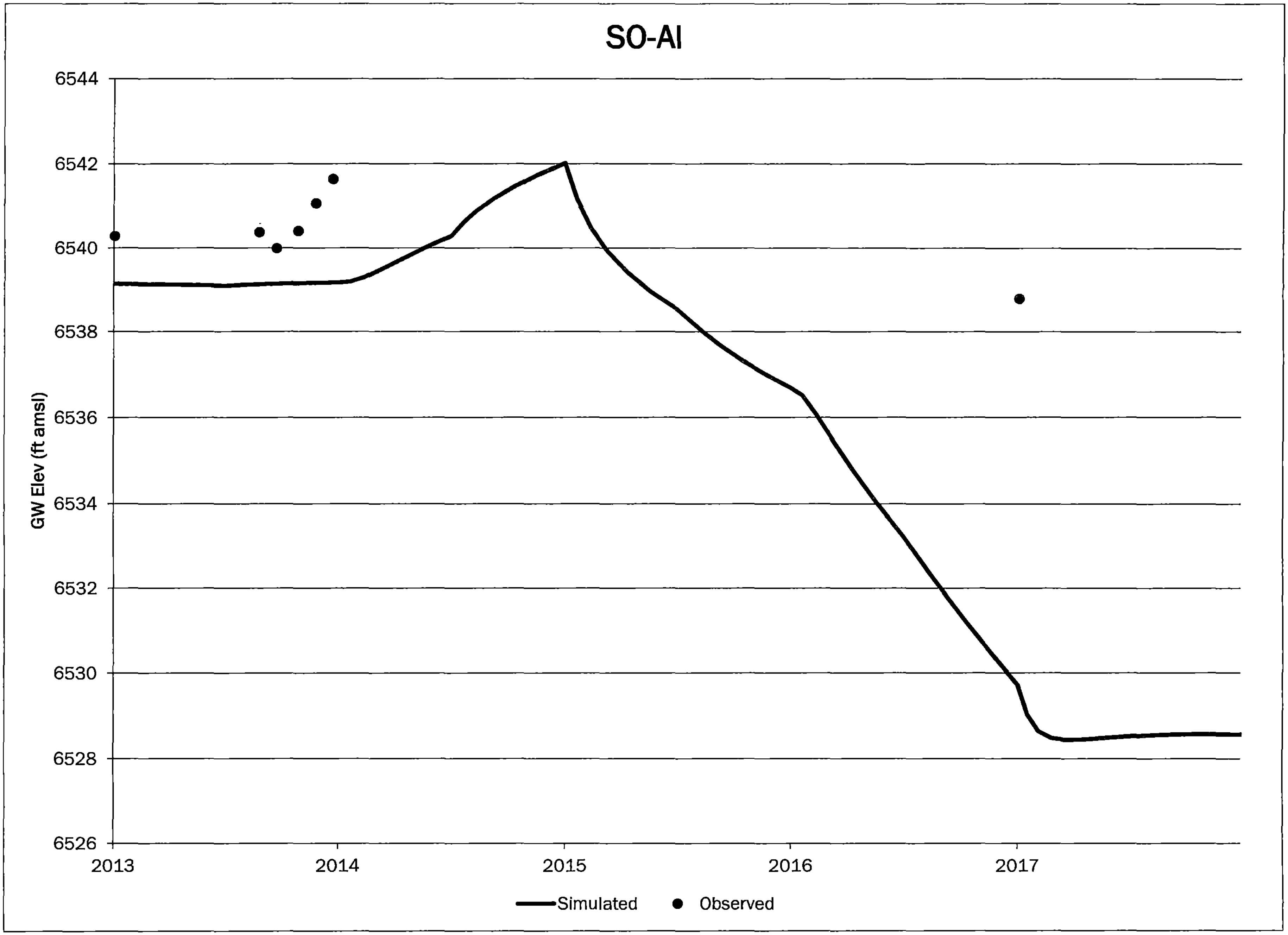

S-AI
GW Elev (ft amsl)
6546
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed

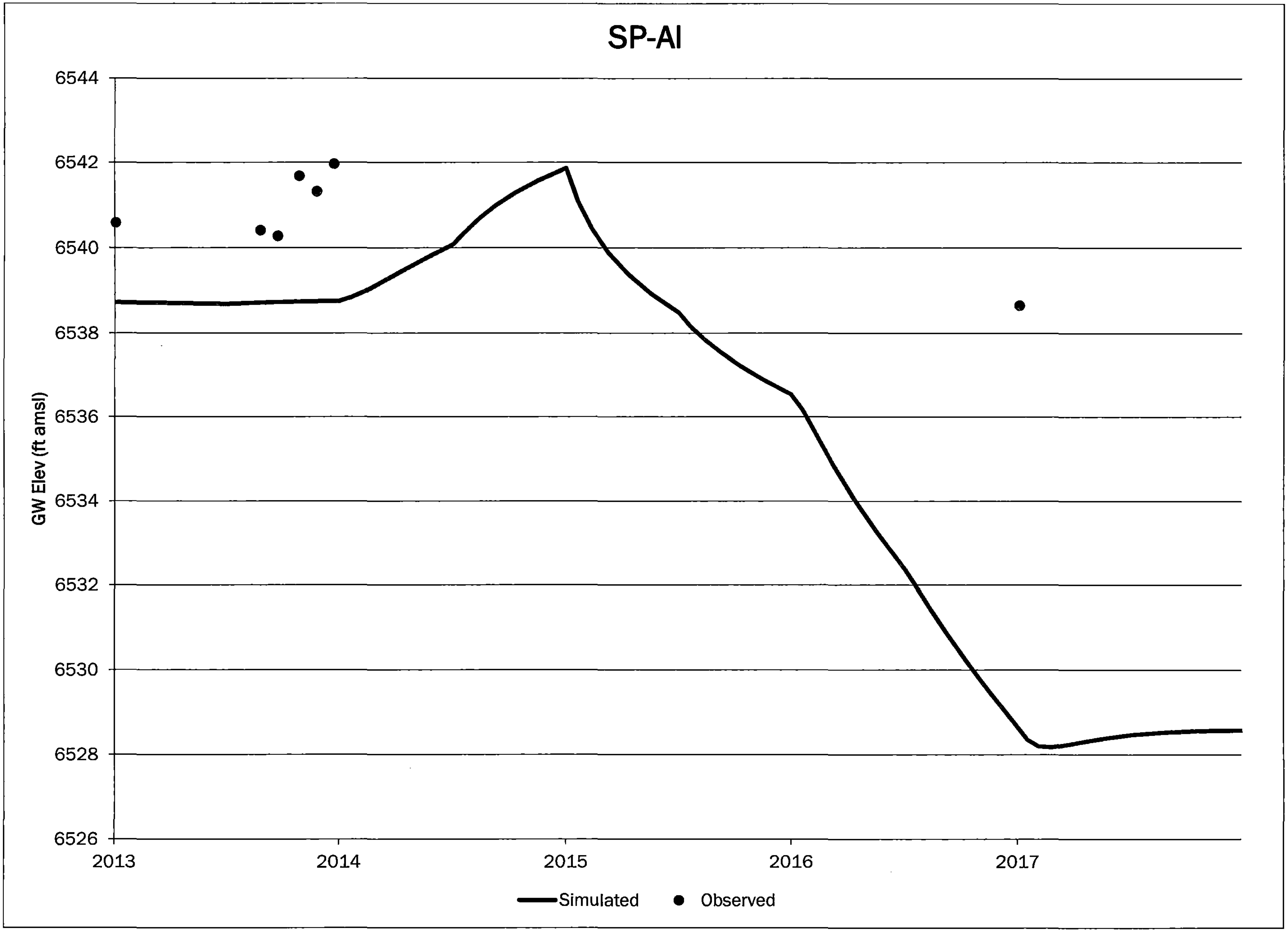

SE6-AI
GW Elev (ft amsl)
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed


SM-AI
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

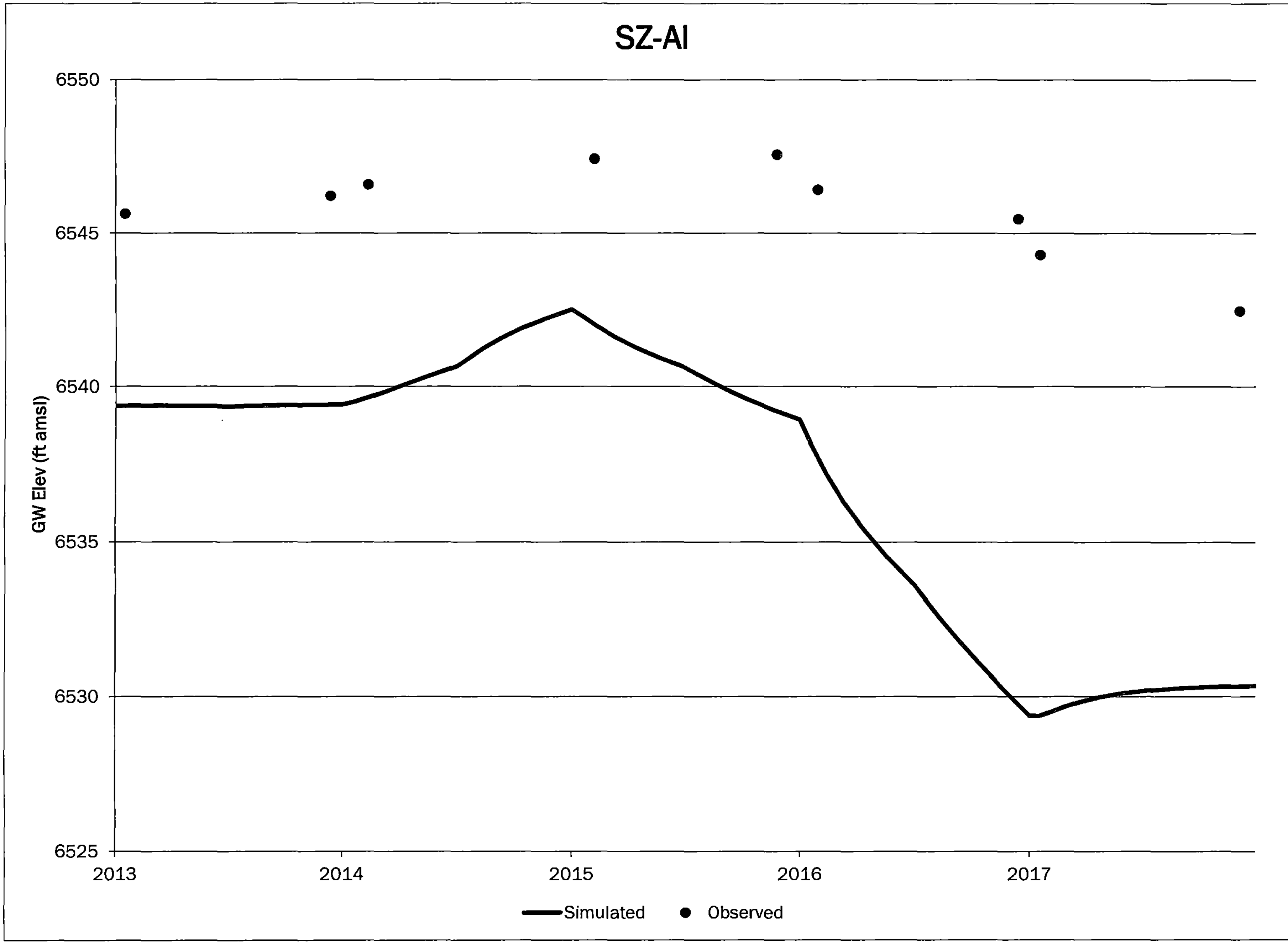


SN-AI
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

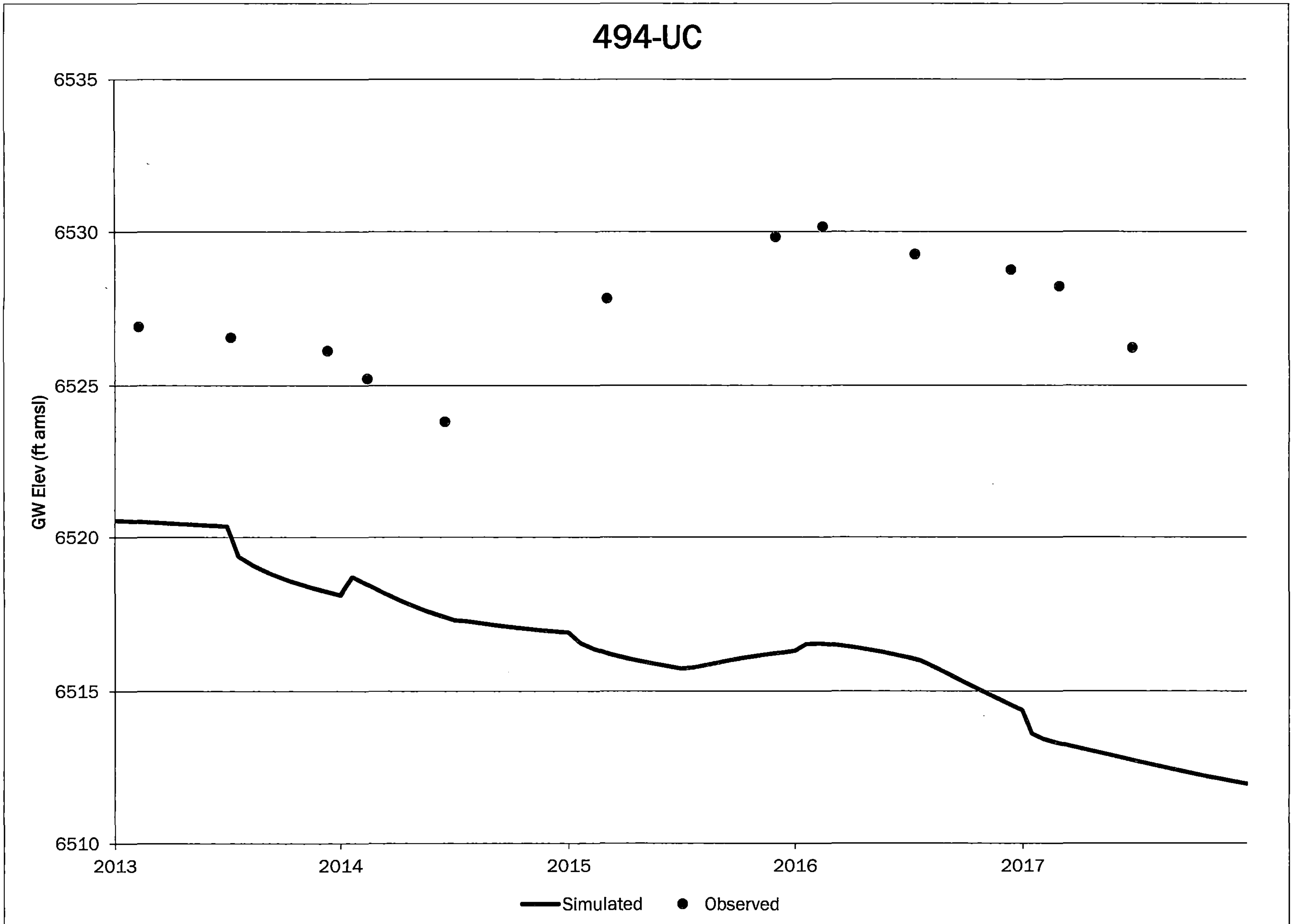

SO-AI
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

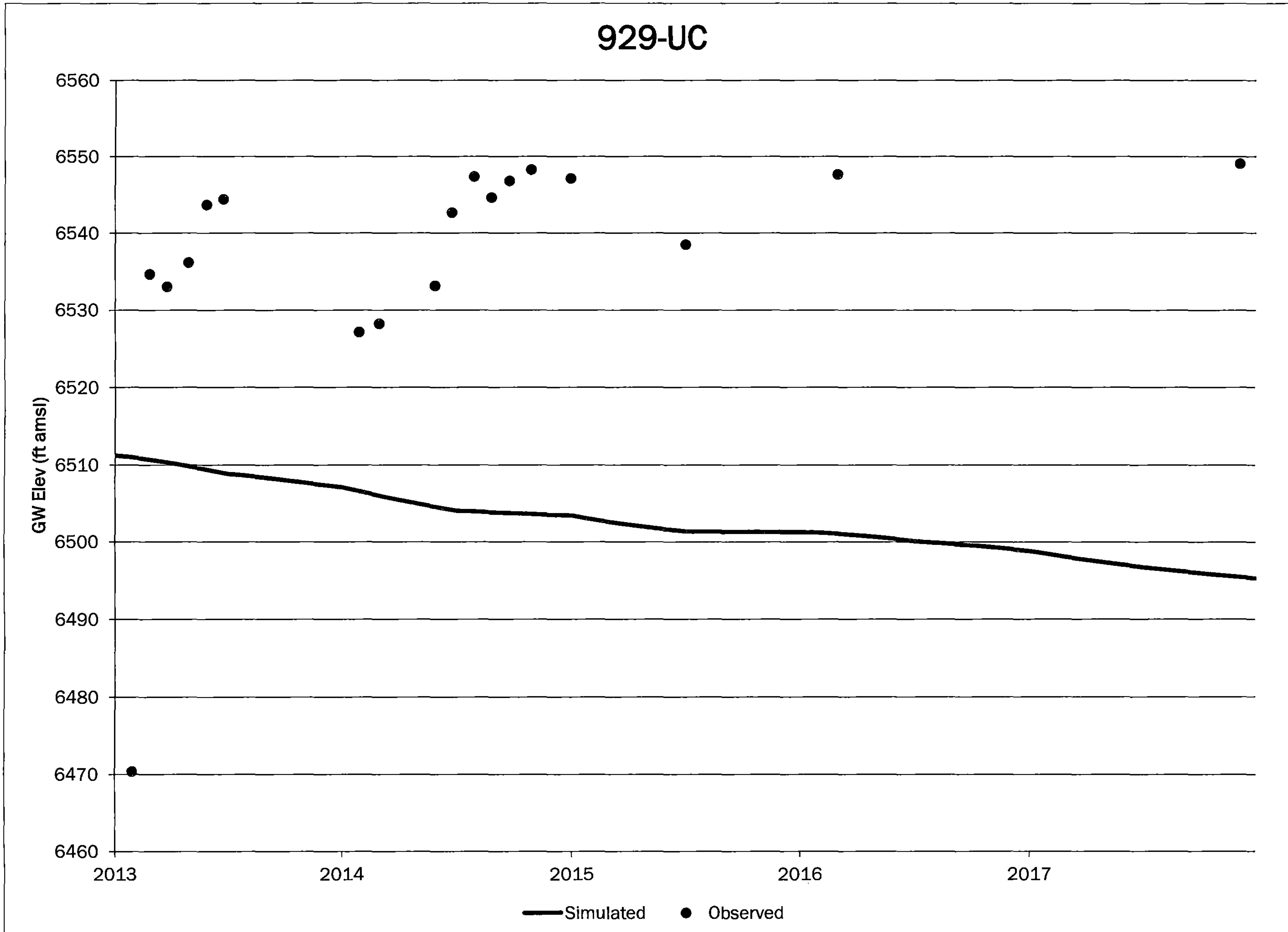


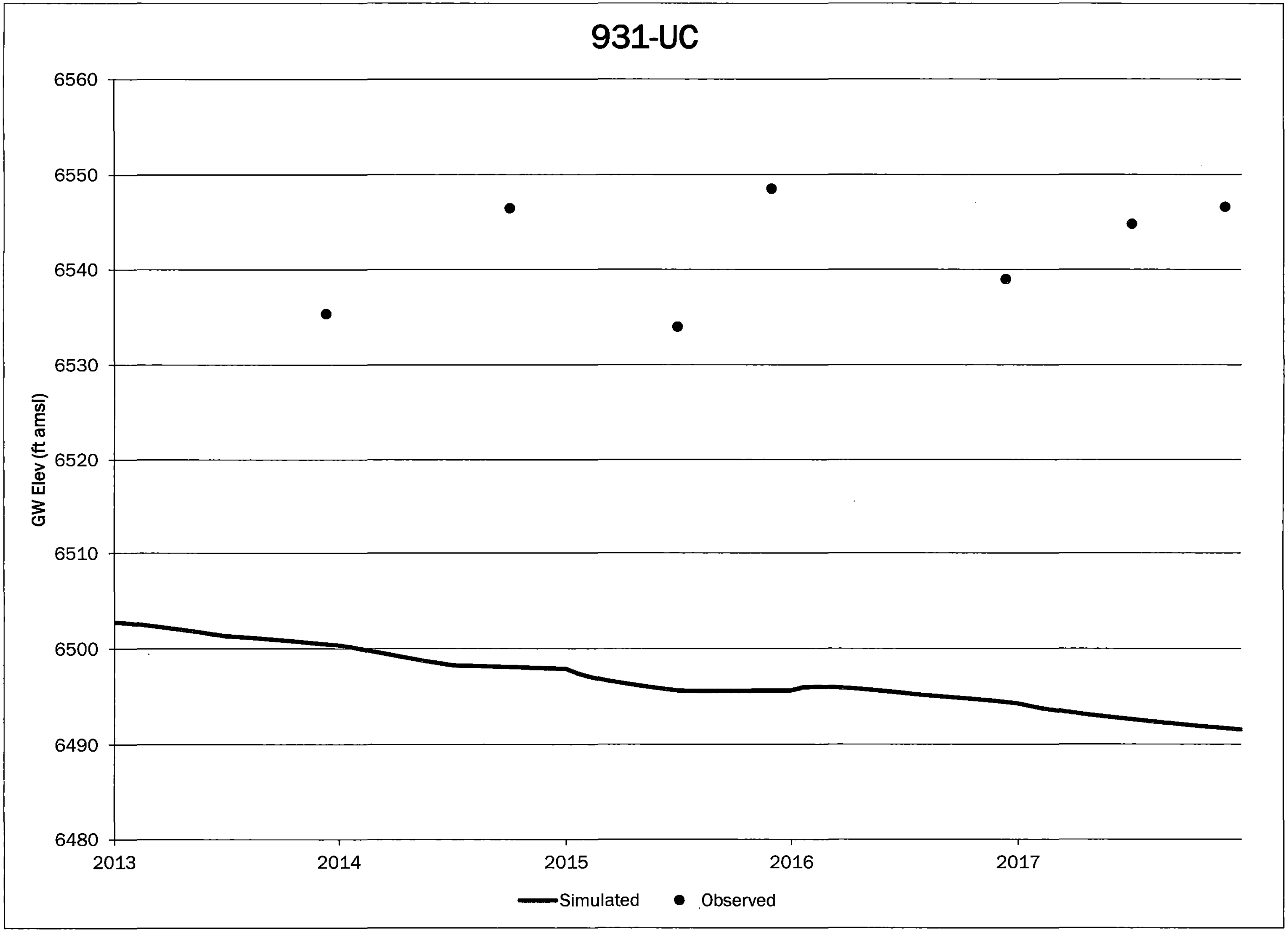
SP-AI
GW Elev (ft amsl)
6544
6542
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed



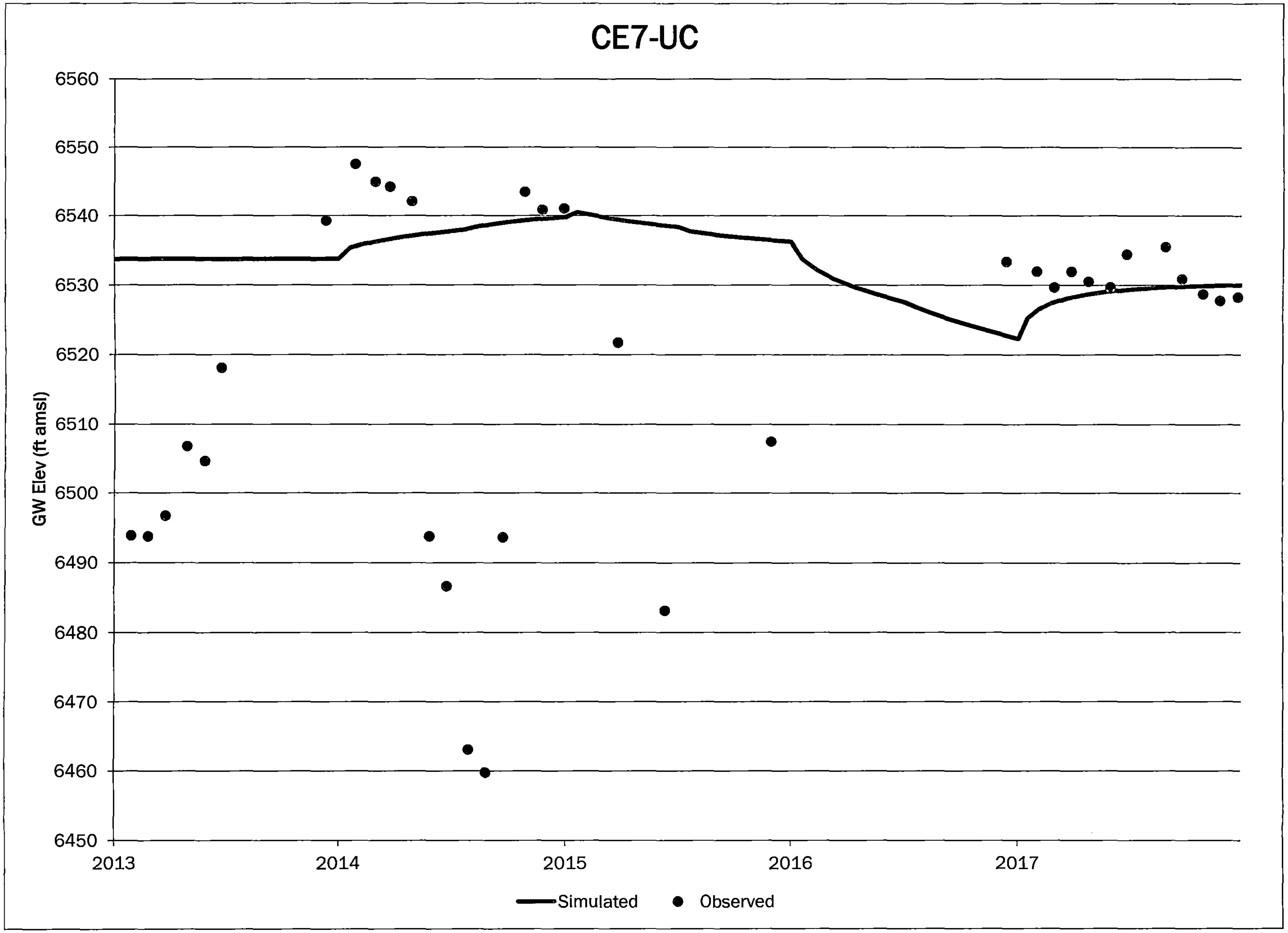
SZ-AI
GW Elev (ft amsl)
6550
6545
6540
6535
6530
6525
2013
2014
2015
2016
2017
Simulated
Observed


494-UC
6535
6530
6525
6520
6515
6510
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

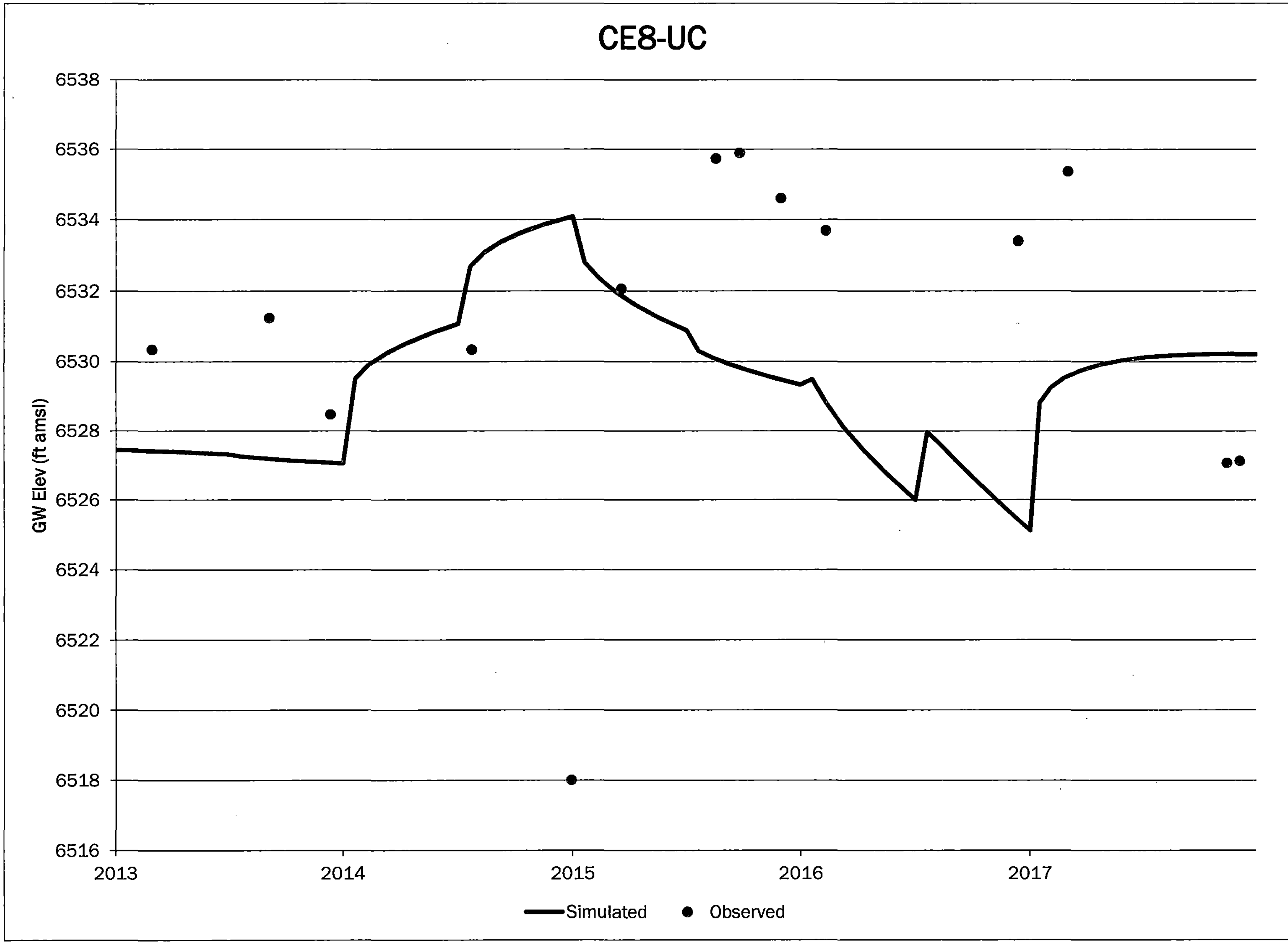

929-UC
6560
6550
6540
6530
6520
6510
6500
6490
6480
6470
6460
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



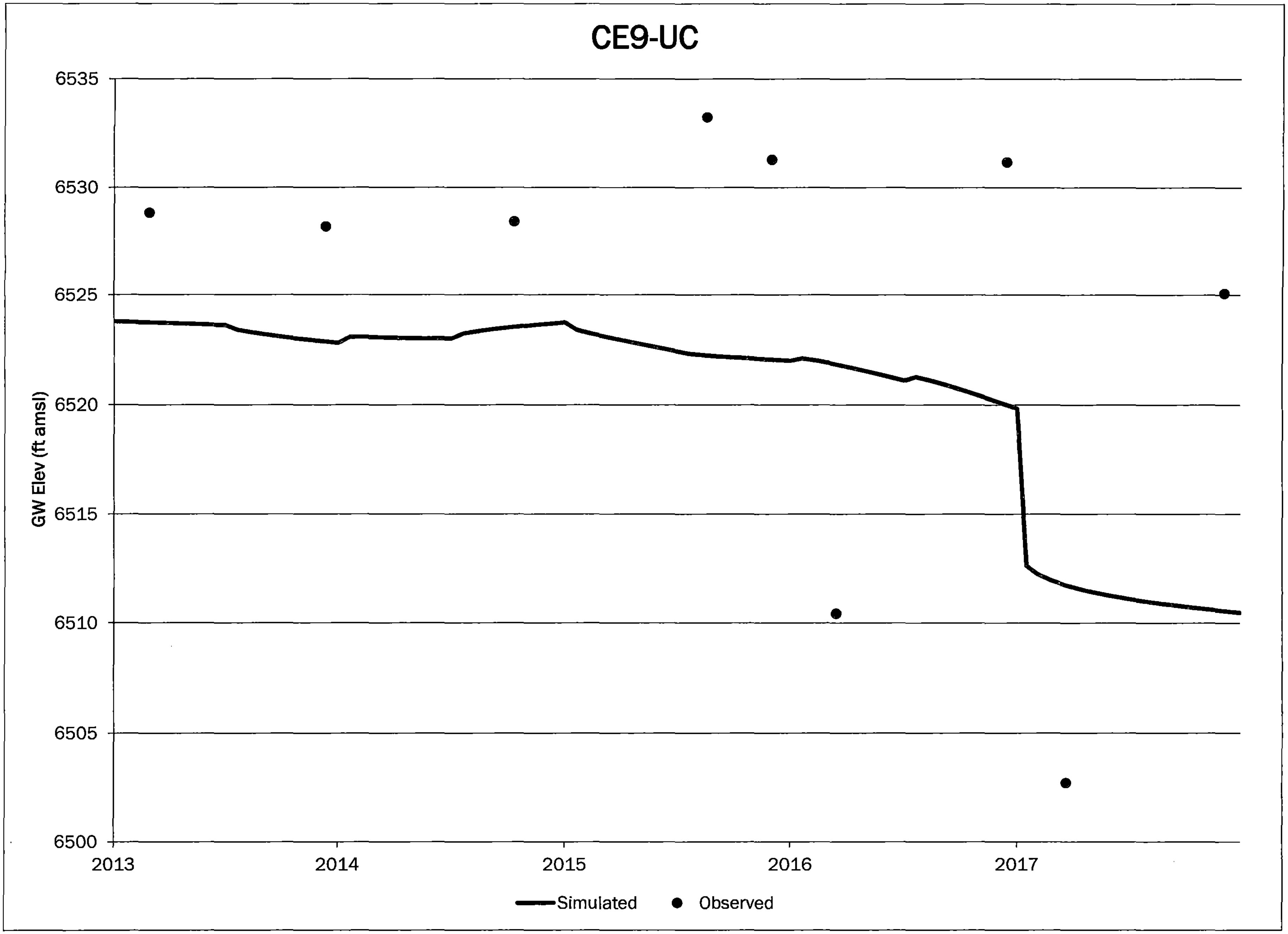
931-UC
GW Elev (ft amsl)
6560
6550
6540
6530
6520
6510
6500
6490
6480
2013
2014
2015
2016
2017
Simulated
Observed



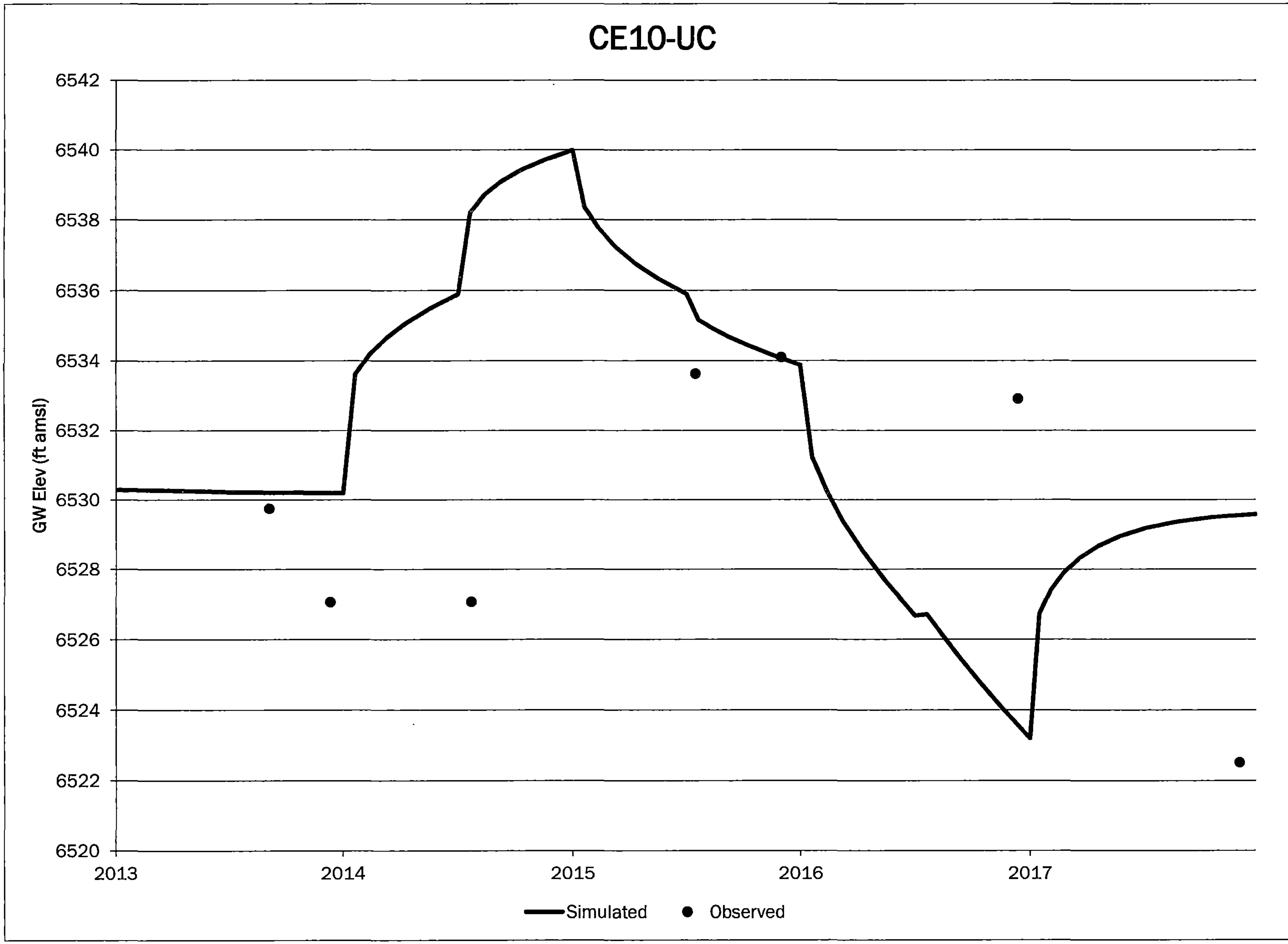
CE7-UC
GW Elev (ft amsl)
6560
6550
6540
6530
6520
6510
6500
6490
6480
6470
6460
6450
2013
2014
2015
2016
2017
Simulated
Observed



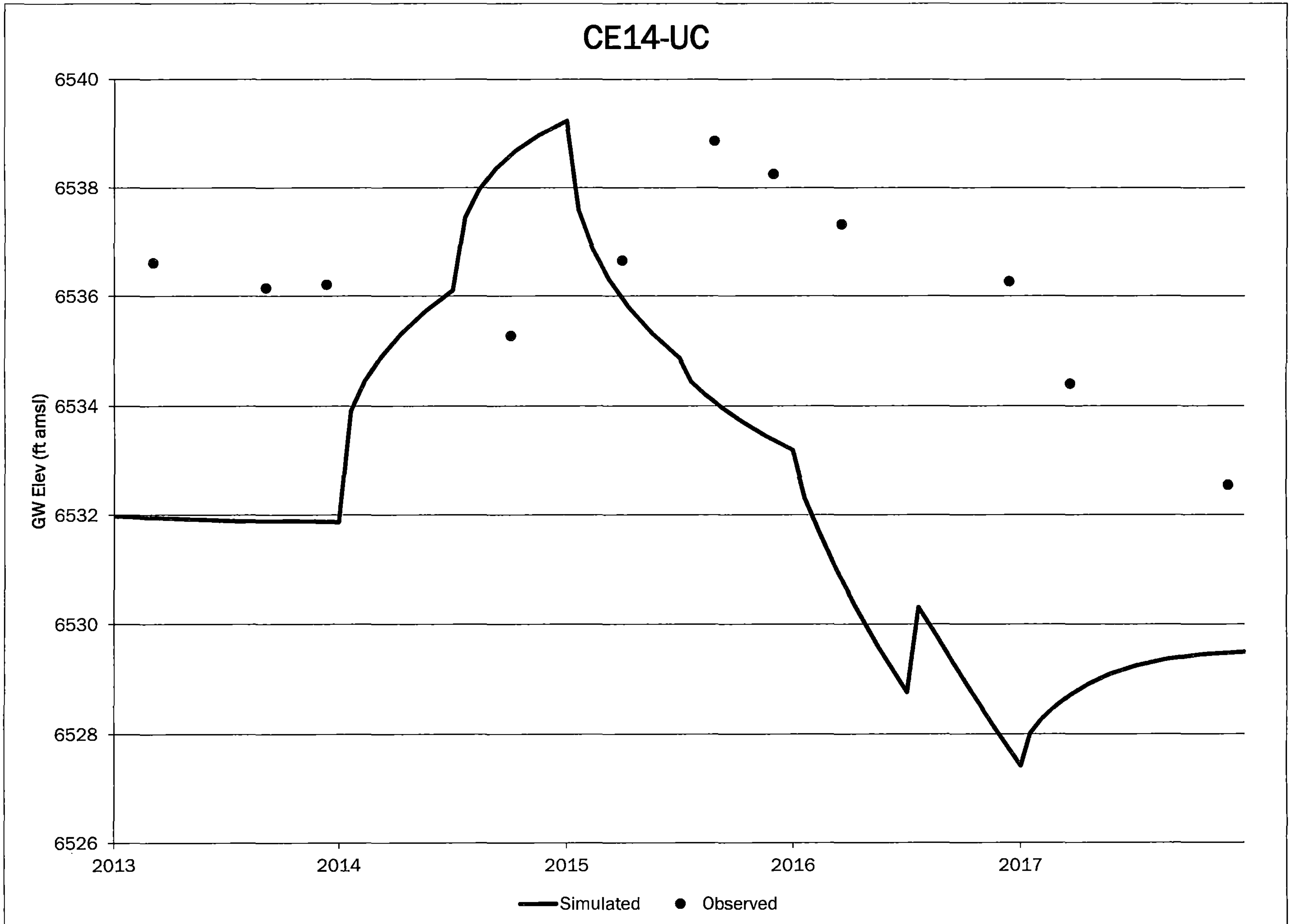
CE8-UC
GW Elev (ft amsl)
6538
6536
6534
6532
6530
6528
6526
6524
6522
6520
6518
6516
2013
2014
2015
2016
2017
Simulated
Observed

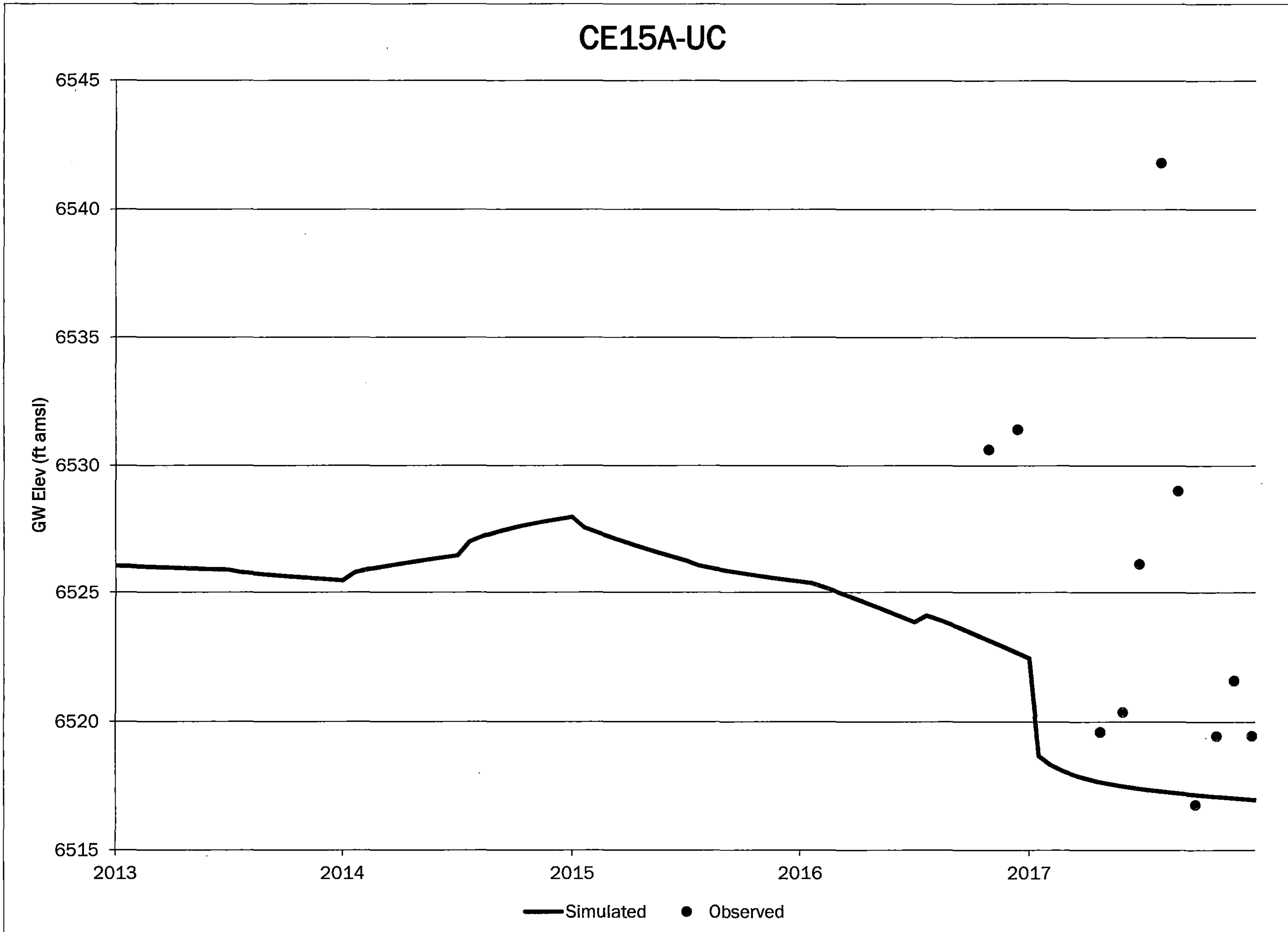


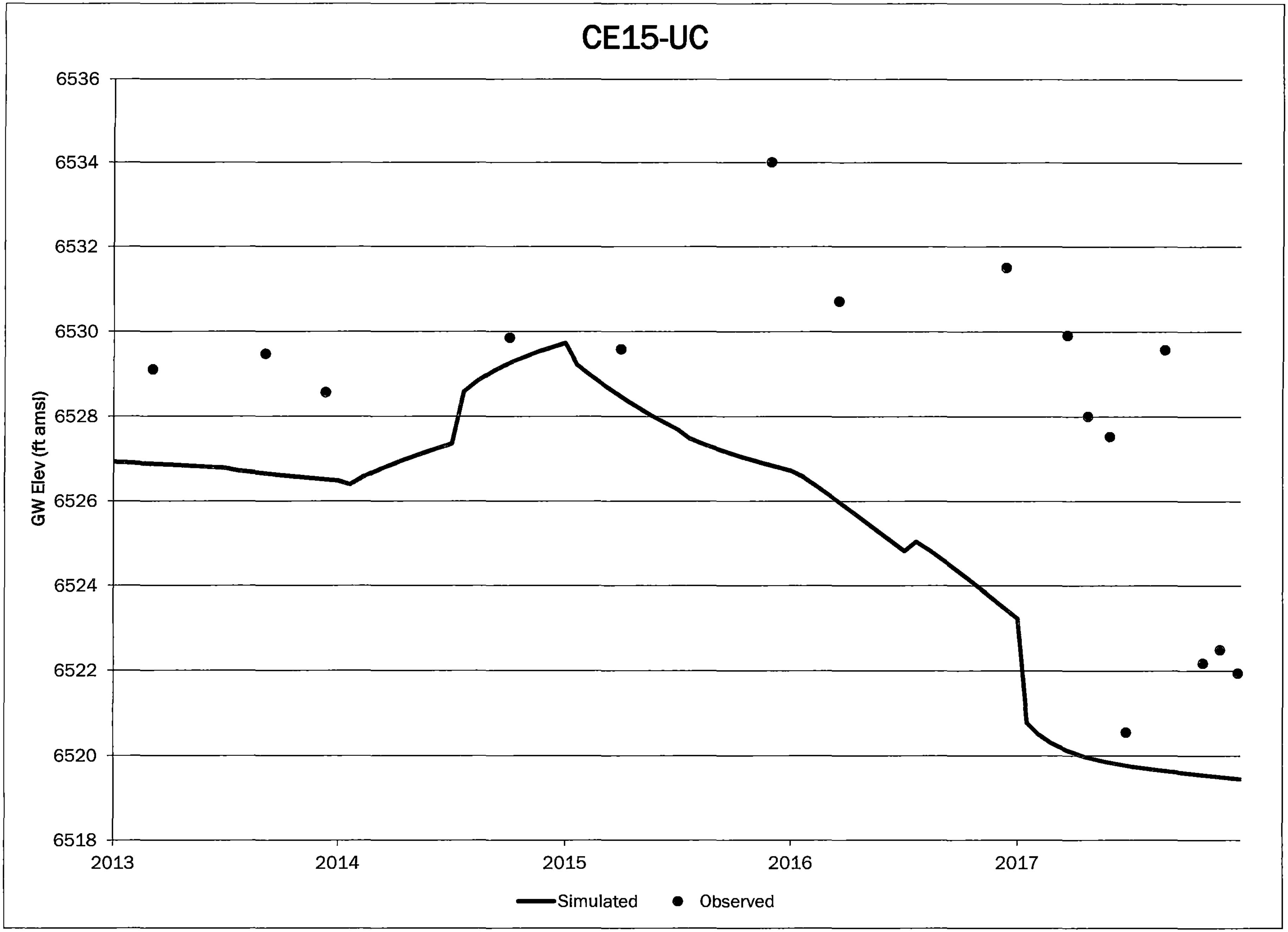
CE9-UC
GW Elev (ft amsl)
6535
6530
6525
6520
6515
6510
6505
6500
2013
2014
2015
2016
2017
Simulated
Observed



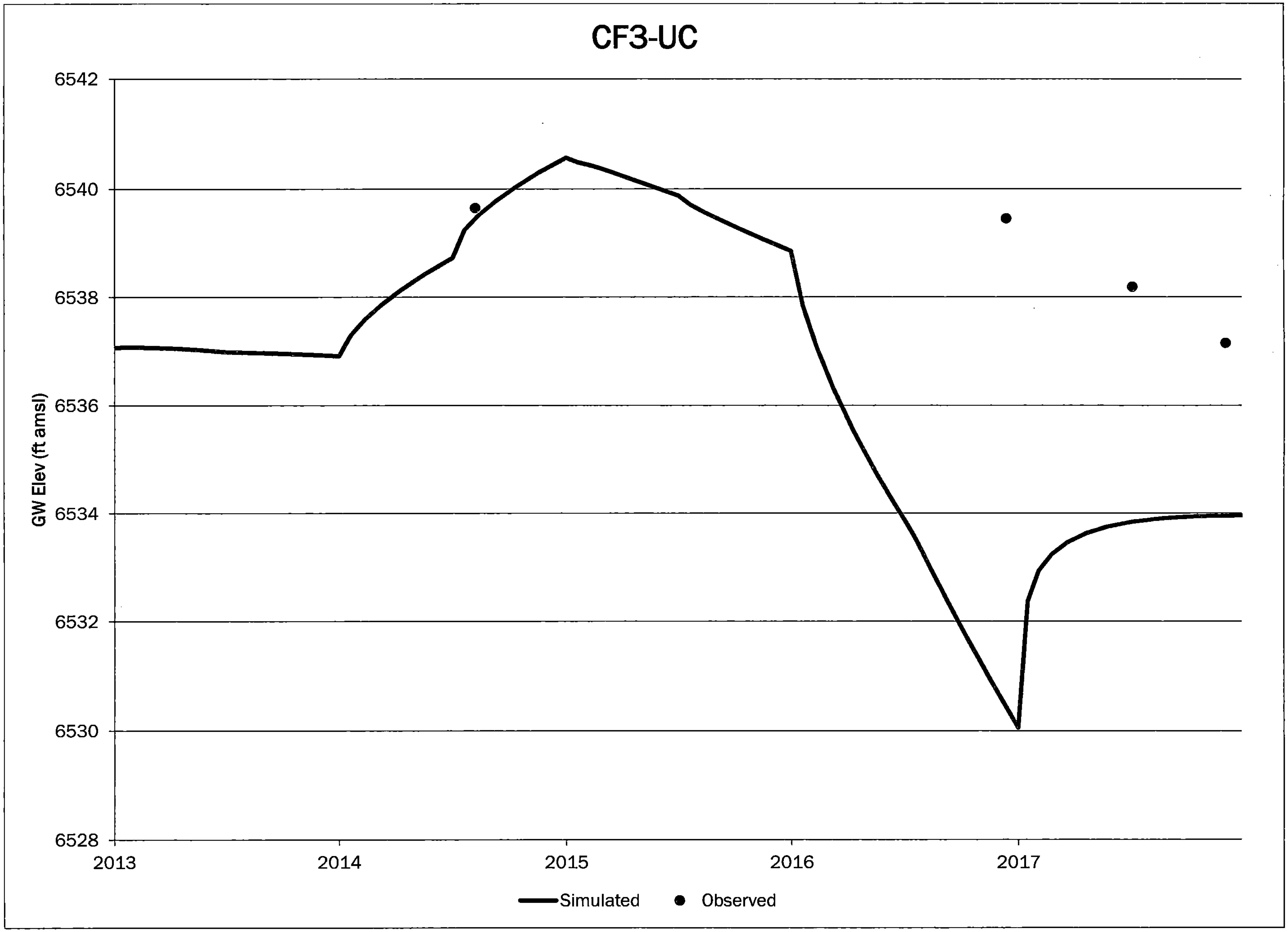
CE10-UC
GW Elev (ft amsl)
6542
6540
6538
6536
6534
6532
6530
6528
6526
6524
6522
6520
2013
2014
2015
2016
2017
Simulated
Observed

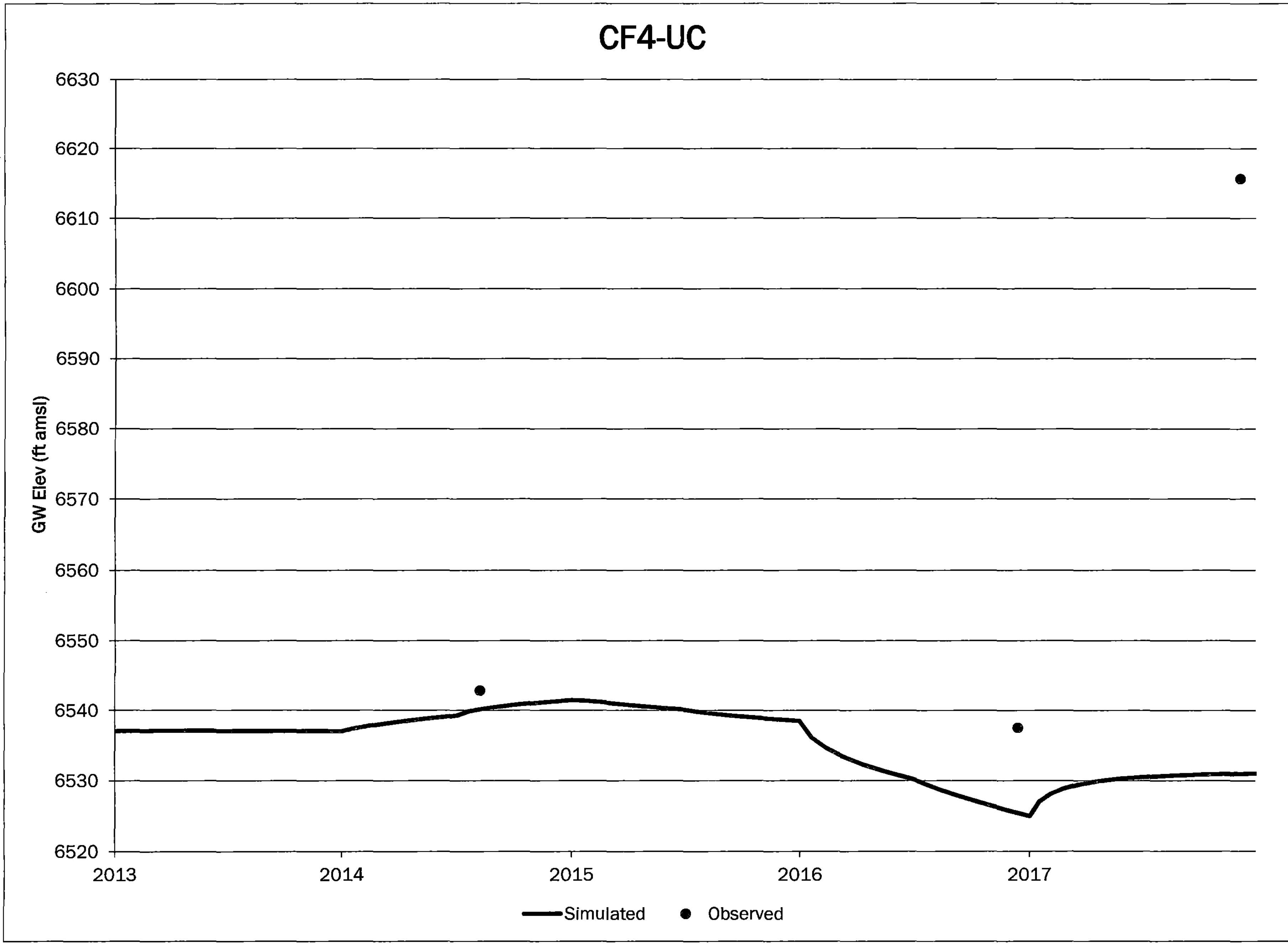

CE14-UC
GW Elev (ft amsl)
6540
6538
6536
6534
6532
6530
6528
6526
2013
2014
2015
2016
2017
Simulated
Observed


CE15A-UC
GW Elev (ft amsl)
6545
6540
6535
6530
6525
6520
6515
2013
2014
2015
2016
2017
Simulated
Observed

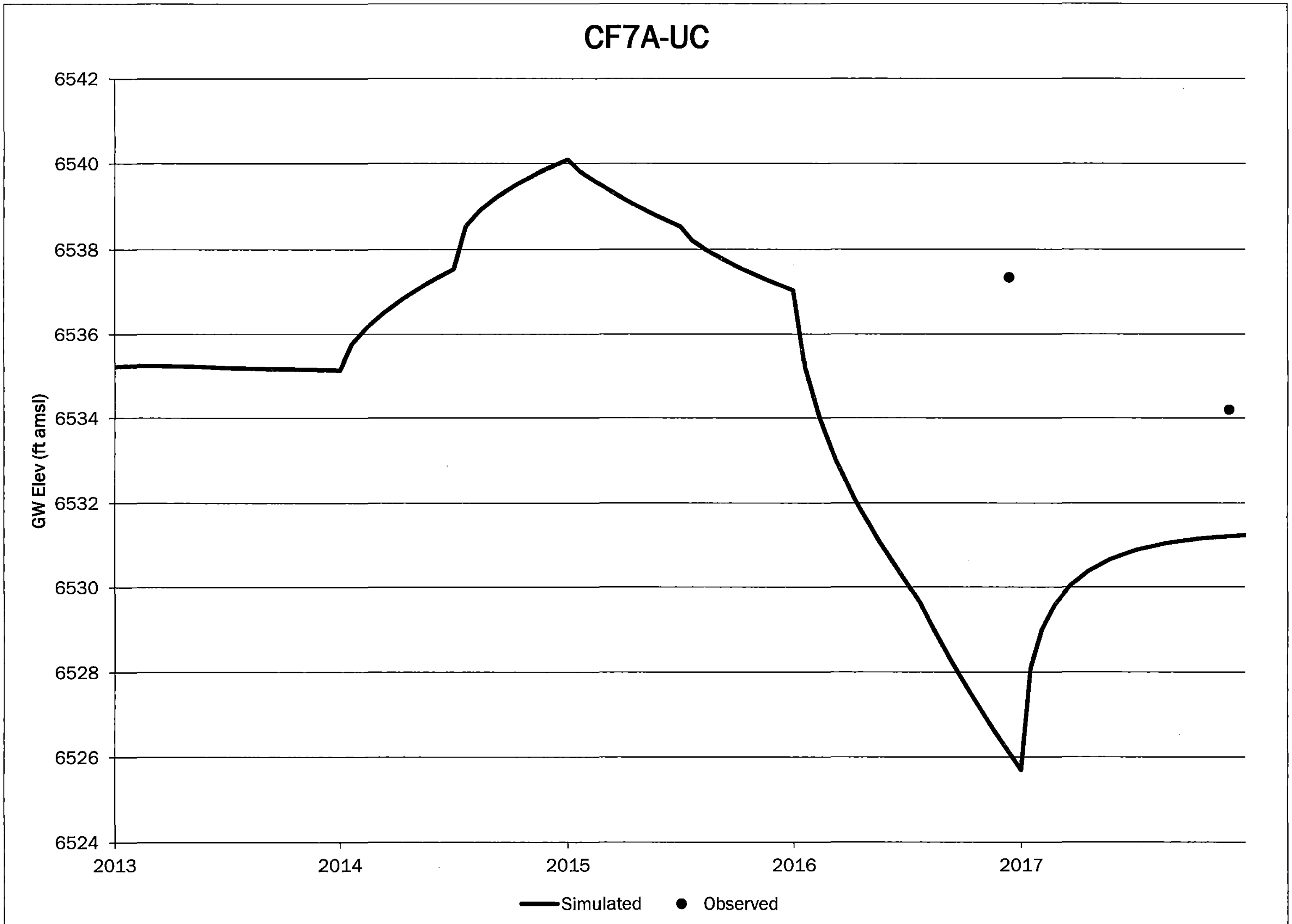


CE15-UC
GW Elev (ft amsl)
6536
6534
6532
6530
6528
6526
6524
6522
6520
6518
2013
2014
2015
2016
2017
Simulated
Observed

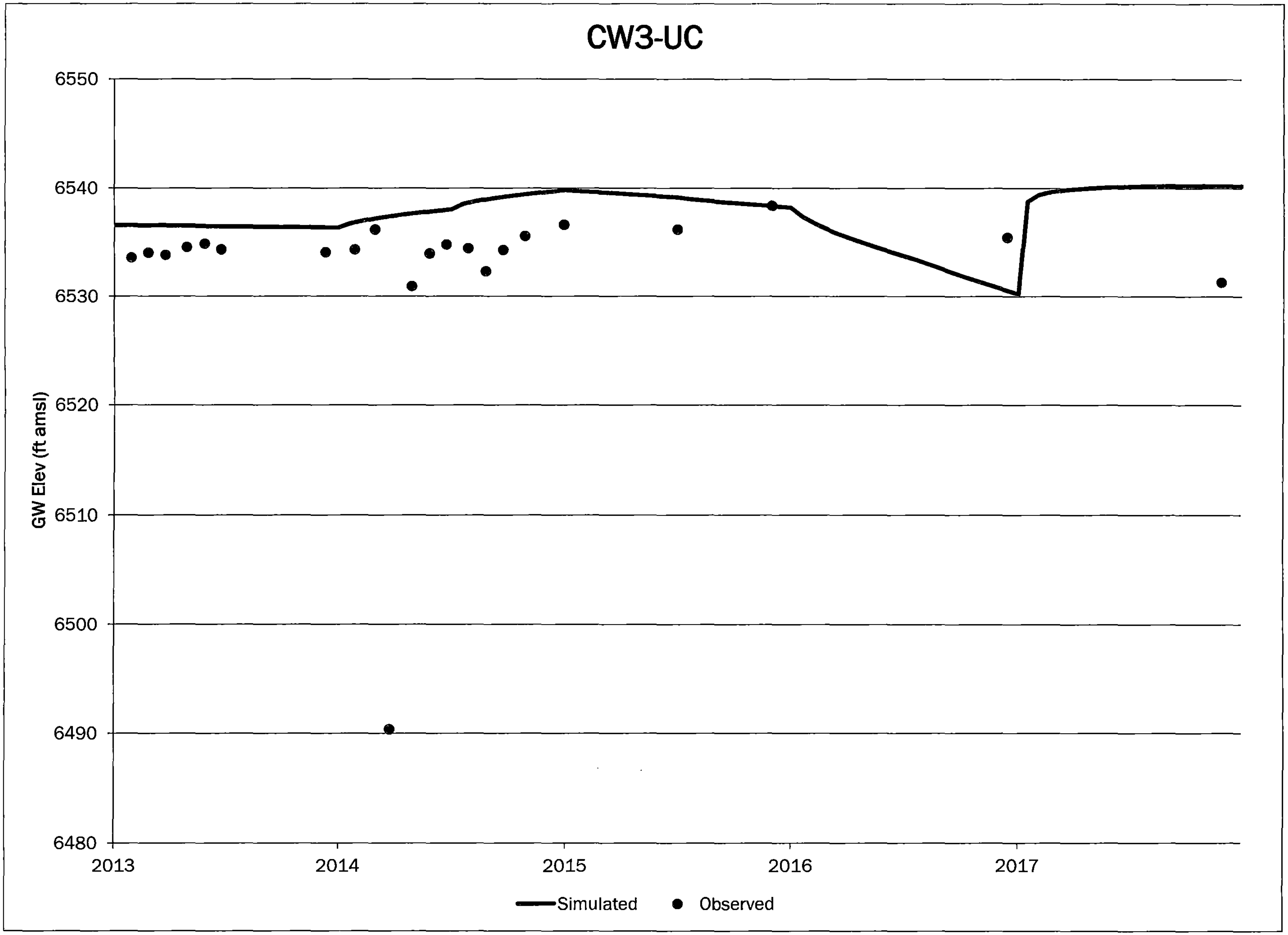

CF3-UC
GW Elev (ft amsl)
6542
6540
6538
6536
6534
6532
6530
6528
2013
2014
2015
2016
2017
Simulated
Observed



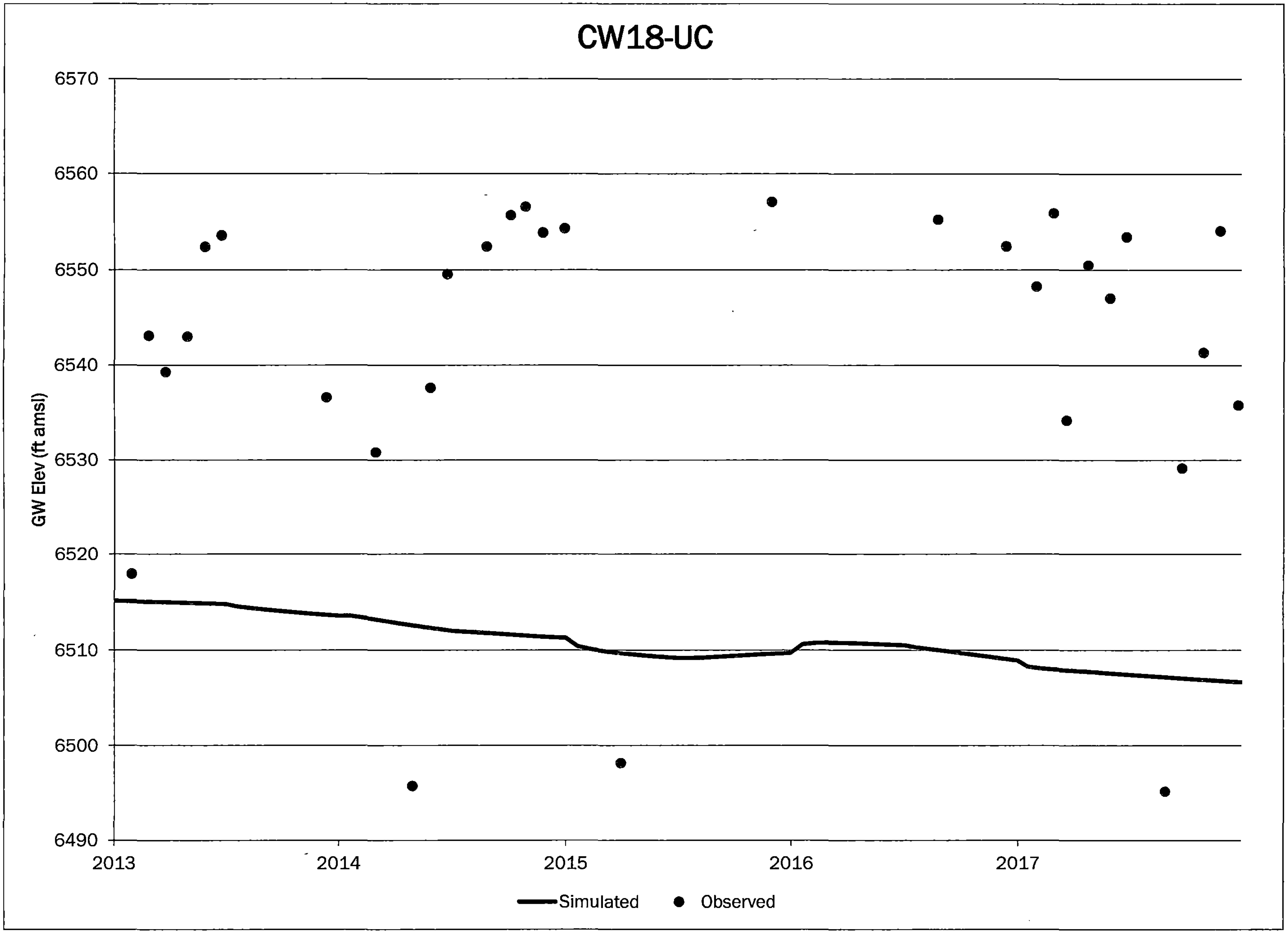
CF4-UC
GW Elev (ft amsl)
6630
6620
6610
6600
6590
6580
6570
6560
6550
6540
6530
6520
2013
2014
2015
2016
2017
Simulated
Observed



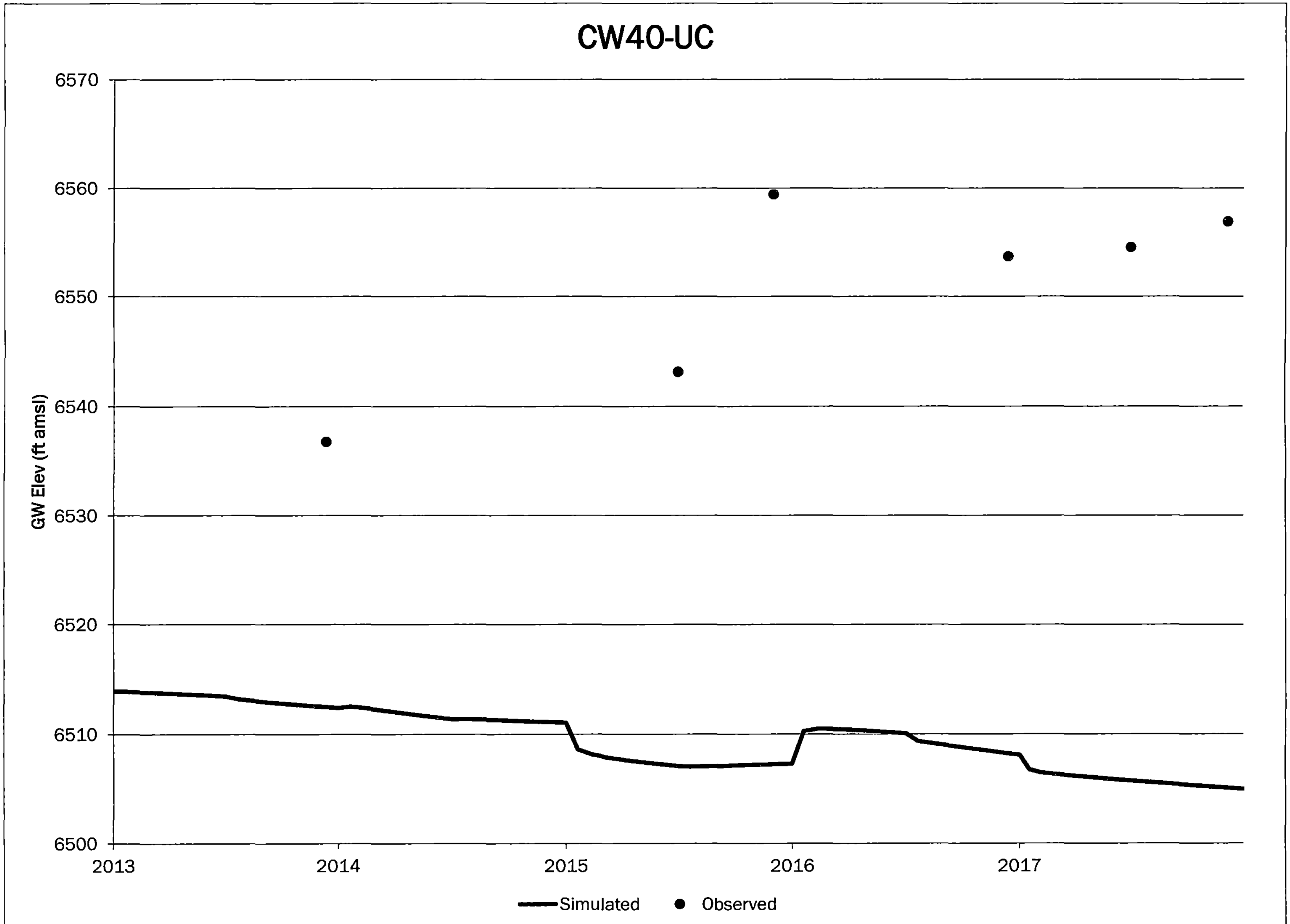
CF7A-UC
GW Elev (ft amsl)
6542
6540
6538
6536
6534
6532
6530
6528
6526
6524
2013
2014
2015
2016
2017
Simulated
Observed



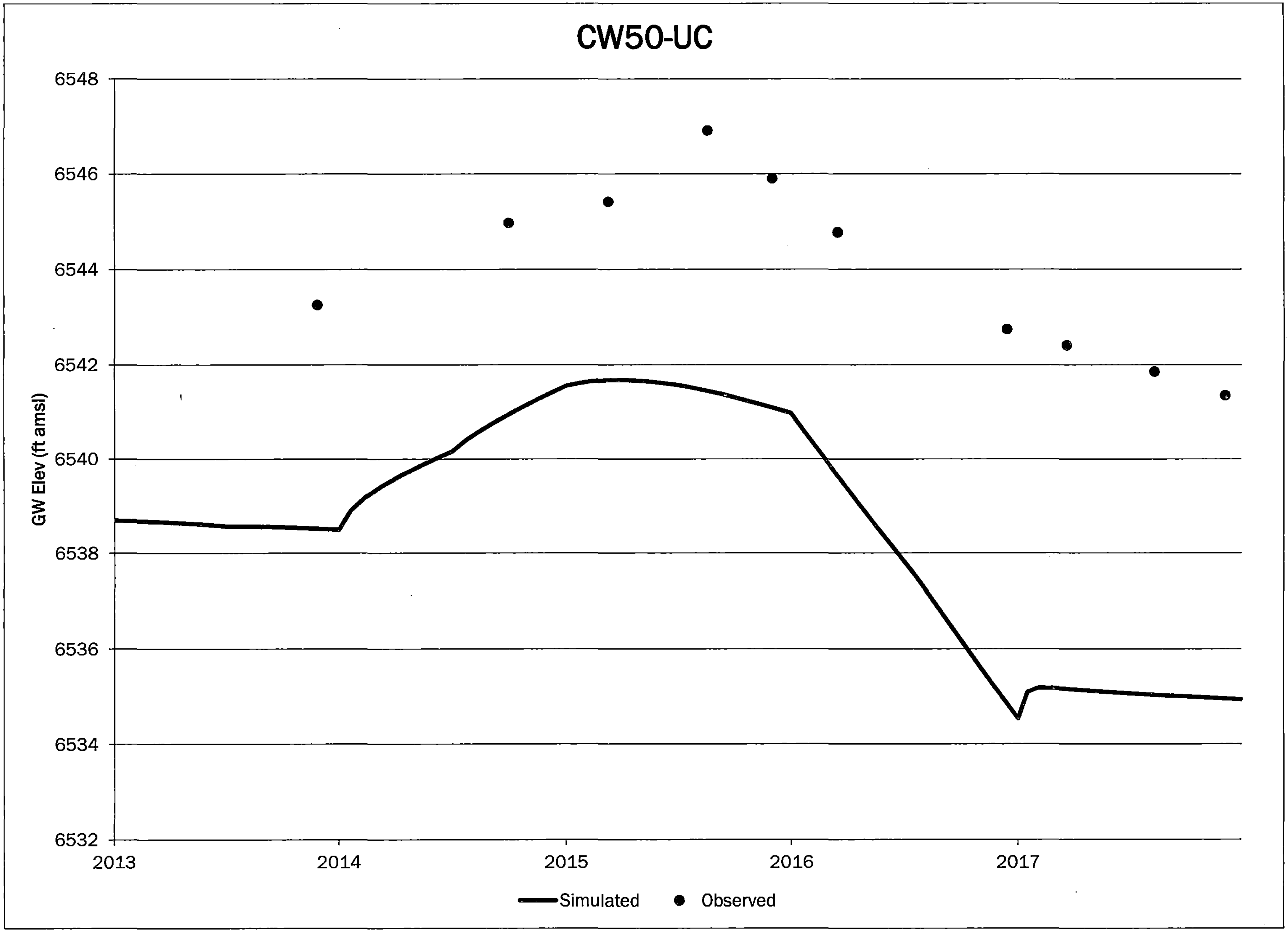
CW3-UC
GW Elev (ft amsl)
6550
6540
6530
6520
6510
6500
6490
6480
2013
2014
2015
2016
2017
Simulated
Observed



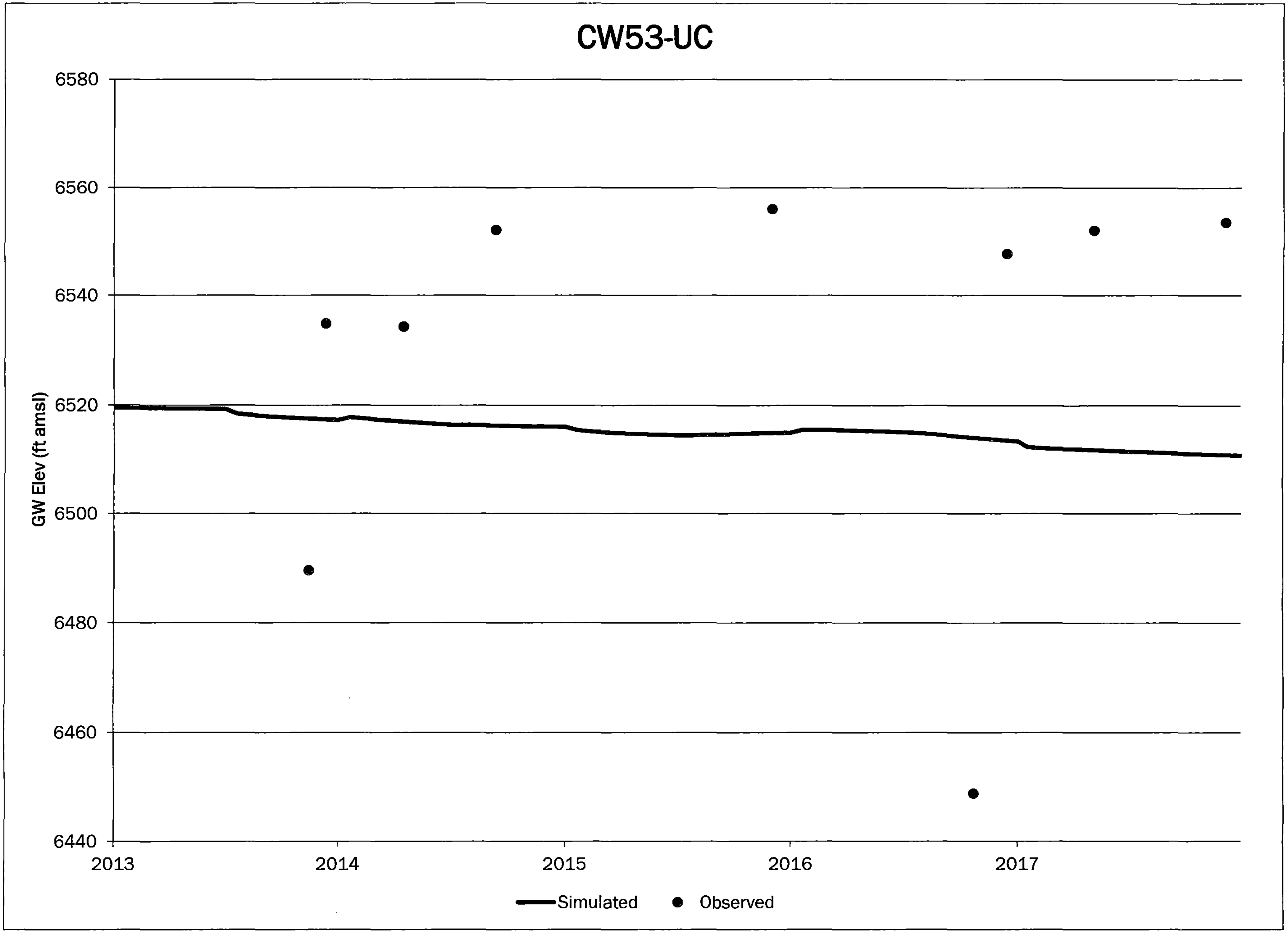
CW18-UC
6570
6560
6550
6540
6530
6520
6510
6500
6490
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



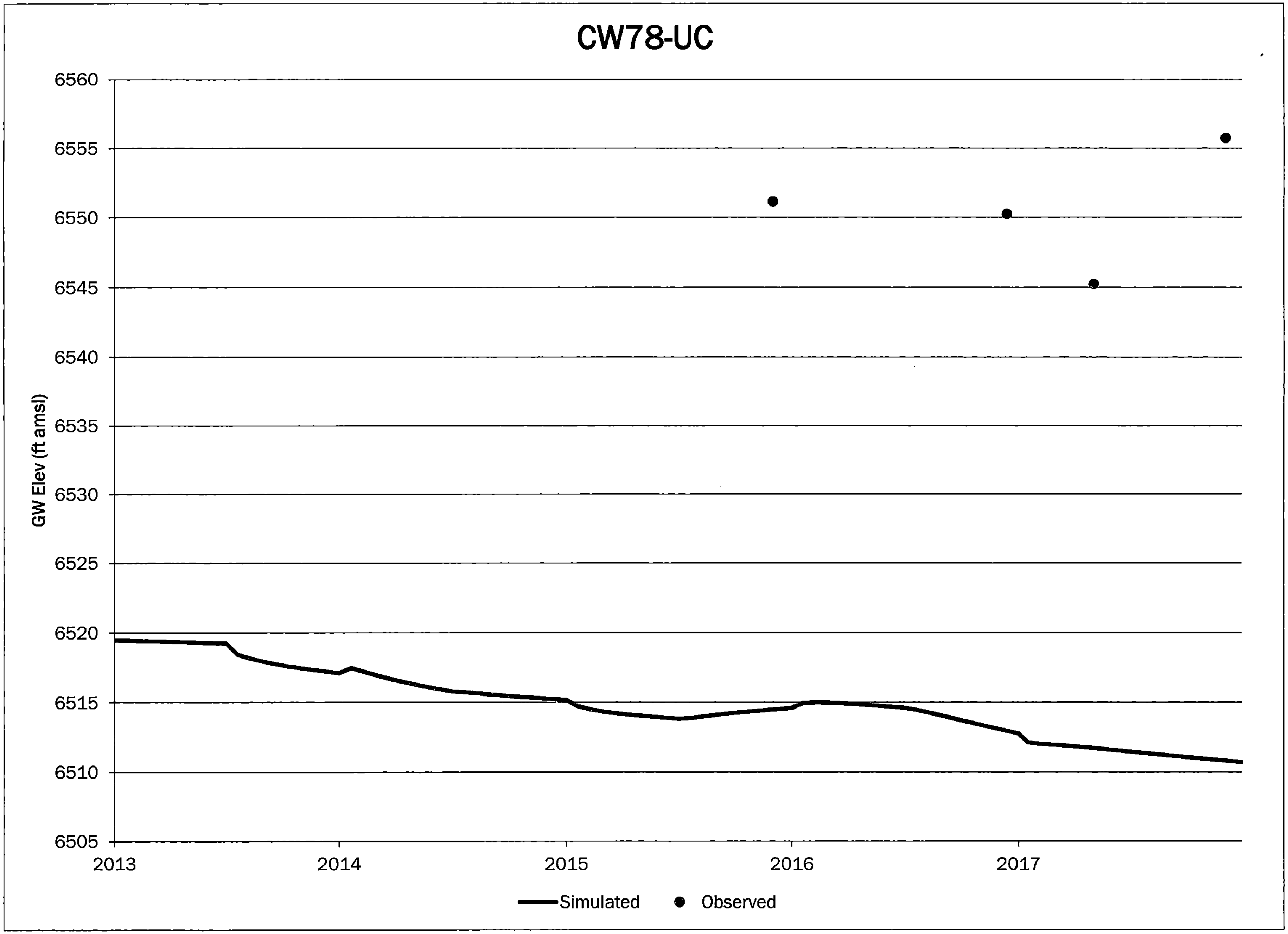
CW40-UC
GW Elev (ft amsl)
6570
6560
6550
6540
6530
6520
6510
6500
2013
2014
2015
2016
2017
Simulated
Observed

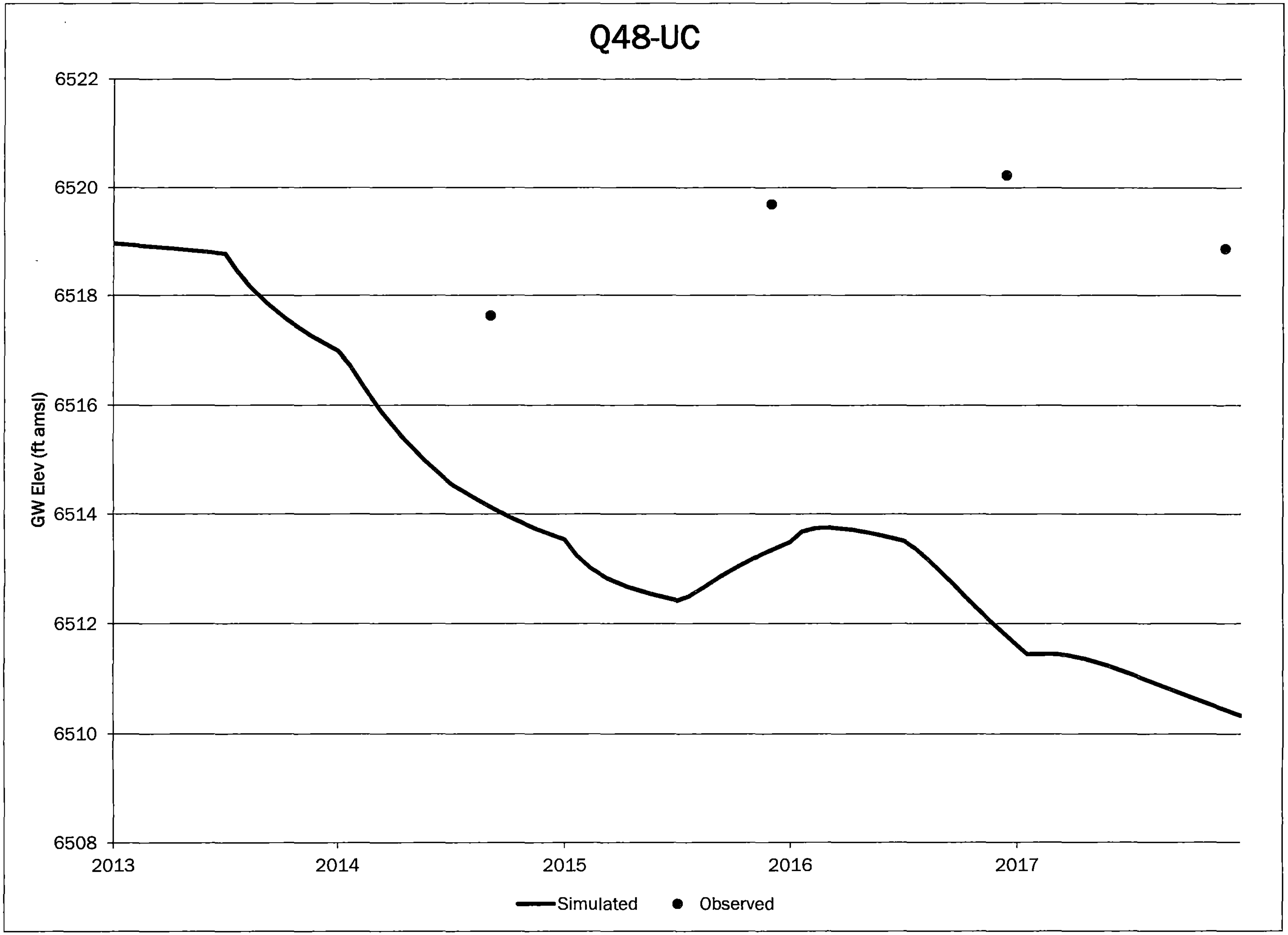


CW50-UC
GW Elev (ft amsl)
6548
6546
6544
6542
6540
6538
6536
6534
6532
2013
2014
2015
2016
2017
Simulated
Observed

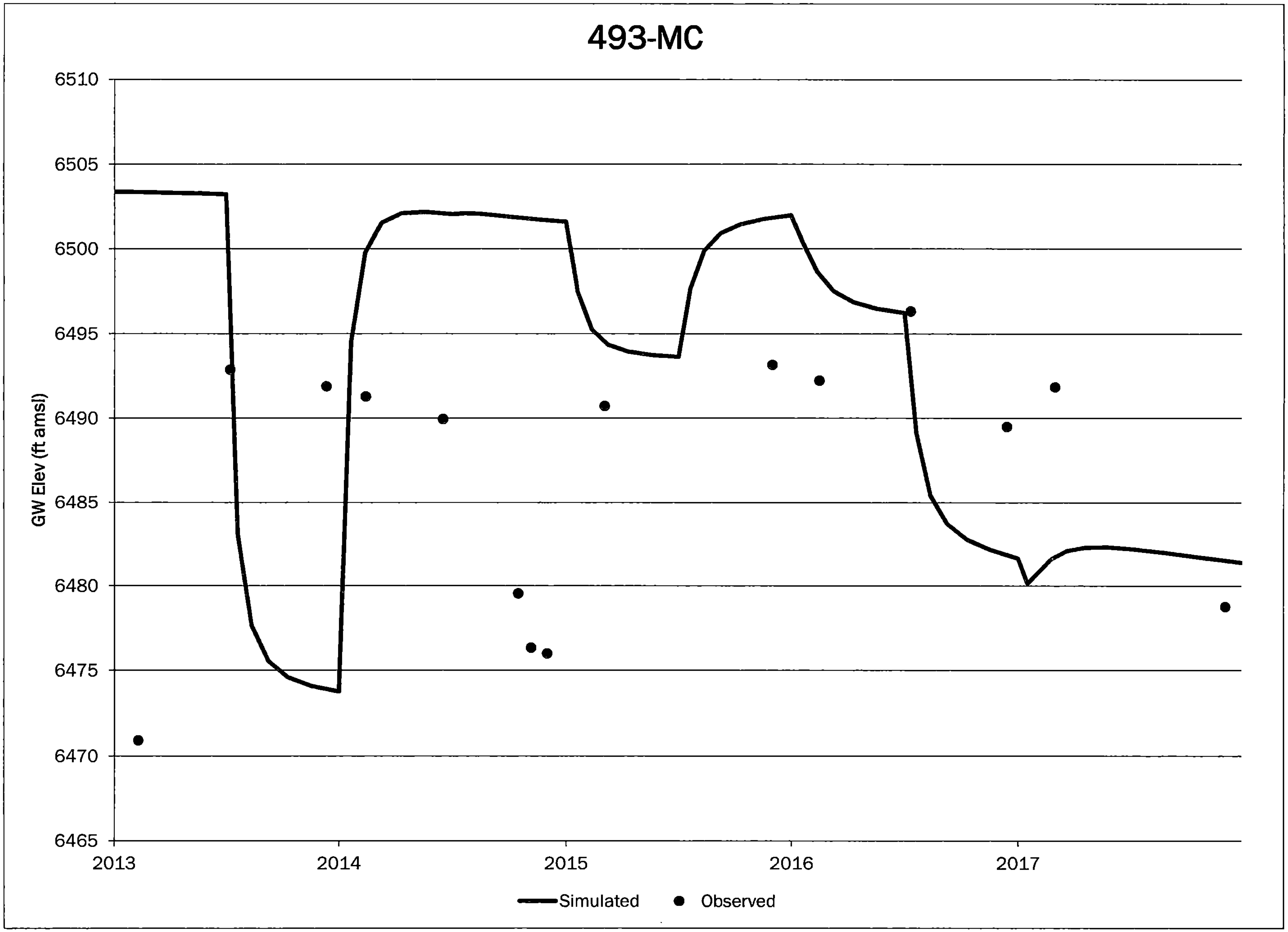


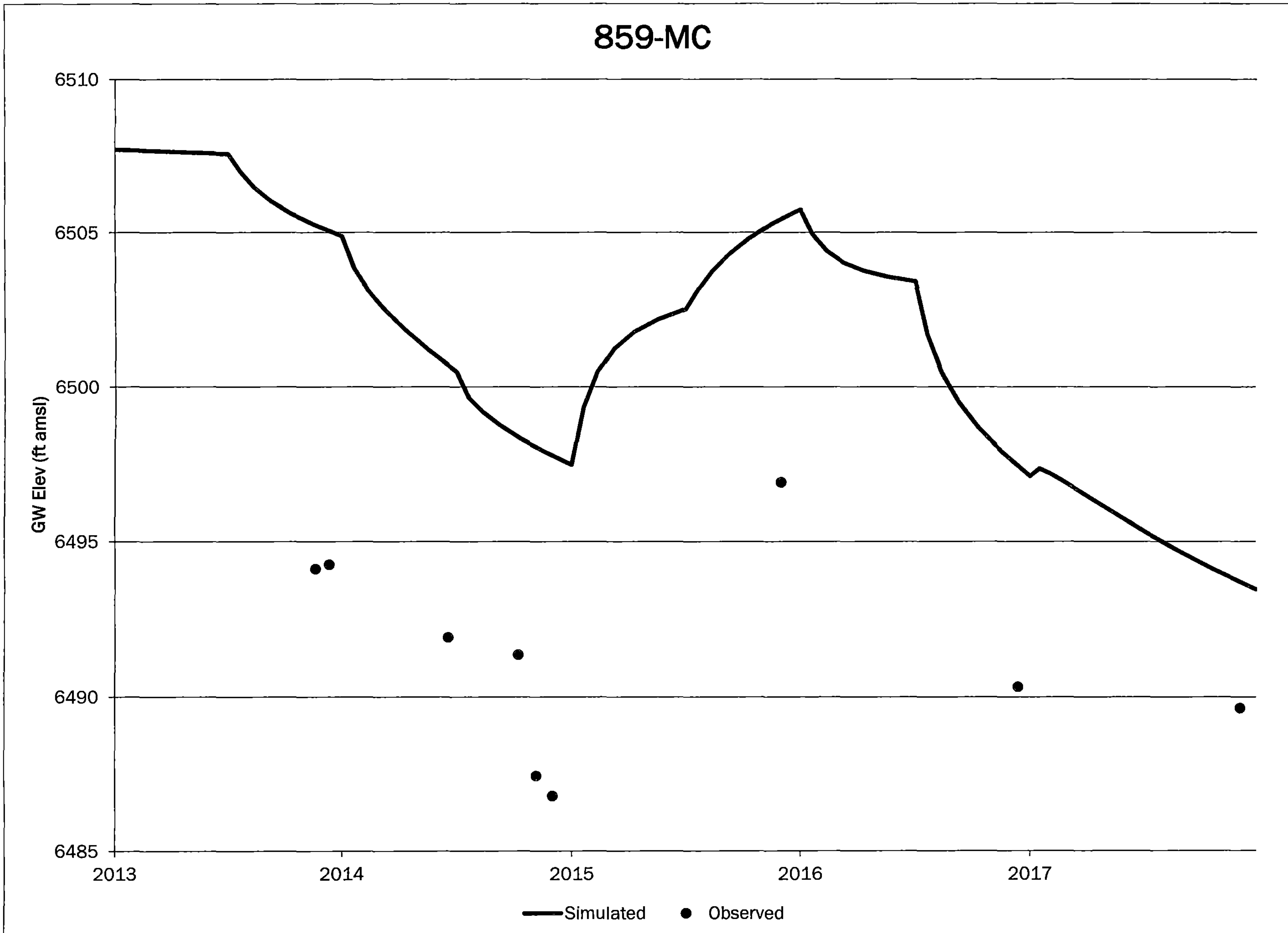
CW53-UC
6580
6560
6540
6520
6500
6480
6460
6440
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

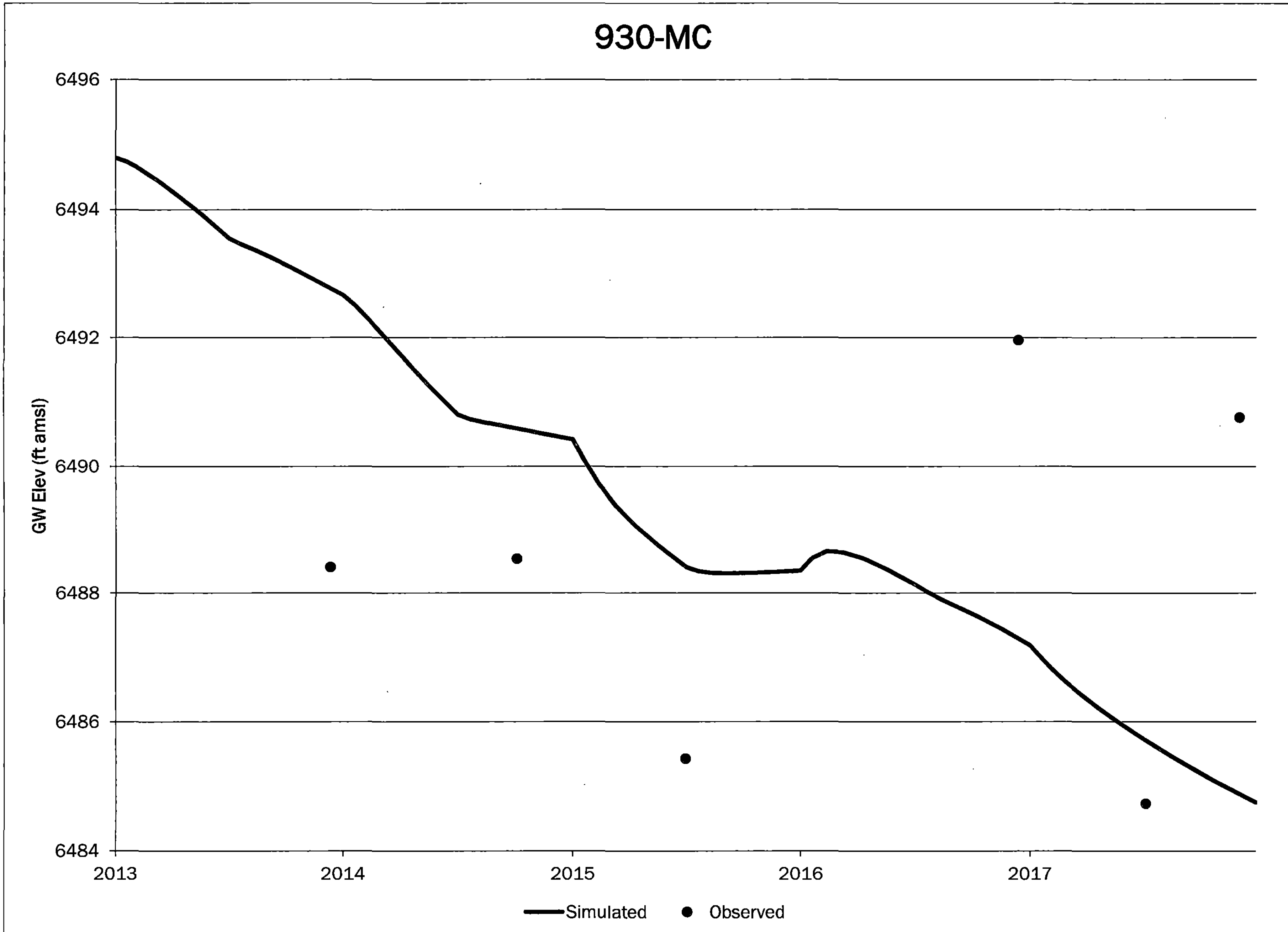

CW78-UC
GW Elev (ft amsl)
6560
6555
6550
6545
6540
6535
6530
6525
6520
6515
6510
6505
2013
2014
2015
2016
2017
Simulated
Observed



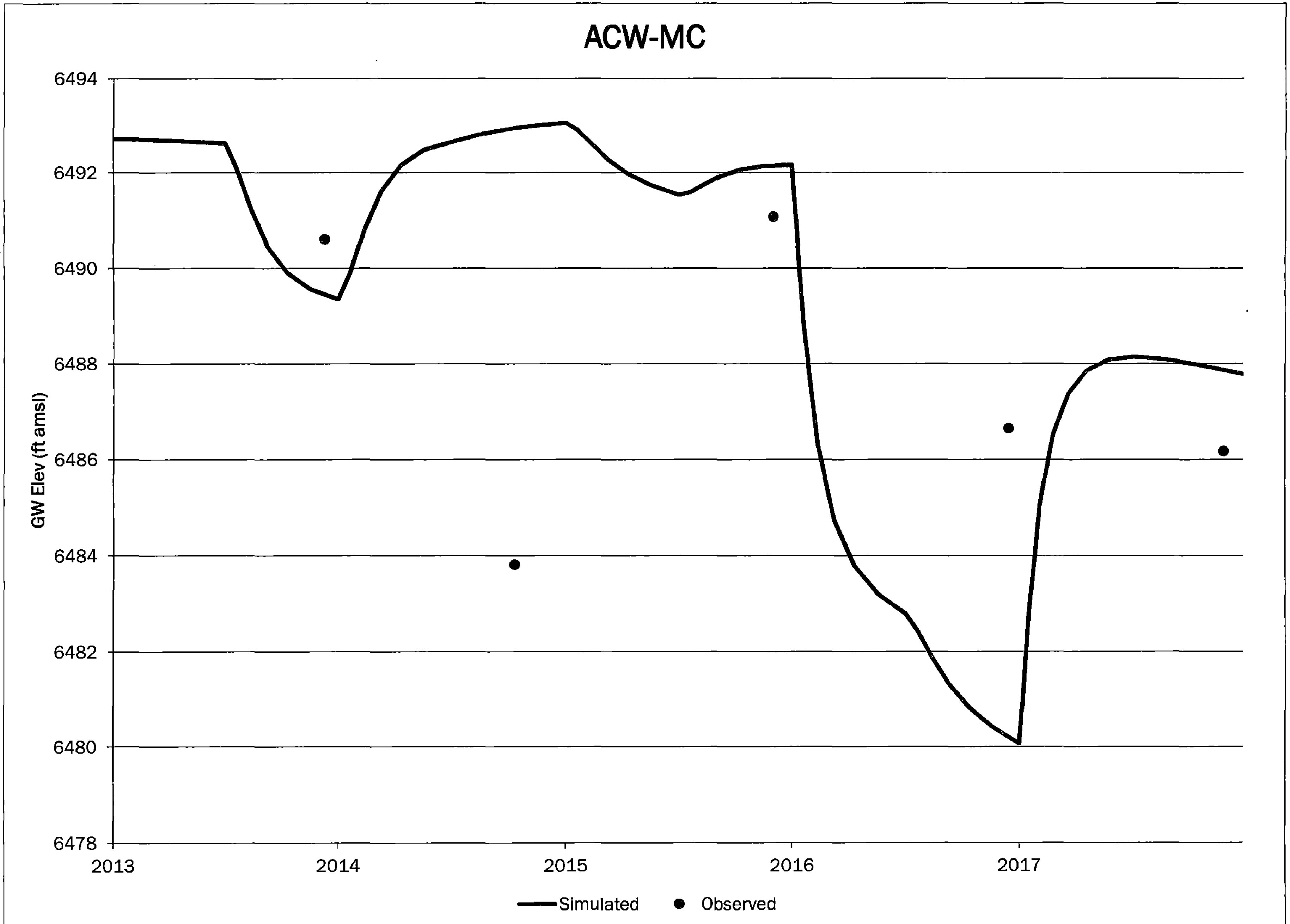
Q48-UC
GW Elev (ft amsl)
6522
6520
6518
6516
6514
6512
6510
6508
2013
2014
2015
2016
2017
Simulated
Observed

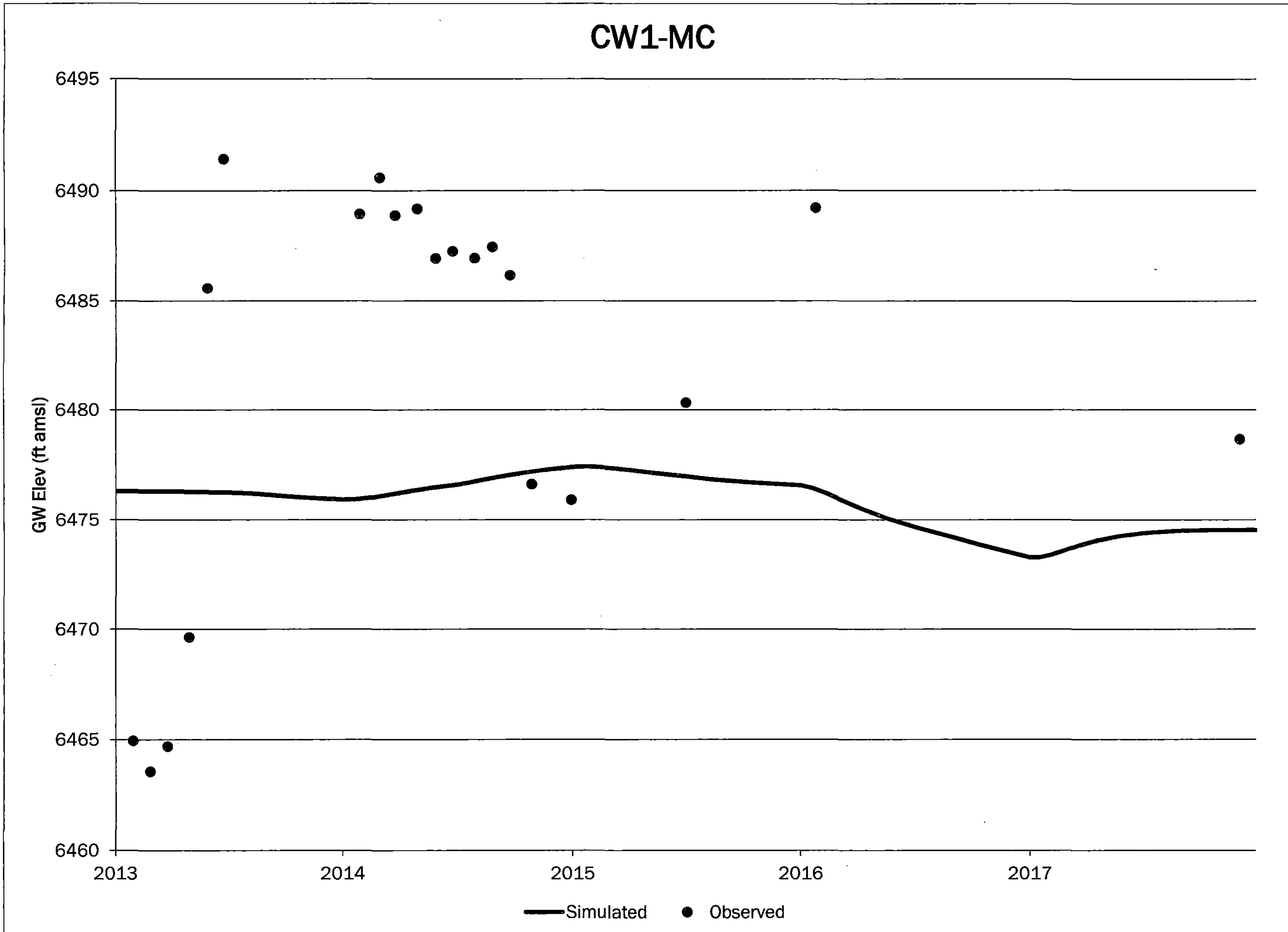

493-MC
GW Elev (ft amsl)
6510
6505
6500
6495
6490
6485
6480
6475
6470
6465
2013
2014
2015
2016
2017
Simulated
Observed


859-MC
6510
6505
6500
6495
6490
6485
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

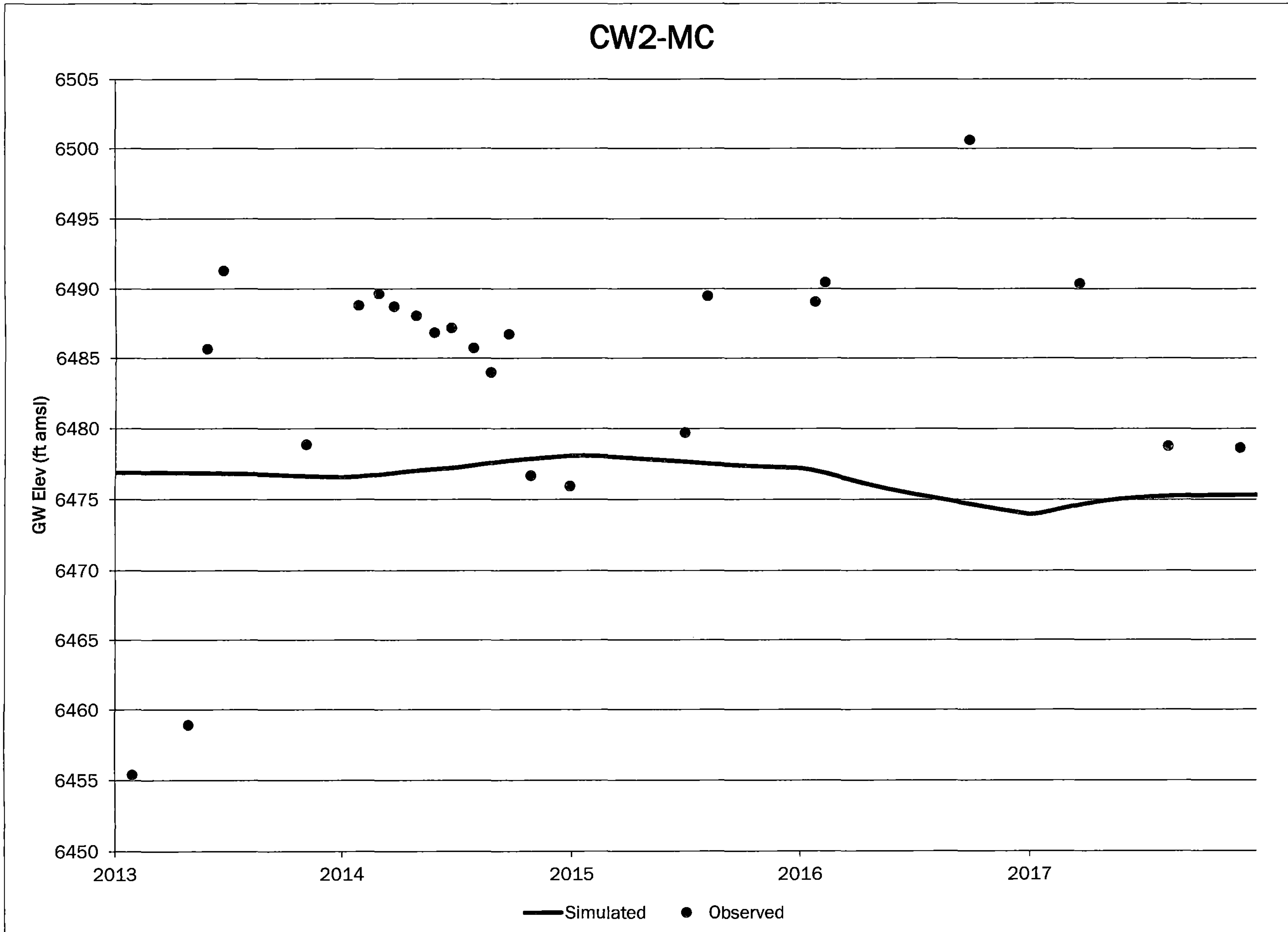


930-MC
GW Elev (ft amsl)
6496
6494
6492
6490
6488
6486
6484
2013
2014
2015
2016
2017
Simulated
Observed

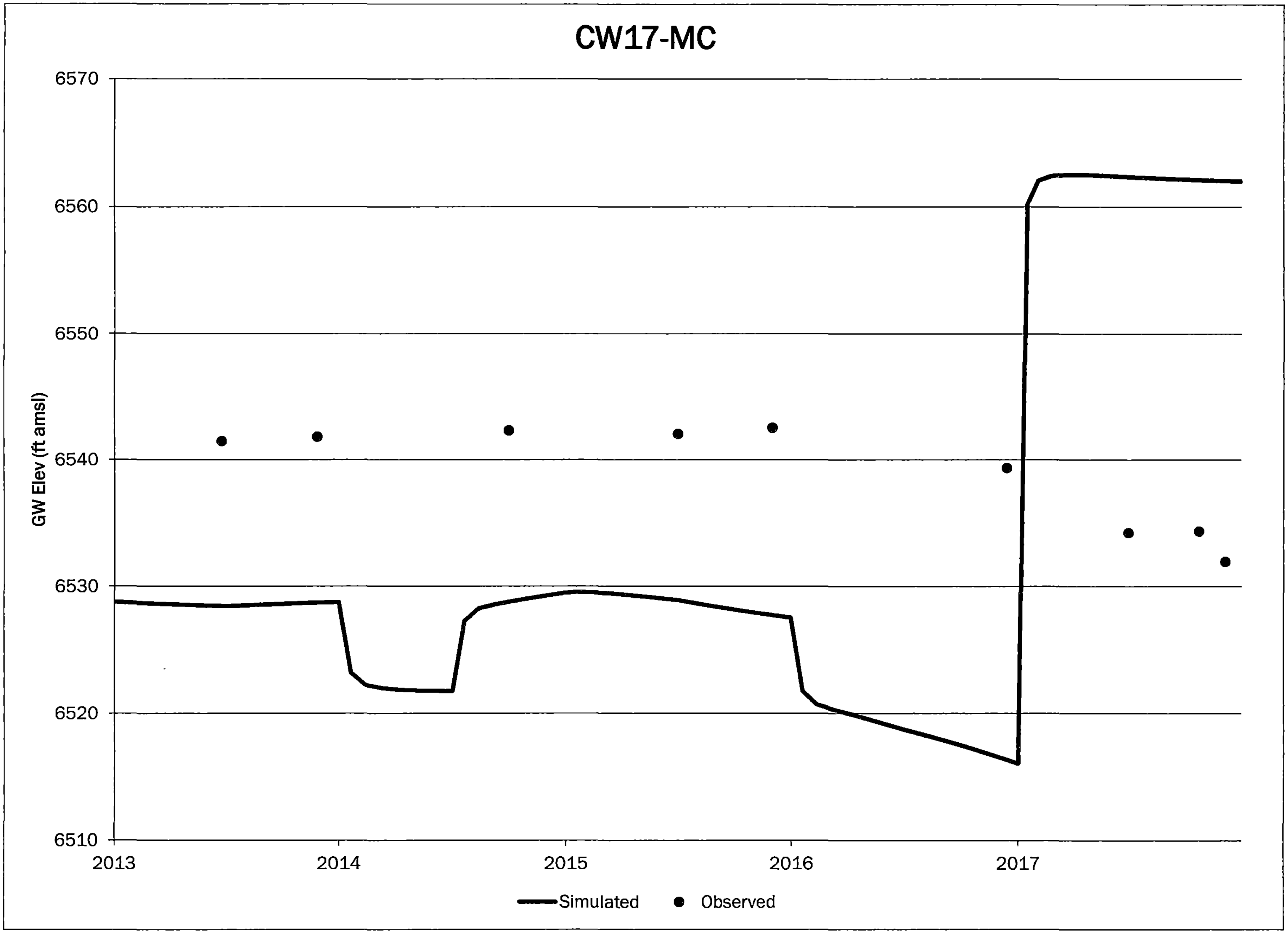

ACW-MC
GW Elev (ft amsl)
6494
6492
6490
6488
6486
6484
6482
6480
6478
2013
2014
2015
2016
2017
Simulated
Observed

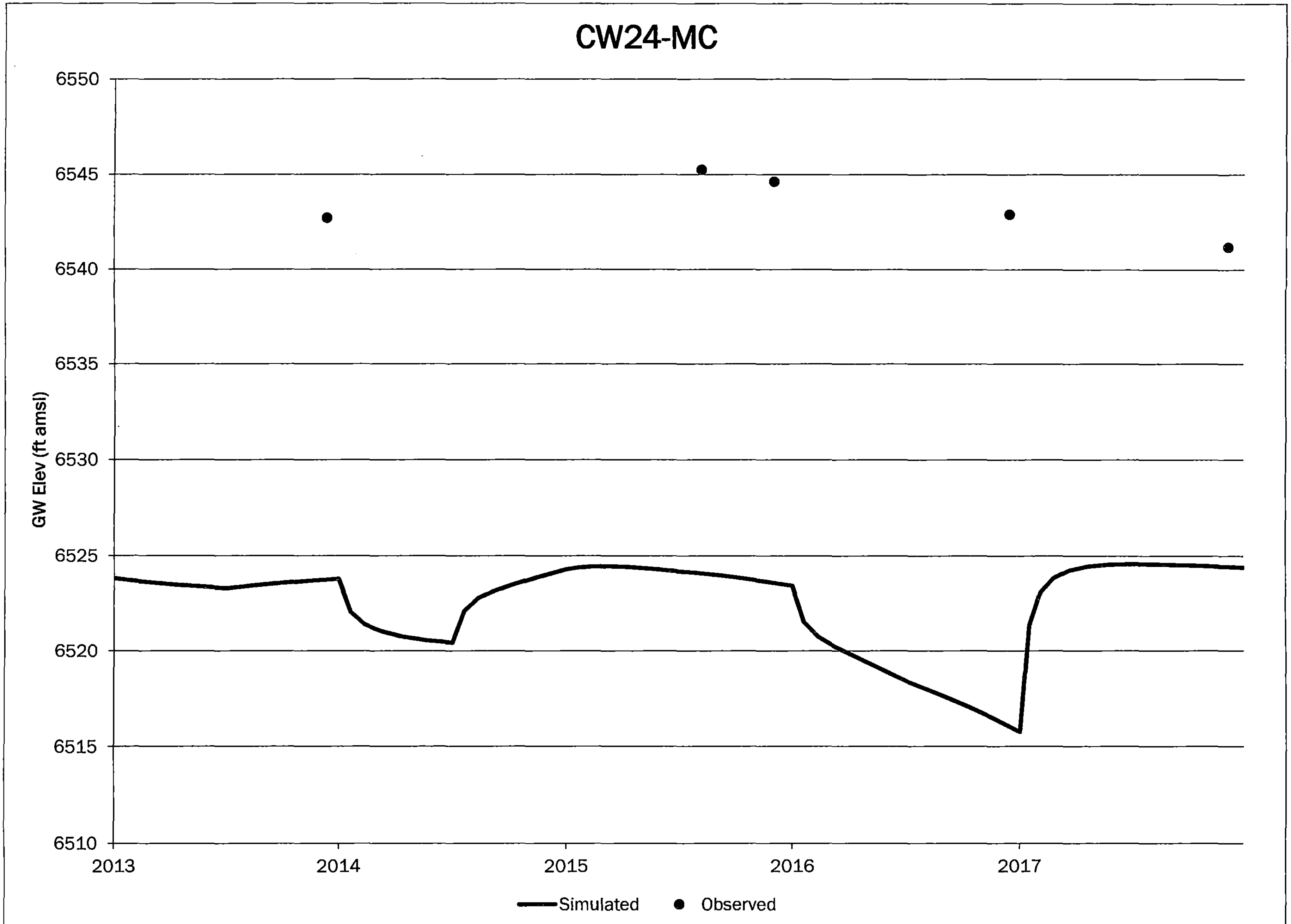


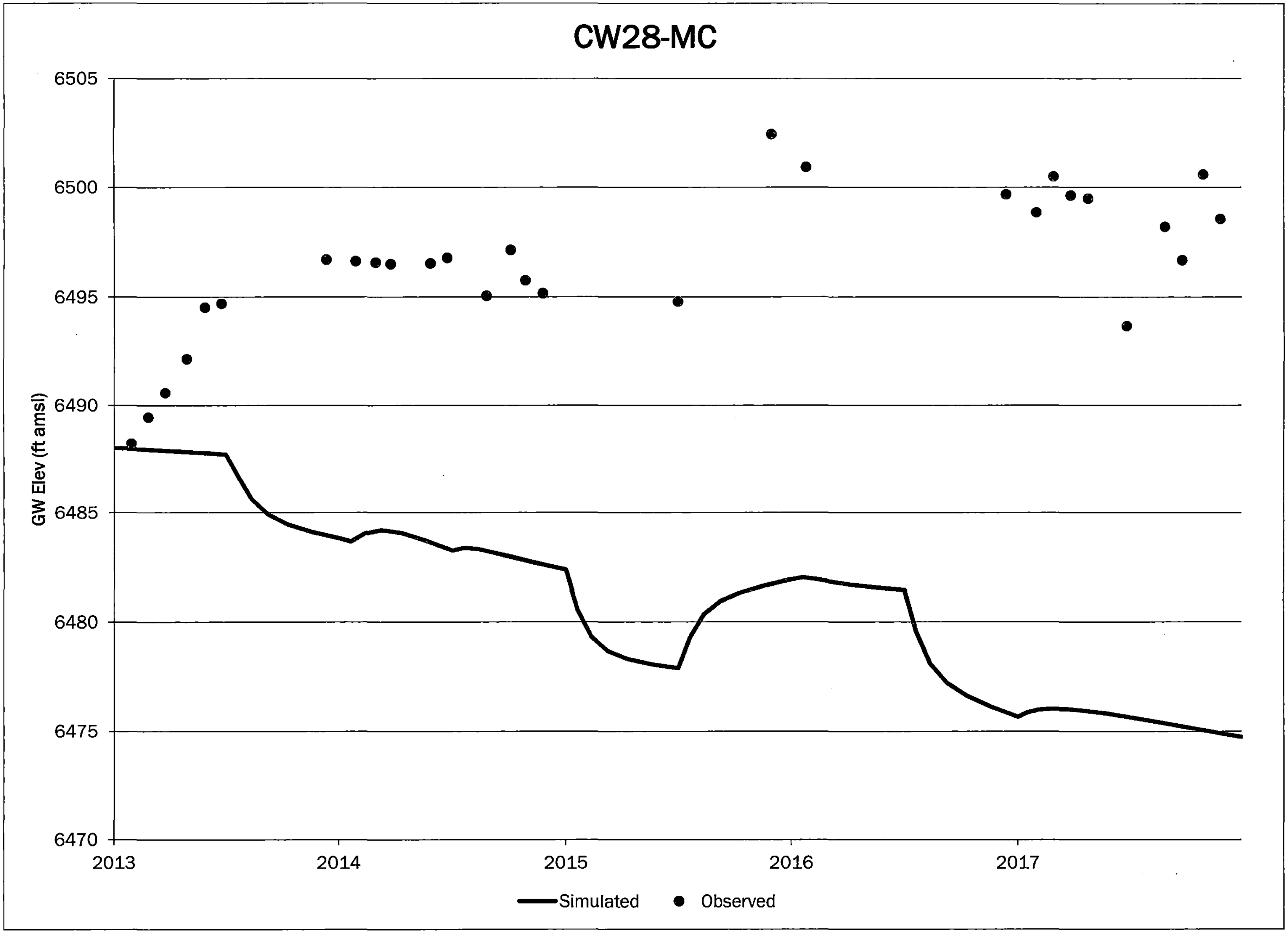
CW1-MC
GW Elev (ft amsl)
6495
6490
6485
6480
6475
6470
6465
6460
2013
2014
2015
2016
2017
Simulated
Observed

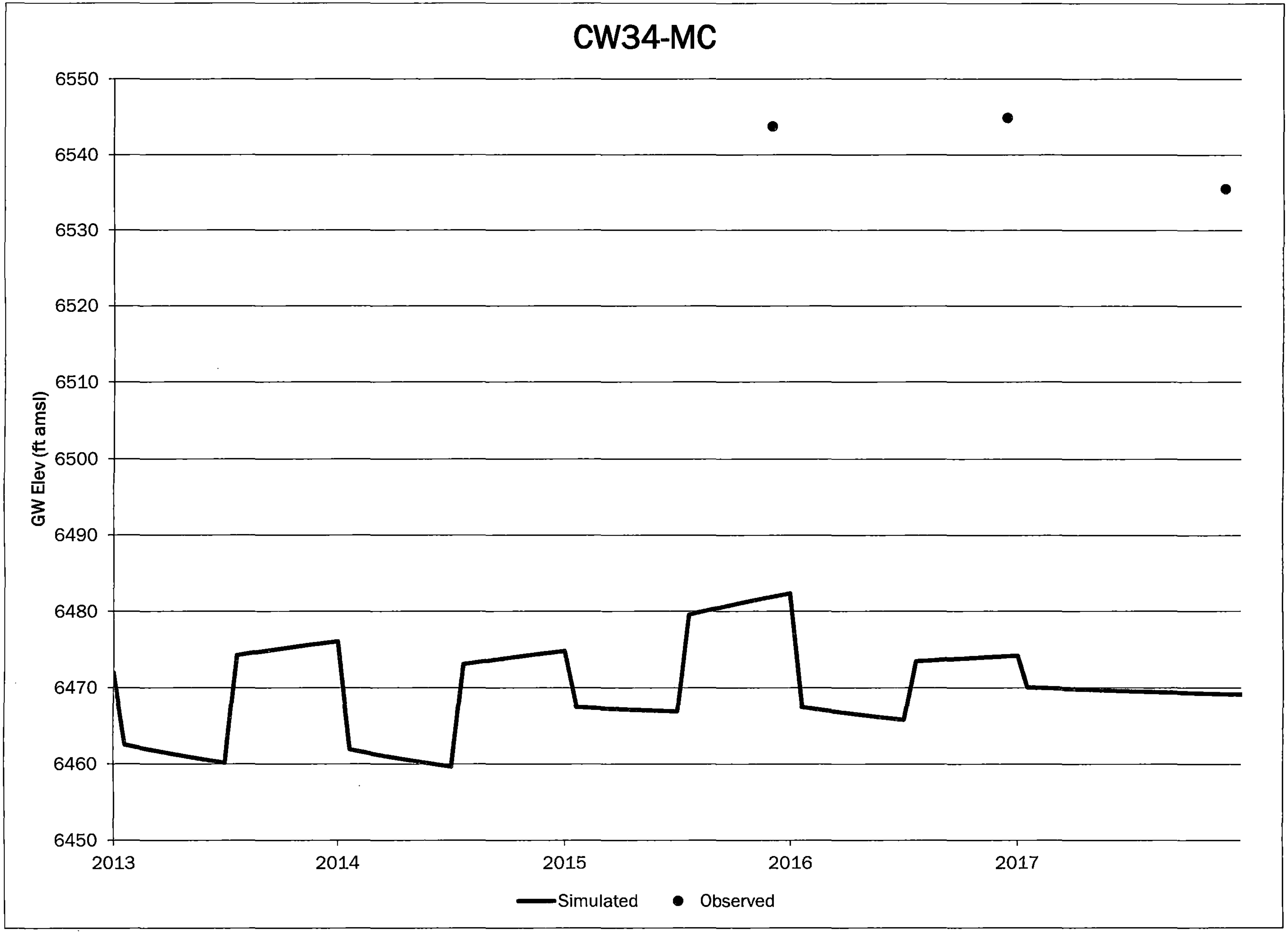


CW2-MC
GW Elev (ft amsl)
6505
6500
6495
6490
6485
6480
6475
6470
6465
6460
6455
6450
2013
2014
2015
2016
2017
Simulated
Observed

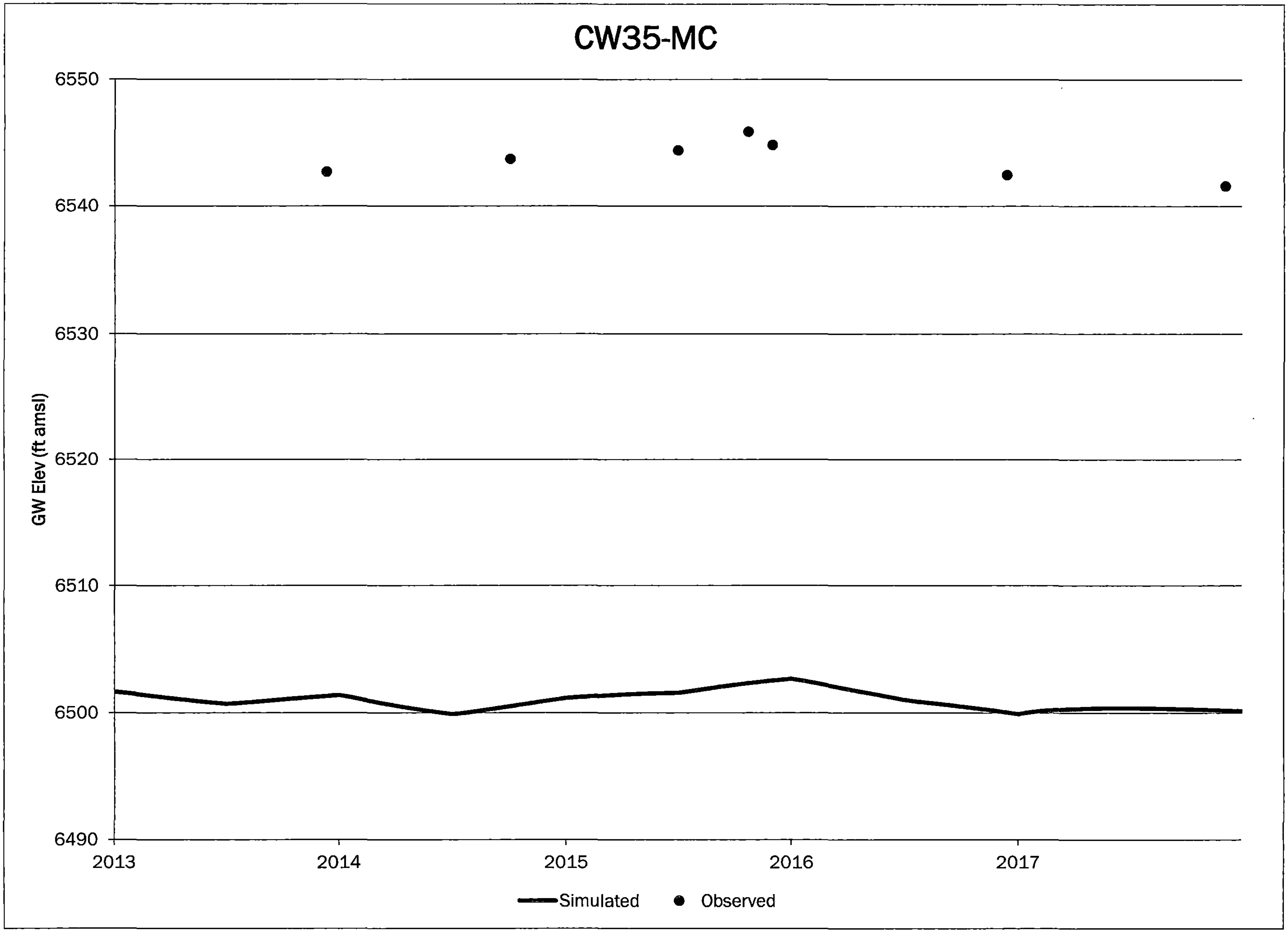

CW17-MC
6570
6560
6550
6540
6530
6520
6510
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


CW24-MC
GW Elev (ft amsl)
6550
6545
6540
6535
6530
6525
6520
6515
6510
2013
2014
2015
2016
2017
Simulated
Observed

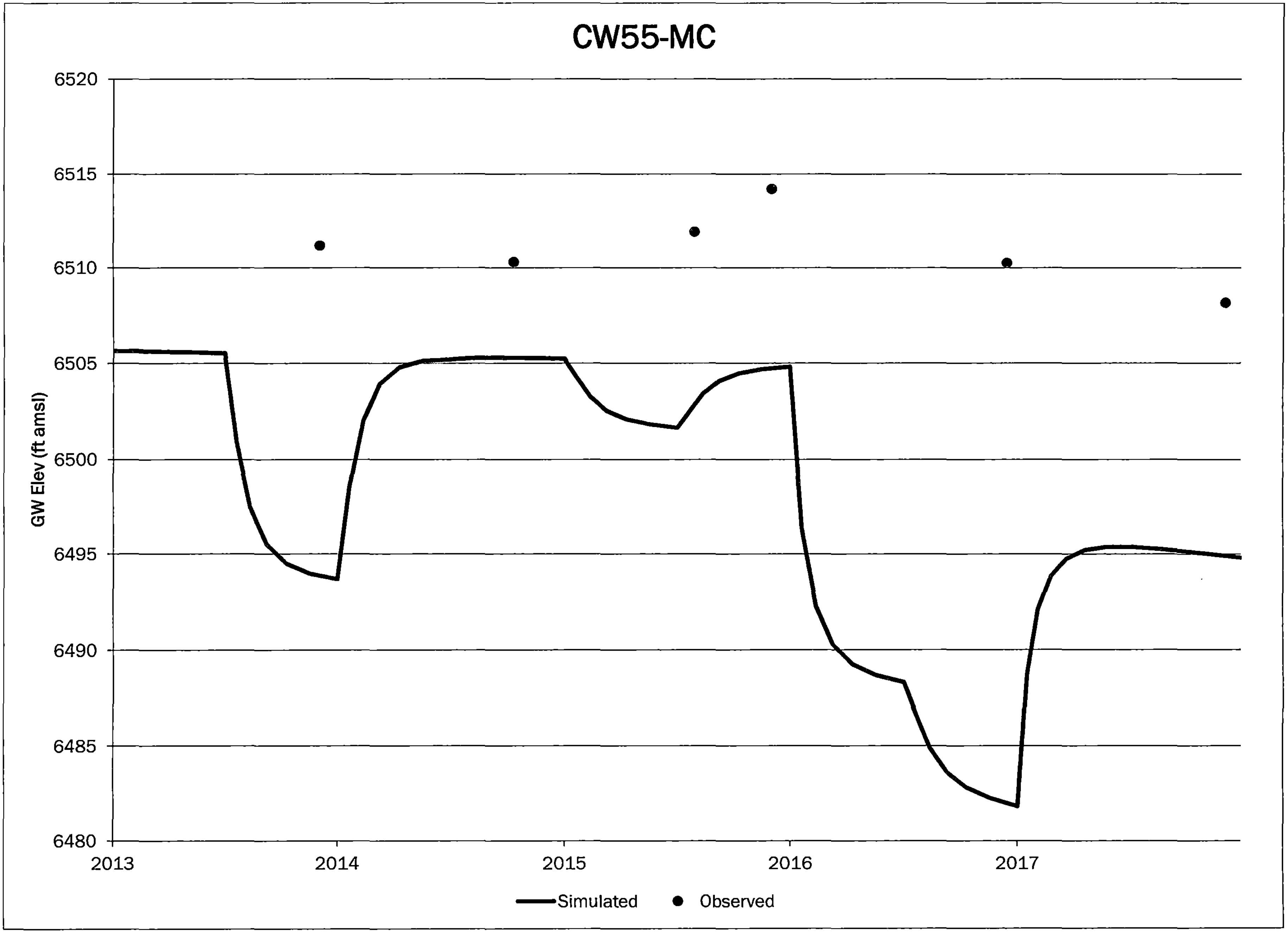

CW28-MC
GW Elev (ft amsl)
6505
6500
6495
6490
6485
6480
6475
6470
2013
2014
2015
2016
2017
Simulated
Observed

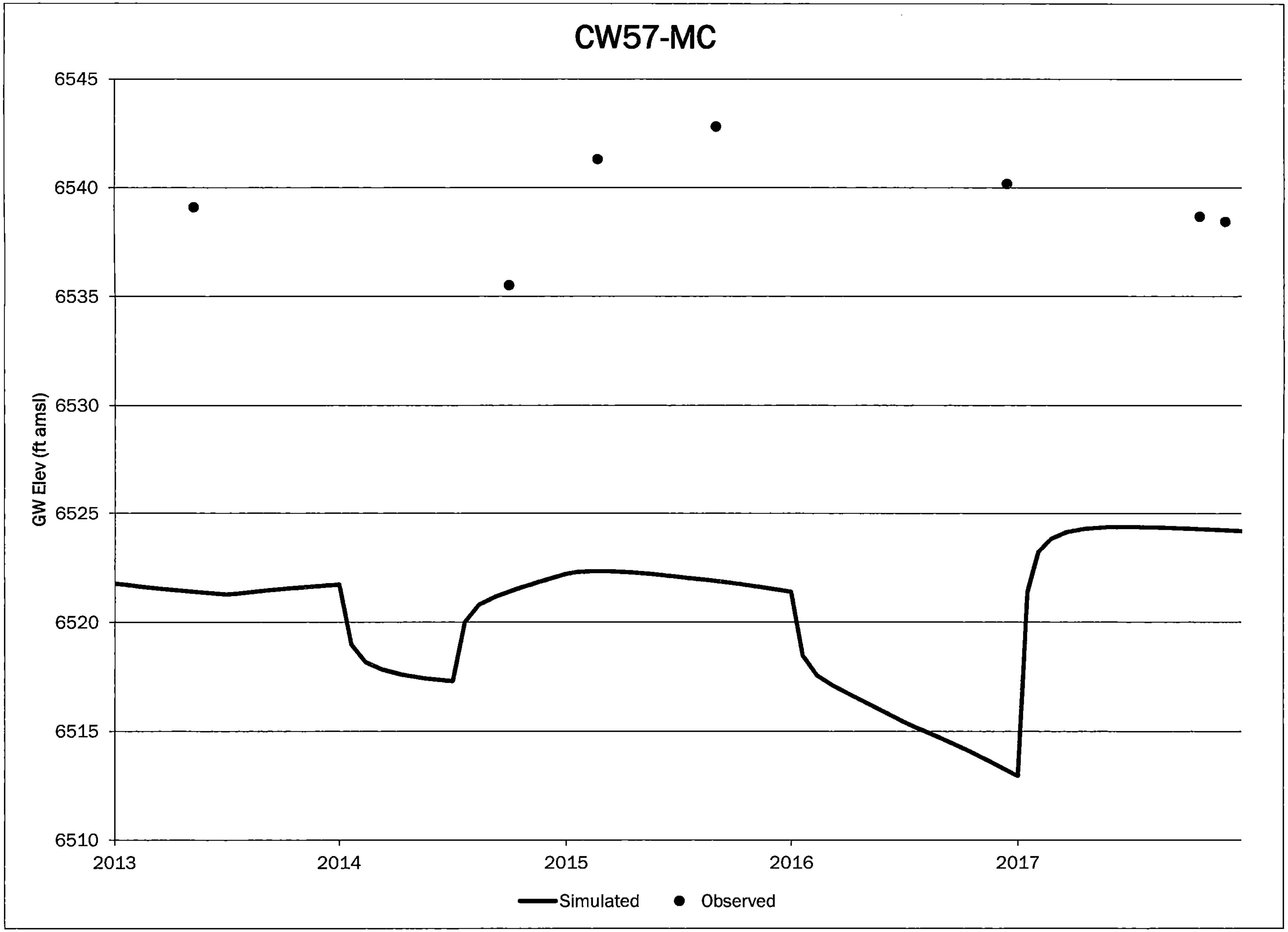


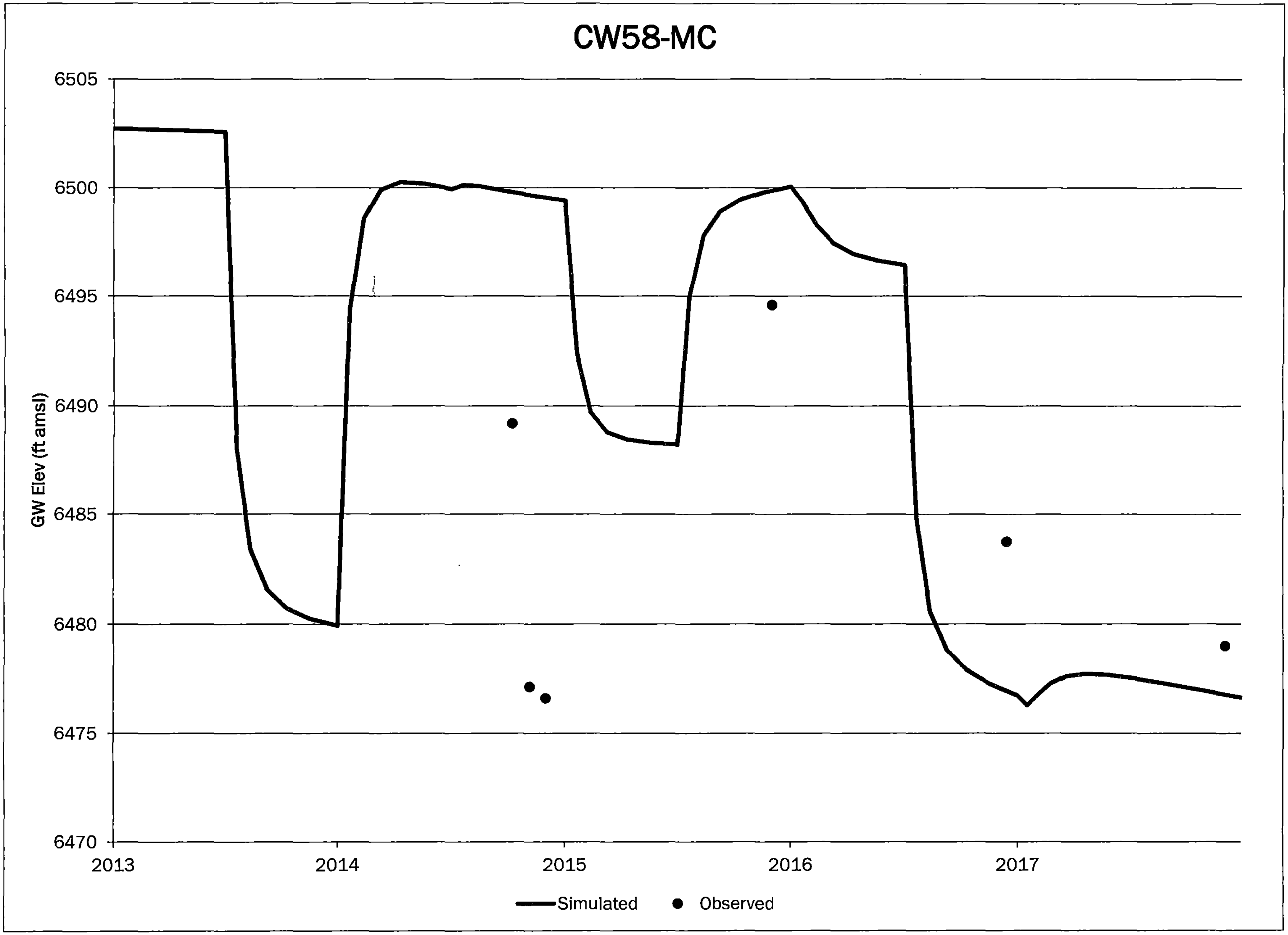
CW34-MC
GW Elev (ft amsl)
6550
6540
6530
6520
6510
6500
6490
6480
6470
6460
6450
2013
2014
2015
2016
2017
Simulated
Observed

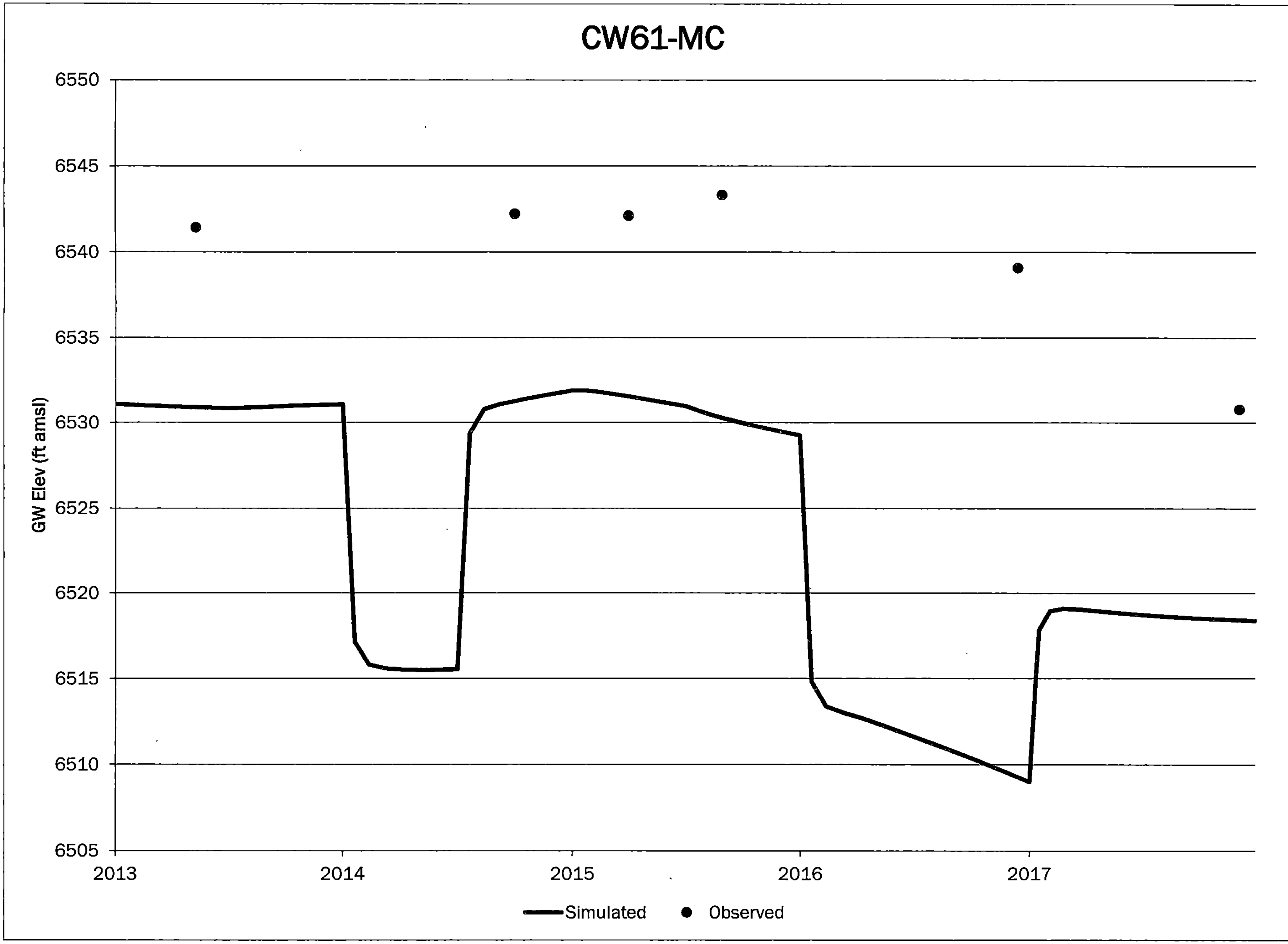


CW35-MC
GW Elev (ft amsl)
6550
6540
6530
6520
6510
6500
6490
2013
2014
2015
2016
2017
Simulated
Observed

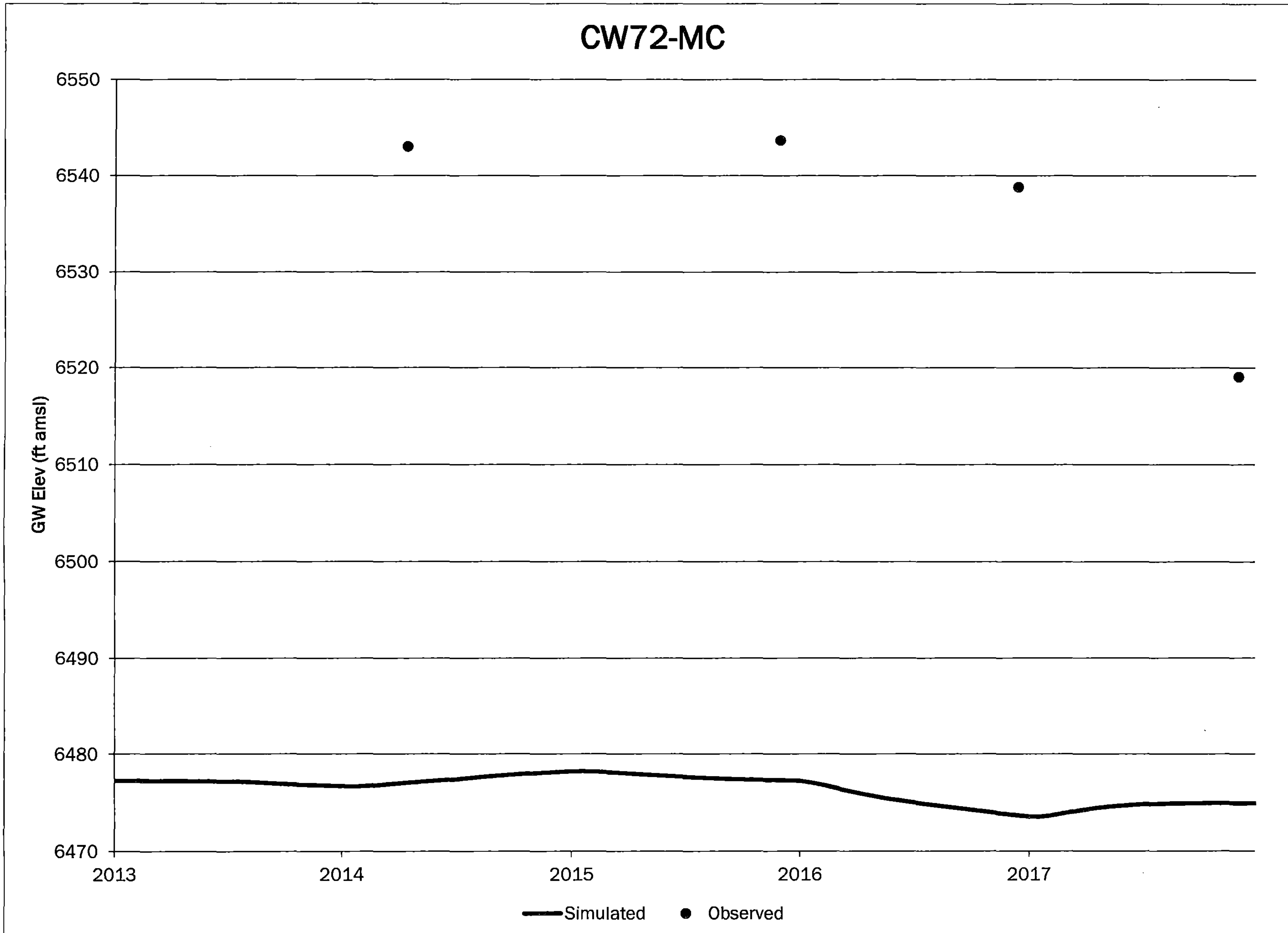

CW55-MC
GW Elev (ft amsl)
6520
6515
6510
6505
6500
6495
6490
6485
6480
2013
2014
2015
2016
2017
Simulated
Observed


CW57-MC
GW Elev (ft amsl)
6545
6540
6535
6530
6525
6520
6515
6510
2013
2014
2015
2016
2017
Simulated
Observed

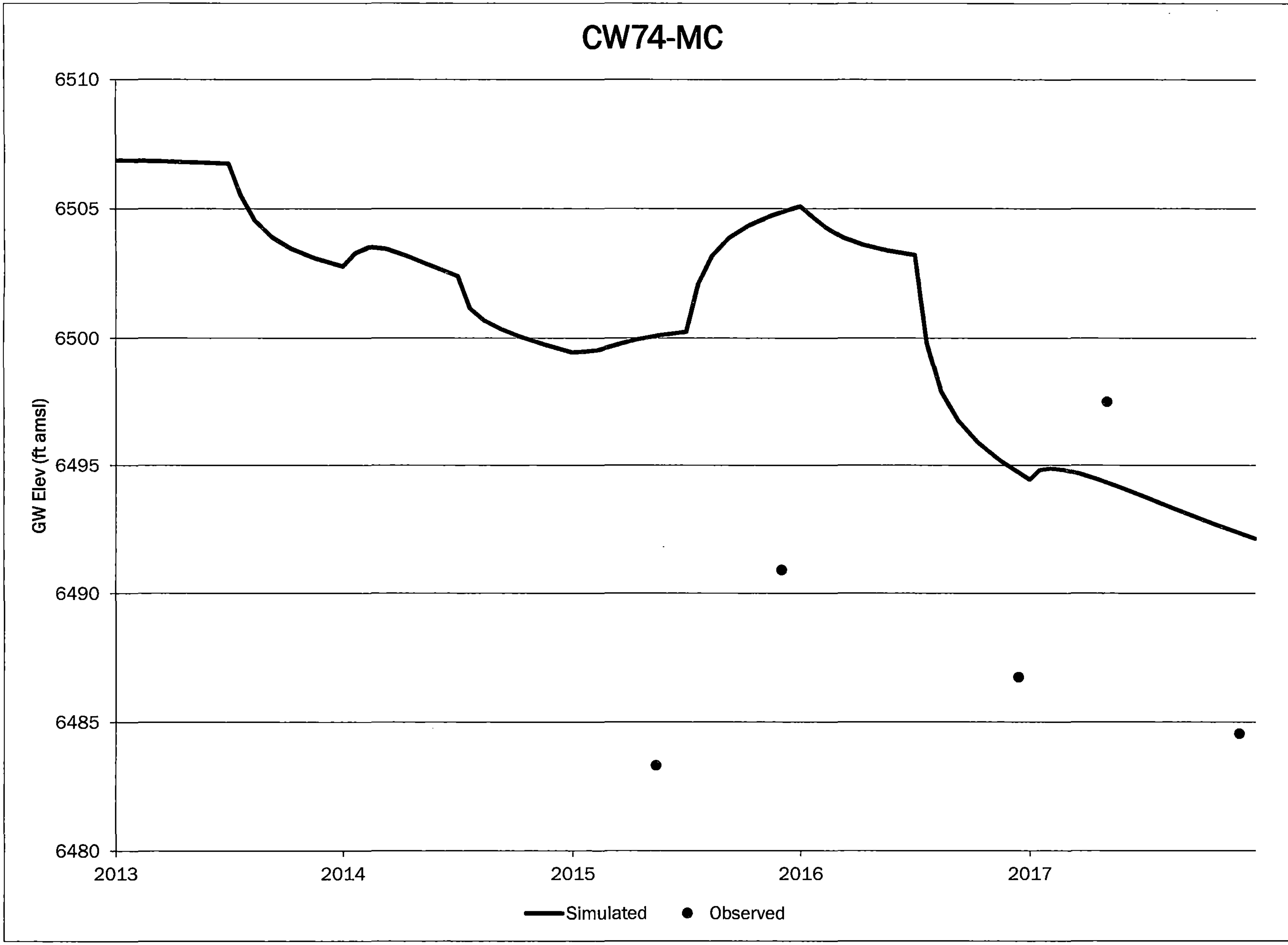

CW58-MC
GW Elev (ft amsl)
6505
6500
6495
6490
6485
6480
6475
6470
2013
2014
2015
2016
2017
Simulated
Observed



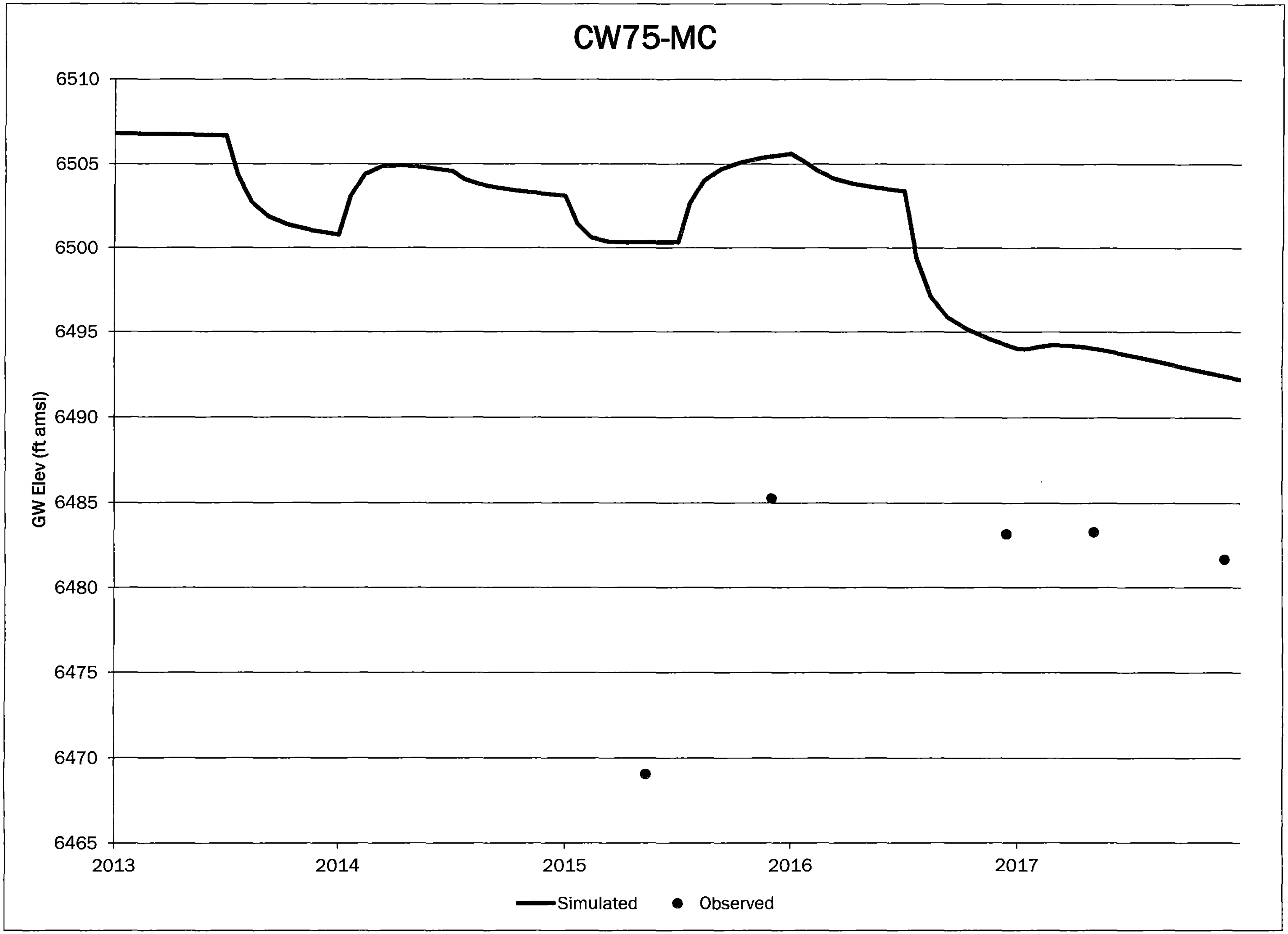
CW61-MC
GW Elev (ft amsl)
6550
6545
6540
6535
6530
6525
6520
6515
6510
6505
2013
2014
2015
2016
2017
Simulated
Observed



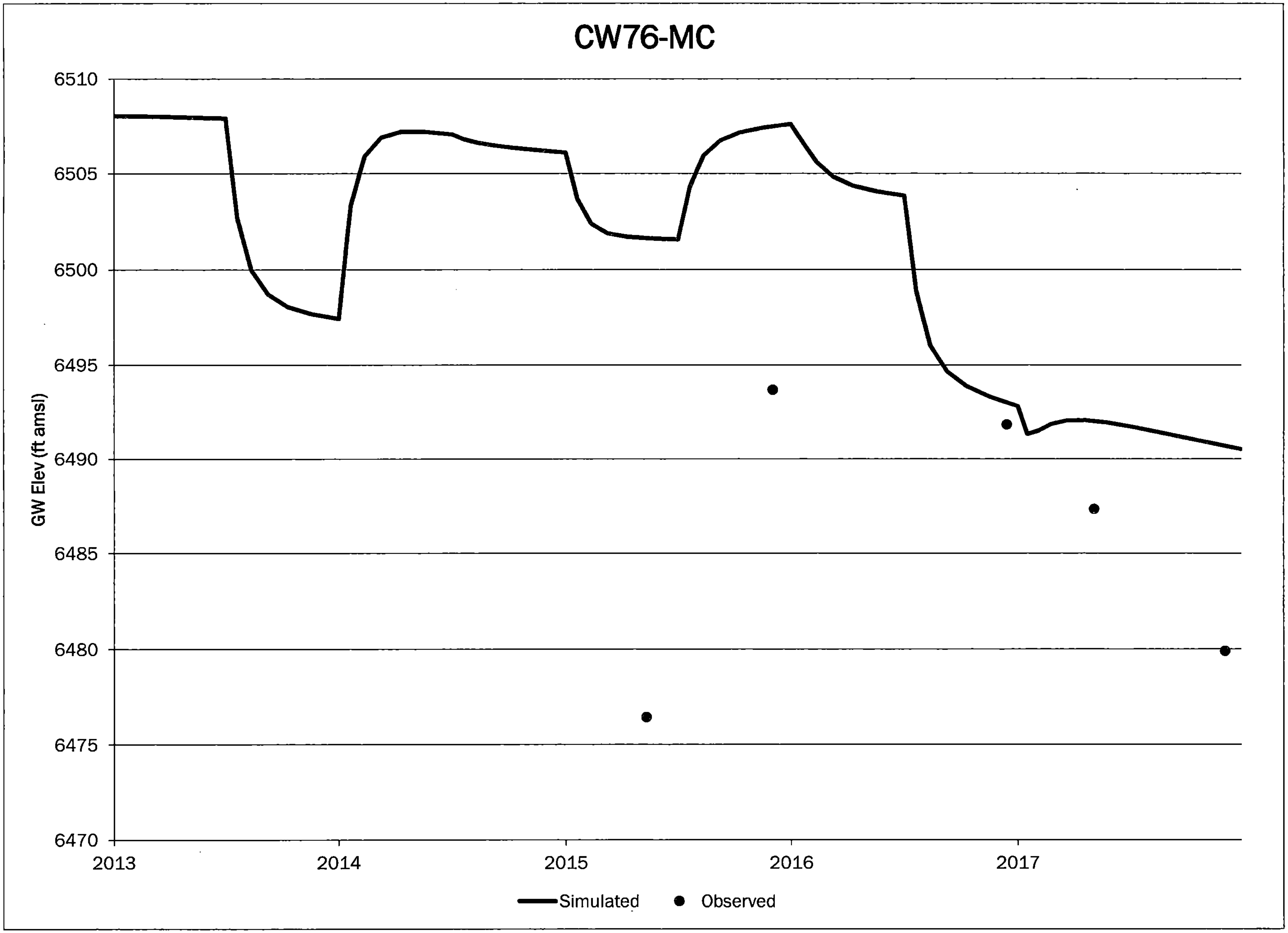
CW72-MC
6550
6540
6530
6520
6510
6500
6490
6480
6470
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

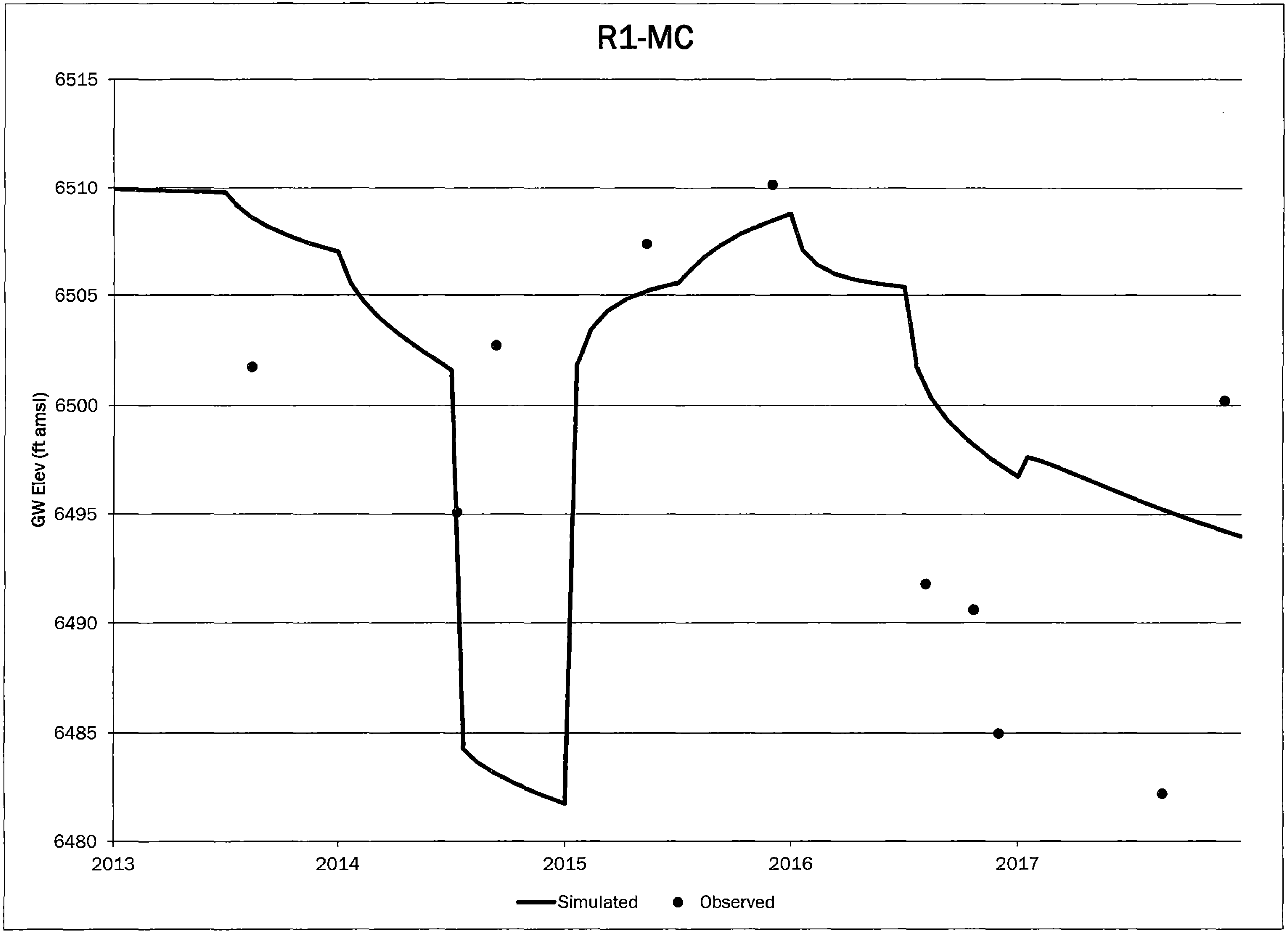


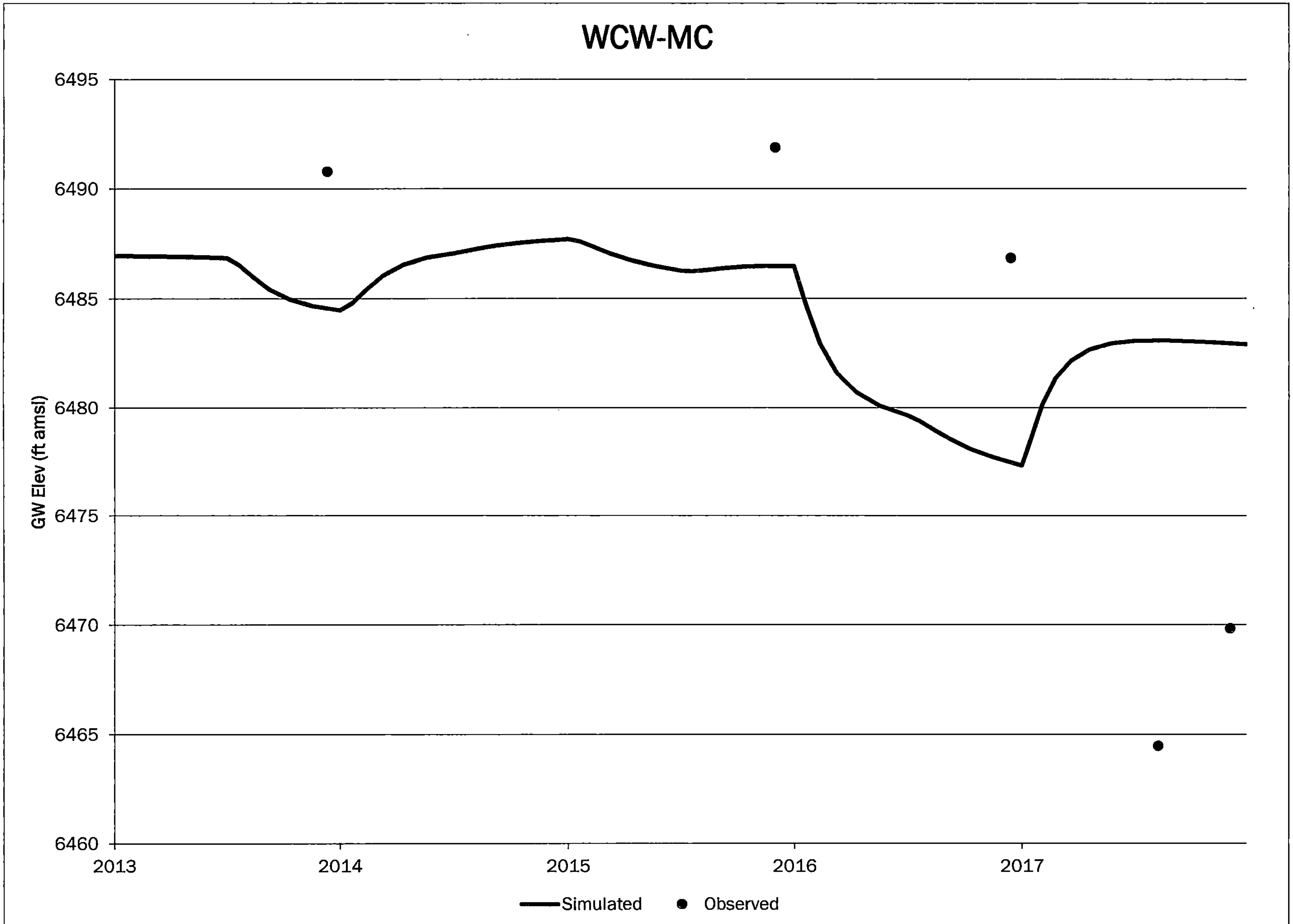
CW74-MC
GW Elev (ft amsl)
6510
6505
6500
6495
6490
6485
6480
2013
2014
2015
2016
2017
Simulated
Observed



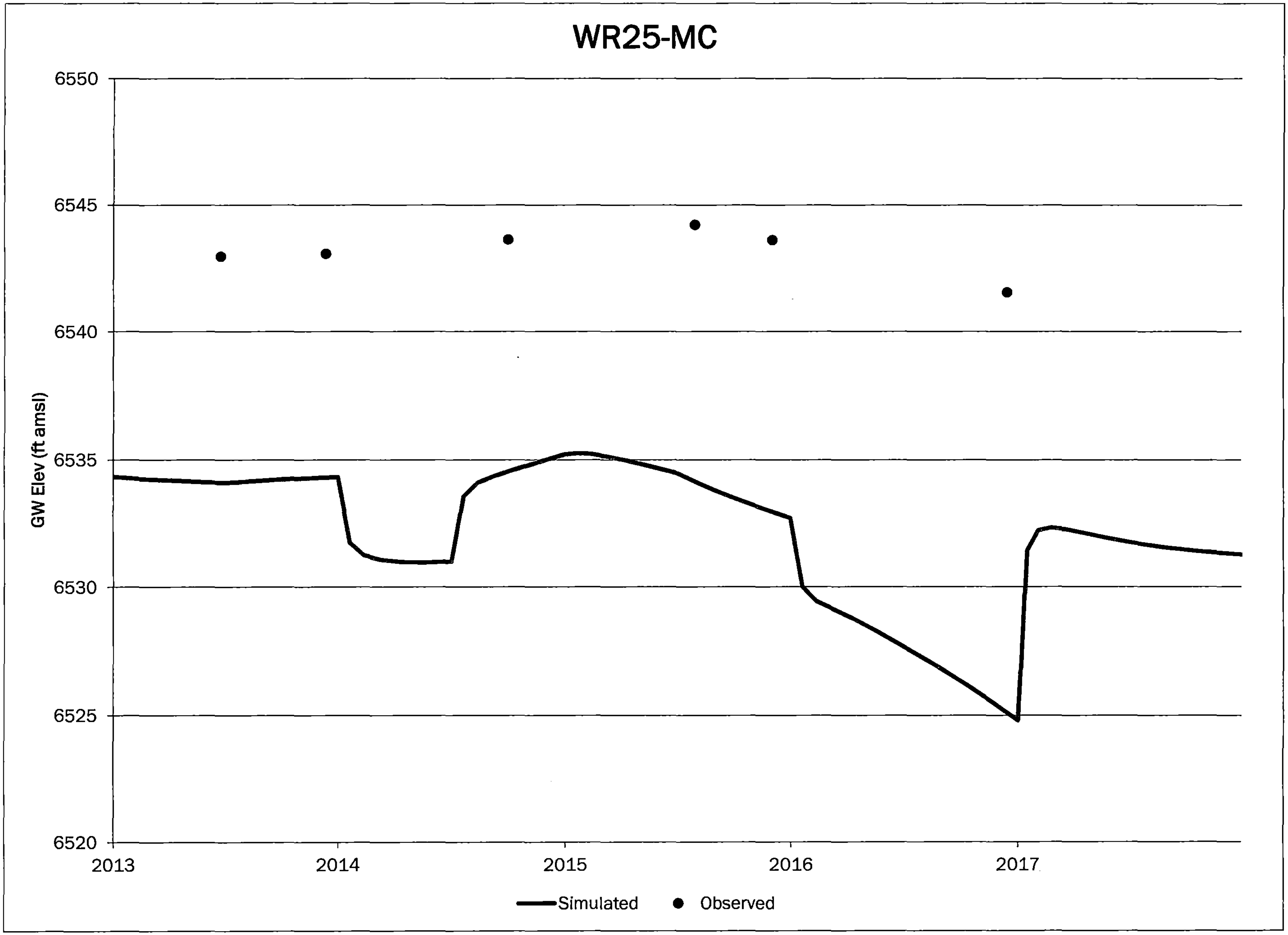
CW75-MC
GW Elev (ft amsl)
6510
6505
6500
6495
6490
6485
6480
6475
6470
6465
2013
2014
2015
2016
2017
Simulated
Observed

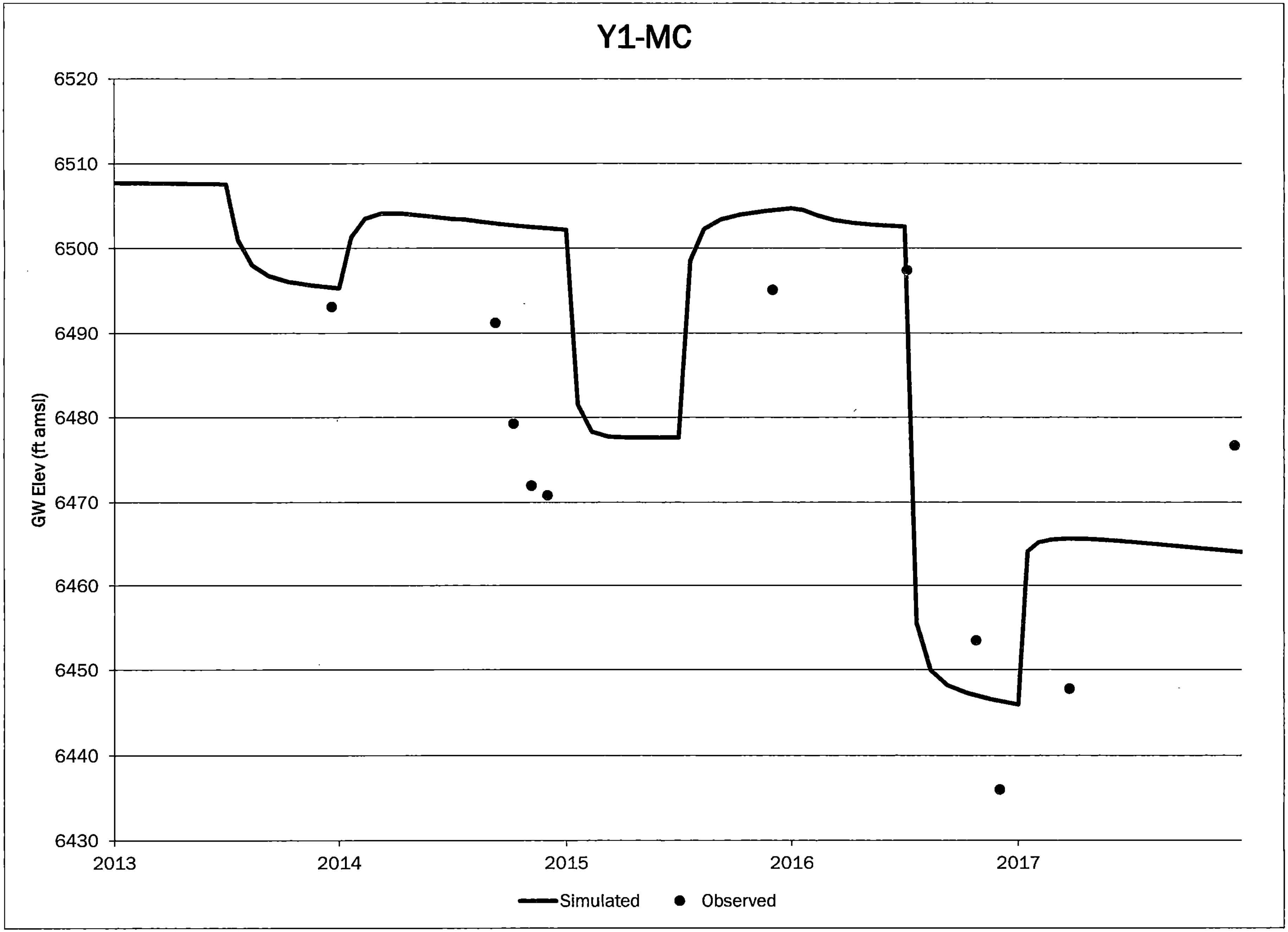

CW76-MC
GW Elev (ft amsl)
6510
6505
6500
6495
6490
6485
6480
6475
6470
2013
2014
2015
2016
2017
Simulated
Observed


R1-MC
GW Elev (ft amsl)
6515
6510
6505
6500
6495
6490
6485
6480
2013
2014
2015
2016
2017
Simulated
Observed

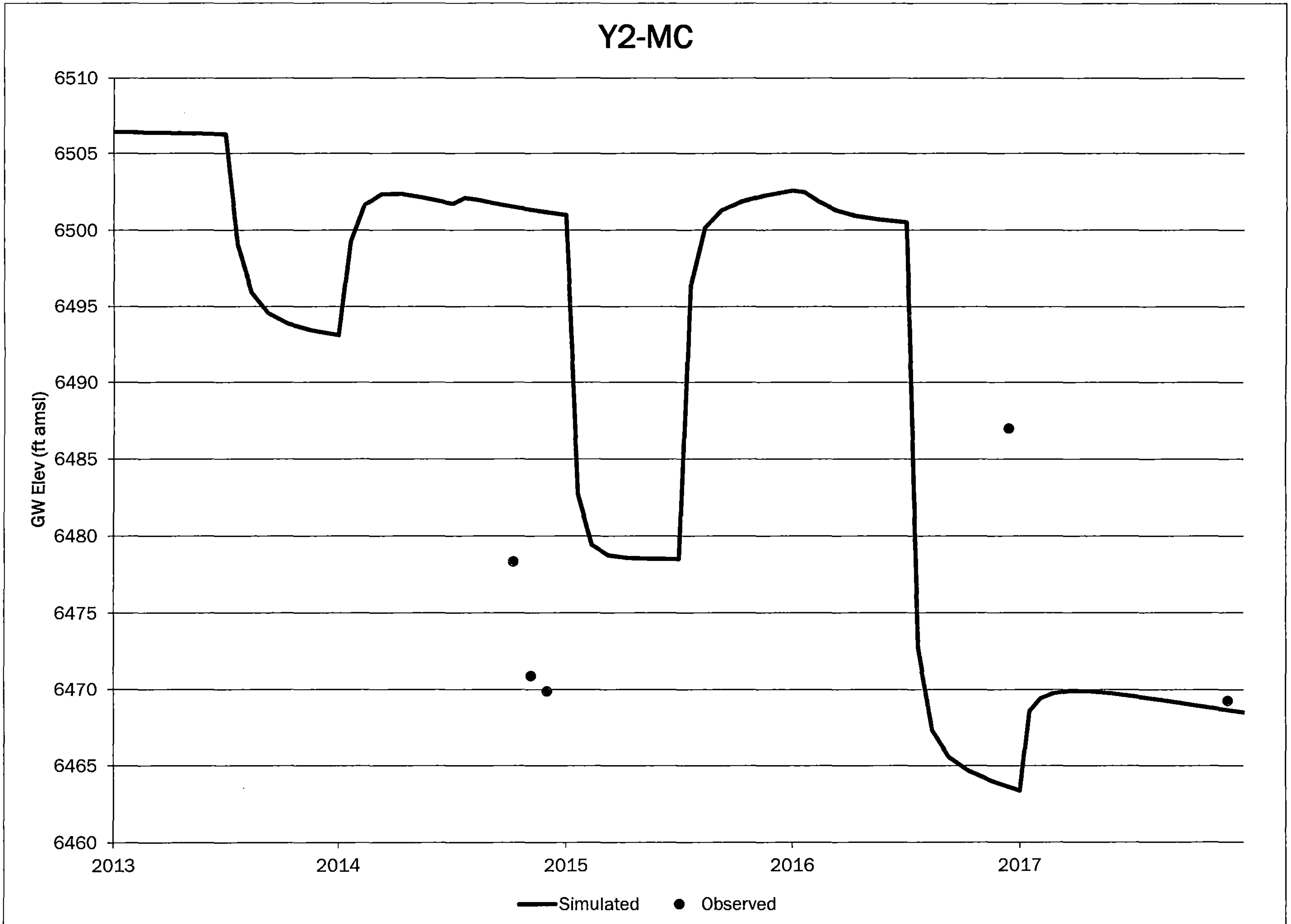


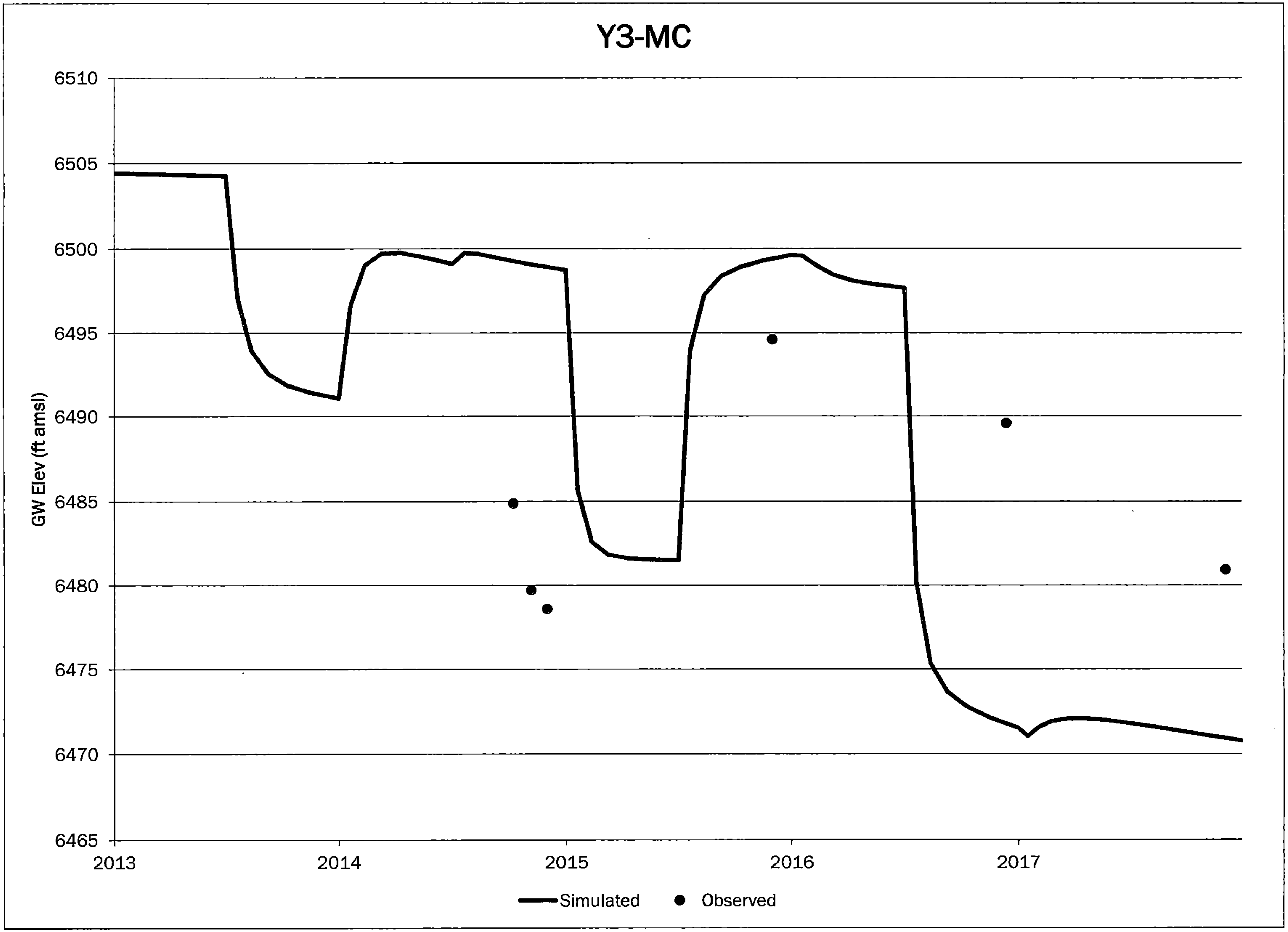
WCW-MC
6495
6490
6485
6480
6475
6470
6465
6460
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

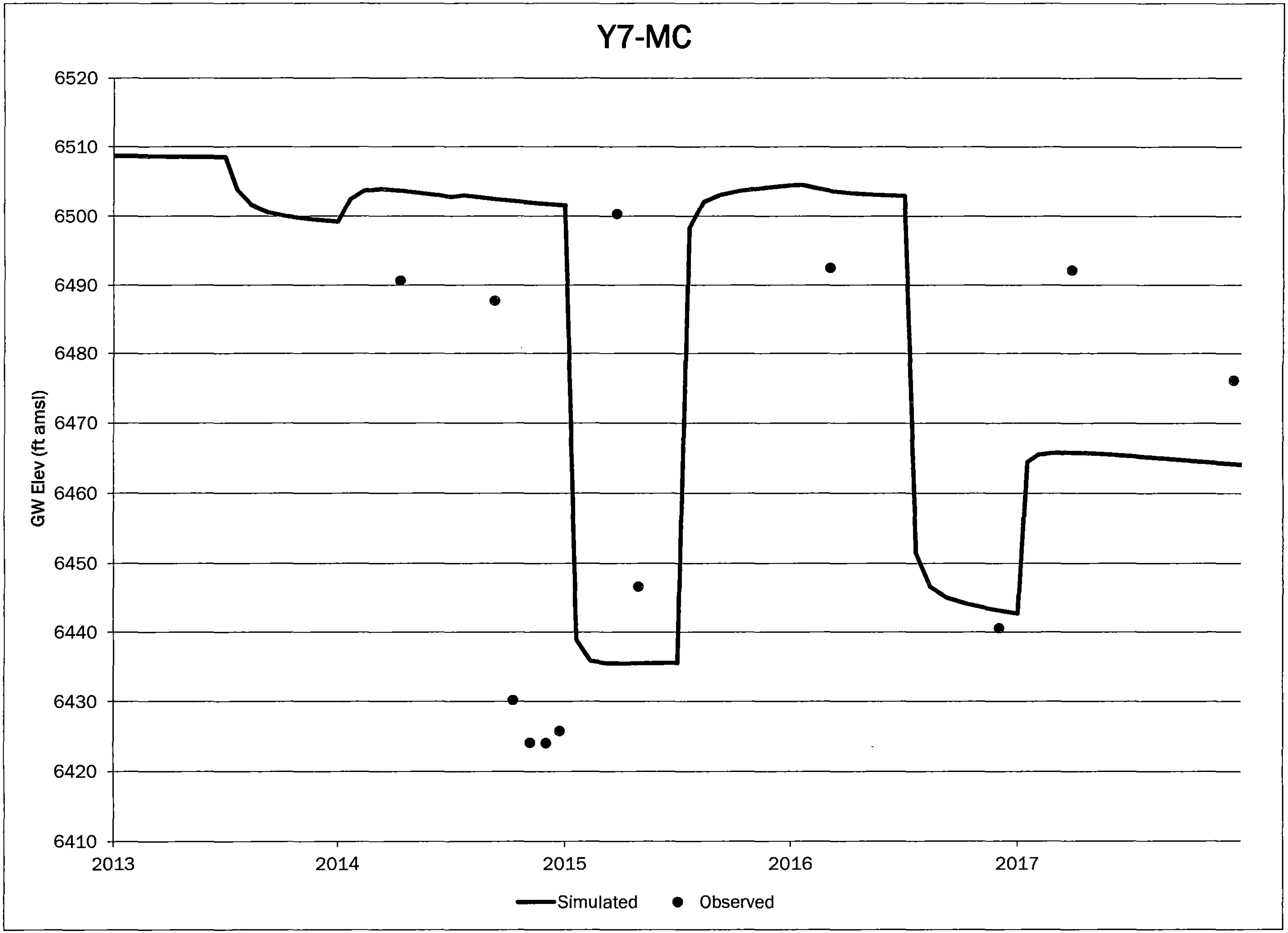

WR25-MC
6550
6545
6540
6535
6530
6525
6520
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



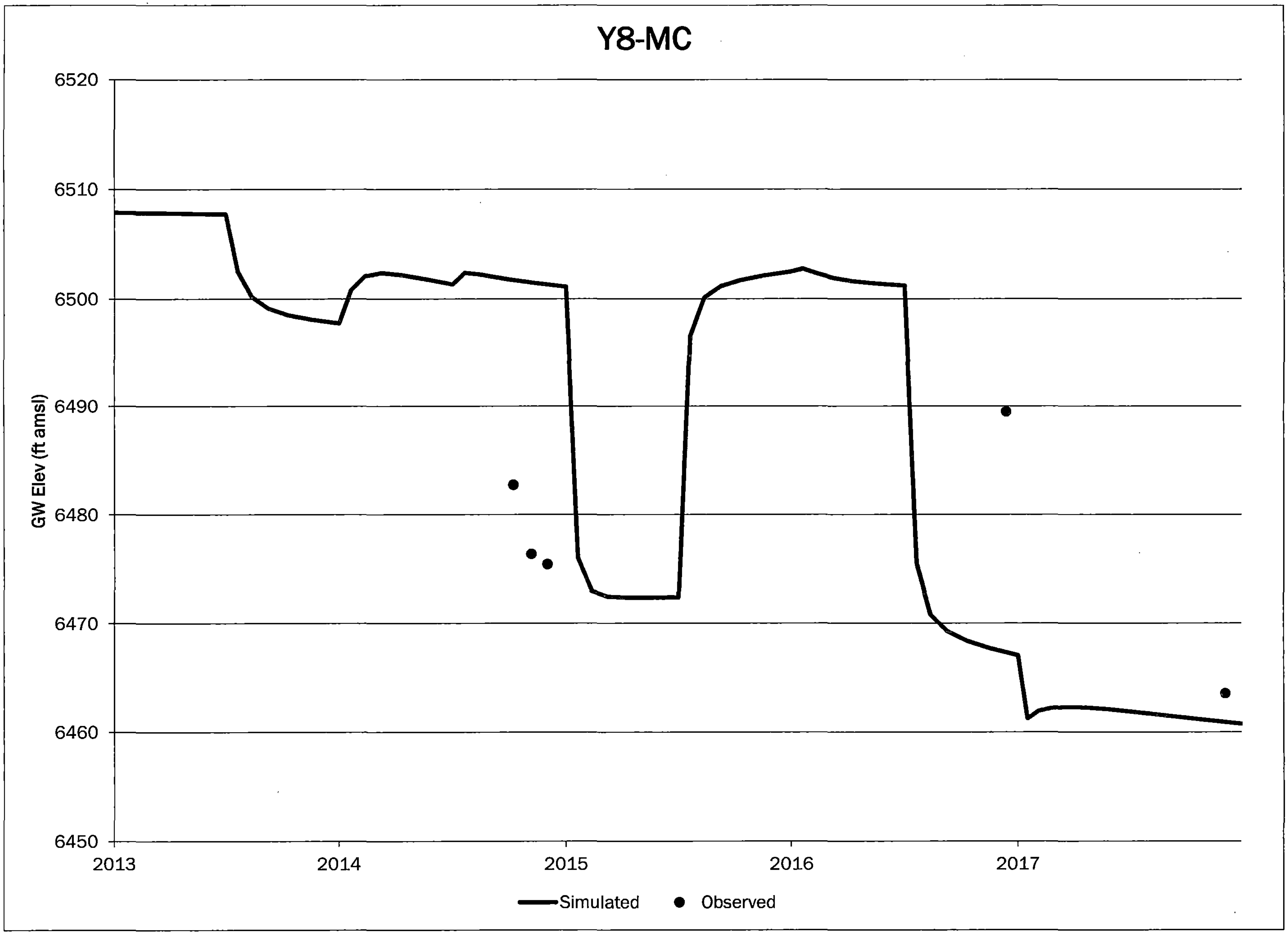
Y1-MC
GW Elev (ft amsl)
6520
6510
6500
6490
6480
6470
6460
6450
6440
6430
2013
2014
2015
2016
2017
Simulated
Observed

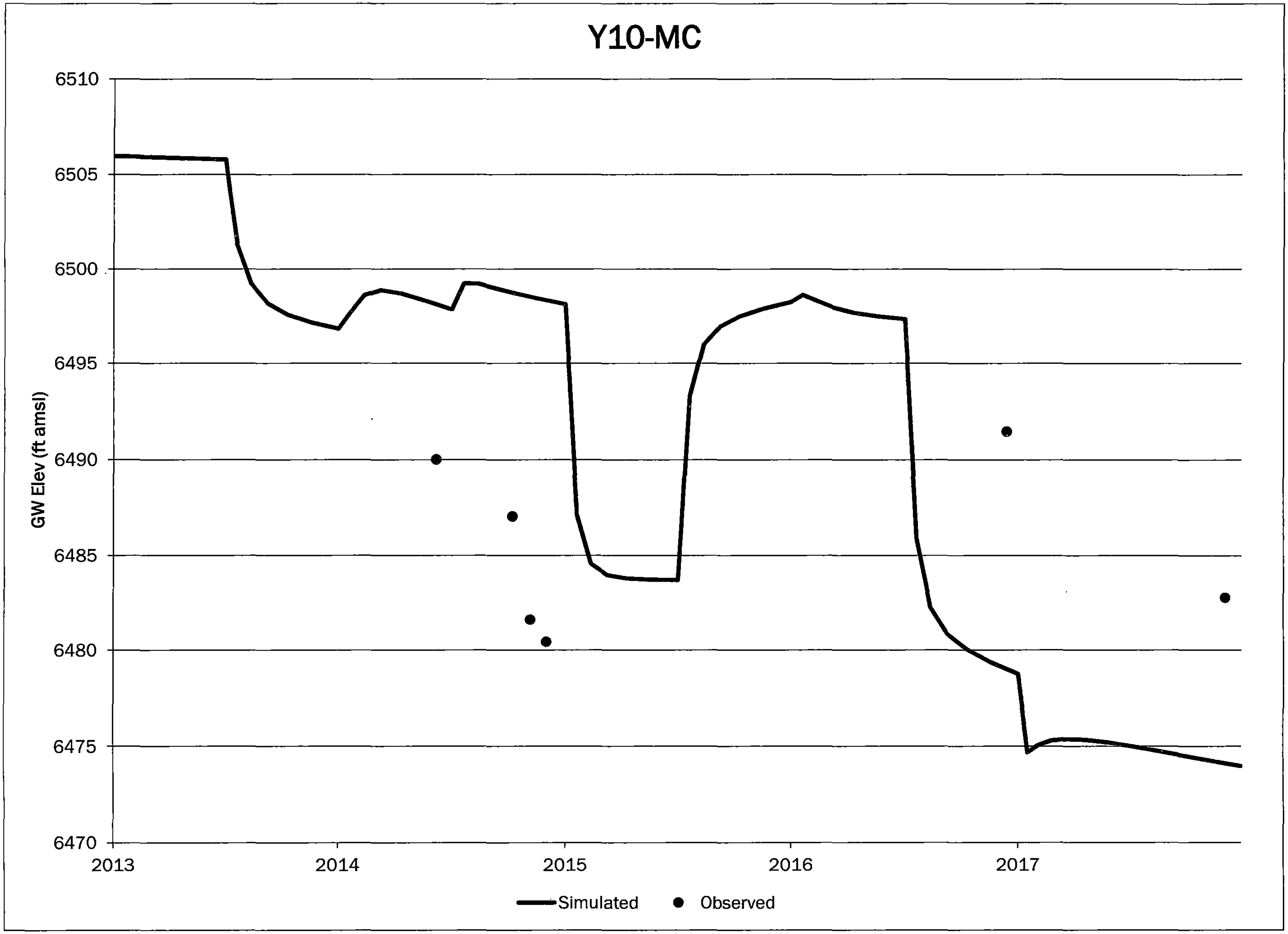

Y2-MC
GW Elev (ft amsl)
6510
6505
6500
6495
6490
6485
6480
6475
6470
6465
6460
2013
2014
2015
2016
2017
Simulated
Observed

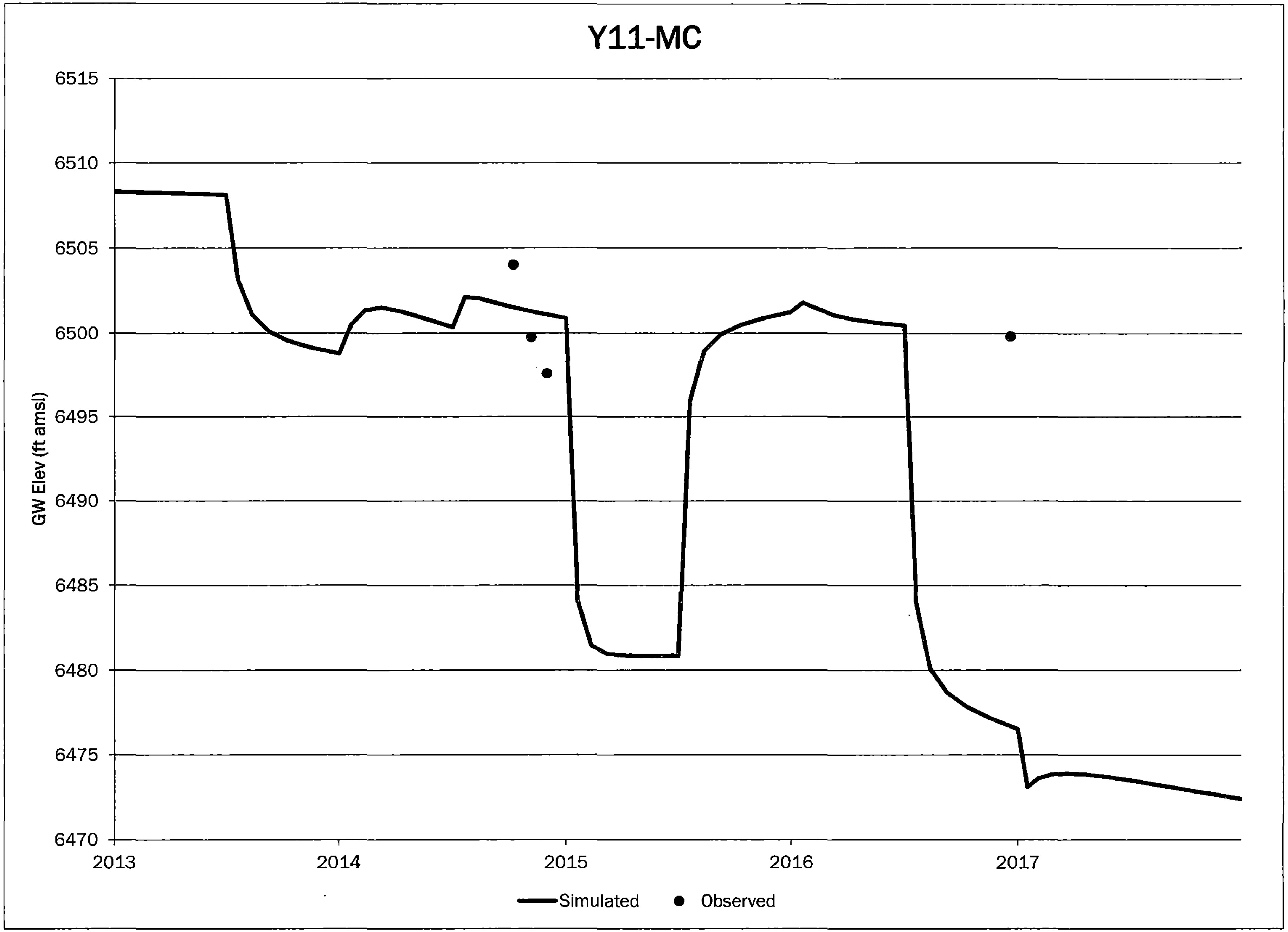

Y3-MC
GW Elev (ft amsl)
6510
6505
6500
6495
6490
6485
6480
6475
6470
6465
2013
2014
2015
2016
2017
Simulated
Observed

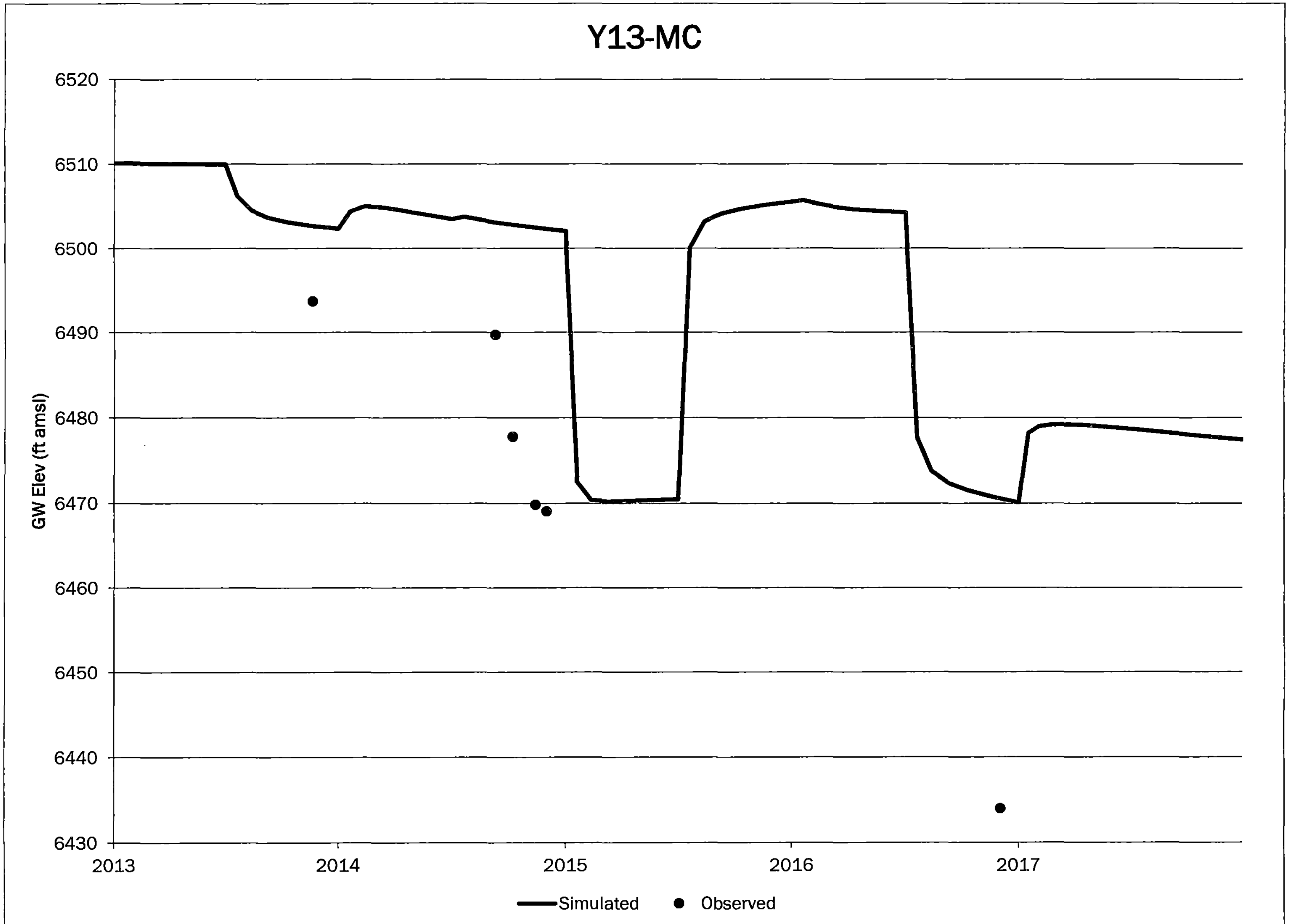


Y7-MC
6520
6510
6500
6490
6480
6470
6460
6450
6440
6430
6420
6410
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

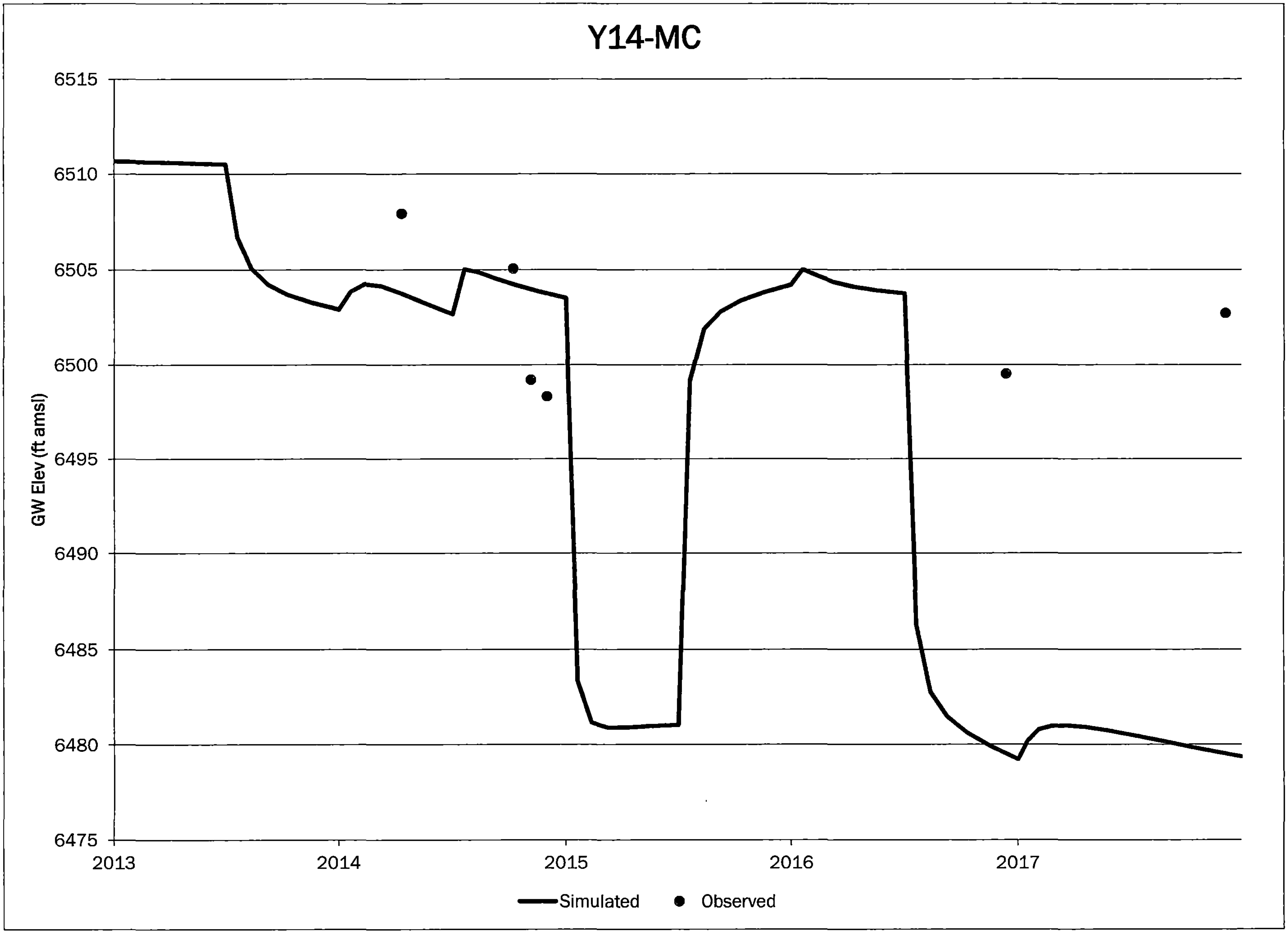

Y8-MC
GW Elev (ft amsl)
6520
6510
6500
6490
6480
6470
6460
6450
2013
2014
2015
2016
2017
Simulated
Observed


Y10-MC
GW Elev (ft amsl)
6510
6505
6500
6495
6490
6485
6480
6475
6470
2013
2014
2015
2016
2017
Simulated
Observed

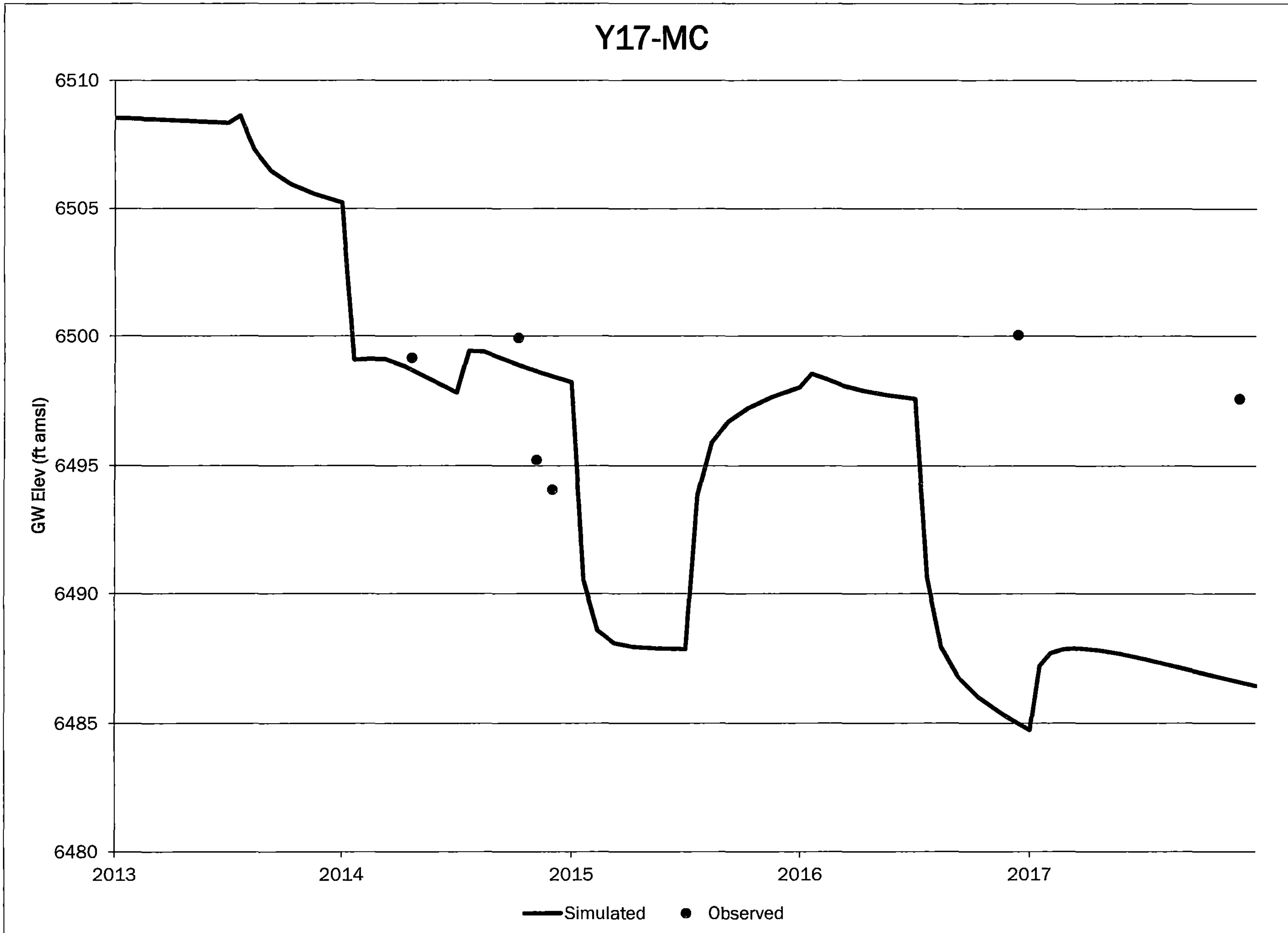

Y11-MC
GW Elev (ft amsl)
6515
6510
6505
6500
6495
6490
6485
6480
6475
6470
2013
2014
2015
2016
2017
Simulated
Observed



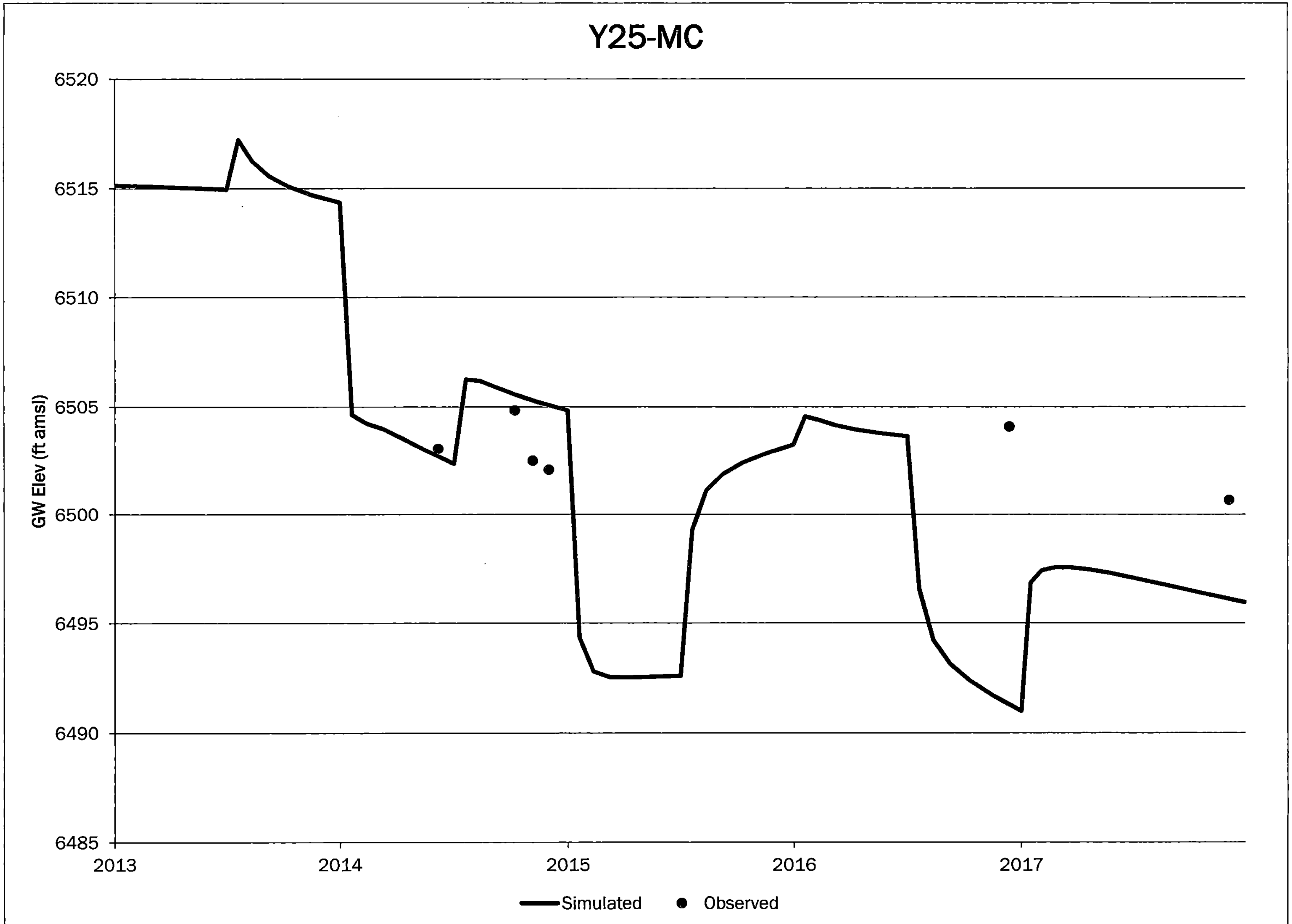
Y13-MC
6520
6510
6500
6490
6480
6470
6460
6450
6440
6430
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

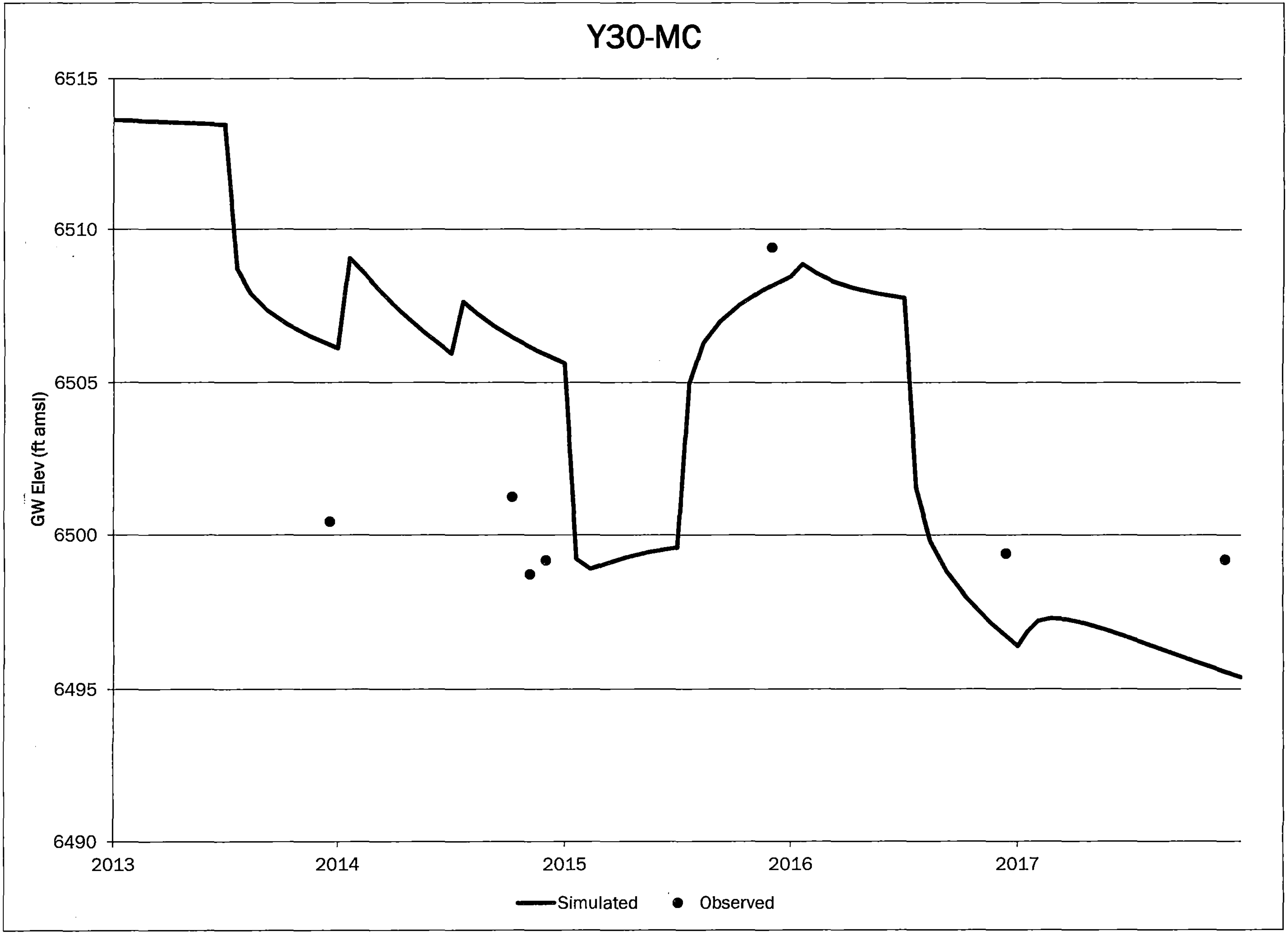


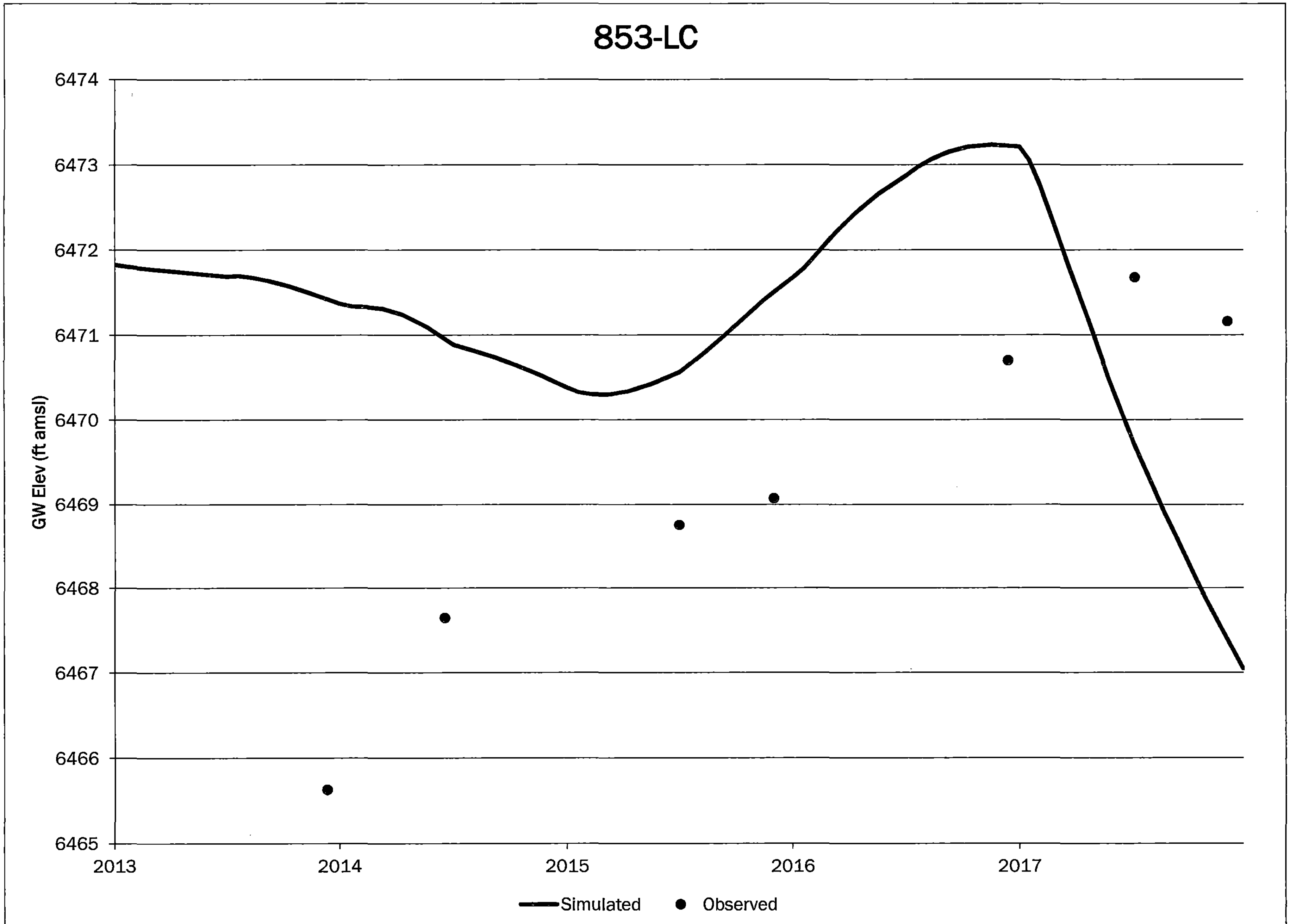
Y14-MC
GW Elev (ft amsl)
6515
6510
6505
6500
6495
6490
6485
6480
6475
2013
2014
2015
2016
2017
Simulated
Observed

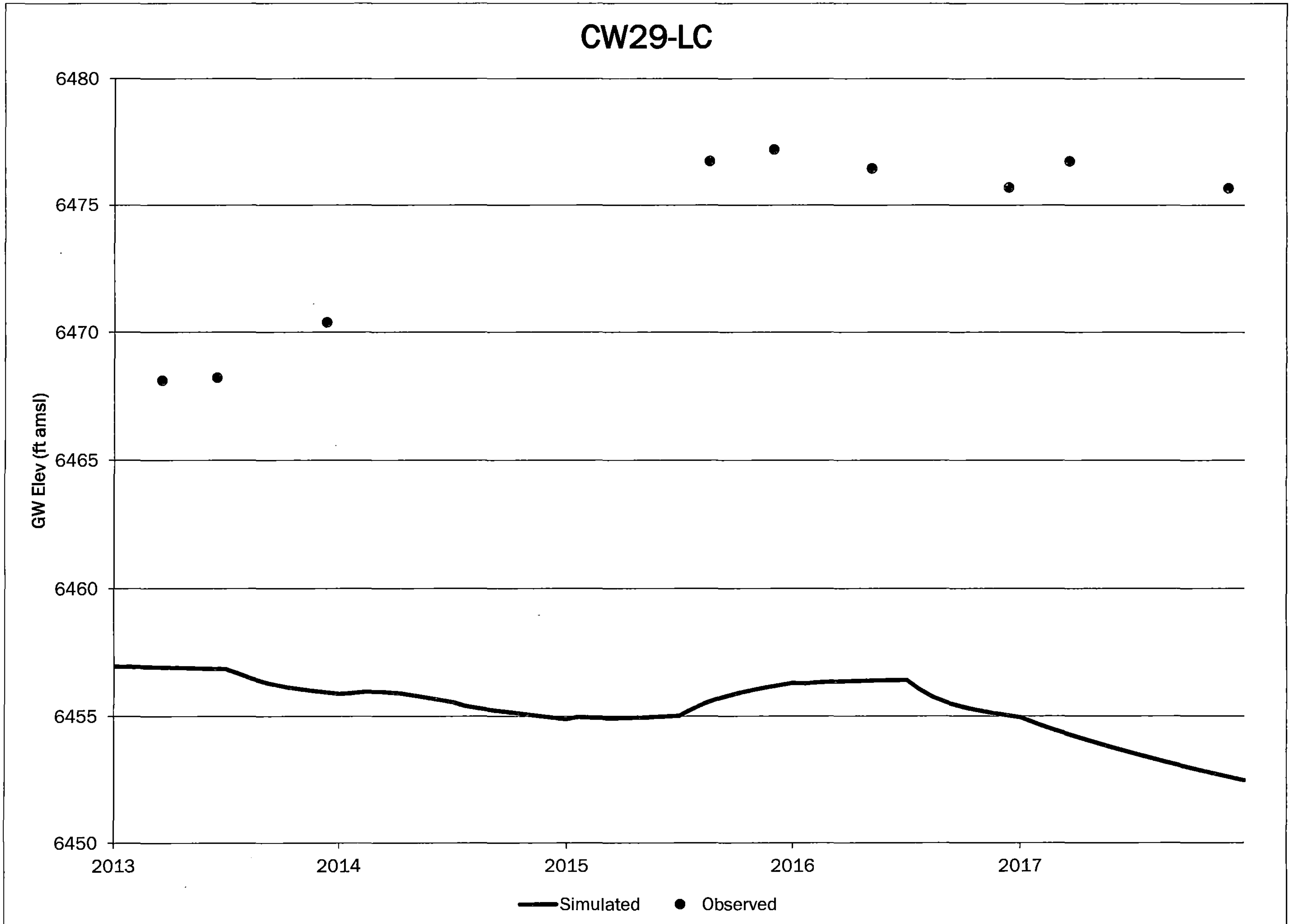


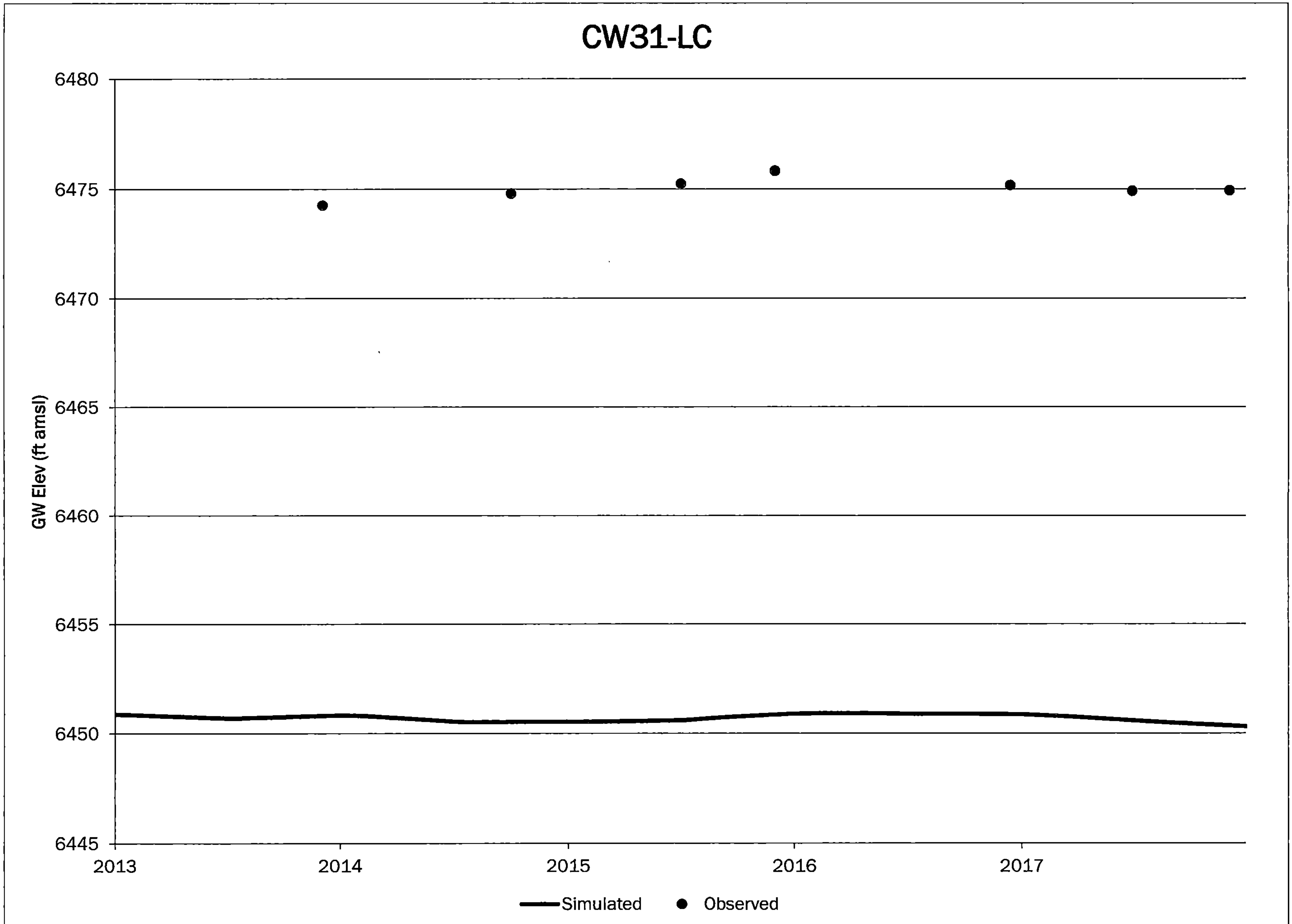
Y17-MC
6510
6505
6500
6495
6490
6485
6480
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


Y25-MC
6520
6515
6510
6505
6500
6495
6490
6485
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

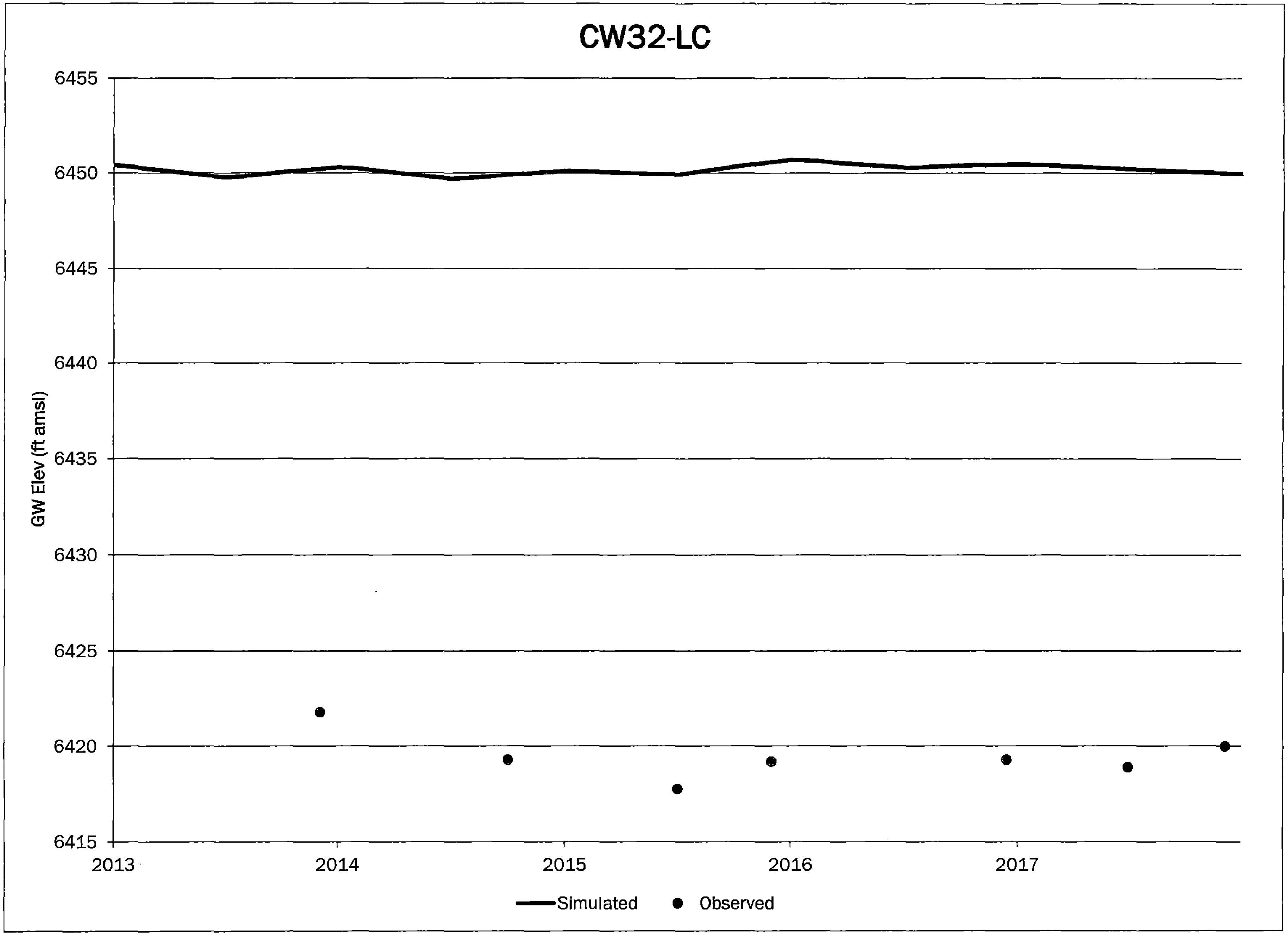

Y30-MC
6515
6510
6505
6500
6495
6490
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


853-LC
GW Elev (ft amsl)
6474
6473
6472
6471
6470
6469
6468
6467
6466
6465
2013
2014
2015
2016
2017
Simulated
Observed

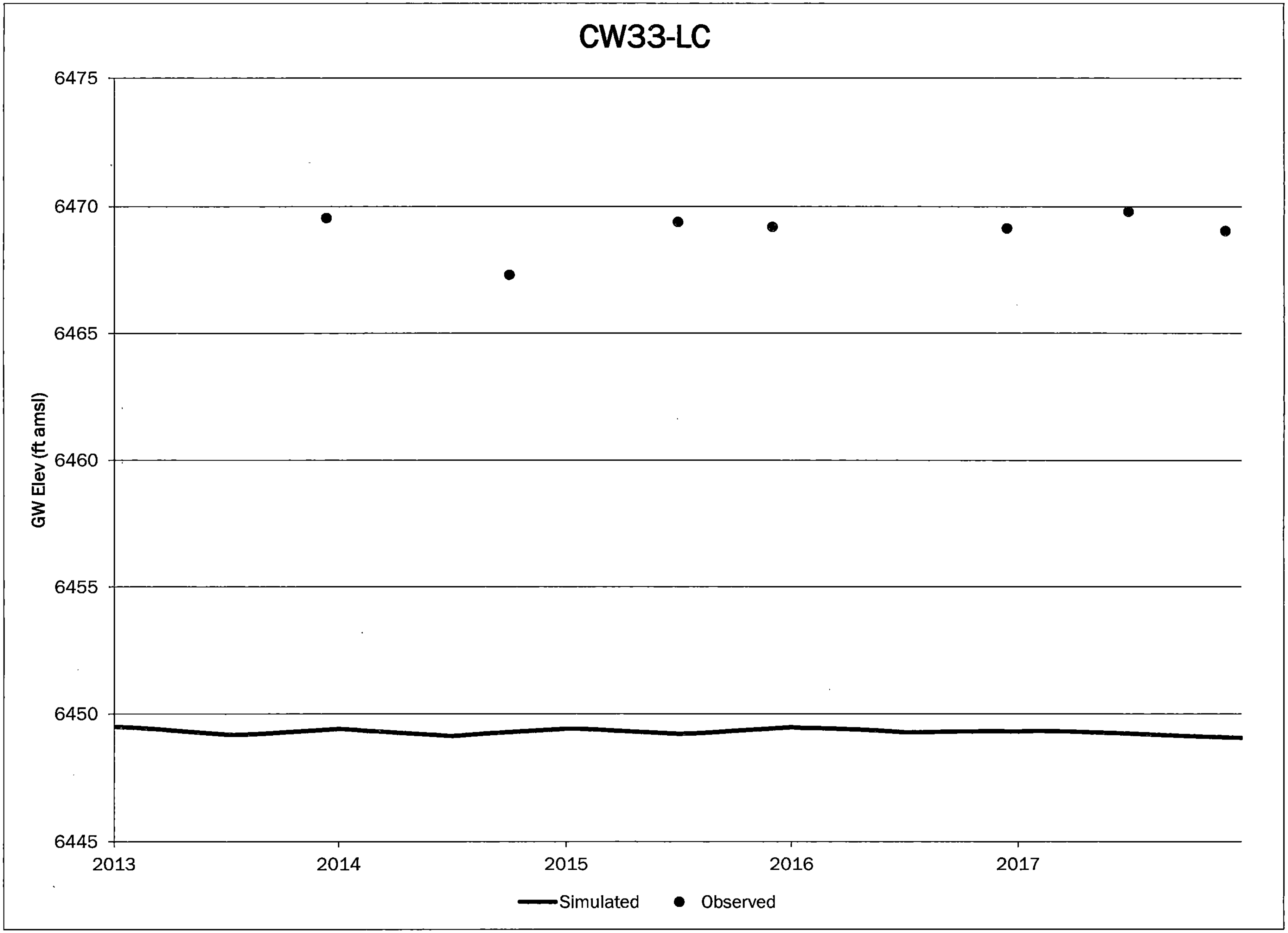

CW29-LC
GW Elev (ft amsl)
6480
6475
6470
6465
6460
6455
6450
2013
2014
2015
2016
2017
Simulated
Observed



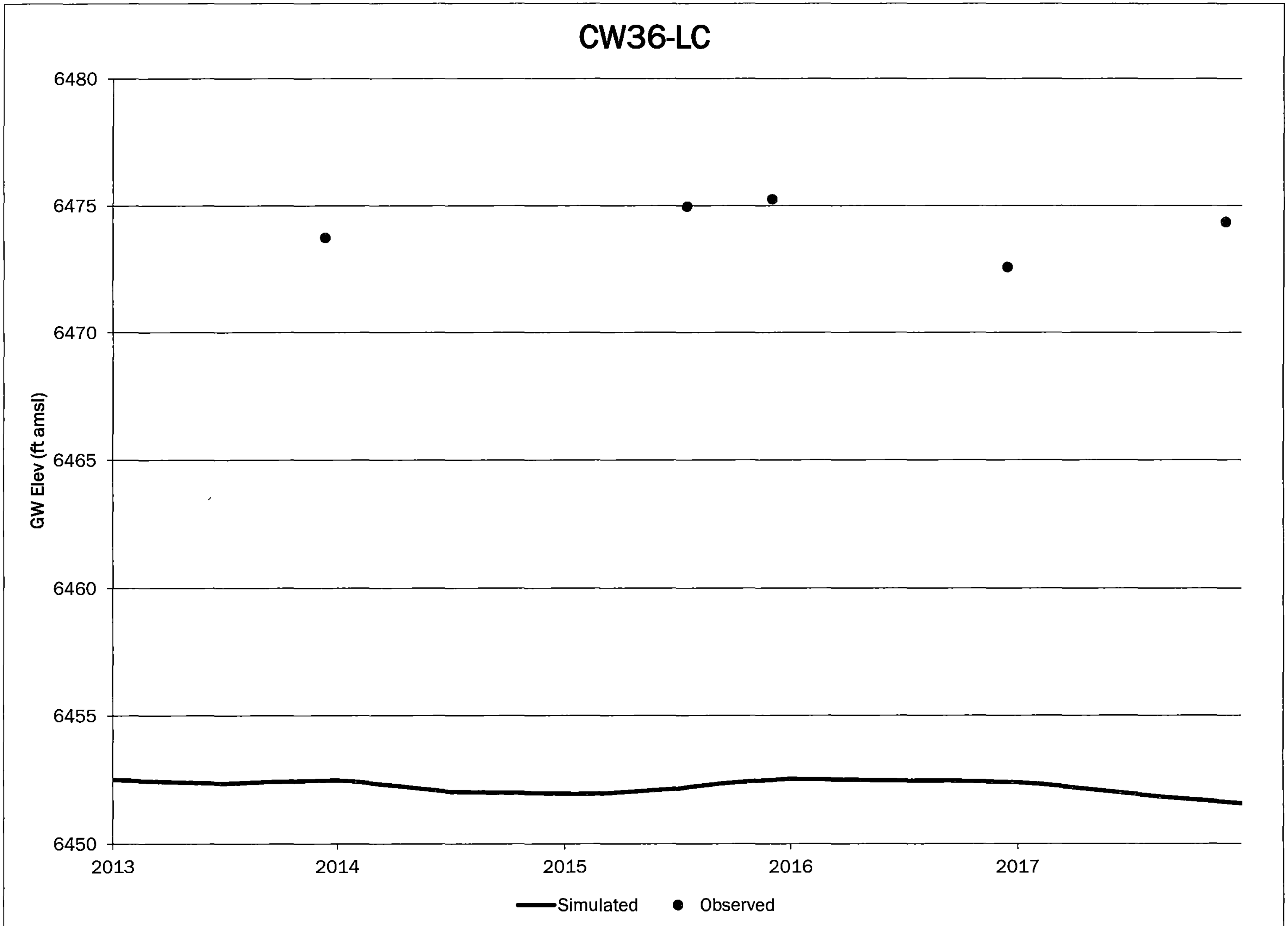
CW31-LC
GW Elev (ft amsl)
6480
6475
6470
6465
6460
6455
6450
6445
2013
2014
2015
2016
2017
Simulated
Observed



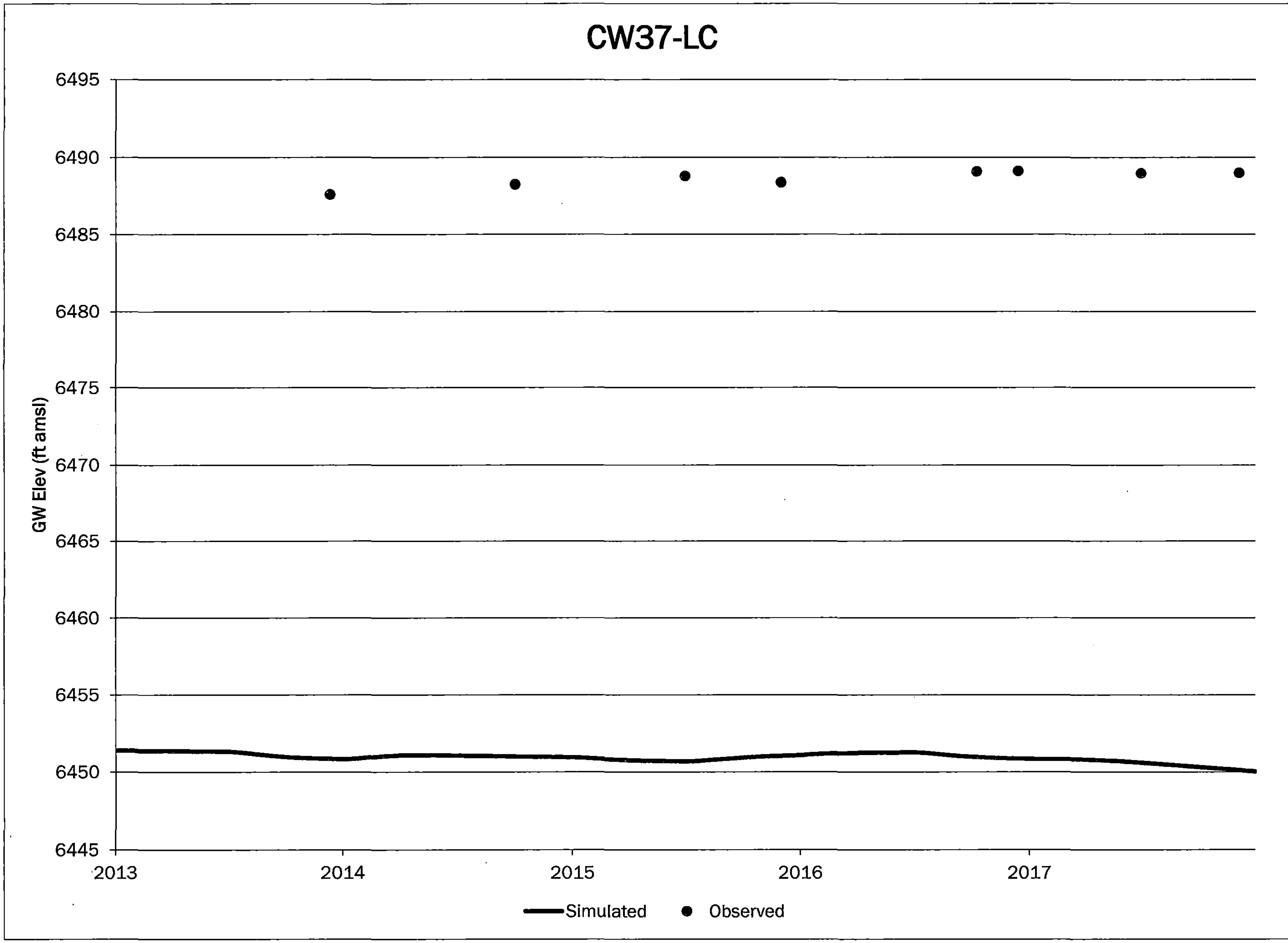
CW32-LC
6455
6450
6445
6440
6435
6430
6425
6420
6415
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



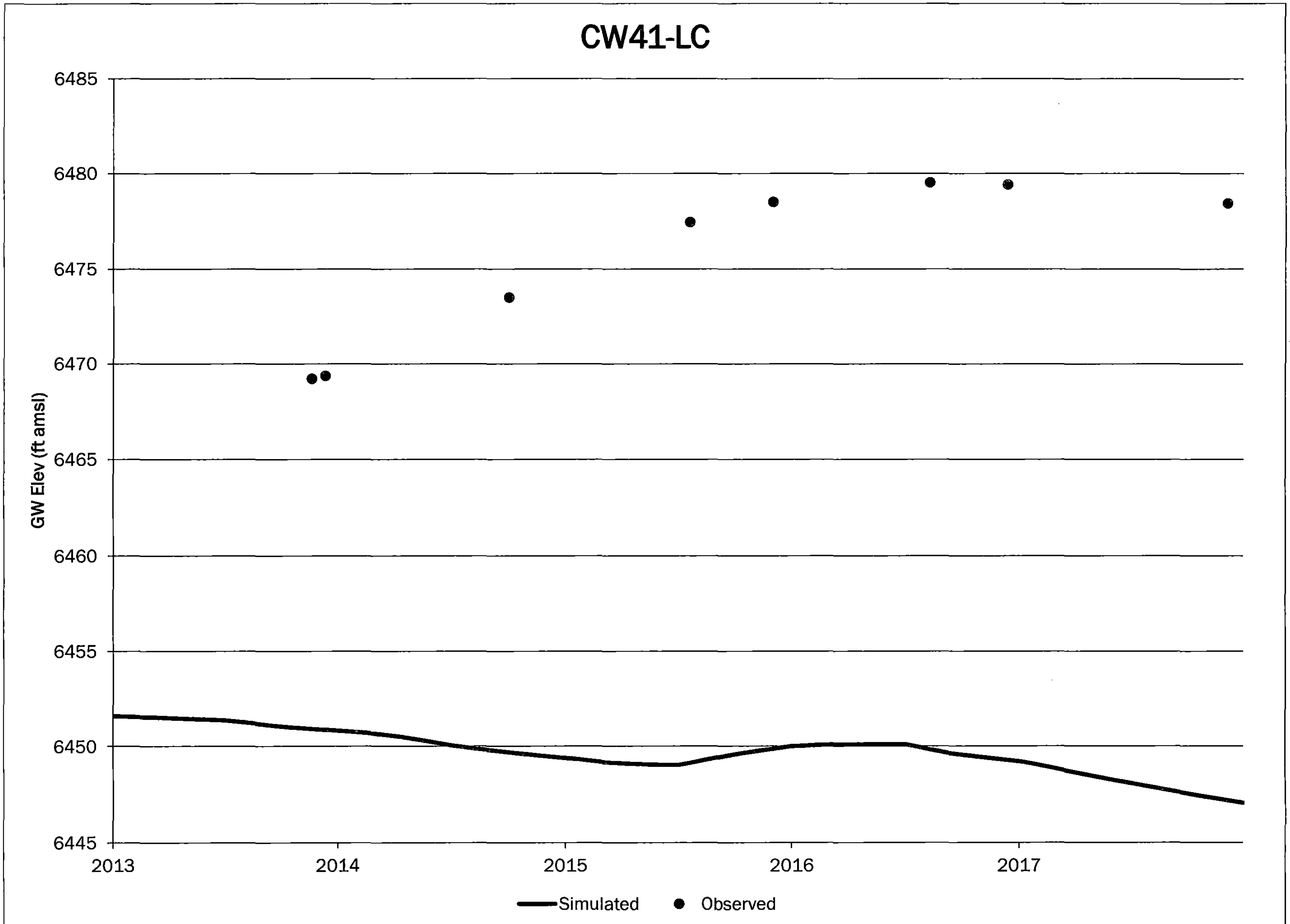
CW33-LC
6475
6470
6465
6460
6455
6450
6445
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



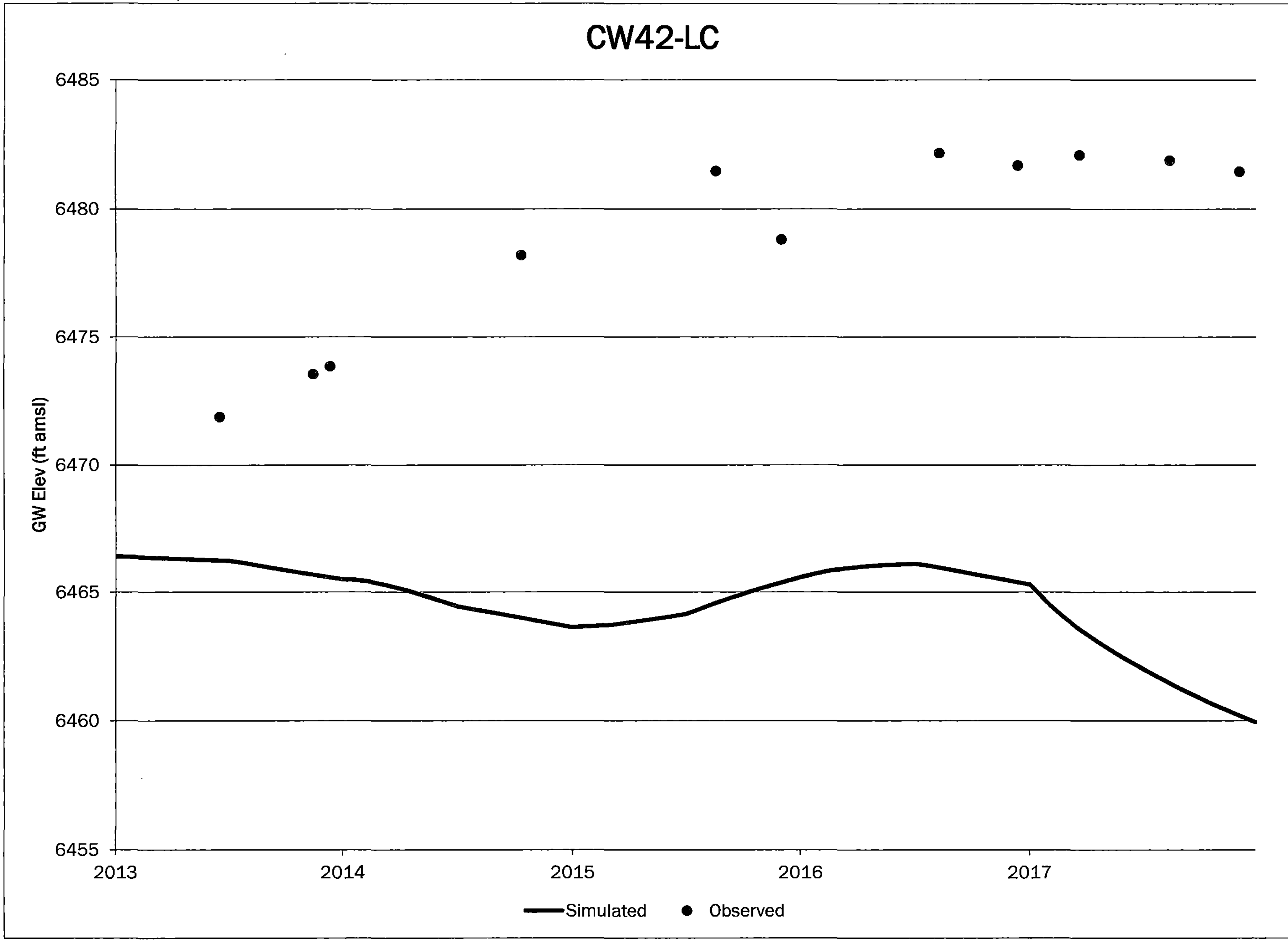
CW36-LC
GW Elev (ft amsl)
6480
6475
6470
6465
6460
6455
6450
2013
2014
2015
2016
2017
Simulated
Observed



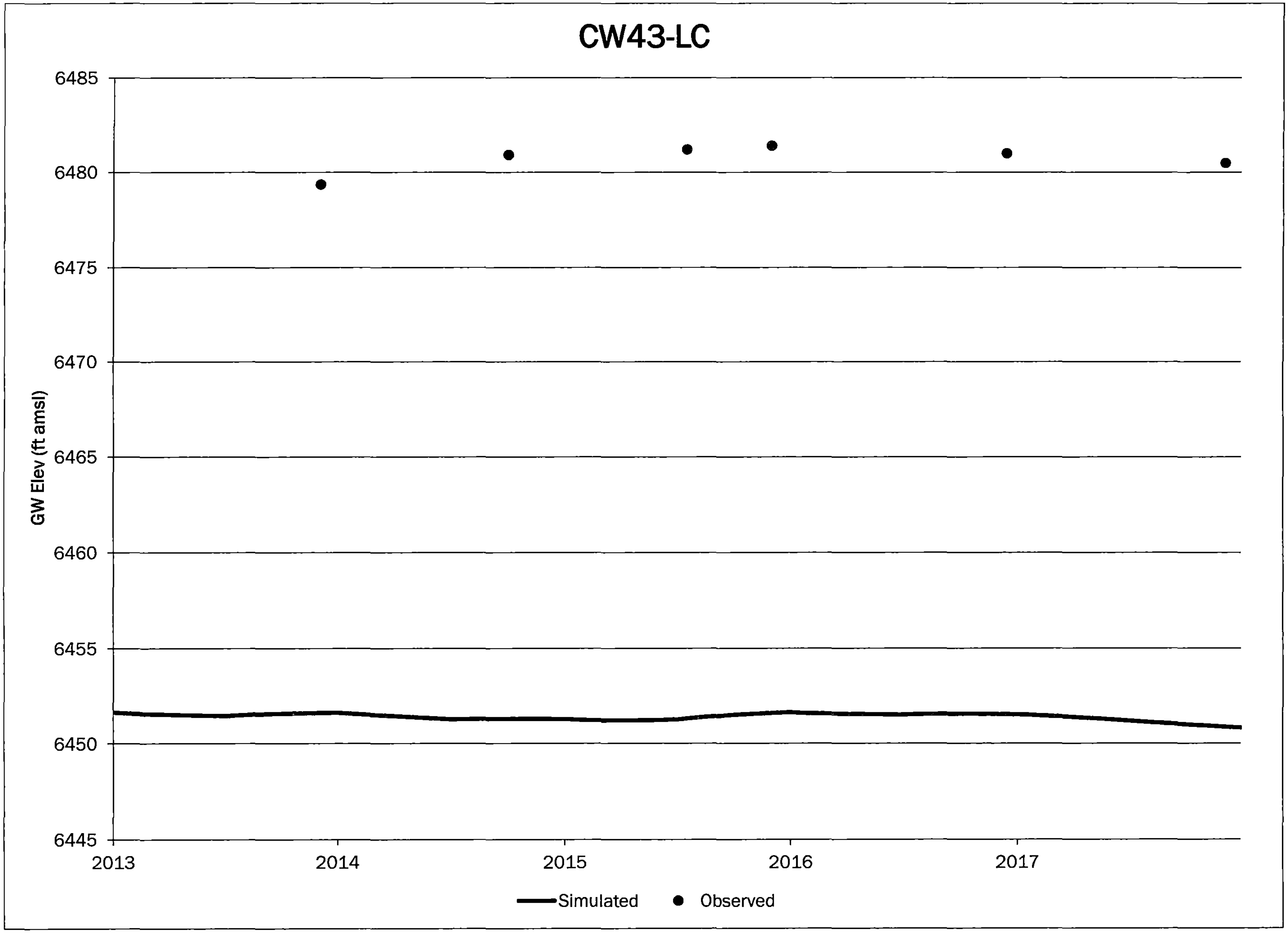
CW37-LC
GW Elev (ft amsl)
6495
6490
6485
6480
6475
6470
6465
6460
6455
6450
6445
2013
2014
2015
2016
2017
Simulated
Observed



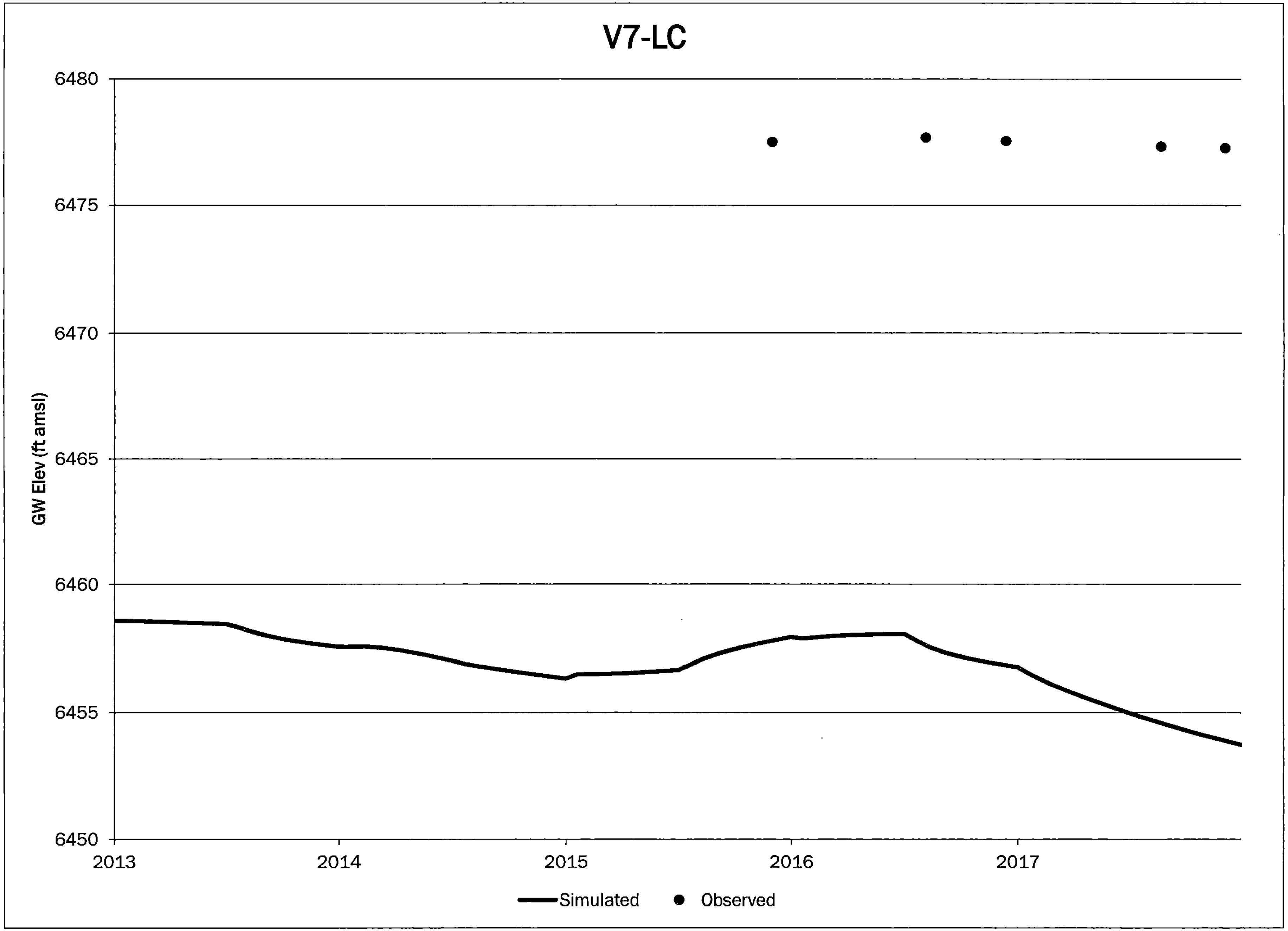
CW41-LC
GW Elev (ft amsl)
6485
6480
6475
6470
6465
6460
6455
6450
6445
2013
2014
2015
2016
2017
Simulated
Observed

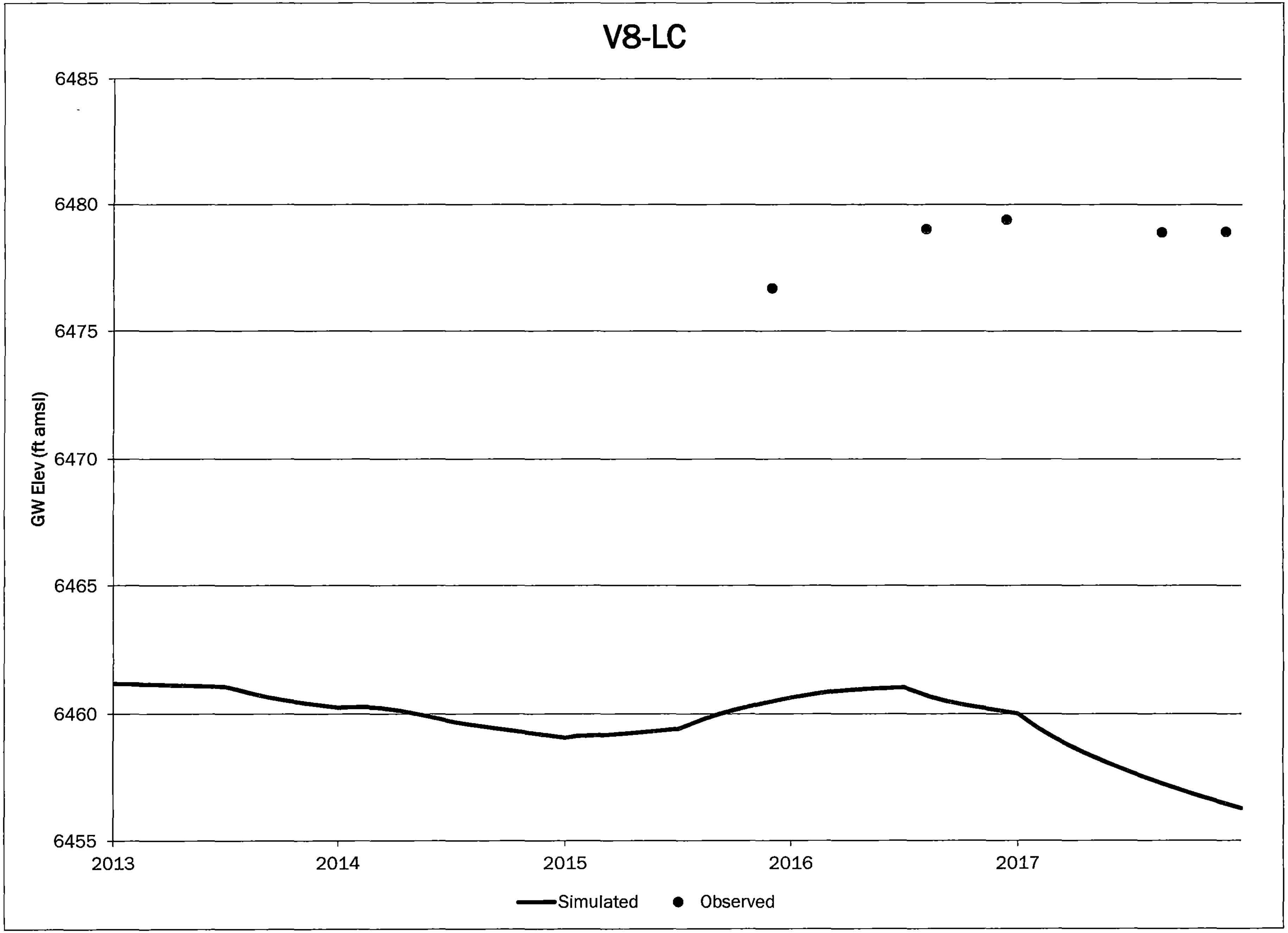


CW42-LC
GW Elev (ft amsl)
6485
6480
6475
6470
6465
6460
6455
2013
2014
2015
2016
2017
Simulated
Observed

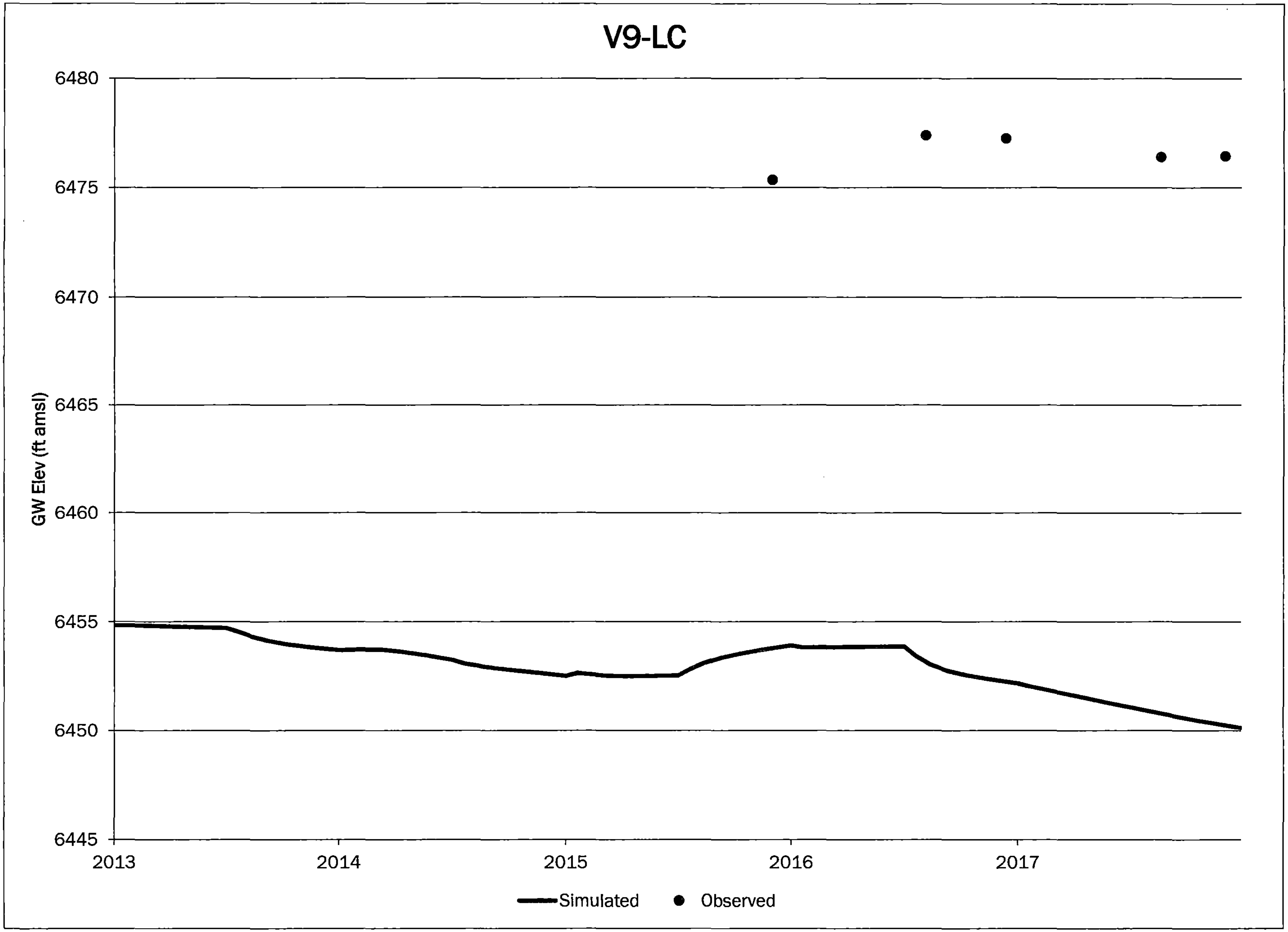


CW43-LC
GW Elev (ft amsl)
6485
6480
6475
6470
6465
6460
6455
6450
6445
2013
2014
2015
2016
2017
Simulated
Observed

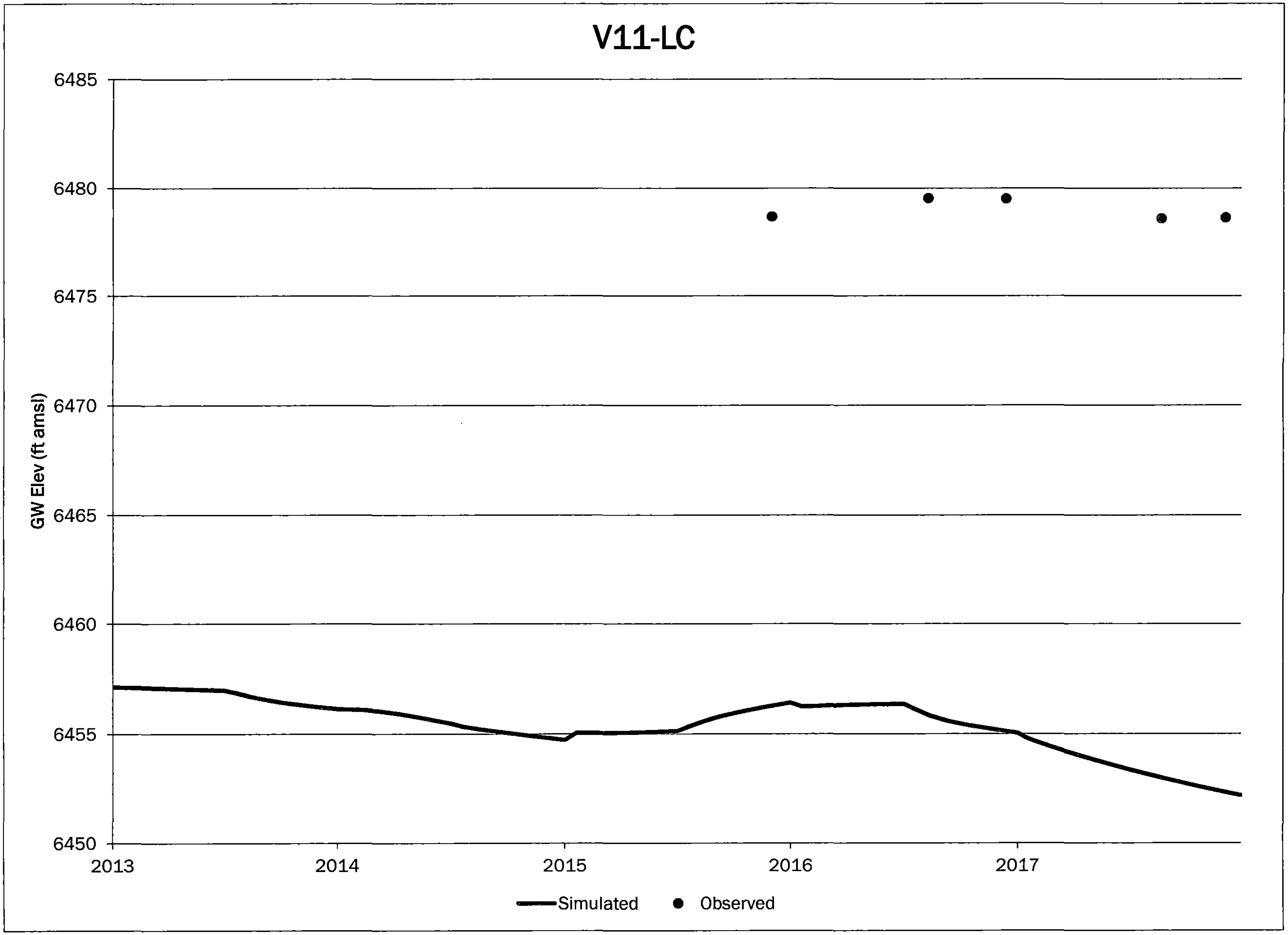

V7-LC
GW Elev (ft amsl)
6480
6475
6470
6465
6460
6455
6450
2013
2014
2015
2016
2017
Simulated
Observed

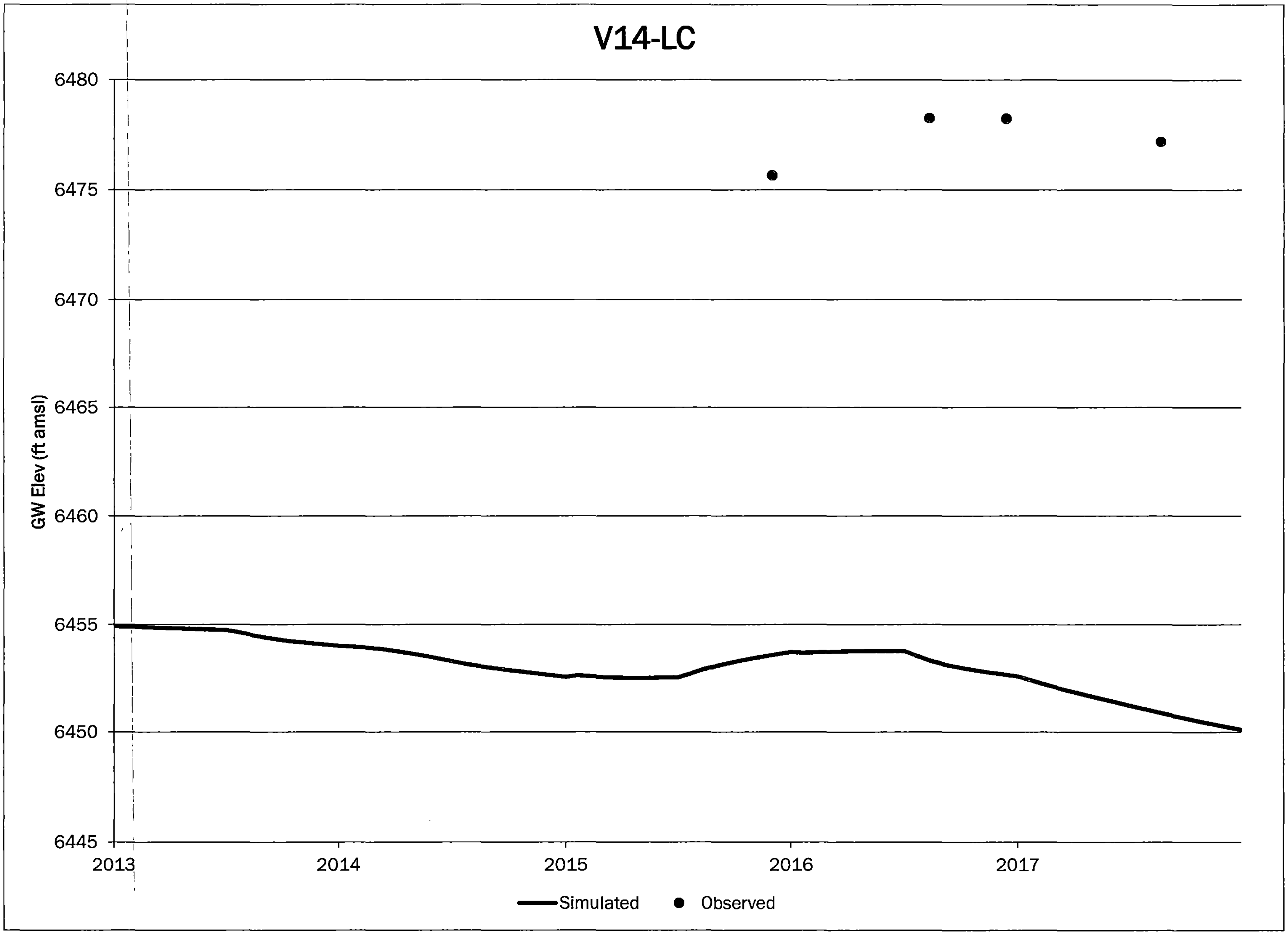


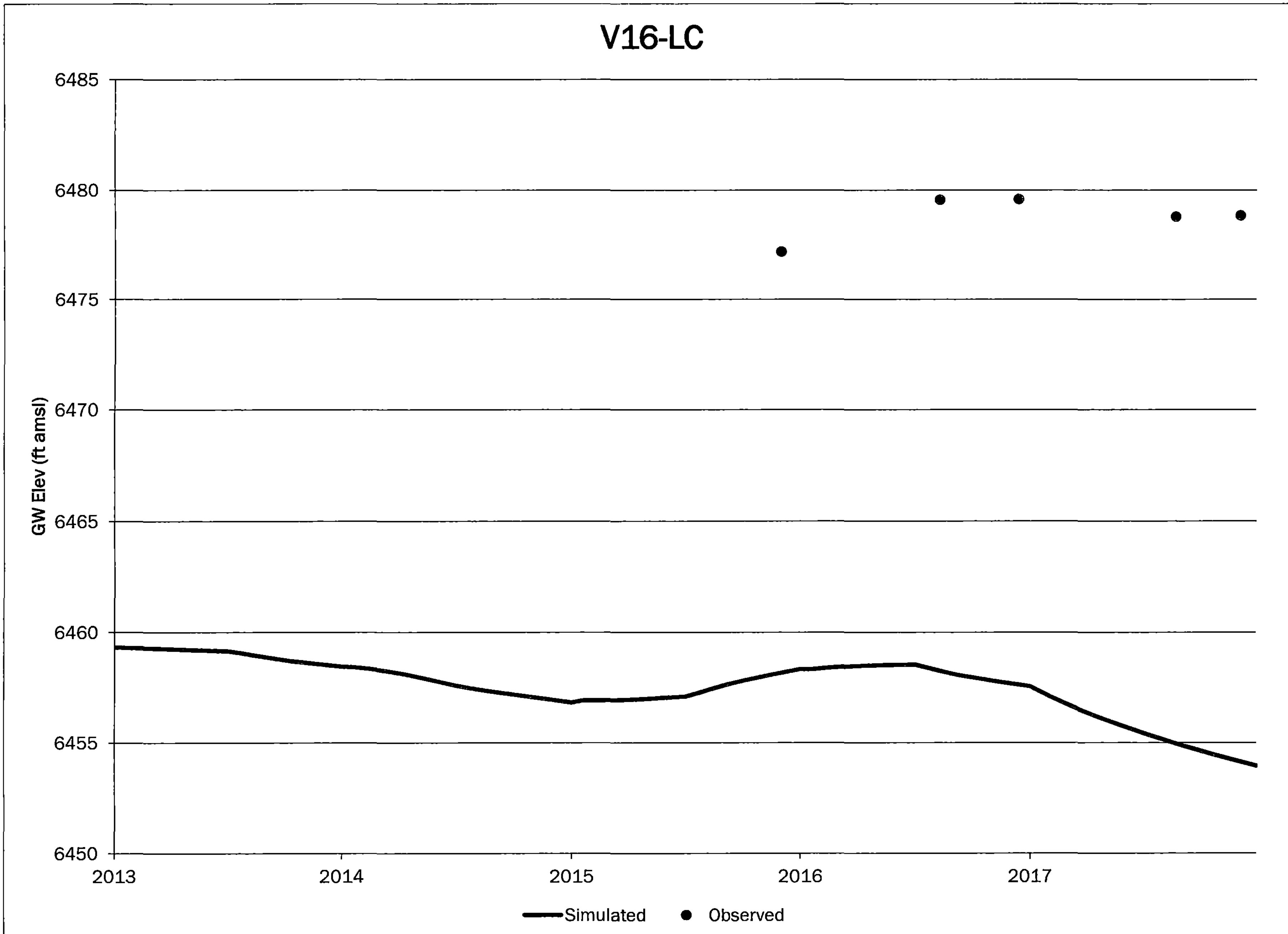
V8-LC
GW Elev (ft amsl)
6485
6480
6475
6470
6465
6460
6455
2013
2014
2015
2016
2017
Simulated
Observed



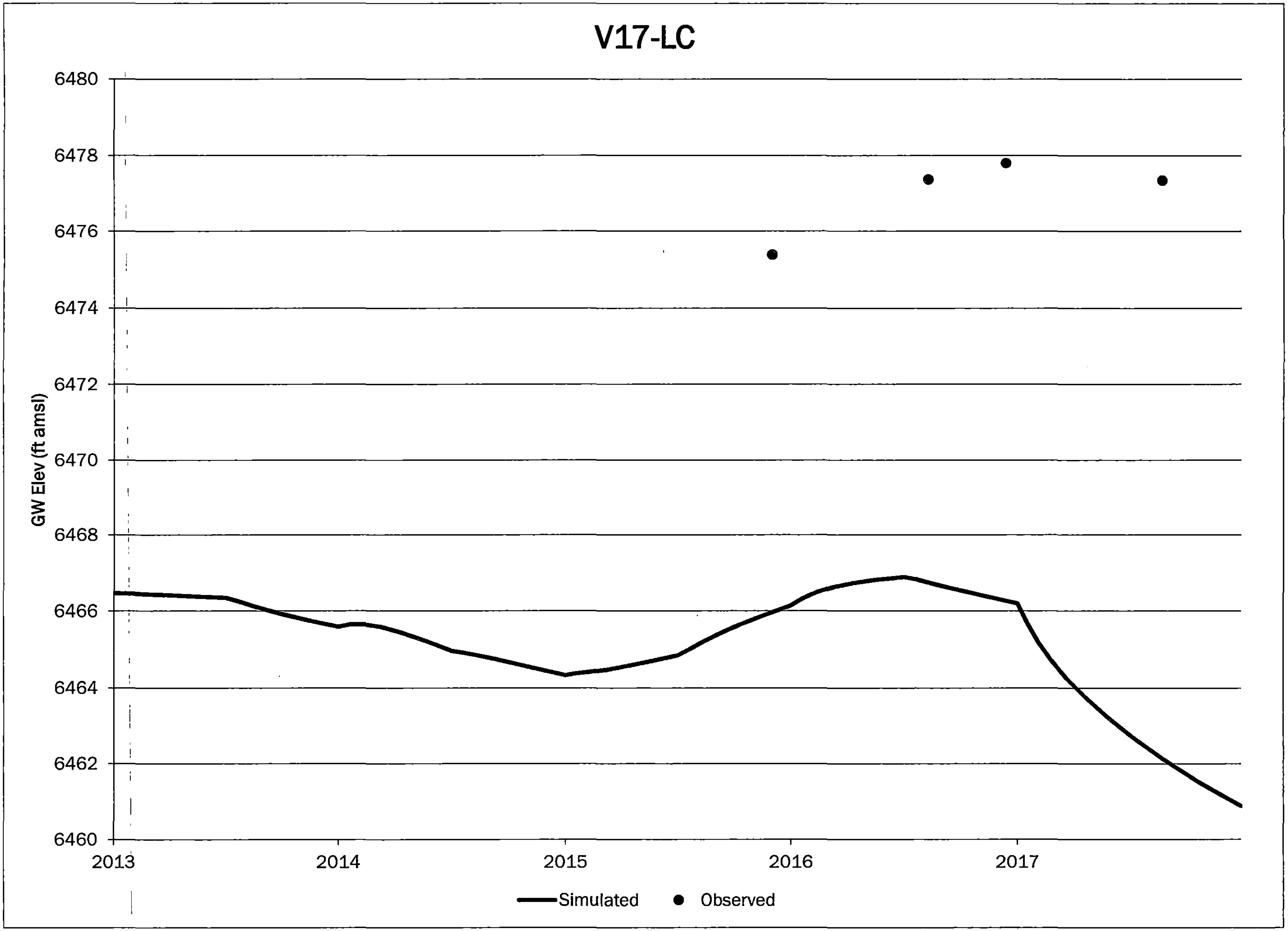
V9-LC
6480
6475
6470
6465
6460
6455
6450
6445
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


V11-LC
GW Elev (ft amsl)
6485
6480
6475
6470
6465
6460
6455
6450
2013
2014
2015
2016
2017
Simulated
Observed

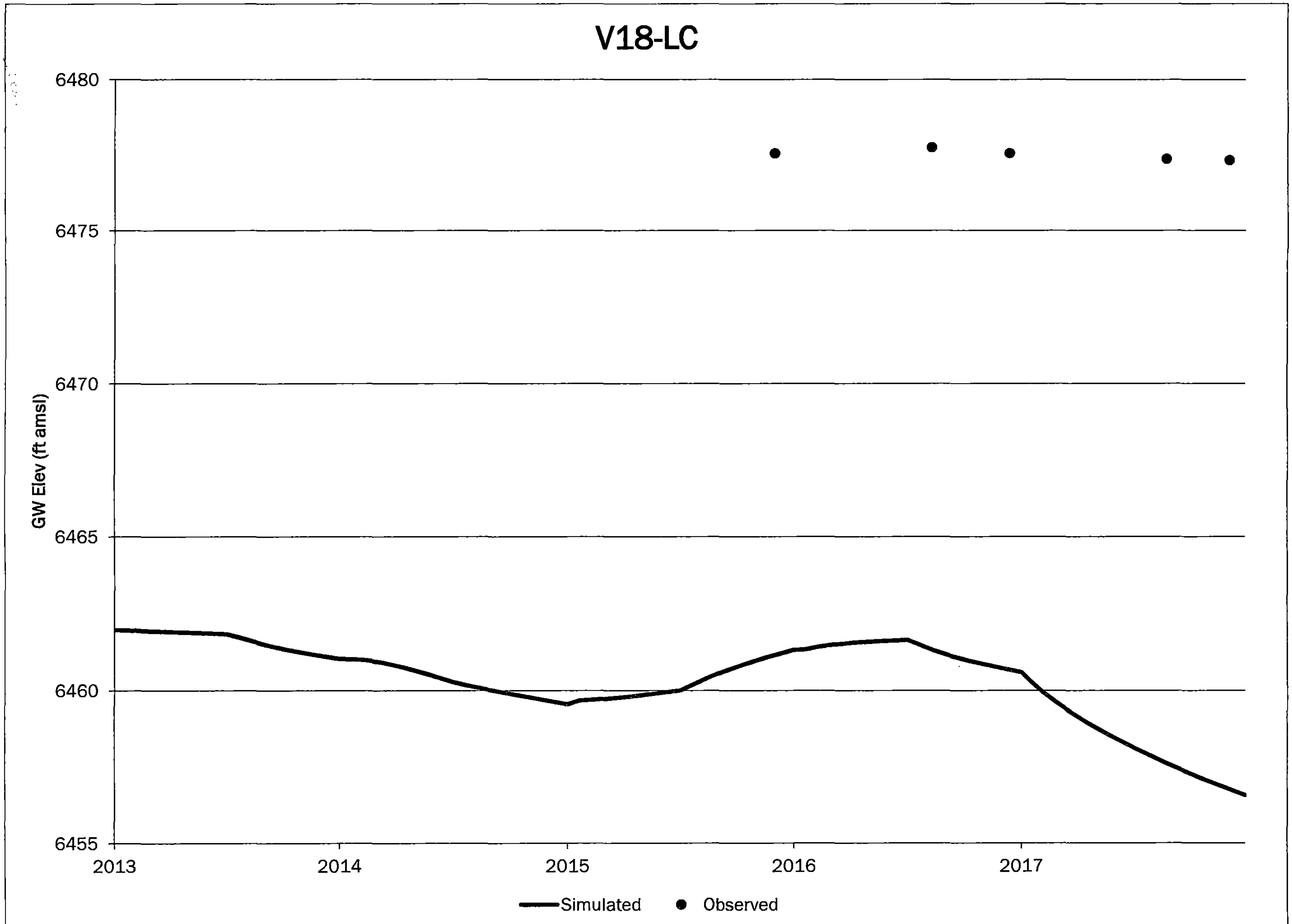

V14-LC
6480
6475
6470
6465
6460
6455
6450
6445
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

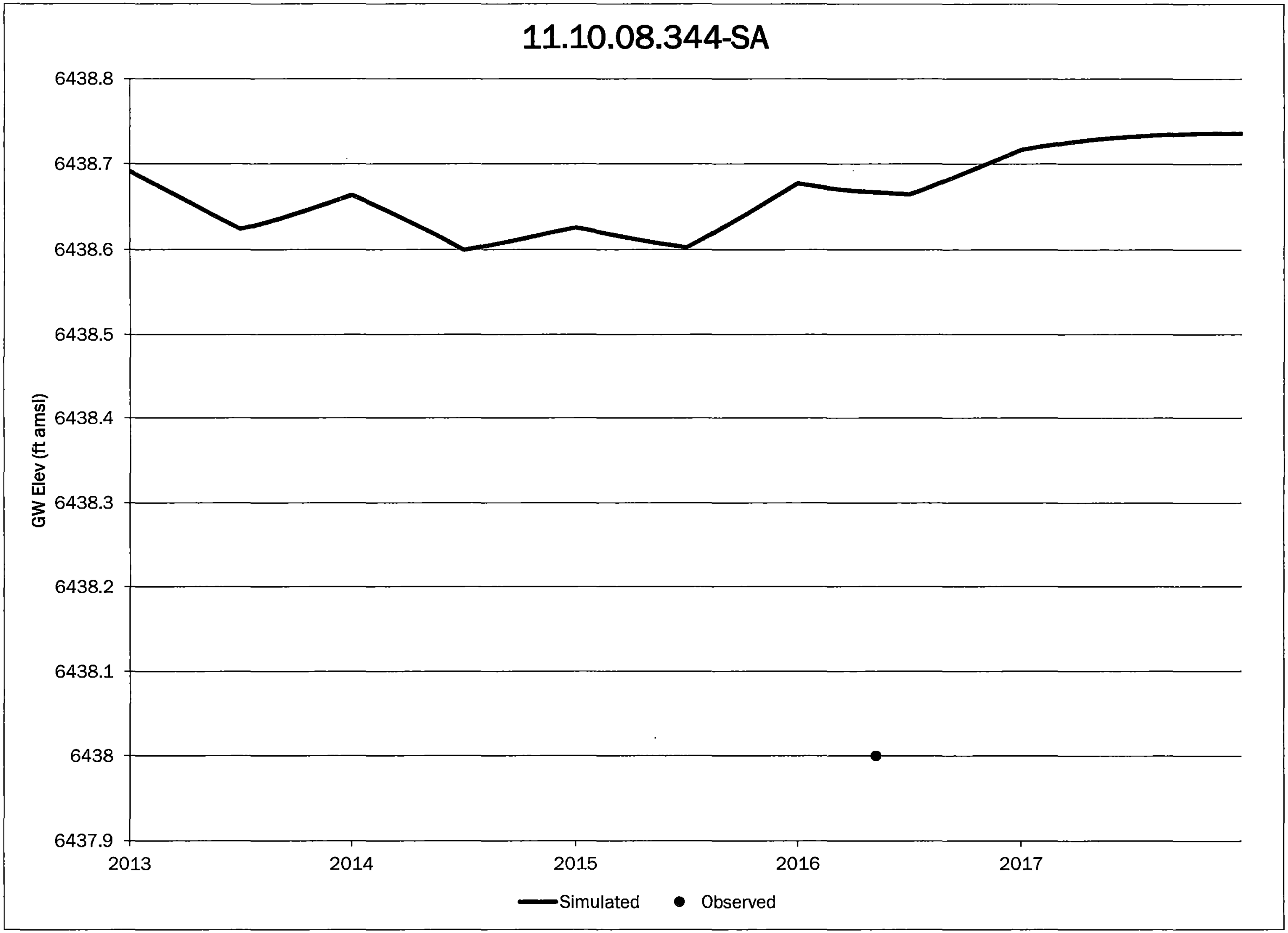


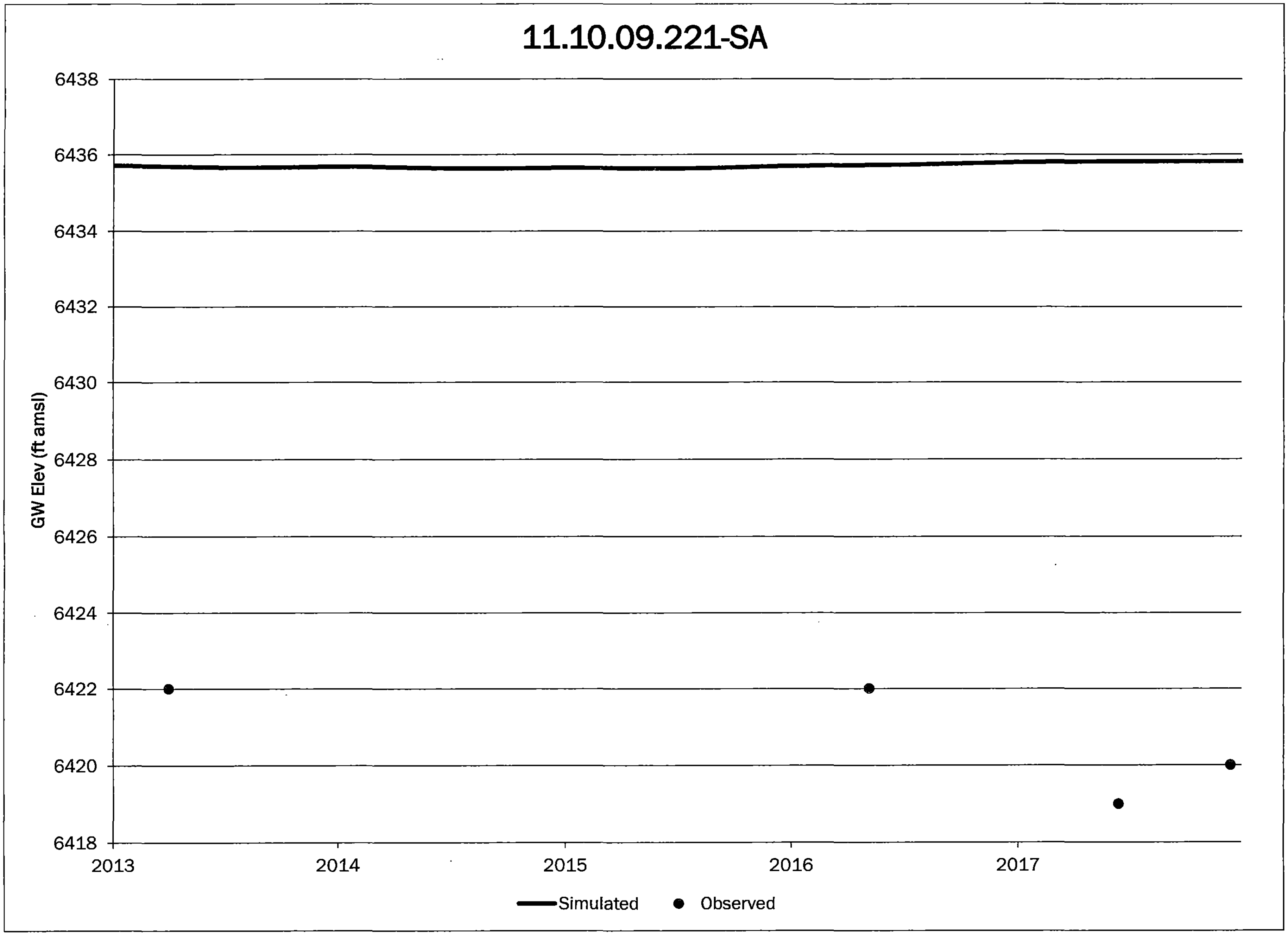
V16-LC
GW Elev (ft amsl)
6485
6480
6475
6470
6465
6460
6455
6450
2013
2014
2015
2016
2017
Simulated
Observed

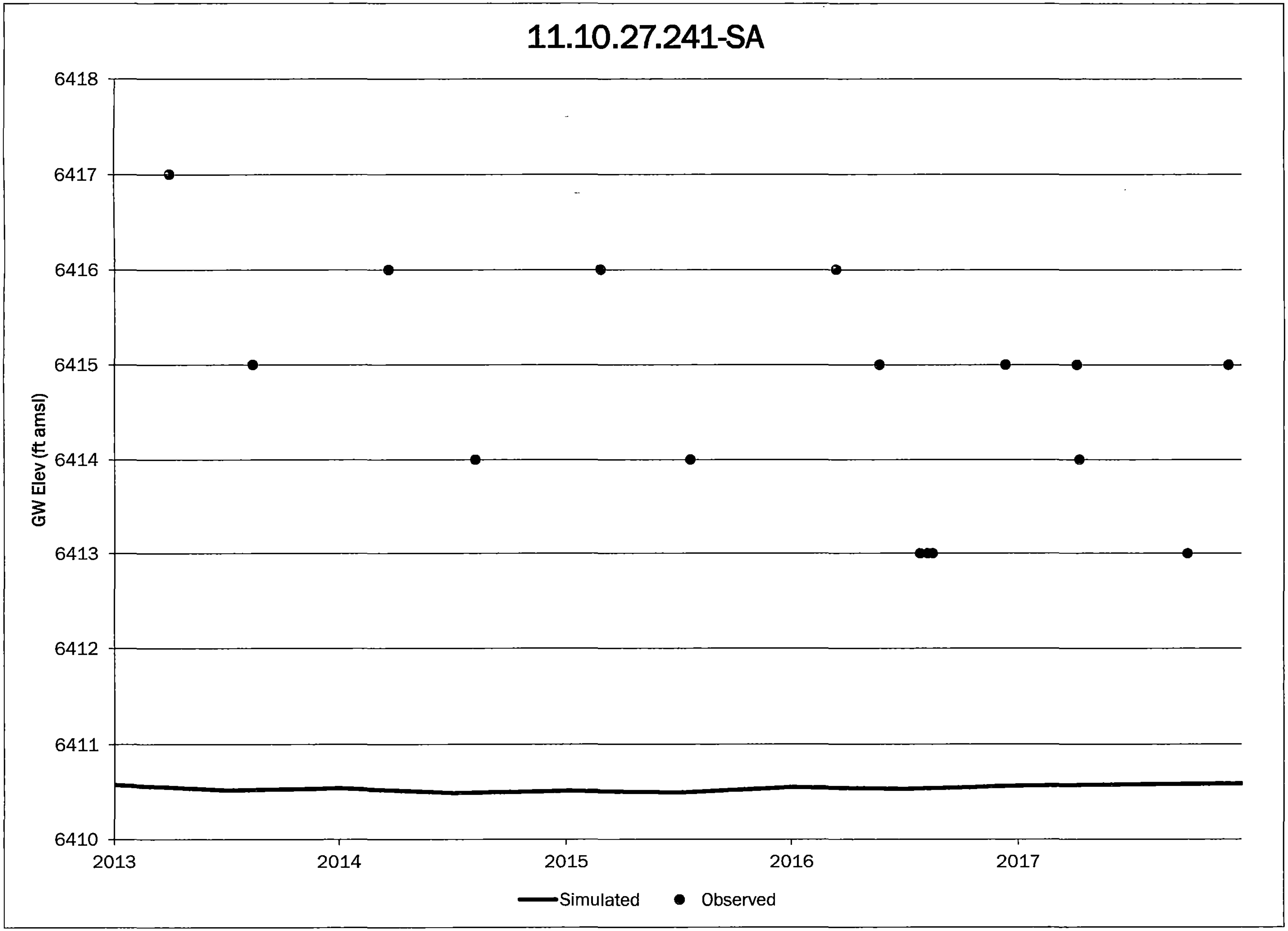


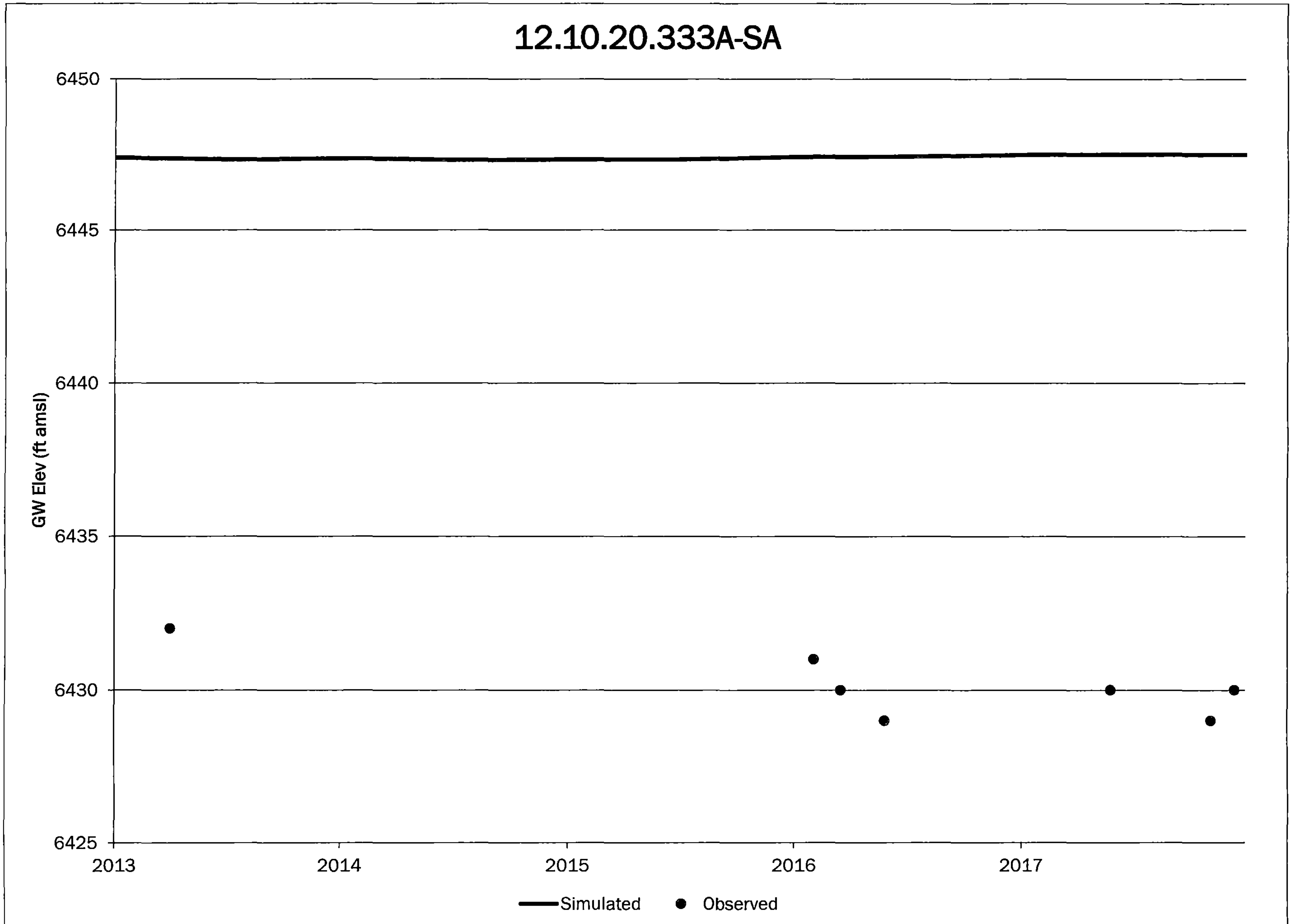
V17-LC
GW Elev (ft amsl)
6480
6478
6476
6474
6472
6470
6468
6466
6464
6462
6460
2013
2014
2015
2016
2017
Simulated
Observed

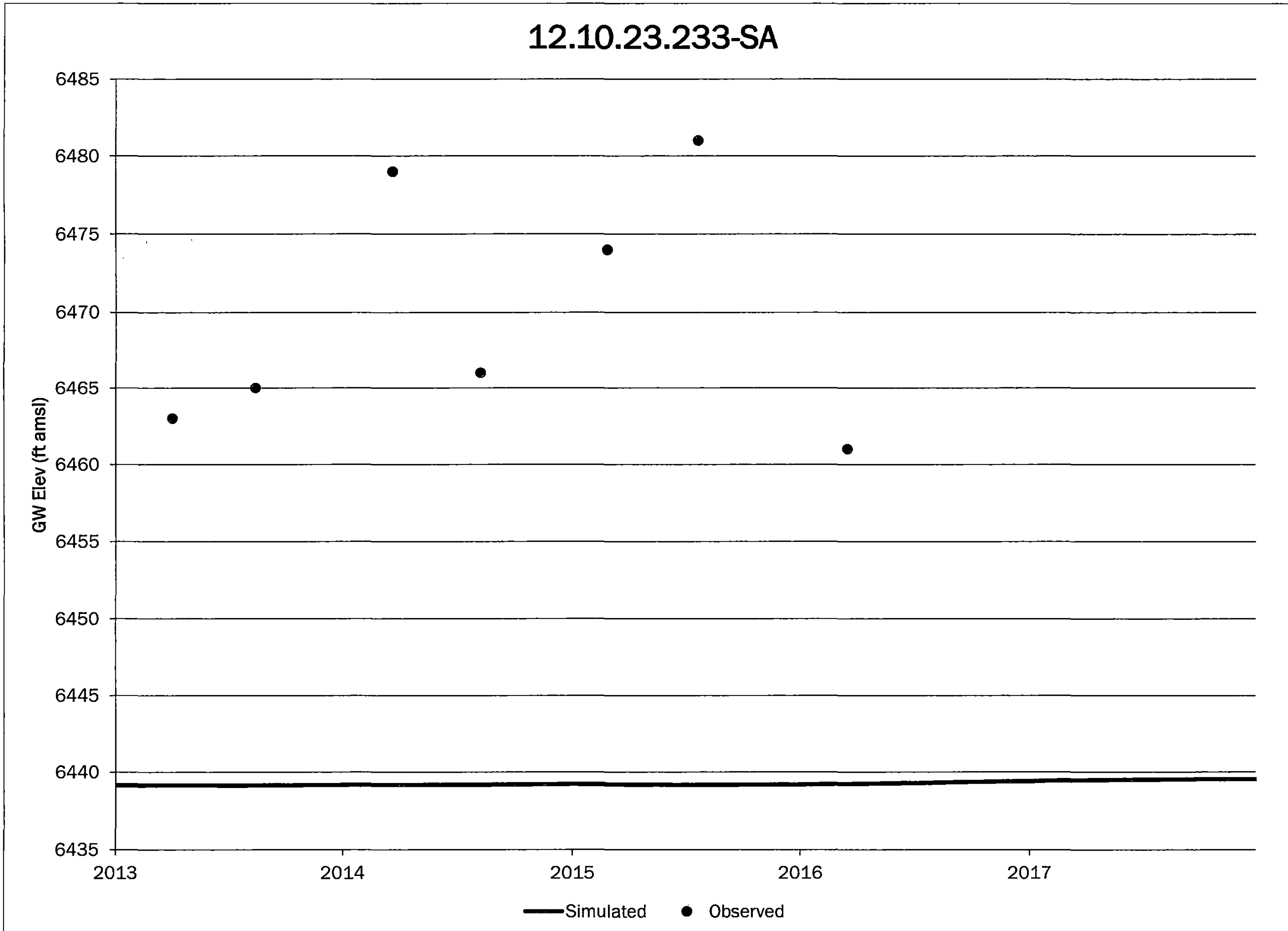

V18-LC
6480
6475
6470
6465
6460
6455
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed


11.10.08.344-SA
GW Elev (ft amsl)
6438.8
6438.7
6438.6
6438.5
6438.4
6438.3
6438.2
6438.1
6438
6437.9
2013
2014
2015
2016
2017
Simulated
Observed

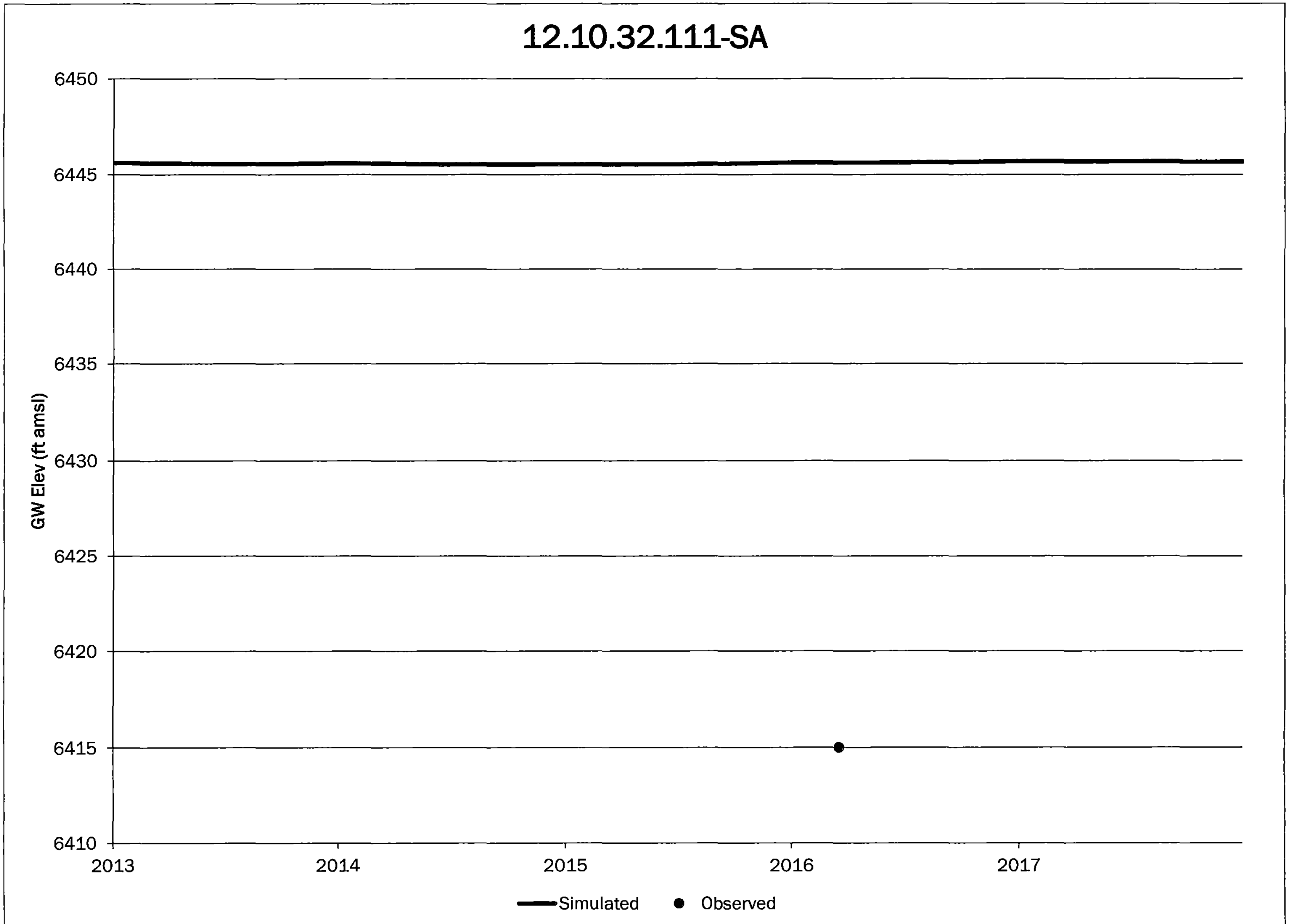

11.10.09.221-SA
GW Elev (ft amsl)
6438
6436
6434
6432
6430
6428
6426
6424
6422
6420
6418
2013
2014
2015
2016
2017
Simulated
Observed

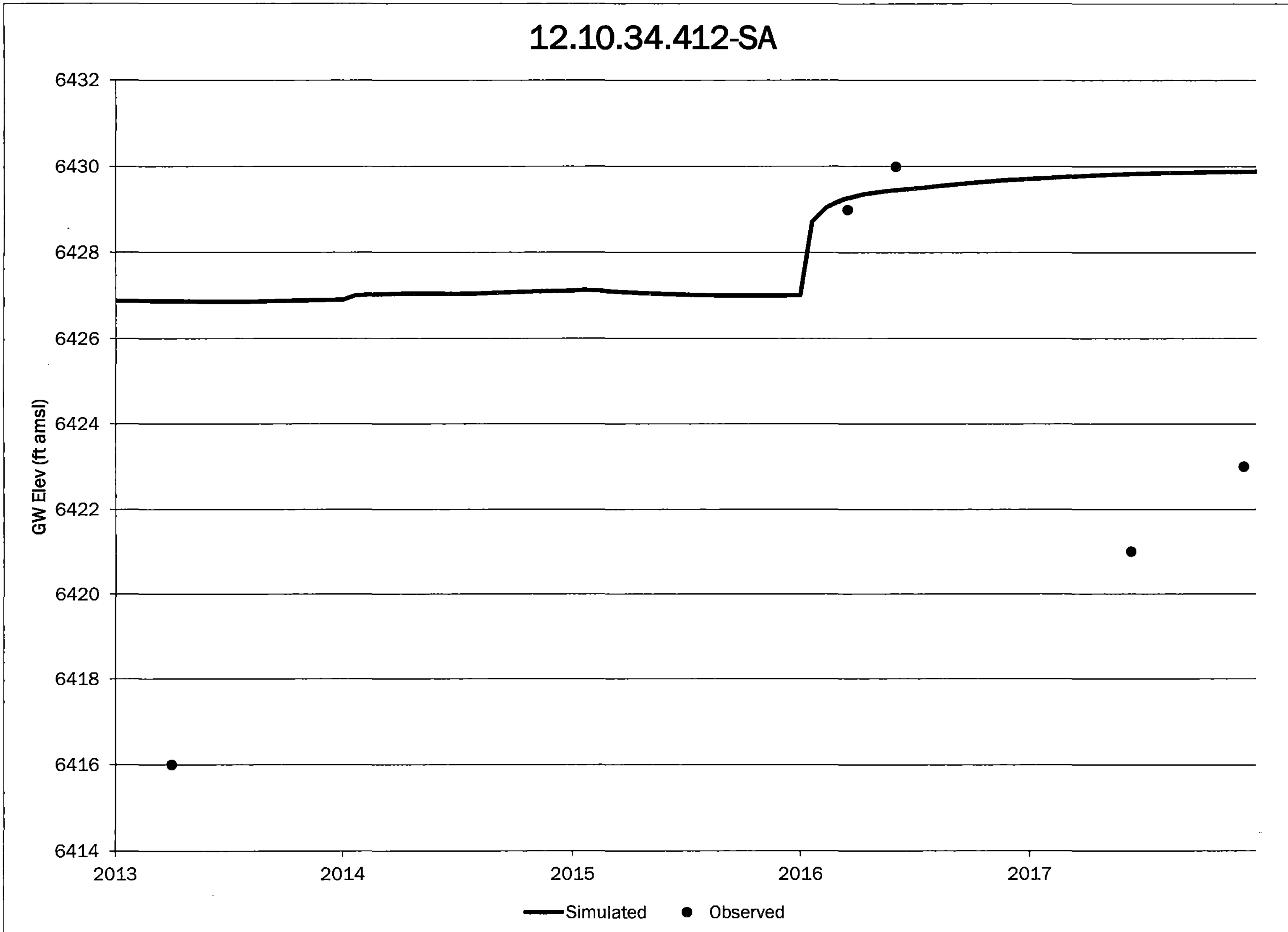

11.10.27.241-SA
GW Elev (ft amsl)
6418
6417
6416
6415
6414
6413
6412
6411
6410
2013
2014
2015
2016
2017
Simulated
Observed

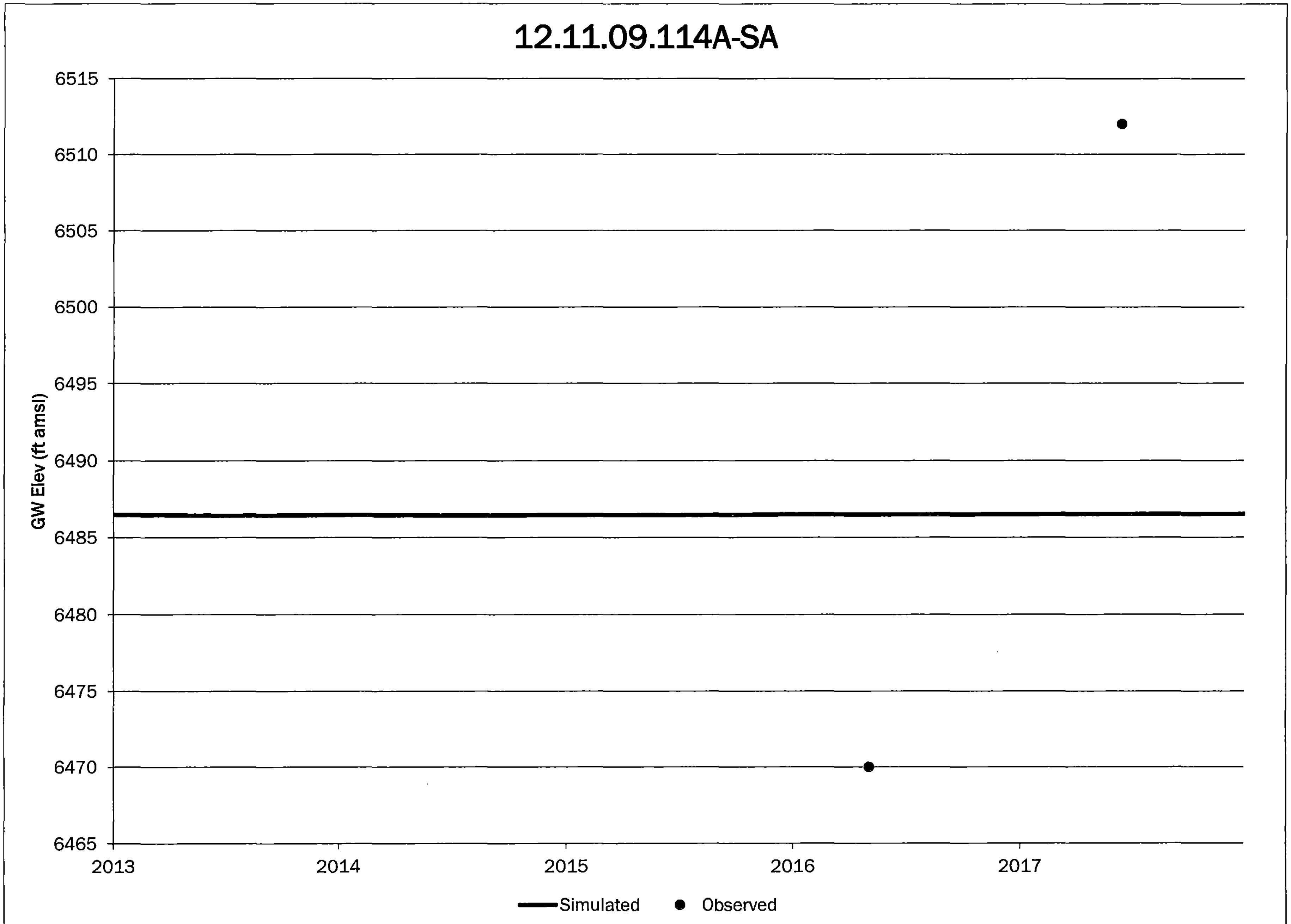

12.10.20.333A-SA
GW Elev (ft amsl)
6450
6445
6440
6435
6430
6425
2013
2014
2015
2016
2017
Simulated
Observed



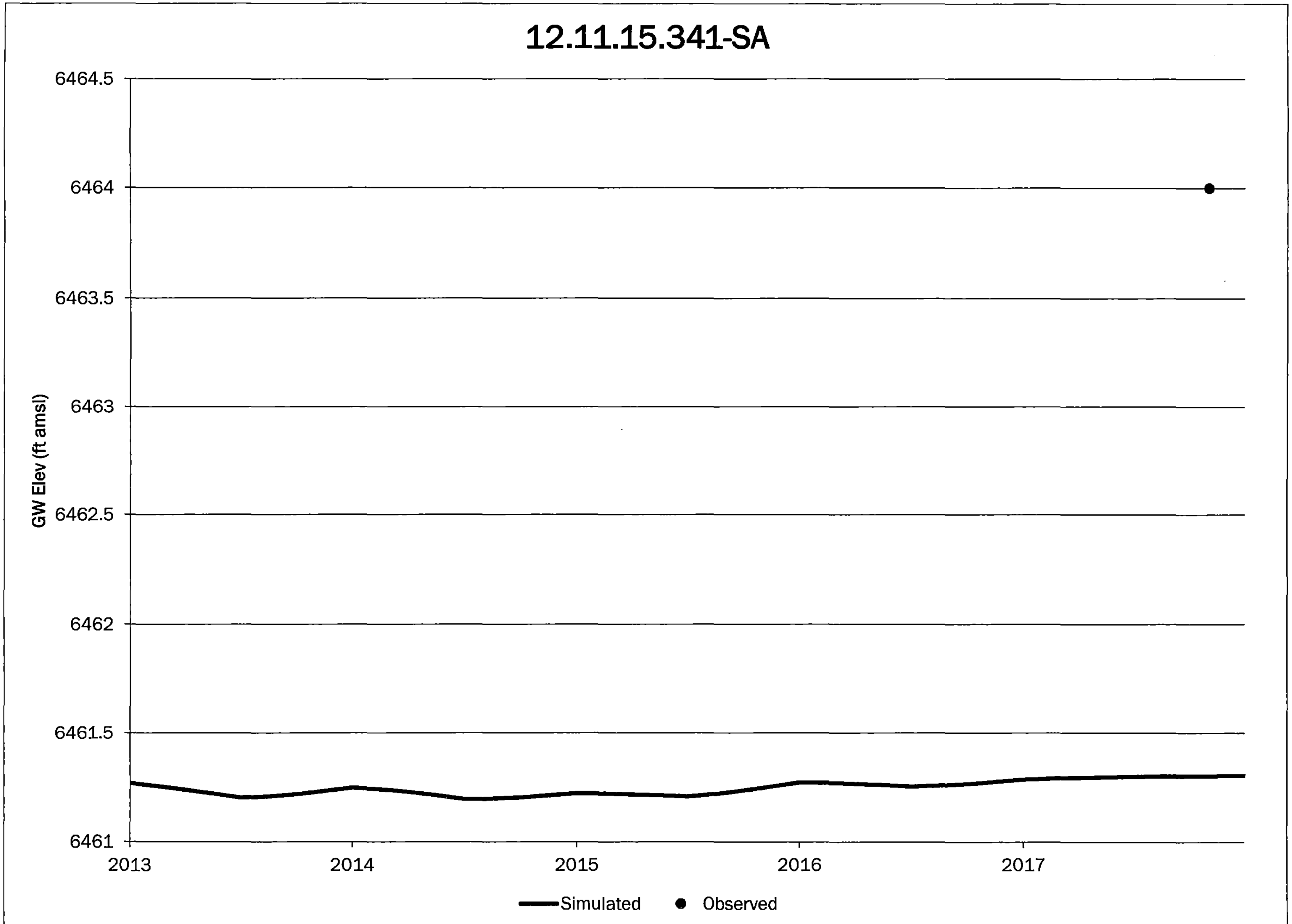
12.10.23.233-SA
GW Elev (ft amsl)
6485
6480
6475
6470
6465
6460
6455
6450
6445
6440
6435
2013
2014
2015
2016
2017
Simulated
Observed


12.10.32.111-SA
GW Elev (ft amsl)
6450
6445
6440
6435
6430
6425
6420
6415
6410
2013
2014
2015
2016
2017
Simulated
Observed

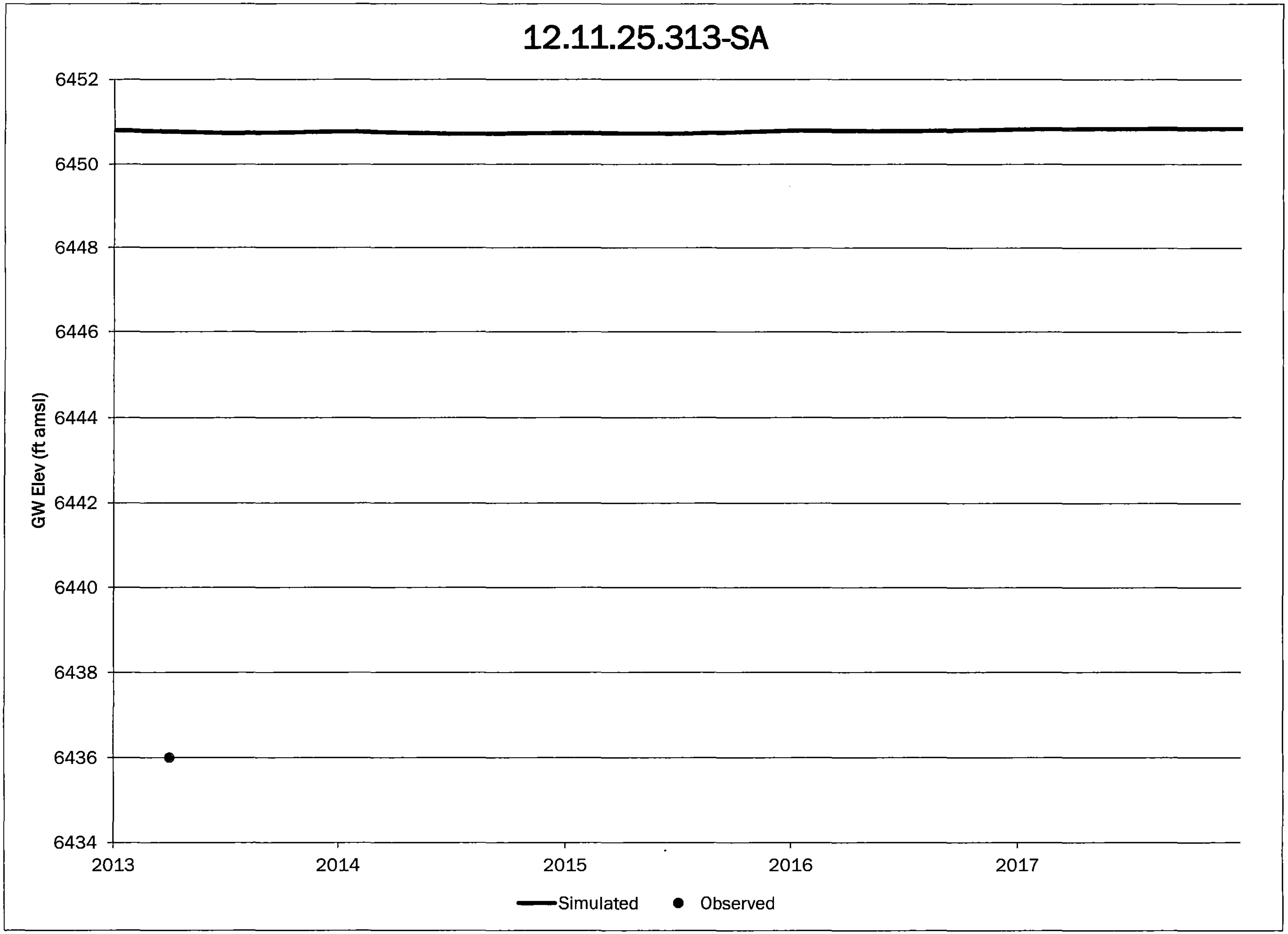

12.10.34.412-SA
6432
6430
6428
6426
6424
6422
6420
6418
6416
6414
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed



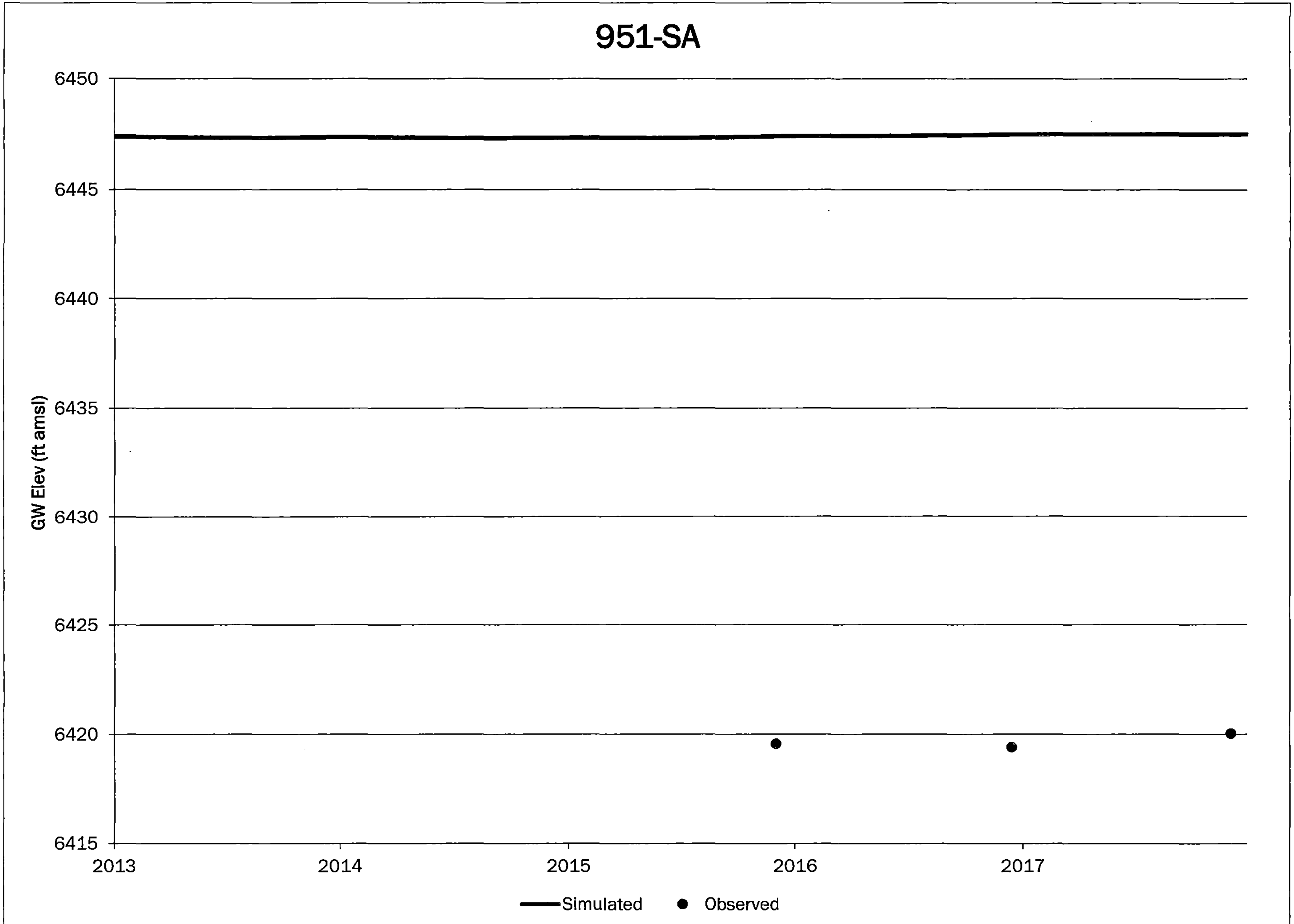
12.11.09.114A-SA
GW Elev (ft amsl)
6515
6510
6505
6500
6495
6490
6485
6480
6475
6470
6465
2013
2014
2015
2016
2017
Simulated
Observed



12.11.15.341-SA
GW Elev (ft amsl)
6464.5
6464
6463.5
6463
6462.5
6462
6461.5
6461
2013
2014
2015
2016
2017
Simulated
Observed



12.11.25.313-SA
GW Elev (ft amsl)
6452
6450
6448
6446
6444
6442
6440
6438
6436
6434
2013
2014
2015
2016
2017
Simulated
Observed


951-SA
6450
6445
6440
6435
6430
6425
6420
6415
GW Elev (ft amsl)
2013
2014
2015
2016
2017
Simulated
Observed

Appendix C: Groundwater Elevation Target Dataset

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Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
1C-AI	494,799	1,545,018	1	12/1/2015	1064	6549.16	6541.83	7.33	1.0
				12/14/2016	1443	6549.77	6539.23	10.54	1.0
				12/6/2017	1800	6550.11	6516.27	33.84	1.0
1F-AI	493,831	1,544,952	1	9/30/2016	1368	6548.46	6541.57	6.89	1.0
				9/20/2017	1723	6548.58	6538.70	9.88	1.0
1M-AI	493,133	1,541,327	1	9/30/2016	1368	6548.78	6539.96	8.82	1.0
				3/23/2017	1542	6547.33	6538.73	8.60	1.0
30-04-R-AI	503,247	1,603,308	1	9/30/2013	272	6895.00	6887.25	7.75	1.0
				3/30/2014	453	6894.00	6885.38	8.62	1.0
				9/30/2014	637	6893.00	6884.04	8.96	1.0
				3/30/2015	818	6893.00	6883.09	9.91	1.0
				9/30/2015	1002	6892.00	6882.30	9.70	1.0
				3/30/2016	1184	6892.00	6881.55	10.45	1.0
				9/30/2016	1368	6892.00	6880.76	11.24	1.0
				3/30/2017	1549	6891.00	6880.00	11.00	1.0
				9/30/2017	1733	6891.00	6879.18	11.82	1.0
30-47-AI	500,022	1,604,030	1	9/30/2013	272	6891.00	6887.33	3.67	1.0
				3/30/2014	453	6891.00	6885.23	5.77	1.0
				9/30/2014	637	6887.00	6883.65	3.35	1.0
				3/30/2015	818	6890.00	6882.53	7.47	1.0
				9/30/2015	1002	6890.00	6881.64	8.36	1.0
				3/30/2016	1184	6888.00	6880.86	7.14	1.0
				9/30/2016	1368	6888.00	6880.06	7.94	1.0
				3/30/2017	1549	6887.00	6879.33	7.67	1.0
				9/30/2017	1733	6885.00	6878.55	6.45	1.0
30-48-AI	501,588	1,604,030	1	9/30/2013	272	6890.00	6887.22	2.78	1.0
				3/30/2014	453	6890.00	6885.27	4.73	1.0
				9/30/2014	637	6888.00	6883.80	4.20	1.0
				3/30/2015	818	6886.00	6882.76	3.24	1.0
				9/30/2015	1002	6886.00	6881.91	4.09	1.0
				3/30/2016	1184	6886.00	6881.15	4.85	1.0
				9/30/2016	1368	6886.00	6880.35	5.65	1.0
				3/30/2017	1549	6884.00	6879.62	4.38	1.0
				9/30/2017	1733	6885.00	6878.83	6.17	1.0
30-49-AI	503,324	1,604,002	1	9/30/2013	272	6886.00	6886.85	-0.85	1.0
				3/30/2014	453	6886.00	6885.21	0.79	1.0
				9/30/2014	637	6885.00	6883.94	1.06	1.0
				3/30/2015	818	6884.00	6883.01	0.99	1.0
				9/30/2015	1002	6884.00	6882.21	1.79	1.0
				9/30/2013	272	6896.00	6887.65	8.35	1.0
				3/30/2014	453	6895.00	6885.53	9.47	1.0
				9/30/2014	637	6894.00	6884.10	9.90	1.0
				3/30/2015	818	6894.00	6883.12	10.88	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
31-05-R-AI	503,022	1,602,704	1	9/30/2015	1002	6893.00	6882.33	10.67	1.0
				3/30/2016	1184	6893.00	6881.59	11.41	1.0
				9/30/2016	1368	6892.00	6880.79	11.21	1.0
				3/30/2017	1549	6892.00	6880.03	11.97	1.0
				9/30/2017	1733	6891.00	6879.21	11.79	1.0
31-61-AI	503,643	1,599,495	1	9/30/2013	272	6904.00	6887.06	16.94	1.0
				3/30/2014	453	6903.00	6884.70	18.30	1.0
				9/30/2014	637	6903.00	6883.47	19.53	1.0
31-65-AI	503,407	1,600,224	1	9/30/2013	272	6909.00	6887.70	21.30	1.0
				3/30/2014	453	6909.00	6885.20	23.80	1.0
				9/30/2014	637	6909.00	6883.81	25.19	1.0
31-70-R-AI	502,779	1,601,950	1	9/30/2013	272	6898.00	6888.15	9.85	1.0
				3/30/2014	453	6897.00	6885.70	11.30	1.0
				9/30/2014	637	6897.00	6884.14	12.86	1.0
				3/30/2015	818	6896.00	6883.14	12.86	1.0
				9/30/2015	1002	6895.00	6882.35	12.65	1.0
				3/30/2016	1184	6895.00	6881.61	13.39	1.0
				9/30/2016	1368	6894.00	6880.82	13.18	1.0
				3/30/2017	1549	6894.00	6880.06	13.94	1.0
				9/30/2017	1733	6893.00	6879.23	13.77	1.0
31-71-AI	501,983	1,602,967	1	9/30/2013	272	6895.00	6887.98	7.02	1.0
				3/30/2014	453	6894.00	6885.66	8.34	1.0
				9/30/2014	637	6894.00	6884.07	9.93	1.0
				3/30/2015	818	6893.00	6883.00	10.00	1.0
				9/30/2015	1002	6892.00	6882.15	9.85	1.0
				3/30/2016	1184	6891.00	6881.39	9.61	1.0
				9/30/2016	1368	6891.00	6880.59	10.41	1.0
				3/30/2017	1549	6890.00	6879.84	10.16	1.0
				9/30/2017	1733	6890.00	6879.04	10.96	1.0
32-01-R-AI	503,466	1,600,429	1	9/30/2013	272	6907.00	6887.66	19.34	1.0
				3/30/2014	453	6907.00	6885.23	21.77	1.0
				9/30/2014	637	6907.00	6883.85	23.15	1.0
				3/30/2015	818	6907.66	6883.03	24.63	1.0
				9/30/2015	1002	6907.00	6882.36	24.64	1.0
				3/30/2016	1184	6906.00	6881.69	24.31	1.0
				9/30/2016	1368	6906.00	6880.91	25.09	1.0
				3/30/2017	1549	6906.00	6880.14	25.86	1.0
				9/30/2017	1733	6905.00	6879.29	25.71	1.0
32-02-R-AI	503,601	1,602,940	1	9/30/2013	272	6895.00	6887.24	7.76	1.0
				3/30/2014	453	6894.00	6885.38	8.62	1.0
				9/30/2014	637	6894.00	6884.08	9.92	1.0
				3/30/2015	818	6893.00	6883.16	9.84	1.0
				9/30/2015	1002	6892.00	6882.39	9.61	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				3/30/2016	1184	6892.00	6881.66	10.34	1.0
				9/30/2016	1368	6891.00	6880.85	10.15	1.0
				3/30/2017	1549	6892.00	6880.09	11.91	1.0
				9/30/2017	1733	6890.00	6879.26	10.74	1.0
32-41-AI	503,865	1,601,801	1	9/30/2013	272	6893.00	6887.30	5.70	1.0
				3/30/2014	453	6892.00	6885.32	6.68	1.0
				9/30/2014	637	6891.00	6884.05	6.95	1.0
				3/30/2015	818	6890.00	6883.20	6.80	1.0
				9/30/2015	1002	6889.00	6882.47	6.53	1.0
				3/30/2016	1184	6889.00	6881.76	7.24	1.0
				9/30/2016	1368	6887.00	6880.97	6.03	1.0
				3/30/2017	1549	6886.00	6880.19	5.81	1.0
				9/30/2017	1733	6887.00	6879.34	7.66	1.0
32-43N-AI	504,063	1,600,627	1	9/30/2013	272	6895.00	6886.93	8.07	1.0
				3/30/2014	453	6894.00	6884.95	9.05	1.0
				9/30/2014	637	6894.00	6883.79	10.21	1.0
				3/30/2015	818	6894.00	6883.06	10.94	1.0
				9/30/2015	1002	6893.00	6882.42	10.58	1.0
				3/30/2016	1184	6893.00	6881.75	11.25	1.0
				9/30/2016	1368	6892.00	6880.97	11.03	1.0
				3/30/2017	1549	6892.00	6880.19	11.81	1.0
				9/30/2017	1733	6891.00	6879.32	11.68	1.0
32-51-AI	505,716	1,600,374	1	9/30/2013	272	6889.00	6884.91	4.09	1.0
				3/30/2014	453	6888.00	6884.13	3.87	1.0
				9/30/2014	637	6888.00	6883.59	4.41	1.0
				3/30/2015	818	6887.00	6883.12	3.88	1.0
				9/30/2015	1002	6887.00	6882.57	4.43	1.0
				3/30/2016	1184	6887.00	6881.90	5.10	1.0
				9/30/2016	1368	6886.00	6881.07	4.93	1.0
				3/30/2017	1549	6885.00	6880.24	4.76	1.0
				9/30/2017	1733	6885.00	6879.32	5.68	1.0
32-52-AI	506,713	1,598,474	1	9/30/2013	272	6882.00	6880.99	1.01	1.0
				3/30/2014	453	6882.00	6881.92	0.08	1.0
				9/30/2014	637	6881.00	6882.33	-1.33	1.0
				3/30/2015	818	6880.80	6882.36	-1.56	1.0
				9/30/2015	1002	6880.00	6882.02	-2.02	1.0
				3/30/2016	1184	6880.00	6881.42	-1.42	1.0
				9/30/2016	1368	6879.00	6880.60	-1.60	1.0
				3/30/2017	1549	6883.00	6879.73	3.27	1.0
				9/30/2017	1733	6878.00	6878.76	-0.76	1.0
				9/30/2013	272	6886.00	6884.52	1.48	1.0
				3/30/2014	453	6886.00	6884.42	1.58	1.0
				9/30/2014	637	6885.00	6884.08	0.92	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
32-57-AI	507,129	1,600,846	1	3/30/2015	818	6884.00	6883.61	0.39	1.0
				9/30/2015	1002	6883.00	6882.98	0.02	1.0
				3/30/2016	1184	6883.00	6882.23	0.77	1.0
				9/30/2016	1368	6883.00	6881.33	1.67	1.0
				3/30/2017	1549	6882.00	6880.43	1.57	1.0
				9/30/2017	1733	6882.00	6879.46	2.54	1.0
32-58-AI	505,292	1,597,894	1	9/30/2013	272	6881.00	6881.78	-0.78	1.0
				3/30/2014	453	6882.00	6881.67	0.33	1.0
				9/30/2014	637	6883.00	6881.80	1.20	1.0
				3/30/2015	818	6881.00	6881.84	-0.84	1.0
				9/30/2015	1002	6882.00	6881.62	0.38	1.0
				3/30/2016	1184	6880.00	6881.12	-1.12	1.0
				9/30/2016	1368	6880.00	6880.39	-0.39	1.0
				3/30/2017	1549	6879.00	6879.60	-0.60	1.0
				9/30/2017	1733	6878.00	6878.69	-0.69	1.0
32-72-AI	504,723	1,598,954	1	9/30/2013	272	6886.00	6884.66	1.34	1.0
				3/30/2014	453	6886.00	6883.44	2.56	1.0
				9/30/2014	637	6887.00	6882.86	4.14	1.0
				3/30/2015	818	6885.52	6882.51	3.01	1.0
				9/30/2015	1002	6886.00	6882.09	3.91	1.0
				3/30/2016	1184	6885.00	6881.51	3.49	1.0
				9/30/2016	1368	6885.00	6880.76	4.24	1.0
				3/30/2017	1549	6883.00	6879.97	3.03	1.0
				9/30/2017	1733	6883.00	6879.07	3.93	1.0
43586-AI	506,893	1,596,408	1	9/30/2013	272	6869.00	6874.38	-5.38	1.0
				3/30/2014	453	6869.00	6877.68	-8.68	1.0
				9/30/2014	637	6868.00	6879.55	-11.55	1.0
				3/30/2015	818	6868.00	6880.36	-12.36	1.0
				9/30/2015	1002	6867.00	6880.43	-13.43	1.0
				3/30/2016	1184	6867.00	6880.02	-13.02	1.0
				9/30/2016	1368	6866.00	6879.28	-13.28	1.0
				3/30/2017	1549	6866.00	6878.44	-12.44	1.0
				9/30/2017	1733	6865.00	6877.48	-12.48	1.0
43587-AI	505,289	1,595,860	1	9/30/2013	272	6869.00	6875.42	-6.42	1.0
				3/30/2014	453	6869.00	6877.22	-8.22	1.0
				9/30/2014	637	6869.00	6878.75	-9.75	1.0
				3/30/2015	818	6869.00	6879.66	-10.66	1.0
				9/30/2015	1002	6868.00	6879.94	-11.94	1.0
				3/30/2016	1184	6868.00	6879.70	-11.70	1.0
				9/30/2016	1368	6867.00	6879.10	-12.10	1.0
				3/30/2017	1549	6867.00	6878.37	-11.37	1.0
				9/30/2017	1733	6866.00	6877.48	-11.48	1.0
				9/30/2013	272	6858.00	6867.30	-9.30	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
43589-AI	506,695	1,594,877	1	3/30/2014	453	6858.00	6872.87	-14.87	1.0
43589-AI	506,695	1,594,877	1	9/30/2014	637	6857.00	6876.27	-19.27	1.0
520-AI	492,935	1,538,934	1	12/12/2013	345	6537.53	6525.15	12.38	1.0
520-AI	492,935	1,538,934	1	12/2/2015	1065	6536.67	6532.95	3.72	1.0
520-AI	492,935	1,538,934	1	12/13/2016	1442	6536.19	6529.08	7.11	1.0
520-AI	492,935	1,538,934	1	4/28/2017	1578	6535.50	6530.62	4.88	1.0
520-AI	492,935	1,538,934	1	12/6/2017	1800	6534.15	6530.36	3.79	1.0
540-AI	488,091	1,534,125	1	5/4/2013	123	6494.00	6509.81	-15.81	1.0
540-AI	488,091	1,534,125	1	11/15/2013	318	6496.76	6507.47	-10.71	1.0
540-AI	488,091	1,534,125	1	12/13/2013	346	6496.95	6507.21	-10.26	1.0
540-AI	488,091	1,534,125	1	5/15/2015	864	6503.48	6505.55	-2.07	1.0
540-AI	488,091	1,534,125	1	12/2/2015	1065	6506.41	6508.51	-2.10	1.0
540-AI	488,091	1,534,125	1	8/5/2016	1312	6500.57	6503.82	-3.25	1.0
540-AI	488,091	1,534,125	1	12/13/2016	1442	6500.63	6500.44	0.19	1.0
540-AI	488,091	1,534,125	1	11/7/2017	1771	6497.04	6496.01	1.03	1.0
540-AI	488,091	1,534,125	1	12/6/2017	1800	6494.97	6495.75	-0.78	1.0
541-AI	477,236	1,539,831	1	8/9/2013	220	6466.72	6454.10	12.62	1.0
541-AI	477,236	1,539,831	1	12/13/2013	346	6467.29	6454.15	13.14	1.0
541-AI	477,236	1,539,831	1	7/22/2015	932	6469.02	6453.78	15.24	1.0
541-AI	477,236	1,539,831	1	12/1/2015	1064	6469.66	6454.25	15.41	1.0
541-AI	477,236	1,539,831	1	12/29/2016	1458	6467.06	6453.80	13.26	1.0
541-AI	477,236	1,539,831	1	11/10/2017	1774	6465.96	6451.35	14.61	1.0
541-AI	477,236	1,539,831	1	12/6/2017	1800	6465.83	6451.25	14.58	1.0
551-AI	479,880	1,536,272	1	2/7/2013	37	6447.69	6442.40	5.29	1.0
551-AI	479,880	1,536,272	1	8/9/2013	220	6448.10	6442.35	5.75	1.0
551-AI	479,880	1,536,272	1	12/13/2013	346	6449.50	6442.38	7.12	1.0
551-AI	479,880	1,536,272	1	2/14/2014	409	6449.70	6442.37	7.33	1.0
551-AI	479,880	1,536,272	1	8/28/2014	604	6451.10	6442.29	8.81	1.0
551-AI	479,880	1,536,272	1	2/20/2015	780	6451.65	6442.26	9.39	1.0
551-AI	479,880	1,536,272	1	12/1/2015	1064	6452.00	6442.38	9.62	1.0
551-AI	479,880	1,536,272	1	2/12/2016	1137	6453.11	6442.40	10.71	1.0
551-AI	479,880	1,536,272	1	12/13/2016	1442	6448.40	6442.50	5.90	1.0
551-AI	479,880	1,536,272	1	2/25/2017	1516	6450.12	6442.50	7.62	1.0
551-AI	479,880	1,536,272	1	3/29/2017	1548	6450.02	6442.50	7.52	1.0
551-AI	479,880	1,536,272	1	12/6/2017	1800	6449.20	6442.43	6.77	1.0
553-AI	480,563	1,534,923	1	2/7/2013	37	6442.88	6442.71	0.17	1.0
553-AI	480,563	1,534,923	1	8/9/2013	220	6442.88	6442.66	0.22	1.0
553-AI	480,563	1,534,923	1	12/13/2013	346	6444.03	6442.69	1.34	1.0
553-AI	480,563	1,534,923	1	2/14/2014	409	6444.14	6442.67	1.47	1.0
553-AI	480,563	1,534,923	1	8/27/2014	603	6444.00	6442.61	1.39	1.0
553-AI	480,563	1,534,923	1	2/20/2015	780	6444.97	6442.60	2.37	1.0
553-AI	480,563	1,534,923	1	12/1/2015	1064	6445.31	6442.67	2.64	1.0
553-AI	480,563	1,534,923	1	2/12/2016	1137	6446.51	6442.67	3.84	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				12/13/2016	1442	6444.98	6442.81	2.17	1.0
				3/28/2017	1547	6444.84	6442.84	2.00	1.0
				12/6/2017	1800	6444.23	6442.76	1.47	1.0
554-AI	479,107	1,534,967	1	2/7/2013	37	6440.59	6441.92	-1.33	1.0
				8/9/2013	220	6440.77	6441.87	-1.10	1.0
				12/13/2013	346	6442.41	6441.90	0.51	1.0
				2/14/2014	409	6442.46	6441.89	0.57	1.0
				2/20/2015	780	6443.39	6441.84	1.55	1.0
				12/1/2015	1064	6443.65	6441.91	1.74	1.0
				2/12/2016	1137	6449.19	6441.93	7.26	1.0
				12/13/2016	1442	6442.57	6442.00	0.57	1.0
				3/28/2017	1547	6442.35	6442.01	0.34	1.0
				12/6/2017	1800	6441.52	6442.00	-0.48	1.0
555-AI	486,236	1,538,572	1	2/6/2013	36	6511.20	6513.66	-2.47	1.0
				8/16/2013	227	6511.64	6513.55	-1.91	1.0
				2/12/2014	407	6512.34	6513.45	-1.11	1.0
				9/4/2014	611	6512.00	6513.48	-1.48	1.0
				2/26/2015	786	6512.06	6513.54	-1.49	1.0
				2/17/2016	1142	6513.39	6512.80	0.59	1.0
				3/28/2017	1547	6515.31	6510.81	4.50	1.0
556-AI	486,184	1,538,006	1	2/6/2013	36	6500.94	6512.18	-11.24	1.0
				8/16/2013	227	6503.12	6512.06	-8.94	1.0
				9/4/2014	611	6503.86	6511.85	-7.99	1.0
				2/26/2015	786	6504.16	6511.86	-7.70	1.0
				2/11/2016	1136	6506.03	6511.37	-5.34	1.0
				3/28/2017	1547	6508.91	6509.49	-0.58	1.0
557-AI	486,000	1,537,204	1	2/6/2013	36	6508.03	6511.60	-3.58	1.0
				8/16/2013	227	6508.07	6511.46	-3.40	1.0
				2/12/2014	407	6508.37	6511.30	-2.93	1.0
				9/4/2014	611	6508.68	6511.19	-2.52	1.0
				2/26/2015	786	6508.72	6511.18	-2.46	1.0
				2/11/2016	1136	6509.72	6510.80	-1.08	1.0
631-AI	483,756	1,532,234	1	3/7/2013	65	6451.40	6461.48	-10.08	1.0
				12/13/2013	346	6452.72	6461.28	-8.56	1.0
				4/2/2014	456	6453.75	6461.08	-7.33	1.0
				12/3/2015	1066	6455.60	6460.76	-5.16	1.0
				12/13/2016	1442	6457.40	6462.46	-5.06	1.0
				7/1/2017	1642	6454.70	6461.05	-6.35	1.0
				12/6/2017	1800	6458.22	6459.19	-0.97	1.0
632-AI	483,767	1,531,850	1	3/7/2013	65	6451.80	6460.26	-8.46	1.0
				12/13/2013	346	6453.17	6460.09	-6.92	1.0
				4/2/2014	456	6454.11	6459.89	-5.78	1.0
				12/3/2015	1066	6455.89	6459.52	-3.63	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				12/13/2016	1442	6457.56	6461.16	-3.60	1.0
				7/1/2017	1642	6458.27	6460.00	-1.73	1.0
				12/6/2017	1800	6460.07	6458.24	1.83	1.0
637-AI	474,710	1,545,409	1	12/12/2014	710	6465.16	6460.75	4.41	1.0
				12/21/2016	1450	6465.20	6461.66	3.54	1.0
				10/7/2017	1740	6464.60	6460.41	4.19	1.0
638-AI	493,265	1,539,628	1	12/12/2013	345	6542.89	6529.67	13.22	1.0
				12/2/2015	1065	6543.12	6535.14	7.98	1.0
				12/13/2016	1442	6541.23	6535.01	6.22	1.0
				4/28/2017	1578	6540.12	6533.26	6.86	1.0
				12/6/2017	1800	6539.01	6532.63	6.38	1.0
644-AI	485,450	1,533,481	1	12/13/2013	346	6471.50	6480.05	-8.55	1.0
				10/11/2014	648	6473.67	6478.95	-5.28	1.0
				12/2/2015	1065	6475.23	6480.74	-5.51	1.0
				8/2/2016	1309	6476.16	6482.78	-6.62	1.0
				12/13/2016	1442	6476.25	6482.62	-6.37	1.0
				11/7/2017	1771	6475.69	6474.28	1.41	1.0
				12/6/2017	1800	6476.02	6473.85	2.17	1.0
646-AI	484,952	1,533,246	1	12/13/2013	346	6465.79	6474.14	-8.35	1.0
				9/4/2014	611	6468.28	6473.34	-5.06	1.0
				12/3/2015	1066	6469.64	6474.36	-4.72	1.0
				8/2/2016	1309	6471.31	6476.27	-4.96	1.0
				12/13/2016	1442	6471.35	6476.40	-5.05	1.0
				11/15/2017	1779	6471.44	6469.58	1.86	1.0
				12/6/2017	1800	6471.67	6469.27	2.40	1.0
647-AI	478,308	1,536,623	1	2/7/2013	37	6446.91	6442.87	4.04	1.0
				8/9/2013	220	6447.51	6442.83	4.68	1.0
				12/13/2013	346	6449.19	6442.85	6.34	1.0
				8/28/2014	604	6452.96	6442.79	10.17	1.0
				2/20/2015	780	6450.93	6442.79	8.14	1.0
				12/1/2015	1064	6452.51	6442.87	9.64	1.0
				12/13/2016	1442	6448.61	6442.95	5.66	1.0
				3/16/2017	1535	6448.96	6442.96	6.00	1.0
				12/6/2017	1800	6448.08	6442.94	5.14	1.0
649-AI	479,798	1,534,730	1	2/7/2013	37	6440.08	6441.97	-1.89	1.0
				3/7/2013	65	6440.13	6441.96	-1.83	1.0
				8/16/2013	227	6438.39	6441.93	-3.54	1.0
				12/13/2013	346	6441.58	6441.96	-0.38	1.0
				2/26/2014	421	6441.46	6441.94	-0.48	1.0
				4/2/2014	456	6441.19	6441.93	-0.74	1.0
				2/23/2016	1148	6442.69	6441.97	0.72	1.0
				12/13/2016	1442	6441.89	6442.06	-0.17	1.0
				3/16/2017	1535	6441.73	6442.08	-0.35	1.0

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				12/6/2017	1800	6441.39	6442.05	-0.66	1.0
650-AI	482,135	1,536,779	1	2/7/2013	37	6463.37	6451.35	12.02	1.0
				8/16/2013	227	6463.21	6451.36	11.85	1.0
				12/12/2013	345	6463.33	6451.46	11.87	1.0
				2/26/2014	421	6463.51	6451.28	12.23	1.0
				9/4/2014	611	6459.76	6451.16	8.60	1.0
				3/18/2015	806	6478.83	6451.03	27.80	1.0
				12/2/2015	1065	6465.61	6451.46	14.15	1.0
				2/12/2016	1137	6466.80	6451.36	15.44	1.0
				12/14/2016	1443	6465.59	6451.35	14.24	1.0
				3/28/2017	1547	6465.73	6451.19	14.54	1.0
				12/6/2017	1800	6465.51	6450.69	14.82	1.0
654-AI	478,636	1,541,994	1	3/7/2013	65	6479.10	6475.78	3.32	1.0
				12/13/2013	346	6478.95	6475.79	3.16	1.0
				6/10/2015	890	6480.15	6475.25	4.90	1.0
				12/1/2015	1064	6481.58	6476.19	5.39	1.0
				12/13/2016	1442	6479.05	6474.81	4.24	1.0
				11/15/2017	1779	6477.21	6467.57	9.64	1.0
657-AI	478,392	1,537,497	1	5/14/2013	133	6452.50	6443.27	9.23	1.0
				8/9/2013	220	6454.11	6443.26	10.85	1.0
				12/13/2013	346	6454.68	6443.29	11.39	1.0
				12/1/2015	1064	6458.91	6443.31	15.60	1.0
				12/13/2016	1442	6454.81	6443.38	11.43	1.0
				12/6/2017	1800	6452.81	6443.33	9.48	1.0
658-AI	478,436	1,535,922	1	2/7/2013	37	6442.70	6442.52	0.18	1.0
				10/30/2013	302	6444.53	6442.49	2.04	1.0
				12/13/2013	346	6445.25	6442.50	2.75	1.0
				2/26/2014	421	6445.18	6442.49	2.69	1.0
				8/27/2014	603	6447.40	6442.44	4.96	1.0
				2/20/2015	780	6447.03	6442.44	4.59	1.0
				12/1/2015	1064	6447.98	6442.52	5.46	1.0
				12/13/2016	1442	6445.38	6442.60	2.78	1.0
				2/22/2017	1513	6443.94	6442.61	1.33	1.0
				12/6/2017	1800	6443.78	6442.60	1.18	1.0
681-AI	482,734	1,540,676	1	3/19/2013	77	6497.12	6503.27	-6.15	1.0
				3/27/2015	815	6498.70	6502.06	-3.36	1.0
				12/2/2015	1065	6498.69	6502.31	-3.62	1.0
				12/14/2016	1443	6497.49	6500.66	-3.17	1.0
				12/6/2017	1800	6497.27	6497.84	-0.57	1.0
686-AI	475,438	1,545,319	1	12/12/2014	710	6467.94	6460.81	7.13	1.0
				12/21/2016	1450	6467.47	6461.77	5.70	1.0
				10/7/2017	1740	6466.70	6460.46	6.24	1.0
				3/5/2013	63	6504.74	6507.35	-2.61	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
688-AI	483,954	1,541,257	1	10/30/2013	302	6505.79	6507.32	-1.53	1.0
				12/13/2013	346	6506.23	6507.34	-1.11	1.0
				3/20/2014	443	6505.88	6507.21	-1.33	1.0
				3/13/2015	801	6503.56	6505.98	-2.42	1.0
				12/1/2015	1064	6505.07	6505.82	-0.75	1.0
				3/17/2016	1171	6504.60	6505.55	-0.95	1.0
				12/14/2016	1443	6504.06	6504.19	-0.13	1.0
				3/28/2017	1547	6503.75	6503.39	0.36	1.0
				8/10/2017	1682	6503.62	6502.29	1.33	1.0
				12/6/2017	1800	6503.37	6501.47	1.90	1.0
690-AI	493,465	1,540,279	1	2/20/2013	50	6546.79	6536.58	10.21	1.0
				12/12/2013	345	6546.60	6536.71	9.89	1.0
				12/2/2015	1065	6547.58	6539.39	8.19	1.0
				12/13/2016	1442	6545.44	6537.27	8.17	1.0
				4/26/2017	1576	6544.58	6536.14	8.44	1.0
				12/6/2017	1800	6543.23	6535.55	7.68	1.0
844-AI	487,002	1,538,376	1	2/6/2013	36	6520.13	6516.14	3.99	1.0
				8/16/2013	227	6519.83	6516.03	3.80	1.0
				12/13/2013	346	6519.90	6515.96	3.94	1.0
				2/26/2014	421	6519.93	6515.86	4.07	1.0
				9/4/2014	611	6519.73	6515.98	3.75	1.0
				2/26/2015	786	6519.85	6516.21	3.64	1.0
				12/1/2015	1064	6519.81	6515.54	4.27	1.0
				2/20/2016	1145	6521.09	6515.30	5.79	1.0
				12/14/2016	1443	6520.29	6513.92	6.37	1.0
				3/28/2017	1547	6520.17	6513.12	7.05	1.0
				12/6/2017	1800	6519.73	6511.24	8.49	1.0
845-AI	487,833	1,537,280	1	2/6/2013	36	6522.65	6517.52	5.13	1.0
				8/16/2013	227	6519.87	6517.37	2.50	1.0
				12/13/2013	346	6522.93	6517.15	5.78	1.0
				2/26/2014	421	6522.90	6516.98	5.92	1.0
				9/4/2014	611	6522.57	6516.84	5.73	1.0
				2/26/2015	786	6522.94	6517.00	5.94	1.0
				12/1/2015	1064	6523.25	6516.51	6.74	1.0
				2/20/2016	1145	6523.56	6516.34	7.22	1.0
				12/14/2016	1443	6524.09	6515.15	8.94	1.0
				3/28/2017	1547	6523.60	6514.24	9.36	1.0
				12/6/2017	1800	6522.80	6512.41	10.39	1.0
				2/20/2013	50	6503.92	6509.75	-5.83	1.0
				10/30/2013	302	6504.12	6509.58	-5.46	1.0
				12/13/2013	346	6504.08	6509.55	-5.47	1.0
				2/26/2014	421	6504.17	6509.49	-5.32	1.0
				9/4/2014	611	6504.38	6509.34	-4.96	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
846-AI	484,730	1,537,219	1	3/18/2015	806	6504.47	6509.21	-4.74	1.0
				7/1/2015	911	6504.67	6509.07	-4.40	1.0
				8/20/2015	961	6505.74	6509.07	-3.33	1.0
				12/1/2015	1064	6504.84	6509.05	-4.21	1.0
				2/12/2016	1137	6505.87	6508.92	-3.05	1.0
				12/14/2016	1443	6505.08	6507.69	-2.61	1.0
				3/28/2017	1547	6505.13	6507.10	-1.97	1.0
				8/10/2017	1682	6505.12	6506.15	-1.03	1.0
				12/6/2017	1800	6505.08	6505.28	-0.20	1.0
851-AI	483,909	1,534,692	1	12/2/2015	1065	6459.84	6471.54	-11.70	1.0
				12/14/2016	1443	6460.23	6470.06	-9.83	1.0
				12/6/2017	1800	6461.73	6467.19	-5.46	1.0
852-AI	493,989	1,535,610	1	7/1/2015	911	6519.93	6519.24	0.69	1.0
				12/2/2015	1065	6520.21	6519.32	0.89	1.0
				12/13/2016	1442	6521.13	6519.34	1.79	1.0
				12/6/2017	1800	6521.35	6519.02	2.33	1.0
853-AI	484,824	1,532,124	1	12/12/2013	345	6465.63	6471.42	-5.79	1.0
				6/19/2014	534	6467.65	6470.96	-3.31	1.0
				7/2/2015	912	6468.75	6470.56	-1.81	1.0
				12/2/2015	1065	6469.07	6471.50	-2.43	1.0
				12/13/2016	1442	6470.70	6473.11	-2.41	1.0
				7/7/2017	1648	6471.68	6469.70	1.98	1.0
				12/6/2017	1800	6471.16	6467.41	3.75	1.0
855-AI	484,184	1,532,111	1	2/20/2013	50	6452.70	6464.32	-11.62	1.0
				12/13/2013	346	6454.23	6464.05	-9.82	1.0
				12/3/2015	1066	6457.24	6463.62	-6.38	1.0
				12/13/2016	1442	6459.01	6465.49	-6.48	1.0
864-AI	486,464	1,533,735	1	2/26/2013	56	6475.91	6494.90	-18.99	1.0
				8/21/2015	962	6482.67	6491.21	-8.54	1.0
				8/10/2016	1317	6482.19	6493.28	-11.09	1.0
865-AI	488,429	1,534,123	1	10/18/2014	655	6498.05	6501.51	-3.46	1.0
				5/15/2015	864	6502.77	6505.70	-2.93	1.0
				8/21/2015	962	6504.98	6507.27	-2.29	1.0
				8/5/2016	1312	6505.03	6504.61	0.42	1.0
867-AI	488,409	1,533,762	1	12/13/2013	346	6495.90	6507.78	-11.88	1.0
				12/2/2015	1065	6503.60	6507.26	-3.66	1.0
				12/13/2016	1442	6497.25	6500.98	-3.73	1.0
				12/6/2017	1800	6495.50	6496.77	-1.27	1.0
869-AI	486,073	1,533,251	1	3/19/2013	77	6471.41	6488.75	-17.34	1.0
				6/18/2013	168	6472.36	6488.68	-16.32	1.0
				12/13/2013	346	6474.57	6487.64	-13.07	1.0
				7/19/2014	564	6477.02	6486.33	-9.31	1.0
				8/21/2015	962	6479.31	6487.67	-8.36	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				12/2/2015	1065	6479.16	6488.73	-9.57	1.0
				12/13/2016	1442	6479.89	6489.99	-10.10	1.0
				11/4/2017	1768	6479.05	6479.98	-0.93	1.0
				12/6/2017	1800	6479.15	6479.52	-0.37	1.0
876-AI	486,088	1,532,853	1	12/13/2013	346	6474.32	6486.87	-12.55	1.0
				12/2/2015	1065	6479.19	6488.06	-8.87	1.0
				12/13/2016	1442	6480.06	6489.35	-9.29	1.0
				12/6/2017	1800	6479.92	6478.99	0.93	1.0
881-AI	481,478	1,542,034	1	2/9/2013	39	6493.38	6497.31	-3.93	1.0
				12/13/2013	346	6494.41	6497.29	-2.88	1.0
				2/12/2014	407	6494.68	6496.76	-2.08	1.0
				8/27/2014	603	6494.74	6495.83	-1.09	1.0
				2/27/2015	787	6496.38	6495.96	0.42	1.0
				2/19/2016	1144	6496.81	6496.77	0.04	1.0
				12/13/2016	1442	6493.86	6494.55	-0.69	1.0
				2/24/2017	1515	6493.57	6493.93	-0.36	1.0
882-AI	482,396	1,541,404	1	2/12/2013	42	6498.08	6501.75	-3.67	1.0
				8/9/2013	220	6497.36	6501.66	-4.30	1.0
				2/12/2014	407	6499.69	6501.49	-1.80	1.0
				8/27/2014	603	6498.52	6500.69	-2.17	1.0
				2/27/2015	787	6499.79	6500.37	-0.58	1.0
				2/19/2016	1144	6499.86	6500.69	-0.83	1.0
				3/16/2017	1535	6497.26	6498.20	-0.94	1.0
884-AI	481,498	1,542,677	1	2/9/2013	39	6495.75	6497.87	-2.12	1.0
				8/9/2013	220	6494.60	6497.79	-3.19	1.0
				2/12/2014	407	6496.10	6497.44	-1.34	1.0
				8/6/2014	582	6496.66	6496.45	0.21	1.0
				2/27/2015	787	6498.51	6496.41	2.10	1.0
				2/19/2016	1144	6497.84	6497.16	0.68	1.0
				3/28/2017	1547	6495.08	6494.21	0.87	1.0
885-AI	483,474	1,541,919	1	3/20/2013	78	6502.83	6506.52	-3.69	1.0
				8/9/2013	220	6501.14	6506.47	-5.33	1.0
				12/13/2013	346	6504.70	6506.53	-1.83	1.0
				10/23/2014	660	6501.83	6505.41	-3.58	1.0
				12/1/2015	1064	6503.33	6504.92	-1.59	1.0
				12/13/2016	1442	6500.84	6503.25	-2.41	1.0
				3/30/2017	1549	6500.44	6502.36	-1.92	1.0
				10/5/2017	1738	6500.64	6500.86	-0.22	1.0
				12/6/2017	1800	6499.94	6500.45	-0.51	1.0
				2/9/2013	39	6498.08	6502.70	-4.62	1.0
				11/16/2013	319	6498.98	6502.66	-3.68	1.0
				12/13/2013	346	6500.07	6502.67	-2.60	1.0
				8/27/2014	603	6498.78	6501.70	-2.92	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
886-AI	482,487	1,542,327	1	10/17/2014	654	6498.70	6501.48	-2.78	1.0
				12/1/2015	1064	6500.32	6501.54	-1.22	1.0
				2/19/2016	1144	6500.05	6501.39	-1.34	1.0
				12/13/2016	1442	6497.15	6499.74	-2.59	1.0
				3/4/2017	1523	6496.83	6498.81	-1.98	1.0
				11/7/2017	1771	6497.01	6496.77	0.24	1.0
888-AI	479,335	1,542,285	1	3/20/2013	78	6482.97	6482.82	0.15	1.0
				8/9/2013	220	6483.83	6482.78	1.05	1.0
				12/13/2013	346	6482.90	6482.84	0.06	1.0
				3/25/2015	813	6483.68	6480.55	3.13	1.0
				12/1/2015	1064	6485.66	6482.40	3.26	1.0
				2/10/2016	1135	6485.09	6482.83	2.26	1.0
				12/13/2016	1442	6482.90	6481.06	1.84	1.0
				3/29/2017	1548	6483.31	6476.92	6.39	1.0
				10/7/2017	1740	6482.03	6474.61	7.42	1.0
				12/6/2017	1800	6481.13	6474.18	6.95	1.0
893-AI	482,244	1,541,934	1	2/12/2013	42	6497.49	6501.21	-3.72	1.0
				8/9/2013	220	6496.72	6501.12	-4.40	1.0
				12/13/2013	346	6498.89	6501.18	-2.29	1.0
				2/12/2014	407	6496.09	6500.93	-4.84	1.0
				8/27/2014	603	6497.43	6500.09	-2.66	1.0
				3/13/2015	801	6496.75	6499.84	-3.09	1.0
				12/1/2015	1064	6499.04	6500.29	-1.25	1.0
				2/20/2016	1145	6498.96	6500.14	-1.18	1.0
				12/13/2016	1442	6496.39	6498.39	-2.00	1.0
				3/15/2017	1534	6496.45	6497.35	-0.90	1.0
				12/6/2017	1800	6500.27	6495.18	5.09	1.0
921-AI	495,800	1,555,400	1	10/8/2014	645	6584.36	6586.77	-2.41	1.0
				12/12/2017	1806	6583.54	6585.20	-1.66	1.0
AW-1-AI	503,209	1,603,318	1	9/30/2013	272	6892.00	6887.26	4.74	1.0
				3/30/2014	453	6891.00	6885.39	5.61	1.0
				9/30/2014	637	6891.00	6884.04	6.96	1.0
				3/30/2015	818	6890.00	6883.08	6.92	1.0
				9/30/2015	1002	6889.00	6882.29	6.71	1.0
				3/30/2016	1184	6889.00	6881.55	7.45	1.0
				9/30/2016	1368	6889.00	6880.75	8.25	1.0
				3/30/2017	1549	6888.00	6879.99	8.01	1.0
				9/30/2017	1733	6888.00	6879.17	8.83	1.0
AW-2-AI	506,681	1,598,492	1	9/30/2013	272	6880.00	6881.06	-1.06	1.0
				3/30/2014	453	6880.00	6881.95	-1.95	1.0
				9/30/2014	637	6880.00	6882.35	-2.35	1.0
				3/30/2015	818	6879.00	6882.36	-3.36	1.0
				9/30/2015	1002	6879.00	6882.03	-3.03	1.0

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				3/30/2016	1184	6878.00	6881.43	-3.43	1.0
				9/30/2016	1368	6881.00	6880.60	0.40	1.0
				3/30/2017	1549	6881.00	6879.74	1.26	1.0
				9/30/2017	1733	6877.00	6878.77	-1.77	1.0
AW-AI	488,015	1,540,235	1	12/10/2013	343	6531.43	6525.69	5.74	1.0
				10/11/2014	648	6531.35	6527.69	3.66	1.0
				10/24/2015	1026	6534.50	6525.66	8.84	1.0
				12/2/2015	1065	6532.56	6525.45	7.11	1.0
				12/14/2016	1443	6531.23	6522.44	8.79	1.0
				12/1/2017	1795	6529.42	6520.08	9.34	1.0
B12-AI	488,915	1,542,524	1	5/15/2013	134	6539.53	6537.43	2.10	1.0
				12/13/2013	346	6539.36	6537.47	1.89	1.0
				6/26/2014	541	6539.12	6539.47	-0.35	1.0
				2/6/2015	766	6538.46	6541.12	-2.66	1.0
				11/25/2015	1058	6540.40	6537.25	3.15	1.0
				3/19/2016	1173	6537.96	6535.12	2.84	1.0
				12/13/2016	1442	6536.52	6528.60	7.92	1.0
				11/14/2017	1778	6535.15	6529.91	5.24	1.0
				12/6/2017	1800	6535.19	6529.92	5.27	1.0
B1-AI	489,370	1,542,071	1	12/13/2013	346	6537.82	6536.02	1.80	1.0
				12/1/2015	1064	6539.25	6536.38	2.87	1.0
				12/13/2016	1442	6535.75	6527.52	8.23	1.0
				12/6/2017	1800	6533.72	6530.14	3.58	1.0
BA-AI	489,440	1,541,835	1	1/3/2013	2	6536.10	6535.62	0.48	1.0
				8/27/2013	238	6536.03	6535.58	0.45	1.0
				9/24/2013	266	6536.10	6535.59	0.51	1.0
				10/29/2013	301	6536.76	6535.60	1.16	1.0
				11/26/2013	329	6536.48	6535.61	0.87	1.0
				12/24/2013	357	6536.14	6535.61	0.53	1.0
				1/3/2017	1463	6535.58	6527.69	7.89	1.0
B-AI	489,311	1,541,684	1	1/3/2013	2	6537.70	6535.48	2.22	1.0
				8/27/2013	238	6537.58	6535.43	2.15	1.0
				9/24/2013	266	6537.76	6535.44	2.32	1.0
				10/29/2013	301	6538.15	6535.45	2.70	1.0
				11/26/2013	329	6538.02	6535.45	2.57	1.0
				12/24/2013	357	6537.96	6535.45	2.51	1.0
				1/3/2017	1463	6536.40	6528.17	8.23	1.0
BC-AI	487,910	1,543,655	1	12/13/2013	346	6540.69	6539.37	1.32	1.0
				5/22/2015	871	6539.69	6538.23	1.46	1.0
				11/25/2015	1058	6541.86	6536.35	5.51	1.0
				12/13/2016	1442	6540.72	6531.63	9.09	1.0
				6/28/2017	1639	6538.91	6528.23	10.68	1.0
				12/6/2017	1800	6538.52	6528.08	10.44	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
C11-AI	491,844	1,542,376	1	3/8/2013	66	6520.46	6540.69	-20.23	1.0
				4/2/2014	456	6544.88	6541.48	3.40	1.0
				6/12/2014	527	6544.97	6542.31	2.66	1.0
				4/1/2015	820	6544.96	6542.13	2.83	1.0
				6/10/2015	890	6546.01	6541.64	4.37	1.0
				10/2/2015	1004	6548.41	6540.75	7.66	1.0
				9/30/2016	1368	6541.91	6532.88	9.03	1.0
				4/1/2017	1551	6535.56	6534.04	1.52	1.0
				9/21/2017	1724	6538.88	6535.88	3.00	1.0
D1-AI	489,615	1,542,140	1	3/5/2013	63	6535.64	6535.36	0.28	1.0
				7/9/2013	189	6535.10	6535.33	-0.23	1.0
				3/19/2014	442	6535.90	6537.63	-1.73	1.0
				7/24/2014	569	6533.93	6539.94	-6.01	1.0
				3/18/2015	806	6537.05	6539.42	-2.37	1.0
				7/16/2015	926	6536.31	6537.82	-1.51	1.0
				3/16/2016	1170	6533.70	6532.63	1.07	1.0
				7/12/2016	1288	6533.23	6529.63	3.60	1.0
				3/21/2017	1540	6531.69	6528.66	3.03	1.0
				6/29/2017	1640	6531.50	6529.66	1.84	1.0
DC-AI	487,060	1,543,646	1	12/13/2013	346	6536.13	6534.37	1.76	1.0
				6/10/2015	890	6534.66	6533.28	1.38	1.0
				11/25/2015	1058	6531.36	6531.48	-0.12	1.0
				12/13/2016	1442	6534.79	6527.91	6.88	1.0
				6/28/2017	1639	6533.51	6525.26	8.25	1.0
				12/6/2017	1800	6533.31	6524.81	8.50	1.0
				1/29/2013	28	6544.98	6539.34	5.64	1.0
				3/26/2013	84	6544.75	6539.30	5.45	1.0
				4/30/2013	119	6545.02	6539.28	5.74	1.0
				5/29/2013	148	6545.16	6539.26	5.90	1.0
				6/25/2013	175	6545.08	6539.24	5.84	1.0
				10/31/2013	303	6545.63	6539.28	6.35	1.0
				11/23/2013	326	6545.48	6539.28	6.20	1.0
				1/28/2014	392	6546.02	6539.30	6.72	1.0
				3/25/2014	448	6545.75	6539.52	6.23	1.0
				4/29/2014	483	6546.22	6539.69	6.53	1.0
				5/15/2014	499	6545.98	6539.78	6.20	1.0
				6/24/2014	539	6546.36	6540.00	6.36	1.0
				7/29/2014	574	6544.08	6540.24	3.84	1.0
				8/26/2014	602	6544.53	6540.44	4.09	1.0
				9/23/2014	630	6546.60	6540.64	5.96	1.0
				10/28/2014	665	6546.93	6540.89	6.04	1.0
				11/25/2014	693	6546.73	6541.09	5.64	1.0
				12/12/2014	710	6546.87	6541.21	5.66	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
DD2-AI	489,251	1,547,439	1	12/30/2014	728	6551.08	6541.34	9.74	1.0
				2/5/2015	765	6547.19	6541.56	5.63	1.0
				5/1/2015	850	6542.35	6541.87	0.48	1.0
				8/6/2015	947	6548.75	6541.99	6.76	1.0
				10/9/2015	1011	6547.68	6541.96	5.72	1.0
				2/10/2016	1135	6547.98	6541.55	6.43	1.0
				5/18/2016	1233	6548.30	6540.46	7.84	1.0
				10/8/2016	1376	6548.02	6538.35	9.67	1.0
				1/31/2017	1491	6547.99	6536.45	11.54	1.0
				2/28/2017	1519	6548.28	6536.08	12.20	1.0
				3/28/2017	1547	6548.23	6535.78	12.45	1.0
				4/25/2017	1575	6548.31	6535.54	12.77	1.0
				5/31/2017	1611	6548.18	6535.30	12.88	1.0
				6/27/2017	1638	6548.07	6535.16	12.91	1.0
				8/9/2017	1681	6548.08	6534.99	13.09	1.0
				8/29/2017	1701	6545.77	6534.92	10.85	1.0
				9/26/2017	1729	6550.68	6534.85	15.83	1.0
				10/13/2017	1746	6548.00	6534.81	13.19	1.0
				10/31/2017	1764	6548.08	6534.77	13.31	1.0
				11/24/2017	1788	6547.85	6534.73	13.12	1.0
				12/27/2017	1821	6547.83	6534.67	13.16	1.0
DD-AI	488,943	1,546,989	1	1/29/2013	28	6543.08	6539.32	3.76	1.0
				3/26/2013	84	6542.99	6539.28	3.71	1.0
				4/30/2013	119	6543.16	6539.26	3.90	1.0
				5/29/2013	148	6543.31	6539.25	4.06	1.0
				6/25/2013	175	6543.24	6539.23	4.01	1.0
				10/31/2013	303	6543.79	6539.28	4.51	1.0
				11/23/2013	326	6543.55	6539.28	4.27	1.0
				1/28/2014	392	6544.10	6539.30	4.80	1.0
				3/1/2014	424	6543.94	6539.38	4.56	1.0
				3/25/2014	448	6544.04	6539.48	4.56	1.0
				4/29/2014	483	6544.23	6539.65	4.58	1.0
				5/15/2014	499	6544.09	6539.73	4.36	1.0
				6/24/2014	539	6544.35	6539.95	4.40	1.0
				7/29/2014	574	6544.45	6540.18	4.27	1.0
				8/26/2014	602	6544.54	6540.39	4.15	1.0
				9/23/2014	630	6544.74	6540.60	4.14	1.0
				10/28/2014	665	6544.95	6540.86	4.09	1.0
				11/25/2014	693	6544.88	6541.07	3.81	1.0
				12/12/2014	710	6545.09	6541.20	3.89	1.0
				12/30/2014	728	6546.24	6541.33	4.91	1.0
				2/5/2015	765	6545.19	6541.55	3.64	1.0
				5/1/2015	850	6542.37	6541.83	0.54	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				8/6/2015	947	6546.87	6541.89	4.98	1.0
				10/9/2015	1011	6545.79	6541.81	3.98	1.0
				2/10/2016	1135	6546.29	6541.31	4.98	1.0
				5/18/2016	1233	6546.57	6540.12	6.45	1.0
				10/7/2016	1375	6545.09	6537.93	7.16	1.0
				1/31/2017	1491	6546.05	6535.95	10.10	1.0
				2/28/2017	1519	6546.04	6535.57	10.47	1.0
				3/28/2017	1547	6545.88	6535.26	10.62	1.0
				4/25/2017	1575	6545.96	6535.02	10.94	1.0
				5/31/2017	1611	6550.59	6534.79	15.80	1.0
				6/27/2017	1638	6545.70	6534.65	11.05	1.0
				8/9/2017	1681	6536.39	6534.50	1.89	1.0
				8/29/2017	1701	6550.29	6534.43	15.86	1.0
				9/26/2017	1729	6545.28	6534.37	10.91	1.0
				10/13/2017	1746	6545.49	6534.33	11.16	1.0
				10/31/2017	1764	6545.34	6534.30	11.04	1.0
				11/24/2017	1788	6545.39	6534.26	11.13	1.0
				12/27/2017	1821	6545.18	6534.21	10.97	1.0
DZ-AI	491,501	1,542,834	1	1/3/2013	2	6542.72	6540.12	2.60	1.0
				8/27/2013	238	6542.78	6540.19	2.59	1.0
				9/24/2013	266	6542.43	6540.20	2.23	1.0
				10/29/2013	301	6542.90	6540.21	2.69	1.0
				11/26/2013	329	6542.39	6540.21	2.18	1.0
				12/24/2013	357	6541.76	6540.21	1.55	1.0
				1/3/2017	1463	6558.03	6529.22	28.81	1.0
H56-AI	484,804	1,542,625	1	7/1/2016	1277	6507.76	6509.26	-1.50	1.0
				11/4/2017	1768	6506.12	6505.84	0.28	1.0
H61-AI	485,206	1,542,631	1	7/1/2016	1277	6509.13	6510.71	-1.58	1.0
				11/4/2017	1768	6508.55	6507.30	1.25	1.0
H70-AI	485,979	1,543,343	1	5/1/2014	485	6516.62	6517.63	-1.01	1.0
				7/1/2016	1277	6510.71	6513.14	-2.43	1.0
				11/4/2017	1768	6510.00	6509.76	0.24	1.0
H71-AI	485,966	1,542,939	1	5/1/2014	485	6517.32	6517.15	0.17	1.0
				7/1/2016	1277	6509.84	6512.92	-3.08	1.0
				11/4/2017	1768	6509.42	6509.53	-0.11	1.0
H7A-AI	480,322	1,542,002	1	6/20/2014	535	6494.09	6486.14	7.95	1.0
				11/25/2015	1058	6492.69	6490.13	2.56	1.0
				12/13/2016	1442	6490.37	6486.19	4.18	1.0
				12/6/2017	1800	6483.49	6483.36	0.13	1.0
H95-AI	484,311	1,543,327	1	9/5/2014	612	6509.03	6510.58	-1.55	1.0
				12/1/2015	1064	6508.51	6508.90	-0.39	1.0
				12/13/2016	1442	6506.51	6507.18	-0.67	1.0
				12/6/2017	1800	6505.31	6504.55	0.76	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
KZ-AI	491,183	1,541,100	1	1/3/2013	2	6543.35	6537.89	5.46	1.0
				8/27/2013	238	6544.60	6537.90	6.70	1.0
				9/24/2013	266	6544.44	6537.93	6.51	1.0
				10/29/2013	301	6544.60	6537.97	6.63	1.0
				11/26/2013	329	6544.17	6537.99	6.18	1.0
				12/24/2013	357	6543.52	6538.00	5.52	1.0
L6-AI	493,110	1,540,526	1	1/15/2013	14	6548.32	6539.05	9.27	1.0
				5/14/2013	133	6548.70	6538.97	9.73	1.0
				5/30/2014	514	6548.24	6540.24	8.00	1.0
				12/24/2014	722	6547.83	6541.16	6.67	1.0
				4/3/2015	822	6548.51	6541.71	6.80	1.0
				10/17/2015	1019	6550.59	6541.48	9.11	1.0
				4/13/2016	1198	6548.30	6540.46	7.84	1.0
				10/27/2016	1395	6546.69	6538.47	8.22	1.0
				5/2/2017	1582	6545.07	6537.17	7.90	1.0
				10/24/2017	1757	6541.31	6537.36	3.95	1.0
M10-AI	486,723	1,543,677	1	5/15/2013	134	6515.82	6528.21	-12.39	1.0
				12/13/2013	346	6517.84	6528.28	-10.44	1.0
				11/25/2015	1058	6520.56	6526.26	-5.70	1.0
				3/17/2016	1171	6520.77	6525.64	-4.87	1.0
				12/13/2016	1442	6516.76	6523.13	-6.37	1.0
				3/25/2017	1544	6514.86	6521.86	-7.00	1.0
				12/6/2017	1800	6503.44	6520.42	-16.98	1.0
M16-AI	485,112	1,543,252	1	10/28/2014	665	6512.56	6512.82	-0.26	1.0
				11/25/2014	693	6512.36	6512.64	-0.28	1.0
				12/30/2014	728	6512.04	6512.49	-0.45	1.0
				10/2/2015	1004	6513.29	6511.56	1.73	1.0
				12/1/2015	1064	6512.29	6511.37	0.92	1.0
				12/13/2016	1442	6511.21	6509.53	1.68	1.0
				9/20/2017	1723	6503.99	6507.39	-3.40	1.0
				12/6/2017	1800	6507.89	6506.94	0.95	1.0
M5-AI	489,080	1,542,360	1	12/4/2013	337	6539.19	6537.04	2.15	1.0
				12/1/2015	1064	6539.34	6536.82	2.52	1.0
				12/13/2016	1442	6535.94	6528.20	7.74	1.0
				12/6/2017	1800	6534.95	6530.20	4.75	1.0
M6-AI	486,674	1,543,097	1	5/15/2013	134	6517.54	6524.30	-6.76	1.0
				12/13/2013	346	6519.48	6524.37	-4.89	1.0
				3/4/2015	792	6516.48	6525.38	-8.90	1.0
				11/25/2015	1058	6517.39	6523.21	-5.82	1.0
				12/13/2016	1442	6517.59	6519.92	-2.33	1.0
				3/25/2017	1544	6515.19	6519.01	-3.82	1.0
				12/6/2017	1800	6524.60	6517.66	6.94	1.0
				3/21/2013	79	6520.23	6523.30	-3.07	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
M7-AI	486,523	1,542,790	1	12/13/2013	346	6521.05	6523.33	-2.28	1.0
				3/4/2015	792	6515.54	6523.21	-7.67	1.0
				11/25/2015	1058	6519.58	6521.29	-1.71	1.0
				3/17/2016	1171	6518.61	6520.71	-2.10	1.0
				12/13/2016	1442	6518.35	6518.50	-0.15	1.0
				12/6/2017	1800	6516.75	6516.15	0.60	1.0
MA-AI	487,767	1,541,290	1	12/13/2013	346	6533.80	6528.55	5.25	1.0
				11/25/2015	1058	6535.10	6527.18	7.92	1.0
				12/13/2016	1442	6532.77	6523.82	8.95	1.0
				12/6/2017	1800	6531.31	6521.61	9.70	1.0
MC-AI	487,264	1,541,304	1	12/13/2013	346	6531.24	6526.56	4.68	1.0
				11/25/2015	1058	6532.45	6525.13	7.32	1.0
				12/13/2016	1442	6530.90	6522.04	8.86	1.0
				12/6/2017	1800	6529.16	6519.70	9.46	1.0
MF-AI	486,808	1,541,757	1	12/13/2013	346	6528.70	6525.62	3.08	1.0
				11/25/2015	1058	6529.68	6523.94	5.74	1.0
				12/13/2016	1442	6527.78	6520.94	6.84	1.0
				12/6/2017	1800	6526.24	6518.60	7.64	1.0
MH-AI	486,569	1,542,208	1	12/13/2013	346	6526.32	6521.73	4.59	1.0
				11/25/2015	1058	6526.66	6519.60	7.06	1.0
				12/13/2016	1442	6525.02	6517.00	8.02	1.0
				12/6/2017	1800	6523.41	6514.60	8.81	1.0
ML-AI	486,691	1,543,902	1	5/15/2013	134	6525.32	6529.80	-4.48	1.0
				12/13/2013	346	6526.10	6529.88	-3.78	1.0
				11/25/2015	1058	6525.39	6527.74	-2.35	1.0
				3/17/2016	1171	6524.20	6527.13	-2.93	1.0
				12/13/2016	1442	6523.10	6524.64	-1.54	1.0
				3/25/2017	1544	6522.05	6523.43	-1.38	1.0
				12/6/2017	1800	6521.26	6521.96	-0.70	1.0
MO-AI	485,518	1,543,620	1	3/5/2013	63	6537.09	6517.96	19.13	1.0
				11/2/2013	305	6524.65	6517.94	6.71	1.0
				3/20/2014	443	6515.24	6518.20	-2.96	1.0
				3/13/2015	801	6513.03	6514.04	-1.01	1.0
				10/16/2015	1018	6514.52	6513.12	1.40	1.0
				12/1/2015	1064	6513.40	6512.95	0.45	1.0
				3/16/2016	1170	6512.01	6512.57	-0.56	1.0
				10/27/2016	1395	6511.19	6511.38	-0.19	1.0
				12/13/2016	1442	6512.48	6511.05	1.43	1.0
				3/18/2017	1537	6510.84	6510.35	0.49	1.0
				12/6/2017	1800	6510.79	6508.56	2.23	1.0
				5/16/2013	135	6503.46	6507.60	-4.14	1.0
				6/19/2013	169	6502.57	6507.58	-5.01	1.0
				12/13/2013	346	6506.26	6507.66	-1.40	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
MR-AI	483,574	1,542,609	1	3/11/2015	799	6503.85	6505.97	-2.12	1.0
				4/15/2015	834	6503.90	6505.94	-2.04	1.0
				8/8/2015	949	6503.55	6505.87	-2.32	1.0
				12/1/2015	1064	6503.55	6505.75	-2.20	1.0
				3/16/2016	1170	6500.32	6505.47	-5.15	1.0
				9/9/2016	1347	6499.07	6504.70	-5.63	1.0
				12/13/2016	1442	6499.77	6504.08	-4.31	1.0
				3/21/2017	1540	6499.01	6503.28	-4.27	1.0
				5/2/2017	1582	6499.51	6502.92	-3.41	1.0
				8/12/2017	1684	6499.06	6502.11	-3.05	1.0
				10/14/2017	1747	6499.55	6501.66	-2.11	1.0
				12/6/2017	1800	6503.56	6501.32	2.24	1.0
MS-AI	485,570	1,542,607	1	11/24/2013	327	6516.02	6515.67	0.35	1.0
				12/13/2013	346	6515.84	6515.68	0.16	1.0
				12/1/2015	1064	6512.95	6512.86	0.09	1.0
				7/1/2016	1277	6511.07	6511.96	-0.89	1.0
				3/30/2017	1549	6510.68	6510.08	0.60	1.0
				12/2/2017	1796	6510.37	6508.42	1.95	1.0
MU-AI	487,143	1,544,461	1	12/13/2013	346	6539.47	6538.36	1.11	1.0
				11/25/2015	1058	6540.79	6535.66	5.13	1.0
				12/13/2016	1442	6538.24	6531.81	6.43	1.0
				12/2/2017	1796	6537.81	6529.09	8.72	1.0
MV-AI	484,418	1,542,618	1	5/16/2013	135	6508.16	6511.15	-2.99	1.0
				12/13/2013	346	6511.47	6511.20	0.27	1.0
				3/25/2015	813	6507.79	6509.22	-1.43	1.0
				12/1/2015	1064	6507.32	6508.68	-1.36	1.0
				12/13/2016	1442	6505.27	6506.94	-1.67	1.0
				12/6/2017	1800	6506.58	6504.28	2.30	1.0
MW-24-AI	509,254	1,593,019	1	9/30/2013	272	6818.00	6860.63	-42.63	1.0
MW-5-03-R-AI	505,851	1,597,766	1	9/30/2013	272	6879.00	6880.41	-1.41	1.0
				3/30/2014	453	6881.00	6881.06	-0.06	1.0
MW-5-08-R-AI	507,529	1,595,533	1	9/30/2013	272	6860.00	6870.17	-10.17	1.0
				3/30/2014	453	6860.00	6875.33	-15.33	1.0
MW-5-73-R-AI	505,907	1,596,179	1	9/30/2013	272	6872.00	6875.04	-3.04	1.0
				3/30/2014	453	6873.00	6877.44	-4.44	1.0
MW-AI	486,346	1,543,802	1	5/16/2013	135	6516.88	6522.91	-6.03	1.0
				12/13/2013	346	6518.47	6522.98	-4.51	1.0
				11/25/2015	1058	6515.41	6520.79	-5.38	1.0
				12/13/2016	1442	6515.41	6518.34	-2.93	1.0
				12/6/2017	1800	6514.93	6515.97	-1.04	1.0
				5/15/2013	134	6520.31	6519.03	1.28	1.0
				3/11/2015	799	6520.16	6518.93	1.23	1.0
				8/19/2015	960	6521.40	6517.93	3.47	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
MX-AI	486,244	1,541,287	1	3/16/2016	1170	6520.65	6517.00	3.65	1.0
				3/21/2017	1540	6519.76	6514.31	5.45	1.0
				8/12/2017	1684	6519.41	6513.27	6.14	1.0
				11/14/2017	1778	6519.34	6512.78	6.56	1.0
MY-AI	486,213	1,542,200	1	5/15/2013	134	6520.59	6517.89	2.70	1.0
				12/17/2016	1446	6519.90	6513.37	6.53	1.0
				11/14/2017	1778	6514.41	6511.02	3.39	1.0
MZ-AI	486,757	1,543,485	1	5/16/2013	135	6515.49	6526.92	-11.43	1.0
				12/13/2013	346	6517.68	6527.00	-9.32	1.0
				3/4/2015	792	6515.16	6527.94	-12.78	1.0
				11/25/2015	1058	6515.91	6525.53	-9.62	1.0
				3/17/2016	1171	6515.23	6524.76	-9.53	1.0
				12/13/2016	1442	6516.64	6522.17	-5.53	1.0
				3/25/2017	1544	6515.74	6521.01	-5.27	1.0
				12/6/2017	1800	6514.64	6519.62	-4.98	1.0
NC-AI	491,282	1,545,220	1	12/13/2013	346	6545.34	6540.58	4.76	1.0
				4/15/2015	834	6547.42	6543.33	4.09	1.0
				8/27/2015	968	6548.68	6542.89	5.79	1.0
				12/1/2015	1064	6547.98	6542.41	5.57	1.0
				12/14/2016	1443	6546.01	6534.86	11.15	1.0
				12/6/2017	1800	6545.14	6534.75	10.39	1.0
P-AI	491,058	1,546,691	1	5/8/2013	127	6544.83	6539.40	5.43	1.0
				11/6/2013	309	6547.04	6539.30	7.74	1.0
				5/15/2014	499	6547.43	6540.76	6.67	1.0
				5/20/2015	869	6547.60	6542.63	4.97	1.0
				10/21/2015	1023	6550.41	6542.38	8.03	1.0
				5/17/2016	1232	6547.39	6540.24	7.15	1.0
				10/27/2016	1395	6546.98	6537.48	9.50	1.0
				6/2/2017	1613	6548.52	6535.55	12.97	1.0
				8/25/2017	1697	6548.36	6535.41	12.95	1.0
				10/27/2017	1760	6547.67	6535.34	12.33	1.0
Q11-AI	489,134	1,534,859	1	5/8/2015	857	6508.76	6505.75	3.01	1.0
				7/9/2016	1285	6514.51	6508.94	5.57	1.0
Q18-AI	489,342	1,534,869	1	5/8/2015	857	6510.70	6506.74	3.96	1.0
				7/9/2016	1285	6515.44	6509.40	6.04	1.0
Q19-AI	489,306	1,535,053	1	5/9/2015	858	6510.96	6507.17	3.79	1.0
				8/5/2016	1312	6515.13	6508.91	6.22	1.0
Q29-AI	489,920	1,535,140	1	12/20/2013	353	6514.07	6515.19	-1.12	1.0
				9/3/2014	610	6511.11	6511.17	-0.06	1.0
				12/1/2015	1064	6517.59	6510.98	6.61	1.0
				12/13/2016	1442	6516.16	6508.60	7.56	1.0
Q48-AI	490,120	1,535,653	1	9/3/2014	610	6517.63	6514.27	3.36	1.0
				12/1/2015	1064	6519.69	6513.61	6.08	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
[illegible]	[illegible]	[illegible]	[illegible]	12/13/2016	1442	6520.23	6512.00	8.23	1.0
				12/6/2017	1800	6518.86	6510.82	8.04	1.0
Q9-AI	489,101	1,534,643	1	11/21/2013	324	6509.74	6512.79	-3.05	1.0
				9/5/2014	612	6507.11	6507.01	0.10	1.0
				11/6/2014	674	6503.25	6506.29	-3.04	1.0
				12/2/2014	700	6506.80	6506.03	0.77	1.0
				7/9/2016	1285	6513.30	6508.33	4.97	1.0
				8/22/2017	1694	6510.43	6503.51	6.92	1.0
Q-AI	492,153	1,548,693	1	5/14/2013	133	6548.86	6548.73	0.13	1.0
				5/1/2015	850	6550.80	6548.38	2.42	1.0
				5/18/2016	1233	6551.42	6548.32	3.10	1.0
				10/27/2016	1395	6551.51	6548.07	3.44	1.0
				3/24/2017	1543	6551.77	6547.70	4.07	1.0
				5/4/2017	1584	6551.57	6547.58	3.99	1.0
				12/6/2017	1800	6551.72	6546.95	4.77	1.0
R1-AI	487,790	1,534,551	1	8/15/2013	226	6501.73	6509.13	-7.40	1.0
				7/11/2014	556	6495.09	6501.23	-6.14	1.0
				9/12/2014	619	6502.70	6499.60	3.10	1.0
				5/13/2015	862	6507.38	6505.04	2.34	1.0
				12/2/2015	1065	6510.14	6508.14	2.00	1.0
				8/5/2016	1312	6491.78	6502.43	-10.65	1.0
				10/22/2016	1390	6490.59	6499.75	-9.16	1.0
				12/1/2016	1430	6484.98	6498.88	-13.90	1.0
				8/25/2017	1697	6482.22	6496.10	-13.88	1.0
				12/6/2017	1800	6500.20	6495.09	5.11	1.0
R-AI	494,514	1,550,372	1	5/14/2013	133	6562.99	6564.44	-1.45	1.0
				3/27/2015	815	6563.52	6563.26	0.26	1.0
				5/18/2016	1233	6563.88	6562.59	1.29	1.0
				10/27/2016	1395	6564.01	6562.32	1.69	1.0
				5/4/2017	1584	6564.08	6562.01	2.07	1.0
				12/5/2017	1799	6564.18	6561.64	2.54	1.0
S11-AI	488,150	1,544,793	1	12/4/2013	337	6546.81	6540.61	6.20	1.0
				11/25/2015	1058	6547.88	6539.23	8.65	1.0
				12/13/2016	1442	6546.15	6533.38	12.77	1.0
				1/17/2017	1477	6545.71	6532.34	13.37	1.0
				10/14/2017	1747	6542.88	6530.71	12.17	1.0
				12/6/2017	1800	6542.69	6530.67	12.02	1.0
S-12-AI	504,008	1,599,533	1	9/30/2013	272	6898.00	6886.45	11.55	1.0
				3/30/2014	453	6898.00	6884.43	13.57	1.0
				9/30/2014	637	6898.00	6883.38	14.62	1.0
				3/30/2015	818	6898.00	6882.78	15.22	1.0
				9/30/2015	1002	6898.00	6882.23	15.77	1.0
				3/30/2016	1184	6897.00	6881.62	15.38	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				9/30/2016	1368	6897.00	6880.85	16.15	1.0
				3/30/2017	1549	6897.00	6880.08	16.92	1.0
				9/30/2017	1733	6896.00	6879.21	16.79	1.0
S19-AI	488,682	1,544,172	1	4/17/2014	471	6545.97	6540.08	5.89	1.0
				11/25/2015	1058	6546.12	6538.65	7.47	1.0
				12/13/2016	1442	6543.27	6529.71	13.56	1.0
				3/23/2017	1542	6542.92	6529.32	13.60	1.0
				12/6/2017	1800	6540.61	6529.71	10.90	1.0
S1-AI	488,401	1,543,288	1	9/1/2015	973	6541.14	6536.92	4.22	1.0
				1/5/2016	1099	6541.99	6535.85	6.14	1.0
S21-AI	488,670	1,544,896	1	4/17/2014	471	6548.79	6540.34	8.45	1.0
				11/25/2015	1058	6550.47	6539.90	10.57	1.0
				12/13/2016	1442	6548.68	6532.33	16.35	1.0
				12/6/2017	1800	6545.13	6531.22	13.91	1.0
S2-AI	488,299	1,543,127	1	1/3/2013	2	6539.27	6538.72	0.55	1.0
				8/27/2013	238	6539.32	6538.70	0.62	1.0
				9/24/2013	266	6539.27	6538.71	0.56	1.0
				10/29/2013	301	6539.67	6538.72	0.95	1.0
				11/26/2013	329	6540.01	6538.73	1.28	1.0
				12/13/2013	346	6540.45	6538.74	1.71	1.0
				12/13/2016	1442	6537.62	6530.05	7.57	1.0
				1/3/2017	1463	6534.72	6529.65	5.07	1.0
S3-AI	488,714	1,542,857	1	12/13/2013	346	6539.85	6537.89	1.96	1.0
				7/30/2015	940	6538.07	6537.42	0.65	1.0
				11/25/2015	1058	6539.84	6536.25	3.59	1.0
				12/13/2016	1442	6536.88	6528.58	8.30	1.0
				7/20/2017	1661	6535.68	6528.99	6.69	1.0
				12/6/2017	1800	6535.75	6529.12	6.63	1.0
S4-AI	488,359	1,543,344	1	3/5/2013	63	6540.79	6538.76	2.03	1.0
				7/10/2013	190	6540.49	6538.74	1.75	1.0
				12/13/2013	346	6541.11	6538.80	2.31	1.0
				3/20/2014	443	6541.89	6539.21	2.68	1.0
				7/11/2014	556	6540.91	6540.14	0.77	1.0
				7/17/2015	927	6539.24	6537.57	1.67	1.0
				11/25/2015	1058	6540.69	6536.23	4.46	1.0
				1/29/2016	1123	6539.63	6535.76	3.87	1.0
				3/16/2016	1170	6539.67	6534.84	4.83	1.0
				7/10/2016	1286	6539.09	6532.63	6.46	1.0
				12/13/2016	1442	6538.44	6529.76	8.68	1.0
				3/15/2017	1534	6537.99	6528.27	9.72	1.0
				11/14/2017	1778	6536.83	6528.39	8.44	1.0
				12/6/2017	1800	6537.03	6528.39	8.64	1.0
				1/3/2013	2	6534.64	6536.96	-2.32	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
S5-AI	488,923	1,543,269	1	8/27/2013	238	6534.47	6536.96	-2.49	1.0
				9/24/2013	266	6534.56	6536.97	-2.41	1.0
				10/29/2013	301	6534.79	6536.98	-2.19	1.0
				11/26/2013	329	6535.39	6536.99	-1.60	1.0
				12/24/2013	357	6536.12	6537.00	-0.88	1.0
				1/3/2017	1463	6532.69	6525.49	7.20	1.0
S-9-AI	504,695	1,597,818	1	9/30/2013	272	6895.00	6882.96	12.04	1.0
				3/30/2014	453	6896.00	6882.13	13.87	1.0
				9/30/2014	637	6896.00	6881.94	14.06	1.0
				3/30/2015	818	6896.00	6881.86	14.14	1.0
				9/30/2015	1002	6896.00	6881.61	14.39	1.0
				3/30/2016	1184	6896.00	6881.13	14.87	1.0
				9/30/2016	1368	6896.00	6880.42	15.58	1.0
				3/30/2017	1549	6895.00	6879.65	15.35	1.0
				9/30/2017	1733	6895.00	6878.76	16.24	1.0
S-AI	488,816	1,543,871	1	12/13/2013	346	6543.00	6538.52	4.48	1.0
				11/25/2015	1058	6544.37	6537.92	6.45	1.0
				12/13/2016	1442	6539.27	6527.38	11.89	1.0
				12/6/2017	1800	6538.50	6528.99	9.51	1.0
SE6-AI	488,615	1,543,244	1	1/3/2013	2	6539.61	6538.29	1.32	1.0
				2/11/2014	406	6542.18	6538.34	3.84	1.0
				2/6/2015	766	6539.66	6539.93	-0.27	1.0
				1/26/2016	1120	6539.71	6535.21	4.50	1.0
				1/18/2017	1478	6537.79	6527.85	9.94	1.0
				11/14/2017	1778	6536.34	6528.52	7.82	1.0
SM-AI	488,566	1,543,748	1	1/3/2013	2	6541.31	6538.82	2.49	1.0
				8/27/2013	238	6541.34	6538.81	2.53	1.0
				9/24/2013	266	6541.20	6538.83	2.37	1.0
				10/29/2013	301	6541.60	6538.84	2.76	1.0
				11/26/2013	329	6542.09	6538.85	3.24	1.0
				12/24/2013	357	6542.57	6538.85	3.72	1.0
				1/3/2017	1463	6539.74	6528.62	11.12	1.0
SN-AI	488,716	1,543,752	1	1/3/2013	2	6541.16	6538.36	2.80	1.0
				8/27/2013	238	6541.09	6538.37	2.72	1.0
				9/24/2013	266	6541.02	6538.38	2.64	1.0
				10/29/2013	301	6541.45	6538.39	3.06	1.0
				11/26/2013	329	6541.92	6538.40	3.52	1.0
				12/13/2013	346	6542.24	6538.40	3.84	1.0
				12/13/2016	1442	6539.76	6527.86	11.90	1.0
				1/3/2017	1463	6539.26	6527.51	11.75	1.0
				1/3/2013	2	6540.29	6539.14	1.15	1.0
				8/27/2013	238	6540.38	6539.13	1.25	1.0
				9/24/2013	266	6539.99	6539.14	0.85	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
SO-AI	488,381	1,543,652	1	10/29/2013	301	6540.41	6539.16	1.25	1.0
				11/26/2013	329	6541.06	6539.17	1.89	1.0
				12/24/2013	357	6541.64	6539.17	2.47	1.0
				1/3/2017	1463	6538.79	6529.63	9.16	1.0
SP-AI	488,531	1,543,630	1	1/3/2013	2	6540.59	6538.73	1.86	1.0
				8/27/2013	238	6540.41	6538.73	1.68	1.0
				9/24/2013	266	6540.28	6538.74	1.54	1.0
				10/29/2013	301	6541.68	6538.75	2.93	1.0
				11/26/2013	329	6541.32	6538.76	2.56	1.0
				12/24/2013	357	6541.97	6538.77	3.20	1.0
				1/3/2017	1463	6538.66	6528.61	10.05	1.0
SZ-AI	488,833	1,544,367	1	1/17/2013	16	6545.63	6539.39	6.24	1.0
				12/13/2013	346	6546.22	6539.42	6.80	1.0
				2/11/2014	406	6546.59	6539.65	6.94	1.0
				2/6/2015	766	6547.42	6542.02	5.40	1.0
				11/25/2015	1058	6547.56	6539.23	8.33	1.0
				1/29/2016	1123	6546.42	6537.78	8.64	1.0
				12/13/2016	1442	6545.47	6529.77	15.70	1.0
				1/17/2017	1477	6544.29	6529.38	14.91	1.0
				12/6/2017	1800	6542.46	6530.32	12.14	1.0
494-UC	489,494	1,536,689	4	2/9/2013	39	6526.93	6520.52	6.41	1.0
				7/9/2013	189	6526.58	6520.02	6.56	1.0
				12/12/2013	345	6526.14	6518.21	7.93	1.0
				2/13/2014	408	6525.24	6518.45	6.79	1.0
				6/17/2014	532	6523.82	6517.40	6.42	1.0
				3/5/2015	793	6527.84	6516.21	11.63	1.0
				12/2/2015	1065	6529.84	6516.22	13.62	1.0
				2/16/2016	1141	6530.17	6516.53	13.64	1.0
				7/13/2016	1289	6529.28	6516.02	13.26	1.0
				12/14/2016	1443	6528.78	6514.54	14.24	1.0
				3/2/2017	1521	6528.24	6513.28	14.96	1.0
				6/29/2017	1640	6526.24	6512.72	13.52	1.0
929-UC	495,585	1,544,684	4	1/29/2013	28	6470.37	6510.96	-40.59	1.0
				2/26/2013	56	6534.60	6510.64	23.96	1.0
				3/26/2013	84	6532.99	6510.28	22.71	1.0
				4/30/2013	119	6536.12	6509.81	26.31	1.0
				5/29/2013	148	6543.65	6509.38	34.27	1.0
				6/25/2013	175	6544.39	6508.95	35.44	1.0
				1/28/2014	392	6527.13	6506.62	20.51	1.0
				3/1/2014	424	6528.22	6506.03	22.19	1.0
				5/28/2014	512	6533.11	6504.56	28.55	1.0
				6/24/2014	539	6542.61	6504.18	38.43	1.0
				7/29/2014	574	6547.37	6503.95	43.42	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				8/26/2014	602	6544.63	6503.85	40.78	1.0
				9/23/2014	630	6546.79	6503.75	43.04	1.0
				10/28/2014	665	6548.27	6503.63	44.64	1.0
				12/30/2014	728	6547.13	6503.42	43.71	1.0
				7/2/2015	912	6538.48	6501.36	37.12	1.0
				3/1/2016	1155	6547.62	6501.07	46.55	1.0
				12/6/2017	1800	6549.06	6495.51	53.55	1.0
931-UC	495,207	1,542,461	4	12/12/2013	345	6535.36	6500.50	34.86	1.0
				10/3/2014	640	6546.45	6498.12	48.33	1.0
				7/2/2015	912	6533.98	6495.67	38.31	1.0
				12/1/2015	1064	6548.51	6495.67	52.84	1.0
				12/13/2016	1442	6538.97	6494.45	44.52	1.0
				7/6/2017	1647	6544.76	6492.64	52.12	1.0
				12/6/2017	1800	6546.59	6491.73	54.86	1.0
CE10-UC	490,177	1,541,737	4	9/5/2013	247	6529.75	6530.21	-0.46	1.0
				12/12/2013	345	6527.06	6530.20	-3.14	1.0
				7/24/2014	569	6527.07	6538.26	-11.19	1.0
				7/17/2015	927	6533.63	6535.35	-1.72	1.0
				12/1/2015	1064	6534.10	6534.07	0.03	1.0
				12/13/2016	1442	6532.91	6523.57	9.34	1.0
				12/6/2017	1800	6522.52	6529.55	-7.03	1.0
CE14-UC	489,600	1,541,326	4	3/6/2013	64	6536.61	6531.95	4.66	1.0
				9/5/2013	247	6536.15	6531.89	4.26	1.0
				12/12/2013	345	6536.21	6531.88	4.33	1.0
				10/3/2014	640	6535.27	6538.60	-3.33	1.0
				4/1/2015	820	6536.65	6535.96	0.69	1.0
				8/28/2015	969	6538.86	6534.07	4.79	1.0
				12/1/2015	1064	6538.25	6533.38	4.87	1.0
				3/19/2016	1173	6537.32	6530.83	6.49	1.0
				12/13/2016	1442	6536.27	6527.73	8.54	1.0
				3/22/2017	1541	6534.40	6528.72	5.68	1.0
				12/6/2017	1800	6532.55	6529.48	3.07	1.0
CE15A-UC	489,459	1,539,111	4	10/28/2016	1396	6530.63	6523.14	7.49	1.0
				12/13/2016	1442	6531.41	6522.65	8.76	1.0
				4/25/2017	1575	6519.61	6517.68	1.93	1.0
				5/31/2017	1611	6520.38	6517.51	2.87	1.0
				6/27/2017	1638	6526.11	6517.42	8.69	1.0
				8/1/2017	1673	6541.81	6517.32	24.49	1.0
				8/29/2017	1701	6529.01	6517.24	11.77	1.0
				9/26/2017	1729	6516.78	6517.18	-0.40	1.0
				10/31/2017	1764	6519.46	6517.11	2.35	1.0
				11/28/2017	1792	6521.60	6517.05	4.55	1.0
				12/27/2017	1821	6519.47	6516.99	2.48	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
CE15-UC	489,460	1,539,507	4	3/6/2013	64	6529.11	6526.88	2.23	1.0
				9/5/2013	247	6529.48	6526.65	2.83	1.0
				12/12/2013	345	6528.57	6526.51	2.06	1.0
				10/3/2014	640	6529.86	6529.26	0.60	1.0
				4/1/2015	820	6529.59	6528.48	1.11	1.0
				12/1/2015	1064	6534.01	6526.84	7.17	1.0
				3/19/2016	1173	6530.72	6525.97	4.75	1.0
				12/13/2016	1442	6531.51	6523.46	8.05	1.0
				3/22/2017	1541	6529.92	6520.12	9.80	1.0
				4/25/2017	1575	6528.01	6519.96	8.05	1.0
				5/31/2017	1611	6527.53	6519.83	7.70	1.0
				6/27/2017	1638	6520.55	6519.76	0.79	1.0
				8/29/2017	1701	6529.58	6519.64	9.94	1.0
				10/31/2017	1764	6522.18	6519.53	2.65	1.0
				11/28/2017	1792	6522.50	6519.49	3.01	1.0
				12/27/2017	1821	6521.95	6519.45	2.50	1.0
CE7-UC	490,079	1,542,652	4	1/29/2013	28	6493.89	6533.78	-39.89	1.0
				2/26/2013	56	6493.76	6533.79	-40.03	1.0
				3/26/2013	84	6496.71	6533.79	-37.08	1.0
				4/30/2013	119	6506.75	6533.78	-27.03	1.0
				5/29/2013	148	6504.59	6533.78	-29.19	1.0
				6/25/2013	175	6518.12	6533.77	-15.65	1.0
				12/12/2013	345	6539.29	6533.79	5.50	1.0
				1/28/2014	392	6547.54	6535.61	11.93	1.0
				3/1/2014	424	6544.99	6536.28	8.71	1.0
				3/25/2014	448	6544.25	6536.67	7.58	1.0
				4/29/2014	483	6542.10	6537.13	4.97	1.0
				5/28/2014	512	6493.79	6537.46	-43.67	1.0
				6/24/2014	539	6486.58	6537.73	-51.15	1.0
				7/29/2014	574	6463.12	6538.14	-75.02	1.0
				8/26/2014	602	6459.78	6538.64	-78.86	1.0
				9/23/2014	630	6493.64	6538.99	-45.35	1.0
				10/28/2014	665	6543.49	6539.33	4.16	1.0
				11/25/2014	693	6540.89	6539.56	1.33	1.0
				12/30/2014	728	6541.09	6539.80	1.29	1.0
				3/27/2015	815	6521.73	6539.46	-17.73	1.0
				6/12/2015	892	6483.13	6538.59	-55.46	1.0
				12/1/2015	1064	6507.41	6536.51	-29.10	1.0
				12/13/2016	1442	6533.39	6522.73	10.66	1.0
				1/31/2017	1491	6531.99	6526.32	5.67	1.0
				2/28/2017	1519	6529.69	6527.53	2.16	1.0
				3/28/2017	1547	6531.99	6528.23	3.76	1.0
				4/25/2017	1575	6530.51	6528.71	1.80	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				5/31/2017	1611	6529.72	6529.13	0.59	1.0
				6/27/2017	1638	6534.46	6529.35	5.11	1.0
				8/29/2017	1701	6535.55	6529.71	5.84	1.0
				9/26/2017	1729	6530.91	6529.81	1.10	1.0
				10/31/2017	1764	6528.69	6529.92	-1.23	1.0
				11/28/2017	1792	6527.76	6529.98	-2.22	1.0
				12/27/2017	1821	6528.29	6530.04	-1.75	1.0
CE8-UC	491,556	1,540,704	4	2/28/2013	58	6530.34	6527.41	2.93	1.0
				9/5/2013	247	6531.25	6527.18	4.07	1.0
				12/12/2013	345	6528.47	6527.07	1.40	1.0
				7/24/2014	569	6530.34	6532.73	-2.39	1.0
				12/30/2014	728	6518.00	6534.08	-16.08	1.0
				3/20/2015	808	6532.06	6531.88	0.18	1.0
				8/19/2015	960	6535.74	6530.07	5.67	1.0
				9/26/2015	998	6535.90	6529.83	6.07	1.0
				12/1/2015	1064	6534.61	6529.48	5.13	1.0
				2/11/2016	1136	6533.69	6528.81	4.88	1.0
				12/13/2016	1442	6533.40	6525.43	7.97	1.0
				3/3/2017	1522	6535.37	6529.58	5.79	1.0
				11/15/2017	1779	6527.07	6530.22	-3.15	1.0
				12/6/2017	1800	6527.13	6530.22	-3.09	1.0
CE9-UC	489,458	1,538,203	4	2/28/2013	58	6528.81	6523.72	5.09	1.0
				12/12/2013	345	6528.17	6522.84	5.33	1.0
				10/11/2014	648	6528.41	6523.52	4.89	1.0
				8/19/2015	960	6533.26	6522.23	11.03	1.0
				12/2/2015	1065	6531.29	6522.04	9.25	1.0
				3/16/2016	1170	6510.43	6521.82	-11.39	1.0
				12/14/2016	1443	6531.17	6520.01	11.16	1.0
				3/22/2017	1541	6502.72	6511.71	-8.99	1.0
				12/6/2017	1800	6525.07	6510.55	14.52	1.0
CF3-UC	491,918	1,545,099	4	8/8/2014	584	6539.65	6539.45	0.20	1.0
				12/13/2016	1442	6539.45	6530.42	9.03	1.0
				7/6/2017	1647	6538.19	6533.84	4.35	1.0
				12/6/2017	1800	6537.15	6533.96	3.19	1.0
CF4-UC	490,520	1,543,680	4	8/9/2014	585	6542.88	6540.17	2.71	1.0
				12/13/2016	1442	6537.54	6525.41	12.13	1.0
				12/6/2017	1800	6615.67	6530.97	84.70	1.0
CF7A-UC	491,371	1,543,500	4	12/13/2016	1442	6537.35	6526.10	11.25	1.0
				12/6/2017	1800	6534.20	6531.20	3.00	1.0
				1/29/2013	28	6517.97	6515.11	2.86	1.0
				2/26/2013	56	6543.12	6515.06	28.06	1.0
				3/26/2013	84	6539.27	6515.01	24.26	1.0
				4/30/2013	119	6543.03	6514.95	28.08	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
CW18-UC	491,378	1,535,924	4	5/29/2013	148	6552.35	6514.89	37.46	1.0
				6/25/2013	175	6553.53	6514.84	38.69	1.0
				12/12/2013	345	6536.60	6513.69	22.91	1.0
				3/1/2014	424	6530.80	6513.20	17.60	1.0
				4/29/2014	483	6495.75	6512.60	-16.85	1.0
				5/28/2014	512	6537.63	6512.33	25.30	1.0
				6/24/2014	539	6549.52	6512.10	37.42	1.0
				8/26/2014	602	6552.37	6511.80	40.57	1.0
				10/4/2014	641	6555.65	6511.62	44.03	1.0
				10/28/2014	665	6556.55	6511.52	45.03	1.0
				11/25/2014	693	6553.82	6511.41	42.41	1.0
				12/30/2014	728	6554.25	6511.29	42.96	1.0
				3/31/2015	819	6498.15	6509.68	-11.53	1.0
				12/1/2015	1064	6557.05	6509.61	47.44	1.0
				8/25/2016	1332	6555.20	6510.02	45.18	1.0
				12/13/2016	1442	6552.43	6509.09	43.34	1.0
				1/31/2017	1491	6548.25	6508.16	40.09	1.0
				2/28/2017	1519	6555.87	6508.00	47.87	1.0
				3/21/2017	1540	6534.20	6507.90	26.30	1.0
				4/25/2017	1575	6550.45	6507.75	42.70	1.0
				5/31/2017	1611	6547.05	6507.60	39.45	1.0
				6/27/2017	1638	6553.39	6507.48	45.91	1.0
				8/29/2017	1701	6495.15	6507.20	-12.05	1.0
				9/26/2017	1729	6529.12	6507.08	22.04	1.0
				10/31/2017	1764	6541.35	6506.94	34.41	1.0
				11/28/2017	1792	6554.01	6506.82	47.19	1.0
				12/27/2017	1821	6535.78	6506.70	29.08	1.0
CW3-UC	493,496	1,545,200	4	1/29/2013	28	6533.58	6536.59	-3.01	1.0
				2/26/2013	56	6534.04	6536.57	-2.53	1.0
				3/26/2013	84	6533.83	6536.56	-2.73	1.0
				4/30/2013	119	6534.56	6536.53	-1.97	1.0
				5/29/2013	148	6534.88	6536.50	-1.62	1.0
				6/25/2013	175	6534.36	6536.47	-2.11	1.0
				12/12/2013	345	6534.09	6536.37	-2.28	1.0
				1/28/2014	392	6534.33	6536.84	-2.51	1.0
				3/1/2014	424	6536.18	6537.18	-1.00	1.0
				3/25/2014	448	6490.35	6537.38	-47.03	1.0
				4/29/2014	483	6530.93	6537.64	-6.71	1.0
				5/28/2014	512	6533.97	6537.83	-3.86	1.0
				6/24/2014	539	6534.80	6538.00	-3.20	1.0
				7/29/2014	574	6534.46	6538.65	-4.19	1.0
				8/26/2014	602	6532.33	6538.94	-6.61	1.0
				9/23/2014	630	6534.28	6539.17	-4.89	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				10/28/2014	665	6535.58	6539.42	-3.84	1.0
				12/30/2014	728	6536.61	6539.80	-3.19	1.0
				7/2/2015	912	6536.19	6539.14	-2.95	1.0
				12/2/2015	1065	6538.36	6538.34	0.02	1.0
				12/14/2016	1443	6535.47	6530.54	4.93	1.0
				11/29/2017	1793	6531.32	6540.21	-8.89	1.0
CW40-UC	491,819	1,537,624	4	12/12/2013	345	6536.77	6512.48	24.29	1.0
				7/1/2015	911	6543.11	6507.08	36.03	1.0
				12/2/2015	1065	6559.41	6507.23	52.18	1.0
				12/13/2016	1442	6553.67	6508.21	45.46	1.0
				7/1/2017	1642	6554.54	6505.72	48.82	1.0
				12/6/2017	1800	6556.89	6505.06	51.83	1.0
CW50-UC	491,159	1,546,687	4	11/27/2013	330	6543.26	6538.52	4.74	1.0
				10/1/2014	638	6544.96	6540.96	4.00	1.0
				3/11/2015	799	6545.41	6541.68	3.73	1.0
				8/19/2015	960	6546.92	6541.45	5.47	1.0
				12/2/2015	1065	6545.90	6541.10	4.80	1.0
				3/17/2016	1171	6544.76	6539.64	5.12	1.0
				12/14/2016	1443	6542.75	6534.86	7.89	1.0
				3/21/2017	1540	6542.41	6535.17	7.24	1.0
				8/12/2017	1684	6541.86	6535.04	6.82	1.0
				12/6/2017	1800	6541.36	6534.97	6.39	1.0
CW53-UC	490,262	1,536,668	4	11/15/2013	318	6489.59	6517.57	-27.98	1.0
				12/12/2013	345	6534.77	6517.43	17.34	1.0
				4/16/2014	470	6534.22	6517.04	17.18	1.0
				9/11/2014	618	6552.03	6516.35	35.68	1.0
				12/2/2015	1065	6555.91	6514.96	40.95	1.0
				10/22/2016	1390	6448.79	6514.10	-65.31	1.0
				12/14/2016	1443	6547.58	6513.58	34.00	1.0
				5/4/2017	1584	6551.94	6511.81	40.13	1.0
				12/6/2017	1800	6553.44	6510.92	42.52	1.0
CW78-UC	490,080	1,536,319	4	12/3/2015	1066	6551.15	6514.50	36.65	1.0
				12/14/2016	1443	6550.24	6512.96	37.28	1.0
				5/4/2017	1584	6545.24	6511.72	33.52	1.0
				12/6/2017	1800	6555.75	6510.82	44.93	1.0
Q48-UC	490,120	1,535,653	4	9/3/2014	610	6517.63	6514.13	3.50	1.0
				12/1/2015	1064	6519.69	6513.33	6.36	1.0
				12/13/2016	1442	6520.23	6511.79	8.44	1.0
				12/6/2017	1800	6518.86	6510.44	8.42	1.0
				2/9/2013	39	6470.92	6503.38	-32.46	1.0
				7/9/2013	189	6492.86	6496.37	-3.51	1.0
				12/12/2013	345	6491.88	6473.93	17.95	1.0
				2/13/2014	408	6491.28	6499.86	-8.58	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
493-MC	489,492	1,536,702	6	6/17/2014	532	6489.95	6502.10	-12.15	1.0
				10/16/2014	653	6479.55	6501.85	-22.30	1.0
				11/6/2014	674	6476.33	6501.78	-25.45	1.0
				12/2/2014	700	6475.99	6501.70	-25.71	1.0
				3/5/2015	793	6490.72	6494.54	-3.82	1.0
				12/2/2015	1065	6493.16	6501.84	-8.68	1.0
				2/16/2016	1141	6492.23	6498.50	-6.27	1.0
				7/12/2016	1288	6496.34	6492.53	3.81	1.0
				12/14/2016	1443	6489.50	6481.84	7.66	1.0
				3/2/2017	1521	6491.85	6481.70	10.15	1.0
				12/6/2017	1800	6478.78	6481.51	-2.73	1.0
859-MC	487,426	1,534,549	6	11/20/2013	323	6494.12	6505.23	-11.11	1.0
				12/12/2013	345	6494.26	6505.05	-10.79	1.0
				6/19/2014	534	6491.91	6500.70	-8.79	1.0
				10/8/2014	645	6491.36	6498.38	-7.02	1.0
				11/6/2014	674	6487.43	6498.04	-10.61	1.0
				12/2/2014	700	6486.78	6497.77	-10.99	1.0
				12/2/2015	1065	6496.91	6505.43	-8.52	1.0
				12/13/2016	1442	6490.32	6497.44	-7.12	1.0
				12/6/2017	1800	6489.63	6493.69	-4.06	1.0
930-MC	494,997	1,542,848	6	12/12/2013	345	6488.41	6492.77	-4.36	1.0
				10/4/2014	641	6488.54	6490.59	-2.05	1.0
				7/1/2015	911	6485.43	6488.42	-2.99	1.0
				12/13/2016	1442	6491.96	6487.30	4.66	1.0
				7/6/2017	1647	6484.74	6485.71	-0.97	1.0
				12/6/2017	1800	6490.76	6484.88	5.88	1.0
ACW-MC	488,070	1,540,235	6	12/10/2013	343	6490.60	6489.46	1.14	1.0
				10/11/2014	648	6483.82	6492.95	-9.13	1.0
				12/2/2015	1065	6491.07	6492.14	-1.07	1.0
				12/14/2016	1443	6486.65	6480.21	6.44	1.0
				12/1/2017	1795	6486.17	6487.86	-1.69	1.0
CW17-MC	487,771	1,545,279	6	6/25/2013	175	6541.45	6528.45	13.00	1.0
				11/27/2013	330	6541.78	6528.70	13.08	1.0
				10/1/2014	638	6542.27	6528.77	13.50	1.0
				7/2/2015	912	6542.01	6528.91	13.10	1.0
				12/2/2015	1065	6542.48	6527.73	14.75	1.0
				12/14/2016	1443	6539.32	6516.30	23.02	1.0
				6/30/2017	1641	6534.20	6562.34	-28.14	1.0
				10/24/2017	1757	6534.32	6562.11	-27.79	1.0
				12/6/2017	1800	6531.94	6562.04	-30.10	1.0
				1/29/2013	28	6464.94	6476.31	-11.37	1.0
				2/26/2013	56	6463.55	6476.31	-12.76	1.0
				3/26/2013	84	6464.69	6476.30	-11.61	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
CW1-MC	490,295	1,545,235	6	4/30/2013	119	6469.64	6476.29	-6.65	1.0
				5/29/2013	148	6485.59	6476.28	9.31	1.0
				6/25/2013	175	6491.40	6476.26	15.14	1.0
				1/28/2014	392	6488.94	6475.98	12.96	1.0
				3/1/2014	424	6490.57	6476.10	14.47	1.0
				3/25/2014	448	6488.88	6476.21	12.67	1.0
				4/29/2014	483	6489.17	6476.37	12.80	1.0
				5/28/2014	512	6486.94	6476.49	10.45	1.0
				6/24/2014	539	6487.26	6476.58	10.68	1.0
				7/29/2014	574	6486.95	6476.75	10.20	1.0
				8/26/2014	602	6487.45	6476.90	10.55	1.0
				9/23/2014	630	6486.18	6477.04	9.14	1.0
				10/28/2014	665	6476.62	6477.19	-0.57	1.0
				12/30/2014	728	6475.92	6477.39	-1.47	1.0
				7/2/2015	912	6480.32	6476.98	3.34	1.0
				1/26/2016	1120	6489.22	6476.39	12.83	1.0
				12/6/2017	1800	6478.66	6474.54	4.12	1.0
CW24-MC	487,760	1,545,773	6	12/12/2013	345	6542.71	6523.75	18.96	1.0
				8/7/2015	948	6545.24	6524.09	21.15	1.0
				12/2/2015	1065	6544.62	6523.59	21.03	1.0
				12/14/2016	1443	6542.90	6516.05	26.85	1.0
				12/6/2017	1800	6541.19	6524.45	16.74	1.0
CW28-MC	491,008	1,535,112	6	1/29/2013	28	6488.23	6487.99	0.24	1.0
				2/26/2013	56	6489.46	6487.94	1.52	1.0
				3/26/2013	84	6490.59	6487.89	2.70	1.0
				4/30/2013	119	6492.16	6487.84	4.32	1.0
				5/29/2013	148	6494.54	6487.79	6.75	1.0
				6/25/2013	175	6494.71	6487.74	6.97	1.0
				12/12/2013	345	6496.70	6483.96	12.74	1.0
				1/28/2014	392	6496.63	6483.80	12.83	1.0
				3/1/2014	424	6496.58	6484.14	12.44	1.0
				3/25/2014	448	6496.51	6484.14	12.37	1.0
				5/28/2014	512	6496.54	6483.63	12.91	1.0
				6/24/2014	539	6496.78	6483.35	13.43	1.0
				8/26/2014	602	6495.06	6483.23	11.83	1.0
				10/4/2014	641	6497.13	6482.97	14.16	1.0
				10/28/2014	665	6495.76	6482.80	12.96	1.0
				11/25/2014	693	6495.18	6482.61	12.57	1.0
				7/2/2015	912	6494.80	6477.90	16.90	1.0
				12/1/2015	1064	6502.43	6481.73	20.70	1.0
				1/26/2016	1120	6500.92	6482.02	18.90	1.0
				12/13/2016	1442	6499.67	6475.86	23.81	1.0
				1/31/2017	1491	6498.84	6475.96	22.88	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				2/28/2017	1519	6500.48	6476.03	24.45	1.0
				3/28/2017	1547	6499.63	6476.00	23.63	1.0
				4/25/2017	1575	6499.48	6475.92	23.56	1.0
				6/27/2017	1638	6493.68	6475.66	18.02	1.0
				8/29/2017	1701	6498.18	6475.36	22.82	1.0
				9/26/2017	1729	6496.68	6475.21	21.47	1.0
				10/31/2017	1764	6500.58	6475.04	25.54	1.0
				11/28/2017	1792	6498.55	6474.90	23.65	1.0
CW2-MC	491,302	1,545,212	6	1/29/2013	28	6455.40	6476.90	-21.50	1.0
				4/30/2013	119	6458.93	6476.88	-17.95	1.0
				5/29/2013	148	6485.68	6476.86	8.82	1.0
				6/25/2013	175	6491.30	6476.84	14.46	1.0
				11/5/2013	308	6478.88	6476.65	2.23	1.0
				1/28/2014	392	6488.82	6476.63	12.19	1.0
				3/1/2014	424	6489.66	6476.76	12.90	1.0
				3/25/2014	448	6488.73	6476.88	11.85	1.0
				4/29/2014	483	6488.08	6477.03	11.05	1.0
				5/28/2014	512	6486.85	6477.14	9.71	1.0
				6/24/2014	539	6487.19	6477.23	9.96	1.0
				7/29/2014	574	6485.74	6477.41	8.33	1.0
				8/26/2014	602	6484.00	6477.58	6.42	1.0
				9/23/2014	630	6486.74	6477.72	9.02	1.0
				10/28/2014	665	6476.68	6477.86	-1.18	1.0
				12/30/2014	728	6475.95	6478.07	-2.12	1.0
				7/2/2015	912	6479.71	6477.65	2.06	1.0
				8/7/2015	948	6489.50	6477.54	11.96	1.0
				1/26/2016	1120	6489.07	6477.04	12.03	1.0
				2/11/2016	1136	6490.47	6476.87	13.60	1.0
				9/27/2016	1365	6500.63	6474.70	25.93	1.0
				3/22/2017	1541	6490.38	6474.64	15.74	1.0
				8/11/2017	1683	6478.78	6475.25	3.53	1.0
				12/6/2017	1800	6478.65	6475.32	3.33	1.0
CW34-MC	487,707	1,547,827	6	12/2/2015	1065	6543.78	6481.90	61.88	1.0
				12/14/2016	1443	6544.92	6474.09	70.83	1.0
				12/6/2017	1800	6535.53	6469.15	66.38	1.0
CW35-MC	488,794	1,547,001	6	12/12/2013	345	6542.68	6501.32	41.36	1.0
				10/3/2014	640	6543.70	6500.51	43.19	1.0
				7/2/2015	912	6544.40	6501.59	42.81	1.0
				10/24/2015	1026	6545.87	6502.34	43.53	1.0
				12/2/2015	1065	6544.82	6502.54	42.28	1.0
				12/14/2016	1443	6542.43	6500.02	42.41	1.0
				12/6/2017	1800	6541.56	6500.19	41.37	1.0
				12/4/2013	337	6511.16	6493.87	17.29	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
CW55-MC	489,471	1,538,283	6	10/11/2014	648	6510.29	6505.28	5.01	1.0
				7/30/2015	940	6511.91	6502.82	9.09	1.0
				12/2/2015	1065	6514.19	6504.73	9.46	1.0
				12/14/2016	1443	6510.24	6481.98	28.26	1.0
				12/6/2017	1800	6508.16	6494.92	13.24	1.0
CW57-MC	488,070	1,545,654	6	5/11/2013	130	6539.09	6521.39	17.70	1.0
				10/1/2014	638	6535.51	6521.40	14.11	1.0
				2/21/2015	781	6541.32	6522.34	18.98	1.0
				9/1/2015	973	6542.83	6521.89	20.94	1.0
				12/14/2016	1443	6540.17	6513.21	26.96	1.0
				10/25/2017	1758	6538.67	6524.29	14.38	1.0
				12/6/2017	1800	6538.43	6524.23	14.20	1.0
CW58-MC	489,520	1,536,230	6	10/8/2014	645	6489.20	6499.78	-10.58	1.0
				11/6/2014	674	6477.14	6499.64	-22.50	1.0
				12/2/2014	700	6476.62	6499.52	-22.90	1.0
				12/2/2015	1065	6494.60	6499.86	-5.26	1.0
				12/14/2016	1443	6483.76	6476.95	6.81	1.0
				12/6/2017	1800	6479.00	6476.78	2.22	1.0
CW61-MC	487,779	1,544,927	6	5/11/2013	130	6541.44	6530.89	10.55	1.0
				10/1/2014	638	6542.23	6531.25	10.98	1.0
				4/1/2015	820	6542.12	6531.53	10.59	1.0
				8/29/2015	970	6543.33	6530.28	13.05	1.0
				12/13/2016	1442	6539.10	6509.29	29.81	1.0
				12/6/2017	1800	6530.78	6518.45	12.33	1.0
CW72-MC	488,229	1,545,034	6	4/15/2014	469	6542.99	6477.05	65.94	1.0
				12/1/2015	1064	6543.65	6477.29	66.36	1.0
				12/13/2016	1442	6538.83	6473.69	65.14	1.0
				12/6/2017	1800	6519.03	6474.93	44.10	1.0
CW74-MC	487,376	1,535,188	6	5/15/2015	864	6483.30	6500.09	-16.79	1.0
				12/3/2015	1066	6490.91	6504.86	-13.95	1.0
				12/14/2016	1443	6486.76	6494.71	-7.95	1.0
				5/5/2017	1585	6497.50	6494.31	3.19	1.0
				12/6/2017	1800	6484.55	6492.35	-7.80	1.0
CW75-MC	487,376	1,536,012	6	5/13/2015	862	6469.06	6500.35	-31.29	1.0
				12/2/2015	1065	6485.26	6505.45	-20.19	1.0
				12/14/2016	1443	6483.17	6494.23	-11.06	1.0
				5/5/2017	1585	6483.28	6494.02	-10.74	1.0
				12/6/2017	1800	6481.67	6492.41	-10.74	1.0
CW76-MC	487,861	1,536,661	6	5/12/2015	861	6476.44	6501.62	-25.18	1.0
				12/3/2015	1066	6493.68	6507.49	-13.81	1.0
				12/14/2016	1443	6491.82	6493.01	-1.19	1.0
				5/5/2017	1585	6487.35	6492.00	-4.65	1.0
				12/6/2017	1800	6479.91	6490.69	-10.78	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
R1-MC	487,790	1,534,551	6	8/15/2013	226	6501.73	6508.61	-6.88	1.0
				7/11/2014	556	6495.09	6493.89	1.20	1.0
				9/12/2014	619	6502.70	6483.13	19.57	1.0
				5/13/2015	862	6507.38	6505.18	2.20	1.0
				12/2/2015	1065	6510.14	6508.48	1.66	1.0
				8/5/2016	1312	6491.78	6500.85	-9.07	1.0
				10/22/2016	1390	6490.59	6498.18	-7.59	1.0
				12/1/2016	1430	6484.98	6497.33	-12.35	1.0
				8/25/2017	1697	6482.22	6495.24	-13.02	1.0
				12/6/2017	1800	6500.20	6494.23	5.97	1.0
WCW-MC	488,520	1,541,045	6	12/12/2013	345	6490.77	6484.56	6.21	1.0
				12/2/2015	1065	6491.87	6486.47	5.40	1.0
				12/14/2016	1443	6486.82	6477.47	9.35	1.0
				8/10/2017	1682	6464.47	6483.08	-18.61	1.0
				12/6/2017	1800	6469.82	6482.96	-13.14	1.0
WR25-MC	487,430	1,545,267	6	6/25/2013	175	6542.96	6534.12	8.84	1.0
				12/12/2013	345	6543.06	6534.32	8.74	1.0
				10/1/2014	638	6543.63	6534.54	9.09	1.0
				7/30/2015	940	6544.21	6534.16	10.05	1.0
				12/2/2015	1065	6543.61	6532.96	10.65	1.0
				12/14/2016	1443	6541.54	6525.11	16.43	1.0
Y10-MC	489,632	1,535,258	6	6/7/2014	522	6490.01	6498.12	-8.11	1.0
				10/8/2014	645	6487.05	6498.74	-11.69	1.0
				11/6/2014	674	6481.61	6498.51	-16.90	1.0
				12/2/2014	700	6480.45	6498.33	-17.88	1.0
				12/13/2016	1442	6491.47	6479.03	12.44	1.0
				12/6/2017	1800	6482.78	6474.14	8.64	1.0
Y11-MC	489,352	1,535,218	6	10/8/2014	645	6504.04	6501.54	2.50	1.0
				11/6/2014	674	6499.77	6501.30	-1.53	1.0
				12/2/2014	700	6497.58	6501.11	-3.53	1.0
				12/20/2016	1449	6499.83	6476.68	23.15	1.0
Y13-MC	488,830	1,535,135	6	11/21/2013	324	6493.68	6502.67	-8.99	1.0
				9/10/2014	617	6489.69	6503.08	-13.39	1.0
				10/8/2014	645	6477.79	6502.79	-25.00	1.0
				11/14/2014	682	6469.81	6502.44	-32.63	1.0
				12/2/2014	700	6469.03	6502.30	-33.27	1.0
				12/2/2016	1431	6434.04	6470.54	-36.50	1.0
Y14-MC	489,113	1,535,057	6	4/12/2014	466	6507.90	6503.75	4.15	1.0
				10/8/2014	645	6505.05	6504.24	0.81	1.0
				11/6/2014	674	6499.20	6503.97	-4.77	1.0
				12/2/2014	700	6498.33	6503.75	-5.42	1.0
				12/13/2016	1442	6499.52	6479.52	20.00	1.0
				12/6/2017	1800	6502.72	6479.52	23.20	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
Y17-MC	489,782	1,534,978	6	4/22/2014	476	6499.16	6498.69	0.47	1.0
				10/8/2014	645	6499.93	6498.89	1.04	1.0
				11/6/2014	674	6495.22	6498.64	-3.42	1.0
				12/2/2014	700	6494.06	6498.44	-4.38	1.0
				12/13/2016	1442	6500.04	6484.99	15.05	1.0
				12/6/2017	1800	6497.58	6486.57	11.01	1.0
Y1-MC	488,850	1,535,670	6	12/20/2013	353	6493.16	6495.45	-2.29	1.0
				9/9/2014	616	6491.23	6502.98	-11.75	1.0
				10/8/2014	645	6479.30	6502.75	-23.45	1.0
				11/6/2014	674	6471.96	6502.54	-30.58	1.0
				12/2/2014	700	6470.82	6502.38	-31.56	1.0
				12/2/2015	1065	6495.14	6504.52	-9.38	1.0
				7/6/2016	1282	6497.47	6492.74	4.73	1.0
				10/25/2016	1393	6453.46	6447.00	6.46	1.0
				12/2/2016	1431	6436.00	6446.36	-10.36	1.0
				3/25/2017	1544	6447.77	6465.57	-17.80	1.0
				12/21/2017	1815	6476.70	6464.08	12.62	1.0
Y25-MC	489,442	1,534,798	6	6/7/2014	522	6503.07	6502.72	0.35	1.0
				10/8/2014	645	6504.84	6505.58	-0.74	1.0
				11/6/2014	674	6502.51	6505.30	-2.79	1.0
				12/2/2014	700	6502.09	6505.08	-2.99	1.0
				12/13/2016	1442	6504.09	6491.29	12.80	1.0
				12/6/2017	1800	6500.67	6496.10	4.57	1.0
Y2-MC	489,151	1,535,678	6	10/8/2014	645	6478.36	6501.50	-23.14	1.0
				11/6/2014	674	6470.89	6501.31	-30.42	1.0
				12/2/2014	700	6469.88	6501.14	-31.26	1.0
				12/13/2016	1442	6487.01	6463.63	23.38	1.0
				12/6/2017	1800	6469.26	6468.65	0.61	1.0
Y30-MC	488,865	1,534,752	6	12/20/2013	353	6500.44	6506.23	-5.79	1.0
				10/8/2014	645	6501.25	6506.48	-5.23	1.0
				11/6/2014	674	6498.72	6506.16	-7.44	1.0
				12/2/2014	700	6499.18	6505.91	-6.73	1.0
				12/2/2015	1065	6509.40	6508.16	1.24	1.0
				12/13/2016	1442	6499.40	6496.72	2.68	1.0
				12/6/2017	1800	6499.20	6495.56	3.64	1.0
Y3-MC	489,440	1,535,660	6	10/8/2014	645	6484.87	6499.28	-14.41	1.0
				11/6/2014	674	6479.71	6499.09	-19.38	1.0
				12/2/2014	700	6478.60	6498.93	-20.33	1.0
				12/2/2015	1065	6494.63	6499.41	-4.78	1.0
				12/13/2016	1442	6489.60	6471.79	17.81	1.0
				12/6/2017	1800	6480.93	6470.93	10.00	1.0
				4/11/2014	465	6490.67	6503.73	-13.06	1.0
				9/10/2014	617	6487.69	6502.49	-14.80	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
Y7-MC	488,870	1,535,339	6	10/10/2014	647	6430.20	6502.21	-72.01	1.0
				11/6/2014	674	6424.13	6501.99	-77.86	1.0
				12/2/2014	700	6424.06	6501.79	-77.73	1.0
				12/24/2014	722	6425.76	6501.64	-75.88	1.0
				3/26/2015	814	6500.33	6435.50	64.83	1.0
				4/30/2015	849	6446.61	6435.52	11.09	1.0
				3/5/2016	1159	6492.55	6503.72	-11.17	1.0
				12/2/2016	1431	6440.56	6443.18	-2.62	1.0
				3/29/2017	1548	6492.16	6465.76	26.40	1.0
				12/21/2017	1815	6476.11	6464.17	11.94	1.0
Y8-MC	489,161	1,535,349	6	10/8/2014	645	6482.74	6501.74	-19.00	1.0
				11/6/2014	674	6476.39	6501.51	-25.12	1.0
				12/2/2014	700	6475.44	6501.32	-25.88	1.0
				12/13/2016	1442	6489.48	6467.31	22.17	1.0
				12/6/2017	1800	6463.57	6460.90	2.67	1.0
853-LC	484,824	1,532,124	8	12/12/2013	345	6465.63	6471.42	-5.79	1.0
				6/19/2014	534	6467.65	6470.95	-3.30	1.0
				7/2/2015	912	6468.75	6470.56	-1.81	1.0
				12/2/2015	1065	6469.07	6471.50	-2.43	1.0
				12/13/2016	1442	6470.70	6473.22	-2.52	1.0
				7/7/2017	1648	6471.68	6469.70	1.98	1.0
				12/6/2017	1800	6471.16	6467.40	3.76	1.0
CW29-LC	487,435	1,534,551	8	3/20/2013	78	6468.11	6456.93	11.18	1.0
				6/18/2013	168	6468.22	6456.87	11.35	1.0
				12/12/2013	345	6470.39	6455.94	14.45	1.0
				8/20/2015	961	6476.72	6455.57	21.15	1.0
				12/2/2015	1065	6477.18	6456.18	21.00	1.0
				5/7/2016	1222	6476.44	6456.40	20.04	1.0
				12/13/2016	1442	6475.69	6455.02	20.67	1.0
				3/21/2017	1540	6476.72	6454.27	22.45	1.0
				12/6/2017	1800	6475.66	6452.59	23.07	1.0
CW31-LC	482,738	1,540,689	8	12/4/2013	337	6474.26	6450.80	23.46	1.0
				10/2/2014	639	6474.79	6450.52	24.27	1.0
				7/3/2015	913	6475.24	6450.59	24.65	1.0
				12/2/2015	1065	6475.81	6450.84	24.97	1.0
				12/14/2016	1443	6475.16	6450.85	24.31	1.0
				6/30/2017	1641	6474.91	6450.58	24.33	1.0
				12/6/2017	1800	6474.93	6450.34	24.59	1.0
CW32-LC	483,523	1,543,413	8	12/4/2013	337	6421.78	6450.21	-28.43	1.0
				10/2/2014	639	6419.28	6449.90	-30.62	1.0
				7/3/2015	913	6417.76	6449.92	-32.16	1.0
				12/2/2015	1065	6419.18	6450.56	-31.38	1.0
				12/14/2016	1443	6419.28	6450.44	-31.16	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
				6/30/2017	1641	6418.88	6450.22	-31.34	1.0
				12/6/2017	1800	6419.98	6450.00	-30.02	1.0
CW33-LC	486,347	1,543,814	8	12/12/2013	345	6469.55	6449.38	20.17	1.0
				10/2/2014	639	6467.32	6449.28	18.04	1.0
				7/2/2015	912	6469.39	6449.21	20.18	1.0
				12/2/2015	1065	6469.19	6449.42	19.77	1.0
				12/14/2016	1443	6469.14	6449.31	19.83	1.0
				6/30/2017	1641	6469.80	6449.22	20.58	1.0
				12/6/2017	1800	6469.04	6449.08	19.96	1.0
CW36-LC	481,329	1,540,053	8	12/12/2013	345	6473.74	6452.46	21.28	1.0
				7/18/2015	928	6474.95	6452.19	22.76	1.0
				12/2/2015	1065	6475.24	6452.48	22.76	1.0
				12/14/2016	1443	6472.59	6452.39	20.20	1.0
				12/6/2017	1800	6474.34	6451.61	22.73	1.0
CW37-LC	484,853	1,537,240	8	12/12/2013	345	6487.62	6450.85	36.77	1.0
				10/2/2014	639	6488.27	6451.00	37.27	1.0
				7/1/2015	911	6488.80	6450.69	38.11	1.0
				12/2/2015	1065	6488.38	6451.04	37.34	1.0
				10/9/2016	1377	6489.09	6450.96	38.13	1.0
				12/14/2016	1443	6489.12	6450.86	38.26	1.0
				6/30/2017	1641	6488.97	6450.60	38.37	1.0
				12/6/2017	1800	6489.01	6450.11	38.90	1.0
CW41-LC	488,583	1,533,174	8	11/20/2013	323	6469.21	6450.92	18.29	1.0
				12/12/2013	345	6469.37	6450.88	18.49	1.0
				10/2/2014	639	6473.49	6449.70	23.79	1.0
				7/21/2015	931	6477.44	6449.13	28.31	1.0
				12/2/2015	1065	6478.50	6449.87	28.63	1.0
				8/10/2016	1317	6479.52	6449.83	29.69	1.0
				12/13/2016	1442	6479.41	6449.28	30.13	1.0
				12/6/2017	1800	6478.43	6447.18	31.25	1.0
CW42-LC	487,177	1,533,169	8	6/18/2013	168	6471.86	6466.24	5.62	1.0
				11/15/2013	318	6473.53	6465.68	7.85	1.0
				12/12/2013	345	6473.84	6465.58	8.26	1.0
				10/11/2014	648	6478.19	6464.00	14.19	1.0
				8/19/2015	960	6481.46	6464.57	16.89	1.0
				12/2/2015	1065	6478.80	6465.38	13.42	1.0
				8/10/2016	1317	6482.16	6465.96	16.20	1.0
				12/13/2016	1442	6481.68	6465.39	16.29	1.0
				3/22/2017	1541	6482.08	6463.55	18.53	1.0
				8/15/2017	1687	6481.88	6461.44	20.44	1.0
				12/6/2017	1800	6481.45	6460.20	21.25	1.0
				12/4/2013	337	6479.35	6451.63	27.72	1.0
				10/2/2014	639	6480.91	6451.31	29.60	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
CW43-LC	482,493	1,537,587	8	7/18/2015	928	6481.19	6451.32	29.87	1.0
				12/2/2015	1065	6481.39	6451.61	29.78	1.0
				12/14/2016	1443	6480.99	6451.55	29.44	1.0
				12/6/2017	1800	6480.49	6450.89	29.60	1.0
V11-LC	487,868	1,533,919	8	12/2/2015	1065	6478.68	6456.25	22.43	1.0
				8/10/2016	1317	6479.54	6455.84	23.70	1.0
				12/13/2016	1442	6479.51	6455.10	24.41	1.0
				8/23/2017	1695	6478.60	6452.99	25.61	1.0
				12/6/2017	1800	6478.64	6452.32	26.32	1.0
V14-LC	488,229	1,533,638	8	12/2/2015	1065	6475.65	6453.57	22.08	1.0
				8/11/2016	1318	6478.26	6453.33	24.93	1.0
				12/13/2016	1442	6478.23	6452.66	25.57	1.0
				8/23/2017	1695	6477.19	6450.87	26.32	1.0
V16-LC	487,709	1,533,402	8	12/2/2015	1065	6477.19	6458.16	19.03	1.0
				8/10/2016	1317	6479.55	6458.25	21.30	1.0
				12/13/2016	1442	6479.58	6457.62	21.96	1.0
				8/23/2017	1695	6478.78	6454.96	23.82	1.0
				12/6/2017	1800	6478.83	6454.14	24.69	1.0
V17-LC	486,461	1,533,896	8	12/2/2015	1065	6475.39	6465.96	9.43	1.0
				8/10/2016	1317	6477.37	6466.74	10.63	1.0
				12/13/2016	1442	6477.80	6466.27	11.53	1.0
				8/25/2017	1697	6477.35	6462.14	15.21	1.0
V18-LC	487,241	1,533,819	8	12/2/2015	1065	6477.56	6461.15	16.41	1.0
				8/10/2016	1317	6477.76	6461.32	16.44	1.0
				12/13/2016	1442	6477.57	6460.67	16.90	1.0
				8/25/2017	1697	6477.38	6457.61	19.77	1.0
				12/6/2017	1800	6477.34	6456.76	20.58	1.0
V7-LC	487,436	1,534,208	8	12/2/2015	1065	6477.51	6457.81	19.70	1.0
				8/6/2016	1313	6477.68	6457.63	20.05	1.0
				12/13/2016	1442	6477.55	6456.85	20.70	1.0
				8/23/2017	1695	6477.33	6454.59	22.74	1.0
				12/6/2017	1800	6477.27	6453.89	23.38	1.0
V8-LC	486,945	1,534,183	8	12/2/2015	1065	6476.68	6460.49	16.19	1.0
				8/6/2016	1313	6479.02	6460.73	18.29	1.0
				12/13/2016	1442	6479.39	6460.08	19.31	1.0
				8/23/2017	1695	6478.89	6457.25	21.64	1.0
				12/6/2017	1800	6478.92	6456.44	22.48	1.0
V9-LC	488,140	1,534,298	8	12/2/2015	1065	6475.34	6453.79	21.55	1.0
				8/6/2016	1313	6477.38	6453.16	24.22	1.0
				12/13/2016	1442	6477.25	6452.26	24.99	1.0
				8/23/2017	1695	6476.39	6450.79	25.60	1.0
				12/6/2017	1800	6476.43	6450.25	26.18	1.0
11.10.08.344-SA	475,185	1,524,399	10	5/9/2016	1224	6438.00	6438.67	-0.67	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
11.10.09.221-SA	482,873	1,529,418	10	4/2/2013	91	6422.00	6435.70	-13.70	1.0
				5/6/2016	1221	6422.00	6435.73	-13.73	1.0
				6/13/2017	1624	6419.00	6435.82	-16.82	1.0
				12/14/2017	1808	6420.00	6435.83	-15.83	1.0
11.10.27.241-SA	487,858	1,512,323	10	4/2/2013	91	6417.00	6410.55	6.45	1.0
				8/15/2013	226	6415.00	6410.53	4.47	1.0
				3/21/2014	444	6416.00	6410.52	5.48	1.0
				8/8/2014	584	6414.00	6410.50	3.50	1.0
				2/26/2015	786	6416.00	6410.51	5.49	1.0
				7/22/2015	932	6414.00	6410.50	3.50	1.0
				3/14/2016	1168	6416.00	6410.55	5.45	1.0
				5/23/2016	1238	6415.00	6410.54	4.46	1.0
				7/27/2016	1303	6413.00	6410.54	2.46	1.0
				8/8/2016	1315	6413.00	6410.54	2.46	1.0
				8/16/2016	1323	6413.00	6410.54	2.46	1.0
				12/12/2016	1441	6415.00	6410.56	4.44	1.0
				4/7/2017	1557	6415.00	6410.58	4.42	1.0
				4/11/2017	1561	6414.00	6410.58	3.42	1.0
				10/5/2017	1738	6413.00	6410.59	2.41	1.0
				12/11/2017	1805	6415.00	6410.59	4.41	1.0
12.10.20.333A-SA	473,212	1,545,470	10	4/2/2013	91	6432.00	6447.35	-15.35	1.0
				2/2/2016	1127	6431.00	6447.41	-16.41	1.0
				3/16/2016	1170	6430.00	6447.41	-17.41	1.0
				5/26/2016	1241	6429.00	6447.42	-18.42	1.0
				5/25/2017	1605	6430.00	6447.49	-17.49	1.0
				11/6/2017	1770	6429.00	6447.49	-18.49	1.0
				12/14/2017	1808	6430.00	6447.49	-17.49	1.0
12.10.23.233-SA	491,790	1,548,181	10	4/3/2013	92	6463.00	6439.17	23.83	1.0
				8/15/2013	226	6465.00	6439.16	25.84	1.0
				3/21/2014	444	6479.00	6439.20	39.80	1.0
				8/8/2014	584	6466.00	6439.20	26.80	1.0
				2/26/2015	786	6474.00	6439.22	34.78	1.0
				7/22/2015	932	6481.00	6439.18	41.82	1.0
				3/17/2016	1171	6461.00	6439.25	21.75	1.0
12.10.32.111-SA	473,116	1,539,606	10	3/18/2016	1172	6415.00	6445.61	-30.61	1.0
12.10.34.412-SA	487,224	1,537,264	10	4/2/2013	91	6416.00	6426.88	-10.88	1.0
				3/17/2016	1171	6429.00	6429.27	-0.27	1.0
				6/2/2016	1248	6430.00	6429.46	0.54	1.0
				6/13/2017	1624	6421.00	6429.83	-8.83	1.0
				12/13/2017	1807	6423.00	6429.89	-6.89	1.0
12.11.09.114A-SA	447,774	1,559,953	10	5/3/2016	1218	6470.00	6486.48	-16.48	1.0
				6/15/2017	1626	6512.00	6486.50	25.50	1.0
12.11.15.341-SA	453,979	1,551,754	10	11/3/2017	1767	6464.00	6461.30	2.70	1.0

Table C-1. Groundwater Flow Model Water-Level Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Groundwater-Level Elevation (ft amsl)	Simulated Groundwater-Level Elevation (ft amsl)	Residual (ft)	Weight
12.11.25.313-SA	462,782	1,541,821	10	4/3/2013	92	6436.00	6450.77	-14.77	1.0
951-SA	473,200	1,545,500	10	12/2/2015	1065	6419.55	6447.40	-27.85	1.0
				12/14/2016	1443	6419.40	6447.49	-28.09	1.0
				12/6/2017	1800	6420.03	6447.50	-27.47	1.0

Appendix D: Simulated Constituent Chemographs

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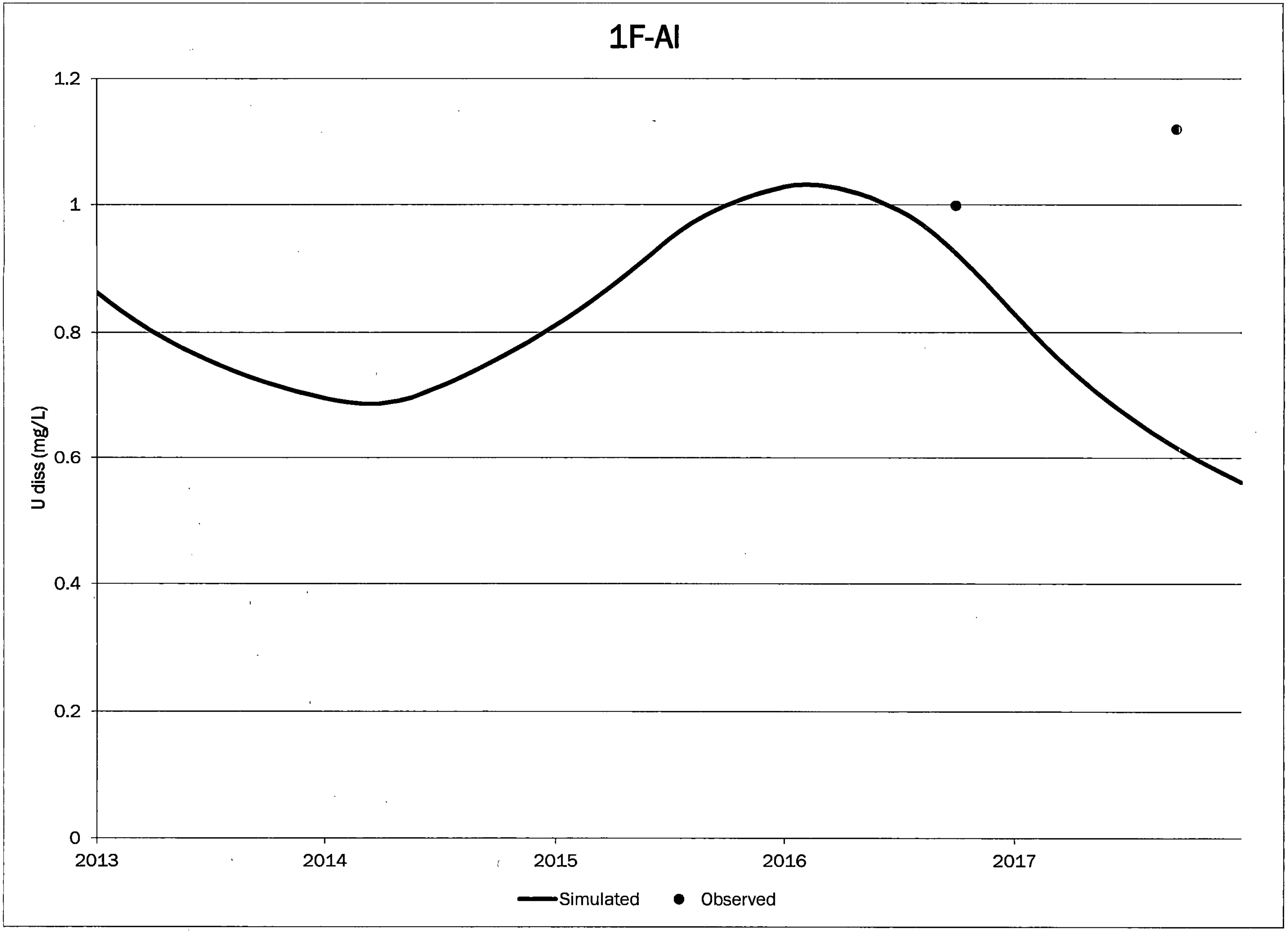

1F-AI
U diss (mg/L)
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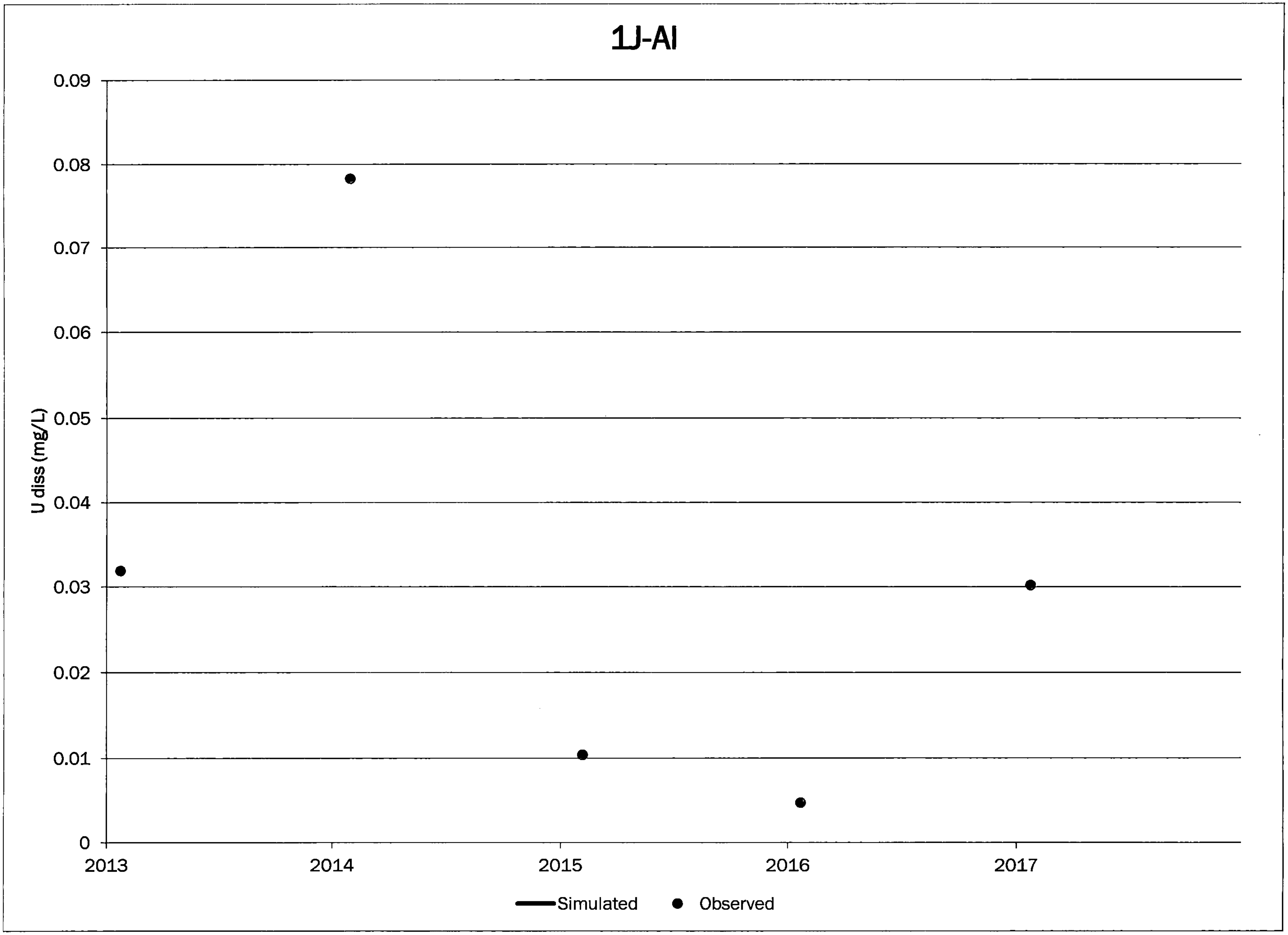
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed


1J-AI
U diss (mg/L)
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0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
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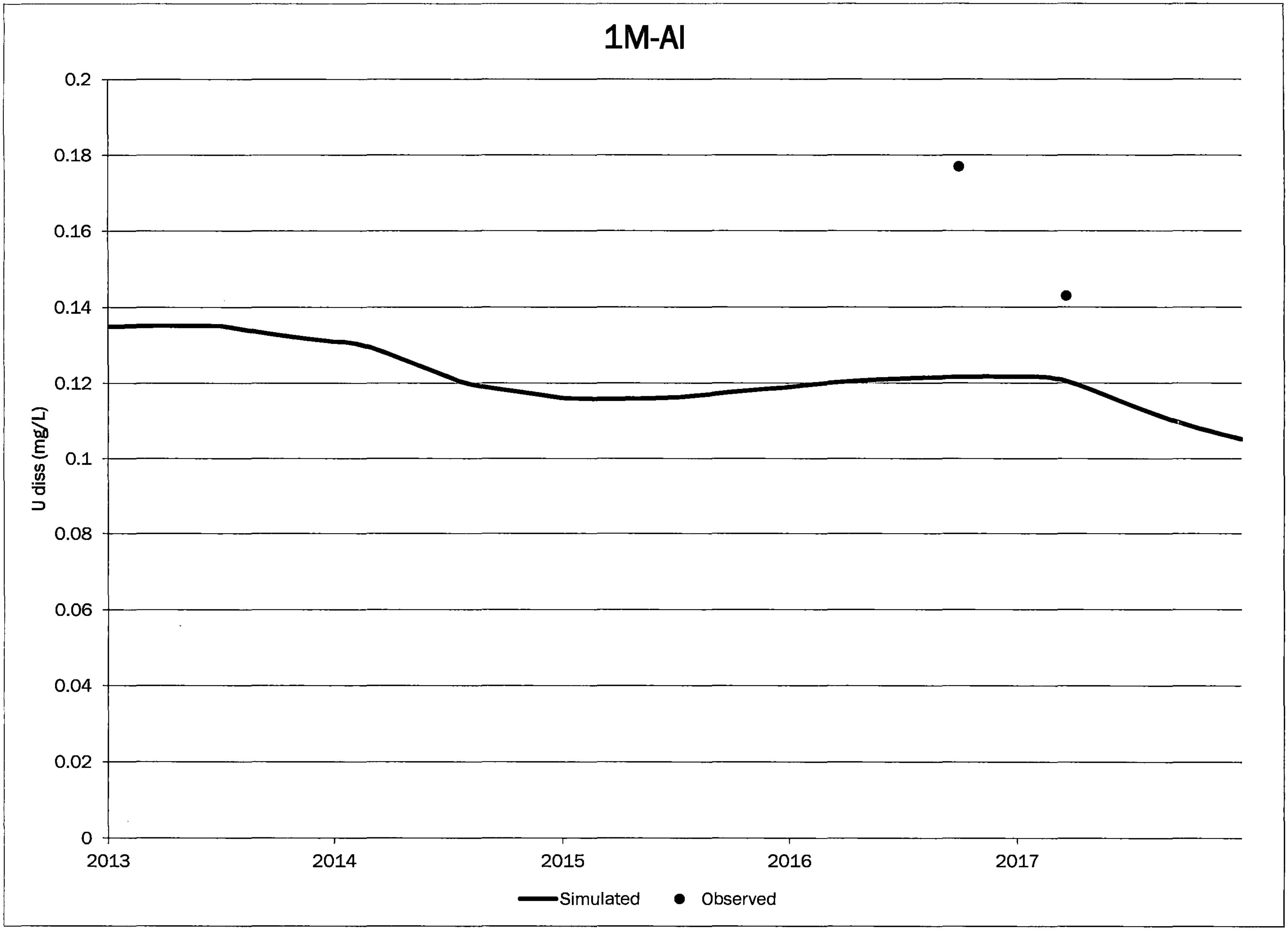
2014
2015
2016
2017
Simulated
Observed



1M-AI
U diss (mg/L)
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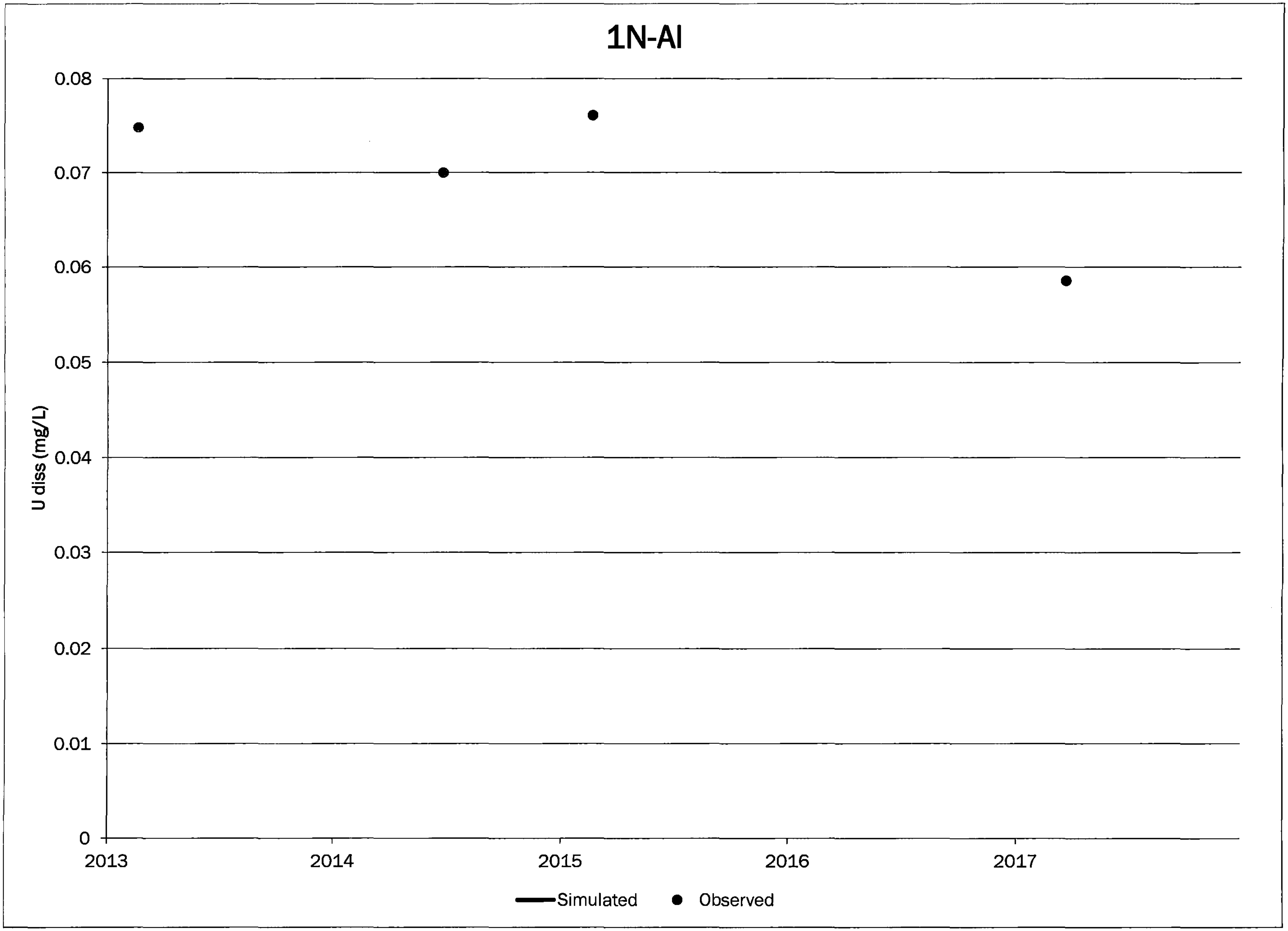
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed


1N-Al
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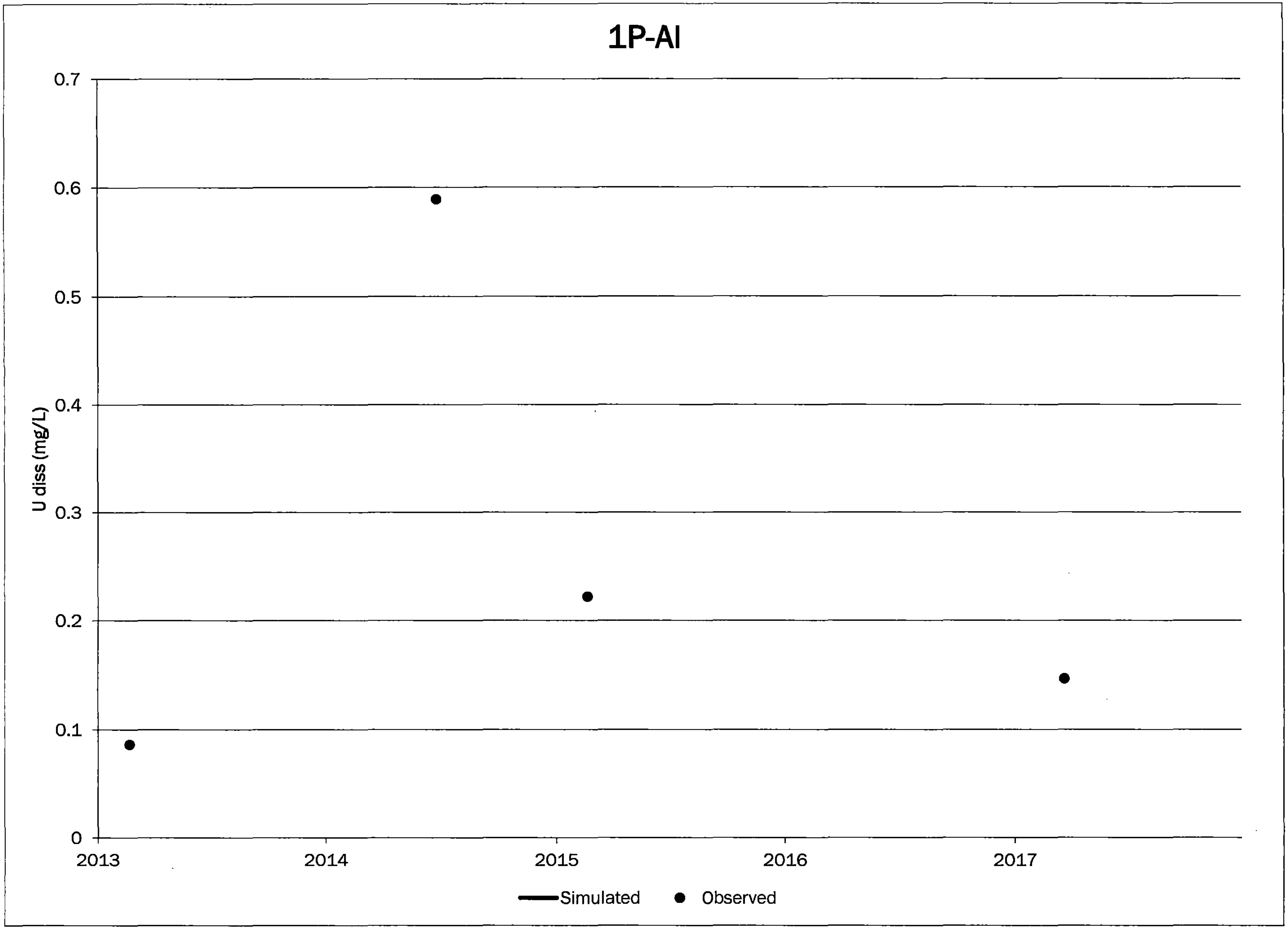
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


1P-Al
U diss (mg/L)
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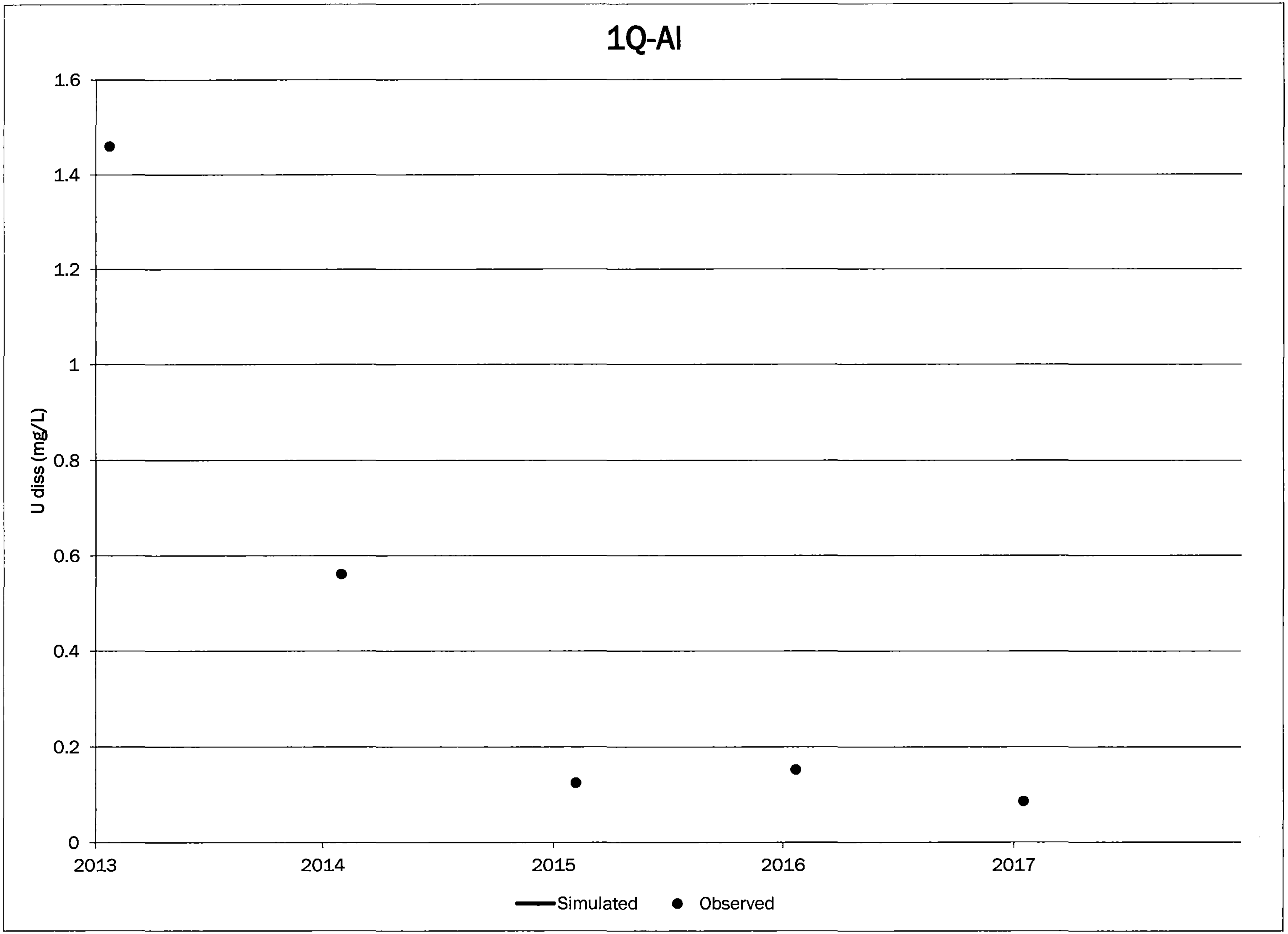
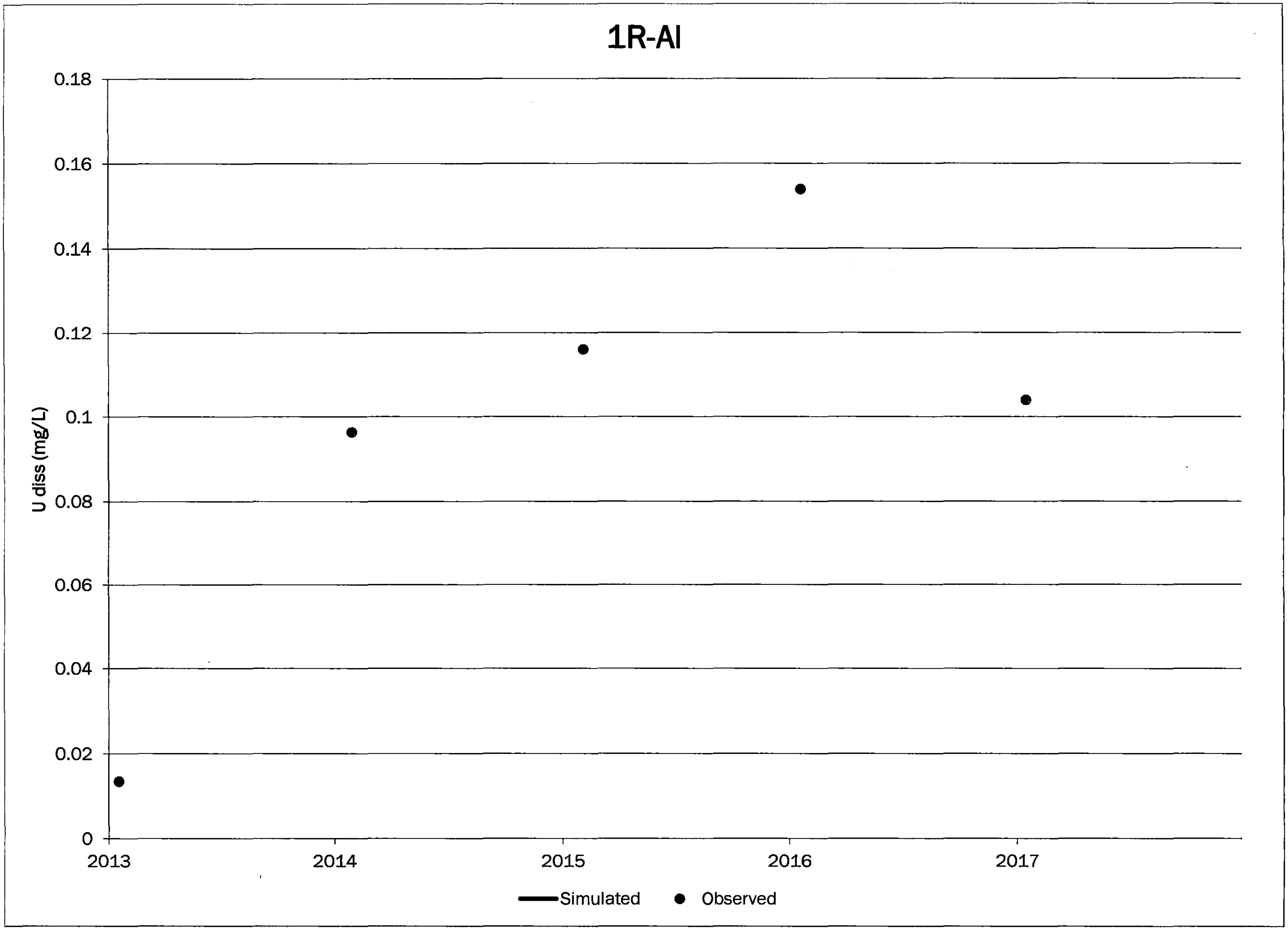
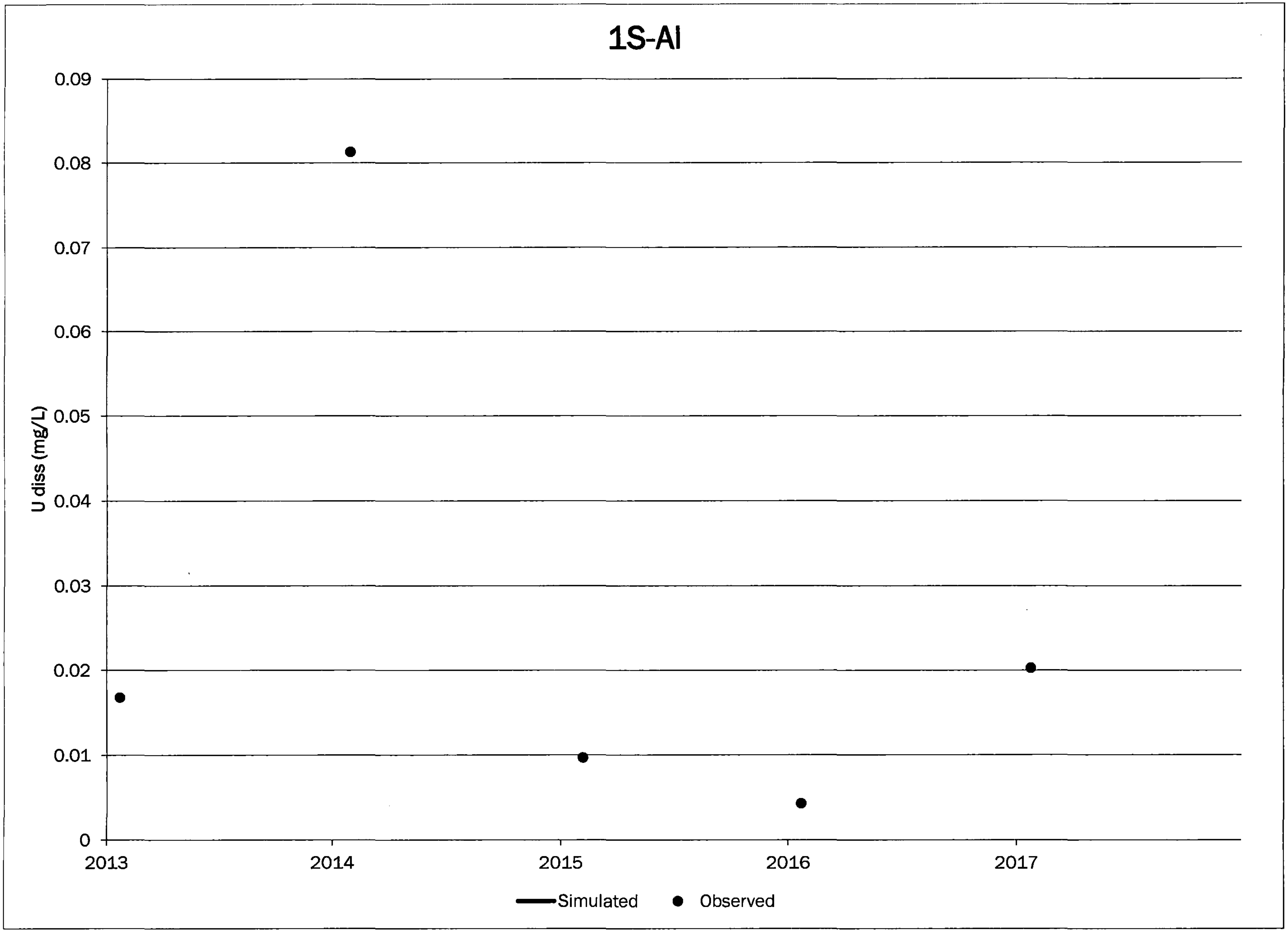
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed


1Q-Al
U diss (mg/L)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed


1R-AI
U diss (mg/L)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



1S-AI
U diss (mg/L)
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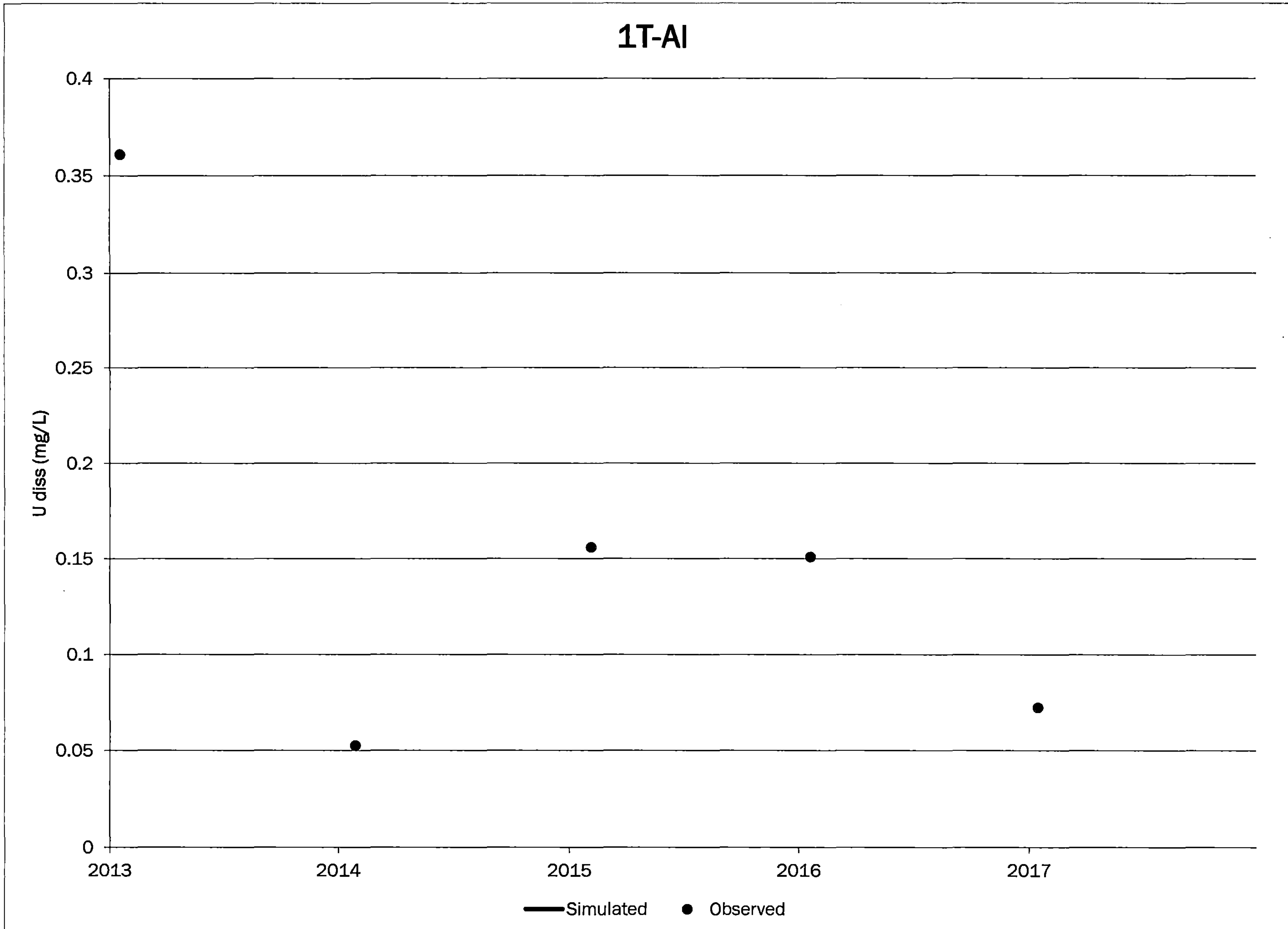
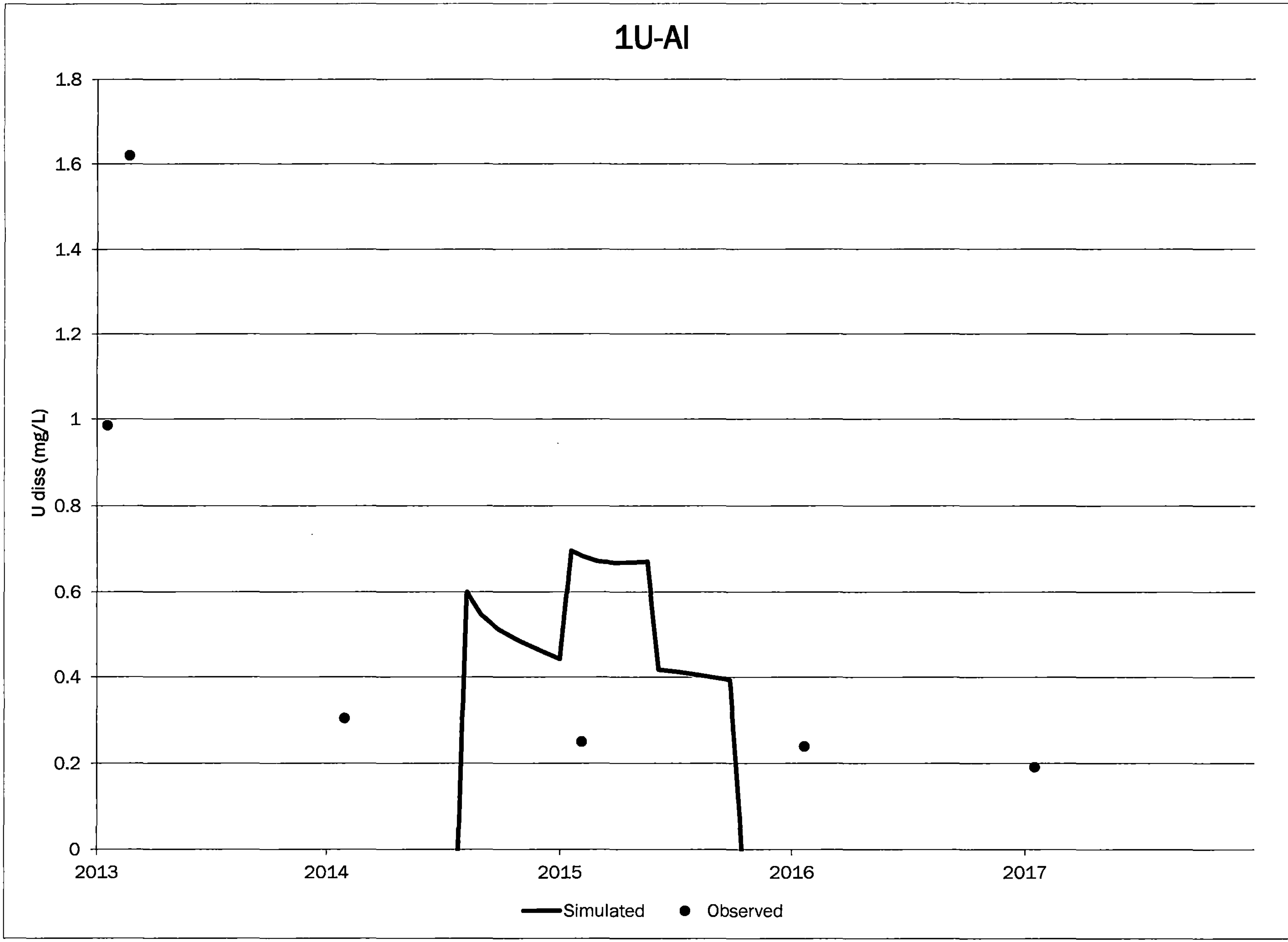
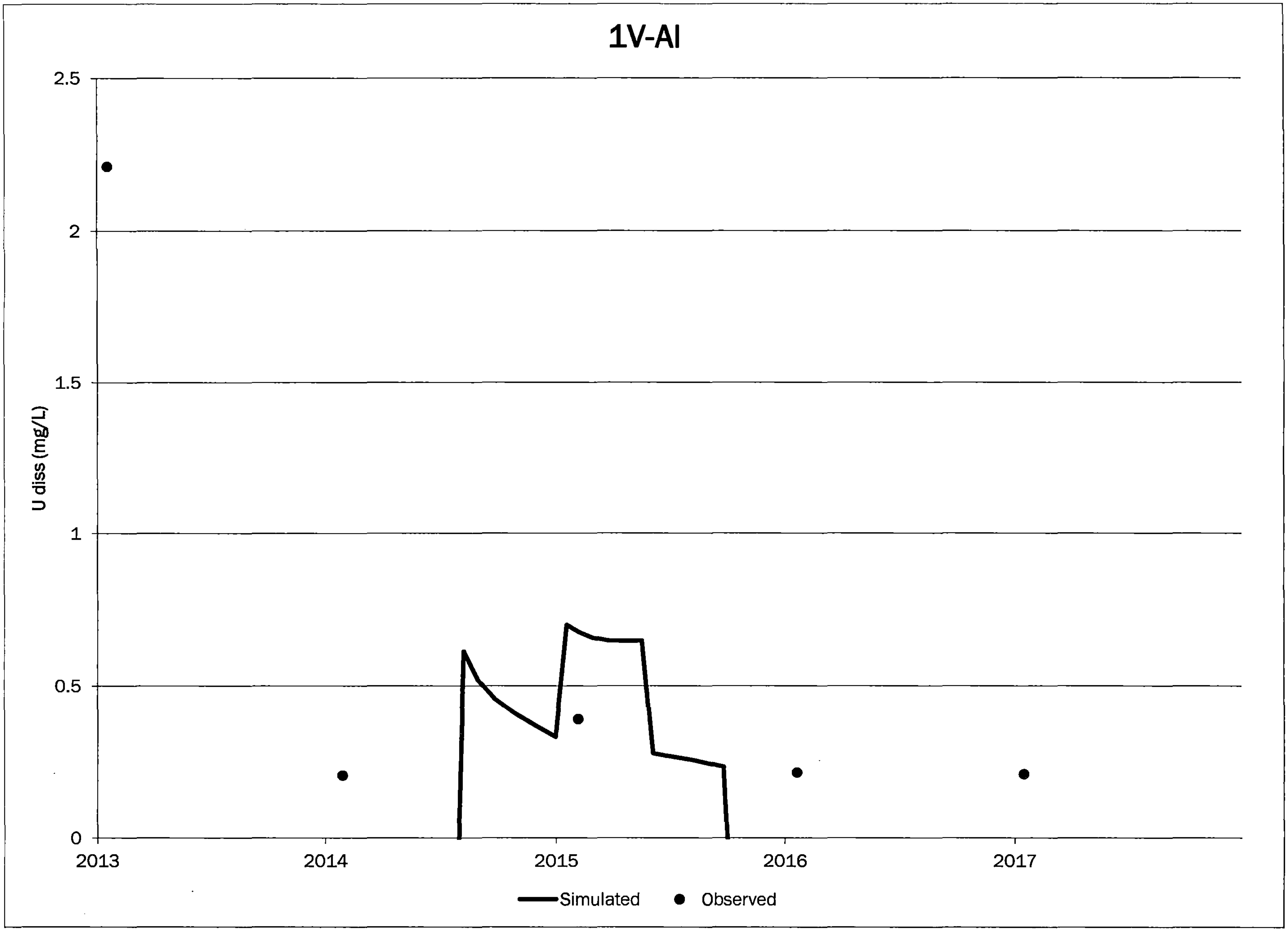
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

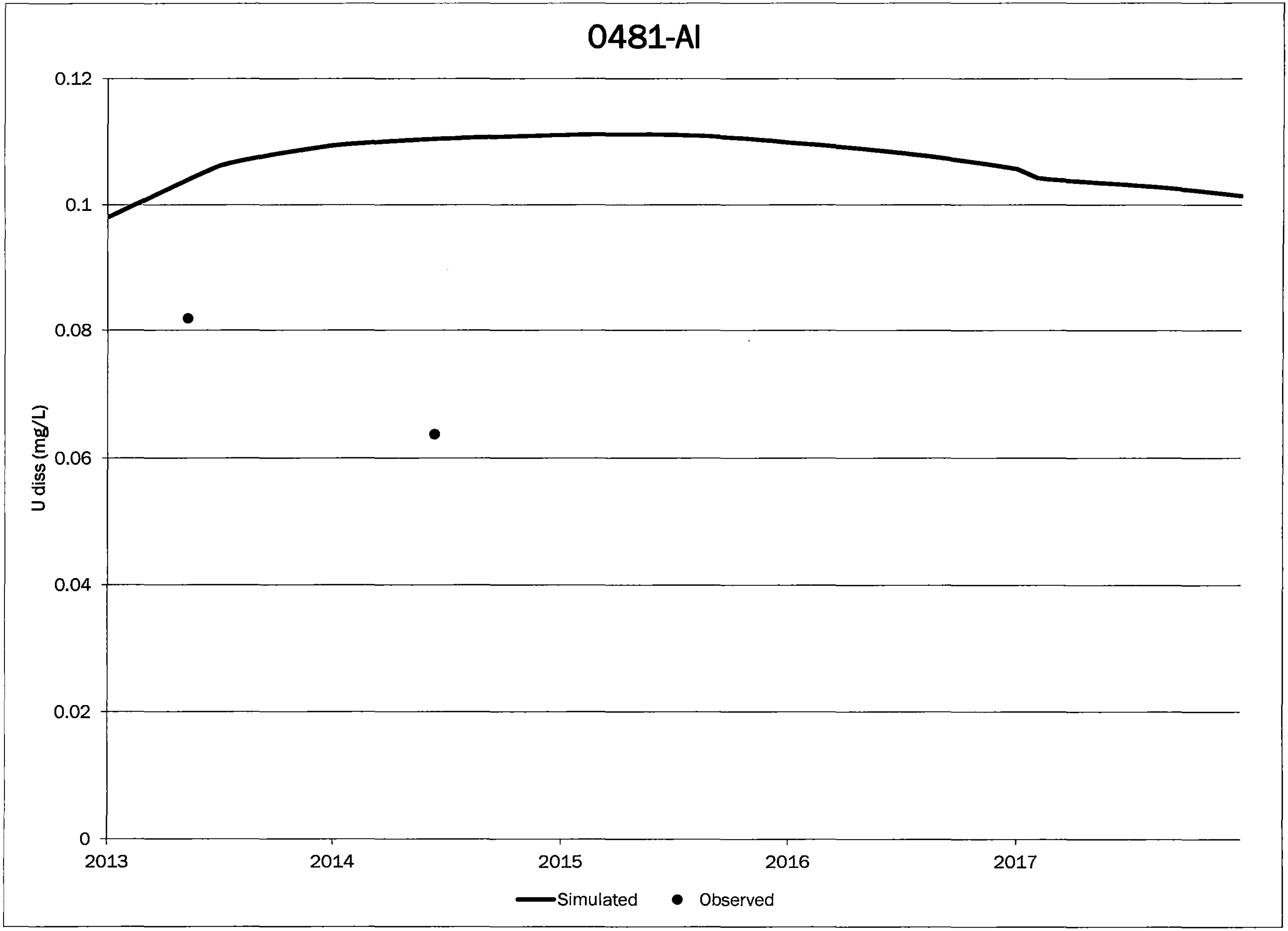


1T-AI
U diss (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed


1U-Al
U diss (mg/L)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed



1V-Al
U diss (mg/L)
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed


0481-AI
U diss (mg/L)
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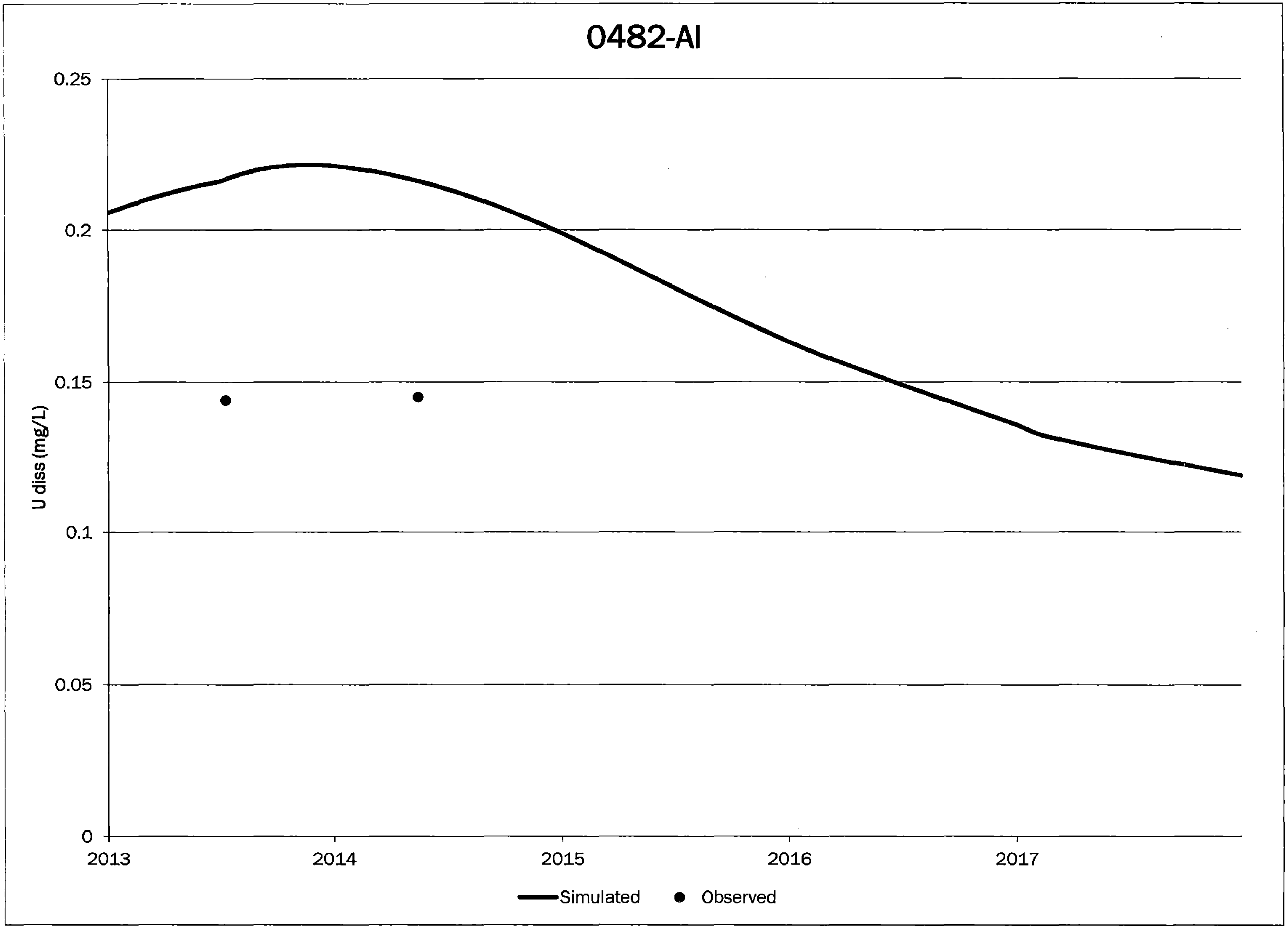
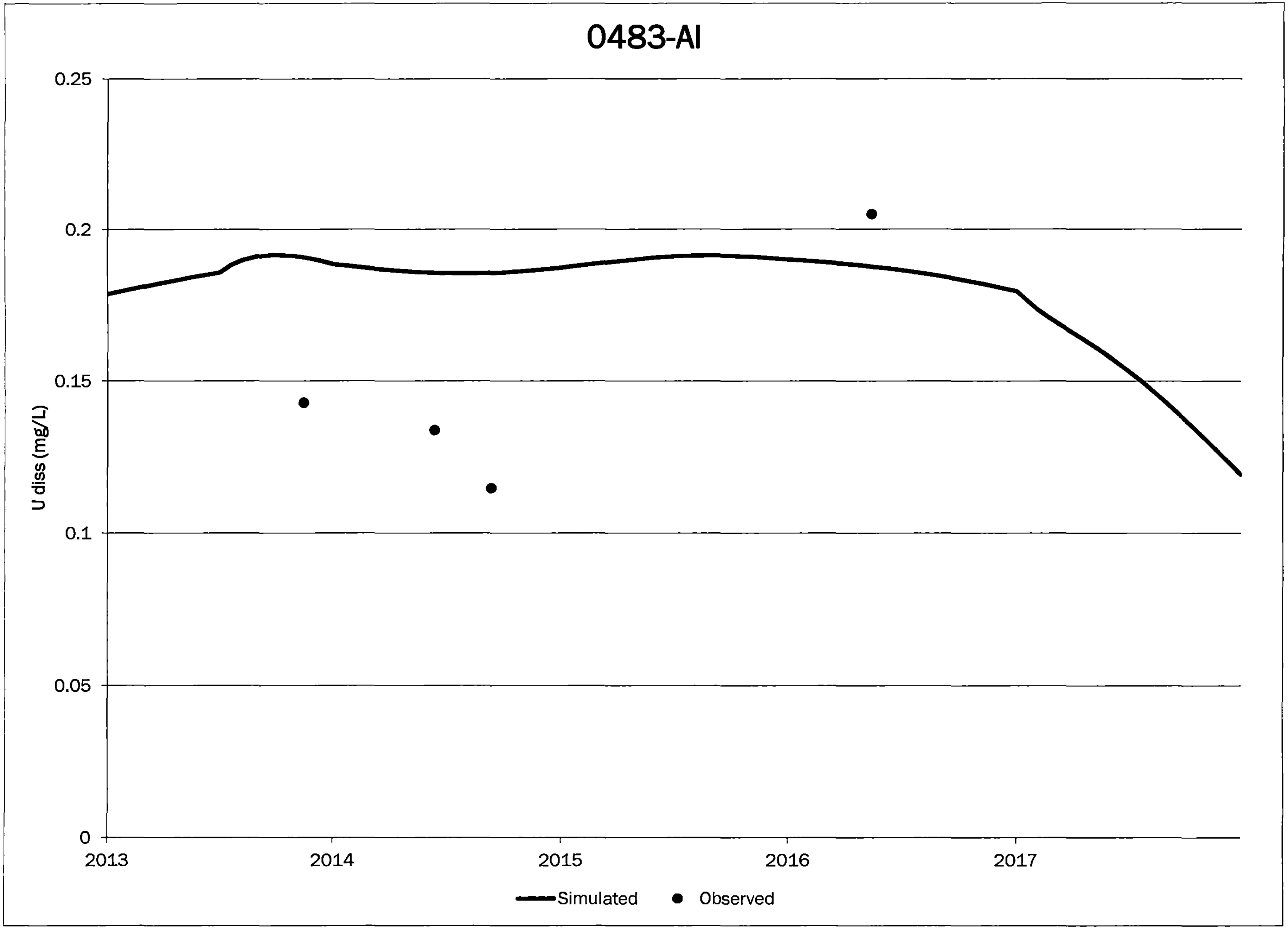
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



0482-AI
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



0483-AI
U diss (mg/L)
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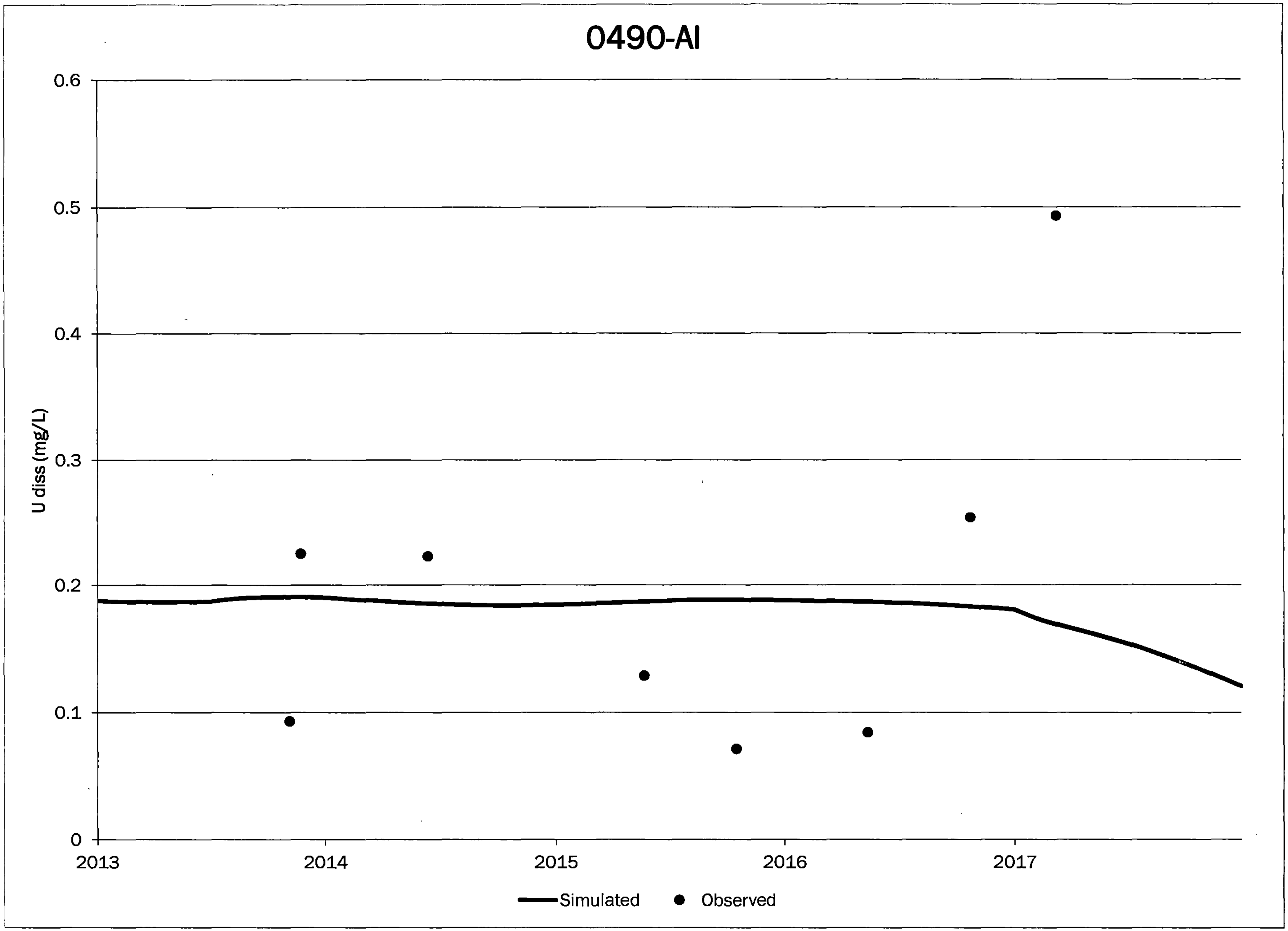
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



0490-AI
U diss (mg/L)
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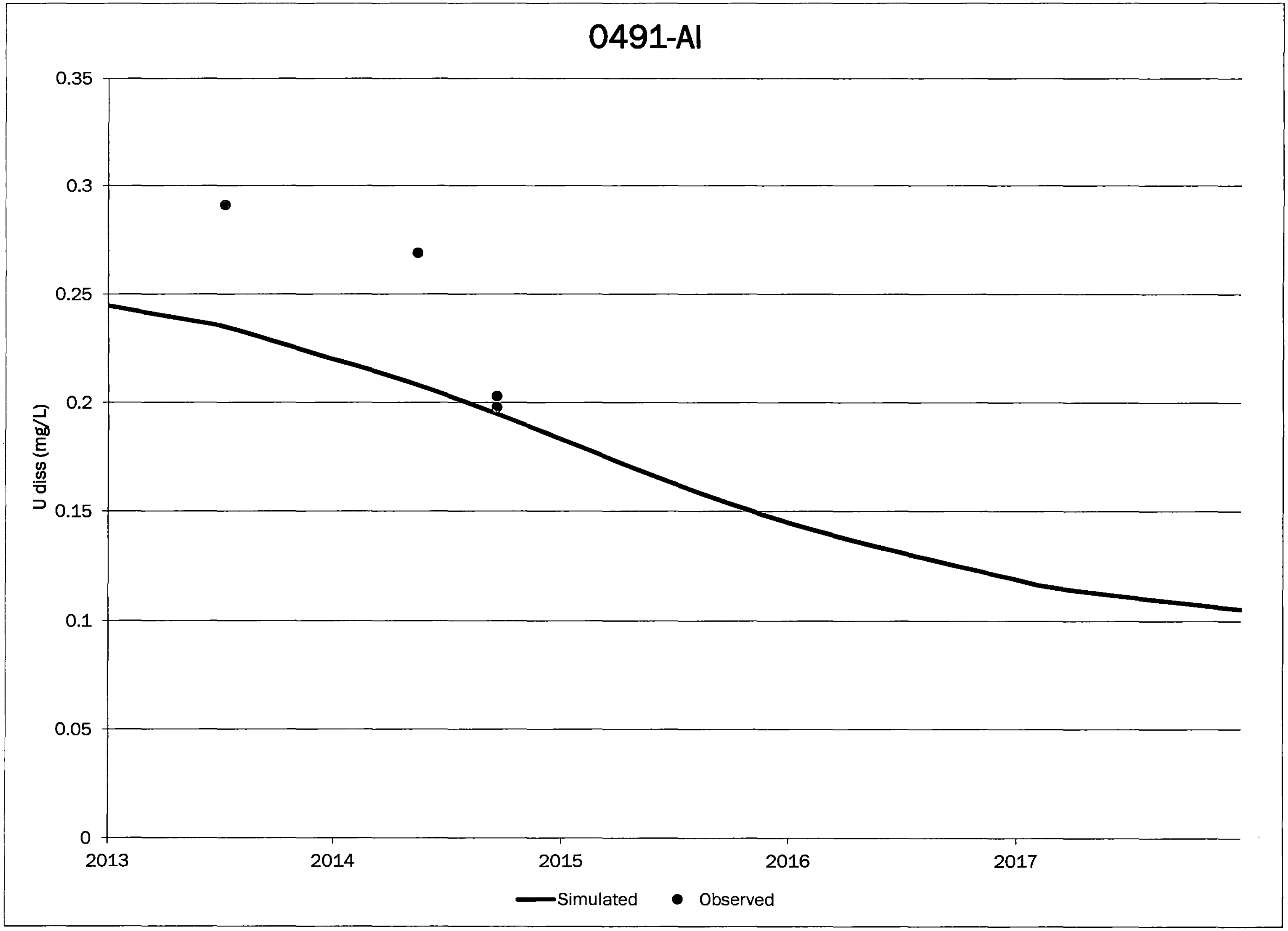
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed


0491-AI
U diss (mg/L)
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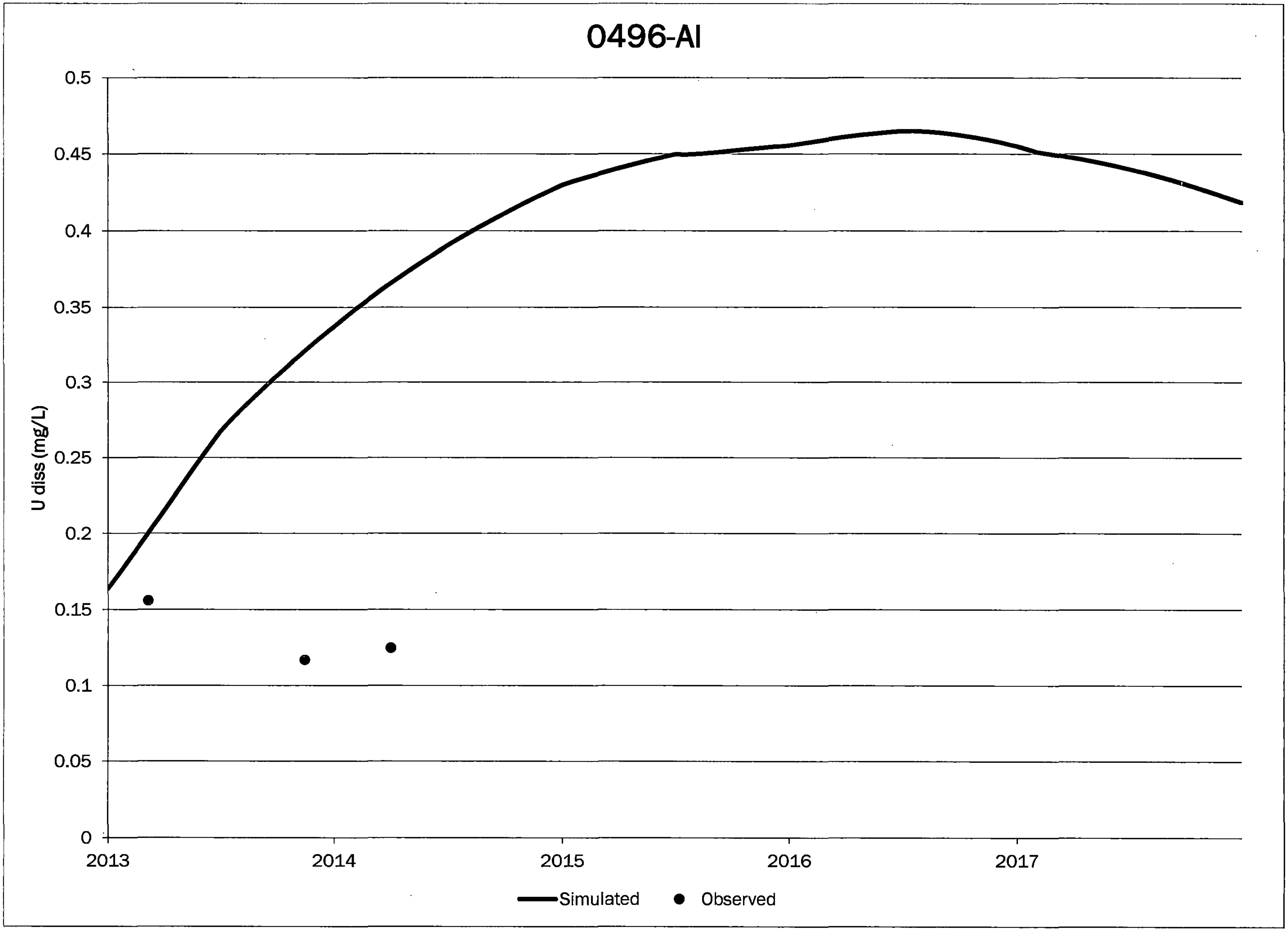
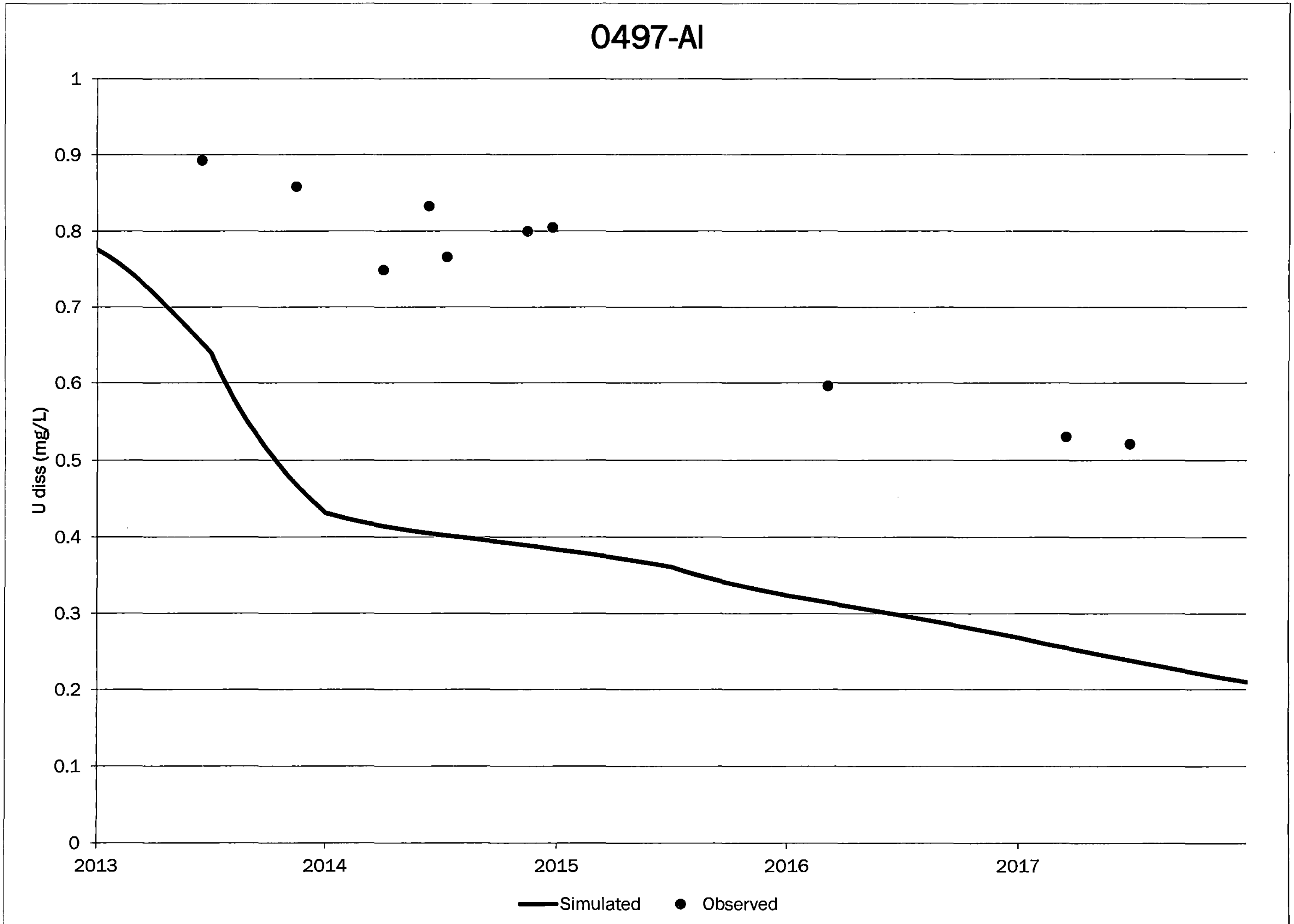
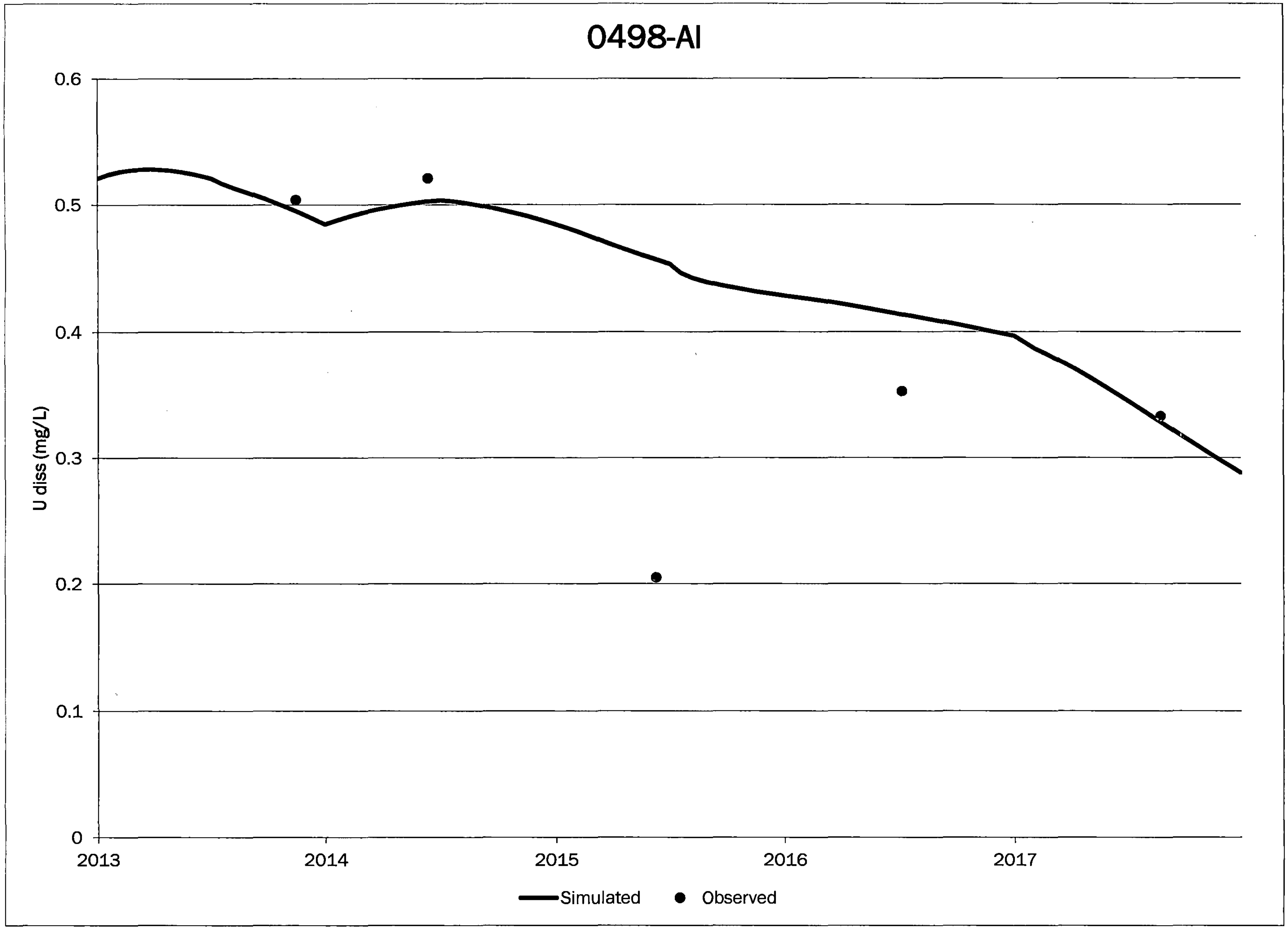
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



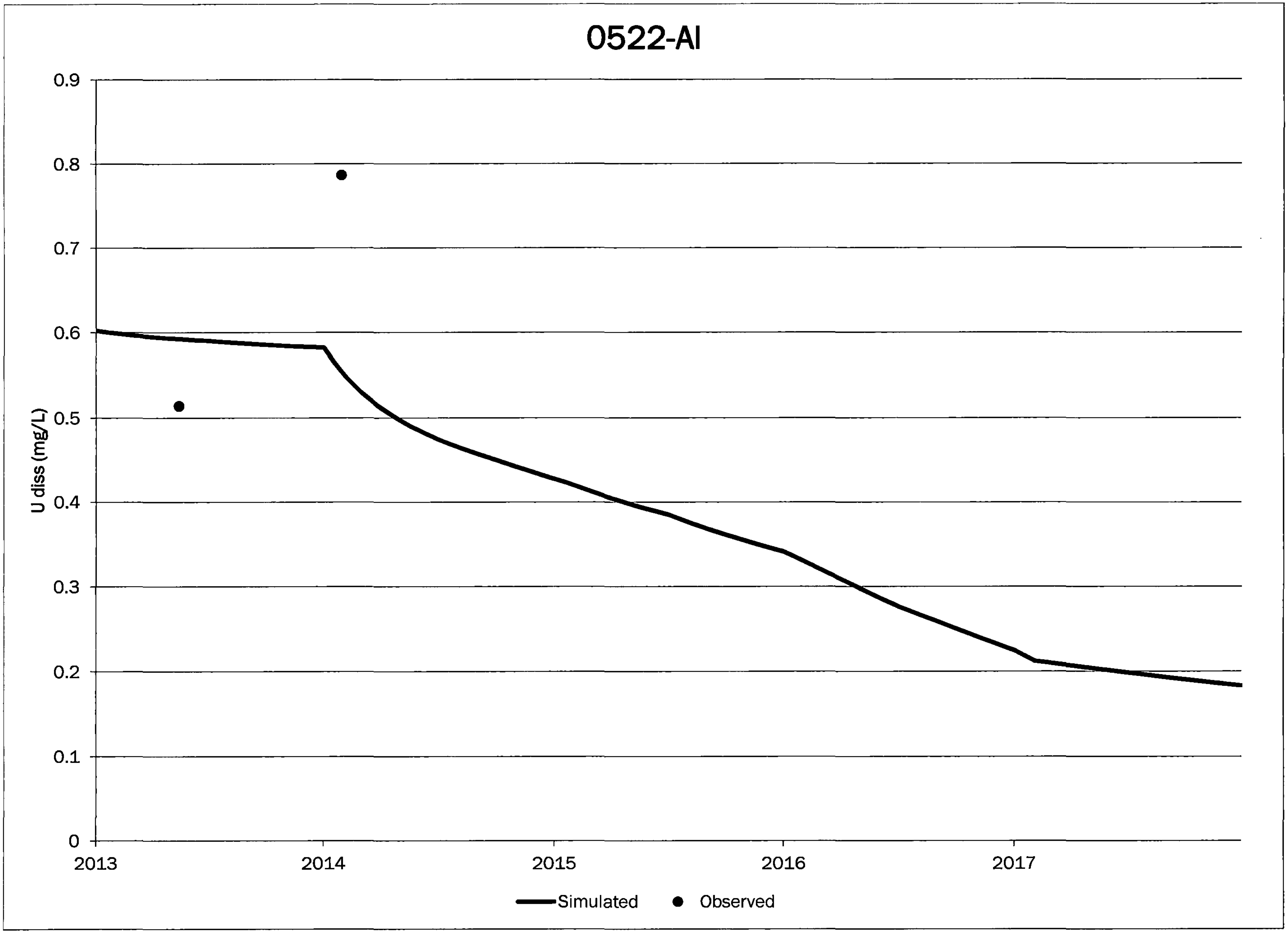
0496-AI
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

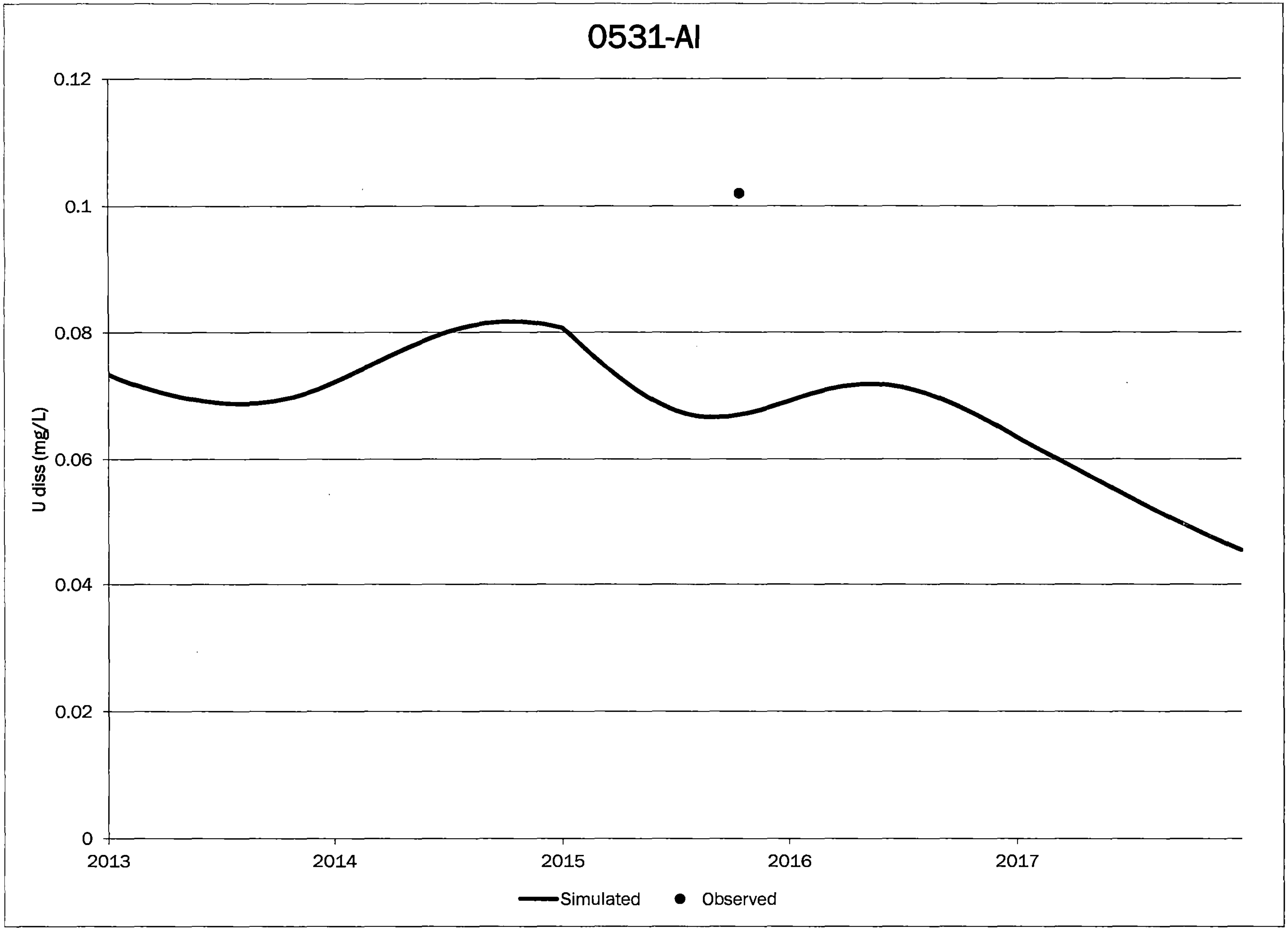


0497-AI
U diss (mg/L)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

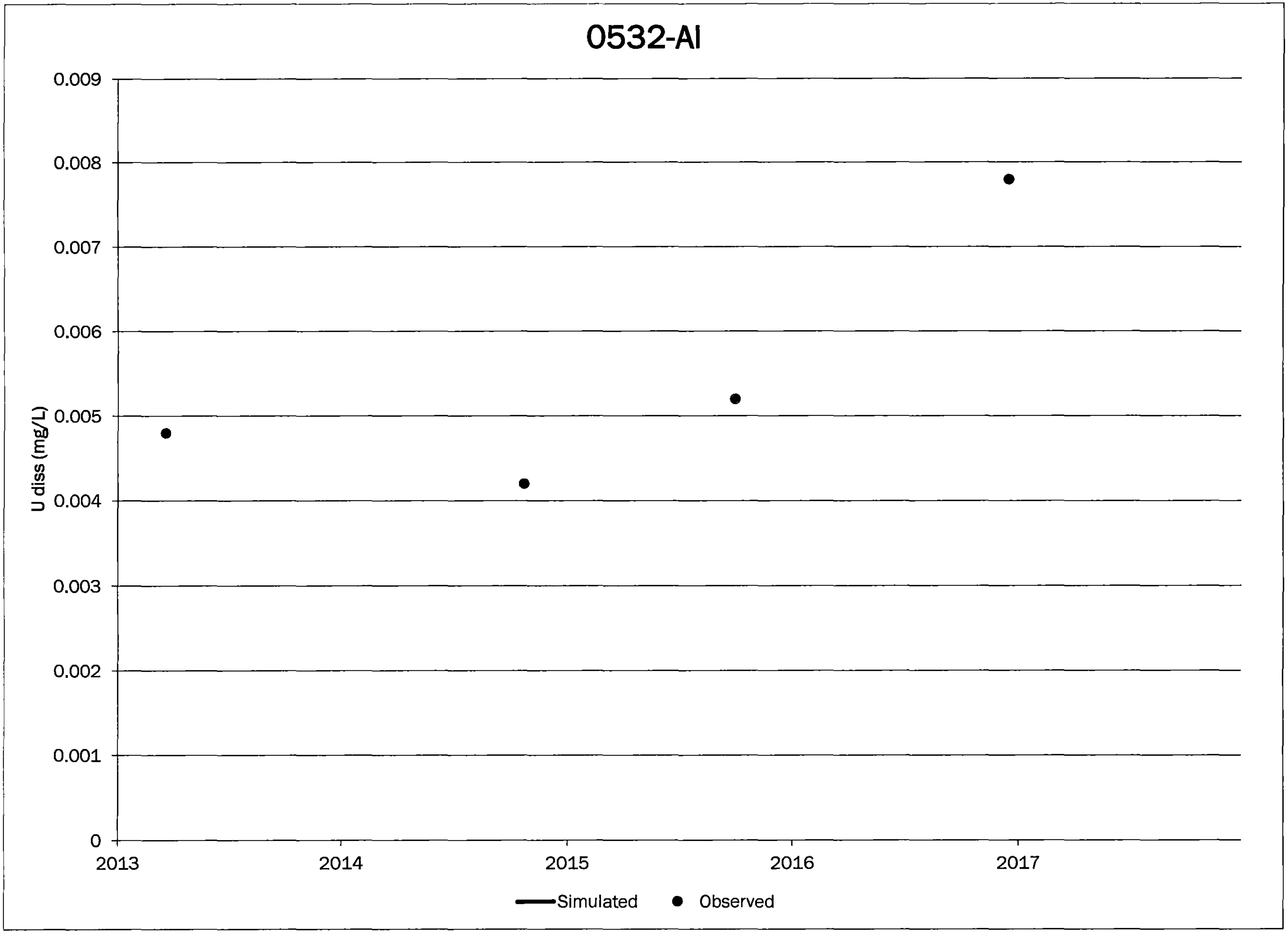


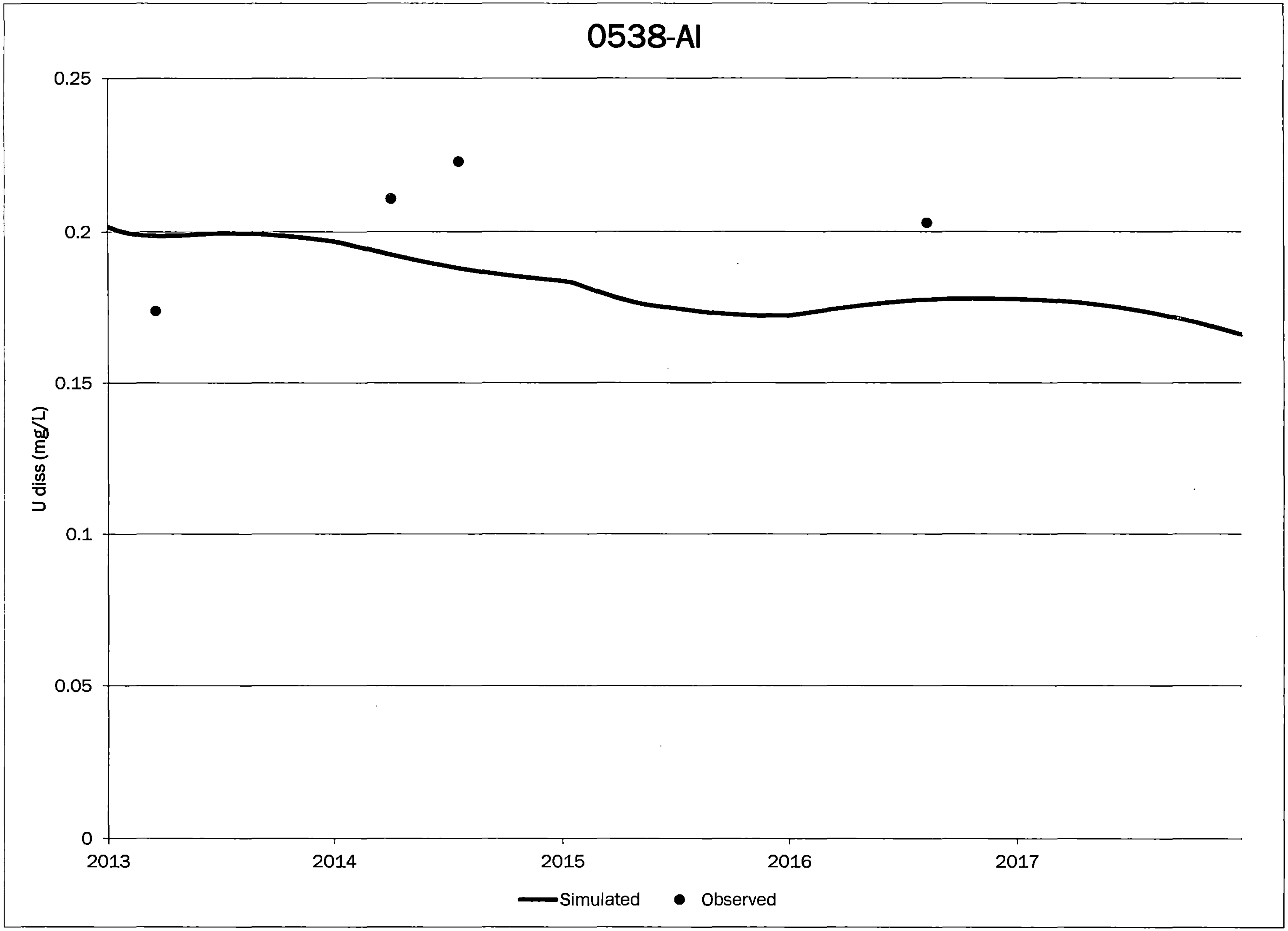
0498-AI
U diss (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

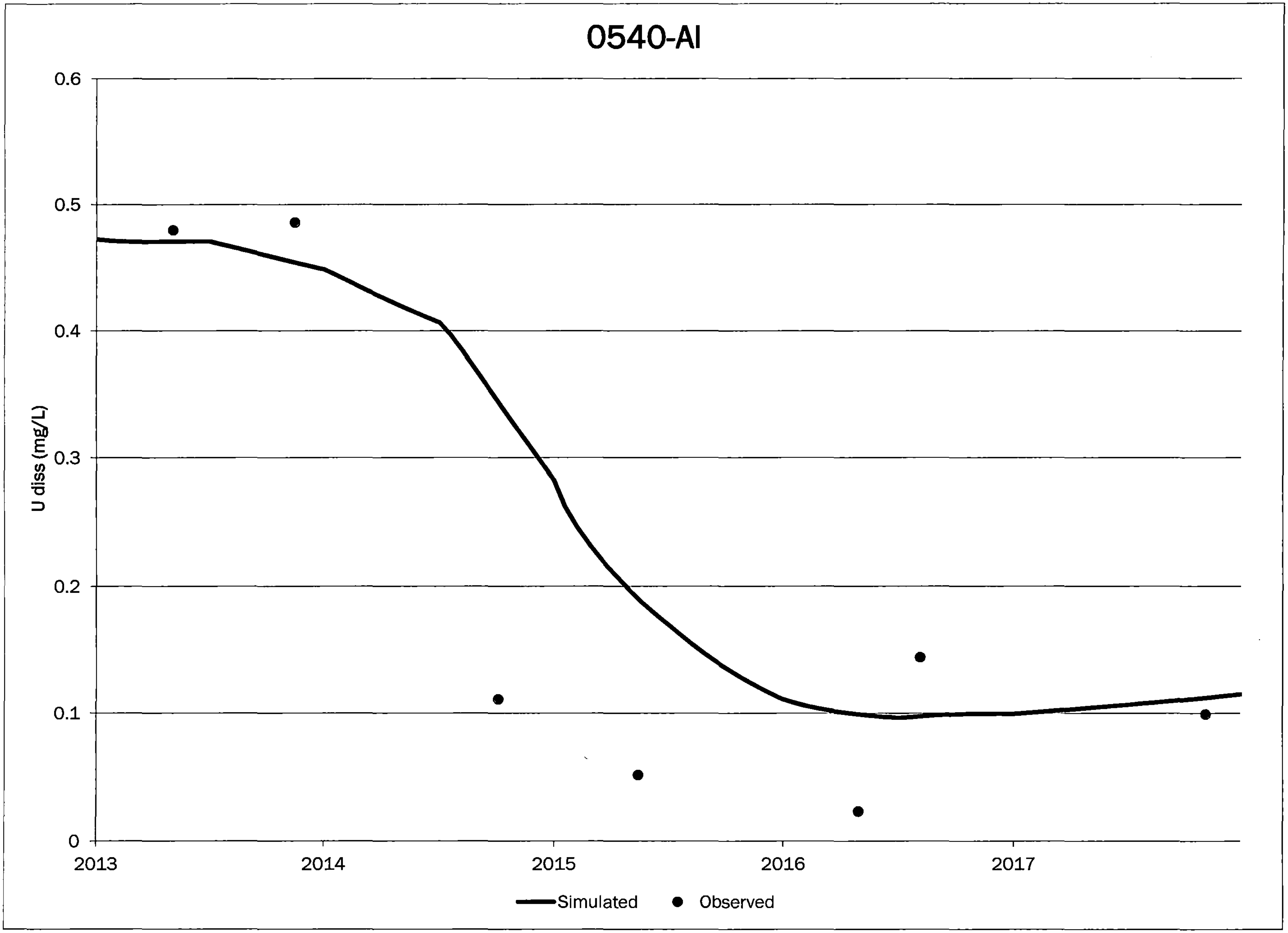

0522-AI
U diss (mg/L)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



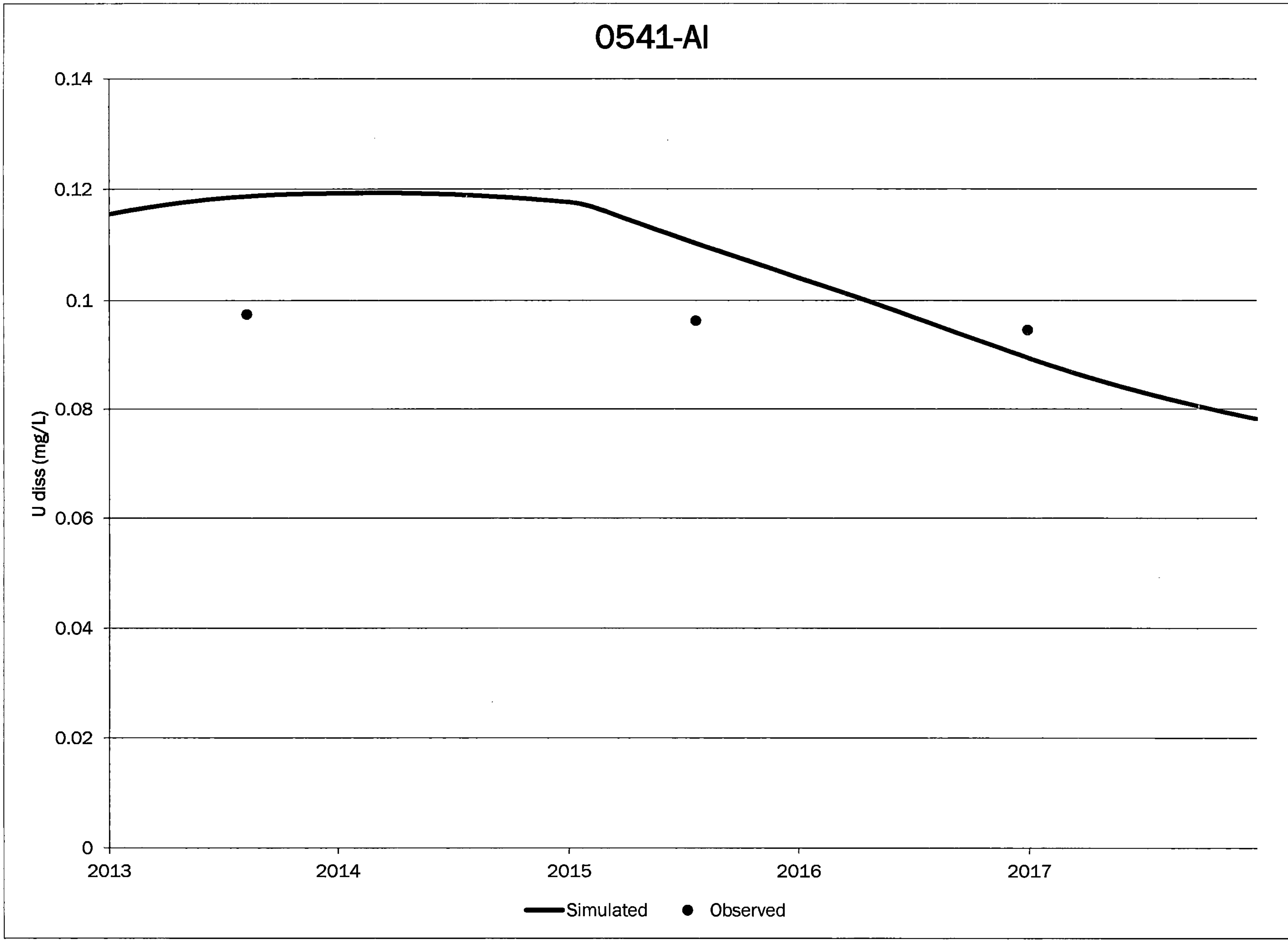
0531-AI
U diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed


0532-AI
U diss (mg/L)
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2013
2014
2015
2016
2017
Simulated
Observed

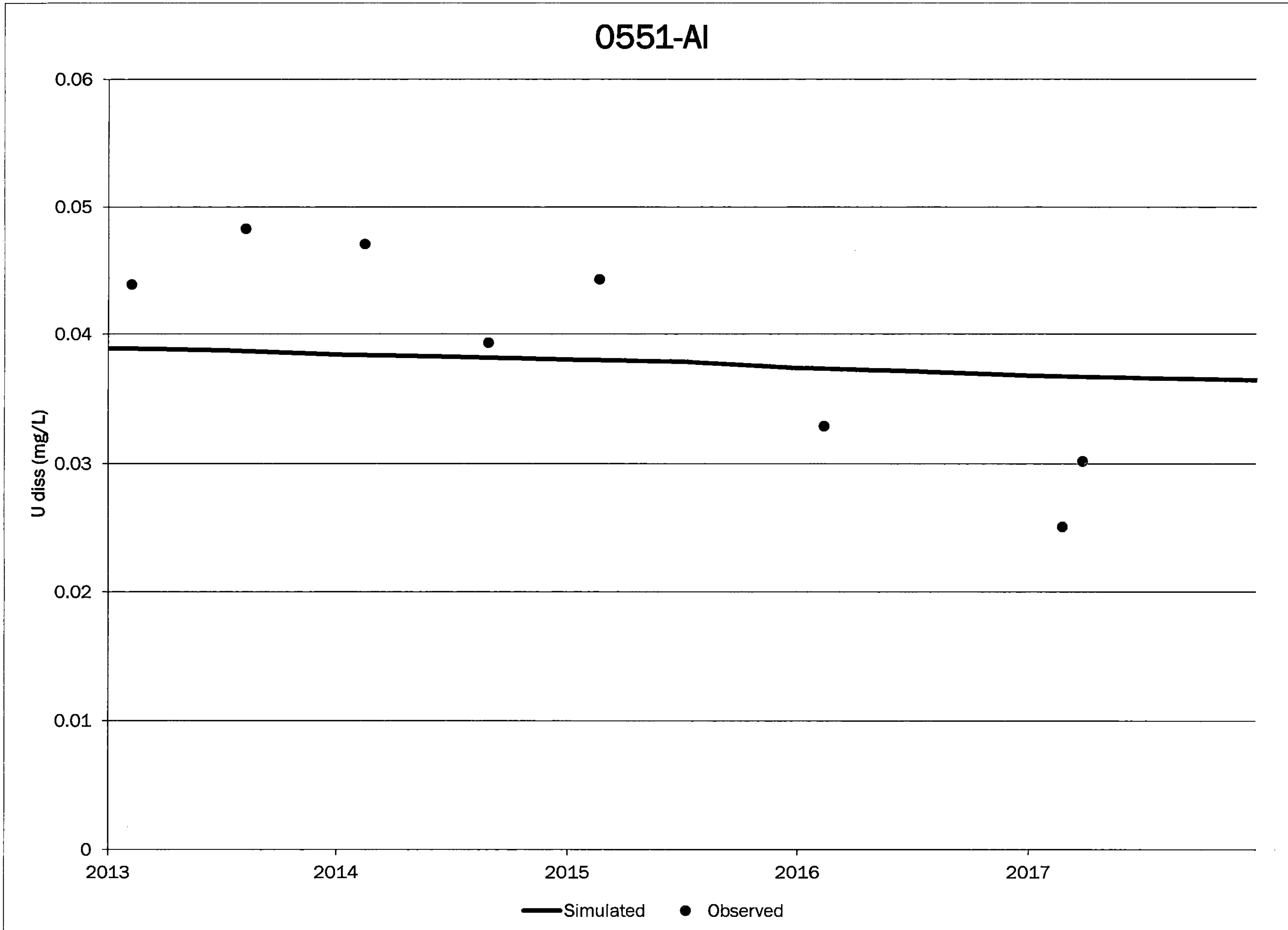

0538-AI
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



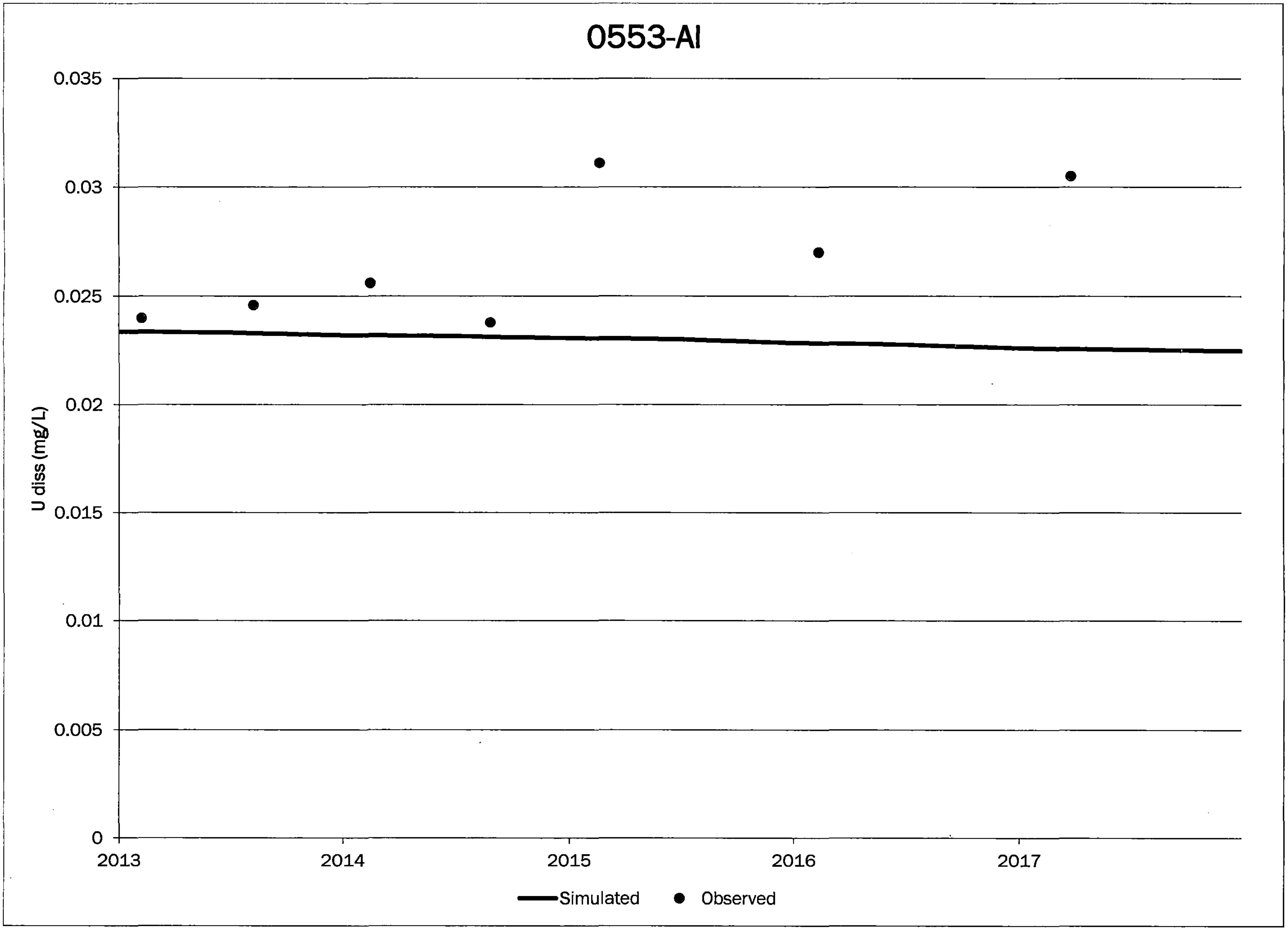
0540-AI
U diss (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



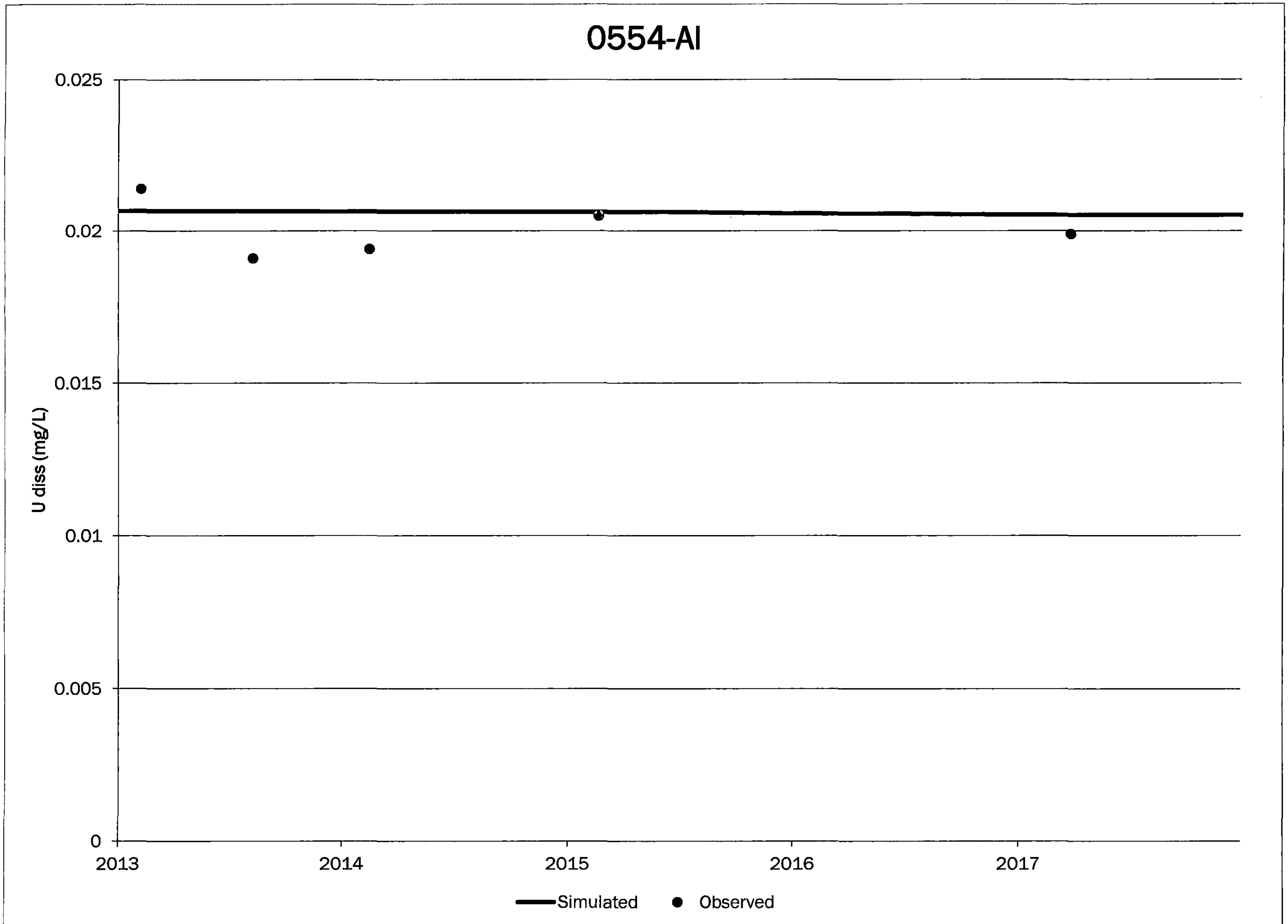
0541-AI
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



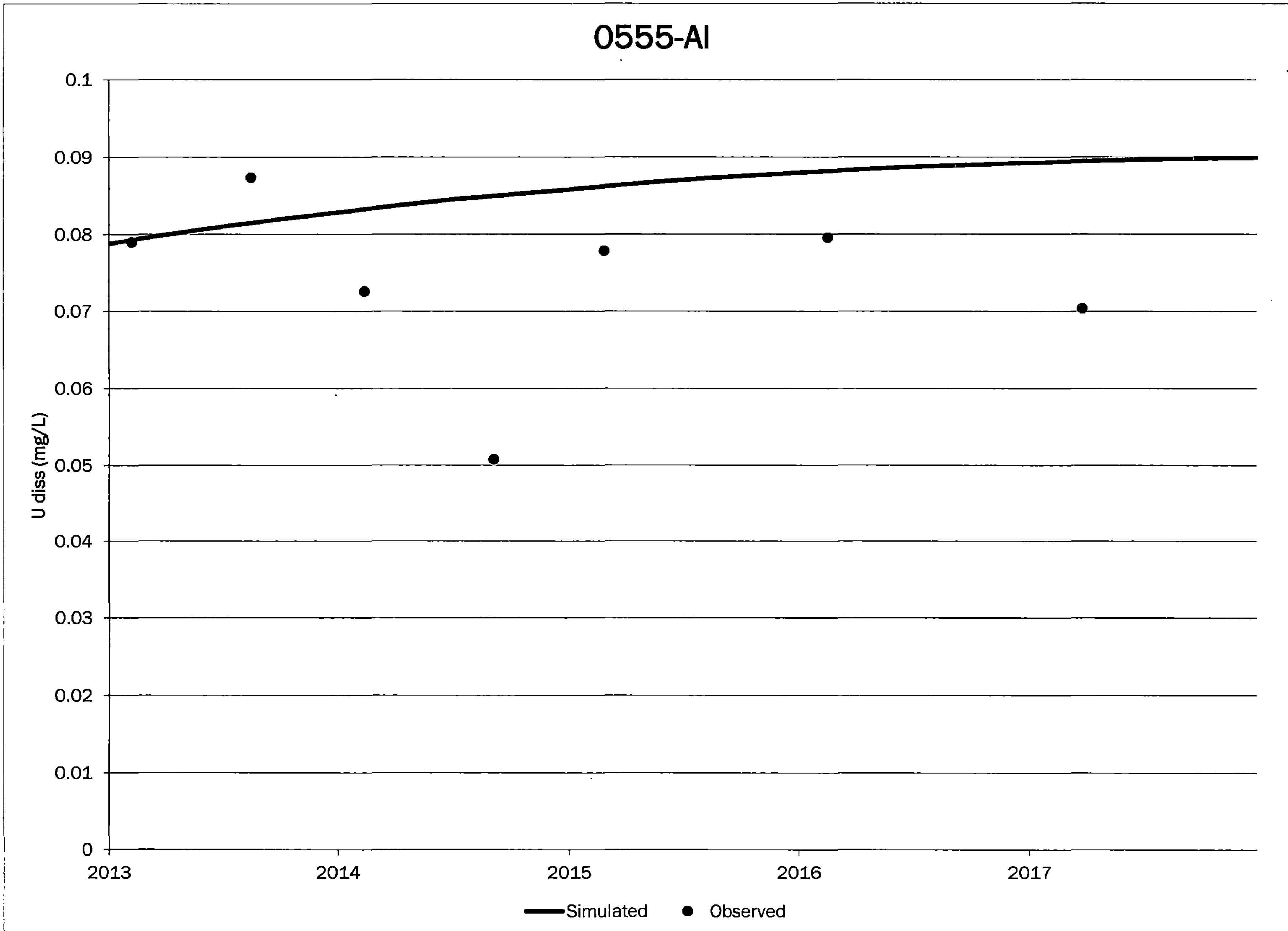
0551-Al
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



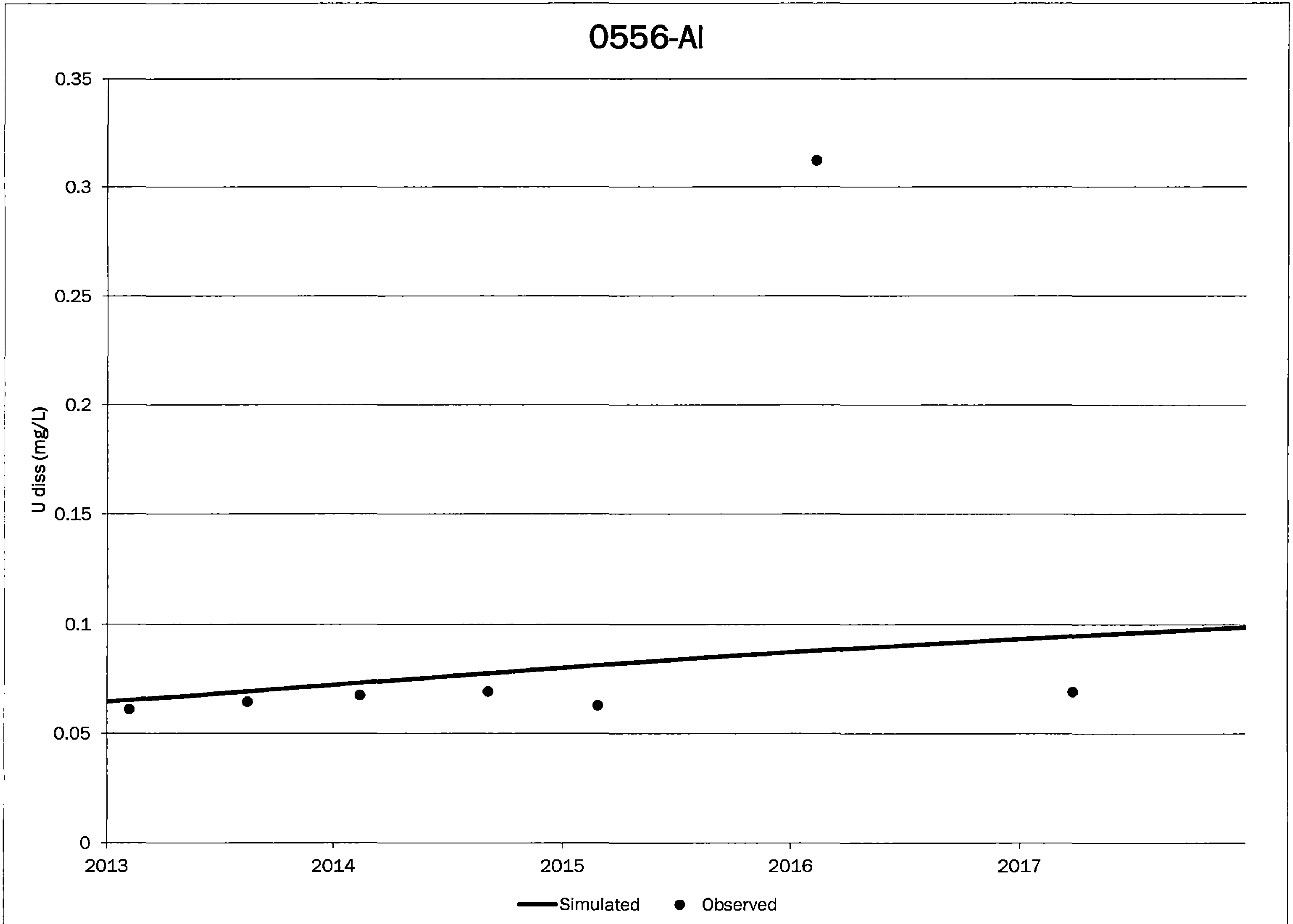
0553-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



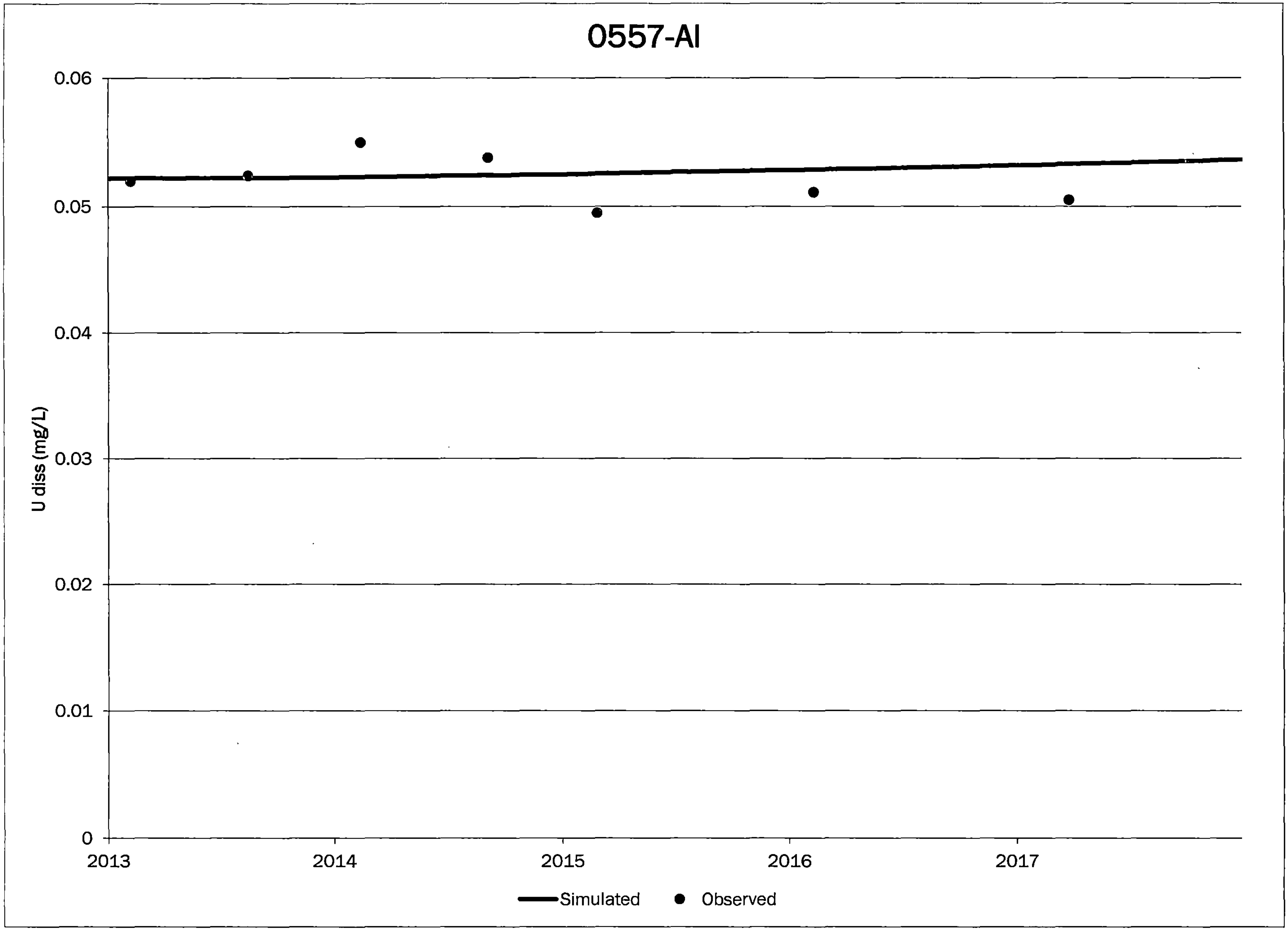
0554-AI
U diss (mg/L)
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

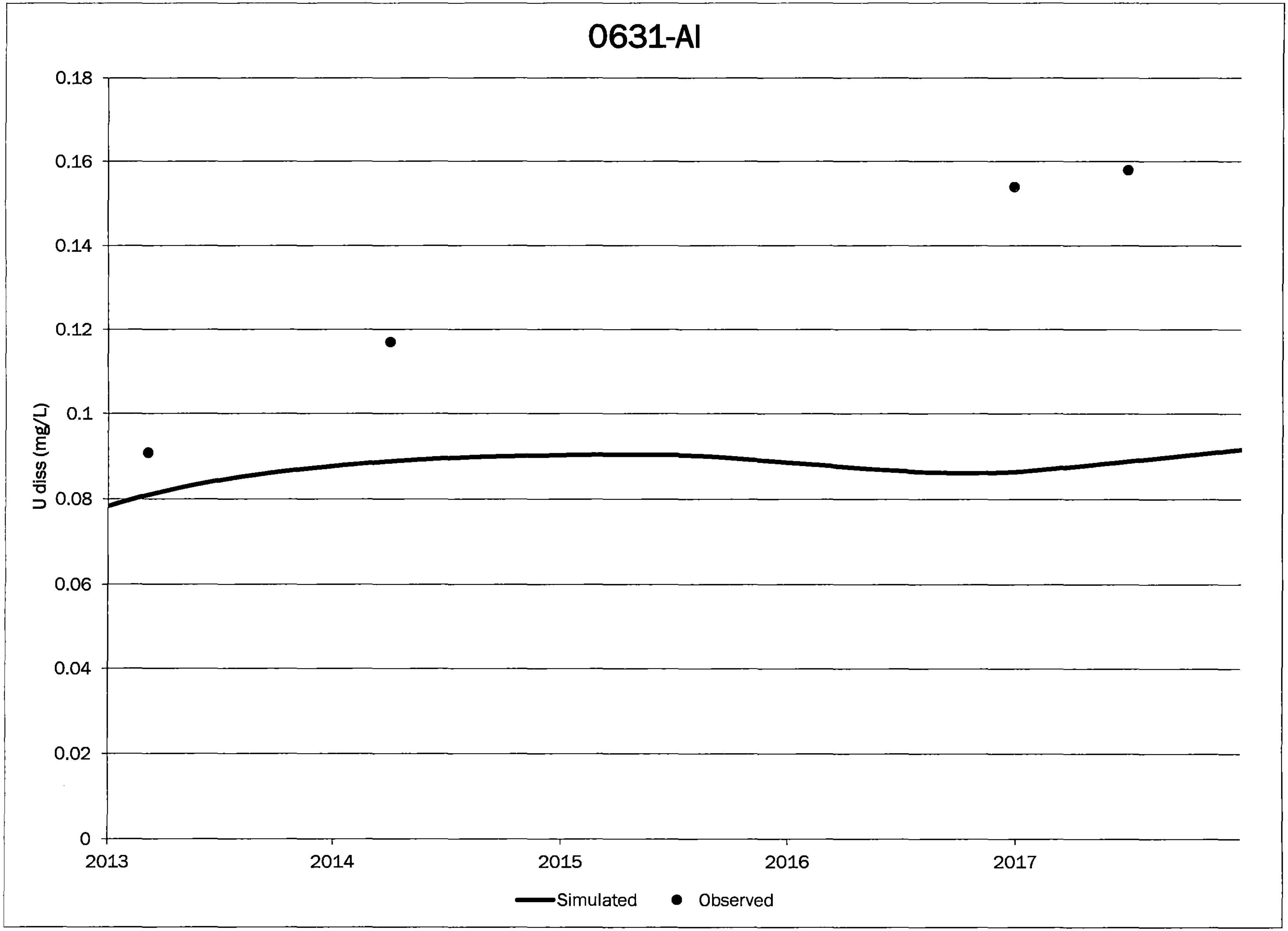


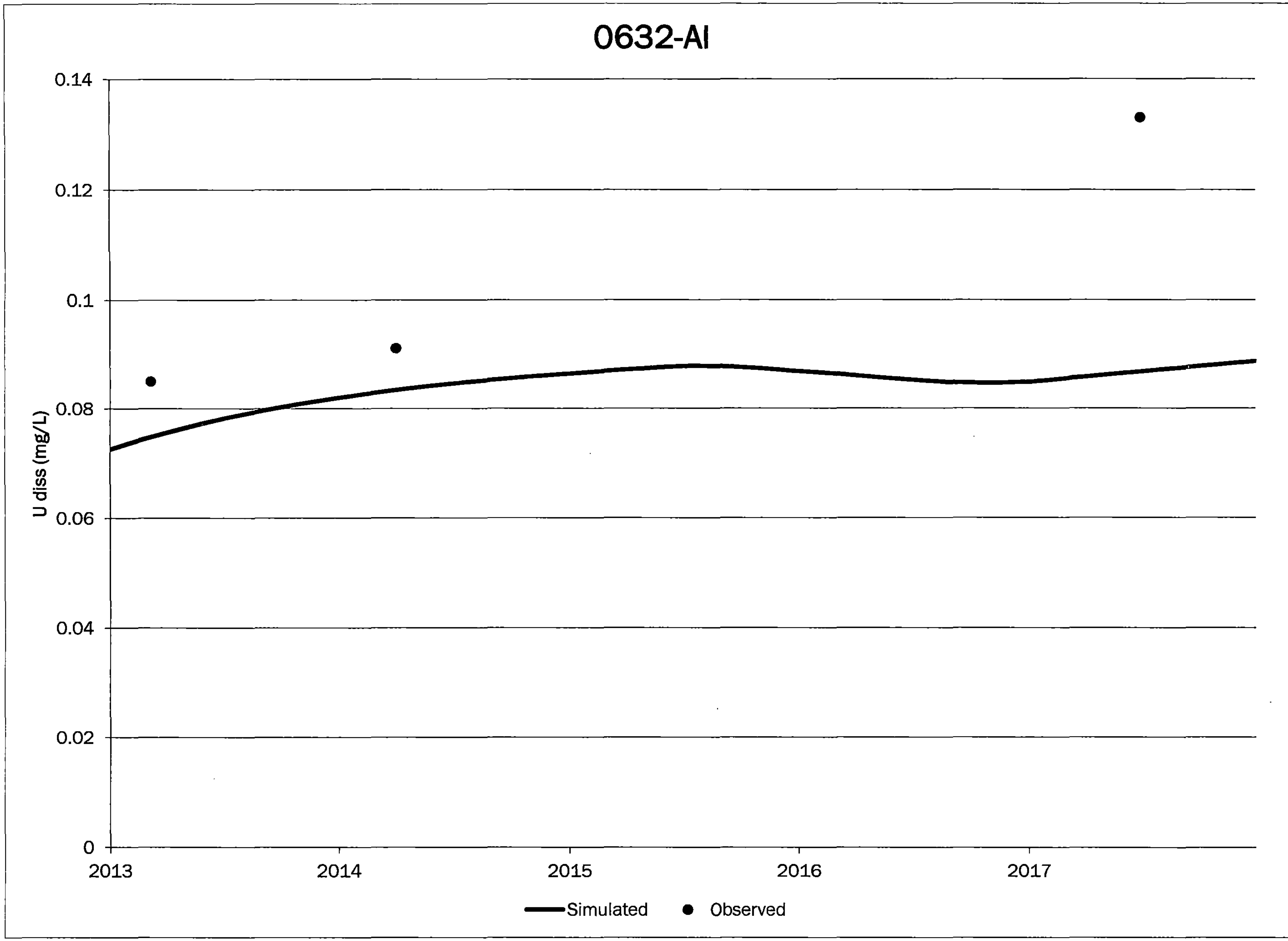
0555-AI
U diss (mg/L)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

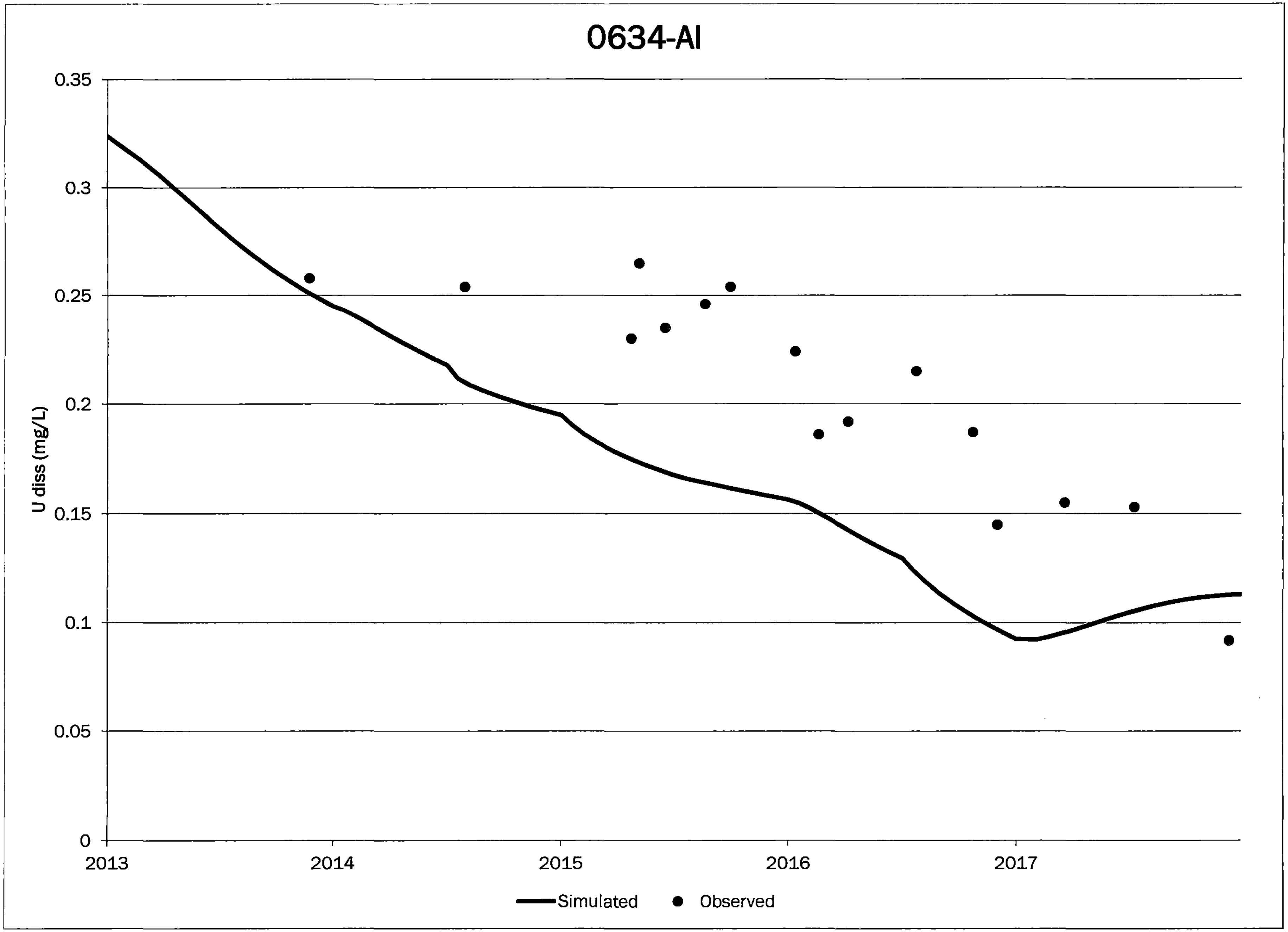


0556-AI
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

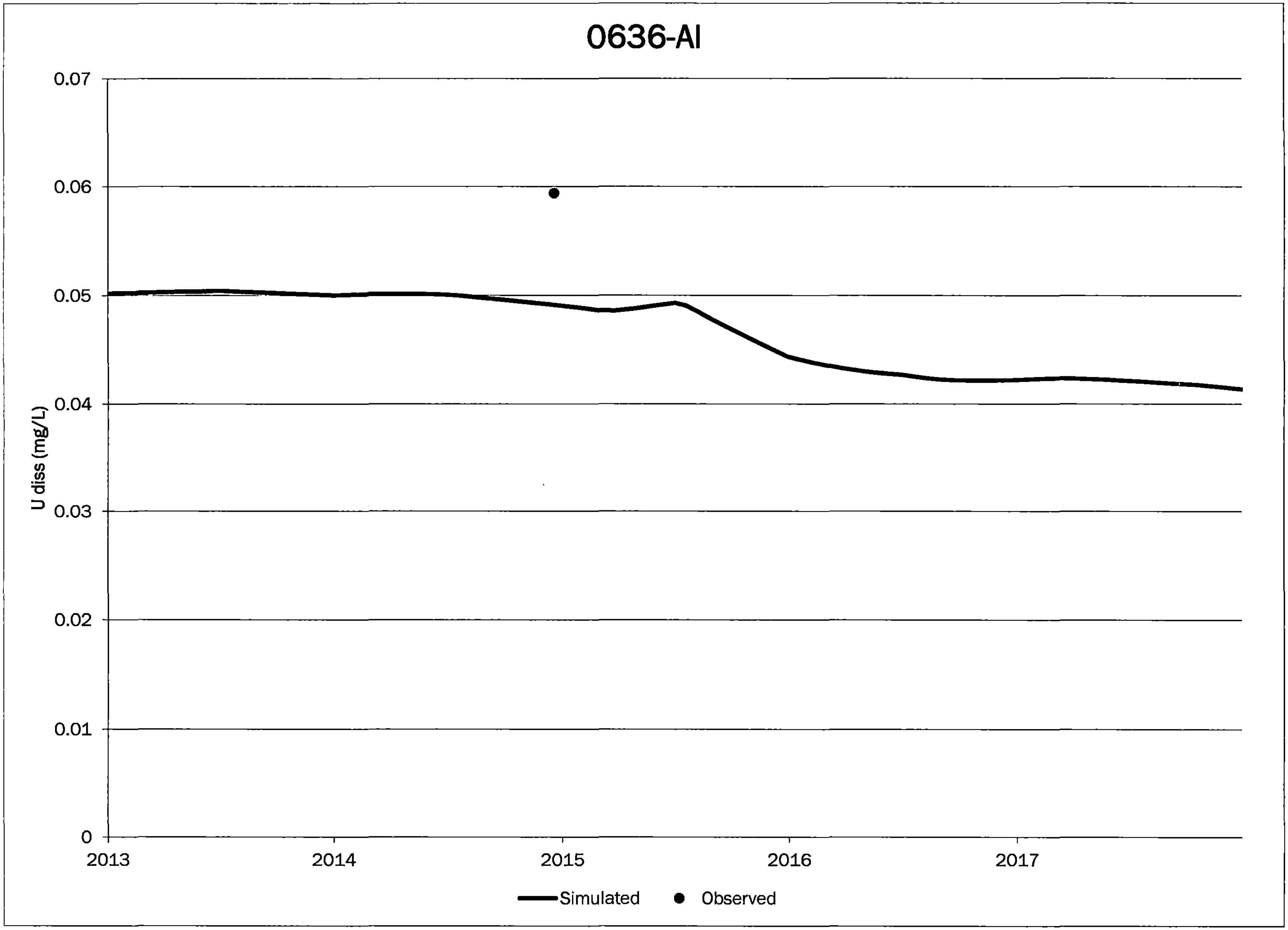

0557-AI
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

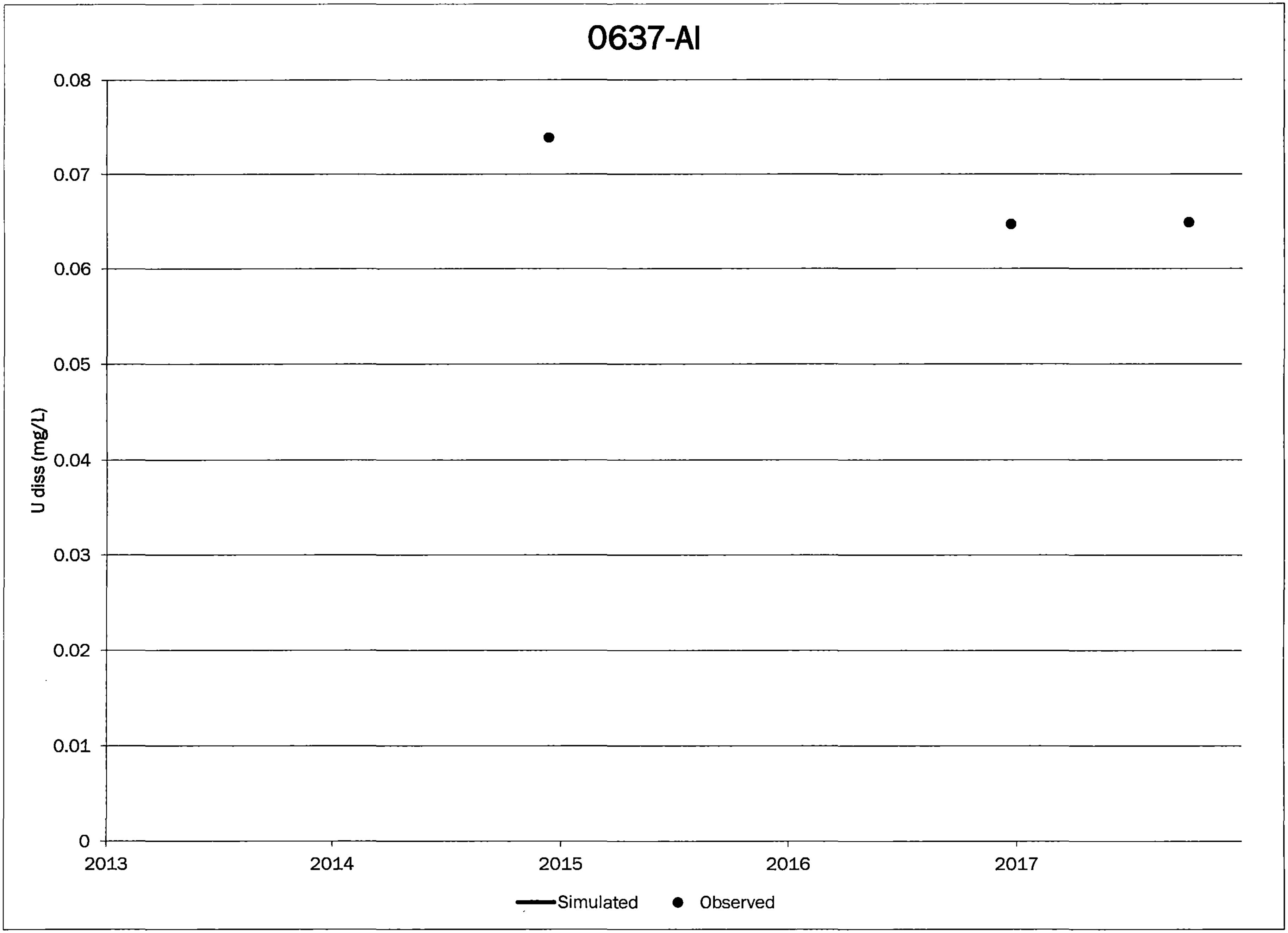

0631-AI
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0632-AI
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

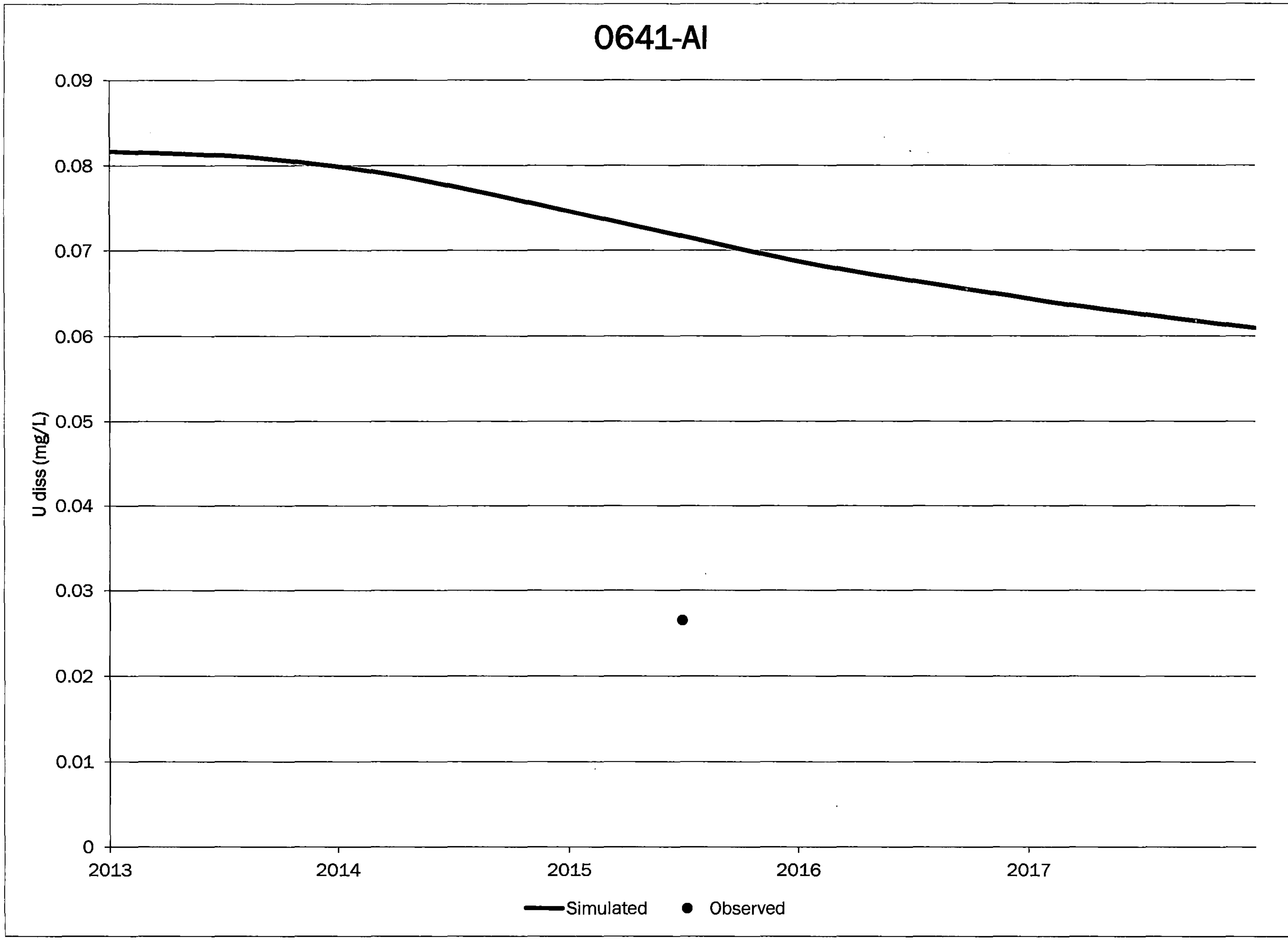


0634-AI
U diss (mg/L)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

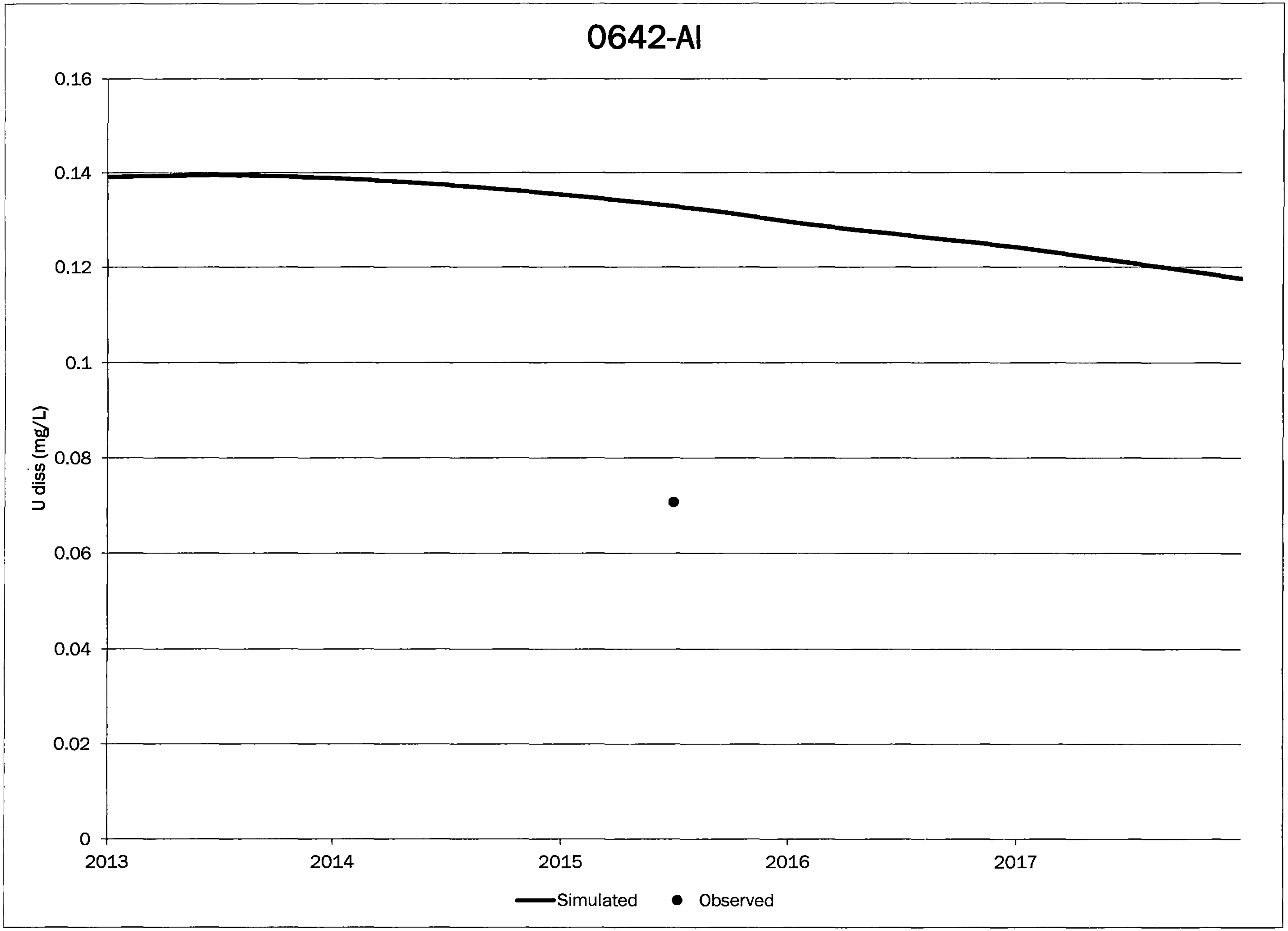

0636-AI
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

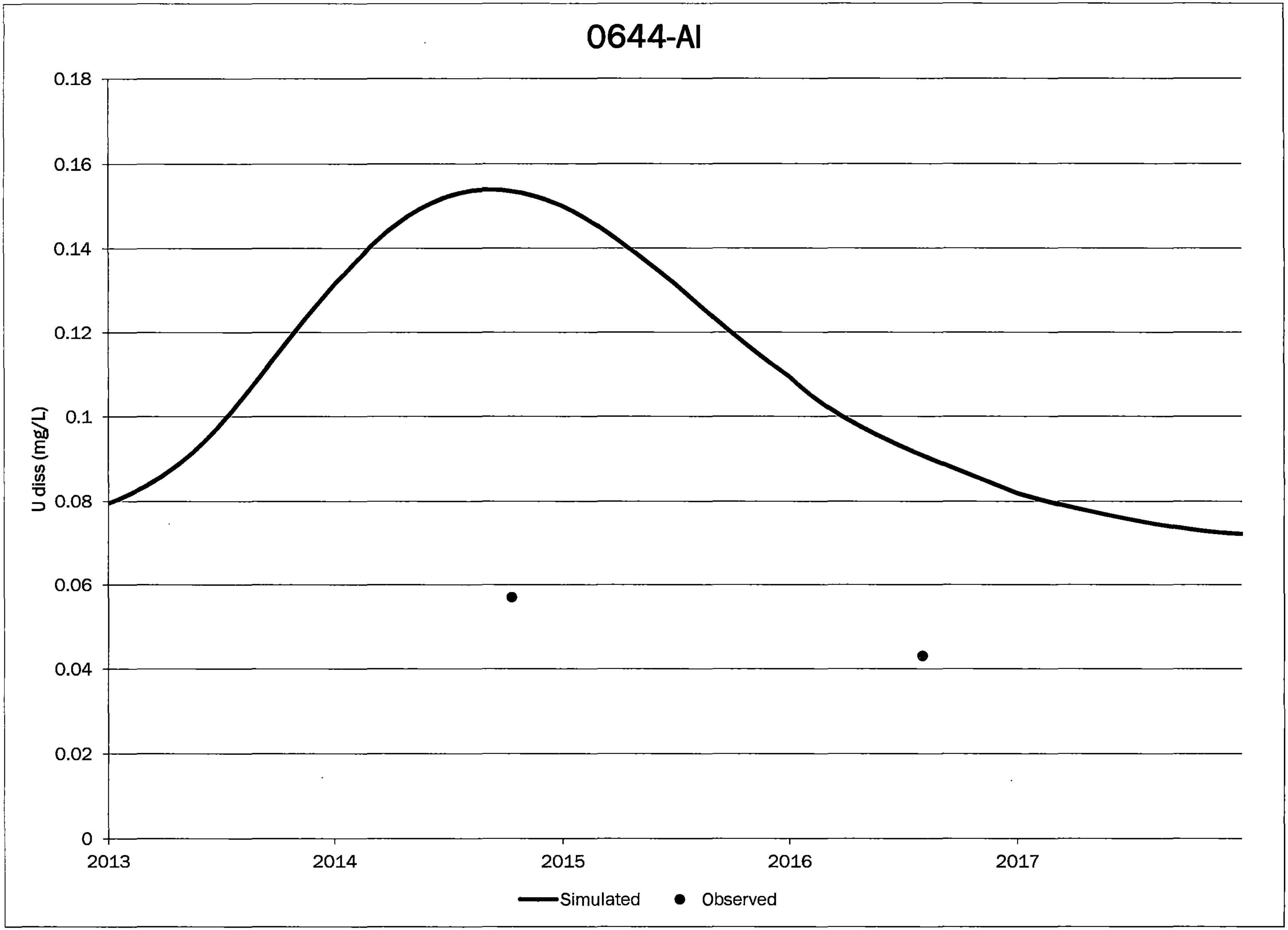


0637-AI
U diss (mg/L)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

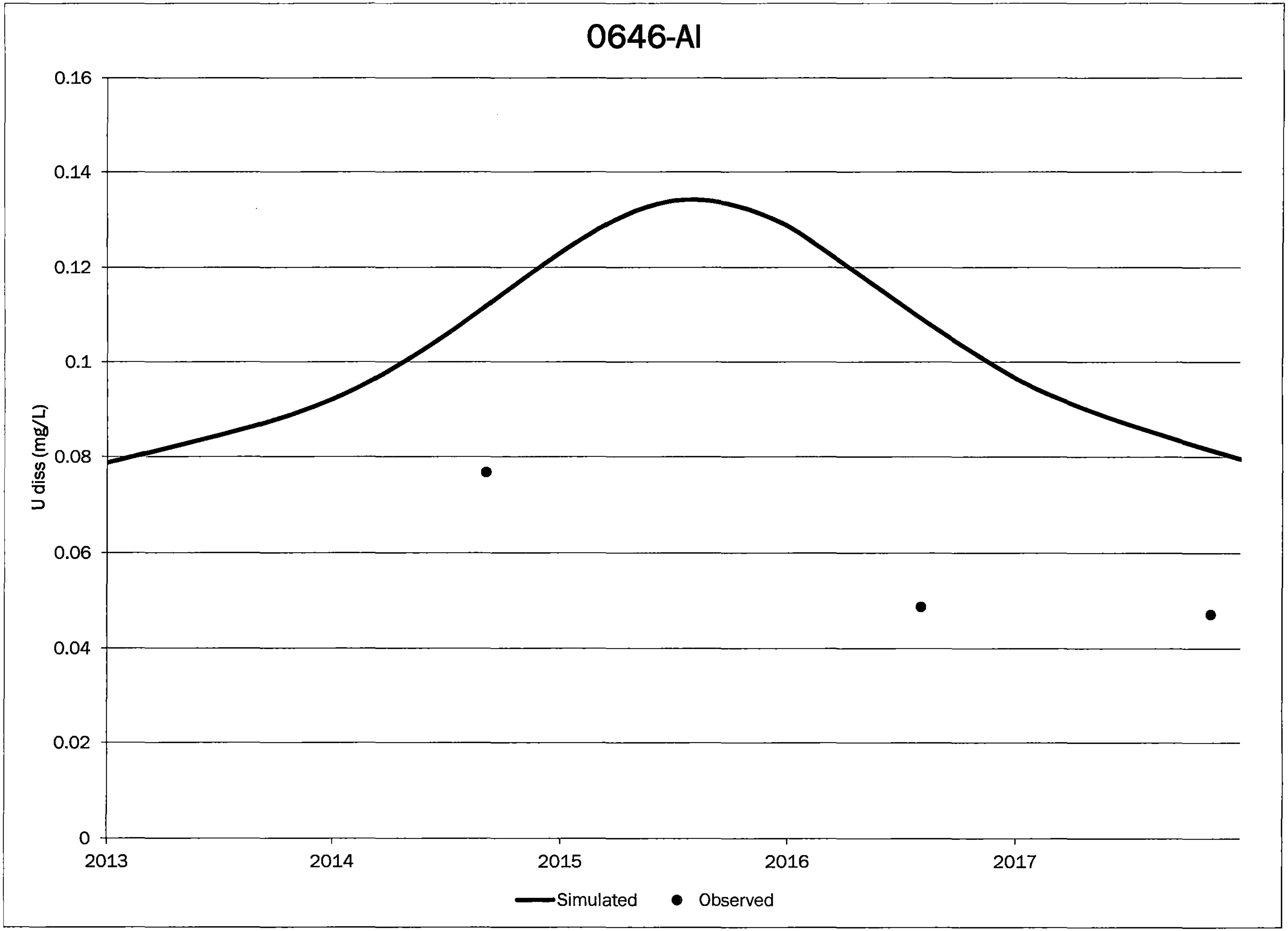


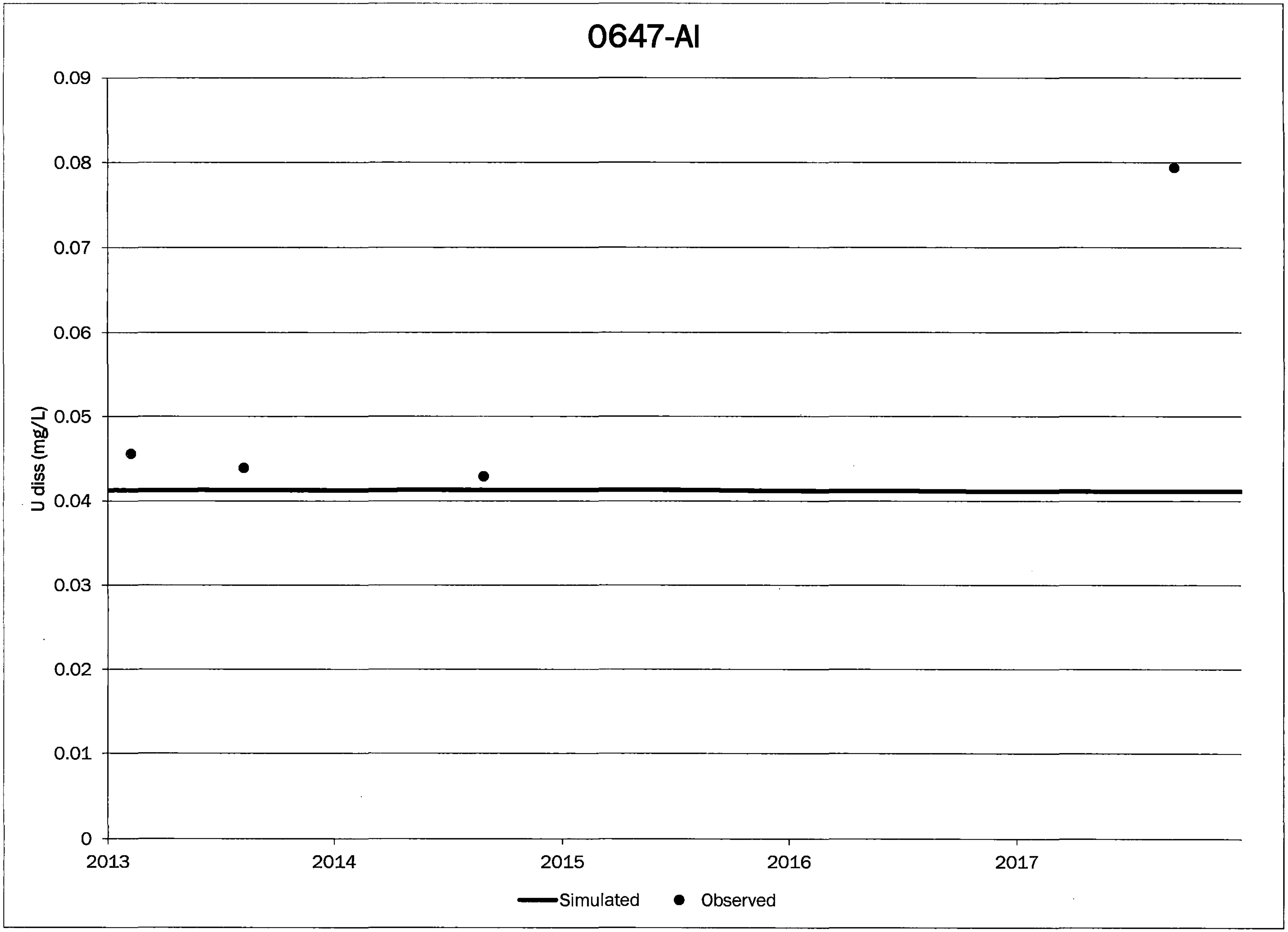
0641-AI
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0642-AI
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

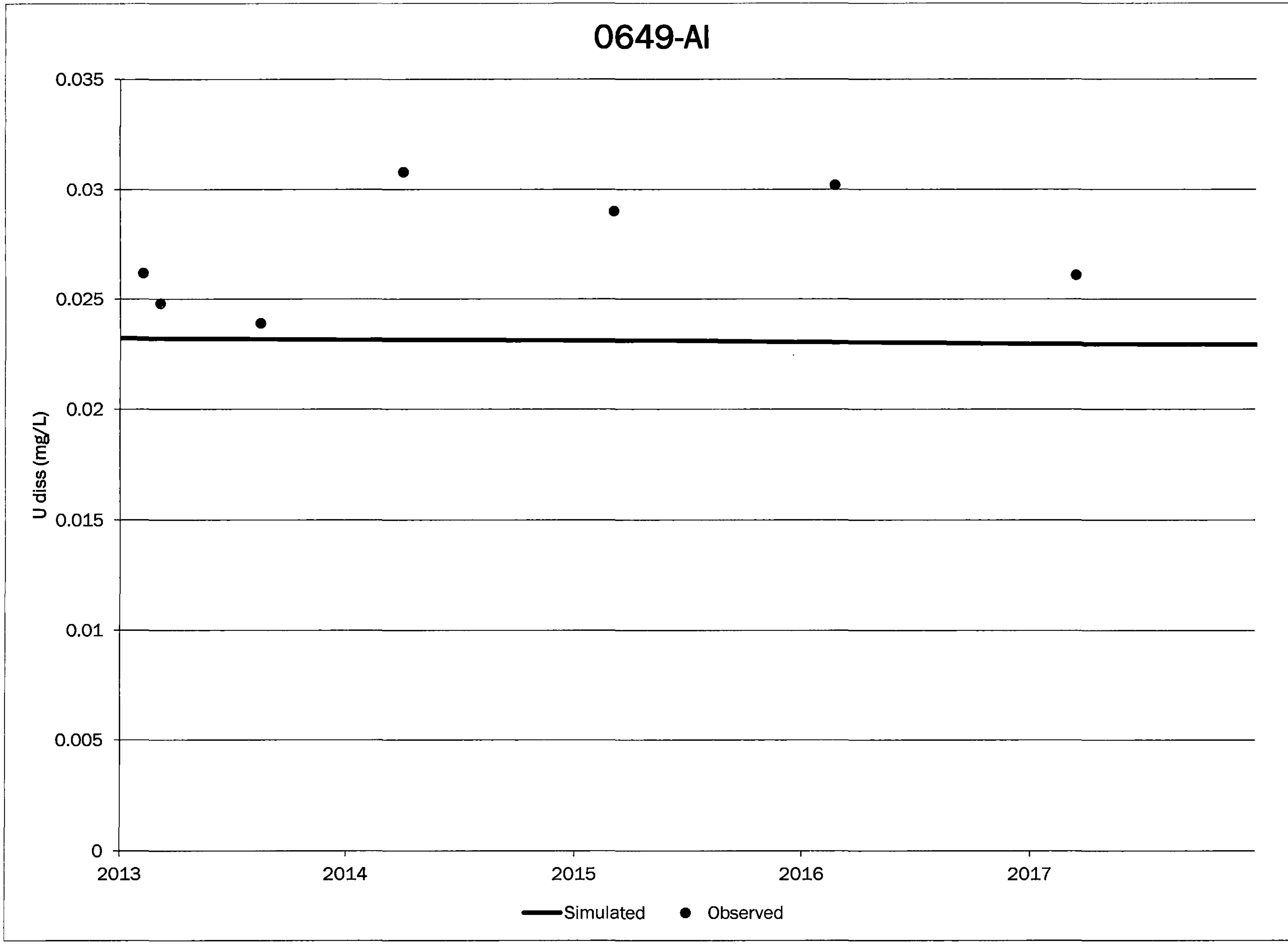


0644-AI
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

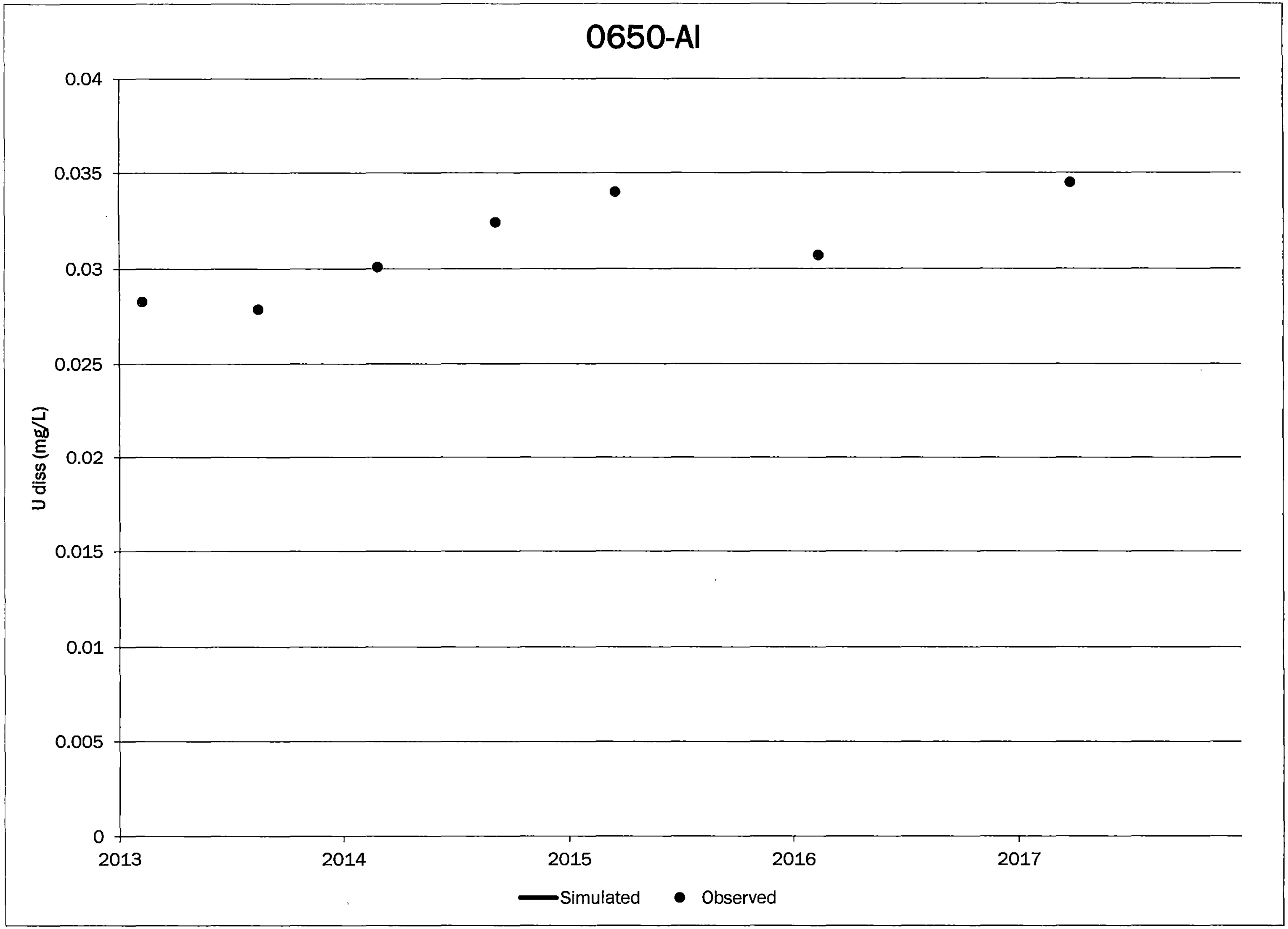

0646-AI
U diss (mg/L)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

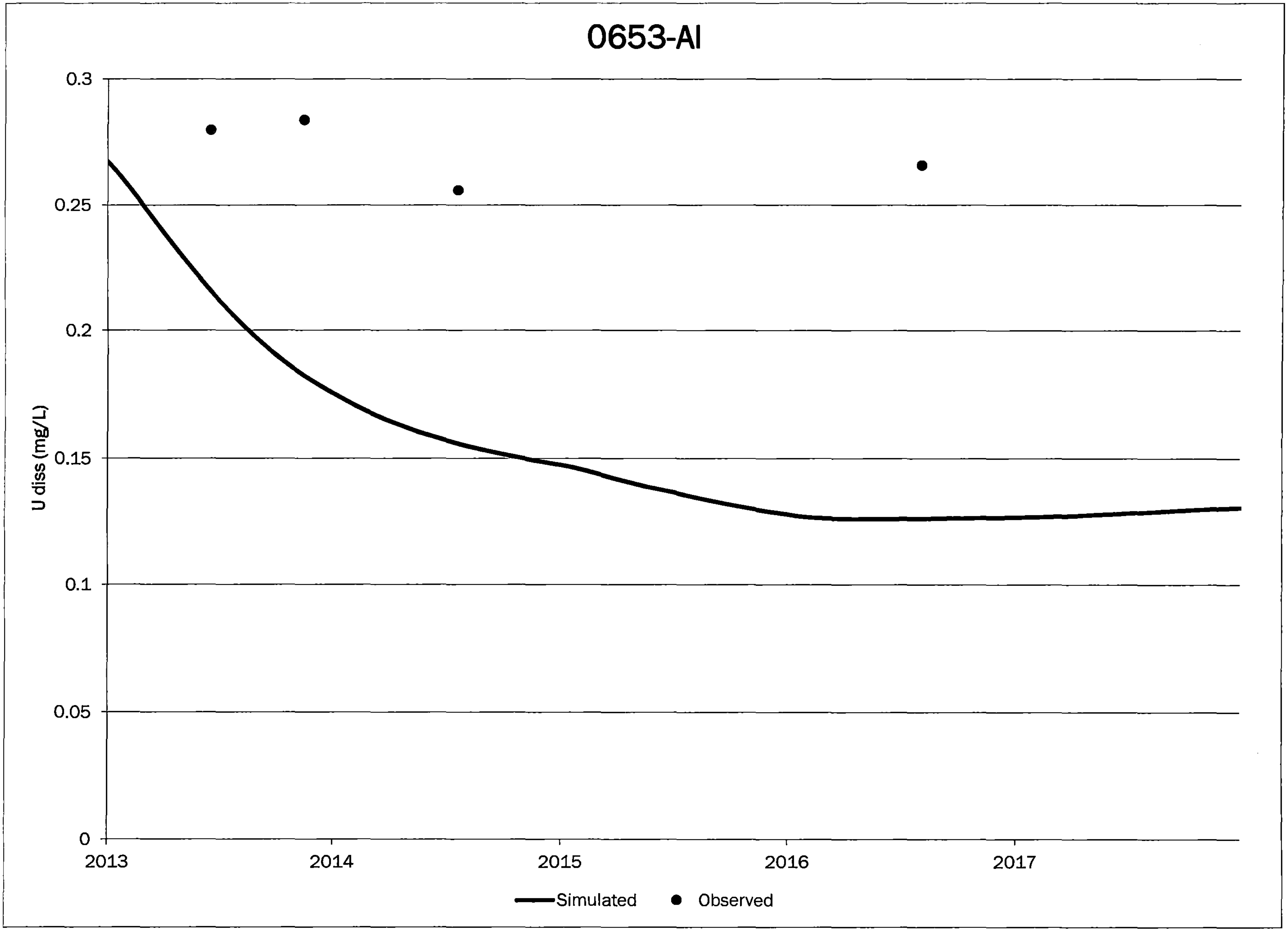


0647-AI
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

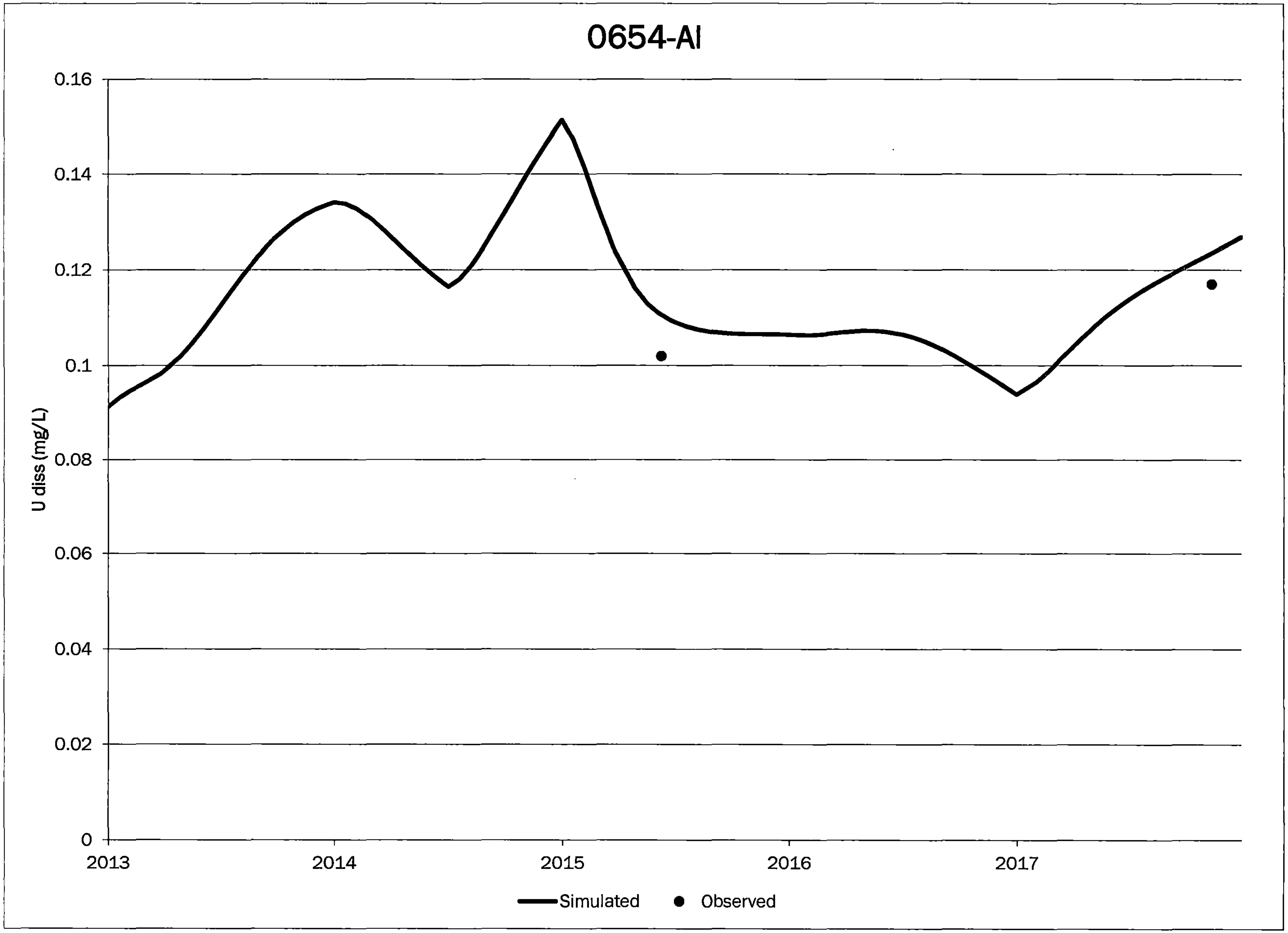


0649-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

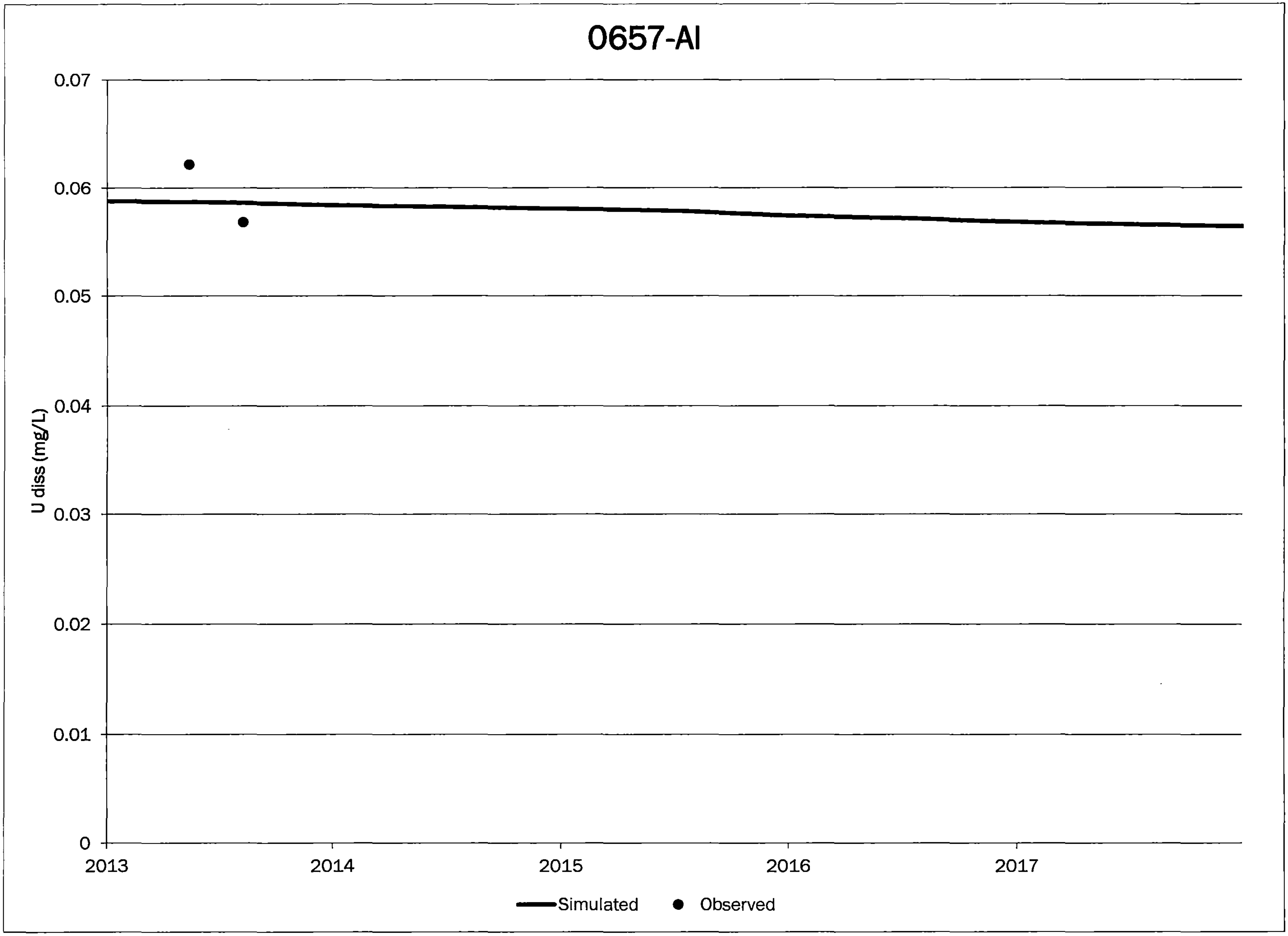

0650-AI
U diss (mg/L)
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



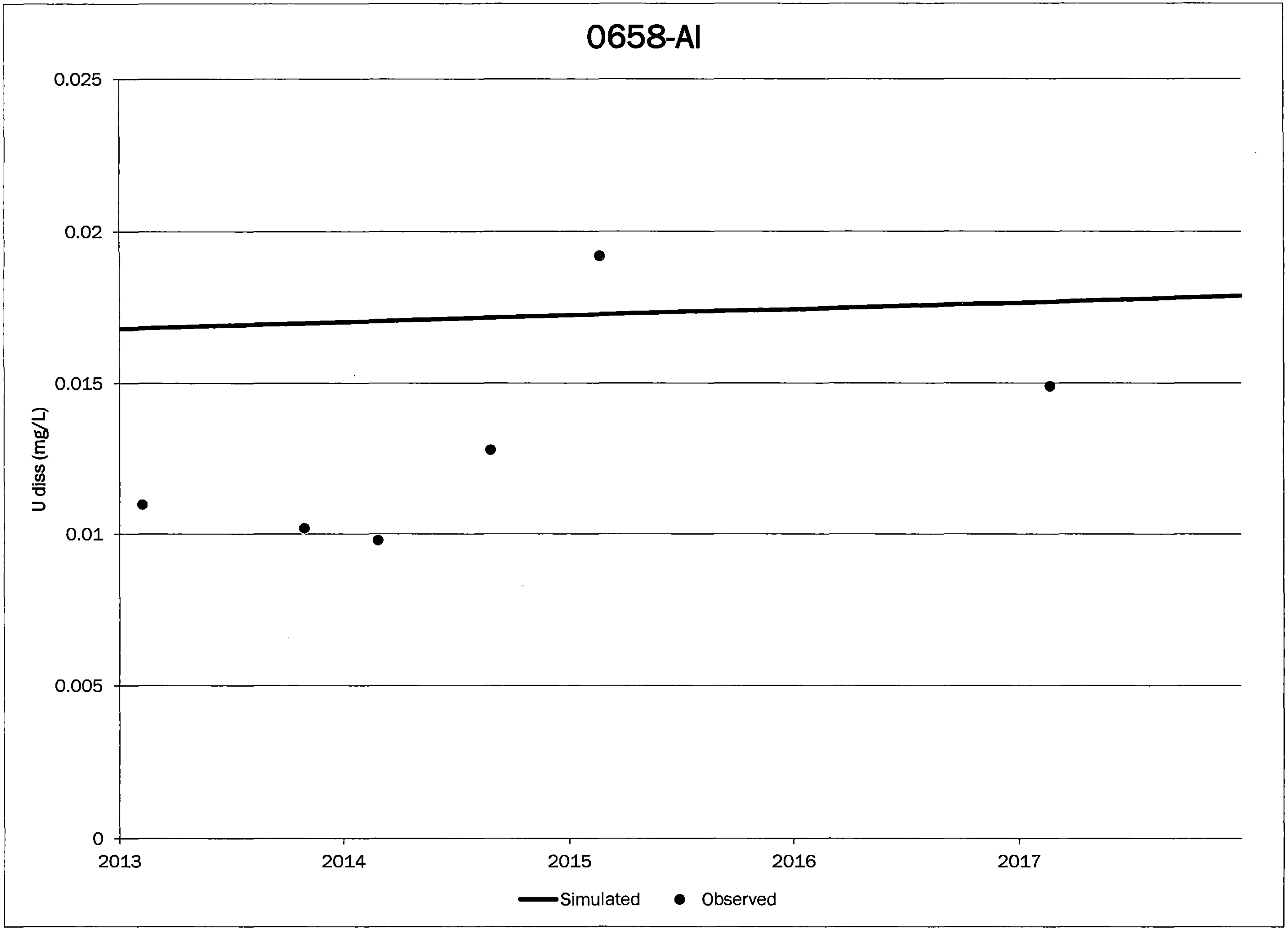
0653-AI
U diss (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



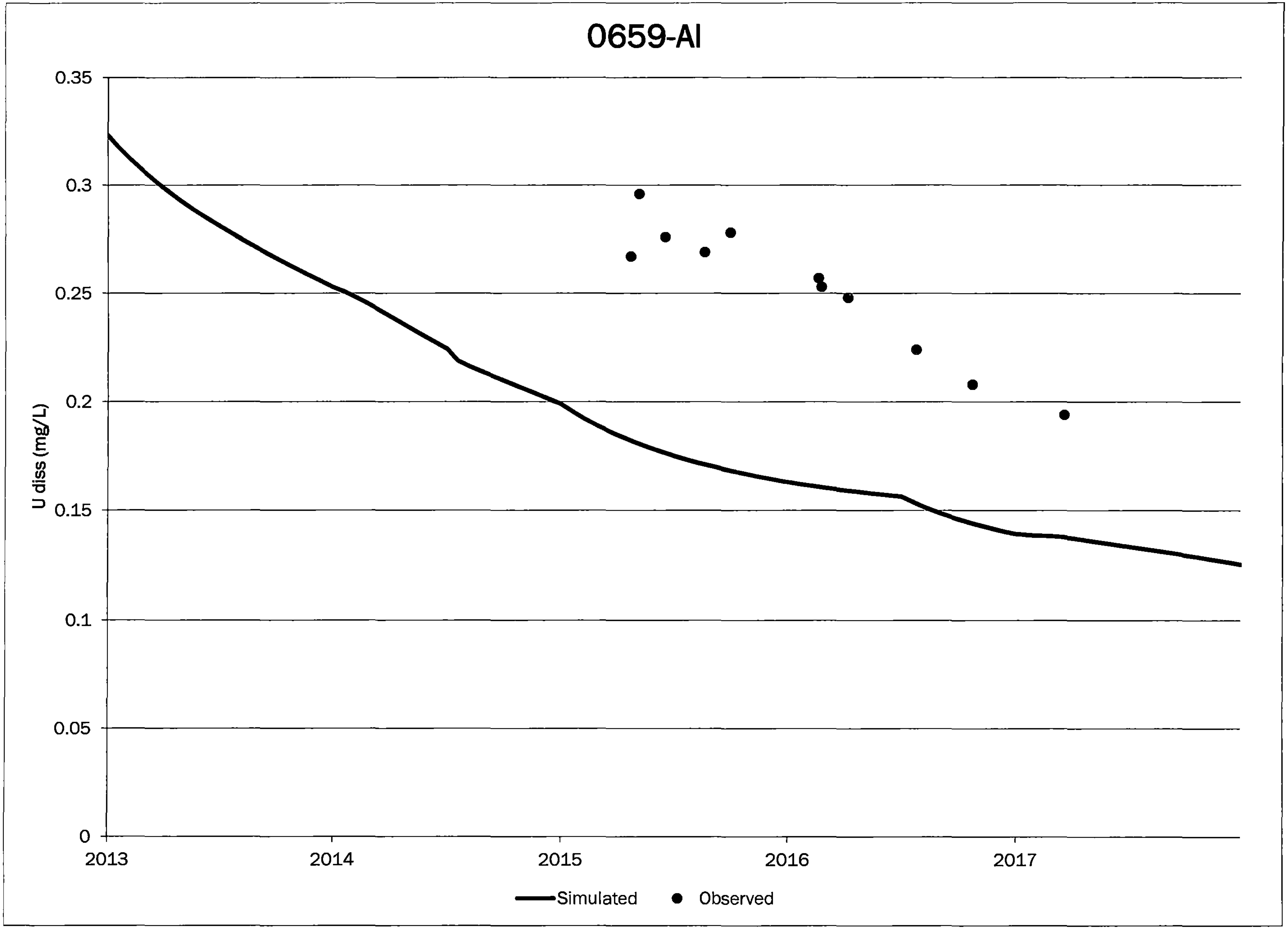
0654-AI
U diss (mg/L)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



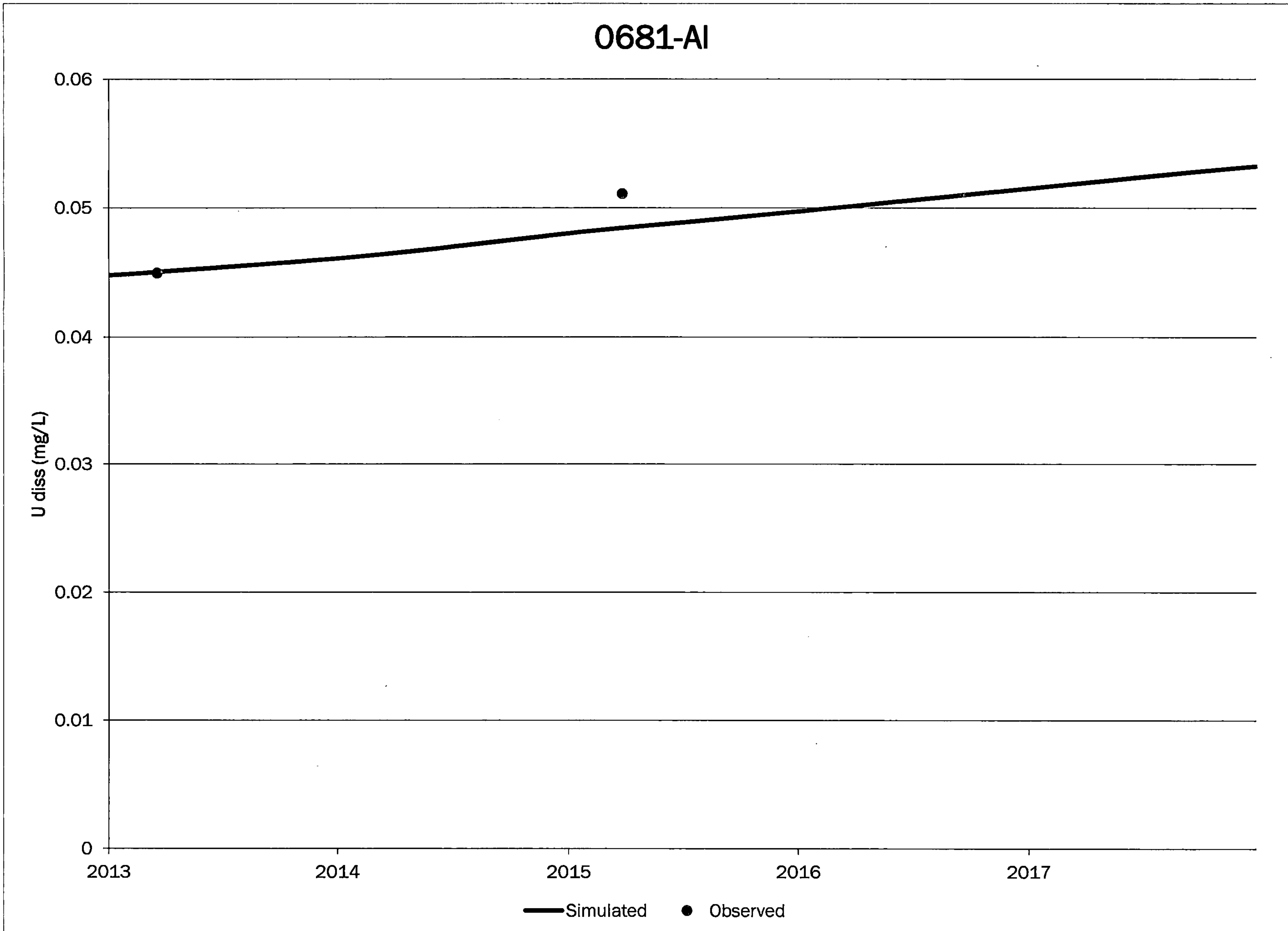
0657-AI
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

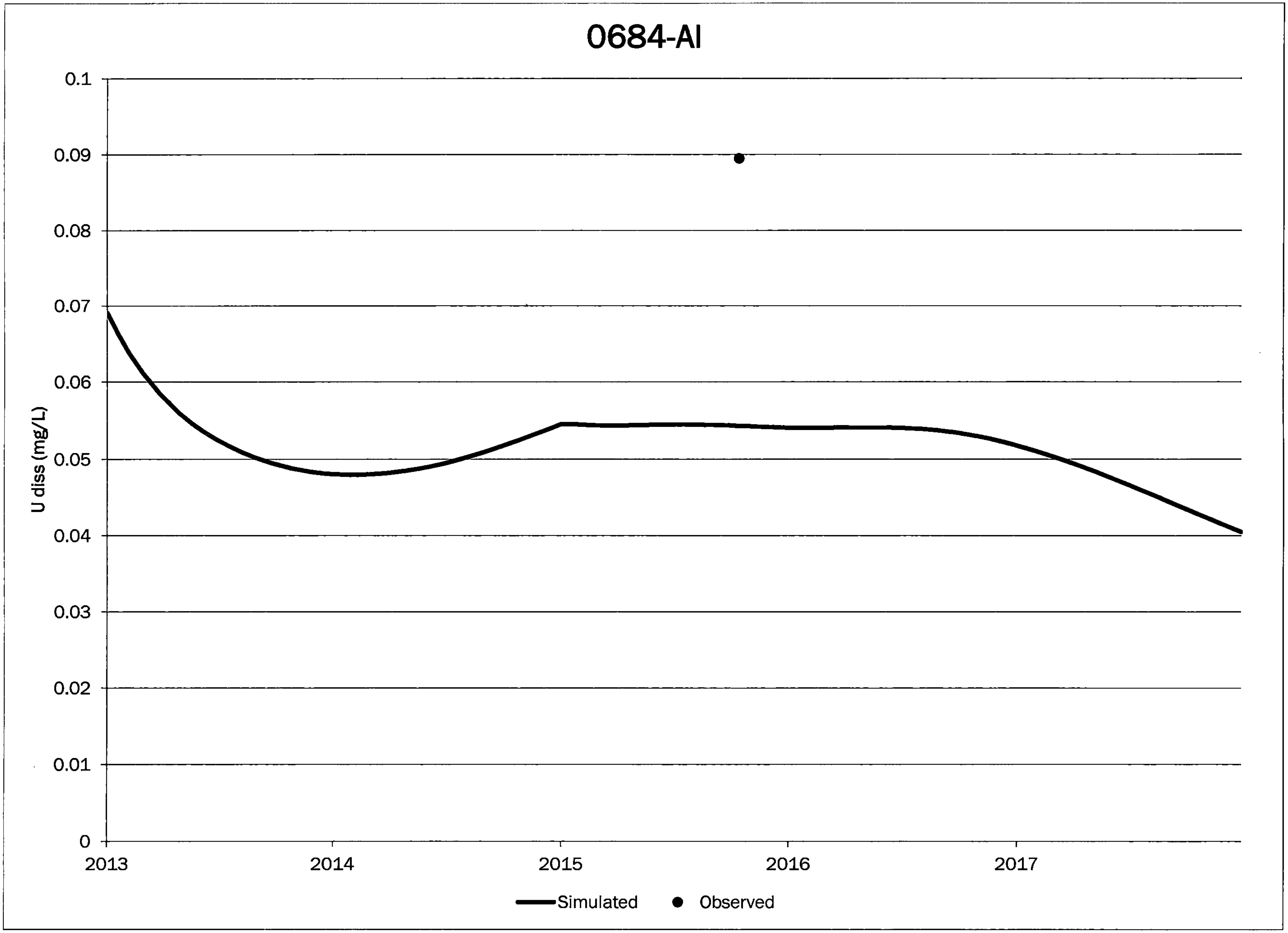


0658-AI
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

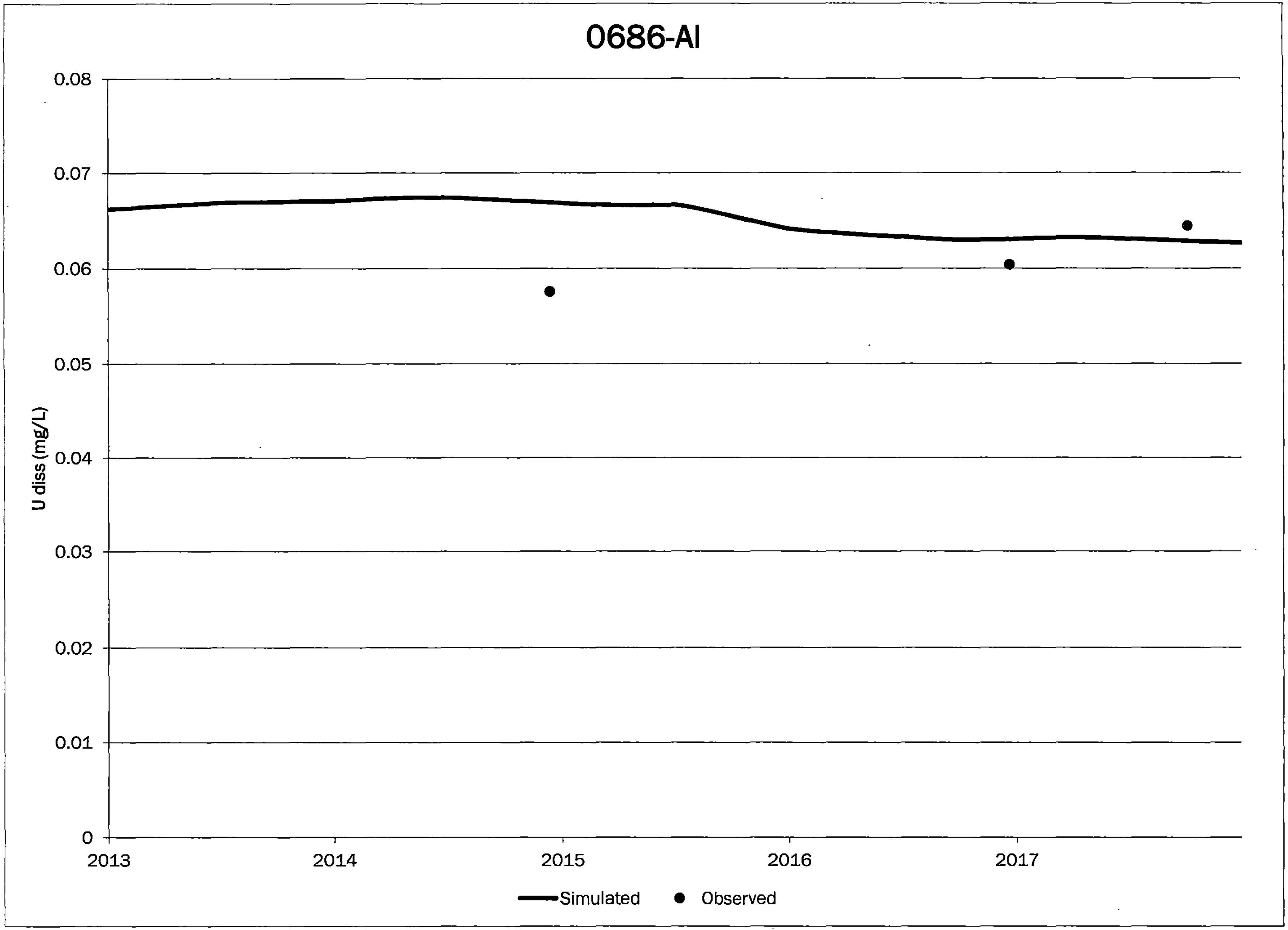


0659-AI
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

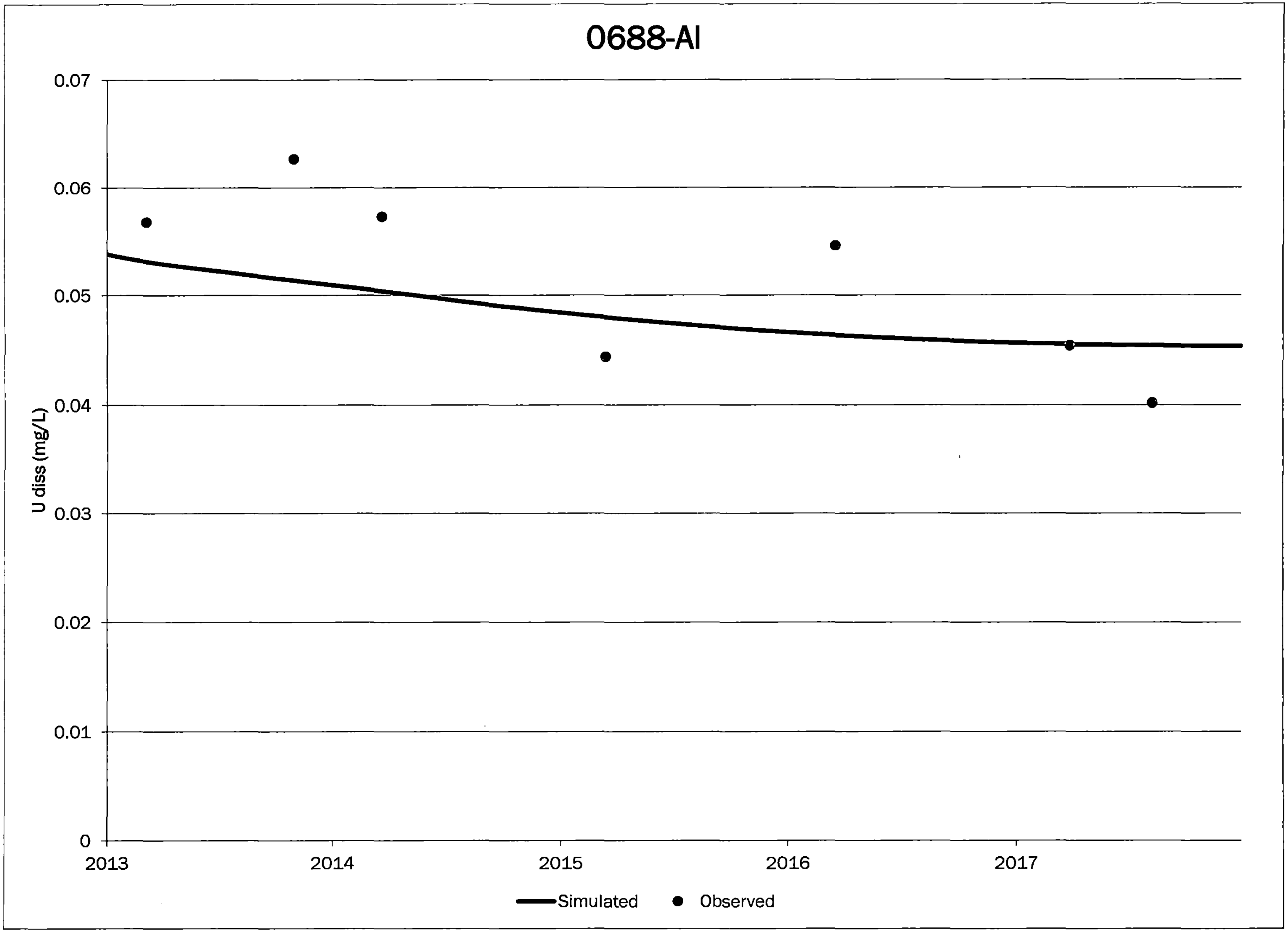

0681-AI
U diss (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

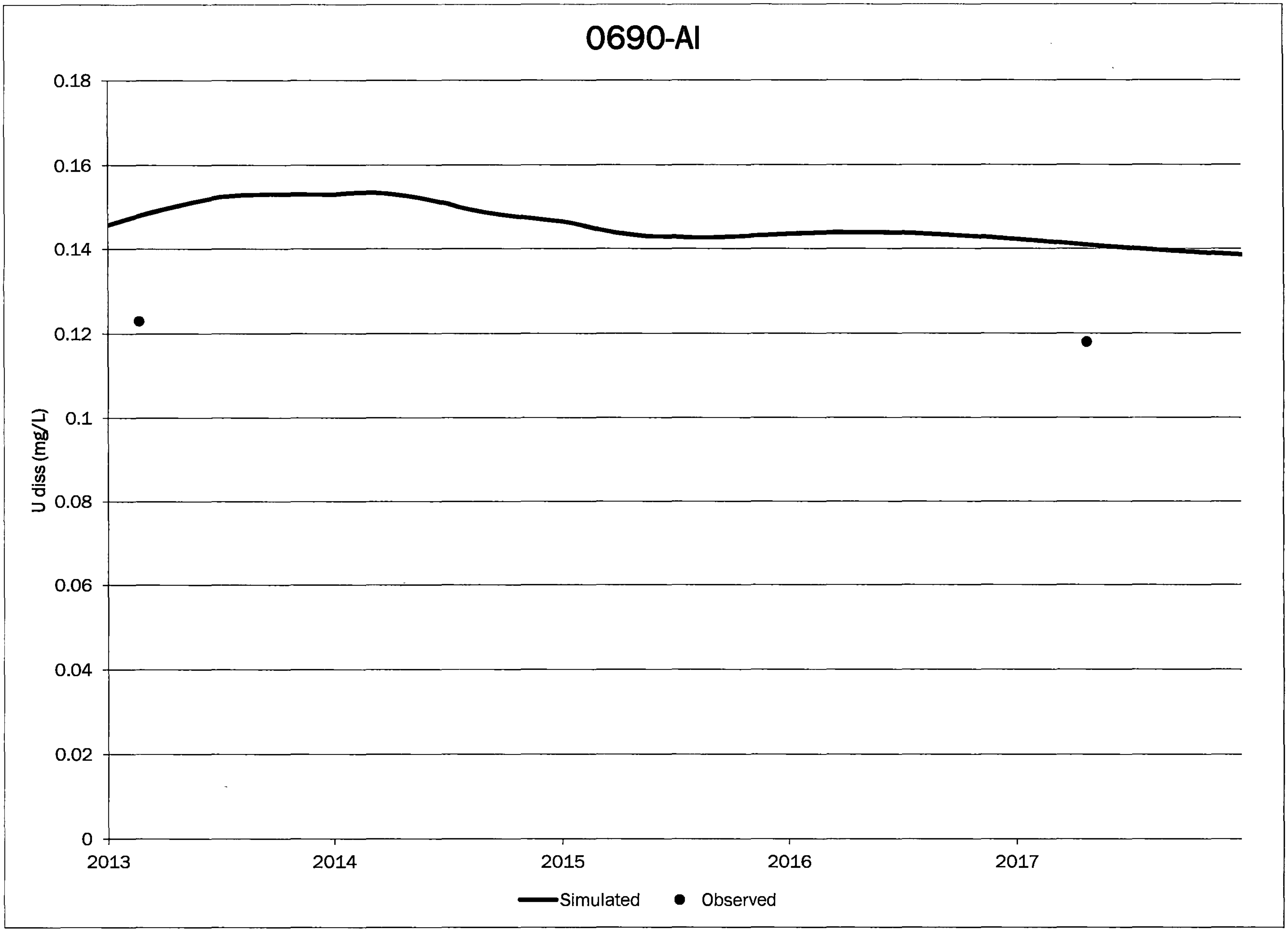


0684-AI
U diss (mg/L)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

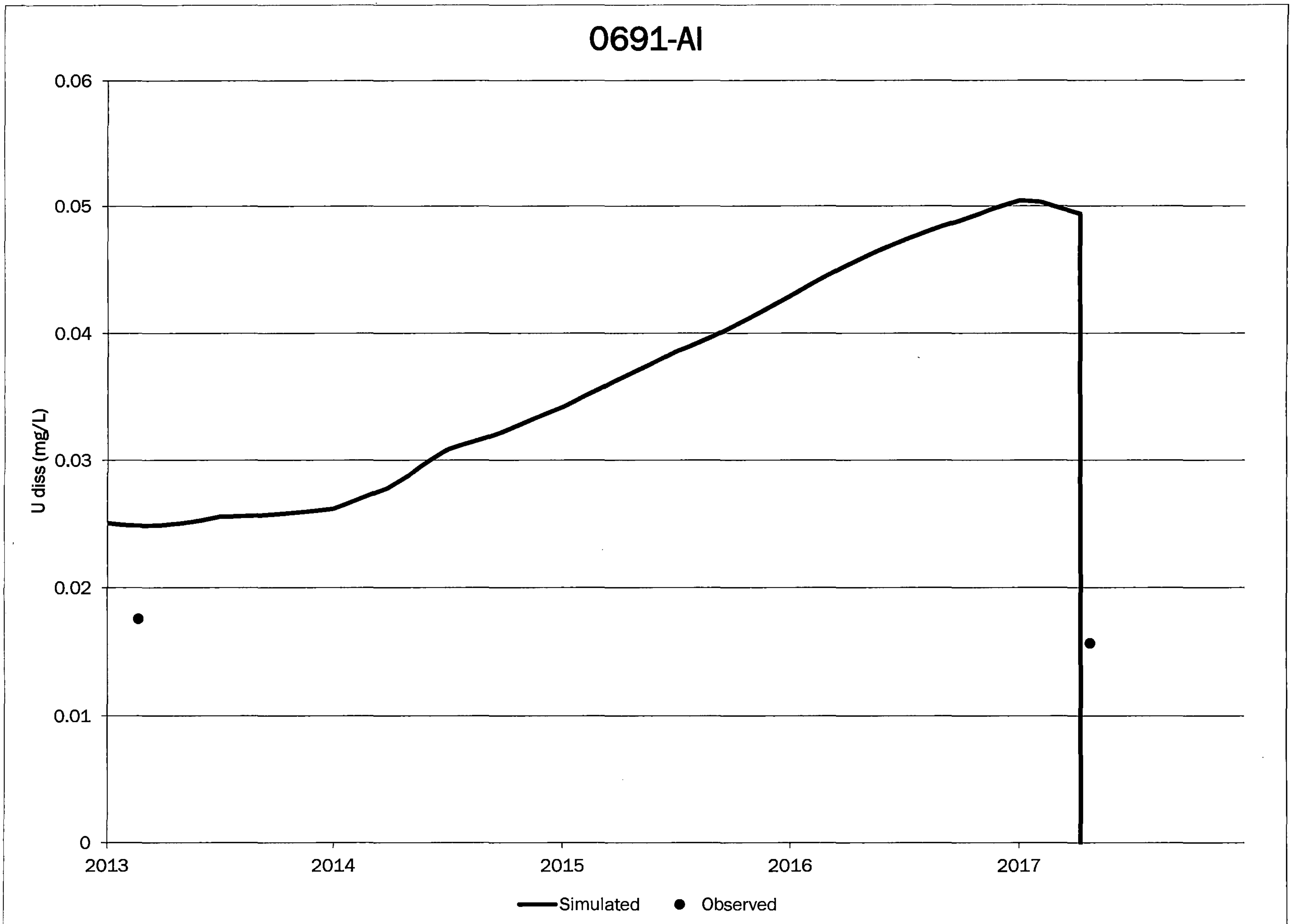


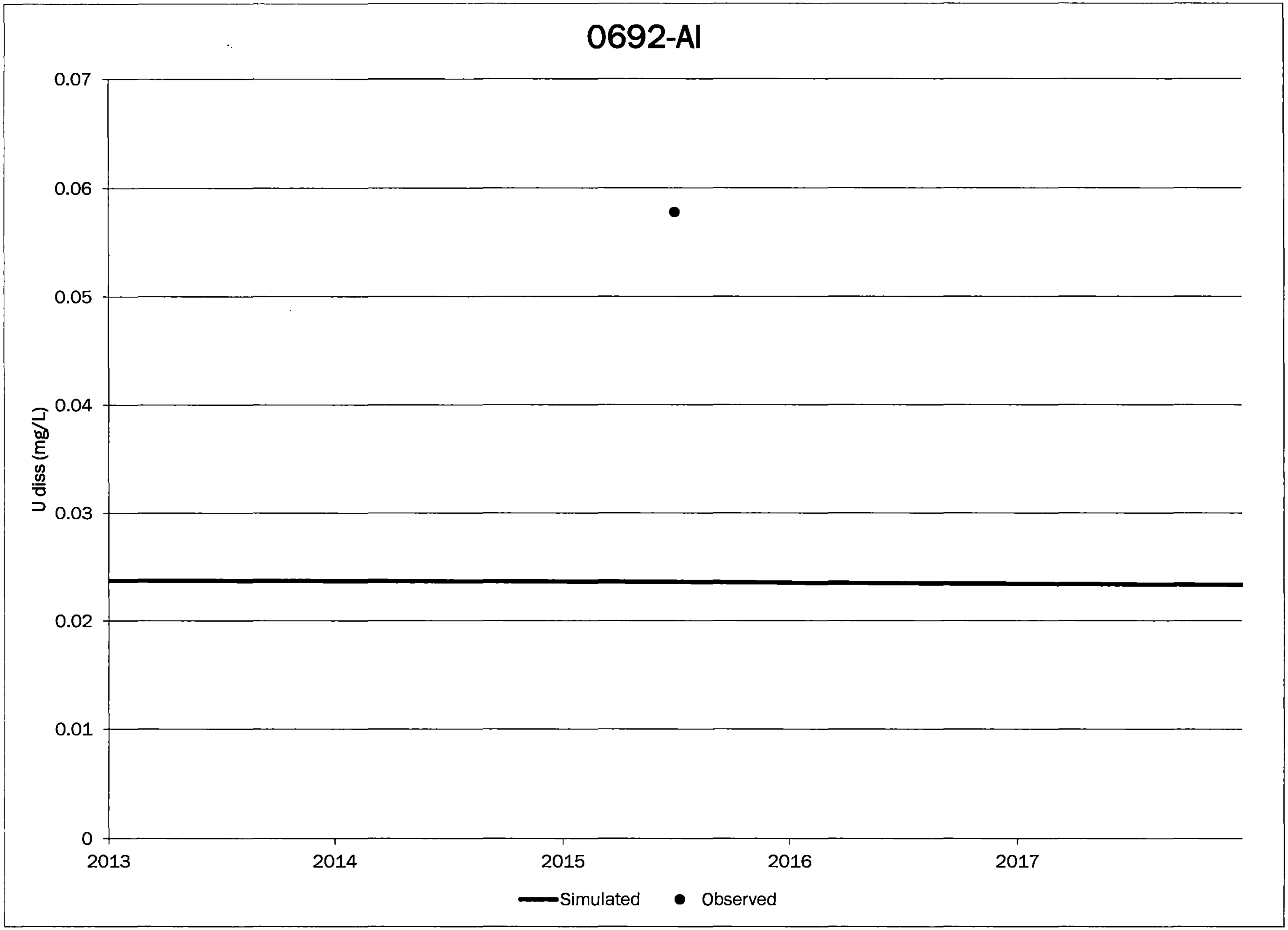
0686-AI
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

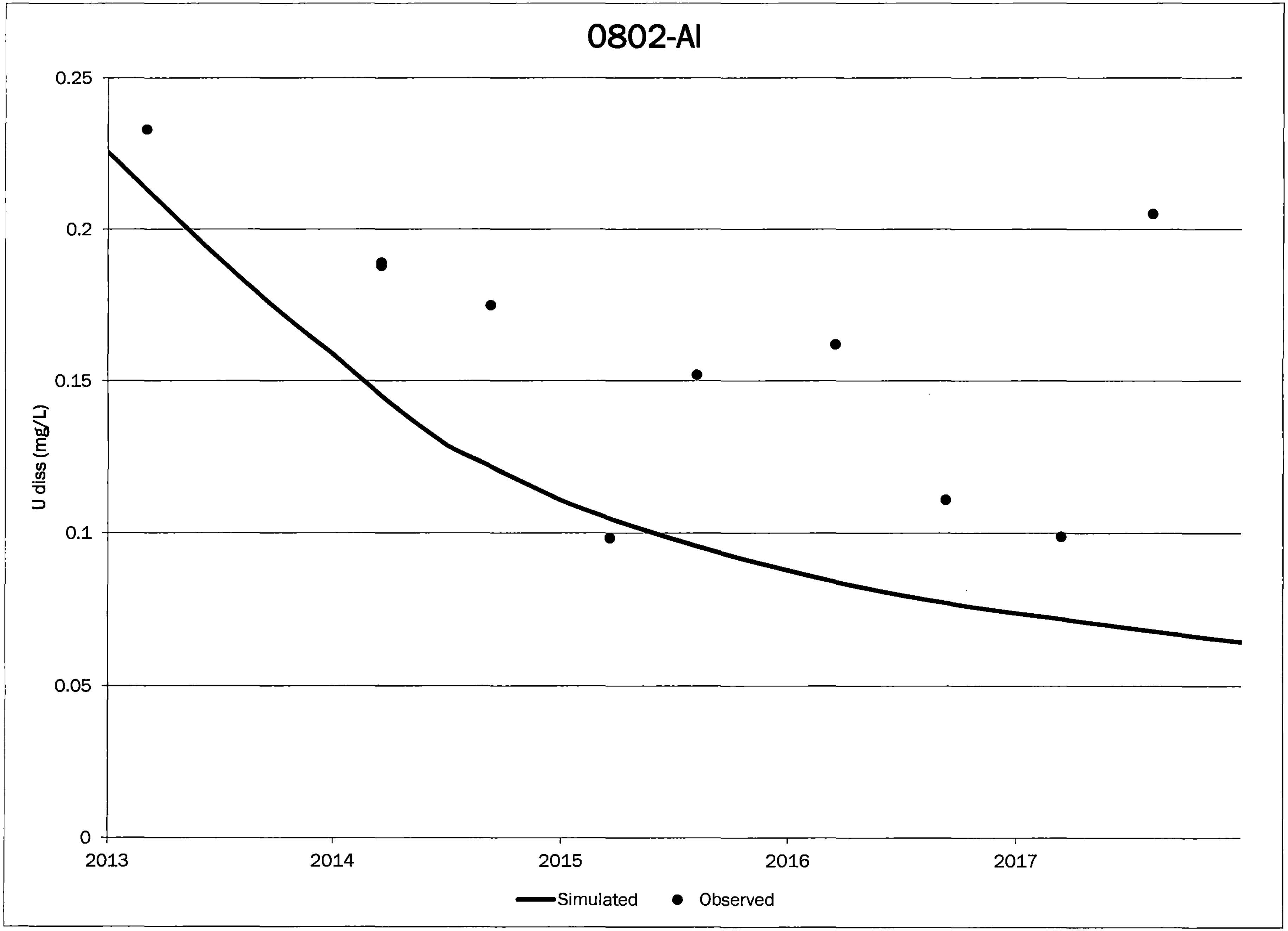

0688-AI
U diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed



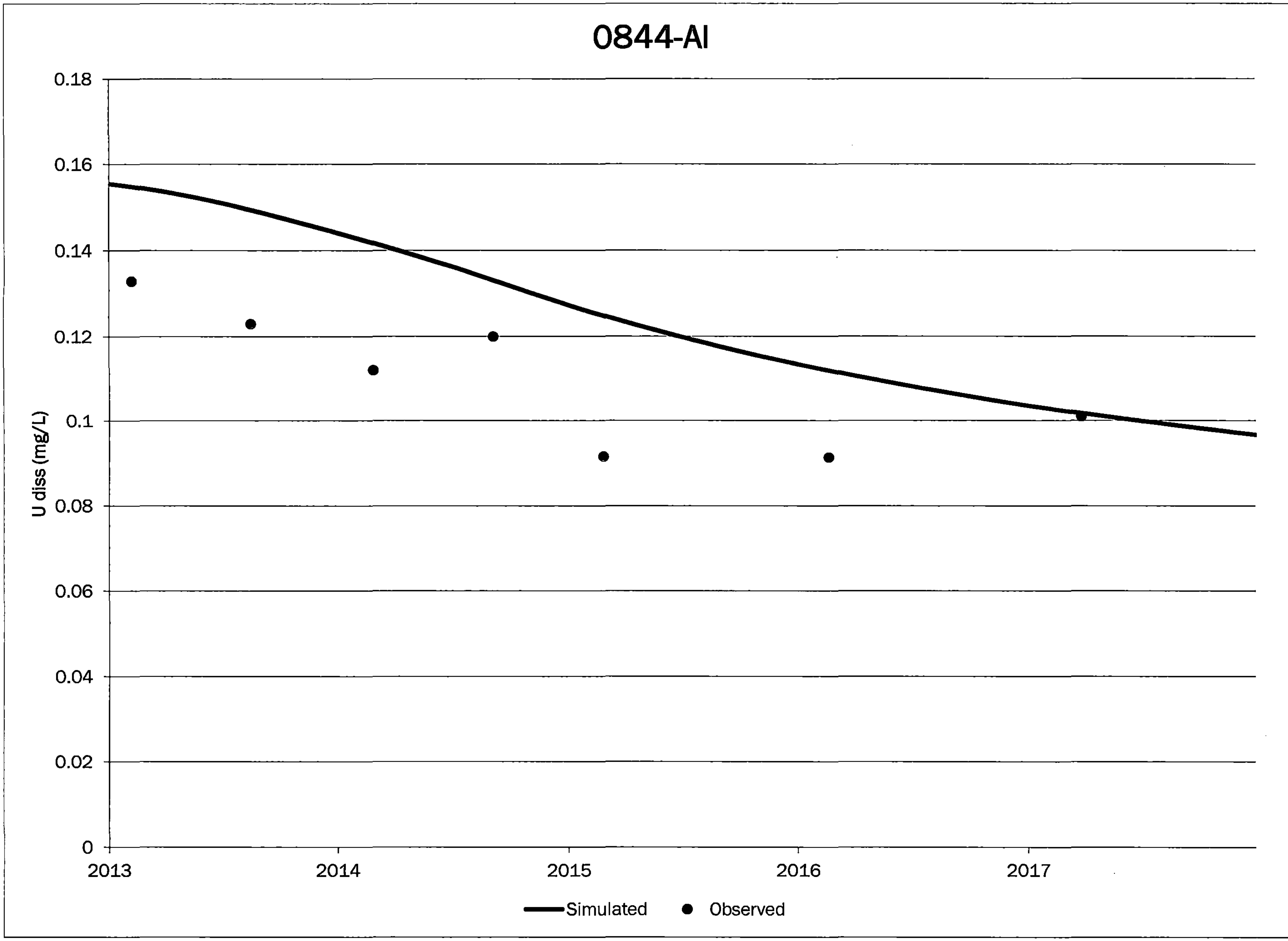
0690-AI
U diss (mg/L)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

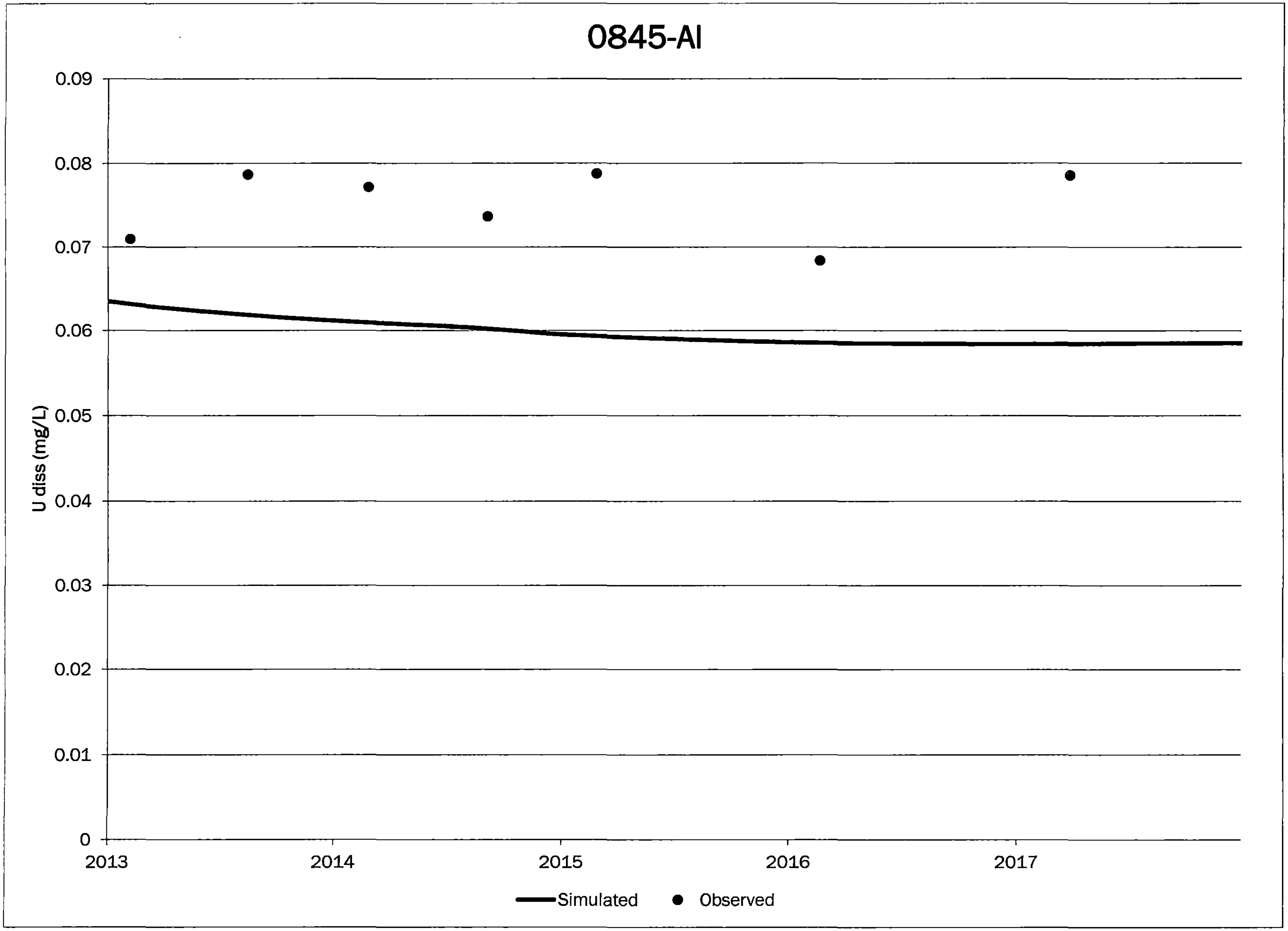

0691-AI
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

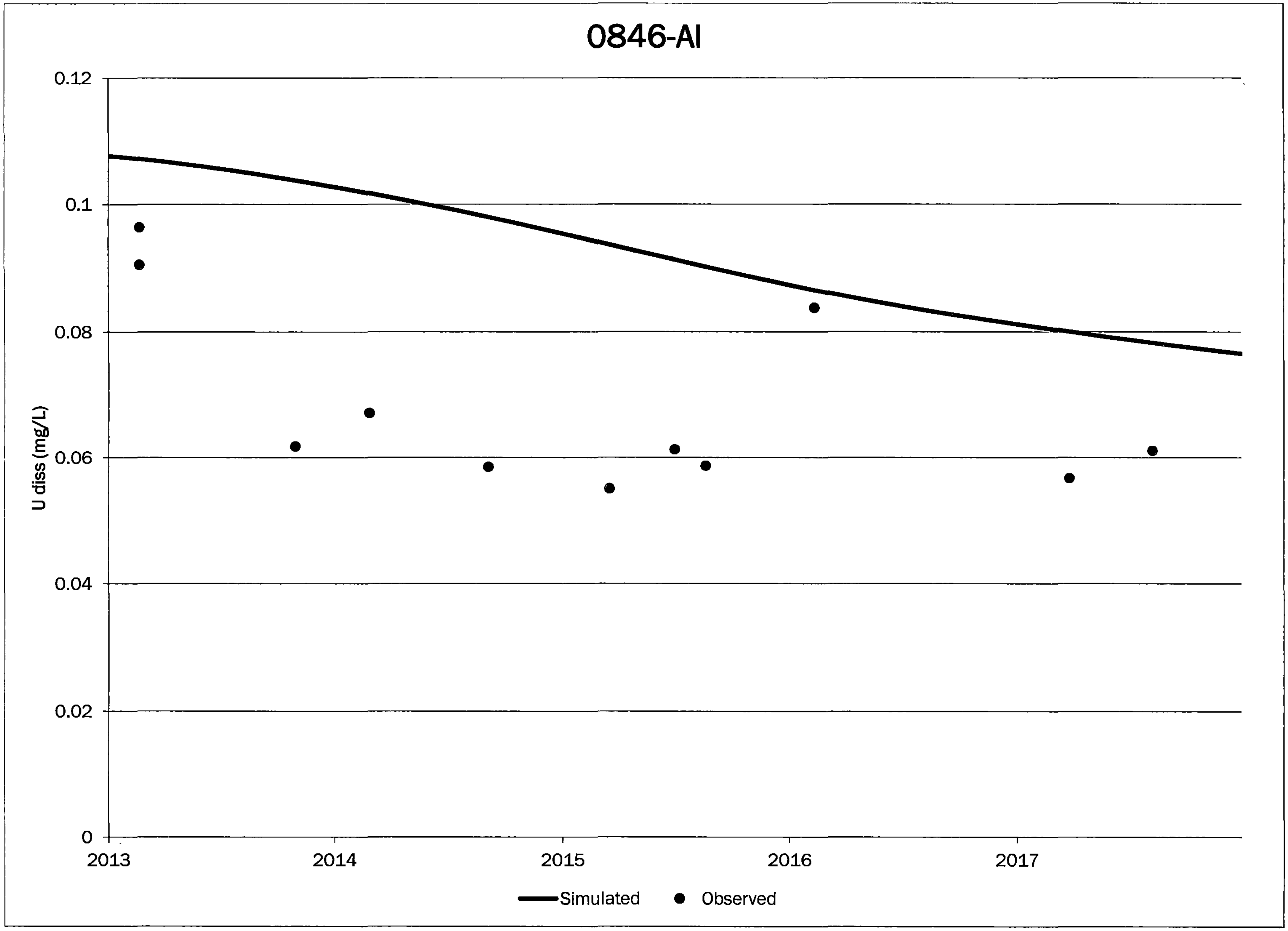

0692-AI
U diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed



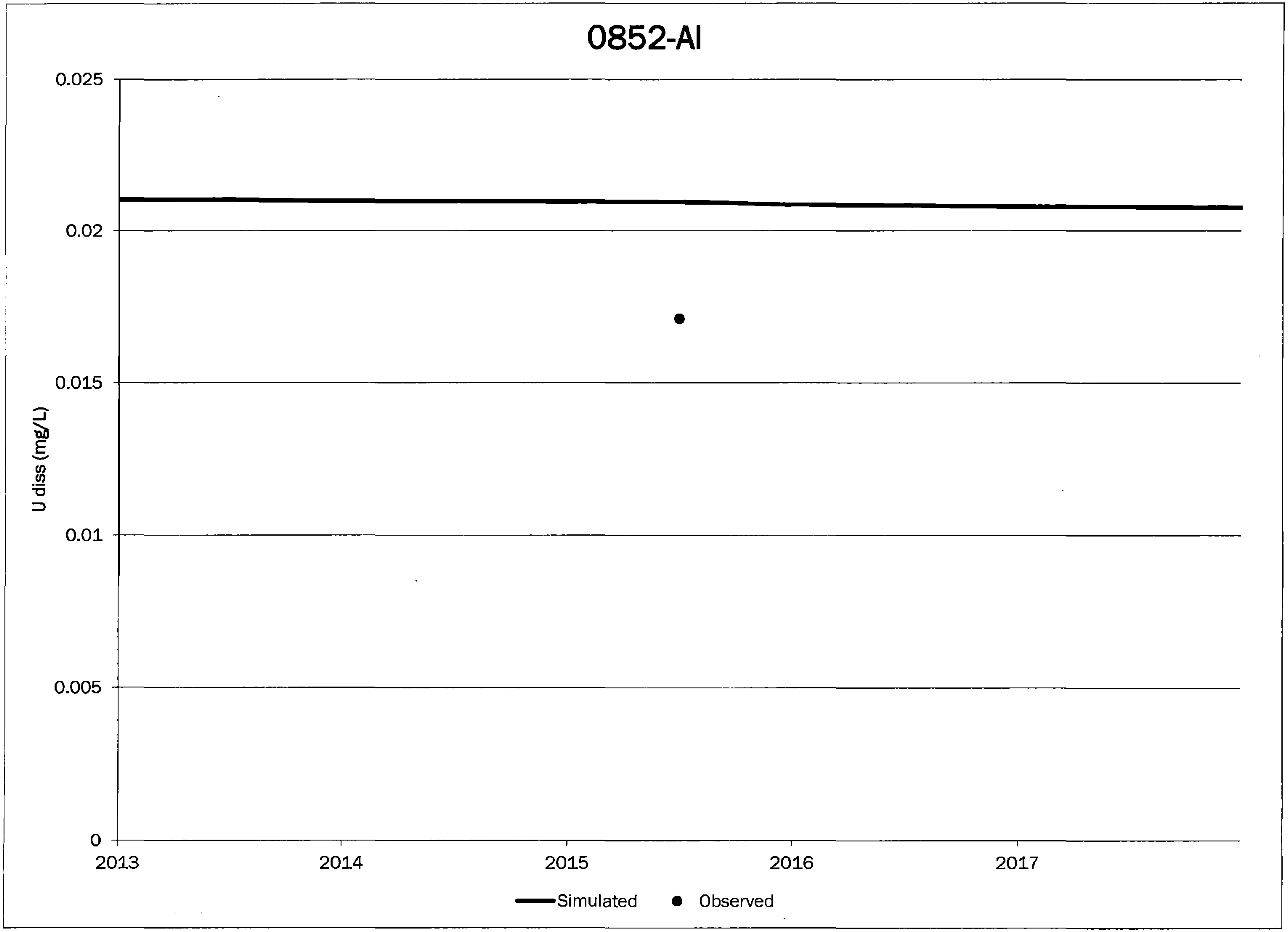
0802-AI
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed


0844-AI
U diss (mg/L)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

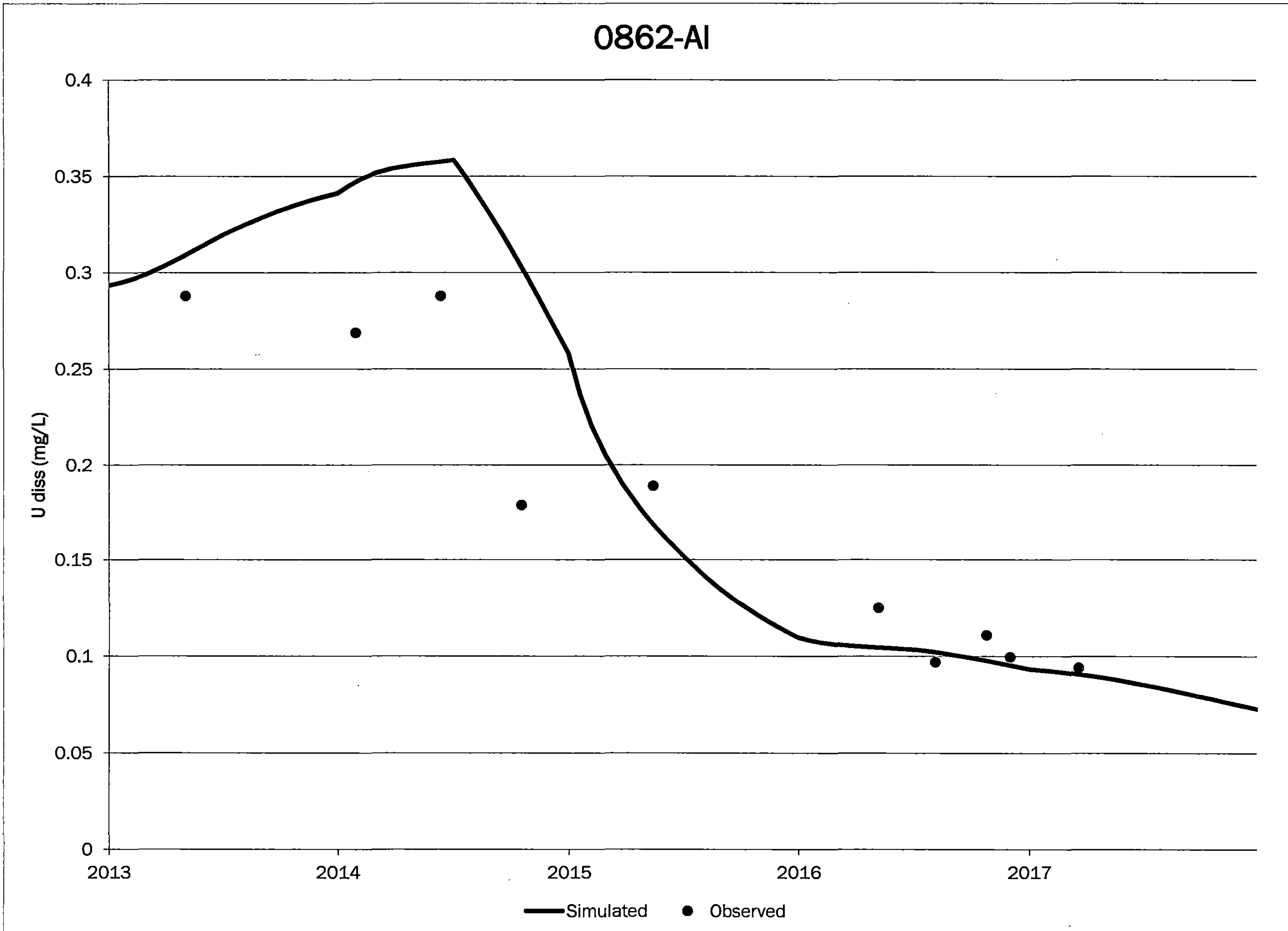

0845-AI
U diss (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

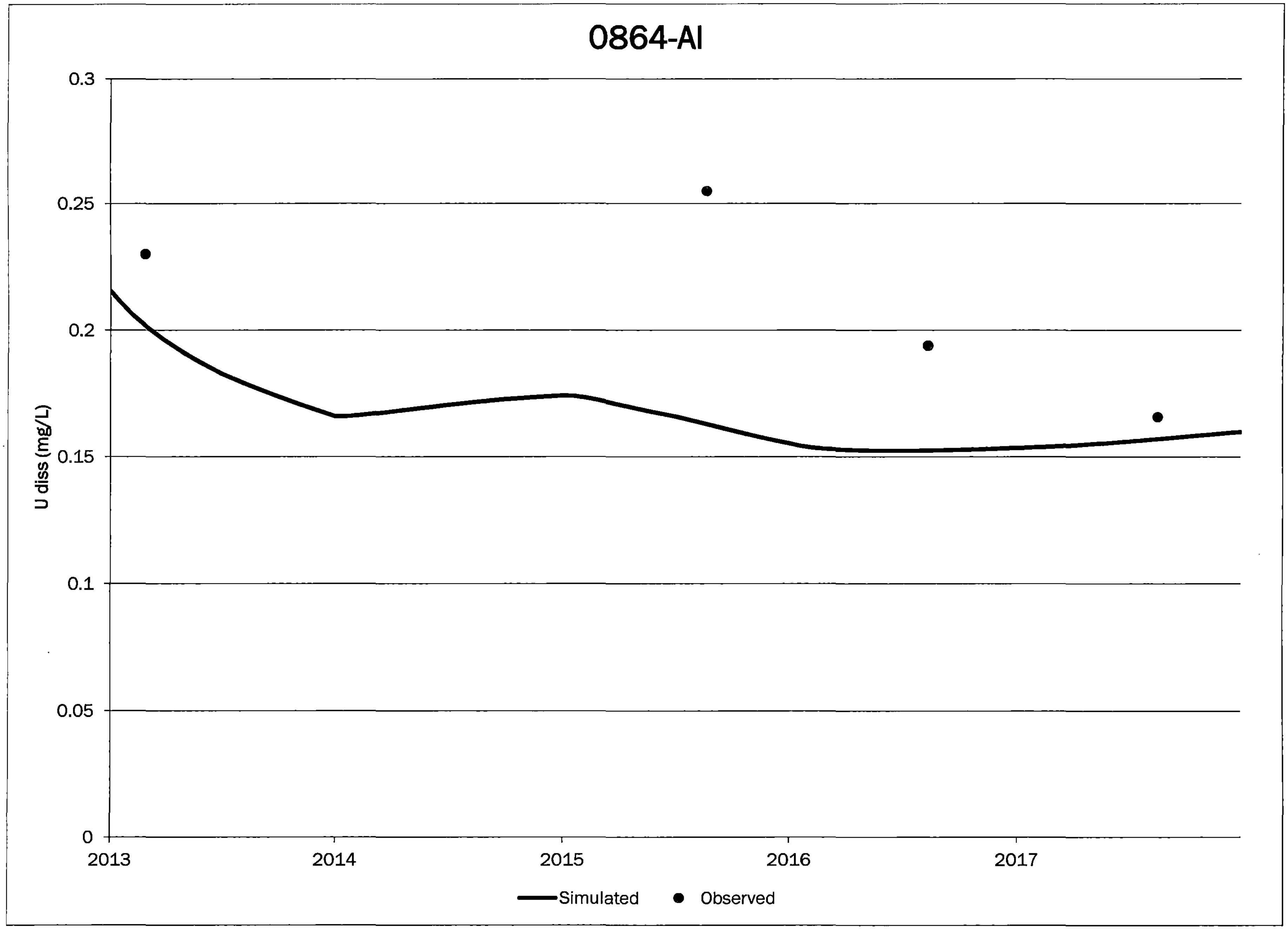


0846-AI
U diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

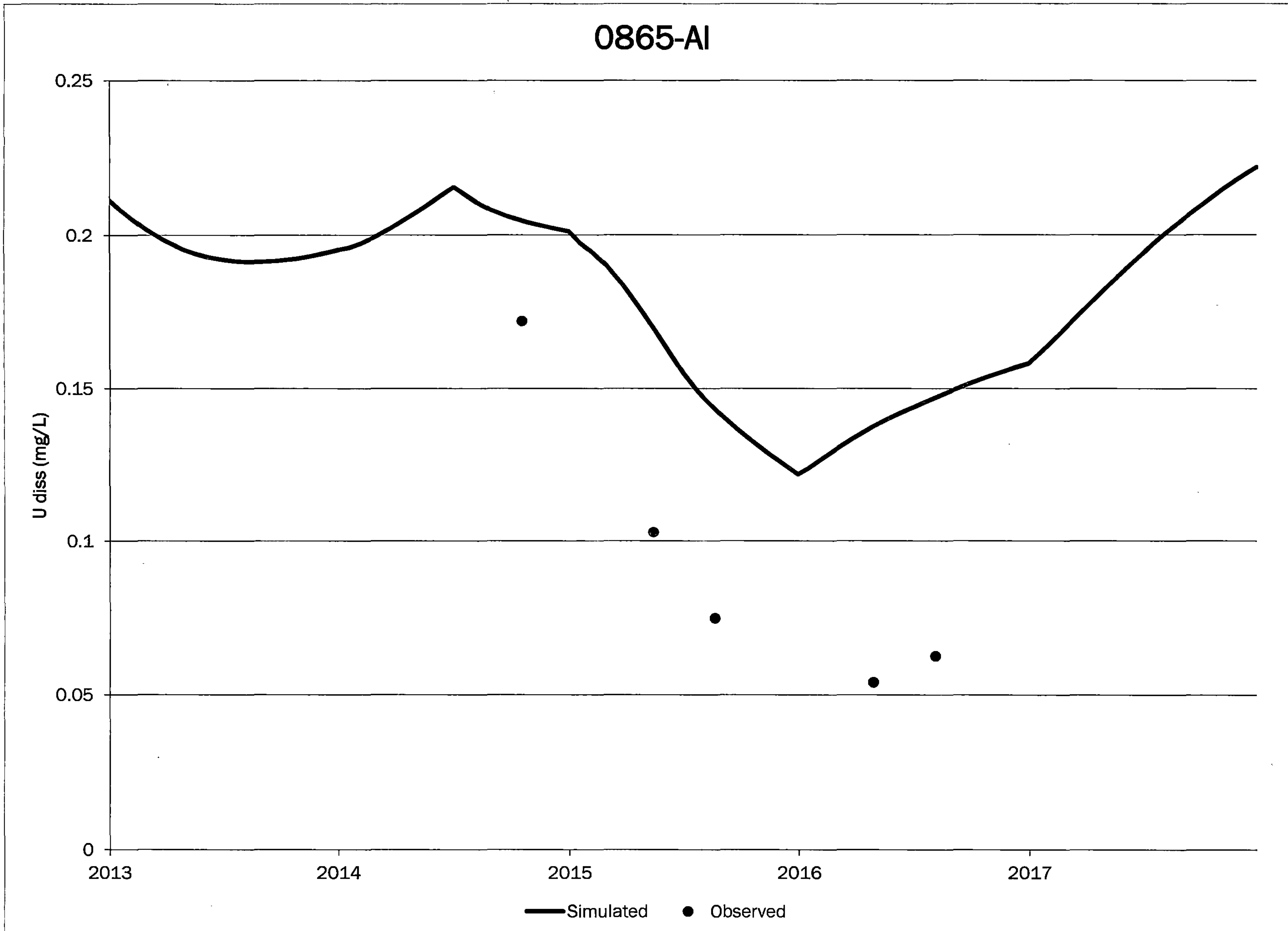


0852-AI
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

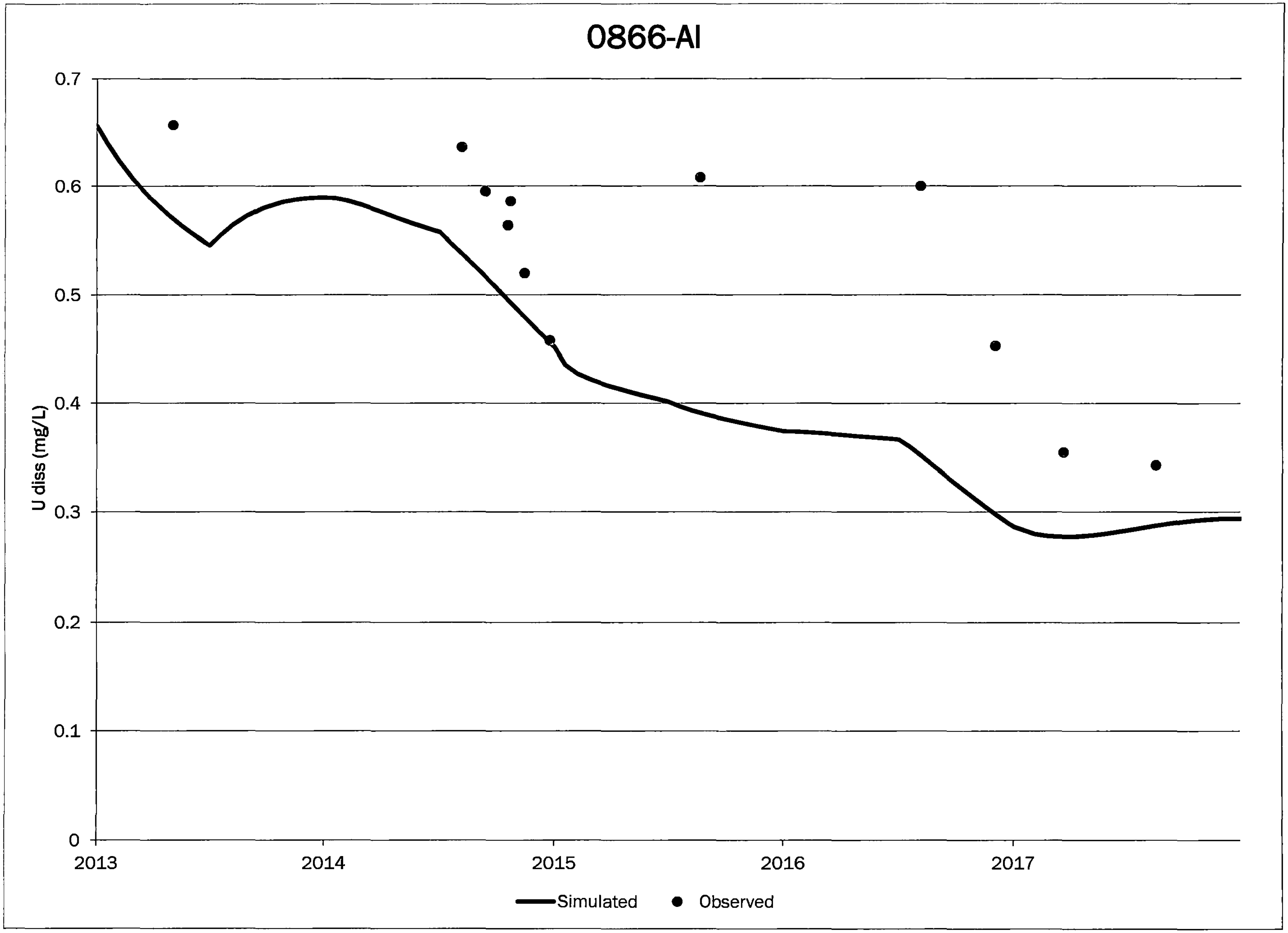

0862-AI
U diss (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



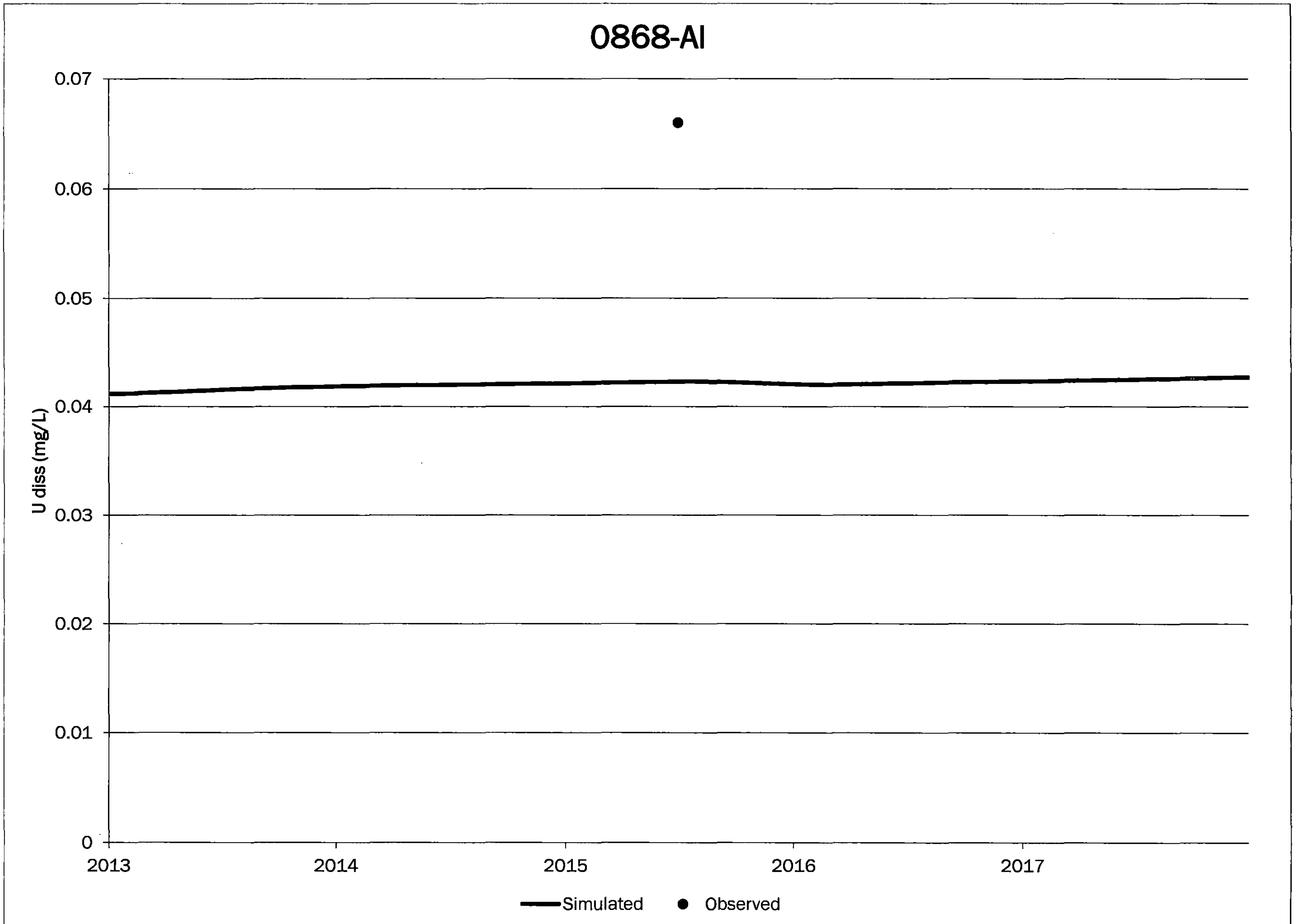
0864-AI
U diss (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



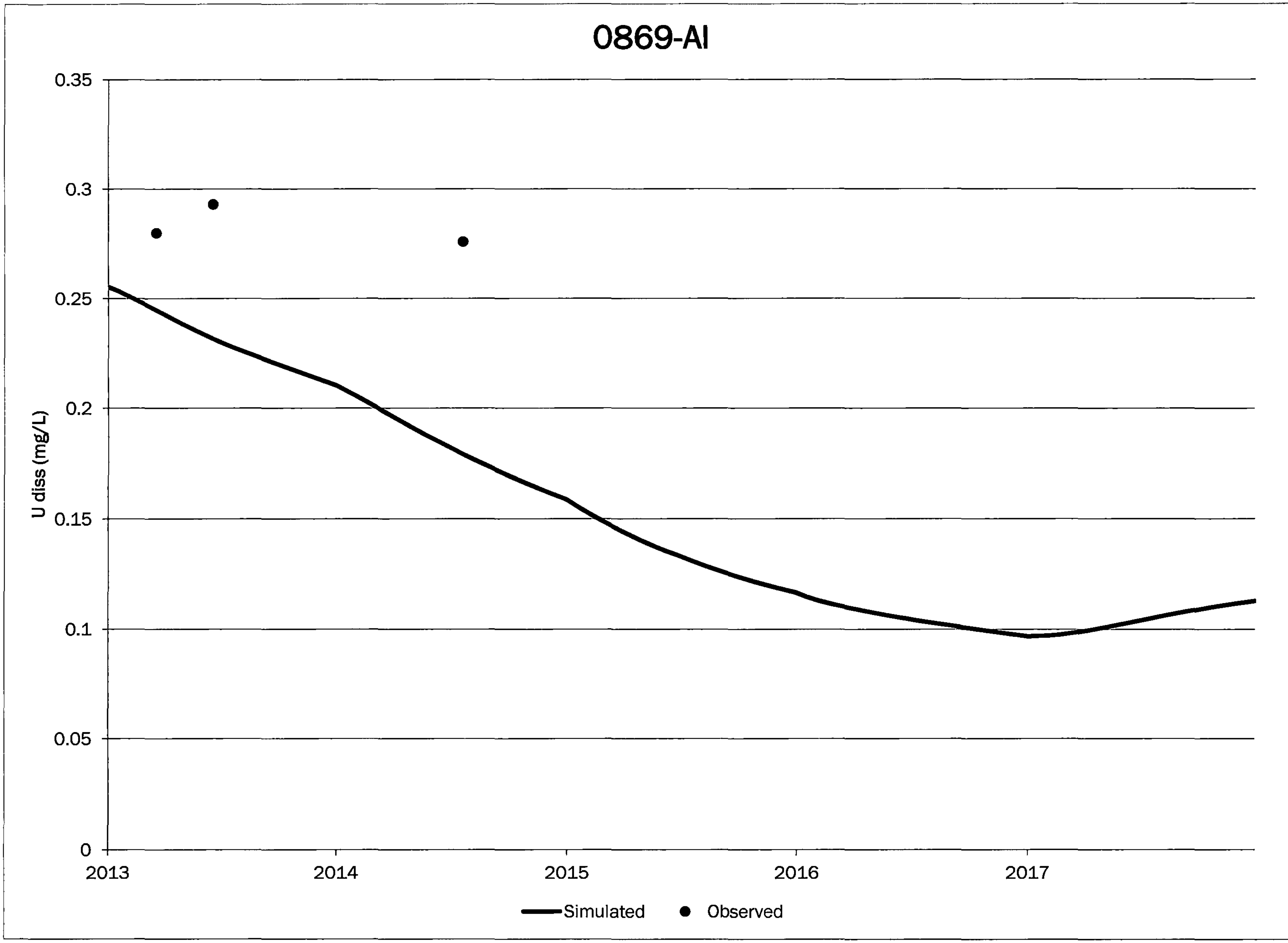
0865-AI
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

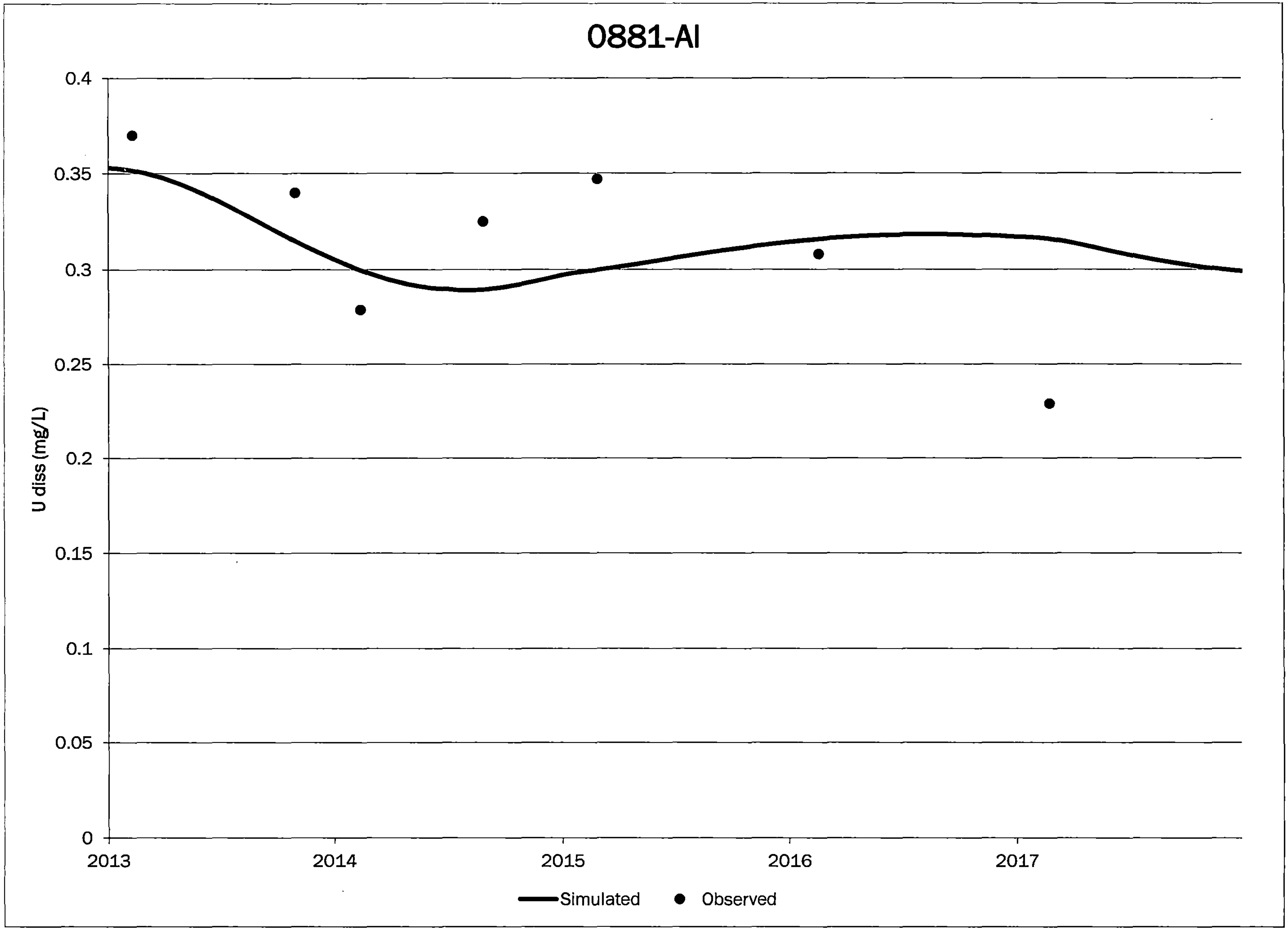


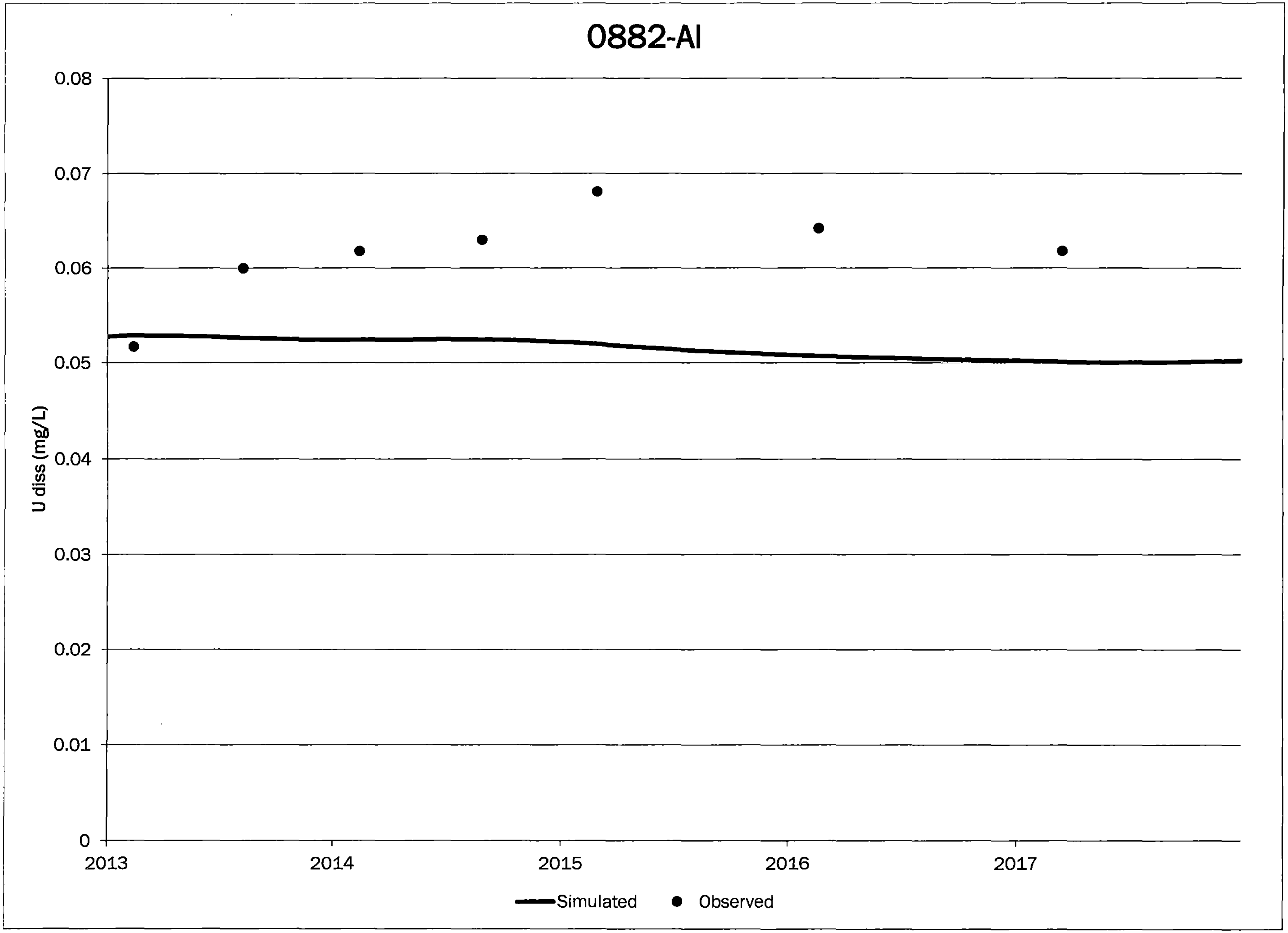
0866-AI
U diss (mg/L)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



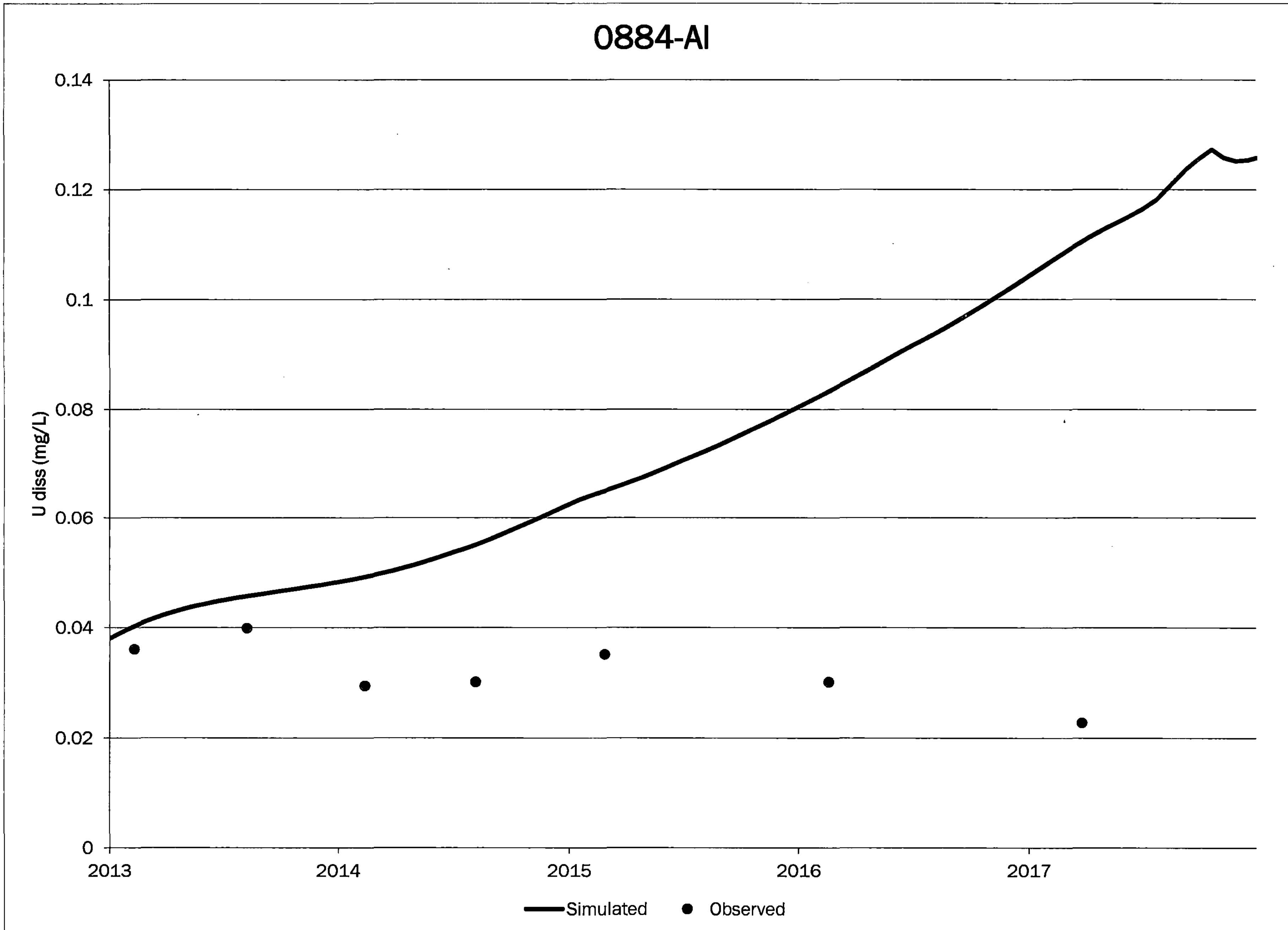
0868-AI
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

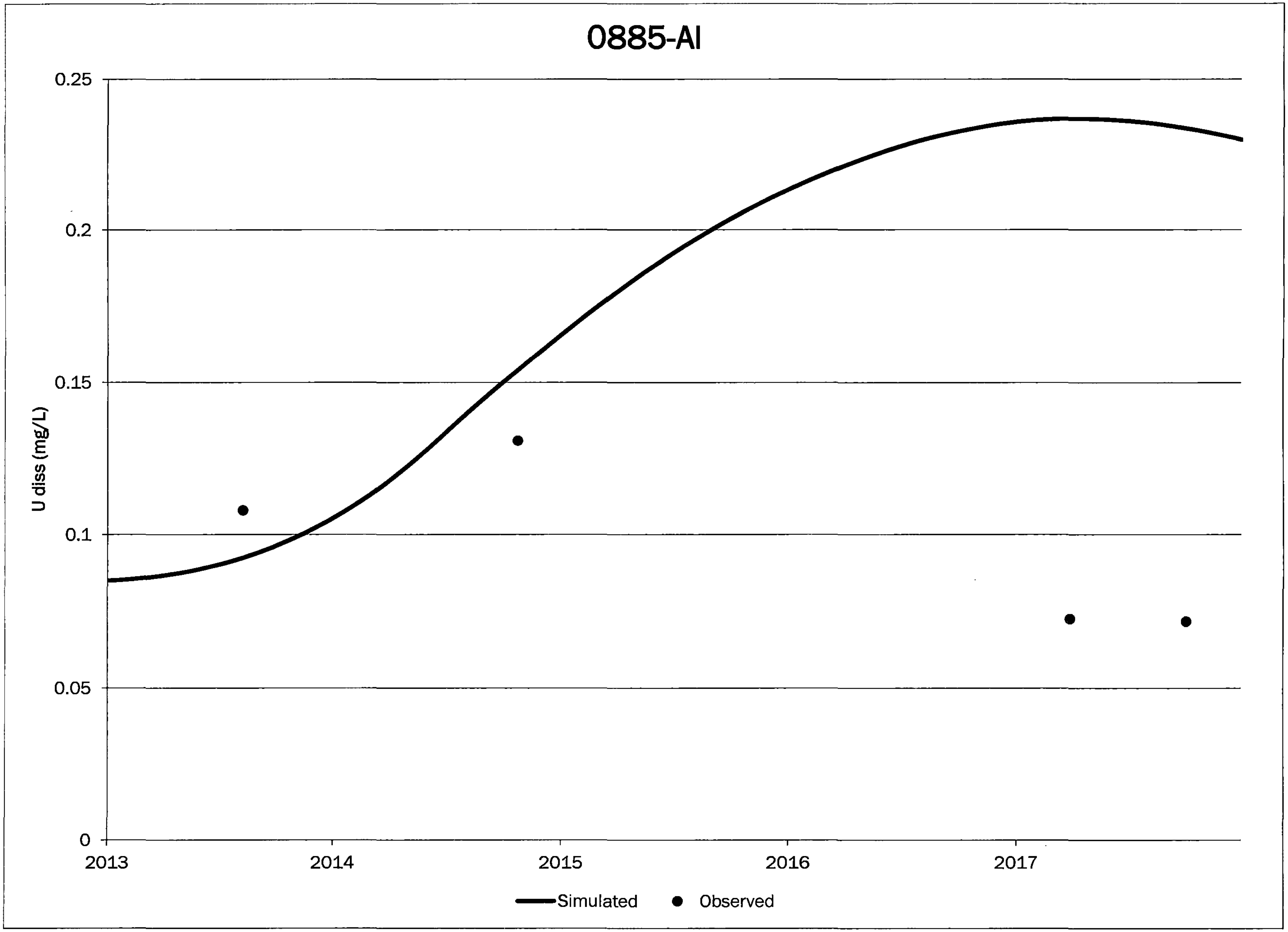

0869-AI
U diss (mg/L)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed


0881-AI
U diss (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

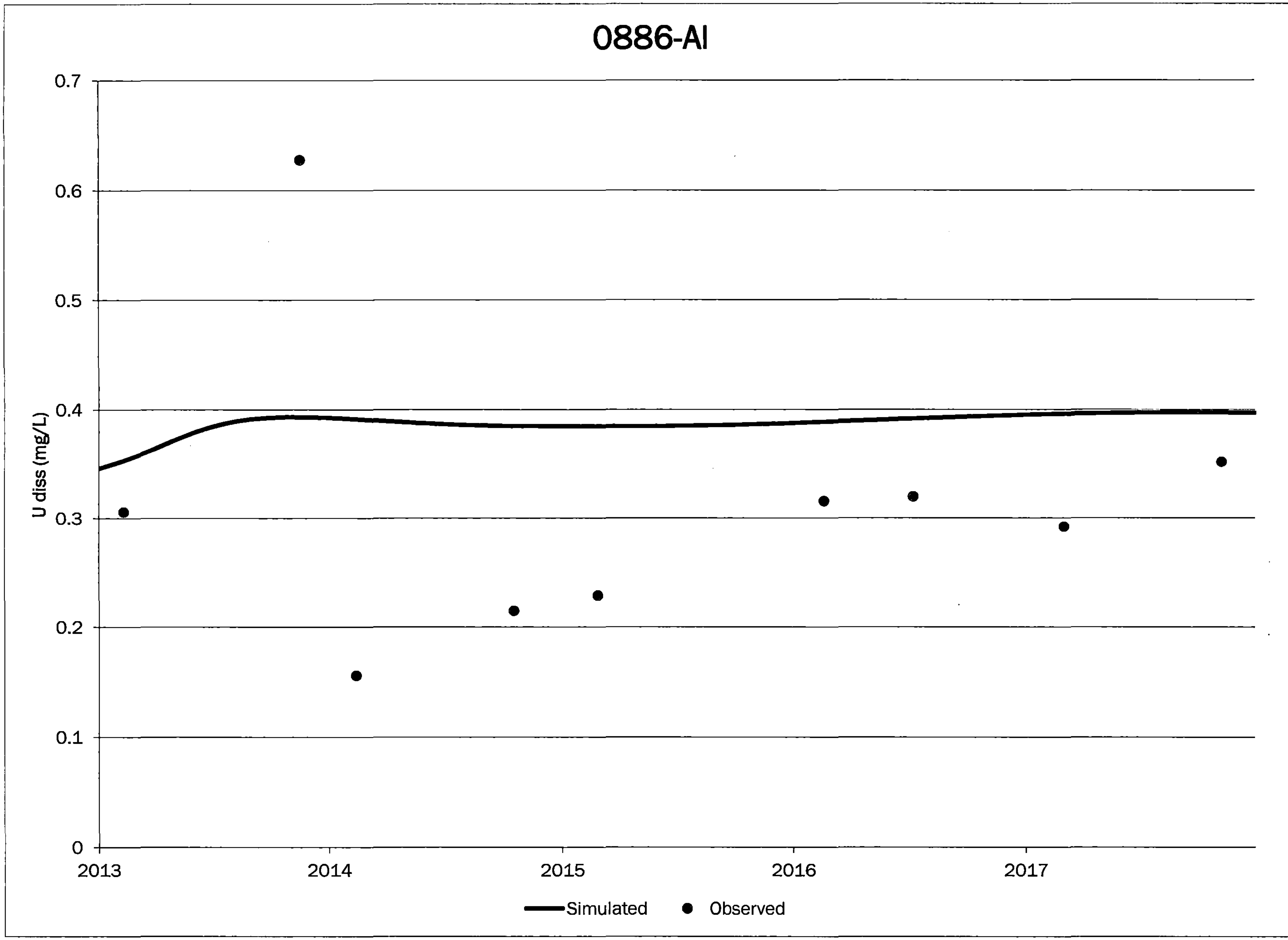


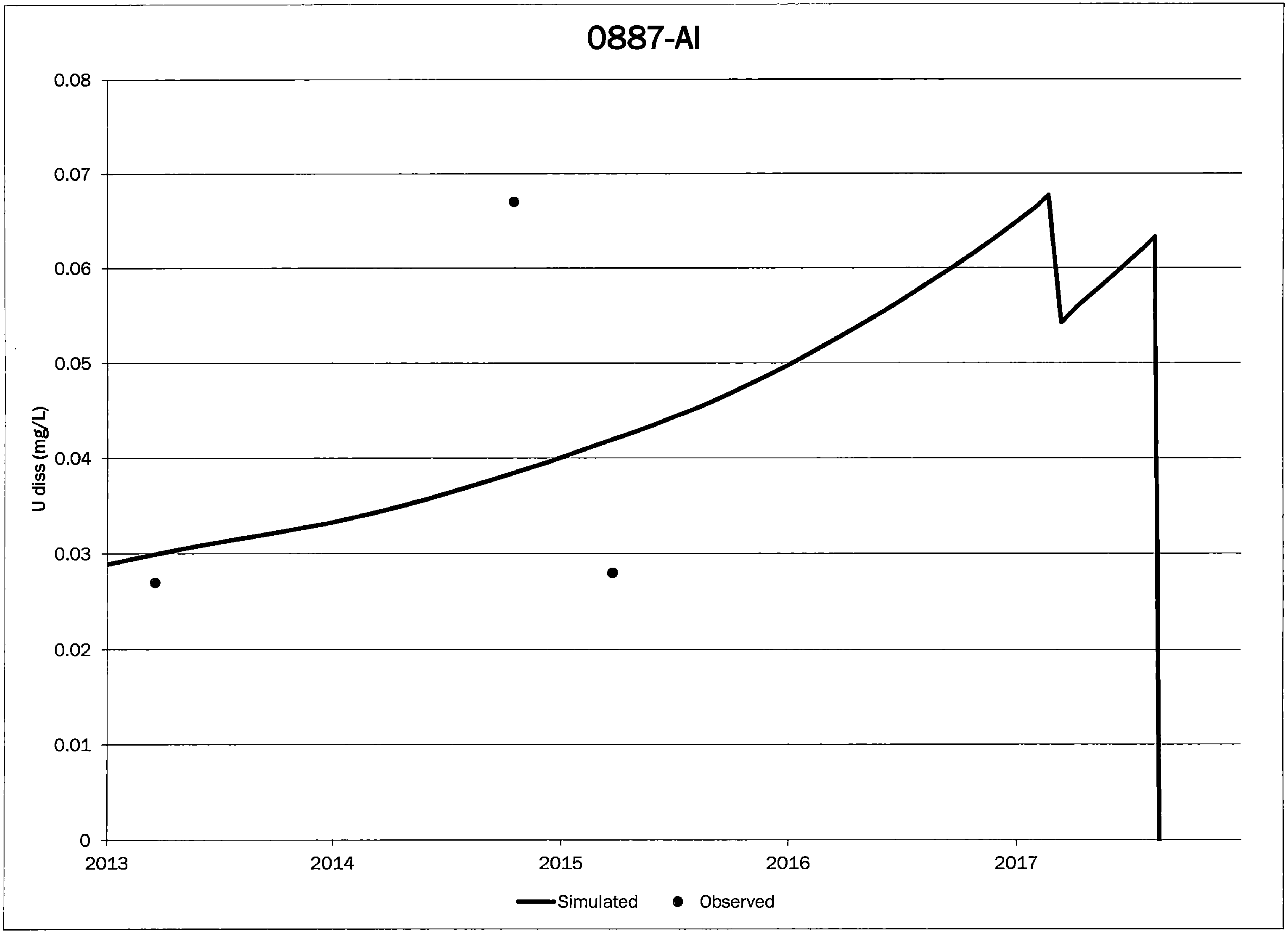
0882-AI
U diss (mg/L)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


0884-AI
U diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

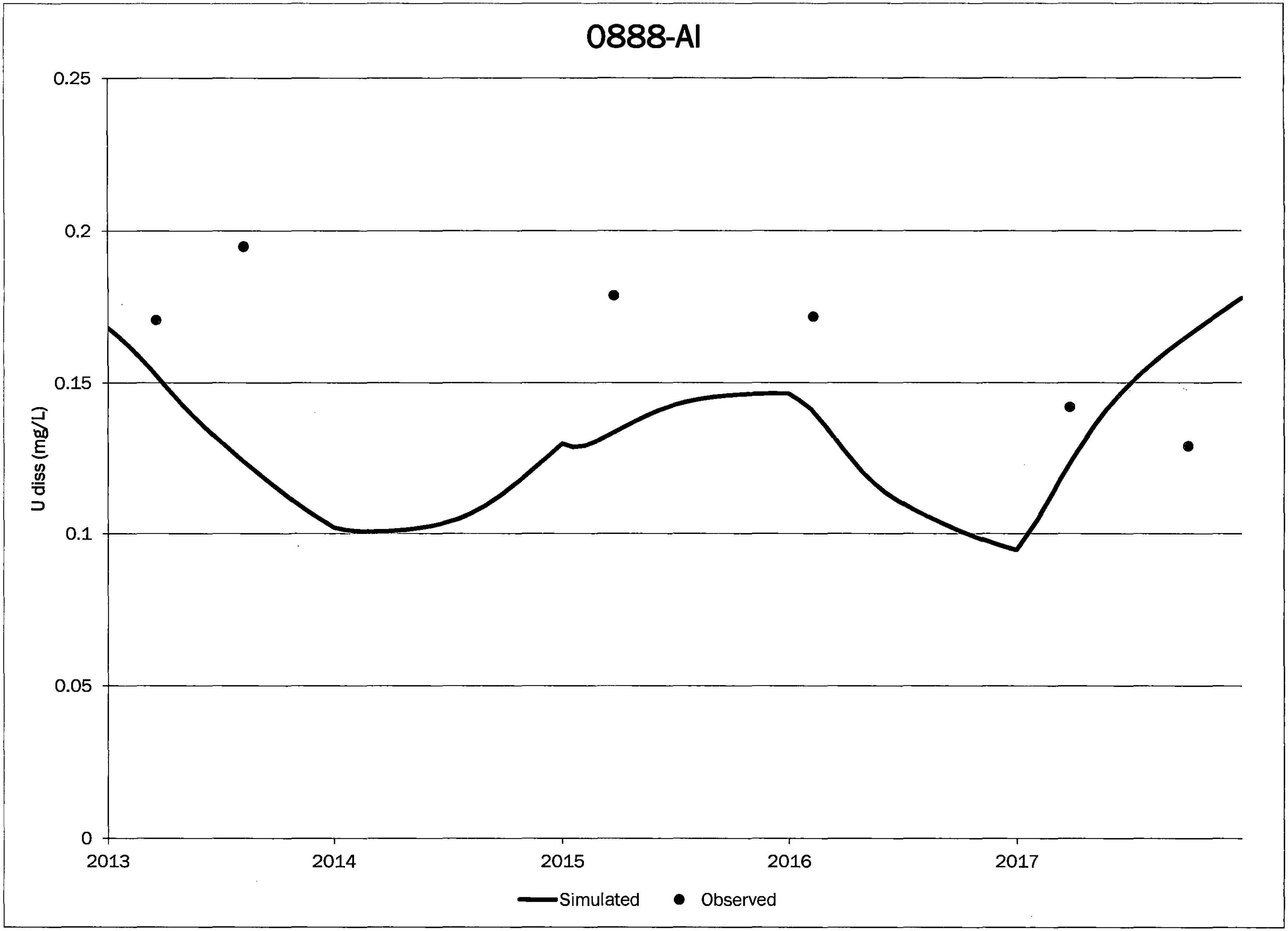


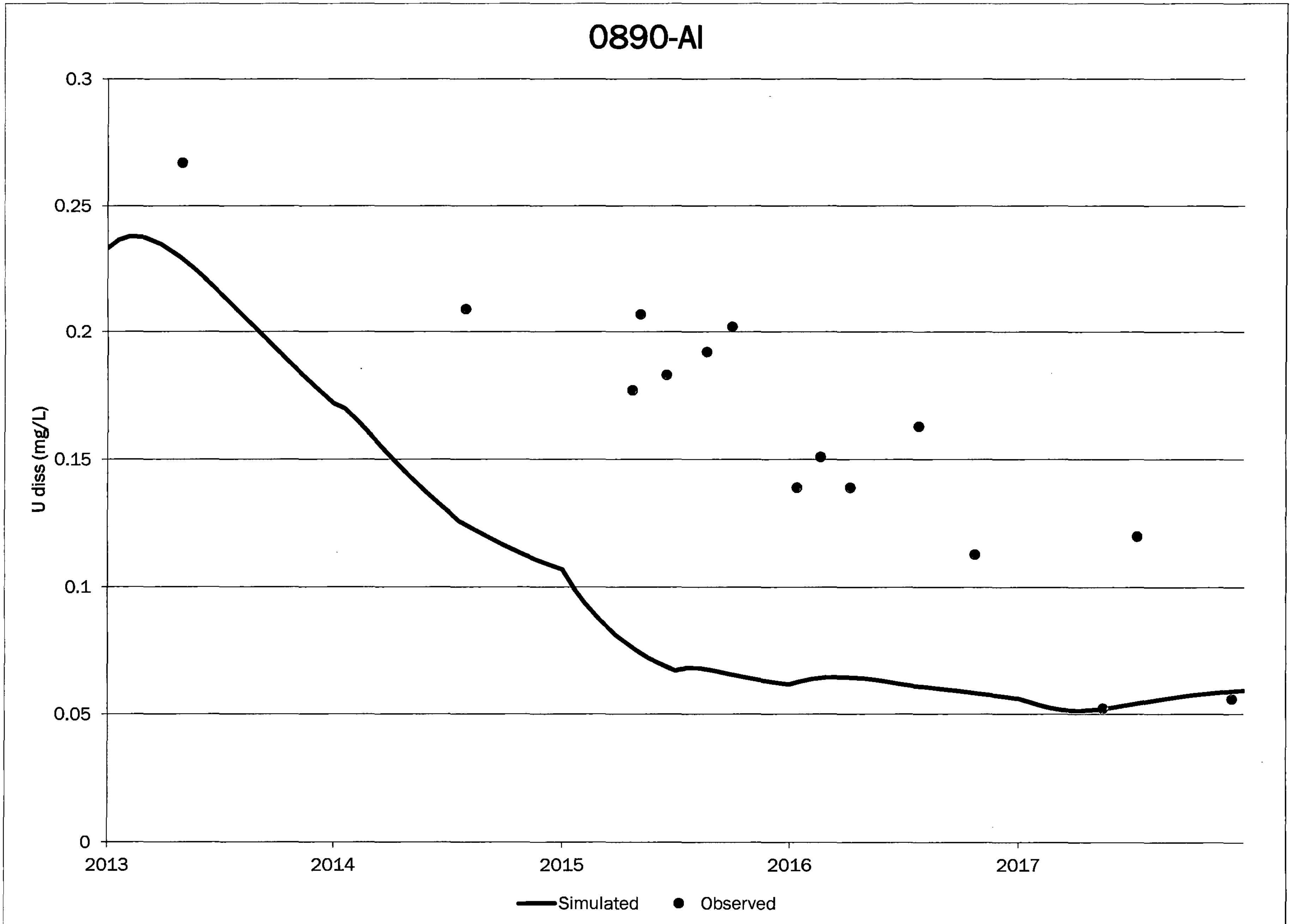
0885-AI
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

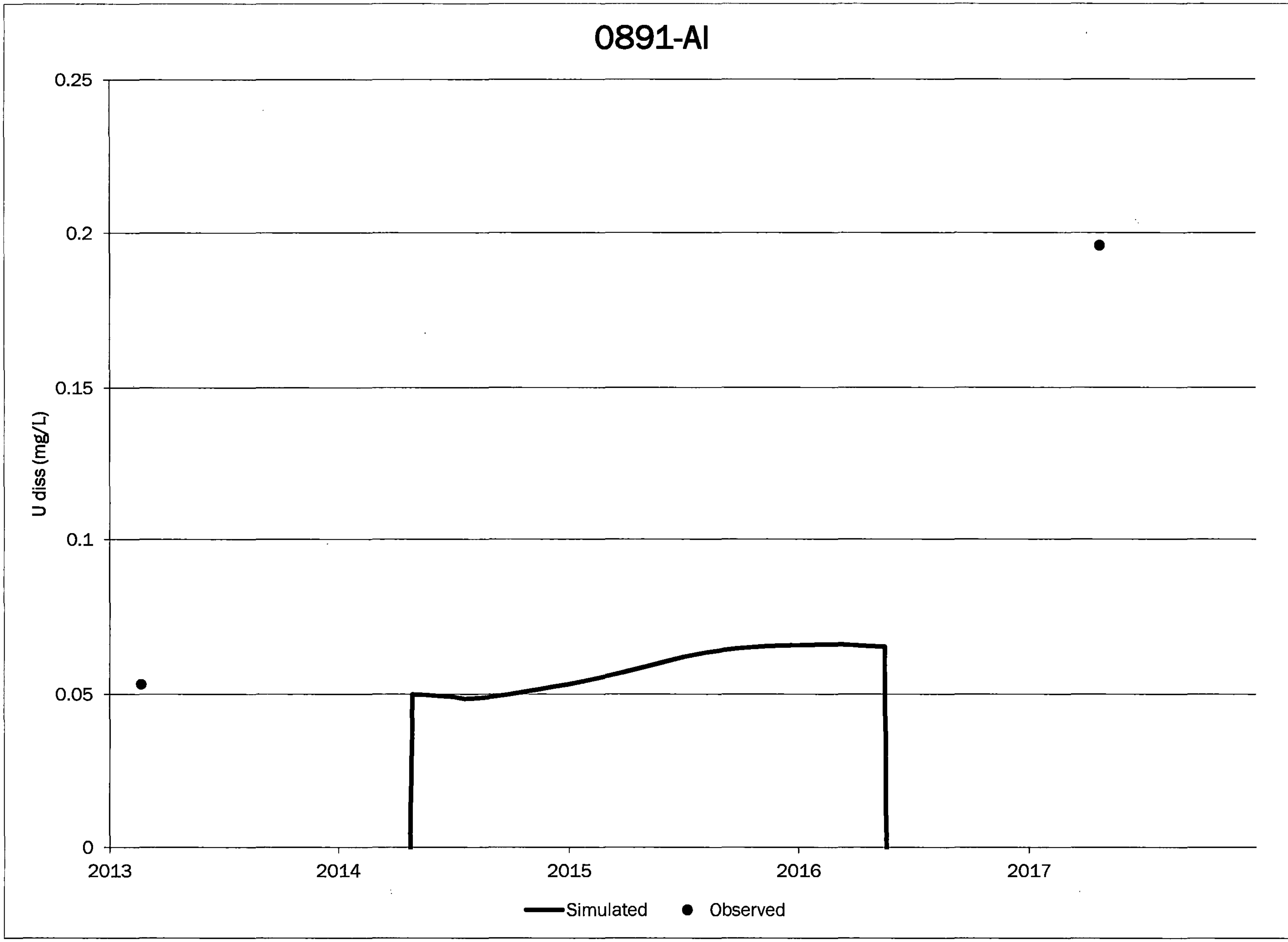

0886-AI
U diss (mg/L)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

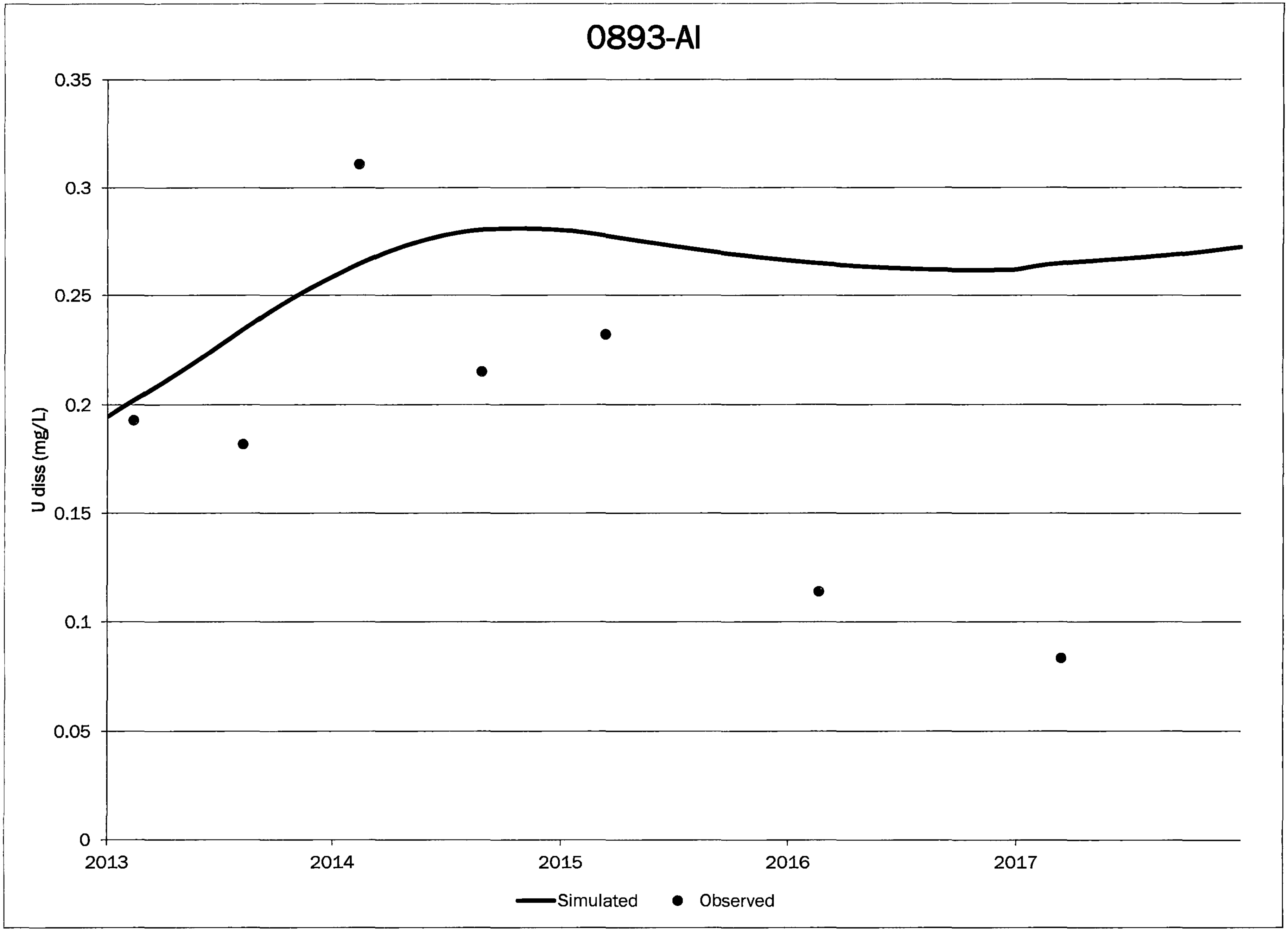


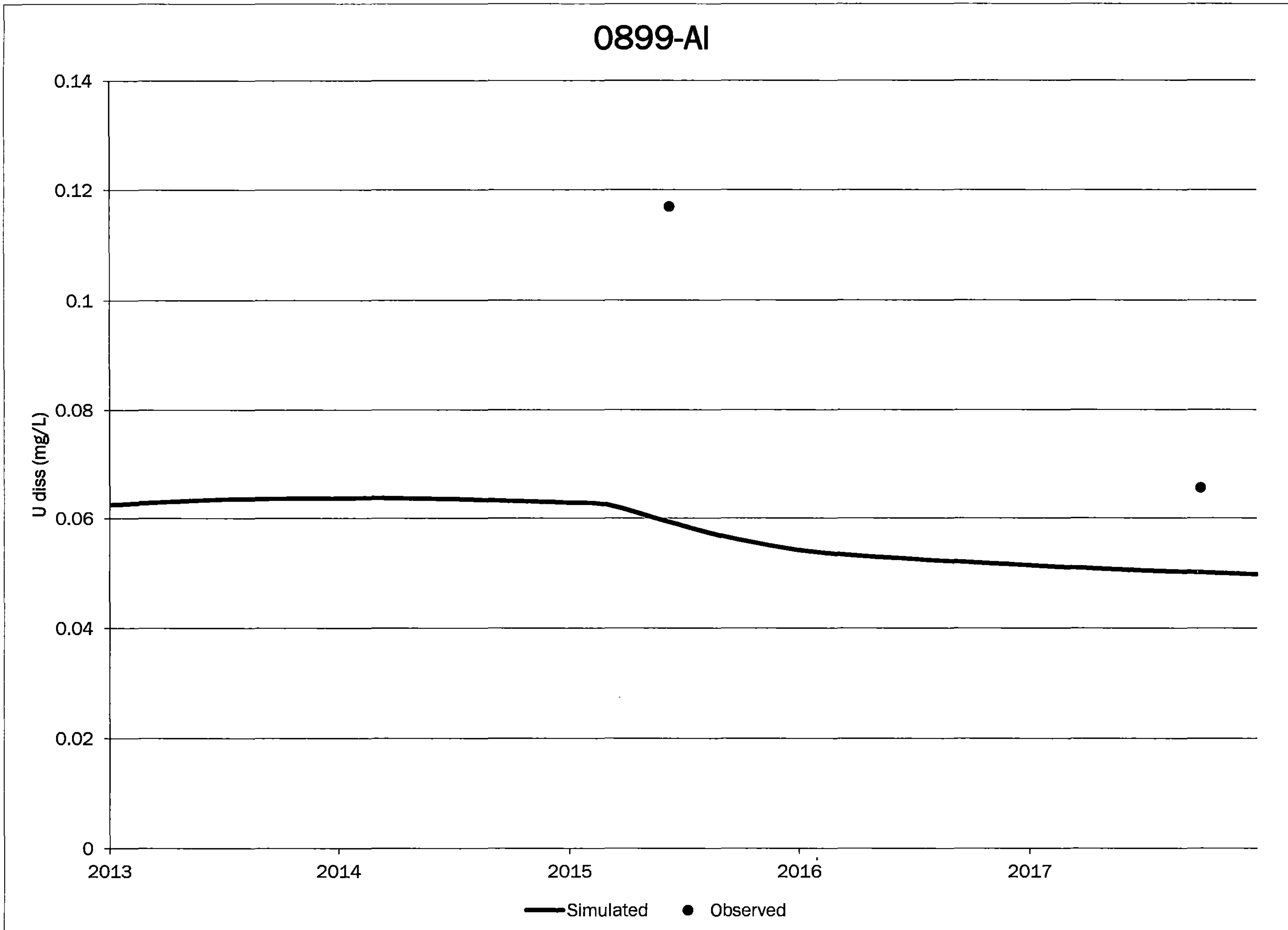
0887-AI
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

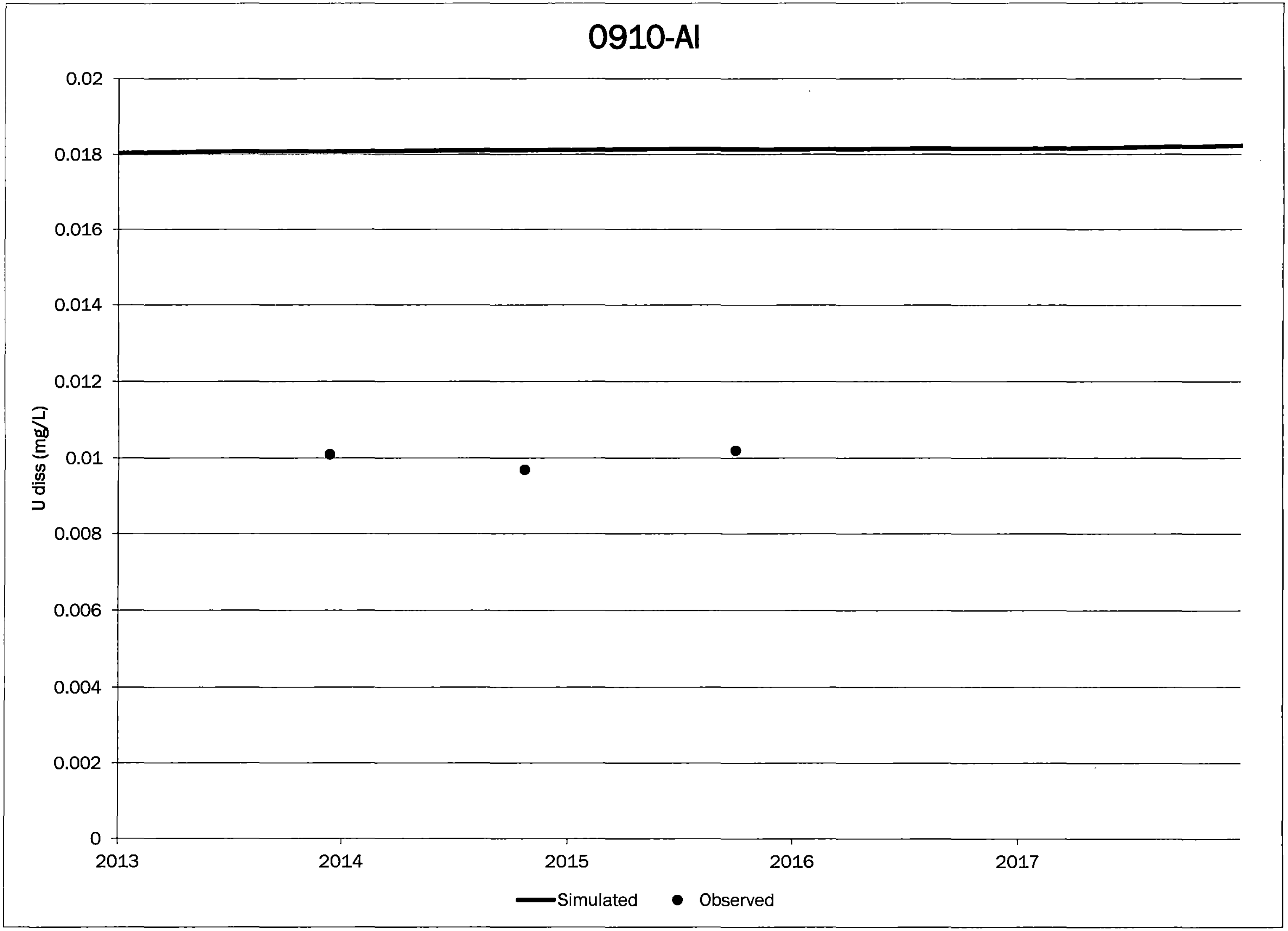

0888-AI
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed


0890-AI
U diss (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

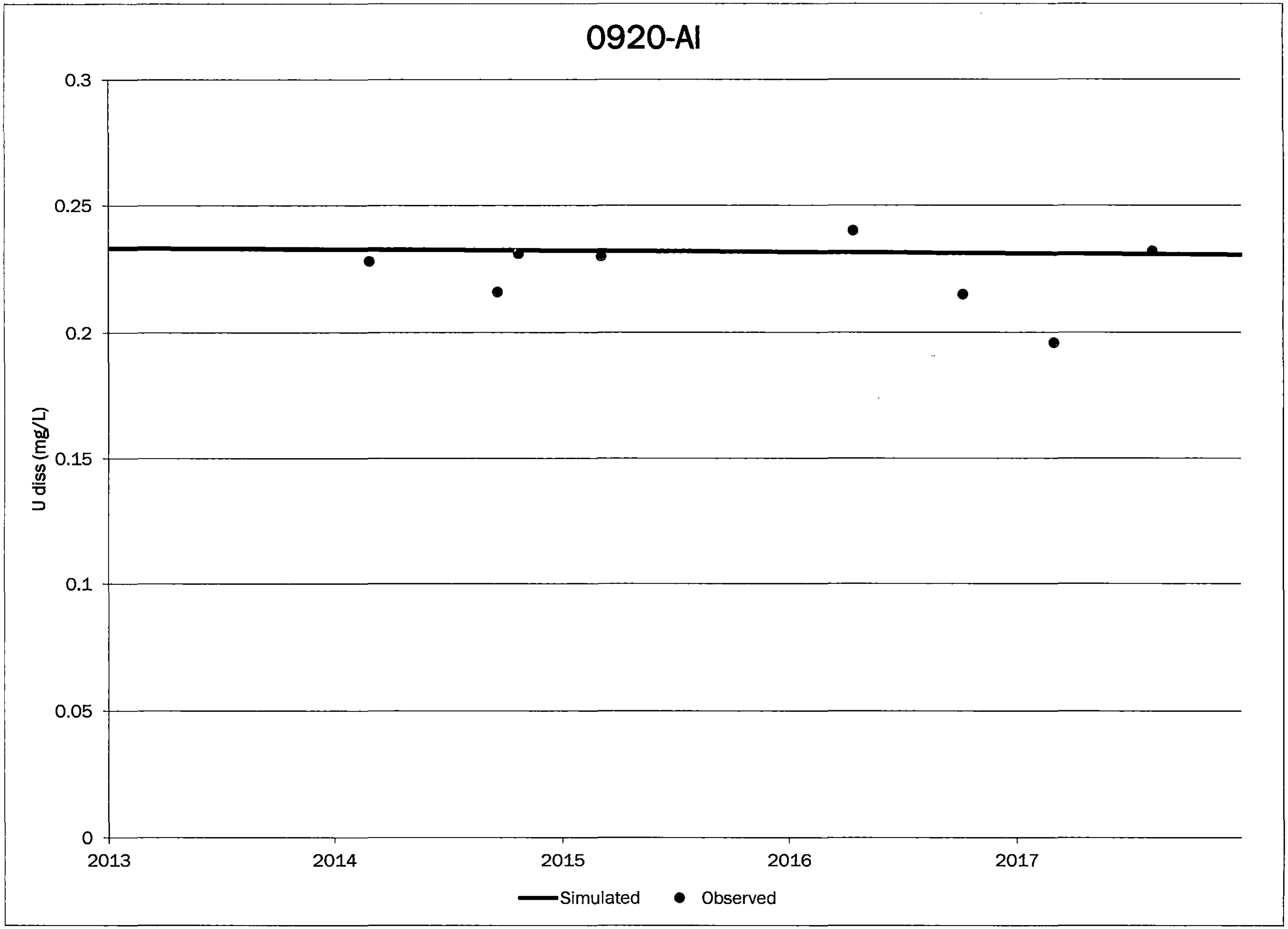

0891-AI
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0893-AI
U diss (mg/L)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

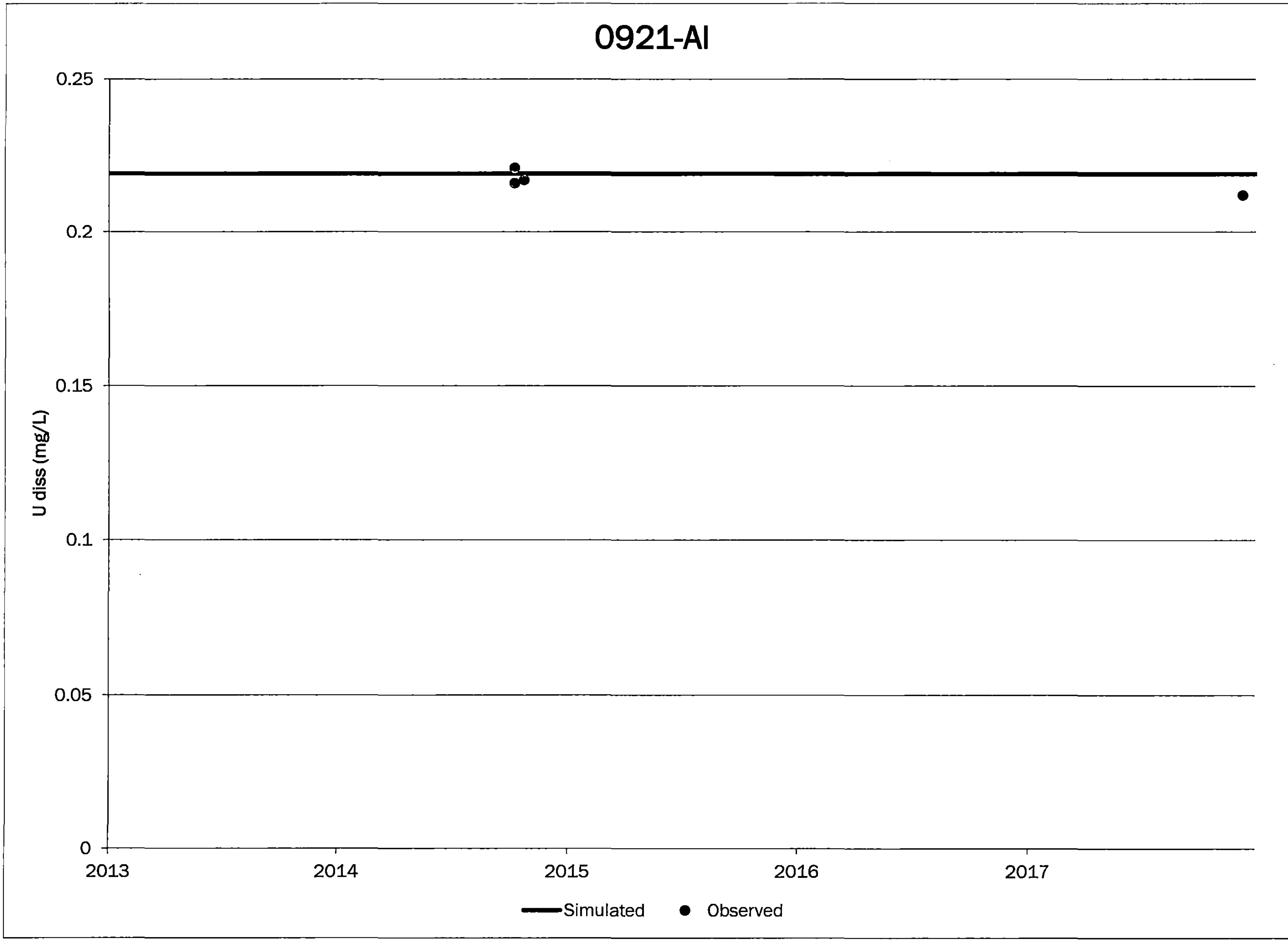

0899-AI
U diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

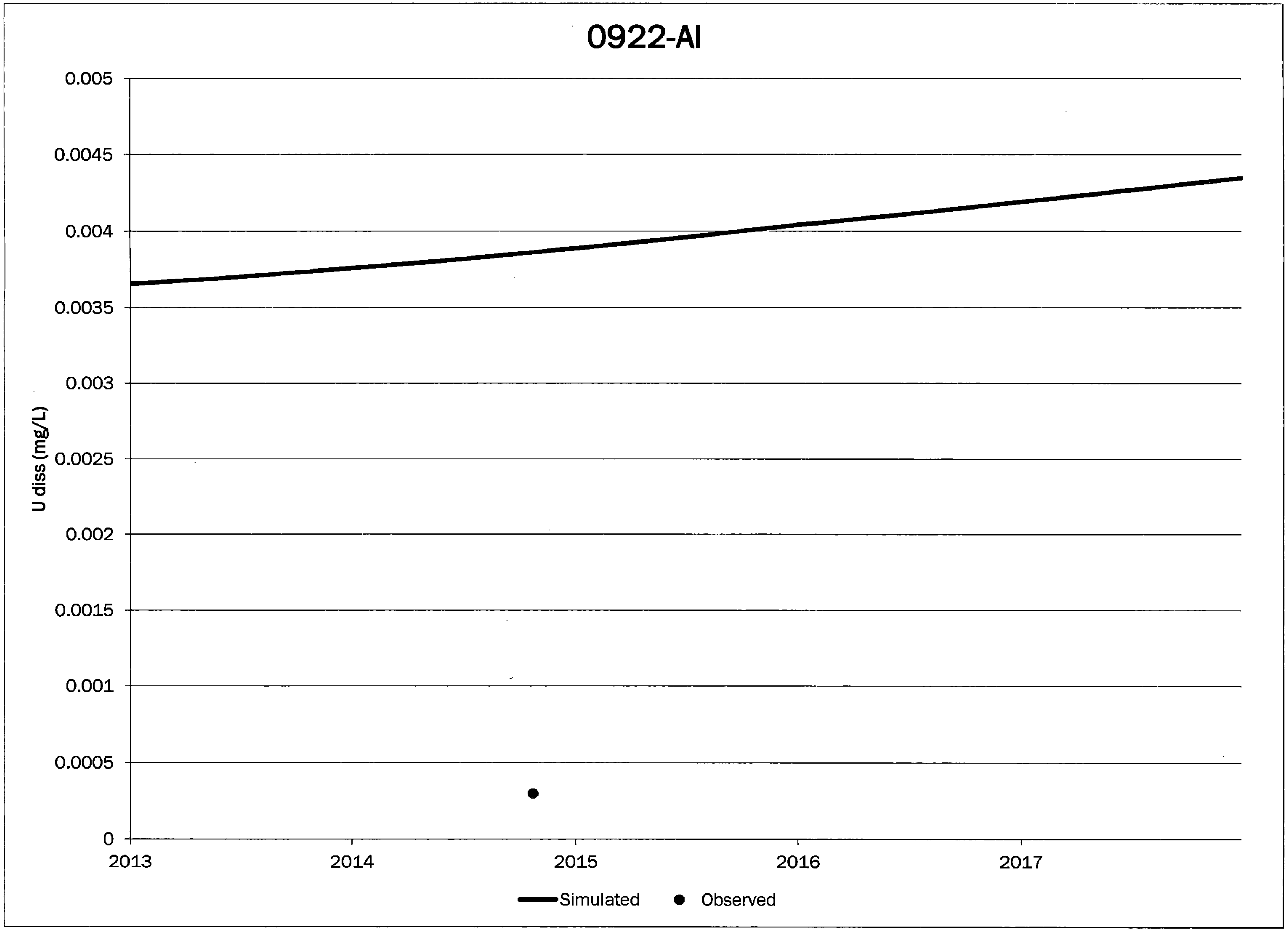


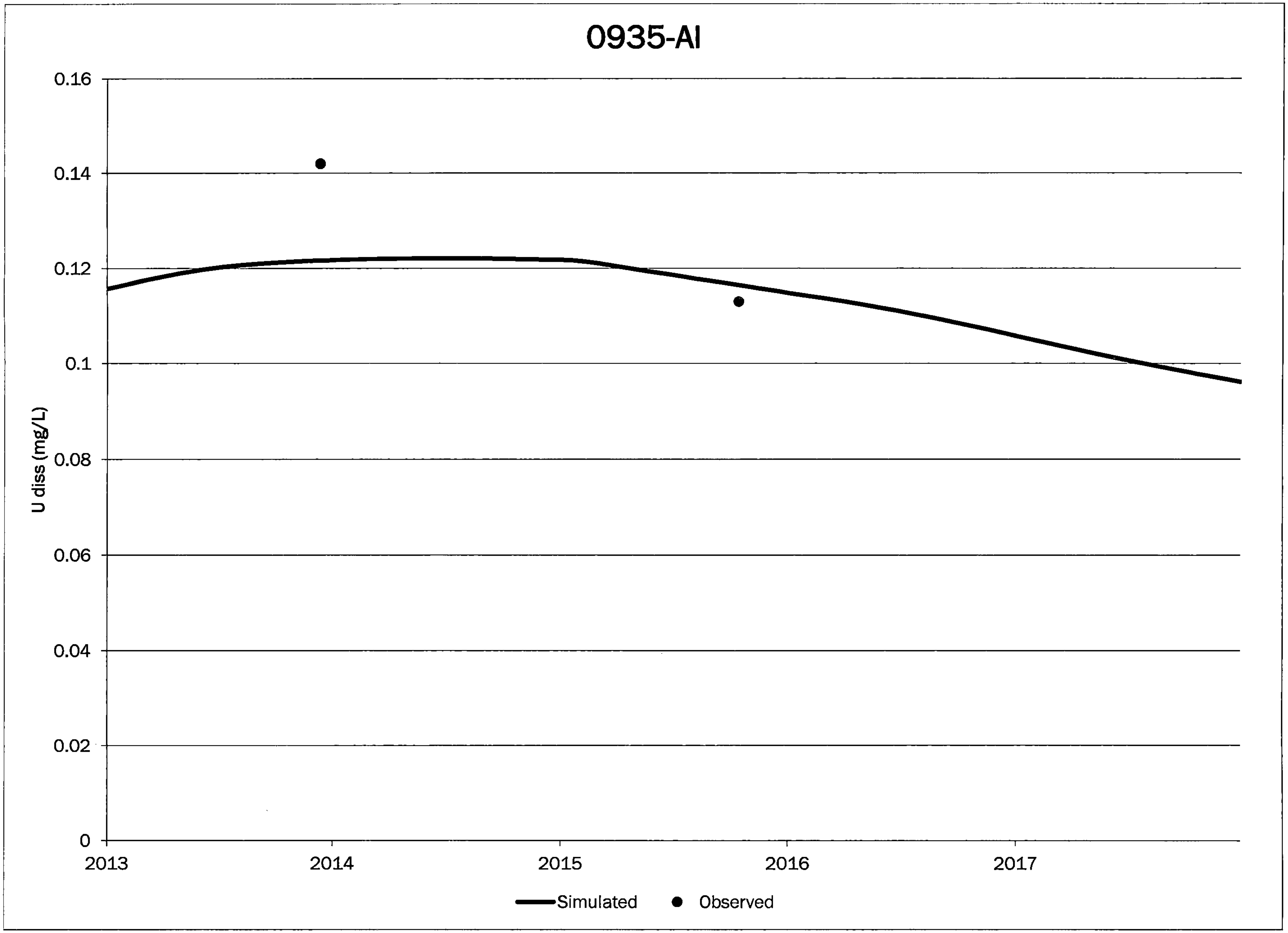
0910-AI
U diss (mg/L)
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2013
2014
2015
2016
2017
Simulated
Observed



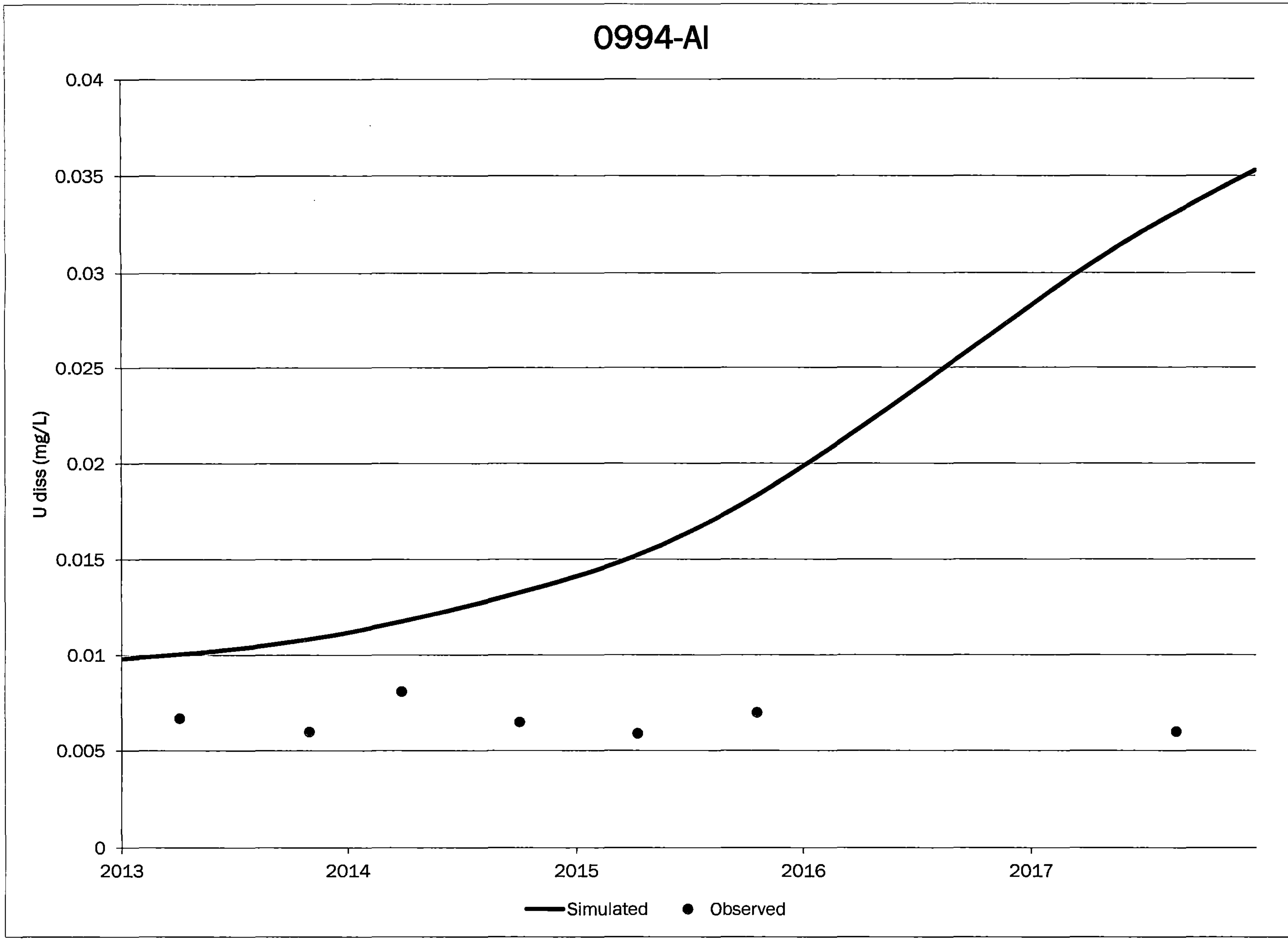
0920-AI
U diss (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

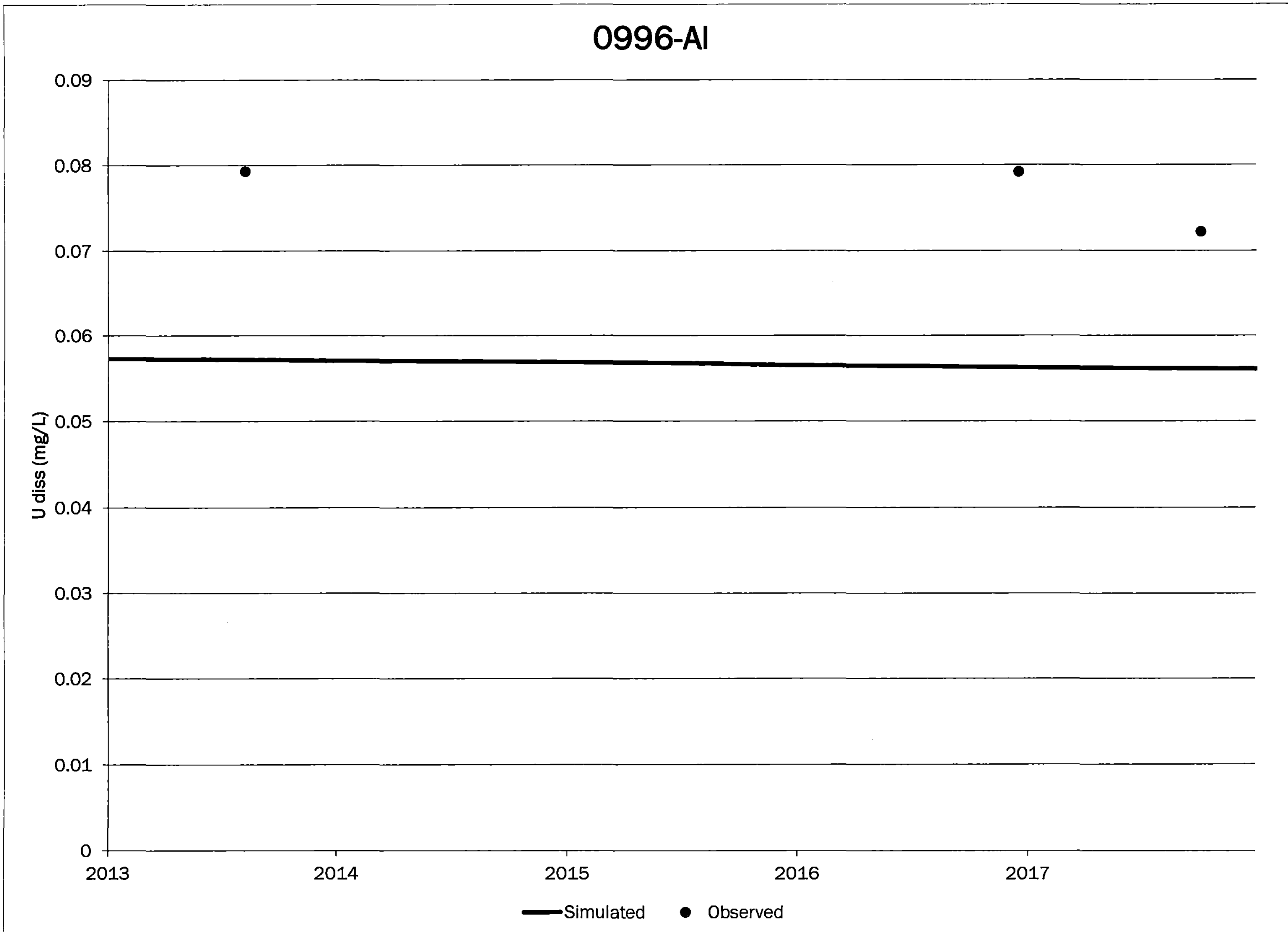

0921-AI
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

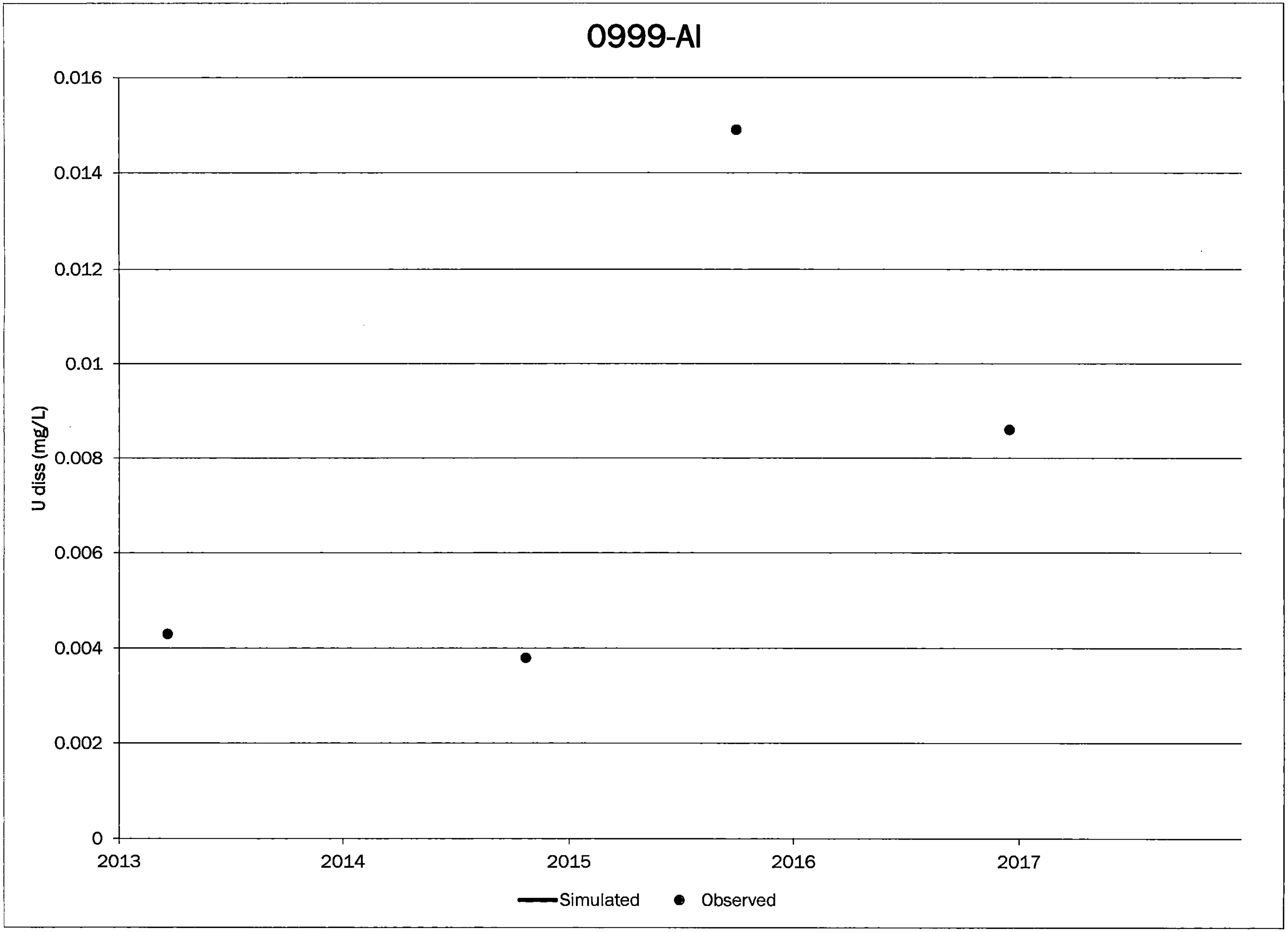

0922-AI
U diss (mg/L)
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2013
2014
2015
2016
2017
Simulated
Observed

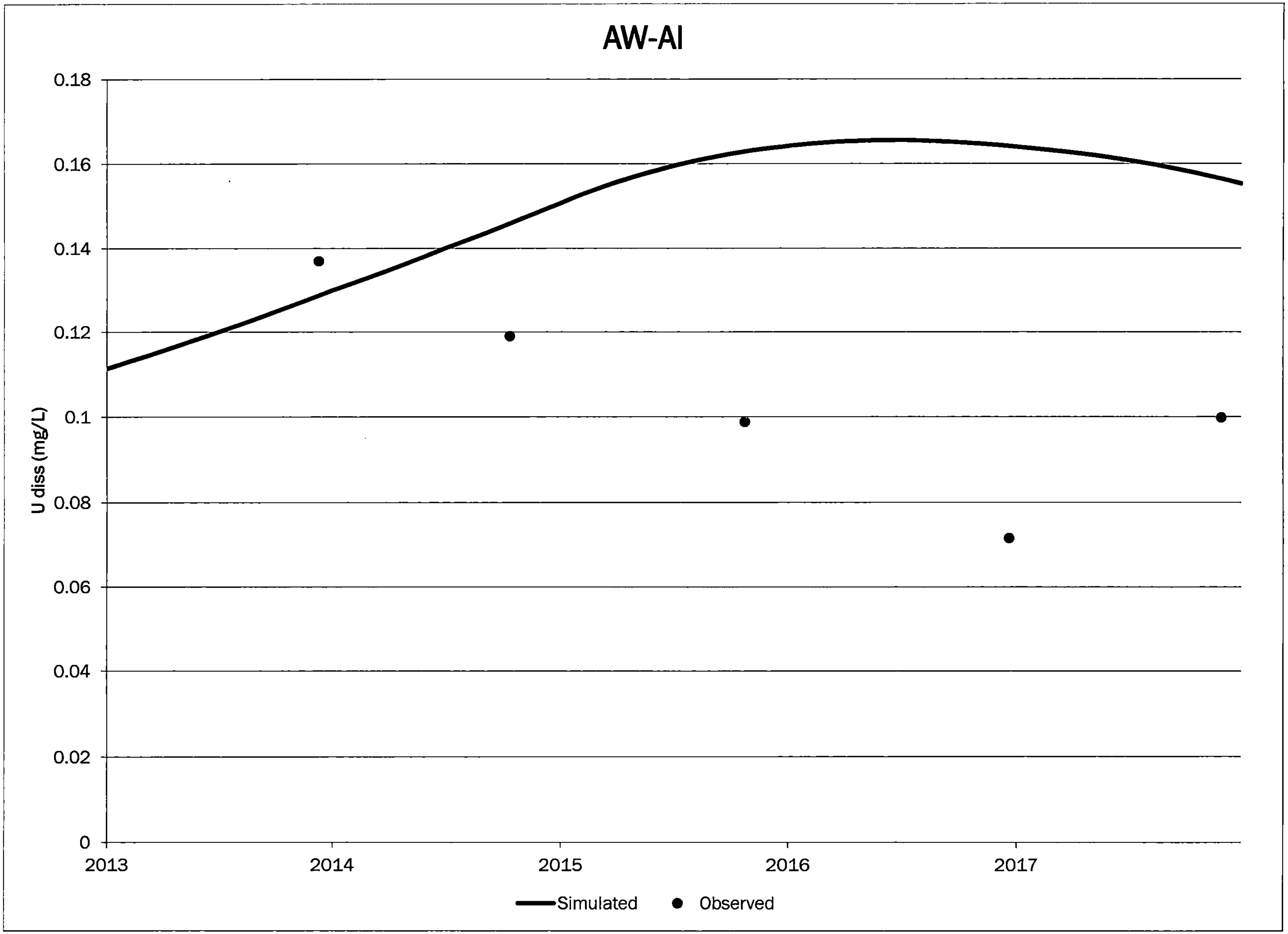


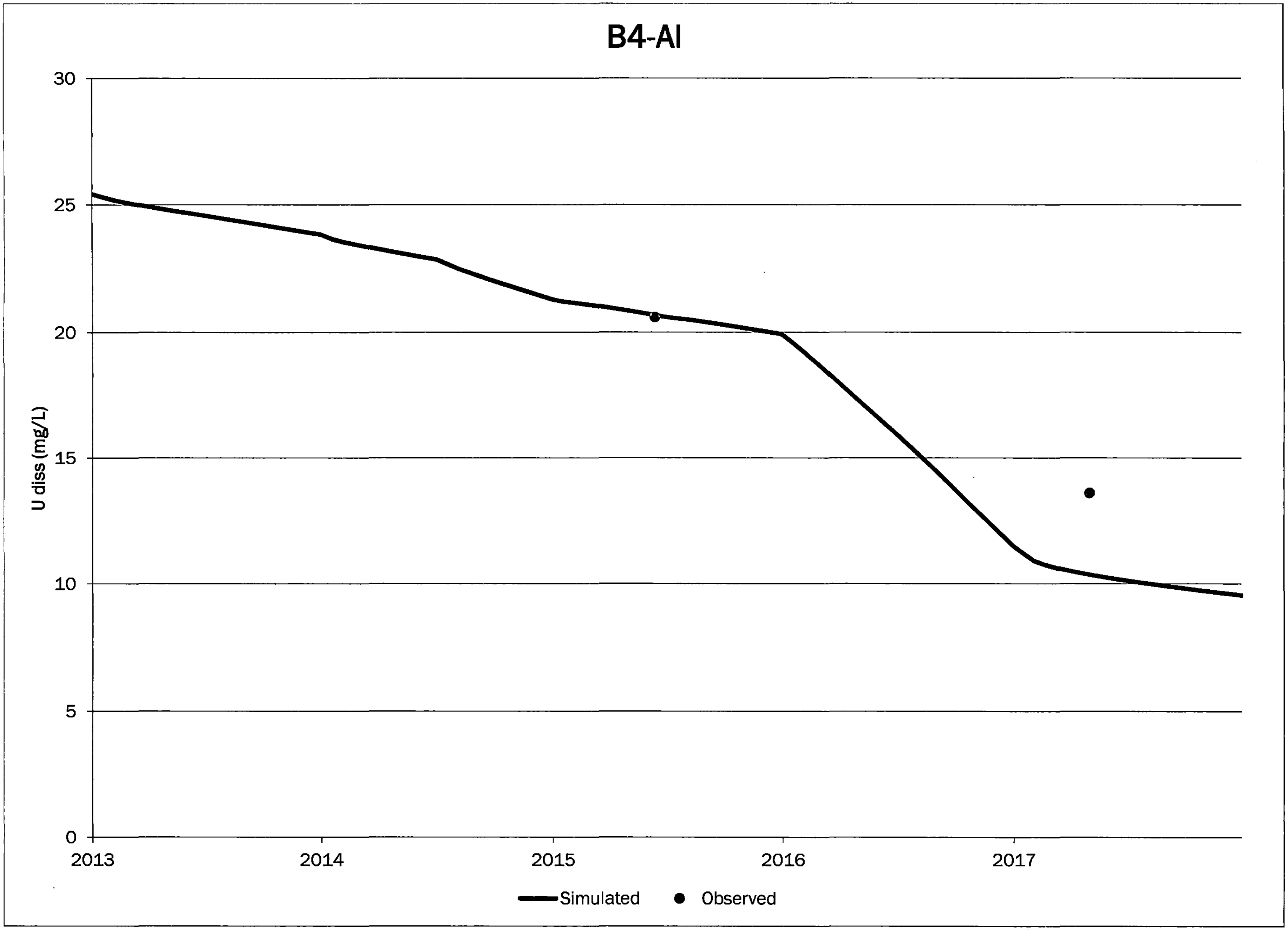
0935-AI
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

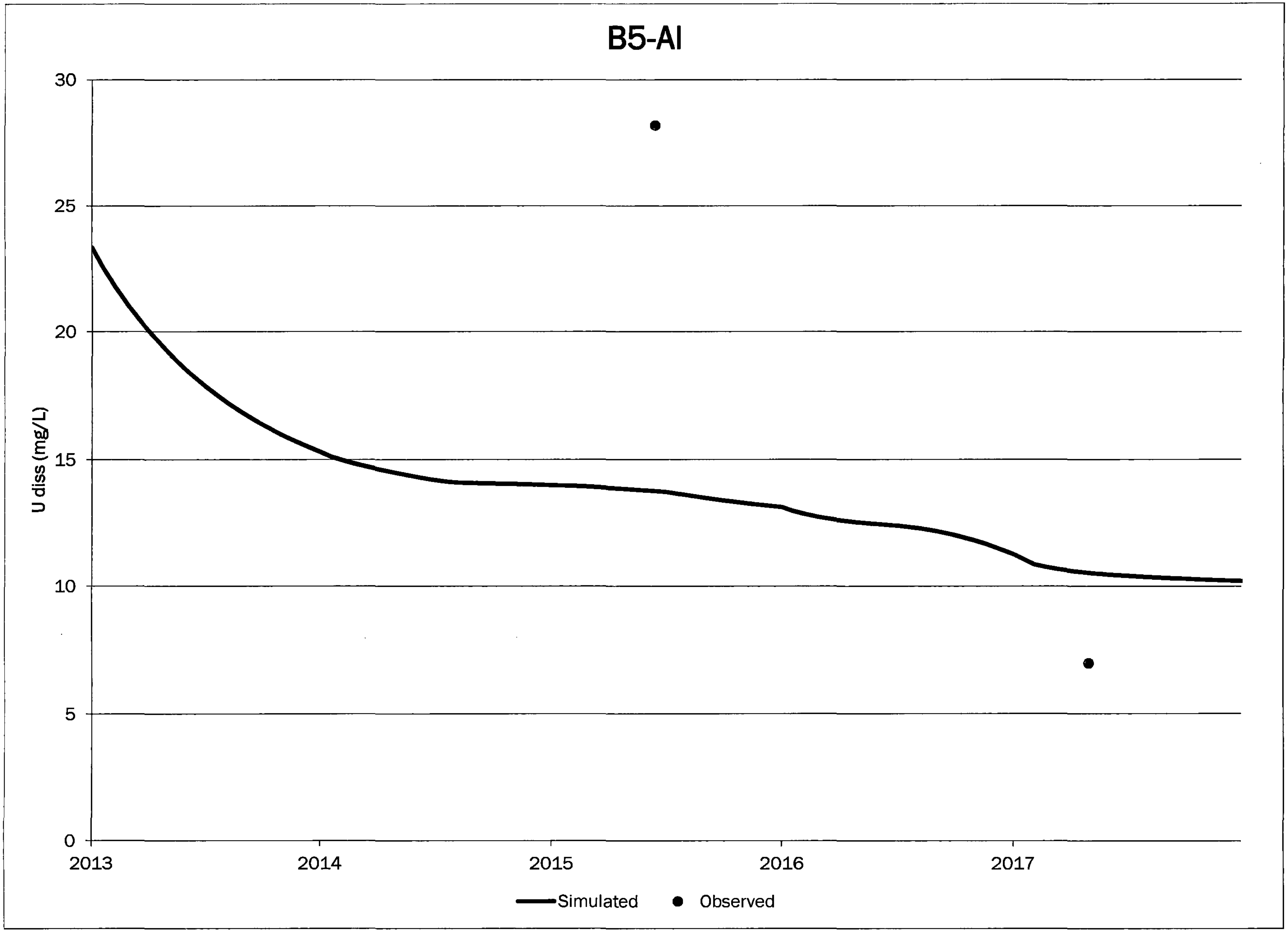

0994-AI
U diss (mg/L)
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


0996-AI
U diss (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

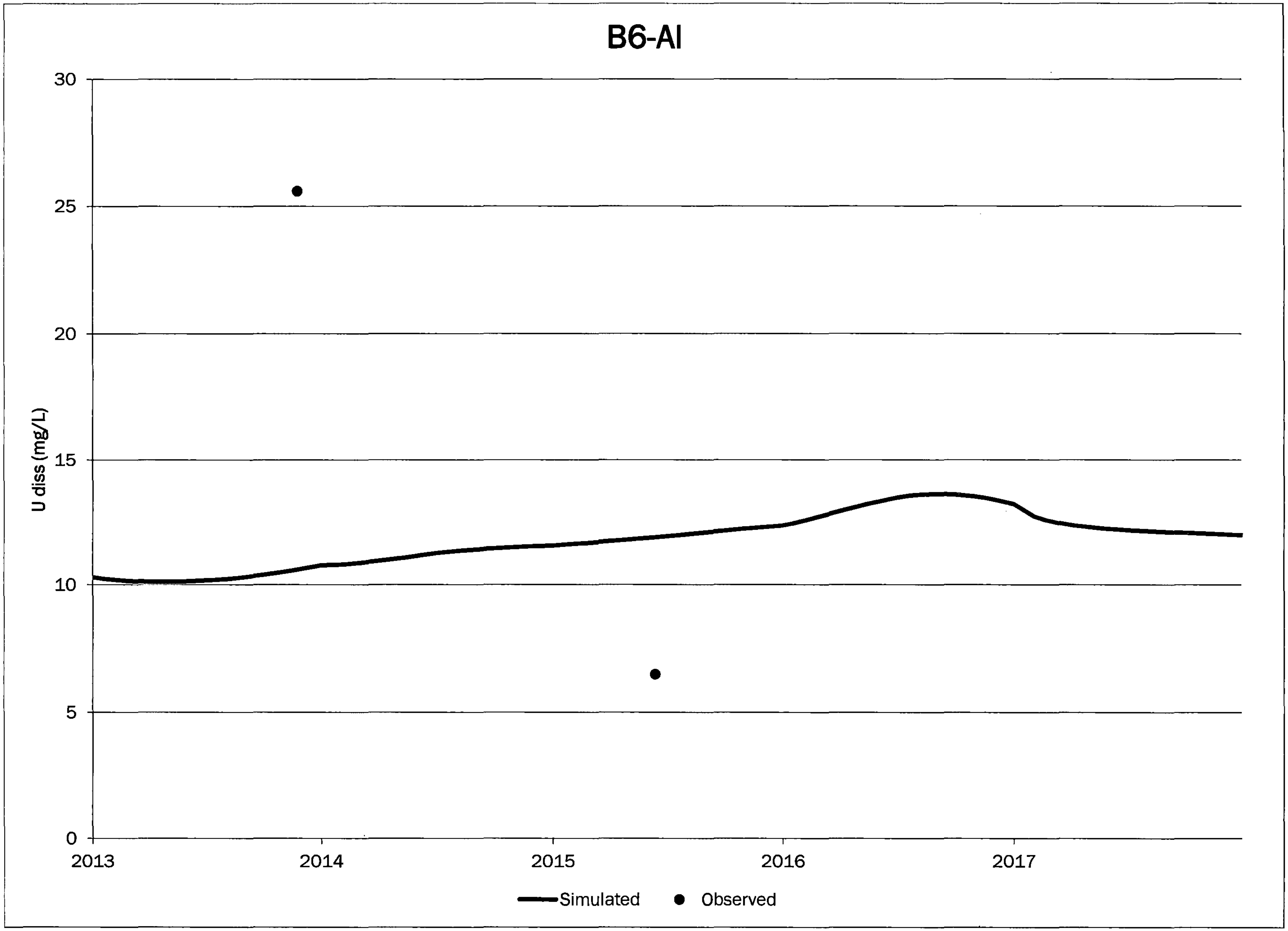

0999-AI
U diss (mg/L)
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2013
2014
2015
2016
2017
Simulated
Observed

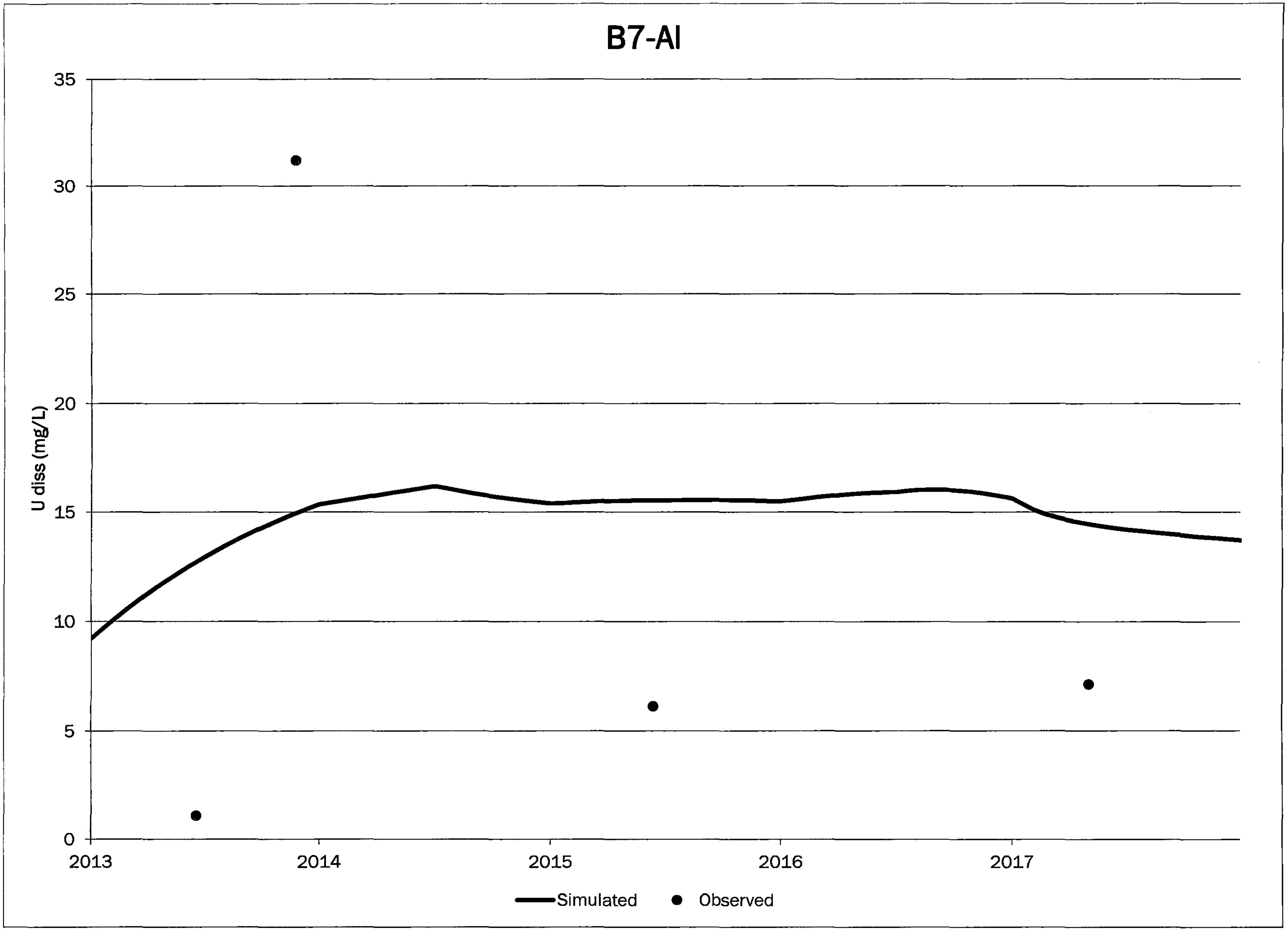

AW-AI
U diss (mg/L)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed


B4-AI
U diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

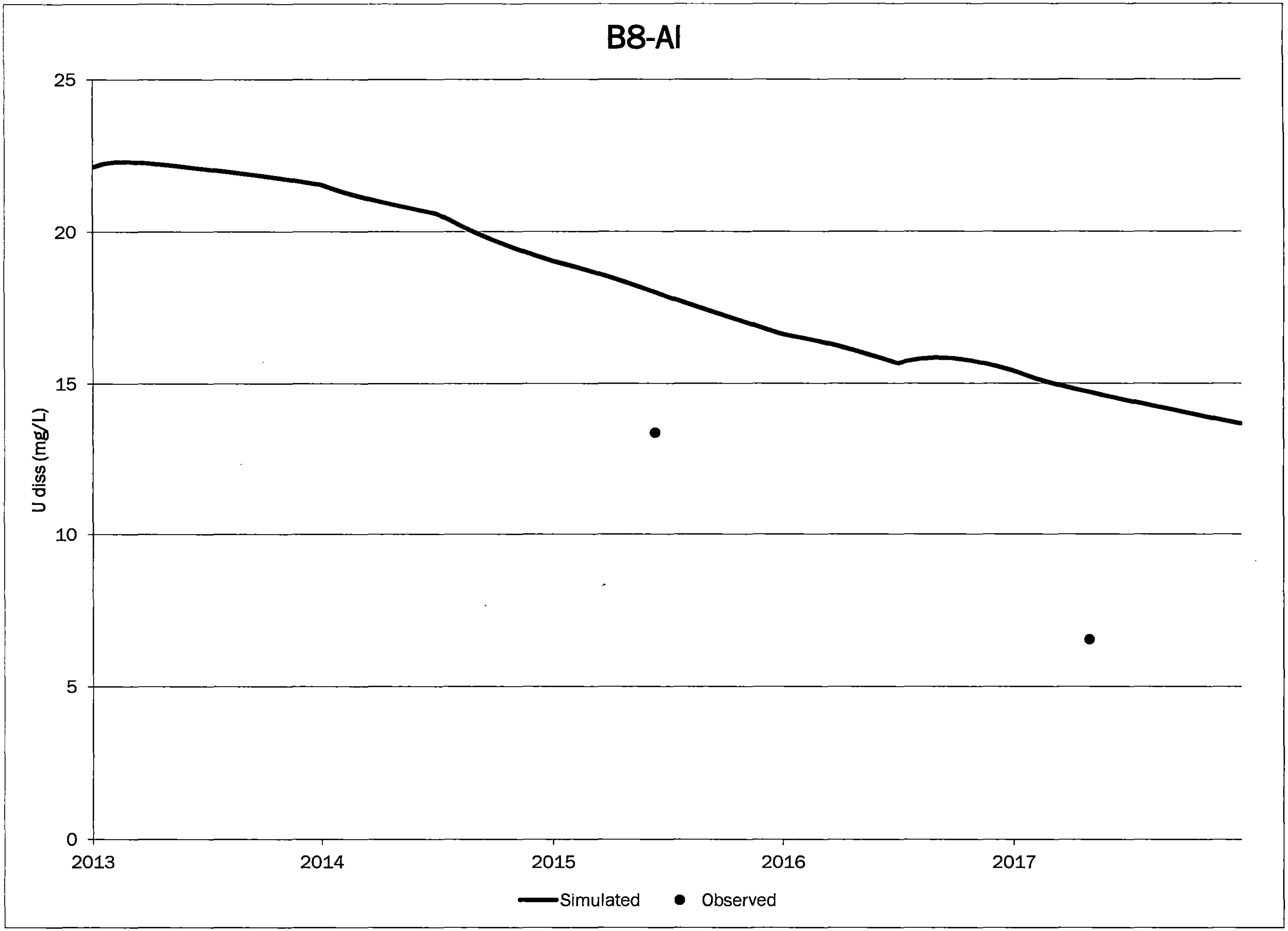


B5-AI
U diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

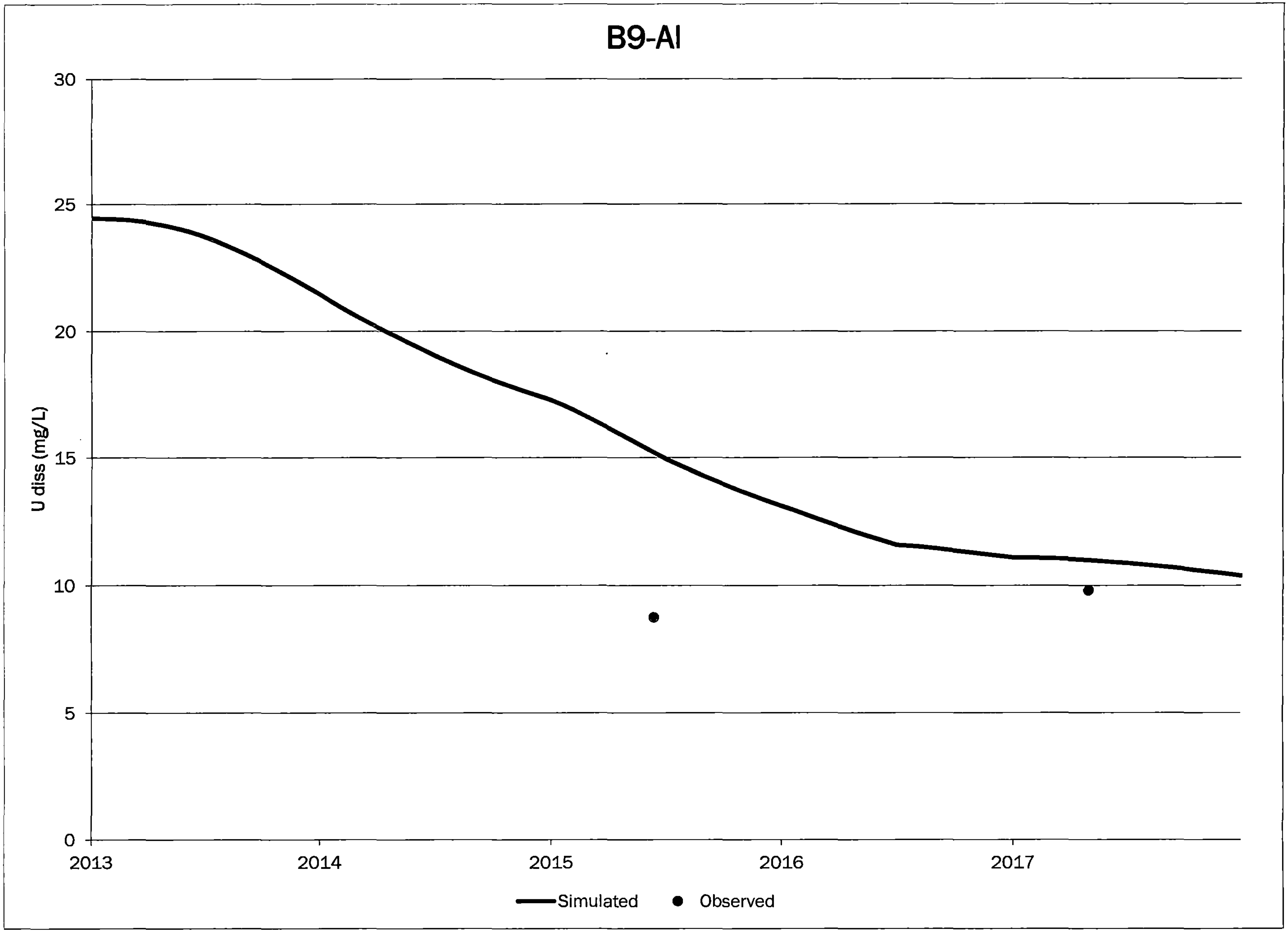

B6-AI
U diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

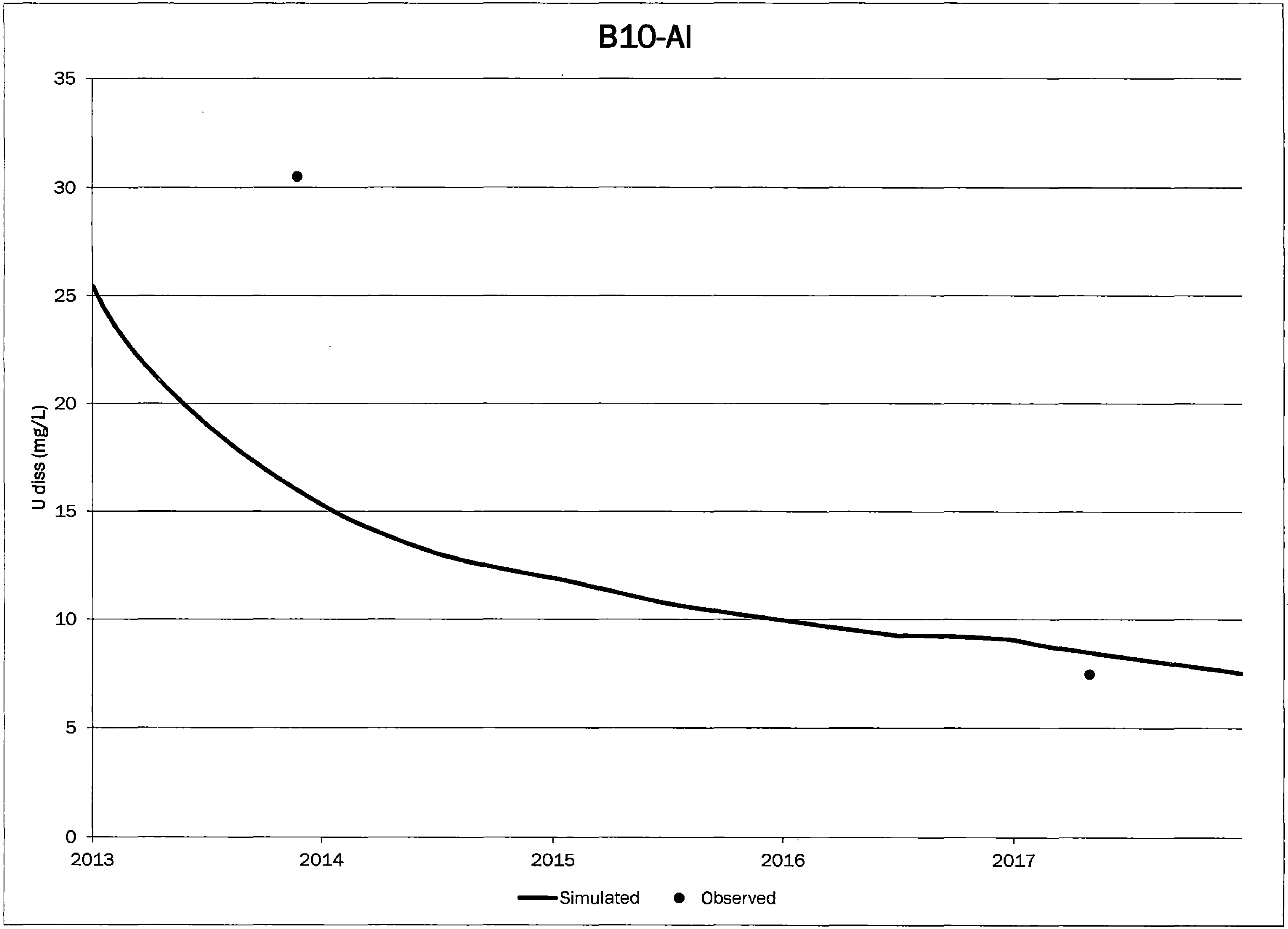


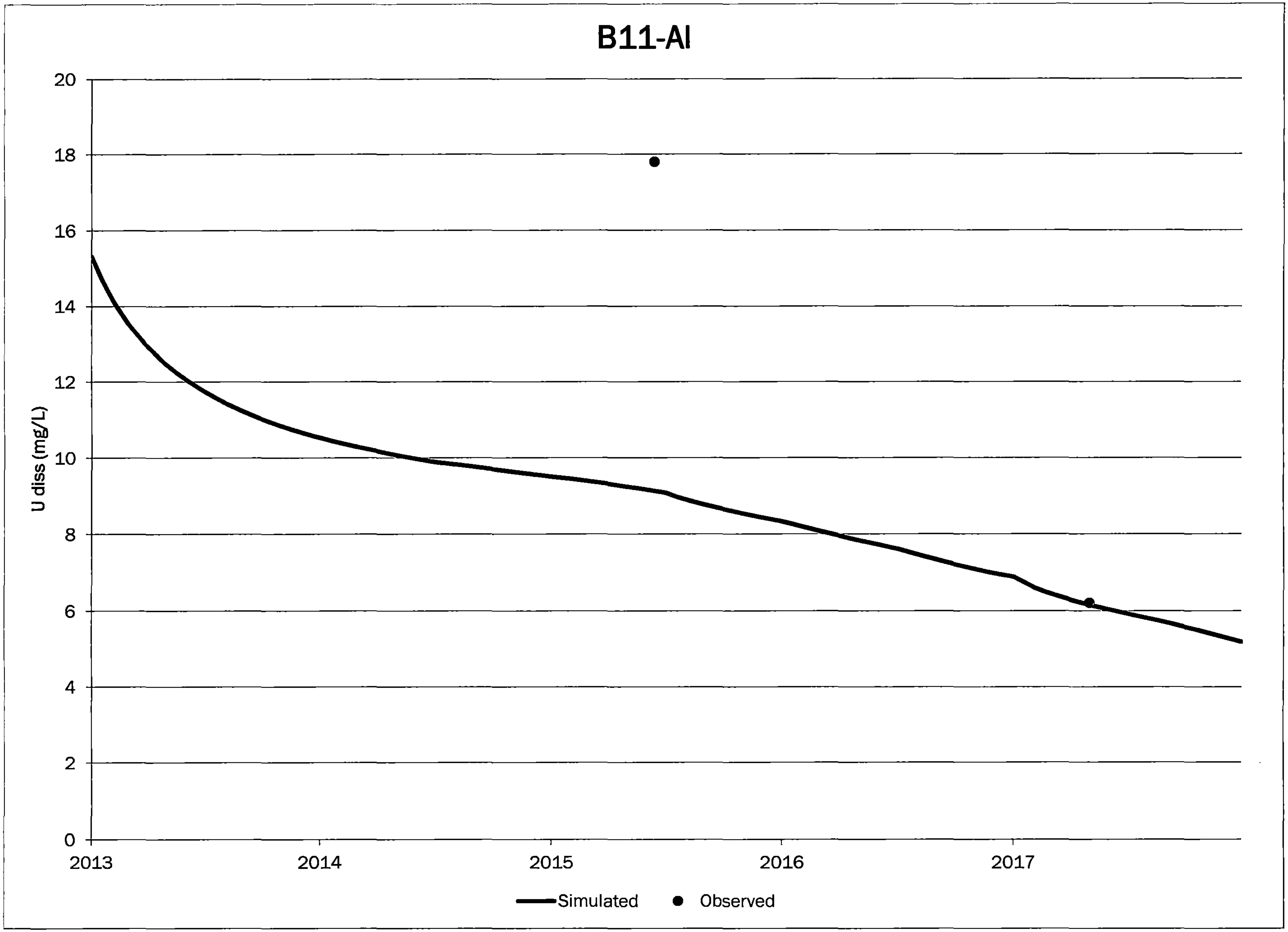
B7-Al
U diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



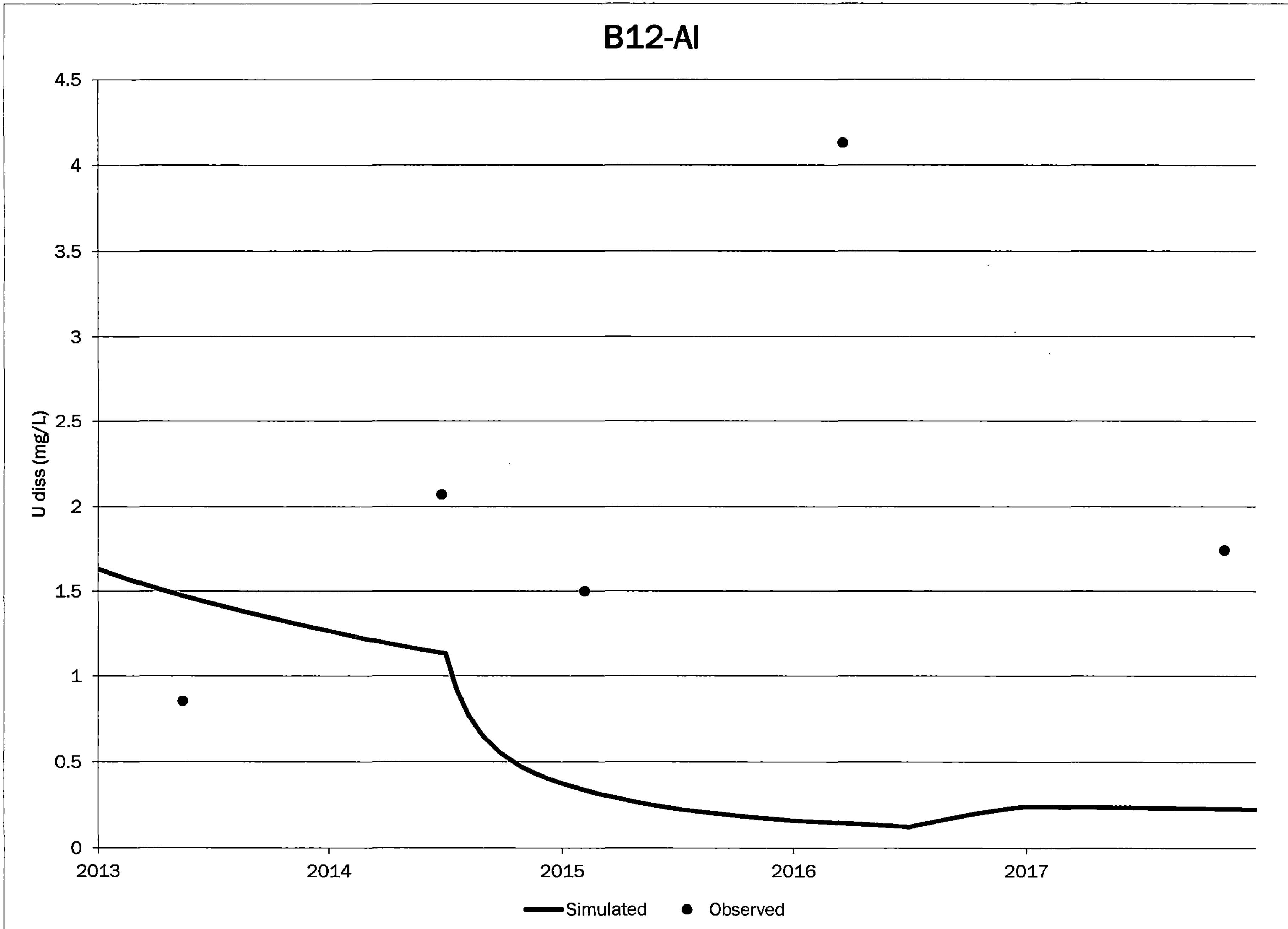
B8-AI
U diss (mg/L)
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed


B9-AI
30
25
20
15
10
5
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

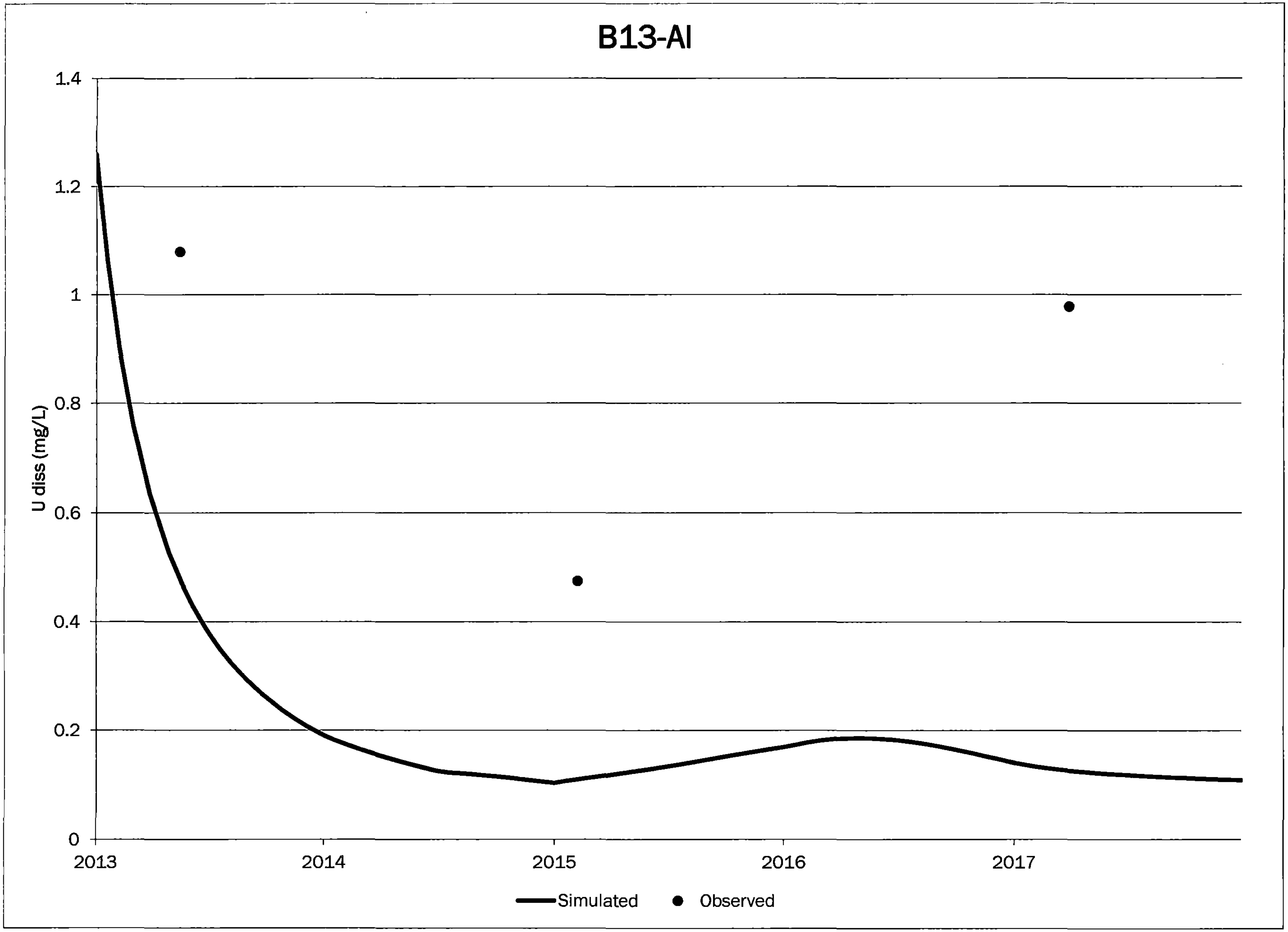

B10-AI
U diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



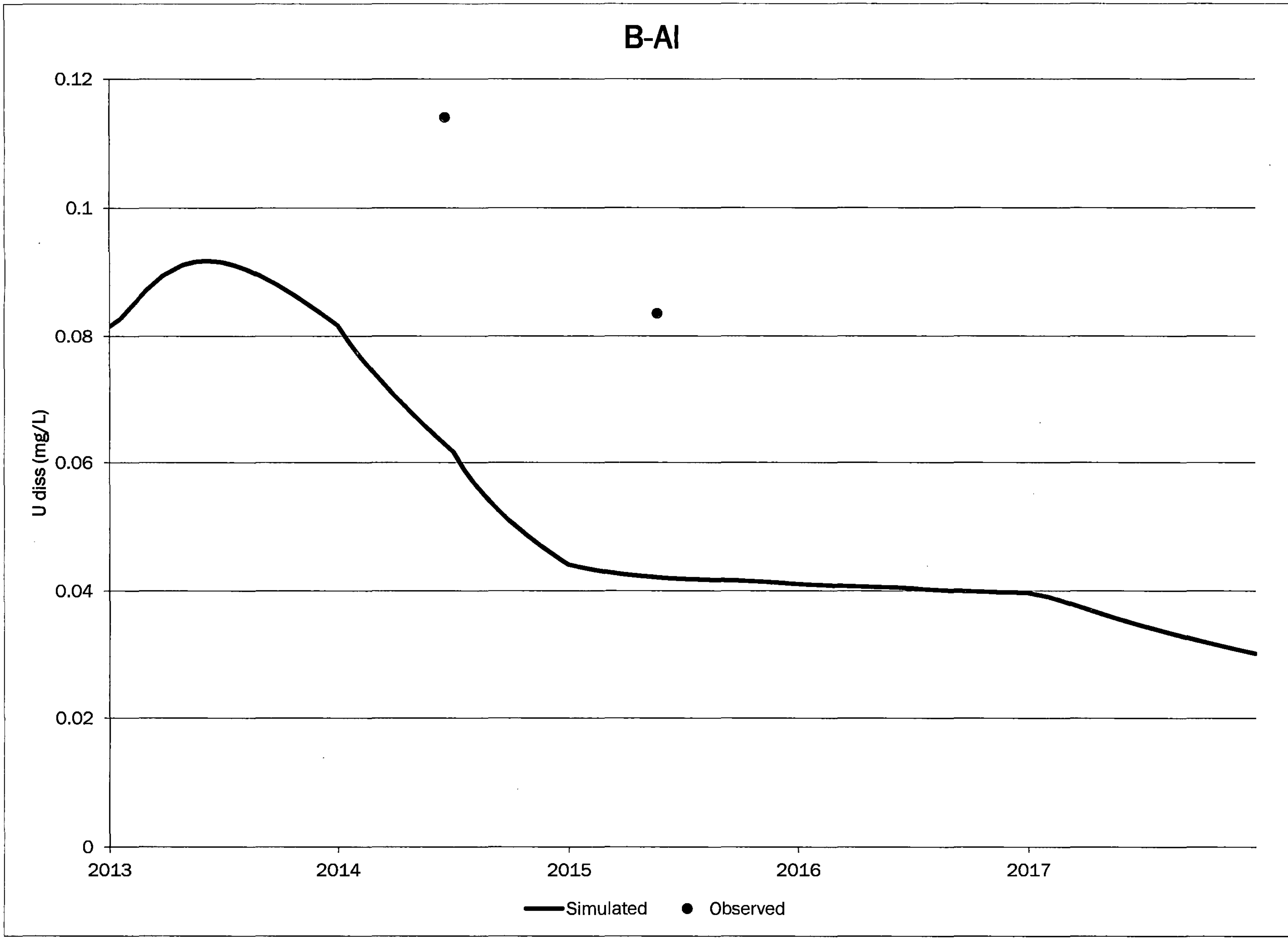
B11-Al
U diss (mg/L)
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed



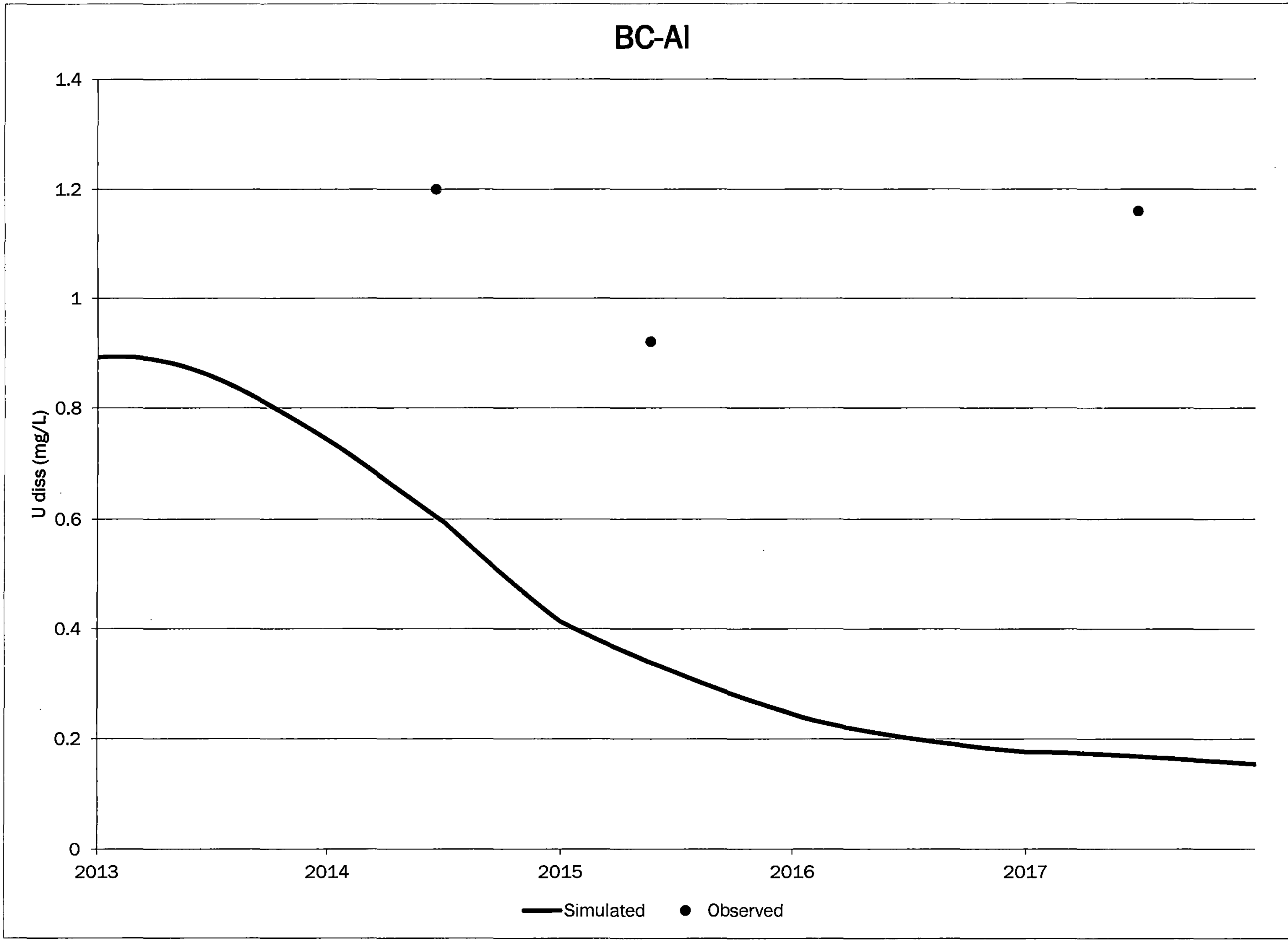
B12-AI
U diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



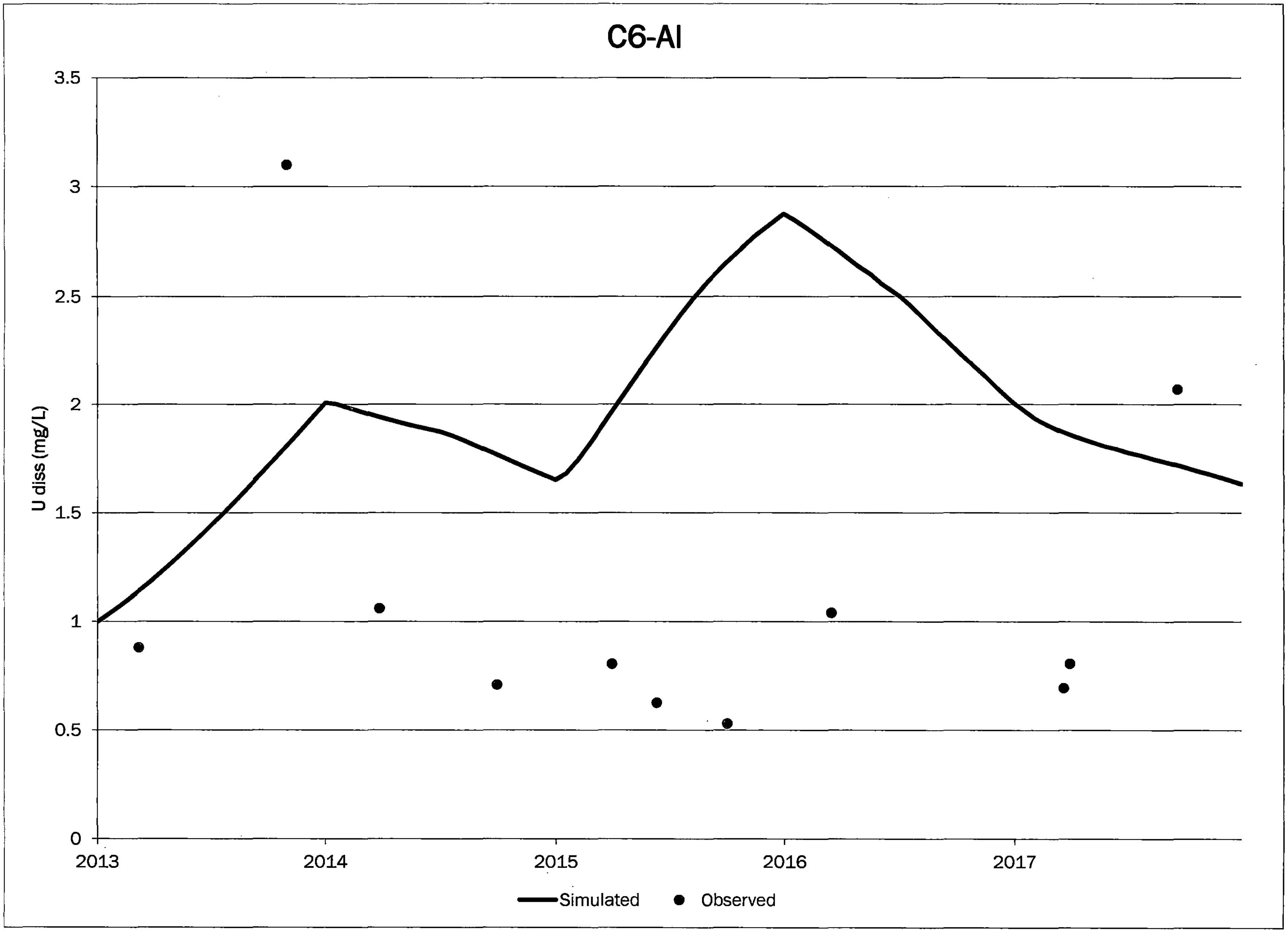
B13-AI
U diss (mg/L)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed



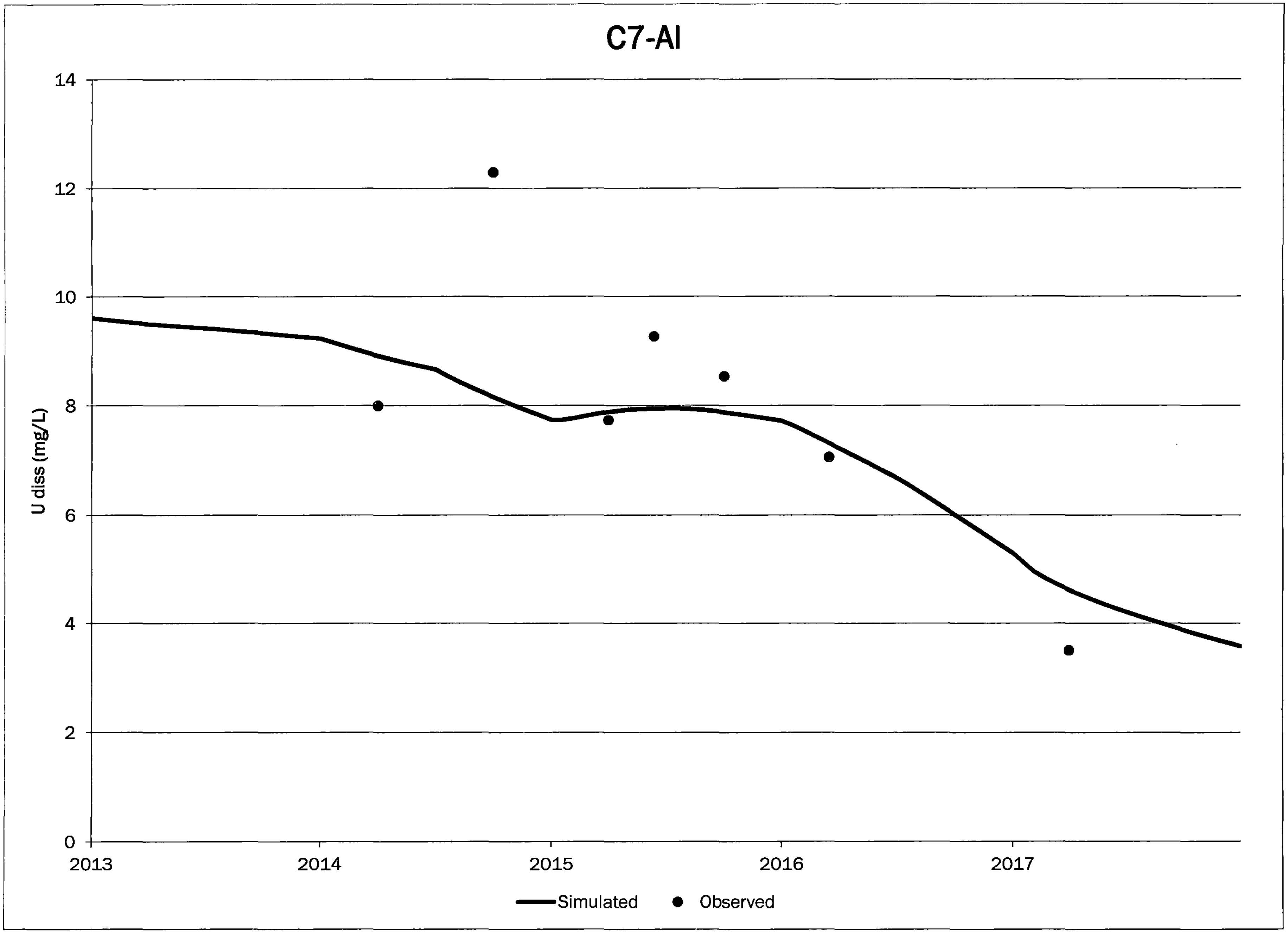
B-Al
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

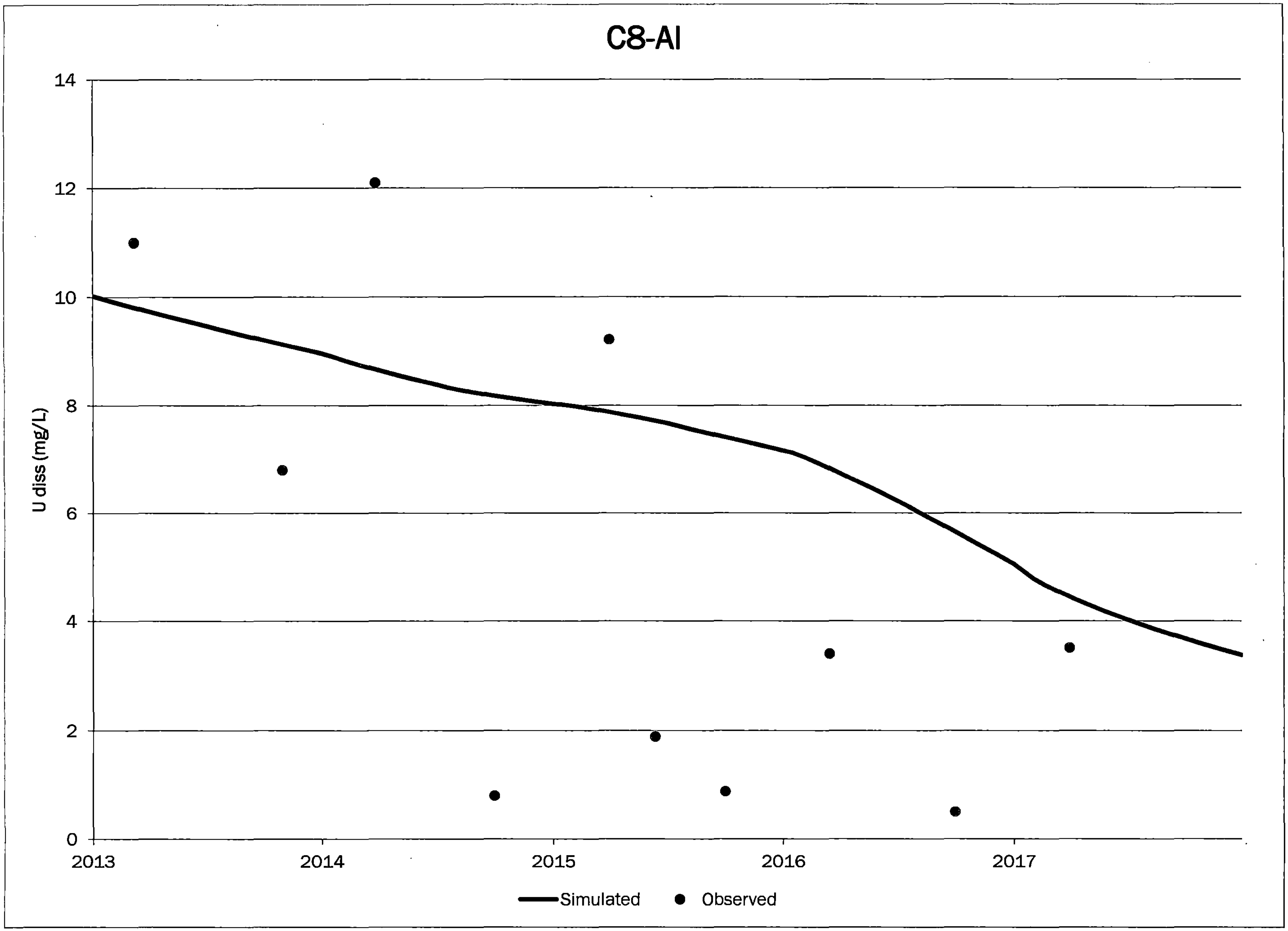


BC-AI
U diss (mg/L)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

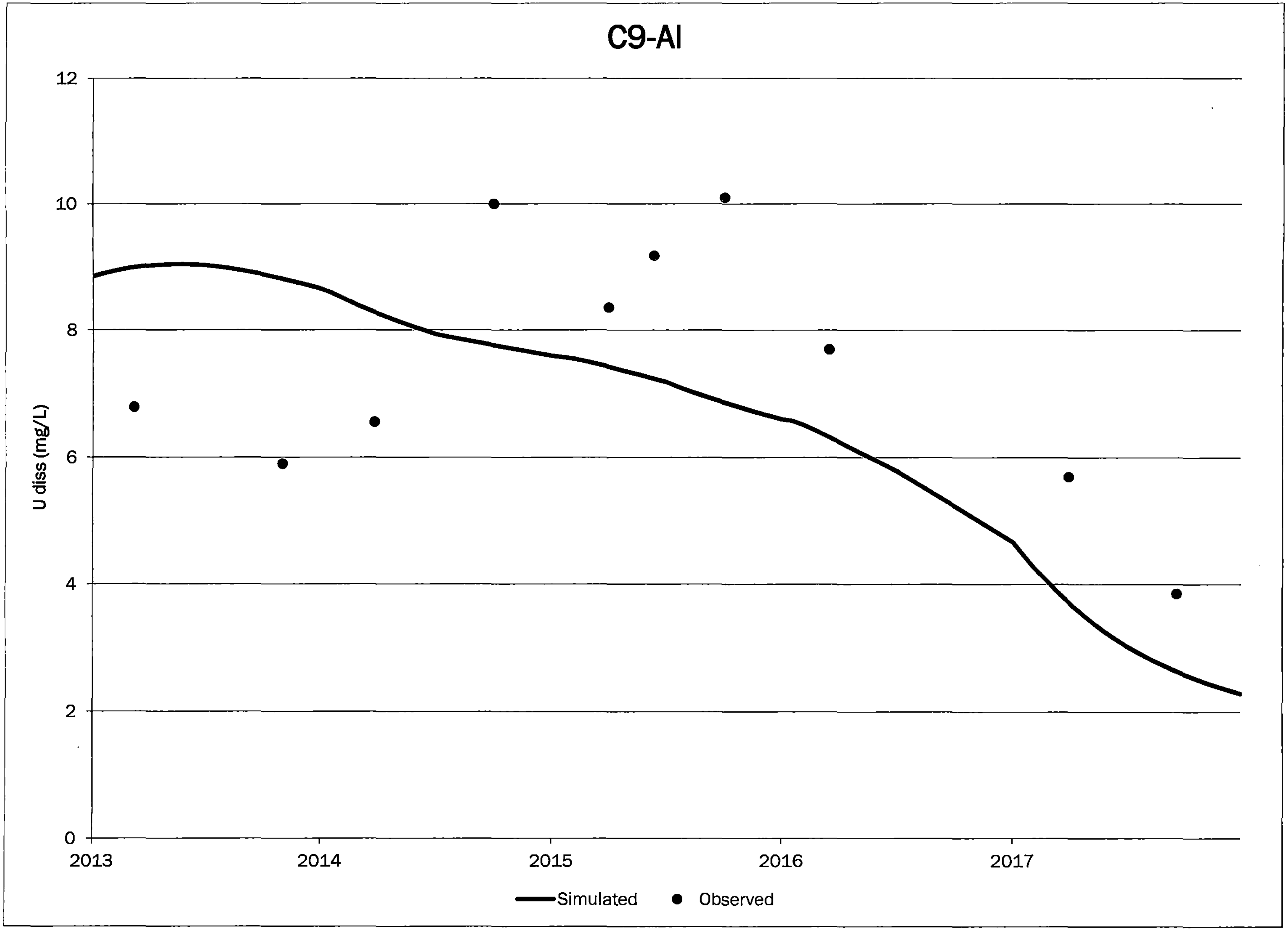


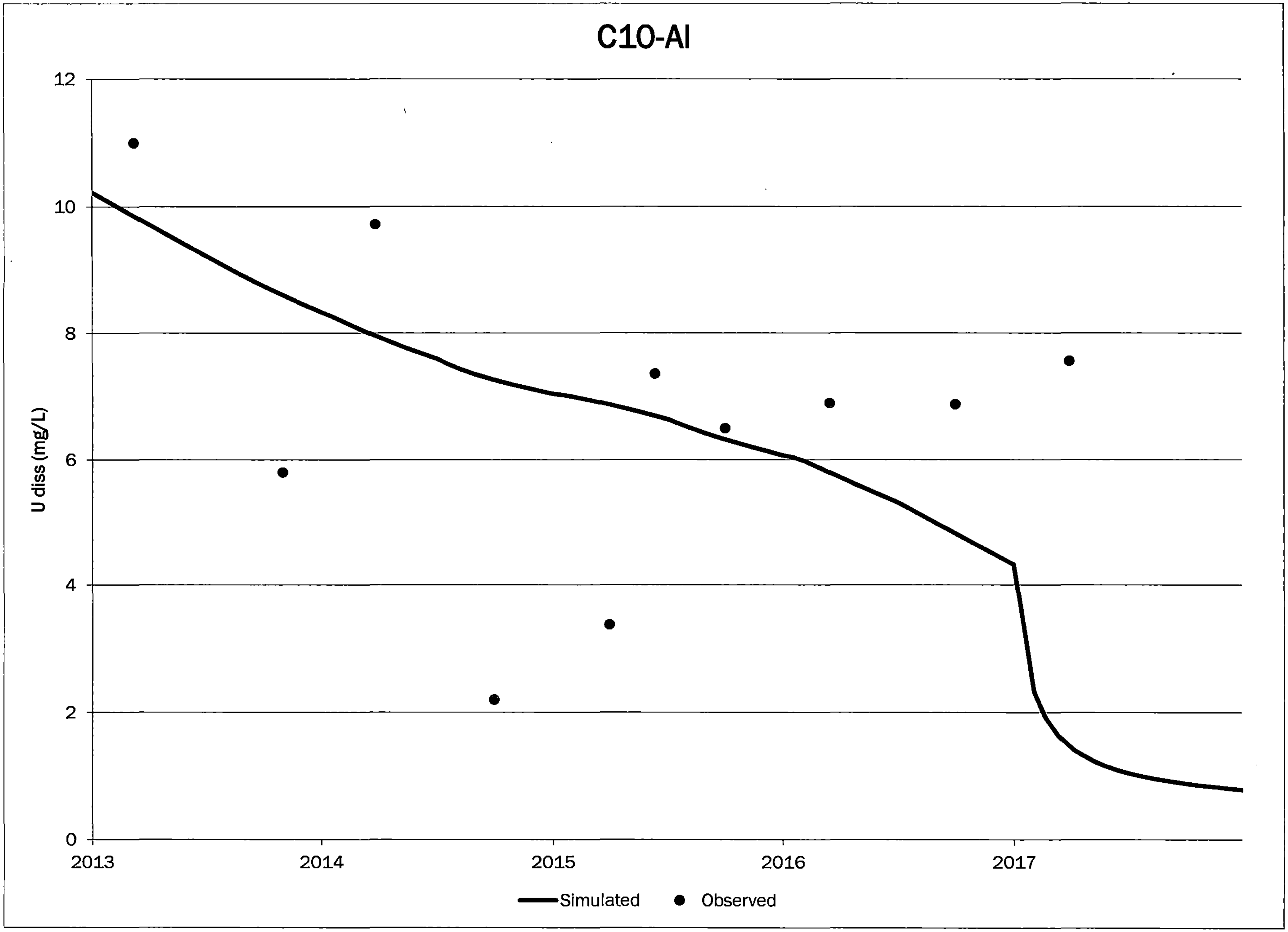
C6-AI
U diss (mg/L)
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

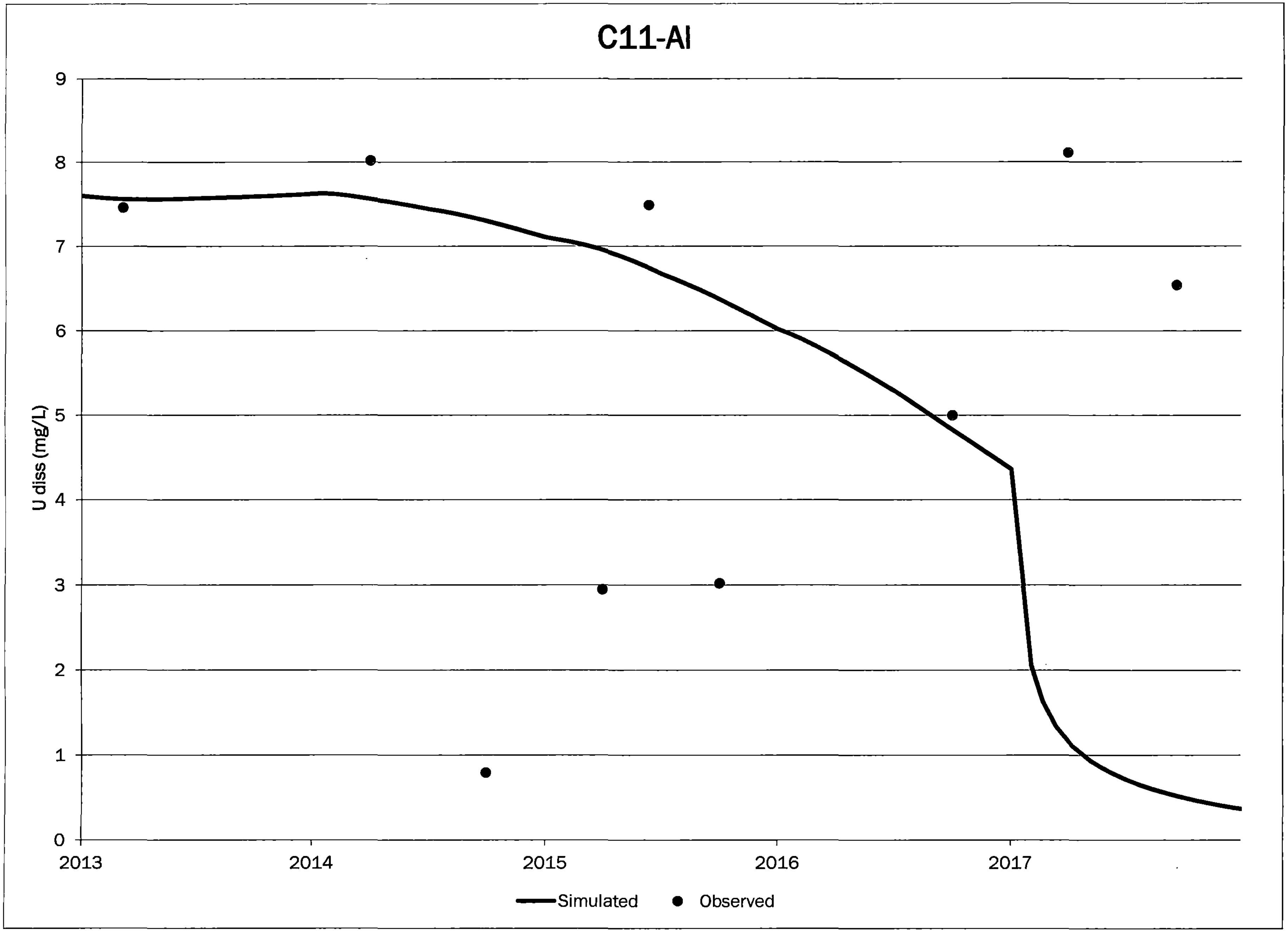

C7-AI
U diss (mg/L)
0
2
4
6
8
10
12
14
2013
2014
2015
2016
2017
Simulated
Observed

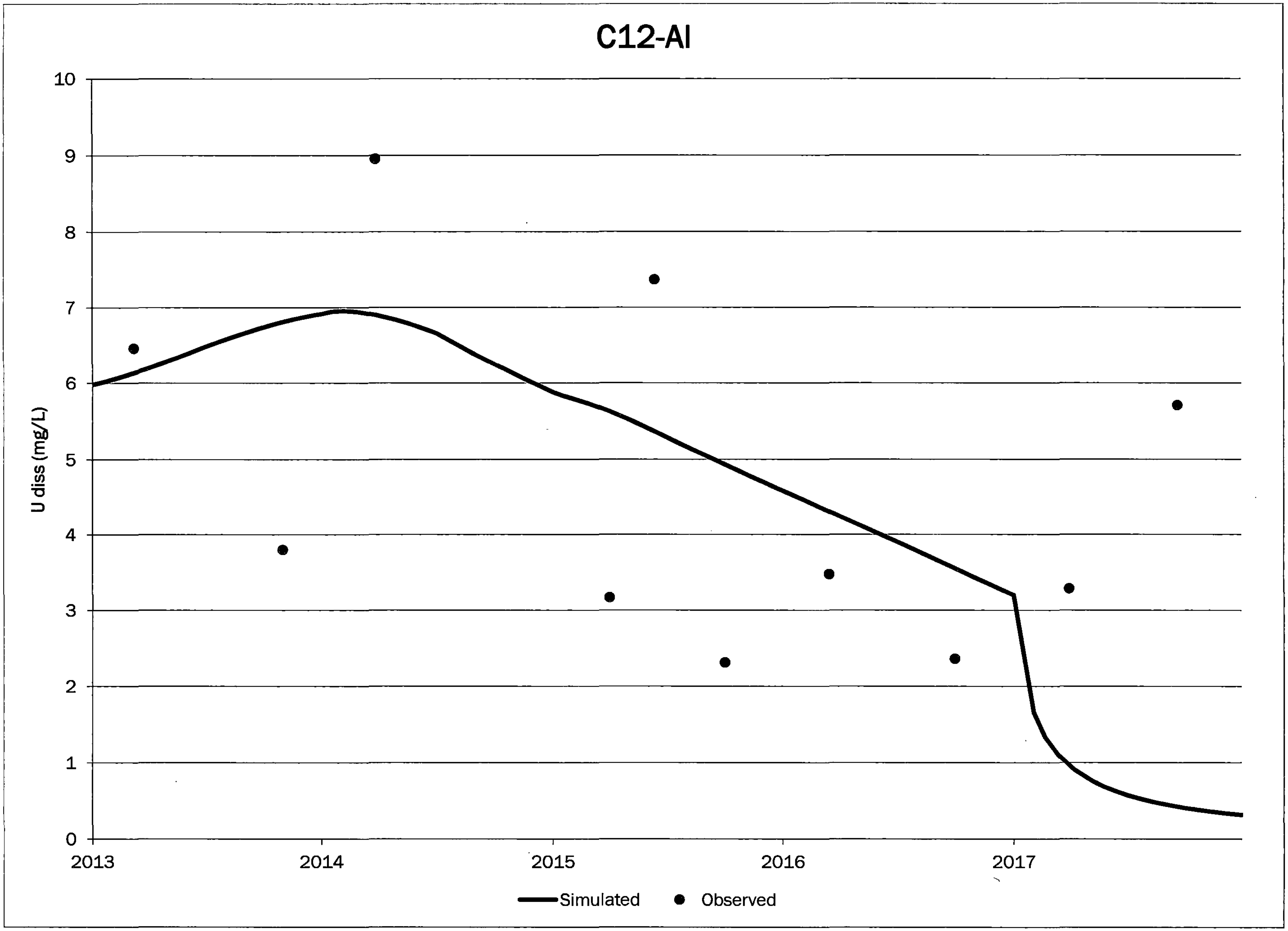


C8-AI
U diss (mg/L)
0
2
4
6
8
10
12
14
2013
2014
2015
2016
2017
Simulated
Observed

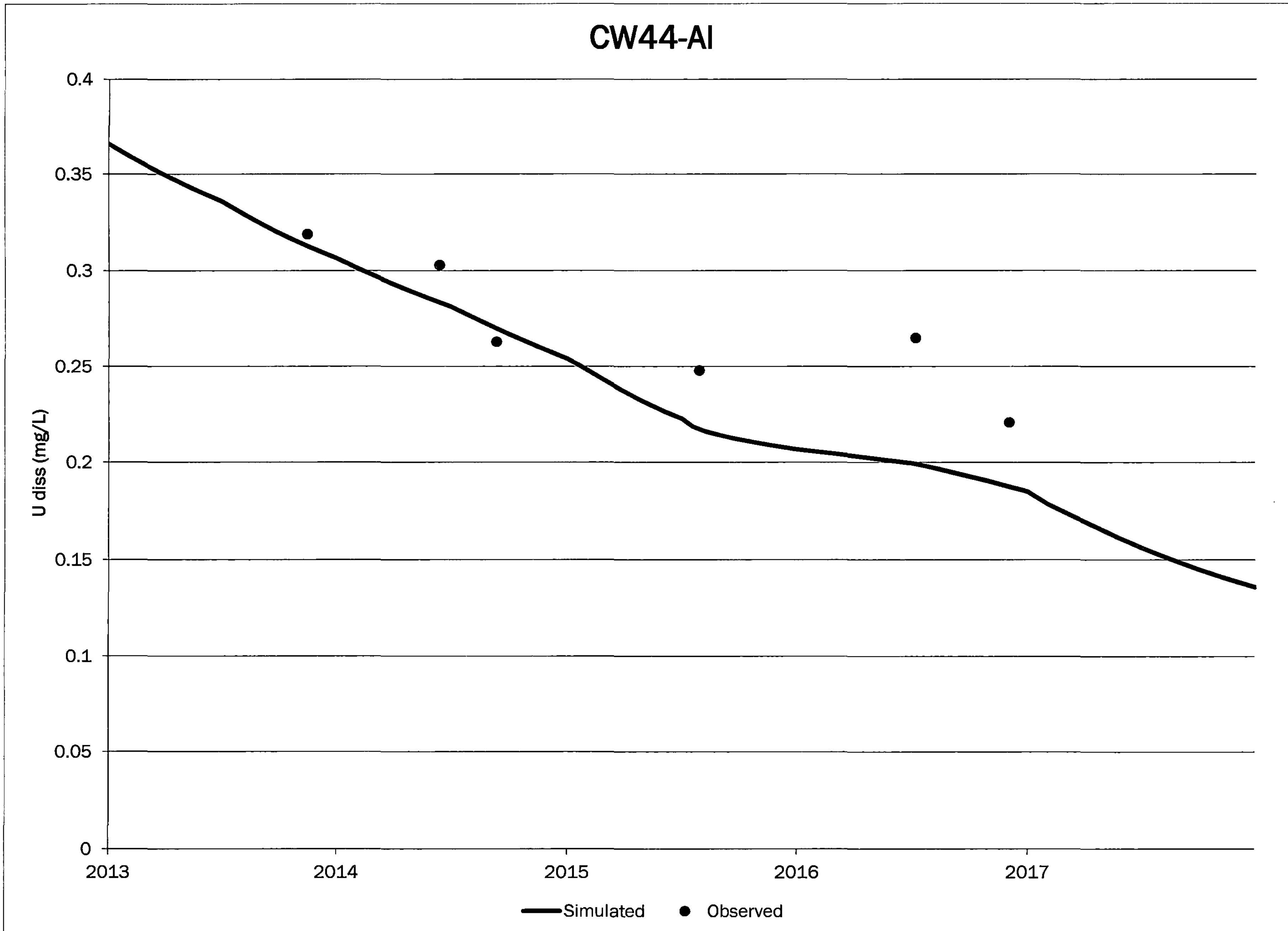

C9-AI
U diss (mg/L)
0
2
4
6
8
10
12
2013
2014
2015
2016
2017
Simulated
Observed

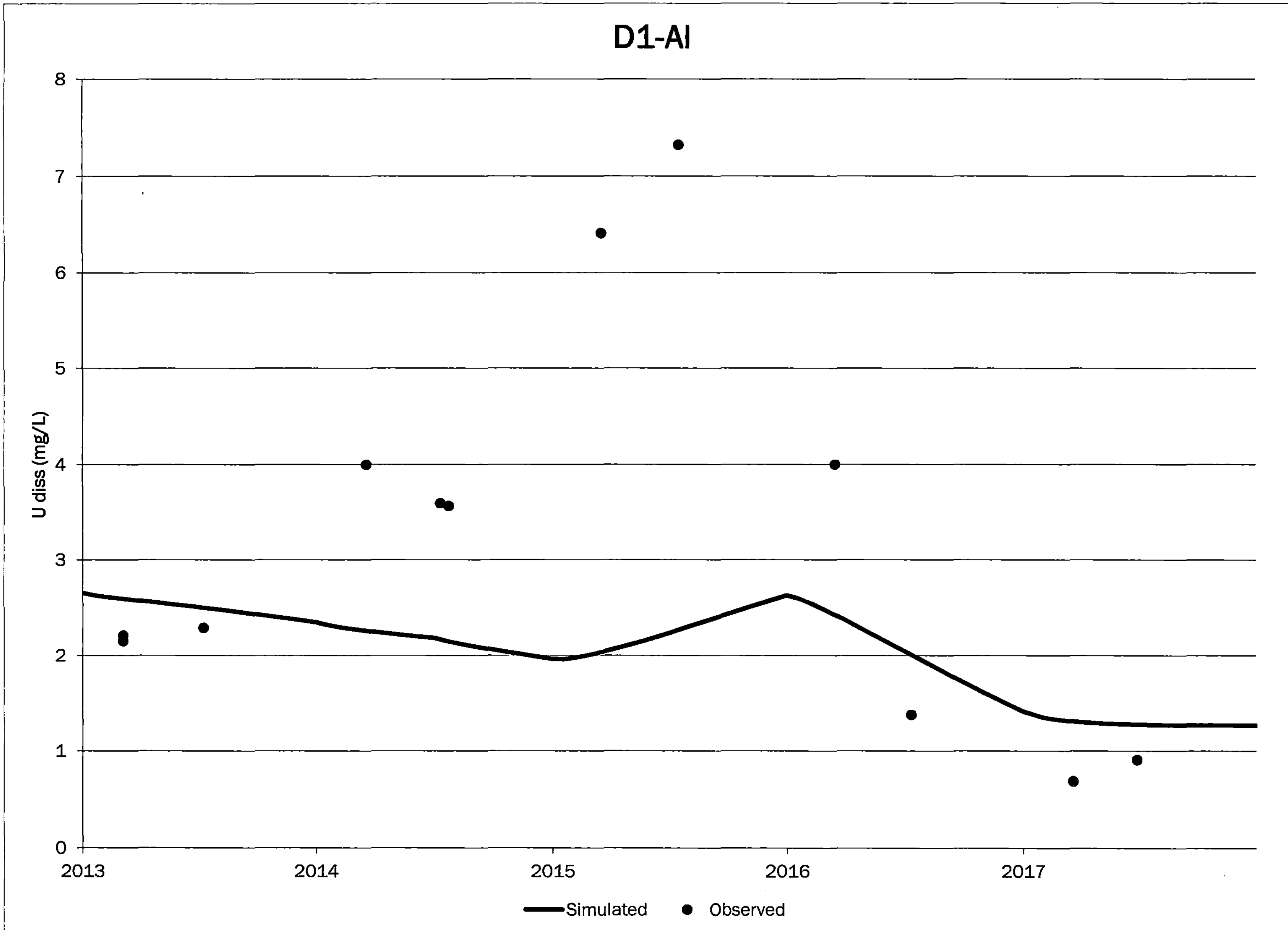

C10-Al
U diss (mg/L)
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

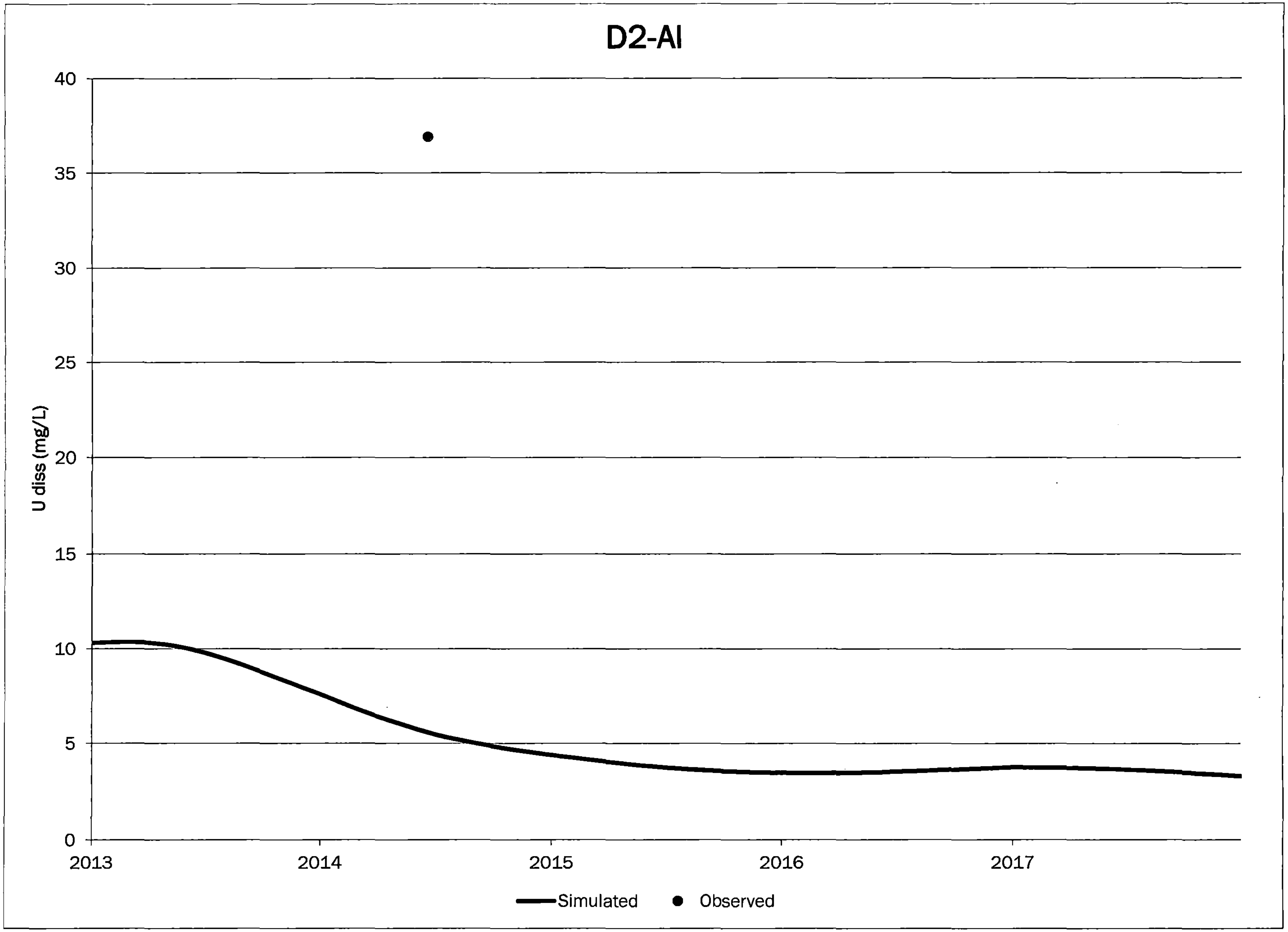

C11-Al
U diss (mg/L)
0
1
2
3
4
5
6
7
8
9
2013
2014
2015
2016
2017
Simulated
Observed



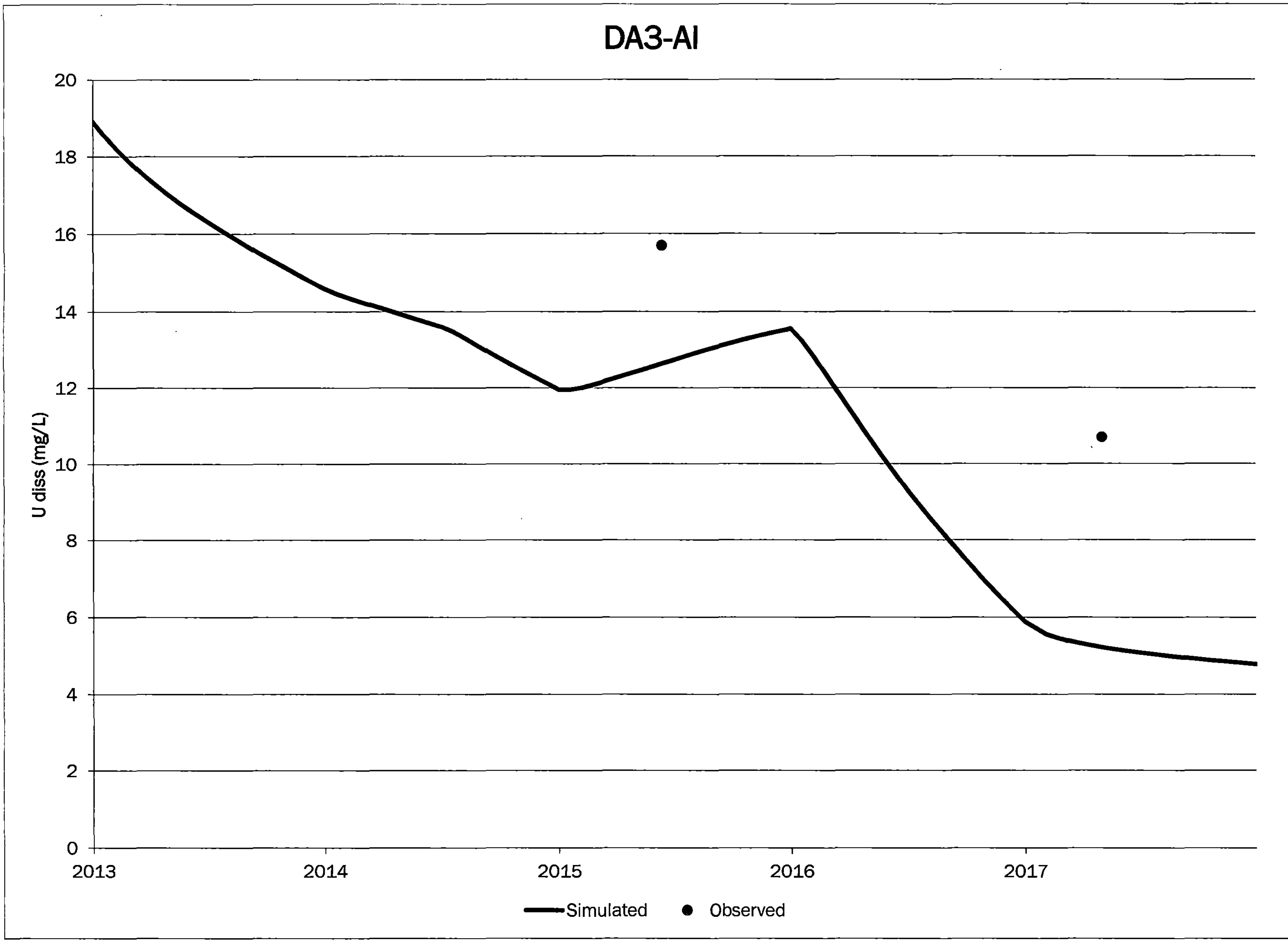
C12-AI
U diss (mg/L)
10
9
8
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed


CW44-AI
U diss (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

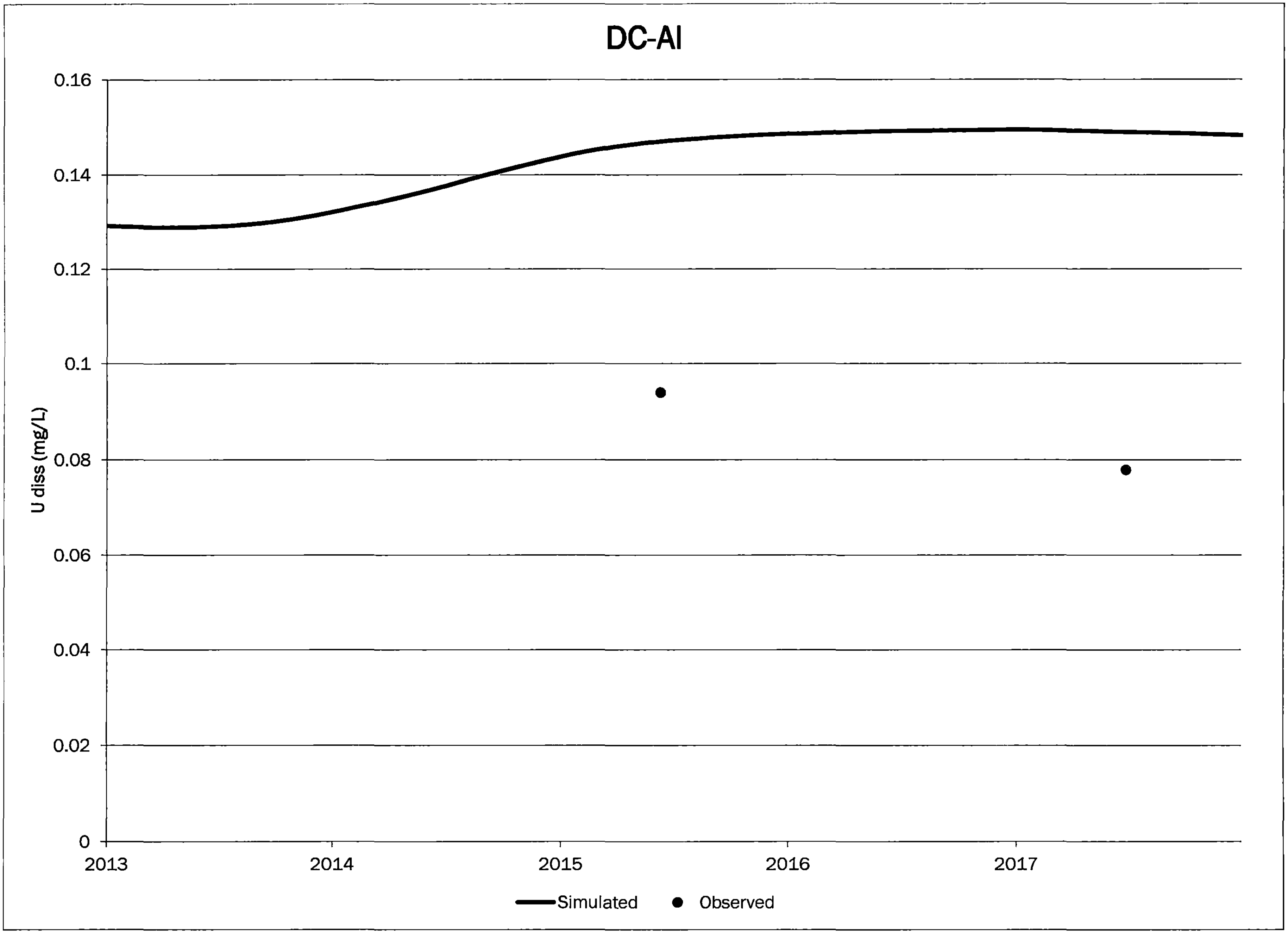

D1-Al
U diss (mg/L)
0
1
2
3
4
5
6
7
8
2013
2014
2015
2016
2017
Simulated
Observed



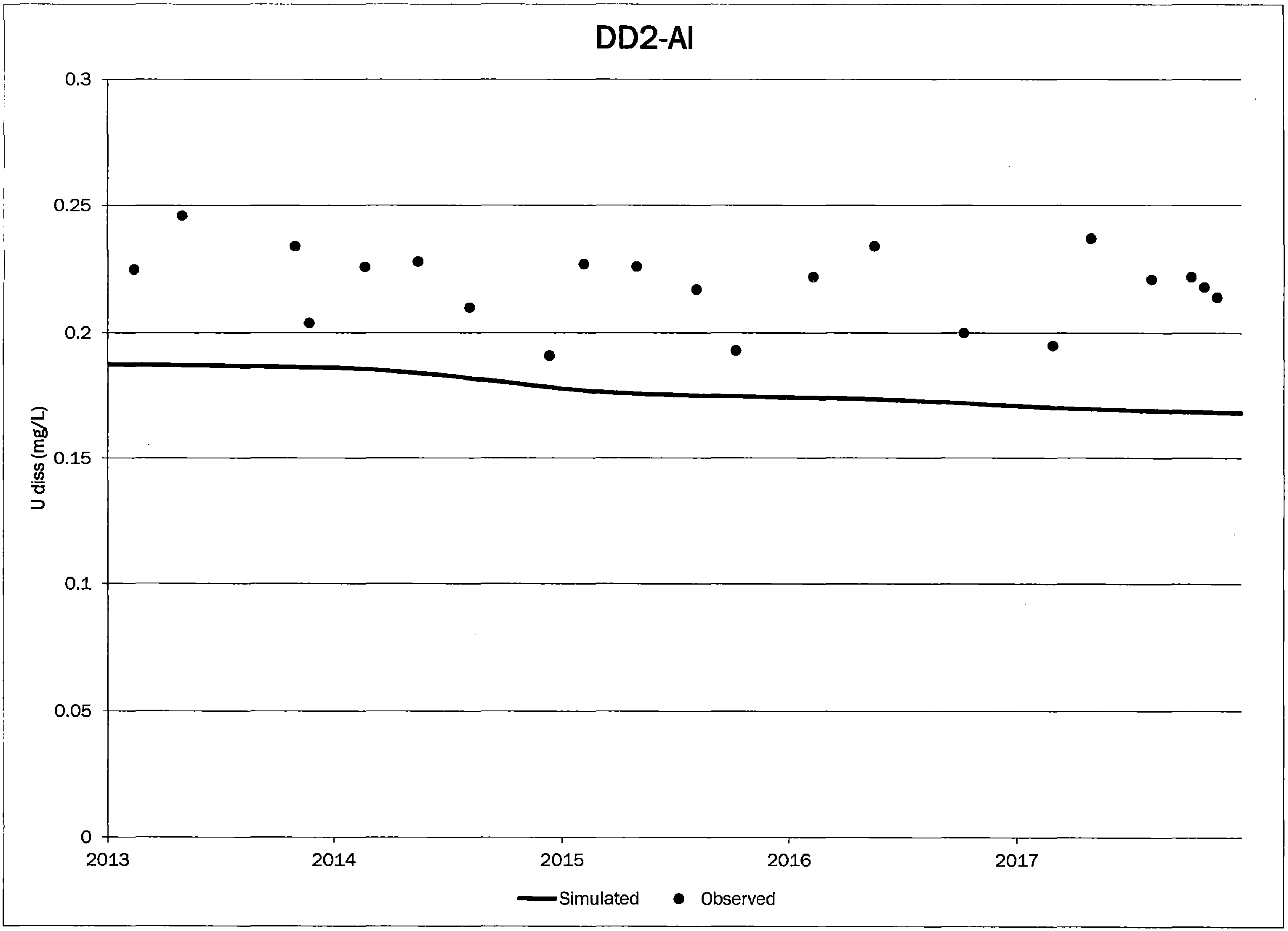
D2-AI
U diss (mg/L)
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



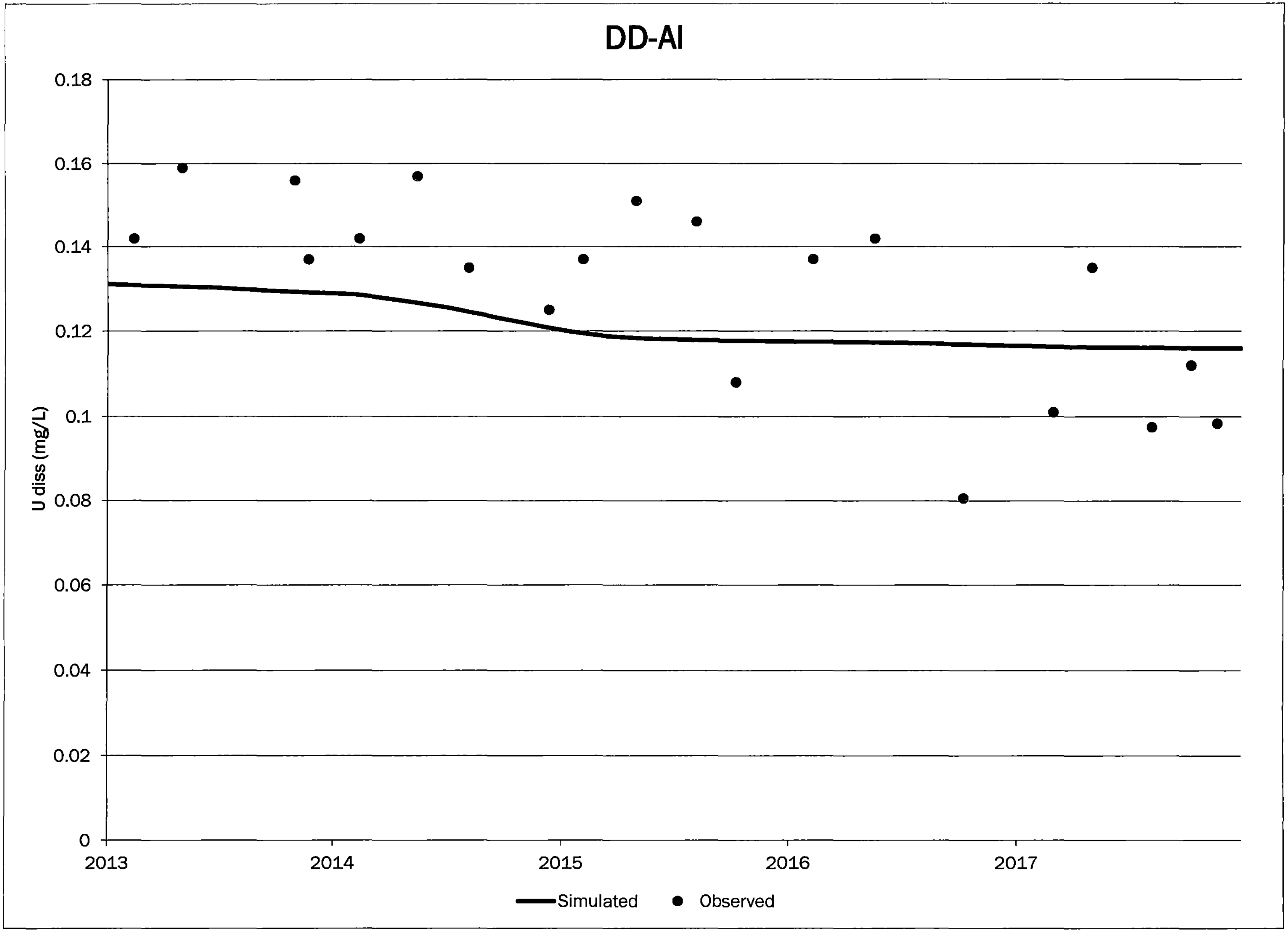
DA3-AI
20
18
16
14
12
10
8
6
4
2
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



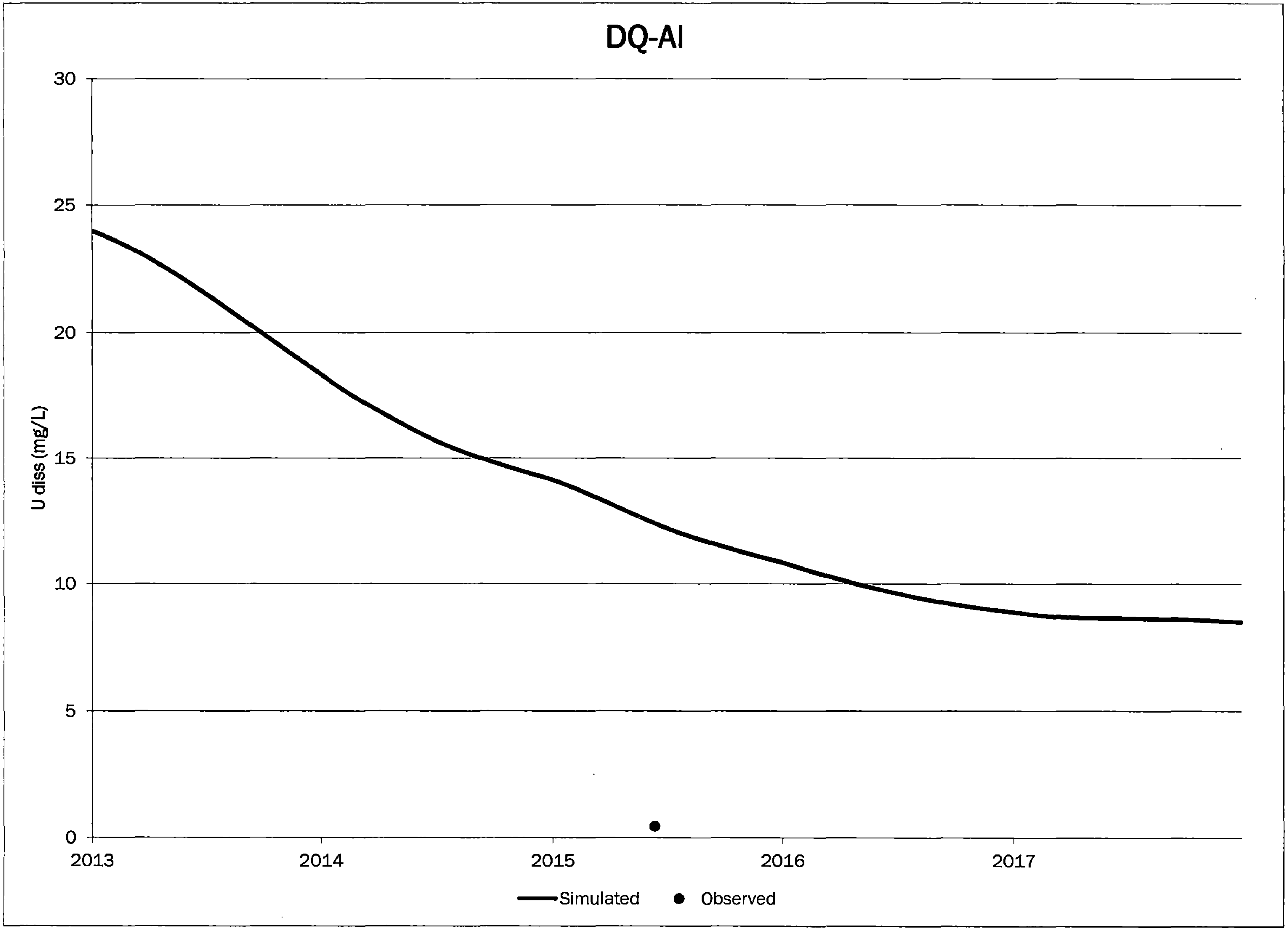
DC-AI
U diss (mg/L)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



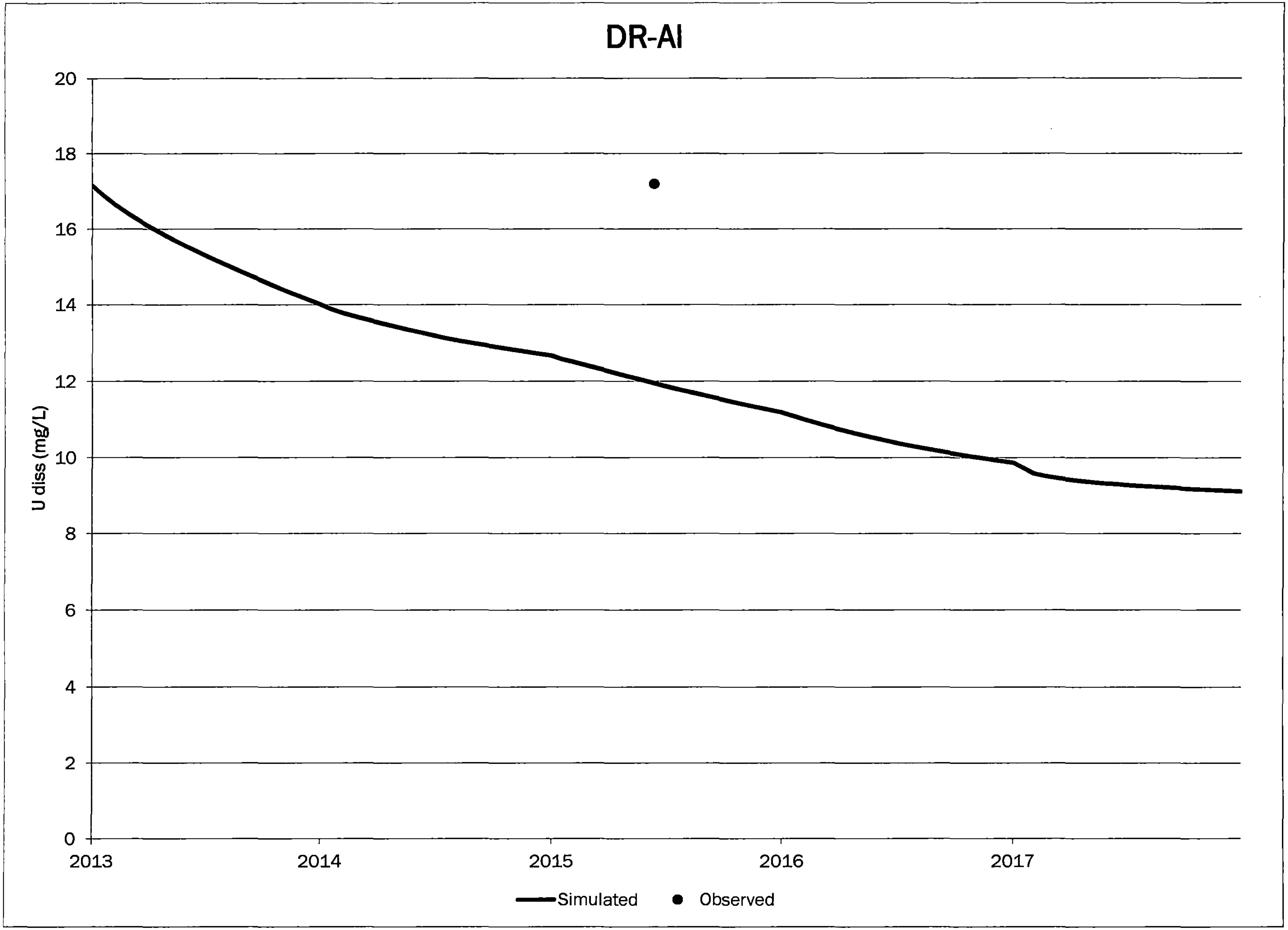
DD2-AI
0.3
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



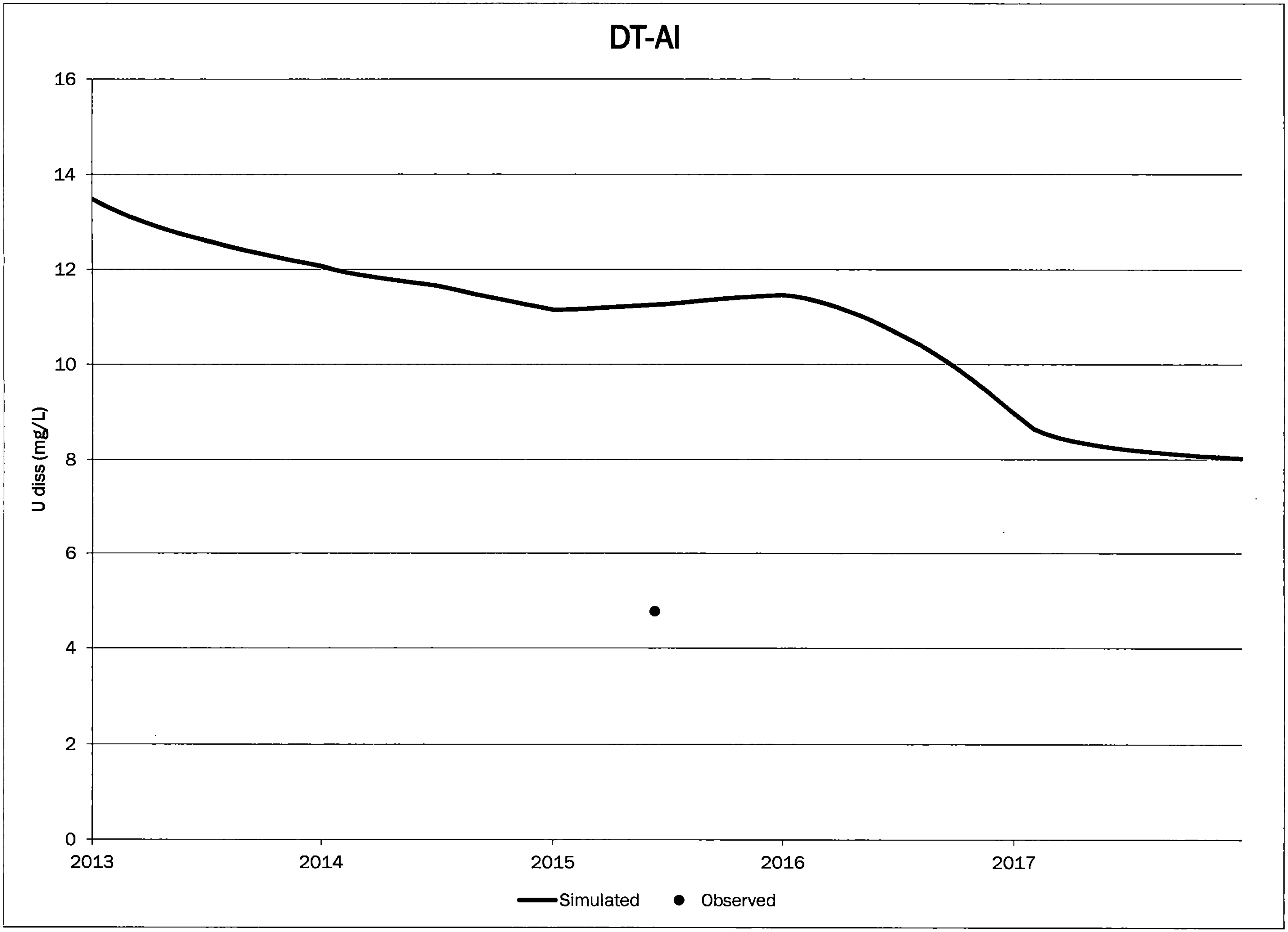
DD-AI
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

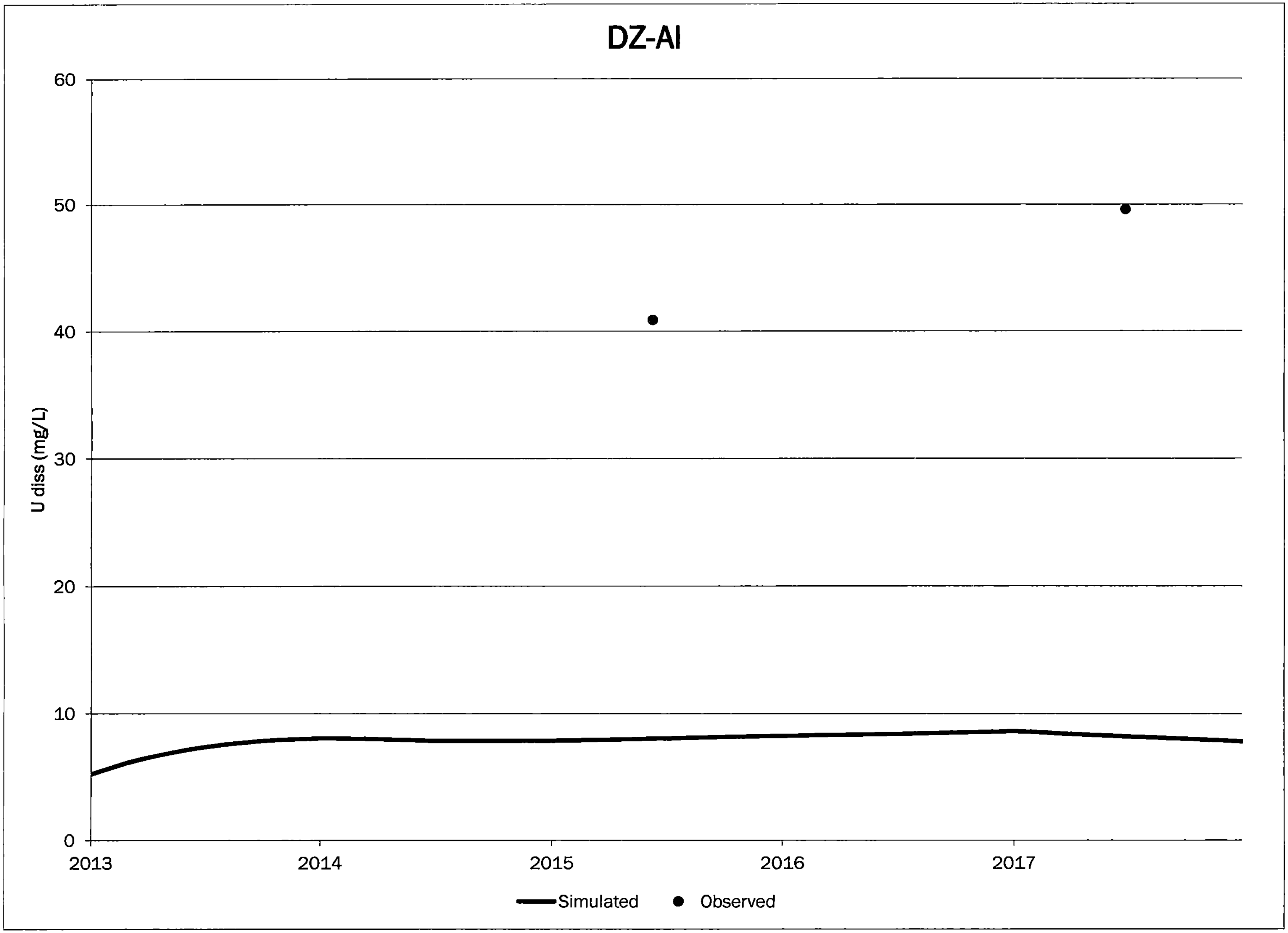


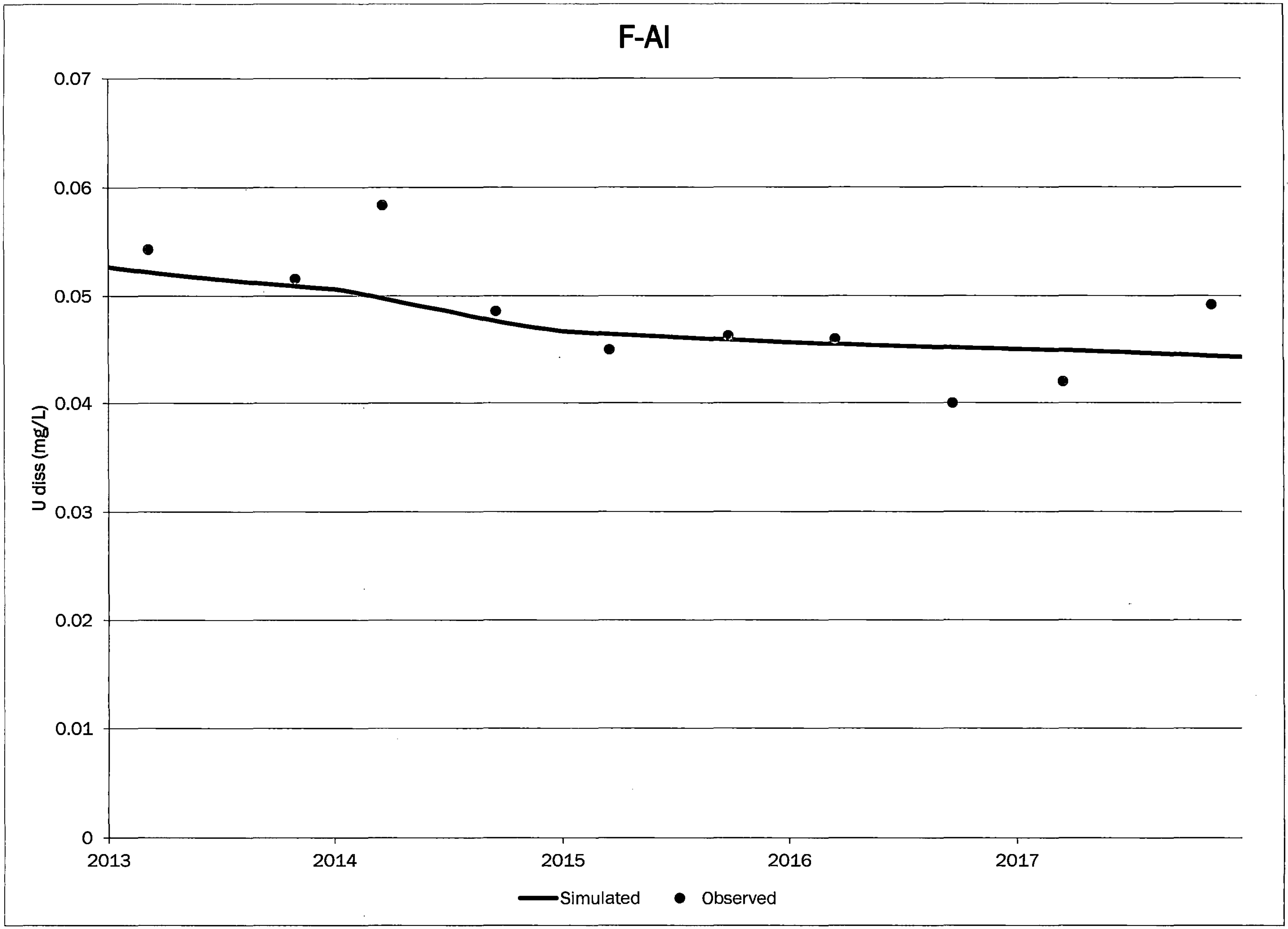
DQ-AI
U diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



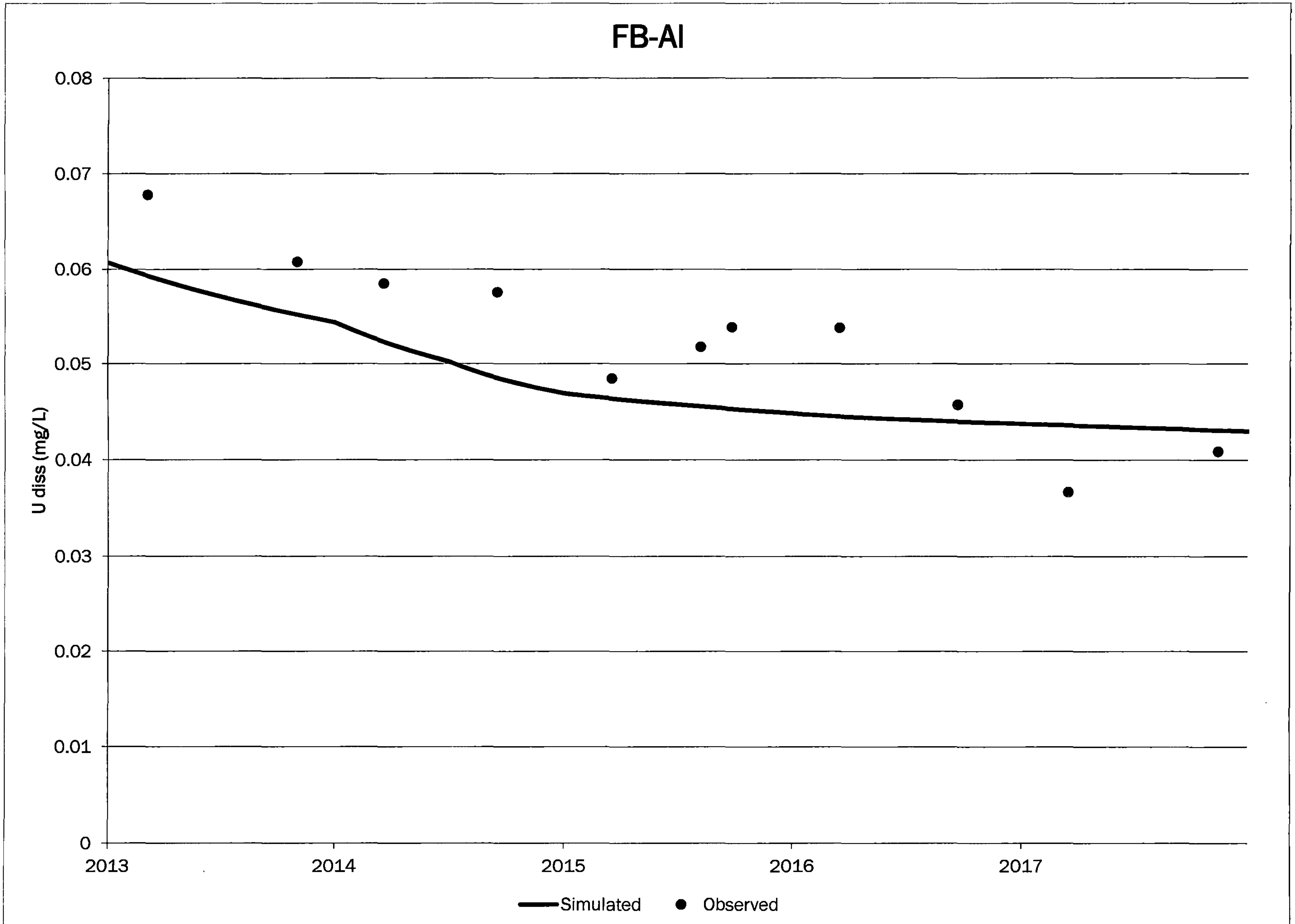
DR-AI
U diss (mg/L)
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

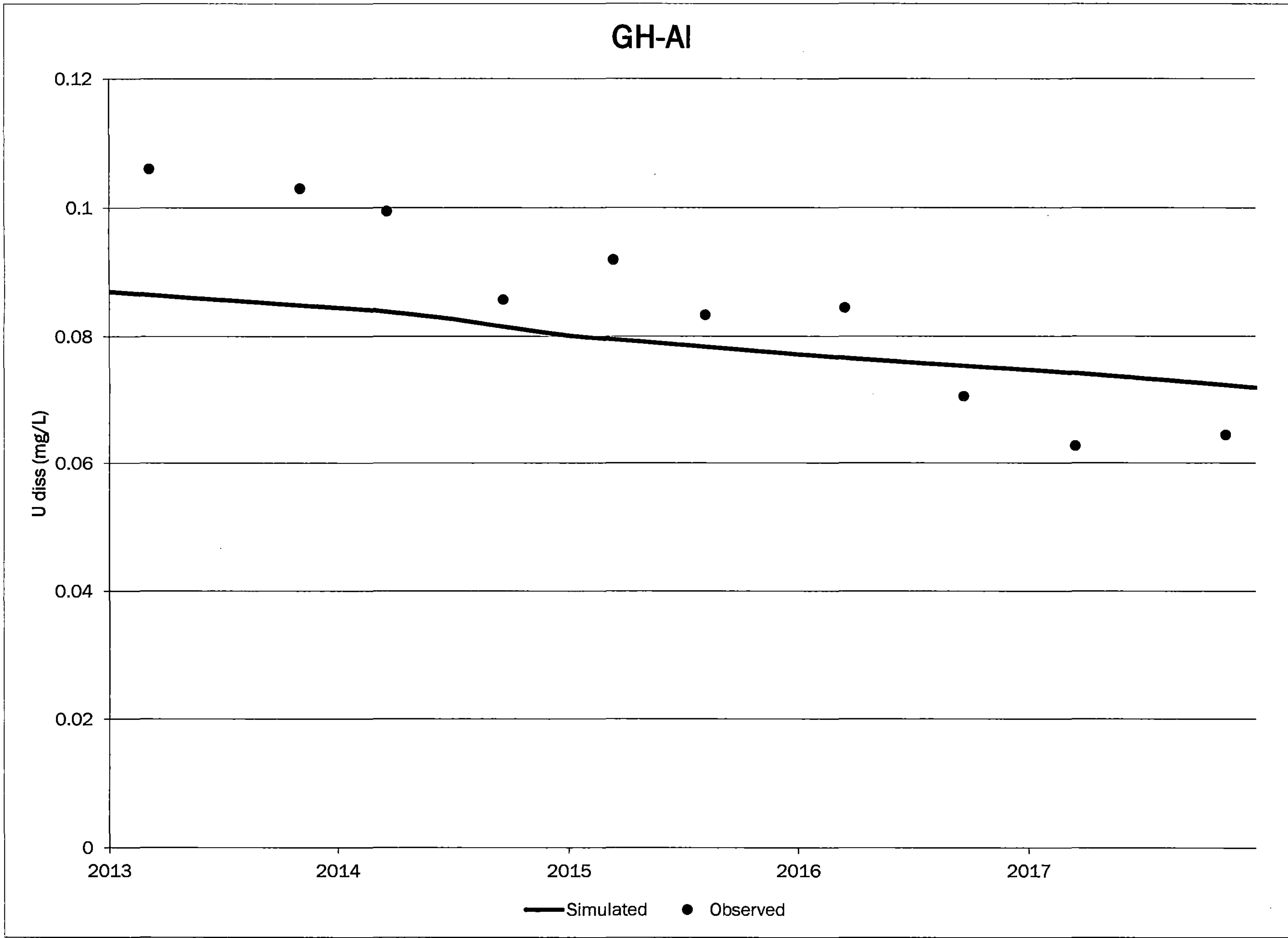

DT-AI
16
14
12
10
8
6
4
2
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

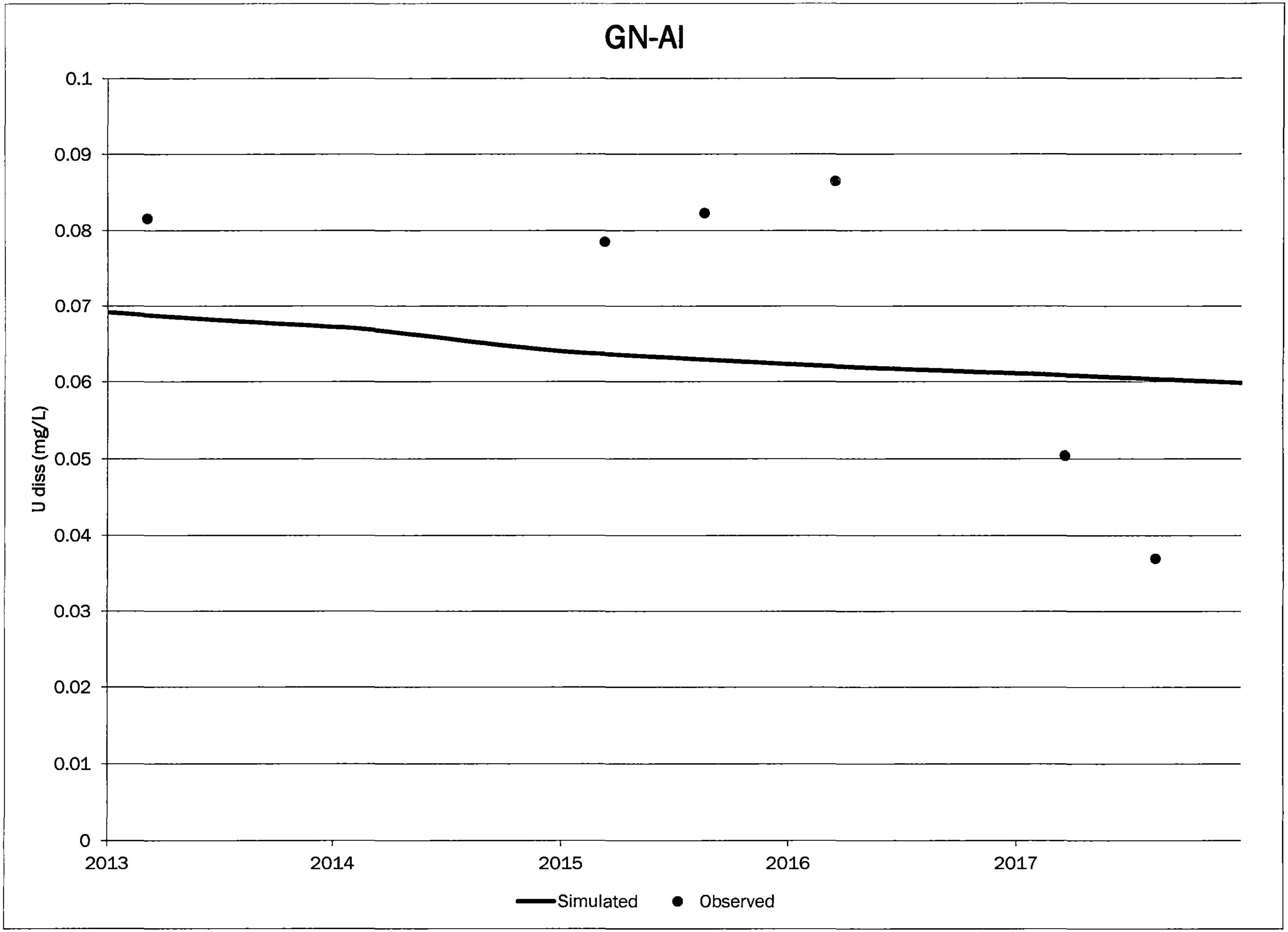

DZ-AI
U diss (mg/L)
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

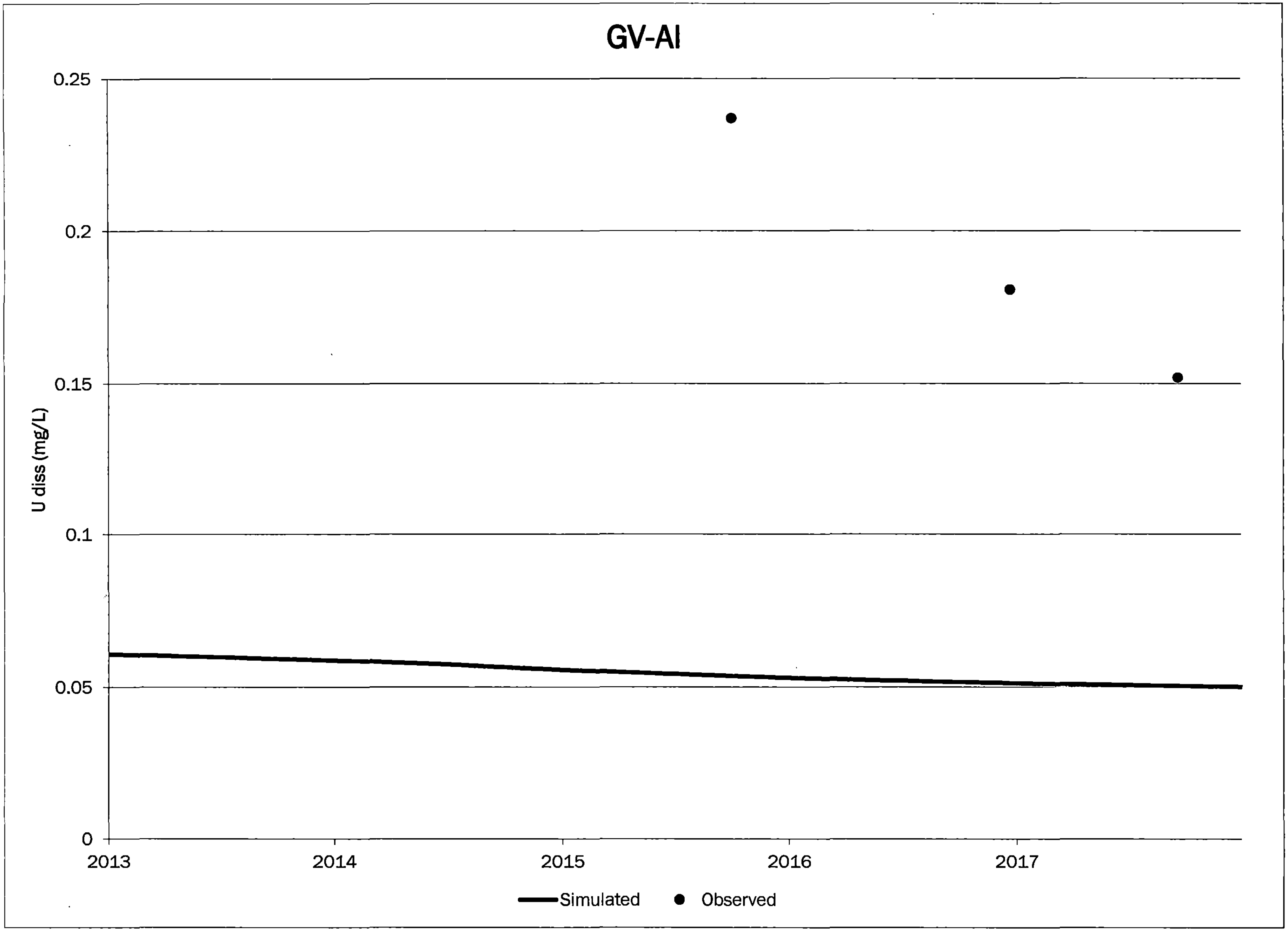


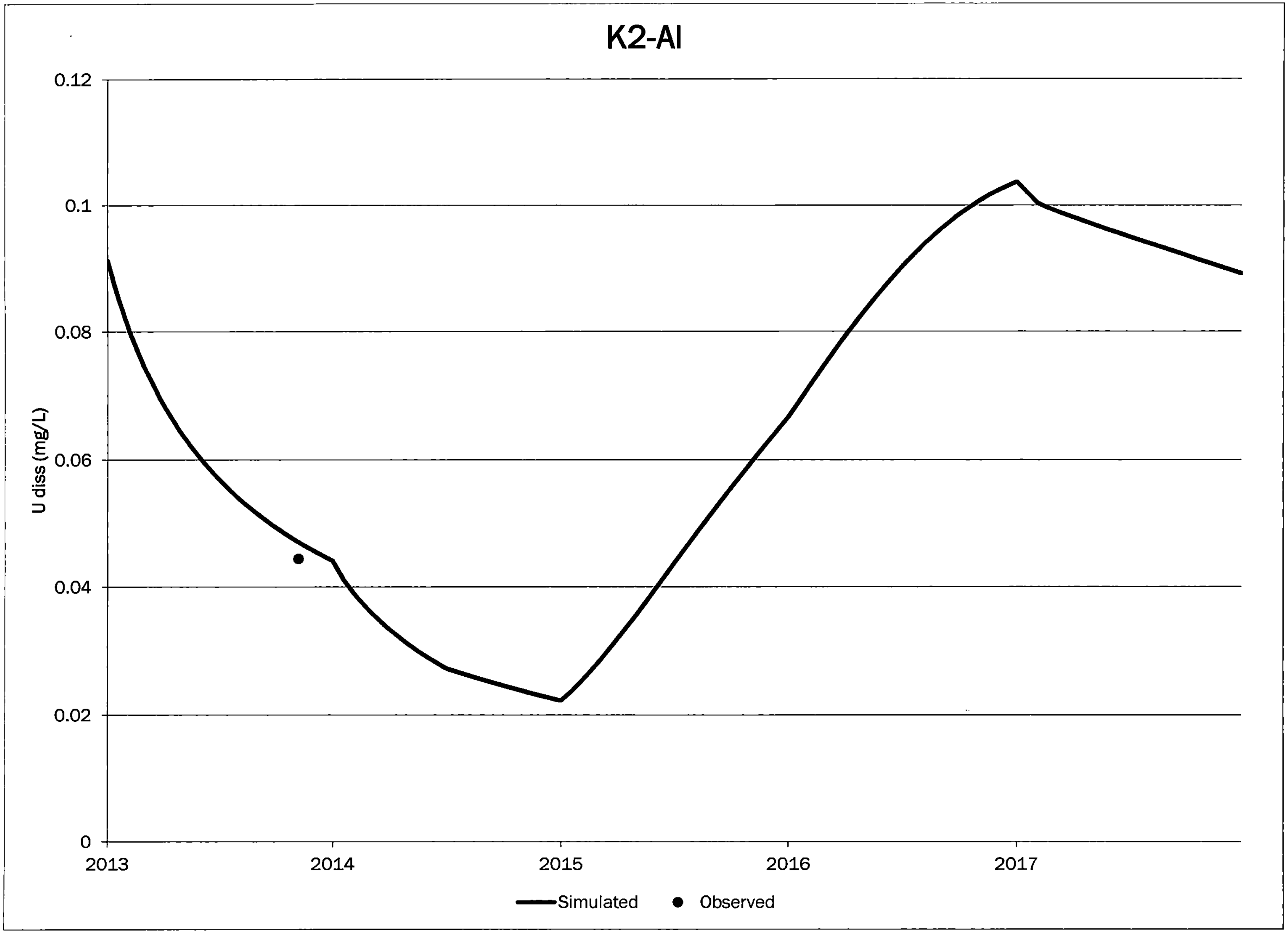
F-Al
U diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


FB-AI
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

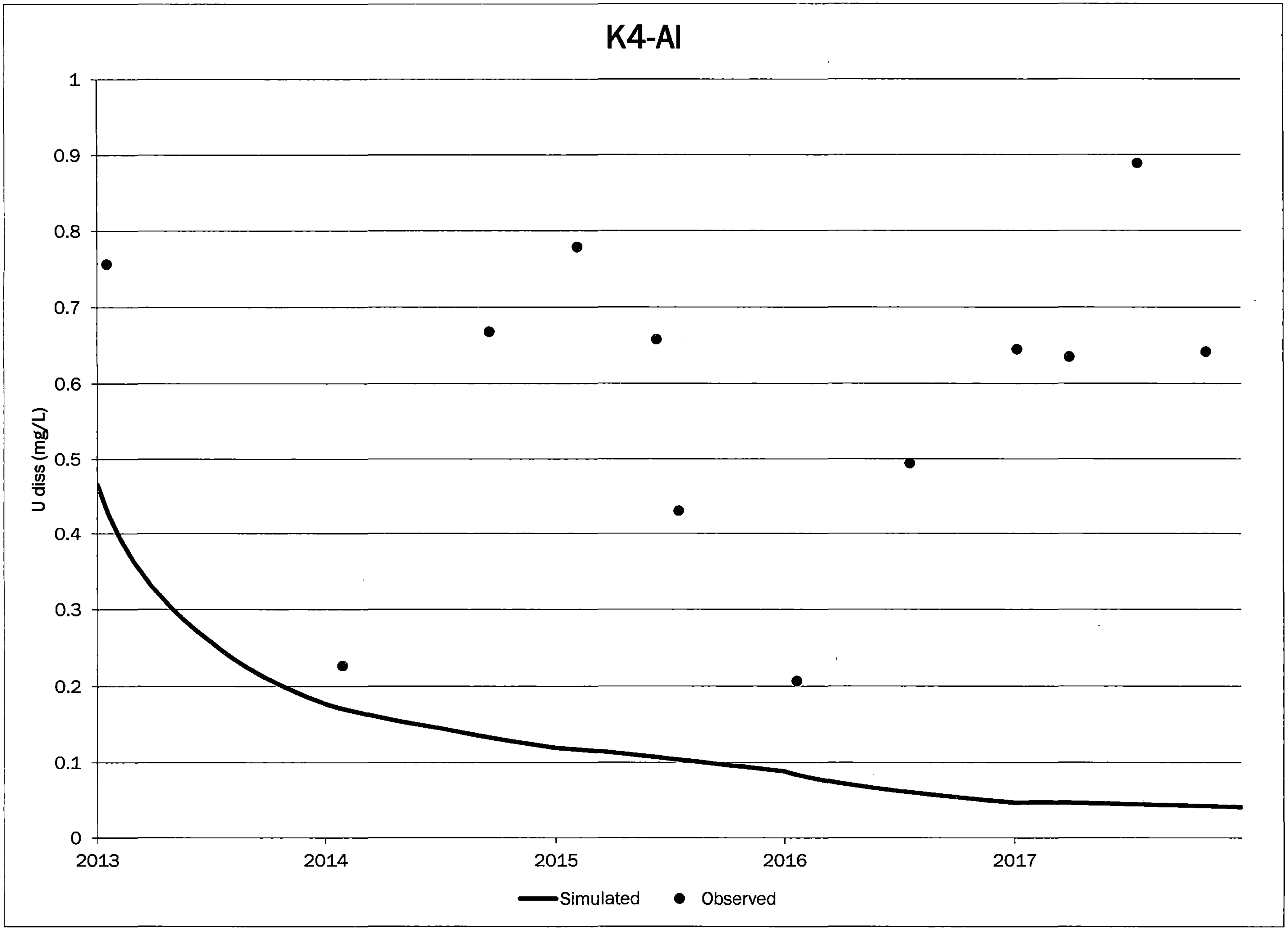

GH-AI
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


GN-AI
U diss (mg/L)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

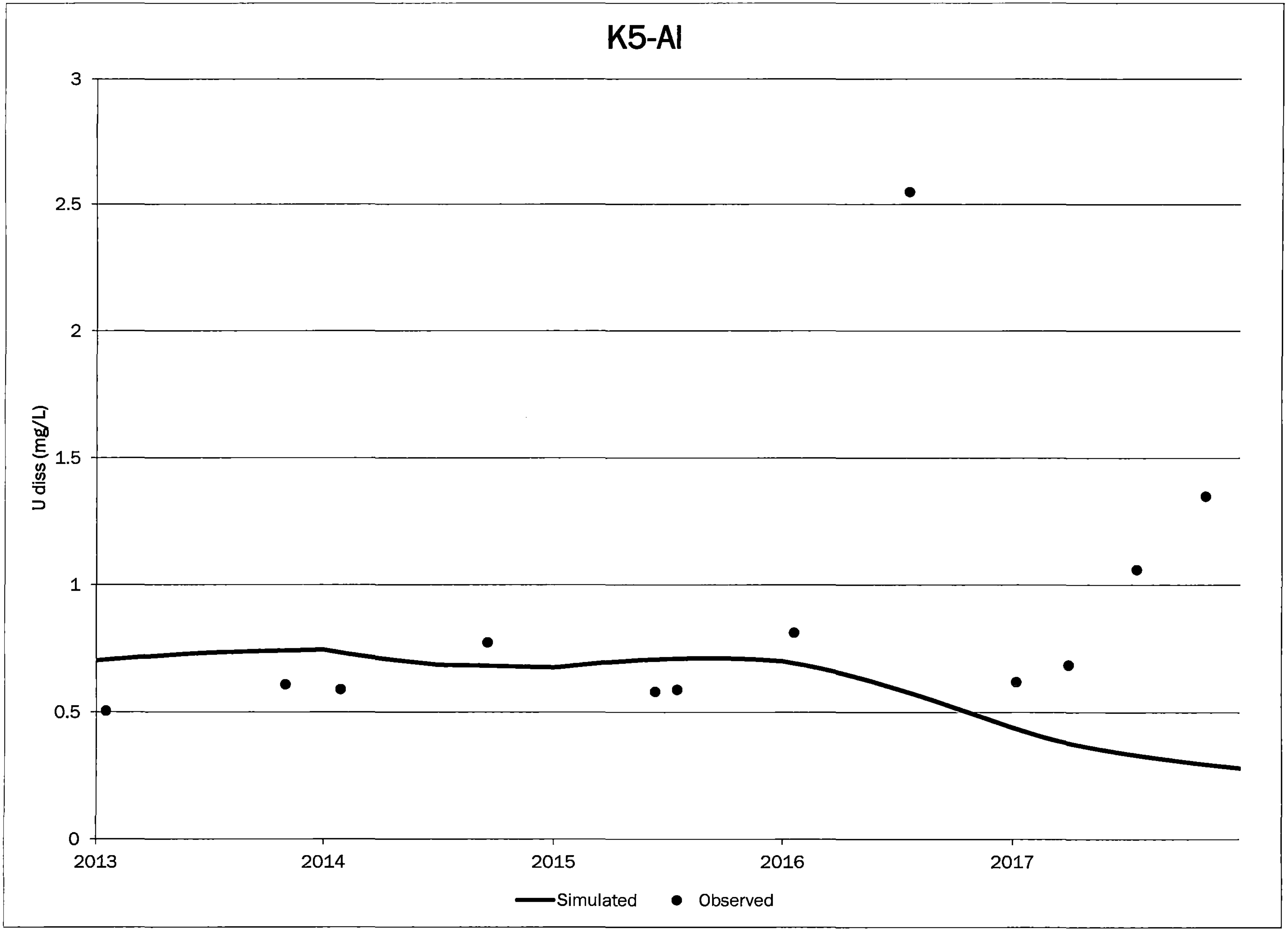

GV-AI
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

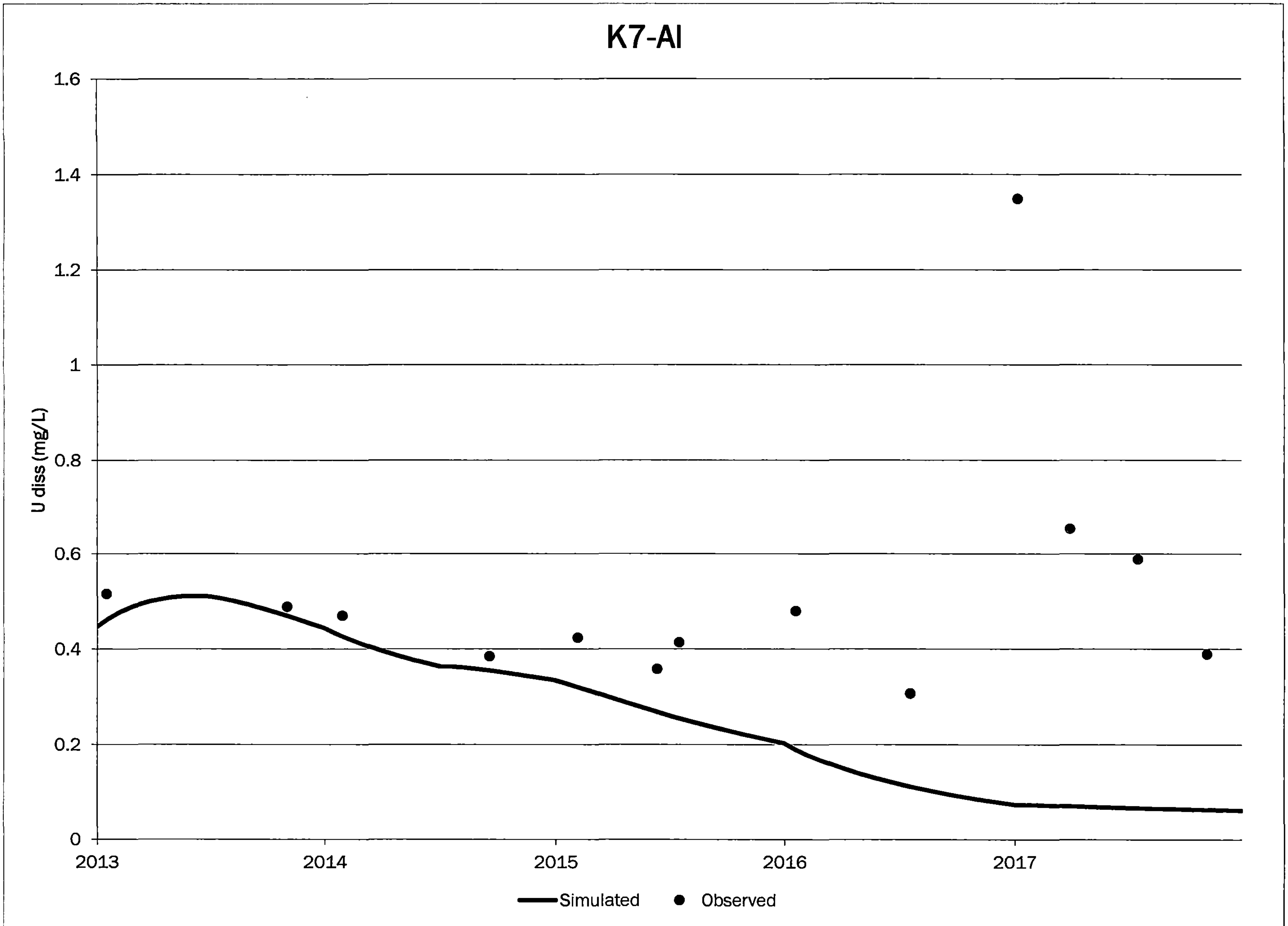


K2-AI
U diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

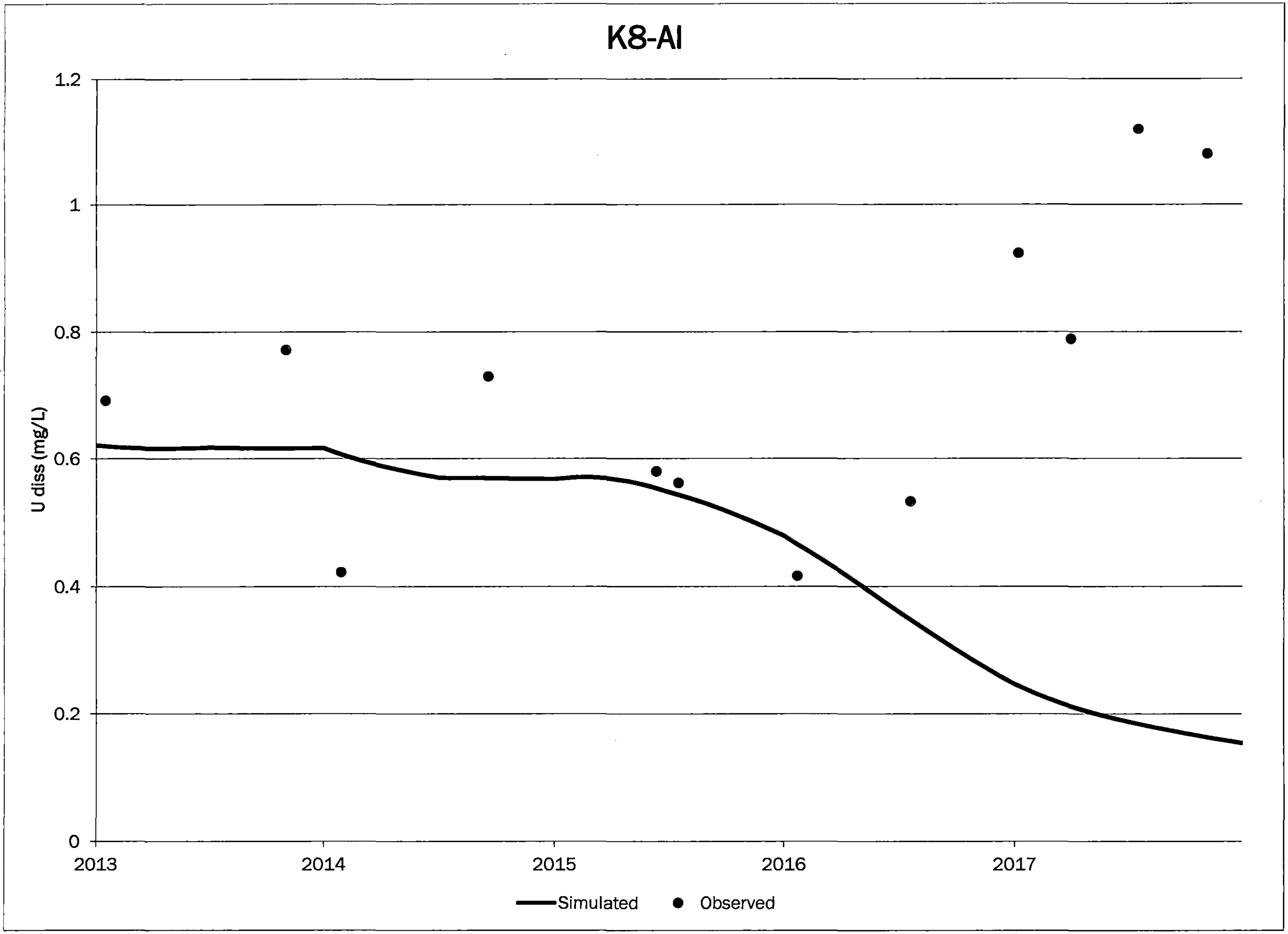


K4-AI
U diss (mg/L)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

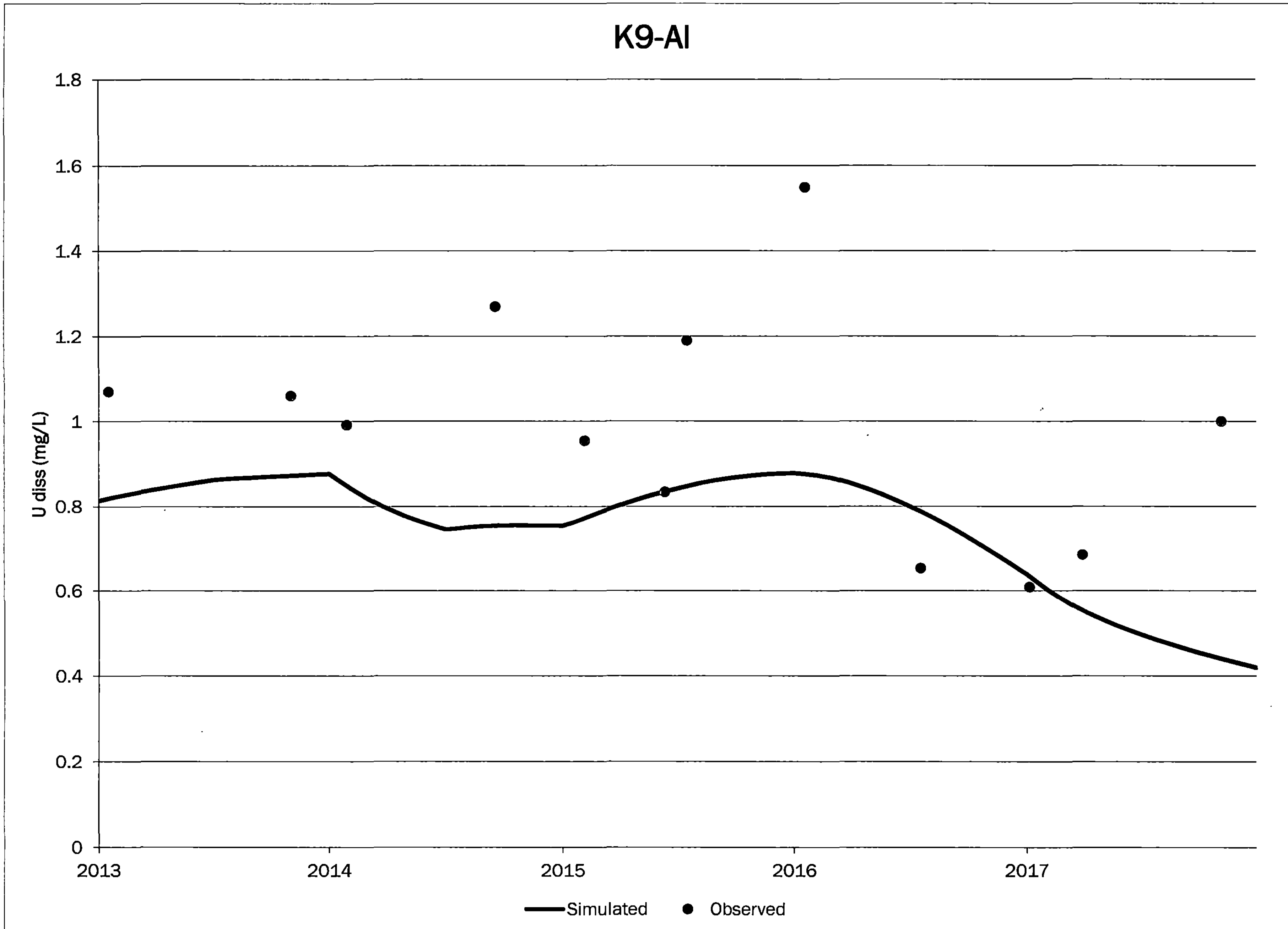

K5-AI
U diss (mg/L)
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



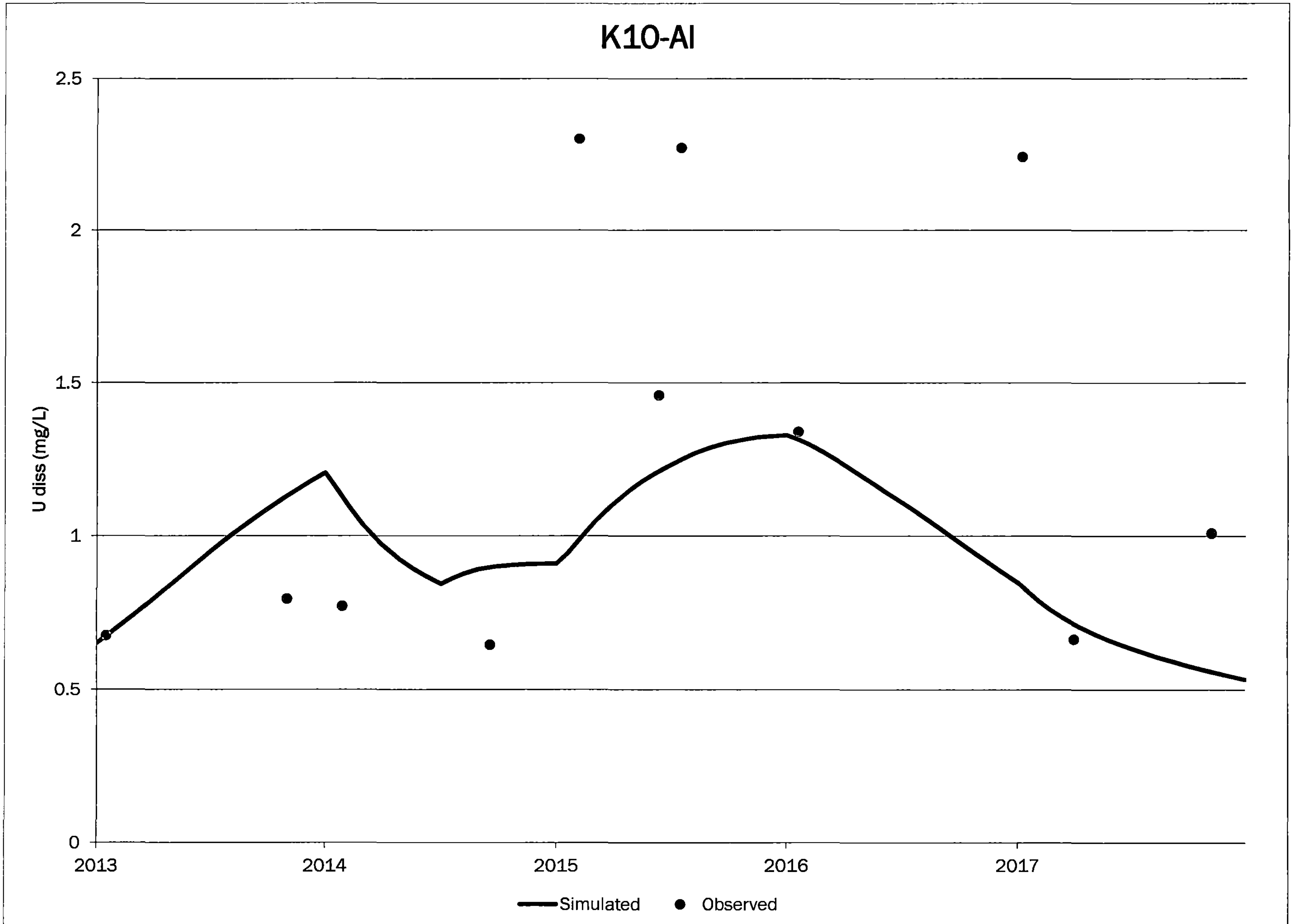
K7-AI
U diss (mg/L)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

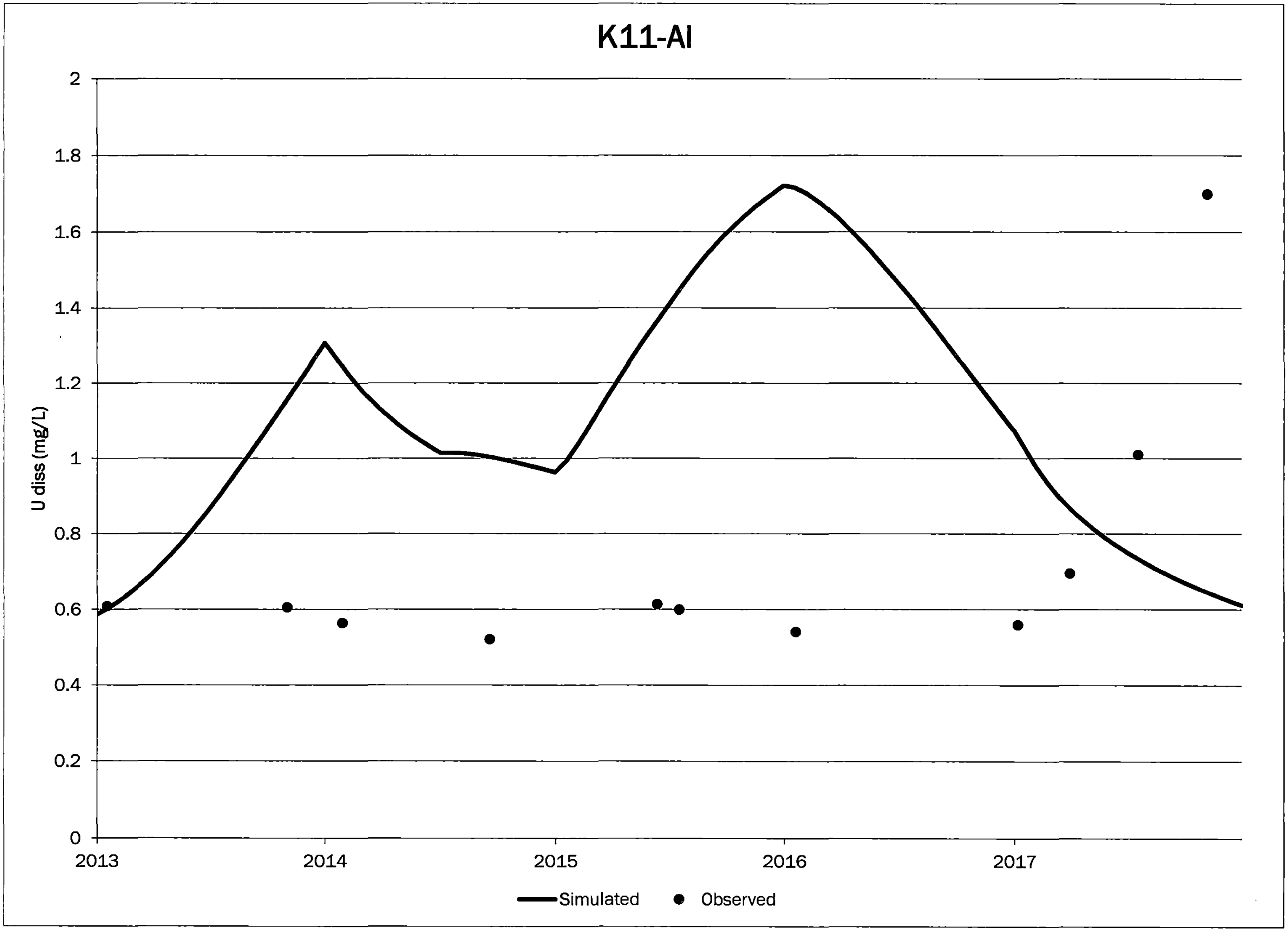


K8-Al
U diss (mg/L)
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

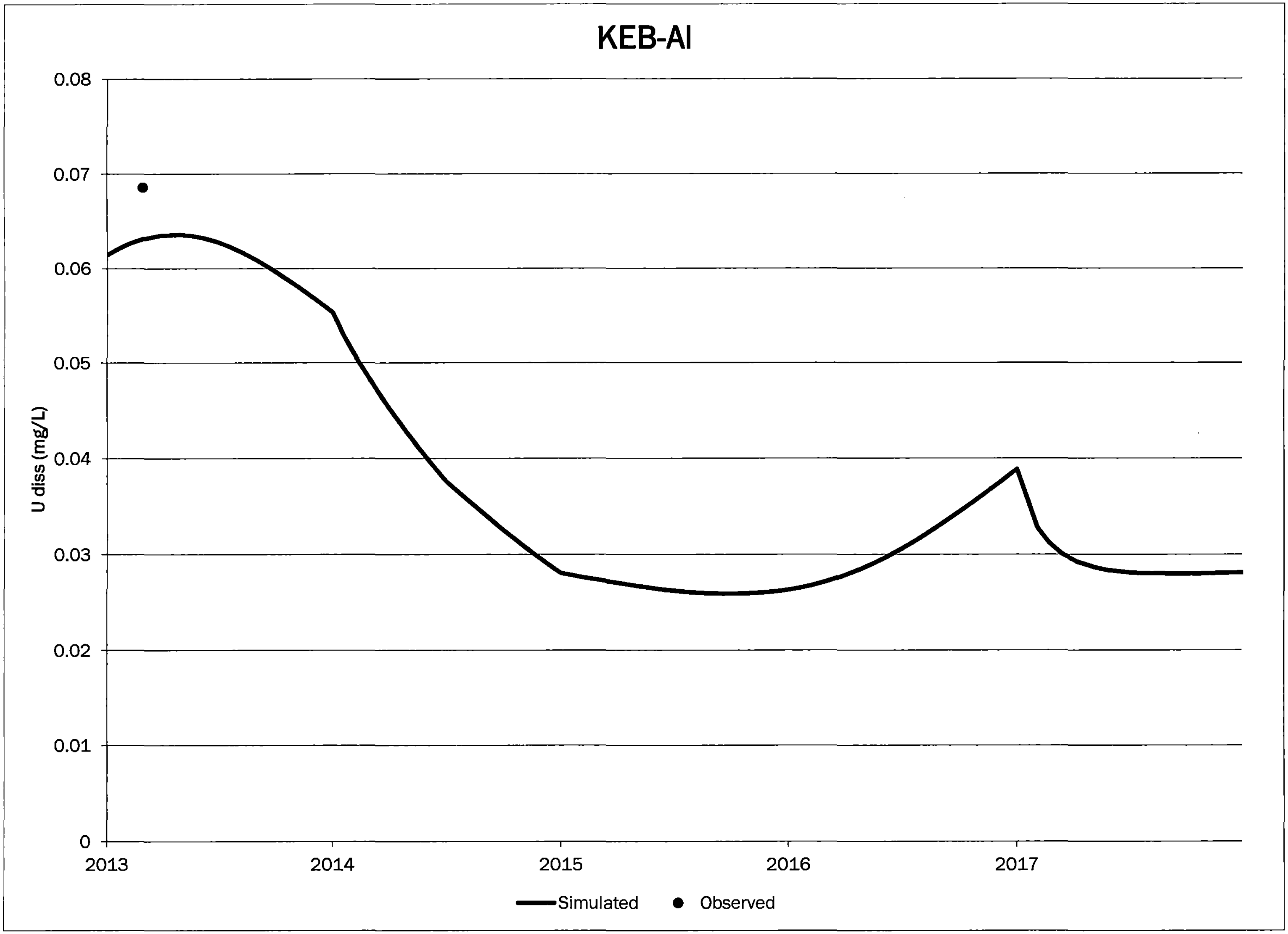


K9-AI
U diss (mg/L)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

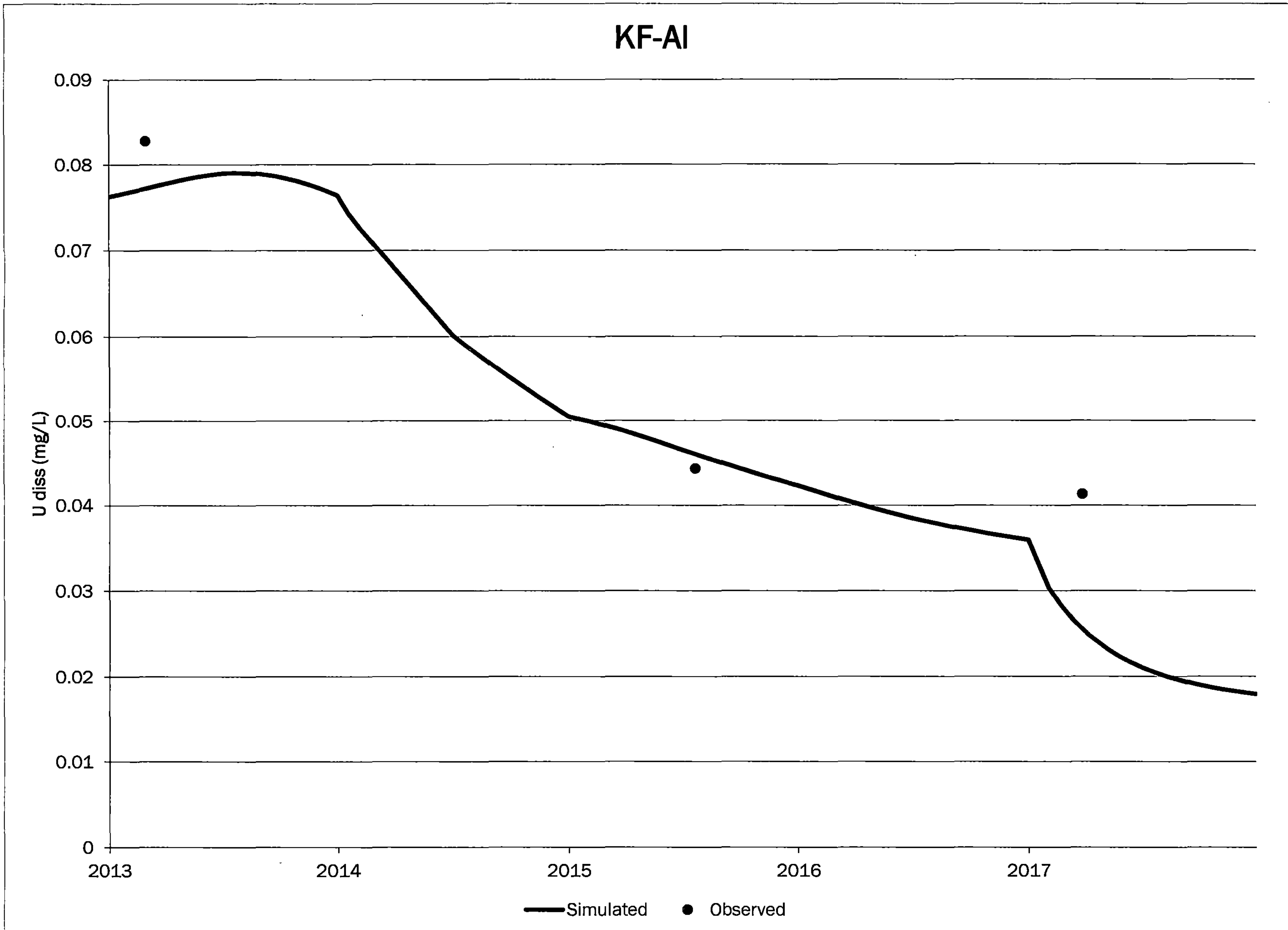

K10-Al
U diss (mg/L)
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

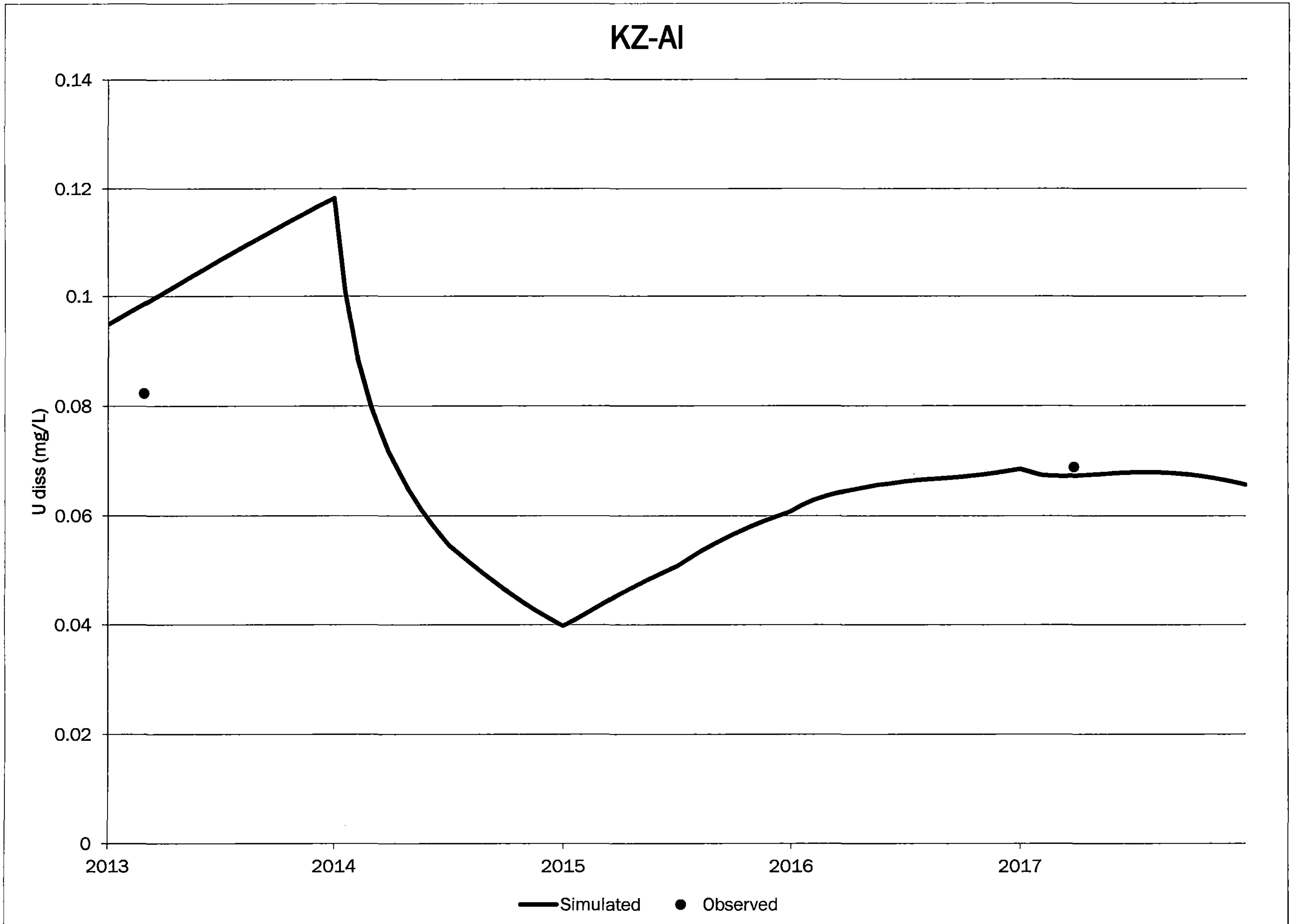


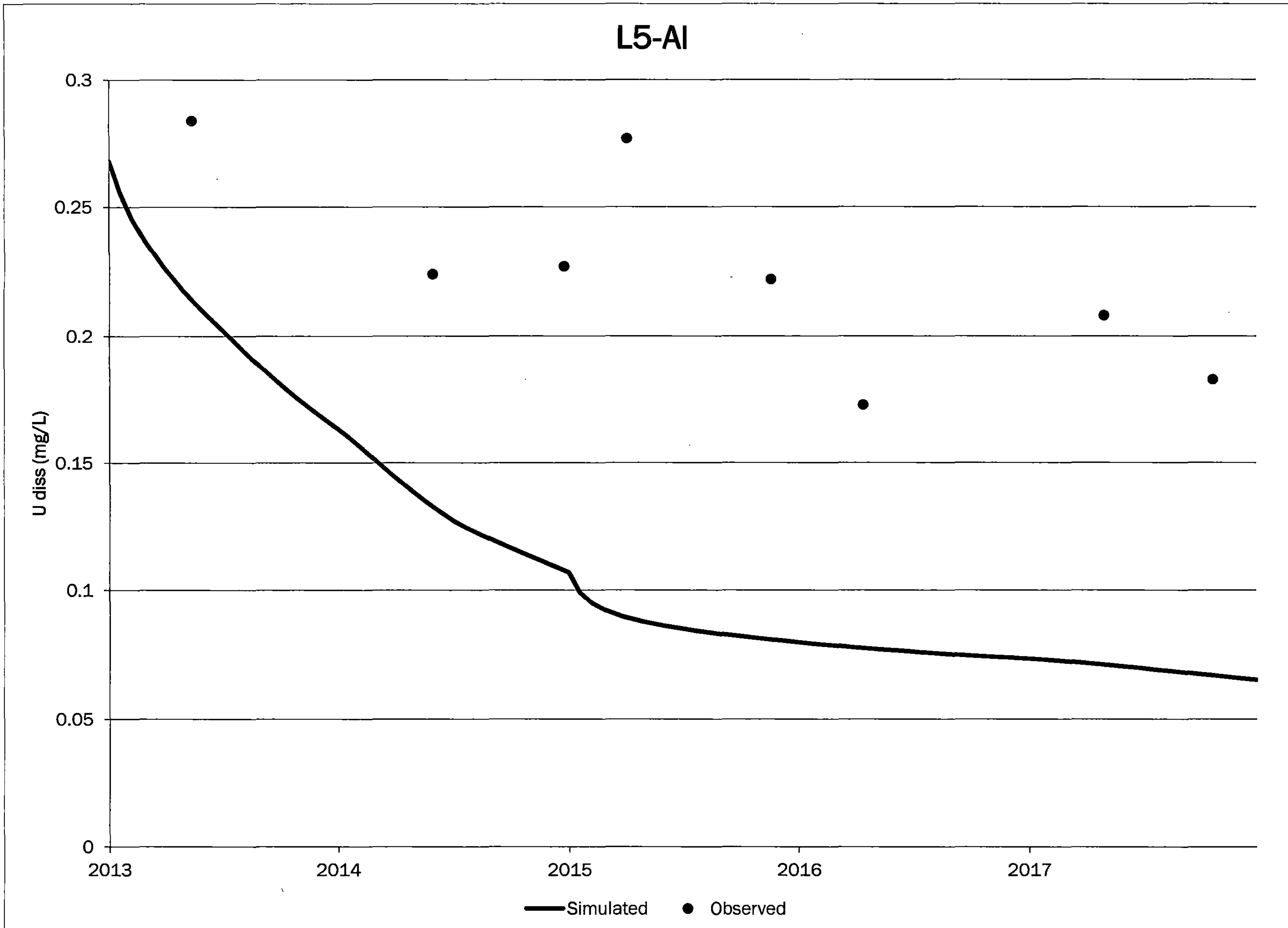
K11-Al
U diss (mg/L)
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

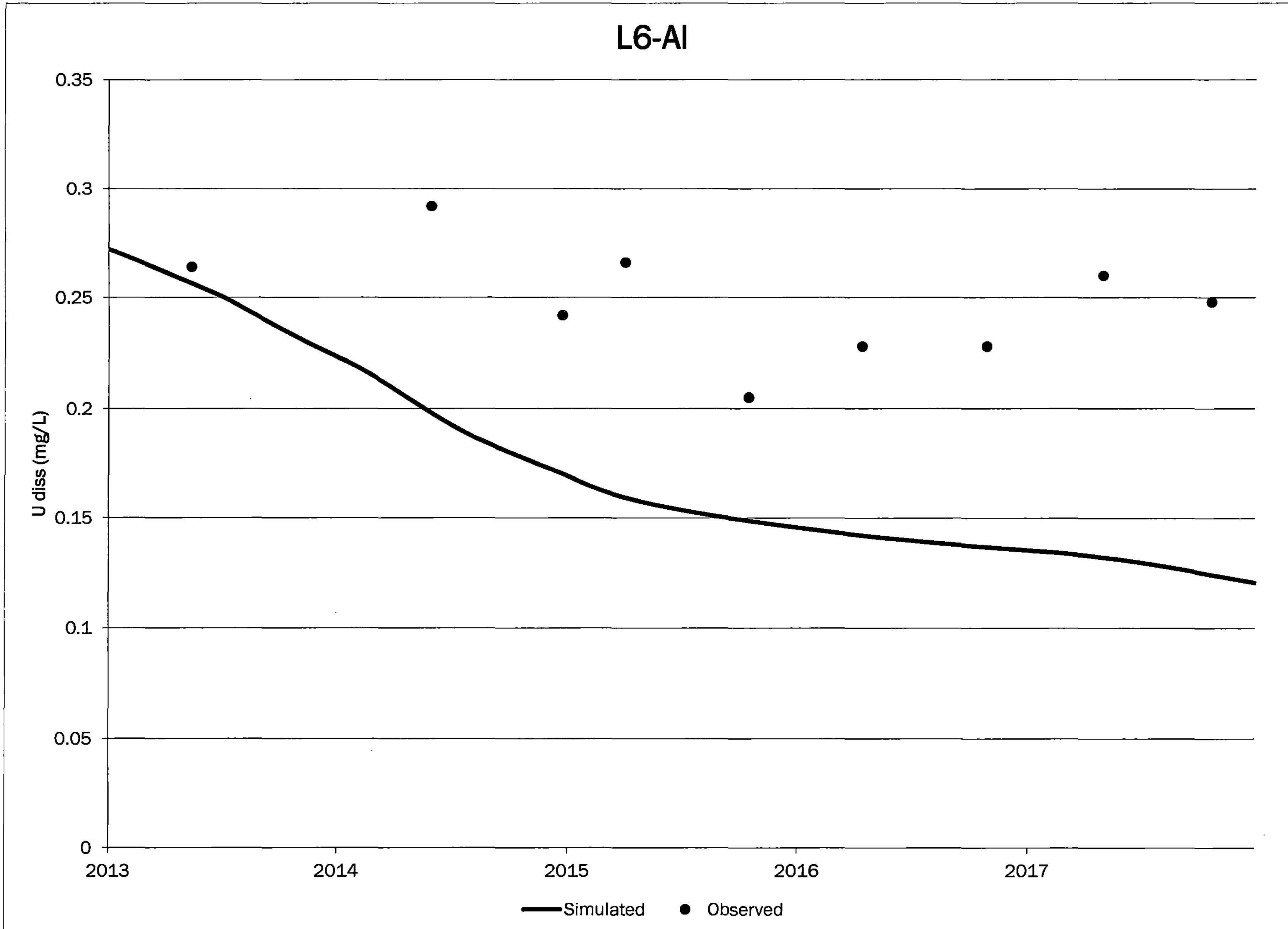


KEB-AI
U diss (mg/L)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

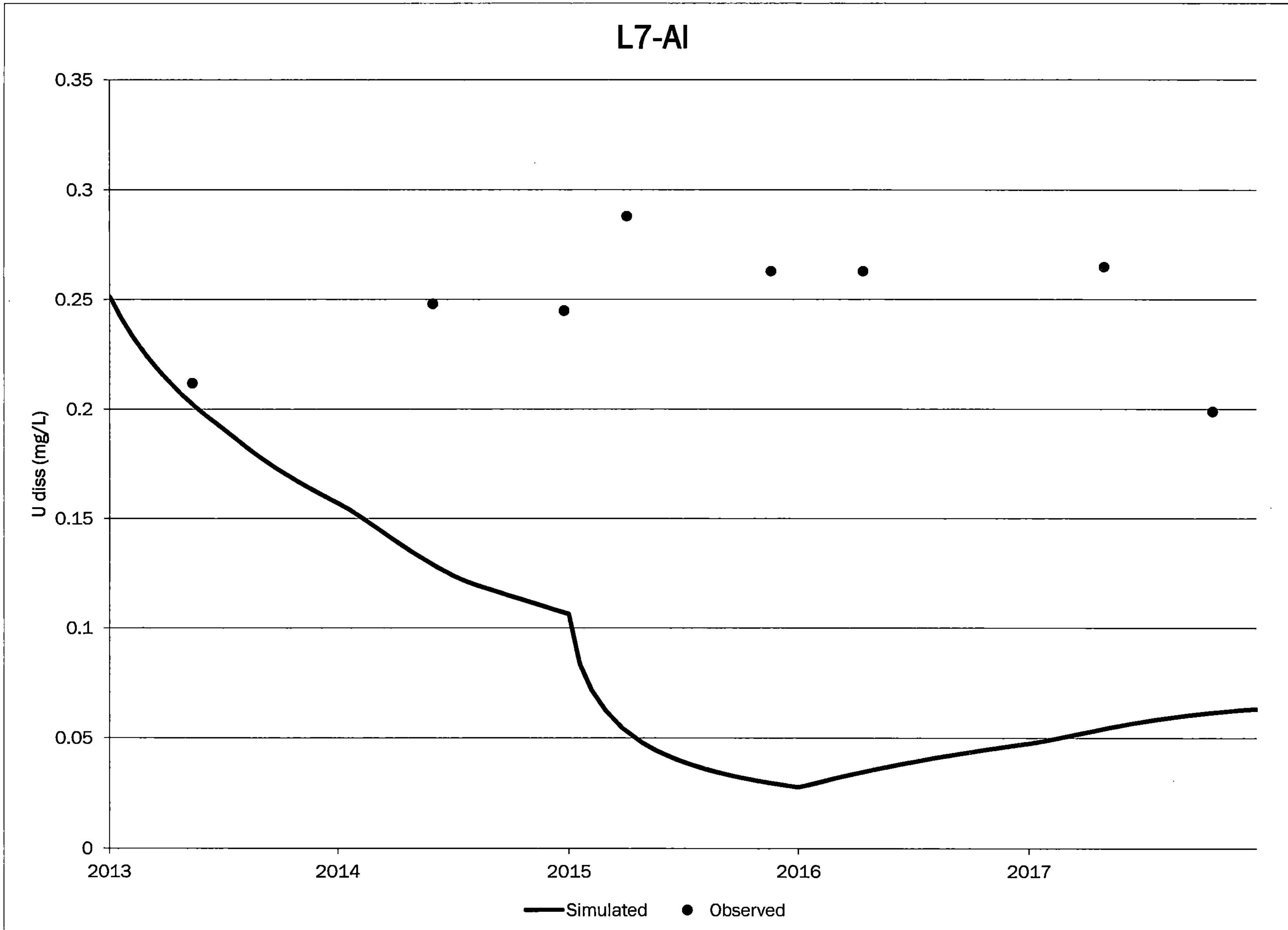

KF-AI
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


KZ-AI
U diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

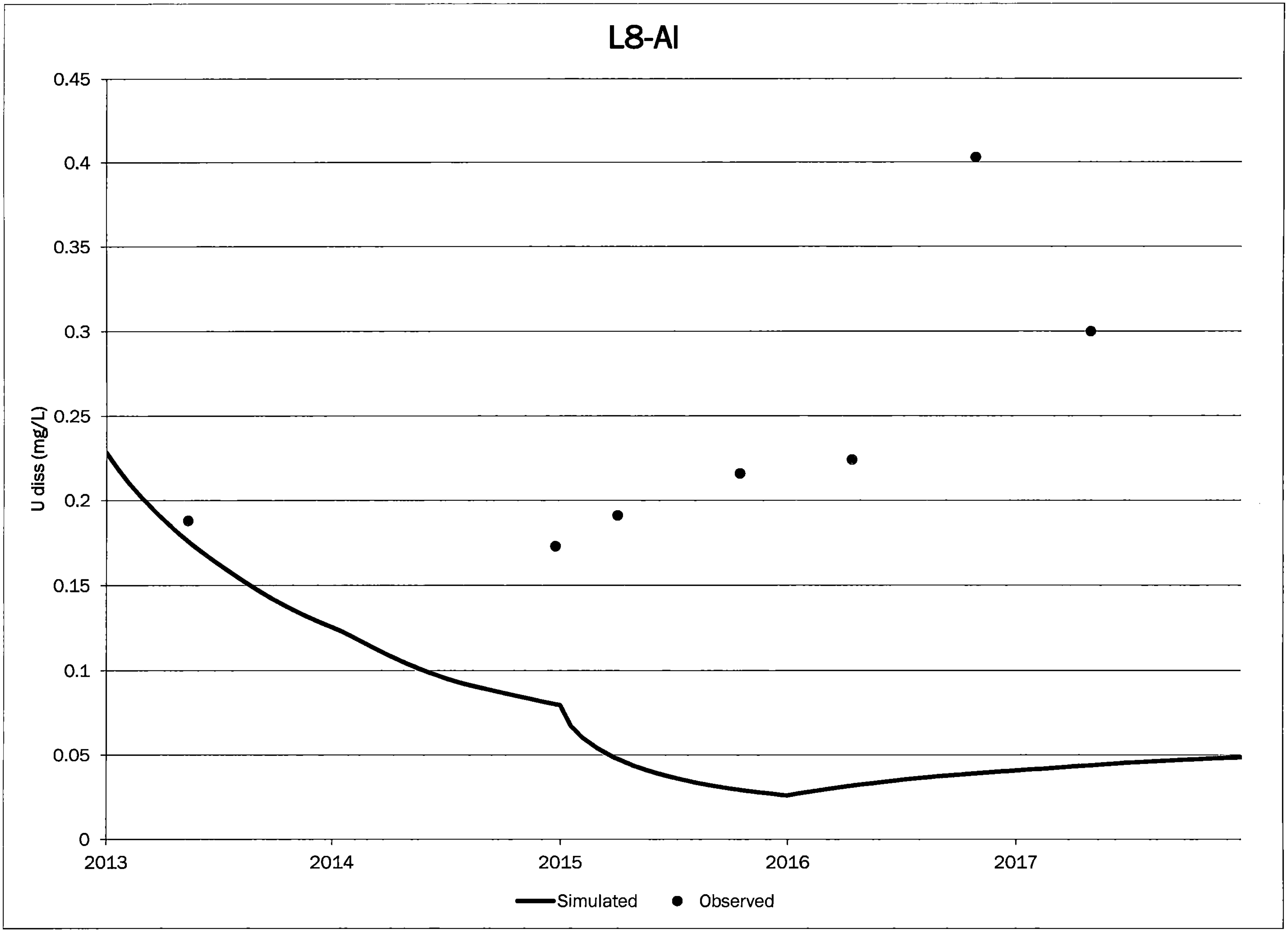

L5-AI
U diss (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



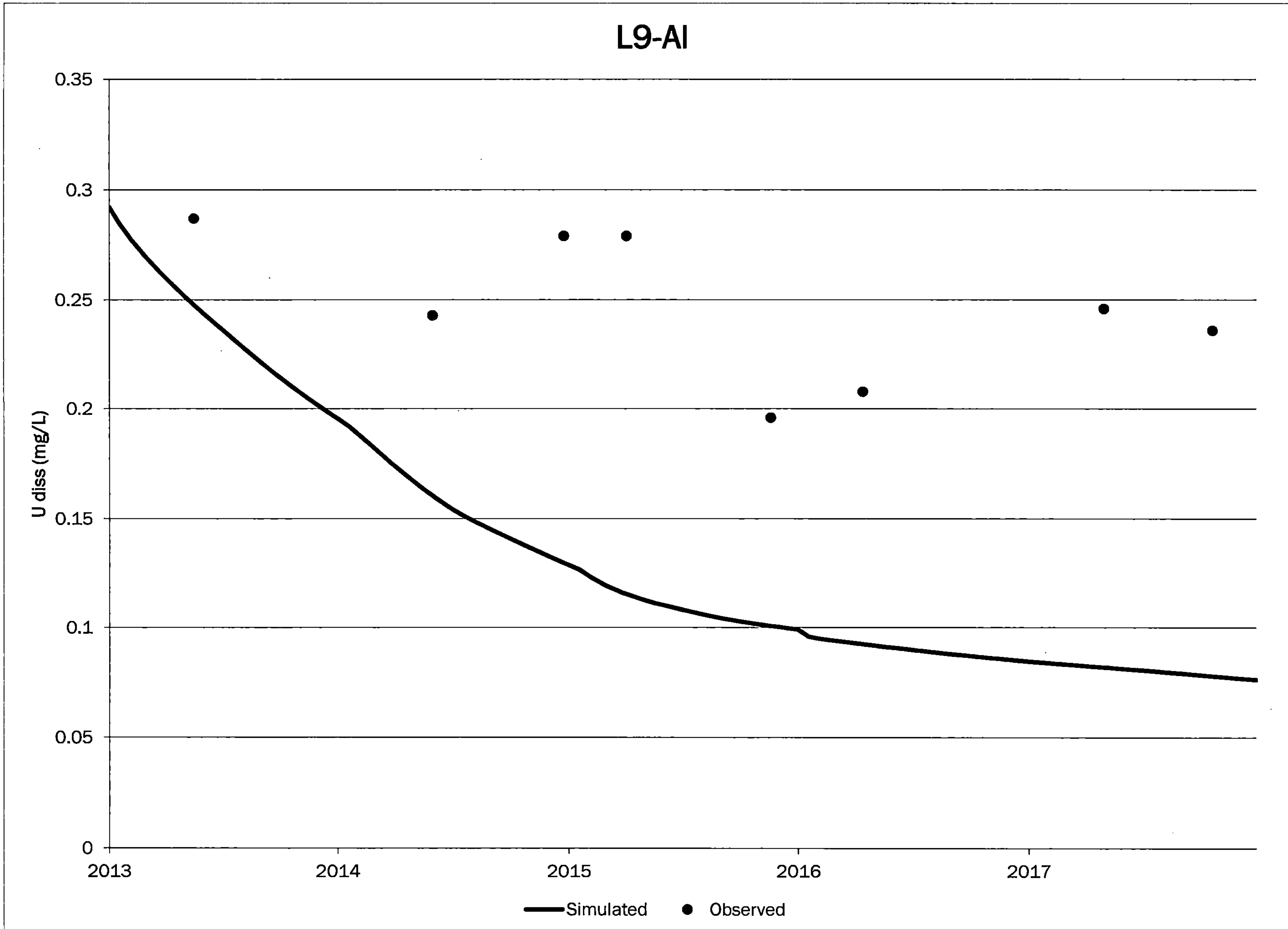
L6-Al
U diss (mg/L)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

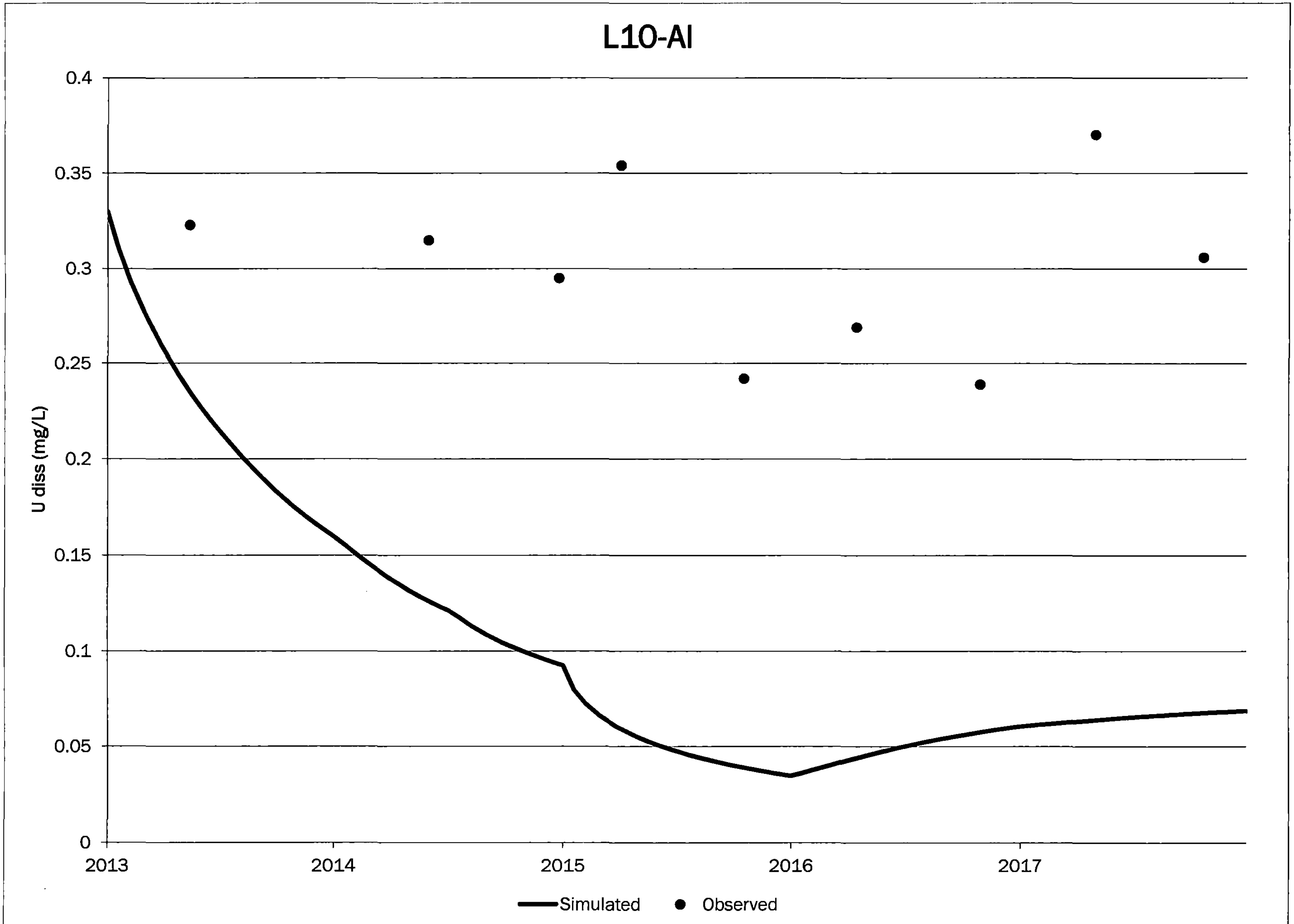


L7-Al
U diss (mg/L)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

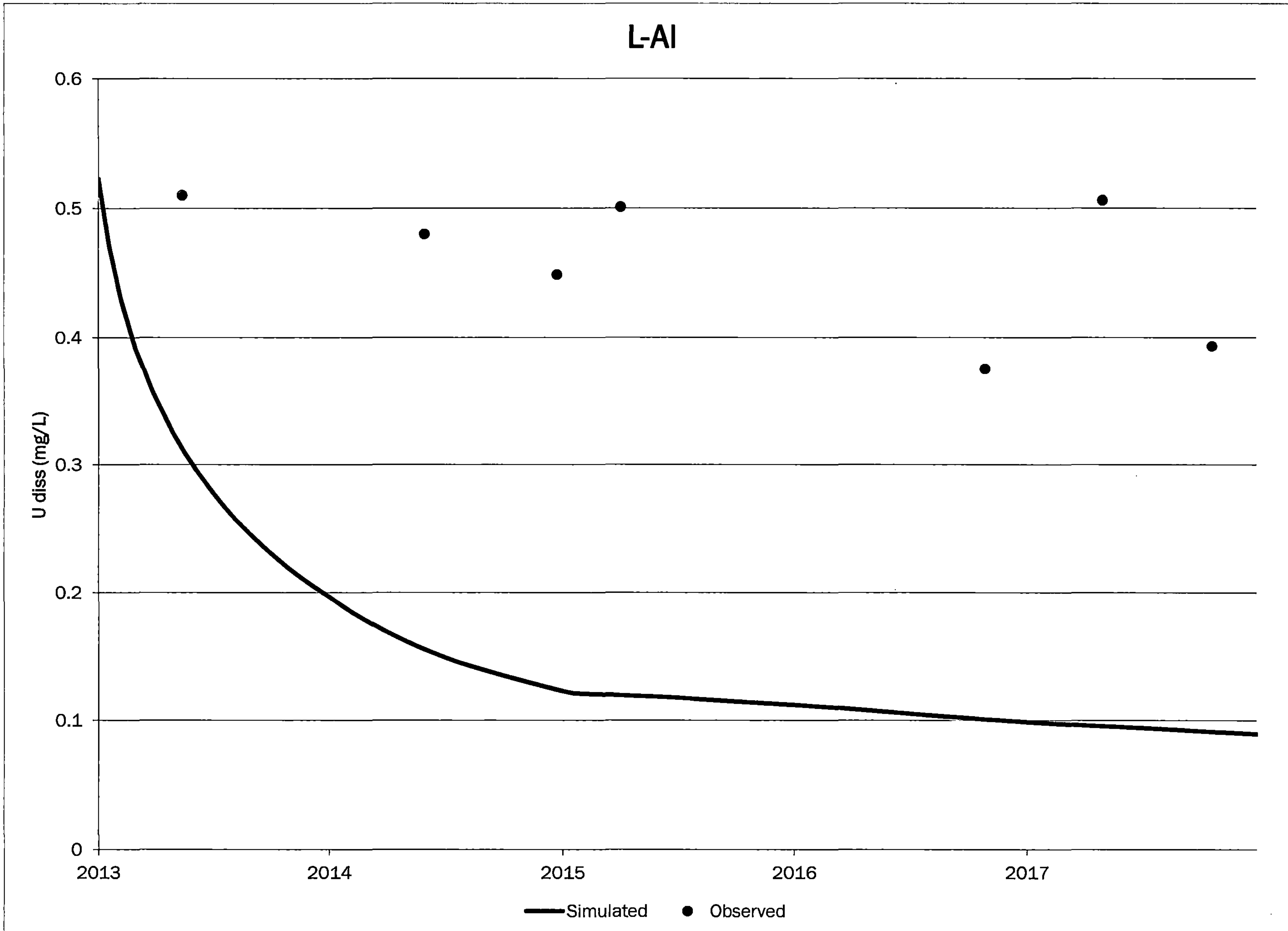


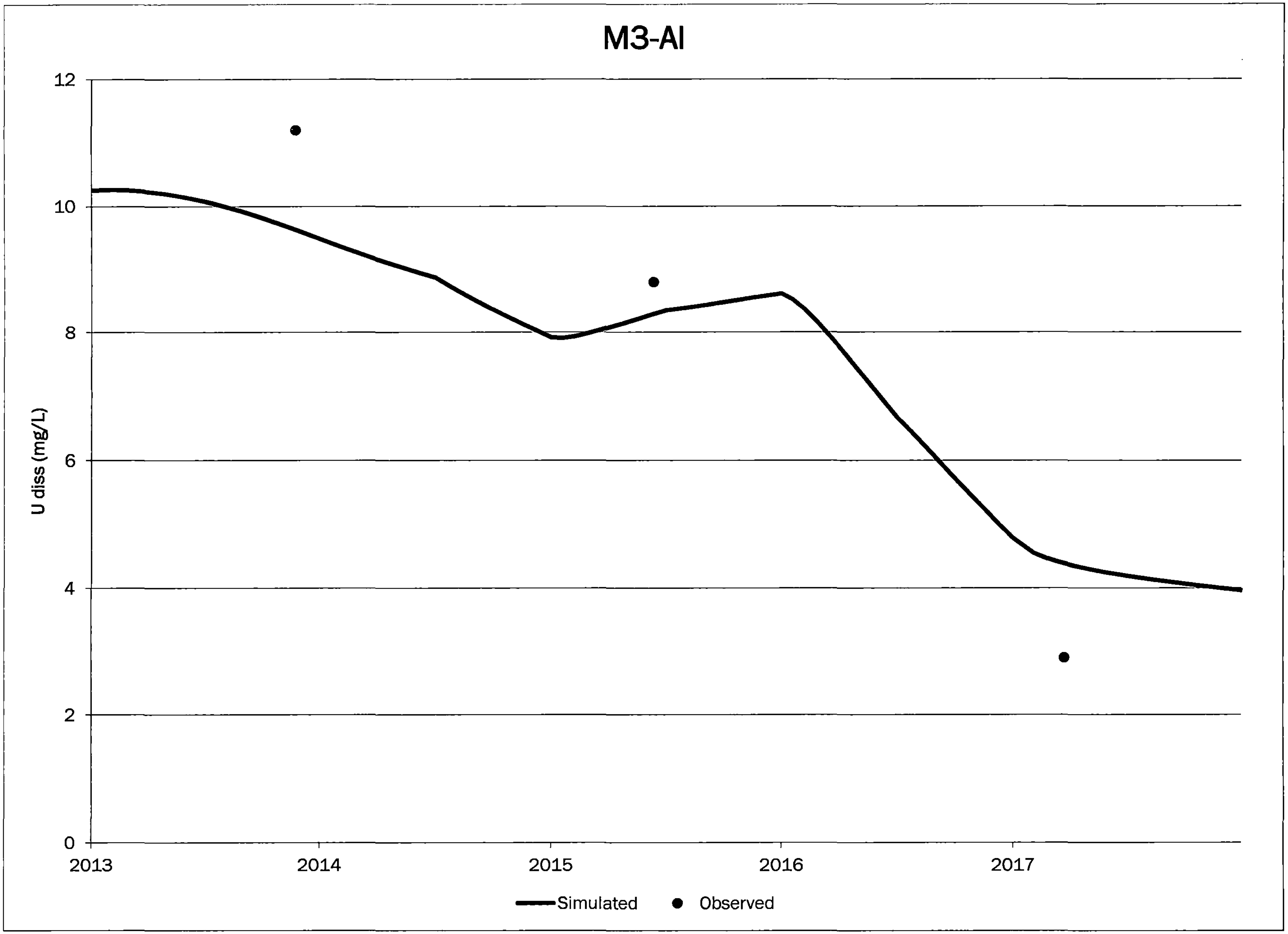
L8-Al
U diss (mg/L)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed


L9-AI
U diss (mg/L)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

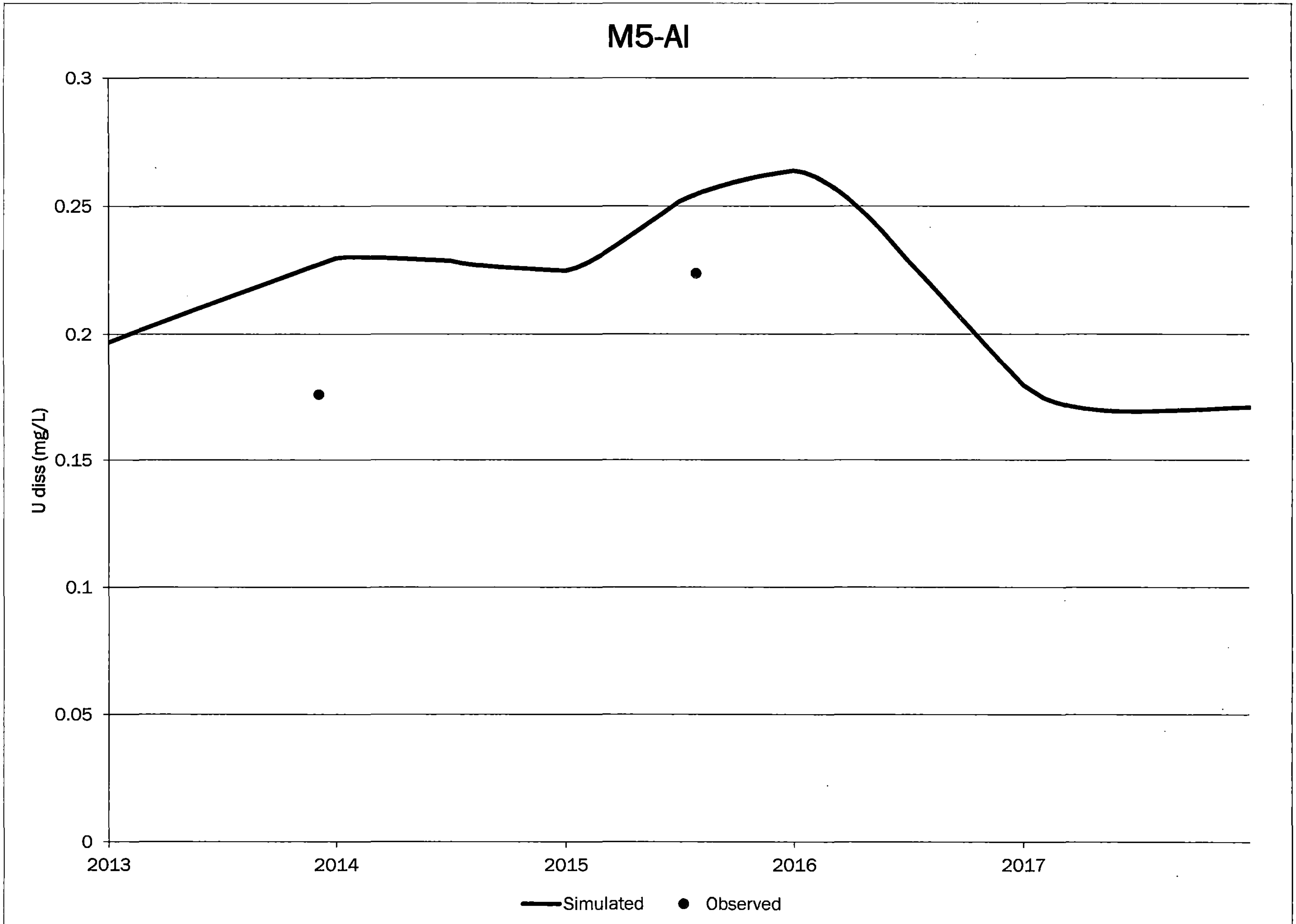


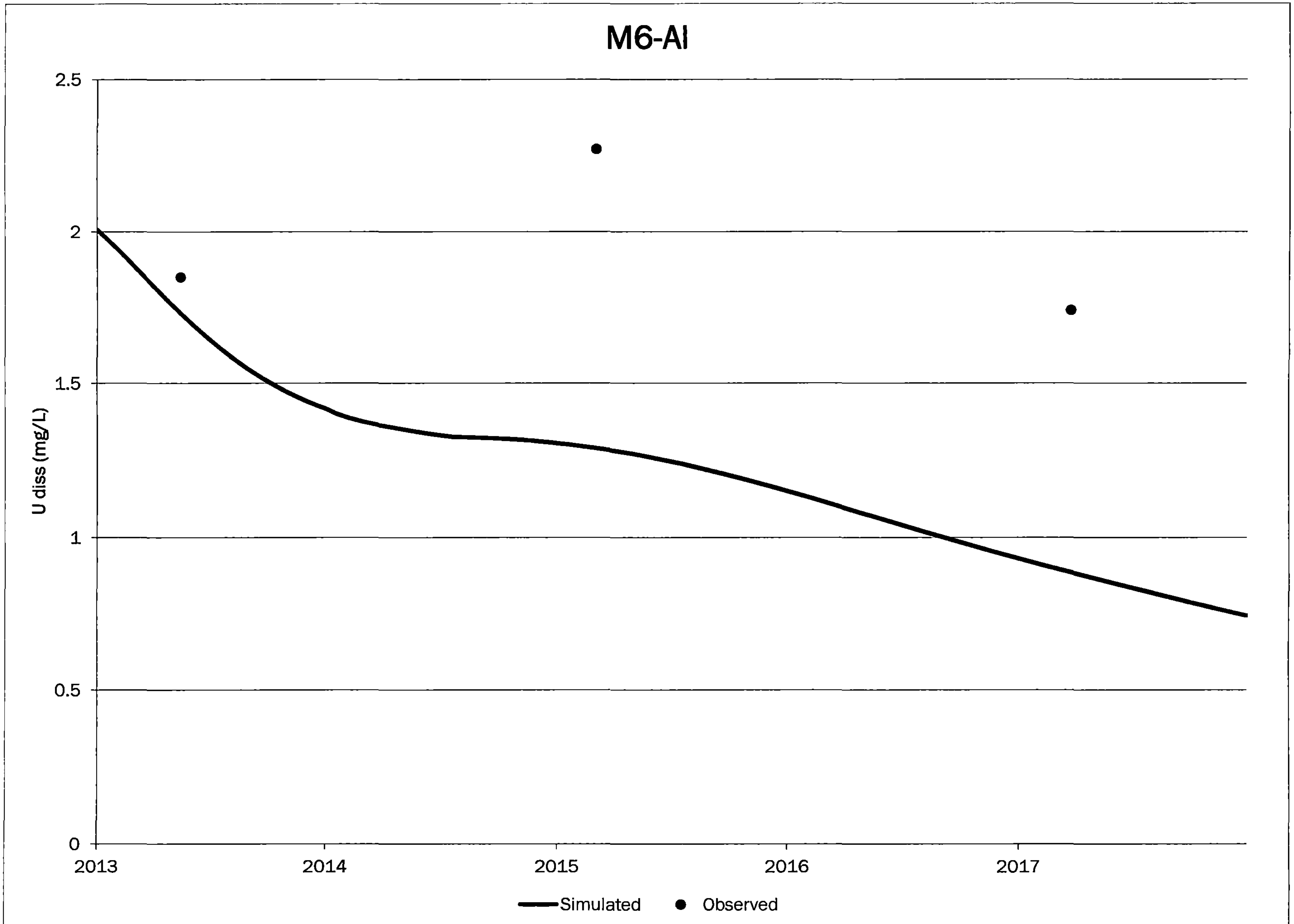
L10-Al
U diss (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed


L-AI
U diss (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

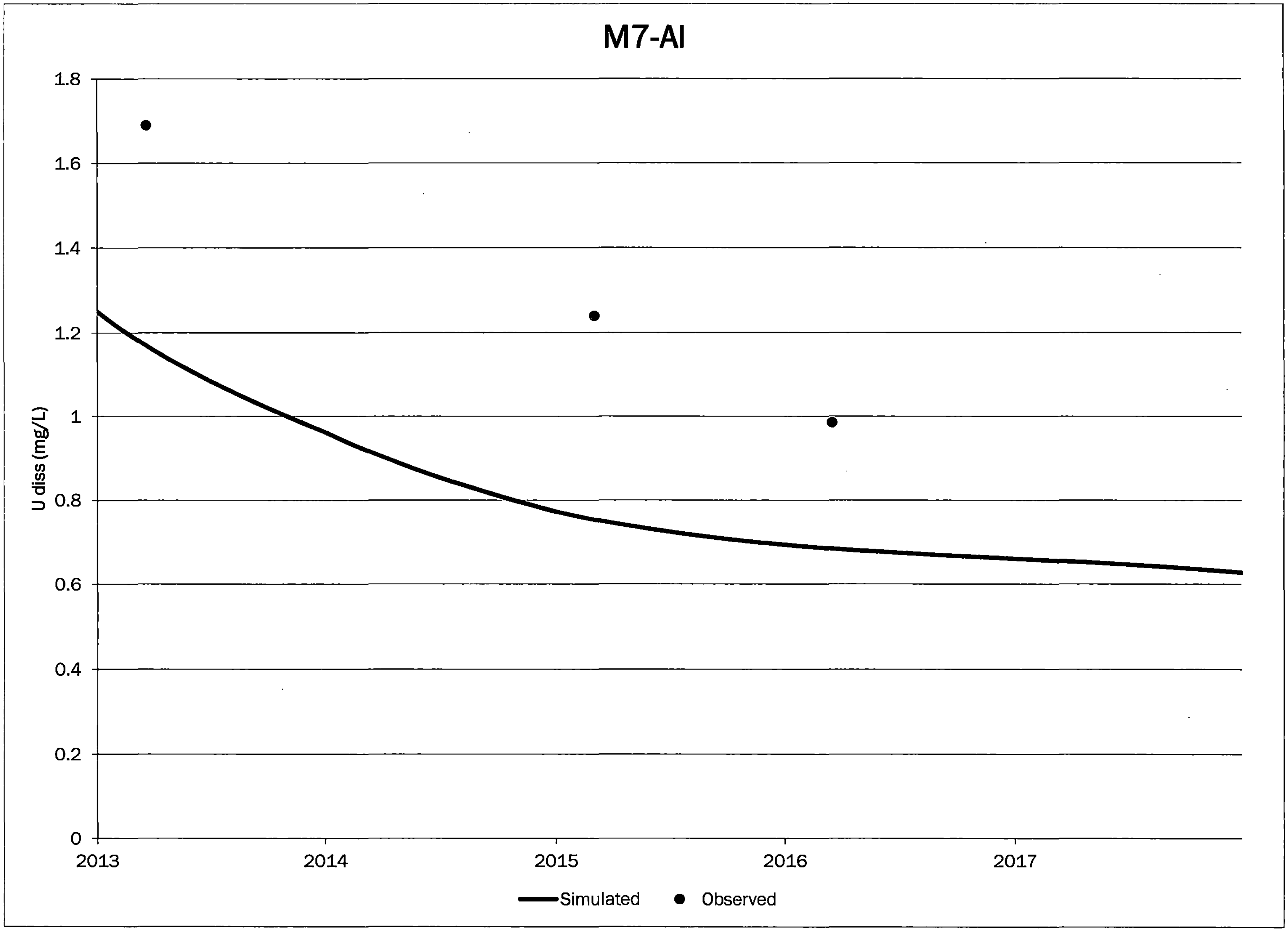


M3-AI
U diss (mg/L)
0
2
4
6
8
10
12
2013
2014
2015
2016
2017
Simulated
Observed

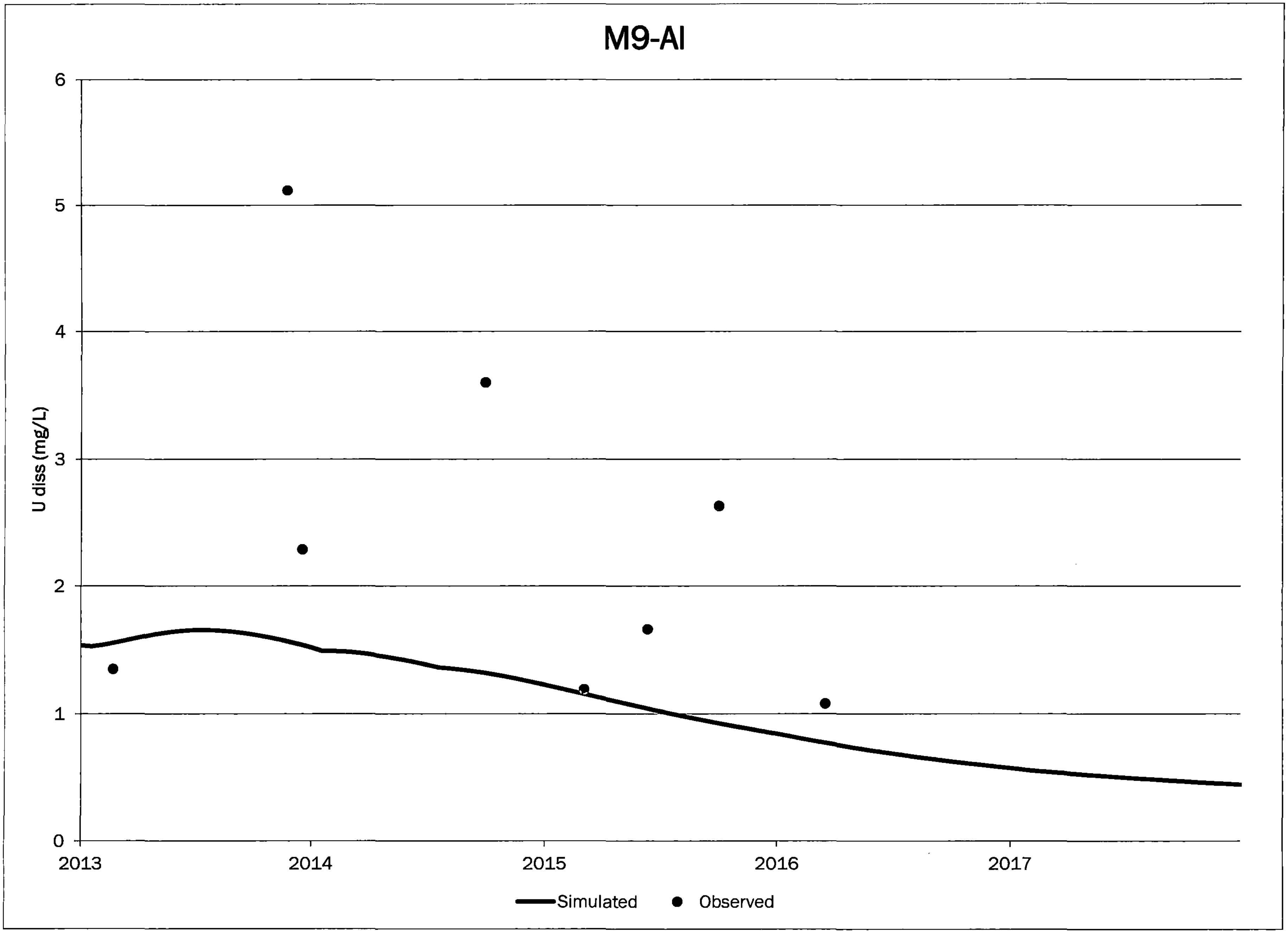

M5-AI
U diss (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

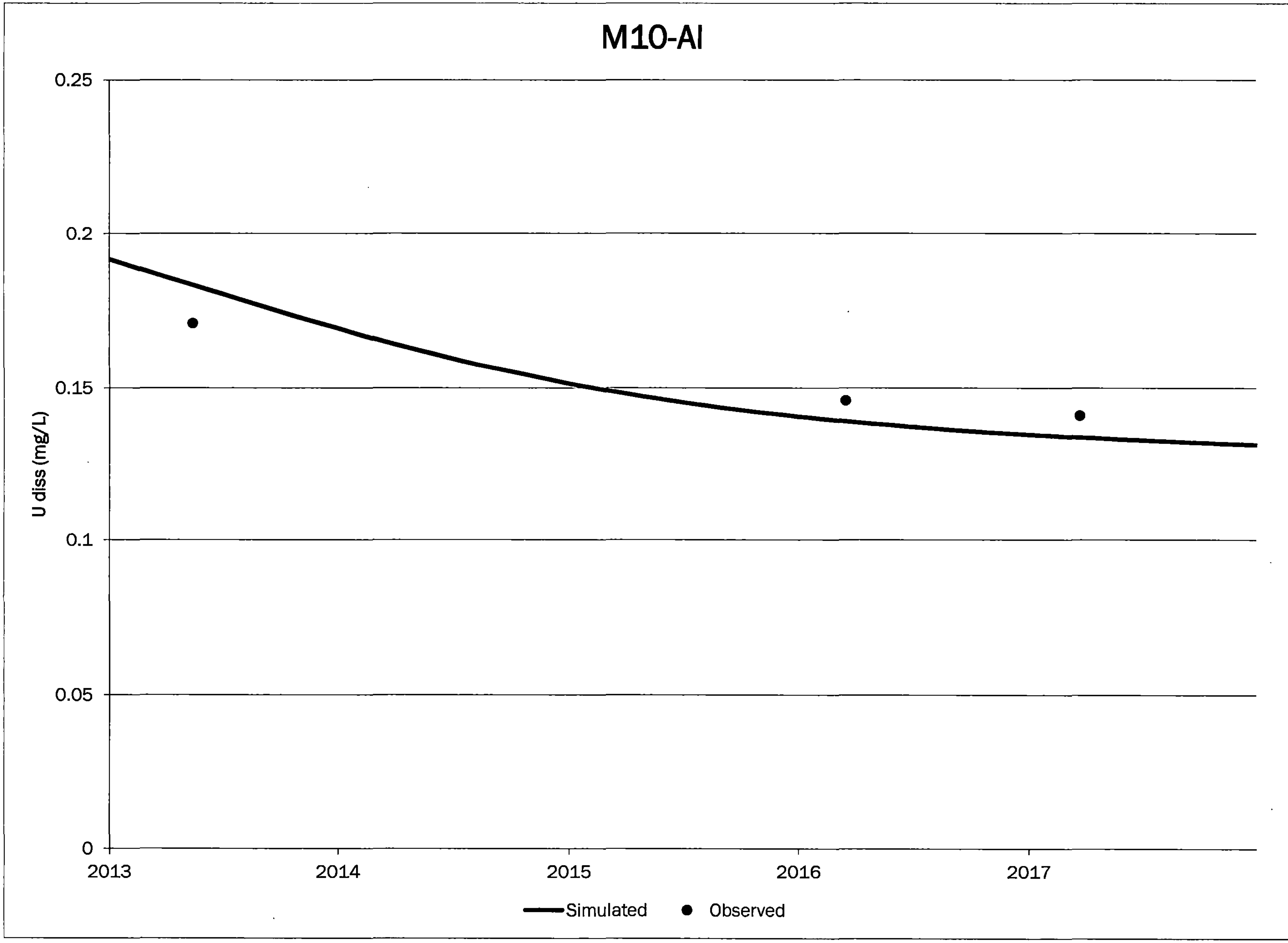


M6-AI
U diss (mg/L)
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

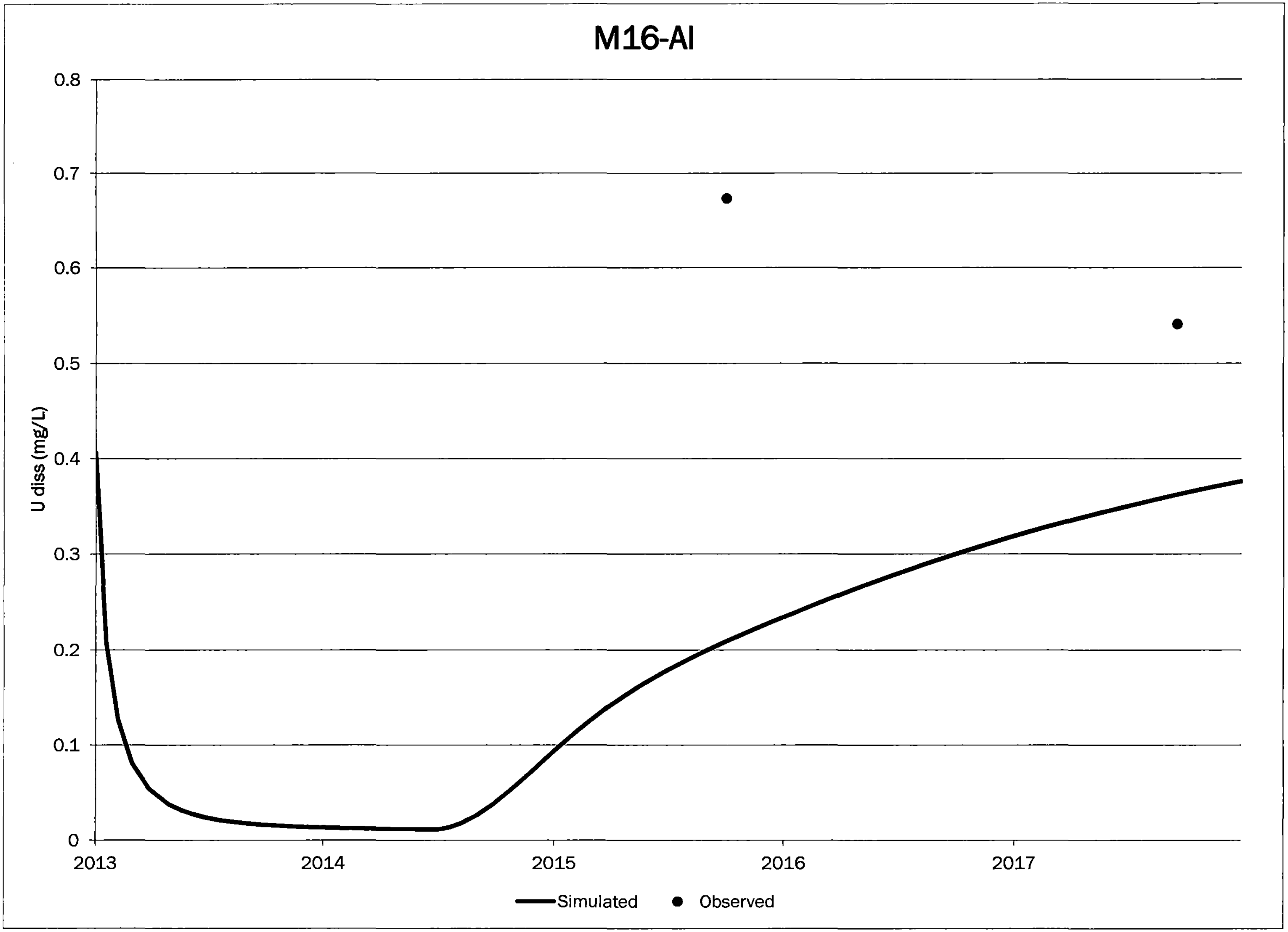


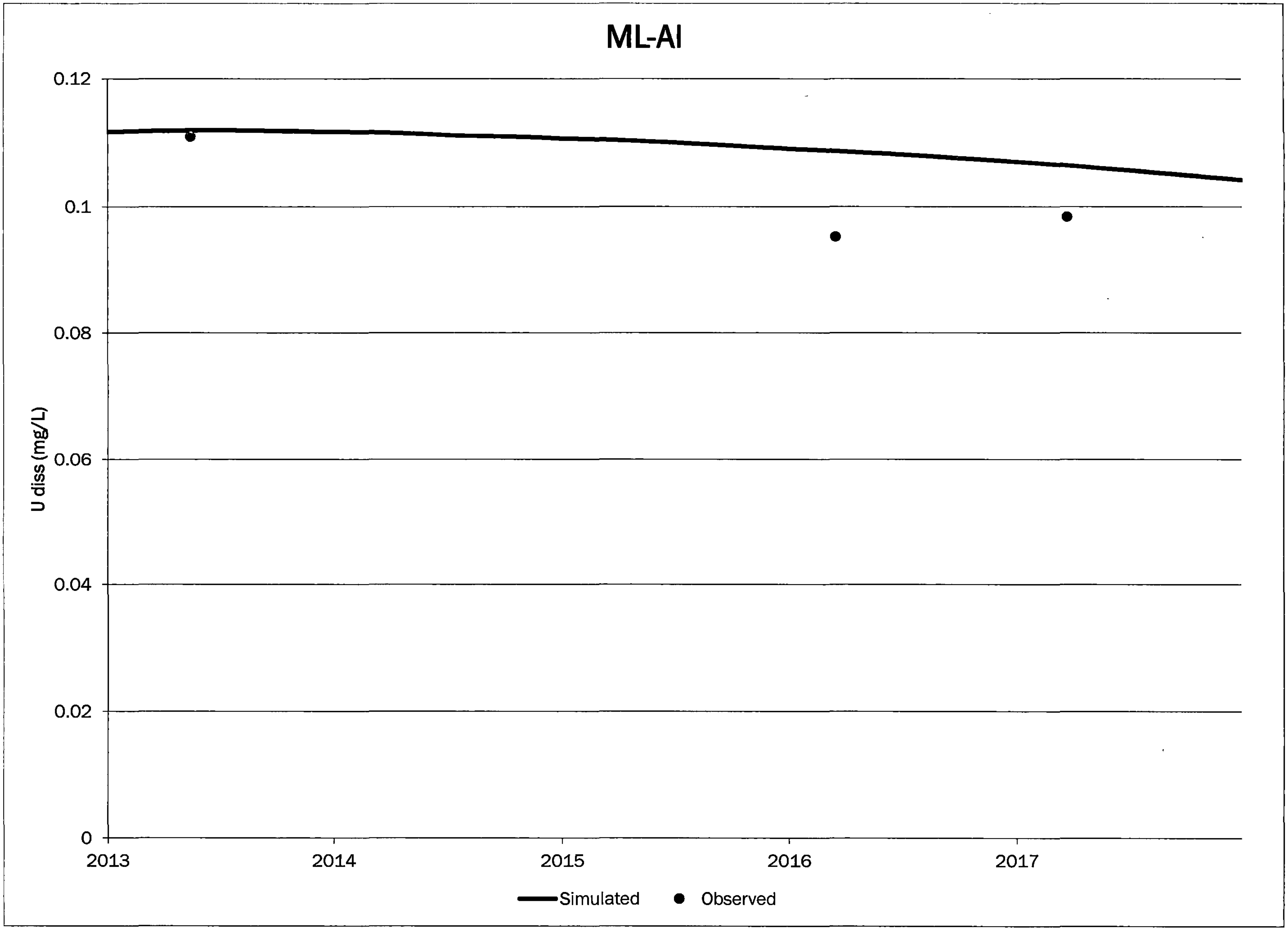
M7-AI
U diss (mg/L)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed


M9-AI
U diss (mg/L)
0
1
2
3
4
5
6
2013
2014
2015
2016
2017
Simulated
Observed

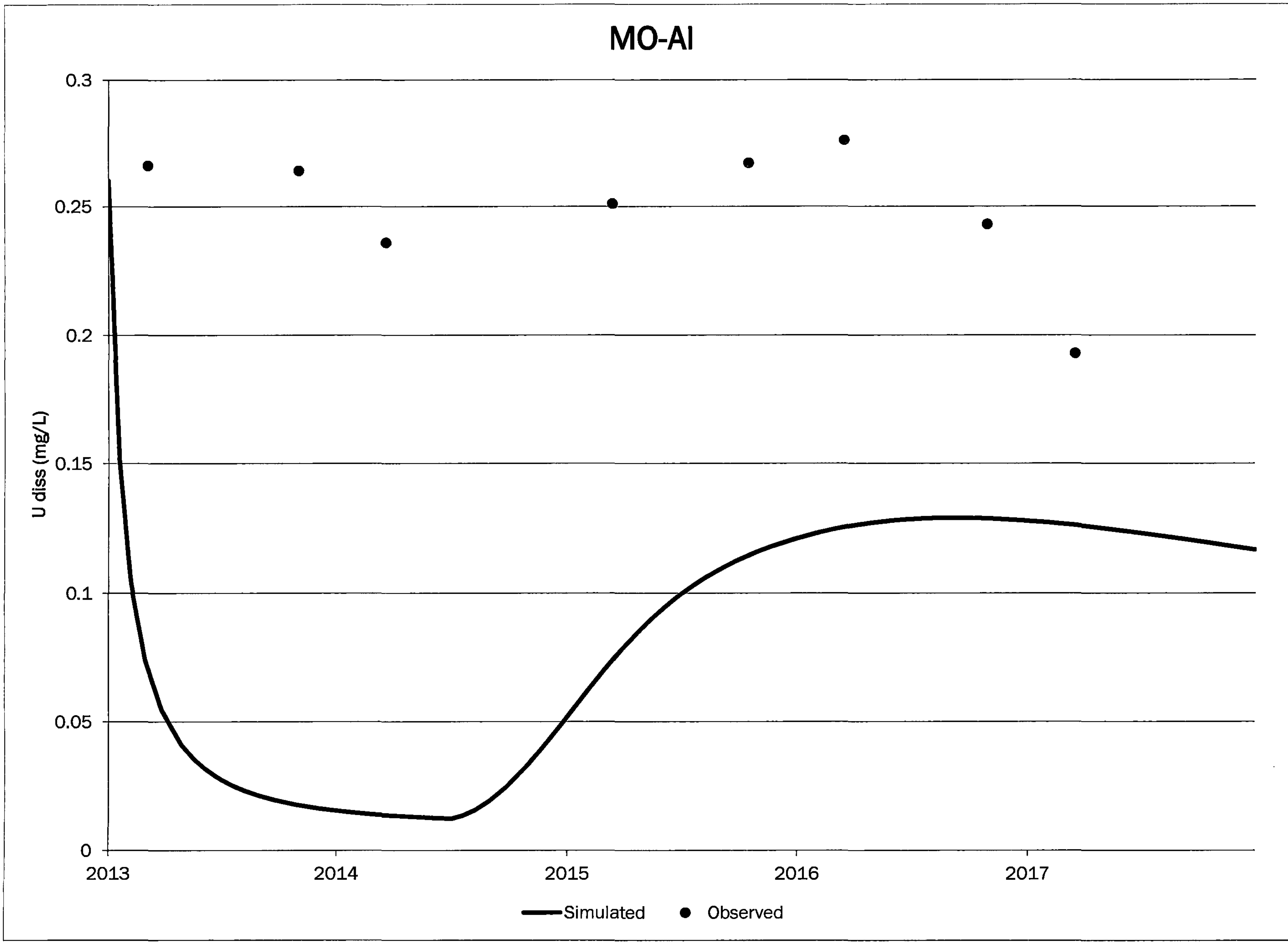


M10-Al
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

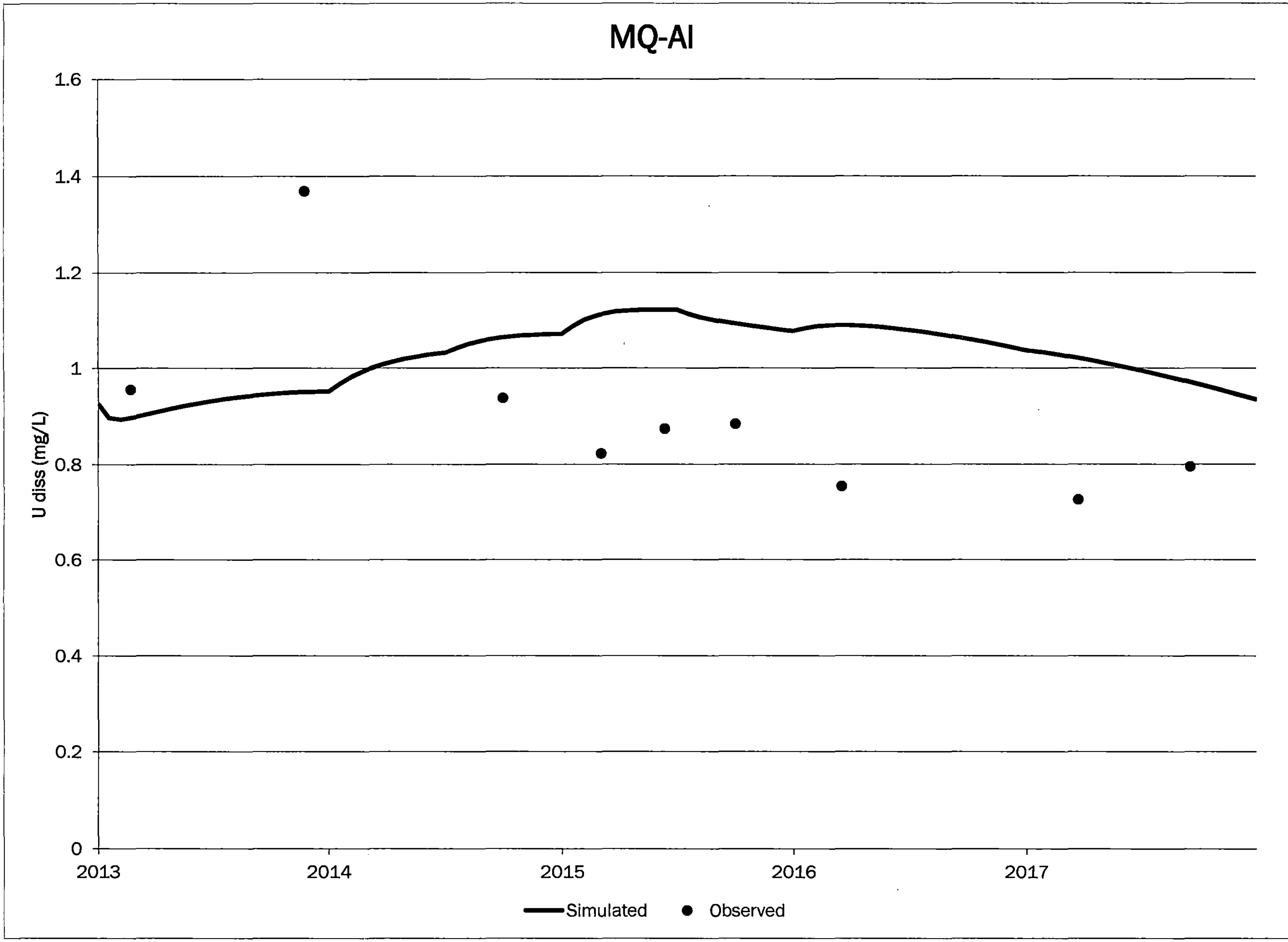

M16-AI
U diss (mg/L)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



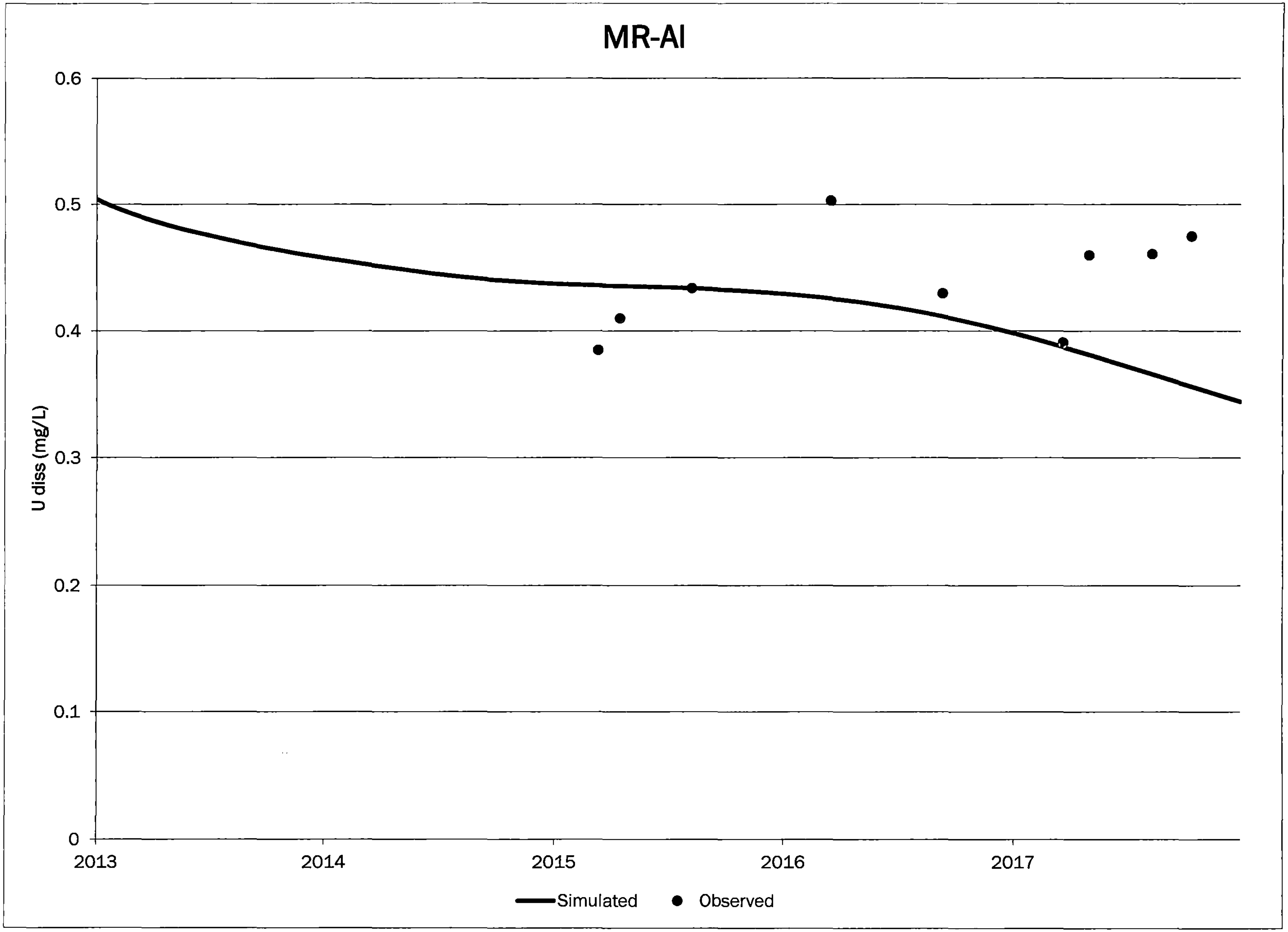
ML-AI
U diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



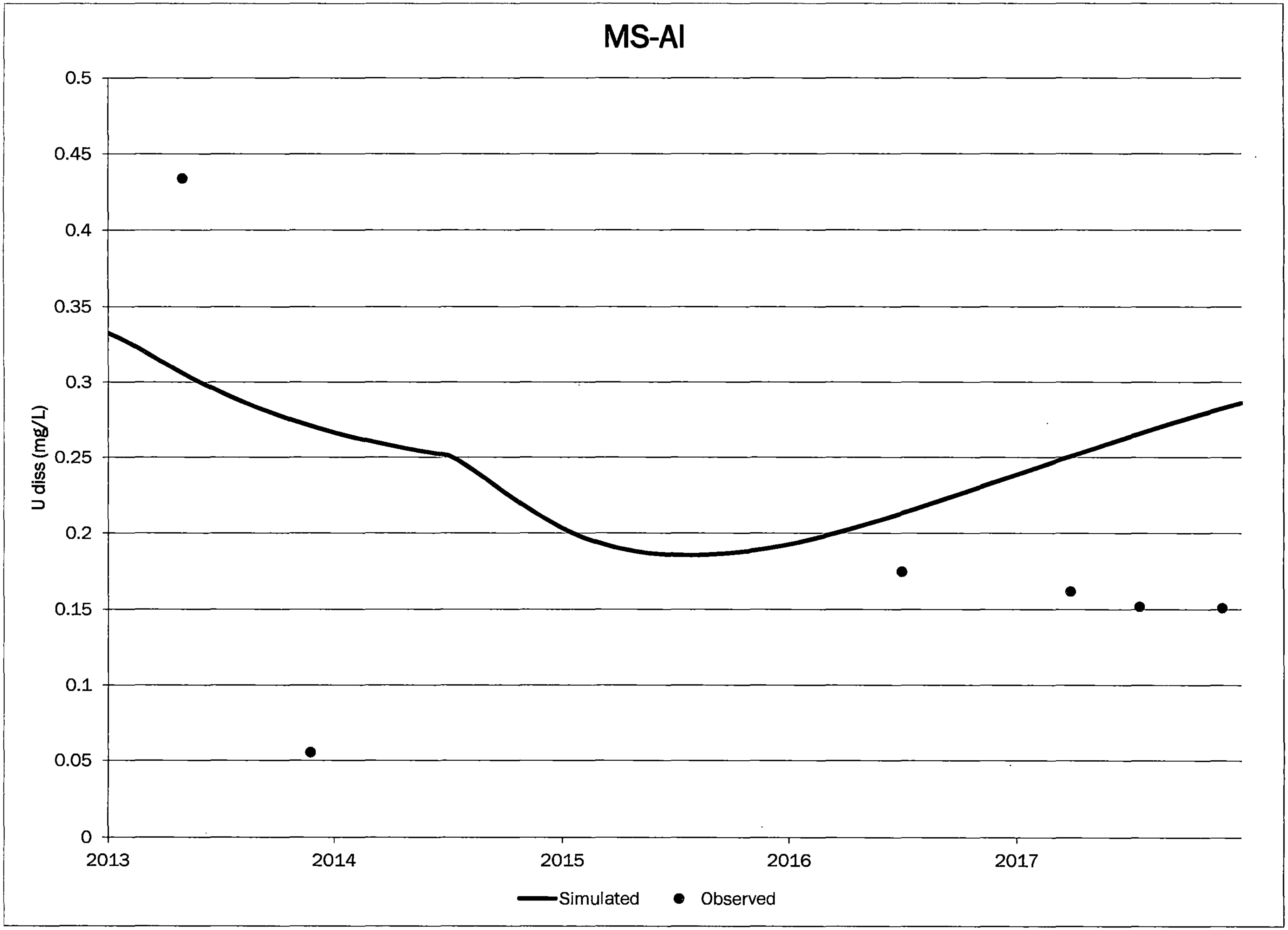
MO-AI
0.3
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

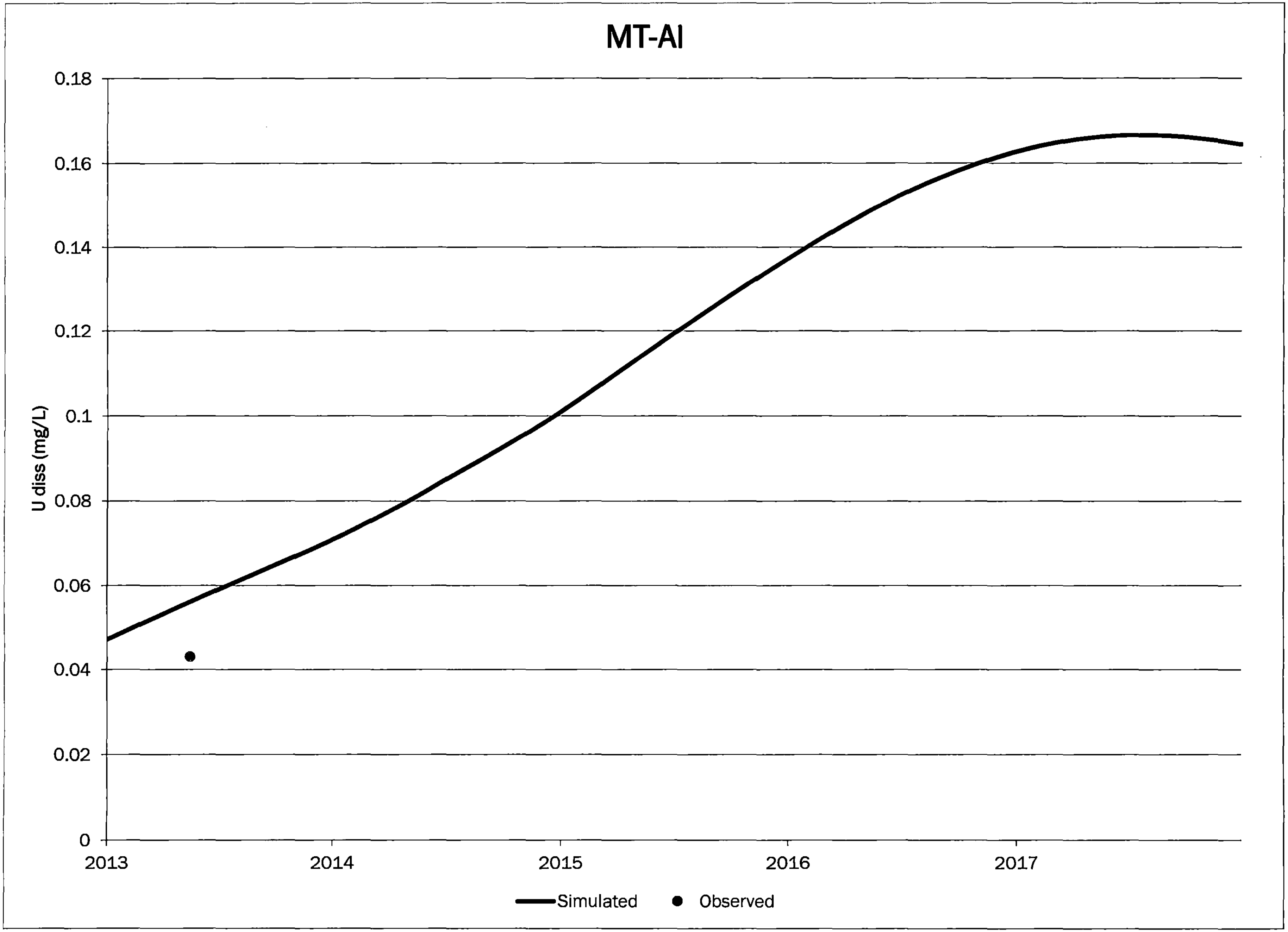


MQ-AI
U diss (mg/L)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

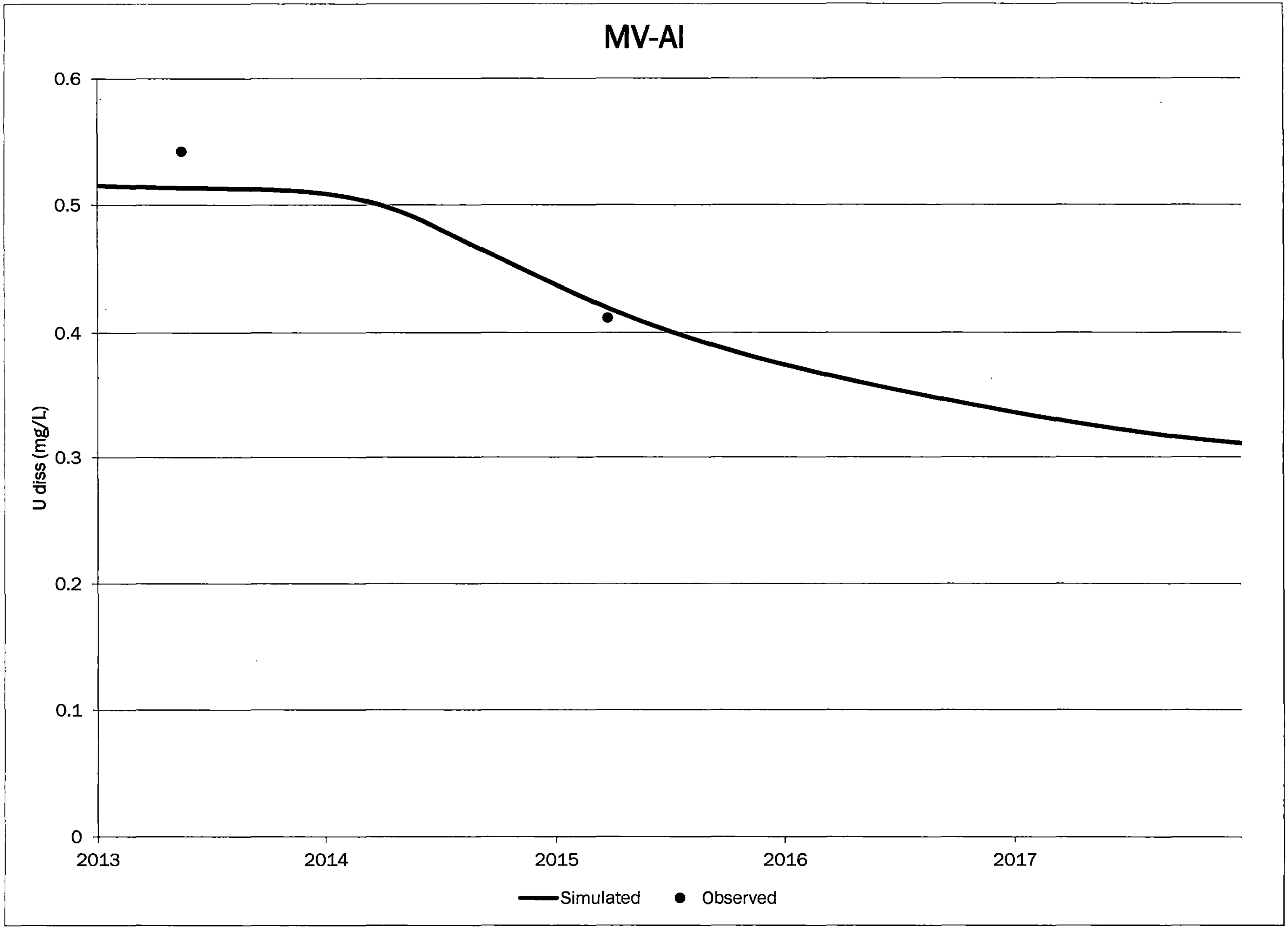


MR-AI
U diss (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

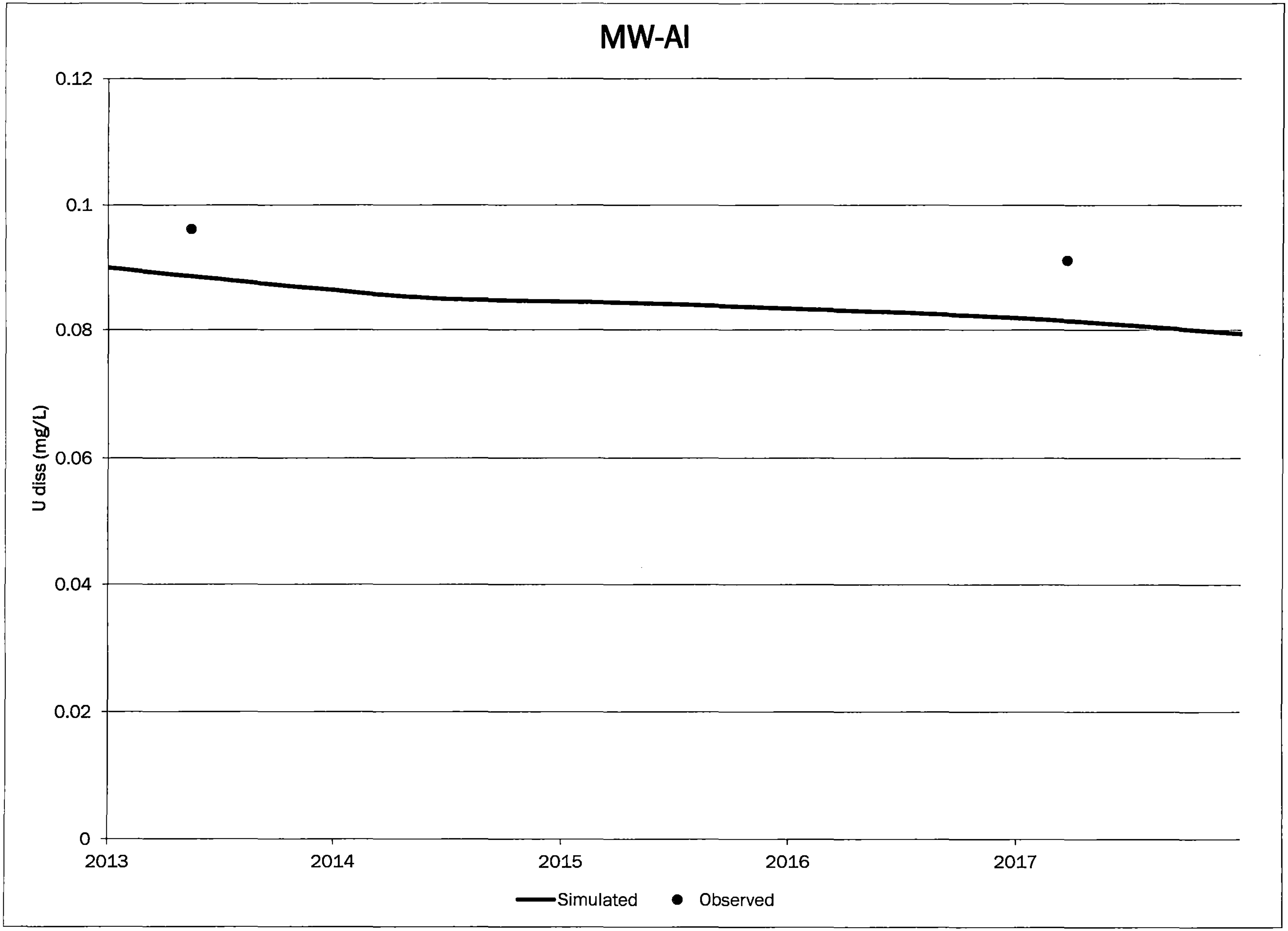

MS-Al
U diss (mg/L)
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



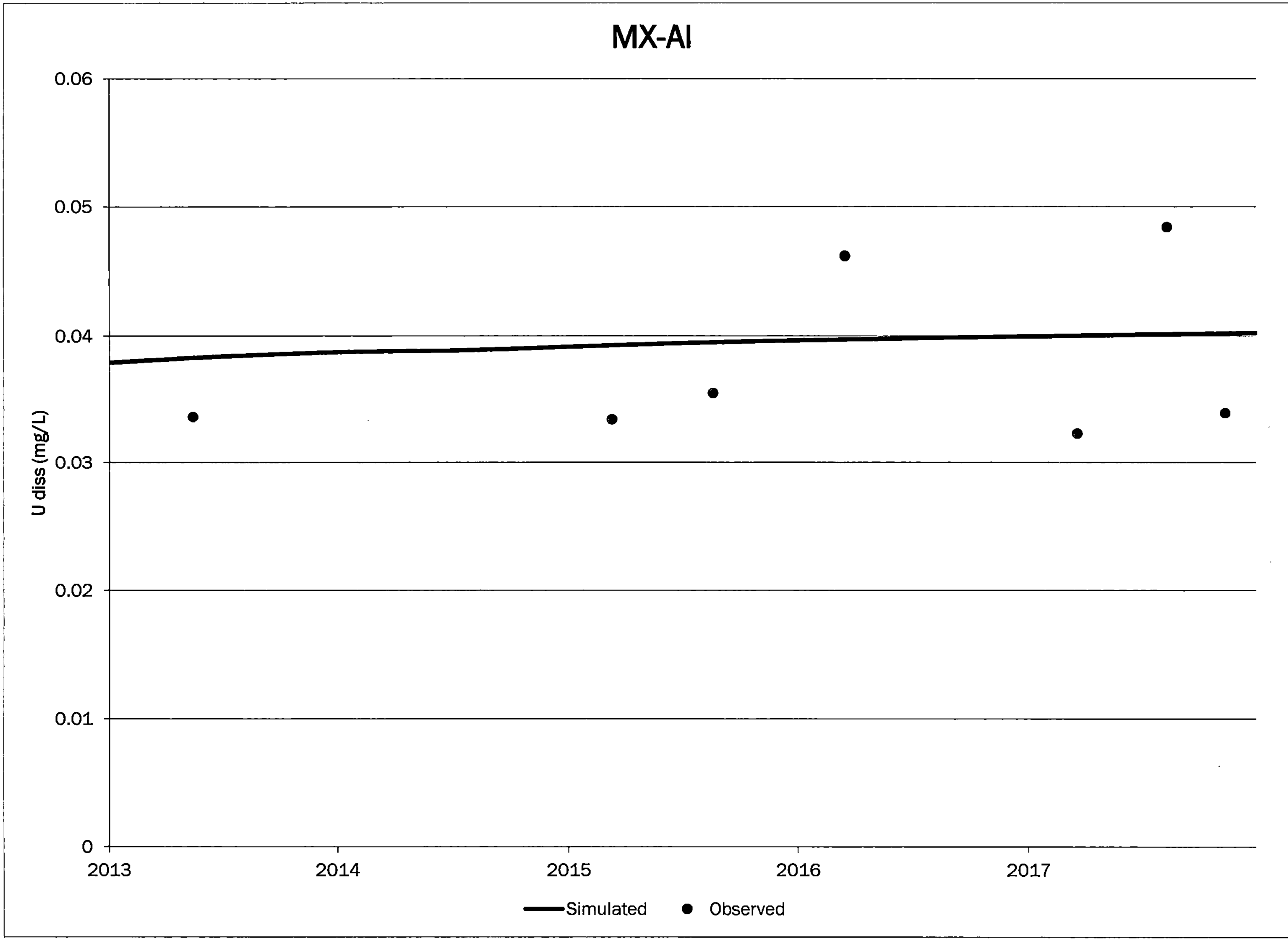
MT-AI
U diss (mg/L)
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
2013
2014
2015
2016
2017
Simulated
Observed

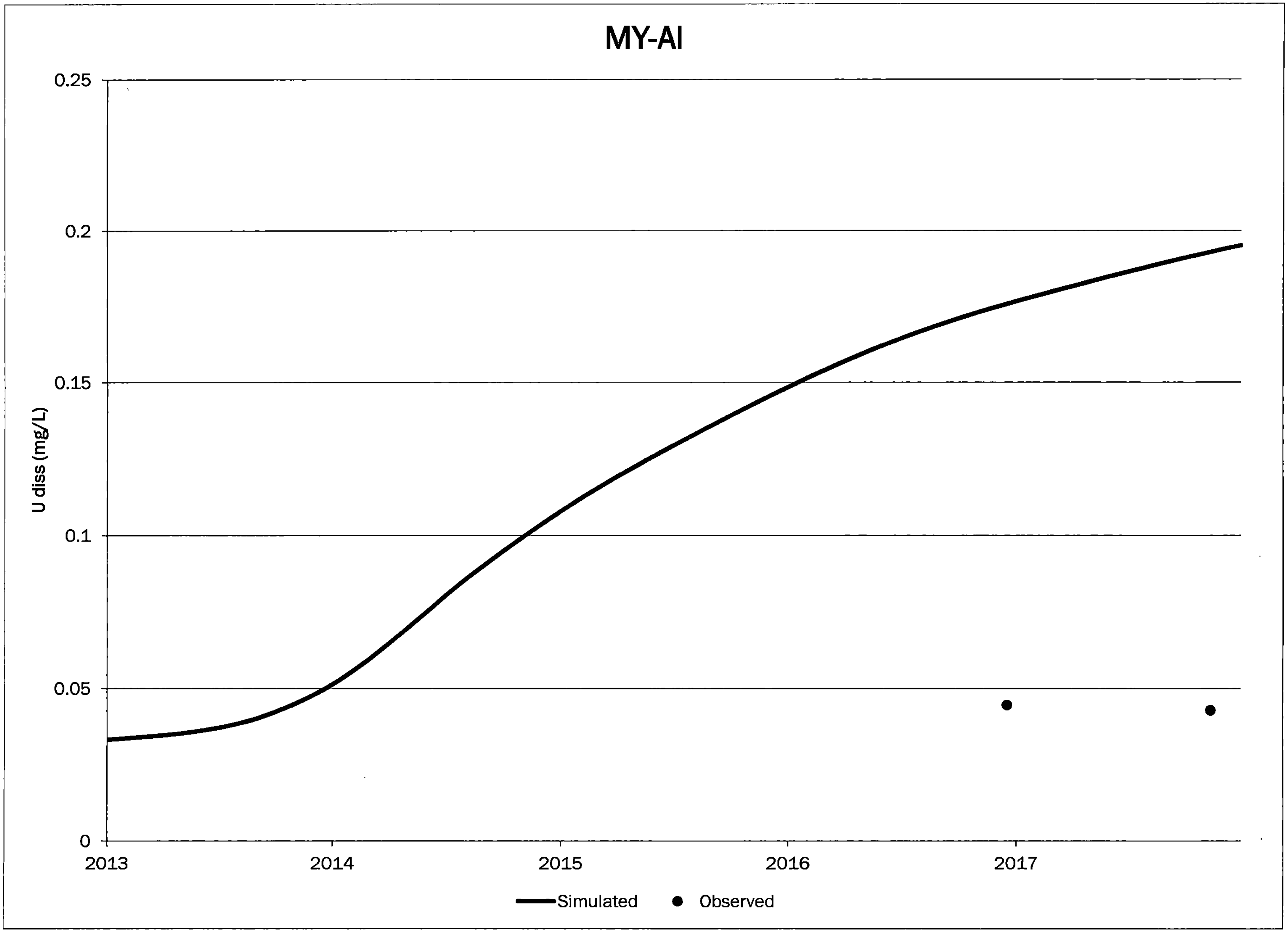


MV-AI
0.6
0.5
0.4
0.3
0.2
0.1
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

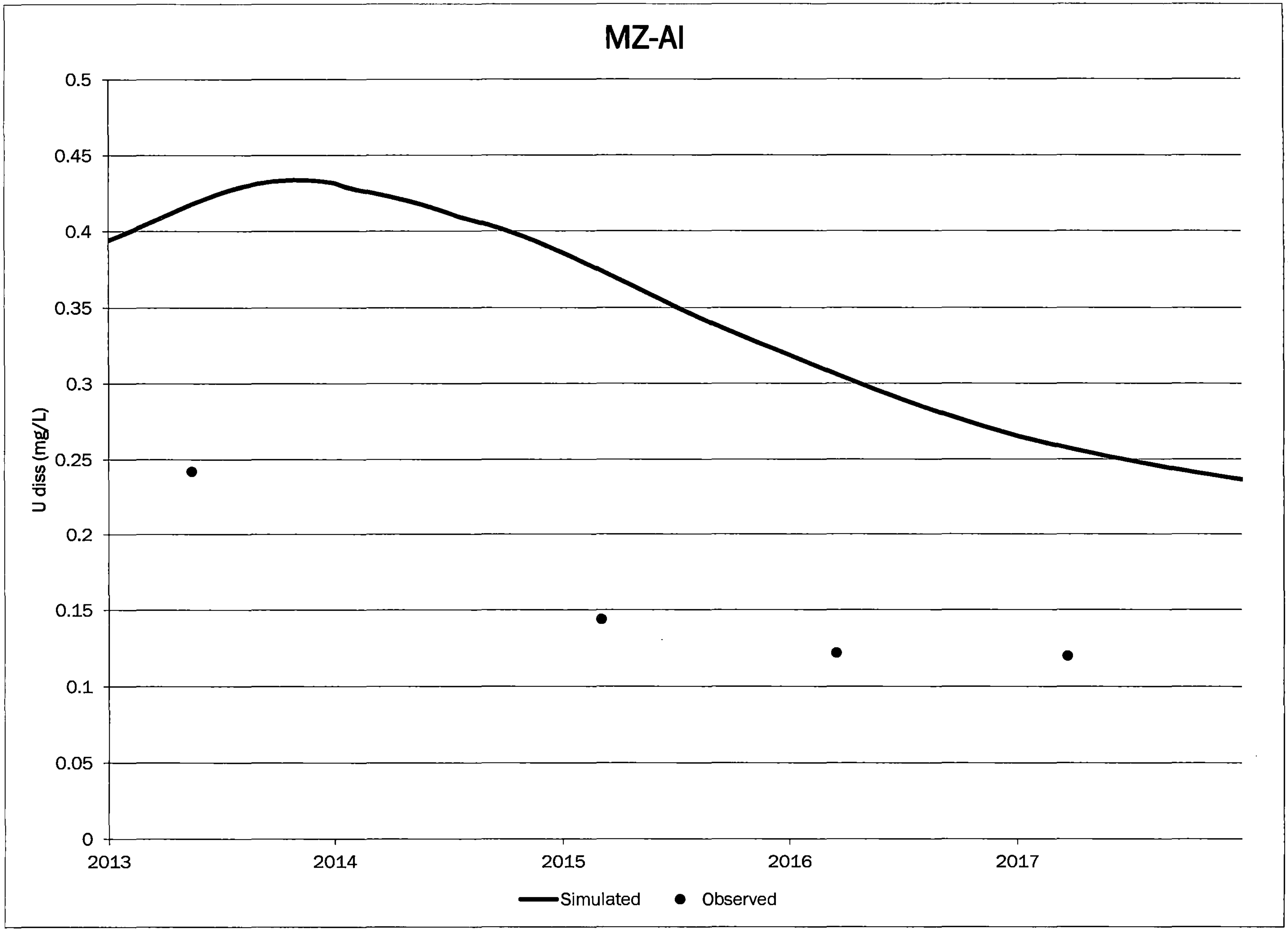


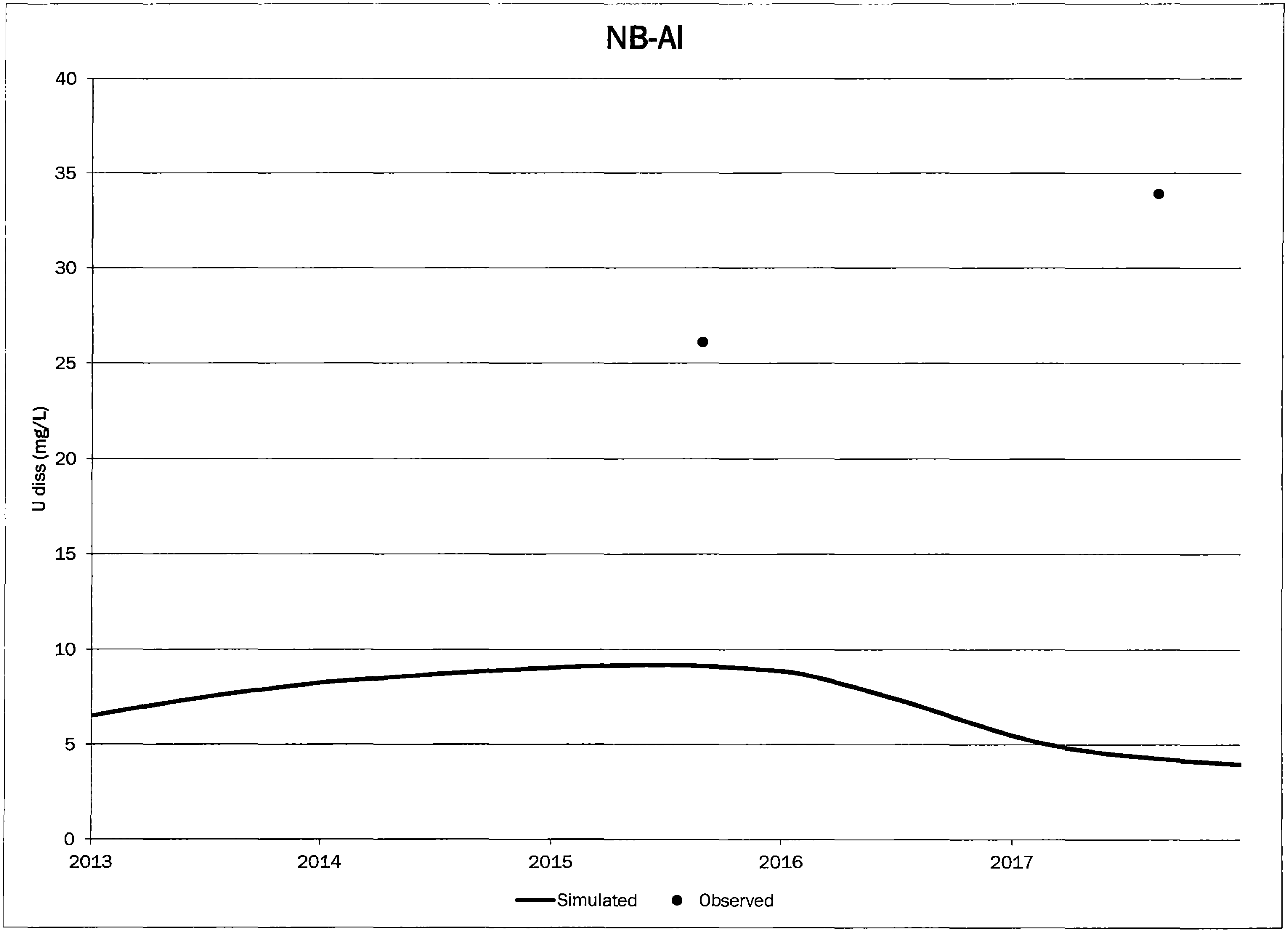
MW-AI
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

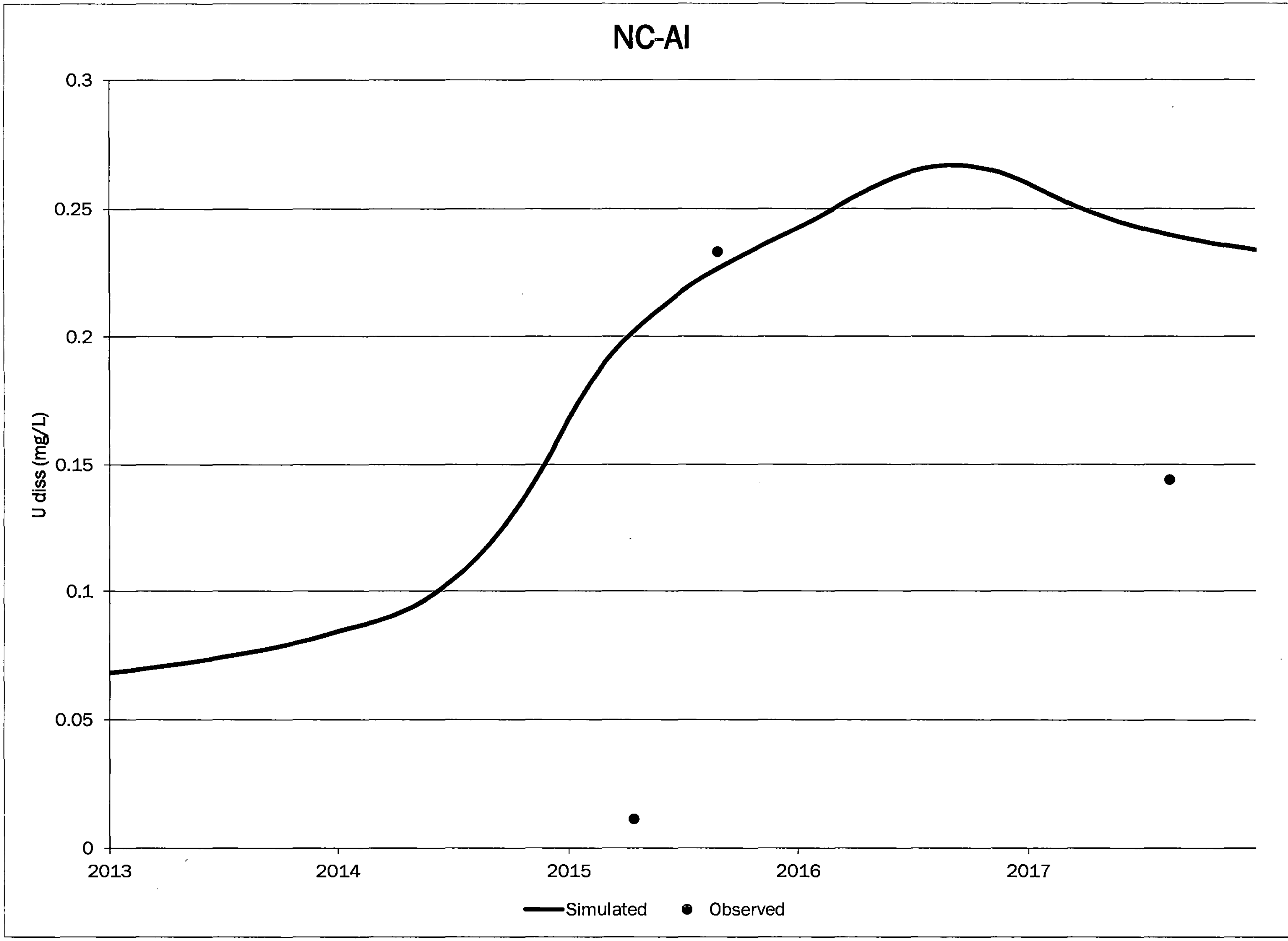

MX-AI
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



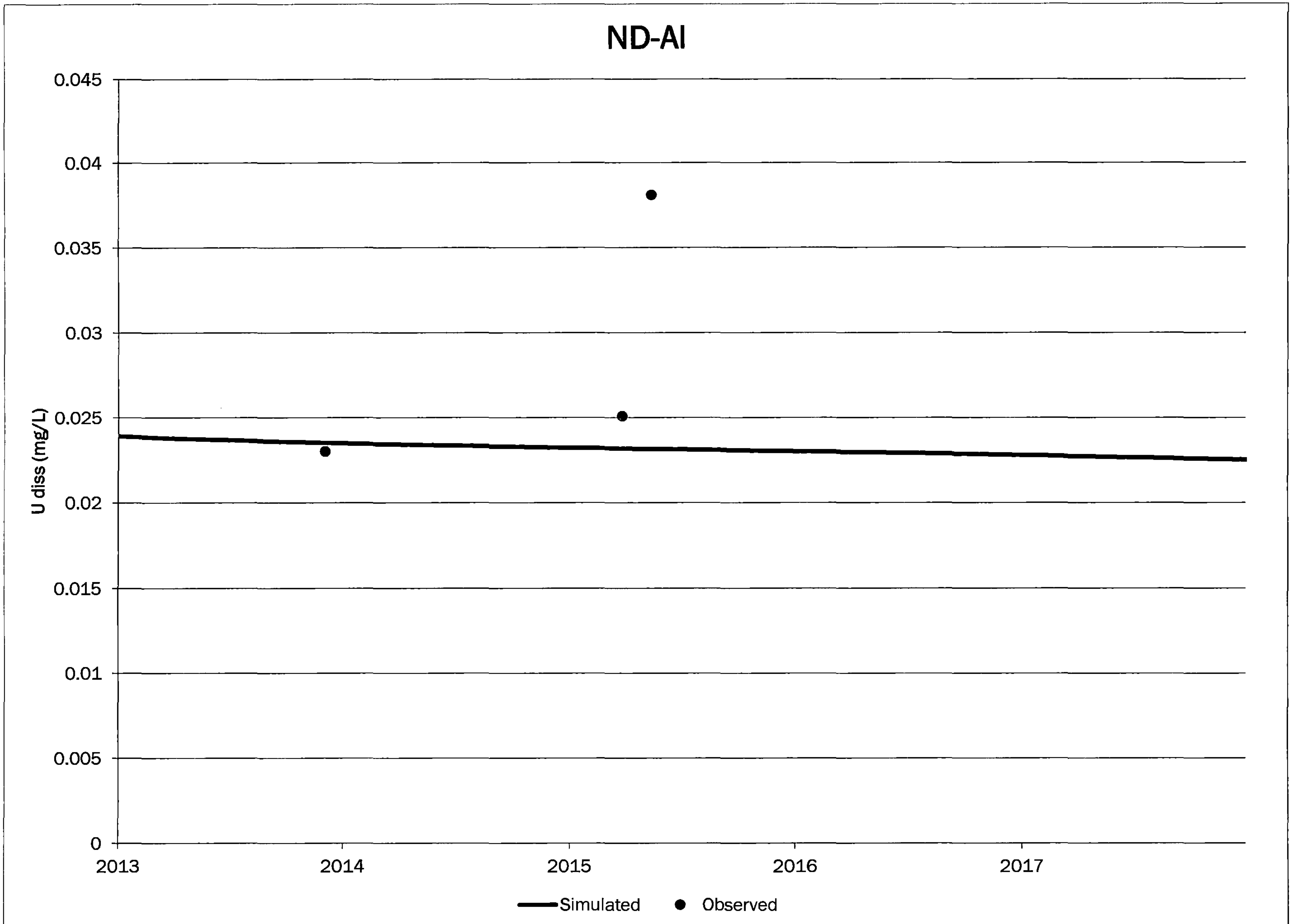
MY-AI
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed


MZ-AI
U diss (mg/L)
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

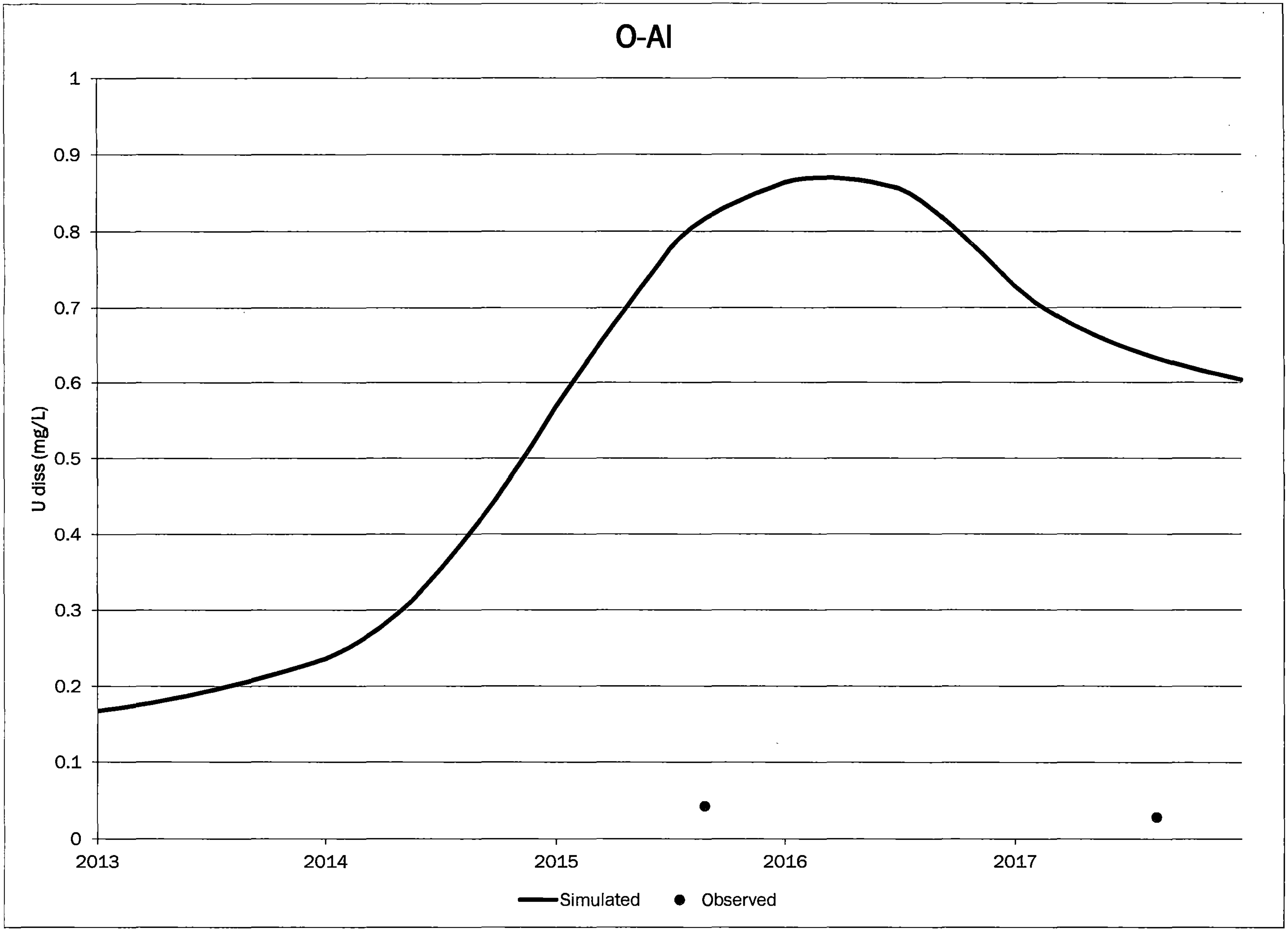

NB-AI
U diss (mg/L)
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

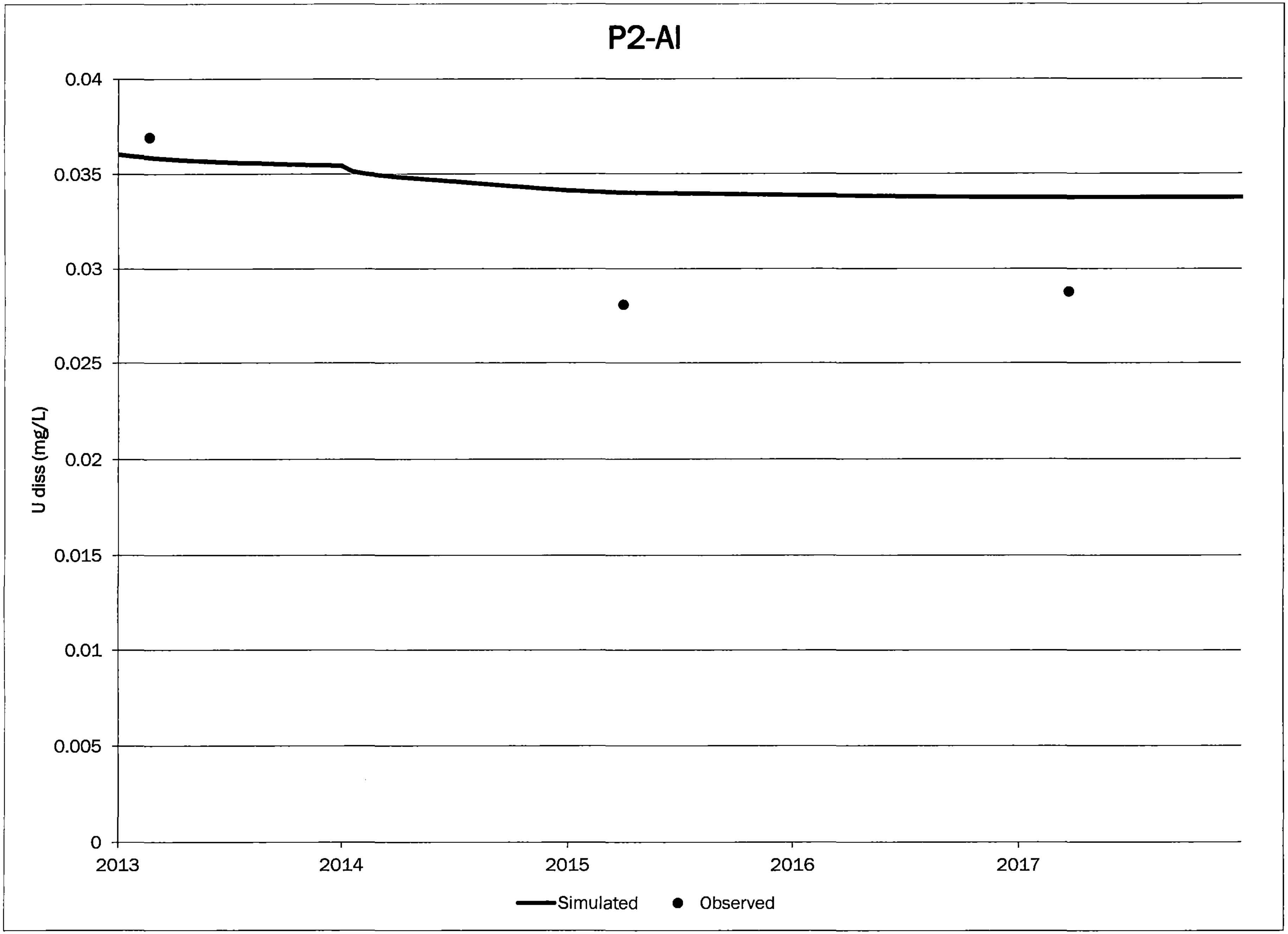


NC-AI
0.3
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

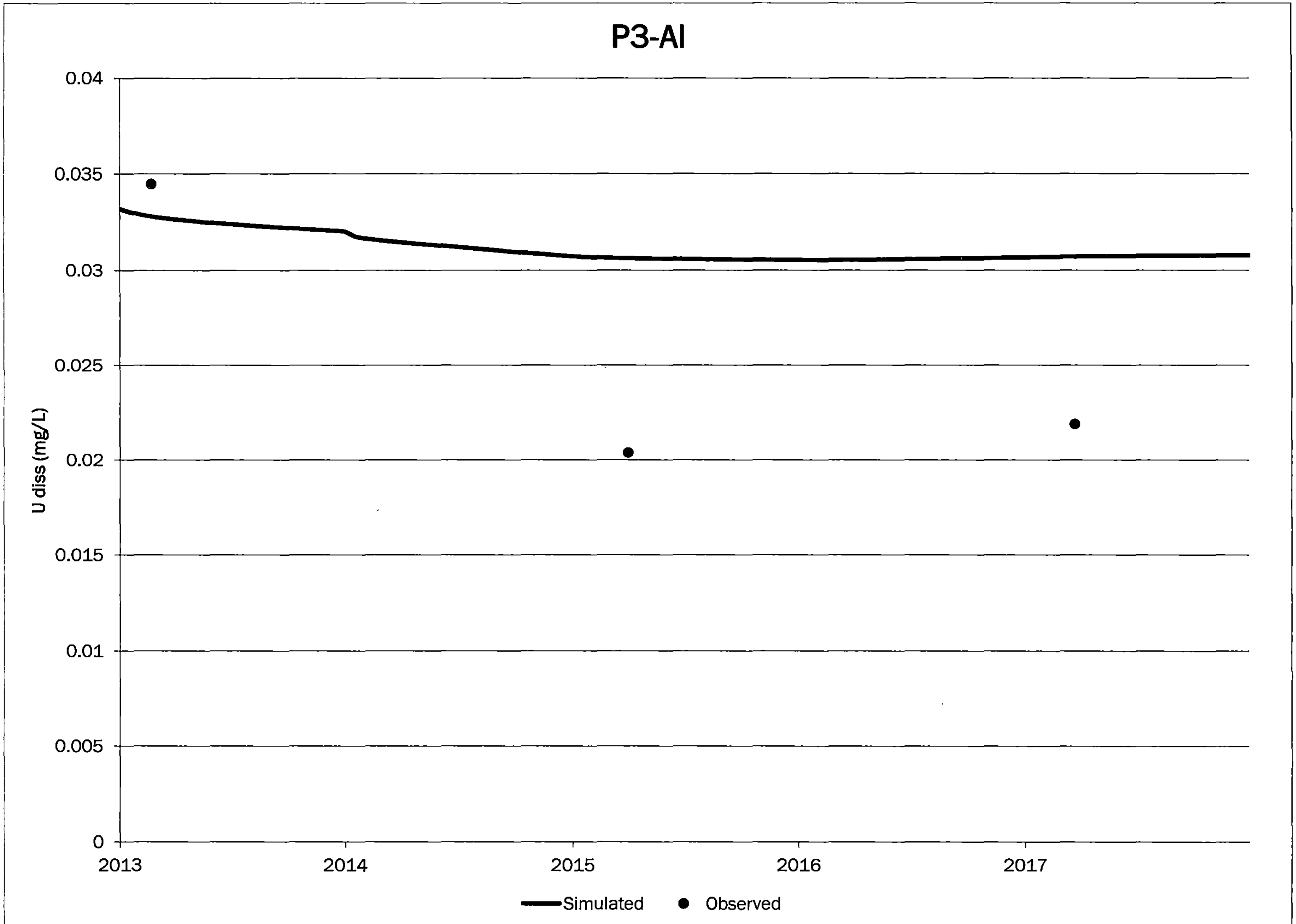


ND-Al
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

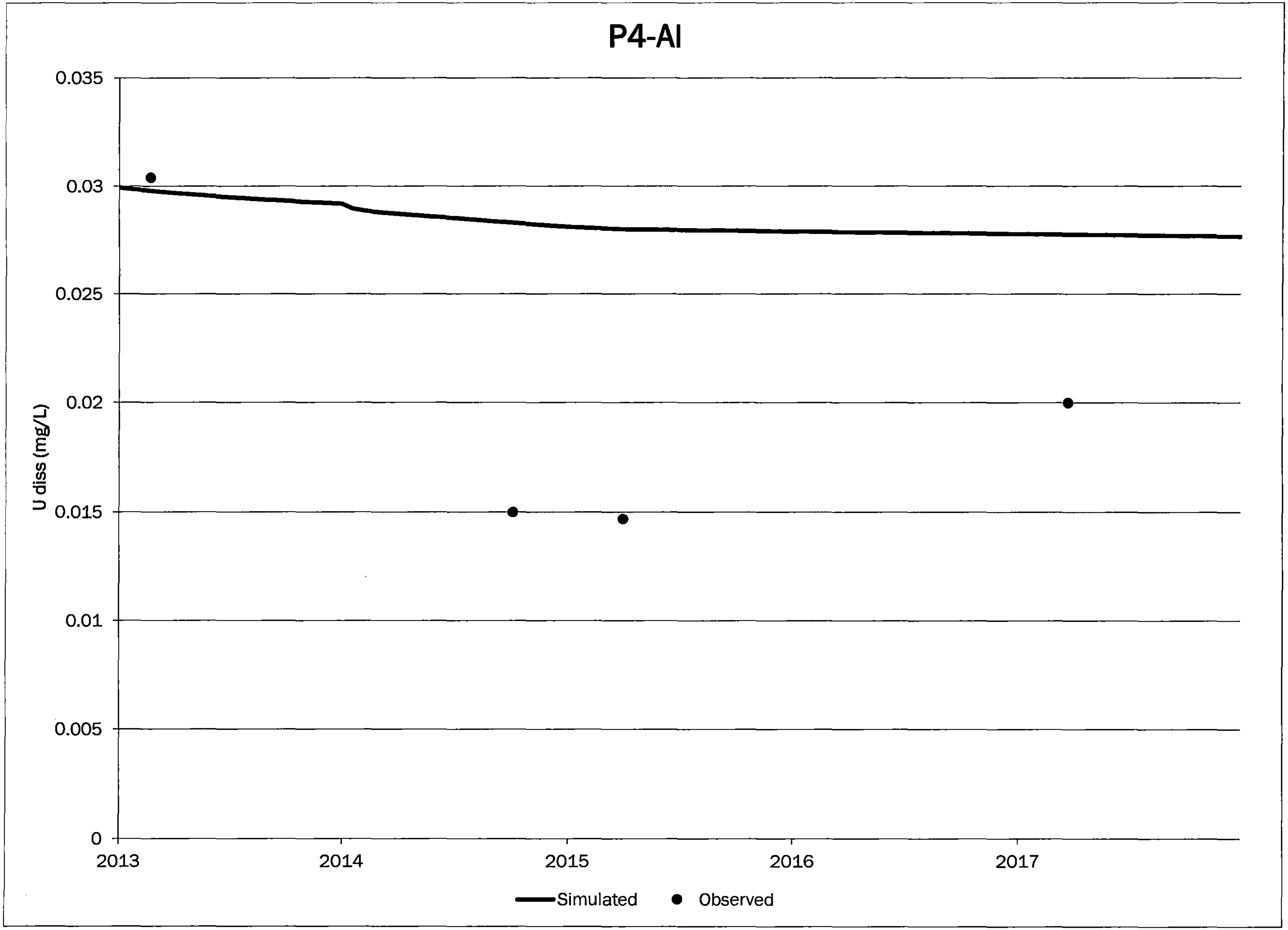

O-Al
U diss (mg/L)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



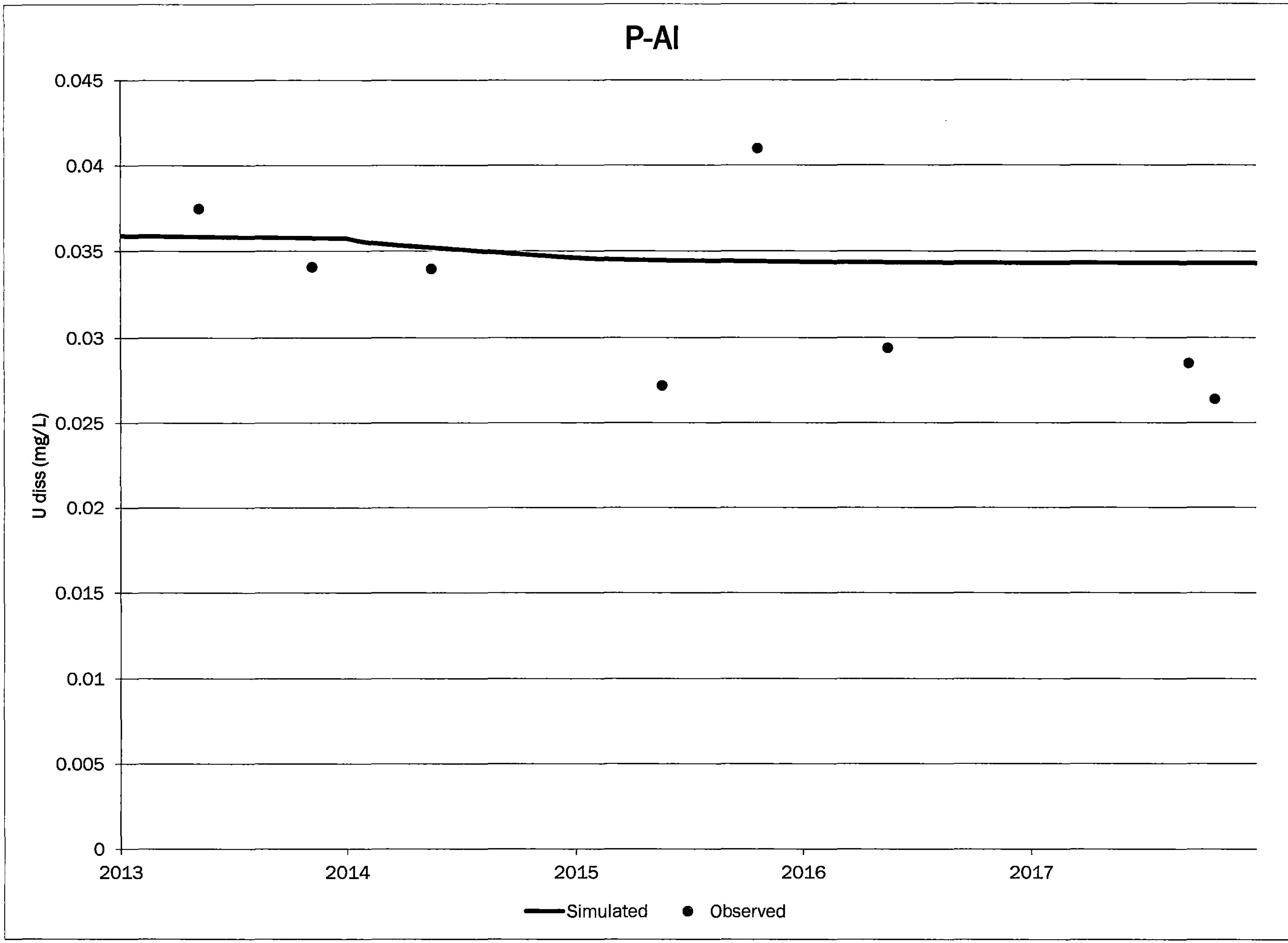
P2-Al
U diss (mg/L)
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



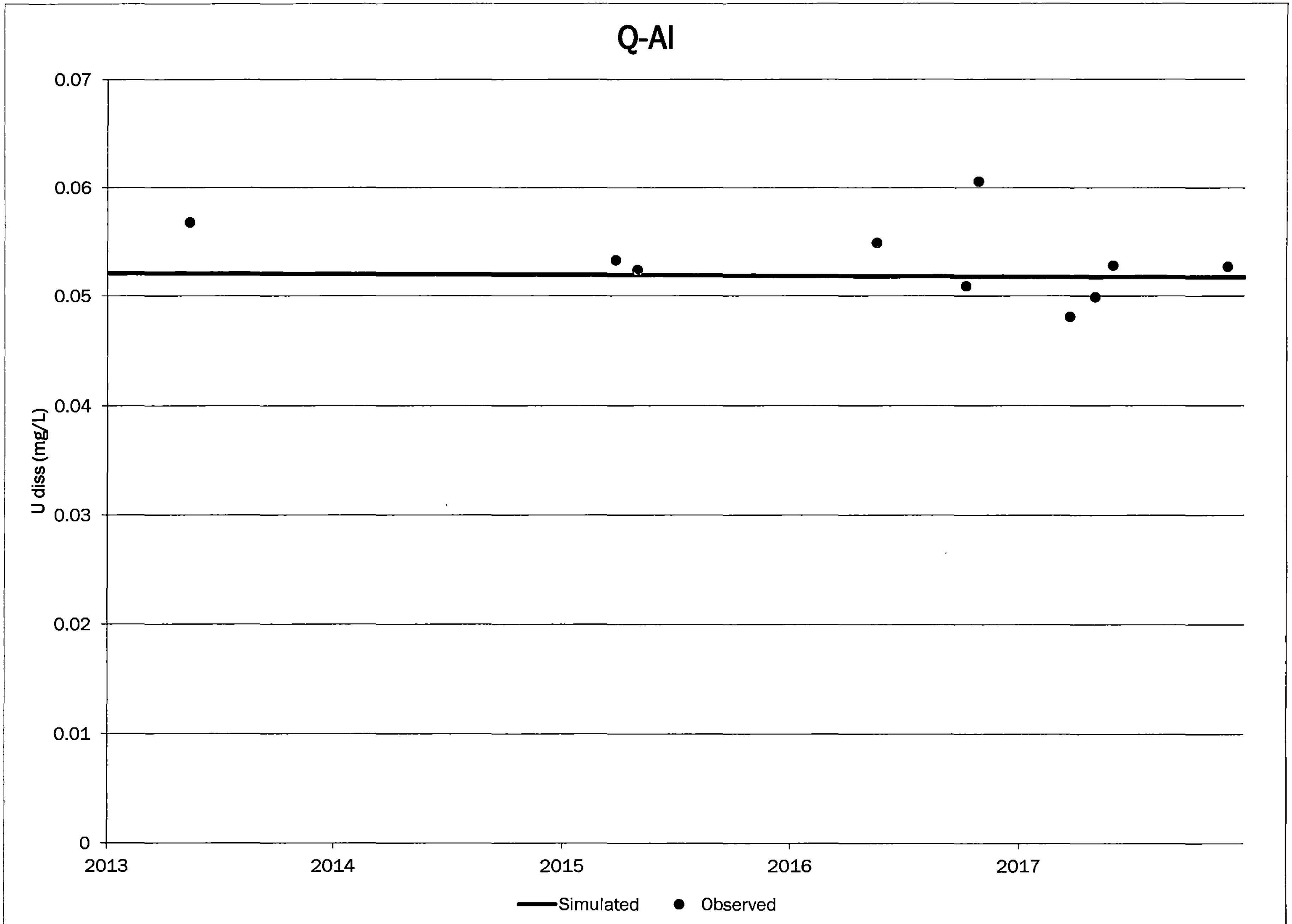
P3-AI
U diss (mg/L)
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



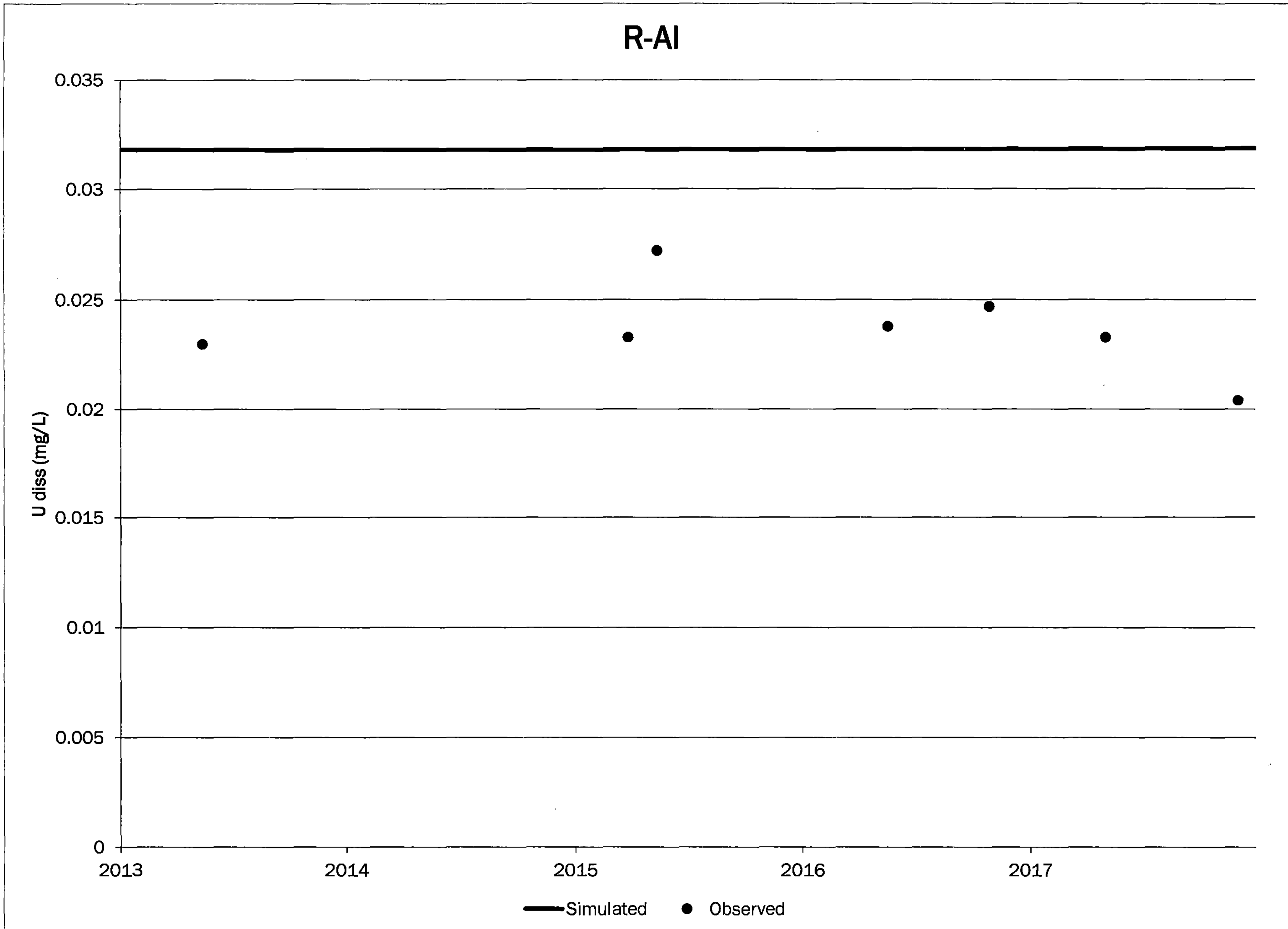
P4-Al
U diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

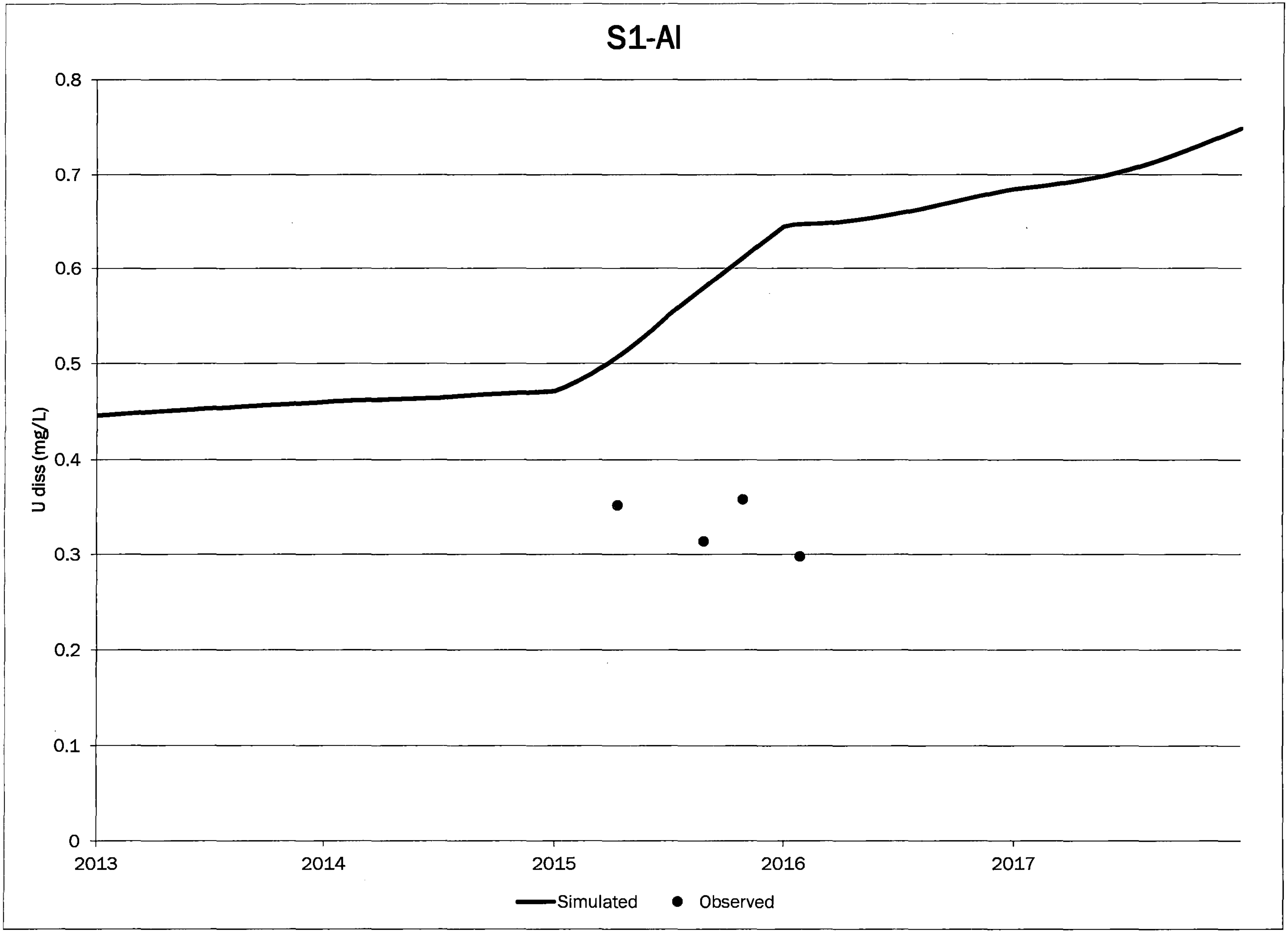


P-Al
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

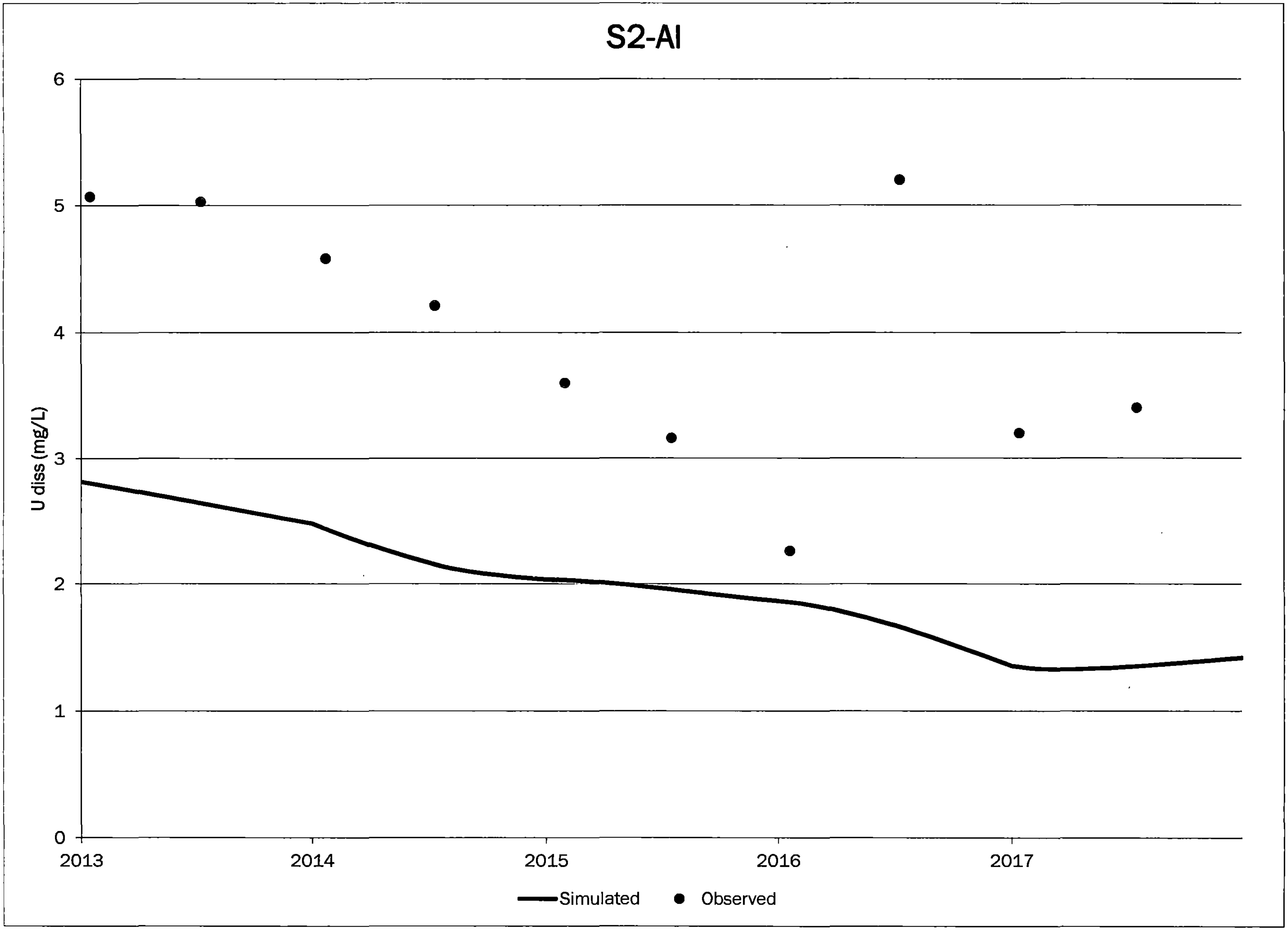


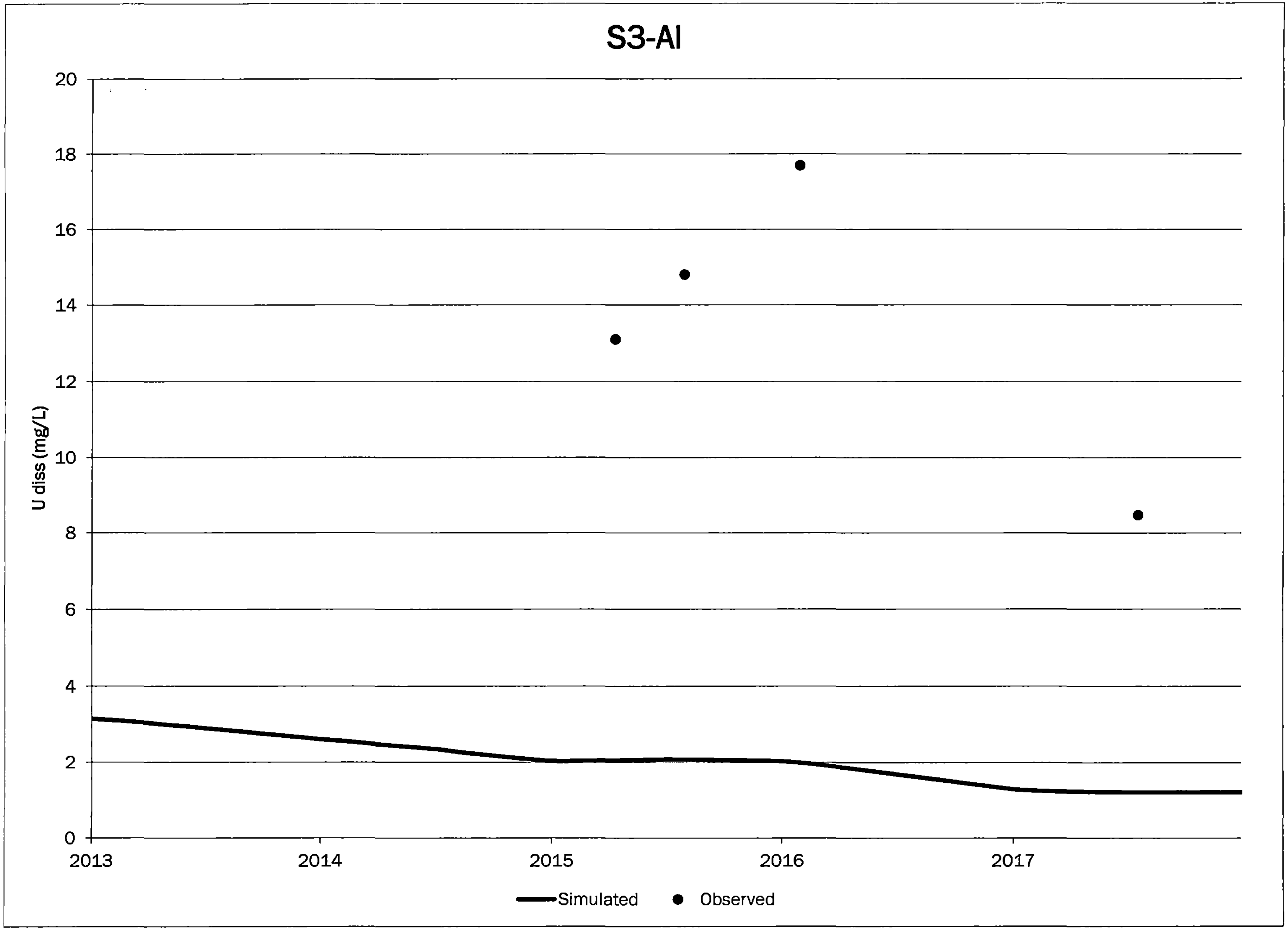
Q-AI
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


R-Al
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

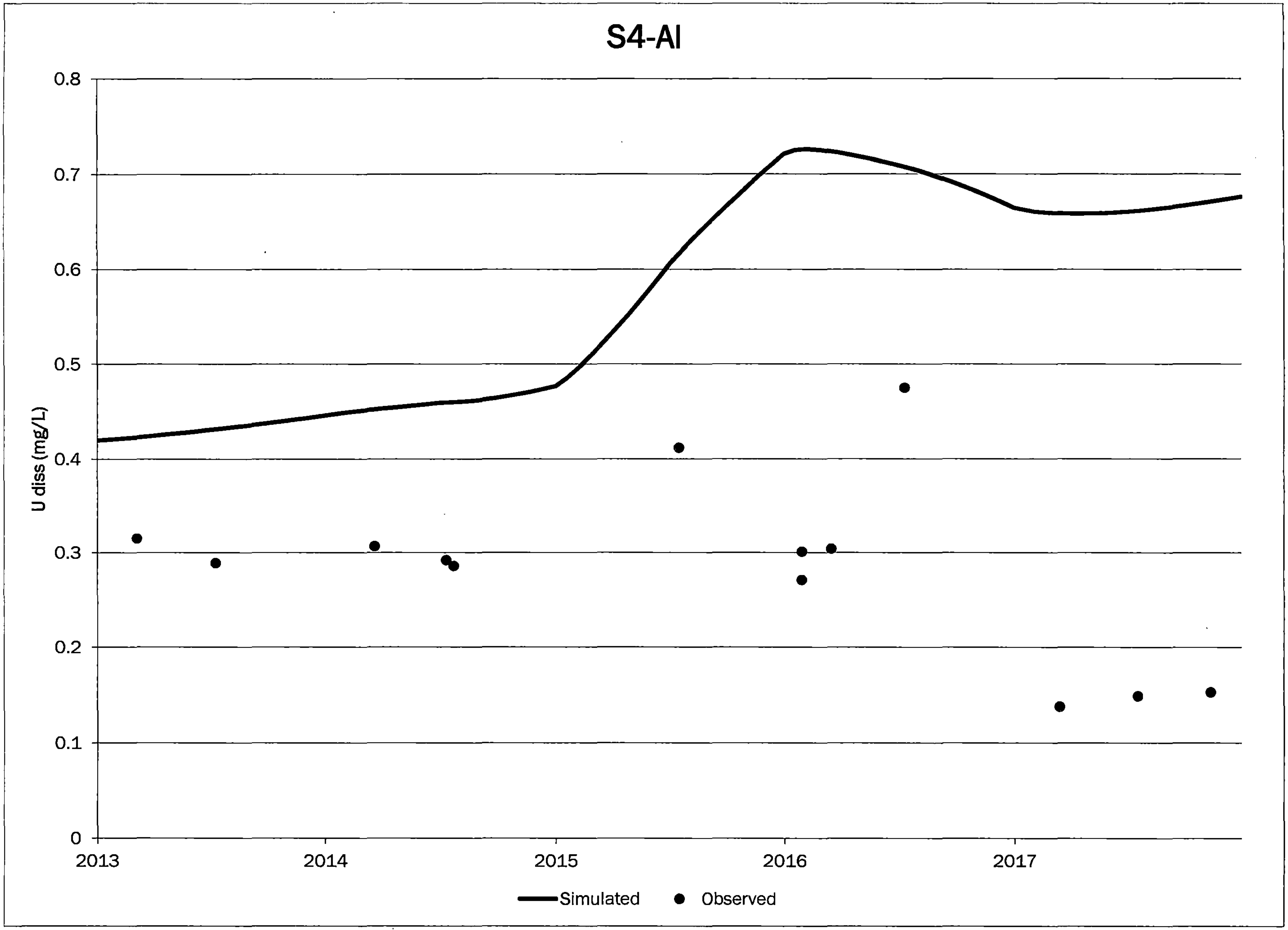


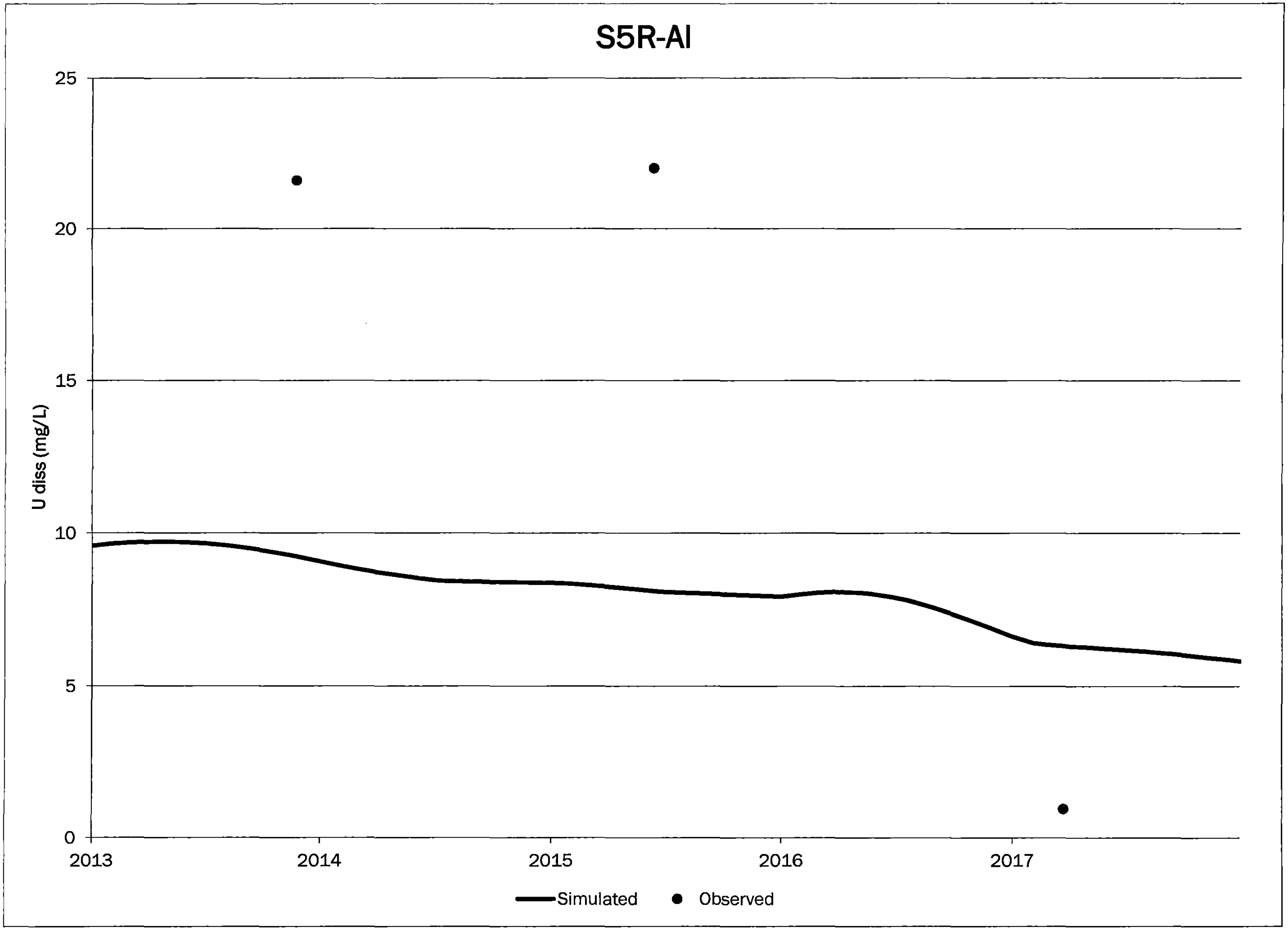
S1-AI
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


S2-Al
U diss (mg/L)
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed

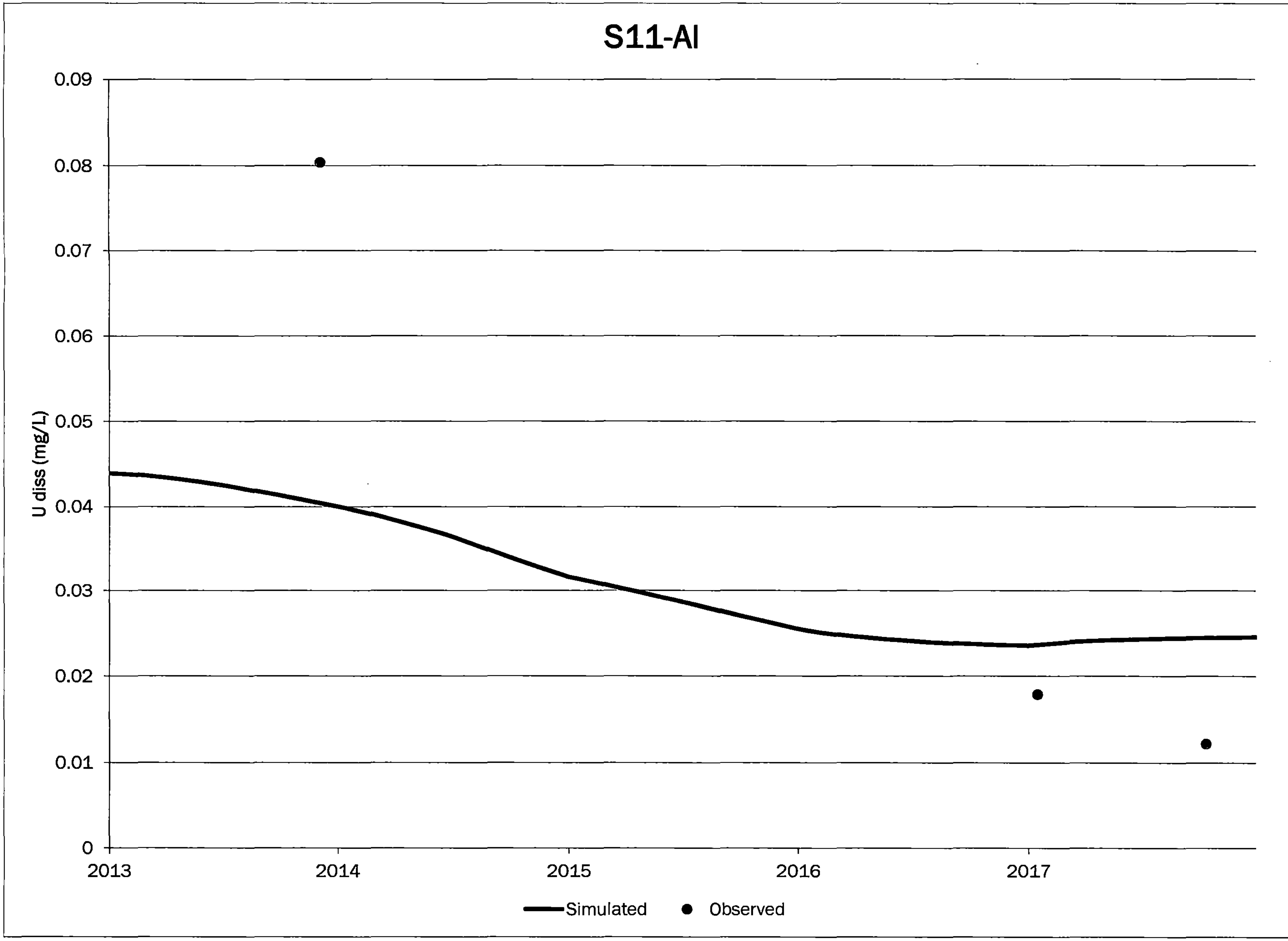


S3-Al
U diss (mg/L)
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

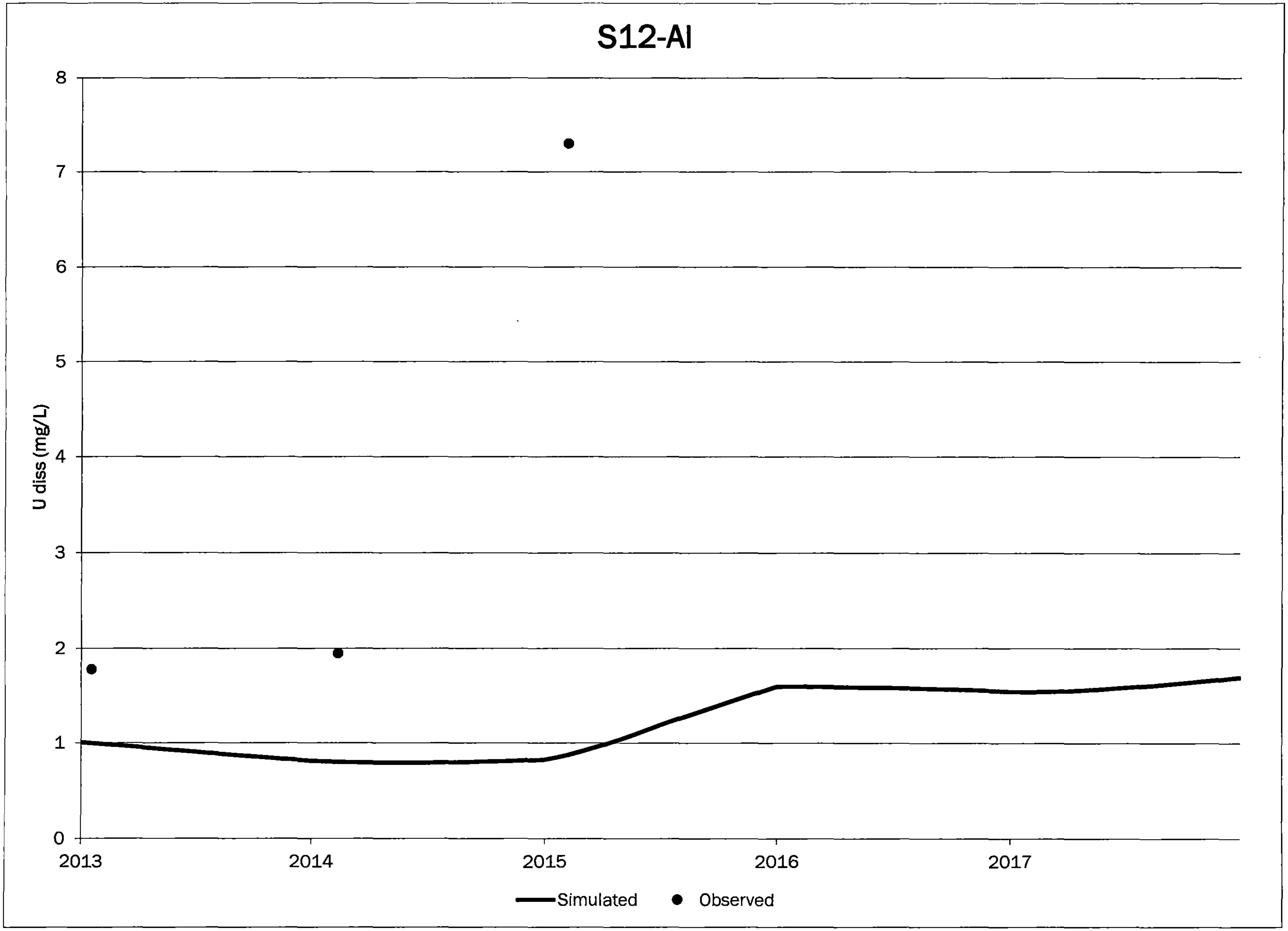

S4-Al
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



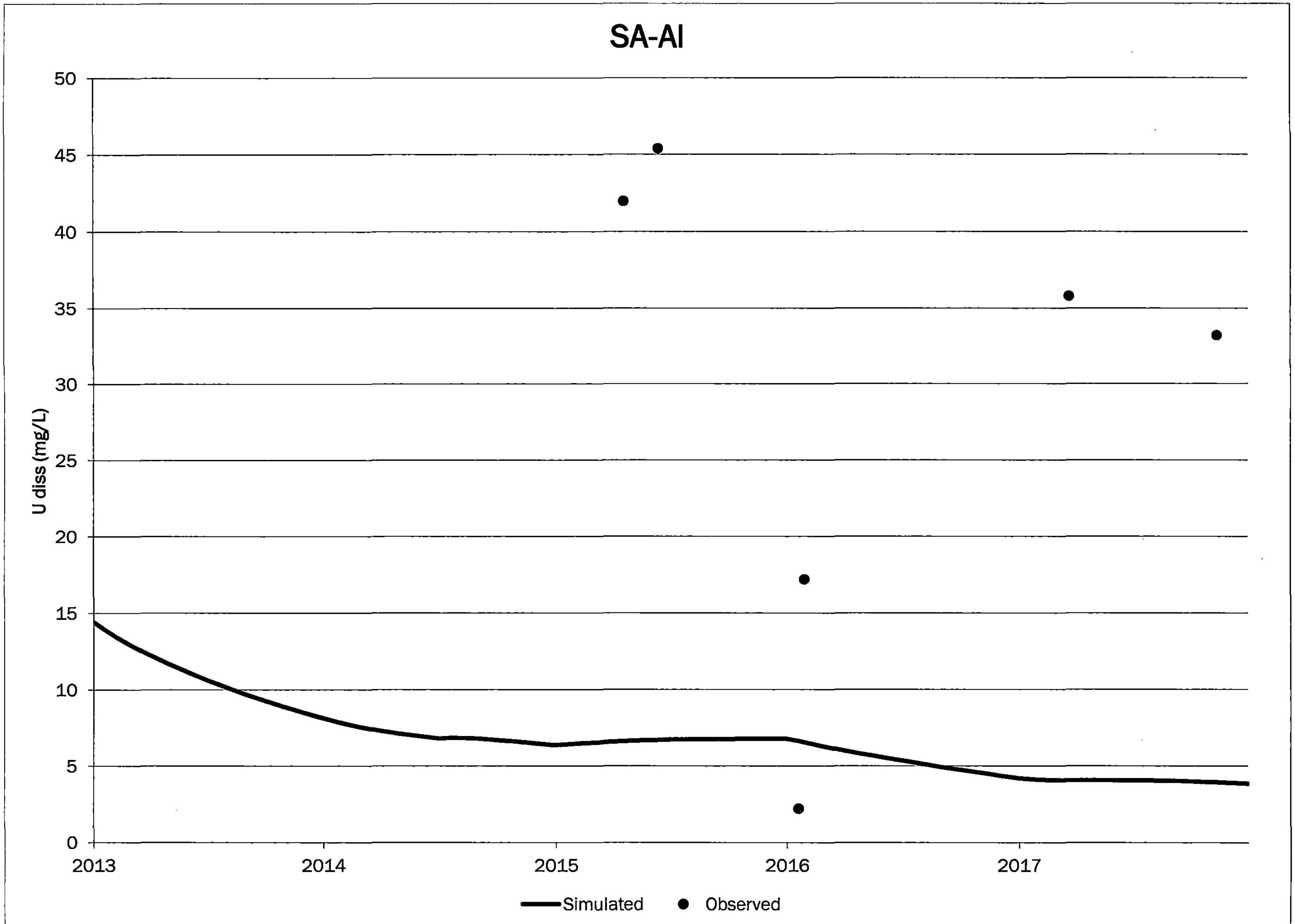
S5R-Al
U diss (mg/L)
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

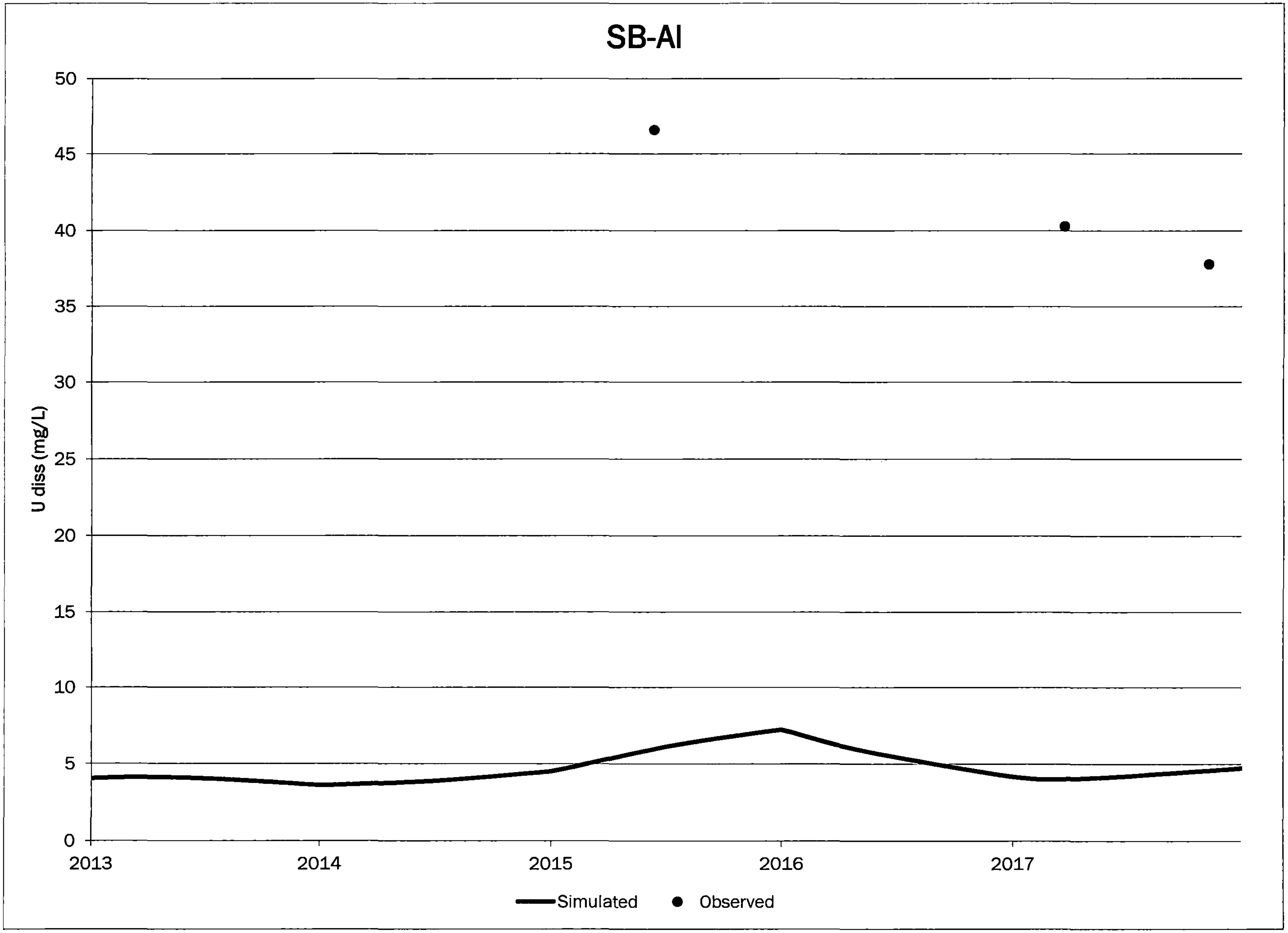


S11-Al
U diss (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

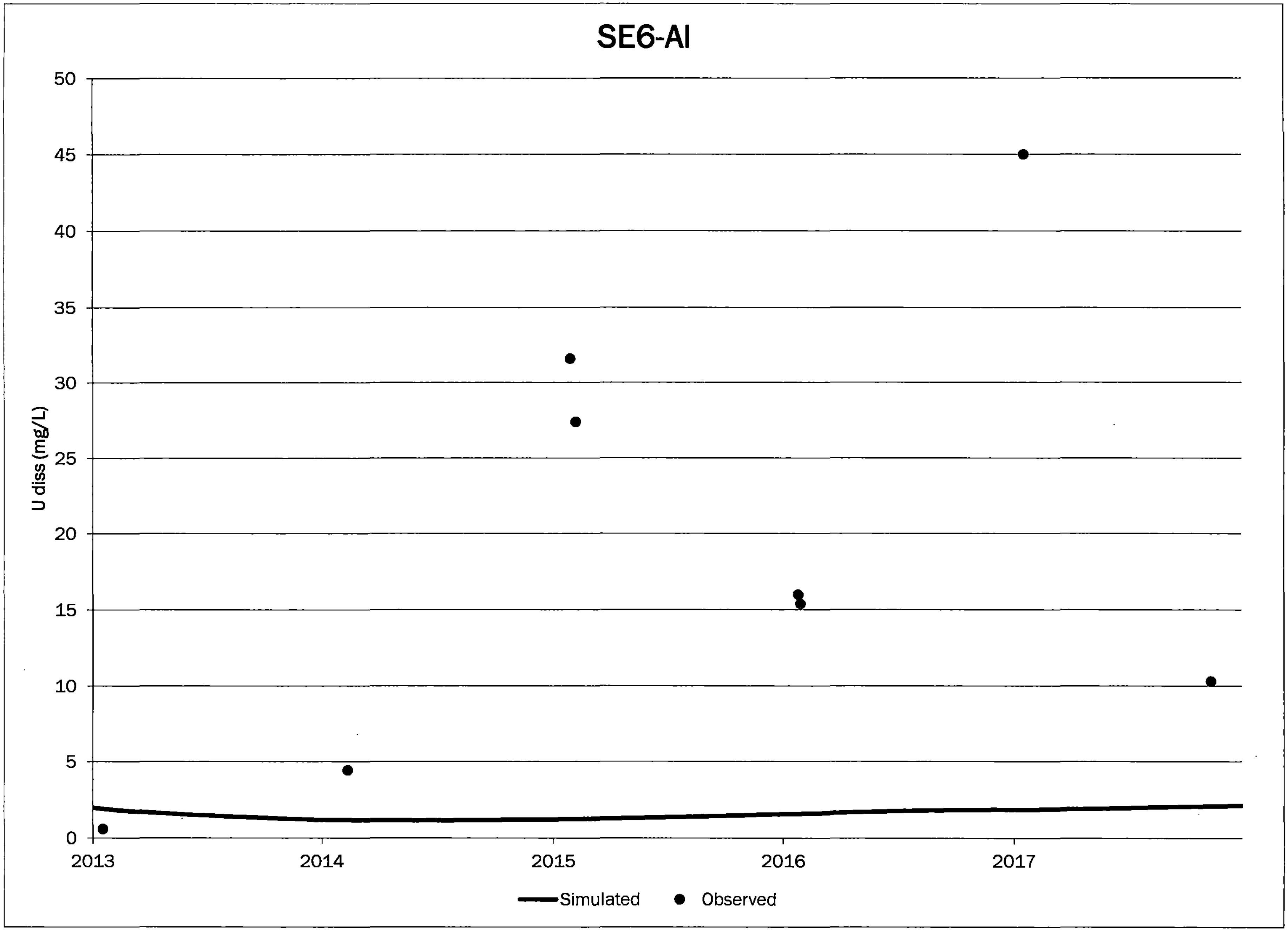


S12-Al
U diss (mg/L)
8
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed

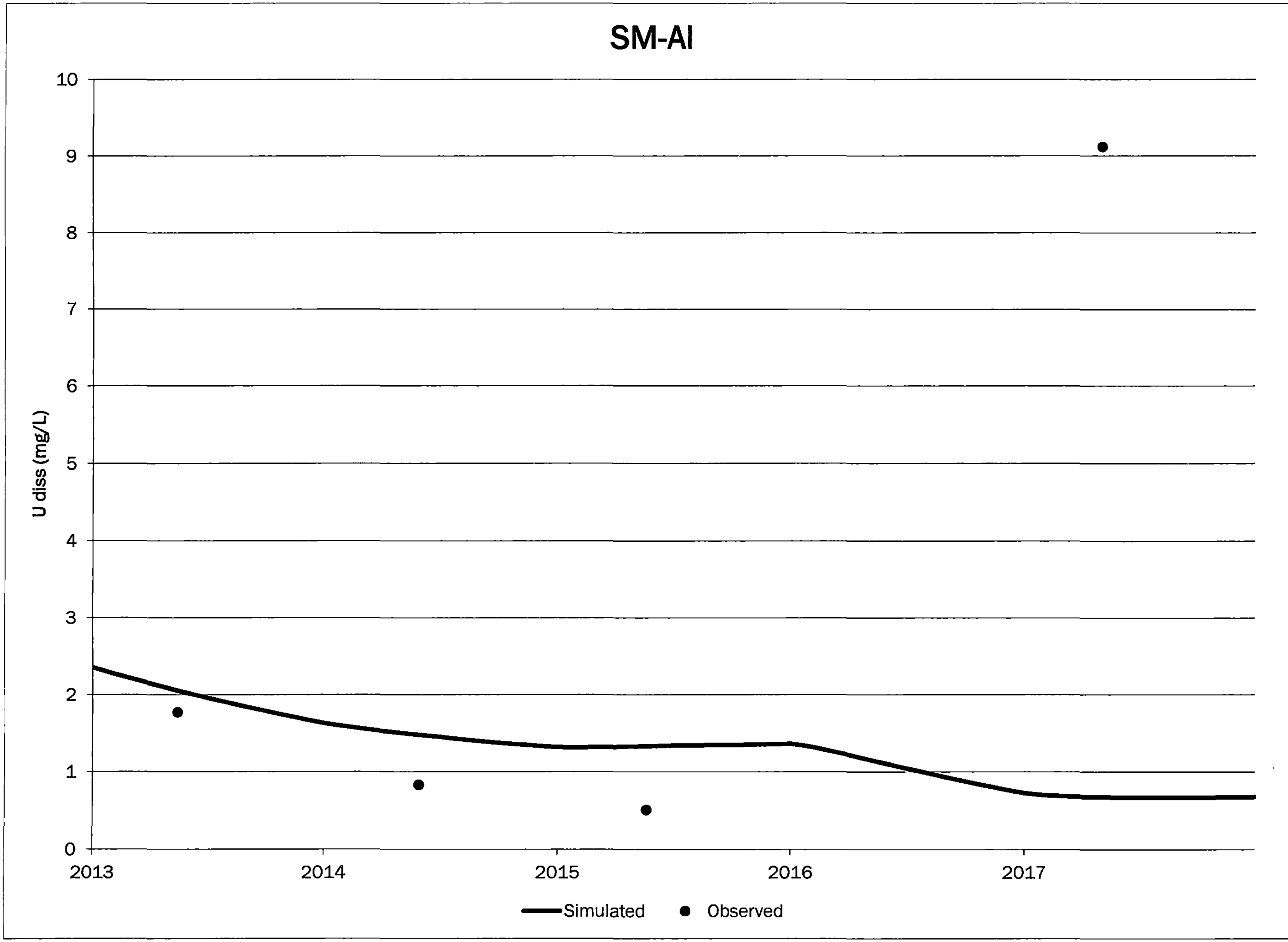

SA-AI
U diss (mg/L)
0
5
10
15
20
25
30
35
40
45
50
2013
2014
2015
2016
2017
Simulated
Observed

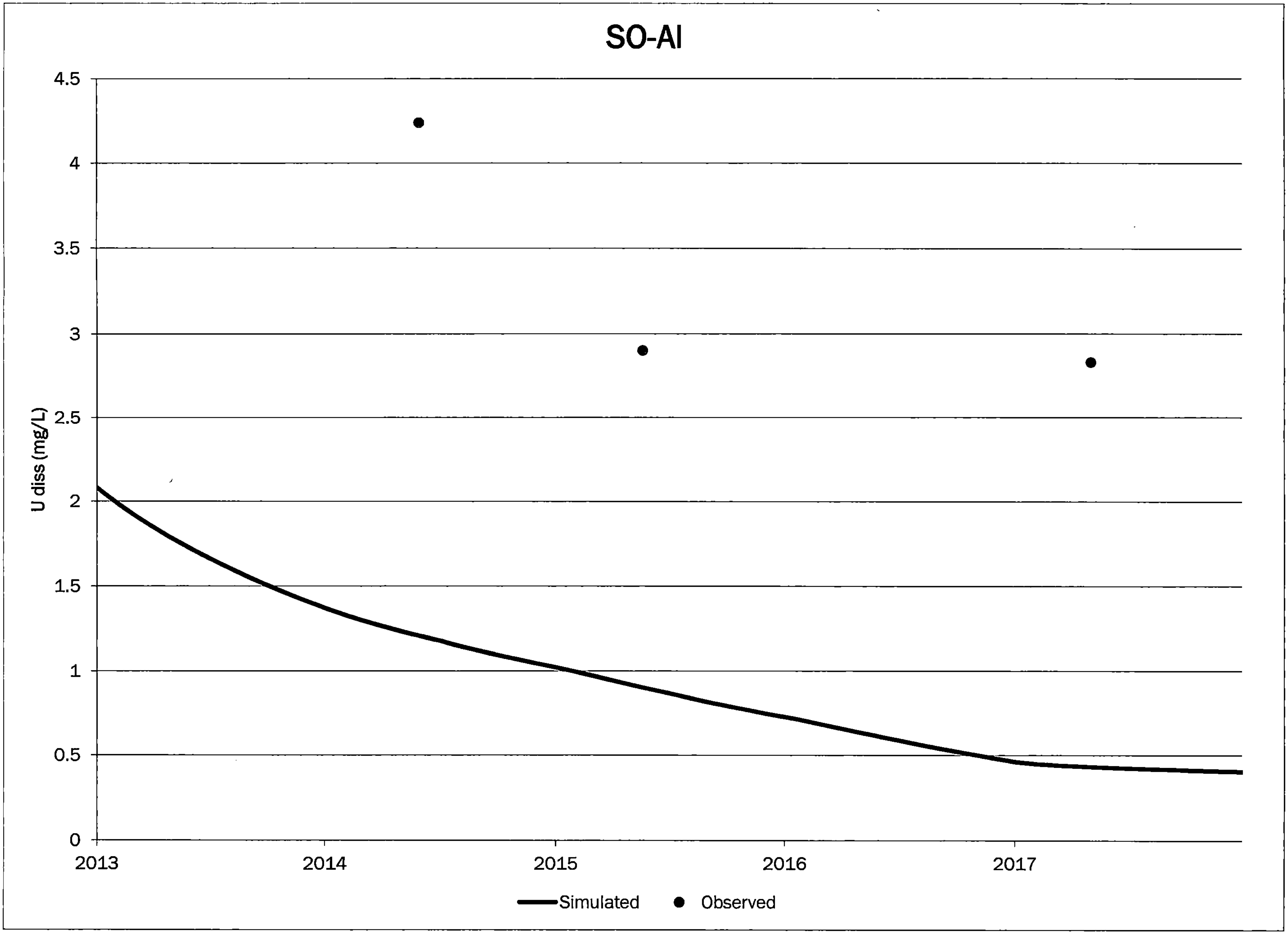


SB-Al
U diss (mg/L)
0
5
10
15
20
25
30
35
40
45
50
2013
2014
2015
2016
2017
Simulated
Observed

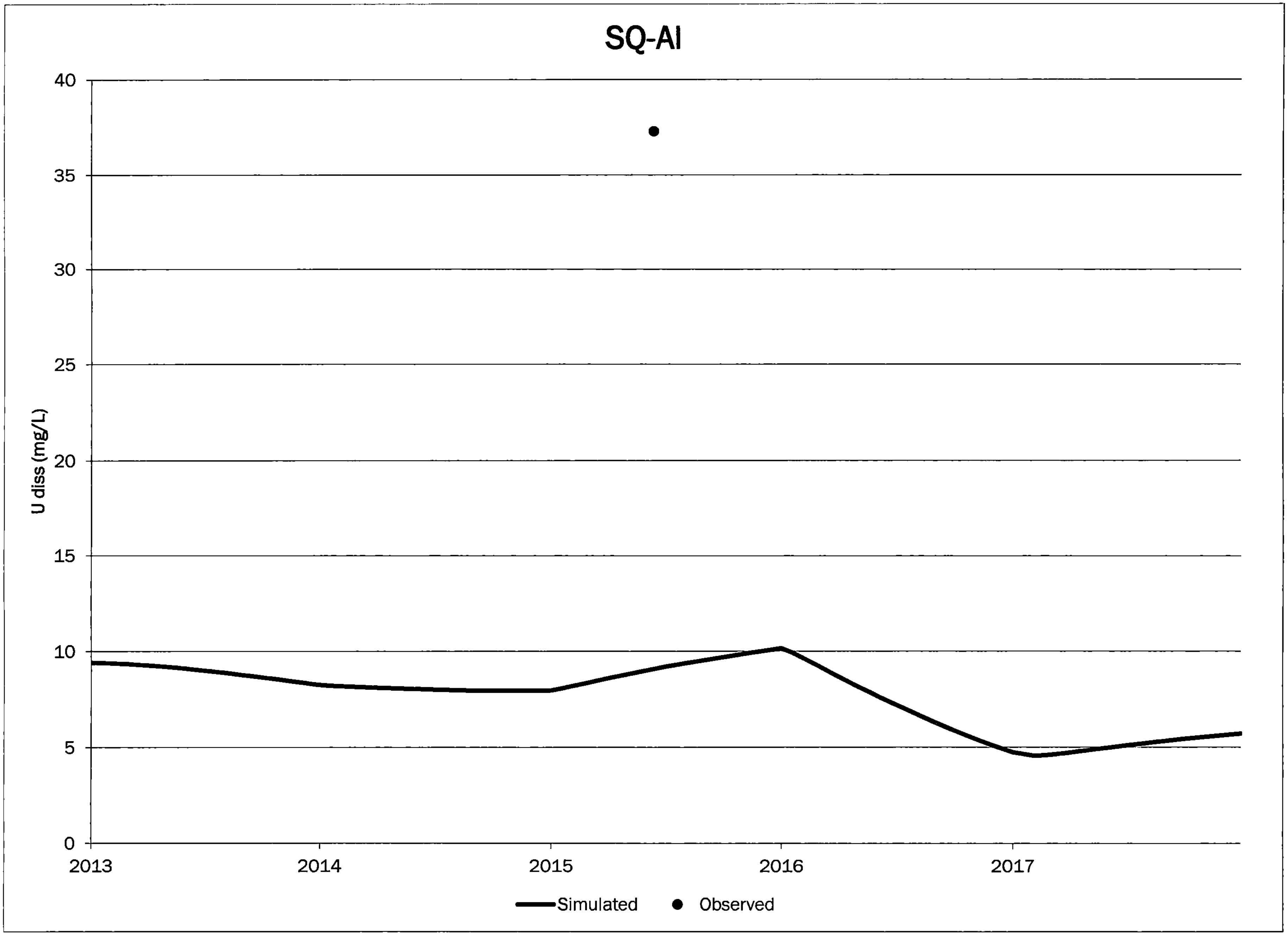


SE6-AI
U diss (mg/L)
50
45
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

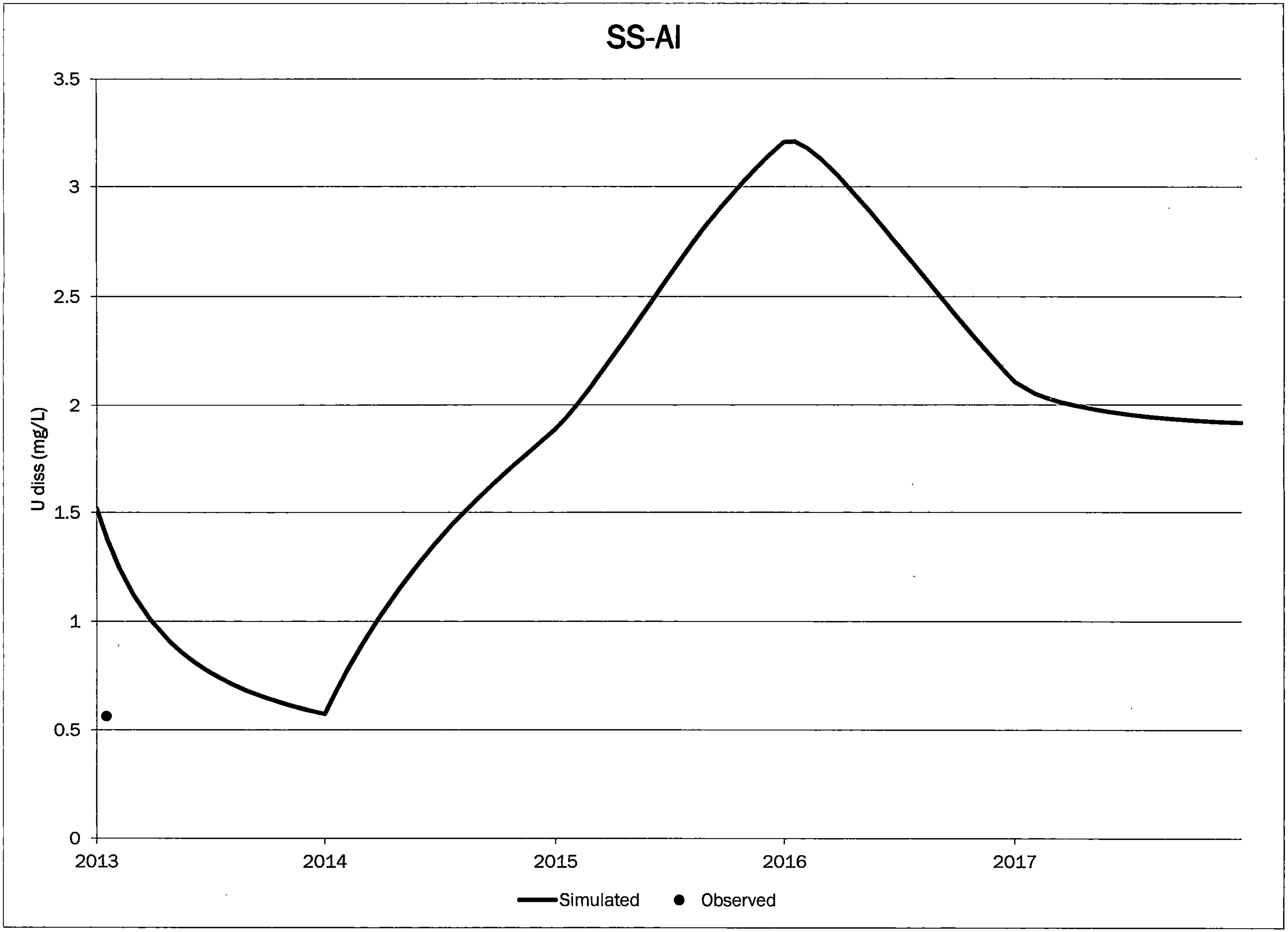

SM-AI
U diss (mg/L)
10
9
8
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed



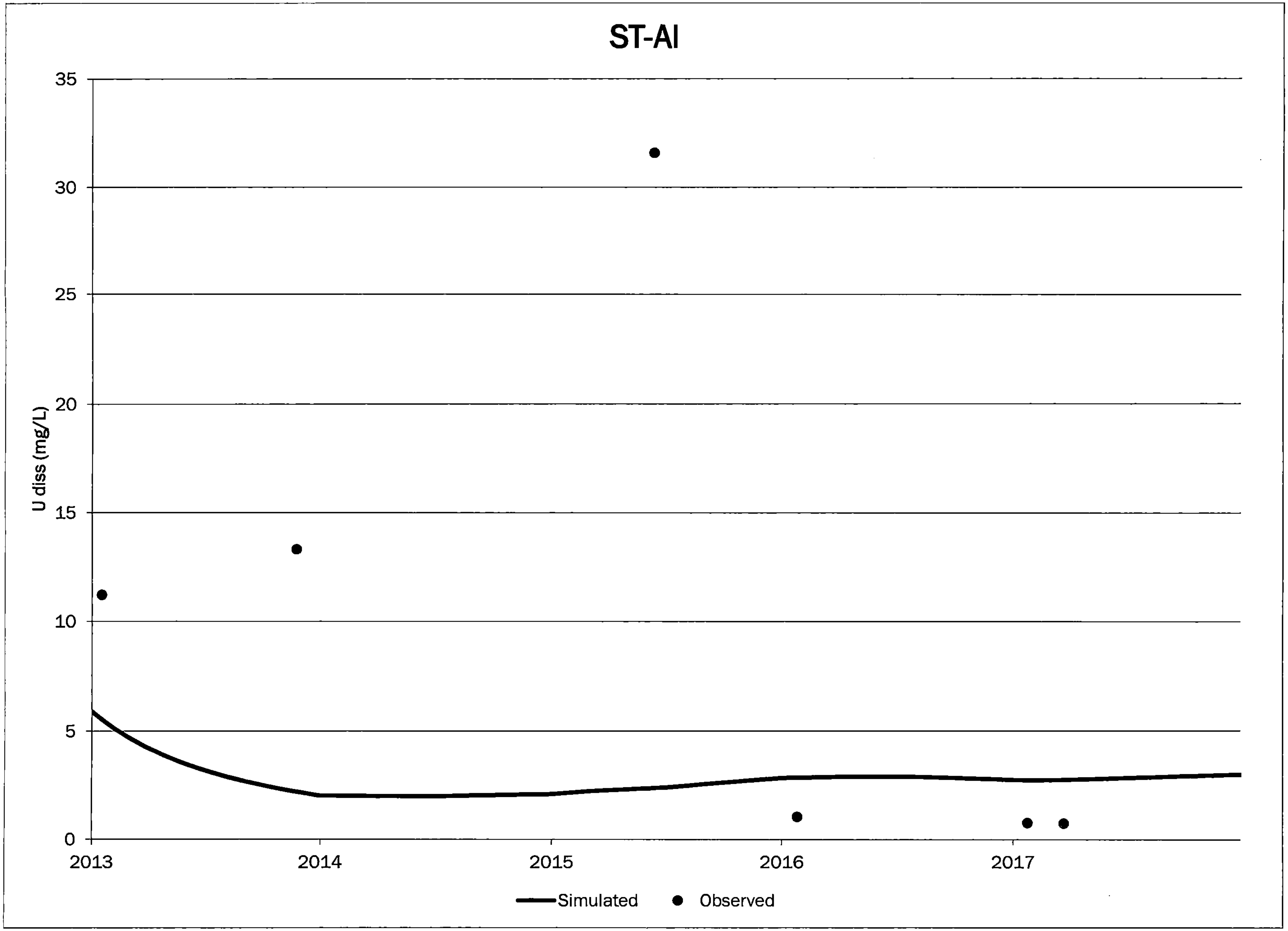
SO-AI
U diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



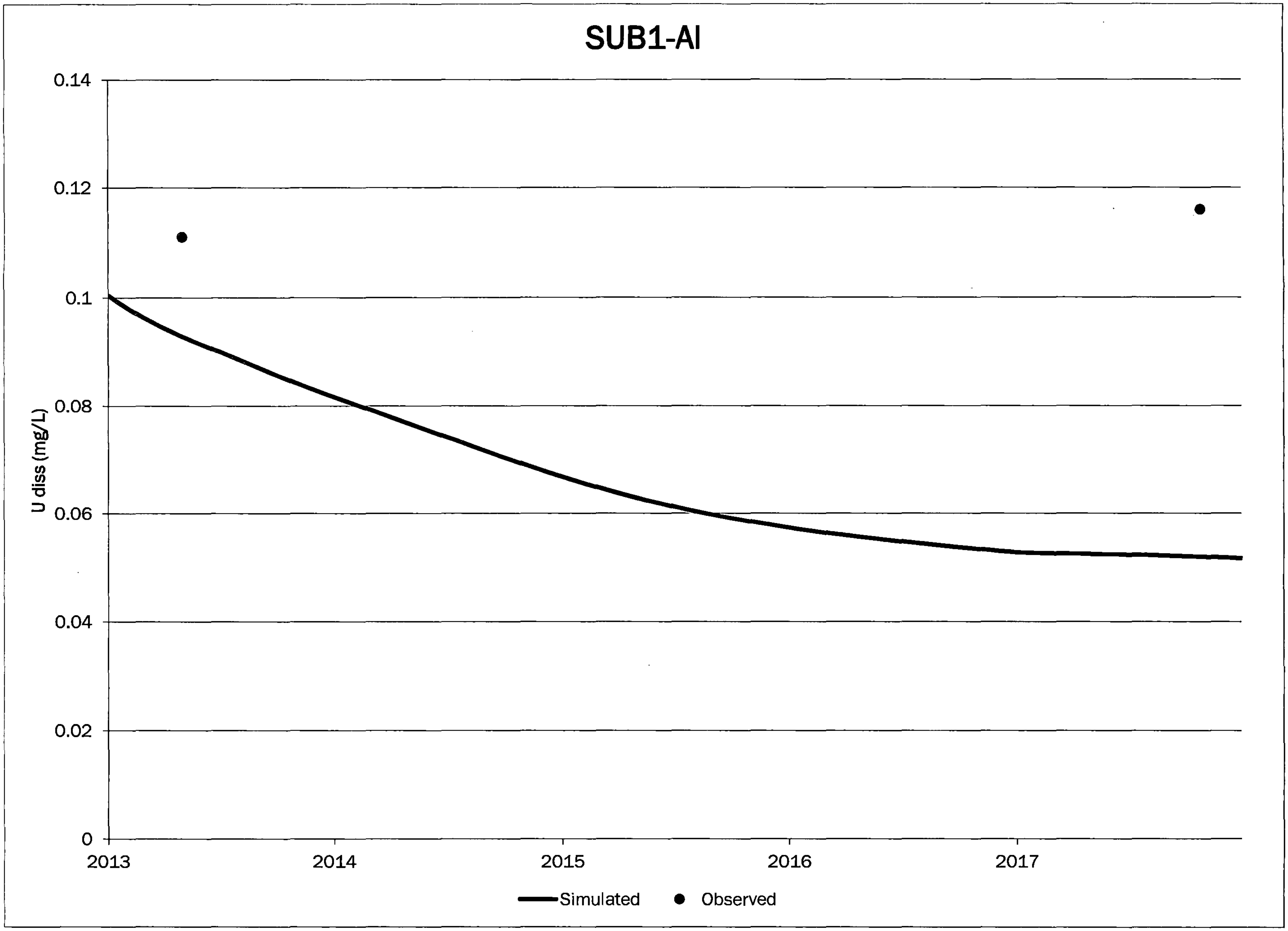
SQ-AI
U diss (mg/L)
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



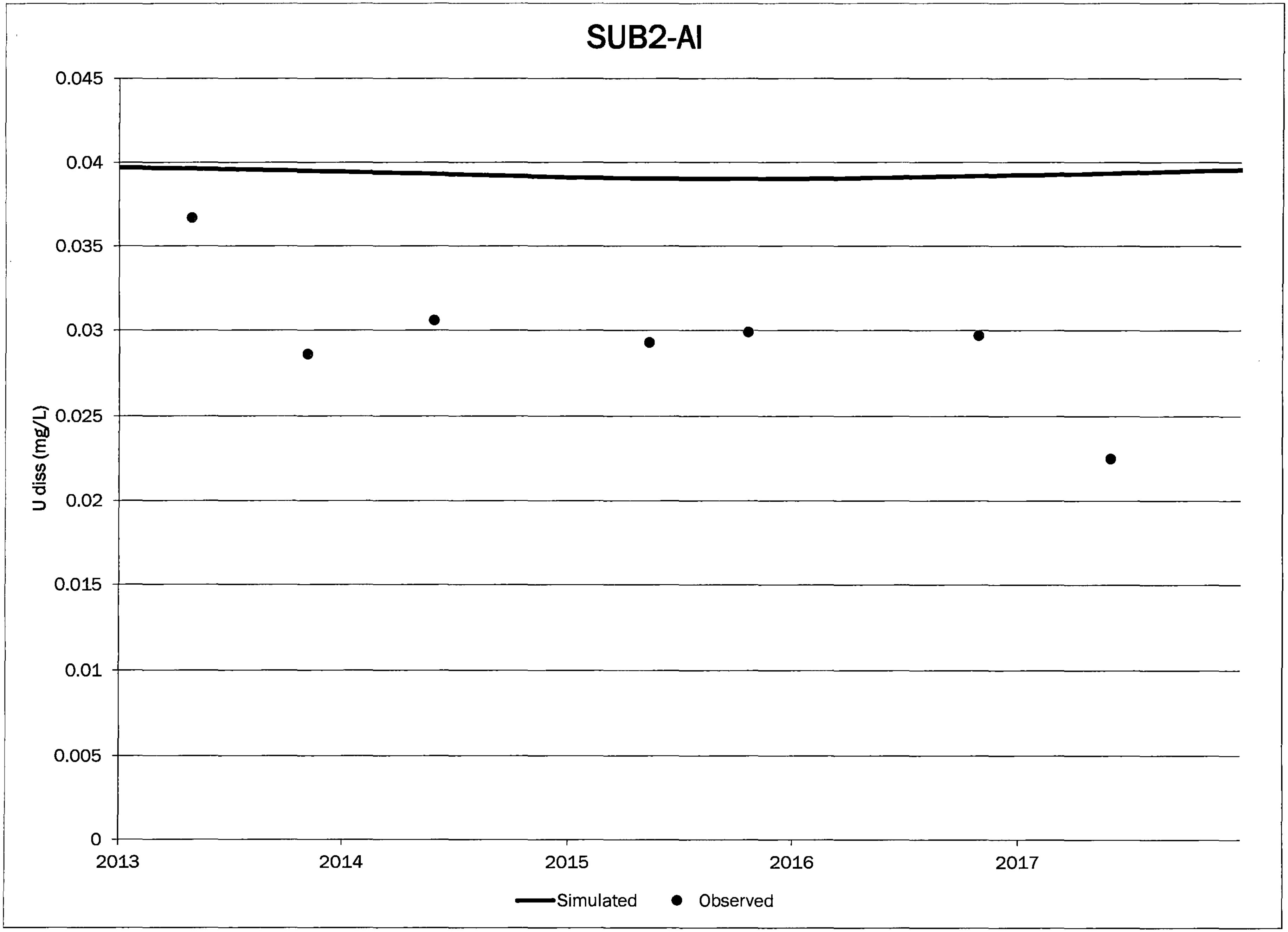
SS-AI
U diss (mg/L)
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



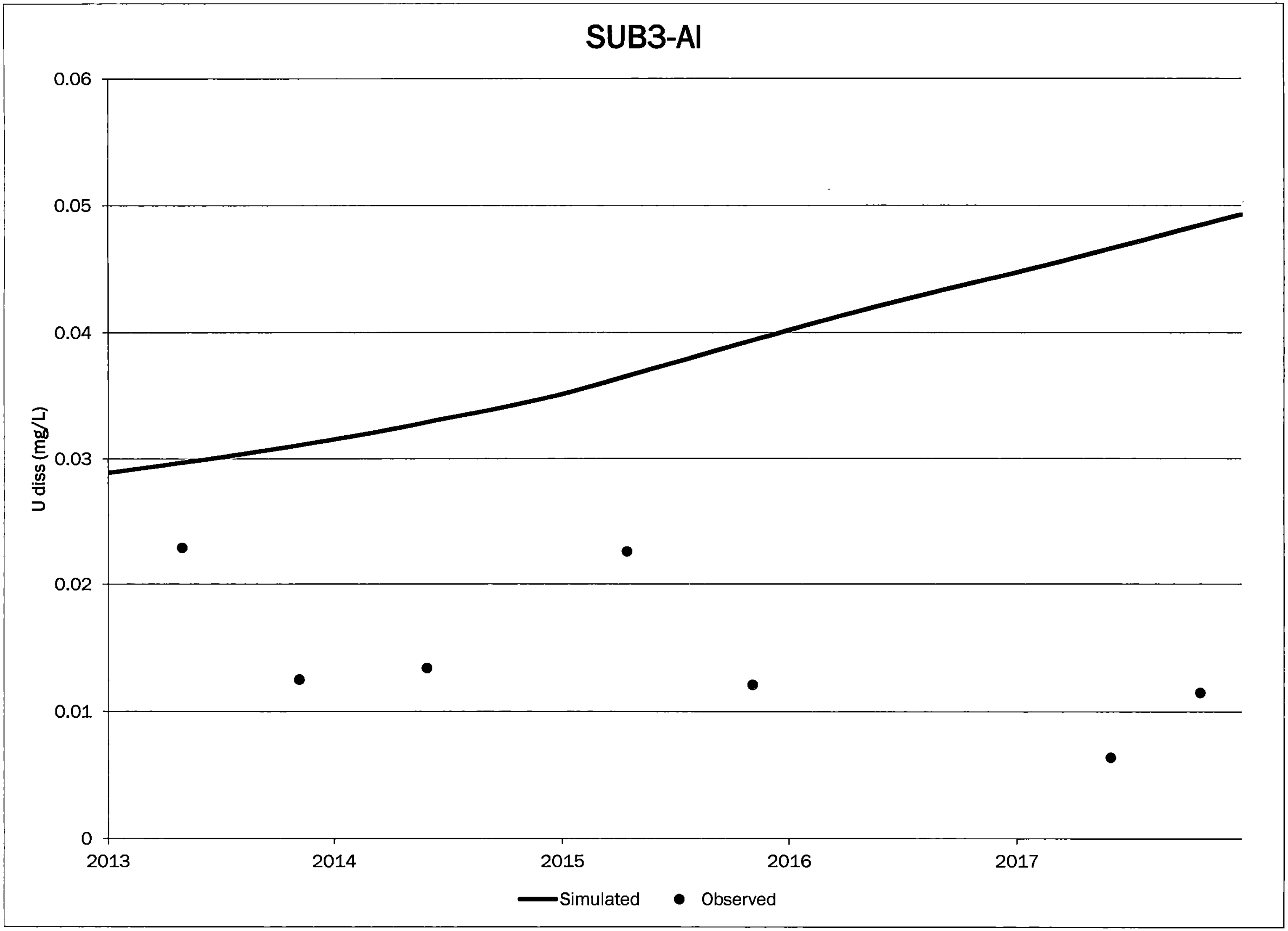
ST-AI
35
30
25
20
15
10
5
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

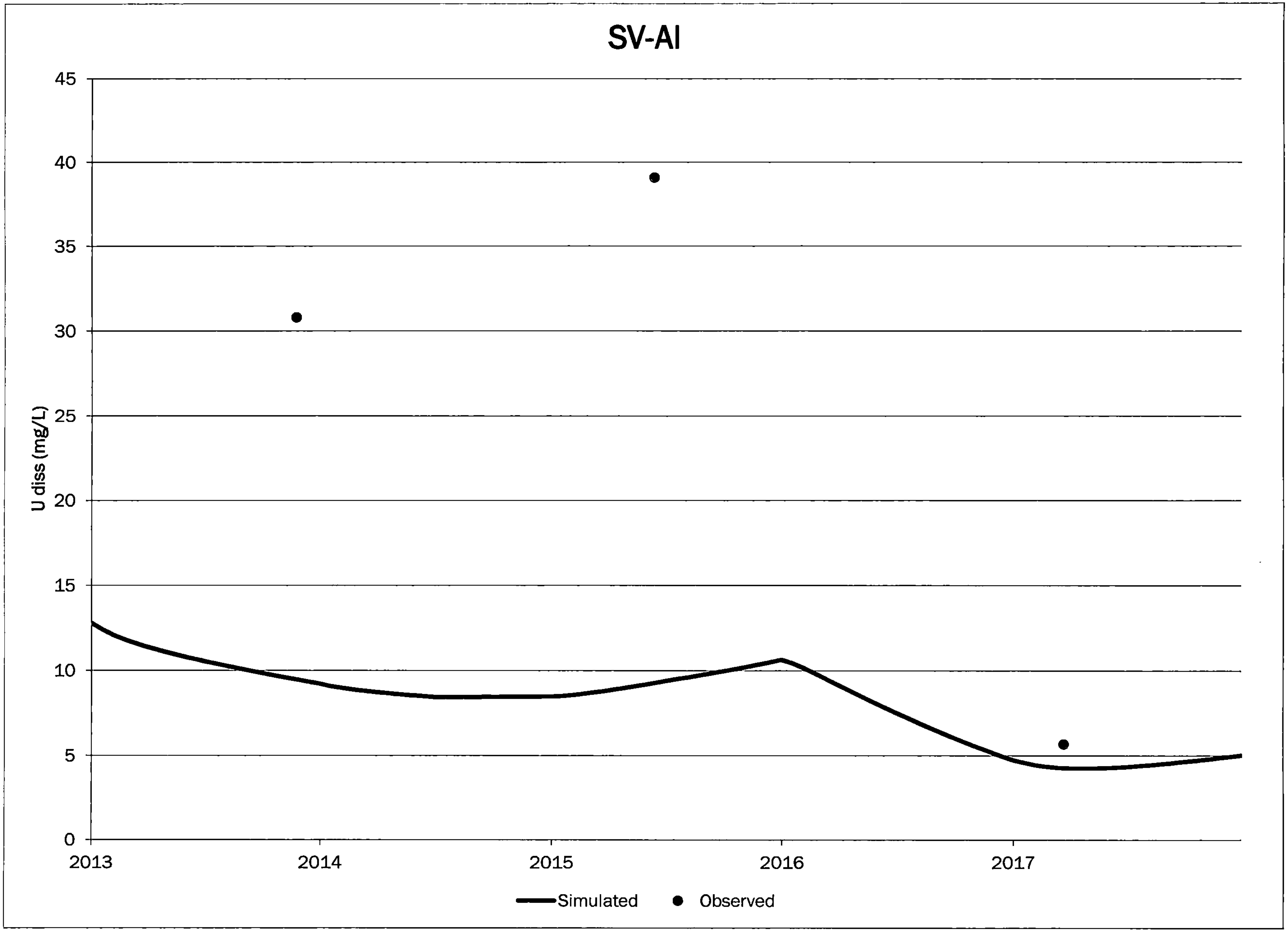


SUB1-Al
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

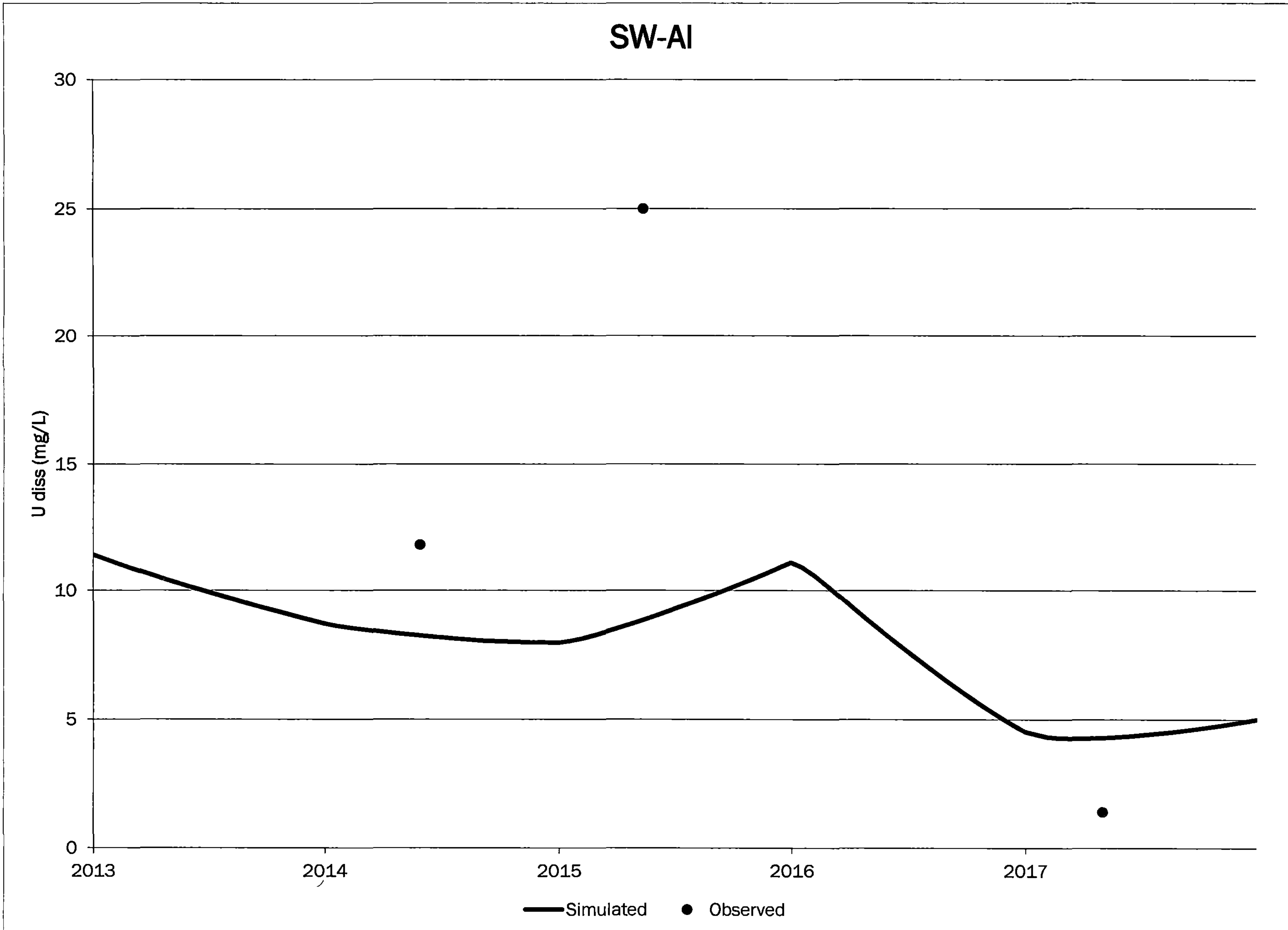


SUB2-Al
U diss (mg/L)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

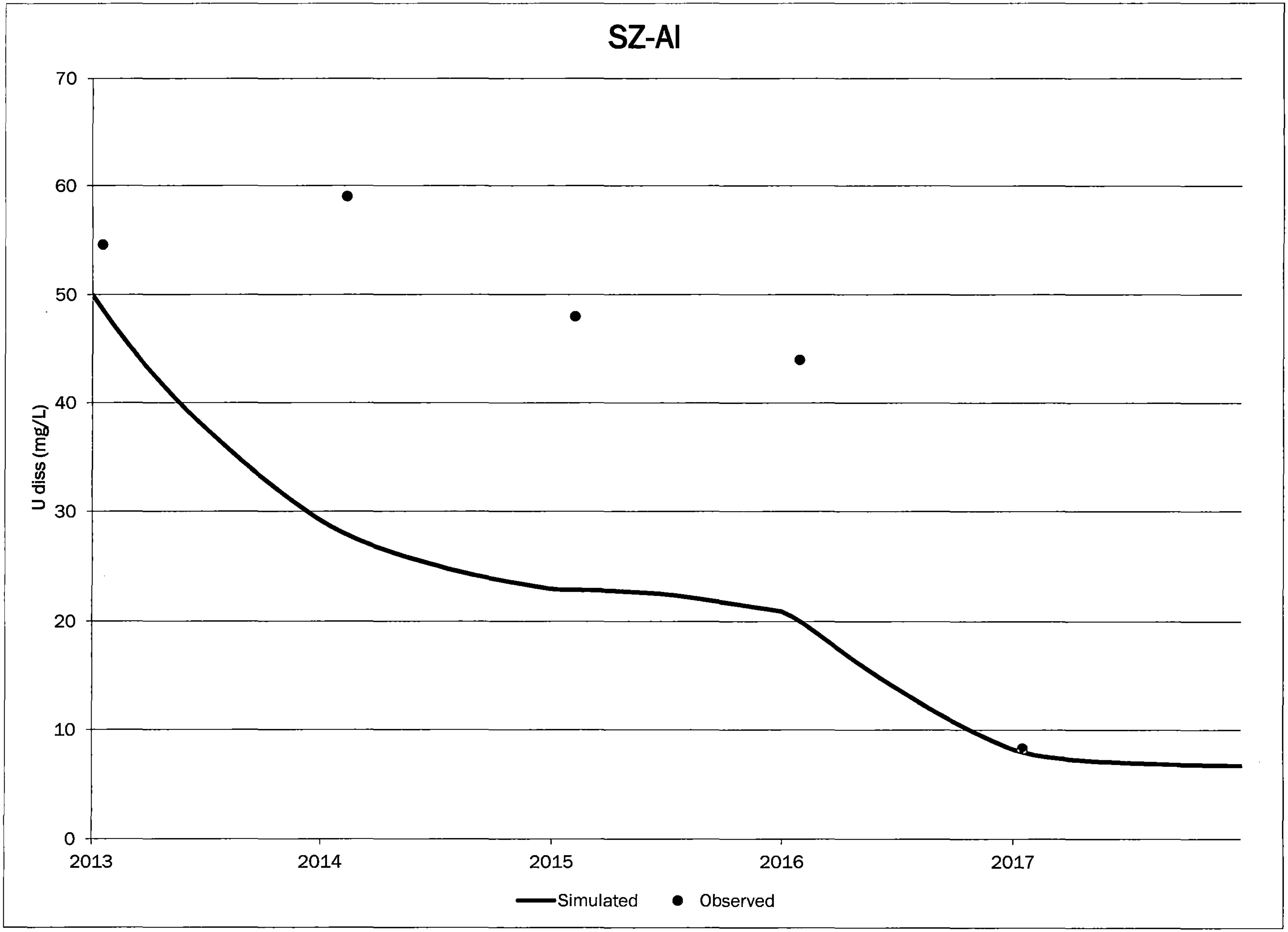

SUB3-AI
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

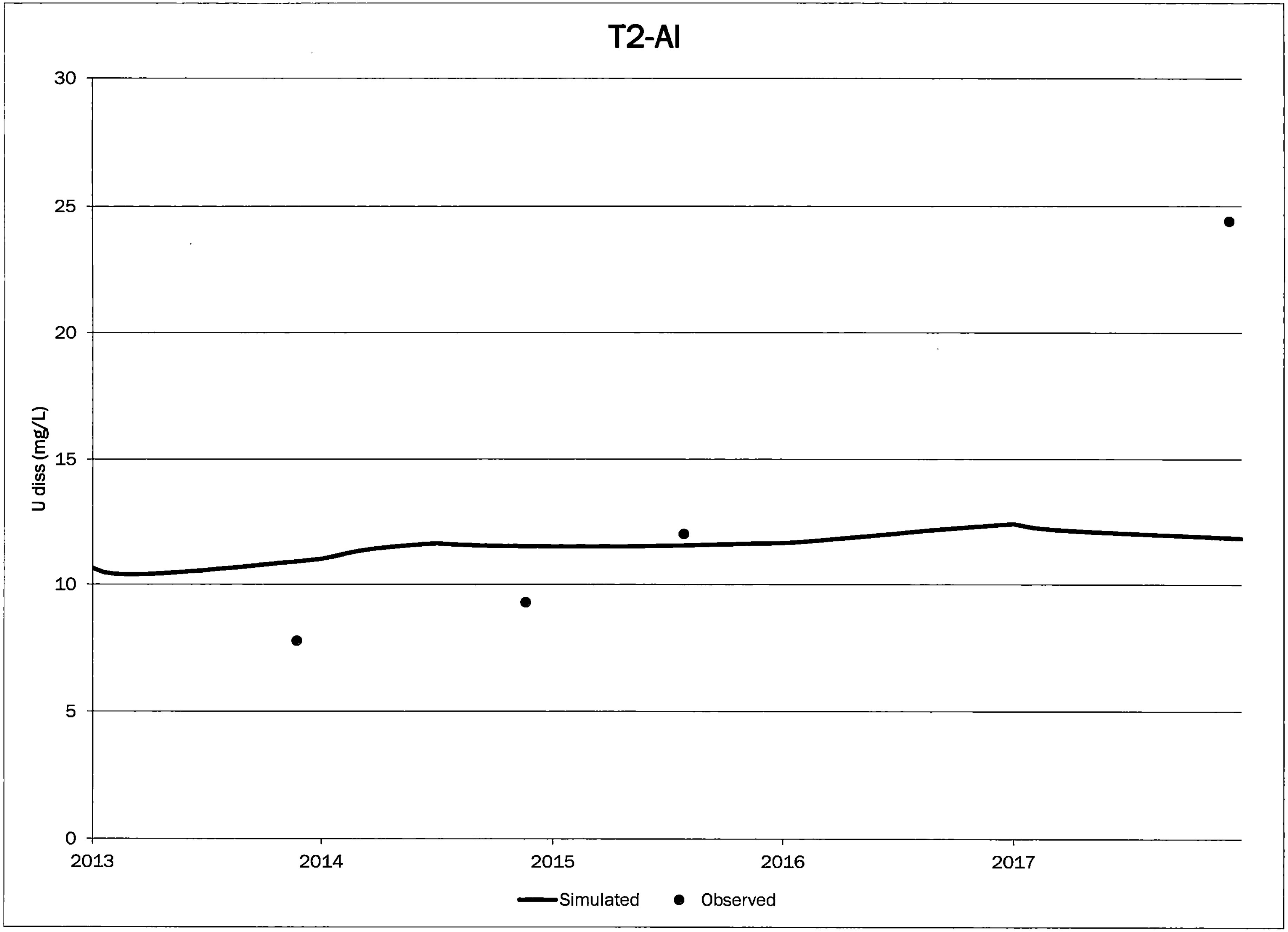


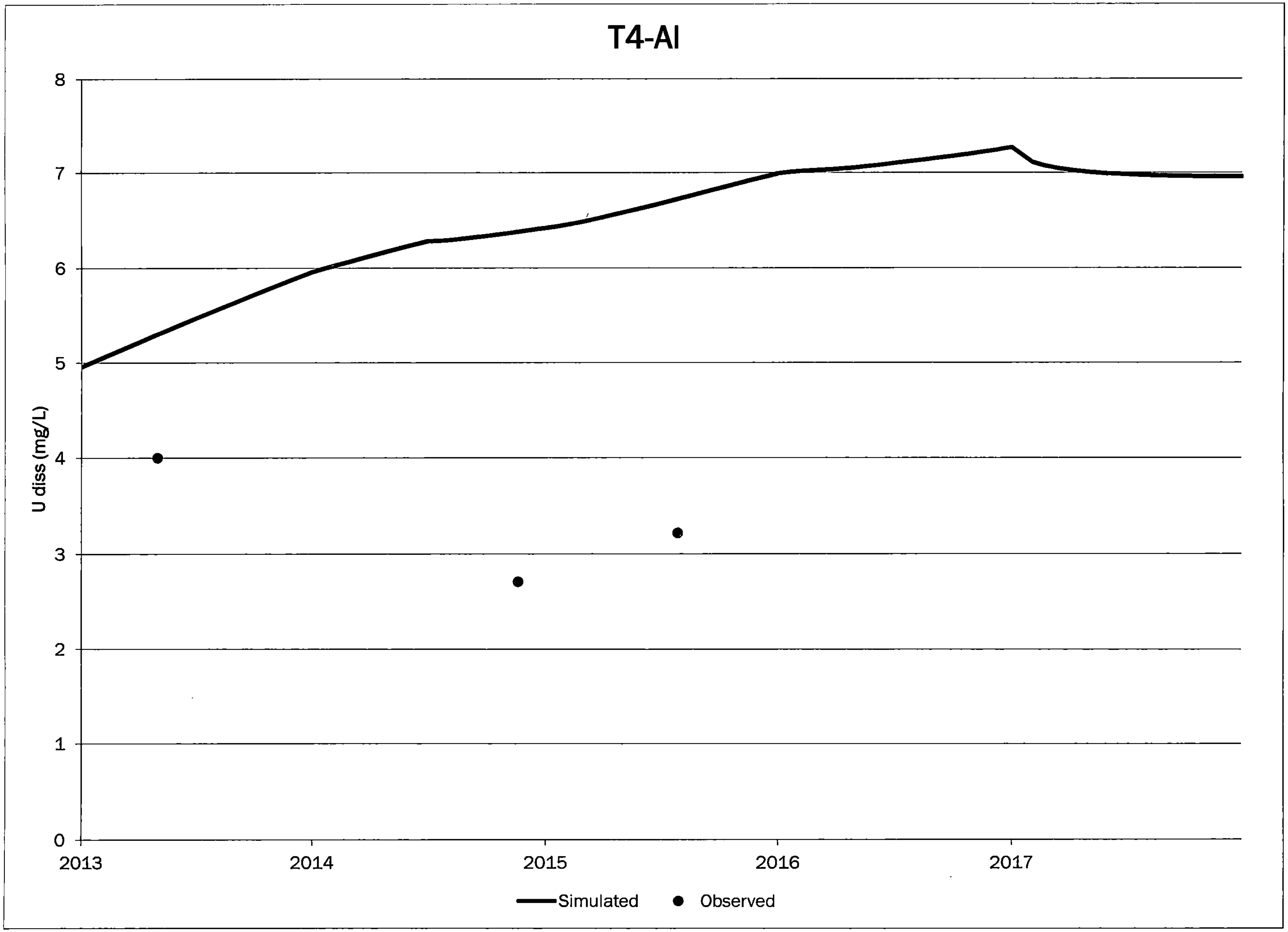
SV-AI
U diss (mg/L)
0
5
10
15
20
25
30
35
40
45
2013
2014
2015
2016
2017
Simulated
Observed

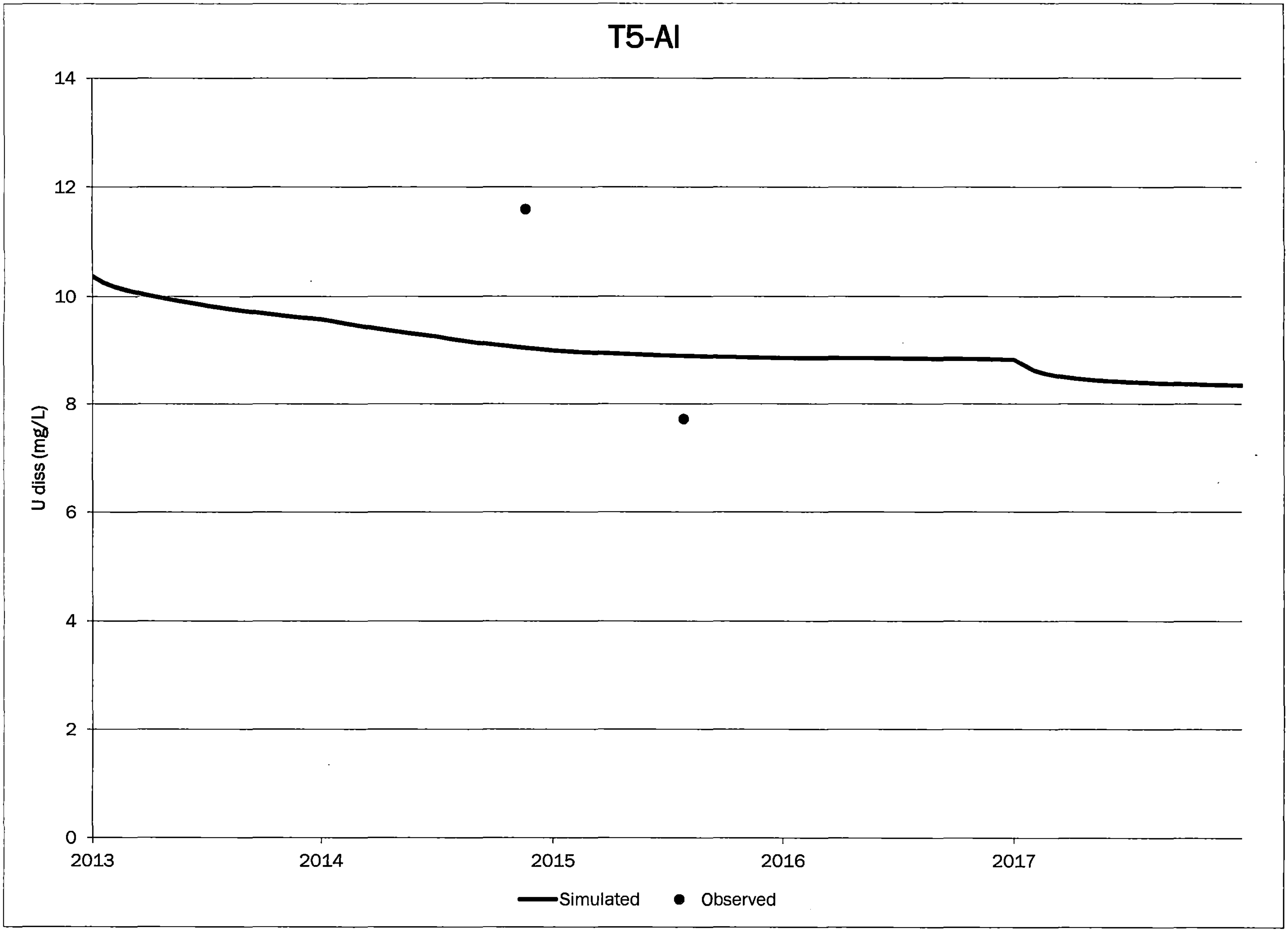


SW-AI
U diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

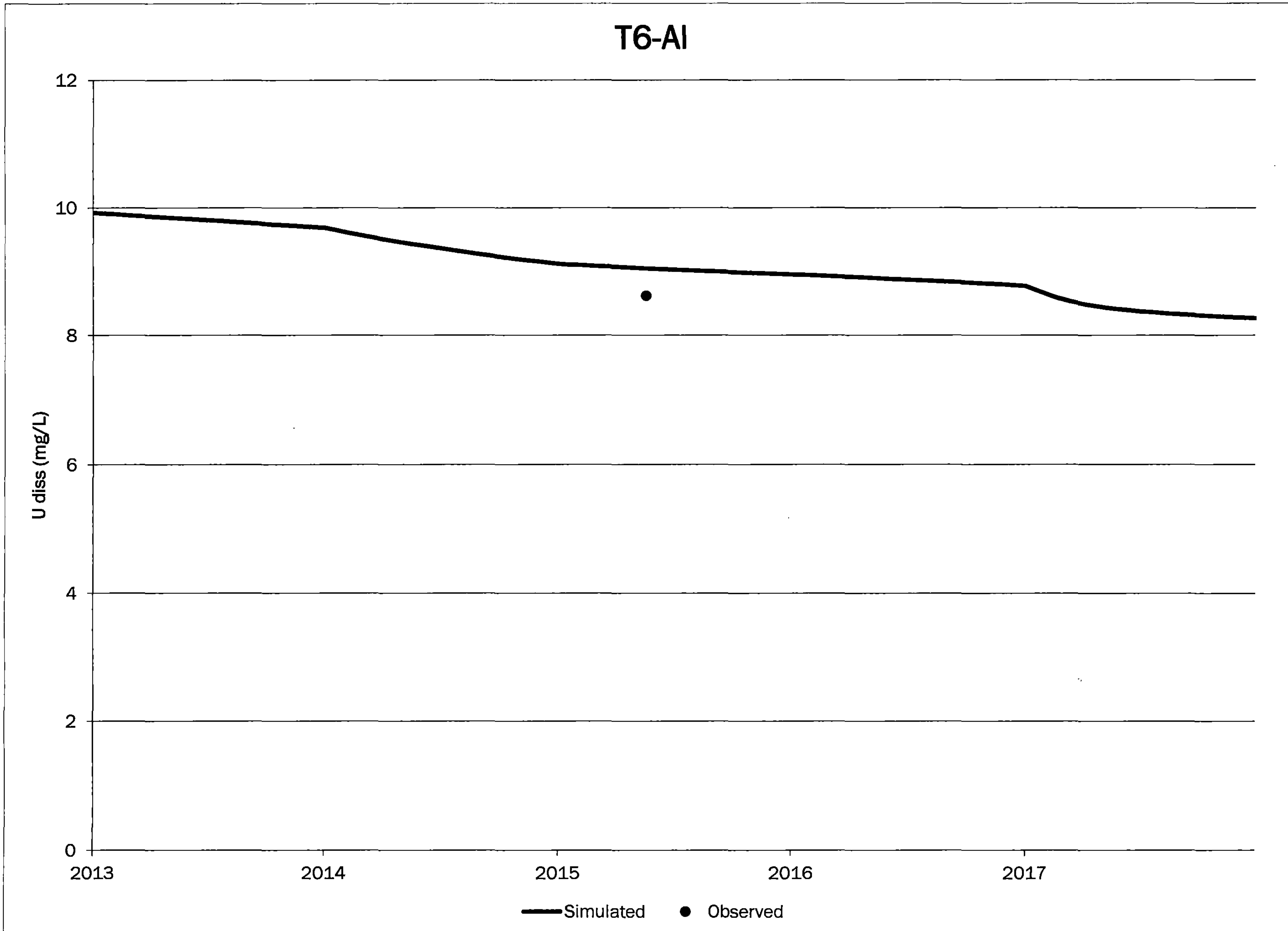

SZ-AI
U diss (mg/L)
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed


T2-Al
U diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

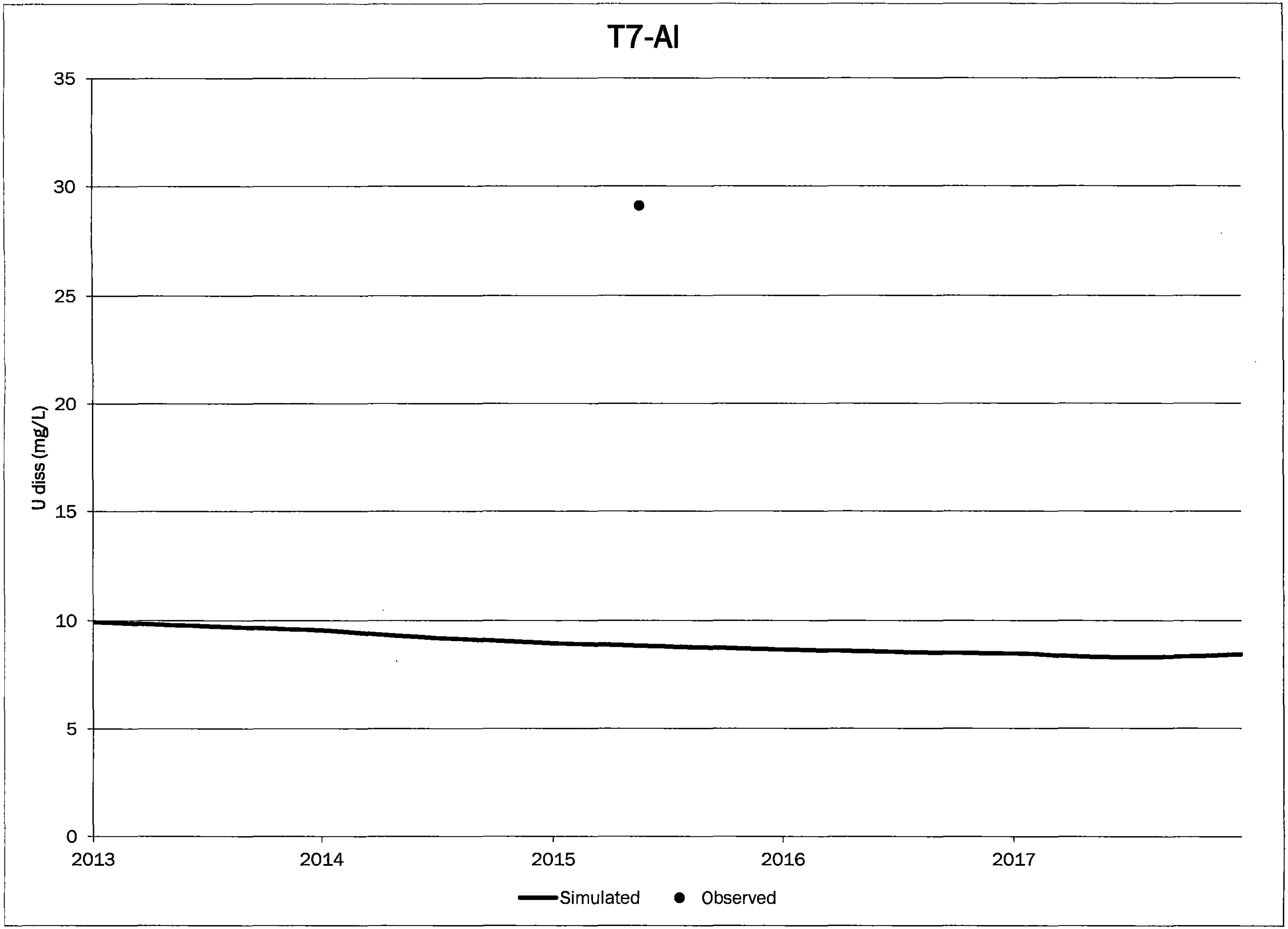

T4-AI
U diss (mg/L)
0
1
2
3
4
5
6
7
8
2013
2014
2015
2016
2017
Simulated
Observed

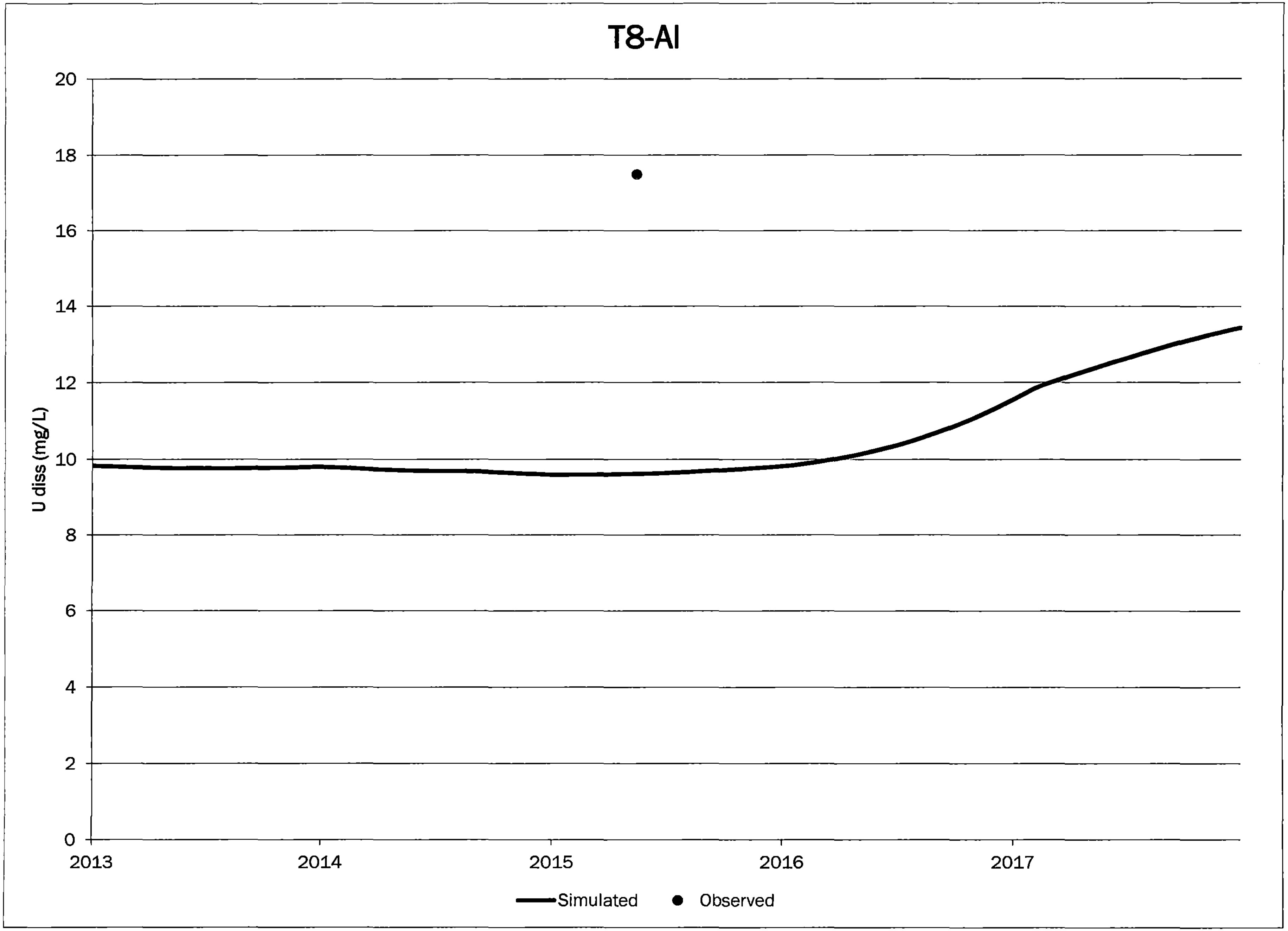


T5-AI
U diss (mg/L)
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

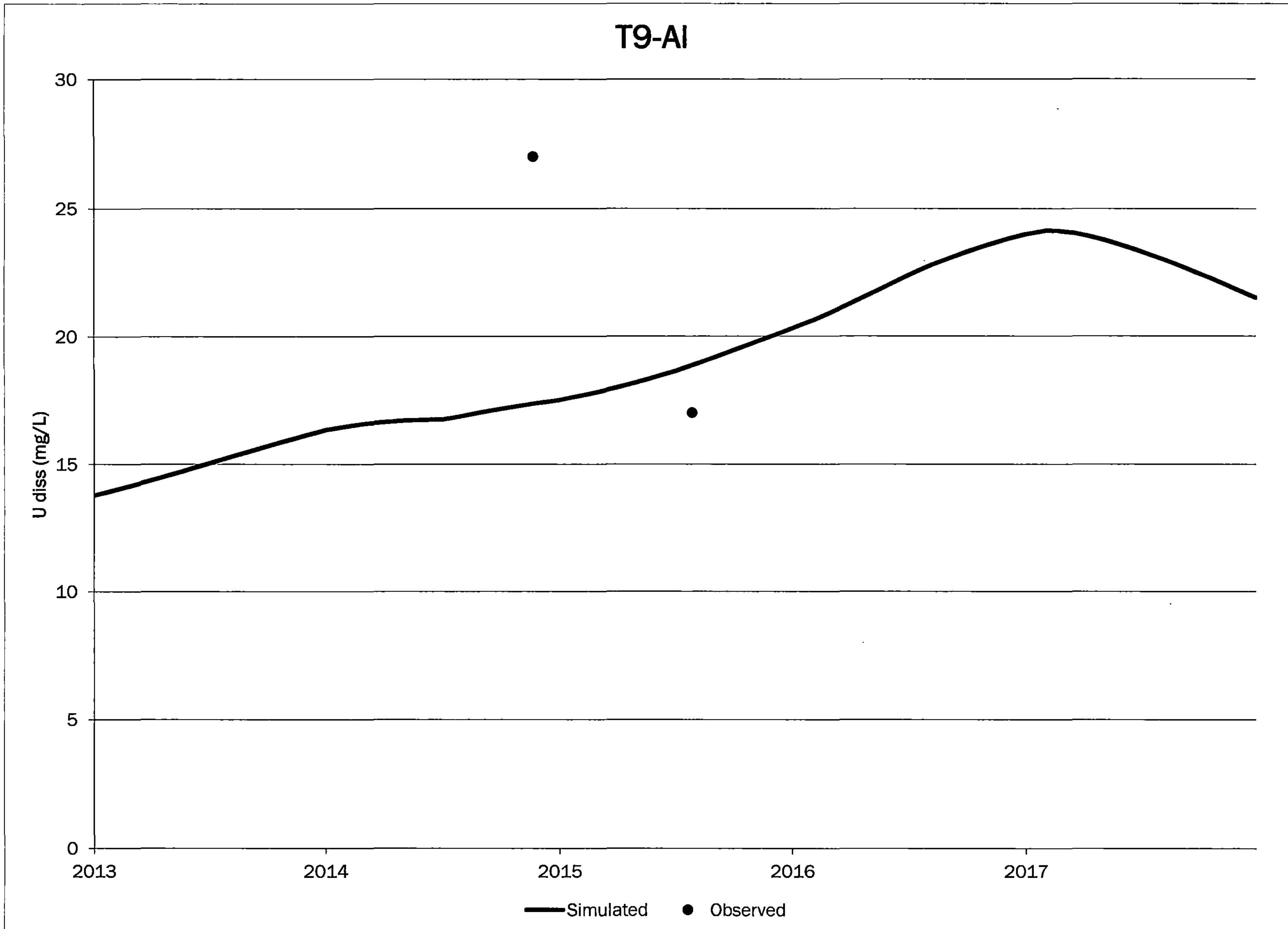


T6-Al
U diss (mg/L)
0
2
4
6
8
10
12
2013
2014
2015
2016
2017
Simulated
Observed

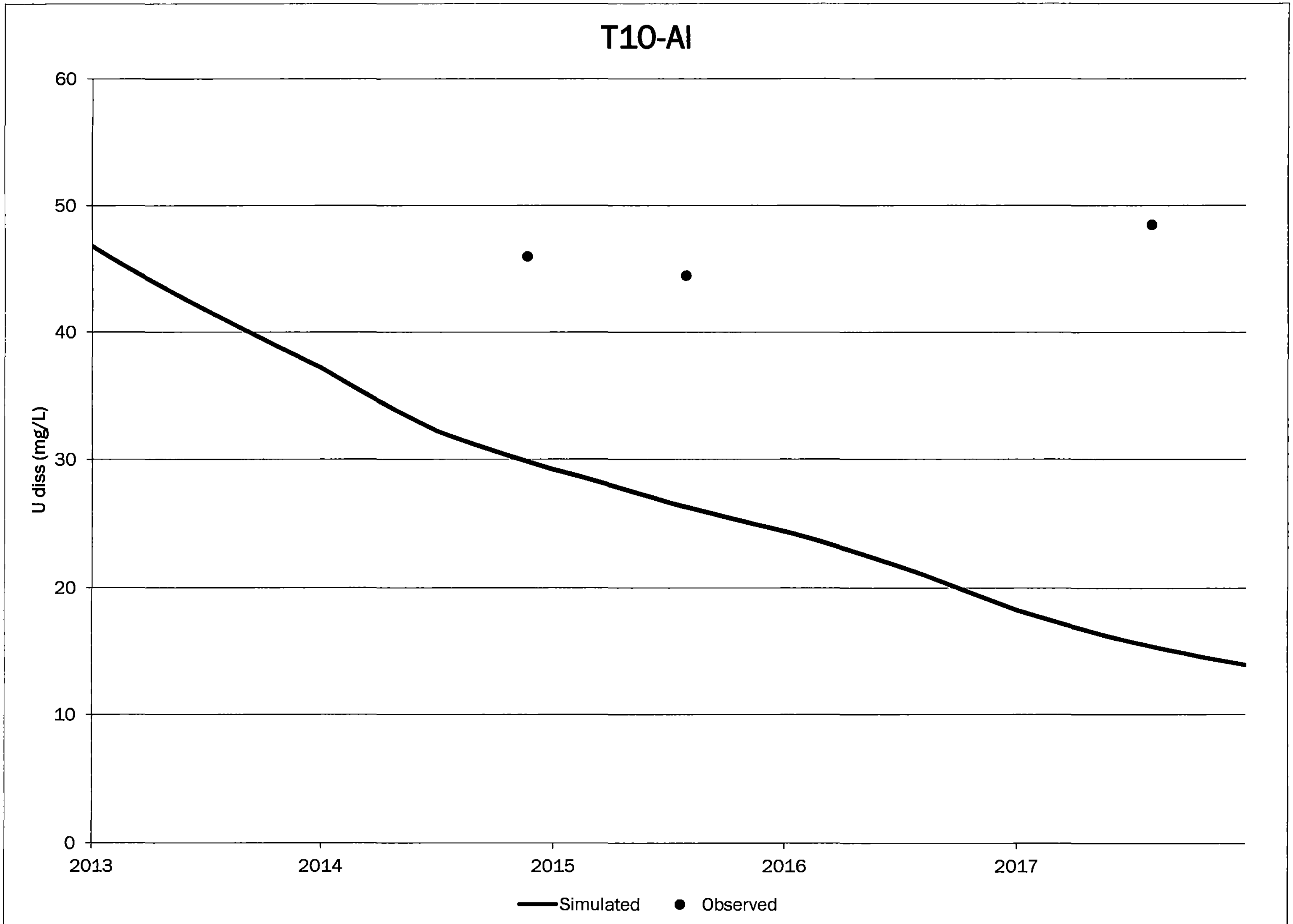

T7-Al
35
30
25
20
15
10
5
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

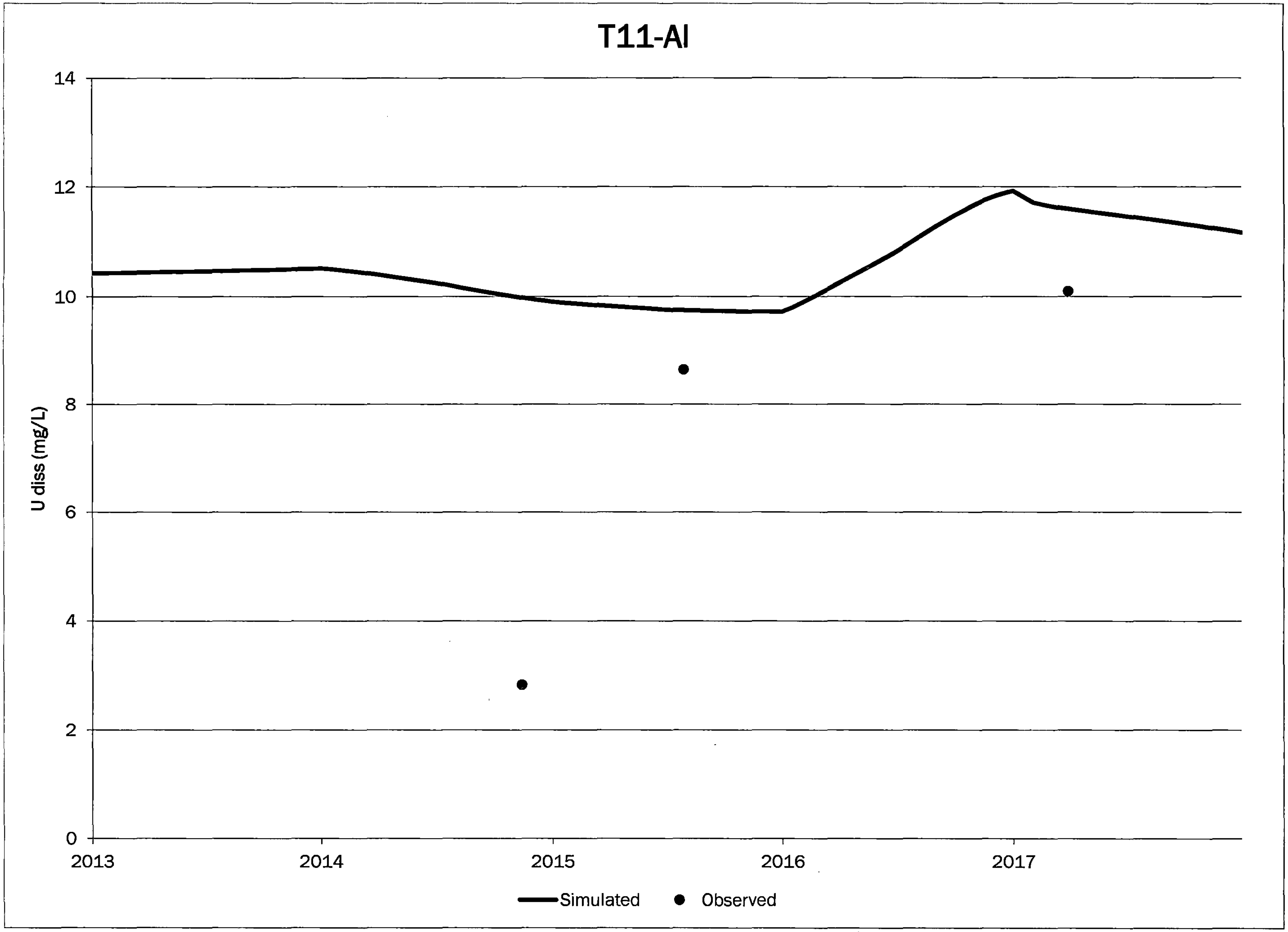


T8-AI
U diss (mg/L)
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

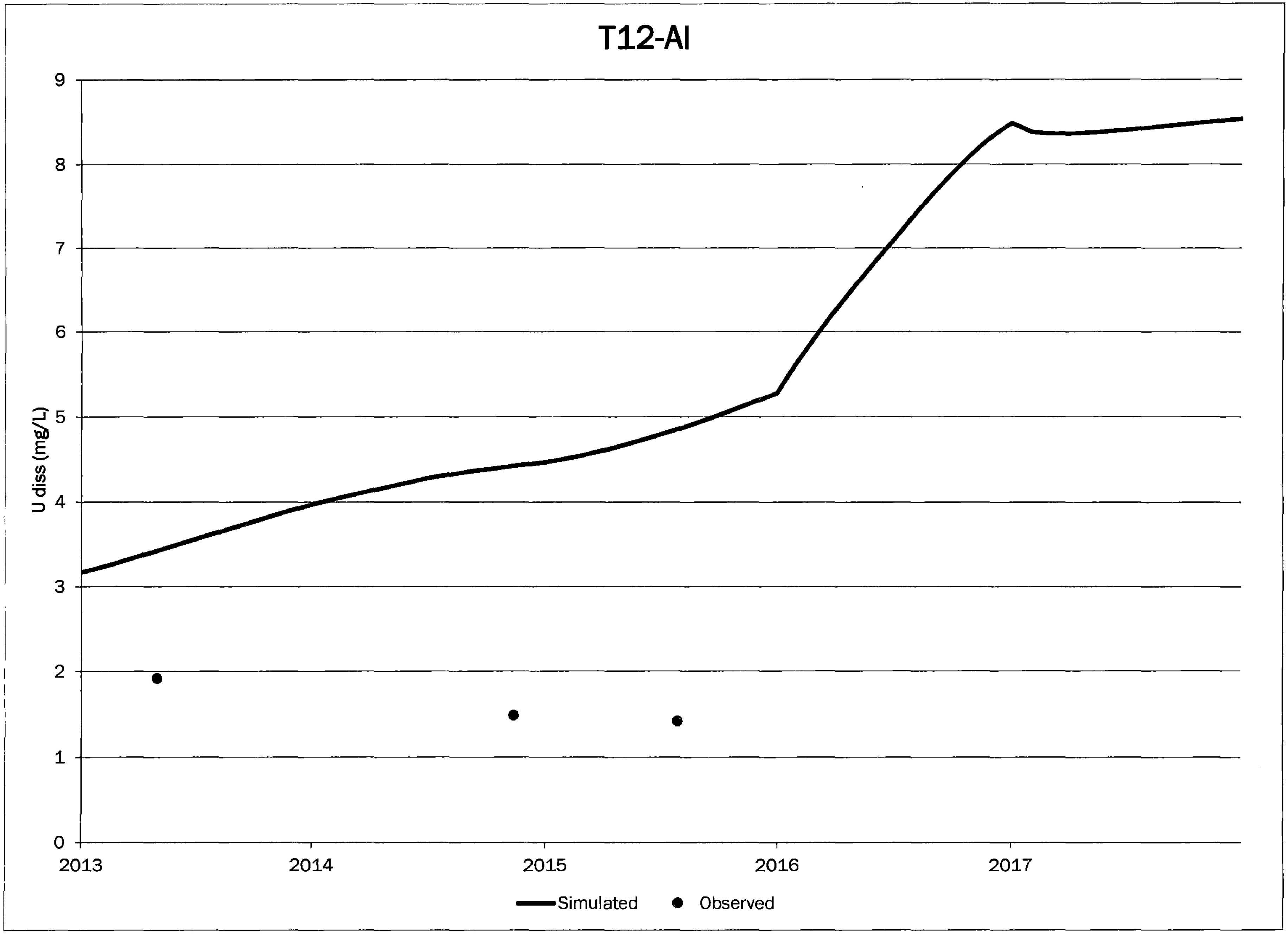


T9-AI
U diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

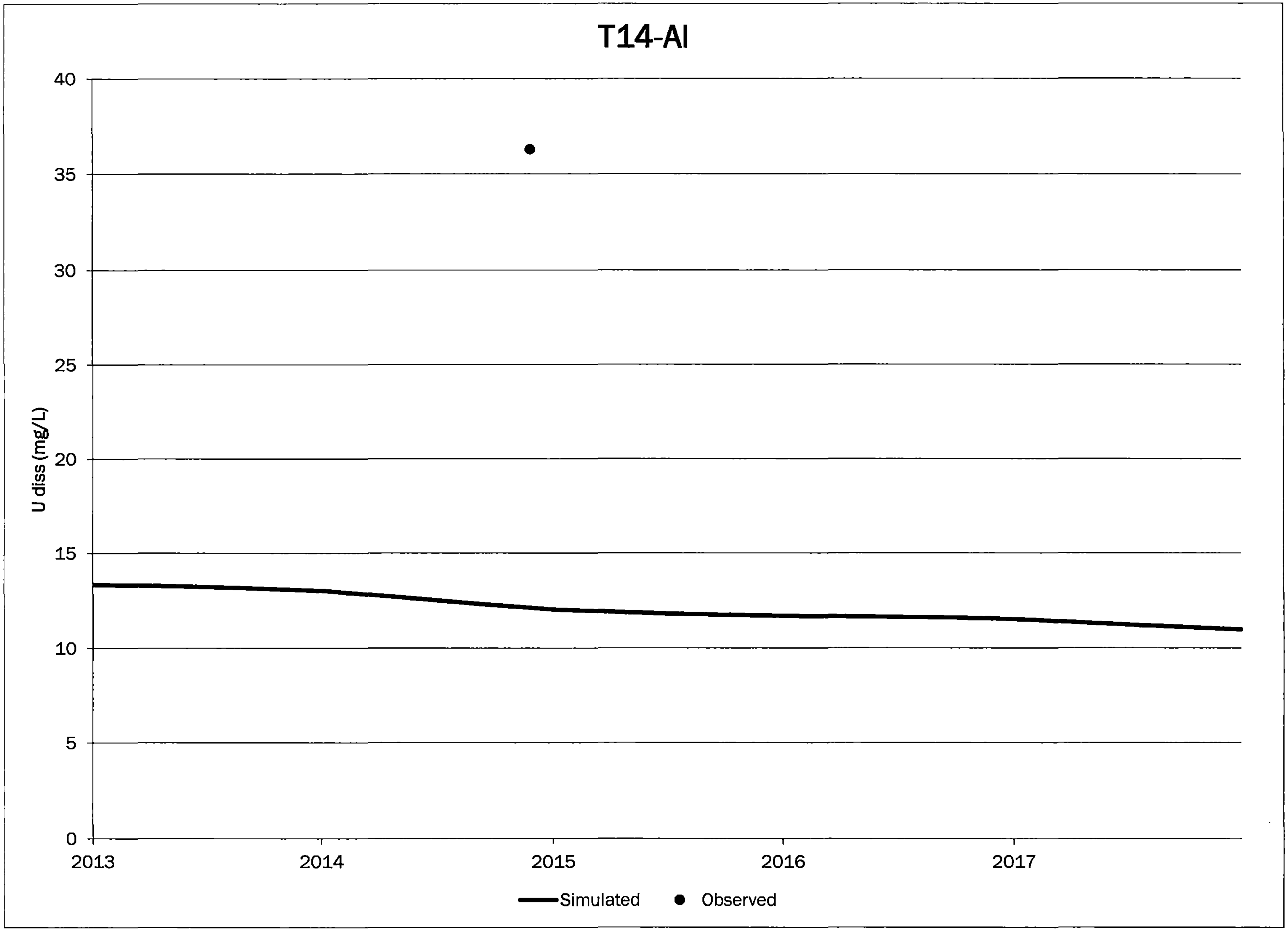

T10-Al
U diss (mg/L)
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

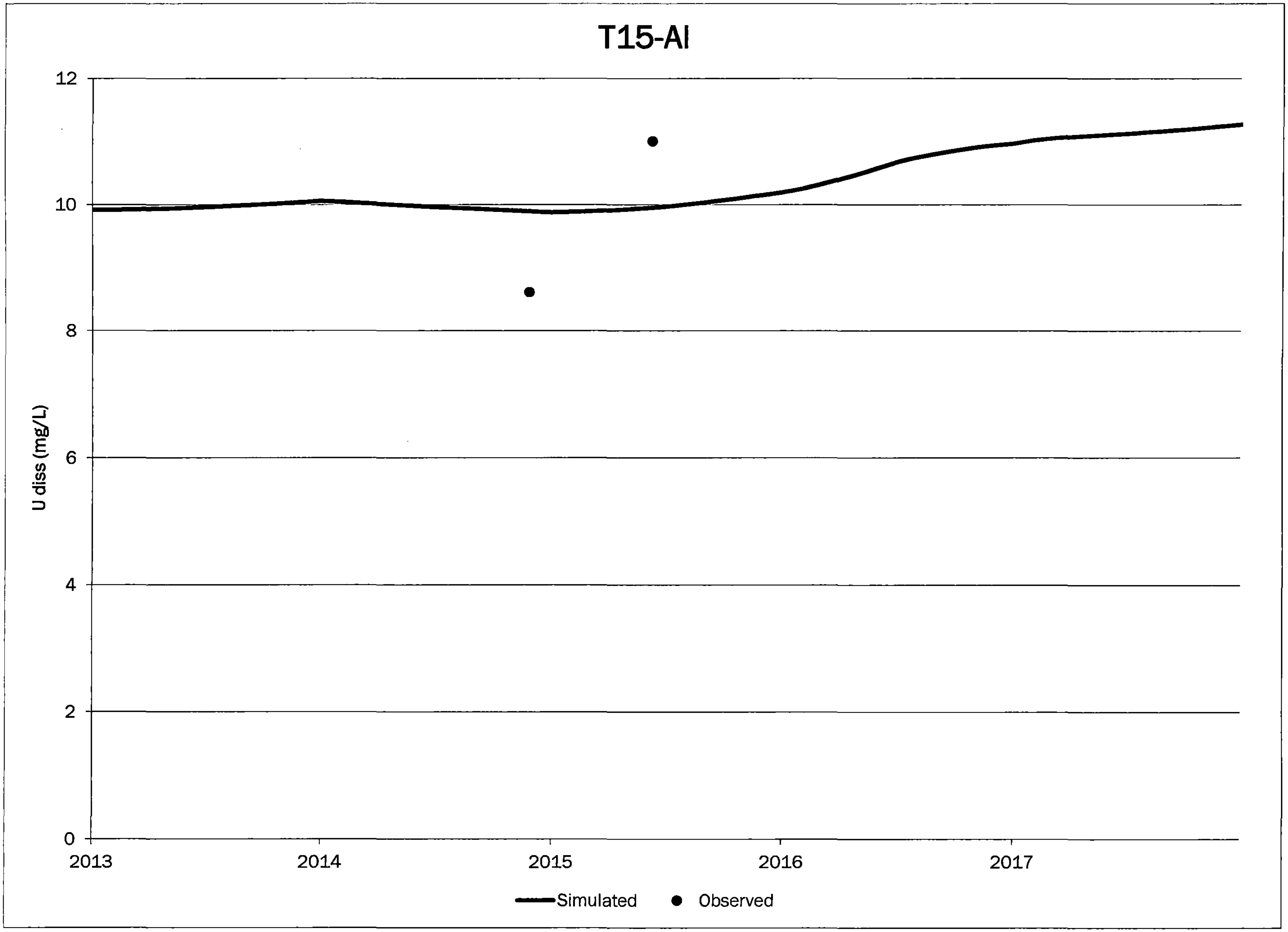


T11-Al
U diss (mg/L)
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

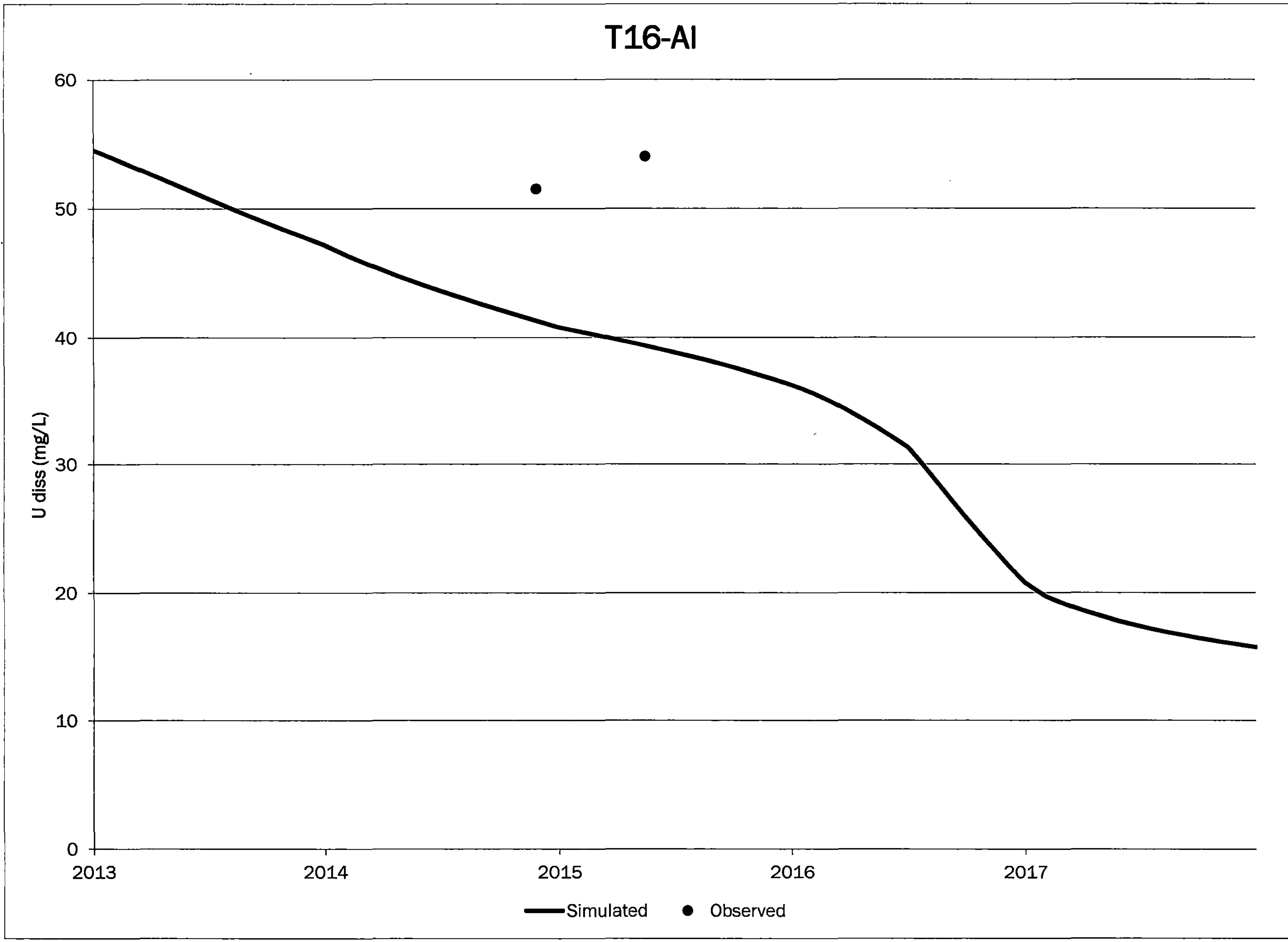


T12-AI
U diss (mg/L)
0
1
2
3
4
5
6
7
8
9
2013
2014
2015
2016
2017
Simulated
Observed

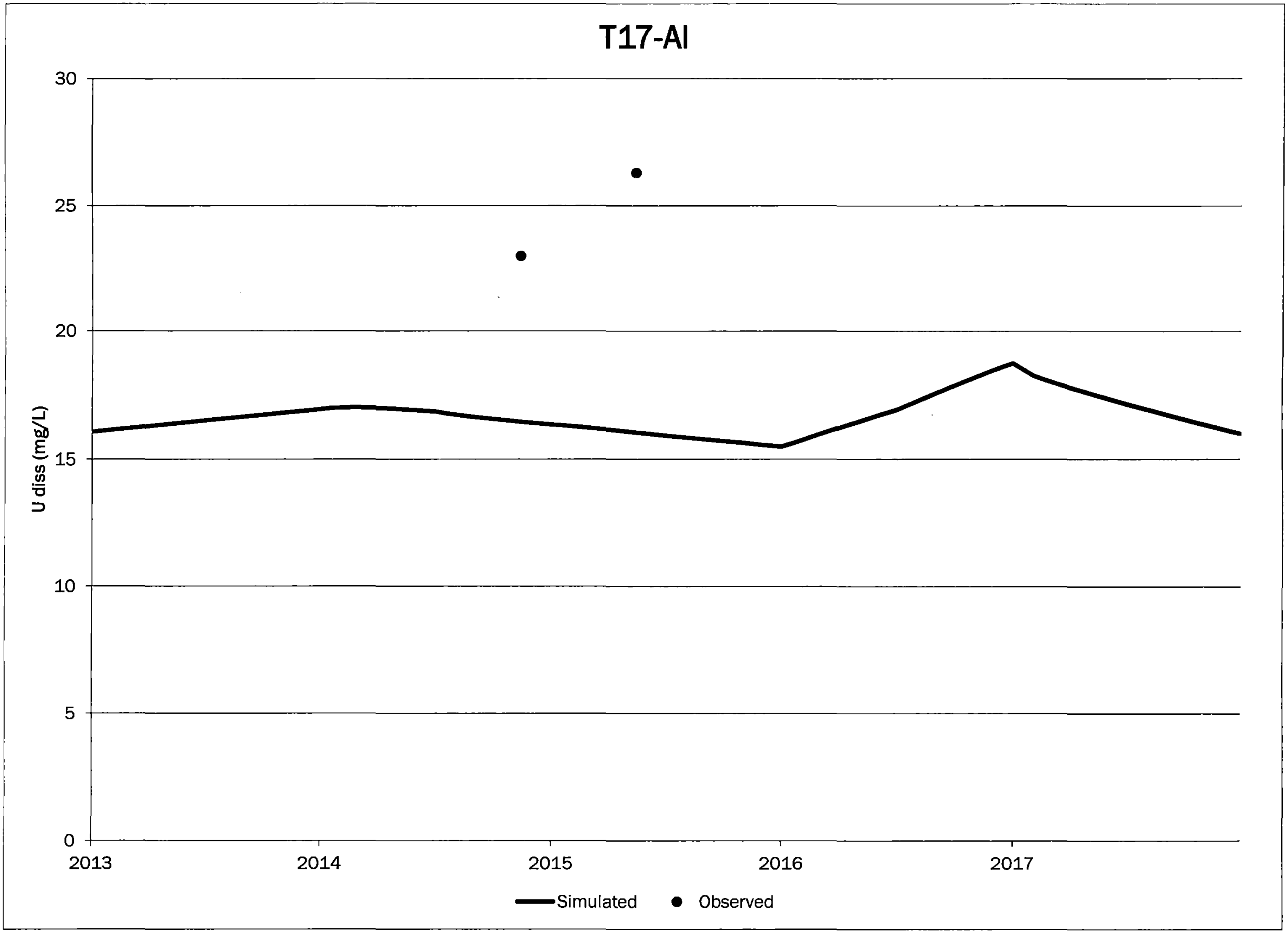

T14-Al
U diss (mg/L)
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

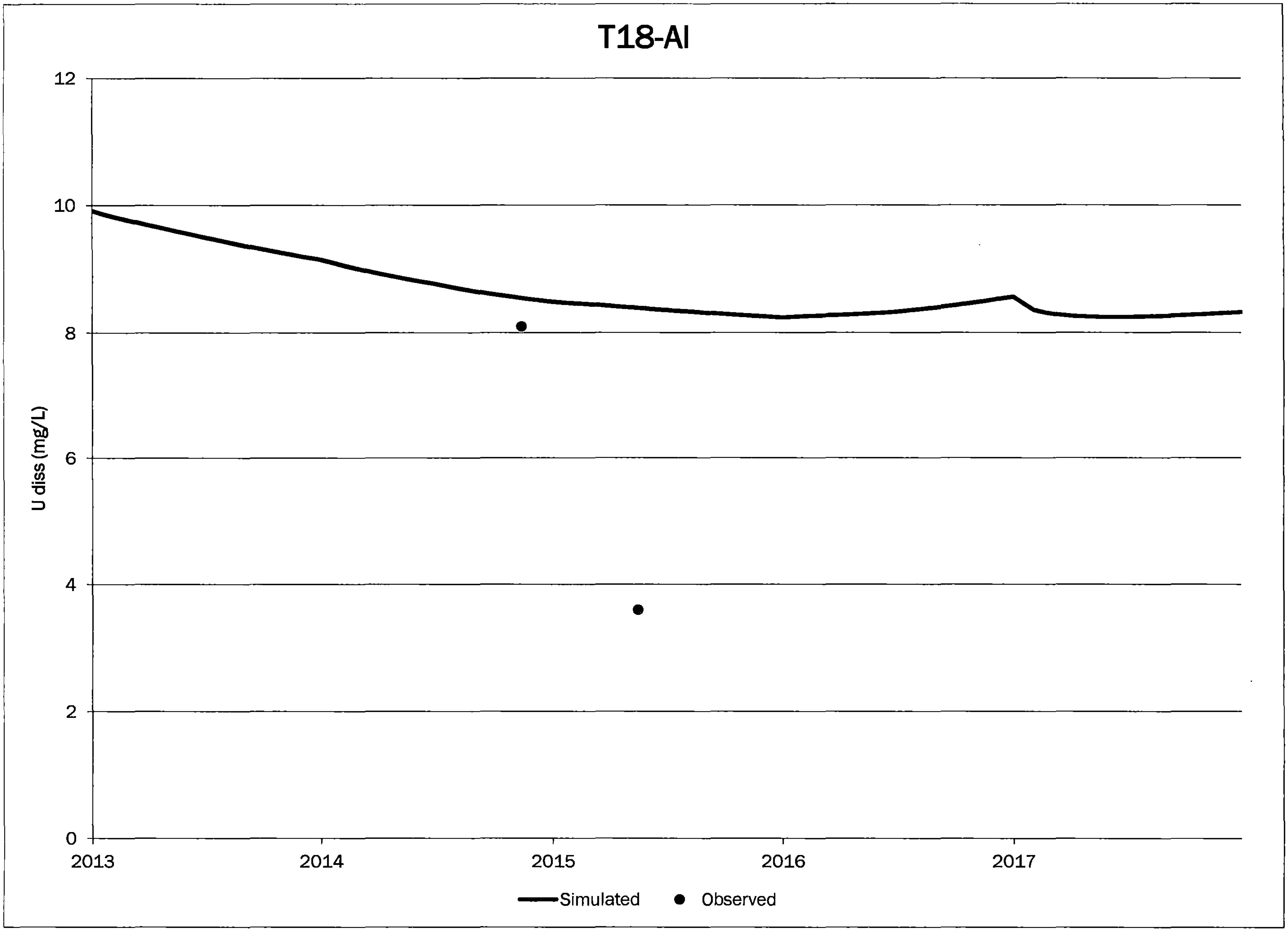


T15-AI
U diss (mg/L)
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

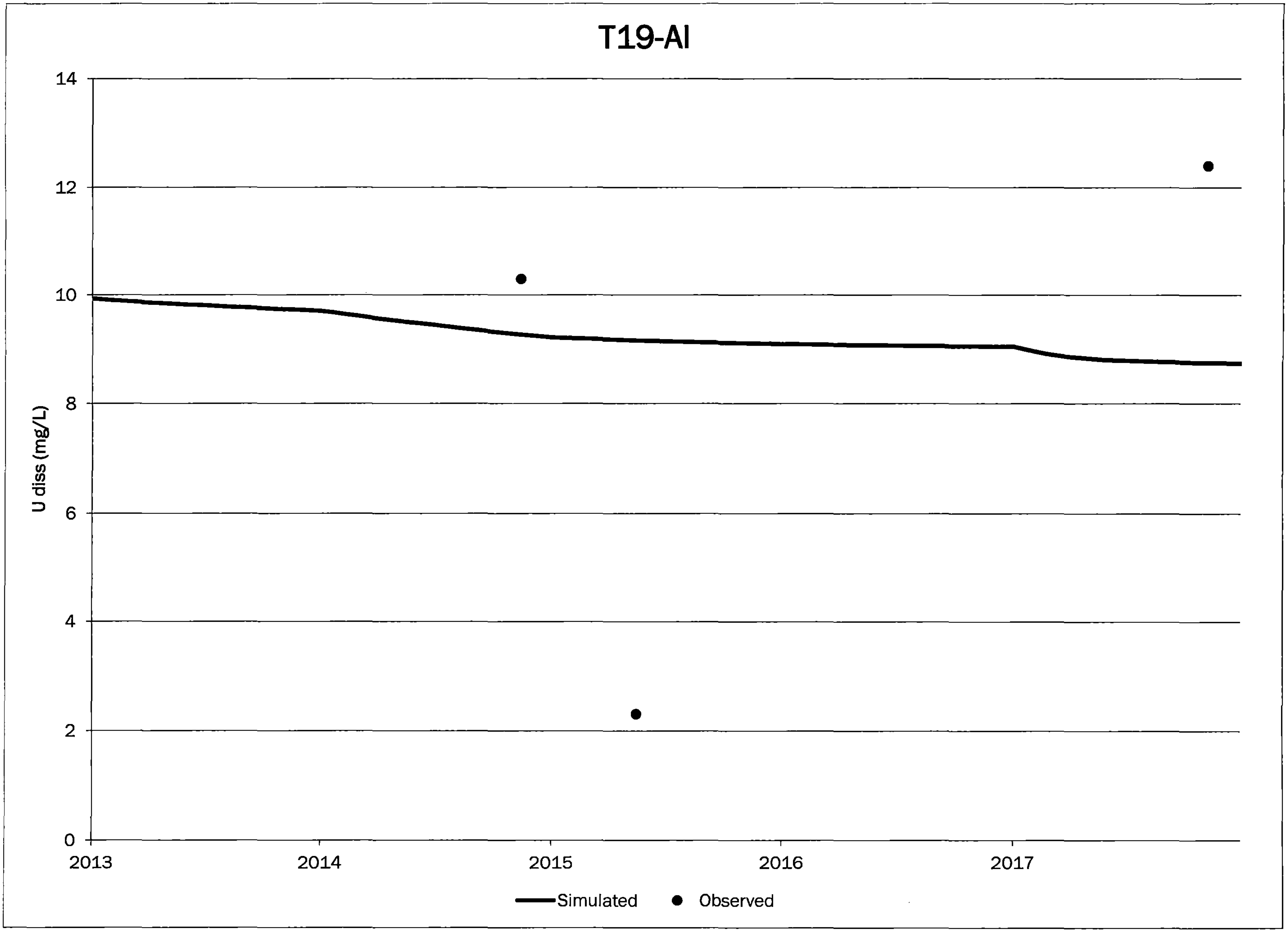


T16-Al
U diss (mg/L)
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

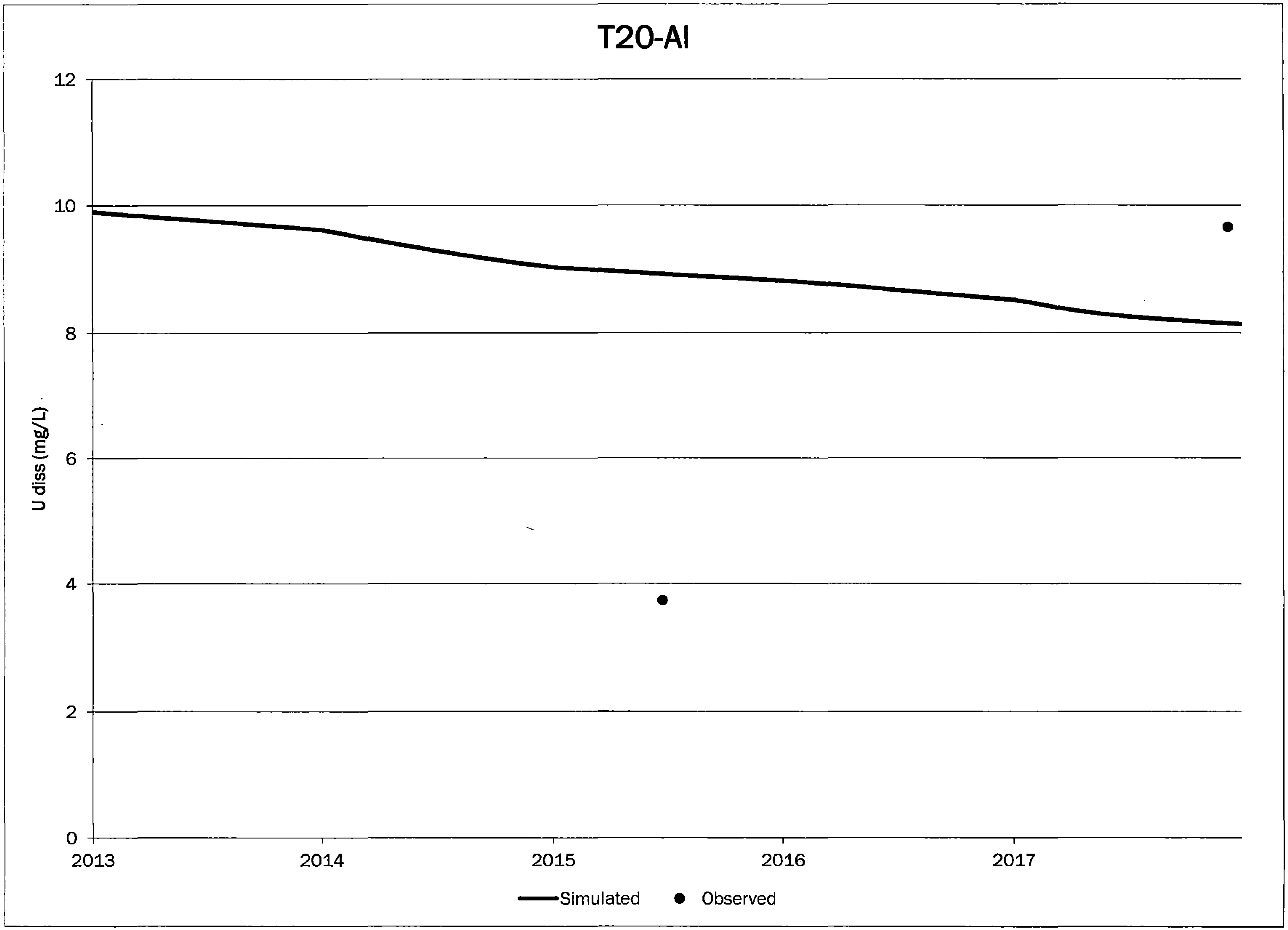

T17-Al
U diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

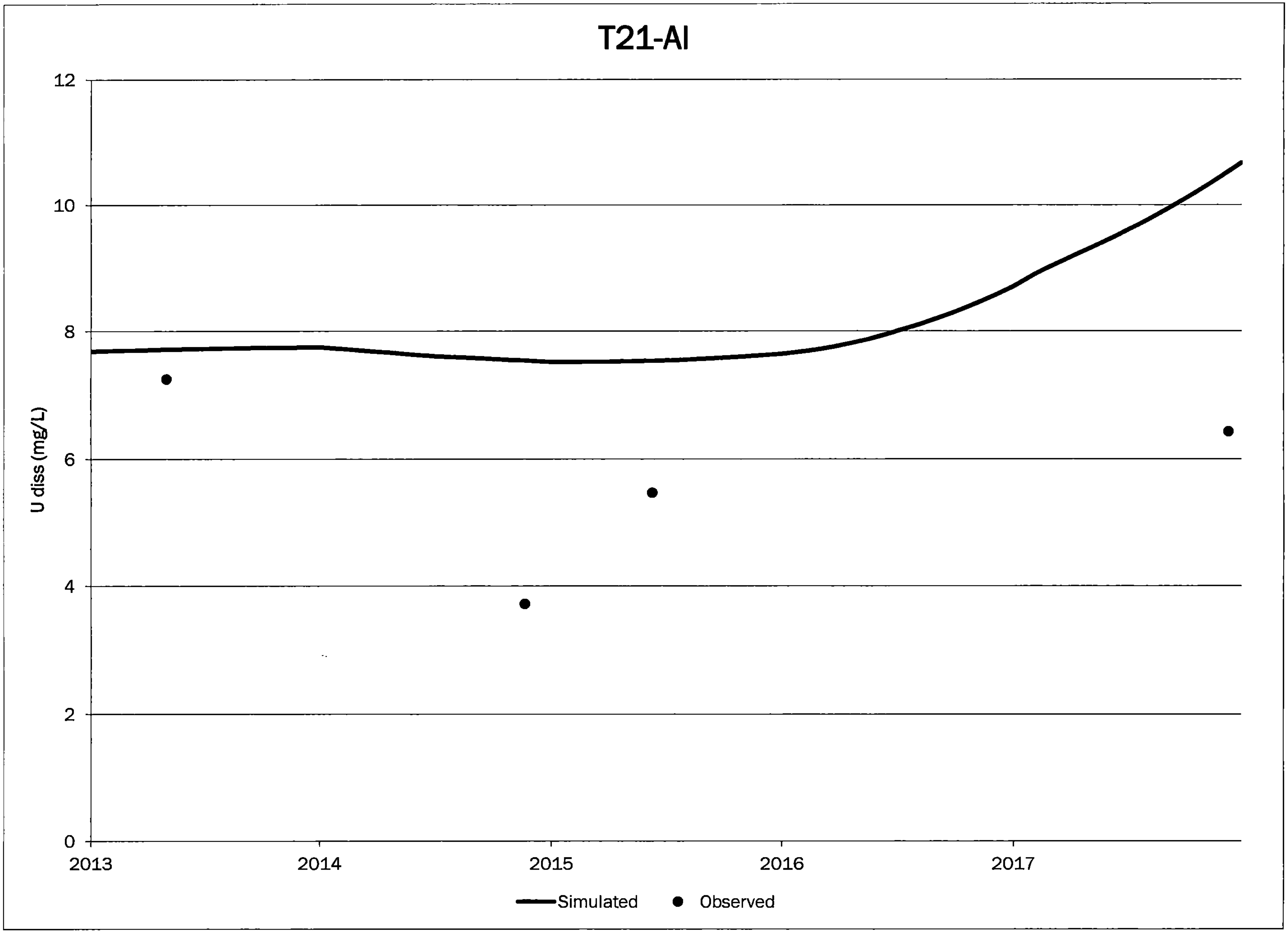


T18-AI
U diss (mg/L)
0
2
4
6
8
10
12
2013
2014
2015
2016
2017
Simulated
Observed

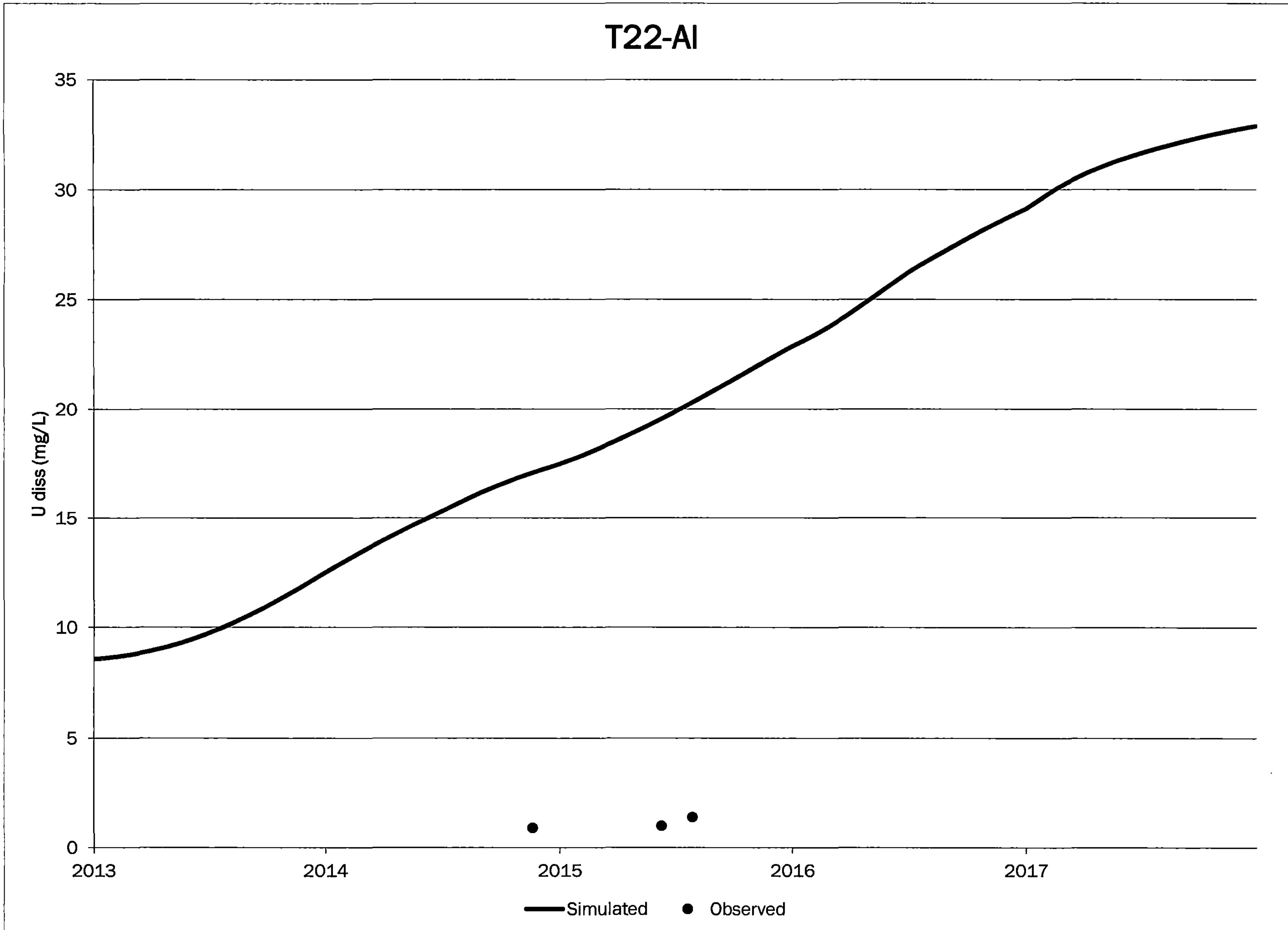


T19-AI
U diss (mg/L)
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

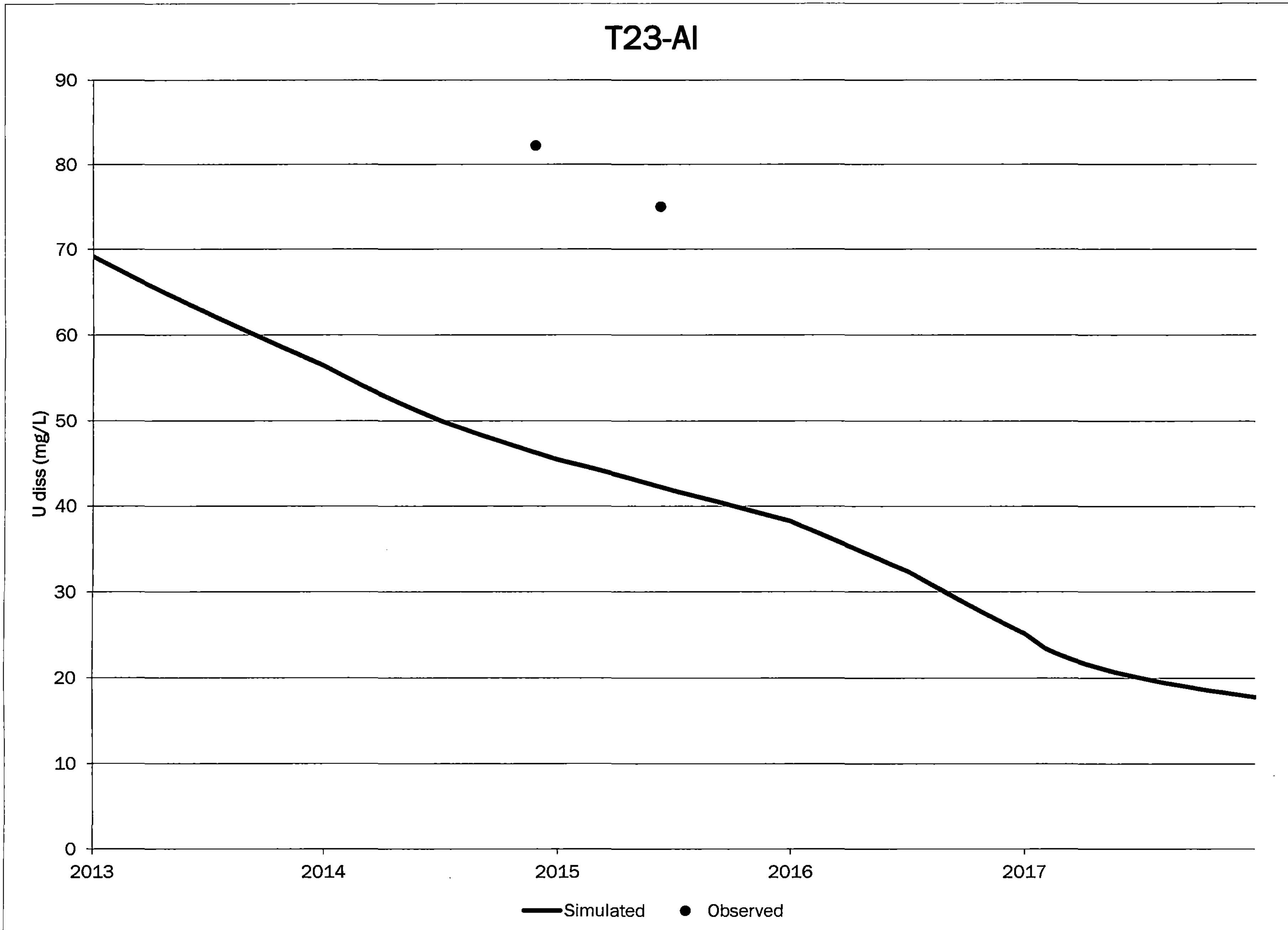

T20-AI
U diss (mg/L)
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed



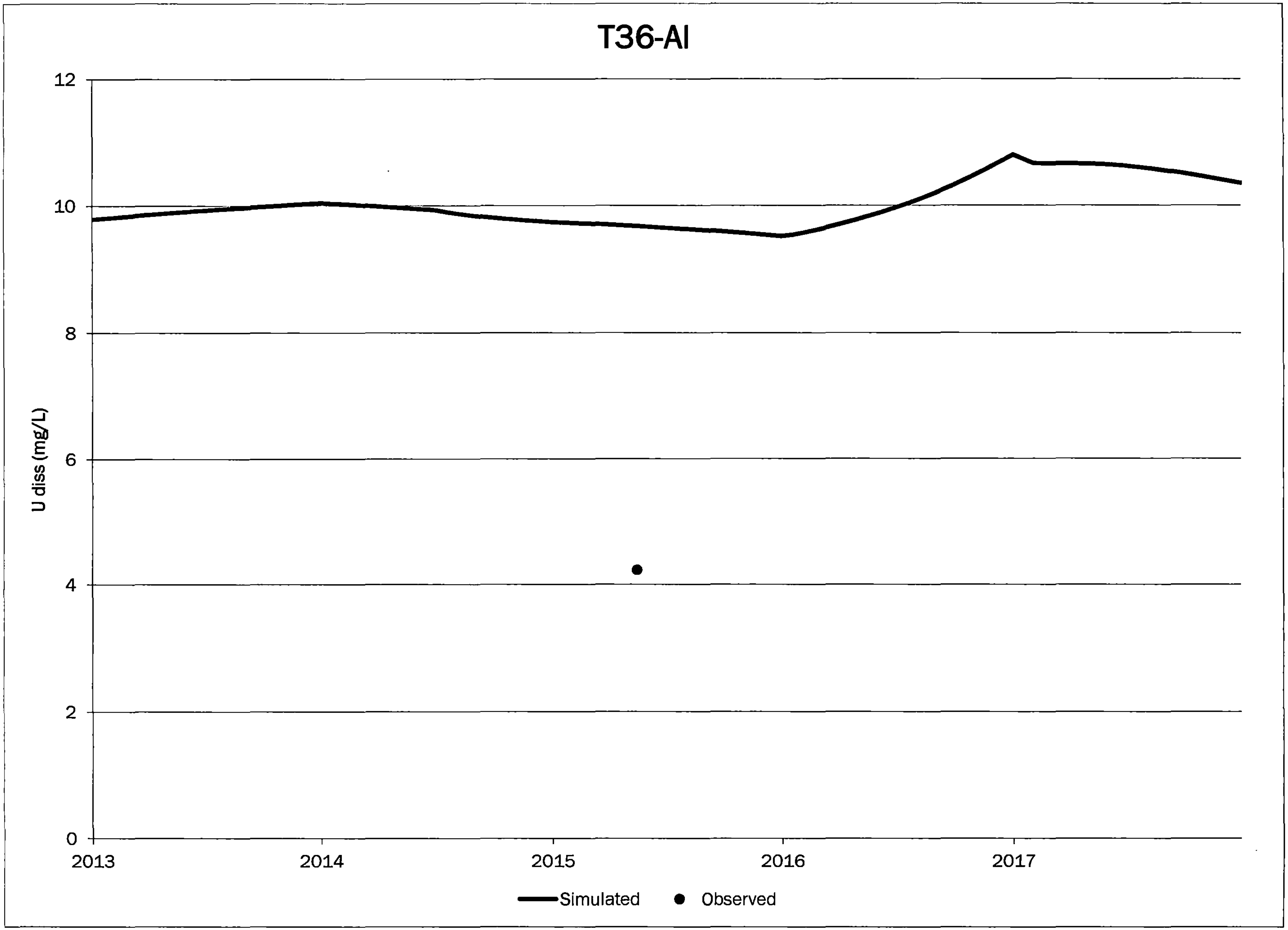
T21-AI
U diss (mg/L)
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed



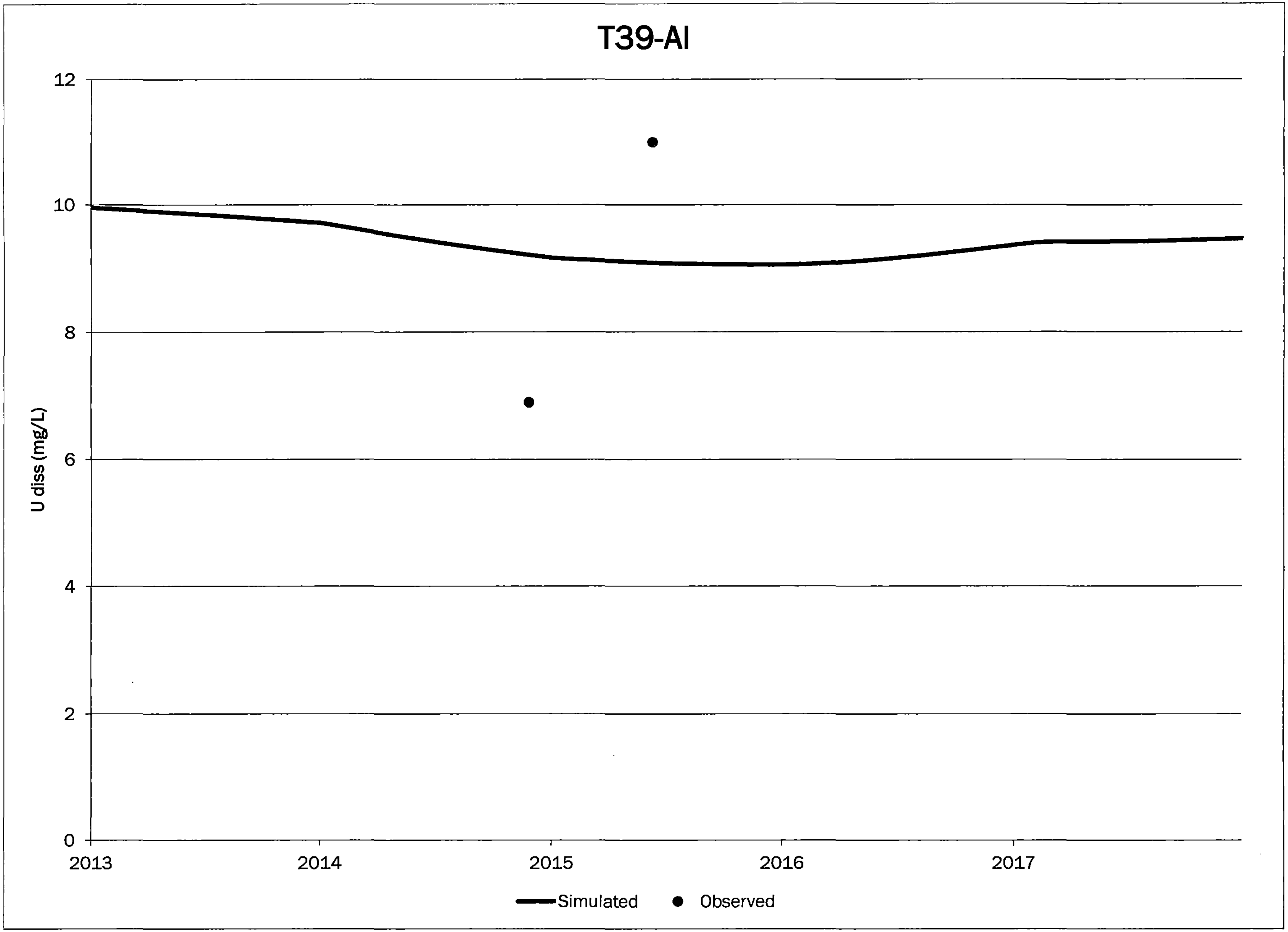
T22-AI
U diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

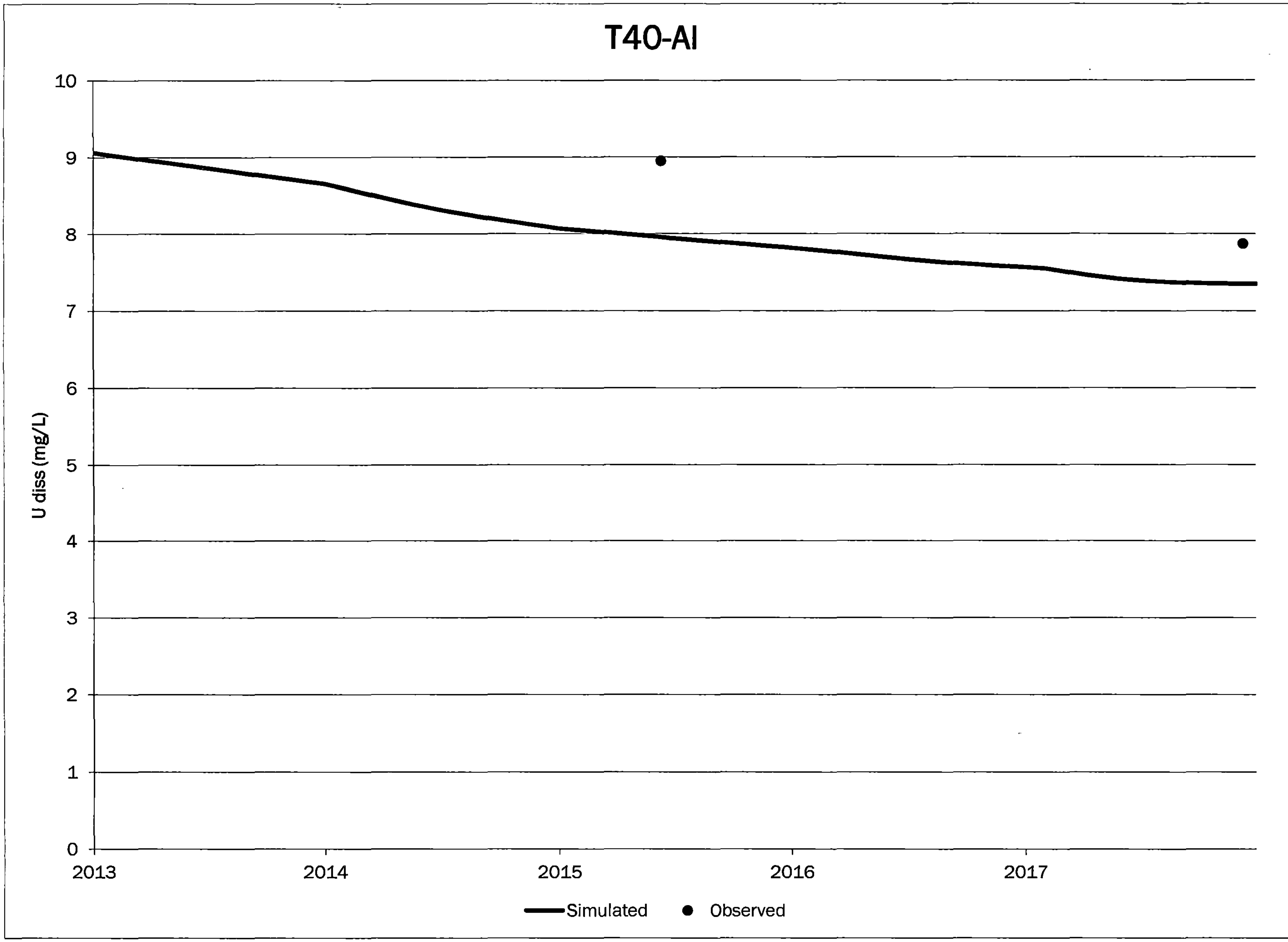


T23-Al
U diss (mg/L)
90
80
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

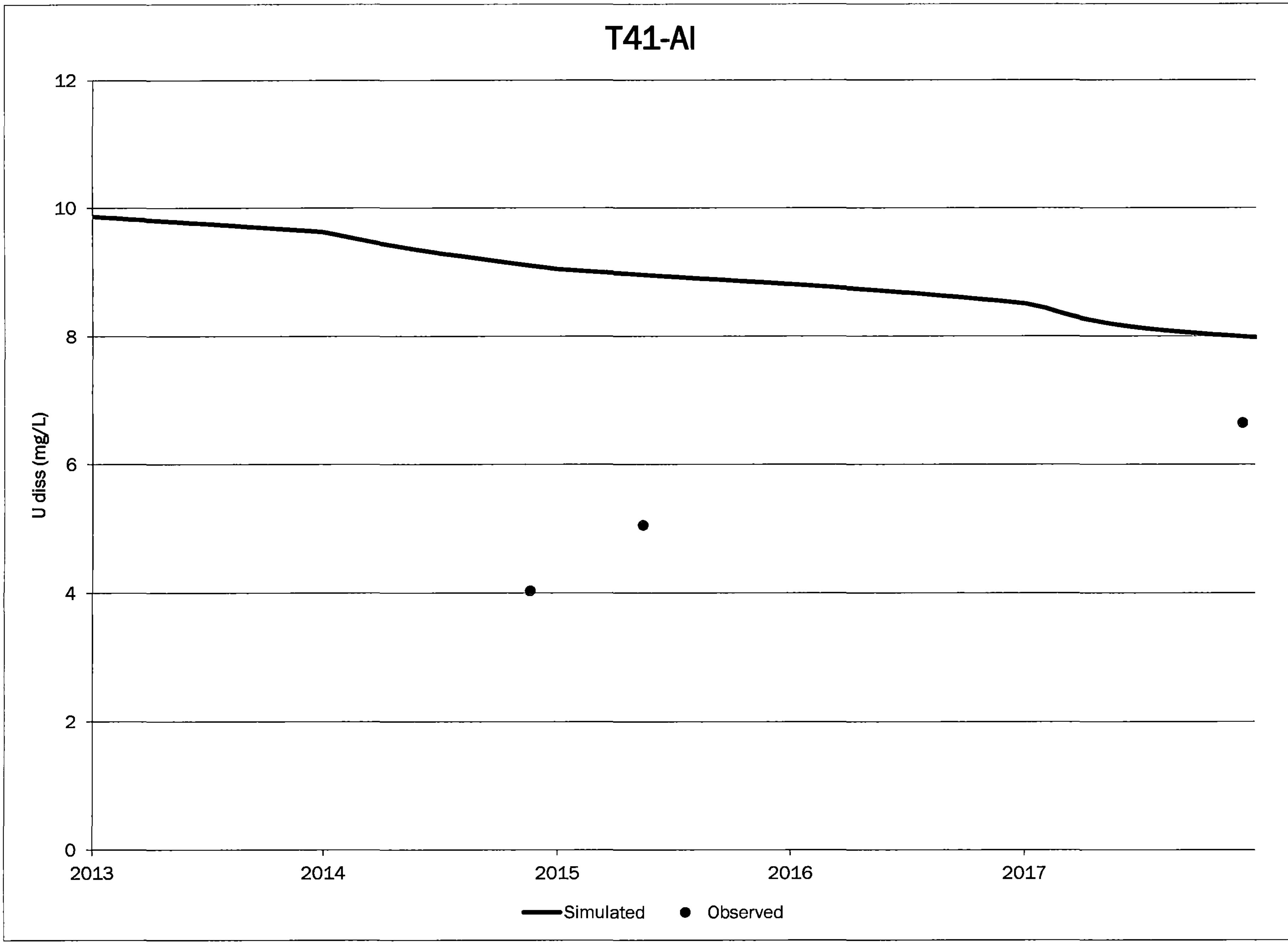


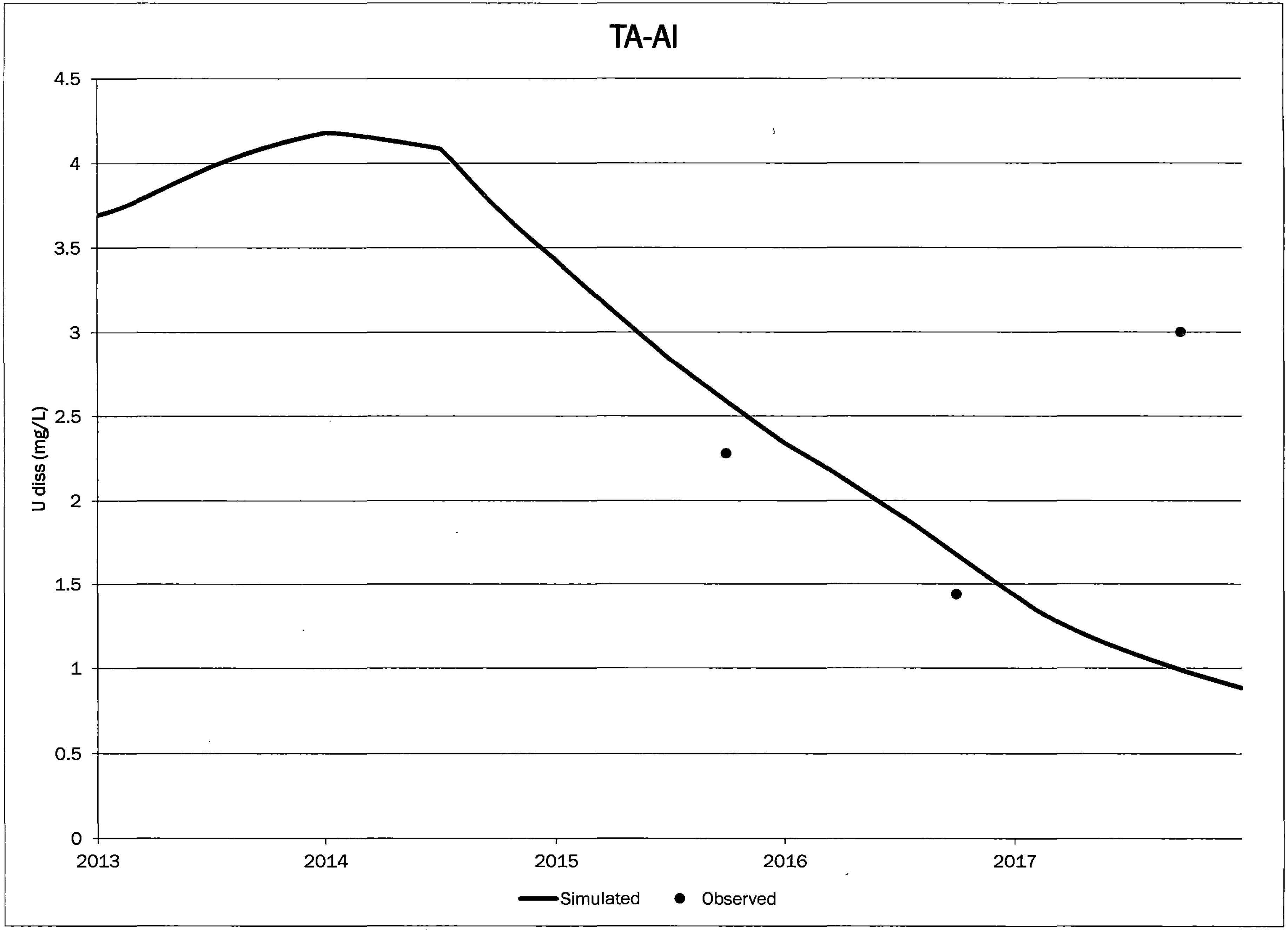
T36-Al
U diss (mg/L)
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed


T39-AI
U diss (mg/L)
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

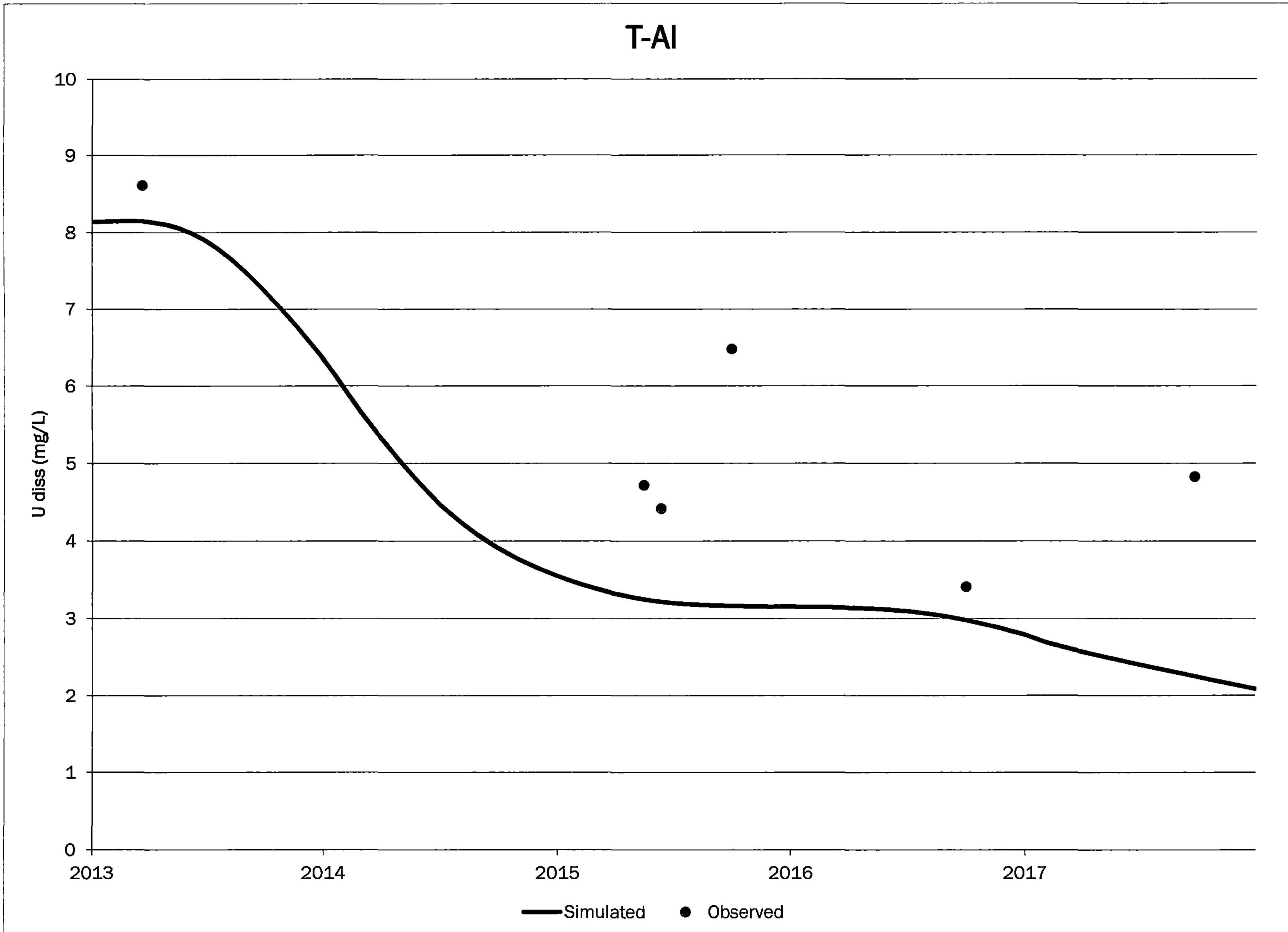


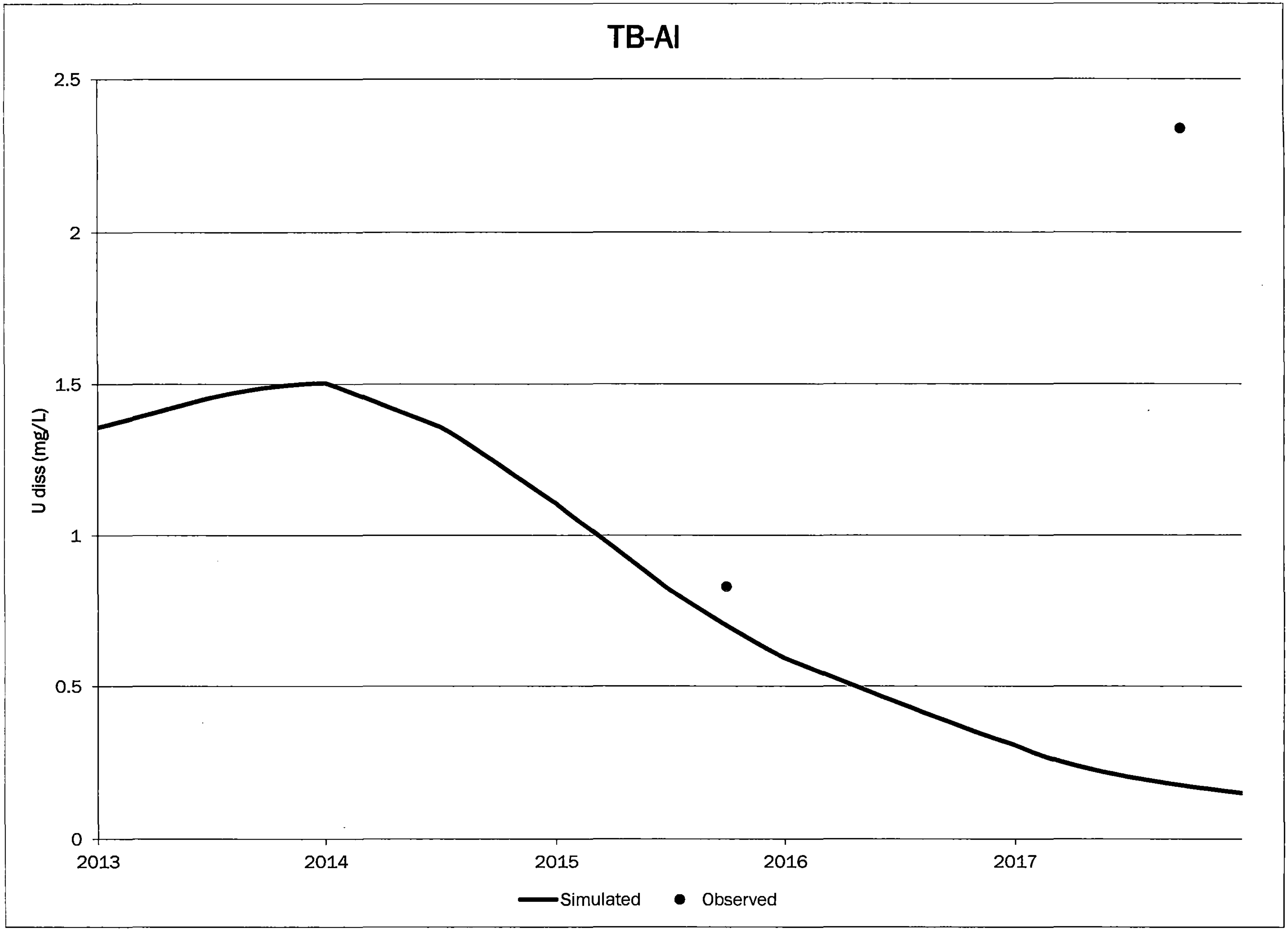
T40-Al
U diss (mg/L)
10
9
8
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed

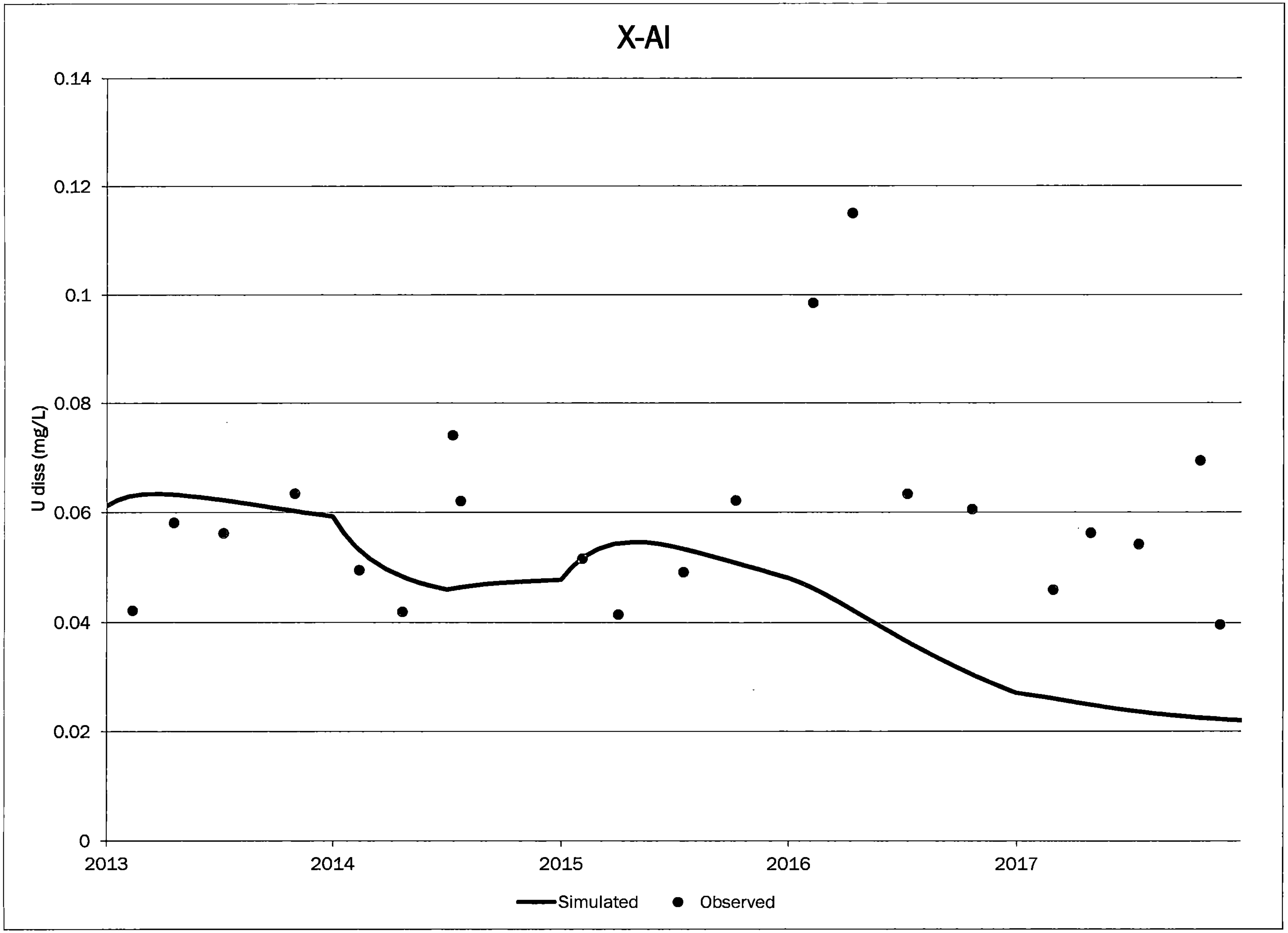

T41-Al
U diss (mg/L)
0
2
4
6
8
10
12
2013
2014
2015
2016
2017
Simulated
Observed

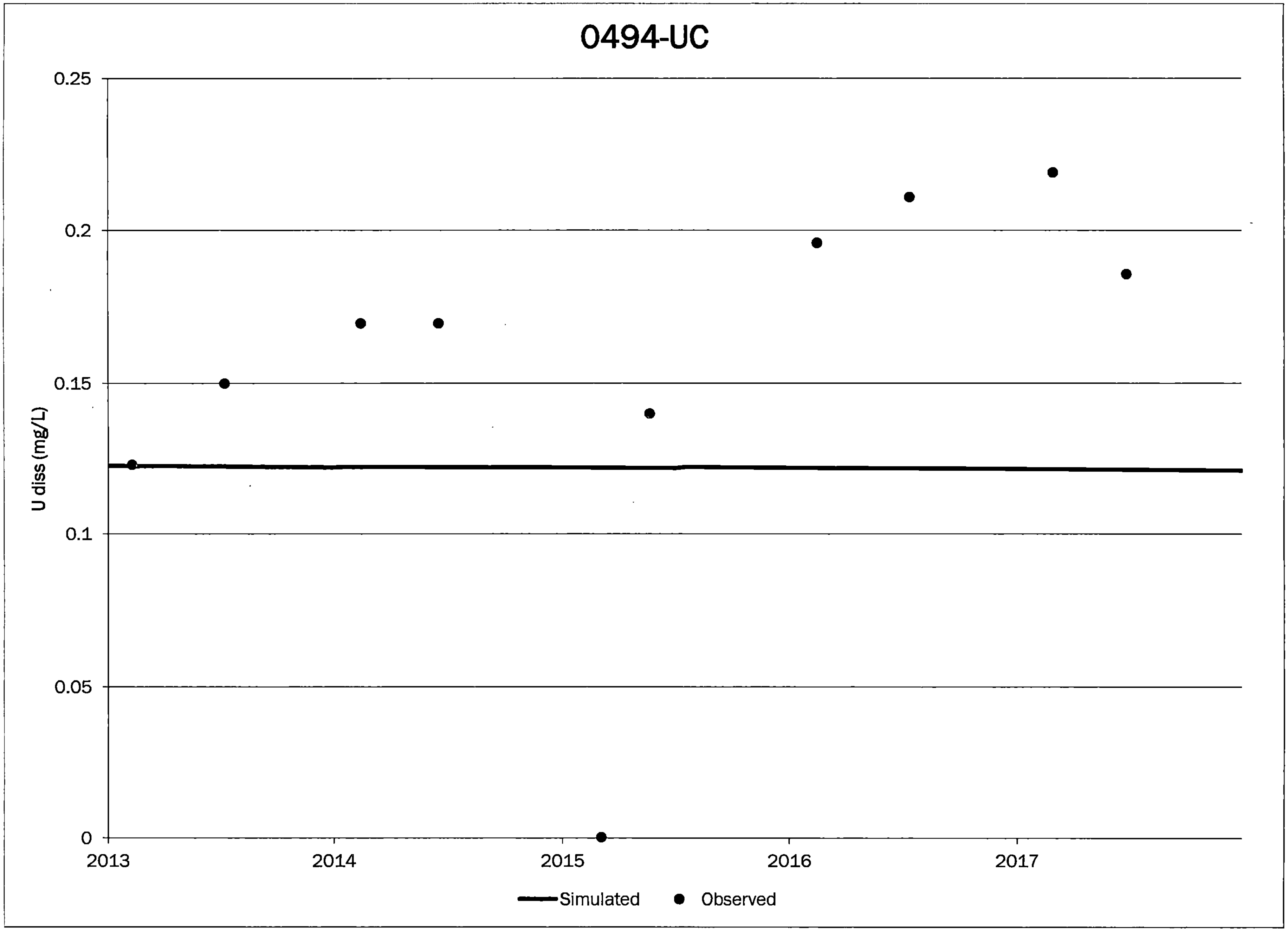


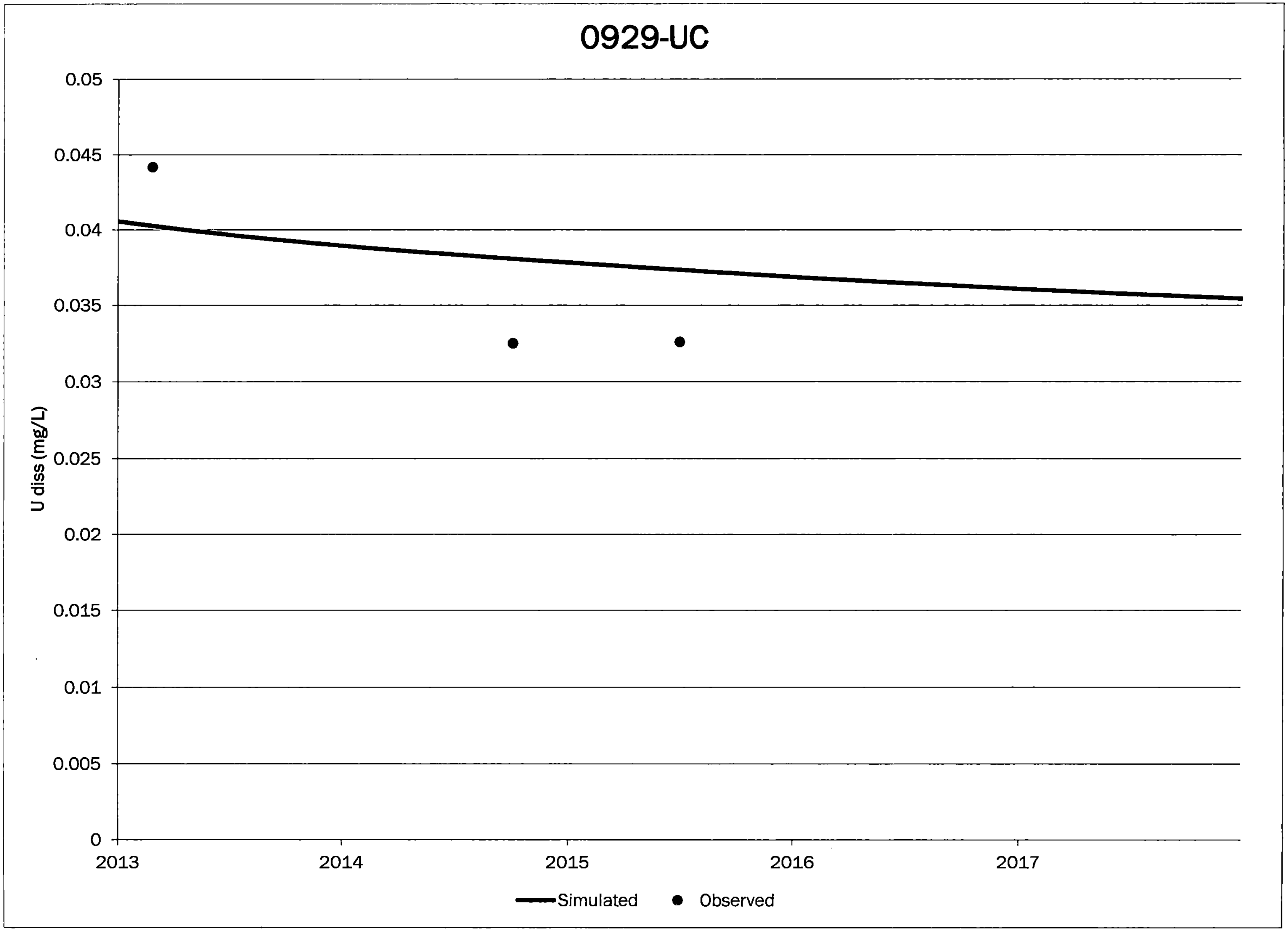
TA-AI
U diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed


T-AI
U diss (mg/L)
10
9
8
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed

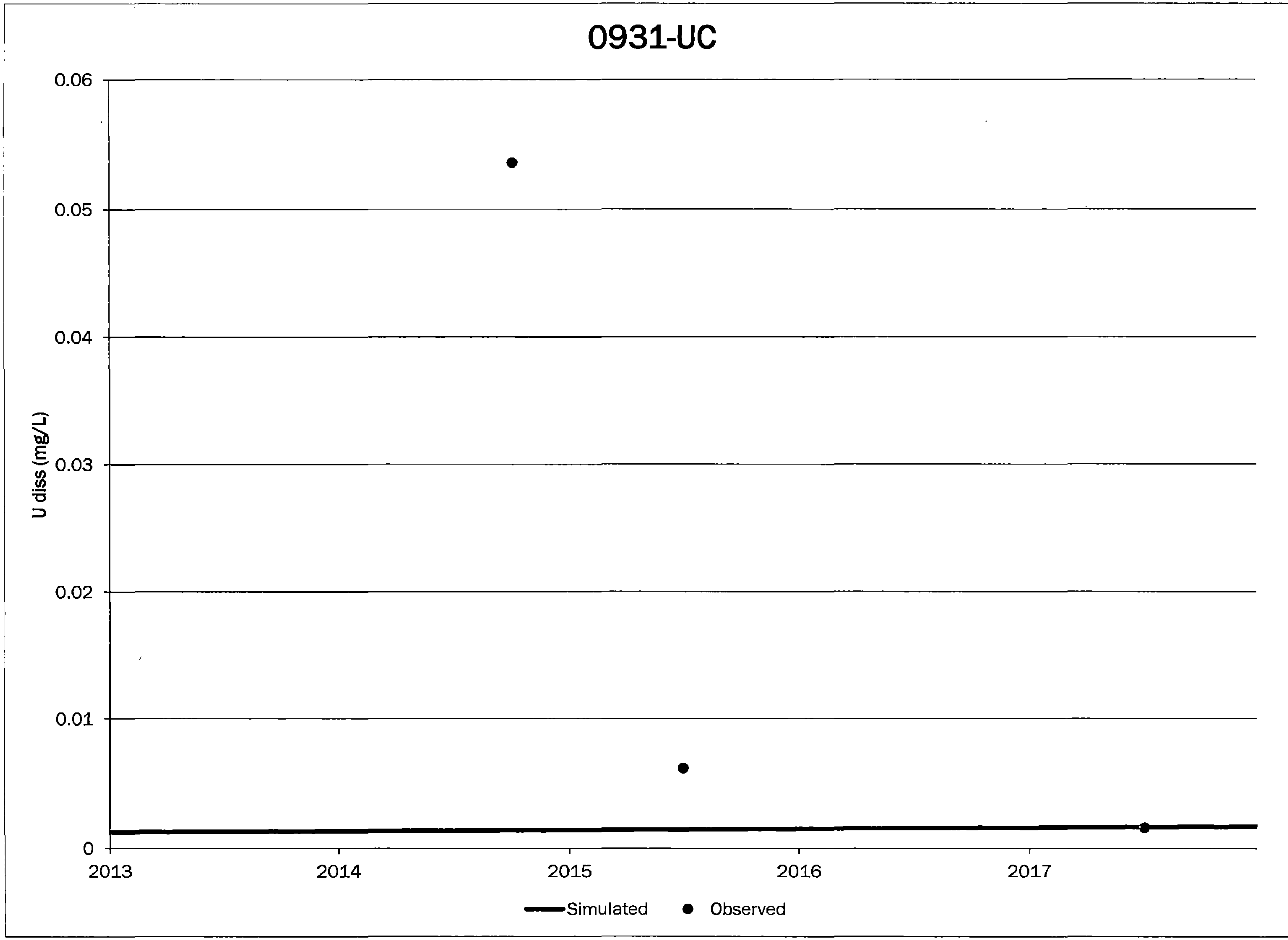

TB-AI
U diss (mg/L)
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed


X-Al
U diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

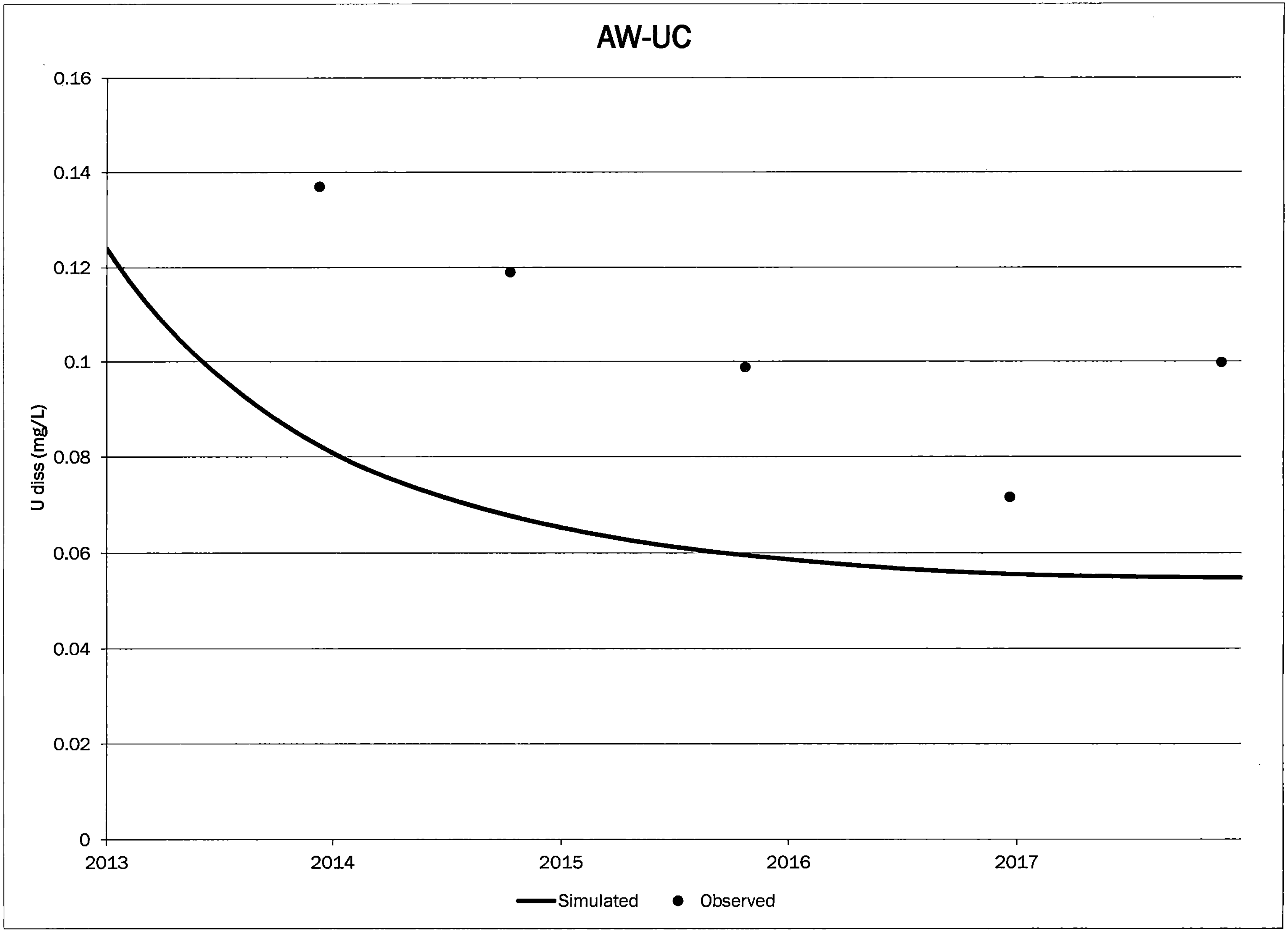

0494-UC
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

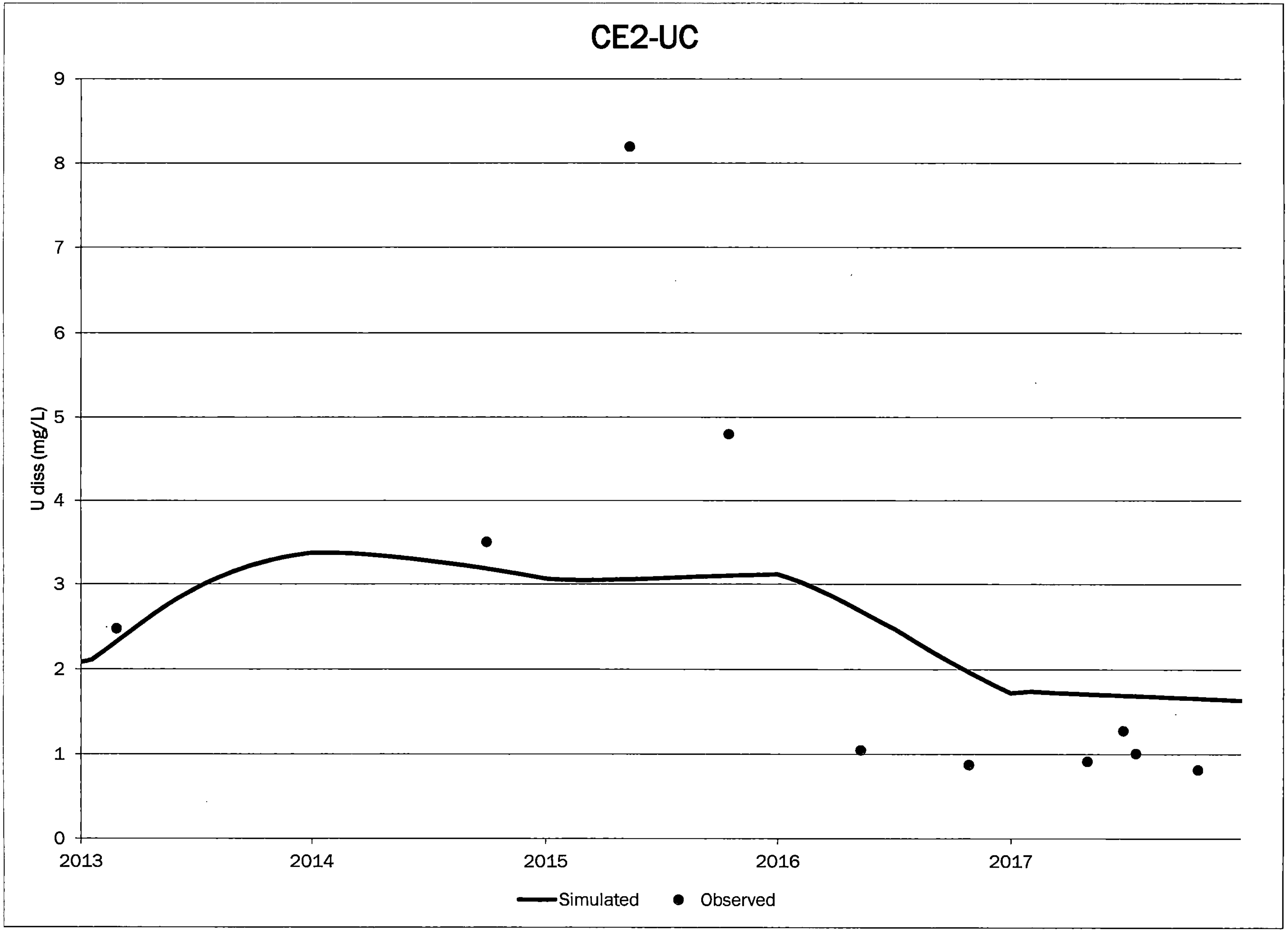


0929-UC
U diss (mg/L)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

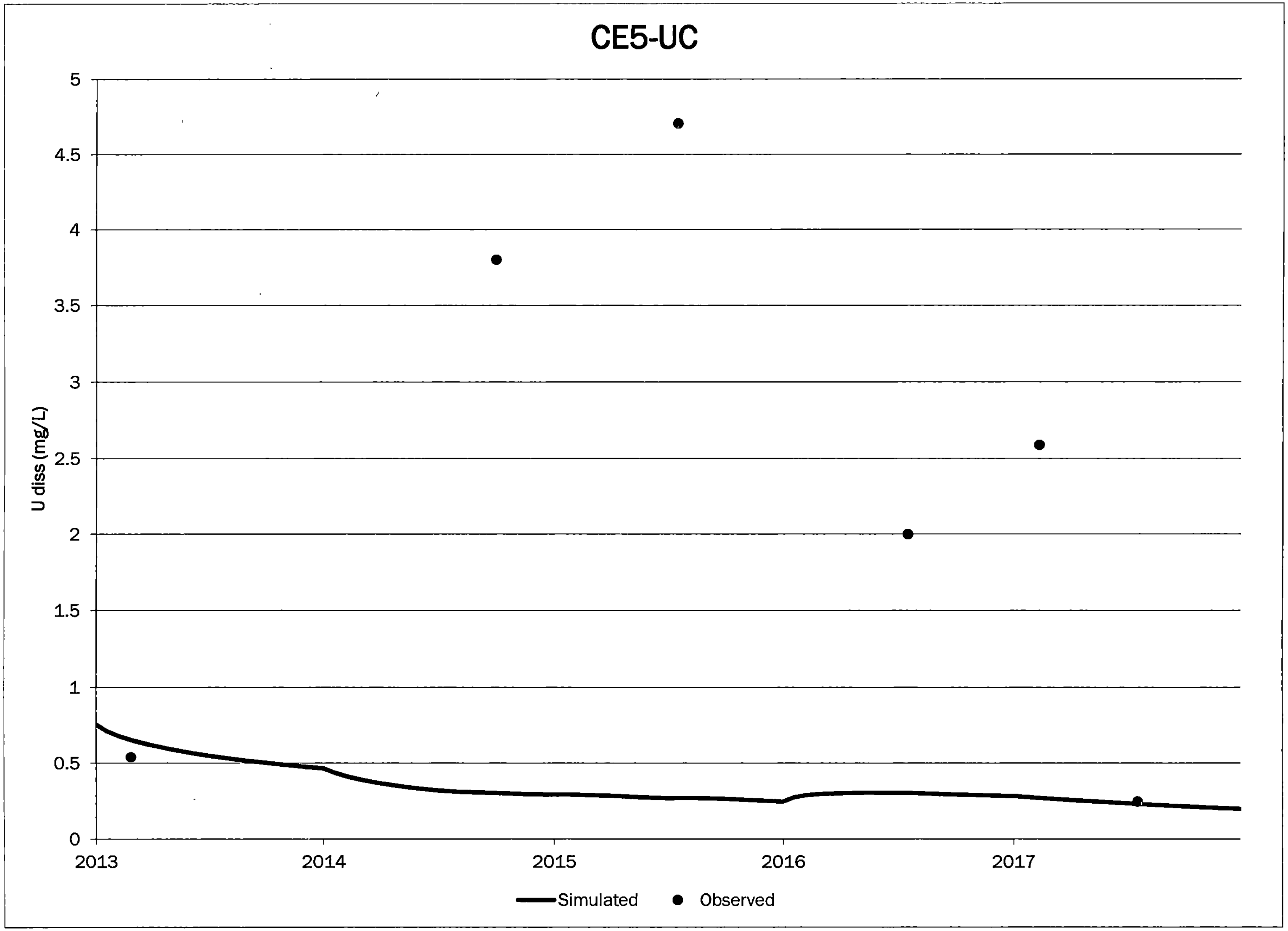


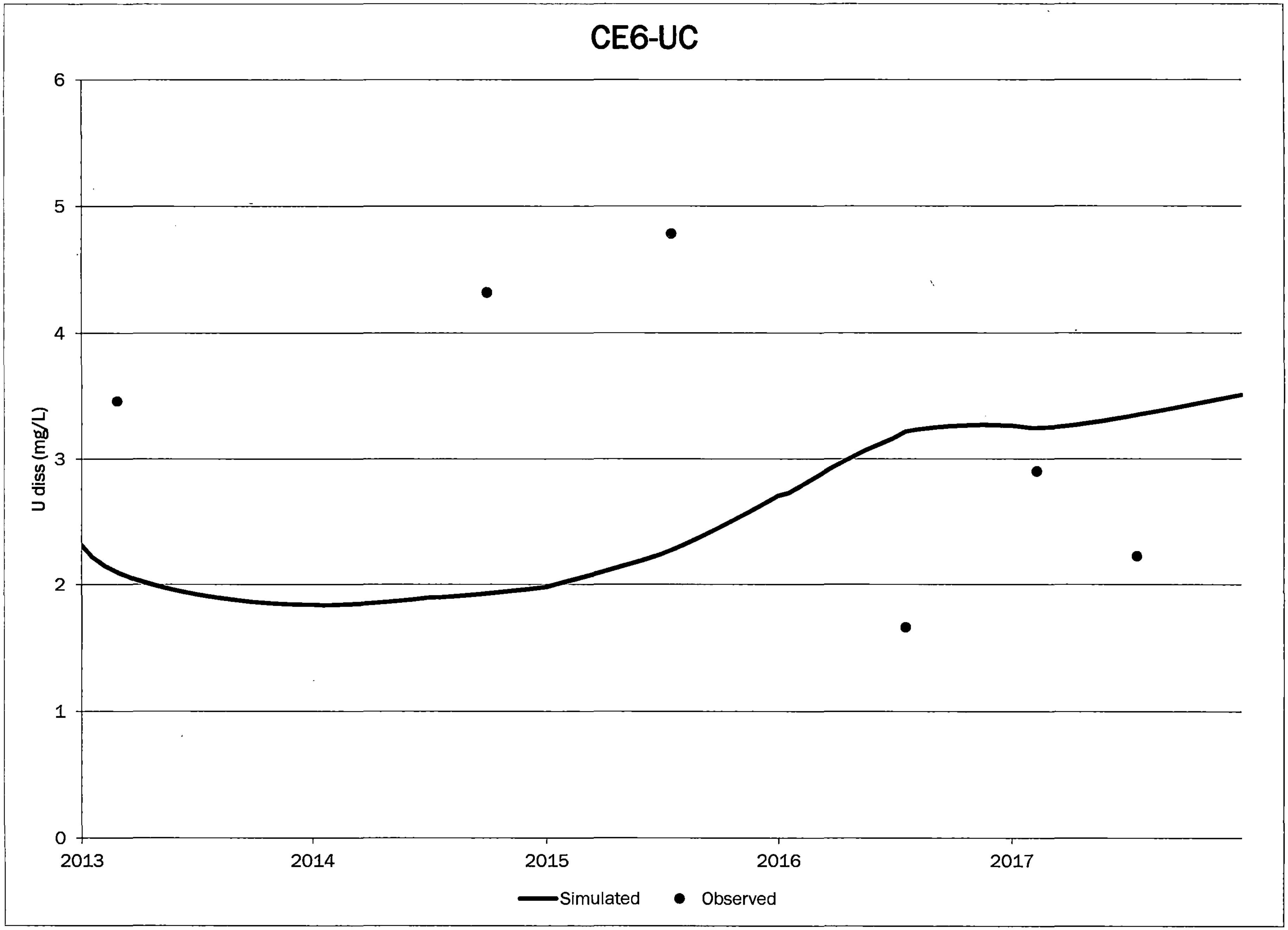
0931-UC
U diss (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

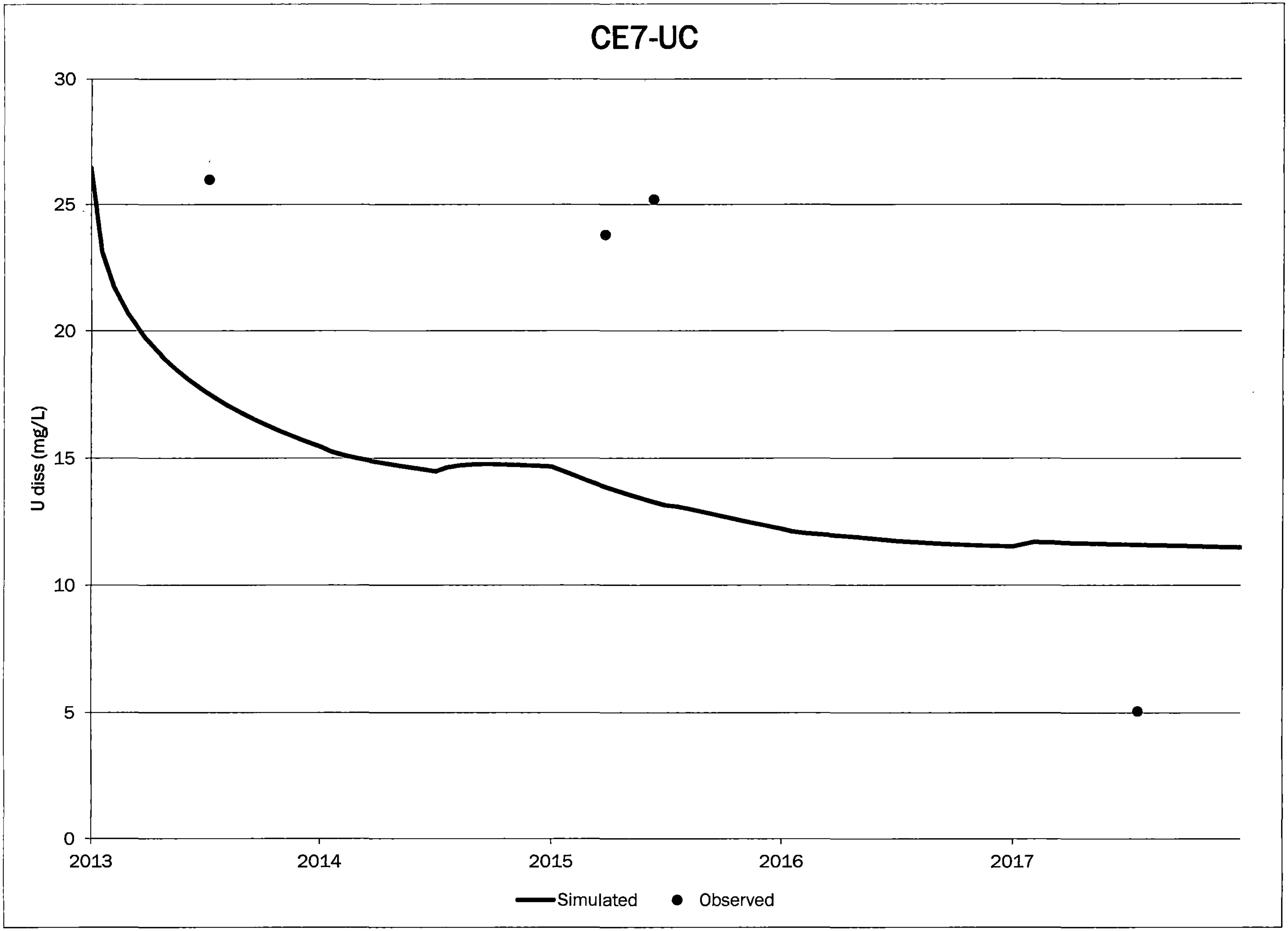

AW-UC
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

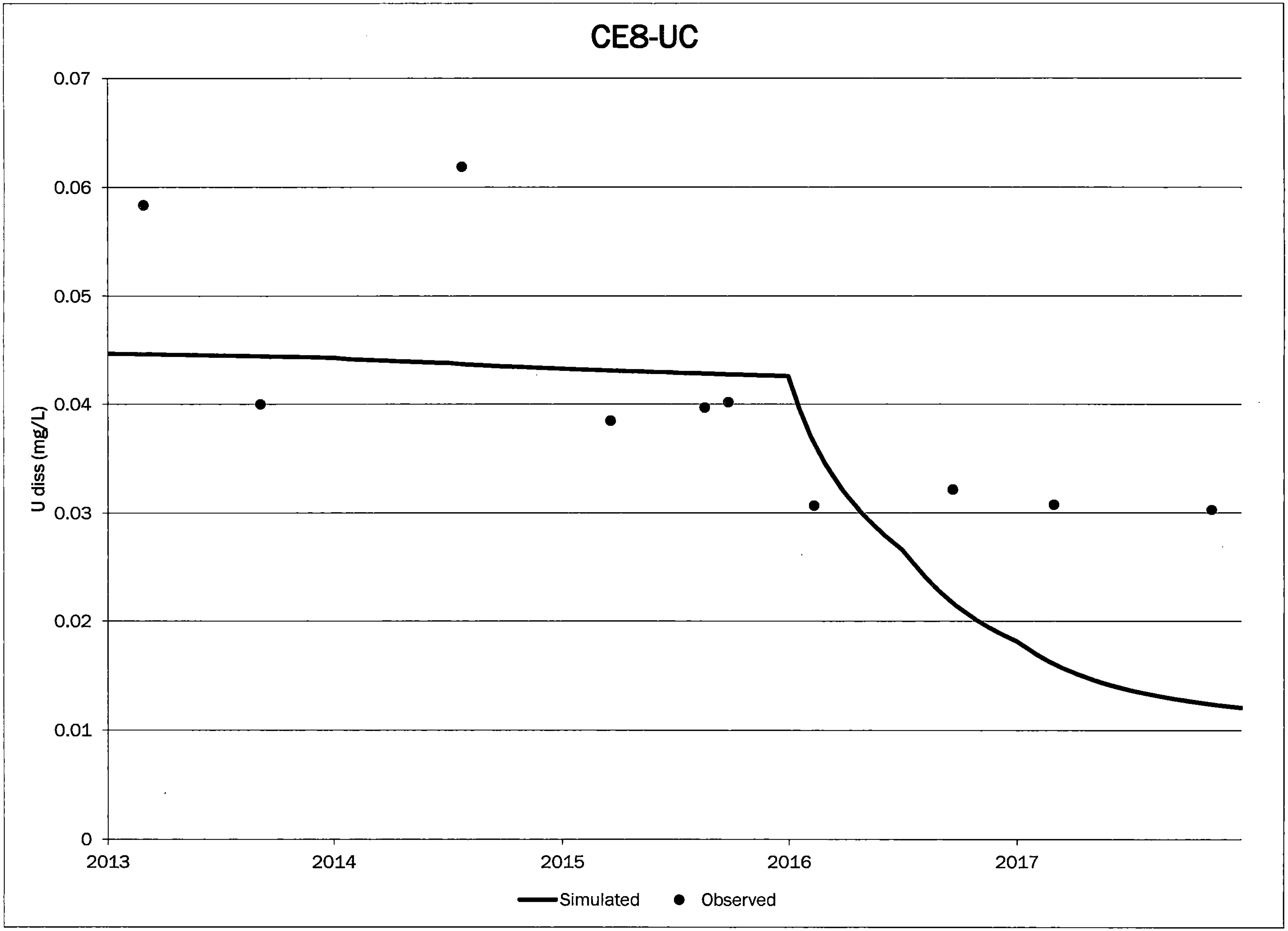


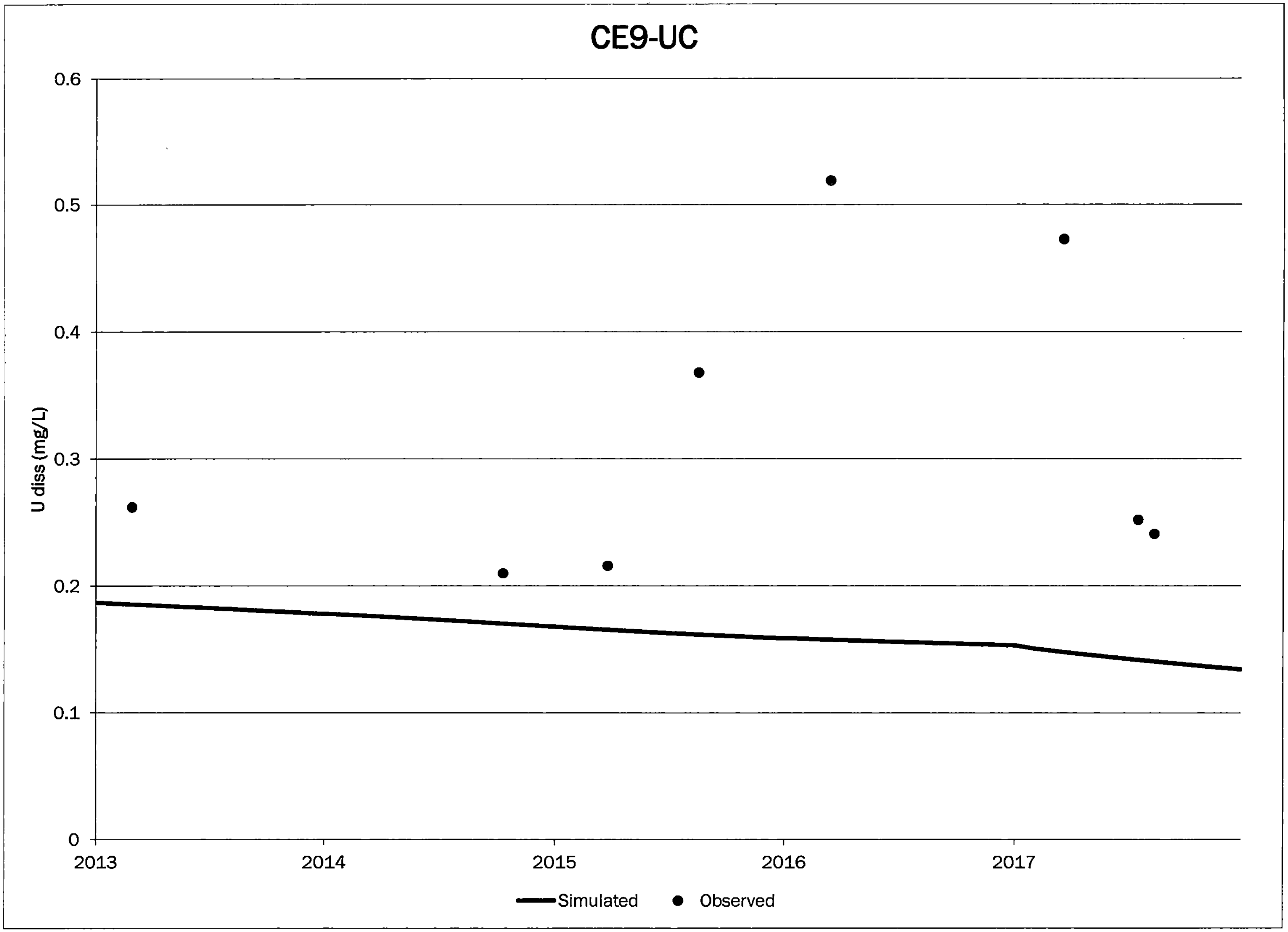
CE2-UC
U diss (mg/L)
0
1
2
3
4
5
6
7
8
9
2013
2014
2015
2016
2017
Simulated
Observed


CE5-UC
U diss (mg/L)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

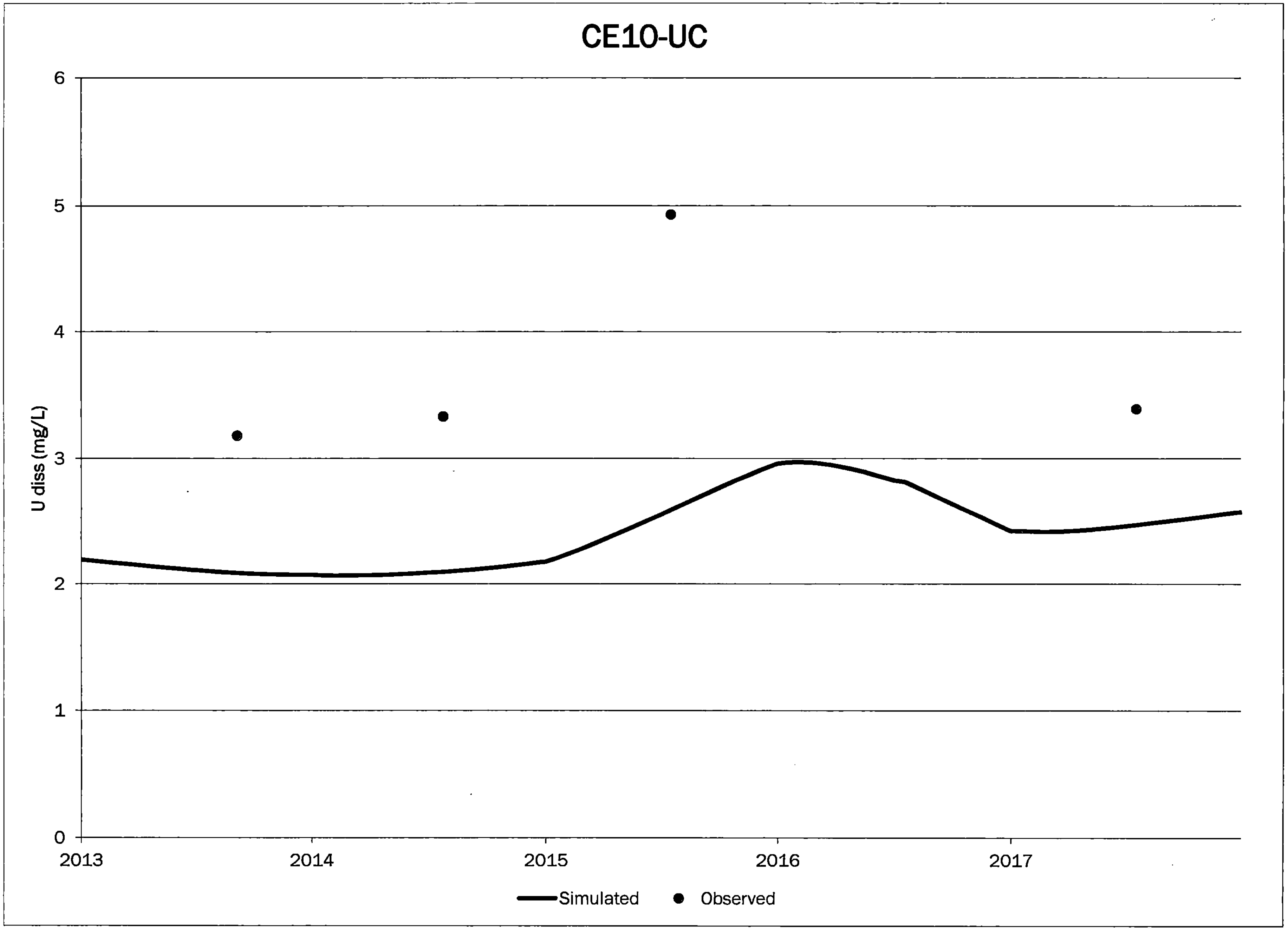

CE6-UC
U diss (mg/L)
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed


CE7-UC
U diss (mg/L)
0
5
10
15
20
25
30
2013
2014
2015
2016
2017
Simulated
Observed

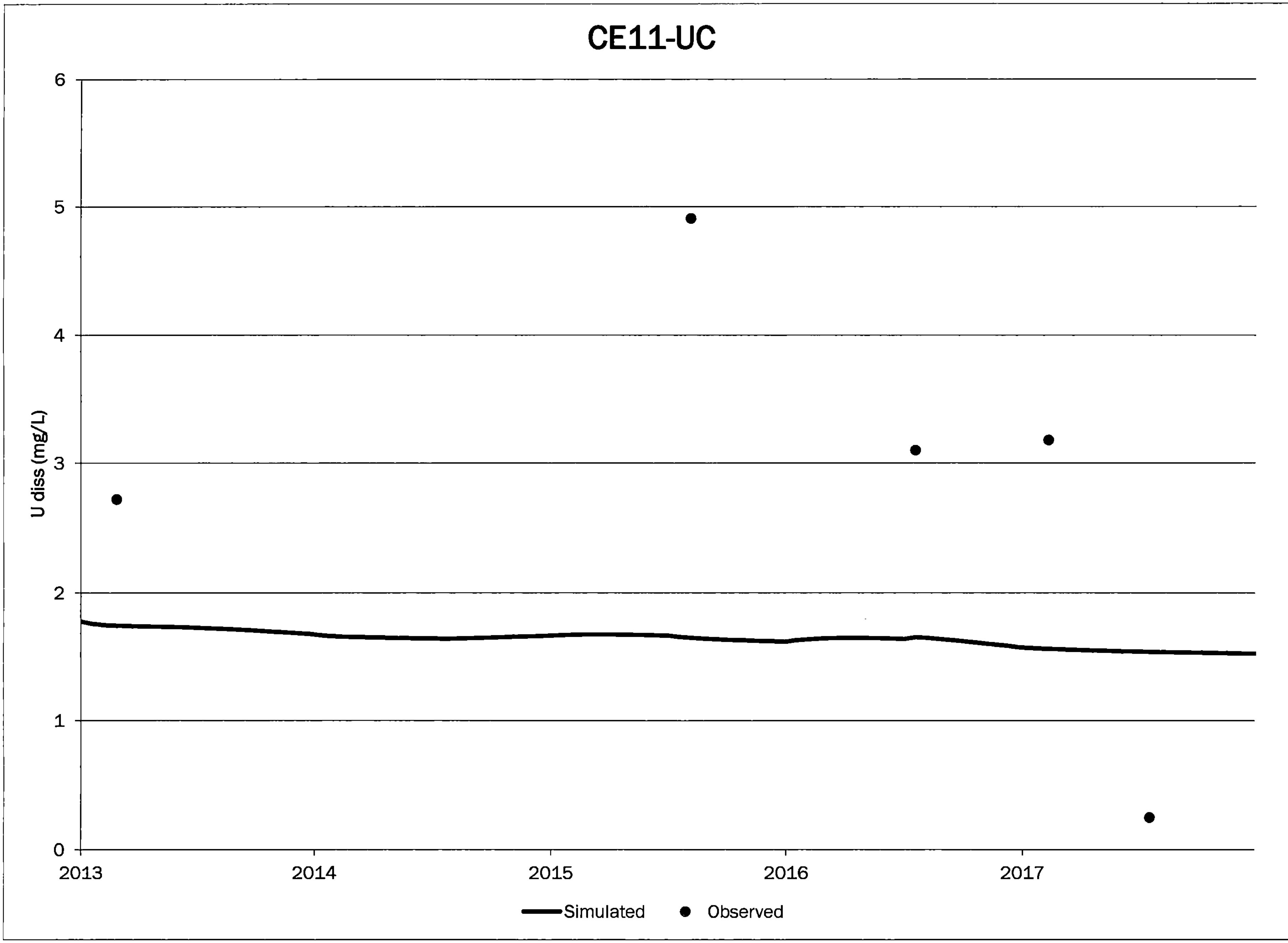

CE8-UC
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

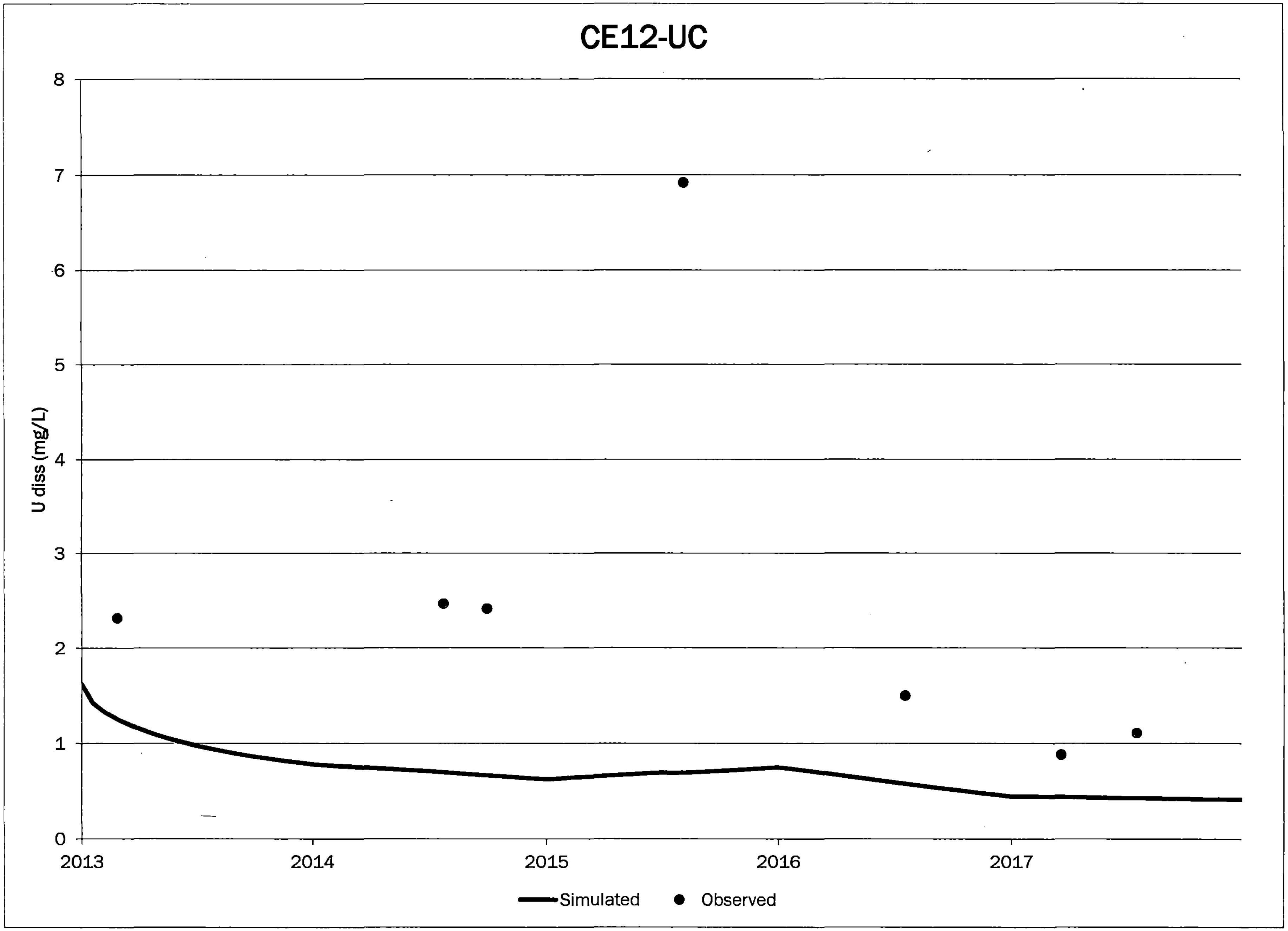


CE9-UC
0.6
0.5
0.4
0.3
0.2
0.1
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

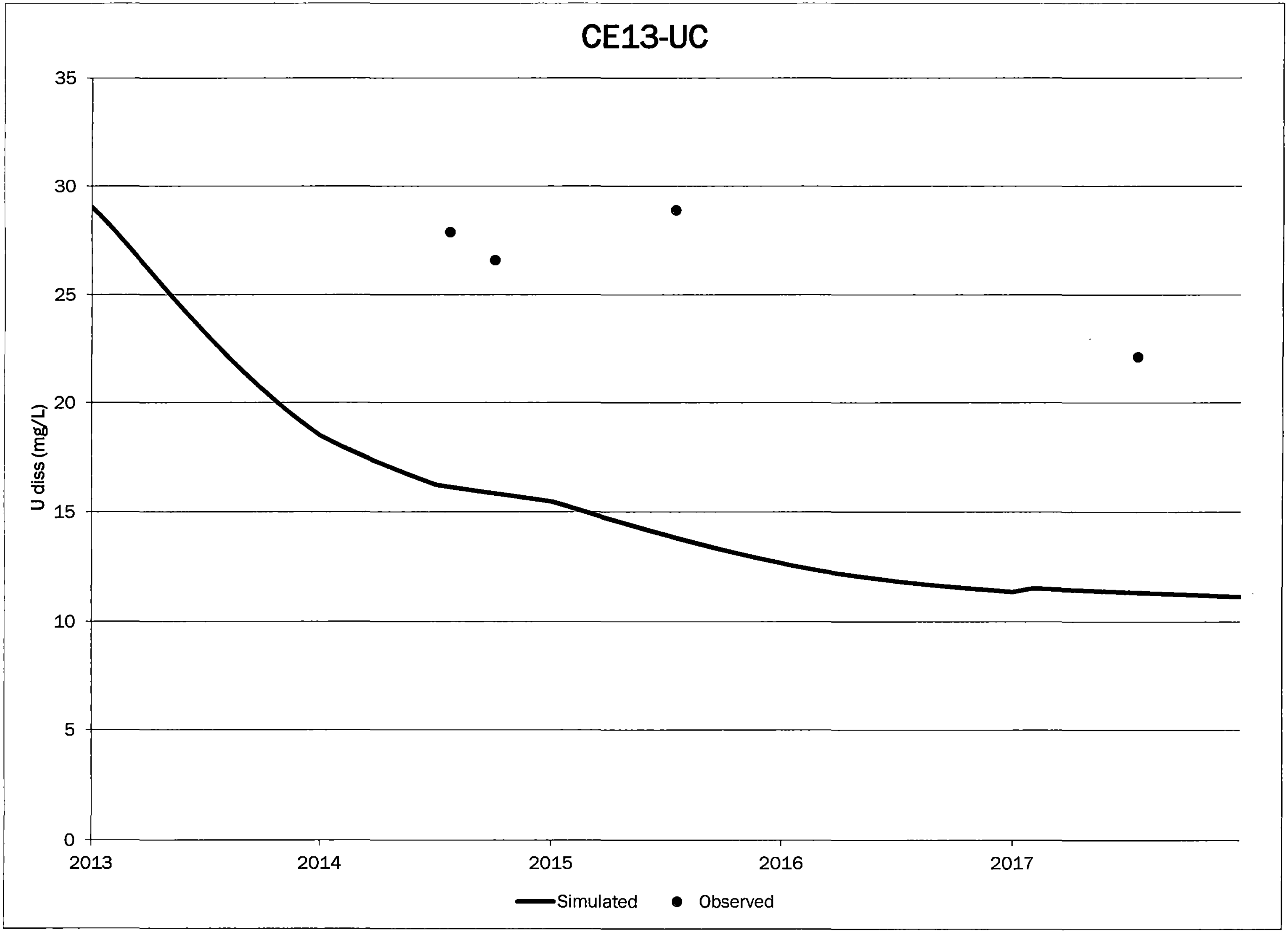


CE10-UC
U diss (mg/L)
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed

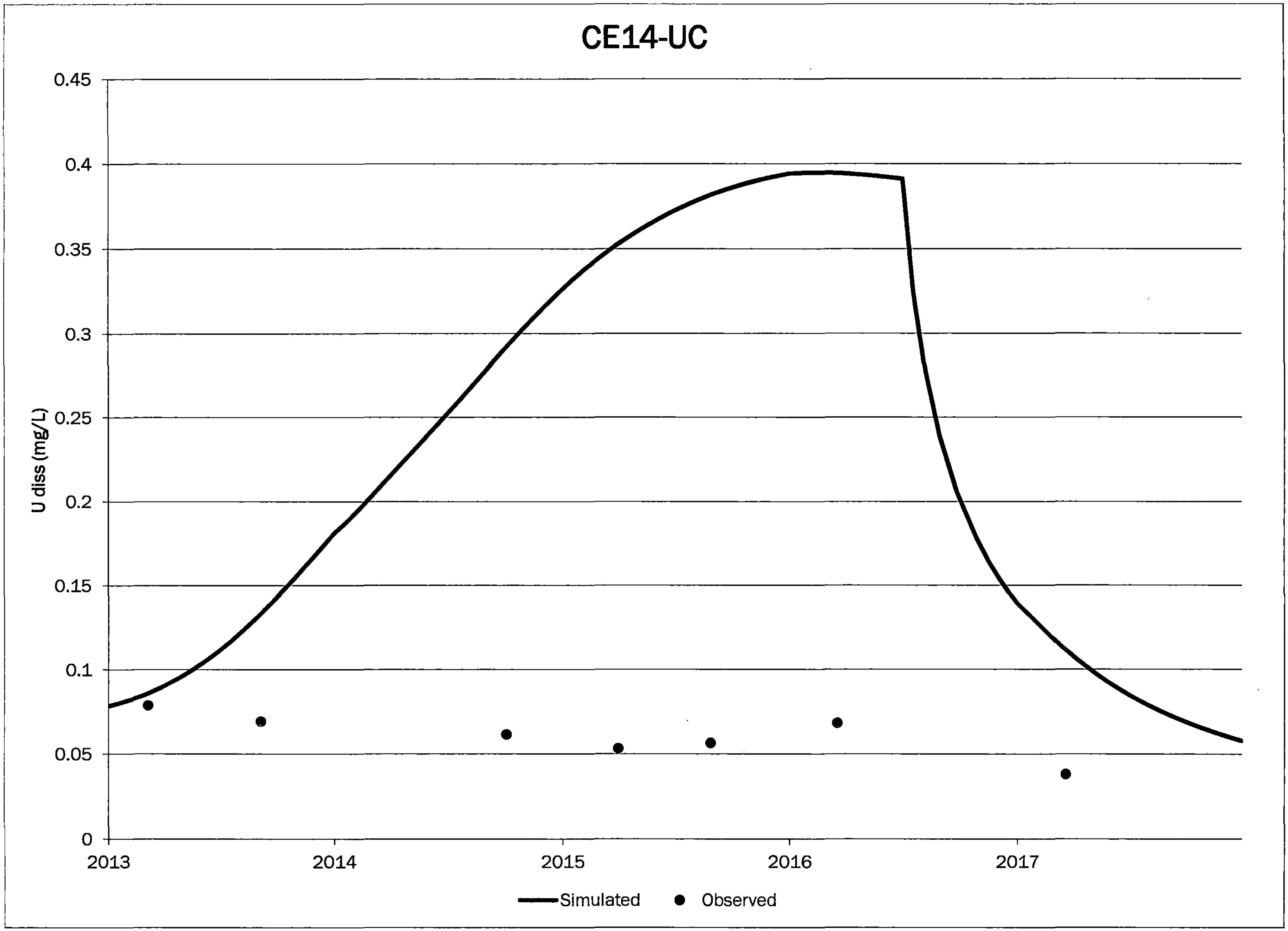

CE11-UC
U diss (mg/L)
0
1
2
3
4
5
6
2013
2014
2015
2016
2017
Simulated
Observed

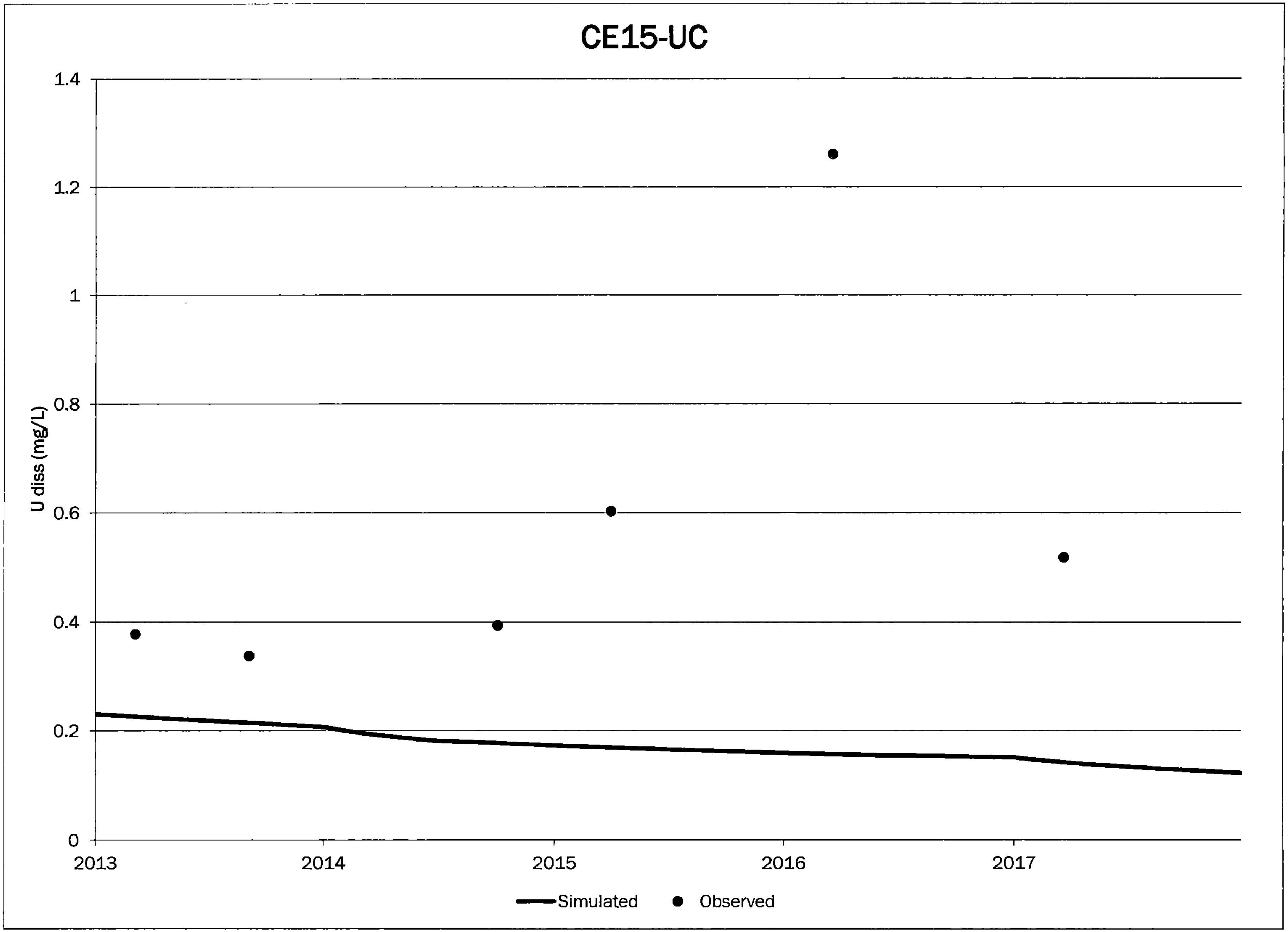


CE12-UC
U diss (mg/L)
0
1
2
3
4
5
6
7
8
2013
2014
2015
2016
2017
Simulated
Observed

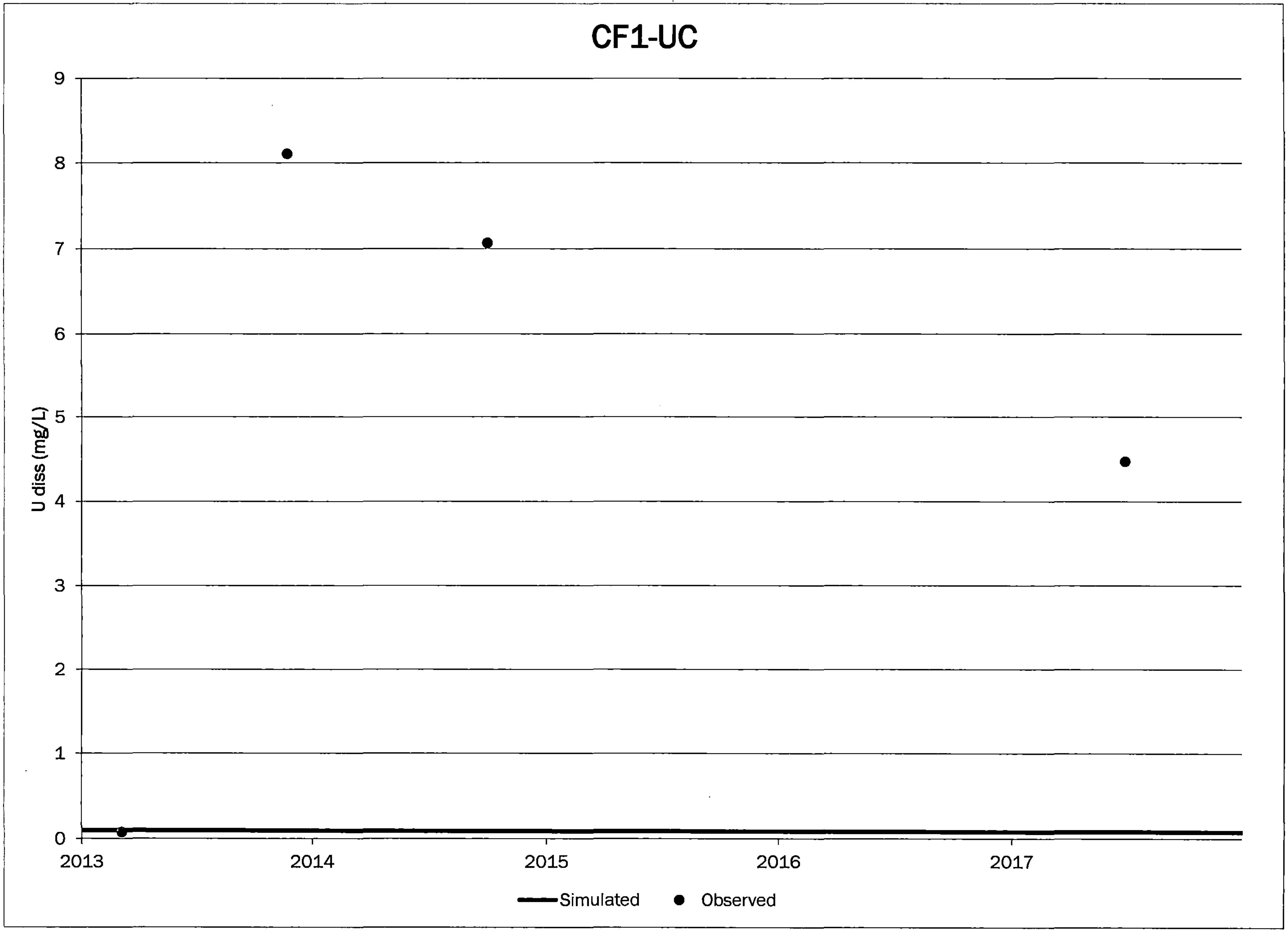


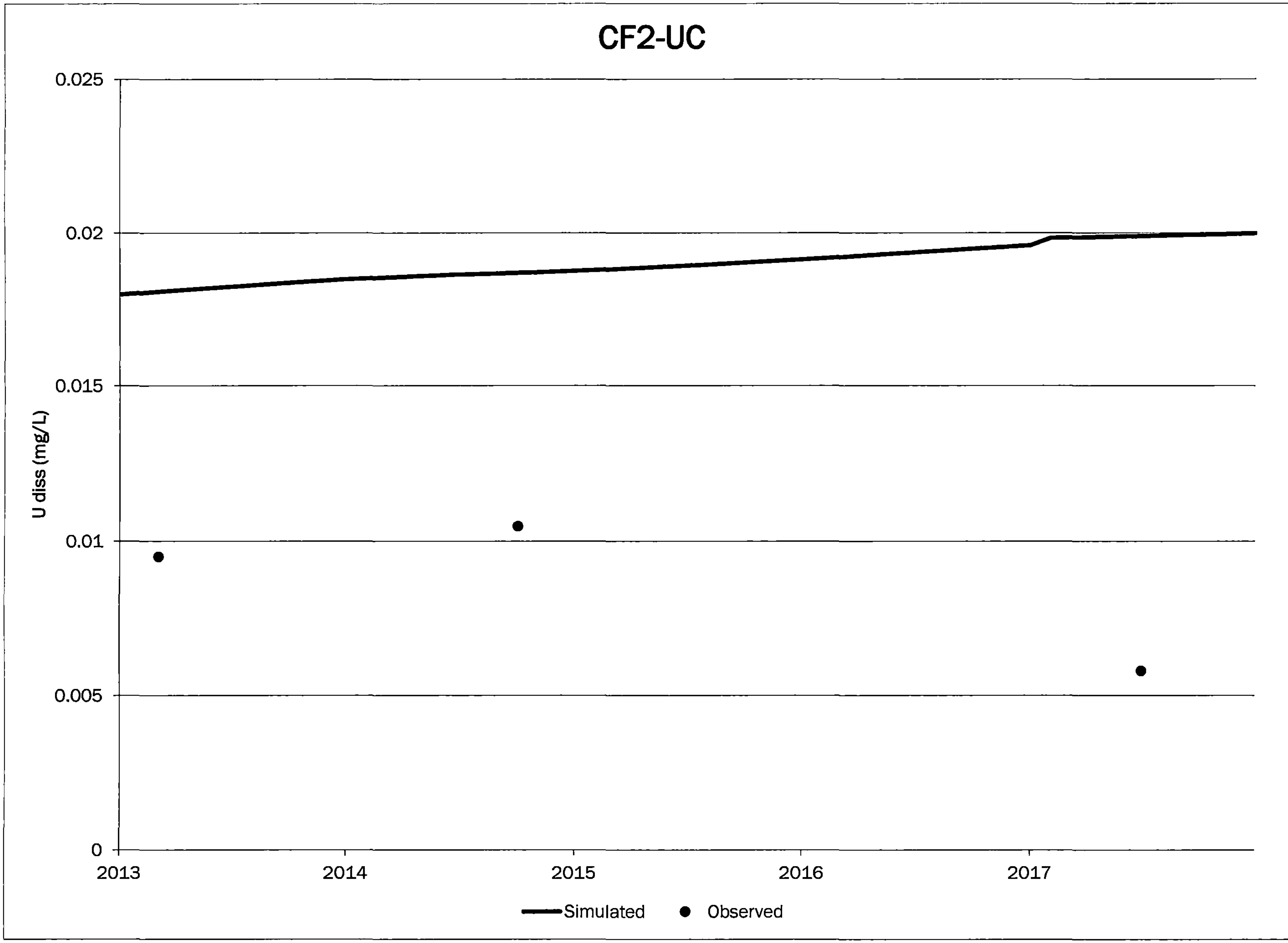
CE13-UC
U diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

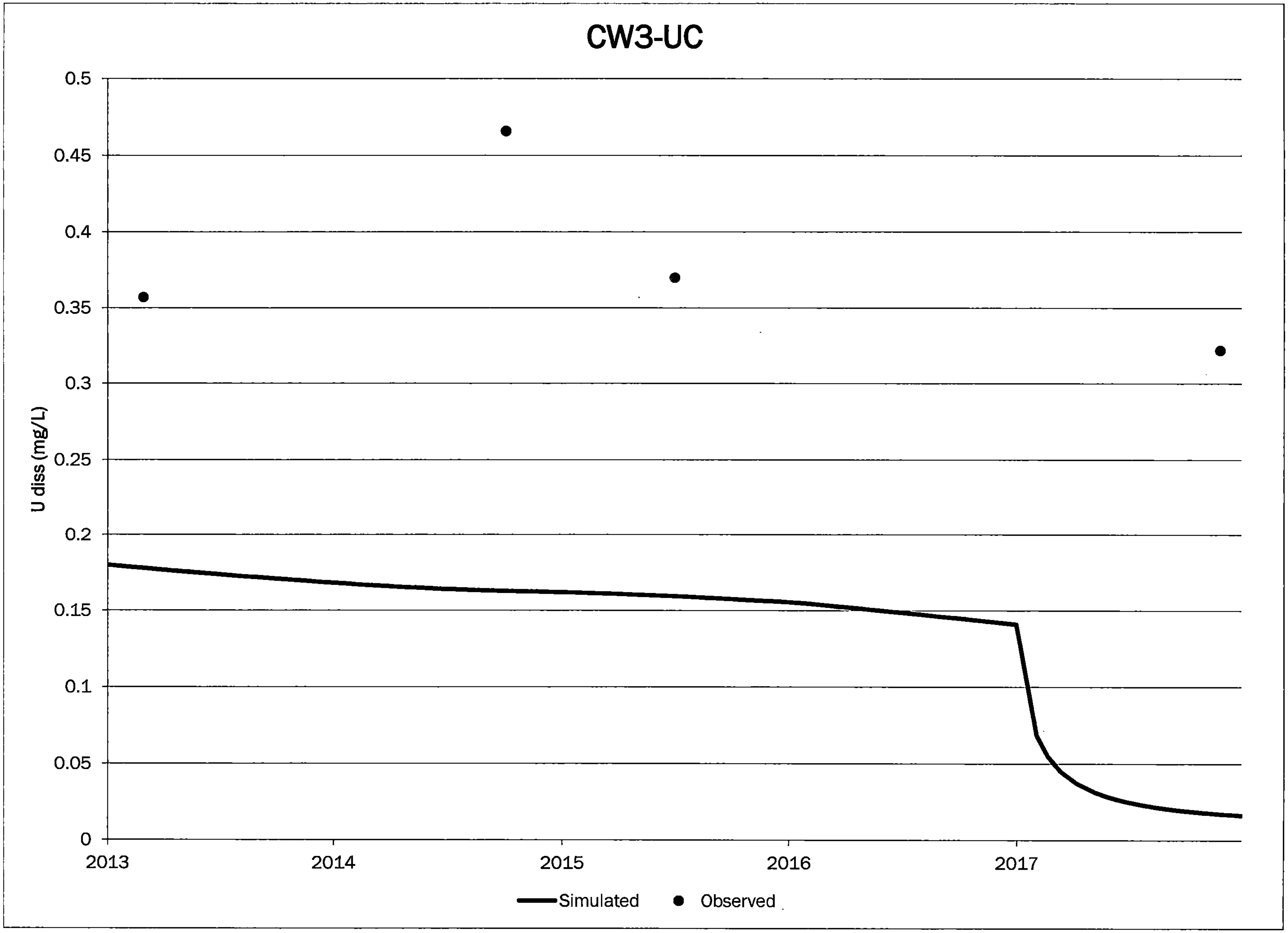

CE14-UC
U diss (mg/L)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

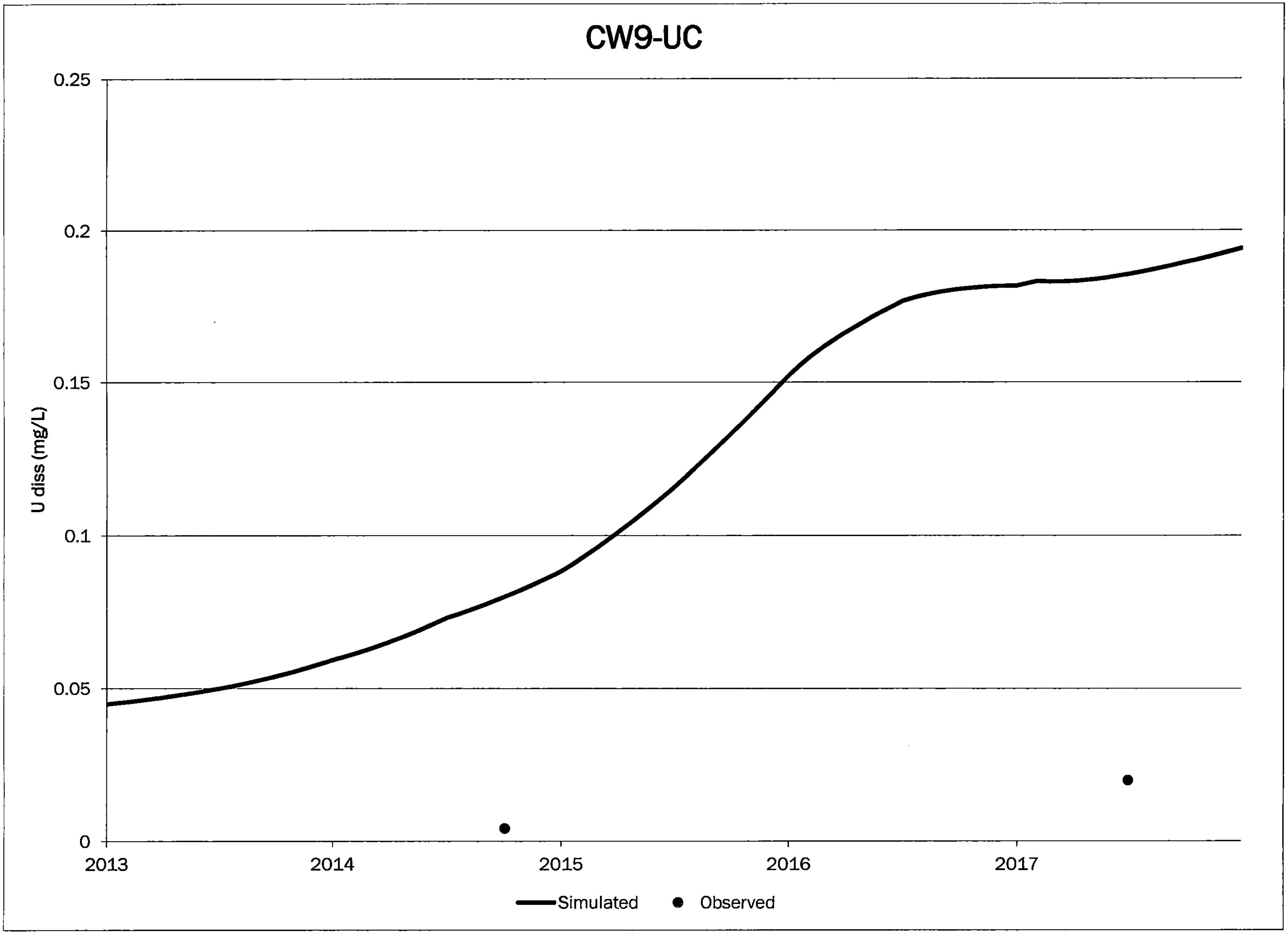


CE15-UC
U diss (mg/L)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

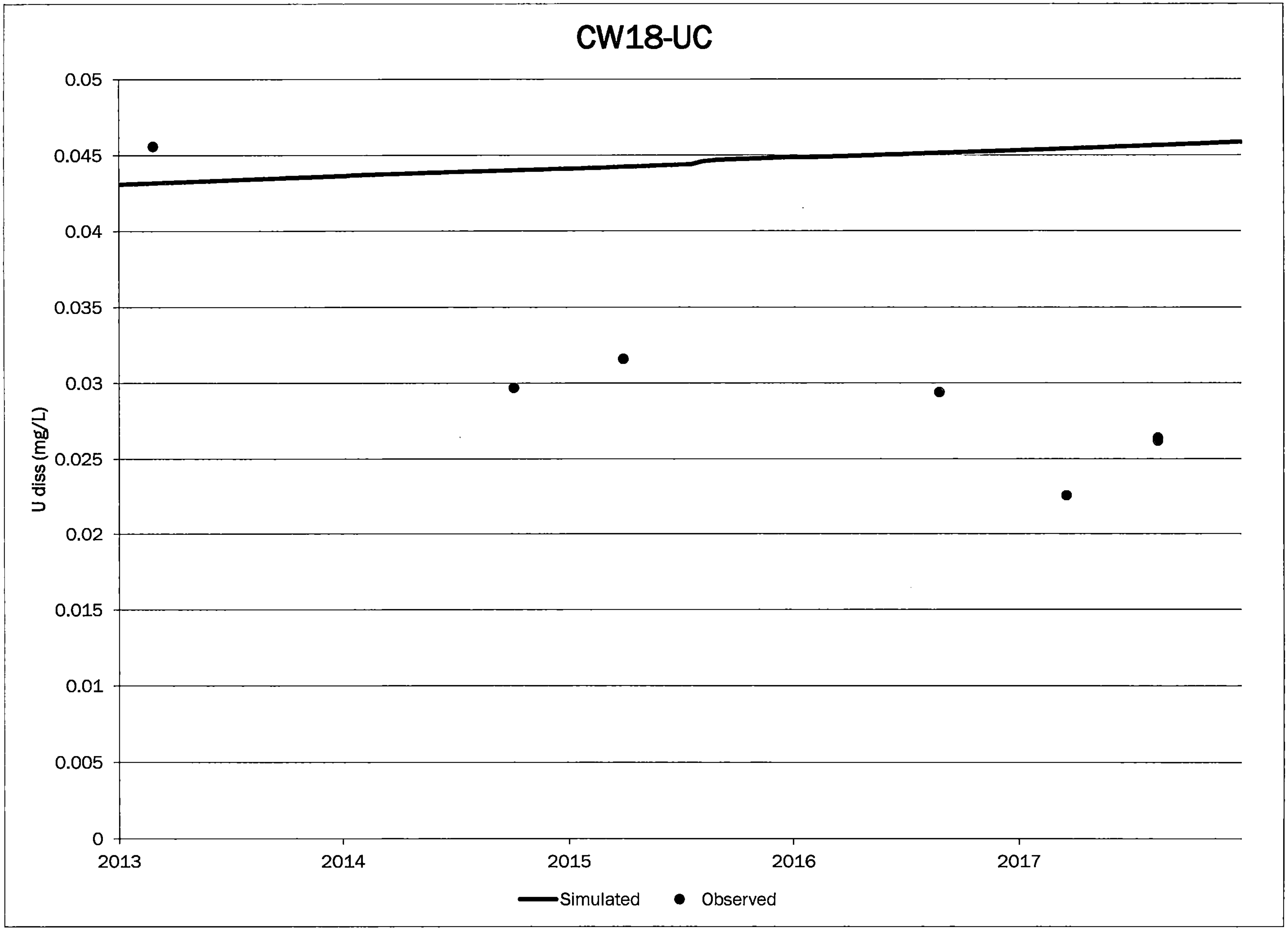

CF1-UC
U diss (mg/L)
9
8
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed


CF2-UC
U diss (mg/L)
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

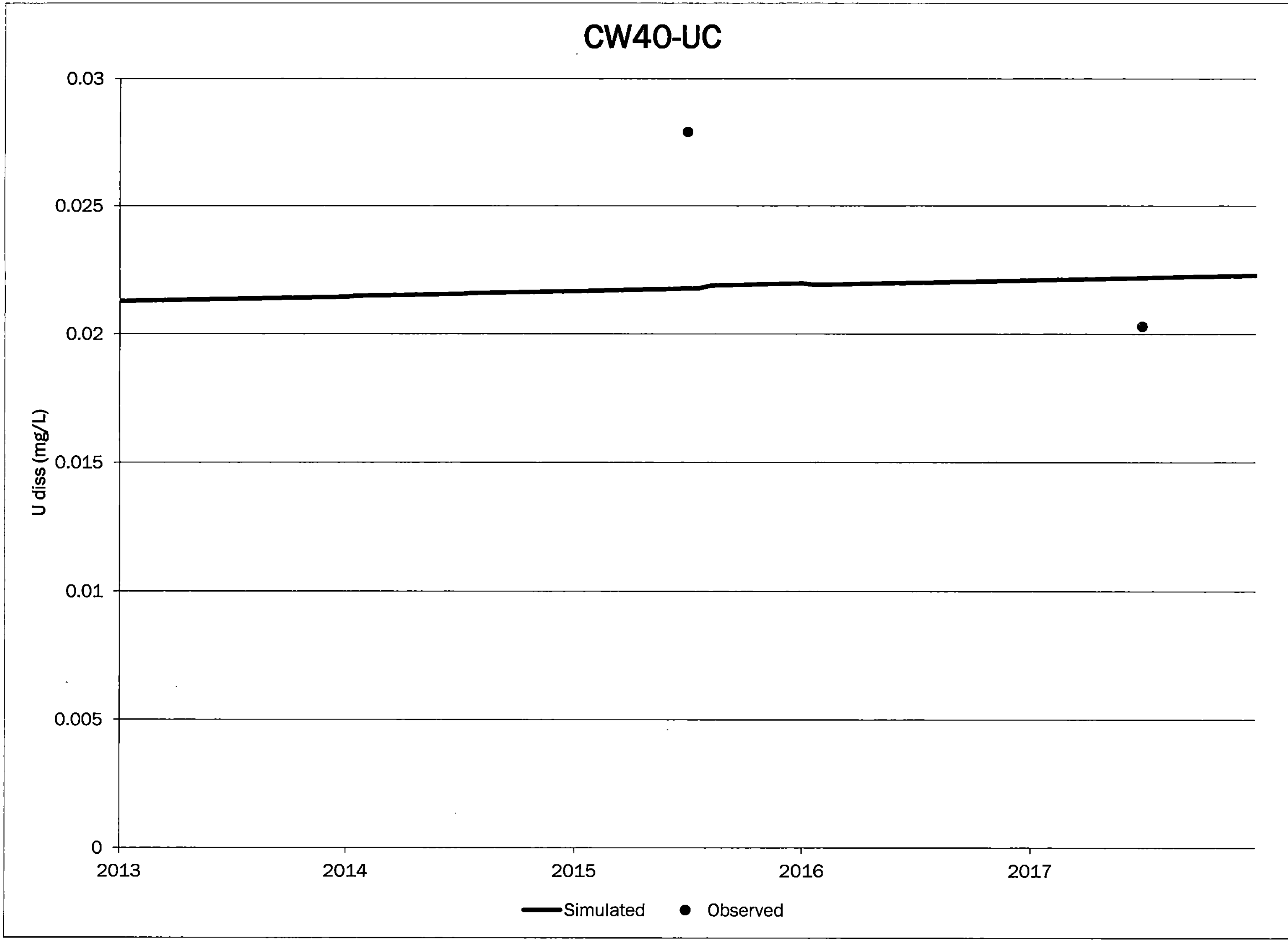

CW3-UC
U diss (mg/L)
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



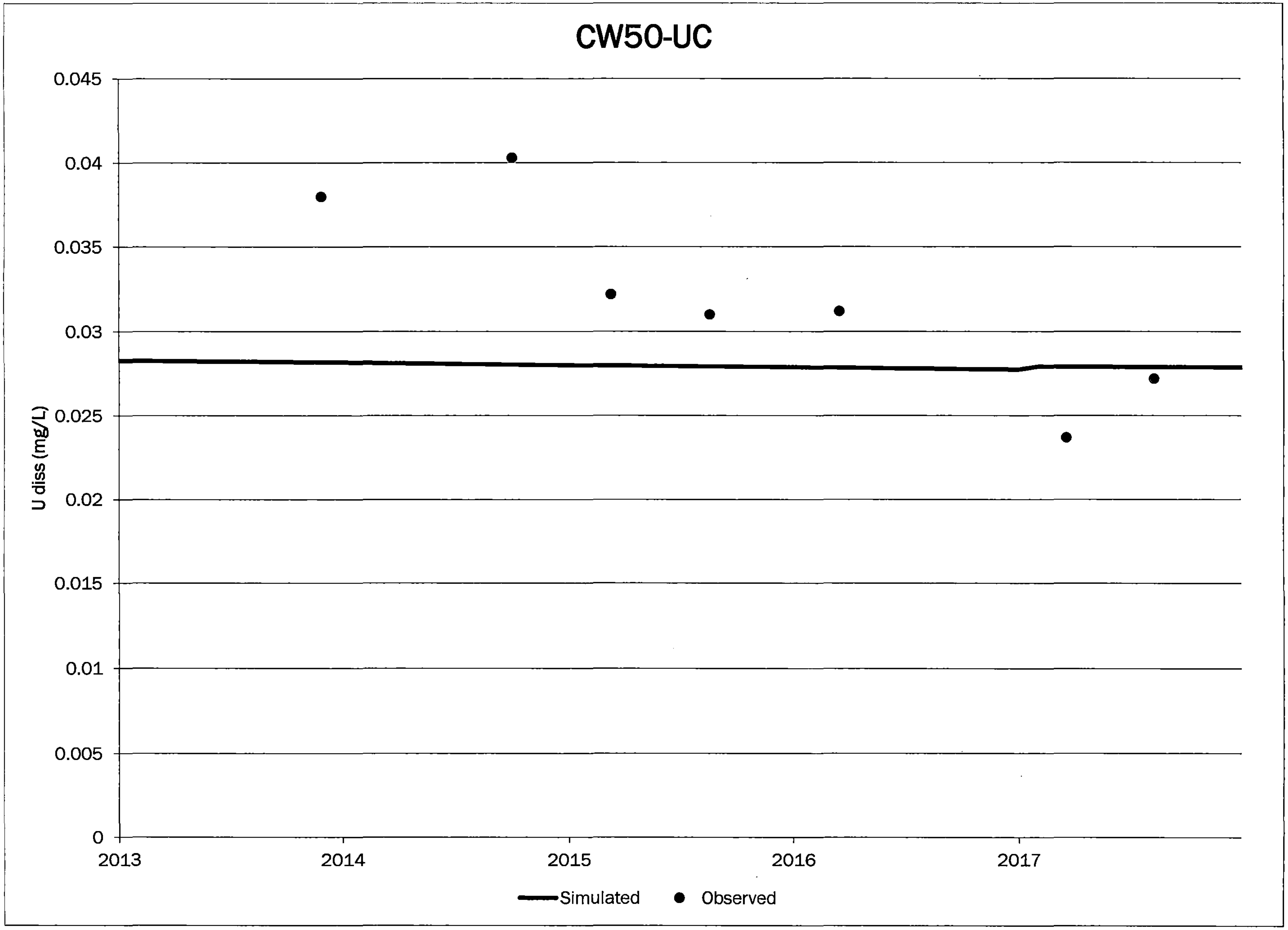
CW9-UC
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

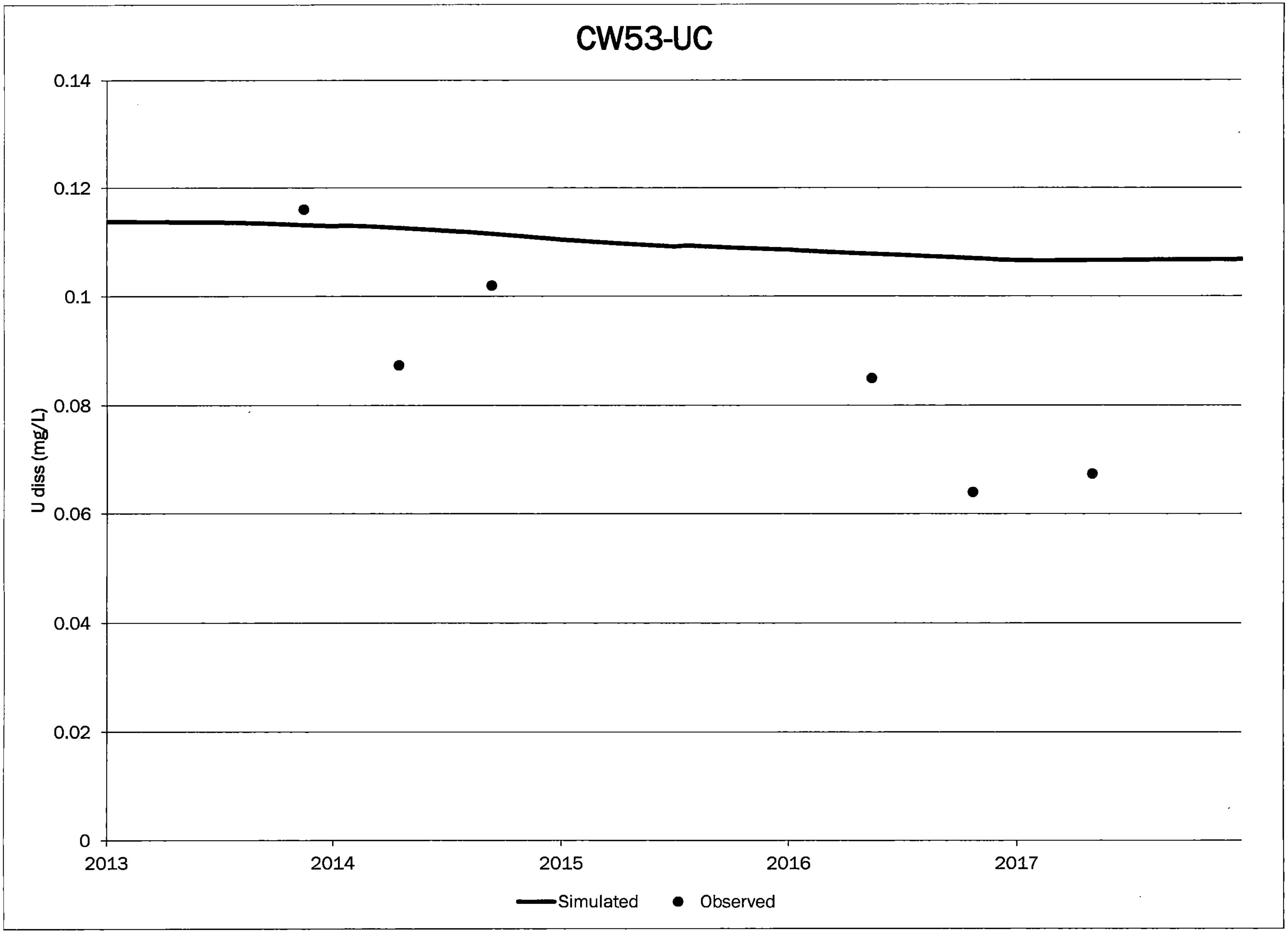


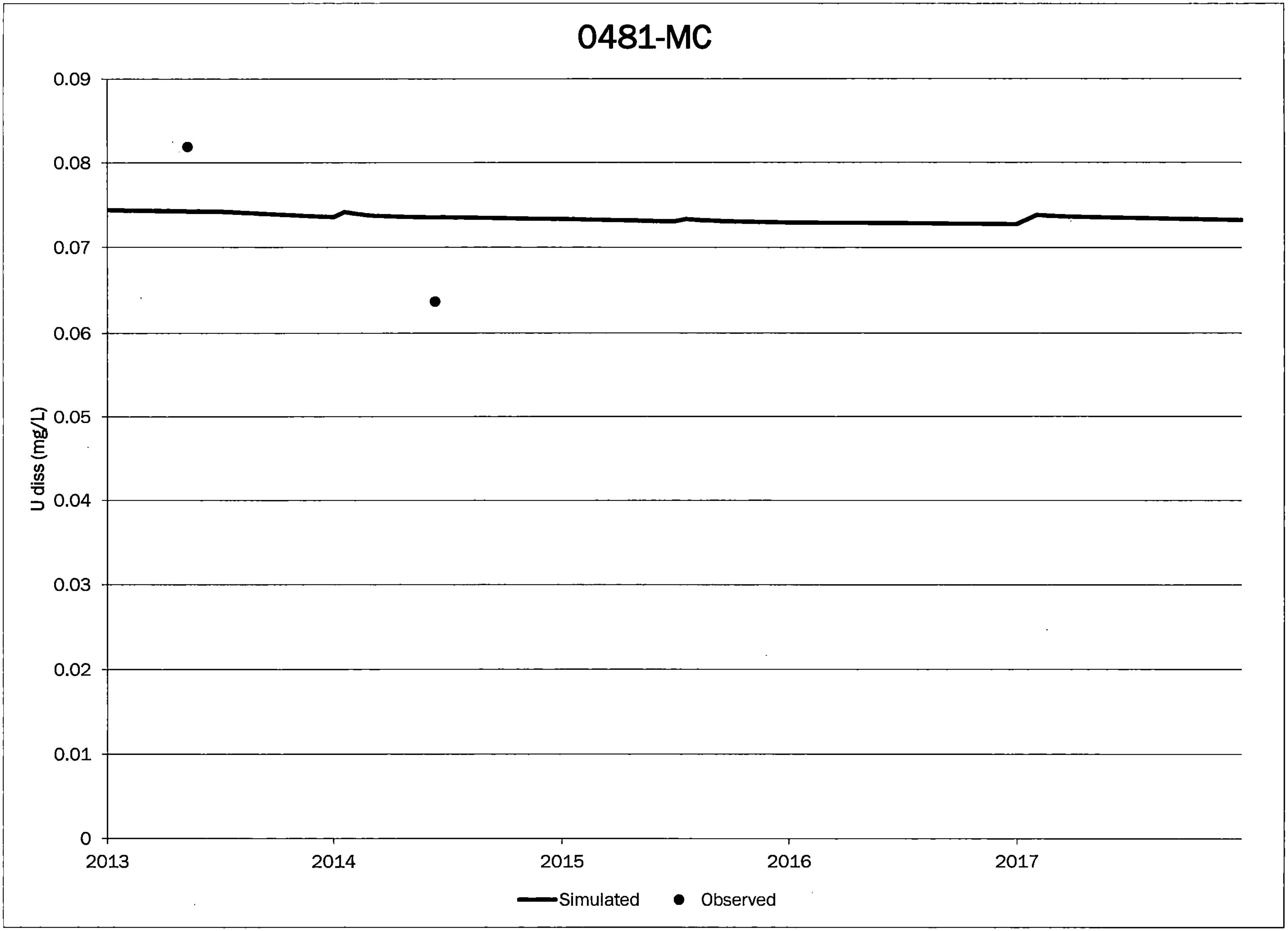
CW18-UC
U diss (mg/L)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

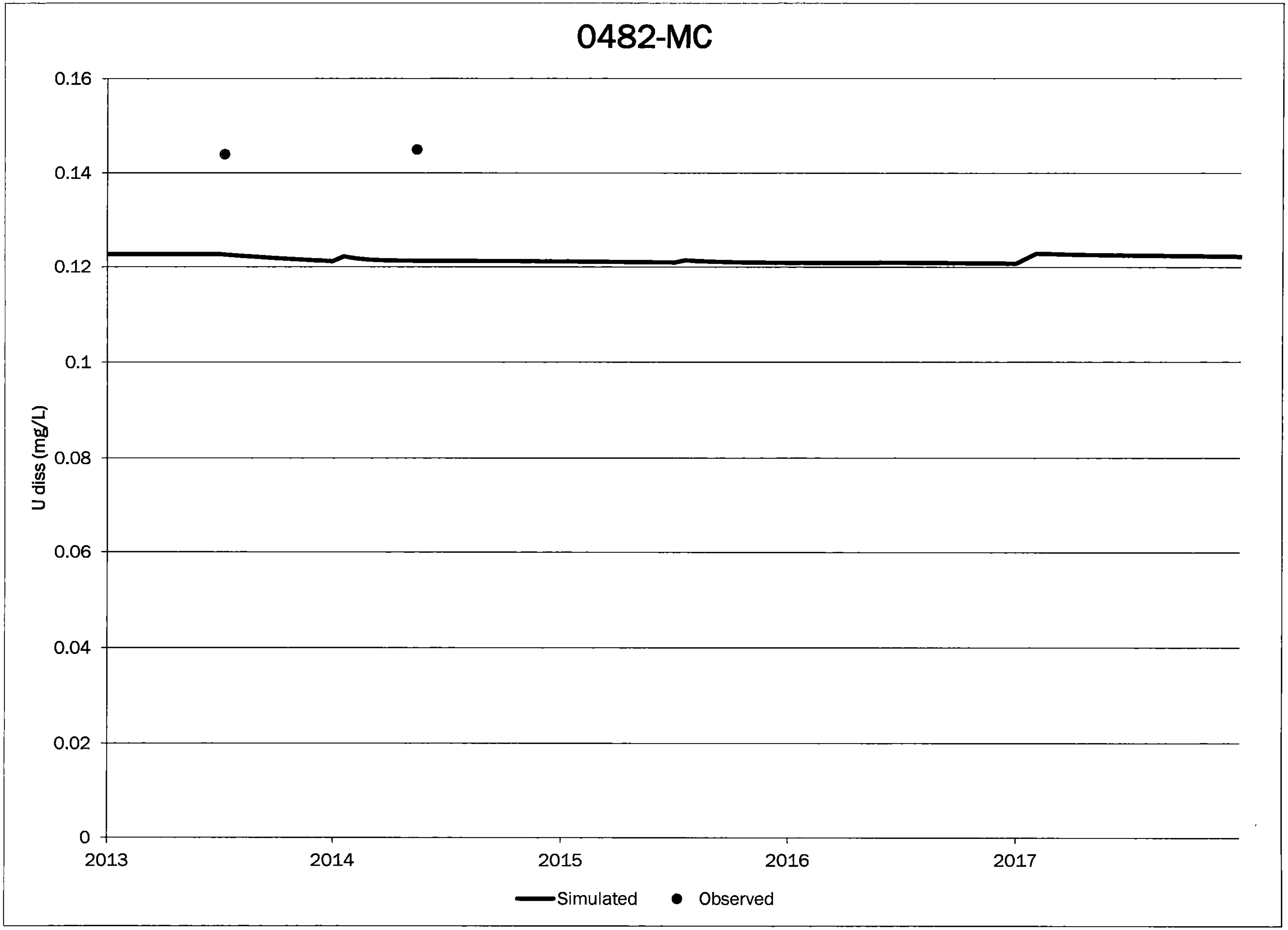


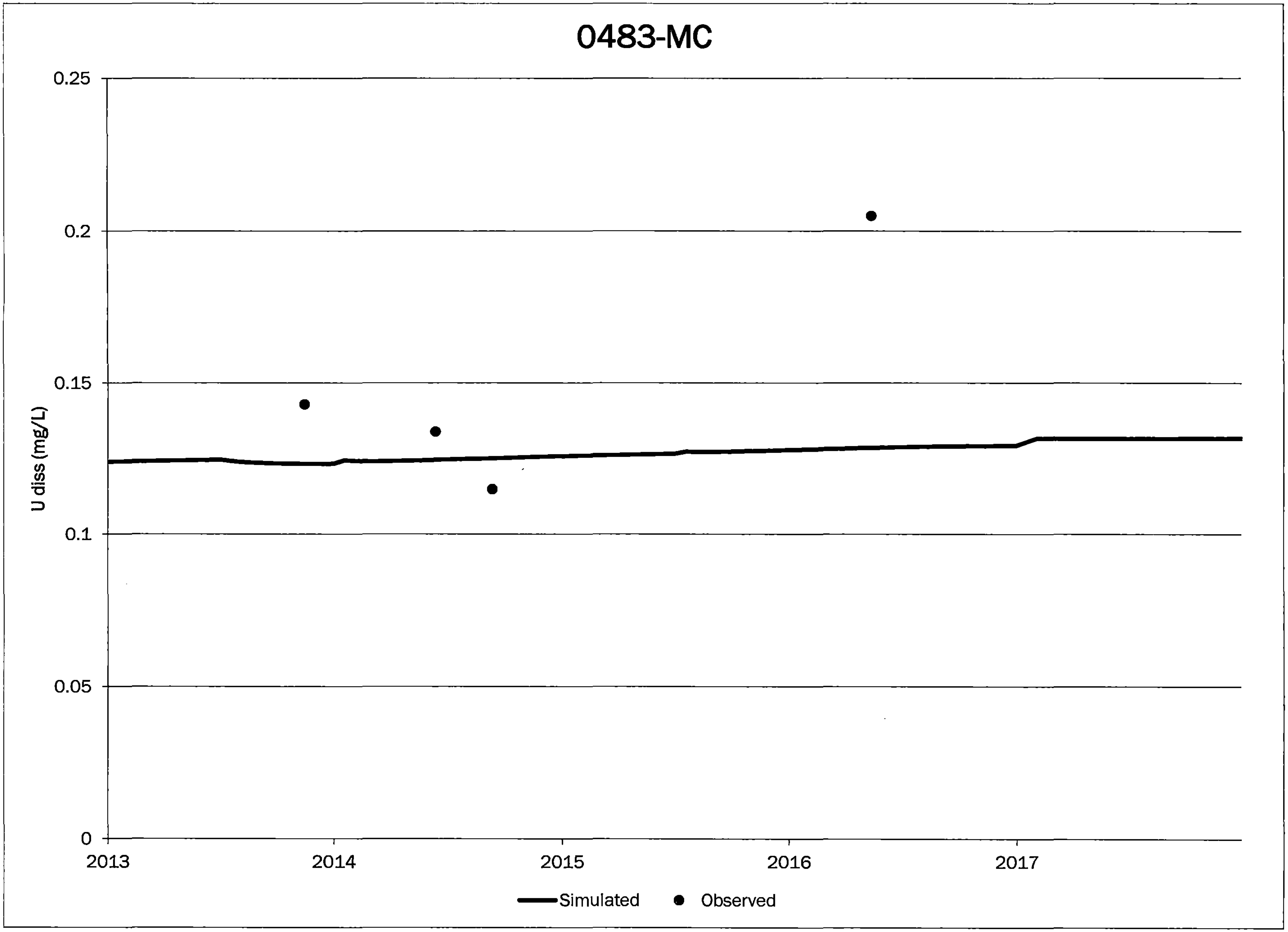
CW40-UC
0.03
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


CW50-UC
U diss (mg/L)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

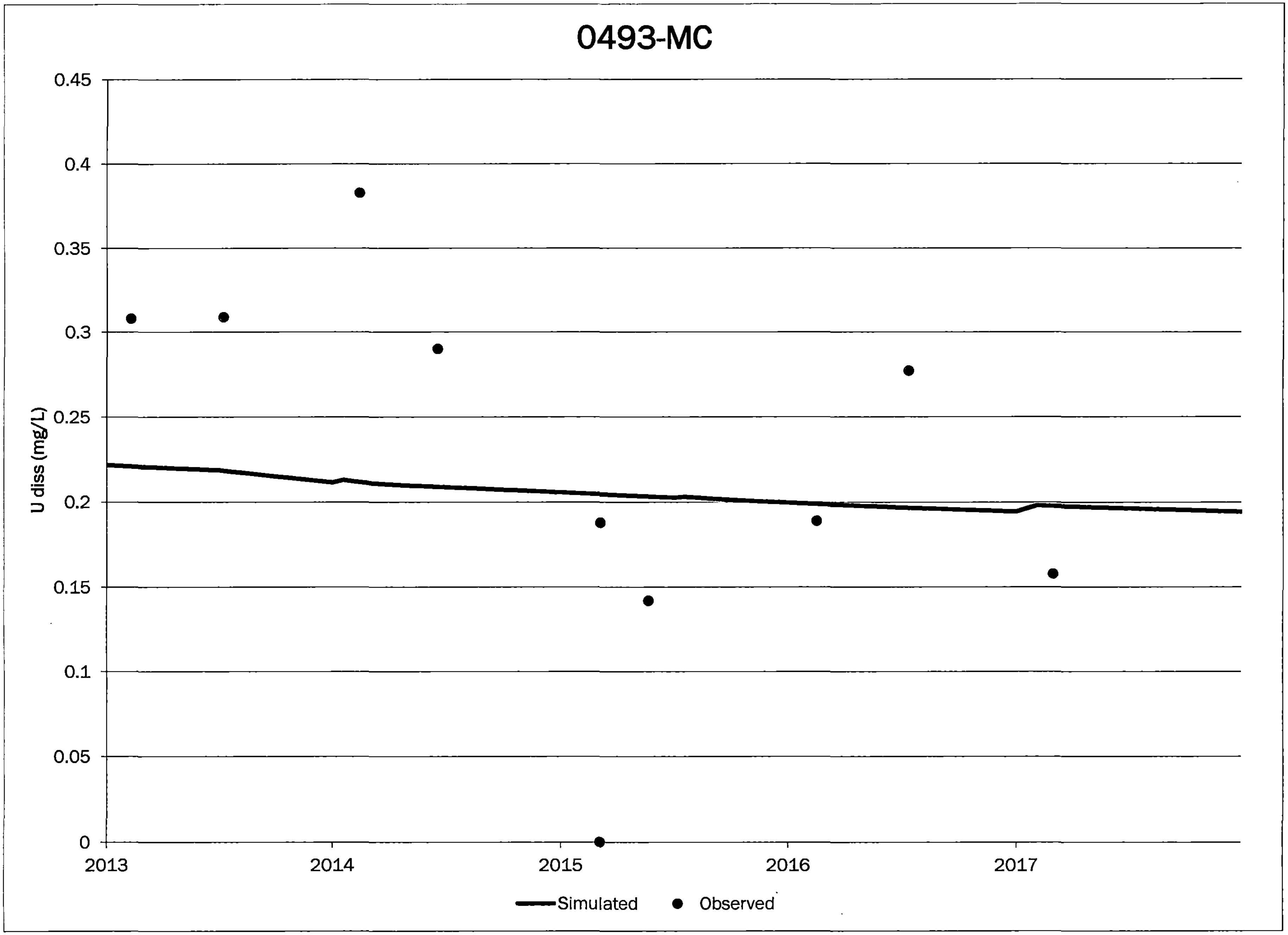

CW53-UC
U diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

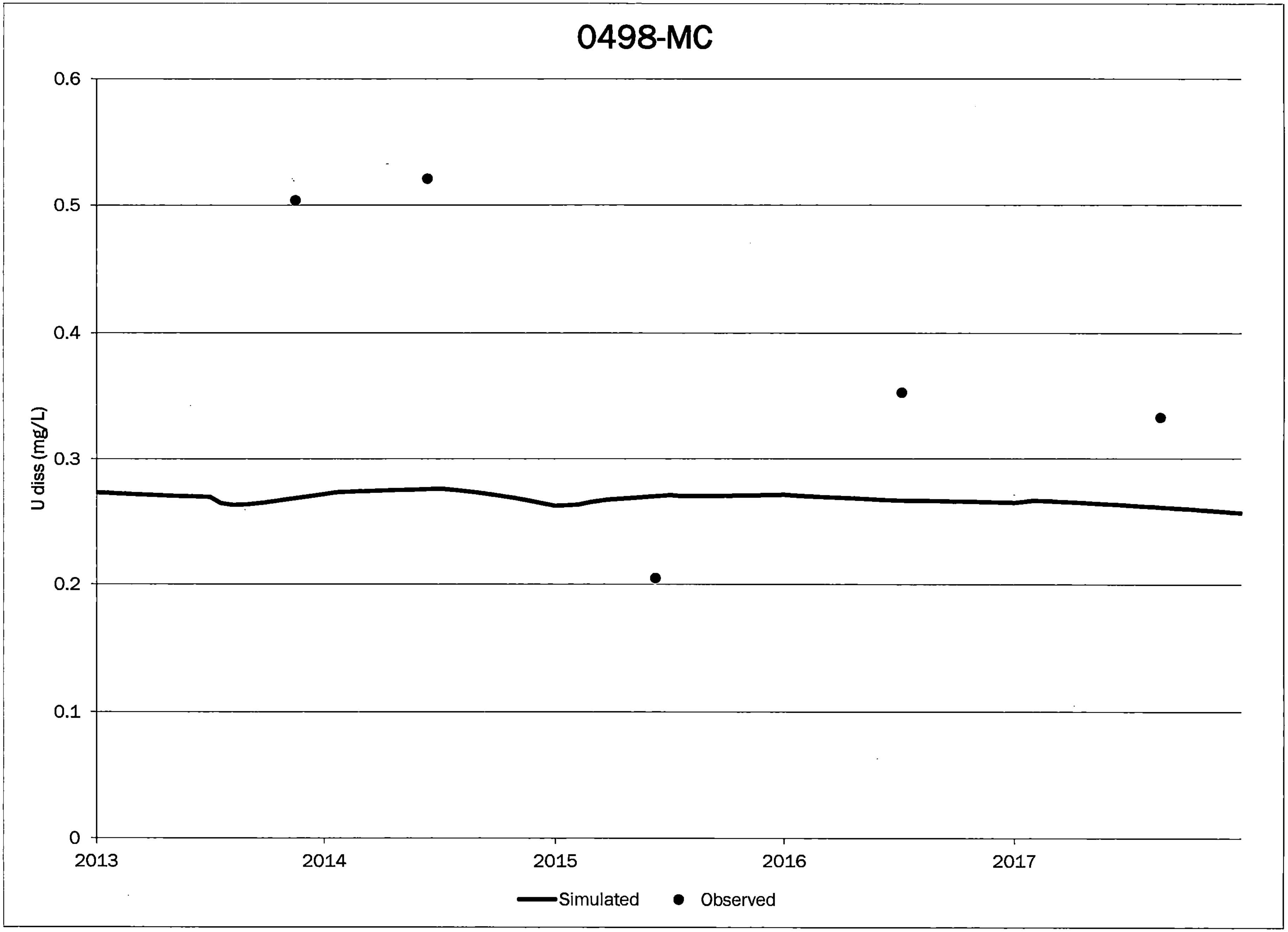

0481-MC
U diss (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

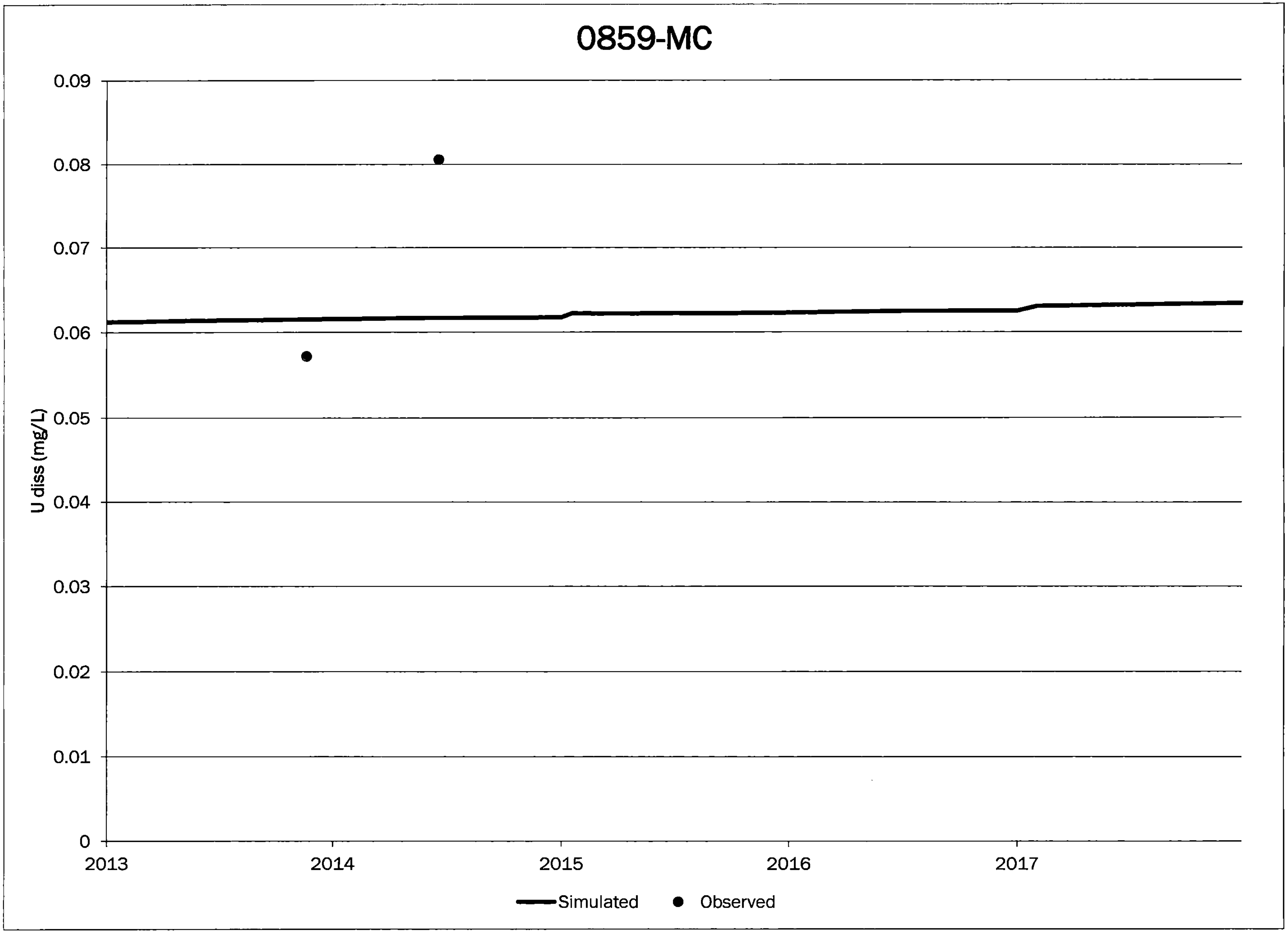

0482-MC
U diss (mg/L)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

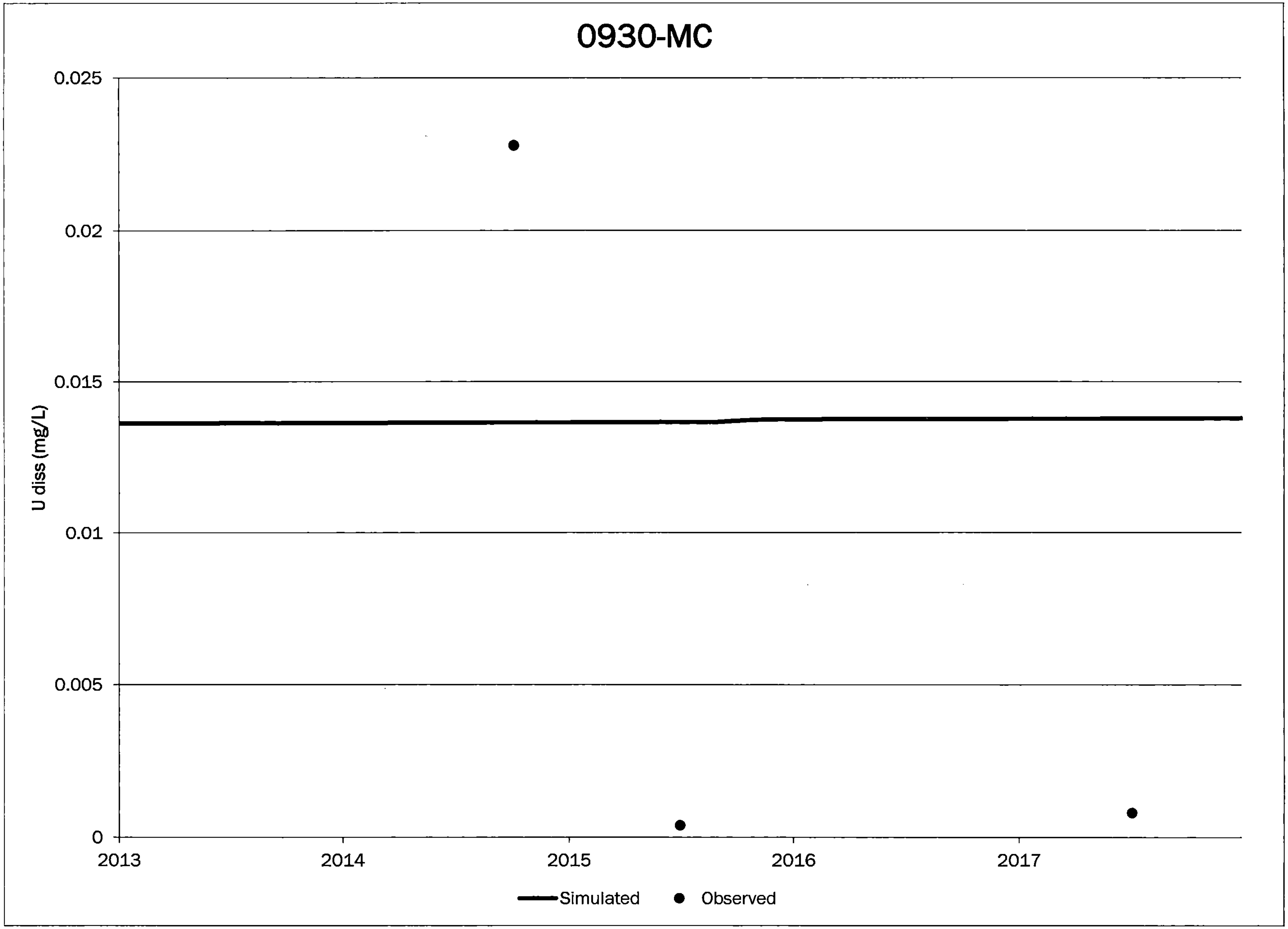


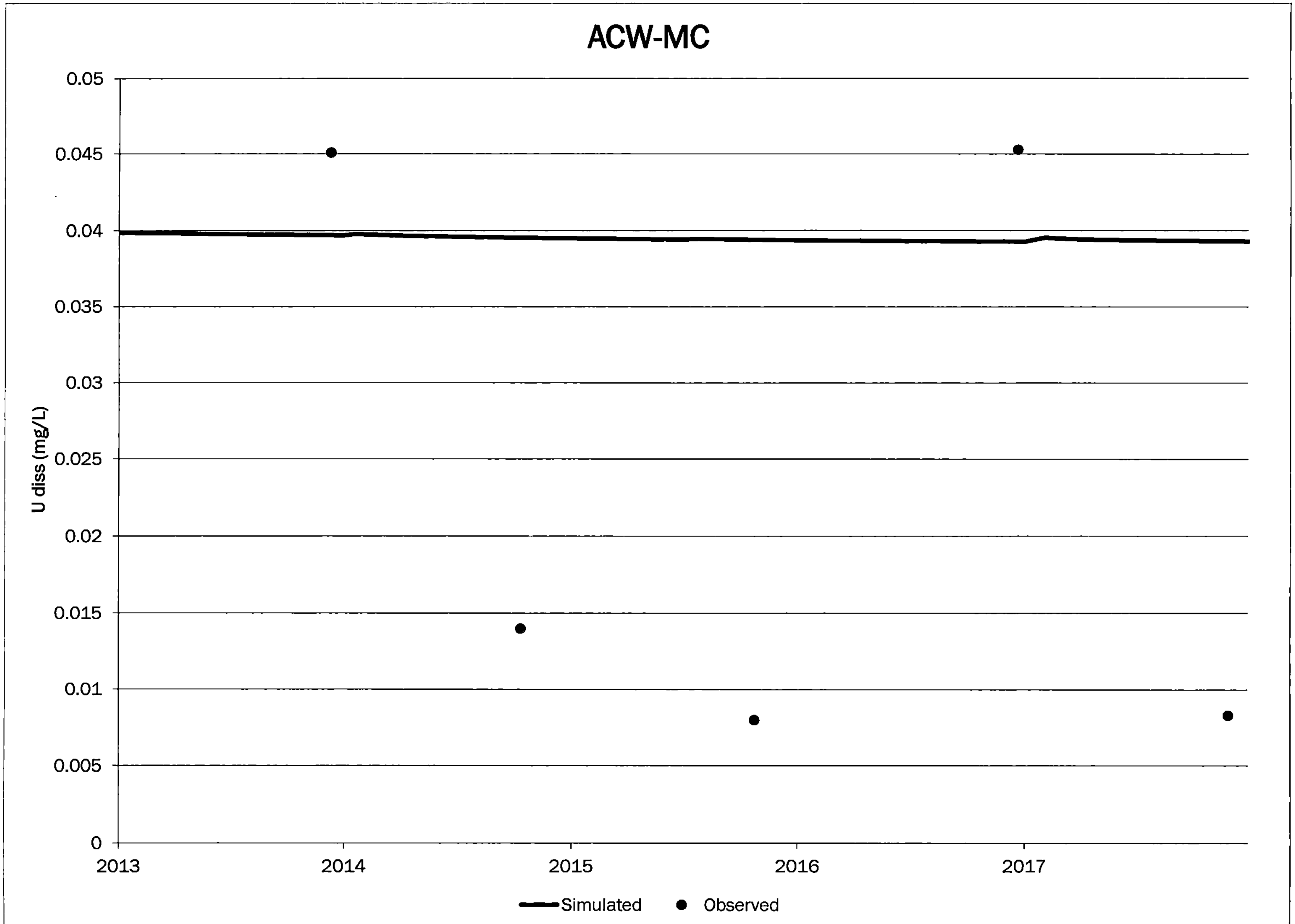
0483-MC
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

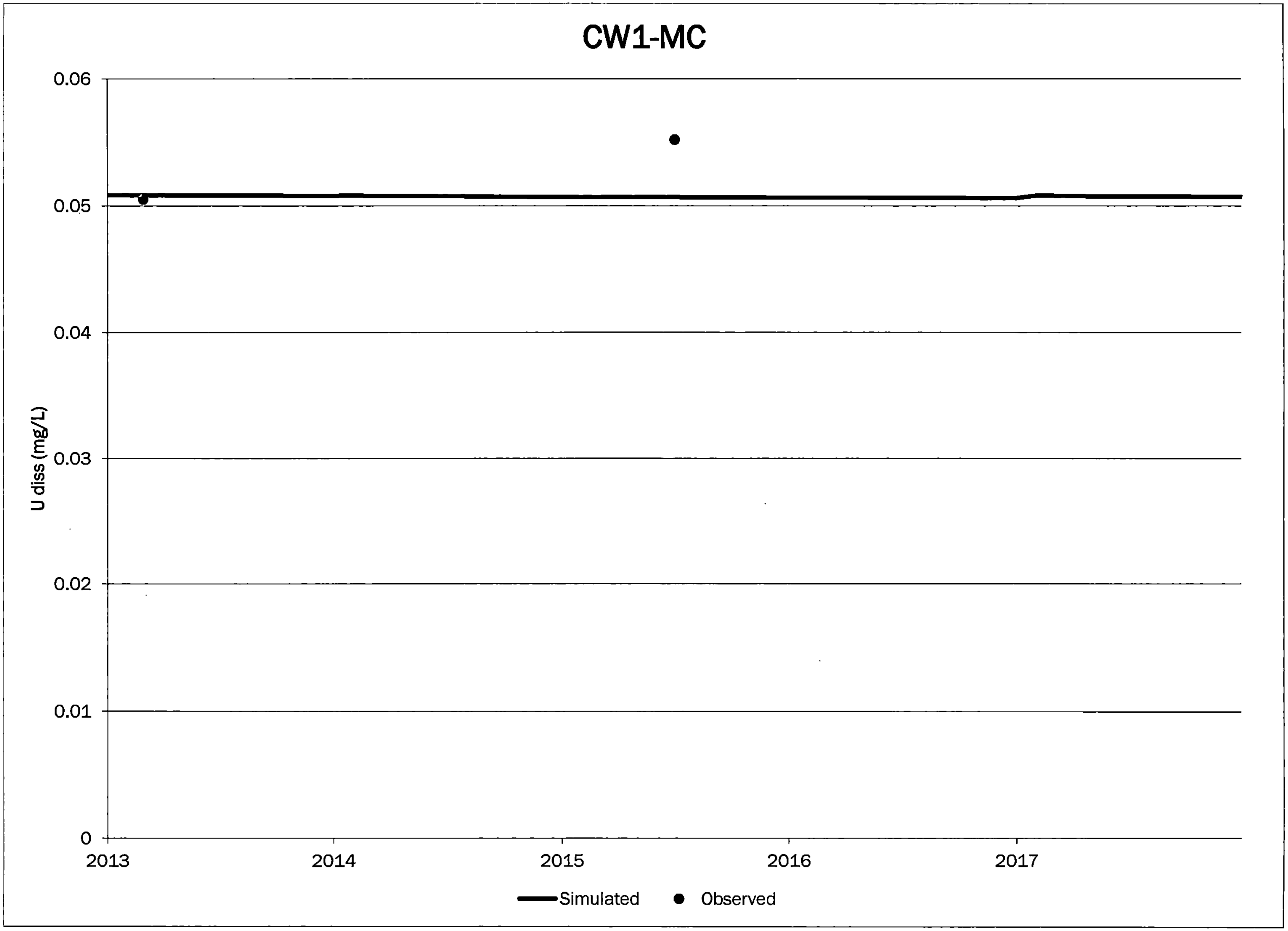

0493-MC
U diss (mg/L)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

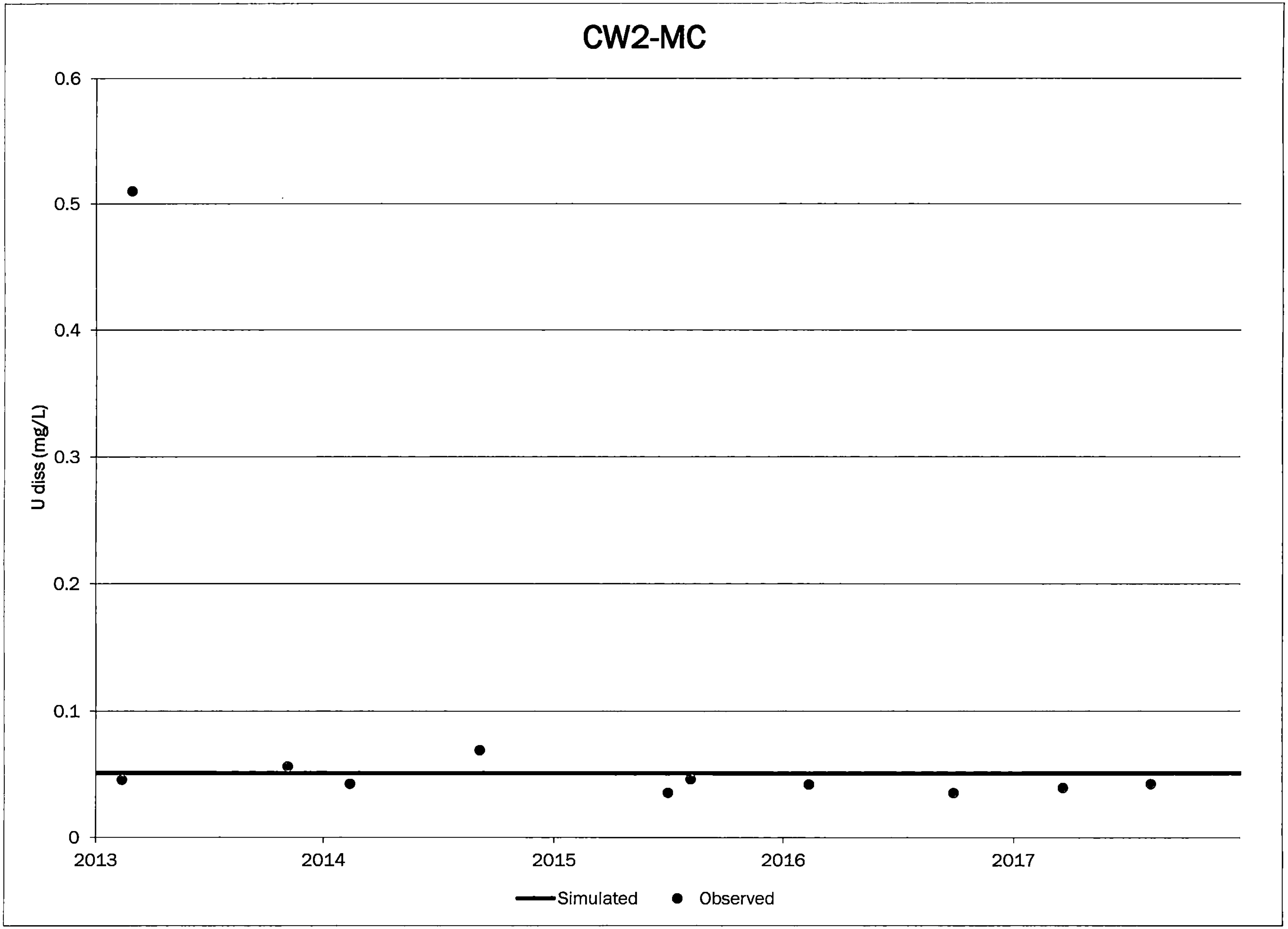

0498-MC
U diss (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed


0859-MC
U diss (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

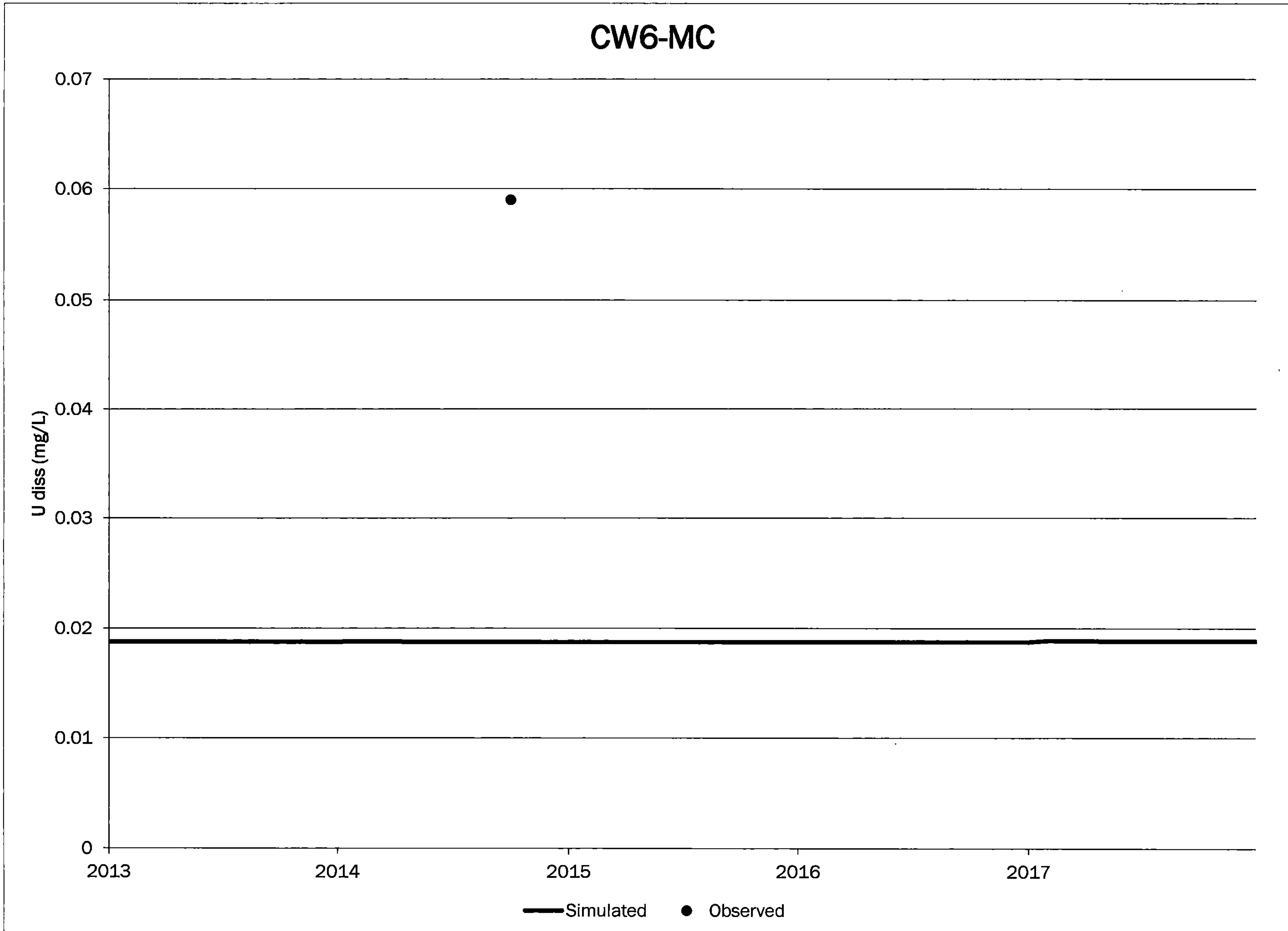

0930-MC
U diss (mg/L)
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


ACW-MC
U diss (mg/L)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

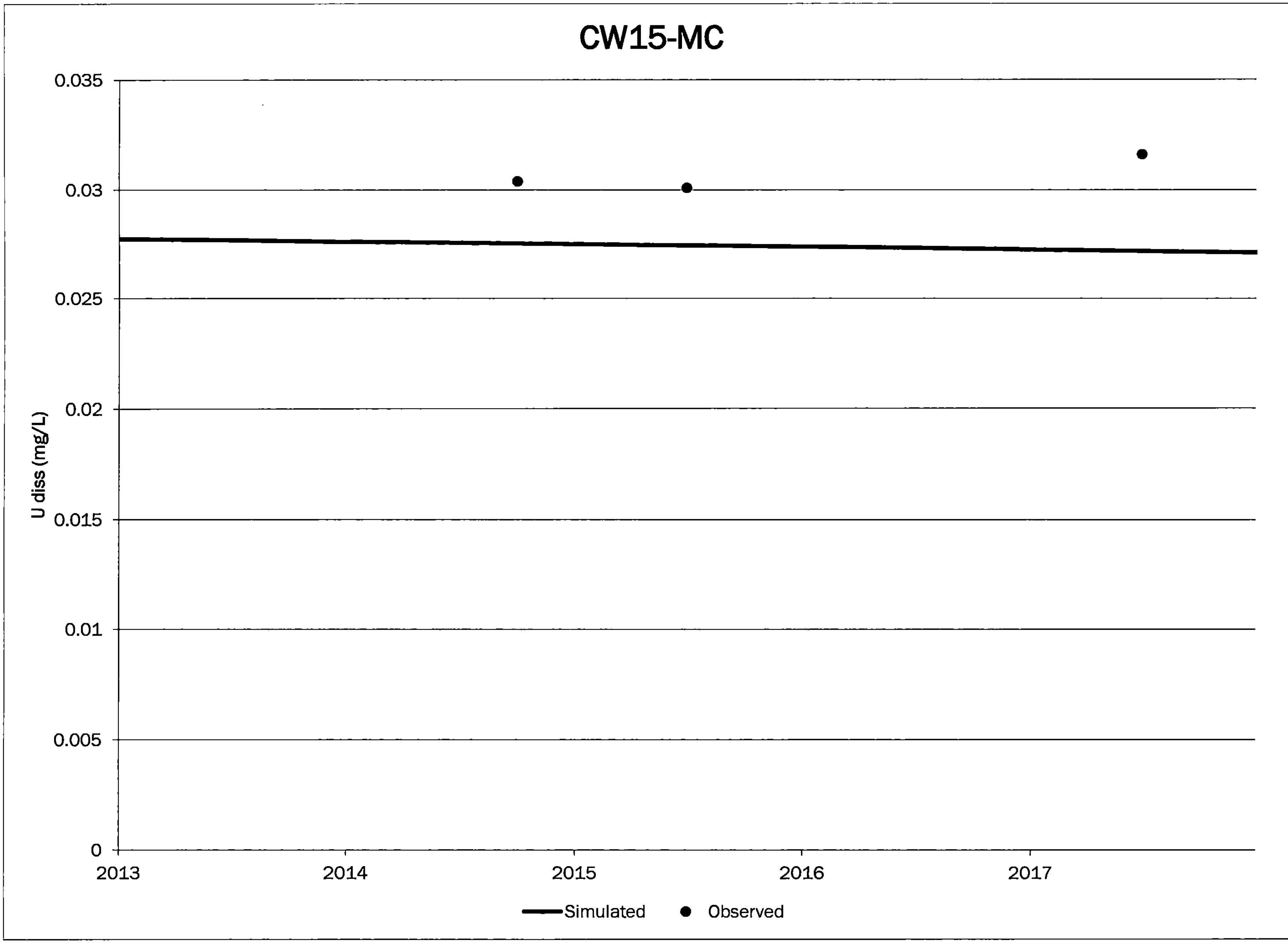

CW1-MC
U diss (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

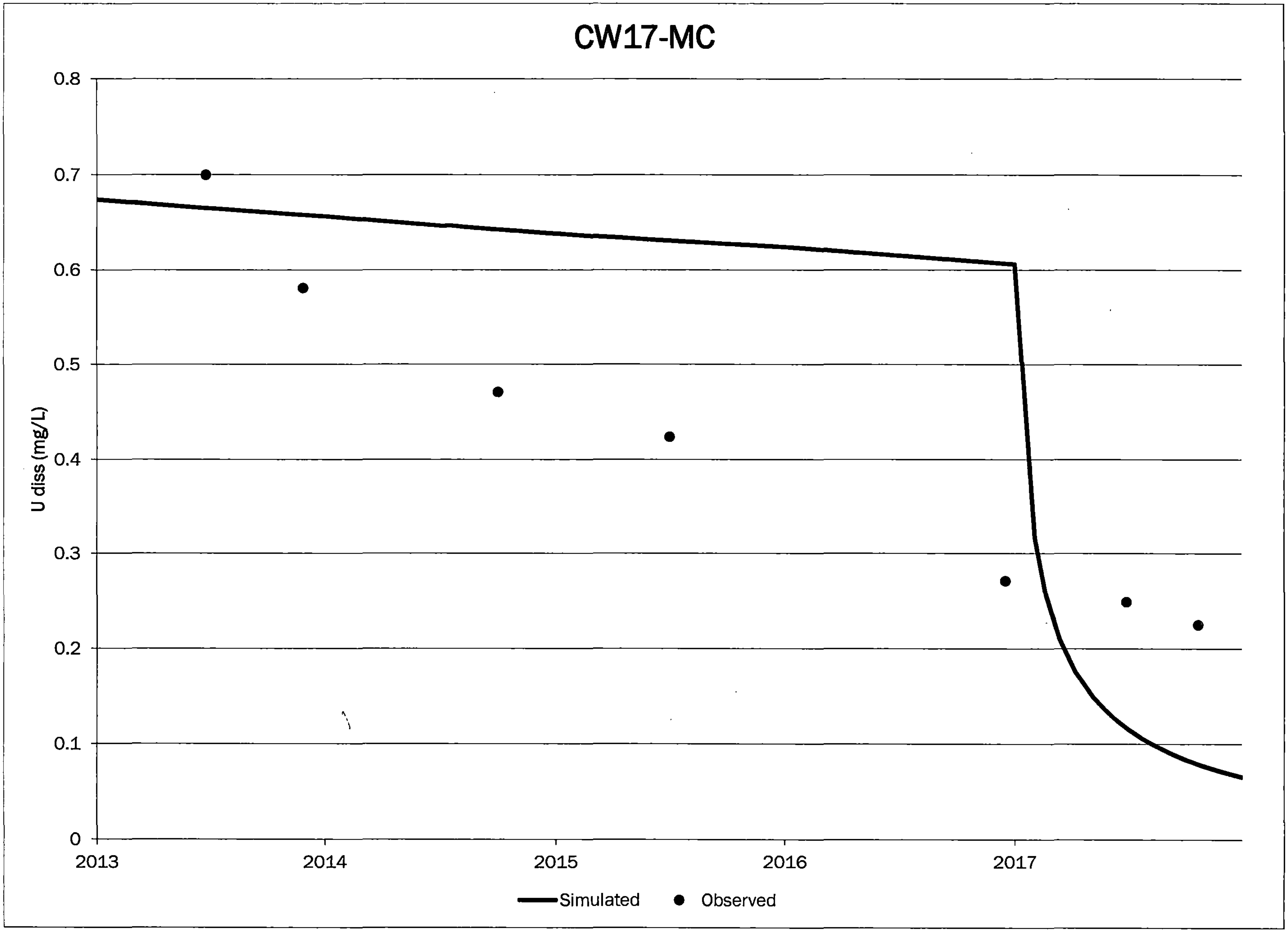


CW2-MC
U diss (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

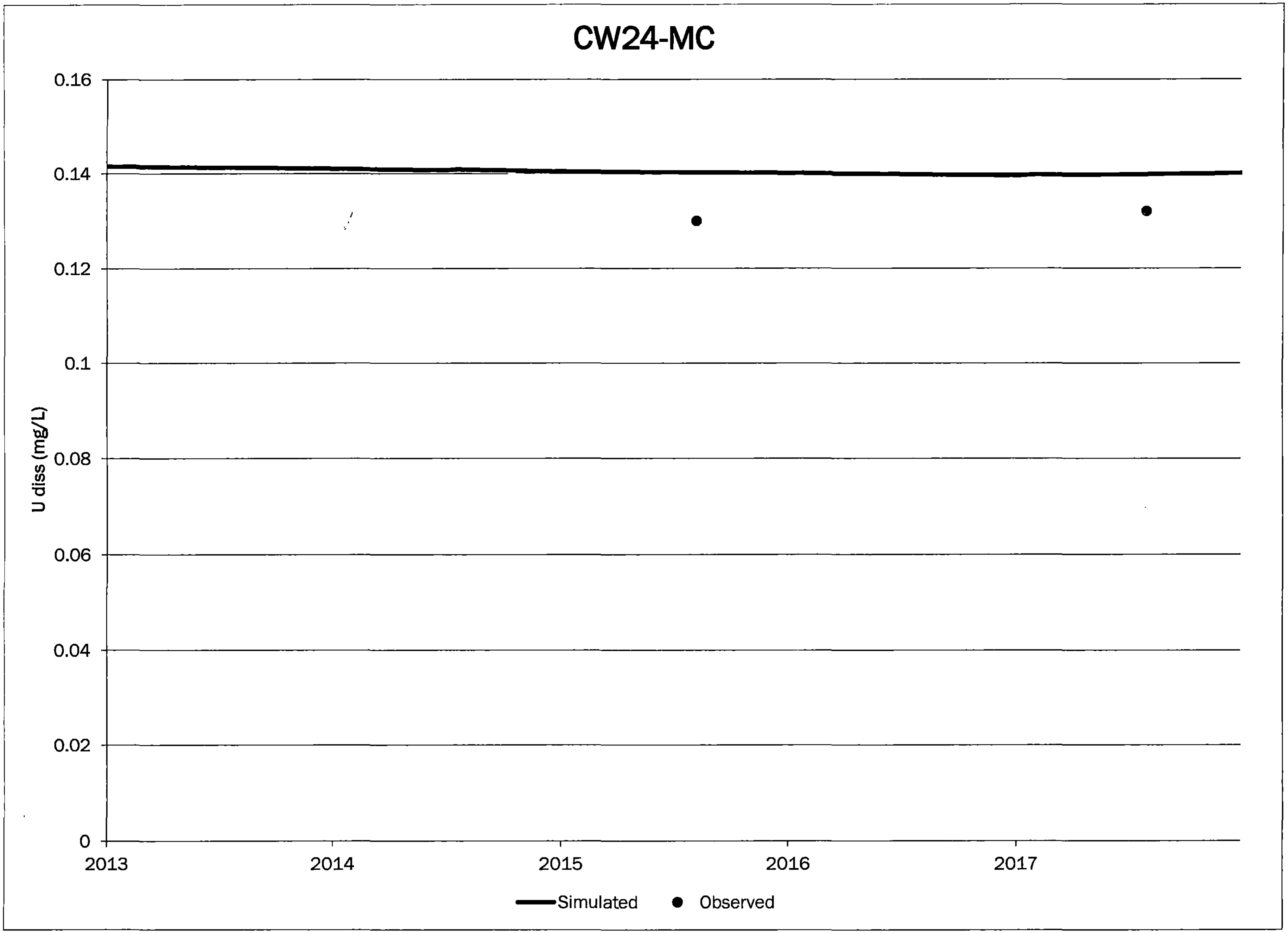


CW6-MC
U diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

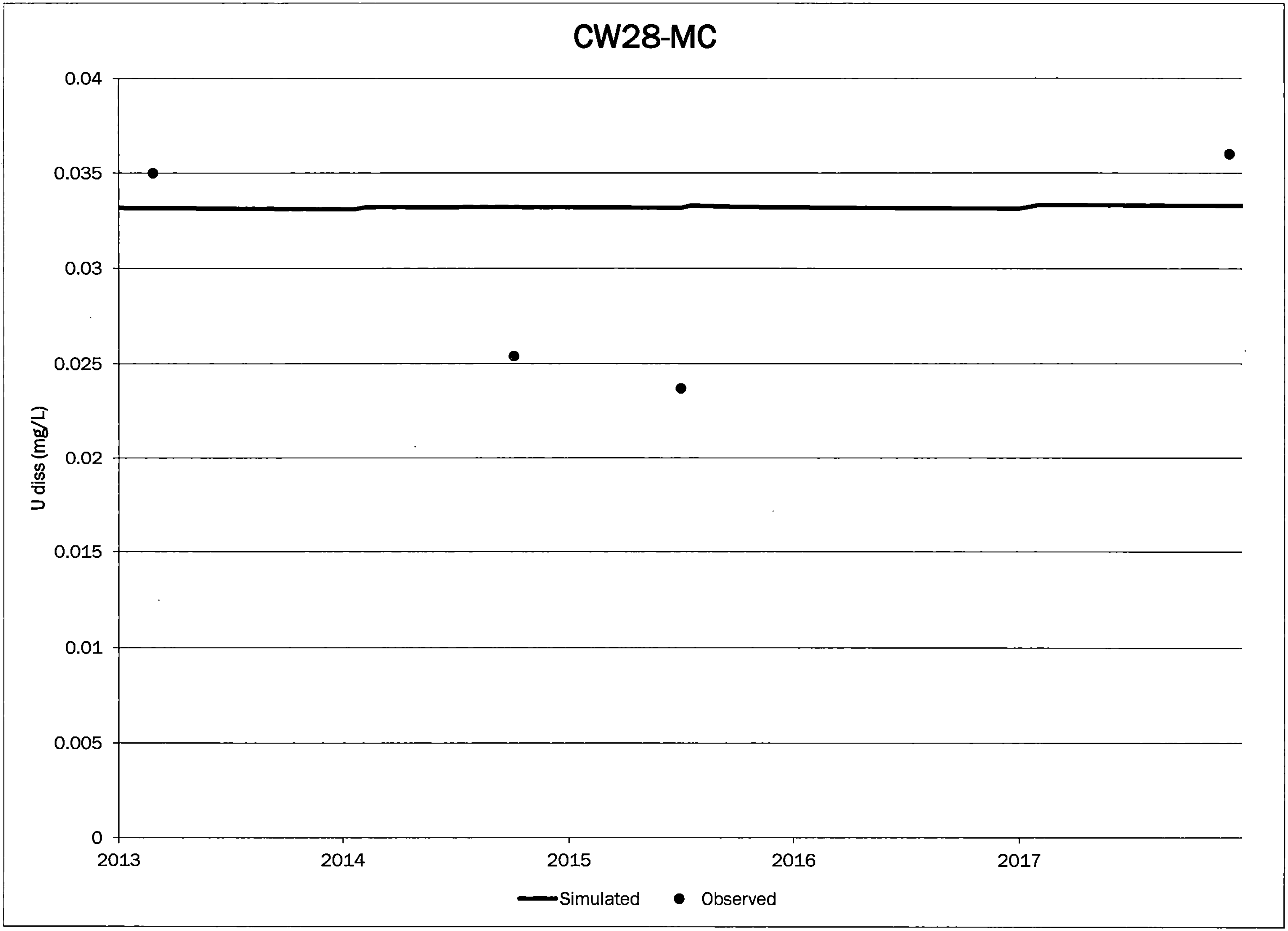

CW15-MC
U diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

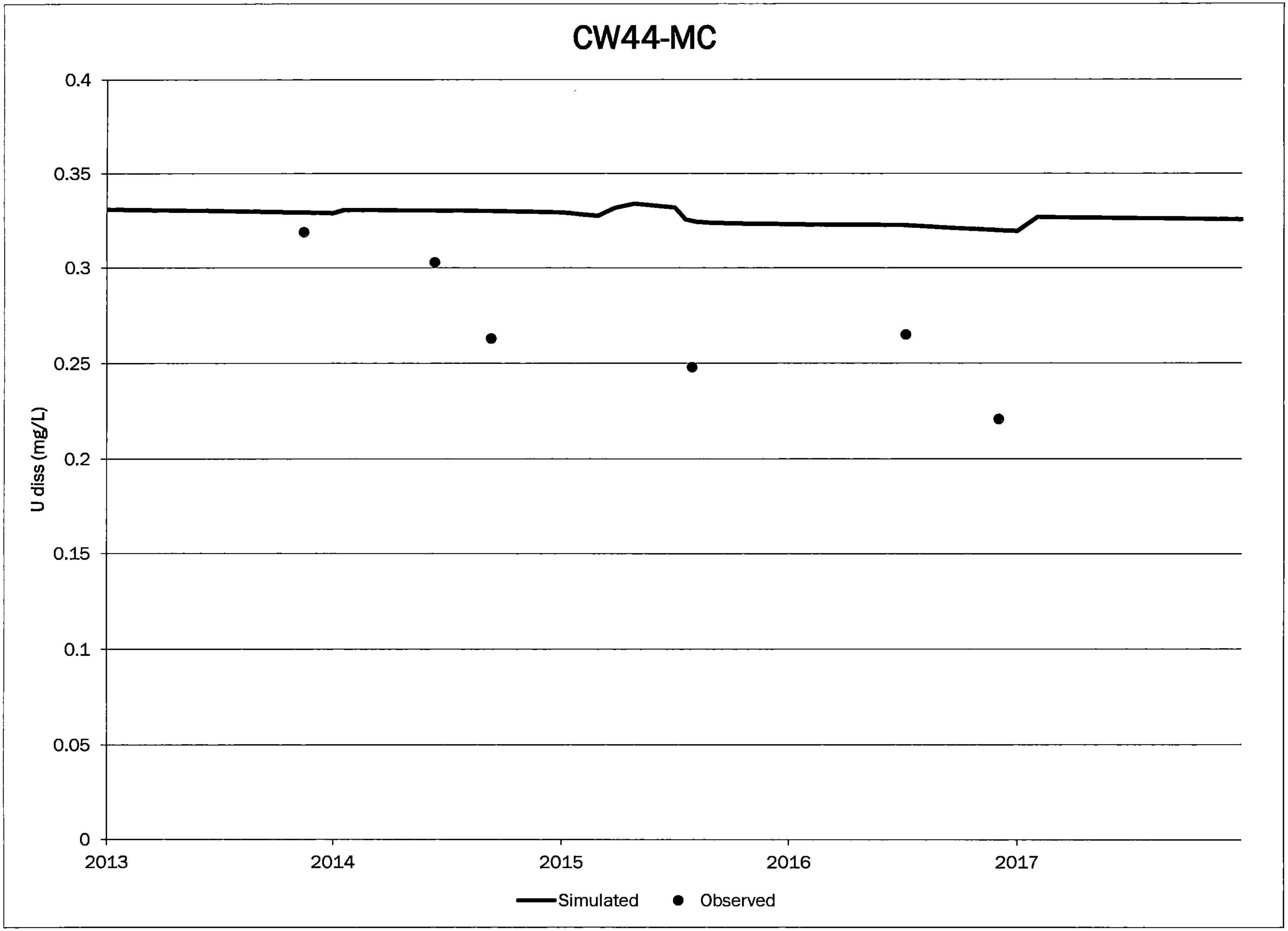


CW17-MC
U diss (mg/L)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

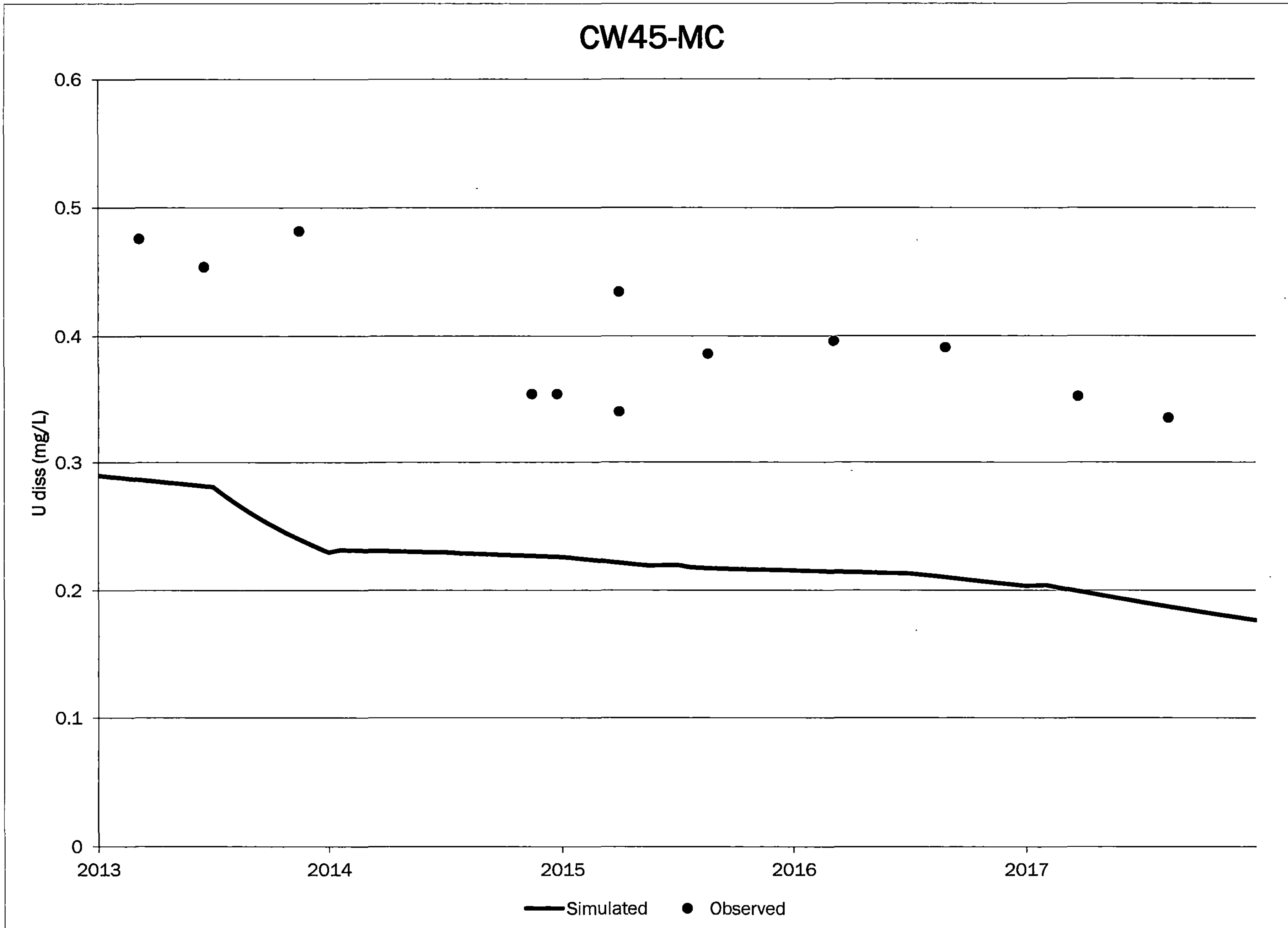


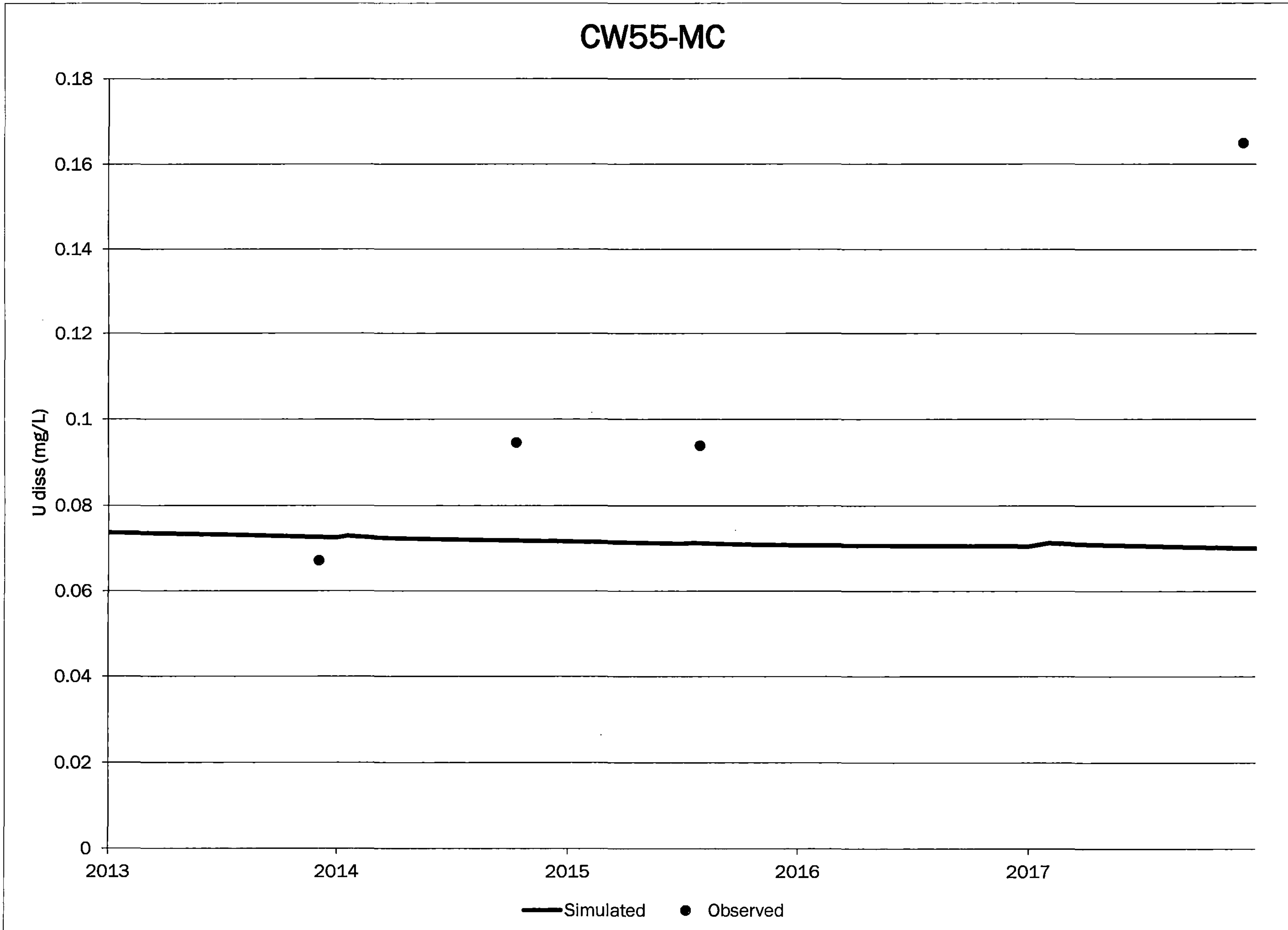
CW24-MC
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

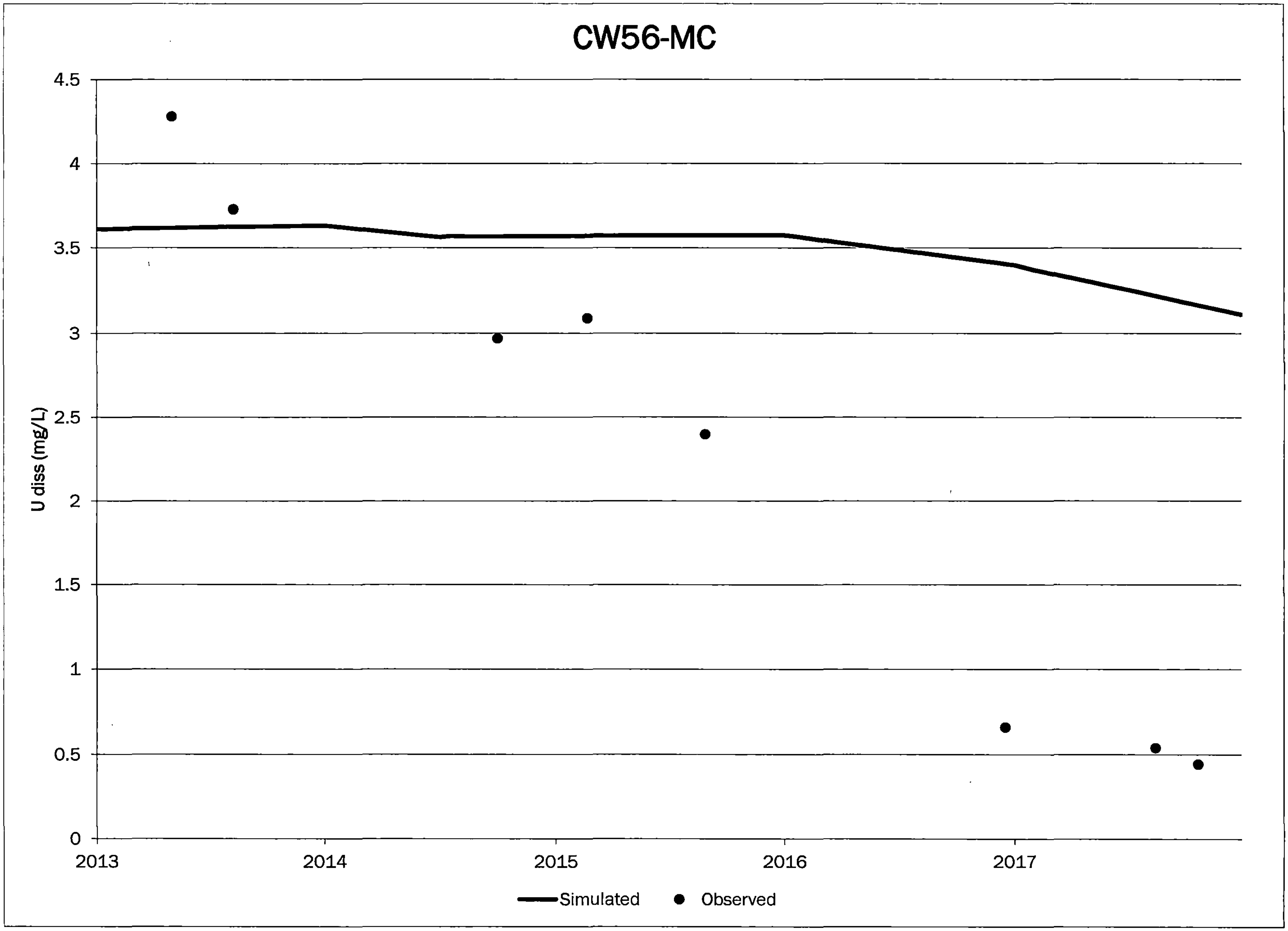

CW28-MC
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

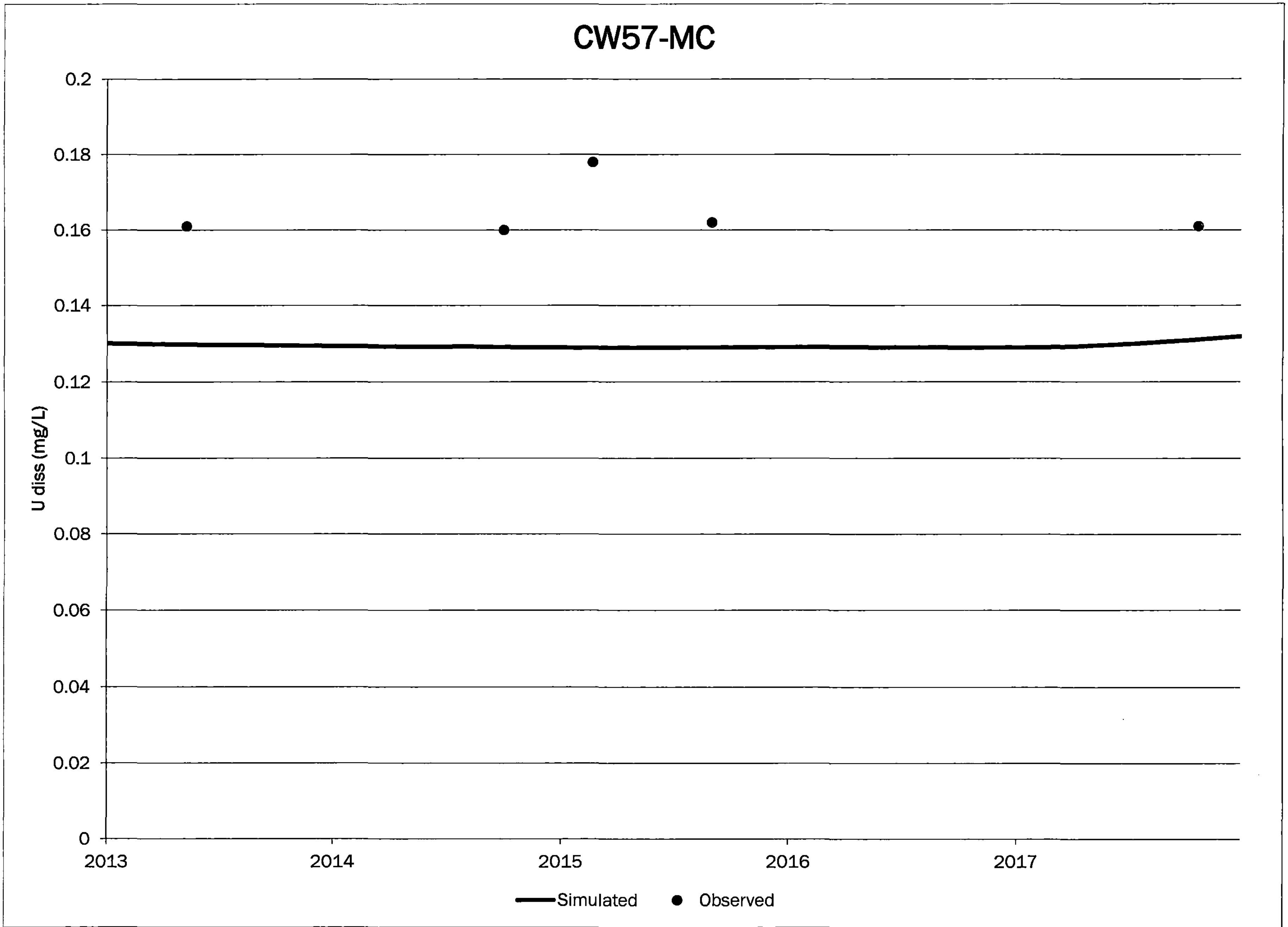


CW44-MC
U diss (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

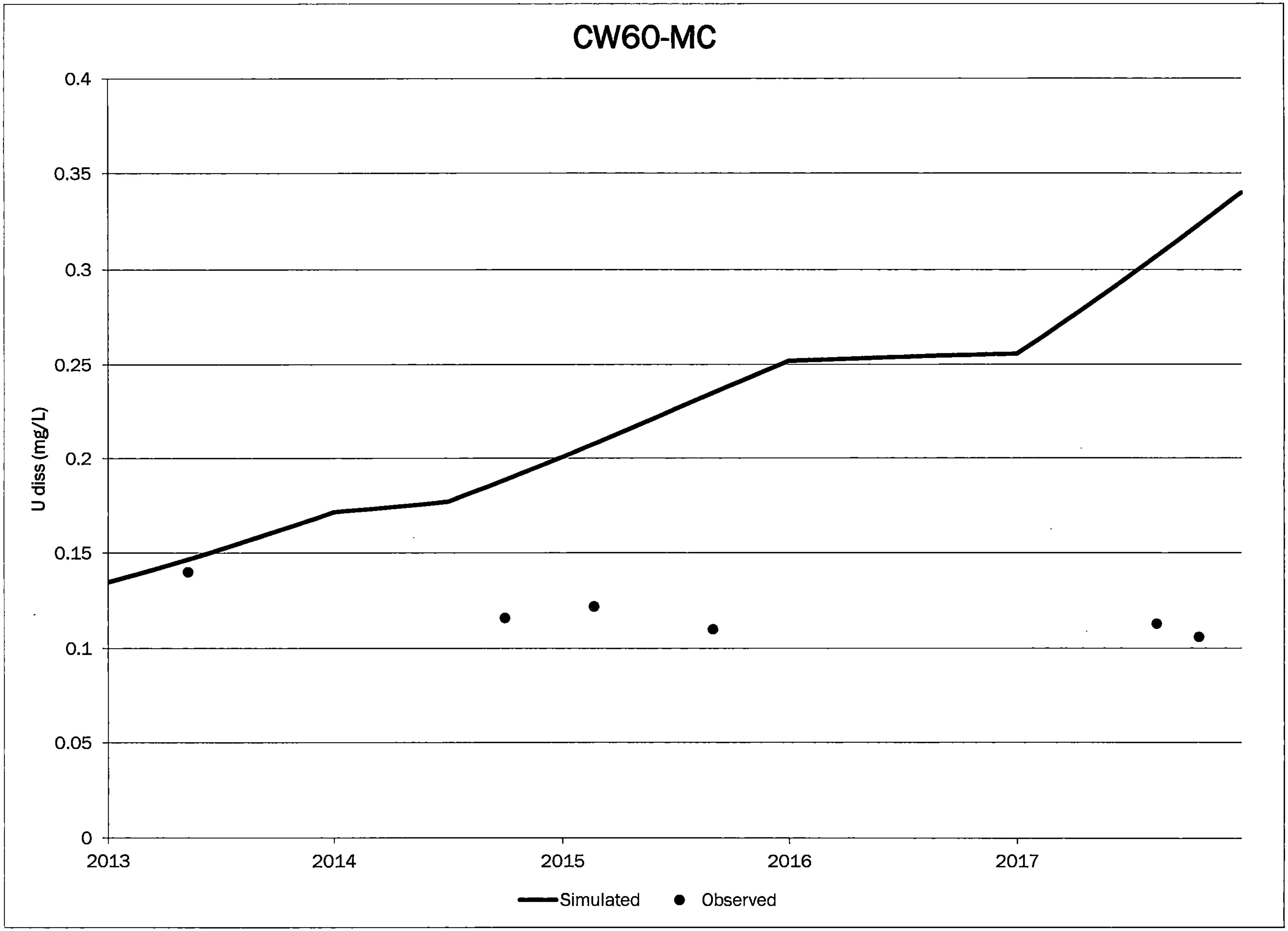

CW45-MC
U diss (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed


CW55-MC
U diss (mg/L)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

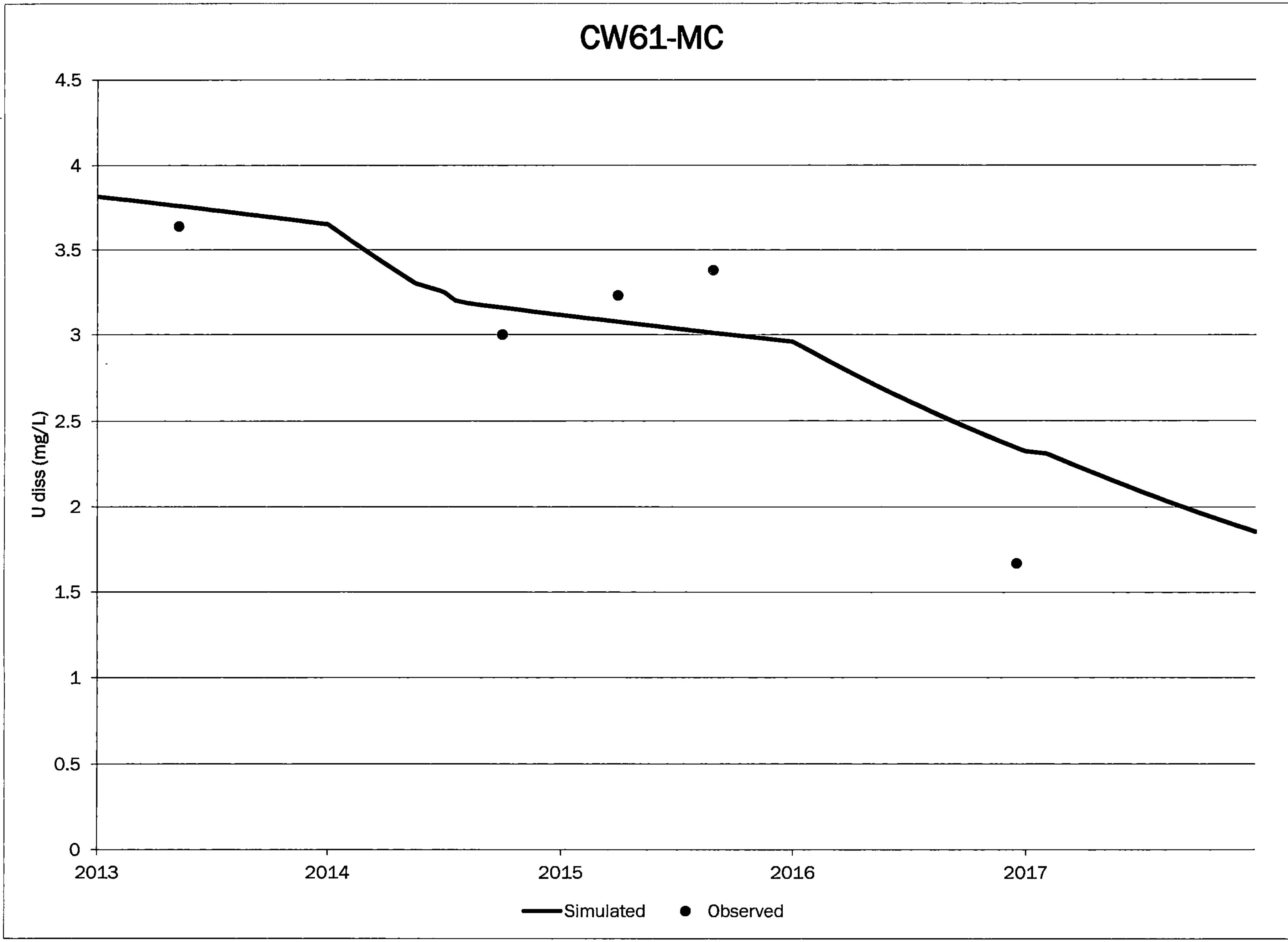

CW56-MC
U diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



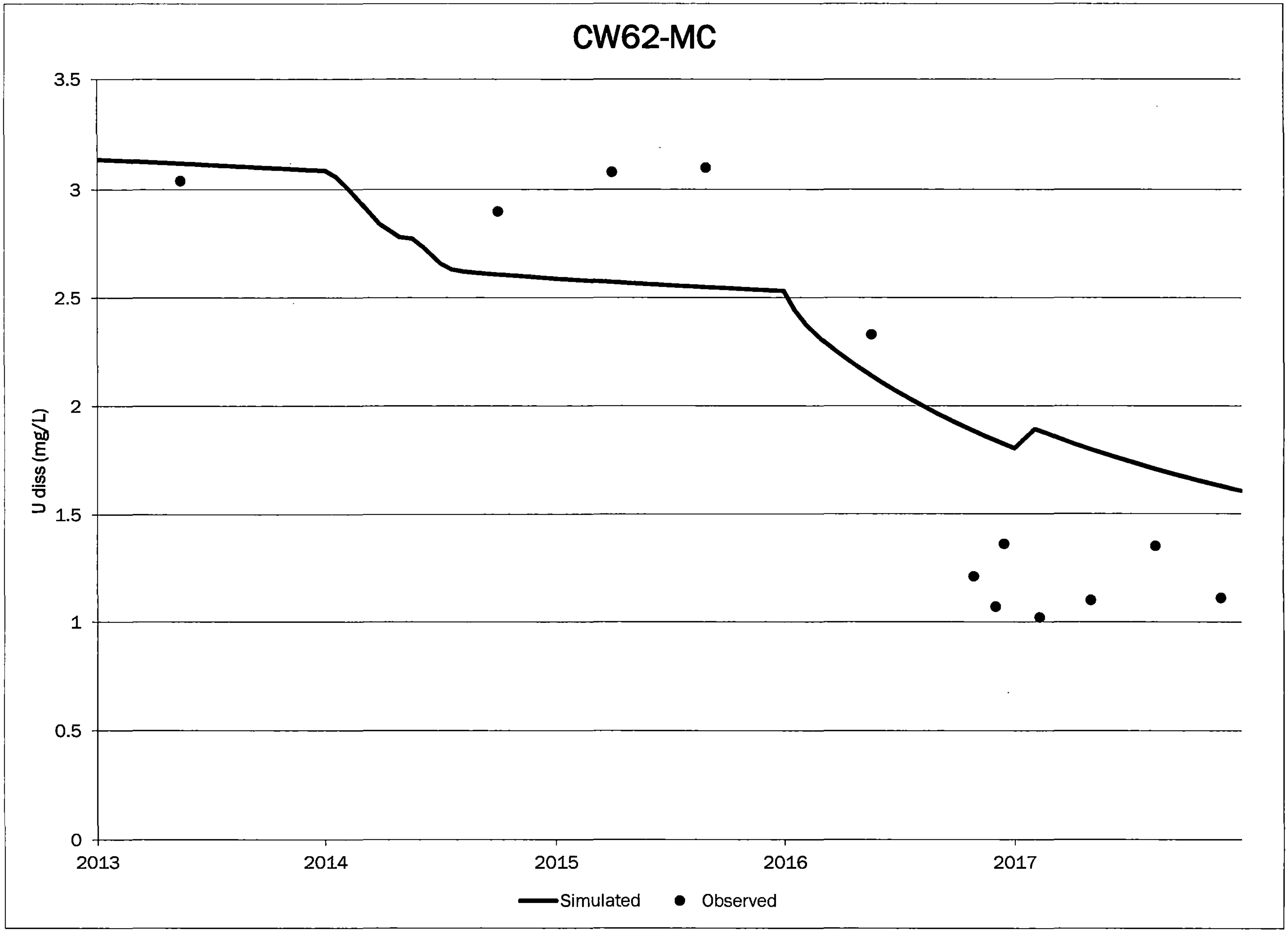
CW57-MC
U diss (mg/L)
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



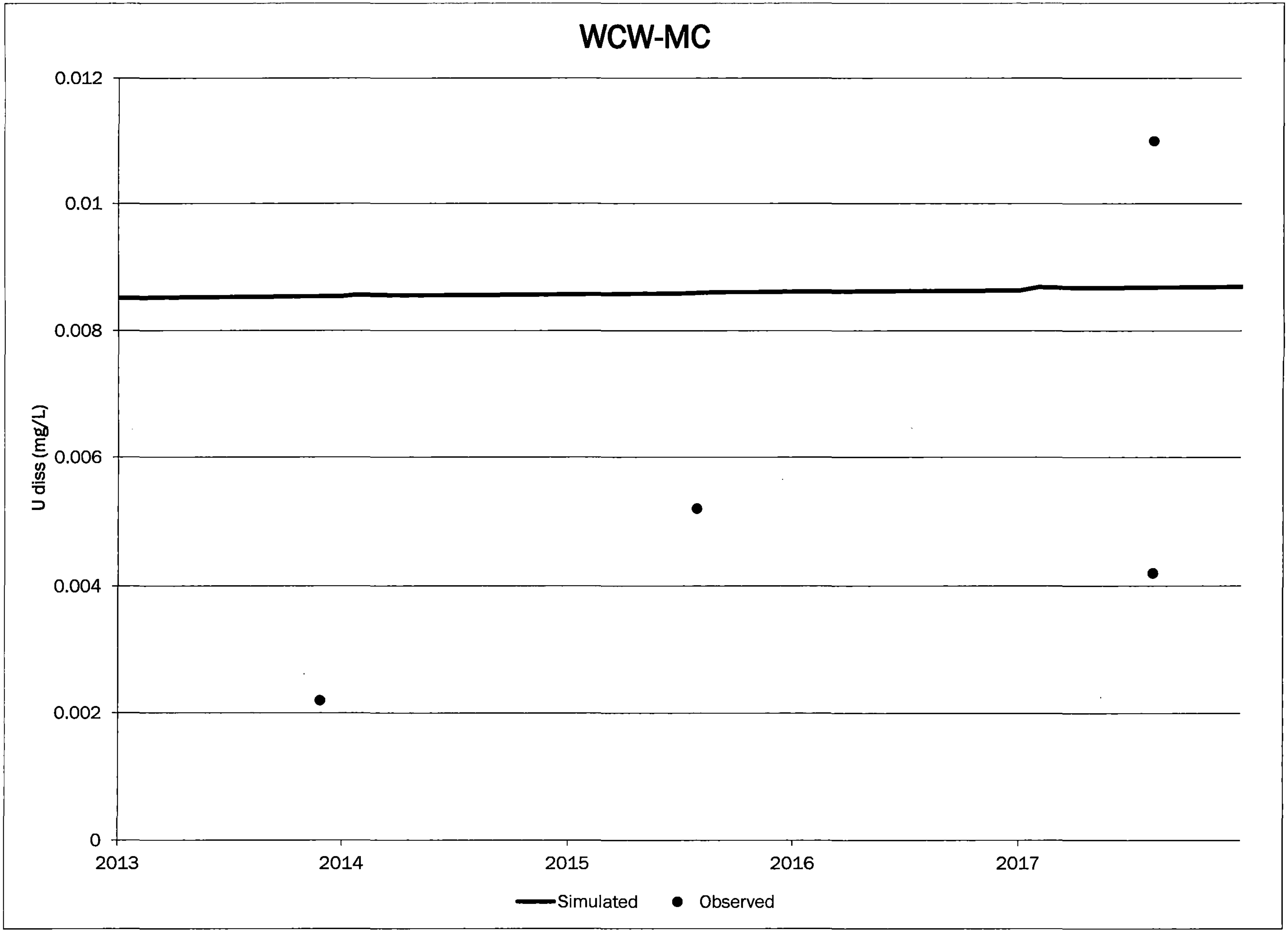
CW60-MC
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



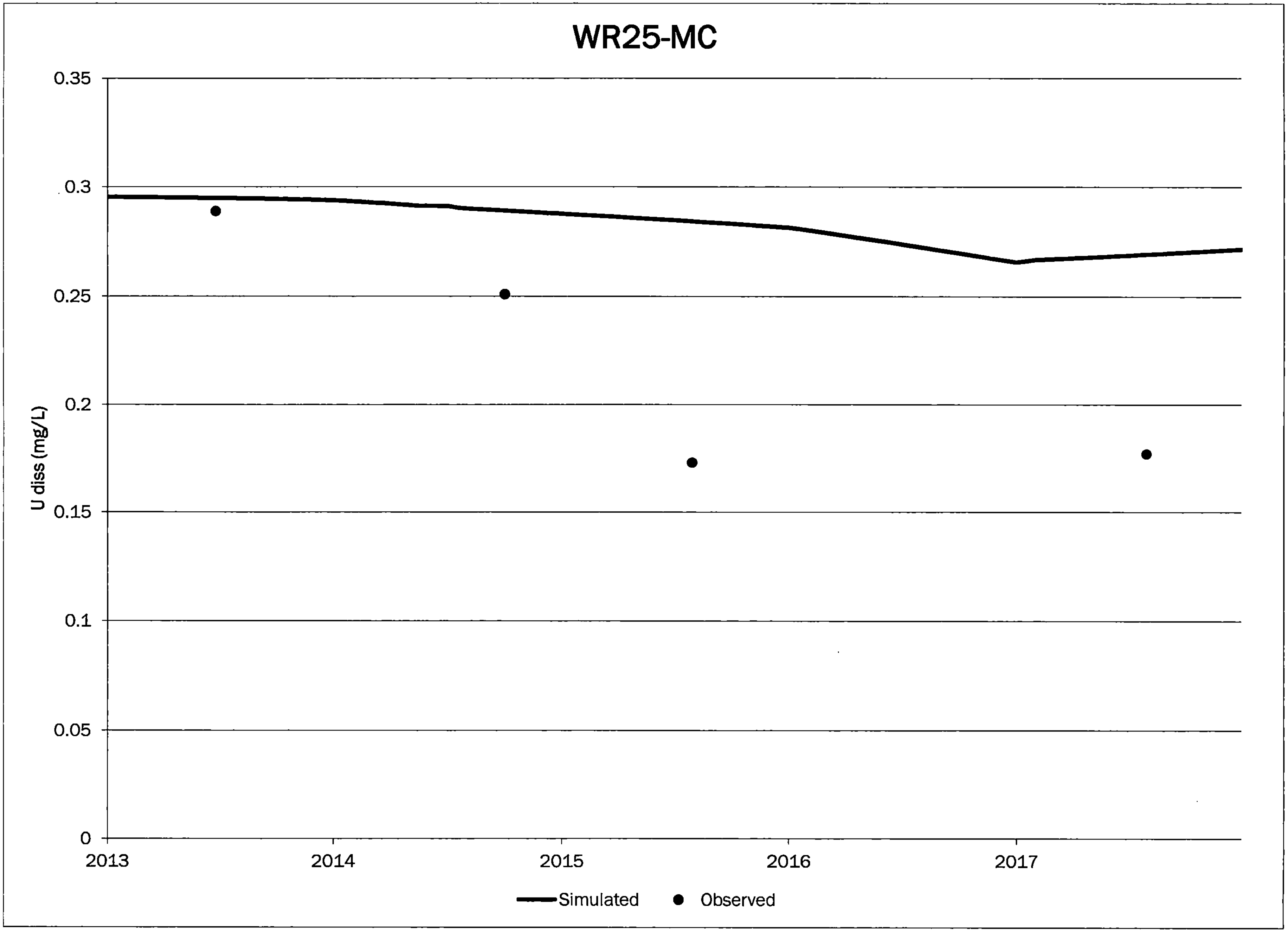
CW61-MC
U diss (mg/L)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
2013
2014
2015
2016
2017
Simulated
Observed



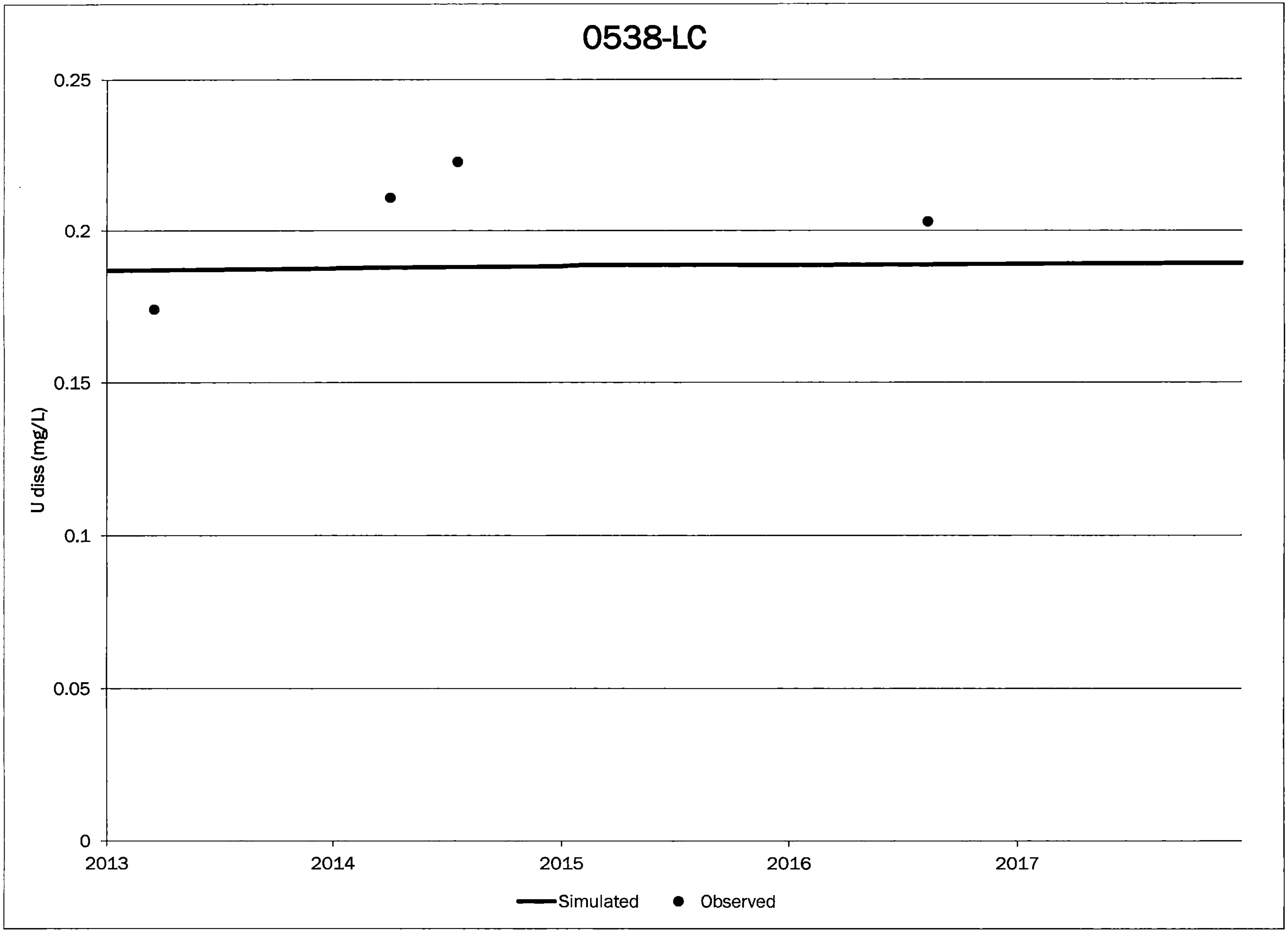
CW62-MC
U diss (mg/L)
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



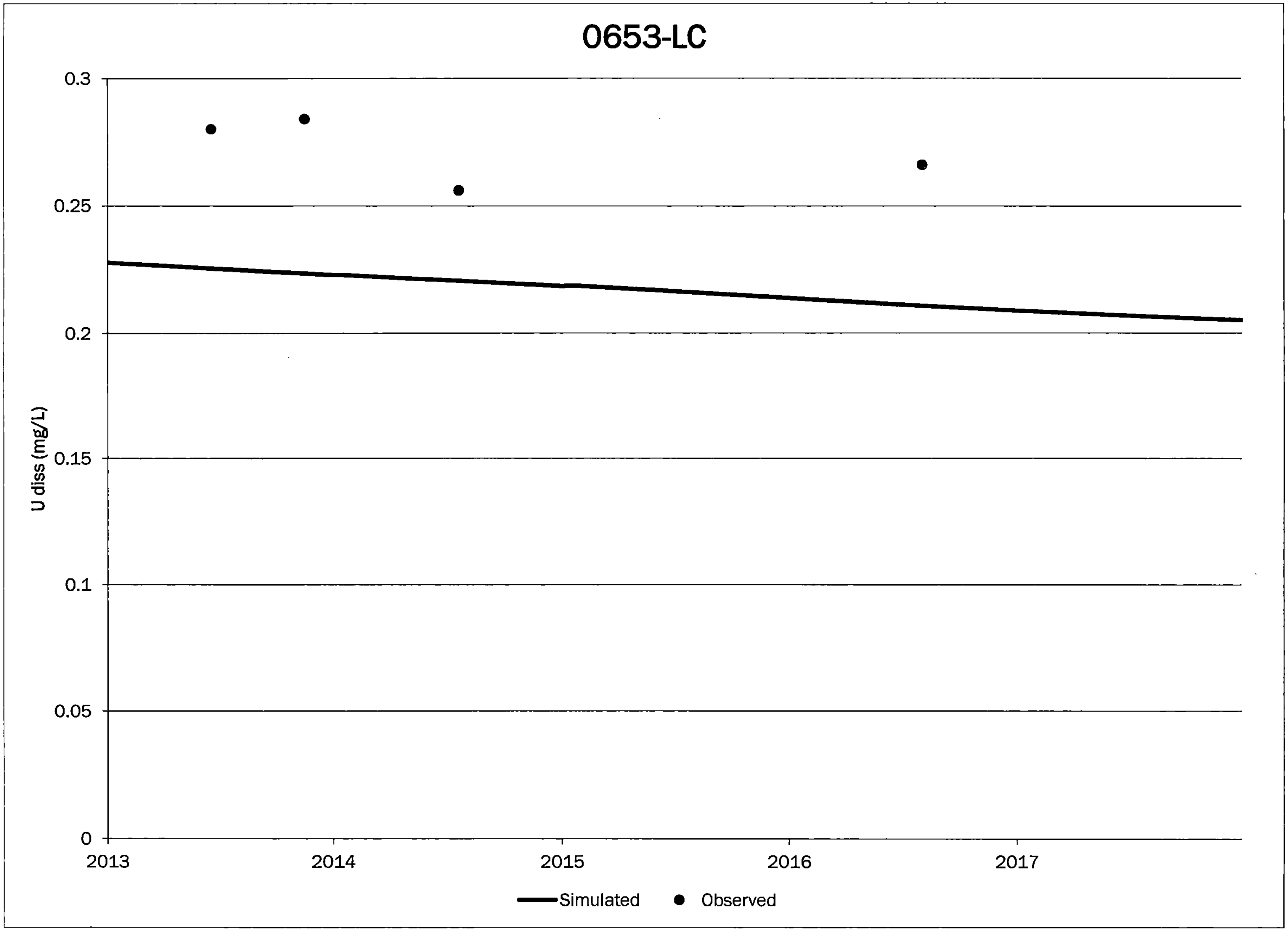
WCW-MC
0.012
0.01
0.008
0.006
0.004
0.002
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

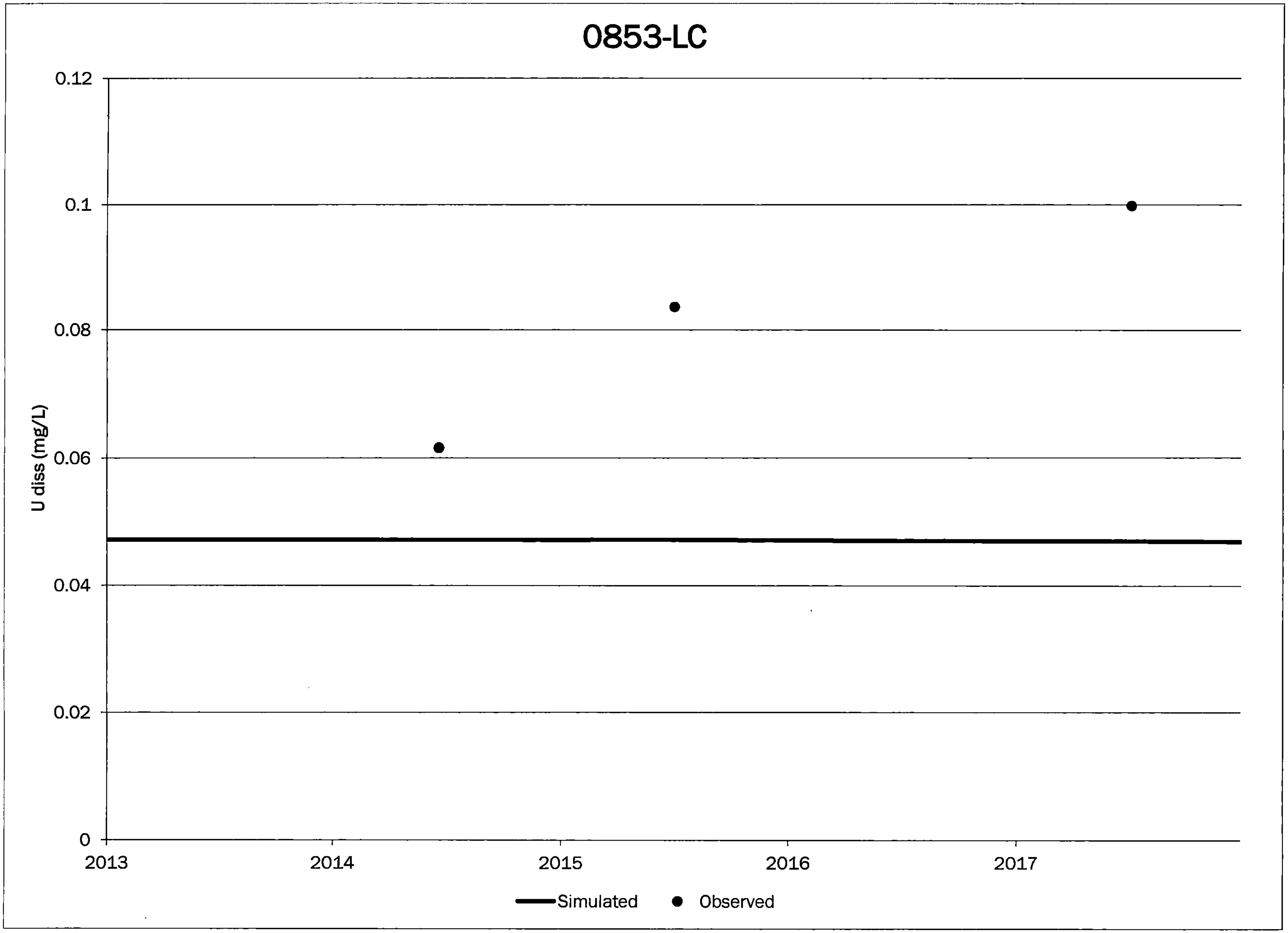


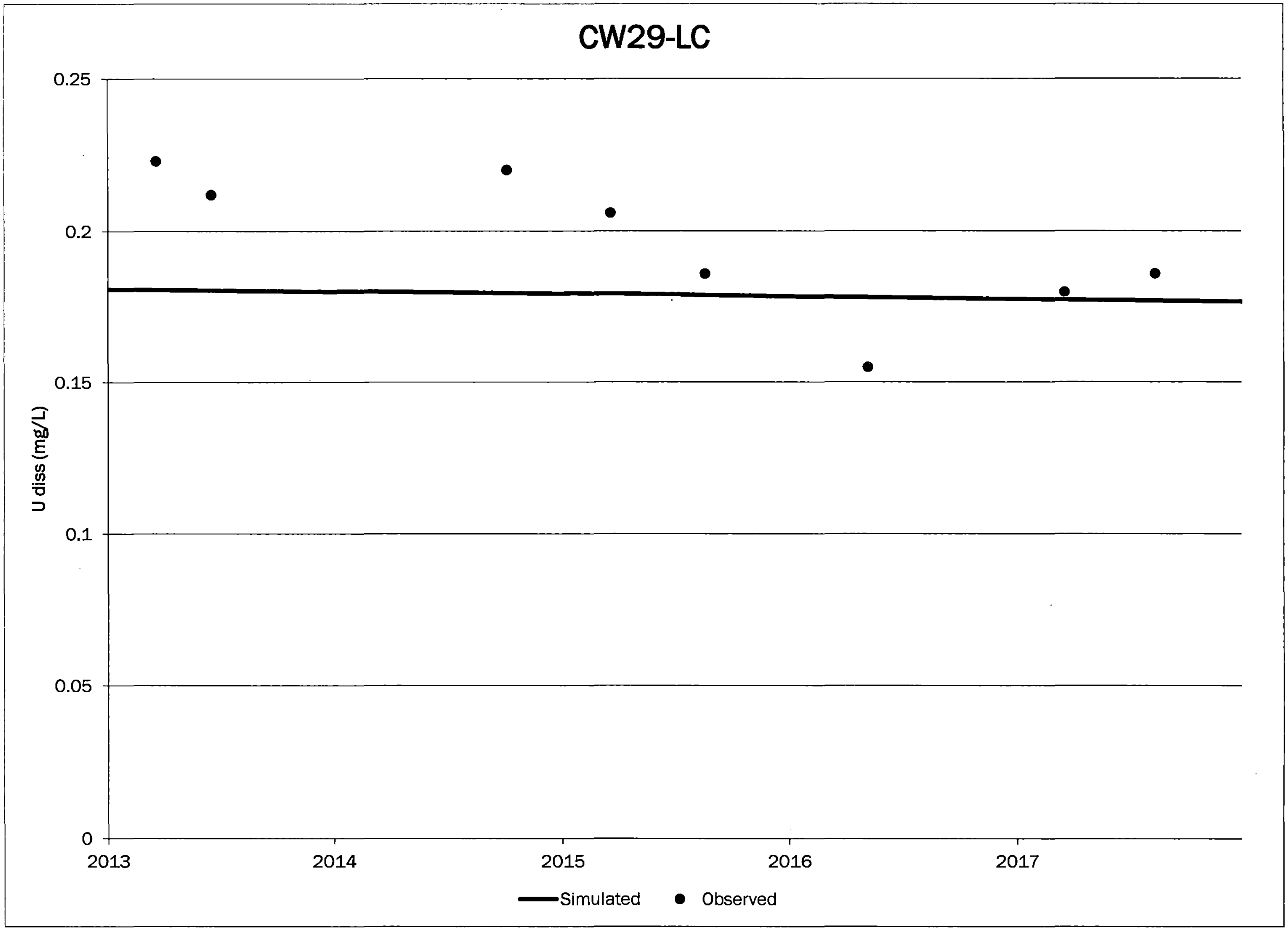
WR25-MC
U diss (mg/L)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

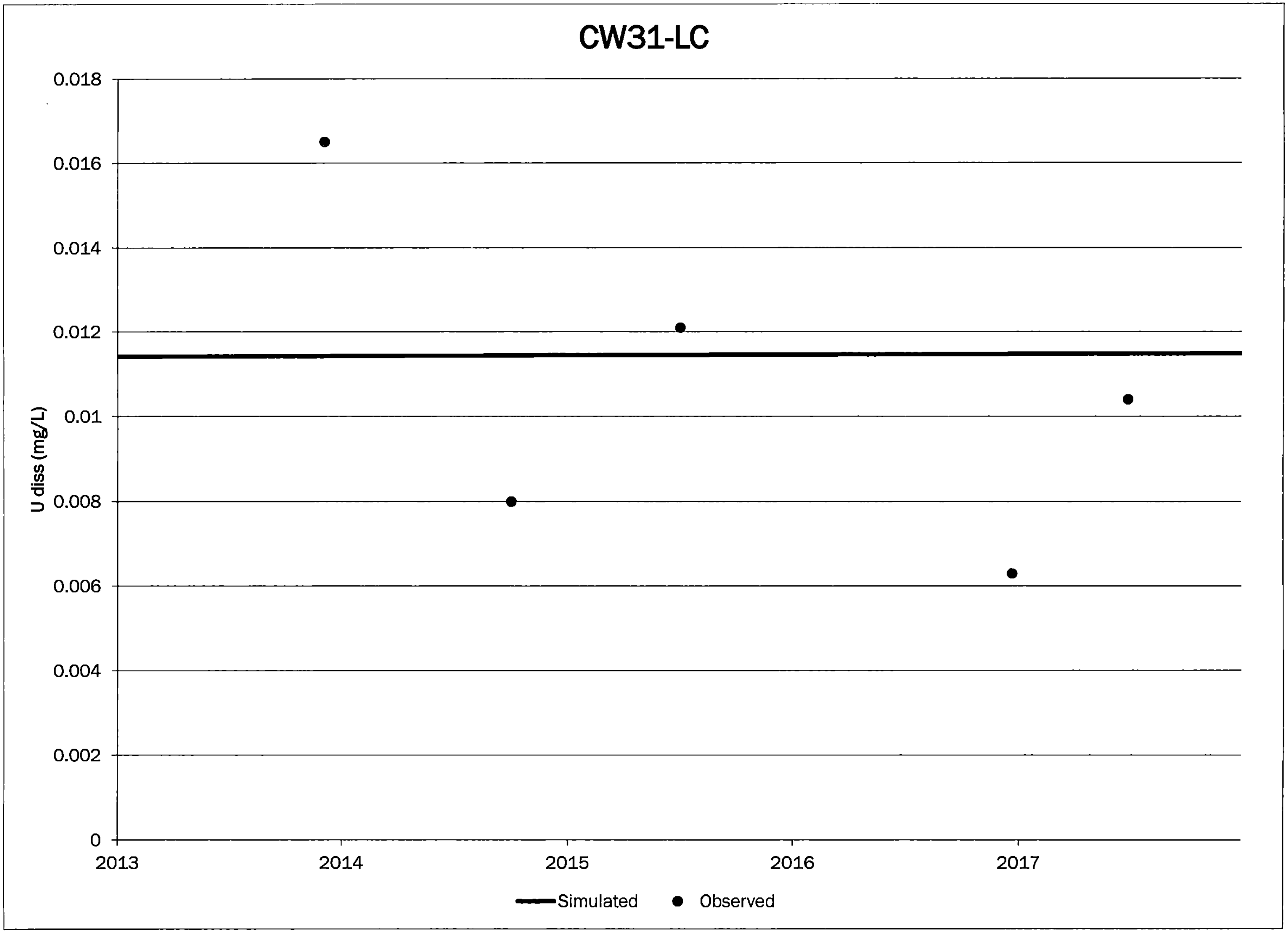


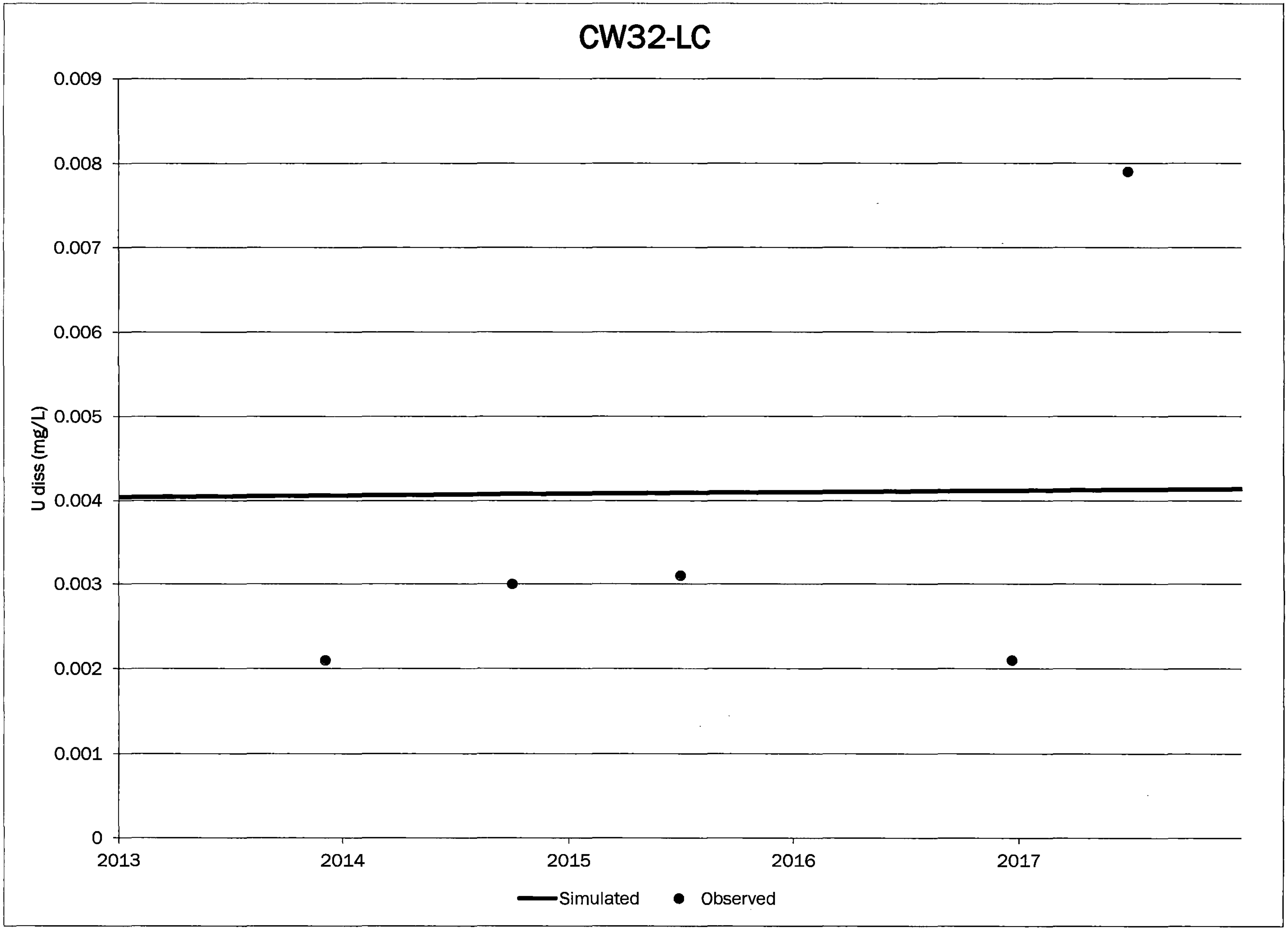
0538-LC
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0653-LC
U diss (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

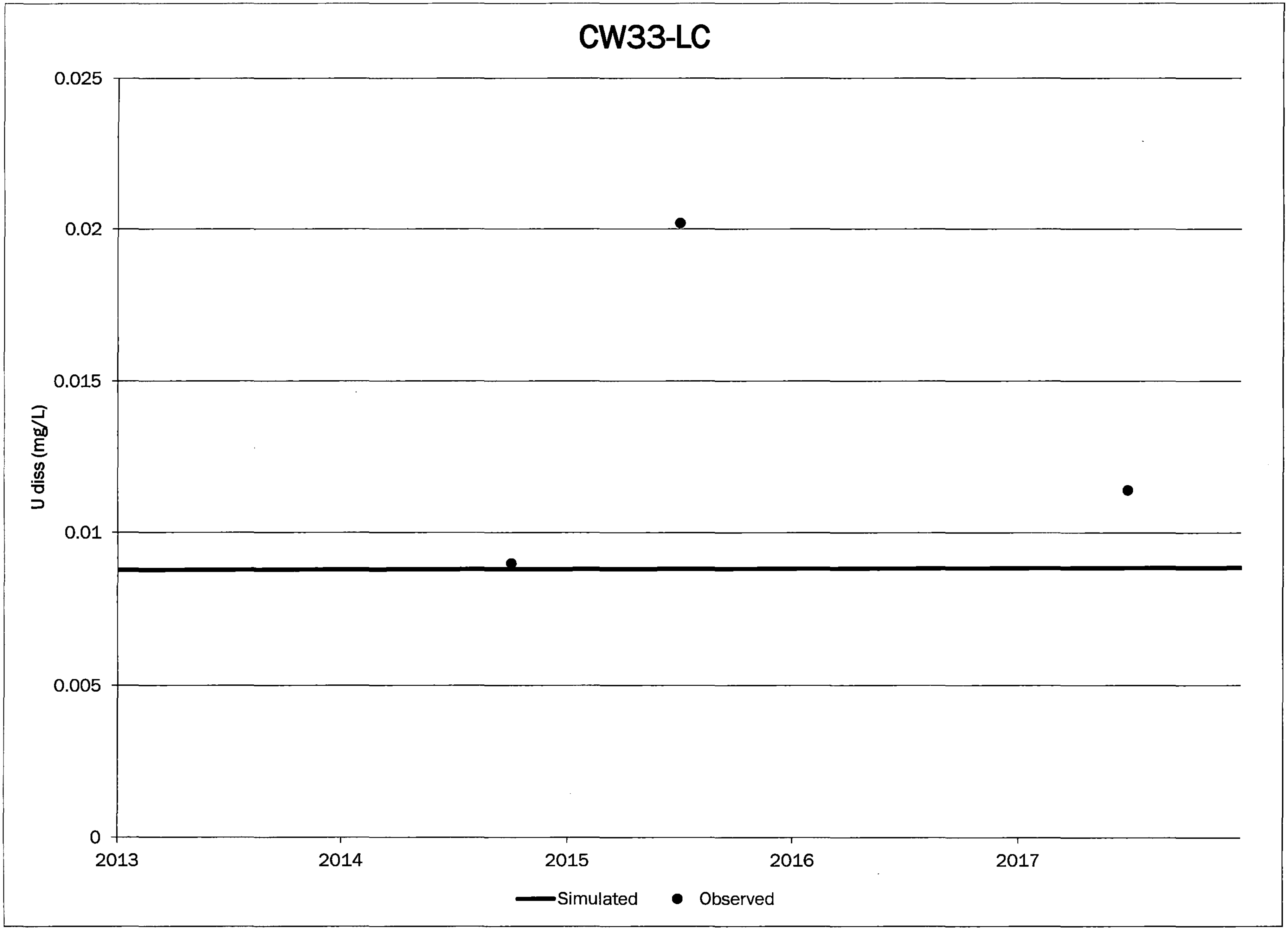

0853-LC
U diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

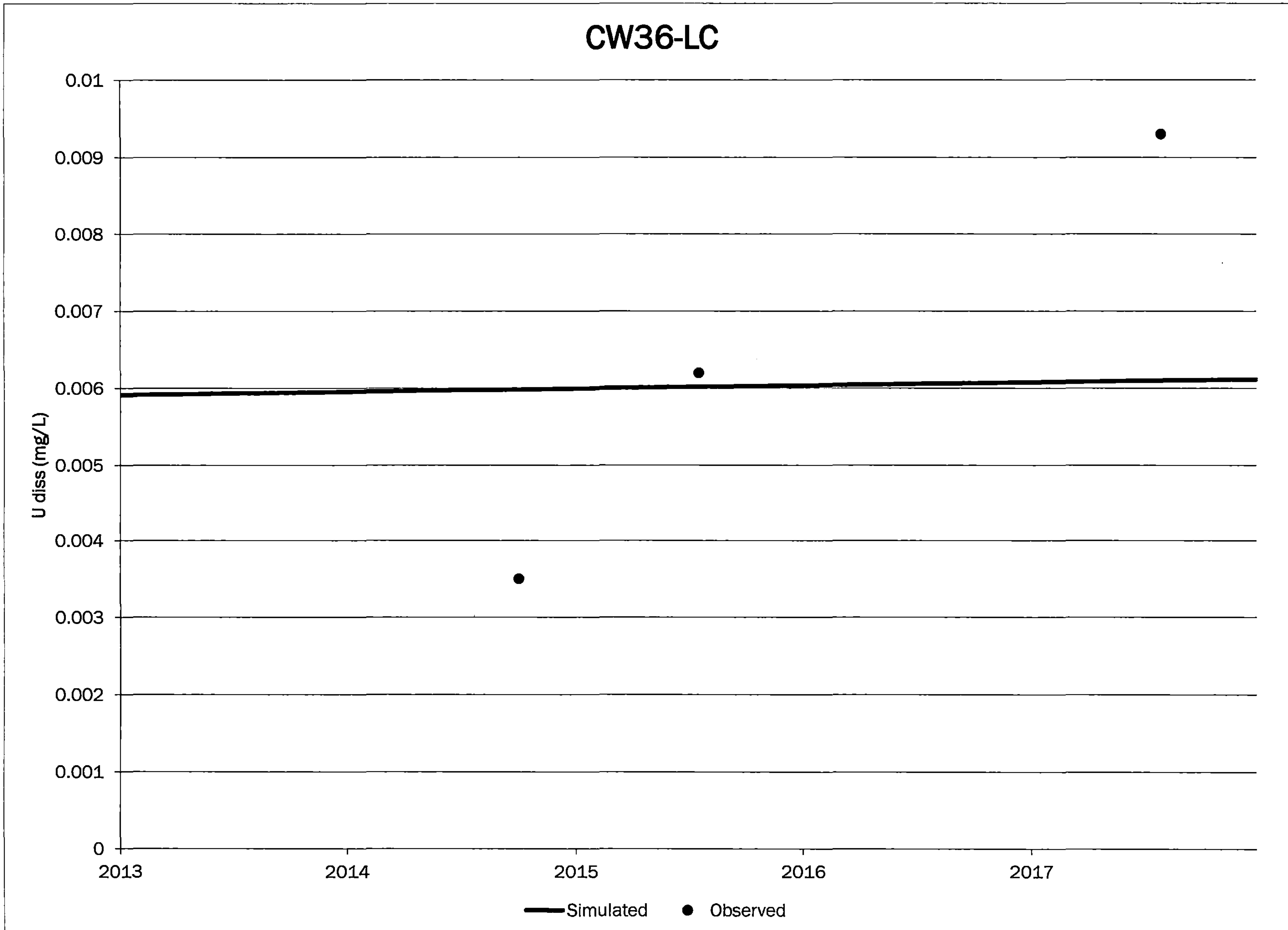

CW29-LC
U diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed


CW31-LC
U diss (mg/L)
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2013
2014
2015
2016
2017
Simulated
Observed

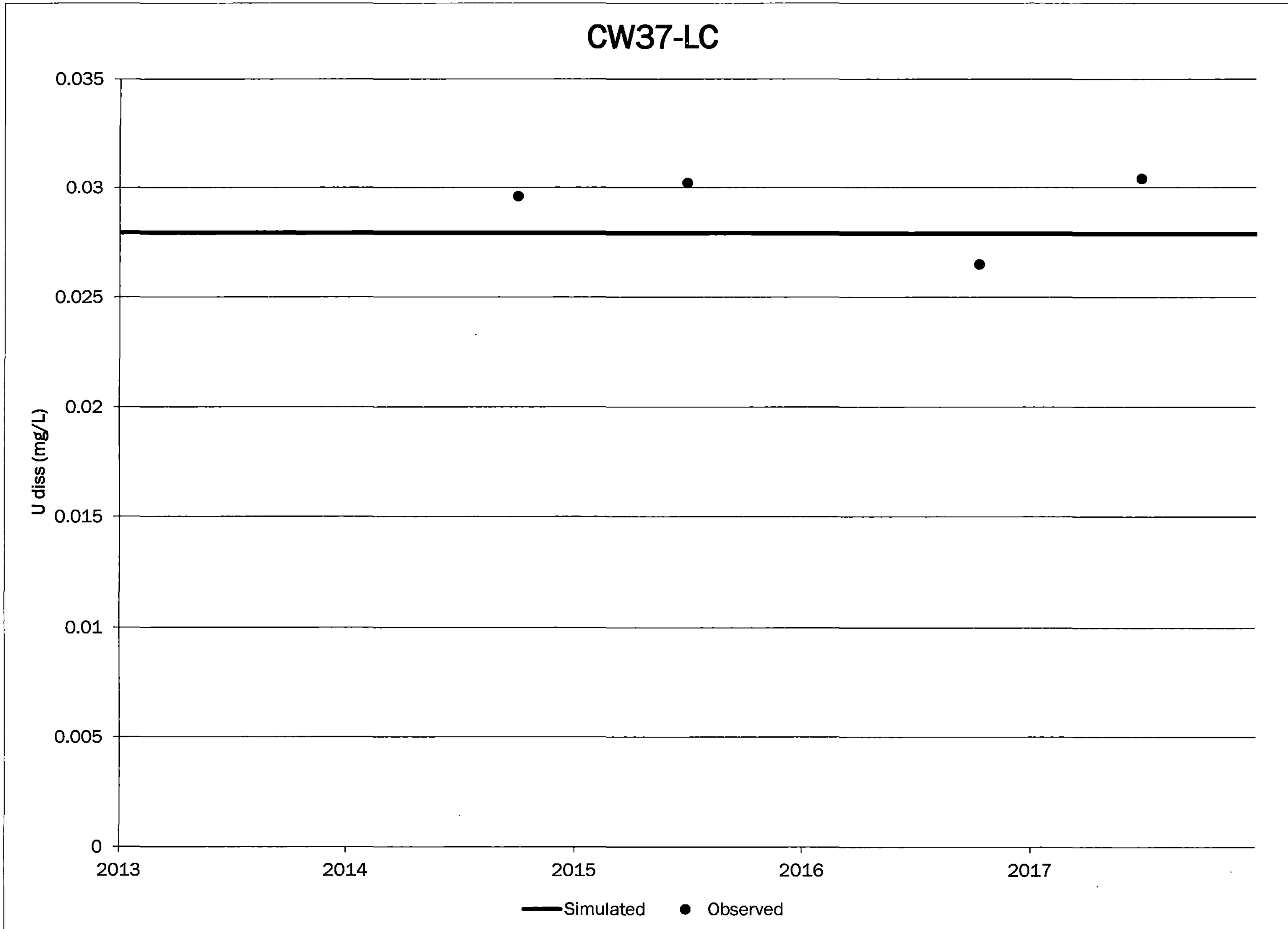


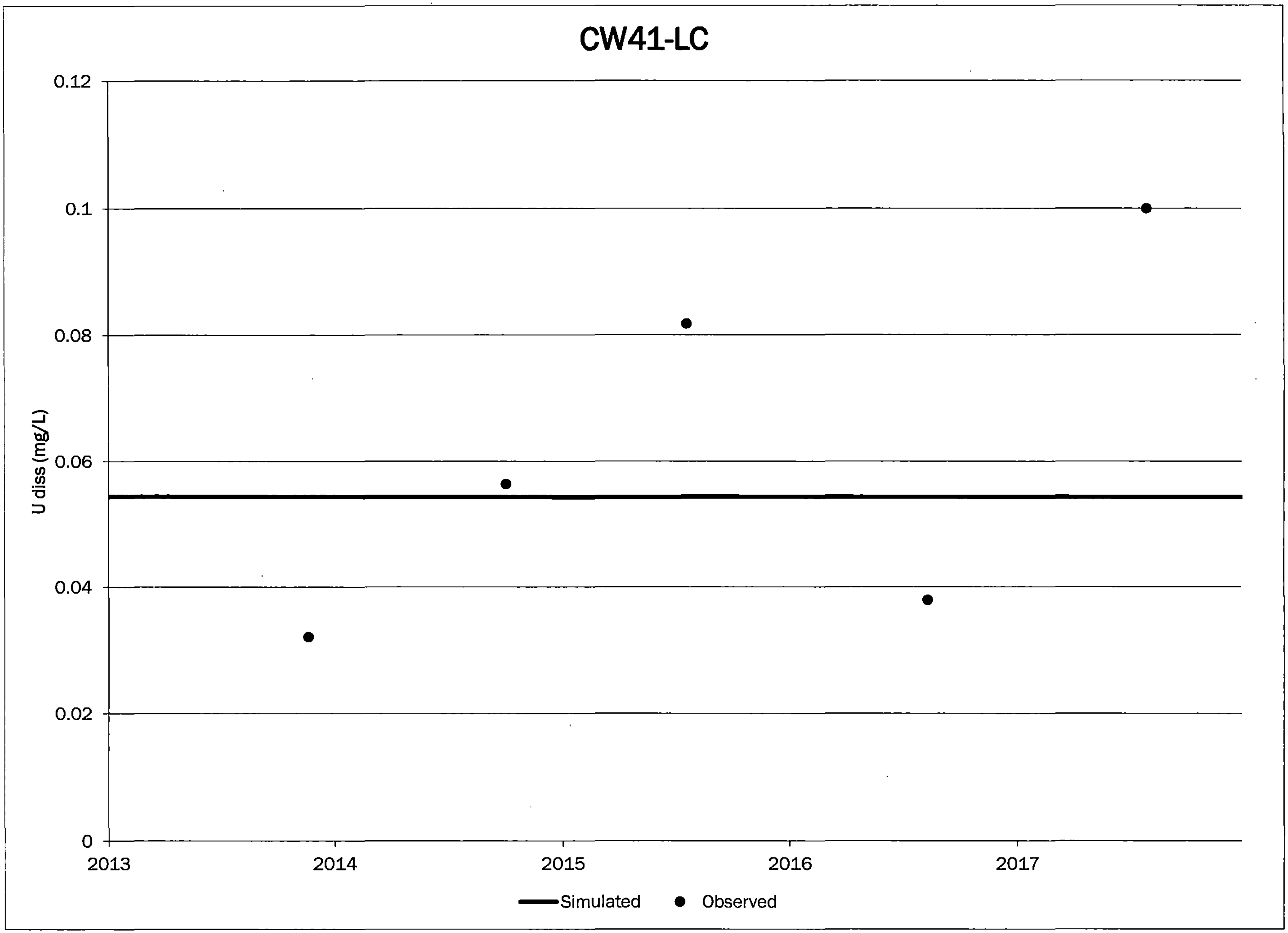
CW32-LC
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

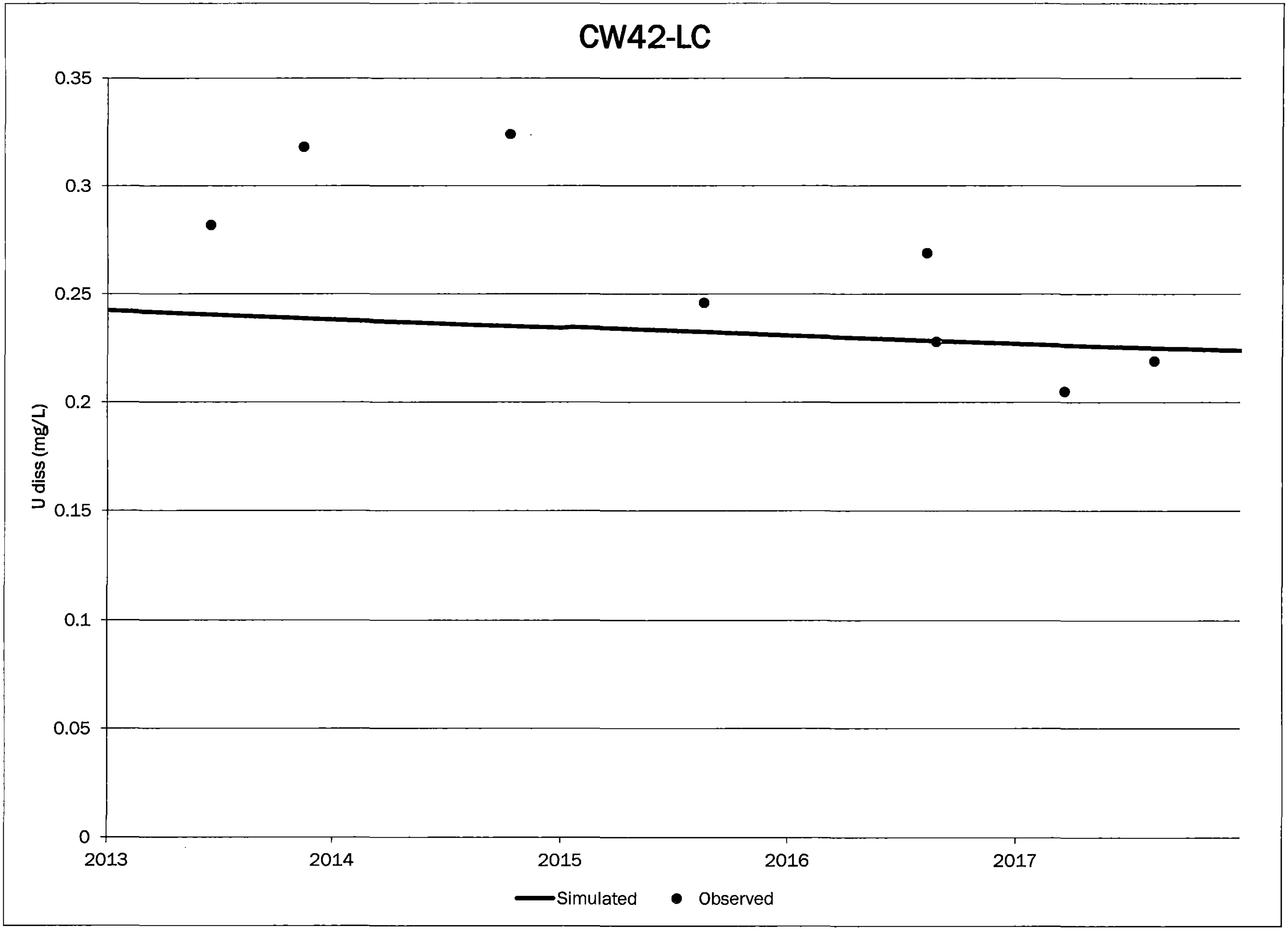

CW33-LC
U diss (mg/L)
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

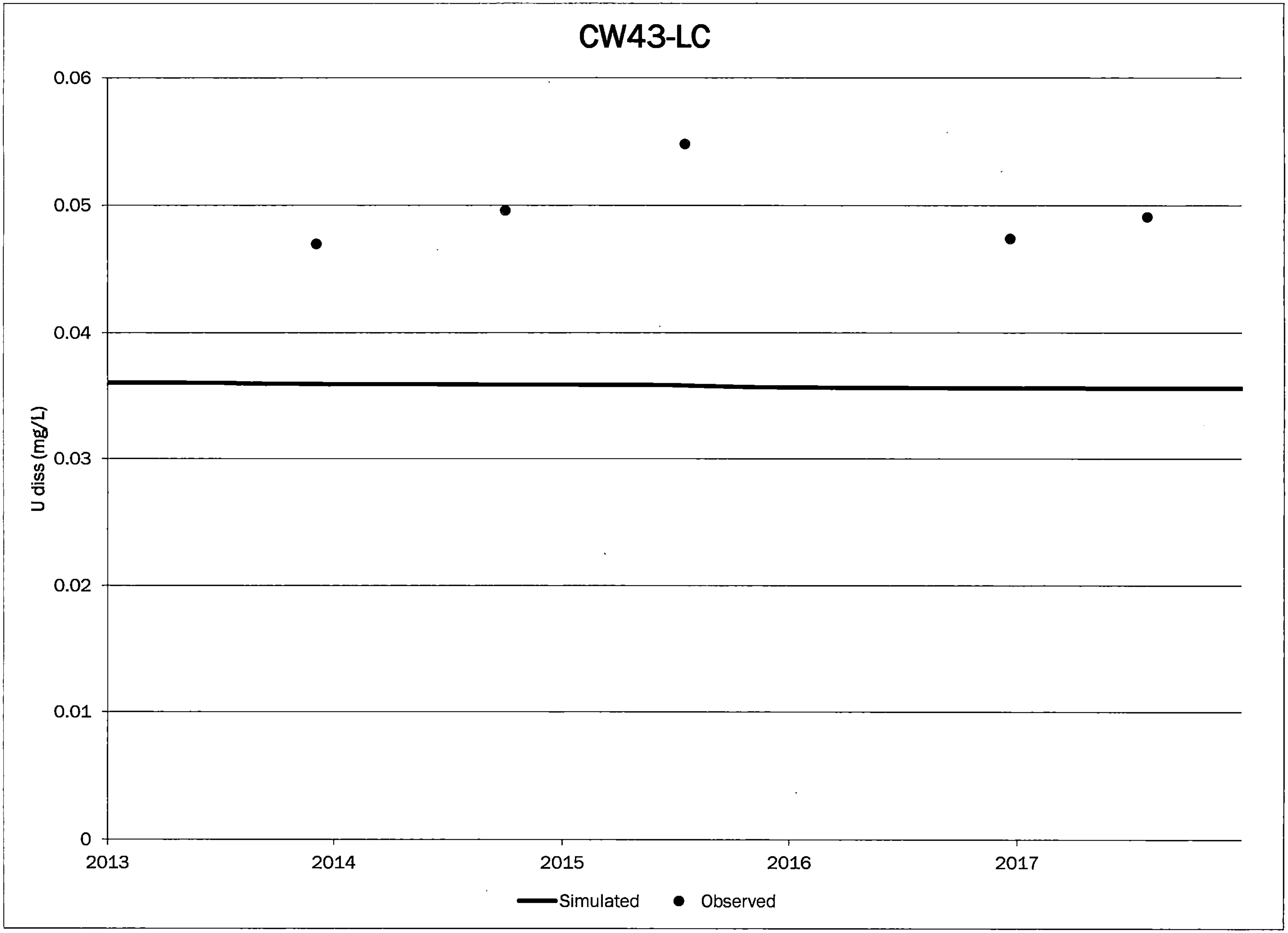


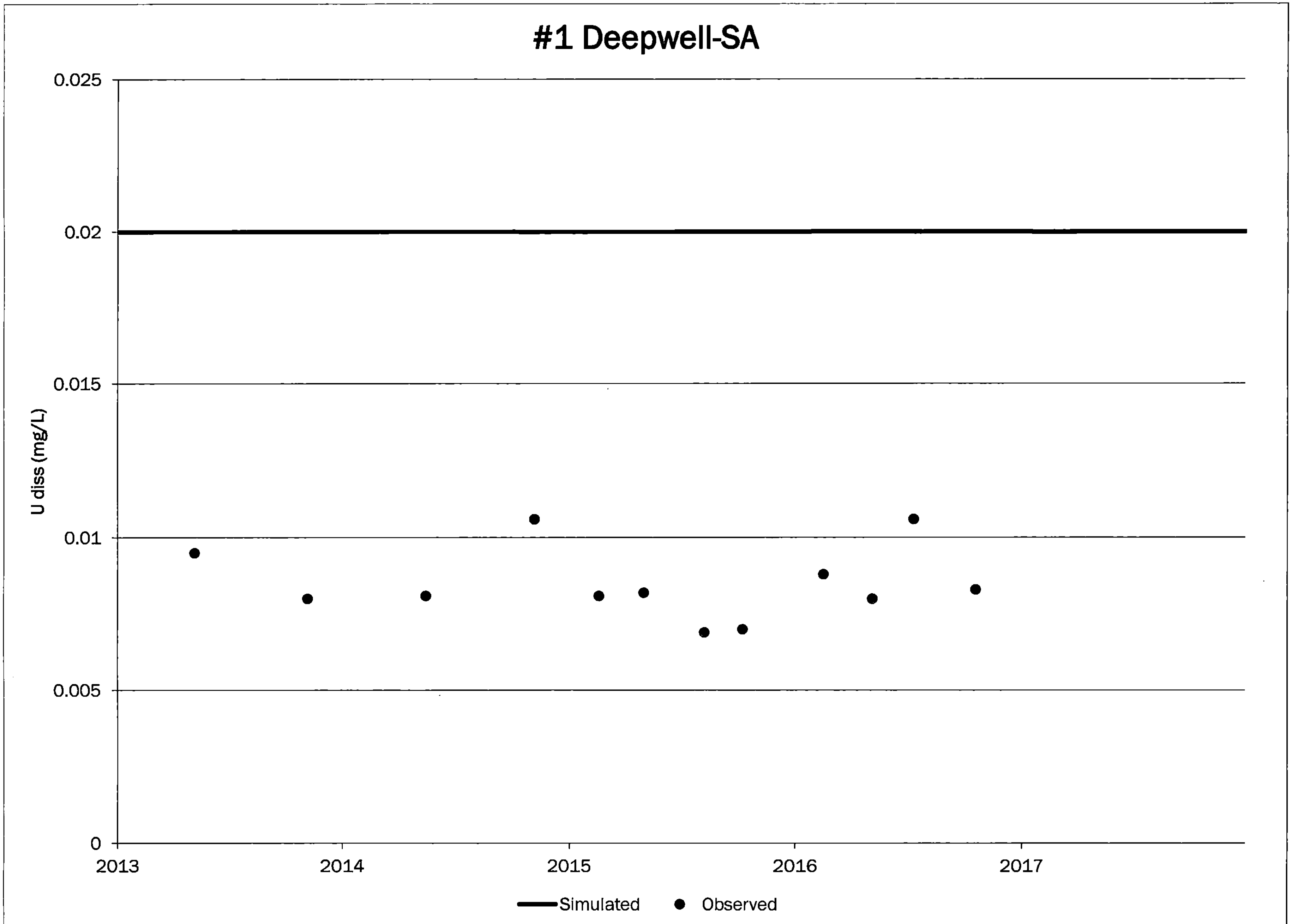
CW36-LC
U diss (mg/L)
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2013
2014
2015
2016
2017
Simulated
Observed

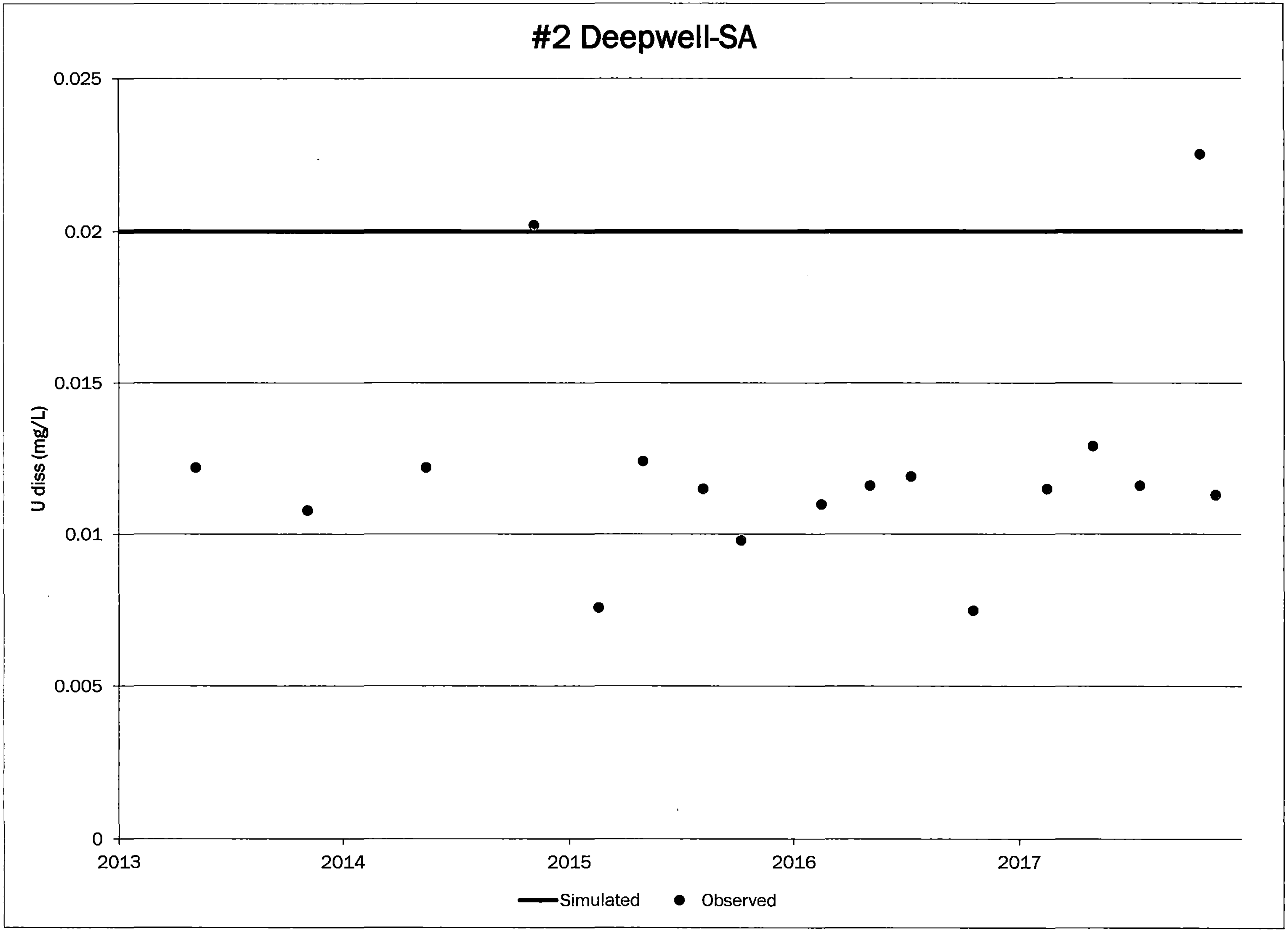

CW37-LC
U diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

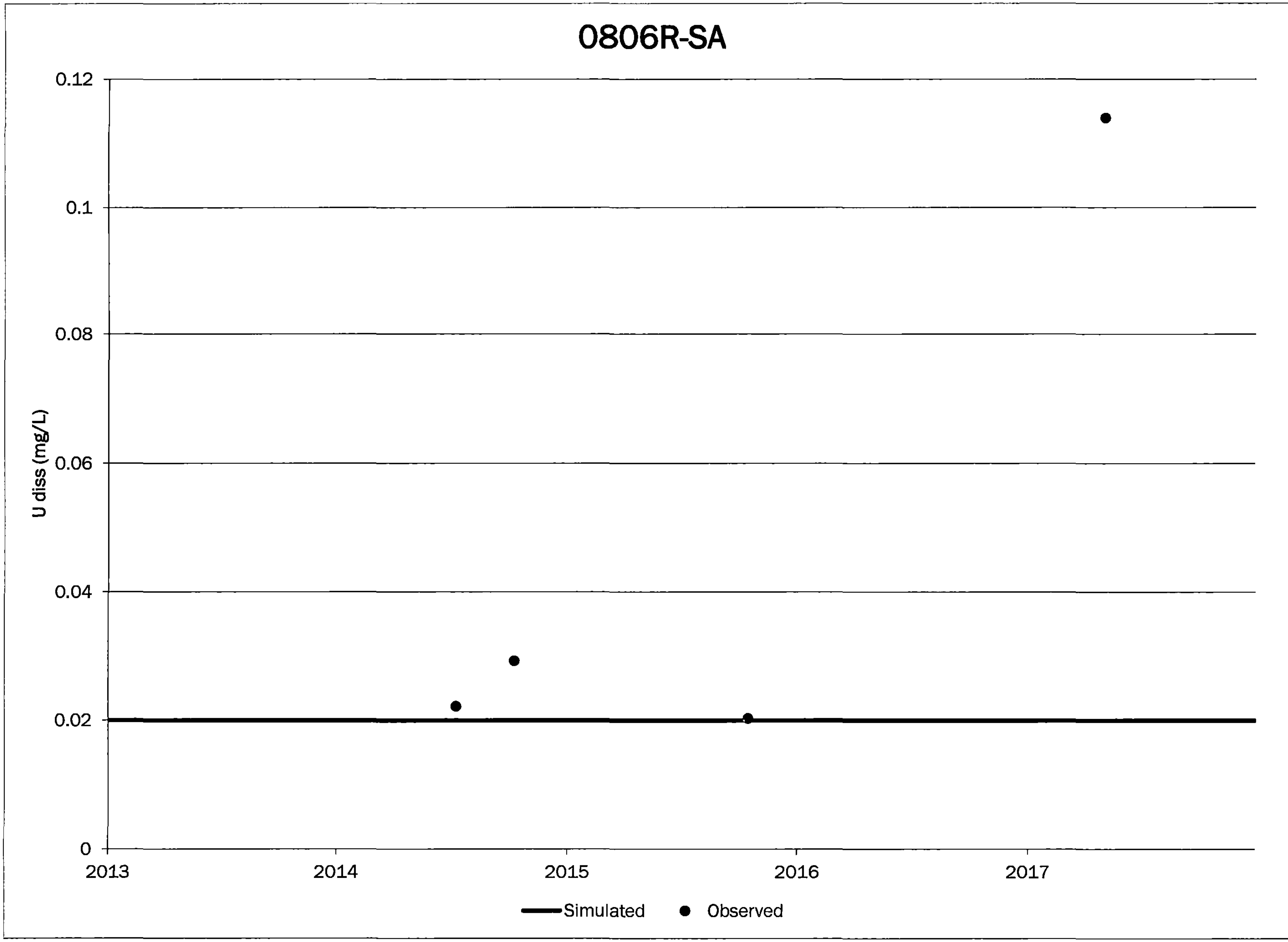

CW41-LC
0.12
0.1
0.08
0.06
0.04
0.02
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

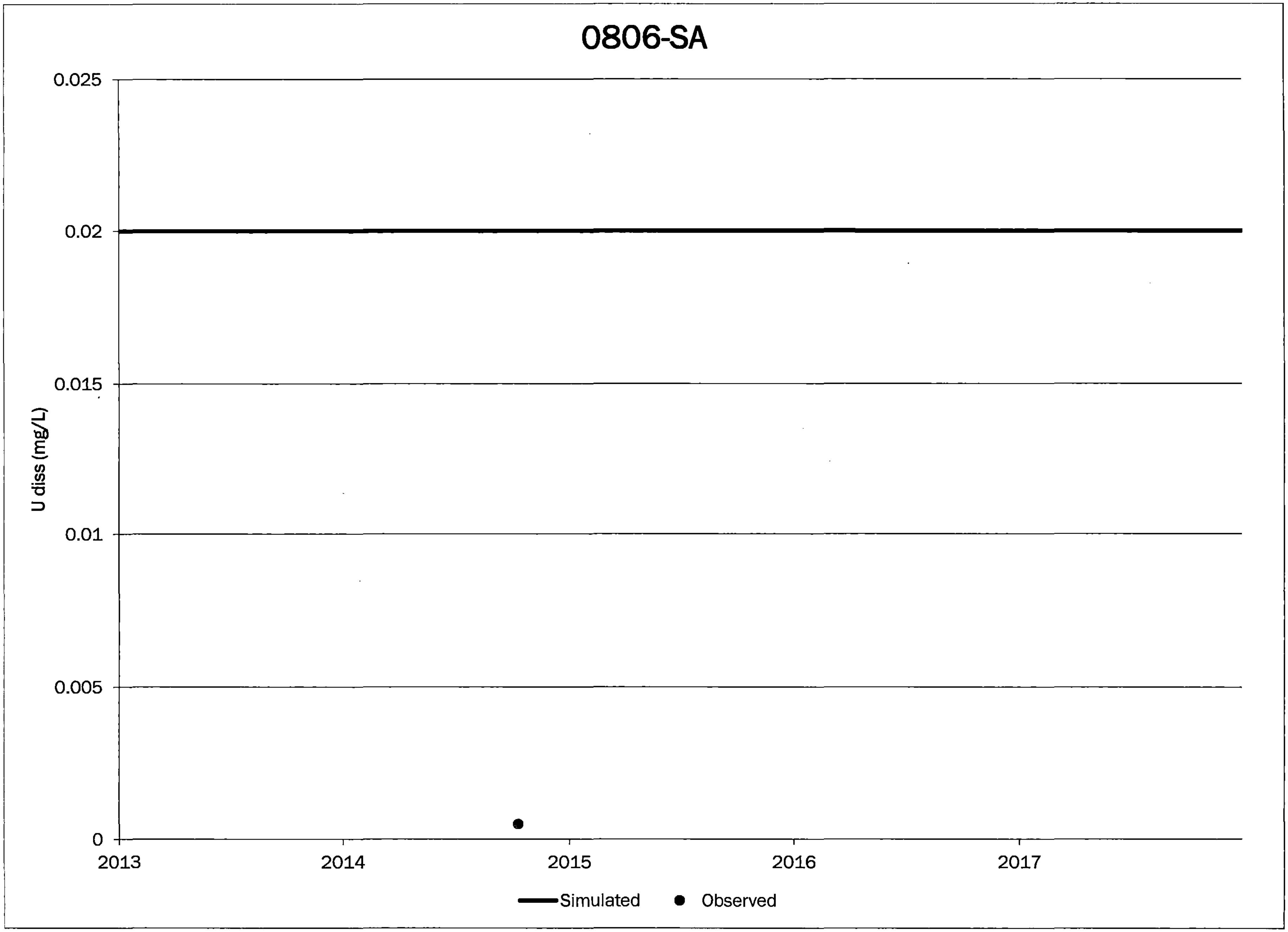

CW42-LC
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

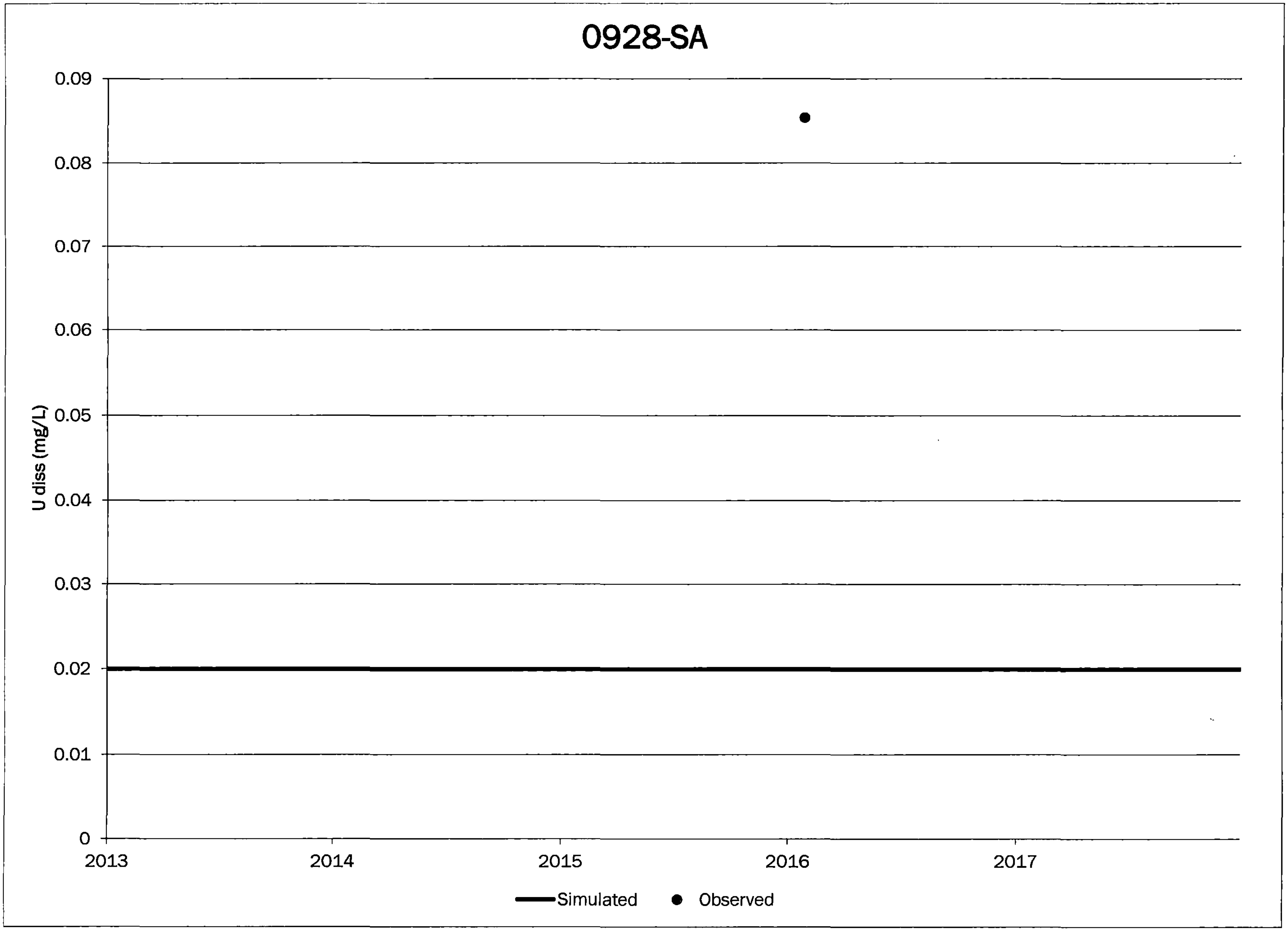

CW43-LC
U diss (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

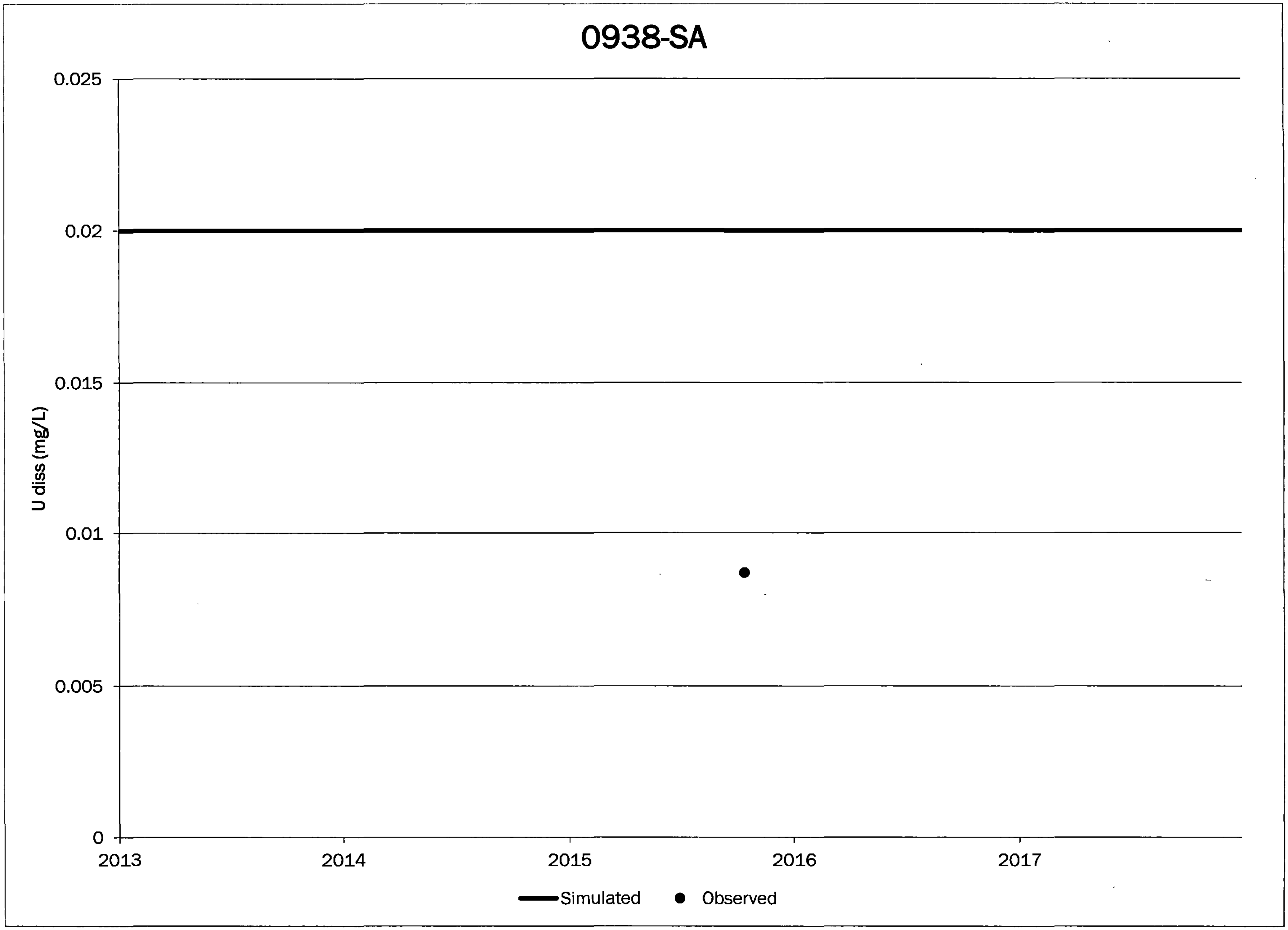

#1 Deepwell-SA
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

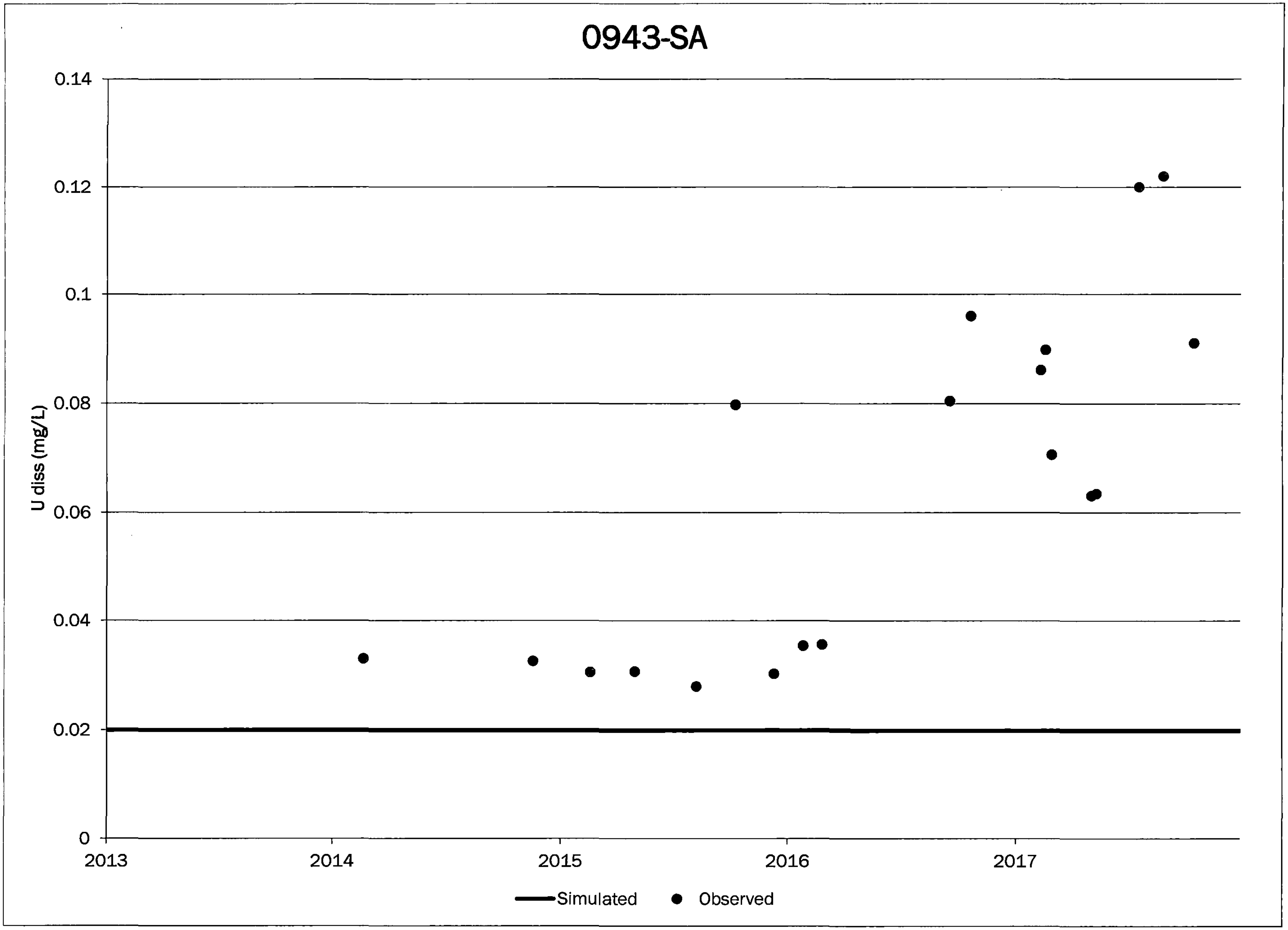

#2 Deepwell-SA
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0806R-SA
U diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

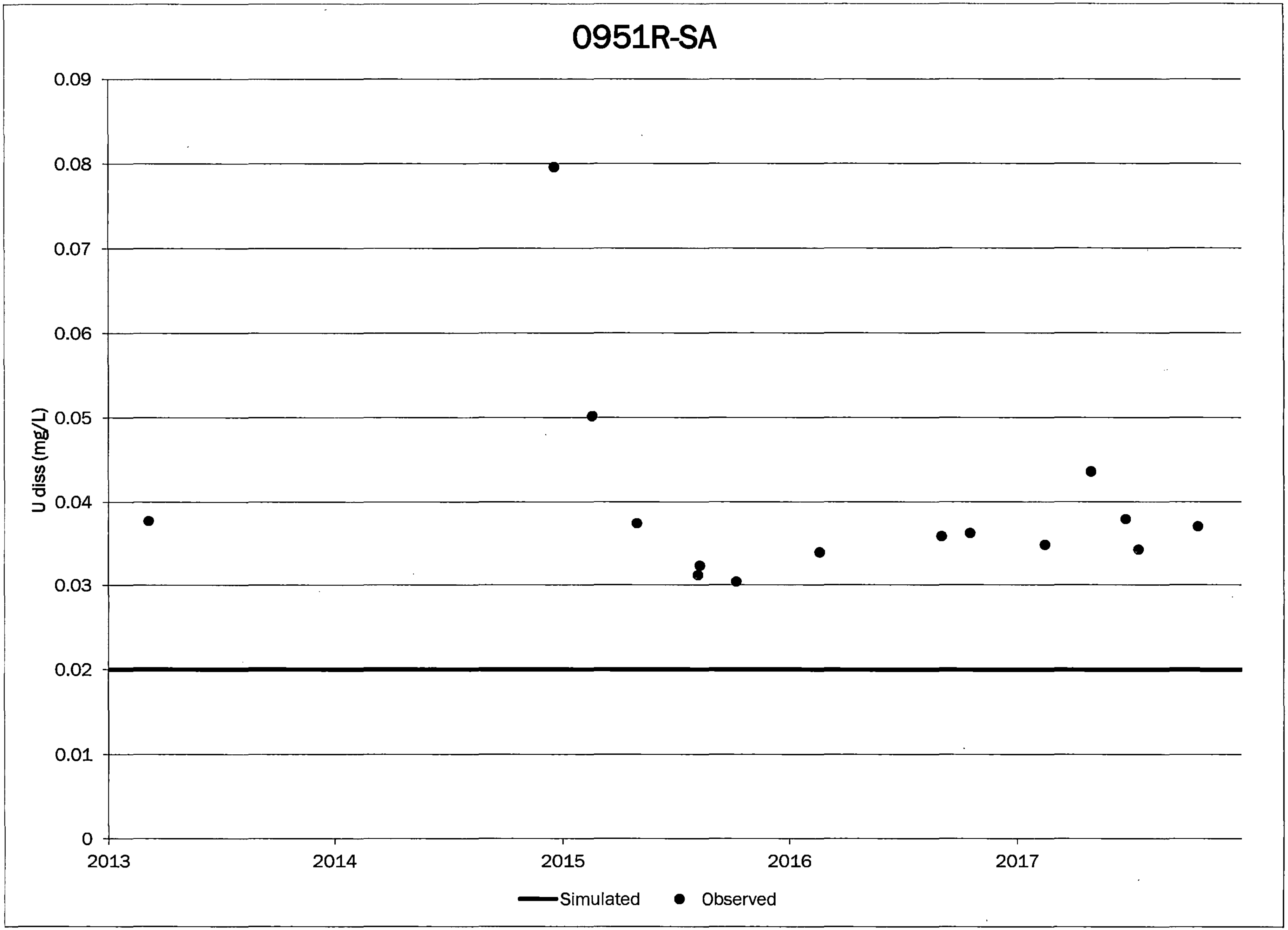

0806-SA
U diss (mg/L)
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


0928-SA
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

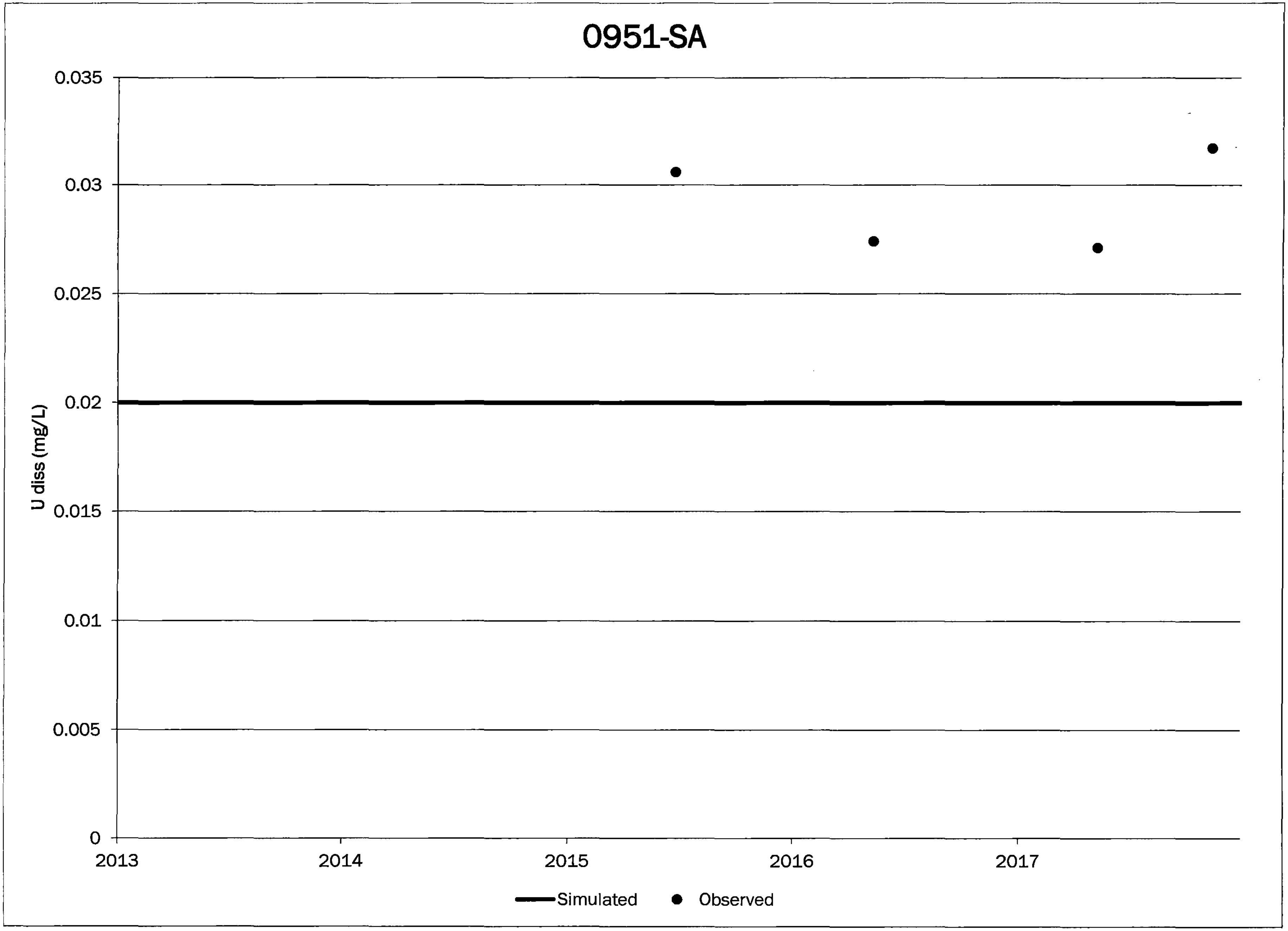

0938-SA
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



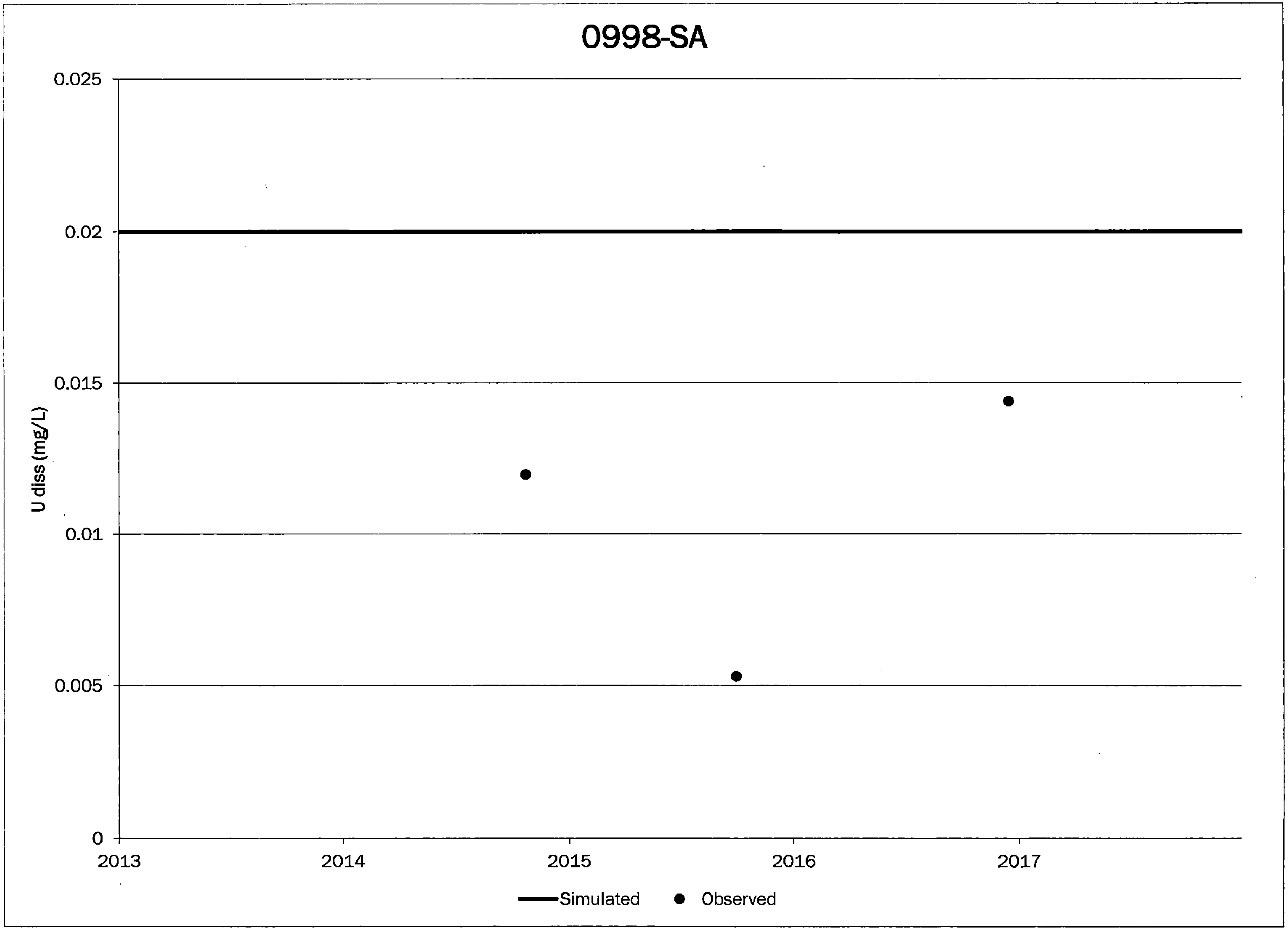
0943-SA
U diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

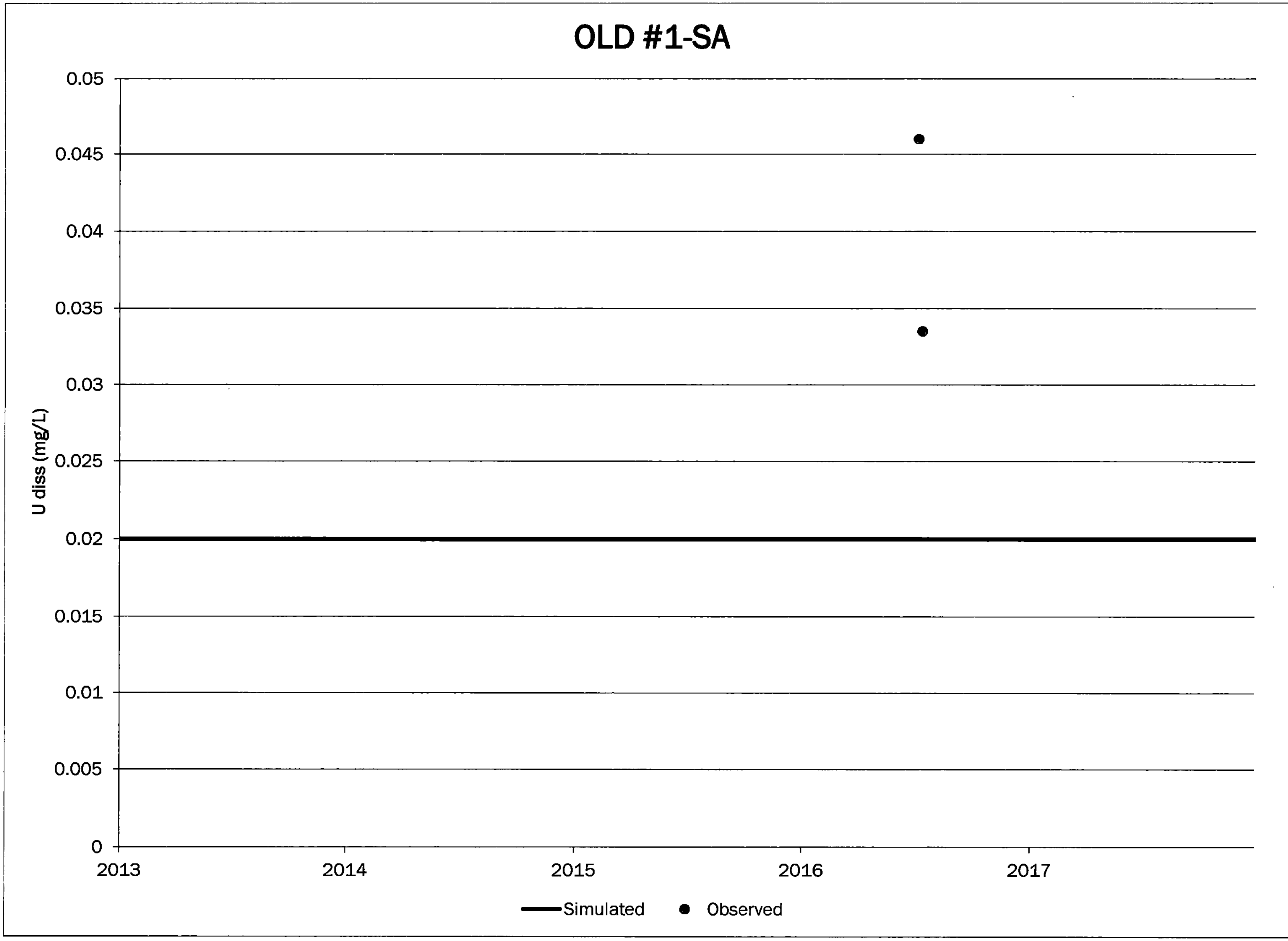


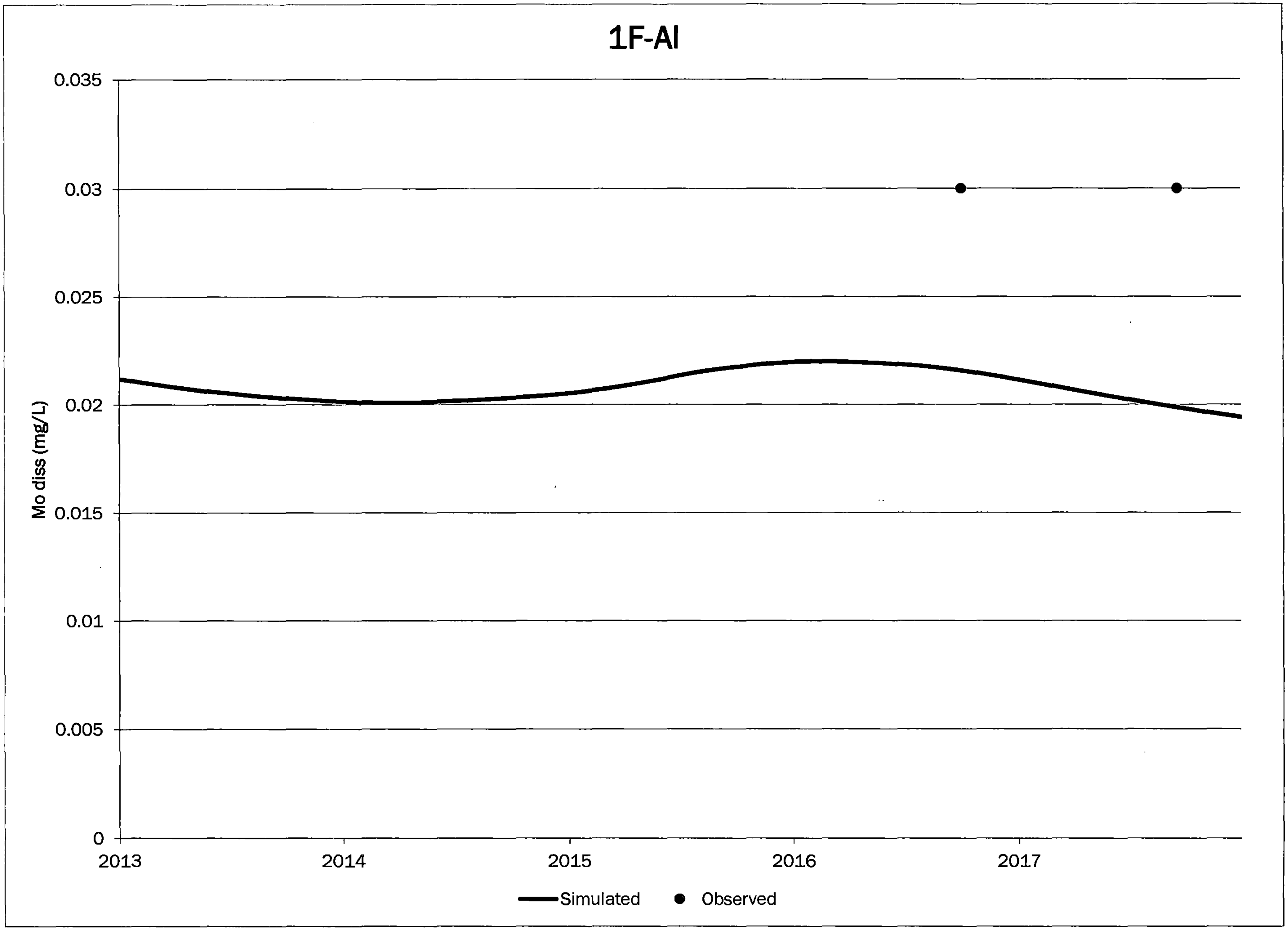
0951R-SA
U diss (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed



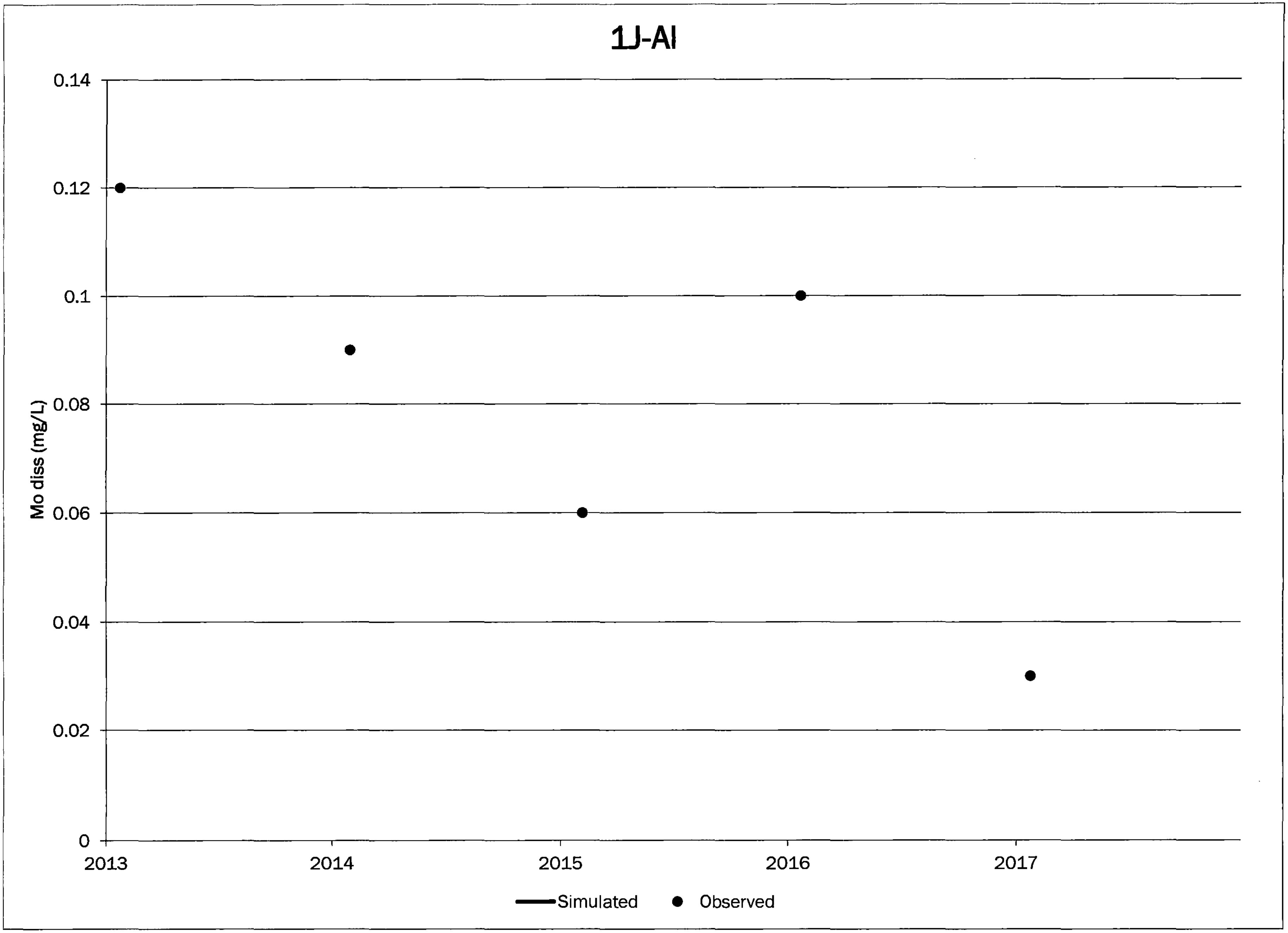
0951-SA
U diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

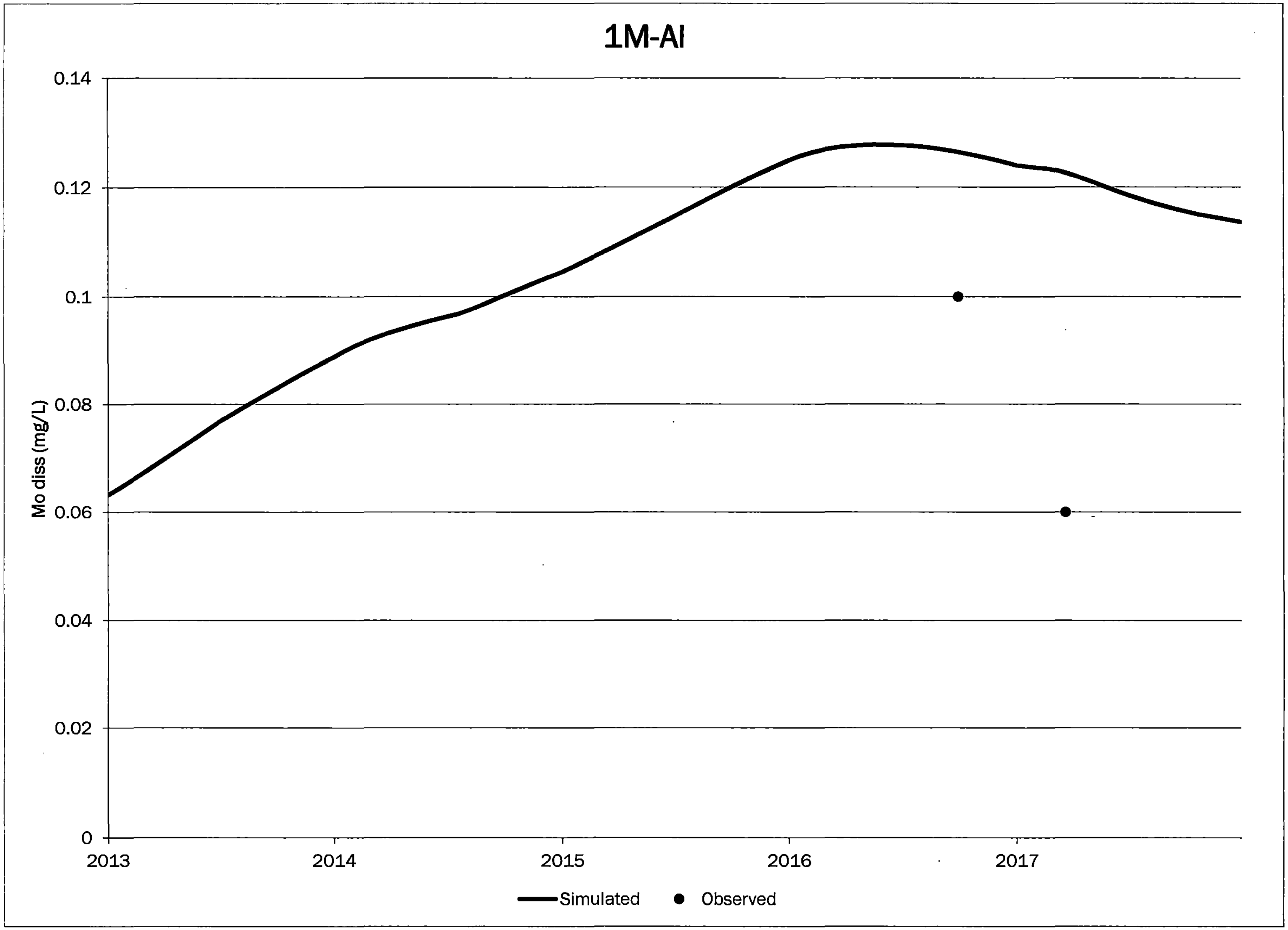

0998-SA
0.025
0.02
0.015
0.01
0.005
0
U diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


OLD #1-SA
U diss (mg/L)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

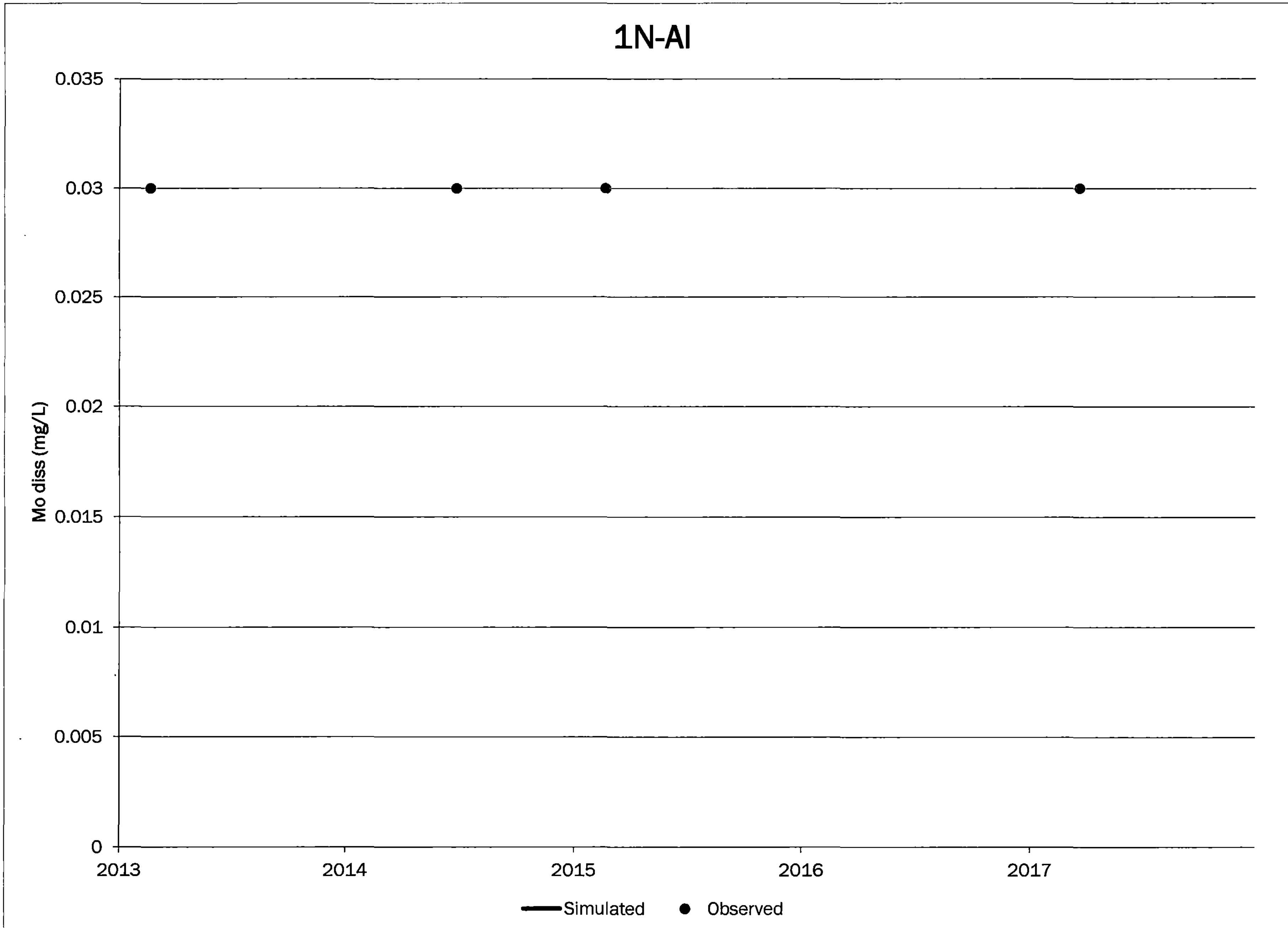


1F-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

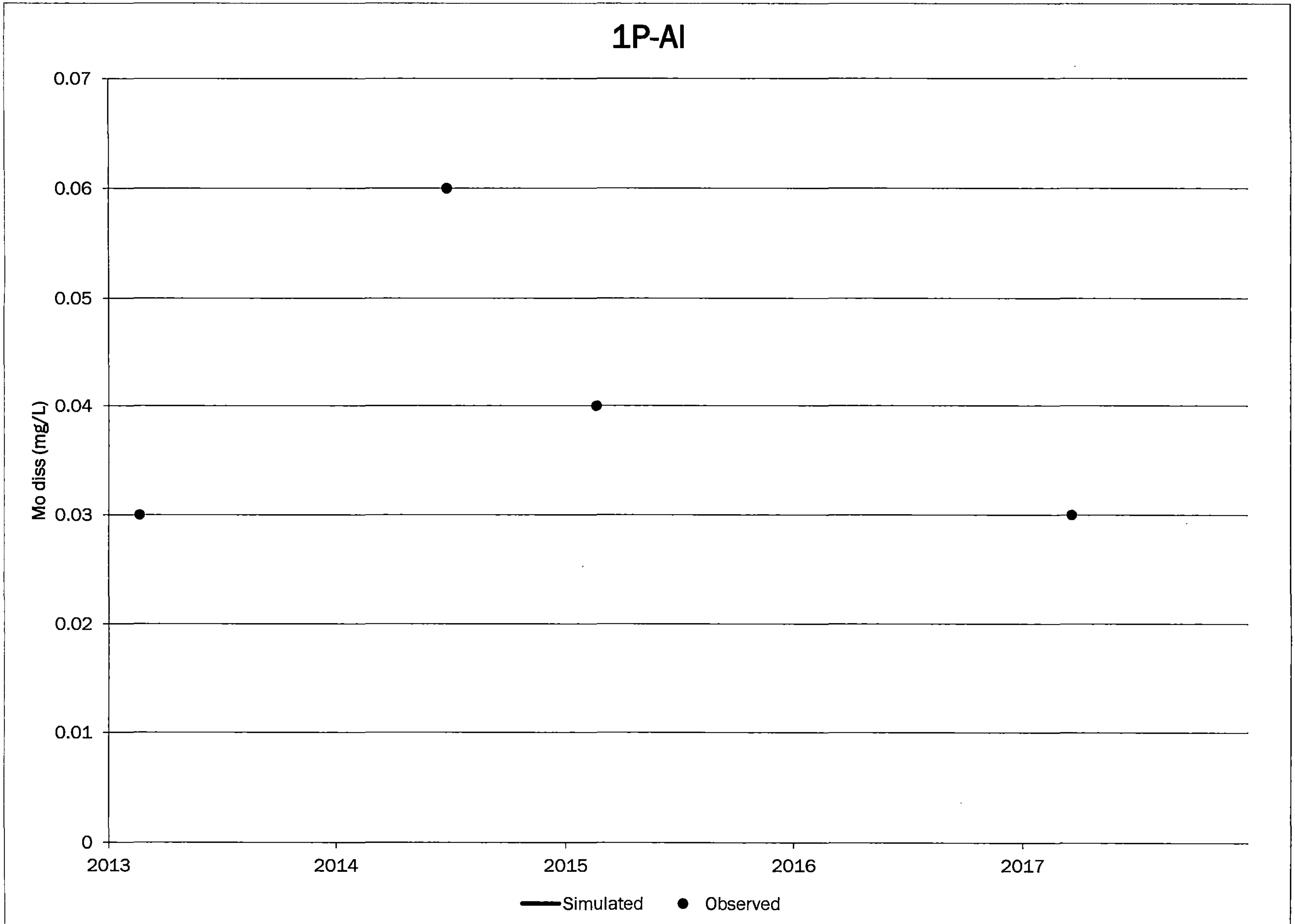

1J-AI
Mo diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

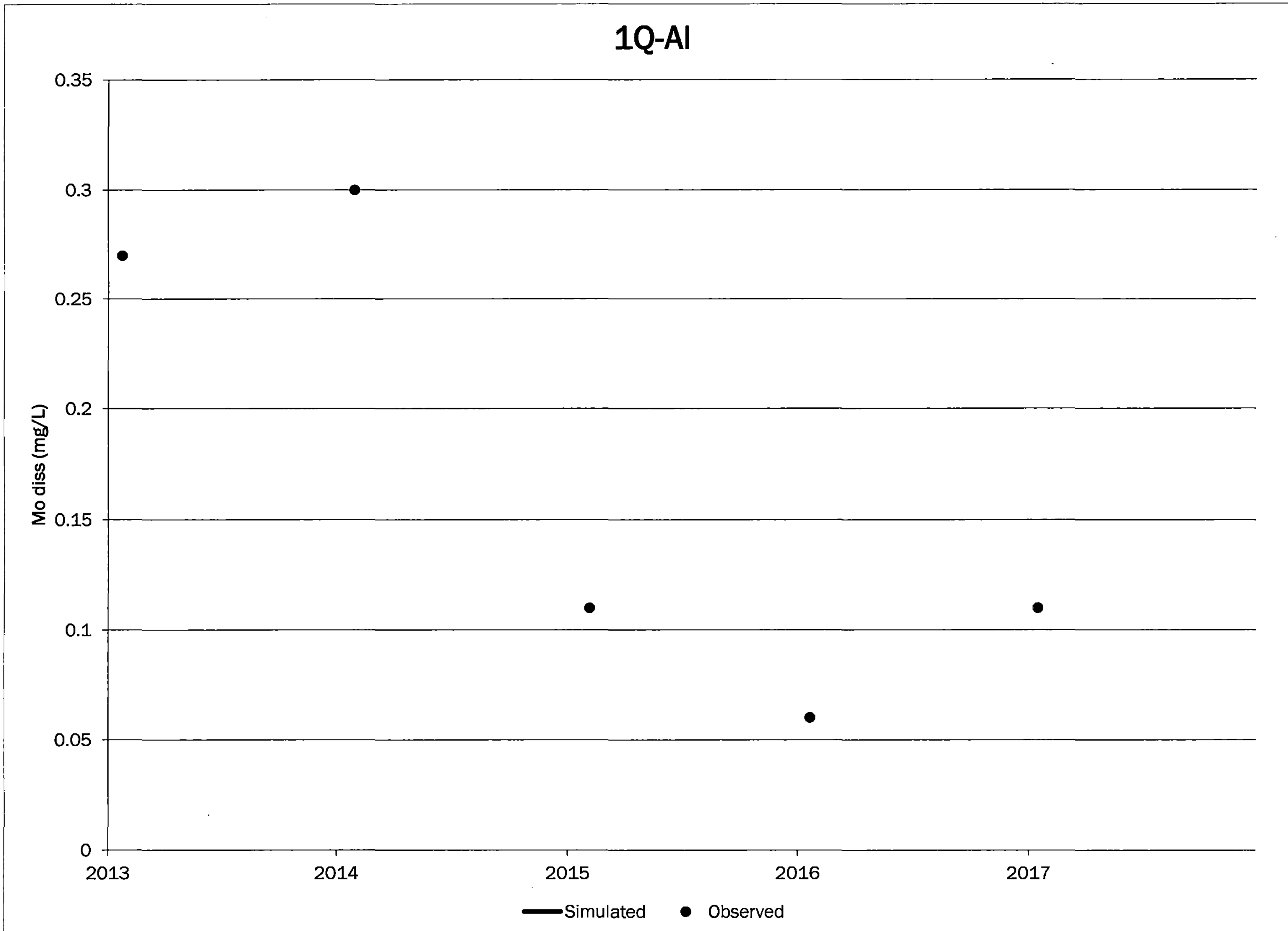


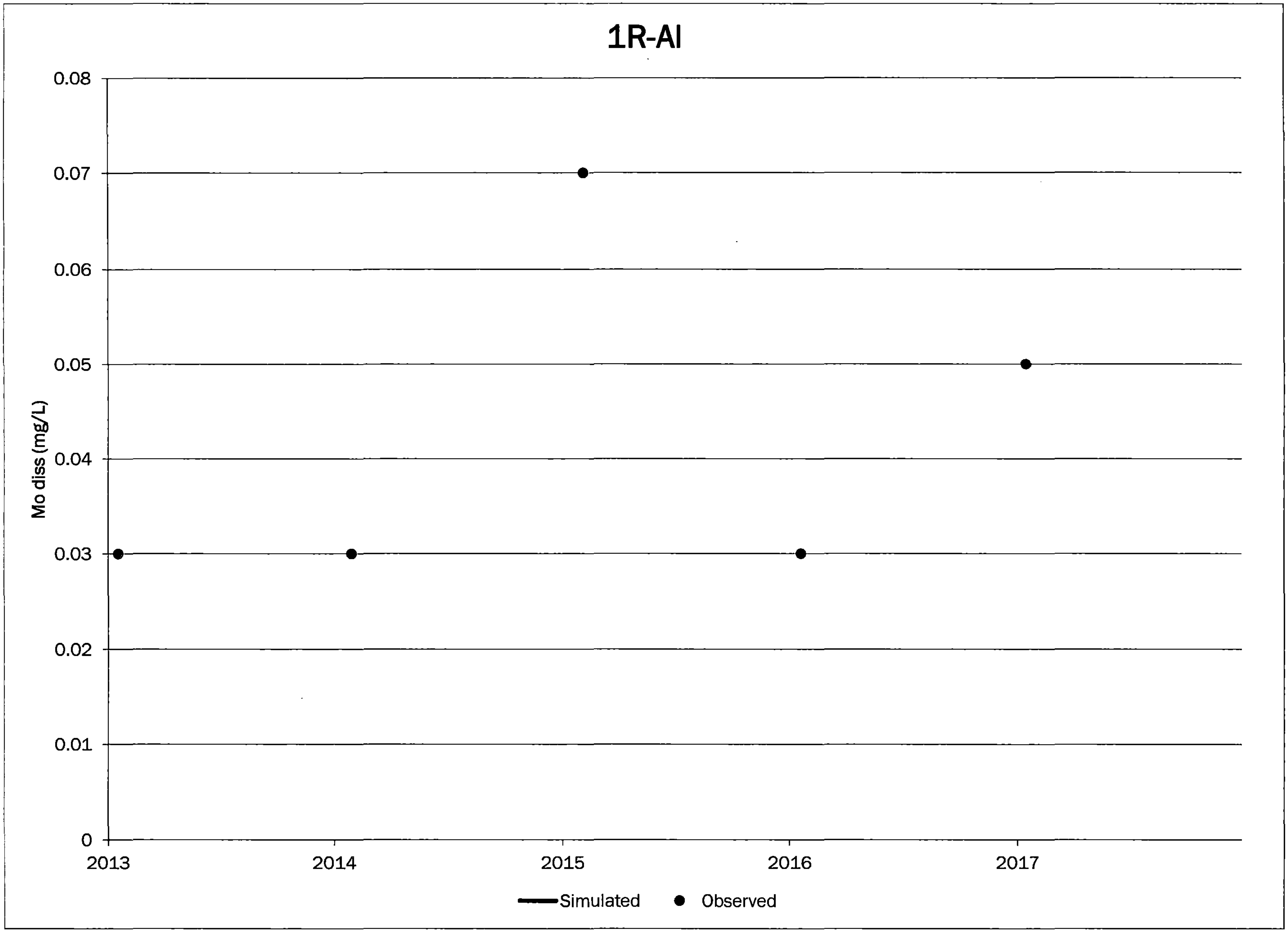
1M-AI
Mo diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



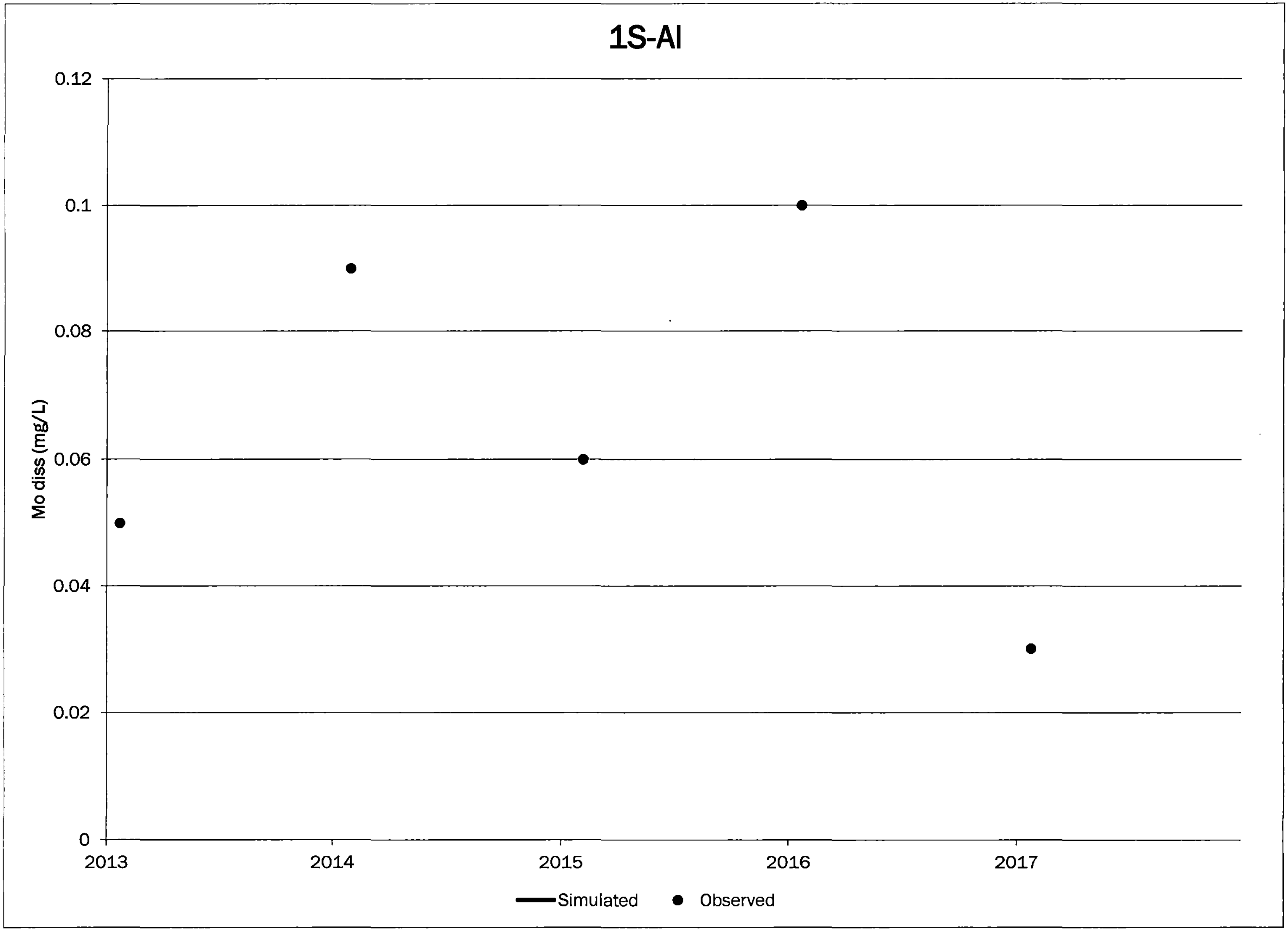
1N-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


1P-AI
Mo diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

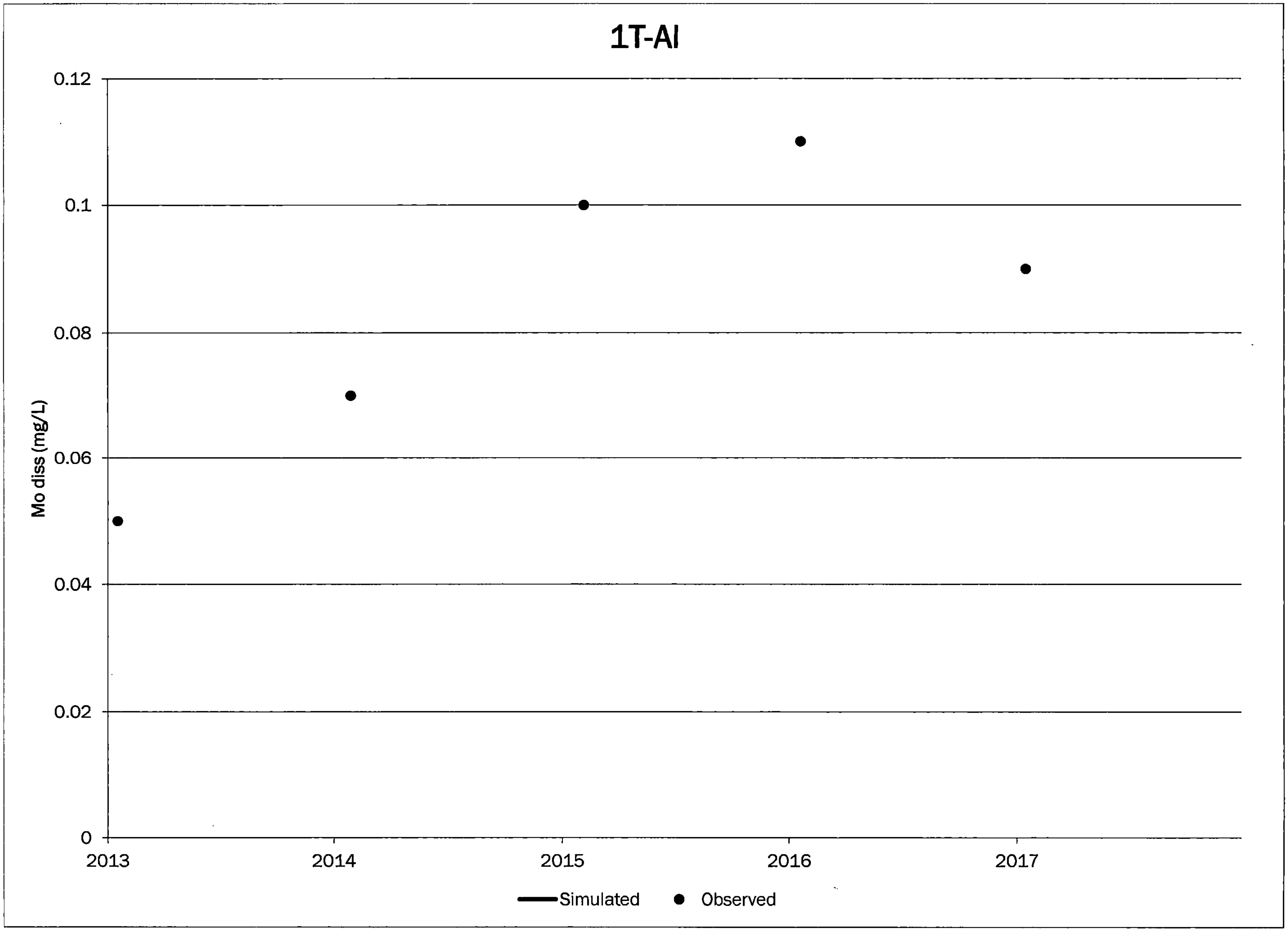

1Q-Al
Mo diss (mg/L)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

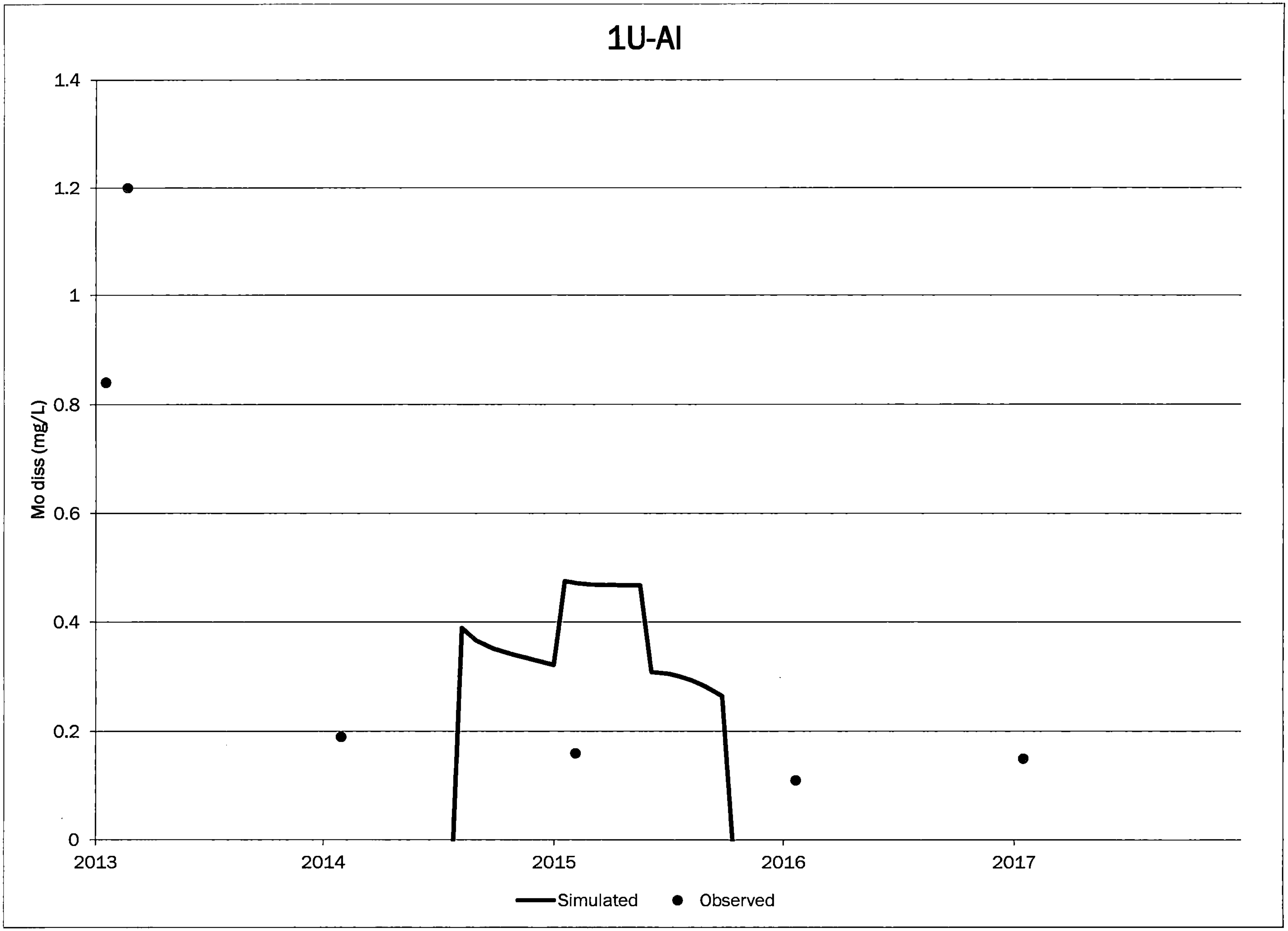


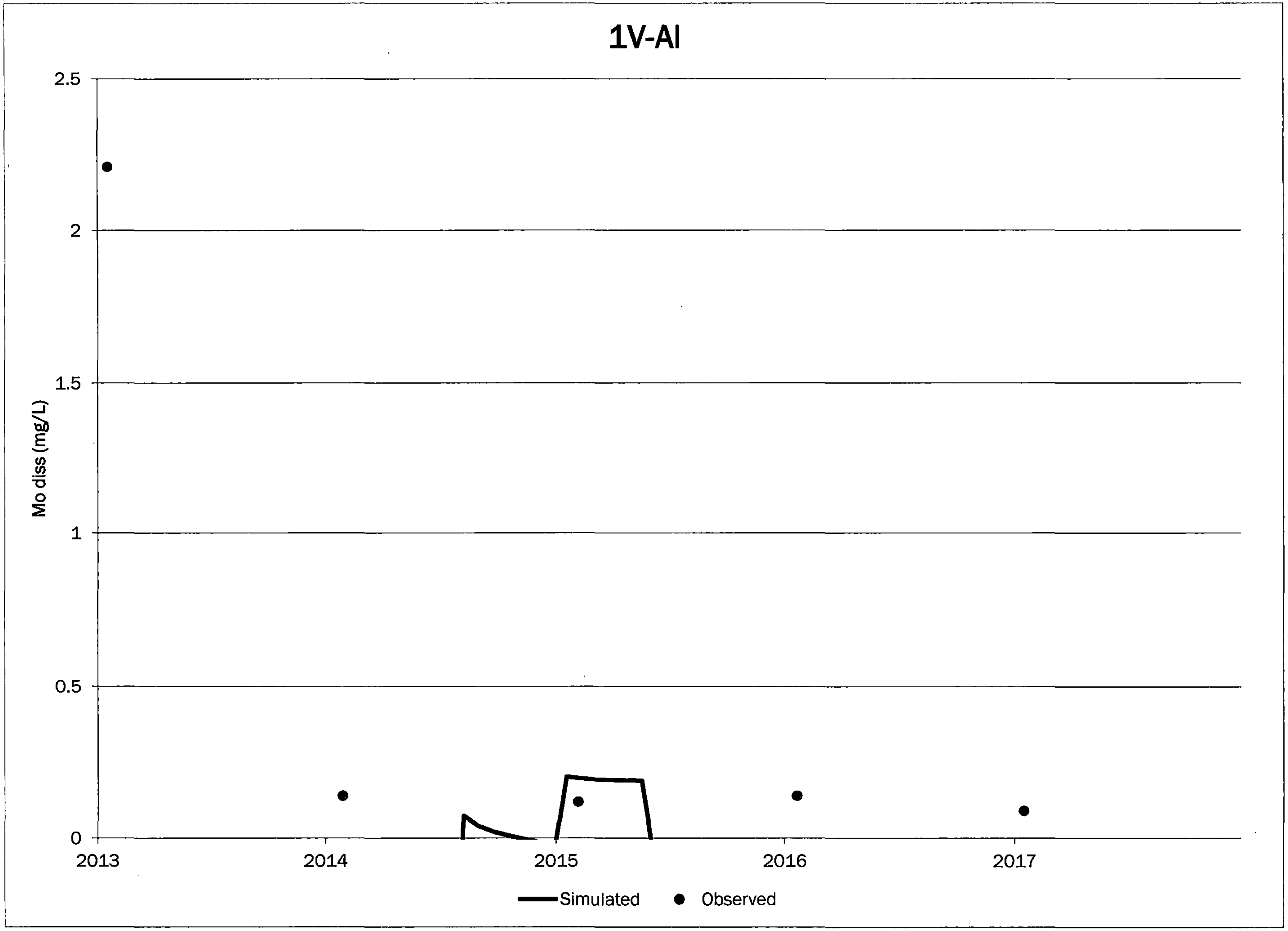
1R-AI
Mo diss (mg/L)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

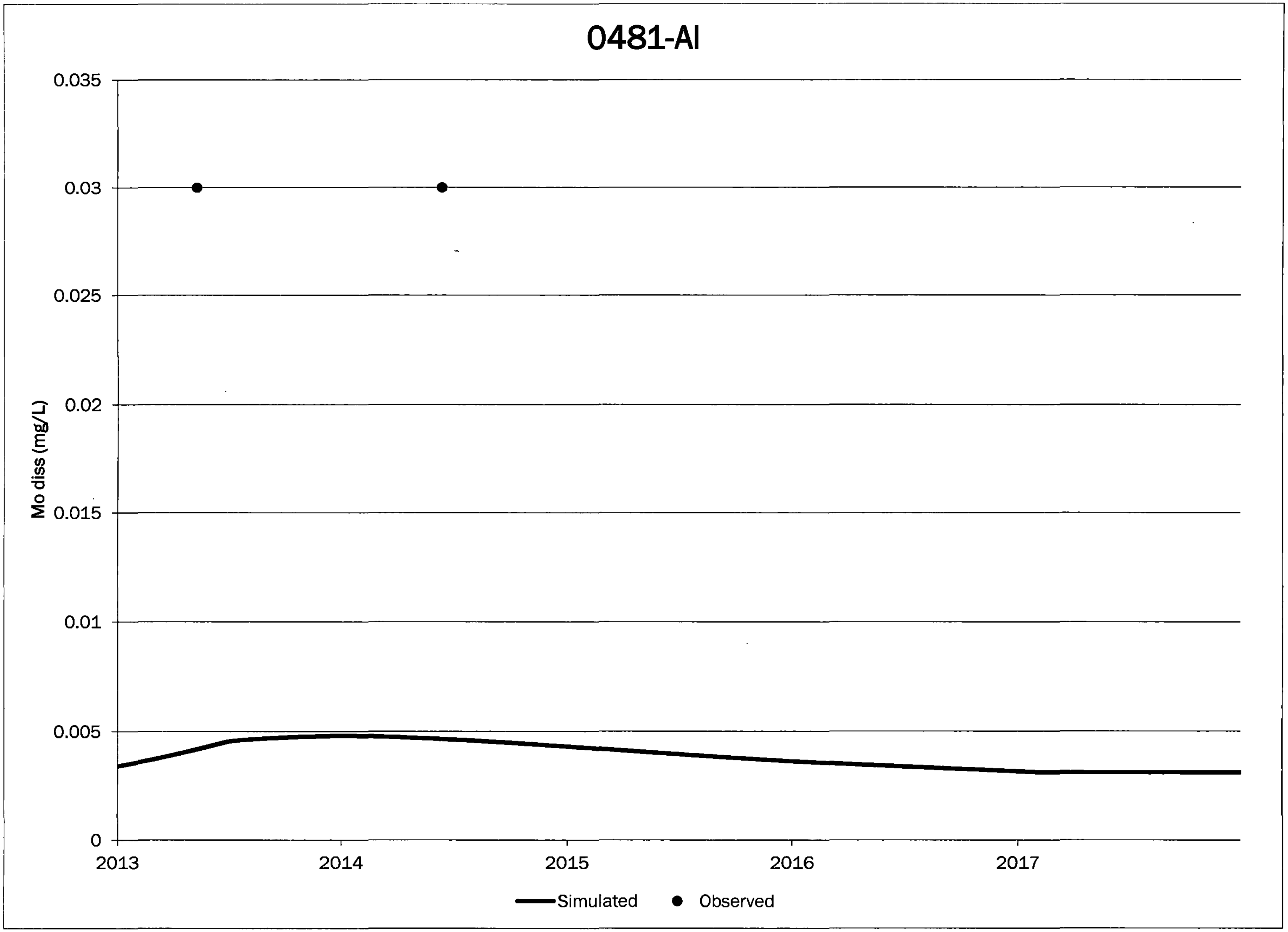


1S-AI
Mo diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

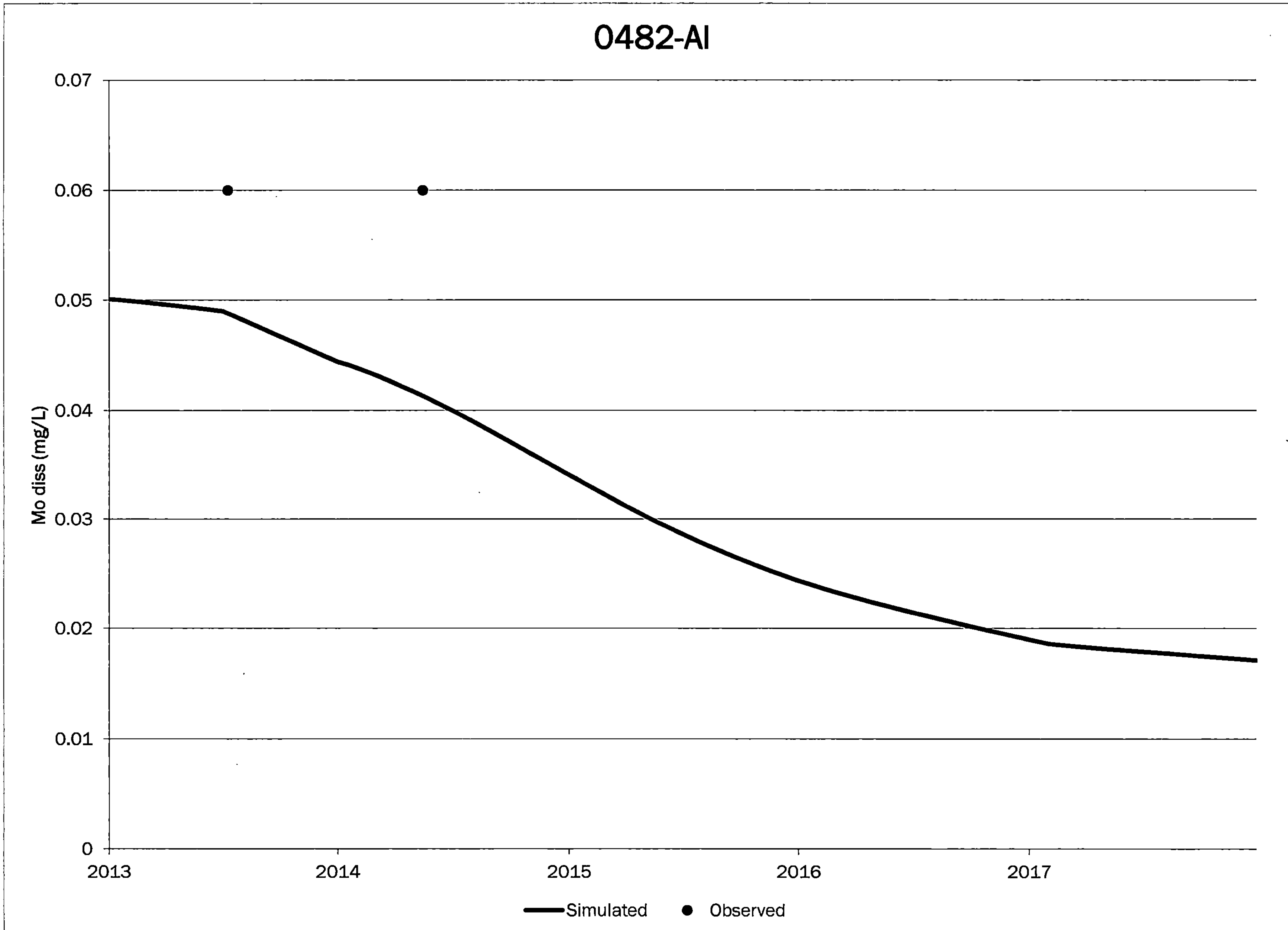

1T-AI
Mo diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

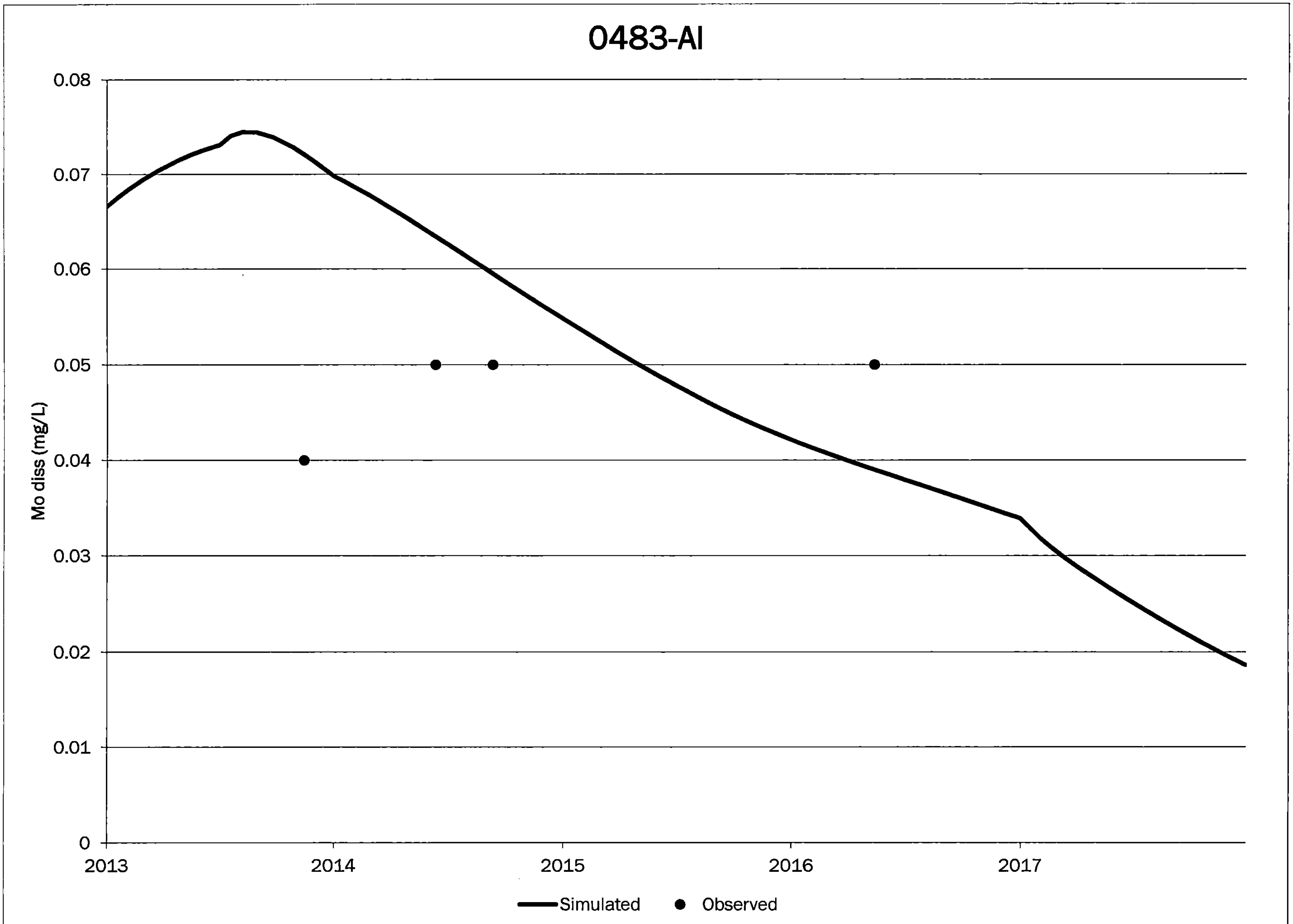

1U-Al
Mo diss (mg/L)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

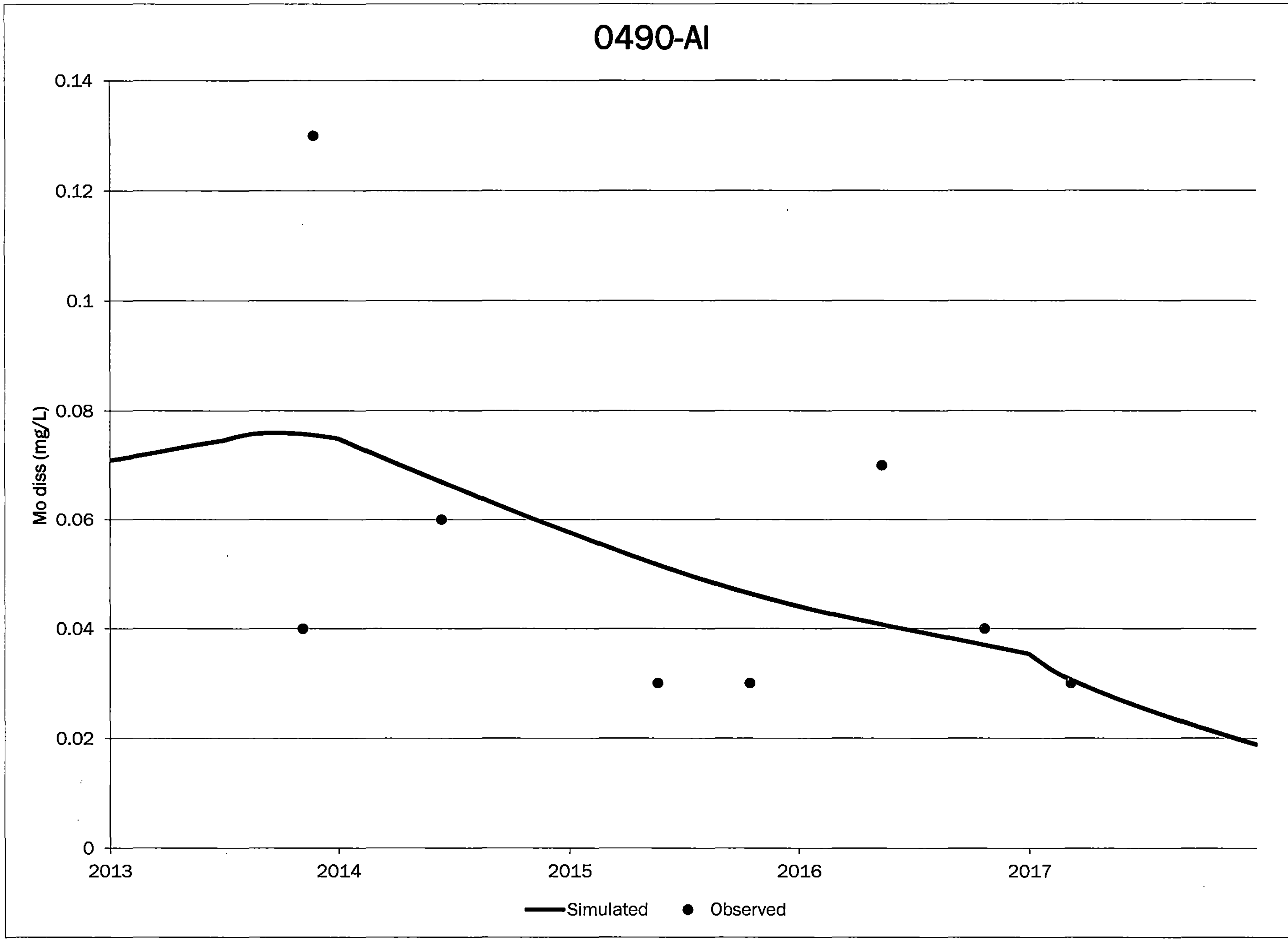

1V-AI
Mo diss (mg/L)
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

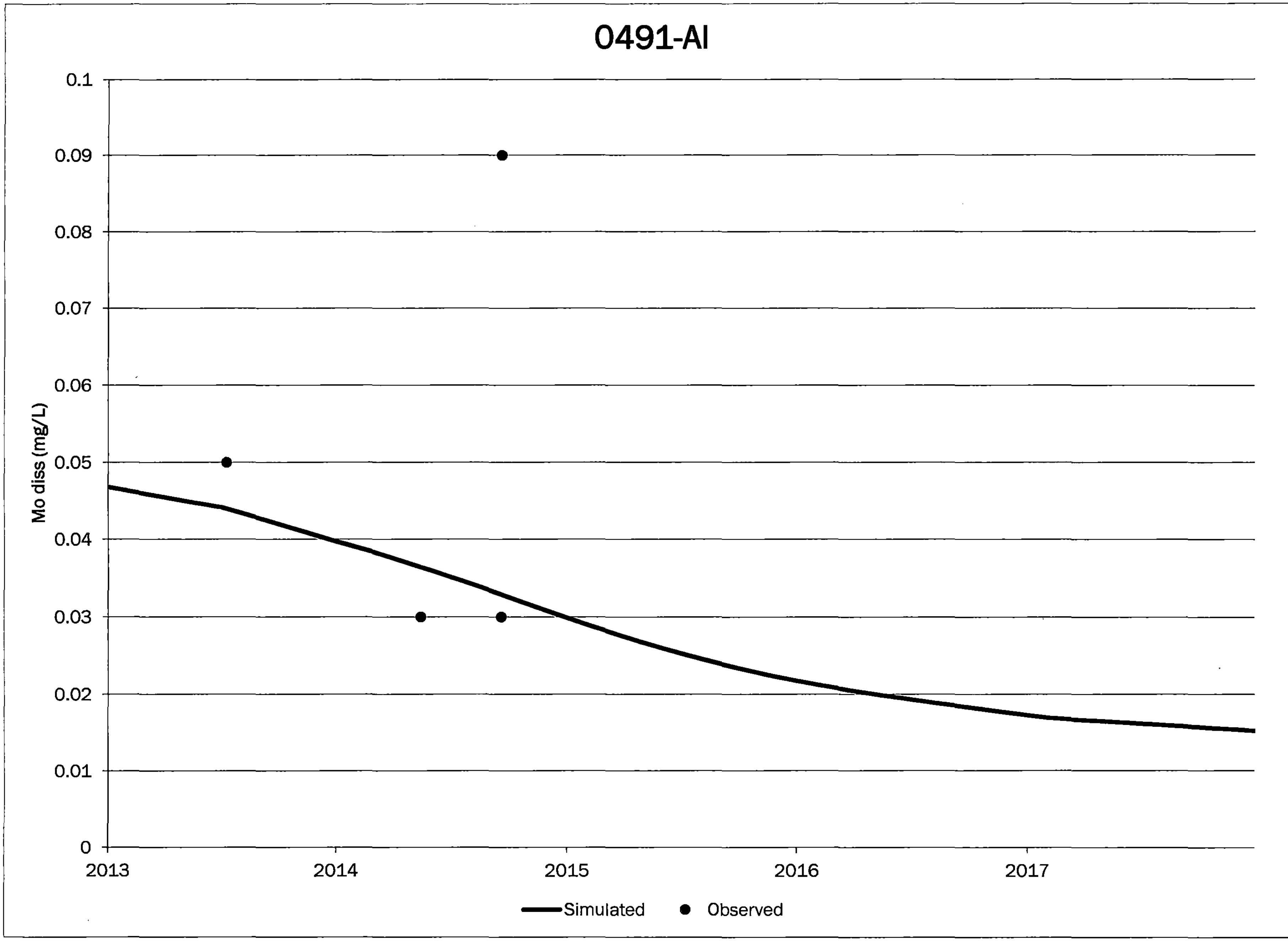


0481-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

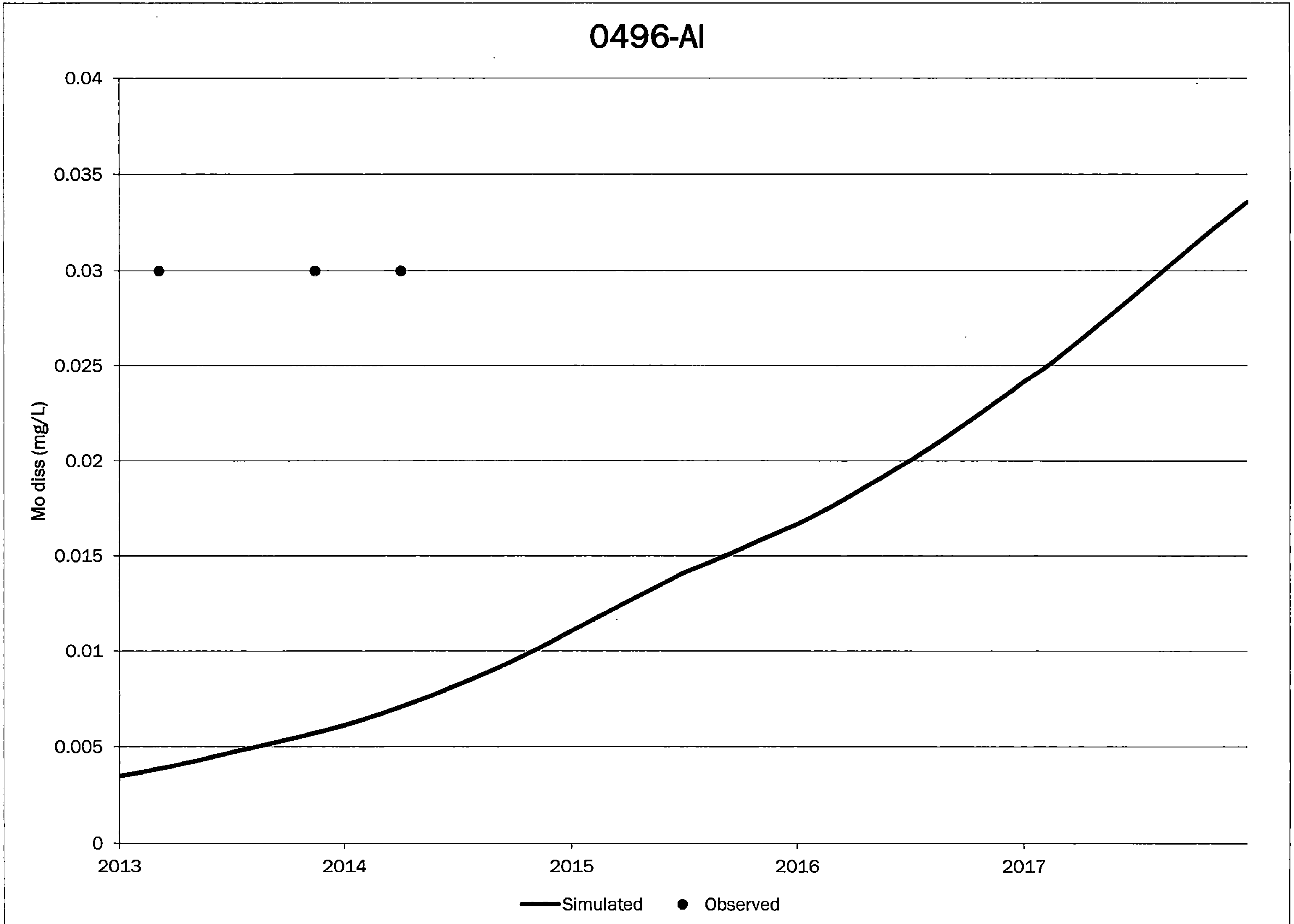

0482-AI
Mo diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


0483-AI
Mo diss (mg/L)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

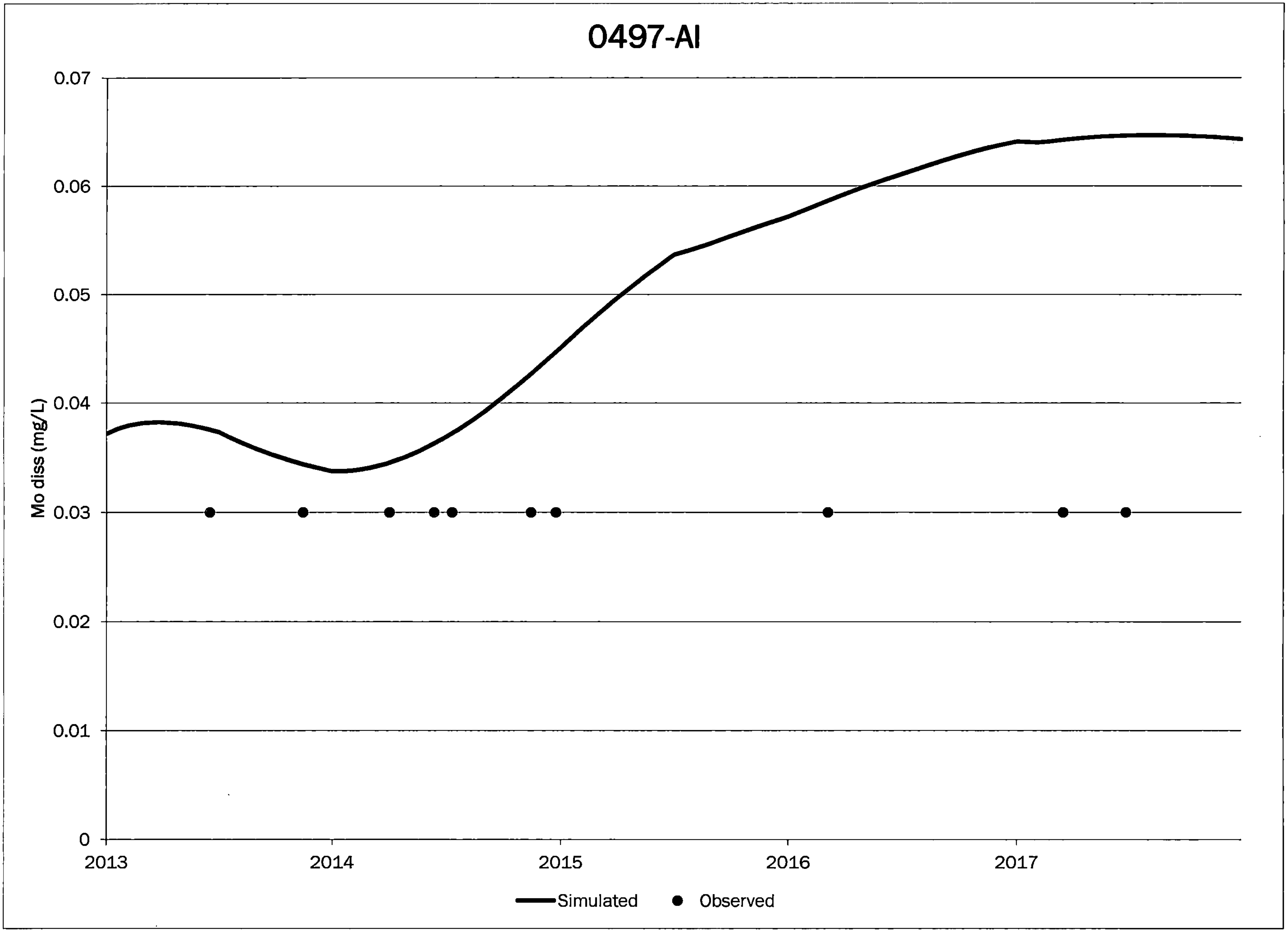

0490-AI
Mo diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

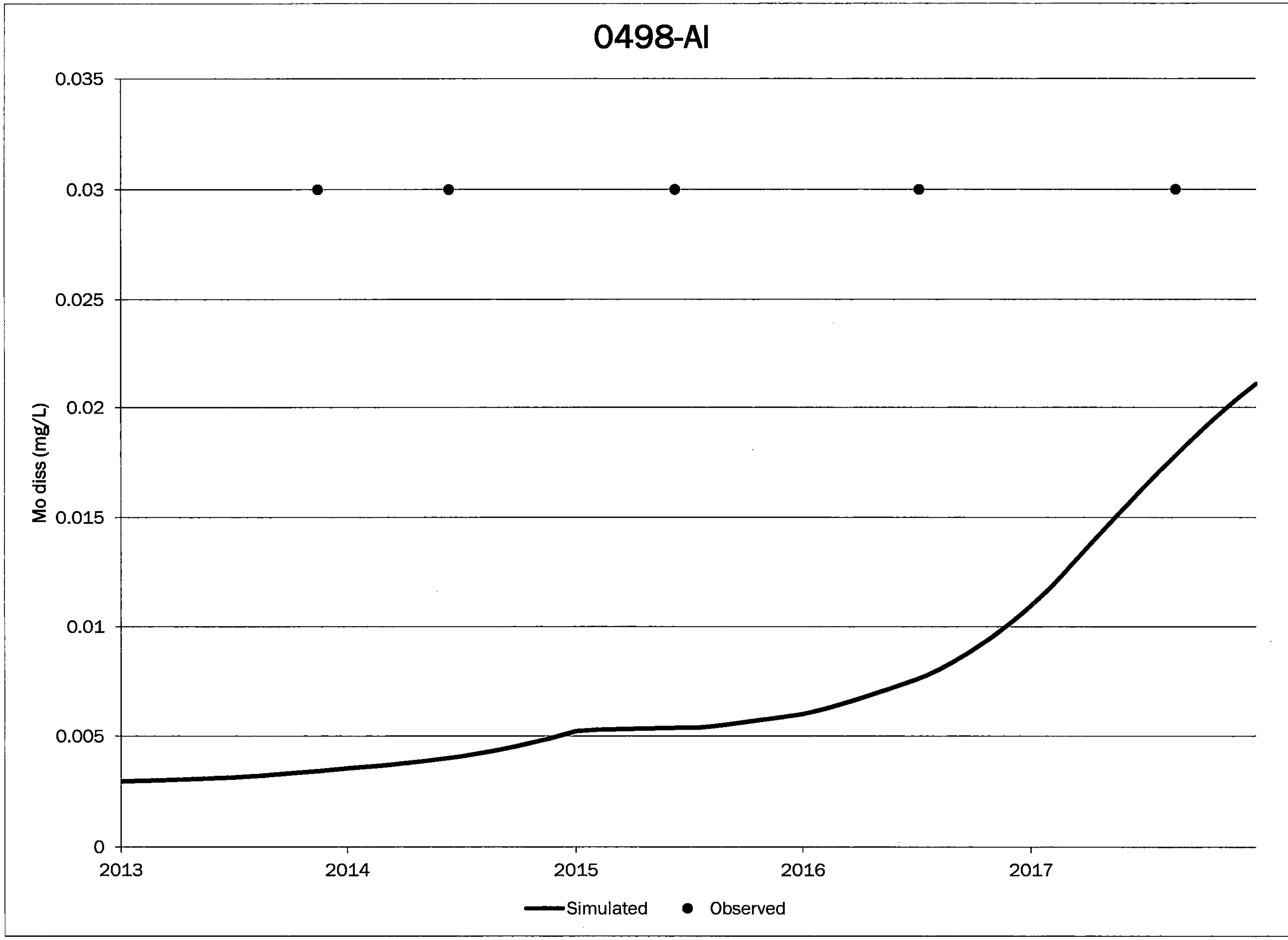


0491-AI
Mo diss (mg/L)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

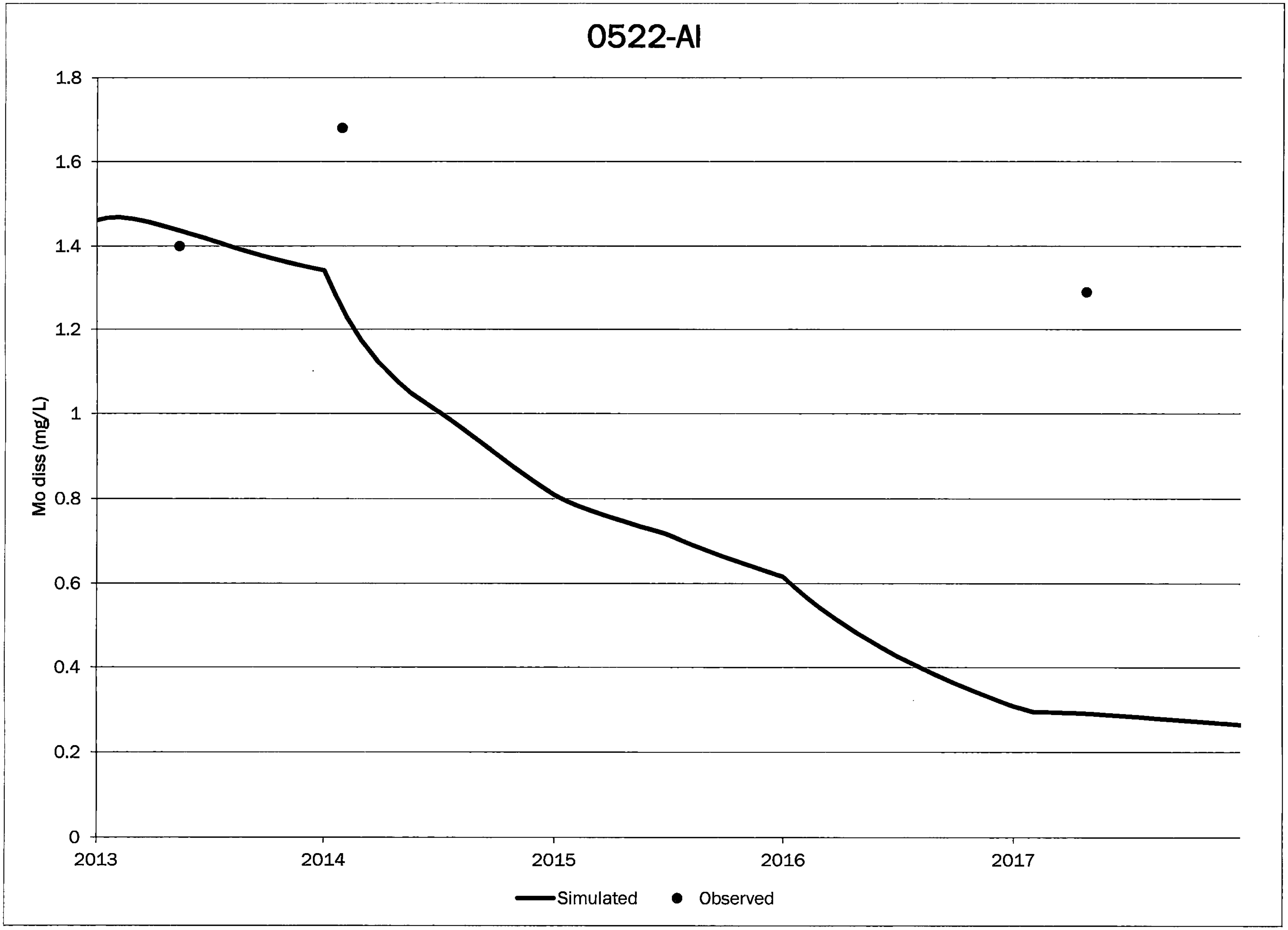


0496-AI
Mo diss (mg/L)
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

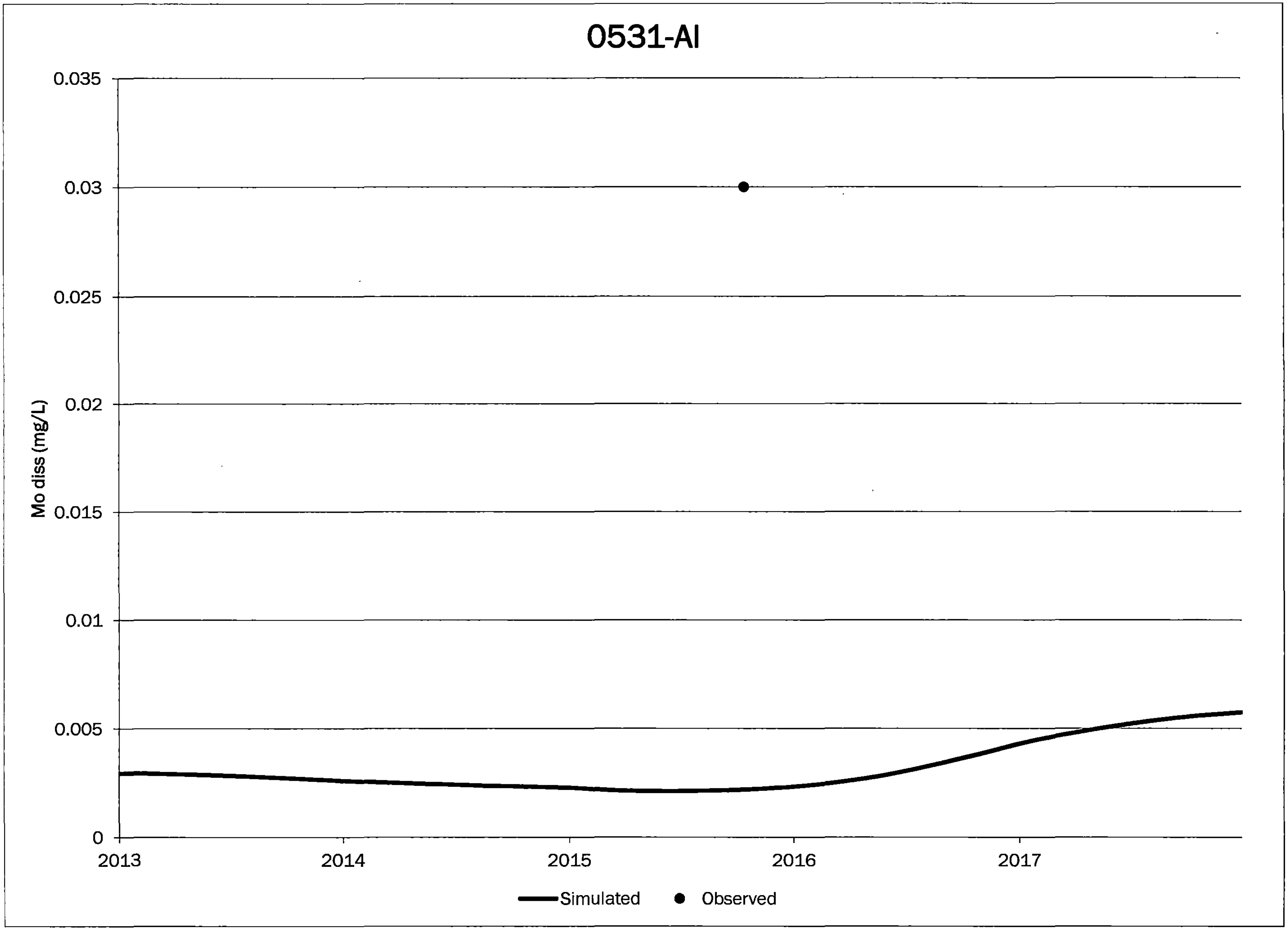

0497-AI
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

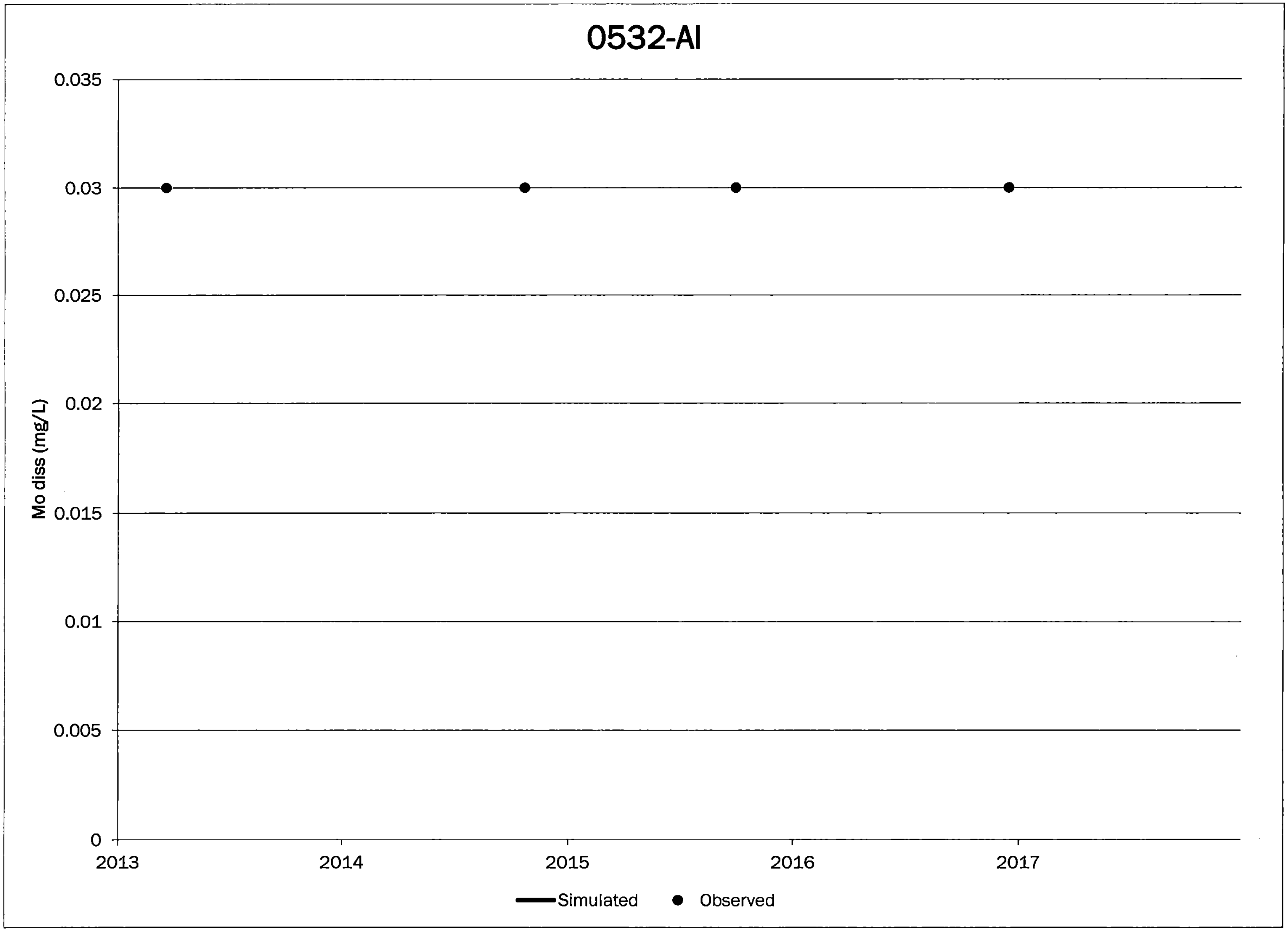


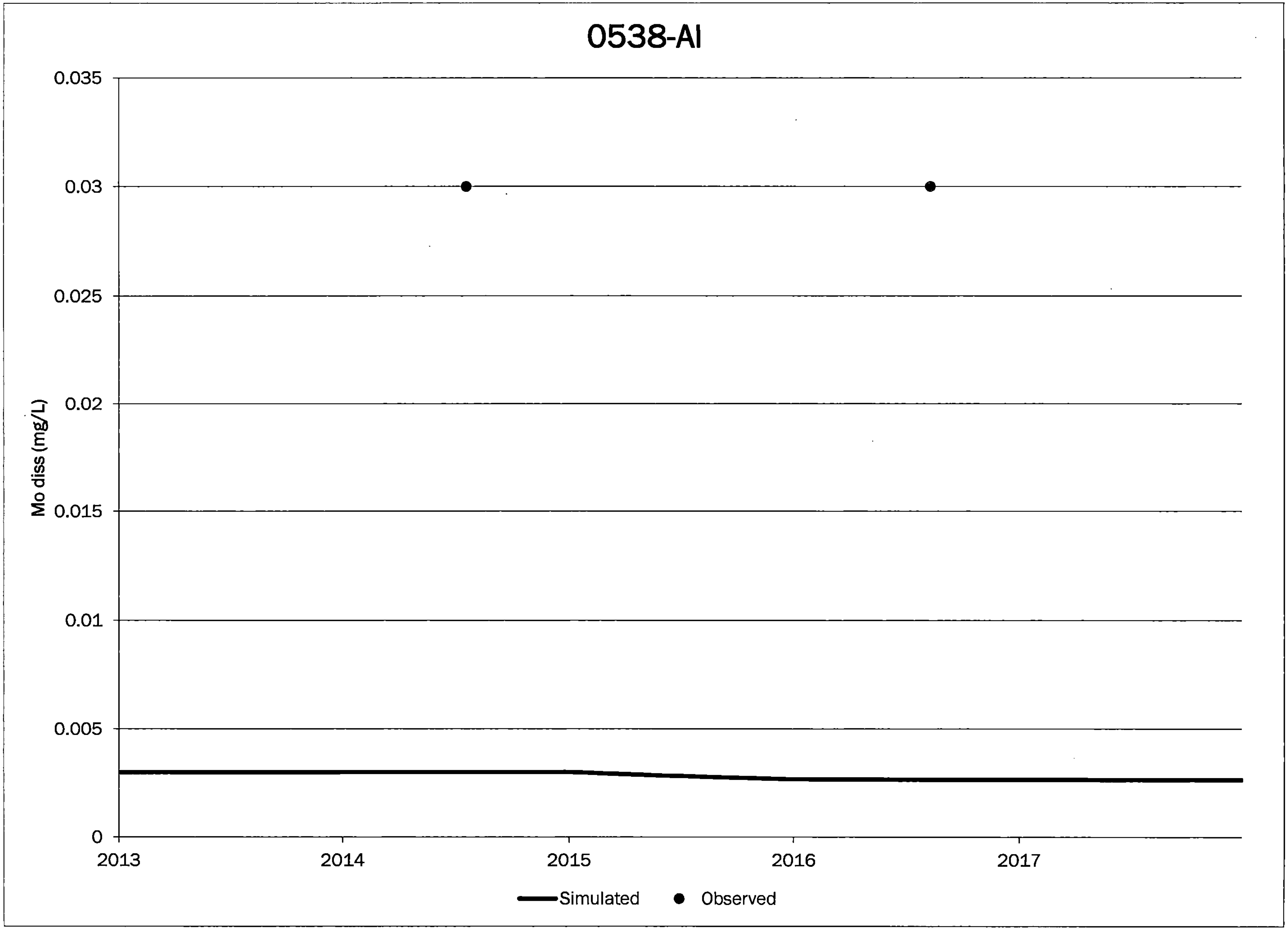
0498-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



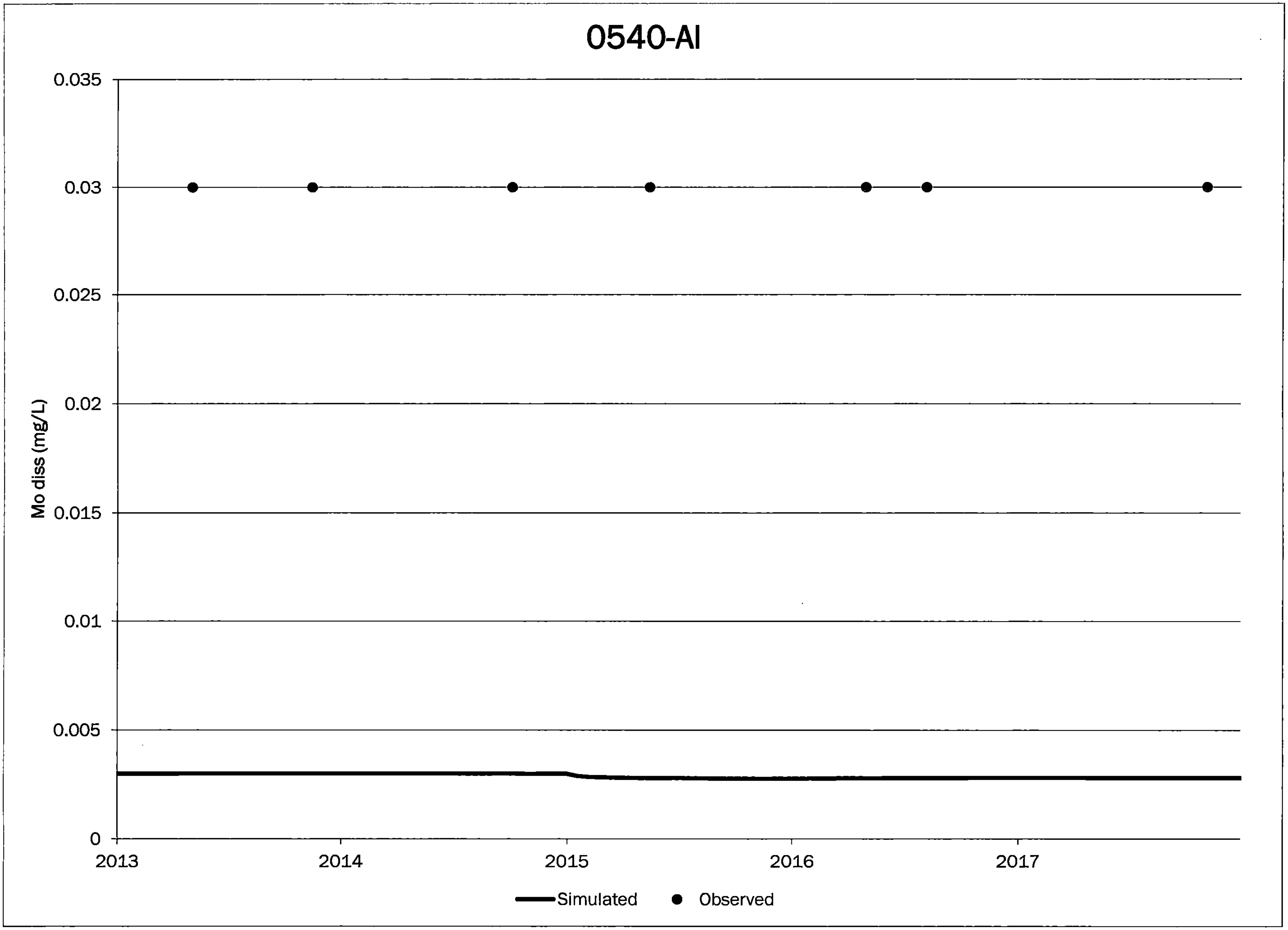
0522-AI
Mo diss (mg/L)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed


0531-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

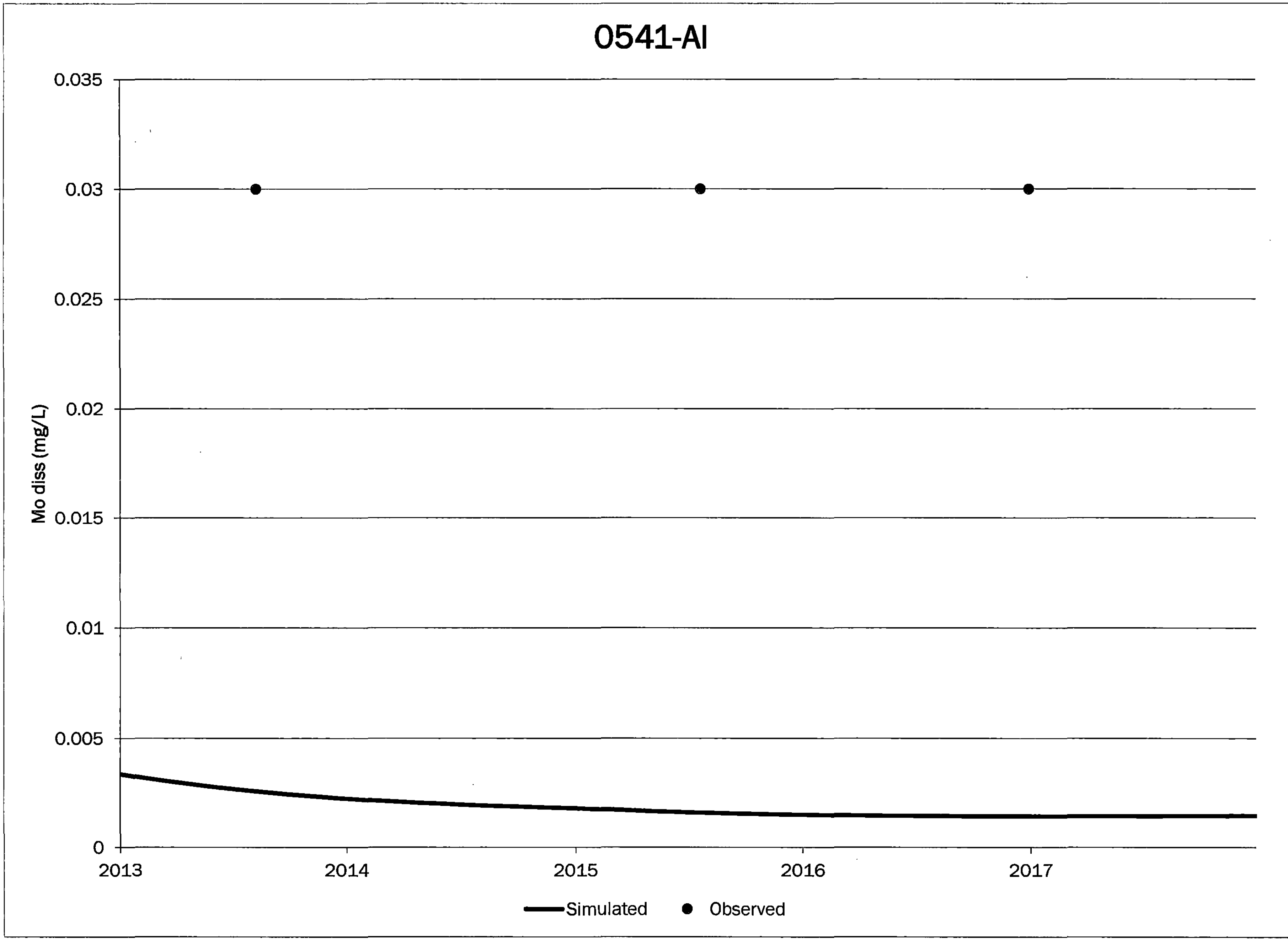

0532-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



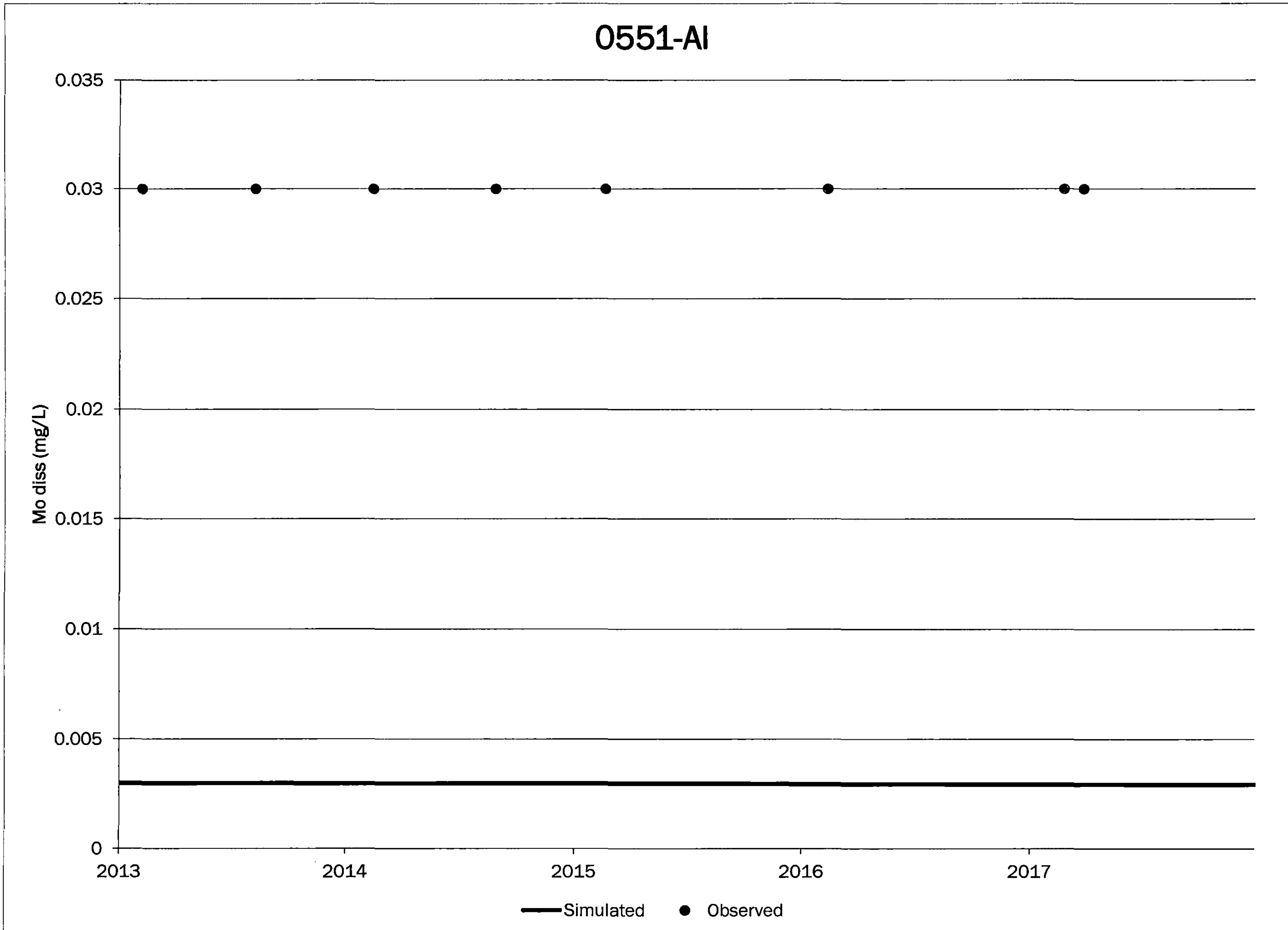
0538-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

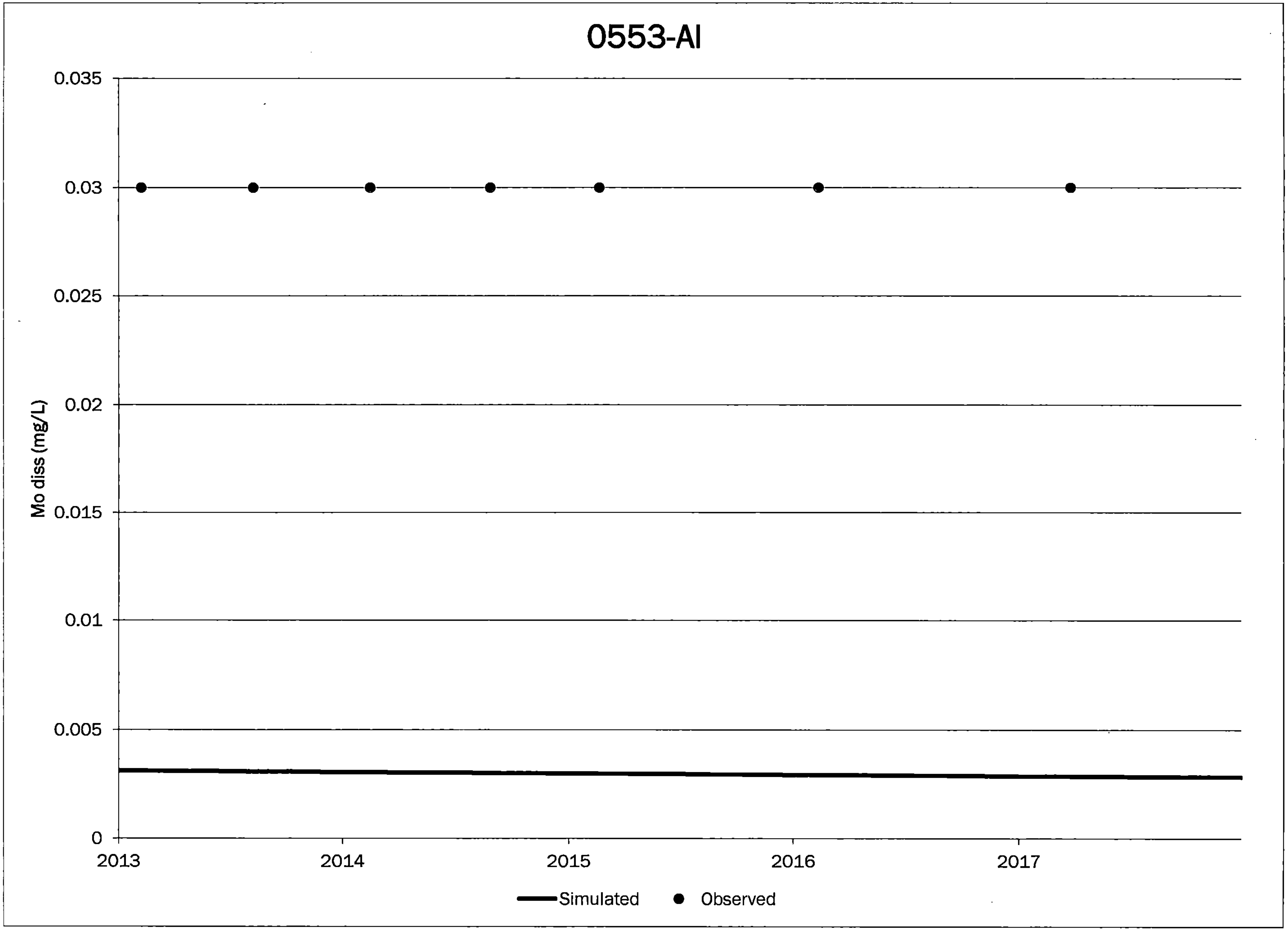


0540-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

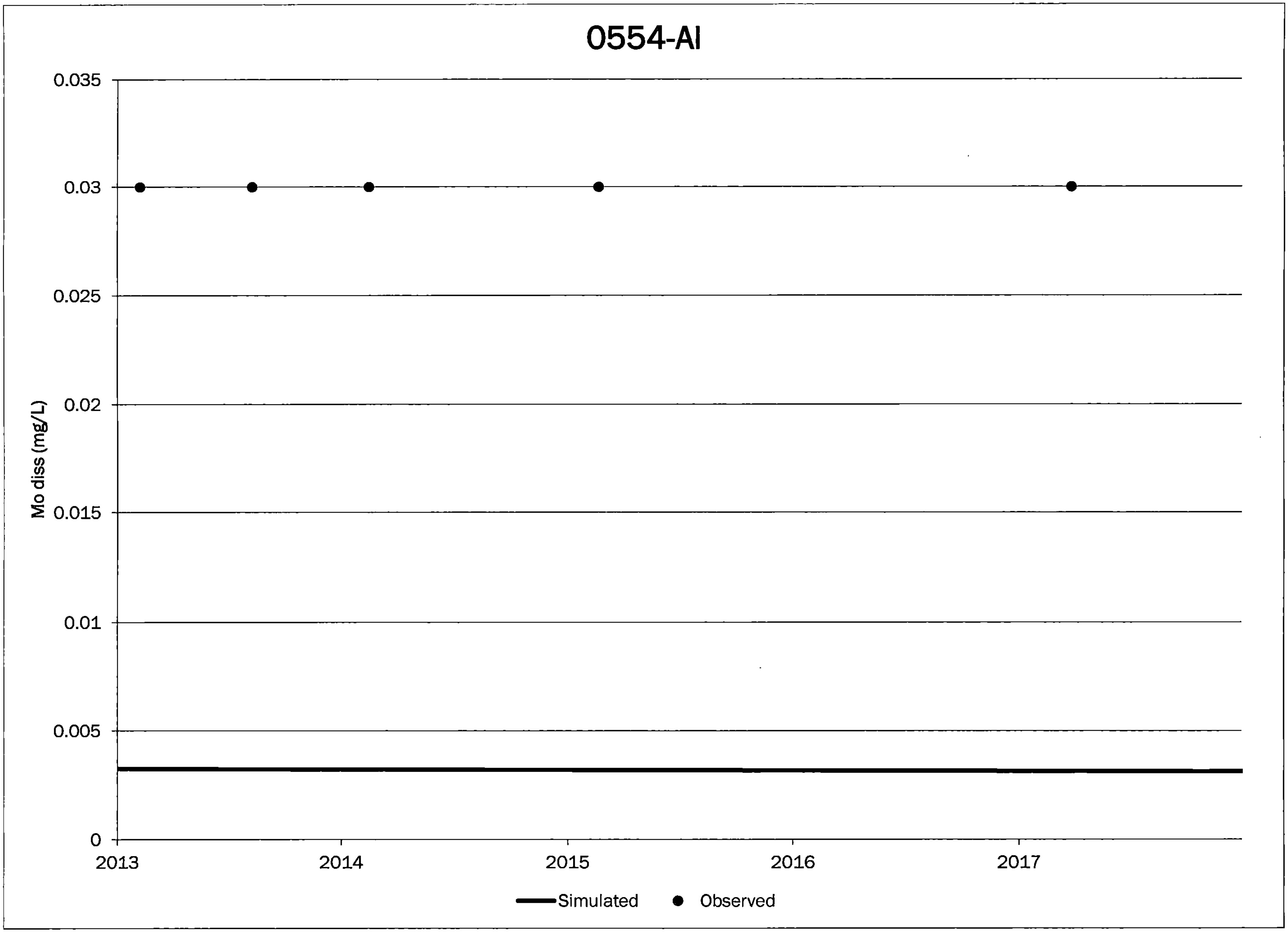


0541-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

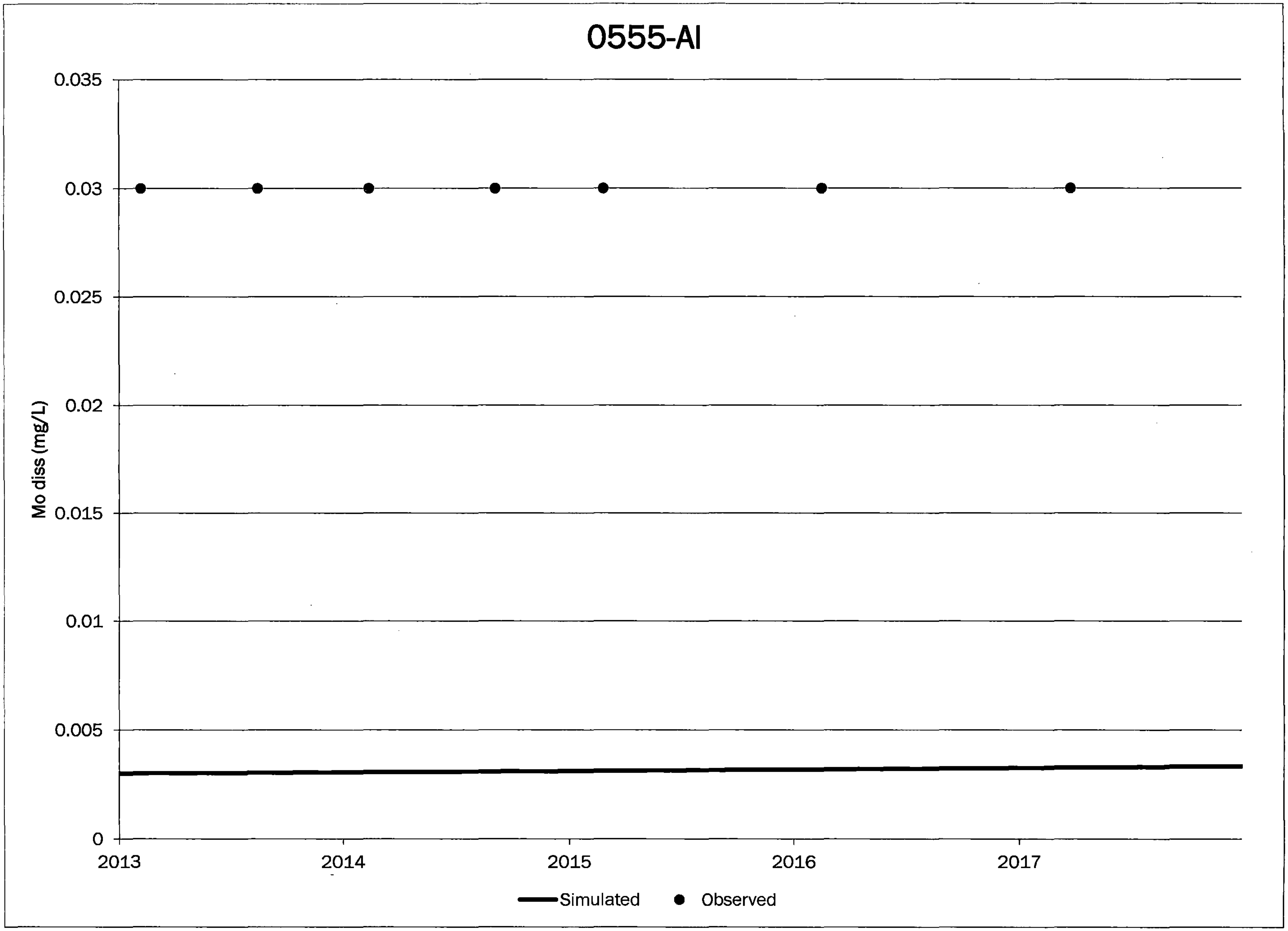

0551-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



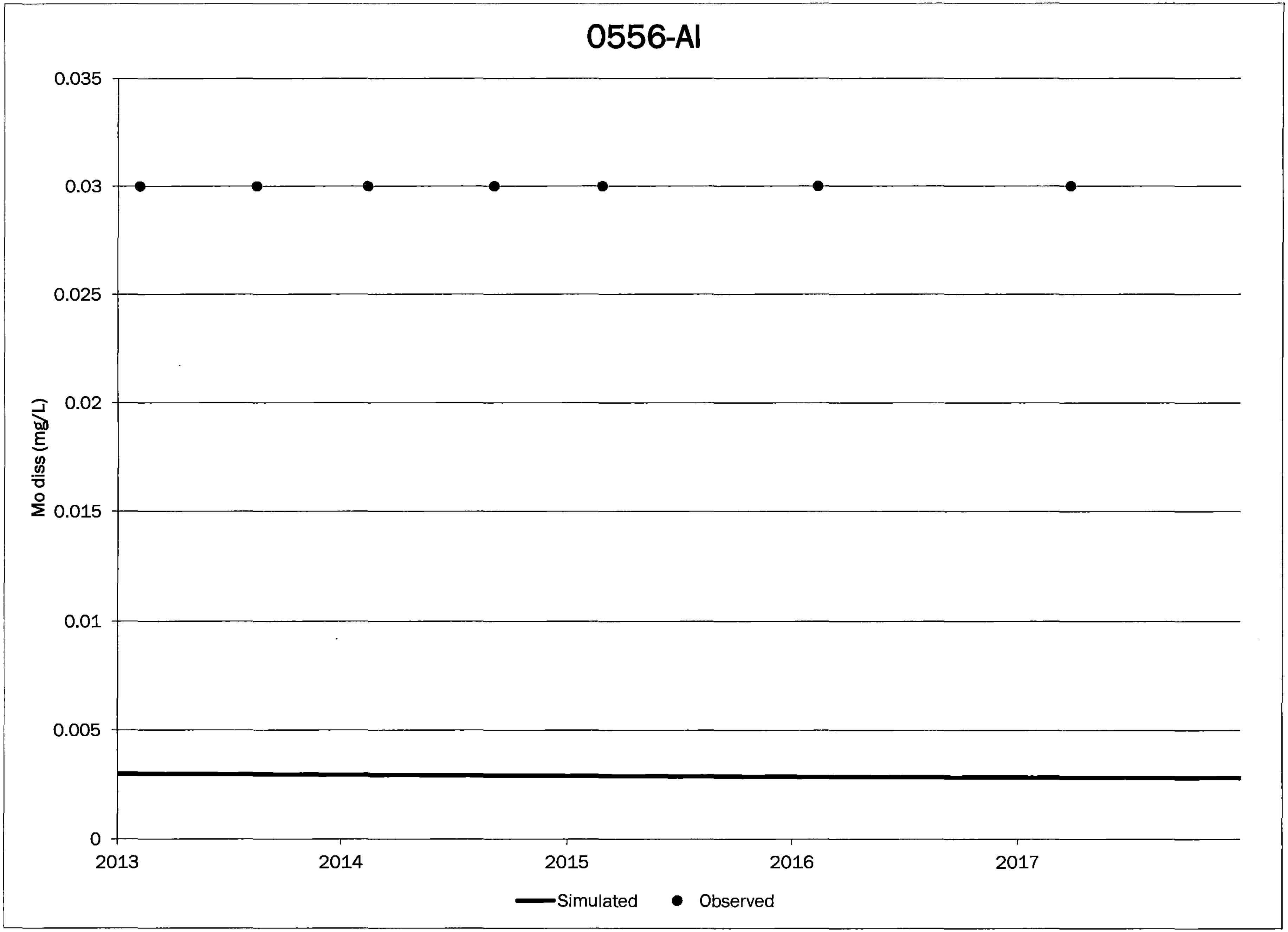
0553-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

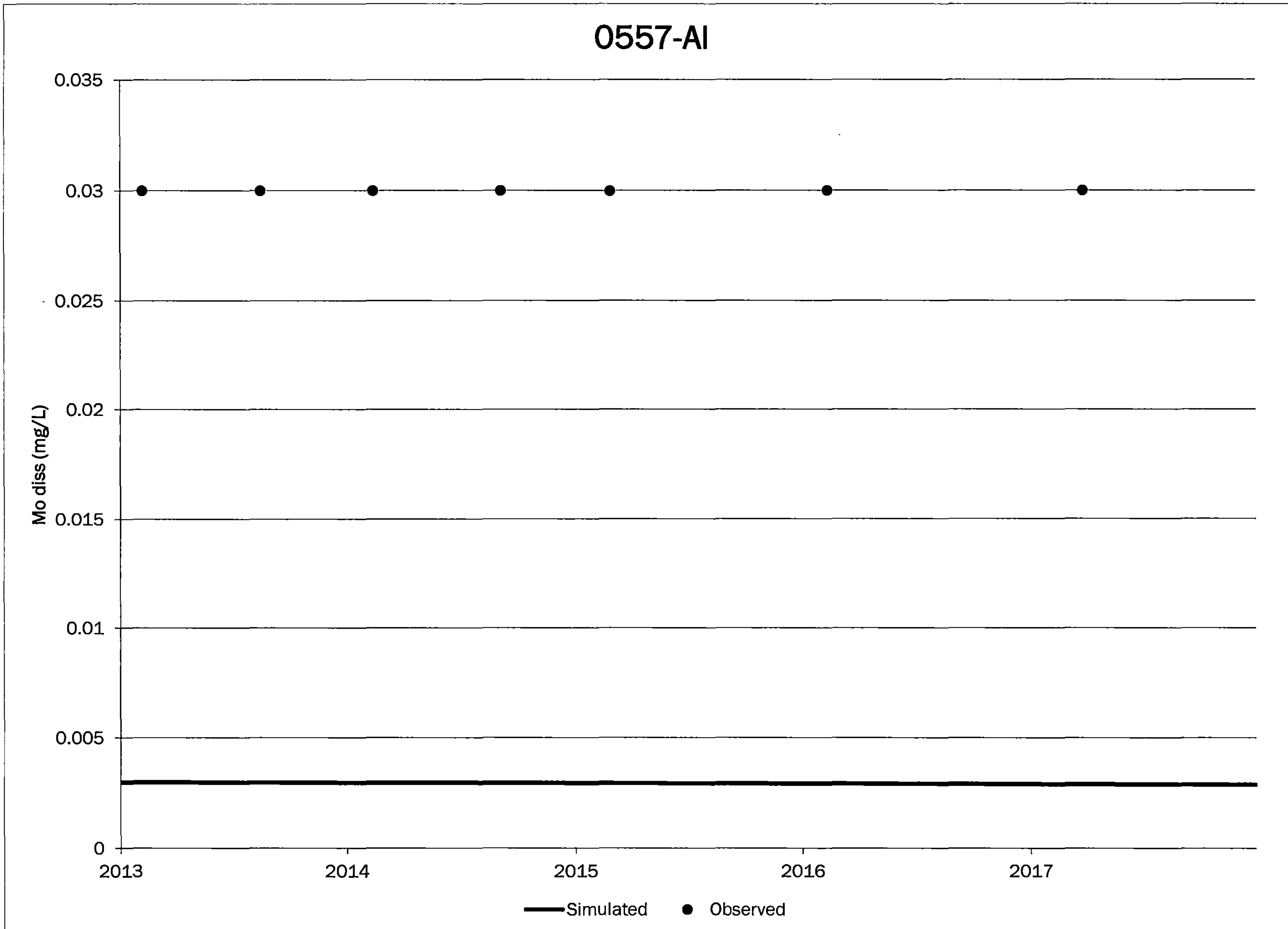


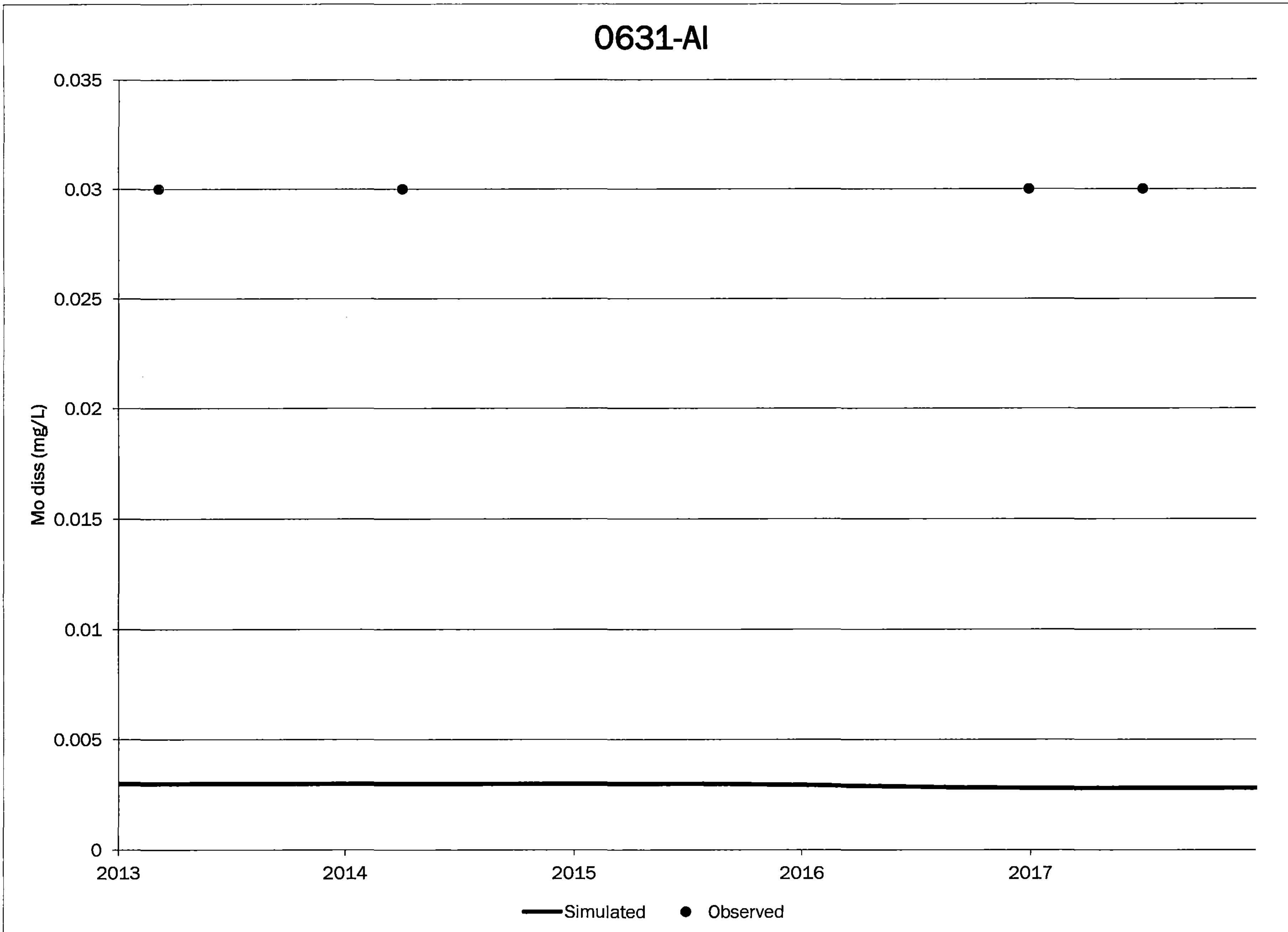
0554-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



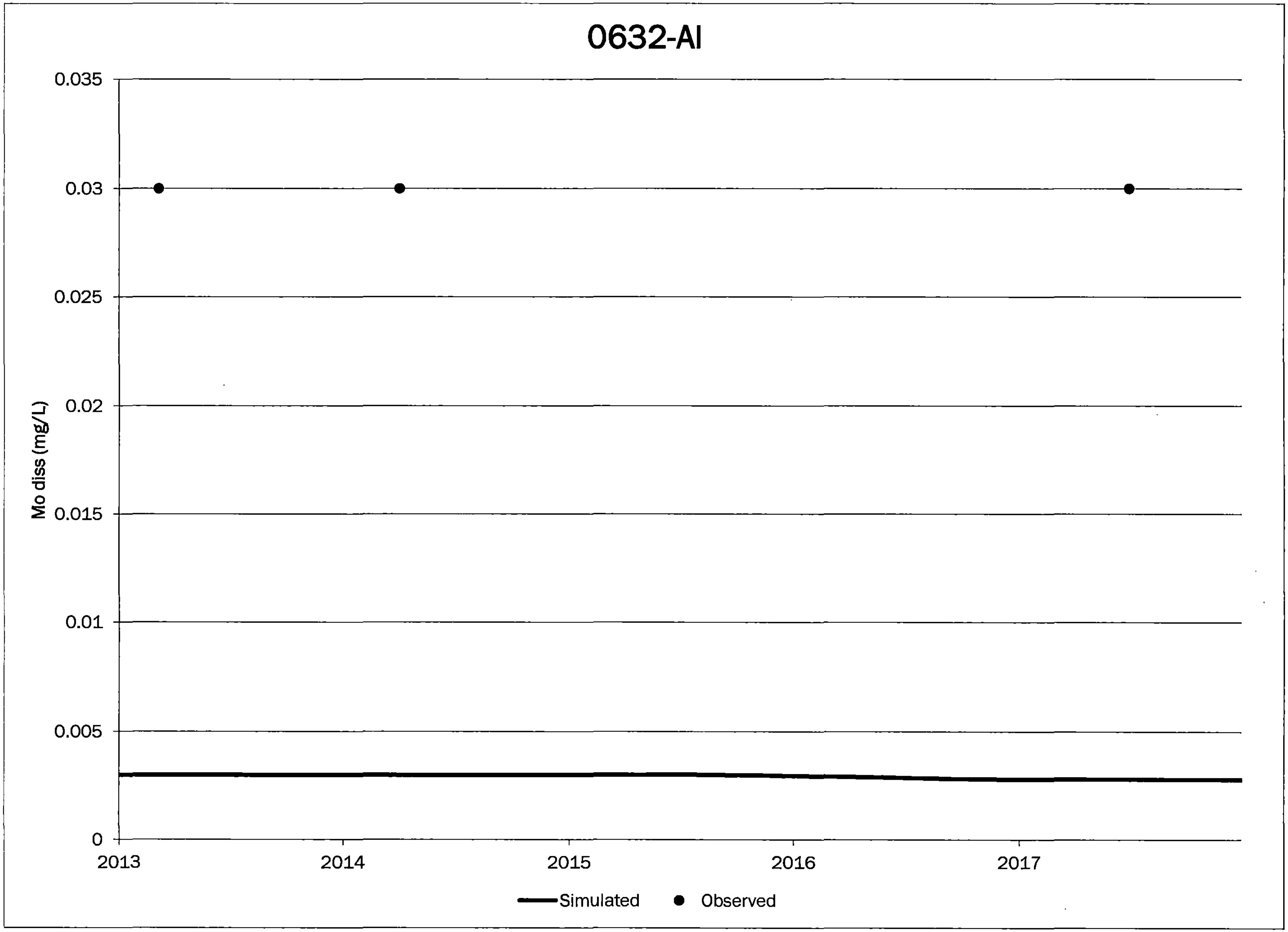
0555-Al
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0556-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

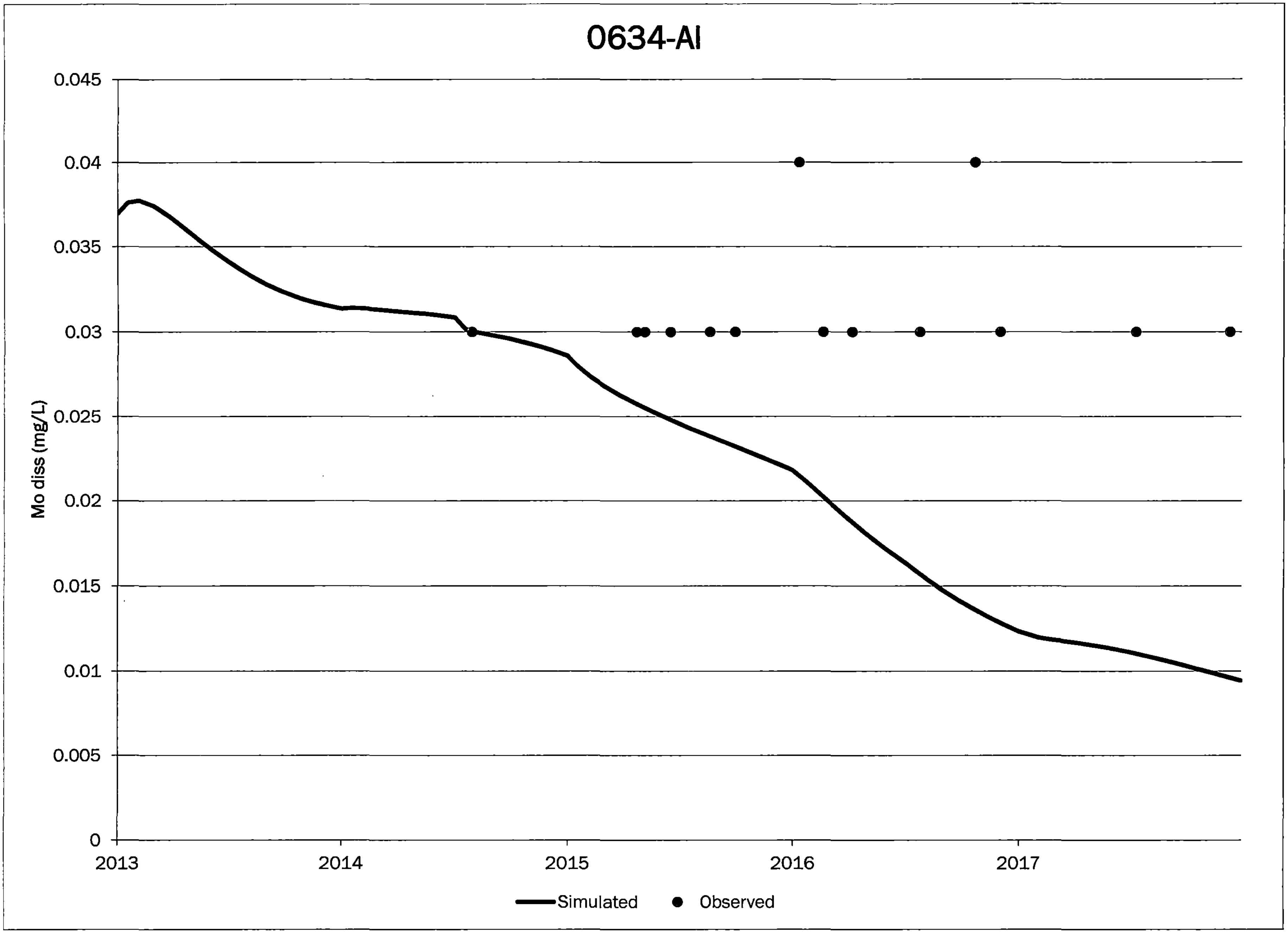

0557-Al
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

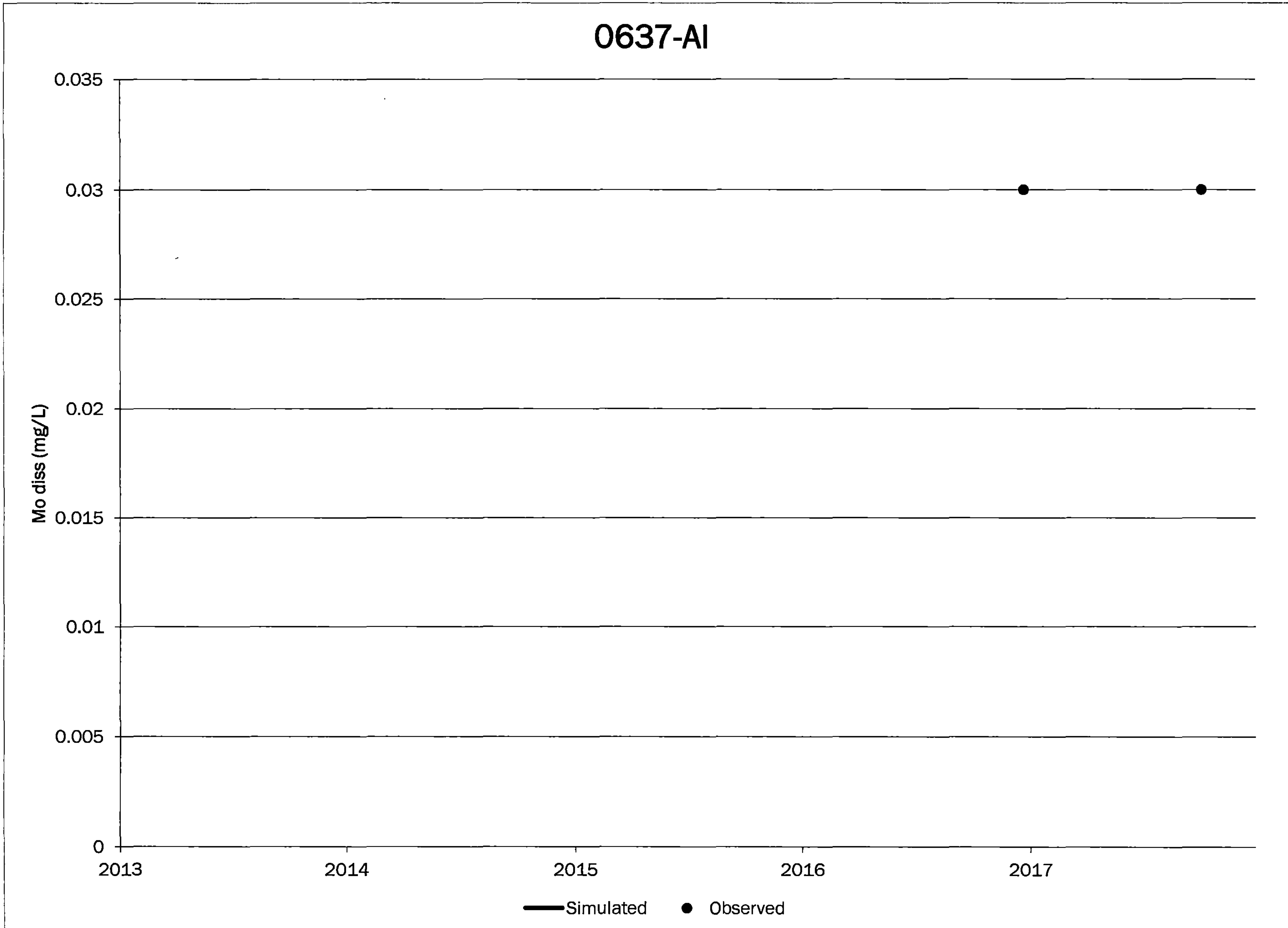


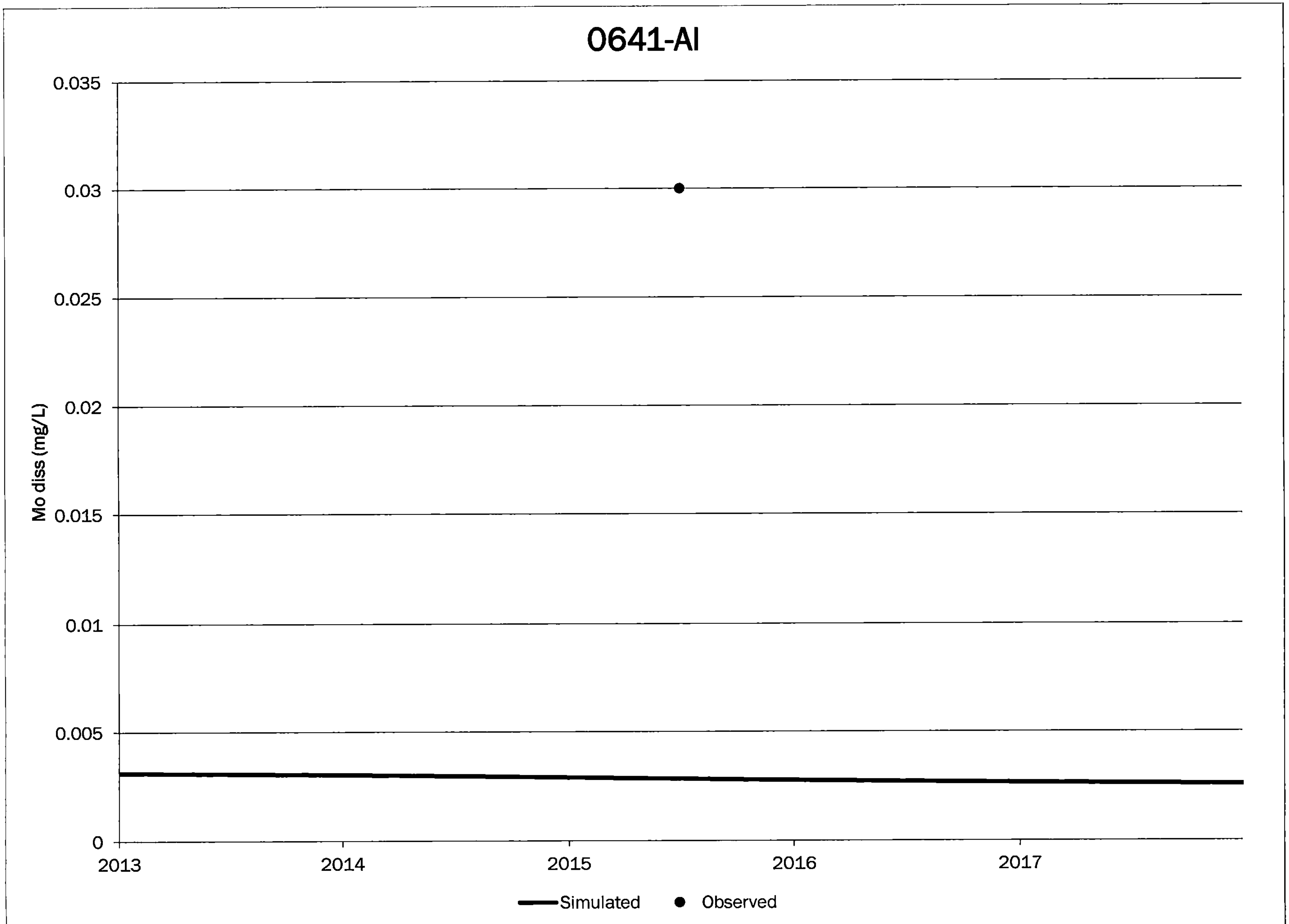
0631-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

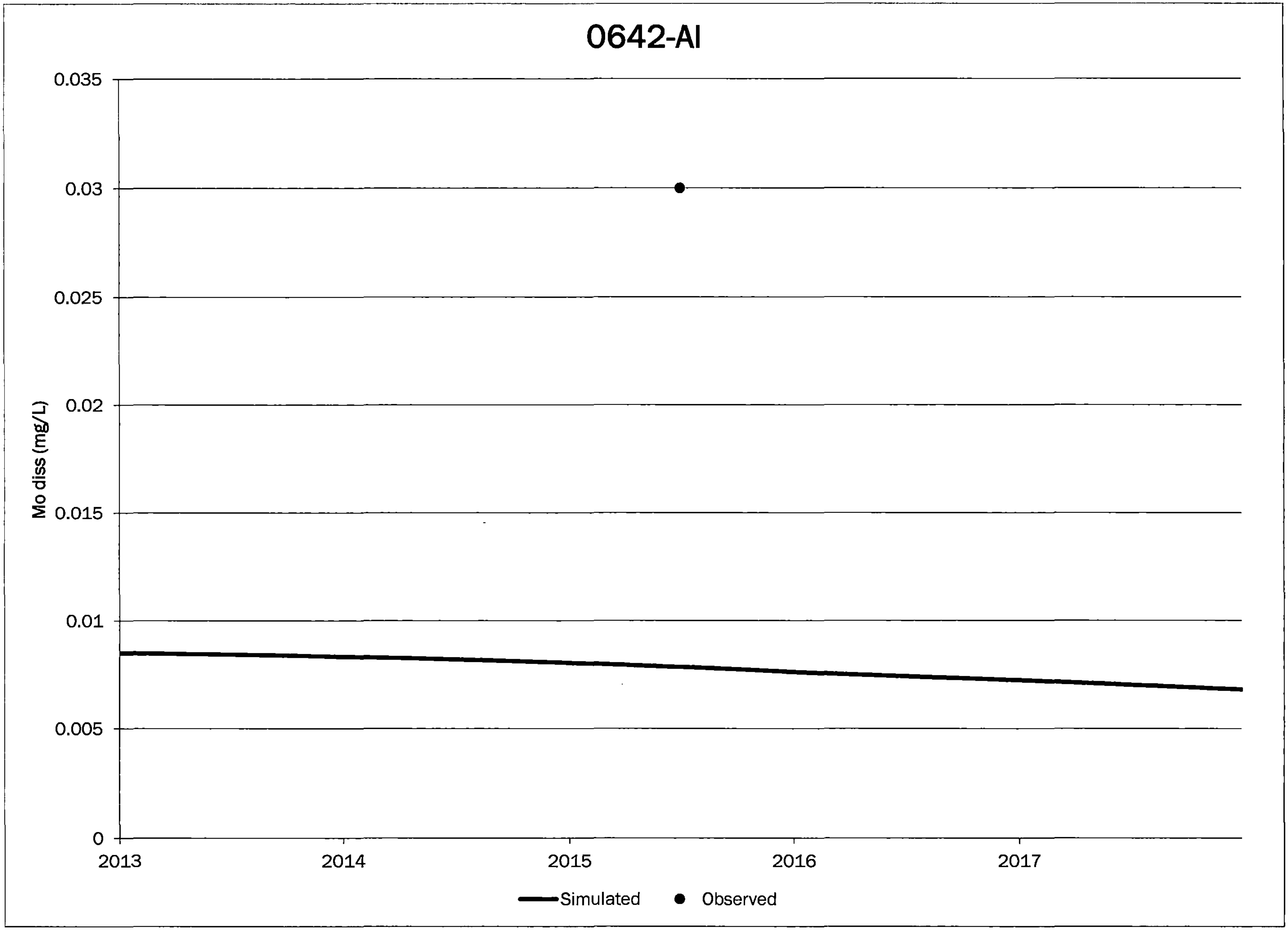


0632-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

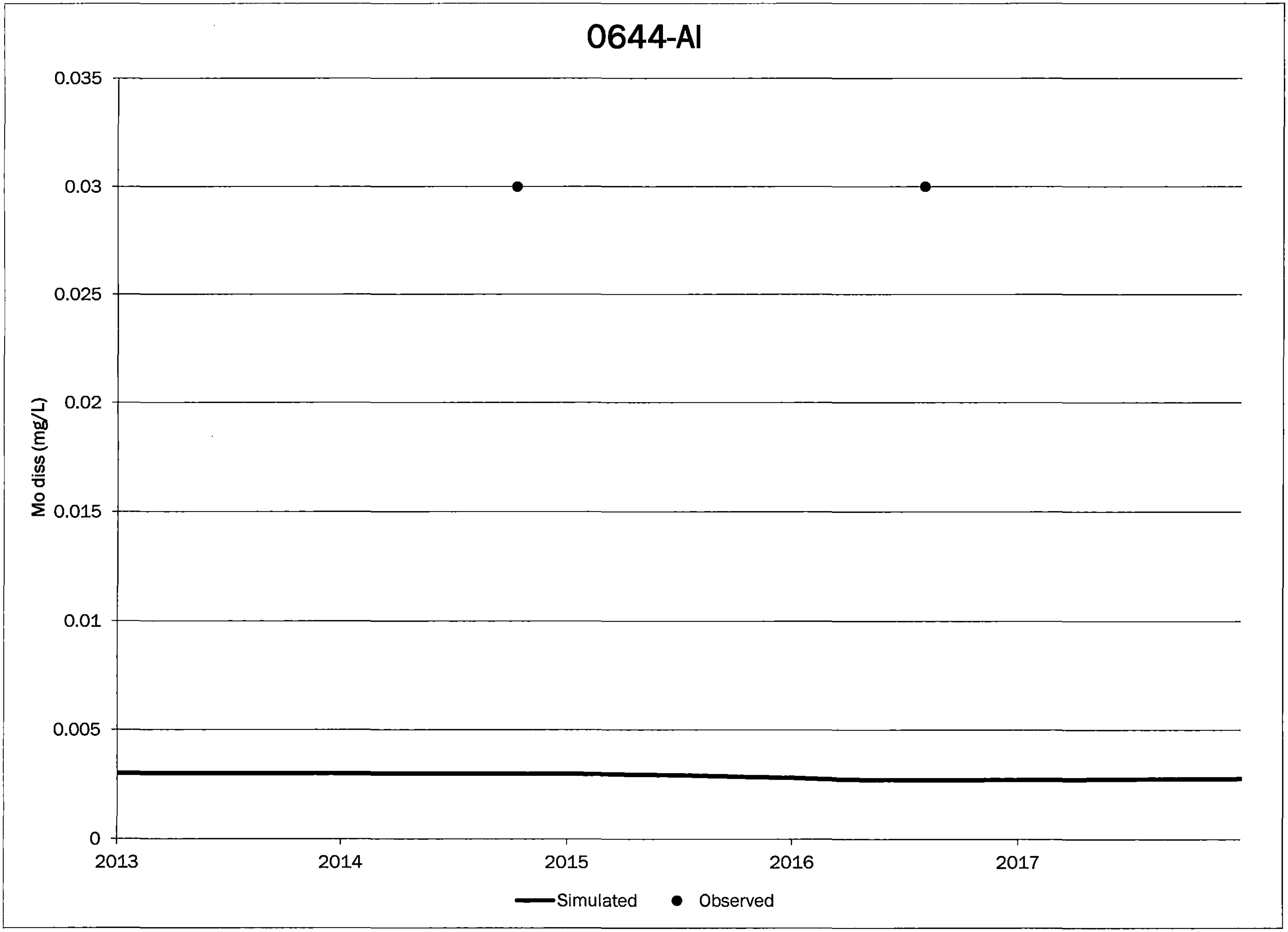

0634-Al
Mo diss (mg/L)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

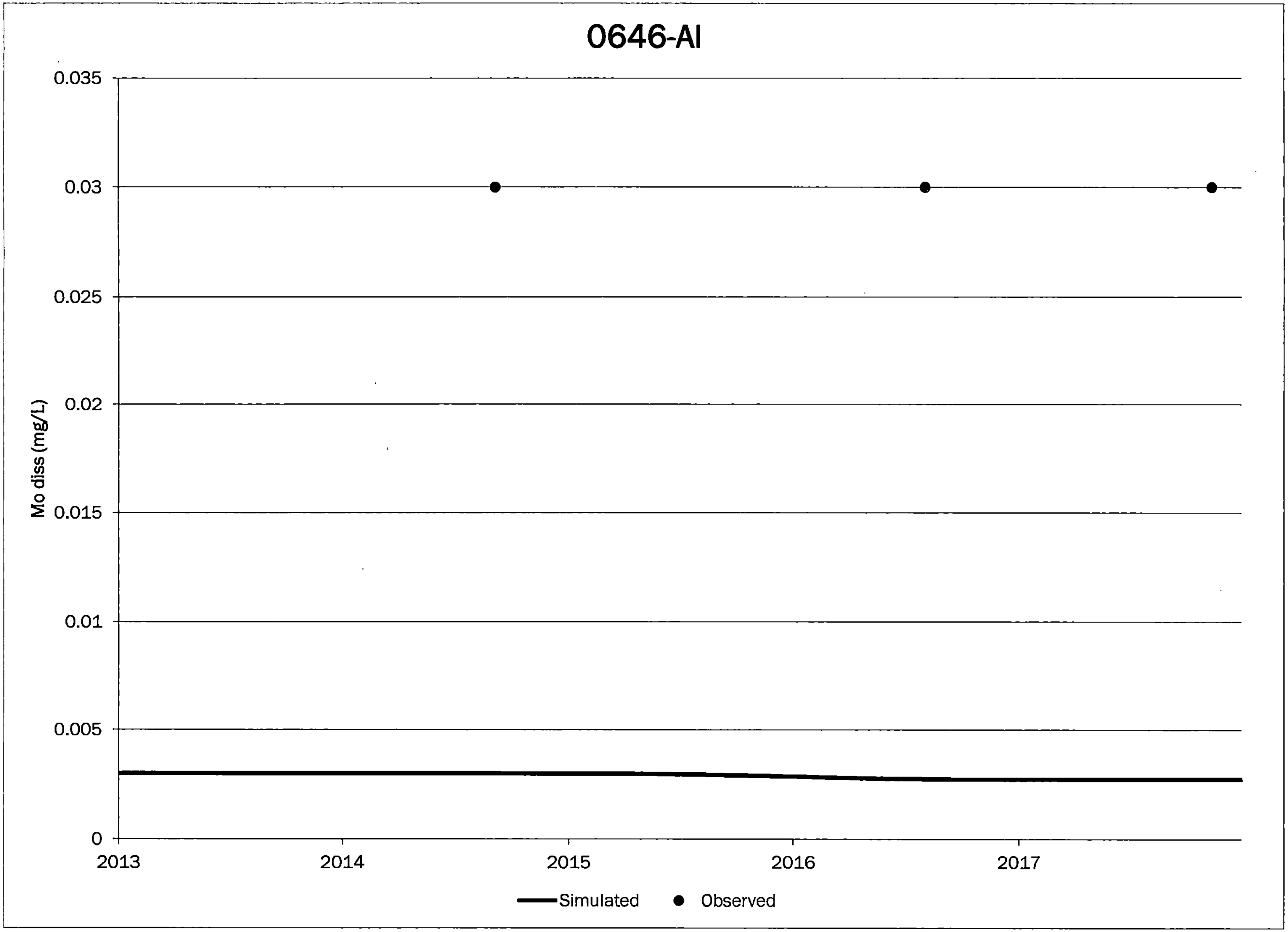

0637-Al
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

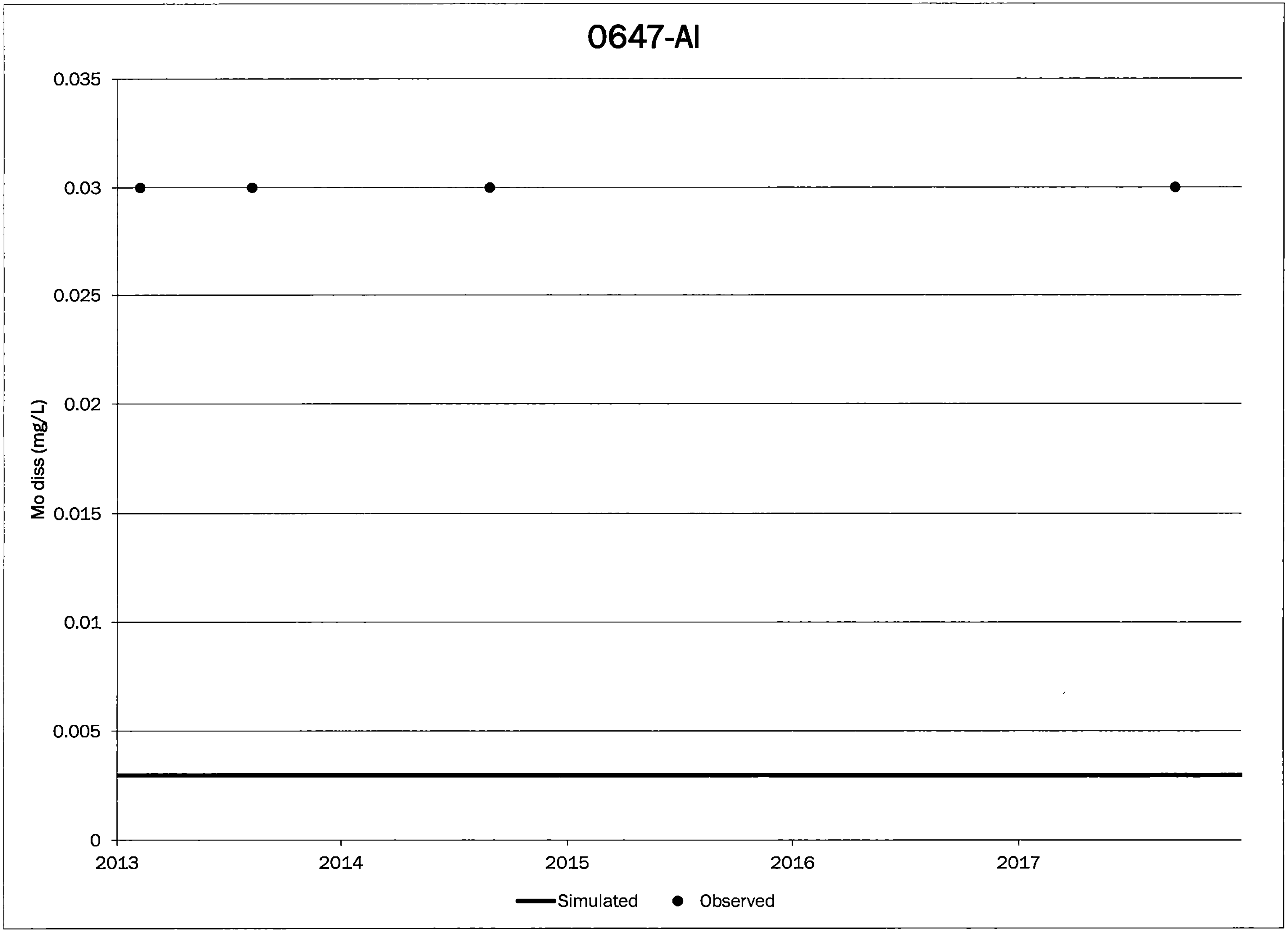

0641-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

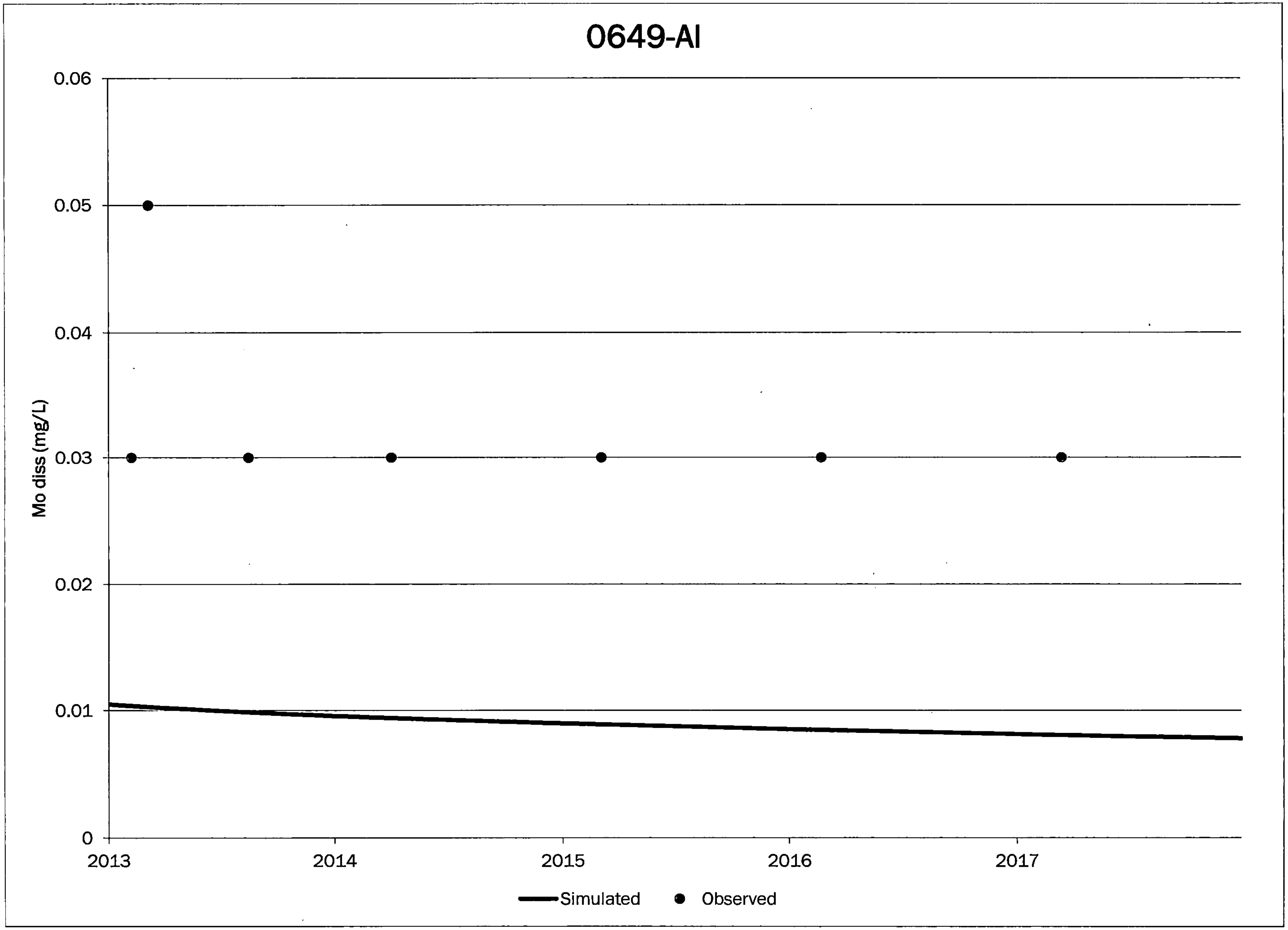


0642-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

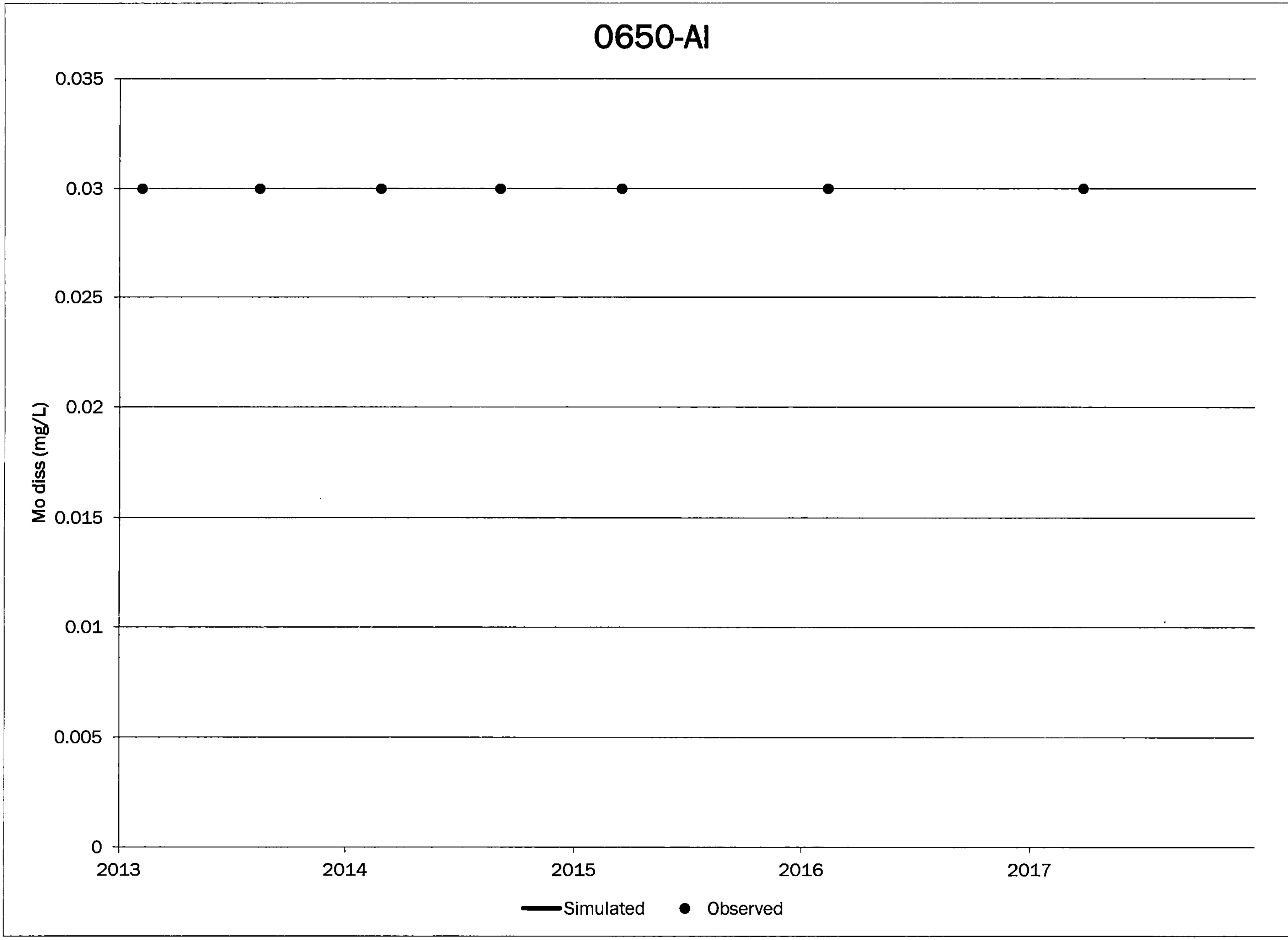

0644-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


0646-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

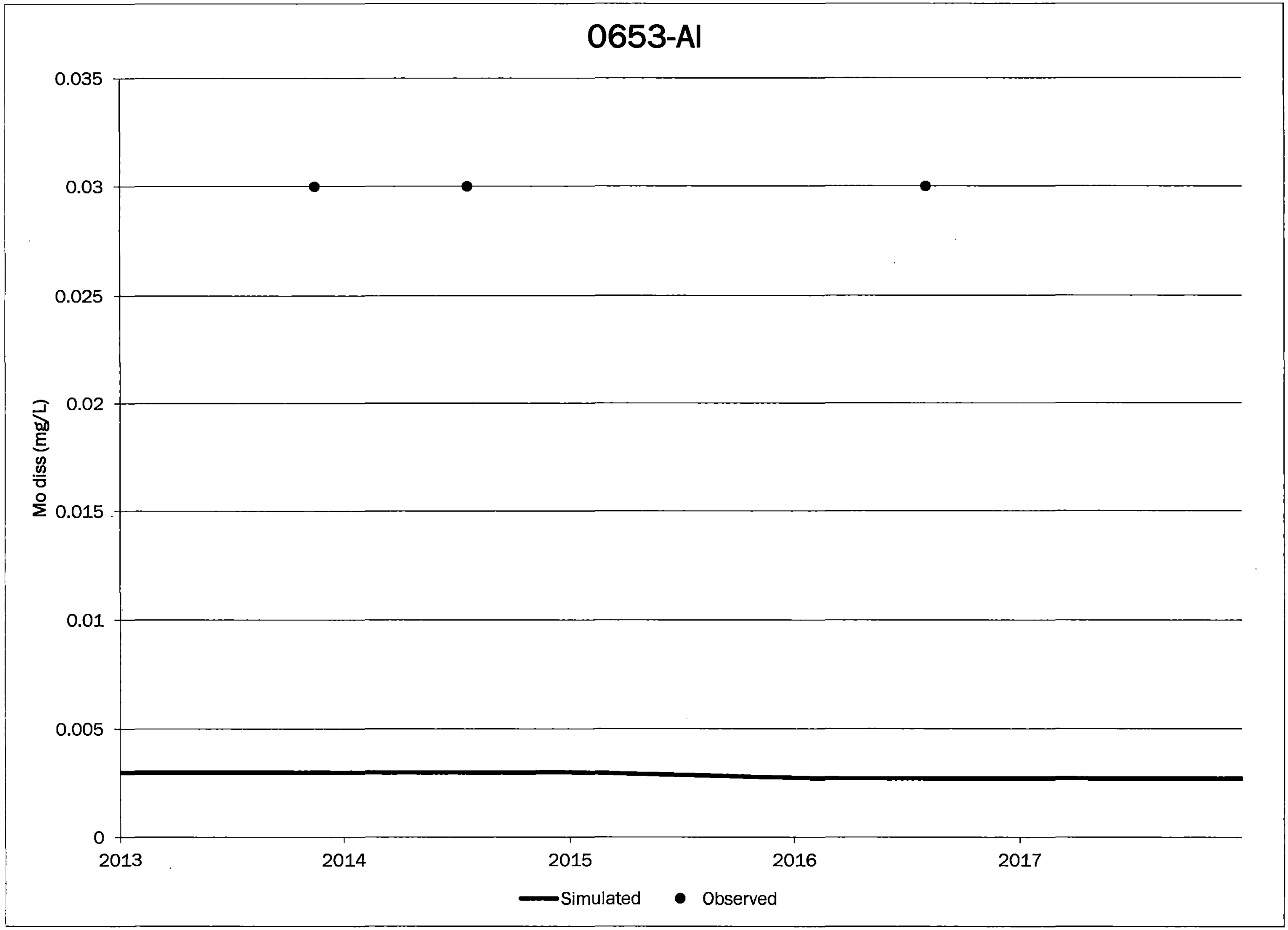

0647-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

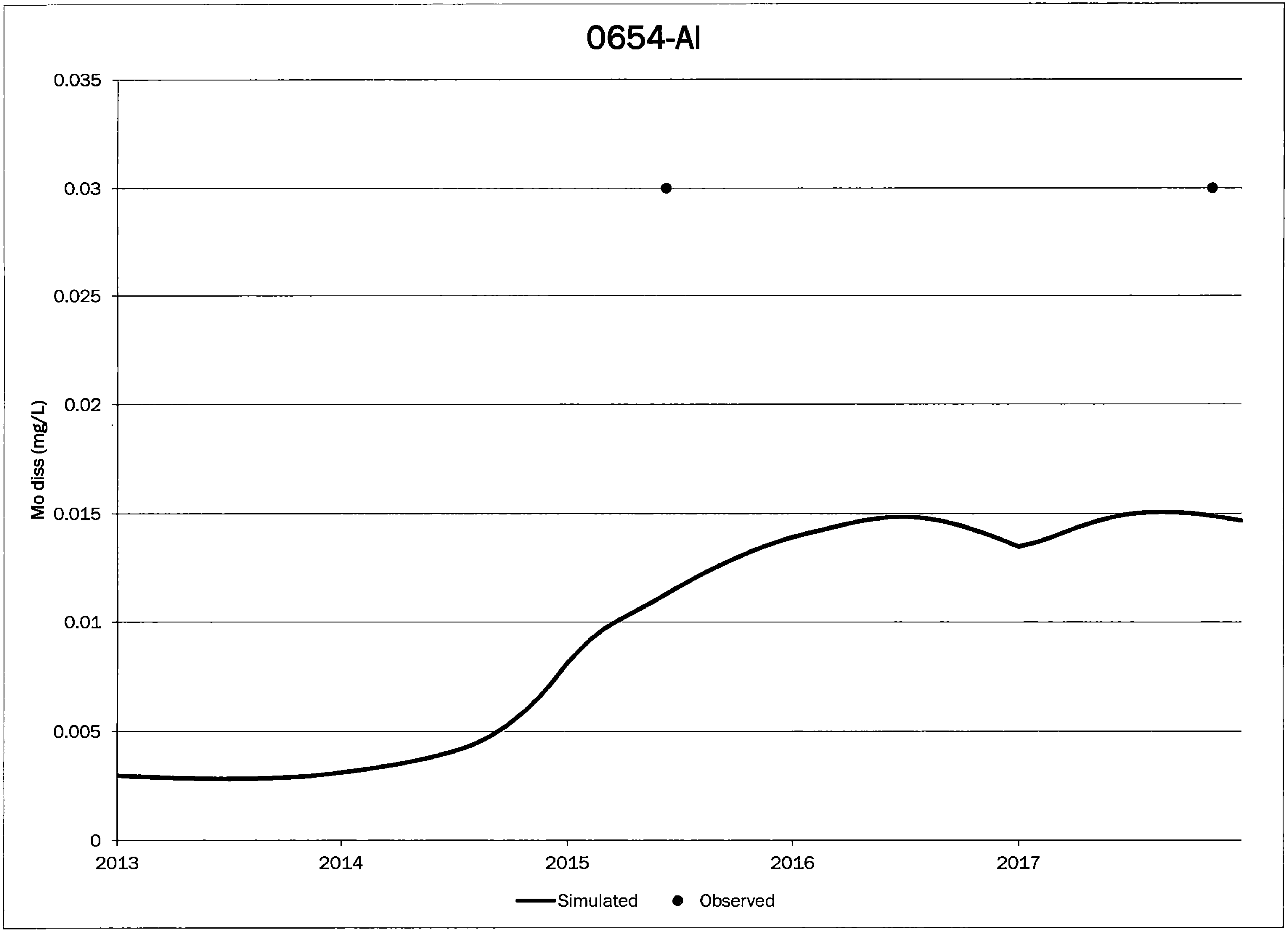


0649-AI
0.06
0.05
0.04
0.03
0.02
0.01
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

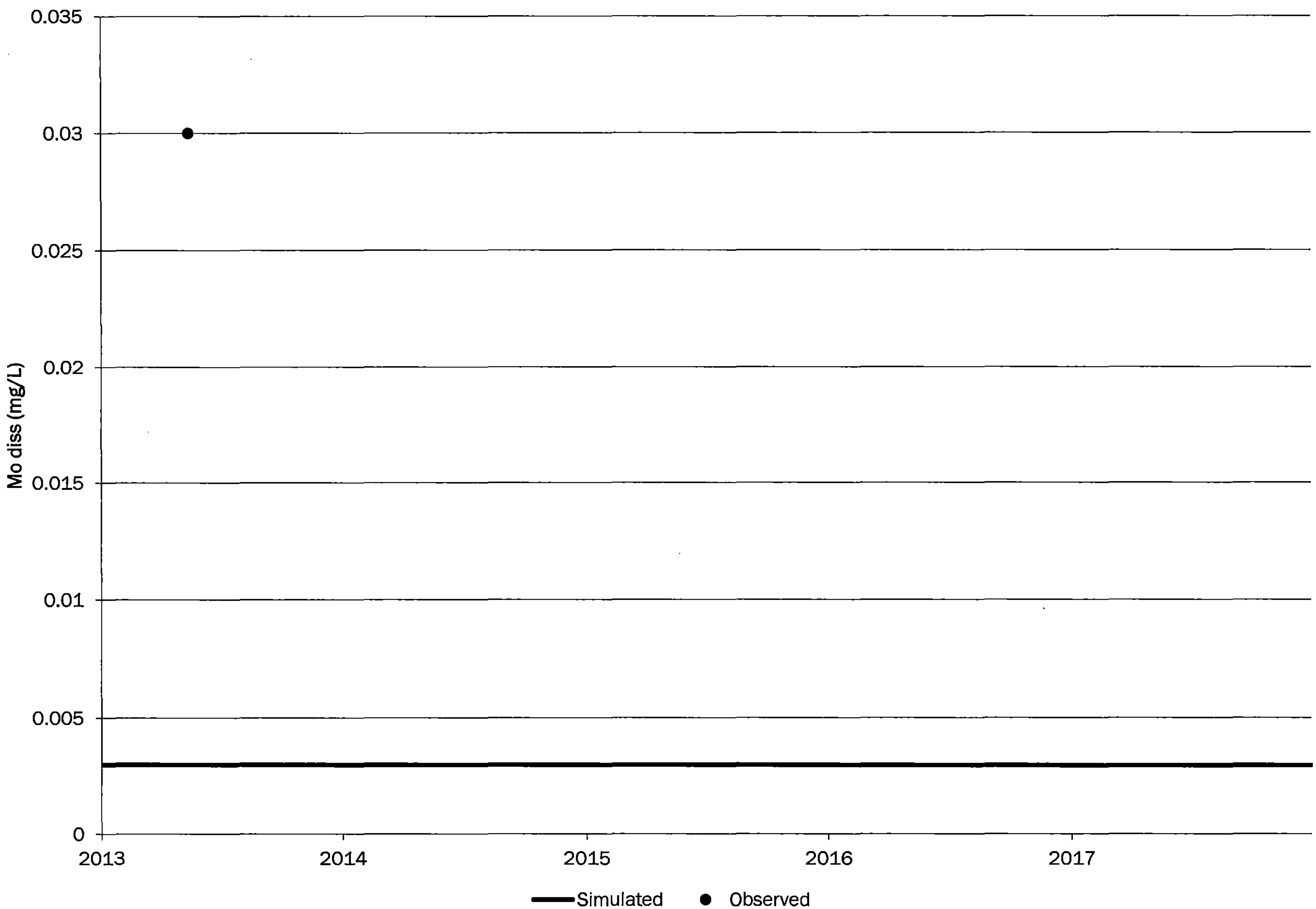


0650-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

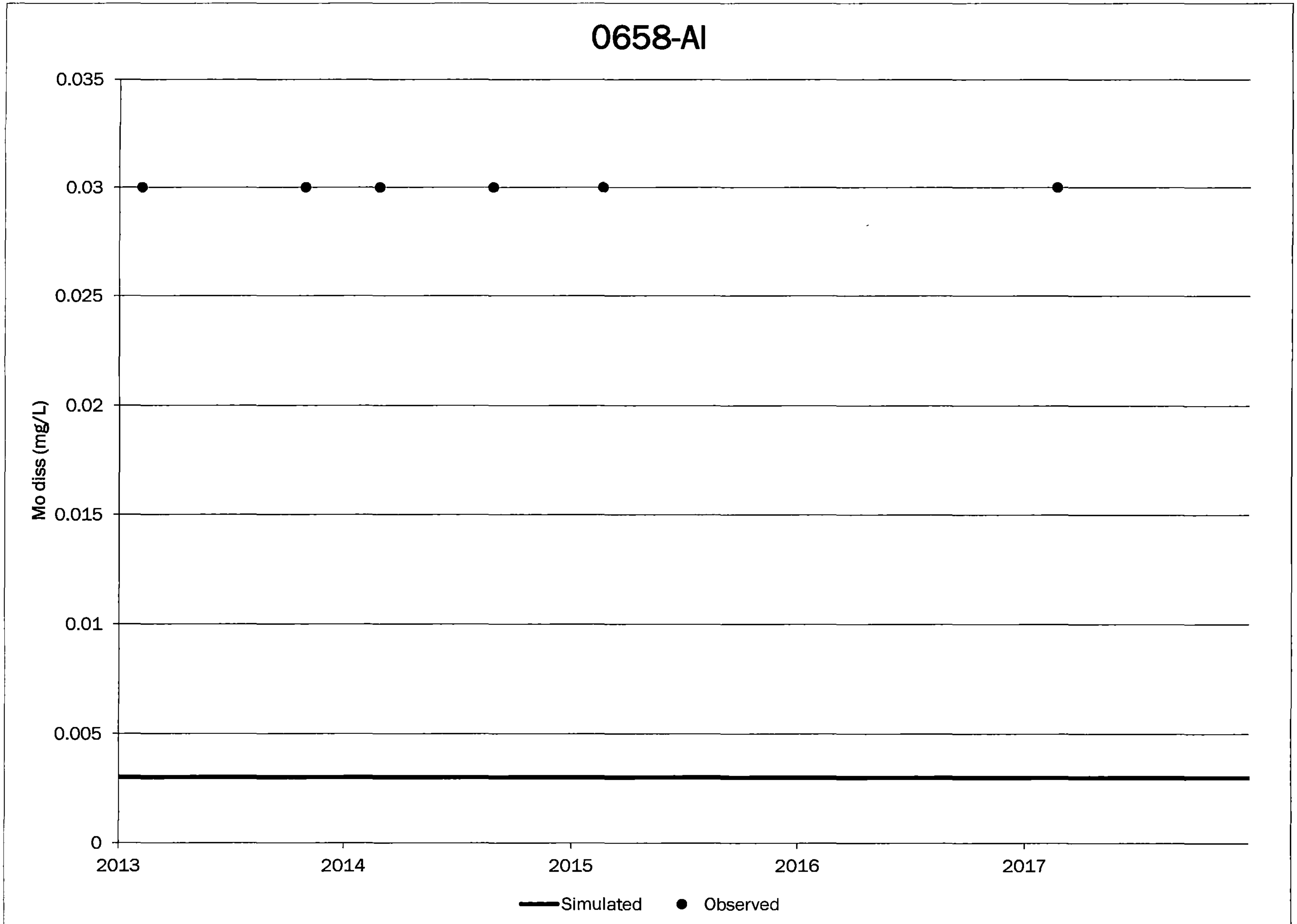

0653-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


0654-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

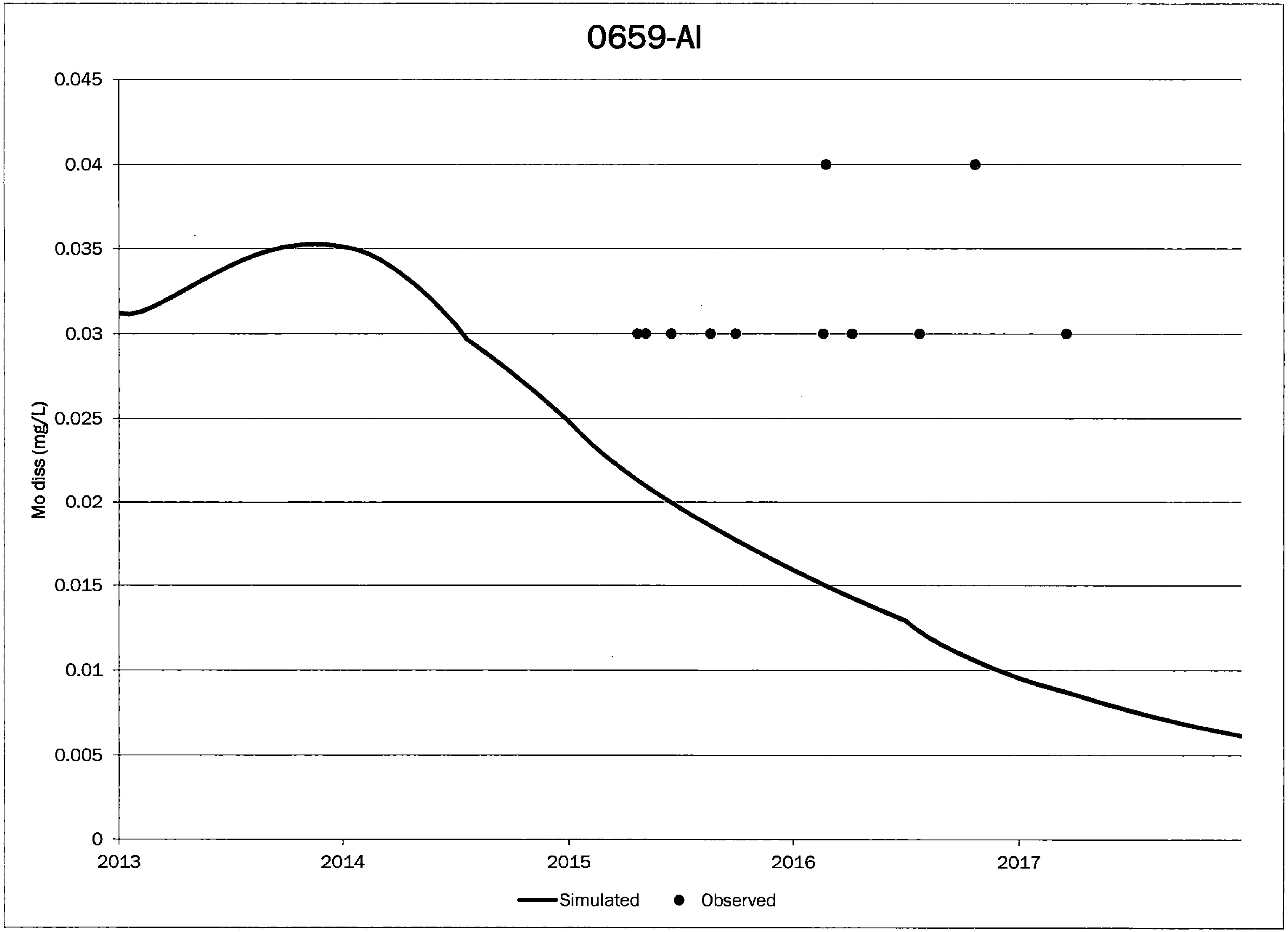
0657-Al

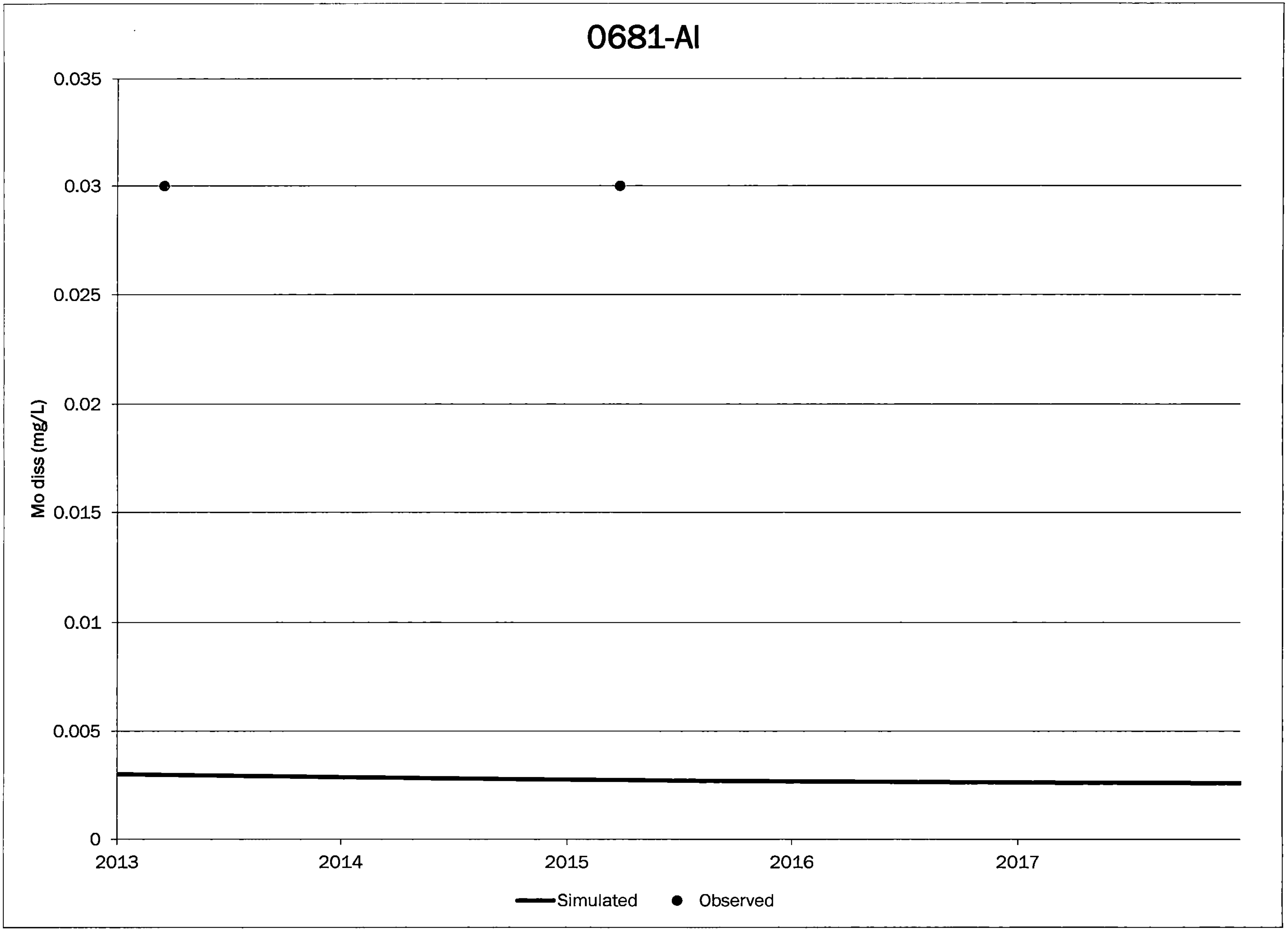


0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

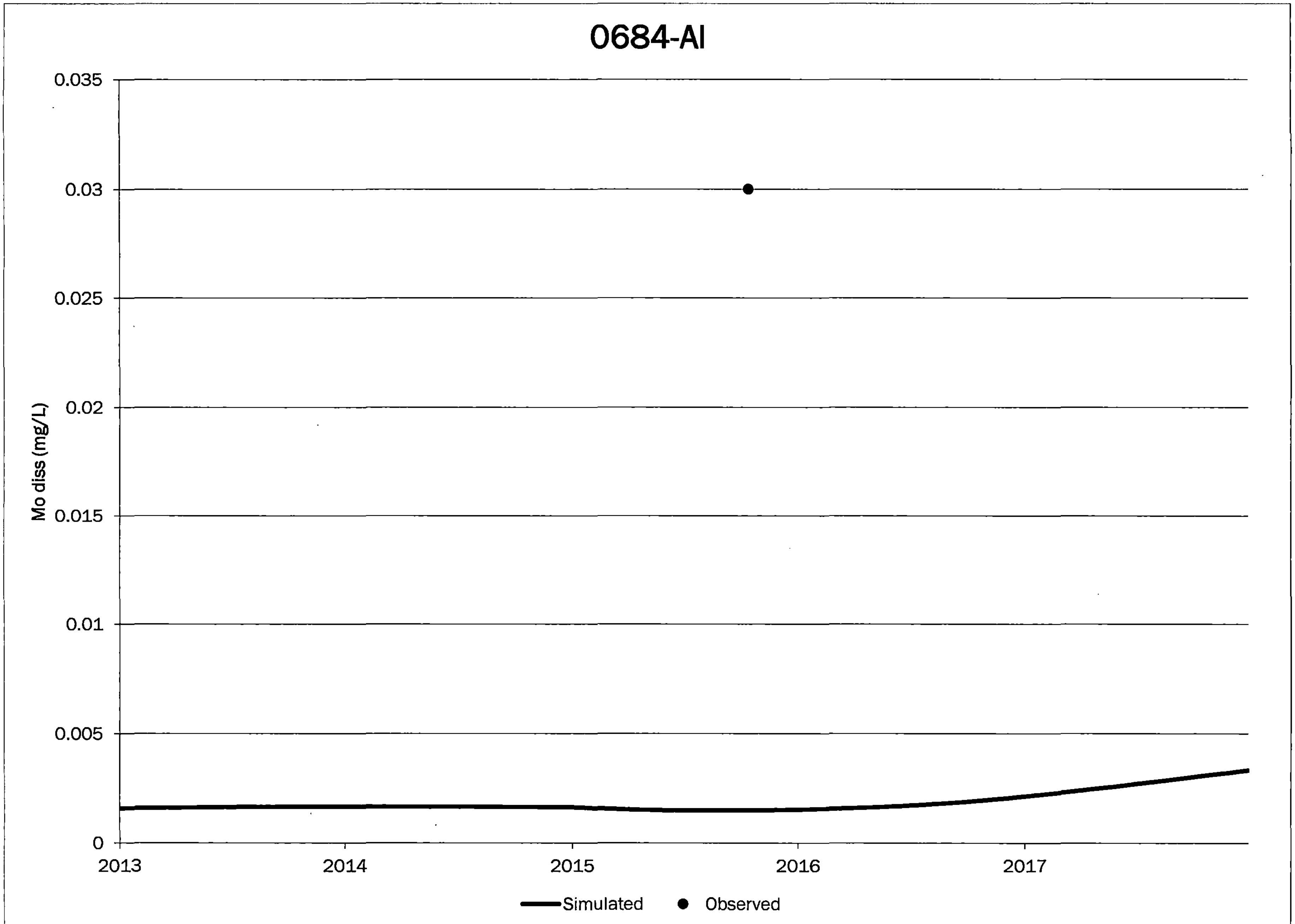


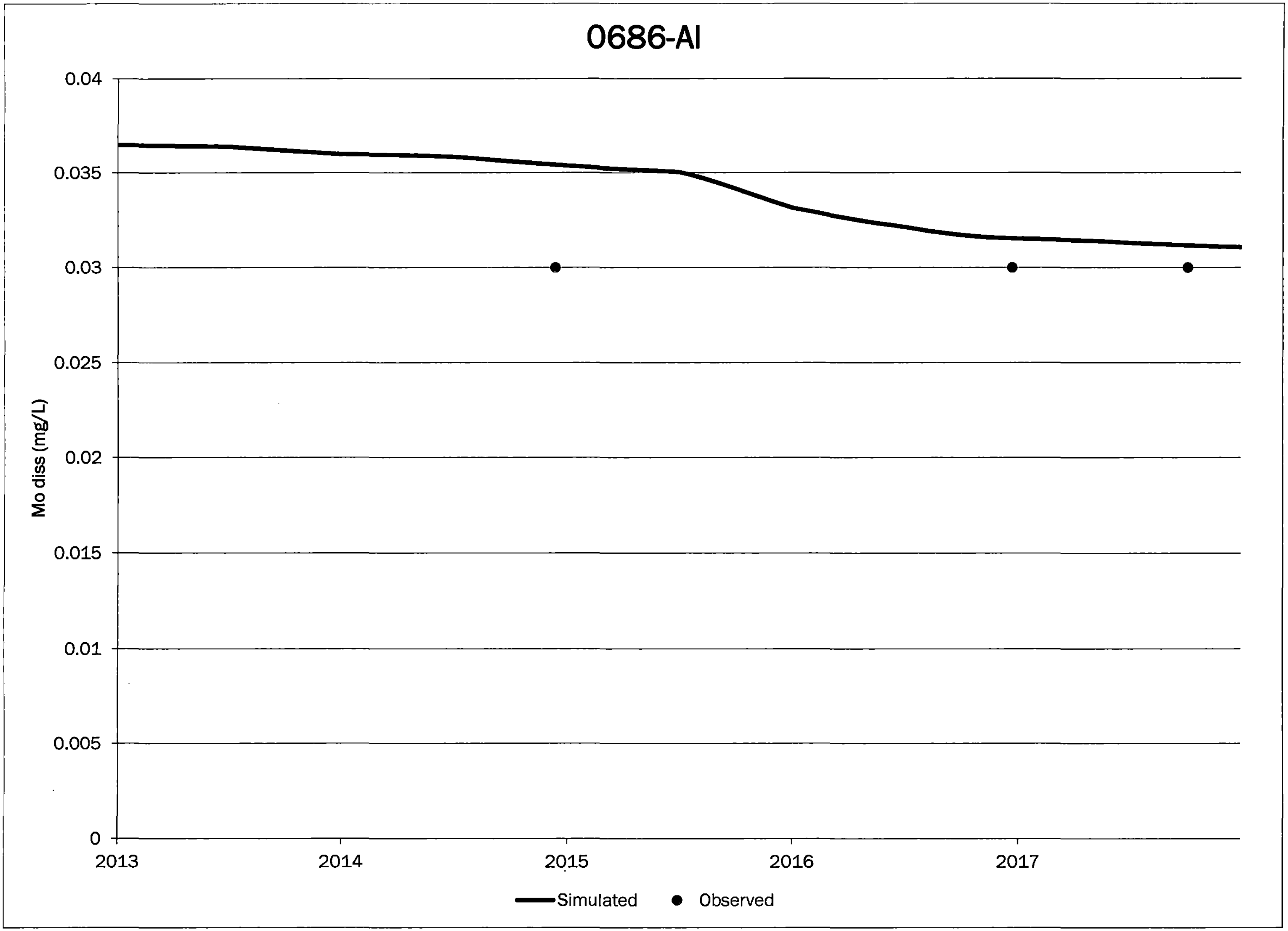
0658-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


0659-AI
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

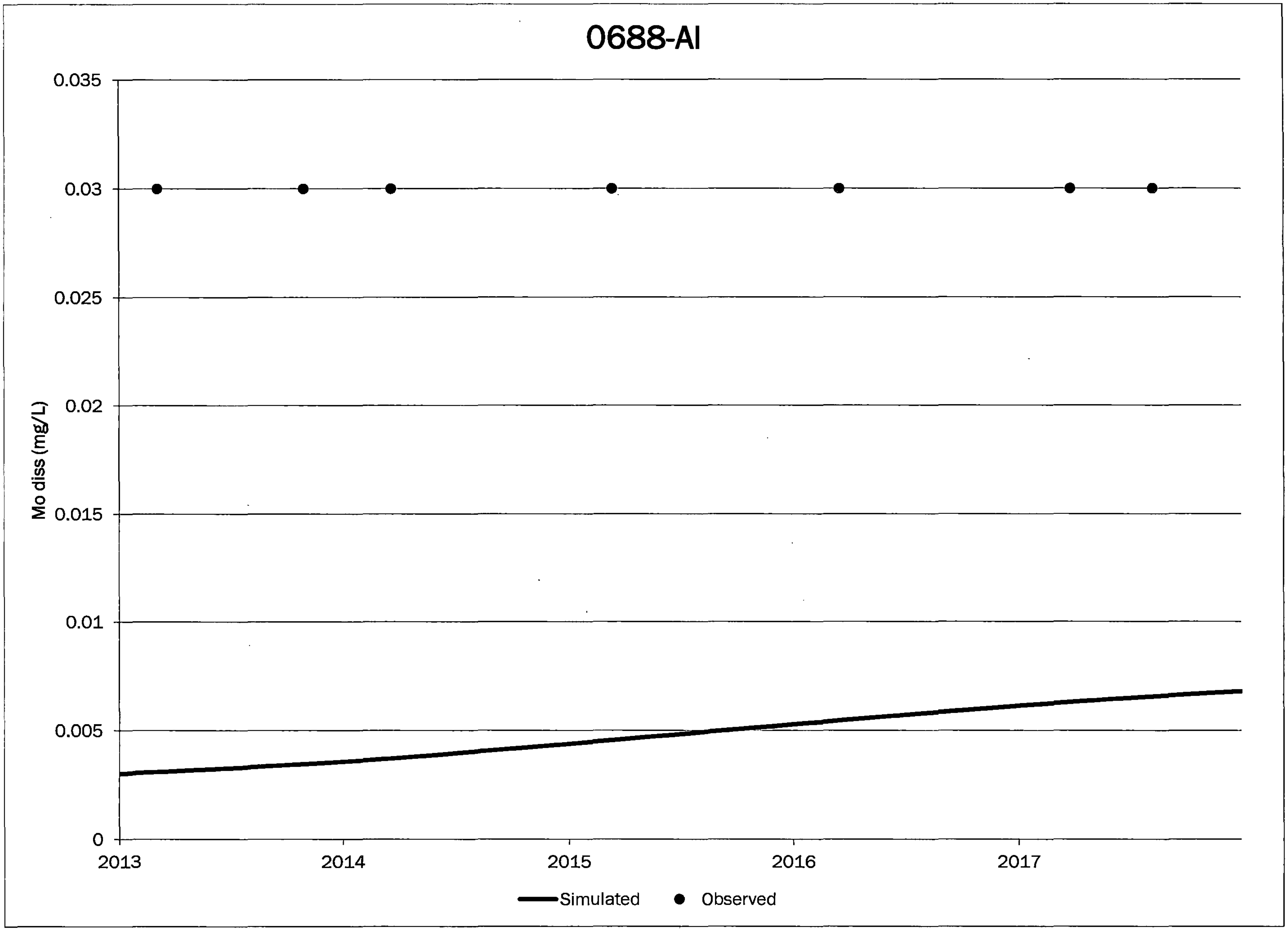


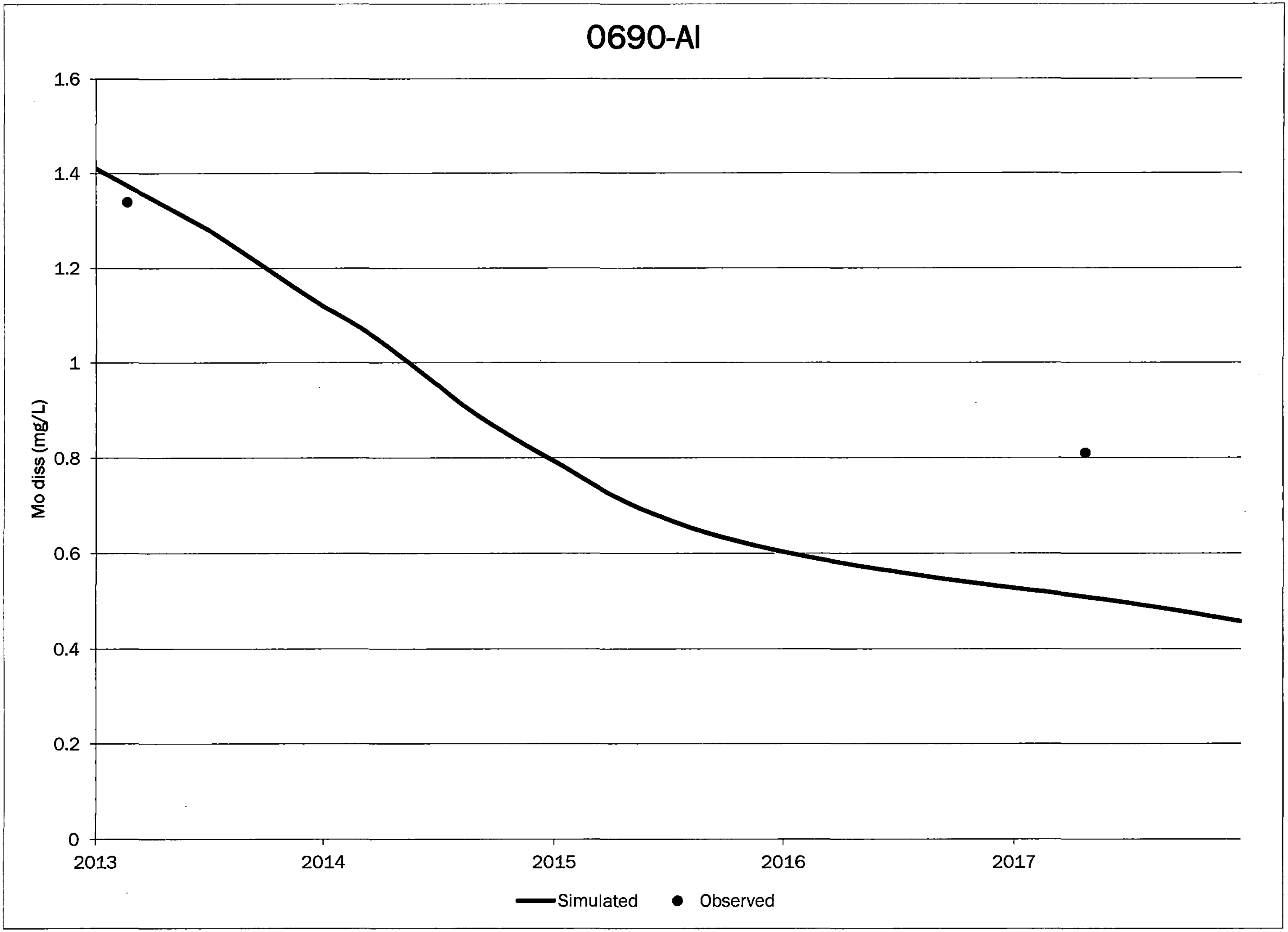
0681-Al
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0684-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

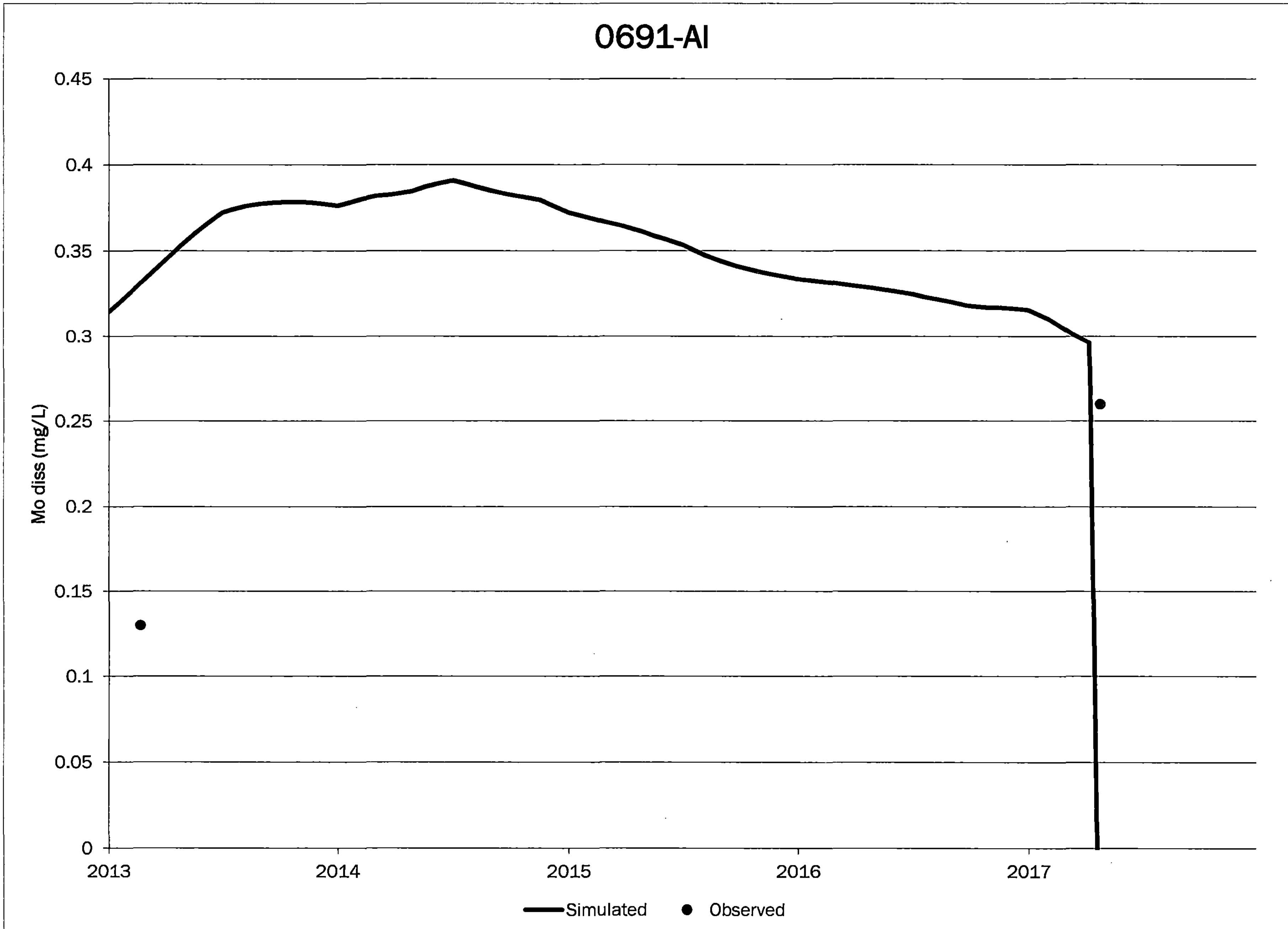


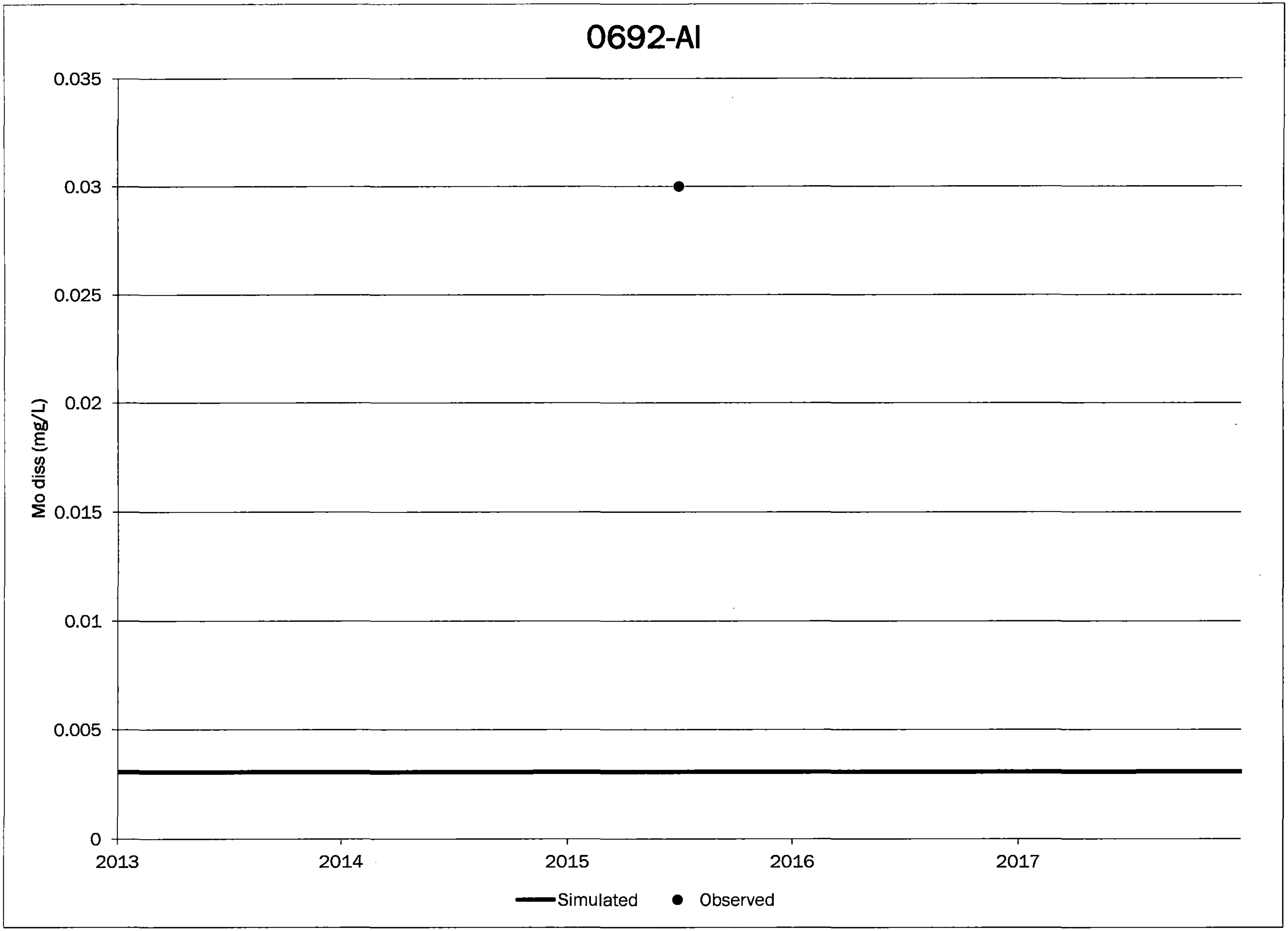
0686-AI
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0688-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

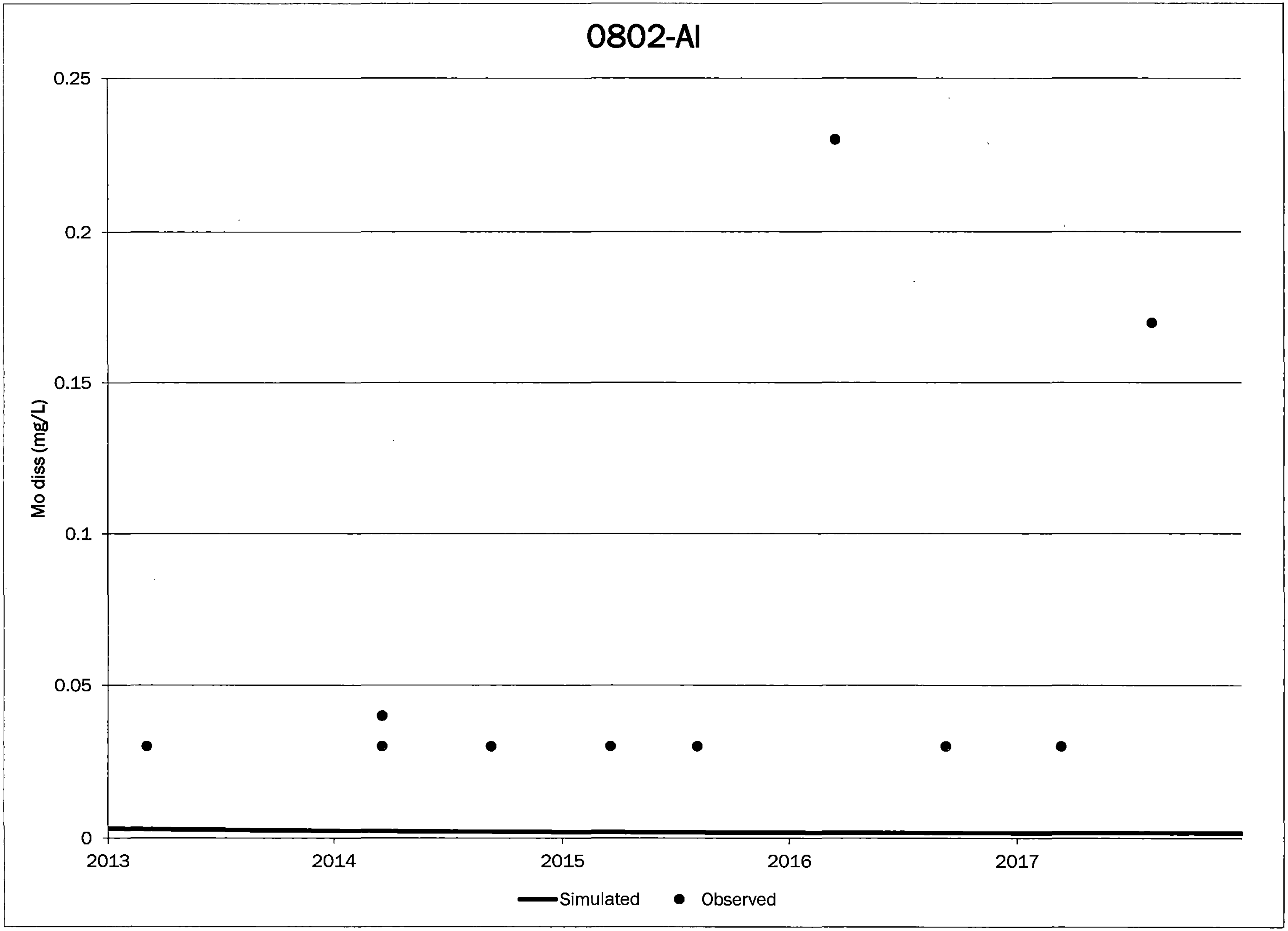


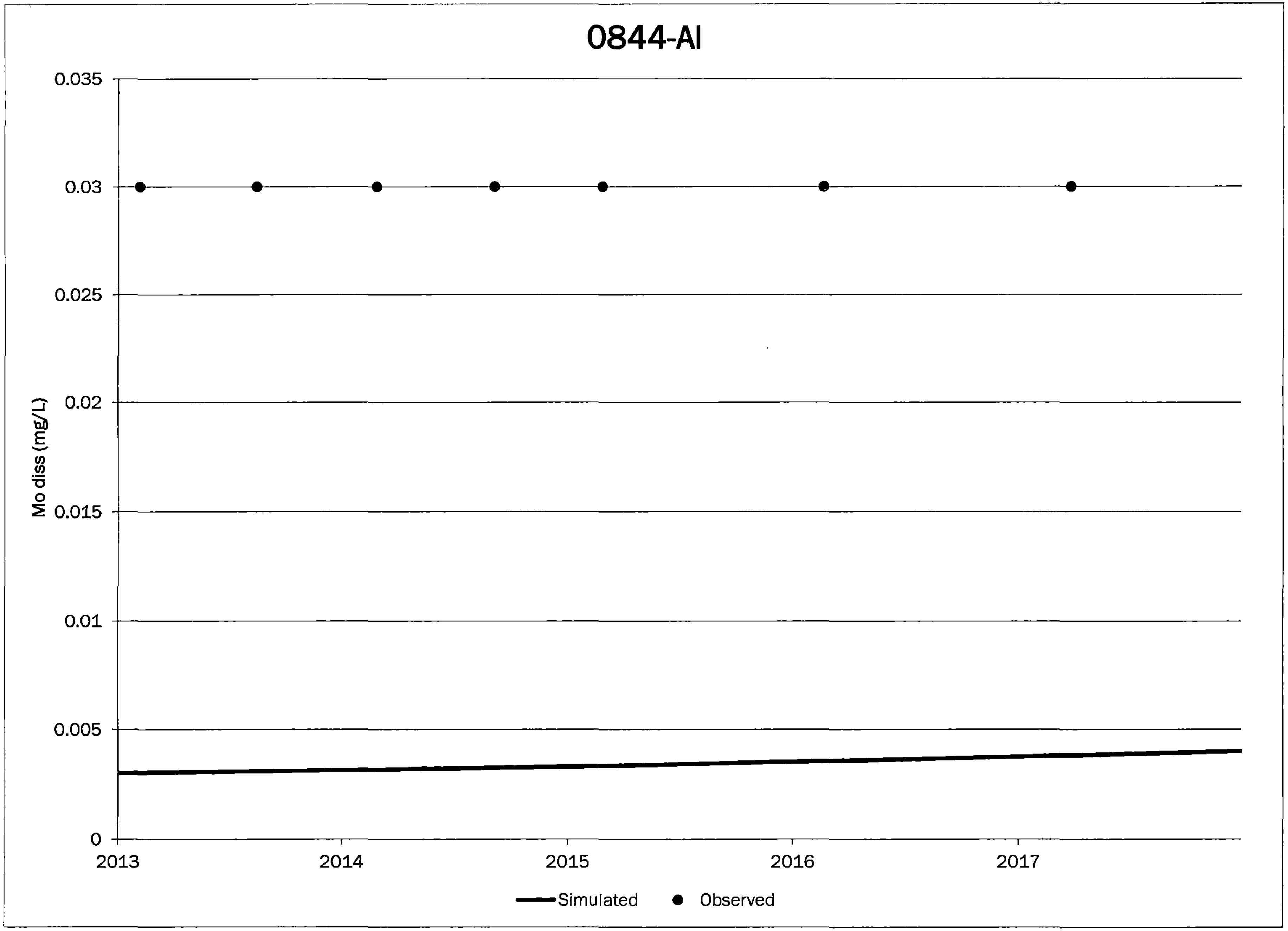
0690-Al
Mo diss (mg/L)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed


0691-AI
Mo diss (mg/L)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

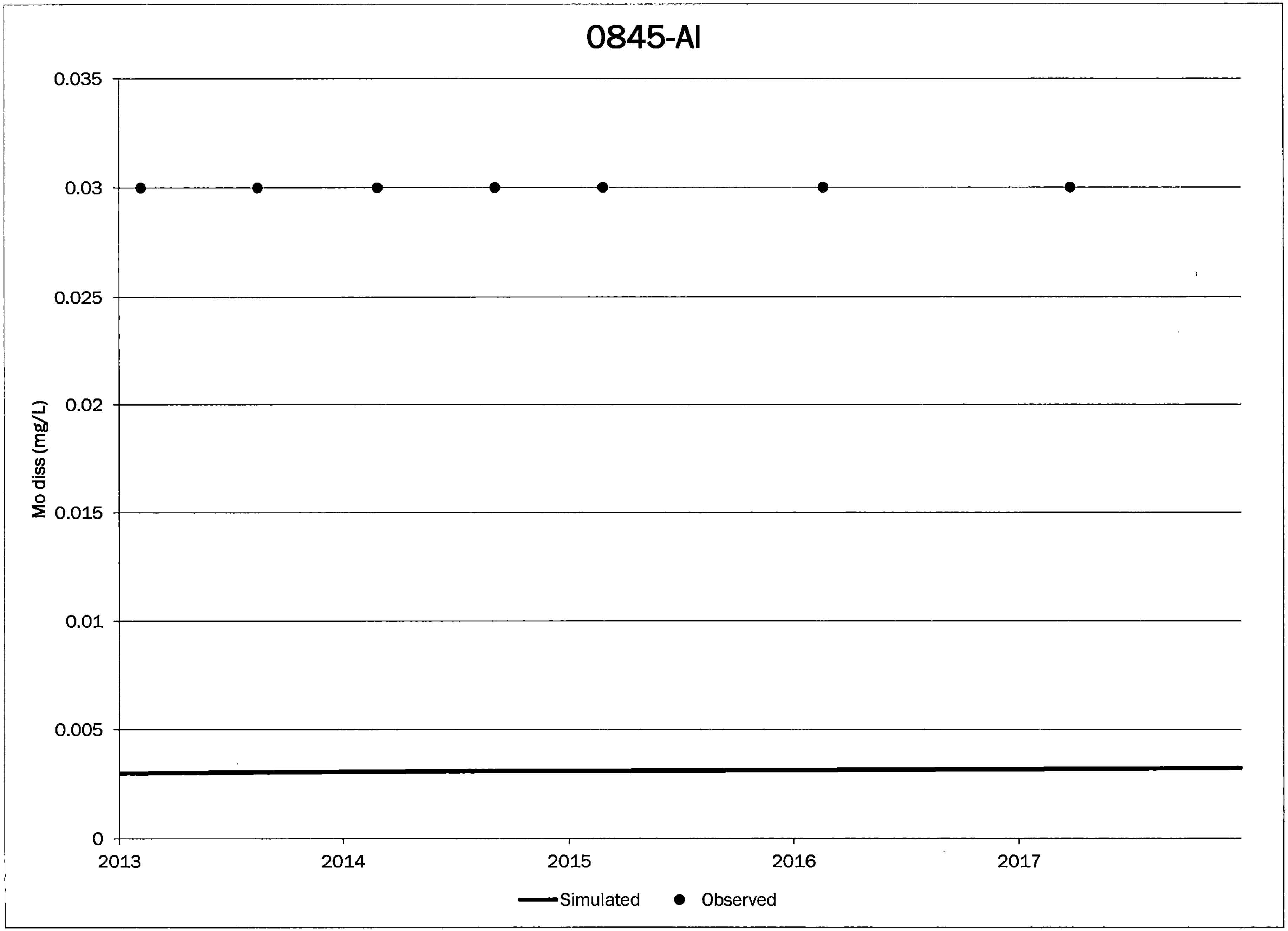


0692-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

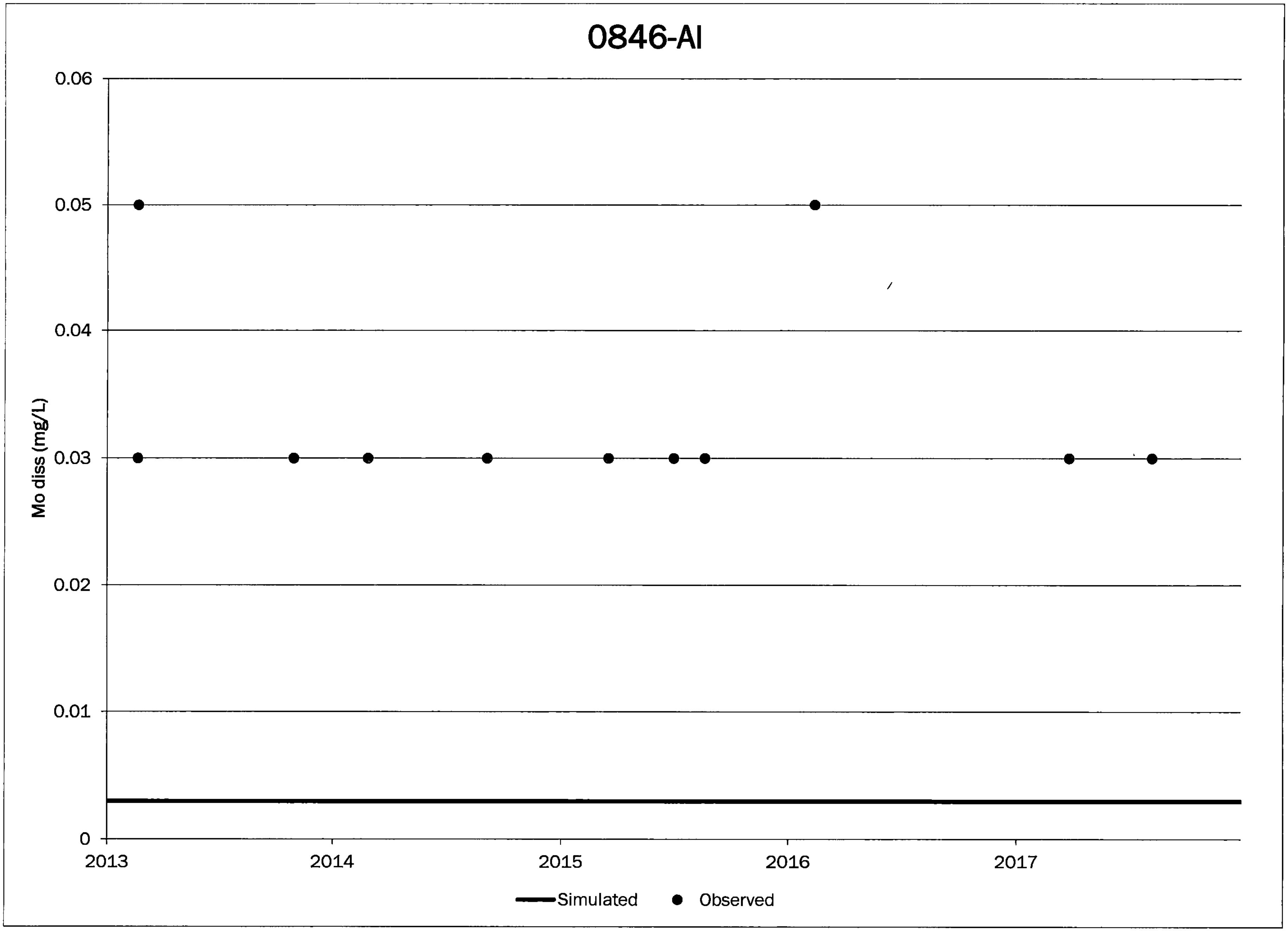

0802-AI
Mo diss (mg/L)
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



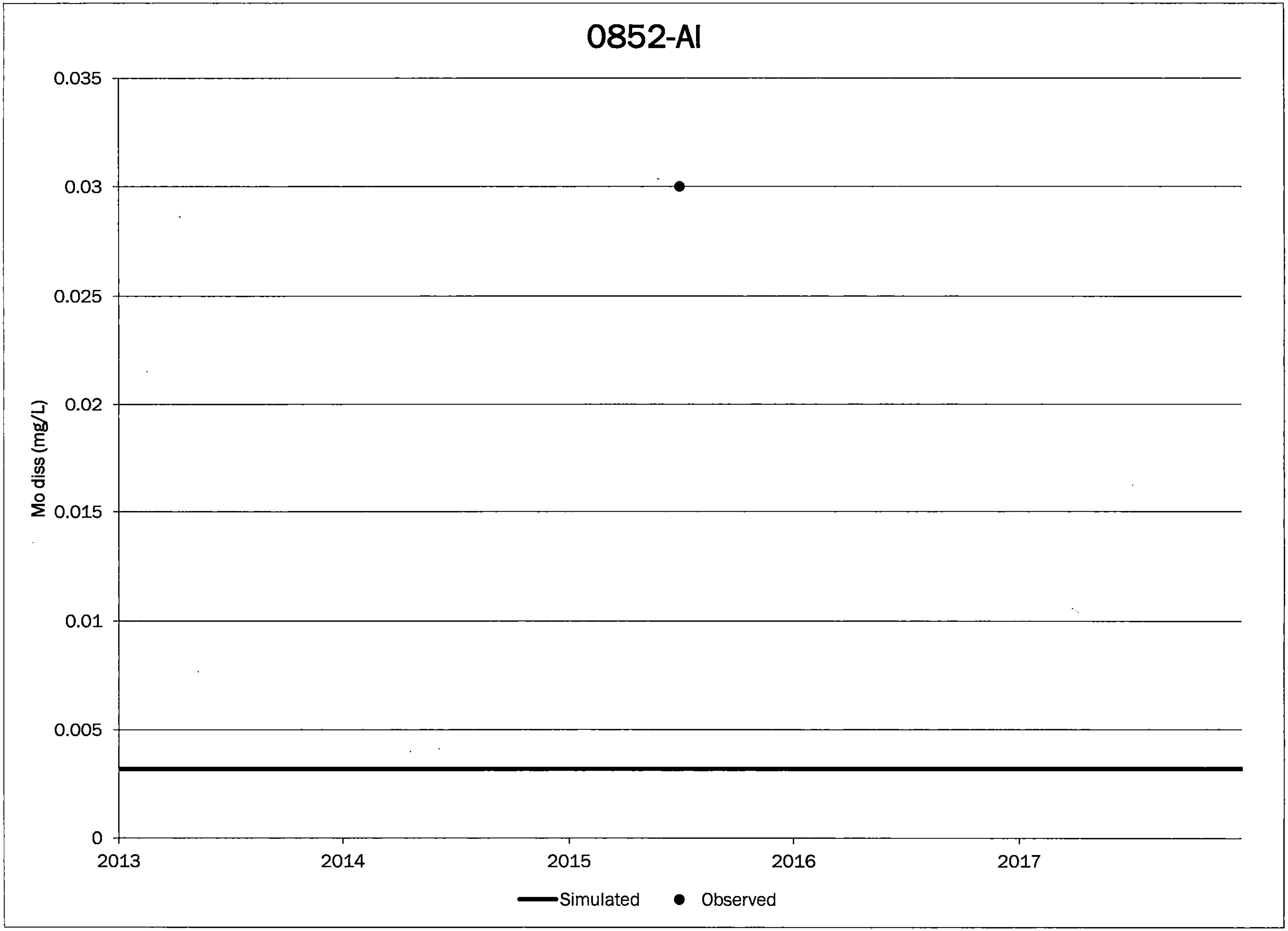
0844-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

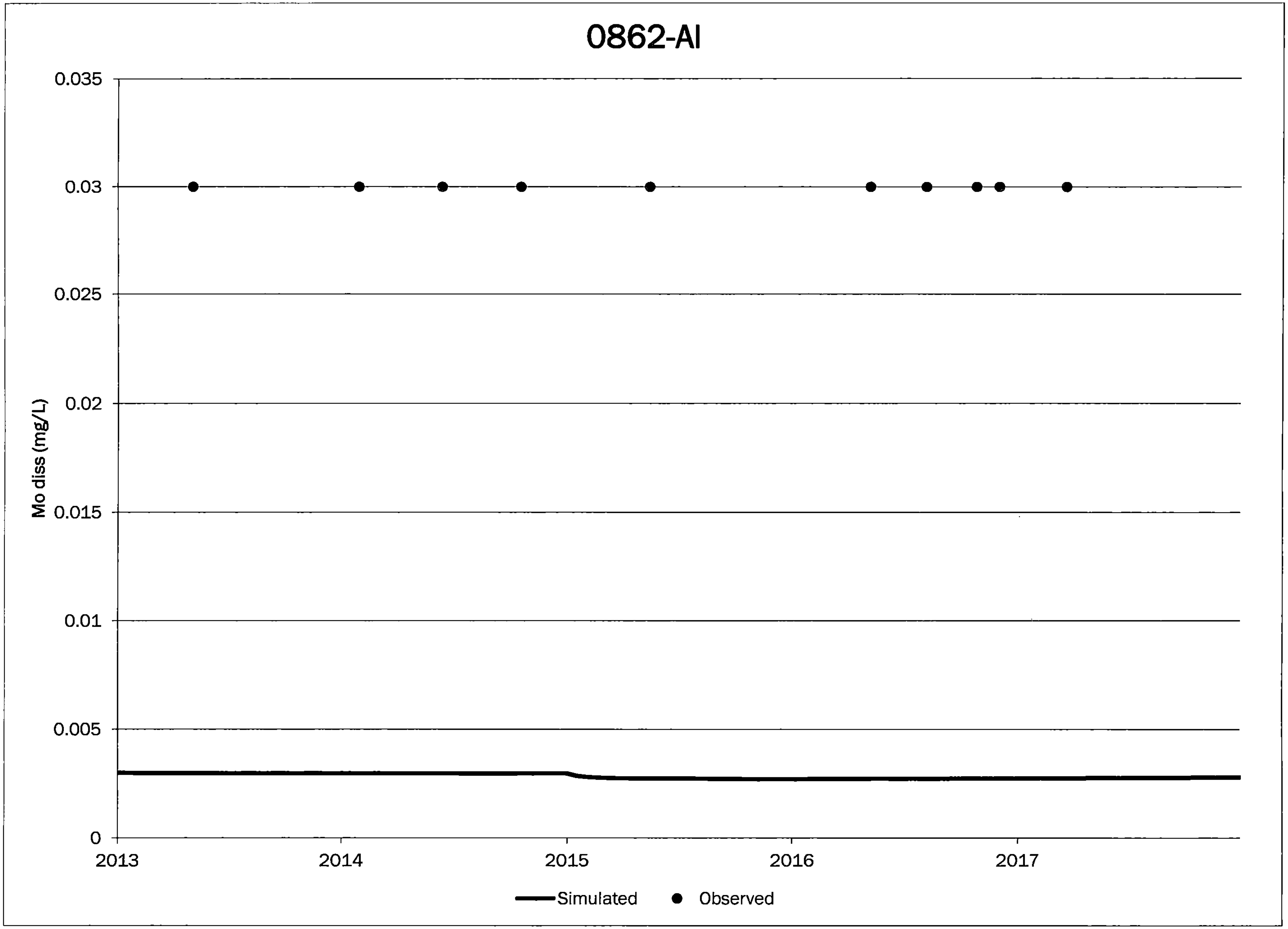


0845-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

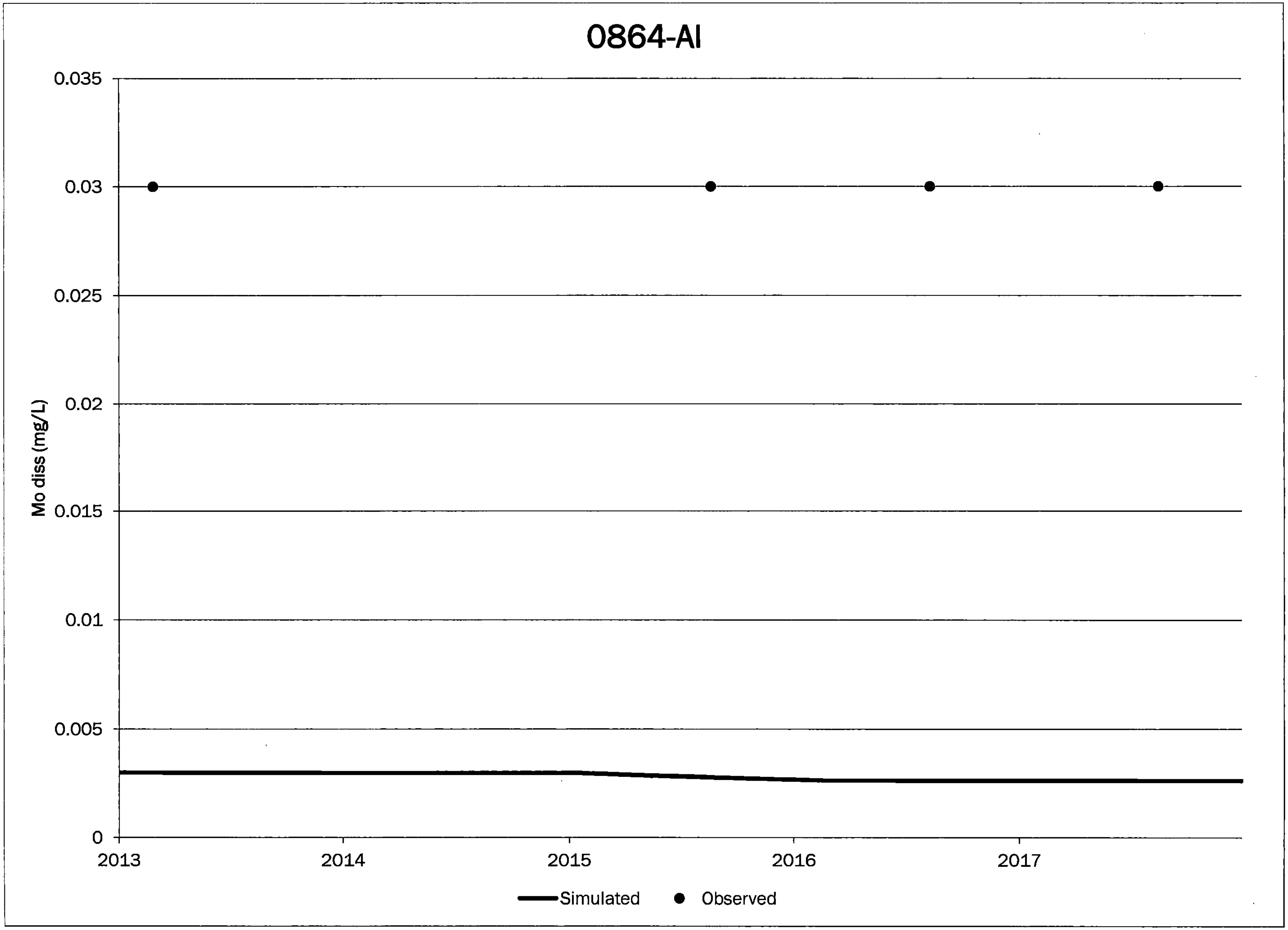


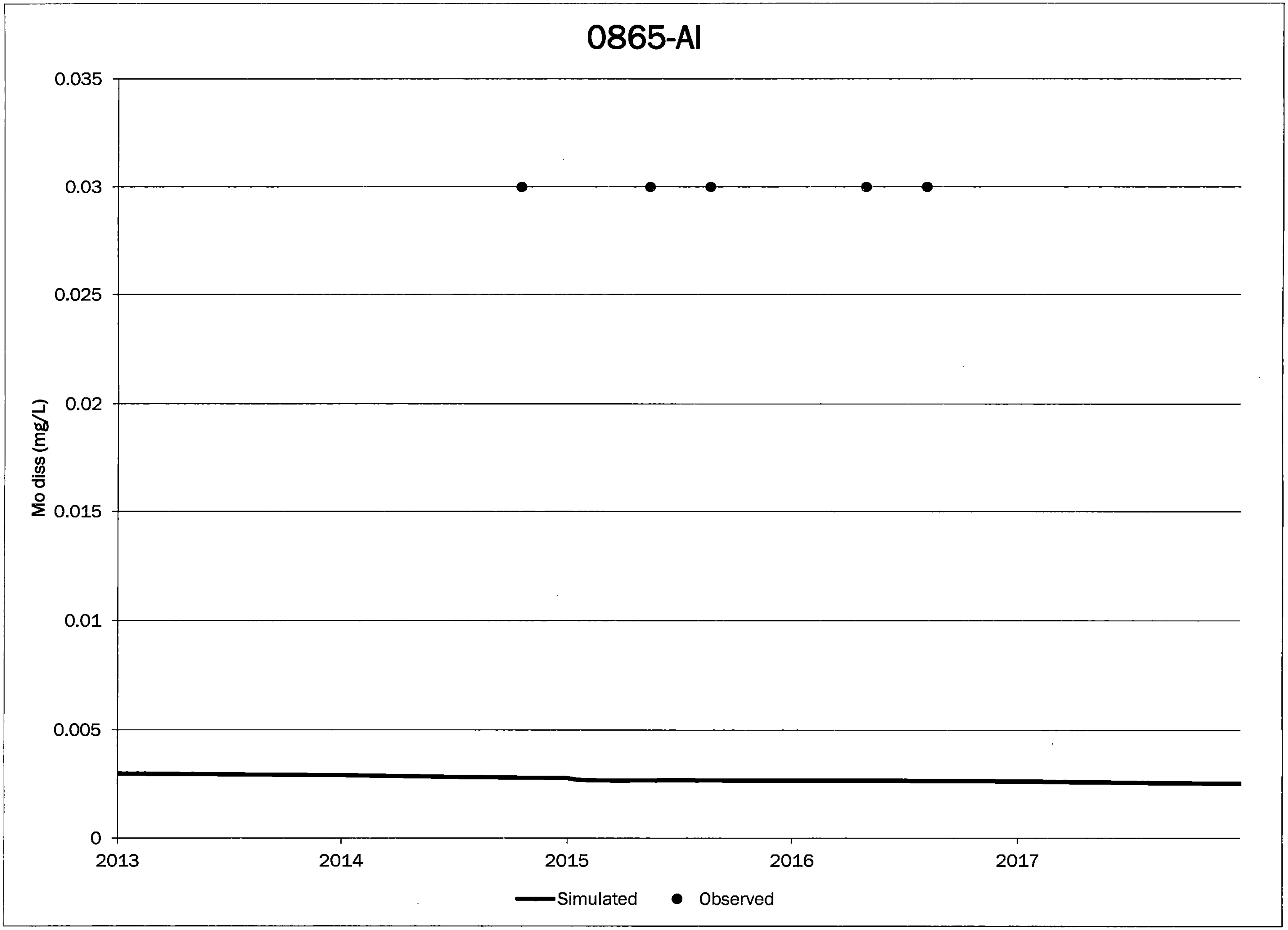
0846-AI
Mo diss (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

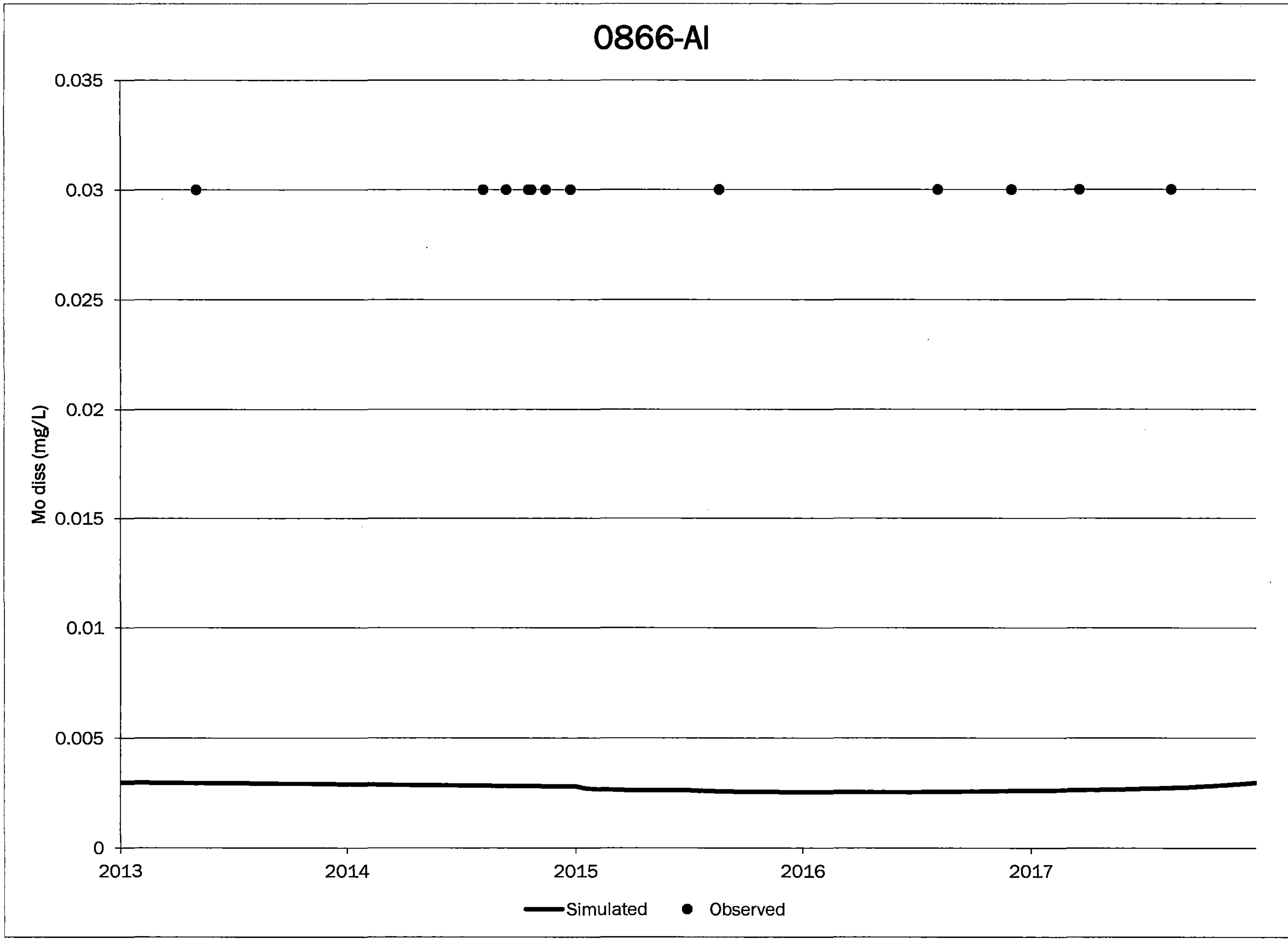

0852-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



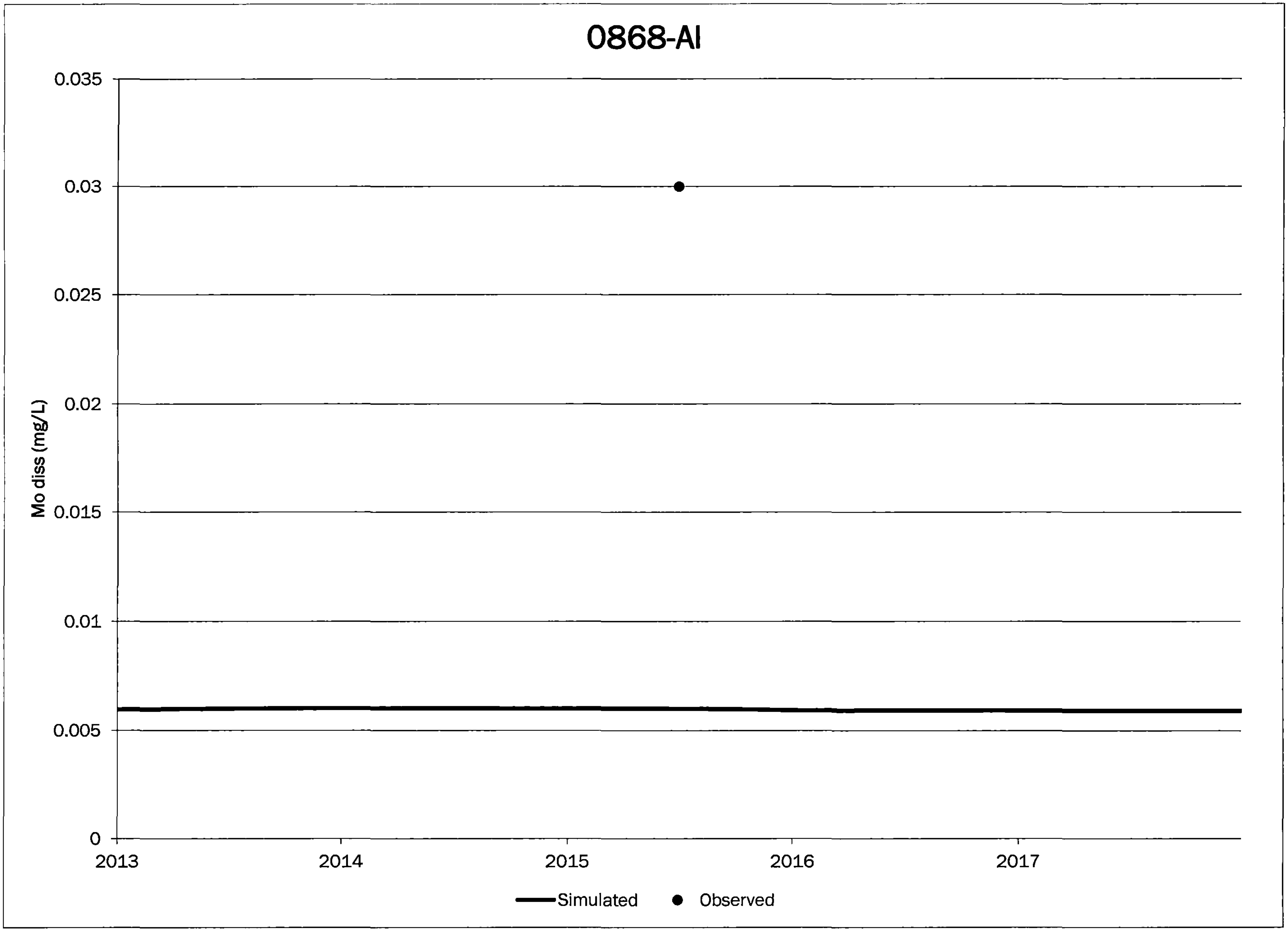
0862-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

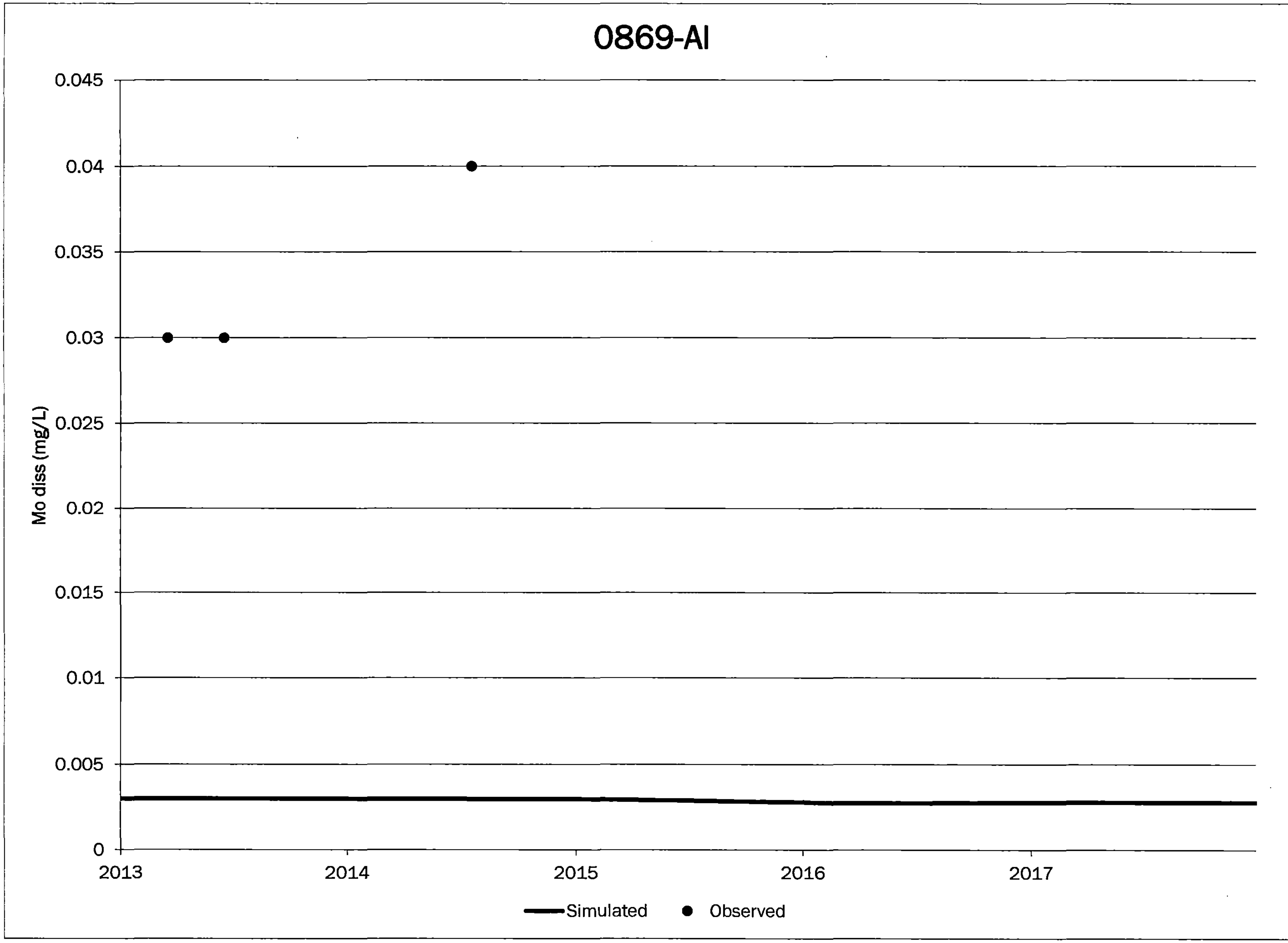

0864-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

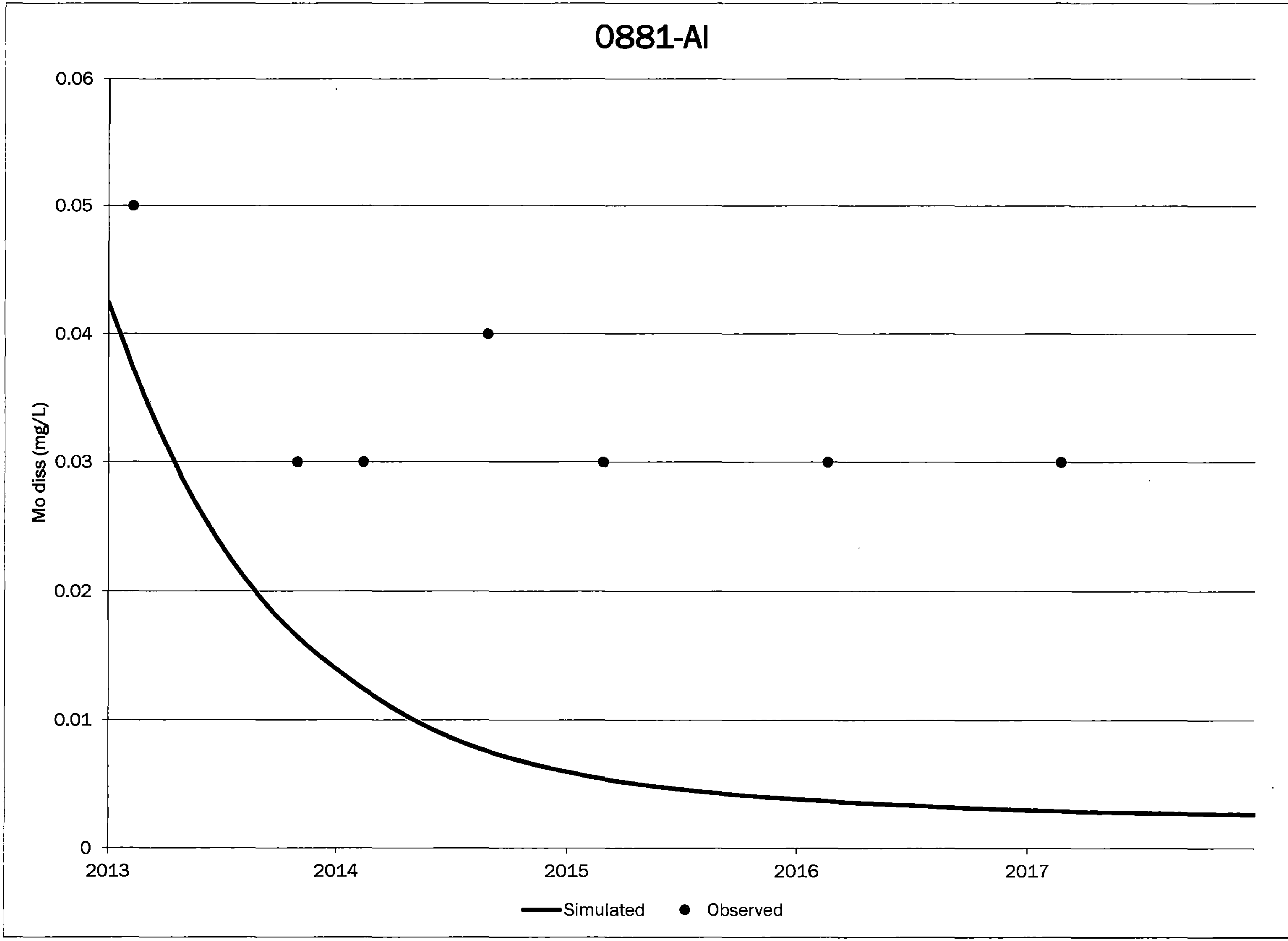

0865-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



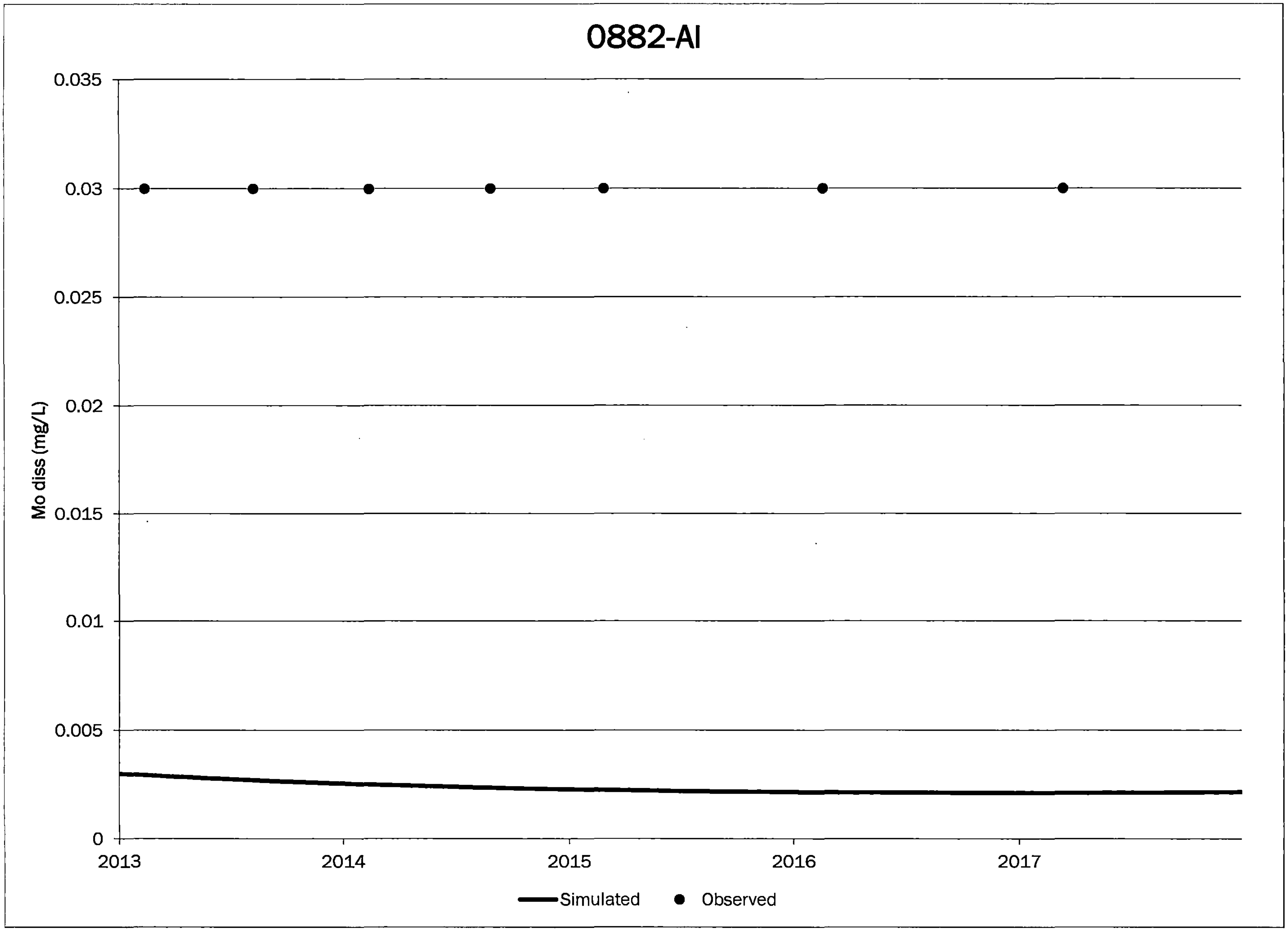
0866-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

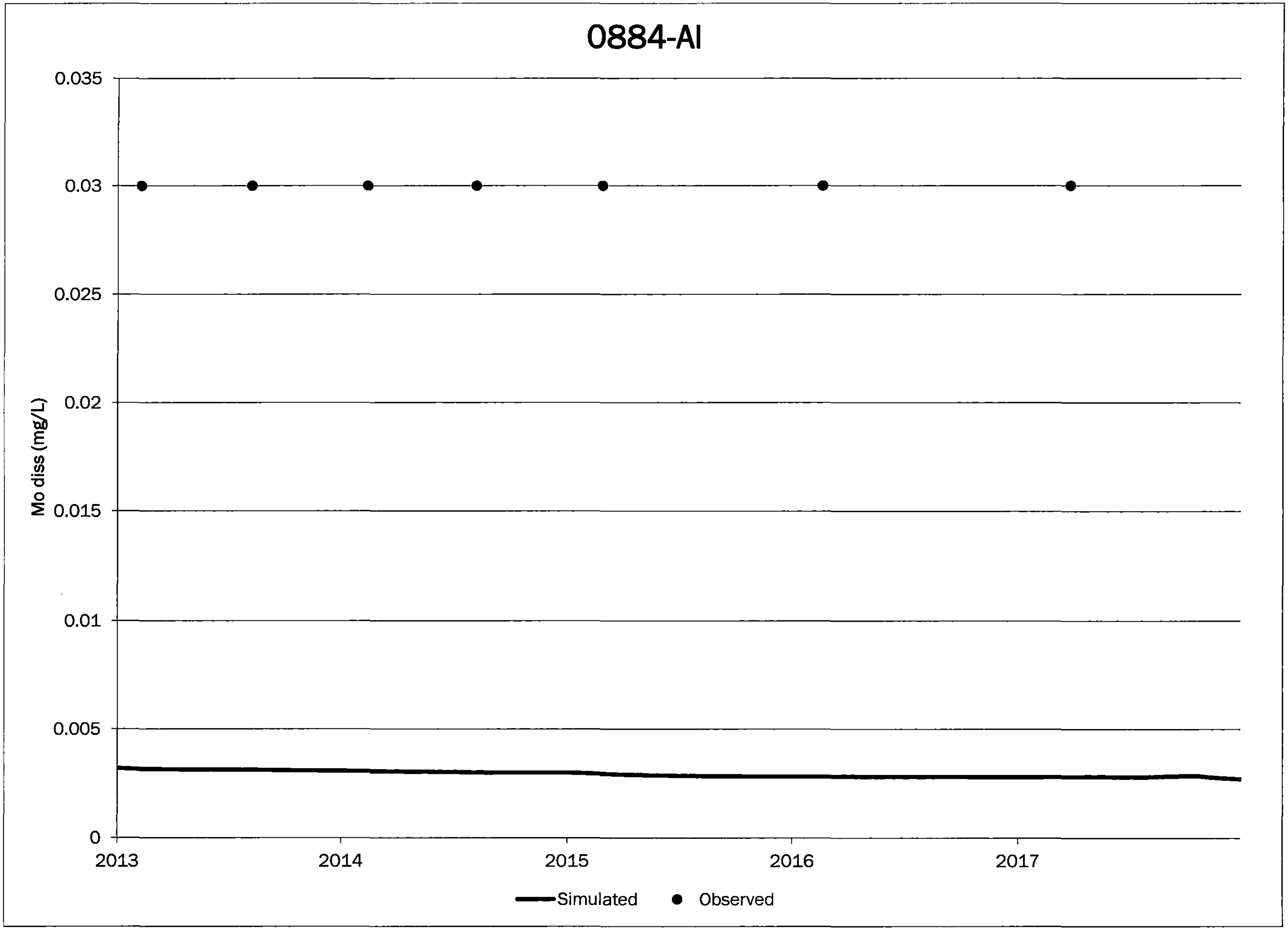

0868-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0869-AI
Mo diss (mg/L)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

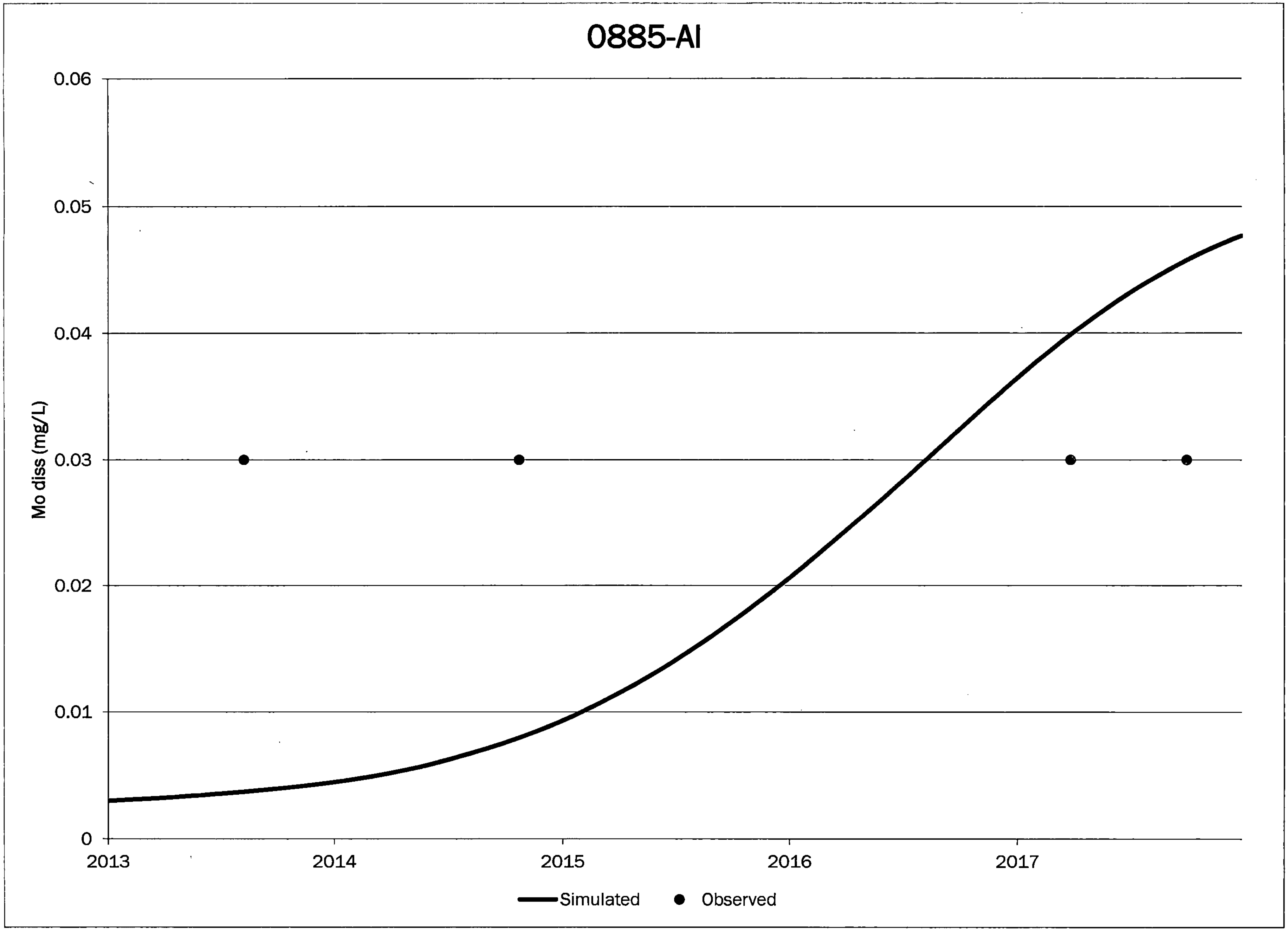


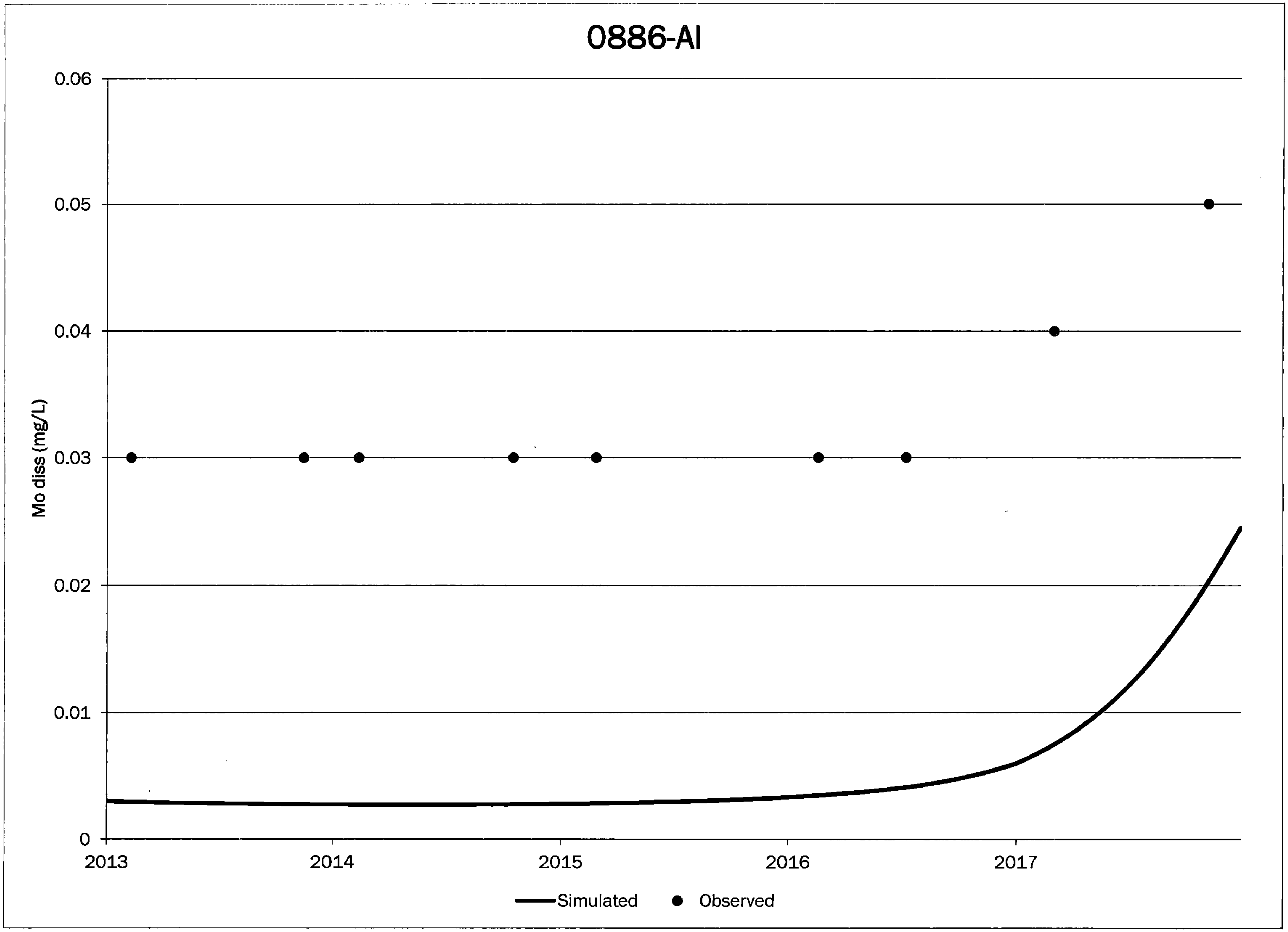
0881-Al
0.06
0.05
0.04
0.03
0.02
0.01
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

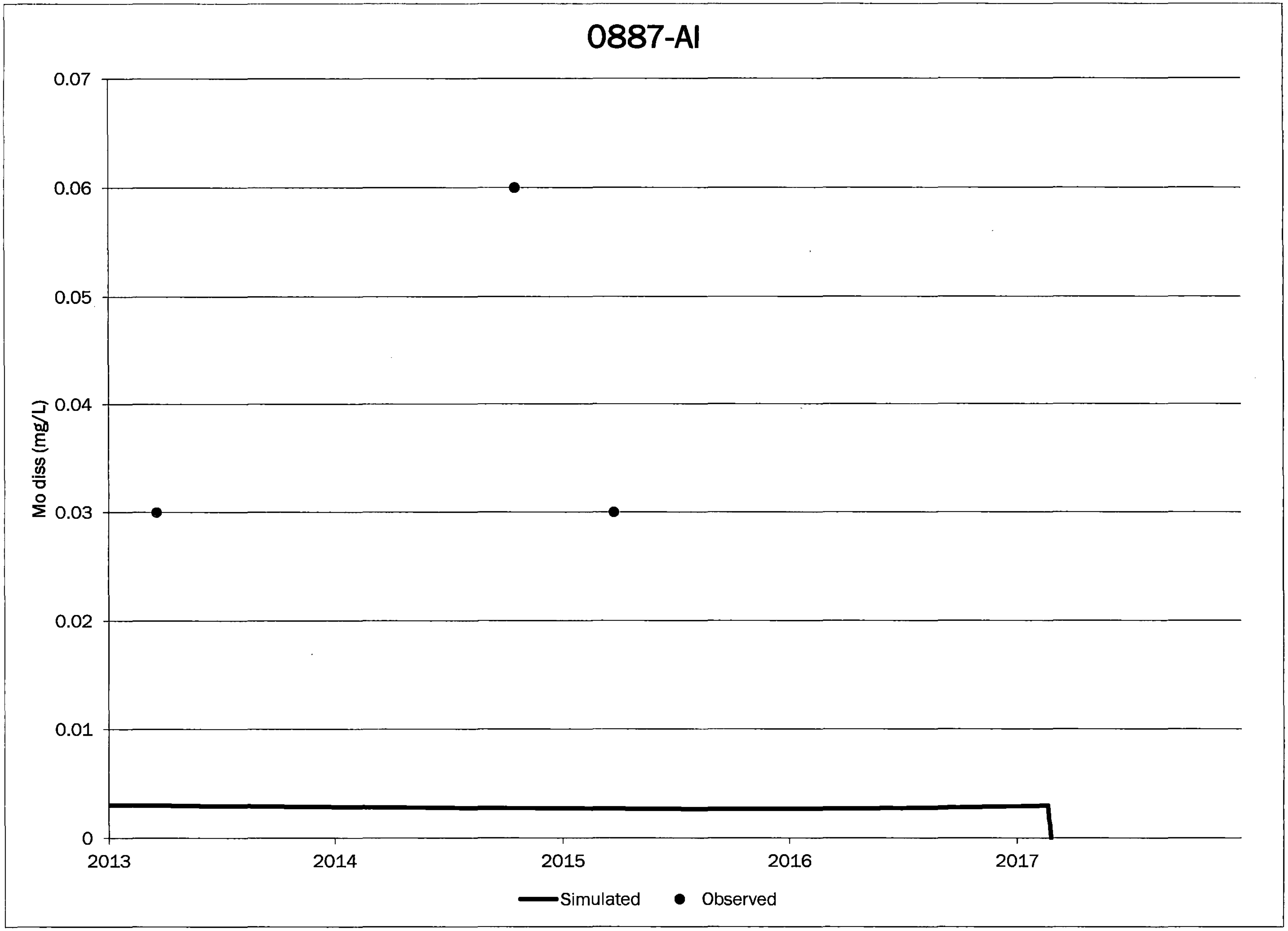

0882-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

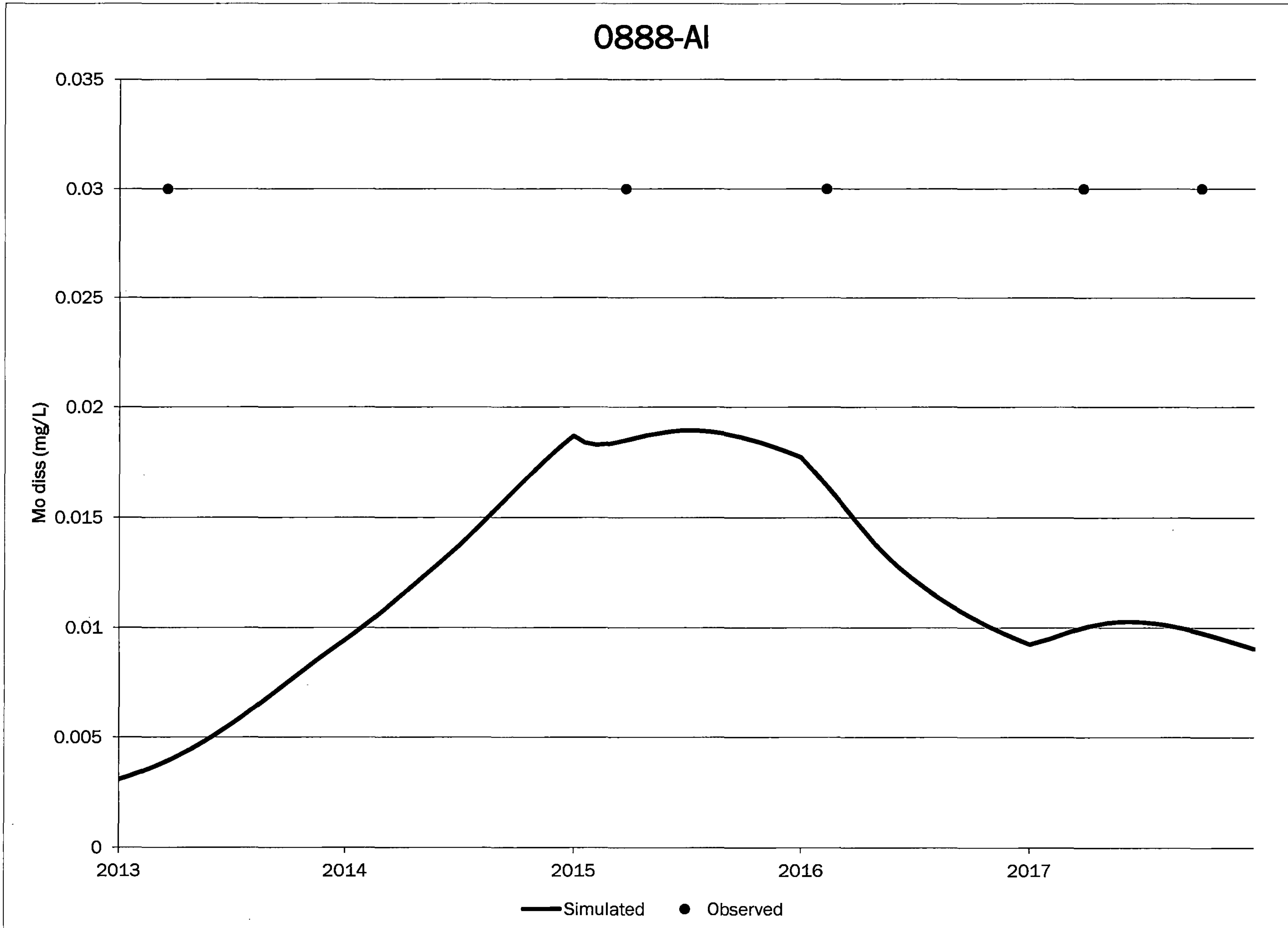


0884-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

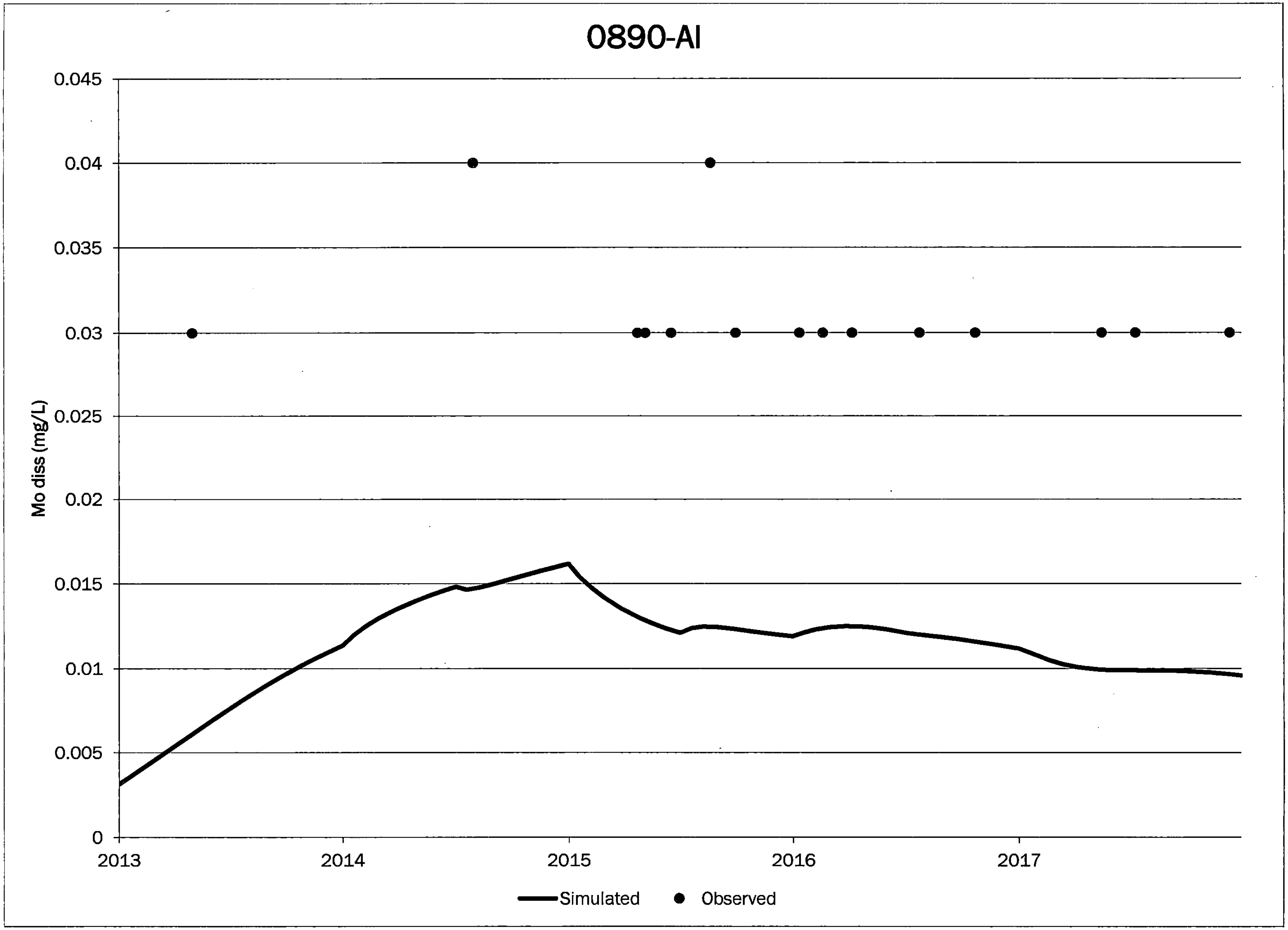

0885-AI
Mo diss (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


0886-AI
Mo diss (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

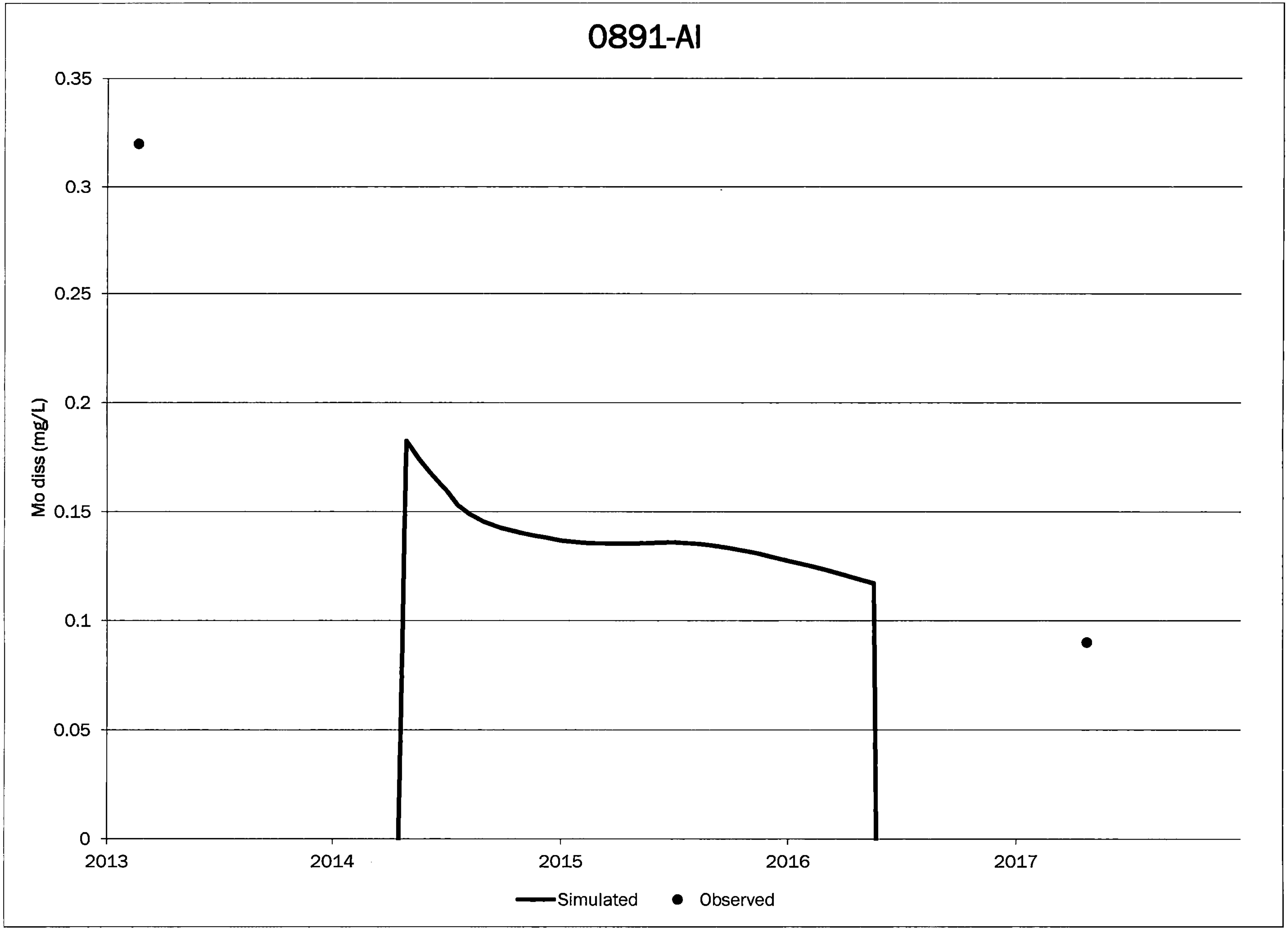

0887-AI
Mo diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed



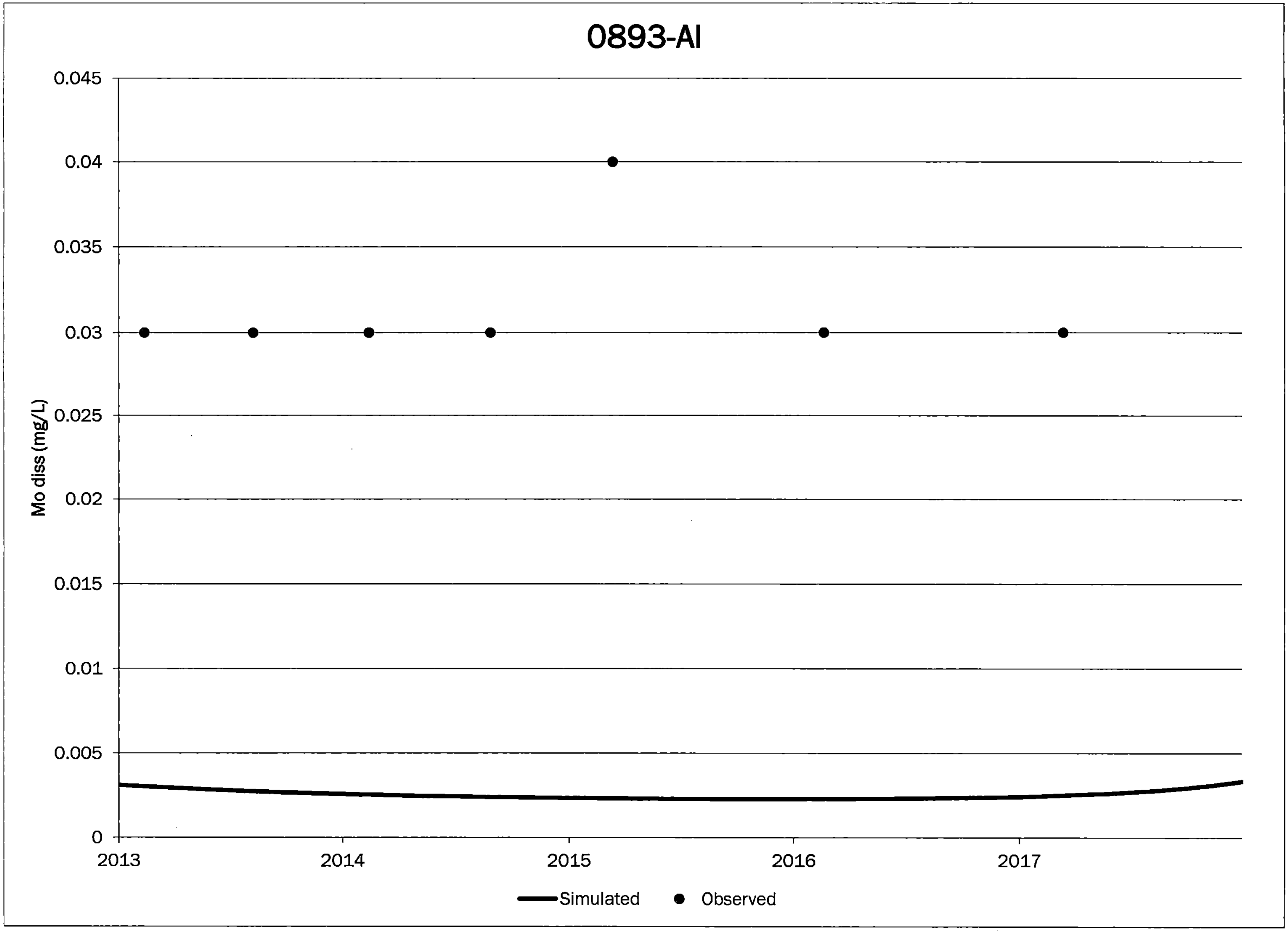
0888-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

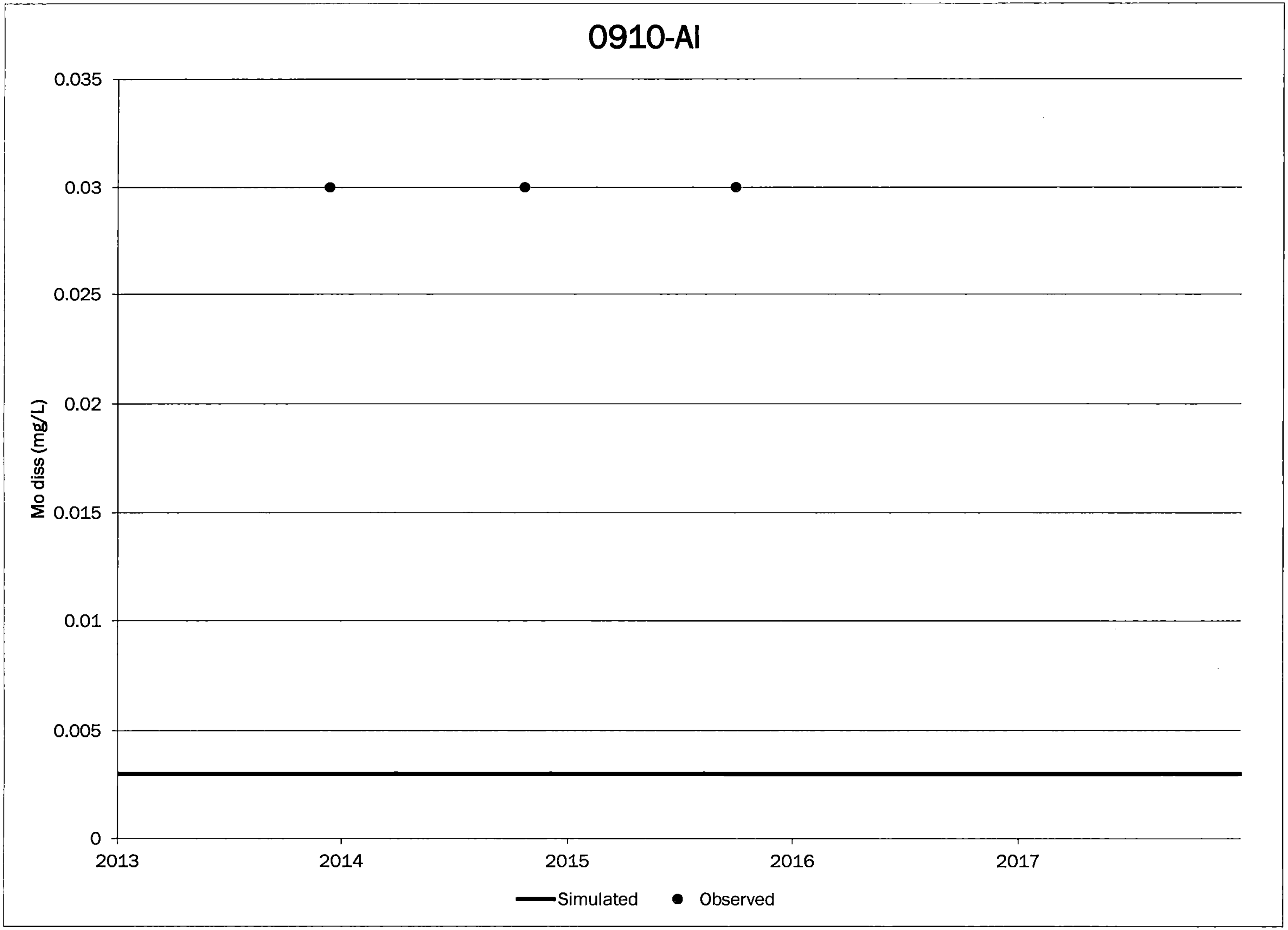


0890-AI
Mo diss (mg/L)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

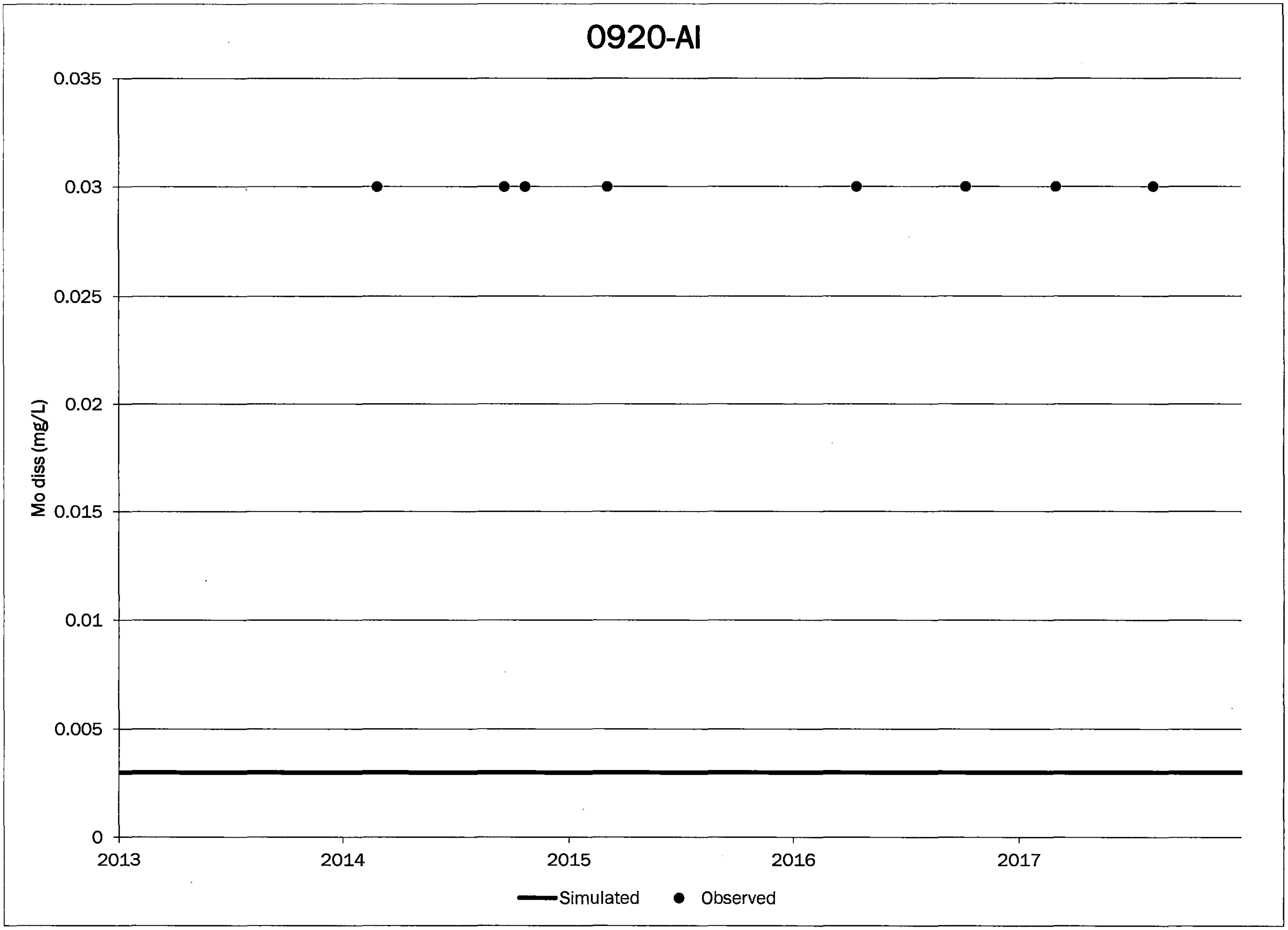


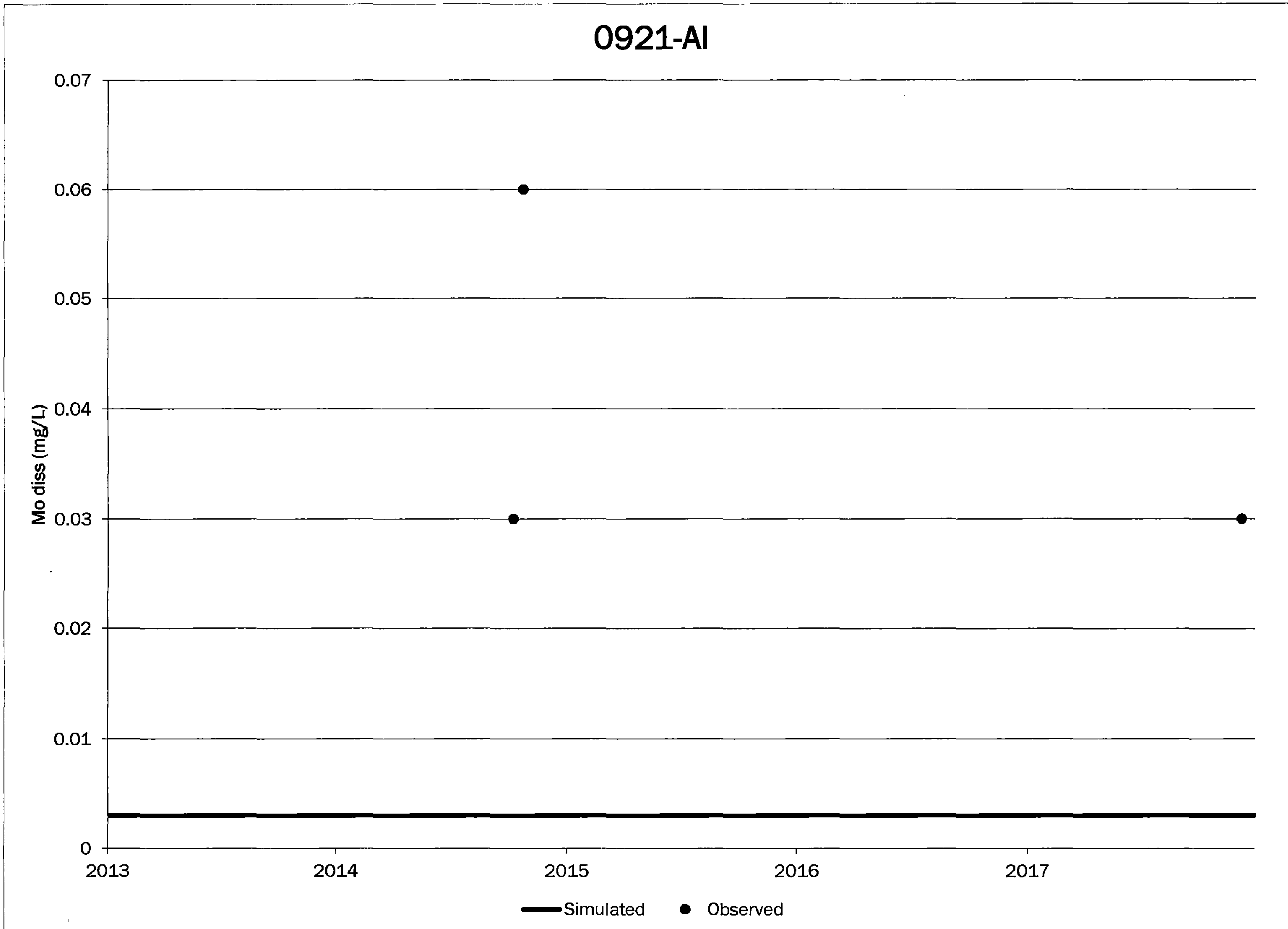
0891-AI
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

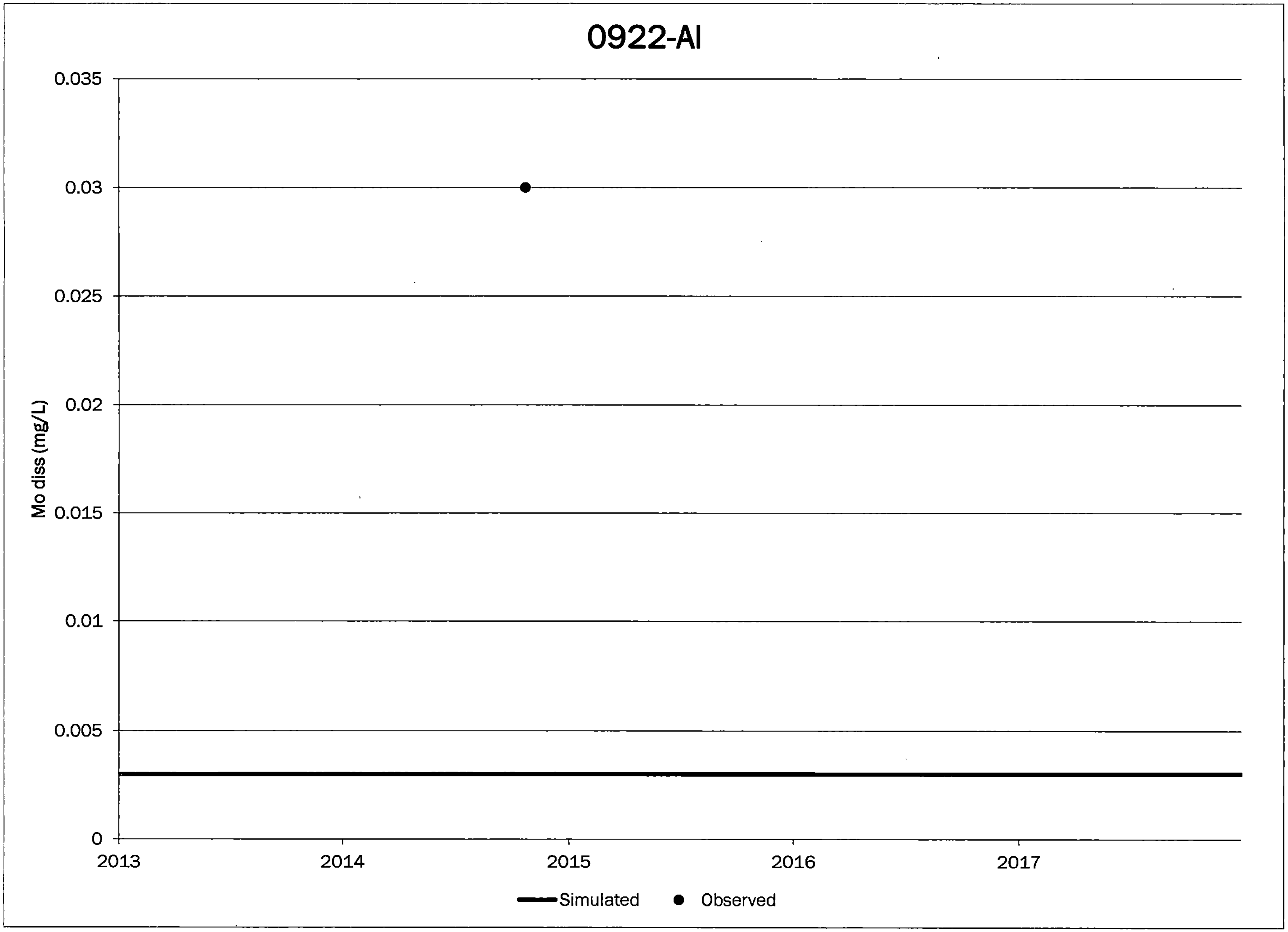

0893-AI
Mo diss (mg/L)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

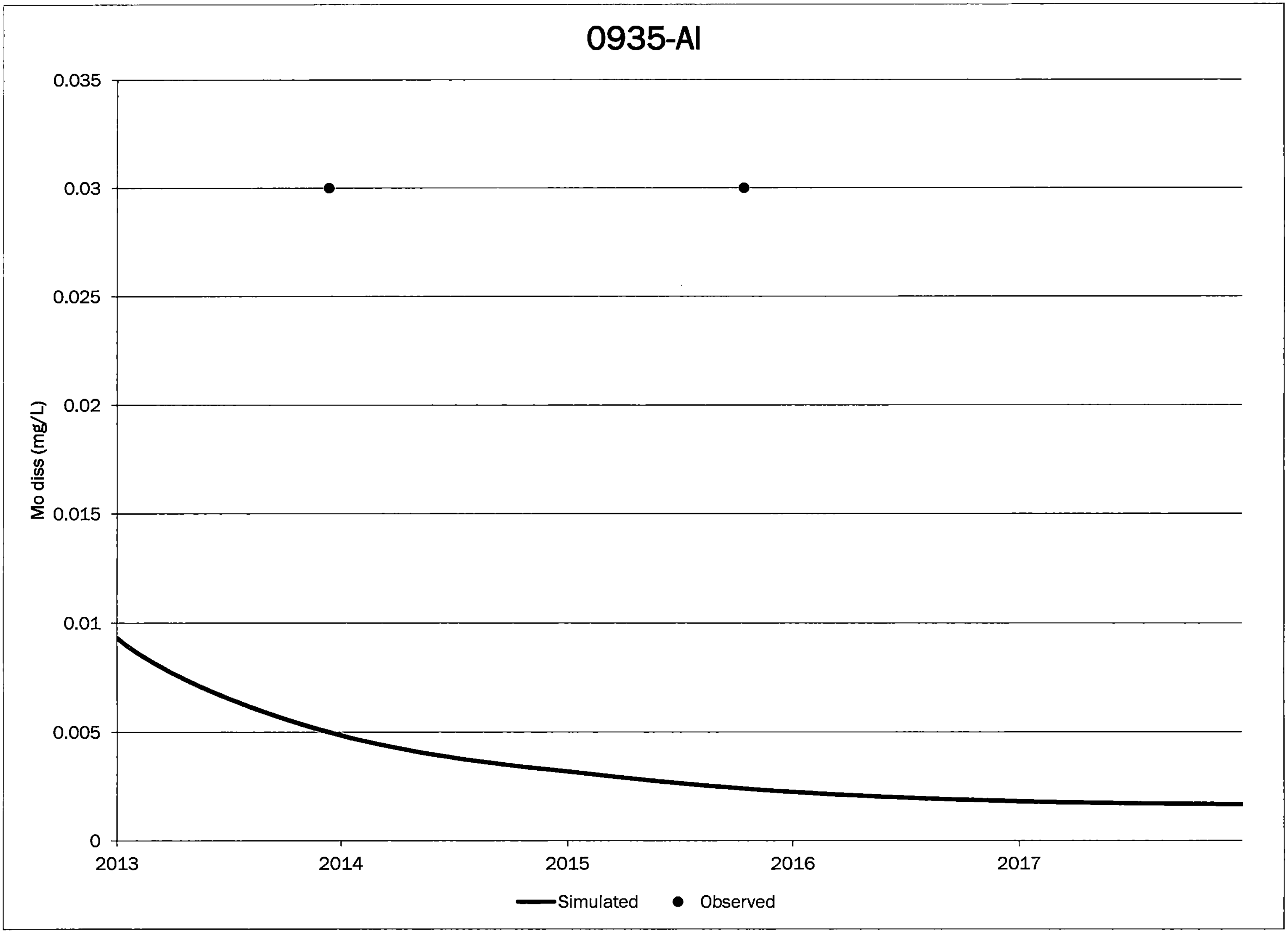


0910-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

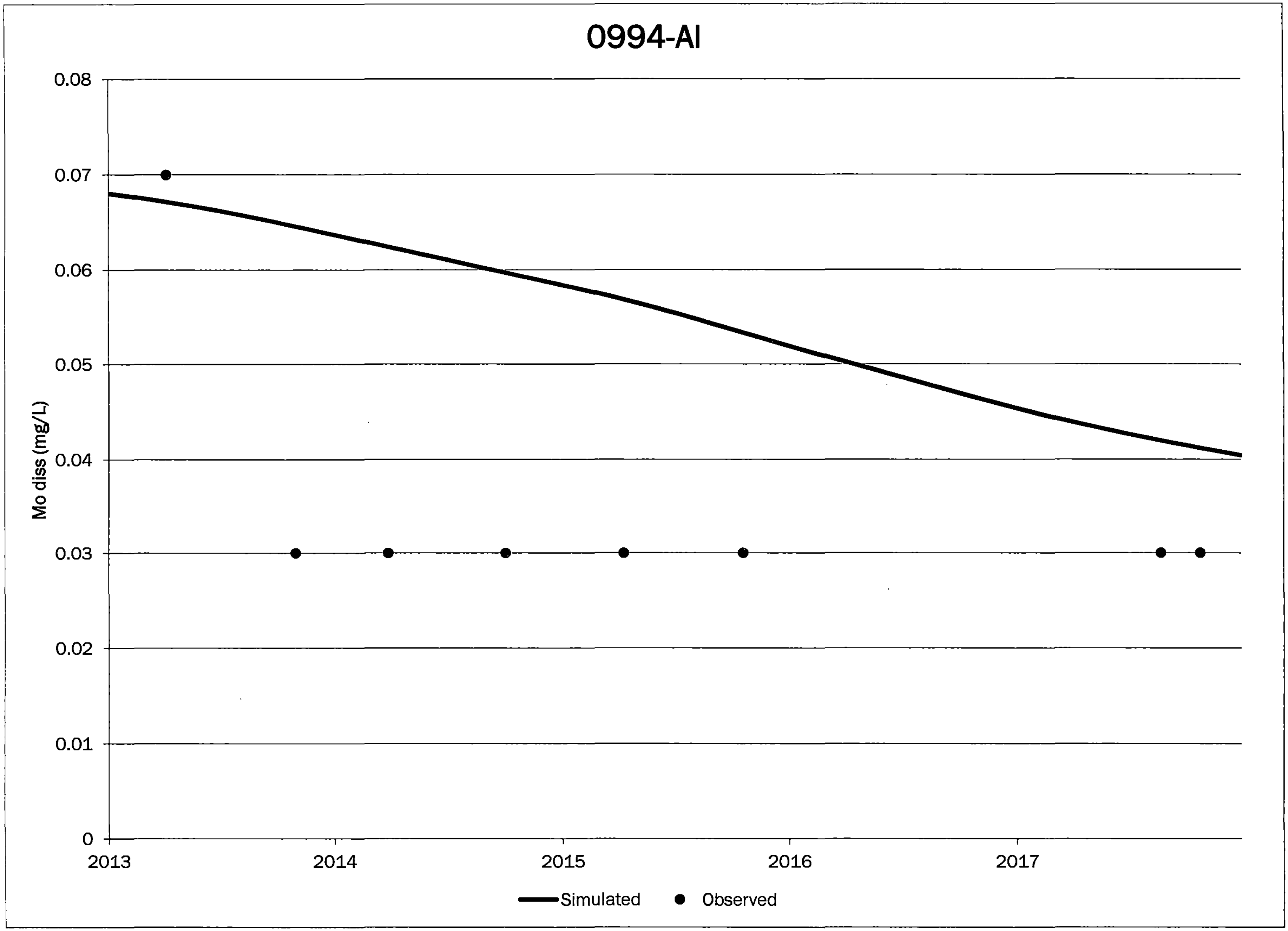

0920-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

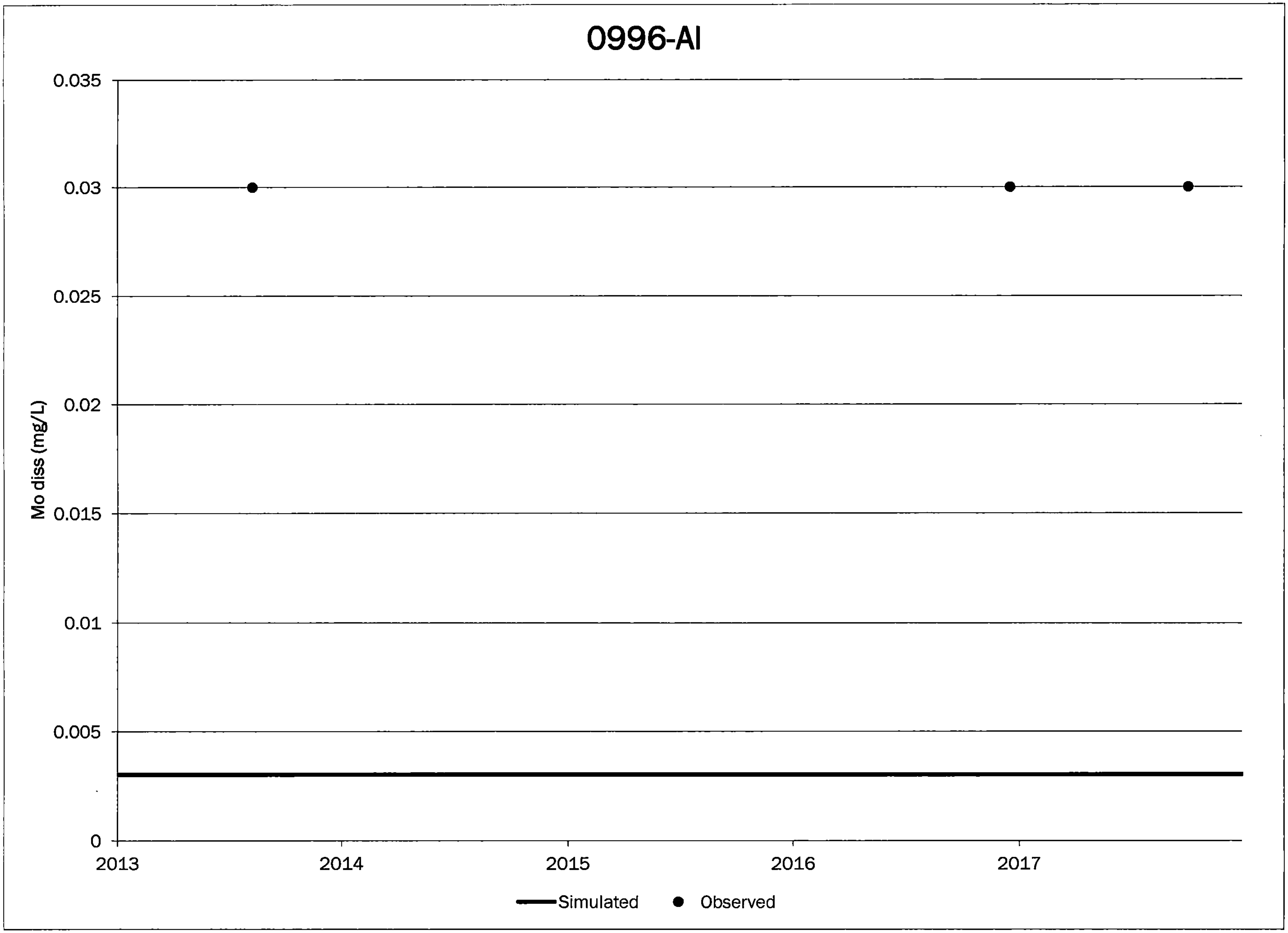

0921-Al
Mo diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


0922-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

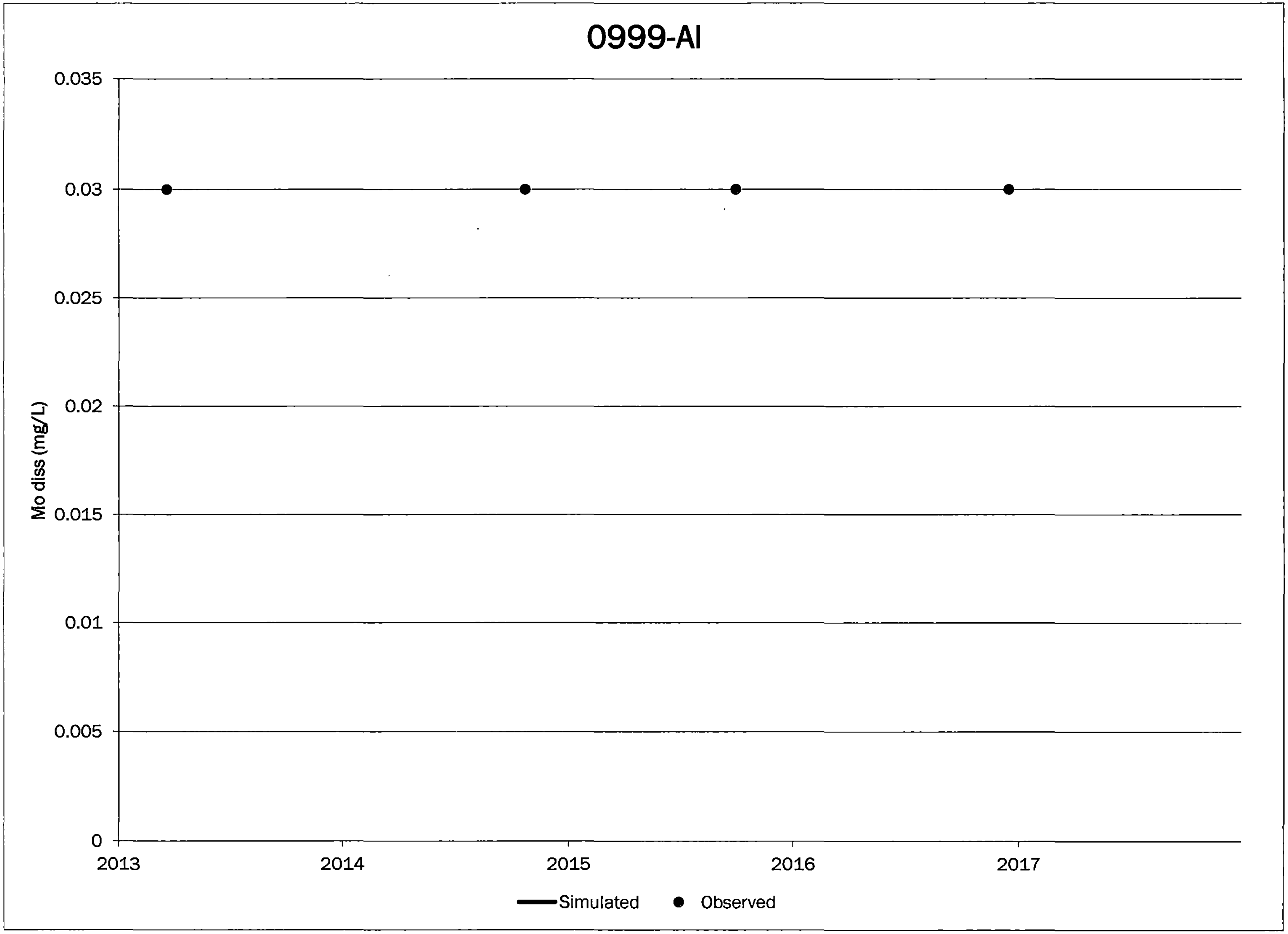


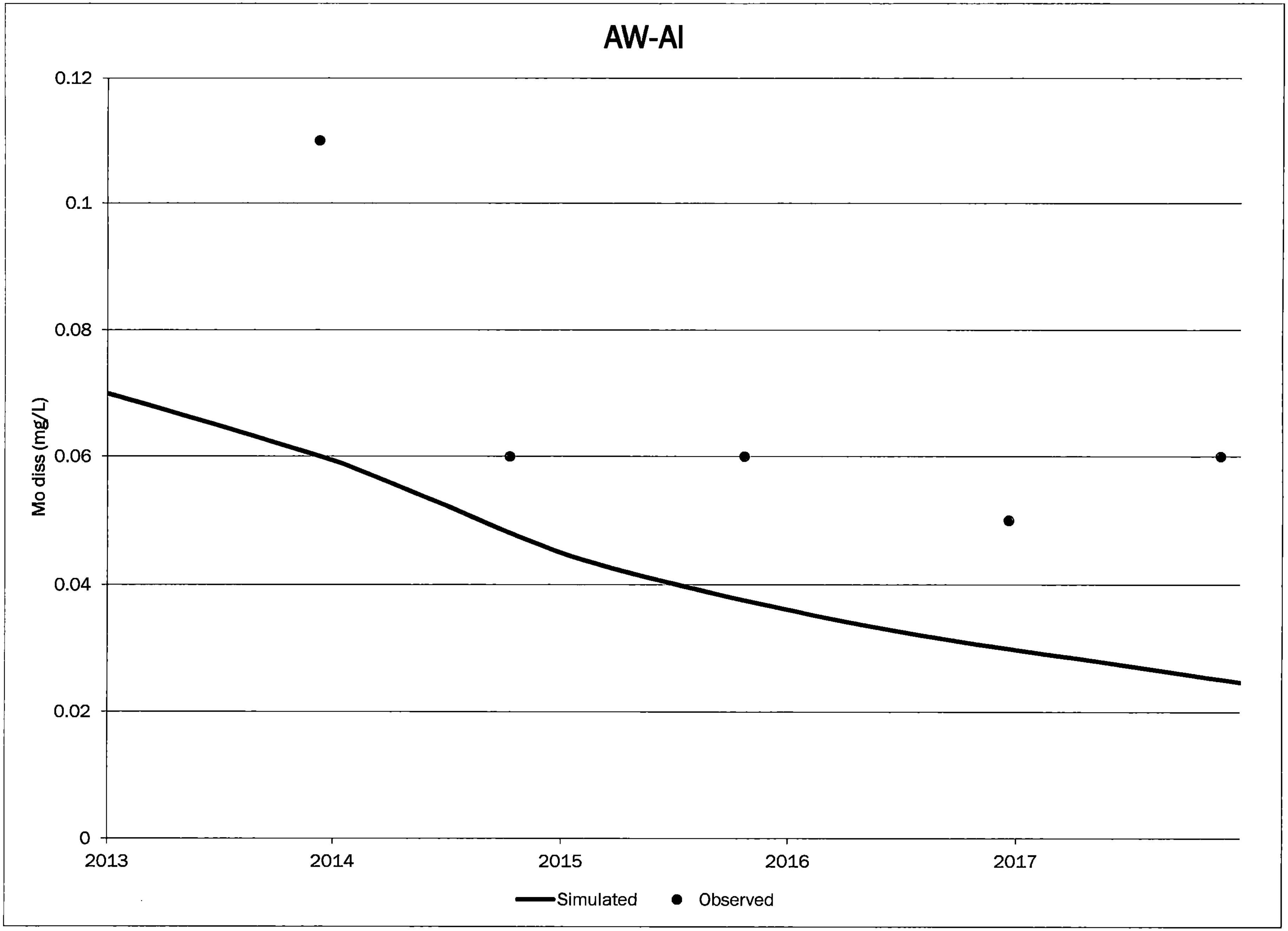
0935-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

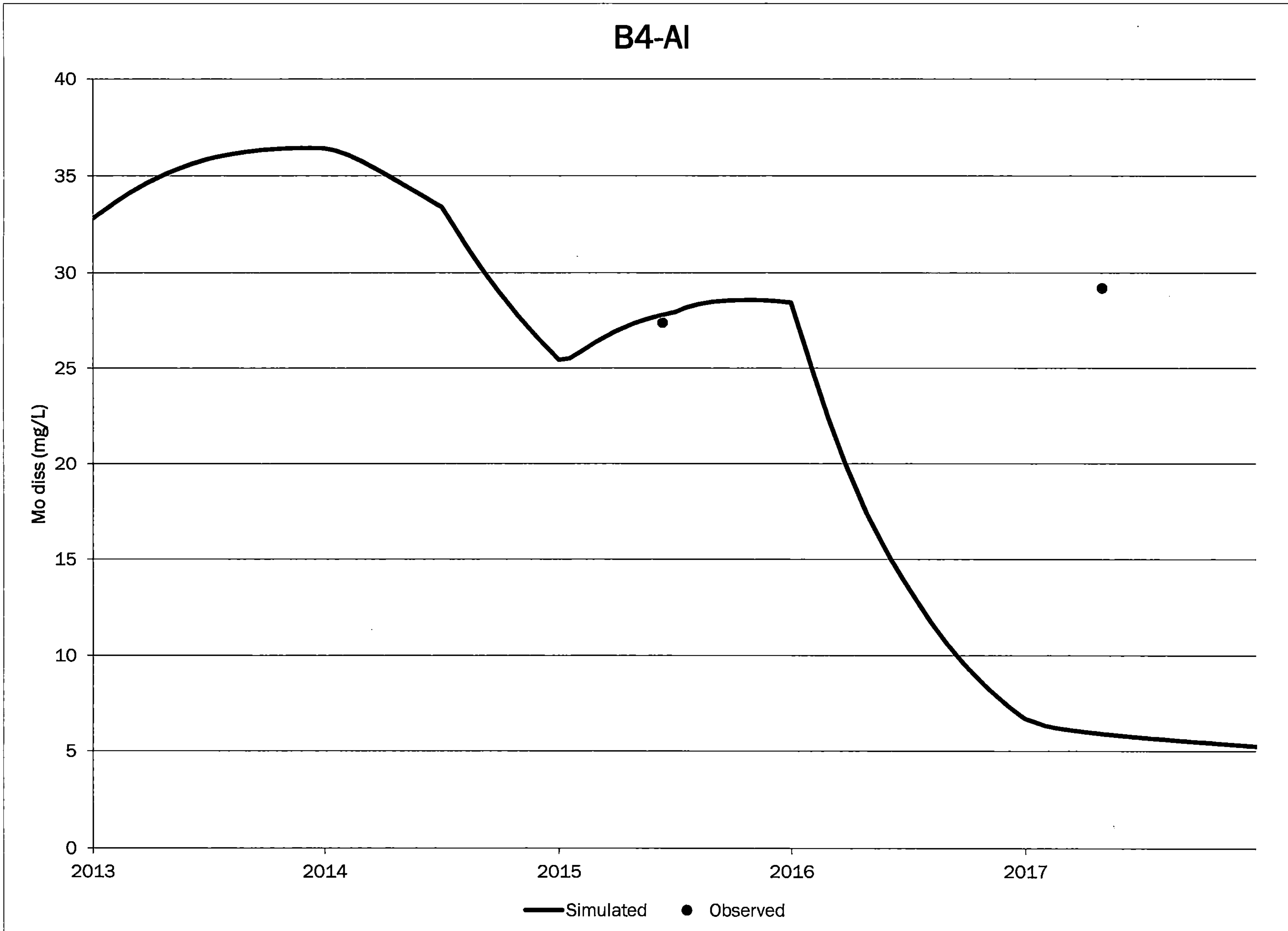

0994-AI
Mo diss (mg/L)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed



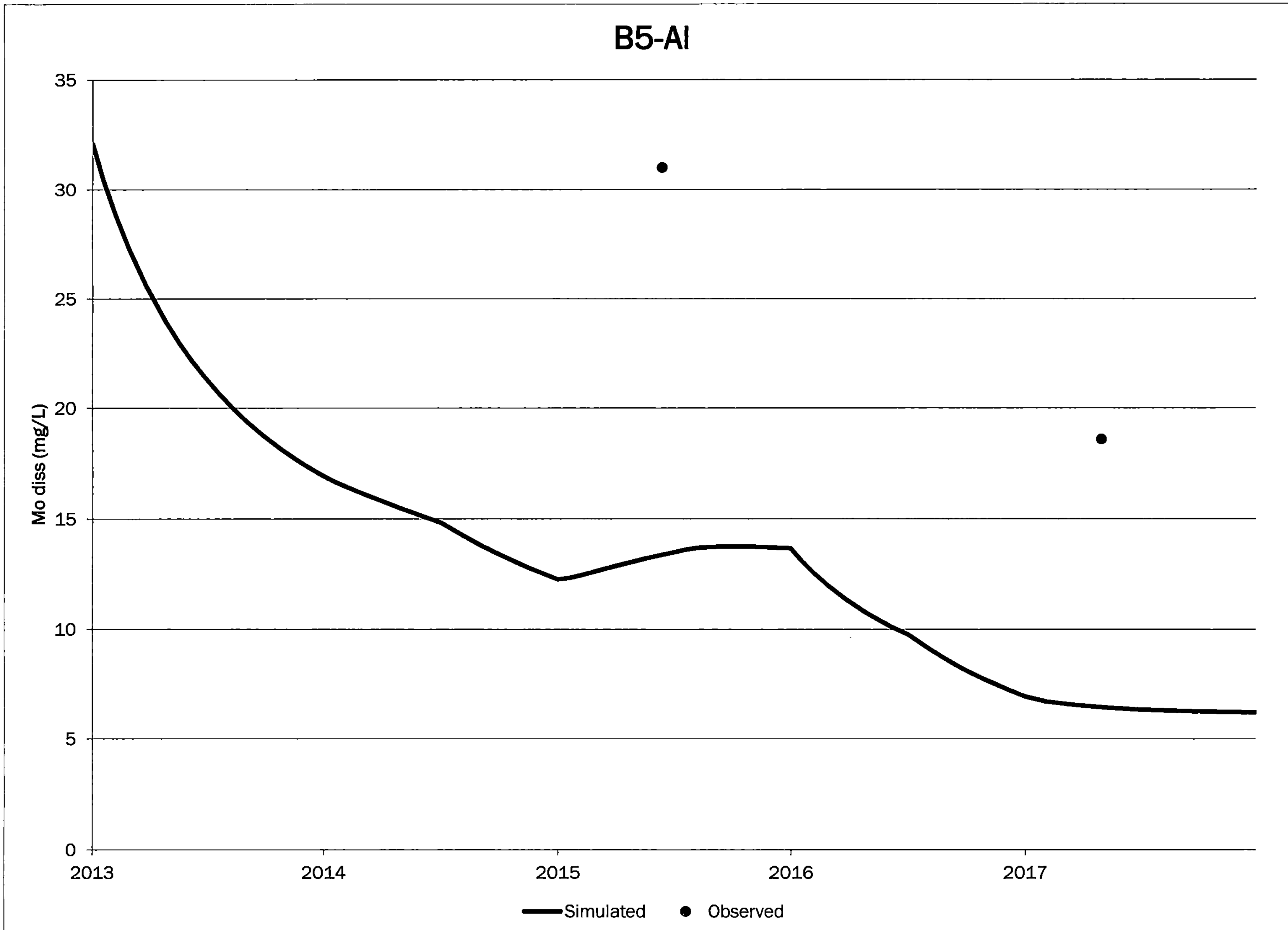
0996-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

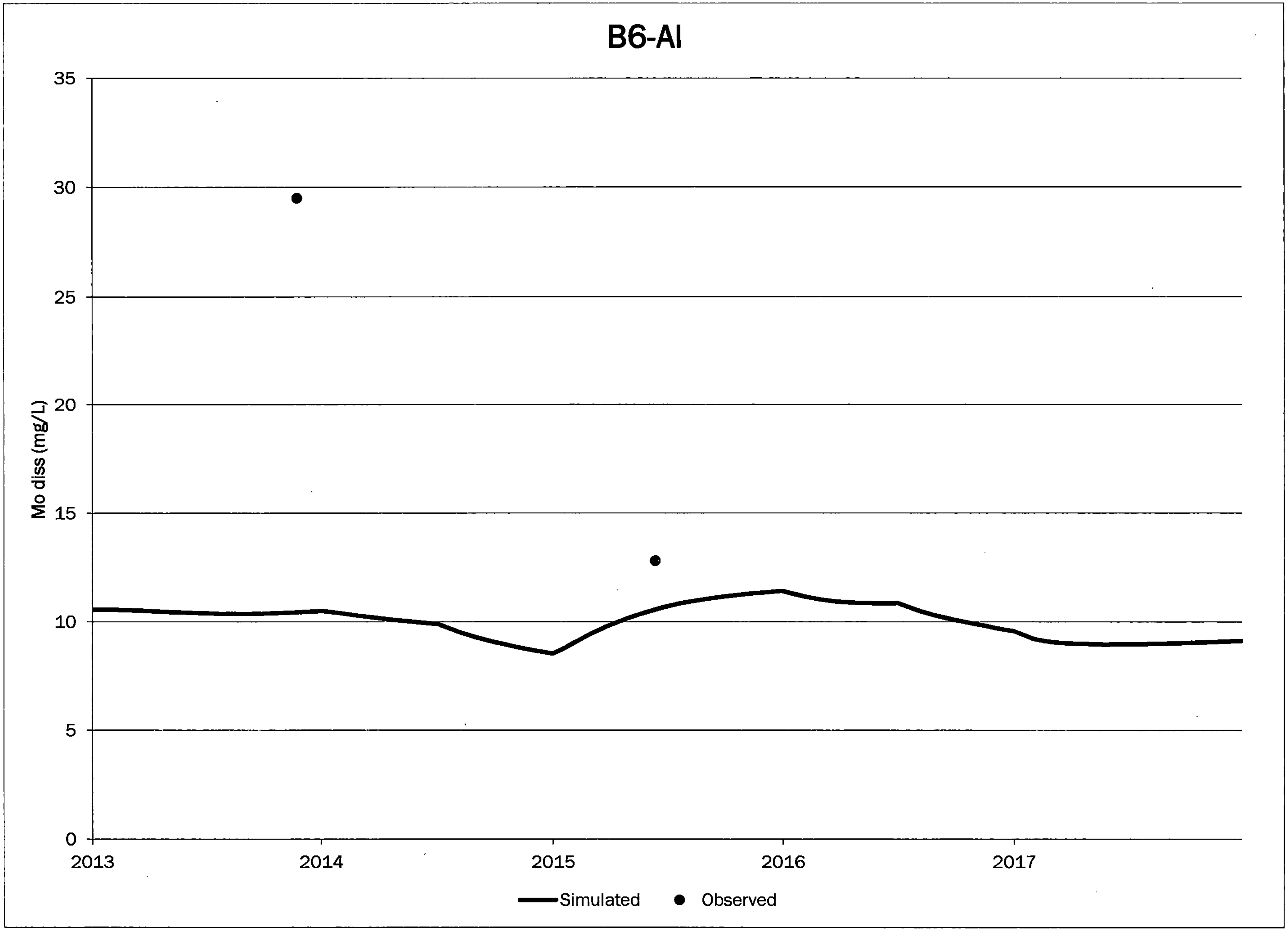

0999-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


AW-AI
0.12
0.1
0.08
0.06
0.04
0.02
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

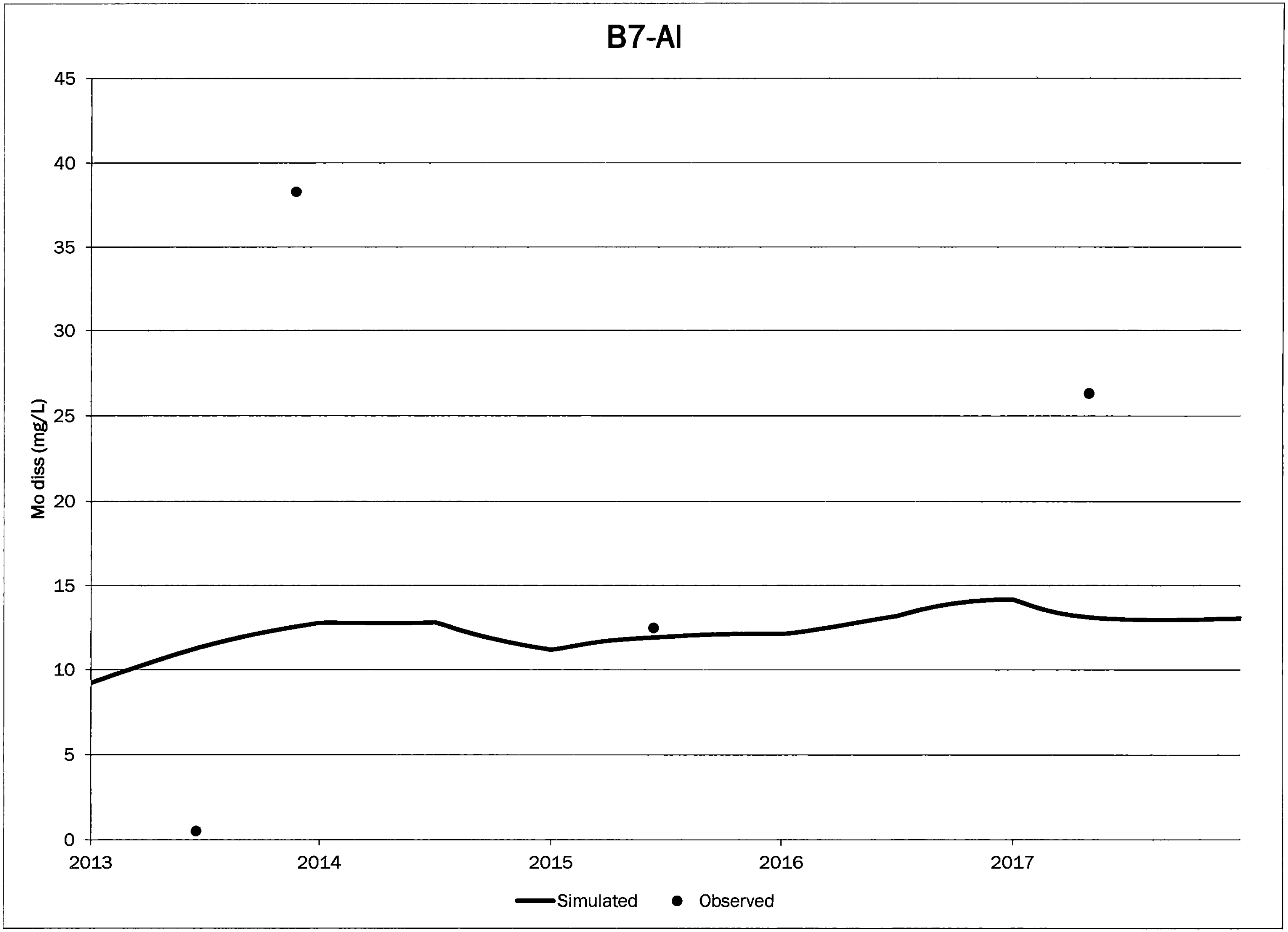


B4-Al
Mo diss (mg/L)
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

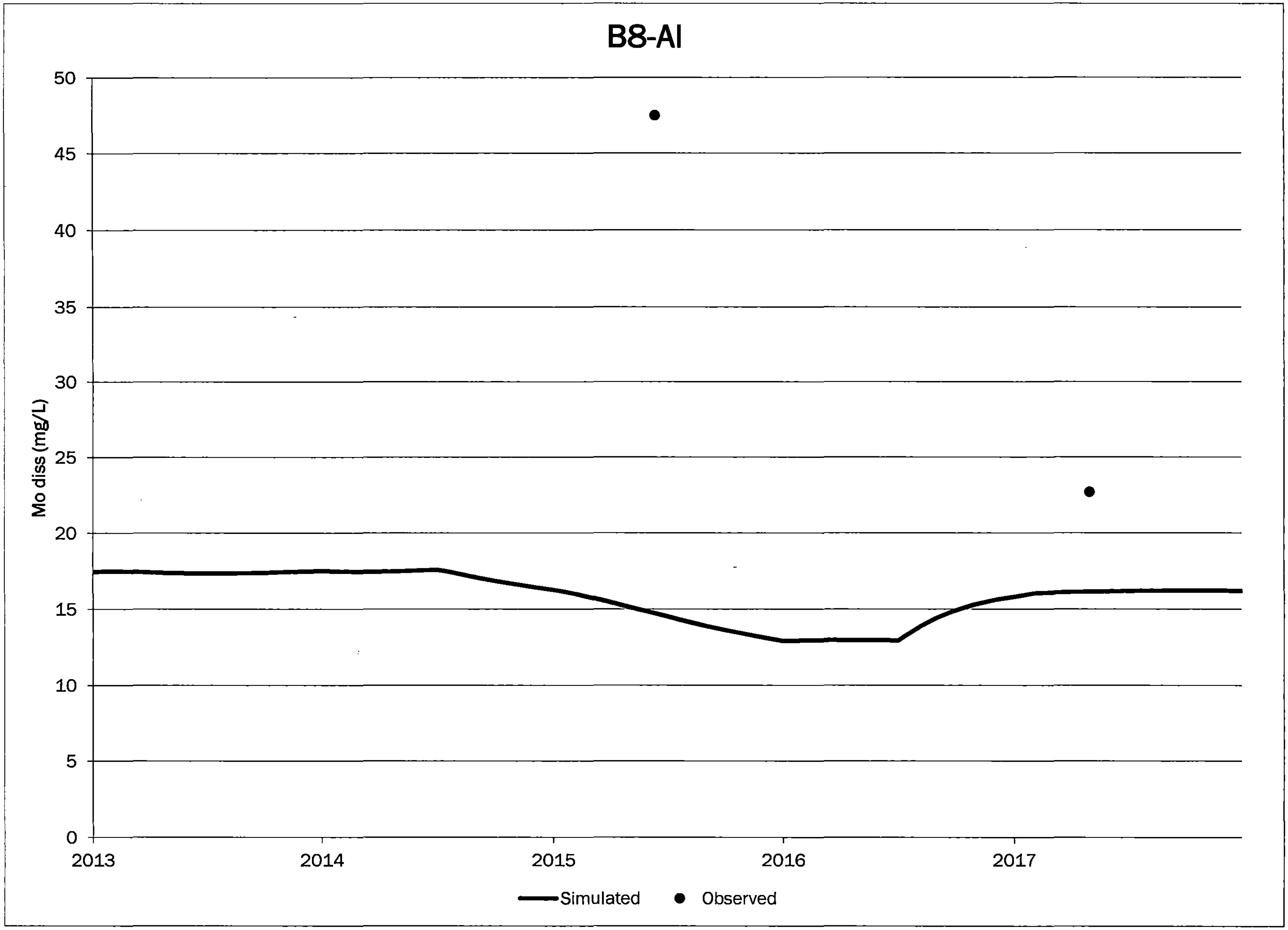

B5-AI
Mo diss (mg/L)
0
5
10
15
20
25
30
35
2013
2014
2015
2016
2017
Simulated
Observed



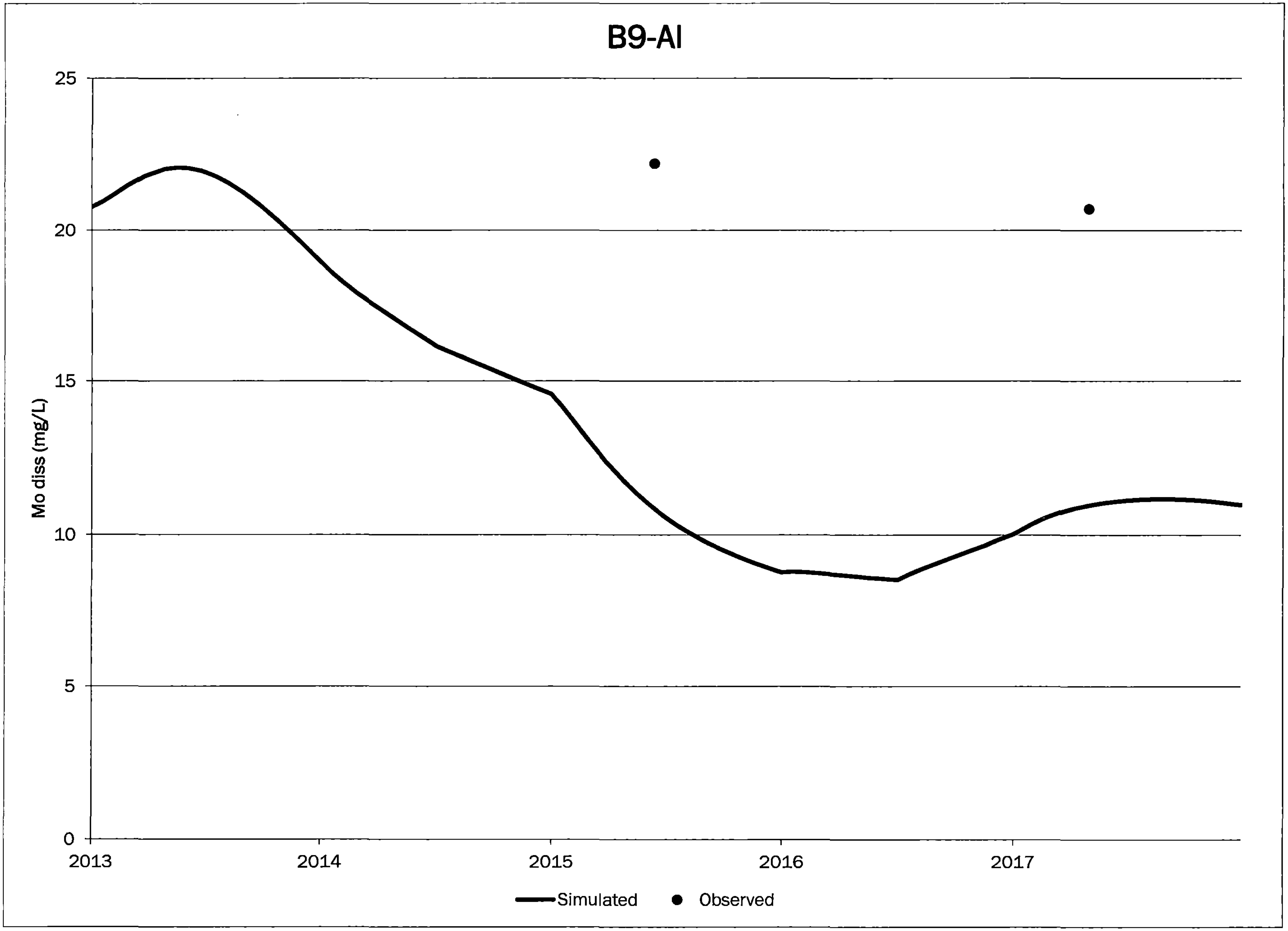
B6-AI
Mo diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

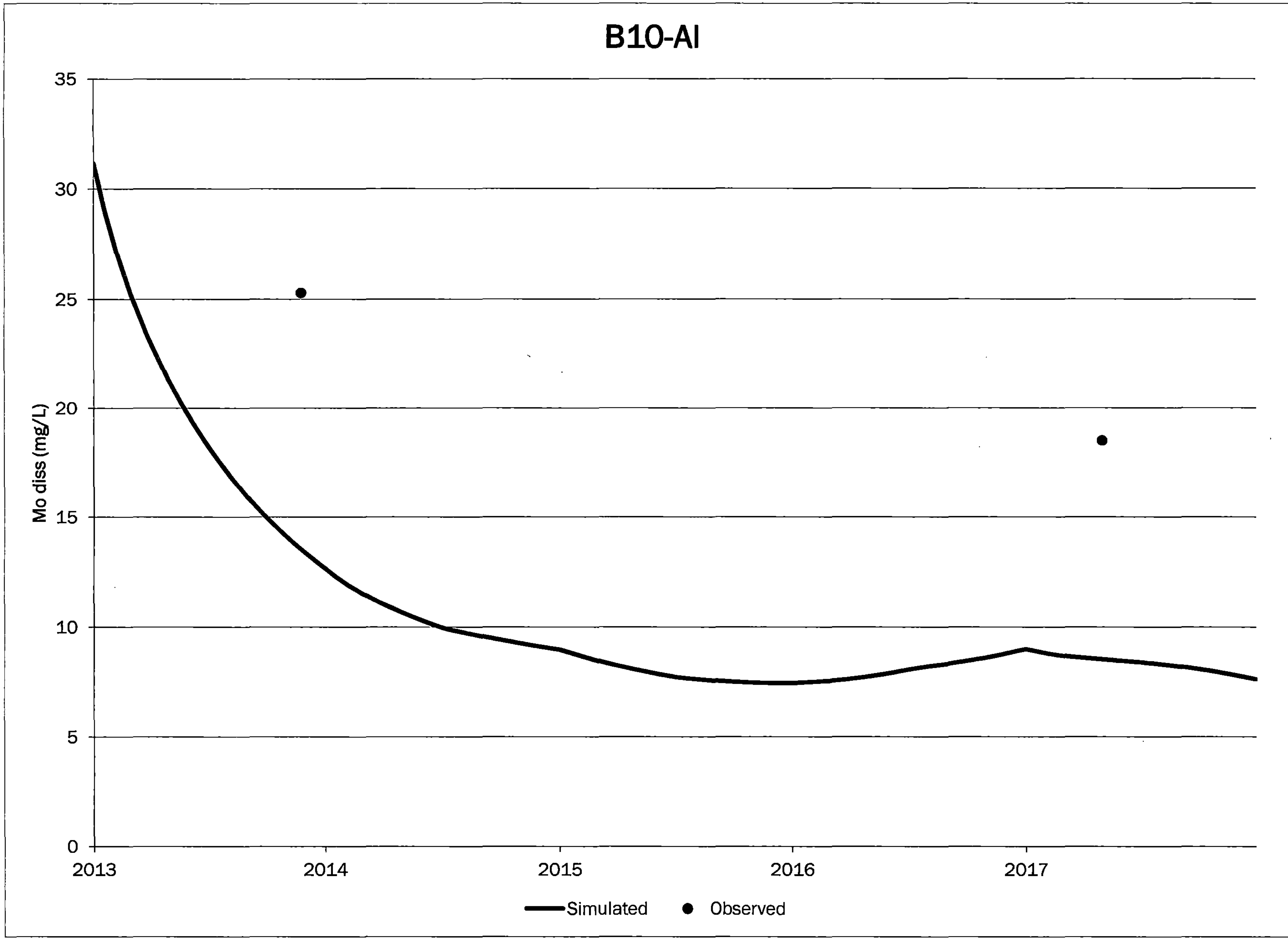


B7-Al
Mo diss (mg/L)
45
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

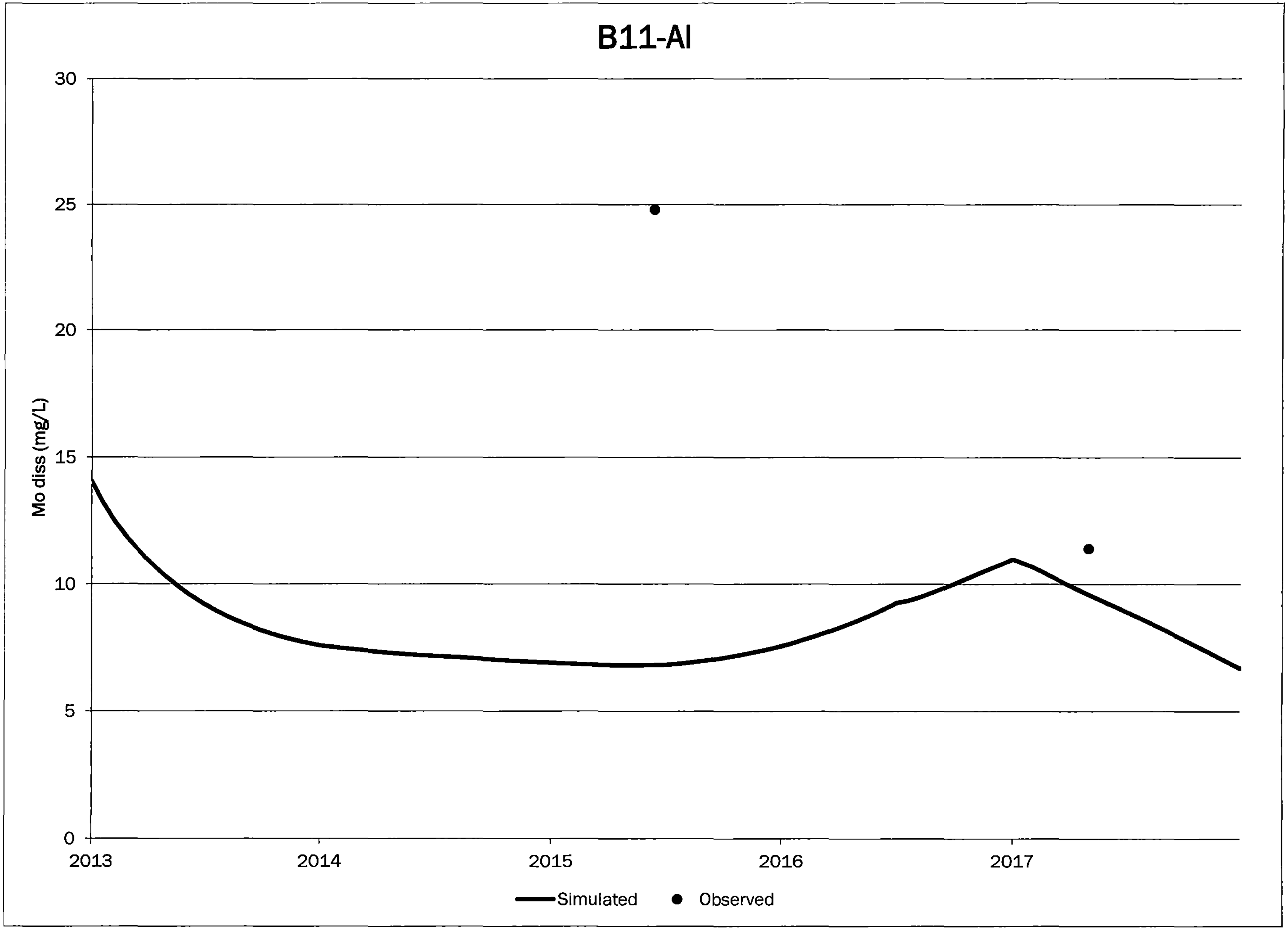


B8-AI
Mo diss (mg/L)
50
45
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

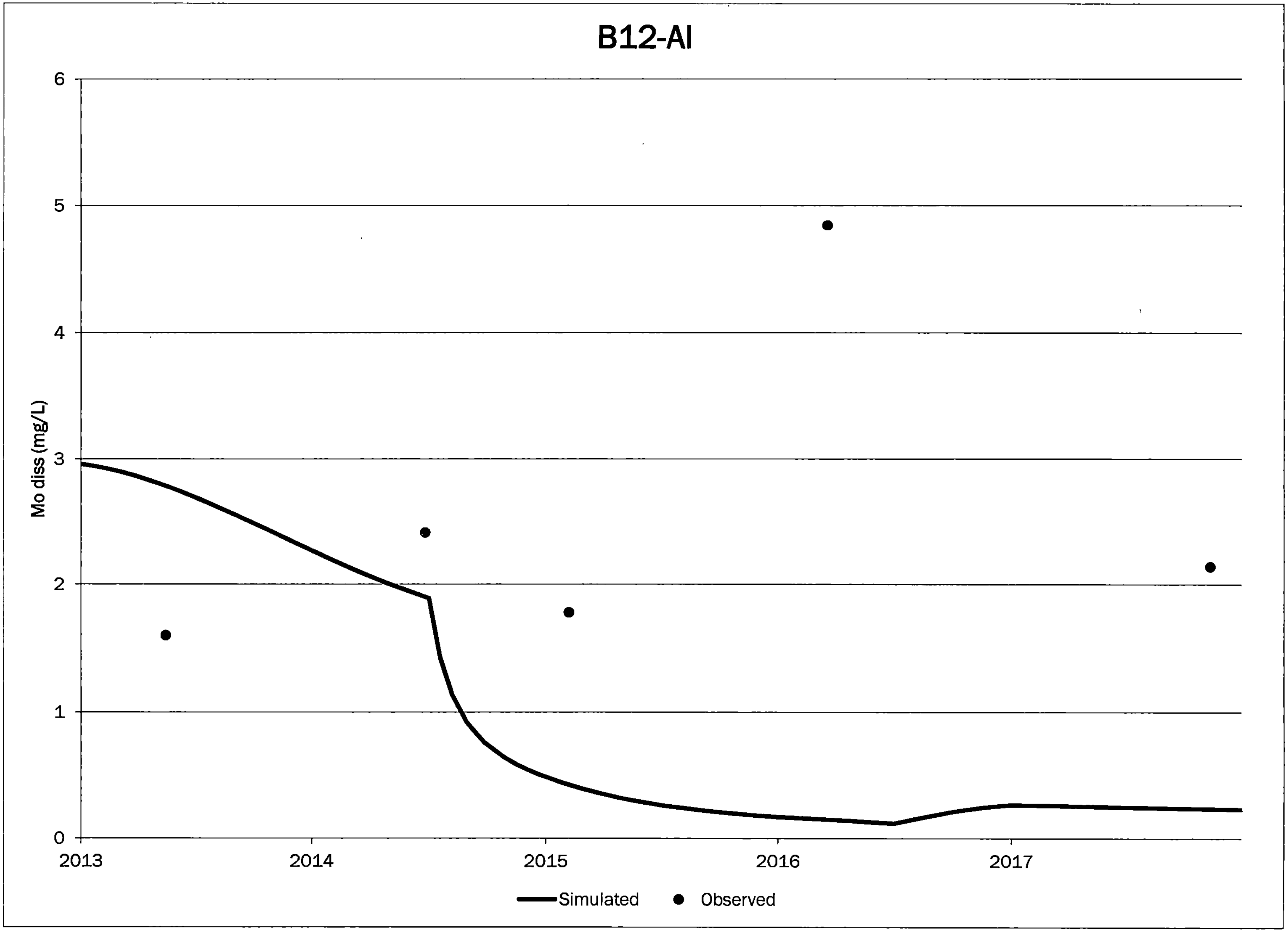

B9-AI
Mo diss (mg/L)
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

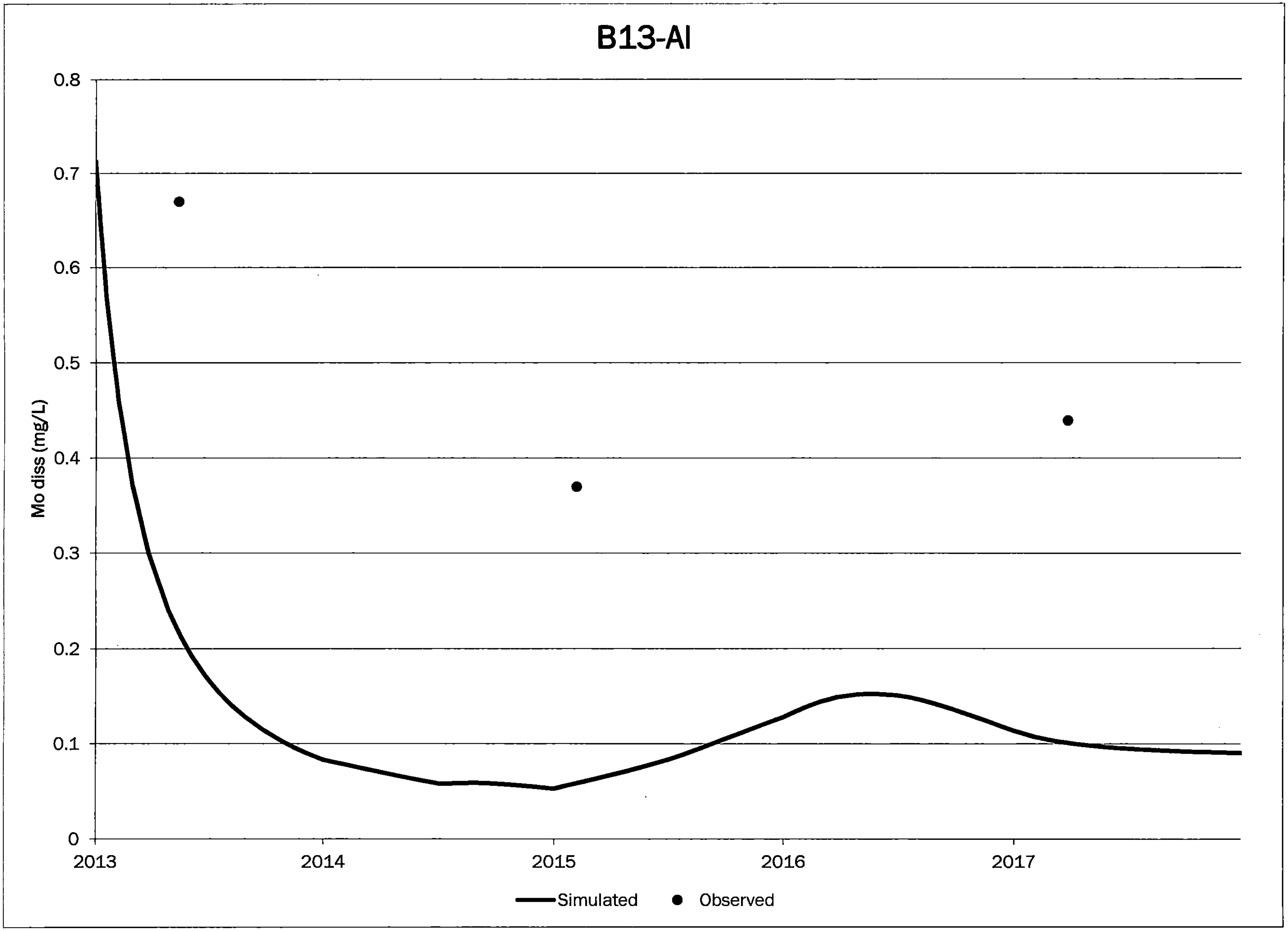


B10-Al
Mo diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

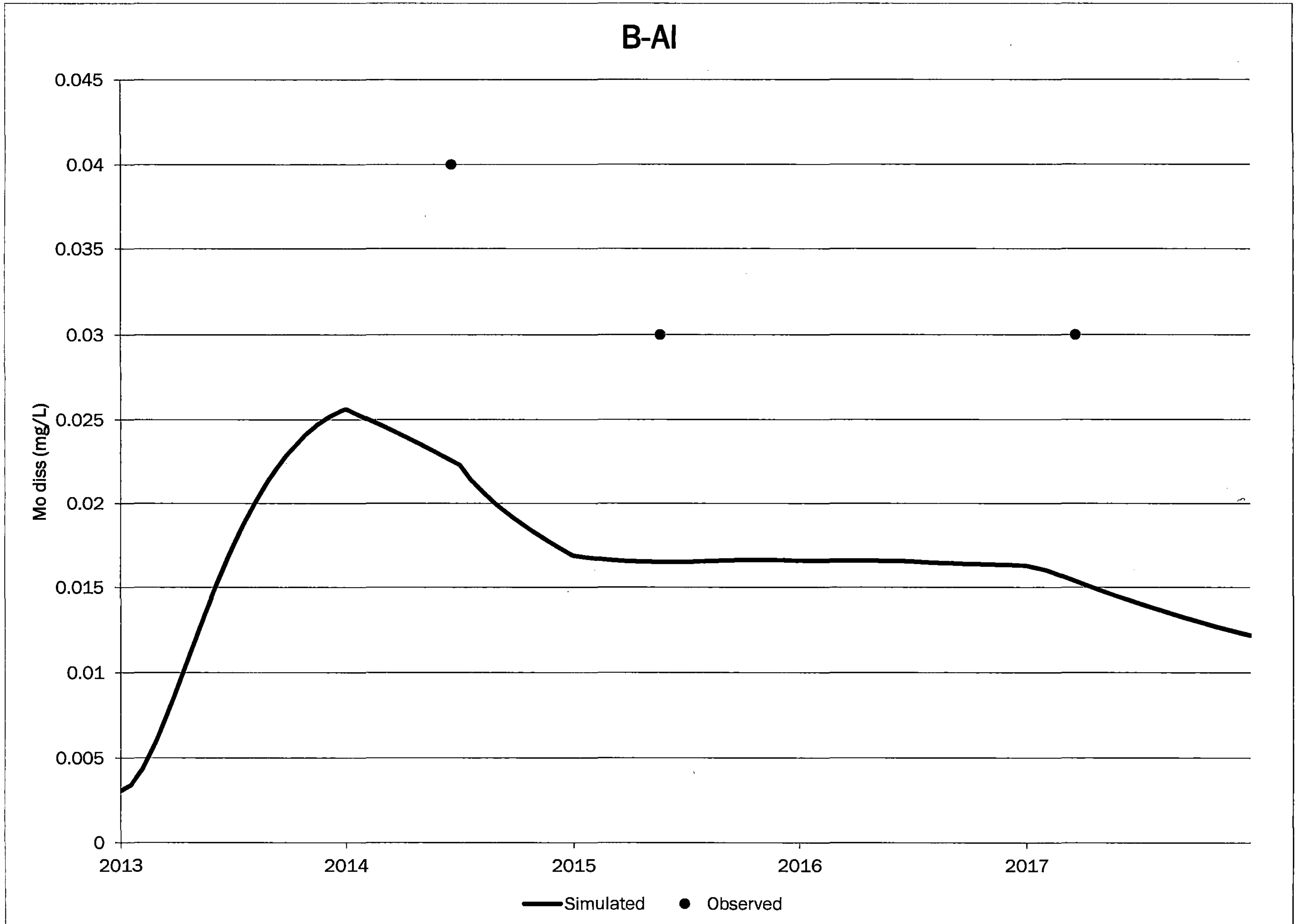


B11-Al
Mo diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

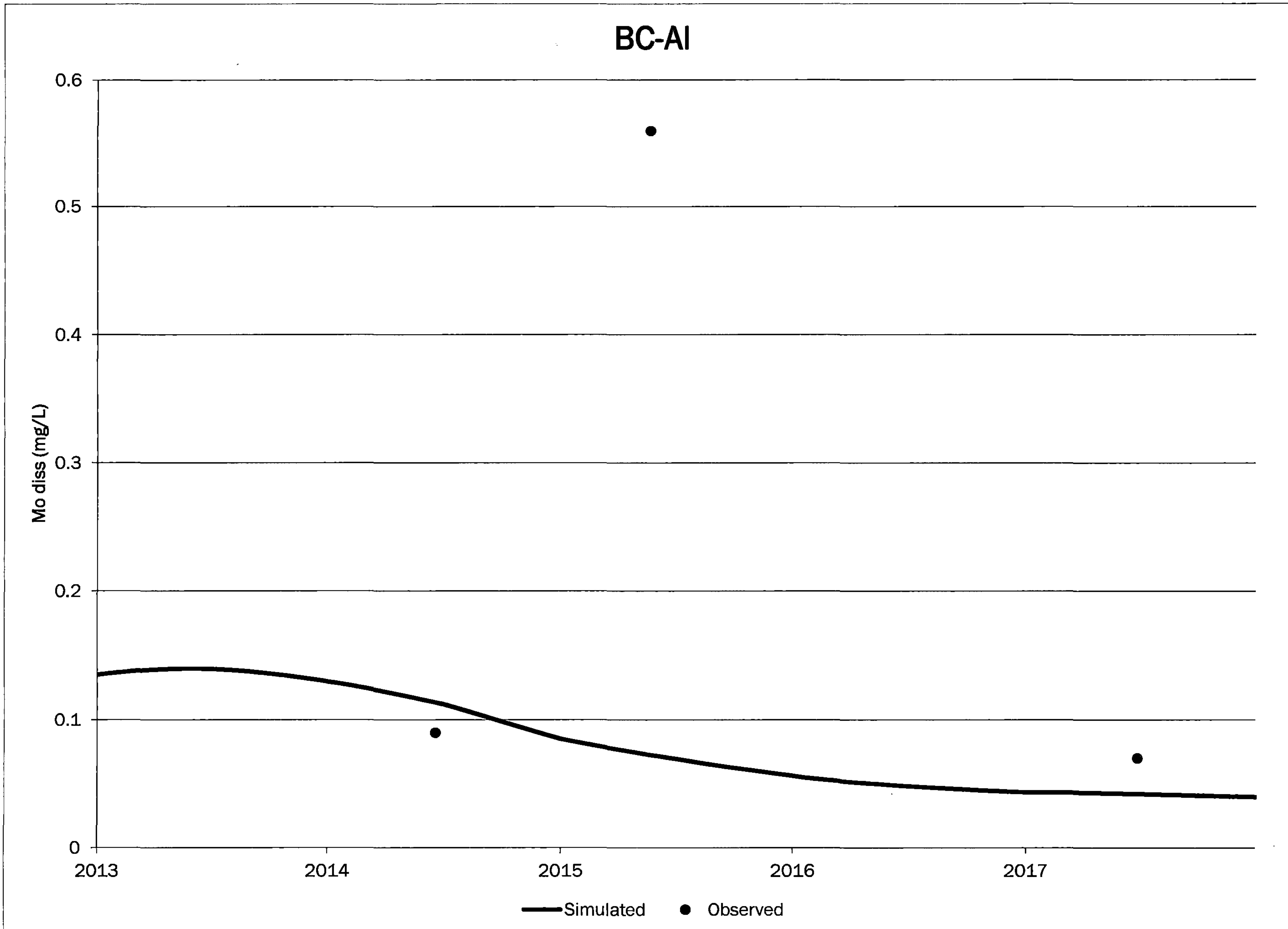

B12-AI
Mo diss (mg/L)
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed

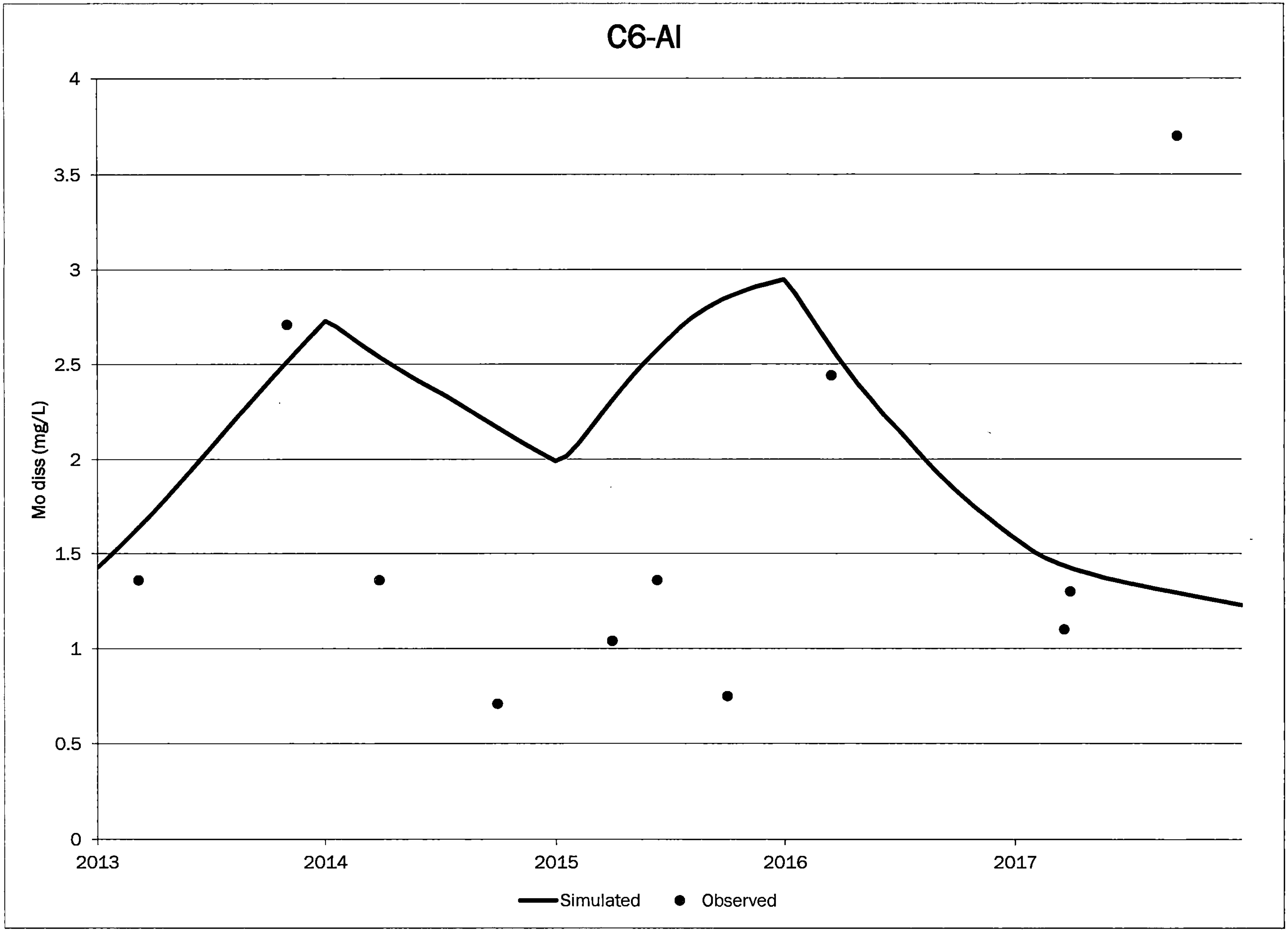


B13-Al
Mo diss (mg/L)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

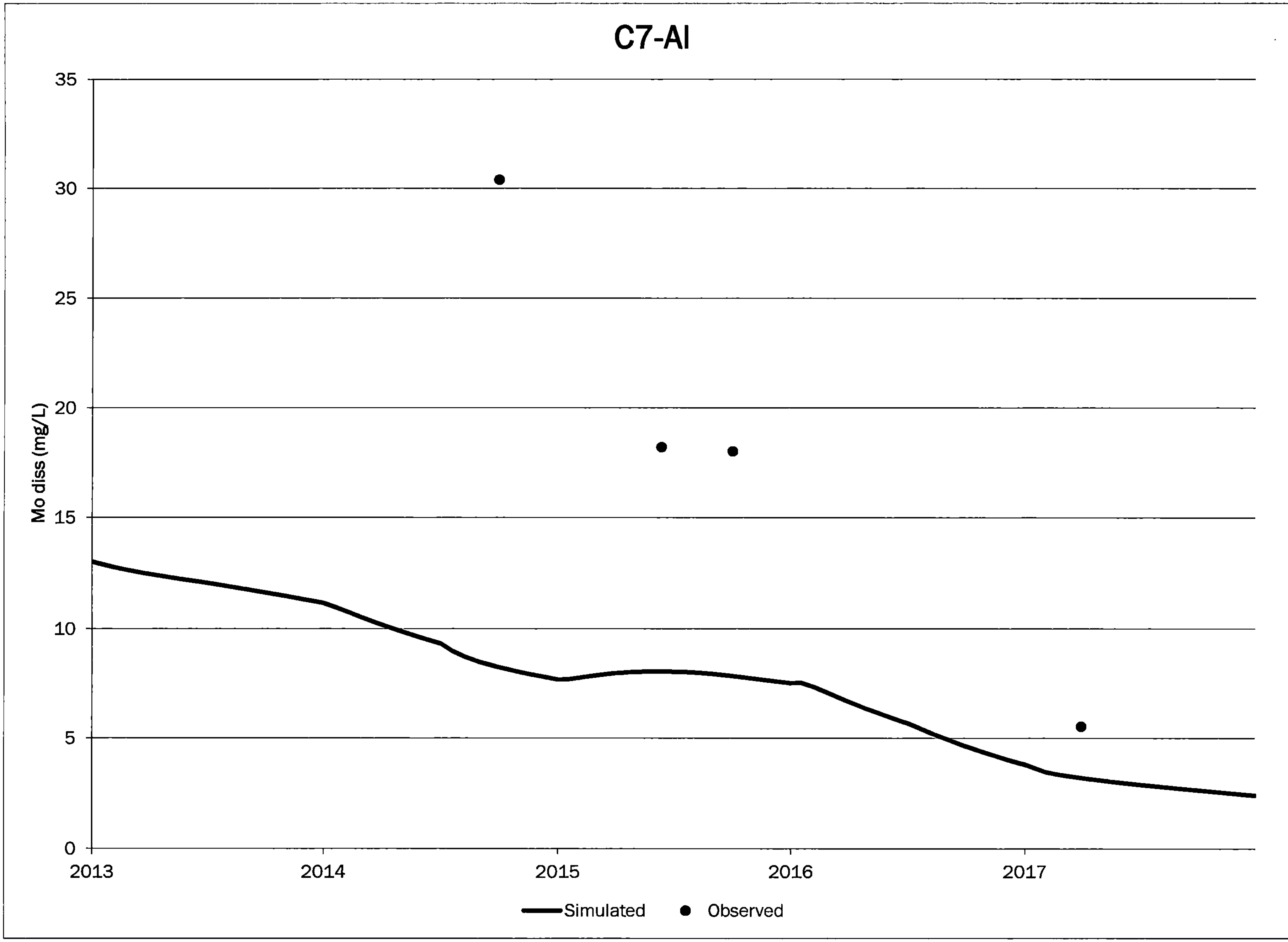


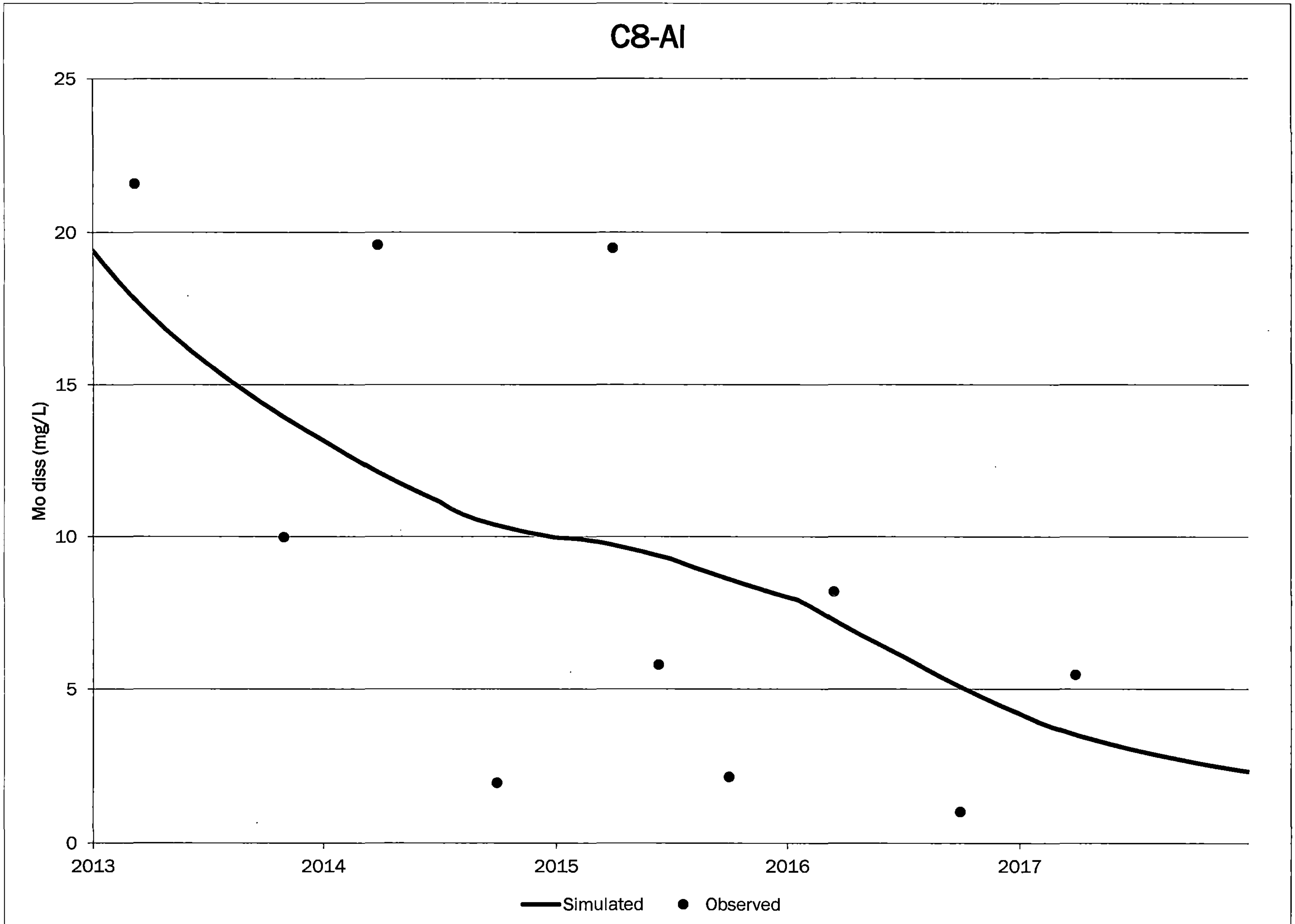
B-Al
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

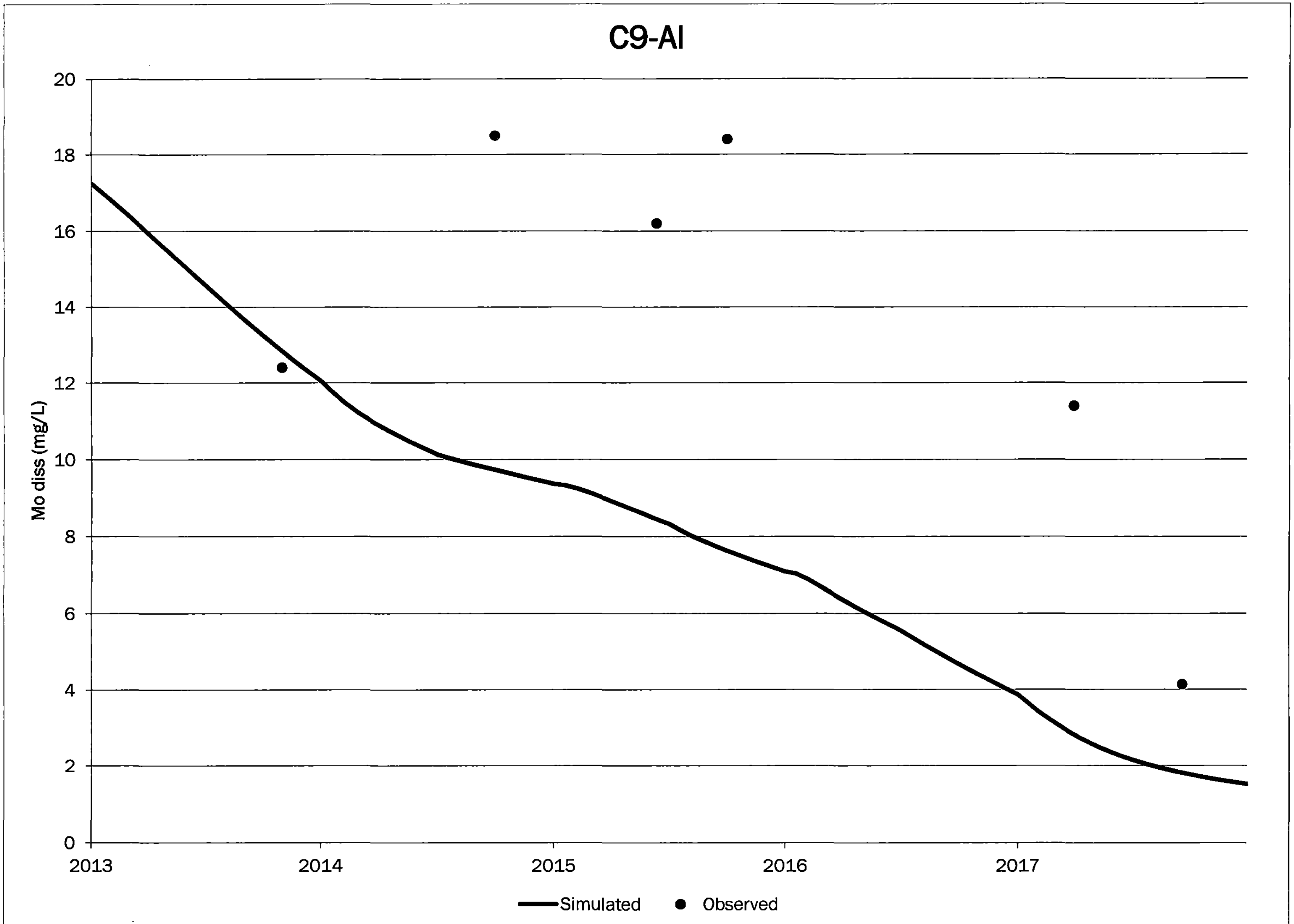

BC-AI
0.6
0.5
0.4
0.3
0.2
0.1
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



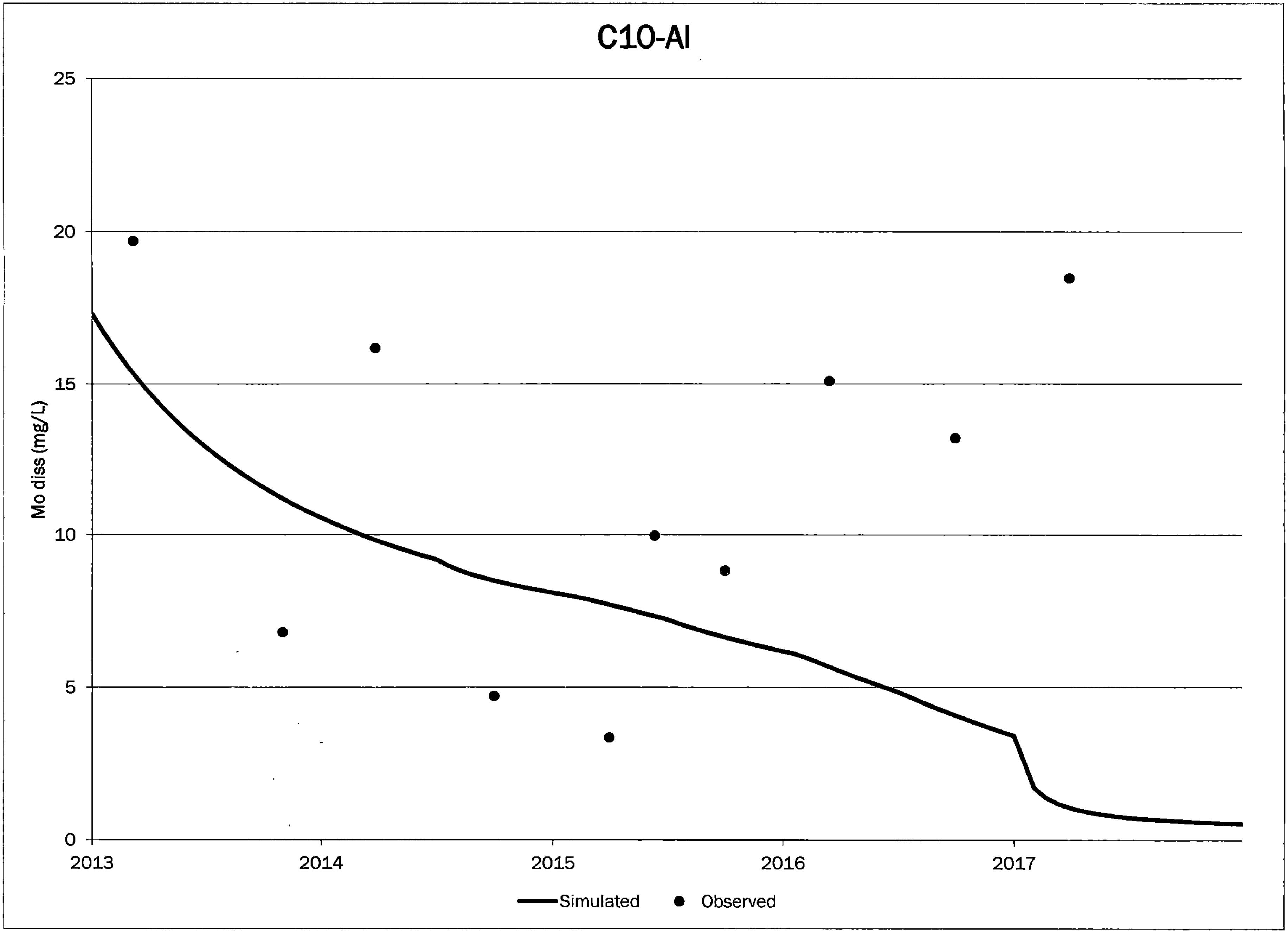
C6-Al
Mo diss (mg/L)
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

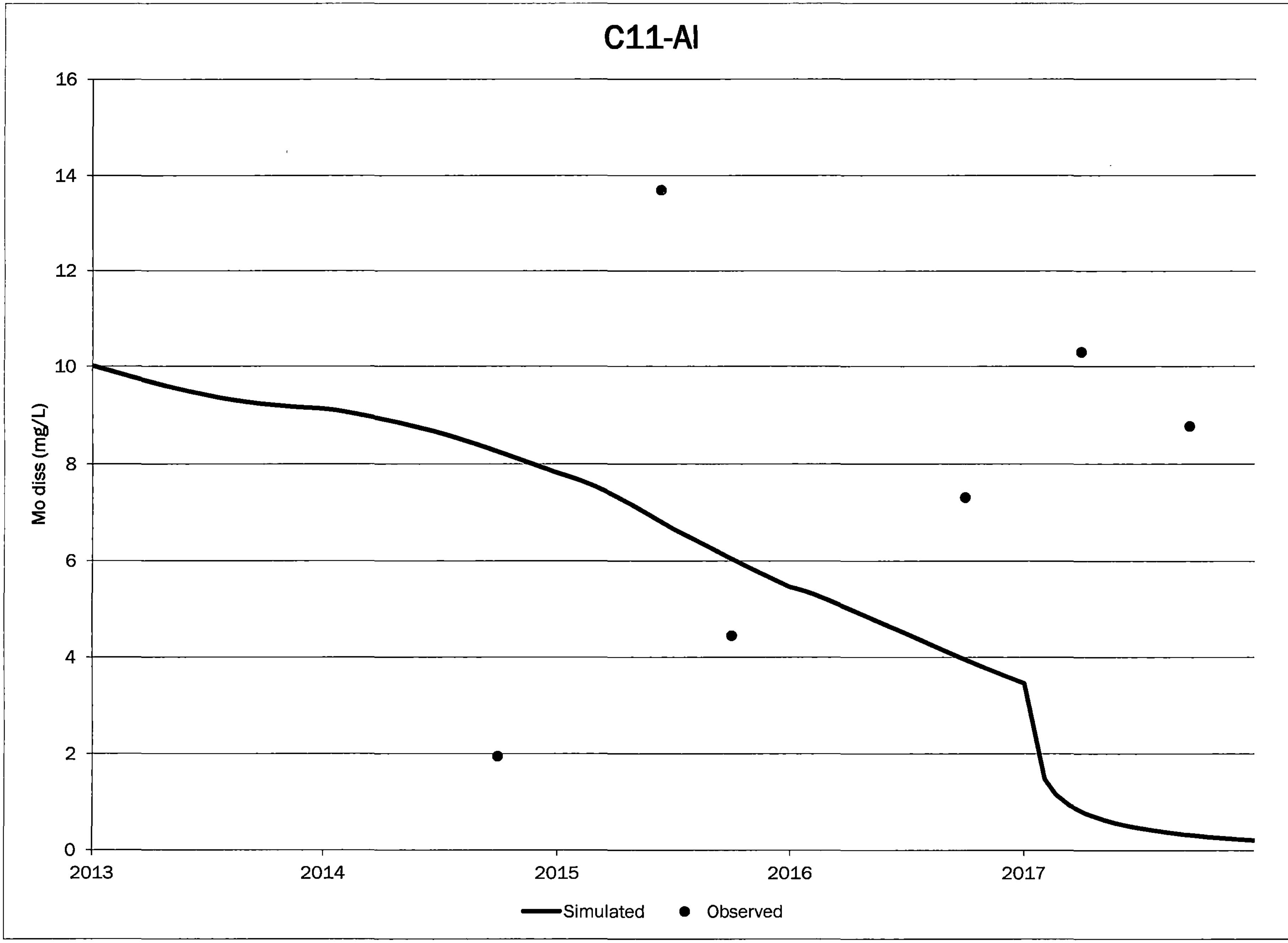

C7-Al
Mo diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed


C8-Al
Mo diss (mg/L)
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

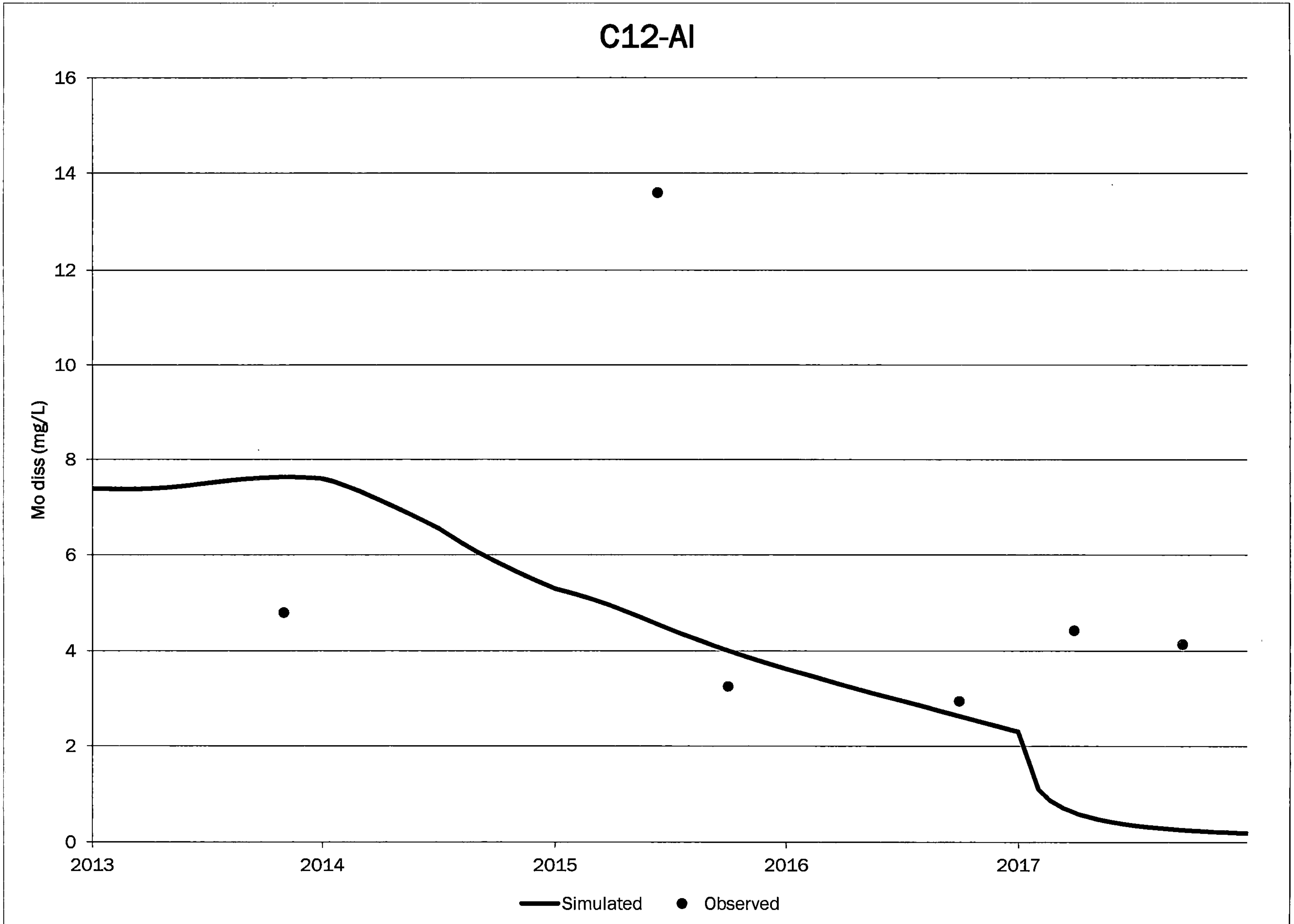


C9-Al
Mo diss (mg/L)
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

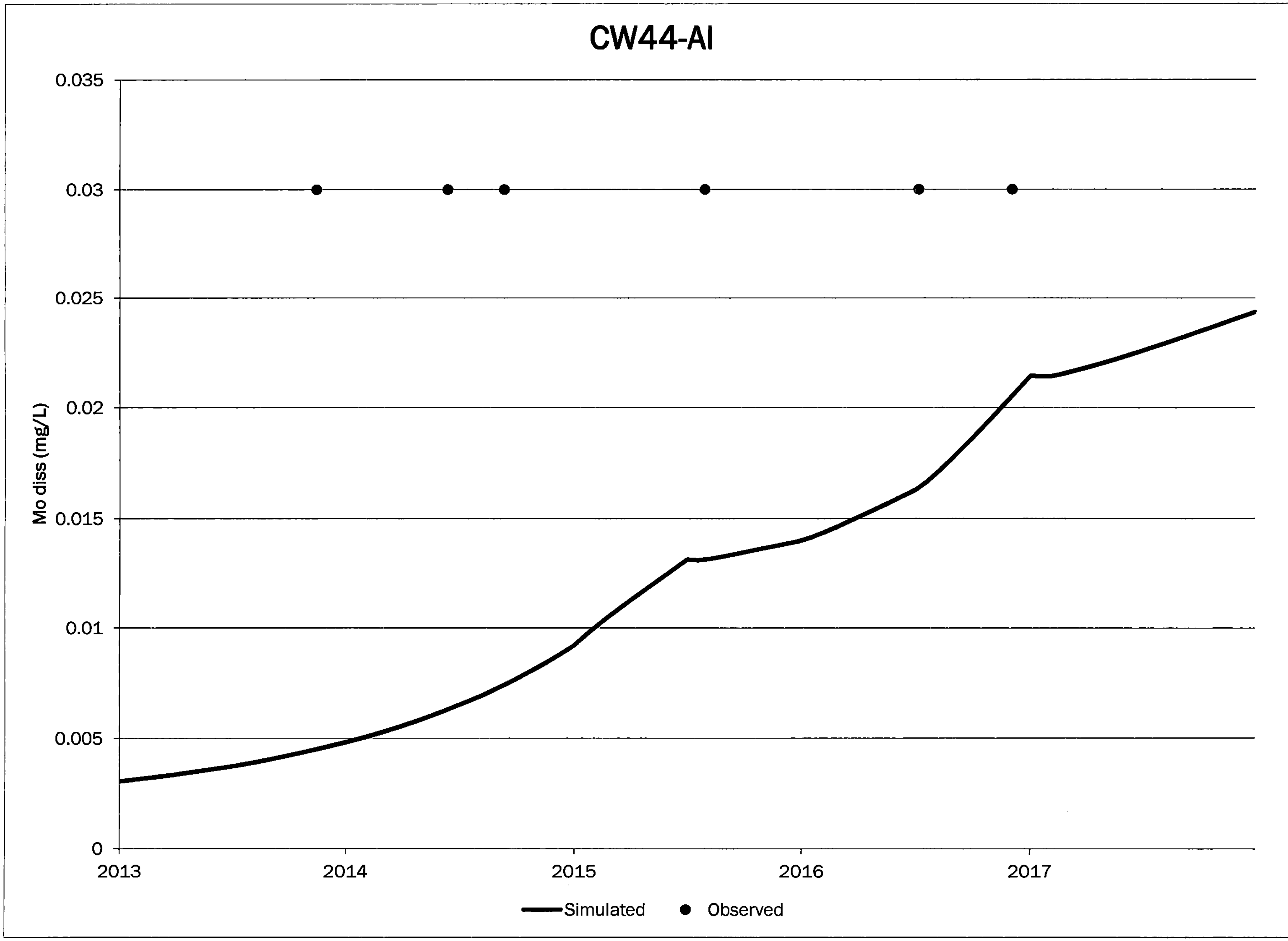

C10-AI
Mo diss (mg/L)
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



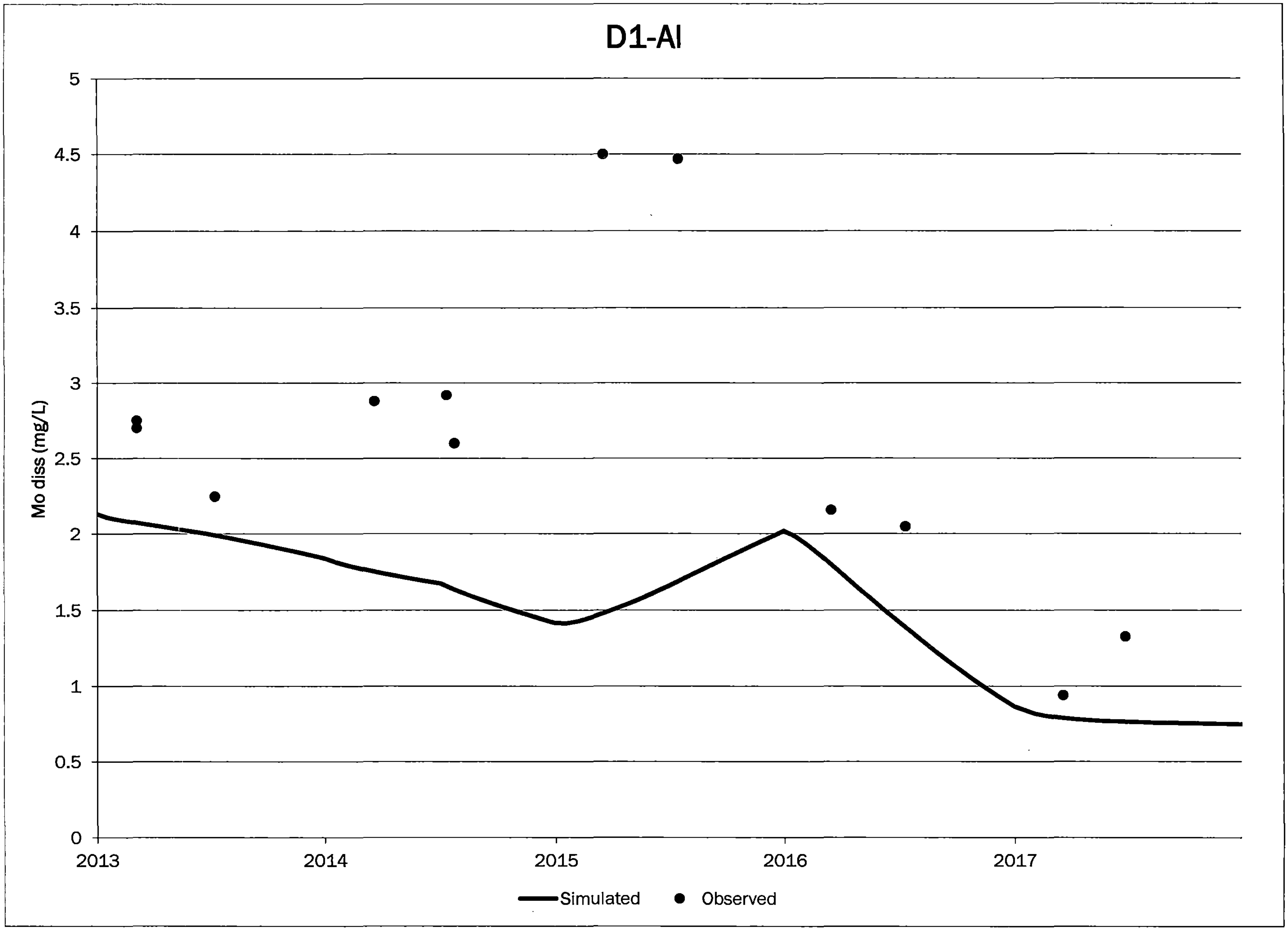
C11-Al
Mo diss (mg/L)
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

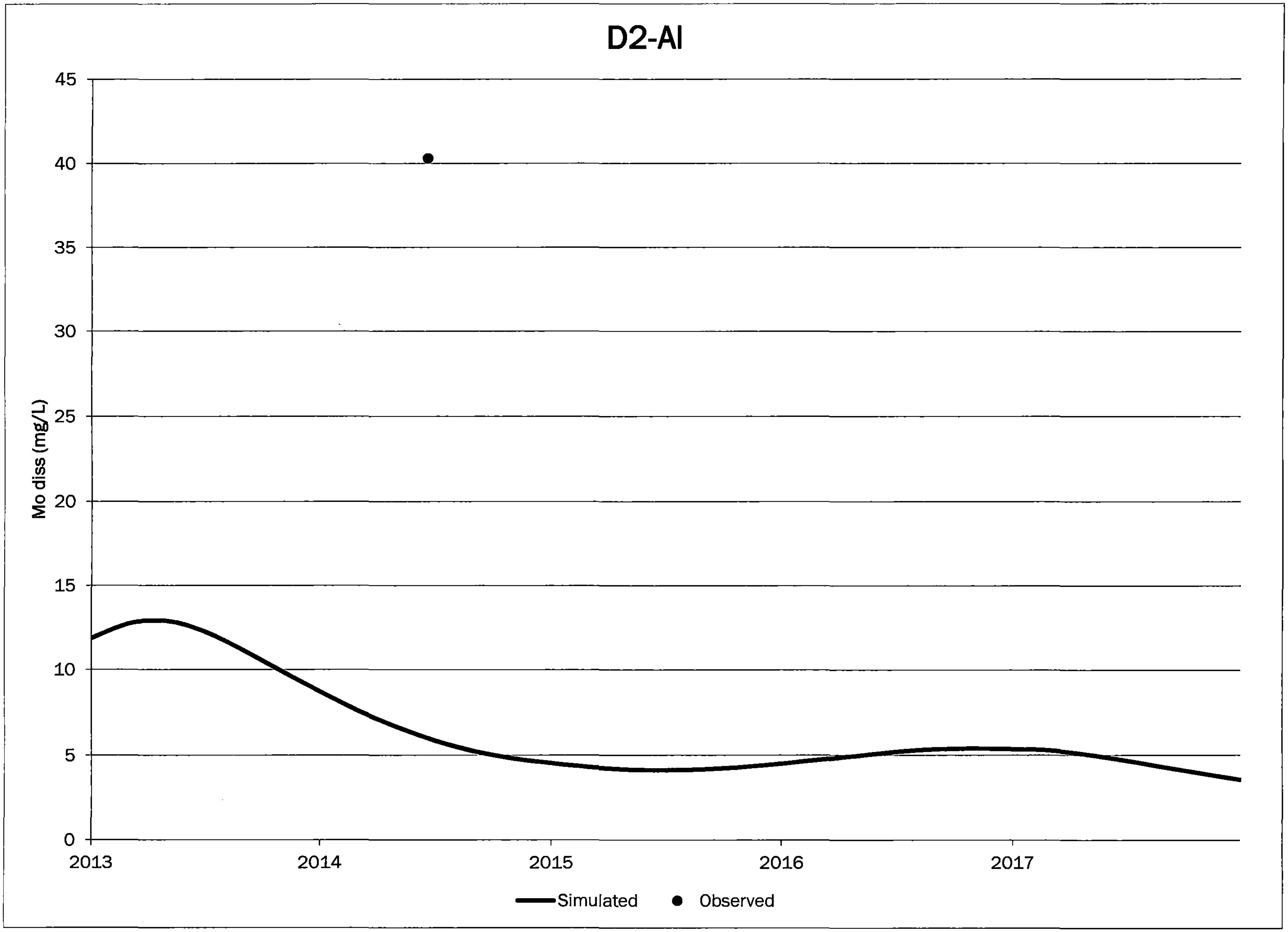


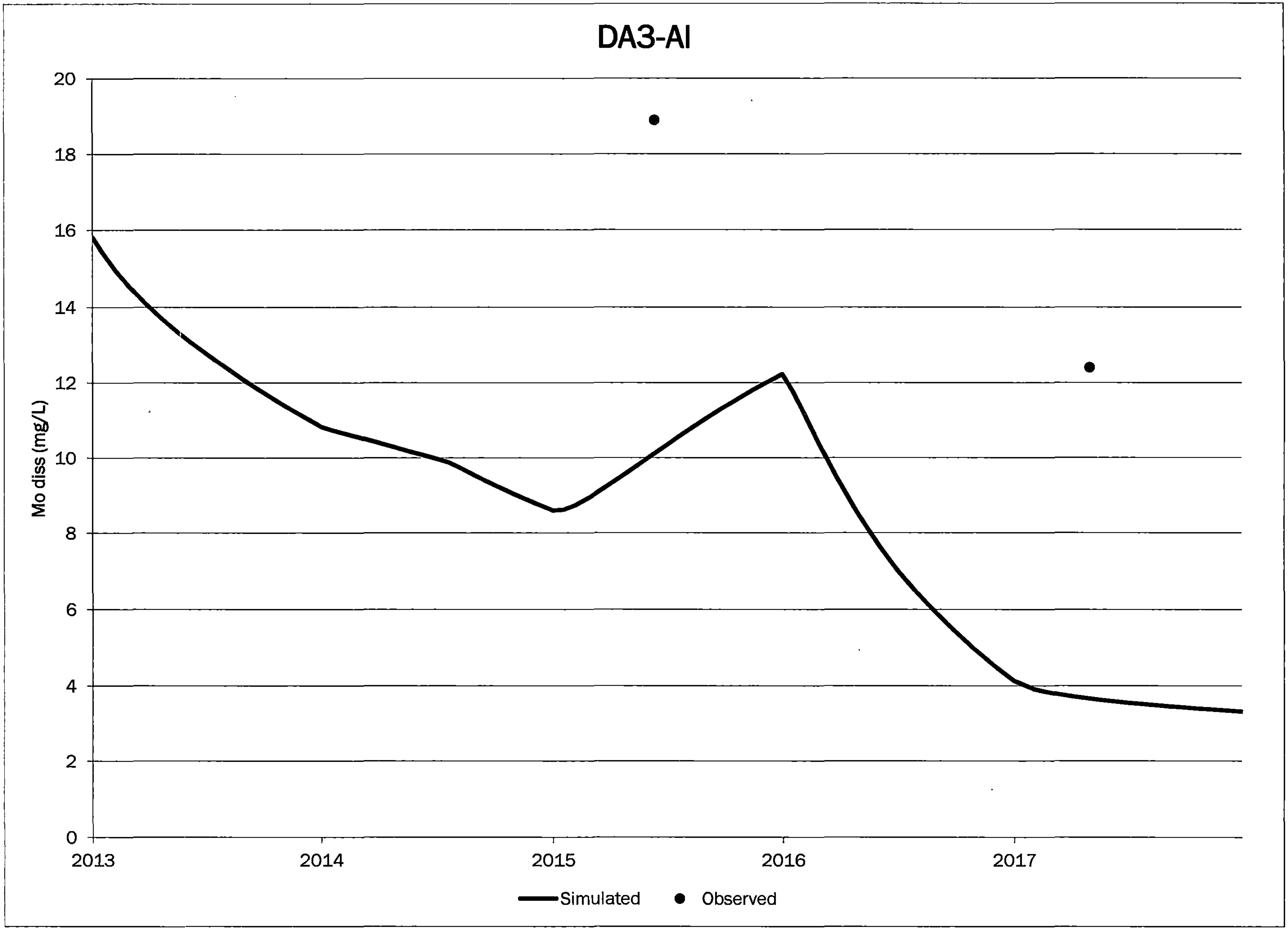
C12-Al
Mo diss (mg/L)
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

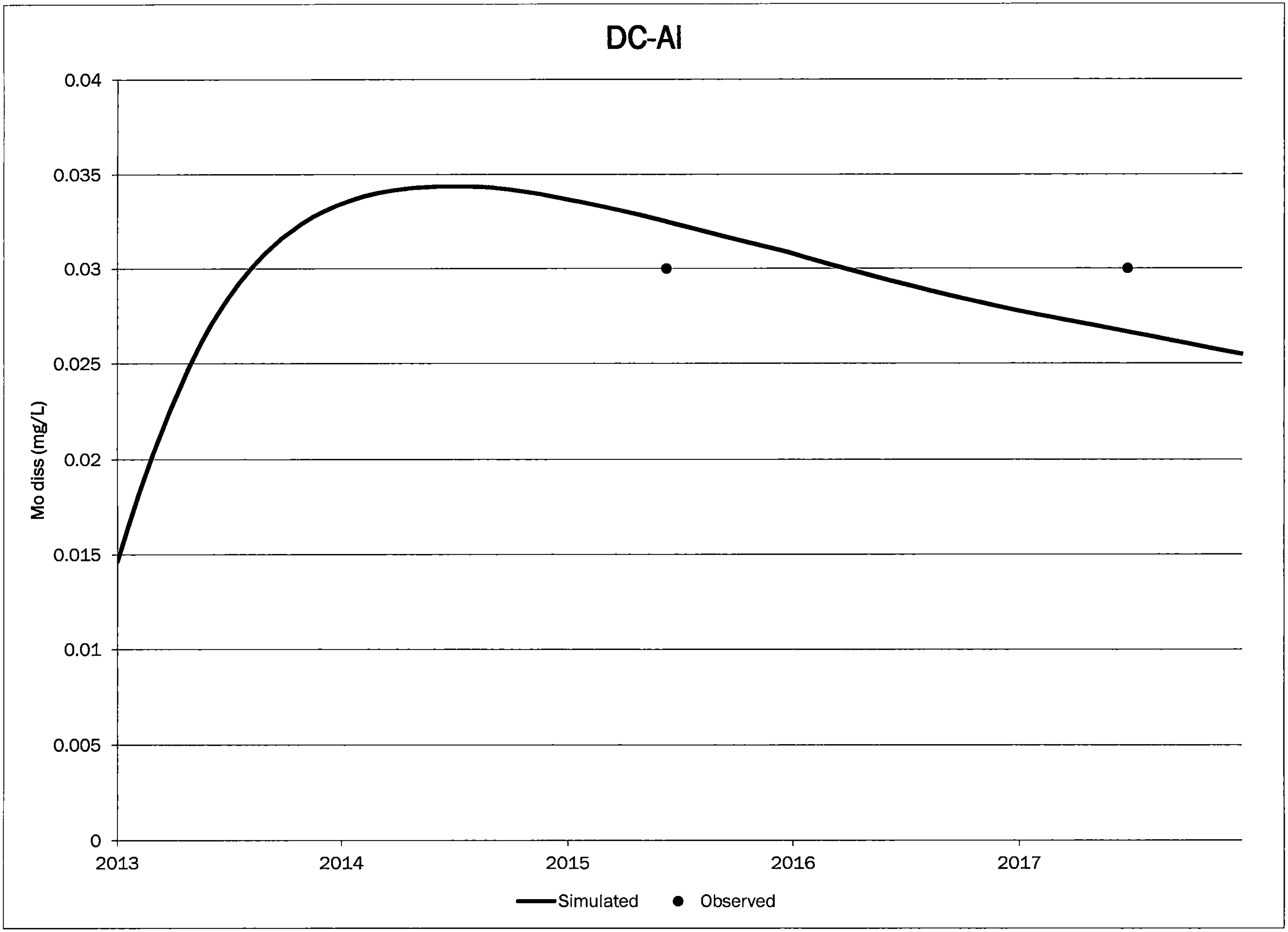


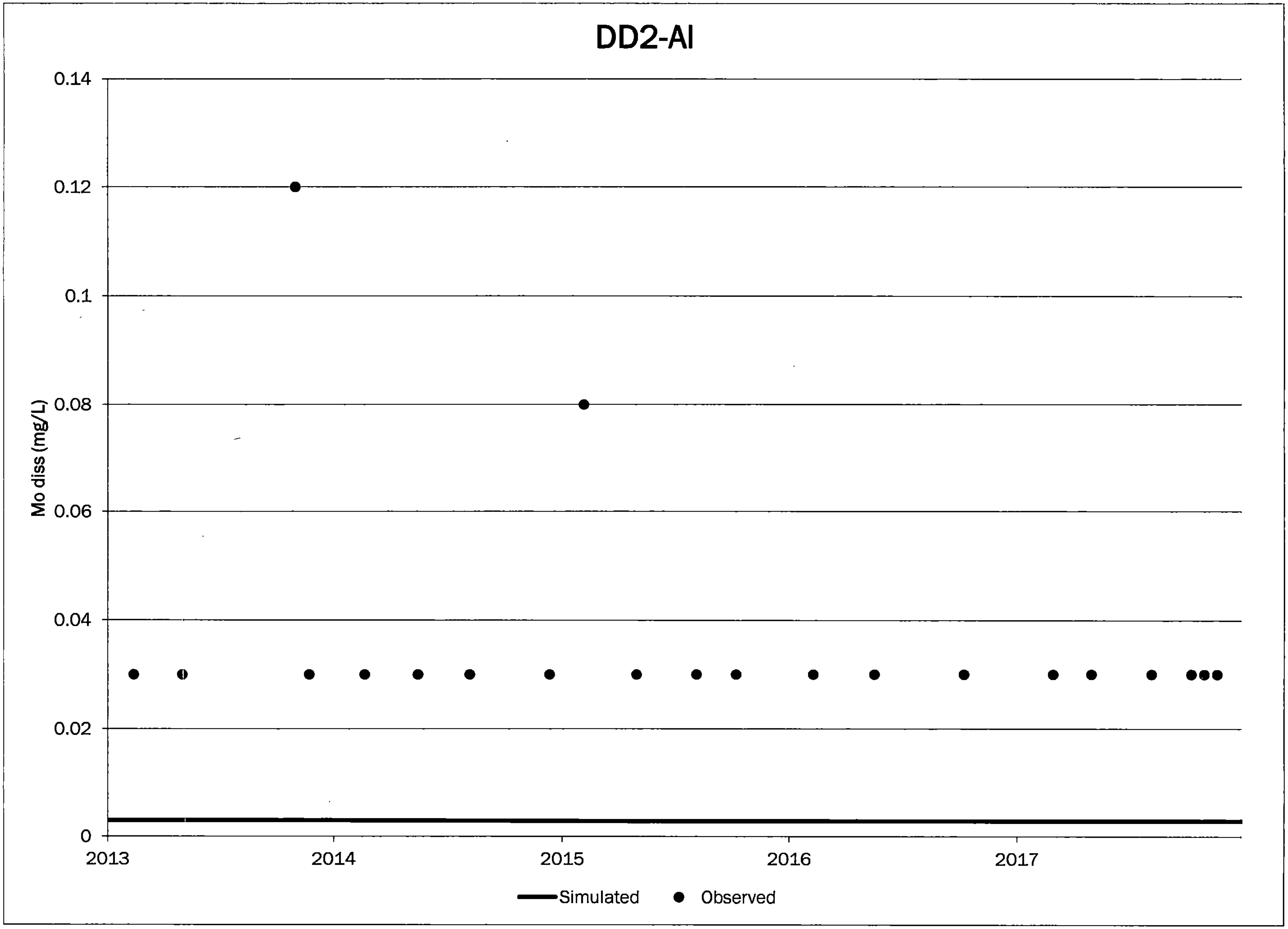
CW44-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

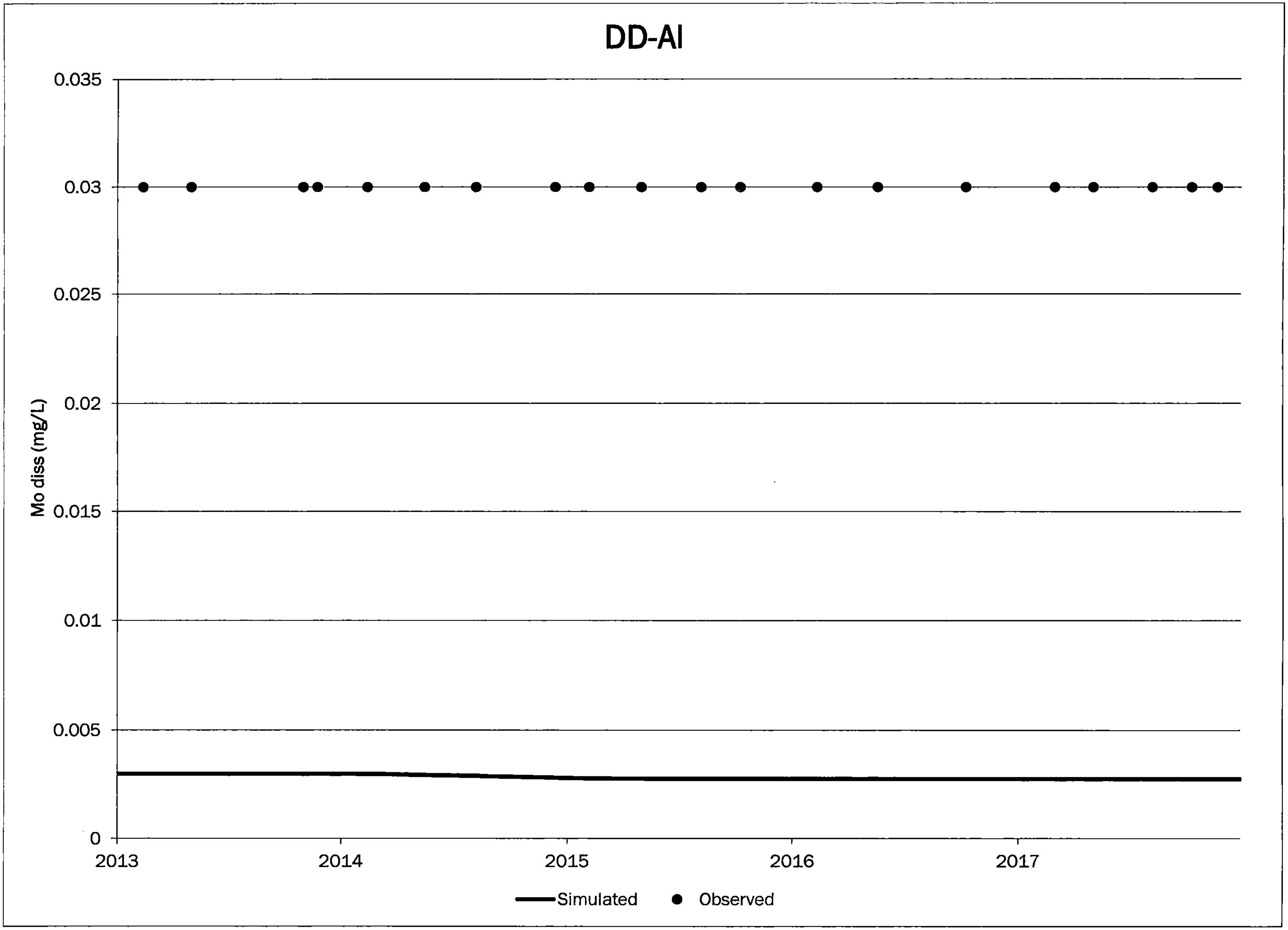

D1-Al
Mo diss (mg/L)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

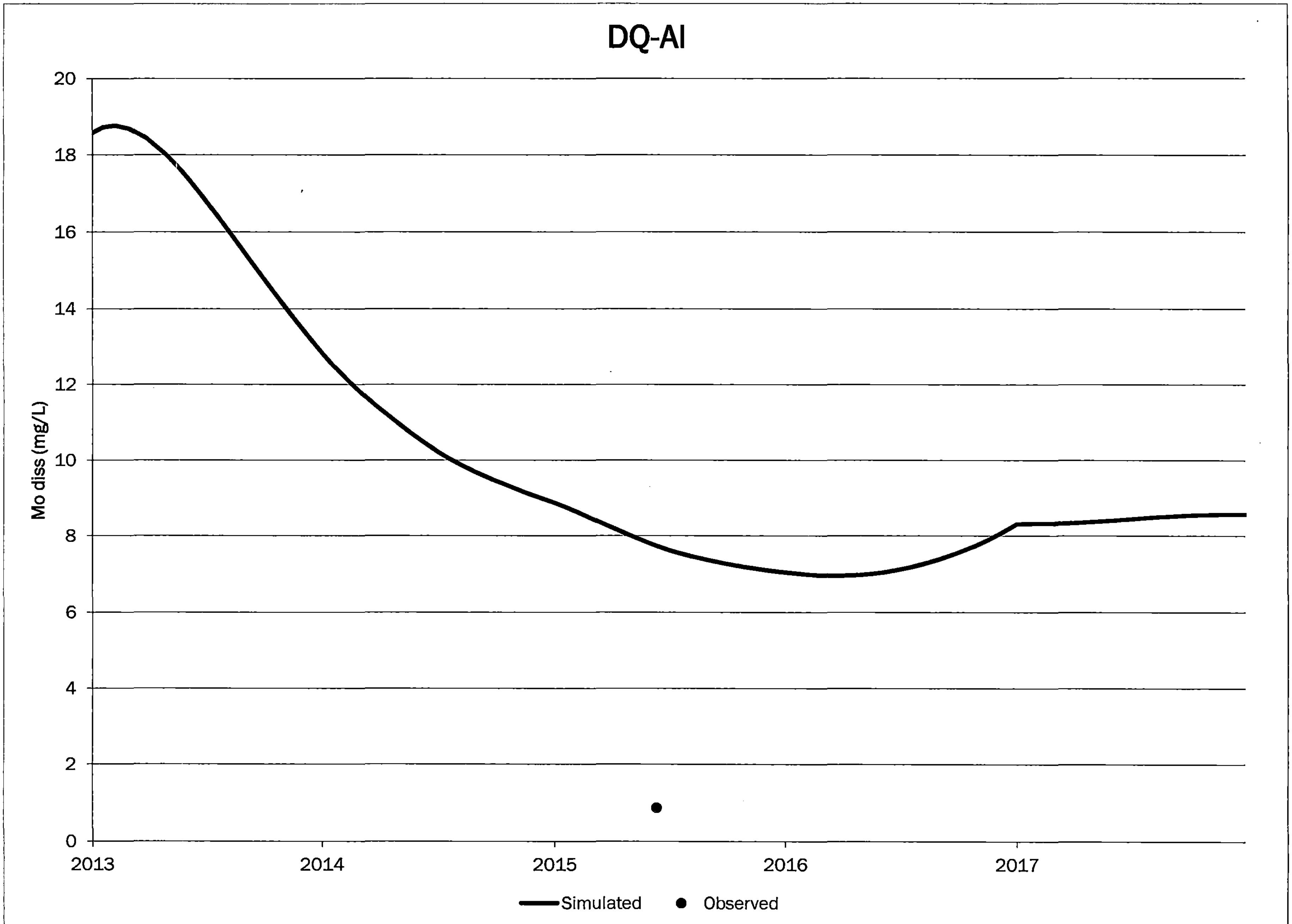

D2-AI
Mo diss (mg/L)
45
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

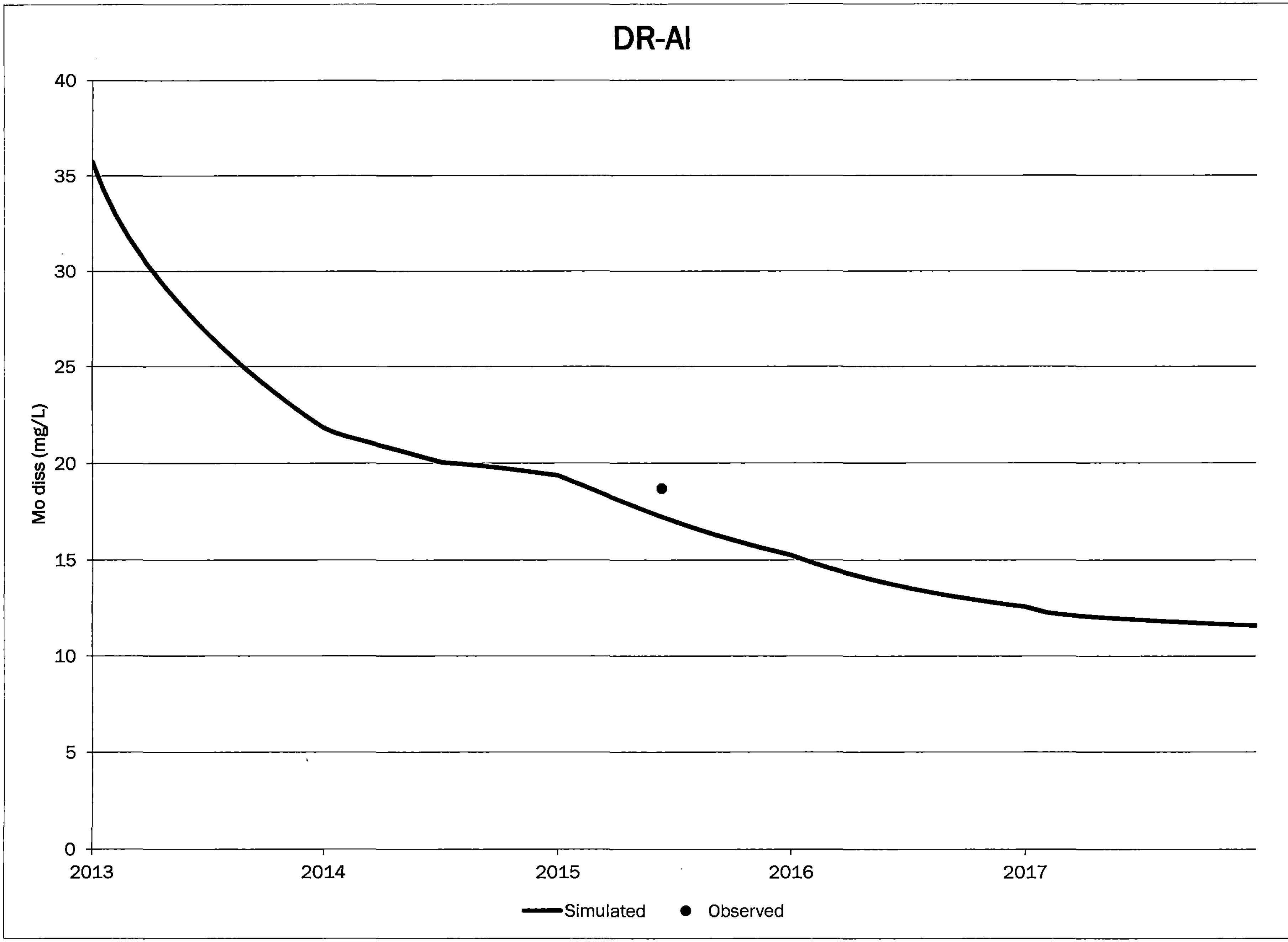

DA3-Al
Mo diss (mg/L)
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed


DC-AI
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

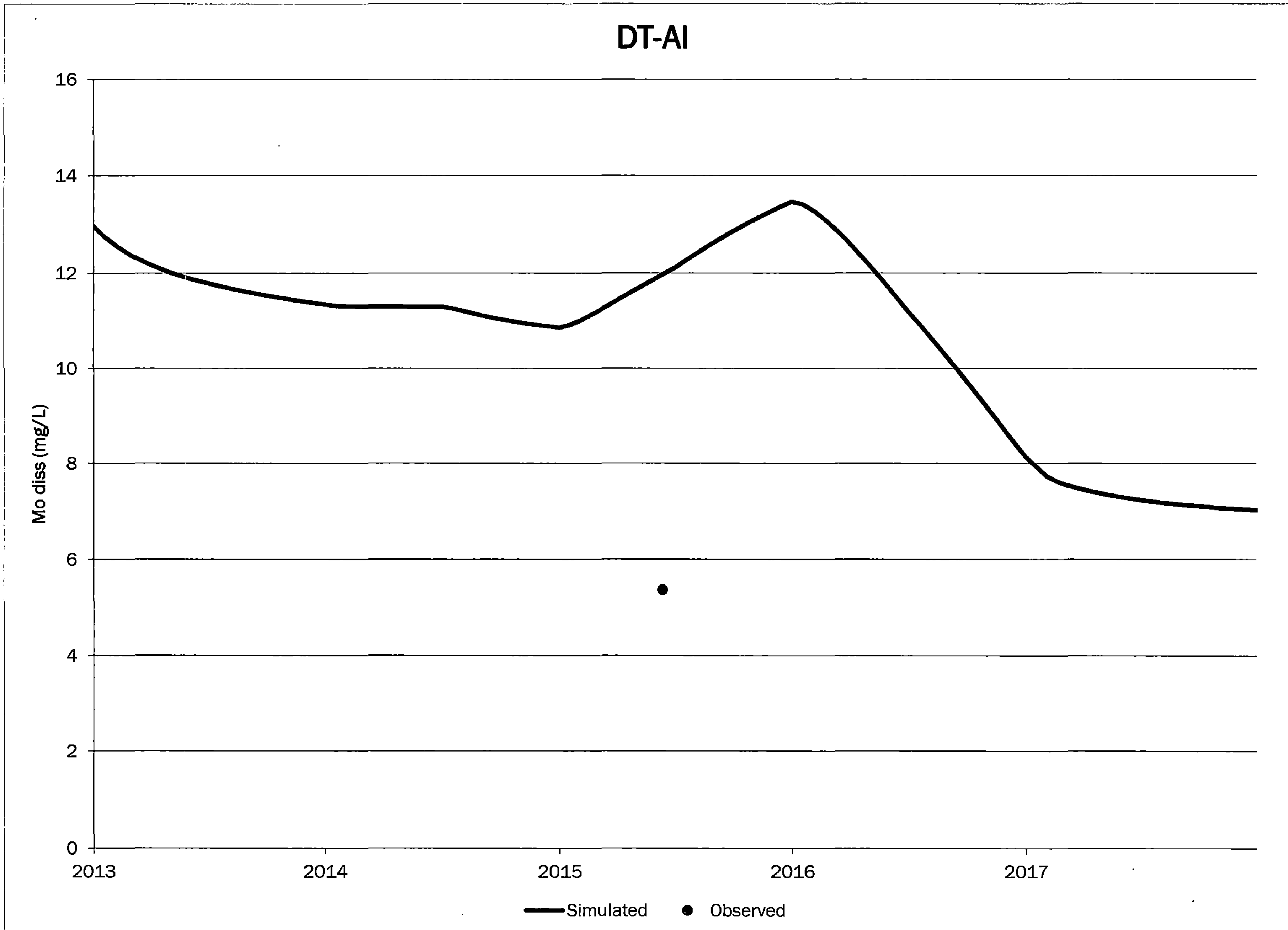

DD2-AI
Mo diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

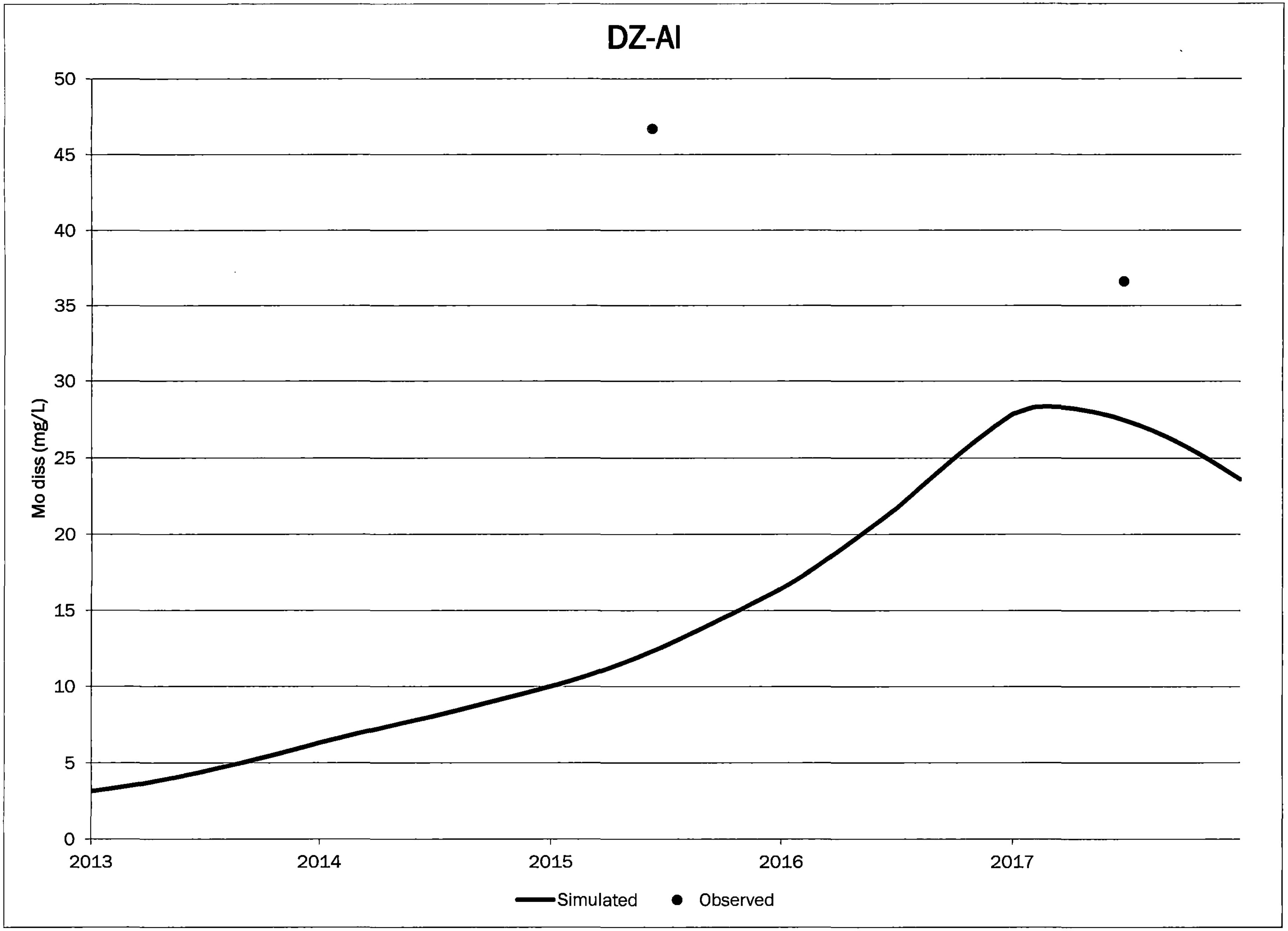

DD-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

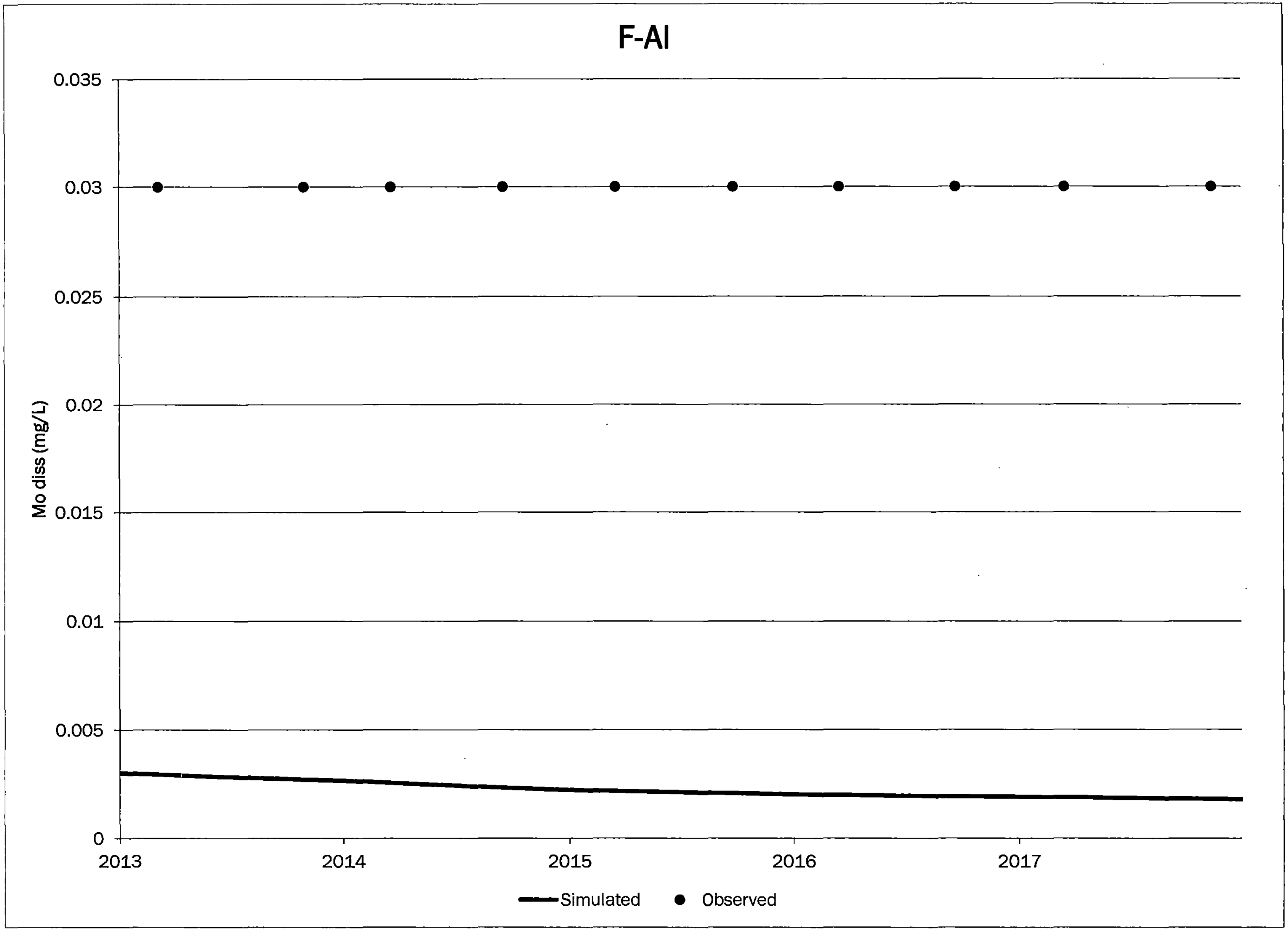

DQ-AI
Mo diss (mg/L)
0
2
4
6
8
10
12
14
16
18
20
2013
2014
2015
2016
2017
Simulated
Observed



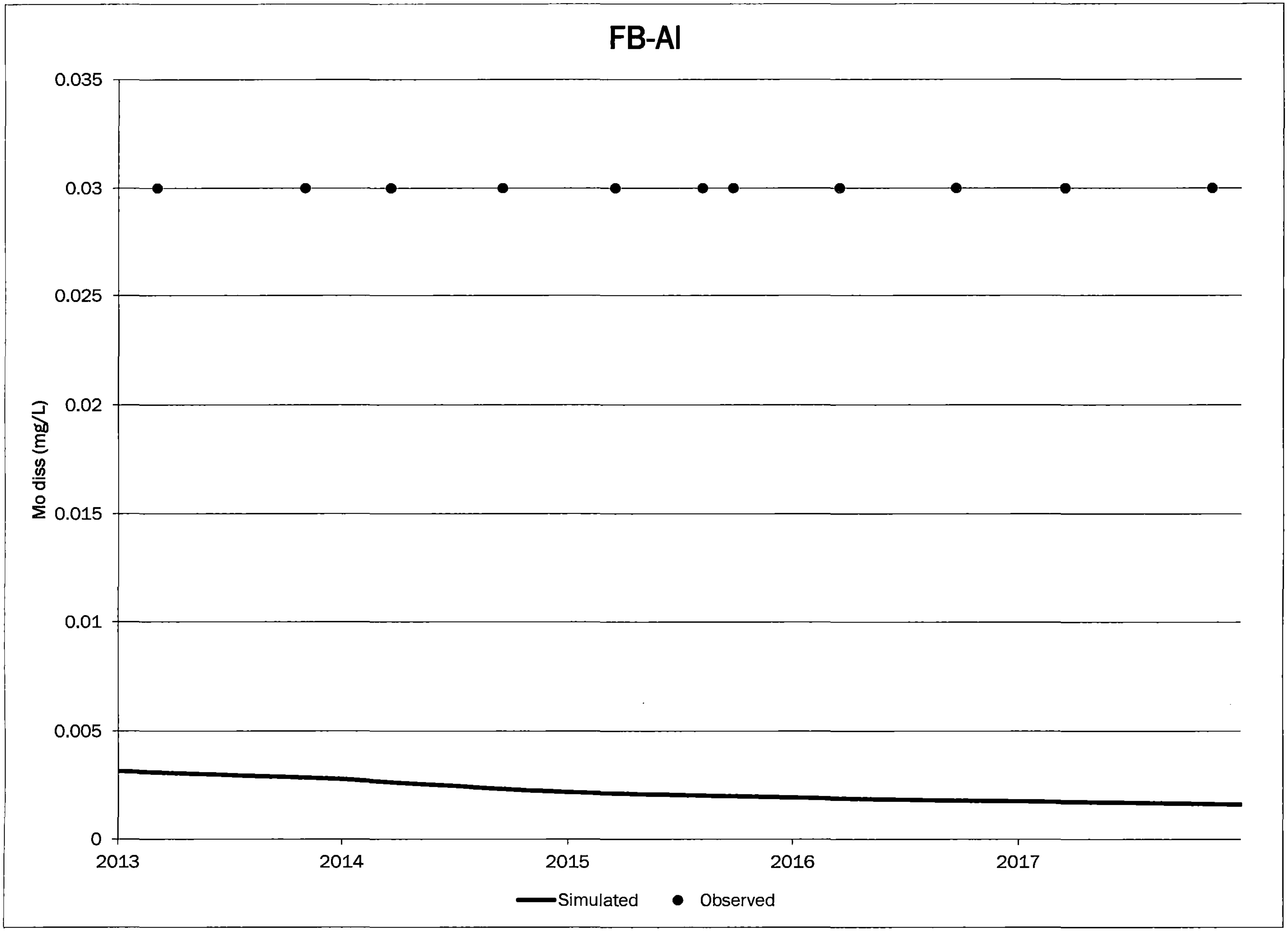
DR-AI
Mo diss (mg/L)
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

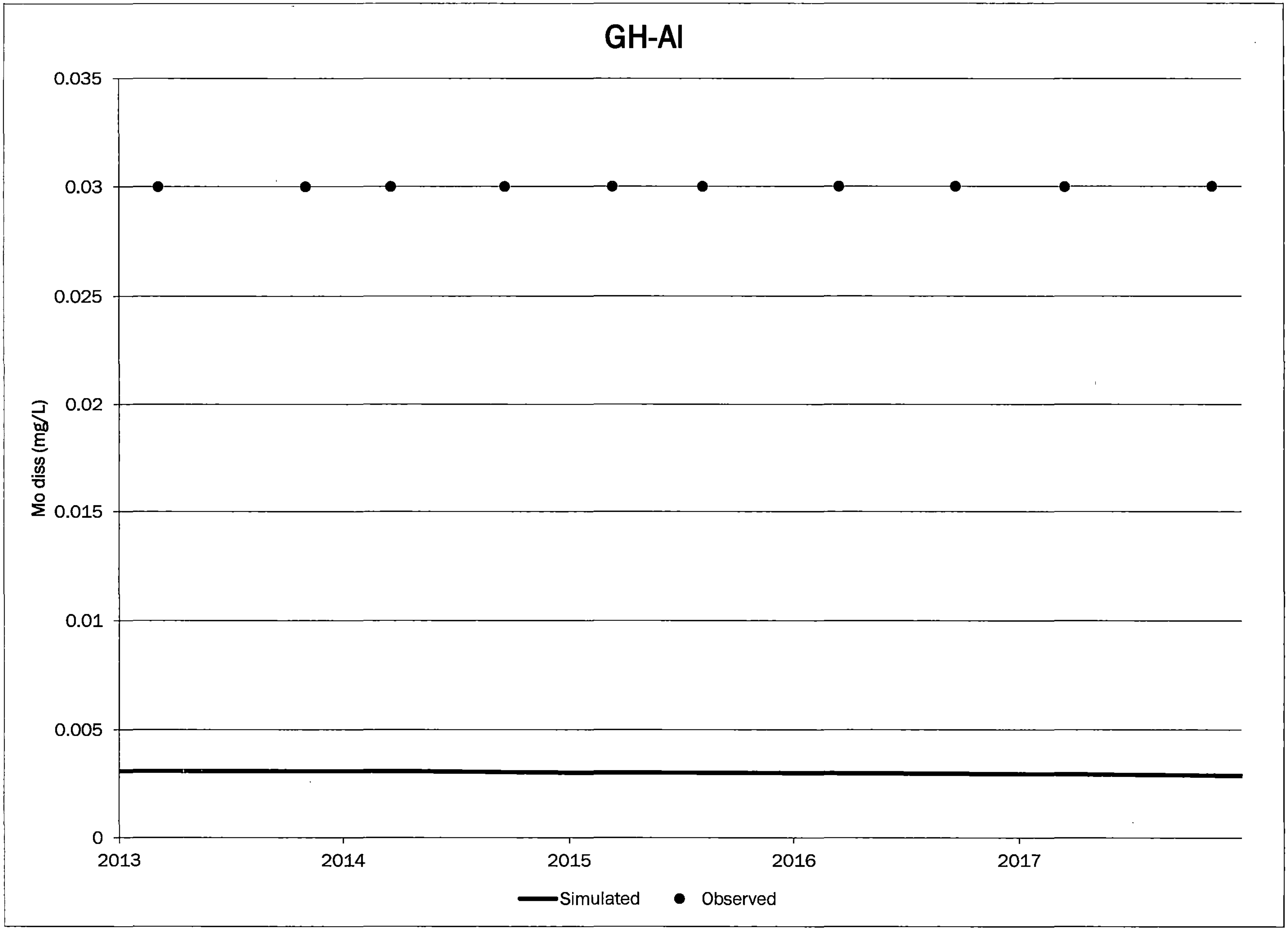

DT-Al
Mo diss (mg/L)
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

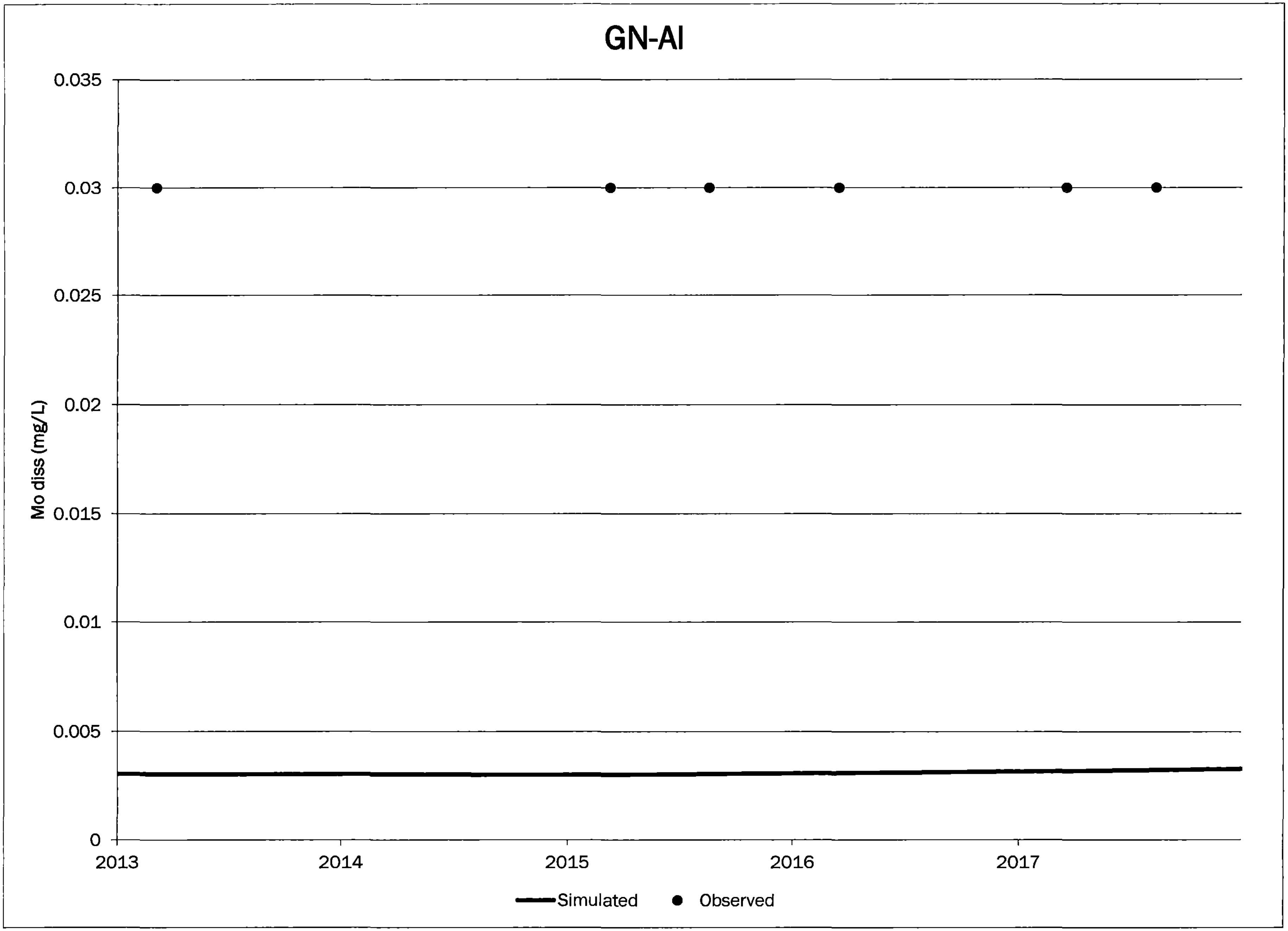

DZ-AI
Mo diss (mg/L)
0
5
10
15
20
25
30
35
40
45
50
2013
2014
2015
2016
2017
Simulated
Observed

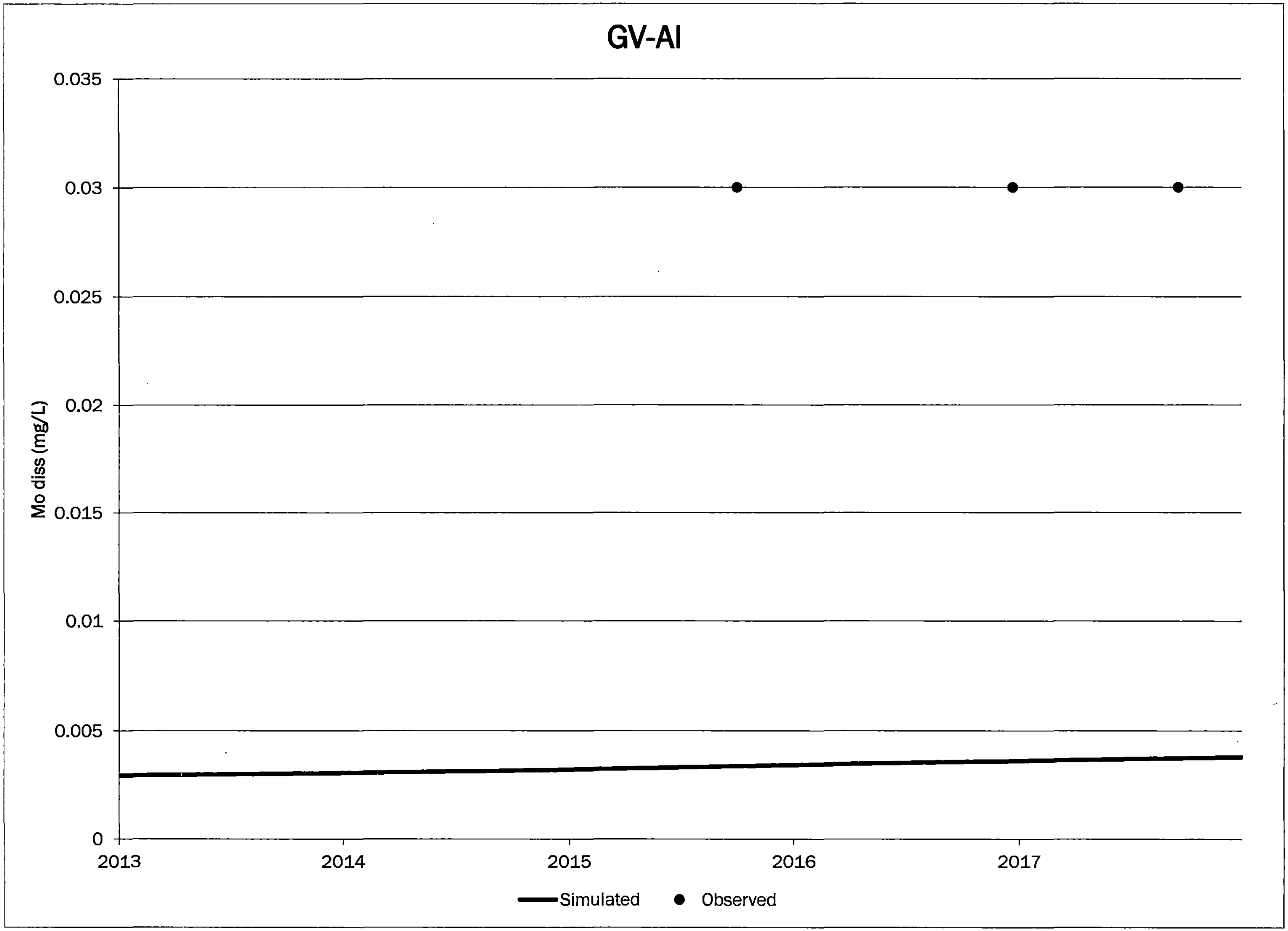


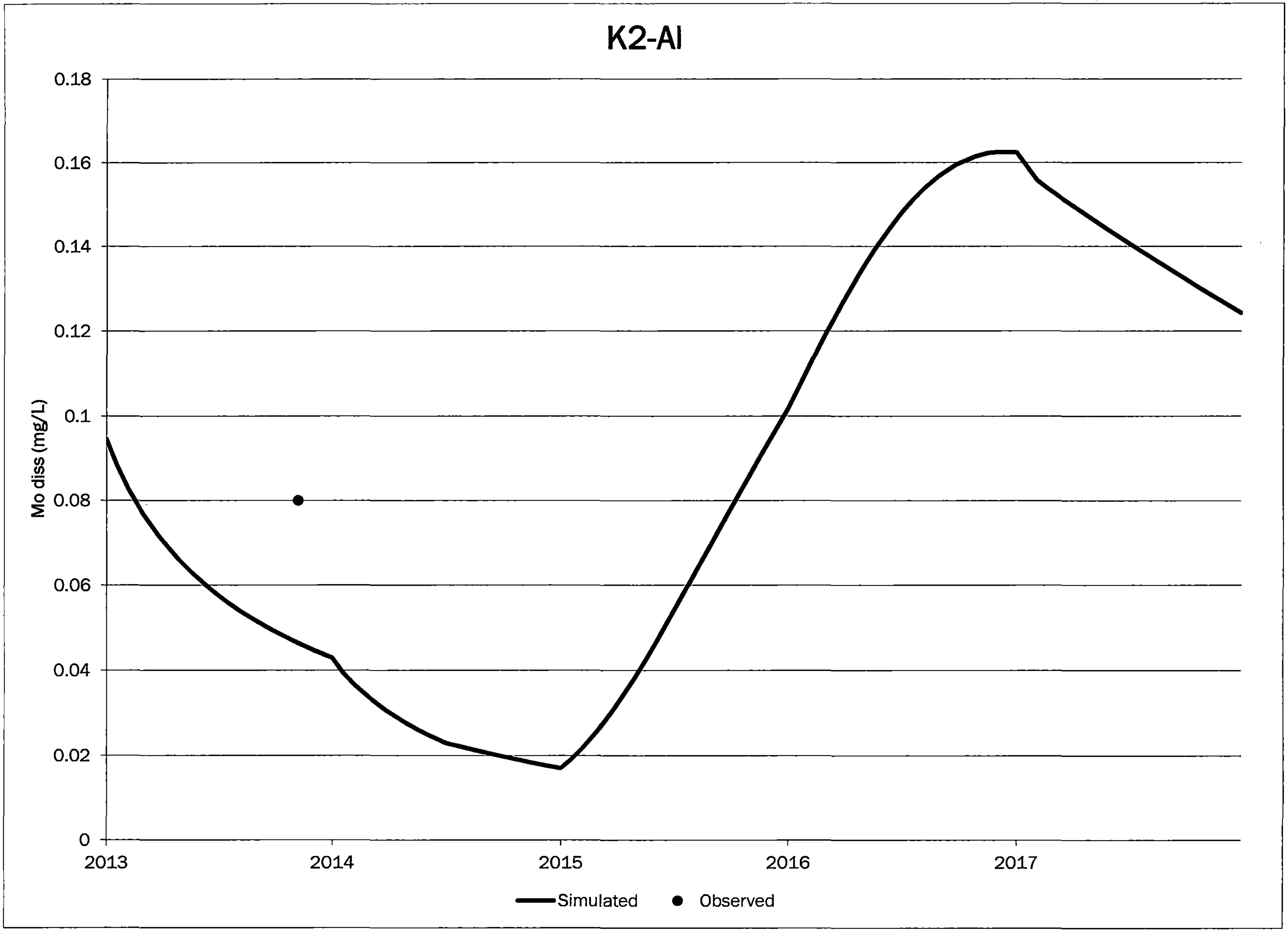
F-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

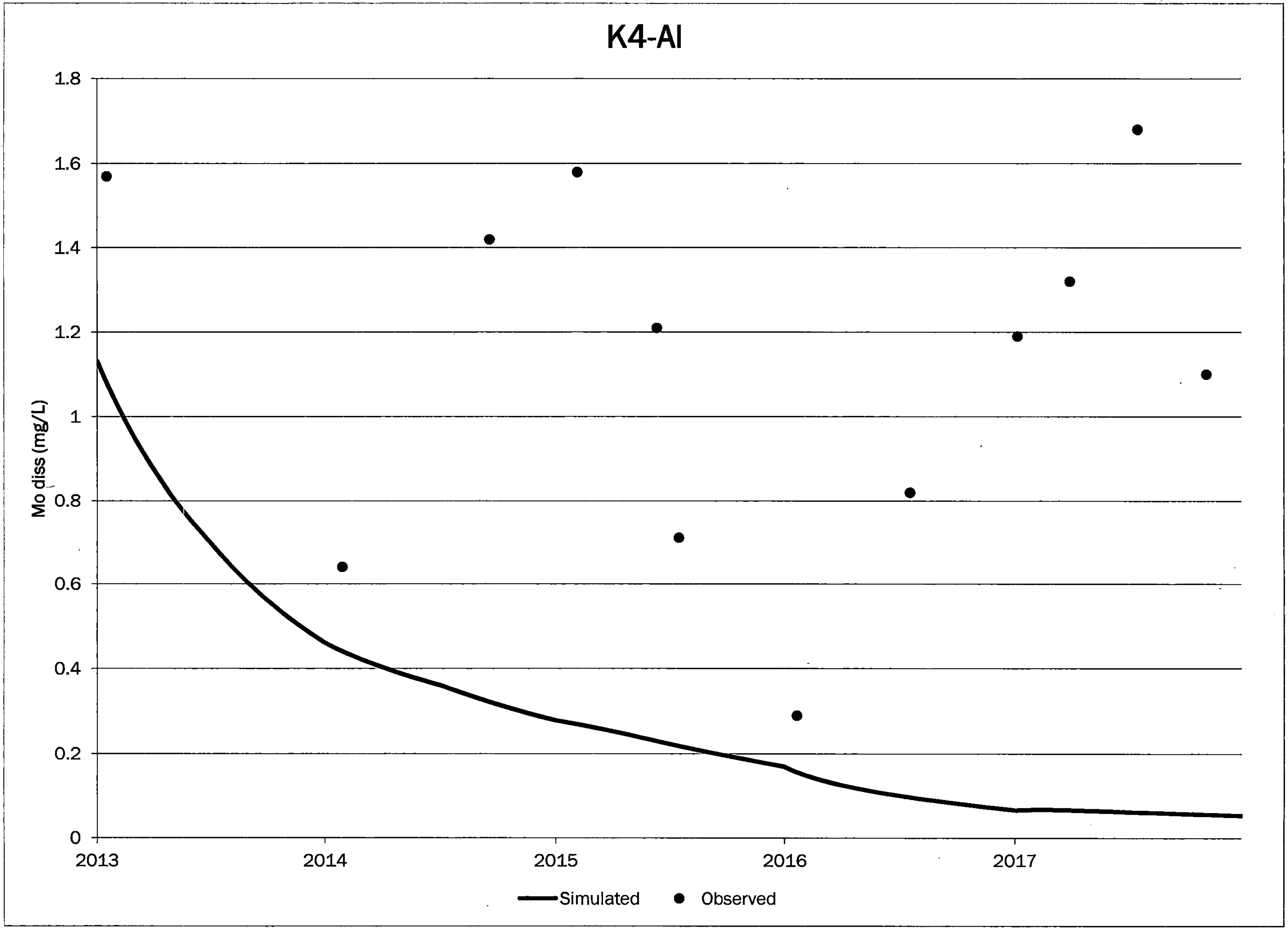

FB-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


GH-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

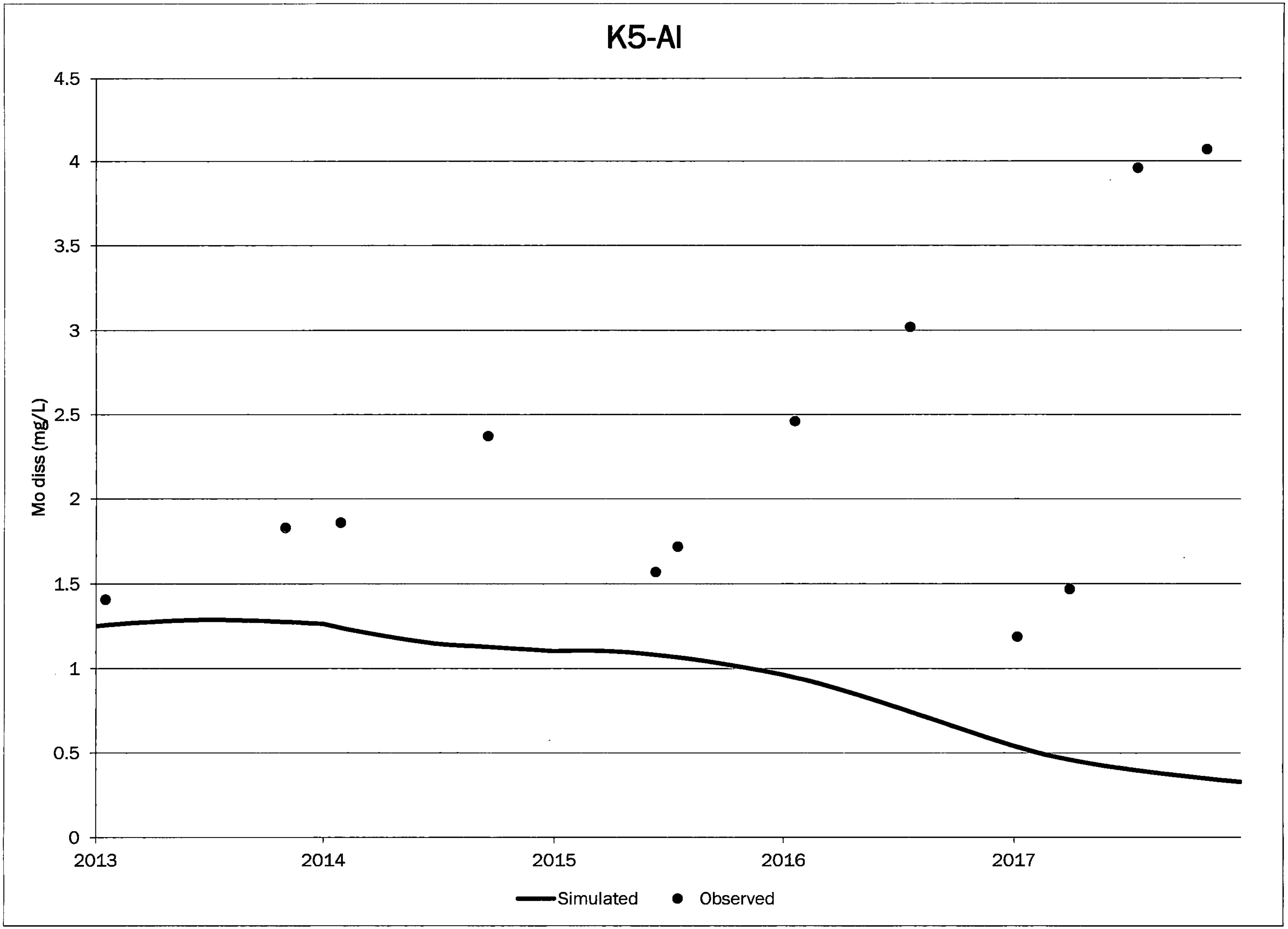

GN-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

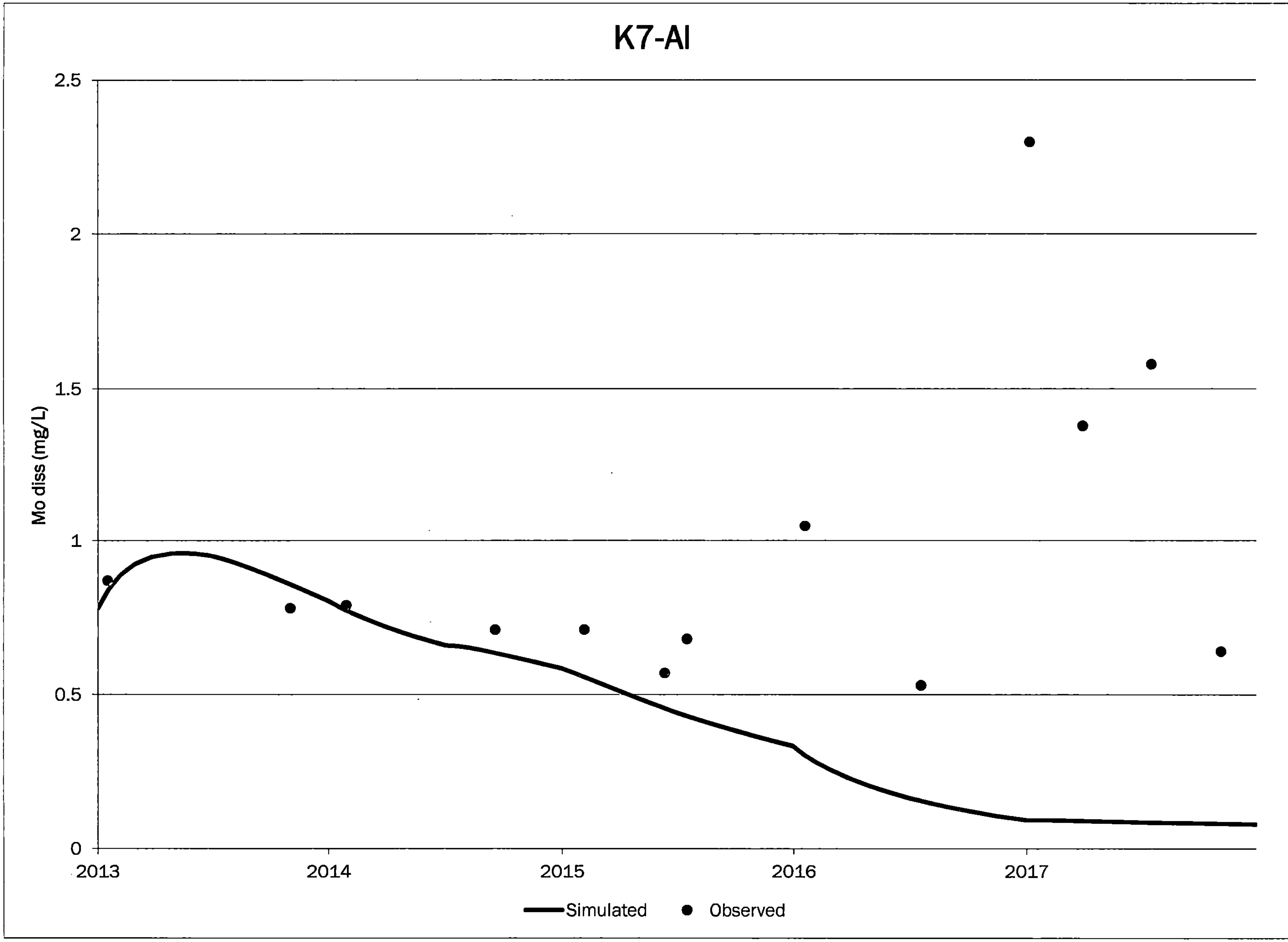

GV-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

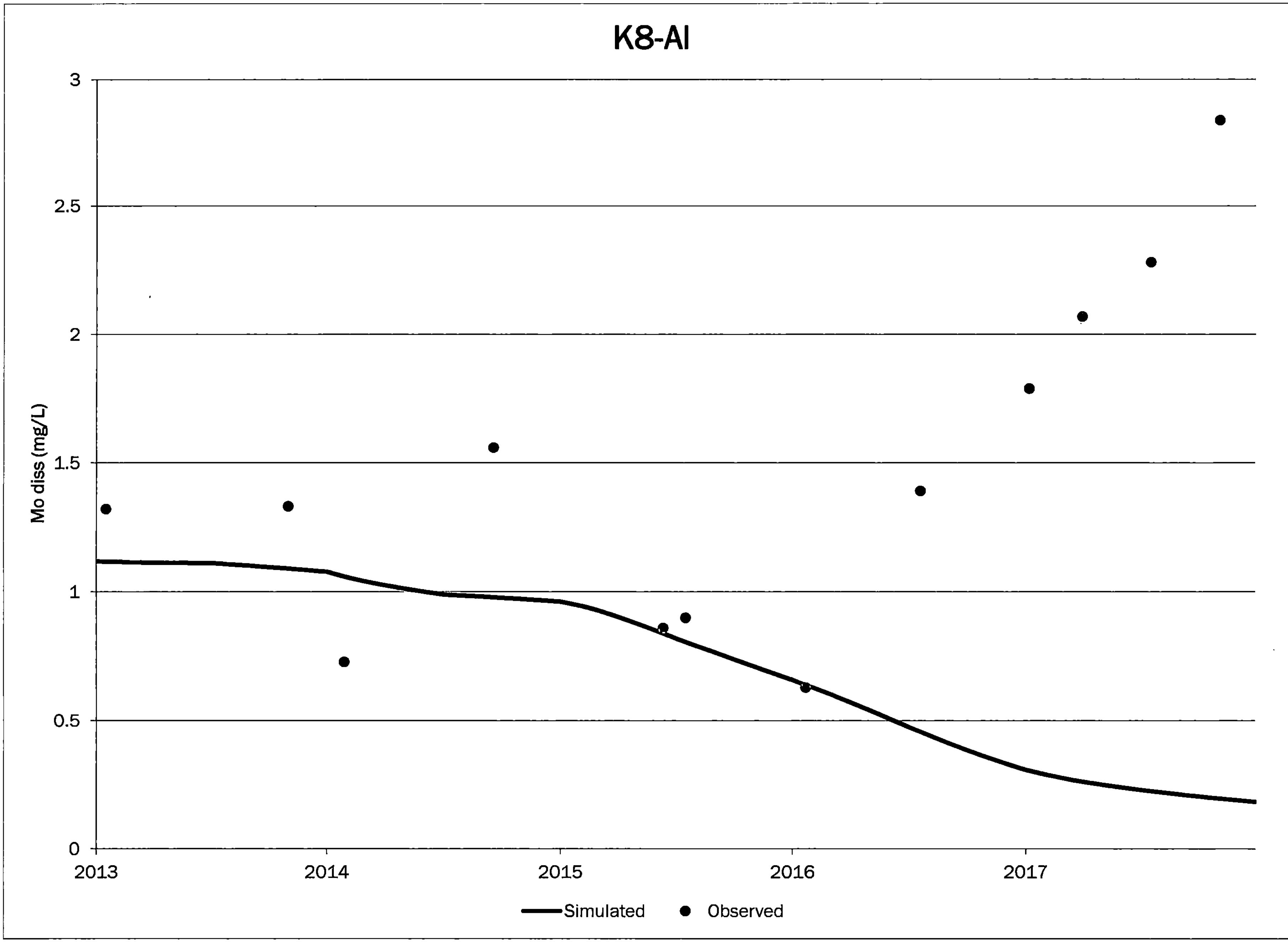

K2-AI
Mo diss (mg/L)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



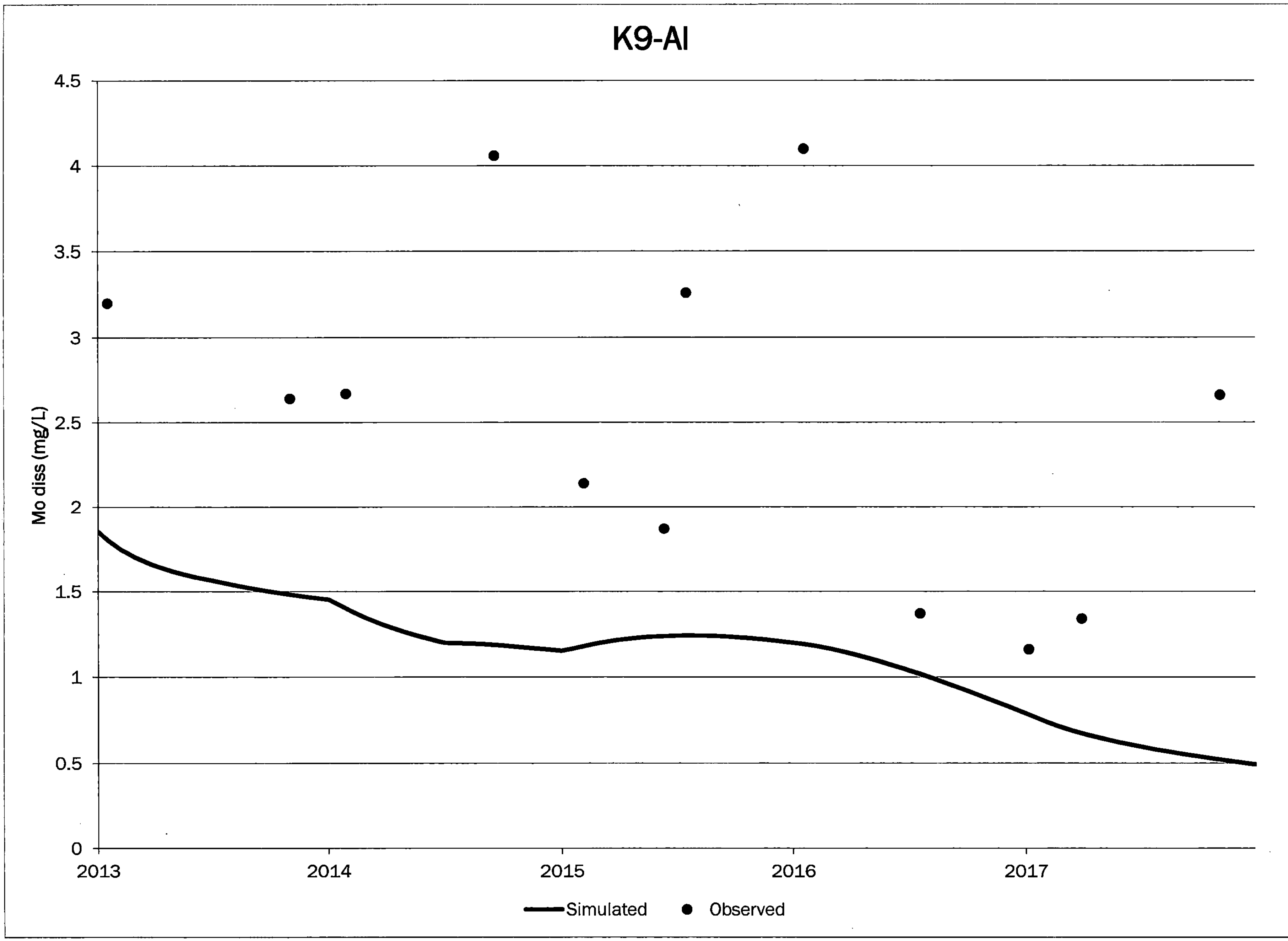
K4-Al
Mo diss (mg/L)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed


K5-AI
Mo diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

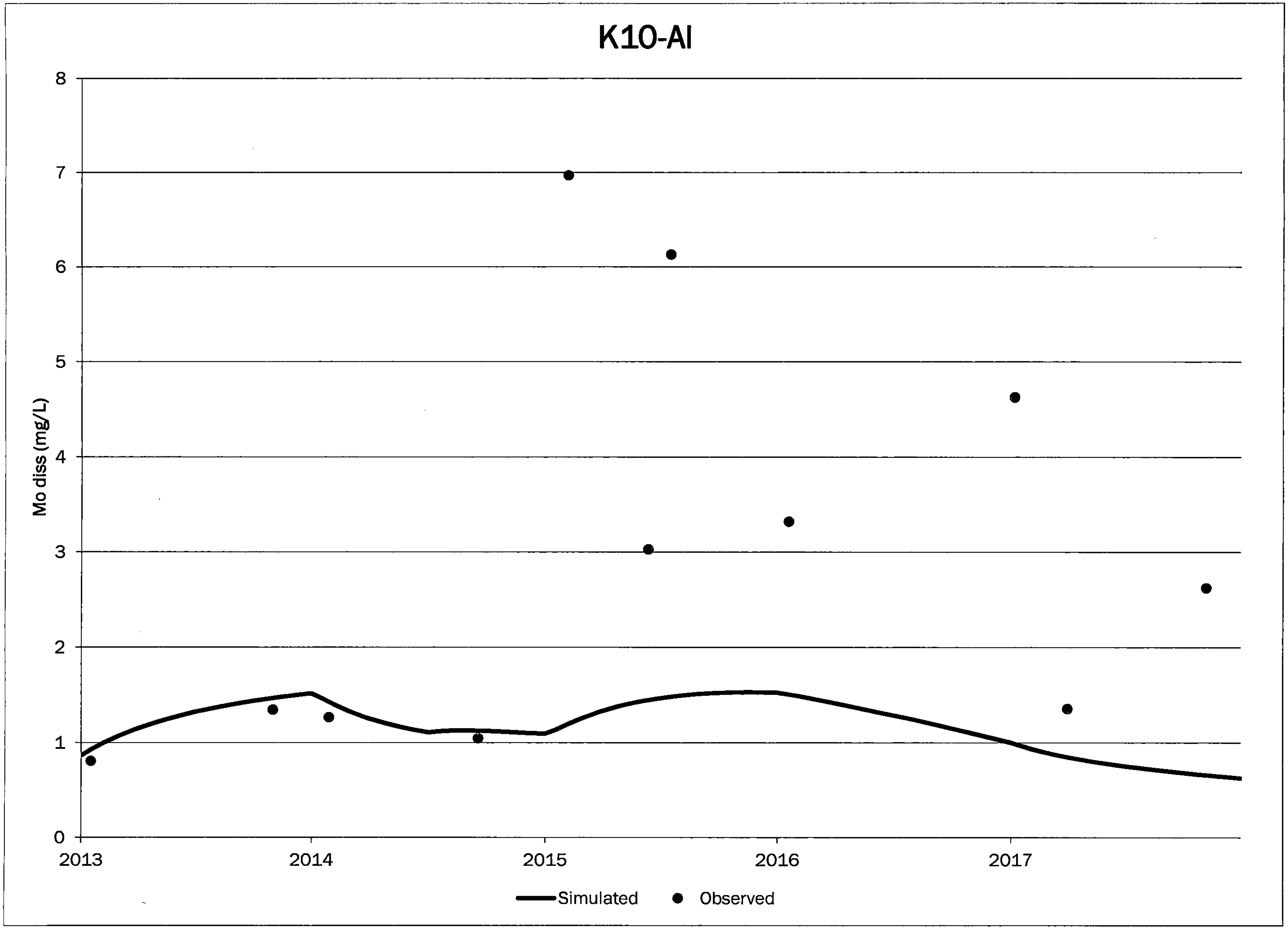

K7-Al
Mo diss (mg/L)
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



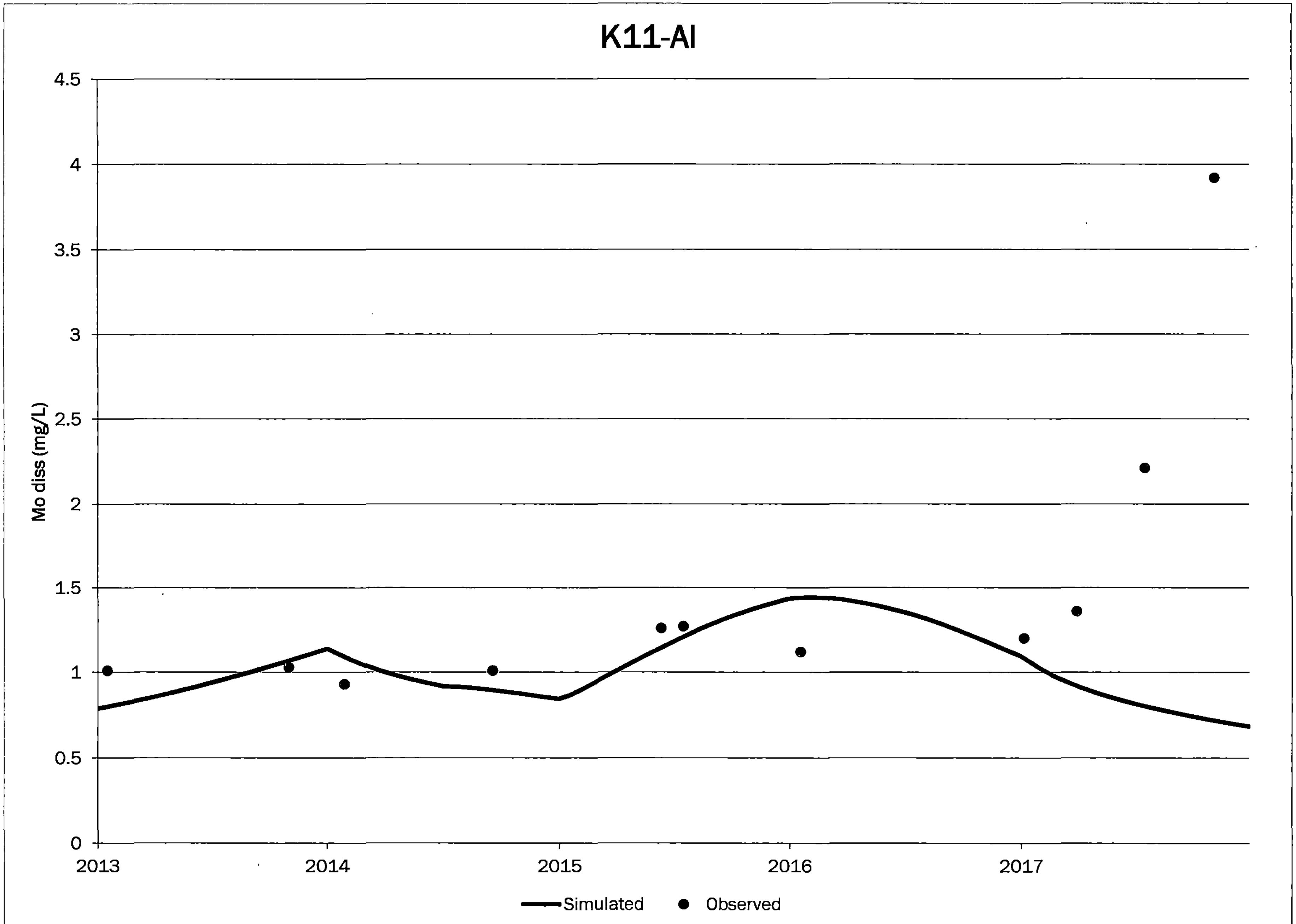
K8-AI
Mo diss (mg/L)
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



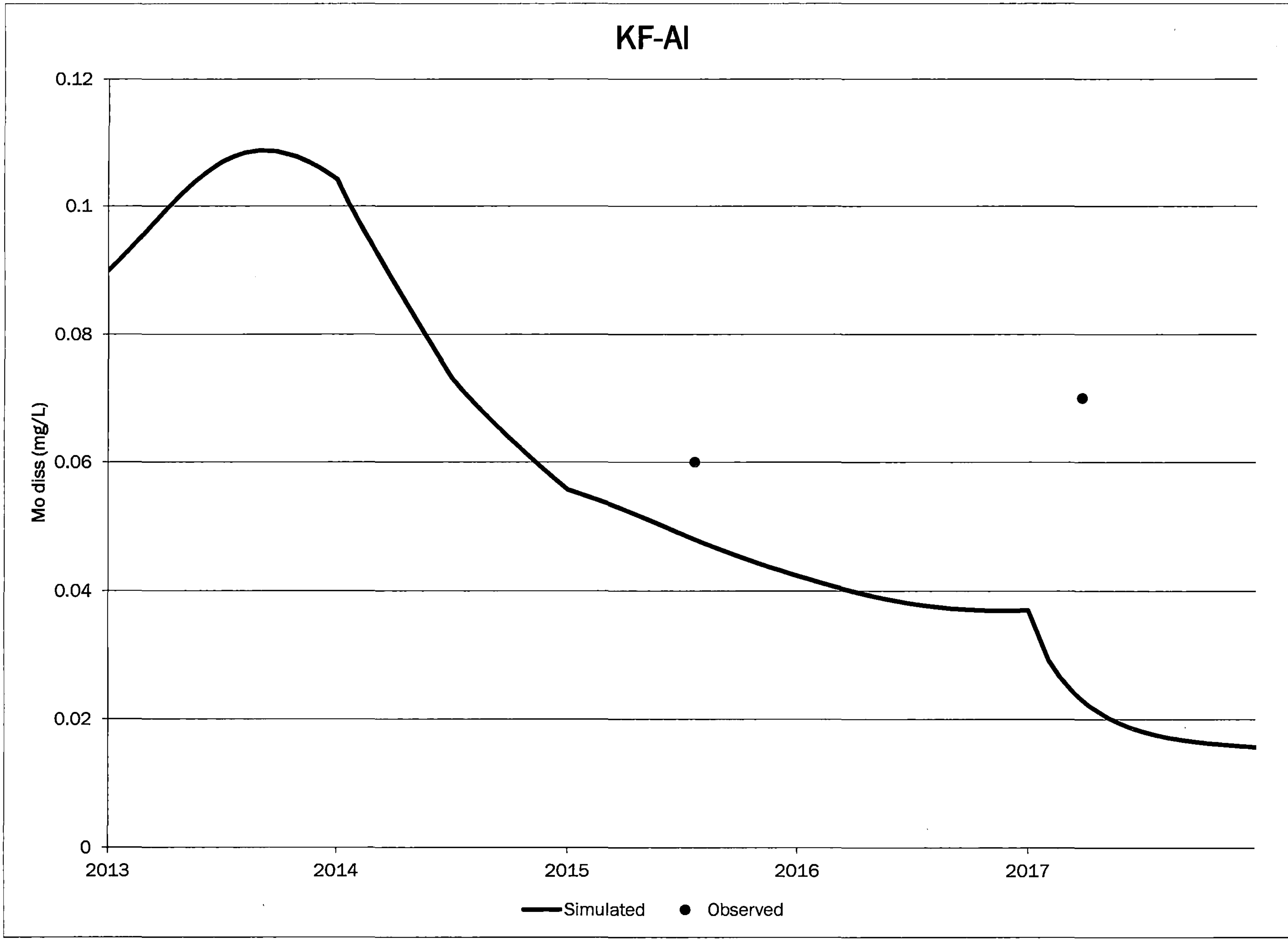
K9-AI
Mo diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



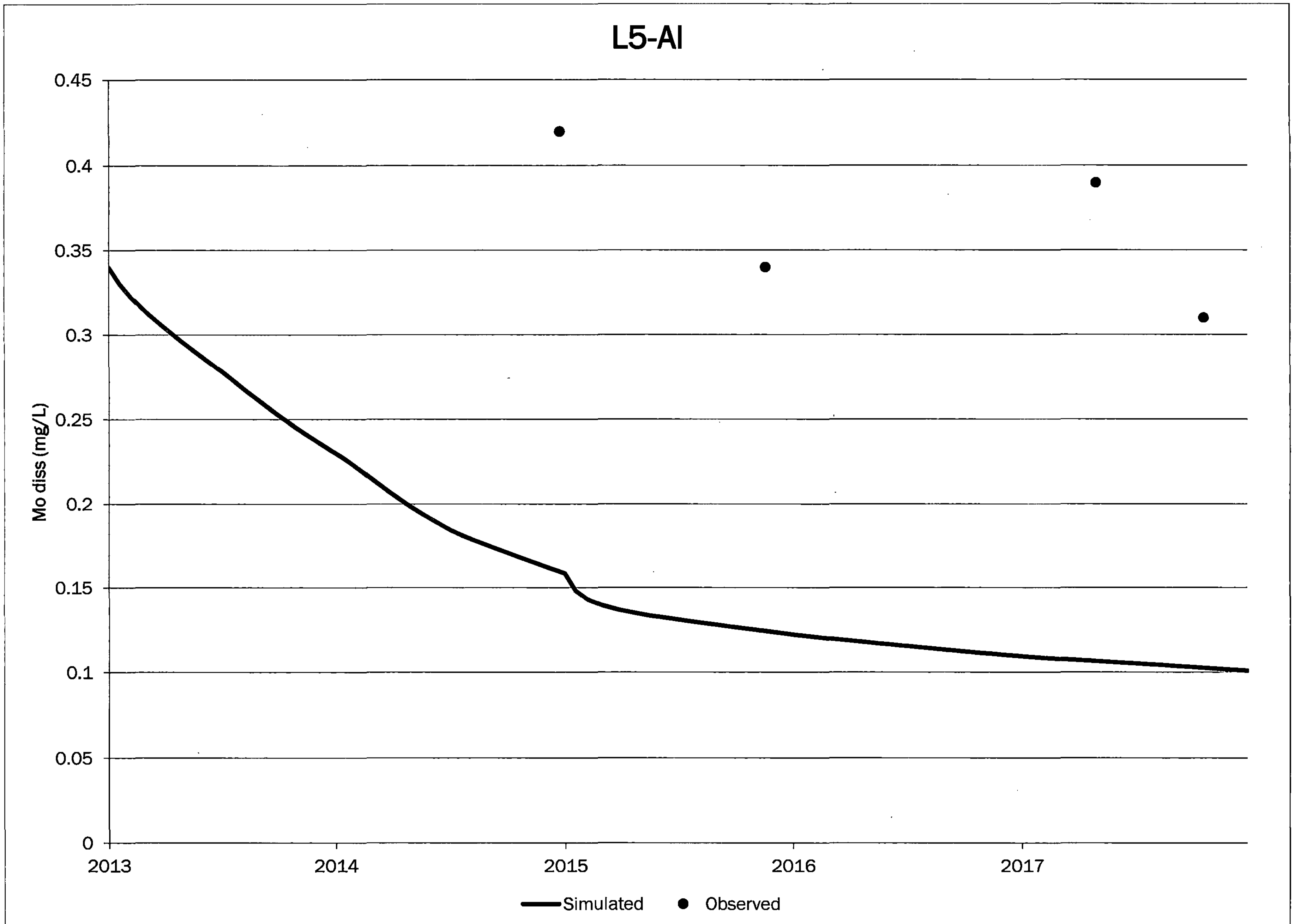
K10-AI
Mo diss (mg/L)
0
1
2
3
4
5
6
7
8
2013
2014
2015
2016
2017
Simulated
Observed



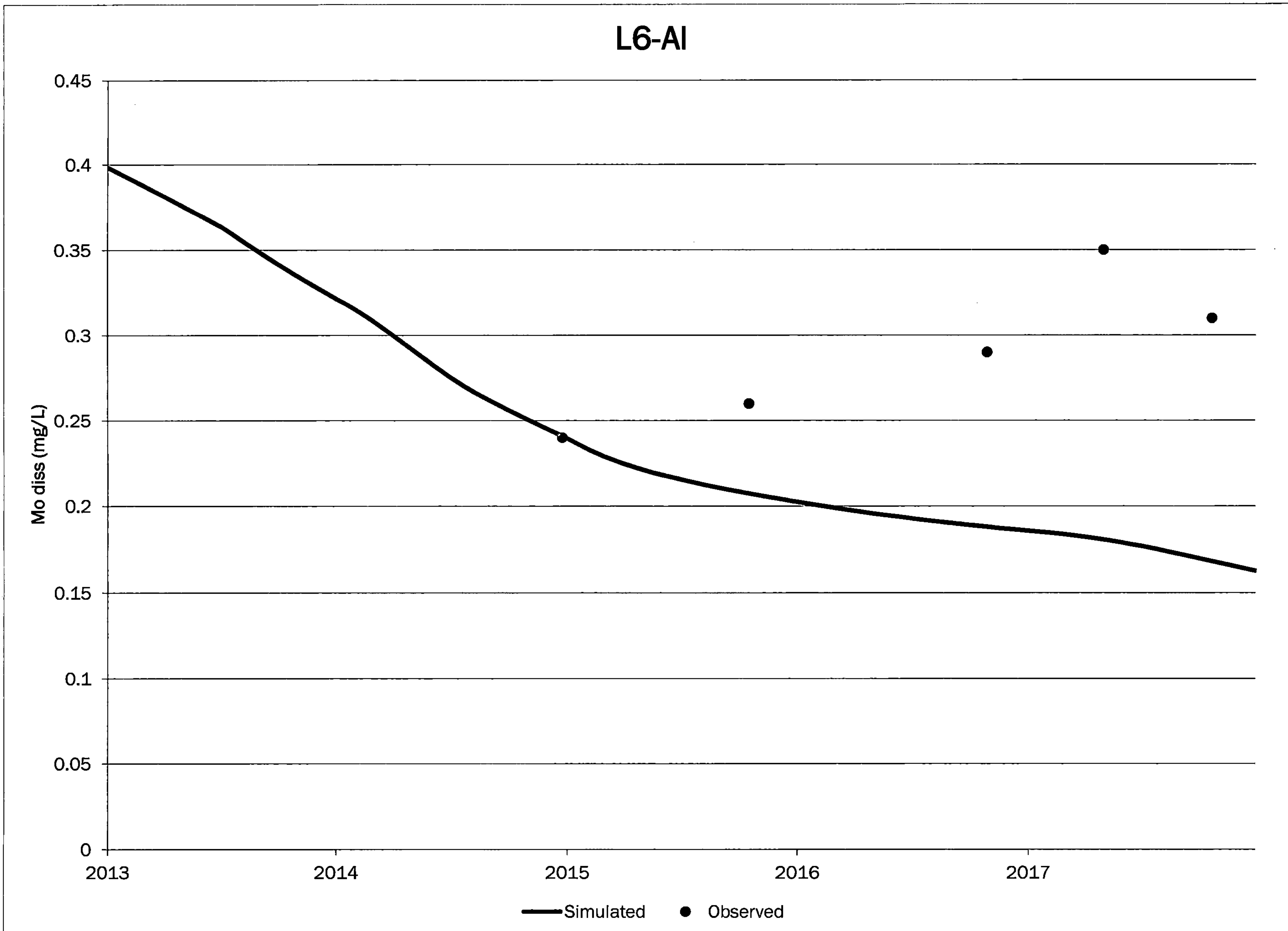
K11-Al
Mo diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



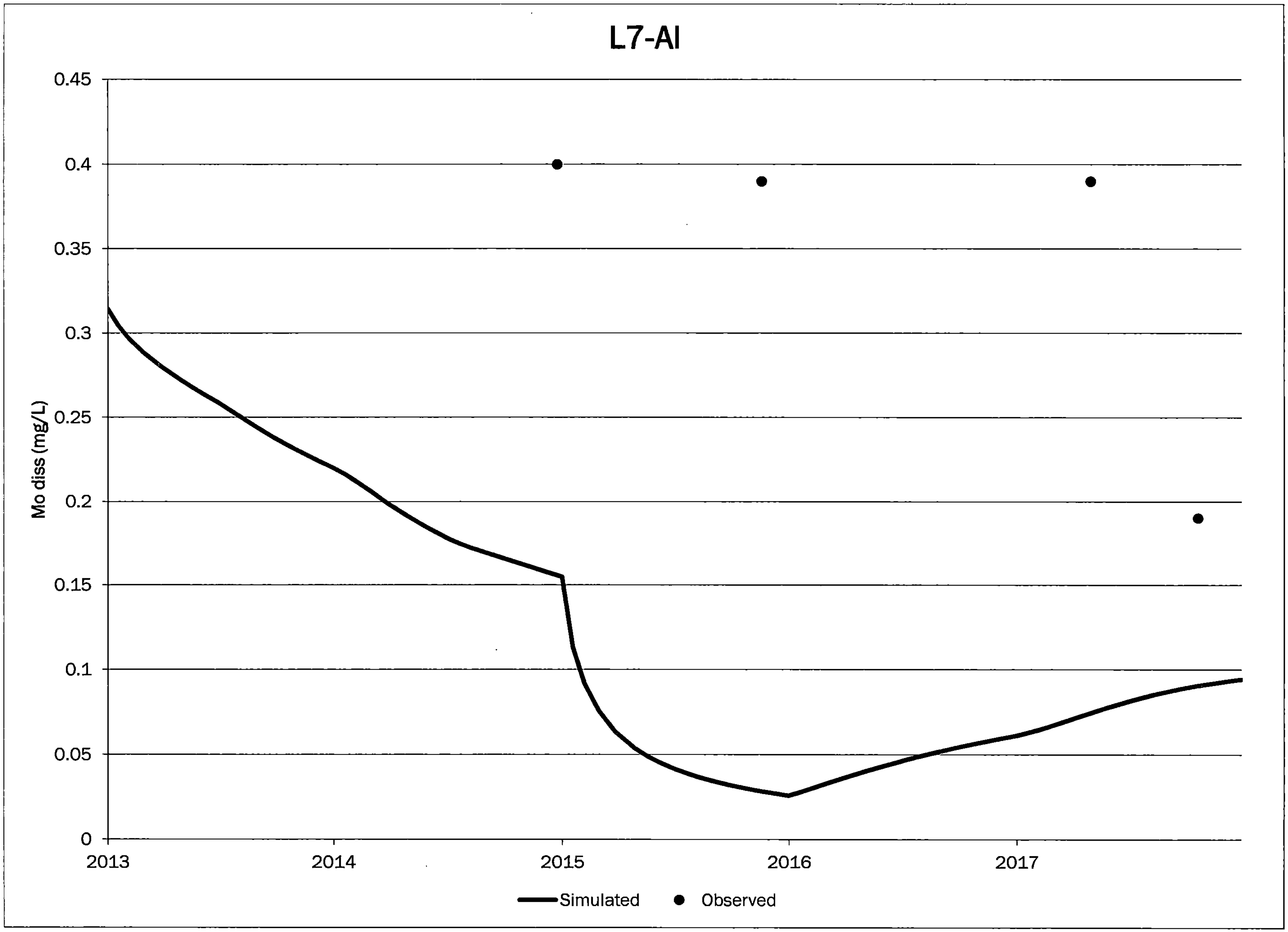
KF-AI
0.12
0.1
0.08
0.06
0.04
0.02
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

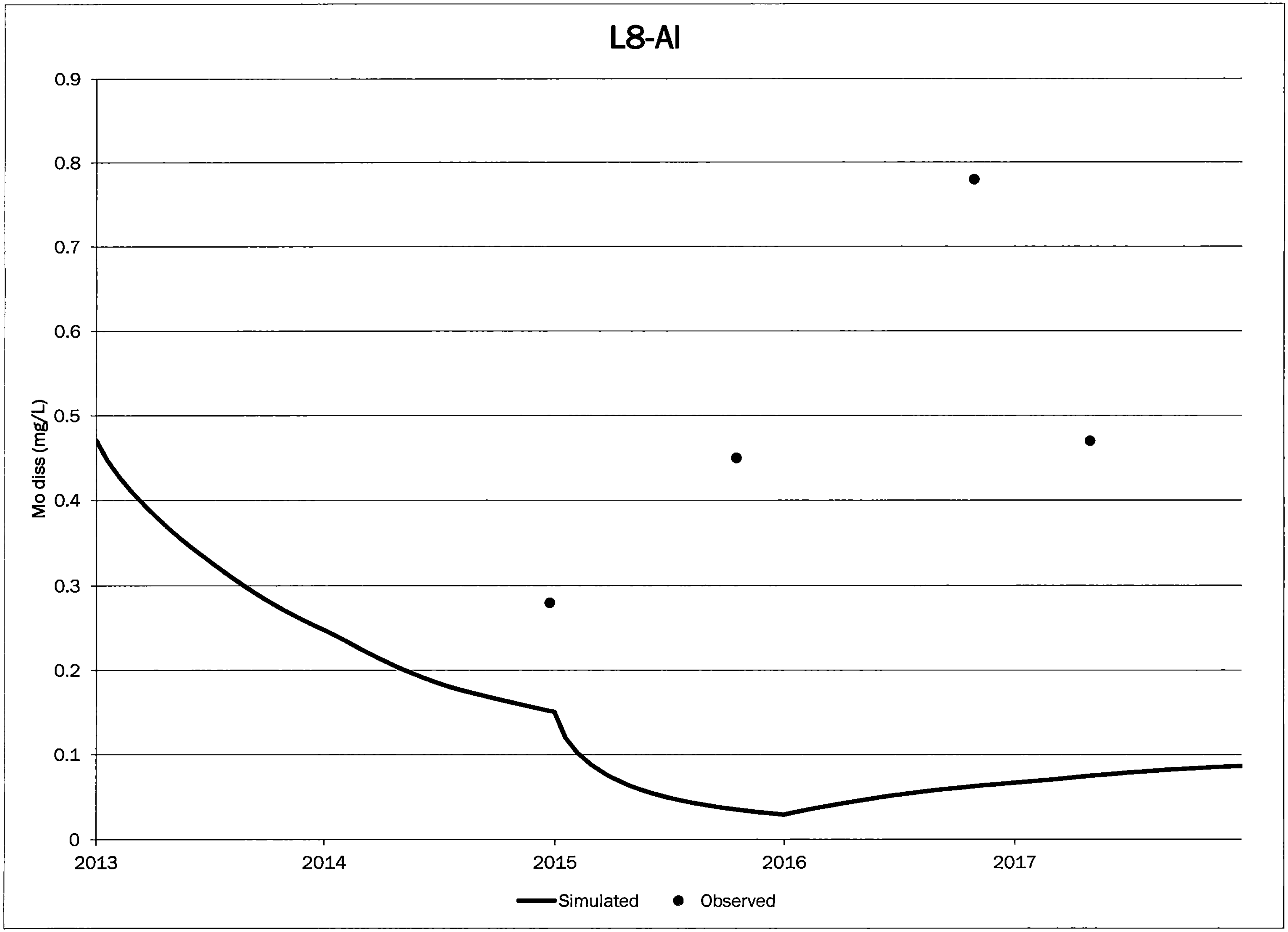


L5-Al
Mo diss (mg/L)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

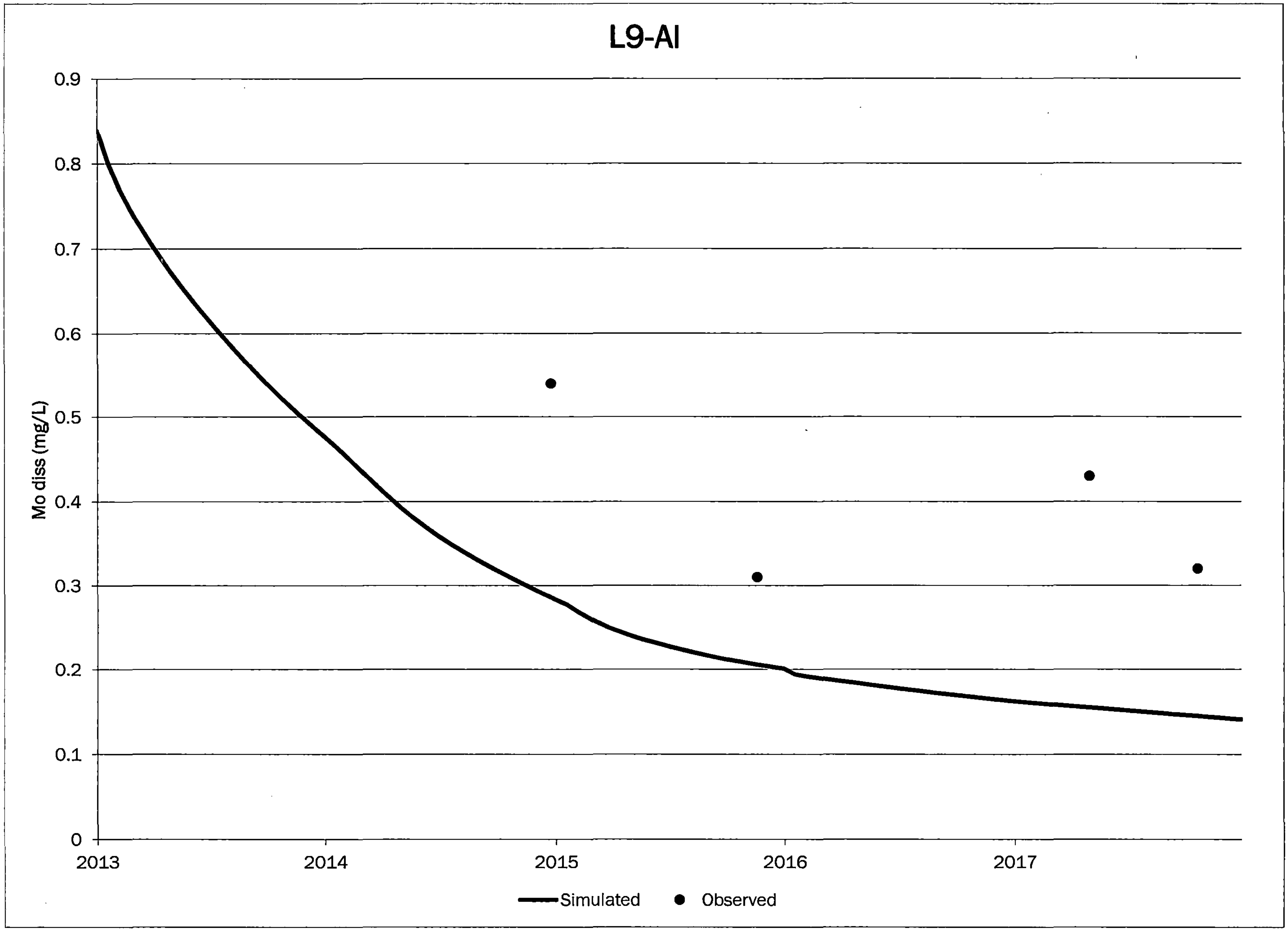


L6-AI
Mo diss (mg/L)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

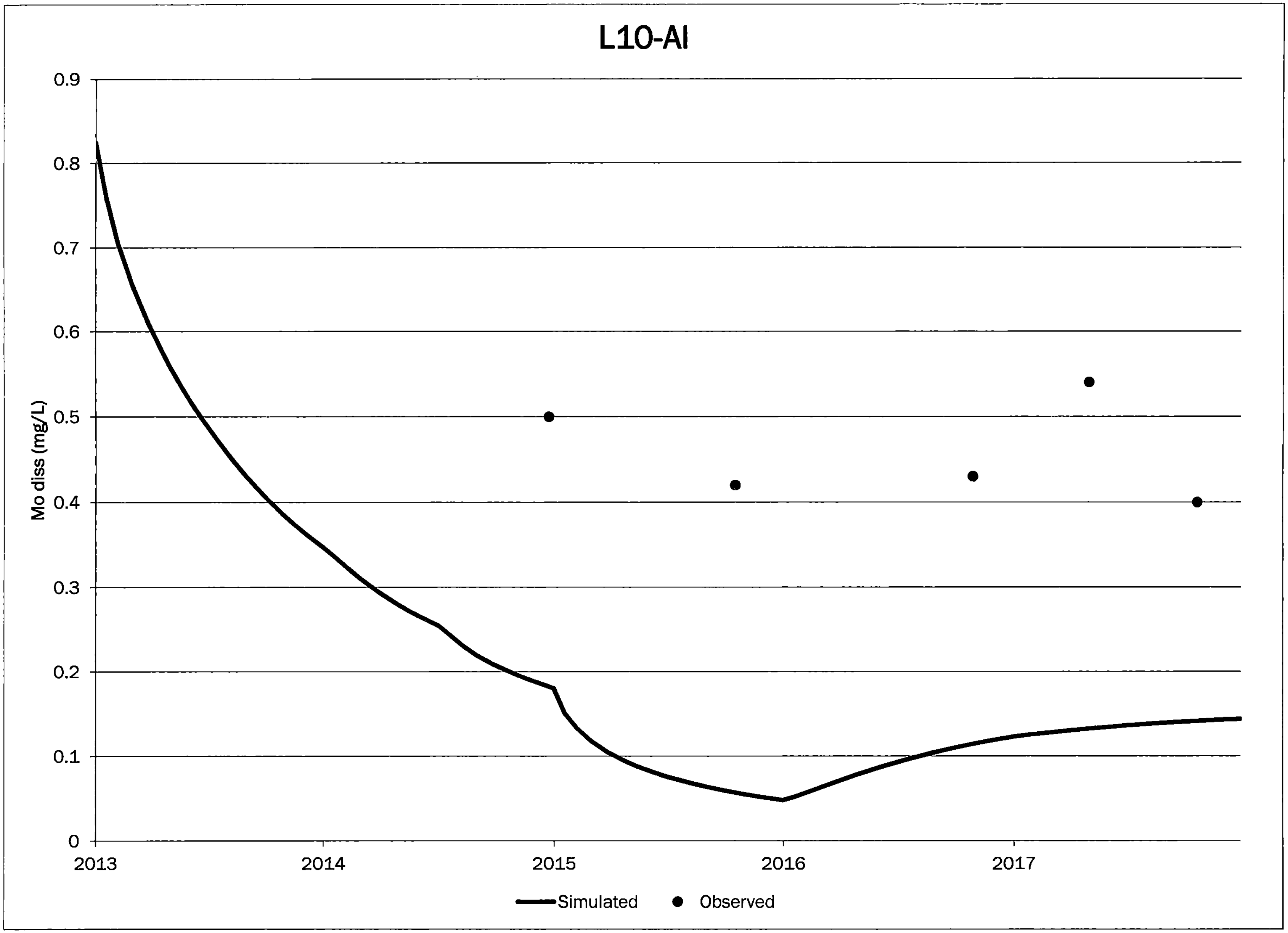

L7-AI
Mo diss (mg/L)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



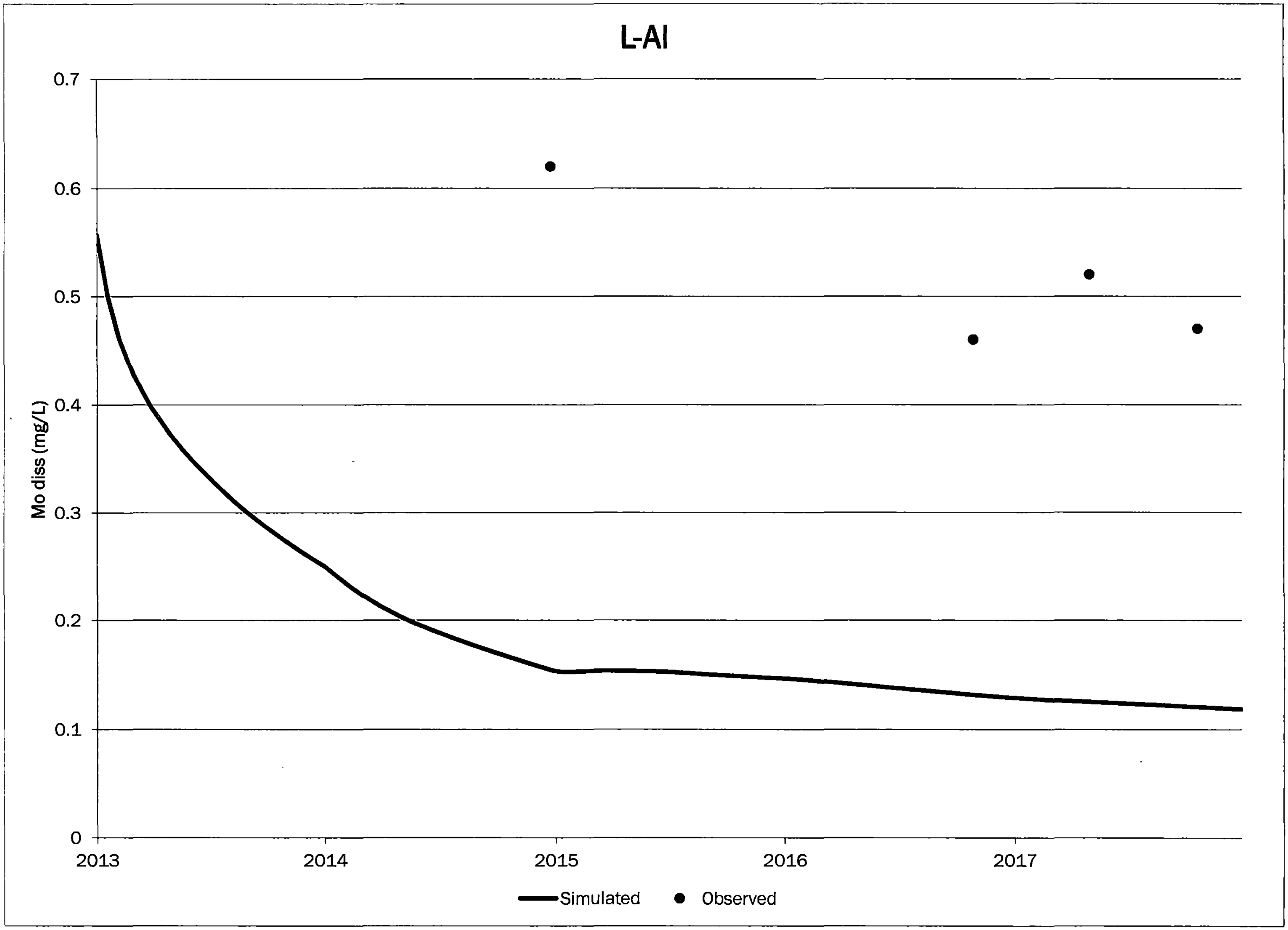
L8-AI
Mo diss (mg/L)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



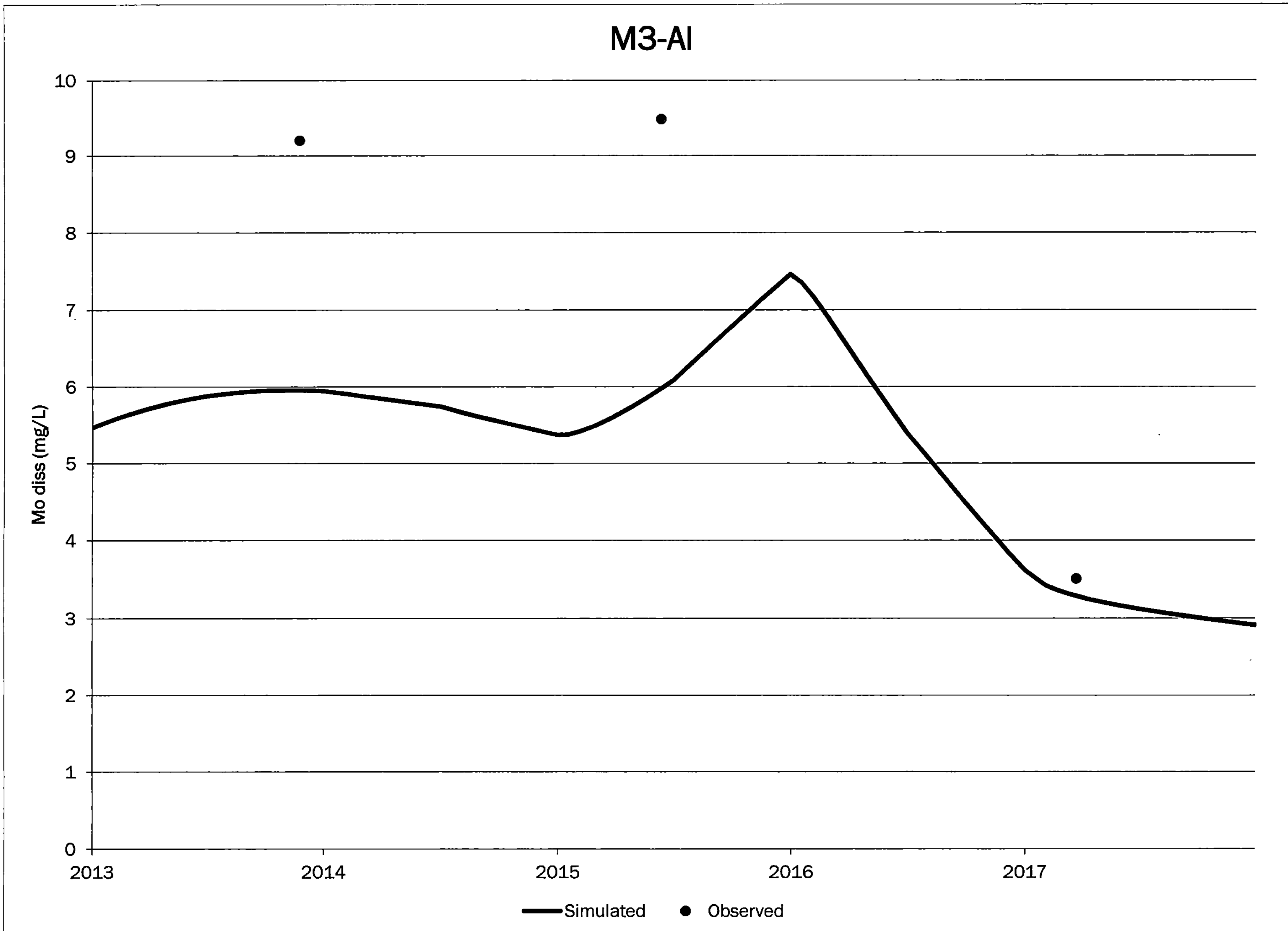
L9-AI
Mo diss (mg/L)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



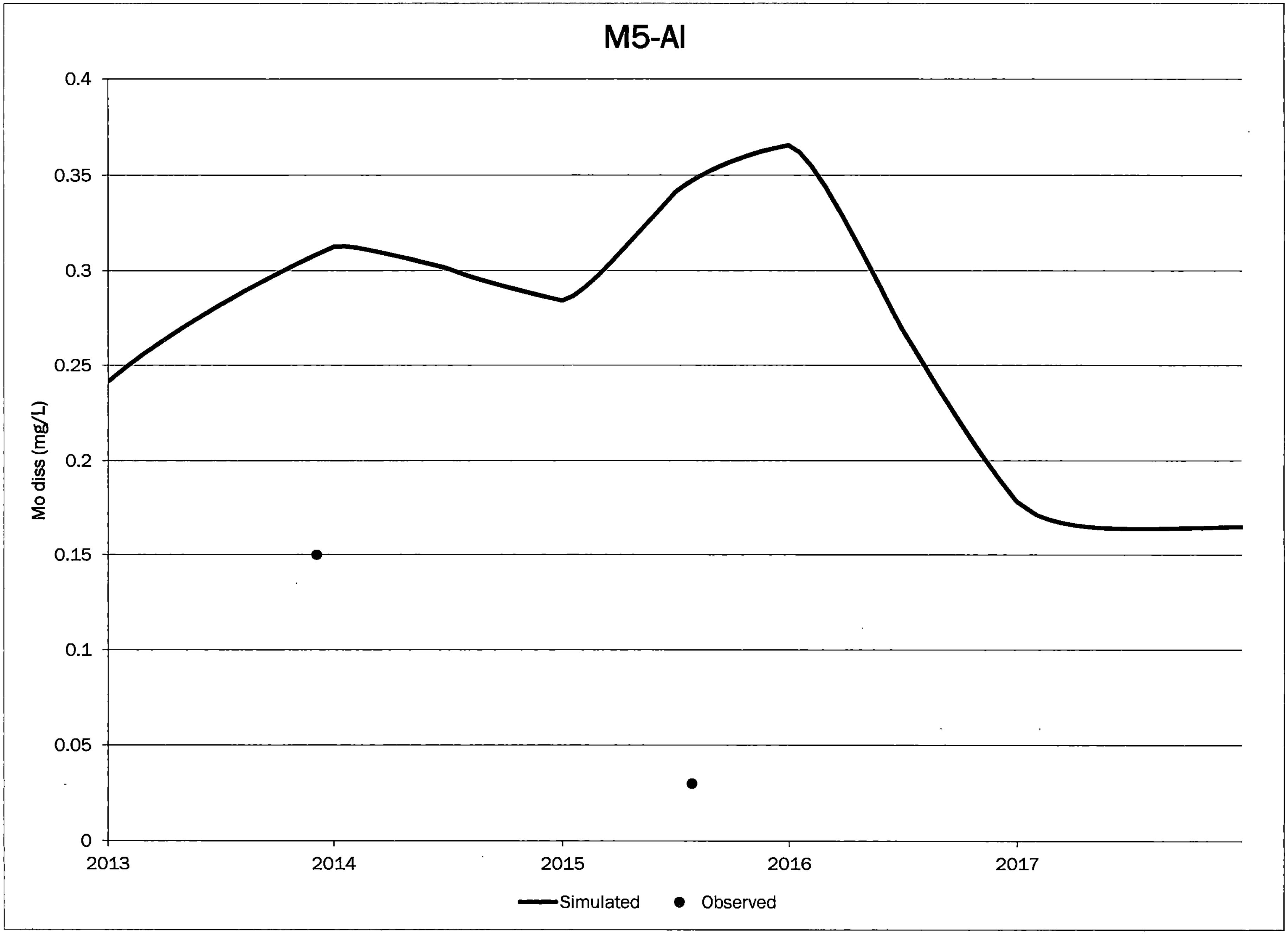
L10-AI
Mo diss (mg/L)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



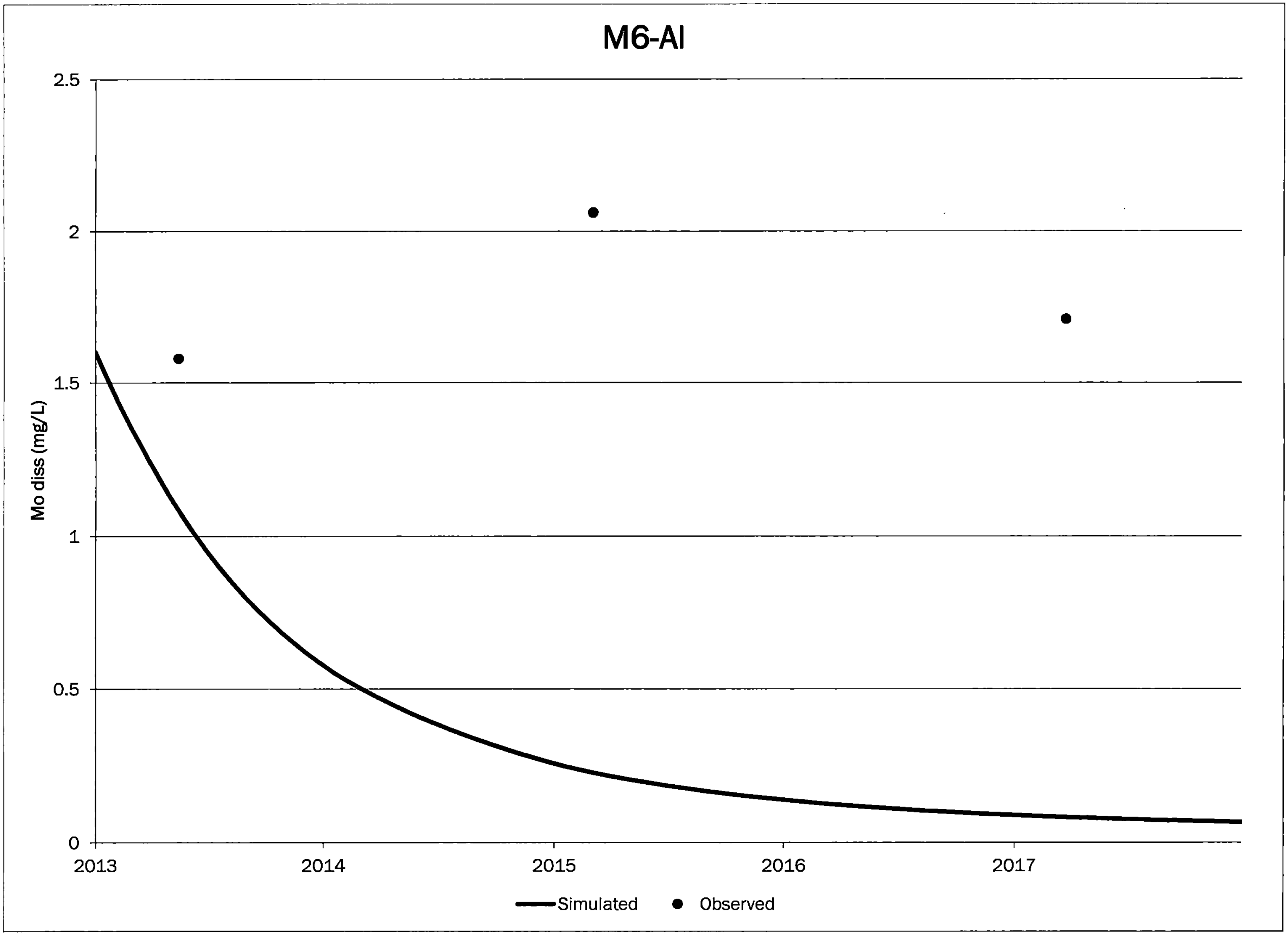
L-AI
Mo diss (mg/L)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed



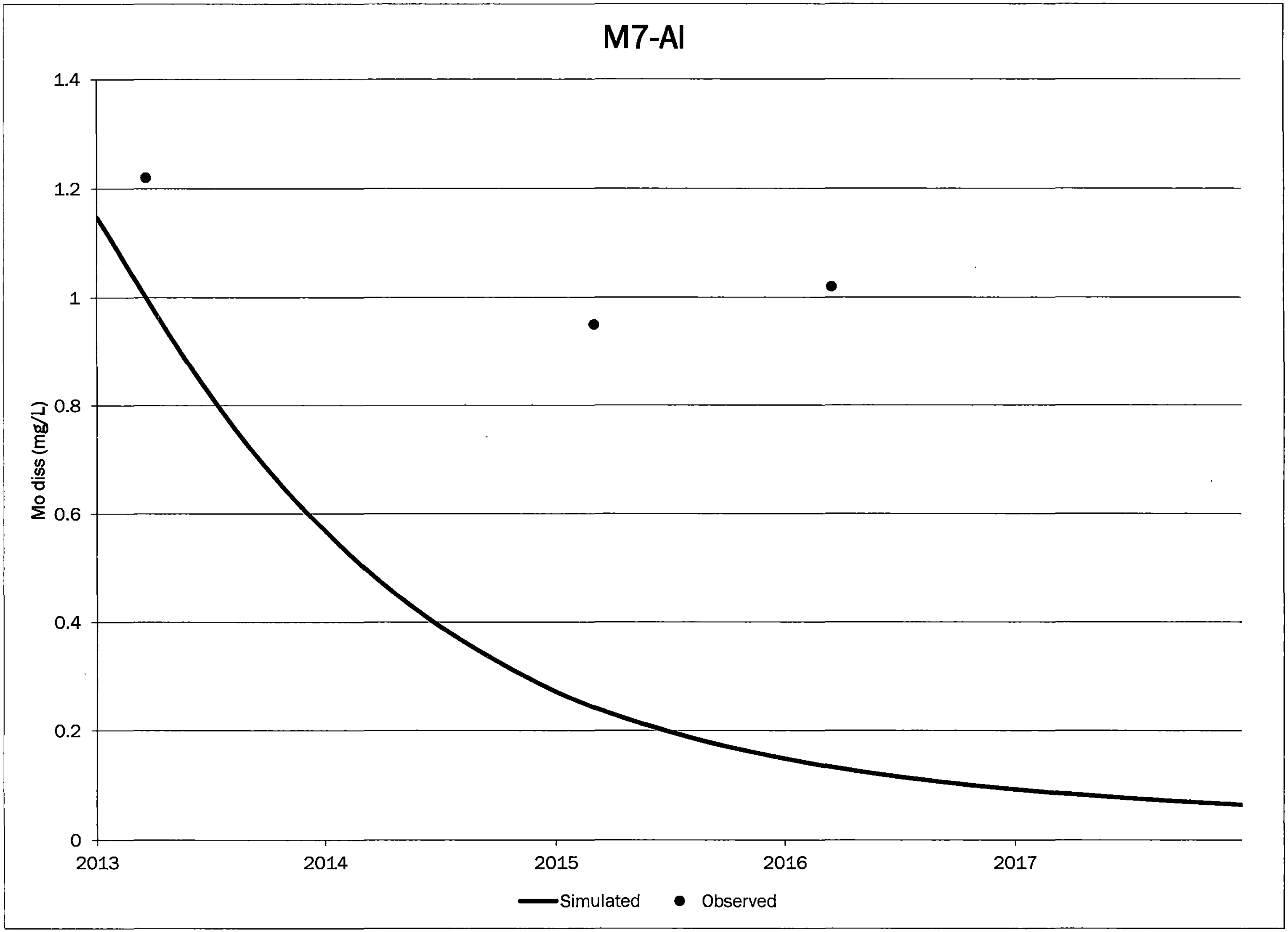
M3-Al
Mo diss (mg/L)
0
1
2
3
4
5
6
7
8
9
10
2013
2014
2015
2016
2017
Simulated
Observed

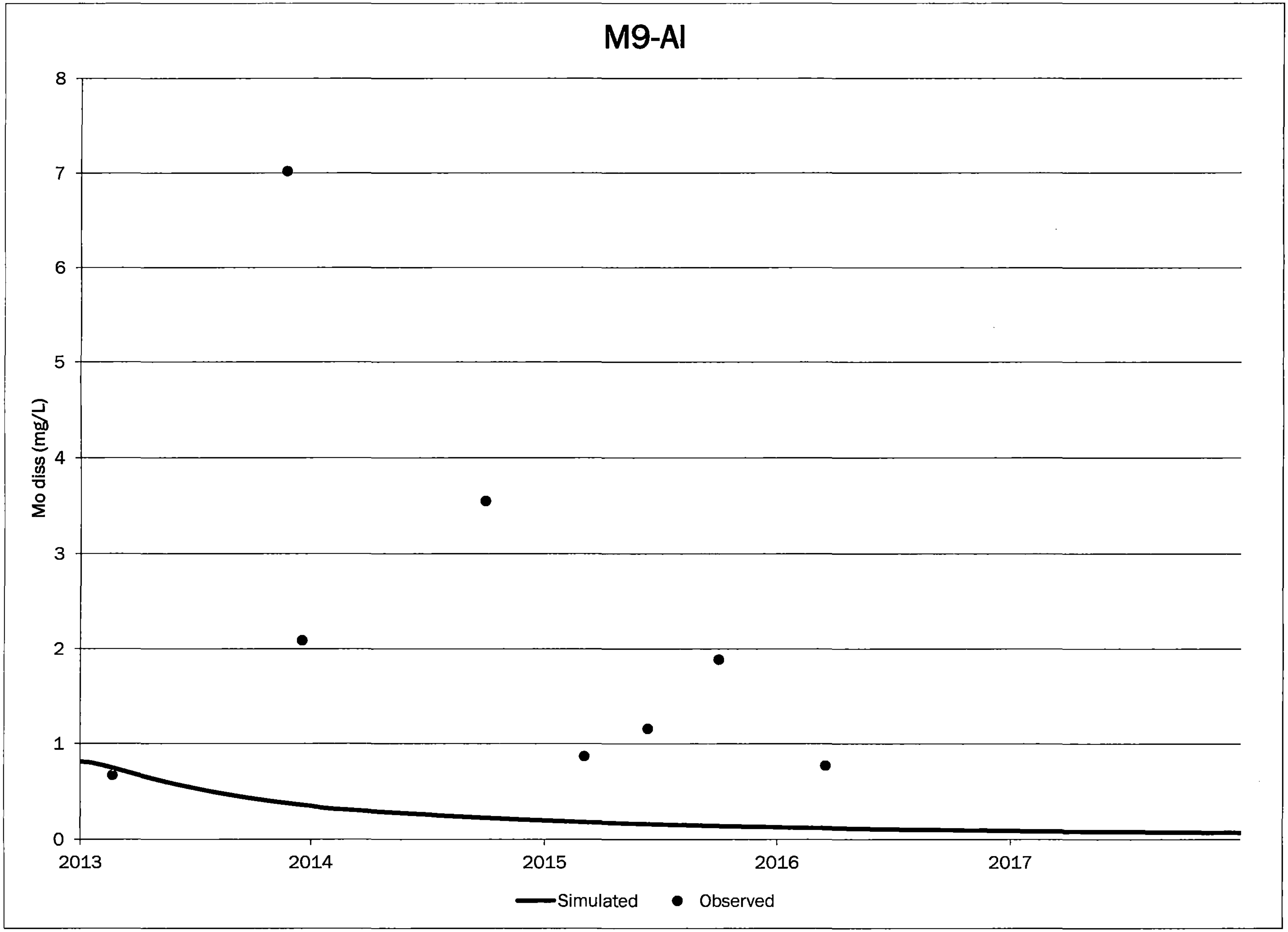


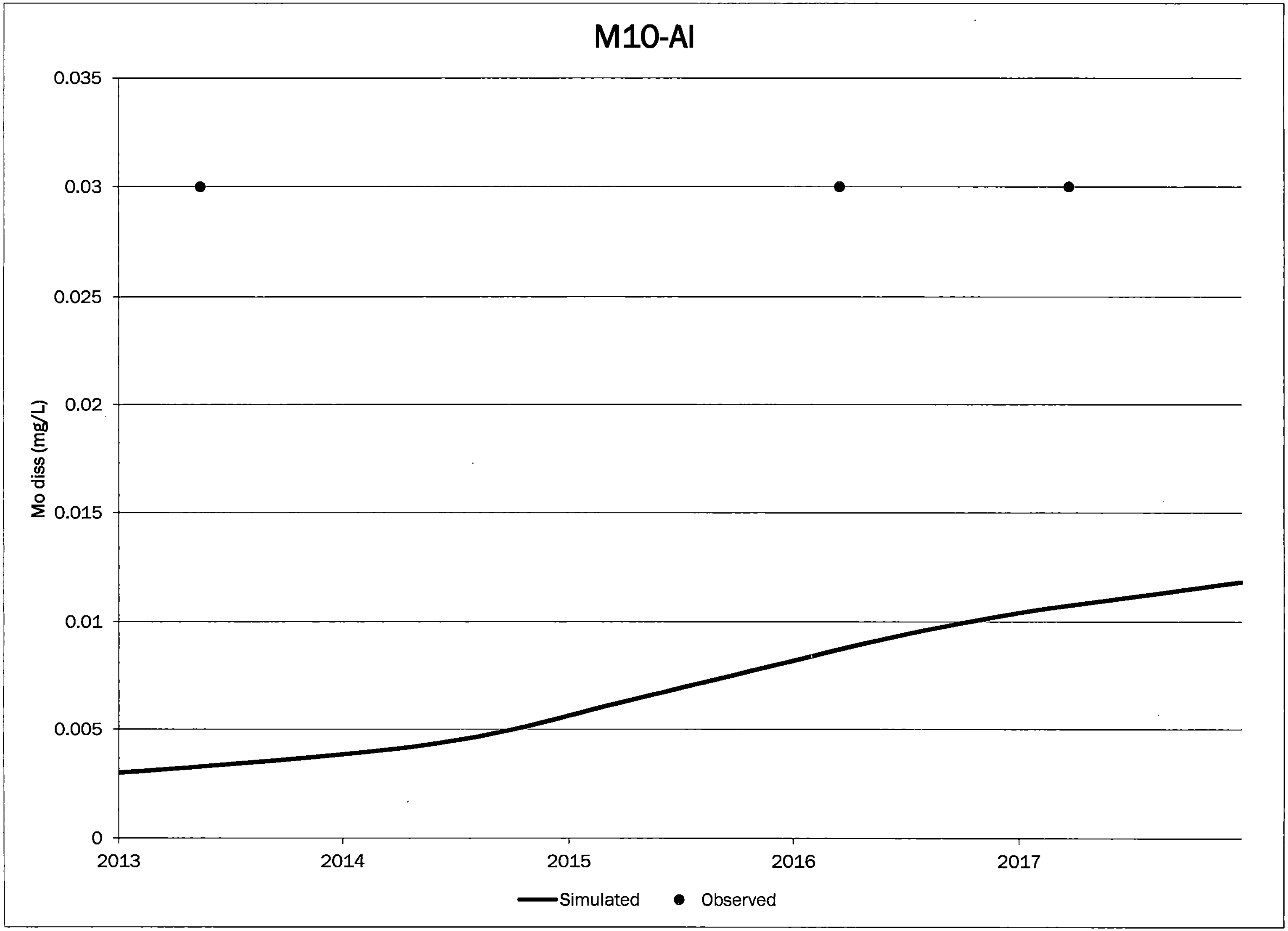
M5-AI
Mo diss (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



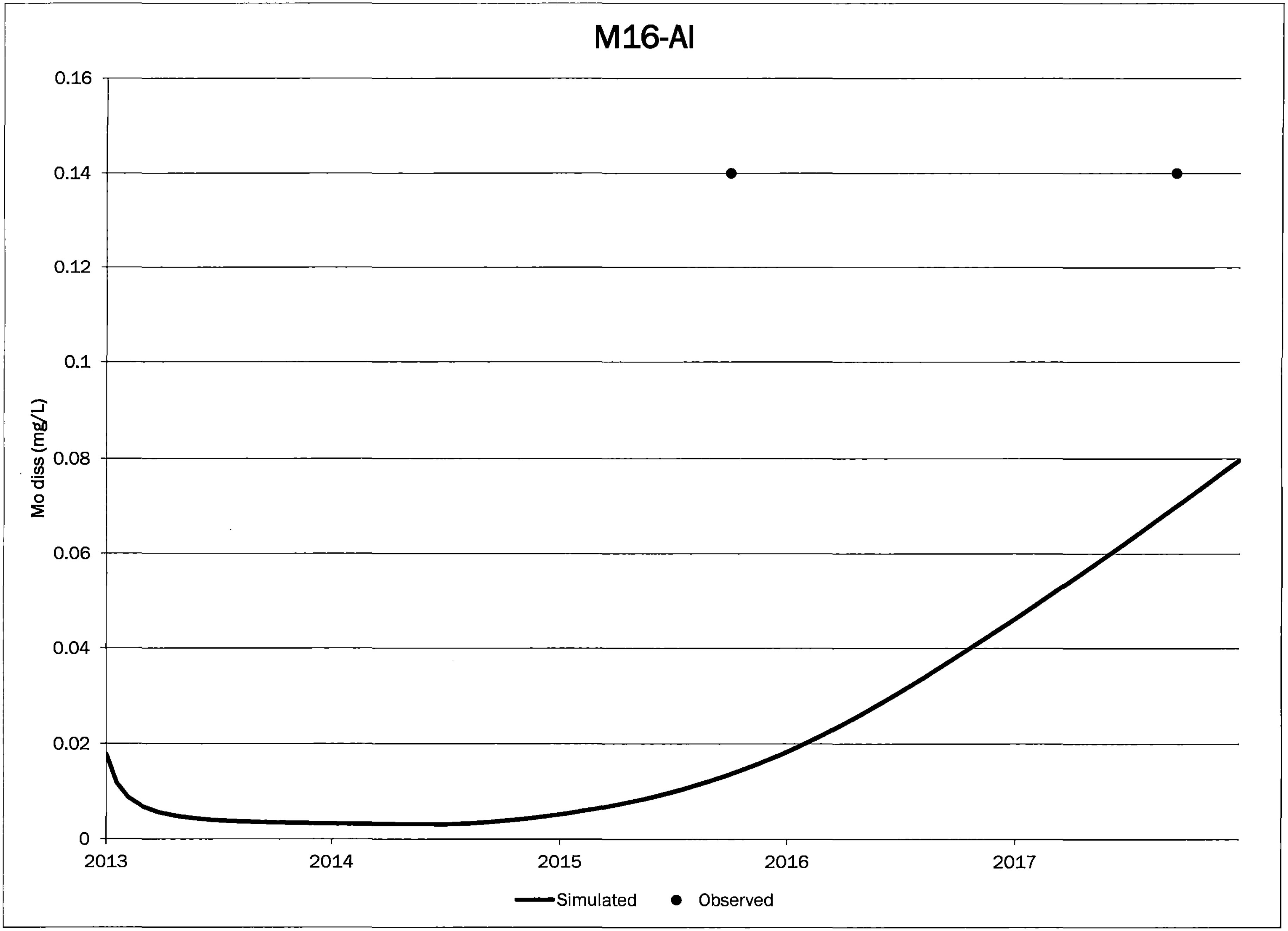
M6-AI
Mo diss (mg/L)
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

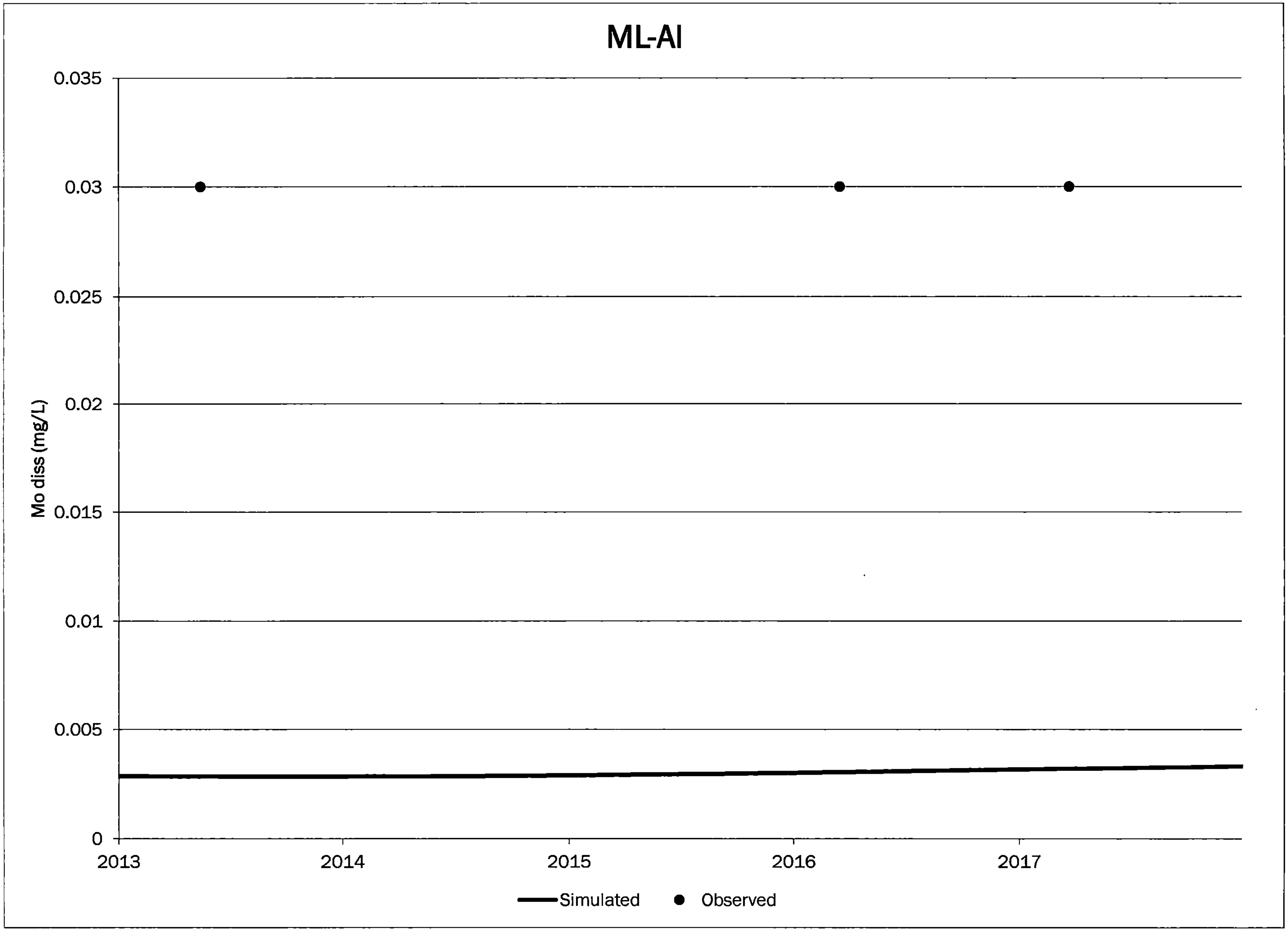

M7-AI
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

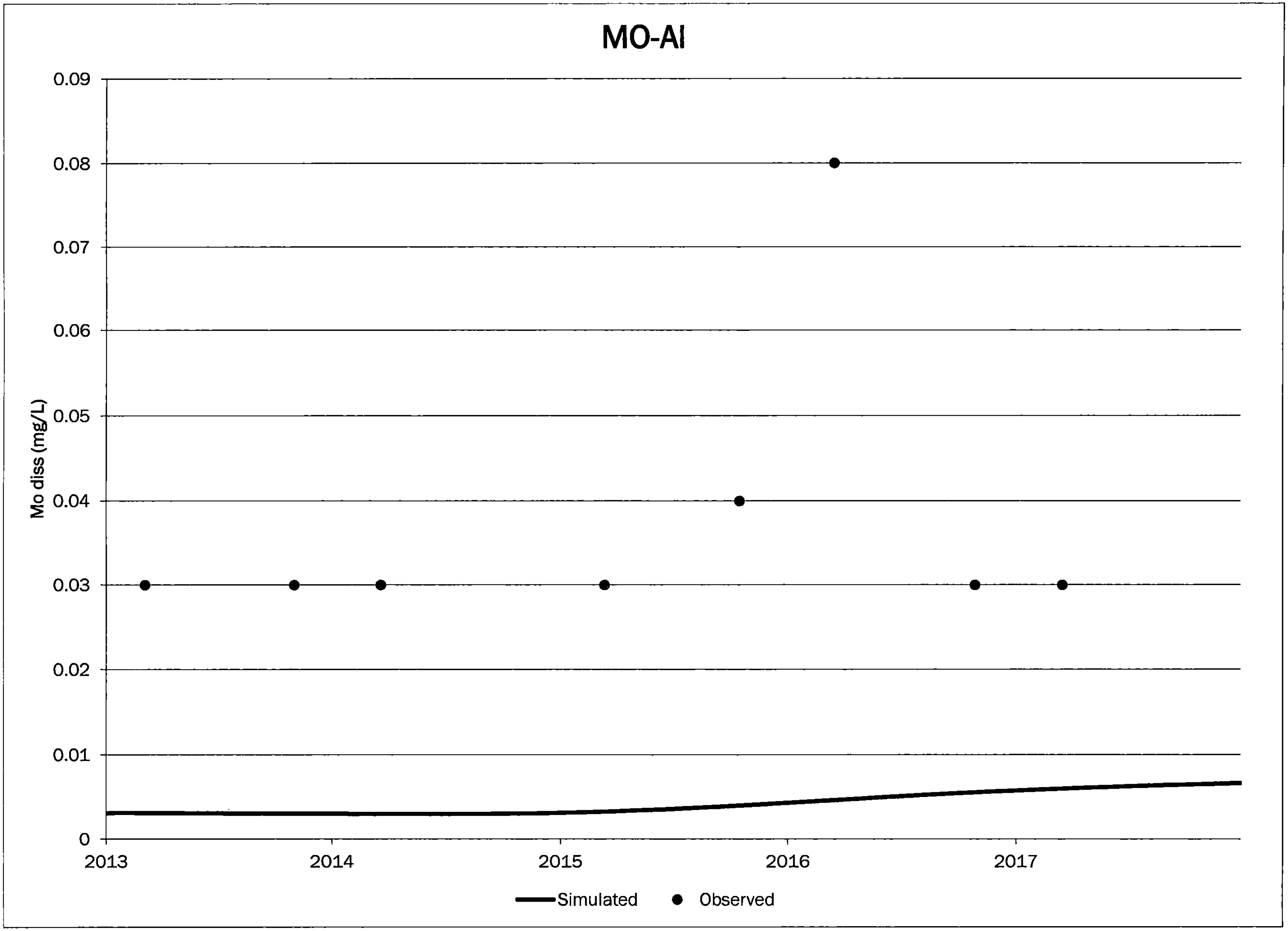

M9-AI
Mo diss (mg/L)
0
1
2
3
4
5
6
7
8
2013
2014
2015
2016
2017
Simulated
Observed

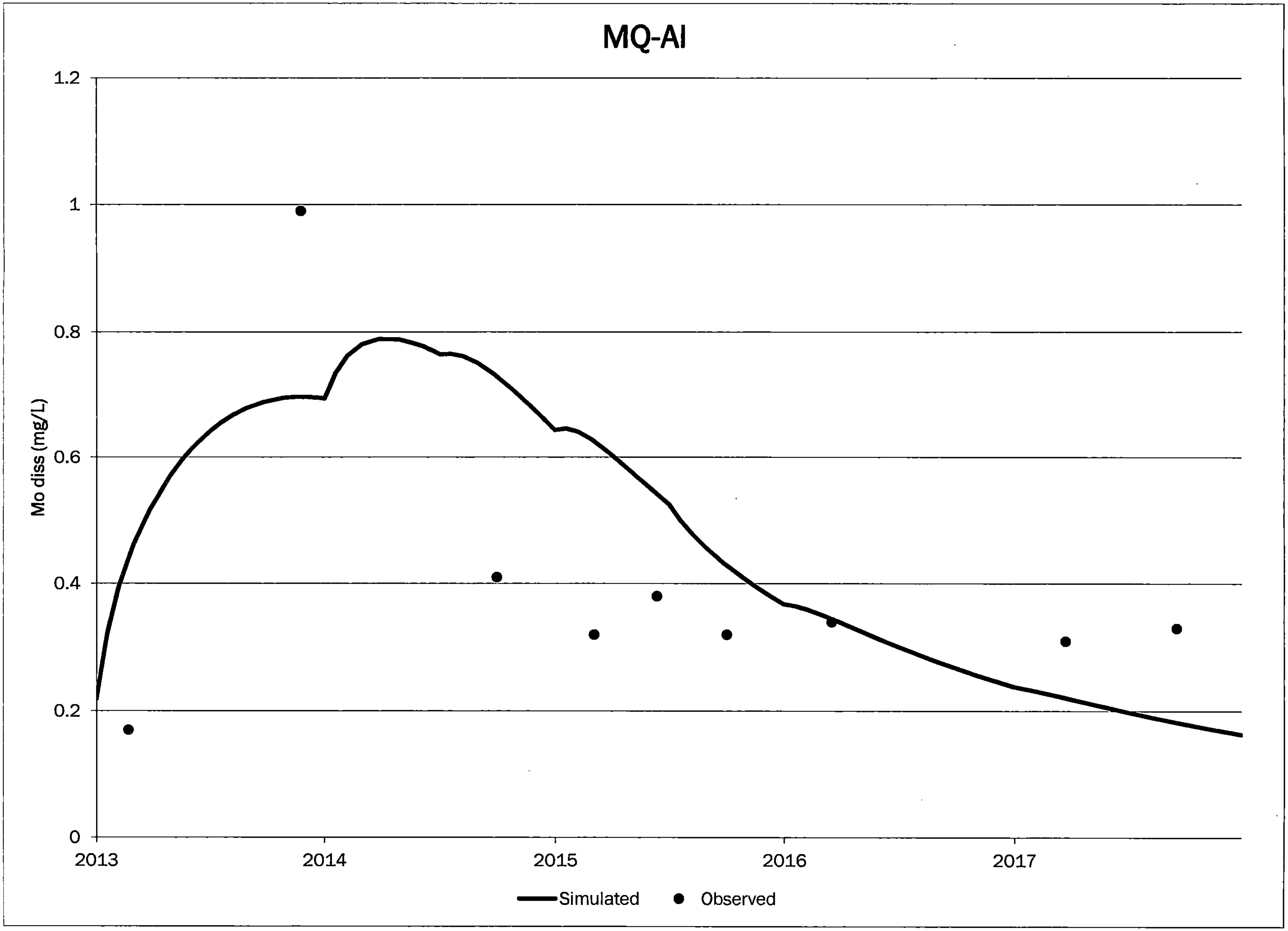


M10-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

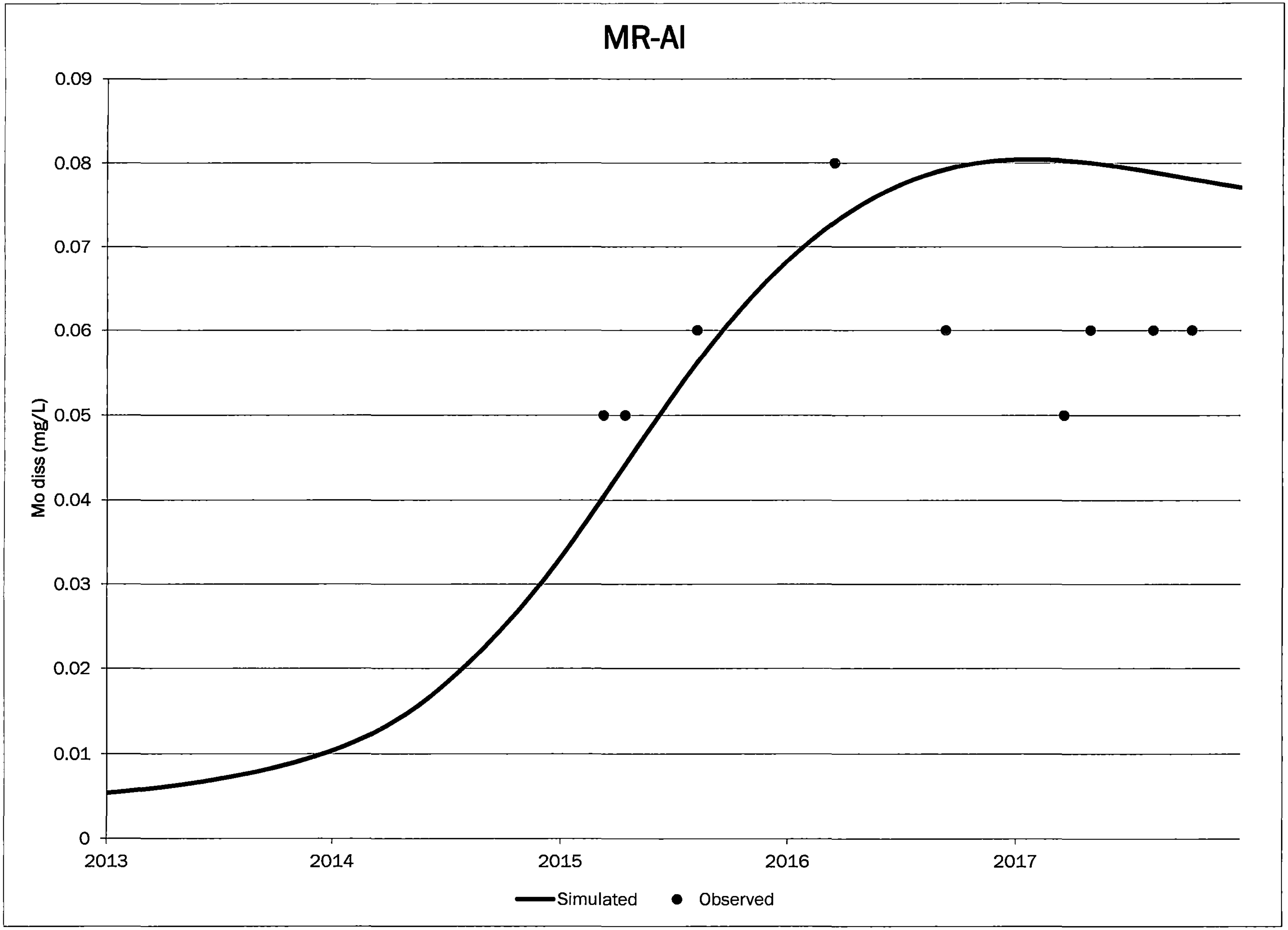

M16-AI
Mo diss (mg/L)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

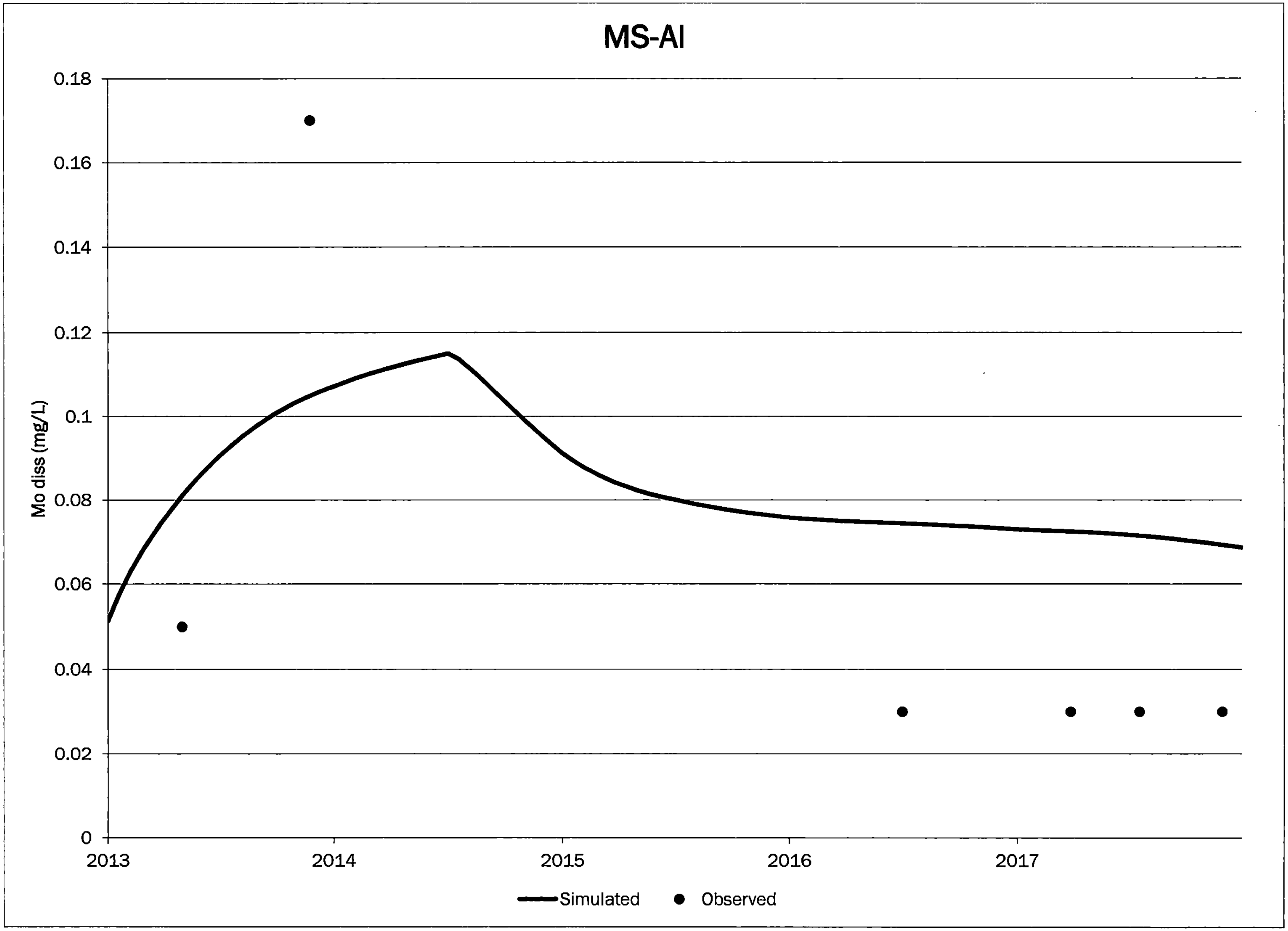

ML-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

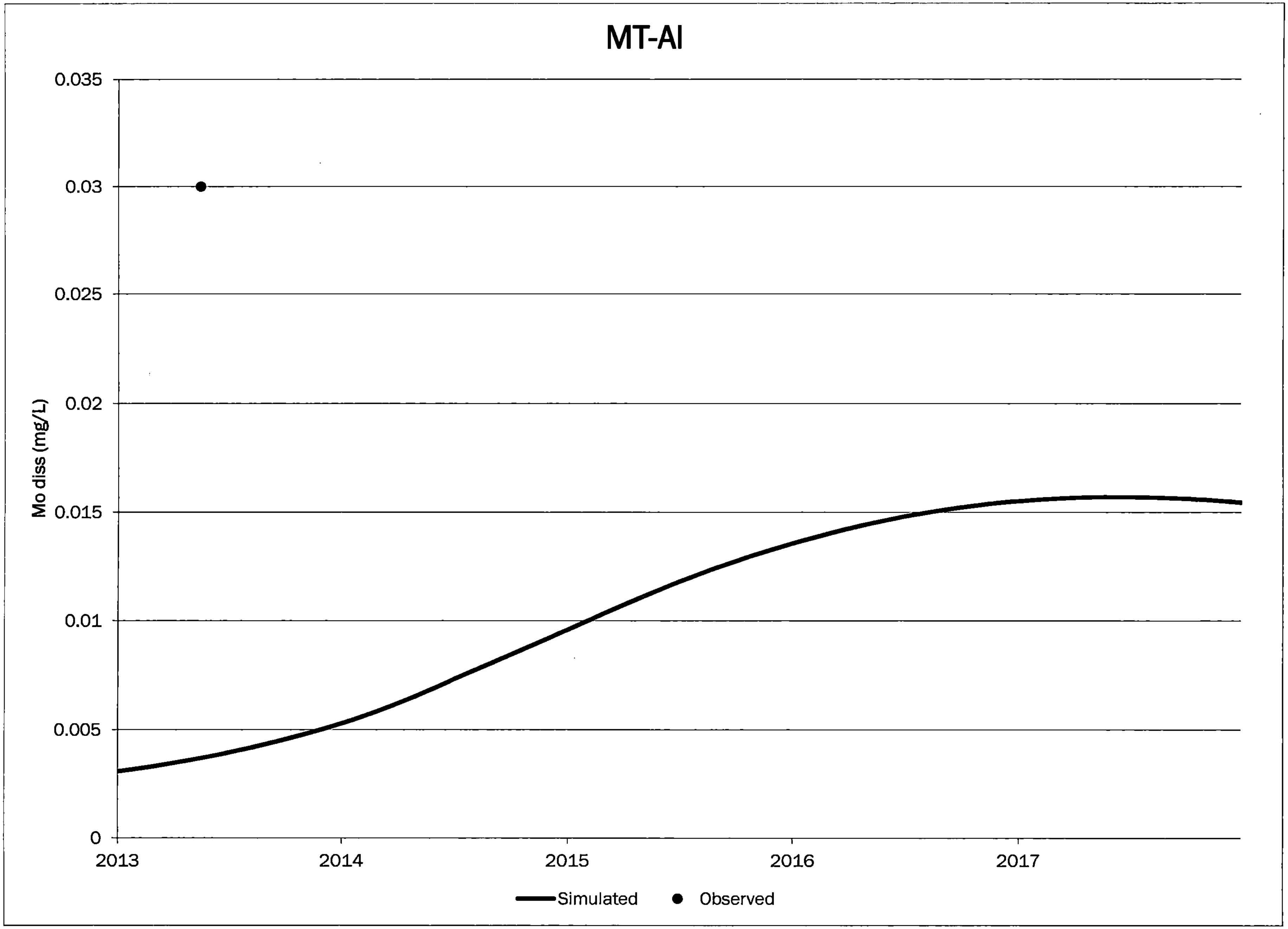

MO-AI
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

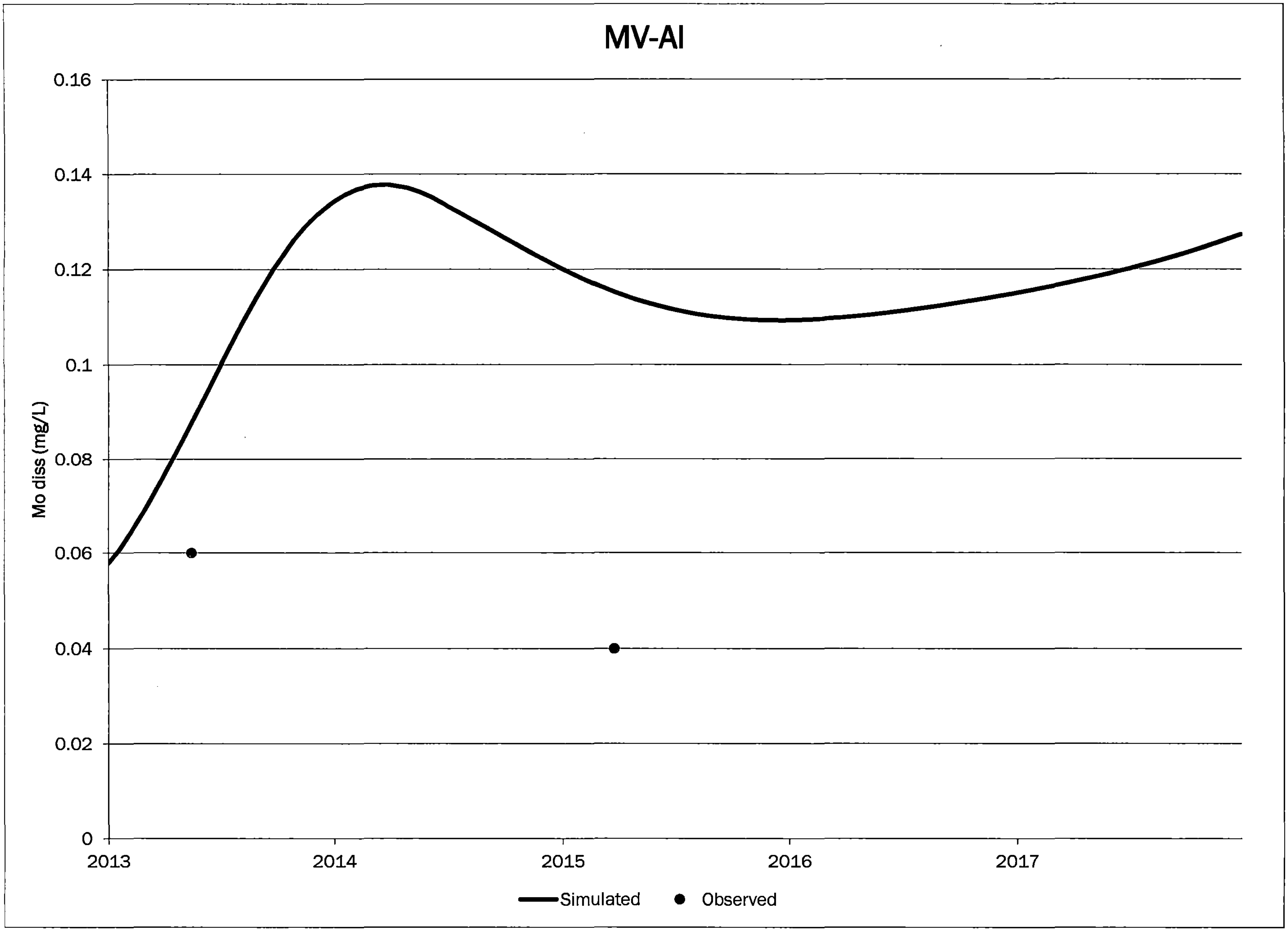


MQ-AI
Mo diss (mg/L)
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

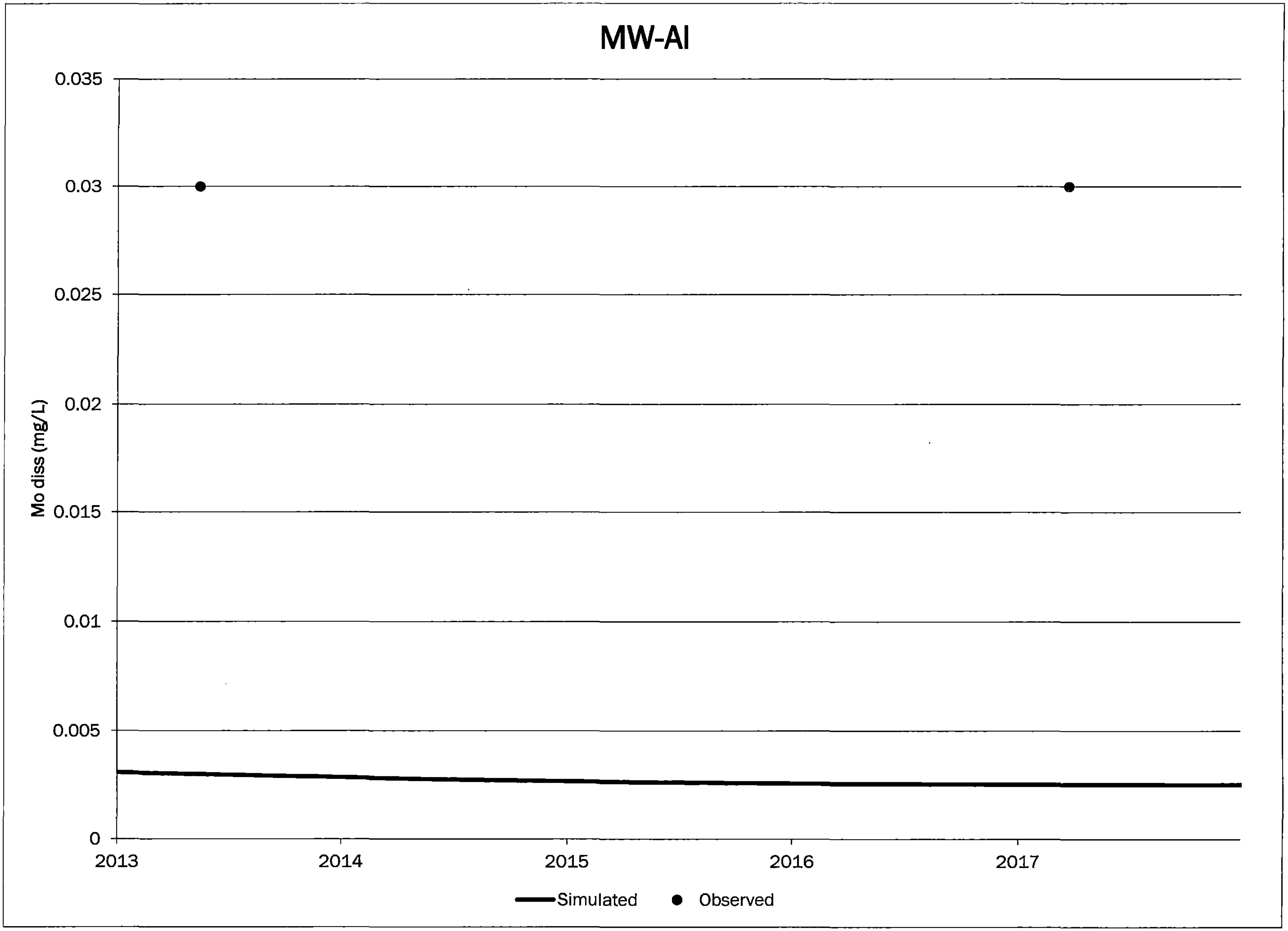

MR-AI
Mo diss (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

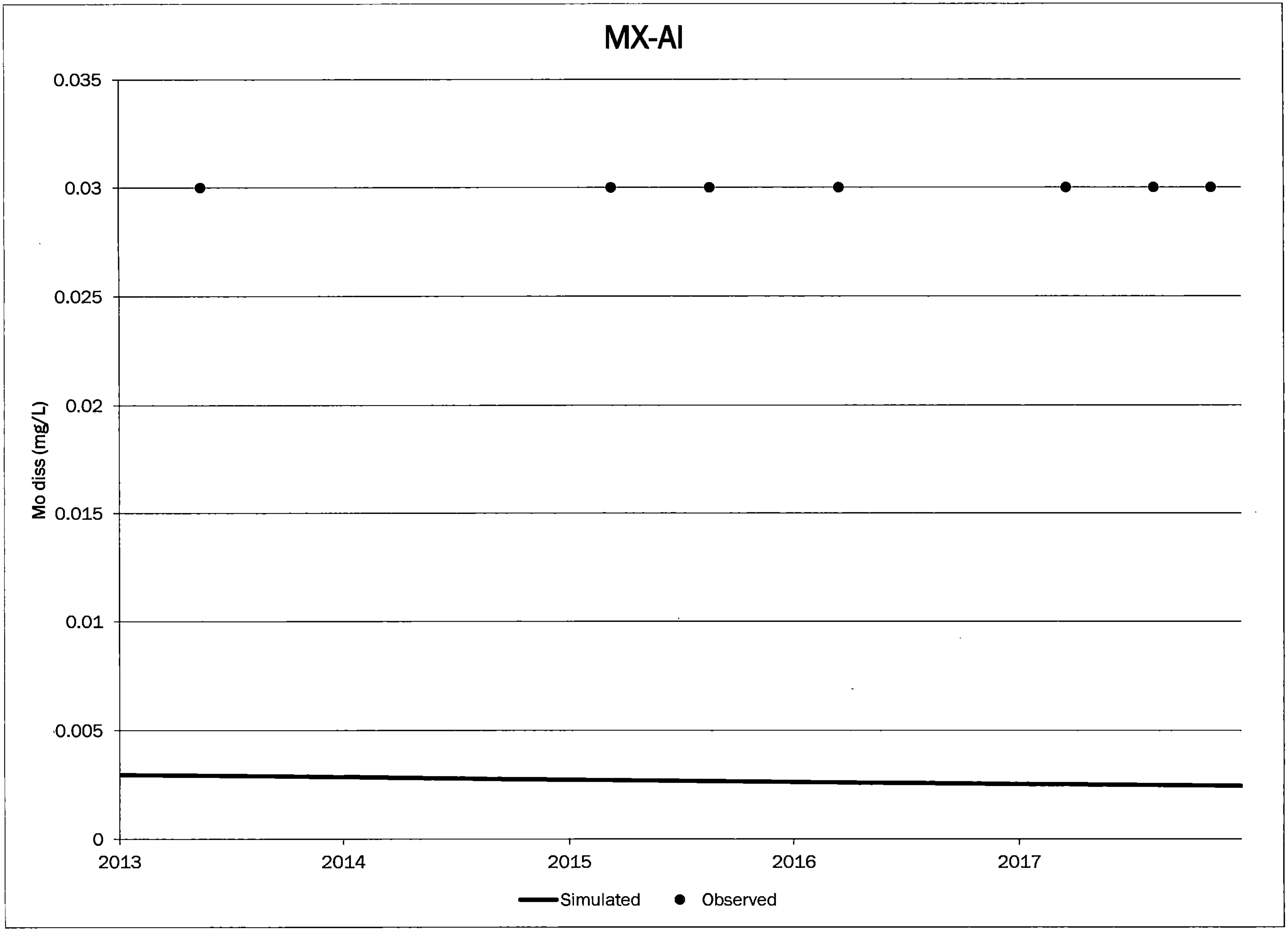

MS-AI
Mo diss (mg/L)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed


MT-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

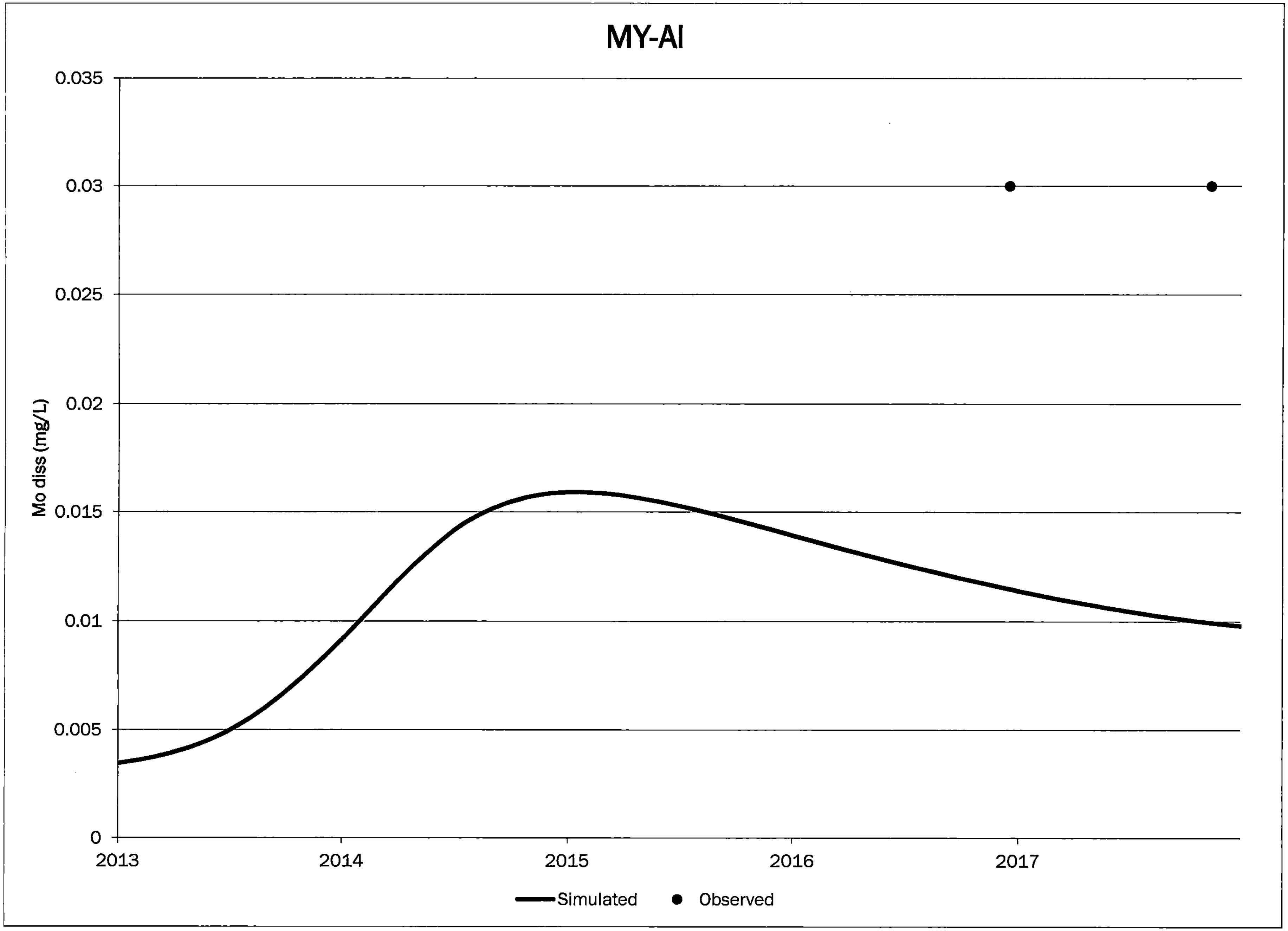


MV-AI
Mo diss (mg/L)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

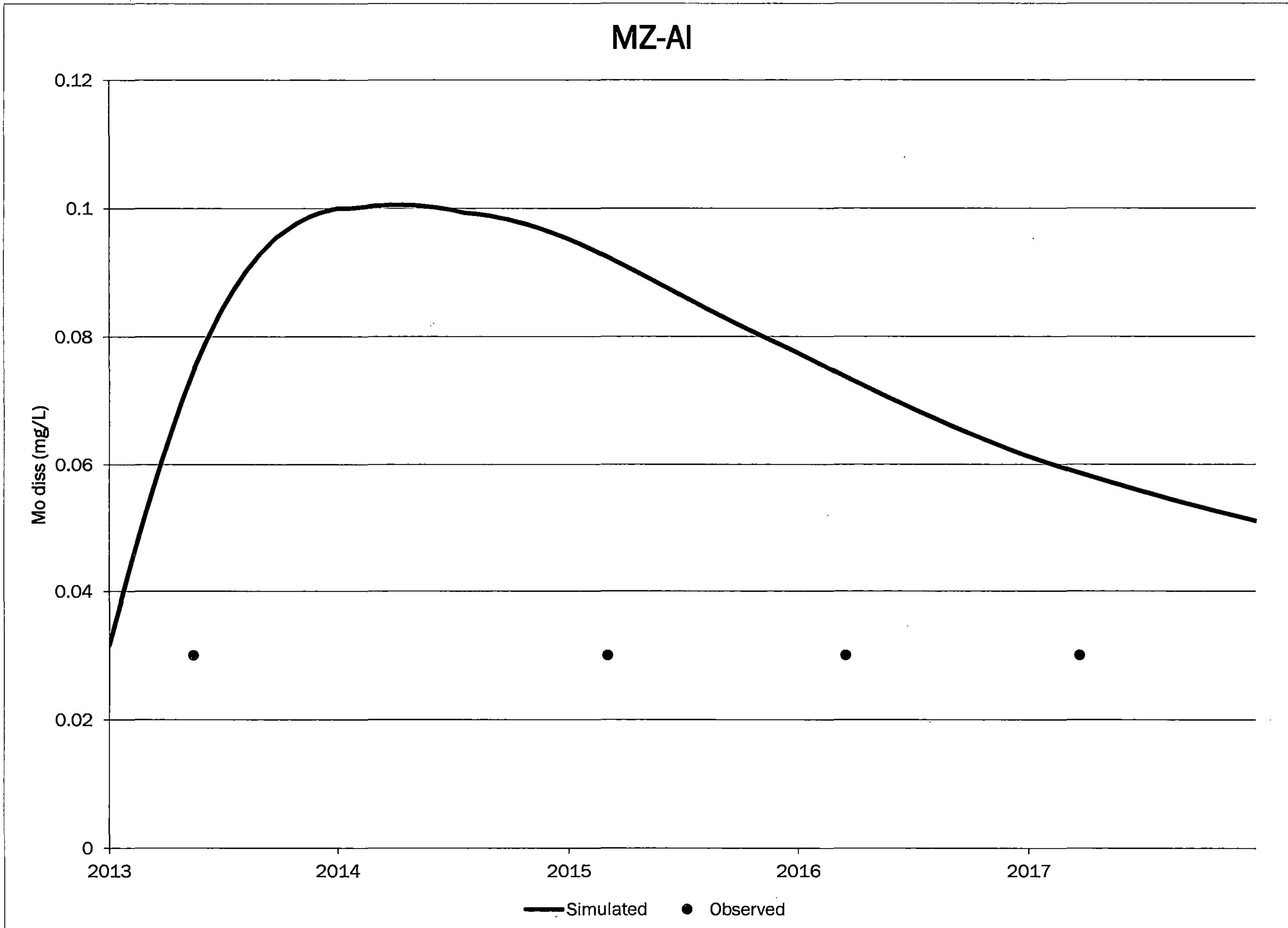

MW-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



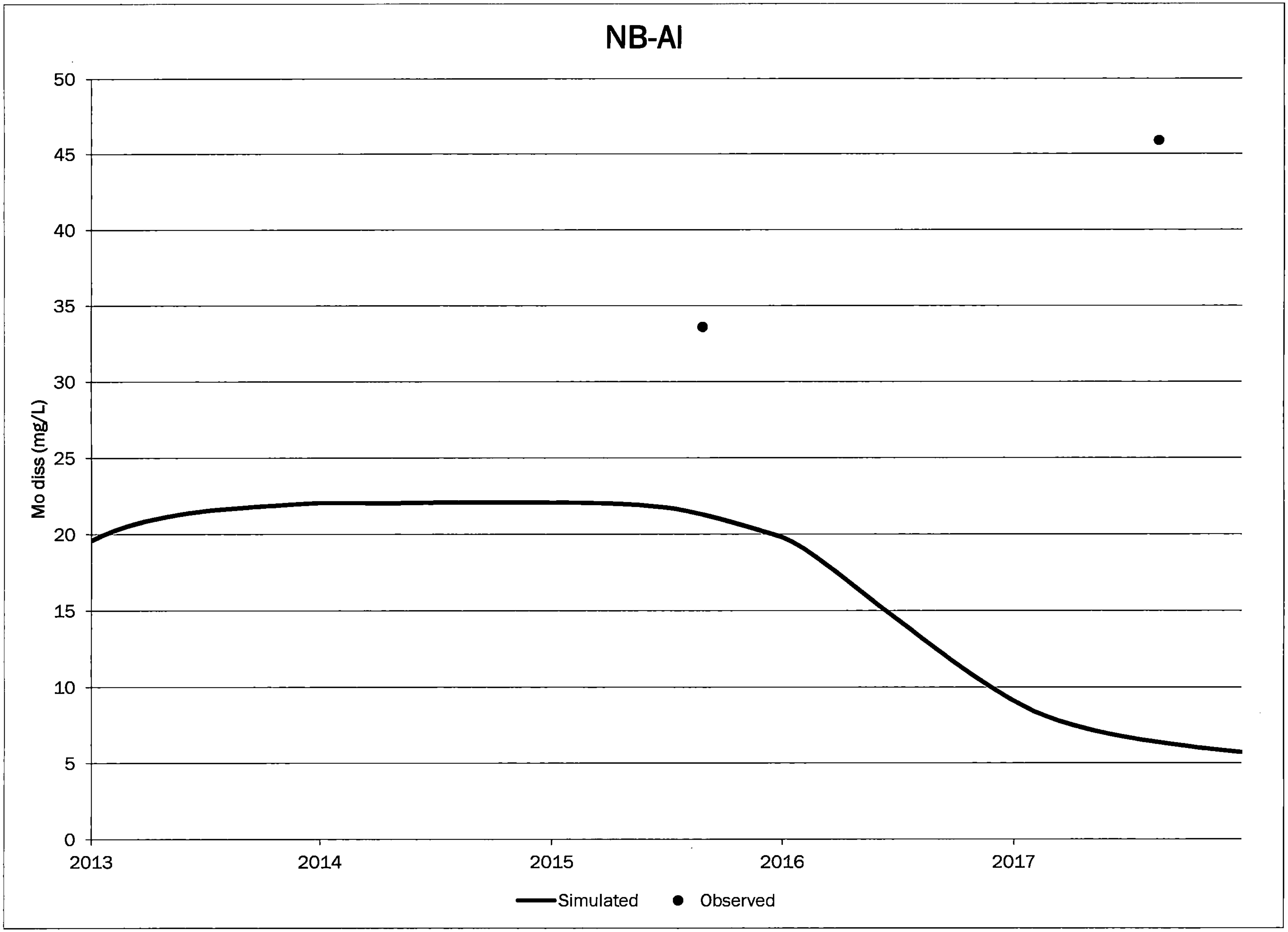
MX-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



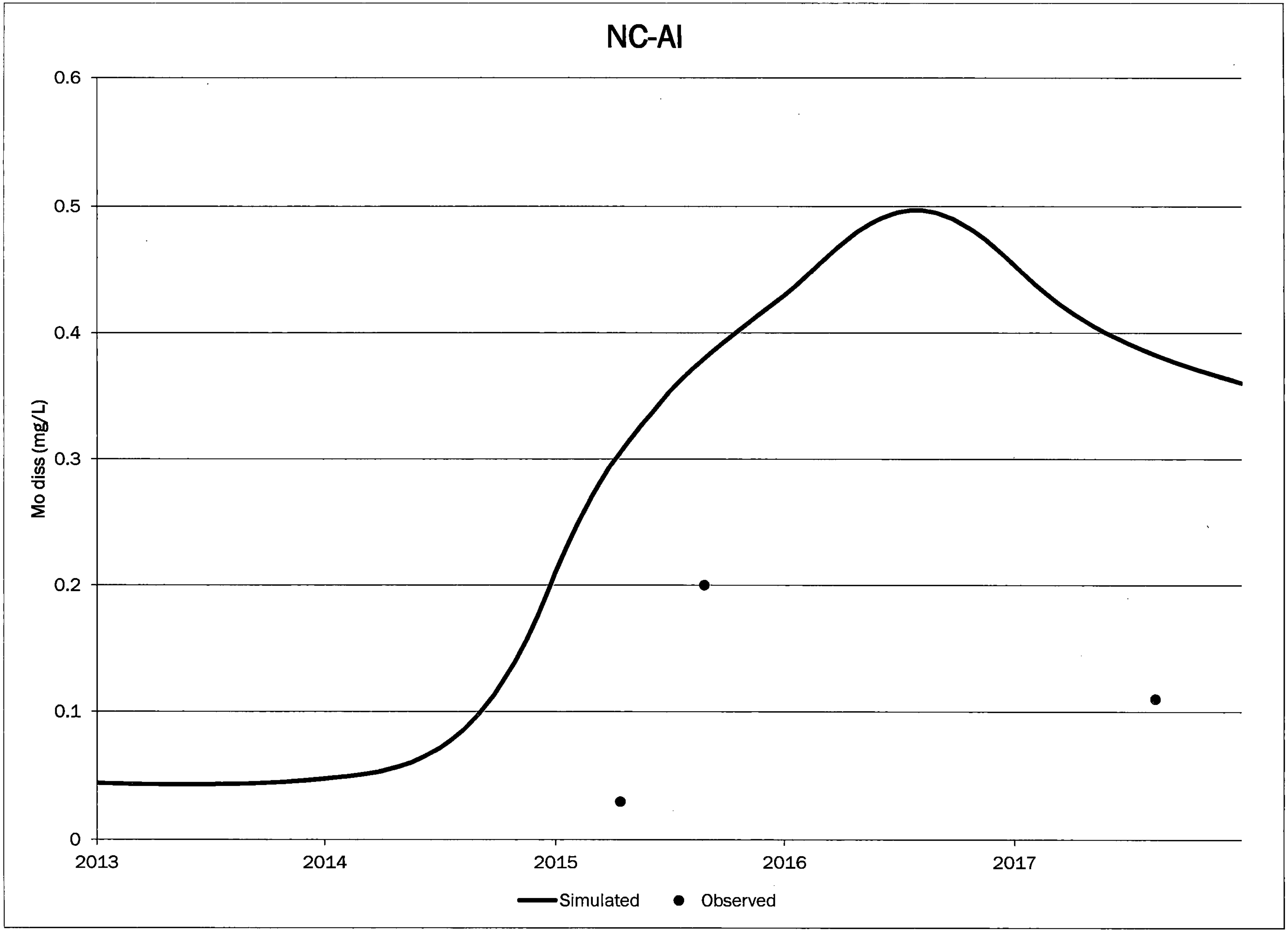
MY-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

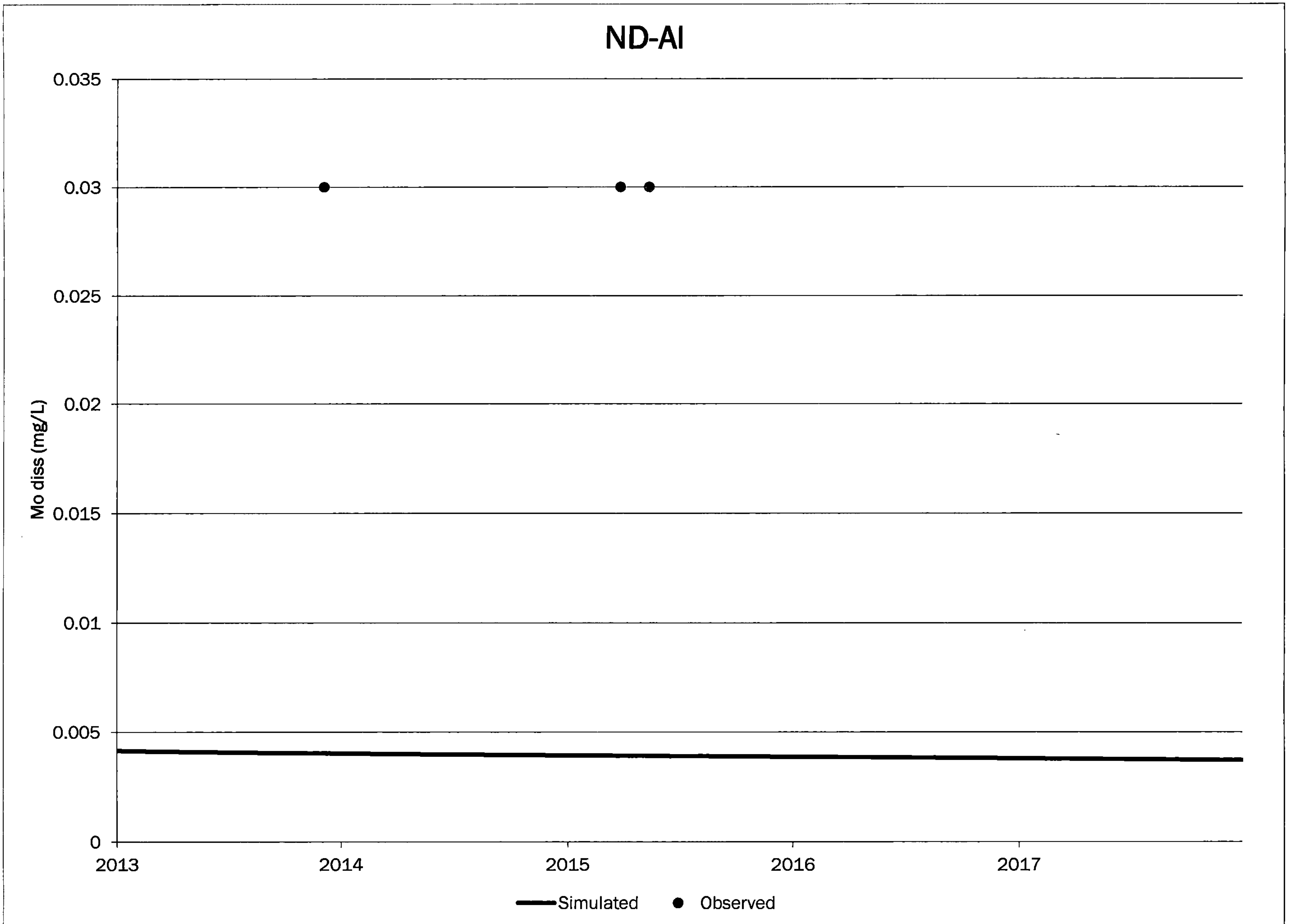


MZ-AI
0.12
0.1
0.08
0.06
0.04
0.02
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

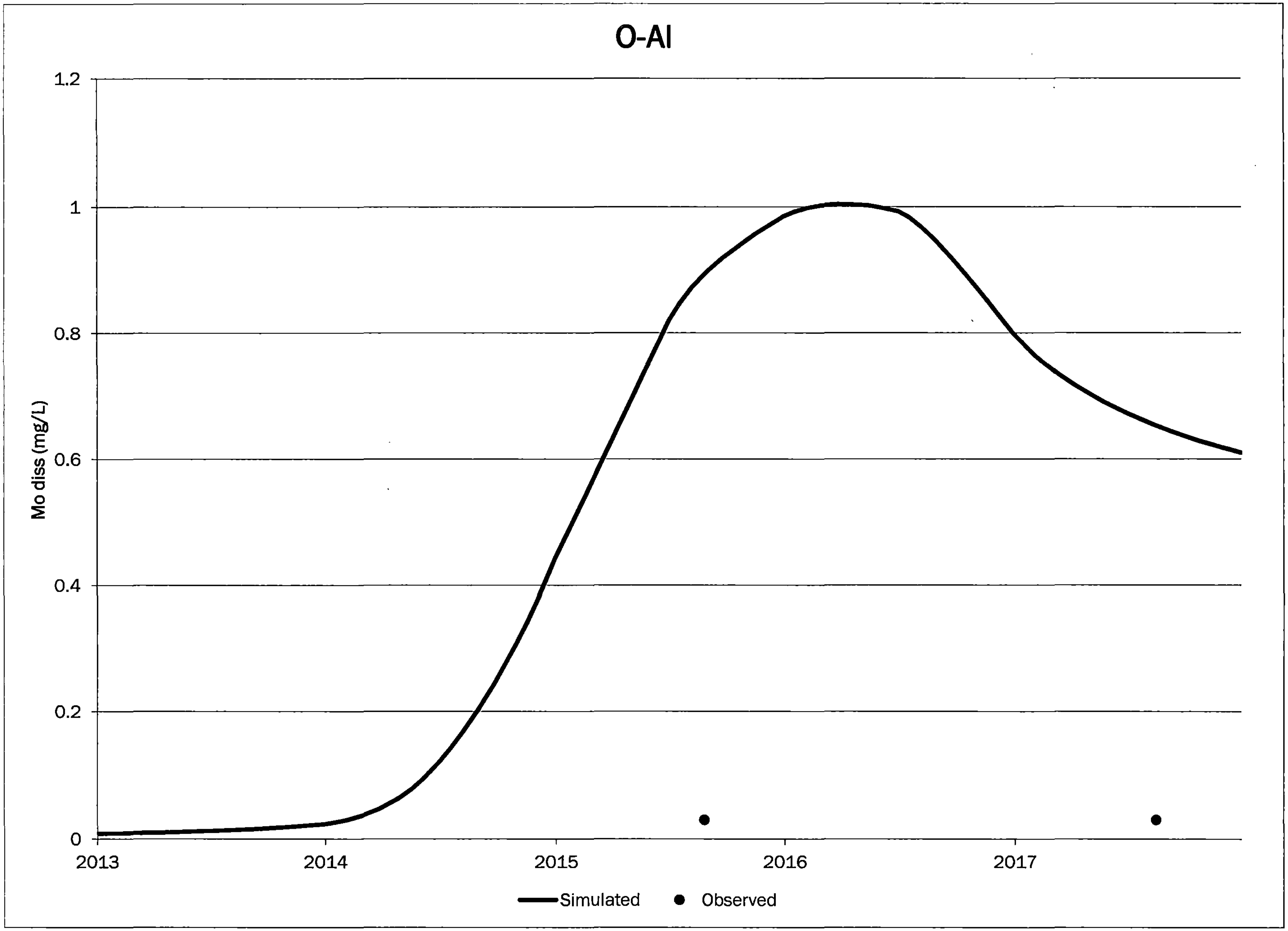


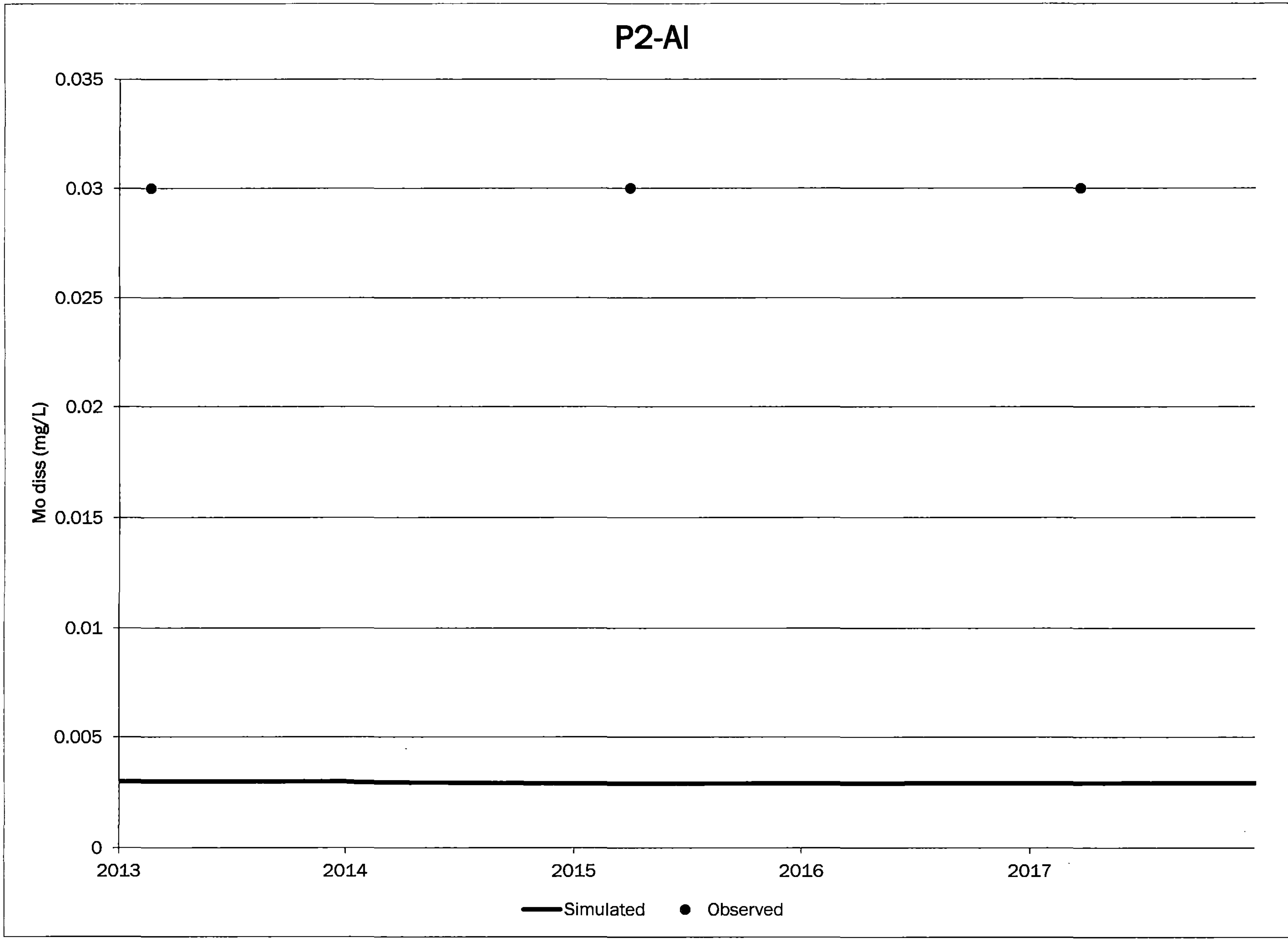
NB-AI
Mo diss (mg/L)
0
5
10
15
20
25
30
35
40
45
50
2013
2014
2015
2016
2017
Simulated
Observed

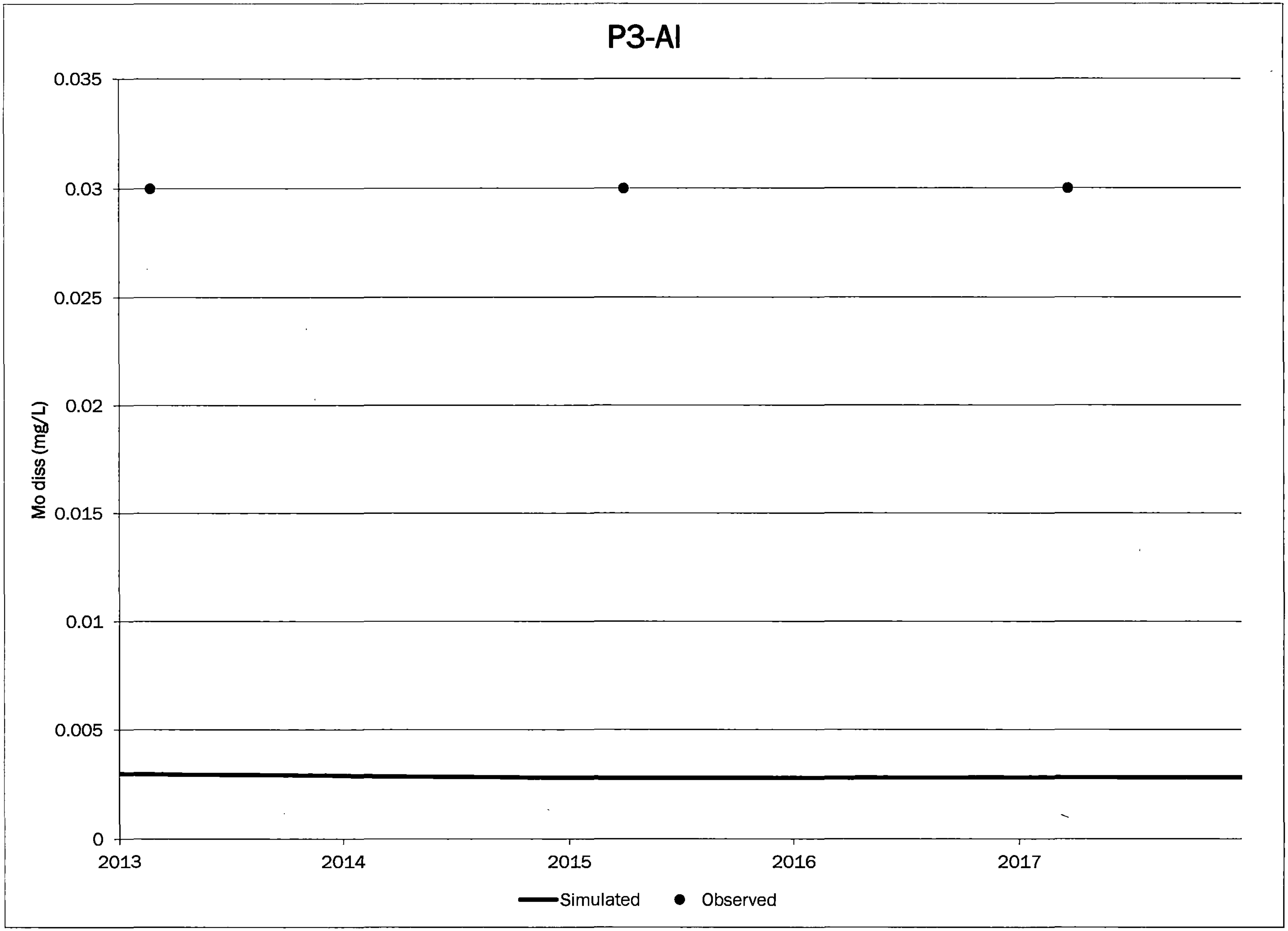

NC-AI
Mo diss (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

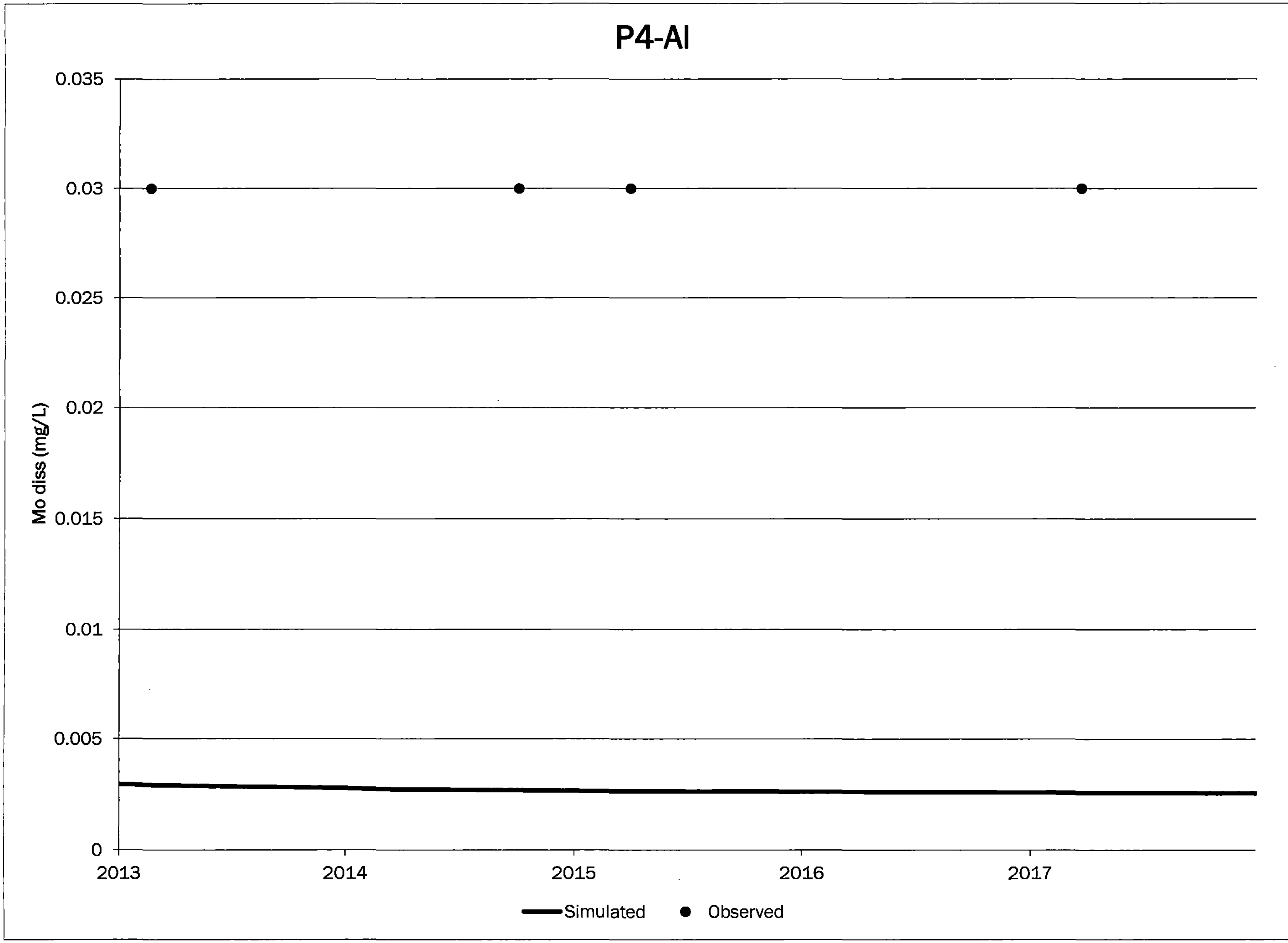


ND-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

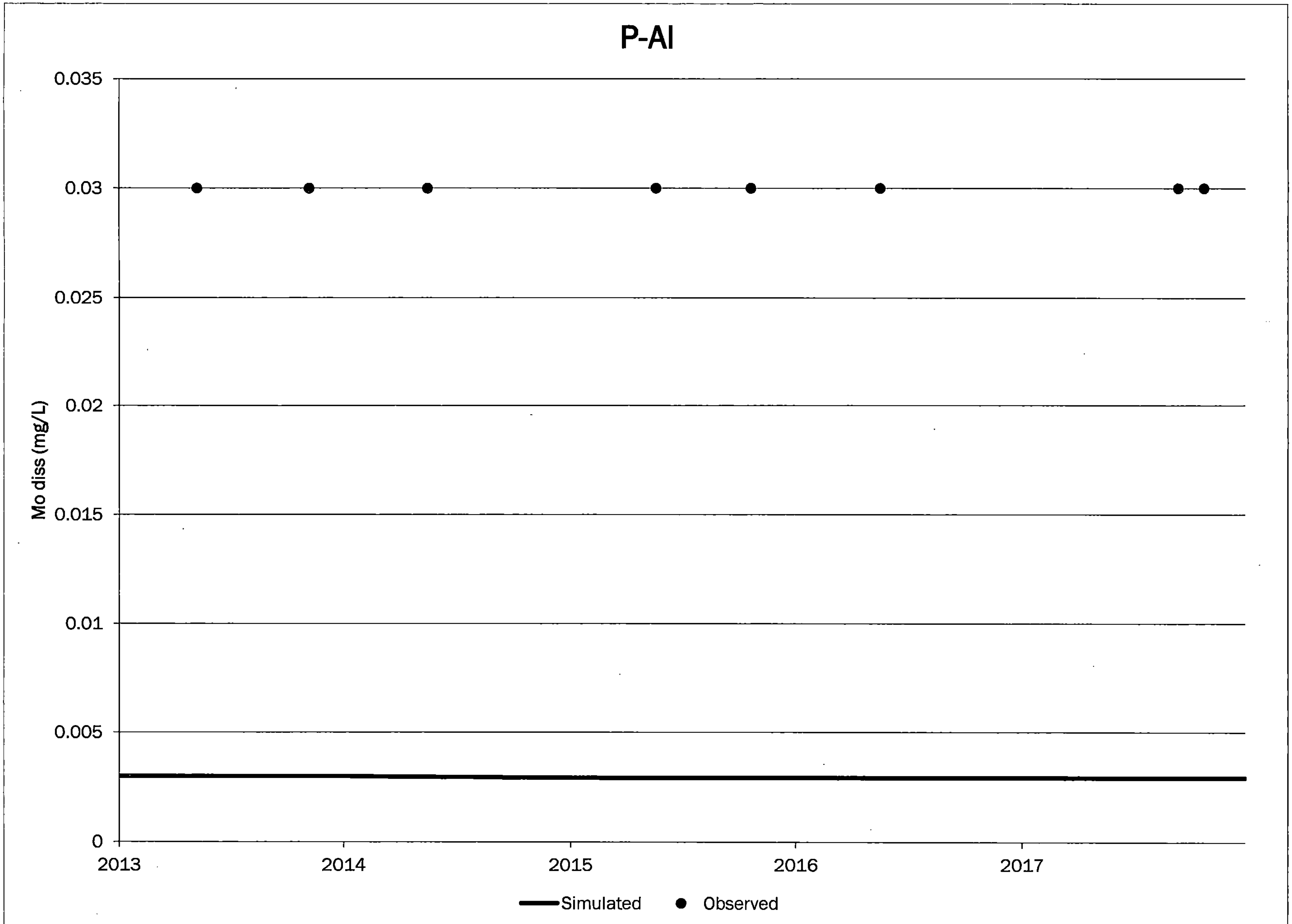

O-Al
Mo diss (mg/L)
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed


P2-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

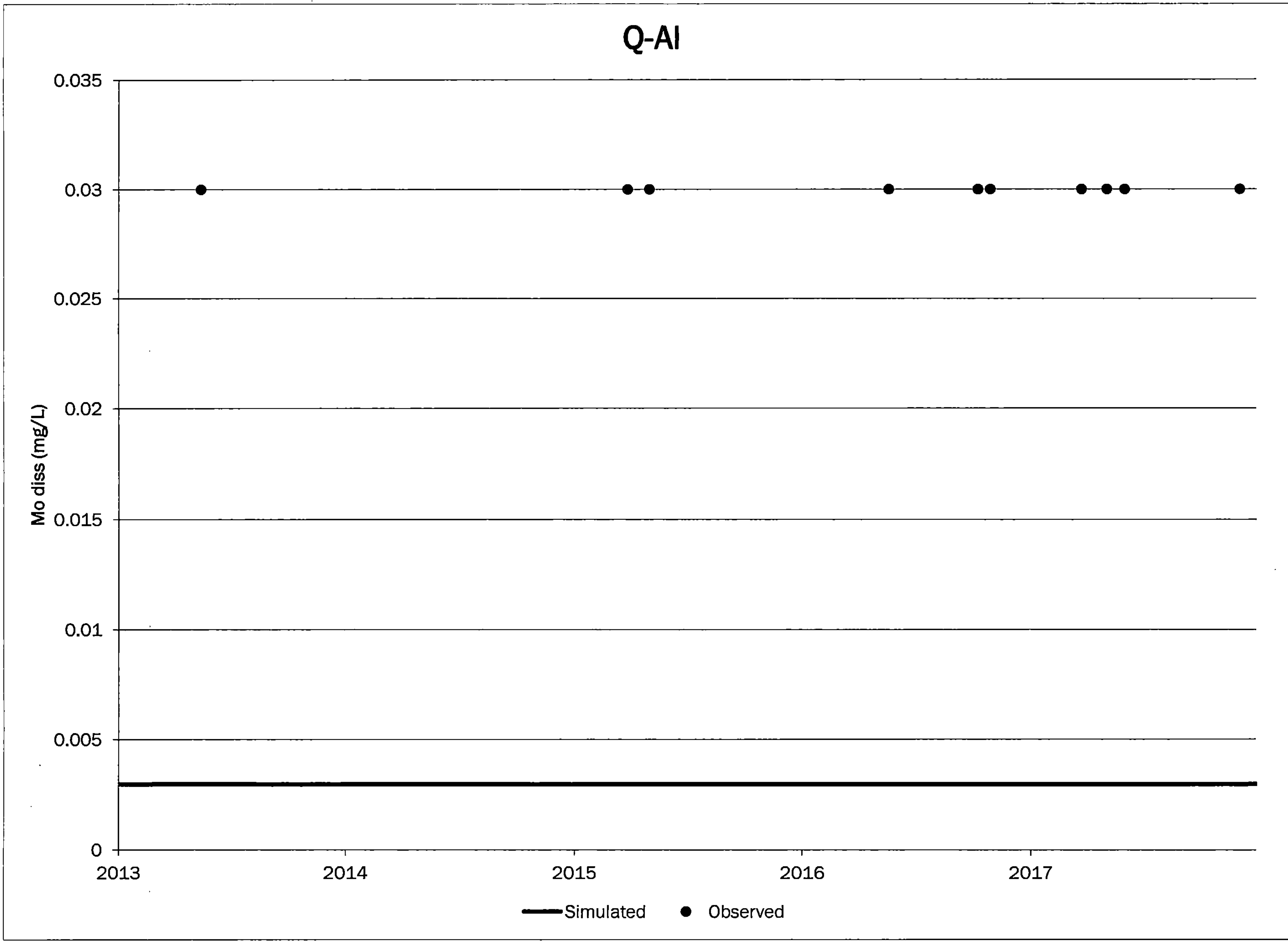

P3-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

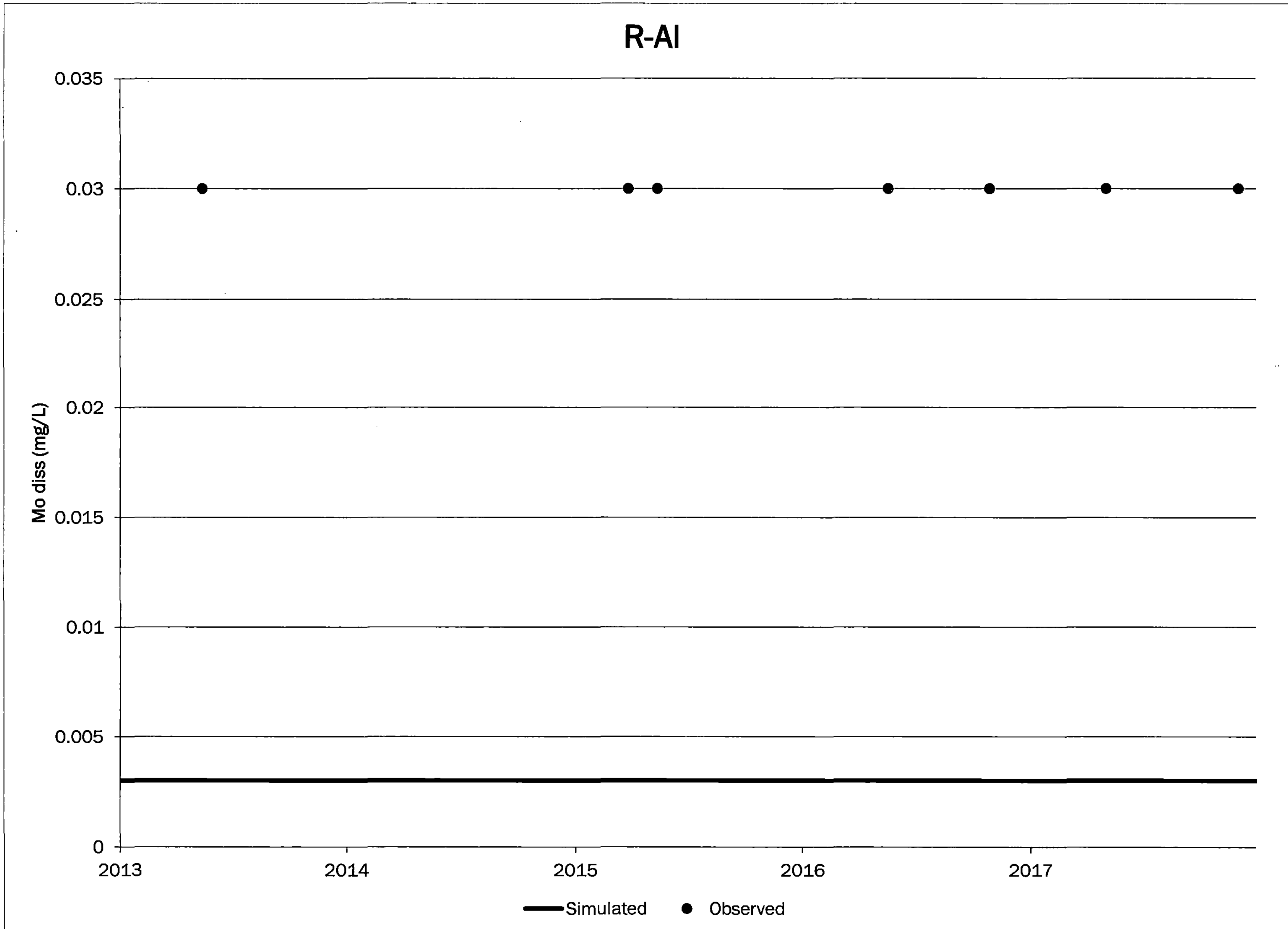


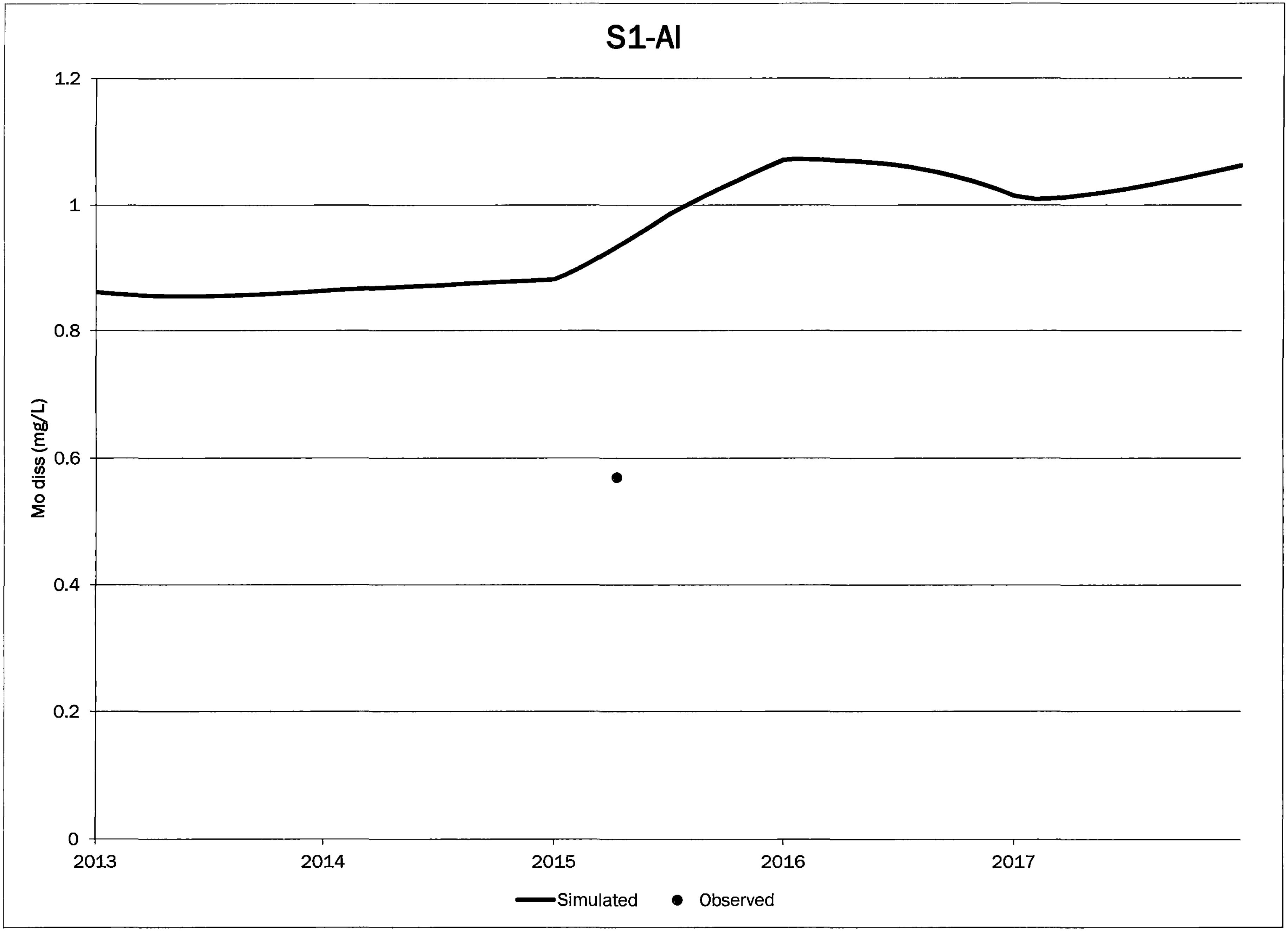
P4-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



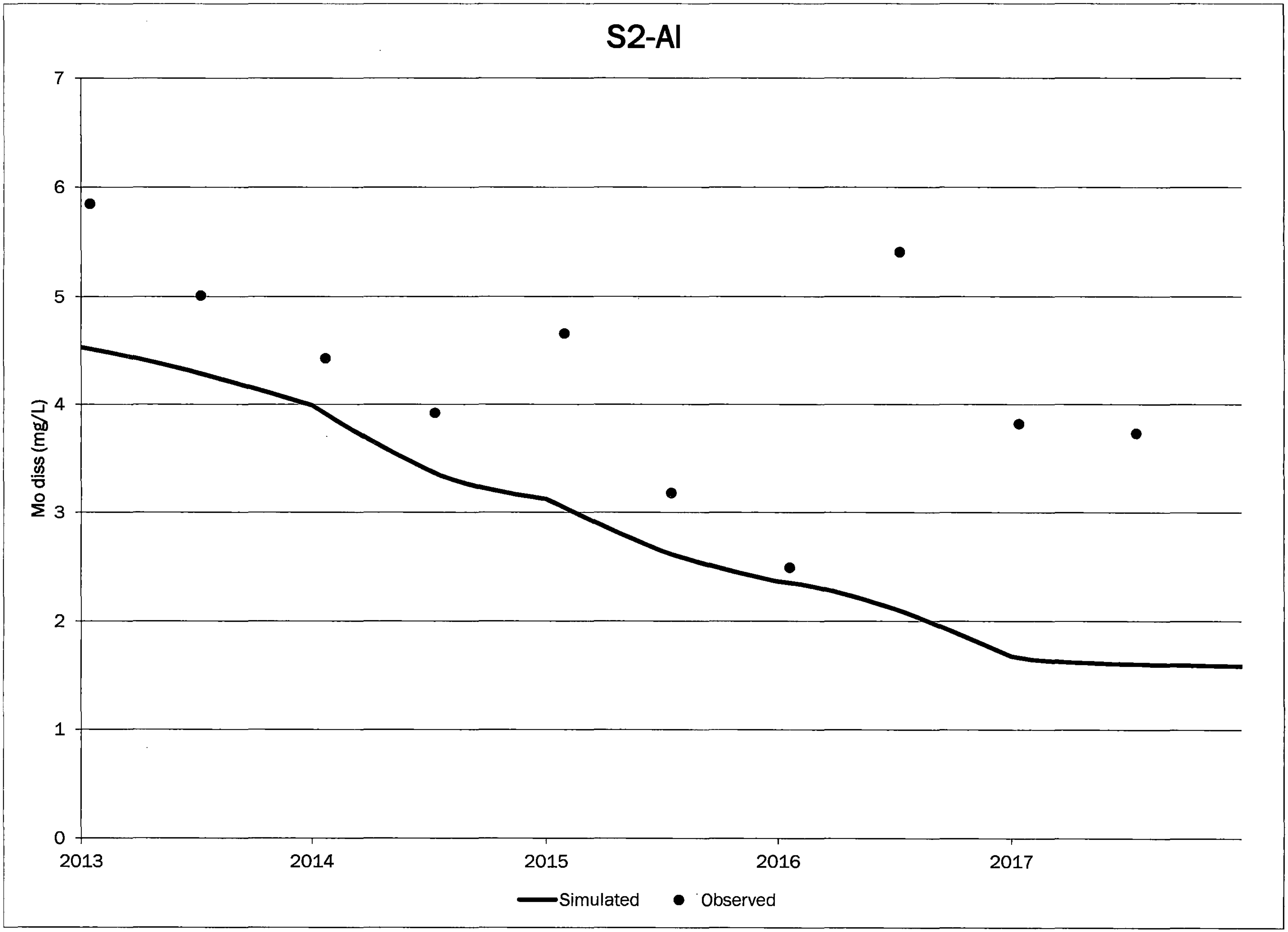
P-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


Q-AI
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

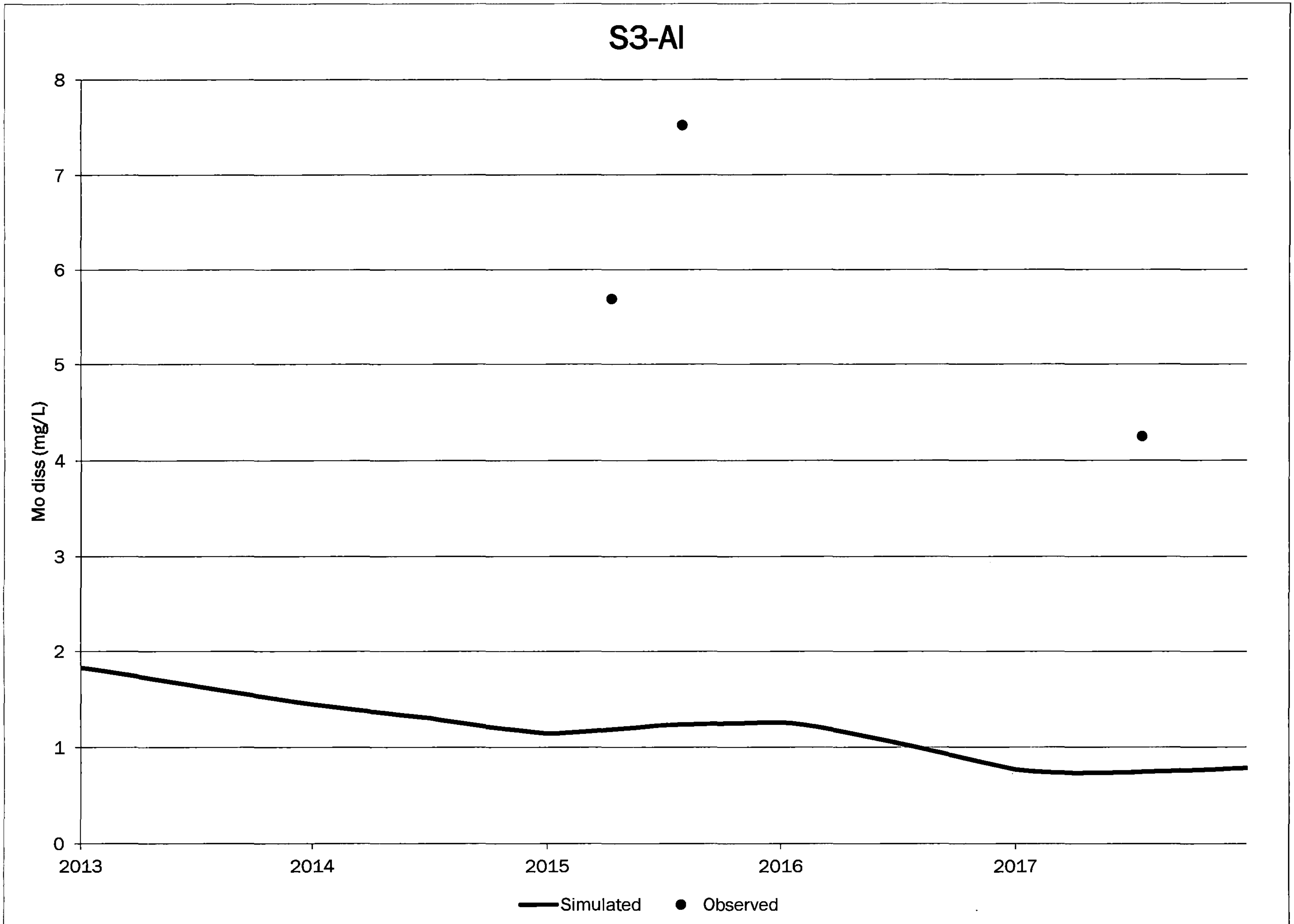

R-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



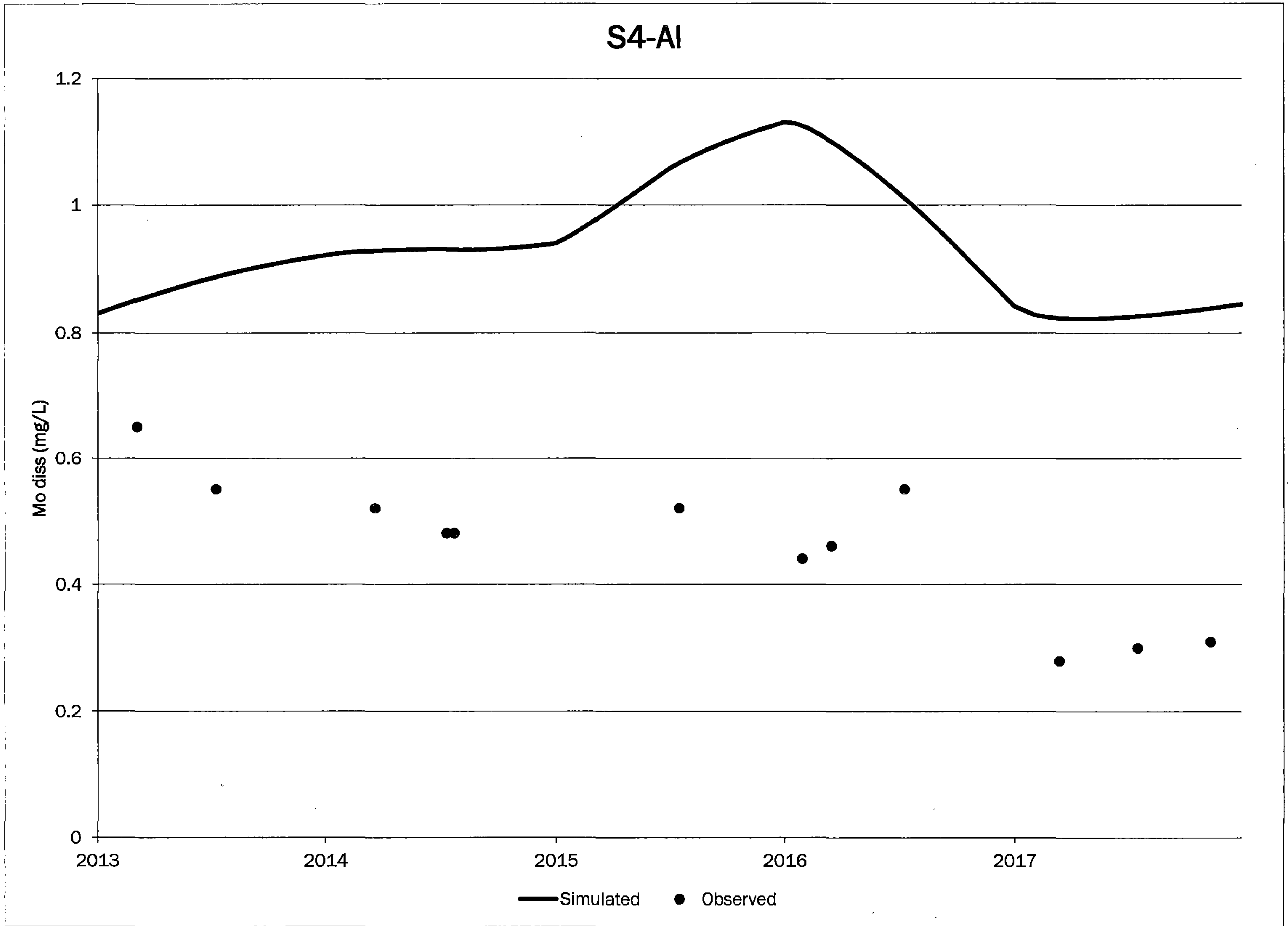
S1-Al
Mo diss (mg/L)
0
0.2
0.4
0.6
0.8
1
1.2
2013
2014
2015
2016
2017
Simulated
Observed

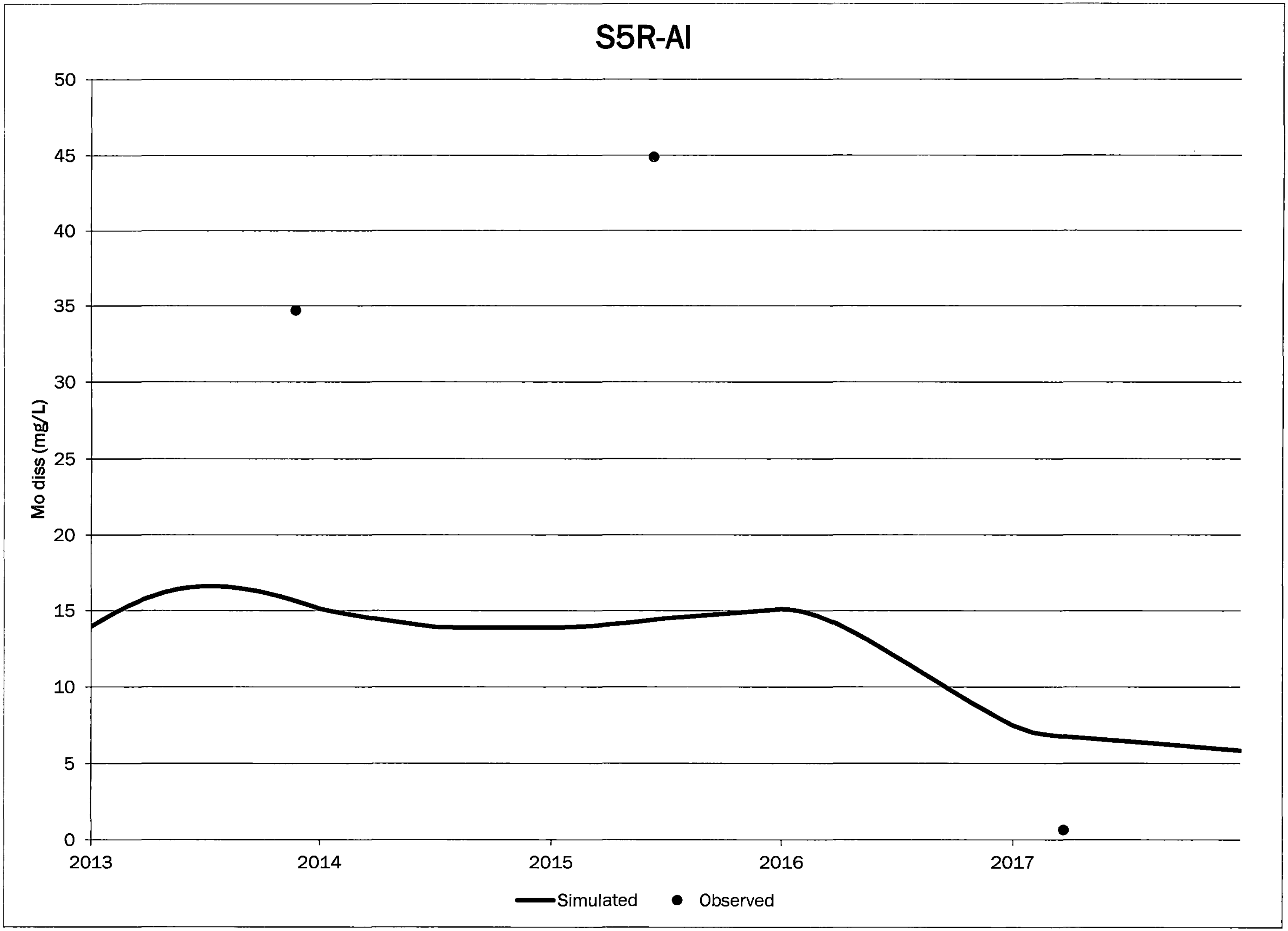


S2-AI
Mo diss (mg/L)
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed

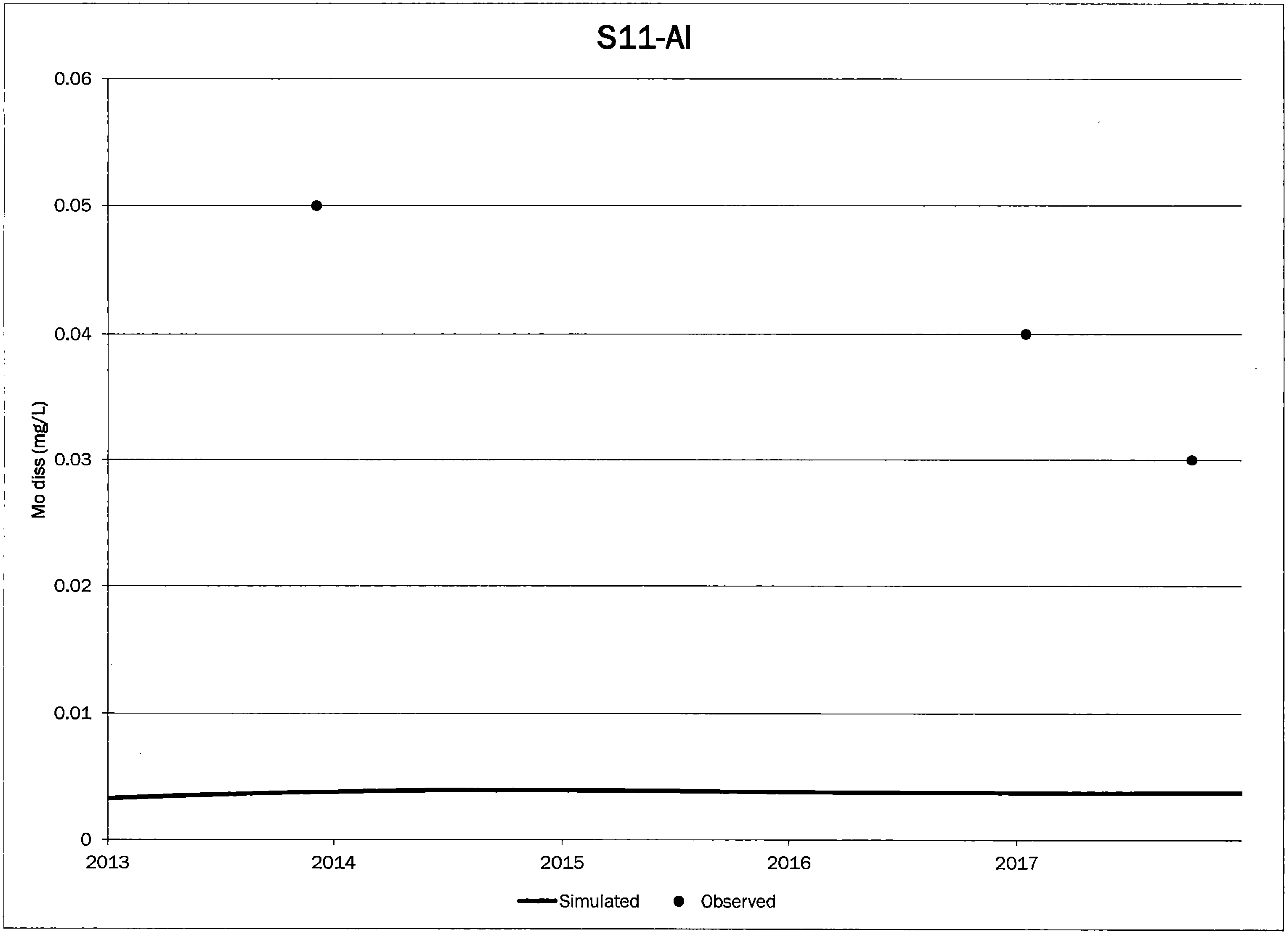


S3-Al
Mo diss (mg/L)
0
1
2
3
4
5
6
7
8
2013
2014
2015
2016
2017
Simulated
Observed

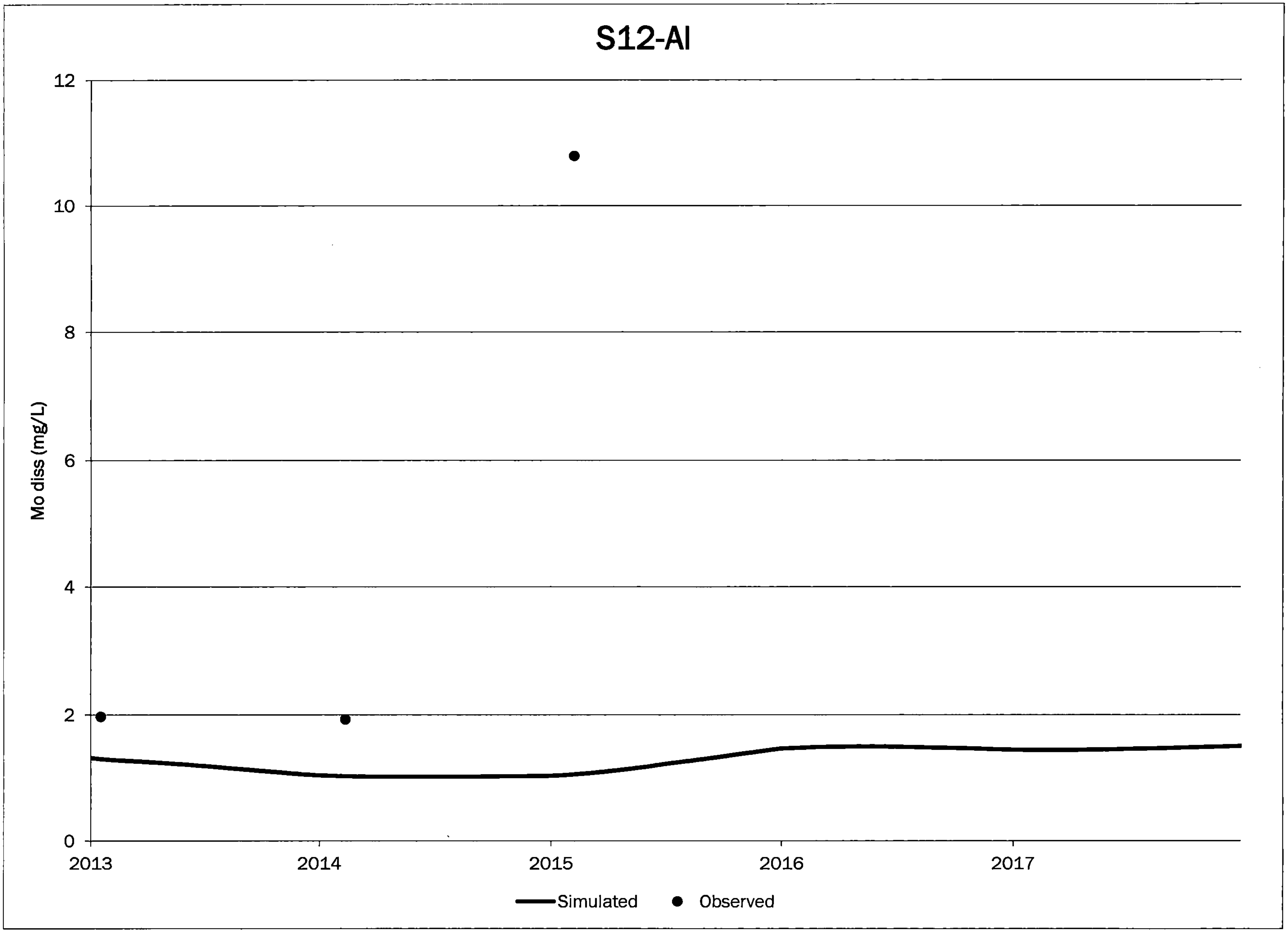

S4-Al
Mo diss (mg/L)
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
Simulated
Observed

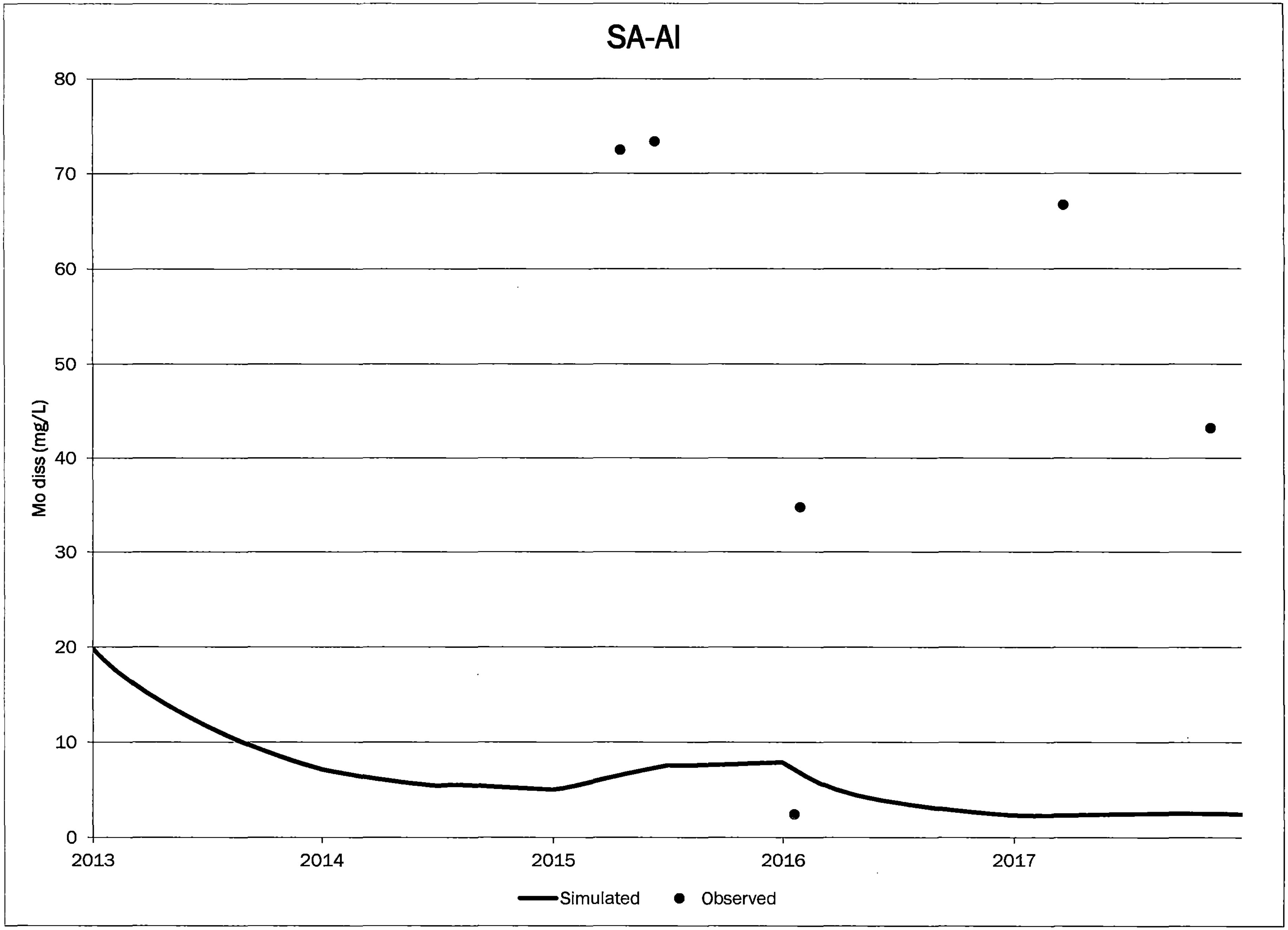


S5R-AI
Mo diss (mg/L)
50
45
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

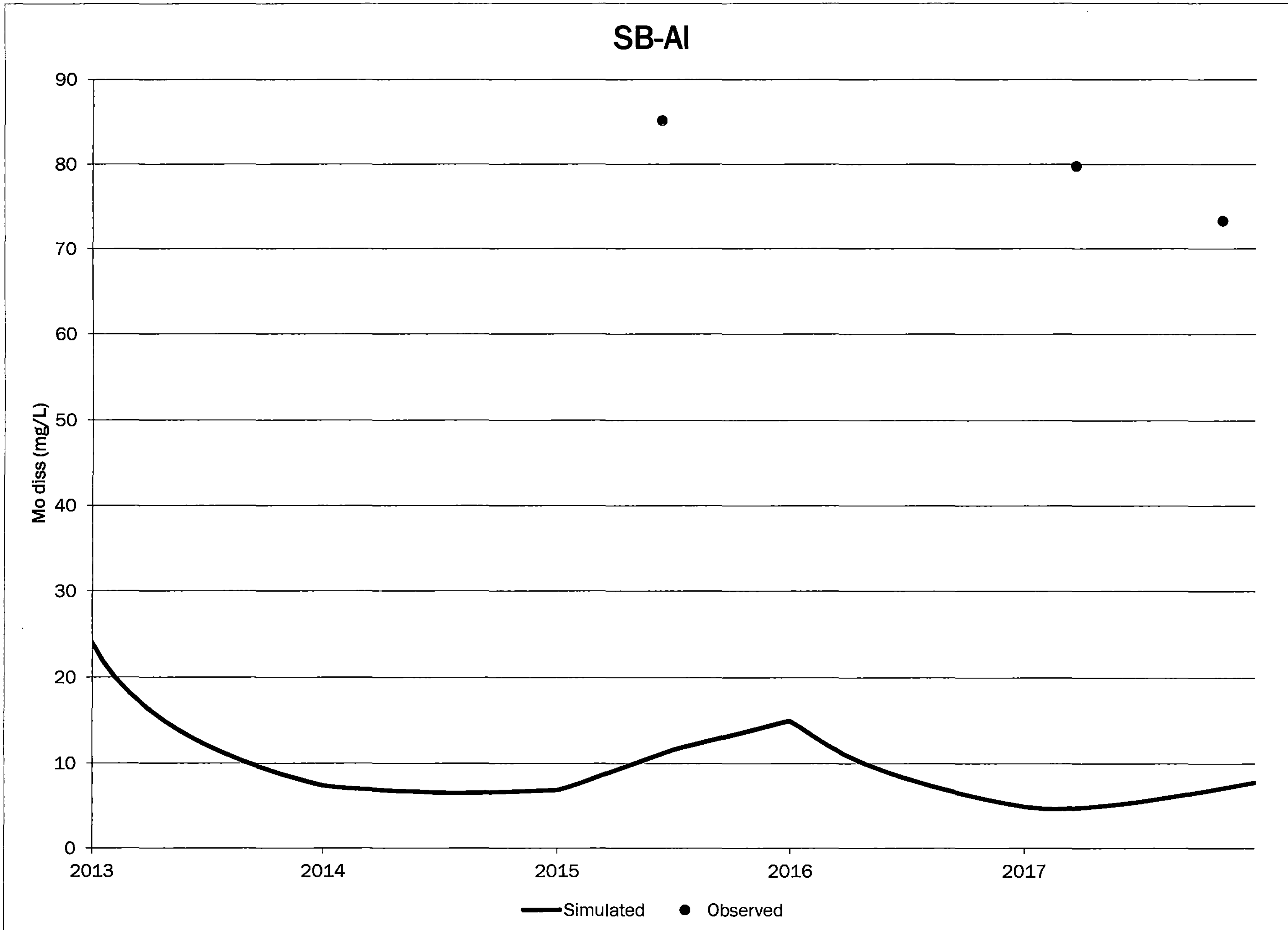


S11-Al
0.06
0.05
0.04
0.03
0.02
0.01
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

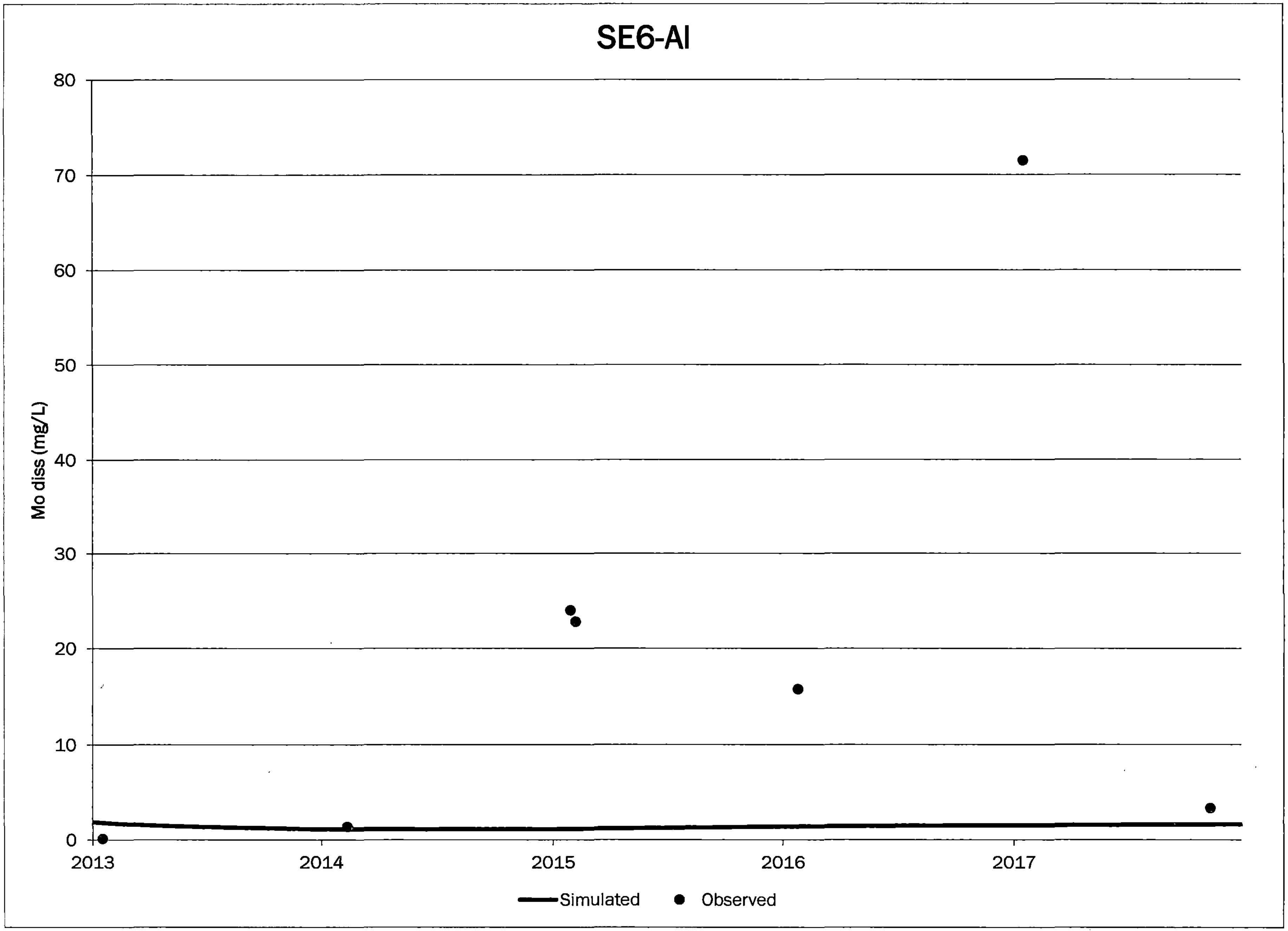

S12-Al
Mo diss (mg/L)
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed



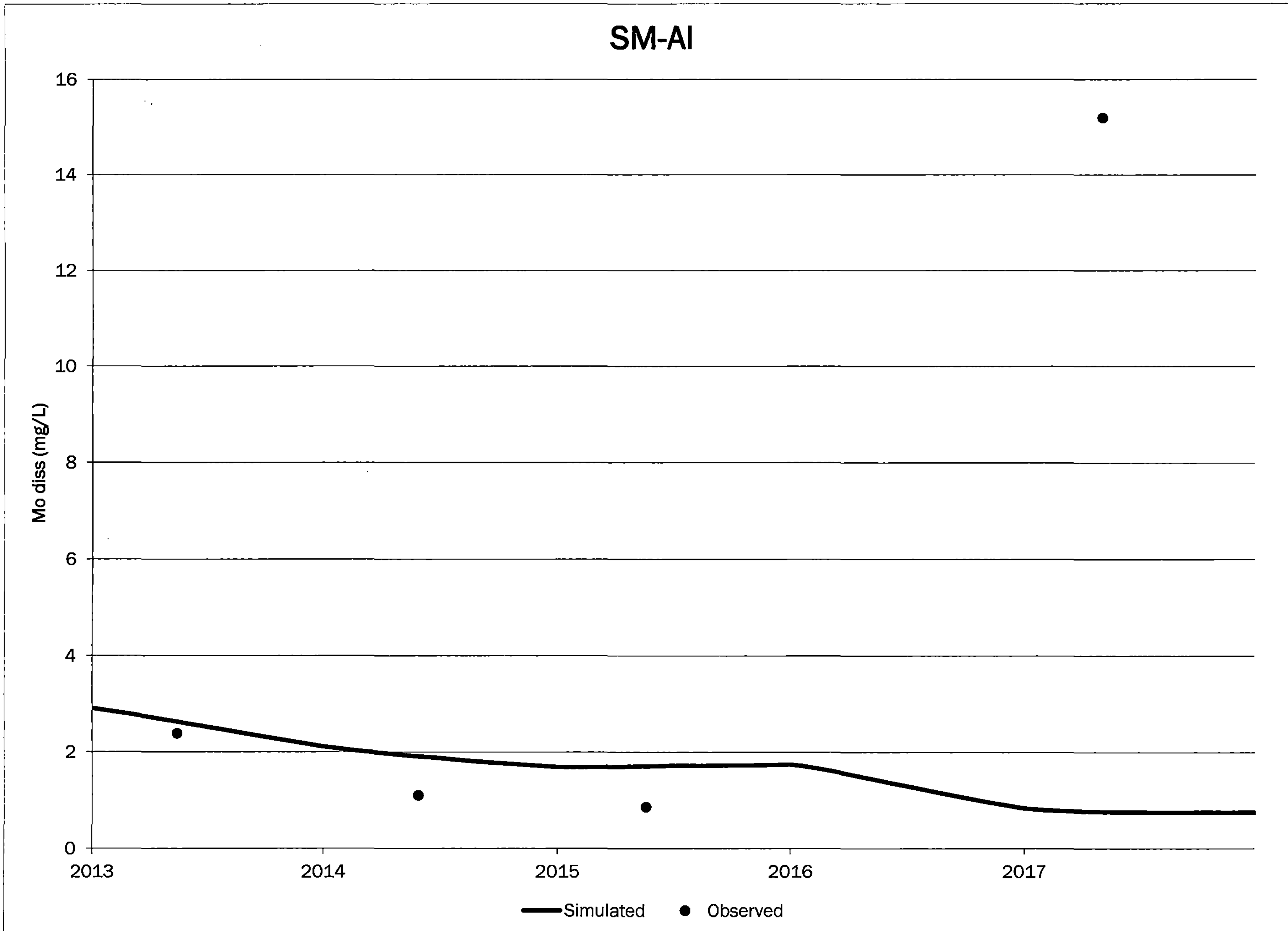
SA-AI
Mo diss (mg/L)
80
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed



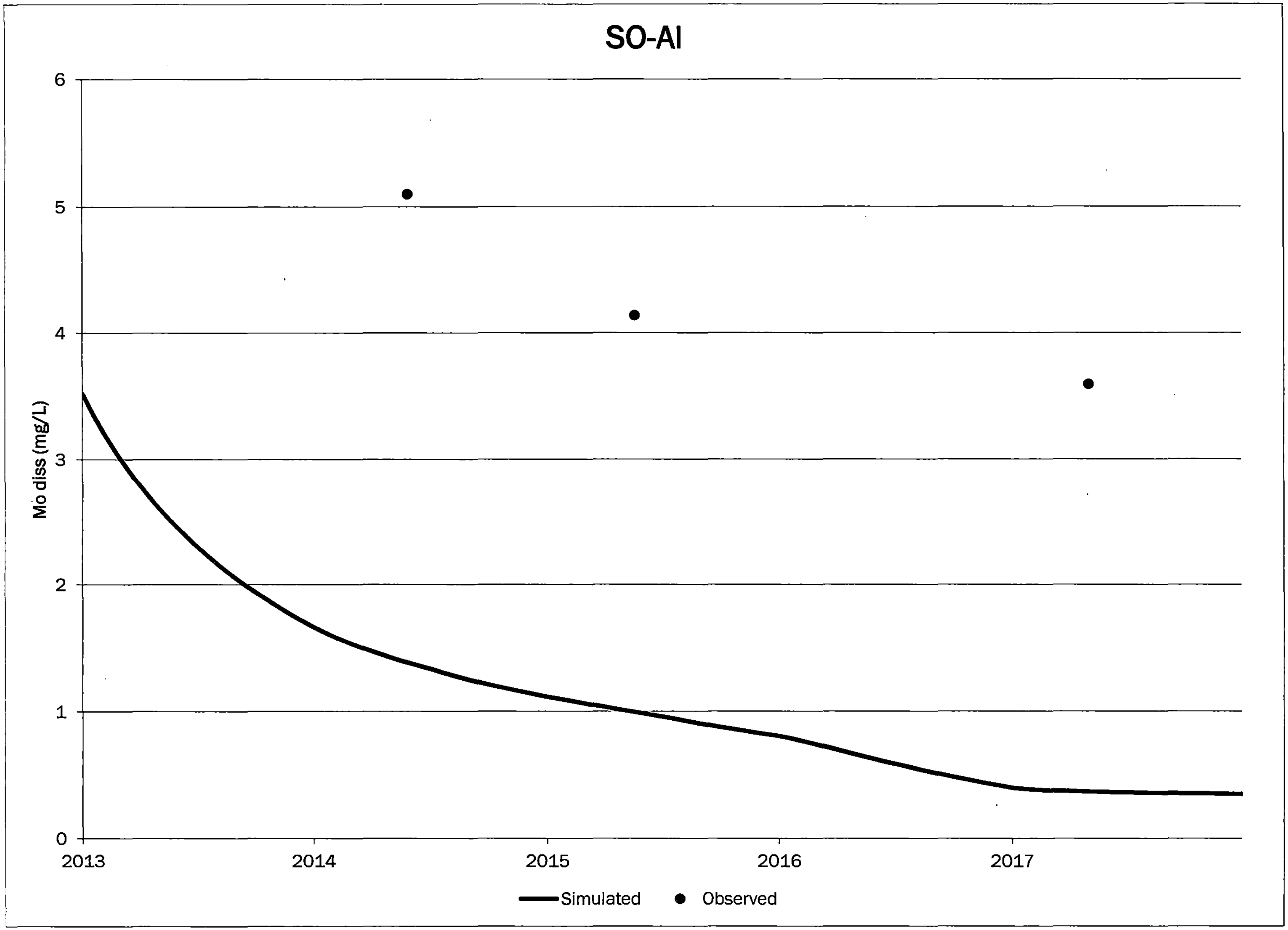
SB-Al
90
80
70
60
50
40
30
20
10
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

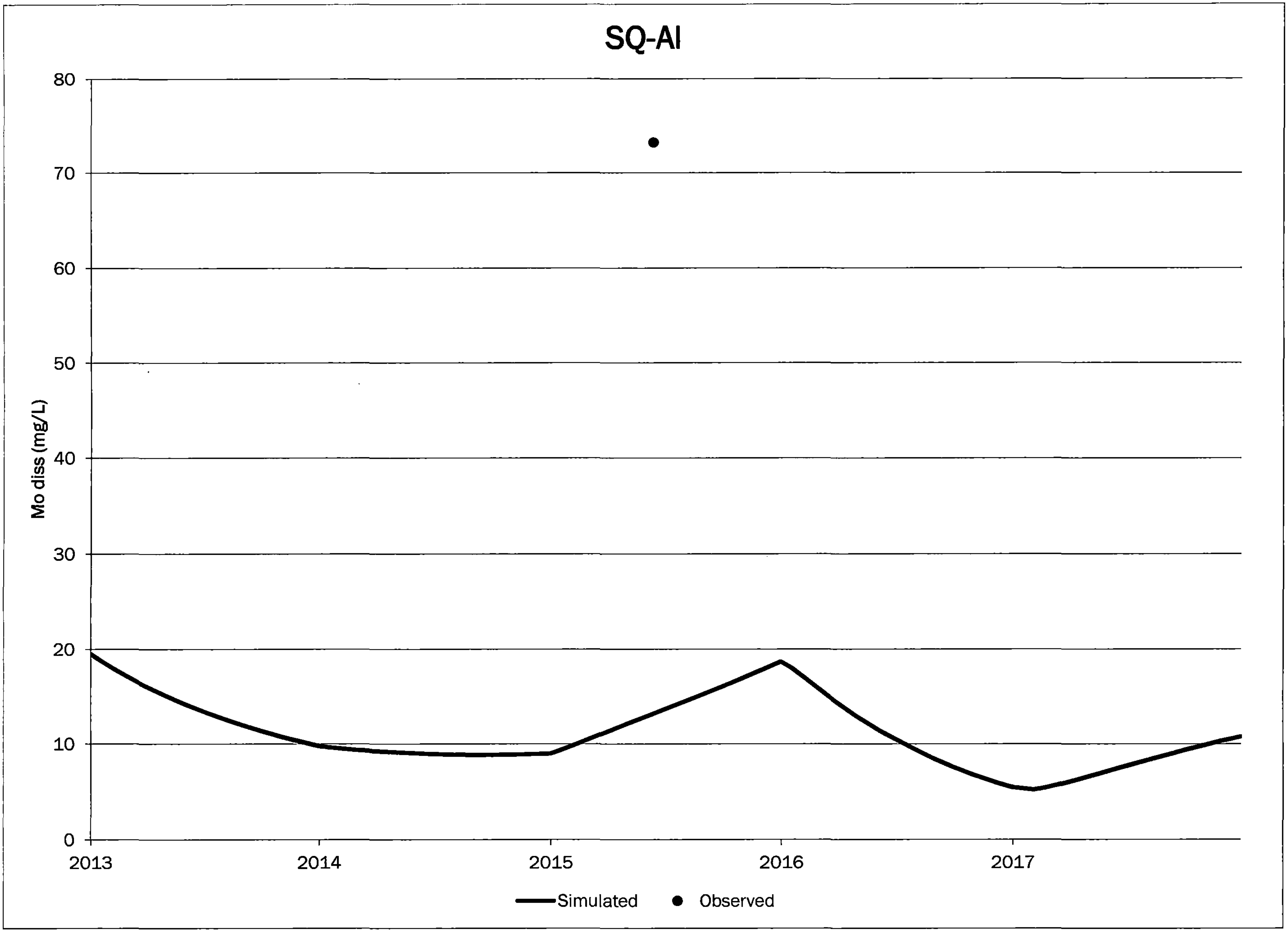


SE6-AI
Mo diss (mg/L)
80
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

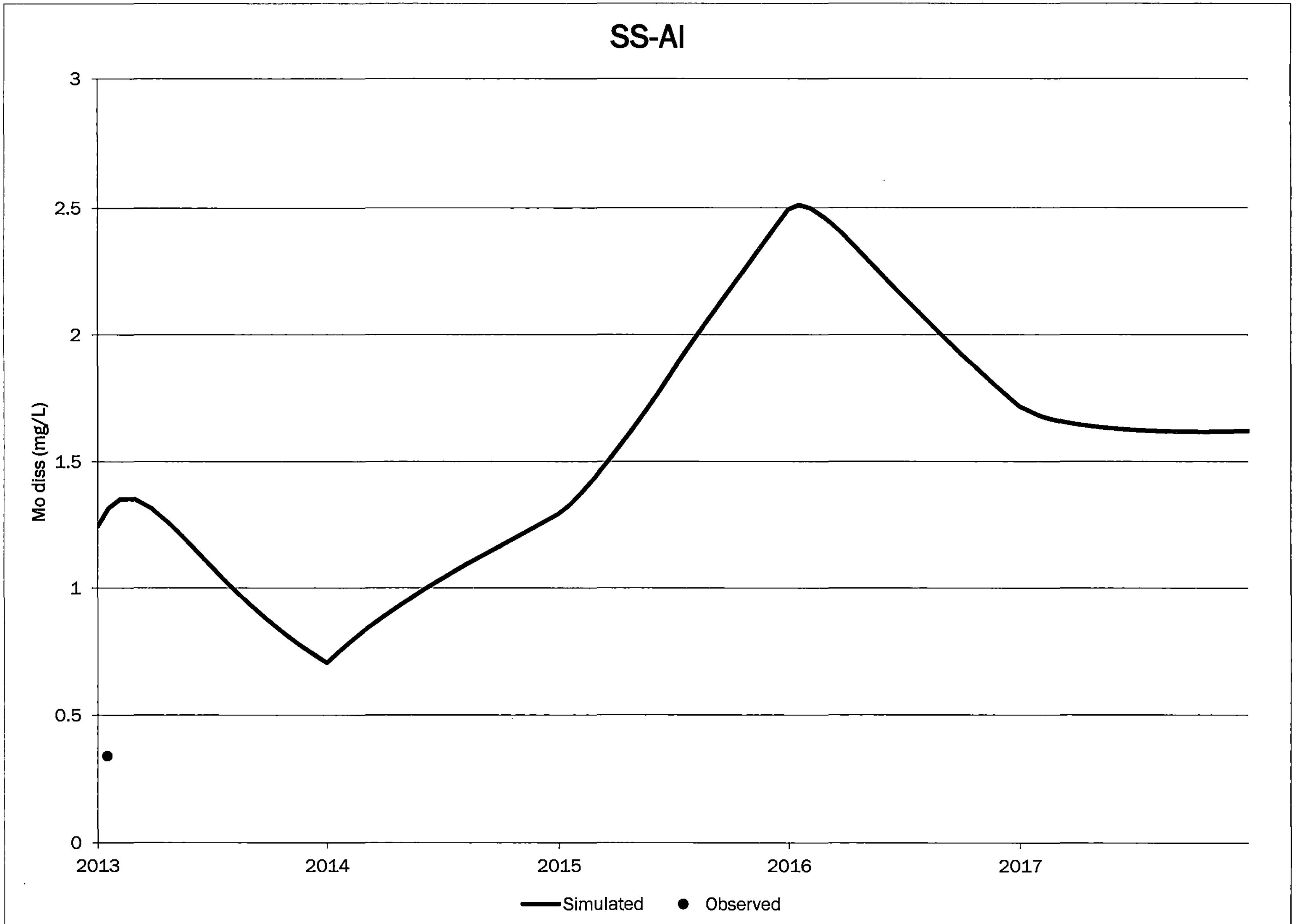


SM-Al
Mo diss (mg/L)
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

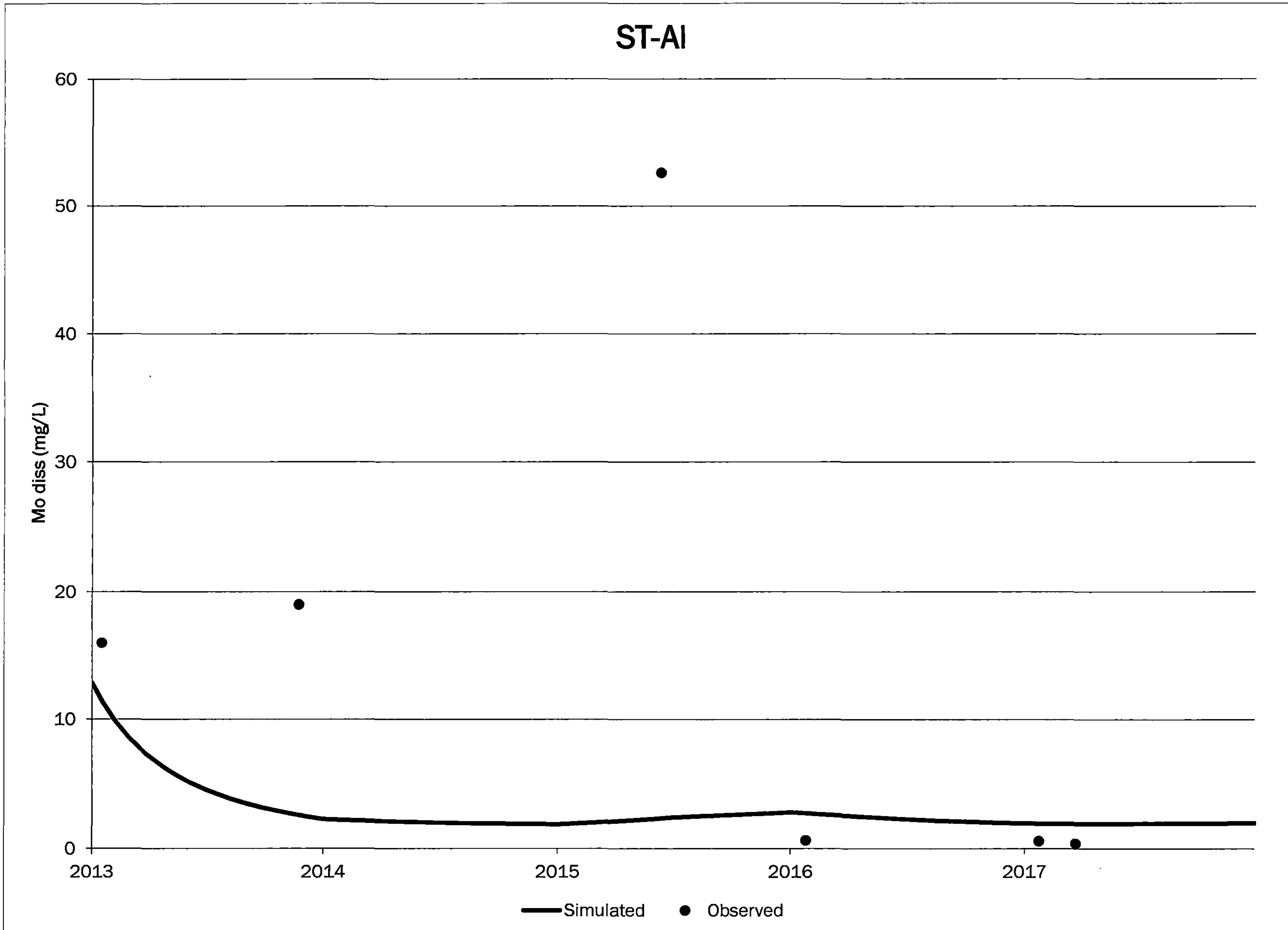

SO-AI
Mo diss (mg/L)
0
1
2
3
4
5
6
2013
2014
2015
2016
2017
Simulated
Observed



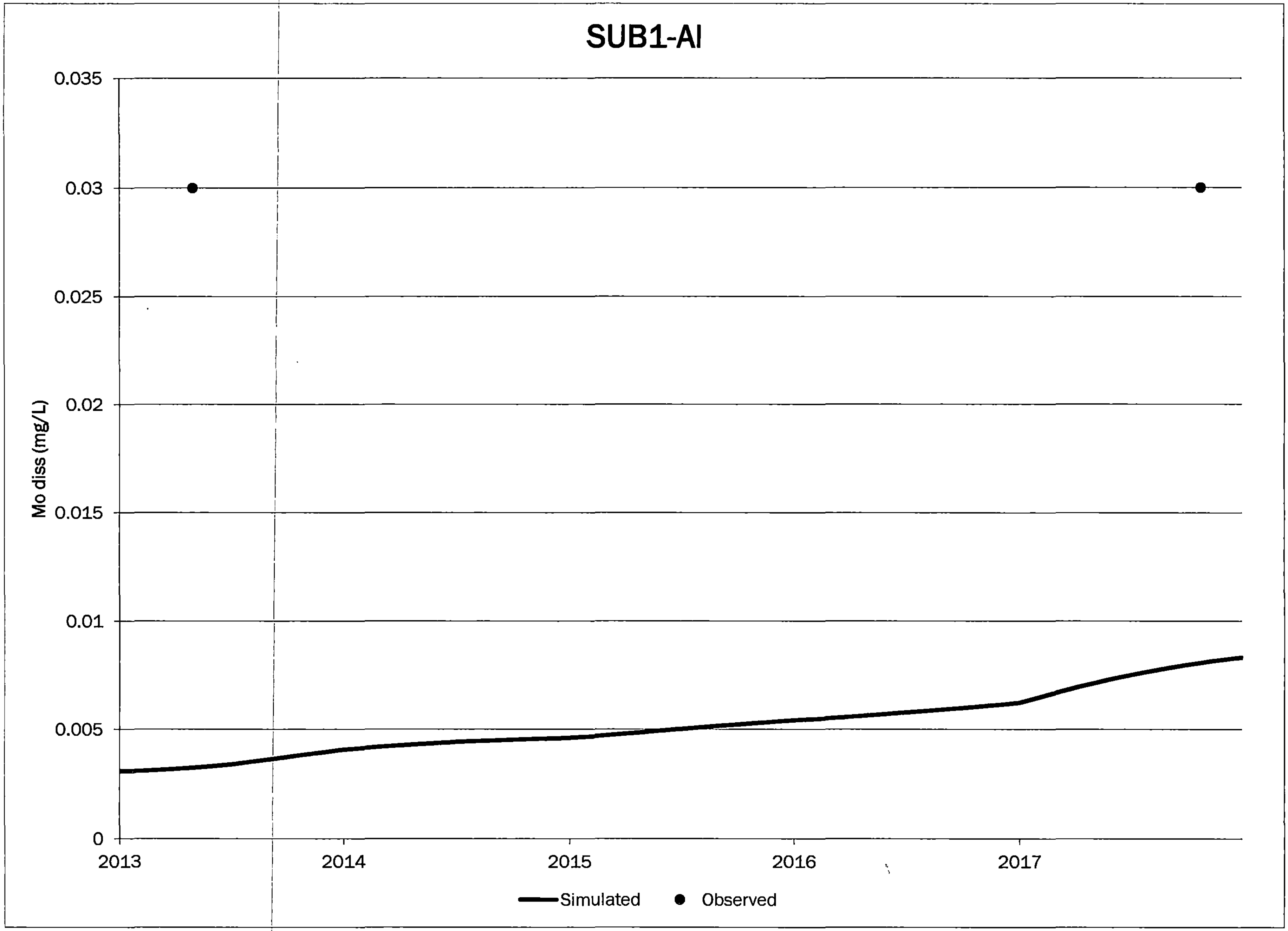
SQ-AI
Mo diss (mg/L)
0
10
20
30
40
50
60
70
80
2013
2014
2015
2016
2017
Simulated
Observed



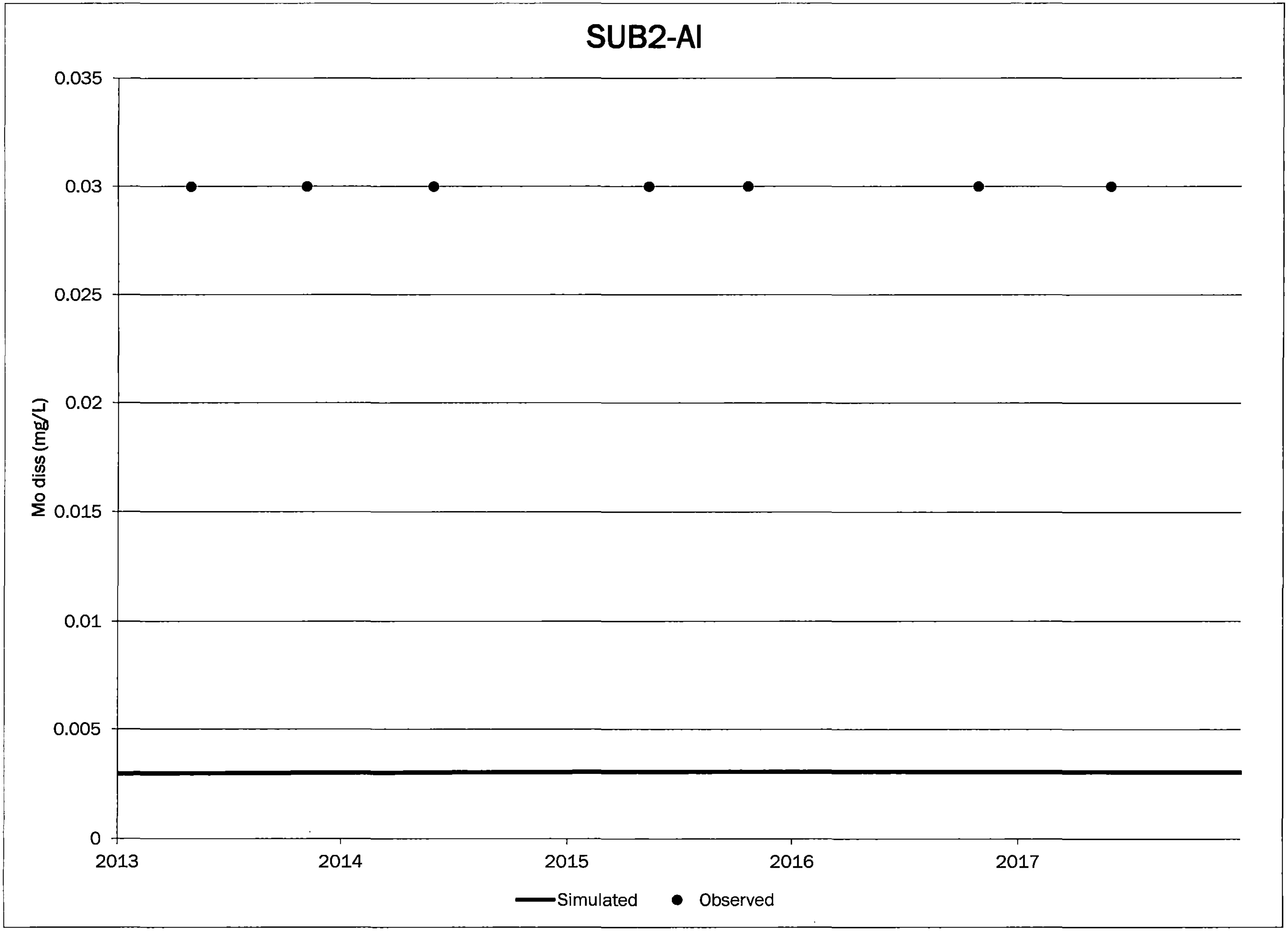
SS-AI
Mo diss (mg/L)
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

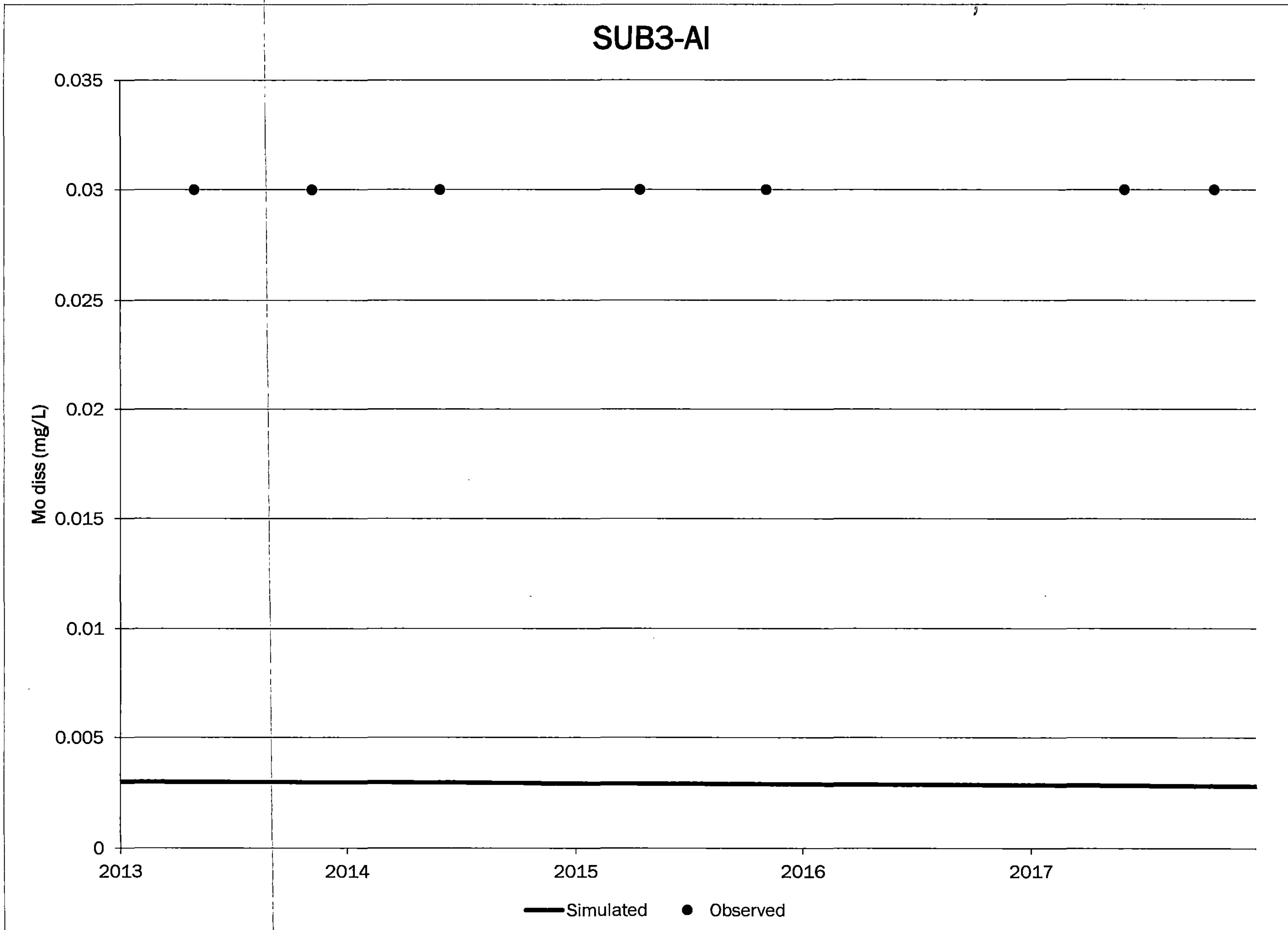


ST-AI
Mo diss (mg/L)
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

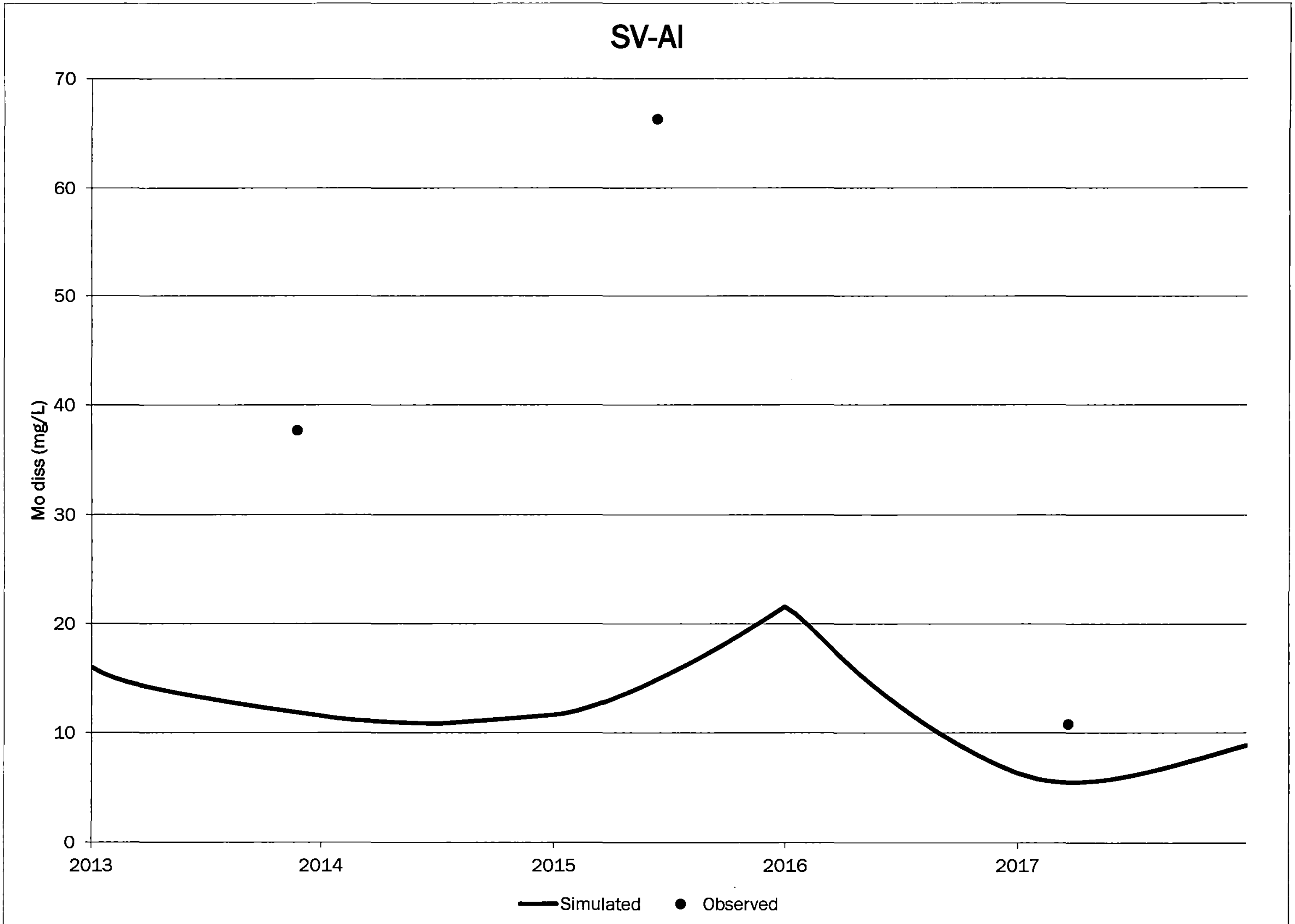


SUB1-Al
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

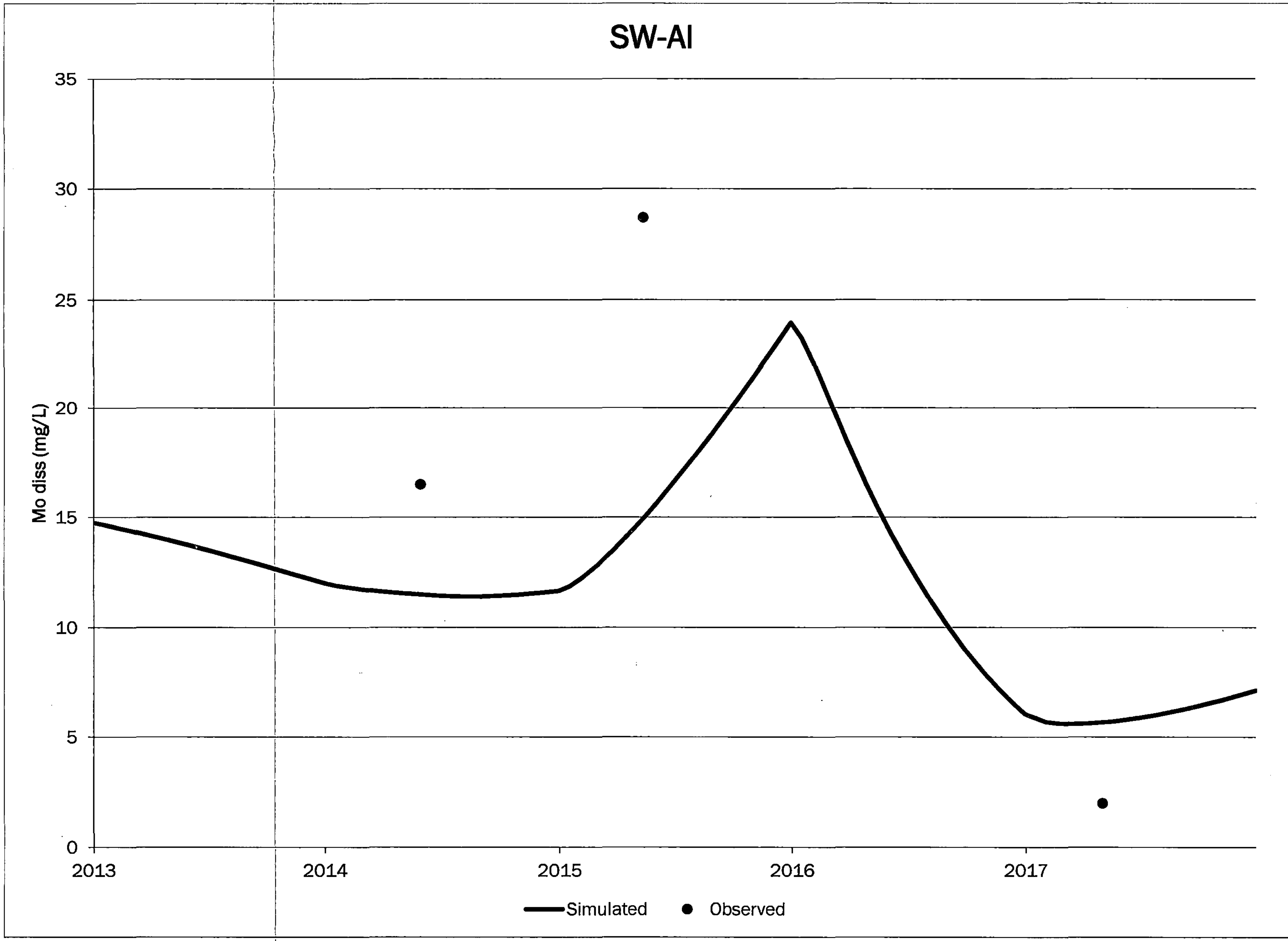

SUB2-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



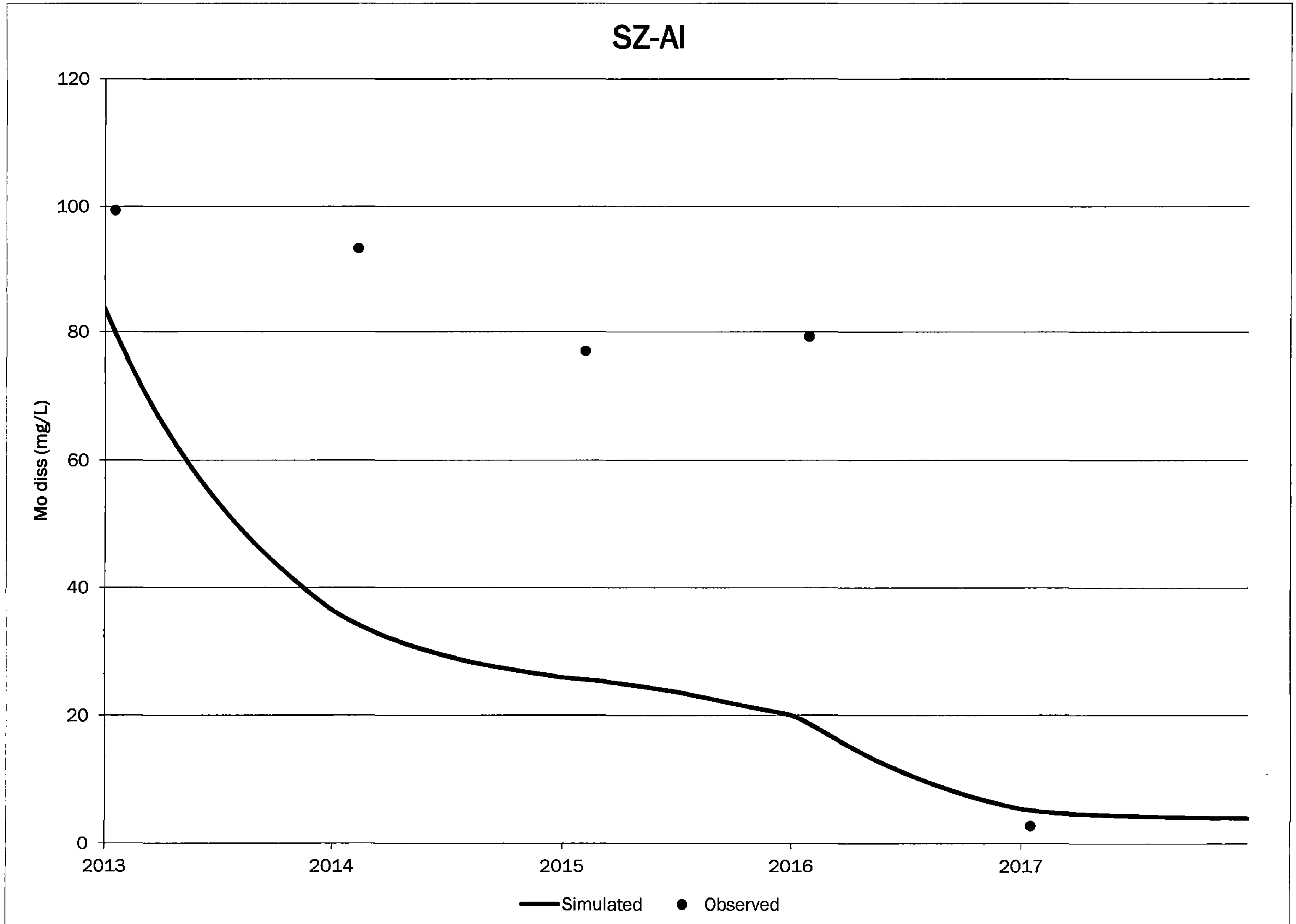
SUB3-AI
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



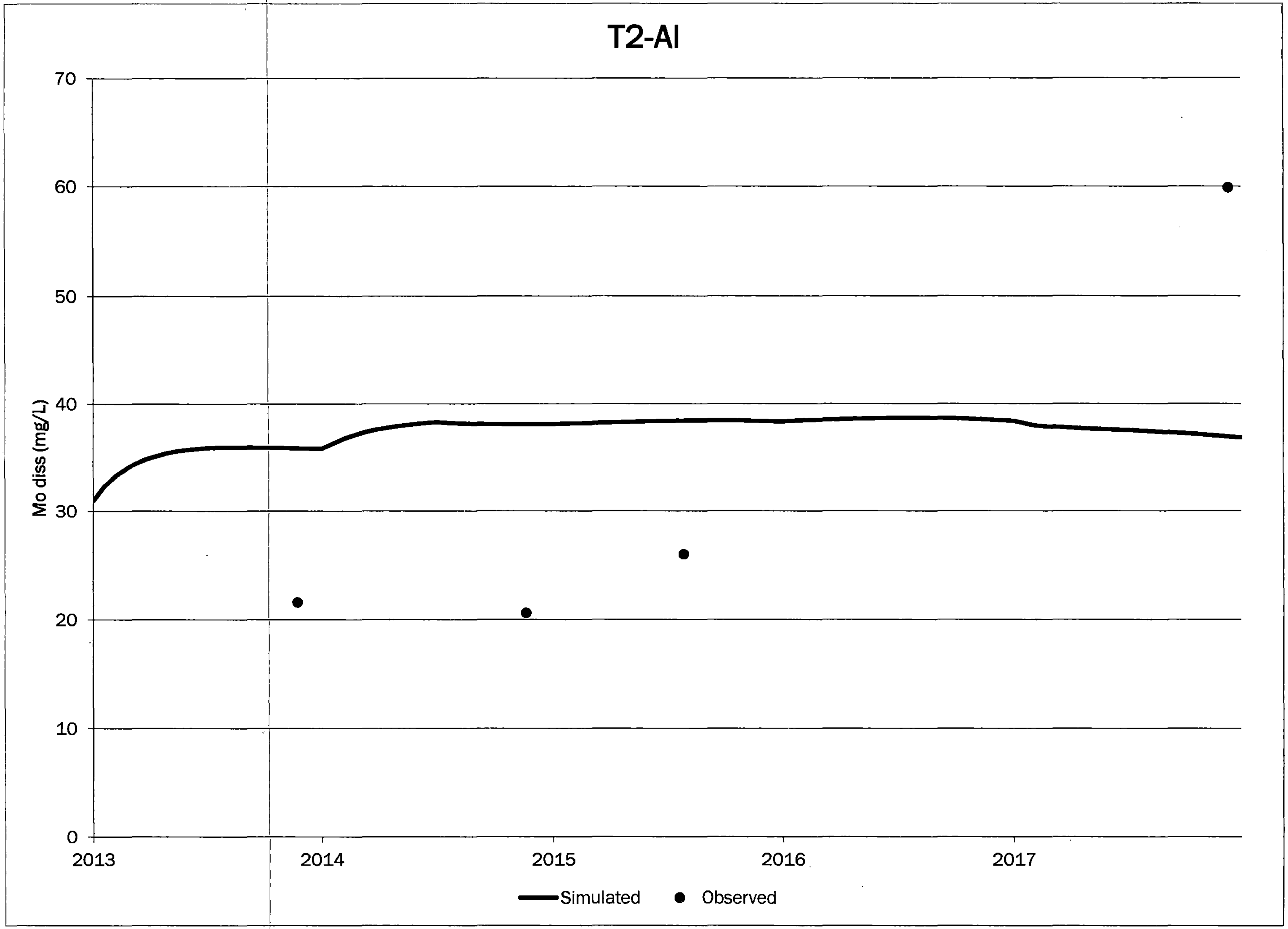
SV-AI
Mo diss (mg/L)
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed



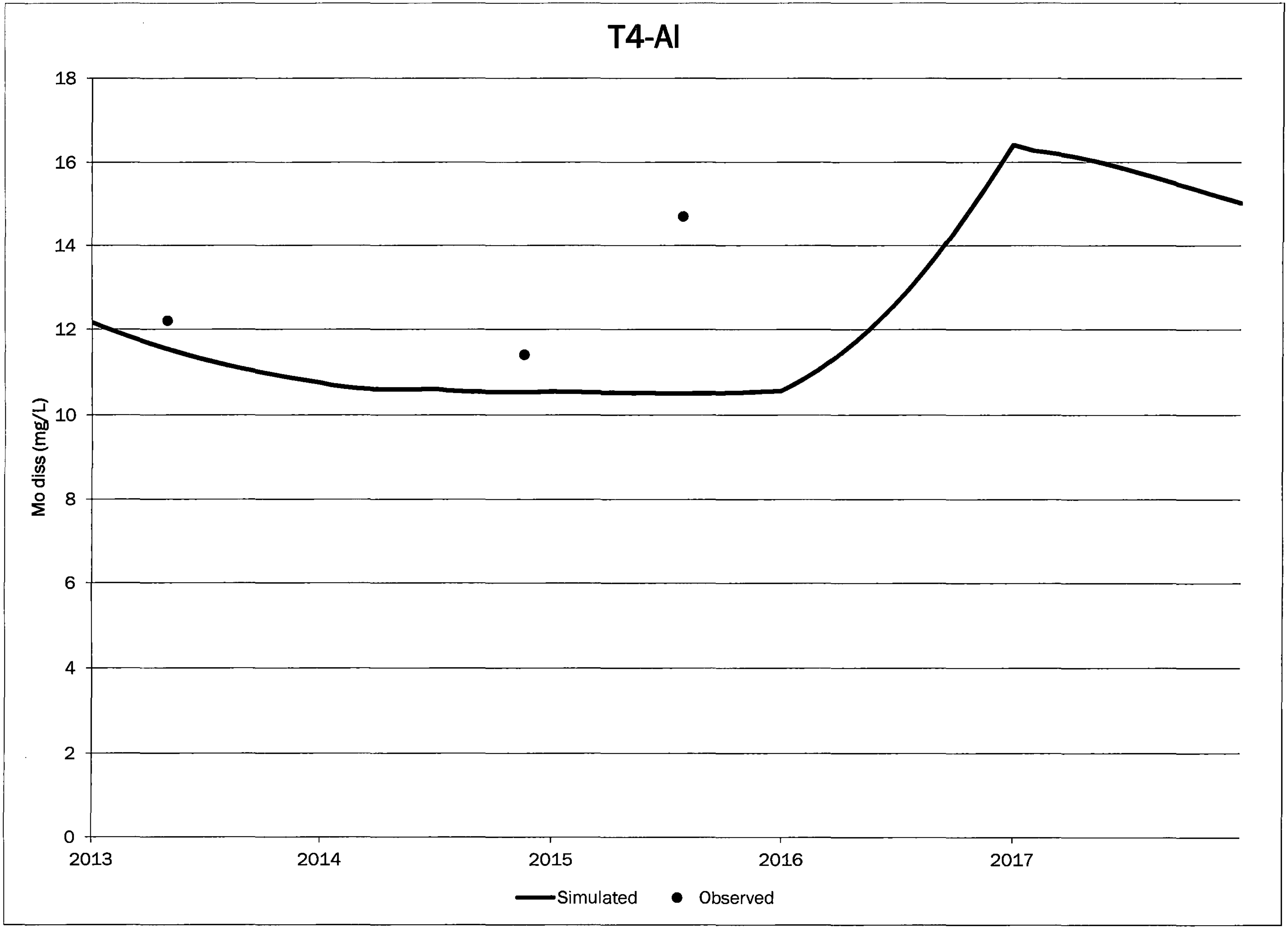
SW-Al
Mo diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



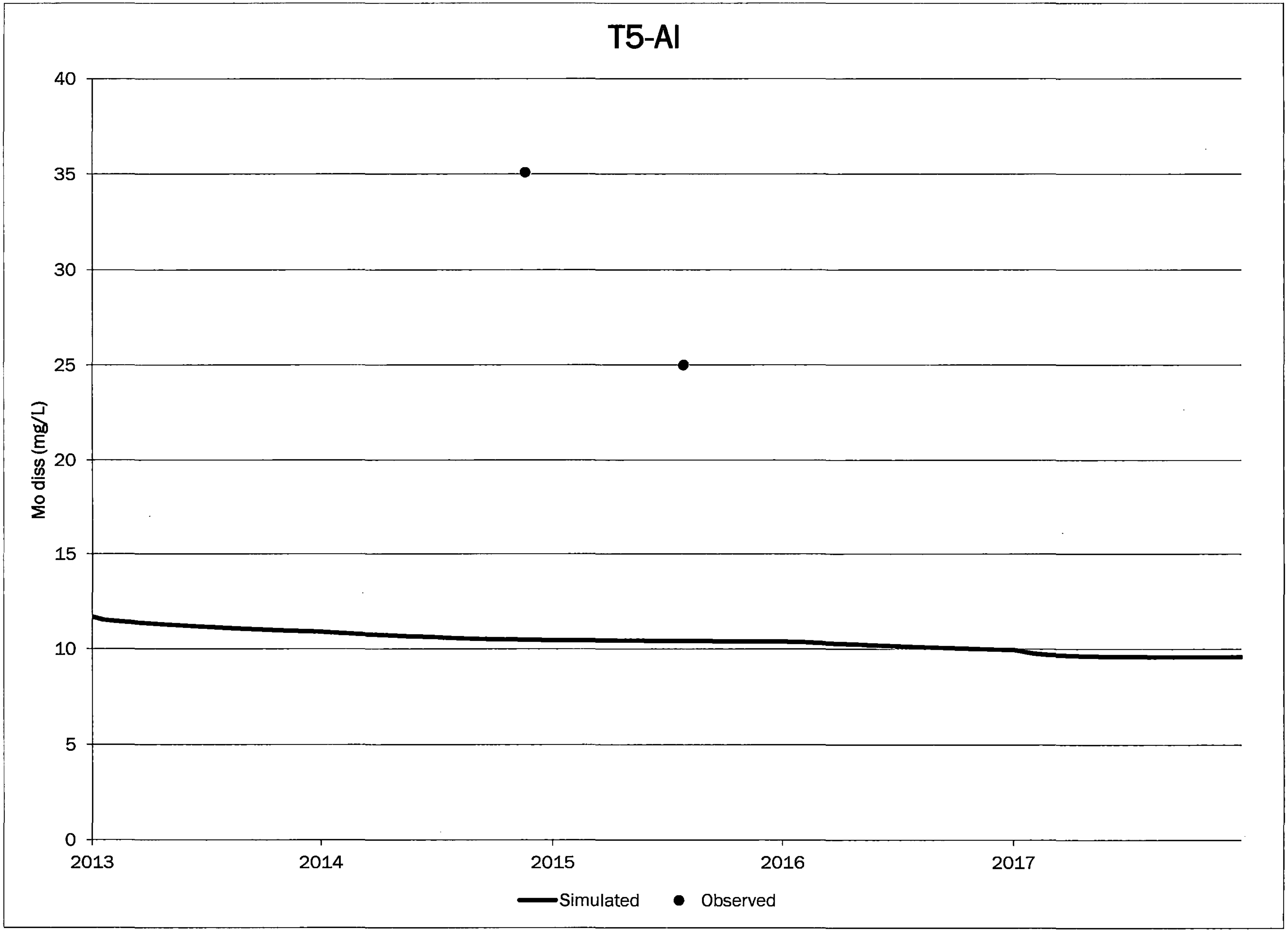
SZ-AI
Mo diss (mg/L)
120
100
80
60
40
20
0
2013
2014
2015
2016
2017
Simulated
Observed

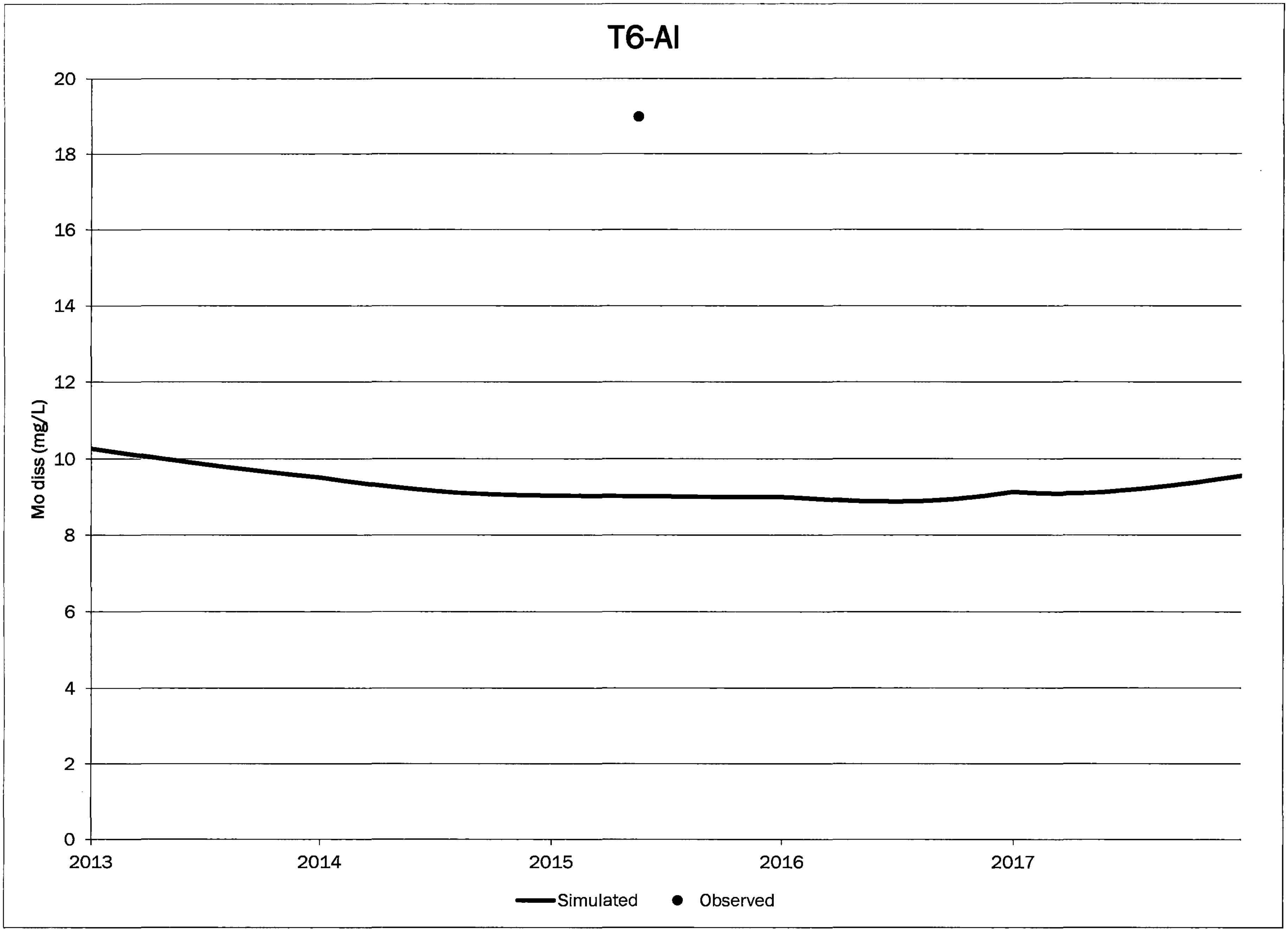


T2-Al
Mo diss (mg/L)
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

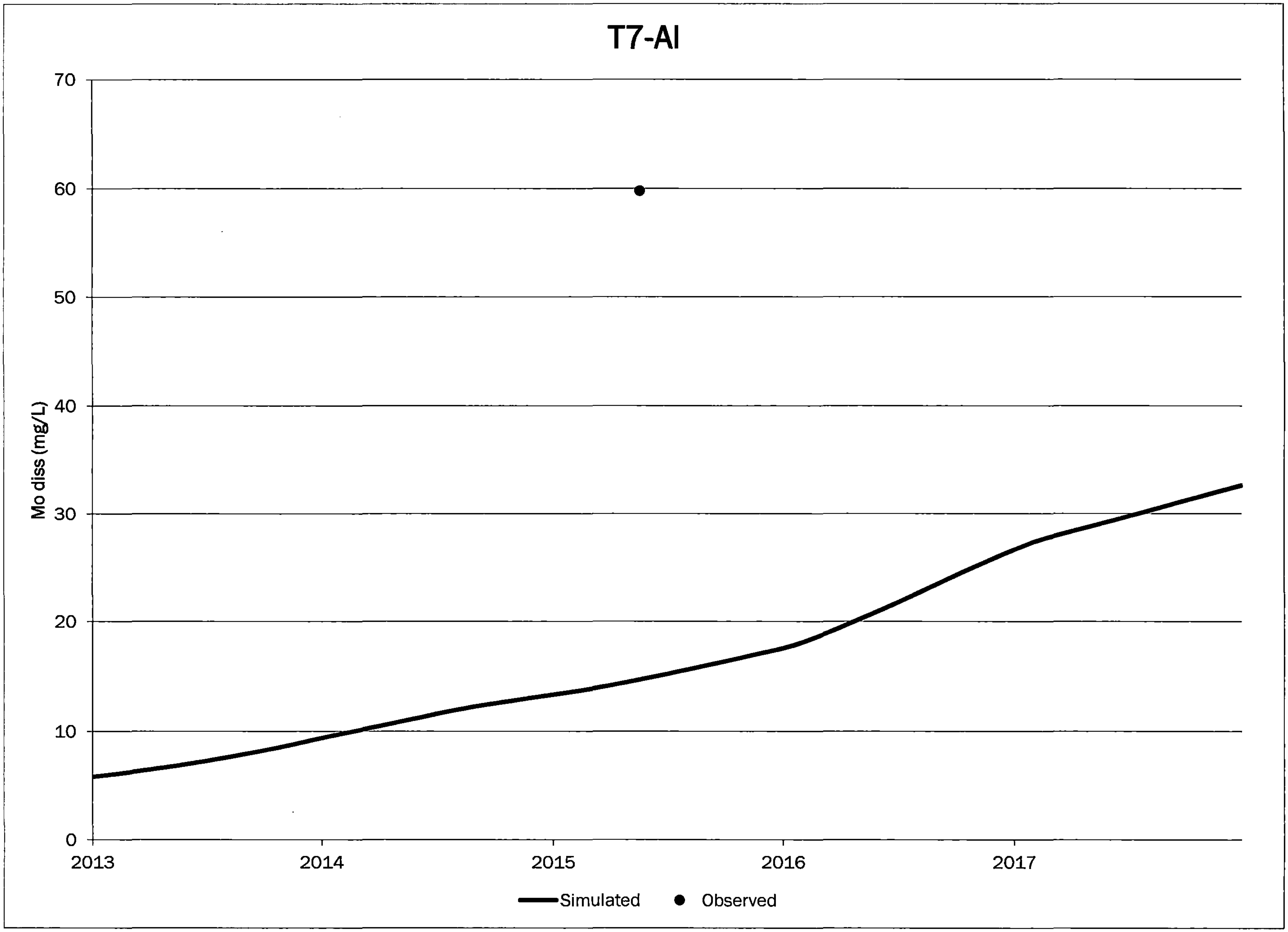


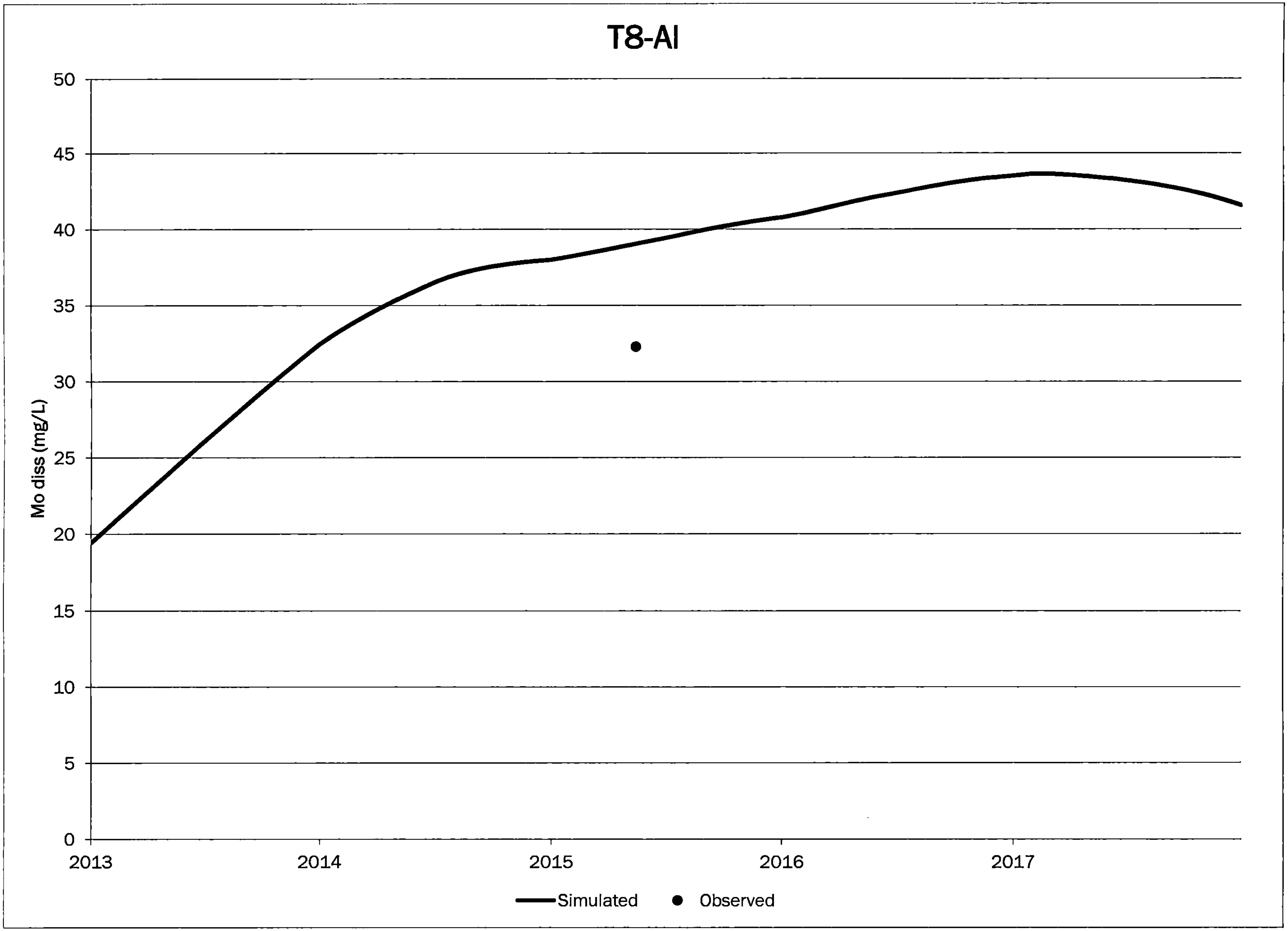
T4-AI
Mo diss (mg/L)
0
2
4
6
8
10
12
14
16
18
2013
2014
2015
2016
2017
Simulated
Observed


T5-AI
Mo diss (mg/L)
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

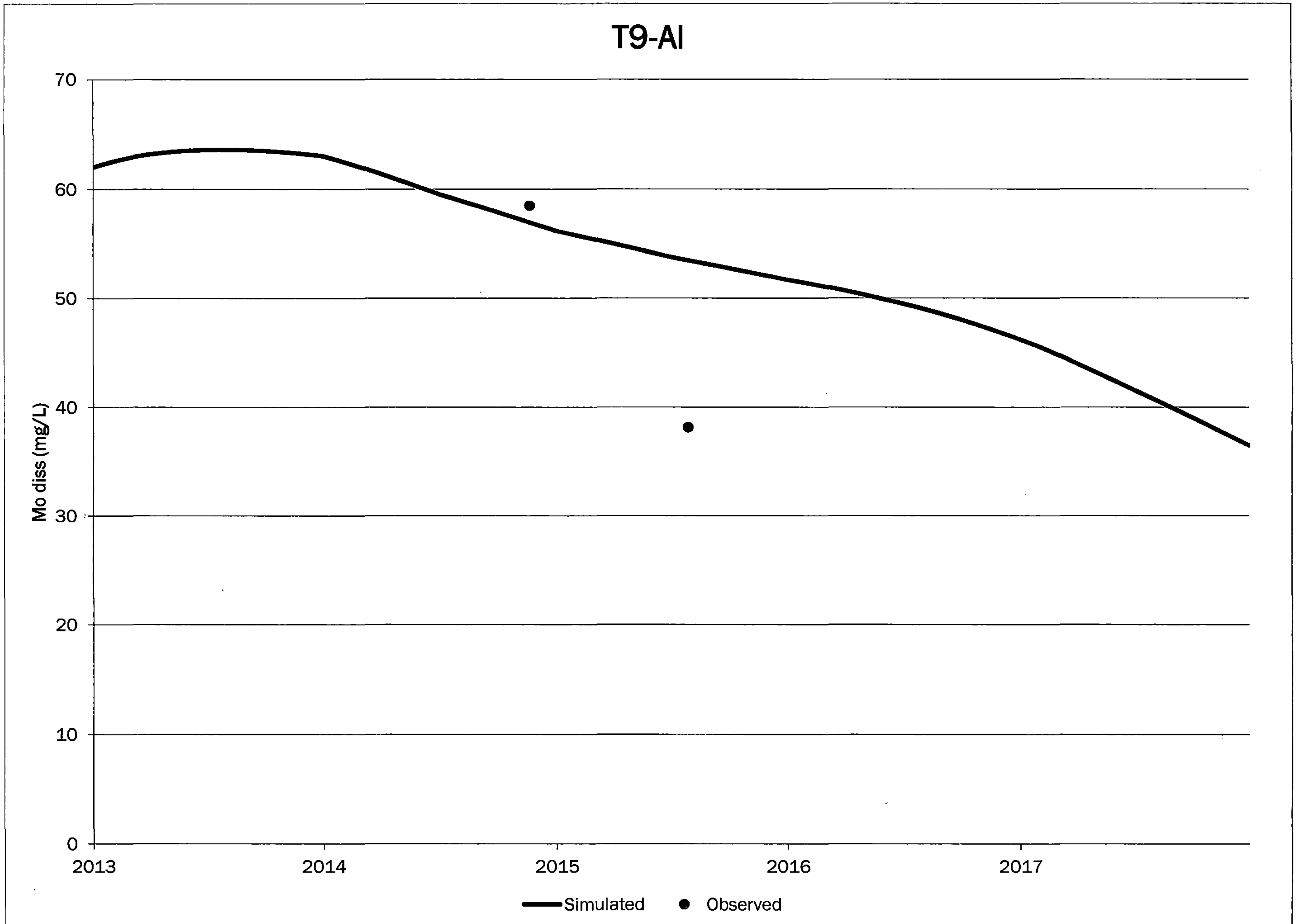


T6-AI
Mo diss (mg/L)
0
2
4
6
8
10
12
14
16
18
20
2013
2014
2015
2016
2017
Simulated
Observed

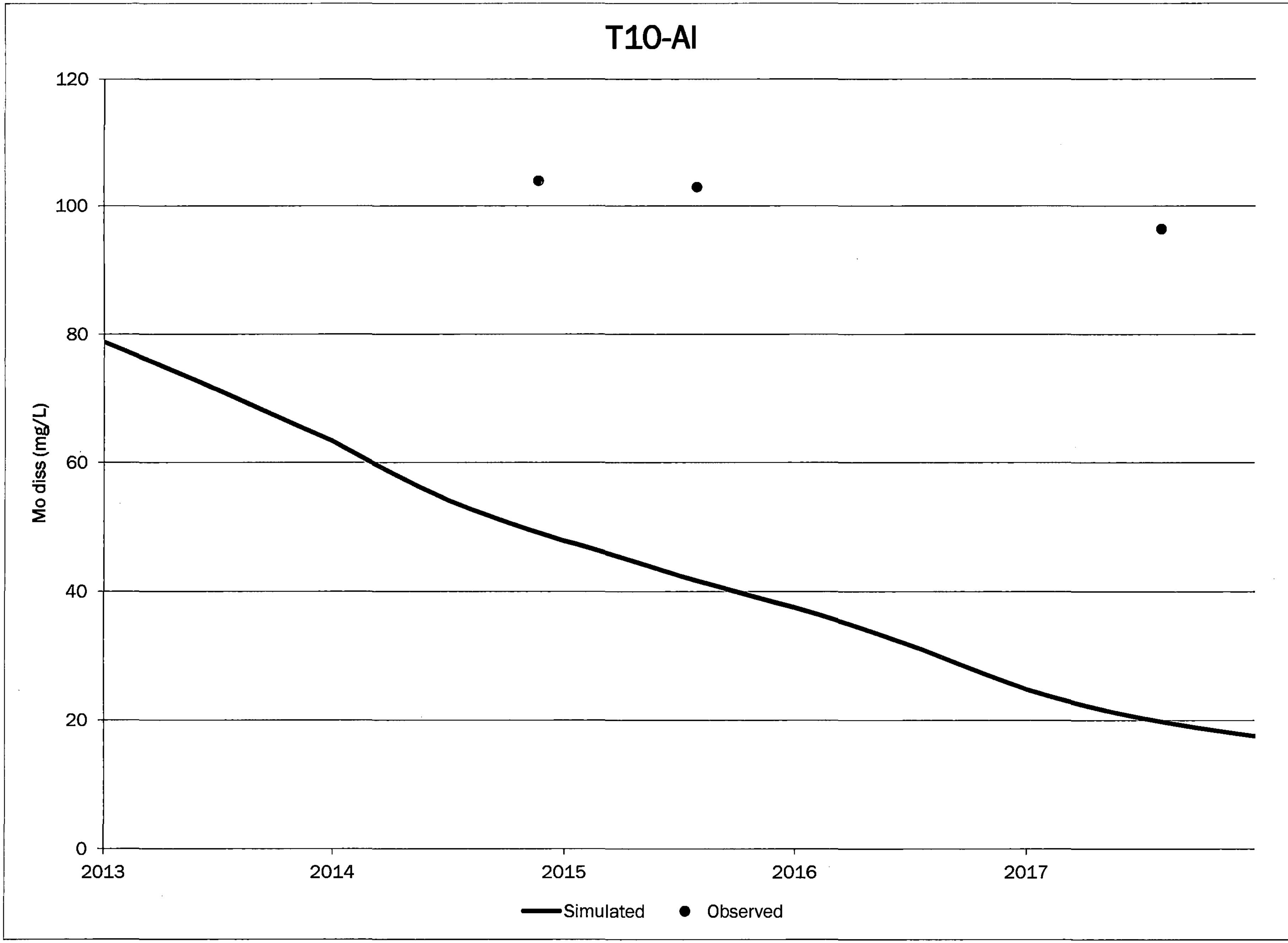

T7-AI
Mo diss (mg/L)
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed



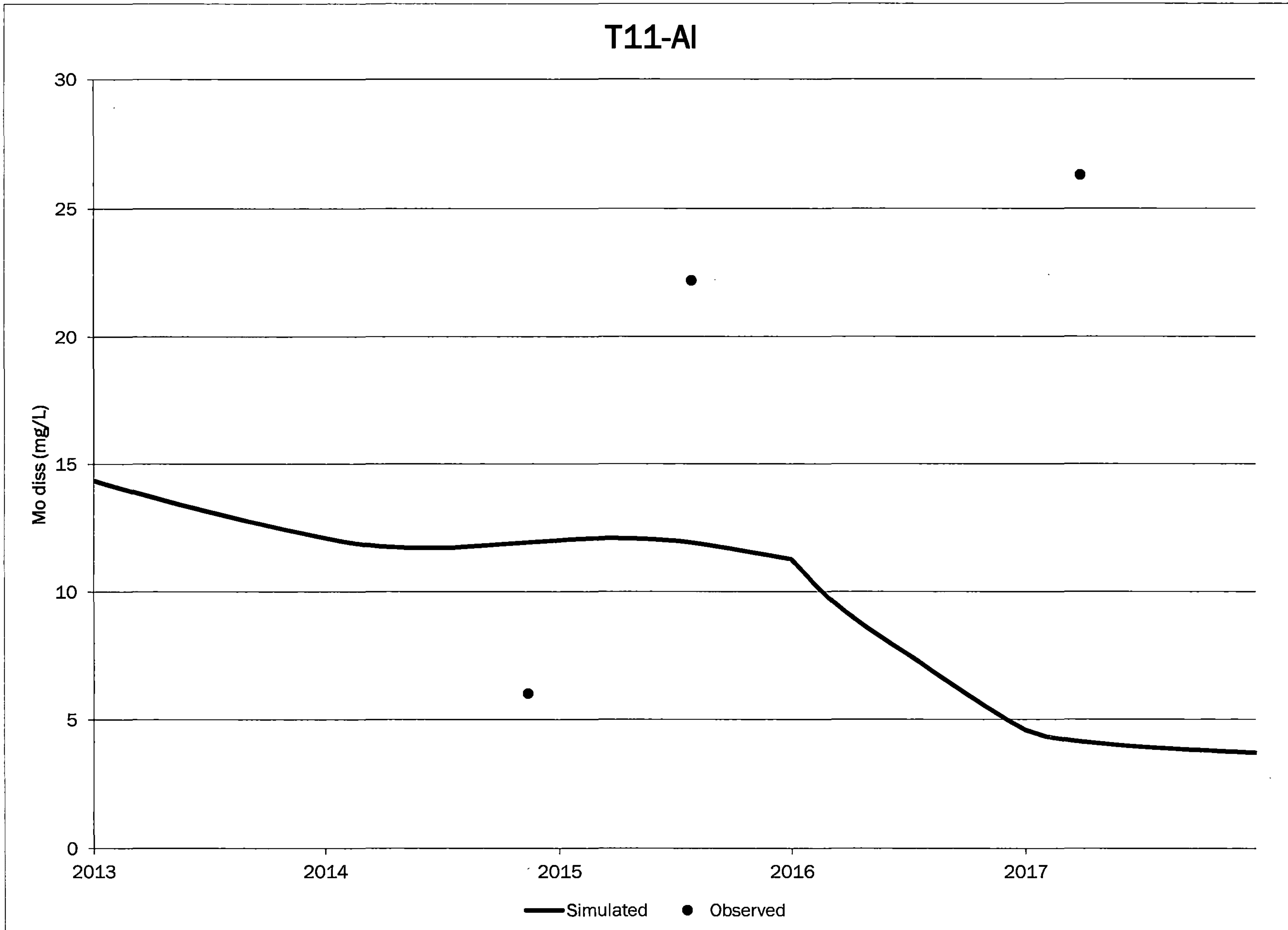
T8-AI
Mo diss (mg/L)
0
5
10
15
20
25
30
35
40
45
50
2013
2014
2015
2016
2017
Simulated
Observed

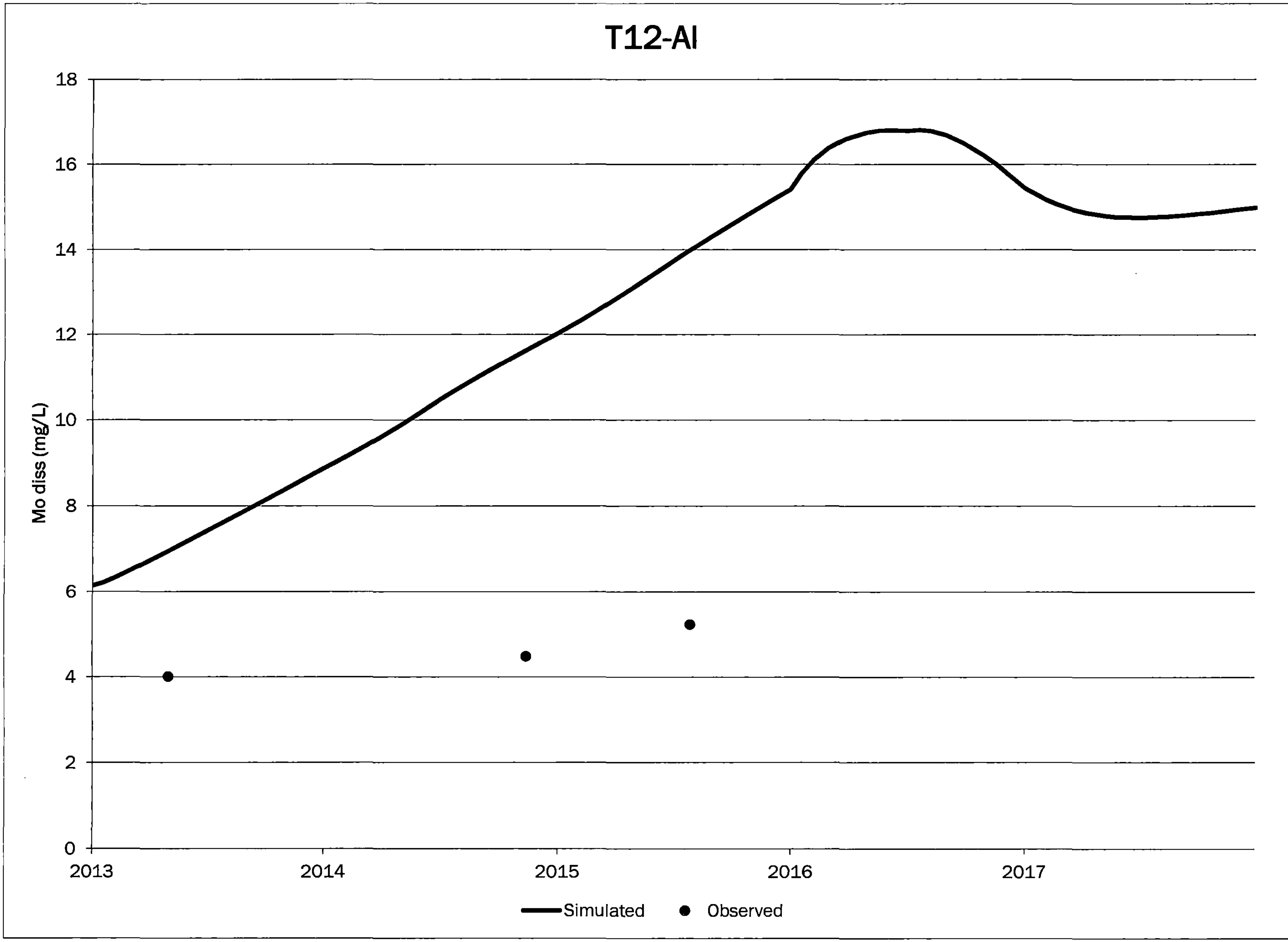


T9-AI
Mo diss (mg/L)
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

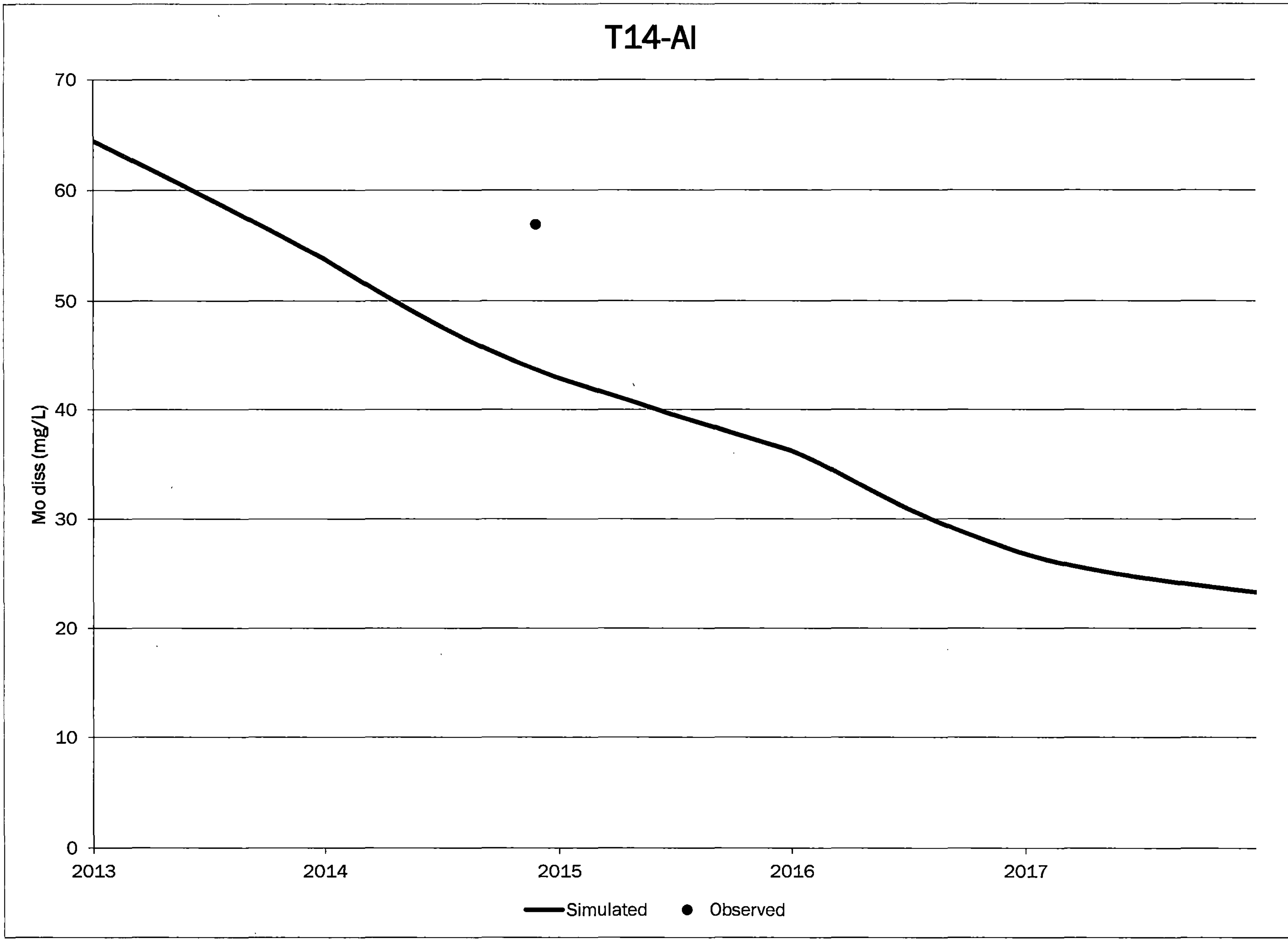


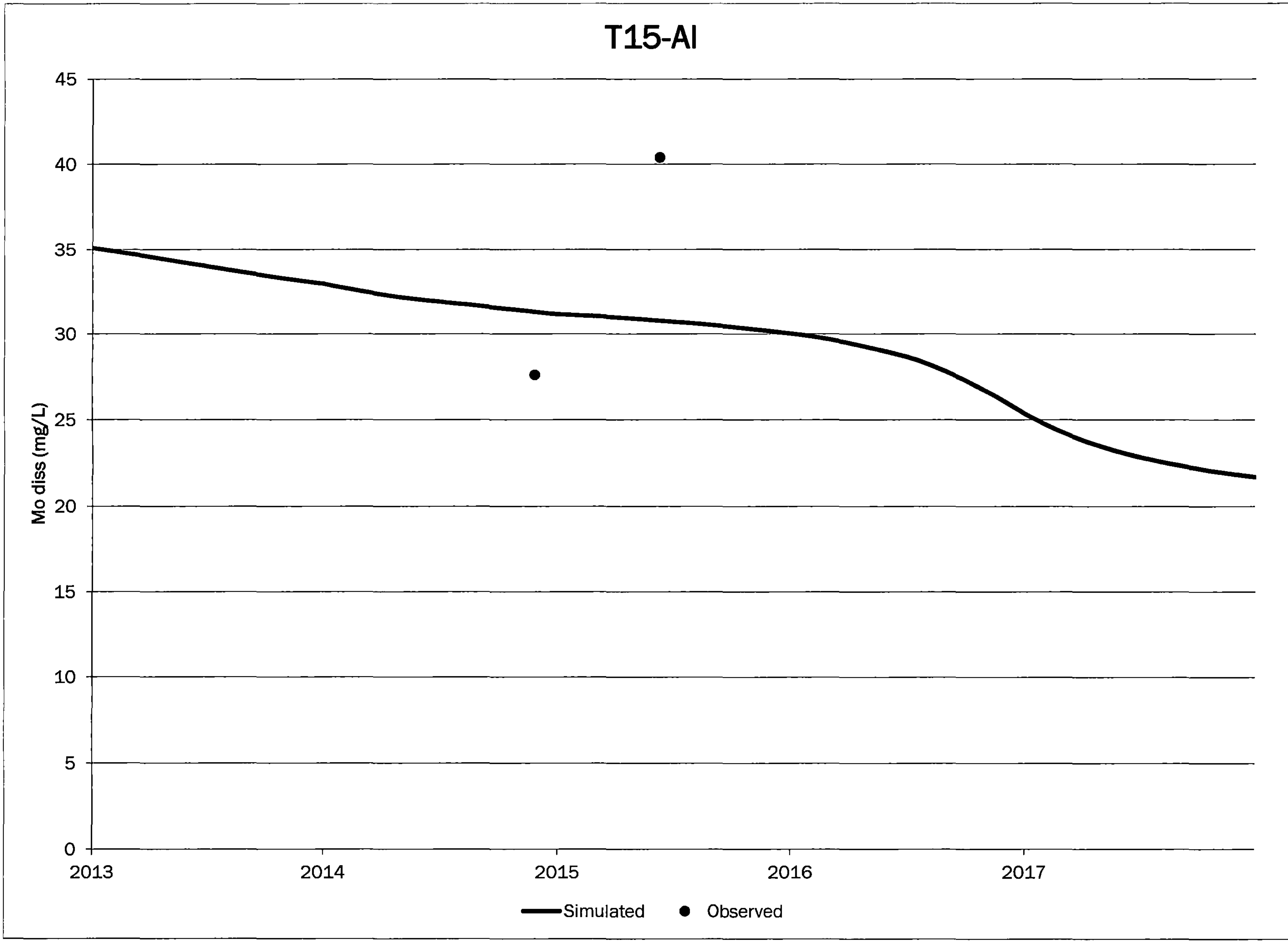
T10-Al
Mo diss (mg/L)
120
100
80
60
40
20
0
2013
2014
2015
2016
2017
Simulated
Observed


T11-AI
Mo diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

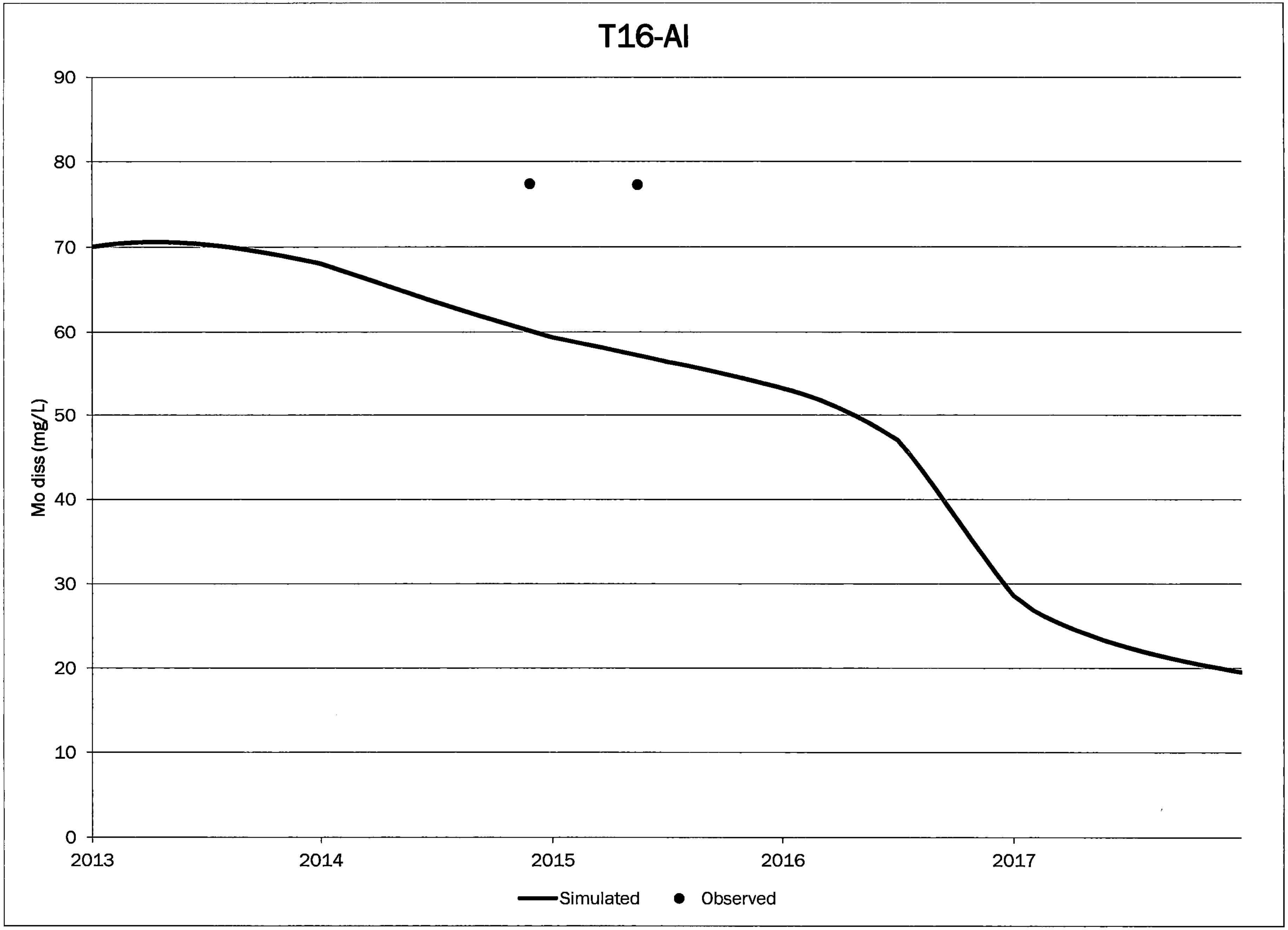


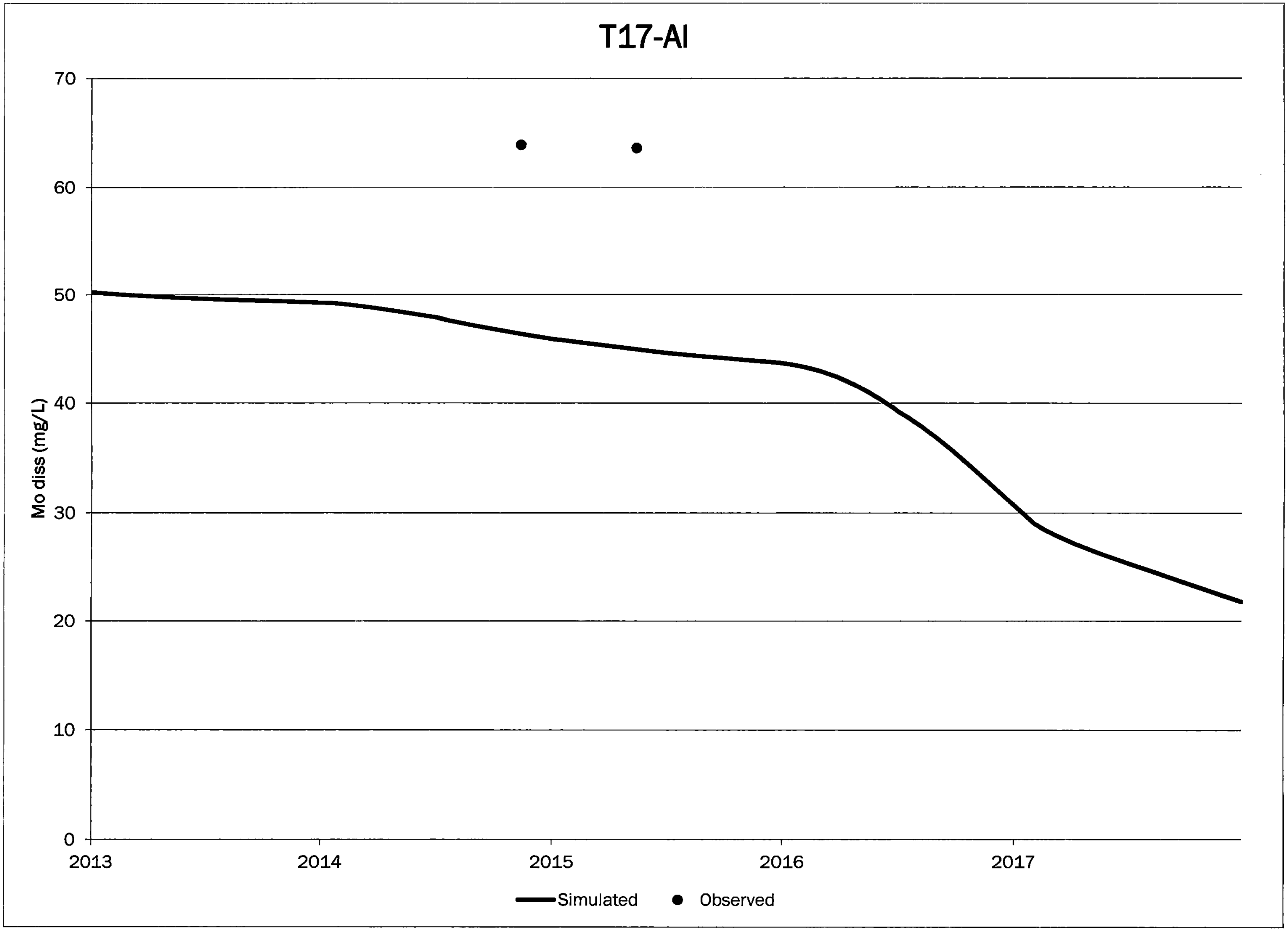
T12-AI
Mo diss (mg/L)
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

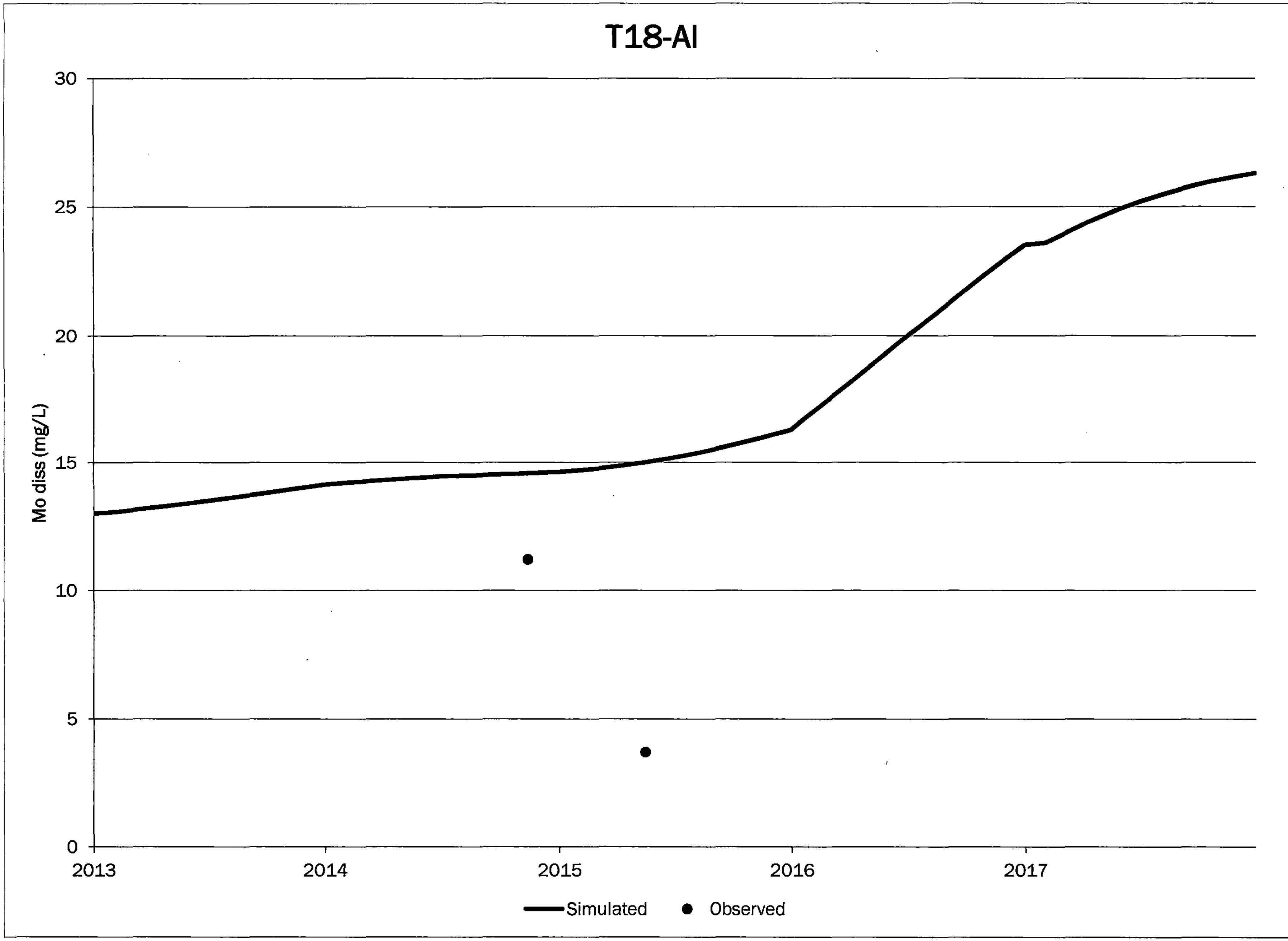

T14-Al
Mo diss (mg/L)
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed

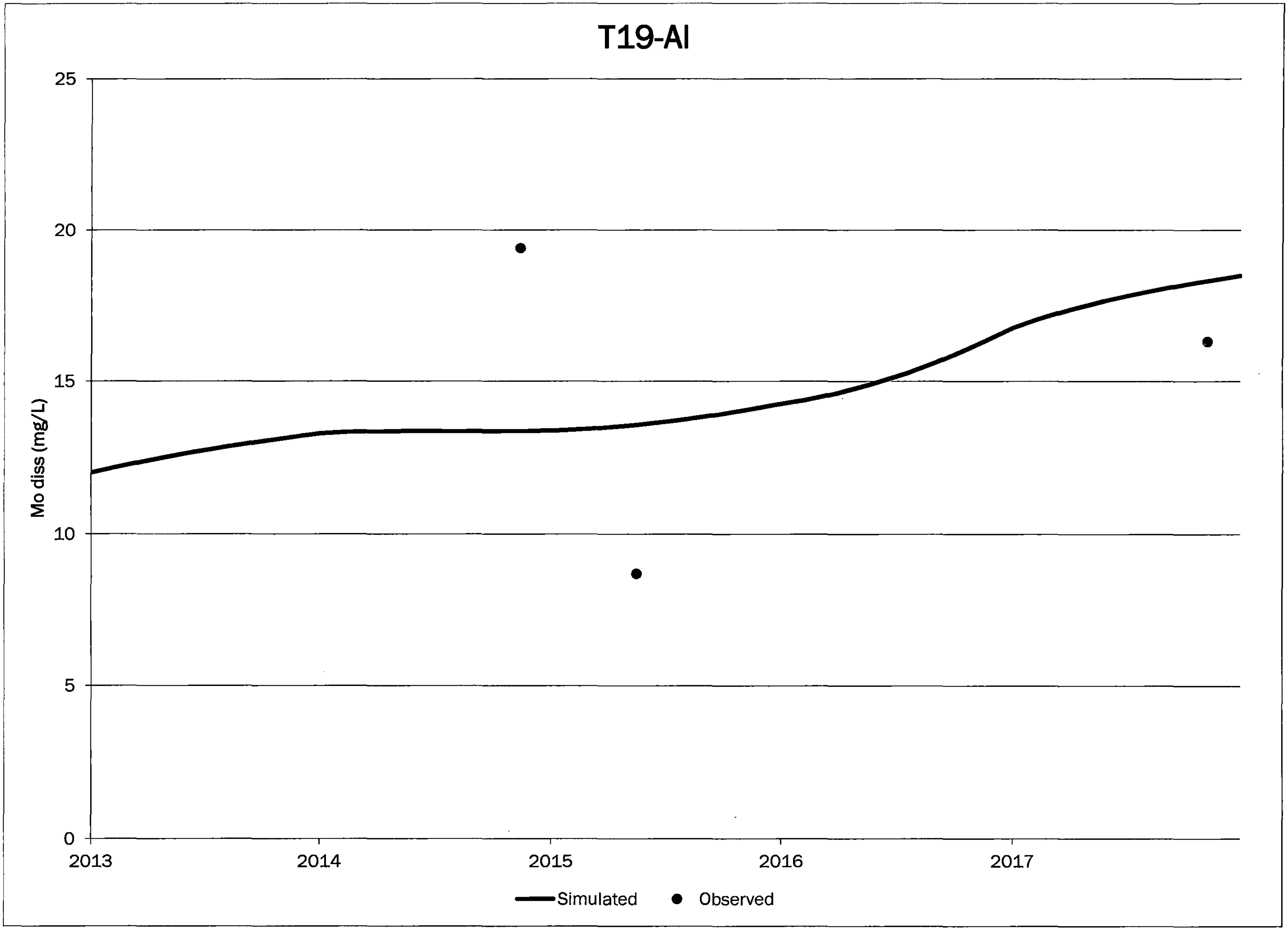


T15-AI
Mo diss (mg/L)
45
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

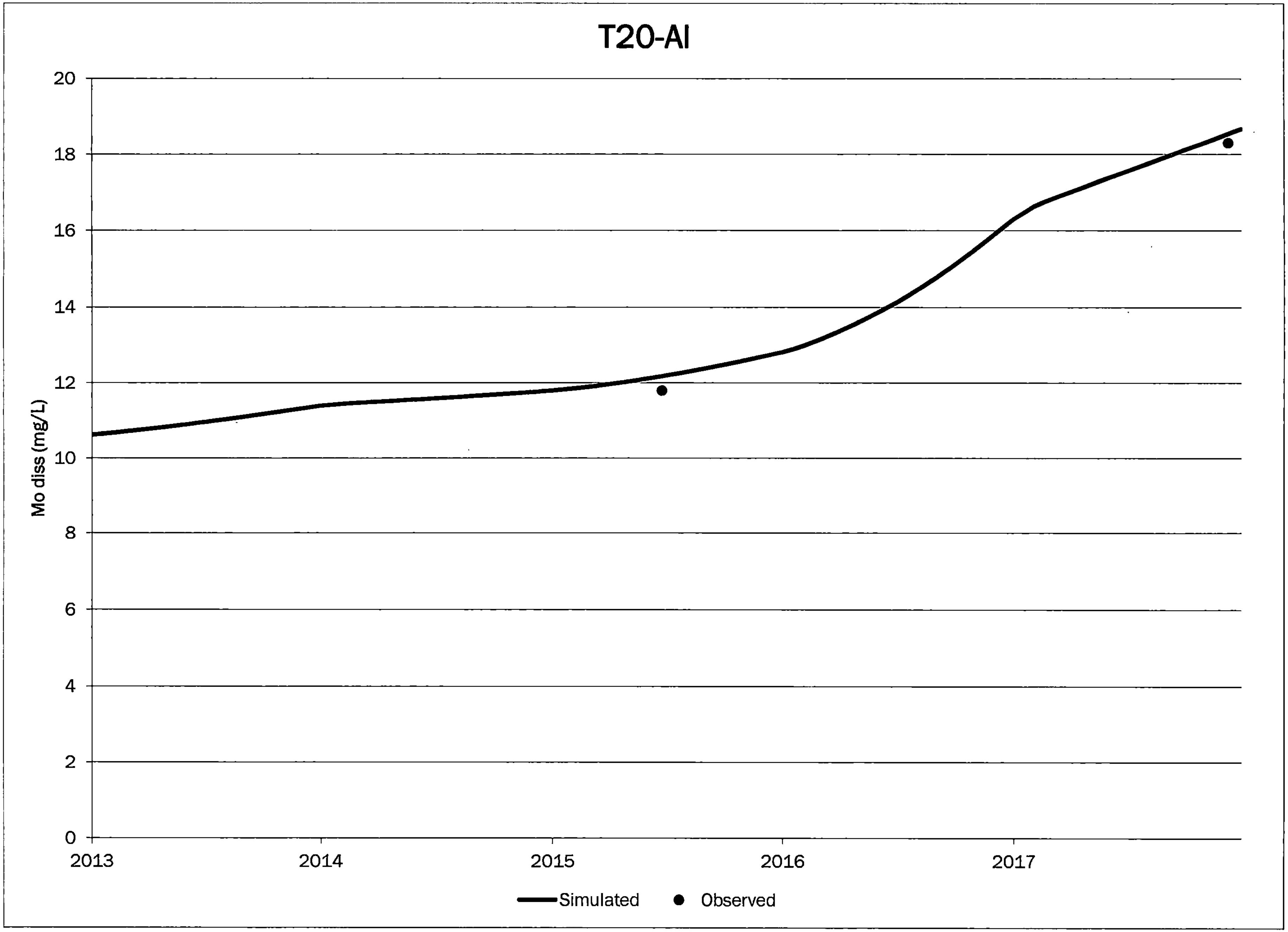

T16-AI
Mo diss (mg/L)
90
80
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Simulated
Observed


T17-AI
70
60
50
40
30
20
10
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

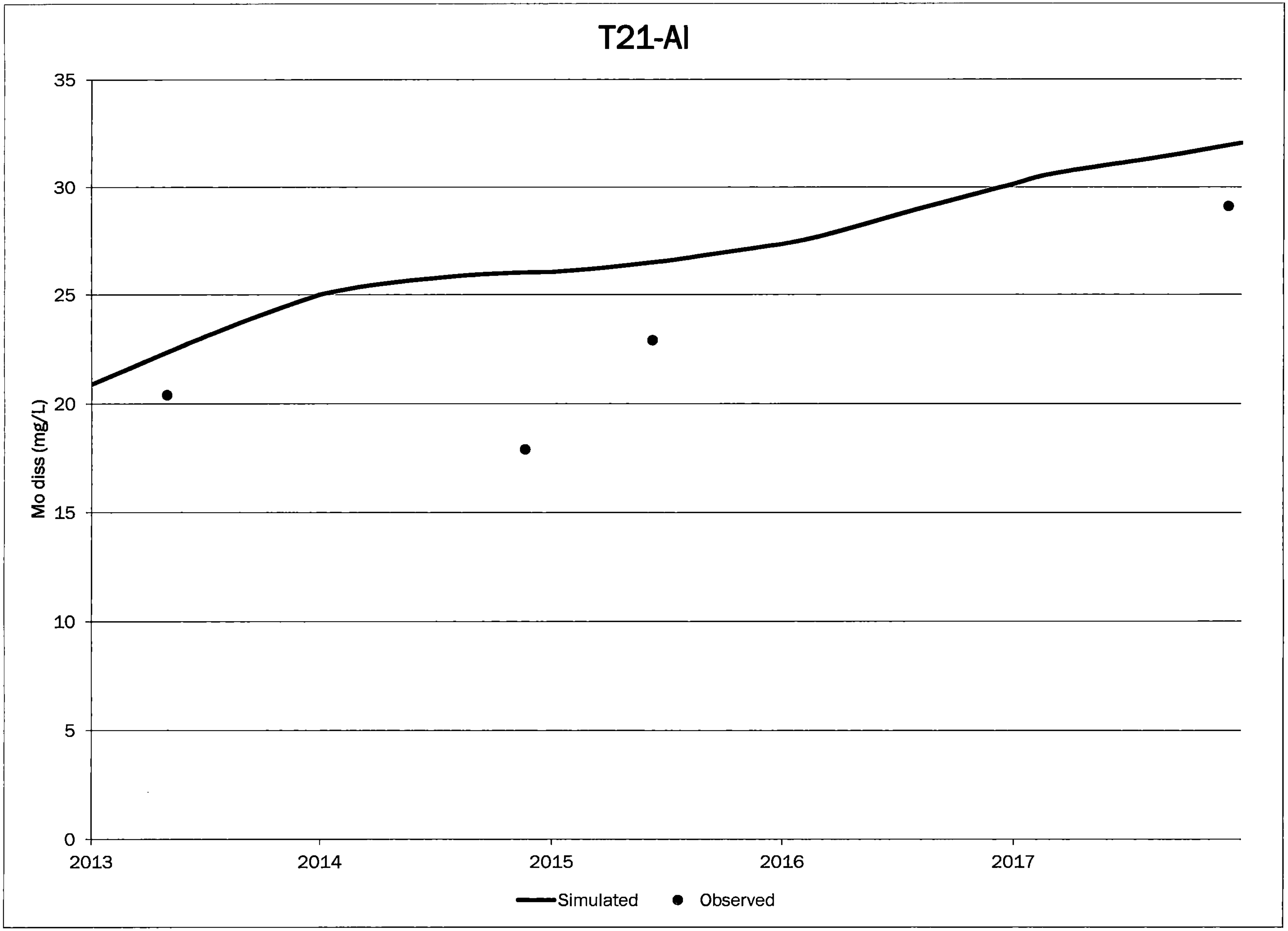

T18-AI
Mo diss (mg/L)
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



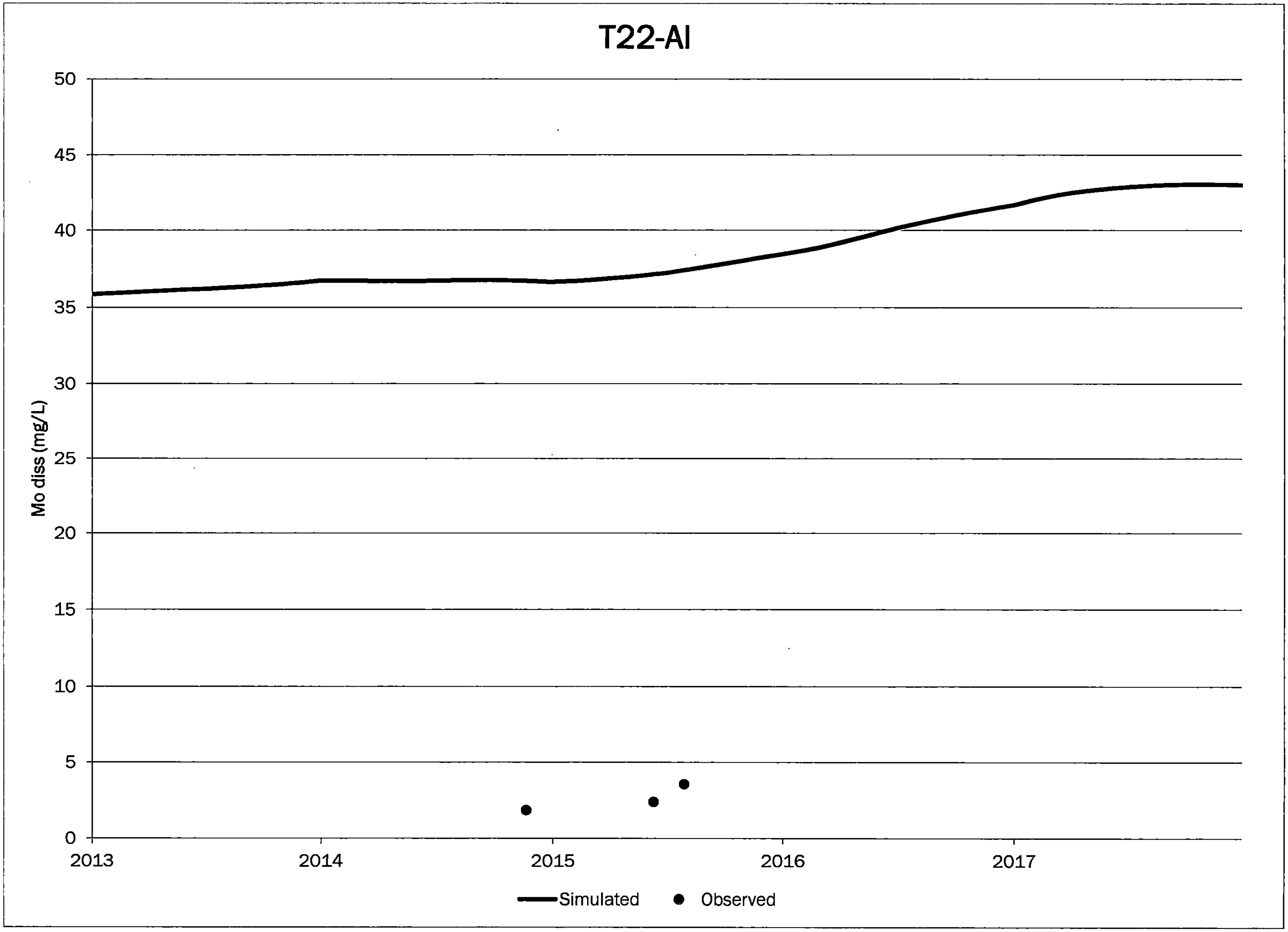
T19-AI
Mo diss (mg/L)
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



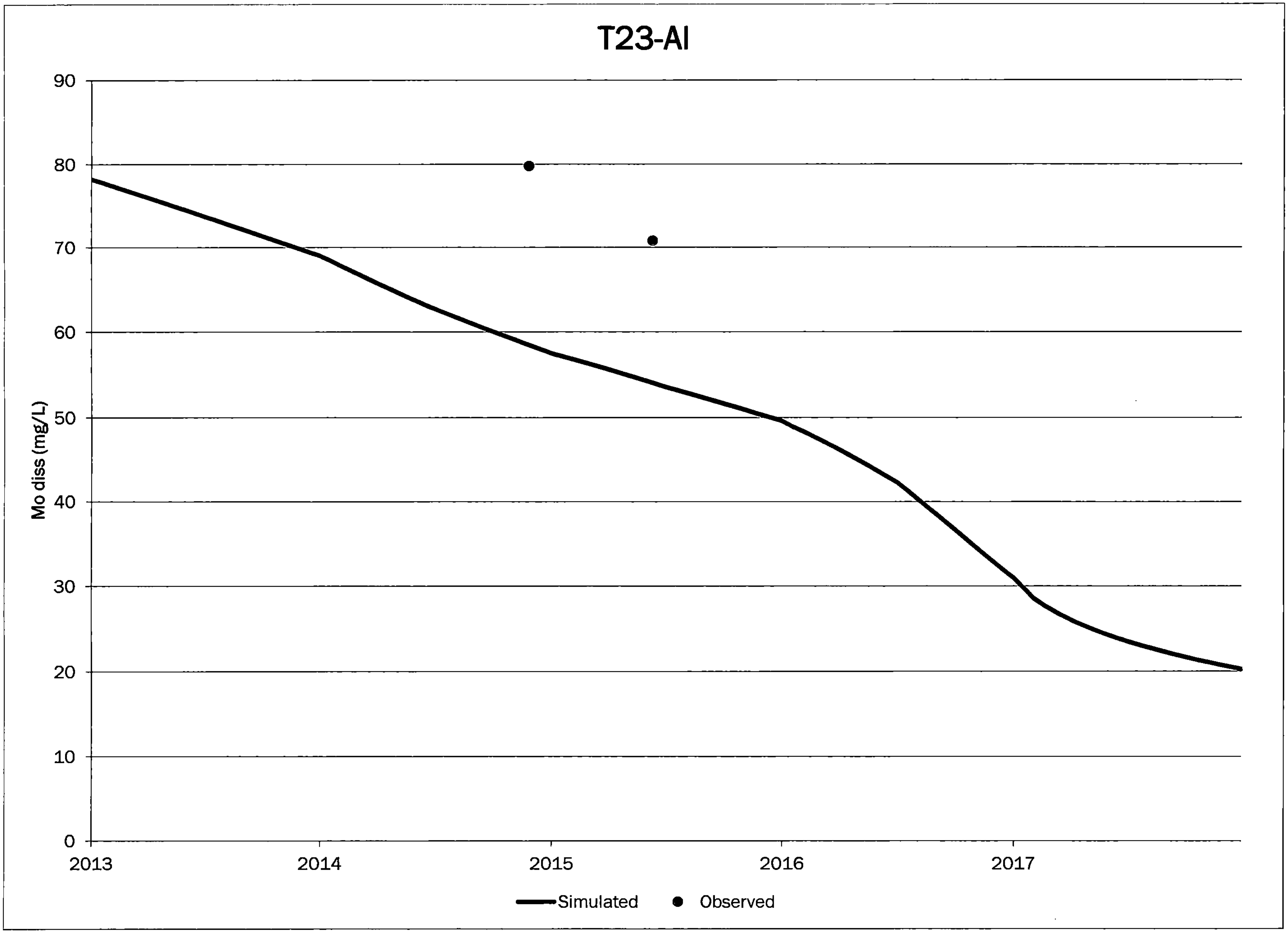
T20-AI
Mo diss (mg/L)
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

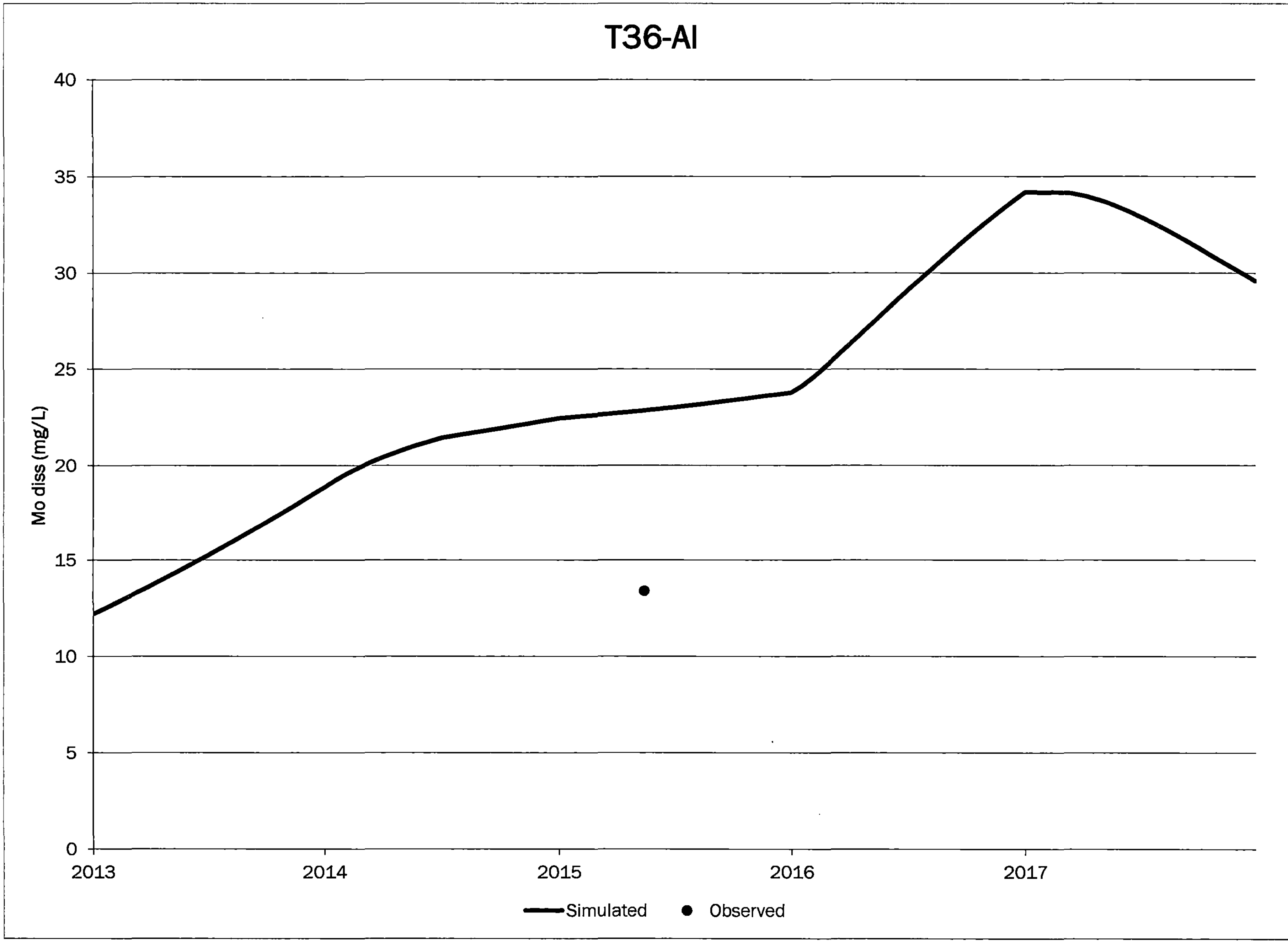


T21-AI
Mo diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

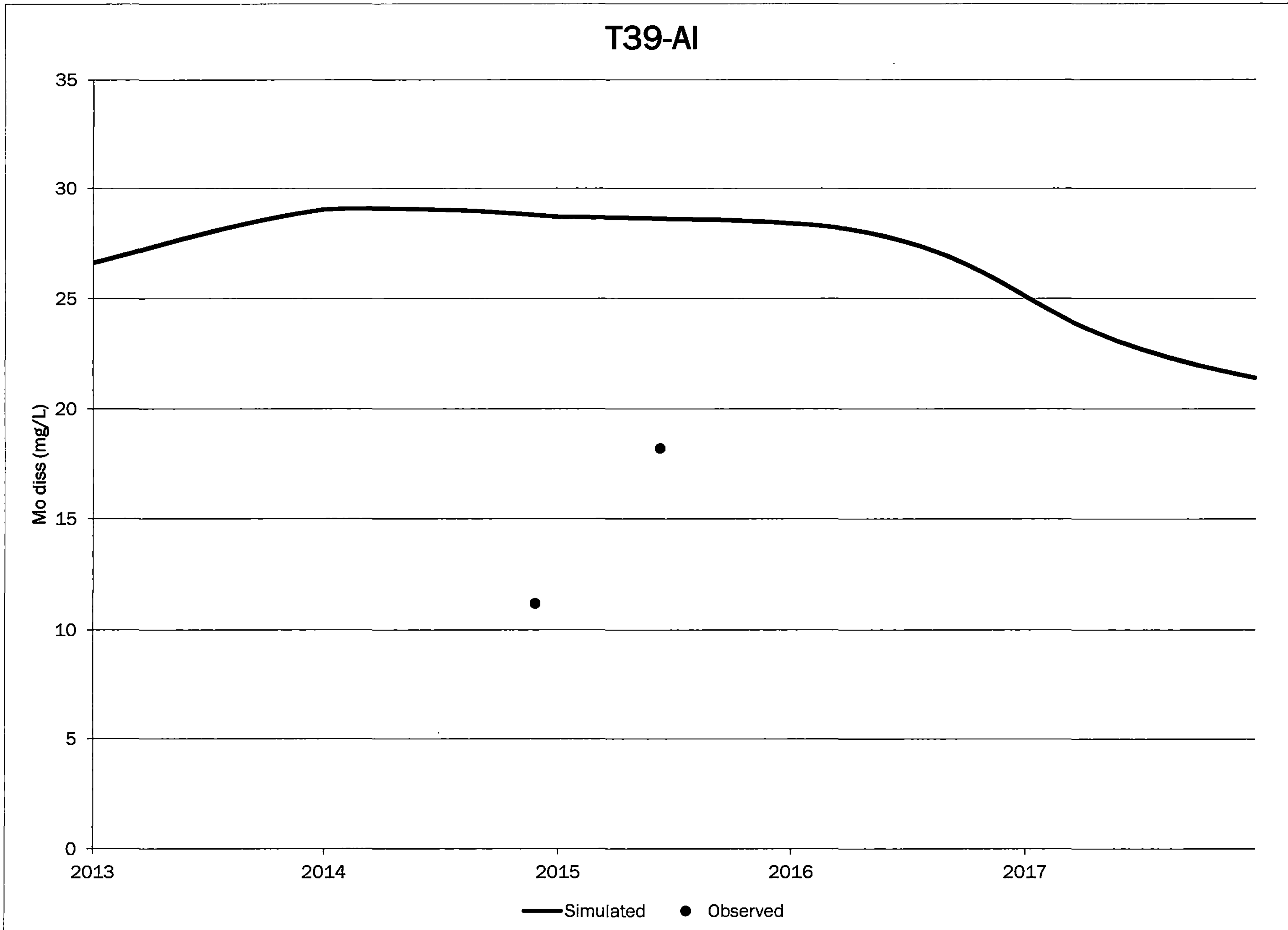


T22-AI
Mo diss (mg/L)
50
45
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

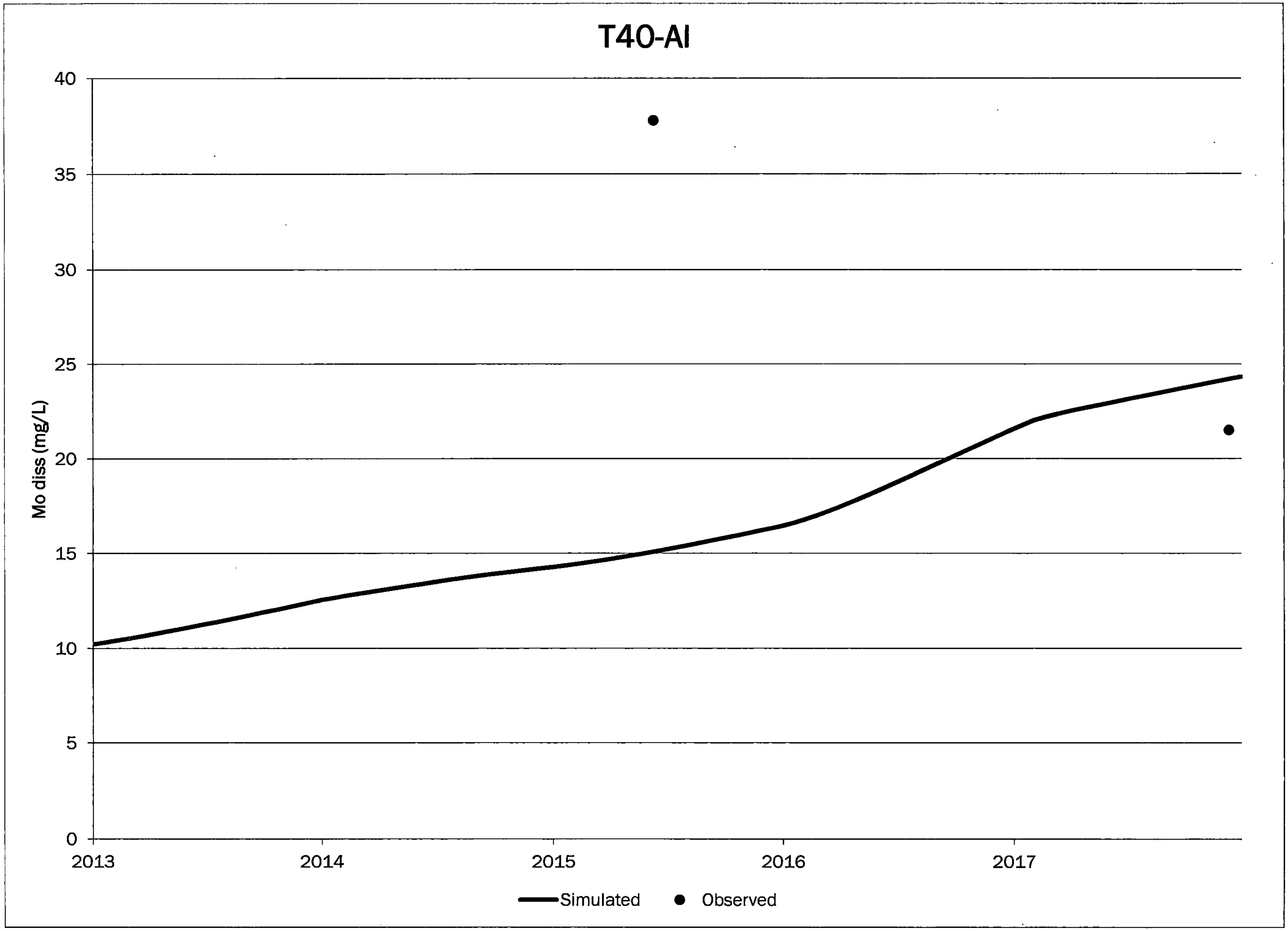

T23-AI
Mo diss (mg/L)
0
10
20
30
40
50
60
70
80
90
2013
2014
2015
2016
2017
Simulated
Observed



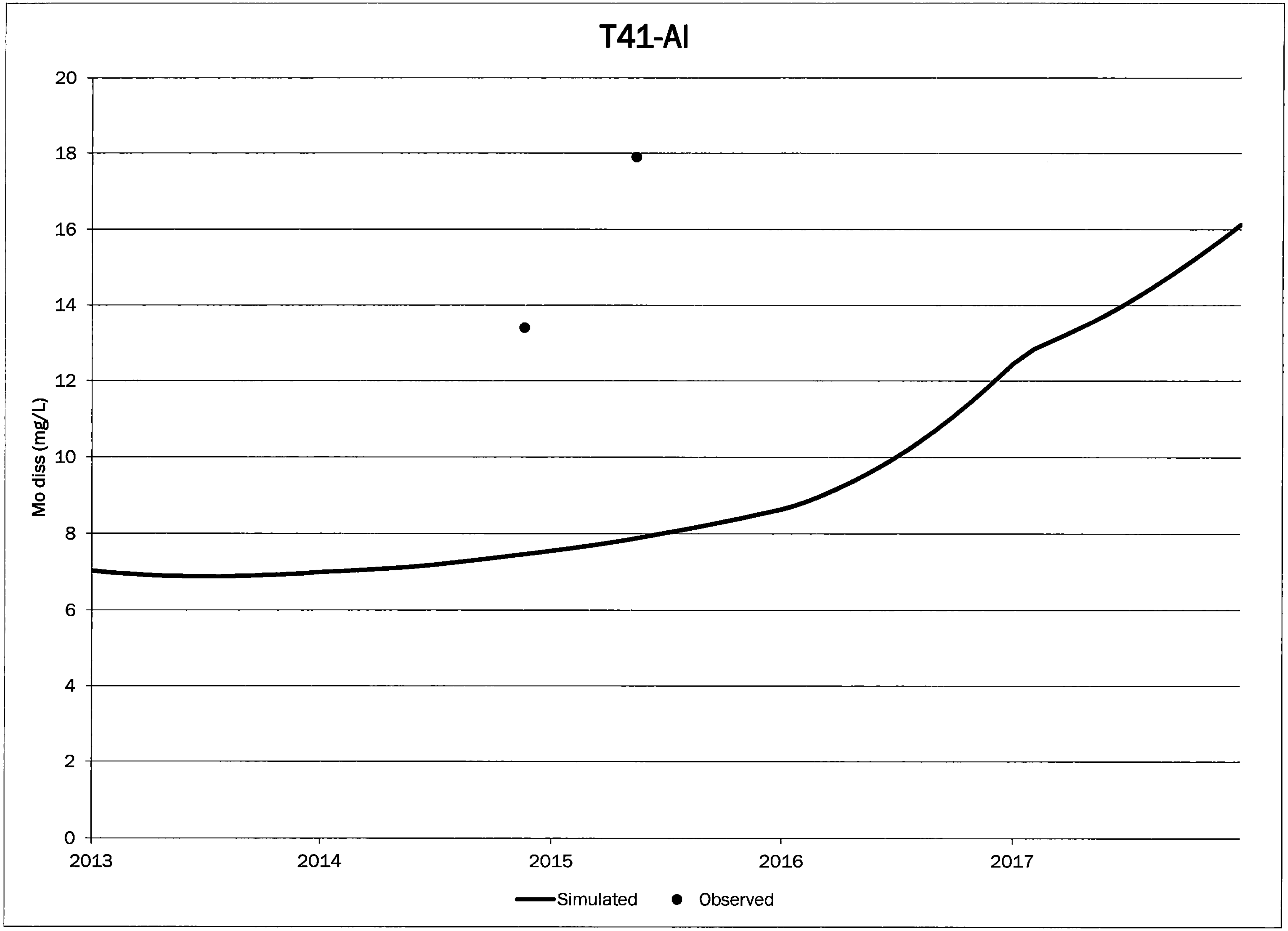
T36-Al
Mo diss (mg/L)
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed



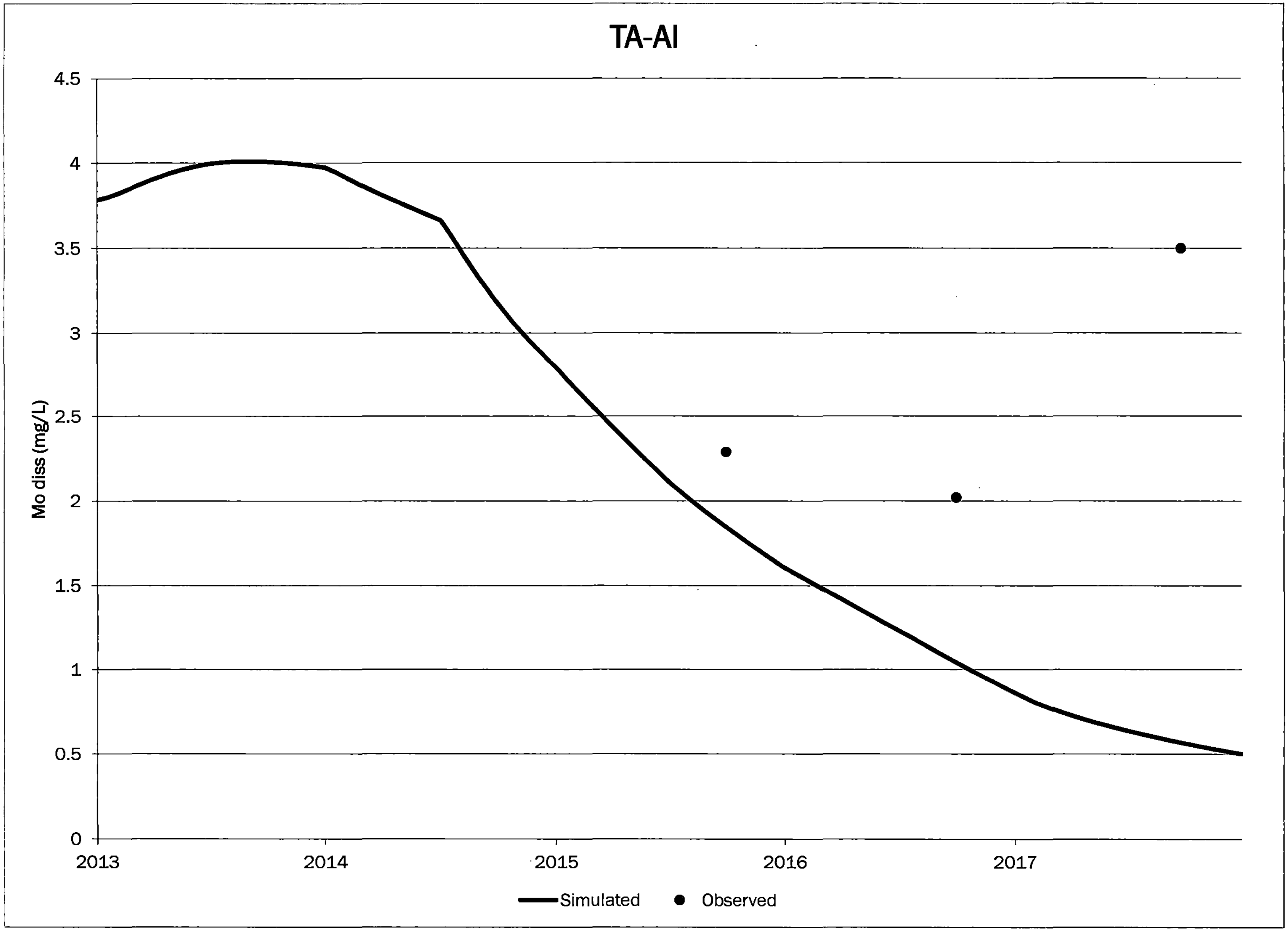
T39-Al
Mo diss (mg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
Simulated
Observed

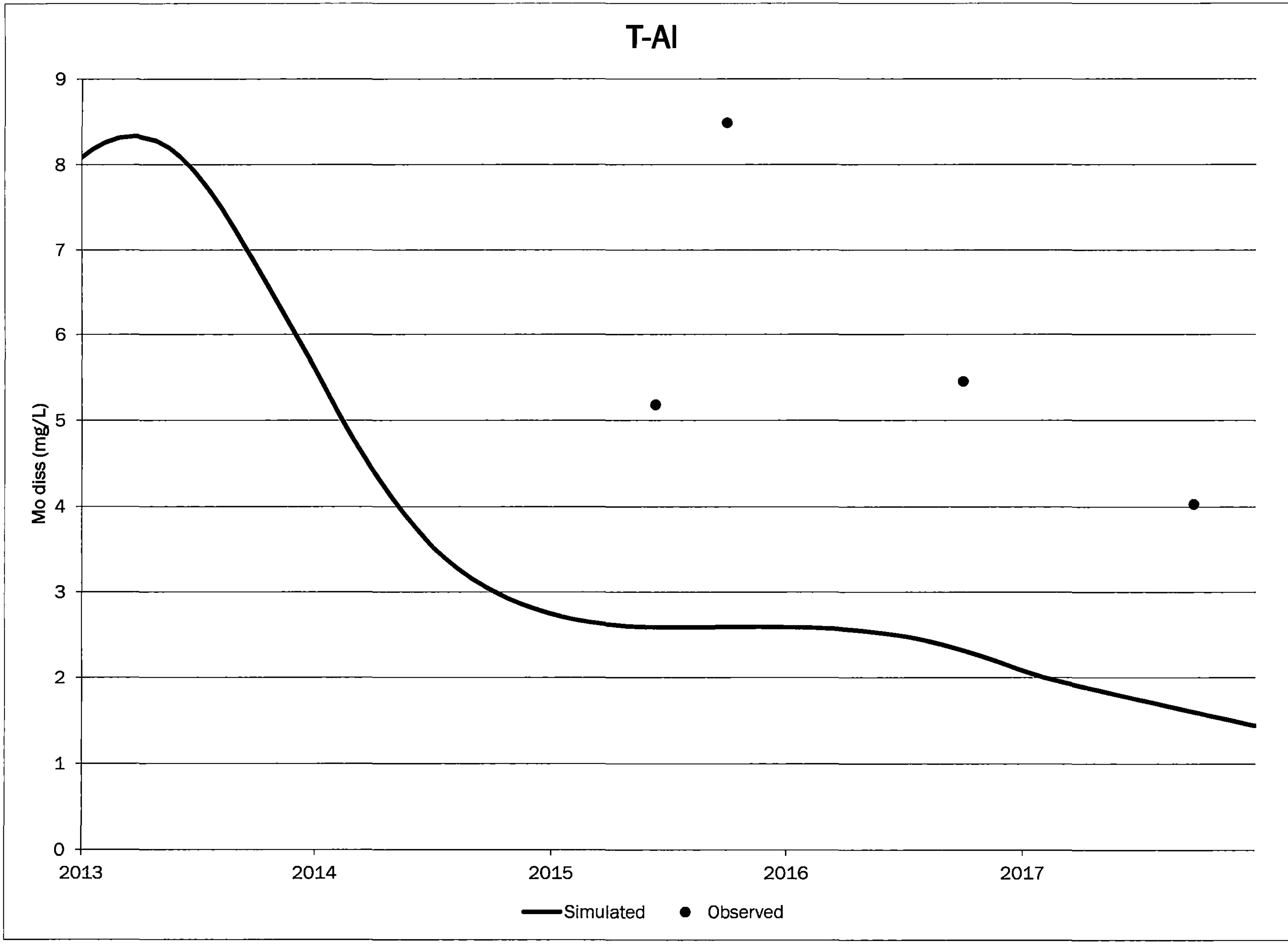


T40-AI
Mo diss (mg/L)
0
5
10
15
20
25
30
35
40
2013
2014
2015
2016
2017
Simulated
Observed

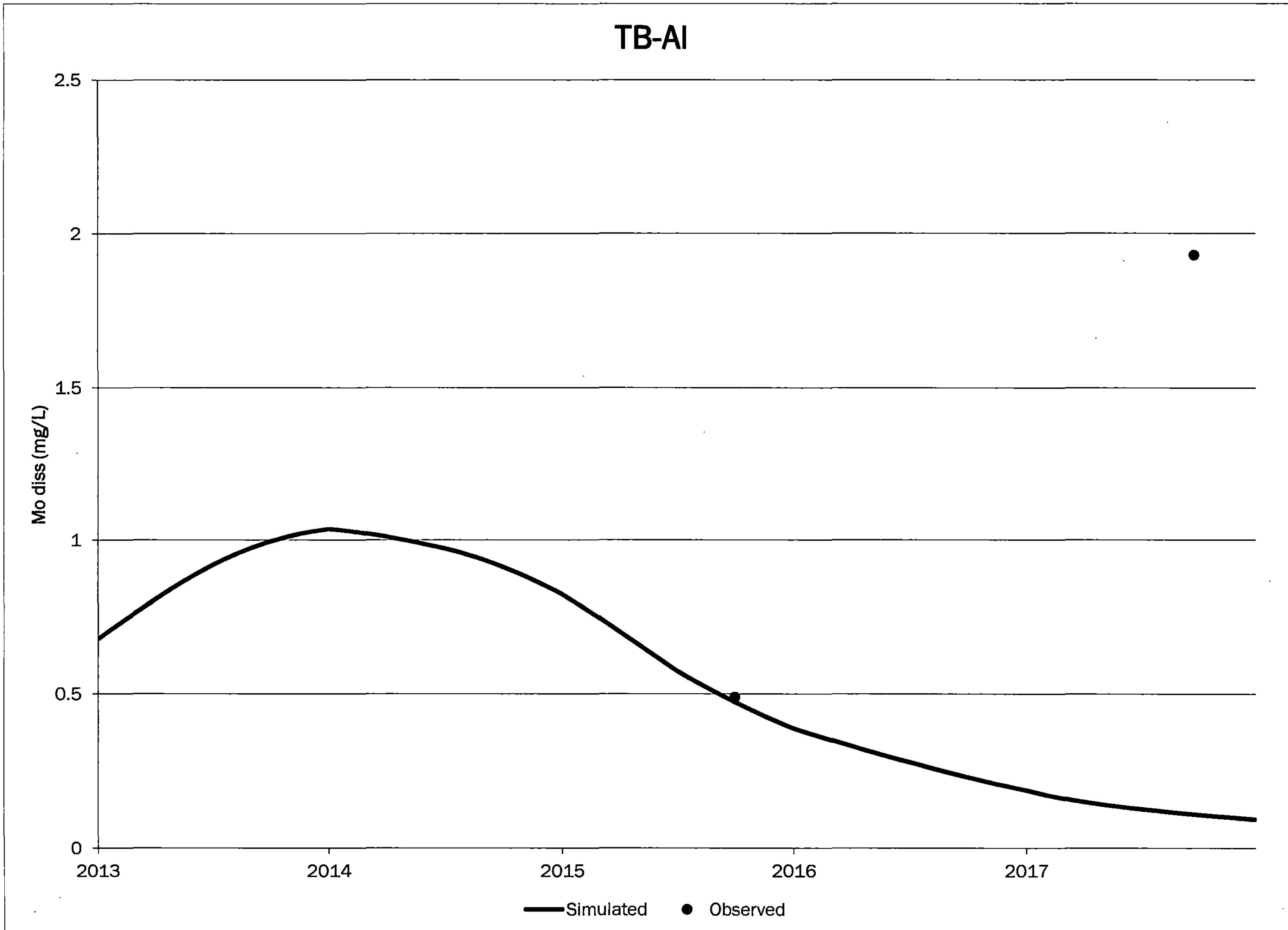


T41-AI
Mo diss (mg/L)
20
18
16
14
12
10
8
6
4
2
0
2013
2014
2015
2016
2017
Simulated
Observed

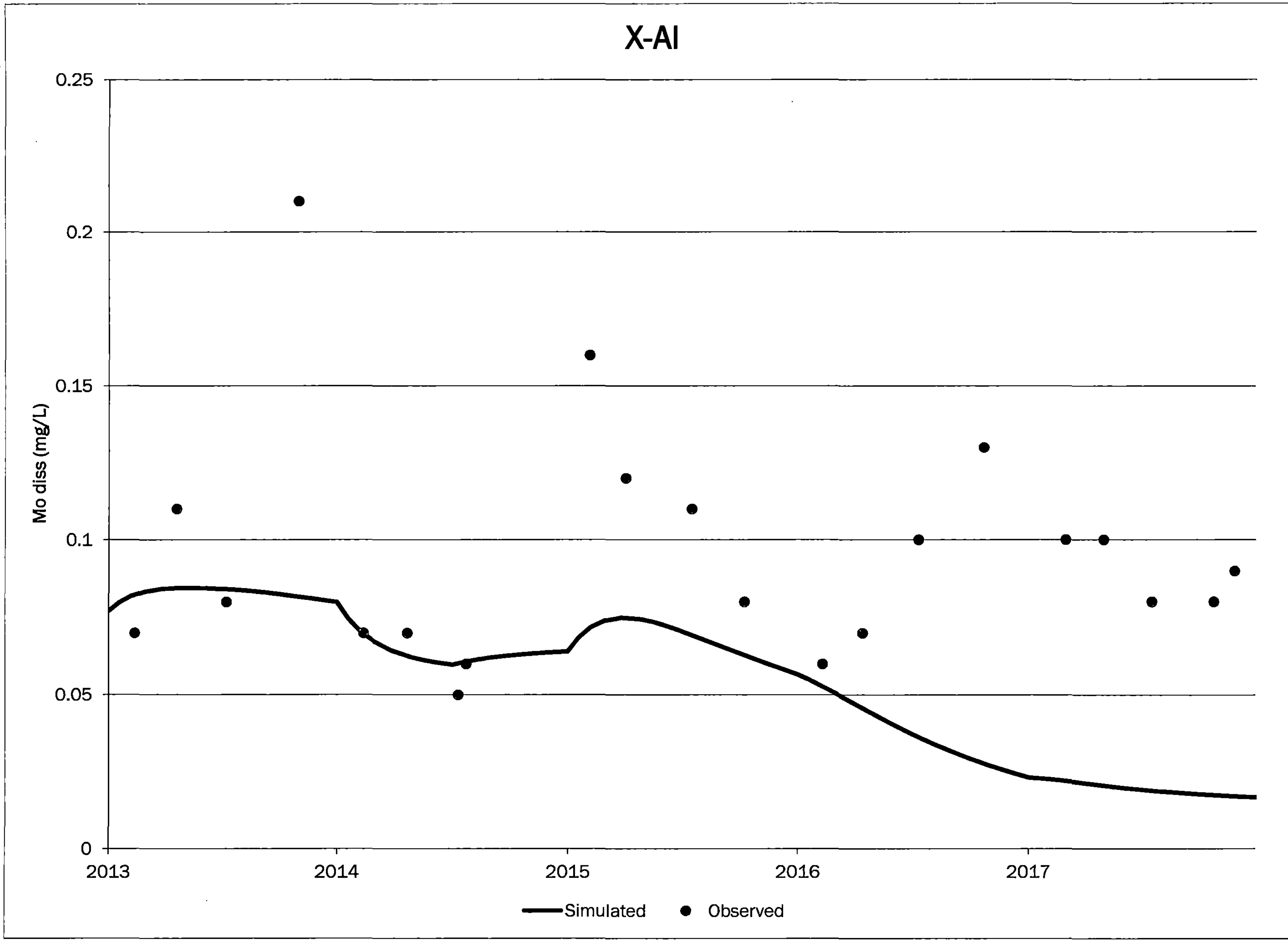

TA-AI
Mo diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



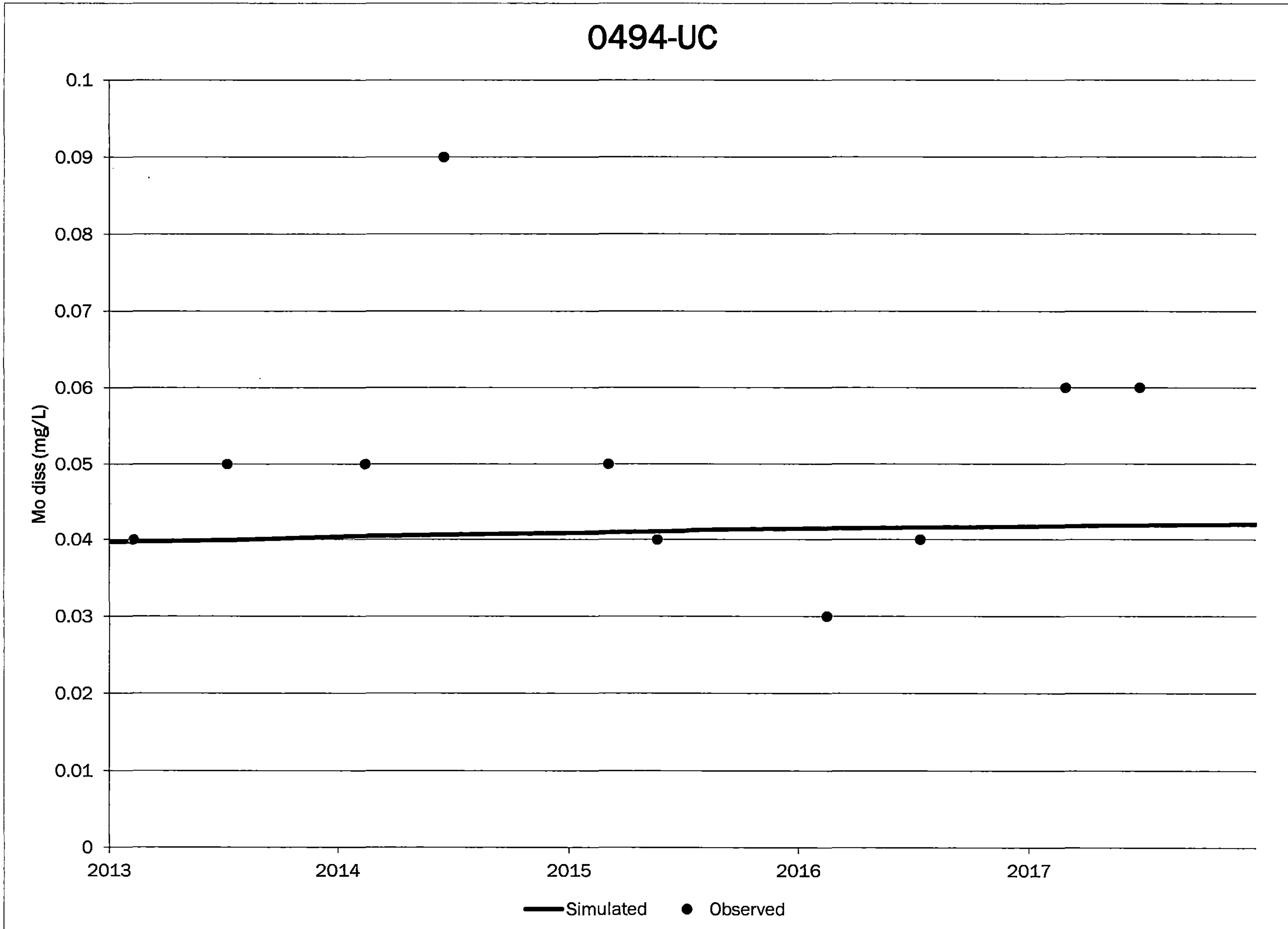
T-Al
Mo diss (mg/L)
9
8
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
Simulated
Observed



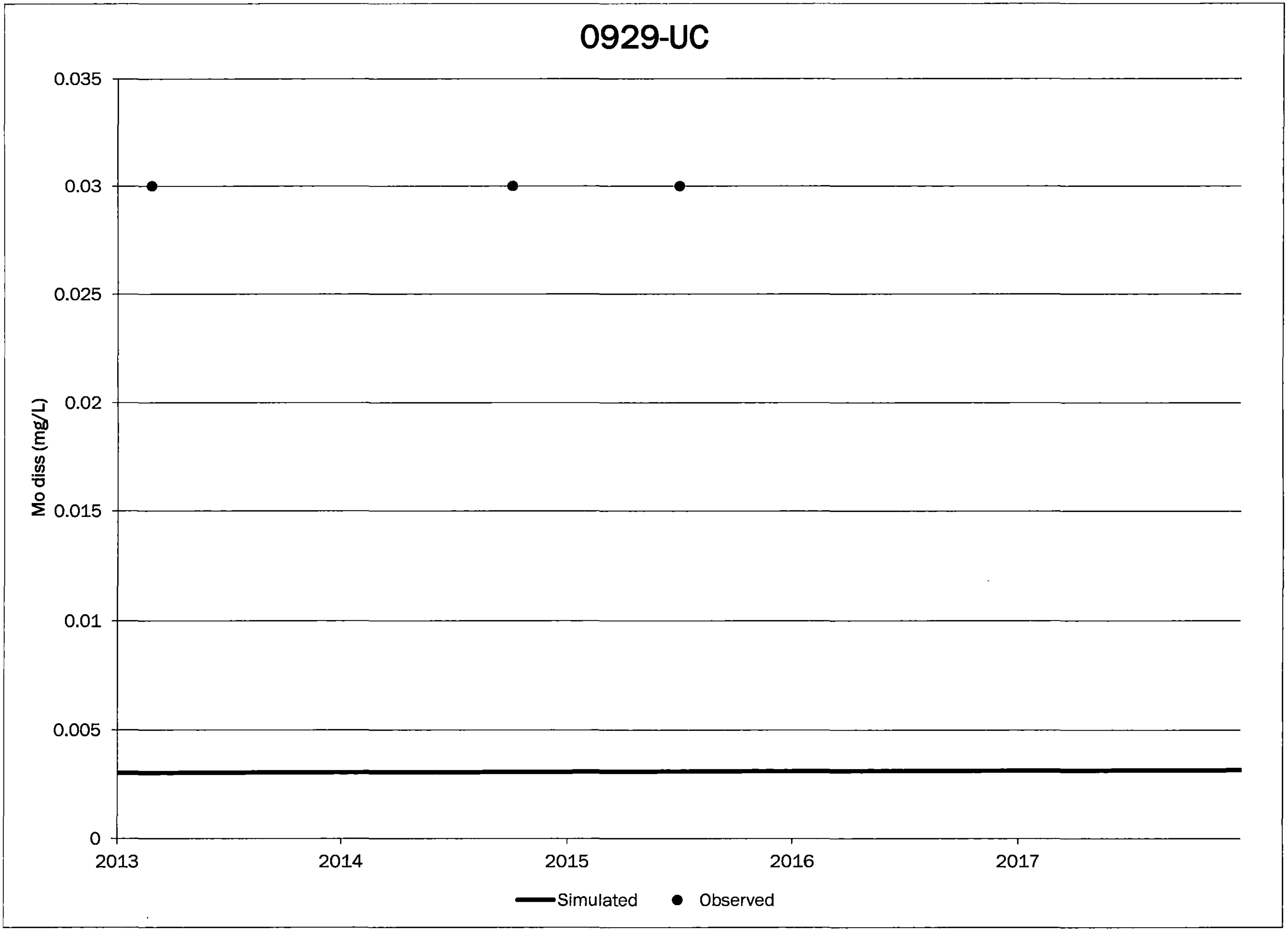
TB-AI
2.5
2
1.5
1
0.5
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

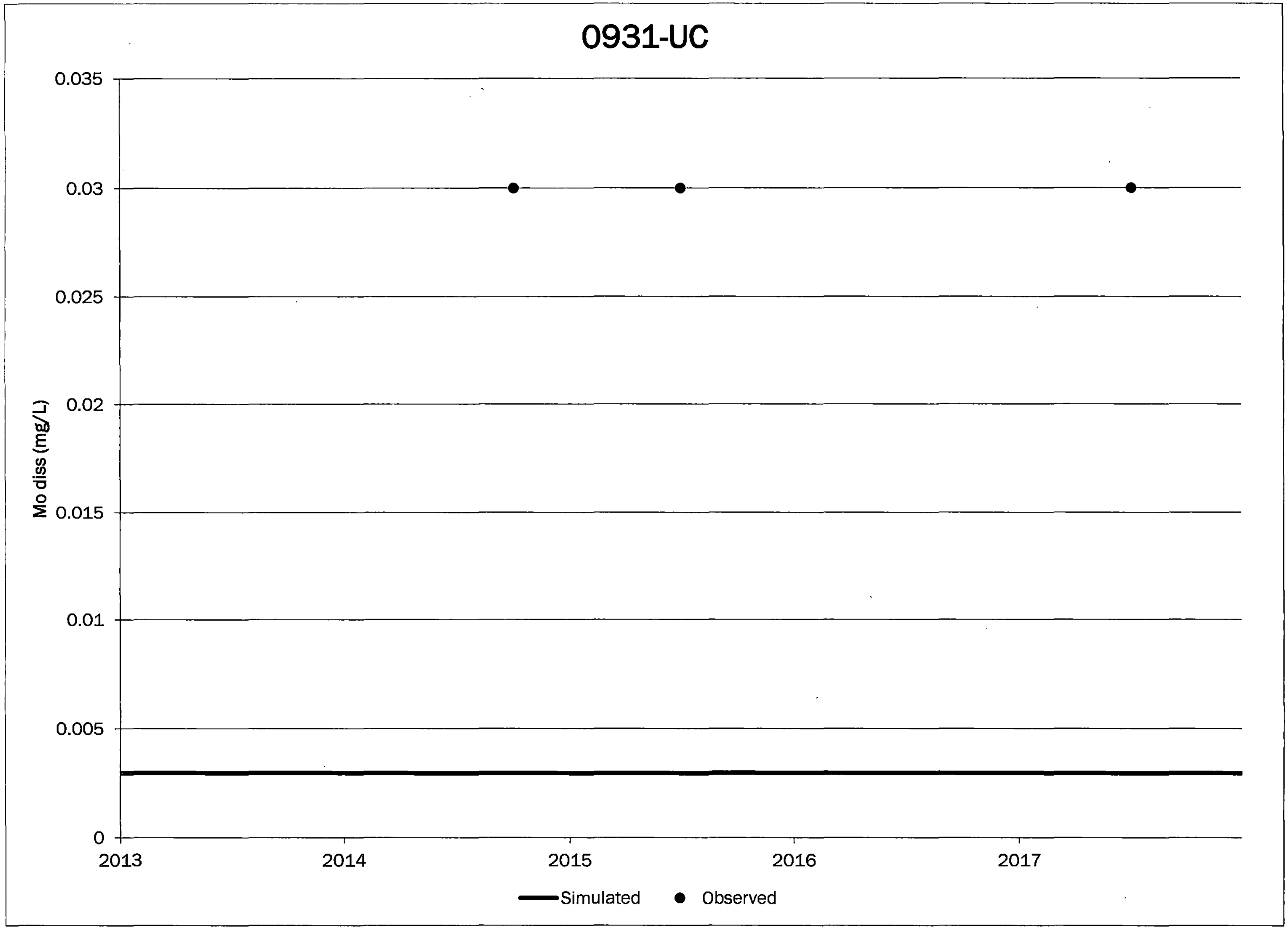


X-Al
0.25
0.2
0.15
0.1
0.05
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

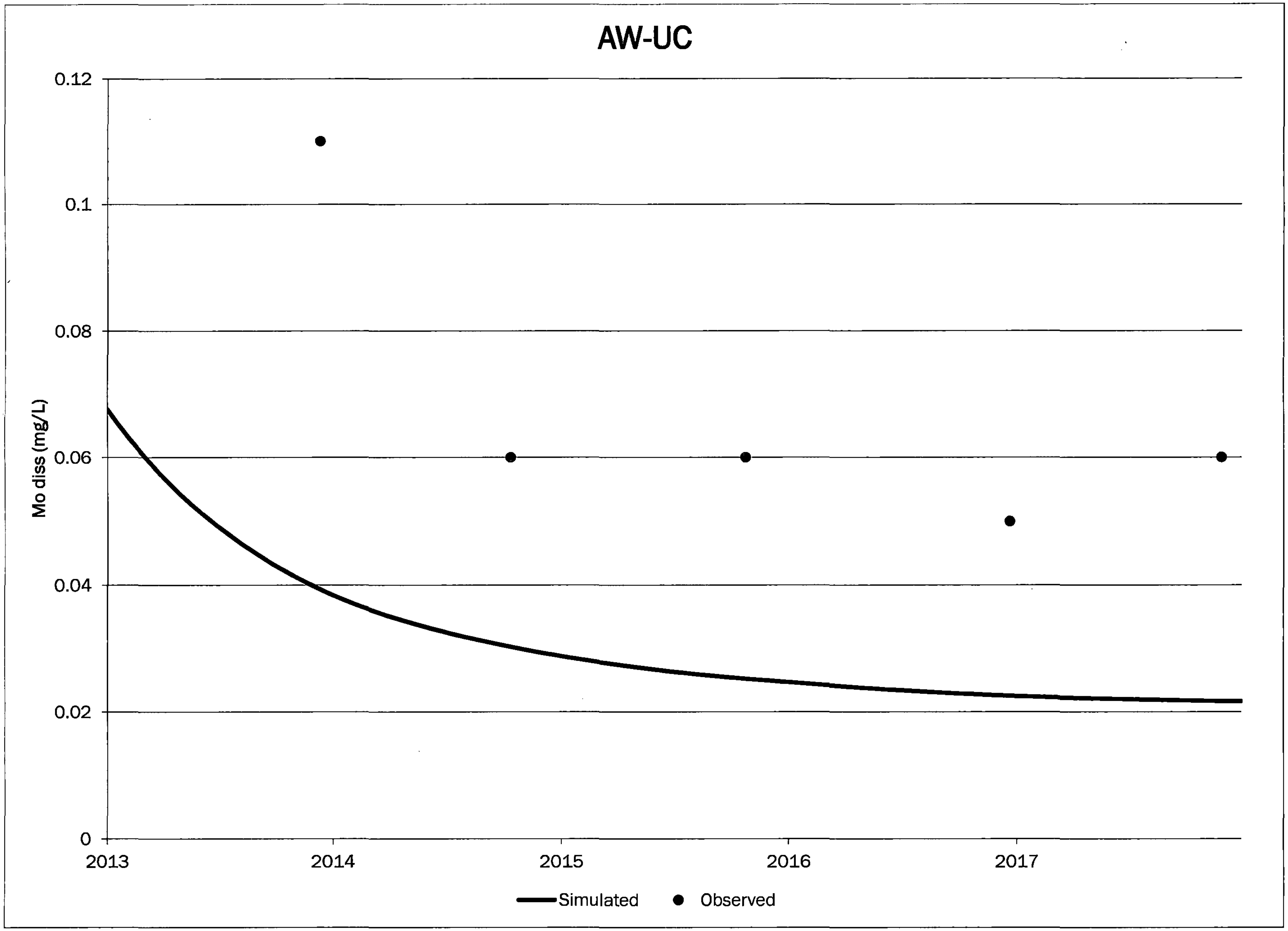


0494-UC
Mo diss (mg/L)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

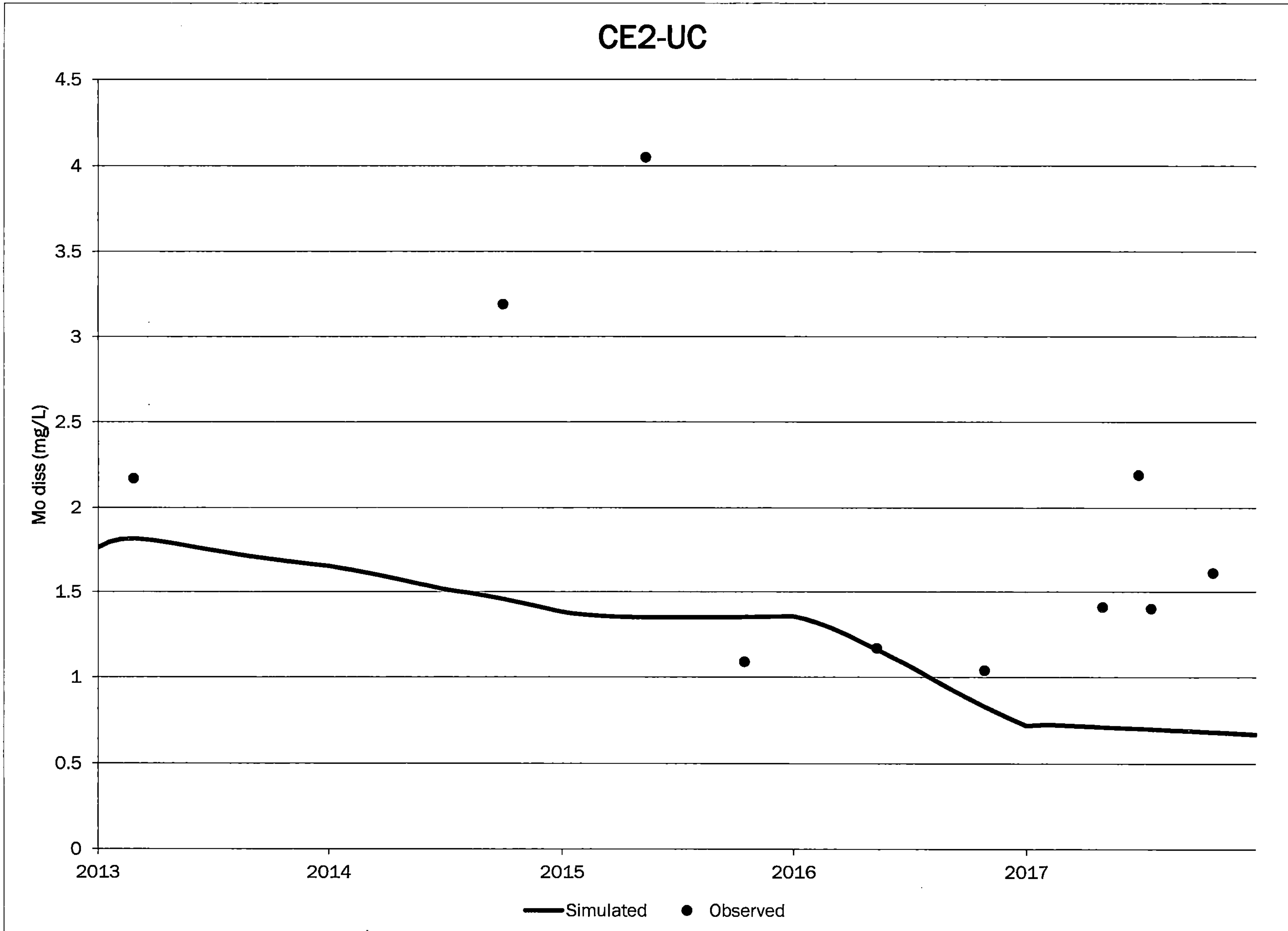

0929-UC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



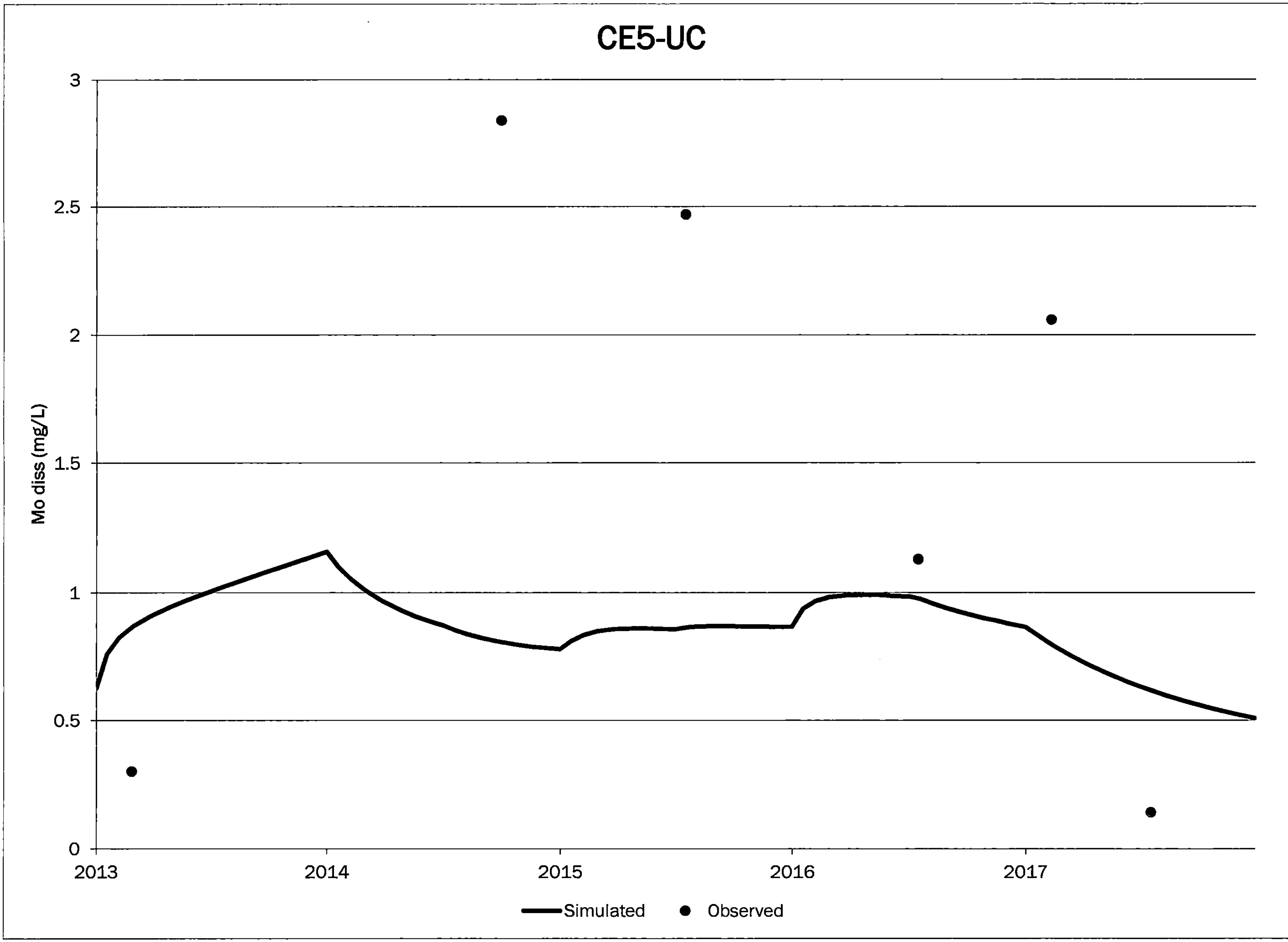
0931-UC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



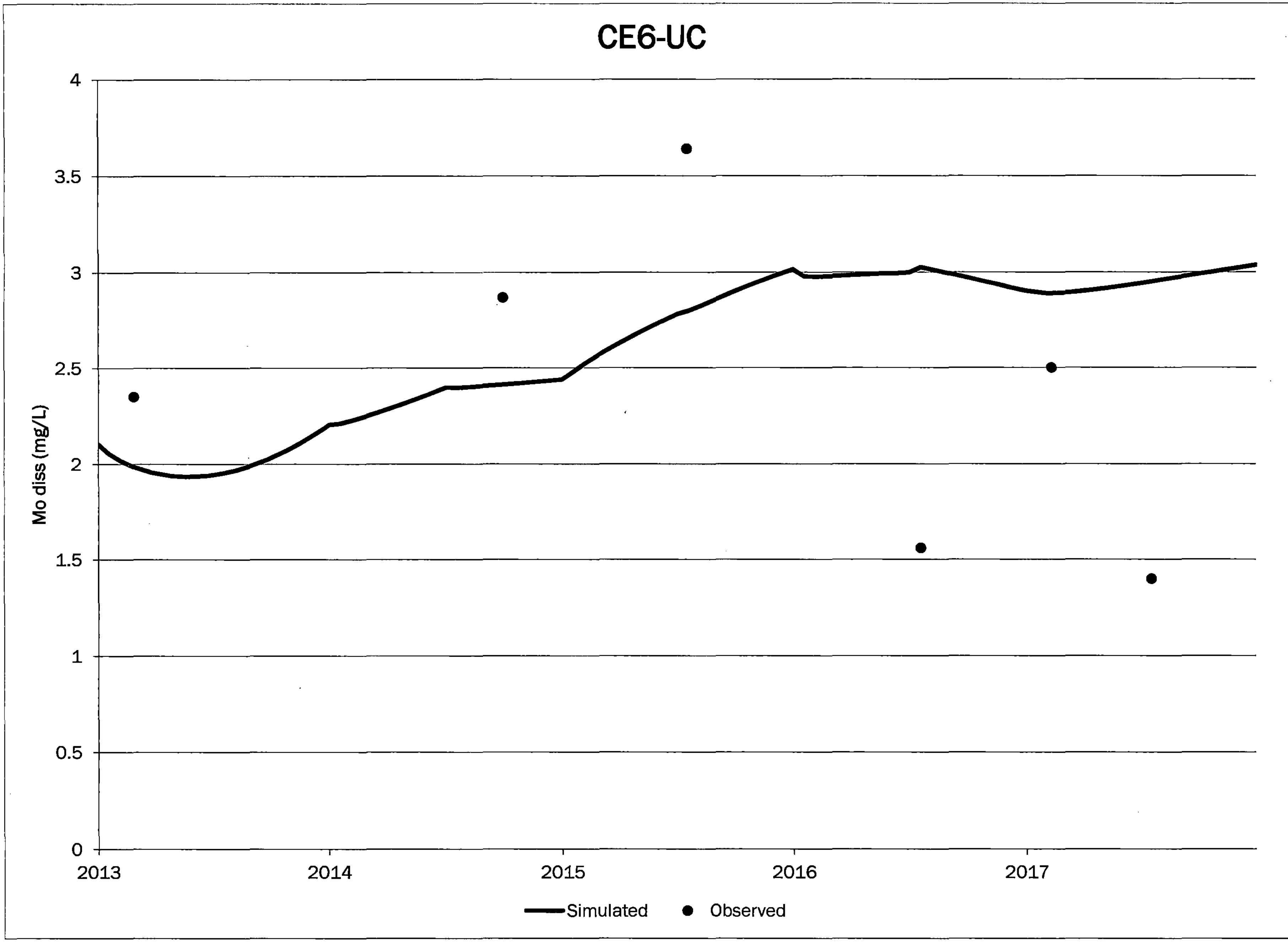
AW-UC
Mo diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

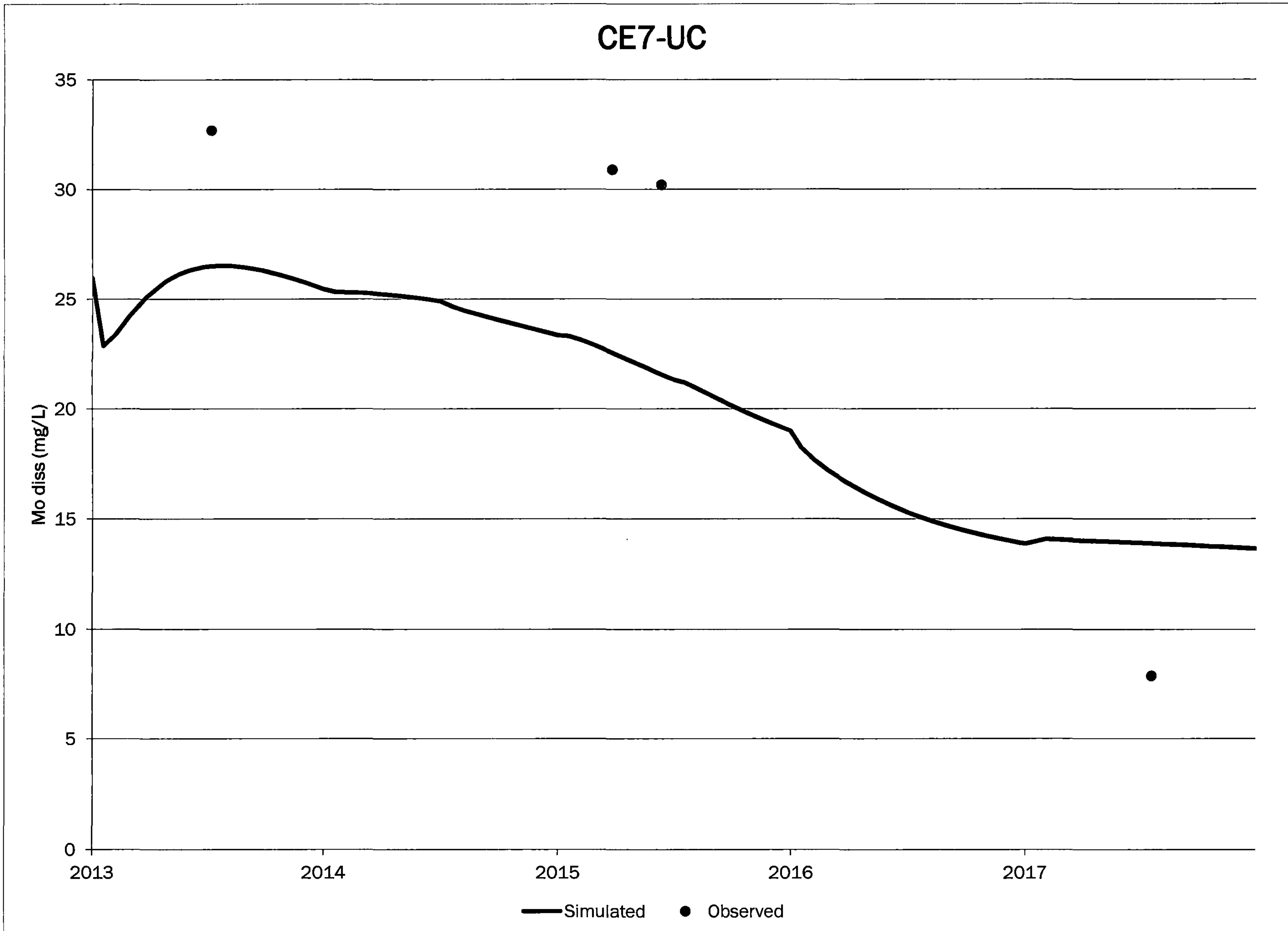


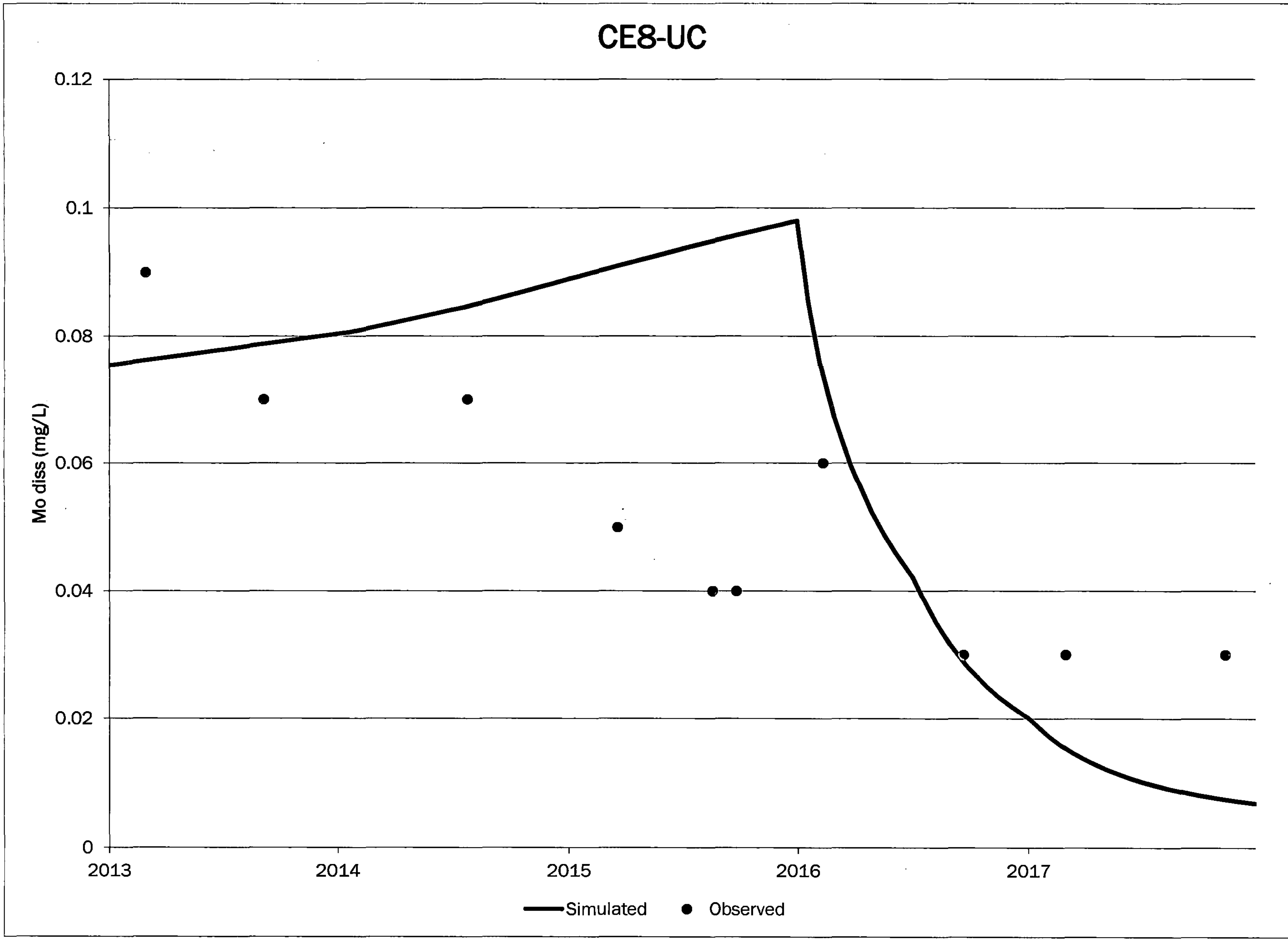
CE2-UC
Mo diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



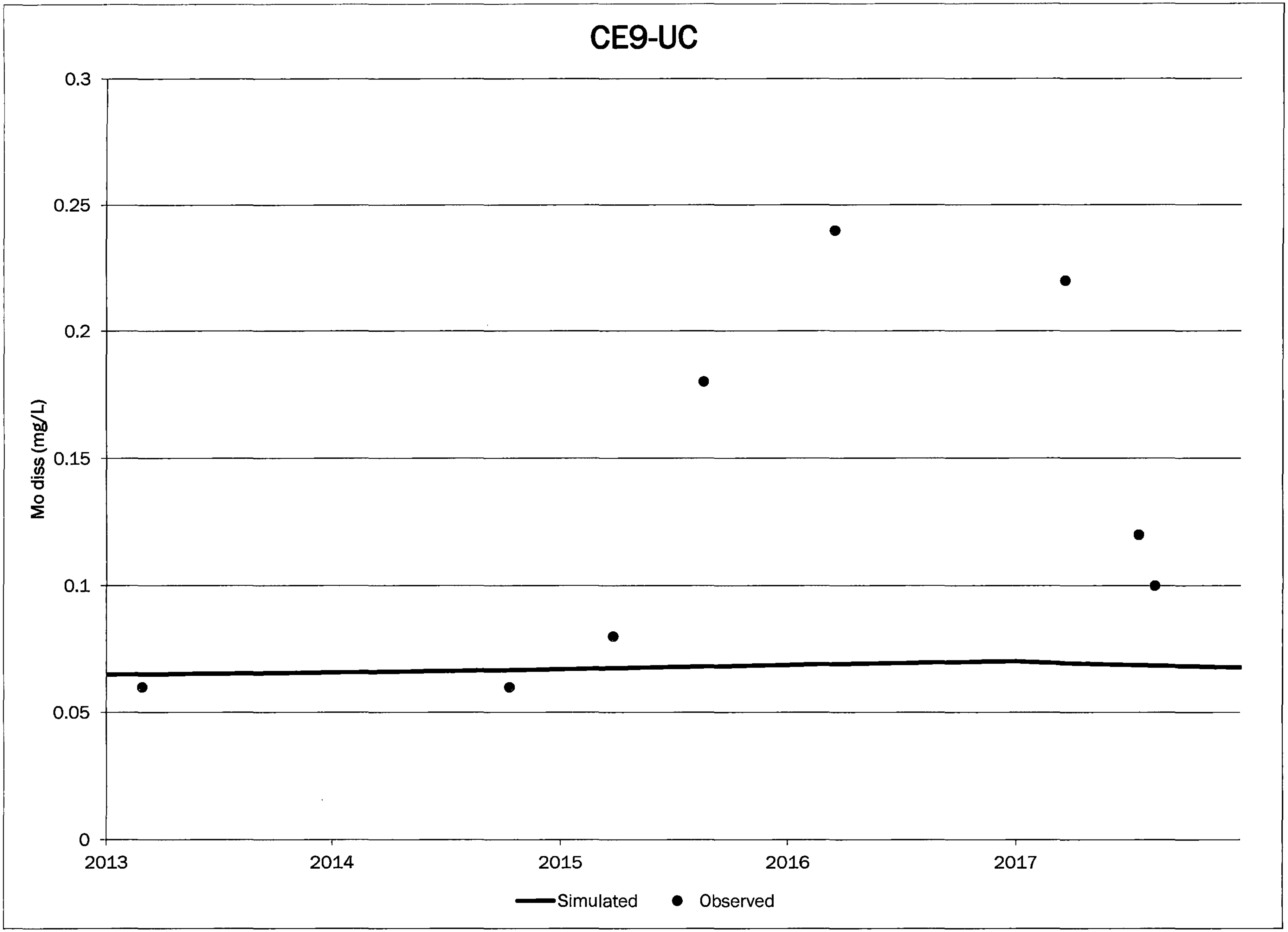
CE5-UC
Mo diss (mg/L)
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

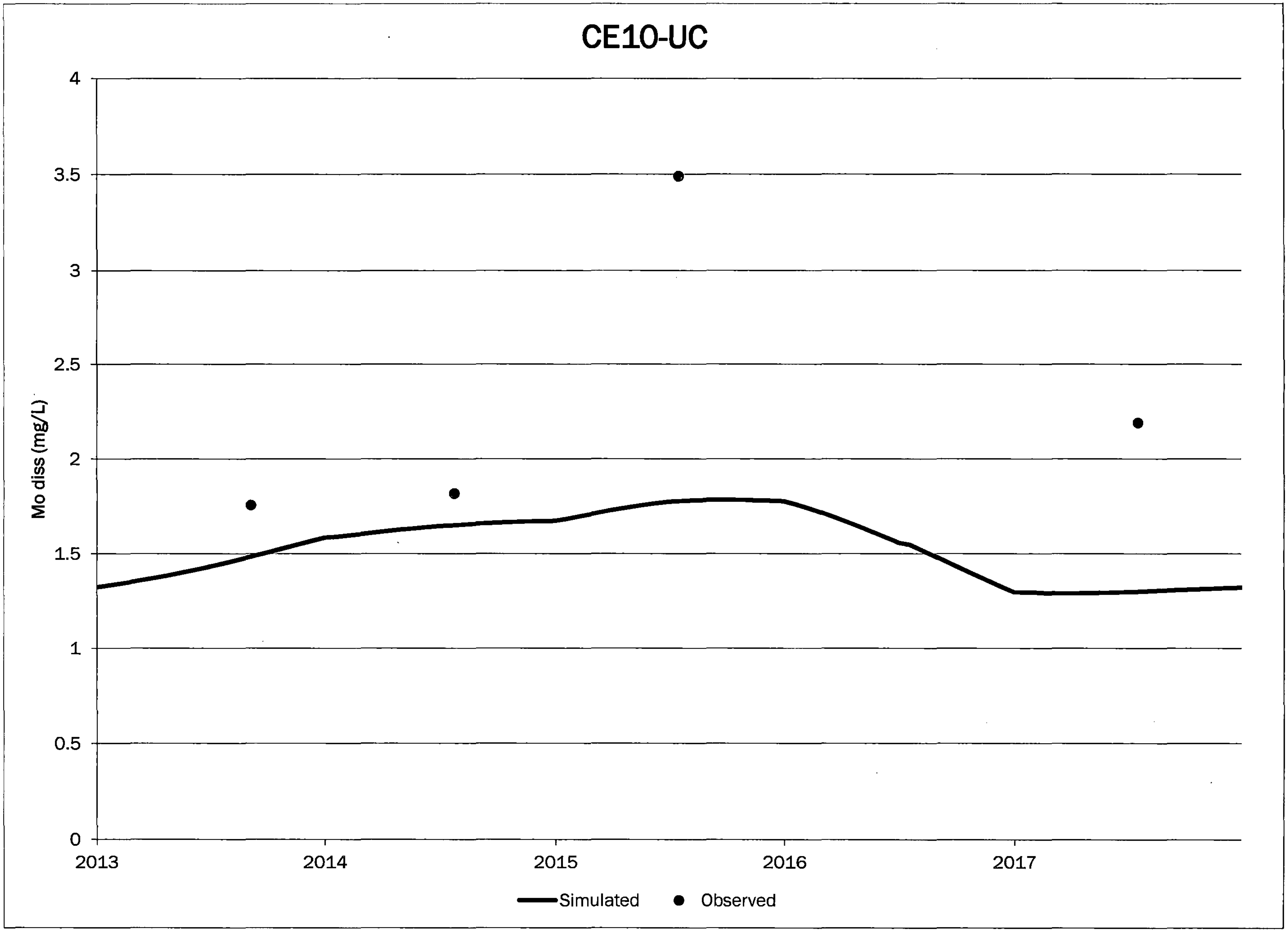

CE6-UC
Mo diss (mg/L)
0
0.5
1
1.5
2
2.5
3
3.5
4
2013
2014
2015
2016
2017
Simulated
Observed


CE7-UC
Mo diss (mg/L)
0
5
10
15
20
25
30
35
2013
2014
2015
2016
2017
Simulated
Observed

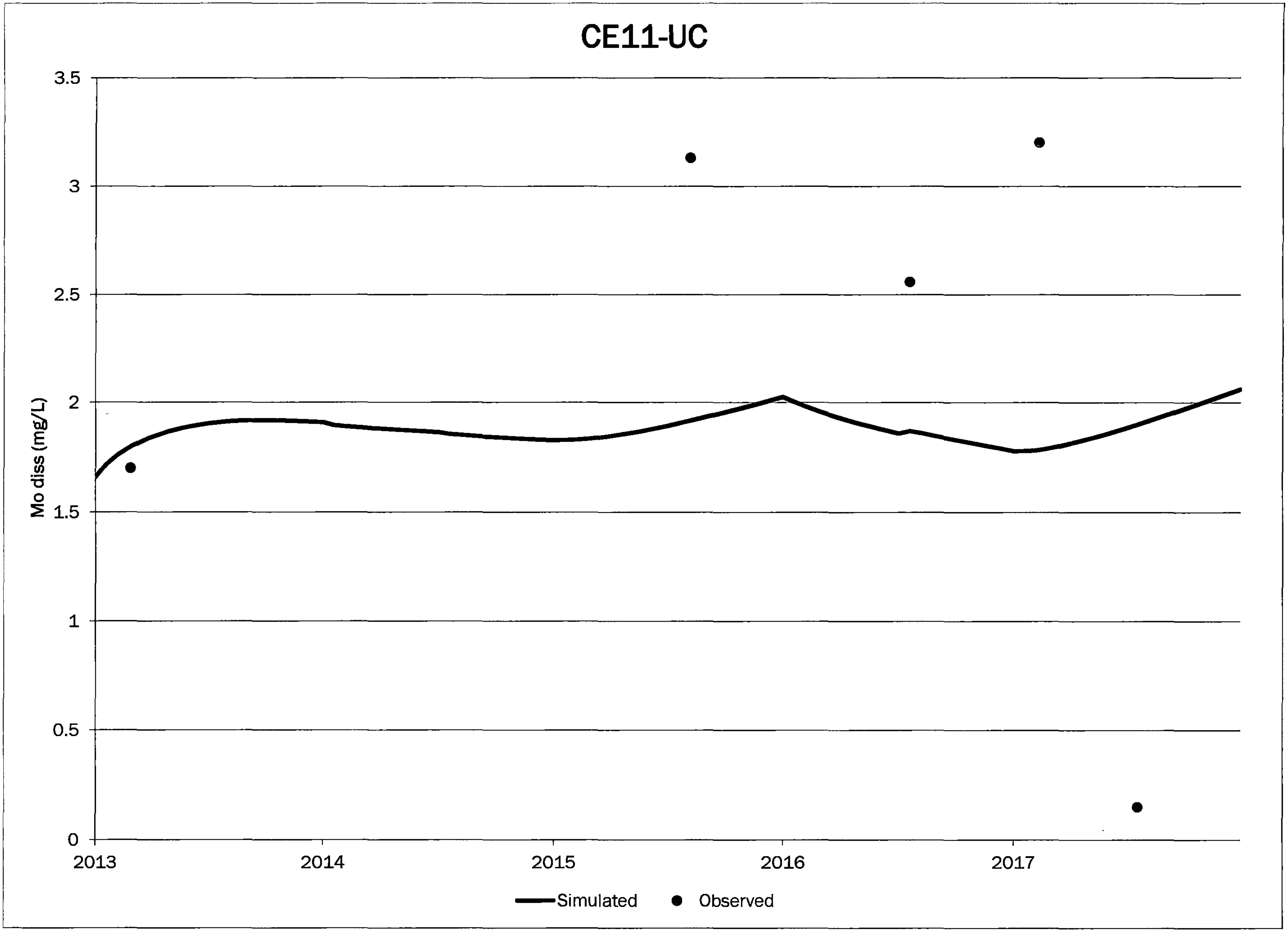


CE8-UC
Mo diss (mg/L)
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

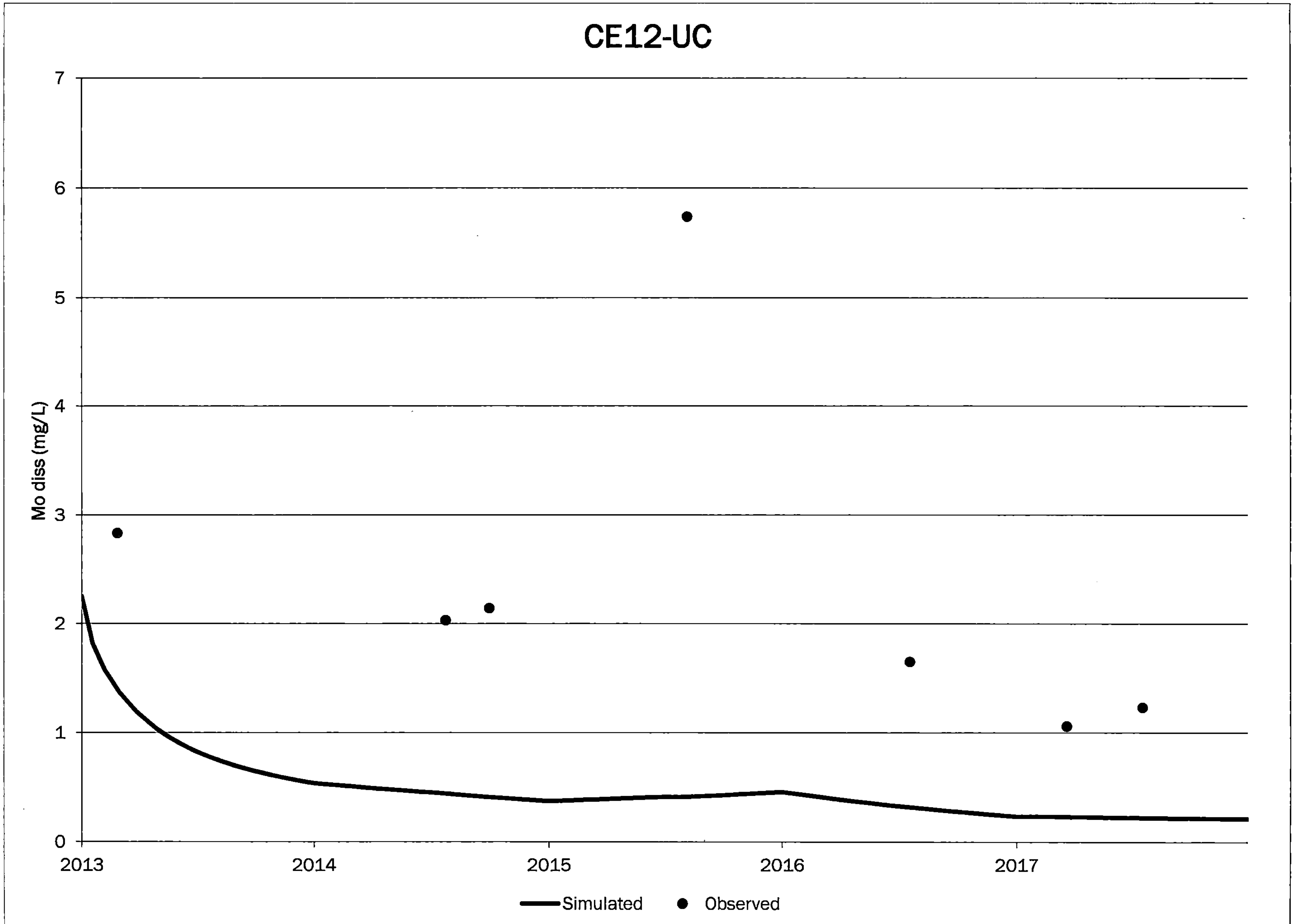

CE9-UC
Mo diss (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed

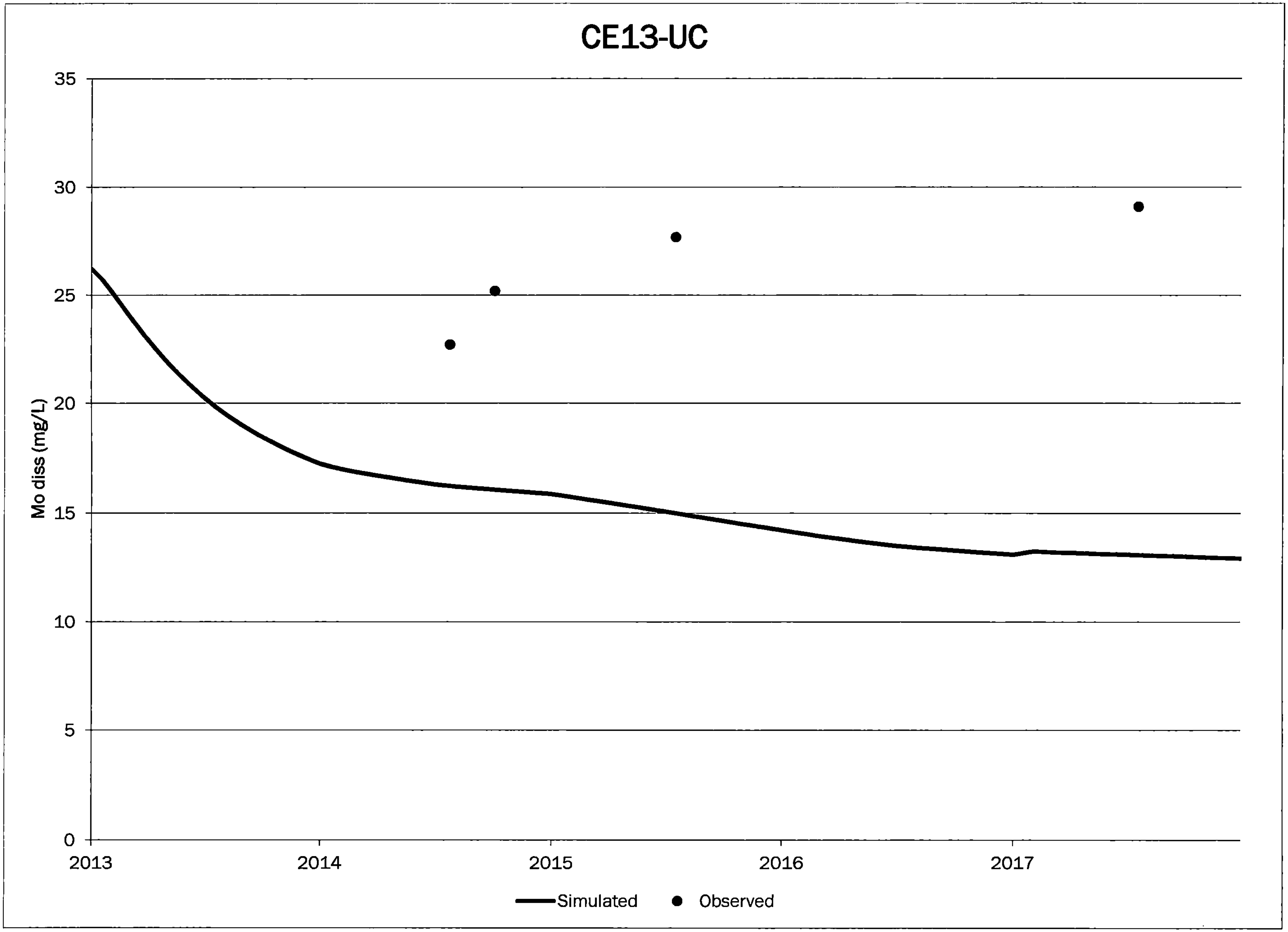


CE10-UC
Mo diss (mg/L)
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

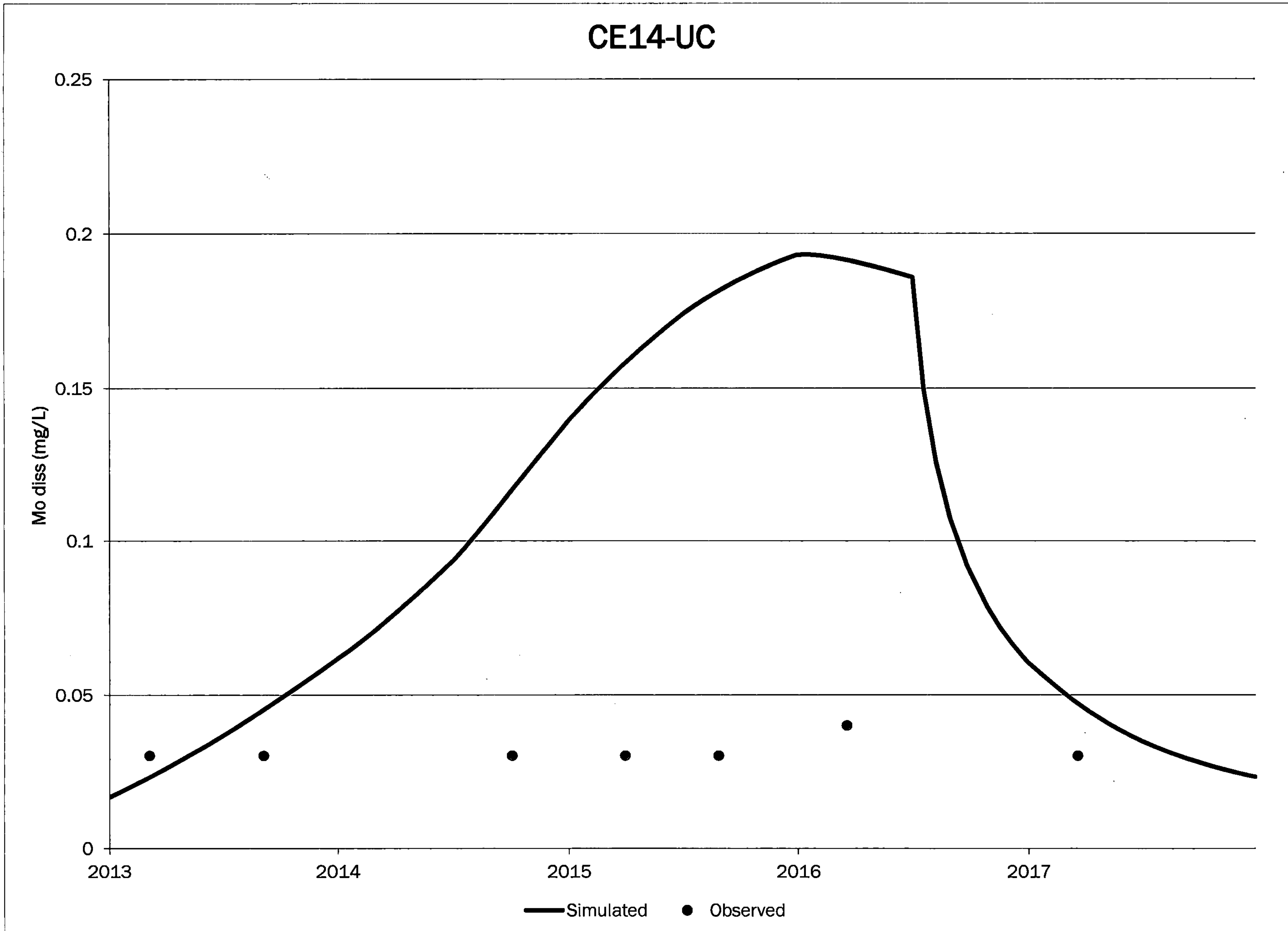


CE11-UC
3.5
3
2.5
2
1.5
1
0.5
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

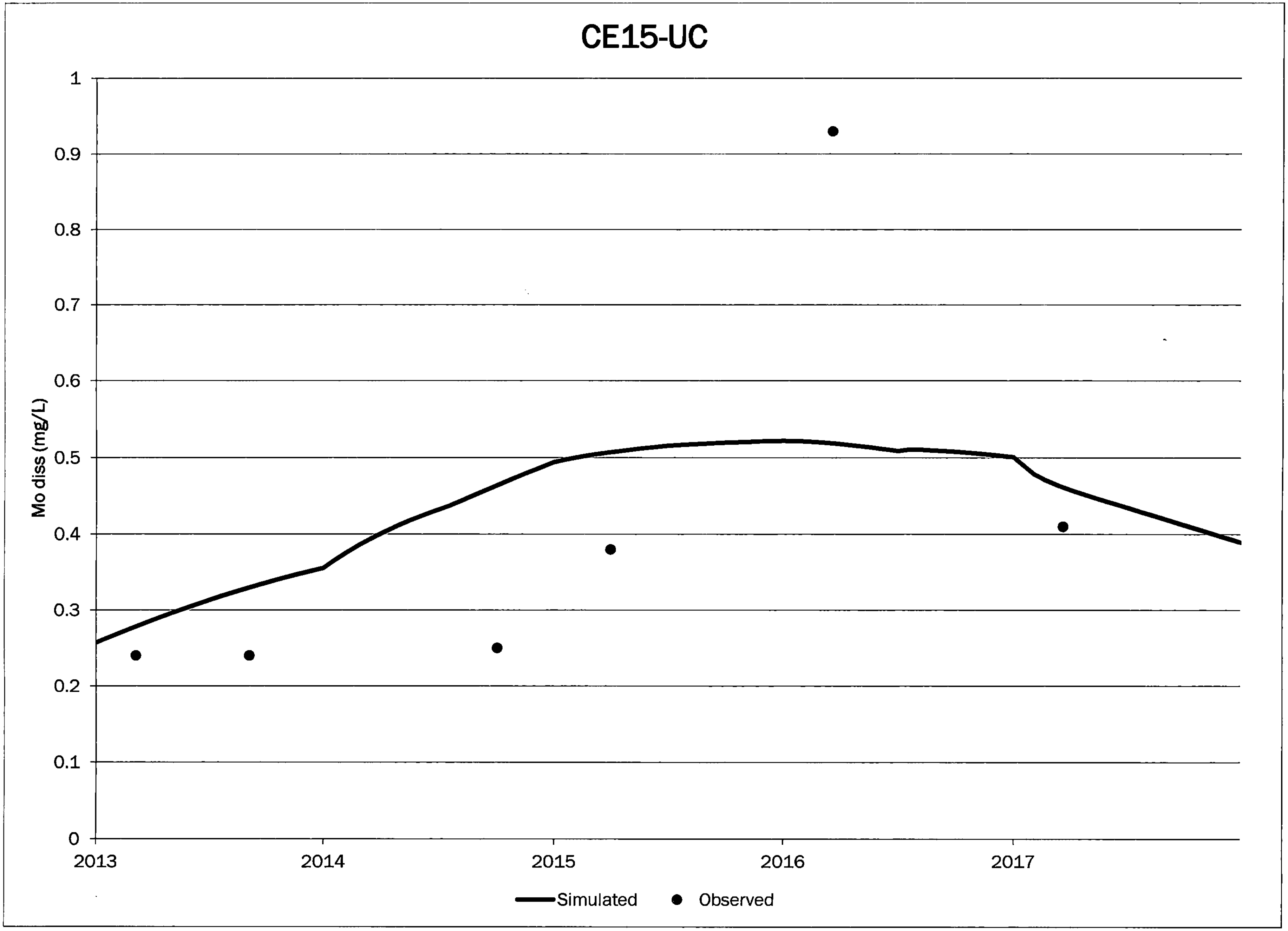

CE12-UC
Mo diss (mg/L)
0
1
2
3
4
5
6
7
2013
2014
2015
2016
2017
Simulated
Observed



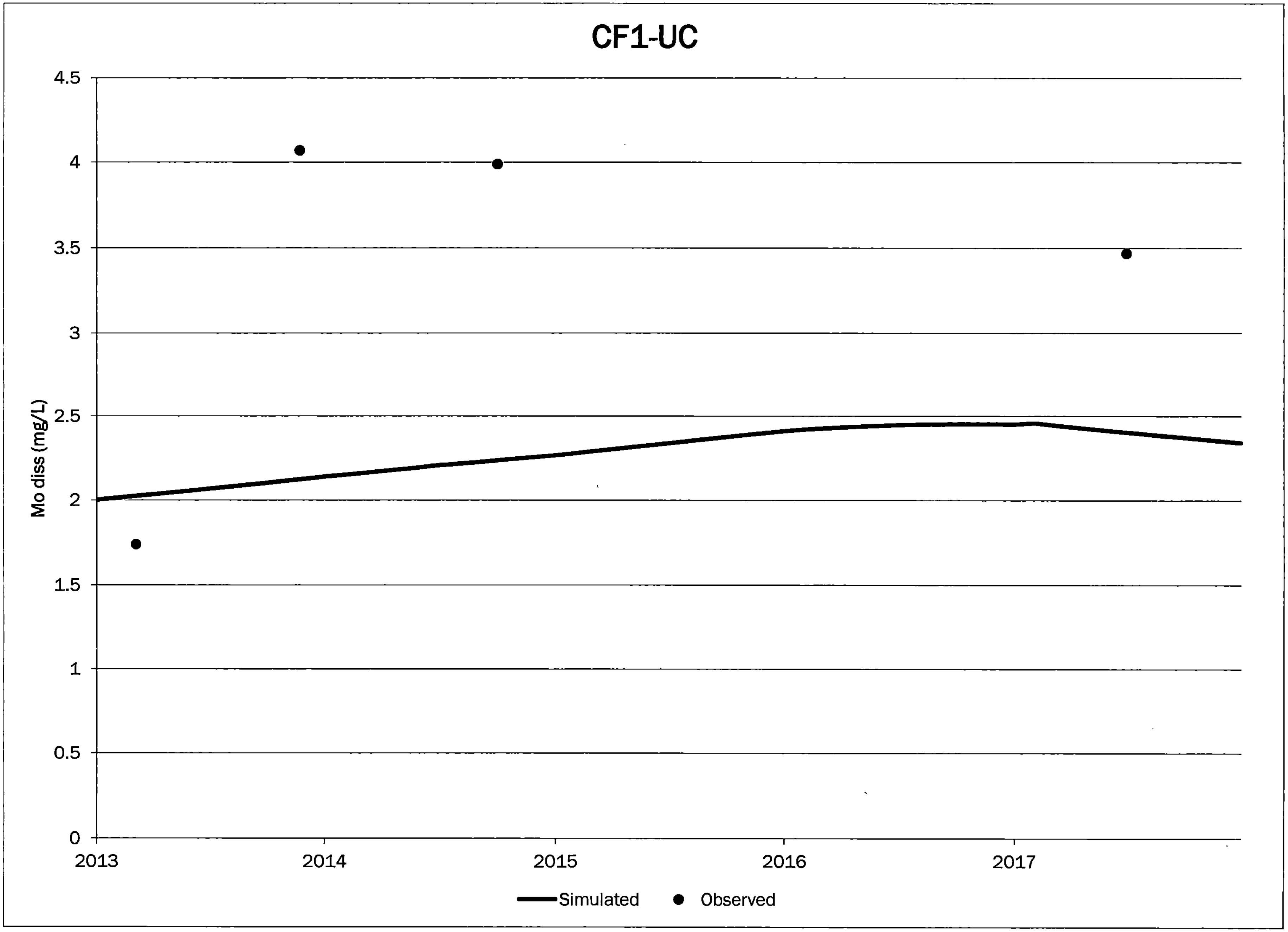
CE13-UC
35
30
25
20
15
10
5
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



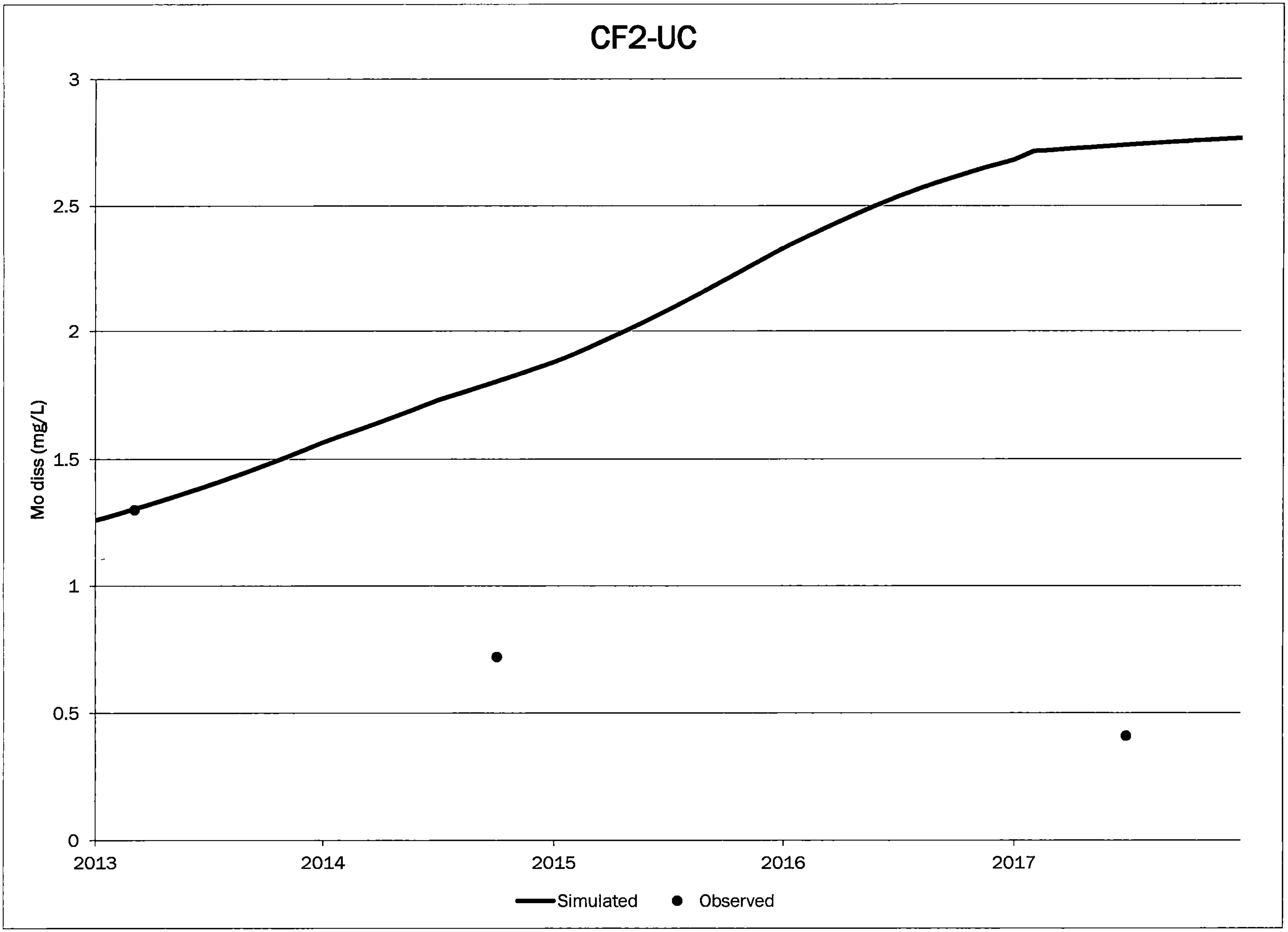
CE14-UC
0.25
0.2
0.15
0.1
0.05
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



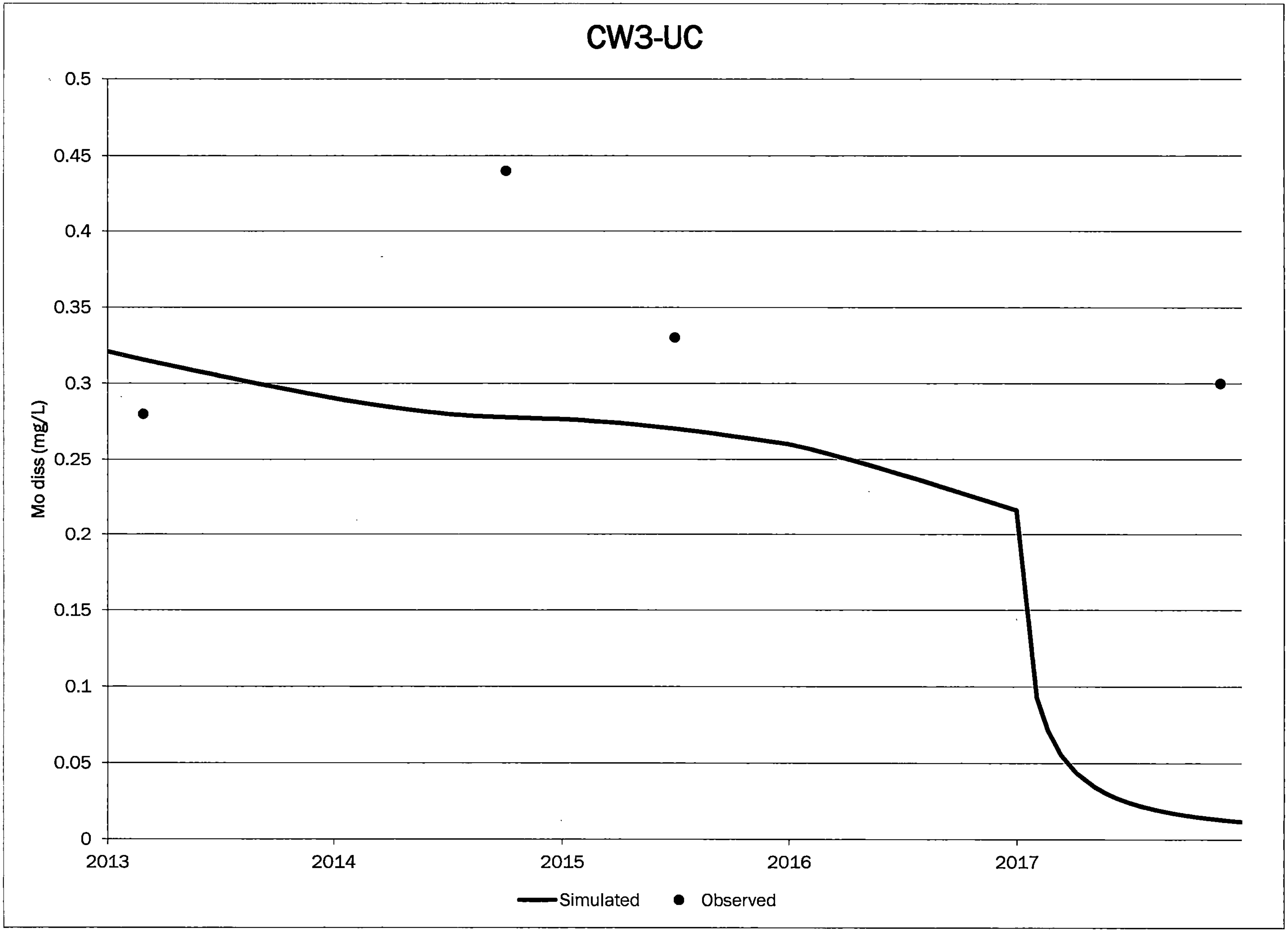
CE15-UC
Mo diss (mg/L)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

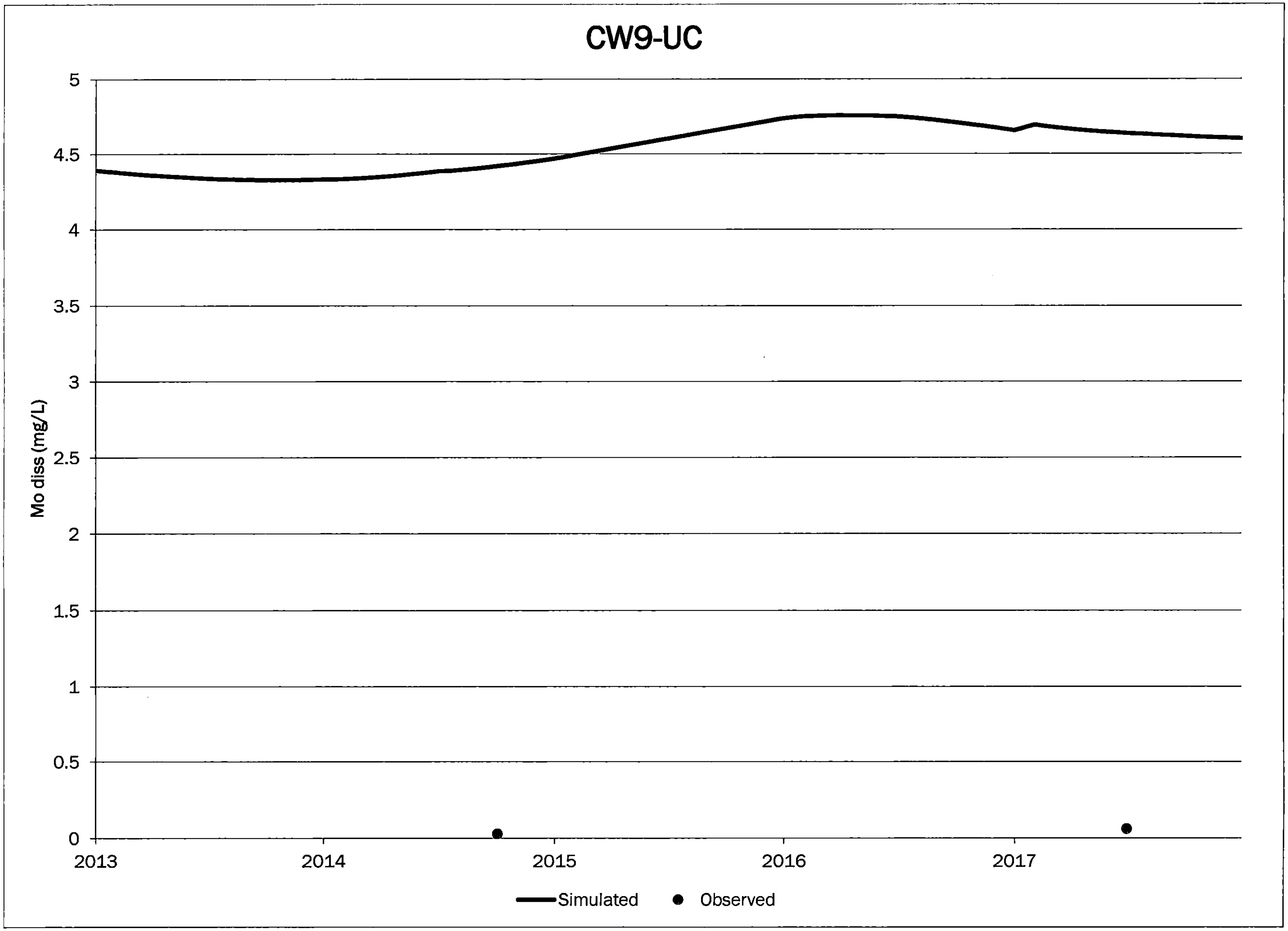


CF1-UC
Mo diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

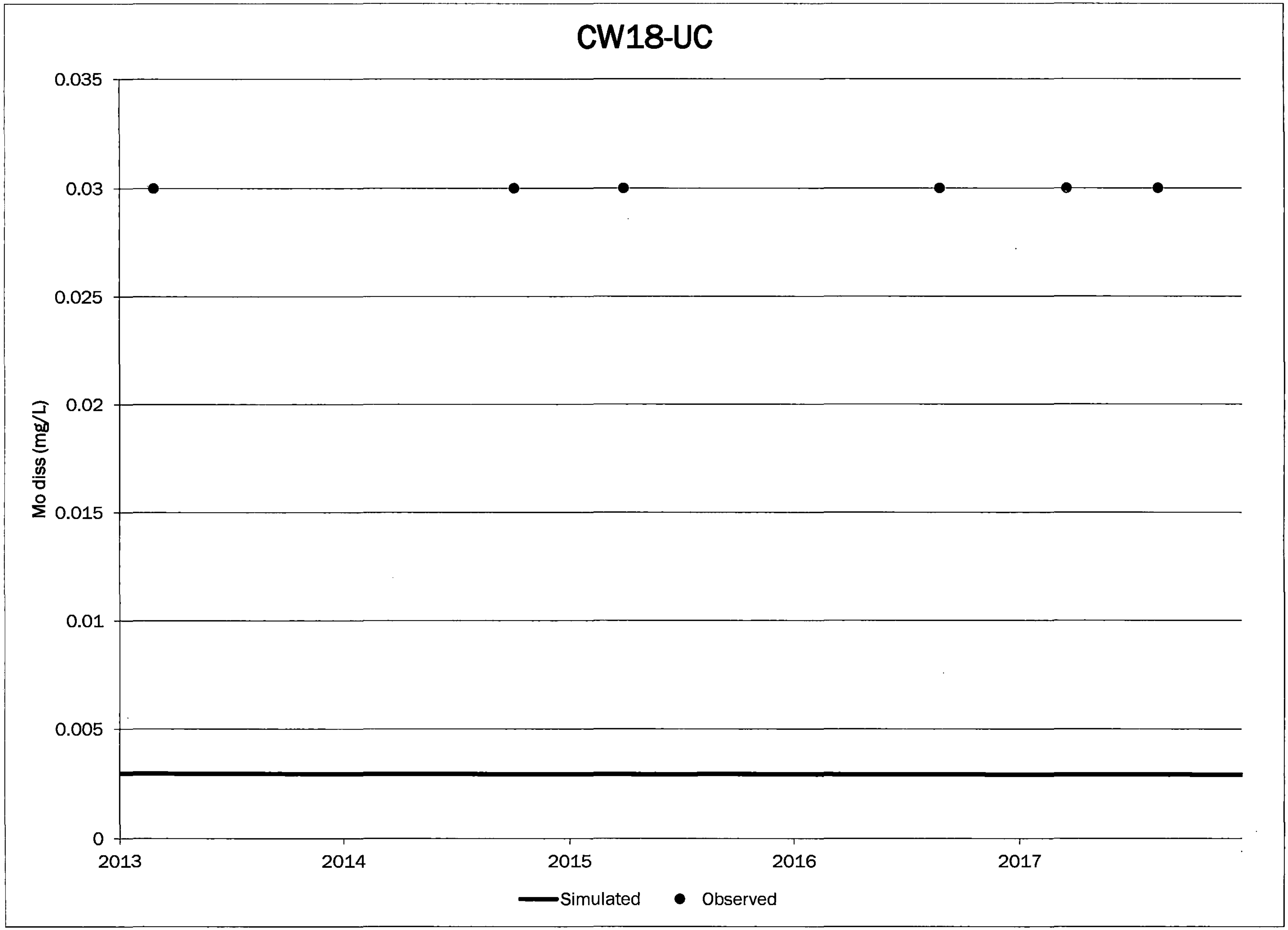


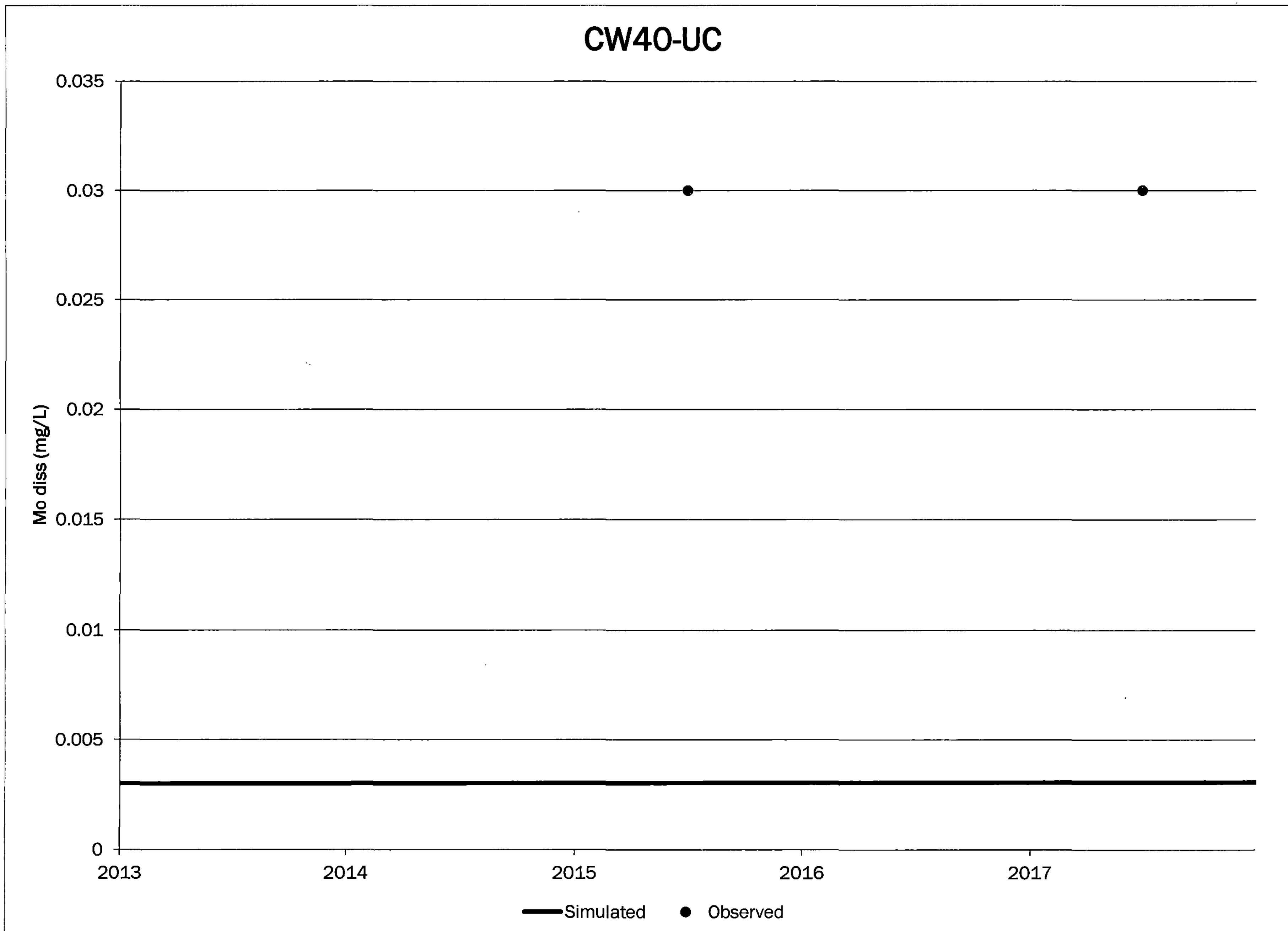
CF2-UC
Mo diss (mg/L)
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

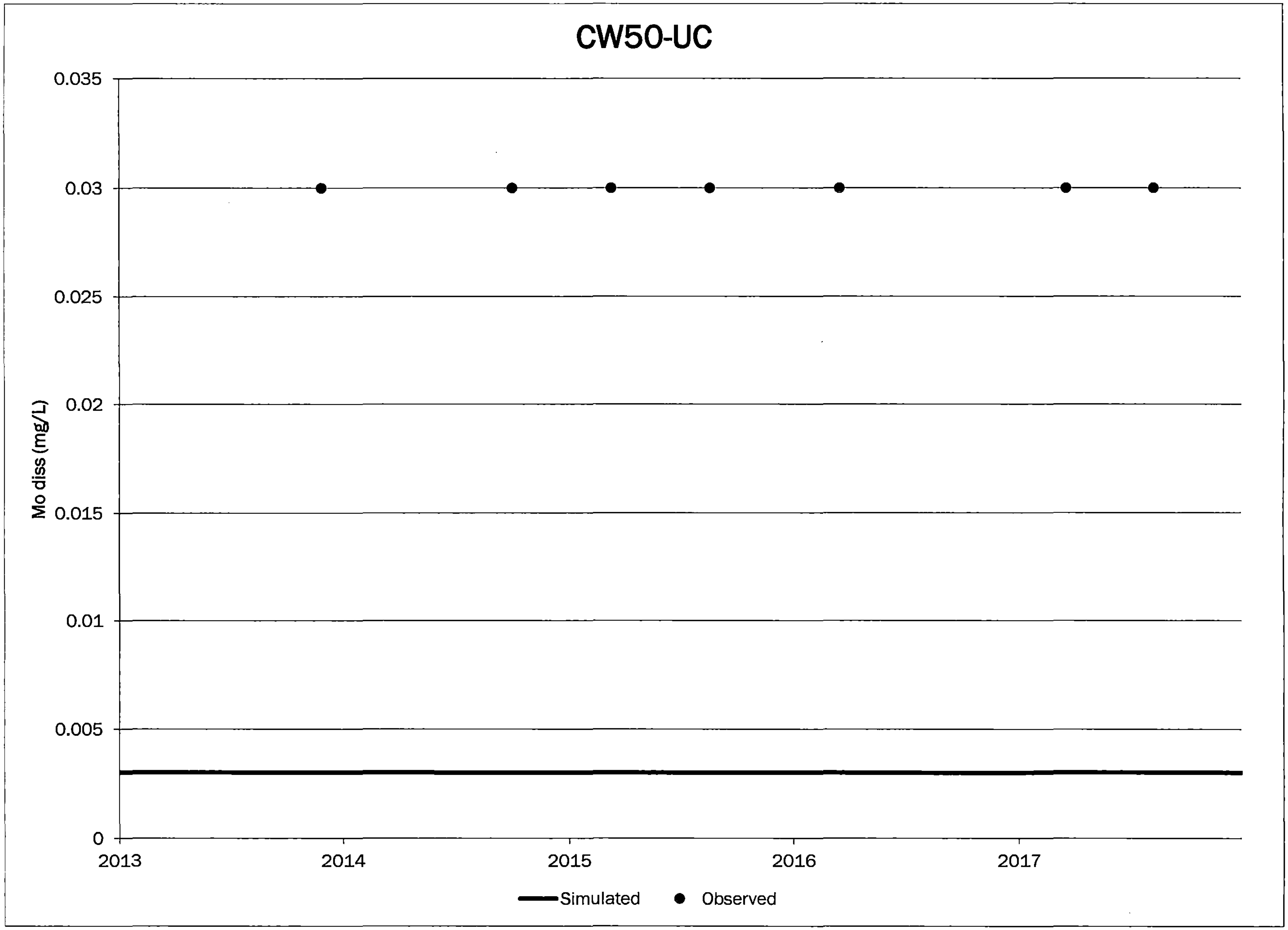

CW3-UC
Mo diss (mg/L)
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2013
2014
2015
2016
2017
Simulated
Observed



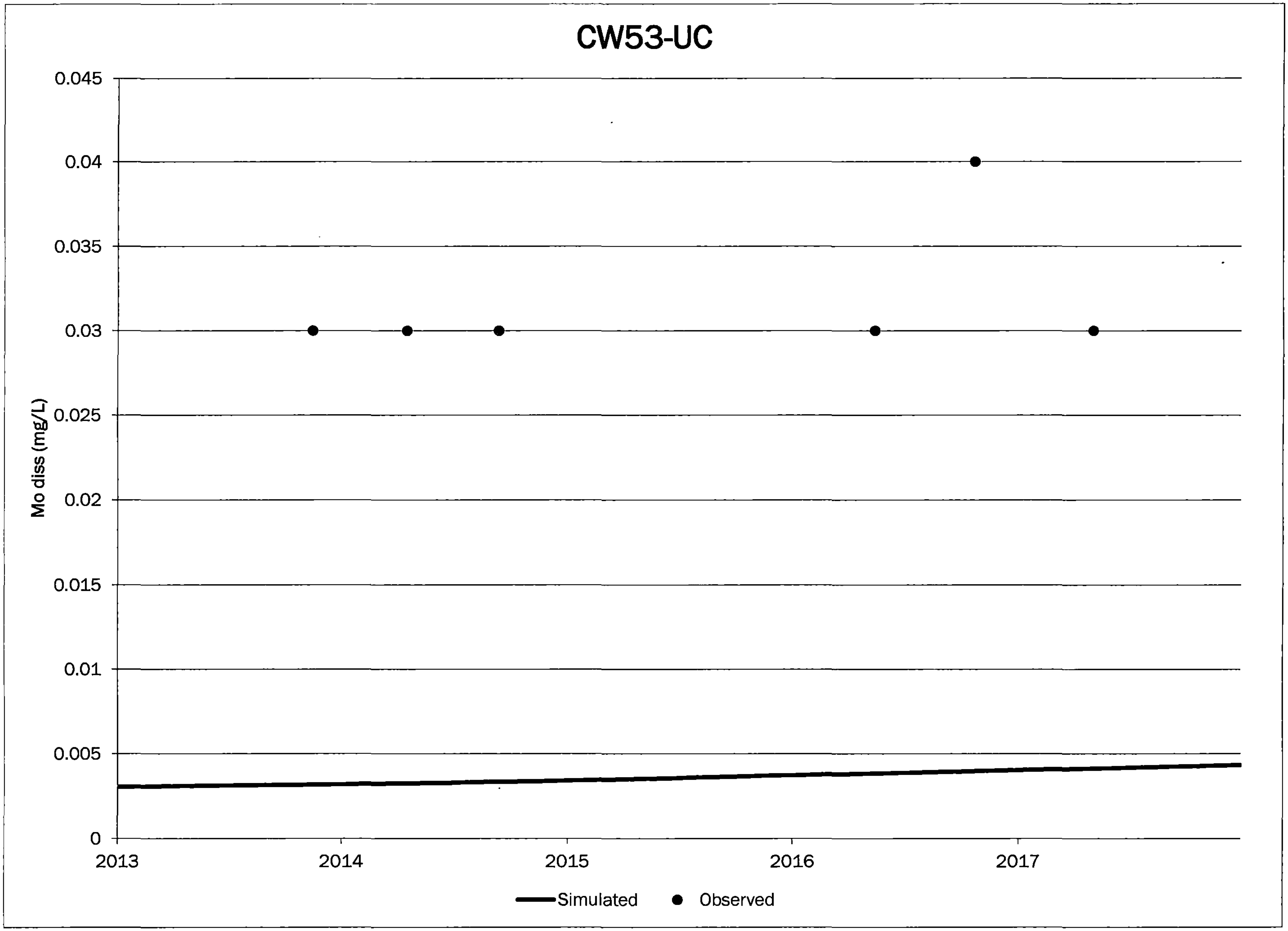
CW9-UC
Mo diss (mg/L)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed


CW18-UC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

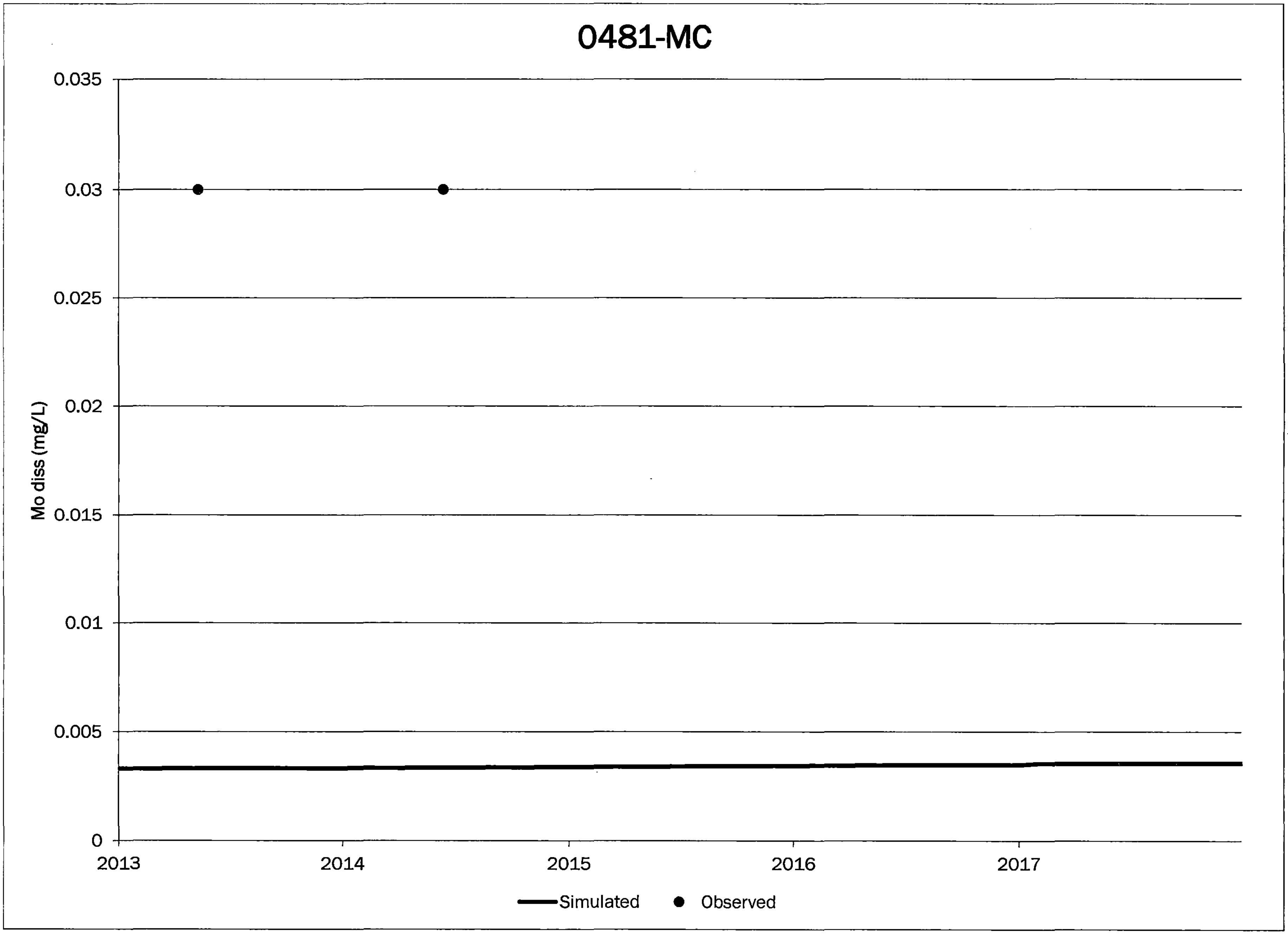

CW40-UC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



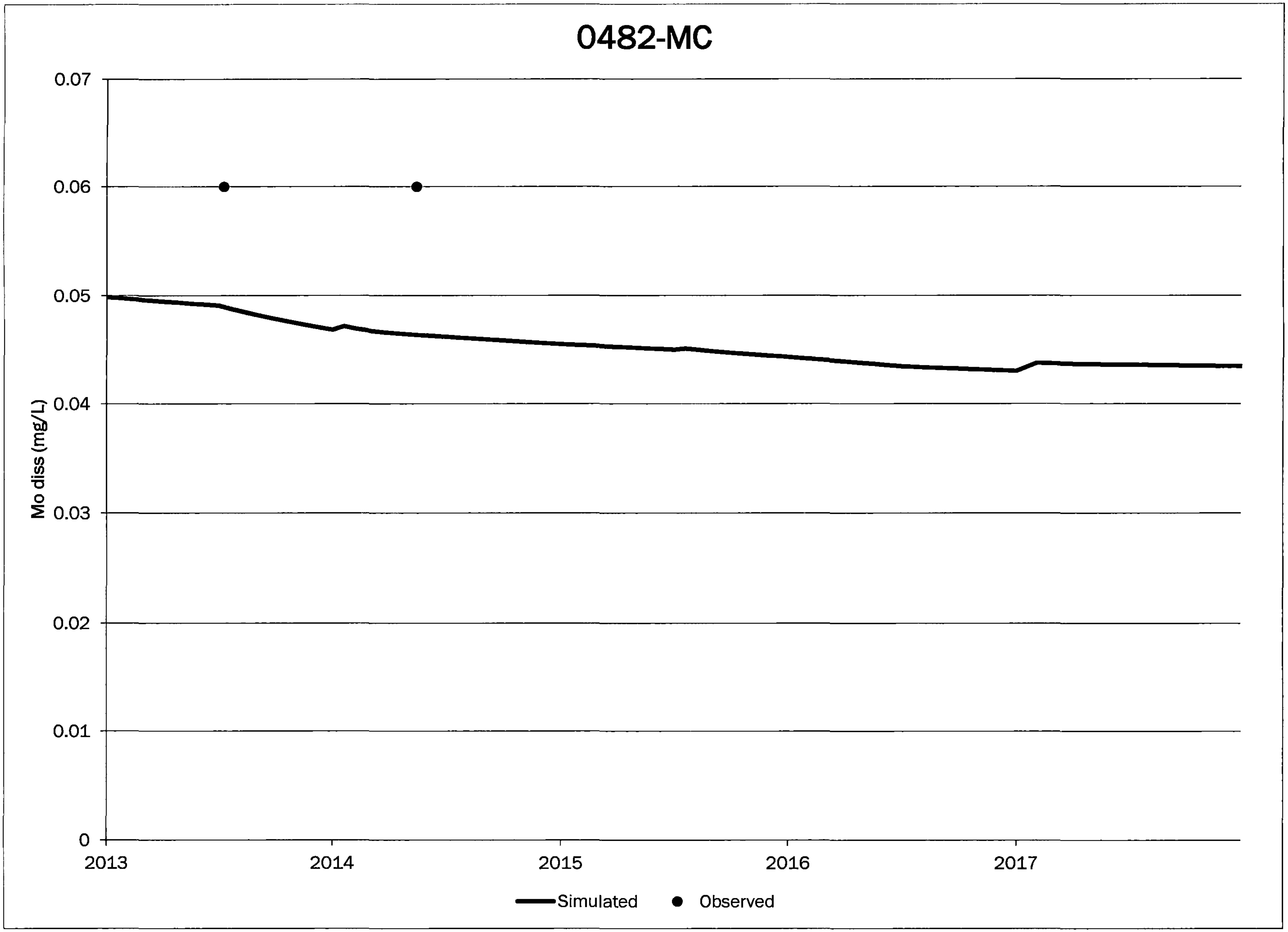
CW50-UC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



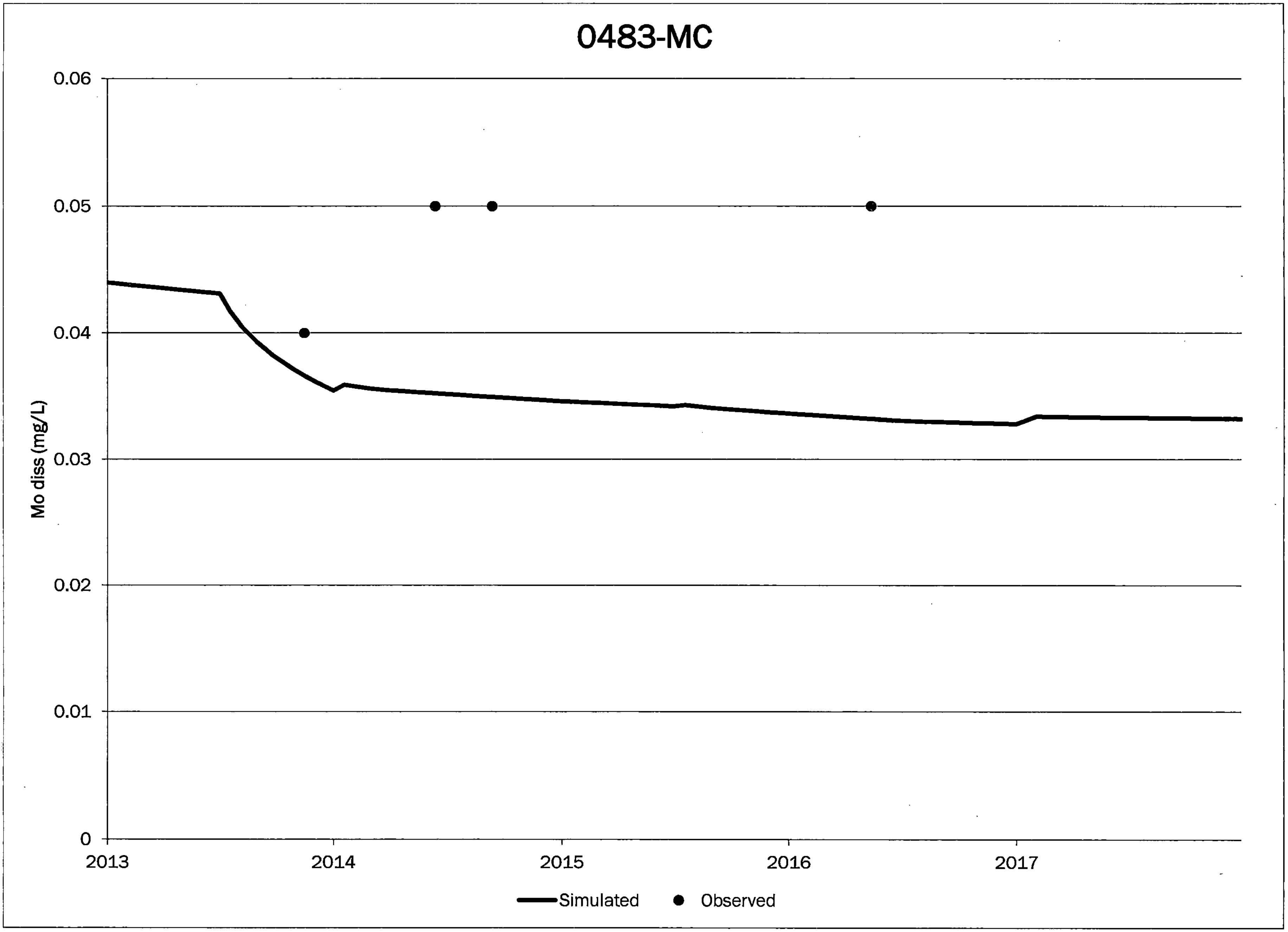
CW53-UC
Mo diss (mg/L)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

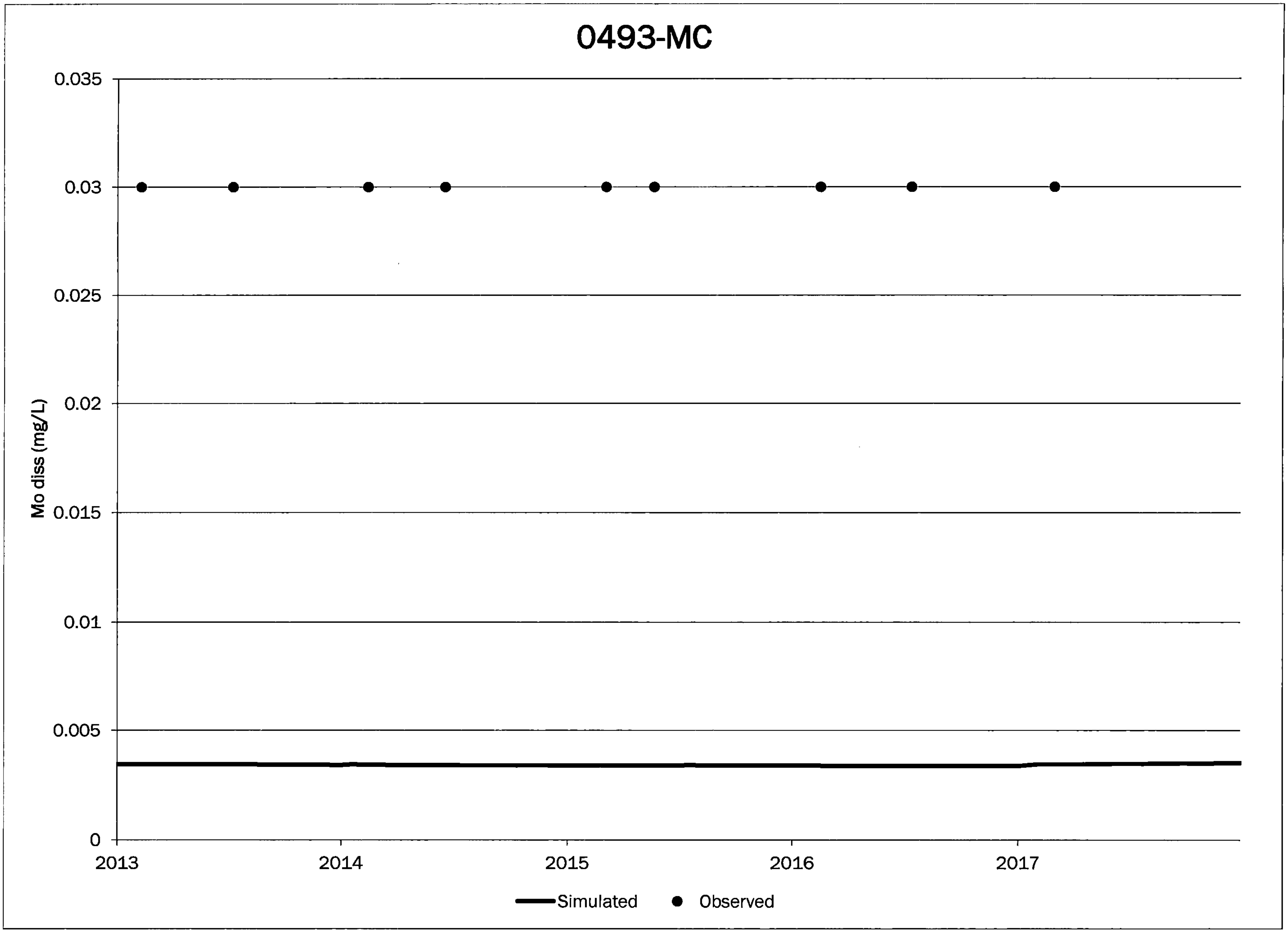


0481-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

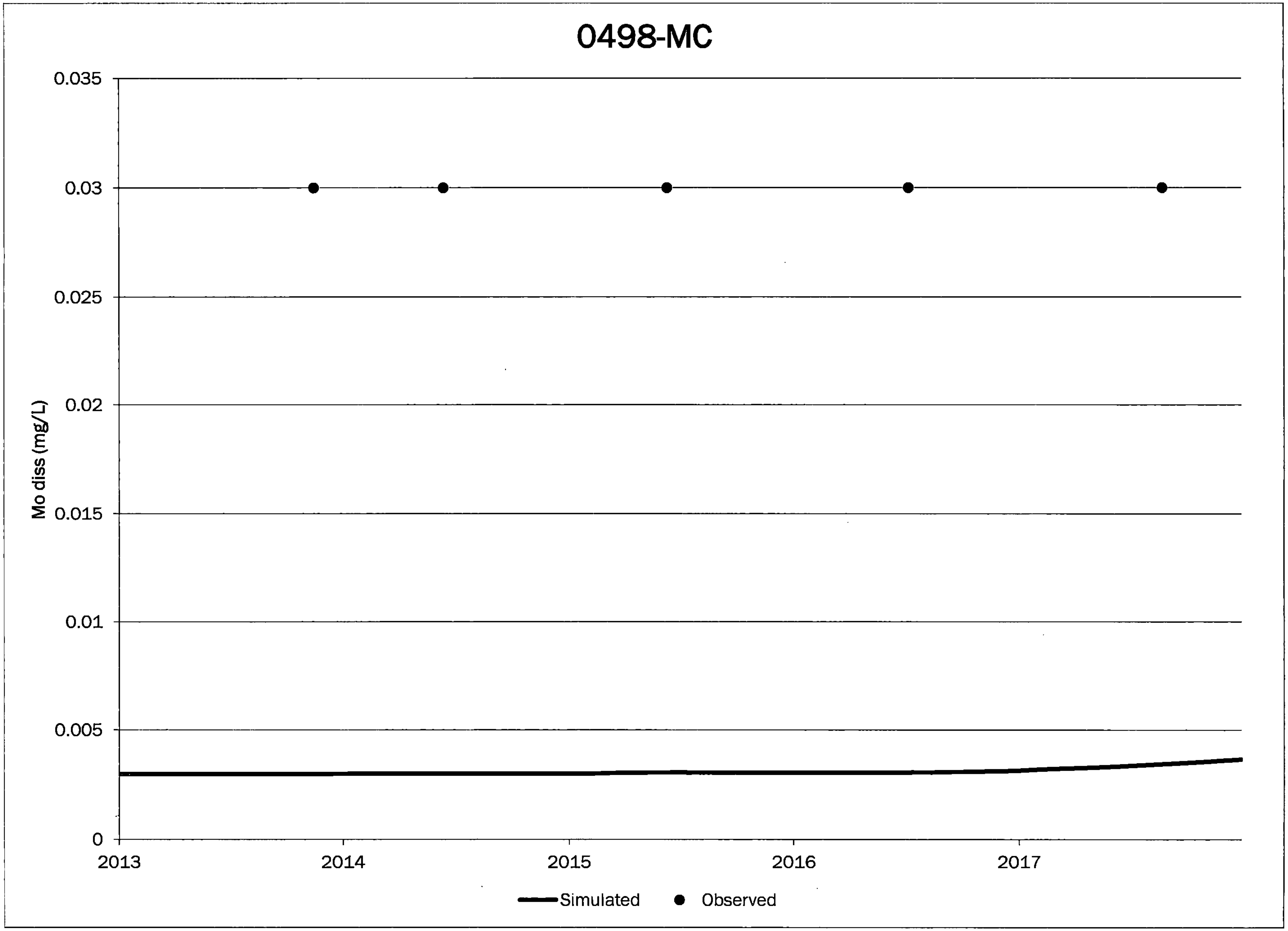


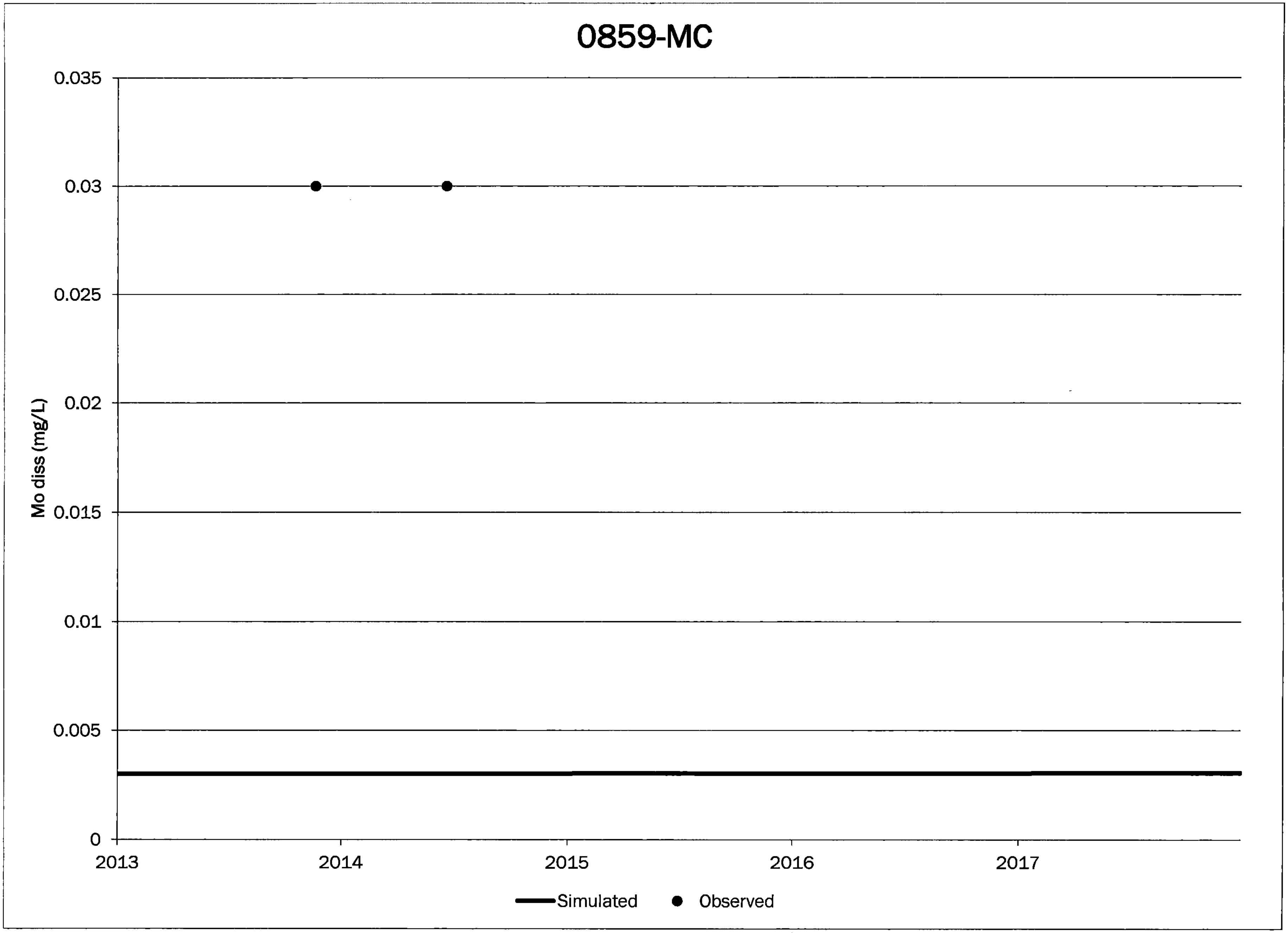
0482-MC
Mo diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


0483-MC
Mo diss (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

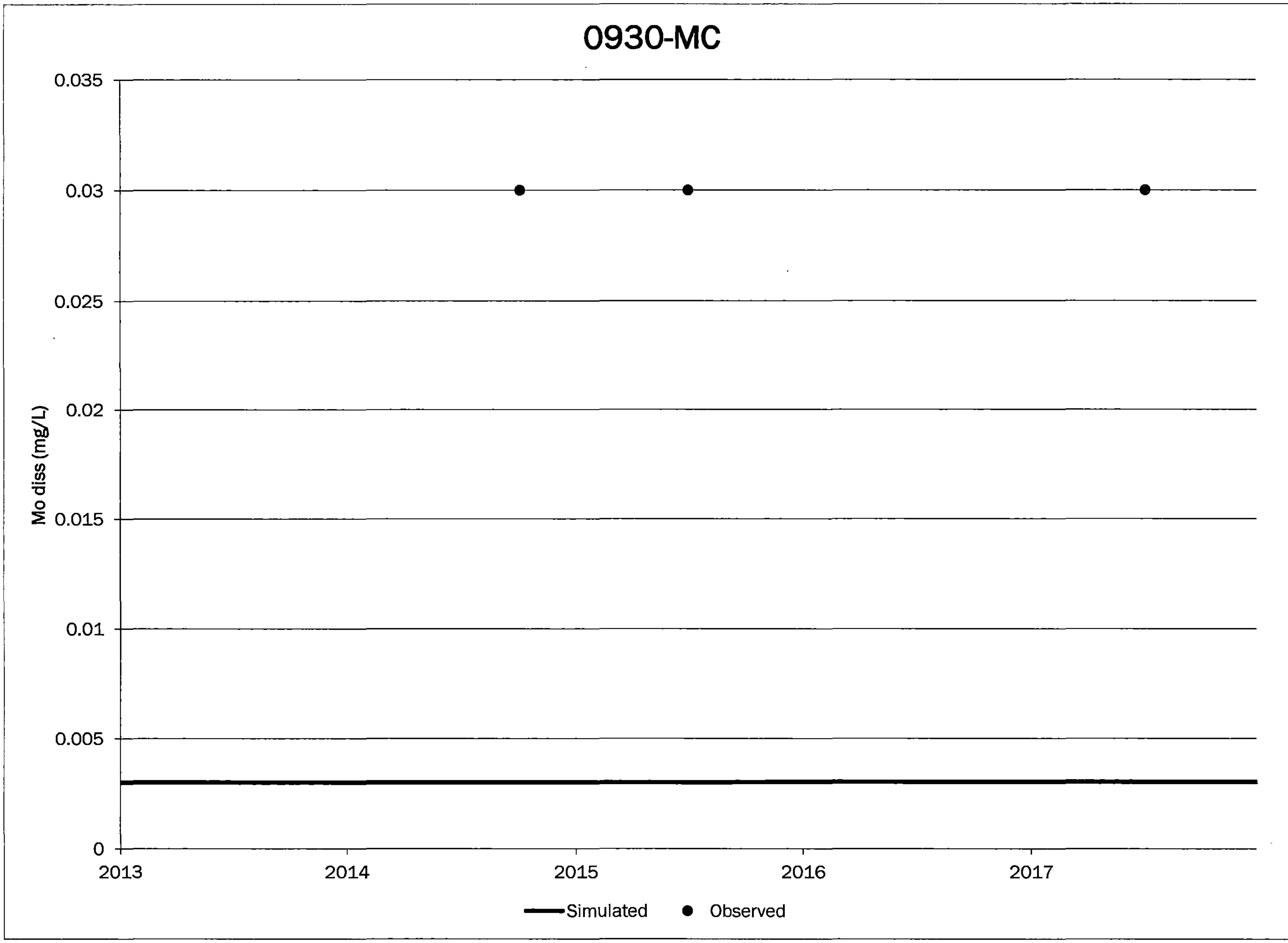


0493-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

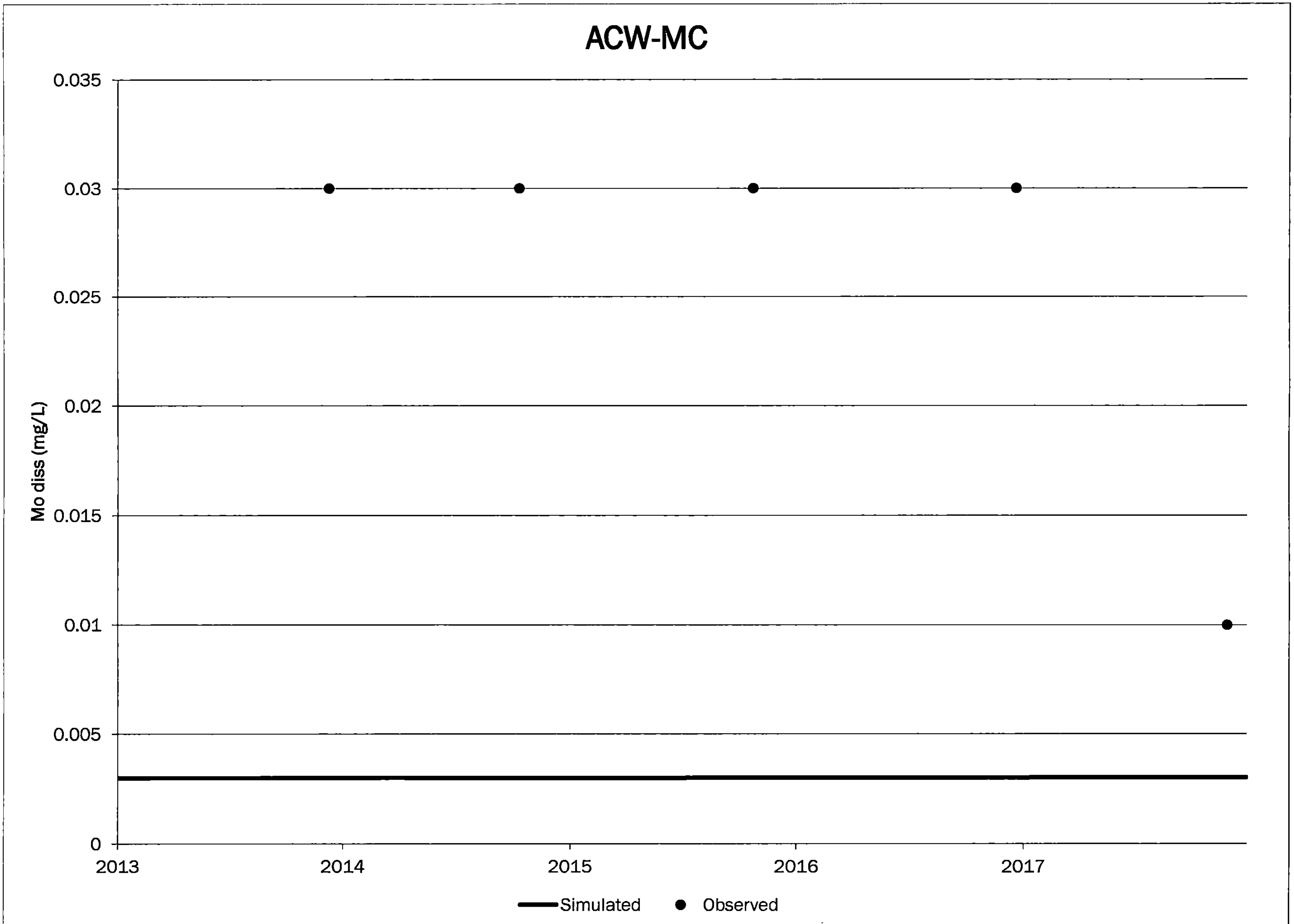

0498-MC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



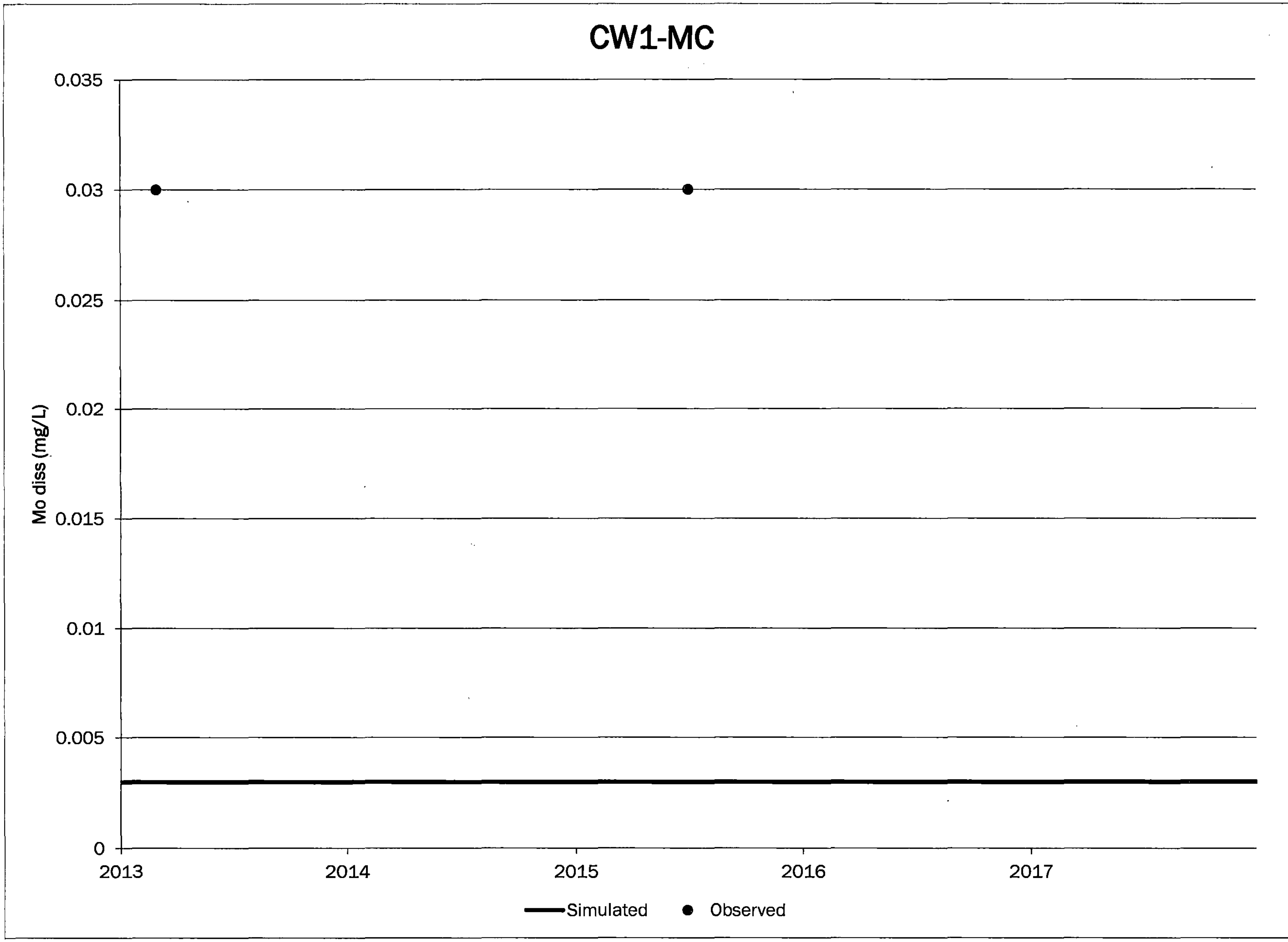
0859-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

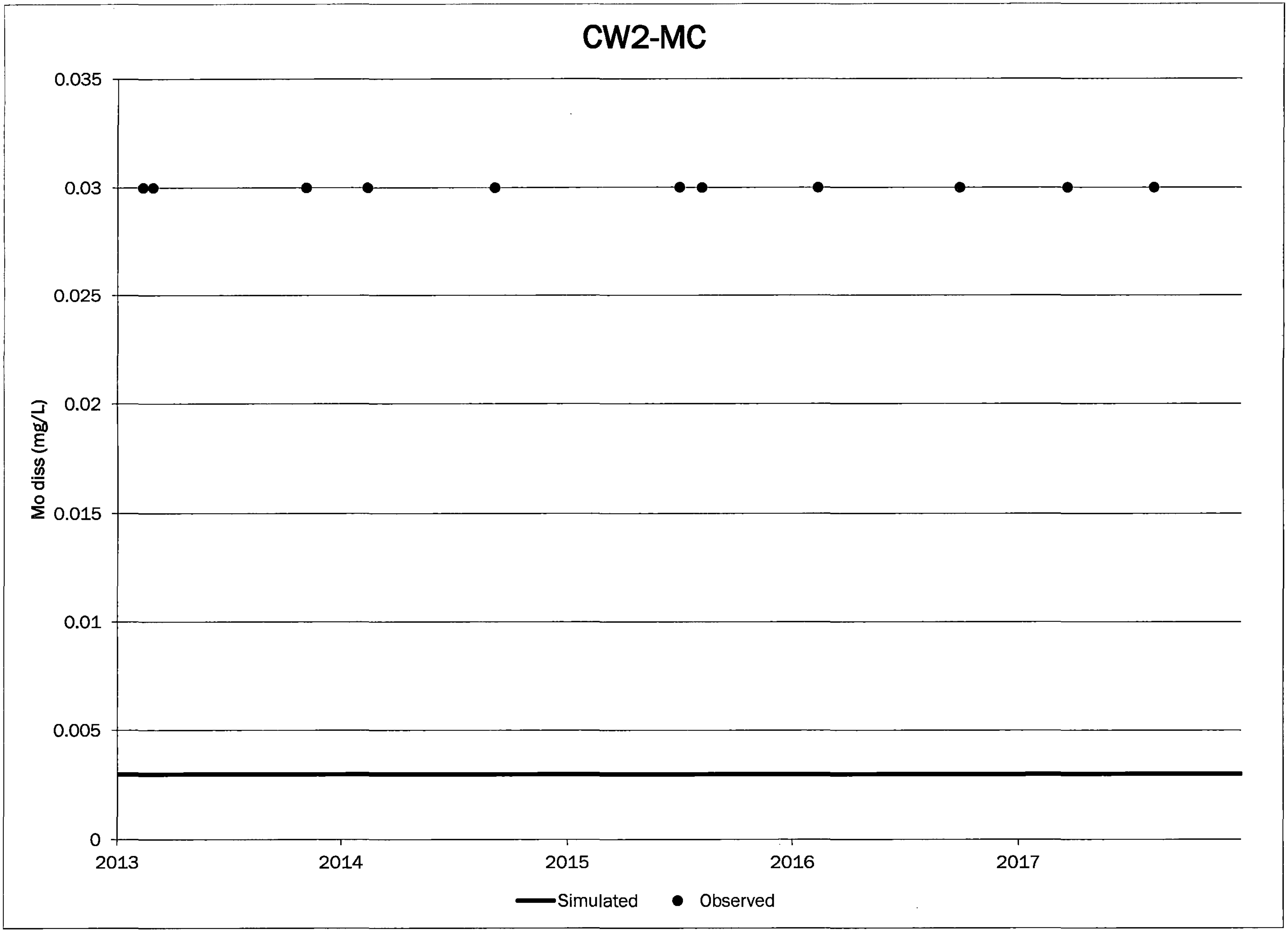


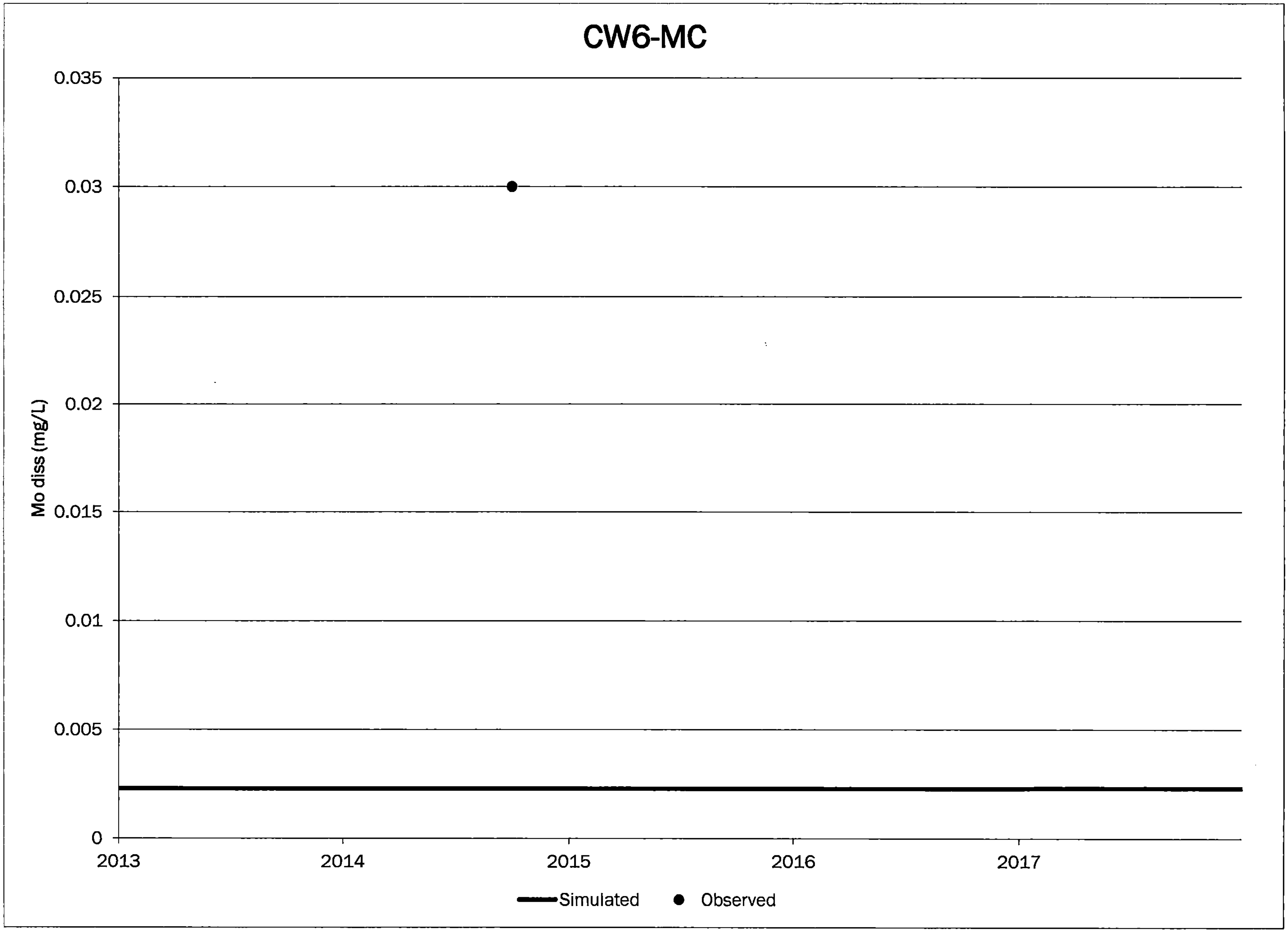
0930-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

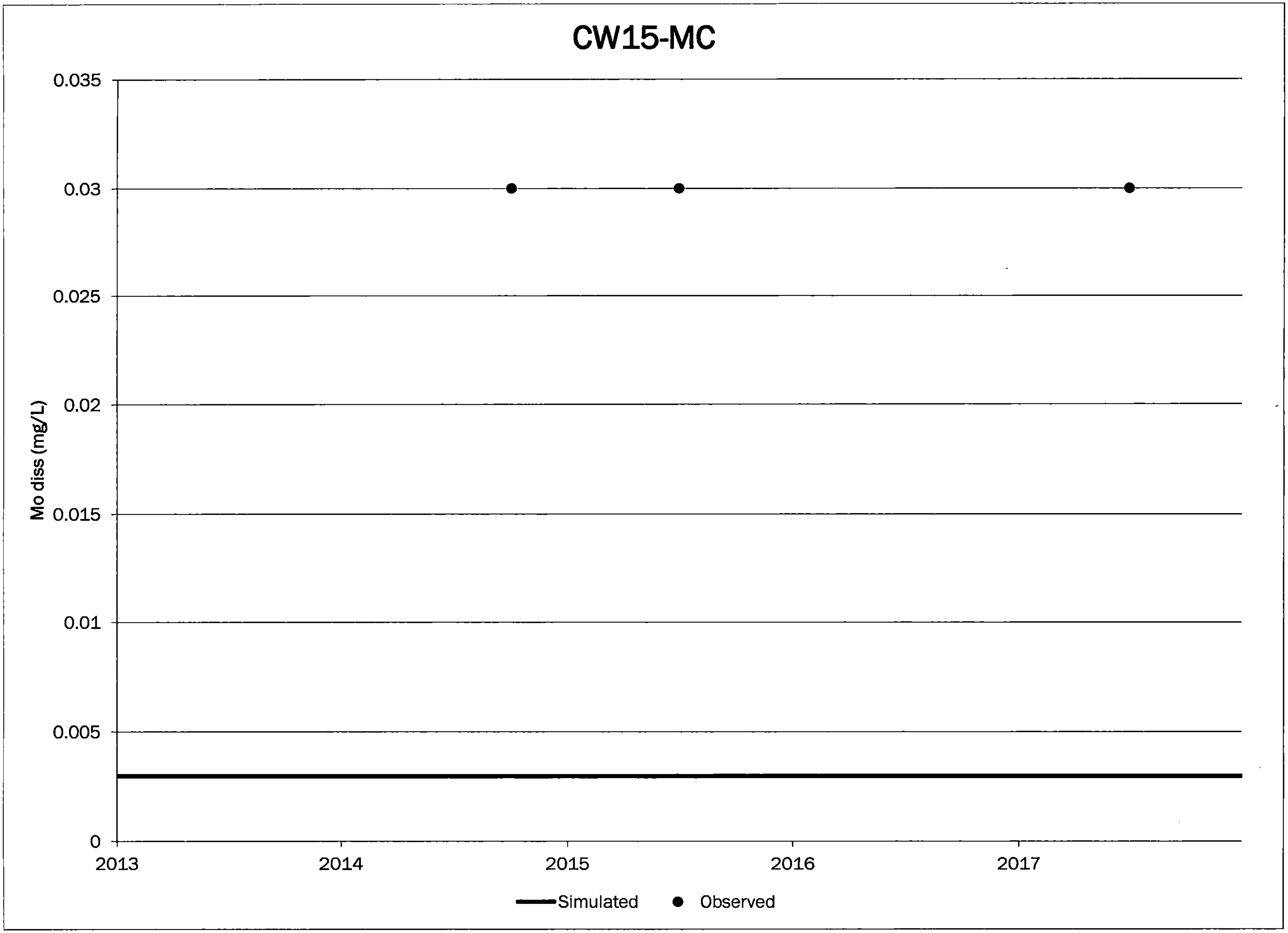


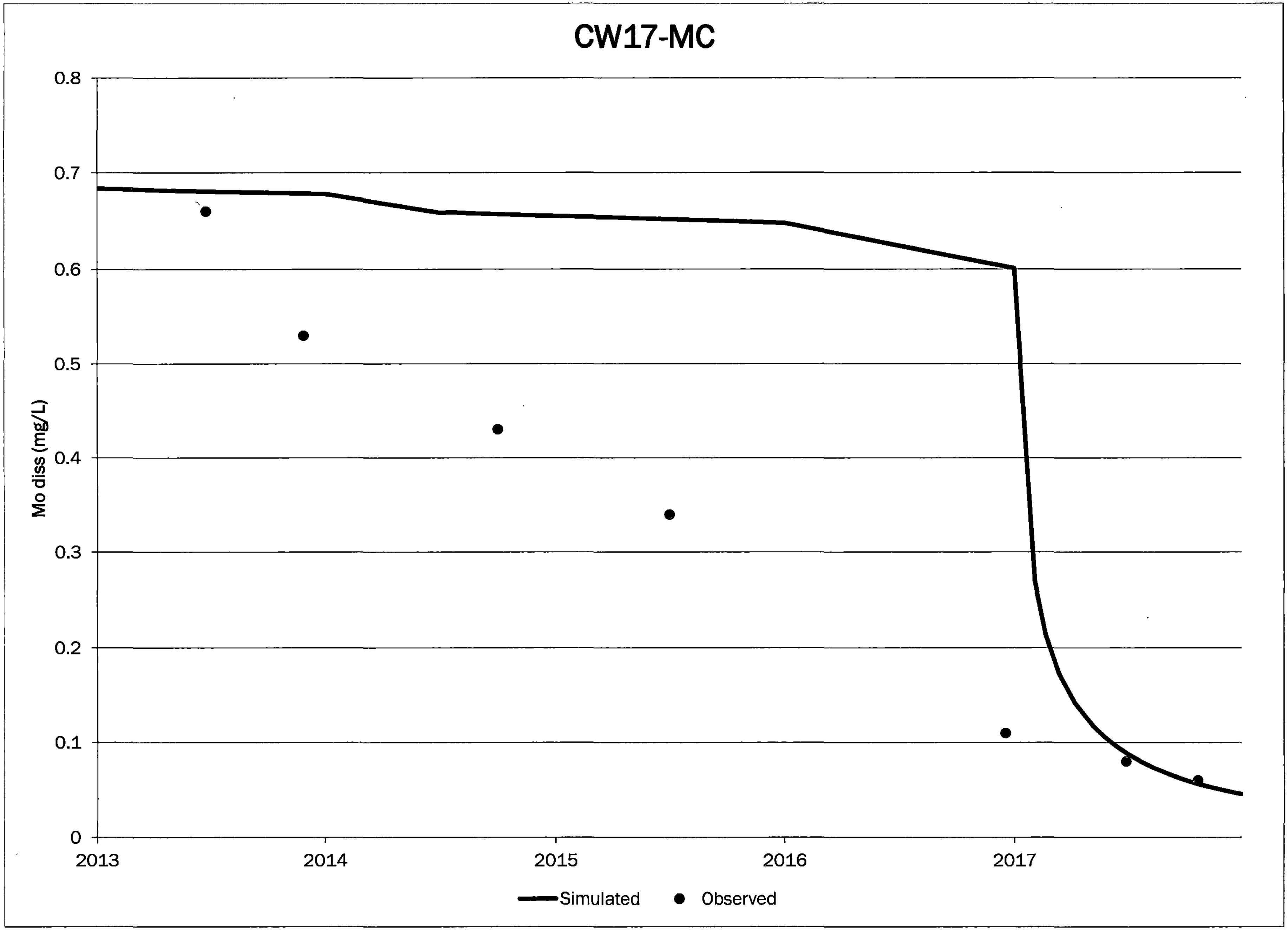
ACW-MC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

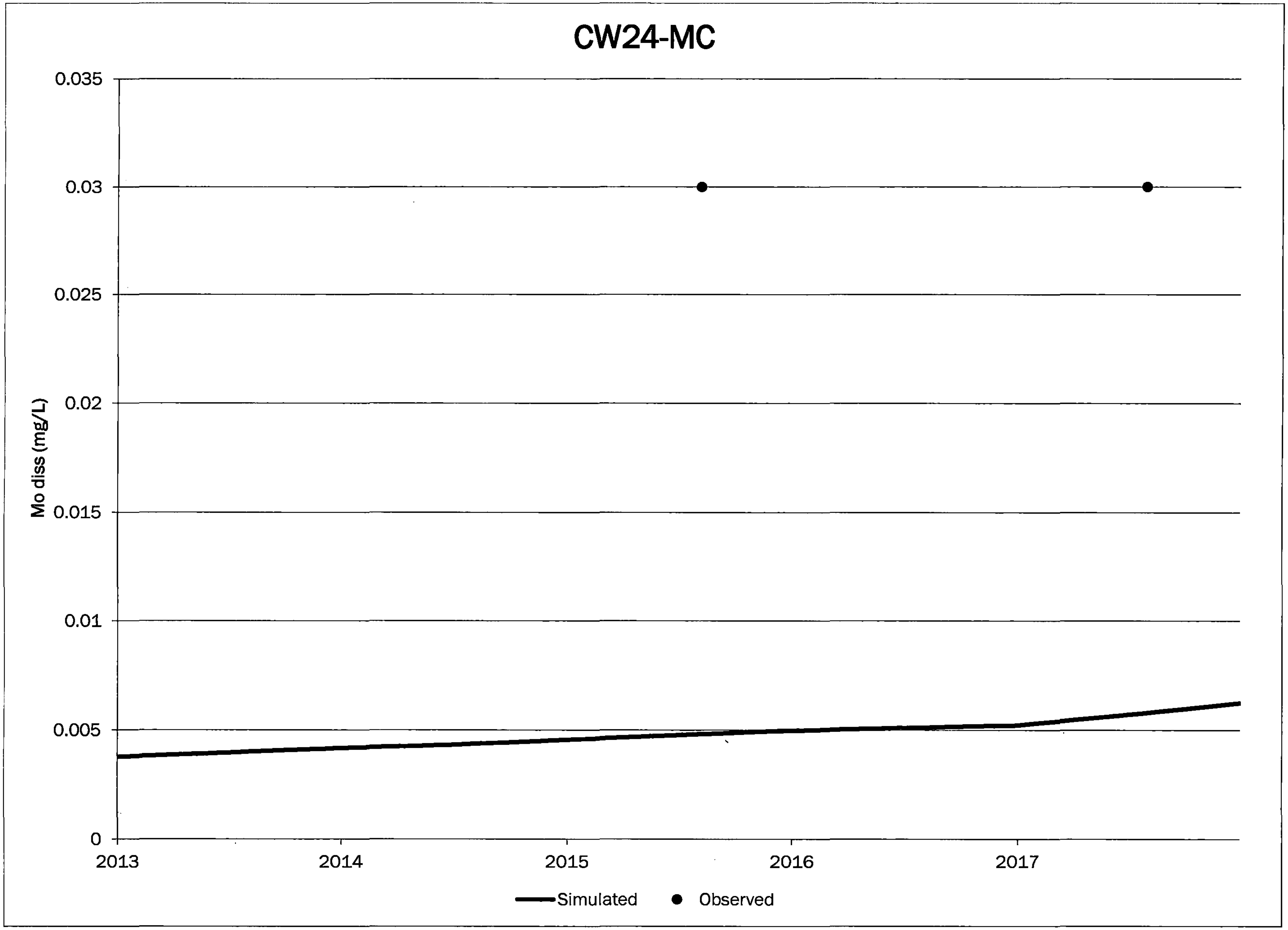

CW1-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

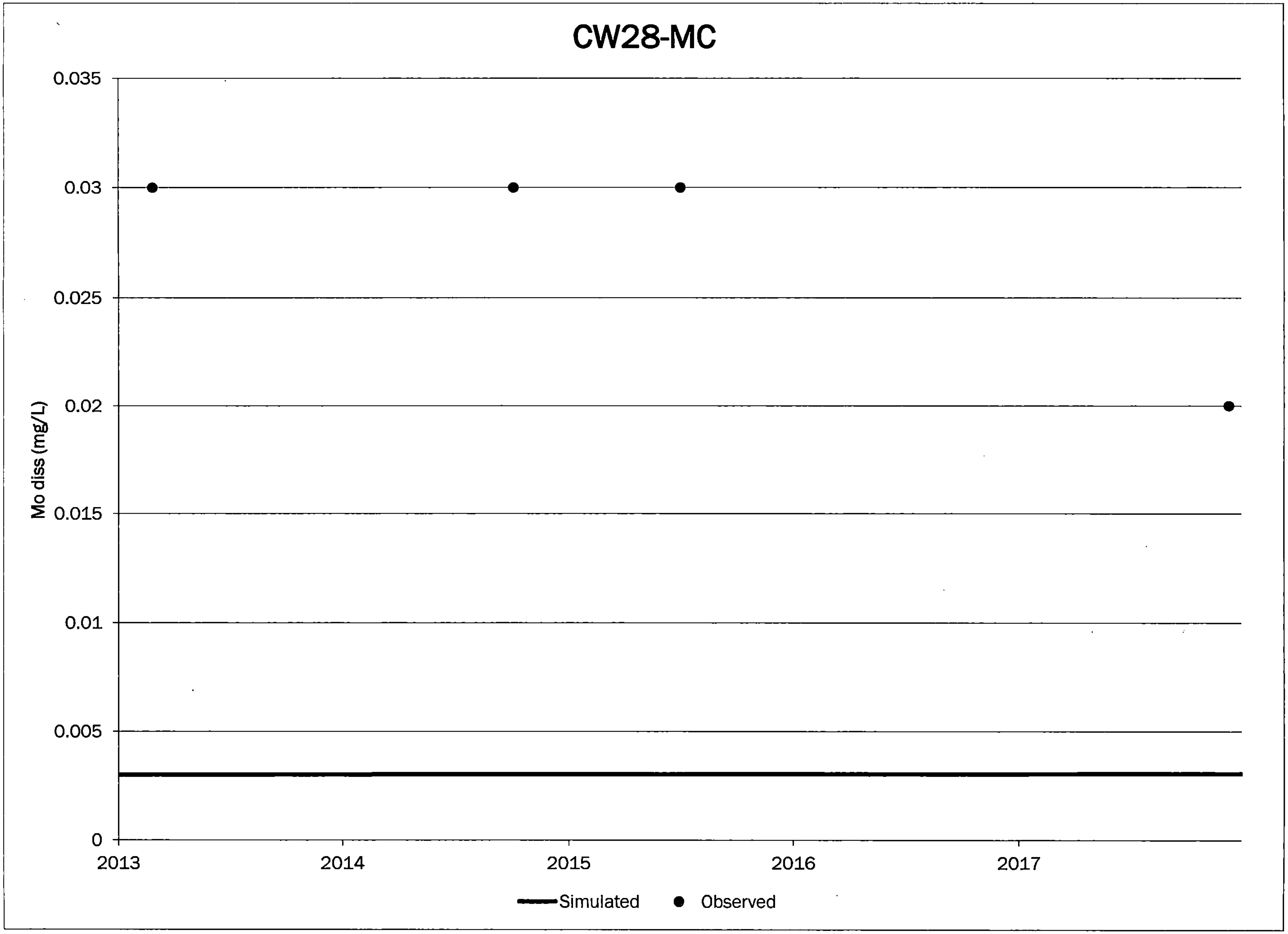

CW2-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


CW6-MC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

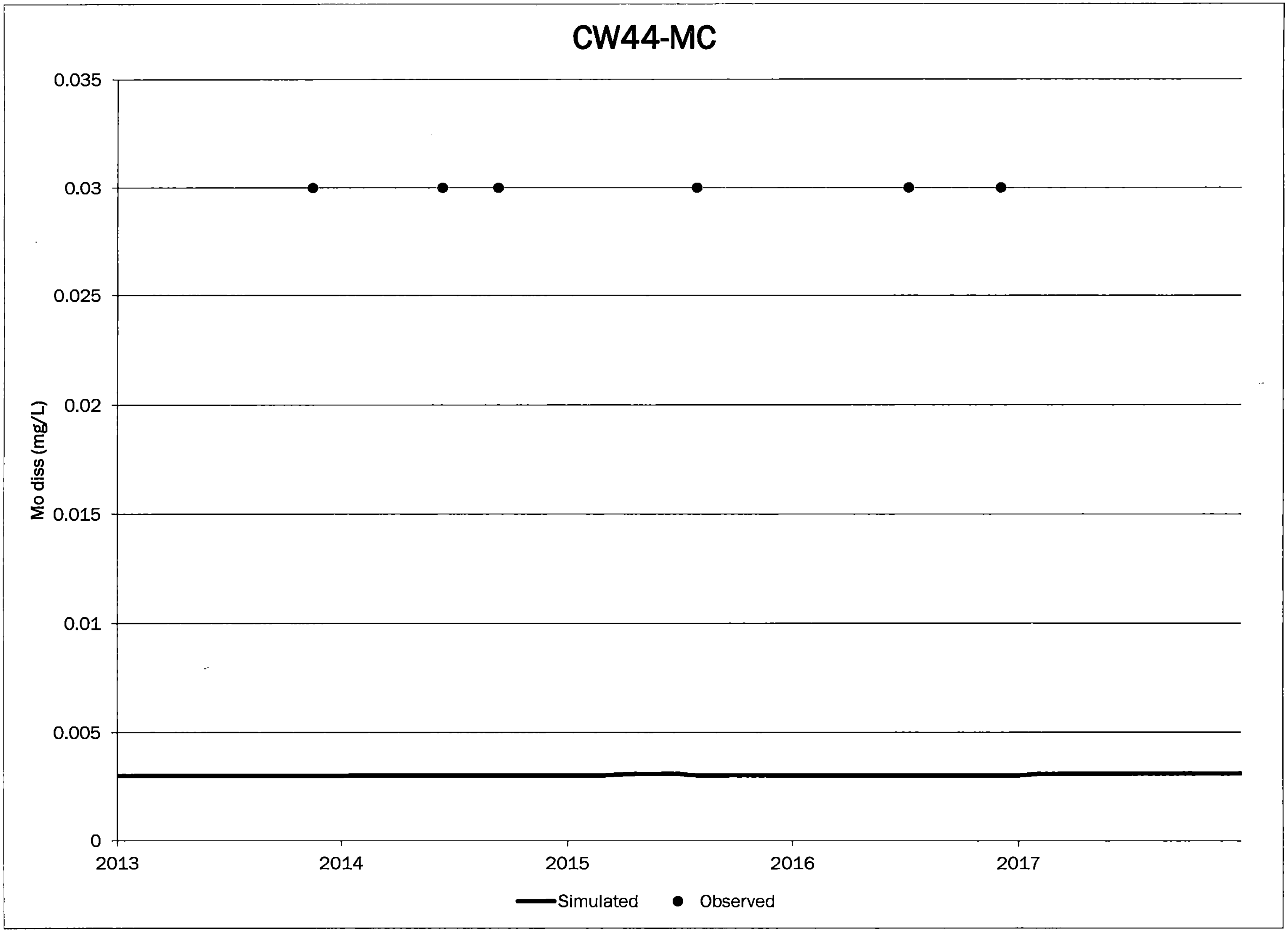

CW15-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

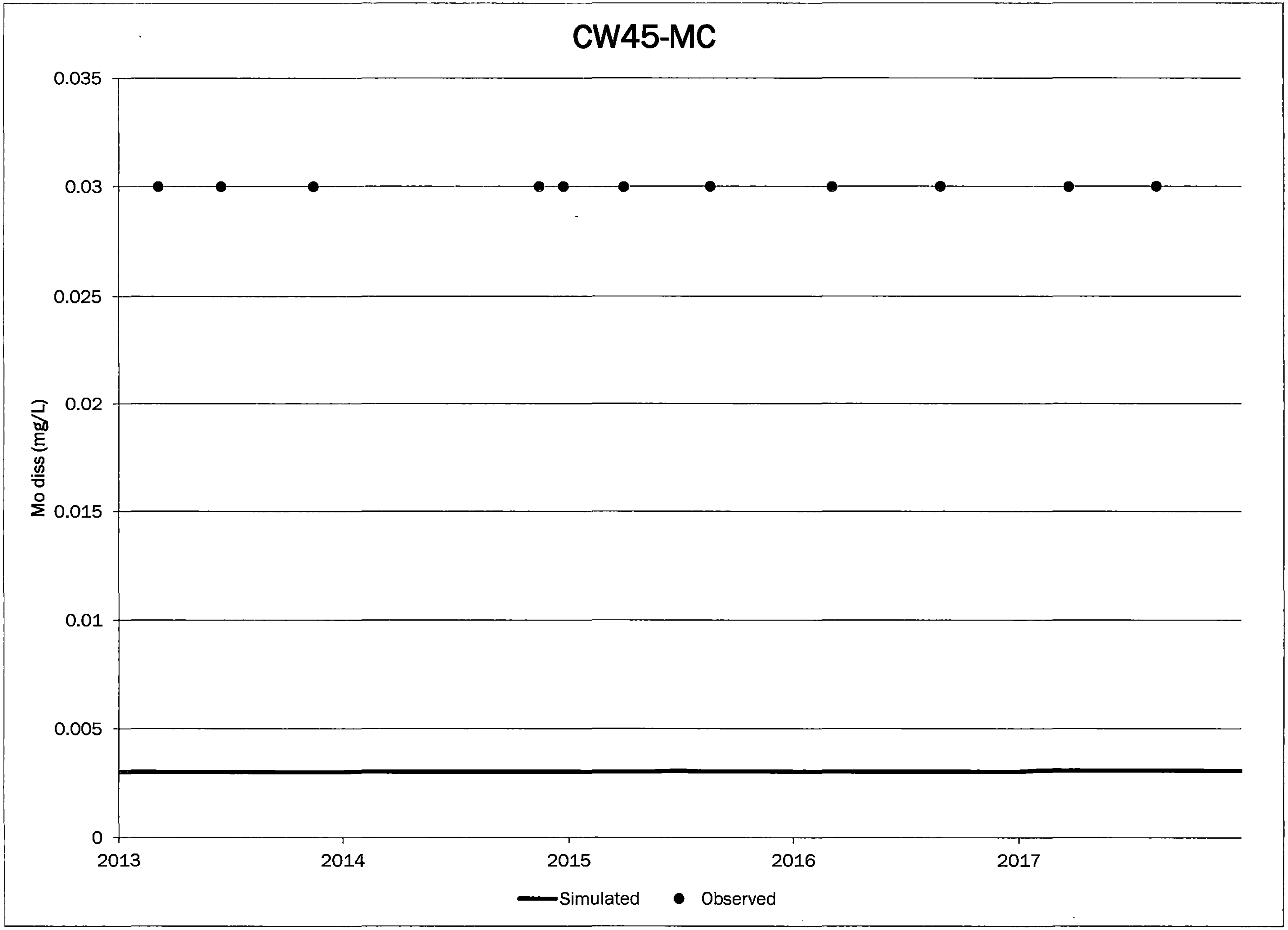

CW17-MC
Mo diss (mg/L)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2013
2014
2015
2016
2017
Simulated
Observed

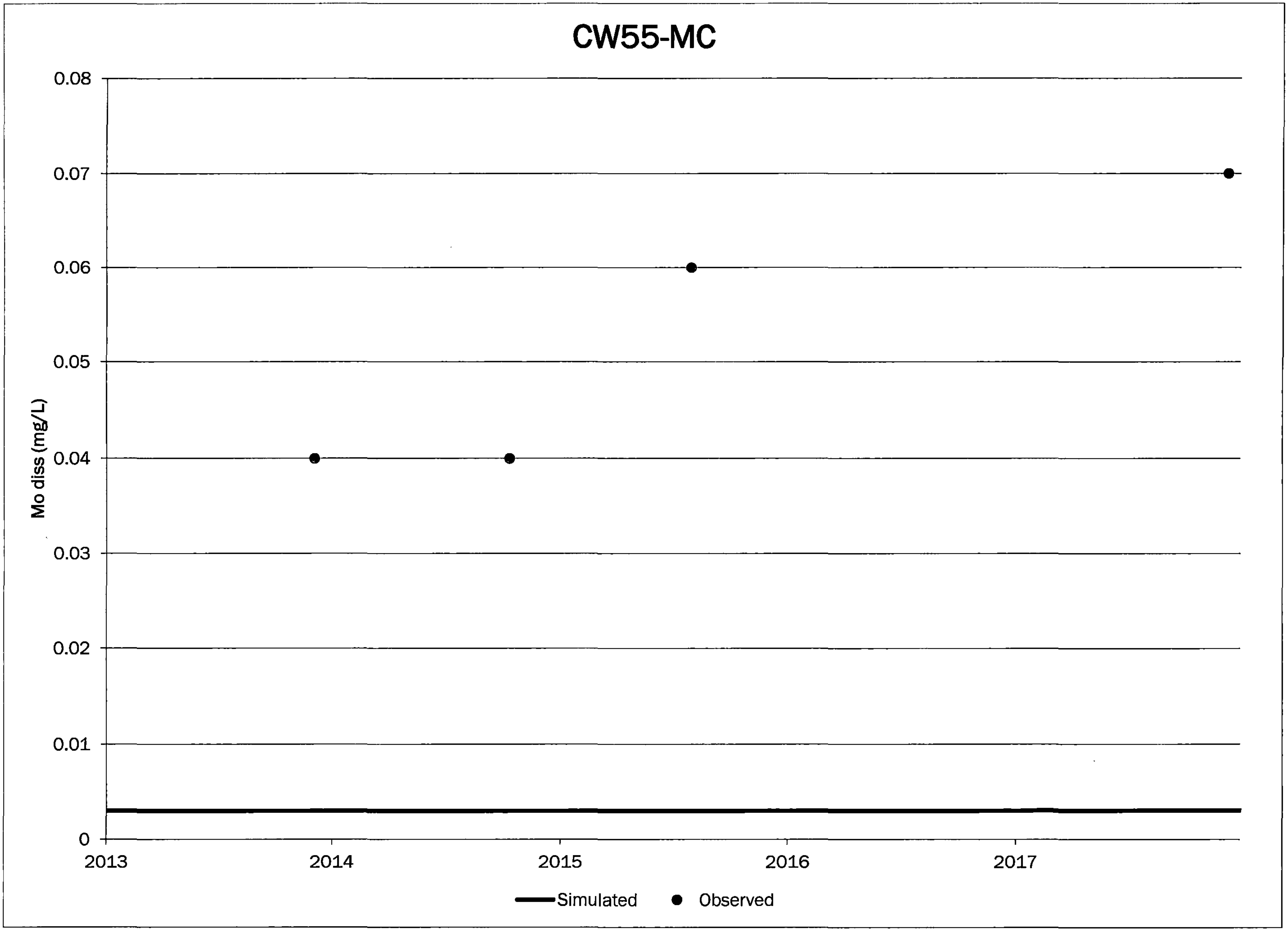

CW24-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



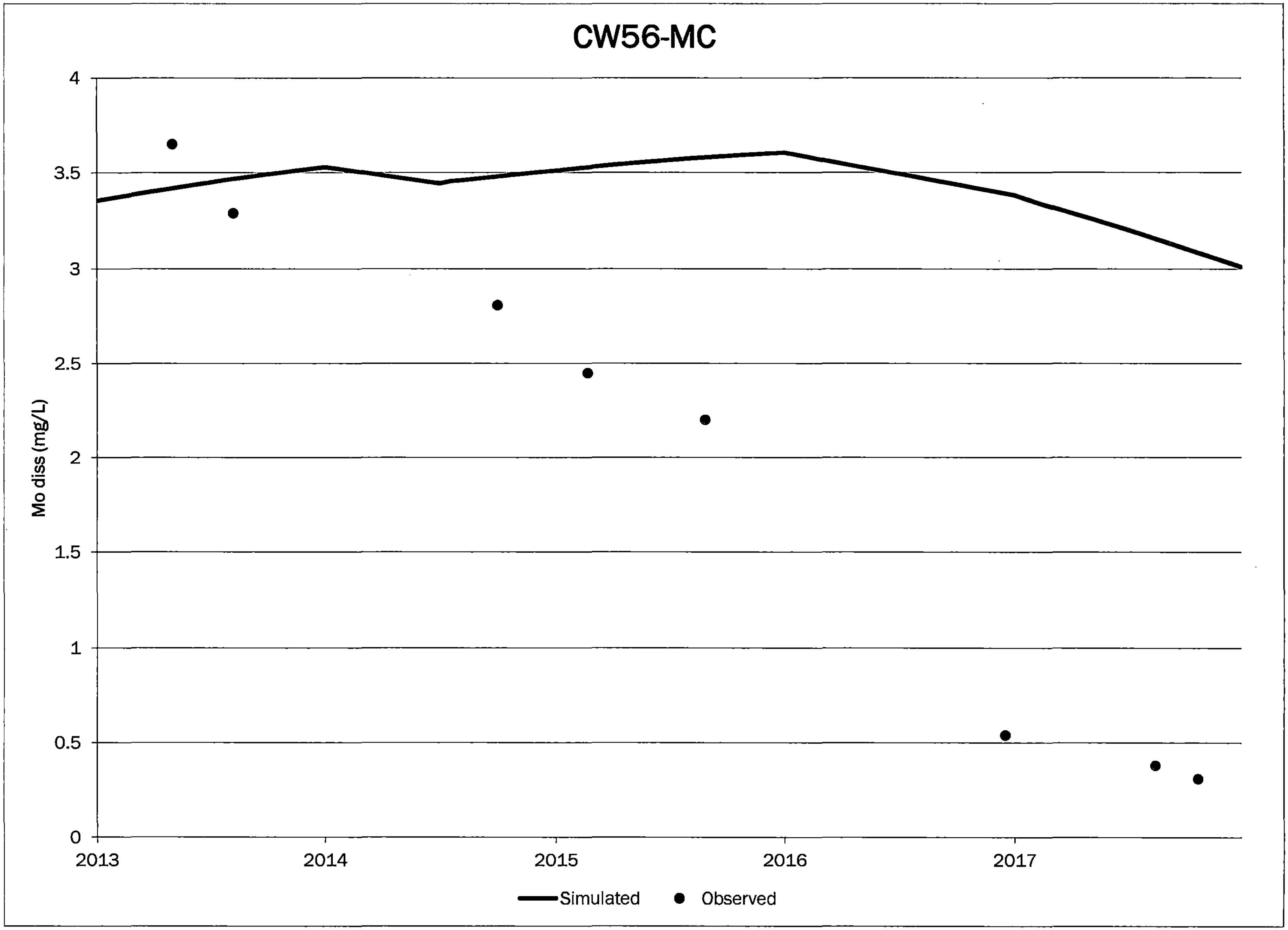
CW28-MC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

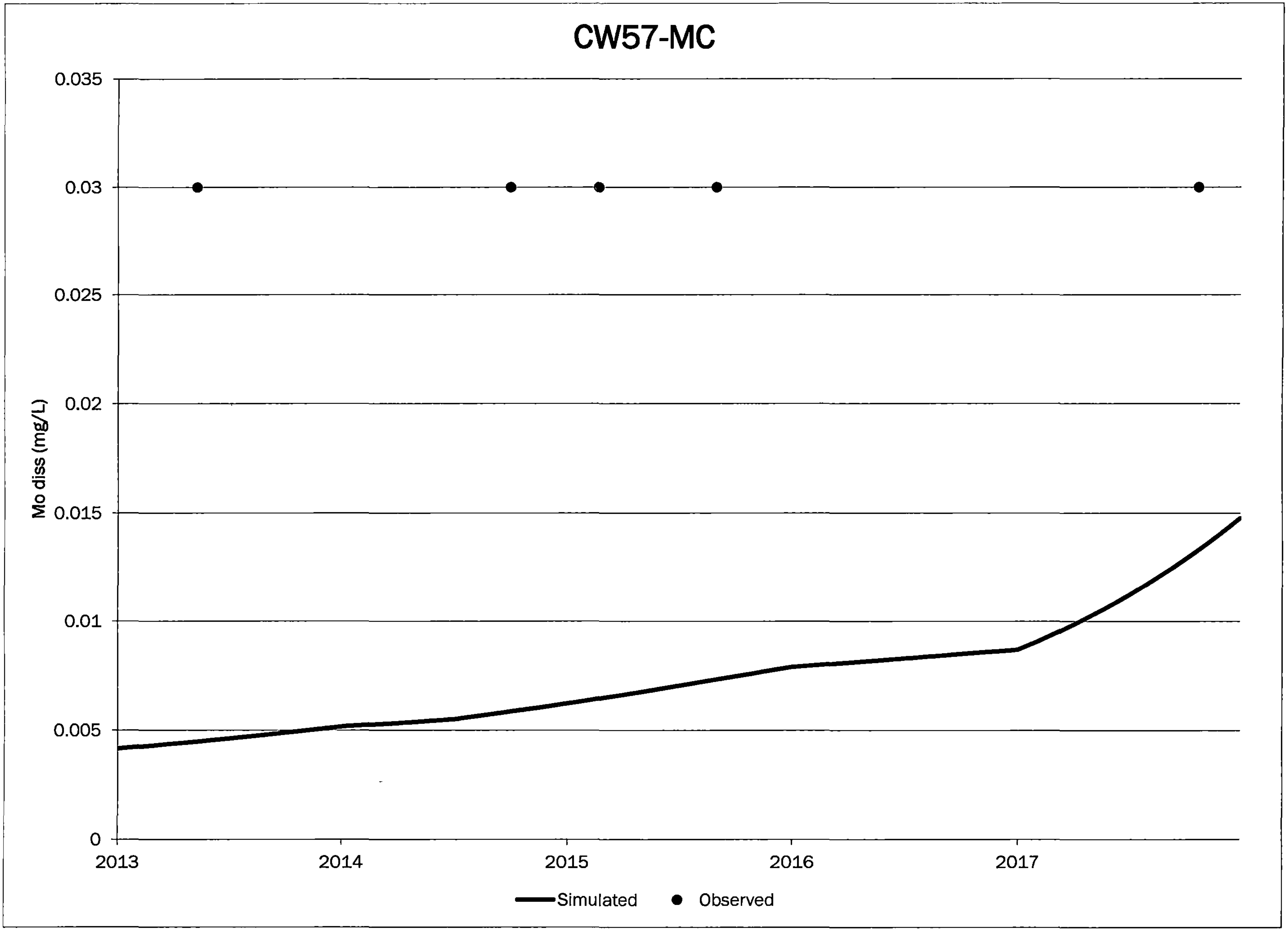

CW44-MC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


CW45-MC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

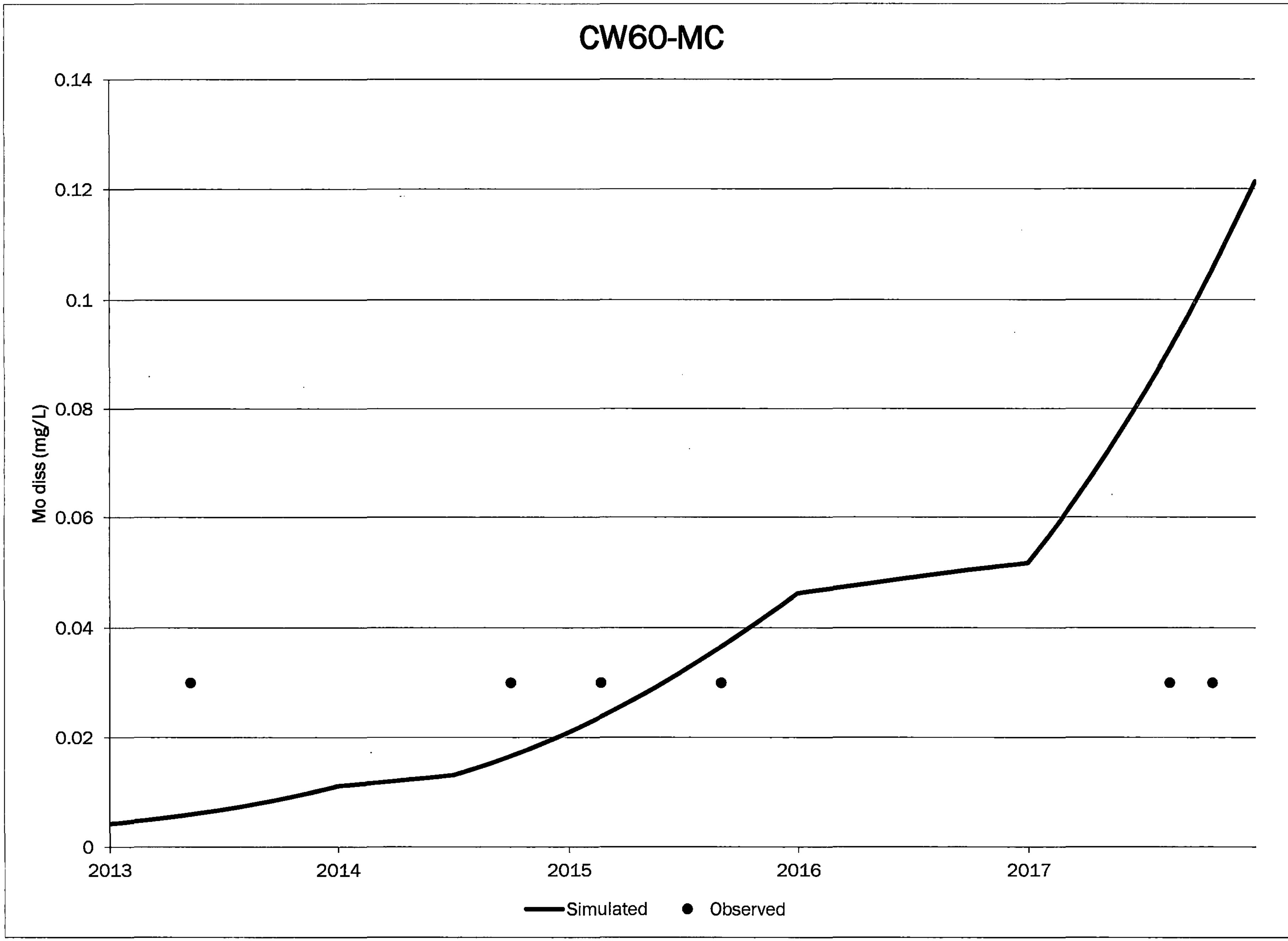


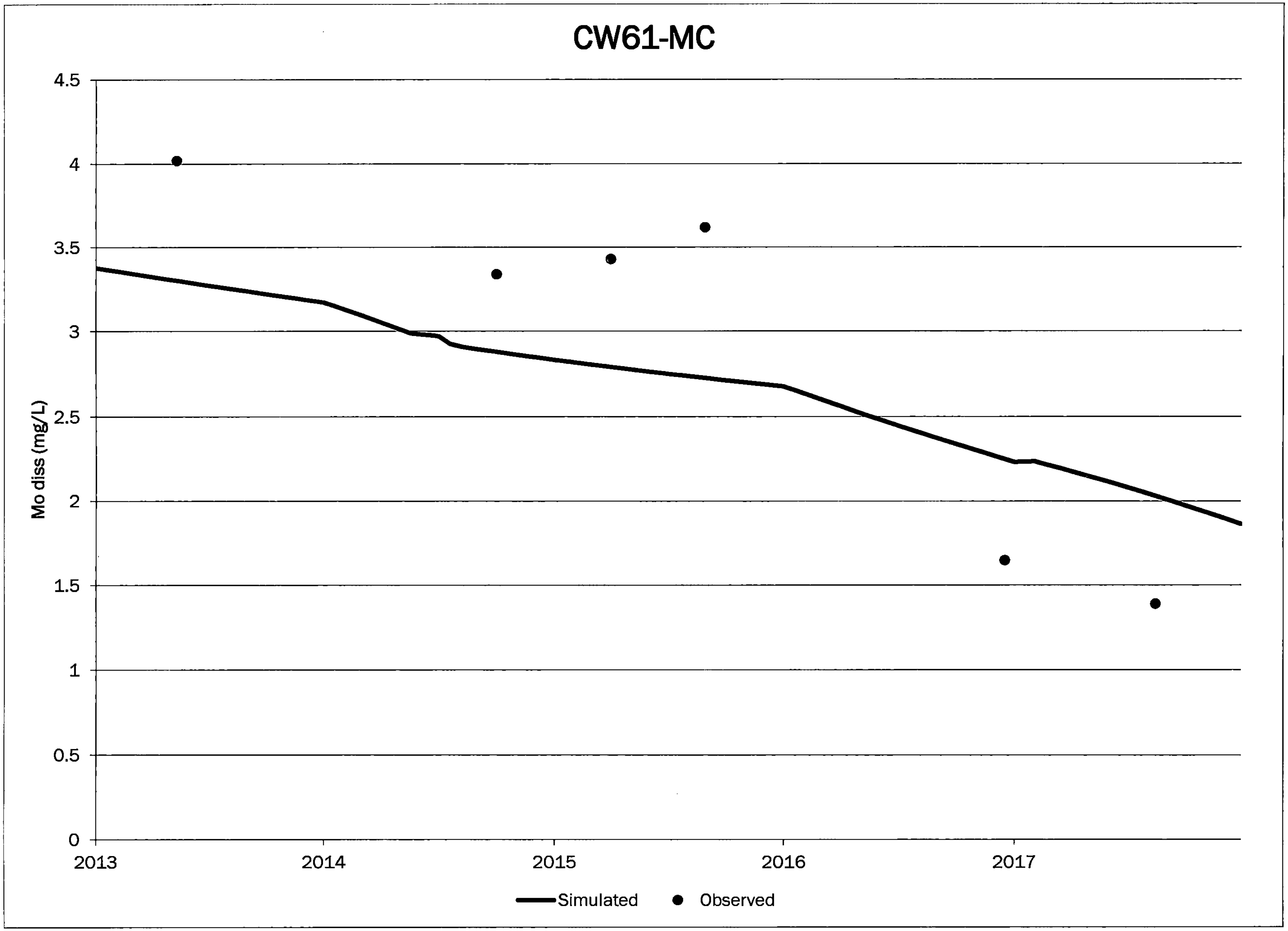
CW55-MC
Mo diss (mg/L)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


CW56-MC
Mo diss (mg/L)
0
0.5
1
1.5
2
2.5
3
3.5
4
2013
2014
2015
2016
2017
Simulated
Observed

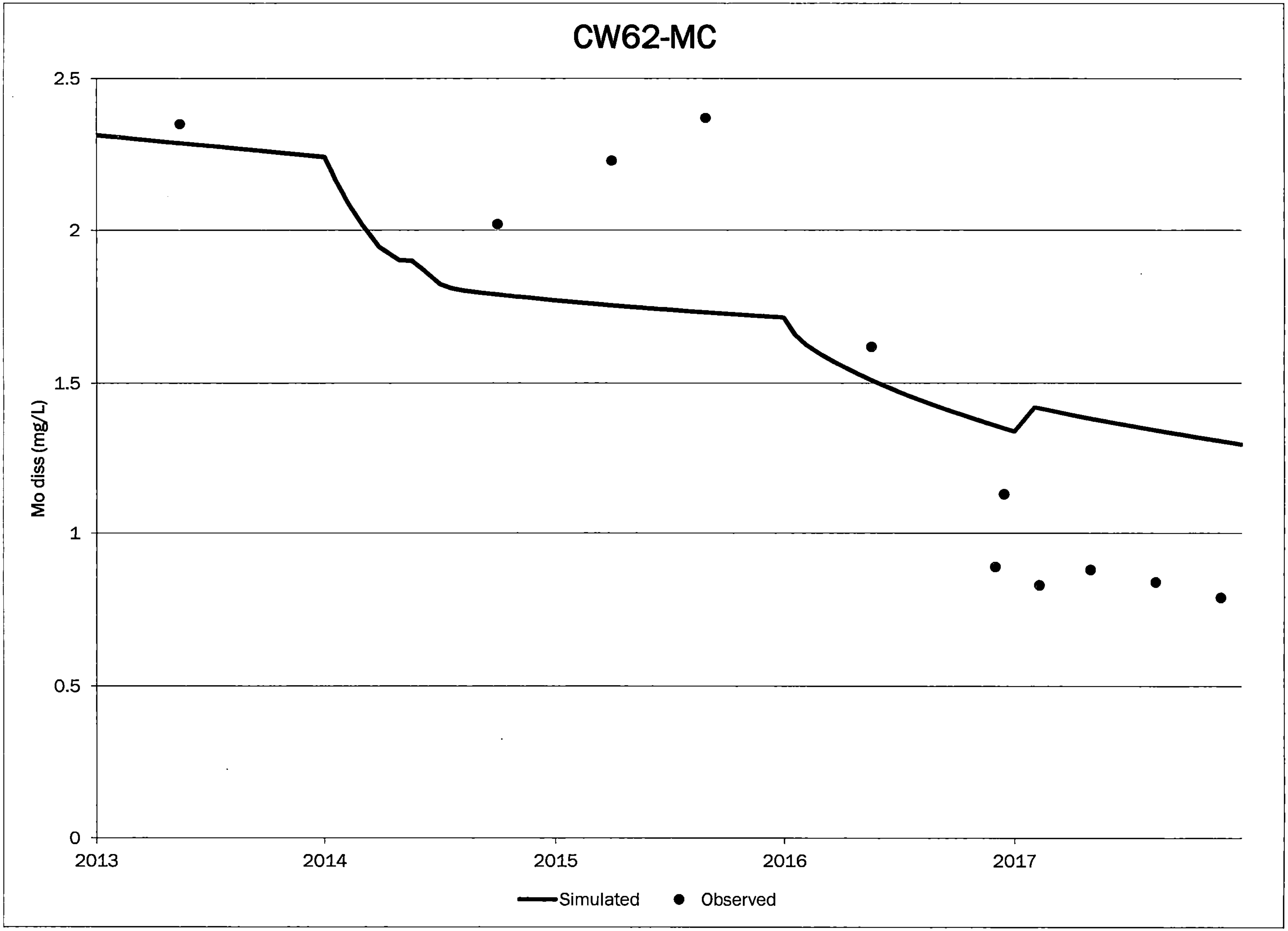


CW57-MC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

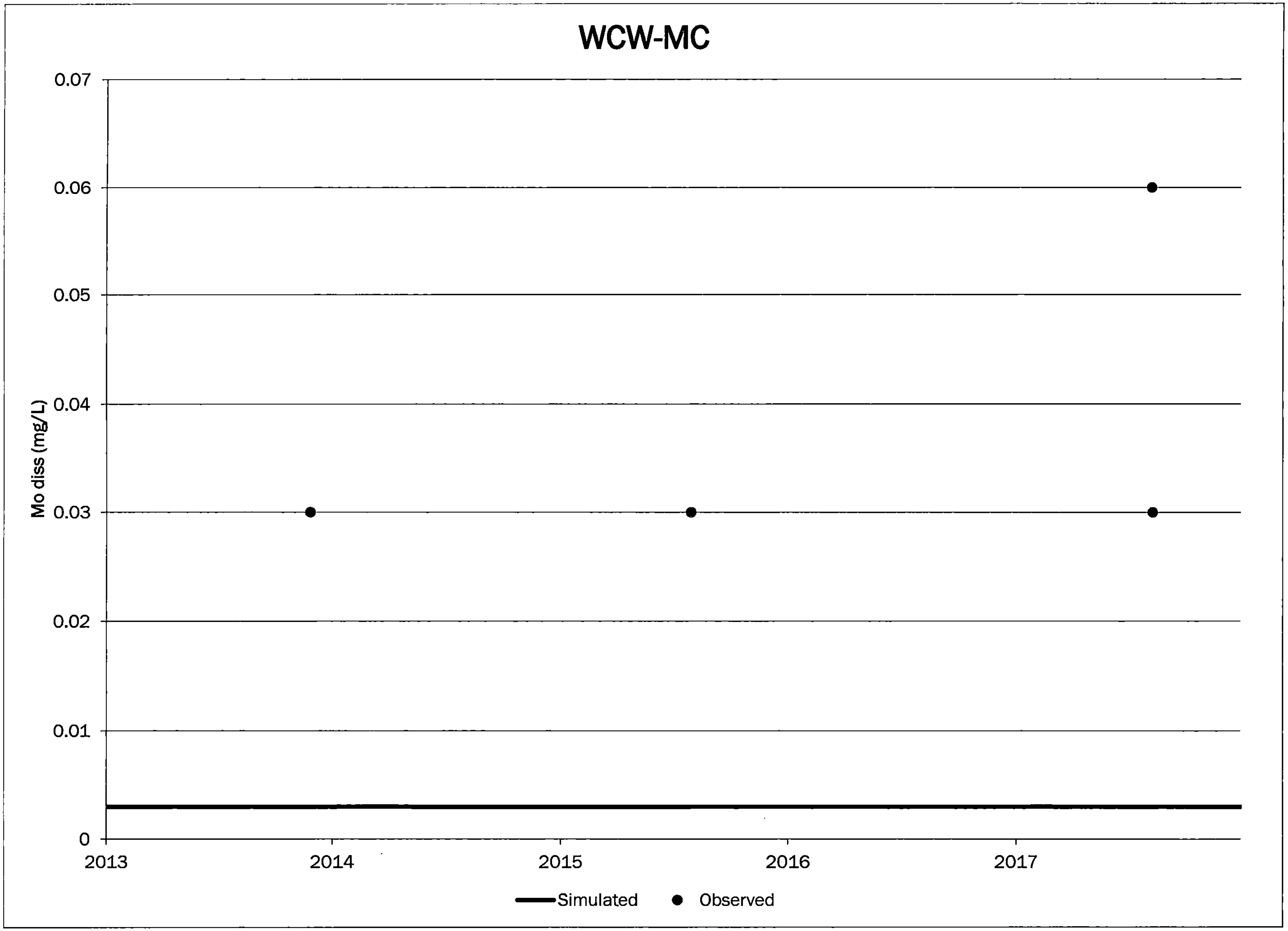

CW60-MC
Mo diss (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed

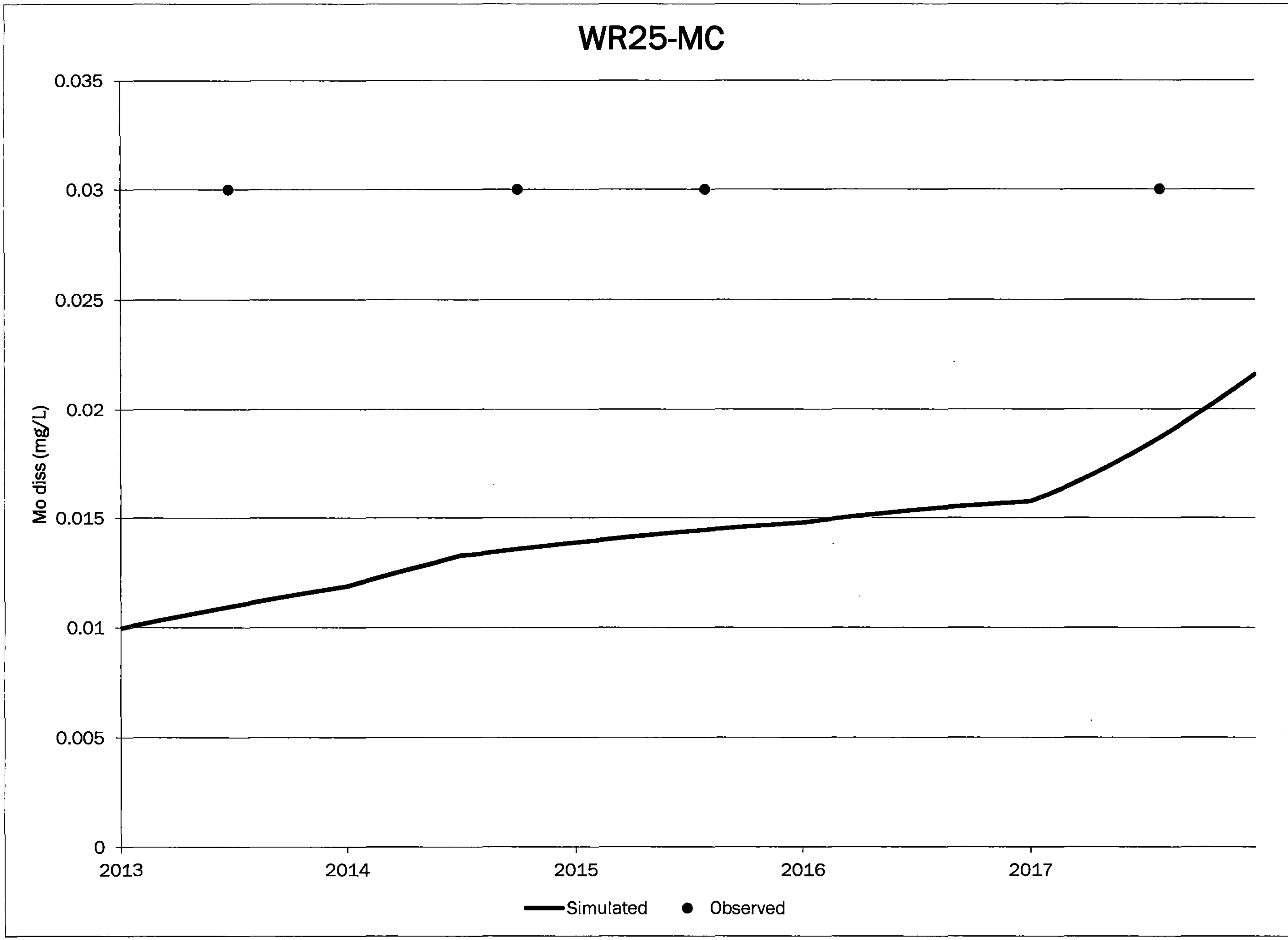


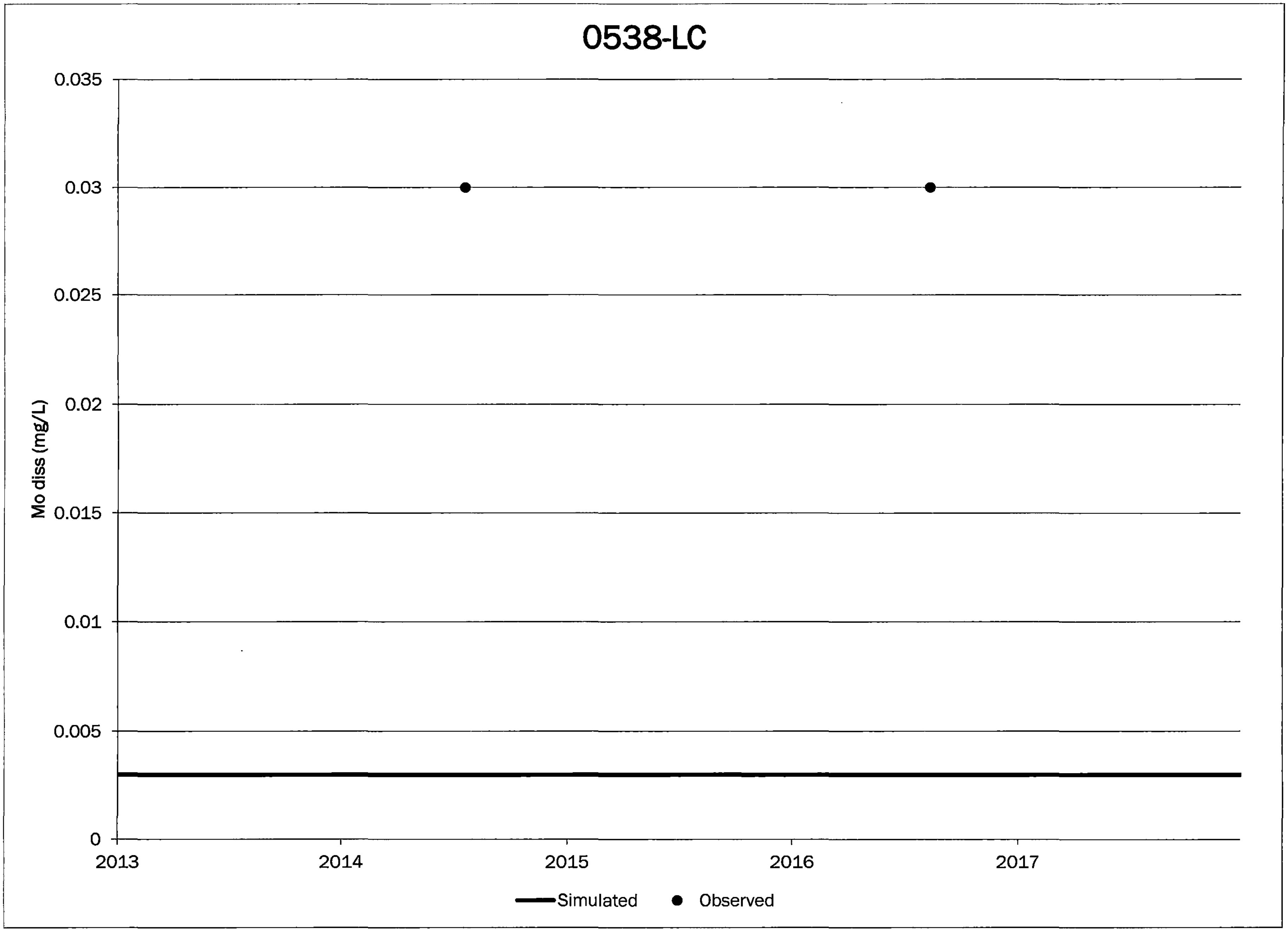
CW61-MC
Mo diss (mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed



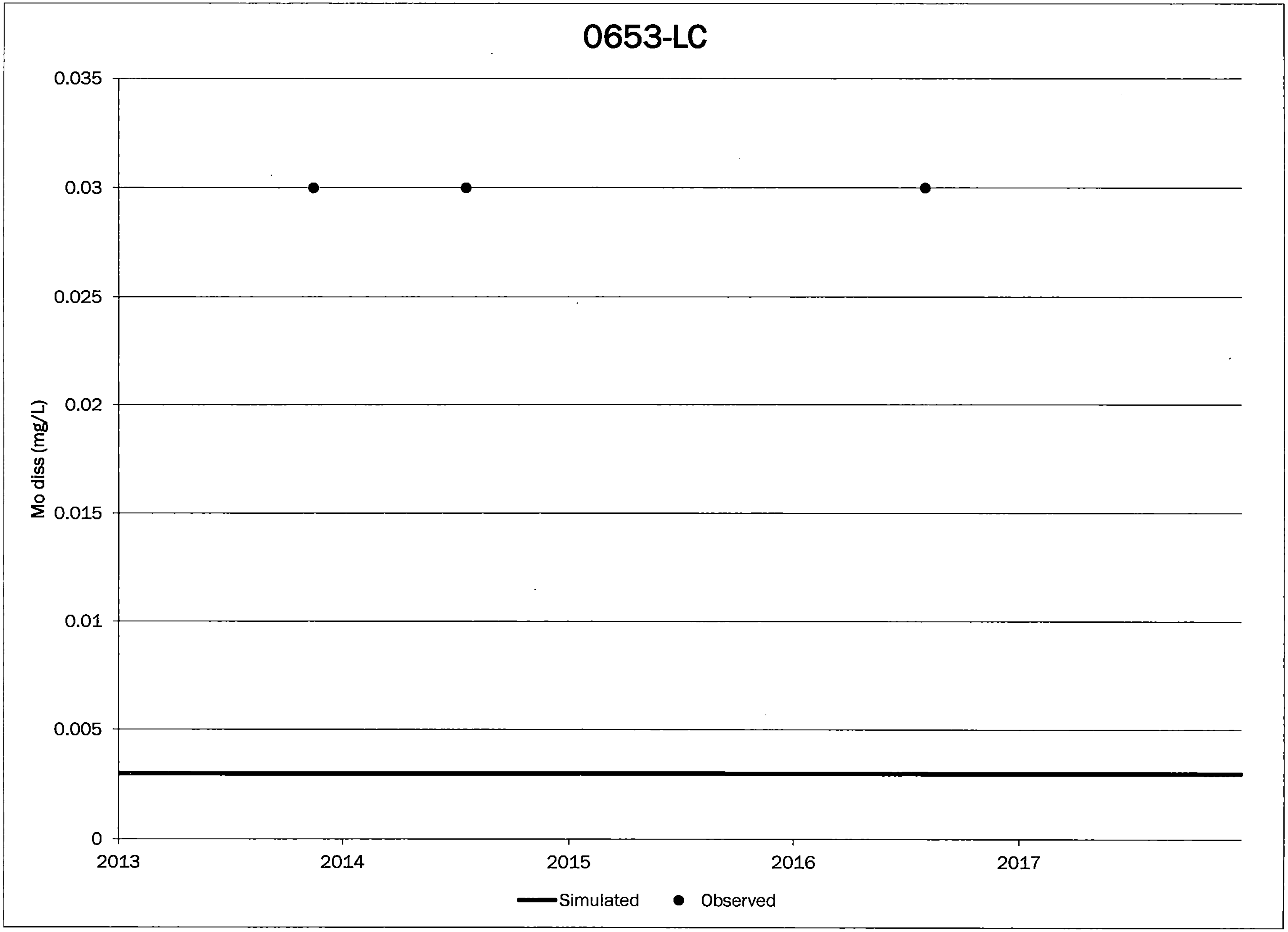
CW62-MC
Mo diss (mg/L)
2.5
2
1.5
1
0.5
0
2013
2014
2015
2016
2017
Simulated
Observed

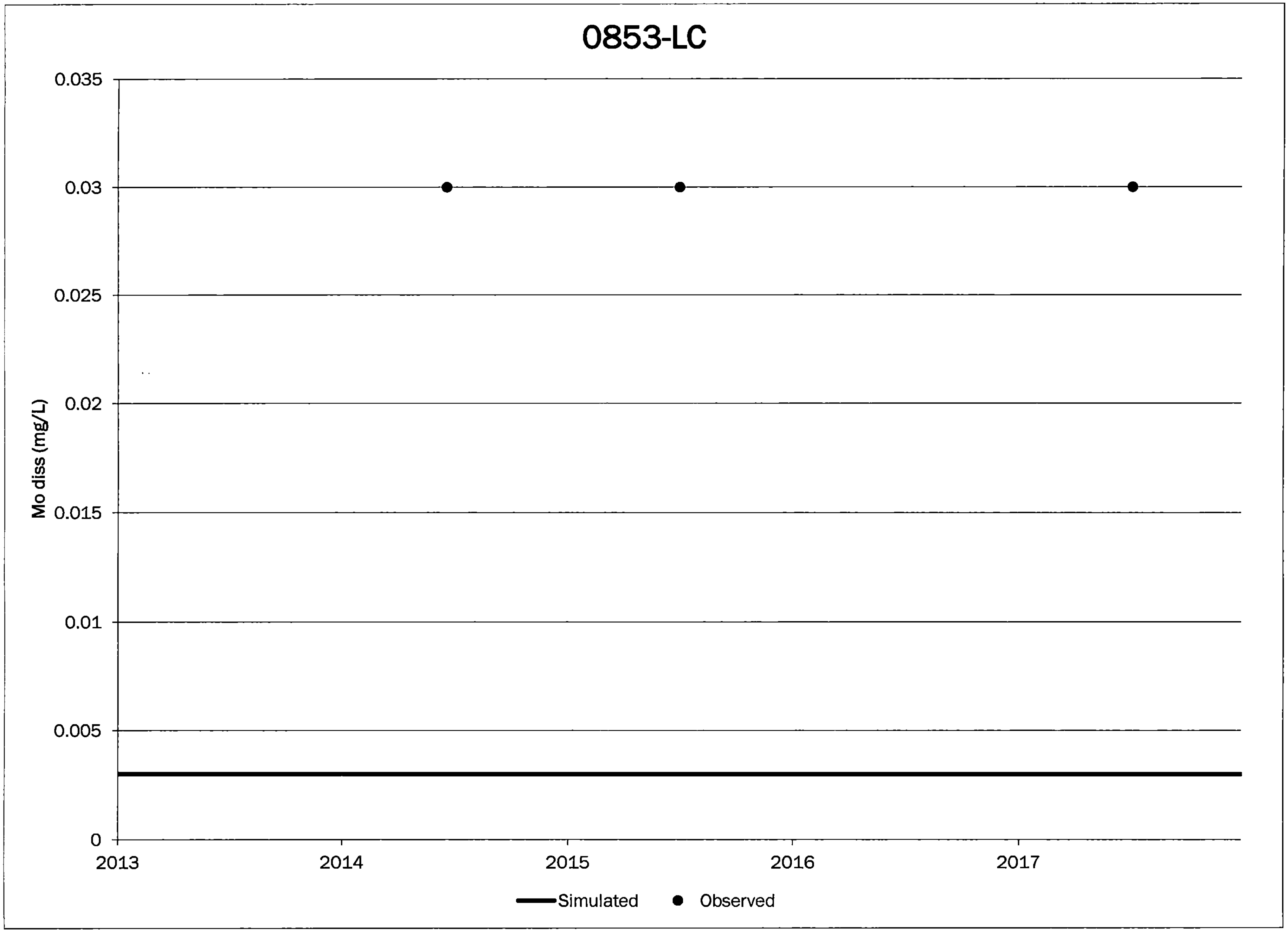

WCW-MC
Mo diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


WR25-MC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

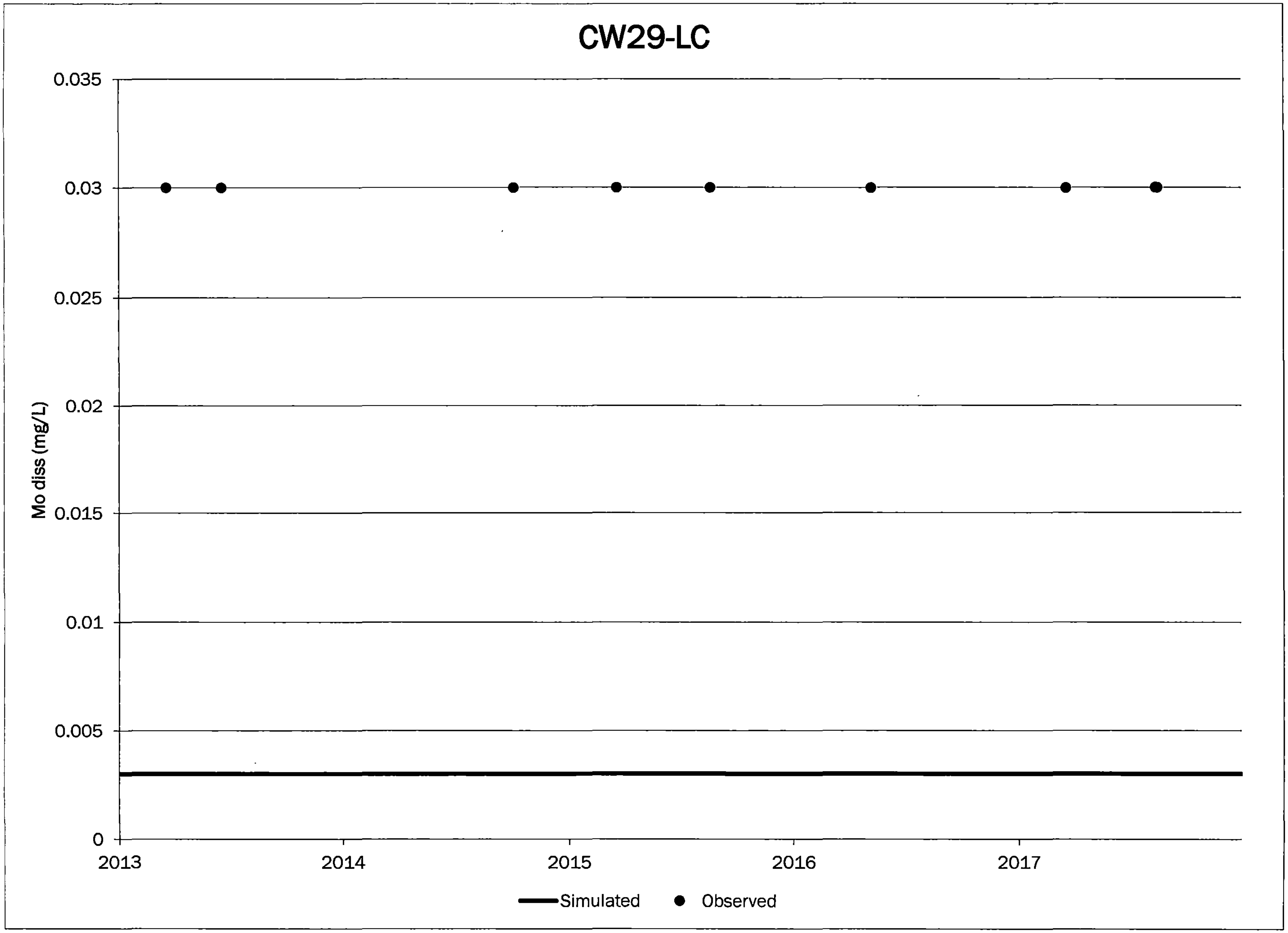


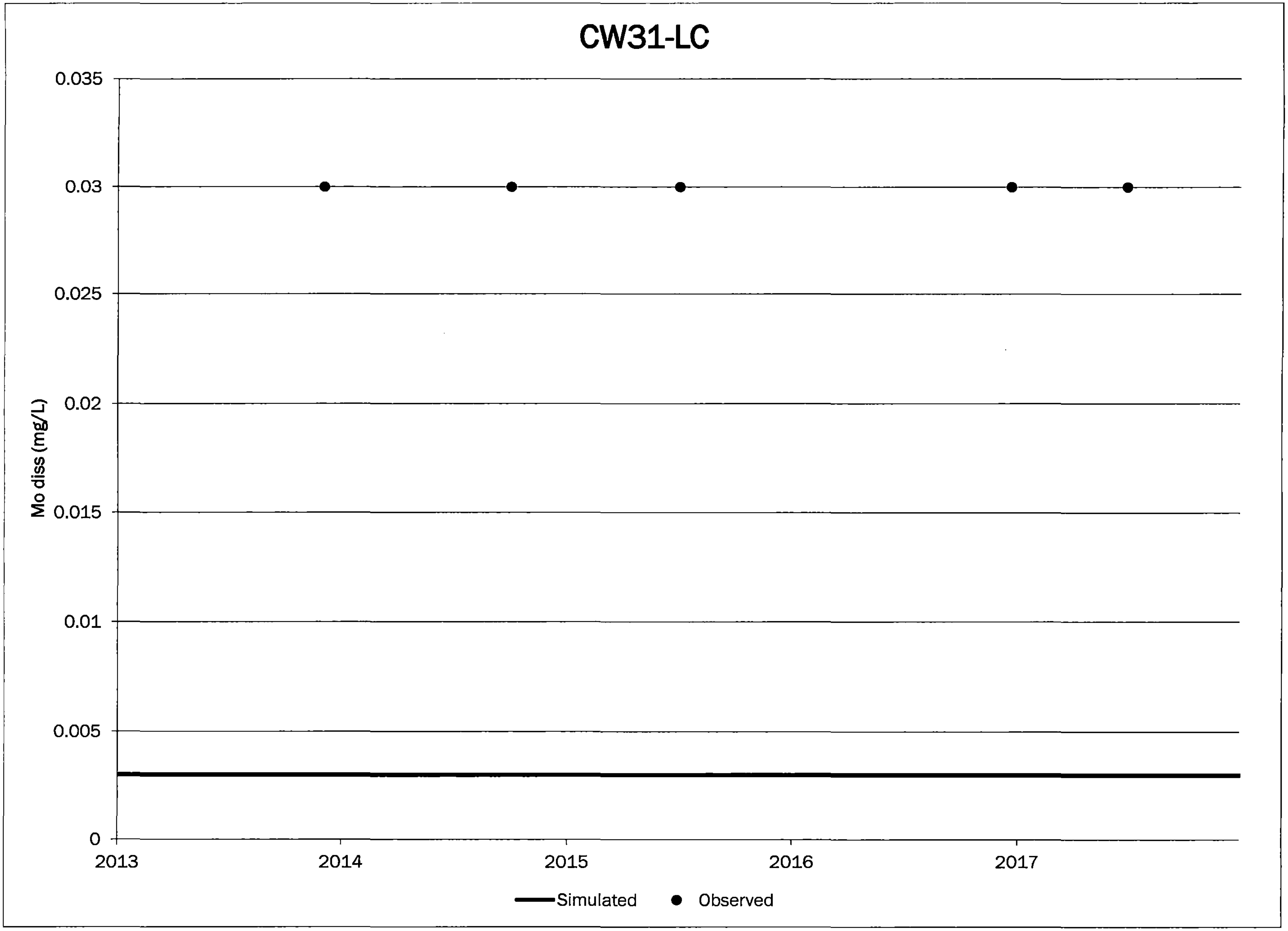
0538-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

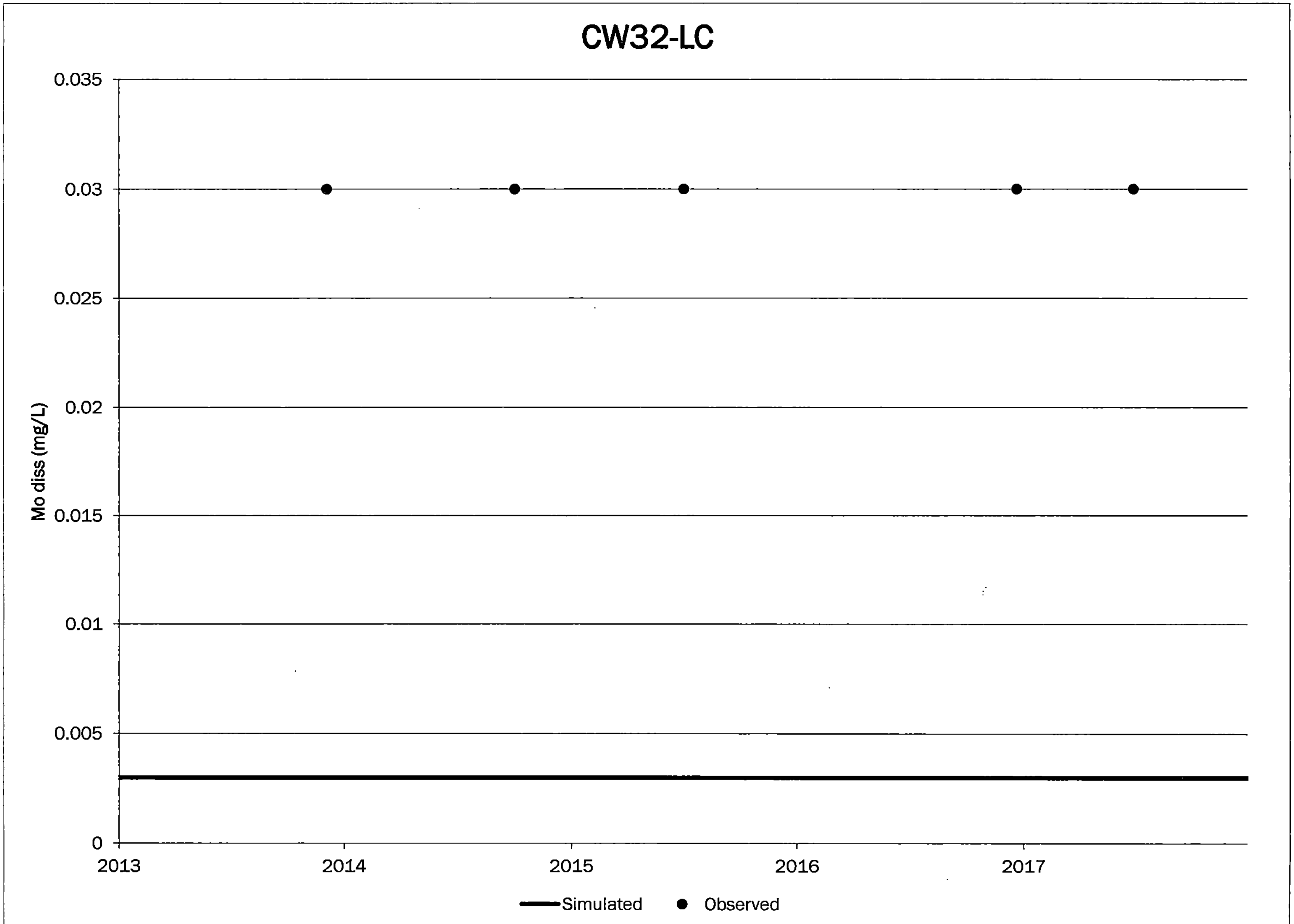

0653-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

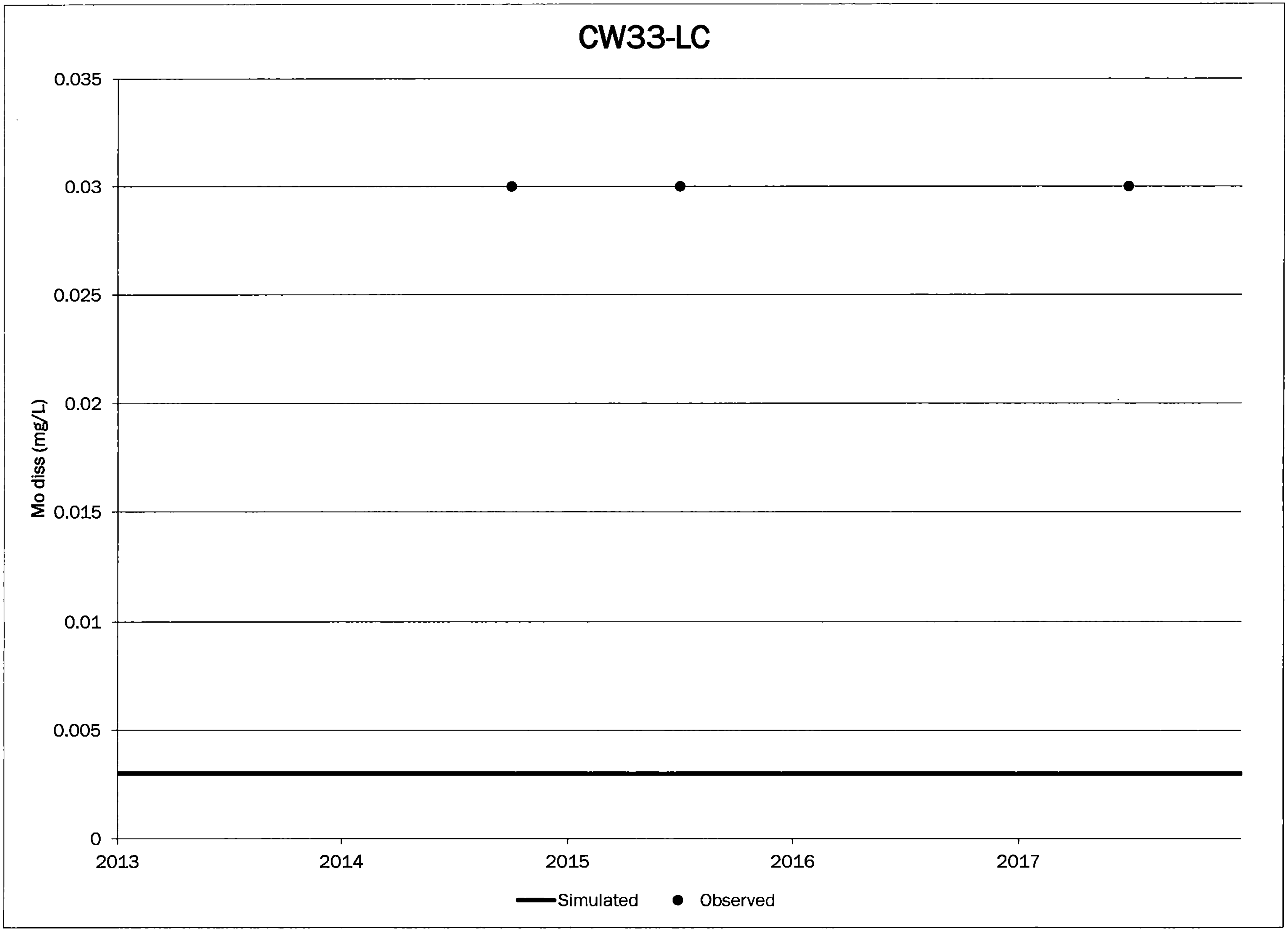


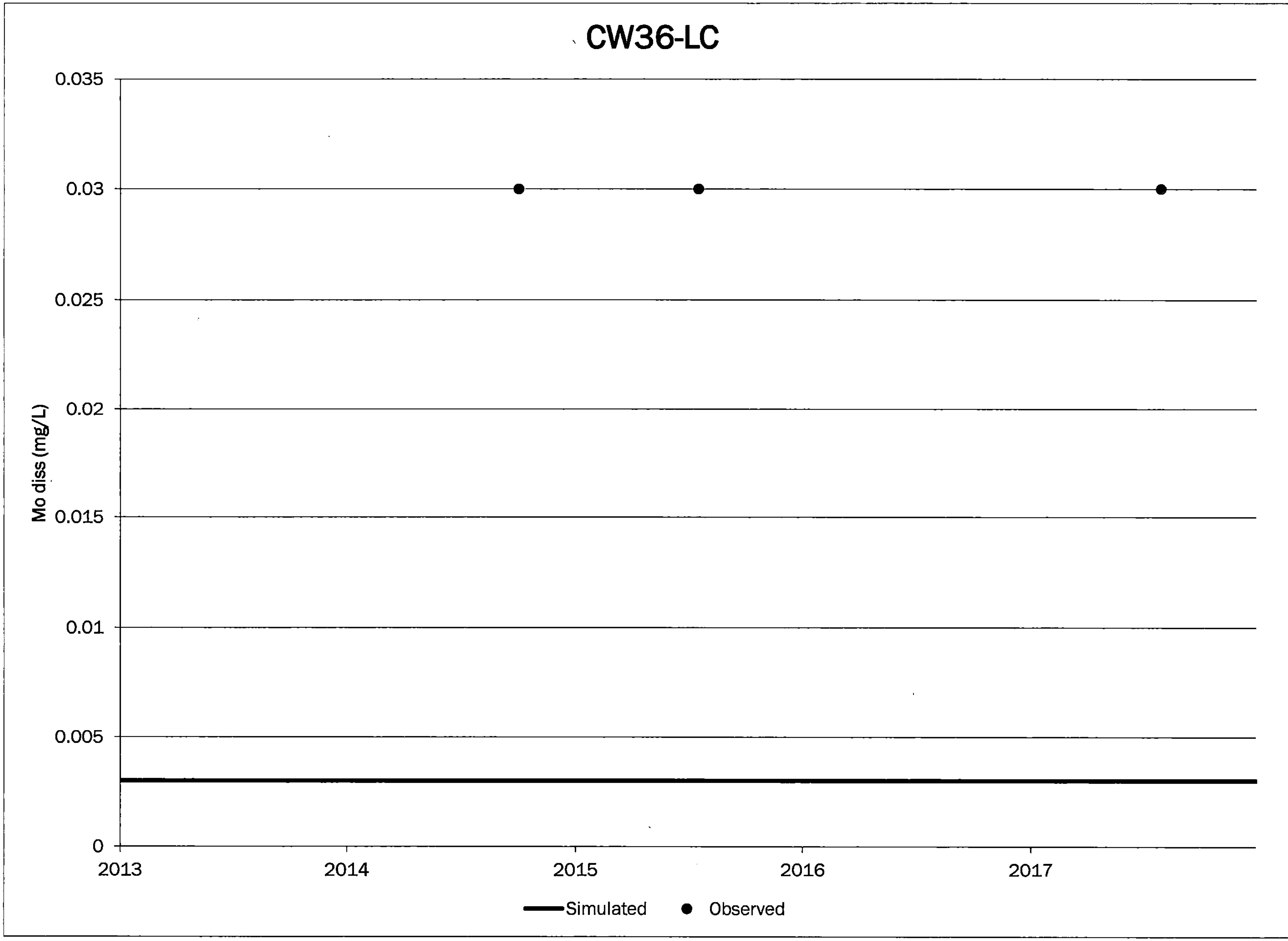
0853-LC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed

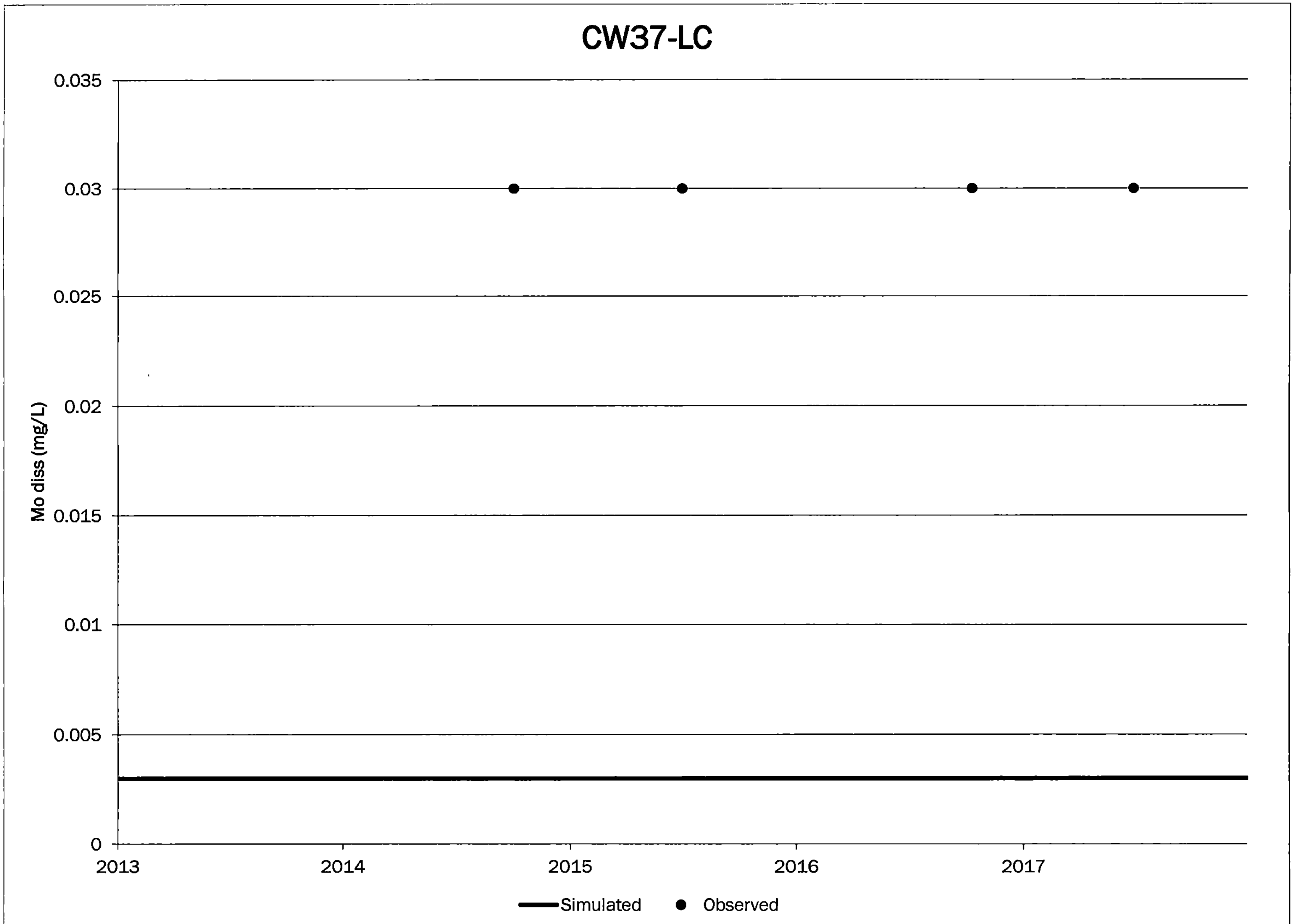

CW29-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


CW31-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

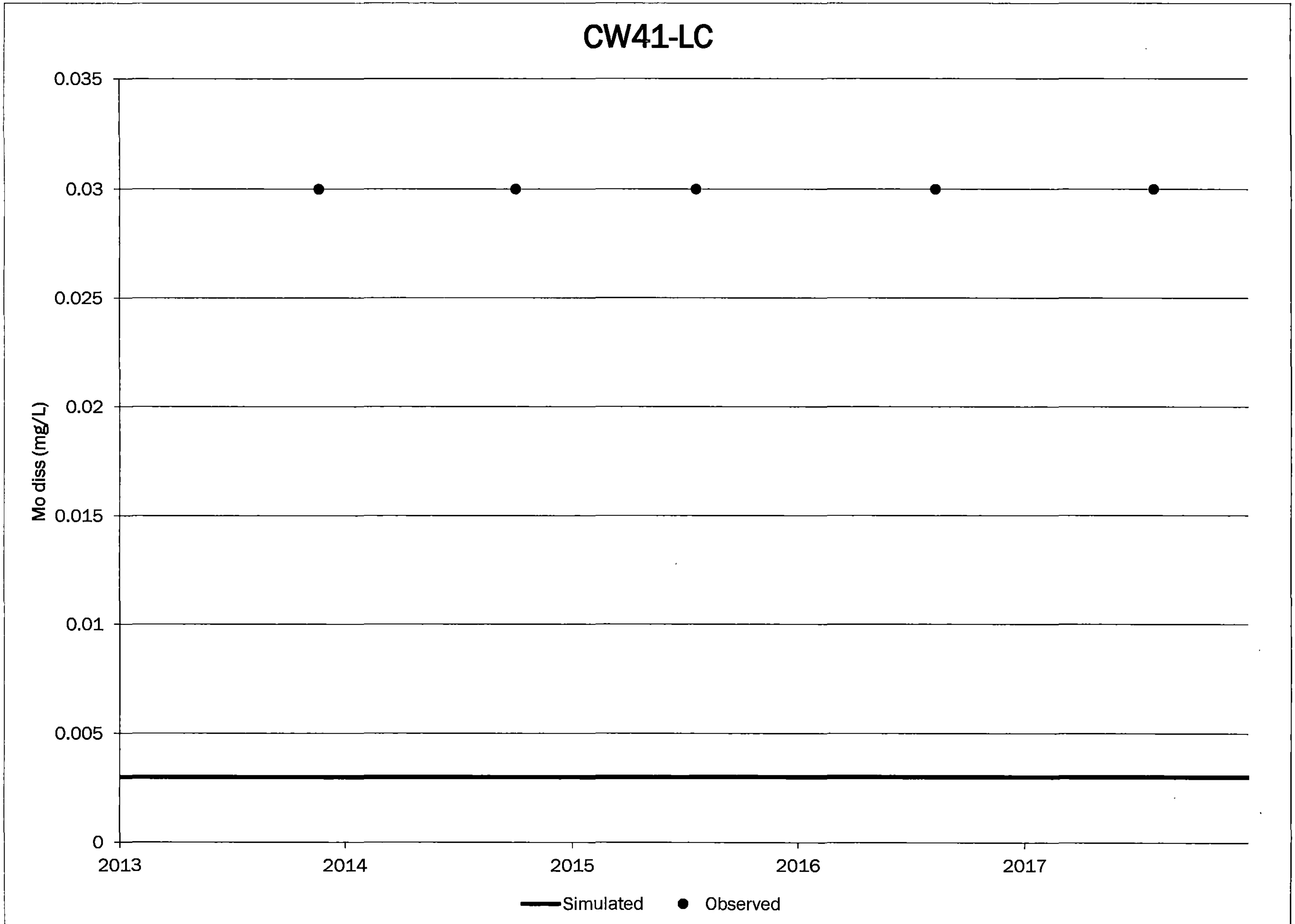

CW32-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

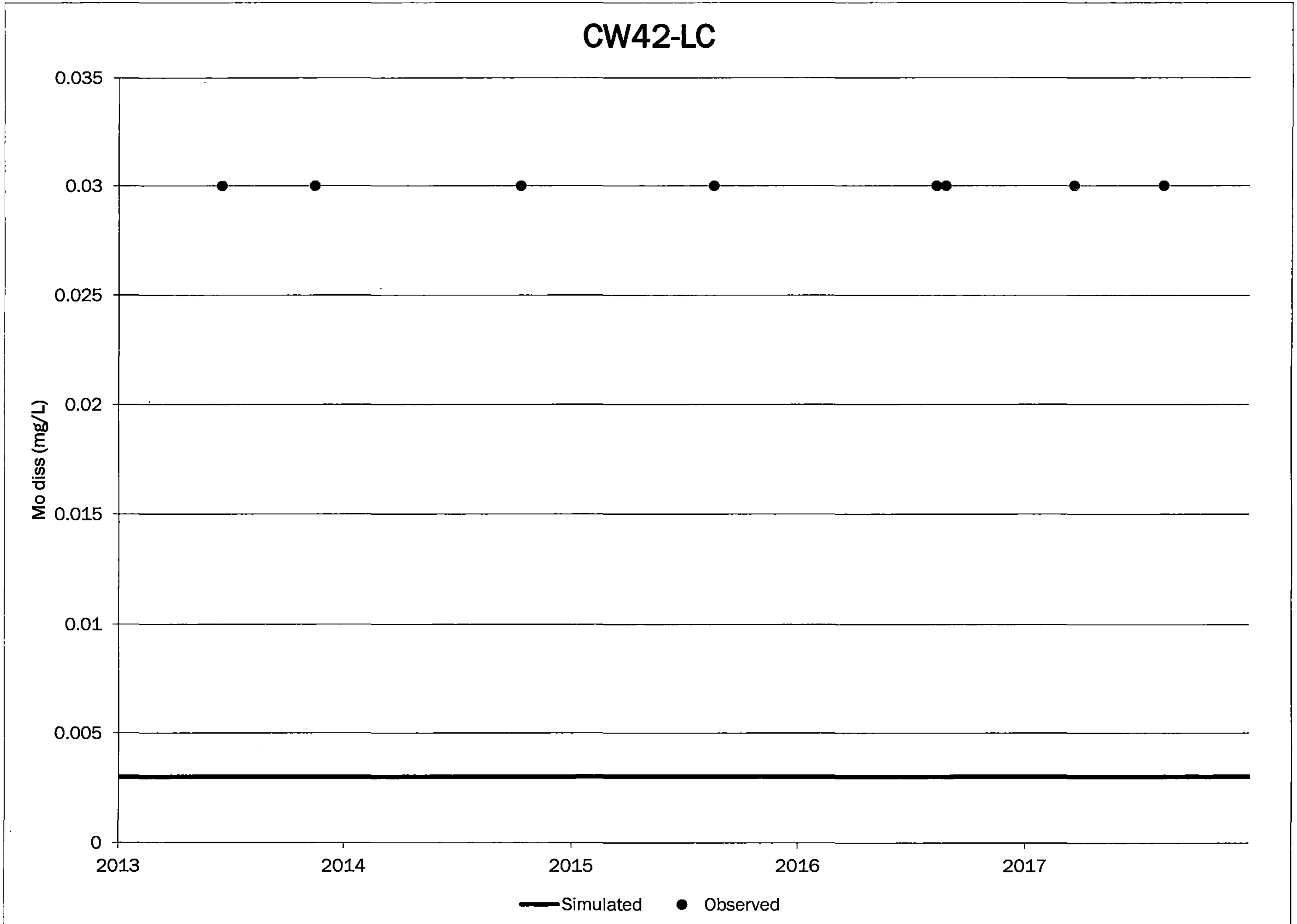

CW33-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


CW36-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

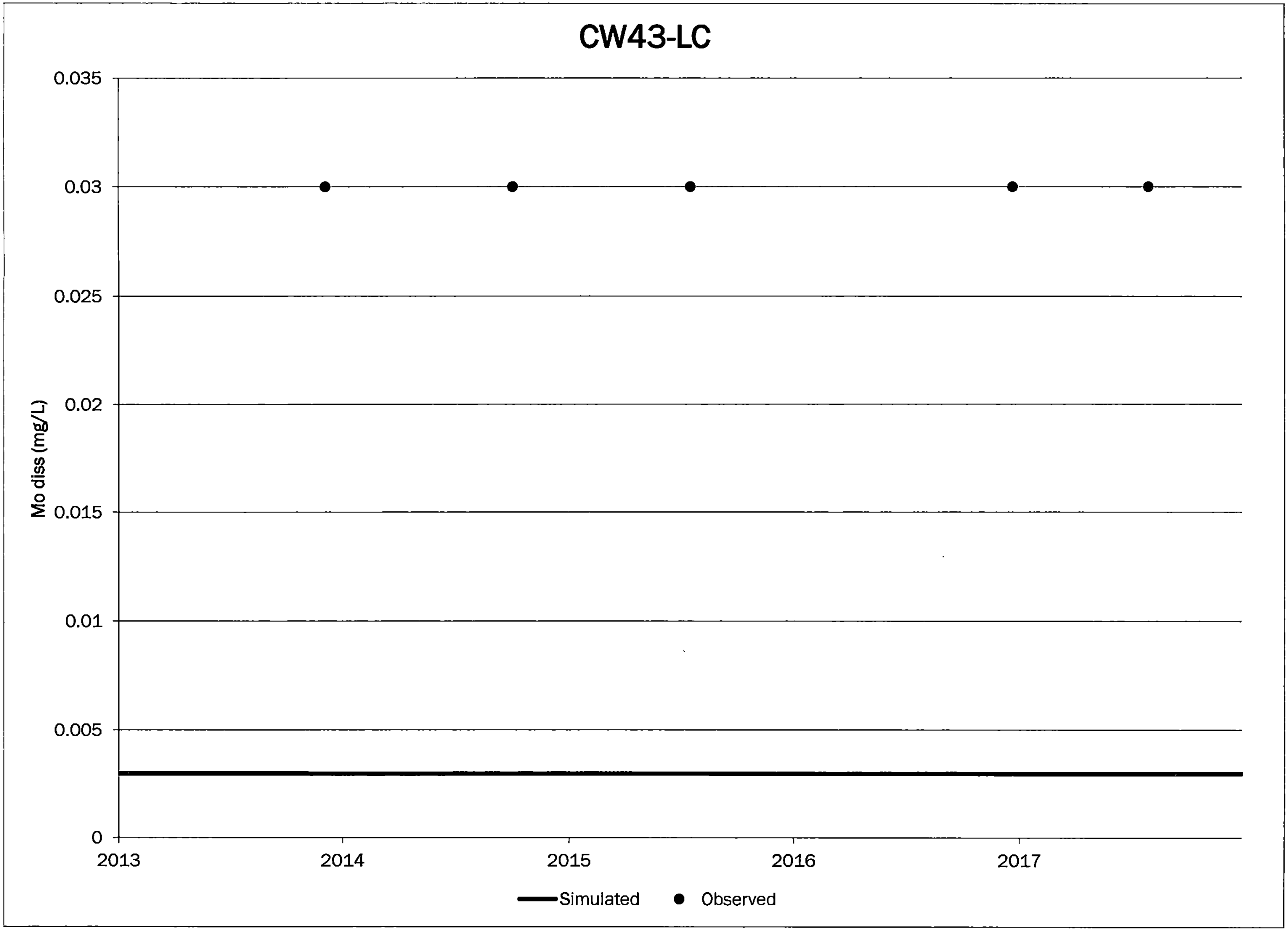


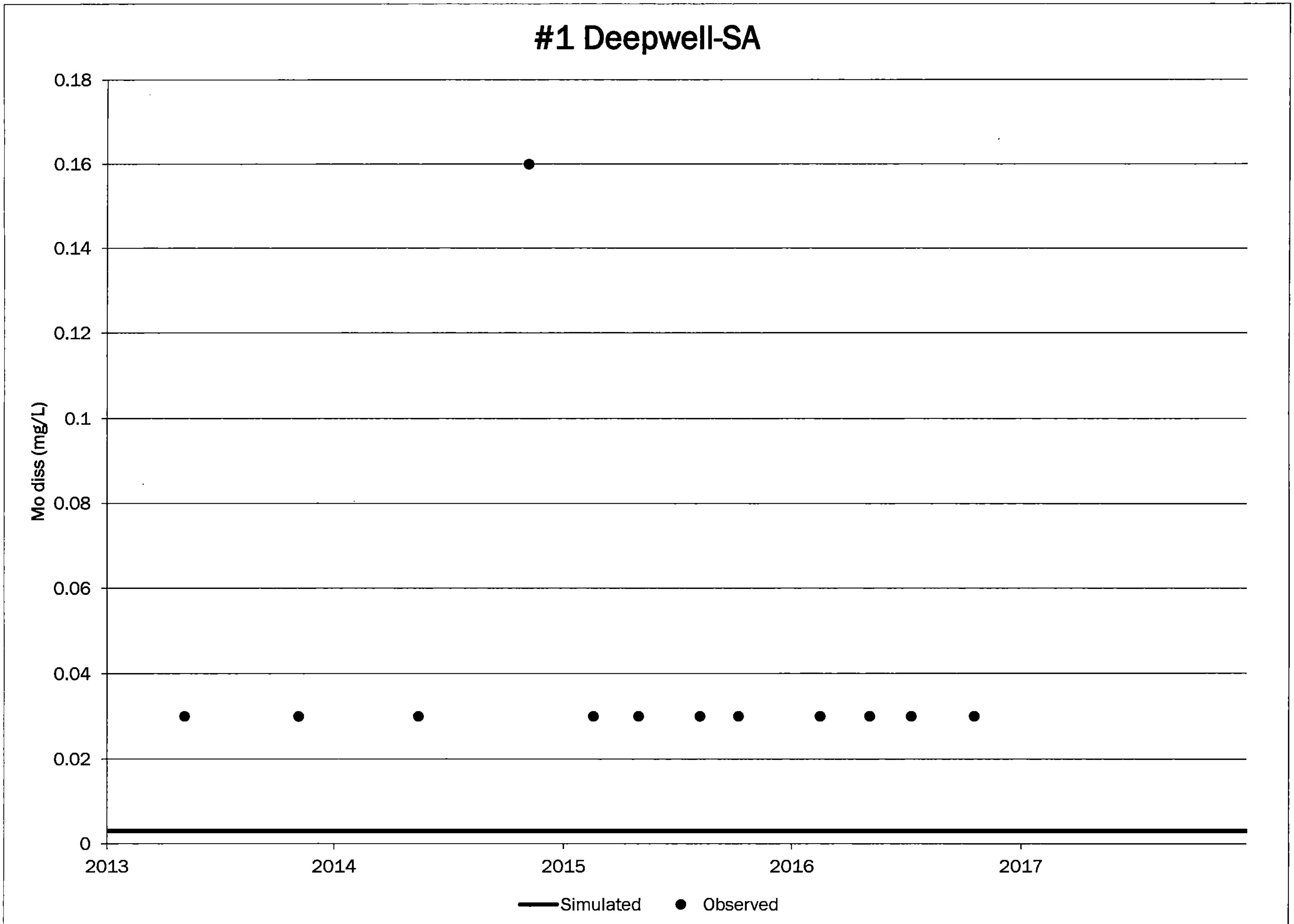
CW37-LC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


CW41-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

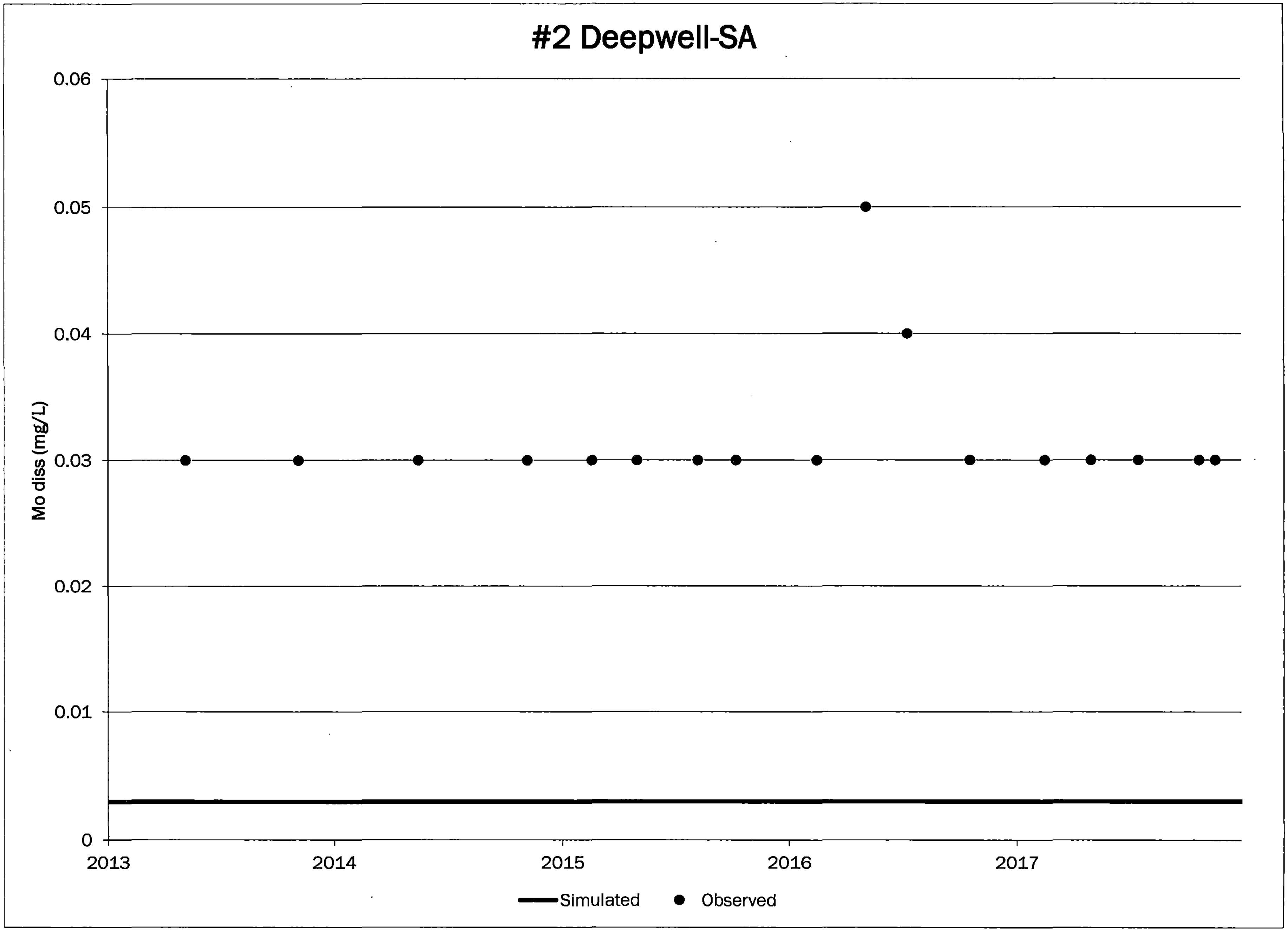


CW42-LC
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

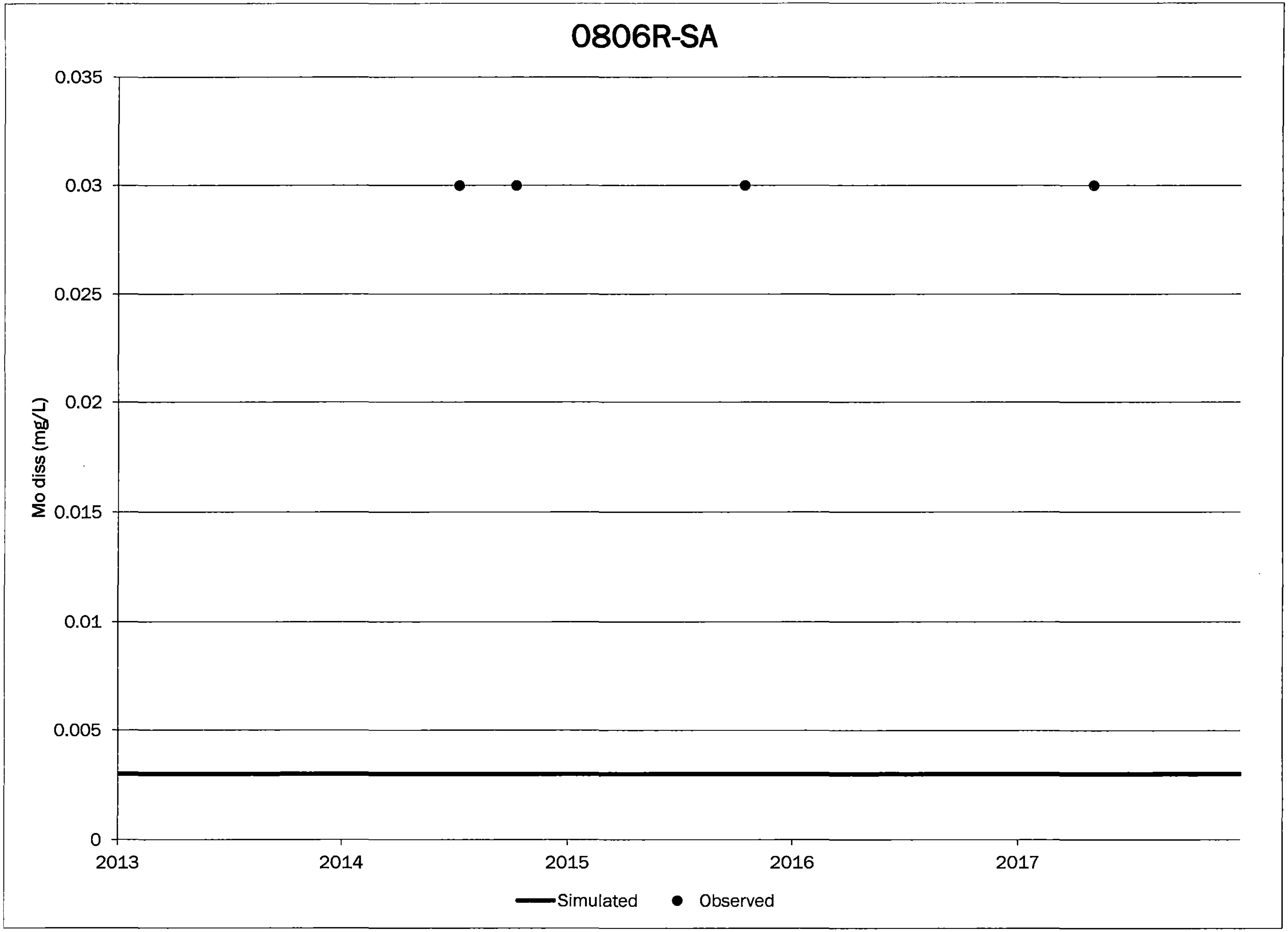

CW43-LC
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



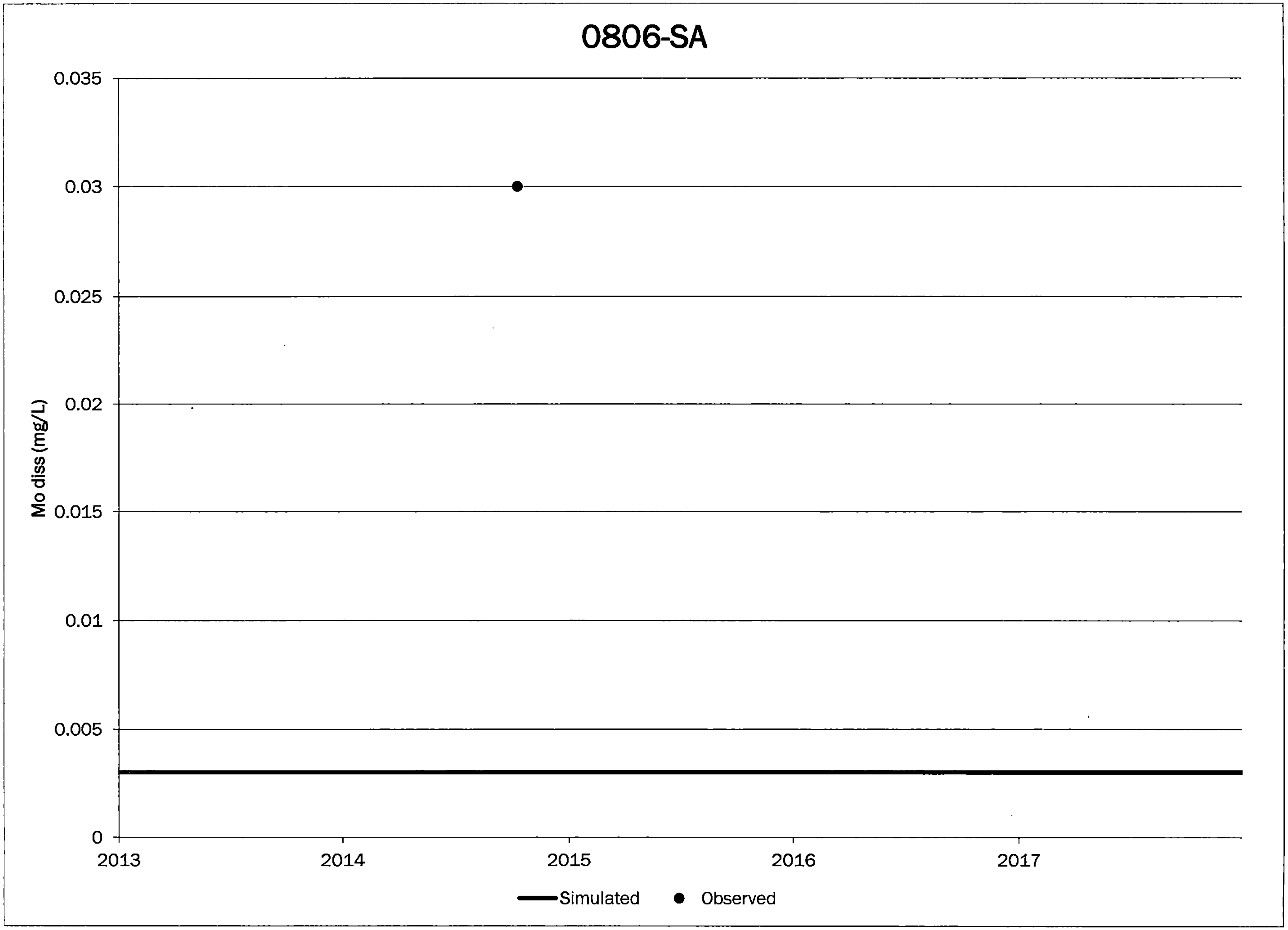
#1 Deepwell-SA
Mo diss (mg/L)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2013
2014
2015
2016
2017
Simulated
Observed



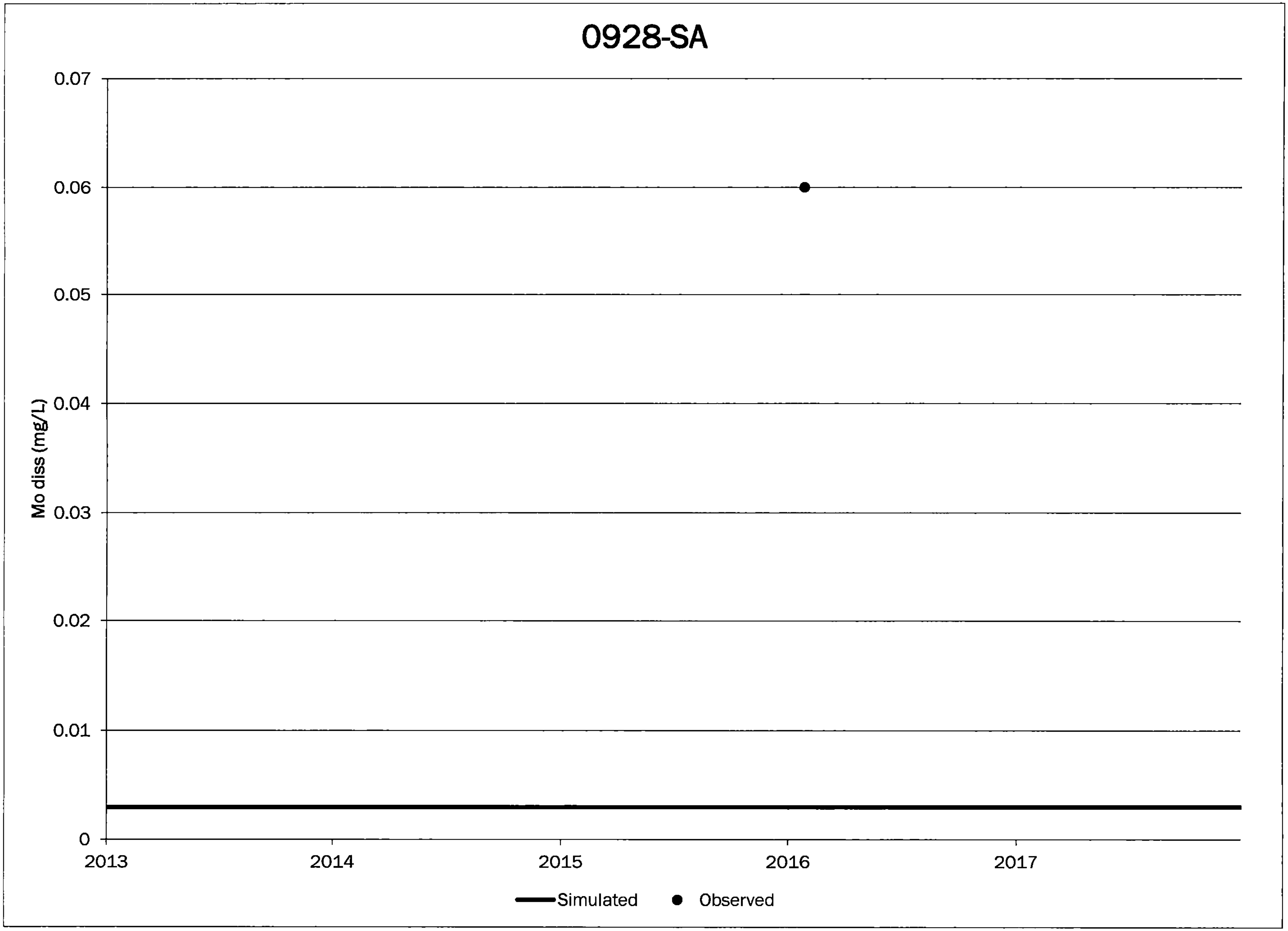
#2 Deepwell-SA
0.06
0.05
0.04
0.03
0.02
0.01
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed



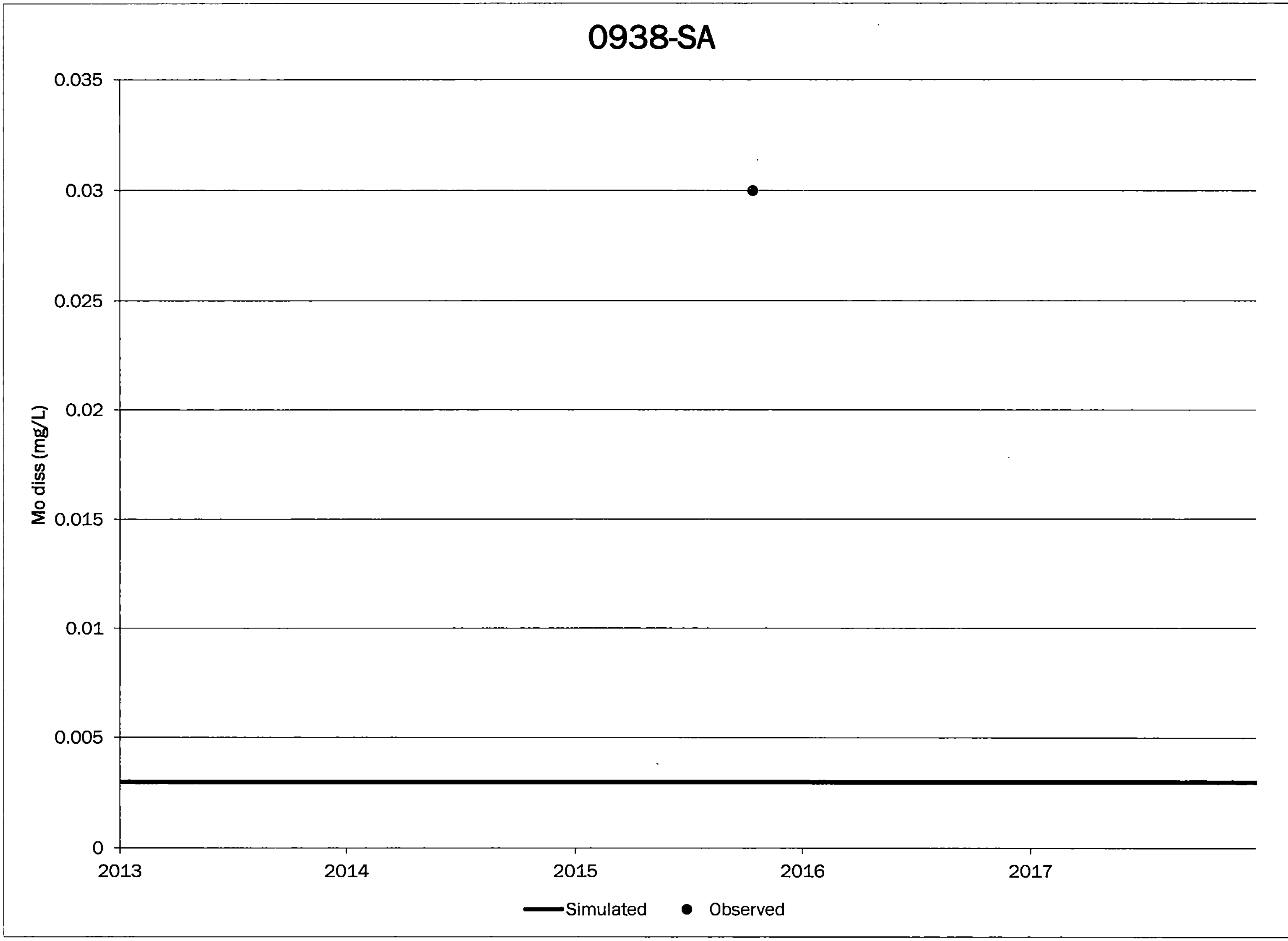
0806R-SA
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



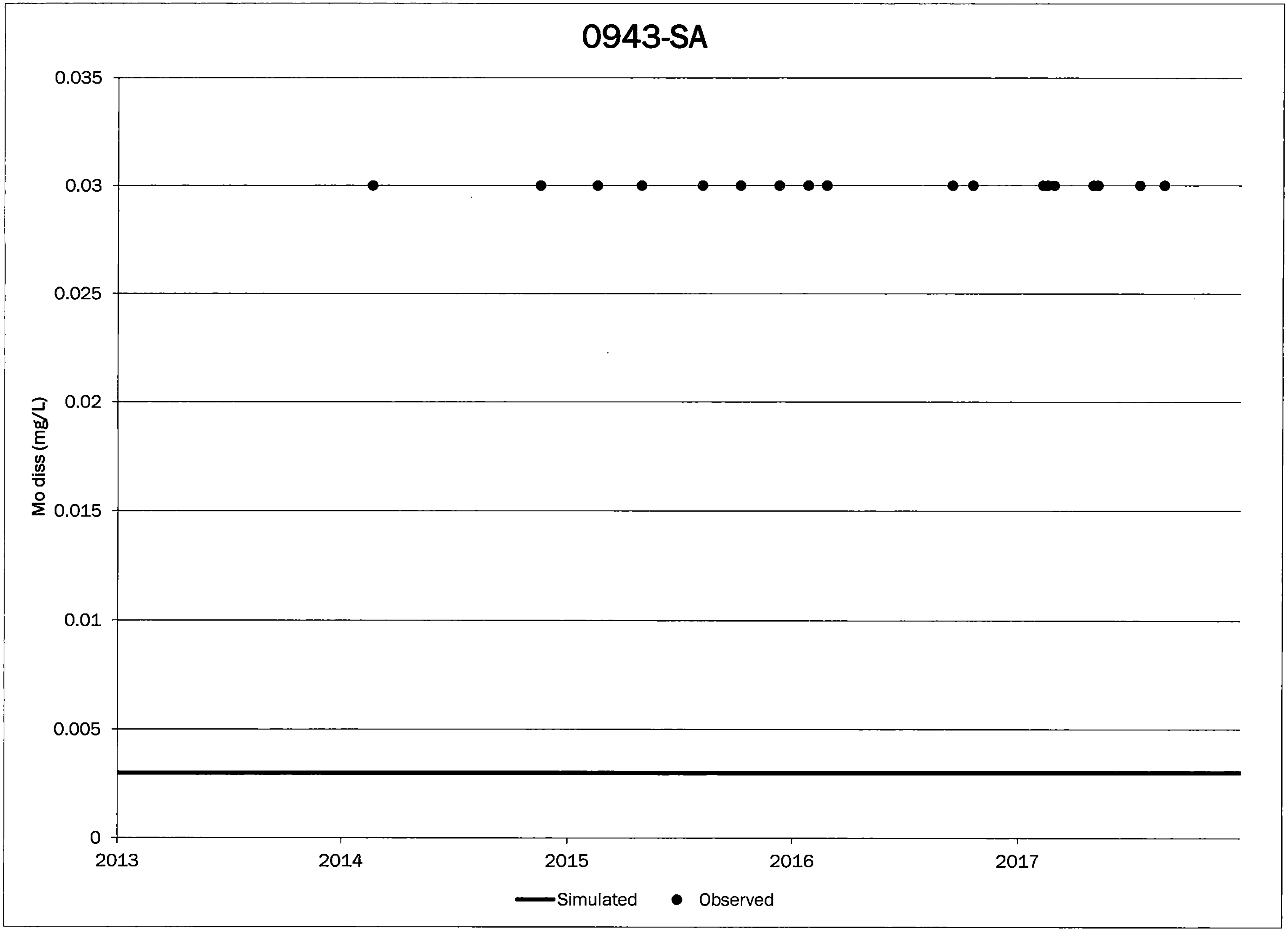
0806-SA
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed



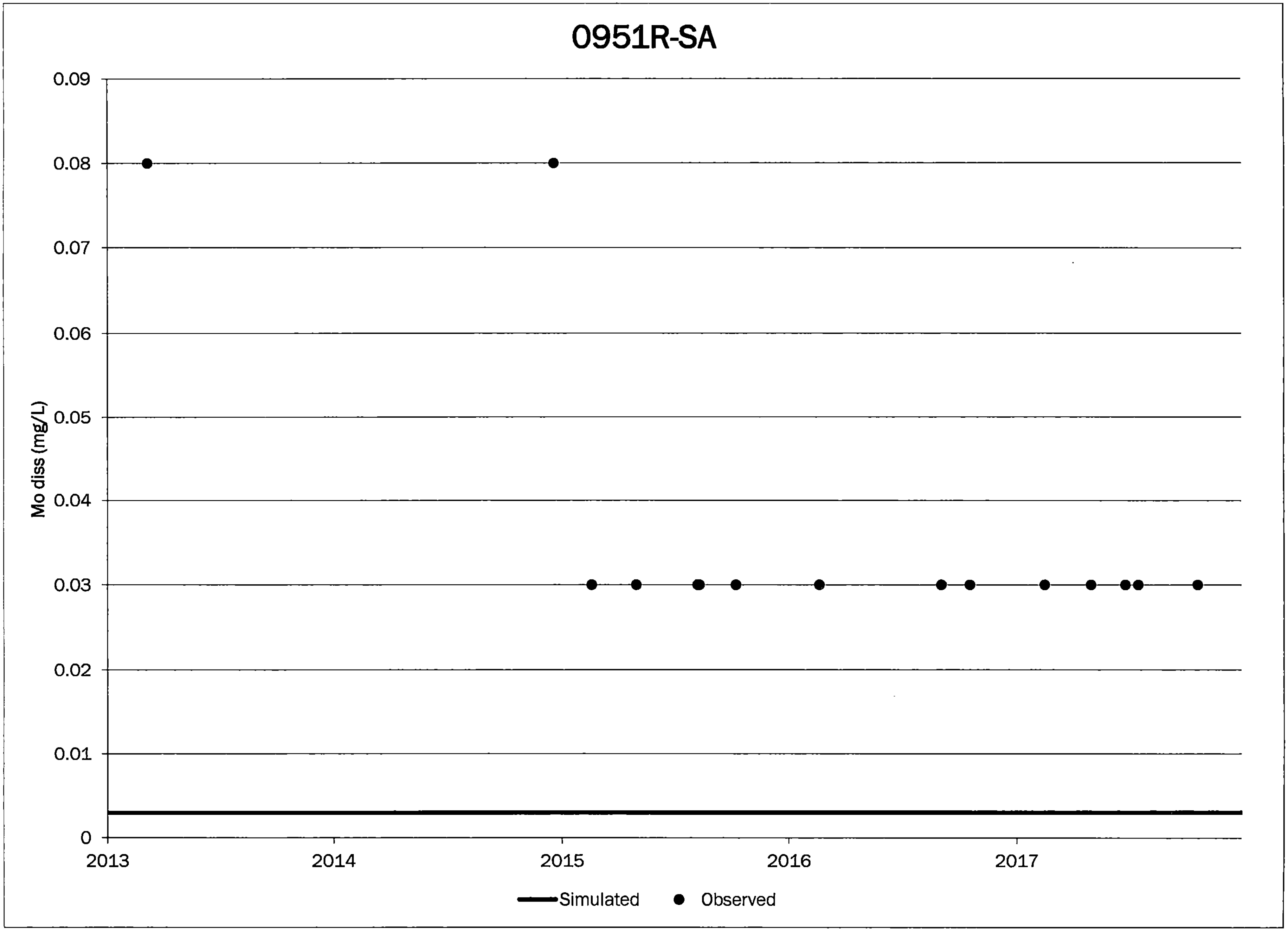
0928-SA
Mo diss (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed

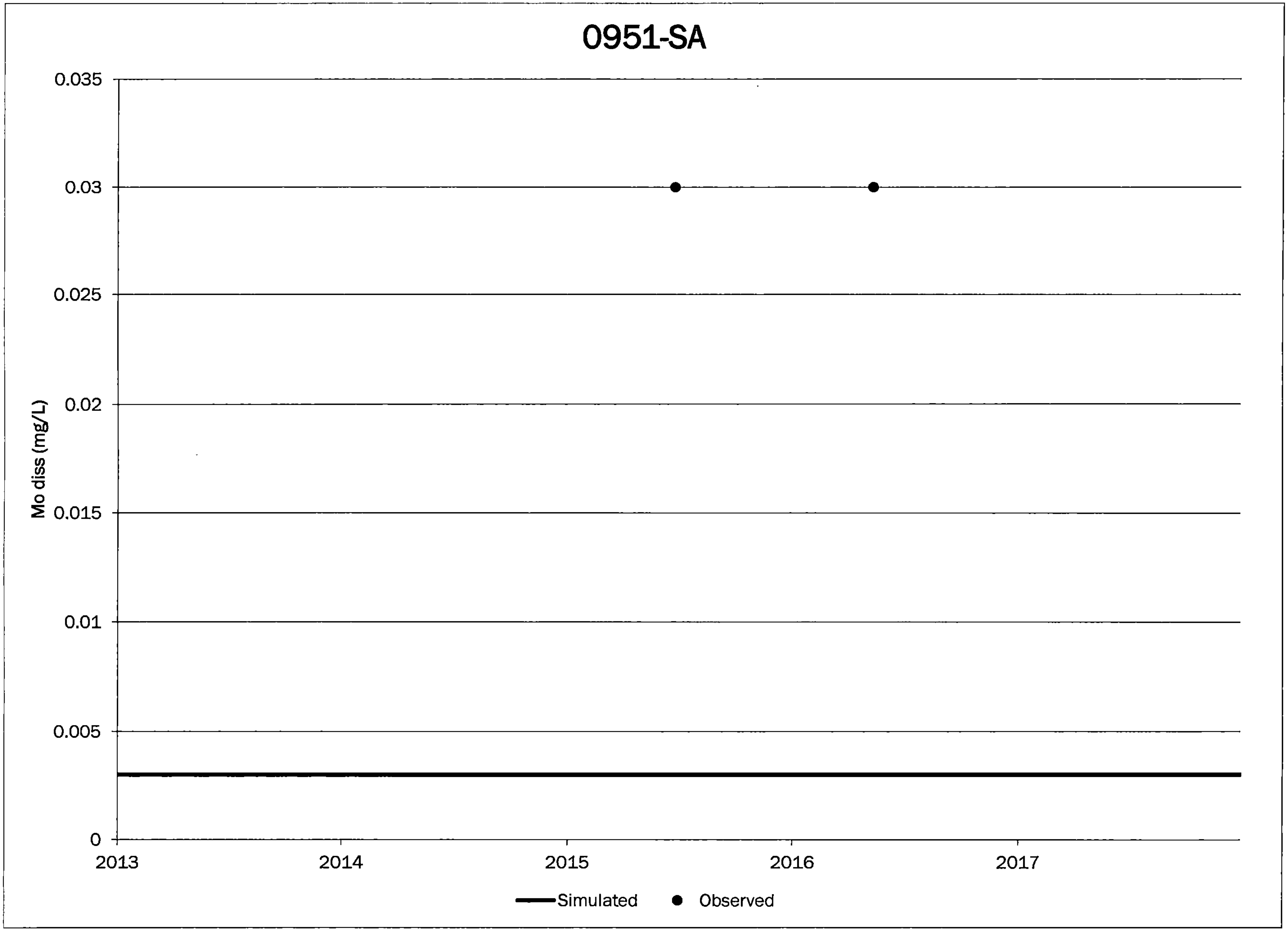


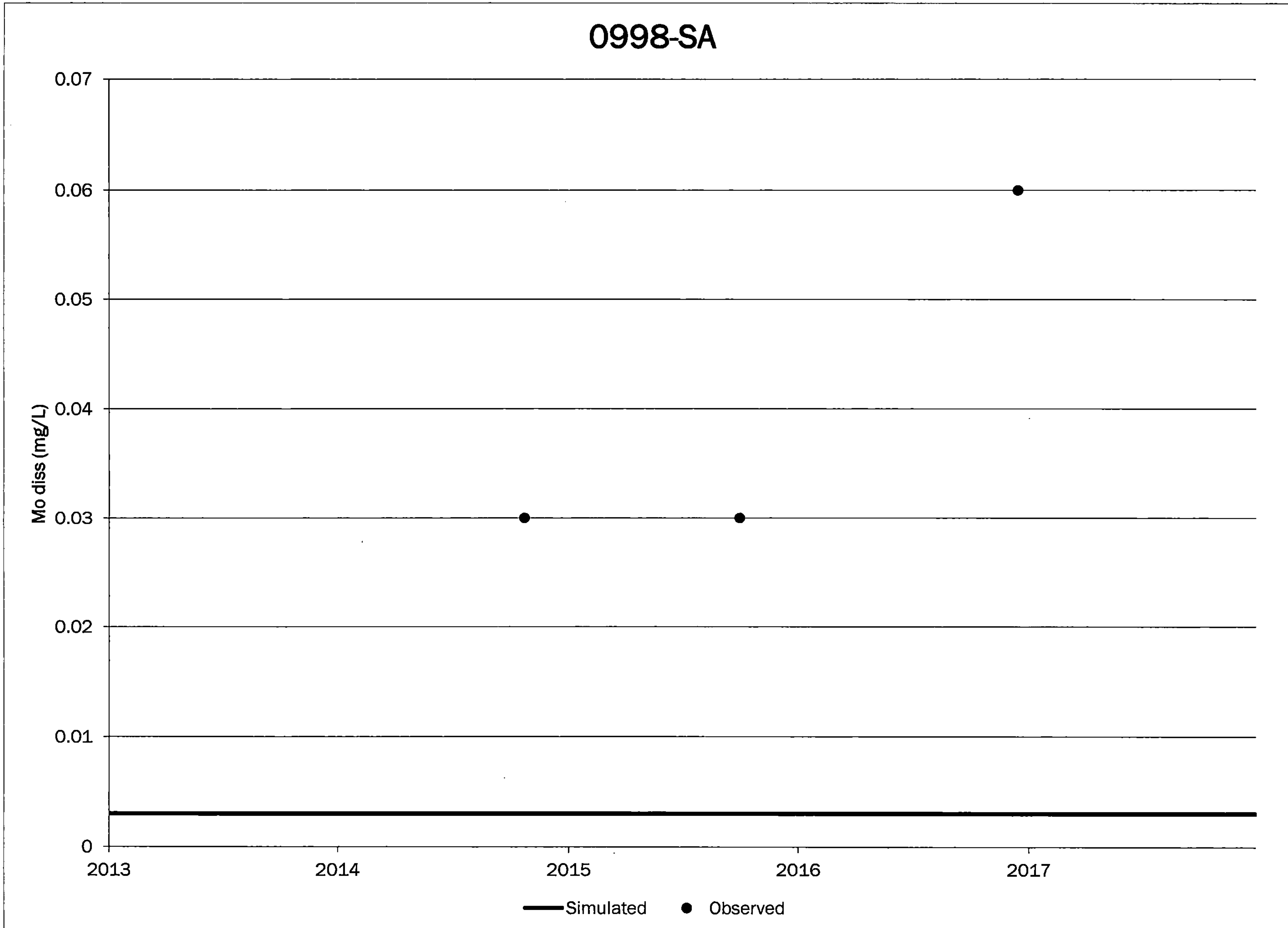
0938-SA
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

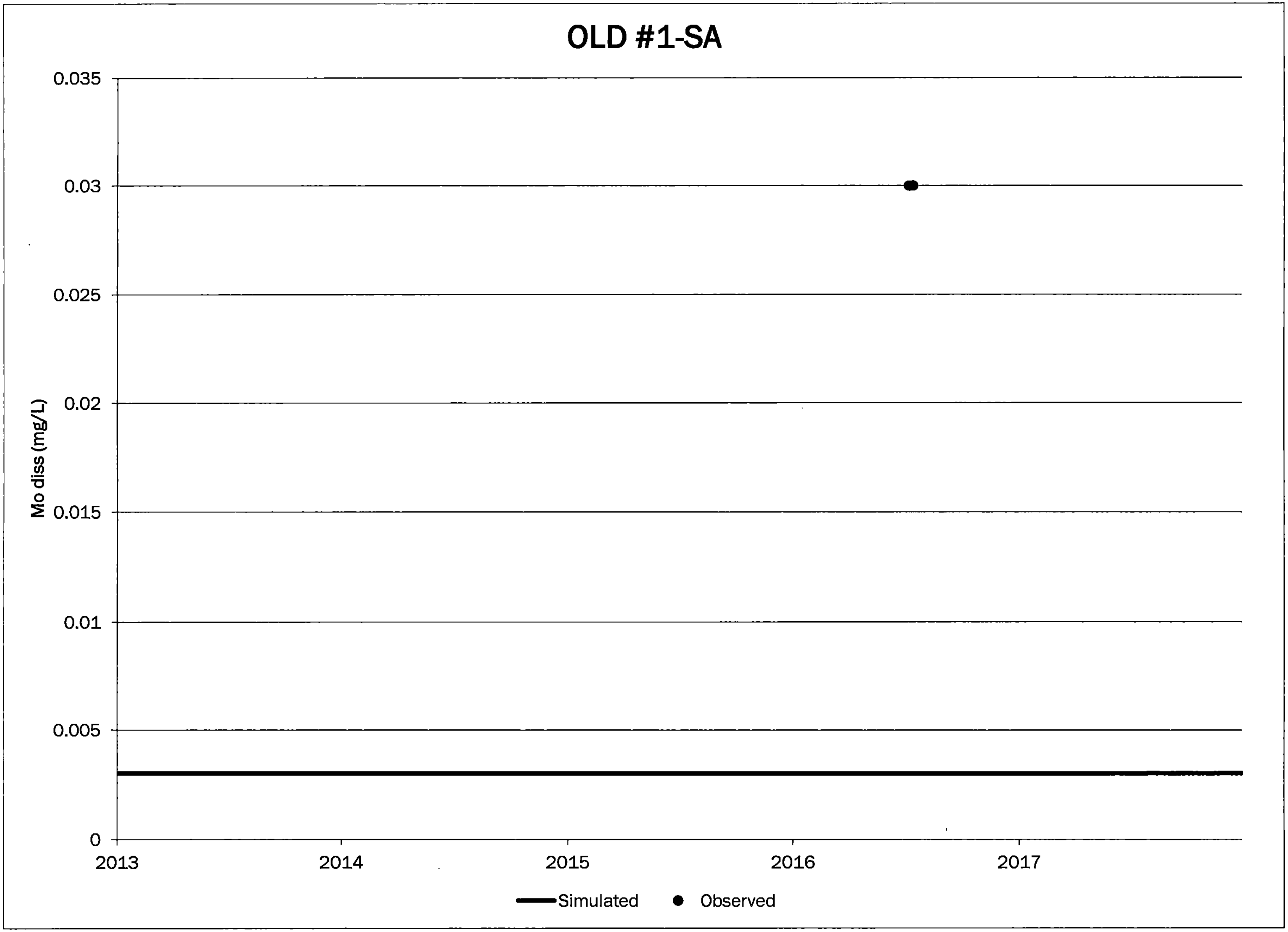


0943-SA
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed


0951R-SA
Mo diss (mg/L)
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2013
2014
2015
2016
2017
Simulated
Observed


0951-SA
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


0998-SA
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Mo diss (mg/L)
2013
2014
2015
2016
2017
Simulated
Observed


OLD #1-SA
Mo diss (mg/L)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2013
2014
2015
2016
2017
Simulated
Observed

Appendix E: Uranium Transport Calibration Target Dataset

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Table E-1. Groundwater Transport Model Uranium Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
0481-AI	490,210	1,536,820	1	12/24/2014	131	0.08	0.10	-0.02	1.0
				3/5/2016	527	0.06	0.11	-0.05	1.0
0482-AI	489,579	1,536,981	1	11/15/2013	191	0.14	0.22	-0.07	1.0
				6/12/2014	499	0.15	0.22	-0.07	1.0
0483-AI	489,753	1,536,586	1	8/24/2017	319	0.14	0.19	-0.05	1.0
				5/14/2013	528	0.13	0.19	-0.05	1.0
				1/29/2014	619	0.12	0.19	-0.07	1.0
				10/14/2015	1229	0.21	0.19	0.02	1.0
0490-AI	489,752	1,536,553	1	3/19/2013	309	0.09	0.19	-0.10	1.0
				4/2/2014	326	0.23	0.19	0.03	1.0
				7/19/2014	528	0.22	0.19	0.04	1.0
				8/10/2016	871	0.13	0.19	-0.06	1.0
				5/4/2013	1019	0.07	0.19	-0.12	1.0
				11/15/2013	1229	0.08	0.19	-0.10	1.0
				10/4/2014	1391	0.25	0.18	0.07	1.0
				5/15/2015	1528	0.49	0.17	0.32	1.0
0491-AI	489,658	1,537,031	1	4/29/2016	191	0.29	0.23	0.06	1.0
				8/5/2016	499	0.27	0.21	0.06	1.0
				11/6/2017	626	0.20	0.19	0.01	1.0
				8/9/2013	626	0.20	0.19	0.00	1.0
0496-AI	489,603	1,534,650	1	3/27/2017	65	0.16	0.20	-0.04	1.0
				2/6/2013	319	0.12	0.32	-0.20	1.0
				8/16/2013	456	0.13	0.37	-0.24	1.0
0497-AI	489,503	1,535,039	1	2/12/2014	168	0.89	0.65	0.24	1.0
				9/4/2014	319	0.86	0.47	0.39	1.0
				2/26/2015	456	0.75	0.41	0.33	1.0
				2/17/2016	528	0.83	0.41	0.43	1.0
				3/27/2017	556	0.77	0.40	0.36	1.0
				2/6/2013	683	0.80	0.39	0.41	1.0
				8/16/2013	722	0.81	0.38	0.42	1.0
				2/12/2014	1159	0.60	0.31	0.28	1.0
				9/4/2014	1536	0.53	0.25	0.28	1.0
				2/26/2015	1638	0.52	0.24	0.28	1.0
0498-AI	488,953	1,534,661	1	2/11/2016	319	0.50	0.50	0.01	1.0
				3/27/2017	528	0.52	0.50	0.02	1.0
				2/6/2013	891	0.21	0.46	-0.25	1.0
				8/16/2013	1283	0.35	0.41	-0.06	1.0
				2/12/2014	1696	0.33	0.33	0.00	1.0
0522-AI	492,437	1,538,640	1	4/2/2014	134	0.51	0.59	-0.08	1.0
				12/28/2016	394	0.79	0.55	0.23	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
0531-AI	478,262	1,541,086	1	6/30/2017	1017	0.10	0.07	0.04	1.0
0532-AI	482,400	1,518,700	1	3/7/2013	80	0.00	-1.00	1.00	1.0
				4/2/2014	660	0.00	-1.00	1.00	1.0
				6/30/2017	1003	0.01	-1.00	1.01	1.0
				11/24/2013	1445	0.01	-1.00	1.01	1.0
0538-AI	486,899	1,533,486	1	7/30/2014	77	0.17	0.20	-0.02	1.0
				4/23/2015	456	0.21	0.19	0.02	1.0
				5/6/2015	564	0.22	0.19	0.03	1.0
				6/17/2015	1318	0.20	0.18	0.03	1.0
0540-AI	488,091	1,534,125	1	4/6/2016	123	0.48	0.47	0.01	1.0
				7/24/2016	318	0.49	0.45	0.03	1.0
				10/22/2016	641	0.11	0.34	-0.23	1.0
				12/1/2016	864	0.05	0.19	-0.14	1.0
				3/20/2017	1215	0.02	0.10	-0.08	1.0
				7/11/2017	1312	0.14	0.10	0.05	1.0
				12/13/2017	1770	0.10	0.11	-0.01	1.0
0541-AI	477,236	1,539,831	1	12/19/2014	221	0.10	0.12	-0.02	1.0
				12/12/2014	933	0.10	0.11	-0.01	1.0
				12/21/2016	1459	0.09	0.09	0.01	1.0
0551-AI	479,880	1,536,272	1	10/6/2017	37	0.04	0.04	0.01	1.0
				7/1/2015	221	0.05	0.04	0.01	1.0
				7/1/2015	410	0.05	0.04	0.01	1.0
				10/11/2014	604	0.04	0.04	0.00	1.0
				8/2/2016	781	0.04	0.04	0.01	1.0
				9/4/2014	1137	0.03	0.04	0.00	1.0
				8/2/2016	1515	0.03	0.04	-0.01	1.0
				11/14/2017	1547	0.03	0.04	-0.01	1.0
0553-AI	480,563	1,534,923	1	2/7/2013	37	0.02	0.02	0.00	1.0
				8/9/2013	221	0.02	0.02	0.00	1.0
				8/28/2014	410	0.03	0.02	0.00	1.0
				9/14/2017	604	0.02	0.02	0.00	1.0
				2/7/2013	781	0.03	0.02	0.01	1.0
				3/7/2013	1137	0.03	0.02	0.00	1.0
				8/16/2013	1546	0.03	0.02	0.01	1.0
0554-AI	479,107	1,534,967	1	4/2/2014	37	0.02	0.02	0.00	1.0
				3/5/2015	221	0.02	0.02	0.00	1.0
				2/23/2016	410	0.02	0.02	0.00	1.0
				3/15/2017	781	0.02	0.02	0.00	1.0
				2/7/2013	1546	0.02	0.02	0.00	1.0
				8/16/2013	36	0.08	0.08	0.00	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
0555-AI	486,236	1,538,572	1	2/26/2014	227	0.09	0.08	0.01	1.0
				9/4/2014	408	0.07	0.08	-0.01	1.0
				3/18/2015	611	0.05	0.09	-0.03	1.0
				2/12/2016	787	0.08	0.09	-0.01	1.0
				3/27/2017	1143	0.08	0.09	-0.01	1.0
				6/18/2013	1546	0.07	0.09	-0.02	1.0
0556-AI	486,184	1,538,006	1	11/15/2013	36	0.06	0.07	0.00	1.0
				7/19/2014	227	0.06	0.07	0.00	1.0
				8/2/2016	408	0.07	0.07	-0.01	1.0
				6/10/2015	611	0.07	0.08	-0.01	1.0
				11/14/2017	787	0.06	0.08	-0.02	1.0
				5/14/2013	1137	0.31	0.09	0.22	1.0
				8/9/2013	1546	0.07	0.09	-0.03	1.0
0557-AI	486,000	1,537,204	1	2/7/2013	36	0.05	0.05	0.00	1.0
				10/30/2013	228	0.05	0.05	0.00	1.0
				2/26/2014	408	0.06	0.05	0.00	1.0
				8/27/2014	611	0.05	0.05	0.00	1.0
				2/20/2015	787	0.05	0.05	0.00	1.0
				2/21/2017	1137	0.05	0.05	0.00	1.0
				4/23/2015	1546	0.05	0.05	0.00	1.0
0631-AI	483,756	1,532,234	1	5/6/2015	65	0.09	0.08	0.01	1.0
				6/17/2015	456	0.12	0.09	0.03	1.0
				8/20/2015	1457	0.15	0.09	0.07	1.0
				9/30/2015	1641	0.16	0.09	0.07	1.0
0632-AI	483,767	1,531,850	1	2/19/2016	65	0.09	0.07	0.01	1.0
				2/24/2016	456	0.09	0.08	0.01	1.0
				4/6/2016	1641	0.13	0.09	0.05	1.0
0634-AI	480,362	1,541,652	1	7/24/2016	327	0.26	0.25	0.01	1.0
				10/22/2016	575	0.25	0.21	0.04	1.0
				3/20/2017	842	0.23	0.17	0.06	1.0
				3/19/2013	855	0.27	0.17	0.09	1.0
				3/27/2015	897	0.24	0.17	0.07	1.0
				10/14/2015	961	0.25	0.16	0.08	1.0
				12/12/2014	1002	0.25	0.16	0.09	1.0
				12/21/2016	1106	0.22	0.16	0.07	1.0
				10/6/2017	1145	0.19	0.15	0.04	1.0
				3/5/2013	1192	0.19	0.14	0.05	1.0
				10/30/2013	1300	0.22	0.12	0.09	1.0
				3/20/2014	1391	0.19	0.10	0.08	1.0
				3/13/2015	1431	0.15	0.10	0.05	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				3/17/2016	1539	0.16	0.10	0.06	1.0
				3/27/2017	1652	0.15	0.11	0.05	1.0
				8/9/2017	1807	0.09	0.11	-0.02	1.0
0636-AI	476,038	1,545,374	1	2/20/2013	718	0.06	0.05	0.01	1.0
0637-AI	474,710	1,545,409	1	4/25/2017	711	0.07	-0.66	0.73	1.0
				2/20/2013	1451	0.06	-0.66	0.72	1.0
				4/25/2017	1739	0.06	-0.66	0.73	1.0
0641-AI	491,110	1,536,494	1	7/1/2015	912	0.03	0.07	-0.05	1.0
0642-AI	490,932	1,536,104	1	3/5/2013	912	0.07	0.13	-0.06	1.0
0644-AI	485,450	1,533,481	1	3/19/2014	649	0.06	0.15	-0.10	1.0
				3/19/2014	1310	0.04	0.09	-0.05	1.0
0646-AI	484,952	1,533,246	1	9/9/2014	611	0.08	0.11	-0.04	1.0
				3/20/2015	1310	0.05	0.11	-0.06	1.0
				8/7/2015	1778	0.05	0.08	-0.03	1.0
0647-AI	478,308	1,536,623	1	3/16/2016	37	0.05	0.04	0.00	1.0
				9/9/2016	221	0.04	0.04	0.00	1.0
				3/14/2017	604	0.04	0.04	0.00	1.0
				8/9/2017	1717	0.08	0.04	0.04	1.0
0649-AI	479,798	1,534,730	1	2/6/2013	37	0.03	0.02	0.00	1.0
				8/16/2013	66	0.02	0.02	0.00	1.0
				2/26/2014	228	0.02	0.02	0.00	1.0
				9/4/2014	457	0.03	0.02	0.01	1.0
				2/26/2015	793	0.03	0.02	0.01	1.0
				2/20/2016	1148	0.03	0.02	0.01	1.0
				3/27/2017	1534	0.03	0.02	0.00	1.0
0650-AI	482,135	1,536,779	1	2/6/2013	38	0.03	-1.00	1.03	1.0
				8/16/2013	228	0.03	-1.00	1.03	1.0
				2/26/2014	422	0.03	-1.00	1.03	1.0
				9/4/2014	612	0.03	-1.00	1.03	1.0
				2/26/2015	806	0.03	-1.00	1.03	1.0
				2/20/2016	1138	0.03	-1.00	1.03	1.0
				3/27/2017	1546	0.03	-1.00	1.03	1.0
0653-AI	486,570	1,533,283	1	2/20/2013	169	0.28	0.22	0.06	1.0
				2/20/2013	319	0.28	0.18	0.10	1.0
				10/30/2013	564	0.26	0.16	0.10	1.0
				2/26/2014	1310	0.27	0.13	0.14	1.0
0654-AI	478,636	1,541,994	1	2/12/2016	891	0.10	0.11	-0.01	1.0
				3/27/2017	1778	0.12	0.12	-0.01	1.0
0657-AI	478,392	1,537,497	1	8/9/2017	134	0.06	0.06	0.00	1.0
				7/1/2015	221	0.06	0.06	0.00	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
0658-AI	478,436	1,535,922	1	5/4/2013	37	0.01	0.02	-0.01	1.0
				1/29/2014	302	0.01	0.02	-0.01	1.0
				6/12/2014	421	0.01	0.02	-0.01	1.0
				10/18/2014	604	0.01	0.02	0.00	1.0
				5/15/2015	781	0.02	0.02	0.00	1.0
				5/7/2016	1512	0.01	0.02	0.00	1.0
0659-AI	480,772	1,541,689	1	8/5/2016	842	0.27	0.18	0.08	1.0
				10/25/2016	856	0.30	0.18	0.12	1.0
				12/1/2016	897	0.28	0.18	0.10	1.0
				3/21/2017	962	0.27	0.17	0.10	1.0
				2/26/2013	1002	0.28	0.17	0.11	1.0
				8/21/2015	1145	0.26	0.16	0.10	1.0
				8/10/2016	1149	0.25	0.16	0.09	1.0
				8/18/2017	1192	0.25	0.16	0.09	1.0
				10/18/2014	1300	0.22	0.15	0.07	1.0
				5/15/2015	1391	0.21	0.14	0.06	1.0
				8/21/2015	1539	0.19	0.14	0.06	1.0
0681-AI	482,734	1,540,676	1	4/29/2016	77	0.05	0.05	0.00	1.0
				8/5/2016	816	0.05	0.05	0.00	1.0
0684-AI	478,499	1,540,273	1	5/4/2013	1017	0.09	0.05	0.04	1.0
0686-AI	475,438	1,545,319	1	8/6/2014	711	0.06	0.07	-0.01	1.0
				9/12/2014	1451	0.06	0.06	0.00	1.0
				10/18/2014	1739	0.06	0.06	0.00	1.0
0688-AI	483,954	1,541,257	1	10/22/2014	63	0.06	0.05	0.00	1.0
				11/14/2014	303	0.06	0.05	0.01	1.0
				12/24/2014	444	0.06	0.05	0.01	1.0
				8/21/2015	802	0.04	0.05	0.00	1.0
				8/5/2016	1171	0.05	0.05	0.01	1.0
				12/1/2016	1546	0.05	0.05	0.00	1.0
				3/21/2017	1681	0.04	0.05	-0.01	1.0
0690-AI	493,465	1,540,279	1	8/17/2017	51	0.12	0.15	-0.02	1.0
				7/1/2015	1575	0.12	0.14	-0.02	1.0
0691-AI	493,860	1,540,276	1	3/19/2013	51	0.02	0.02	-0.01	1.0
				6/18/2013	1575	0.02	-0.28	0.30	1.0
0692-AI	493,175	1,535,892	1	7/19/2014	911	0.06	0.02	0.03	1.0
0802-AI	488,277	1,540,765	1	2/9/2013	63	0.23	0.21	0.02	1.0
				10/31/2013	442	0.19	0.15	0.04	1.0
				2/12/2014	442	0.19	0.15	0.04	1.0
				8/27/2014	617	0.18	0.12	0.05	1.0
				2/27/2015	808	0.10	0.10	-0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
[illegible]	[illegible]	[illegible]	[illegible]	2/19/2016	948	0.15	0.10	0.06	1.0
				2/23/2017	1170	0.16	0.08	0.08	1.0
				2/12/2013	1348	0.11	0.08	0.03	1.0
				8/9/2013	1533	0.10	0.07	0.03	1.0
				2/12/2014	1681	0.21	0.07	0.14	1.0
0844-AI	487,002	1,538,376	1	8/9/2013	36	0.13	0.15	-0.02	1.0
				2/12/2014	227	0.12	0.15	-0.03	1.0
				8/6/2014	421	0.11	0.14	-0.03	1.0
				2/27/2015	611	0.12	0.13	-0.01	1.0
				2/19/2016	786	0.09	0.12	-0.03	1.0
				3/27/2017	1145	0.09	0.11	-0.02	1.0
				8/9/2013	1546	0.10	0.10	0.00	1.0
0845-AI	487,833	1,537,280	1	10/23/2014	36	0.07	0.06	0.01	1.0
				3/29/2017	228	0.08	0.06	0.02	1.0
				10/4/2017	421	0.08	0.06	0.02	1.0
				2/9/2013	611	0.07	0.06	0.01	1.0
				11/16/2013	786	0.08	0.06	0.02	1.0
				2/12/2014	1146	0.07	0.06	0.01	1.0
				10/17/2014	1546	0.08	0.06	0.02	1.0
0846-AI	484,730	1,537,219	1	2/27/2015	50	0.10	0.11	-0.01	1.0
				2/19/2016	50	0.09	0.11	-0.02	1.0
				7/8/2016	303	0.06	0.10	-0.04	1.0
				3/3/2017	421	0.07	0.10	-0.03	1.0
				11/9/2017	611	0.06	0.10	-0.04	1.0
				3/20/2013	806	0.06	0.09	-0.04	1.0
				10/17/2014	911	0.06	0.09	-0.03	1.0
				3/25/2015	962	0.06	0.09	-0.03	1.0
				3/20/2013	1137	0.08	0.09	0.00	1.0
				8/9/2013	1546	0.06	0.08	-0.02	1.0
				3/25/2015	1681	0.06	0.08	-0.02	1.0
0852-AI	493,989	1,535,610	1	2/10/2016	911	0.02	0.02	0.00	1.0
0862-AI	487,800	1,534,265	1	5/6/2015	124	0.29	0.31	-0.02	1.0
				6/17/2015	394	0.27	0.35	-0.08	1.0
				8/20/2015	528	0.29	0.36	-0.07	1.0
				9/30/2015	655	0.18	0.30	-0.12	1.0
				1/12/2016	865	0.19	0.17	0.02	1.0
				2/19/2016	1222	0.13	0.10	0.02	1.0
				4/6/2016	1312	0.10	0.10	-0.01	1.0
				7/24/2016	1393	0.11	0.10	0.01	1.0
				10/22/2016	1431	0.10	0.10	0.00	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				5/17/2017	1540	0.09	0.09	0.00	1.0
0864-AI	486,464	1,533,735	1	7/11/2017	57	0.23	0.20	0.03	1.0
				12/13/2017	962	0.26	0.16	0.09	1.0
				2/20/2013	1317	0.19	0.15	0.04	1.0
				4/25/2017	1690	0.17	0.16	0.01	1.0
0865-AI	488,429	1,534,123	1	2/12/2013	655	0.17	0.20	-0.03	1.0
				8/9/2013	864	0.10	0.17	-0.07	1.0
				2/12/2014	962	0.07	0.14	-0.07	1.0
				8/27/2014	1215	0.05	0.14	-0.08	1.0
				3/13/2015	1312	0.06	0.15	-0.08	1.0
0866-AI	488,340	1,534,494	1	2/20/2016	123	0.66	0.57	0.09	1.0
				3/14/2017	583	0.64	0.54	0.10	1.0
				6/10/2015	620	0.60	0.52	0.08	1.0
				10/3/2017	655	0.56	0.50	0.07	1.0
				12/12/2013	660	0.59	0.49	0.09	1.0
				10/23/2014	683	0.52	0.48	0.04	1.0
				10/1/2015	722	0.46	0.46	0.00	1.0
				2/26/2014	962	0.61	0.39	0.22	1.0
				9/19/2014	1312	0.60	0.35	0.25	1.0
				10/23/2014	1431	0.45	0.30	0.15	1.0
				3/5/2015	1540	0.36	0.28	0.08	1.0
				4/14/2016	1689	0.34	0.29	0.06	1.0
0868-AI	491,033	1,534,848	1	10/7/2016	911	0.07	0.04	0.02	1.0
0869-AI	486,073	1,533,251	1	3/3/2017	77	0.28	0.24	0.04	1.0
				8/10/2017	169	0.29	0.23	0.06	1.0
				10/8/2014	564	0.28	0.18	0.10	1.0
0881-AI	481,478	1,542,034	1	10/8/2014	39	0.37	0.35	0.02	1.0
				10/23/2014	303	0.34	0.31	0.03	1.0
				12/11/2017	407	0.28	0.30	-0.02	1.0
				10/23/2014	603	0.33	0.29	0.04	1.0
				12/12/2013	787	0.35	0.30	0.05	1.0
				10/14/2015	1144	0.31	0.32	-0.01	1.0
				4/5/2013	1514	0.23	0.32	-0.09	1.0
0882-AI	482,396	1,541,404	1	10/31/2013	43	0.05	0.05	0.00	1.0
				3/28/2014	220	0.06	0.05	0.01	1.0
				10/2/2014	407	0.06	0.05	0.01	1.0
				4/10/2015	603	0.06	0.05	0.01	1.0
				10/20/2015	787	0.07	0.05	0.02	1.0
				8/24/2017	1144	0.06	0.05	0.01	1.0
				8/9/2013	1534	0.06	0.05	0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
0884-AI	481,498	1,542,677	1	12/16/2016	39	0.04	0.04	0.00	1.0
				10/4/2017	220	0.04	0.05	-0.01	1.0
				3/21/2013	407	0.03	0.05	-0.02	1.0
				10/23/2014	583	0.03	0.06	-0.02	1.0
				10/1/2015	787	0.04	0.06	-0.03	1.0
				12/16/2016	1144	0.03	0.08	-0.05	1.0
				9/30/2016	1546	0.02	0.11	-0.09	1.0
0885-AI	483,474	1,541,919	1	9/19/2017	220	0.11	0.09	0.02	1.0
				1/23/2013	661	0.13	0.15	-0.02	1.0
				1/29/2014	1548	0.07	0.24	-0.16	1.0
				2/5/2015	1737	0.07	0.23	-0.16	1.0
0886-AI	482,487	1,542,327	1	1/22/2016	39	0.31	0.35	-0.05	1.0
				1/24/2017	319	0.63	0.39	0.23	1.0
				9/30/2016	407	0.16	0.39	-0.24	1.0
				3/22/2017	654	0.22	0.39	-0.17	1.0
				2/20/2013	787	0.23	0.39	-0.16	1.0
				6/26/2014	1144	0.32	0.39	-0.07	1.0
				2/20/2015	1285	0.32	0.39	-0.07	1.0
				3/22/2017	1522	0.29	0.40	-0.10	1.0
				2/20/2013	1773	0.35	0.40	-0.05	1.0
0887-AI	482,469	1,543,063	1	6/26/2014	78	0.03	0.03	0.00	1.0
				2/20/2015	654	0.07	0.04	0.03	1.0
				3/22/2017	814	0.03	0.04	-0.01	1.0
0888-AI	479,335	1,542,285	1	1/23/2013	78	0.17	0.15	0.02	1.0
				1/29/2014	221	0.20	0.12	0.07	1.0
				2/5/2015	814	0.18	0.13	0.05	1.0
				1/21/2016	1135	0.17	0.14	0.03	1.0
				1/16/2017	1547	0.14	0.12	0.02	1.0
				1/17/2013	1739	0.13	0.17	-0.04	1.0
0890-AI	480,088	1,541,365	1	1/29/2014	121	0.27	0.23	0.04	1.0
				2/4/2015	576	0.21	0.12	0.08	1.0
				1/21/2016	842	0.18	0.08	0.10	1.0
				1/16/2017	855	0.21	0.07	0.13	1.0
				1/22/2013	897	0.18	0.07	0.11	1.0
				1/29/2014	961	0.19	0.07	0.12	1.0
				2/5/2015	1002	0.20	0.07	0.14	1.0
				1/22/2016	1106	0.14	0.06	0.08	1.0
				1/24/2017	1145	0.15	0.06	0.09	1.0
				1/17/2013	1192	0.14	0.06	0.07	1.0
				1/28/2014	1300	0.16	0.06	0.10	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				2/5/2015	1391	0.11	0.06	0.05	1.0
				1/21/2016	1597	0.05	0.05	0.00	1.0
				1/16/2017	1652	0.12	0.05	0.07	1.0
				1/17/2013	1807	0.06	0.06	0.00	1.0
0891-AI	493,751	1,540,904	1	2/21/2013	51	0.05	-0.39	0.45	1.0
				1/29/2014	1575	0.20	-1.00	1.20	1.0
0893-AI	482,244	1,541,934	1	2/4/2015	43	0.19	0.20	-0.01	1.0
				1/21/2016	220	0.18	0.23	-0.05	1.0
				1/16/2017	407	0.31	0.26	0.05	1.0
				1/17/2013	604	0.22	0.28	-0.07	1.0
				1/28/2014	802	0.23	0.28	-0.05	1.0
				2/5/2015	1145	0.11	0.26	-0.15	1.0
				1/21/2016	1533	0.08	0.26	-0.18	1.0
0899-AI	477,288	1,543,801	1	1/16/2017	891	0.12	0.06	0.06	1.0
				12/10/2013	1736	0.07	0.05	0.02	1.0
0910-AI	481,150	1,528,800	1	10/11/2014	346	0.01	0.02	-0.01	1.0
				10/24/2015	660	0.01	0.02	-0.01	1.0
				12/20/2016	1003	0.01	0.02	-0.01	1.0
0920-AI	496,900	1,555,800	1	11/30/2017	422	0.23	0.23	0.00	1.0
				11/24/2013	627	0.22	0.23	-0.02	1.0
				5/2/2017	660	0.23	0.23	0.00	1.0
				6/13/2015	794	0.23	0.23	0.00	1.0
				5/2/2017	1199	0.24	0.23	0.01	1.0
				5/15/2013	1375	0.22	0.23	-0.02	1.0
				6/26/2014	1522	0.20	0.23	-0.04	1.0
				2/6/2015	1682	0.23	0.23	0.00	1.0
0921-AI	495,800	1,555,400	1	3/19/2016	646	0.22	0.22	0.00	1.0
				11/13/2017	646	0.22	0.22	0.00	1.0
				5/15/2013	661	0.22	0.22	0.00	1.0
				2/6/2015	1805	0.21	0.22	-0.01	1.0
0922-AI	492,500	1,555,200	1	3/28/2017	661	0.00	0.00	0.00	1.0
0935-AI	476,629	1,540,115	1	6/13/2015	346	0.14	0.12	0.02	1.0
				5/2/2017	1017	0.11	0.12	0.00	1.0
0994-AI	476,240	1,539,700	1	9/30/2014	94	0.01	0.01	0.00	1.0
				4/1/2015	303	0.01	0.01	0.00	1.0
				6/12/2015	451	0.01	0.01	0.00	1.0
				10/2/2015	639	0.01	0.01	-0.01	1.0
				3/16/2016	829	0.01	0.02	-0.01	1.0
				3/21/2017	1022	0.01	0.02	-0.01	1.0
				3/31/2017	1696	0.01	0.03	-0.03	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
0996-AI	477,989	1,537,621	1	9/20/2017	221	0.08	0.06	0.02	1.0
				4/2/2014	1446	0.08	0.06	0.02	1.0
				9/30/2014	1737	0.07	0.06	0.02	1.0
0999-AI	480,187	1,524,230	1	3/16/2016	80	0.00	-0.78	0.78	1.0
				3/31/2017	660	0.00	-0.78	0.78	1.0
				3/8/2013	1003	0.01	-0.78	0.79	1.0
				10/31/2013	1445	0.01	-0.78	0.79	1.0
1F-AI	493,831	1,544,952	1	3/27/2014	1368	1.00	0.92	0.07	1.0
				9/30/2014	1722	1.12	0.62	0.50	1.0
1J-AI	493,695	1,541,986	1	4/1/2015	22	0.03	-1.00	1.03	1.0
				6/12/2015	394	0.08	-1.00	1.08	1.0
				10/2/2015	766	0.01	-1.00	1.01	1.0
				3/16/2016	1117	0.00	-1.00	1.00	1.0
				9/30/2016	1484	0.03	-1.00	1.03	1.0
1M-AI	493,133	1,541,327	1	3/31/2017	1368	0.18	0.12	0.06	1.0
				3/8/2013	1541	0.14	0.12	0.02	1.0
1N-AI	494,396	1,543,100	1	11/1/2013	51	0.07	-1.00	1.07	1.0
				3/27/2014	542	0.07	-1.00	1.07	1.0
				9/30/2014	781	0.08	-1.00	1.08	1.0
				4/1/2015	1541	0.06	-1.00	1.06	1.0
1P-AI	493,924	1,541,902	1	6/12/2015	51	0.09	-1.00	1.09	1.0
				10/2/2015	542	0.59	-1.00	1.59	1.0
				3/16/2016	781	0.22	-1.00	1.22	1.0
				3/31/2017	1541	0.15	-1.00	1.15	1.0
1Q-AI	493,619	1,541,993	1	9/20/2017	22	1.46	-1.00	2.46	1.0
				11/15/2013	393	0.56	-1.00	1.56	1.0
				6/12/2014	766	0.13	-0.31	0.44	1.0
				9/10/2014	1115	0.15	-1.00	1.15	1.0
				7/30/2015	1476	0.09	-1.00	1.09	1.0
1R-AI	493,623	1,542,071	1	7/6/2016	17	0.01	-1.00	1.01	1.0
				12/2/2016	393	0.10	-1.00	1.10	1.0
				3/5/2013	765	0.12	-0.66	0.78	1.0
				3/5/2013	1115	0.15	-1.00	1.15	1.0
				7/9/2013	1476	0.10	-1.00	1.10	1.0
1S-AI	493,614	1,541,920	1	3/19/2014	21	0.02	-1.00	1.02	1.0
				7/11/2014	394	0.08	-1.00	1.08	1.0
				7/24/2014	766	0.01	-0.29	0.30	1.0
				3/18/2015	1117	0.00	-1.00	1.00	1.0
				7/16/2015	1484	0.02	-1.00	1.02	1.0
				3/16/2016	16	0.36	-1.00	1.36	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
1T-AI	493,656	1,541,990	1	7/12/2016	392	0.05	-1.00	1.05	1.0
				3/20/2017	766	0.16	-1.00	1.16	1.0
				6/28/2017	1115	0.15	-1.00	1.15	1.0
				6/19/2014	1476	0.07	-1.00	1.07	1.0
1U-AI	493,542	1,542,001	1	6/12/2015	17	0.99	-1.00	1.99	1.0
				5/2/2017	51	1.62	-1.00	2.62	1.0
				6/10/2015	393	0.30	-1.00	1.30	1.0
				6/27/2017	765	0.25	0.68	-0.43	1.0
				2/12/2013	1115	0.24	-0.33	0.57	1.0
				5/2/2013	1476	0.19	-1.00	1.19	1.0
1V-AI	493,579	1,541,982	1	10/31/2013	16	2.21	-1.00	3.21	1.0
				11/23/2013	393	0.21	-1.00	1.21	1.0
				2/19/2014	766	0.39	0.68	-0.29	1.0
				5/15/2014	1115	0.22	-1.00	1.22	1.0
				8/6/2014	1476	0.21	-1.00	1.21	1.0
AW-AI	488,015	1,540,235	1	2/10/2016	344	0.14	0.13	0.01	1.0
				5/18/2016	648	0.12	0.15	-0.03	1.0
				10/8/2016	1027	0.10	0.16	-0.06	1.0
				3/1/2017	1449	0.07	0.16	-0.09	1.0
				5/2/2017	1794	0.10	0.16	-0.06	1.0
B10-AI	491,133	1,542,517	1	5/2/2013	327	30.5	16.00	14.50	1.0
				10/31/2013	1582	7.47	8.47	-1.00	1.0
B11-AI	491,329	1,542,517	1	11/23/2013	893	17.8	9.13	8.67	1.0
				2/12/2014	1582	6.22	6.17	0.05	1.0
B12-AI	488,915	1,542,524	1	5/15/2014	134	0.85	1.47	-0.62	1.0
				8/6/2014	542	2.07	1.14	0.93	1.0
				12/12/2014	767	1.50	0.34	1.16	1.0
				2/5/2015	1174	4.13	0.15	3.98	1.0
				5/1/2015	1777	1.74	0.23	1.51	1.0
B13-AI	490,223	1,541,841	1	8/6/2015	134	1.08	0.48	0.60	1.0
				10/9/2015	767	0.48	0.11	0.36	1.0
				2/10/2016	1547	0.98	0.13	0.85	1.0
B4-AI	489,942	1,542,471	1	5/18/2016	893	20.6	20.68	-0.08	1.0
				10/7/2016	1582	13.6	10.35	3.25	1.0
B5-AI	490,141	1,542,474	1	3/1/2017	893	28.2	13.76	14.44	1.0
				5/3/2017	1581	6.97	10.53	-3.56	1.0
B6-AI	490,341	1,542,478	1	8/8/2017	327	25.6	10.60	15.00	1.0
				10/12/2017	893	6.49	11.88	-5.39	1.0
B7-AI	490,540	1,542,488	1	11/23/2017	170	1.08	12.73	-11.65	1.0
				6/12/2015	327	31.2	14.95	16.25	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
[illegible]	[illegible]	[illegible]	1	6/12/2015	893	6.13	15.54	-9.41	1.0
				6/12/2015	1582	7.14	14.45	-7.31	1.0
B8-AI	490,734	1,542,488	1	6/10/2015	893	13.4	18.01	-4.61	1.0
				6/27/2017	1582	6.54	14.72	-8.18	1.0
B9-AI	490,935	1,542,514	1	3/6/2013	893	8.78	15.20	-6.42	1.0
				10/30/2013	1581	9.82	11.00	-1.18	1.0
B-AI	489,311	1,541,684	1	3/19/2014	534	0.11	0.06	0.05	1.0
				9/16/2014	872	0.08	0.04	0.04	1.0
BC-AI	487,910	1,543,655	1	3/18/2015	534	1.20	0.61	0.59	1.0
				9/26/2015	871	0.92	0.34	0.58	1.0
				9/26/2015	1638	1.16	0.17	0.99	1.0
C10-AI	491,629	1,542,182	1	3/16/2016	66	11.0	9.86	1.14	1.0
				9/20/2016	304	5.80	8.61	-2.81	1.0
				3/17/2017	451	9.72	7.96	1.76	1.0
				11/14/2017	638	2.20	7.26	-5.06	1.0
				3/6/2013	820	3.37	6.87	-3.50	1.0
				11/2/2013	892	7.36	6.69	0.67	1.0
				3/20/2014	1004	6.50	6.33	0.17	1.0
				9/16/2014	1170	6.90	5.80	1.10	1.0
				3/18/2015	1369	6.88	4.82	2.06	1.0
				8/7/2015	1550	7.56	1.48	6.08	1.0
C11-AI	491,844	1,542,376	1	9/26/2015	66	7.46	7.56	-0.10	1.0
				3/16/2016	457	8.02	7.56	0.46	1.0
				9/20/2016	637	0.80	7.30	-6.51	1.0
				3/17/2017	821	2.95	6.95	-4.00	1.0
				11/14/2017	892	7.49	6.75	0.74	1.0
				3/6/2013	1004	3.02	6.37	-3.35	1.0
				11/2/2013	1369	5.00	4.83	0.17	1.0
				3/19/2014	1550	8.11	1.18	6.93	1.0
				9/19/2014	1723	6.54	0.52	6.02	1.0
C12-AI	492,029	1,542,375	1	3/13/2015	66	6.46	6.14	0.32	1.0
				8/7/2015	305	3.80	6.81	-3.01	1.0
				3/16/2016	451	8.96	6.91	2.05	1.0
				9/20/2016	820	3.17	5.63	-2.46	1.0
				3/17/2017	892	7.37	5.37	2.00	1.0
				11/14/2017	1004	2.31	4.93	-2.62	1.0
				3/6/2013	1170	3.48	4.31	-0.83	1.0
				3/11/2015	1369	2.36	3.55	-1.19	1.0
				8/19/2015	1550	3.29	0.97	2.32	1.0
				3/16/2016	1723	5.71	0.42	5.29	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
C6-AI	491,142	1,541,533	1	3/20/2017	66	0.88	1.14	-0.26	1.0
				8/14/2017	304	3.10	1.81	1.29	1.0
				10/2/2015	451	1.06	1.94	-0.88	1.0
				12/22/2016	638	0.71	1.77	-1.06	1.0
				9/20/2017	820	0.81	1.97	-1.16	1.0
				1/16/2013	892	0.63	2.27	-1.64	1.0
				11/1/2013	1005	0.53	2.66	-2.13	1.0
				1/28/2014	1170	1.04	2.73	-1.69	1.0
				9/18/2014	1540	0.70	1.87	-1.18	1.0
				2/5/2015	1550	0.81	1.86	-1.05	1.0
				6/12/2015	1723	2.07	1.72	0.35	1.0
C7-AI	491,280	1,541,734	1	7/17/2015	457	8.00	8.90	-0.90	1.0
				1/19/2016	638	12.3	8.16	4.14	1.0
				1/6/2017	820	7.74	7.89	-0.15	1.0
				3/31/2017	892	9.26	7.95	1.31	1.0
				11/7/2017	1005	8.53	7.88	0.65	1.0
				1/16/2013	1170	7.06	7.32	-0.26	1.0
				11/1/2013	1550	3.50	4.62	-1.12	1.0
C8-AI	491,415	1,541,906	1	1/28/2014	66	11.0	9.82	1.18	1.0
				9/18/2014	303	6.80	9.13	-2.33	1.0
				6/12/2015	451	12.1	8.67	3.43	1.0
				7/17/2015	638	0.80	8.18	-7.38	1.0
				1/19/2016	820	9.22	7.88	1.34	1.0
				1/6/2017	892	1.89	7.72	-5.83	1.0
				3/31/2017	1005	0.88	7.42	-6.54	1.0
				7/18/2017	1170	3.40	6.83	-3.43	1.0
				11/7/2017	1369	0.50	5.65	-5.15	1.0
				11/7/2013	1550	3.51	4.45	-0.94	1.0
C9-AI	491,545	1,542,075	1	1/16/2013	66	6.79	9.00	-2.21	1.0
				1/28/2014	304	5.90	8.82	-2.92	1.0
				9/18/2014	451	6.56	8.28	-1.72	1.0
				2/5/2015	638	10.00	7.76	2.24	1.0
				6/12/2015	820	8.36	7.43	0.93	1.0
				7/17/2015	892	9.18	7.23	1.95	1.0
				1/21/2016	1005	10.1	6.87	3.23	1.0
				7/19/2016	1170	7.70	6.32	1.38	1.0
				1/6/2017	1550	5.70	3.72	1.98	1.0
				3/31/2017	1723	3.85	2.64	1.21	1.0
				5/16/2013	319	0.32	0.31	0.01	1.0
				5/16/2013	528	0.30	0.28	0.02	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
CW44-AI	488,891	1,535,048	1	3/25/2015	618	0.26	0.27	-0.01	1.0
				5/16/2013	940	0.25	0.22	0.03	1.0
				3/24/2017	1283	0.27	0.20	0.07	1.0
				5/15/2013	1432	0.22	0.19	0.03	1.0
D1-AI	489,615	1,542,140	1	7/10/2016	64	2.15	2.59	-0.44	1.0
				1/13/2017	64	2.21	2.59	-0.38	1.0
				7/18/2017	189	2.29	2.50	-0.21	1.0
				4/11/2015	443	4.00	2.26	1.74	1.0
				7/30/2015	556	3.60	2.17	1.43	1.0
				1/29/2016	569	3.57	2.15	1.42	1.0
				7/19/2017	806	6.41	2.04	4.37	1.0
				3/5/2013	927	7.32	2.27	5.05	1.0
				7/10/2013	1170	4.00	2.42	1.58	1.0
				3/20/2014	1288	1.38	2.01	-0.63	1.0
				7/11/2014	1539	0.69	1.31	-0.62	1.0
				7/23/2014	1639	0.91	1.28	-0.37	1.0
D2-AI	492,107	1,542,641	1	7/17/2015	534	36.9	5.60	31.30	1.0
DA3-AI	489,390	1,542,664	1	1/29/2016	893	15.7	12.64	3.06	1.0
				1/29/2016	1582	10.7	5.23	5.47	1.0
DC-AI	487,060	1,543,646	1	3/16/2016	891	0.09	0.15	-0.05	1.0
				7/10/2016	1638	0.08	0.15	-0.07	1.0
DD2-AI	489,251	1,547,439	1	3/14/2017	42	0.23	0.19	0.04	1.0
				7/18/2017	122	0.25	0.19	0.06	1.0
				11/13/2017	304	0.23	0.19	0.05	1.0
				11/24/2013	326	0.20	0.19	0.02	1.0
				6/12/2015	415	0.23	0.19	0.04	1.0
				3/23/2017	500	0.23	0.18	0.04	1.0
				4/18/2015	582	0.21	0.18	0.03	1.0
				6/12/2015	710	0.19	0.18	0.01	1.0
				1/20/2016	766	0.23	0.18	0.05	1.0
				1/29/2016	851	0.23	0.18	0.05	1.0
				3/22/2017	947	0.22	0.18	0.04	1.0
				11/13/2017	1011	0.19	0.17	0.02	1.0
				6/12/2015	1135	0.22	0.17	0.05	1.0
				3/22/2017	1233	0.23	0.17	0.06	1.0
				11/9/2017	1377	0.20	0.17	0.03	1.0
				1/16/2013	1520	0.20	0.17	0.02	1.0
				2/11/2014	1582	0.24	0.17	0.07	1.0
				1/29/2015	1680	0.22	0.17	0.05	1.0
				2/6/2015	1745	0.22	0.17	0.05	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				1/26/2016	1766	0.22	0.17	0.05	1.0
				1/29/2016	1787	0.21	0.17	0.05	1.0
DD-AI	488,943	1,546,989	1	1/17/2017	42	0.14	0.13	0.01	1.0
				11/13/2017	122	0.16	0.13	0.03	1.0
				5/16/2013	304	0.16	0.13	0.03	1.0
				5/29/2014	326	0.14	0.13	0.01	1.0
				5/20/2015	407	0.14	0.13	0.01	1.0
				5/3/2017	500	0.16	0.13	0.03	1.0
				5/29/2014	582	0.14	0.12	0.01	1.0
				5/20/2015	710	0.13	0.12	0.00	1.0
				5/3/2017	766	0.14	0.12	0.02	1.0
				6/12/2015	851	0.15	0.12	0.03	1.0
				1/16/2013	947	0.15	0.12	0.03	1.0
				1/16/2013	1011	0.11	0.12	-0.01	1.0
				11/24/2013	1135	0.14	0.12	0.02	1.0
				6/12/2015	1233	0.14	0.12	0.02	1.0
				1/26/2016	1376	0.08	0.12	-0.04	1.0
				1/24/2017	1520	0.10	0.12	-0.02	1.0
				3/23/2017	1583	0.14	0.12	0.02	1.0
				5/1/2013	1680	0.10	0.12	-0.02	1.0
				10/26/2017	1745	0.11	0.12	0.00	1.0
				5/1/2013	1787	0.10	0.12	-0.02	1.0
DQ-AI	491,005	1,542,591	1	11/6/2013	893	0.45	12.38	-11.94	1.0
DR-AI	489,966	1,542,884	1	5/29/2014	893	17.2	11.96	5.24	1.0
DT-AI	489,293	1,542,871	1	5/13/2015	893	4.78	11.26	-6.48	1.0
DZ-AI	491,501	1,542,834	1	10/21/2015	890	40.9	8.03	32.87	1.0
				10/27/2016	1638	49.6	8.21	41.39	1.0
F-AI	489,554	1,539,908	1	6/1/2017	64	0.05	0.05	0.00	1.0
				5/1/2013	303	0.05	0.05	0.00	1.0
				11/6/2013	443	0.06	0.05	0.01	1.0
				5/29/2014	624	0.05	0.05	0.00	1.0
				4/15/2015	807	0.05	0.05	0.00	1.0
				11/4/2015	998	0.05	0.05	0.00	1.0
				6/2/2017	998	0.05	0.05	0.00	1.0
				10/26/2017	1171	0.05	0.05	0.00	1.0
				11/24/2013	1359	0.04	0.05	-0.01	1.0
				6/12/2015	1536	0.04	0.04	0.00	1.0
				3/22/2017	1778	0.05	0.04	0.00	1.0
				5/29/2014	64	0.07	0.06	0.01	1.0
				5/13/2015	305	0.06	0.06	0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
FB-AI	488,857	1,540,417	1	5/3/2017	444	0.06	0.05	0.01	1.0
				1/17/2013	624	0.06	0.05	0.01	1.0
				2/11/2014	807	0.05	0.05	0.00	1.0
				2/6/2015	949	0.05	0.05	0.01	1.0
				1/29/2016	998	0.05	0.05	0.01	1.0
				1/16/2017	1171	0.05	0.04	0.01	1.0
				11/20/2014	1359	0.05	0.04	0.00	1.0
				7/29/2015	1536	0.04	0.04	-0.01	1.0
				8/3/2017	1778	0.04	0.04	0.00	1.0
GH-AI	489,509	1,538,807	1	11/13/2014	64	0.11	0.09	0.02	1.0
				7/28/2015	305	0.10	0.08	0.02	1.0
				3/29/2017	443	0.10	0.08	0.02	1.0
				5/2/2013	627	0.09	0.08	0.00	1.0
				11/13/2014	801	0.09	0.08	0.01	1.0
				7/28/2015	949	0.08	0.08	0.01	1.0
				11/26/2014	1170	0.08	0.08	0.01	1.0
				11/26/2014	1359	0.07	0.08	0.00	1.0
				6/10/2015	1536	0.06	0.07	-0.01	1.0
				11/26/2014	1778	0.06	0.07	-0.01	1.0
GN-AI	490,944	1,538,602	1	5/16/2015	65	0.08	0.07	0.01	1.0
				11/13/2014	800	0.08	0.06	0.01	1.0
				5/15/2015	961	0.08	0.06	0.02	1.0
				11/13/2014	1171	0.09	0.06	0.02	1.0
				5/16/2015	1539	0.05	0.06	-0.01	1.0
				11/13/2014	1686	0.04	0.06	-0.02	1.0
GV-AI	491,428	1,537,701	1	5/16/2015	1005	0.24	0.05	0.18	1.0
				11/9/2017	1451	0.18	0.05	0.13	1.0
				6/24/2015	1723	0.15	0.05	0.10	1.0
K10-AI	491,638	1,541,305	1	12/11/2017	15	0.68	0.68	0.00	1.0
				5/2/2013	305	0.80	1.13	-0.33	1.0
				11/20/2014	393	0.77	1.12	-0.35	1.0
				6/10/2015	625	0.65	0.90	-0.25	1.0
				12/11/2017	766	2.30	0.99	1.31	1.0
				11/20/2014	892	1.46	1.21	0.25	1.0
				6/10/2015	927	2.27	1.25	1.02	1.0
				7/29/2015	1113	1.34	1.31	0.03	1.0
				11/26/2014	1466	2.24	0.84	1.40	1.0
				6/10/2015	1550	0.67	0.72	-0.05	1.0
				11/23/2013	1771	1.01	0.56	0.45	1.0
				11/19/2014	15	0.61	0.60	0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
K11-AI	491,490	1,541,325	1	7/28/2015	305	0.61	1.16	-0.55	1.0
				12/12/2017	393	0.57	1.24	-0.68	1.0
				5/15/2015	625	0.52	1.00	-0.48	1.0
				11/26/2014	892	0.61	1.36	-0.75	1.0
				6/10/2015	927	0.60	1.45	-0.85	1.0
				6/10/2015	1113	0.54	1.72	-1.17	1.0
				12/12/2017	1466	0.56	1.06	-0.50	1.0
				11/19/2014	1550	0.70	0.87	-0.17	1.0
				5/15/2015	1659	1.01	0.73	0.28	1.0
				12/12/2017	1771	1.70	0.65	1.05	1.0
K2-AI	491,587	1,540,736	1	5/2/2013	310	0.04	0.05	0.00	1.0
K4-AI	492,371	1,541,211	1	11/19/2014	15	0.76	0.43	0.32	1.0
				7/28/2015	393	0.23	0.17	0.06	1.0
				11/19/2014	626	0.67	0.13	0.53	1.0
				7/28/2015	766	0.78	0.12	0.66	1.0
				5/19/2015	892	0.66	0.11	0.55	1.0
				5/19/2015	927	0.43	0.10	0.33	1.0
				5/15/2015	1116	0.21	0.08	0.12	1.0
				11/20/2014	1296	0.49	0.06	0.43	1.0
				7/28/2015	1466	0.65	0.05	0.60	1.0
				9/30/2015	1550	0.64	0.05	0.59	1.0
				9/30/2016	1659	0.89	0.04	0.84	1.0
				9/26/2017	1770	0.64	0.04	0.60	1.0
K5-AI	491,935	1,541,269	1	3/21/2013	15	0.50	0.71	-0.20	1.0
				5/16/2015	305	0.61	0.74	-0.13	1.0
				6/12/2015	393	0.59	0.73	-0.14	1.0
				9/30/2015	625	0.77	0.68	0.09	1.0
				9/30/2016	892	0.58	0.71	-0.13	1.0
				9/26/2017	927	0.59	0.71	-0.12	1.0
				10/1/2015	1113	0.81	0.69	0.12	1.0
				9/26/2017	1296	2.55	0.58	1.97	1.0
				2/12/2013	1466	0.62	0.44	0.18	1.0
				4/20/2013	1550	0.69	0.38	0.31	1.0
				7/9/2013	1659	1.06	0.33	0.73	1.0
				11/1/2013	1771	1.35	0.30	1.05	1.0
				2/12/2014	15	0.52	0.46	0.05	1.0
				4/22/2014	305	0.49	0.47	0.02	1.0
				7/11/2014	393	0.47	0.43	0.04	1.0
				7/24/2014	625	0.39	0.36	0.03	1.0
				2/4/2015	766	0.42	0.32	0.10	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
K7-AI	492,237	1,541,232	1	4/3/2015	892	0.36	0.27	0.09	1.0
				7/17/2015	927	0.41	0.26	0.16	1.0
				10/9/2015	1113	0.48	0.19	0.29	1.0
				2/10/2016	1296	0.31	0.11	0.19	1.0
				4/13/2016	1466	1.35	0.07	1.28	1.0
				7/10/2016	1550	0.65	0.07	0.58	1.0
				10/21/2016	1659	0.59	0.07	0.52	1.0
				3/1/2017	1770	0.39	0.06	0.33	1.0
K8-AI	492,081	1,541,250	1	5/1/2017	15	0.69	0.62	0.07	1.0
				7/18/2017	305	0.77	0.62	0.16	1.0
				10/26/2017	393	0.42	0.61	-0.18	1.0
				11/28/2017	625	0.73	0.57	0.16	1.0
				2/9/2013	892	0.58	0.55	0.03	1.0
				7/9/2013	927	0.56	0.54	0.02	1.0
				2/13/2014	1117	0.42	0.47	-0.05	1.0
				6/17/2014	1296	0.53	0.35	0.18	1.0
				3/5/2015	1466	0.92	0.24	0.68	1.0
				5/22/2015	1550	0.79	0.21	0.58	1.0
				2/16/2016	1659	1.12	0.18	0.94	1.0
				7/13/2016	1770	1.08	0.16	0.92	1.0
K9-AI	491,787	1,541,287	1	3/1/2017	15	1.07	0.82	0.25	1.0
				6/28/2017	305	1.06	0.87	0.19	1.0
				2/26/2013	393	0.99	0.85	0.14	1.0
				10/4/2014	625	1.27	0.75	0.52	1.0
				7/2/2015	766	0.96	0.77	0.18	1.0
				10/3/2014	892	0.83	0.83	0.00	1.0
				7/2/2015	927	1.19	0.85	0.34	1.0
				7/5/2017	1113	1.55	0.88	0.67	1.0
				12/10/2013	1296	0.65	0.79	-0.13	1.0
				10/11/2014	1466	0.61	0.63	-0.03	1.0
				10/24/2015	1550	0.69	0.55	0.13	1.0
				12/20/2016	1771	1.00	0.44	0.56	1.0
KEB-AI	491,487	1,540,570	1	11/30/2017	58	0.07	0.06	0.01	1.0
KF-AI	491,169	1,540,870	1	9/5/2013	58	0.08	0.08	0.01	1.0
				7/24/2014	932	0.04	0.05	0.00	1.0
				7/17/2015	1547	0.04	0.03	0.02	1.0
KZ-AI	491,183	1,541,100	1	7/19/2017	58	0.08	0.10	-0.02	1.0
				2/26/2013	1547	0.07	0.07	0.00	1.0
				8/6/2015	133	0.32	0.24	0.09	1.0
				7/19/2016	514	0.32	0.13	0.19	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
L10-AI	492,310	1,539,250	1	2/10/2017	722	0.30	0.09	0.20	1.0
				7/19/2017	822	0.35	0.06	0.29	1.0
				2/26/2013	1019	0.24	0.04	0.20	1.0
				7/24/2014	1198	0.27	0.04	0.22	1.0
				9/30/2014	1396	0.24	0.06	0.18	1.0
				8/6/2015	1581	0.37	0.06	0.31	1.0
				7/19/2016	1756	0.31	0.07	0.24	1.0
L5-AI	492,730	1,539,946	1	3/21/2017	133	0.28	0.21	0.07	1.0
				7/19/2017	514	0.22	0.13	0.09	1.0
				7/24/2014	722	0.23	0.11	0.12	1.0
				10/3/2014	822	0.28	0.09	0.19	1.0
				7/17/2015	1052	0.22	0.08	0.14	1.0
				7/20/2017	1198	0.17	0.08	0.10	1.0
				3/6/2013	1581	0.21	0.07	0.14	1.0
				9/5/2013	1756	0.18	0.07	0.12	1.0
L6-AI	493,110	1,540,526	1	10/3/2014	133	0.26	0.26	0.01	1.0
				4/1/2015	515	0.29	0.20	0.09	1.0
				8/28/2015	722	0.24	0.17	0.07	1.0
				3/19/2016	822	0.27	0.16	0.11	1.0
				3/21/2017	1019	0.21	0.15	0.06	1.0
				3/6/2013	1198	0.23	0.14	0.09	1.0
				9/5/2013	1396	0.23	0.14	0.09	1.0
				10/3/2014	1581	0.26	0.13	0.13	1.0
				4/1/2015	1756	0.25	0.12	0.12	1.0
L7-AI	492,842	1,540,113	1	3/19/2016	133	0.21	0.20	0.01	1.0
				3/21/2017	514	0.25	0.13	0.12	1.0
				2/26/2013	722	0.25	0.11	0.14	1.0
				9/30/2014	822	0.29	0.05	0.23	1.0
				5/13/2015	1052	0.26	0.03	0.23	1.0
				10/16/2015	1198	0.26	0.03	0.23	1.0
				5/11/2016	1581	0.27	0.05	0.21	1.0
				10/27/2016	1756	0.20	0.06	0.14	1.0
L8-AI	492,621	1,539,773	1	5/2/2017	133	0.19	0.18	0.01	1.0
				6/28/2017	722	0.17	0.08	0.09	1.0
				7/18/2017	822	0.19	0.05	0.14	1.0
				10/25/2017	1019	0.22	0.03	0.19	1.0
				2/26/2013	1198	0.22	0.03	0.19	1.0
				9/30/2014	1396	0.40	0.04	0.36	1.0
				7/17/2015	1581	0.30	0.04	0.26	1.0
				7/16/2016	136	0.29	0.25	0.04	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
L9-AI	492,463	1,539,509	1	2/10/2017	514	0.24	0.16	0.08	1.0
				7/19/2017	722	0.28	0.13	0.15	1.0
				2/26/2013	822	0.28	0.12	0.16	1.0
				9/30/2014	1052	0.20	0.10	0.10	1.0
				7/17/2015	1198	0.21	0.09	0.12	1.0
				7/19/2016	1581	0.25	0.08	0.16	1.0
				2/10/2017	1756	0.24	0.08	0.16	1.0
L-AI	492,150	1,538,970	1	7/19/2017	133	0.51	0.31	0.20	1.0
				7/9/2013	514	0.48	0.16	0.32	1.0
				3/27/2015	722	0.45	0.12	0.33	1.0
				6/12/2015	822	0.50	0.12	0.38	1.0
				7/20/2017	1396	0.38	0.10	0.27	1.0
				2/28/2013	1581	0.51	0.10	0.41	1.0
				9/5/2013	1756	0.39	0.09	0.30	1.0
M10-AI	486,723	1,543,677	1	7/24/2014	135	0.17	0.18	-0.01	1.0
				3/20/2015	1172	0.15	0.14	0.01	1.0
				8/19/2015	1543	0.14	0.13	0.01	1.0
M16-AI	485,112	1,543,252	1	9/26/2015	1005	0.67	0.21	0.46	1.0
				2/11/2016	1722	0.54	0.36	0.18	1.0
M3-AI	489,151	1,542,805	1	9/20/2016	327	11.2	9.63	1.57	1.0
				3/2/2017	893	8.80	8.29	0.51	1.0
				11/14/2017	1542	2.90	4.39	-1.49	1.0
M5-AI	489,080	1,542,360	1	2/28/2013	337	0.18	0.23	-0.05	1.0
				10/11/2014	940	0.22	0.25	-0.03	1.0
M6-AI	486,674	1,543,097	1	3/27/2015	134	1.85	1.73	0.12	1.0
				8/19/2015	792	2.27	1.29	0.98	1.0
				3/16/2016	1543	1.74	0.89	0.85	1.0
M7-AI	486,523	1,542,790	1	3/21/2017	79	1.69	1.17	0.52	1.0
				7/19/2017	792	1.24	0.75	0.49	1.0
				8/14/2017	1172	0.99	0.68	0.30	1.0
M9-AI	486,699	1,543,310	1	3/5/2013	52	1.35	1.55	-0.20	1.0
				11/22/2013	327	5.12	1.57	3.55	1.0
				10/1/2014	352	2.29	1.54	0.75	1.0
				6/30/2017	638	3.60	1.32	2.28	1.0
				3/5/2013	793	1.19	1.15	0.04	1.0
				10/3/2014	893	1.66	1.04	0.62	1.0
				6/30/2017	1005	2.63	0.93	1.70	1.0
				2/26/2013	1172	1.08	0.77	0.31	1.0
ML-AI	486,691	1,543,902	1	10/4/2014	135	0.11	0.11	0.00	1.0
				3/31/2015	1172	0.10	0.11	-0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				8/25/2016	1543	0.10	0.11	-0.01	1.0
MO-AI	485,518	1,543,620	1	3/20/2017	63	0.27	0.07	0.19	1.0
				8/17/2017	305	0.26	0.02	0.25	1.0
				8/17/2017	443	0.24	0.01	0.22	1.0
				2/28/2013	801	0.25	0.07	0.18	1.0
				10/3/2014	1019	0.27	0.11	0.15	1.0
				7/2/2015	1170	0.28	0.13	0.15	1.0
				11/28/2017	1395	0.24	0.13	0.11	1.0
				7/1/2015	1536	0.19	0.13	0.07	1.0
MQ-AI	486,326	1,543,173	1	6/30/2017	52	0.96	0.90	0.06	1.0
				11/27/2013	327	1.37	0.95	0.42	1.0
				10/1/2014	638	0.94	1.06	-0.13	1.0
				3/11/2015	792	0.82	1.11	-0.29	1.0
				8/19/2015	893	0.87	1.12	-0.25	1.0
				3/17/2016	1005	0.88	1.09	-0.21	1.0
				3/20/2017	1172	0.75	1.09	-0.34	1.0
				8/11/2017	1543	0.73	1.02	-0.29	1.0
				11/15/2013	1722	0.80	0.97	-0.18	1.0
MR-AI	483,574	1,542,609	1	4/16/2014	799	0.39	0.44	-0.05	1.0
				9/11/2014	834	0.41	0.44	-0.03	1.0
				5/13/2016	950	0.43	0.43	0.00	1.0
				10/22/2016	1170	0.50	0.43	0.08	1.0
				5/3/2017	1348	0.43	0.41	0.02	1.0
				10/3/2014	1539	0.39	0.39	0.00	1.0
				6/30/2017	1581	0.46	0.38	0.08	1.0
				5/11/2013	1683	0.46	0.37	0.10	1.0
				6/12/2014	1746	0.48	0.36	0.12	1.0
MS-AI	485,570	1,542,607	1	7/10/2013	121	0.43	0.31	0.13	1.0
				5/15/2014	327	0.06	0.27	-0.22	1.0
				11/15/2013	1278	0.18	0.21	-0.04	1.0
				6/12/2014	1548	0.16	0.25	-0.09	1.0
				9/11/2014	1660	0.15	0.27	-0.11	1.0
				5/13/2016	1795	0.15	0.28	-0.13	1.0
MT-AI	483,531	1,543,221	1	2/9/2013	136	0.04	0.06	-0.01	1.0
MV-AI	484,418	1,542,618	1	7/9/2013	135	0.54	0.51	0.03	1.0
				2/13/2014	813	0.41	0.42	-0.01	1.0
MW-AI	486,346	1,543,802	1	2/13/2014	135	0.10	0.09	0.01	1.0
				6/17/2014	1543	0.09	0.08	0.01	1.0
				3/5/2015	135	0.03	0.04	0.00	1.0
				3/5/2015	799	0.03	0.04	-0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
MX-AI	486,244	1,541,287	1	5/22/2015	960	0.04	0.04	0.00	1.0
				2/16/2016	1170	0.05	0.04	0.01	1.0
				7/12/2016	1539	0.03	0.04	-0.01	1.0
				3/1/2017	1683	0.05	0.04	0.01	1.0
				11/15/2013	1777	0.03	0.04	-0.01	1.0
MY-AI	486,213	1,542,200	1	6/12/2014	1446	0.04	0.18	-0.13	1.0
				6/10/2015	1777	0.04	0.19	-0.15	1.0
MZ-AI	486,757	1,543,485	1	7/6/2016	135	0.24	0.42	-0.18	1.0
				8/24/2017	792	0.14	0.37	-0.23	1.0
				11/20/2013	1172	0.12	0.31	-0.18	1.0
				6/19/2014	1543	0.12	0.26	-0.14	1.0
NB-AI	491,296	1,545,000	1	10/4/2014	970	26.1	9.16	16.94	1.0
				7/1/2015	1693	33.9	4.27	29.63	1.0
NC-AI	491,282	1,545,220	1	7/5/2017	834	0.01	0.20	-0.19	1.0
				12/10/2013	969	0.23	0.23	0.01	1.0
				10/11/2014	1688	0.14	0.24	-0.10	1.0
ND-AI	494,872	1,545,927	1	10/24/2015	337	0.02	0.02	0.00	1.0
				12/20/2016	816	0.03	0.02	0.00	1.0
				11/30/2017	862	0.04	0.02	0.01	1.0
O-AI	492,725	1,545,060	1	10/2/2014	969	0.04	0.82	-0.77	1.0
				7/1/2015	1689	0.03	0.63	-0.60	1.0
P2-AI	490,912	1,546,555	1	11/27/2013	52	0.04	0.04	0.00	1.0
				10/1/2014	820	0.03	0.03	-0.01	1.0
				7/2/2015	1542	0.03	0.03	0.00	1.0
P3-AI	490,785	1,546,159	1	12/17/2016	52	0.03	0.03	0.00	1.0
				6/29/2017	820	0.02	0.03	-0.01	1.0
				10/23/2017	1542	0.02	0.03	-0.01	1.0
P4-AI	491,899	1,546,504	1	2/28/2013	52	0.03	0.03	0.00	1.0
				7/2/2015	641	0.02	0.03	-0.01	1.0
				8/7/2015	820	0.01	0.03	-0.01	1.0
				7/31/2017	1542	0.02	0.03	-0.01	1.0
P-AI	491,058	1,546,691	1	2/26/2013	127	0.04	0.04	0.00	1.0
				10/4/2014	309	0.03	0.04	0.00	1.0
				7/2/2015	500	0.03	0.04	0.00	1.0
				12/12/2017	869	0.03	0.03	-0.01	1.0
				2/12/2013	1023	0.04	0.03	0.01	1.0
				2/28/2013	1232	0.03	0.03	0.00	1.0
				11/5/2013	1717	0.03	0.03	-0.01	1.0
				2/12/2014	1759	0.03	0.03	-0.01	1.0
				9/5/2014	134	0.06	0.05	0.00	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
Q-AI	492,153	1,548,693	1	7/2/2015	816	0.05	0.05	0.00	1.0
				8/7/2015	851	0.05	0.05	0.00	1.0
				2/11/2016	1234	0.05	0.05	0.00	1.0
				9/27/2016	1375	0.05	0.05	0.00	1.0
				3/21/2017	1395	0.06	0.05	0.01	1.0
				8/10/2017	1542	0.05	0.05	0.00	1.0
				11/15/2013	1583	0.05	0.05	0.00	1.0
				6/12/2014	1612	0.05	0.05	0.00	1.0
				9/10/2014	1799	0.05	0.05	0.00	1.0
R-AI	494,514	1,550,372	1	7/30/2015	134	0.02	0.03	-0.01	1.0
				7/6/2016	816	0.02	0.03	-0.01	1.0
				12/2/2016	862	0.03	0.03	0.00	1.0
				3/7/2013	1233	0.02	0.03	-0.01	1.0
				6/18/2013	1395	0.02	0.03	-0.01	1.0
				11/15/2013	1583	0.02	0.03	-0.01	1.0
				11/14/2014	1798	0.02	0.03	-0.01	1.0
S11-AI	488,150	1,544,793	1	12/24/2014	337	0.08	0.04	0.04	1.0
				4/1/2015	1476	0.02	0.02	-0.01	1.0
				4/1/2015	1746	0.01	0.02	-0.01	1.0
S12-AI	488,628	1,543,297	1	8/20/2015	16	1.78	1.00	0.78	1.0
				3/5/2016	406	1.95	0.80	1.15	1.0
				8/27/2016	766	7.30	0.88	6.42	1.0
S1-AI	488,401	1,543,288	1	3/24/2017	830	0.35	0.51	-0.16	1.0
				8/15/2017	968	0.31	0.58	-0.27	1.0
				12/4/2013	1031	0.36	0.61	-0.25	1.0
				10/11/2014	1121	0.30	0.65	-0.35	1.0
S2-AI	488,299	1,543,127	1	7/30/2015	15	5.07	2.80	2.27	1.0
				12/12/2017	190	5.03	2.64	2.39	1.0
				5/2/2013	386	4.58	2.43	2.15	1.0
				8/8/2013	557	4.21	2.15	2.06	1.0
				10/1/2014	760	3.60	2.03	1.57	1.0
				2/21/2015	927	3.16	1.96	1.20	1.0
				8/28/2015	1114	2.26	1.86	0.40	1.0
				12/17/2016	1286	5.20	1.66	3.54	1.0
				8/16/2017	1473	3.20	1.35	1.85	1.0
				10/24/2017	1659	3.40	1.35	2.05	1.0
S3-AI	488,714	1,542,857	1	5/11/2013	831	13.1	2.06	11.04	1.0
				10/1/2014	940	14.8	2.08	12.72	1.0
				2/21/2015	1124	17.7	2.00	15.70	1.0
				9/1/2015	1660	8.48	1.22	7.26	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
S4-AI	488,359	1,543,344	1	10/24/2017	64	0.32	0.42	-0.11	1.0
				5/11/2013	190	0.29	0.43	-0.14	1.0
				10/1/2014	443	0.31	0.45	-0.15	1.0
				2/21/2015	557	0.29	0.46	-0.17	1.0
				9/1/2015	568	0.29	0.46	-0.17	1.0
				8/16/2017	927	0.41	0.62	-0.20	1.0
				10/24/2017	1124	0.30	0.73	-0.42	1.0
				5/11/2013	1124	0.27	0.73	-0.45	1.0
				10/1/2014	1170	0.30	0.72	-0.42	1.0
				4/1/2015	1286	0.48	0.71	-0.23	1.0
				8/29/2015	1533	0.14	0.66	-0.52	1.0
				12/17/2016	1659	0.15	0.66	-0.51	1.0
				5/15/2013	1777	0.15	0.67	-0.52	1.0
S5R-AI	488,938	1,543,150	1	10/1/2014	327	21.6	9.24	12.36	1.0
				4/1/2015	893	22.0	8.12	13.88	1.0
				8/29/2015	1542	0.95	6.32	-5.36	1.0
SA-AI	488,811	1,543,122	1	5/19/2016	838	42.0	6.62	35.38	1.0
				10/28/2016	893	45.4	6.70	38.70	1.0
				12/1/2016	1114	2.23	6.63	-4.40	1.0
				12/15/2016	1124	17.2	6.55	10.65	1.0
				2/10/2017	1541	35.8	4.08	31.72	1.0
				5/3/2017	1777	33.2	3.95	29.25	1.0
SB-AI	488,811	1,543,371	1	8/16/2017	893	46.6	5.97	40.63	1.0
				11/29/2017	1541	40.3	4.04	36.26	1.0
				10/1/2014	1773	37.8	4.58	33.22	1.0
SE6-AI	488,615	1,543,244	1	11/27/2013	16	0.61	1.92	-1.31	1.0
				7/30/2015	406	4.44	1.18	3.26	1.0
				8/9/2017	758	31.6	1.25	30.35	1.0
				8/11/2017	766	27.4	1.25	26.15	1.0
				6/25/2013	1121	16.0	1.59	14.41	1.0
				10/1/2014	1124	15.4	1.59	13.81	1.0
				7/30/2015	1477	45.0	1.87	43.13	1.0
				7/31/2017	1777	10.3	2.09	8.21	1.0
SM-AI	488,566	1,543,748	1	3/19/2013	136	1.77	2.05	-0.28	1.0
				4/2/2014	514	0.83	1.48	-0.65	1.0
				7/19/2014	869	0.51	1.33	-0.82	1.0
				8/10/2016	1583	9.12	0.68	8.44	1.0
SO-AI	488,381	1,543,652	1	6/18/2013	514	4.24	1.21	3.03	1.0
				11/15/2013	869	2.90	0.90	2.00	1.0
				7/19/2014	1583	2.83	0.43	2.40	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
SQ-AI	488,814	1,543,507	1	8/2/2016	893	37.3	9.08	28.22	1.0
SS-AI	488,666	1,543,374	1	6/19/2014	16	0.56	1.39	-0.82	1.0
ST-AI	488,688	1,543,215	1	7/2/2015	16	11.2	5.55	5.65	1.0
				7/6/2017	327	13.3	2.21	11.09	1.0
				3/20/2013	893	31.6	2.38	29.22	1.0
				6/18/2013	1121	1.05	2.87	-1.82	1.0
				10/4/2014	1484	0.77	2.76	-1.98	1.0
				3/20/2015	1542	0.75	2.77	-2.02	1.0
SUB1-AI	489,100	1,537,620	1	8/20/2015	121	0.11	0.09	0.02	1.0
				5/7/2016	1759	0.12	0.05	0.06	1.0
SUB2-AI	490,370	1,537,392	1	3/20/2017	120	0.04	0.04	0.00	1.0
				8/14/2017	309	0.03	0.04	-0.01	1.0
				12/4/2013	514	0.03	0.04	-0.01	1.0
				10/2/2014	862	0.03	0.04	-0.01	1.0
				7/3/2015	1024	0.03	0.04	-0.01	1.0
				12/21/2016	1396	0.03	0.04	-0.01	1.0
				6/29/2017	1612	0.02	0.04	-0.02	1.0
SUB3-AI	489,420	1,538,280	1	12/4/2013	120	0.02	0.03	-0.01	1.0
				10/2/2014	310	0.01	0.03	-0.02	1.0
				7/3/2015	514	0.01	0.03	-0.02	1.0
				12/21/2016	834	0.02	0.04	-0.01	1.0
				6/29/2017	1038	0.01	0.04	-0.03	1.0
				10/2/2014	1613	0.01	0.05	-0.04	1.0
				7/2/2015	1759	0.01	0.05	-0.04	1.0
SV-AI	488,813	1,543,676	1	6/29/2017	327	30.8	9.49	21.31	1.0
				10/2/2014	893	39.1	9.29	29.81	1.0
				7/18/2015	1541	5.69	4.27	1.42	1.0
SW-AI	488,812	1,543,783	1	7/31/2017	514	11.8	8.25	3.55	1.0
				10/2/2014	863	25.0	8.86	16.14	1.0
				7/1/2015	1583	1.41	4.31	-2.90	1.0
SZ-AI	488,833	1,544,367	1	10/9/2016	17	54.6	48.57	6.03	1.0
				6/29/2017	406	59.0	27.95	31.05	1.0
				11/20/2013	766	48.0	22.88	25.12	1.0
				10/2/2014	1124	44.0	20.06	23.94	1.0
				7/21/2015	1476	8.30	7.97	0.33	1.0
T10-AI	492,791	1,543,434	1	8/10/2016	688	46.0	29.84	16.16	1.0
				7/31/2017	939	44.5	26.33	18.17	1.0
				6/18/2013	1675	48.5	15.42	33.08	1.0
T11-AI	489,887	1,544,585	1	11/15/2013	681	2.83	9.98	-7.15	1.0
				10/11/2014	939	8.65	9.75	-1.10	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				8/19/2015	1548	10.1	11.60	-1.50	1.0
T12-AI	490,317	1,544,583	1	8/10/2016	121	1.92	3.43	-1.51	1.0
				8/25/2016	681	1.49	4.43	-2.94	1.0
				3/21/2017	939	1.42	4.86	-3.44	1.0
T14-AI	491,071	1,544,565	1	8/14/2017	695	36.3	12.14	24.16	1.0
T15-AI	491,953	1,544,480	1	12/4/2013	695	8.61	9.90	-1.29	1.0
				10/2/2014	890	11.0	9.95	1.05	1.0
T16-AI	492,718	1,544,276	1	7/18/2015	694	51.5	41.34	10.16	1.0
				12/21/2016	866	54.0	39.35	14.65	1.0
T17-AI	489,430	1,544,008	1	8/1/2017	681	23.0	16.46	6.54	1.0
				5/7/2013	865	26.3	16.04	10.26	1.0
T18-AI	490,333	1,543,977	1	11/6/2013	681	8.10	8.55	-0.45	1.0
				5/15/2014	866	3.60	8.40	-4.80	1.0
T19-AI	490,722	1,543,958	1	11/6/2014	681	10.3	9.26	1.04	1.0
				2/18/2015	866	2.31	9.15	-6.84	1.0
				5/2/2015	1773	12.4	8.74	3.66	1.0
T20-AI	491,048	1,543,935	1	8/8/2015	904	3.74	8.93	-5.19	1.0
				10/9/2015	1805	9.66	8.15	1.51	1.0
T21-AI	491,882	1,543,951	1	2/16/2016	121	7.25	7.72	-0.47	1.0
				5/5/2016	689	3.72	7.54	-3.82	1.0
				7/10/2016	890	5.47	7.54	-2.07	1.0
				10/18/2016	1805	6.43	10.53	-4.10	1.0
T22-AI	492,311	1,543,876	1	5/7/2013	689	0.91	17.10	-16.19	1.0
				11/5/2013	891	1.00	19.57	-18.57	1.0
				5/15/2014	939	1.40	20.32	-18.92	1.0
T23-AI	492,805	1,543,901	1	11/6/2014	695	82.2	46.27	35.93	1.0
				2/18/2015	891	75.0	42.29	32.71	1.0
T2-AI	489,303	1,543,538	1	5/2/2015	326	7.78	10.92	-3.14	1.0
				8/8/2015	687	9.30	11.52	-2.22	1.0
				10/9/2015	939	12.0	11.55	0.45	1.0
				2/16/2016	1806	24.4	11.85	12.55	1.0
T36-AI	489,688	1,543,735	1	5/5/2016	864	4.23	9.67	-5.44	1.0
T39-AI	491,669	1,544,498	1	7/10/2016	695	6.90	9.20	-2.30	1.0
				10/18/2016	890	11.0	9.08	1.92	1.0
T40-AI	491,466	1,543,819	1	2/16/2017	891	8.95	7.96	0.99	1.0
				5/2/2017	1806	7.87	7.35	0.52	1.0
T41-AI	491,079	1,543,278	1	7/18/2017	687	4.03	9.10	-5.07	1.0
				10/25/2017	865	5.05	8.96	-3.91	1.0
				11/20/2017	1806	6.65	7.99	-1.34	1.0
				7/9/2014	121	4.00	5.30	-1.30	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
T4-AI	489,699	1,543,340	1	10/9/2014	688	2.71	6.38	-3.67	1.0
				10/16/2015	939	3.22	6.72	-3.50	1.0
T5-AI	490,289	1,543,307	1	5/4/2017	688	11.6	9.05	2.55	1.0
				10/10/2014	939	7.72	8.90	-1.18	1.0
T6-AI	490,655	1,543,282	1	1/27/2016	869	8.62	9.05	-0.43	1.0
T7-AI	491,484	1,543,272	1	10/14/2015	869	29.1	8.85	20.25	1.0
T8-AI	491,914	1,543,296	1	2/20/2014	865	17.5	9.62	7.88	1.0
T9-AI	492,337	1,543,347	1	11/18/2014	689	27.0	17.36	9.64	1.0
				2/18/2015	939	17.0	18.86	-1.86	1.0
TA-AI	492,426	1,542,471	1	5/1/2015	1003	2.28	2.59	-0.31	1.0
				8/8/2015	1369	1.44	1.68	-0.24	1.0
				10/9/2015	1729	3.00	0.99	2.01	1.0
T-AI	492,260	1,542,536	1	12/11/2015	79	8.61	8.14	0.47	1.0
				1/27/2016	865	4.72	3.25	1.47	1.0
				2/26/2016	893	4.42	3.22	1.20	1.0
				9/16/2016	1003	6.48	3.16	3.32	1.0
				10/19/2016	1369	3.41	2.98	0.43	1.0
				2/10/2017	1729	4.83	2.25	2.58	1.0
TB-AI	492,616	1,542,351	1	2/17/2017	1004	0.83	0.70	0.13	1.0
				2/28/2017	1729	2.34	0.18	2.16	1.0
X-AI	491,892	1,540,512	1	5/1/2015	43	0.04	0.06	-0.02	1.0
				8/8/2015	110	0.06	0.06	-0.01	1.0
				8/11/2015	190	0.06	0.06	-0.01	1.0
				10/9/2015	305	0.06	0.06	0.00	1.0
				2/20/2016	407	0.05	0.05	0.00	1.0
				9/2/2016	477	0.04	0.05	-0.01	1.0
				10/18/2016	557	0.07	0.05	0.03	1.0
				2/16/2017	569	0.06	0.05	0.02	1.0
				5/2/2017	765	0.05	0.05	0.00	1.0
				6/27/2017	822	0.04	0.05	-0.01	1.0
				7/18/2017	927	0.05	0.05	0.00	1.0
				10/23/2017	1012	0.06	0.05	0.01	1.0
				6/25/2015	1135	0.10	0.05	0.05	1.0
				5/11/2016	1198	0.12	0.04	0.07	1.0
				5/10/2017	1286	0.06	0.04	0.03	1.0
				11/15/2017	1390	0.06	0.03	0.03	1.0
				10/23/2014	1520	0.05	0.03	0.02	1.0
				10/1/2015	1581	0.06	0.02	0.03	1.0
				12/15/2016	1659	0.05	0.02	0.03	1.0
				7/6/2016	1759	0.07	0.02	0.05	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				7/12/2016	1792	0.04	0.02	0.02	1.0
0494-UC	489,494	1,536,689	4	8/9/2013	39	0.12	0.12	0.00	1.0
				2/14/2014	189	0.15	0.12	0.03	1.0
				8/27/2014	408	0.17	0.12	0.05	1.0
				2/20/2015	532	0.17	0.12	0.05	1.0
				2/12/2016	793	0.00	0.12	-0.12	1.0
				3/27/2017	871	0.14	0.12	0.02	1.0
				2/7/2013	1142	0.20	0.12	0.07	1.0
				8/9/2013	1290	0.21	0.12	0.09	1.0
				2/14/2014	1520	0.22	0.12	0.10	1.0
				2/20/2015	1639	0.19	0.12	0.06	1.0
0929-UC	495,585	1,544,684	4	5/2/2017	57	0.04	0.04	0.00	1.0
				6/13/2015	641	0.03	0.04	-0.01	1.0
				5/1/2017	912	0.03	0.04	0.00	1.0
0931-UC	495,207	1,542,461	4	11/24/2013	641	0.05	0.00	0.05	1.0
				6/13/2015	912	0.01	0.00	0.00	1.0
				5/2/2017	1646	0.00	0.00	0.00	1.0
AW-UC	488,015	1,540,235	4	8/8/2017	344	0.14	0.08	0.05	1.0
				10/12/2017	648	0.12	0.07	0.05	1.0
				11/2/2017	1027	0.10	0.06	0.04	1.0
				11/23/2017	1449	0.07	0.06	0.02	1.0
				2/12/2013	1794	0.10	0.05	0.04	1.0
CE10-UC	490,177	1,541,737	4	7/18/2017	247	3.18	2.09	1.09	1.0
				11/6/2017	569	3.33	2.10	1.23	1.0
				1/16/2013	927	4.93	2.59	2.34	1.0
				11/1/2013	1660	3.39	2.47	0.92	1.0
CE11-UC	490,494	1,541,486	4	1/28/2014	56	2.72	1.74	0.98	1.0
				9/18/2014	947	4.91	1.65	3.26	1.0
				6/12/2015	1295	3.10	1.65	1.45	1.0
				7/17/2015	1501	3.18	1.56	1.62	1.0
				1/19/2016	1660	0.25	1.54	-1.29	1.0
CE12-UC	489,642	1,541,867	4	7/19/2016	56	2.32	1.26	1.06	1.0
				1/6/2017	570	2.47	0.70	1.77	1.0
				3/31/2017	638	2.42	0.67	1.75	1.0
				7/18/2017	947	6.92	0.70	6.22	1.0
				11/7/2017	1295	1.50	0.58	0.92	1.0
				1/16/2013	1540	0.88	0.44	0.44	1.0
				11/1/2013	1660	1.11	0.43	0.68	1.0
CE13-UC	490,338	1,542,693	4	1/28/2014	570	27.9	16.13	11.77	1.0
				9/18/2014	640	26.6	15.84	10.76	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
[illegible]	[illegible]	[illegible]	[illegible]	2/5/2015	928	28.9	13.84	15.06	1.0
				6/12/2015	1661	22.1	11.33	10.77	1.0
CE14-UC	489,600	1,541,326	4	7/17/2015	65	0.08	0.09	-0.01	1.0
				1/19/2016	248	0.07	0.13	-0.06	1.0
				7/19/2016	640	0.06	0.29	-0.23	1.0
				1/6/2017	821	0.05	0.35	-0.30	1.0
				3/31/2017	970	0.06	0.38	-0.33	1.0
				7/18/2017	1174	0.07	0.39	-0.33	1.0
				11/6/2017	1540	0.04	0.11	-0.07	1.0
CE15-UC	489,460	1,539,507	4	1/16/2013	65	0.38	0.23	0.15	1.0
				11/1/2013	247	0.34	0.21	0.12	1.0
				1/28/2014	640	0.39	0.18	0.22	1.0
				9/18/2014	821	0.60	0.17	0.43	1.0
				6/12/2015	1174	1.26	0.16	1.10	1.0
				7/17/2015	1540	0.52	0.14	0.38	1.0
CE2-UC	489,979	1,541,923	4	1/22/2016	56	2.48	2.33	0.15	1.0
				7/19/2016	638	3.50	3.19	0.31	1.0
				1/6/2017	862	8.20	3.06	5.14	1.0
				3/31/2017	1019	4.80	3.10	1.70	1.0
				7/18/2017	1227	1.05	2.69	-1.64	1.0
				11/6/2017	1395	0.88	1.97	-1.09	1.0
				1/16/2013	1582	0.92	1.71	-0.80	1.0
				11/1/2013	1639	1.28	1.70	-0.42	1.0
				1/28/2014	1659	1.01	1.69	-0.68	1.0
				9/18/2014	1758	0.82	1.66	-0.84	1.0
CE5-UC	490,695	1,541,453	4	2/5/2015	56	0.54	0.66	-0.11	1.0
				6/12/2015	638	3.80	0.30	3.50	1.0
				7/17/2015	928	4.71	0.27	4.44	1.0
				1/19/2016	1293	2.00	0.30	1.70	1.0
				7/19/2016	1501	2.59	0.27	2.32	1.0
				1/6/2017	1660	0.25	0.23	0.02	1.0
CE6-UC	490,433	1,541,698	4	3/31/2017	56	3.46	2.10	1.36	1.0
				11/7/2017	638	4.32	1.93	2.39	1.0
				2/28/2013	928	4.78	2.27	2.51	1.0
				2/28/2013	1295	1.66	3.22	-1.56	1.0
				7/22/2015	1501	2.90	3.25	-0.35	1.0
				3/28/2017	1660	2.22	3.35	-1.13	1.0
CE7-UC	490,079	1,542,652	4	2/28/2013	189	26.0	17.53	8.47	1.0
				3/28/2017	815	23.8	13.87	9.93	1.0
				5/14/2013	893	25.2	13.28	11.92	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				5/30/2014	1661	5.06	11.59	-6.53	1.0
CE8-UC	491,556	1,540,704	4	12/24/2014	59	0.06	0.04	0.01	1.0
				4/3/2015	247	0.04	0.04	0.00	1.0
				10/17/2015	570	0.06	0.04	0.02	1.0
				4/13/2016	808	0.04	0.04	0.00	1.0
				10/27/2016	960	0.04	0.04	0.00	1.0
				5/1/2017	998	0.04	0.04	0.00	1.0
				10/23/2017	1137	0.03	0.04	-0.01	1.0
				5/14/2013	1358	0.03	0.02	0.01	1.0
				5/30/2014	1521	0.03	0.02	0.01	1.0
				12/24/2014	1778	0.03	0.01	0.02	1.0
CE9-UC	489,458	1,538,203	4	4/3/2015	59	0.26	0.19	0.08	1.0
				11/19/2015	648	0.21	0.17	0.04	1.0
				4/13/2016	815	0.22	0.17	0.05	1.0
				5/1/2017	961	0.37	0.16	0.21	1.0
				10/23/2017	1170	0.52	0.16	0.36	1.0
				5/14/2013	1540	0.47	0.15	0.33	1.0
				5/30/2014	1660	0.25	0.14	0.11	1.0
				12/24/2014	1686	0.24	0.14	0.10	1.0
CF1-UC	491,868	1,544,456	4	4/3/2015	64	0.08	0.10	-0.02	1.0
				10/17/2015	326	8.11	0.10	8.01	1.0
				4/13/2016	639	7.07	0.09	6.98	1.0
				10/27/2016	1641	4.47	0.08	4.39	1.0
CF2-UC	490,888	1,544,358	4	5/1/2017	64	0.01	0.02	-0.01	1.0
				10/23/2017	640	0.01	0.02	-0.01	1.0
				5/14/2013	1641	0.01	0.02	-0.01	1.0
CW18-UC	491,378	1,535,924	4	10/17/2015	57	0.05	0.04	0.00	1.0
				4/13/2016	641	0.03	0.04	-0.01	1.0
				10/27/2016	820	0.03	0.04	-0.01	1.0
				5/1/2017	1333	0.03	0.05	-0.02	1.0
				5/16/2013	1539	0.02	0.05	-0.02	1.0
				5/30/2014	1689	0.03	0.05	-0.02	1.0
				12/24/2014	1689	0.03	0.05	-0.02	1.0
CW3-UC	493,496	1,545,200	4	2/21/2013	59	0.36	0.18	0.18	1.0
				11/24/2013	641	0.47	0.16	0.30	1.0
				9/30/2014	912	0.37	0.16	0.21	1.0
				3/4/2015	1792	0.32	0.02	0.30	1.0
CW40-UC	491,819	1,537,624	4	6/12/2015	912	0.03	0.02	0.01	1.0
				10/2/2015	1641	0.02	0.02	0.00	1.0
				3/27/2015	331	0.04	0.03	0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
CW50-UC	491,159	1,546,687	4	5/13/2015	639	0.04	0.03	0.01	1.0
				8/27/2015	799	0.03	0.03	0.00	1.0
				8/17/2017	961	0.03	0.03	0.00	1.0
				2/21/2013	1171	0.03	0.03	0.00	1.0
				4/1/2015	1539	0.02	0.03	0.00	1.0
				3/23/2017	1683	0.03	0.03	0.00	1.0
CW53-UC	490,262	1,536,668	4	2/21/2013	319	0.12	0.11	0.00	1.0
				4/1/2015	471	0.09	0.11	-0.03	1.0
				3/23/2017	619	0.10	0.11	-0.01	1.0
				2/21/2013	1228	0.09	0.11	-0.02	1.0
				10/4/2014	1391	0.06	0.11	-0.04	1.0
				4/1/2015	1583	0.07	0.11	-0.04	1.0
CW9-UC	491,015	1,542,840	4	7/17/2015	640	0.00	0.08	-0.08	1.0
				1/20/2016	1641	0.02	0.19	-0.17	1.0
0481-MC	490,210	1,536,820	6	3/17/2017	131	0.08	0.07	0.01	1.0
				6/27/2017	527	0.06	0.07	-0.01	1.0
0482-MC	489,579	1,536,981	6	6/10/2015	191	0.14	0.12	0.02	1.0
				7/6/2016	499	0.15	0.12	0.02	1.0
0483-MC	489,753	1,536,586	6	3/21/2013	319	0.14	0.12	0.02	1.0
				10/23/2014	528	0.13	0.12	0.01	1.0
				10/1/2015	619	0.12	0.13	-0.01	1.0
				12/15/2016	1229	0.21	0.13	0.08	1.0
0493-MC	489,492	1,536,702	6	7/22/2015	39	0.31	0.22	0.09	1.0
				12/29/2016	189	0.31	0.22	0.09	1.0
				2/7/2013	408	0.38	0.21	0.17	1.0
				8/9/2013	408	0.38	0.21	0.17	1.0
				2/14/2014	532	0.29	0.21	0.08	1.0
				8/28/2014	793	0.00	0.20	-0.20	1.0
				2/20/2015	793	0.19	0.20	-0.02	1.0
				2/12/2016	871	0.14	0.20	-0.06	1.0
				2/24/2017	1142	0.19	0.20	-0.01	1.0
				3/28/2017	1288	0.28	0.20	0.08	1.0
				2/7/2013	1520	0.16	0.20	-0.04	1.0
0498-MC	488,953	1,534,661	6	9/4/2014	319	0.50	0.27	0.24	1.0
				2/26/2015	528	0.52	0.28	0.25	1.0
				2/11/2016	891	0.21	0.27	-0.06	1.0
				3/27/2017	1283	0.35	0.27	0.09	1.0
				3/7/2013	1696	0.33	0.26	0.07	1.0
0859-MC	487,426	1,534,549	6	7/30/2014	323	0.06	0.06	0.00	1.0
				4/23/2015	535	0.08	0.06	0.02	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
0930-MC	494,997	1,542,848	6	11/24/2013	641	0.02	0.01	0.01	1.0
				6/13/2015	912	0.00	0.01	-0.01	1.0
				6/19/2013	1646	0.00	0.01	-0.01	1.0
ACW-MC	488,070	1,540,235	6	12/12/2014	344	0.05	0.04	0.01	1.0
				2/5/2015	648	0.01	0.04	-0.03	1.0
				5/1/2015	1027	0.01	0.04	-0.03	1.0
				8/6/2015	1449	0.05	0.04	0.01	1.0
				10/9/2015	1794	0.01	0.04	-0.03	1.0
CW15-MC	485,961	1,536,259	6	5/30/2014	640	0.03	0.03	0.00	1.0
				12/24/2014	911	0.03	0.03	0.00	1.0
				4/3/2015	1641	0.03	0.03	0.00	1.0
CW17-MC	487,771	1,545,279	6	11/19/2015	175	0.70	0.67	0.03	1.0
				4/13/2016	331	0.58	0.66	-0.08	1.0
				5/1/2017	639	0.47	0.64	-0.17	1.0
				10/23/2017	913	0.42	0.63	-0.21	1.0
				5/14/2013	1447	0.27	0.61	-0.34	1.0
				12/24/2014	1640	0.25	0.12	0.13	1.0
				4/3/2015	1756	0.23	0.08	0.15	1.0
CW1-MC	490,295	1,545,235	6	4/3/2015	59	0.05	0.05	0.00	1.0
				11/19/2015	912	0.06	0.05	0.00	1.0
CW24-MC	487,760	1,545,773	6	4/13/2016	948	0.13	0.14	-0.01	1.0
				5/1/2017	1672	0.13	0.14	-0.01	1.0
CW28-MC	491,008	1,535,112	6	10/23/2017	57	0.04	0.03	0.00	1.0
				5/14/2013	641	0.03	0.03	-0.01	1.0
				5/30/2014	913	0.02	0.03	-0.01	1.0
				12/24/2014	1806	0.04	0.03	0.00	1.0
CW2-MC	491,302	1,545,212	6	9/19/2017	42	0.05	0.05	-0.01	1.0
				11/24/2013	59	0.51	0.05	0.46	1.0
				6/12/2015	309	0.06	0.05	0.01	1.0
				3/23/2017	408	0.04	0.05	-0.01	1.0
				12/4/2013	613	0.07	0.05	0.02	1.0
				7/29/2015	912	0.04	0.05	-0.02	1.0
				5/15/2013	949	0.05	0.05	0.00	1.0
				3/4/2015	1137	0.04	0.05	-0.01	1.0
				3/24/2017	1365	0.04	0.05	-0.02	1.0
				3/21/2013	1540	0.04	0.05	-0.01	1.0
				3/4/2015	1682	0.04	0.05	-0.01	1.0
CW44-MC	488,891	1,535,048	6	3/11/2015	319	0.32	0.33	-0.01	1.0
				8/19/2015	528	0.30	0.33	-0.03	1.0
				3/16/2016	618	0.26	0.33	-0.07	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				3/20/2017	940	0.25	0.32	-0.08	1.0
				8/11/2017	1283	0.27	0.32	-0.06	1.0
				11/13/2017	1432	0.22	0.32	-0.10	1.0
CW45-MC	489,494	1,535,036	6	12/17/2016	65	0.48	0.29	0.19	1.0
				11/13/2017	168	0.45	0.28	0.17	1.0
				5/16/2013	319	0.48	0.24	0.24	1.0
				3/4/2015	683	0.35	0.23	0.13	1.0
				3/17/2016	722	0.35	0.23	0.13	1.0
				3/24/2017	820	0.44	0.22	0.21	1.0
				8/28/2015	820	0.34	0.22	0.12	1.0
				8/21/2017	961	0.39	0.22	0.17	1.0
				4/15/2015	1159	0.40	0.21	0.18	1.0
				8/27/2015	1335	0.39	0.21	0.18	1.0
				8/16/2017	1543	0.35	0.20	0.15	1.0
				12/4/2013	1687	0.34	0.19	0.15	1.0
CW55-MC	489,471	1,538,283	6	3/23/2017	337	0.07	0.07	-0.01	1.0
				5/8/2013	649	0.09	0.07	0.02	1.0
				11/6/2013	941	0.09	0.07	0.02	1.0
				5/15/2014	1806	0.17	0.07	0.09	1.0
CW56-MC	488,115	1,545,279	6	5/20/2015	121	4.28	3.62	0.66	1.0
				10/21/2015	219	3.73	3.63	0.10	1.0
				5/17/2016	639	2.97	3.57	-0.60	1.0
				9/14/2017	782	3.09	3.57	-0.48	1.0
				10/26/2017	970	2.40	3.57	-1.17	1.0
				5/14/2013	1447	0.66	3.41	-2.75	1.0
				3/27/2015	1688	0.54	3.22	-2.68	1.0
				5/1/2015	1757	0.44	3.17	-2.72	1.0
CW57-MC	488,070	1,545,654	6	5/18/2016	130	0.16	0.13	0.03	1.0
				10/7/2016	638	0.16	0.13	0.03	1.0
				10/27/2016	781	0.18	0.13	0.05	1.0
				3/23/2017	973	0.16	0.13	0.03	1.0
				5/3/2017	1757	0.16	0.13	0.03	1.0
CW60-MC	488,262	1,545,470	6	6/1/2017	130	0.14	0.15	-0.01	1.0
				12/5/2017	638	0.12	0.19	-0.07	1.0
				5/14/2013	781	0.12	0.21	-0.09	1.0
				3/27/2015	973	0.11	0.23	-0.12	1.0
				5/13/2015	1688	0.11	0.31	-0.19	1.0
				5/18/2016	1757	0.11	0.32	-0.22	1.0
				10/27/2016	130	3.64	3.76	-0.12	1.0
				5/3/2017	638	3.00	3.16	-0.16	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
CW61-MC	487,779	1,544,927	6	12/4/2017	820	3.23	3.08	0.15	1.0
				12/4/2013	971	3.38	3.01	0.37	1.0
				1/16/2017	1446	1.67	2.34	-0.67	1.0
CW62-MC	487,847	1,544,555	6	10/13/2017	134	3.04	3.12	-0.08	1.0
				1/17/2013	638	2.90	2.61	0.29	1.0
				2/11/2014	820	3.08	2.57	0.51	1.0
				2/6/2015	971	3.10	2.55	0.55	1.0
				4/11/2015	1234	2.33	2.14	0.19	1.0
				8/27/2015	1396	1.21	1.89	-0.68	1.0
				10/28/2015	1431	1.07	1.84	-0.77	1.0
				1/27/2016	1444	1.36	1.83	-0.47	1.0
				1/15/2013	1501	1.02	1.89	-0.87	1.0
				7/10/2013	1583	1.10	1.80	-0.70	1.0
				1/22/2014	1688	1.35	1.71	-0.36	1.0
				7/11/2014	1793	1.11	1.63	-0.52	1.0
CW6-MC	488,301	1,542,588	6	1/30/2015	638	0.06	0.02	0.04	1.0
WCW-MC	488,520	1,541,045	6	5/3/2017	331	0.00	0.01	-0.01	1.0
				5/11/2017	941	0.01	0.01	0.00	1.0
				7/19/2017	1681	0.00	0.01	0.00	1.0
				8/28/2017	1683	0.01	0.01	0.00	1.0
WR25-MC	487,430	1,545,267	6	10/17/2017	176	0.29	0.29	-0.01	1.0
				3/7/2013	639	0.25	0.29	-0.04	1.0
				12/19/2014	940	0.17	0.28	-0.11	1.0
				2/18/2015	1672	0.18	0.27	-0.09	1.0
0538-LC	486,899	1,533,486	8	8/20/2015	77	0.17	0.19	-0.01	1.0
				9/30/2015	456	0.21	0.19	0.02	1.0
				1/12/2016	564	0.22	0.19	0.04	1.0
				2/19/2016	1318	0.20	0.19	0.01	1.0
0653-LC	486,570	1,533,283	8	9/4/2014	169	0.28	0.23	0.05	1.0
				3/18/2015	319	0.28	0.22	0.06	1.0
				7/1/2015	564	0.26	0.22	0.04	1.0
				8/20/2015	1310	0.27	0.21	0.06	1.0
0853-LC	484,824	1,532,124	8	3/28/2017	535	0.06	0.05	0.01	1.0
				10/6/2017	912	0.08	0.05	0.04	1.0
				5/1/2013	1647	0.10	0.05	0.05	1.0
CW29-LC	487,435	1,534,551	8	4/3/2015	79	0.22	0.18	0.04	1.0
				10/27/2016	169	0.21	0.18	0.03	1.0
				5/1/2017	641	0.22	0.18	0.04	1.0
				10/23/2017	809	0.21	0.18	0.03	1.0
				5/15/2013	961	0.19	0.18	0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				3/17/2016	1222	0.16	0.18	-0.02	1.0
				3/24/2017	1539	0.18	0.18	0.00	1.0
				10/2/2015	1686	0.19	0.18	0.01	1.0
CW31-LC	482,738	1,540,689	8	3/17/2016	338	0.02	0.01	0.01	1.0
				2/21/2013	639	0.01	0.01	0.00	1.0
				11/24/2013	913	0.01	0.01	0.00	1.0
				12/18/2013	1450	0.01	0.01	-0.01	1.0
				9/30/2014	1640	0.01	0.01	0.00	1.0
CW32-LC	483,523	1,543,413	8	3/4/2015	337	0.00	0.00	0.00	1.0
				6/12/2015	639	0.00	0.00	0.00	1.0
				10/2/2015	913	0.00	0.00	0.00	1.0
				3/17/2016	1450	0.00	0.00	0.00	1.0
				5/15/2013	1640	0.01	0.00	0.00	1.0
CW33-LC	486,347	1,543,814	8	3/17/2016	639	0.01	0.01	0.00	1.0
				3/24/2017	913	0.02	0.01	0.01	1.0
				3/5/2013	1640	0.01	0.01	0.00	1.0
CW36-LC	481,329	1,540,053	8	11/2/2013	639	0.00	0.01	0.00	1.0
				3/20/2014	928	0.01	0.01	0.00	1.0
				3/13/2015	1672	0.01	0.01	0.00	1.0
CW37-LC	484,853	1,537,240	8	10/16/2015	640	0.03	0.03	0.00	1.0
				3/16/2016	911	0.03	0.03	0.00	1.0
				10/27/2016	1378	0.03	0.03	0.00	1.0
				3/17/2017	1640	0.03	0.03	0.00	1.0
CW41-LC	488,583	1,533,174	8	3/17/2016	323	0.03	0.05	-0.02	1.0
				3/24/2017	640	0.06	0.05	0.00	1.0
				9/19/2017	931	0.08	0.05	0.03	1.0
				3/11/2015	1318	0.04	0.05	-0.02	1.0
				4/15/2015	1672	0.10	0.05	0.05	1.0
CW42-LC	487,177	1,533,169	8	8/8/2015	169	0.28	0.24	0.04	1.0
				3/16/2016	319	0.32	0.24	0.08	1.0
				9/9/2016	649	0.32	0.24	0.09	1.0
				3/20/2017	961	0.25	0.23	0.01	1.0
				5/1/2017	1318	0.27	0.23	0.04	1.0
				8/11/2017	1333	0.23	0.23	0.00	1.0
				10/13/2017	1540	0.21	0.23	-0.02	1.0
				5/1/2013	1686	0.22	0.22	-0.01	1.0
CW43-LC	482,493	1,537,587	8	11/24/2013	337	0.05	0.04	0.01	1.0
				7/1/2016	640	0.05	0.04	0.01	1.0
				3/29/2017	929	0.05	0.04	0.02	1.0
				7/19/2017	1451	0.05	0.04	0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
				12/1/2017	1673	0.05	0.04	0.01	1.0
#1_Deepwell-SA	493,633	1,543,307	10	5/11/2013	126	0.01	0.02	-0.01	1.0
				6/12/2014	310	0.01	0.02	-0.01	1.0
				7/10/2013	500	0.01	0.02	-0.01	1.0
				5/15/2014	674	0.01	0.02	-0.01	1.0
				11/15/2013	779	0.01	0.02	-0.01	1.0
				6/12/2014	851	0.01	0.02	-0.01	1.0
				9/11/2014	950	0.01	0.02	-0.01	1.0
				5/13/2016	1011	0.01	0.02	-0.01	1.0
				11/5/2013	1142	0.01	0.02	-0.01	1.0
				11/23/2013	1220	0.01	0.02	-0.01	1.0
				6/12/2014	1286	0.01	0.02	-0.01	1.0
				5/22/2015	1386	0.01	0.02	-0.01	1.0
#2_Deepwell-SA	490,972	1,542,424	10	10/16/2015	126	0.01	0.02	-0.01	1.0
				5/13/2016	309	0.01	0.02	-0.01	1.0
				10/22/2016	500	0.01	0.02	-0.01	1.0
				3/9/2017	674	0.02	0.02	0.00	1.0
				7/10/2013	779	0.01	0.02	-0.01	1.0
				5/15/2014	851	0.01	0.02	-0.01	1.0
				9/19/2014	950	0.01	0.02	-0.01	1.0
				9/19/2014	1011	0.01	0.02	-0.01	1.0
				3/7/2013	1142	0.01	0.02	-0.01	1.0
				11/15/2013	1220	0.01	0.02	-0.01	1.0
				4/2/2014	1286	0.01	0.02	-0.01	1.0
				6/18/2013	1386	0.01	0.02	-0.01	1.0
				11/15/2013	1507	0.01	0.02	-0.01	1.0
				4/2/2014	1582	0.01	0.02	-0.01	1.0
				6/12/2014	1659	0.01	0.02	-0.01	1.0
				7/11/2014	1758	0.02	0.02	0.00	1.0
				11/14/2014	1784	0.01	0.02	-0.01	1.0
0806R-SA	486,263	1,541,177	10	8/27/2014	554	0.02	0.02	0.00	1.0
				2/27/2015	647	0.03	0.02	0.01	1.0
				2/19/2016	1018	0.02	0.02	0.00	1.0
				3/15/2017	1584	0.11	0.02	0.09	1.0
0806-SA	486,320	1,541,120	10	2/9/2013	647	0.00	0.02	-0.02	1.0
0928-SA	491,700	1,548,250	10	6/13/2015	1121	0.09	0.02	0.07	1.0
0938-SA	473,040	1,539,500	10	6/13/2015	1017	0.01	0.02	-0.01	1.0
				5/1/2017	415	0.03	0.02	0.01	1.0
				6/19/2014	686	0.03	0.02	0.01	1.0
				5/22/2015	779	0.03	0.02	0.01	1.0

Table E-1. Groundwater Transport Model Uranium Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Uranium Concentration (mg/L)	Simulated Uranium Concentration (mg/L)	Residual (mg/L)	Weight
0943-SA	487,407	1,537,222	10	6/19/2014	850	0.03	0.02	0.01	1.0
				5/22/2015	950	0.03	0.02	0.01	1.0
				6/27/2017	1012	0.08	0.02	0.06	1.0
				3/8/2013	1075	0.03	0.02	0.01	1.0
				11/1/2013	1121	0.04	0.02	0.02	1.0
				3/27/2014	1151	0.04	0.02	0.02	1.0
				9/30/2014	1354	0.08	0.02	0.06	1.0
				4/1/2015	1387	0.10	0.02	0.08	1.0
				6/12/2015	1501	0.09	0.02	0.07	1.0
				10/2/2015	1508	0.09	0.02	0.07	1.0
				3/16/2016	1519	0.07	0.02	0.05	1.0
				9/30/2016	1583	0.06	0.02	0.04	1.0
				3/31/2017	1591	0.06	0.02	0.04	1.0
				3/8/2013	1660	0.12	0.02	0.10	1.0
				4/2/2014	1700	0.12	0.02	0.10	1.0
				9/30/2014	1750	0.09	0.02	0.07	1.0
0951R-SA	484,100	1,544,500	10	4/1/2015	66	0.04	0.02	0.02	1.0
				6/12/2015	718	0.08	0.02	0.06	1.0
				10/2/2015	779	0.05	0.02	0.03	1.0
				9/30/2016	850	0.04	0.02	0.02	1.0
				3/31/2017	950	0.03	0.02	0.01	1.0
				9/20/2017	953	0.03	0.02	0.01	1.0
				3/8/2013	1011	0.03	0.02	0.01	1.0
				11/1/2013	1146	0.03	0.02	0.01	1.0
				3/27/2014	1341	0.04	0.02	0.02	1.0
				4/1/2015	1387	0.04	0.02	0.02	1.0
				6/12/2015	1507	0.03	0.02	0.01	1.0
				10/2/2015	1582	0.04	0.02	0.02	1.0
				3/16/2016	1638	0.04	0.02	0.02	1.0
				9/30/2016	1659	0.03	0.02	0.01	1.0
				3/31/2017	1756	0.04	0.02	0.02	1.0
0951-SA	473,200	1,545,500	10	9/20/2017	905	0.03	0.02	0.01	1.0
				3/8/2013	1226	0.03	0.02	0.01	1.0
				11/1/2013	1590	0.03	0.02	0.01	1.0
				3/27/2014	1779	0.03	0.02	0.01	1.0
0998-SA	476,450	1,533,080	10	4/1/2015	660	0.01	0.02	-0.01	1.0
				6/12/2015	1003	0.01	0.02	-0.01	1.0
				10/2/2015	1445	0.01	0.02	-0.01	1.0
OLD_#1-SA	493,775	1,543,798	10	6/30/2017	1282	0.05	0.02	0.03	1.0
				6/25/2013	1289	0.03	0.02	0.01	1.0

Appendix F: Molybdenum Transport Calibration Target Dataset

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Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0481-AI	490,210	1,536,820	1	2/11/2016	131	<0.03	0.00	0.00	1.0
0481-AI	490,210	1,536,820	1	3/27/2017	527	<0.03	0.00	0.00	1.0
0482-AI	489,579	1,536,981	1	2/6/2013	191	0.06	0.05	0.01	1.0
				2/12/2014	499	0.06	0.04	0.02	1.0
0483-AI	489,753	1,536,586	1	6/30/2017	528	0.05	0.06	-0.01	1.0
				6/30/2017	619	0.05	0.06	-0.01	1.0
				3/7/2013	1229	0.05	0.04	0.01	1.0
				2/11/2016	319	0.04	0.07	-0.03	1.0
0490-AI	489,752	1,536,553	1	7/24/2016	871	<0.03	0.05	-0.02	1.0
				6/17/2015	1019	<0.03	0.05	-0.02	1.0
				5/6/2015	326	0.13	0.08	0.05	1.0
				10/22/2016	1229	0.07	0.04	0.03	1.0
				12/13/2017	1391	0.04	0.04	0.00	1.0
				12/1/2016	1528	<0.03	0.03	0.00	1.0
				4/6/2016	528	0.06	0.07	-0.01	1.0
				2/19/2016	309	0.04	0.08	-0.04	1.0
0491-AI	489,658	1,537,031	1	10/6/2017	626	0.09	0.03	0.06	1.0
				7/1/2015	626	<0.03	0.03	0.00	1.0
				8/20/2015	191	0.05	0.04	0.01	1.0
				12/21/2016	499	<0.03	0.04	-0.01	1.0
0496-AI	489,603	1,534,650	1	3/18/2015	65	<0.03	0.00	0.00	1.0
				2/12/2016	319	<0.03	0.01	0.00	1.0
				3/27/2017	456	<0.03	0.01	0.00	1.0
0497-AI	489,503	1,535,039	1	11/14/2017	556	<0.03	0.04	-0.01	1.0
				5/14/2013	683	<0.03	0.04	-0.01	1.0
				8/27/2014	722	<0.03	0.04	-0.01	1.0
				11/15/2013	168	<0.03	0.04	-0.01	1.0
				2/20/2015	1159	<0.03	0.06	-0.03	1.0
				7/19/2014	319	<0.03	0.03	0.00	1.0
				2/21/2017	1536	<0.03	0.06	-0.03	1.0
				2/26/2014	1638	<0.03	0.06	-0.03	1.0
				8/2/2016	456	<0.03	0.03	0.00	1.0
				6/10/2015	528	<0.03	0.04	-0.01	1.0
0498-AI	488,953	1,534,661	1	10/30/2013	528	<0.03	0.00	0.00	1.0
				4/6/2016	891	<0.03	0.01	0.00	1.0
				4/23/2015	1283	<0.03	0.01	0.00	1.0
				5/6/2015	1696	<0.03	0.02	0.00	1.0
				2/7/2013	319	<0.03	0.00	0.00	1.0
0522-AI	492,437	1,538,640	1	3/20/2017	1577	1.29	0.29	1.00	1.0
				2/19/2016	134	1.40	1.44	-0.04	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				2/24/2016	394	1.68	1.25	0.43	1.0
0531-AI	478,262	1,541,086	1	3/19/2013	1017	<0.03	0.00	0.00	1.0
0532-AI	482,400	1,518,700	1	10/14/2015	660	<0.03	-1.00	0.00	1.0
				10/6/2017	1003	<0.03	-1.00	0.00	1.0
				12/12/2014	1445	<0.03	-1.00	0.00	1.0
				3/27/2015	80	<0.03	-1.00	0.00	1.0
0538-AI	486,899	1,533,486	1	12/21/2016	564	<0.03	0.00	0.00	1.0
				3/5/2013	1318	<0.03	0.00	0.00	1.0
0540-AI	488,091	1,534,125	1	3/13/2015	123	<0.03	0.00	0.00	1.0
				3/17/2016	318	<0.03	0.00	0.00	1.0
				3/27/2017	641	<0.03	0.00	0.00	1.0
				8/9/2017	864	<0.03	0.00	0.00	1.0
				2/20/2013	1215	<0.03	0.00	0.00	1.0
				4/25/2017	1312	<0.03	0.00	0.00	1.0
				2/20/2013	1770	<0.03	0.00	0.00	1.0
0541-AI	477,236	1,539,831	1	9/9/2014	1459	<0.03	0.00	0.00	1.0
				4/25/2017	221	<0.03	0.00	0.00	1.0
				7/1/2015	933	<0.03	0.00	0.00	1.0
0551-AI	479,880	1,536,272	1	9/9/2016	1515	<0.03	0.00	0.00	1.0
				3/14/2017	1547	<0.03	0.00	0.00	1.0
				8/7/2015	604	<0.03	0.00	0.00	1.0
				3/19/2014	221	<0.03	0.00	0.00	1.0
				3/5/2013	37	<0.03	0.00	0.00	1.0
				3/19/2014	781	<0.03	0.00	0.00	1.0
				3/20/2015	410	<0.03	0.00	0.00	1.0
				3/16/2016	1137	<0.03	0.00	0.00	1.0
0553-AI	480,563	1,534,923	1	9/4/2014	410	<0.03	0.00	0.00	1.0
				2/26/2015	604	<0.03	0.00	0.00	1.0
				2/20/2016	781	<0.03	0.00	0.00	1.0
				3/27/2017	1137	<0.03	0.00	0.00	1.0
				8/9/2017	37	<0.03	0.00	0.00	1.0
				2/6/2013	1546	<0.03	0.00	0.00	1.0
				2/26/2014	221	<0.03	0.00	0.00	1.0
0554-AI	479,107	1,534,967	1	2/26/2014	410	<0.03	0.00	0.00	1.0
				9/4/2014	781	<0.03	0.00	0.00	1.0
				2/6/2013	1546	<0.03	0.00	0.00	1.0
				8/16/2013	37	<0.03	0.00	0.00	1.0
				3/27/2017	221	<0.03	0.00	0.00	1.0
				2/20/2013	787	<0.03	0.00	0.00	1.0
				2/20/2013	1143	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0555-AI	486,236	1,538,572	1	8/16/2013	36	<0.03	0.00	0.00	1.0
				2/26/2015	227	<0.03	0.00	0.00	1.0
				2/20/2016	408	<0.03	0.00	0.00	1.0
				10/30/2013	1546	<0.03	0.00	0.00	1.0
				2/12/2016	611	<0.03	0.00	0.00	1.0
0556-AI	486,184	1,538,006	1	8/20/2015	611	<0.03	0.00	0.00	1.0
				7/1/2015	408	<0.03	0.00	0.00	1.0
				7/1/2015	787	<0.03	0.00	0.00	1.0
				5/4/2013	1137	<0.03	0.00	0.00	1.0
				1/29/2014	1546	<0.03	0.00	0.00	1.0
				9/4/2014	36	<0.03	0.00	0.00	1.0
				3/18/2015	227	<0.03	0.00	0.00	1.0
0557-AI	486,000	1,537,204	1	6/12/2014	36	<0.03	0.00	0.00	1.0
				5/15/2015	408	<0.03	0.00	0.00	1.0
				5/7/2016	611	<0.03	0.00	0.00	1.0
				8/5/2016	787	<0.03	0.00	0.00	1.0
				10/25/2016	1137	<0.03	0.00	0.00	1.0
				12/1/2016	1546	<0.03	0.00	0.00	1.0
				10/18/2014	228	<0.03	0.00	0.00	1.0
0631-AI	483,756	1,532,234	1	3/21/2017	65	<0.03	0.00	0.00	1.0
				2/26/2013	456	<0.03	0.00	0.00	1.0
				8/21/2015	1457	<0.03	0.00	0.00	1.0
				8/10/2016	1641	<0.03	0.00	0.00	1.0
0632-AI	483,767	1,531,850	1	10/18/2014	1641	<0.03	0.00	0.00	1.0
				8/18/2017	65	<0.03	0.00	0.00	1.0
				8/21/2015	456	<0.03	0.00	0.00	1.0
0634-AI	480,362	1,541,652	1	9/12/2014	1652	<0.03	0.01	0.00	1.0
				5/4/2013	1002	<0.03	0.02	0.00	1.0
				8/5/2016	1106	0.04	0.02	0.02	1.0
				11/14/2014	1145	<0.03	0.02	0.00	1.0
				5/15/2015	855	<0.03	0.03	0.00	1.0
				12/1/2016	1192	<0.03	0.02	0.00	1.0
				4/29/2016	575	<0.03	0.03	0.00	1.0
				8/5/2016	842	<0.03	0.03	0.00	1.0
				3/21/2017	1300	<0.03	0.02	0.00	1.0
				10/22/2014	897	<0.03	0.02	0.00	1.0
				8/6/2014	1391	0.04	0.01	0.03	1.0
				8/17/2017	1807	<0.03	0.01	0.00	1.0
				12/24/2014	1431	<0.03	0.01	0.00	1.0
				8/21/2015	961	<0.03	0.02	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0637-AI	474,710	1,545,409	1	10/18/2014	1451	<0.03	-0.67	0.00	1.0
				7/1/2015	1739	<0.03	-0.67	0.00	1.0
0641-AI	491,110	1,536,494	1	7/19/2014	912	<0.03	0.00	0.00	1.0
0642-AI	490,932	1,536,104	1	3/19/2013	912	<0.03	0.01	0.00	1.0
0644-AI	485,450	1,533,481	1	6/18/2013	649	<0.03	0.00	0.00	1.0
				2/23/2017	1310	<0.03	0.00	0.00	1.0
0646-AI	484,952	1,533,246	1	2/27/2015	611	<0.03	0.00	0.00	1.0
				2/9/2013	1310	<0.03	0.00	0.00	1.0
				8/27/2014	1778	<0.03	0.00	0.00	1.0
0647-AI	478,308	1,536,623	1	10/31/2013	37	<0.03	0.00	0.00	1.0
				2/19/2016	221	<0.03	0.00	0.00	1.0
				2/12/2014	604	<0.03	0.00	0.00	1.0
				2/12/2013	1717	<0.03	0.00	0.00	1.0
0649-AI	479,798	1,534,730	1	3/15/2017	37	<0.03	0.01	0.00	1.0
				8/6/2014	66	0.05	0.01	0.04	1.0
				2/9/2013	228	<0.03	0.01	0.00	1.0
				2/27/2015	457	<0.03	0.01	0.00	1.0
				2/19/2016	793	<0.03	0.01	0.00	1.0
				3/27/2017	1148	<0.03	0.01	0.00	1.0
				8/9/2013	1534	<0.03	0.01	0.00	1.0
0650-AI	482,135	1,536,779	1	2/12/2014	38	<0.03	-1.00	0.00	1.0
				3/29/2017	228	<0.03	-1.00	0.00	1.0
				10/4/2017	422	<0.03	-1.00	0.00	1.0
				8/9/2013	612	<0.03	-1.00	0.00	1.0
				10/23/2014	806	<0.03	-1.00	0.00	1.0
				2/19/2016	1138	<0.03	-1.00	0.00	1.0
				7/8/2016	1546	<0.03	-1.00	0.00	1.0
0653-AI	486,570	1,533,283	1	2/9/2013	319	<0.03	0.00	0.00	1.0
				3/3/2017	564	<0.03	0.00	0.00	1.0
				11/16/2013	1310	<0.03	0.00	0.00	1.0
0654-AI	478,636	1,541,994	1	11/9/2017	891	<0.03	0.01	0.00	1.0
				3/20/2013	1778	<0.03	0.01	0.00	1.0
0657-AI	478,392	1,537,497	1	10/17/2014	134	<0.03	0.00	0.00	1.0
0658-AI	478,436	1,535,922	1	9/30/2015	604	<0.03	0.00	0.00	1.0
				5/17/2017	781	<0.03	0.00	0.00	1.0
				4/23/2015	1512	<0.03	0.00	0.00	1.0
				2/10/2016	421	<0.03	0.00	0.00	1.0
				3/25/2015	37	<0.03	0.00	0.00	1.0
				3/25/2015	302	<0.03	0.00	0.00	1.0
				5/1/2013	1192	<0.03	0.01	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0659-AI	480,772	1,541,689	1	1/12/2016	842	<0.03	0.02	0.00	1.0
				5/6/2015	856	<0.03	0.02	0.00	1.0
				8/20/2015	1300	<0.03	0.01	0.00	1.0
				7/11/2017	897	<0.03	0.02	0.00	1.0
				2/19/2016	962	<0.03	0.02	0.00	1.0
				7/24/2016	1391	0.04	0.01	0.03	1.0
				12/13/2017	1002	<0.03	0.02	0.00	1.0
				6/17/2015	1145	<0.03	0.02	0.00	1.0
				4/6/2016	1149	0.04	0.01	0.03	1.0
				4/25/2017	1539	<0.03	0.01	0.00	1.0
0681-AI	482,734	1,540,676	1	2/20/2013	77	<0.03	0.00	0.00	1.0
				2/20/2016	816	<0.03	0.00	0.00	1.0
0684-AI	478,499	1,540,273	1	2/12/2013	1017	<0.03	0.00	0.00	1.0
0686-AI	475,438	1,545,319	1	2/12/2014	1739	<0.03	0.03	0.00	1.0
				3/14/2017	711	<0.03	0.04	-0.01	1.0
				8/9/2013	1451	<0.03	0.03	0.00	1.0
0688-AI	483,954	1,541,257	1	8/27/2014	63	<0.03	0.00	0.00	1.0
				3/13/2015	303	<0.03	0.00	0.00	1.0
				12/12/2013	444	<0.03	0.00	0.00	1.0
				10/23/2014	802	<0.03	0.00	0.00	1.0
				10/1/2015	1171	<0.03	0.01	0.00	1.0
				10/7/2016	1546	<0.03	0.01	0.00	1.0
				2/26/2014	1681	<0.03	0.01	0.00	1.0
0690-AI	493,465	1,540,279	1	9/19/2014	51	1.34	1.37	-0.03	1.0
				8/10/2017	1575	0.81	0.51	0.30	1.0
0691-AI	493,860	1,540,276	1	10/23/2014	51	0.13	0.33	-0.20	1.0
				3/5/2015	1575	0.26	-0.10	0.36	1.0
0692-AI	493,175	1,535,892	1	3/3/2017	911	<0.03	0.00	0.00	1.0
0802-AI	488,277	1,540,765	1	12/11/2017	617	<0.03	0.00	0.00	1.0
				4/14/2016	63	<0.03	0.00	0.00	1.0
				10/8/2014	442	<0.03	0.00	0.00	1.0
				10/8/2014	808	<0.03	0.00	0.00	1.0
				10/23/2014	948	<0.03	0.00	0.00	1.0
				10/23/2014	442	0.04	0.00	0.04	1.0
				12/12/2013	1170	0.23	0.00	0.23	1.0
				10/14/2015	1348	<0.03	0.00	0.00	1.0
				4/5/2013	1533	<0.03	0.00	0.00	1.0
				10/31/2013	1681	0.17	0.00	0.17	1.0
				10/4/2017	421	<0.03	0.00	0.00	1.0
				8/9/2013	611	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0844-AI	487,002	1,538,376	1	3/21/2013	786	<0.03	0.00	0.00	1.0
				10/23/2014	1145	<0.03	0.00	0.00	1.0
				10/1/2015	1546	<0.03	0.00	0.00	1.0
				10/27/2017	36	<0.03	0.00	0.00	1.0
				12/16/2016	227	<0.03	0.00	0.00	1.0
0845-AI	487,833	1,537,280	1	1/29/2014	1546	<0.03	0.00	0.00	1.0
				9/19/2017	421	<0.03	0.00	0.00	1.0
				1/22/2016	611	<0.03	0.00	0.00	1.0
				12/16/2016	36	<0.03	0.00	0.00	1.0
				9/30/2016	228	<0.03	0.00	0.00	1.0
				1/24/2017	786	<0.03	0.00	0.00	1.0
				1/23/2013	1146	<0.03	0.00	0.00	1.0
0846-AI	484,730	1,537,219	1	6/26/2014	1137	0.05	0.00	0.05	1.0
				2/5/2015	50	0.05	0.00	0.05	1.0
				9/30/2016	50	<0.03	0.00	0.00	1.0
				3/22/2017	303	<0.03	0.00	0.00	1.0
				2/20/2015	1546	<0.03	0.00	0.00	1.0
				2/20/2015	421	<0.03	0.00	0.00	1.0
				3/22/2017	1681	<0.03	0.00	0.00	1.0
				3/22/2017	611	<0.03	0.00	0.00	1.0
				2/20/2013	806	<0.03	0.00	0.00	1.0
				6/26/2014	911	<0.03	0.00	0.00	1.0
				2/20/2013	962	<0.03	0.00	0.00	1.0
0852-AI	493,989	1,535,610	1	1/23/2013	911	<0.03	0.00	0.00	1.0
0862-AI	487,800	1,534,265	1	1/29/2014	124	<0.03	0.00	0.00	1.0
				2/4/2015	394	<0.03	0.00	0.00	1.0
				1/21/2016	528	<0.03	0.00	0.00	1.0
				1/16/2017	655	<0.03	0.00	0.00	1.0
				2/5/2015	865	<0.03	0.00	0.00	1.0
				1/22/2016	1222	<0.03	0.00	0.00	1.0
				1/22/2013	1312	<0.03	0.00	0.00	1.0
				1/24/2017	1393	<0.03	0.00	0.00	1.0
				1/29/2014	1431	<0.03	0.00	0.00	1.0
				2/5/2015	1540	<0.03	0.00	0.00	1.0
0864-AI	486,464	1,533,735	1	1/21/2016	57	<0.03	0.00	0.00	1.0
				1/16/2017	962	<0.03	0.00	0.00	1.0
				1/17/2013	1317	<0.03	0.00	0.00	1.0
				1/28/2014	1690	<0.03	0.00	0.00	1.0
				1/29/2014	962	<0.03	0.00	0.00	1.0
				1/17/2013	655	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0865-AI	488,429	1,534,123	1	2/4/2015	1215	<0.03	0.00	0.00	1.0
				1/21/2016	1312	<0.03	0.00	0.00	1.0
				2/21/2013	864	<0.03	0.00	0.00	1.0
0866-AI	488,340	1,534,494	1	1/21/2016	660	<0.03	0.00	0.00	1.0
				12/20/2016	962	<0.03	0.00	0.00	1.0
				1/16/2017	123	<0.03	0.00	0.00	1.0
				11/30/2017	1312	<0.03	0.00	0.00	1.0
				1/16/2017	683	<0.03	0.00	0.00	1.0
				12/10/2013	1431	<0.03	0.00	0.00	1.0
				10/11/2014	1540	<0.03	0.00	0.00	1.0
				1/17/2013	583	<0.03	0.00	0.00	1.0
				10/24/2015	722	<0.03	0.00	0.00	1.0
				1/28/2014	620	<0.03	0.00	0.00	1.0
				11/24/2013	1689	<0.03	0.00	0.00	1.0
				2/5/2015	655	<0.03	0.00	0.00	1.0
0868-AI	491,033	1,534,848	1	5/2/2017	911	<0.03	0.01	0.00	1.0
0869-AI	486,073	1,533,251	1	5/15/2013	564	0.04	0.00	0.04	1.0
				6/13/2015	77	<0.03	0.00	0.00	1.0
				5/2/2017	169	<0.03	0.00	0.00	1.0
0881-AI	481,478	1,542,034	1	3/16/2016	1514	<0.03	0.00	0.00	1.0
				11/24/2013	787	<0.03	0.01	0.00	1.0
				6/26/2014	39	0.05	0.04	0.01	1.0
				11/13/2017	603	0.04	0.01	0.03	1.0
				2/6/2015	303	<0.03	0.02	0.00	1.0
				6/13/2015	1144	<0.03	0.00	0.00	1.0
				3/19/2016	407	<0.03	0.01	0.00	1.0
0882-AI	482,396	1,541,404	1	3/21/2017	43	<0.03	0.00	0.00	1.0
				3/31/2017	220	<0.03	0.00	0.00	1.0
				9/20/2017	407	<0.03	0.00	0.00	1.0
				11/1/2013	603	<0.03	0.00	0.00	1.0
				3/27/2014	787	<0.03	0.00	0.00	1.0
				3/8/2013	1144	<0.03	0.00	0.00	1.0
				9/30/2014	1534	<0.03	0.00	0.00	1.0
0884-AI	481,498	1,542,677	1	3/27/2014	583	<0.03	0.00	0.00	1.0
				9/30/2014	39	<0.03	0.00	0.00	1.0
				9/30/2014	787	<0.03	0.00	0.00	1.0
				4/1/2015	1144	<0.03	0.00	0.00	1.0
				6/12/2015	1546	<0.03	0.00	0.00	1.0
				6/12/2015	220	<0.03	0.00	0.00	1.0
				10/2/2015	407	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0885-AI	483,474	1,541,919	1	9/30/2016	1548	<0.03	0.04	-0.01	1.0
				3/31/2017	1737	<0.03	0.05	-0.02	1.0
				10/2/2015	220	<0.03	0.00	0.00	1.0
				3/16/2016	661	<0.03	0.01	0.00	1.0
0886-AI	482,487	1,542,327	1	11/1/2013	1144	<0.03	0.00	0.00	1.0
				7/6/2016	1285	<0.03	0.00	0.00	1.0
				6/12/2015	39	<0.03	0.00	0.00	1.0
				11/15/2013	1522	0.04	0.01	0.03	1.0
				9/30/2014	319	<0.03	0.00	0.00	1.0
				3/31/2017	654	<0.03	0.00	0.00	1.0
				10/2/2015	407	<0.03	0.00	0.00	1.0
				9/20/2017	787	<0.03	0.00	0.00	1.0
				12/2/2016	1773	0.05	0.02	0.03	1.0
0887-AI	482,469	1,543,063	1	6/12/2014	78	<0.03	0.00	0.00	1.0
				9/10/2014	654	0.06	0.00	0.06	1.0
				7/30/2015	814	<0.03	0.00	0.00	1.0
0888-AI	479,335	1,542,285	1	3/20/2017	814	<0.03	0.02	0.00	1.0
				7/11/2014	1135	<0.03	0.02	0.00	1.0
				6/28/2017	1547	<0.03	0.01	0.00	1.0
				7/24/2014	1739	<0.03	0.01	0.00	1.0
				3/19/2014	78	<0.03	0.00	0.00	1.0
0890-AI	480,088	1,541,365	1	6/27/2017	1391	<0.03	0.01	0.00	1.0
				3/5/2013	576	0.04	0.01	0.03	1.0
				7/12/2016	1002	<0.03	0.01	0.00	1.0
				10/31/2013	1597	<0.03	0.01	0.00	1.0
				7/16/2015	842	<0.03	0.01	0.00	1.0
				6/19/2014	1106	<0.03	0.01	0.00	1.0
				3/16/2016	855	<0.03	0.01	0.00	1.0
				5/2/2013	1652	<0.03	0.01	0.00	1.0
				5/2/2017	1145	<0.03	0.01	0.00	1.0
				8/8/2017	1807	<0.03	0.01	0.00	1.0
				3/5/2013	897	<0.03	0.01	0.00	1.0
				6/12/2015	1192	<0.03	0.01	0.00	1.0
				3/18/2015	121	<0.03	0.01	0.00	1.0
				7/9/2013	961	0.04	0.01	0.03	1.0
				6/10/2015	1300	<0.03	0.01	0.00	1.0
0891-AI	493,751	1,540,904	1	2/5/2015	1575	0.09	-1.00	1.09	1.0
				8/6/2015	51	0.32	-0.25	0.57	1.0
				11/23/2017	1145	<0.03	0.00	0.00	1.0
				10/9/2015	43	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0893-AI	482,244	1,541,934	1	5/18/2016	1533	<0.03	0.00	0.00	1.0
				10/12/2017	220	<0.03	0.00	0.00	1.0
				11/23/2013	407	<0.03	0.00	0.00	1.0
				2/10/2016	604	<0.03	0.00	0.00	1.0
				11/2/2017	802	0.04	0.00	0.04	1.0
0910-AI	481,150	1,528,800	1	2/19/2014	346	<0.03	0.00	0.00	1.0
				2/12/2013	660	<0.03	0.00	0.00	1.0
				10/8/2016	1003	<0.03	0.00	0.00	1.0
0920-AI	496,900	1,555,800	1	10/12/2017	1375	<0.03	0.00	0.00	1.0
				5/1/2015	422	<0.03	0.00	0.00	1.0
				5/1/2015	627	<0.03	0.00	0.00	1.0
				2/12/2013	1682	<0.03	0.00	0.00	1.0
				11/23/2013	660	<0.03	0.00	0.00	1.0
				8/6/2015	794	<0.03	0.00	0.00	1.0
				3/1/2017	1522	<0.03	0.00	0.00	1.0
				8/6/2014	1199	<0.03	0.00	0.00	1.0
0921-AI	495,800	1,555,400	1	5/18/2016	646	<0.03	0.00	0.00	1.0
				5/15/2014	661	0.06	0.00	0.06	1.0
				11/23/2017	1805	<0.03	0.00	0.00	1.0
				2/10/2016	646	<0.03	0.00	0.00	1.0
0922-AI	492,500	1,555,200	1	2/5/2015	661	<0.03	0.00	0.00	1.0
0935-AI	476,629	1,540,115	1	3/16/2016	346	<0.03	0.01	0.00	1.0
				10/30/2013	1017	<0.03	0.00	0.00	1.0
0994-AI	476,240	1,539,700	1	10/2/2015	94	0.07	0.07	0.00	1.0
				11/7/2017	303	<0.03	0.06	-0.03	1.0
				2/5/2015	451	<0.03	0.06	-0.03	1.0
				1/16/2013	639	<0.03	0.06	-0.03	1.0
				6/12/2015	829	<0.03	0.06	-0.03	1.0
				11/1/2013	1022	<0.03	0.05	-0.02	1.0
				1/6/2017	1696	<0.03	0.04	-0.01	1.0
				1/28/2014	1760	<0.03	0.04	-0.01	1.0
0996-AI	477,989	1,537,621	1	9/18/2014	1446	<0.03	0.00	0.00	1.0
				1/19/2016	1737	<0.03	0.00	0.00	1.0
				7/17/2015	221	<0.03	0.00	0.00	1.0
0999-AI	480,187	1,524,230	1	1/28/2014	80	<0.03	-0.78	0.00	1.0
				9/18/2014	660	<0.03	-0.78	0.00	1.0
				6/12/2015	1003	<0.03	-0.78	0.00	1.0
				7/17/2015	1445	<0.03	-0.78	0.00	1.0
1F-AI	493,831	1,544,952	1	1/19/2016	1368	<0.03	0.02	0.00	1.0
				1/6/2017	1722	<0.03	0.02	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
1J-AI	493,695	1,541,986	1	11/7/2013	1117	0.10	-1.00	1.10	1.0
				1/6/2017	1484	<0.03	-1.00	0.00	1.0
				3/31/2017	22	0.12	-1.00	1.12	1.0
				7/18/2017	394	0.09	-1.00	1.09	1.0
				11/7/2017	766	0.06	-1.00	1.06	1.0
1M-AI	493,133	1,541,327	1	3/31/2017	1368	0.10	0.13	-0.03	1.0
				7/18/2017	1541	0.06	0.12	-0.06	1.0
1N-AI	494,396	1,543,100	1	3/27/2015	781	<0.03	-1.00	0.00	1.0
				8/27/2015	1541	<0.03	-1.00	0.00	1.0
				11/6/2017	51	<0.03	-1.00	0.00	1.0
				1/16/2013	542	<0.03	-1.00	0.00	1.0
1P-AI	493,924	1,541,902	1	8/17/2017	51	<0.03	-1.00	0.00	1.0
				3/23/2017	542	0.06	-1.00	1.06	1.0
				2/21/2013	781	0.04	-1.00	1.04	1.0
				4/1/2015	1541	<0.03	-1.00	0.00	1.0
1Q-AI	493,619	1,541,993	1	3/22/2017	22	0.27	-1.00	1.27	1.0
				11/9/2017	393	0.30	-1.00	1.30	1.0
				1/17/2017	766	0.11	-0.55	0.66	1.0
				2/11/2014	1115	0.06	-1.00	1.06	1.0
				1/16/2013	1476	0.11	-1.00	1.11	1.0
1R-AI	493,623	1,542,071	1	11/13/2017	17	<0.03	-1.00	0.00	1.0
				1/29/2015	393	<0.03	-1.00	0.00	1.0
				2/6/2015	765	0.07	-0.79	0.86	1.0
				1/26/2016	1115	<0.03	-1.00	0.00	1.0
				5/20/2015	1476	0.05	-1.00	1.05	1.0
1S-AI	493,614	1,541,920	1	5/29/2014	766	0.06	-0.46	0.52	1.0
				5/29/2014	1117	0.10	-1.00	1.10	1.0
				5/16/2013	21	0.05	-1.00	1.05	1.0
				5/20/2015	1484	<0.03	-1.00	0.00	1.0
				5/3/2017	394	0.09	-1.00	1.09	1.0
1T-AI	493,656	1,541,990	1	1/16/2013	766	0.10	-1.00	1.10	1.0
				11/24/2013	1115	0.11	-1.00	1.11	1.0
				6/12/2015	1476	0.09	-1.00	1.09	1.0
				5/3/2017	16	0.05	-1.00	1.05	1.0
				6/12/2015	392	0.07	-1.00	1.07	1.0
1U-AI	493,542	1,542,001	1	1/26/2016	17	0.84	-1.00	1.84	1.0
				1/24/2017	51	1.20	-1.00	2.20	1.0
				3/23/2017	393	0.19	-1.00	1.19	1.0
				1/16/2013	765	0.16	0.47	-0.31	1.0
				5/1/2013	1115	0.11	-0.30	0.41	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				10/26/2017	1476	0.15	-1.00	1.15	1.0
1V-AI	493,579	1,541,982	1	5/29/2014	16	2.21	-1.00	3.21	1.0
				5/13/2015	393	0.14	-1.00	1.14	1.0
				10/21/2015	766	0.12	0.20	-0.08	1.0
				10/27/2016	1115	0.14	-1.00	1.14	1.0
				6/1/2017	1476	0.09	-1.00	1.09	1.0
AW-AI	488,015	1,540,235	1	4/15/2015	1027	0.06	0.04	0.02	1.0
				11/4/2015	1449	0.05	0.03	0.02	1.0
				6/12/2015	1794	0.06	0.03	0.03	1.0
				10/26/2017	344	0.11	0.06	0.05	1.0
				5/29/2014	648	0.06	0.05	0.01	1.0
B10-AI	491,133	1,542,517	1	2/6/2015	327	25.30	13.52	11.8	1.0
				1/29/2016	1582	18.50	8.54	9.96	1.0
B11-AI	491,329	1,542,517	1	1/16/2017	893	24.80	6.80	18.0	1.0
				1/17/2013	1582	11.40	9.60	1.80	1.0
B12-AI	488,915	1,542,524	1	2/11/2014	134	1.60	2.78	-1.18	1.0
				8/3/2017	542	2.41	1.90	0.51	1.0
				11/20/2014	767	1.78	0.43	1.35	1.0
				7/29/2015	1174	4.84	0.15	4.69	1.0
				11/13/2014	1777	2.14	0.23	1.91	1.0
B13-AI	490,223	1,541,841	1	7/28/2015	134	0.67	0.22	0.45	1.0
				3/29/2017	767	0.37	0.06	0.31	1.0
				5/2/2013	1547	0.44	0.10	0.34	1.0
B4-AI	489,942	1,542,471	1	11/13/2014	893	27.40	27.81	-0.41	1.0
				7/28/2015	1582	29.20	5.92	23.3	1.0
B5-AI	490,141	1,542,474	1	11/26/2014	1581	18.60	6.45	12.2	1.0
				11/26/2014	893	31.00	13.39	17.6	1.0
B6-AI	490,341	1,542,478	1	11/26/2014	893	12.80	10.57	2.23	1.0
				6/10/2015	327	29.50	10.44	19.1	1.0
B7-AI	490,540	1,542,488	1	5/16/2015	170	0.53	11.27	-10.7	1.0
				5/15/2015	327	38.30	12.57	25.7	1.0
				11/13/2014	893	12.50	11.93	0.57	1.0
				11/13/2014	1582	26.30	13.13	13.2	1.0
B8-AI	490,734	1,542,488	1	5/16/2015	893	47.50	14.71	32.8	1.0
				11/13/2014	1582	22.70	16.15	6.55	1.0
B9-AI	490,935	1,542,514	1	5/16/2015	893	22.20	10.87	11.3	1.0
				11/9/2017	1581	20.70	10.97	9.73	1.0
B-AI	489,311	1,541,684	1	5/2/2013	1541	<0.03	0.02	0.00	1.0
				6/24/2015	534	0.04	0.02	0.02	1.0
				12/11/2017	872	<0.03	0.02	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
BC-AI	487,910	1,543,655	1	11/20/2014	534	0.09	0.11	-0.02	1.0
				6/10/2015	871	0.56	0.07	0.49	1.0
				12/11/2017	1638	0.07	0.04	0.03	1.0
C10-AI	491,629	1,542,182	1	7/28/2015	1170	15.10	5.67	9.43	1.0
				12/12/2017	1369	13.20	4.07	9.13	1.0
				5/15/2015	1550	18.50	1.06	17.4	1.0
				11/20/2014	66	19.70	15.35	4.35	1.0
				6/10/2015	304	6.82	11.20	-4.38	1.0
				7/29/2015	451	16.20	9.83	6.37	1.0
				11/26/2014	638	4.71	8.51	-3.80	1.0
				6/10/2015	820	3.34	7.72	-4.38	1.0
				11/23/2013	892	9.98	7.34	2.64	1.0
				11/19/2014	1004	8.83	6.65	2.18	1.0
C11-AI	491,844	1,542,376	1	11/26/2014	637	1.95	8.25	-6.30	1.0
				6/10/2015	892	13.70	6.82	6.88	1.0
				6/10/2015	1004	4.45	6.05	-1.60	1.0
				12/12/2017	1369	7.32	3.95	3.37	1.0
				11/19/2014	1550	10.30	0.82	9.48	1.0
				5/15/2015	1723	8.77	0.32	8.45	1.0
C12-AI	492,029	1,542,375	1	7/28/2015	892	13.60	4.56	9.04	1.0
				5/2/2013	1004	3.26	4.01	-0.75	1.0
				11/19/2014	1369	2.95	2.64	0.31	1.0
				7/28/2015	1550	4.43	0.62	3.81	1.0
				5/19/2015	1723	4.14	0.26	3.88	1.0
				11/19/2014	305	4.80	7.63	-2.83	1.0
C6-AI	491,142	1,541,533	1	9/30/2015	820	1.04	2.31	-1.27	1.0
				9/30/2016	892	1.36	2.58	-1.22	1.0
				9/26/2017	1005	0.75	2.85	-2.10	1.0
				6/12/2015	1170	2.44	2.59	-0.15	1.0
				9/30/2015	1540	1.10	1.44	-0.34	1.0
				9/30/2016	1550	1.30	1.43	-0.13	1.0
				9/26/2017	1723	3.70	1.29	2.41	1.0
				5/15/2015	304	2.71	2.51	0.20	1.0
				11/20/2014	451	1.36	2.54	-1.18	1.0
				5/19/2015	66	1.36	1.64	-0.28	1.0
				7/28/2015	638	0.71	2.17	-1.46	1.0
C7-AI	491,280	1,541,734	1	10/1/2015	638	30.40	8.25	22.1	1.0
				9/26/2017	892	18.20	8.06	10.1	1.0
				3/1/2017	1005	18.00	7.85	10.2	1.0
				2/12/2013	1550	5.53	3.20	2.33	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
C8-AI	491,415	1,541,906	1	4/20/2013	66	21.60	17.84	3.76	1.0
				7/9/2013	303	9.99	13.94	-3.95	1.0
				7/10/2016	451	19.60	12.14	7.46	1.0
				11/1/2013	638	1.96	10.39	-8.43	1.0
				2/12/2014	820	19.50	9.73	9.77	1.0
				5/1/2017	892	5.80	9.38	-3.58	1.0
				4/22/2014	1005	2.15	8.61	-6.46	1.0
				7/11/2014	1170	8.21	7.26	0.95	1.0
				10/21/2016	1369	1.02	5.07	-4.05	1.0
				10/26/2017	1550	5.47	3.51	1.96	1.0
C9-AI	491,545	1,542,075	1	2/4/2015	892	16.20	8.46	7.74	1.0
				7/24/2014	638	18.50	9.74	8.76	1.0
				7/18/2017	1005	18.40	7.64	10.8	1.0
				4/3/2015	1550	11.40	2.82	8.58	1.0
				7/17/2015	1723	4.13	1.81	2.32	1.0
				11/28/2017	304	12.40	12.83	-0.43	1.0
CW44-AI	488,891	1,535,048	1	11/27/2013	1283	<0.03	0.02	0.00	1.0
				10/1/2014	319	<0.03	0.00	0.00	1.0
				2/28/2013	1432	<0.03	0.02	0.00	1.0
				6/29/2017	528	<0.03	0.01	0.00	1.0
				7/2/2015	618	<0.03	0.01	0.00	1.0
				12/17/2016	940	<0.03	0.01	0.00	1.0
D1-AI	489,615	1,542,140	1	11/27/2013	443	2.88	1.75	1.13	1.0
				7/30/2015	1539	0.94	0.79	0.15	1.0
				7/30/2015	556	2.92	1.66	1.26	1.0
				7/19/2014	1639	1.33	0.77	0.56	1.0
				8/9/2017	569	2.60	1.64	0.96	1.0
				8/11/2017	806	4.50	1.48	3.02	1.0
				8/29/2015	64	2.70	2.08	0.62	1.0
				7/31/2017	927	4.47	1.69	2.78	1.0
				6/25/2013	1170	2.16	1.80	0.36	1.0
				5/19/2016	64	2.75	2.08	0.67	1.0
				10/1/2014	189	2.25	1.99	0.26	1.0
				10/1/2014	1288	2.05	1.39	0.66	1.0
D2-AI	492,107	1,542,641	1	8/10/2016	534	40.30	6.01	34.3	1.0
DA3-AI	489,390	1,542,664	1	7/19/2014	1582	12.40	3.66	8.74	1.0
				11/15/2013	893	18.90	10.13	8.77	1.0
DC-AI	487,060	1,543,646	1	8/2/2016	891	<0.03	0.03	0.00	1.0
				6/19/2014	1638	<0.03	0.03	0.00	1.0
				8/17/2017	304	0.12	0.00	0.12	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
DD2-AI	489,251	1,547,439	1	7/6/2017	122	<0.03	0.00	0.00	1.0
				10/2/2014	1680	<0.03	0.00	0.00	1.0
				8/14/2017	947	<0.03	0.00	0.00	1.0
				8/20/2015	766	0.08	0.00	0.08	1.0
				12/4/2013	1011	<0.03	0.00	0.00	1.0
				7/3/2015	1745	<0.03	0.00	0.00	1.0
				5/7/2016	326	<0.03	0.00	0.00	1.0
				10/2/2014	1135	<0.03	0.00	0.00	1.0
				12/21/2016	1766	<0.03	0.00	0.00	1.0
				6/29/2017	1787	<0.03	0.00	0.00	1.0
				7/3/2015	1233	<0.03	0.00	0.00	1.0
				3/20/2013	415	<0.03	0.00	0.00	1.0
				7/2/2015	42	<0.03	0.00	0.00	1.0
				12/21/2016	1377	<0.03	0.00	0.00	1.0
				6/18/2013	500	<0.03	0.00	0.00	1.0
				6/29/2017	1520	<0.03	0.00	0.00	1.0
				10/4/2014	582	<0.03	0.00	0.00	1.0
				3/20/2015	710	<0.03	0.00	0.00	1.0
				12/4/2013	1582	<0.03	0.00	0.00	1.0
				3/20/2017	851	<0.03	0.00	0.00	1.0
DD-AI	488,943	1,546,989	1	6/29/2017	851	<0.03	0.00	0.00	1.0
				7/18/2015	326	<0.03	0.00	0.00	1.0
				11/20/2013	947	<0.03	0.00	0.00	1.0
				10/2/2014	582	<0.03	0.00	0.00	1.0
				8/14/2017	1680	<0.03	0.00	0.00	1.0
				7/31/2017	1376	<0.03	0.00	0.00	1.0
				10/2/2014	1011	<0.03	0.00	0.00	1.0
				7/1/2015	710	<0.03	0.00	0.00	1.0
				7/31/2017	407	<0.03	0.00	0.00	1.0
				8/25/2016	1745	<0.03	0.00	0.00	1.0
				8/19/2015	1520	<0.03	0.00	0.00	1.0
				10/2/2014	42	<0.03	0.00	0.00	1.0
				7/21/2015	1135	<0.03	0.00	0.00	1.0
				8/10/2016	1233	<0.03	0.00	0.00	1.0
				10/2/2014	500	<0.03	0.00	0.00	1.0
				11/15/2013	1787	<0.03	0.00	0.00	1.0
				10/9/2016	766	<0.03	0.00	0.00	1.0
				7/2/2015	122	<0.03	0.00	0.00	1.0
				8/10/2016	1583	<0.03	0.00	0.00	1.0
				6/29/2017	304	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
DQ-AI	491,005	1,542,591	1	3/21/2017	893	0.88	7.74	-6.86	1.0
DR-AI	489,966	1,542,884	1	6/18/2013	893	18.70	17.24	1.46	1.0
DT-AI	489,293	1,542,871	1	10/11/2014	893	5.37	11.97	-6.60	1.0
DZ-AI	491,501	1,542,834	1	10/2/2014	1638	36.60	27.50	9.10	1.0
				8/1/2017	890	46.70	12.32	34.4	1.0
F-AI	489,554	1,539,908	1	2/16/2016	998	<0.03	0.00	0.00	1.0
				5/7/2013	624	<0.03	0.00	0.00	1.0
				5/5/2016	1171	<0.03	0.00	0.00	1.0
				12/21/2016	303	<0.03	0.00	0.00	1.0
				5/15/2014	807	<0.03	0.00	0.00	1.0
				11/6/2014	1359	<0.03	0.00	0.00	1.0
				2/18/2015	998	<0.03	0.00	0.00	1.0
				12/4/2013	443	<0.03	0.00	0.00	1.0
				7/18/2015	64	<0.03	0.00	0.00	1.0
				7/10/2016	1778	<0.03	0.00	0.00	1.0
				11/6/2013	1536	<0.03	0.00	0.00	1.0
FB-AI	488,857	1,540,417	1	8/8/2015	305	<0.03	0.00	0.00	1.0
				5/2/2017	1778	<0.03	0.00	0.00	1.0
				10/18/2016	444	<0.03	0.00	0.00	1.0
				10/18/2016	949	<0.03	0.00	0.00	1.0
				2/16/2017	1359	<0.03	0.00	0.00	1.0
				10/9/2015	624	<0.03	0.00	0.00	1.0
				2/18/2015	998	<0.03	0.00	0.00	1.0
				7/10/2016	1536	<0.03	0.00	0.00	1.0
				5/5/2016	1171	<0.03	0.00	0.00	1.0
				5/2/2015	64	<0.03	0.00	0.00	1.0
				2/16/2016	807	<0.03	0.00	0.00	1.0
GH-AI	489,509	1,538,807	1	5/2/2015	64	<0.03	0.00	0.00	1.0
				5/15/2014	1536	<0.03	0.00	0.00	1.0
				10/9/2015	801	<0.03	0.00	0.00	1.0
				8/8/2015	627	<0.03	0.00	0.00	1.0
				11/6/2014	1778	<0.03	0.00	0.00	1.0
				11/20/2017	949	<0.03	0.00	0.00	1.0
				5/7/2013	1170	<0.03	0.00	0.00	1.0
				7/18/2017	305	<0.03	0.00	0.00	1.0
				10/25/2017	443	<0.03	0.00	0.00	1.0
				11/5/2013	1359	<0.03	0.00	0.00	1.0
GN-AI	490,944	1,538,602	1	7/9/2014	65	<0.03	0.00	0.00	1.0
				10/9/2014	800	<0.03	0.00	0.00	1.0
				5/4/2017	1171	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
[illegible]	[illegible]	[illegible]	[illegible]	1/27/2016	1686	<0.03	0.00	0.00	1.0
				10/16/2015	961	<0.03	0.00	0.00	1.0
				10/10/2014	1539	<0.03	0.00	0.00	1.0
GV-AI	491,428	1,537,701	1	2/17/2017	1723	<0.03	0.00	0.00	1.0
				2/10/2017	1451	<0.03	0.00	0.00	1.0
				10/14/2015	1005	<0.03	0.00	0.00	1.0
K10-AI	491,638	1,541,305	1	8/8/2015	1771	2.62	0.66	1.96	1.0
				5/11/2017	766	6.97	1.20	5.77	1.0
				2/28/2017	15	0.81	0.93	-0.12	1.0
				9/16/2016	892	3.03	1.45	1.58	1.0
				2/26/2016	305	1.35	1.47	-0.12	1.0
				5/1/2015	1466	4.63	0.99	3.64	1.0
				10/9/2015	393	1.27	1.43	-0.16	1.0
				12/11/2015	927	6.13	1.49	4.64	1.0
				5/3/2017	625	1.05	1.13	-0.08	1.0
				7/19/2017	1113	3.32	1.51	1.81	1.0
				11/18/2014	1550	1.36	0.85	0.51	1.0
K11-AI	491,490	1,541,325	1	2/16/2017	15	1.01	0.80	0.21	1.0
				5/2/2017	305	1.03	1.07	-0.04	1.0
				8/11/2015	393	0.93	1.09	-0.16	1.0
				3/7/2013	625	1.01	0.90	0.11	1.0
				6/27/2017	892	1.26	1.14	0.12	1.0
				10/9/2015	927	1.27	1.21	0.06	1.0
				12/19/2014	1113	1.12	1.44	-0.32	1.0
				2/18/2015	1466	1.20	1.08	0.12	1.0
				2/20/2016	1550	1.36	0.92	0.44	1.0
				7/18/2017	1659	2.21	0.80	1.41	1.0
				9/2/2016	1771	3.92	0.72	3.20	1.0
K2-AI	491,587	1,540,736	1	10/23/2017	310	0.08	0.05	0.03	1.0
K4-AI	492,371	1,541,211	1	2/12/2016	1466	1.19	0.07	1.12	1.0
				2/7/2013	1550	1.32	0.07	1.25	1.0
				3/27/2017	1659	1.68	0.06	1.62	1.0
				8/9/2013	1770	1.10	0.06	1.04	1.0
				6/25/2015	15	1.57	1.08	0.49	1.0
				5/11/2016	393	0.64	0.44	0.20	1.0
				12/15/2016	626	1.42	0.32	1.10	1.0
				10/23/2014	766	1.58	0.27	1.31	1.0
				10/1/2015	892	1.21	0.23	0.98	1.0
				7/6/2016	927	0.71	0.22	0.49	1.0
				7/12/2016	1116	0.29	0.16	0.13	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				#VALUE!	1296	0.82	0.10	0.72	1.0
K5-AI	491,935	1,541,269	1	2/6/2015	1113	2.46	0.95	1.51	1.0
				6/13/2015	1550	1.47	0.46	1.01	1.0
				3/28/2017	1296	3.02	0.74	2.28	1.0
				2/14/2014	15	1.41	1.26	0.15	1.0
				2/20/2015	305	1.83	1.28	0.55	1.0
				11/24/2013	1659	3.96	0.40	3.56	1.0
				6/13/2015	1466	1.19	0.53	0.66	1.0
				3/27/2017	393	1.86	1.24	0.62	1.0
				2/7/2013	625	2.37	1.13	1.24	1.0
				8/9/2013	892	1.57	1.08	0.49	1.0
				2/26/2015	927	1.72	1.07	0.65	1.0
				6/19/2013	1771	4.07	0.35	3.72	1.0
K7-AI	492,237	1,541,232	1	7/17/2015	1466	2.30	0.09	2.21	1.0
				1/28/2014	892	0.57	0.46	0.11	1.0
				8/8/2017	15	0.87	0.84	0.03	1.0
				9/18/2014	927	0.68	0.43	0.25	1.0
				10/7/2016	305	0.78	0.86	-0.08	1.0
				2/5/2015	1113	1.05	0.30	0.75	1.0
				1/21/2016	1550	1.38	0.09	1.29	1.0
				10/9/2015	393	0.79	0.77	0.02	1.0
				7/19/2016	1659	1.58	0.09	1.49	1.0
				12/12/2014	625	0.71	0.63	0.08	1.0
				1/19/2016	1770	0.64	0.08	0.56	1.0
				6/12/2015	1296	0.53	0.16	0.37	1.0
				2/12/2014	766	0.71	0.56	0.15	1.0
K8-AI	492,081	1,541,250	1	7/19/2016	305	1.33	1.09	0.24	1.0
				6/12/2015	1466	1.79	0.30	1.49	1.0
				1/16/2013	393	0.73	1.06	-0.33	1.0
				11/1/2013	625	1.56	0.98	0.58	1.0
				7/17/2015	1550	2.07	0.26	1.81	1.0
				11/7/2017	1659	2.28	0.22	2.06	1.0
				7/18/2017	892	0.86	0.84	0.02	1.0
				1/6/2017	927	0.90	0.81	0.09	1.0
				1/28/2014	1117	0.63	0.64	-0.01	1.0
				3/31/2017	15	1.32	1.12	0.20	1.0
				9/18/2014	1296	1.39	0.46	0.93	1.0
				1/6/2017	1770	2.84	0.20	2.64	1.0
				7/18/2017	1113	4.10	1.19	2.91	1.0
				6/12/2015	15	3.20	1.80	1.40	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
K9-AI	491,787	1,541,287	1	9/18/2014	1296	1.37	1.02	0.35	1.0
				1/16/2013	305	2.64	1.48	1.16	1.0
				7/17/2015	393	2.67	1.40	1.27	1.0
				11/6/2017	1466	1.16	0.78	0.38	1.0
				11/1/2013	625	4.06	1.19	2.87	1.0
				7/19/2016	1550	1.34	0.68	0.66	1.0
				1/19/2016	766	2.14	1.18	0.96	1.0
				3/31/2017	892	1.87	1.24	0.63	1.0
				2/5/2015	1771	2.66	0.52	2.14	1.0
				1/28/2014	927	3.26	1.24	2.02	1.0
KF-AI	491,169	1,540,870	1	1/6/2017	1547	0.07	0.02	0.05	1.0
				11/1/2013	932	0.06	0.05	0.01	1.0
L10-AI	492,310	1,539,250	1	1/28/2014	722	0.50	0.18	0.32	1.0
				9/18/2014	1019	0.42	0.06	0.36	1.0
				3/31/2017	1396	0.43	0.11	0.32	1.0
				7/18/2017	1581	0.54	0.13	0.41	1.0
				6/12/2015	1756	0.40	0.14	0.26	1.0
L5-AI	492,730	1,539,946	1	7/17/2015	722	0.42	0.16	0.26	1.0
				1/22/2016	1052	0.34	0.12	0.22	1.0
				1/16/2013	1581	0.39	0.11	0.28	1.0
				7/19/2016	1756	0.31	0.10	0.21	1.0
L6-AI	493,110	1,540,526	1	11/6/2017	722	0.24	0.24	0.00	1.0
				1/19/2016	1019	0.26	0.21	0.05	1.0
				1/16/2013	1396	0.29	0.19	0.10	1.0
				7/19/2016	1581	0.35	0.18	0.17	1.0
				11/1/2013	1756	0.31	0.17	0.14	1.0
L7-AI	492,842	1,540,113	1	1/6/2017	1052	0.39	0.03	0.36	1.0
				9/18/2014	1581	0.39	0.07	0.32	1.0
				3/31/2017	1756	0.19	0.09	0.10	1.0
				1/28/2014	722	0.40	0.16	0.24	1.0
L8-AI	492,621	1,539,773	1	7/17/2015	1581	0.47	0.07	0.40	1.0
				2/5/2015	722	0.28	0.15	0.13	1.0
				6/12/2015	1019	0.45	0.03	0.42	1.0
				11/7/2017	1396	0.78	0.06	0.72	1.0
L9-AI	492,463	1,539,509	1	10/17/2015	1756	0.32	0.14	0.18	1.0
				3/28/2017	722	0.54	0.29	0.25	1.0
				7/22/2015	1052	0.31	0.21	0.10	1.0
				12/24/2014	1581	0.43	0.15	0.28	1.0
L-AI	492,150	1,538,970	1	10/27/2016	722	0.62	0.15	0.47	1.0
				5/1/2017	1396	0.46	0.13	0.33	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
[illegible]	[illegible]	[illegible]	1	10/23/2017	1581	0.52	0.13	0.39	1.0
				12/24/2014	1756	0.47	0.12	0.35	1.0
M10-AI	486,723	1,543,677	1	11/19/2015	135	<0.03	0.00	0.00	1.0
				5/1/2017	1172	<0.03	0.01	0.00	1.0
				10/23/2017	1543	<0.03	0.01	0.00	1.0
M16-AI	485,112	1,543,252	1	12/24/2014	1005	0.14	0.01	0.13	1.0
				10/17/2015	1722	0.14	0.07	0.07	1.0
M3-AI	489,151	1,542,805	1	10/27/2016	327	9.20	5.95	3.25	1.0
				5/1/2017	893	9.49	5.98	3.51	1.0
				10/23/2017	1542	3.51	3.29	0.22	1.0
M5-AI	489,080	1,542,360	1	11/19/2015	337	0.15	0.31	-0.16	1.0
				5/1/2017	940	<0.03	0.35	-0.32	1.0
M6-AI	486,674	1,543,097	1	10/23/2017	134	1.58	1.08	0.50	1.0
				12/24/2014	792	2.06	0.23	1.83	1.0
				5/1/2017	1543	1.71	0.08	1.63	1.0
M7-AI	486,523	1,542,790	1	12/24/2014	79	1.22	1.00	0.22	1.0
				10/17/2015	792	0.95	0.24	0.71	1.0
				10/27/2016	1172	1.02	0.13	0.89	1.0
M9-AI	486,699	1,543,310	1	6/12/2015	793	0.87	0.18	0.69	1.0
				12/24/2014	327	7.02	0.38	6.64	1.0
				11/19/2015	352	2.09	0.36	1.73	1.0
				3/23/2017	893	1.16	0.16	1.00	1.0
				12/4/2013	1005	1.89	0.14	1.75	1.0
				7/29/2015	1172	0.77	0.12	0.65	1.0
				10/23/2017	52	0.67	0.75	-0.08	1.0
				5/1/2017	638	3.55	0.22	3.33	1.0
ML-AI	486,691	1,543,902	1	5/16/2013	1543	<0.03	0.00	0.00	1.0
				5/15/2013	135	<0.03	0.00	0.00	1.0
				3/4/2015	1172	<0.03	0.00	0.00	1.0
MO-AI	485,518	1,543,620	1	10/27/2016	1170	0.08	0.00	0.08	1.0
				3/23/2017	1395	<0.03	0.01	0.00	1.0
				3/25/2015	63	<0.03	0.00	0.00	1.0
				5/3/2017	1536	<0.03	0.01	0.00	1.0
				8/19/2015	801	<0.03	0.00	0.00	1.0
				5/16/2013	305	<0.03	0.00	0.00	1.0
				3/16/2016	1019	0.04	0.00	0.04	1.0
				3/24/2017	443	<0.03	0.00	0.00	1.0
				5/14/2013	893	0.38	0.54	-0.16	1.0
				3/27/2015	1005	0.32	0.43	-0.11	1.0
				5/13/2015	1172	0.34	0.34	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
MQ-AI	486,326	1,543,173	1	5/14/2013	52	0.17	0.44	-0.27	1.0
				6/1/2017	327	0.99	0.70	0.29	1.0
				5/18/2016	1543	0.31	0.22	0.09	1.0
				10/27/2016	1722	0.33	0.18	0.15	1.0
				3/27/2015	638	0.41	0.73	-0.32	1.0
				5/1/2015	792	0.32	0.63	-0.31	1.0
MR-AI	483,574	1,542,609	1	6/12/2014	1170	0.08	0.07	0.01	1.0
				8/24/2017	1539	0.05	0.08	-0.03	1.0
				10/23/2014	1683	0.06	0.08	-0.02	1.0
				11/15/2013	1581	0.06	0.08	-0.02	1.0
				6/12/2014	1348	0.06	0.08	-0.02	1.0
				10/1/2015	1746	0.06	0.08	-0.02	1.0
				11/13/2017	834	0.05	0.04	0.01	1.0
				5/3/2017	799	0.05	0.04	0.01	1.0
				6/12/2015	950	0.06	0.06	0.00	1.0
MS-AI	485,570	1,542,607	1	2/24/2017	1278	<0.03	0.07	-0.04	1.0
				3/28/2017	1548	<0.03	0.07	-0.04	1.0
				8/28/2014	1660	<0.03	0.07	-0.04	1.0
				8/9/2013	1795	<0.03	0.07	-0.04	1.0
				12/15/2016	121	0.05	0.08	-0.03	1.0
				3/21/2013	327	0.17	0.10	0.07	1.0
MT-AI	483,531	1,543,221	1	2/7/2013	136	<0.03	0.00	0.00	1.0
MV-AI	484,418	1,542,618	1	2/20/2015	135	0.06	0.09	-0.03	1.0
				2/14/2014	813	0.04	0.12	-0.08	1.0
MW-AI	486,346	1,543,802	1	2/12/2016	135	<0.03	0.00	0.00	1.0
				2/14/2014	1543	<0.03	0.00	0.00	1.0
MX-AI	486,244	1,541,287	1	3/27/2017	960	<0.03	0.00	0.00	1.0
				8/16/2013	1170	<0.03	0.00	0.00	1.0
				3/7/2013	1539	<0.03	0.00	0.00	1.0
				4/2/2014	1683	<0.03	0.00	0.00	1.0
				8/27/2014	135	<0.03	0.00	0.00	1.0
				2/20/2015	799	<0.03	0.00	0.00	1.0
				12/28/2016	1777	<0.03	0.00	0.00	1.0
MY-AI	486,213	1,542,200	1	10/22/2016	1446	<0.03	0.01	0.00	1.0
				7/30/2014	1777	<0.03	0.01	0.00	1.0
MZ-AI	486,757	1,543,485	1	5/15/2014	1543	<0.03	0.06	-0.03	1.0
				5/2/2017	135	<0.03	0.07	-0.04	1.0
				5/1/2017	792	<0.03	0.09	-0.06	1.0
				6/13/2015	1172	<0.03	0.07	-0.04	1.0
NB-AI	491,296	1,545,000	1	3/1/2017	970	33.60	21.29	12.3	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				8/6/2014	1693	45.90	6.37	39.5	1.0
NC-AI	491,282	1,545,220	1	12/24/2014	1688	0.11	0.38	-0.27	1.0
				12/12/2014	834	<0.03	0.31	-0.28	1.0
				5/2/2017	969	0.20	0.38	-0.18	1.0
ND-AI	494,872	1,545,927	1	10/23/2017	862	<0.03	0.00	0.00	1.0
				10/27/2016	337	<0.03	0.00	0.00	1.0
				5/1/2017	816	<0.03	0.00	0.00	1.0
O-AI	492,725	1,545,060	1	5/15/2013	969	<0.03	0.89	-0.86	1.0
				3/17/2016	1689	<0.03	0.65	-0.62	1.0
P2-AI	490,912	1,546,555	1	3/24/2017	1542	<0.03	0.00	0.00	1.0
				9/19/2017	52	<0.03	0.00	0.00	1.0
				11/24/2013	820	<0.03	0.00	0.00	1.0
P3-AI	490,785	1,546,159	1	3/21/2013	52	<0.03	0.00	0.00	1.0
				3/4/2015	820	<0.03	0.00	0.00	1.0
				3/17/2016	1542	<0.03	0.00	0.00	1.0
P4-AI	491,899	1,546,504	1	3/4/2015	52	<0.03	0.00	0.00	1.0
				11/24/2013	641	<0.03	0.00	0.00	1.0
				12/18/2013	820	<0.03	0.00	0.00	1.0
				6/12/2015	1542	<0.03	0.00	0.00	1.0
P-AI	491,058	1,546,691	1	3/5/2013	127	<0.03	0.00	0.00	1.0
				3/17/2017	309	<0.03	0.00	0.00	1.0
				3/13/2015	500	<0.03	0.00	0.00	1.0
				11/2/2013	869	<0.03	0.00	0.00	1.0
				10/16/2015	1023	<0.03	0.00	0.00	1.0
				3/20/2014	1232	<0.03	0.00	0.00	1.0
				6/12/2015	1717	<0.03	0.00	0.00	1.0
				10/2/2015	1759	<0.03	0.00	0.00	1.0
Q-AI	492,153	1,548,693	1	3/23/2017	1799	<0.03	0.00	0.00	1.0
				2/21/2013	1234	<0.03	0.00	0.00	1.0
				4/1/2015	1375	<0.03	0.00	0.00	1.0
				3/23/2017	1395	<0.03	0.00	0.00	1.0
				2/21/2013	1542	<0.03	0.00	0.00	1.0
				10/4/2014	1583	<0.03	0.00	0.00	1.0
				3/17/2016	134	<0.03	0.00	0.00	1.0
				4/1/2015	1612	<0.03	0.00	0.00	1.0
				2/21/2013	816	<0.03	0.00	0.00	1.0
				11/24/2013	851	<0.03	0.00	0.00	1.0
				5/8/2013	134	<0.03	0.00	0.00	1.0
				11/6/2013	816	<0.03	0.00	0.00	1.0
				5/15/2014	862	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
R-AI	494,514	1,550,372	1	5/20/2015	1233	<0.03	0.00	0.00	1.0
				10/21/2015	1395	<0.03	0.00	0.00	1.0
				5/17/2016	1583	<0.03	0.00	0.00	1.0
				9/14/2017	1798	<0.03	0.00	0.00	1.0
S11-AI	488,150	1,544,793	1	10/26/2017	337	0.05	0.00	0.05	1.0
				12/5/2017	1476	0.04	0.00	0.04	1.0
				5/18/2016	1746	<0.03	0.00	0.00	1.0
S12-AI	488,628	1,543,297	1	12/4/2017	406	1.93	1.03	0.90	1.0
				12/4/2013	766	10.80	1.06	9.74	1.0
				10/7/2016	16	1.97	1.30	0.67	1.0
S1-AI	488,401	1,543,288	1	1/16/2017	830	0.57	0.93	-0.36	1.0
S2-AI	488,299	1,543,127	1	2/11/2014	190	5.01	4.29	0.72	1.0
				1/30/2015	1659	3.73	1.60	2.13	1.0
				2/6/2015	386	4.43	3.91	0.52	1.0
				1/17/2013	557	3.92	3.36	0.56	1.0
				4/11/2015	760	4.66	3.05	1.61	1.0
				7/10/2013	927	3.18	2.61	0.57	1.0
				7/18/2017	1114	2.49	2.35	0.14	1.0
				1/22/2014	1286	5.41	2.10	3.31	1.0
				7/11/2014	1473	3.82	1.67	2.15	1.0
				10/13/2017	15	5.85	4.52	1.33	1.0
S3-AI	488,714	1,542,857	1	7/17/2015	831	5.69	1.18	4.51	1.0
				1/20/2016	940	7.52	1.24	6.28	1.0
				7/10/2016	1660	4.25	0.75	3.50	1.0
S4-AI	488,359	1,543,344	1	1/15/2013	190	0.55	0.89	-0.34	1.0
				7/10/2016	1170	0.46	1.10	-0.64	1.0
				3/20/2014	1286	0.55	1.01	-0.46	1.0
				4/11/2015	443	0.52	0.93	-0.41	1.0
				7/30/2015	557	0.48	0.93	-0.45	1.0
				7/11/2014	1533	0.28	0.82	-0.54	1.0
				3/14/2017	1659	0.30	0.83	-0.53	1.0
				7/19/2017	568	0.48	0.93	-0.45	1.0
				7/18/2017	1777	0.31	0.84	-0.53	1.0
				7/10/2013	927	0.52	1.07	-0.55	1.0
				1/13/2017	64	0.65	0.85	-0.20	1.0
				3/16/2016	1124	0.44	1.12	-0.68	1.0
S5R-AI	488,938	1,543,150	1	11/13/2017	893	44.90	14.39	30.5	1.0
				7/17/2015	1542	0.63	6.77	-6.14	1.0
				7/23/2014	327	34.70	15.63	19.1	1.0
				3/5/2013	838	72.50	6.58	65.9	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
SA-AI	488,811	1,543,122	1	1/29/2016	893	73.40	7.36	66.0	1.0
				6/12/2015	1114	2.46	7.18	-4.72	1.0
				3/23/2017	1124	34.80	6.81	28.0	1.0
				11/24/2013	1541	66.70	2.34	64.4	1.0
				4/18/2015	1777	43.20	2.50	40.7	1.0
SB-AI	488,811	1,543,371	1	6/12/2015	893	85.20	11.08	74.1	1.0
				1/20/2016	1541	79.80	4.70	75.1	1.0
				1/29/2016	1773	73.30	7.03	66.3	1.0
SE6-AI	488,615	1,543,244	1	2/18/2015	1477	71.50	1.55	70.0	1.0
				8/28/2017	406	1.42	1.15	0.27	1.0
				3/22/2017	16	0.13	1.84	-1.71	1.0
				10/19/2016	1777	3.36	1.64	1.72	1.0
				1/27/2016	758	24.00	1.18	22.8	1.0
				8/8/2015	766	22.80	1.18	21.6	1.0
				2/20/2014	1121	15.80	1.42	14.4	1.0
SM-AI	488,566	1,543,748	1	7/30/2014	869	0.86	1.71	-0.85	1.0
				10/18/2016	136	2.39	2.63	-0.24	1.0
				4/23/2015	1583	15.20	0.77	14.4	1.0
				5/1/2015	514	1.10	1.92	-0.82	1.0
SO-AI	488,381	1,543,652	1	3/27/2017	514	5.10	1.38	3.72	1.0
				2/26/2014	869	4.14	0.99	3.15	1.0
				8/9/2017	1583	3.59	0.37	3.22	1.0
SQ-AI	488,814	1,543,507	1	3/28/2017	893	73.20	13.22	60.0	1.0
SS-AI	488,666	1,543,374	1	10/6/2017	16	0.34	1.31	-0.97	1.0
ST-AI	488,688	1,543,215	1	10/2/2015	327	19.00	2.56	16.4	1.0
				3/17/2016	893	52.60	2.33	50.3	1.0
				2/21/2013	1121	0.63	2.72	-2.09	1.0
				9/30/2014	1484	0.58	1.92	-1.34	1.0
				3/24/2017	1542	0.38	1.91	-1.53	1.0
				3/20/2013	16	16.00	11.47	4.53	1.0
SUB1-AI	489,100	1,537,620	1	5/15/2013	121	<0.03	0.00	0.00	1.0
				3/17/2016	1759	<0.03	0.01	0.00	1.0
SUB2-AI	490,370	1,537,392	1	3/24/2017	514	<0.03	0.00	0.00	1.0
				9/19/2017	862	<0.03	0.00	0.00	1.0
				9/30/2014	1024	<0.03	0.00	0.00	1.0
				3/4/2015	1396	<0.03	0.00	0.00	1.0
				3/16/2016	1612	<0.03	0.00	0.00	1.0
				3/16/2016	120	<0.03	0.00	0.00	1.0
				10/27/2016	309	<0.03	0.00	0.00	1.0
				3/20/2017	120	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
SUB3-AI	489,420	1,538,280	1	4/15/2015	1613	<0.03	0.00	0.00	1.0
				8/11/2017	310	<0.03	0.00	0.00	1.0
				3/11/2015	1759	<0.03	0.00	0.00	1.0
				5/1/2017	514	<0.03	0.00	0.00	1.0
				9/9/2016	834	<0.03	0.00	0.00	1.0
				10/13/2017	1038	<0.03	0.00	0.00	1.0
SV-AI	488,813	1,543,676	1	7/1/2016	893	66.30	14.85	51.4	1.0
				3/29/2017	1541	10.80	5.51	5.29	1.0
				8/8/2015	327	37.70	11.87	25.8	1.0
SW-AI	488,812	1,543,783	1	12/1/2017	863	28.70	14.95	13.7	1.0
				5/1/2013	1583	1.98	5.67	-3.69	1.0
				7/19/2017	514	16.50	11.50	5.00	1.0
SZ-AI	488,833	1,544,367	1	3/20/2017	766	77.00	25.62	51.4	1.0
				8/11/2017	1124	79.30	18.77	60.5	1.0
				5/15/2013	1476	2.80	5.27	-2.47	1.0
				11/24/2013	17	99.40	79.92	19.5	1.0
				5/16/2013	406	93.40	34.20	59.2	1.0
T10-AI	492,791	1,543,434	1	12/17/2016	1675	96.40	19.83	76.6	1.0
				3/11/2015	688	104.00	49.12	54.9	1.0
				11/13/2017	939	103.00	41.72	61.3	1.0
T11-AI	489,887	1,544,585	1	11/13/2017	681	6.02	11.93	-5.91	1.0
				3/24/2017	939	22.20	11.91	10.3	1.0
				5/16/2013	1548	26.30	4.13	22.2	1.0
T12-AI	490,317	1,544,583	1	3/4/2015	121	4.01	6.96	-2.95	1.0
				3/17/2016	681	4.49	11.63	-7.14	1.0
				8/28/2015	939	5.24	14.00	-8.76	1.0
T14-AI	491,071	1,544,565	1	8/21/2017	695	56.90	43.70	13.2	1.0
T15-AI	491,953	1,544,480	1	8/16/2017	695	27.60	31.31	-3.71	1.0
				4/15/2015	890	40.40	30.78	9.62	1.0
T16-AI	492,718	1,544,276	1	8/27/2015	694	77.40	60.15	17.3	1.0
				5/13/2015	866	77.30	57.19	20.1	1.0
T17-AI	489,430	1,544,008	1	6/12/2014	865	63.60	44.91	18.7	1.0
				12/4/2013	681	63.90	46.33	17.6	1.0
T18-AI	490,333	1,543,977	1	7/10/2013	681	11.20	14.58	-3.38	1.0
				5/15/2014	866	3.69	15.00	-11.3	1.0
T19-AI	490,722	1,543,958	1	6/12/2014	681	19.40	13.38	6.02	1.0
				9/11/2014	866	8.69	13.59	-4.90	1.0
				5/13/2016	1773	16.30	18.31	-2.01	1.0
T20-AI	491,048	1,543,935	1	11/15/2013	904	11.80	12.18	-0.38	1.0
				5/22/2015	1805	18.30	18.54	-0.24	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
T21-AI	491,882	1,543,951	1	10/16/2015	121	20.40	22.35	-1.95	1.0
				11/23/2013	689	17.90	26.03	-8.13	1.0
				5/13/2016	890	22.90	26.50	-3.60	1.0
				10/22/2016	1805	29.10	31.93	-2.83	1.0
T22-AI	492,311	1,543,876	1	3/9/2017	689	1.85	36.72	-34.9	1.0
				6/12/2014	891	2.40	37.15	-34.8	1.0
				11/5/2013	939	3.58	37.42	-33.8	1.0
T23-AI	492,805	1,543,901	1	9/19/2014	695	79.80	58.46	21.3	1.0
				9/19/2014	891	70.80	54.04	16.8	1.0
T2-AI	489,303	1,543,538	1	7/10/2013	326	21.60	35.84	-14.2	1.0
				5/15/2014	687	20.60	38.08	-17.5	1.0
				3/7/2013	939	26.00	38.40	-12.4	1.0
				11/15/2013	1806	59.90	36.92	23.0	1.0
T36-AI	489,688	1,543,735	1	4/2/2014	864	13.40	22.85	-9.45	1.0
T39-AI	491,669	1,544,498	1	7/11/2014	695	11.20	28.77	-17.6	1.0
				11/14/2014	890	18.20	28.61	-10.4	1.0
T40-AI	491,466	1,543,819	1	12/24/2014	891	37.80	15.09	22.7	1.0
				6/18/2013	1806	21.50	24.20	-2.70	1.0
T41-AI	491,079	1,543,278	1	3/5/2016	687	13.40	7.47	5.93	1.0
				11/15/2013	865	17.90	7.88	10.0	1.0
T4-AI	489,699	1,543,340	1	8/9/2013	688	11.40	10.53	0.87	1.0
				2/12/2014	939	14.70	10.50	4.20	1.0
				3/17/2017	121	12.20	11.53	0.67	1.0
T5-AI	490,289	1,543,307	1	8/27/2014	688	35.10	10.48	24.6	1.0
				2/27/2015	939	25.00	10.42	14.6	1.0
T6-AI	490,655	1,543,282	1	2/19/2016	869	19.00	9.02	9.98	1.0
T7-AI	491,484	1,543,272	1	5/15/2013	869	59.80	14.70	45.1	1.0
T8-AI	491,914	1,543,296	1	5/2/2017	865	32.30	39.05	-6.75	1.0
T9-AI	492,337	1,543,347	1	6/13/2015	689	58.50	56.93	1.57	1.0
				5/2/2017	939	38.20	53.46	-15.3	1.0
TA-AI	492,426	1,542,471	1	6/13/2015	1003	2.29	1.85	0.44	1.0
				5/1/2017	1369	2.02	1.04	0.98	1.0
				3/22/2017	1729	3.50	0.57	2.93	1.0
T-AI	492,260	1,542,536	1	6/19/2014	893	5.18	2.59	2.59	1.0
				5/22/2015	1003	8.49	2.59	5.90	1.0
				6/19/2014	1369	5.45	2.32	3.13	1.0
				5/22/2015	1729	4.03	1.60	2.43	1.0
TB-AI	492,616	1,542,351	1	6/27/2017	1004	0.49	0.47	0.02	1.0
				3/16/2016	1729	1.93	0.11	1.82	1.0
				3/31/2017	1520	0.10	0.02	0.08	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
X-AI	491,892	1,540,512	1	10/2/2015	43	0.07	0.08	-0.01	1.0
				9/30/2014	110	0.11	0.08	0.03	1.0
				6/12/2015	190	0.08	0.08	0.00	1.0
				6/12/2015	1286	0.10	0.04	0.06	1.0
				10/2/2015	305	0.21	0.08	0.13	1.0
				9/30/2016	407	0.07	0.07	0.00	1.0
				3/8/2013	1581	0.10	0.02	0.08	1.0
				3/31/2017	477	0.07	0.06	0.01	1.0
				9/20/2017	557	0.05	0.06	-0.01	1.0
				10/2/2015	1390	0.13	0.03	0.10	1.0
				6/25/2013	1759	0.08	0.02	0.06	1.0
				10/23/2017	1792	0.09	0.02	0.07	1.0
				6/12/2015	569	0.06	0.06	0.00	1.0
				10/2/2015	765	0.16	0.07	0.09	1.0
				10/31/2013	1659	0.08	0.02	0.06	1.0
				9/30/2016	822	0.12	0.07	0.05	1.0
				3/31/2017	927	0.11	0.07	0.04	1.0
				9/20/2017	1012	0.08	0.06	0.02	1.0
				11/1/2013	1135	0.06	0.05	0.01	1.0
				4/1/2015	1198	0.07	0.05	0.02	1.0
0494-UC	489,494	1,536,689	4	3/15/2017	871	0.04	0.04	0.00	1.0
				2/7/2013	1142	<0.03	0.04	-0.01	1.0
				8/16/2013	1290	0.04	0.04	0.00	1.0
				3/7/2013	39	0.04	0.04	0.00	1.0
				8/16/2013	189	0.05	0.04	0.01	1.0
				2/26/2014	1520	0.06	0.04	0.02	1.0
				4/2/2014	408	0.05	0.04	0.01	1.0
				3/5/2015	532	0.09	0.04	0.05	1.0
				2/23/2016	793	0.05	0.04	0.01	1.0
				9/4/2014	1639	0.06	0.04	0.02	1.0
0929-UC	495,585	1,544,684	4	5/3/2017	57	<0.03	0.00	0.00	1.0
				10/31/2013	641	<0.03	0.00	0.00	1.0
				6/12/2015	912	<0.03	0.00	0.00	1.0
0931-UC	495,207	1,542,461	4	9/26/2015	912	<0.03	0.00	0.00	1.0
				9/16/2014	1646	<0.03	0.00	0.00	1.0
				6/10/2015	641	<0.03	0.00	0.00	1.0
AW-UC	488,015	1,540,235	4	3/22/2017	344	0.11	0.04	0.07	1.0
				11/24/2013	648	0.06	0.03	0.03	1.0
				5/13/2015	1027	0.06	0.03	0.03	1.0
				5/3/2017	1449	0.05	0.02	0.03	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				5/29/2014	1794	0.06	0.02	0.04	1.0
CE10-UC	490,177	1,541,737	4	10/9/2015	247	1.76	1.49	0.27	1.0
				2/10/2016	569	1.82	1.65	0.17	1.0
				4/13/2016	927	3.49	1.78	1.71	1.0
				5/22/2015	1660	2.19	1.30	0.89	1.0
CE11-UC	490,494	1,541,486	4	3/1/2017	1660	0.15	1.90	-1.75	1.0
				2/16/2016	56	1.70	1.80	-0.10	1.0
				7/13/2016	947	3.13	1.92	1.21	1.0
				2/9/2013	1295	2.56	1.87	0.69	1.0
				7/9/2013	1501	3.20	1.78	1.42	1.0
CE12-UC	489,642	1,541,867	4	2/13/2014	56	2.83	1.40	1.43	1.0
				6/17/2014	570	2.03	0.44	1.59	1.0
				3/5/2015	638	2.14	0.41	1.73	1.0
				6/28/2017	947	5.74	0.41	5.33	1.0
				2/26/2013	1295	1.65	0.32	1.33	1.0
				10/4/2014	1540	1.06	0.23	0.83	1.0
				7/2/2015	1660	1.23	0.22	1.01	1.0
CE13-UC	490,338	1,542,693	4	7/2/2015	570	22.70	16.25	6.45	1.0
				7/5/2017	640	25.20	16.09	9.11	1.0
				10/3/2014	928	27.70	15.01	12.7	1.0
				12/10/2013	1661	29.10	13.09	16.0	1.0
CE14-UC	489,600	1,541,326	4	10/11/2014	65	<0.03	0.02	0.00	1.0
				10/24/2015	248	<0.03	0.05	-0.02	1.0
				12/20/2016	640	<0.03	0.12	-0.09	1.0
				11/30/2017	821	<0.03	0.16	-0.13	1.0
				9/5/2013	970	<0.03	0.18	-0.15	1.0
				7/24/2014	1174	0.04	0.19	-0.15	1.0
				7/17/2015	1540	<0.03	0.05	-0.02	1.0
CE15-UC	489,460	1,539,507	4	7/19/2017	65	0.24	0.28	-0.04	1.0
				7/19/2017	247	0.24	0.33	-0.09	1.0
				2/26/2013	640	0.25	0.46	-0.21	1.0
				8/6/2015	821	0.38	0.51	-0.13	1.0
				7/19/2016	1174	0.93	0.52	0.41	1.0
				2/10/2017	1540	0.41	0.46	-0.05	1.0
CE2-UC	489,979	1,541,923	4	2/26/2013	56	2.17	1.81	0.36	1.0
				7/24/2014	638	3.19	1.46	1.73	1.0
				9/30/2014	862	4.05	1.35	2.70	1.0
				8/6/2015	1019	1.09	1.35	-0.26	1.0
				7/19/2016	1227	1.17	1.16	0.01	1.0
				3/21/2017	1395	1.04	0.83	0.21	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				7/19/2017	1582	1.41	0.71	0.70	1.0
				7/24/2014	1639	2.19	0.70	1.49	1.0
				10/3/2014	1659	1.40	0.70	0.70	1.0
				7/17/2015	1758	1.61	0.68	0.93	1.0
CE5-UC	490,695	1,541,453	4	9/5/2013	928	2.47	0.86	1.61	1.0
				10/3/2014	1293	1.13	0.98	0.15	1.0
				4/1/2015	1501	2.06	0.80	1.26	1.0
				8/28/2015	1660	0.14	0.62	-0.48	1.0
				7/20/2017	56	0.30	0.86	-0.56	1.0
				3/6/2013	638	2.84	0.81	2.03	1.0
CE6-UC	490,433	1,541,698	4	3/19/2016	56	2.35	1.99	0.36	1.0
				3/21/2017	638	2.87	2.41	0.46	1.0
				3/6/2013	928	3.64	2.80	0.84	1.0
				9/5/2013	1295	1.56	3.03	-1.47	1.0
				10/3/2014	1501	2.50	2.89	-0.39	1.0
				4/1/2015	1660	1.40	2.95	-1.55	1.0
CE7-UC	490,079	1,542,652	4	2/26/2013	893	30.20	21.56	8.64	1.0
				9/30/2014	1661	7.87	13.91	-6.04	1.0
				3/19/2016	189	32.70	26.52	6.18	1.0
				3/21/2017	815	30.90	22.53	8.37	1.0
CE8-UC	491,556	1,540,704	4	5/13/2015	59	0.09	0.08	0.01	1.0
				6/28/2017	998	0.04	0.10	-0.06	1.0
				7/16/2016	1778	<0.03	0.01	0.00	1.0
				10/16/2015	247	0.07	0.08	-0.01	1.0
				7/18/2017	1137	0.06	0.07	-0.01	1.0
				5/11/2016	570	0.07	0.08	-0.01	1.0
				10/27/2016	808	0.05	0.09	-0.04	1.0
				10/25/2017	1358	<0.03	0.03	0.00	1.0
				5/2/2017	960	0.04	0.09	-0.05	1.0
				7/17/2015	1521	<0.03	0.02	0.00	1.0
CE9-UC	489,458	1,538,203	4	2/26/2013	1170	0.24	0.07	0.17	1.0
				2/10/2017	59	0.06	0.07	-0.01	1.0
				9/30/2014	1540	0.22	0.07	0.15	1.0
				7/19/2017	648	0.06	0.07	-0.01	1.0
				2/26/2013	815	0.08	0.07	0.01	1.0
				7/17/2015	1660	0.12	0.07	0.05	1.0
				9/30/2014	961	0.18	0.07	0.11	1.0
				7/19/2016	1686	0.10	0.07	0.03	1.0
CE1-UC	491,868	1,544,456	4	2/10/2017	64	1.74	2.02	-0.28	1.0
				7/19/2017	326	4.07	2.12	1.95	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
[illegible]	[illegible]	[illegible]	[illegible]	6/12/2015	639	3.99	2.24	1.75	1.0
				7/20/2017	1641	3.47	2.40	1.07	1.0
CF2-UC	490,888	1,544,358	4	7/9/2013	64	1.30	1.30	0.00	1.0
				3/27/2015	640	0.72	1.80	-1.08	1.0
				2/28/2013	1641	0.41	2.74	-2.33	1.0
CW18-UC	491,378	1,535,924	4	8/19/2015	1689	<0.03	0.00	0.00	1.0
				2/28/2013	57	<0.03	0.00	0.00	1.0
				3/27/2015	1333	<0.03	0.00	0.00	1.0
				3/21/2017	641	<0.03	0.00	0.00	1.0
				7/19/2017	1539	<0.03	0.00	0.00	1.0
				10/11/2014	820	<0.03	0.00	0.00	1.0
CW3-UC	493,496	1,545,200	4	2/9/2013	1792	0.30	0.01	0.29	1.0
				3/5/2015	641	0.44	0.28	0.16	1.0
				6/17/2014	59	0.28	0.32	-0.04	1.0
				3/5/2015	912	0.33	0.27	0.06	1.0
CW40-UC	491,819	1,537,624	4	2/16/2016	1641	<0.03	0.00	0.00	1.0
				5/22/2015	912	<0.03	0.00	0.00	1.0
CW50-UC	491,159	1,546,687	4	7/6/2016	331	<0.03	0.00	0.00	1.0
				6/12/2014	639	<0.03	0.00	0.00	1.0
				12/2/2016	799	<0.03	0.00	0.00	1.0
				9/10/2014	961	<0.03	0.00	0.00	1.0
				11/15/2013	1171	<0.03	0.00	0.00	1.0
				7/30/2015	1539	<0.03	0.00	0.00	1.0
				11/15/2013	1683	<0.03	0.00	0.00	1.0
CW53-UC	490,262	1,536,668	4	11/14/2014	471	<0.03	0.00	0.00	1.0
				12/24/2014	619	<0.03	0.00	0.00	1.0
				8/15/2017	1228	<0.03	0.00	0.00	1.0
				3/7/2013	1391	0.04	0.00	0.04	1.0
				4/1/2015	1583	<0.03	0.00	0.00	1.0
				3/24/2017	319	<0.03	0.00	0.00	1.0
CW9-UC	491,015	1,542,840	4	4/1/2015	640	<0.03	4.42	-4.39	1.0
				2/10/2017	1641	0.06	4.64	-4.58	1.0
0481-MC	490,210	1,536,820	6	2/6/2013	131	<0.03	0.00	0.00	1.0
				8/16/2013	527	<0.03	0.00	0.00	1.0
0482-MC	489,579	1,536,981	6	9/4/2014	191	0.06	0.05	0.01	1.0
				2/26/2015	499	0.06	0.05	0.01	1.0
0483-MC	489,753	1,536,586	6	7/11/2017	528	0.05	0.04	0.01	1.0
				9/30/2015	619	0.05	0.03	0.02	1.0
				1/12/2016	1229	0.05	0.03	0.02	1.0
				4/2/2014	319	0.04	0.04	0.00	1.0

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
0493-MC	489,492	1,536,702	6	10/11/2014	189	<0.03	0.00	0.00	1.0
				9/14/2017	1288	<0.03	0.00	0.00	1.0
				2/7/2013	1520	<0.03	0.00	0.00	1.0
				8/2/2016	408	<0.03	0.00	0.00	1.0
				9/4/2014	408	<0.03	0.00	0.00	1.0
				8/2/2016	532	<0.03	0.00	0.00	1.0
				11/14/2017	793	<0.03	0.00	0.00	1.0
				2/7/2013	793	<0.03	0.00	0.00	1.0
				7/1/2015	39	<0.03	0.00	0.00	1.0
				8/9/2013	871	<0.03	0.00	0.00	1.0
				8/28/2014	1142	<0.03	0.00	0.00	1.0
0498-MC	488,953	1,534,661	6	10/22/2016	1283	<0.03	0.00	0.00	1.0
				9/30/2015	1696	<0.03	0.00	0.00	1.0
				7/24/2016	319	<0.03	0.00	0.00	1.0
				6/17/2015	528	<0.03	0.00	0.00	1.0
				8/20/2015	891	<0.03	0.00	0.00	1.0
0859-MC	487,426	1,534,549	6	1/17/2013	535	<0.03	0.00	0.00	1.0
				1/16/2017	323	<0.03	0.00	0.00	1.0
0930-MC	494,997	1,542,848	6	6/27/2017	1646	<0.03	0.00	0.00	1.0
				6/12/2015	641	<0.03	0.00	0.00	1.0
				6/12/2015	912	<0.03	0.00	0.00	1.0
ACW-MC	488,070	1,540,235	6	5/1/2013	344	<0.03	0.00	0.00	1.0
				11/6/2013	648	<0.03	0.00	0.00	1.0
				5/1/2013	1027	<0.03	0.00	0.00	1.0
				6/2/2017	1449	<0.03	0.00	0.00	1.0
				11/6/2013	1794	0.01	0.00	0.01	1.0
CW15-MC	485,961	1,536,259	6	11/14/2017	911	<0.03	0.00	0.00	1.0
				9/5/2013	1641	<0.03	0.00	0.00	1.0
				9/26/2015	640	<0.03	0.00	0.00	1.0
CW17-MC	487,771	1,545,279	6	3/20/2015	639	0.43	0.66	-0.23	1.0
				3/2/2017	1640	0.08	0.09	-0.01	1.0
				9/20/2016	913	0.34	0.65	-0.31	1.0
				8/19/2015	1447	0.11	0.60	-0.49	1.0
				2/11/2016	175	0.66	0.68	-0.02	1.0
				3/16/2016	1756	0.06	0.06	0.00	1.0
				7/24/2014	331	0.53	0.68	-0.15	1.0
CW1-MC	490,295	1,545,235	6	8/14/2017	59	<0.03	0.00	0.00	1.0
				3/5/2013	912	<0.03	0.00	0.00	1.0
CW24-MC	487,760	1,545,773	6	11/22/2013	948	<0.03	0.00	0.00	1.0
				10/1/2014	1672	<0.03	0.01	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
CW28-MC	491,008	1,535,112	6	3/5/2013	641	<0.03	0.00	0.00	1.0
				10/3/2014	913	<0.03	0.00	0.00	1.0
				6/30/2017	1806	0.02	0.00	0.02	1.0
				6/30/2017	57	<0.03	0.00	0.00	1.0
CW2-MC	491,302	1,545,212	6	3/17/2016	1137	<0.03	0.00	0.00	1.0
				7/2/2015	42	<0.03	0.00	0.00	1.0
				3/20/2017	1365	<0.03	0.00	0.00	1.0
				6/30/2017	59	<0.03	0.00	0.00	1.0
				8/11/2017	1540	<0.03	0.00	0.00	1.0
				4/16/2014	1682	<0.03	0.00	0.00	1.0
				7/1/2015	309	<0.03	0.00	0.00	1.0
				11/27/2013	408	<0.03	0.00	0.00	1.0
				10/1/2014	613	<0.03	0.00	0.00	1.0
				3/11/2015	912	<0.03	0.00	0.00	1.0
				8/19/2015	949	<0.03	0.00	0.00	1.0
CW44-MC	488,891	1,535,048	6	7/2/2015	1283	<0.03	0.00	0.00	1.0
				8/7/2015	528	<0.03	0.00	0.00	1.0
				12/12/2017	1432	<0.03	0.00	0.00	1.0
				7/31/2017	618	<0.03	0.00	0.00	1.0
				7/2/2015	319	<0.03	0.00	0.00	1.0
				10/4/2014	940	<0.03	0.00	0.00	1.0
CW45-MC	489,494	1,535,036	6	2/12/2013	319	<0.03	0.00	0.00	1.0
				7/2/2015	1543	<0.03	0.00	0.00	1.0
				9/27/2016	683	<0.03	0.00	0.00	1.0
				2/28/2013	722	<0.03	0.00	0.00	1.0
				8/7/2015	1687	<0.03	0.00	0.00	1.0
				2/26/2013	65	<0.03	0.00	0.00	1.0
				3/21/2017	820	<0.03	0.00	0.00	1.0
				8/10/2017	820	<0.03	0.00	0.00	1.0
				11/5/2013	961	<0.03	0.00	0.00	1.0
				2/11/2016	168	<0.03	0.00	0.00	1.0
				2/12/2014	1159	<0.03	0.00	0.00	1.0
				9/5/2014	1335	<0.03	0.00	0.00	1.0
CW55-MC	489,471	1,538,283	6	6/18/2013	941	0.06	0.00	0.06	1.0
				3/5/2016	1806	0.07	0.00	0.07	1.0
				4/1/2015	337	0.04	0.00	0.04	1.0
				8/20/2015	649	0.04	0.00	0.04	1.0
				12/17/2016	1447	0.54	3.39	-2.85	1.0
				7/30/2015	219	3.29	3.47	-0.18	1.0
				8/8/2013	1688	0.38	3.16	-2.78	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data

Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
CW56-MC	488,115	1,545,279	6	8/16/2017	1757	0.31	3.08	-2.77	1.0
				12/12/2017	639	2.81	3.48	-0.67	1.0
				12/4/2013	782	2.45	3.53	-1.08	1.0
				10/11/2014	970	2.20	3.58	-1.38	1.0
				8/27/2016	121	3.65	3.42	0.23	1.0
CW57-MC	488,070	1,545,654	6	10/24/2017	130	<0.03	0.00	0.00	1.0
				10/1/2014	638	<0.03	0.01	0.00	1.0
				2/21/2015	781	<0.03	0.01	0.00	1.0
				8/28/2015	973	<0.03	0.01	0.00	1.0
				5/2/2013	1757	<0.03	0.01	0.00	1.0
CW60-MC	488,262	1,545,470	6	10/24/2017	1757	<0.03	0.11	-0.08	1.0
				2/21/2015	781	<0.03	0.02	0.00	1.0
				9/1/2015	973	<0.03	0.04	-0.01	1.0
				5/11/2013	130	<0.03	0.01	0.00	1.0
				10/1/2014	638	<0.03	0.02	0.00	1.0
				10/24/2017	1688	<0.03	0.09	-0.06	1.0
CW61-MC	487,779	1,544,927	6	2/21/2015	130	4.02	3.30	0.72	1.0
				9/1/2015	638	3.34	2.88	0.46	1.0
				5/11/2013	820	3.43	2.79	0.64	1.0
				10/1/2014	971	3.62	2.72	0.90	1.0
				8/16/2017	1446	1.65	2.25	-0.60	1.0
				5/11/2013	1688	1.39	2.03	-0.64	1.0
CW62-MC	487,847	1,544,555	6	12/1/2016	1431	0.89	1.36	-0.47	1.0
				12/15/2016	1583	0.88	1.38	-0.50	1.0
				11/29/2017	1688	0.84	1.34	-0.50	1.0
				5/3/2017	1444	1.13	1.35	-0.22	1.0
				5/15/2013	1793	0.79	1.31	-0.52	1.0
				10/1/2014	134	2.35	2.29	0.06	1.0
				4/1/2015	638	2.02	1.79	0.23	1.0
				8/29/2015	820	2.23	1.76	0.47	1.0
				8/16/2017	1501	0.83	1.42	-0.59	1.0
				12/17/2016	971	2.37	1.73	0.64	1.0
				8/16/2017	1234	1.62	1.51	0.11	1.0
CW6-MC	488,301	1,542,588	6	10/1/2014	638	<0.03	0.00	0.00	1.0
WCW-MC	488,520	1,541,045	6	9/30/2016	331	<0.03	0.00	0.00	1.0
				3/31/2017	941	<0.03	0.00	0.00	1.0
				3/8/2013	1681	0.06	0.00	0.06	1.0
				11/1/2013	1683	<0.03	0.00	0.00	1.0
WR25-MC	487,430	1,545,267	6	6/12/2015	1672	<0.03	0.02	0.00	1.0
				3/27/2014	176	<0.03	0.01	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				9/30/2014	639	<0.03	0.01	0.00	1.0
				4/1/2015	940	<0.03	0.01	0.00	1.0
0538-LC	486,899	1,533,486	8	10/30/2013	564	<0.03	0.00	0.00	1.0
				3/20/2014	1318	<0.03	0.00	0.00	1.0
0653-LC	486,570	1,533,283	8	10/17/2014	319	<0.03	0.00	0.00	1.0
				2/12/2014	564	<0.03	0.00	0.00	1.0
				2/27/2015	1310	<0.03	0.00	0.00	1.0
0853-LC	484,824	1,532,124	8	1/29/2014	535	<0.03	0.00	0.00	1.0
				2/5/2015	912	<0.03	0.00	0.00	1.0
				1/21/2016	1647	<0.03	0.00	0.00	1.0
CW29-LC	487,435	1,534,551	8	2/28/2013	1689	<0.03	0.00	0.00	1.0
				3/31/2015	1222	<0.03	0.00	0.00	1.0
				8/17/2017	79	<0.03	0.00	0.00	1.0
				2/26/2013	169	<0.03	0.00	0.00	1.0
				8/25/2016	641	<0.03	0.00	0.00	1.0
				10/4/2014	809	<0.03	0.00	0.00	1.0
				3/20/2017	961	<0.03	0.00	0.00	1.0
				11/28/2017	1539	<0.03	0.00	0.00	1.0
				10/3/2014	1686	<0.03	0.00	0.00	1.0
CW31-LC	482,738	1,540,689	8	9/11/2014	338	<0.03	0.00	0.00	1.0
				5/13/2016	639	<0.03	0.00	0.00	1.0
				10/22/2016	913	<0.03	0.00	0.00	1.0
				5/3/2017	1450	<0.03	0.00	0.00	1.0
				11/15/2013	1640	<0.03	0.00	0.00	1.0
CW32-LC	483,523	1,543,413	8	10/3/2014	337	<0.03	0.00	0.00	1.0
				6/30/2017	639	<0.03	0.00	0.00	1.0
				5/11/2013	913	<0.03	0.00	0.00	1.0
				6/12/2014	1450	<0.03	0.00	0.00	1.0
				7/10/2013	1640	<0.03	0.00	0.00	1.0
CW33-LC	486,347	1,543,814	8	5/15/2014	639	<0.03	0.00	0.00	1.0
				6/12/2014	913	<0.03	0.00	0.00	1.0
				9/11/2014	1640	<0.03	0.00	0.00	1.0
CW36-LC	481,329	1,540,053	8	11/15/2013	928	<0.03	0.00	0.00	1.0
				7/9/2013	1672	<0.03	0.00	0.00	1.0
				5/13/2016	639	<0.03	0.00	0.00	1.0
CW37-LC	484,853	1,537,240	8	7/12/2016	640	<0.03	0.00	0.00	1.0
				3/1/2017	911	<0.03	0.00	0.00	1.0
				2/13/2014	1378	<0.03	0.00	0.00	1.0
				2/13/2014	1640	<0.03	0.00	0.00	1.0
				7/6/2016	323	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
CW41-LC	488,583	1,533,174	8	8/24/2017	640	<0.03	0.00	0.00	1.0
				11/15/2013	931	<0.03	0.00	0.00	1.0
				6/12/2014	1318	<0.03	0.00	0.00	1.0
				6/10/2015	1672	<0.03	0.00	0.00	1.0
CW42-LC	487,177	1,533,169	8	10/4/2014	961	<0.03	0.00	0.00	1.0
				7/1/2015	1318	<0.03	0.00	0.00	1.0
				10/24/2015	1686	<0.03	0.00	0.00	1.0
				12/10/2013	1333	<0.03	0.00	0.00	1.0
				11/20/2013	319	<0.03	0.00	0.00	1.0
				10/11/2014	1540	<0.03	0.00	0.00	1.0
				6/19/2014	169	<0.03	0.00	0.00	1.0
				7/5/2017	649	<0.03	0.00	0.00	1.0
CW43-LC	482,493	1,537,587	8	10/2/2014	1673	<0.03	0.00	0.00	1.0
				11/30/2017	640	<0.03	0.00	0.00	1.0
				7/1/2015	929	<0.03	0.00	0.00	1.0
				6/30/2017	1451	<0.03	0.00	0.00	1.0
				12/20/2016	337	<0.03	0.00	0.00	1.0
#1_Deepwell-SA	493,633	1,543,307	10	6/27/2017	126	<0.03	0.00	0.00	1.0
				6/10/2015	500	<0.03	0.00	0.00	1.0
				7/19/2014	1142	<0.03	0.00	0.00	1.0
				4/27/2017	779	<0.03	0.00	0.00	1.0
				8/10/2016	1220	<0.03	0.00	0.00	1.0
				7/6/2016	674	0.16	0.00	0.16	1.0
				4/2/2014	310	<0.03	0.00	0.00	1.0
				5/4/2013	1286	<0.03	0.00	0.00	1.0
				5/14/2013	851	<0.03	0.00	0.00	1.0
				1/29/2014	950	<0.03	0.00	0.00	1.0
				11/15/2013	1386	<0.03	0.00	0.00	1.0
				10/14/2015	1011	<0.03	0.00	0.00	1.0
#2_Deepwell-SA	490,972	1,542,424	10	2/17/2016	1142	<0.03	0.00	0.00	1.0
				2/12/2014	1386	<0.03	0.00	0.00	1.0
				11/6/2017	779	<0.03	0.00	0.00	1.0
				2/6/2013	1220	0.05	0.00	0.05	1.0
				3/27/2017	1507	<0.03	0.00	0.00	1.0
				8/16/2013	1286	0.04	0.00	0.04	1.0
				9/4/2014	1582	<0.03	0.00	0.00	1.0
				12/29/2016	851	<0.03	0.00	0.00	1.0
				9/4/2014	1659	<0.03	0.00	0.00	1.0
				2/12/2014	1758	<0.03	0.00	0.00	1.0
				8/9/2013	950	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				7/22/2015	1011	<0.03	0.00	0.00	1.0
				2/26/2015	1784	<0.03	0.00	0.00	1.0
				10/4/2014	126	<0.03	0.00	0.00	1.0
				5/15/2015	309	<0.03	0.00	0.00	1.0
				4/29/2016	500	<0.03	0.00	0.00	1.0
				8/5/2016	674	<0.03	0.00	0.00	1.0
0806R-SA	486,263	1,541,177	10	3/28/2014	554	<0.03	0.00	0.00	1.0
				10/2/2014	647	<0.03	0.00	0.00	1.0
				4/10/2015	1018	<0.03	0.00	0.00	1.0
				10/20/2015	1584	<0.03	0.00	0.00	1.0
0806-SA	486,320	1,541,120	10	8/24/2017	647	<0.03	0.00	0.00	1.0
0928-SA	491,700	1,548,250	10	5/2/2013	1121	0.06	0.00	0.06	1.0
0938-SA	473,040	1,539,500	10	3/18/2015	1017	<0.03	0.00	0.00	1.0
0943-SA	487,407	1,537,222	10	9/16/2014	1501	<0.03	0.00	0.00	1.0
				9/26/2015	1508	<0.03	0.00	0.00	1.0
				3/17/2017	1519	<0.03	0.00	0.00	1.0
				3/20/2014	1151	<0.03	0.00	0.00	1.0
				3/17/2017	1012	<0.03	0.00	0.00	1.0
				3/16/2016	1583	<0.03	0.00	0.00	1.0
				3/6/2013	1591	<0.03	0.00	0.00	1.0
				8/7/2015	1354	<0.03	0.00	0.00	1.0
				11/2/2013	1075	<0.03	0.00	0.00	1.0
				3/18/2015	1660	<0.03	0.00	0.00	1.0
				3/6/2013	850	<0.03	0.00	0.00	1.0
				9/26/2015	686	<0.03	0.00	0.00	1.0
				3/6/2013	1700	<0.03	0.00	0.00	1.0
				11/14/2017	1121	<0.03	0.00	0.00	1.0
				11/14/2017	950	<0.03	0.00	0.00	1.0
				9/20/2016	415	<0.03	0.00	0.00	1.0
				3/19/2014	779	<0.03	0.00	0.00	1.0
				9/20/2016	1387	<0.03	0.00	0.00	1.0
0951R-SA	484,100	1,544,500	10	3/6/2013	1387	<0.03	0.00	0.00	1.0
				11/14/2017	850	<0.03	0.00	0.00	1.0
				8/7/2015	950	<0.03	0.00	0.00	1.0
				3/11/2015	1507	<0.03	0.00	0.00	1.0
				3/16/2016	1582	<0.03	0.00	0.00	1.0
				3/16/2016	953	<0.03	0.00	0.00	1.0
				3/17/2017	66	0.08	0.00	0.08	1.0
				8/14/2017	1638	<0.03	0.00	0.00	1.0
				11/2/2013	1011	<0.03	0.00	0.00	1.0

Table F-1. Groundwater Transport Model Molybdenum Calibration Data									
Well ID	Easting	Northing	Model Layer	Date	Model Time (days)	Measured Molybdenum Concentration (mg/L)	Simulated Molybdenum Concentration (mg/L)	Residual (mg/L)	Weight
				3/13/2015	718	0.08	0.00	0.08	1.0
				9/19/2014	779	<0.03	0.00	0.00	1.0
				3/19/2014	1146	<0.03	0.00	0.00	1.0
				8/19/2015	1659	<0.03	0.00	0.00	1.0
				9/20/2016	1341	<0.03	0.00	0.00	1.0
				3/20/2017	1756	<0.03	0.00	0.00	1.0
0951-SA	473,200	1,545,500	10	9/20/2017	905	<0.03	0.00	0.00	1.0
				12/22/2016	1226	<0.03	0.00	0.00	1.0
0998-SA	476,450	1,533,080	10	11/1/2013	1445	0.06	0.00	0.06	1.0
				3/31/2017	660	<0.03	0.00	0.00	1.0
				1/16/2013	1003	<0.03	0.00	0.00	1.0
OLD_#1-SA	493,775	1,543,798	10	3/24/2017	1282	<0.03	0.00	0.00	1.0
				10/2/2015	1289	<0.03	0.00	0.00	1.0

Appendix G: Regional Uranium Concentration Data for Transport Initial Conditions

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RIO ALGOM MINING LLC
1ST HALF 2012
ALLUVIAL WELL RESULTS - ACL PARAMETERS

Well	Date	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	U-nat (mg/L)	Th-230 (pCi/L)	Pb-210 (pCi/L)	Ra-226+Ra-228 (pCi/L)	Gross Alpha (pCi/L)
5-73	14-Feb-12	<0.003	0.004	<0.001	0.2113	-0.13	3.9	1.82	110
5-73	21-May-12	<0.003	0.005	<0.001	0.336	-0.44	1.2	1.2	170
5-03	14-Feb-12	<0.001	<0.001	<0.001	0.0116	-0.15	0	1.13	-4.7
5-03	21-May-12	<0.003	<0.003	<0.001	0.0162	0.1	2	2.26	8.7
5-04	14-Feb-12	<0.003	<0.003	<0.001	0.0111	-0.2	4.4	0.88	1.1
5-04	21-May-12	<0.003	<0.003	<0.001	0.0058	-0.13	2.5	2.1	1.1
5-08	14-Feb-12	0.001	<0.001	<0.001	0.0027	-0.14	3.4	13.87	20
5-08	21-May-12	<0.001	0.003	<0.001	0.0692	-0.36	0.46	13.5	57
31-61	14-Feb-12	<0.005	0.061	0.0043	0.573	0.64	2	3.7	150
31-61	22-May-12	<0.005	0.061	0.0048	0.587	0.62	2	2.87	260
31-65	14-Feb-12	<0.005	0.09	0.001	0.112	-0.11	7.8	1.16	58
31-65	22-May-12	<0.005	0.092	<0.005	0.124	0.61	0	1.99	60
32-59	20-Feb-12	0.005	<0.02	0.0219	0.1108	0.23	7.6	1.35	61
32-59	21-May-12	0.005	<0.02	0.0162	0.1501	0.19	0	0.77	81
MW-24	23-Feb-12								
MW-24	21-May-12								
ACL		**176**	**98**	**49**	**23**	**13627**	**1274**	**3167**	**8402**

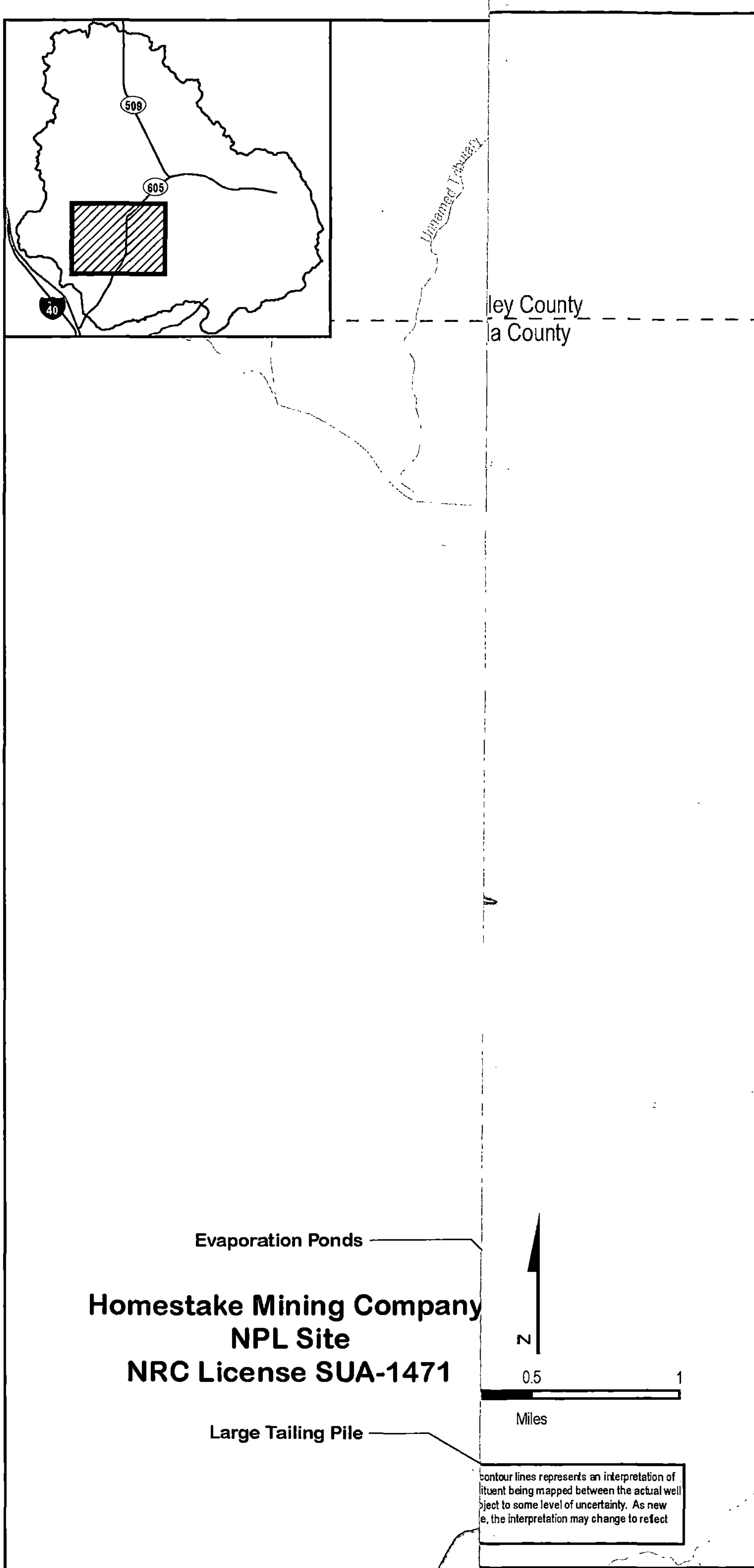
< = constituent was not detected above the method detection limit.
Monitor Well MW-24 was dry.

INTERA

RIO ALGOM MINING LLC
2nd HALF 2012
ALLUVIAL WELL RESULTS - ACL PARAMETERS

Well	Date	Mo (mg/L)	Ni (mg/L)	Se (mg/L)	U-nat (mg/L)	Th-230 (pCi/L)	Pb-210 (pCi/L)	Ra-226+Ra-228 (pCi/L)	Gross Alpha (pCi/L)
5-73	06-Aug-12	<0.003	0.003 B	<0.001	0.3726	-0.04	1.9	8.81	-110
5-73	05-Nov-12	<0.003	0.004 B	<0.001	0.4297	-0.18	12	1.11	-128
5-03	06-Aug-12	<0.001	<0.001	<0.001	0.0043	-0.25	0	2	8
5-03	06-Nov-12	<0.003	<0.003	<0.001	0.0014 B	-0.15	16	2.6	17
5-04	06-Aug-12	<0.003	<0.003	<0.001	0.0111	0.32	3	8.14	-13
5-04	05-Nov-12	<0.003	<0.003	<0.001	0.0136	-0.48	1.5	1.59	10
5-08	06-Aug-12	<0.001	<0.001	<0.001	0.0158	2.3	0.26	14.7	40
5-08	05-Nov-12	0.002 B	<0.001	<0.001	0.0062	-0.17	7.5	12.74	69
31-61	07-Aug-12	<0.005	0.052	0.0047 B	0.633	0.11	0	6.9	-74
31-61	05-Nov-12	<0.005	0.058	0.0051	0.617	-0.09	9	3.28	-113
31-65	07-Aug-12	<0.005	0.082	0.0016 B	0.129	-0.14	2.3	2.74	14
31-65	05-Nov-12	<0.005	0.099	0.0019 B	0.126	-0.47	7.2	1.24	-4
32-59	06-Aug-12	0.006 B	<0.003	0.0181	0.1489	0.11	1.5	6.17	-13
32-59	06-Nov-12	0.006 B	0.003 B	0.016	0.145	0.14	7.2	0.63	-60
MW-24	06-Aug-12								
MW-24	05-Nov-12								
ACL		**176**	**98**	**49**	**23**	**13627**	**1274**	**3167**	**8402**

< = constituent was not detected above the method detection limit.
Monitor Well MW-24 was dry.
"B" analyte was found in blank



LEGEND

- EPA Monitoring Well
- Industry Monitoring Well
- Private Livestock Well
- County Boundary
- NRC License Boundary (Approximate)
- San Mateo Creek Basin
- Homestake Impoundment
- Evaporation Ponds
- Boundary of Alluvial Aquifer

Dissolved Uranium Concentration (µg/L)

- 30-99
- 100-299
- 200-399
- 300-499
- 500-699
- 700-999
- >1000

SMC-11
A-4/920
B01771 POD1 — Well Designation(s)

220 — Dissolved Uranium Concentration µg/L

NOTES:
1. µg/L - micrograms per liter

SEMS ID: NMN000606847
TDD NO: 0001/17-039

SOURCES:
U.S. Geological Survey National Hydrography Dataset;
U.S. Census Bureau 2010 TIGER/Line; NAVTEQ Street Dateset.

USEPA REGION 6

FIGURE A4-13
URANIUM CONCENTRATION MAP
2015
SAN MATEO CREEK BASIN
LEGACY URANIUM MINES SITE
CIBOLA & MCKINLEY COUNTIES,
NEW MEXICO

DATE	PROJECT NO	SCALE
SEPTEMBER 2018	20600.012.001.1039	AS SHOWN

A_START4\Tronox NAUM\Groundwater Investigation\Phase II Report\mxd\Final\Figure A4-13 Uranium Concentration Map-2015.mxd 9:02:10 AM 9/25/2018 wilderj

Appendix H: Groundwater Model Flow and Transport Files

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Appendix E

Groundwater Flow and Transport Model Preliminary Predictive Simulation Addendum

HOMESTAKE MINING COMPANY OF CALIFORNIA

Grants Reclamation Project

GROUNDWATER FLOW AND TRANSPORT MODEL PRELIMINARY PREDICTIVE SIMULATION ADDENDUM

November 2019

U.S. Nuclear Regulatory Commission License SUA-1471

State of New Mexico DP-200

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Table of Contents

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List of Abbreviations

BC	Brown and Caldwell
CAP	Corrective Action Plan
COCs	constituents of concern
d	day(s)
DEM	digital elevation model
DDM	Drain Down Model
ft	foot/feet
gpm	gallons per minute
GRP	Grants Reclamation Project
HE	Hydro—Engineering, LLC.
HMC	Homestake Mining Company of California
L	liter(s)
LTP	large tailings pile
mg	milligrams
NRC	U.S. Nuclear Regulatory Commission
PRISM	Parameter-Elevation Regressions on Independent Slopes Model
SMC	San Mateo Creek
STP	small tailings pile

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Section 1: Introduction

Homestake Mining Company of California (HMC) has developed a combined Groundwater Flow and Transport Model of the San Mateo Creek (SMC) Basin in west-central New Mexico, which includes HMC's Grants Reclamation Project (GRP) at the site of the former HMC uranium mill (Site), located near Grants, New Mexico. The model is based on the Hydrogeologic Site Conceptual Model (BC, 2018) and was developed as generally described in the Groundwater Flow and Transport Modeling Work Plan and associated updates (HMC 2018a, HMC 2018b). The model simulations described in this addendum were performed in support of evaluating corrective action alternatives in Section 8 of the Groundwater Corrective Action Plan (CAP) for the GRP. The model includes simulation of the following key hydrogeologic components of the site conceptual model:

- Groundwater flow and hydraulic heads within the alluvial and bedrock (Upper, Middle and Lower Chinle and San Andres-Glorieta [SAG]) aquifers beneath the GRP.
- Fate and transport of site constituents of concern (COCs) associated with the GRP.

The model will continue to be used to evaluate GRP groundwater restoration activities and as a tool to predict the effectiveness of future remediation efforts, including fate and transport of site COCs, at the discretion of HMC.

In March 2019, HMC submitted a Preliminary Groundwater Flow and Transport Model Status Report (Model Status Report) to the U.S. Nuclear Regulatory Commission (NRC) (HMC, 2019a). The Model Status Report discussed in detail model construction, development, and preliminary calibration results for both groundwater flow and transport simulations within the general vicinity of the HMC GRP. In June 2019, HMC submitted a Groundwater Flow and Transport Model Status Addendum (Model Status Addendum) to the NRC (HMC, 2019b). The Model Status Addendum discussed in detail updated model construction, development, and preliminary calibration results for both groundwater flow and transport simulations within both the general vicinity of the HMC GRP and the broader SMC Basin.

This addendum discusses predictive simulations performed since June 2019, including preliminary results of predicted future uranium transport under a natural attenuation scenario and two pumping/treatment/injection scenarios followed by natural attenuation. In this addendum, only these predictive groundwater flow and transport model results are discussed. Therefore, the reader is referred to the March 2019 Model Status Report and June 2019 Model Status Addendum for a full discussion of model construction, development, and calibration (HMC, 2019a; HMC 2019b).

Section 2: Predictive Model Construction

This section describes the construction of the predictive model simulations based upon the calibrated SMC Basin model. It should be noted that model inputs were changed only for model initial conditions, future recharge, and potential future remedial activities. Three predictive future simulations were conducted:

1. Natural attenuation scenario: A "baseline" scenario intended to predict future conditions with no further active groundwater collection or injection for the purposes of comparison with other scenarios. Natural attenuation is simulated in the model for 50 years.
2. 24-year groundwater collection and injection scenario: This scenario involves simulation of continuing groundwater collection and injection into the future using existing GRP wells and infrastructure. This scenario includes an additional 24 years of groundwater collection and injection with the goal of shrinking the existing off-site plumes and decreasing the extent and concentration of impacted groundwater beneath and in the immediate vicinity of the LTP. Natural attenuation is simulated in the model from years 26 to 50.
3. 10-year groundwater collection and injection scenario followed by natural attenuation: This scenario involves continuing groundwater collection and injection for an additional 10 years followed by natural attenuation to year 50. This scenario was modeled to assist in evaluating a corrective action alternative that combines a shorter pumping/treatment/injection timeframe followed by a combination of in situ treatment, such as a permeable reactive barrier (PRB) system, and natural attenuation. Simulation of a PRB system was not included in this model construct.

For all three model scenarios, mass flux estimates from the LTP to groundwater assume there is a final cover on the top of the Large Tailings Pile (LTP) to reduce future infiltration of precipitation through the tailings (Section 2.3).

2.1 Initial Conditions

Initial conditions for the groundwater flow model are the final simulated heads at the end of 2017 from the calibration period of the SMC Basin model. Initial conditions for the groundwater transport model were developed from the uranium concentration contours and monitoring well data presented in the 2017 Annual Report (HE, 2018). The transport model initial conditions are in milligrams per cubic foot (mg/ft^3) for simulation using the Freundlich non-linear sorption isotherm also used in the calibration model.

2.2 Predictive Model Stress Periods

The predictive model simulations were performed for a 50-year period with 1-year stress period lengths. Within each model stress period the numbers of flow model timesteps and timestep multiplier values were adjusted to promote model solution stability and minimize model execution time. Similarly, within each model stress period the transport model initial timestep sizes, timestep multiplier values, and maximum timestep sizes were adjusted to promote model solution stability and minimize model execution time.

2.3 Future Recharge and Large Tailings Pile Seepage Estimates

Groundwater recharge is primarily simulated in the model based on spatial precipitation data obtained from the Parameter-Elevation Regressions on Independent Slopes Model (PRISM) (PRISM Climate Group, 2012). The PRISM method interpolates a database of climate records onto a spatial grid covering the conterminous United States (Daly et al., 2008). PRISM calculates a climate-elevation regression for each gridded spatial location based on data from nearby climate stations where long-term records are available and on a digital elevation model (DEM). Factors considered in the regression used for interpolation of precipitation include location, elevation, coastal proximity, topographic facet orientation, vertical atmospheric layer, topographic position, and orographic effectiveness of the terrain. For calibration of the model, the PRISM 4-kilometer stable data grid was obtained for each month of the calibration period (2013 through 2017), averaged over each model stress period, and then scaled to develop groundwater recharge rates as described in the Model Status Addendum (HMC, 2019b). For the predictive model, however, the same PRISM precipitation product was obtained for the 30-year normal for the period 1981-2010, described as a baseline dataset (PRISM Climate Group, 2012). The PRISM 30-year normal data were spatially interpolated and scaled using the methods described in the Model Status Report and Model Status Addendum (HMC, 2019a; HMC, 2019b). The resulting areal recharge rates were applied throughout each predictive model stress period to represent a long-term average recharge rate across the model domain into the future.

Seepage from the LTP represents a continuing but gradually diminishing source of both recharge and chemical mass loading to the local groundwater system. The Model Status Addendum describes the use of seepage estimates obtained from the Drain Down Model (DDM) that incorporates the Brooks and Corey method to estimate future seepage and toe drain rates (Brooks and Corey 1964; HE, 2019; HMC, 2019b). The seepage estimates developed from the DDM model were incorporated into these SMC Basin predictive model simulations to simulate seepage from the LTP into the underlying local groundwater system. The version of the DDM model selected for these predictive simulations assumes a long-term seepage rate of 2.4 gallons per minute (gpm) after a final cover system is installed over the top of the LTP in the future (HE, 2019). The final reclamation cover system is in place on the outslopes of the LTP.

2.4 Predictive Groundwater Collection and Injection

Predictive future groundwater collection and injection were simulated assuming existing groundwater wells, infiltration lines, and other infrastructure would be available. No additional well locations were assumed. The goal of the predictive groundwater collection and injection scheme was to reduce the extent of off-site plumes and to reduce the extent and concentration of mass beneath and in the immediate vicinity of the LTP. Four "rounds" of remedial groundwater collection and injection activities were developed for the North Off-Site (NOS), and six rounds were developed for the South Off-Site (SOS) and On-Site (OS) areas. Each round of groundwater collection and injection for the NOS and SOS areas is 2 years in length, and each round for the OS area is 4 years in length. The total simulated rates of groundwater collected and injected for the NOS and SOS areas in each round are presented in Table 2-1, and the total simulated rates of groundwater collected and injected for the OS area in each round are presented in Table 2-2. San Andres Limestone Wells Deep #1R and Deep #2R are both simulated to collect fresh groundwater at 150 gpm each during the 24-year period of groundwater collection and injection. Appendix A includes tables of the simulated predictive groundwater collection and injection with Table A-1 listing rates of well collection and injection and Table A-2 listing rates of infiltration line injection. Figure 2-1 through Figure 2-33 provide maps of well locations with simulated collection and injection rates. (Note that Lower Chinle collection and injection cease after predictive year 12, so map figures were not produced for the Lower Chinle after this time period.)

Table 2-1. Groundwater Flow Model Simulated Predictive Collection and Injection Summary for NOS and SOS Areas

Collection/ Injection Round	Predictive Simulation Years	GRP Area	Simulated Collection (-) Rate (gpm)	Simulated Injection (+) Rate (gpm)
1	1 and 2	North Off-Site	-500	450
		South Off-Site	-550	450
2	3 and 4	North Off-Site	-510	440
		South Off-Site	-540	455
3	5 and 6	North Off-Site	-500	450
		South Off-Site	-550	470
4	7 and 8	North Off-Site	-275	200
		South Off-Site	-554	508
5	9 and 10	North Off-Site	0	0
		South Off-Site	-478	447
6	11 and 12	North Off-Site	0	0
		South Off-Site	-225	231

Table 2-2. Groundwater Flow Model Simulated Predictive Collection and Injection Summary for OS Area

Collection/ Injection Round	Predictive Simulation Years	GRP Area	Simulated Collection (-) Rate (gpm)	Simulated Injection (+) Rate (gpm)
1	1 through 4	On-Site	-900	967.5
2	5 through 8	On-Site	-900	972.5
3	9 through 12	On-Site	-900	947.5
4	13 through 16	On-Site	-900	972
5	17 through 20	On-Site	-850	905
6	21 through 24	On-Site	-870	913

The 10-year groundwater collection and injection scenario employs the same rates as described above, but the collection and injection activities are simulated to cease after 10 years, i.e., at the end of the 5th round for the NOS and SOS areas and the midpoint of the 3rd round for the OS area.

Section 3: SMC Basin Model Predictive Simulation Results

The following section provides an overview of the results of the predictive groundwater flow and transport simulations described above. Map figures of predicted uranium concentration contours for the 50-year simulation periods are presented below for the alluvium and Upper Chinle water bearing units.

3.1 Natural Attenuation Results

Figure 3-1 through Figure 3-5 present predicted uranium concentrations in the alluvial aquifer system over the 50-year simulation period in 10-year increments for the natural attenuation scenario. Uranium concentrations greater than 5 mg/L are predicted to continue downgradient of the GRP and NRC License Boundary in the NOS area. Uranium concentrations greater 1 mg/L are predicted to occur downgradient from the NOS area and begin to enter the Rio San Jose alluvium after 50 years.

Figure 3-6 through Figure 3-10 present predicted uranium concentrations in the Upper Chinle water-bearing unit over the 50-year simulation period in 10-year increments for the natural attenuation scenario. Uranium concentrations of less than 0.18 mg/L are predicted to occur south of the NRC License Boundary until transport occurs outside the southern extent of the NRC License Boundary after 50 years. Uranium concentrations above 10 mg/L south of the LTP but within the NRC License Boundary are predicted to persist for at least 30 years but attenuate to below 10 mg/L by 40 years. A small plume of uranium concentrations above the non-mixing zone site standard of 0.09 mg/L is predicted to emerge from the southern portion of the Upper Chinle mixing zone south of the NRC License Boundary.

3.2 24 Year Groundwater Collection and Injection Results

Figure 3-11 through Figure 3-15 present predicted uranium concentrations in the alluvial aquifer system over the 50-year simulation period in 10-year increments for the 24-year groundwater collection and injection scenario. The simulation predicts that after 10 years the uranium plume has generally retracted to the footprint of the LTP with disconnected minor plumes above the site standard of 0.16 mg/L in the NOS and SOS areas. After 20 years the uranium plume is predicted to be within the footprint of the LTP with a disconnected minor plume in the SOS area near the NRC license boundary. At 50 years, a small uranium plume above the site standard of 0.16 mg/L is predicted to occur beneath and south of the LTP, but remains within the NRC License Boundary.

Figure 3-16 through Figure 3-20 present predicted uranium concentrations in the Upper Chinle water-bearing unit over the 50-year simulation period in 10-year increments for the 24-year groundwater collection and injection scenario. At 50 years, uranium concentrations in the immediate vicinity of the LTP are simulated to remain below 0.5 mg/L and concentrations greater than the mixing zone site standard do not occur outside the NRC License Boundary. However, a small plume of uranium concentrations above the non-mixing zone site standard of 0.09 mg/L is predicted to emerge from the southern portion of the Upper Chinle mixing zone south of the NRC License Boundary, similar to the natural attenuation scenario.

3.3 10 Year Groundwater Collection and Injection Results

Figure 3-21 through Figure 3-24 present predicted uranium concentrations in the alluvial aquifer system over the 20- to 50-year portion of the simulation period in 10-year increments for the 10-year groundwater collection and injection scenario. (Note that Figure 3-11 presents the 10-year simulation results for this scenario.) This simulation predicts that after 20 years uranium concentrations above 5 mg/L occur outside the footprint of the LTP but no uranium concentrations above the site standard of 0.16 mg/L are predicted outside the NRC License Boundary. However, this simulation predicts uranium concentrations exceeding 1 mg/L concentrations outside of the NRC License Boundary within the NOS area after 50 years. As described previously (Section 2), the 10 year collection and injection scenario simulation was performed primarily to assist in evaluating a corrective action alternative that combines a shorter pumping/treatment/injection timeframe followed by in situ treatment and natural attenuation.

Figure 3-25 through Figure 3-28 present predicted uranium concentrations in the Upper Chinle water-bearing unit over the 20- to 50-year portion of the simulation period in 10-year increments for the 10-year groundwater collection and injection scenario. (Note that Figure 3-16 presents the 10-year simulation results for this scenario.) At 50 years, simulated uranium concentrations in the immediate vicinity of the LTP include a small plume above 1 mg/L but not outside of the NRC Boundary. The exception is a small uranium plume above the non-mixing zone site standard of 0.09 mg/L that is predicted to emerge from the southern portion of the Upper Chinle mixing zone south of the NRC License Boundary similar to the other scenarios. Like the alluvial aquifer, the 10-year collection and injection simulation for the Upper Chinle aquifer is intended to assist in evaluating a corrective action alternative that combines a shorter pumping/treatment/injection timeframe followed by in situ treatment and natural attenuation.

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Figures

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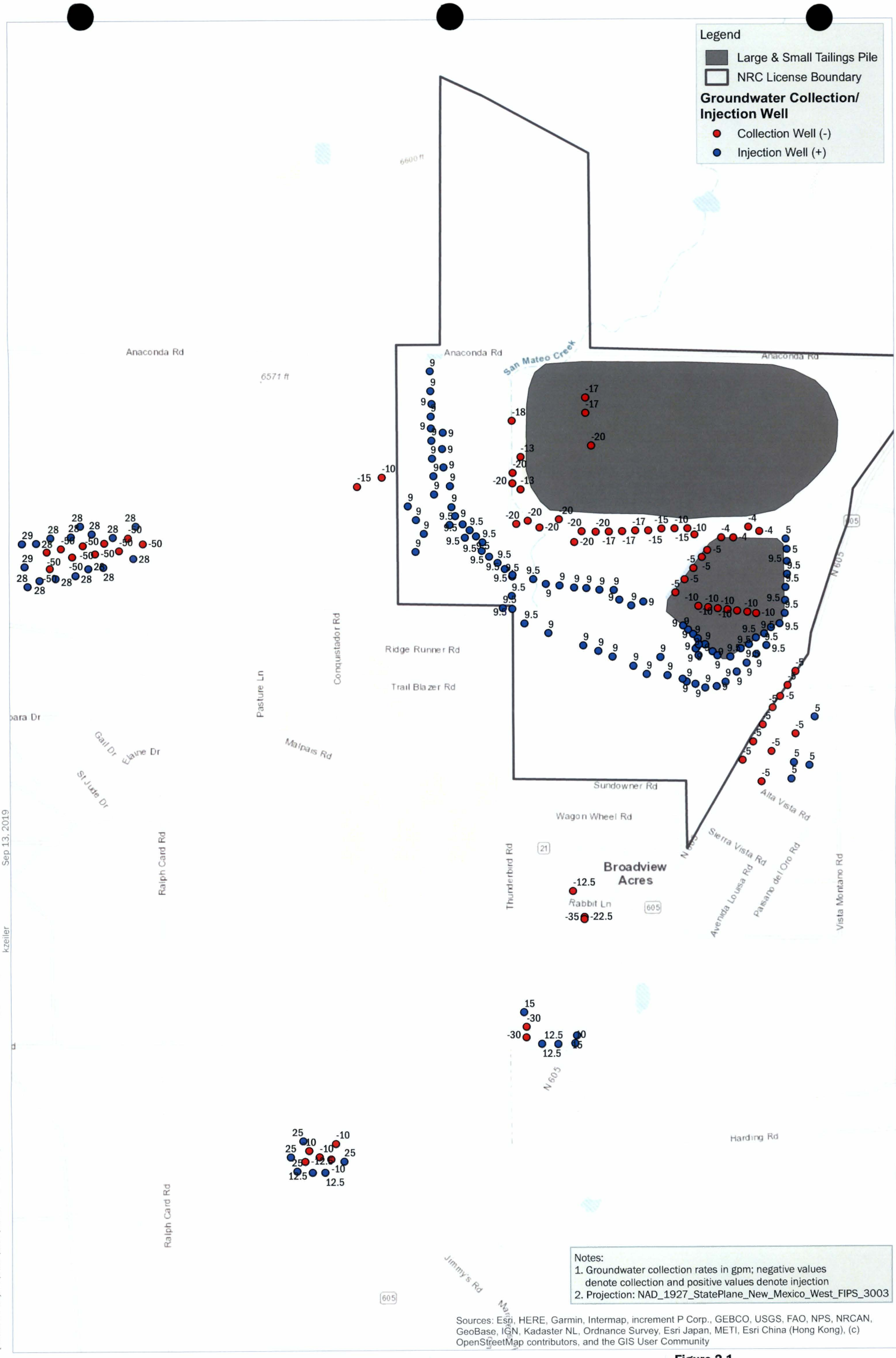

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kzeiler
Sep 13, 2019

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Date: September 2019
Project: 153687

Figure 2-1
Alluvial Aquifer Simulated Predictive Year 1 to 2 Groundwater Collection and Injection Rates

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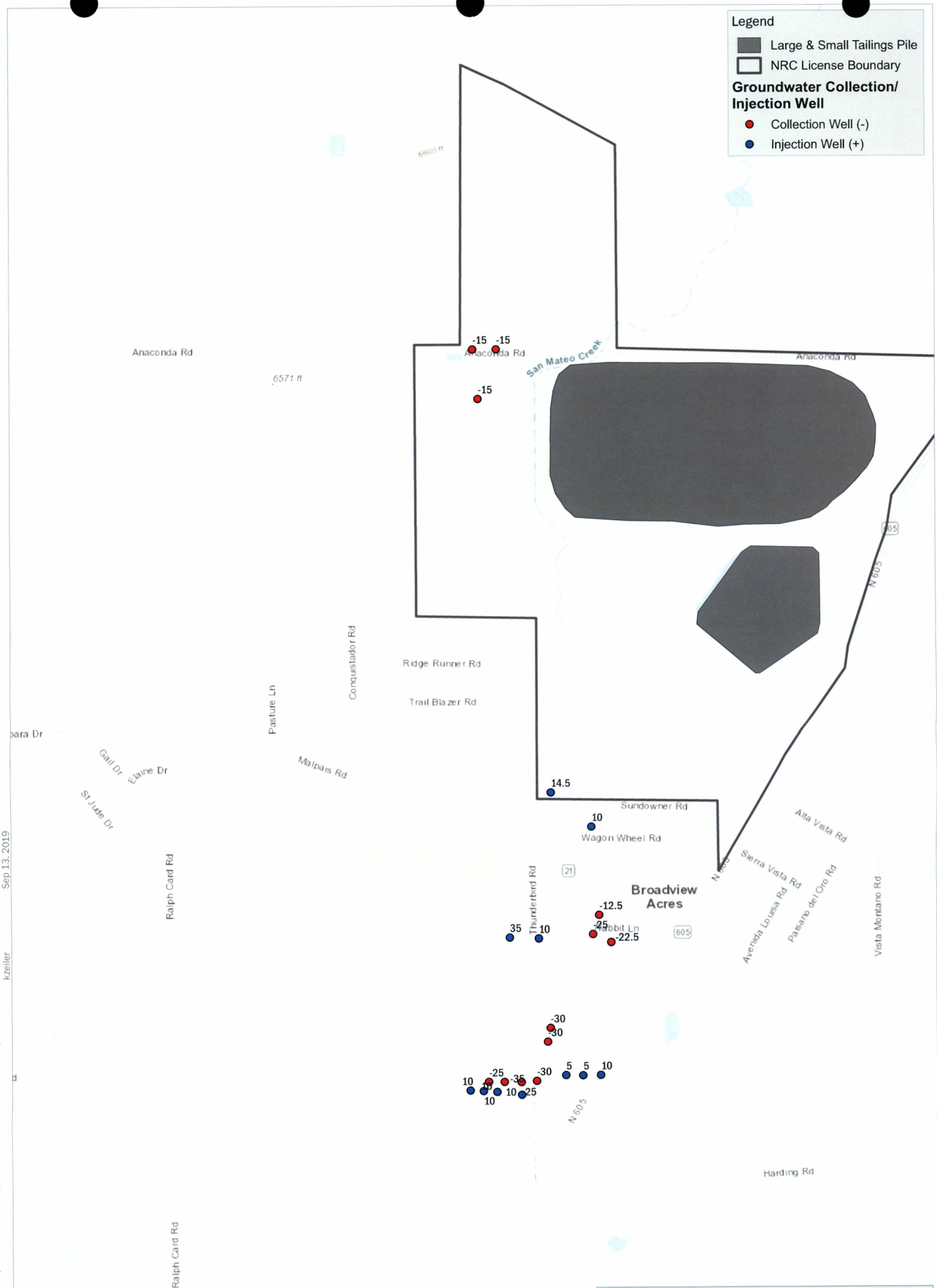
Figure 2-2
Upper Chinle Aquifer Simulated Predictive Year 1 to 2 Groundwater Collection and Injection Rates



Notes:
1. Groundwater collection rates in gpm; negative values denote collection and positive values denote injection
2. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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0 0.25 0.5 Miles

N

Figure 2-3
Middle Chinle Aquifer Simulated Predictive Year 1 to 2 Groundwater Collection and Injection Rates

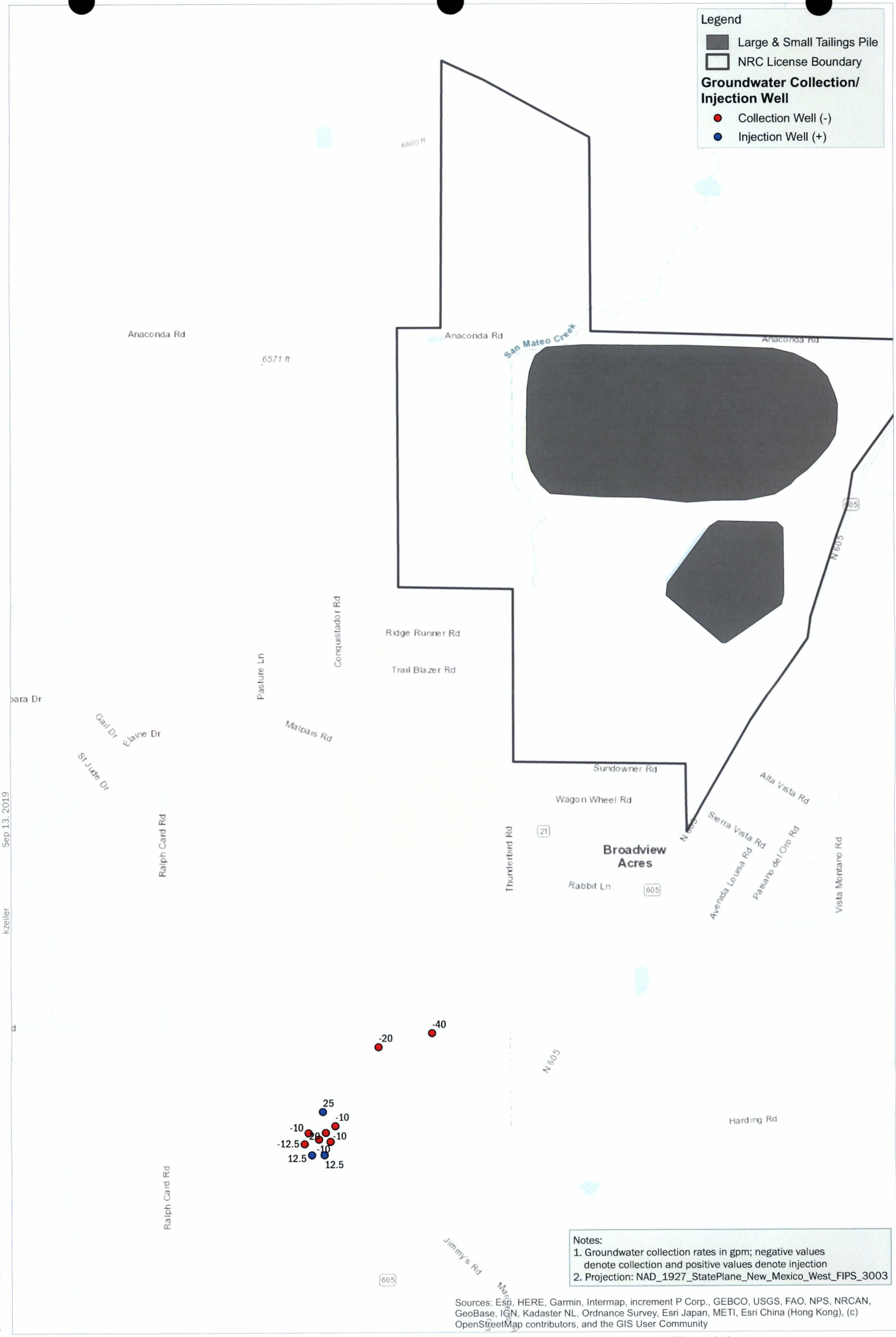

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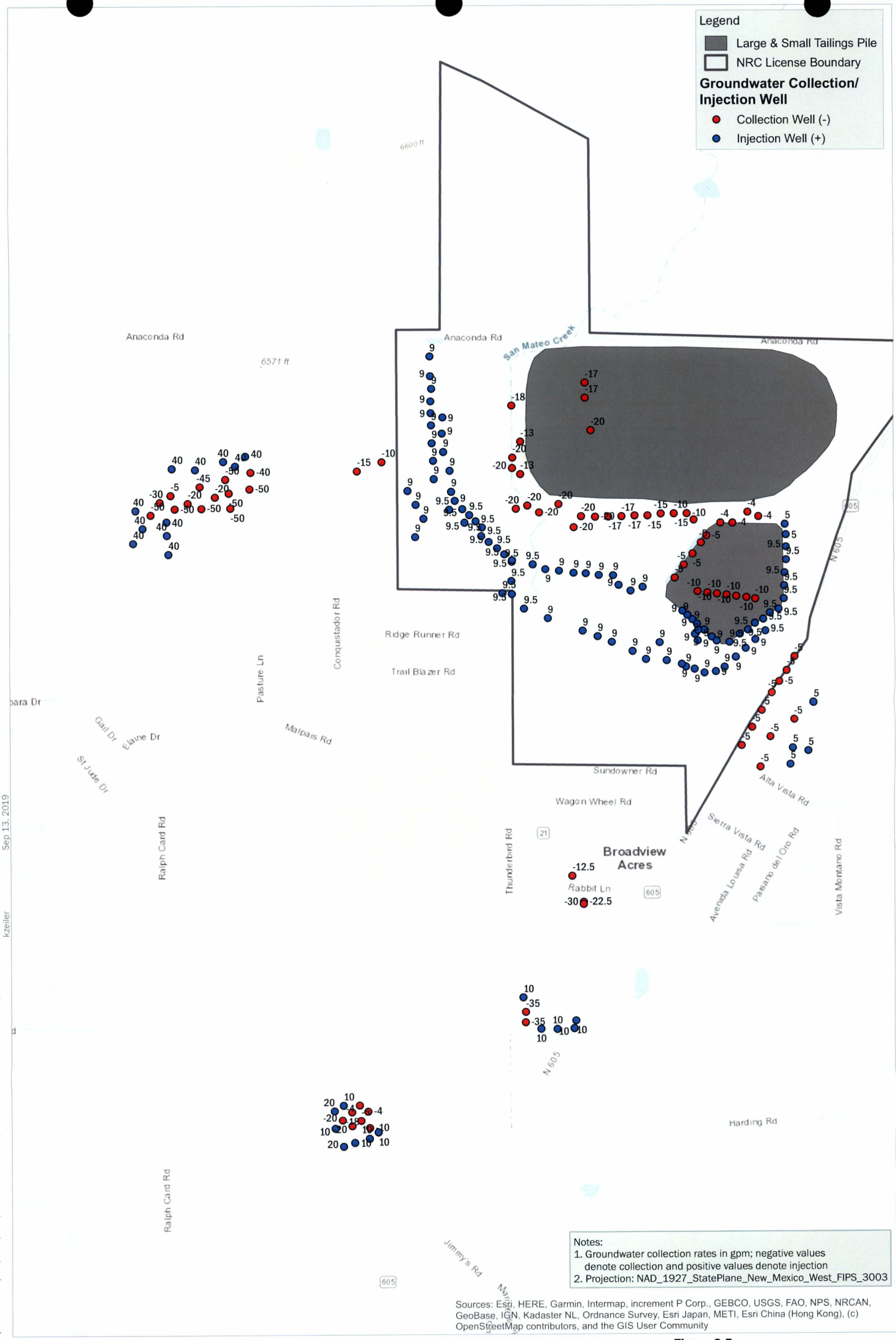
Figure 2-4
Lower Chinle Aquifer Simulated Predictive Year 1 to 2 Groundwater Collection and Injection Rates



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0 0.25 0.5 Miles
N

Figure 2-5
Alluvial Aquifer Simulated Predictive Year 3 to 4 Groundwater Collection and Injection Rates

Notes:
1. Groundwater collection rates in gpm; negative values denote collection and positive values denote injection
2. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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0 0.25 0.5 Miles
N

Figure 2-6
Upper Chinle Aquifer Simulated Predictive Year 3 to 4 Groundwater Collection and Injection Rates

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kzeller Sep 13, 2019

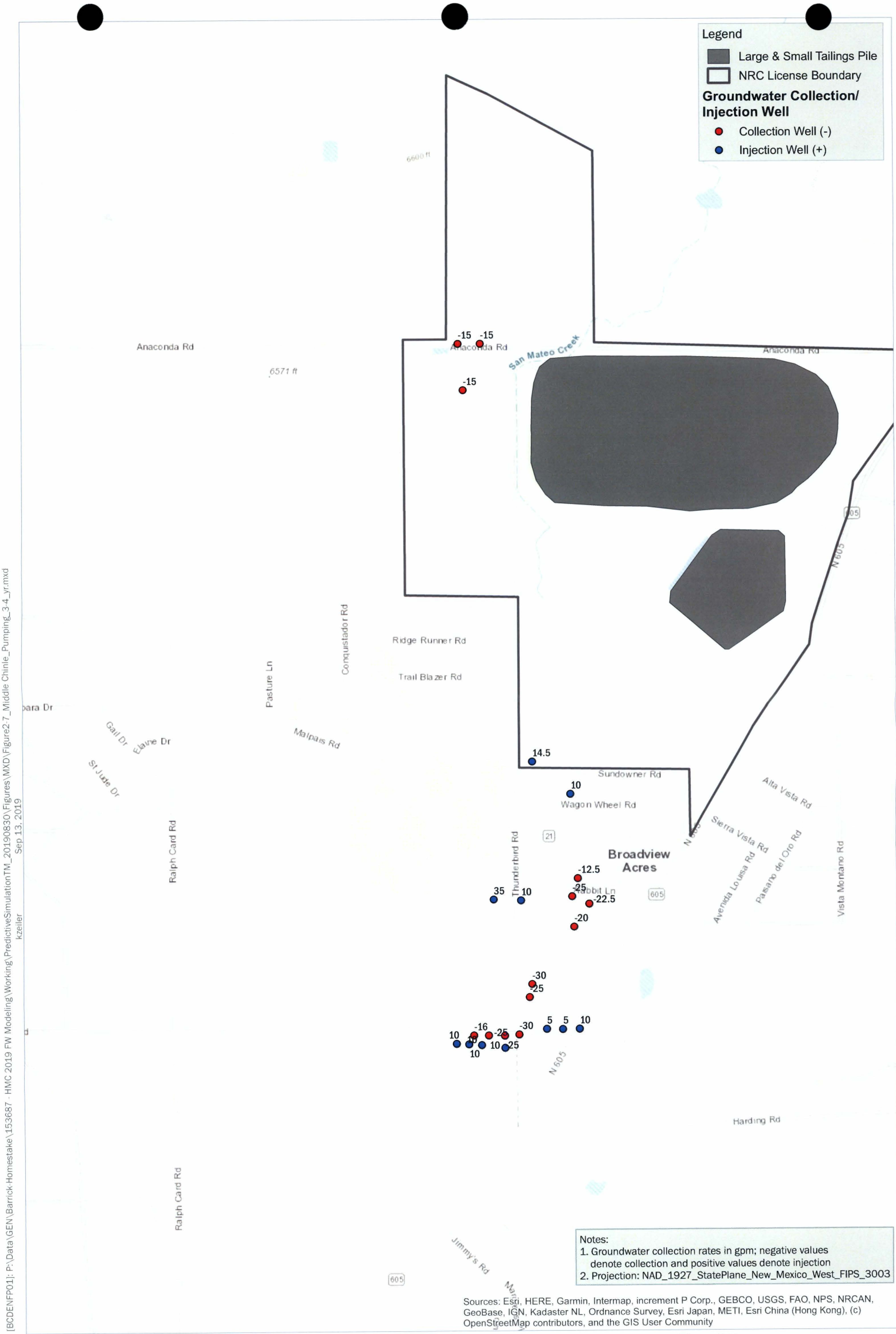

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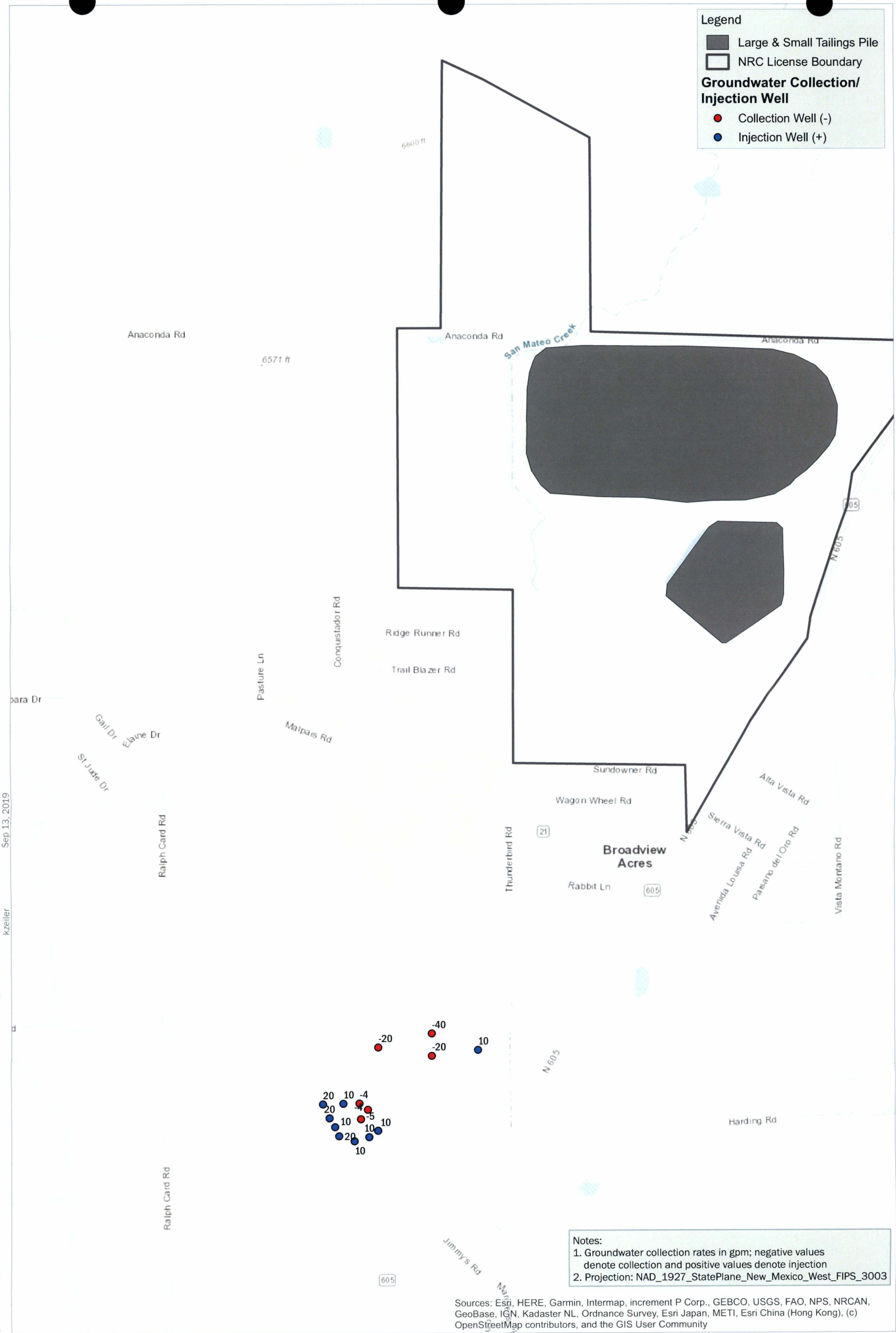
Figure 2-7
Middle Chinle Aquifer Simulated Predictive Year 3 to 4 Groundwater Collection and Injection Rates



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kzeiler Sep 13, 2019

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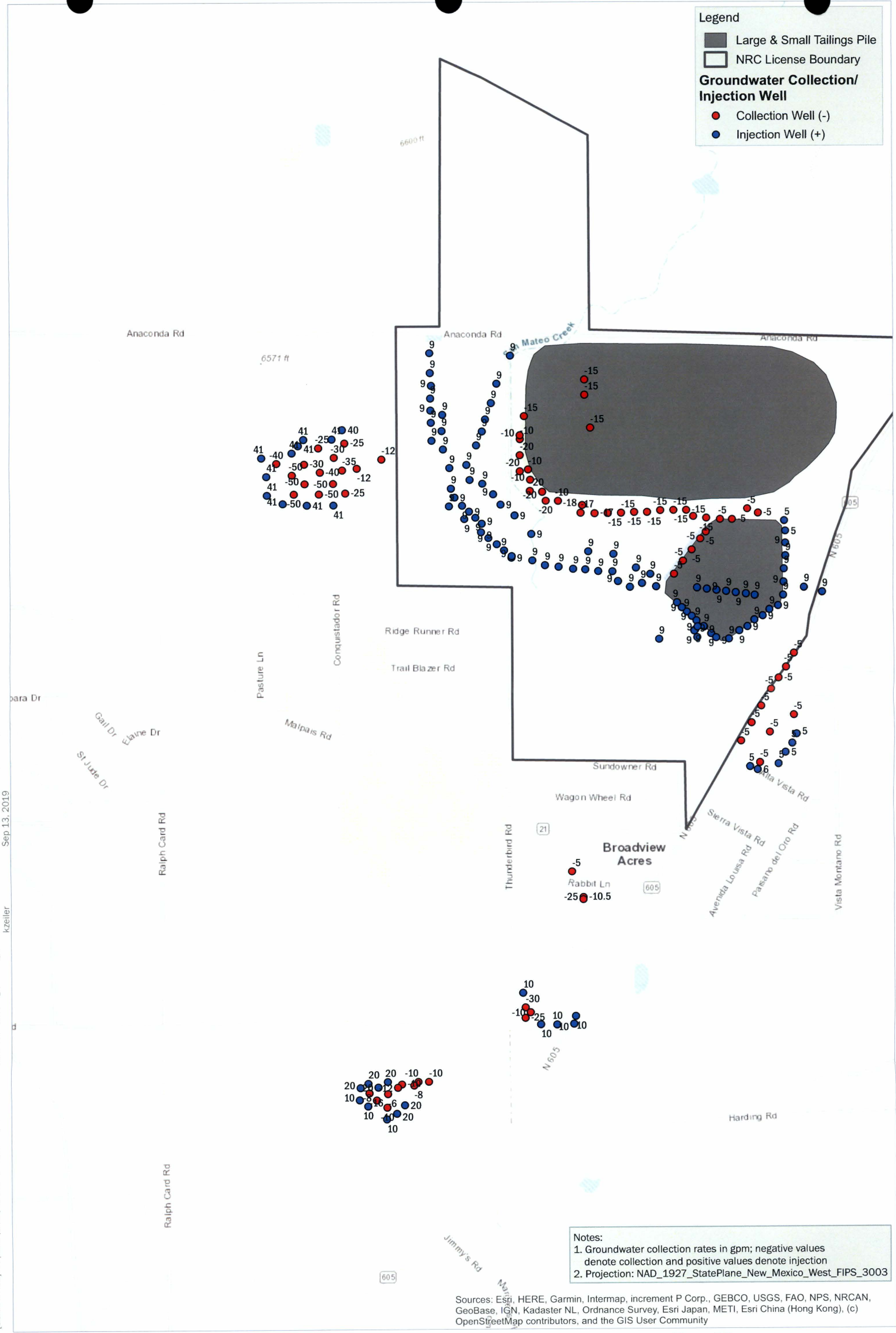
0 0.25 0.5 Miles

N

Figure 2-8
Lower Chinle Aquifer Simulated Predictive Year 3 to 4 Groundwater Collection and Injection Rates



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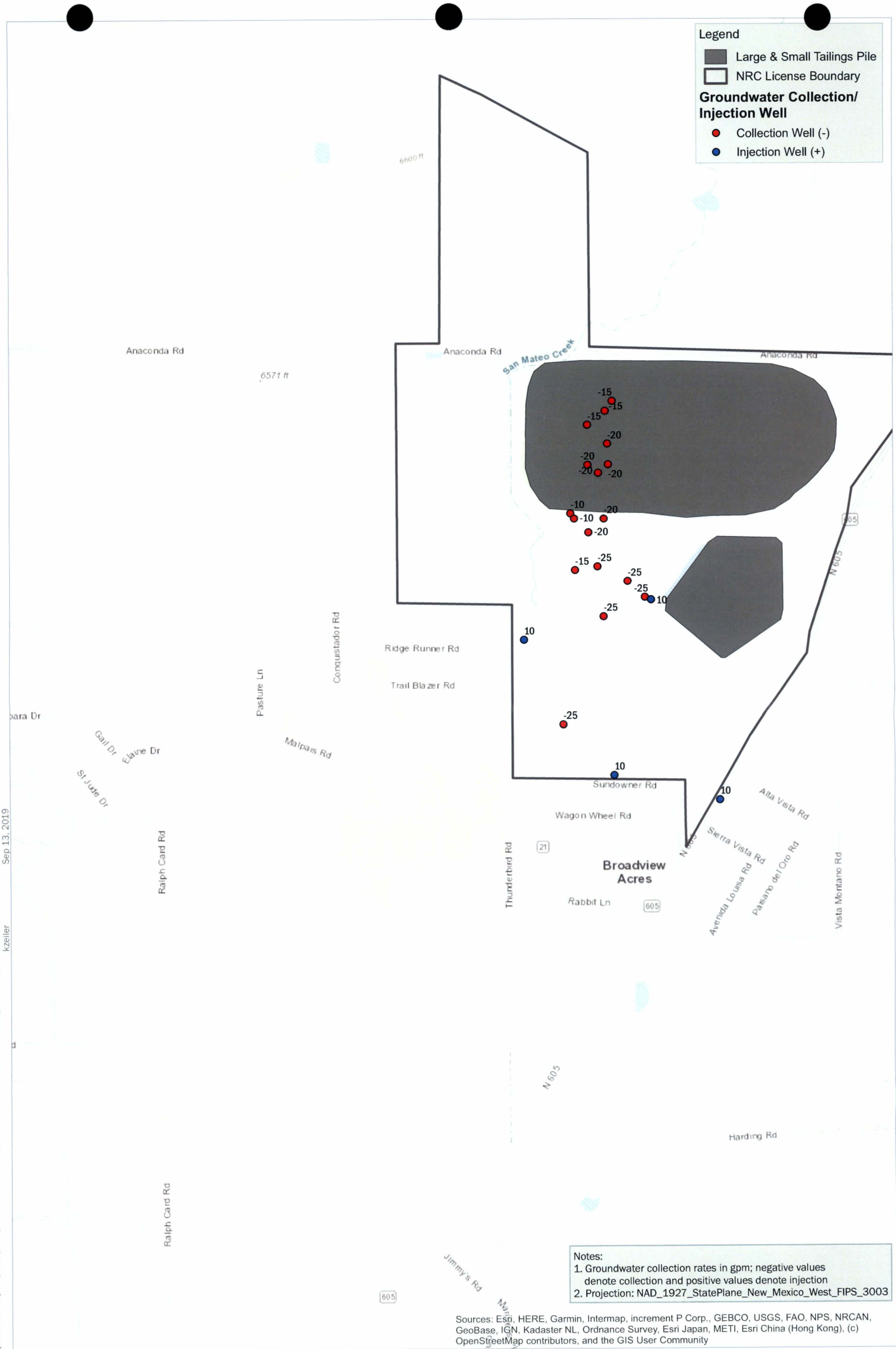
0 0.25 0.5 Miles
N

Figure 2-9
Alluvial Aquifer Simulated Predictive Year 5 to 6 Groundwater Collection and Injection Rates



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Sep 13, 2019
kzeller

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Grants Reclamation Project
Groundwater Fate and Transport Modeling
Date: September 2019
Project: 153687

Figure 2-10
Upper Chinle Aquifer Simulated Predictive Year 5 to 6 Groundwater Collection and Injection Rates

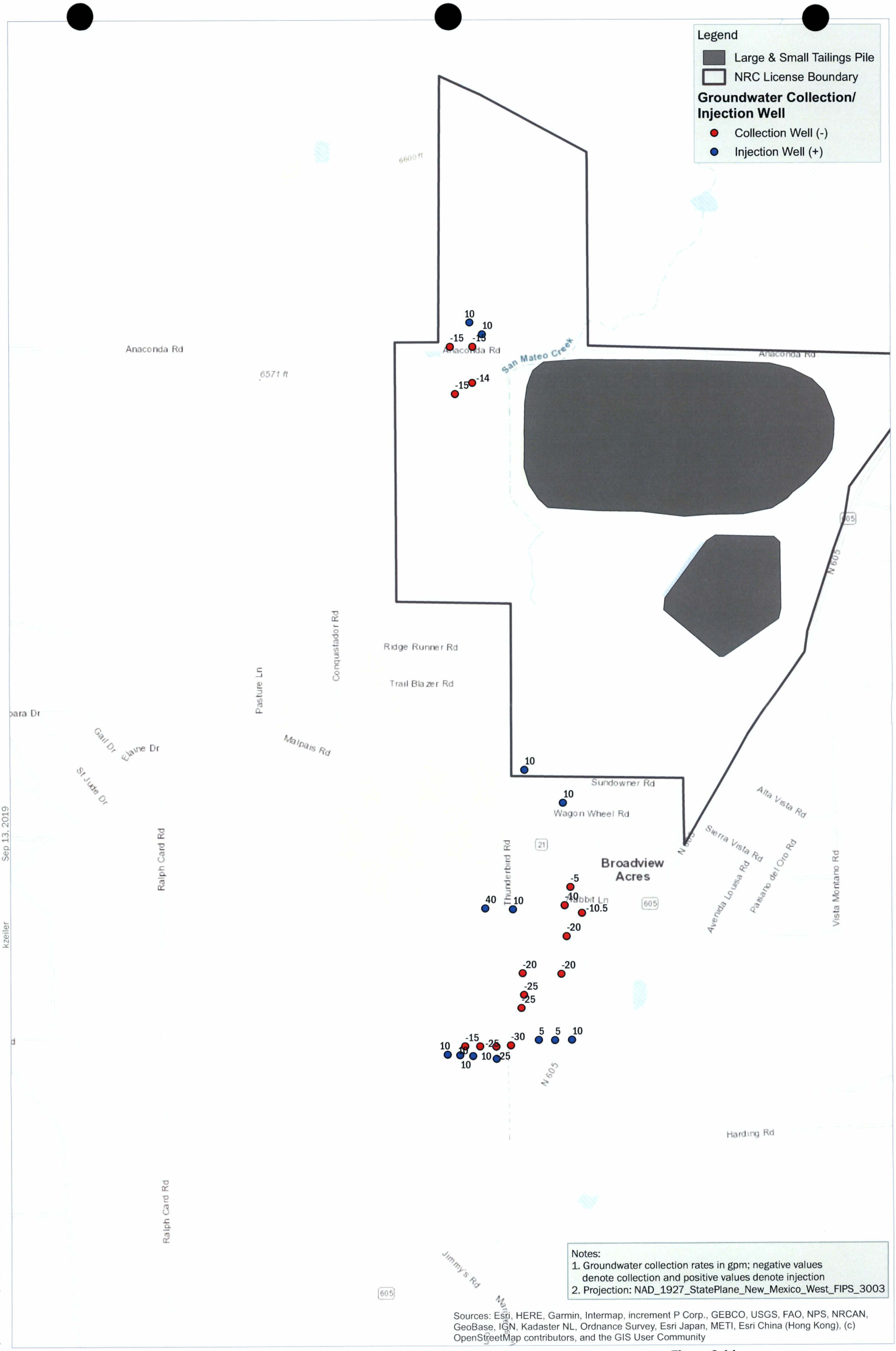

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Figure 2-11
Middle Chinle Aquifer Simulated Predictive Year 5 to 6 Groundwater Collection and Injection Rates

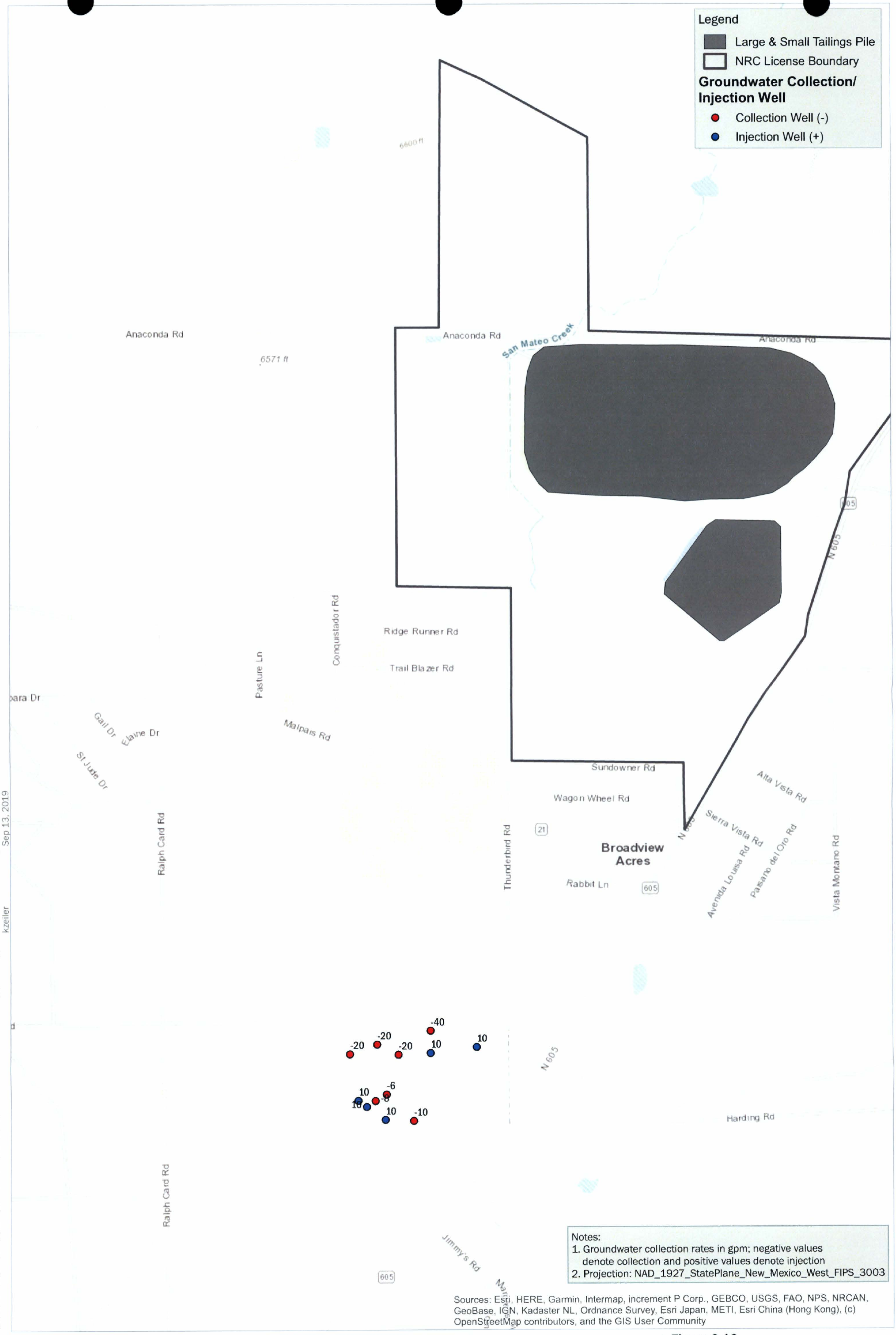

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Figure 2-12
Lower Chinle Aquifer Simulated Predictive Year 5 to 6 Groundwater Collection and Injection Rates

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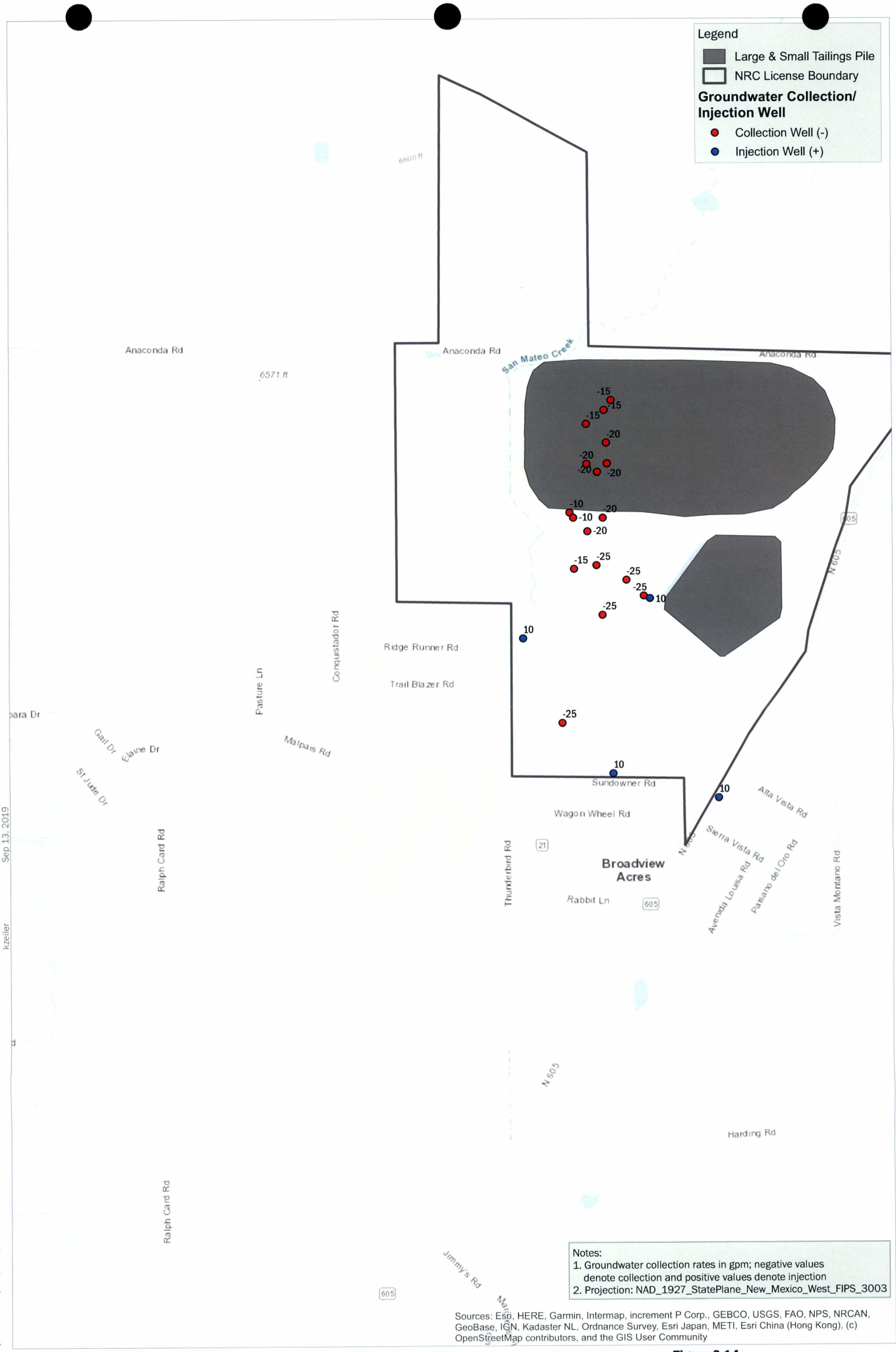
0 0.25 0.5 Miles
N

Figure 2-13
Alluvial Aquifer Simulated Predictive Year 7 to 8 Groundwater Collection and Injection Rates



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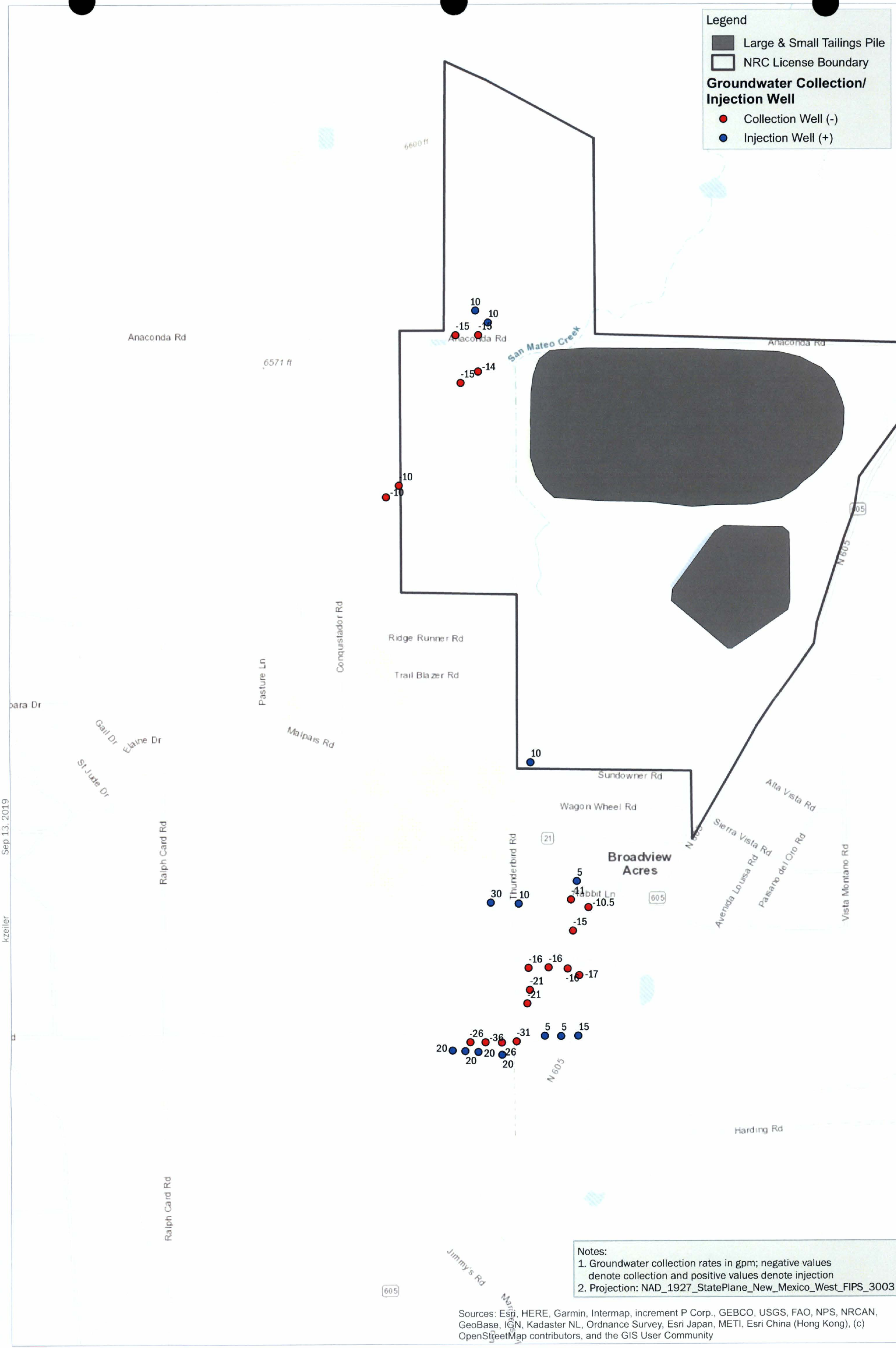
0 0.25 0.5 Miles
N

Figure 2-14
Upper Chinle Aquifer Simulated Predictive Year 7 to 8 Groundwater Collection and Injection Rates



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0 0.25 0.5 Miles
N

Figure 2-15
Middle Chinle Aquifer Simulated Predictive Year 7 to 8 Groundwater Collection and Injection Rates

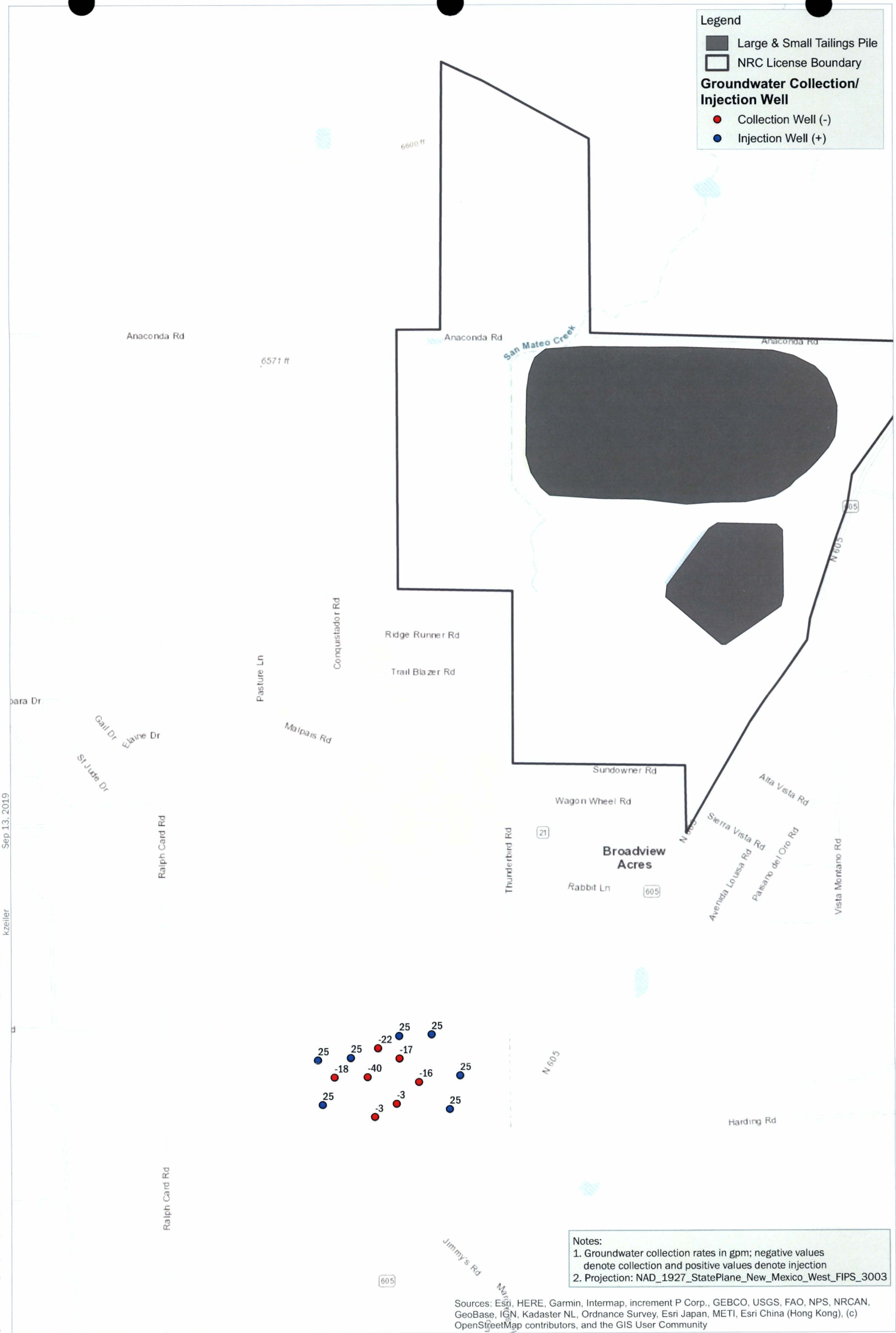

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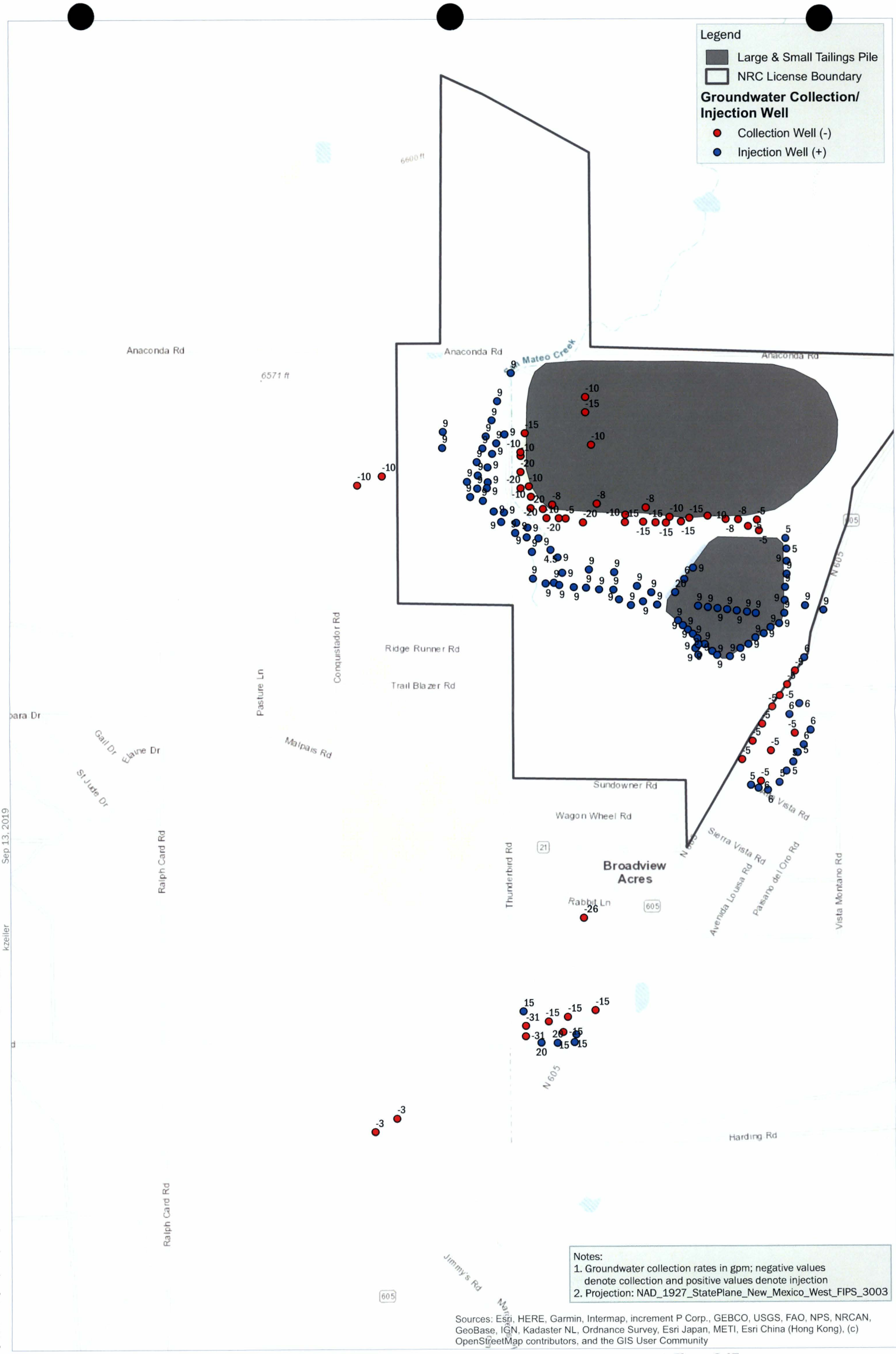
Figure 2-16

Lower Chinle Aquifer Simulated Predictive Year 7 to 8 Groundwater Collection and Injection Rates



Notes:
1. Groundwater collection rates in gpm; negative values denote collection and positive values denote injection
2. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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Figure 2-17
Alluvial Aquifer Simulated Predictive Year 9 to 10 Groundwater Collection and Injection Rates

Notes:
1. Groundwater collection rates in gpm; negative values denote collection and positive values denote injection
2. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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Figure 2-18
Upper Chinle Aquifer Simulated Predictive Year 9 to 10 Groundwater Collection and Injection Rates

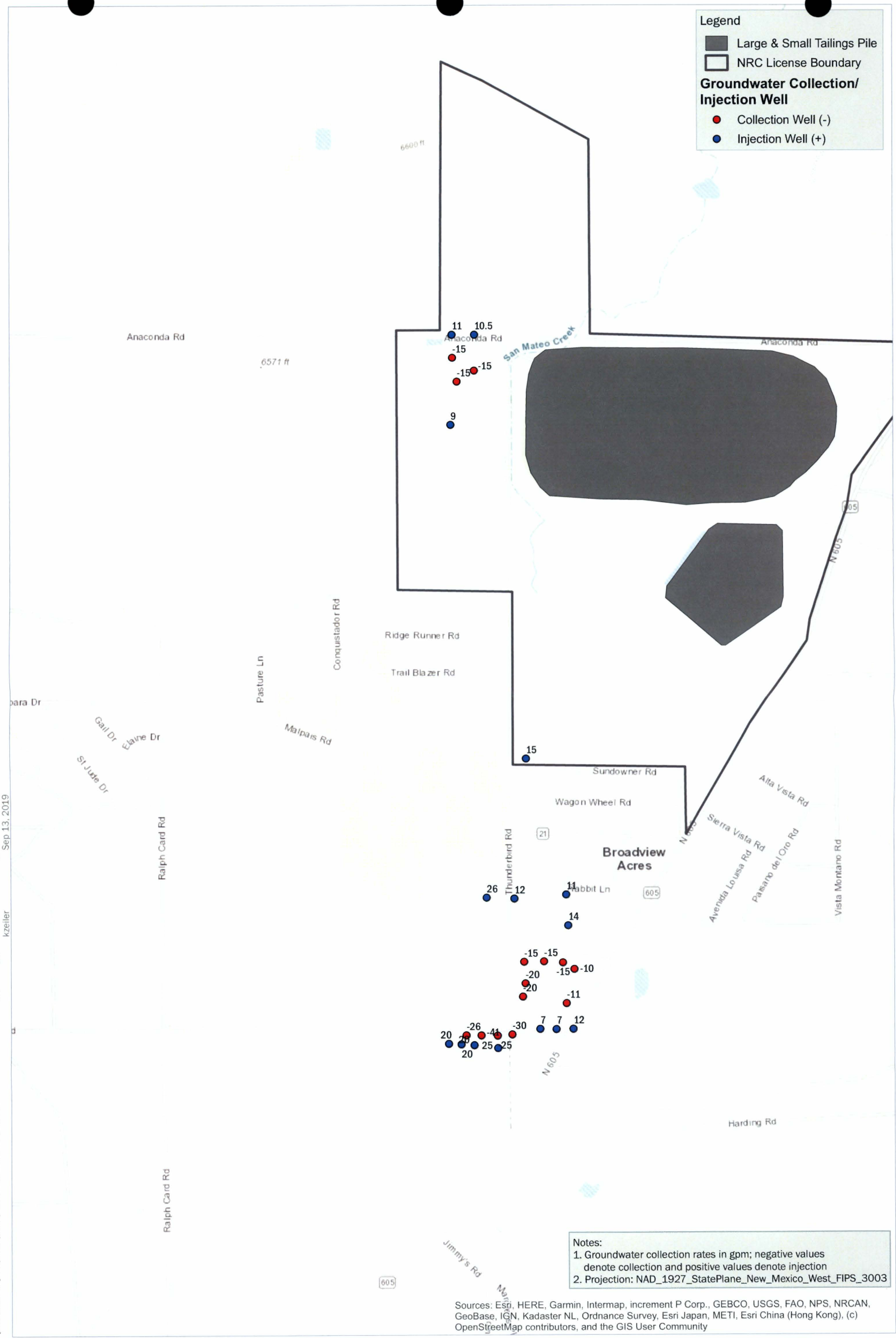

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Figure 2-19
Middle Chinle Aquifer Simulated Predictive Year 9 to 10 Groundwater Collection and Injection Rates

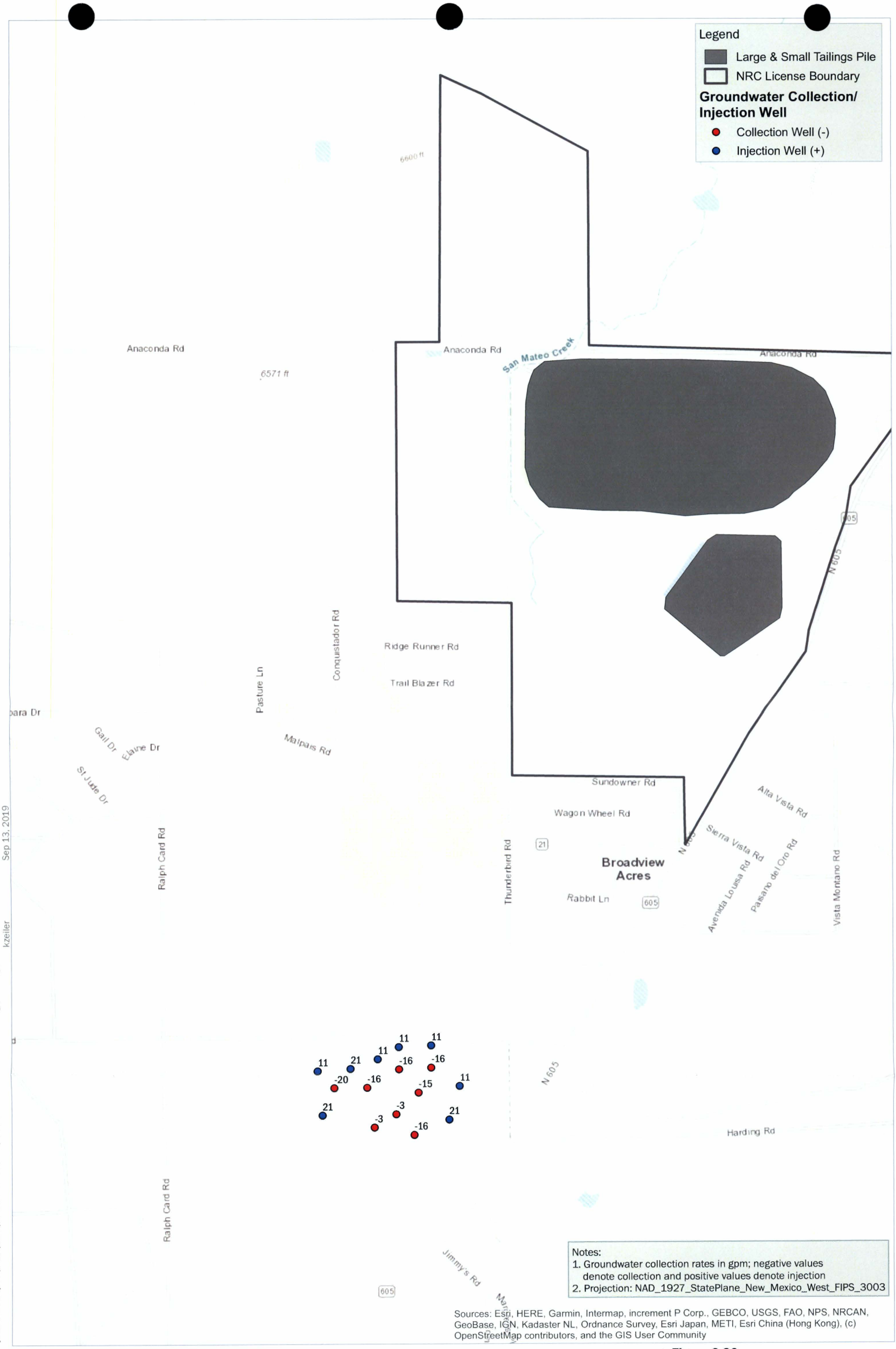

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Figure 2-20
Lower Chinle Aquifer Simulated Predictive Year 9 to 10 Groundwater Collection and Injection Rates

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Figure 2-21
Alluvial Aquifer Simulated Predictive Year 11 to 12 Groundwater Collection and Injection Rates

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0 0.25 0.5 Miles
N

Figure 2-22
Upper Chinle Aquifer Simulated Predictive Year 11 to 12 Groundwater Collection and Injection Rates

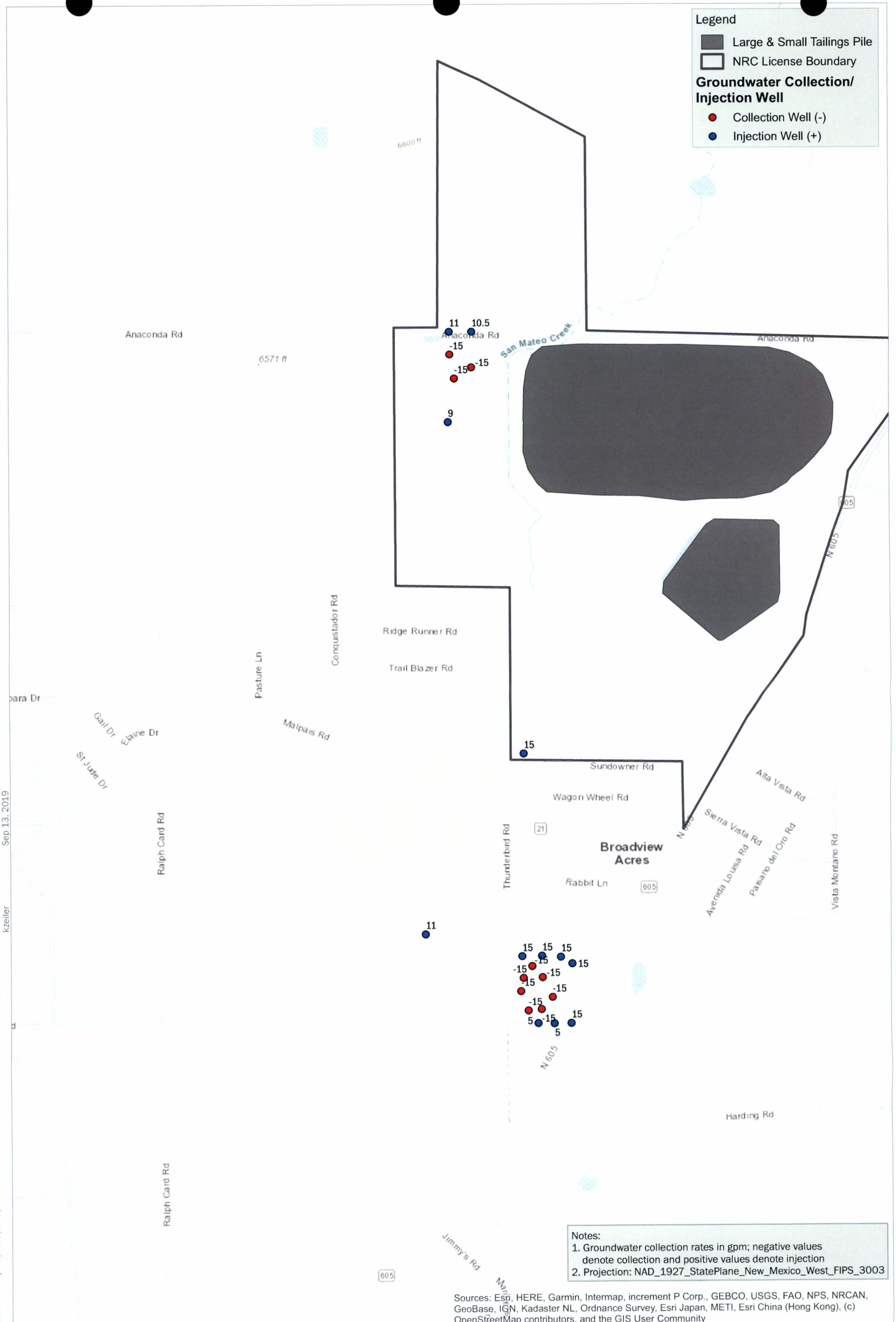

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Figure 2-23
Middle Chinle Aquifer Simulated Predictive Year 11 to 12 Groundwater Collection and Injection Rates

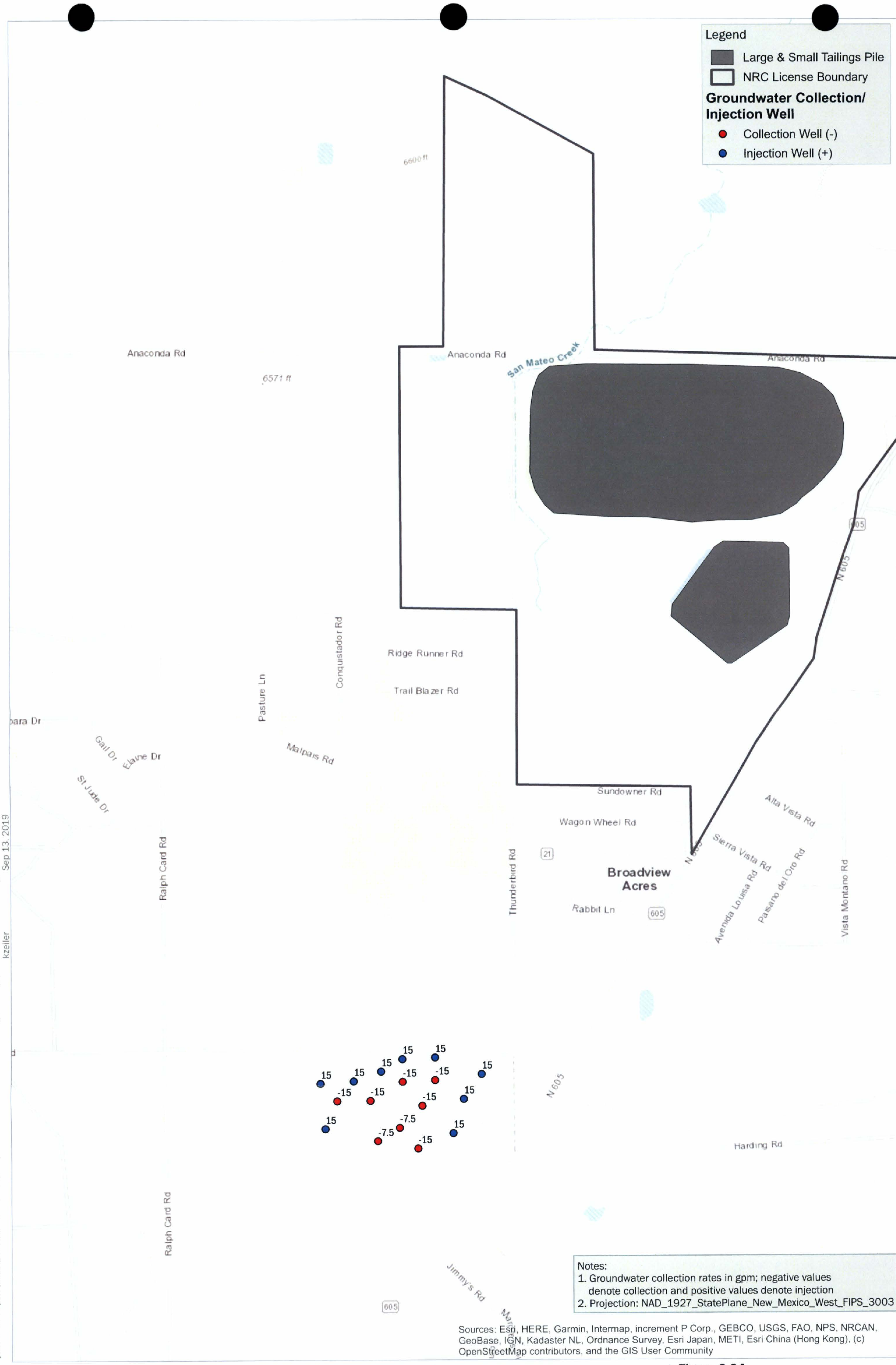

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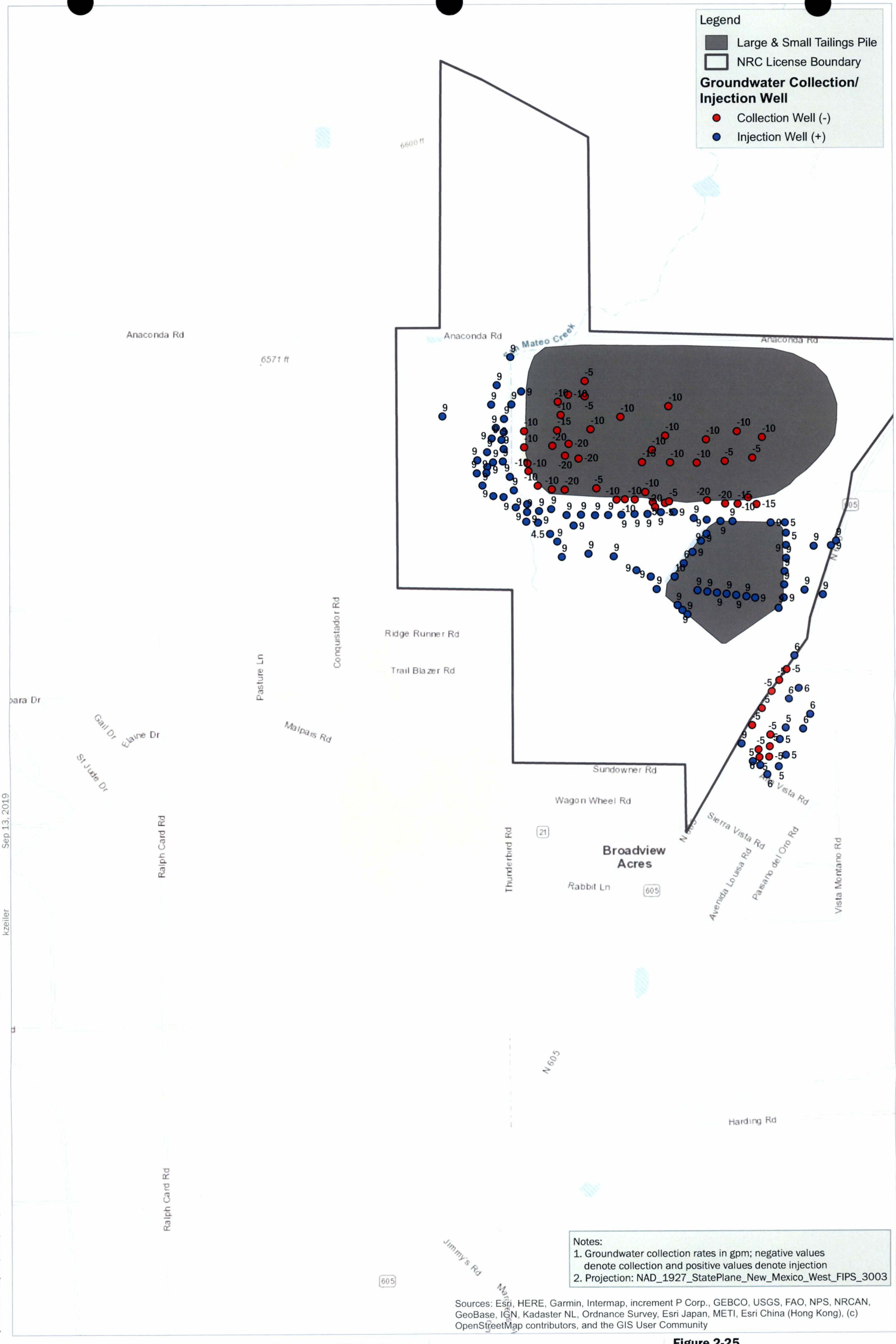
Figure 2-24
Lower Chinle Aquifer Simulated Predictive Year 11 to 12 Groundwater Collection and Injection Rates



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0 0.25 0.5 Miles
N

Figure 2-25
Alluvial Aquifer Simulated Predictive Year 13 to 16 Groundwater Collection and Injection Rates

[BCDENFP01]: P:\Data\GEN\Barrick Homestake\153687 - HMC 2019 FW Modeling\Working\PredictiveSimulationTM_20190830\Figures\MXD\Figure2-26_Upper Chinle_Pumping_13-16_yr.mxd
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0 0.25 0.5 Miles
N

Figure 2-26
Upper Chinle Aquifer Simulated Predictive Year 13 to 16 Groundwater Collection and Injection Rates

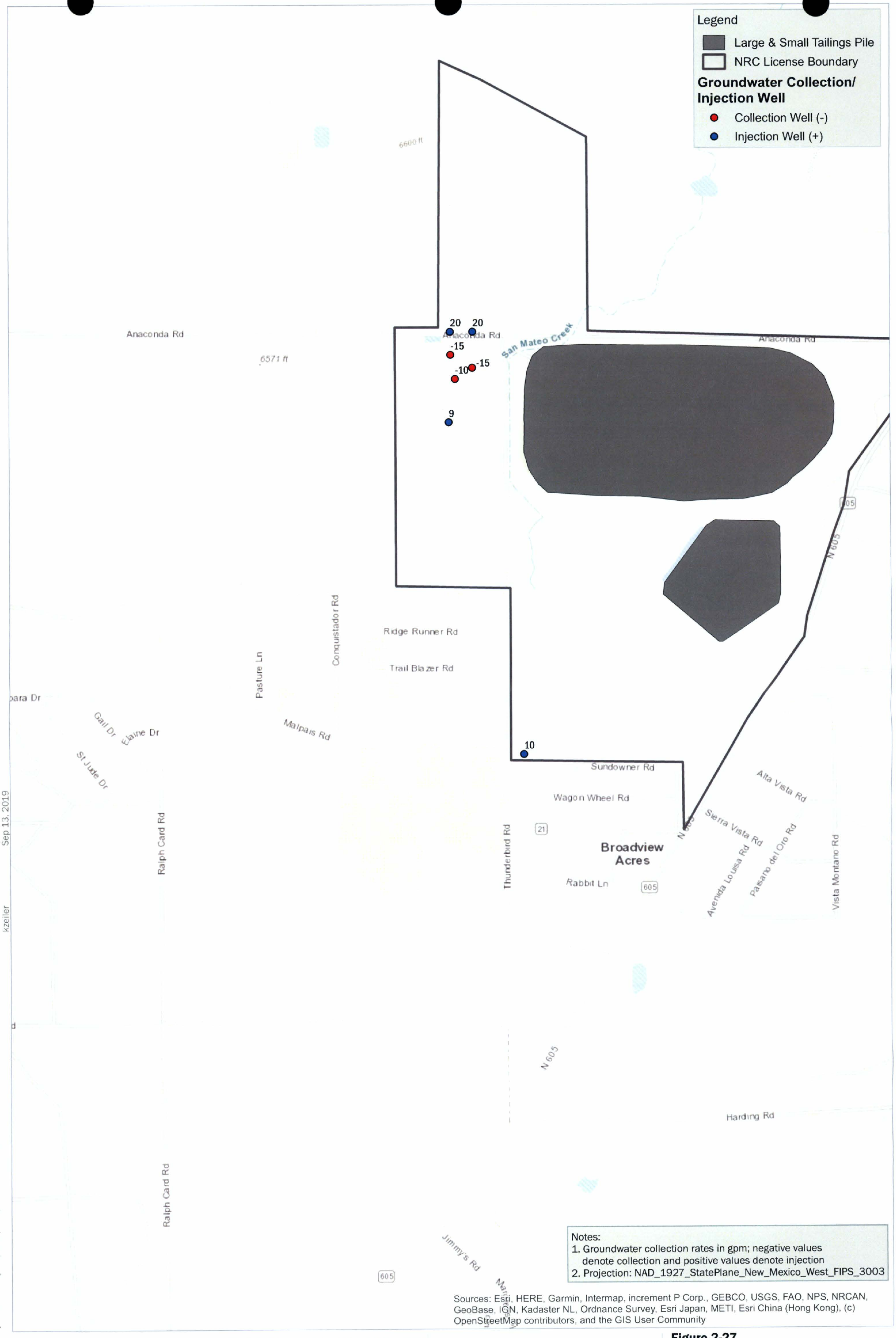

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Figure 2-27

Middle Chinle Aquifer Simulated Predictive Year 13 to 16 Groundwater Collection and Injection Rates

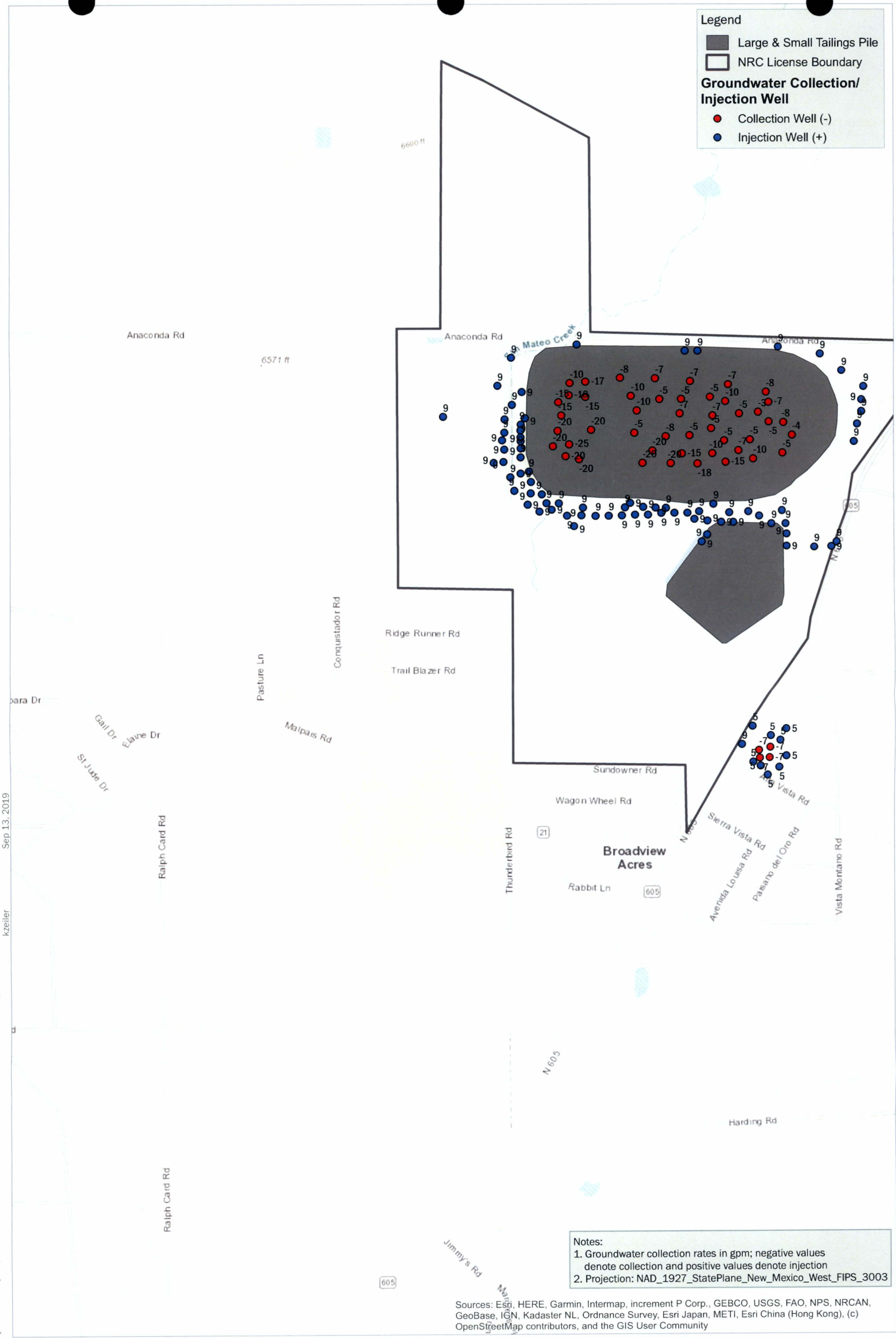

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Figure 2-28
Alluvial Aquifer Simulated Predictive Year 17 to 20 Groundwater Collection and Injection Rates

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\153687 - HMC 2019 FW Modeling\Working\PredictiveSimulationTM_20190830\Figures\MXD\Figure2-29_Upper Chinle_Pumping_17-20_yr.mxd kzeller Sep 13, 2019

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Figure 2-29
Upper Chinle Aquifer Simulated Predictive Year 17 to 20 Groundwater Collection and Injection Rates

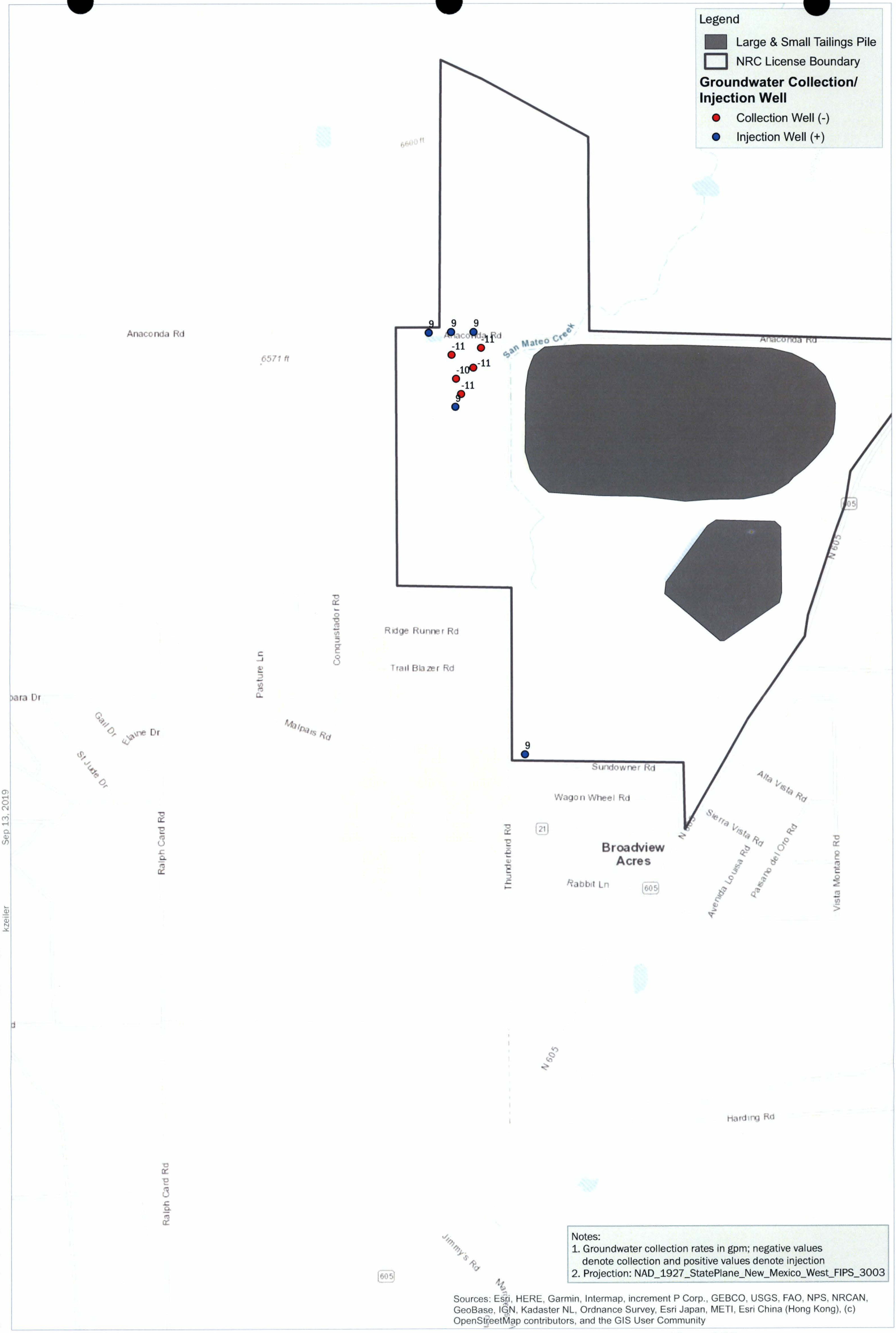

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Figure 2-30
Middle Chinle Aquifer Simulated Predictive Year 17 to 20 Groundwater Collection and Injection Rates

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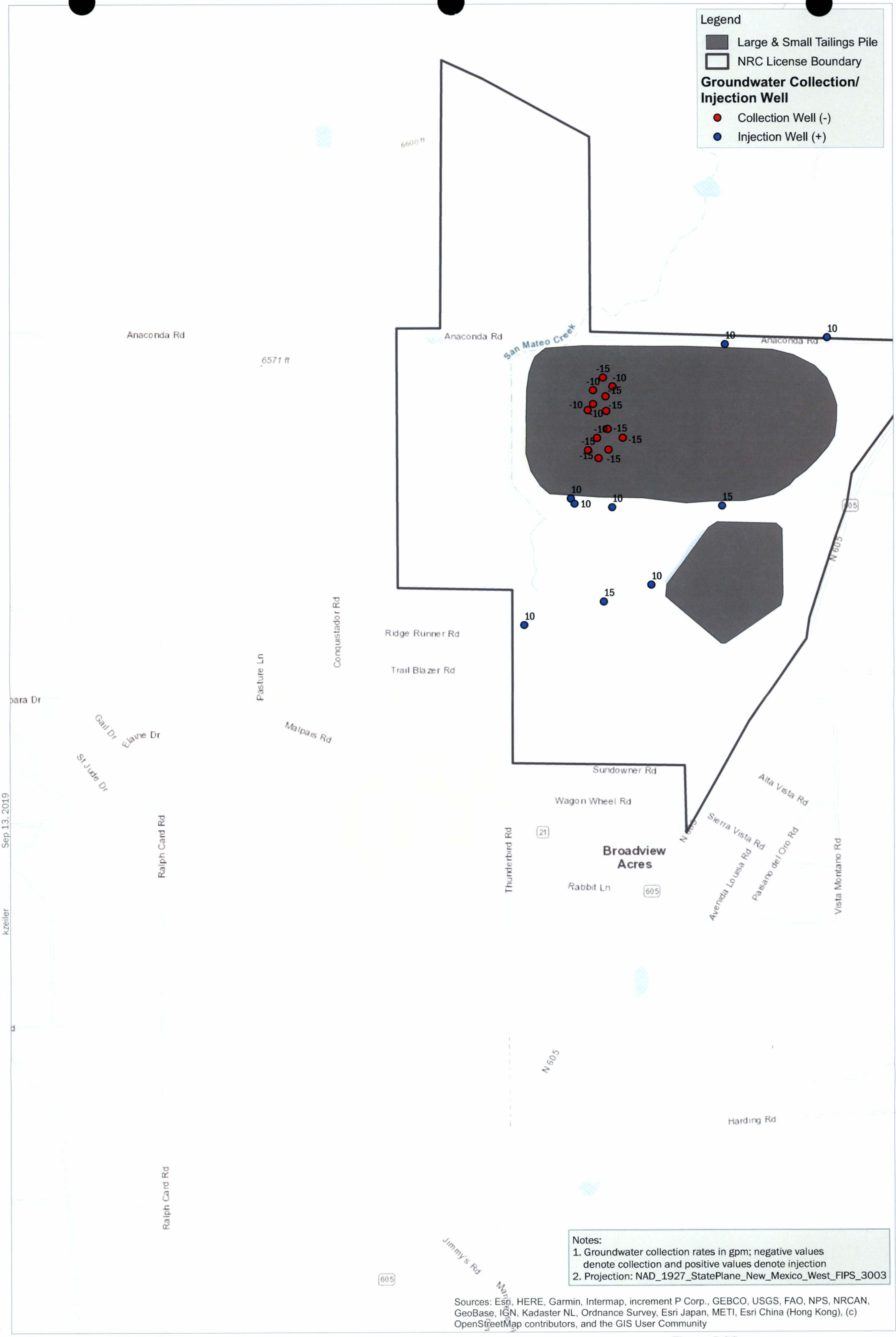
0 0.25 0.5 Miles
N

Figure 2-31
Alluvial Aquifer Simulated Predictive Year 21 to 24 Groundwater Collection and Injection Rates



Notes:
1. Groundwater collection rates in gpm; negative values denote collection and positive values denote injection
2. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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0 0.25 0.5 Miles

N

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Figure 2-32

Upper Chinle Aquifer Simulated Predictive Year 21 to 24 Groundwater Collection and Injection Rates

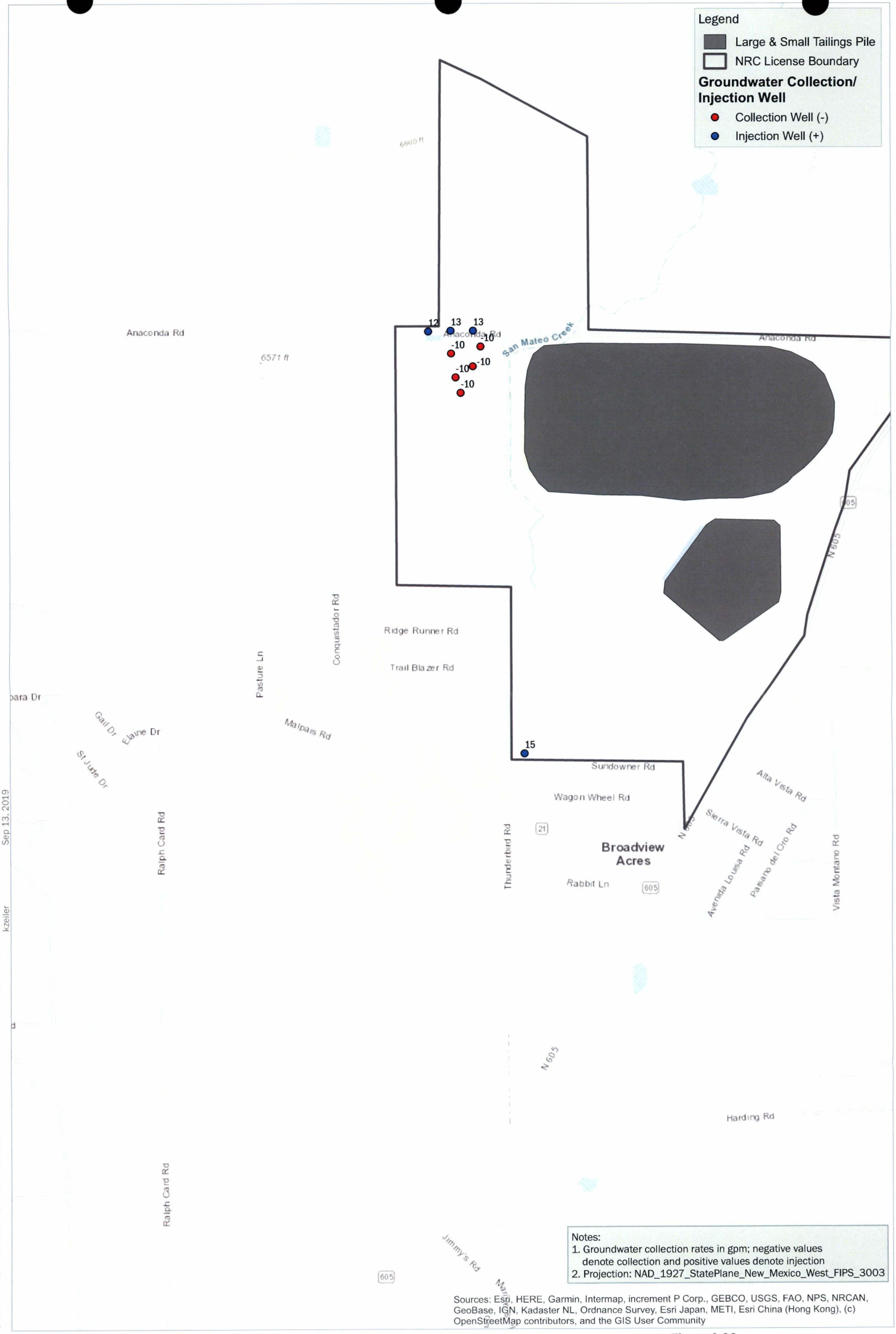

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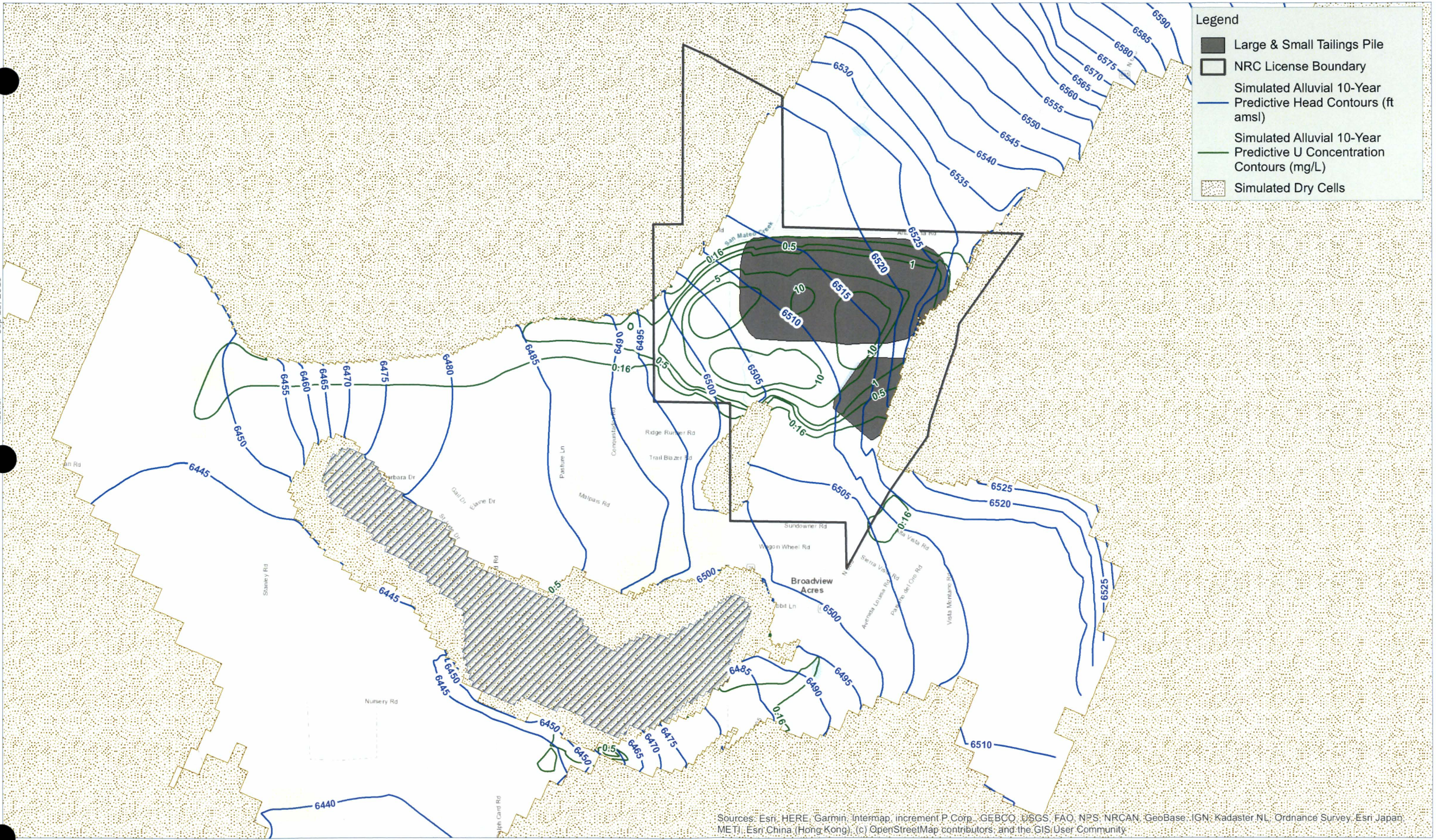
Figure 2-33
Middle Chinle Aquifer Simulated Predictive Year 21 to 24 Groundwater Collection and Injection Rates



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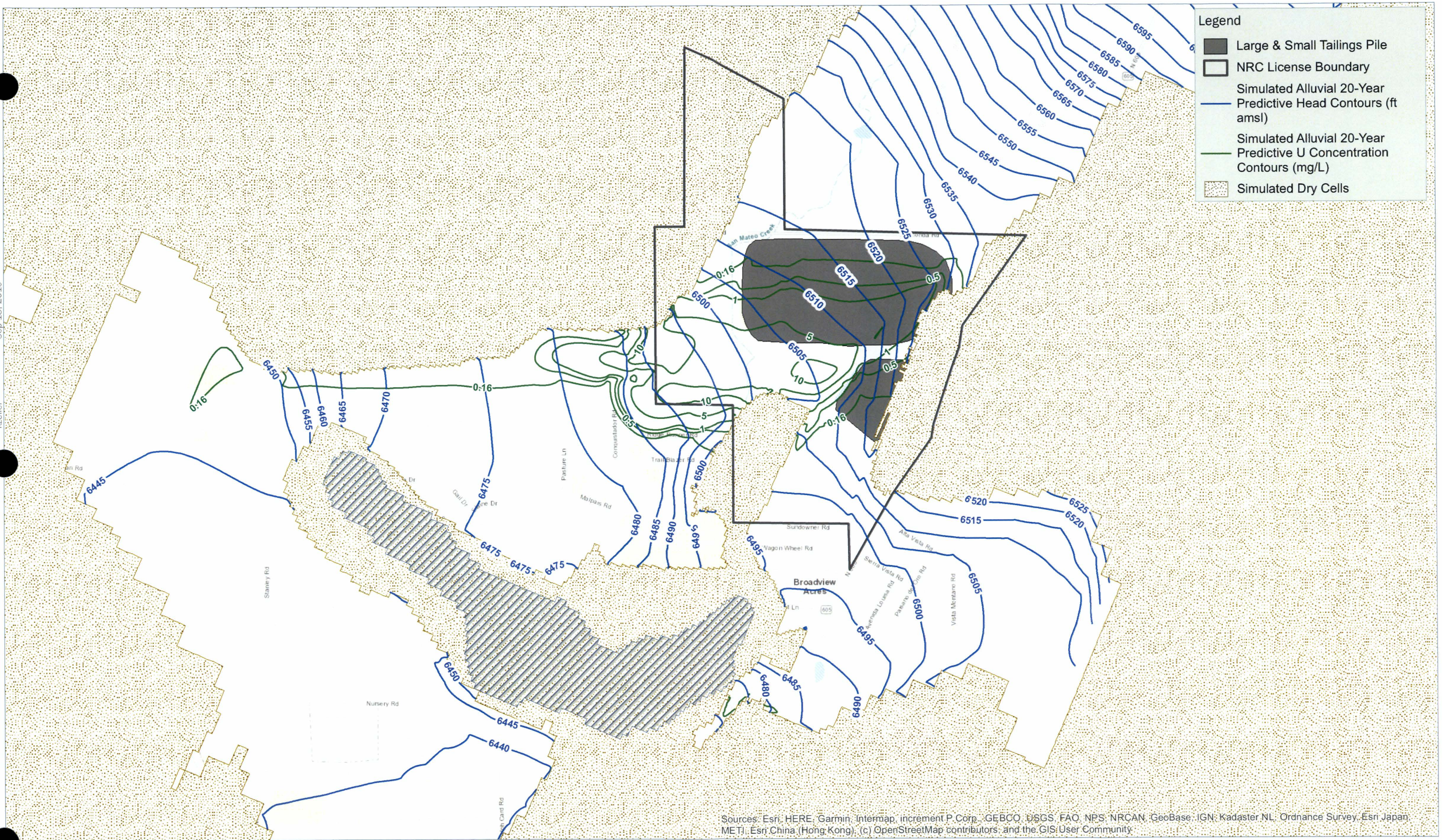
Notes:

1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Figure 3-1

Alluvial Aquifer Simulated Predictive 10-Year Uranium Concentration Contours Natural Attenuation



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-2
Alluvial Aquifer Simulated Predictive 20-Year Uranium Concentration Contours Natural Attenuation

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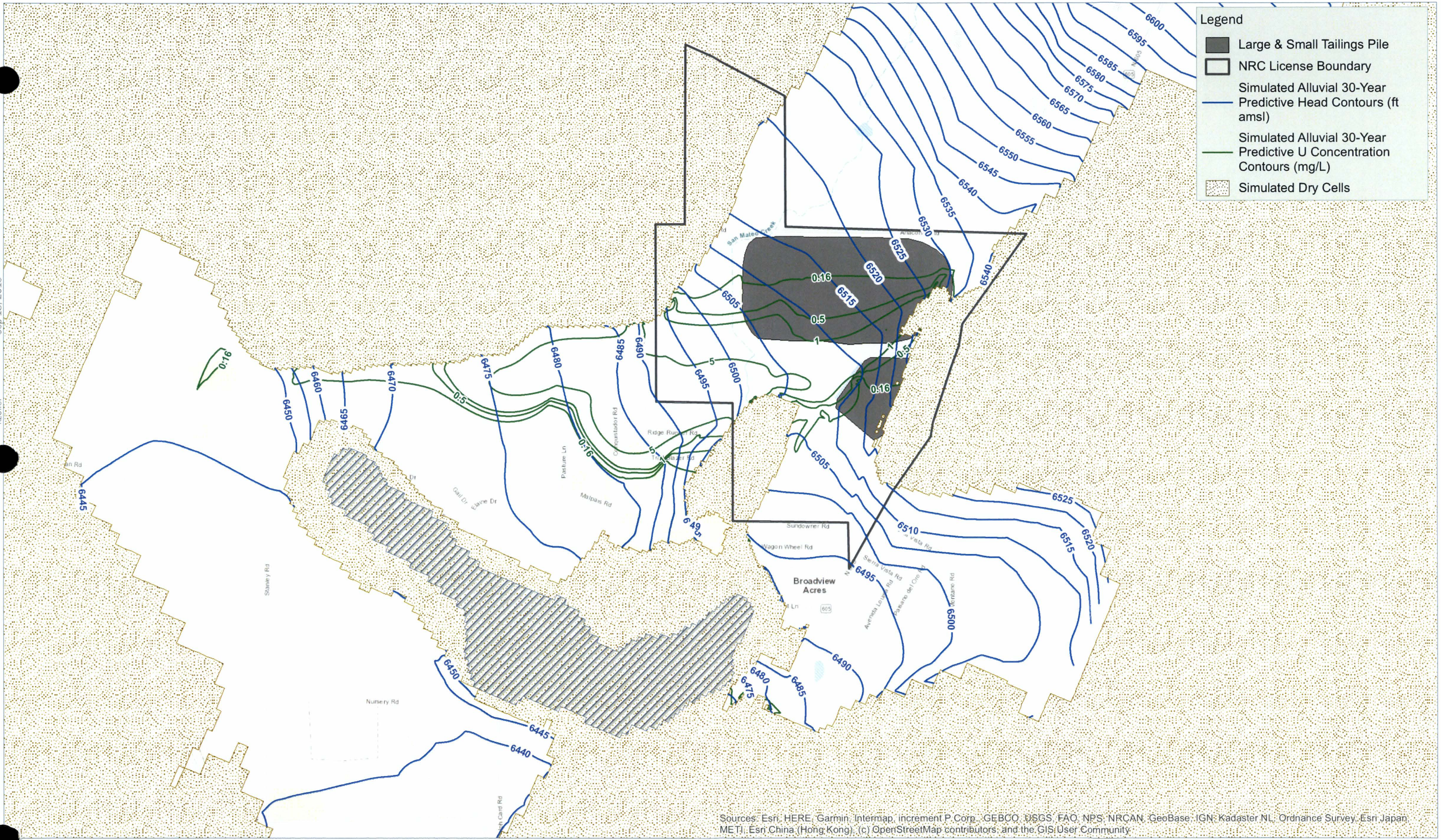

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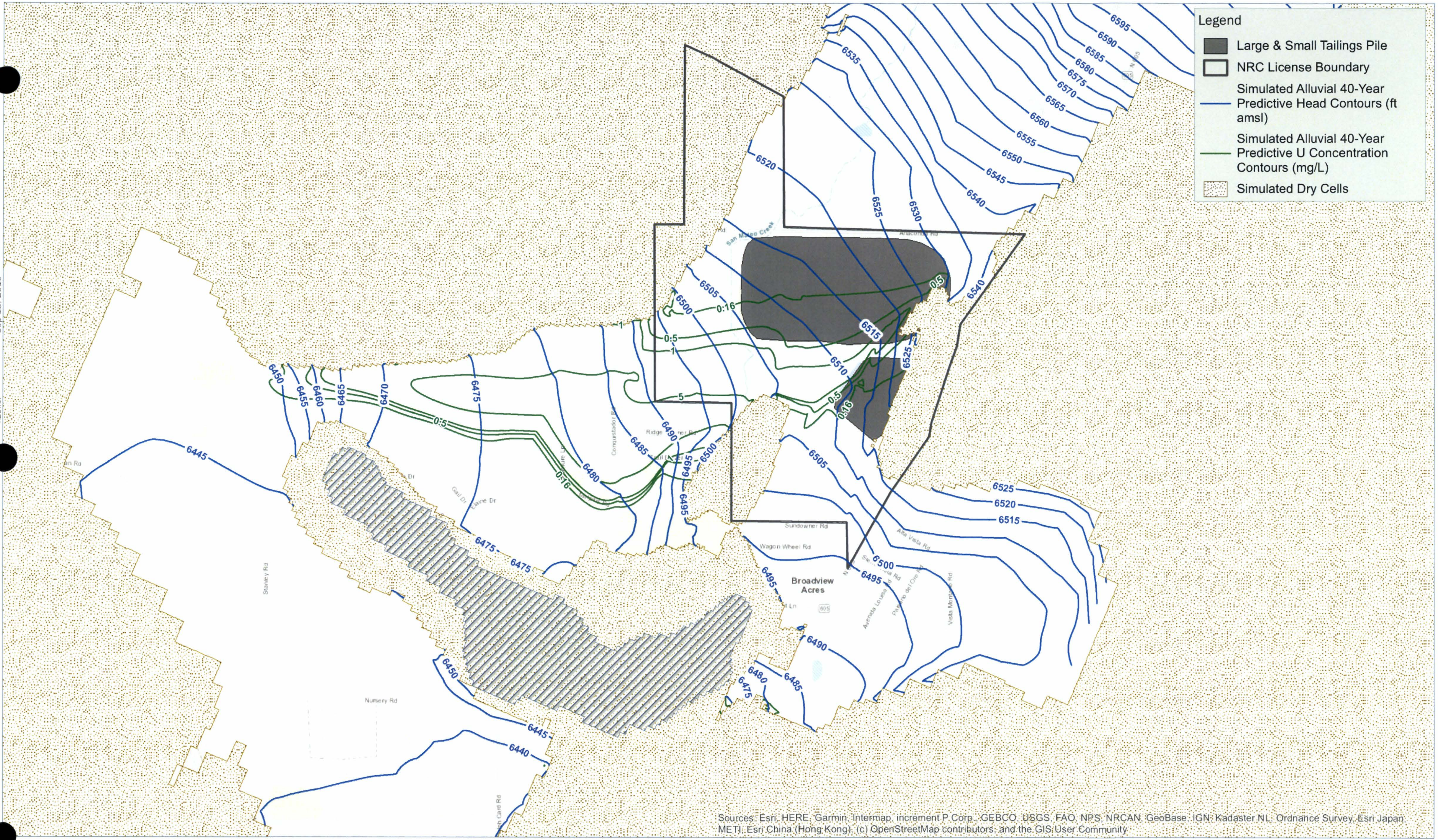
Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-3
Alluvial Aquifer Simulated Predictive 30-Year Uranium Concentration Contours Natural Attenuation



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-4
Alluvial Aquifer Simulated Predictive 40-Year Uranium Concentration Contours Natural Attenuation

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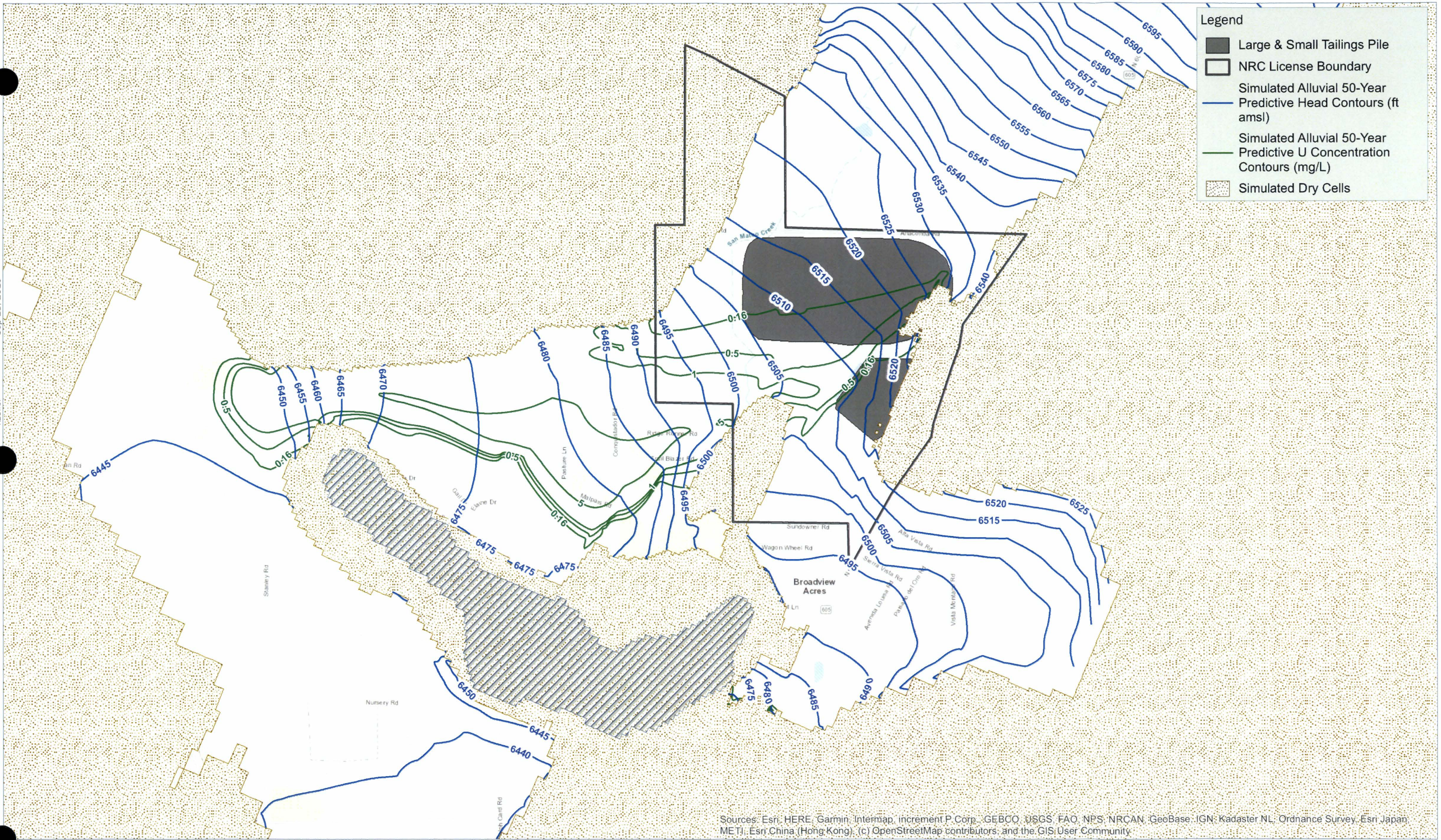

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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-5
Alluvial Aquifer Simulated Predictive 50-Year Uranium Concentration Contours Natural Attenuation

Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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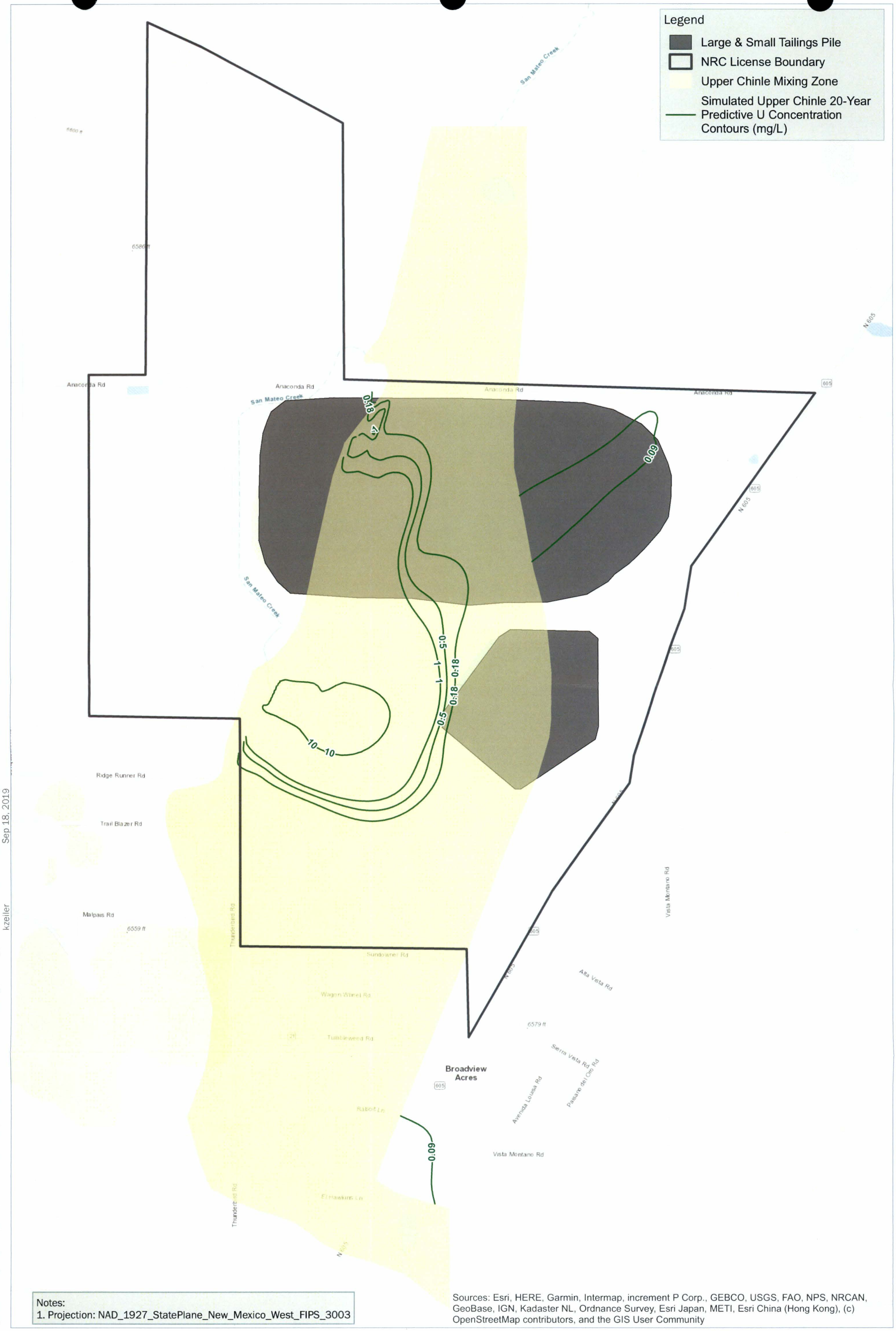
0 500 1,000 Feet

N

Figure 3-6

Upper Chinle Aquifer Simulated Predictive 10-Year Uranium Concentration Contours Natural Attenuation



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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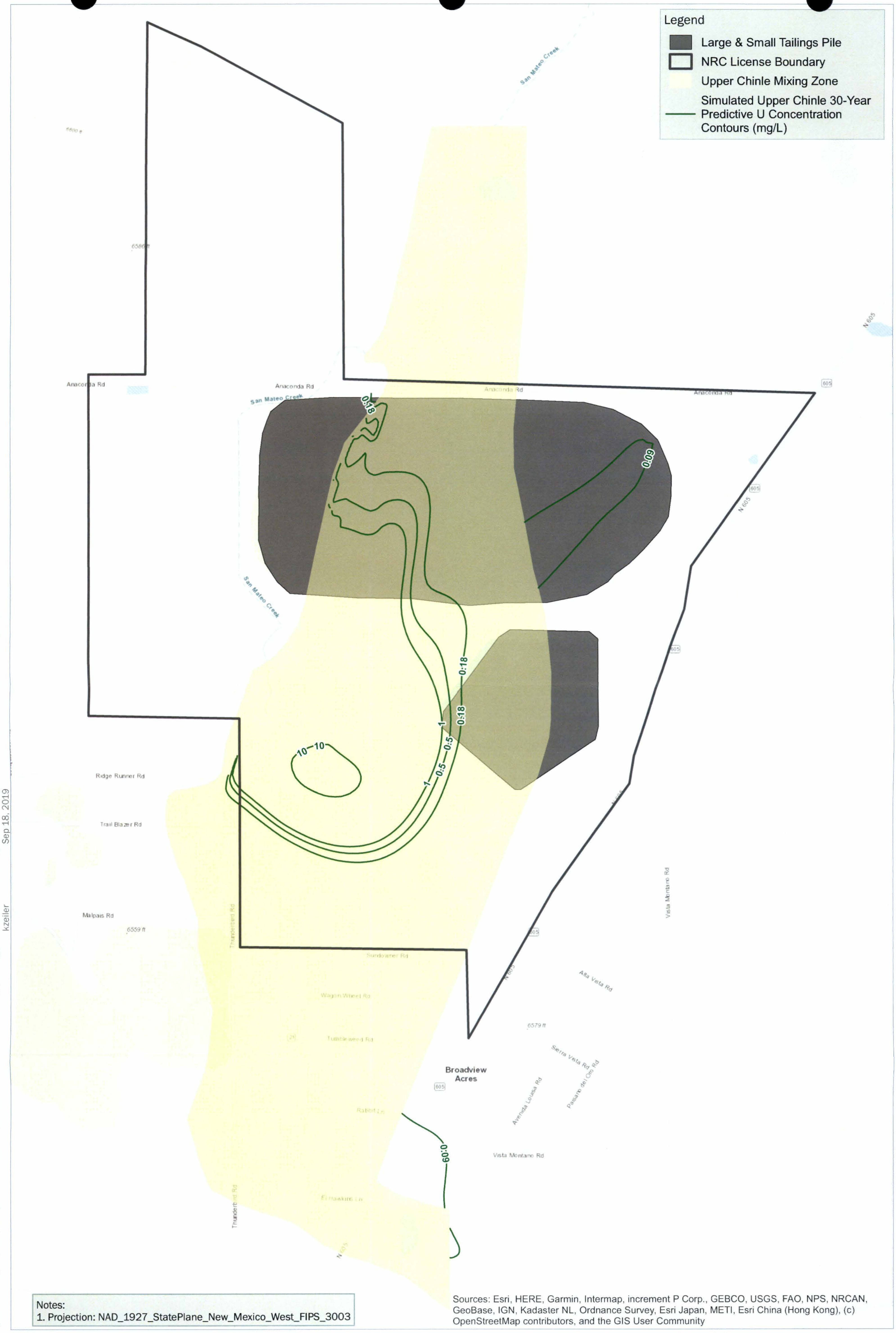
0 500 1,000 Feet

N

Figure 3-7
Upper Chinle Aquifer Simulated Predictive 20-Year Uranium Concentration Contours Natural Attenuation



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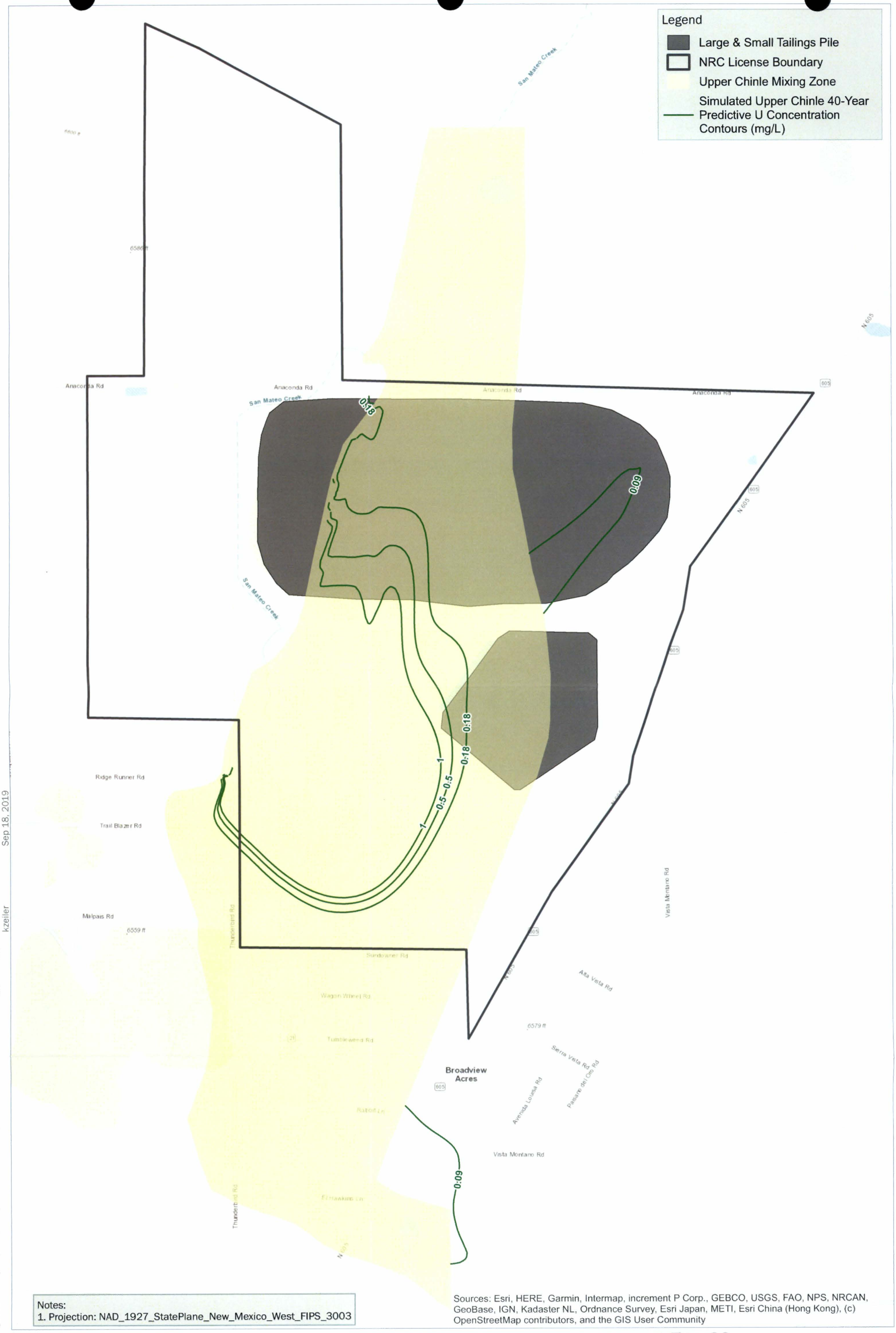
0 500 1,000 Feet

N

Figure 3-8
Upper Chinle Aquifer Simulated Predictive 30-Year Uranium Concentration Contours Natural Attenuation



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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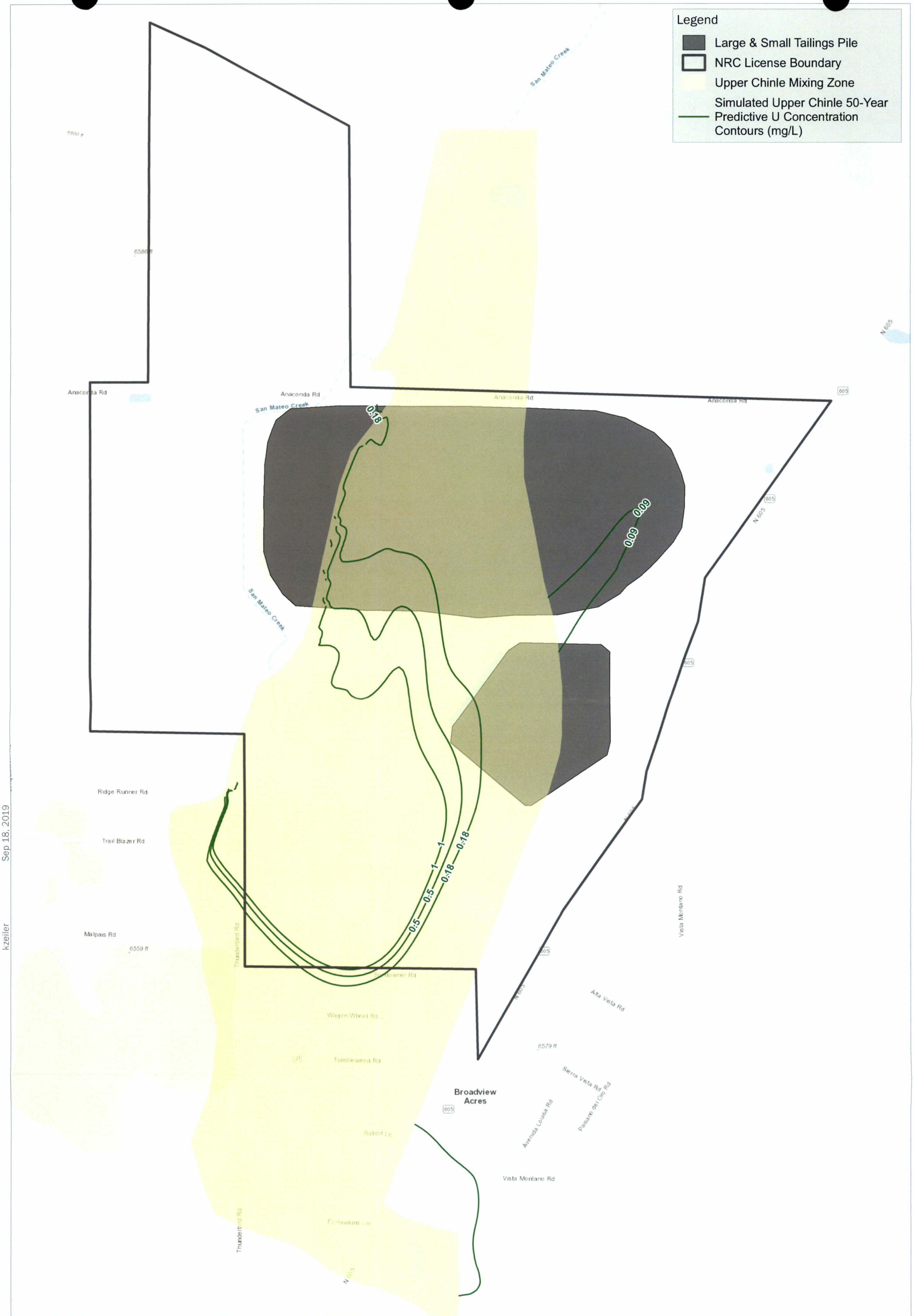
0 500 1,000 Feet

N

Figure 3-9
Upper Chinle Aquifer Simulated Predictive 40-Year Uranium Concentration Contours Natural Attenuation



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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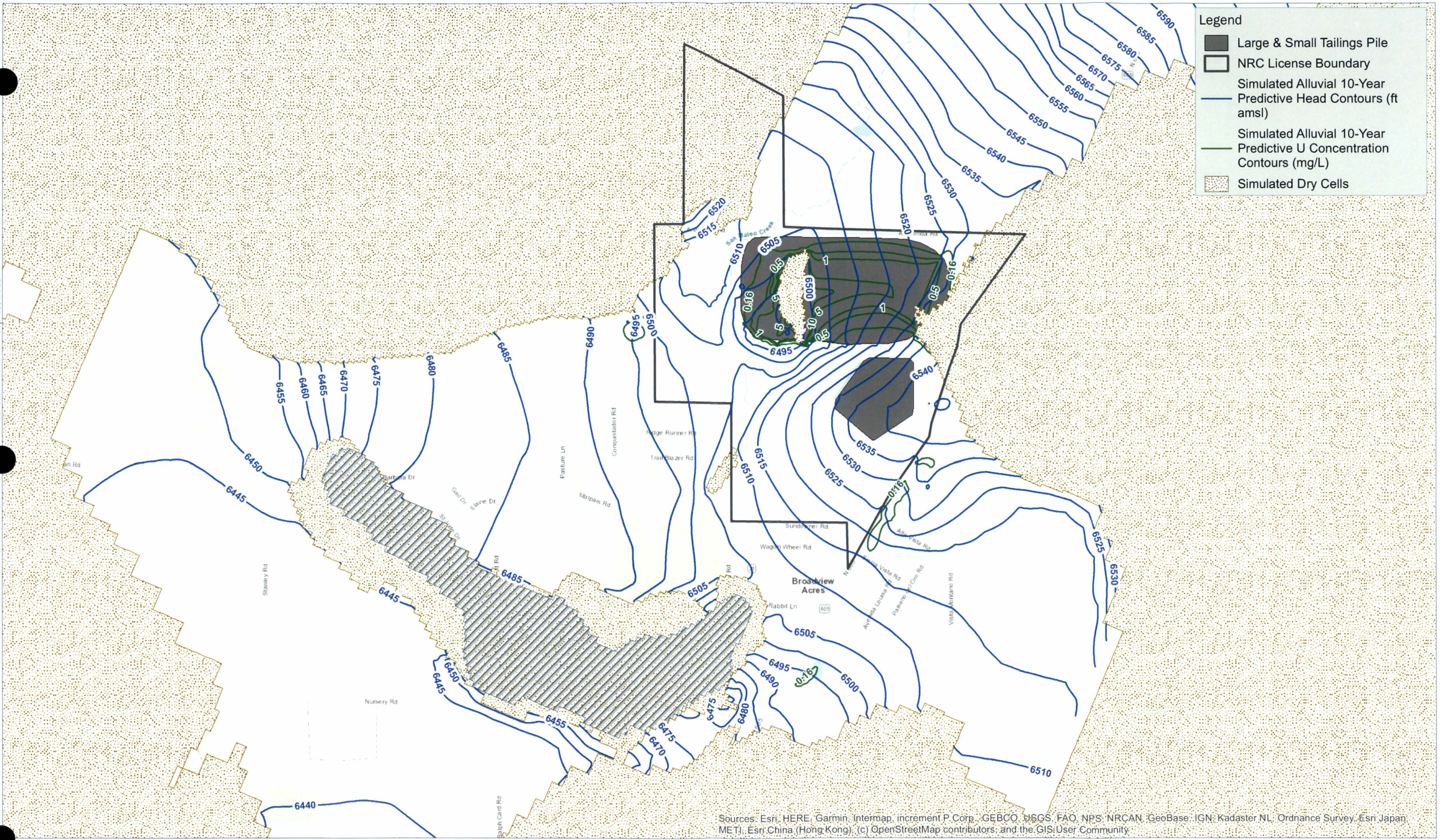
Figure 3-10
Upper Chinle Aquifer Simulated Predictive 50-Year Uranium Concentration Contours Natural Attenuation



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

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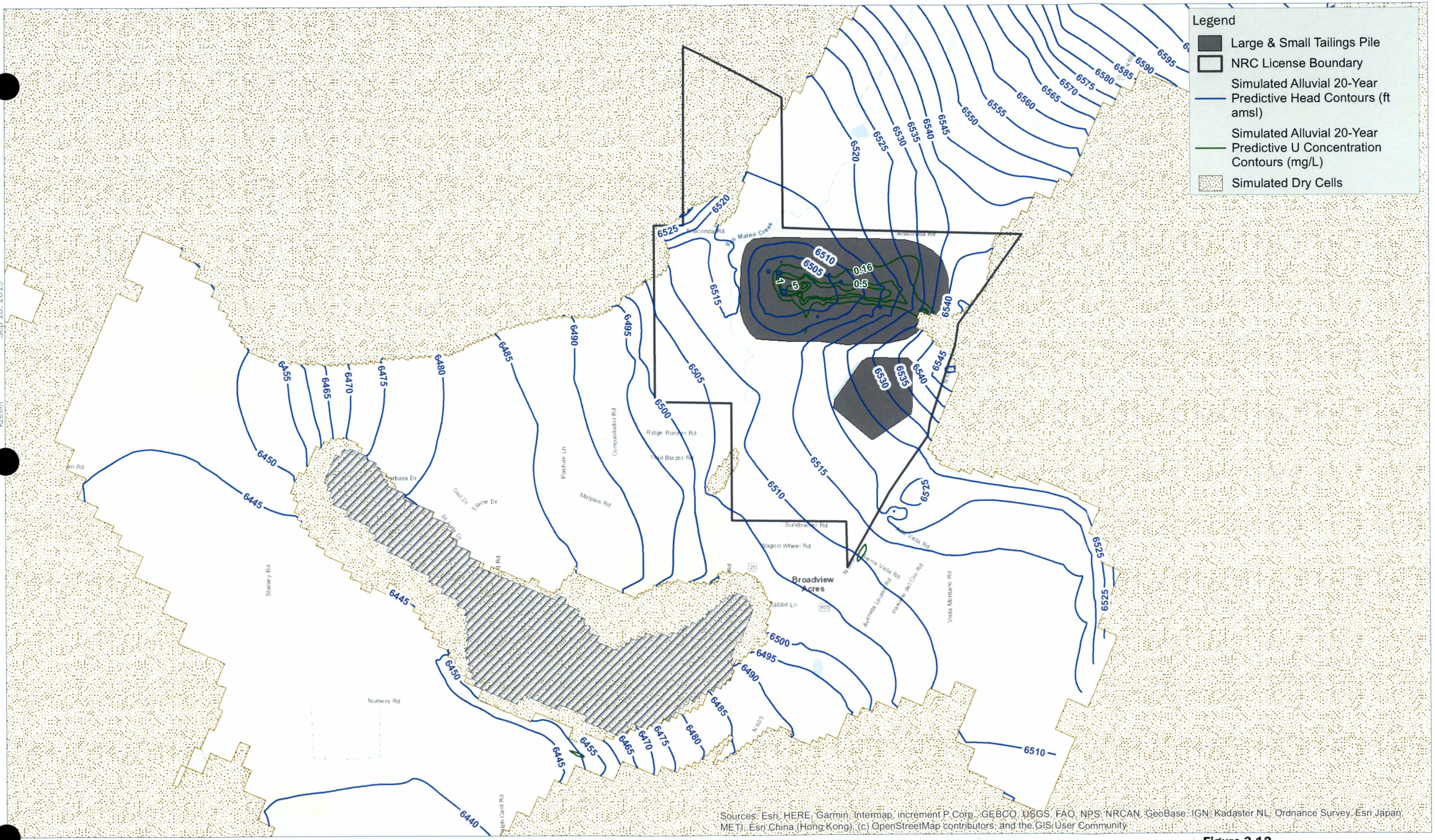
Figure 3-11

Alluvial Aquifer Simulated Predictive 10-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

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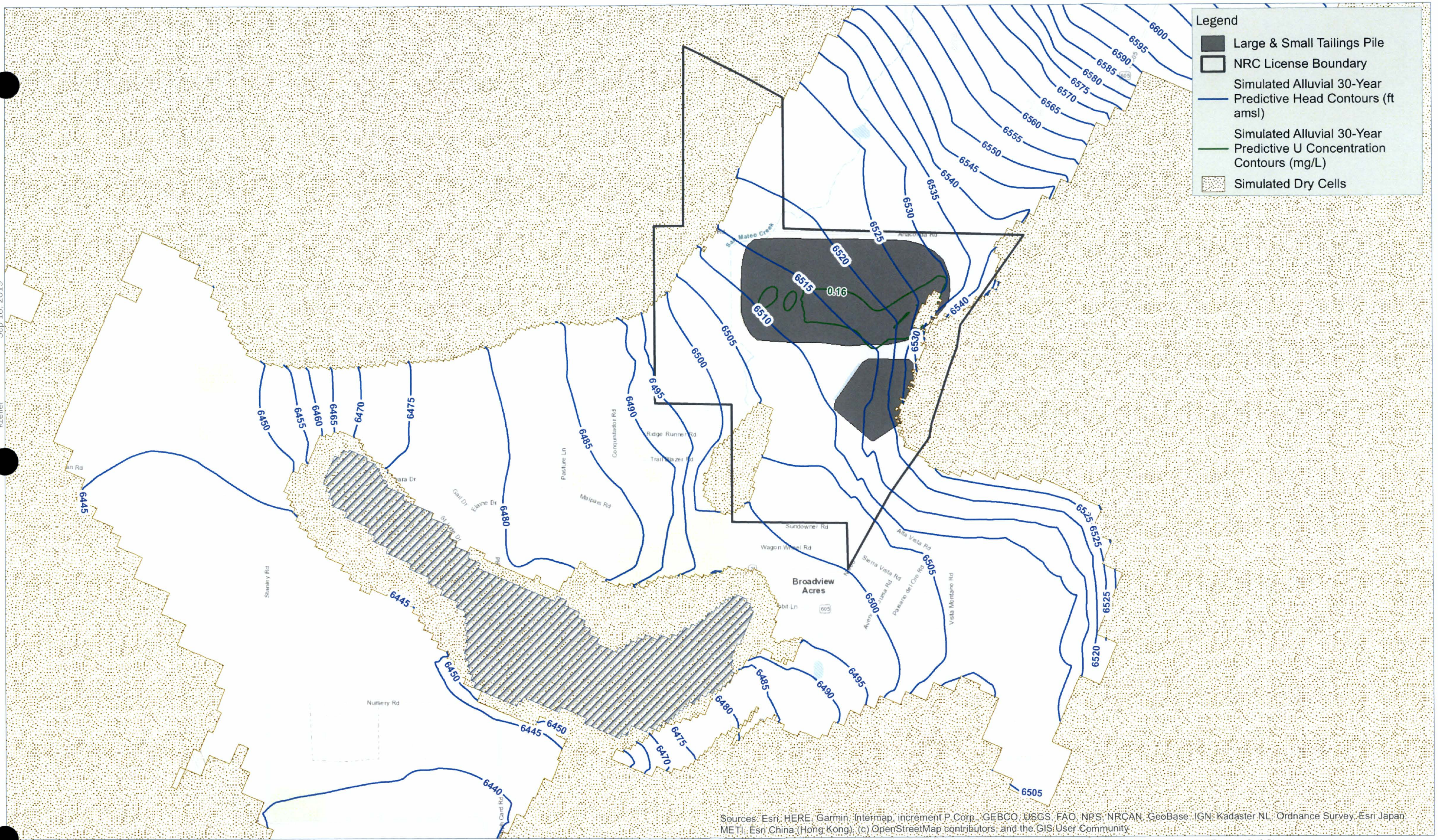
Figure 3-12
Alluvial Aquifer Simulated Predictive 20-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

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Figure 3-13
Alluvial Aquifer Simulated Predictive 30-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection

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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-14
Alluvial Aquifer Simulated Predictive 40-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection

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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-15
Alluvial Aquifer Simulated Predictive 50-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection

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0 500 1,000 Feet

N

Figure 3-16
Upper Chinle Aquifer Simulated Predictive 10-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection

[BCDENFP01]: P:\Data\GEN\Barrick Homestake\153687 - HMC 2019 FW Modeling\Working\PredictiveSimulationTM_20190830\Figures\MXD\Figure3-16_UC_10PropRem2pt4gpm.mxd
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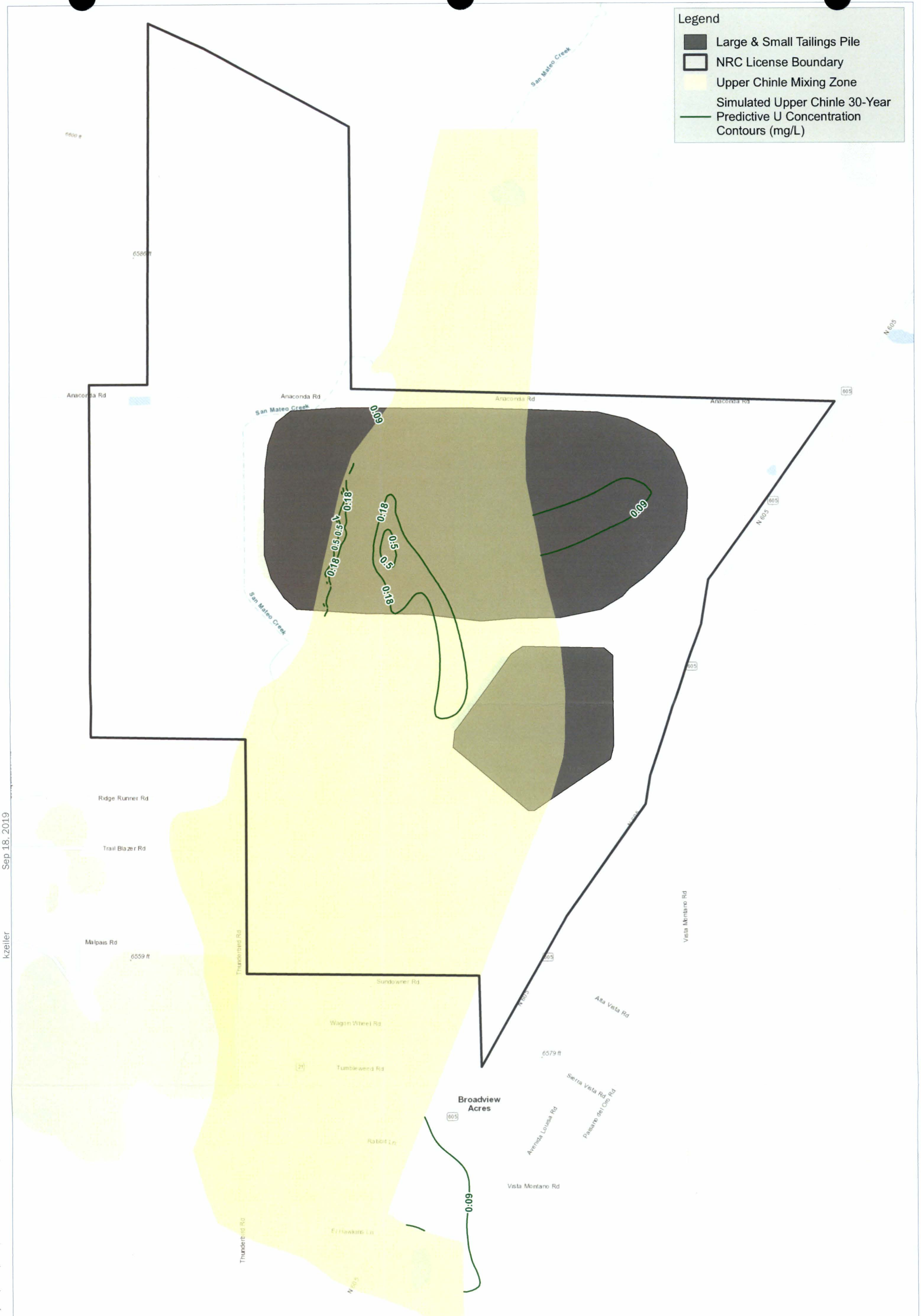
Figure 3-17
Upper Chinle Aquifer Simulated Predictive 20-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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N
0 500 1,000 Feet

Figure 3-18
Upper Chinle Aquifer Simulated Predictive 30-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection

[BCDENFP01]: P:\Data\GEN\Barrick Homestake\153687 - HMC 2019 FW Modeling\Working\PredictiveSimulationTM_20190830\Figures\MXD\Figure3.18_UC_30PropRem2pt4gpm.mxd
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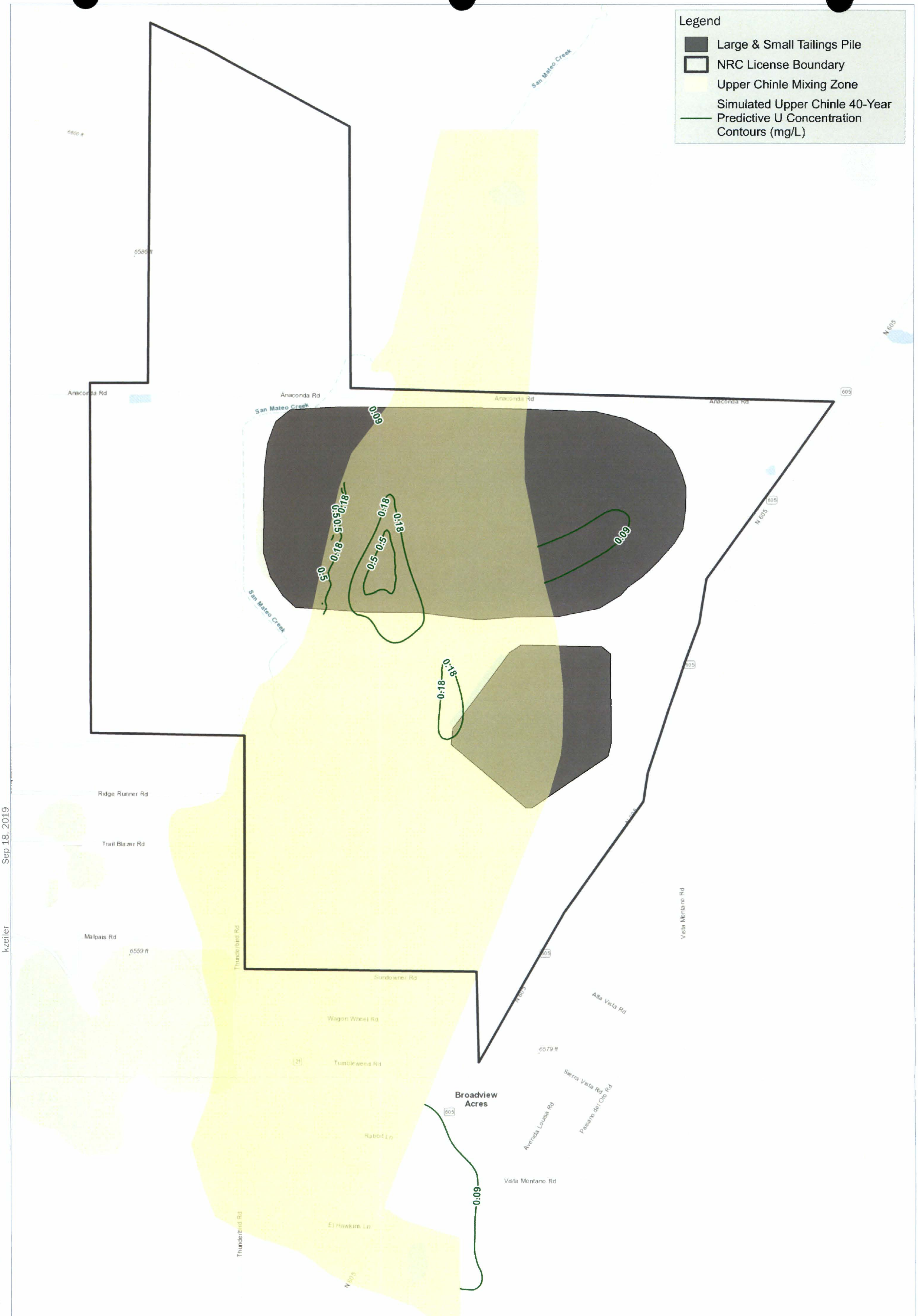

Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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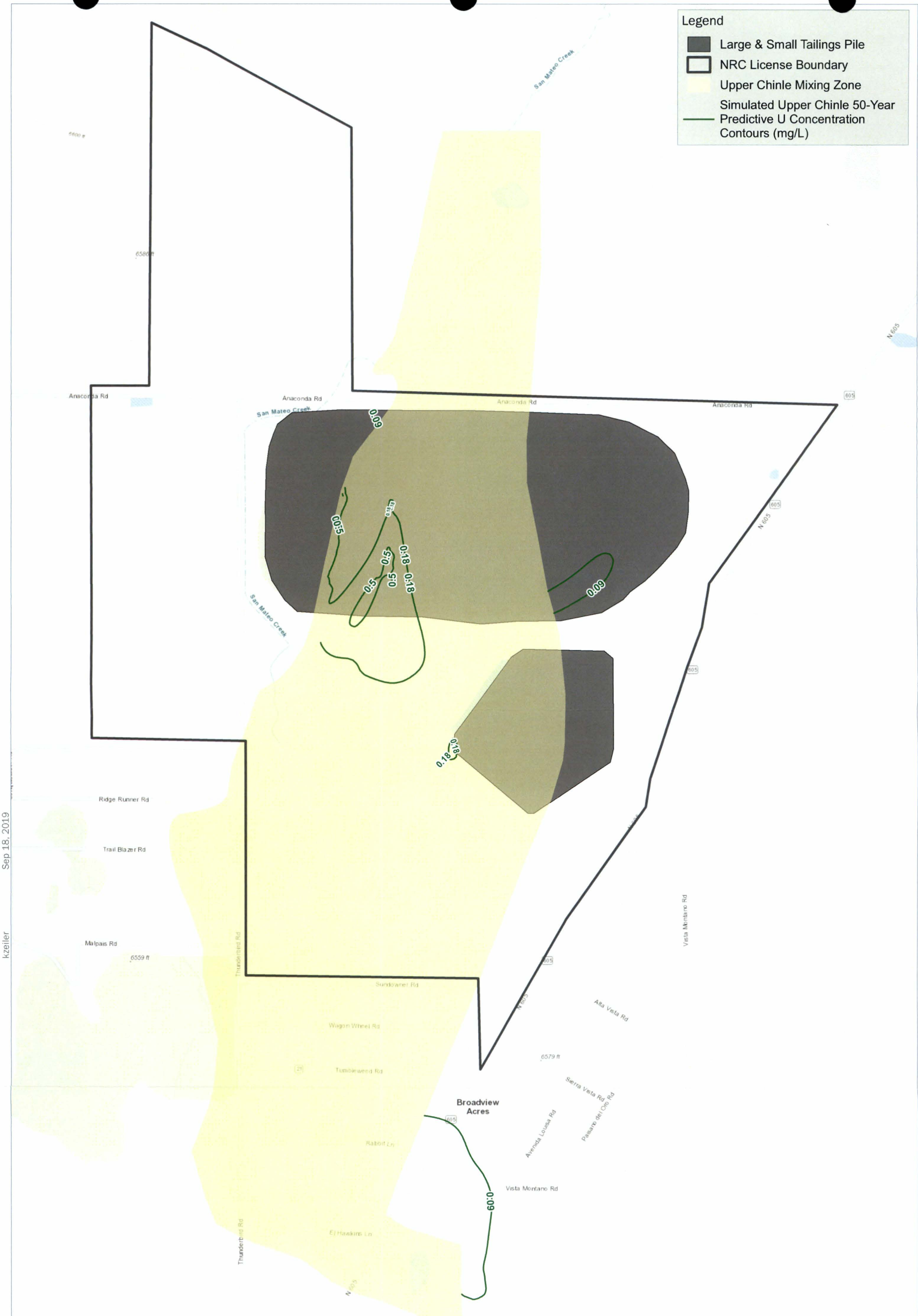
Figure 3-19
Upper Chinle Aquifer Simulated Predictive 40-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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0 500 1,000 Feet

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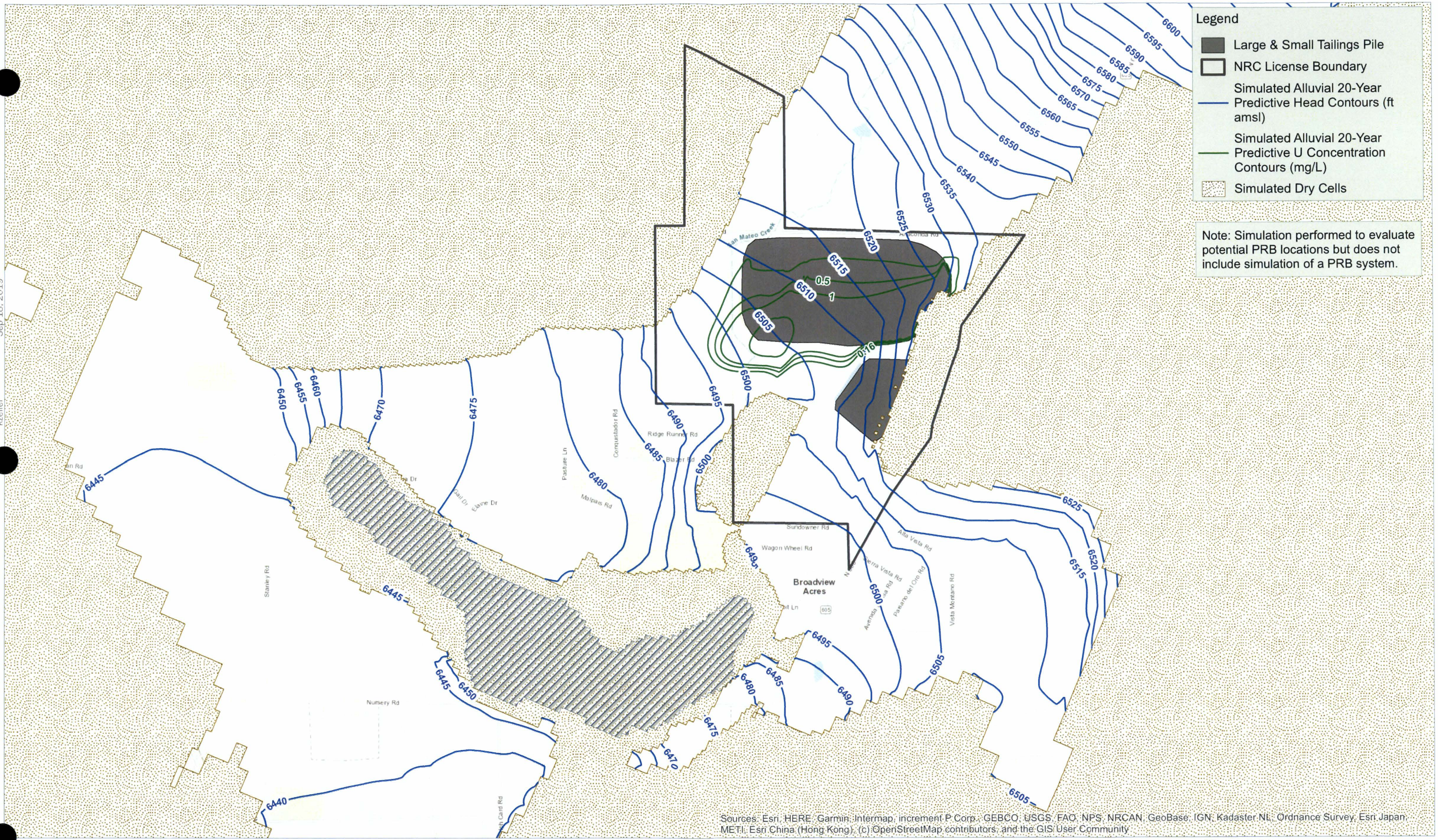
Figure 3-20
Upper Chinle Aquifer Simulated Predictive 50-Year Uranium Concentration Contours with 24 Years of Active Groundwater Collection and Injection



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-21
Alluvial Aquifer Simulated Predictive 20-Year Uranium Concentration Contours with 10 Years of Active Groundwater Collection and Injection

[BCDENFP01]: P:\Data\GEN\Barrick-Homestake\153687 - HMC 2019 FW Modeling\Working\PredictiveSimulationTM_20190830\Figures\MXD\Figure3-22_Alluv_30PostPropRem102pt4gpm.mxd kzeller Sep 18, 2019

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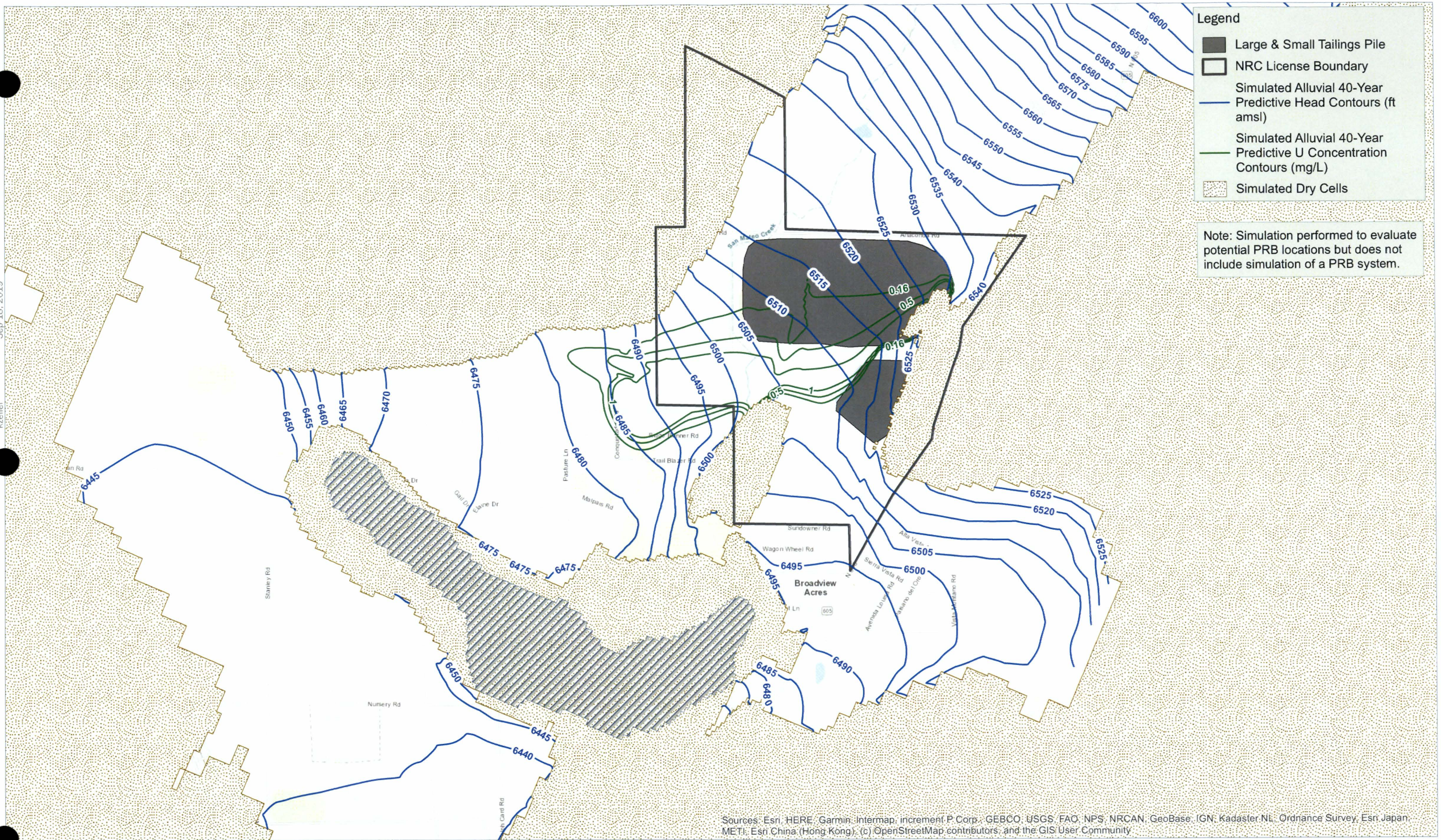
Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-22
Alluvial Aquifer Simulated Predictive 30-Year Uranium Concentration Contours with 10 Years of Active Groundwater Collection and Injection



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-23

Alluvial Aquifer Simulated Predictive 40-Year Uranium Concentration Contours with 10 Years of Active Groundwater Collection and Injection

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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

0 1,000 2,000 Feet

N

Figure 3-24
Alluvial Aquifer Simulated Predictive 50-Year Uranium Concentration Contours with 10 Years of Active Groundwater Collection and Injection

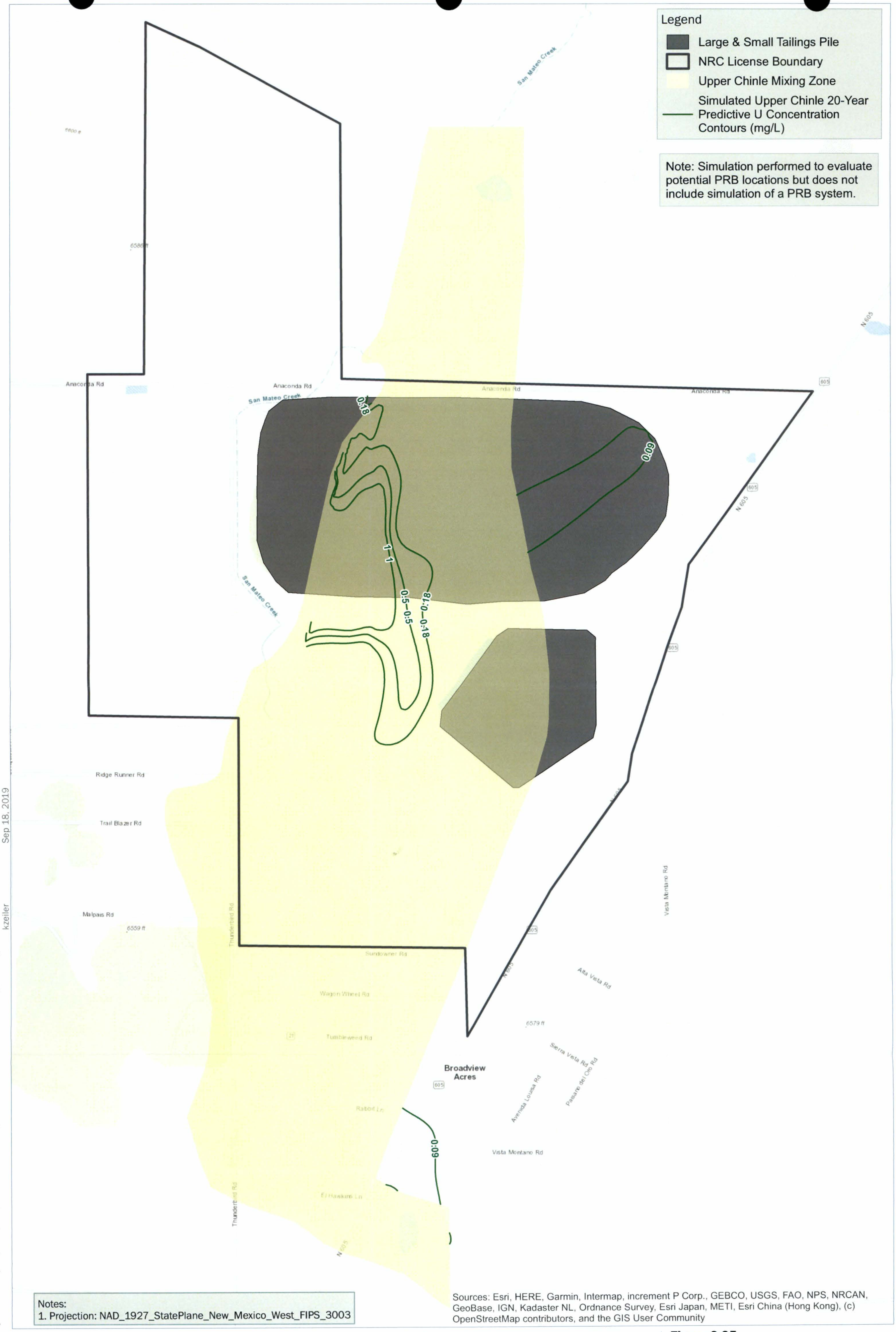

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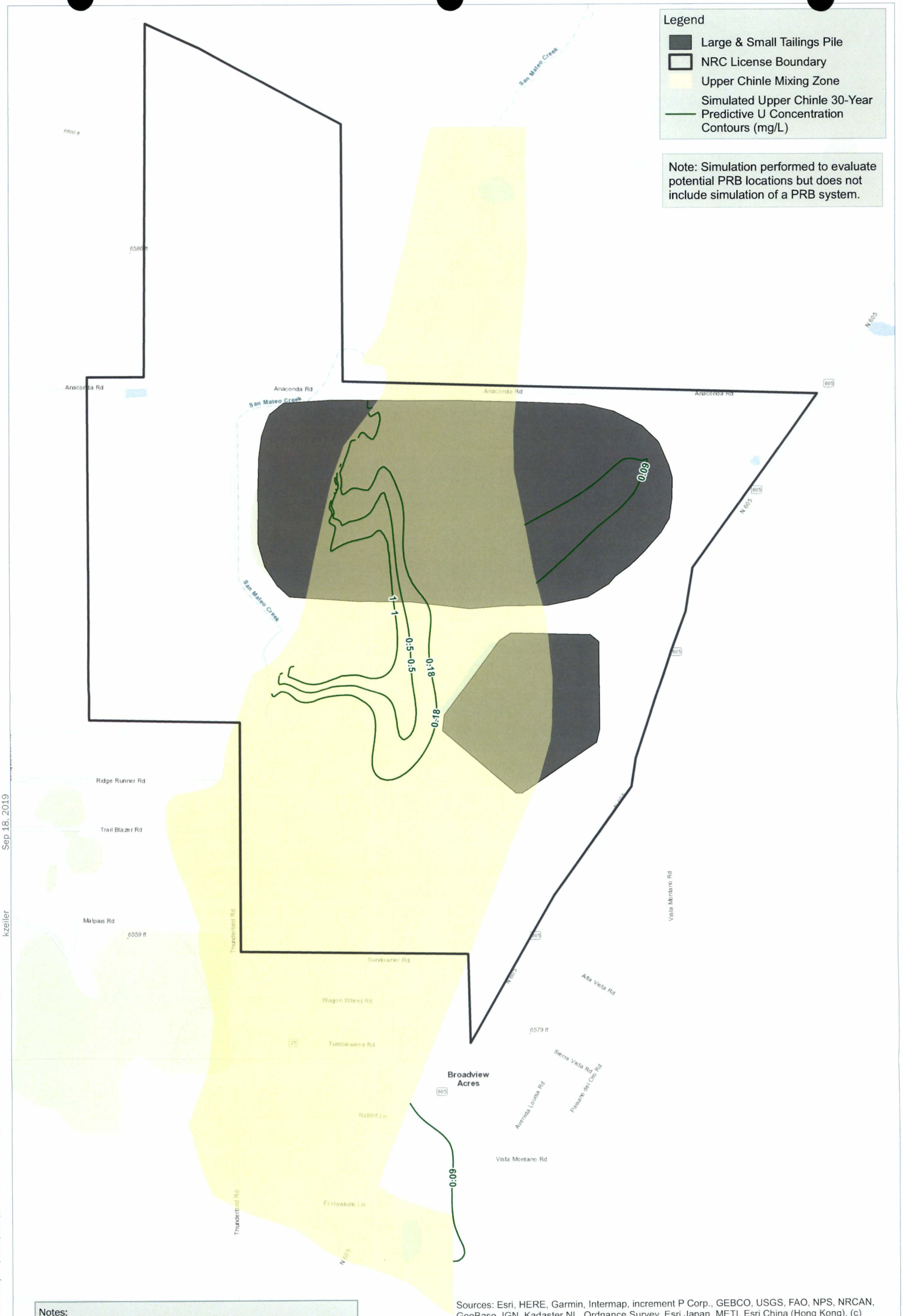
Figure 3-25

Upper Chinle Aquifer Simulated Predictive 20-Year Uranium Concentration Contours with 10 Years of Active Groundwater Collection and Injection



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Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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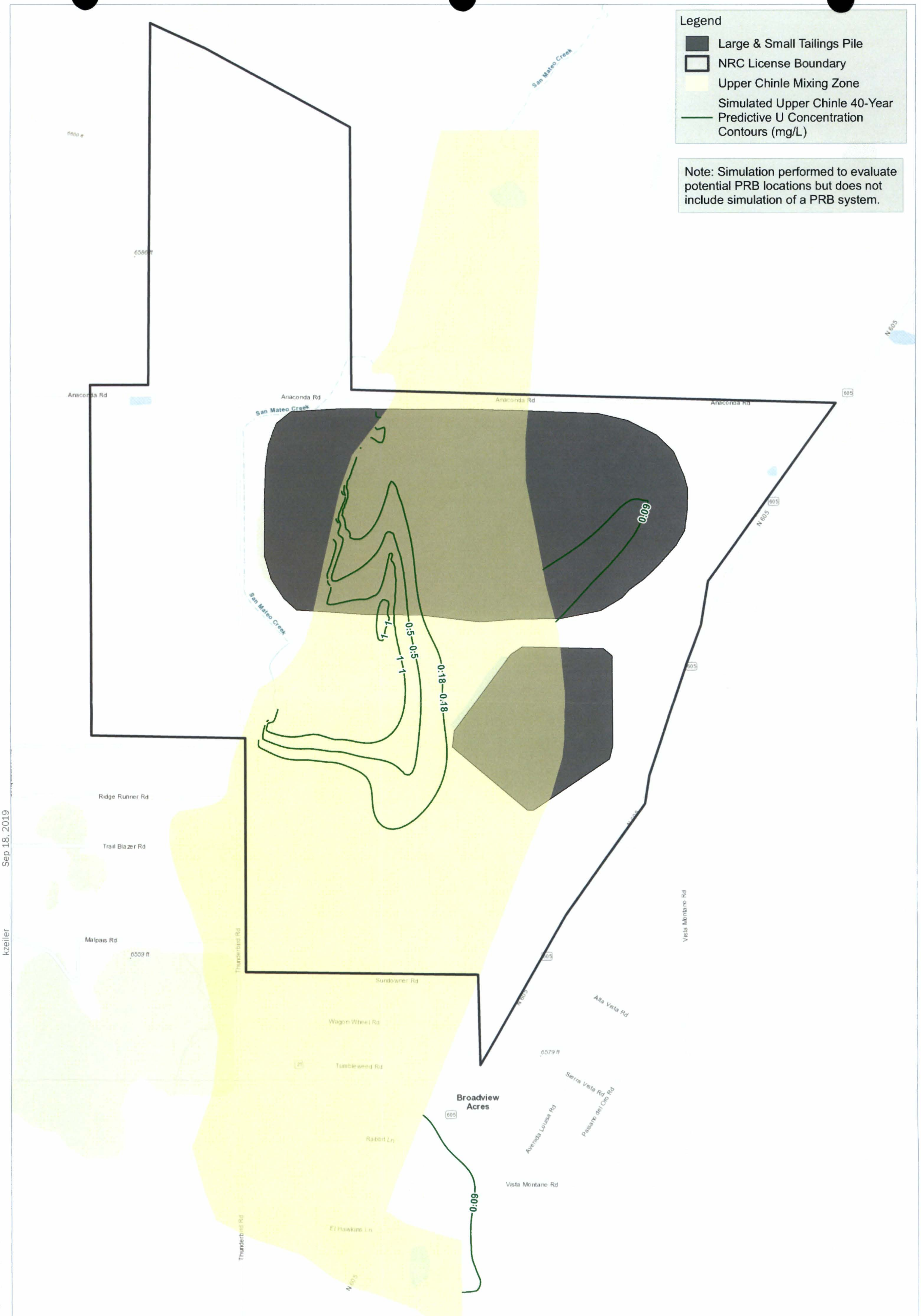
Figure 3-26
Upper Chinle Aquifer Simulated Predictive 30-Year Uranium Concentration Contours with 10 Years of Active Groundwater Collection and Injection



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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0 500 1,000 Feet

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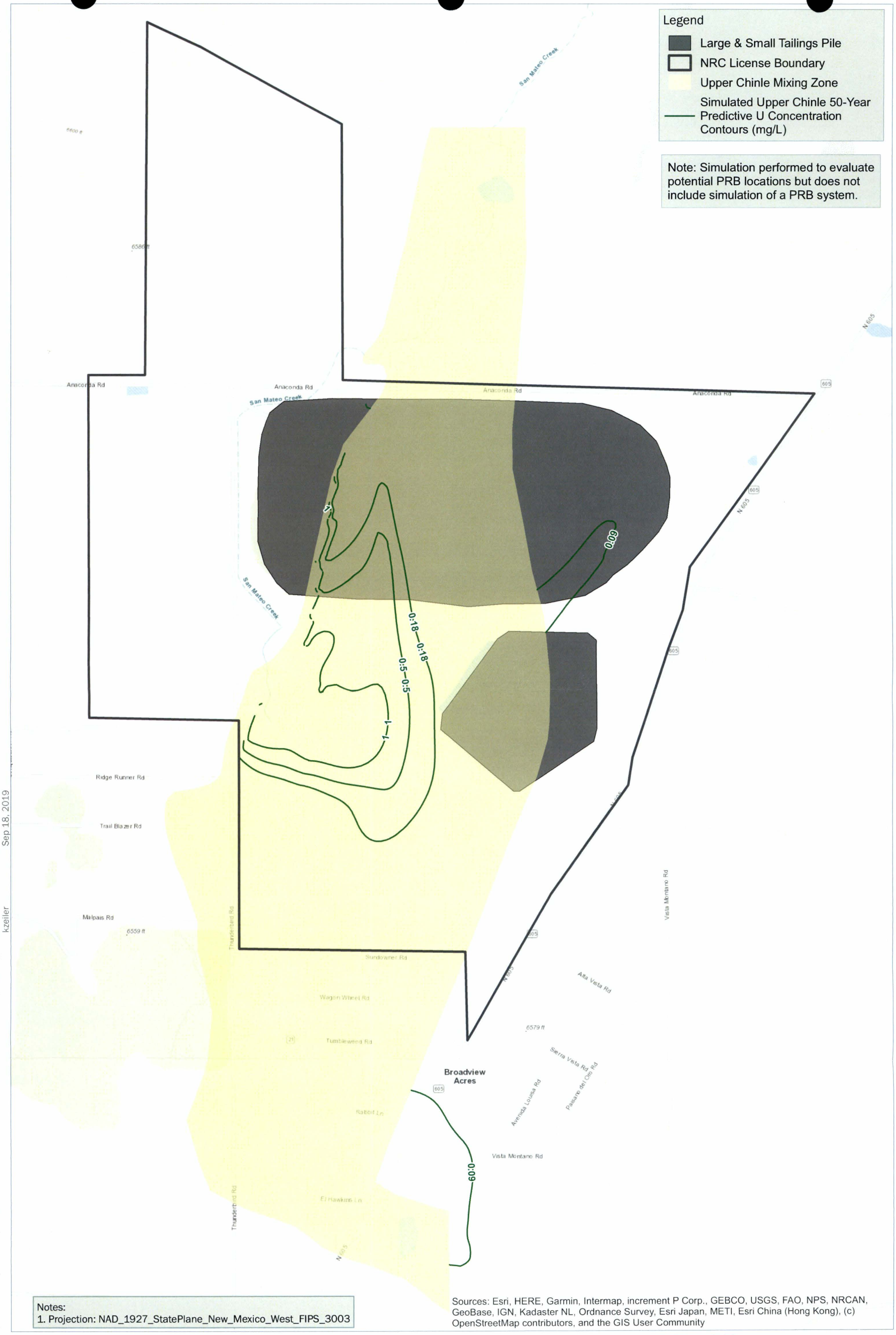
Figure 3-27
Upper Chinle Aquifer Simulated Predictive 40-Year Uranium Concentration Contours with 10 Years of Active Groundwater Collection and Injection



Notes:
1. Projection: NAD_1927_StatePlane_New_Mexico_West_FIPS_3003

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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Figure 3-28
Upper Chinle Aquifer Simulated Predictive 50-Year Uranium Concentration Contours with 10 Years of Active Groundwater Collection and Injection

Appendix A: Simulated Future Groundwater Collection and Injection Rates

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Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
885	483,474	1,541,919	1	North Offsite	2	3 and 4	40
886	482,487	1,542,327	1	North Offsite	1	1 and 2	-50
893	482,244	1,541,934	1	North Offsite	1	1 and 2	28
H102	485,946	1,543,624	1	North Offsite	3	5 and 6	41
H103	486,104	1,543,767	1	North Offsite	3	5 and 6	40
					4	7 and 8	20
H104	486,140	1,543,562	1	North Offsite	3	5 and 6	-25
					4	7 and 8	20
H105	486,149	1,542,792	1	North Offsite	3	5 and 6	-25
					4	7 and 8	20
H106	482,933	1,542,087	1	North Offsite	1	1 and 2	28
					2	3 and 4	40
H107	481,742	1,541,784	1	North Offsite	1	1 and 2	28
H18	481,231	1,542,325	1	North Offsite	1	1 and 2	29
H19	481,270	1,541,970	1	North Offsite	1	1 and 2	29
H20	481,314	1,541,664	1	North Offsite	1	1 and 2	28
H21	481,444	1,542,330	1	North Offsite	1	1 and 2	28
H22	481,496	1,541,756	1	North Offsite	1	1 and 2	28
H23	481,663	1,542,412	1	North Offsite	1	1 and 2	28
H24	481,605	1,542,195	1	North Offsite	1	1 and 2	-50
H25	481,652	1,541,937	1	North Offsite	1	1 and 2	-50
H26	481,823	1,542,244	1	North Offsite	1	1 and 2	-50
H28	481,976	1,542,427	1	North Offsite	1	1 and 2	28
H29	481,997	1,542,117	1	North Offsite	1	1 and 2	-50
H30	482,118	1,542,590	1	North Offsite	1	1 and 2	28
H31	482,160	1,542,290	1	North Offsite	1	1 and 2	-50
H32	482,295	1,542,470	1	North Offsite	1	1 and 2	28
H33	482,347	1,542,162	1	North Offsite	1	1 and 2	-50
H34	482,618	1,542,415	1	North Offsite	1	1 and 2	28
H35	482,713	1,542,209	1	North Offsite	1	1 and 2	-50

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates

Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
H36	482,853	1,542,405	1	North Offsite	1	1 and 2	-50
H37	482,972	1,542,586	1	North Offsite	1	1 and 2	28
					2	3 and 4	40
H38	483,081	1,542,314	1	North Offsite	1	1 and 2	-50
					2	3 and 4	40
H39	483,204	1,542,517	1	North Offsite	2	3 and 4	-50
H40	483,345	1,542,710	1	North Offsite	2	3 and 4	-30
H41	483,448	1,542,414	1	North Offsite	2	3 and 4	40
H42	483,511	1,542,813	1	North Offsite	2	3 and 4	-5
H44	483,771	1,542,694	1	North Offsite	2	3 and 4	-20
H45	483,956	1,542,945	1	North Offsite	2	3 and 4	-45
H46	483,981	1,542,614	1	North Offsite	2	3 and 4	-50
H48	484,185	1,542,787	1	North Offsite	2	3 and 4	-20
H49	484,342	1,543,056	1	North Offsite	2	3 and 4	-50
H50	484,394	1,542,846	1	North Offsite	2	3 and 4	-50
H51	484,489	1,543,254	1	North Offsite	2	3 and 4	40
H54	484,723	1,543,160	1	North Offsite	2	3 and 4	-40
H55	484,706	1,542,909	1	North Offsite	2	3 and 4	-50
H57	484,884	1,543,338	1	North Offsite	3	5 and 6	41
H58	484,959	1,543,051	1	North Offsite	3	5 and 6	41
H59	484,969	1,542,764	1	North Offsite	3	5 and 6	41
H61	485,206	1,542,631	1	North Offsite	3	5 and 6	41
H62	485,343	1,543,413	1	North Offsite	3	5 and 6	41
H63	485,346	1,543,072	1	North Offsite	3	5 and 6	-50
H64	485,373	1,542,779	1	North Offsite	3	5 and 6	-50
H65	485,530	1,543,237	1	North Offsite	3	5 and 6	-30
H66	485,536	1,542,938	1	North Offsite	3	5 and 6	-50
H67	485,743	1,543,489	1	North Offsite	3	5 and 6	-25
H68	485,766	1,543,114	1	North Offsite	3	5 and 6	-40
H69	485,752	1,542,779	1	North Offsite	3	5 and 6	-50

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
H70	485,979	1,543,343	1	North Offsite	3	5 and 6	-30
H71	485,966	1,542,939	1	North Offsite	3	5 and 6	-50
H72	486,104	1,543,147	1	North Offsite	3	5 and 6	-35
					4	7 and 8	20
H73	482,047	1,541,828	1	North Offsite	1	1 and 2	28
H74	482,471	1,541,953	1	North Offsite	1	1 and 2	28
H75	483,453	1,542,212	1	North Offsite	2	3 and 4	40
H93	483,884	1,543,202	1	North Offsite	2	3 and 4	40
H95	484,311	1,543,327	1	North Offsite	2	3 and 4	40
H97	484,644	1,543,406	1	North Offsite	2	3 and 4	40
H99	485,438	1,543,525	1	North Offsite	3	5 and 6	41
M11	486,486	1,542,358	1	North Offsite	4	7 and 8	20
M16	485,112	1,543,252	1	North Offsite	3	5 and 6	-40
M18	485,970	1,542,607	1	North Offsite	3	5 and 6	41
M19	486,334	1,542,940	1	North Offsite	4	7 and 8	-25
M20	486,588	1,542,584	1	North Offsite	4	7 and 8	-50
M21	486,526	1,543,508	1	North Offsite	4	7 and 8	20
M22	486,716	1,542,817	1	North Offsite	4	7 and 8	-10
M23	486,908	1,542,992	1	North Offsite	4	7 and 8	-10
M24	486,935	1,543,204	1	North Offsite	4	7 and 8	-30
M6	486,674	1,543,097	1	North Offsite	4	7 and 8	-10
M7	486,523	1,542,790	1	North Offsite	4	7 and 8	-10
M8	486,567	1,542,960	1	North Offsite	4	7 and 8	-10
M9	486,699	1,543,310	1	North Offsite	4	7 and 8	-10
MH	486,569	1,542,208	1	North Offsite	4	7 and 8	20
MI	486,413	1,542,486	1	North Offsite	4	7 and 8	20
MJ	486,350	1,542,682	1	North Offsite	4	7 and 8	-30
MK	486,324	1,543,373	1	North Offsite	4	7 and 8	-50
MO	485,518	1,543,620	1	North Offsite	3	5 and 6	41
MQ	486,326	1,543,173	1	North Offsite	4	7 and 8	-10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
MR	483,574	1,542,609	1	North Offsite	2	3 and 4	-50
MS	485,570	1,542,607	1	North Offsite	3	5 and 6	41
MT	483,531	1,543,221	1	North Offsite	2	3 and 4	40
MV	484,418	1,542,618	1	North Offsite	2	3 and 4	-50
MW	486,346	1,543,802	1	North Offsite	4	7 and 8	20
MZ	486,757	1,543,485	1	North Offsite	4	7 and 8	20
M22	486,716	1,542,817	6	North Offsite	4	7 and 8	-10
M23	486,908	1,542,992	6	North Offsite	4	7 and 8	-10
482	489,579	1,536,981	1	South Offsite	1	1 and 2	-12.5
					2	3 and 4	-12.5
					3	5 and 6	-5
					4	7 and 8	5
483	489,753	1,536,586	1	South Offsite	1	1 and 2	-22.5
					2	3 and 4	-22.5
					3	5 and 6	-10.5
					4	7 and 8	-10.5
490	489,752	1,536,553	1	South Offsite	1	1 and 2	-35
					2	3 and 4	-30
					3	5 and 6	-25
					4	7 and 8	-26
					5	9 and 10	-26
496	489,603	1,534,650	1	South Offsite	1	1 and 2	10
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	18
					5	9 and 10	15
497	489,503	1,535,039	1	South Offsite	4	7 and 8	-17
					5	9 and 10	-15

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
538	486,899	1,533,486	1	South Offsite	4	7 and 8	-3
					5	9 and 10	-3
					6	11 and 12	-7.5
643	487,386	1,533,760	1	South Offsite	3	5 and 6	-10
645	485,282	1,532,924	1	South Offsite	1	1 and 2	25
653	486,570	1,533,283	1	South Offsite	4	7 and 8	-3
					5	9 and 10	-3
					6	11 and 12	-7.5
864	486,464	1,533,735	1	South Offsite	3	5 and 6	20
869	486,073	1,533,251	1	South Offsite	2	3 and 4	-20
876	486,088	1,532,853	1	South Offsite	1	1 and 2	25
					2	3 and 4	20
Q1	488,830	1,535,125	1	South Offsite	1	1 and 2	15
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	25
					5	9 and 10	15
Q14	489,213	1,534,969	1	South Offsite	4	7 and 8	-17
					5	9 and 10	-15
Q16	489,347	1,534,639	1	South Offsite	1	1 and 2	12.5
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	20
					5	9 and 10	20
Q18	489,342	1,534,869	1	South Offsite	4	7 and 8	-17
Q2	488,867	1,534,903	1	South Offsite	1	1 and 2	-30
					2	3 and 4	-35
					3	5 and 6	-30
					4	7 and 8	-31
					5	9 and 10	-31

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
Q22	489,433	1,534,806	1	South Offsite	5	9 and 10	-15
Q26	489,630	1,534,769	1	South Offsite	1	1 and 2	15
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	25
					5	9 and 10	15
Q29	489,920	1,535,140	1	South Offsite	4	7 and 8	-17
					5	9 and 10	-15
Q3	488,865	1,534,743	1	South Offsite	1	1 and 2	-30
					2	3 and 4	-35
					3	5 and 6	-25
					4	7 and 8	-31
					5	9 and 10	-31
Q5	488,945	1,534,829	1	South Offsite	3	5 and 6	-10
Q9	489,101	1,534,643	1	South Offsite	1	1 and 2	12.5
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	20
					5	9 and 10	20
R26	486,760	1,533,761	1	South Offsite	3	5 and 6	20
R27	486,974	1,533,722	1	South Offsite	3	5 and 6	-10
R28	487,226	1,533,761	1	South Offsite	3	5 and 6	-10
R32	487,163	1,533,704	1	South Offsite	3	5 and 6	-8
R33	486,914	1,533,672	1	South Offsite	3	5 and 6	-12
R34	486,617	1,533,675	1	South Offsite	3	5 and 6	20
R35	486,345	1,533,668	1	South Offsite	3	5 and 6	20
R37	486,481	1,533,586	1	South Offsite	3	5 and 6	-16
R38	486,762	1,533,574	1	South Offsite	3	5 and 6	-6
R44	486,593	1,533,478	1	South Offsite	3	5 and 6	-8

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
R45	486,334	1,533,481	1	South Offsite	2	3 and 4	-4
					3	5 and 6	10
R46	486,088	1,533,478	1	South Offsite	2	3 and 4	10
R49A	485,951	1,533,394	1	South Offsite	2	3 and 4	20
R50A	486,217	1,533,376	1	South Offsite	2	3 and 4	-18
R51	486,460	1,533,387	1	South Offsite	2	3 and 4	-4
					3	5 and 6	10
R52A	486,751	1,533,367	1	South Offsite	3	5 and 6	-10
R53	487,020	1,533,402	1	South Offsite	3	5 and 6	20
R55	486,897	1,533,272	1	South Offsite	3	5 and 6	20
R56	486,354	1,533,244	1	South Offsite	2	3 and 4	-5
R59	485,963	1,533,125	1	South Offsite	1	1 and 2	-10
					2	3 and 4	10
R60A	486,219	1,533,163	1	South Offsite	2	3 and 4	-20
R61A	486,485	1,533,135	1	South Offsite	2	3 and 4	-10
R62	486,744	1,533,186	1	South Offsite	3	5 and 6	10
R65	486,614	1,533,068	1	South Offsite	2	3 and 4	10
R70	486,258	1,532,909	1	South Offsite	2	3 and 4	10
R71	486,481	1,532,972	1	South Offsite	2	3 and 4	10
R73	485,560	1,533,019	1	South Offsite	1	1 and 2	-10
R74	485,502	1,532,852	1	South Offsite	1	1 and 2	-12.5
R75	485,716	1,532,922	1	South Offsite	1	1 and 2	-10
R76	485,891	1,532,888	1	South Offsite	1	1 and 2	-10
R77	485,800	1,532,683	1	South Offsite	1	1 and 2	12.5
R78	485,612	1,532,683	1	South Offsite	1	1 and 2	12.5
R79	485,380	1,532,703	1	South Offsite	1	1 and 2	25
R80	485,471	1,533,169	1	South Offsite	1	1 and 2	25

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
482	489,579	1,536,981	6	South Offsite	1	1 and 2	-12.5
					2	3 and 4	-12.5
					3	5 and 6	-5
					4	7 and 8	5
483	489,753	1,536,586	6	South Offsite	1	1 and 2	-22.5
					2	3 and 4	-22.5
					3	5 and 6	-10.5
					4	7 and 8	-10.5
493	489,492	1,536,702	6	South Offsite	1	1 and 2	-25
					2	3 and 4	-25
					3	5 and 6	-10
					4	7 and 8	-11
					5	9 and 10	11
CW30	488,704	1,536,642	6	South Offsite	1	1 and 2	10
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	10
					5	9 and 10	12
CW45	489,494	1,535,036	6	South Offsite	5	9 and 10	-11
CW46	489,595	1,534,642	6	South Offsite	1	1 and 2	10
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	15
					5	9 and 10	12
					6	11 and 12	15
CW55	489,471	1,538,283	6	South Offsite	1	1 and 2	10
					2	3 and 4	10
					3	5 and 6	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
CW58	489,520	1,536,230	6	South Offsite	2	3 and 4	-20
					3	5 and 6	-20
					4	7 and 8	-15
					5	9 and 10	14
CW75	487,376	1,536,012	6	South Offsite	6	11 and 12	11
CW77	488,282	1,536,659	6	South Offsite	1	1 and 2	35
					2	3 and 4	35
					3	5 and 6	40
					4	7 and 8	30
					5	9 and 10	26
R2	487,968	1,534,548	6	South Offsite	1	1 and 2	-25
					2	3 and 4	-16
					3	5 and 6	-15
					4	7 and 8	-26
					5	9 and 10	-26
R3	488,196	1,534,546	6	South Offsite	1	1 and 2	-35
					2	3 and 4	-25
					3	5 and 6	-25
					4	7 and 8	-36
					5	9 and 10	-41
R4	488,446	1,534,541	6	South Offsite	1	1 and 2	-25
					2	3 and 4	-25
					3	5 and 6	-25
					4	7 and 8	-26
					5	9 and 10	-25
R5	488,666	1,534,560	6	South Offsite	1	1 and 2	-30
					2	3 and 4	-30
					3	5 and 6	-30
					4	7 and 8	-31
					5	9 and 10	-30

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
R6	488,448	1,534,356	6	South Offsite	1	1 and 2	10
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	20
					5	9 and 10	25
R7	488,087	1,534,399	6	South Offsite	1	1 and 2	10
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	20
					5	9 and 10	20
R8	487,891	1,534,412	6	South Offsite	1	1 and 2	10
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	20
					5	9 and 10	20
R9	487,700	1,534,420	6	South Offsite	1	1 and 2	10
					2	3 and 4	10
					3	5 and 6	10
					4	7 and 8	20
					5	9 and 10	20
Y1	488,850	1,535,670	6	South Offsite	3	5 and 6	-20
					4	7 and 8	-16
					5	9 and 10	-15
					6	11 and 12	15
Y13	488,830	1,535,135	6	South Offsite	1	1 and 2	-30
					2	3 and 4	-25
					3	5 and 6	-25
					4	7 and 8	-21
					5	9 and 10	-20
					6	11 and 12	-15

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
Y15	489,312	1,535,046	6	South Offsite	6	11 and 12	-15
Y2	489,151	1,535,678	6	South Offsite	4	7 and 8	-16
					5	9 and 10	-15
					6	11 and 12	15
Y23	488,942	1,534,838	6	South Offsite	6	11 and 12	-15
Y24	489,143	1,534,859	6	South Offsite	6	11 and 12	-15
Y3	489,440	1,535,660	6	South Offsite	3	5 and 6	-20
					4	7 and 8	-16
					5	9 and 10	-15
					6	11 and 12	15
Y33	489,337	1,534,639	6	South Offsite	1	1 and 2	5
					2	3 and 4	5
					3	5 and 6	5
					4	7 and 8	5
					5	9 and 10	7
					6	11 and 12	5
Y34	489,091	1,534,642	6	South Offsite	1	1 and 2	5
					2	3 and 4	5
					3	5 and 6	5
					4	7 and 8	5
					5	9 and 10	7
					6	11 and 12	5
Y4	489,612	1,535,558	6	South Offsite	4	7 and 8	-17
					5	9 and 10	-10
					6	11 and 12	15
Y6	489,002	1,535,518	6	South Offsite	6	11 and 12	-15

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
Y7	488,870	1,535,339	6	South Offsite	1	1 and 2	-30
					2	3 and 4	-30
					3	5 and 6	-25
					4	7 and 8	-21
					5	9 and 10	-20
					6	11 and 12	-15
Y8	489,161	1,535,349	6	South Offsite	6	11 and 12	-15
538	486,899	1,533,486	8	South Offsite	4	7 and 8	-3
					5	9 and 10	-3
					6	11 and 12	-7.5
653	486,570	1,533,283	8	South Offsite	4	7 and 8	-3
					5	9 and 10	-3
					6	11 and 12	-7.5
CW29	487,435	1,534,551	8	South Offsite	1	1 and 2	-40
					2	3 and 4	-40
					3	5 and 6	-40
					4	7 and 8	25
					5	9 and 10	11
					6	11 and 12	15
CW42	487,177	1,533,169	8	South Offsite	3	5 and 6	-10
					5	9 and 10	-16
					6	11 and 12	-15
R38	486,762	1,533,574	8	South Offsite	3	5 and 6	-6
R44	486,593	1,533,478	8	South Offsite	3	5 and 6	-8
R45	486,334	1,533,481	8	South Offsite	2	3 and 4	-4
					3	5 and 6	10
R46	486,088	1,533,478	8	South Offsite	2	3 and 4	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
R47	485,780	1,533,470	8	South Offsite	2	3 and 4	20
					4	7 and 8	25
					5	9 and 10	21
					6	11 and 12	15
R48	485,775	1,533,345	8	South Offsite	1	1 and 2	25
R51	486,460	1,533,387	8	South Offsite	2	3 and 4	-4
					3	5 and 6	10
R56	486,354	1,533,244	8	South Offsite	2	3 and 4	-5
R57	485,880	1,533,260	8	South Offsite	2	3 and 4	20
R59	485,963	1,533,125	8	South Offsite	1	1 and 2	-10
					2	3 and 4	10
R62	486,744	1,533,186	8	South Offsite	3	5 and 6	10
R65	486,614	1,533,068	8	South Offsite	2	3 and 4	10
R68	485,819	1,533,025	8	South Offsite	1	1 and 2	-20
R69	486,024	1,532,987	8	South Offsite	2	3 and 4	20
R70	486,258	1,532,909	8	South Offsite	2	3 and 4	10
R71	486,481	1,532,972	8	South Offsite	2	3 and 4	10
R73	485,560	1,533,019	8	South Offsite	1	1 and 2	-10
R74	485,502	1,532,852	8	South Offsite	1	1 and 2	-12.5
R75	485,716	1,532,922	8	South Offsite	1	1 and 2	-10
R76	485,891	1,532,888	8	South Offsite	1	1 and 2	-10
R77	485,800	1,532,683	8	South Offsite	1	1 and 2	12.5
R78	485,612	1,532,683	8	South Offsite	1	1 and 2	12.5
V1	486,940	1,534,527	8	South Offsite	4	7 and 8	25
					5	9 and 10	11
					6	11 and 12	15
V11	487,868	1,533,919	8	South Offsite	4	7 and 8	25
					5	9 and 10	11
					6	11 and 12	15

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
V16	487,709	1,533,402	8	South Offsite	4	7 and 8	25
					5	9 and 10	21
					6	11 and 12	15
V17	486,461	1,533,896	8	South Offsite	4	7 and 8	-40
					5	9 and 10	-16
					6	11 and 12	-15
V18	487,241	1,533,819	8	South Offsite	4	7 and 8	-16
					5	9 and 10	-15
					6	11 and 12	-15
V2	486,618	1,534,339	8	South Offsite	1	1 and 2	-20
					2	3 and 4	-20
					3	5 and 6	-20
					4	7 and 8	-22
					5	9 and 10	11
					6	11 and 12	15
V3	486,207	1,534,192	8	South Offsite	3	5 and 6	-20
					4	7 and 8	25
					5	9 and 10	21
					6	11 and 12	15
V4	485,961	1,533,890	8	South Offsite	4	7 and 8	-18
					5	9 and 10	-20
					6	11 and 12	-15
V6	485,710	1,534,156	8	South Offsite	4	7 and 8	25
					5	9 and 10	11
					6	11 and 12	15
V7	487,436	1,534,208	8	South Offsite	2	3 and 4	-20
					3	5 and 6	10
					5	9 and 10	-16
					6	11 and 12	-15

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
V8	486,945	1,534,183	8	South Offsite	3	5 and 6	-20
					4	7 and 8	-17
					5	9 and 10	-16
					6	11 and 12	-15
V9	488,140	1,534,298	8	South Offsite	2	3 and 4	10
					3	5 and 6	10
					6	11 and 12	15
1A	493,768	1,543,790	1	Onsite	6	21 through 24	10
1K	493,275	1,541,992	1	Onsite	4	13 through 16	9
					5	17 through 20	9
1L	493,416	1,541,256	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
1M	493,133	1,541,327	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
1R	493,623	1,542,071	1	Onsite	4	13 through 16	9
					5	17 through 20	9
1U	493,542	1,542,001	1	Onsite	4	13 through 16	9
					5	17 through 20	9
520	492,935	1,538,934	1	Onsite	1	1 through 4	5
					2	5 through 8	5
					3	9 through 12	5
521	492,588	1,539,104	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	-5
					5	17 through 20	5

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
522	492,437	1,538,640	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	6
					5	17 through 20	5
523	492,896	1,538,680	1	Onsite	1	1 through 4	5
524	493,173	1,538,889	1	Onsite	1	1 through 4	5
638	493,265	1,539,628	1	Onsite	1	1 through 4	5
639	492,961	1,539,370	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
B	489,311	1,541,684	1	Onsite	3	9 through 12	9
B1	489,370	1,542,071	1	Onsite	3	9 through 12	9
					4	13 through 16	9
B10	491,133	1,542,517	1	Onsite	1	1 through 4	-10
					2	5 through 8	-15
					4	13 through 16	9
					5	17 through 20	9
B11	491,329	1,542,517	1	Onsite	1	1 through 4	-10
					2	5 through 8	-15
					5	17 through 20	9
					6	21 through 24	10
B12	488,915	1,542,524	1	Onsite	3	9 through 12	9
					4	13 through 16	9
B13	490,223	1,541,841	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
B17	489,493	1,542,659	1	Onsite	3	9 through 12	-5
B2	489,515	1,542,475	1	Onsite	4	13 through 16	9
					5	17 through 20	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
B21	489,619	1,542,315	1	Onsite	1	1 through 4	-20
					4	13 through 16	9
					5	17 through 20	9
B23	488,982	1,542,156	1	Onsite	2	5 through 8	9
					3	9 through 12	9
B24	488,903	1,542,376	1	Onsite	3	9 through 12	9
					4	13 through 16	9
B25	488,917	1,542,644	1	Onsite	1	1 through 4	-20
					4	13 through 16	9
					5	17 through 20	9
B26	2,711,848	1,542,819	1	Onsite	2	5 through 8	-20
					3	9 through 12	-20
					5	17 through 20	9
					6	21 through 24	10
B27	489,204	1,542,667	1	Onsite	2	5 through 8	-20
					3	9 through 12	-20
					5	17 through 20	9
					6	21 through 24	10
B28	489,095	1,542,538	1	Onsite	1	1 through 4	-20
					4	13 through 16	9
					5	17 through 20	9
B29	489,263	1,542,187	1	Onsite	3	9 through 12	4.5
					4	13 through 16	4.5
B3	489,731	1,542,480	1	Onsite	1	1 through 4	-20
					2	5 through 8	-17
					4	13 through 16	9
					5	17 through 20	9
B30	489,281	1,542,568	1	Onsite	4	13 through 16	9
					5	17 through 20	9
B33	490,269	1,542,709	1	Onsite	4	13 through 16	-10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
B34	490,388	1,542,601	1	Onsite	3	9 through 12	-15
					5	17 through 20	9
					6	21 through 24	10
B35	490,393	1,542,714	1	Onsite	3	9 through 12	-10
					4	13 through 16	-10
B36	490,467	1,542,668	1	Onsite	5	17 through 20	9
					6	21 through 24	10
B37	490,543	1,542,711	1	Onsite	4	13 through 16	-10
B38	490,662	1,542,607	1	Onsite	3	9 through 12	-15
					5	17 through 20	9
					6	21 through 24	10
B39	490,816	1,542,667	1	Onsite	4	13 through 16	-5
B4	489,942	1,542,471	1	Onsite	1	1 through 4	-20
					2	5 through 8	-17
					4	13 through 16	9
					5	17 through 20	9
B40	490,850	1,542,595	1	Onsite	3	9 through 12	-15
					4	13 through 16	-20
					5	17 through 20	9
					6	21 through 24	10
B41	490,998	1,542,656	1	Onsite	4	13 through 16	-5
B42	491,060	1,542,679	1	Onsite	3	9 through 12	-10
					4	13 through 16	-5
B43	491,235	1,542,610	1	Onsite	3	9 through 12	-15
B44	491,360	1,542,665	1	Onsite	3	9 through 12	-15
B45	491,434	1,542,423	1	Onsite	1	1 through 4	-15
					2	5 through 8	-15
					4	13 through 16	9
					5	17 through 20	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
B46	491,507	1,542,539	1	Onsite	5	17 through 20	9
					6	21 through 24	10
B47	491,639	1,542,695	1	Onsite	3	9 through 12	-10
					4	13 through 16	-20
B48	491,633	1,542,395	1	Onsite	2	5 through 8	-15
					4	13 through 16	9
					5	17 through 20	9
B49	491,966	1,542,521	1	Onsite	5	17 through 20	9
					6	21 through 24	10
B5	490,141	1,542,474	1	Onsite	1	1 through 4	-17
					2	5 through 8	-15
					4	13 through 16	9
					5	17 through 20	9
B6	490,341	1,542,478	1	Onsite	1	1 through 4	-17
					2	5 through 8	-15
					4	13 through 16	9
					5	17 through 20	9
B7	490,540	1,542,488	1	Onsite	1	1 through 4	-17
					2	5 through 8	-15
					4	13 through 16	9
					5	17 through 20	9
B8	490,734	1,542,488	1	Onsite	1	1 through 4	-15
					2	5 through 8	-15
					4	13 through 16	9
					5	17 through 20	9
B9	490,935	1,542,514	1	Onsite	1	1 through 4	-15
					2	5 through 8	-15
					4	13 through 16	9
					5	17 through 20	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
BA	489,440	1,541,835	1	Onsite	3	9 through 12	9
					4	13 through 16	9
BP	489,841	1,541,882	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
C1	490,780	1,541,533	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
C10	491,629	1,542,182	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					4	13 through 16	9
					5	17 through 20	9
C11	491,844	1,542,376	1	Onsite	1	1 through 4	-4
					2	5 through 8	-5
					4	13 through 16	9
					5	17 through 20	9
C12	492,029	1,542,375	1	Onsite	1	1 through 4	-4
					2	5 through 8	-5
					4	13 through 16	9
					5	17 through 20	9
C13	490,655	1,541,394	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
C15	490,209	1,541,574	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
C16	489,993	1,541,579	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
C17	489,798	1,541,607	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
C18	489,614	1,541,616	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
C19	489,392	1,541,648	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
C2	490,566	1,541,630	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
C20	489,187	1,541,673	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
C21	488,996	1,541,747	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
C3R	490,472	1,541,338	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
C5	490,869	1,541,344	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
C6	491,142	1,541,533	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	20
					4	13 through 16	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
C7	491,280	1,541,734	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	6
					4	13 through 16	6
C8	491,415	1,541,906	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	9
					4	13 through 16	9
C9	491,545	1,542,075	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					4	13 through 16	9
					5	17 through 20	9
D2	492,107	1,542,641	1	Onsite	3	9 through 12	-8
					4	13 through 16	-15
D3	491,917	1,542,646	1	Onsite	3	9 through 12	-8
					4	13 through 16	-20
D4	491,724	1,542,652	1	Onsite	5	17 through 20	9
					6	21 through 24	10
DA	489,488	1,542,864	1	Onsite	4	13 through 16	-20
					6	21 through 24	10
DA2	489,656	1,542,881	1	Onsite	6	21 through 24	10
DA3	489,390	1,542,664	1	Onsite	1	1 through 4	-20
					2	5 through 8	-10
					3	9 through 12	-10
					5	17 through 20	9
					6	21 through 24	10
DA4	489,756	1,542,598	1	Onsite	2	5 through 8	-18
					3	9 through 12	-20
					5	17 through 20	9
					6	21 through 24	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
DAB	492,399	1,542,633	1	Onsite	3	9 through 12	-5
					4	13 through 16	-15
DB	489,842	1,542,874	1	Onsite	6	21 through 24	10
DE	490,193	1,542,877	1	Onsite	6	21 through 24	10
DF	490,869	1,542,839	1	Onsite	6	21 through 24	10
DG	491,157	1,542,839	1	Onsite	6	21 through 24	10
DH	491,365	1,542,835	1	Onsite	6	21 through 24	10
DI	491,788	1,542,821	1	Onsite	6	21 through 24	10
DJ	491,793	1,542,821	1	Onsite	6	21 through 24	10
DK	492,094	1,542,799	1	Onsite	6	21 through 24	10
DL	492,398	1,542,813	1	Onsite	6	21 through 24	10
DO	490,049	1,542,874	1	Onsite	6	21 through 24	10
DQ	491,006	1,542,592	1	Onsite	3	9 through 12	-15
					5	17 through 20	9
					6	21 through 24	10
DR	489,966	1,542,884	1	Onsite	3	9 through 12	-8
					4	13 through 16	-5
					6	21 through 24	10
DS	490,118	1,542,876	1	Onsite	6	21 through 24	10
DT	489,293	1,542,871	1	Onsite	3	9 through 12	-8
					4	13 through 16	-10
					6	21 through 24	10
DU	490,380	1,542,879	1	Onsite	6	21 through 24	10
DV	490,702	1,542,826	1	Onsite	3	9 through 12	-8
					4	13 through 16	-10
					6	21 through 24	10
DW	492,029	1,542,818	1	Onsite	6	21 through 24	10
DX	491,074	1,542,838	1	Onsite	6	21 through 24	10
DY	492,271	1,542,737	1	Onsite	4	13 through 16	-10
					6	21 through 24	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates

Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
DZ	491,501	1,542,834	1	Onsite	6	21 through 24	10
E	490,187	1,540,553	1	Onsite	1	1 through 4	9
EE	490,523	1,542,853	1	Onsite	6	21 through 24	10
J	491,302	1,540,174	1	Onsite	1	1 through 4	9
J1	491,585	1,540,082	1	Onsite	1	1 through 4	9
J10	491,436	1,540,138	1	Onsite	1	1 through 4	9
J11	490,909	1,540,545	1	Onsite	1	1 through 4	9
					2	5 through 8	9
J13	492,218	1,540,451	1	Onsite	1	1 through 4	9
J14	492,367	1,540,585	1	Onsite	1	1 through 4	9
J15	492,521	1,540,719	1	Onsite	1	1 through 4	9.5
J2	491,013	1,540,271	1	Onsite	1	1 through 4	9
J3	490,499	1,540,414	1	Onsite	1	1 through 4	9
J4	489,974	1,540,643	1	Onsite	1	1 through 4	9
J5	489,747	1,540,728	1	Onsite	1	1 through 4	9
J6	489,221	1,540,919	1	Onsite	1	1 through 4	9
J7	491,892	1,540,168	1	Onsite	1	1 through 4	9
J8	492,064	1,540,318	1	Onsite	1	1 through 4	9
J9	491,759	1,540,101	1	Onsite	1	1 through 4	9
JC	491,240	1,540,215	1	Onsite	1	1 through 4	9
K	491,590	1,540,730	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
K10	491,638	1,541,305	1	Onsite	1	1 through 4	-10
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
K11	491,490	1,541,325	1	Onsite	1	1 through 4	-10
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
K2	491,587	1,540,736	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
K4	492,371	1,541,211	1	Onsite	1	1 through 4	-10
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
K5	491,935	1,541,269	1	Onsite	1	1 through 4	-10
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
K6	491,459	1,540,689	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
K7	492,237	1,541,232	1	Onsite	1	1 through 4	-10
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
K8	492,081	1,541,250	1	Onsite	1	1 through 4	-10
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
K9	491,787	1,541,287	1	Onsite	1	1 through 4	-10
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
KA	491,331	1,540,959	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
KB	491,406	1,540,893	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
KC	491,477	1,540,826	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
KD	491,701	1,540,627	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
KE	491,776	1,540,566	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
KEB	491,487	1,540,570	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
KM	491,444	1,540,671	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
KN	491,492	1,540,734	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
KZ	491,183	1,541,100	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
L	492,150	1,538,970	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	9
					5	17 through 20	9
L10	492,310	1,539,250	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	-5
					5	17 through 20	5
L11	492,965	1,540,323	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	6
L15	492,324	1,538,701	1	Onsite	4	13 through 16	5
					5	17 through 20	5
L16	492,286	1,538,579	1	Onsite	2	5 through 8	5
					3	9 through 12	5
L17	492,424	1,538,761	1	Onsite	4	13 through 16	-5
					5	17 through 20	-7
L18	492,582	1,538,927	1	Onsite	4	13 through 16	-5
					5	17 through 20	-7
L19	492,575	1,538,768	1	Onsite	4	13 through 16	-5
					5	17 through 20	-7
L20	492,736	1,539,033	1	Onsite	4	13 through 16	5
					5	17 through 20	5
L21	492,827	1,539,211	1	Onsite	4	13 through 16	5
					5	17 through 20	5
L22	493,033	1,539,822	1	Onsite	3	9 through 12	6
					4	13 through 16	6

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates

Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
L23	492,890	1,539,654	1	Onsite	3	9 through 12	6
					4	13 through 16	6
L25	492,409	1,538,880	1	Onsite	4	13 through 16	-5
					5	17 through 20	-7
L27	492,403	1,538,534	1	Onsite	2	5 through 8	6
					3	9 through 12	6
L28	492,547	1,538,501	1	Onsite	3	9 through 12	6
					4	13 through 16	6
					5	17 through 20	5
L29	492,723	1,538,621	1	Onsite	2	5 through 8	5
					3	9 through 12	5
					4	13 through 16	5
					5	17 through 20	5
L30	492,832	1,538,795	1	Onsite	2	5 through 8	5
					3	9 through 12	5
					4	13 through 16	5
					5	17 through 20	5
L31	493,003	1,539,075	1	Onsite	2	5 through 8	5
					3	9 through 12	5
L32	493,096	1,539,193	1	Onsite	3	9 through 12	6
					4	13 through 16	6
L33	493,206	1,539,418	1	Onsite	3	9 through 12	6
					4	13 through 16	6
L5	492,730	1,539,946	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	-5
L6	493,110	1,540,526	1	Onsite	3	9 through 12	6

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates

Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
L7	492,842	1,540,113	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	-5
L8	492,621	1,539,773	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	-5
L9	492,463	1,539,509	1	Onsite	1	1 through 4	-5
					2	5 through 8	-5
					3	9 through 12	-5
					4	13 through 16	-5
M12	487,209	1,542,174	1	Onsite	1	1 through 4	9
M13	487,336	1,542,450	1	Onsite	1	1 through 4	9
M14	487,216	1,542,661	1	Onsite	1	1 through 4	9
M15	487,094	1,542,872	1	Onsite	1	1 through 4	9
M3	489,151	1,542,805	1	Onsite	2	5 through 8	-20
					3	9 through 12	-20
M30	487,639	1,543,462	1	Onsite	1	1 through 4	9
					2	5 through 8	9
M31	487,620	1,543,745	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
M32	487,737	1,543,176	1	Onsite	1	1 through 4	9
					2	5 through 8	9
M36	487,631	1,543,993	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
					5	17 through 20	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
M3R	489,078	1,542,926	1	Onsite	4	13 through 16	-10
M4	489,134	1,542,804	1	Onsite	5	17 through 20	9
					6	21 through 24	10
M43	487,759	1,542,858	1	Onsite	1	1 through 4	9
					2	5 through 8	9
M44	487,812	1,542,722	1	Onsite	1	1 through 4	9
					2	5 through 8	9
M45	487,927	1,542,593	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
M46	488,033	1,542,504	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
M47	488,130	1,542,409	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
M48	488,226	1,542,317	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
M5	489,080	1,542,360	1	Onsite	3	9 through 12	9
					4	13 through 16	9
M9	486,699	1,543,310	1	Onsite	1	1 through 4	-10
					2	5 through 8	-12
					3	9 through 12	-10
MQ	486,326	1,543,173	1	Onsite	1	1 through 4	-15
					2	5 through 8	-12
					3	9 through 12	-10
N	489,665	1,545,101	1	Onsite	5	17 through 20	9
					6	21 through 24	10
NA	491,488	1,545,000	1	Onsite	5	17 through 20	9
					6	21 through 24	10
NB	491,296	1,545,000	1	Onsite	5	17 through 20	9
					6	21 through 24	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
O	492,725	1,545,060	1	Onsite	5	17 through 20	9
					6	21 through 24	10
PM	490,292	1,541,426	1	Onsite	1	1 through 4	9
					2	5 through 8	9
					3	9 through 12	9
S	488,816	1,543,871	1	Onsite	5	17 through 20	9
					6	21 through 24	10
S1	488,401	1,543,288	1	Onsite	4	13 through 16	9
					5	17 through 20	9
S13	488,239	1,542,932	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
S14	488,152	1,543,120	1	Onsite	3	9 through 12	9
					4	13 through 16	9
S15	488,160	1,543,320	1	Onsite	3	9 through 12	9
					4	13 through 16	9
S18	488,312	1,543,216	1	Onsite	3	9 through 12	9
					4	13 through 16	9
S19	488,682	1,544,172	1	Onsite	1	1 through 4	-18
					4	13 through 16	9
					5	17 through 20	9
					6	21 through 24	10
S2	488,299	1,543,127	1	Onsite	3	9 through 12	9
					4	13 through 16	9
S20	488,461	1,544,463	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
					5	17 through 20	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
S21	488,670	1,544,896	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
					5	17 through 20	9
					6	21 through 24	10
S22	488,375	1,544,169	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
S23	488,284	1,543,920	1	Onsite	2	5 through 8	9
					3	9 through 12	9
S24	488,232	1,543,735	1	Onsite	2	5 through 8	9
					3	9 through 12	9
S25	488,146	1,543,524	1	Onsite	2	5 through 8	9
					3	9 through 12	9
S26	487,996	1,543,224	1	Onsite	2	5 through 8	9
					3	9 through 12	9
S27	488,044	1,542,993	1	Onsite	2	5 through 8	9
					3	9 through 12	9
S28	488,403	1,542,769	1	Onsite	2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
S3	488,714	1,542,857	1	Onsite	4	13 through 16	9
					5	17 through 20	9
S30	488,311	1,543,443	1	Onsite	3	9 through 12	9
					4	13 through 16	9
S32	488,445	1,543,815	1	Onsite	3	9 through 12	9
					4	13 through 16	9
S33	488,570	1,543,951	1	Onsite	3	9 through 12	9
					4	13 through 16	9
					5	17 through 20	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
S34	488,657	1,543,064	1	Onsite	4	13 through 16	9
					5	17 through 20	9
S36	488,559	1,542,755	1	Onsite	3	9 through 12	9
					4	13 through 16	9
S37	488,516	1,542,609	1	Onsite	2	5 through 8	9
					3	9 through 12	9
S38	488,727	1,542,443	1	Onsite	2	5 through 8	9
					3	9 through 12	9
S39	488,744	1,542,596	1	Onsite	1	1 through 4	-20
					3	9 through 12	9
					4	13 through 16	9
S5	488,923	1,543,269	1	Onsite	4	13 through 16	-10
					6	21 through 24	10
S5R	488,938	1,543,150	1	Onsite	2	5 through 8	-10
					3	9 through 12	-10
					4	13 through 16	-10
					5	17 through 20	9
					6	21 through 24	10
S6	488,874	1,543,515	1	Onsite	4	13 through 16	-10
					6	21 through 24	10
S7	488,874	1,543,763	1	Onsite	4	13 through 16	-10
					6	21 through 24	10
S8	488,879	1,543,968	1	Onsite	2	5 through 8	-15
					3	9 through 12	-15
					5	17 through 20	9
					6	21 through 24	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
SA	488,811	1,543,122	1	Onsite	1	1 through 4	-13
					2	5 through 8	-20
					3	9 through 12	-20
					5	17 through 20	9
					6	21 through 24	10
SB	488,811	1,543,371	1	Onsite	2	5 through 8	-20
					3	9 through 12	-20
					5	17 through 20	9
					6	21 through 24	10
SC	488,815	1,543,617	1	Onsite	1	1 through 4	-13
					2	5 through 8	-10
					3	9 through 12	-10
					5	17 through 20	9
					6	21 through 24	10
SD	488,564	1,543,490	1	Onsite	4	13 through 16	9
					5	17 through 20	9
SE	488,550	1,543,301	1	Onsite	4	13 through 16	9
					5	17 through 20	9
SM	488,566	1,543,748	1	Onsite	4	13 through 16	9
					5	17 through 20	9
SO	488,381	1,543,652	1	Onsite	3	9 through 12	9
					4	13 through 16	9
SP	488,531	1,543,630	1	Onsite	4	13 through 16	9
					5	17 through 20	9
SQ	488,814	1,543,507	1	Onsite	5	17 through 20	9
					6	21 through 24	10
SSR	488,694	1,543,374	1	Onsite	1	1 through 4	-20
ST	488,688	1,543,215	1	Onsite	1	1 through 4	-20

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
SUR	488,968	1,542,991	1	Onsite	2	5 through 8	-10
					3	9 through 12	-10
					5	17 through 20	9
					6	21 through 24	10
SV	488,813	1,543,676	1	Onsite	2	5 through 8	-10
					3	9 through 12	-10
					5	17 through 20	9
					6	21 through 24	10
SW	488,812	1,543,783	1	Onsite	5	17 through 20	9
					6	21 through 24	10
SZ	488,833	1,544,367	1	Onsite	4	13 through 16	9
					5	17 through 20	9
					6	21 through 24	10
T	492,260	1,542,536	1	Onsite	1	1 through 4	-4
					2	5 through 8	-5
					3	9 through 12	-5
					5	17 through 20	9
					6	21 through 24	10
T10	492,791	1,543,434	1	Onsite	5	17 through 20	-5
					6	21 through 24	-8
T101	491,911	1,544,222	1	Onsite	5	17 through 20	-10
T102	492,143	1,544,203	1	Onsite	6	21 through 24	-10
T103	492,413	1,544,056	1	Onsite	5	17 through 20	-3
					6	21 through 24	-8
T105	491,678	1,544,289	1	Onsite	5	17 through 20	-5
					6	21 through 24	-10
T109	492,536	1,544,366	1	Onsite	5	17 through 20	-8
					6	21 through 24	-15
T110	492,576	1,544,209	1	Onsite	5	17 through 20	-7
					6	21 through 24	-14

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
T111	492,939	1,543,706	1	Onsite	5	17 through 20	-4
					6	21 through 24	-14
T12	490,317	1,544,583	1	Onsite	5	17 through 20	-8
					6	21 through 24	-15
T13	490,619	1,544,534	1	Onsite	6	21 through 24	-13
T15	491,953	1,544,480	1	Onsite	5	17 through 20	-7
					6	21 through 24	-14
T17	489,430	1,544,008	1	Onsite	4	13 through 16	-10
					5	17 through 20	-15
					6	21 through 24	-15
T18	490,333	1,543,977	1	Onsite	4	13 through 16	-10
					6	21 through 24	-15
T2	489,303	1,543,538	1	Onsite	4	13 through 16	-20
					5	17 through 20	-20
					6	21 through 24	-15
T20	491,048	1,543,935	1	Onsite	6	21 through 24	-10
T23	492,805	1,543,901	1	Onsite	5	17 through 20	-8
					6	21 through 24	-14
T24	489,494	1,543,387	1	Onsite	4	13 through 16	-20
					5	17 through 20	-20
					6	21 through 24	-15
T26	489,550	1,543,567	1	Onsite	4	13 through 16	-20
					5	17 through 20	-25
					6	21 through 24	-15
T29	489,375	1,543,774	1	Onsite	4	13 through 16	-15
					5	17 through 20	-20
					6	21 through 24	-15

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
T31	489,881	1,543,789	1	Onsite	1	1 through 4	-20
					2	5 through 8	-15
					3	9 through 12	-10
					4	13 through 16	-10
					5	17 through 20	-20
					6	21 through 24	-15
T35	489,689	1,543,992	1	Onsite	6	21 through 24	-15
T4	489,699	1,543,340	1	Onsite	4	13 through 16	-20
					5	17 through 20	-20
					6	21 through 24	-15
T41	491,079	1,543,278	1	Onsite	4	13 through 16	-10
					5	17 through 20	-20
					6	21 through 24	-15
T43	489,385	1,544,209	1	Onsite	4	13 through 16	-10
					5	17 through 20	-15
					6	21 through 24	-15
T47	489,544	1,544,317	1	Onsite	4	13 through 16	-10
					5	17 through 20	-18
					6	21 through 24	-15
T48	489,795	1,544,291	1	Onsite	1	1 through 4	-17
					2	5 through 8	-15
					3	9 through 12	-15
					4	13 through 16	-5
					5	17 through 20	-15
					6	21 through 24	-15
T53	489,559	1,544,504	1	Onsite	5	17 through 20	-10
					6	21 through 24	-15

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
T54	489,796	1,544,523	1	Onsite	1	1 through 4	-17
					2	5 through 8	-15
					3	9 through 12	-10
					4	13 through 16	-5
					5	17 through 20	-17
					6	21 through 24	-15
T57	490,805	1,543,470	1	Onsite	4	13 through 16	-10
					5	17 through 20	-20
					6	21 through 24	-15
T59	491,247	1,543,426	1	Onsite	5	17 through 20	-15
					6	21 through 24	-14
T6	490,655	1,543,282	1	Onsite	4	13 through 16	-15
					5	17 through 20	-20
					6	21 through 24	-15
T61	490,687	1,543,600	1	Onsite	6	21 through 24	-15
T62	491,006	1,543,688	1	Onsite	4	13 through 16	-10
					5	17 through 20	-8
					6	21 through 24	-12
T65	490,532	1,543,743	1	Onsite	5	17 through 20	-5
T66	490,837	1,543,821	1	Onsite	6	21 through 24	-10
T68	490,569	1,544,082	1	Onsite	5	17 through 20	-10
					6	21 through 24	-12
T69	490,856	1,544,069	1	Onsite	6	21 through 24	-8
T7	491,484	1,543,272	1	Onsite	4	13 through 16	-10
					5	17 through 20	-18
					6	21 through 24	-15
T70	491,217	1,544,036	1	Onsite	5	17 through 20	-7
					6	21 through 24	-5
T72	491,055	1,544,137	1	Onsite	4	13 through 16	-10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
T74	490,480	1,544,306	1	Onsite	5	17 through 20	-10
					6	21 through 24	-13
T75	490,911	1,544,255	1	Onsite	5	17 through 20	-5
T76	491,240	1,544,257	1	Onsite	5	17 through 20	-5
T78	491,087	1,544,369	1	Onsite	6	21 through 24	-10
T79	491,374	1,544,335	1	Onsite	6	21 through 24	-10
T8	491,914	1,543,296	1	Onsite	4	13 through 16	-5
					5	17 through 20	-15
					6	21 through 24	-15
T83	490,845	1,544,575	1	Onsite	5	17 through 20	-7
					6	21 through 24	-14
T84	491,374	1,544,531	1	Onsite	5	17 through 20	-7
					6	21 through 24	-14
T85	491,712	1,543,427	1	Onsite	5	17 through 20	-10
					6	21 through 24	-12
T86	492,111	1,543,472	1	Onsite	5	17 through 20	-7
					6	21 through 24	-9
T87	491,471	1,543,565	1	Onsite	6	21 through 24	-10
T88	491,628	1,543,629	1	Onsite	4	13 through 16	-10
T89	491,892	1,543,622	1	Onsite	5	17 through 20	-5
T9	492,337	1,543,347	1	Onsite	4	13 through 16	-5
					5	17 through 20	-10
					6	21 through 24	-13
T90	492,287	1,543,637	1	Onsite	5	17 through 20	-5
					6	21 through 24	-7
T91	492,486	1,543,661	1	Onsite	4	13 through 16	-10
T92	491,364	1,543,702	1	Onsite	5	17 through 20	-5
					6	21 through 24	-7
T93	491,695	1,543,811	1	Onsite	5	17 through 20	-5
					6	21 through 24	-5

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
T94	492,100	1,543,752	1	Onsite	4	13 through 16	-10
					6	21 through 24	-5
T95	492,578	1,543,913	1	Onsite	5	17 through 20	-5
					6	21 through 24	-10
T97	491,715	1,544,004	1	Onsite	5	17 through 20	-7
					6	21 through 24	-5
T98	492,123	1,544,036	1	Onsite	5	17 through 20	-5
TA	492,426	1,542,471	1	Onsite	1	1 through 4	-4
					2	5 through 8	-5
					3	9 through 12	-5
					5	17 through 20	9
					6	21 through 24	10
TB	492,616	1,542,351	1	Onsite	4	13 through 16	9
					5	17 through 20	9
WR10	487,961	1,542,389	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
WR11	487,728	1,542,586	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
WR13	488,861	1,541,068	1	Onsite	1	1 through 4	9.5
WR16	487,495	1,543,051	1	Onsite	1	1 through 4	9
WR17	487,485	1,543,328	1	Onsite	1	1 through 4	9
WR18	487,465	1,543,597	1	Onsite	1	1 through 4	9
					2	5 through 8	9
WR19	487,458	1,543,873	1	Onsite	1	1 through 4	9
					2	5 through 8	9
WR1R	488,536	1,541,302	1	Onsite	1	1 through 4	9.5
WR2	488,678	1,541,290	1	Onsite	1	1 through 4	9.5
WR20	487,449	1,544,059	1	Onsite	1	1 through 4	9
					2	5 through 8	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
WR21	487,449	1,544,241	1	Onsite	1	1 through 4	9
					2	5 through 8	9
WR22	487,462	1,544,434	1	Onsite	1	1 through 4	9
					2	5 through 8	9
WR23	487,445	1,544,632	1	Onsite	1	1 through 4	9
					2	5 through 8	9
WR24	487,438	1,544,938	1	Onsite	1	1 through 4	9
					2	5 through 8	9
WR3	488,671	1,541,490	1	Onsite	1	1 through 4	9.5
WR4	488,678	1,541,788	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
WR5	488,683	1,541,813	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
WR6	488,566	1,541,902	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
WR7	488,456	1,541,997	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
WR8	488,328	1,542,095	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
WR9	488,217	1,542,185	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
X1	492,129	1,540,671	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
X10	492,835	1,542,352	1	Onsite	1	1 through 4	5
					2	5 through 8	5
					3	9 through 12	5
					4	13 through 16	5
					5	17 through 20	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
X11	492,782	1,542,553	1	Onsite	5	17 through 20	9
					6	21 through 24	10
X12	492,852	1,542,861	1	Onsite	6	21 through 24	10
X13	493,665	1,543,640	1	Onsite	6	21 through 24	10
X14	493,777	1,544,002	1	Onsite	6	21 through 24	10
X15	493,800	1,544,222	1	Onsite	6	21 through 24	10
X16	493,795	1,544,473	1	Onsite	6	21 through 24	10
X17	493,793	1,544,356	1	Onsite	6	21 through 24	10
X18	493,569	1,544,593	1	Onsite	6	21 through 24	10
X19	493,437	1,544,753	1	Onsite	6	21 through 24	10
X2	492,363	1,540,836	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
X20	493,256	1,544,855	1	Onsite	6	21 through 24	10
X21	493,894	1,543,606	1	Onsite	5	17 through 20	9
					6	21 through 24	10
X22	493,946	1,543,874	1	Onsite	5	17 through 20	9
					6	21 through 24	10
X23	494,012	1,544,064	1	Onsite	5	17 through 20	9
					6	21 through 24	10
X24	494,011	1,544,244	1	Onsite	5	17 through 20	9
					6	21 through 24	10
X25	494,042	1,544,445	1	Onsite	5	17 through 20	9
					6	21 through 24	10
X26	493,702	1,544,693	1	Onsite	5	17 through 20	9
					6	21 through 24	10
X27	493,374	1,544,953	1	Onsite	5	17 through 20	9
					6	21 through 24	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
X28	491,971	1,540,545	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
X29	492,256	1,540,735	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
X3	492,599	1,540,992	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
X30	492,493	1,540,897	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
X31	492,731	1,541,052	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
X4	492,814	1,541,210	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
X5	492,821	1,541,408	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9
X6	492,828	1,541,609	1	Onsite	1	1 through 4	9.5
					2	5 through 8	9
					3	9 through 12	9
					4	13 through 16	9

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
X7	492,851	1,541,808	1	Onsite	1	1 through 4	9.5
X7	492,851	1,541,808	1	Onsite	2	5 through 8	9
X7	492,851	1,541,808	1	Onsite	3	9 through 12	9
X7	492,851	1,541,808	1	Onsite	4	13 through 16	9
X8	492,852	1,542,007	1	Onsite	1	1 through 4	9.5
X8	492,852	1,542,007	1	Onsite	2	5 through 8	9
X8	492,852	1,542,007	1	Onsite	3	9 through 12	9
X8	492,852	1,542,007	1	Onsite	4	13 through 16	9
X8	492,852	1,542,007	1	Onsite	5	17 through 20	9
X9	492,852	1,542,194	1	Onsite	1	1 through 4	5
X9	492,852	1,542,194	1	Onsite	2	5 through 8	5
X9	492,852	1,542,194	1	Onsite	3	9 through 12	5
X9	492,852	1,542,194	1	Onsite	4	13 through 16	5
X9	492,852	1,542,194	1	Onsite	5	17 through 20	9
Y	491,256	1,541,025	1	Onsite	1	1 through 4	9
Y	491,256	1,541,025	1	Onsite	2	5 through 8	9
Y	491,256	1,541,025	1	Onsite	3	9 through 12	9
Y	491,256	1,541,025	1	Onsite	4	13 through 16	9
Z	490,701	1,540,290	1	Onsite	1	1 through 4	9
944	493,091	1,539,280	4	Onsite	1	1 through 4	5
B14	489,579	1,542,733	4	Onsite	2	5 through 8	-10
B14	489,579	1,542,733	4	Onsite	3	9 through 12	-10
B14	489,579	1,542,733	4	Onsite	4	13 through 16	-10
B14	489,579	1,542,733	4	Onsite	5	17 through 20	9
B14	489,579	1,542,733	4	Onsite	6	21 through 24	10
B17	489,493	1,542,659	4	Onsite	3	9 through 12	-5
B18	489,634	1,542,652	4	Onsite	2	5 through 8	-10
B18	489,634	1,542,652	4	Onsite	3	9 through 12	-10
B18	489,634	1,542,652	4	Onsite	5	17 through 20	9
B18	489,634	1,542,652	4	Onsite	6	21 through 24	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
B19	489,936	1,542,605	4	Onsite	3	9 through 12	-20
					5	17 through 20	9
B20	489,847	1,542,444	4	Onsite	1	1 through 4	-20
					2	5 through 8	-20
					4	13 through 16	9
					5	17 through 20	9
B29	489,263	1,542,187	4	Onsite	3	9 through 12	4.5
					4	13 through 16	4.5
B31	490,103	1,542,710	4	Onsite	4	13 through 16	-10
B32	490,201	1,542,598	4	Onsite	3	9 through 12	-20
					5	17 through 20	9
					6	21 through 24	10
CE12	489,642	1,541,867	4	Onsite	1	1 through 4	-15
					2	5 through 8	-15
					3	9 through 12	-15
					4	13 through 16	-15
					5	17 through 20	-20
CE15	489,460	1,539,507	4	Onsite	1	1 through 4	-25
					2	5 through 8	-25
					4	13 through 16	10
					5	17 through 20	9
CE15A	489,459	1,539,111	4	Onsite	3	9 through 12	10
					4	13 through 16	20
CE16A	491,873	1,542,619	4	Onsite	3	9 through 12	-15
					4	13 through 16	20
					5	17 through 20	9
					6	21 through 24	15

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
CE19	490,070	1,541,160	4	Onsite	1	1 through 4	-25
					2	5 through 8	-25
					3	9 through 12	-25
					4	13 through 16	9
					5	17 through 20	9
					6	21 through 24	15
CE2	489,979	1,541,923	4	Onsite	1	1 through 4	-25
					2	5 through 8	-25
					3	9 through 12	-25
					4	13 through 16	-25
					5	17 through 20	-25
CE5	490,695	1,541,453	4	Onsite	1	1 through 4	-25
					2	5 through 8	-25
					3	9 through 12	-25
CE6	490,433	1,541,698	4	Onsite	1	1 through 4	-25
					2	5 through 8	-25
					3	9 through 12	-25
					4	13 through 16	-25
					5	17 through 20	-25
CE7	490,079	1,542,652	4	Onsite	1	1 through 4	-20
					2	5 through 8	-20
					3	9 through 12	-20
					4	13 through 16	-20
					5	17 through 20	-25
CF3	491,918	1,545,099	4	Onsite	3	9 through 12	-20
					4	13 through 16	-20
					5	17 through 20	9
					6	21 through 24	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
CF4	490,520	1,543,680	4	Onsite	3	9 through 12	-25
					4	13 through 16	-25
					5	17 through 20	-25
CF5	491,463	1,544,013	4	Onsite	4	13 through 16	-10
					5	17 through 20	-11
CF6	490,759	1,544,040	4	Onsite	4	13 through 16	-10
CF7	491,362	1,543,501	4	Onsite	4	13 through 16	-10
CF7A	491,371	1,543,500	4	Onsite	5	17 through 20	-11
CW13	491,827	1,538,349	4	Onsite	1	1 through 4	10
					2	5 through 8	10
CW25	488,866	1,540,802	4	Onsite	1	1 through 4	10
					2	5 through 8	10
					3	9 through 12	10
					4	13 through 16	10
					5	17 through 20	9
					6	21 through 24	10
CW3	493,496	1,545,200	4	Onsite	3	9 through 12	9
					4	13 through 16	9
					5	17 through 20	9
					6	21 through 24	10
CW4R	490,787	1,541,416	4	Onsite	1	1 through 4	10
					2	5 through 8	10
					3	9 through 12	10
					4	13 through 16	10
					5	17 through 20	9
					6	21 through 24	10
CW5	490,221	1,538,729	4	Onsite	1	1 through 4	10
					2	5 through 8	10
					3	9 through 12	10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
T25	489,996	1,543,352	4	Onsite	1	1 through 4	-20
					2	5 through 8	-20
					3	9 through 12	-20
					4	13 through 16	-20
					5	17 through 20	-20
					6	21 through 24	-15
T27	489,837	1,543,474	4	Onsite	1	1 through 4	-20
					2	5 through 8	-20
					3	9 through 12	-20
					4	13 through 16	-20
					5	17 through 20	-20
					6	21 through 24	-15
T28	490,145	1,543,484	4	Onsite	1	1 through 4	-20
					2	5 through 8	-20
					3	9 through 12	-20
					4	13 through 16	-20
					5	17 through 20	-20
					6	21 through 24	-15
T30	489,972	1,543,663	4	Onsite	6	21 through 24	-10
T32	490,134	1,543,801	4	Onsite	1	1 through 4	-20
					2	5 through 8	-20
					3	9 through 12	-20
					4	13 through 16	-20
					5	17 through 20	-20
					6	21 through 24	-15
T38	489,832	1,544,089	4	Onsite	1	1 through 4	-15
					2	5 through 8	-15
					3	9 through 12	-15
					4	13 through 16	-10
					6	21 through 24	-10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
T42	490,112	1,544,077	4	Onsite	5	17 through 20	-10
					6	21 through 24	-15
T45	489,914	1,544,183	4	Onsite	6	21 through 24	-10
T49	490,100	1,544,304	4	Onsite	2	5 through 8	-15
					3	9 through 12	-15
					4	13 through 16	-10
					6	21 through 24	-15
T51	489,914	1,544,397	4	Onsite	6	21 through 24	-10
T52	490,208	1,544,456	4	Onsite	2	5 through 8	-15
					3	9 through 12	-15
					4	13 through 16	-10
					6	21 through 24	-10
T55	490,063	1,544,592	4	Onsite	4	13 through 16	-20
					5	17 through 20	-20
					6	21 through 24	-15
T60	490,362	1,543,666	4	Onsite	6	21 through 24	-15
CW14	488,884	1,538,786	6	Onsite	1	1 through 4	14.5
					2	5 through 8	10
					3	9 through 12	15
					4	13 through 16	10
					5	17 through 20	9
					6	21 through 24	15
CW17	487,771	1,545,279	6	Onsite	1	1 through 4	-15
					2	5 through 8	-15
					3	9 through 12	11
					4	13 through 16	20
					5	17 through 20	9
					6	21 through 24	13

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
CW56	488,115	1,545,279	6	Onsite	1	1 through 4	-15
					2	5 through 8	-15
					3	9 through 12	10.5
					4	13 through 16	20
					5	17 through 20	9
					6	21 through 24	13
CW57	488,070	1,545,654	6	Onsite	2	5 through 8	10
CW60	488,262	1,545,470	6	Onsite	2	5 through 8	10
CW61	487,779	1,544,927	6	Onsite	3	9 through 12	-15
					4	13 through 16	-15
					5	17 through 20	-11
					6	21 through 24	-10
CW62	487,847	1,544,555	6	Onsite	1	1 through 4	-15
					2	5 through 8	-15
					3	9 through 12	-15
					4	13 through 16	-10
					5	17 through 20	-10
					6	21 through 24	-10
CW71	488,111	1,544,724	6	Onsite	2	5 through 8	-14
					3	9 through 12	-15
					4	13 through 16	-15
					5	17 through 20	-11
					6	21 through 24	-10
CW72	488,229	1,545,034	6	Onsite	5	17 through 20	-11
					6	21 through 24	-10
M35	487,750	1,543,889	6	Onsite	3	9 through 12	9
					4	13 through 16	9
M37	487,835	1,544,120	6	Onsite	5	17 through 20	9
M38	487,923	1,544,319	6	Onsite	5	17 through 20	-11
					6	21 through 24	-10

Table A-1. Groundwater Flow Model Simulated Predictive Collection and Injection Rates							
Well ID	Easting	Northing	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Collection (-) or Injection (+) Rate (gpm)
WR25	487,430	1,545,267	6	Onsite	5	17 through 20	9
					6	21 through 24	12
Deep #1R	493,633	1,543,307	10	San Andres	1	1 through 24	-150
Deep #2R	490,972	1,542,424	10	San Andres	1	1 through 24	-150

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
FA1-1	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA1-2	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA1-3	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA1-4	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA1-5	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA2-1	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA2-2	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA2-3	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
FA2-4	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA2-5	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA2-6	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA2-7	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA3-1	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA3-2	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA3-3	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA3-4	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
FA4-1	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA4-2	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA4-3	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
FA4-4	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
RCR4-1	1	South Offsite	3	5 and 6	10
RCR4-2	1	South Offsite	3	5 and 6	10
RCR4-3	1	South Offsite	3	5 and 6	10
RCR5-1	1	South Offsite	3	5 and 6	10
RCR5-2	1	South Offsite	3	5 and 6	10
RCR5-3	1	South Offsite	3	5 and 6	10
RCR5-4	1	South Offsite	3	5 and 6	10
RCR6-1	1	South Offsite	3	5 and 6	10
RCR6-2	1	South Offsite	3	5 and 6	10
RCR6-3	1	South Offsite	3	5 and 6	10
RCR7-1	1	South Offsite	2	3 and 4	10
RCR9-1	1	South Offsite	1	1 and 2	25
RCR9-2	1	South Offsite	1	1 and 2	25
RCR9-3	1	South Offsite	1	1 and 2	25
RCR9-4	1	South Offsite	1	1 and 2	25
SFA1-1	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates

Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
SFA1-2	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
SFA1-3	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
SFA2-1	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
SFA2-2	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
SFA2-3	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
SFA2-4	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
WFA1-1	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
WFA1-2	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
WFA1-3	1	South Offsite	1	1 and 2	10
			2	3 and 4	10
			3	5 and 6	10
			4	7 and 8	10
			5	9 and 10	10
EBA1-1	1	Onsite	1	1 through 4	6
EBA1-2	1	Onsite	1	1 through 4	6
EBA2-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
			5	17 through 20	5
EBA2-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
			5	17 through 20	5
EBA3-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA3-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA3-3	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA3-4	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA3-5	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA3-6	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA3-7	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA4-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA4-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA4-3	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EBA4-4	1	Onsite	1	1 through 4	6
			2	5 through 8	6

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
EBA5-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
EBA5-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
EBA5-3	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
EBA5-4	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
EBA5-5	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
EBA5-6	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
EBA5-7	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
EBA5-8	1	Onsite	1	1 through 4	6
			2	5 through 8	6
			3	9 through 12	6
			4	13 through 16	6
EMA1-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA1-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA1-3	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA1-4	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA1-5	1	Onsite	1	1 through 4	6
			2	5 through 8	6

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
EMA1-6	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA1-7	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA1-8	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA2-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA2-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA2-3	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA2-4	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA2-5	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA2-6	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA2-7	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA3-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA3-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA3-3	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA3-4	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA3-5	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA3-6	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA3-7	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA4-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA4-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA4-3	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA4-4	1	Onsite	1	1 through 4	6
			2	5 through 8	6

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
EMA4-5	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA4-6	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA4-7	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA4-8	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA5-1	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA5-2	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA5-3	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA5-4	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA5-5	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA5-6	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA5-7	1	Onsite	1	1 through 4	6
			2	5 through 8	6
EMA5-8	1	Onsite	1	1 through 4	6
			2	5 through 8	6
WTI-1	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-2	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-3	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-4	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-5	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-6	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-7	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-8	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-9	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
WTI-10	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-11	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-12	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-13	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-14	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-15	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-16	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-17	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-18	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-19	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-20	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-21	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-22	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-23	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-24	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-25	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-26	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-27	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-28	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-29	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-30	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5

Table A-2. Groundwater Flow Model Simulated Infiltration Line Rates					
Well ID	Model Layer	GRP Area	Collection/ Injection Round	Predictive Simulation Years	Simulated Infiltration Rate (gpm)
WTI-31	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-32	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-33	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-34	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5
WTI-35	1	Onsite	1	1 through 4	20
			2	5 through 8	15.5

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Appendix F

Alternative Cost Estimates

ALTERNATIVE 1 | **COST ESTIMATE SUMMARY**

No Action - Natural Attenuation | **Appendix F - Sheet 1**

Site: HMC Grants Reclamation Project | **Phase:** Groundwater Corrective Action | **Base Year:** 2020

Location Grants, NM | **Date:** 12/11/2019 | **Duration:** 30 Years

Description: Alternative 1 includes maintaining access and groundwater use restrictions in the form of ICs (environmental restrictive covenants, land use zoning or deed restrictions) and ECs (fencing) to limit Site access. Alternative 1 includes monitored natural attenuation of the dissolved plumes that includes groundwater monitoring to evaluate behavior of the plumes and the natural attenuation processes. The engineered final cover would be installed on the LTP in Year 1 following decommissioning of the zeolite and RO treatment systems. Long-term management of water recovered by the LTP toe drain system would be managed/treated in an existing evaporation pond.

CAPITAL COSTS:

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
1.00	**LTP Well Abandonment (Year 0)**				**$820,080**
1.01	5" Tailings Well Abandonment	EA	$1,890	210	$396,900
1.02	2" Tailings Well Abandonment	EA	$1,260	130	$163,800
1.03	Perched Alluvial Well Abandonment	EA	$2,090	56	$117,040
1.04	*Project Management*	*%*		*10*	*$67,780*
1.05	*Contingency*	*%*		*10*	*$74,560*
2.00	**Treatment Systems Decommissioning (Year 0)**				**$497,310**
2.01	Demolition of zeolite treatment system	LS	$191,000	1	$191,000
2.02	Demolition of RO treatment system	LS	$220,000	1	$220,000
2.03	*Project Management*	*%*		*10*	*$41,100*
2.04	*Contingency*	*%*		*10*	*$45,210*
3.00	**LTP Cover (Year 1)**				**$7,296,140**
3.01	Installation of LTP Cover	LS	$6,317,000	1	$6,317,000
3.02	*Project Management*	*%*		*5*	*$315,850*
3.03	*Contingency*	*%*		*10*	*$663,290*
4.00	**TOTAL CAPITAL COST**				**$8,613,530**

O&M COSTS:

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
5.00	**Groundwater Monitoring (Years 0-29)***				**$169,084** *
5.01	Sampling Monitoring Wells	EA	$500	101	$50,500
5.02	Groundwater Analytical	EA	$414	101	$41,814
5.03	Evaluation and Reporting	LS	$50,000	1	$50,000
5.04	*Project Management*	*%*		*8*	*$11,390*
5.05	*Contingency*	*%*		*10*	*$15,380*
6.00	**Facility Annual Operation (Years 0-1)**				**$4,300,000**
6.01	Site Staffing and Management (GW System Inactive)	year	$200,000	2	$400,000
6.02	Radiation Safety (Pre cap)	year	$500,000	2	$1,000,000
6.03	Impoundment Maintenance & Monitoring	year	$250,000	2	$500,000
6.04	Radon/Air Particulate Monitoring	year	$200,000	2	$400,000
6.05	Regulatory Reporting	year	$500,000	2	$1,000,000
6.06	NRC Fees	year	$500,000	2	$1,000,000
7.00	**Facility Annual Operation (Years 2-30)**				**$43,500,000**
7.01	Site Staffing and Management (GW System Inactive)	year	$200,000	29	$5,800,000
7.02	Radiation Safety (Post cap)	year	$100,000	29	$2,900,000
7.03	Radon/Air Particulate Monitoring	year	$200,000	29	$5,800,000
7.04	Regulatory Reporting	year	$500,000	29	$14,500,000
7.05	NRC Fees	year	$500,000	29	$14,500,000
8.00	**TOTAL O&M COSTS** *(through project closeout)*				**$52,872,520**

ALTERNATIVE 1					COST ESTIMATE SUMMARY
No Action - Natural Attenuation					**Appendix F - Sheet 1**

PERIODIC COSTS:

9.00	**Well Abandonment/Closure (Year 30)**				**$3,762,070**
9.01	Alluvial Well Abandonment	EA	$2,090	1,000	$2,090,000
9.02	U. Chinle Well Abandonment	EA	$2,600	32	$83,200
9.03	M. Chinle Well Abandonment	EA	$2,600	60	$156,000
9.04	L. Chinle Well Abandonment	EA	$2,600	30	$78,000
9.05	San Andres Well Abandonment	EA	$100,000	8	$800,000
9.06	Reporting	LS	$50,000	1	$50,000
9.07	*Project Management*	*%*		*5*	*$162,860*
9.08	*Contingency*	*%*		*10*	*$342,010*
10.00	**TOTAL PERIODIC COSTS** *(through project closeout)*				**$3,762,070**

PROJECT COST SCHEDULE & PRESENT VALUE ANALYSIS

Item No.	DESCRIPTION	YEAR	PERIOD COST	CUMULATIVE COST	DISCOUNT FACTOR	PERIOD NET PRESENT VALUE
11.00	**Annual Cost**					
11.00	LTP Well Aband, System Decomm, GW Monitoring	0	$3,636,474	$3,636,474	1.000	$3,636,474
11.01	LTP Cover, GW Monitoring	1	$9,615,224	$13,251,698	0.887	$8,528,286
11.02	GW Monitoring	2	$1,669,084	$14,920,782	0.787	$1,313,055
11.03	GW Monitoring	3	$1,669,084	$16,589,866	0.698	$1,164,623
11.04	GW Monitoring	4	$1,669,084	$18,258,950	0.619	$1,032,970
11.05	GW Monitoring	5	$1,669,084	$19,928,034	0.549	$916,199
11.06	GW Monitoring	6	$1,669,084	$21,597,118	0.487	$812,629
11.07	GW Monitoring	7	$1,669,084	$23,266,202	0.432	$720,766
11.08	GW Monitoring	8	$1,669,084	$24,935,286	0.383	$639,288
11.09	GW Monitoring	9	$1,669,084	$26,604,370	0.340	$567,021
11.10	GW Monitoring	10	$1,669,084	$28,273,454	0.301	$502,923
11.11	GW Monitoring	11	$1,669,084	$29,942,538	0.267	$446,071
11.12	GW Monitoring	12	$1,669,084	$31,611,622	0.237	$395,645
11.13	GW Monitoring	13	$1,669,084	$33,280,706	0.210	$350,920
11.14	GW Monitoring	14	$1,669,084	$34,949,790	0.186	$311,251
11.15	GW Monitoring	15	$1,669,084	$36,618,874	0.165	$276,066
11.16	GW Monitoring	16	$1,669,084	$38,287,958	0.147	$244,859
11.17	GW Monitoring	17	$1,669,084	$39,957,042	0.130	$217,179
11.18	GW Monitoring	18	$1,669,084	$41,626,126	0.115	$192,628
11.19	GW Monitoring	19	$1,669,084	$43,295,210	0.102	$170,853
11.20	GW Monitoring	20	$1,669,084	$44,964,294	0.091	$151,539
11.21	GW Monitoring	21	$1,669,084	$46,633,378	0.081	$134,409
11.22	GW Monitoring	22	$1,669,084	$48,302,462	0.071	$119,215
11.23	GW Monitoring	23	$1,669,084	$49,971,546	0.063	$105,738
11.24	GW Monitoring	24	$1,669,084	$51,640,630	0.056	$93,785
11.25	GW Monitoring	25	$1,669,084	$53,309,714	0.050	$83,183
11.26	GW Monitoring	26	$1,669,084	$54,978,798	0.044	$73,780
11.27	GW Monitoring	27	$1,669,084	$56,647,882	0.039	$65,440
11.28	GW Monitoring	28	$1,669,084	$58,316,966	0.035	$58,042
11.29	GW Monitoring	29	$1,669,084	$59,986,050	0.031	$51,481
11.30	Well Aband/Closure	30	$5,262,070	$65,248,120	0.027	$143,955
TOTAL PROJECT COSTS			**$65,248,120**			**$23,520,273**

COST SUMMARIES	CURRENT DOLLAR	NPV
Costs through Year 10	$28,274,000	$19,835,000
Costs through Year 20	$44,965,000	$22,592,000
Costs through Year 30	$65,249,000	$23,521,000

Note: * Annual cost is shown and is multiplied by the number of years for inclusion in Total O&M Costs.

ALTERNATIVE 2					**COST ESTIMATE SUMMARY**
Groundwater Containment and Removal					**Appendix F - Sheet 2**

Site: HMC Grants Reclamation Project **Phase:** Groundwater Corrective Action F **Base Year:** 2020
Location Grants, NM **Date:** 12/11/2019 **Duration:** 30 Years

Description: Alternative 2 includes maintaining access and groundwater use restrictions in the form of ICs (environmental restrictive covenants, land use zoning or deed restrictions) and ECs (fencing) to limit Site access. Alternative 2 includes continued operation of the groundwater containment and removal systems for 24 years followed by monitored natural attenuation of the dissolved plumes that includes groundwater monitoring to Year 30. The above ground groundwater treatment systems would continue to operate for 24 years (through Year 23) based on the modeling simulation. Treatment flowrates, which vary with time, and costs are estimated from the flow rates used in the model simulation. Decommissioning of treatment systems and installation of the LTP engineered final cover would completed in Years 24 and 25. Long-term management of water recovered by the LTP toe drain system would be managed/treated in an existing evaporation pond.

CAPITAL COSTS (YEAR 0):

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
1.00	**TOTAL CAPITAL COST**				**$0**

O&M COSTS:

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
2.00	**Groundwater Containment and Removal System O&M (Years 0-23)**				**$10,117,800**
2.01	Groundwater Extraction & Injection System O&M	year	$365,000	24	$8,760,000
2.02	*Project Management*	%		*5*	*$438,000*
2.03	*Contingency*	%		*10*	*$919,800*
3.00	**RO Treatment System O&M (Years 0-23)**				**$74,705,400**
3.01	RO Treatment System O&M up to 900 GPM	year	$2,695,000	24	$64,680,000
3.02	*Project Management*	%		*5*	*$3,234,000*
3.03	*Contingency*	%		*10*	*$6,791,400*
4.00	**Zeolite Treatment System O&M (Years 0-5)**				**$7,387,380**
4.01	Zeolite Treatment System O&M up to 1200 GPM	year	$1,066,000	6	$6,396,000
4.02	*Project Management*	%		*5*	*$319,800*
4.03	*Contingency*	%		*10*	*$671,580*
5.00	**Zeolite Treatment System O&M (Years 6-7)**				**$1,933,470**
5.01	Zeolite Treatment System O&M up to 900 GPM	year	$837,000	2	$1,674,000
5.02	*Project Management*	%		*5*	*$83,700*
5.03	*Contingency*	%		*10*	*$175,770*
6.00	**Zeolite Treatment System O&M (Years 8-9)**				**$1,404,480**
6.01	Zeolite Treatment System O&M up to 600 GPM	year	$608,000	2	$1,216,000
6.02	*Project Management*	%		*5*	*$60,800*
6.03	*Contingency*	%		*10*	*$127,680*
7.00	**Zeolite Treatment System O&M (Years 10-11)**				**$877,800**
7.01	Zeolite Treatment System O&M up to 300 GPM	year	$380,000	2	$760,000
7.02	*Project Management*	%		*5*	*$38,000*
7.03	*Contingency*	%		*10*	*$79,800*
8.00	**Spray Evaporation Treatment System O&M (Years 0-7)**				**$7,955,640**
8.01	Spray Evaporation Treatment System O&M (100%)	year	$861,000	8	$6,888,000
8.02	*Project Management*	%		*5*	*$344,400*
8.03	*Contingency*	%		*10*	*$723,240*
9.00	**Spray Evaporation Treatment System O&M (Years 8-11)**				**$3,344,880**
9.01	Spray Evaporation Treatment System O&M (75%)	year	$724,000	4	$2,896,000
9.02	*Project Management*	%		*5*	*$144,800*
9.03	*Contingency*	%		*10*	*$304,080*
10.00	**Spray Evaporation Treatment System O&M (Years 12-23)**				**$8,135,820**
10.01	Spray Evaporation Treatment System O&M (50%)	year	$587,000	12	$7,044,000
10.02	*Project Management*	%		*5*	*$352,200*
10.03	*Contingency*	%		*10*	*$739,620*

ALTERNATIVE 2					COST ESTIMATE SUMMARY
Groundwater Containment and Removal					**Appendix F - Sheet 2**
11.00	**Groundwater Monitoring (Years 0-29)***				**$169,084** *
11.01	Sampling Monitoring Wells	EA	$500	101	$50,500
11.02	Groundwater Analytical	EA	$414	101	$41,814
11.03	Evaluation and Reporting	LS	$50,000	1	$50,000
11.03	*Project Management*	*%*		*8*	*$11,390*
11.04	*Contingency*	*%*		*10*	*$15,380*
12.00	**Facility Annual Operation (Years 0-23)**				**$85,200,000**
12.01	Site Staffing and Management (GW System Active)	year	$750,000	24	$18,000,000
12.02	Hydrology & Geochemical Consultants	year	$100,000	24	$2,400,000
12.03	RO Consulting Support	year	$100,000	24	$2,400,000
12.04	Electrical Maintenance Support	year	$500,000	24	$12,000,000
12.05	General Equipment Operation and Maintenance	year	$150,000	24	$3,600,000
12.06	Radiation Safety (Pre cap)	year	$500,000	24	$12,000,000
12.07	Radon/Air Particulate Monitoring	year	$200,000	24	$4,800,000
12.08	Impoundment Maintenance & Monitoring	year	$250,000	24	$6,000,000
12.09	Regulatory Reporting	year	$500,000	24	$12,000,000
12.10	NRC Fees	year	$500,000	24	$12,000,000
13.00	**Facility Annual Operation (Years 24-25)**				**$4,300,000**
13.01	Site Staffing and Management (GW System Inactive)	year	$200,000	2	$400,000
13.02	Radiation Safety (Pre cap)	year	$500,000	2	$1,000,000
13.03	Radon/Air Particulate Monitoring	year	$200,000	2	$400,000
13.04	Impoundment Maintenance & Monitoring	year	$250,000	2	$500,000
13.05	Regulatory Reporting	year	$500,000	2	$1,000,000
13.06	NRC Fees	year	$500,000	2	$1,000,000
14.00	**Facility Annual Operation (Years 26-30)**				**$7,500,000**
14.01	Site Staffing and Management (GW System Inactive)	year	$200,000	5	$1,000,000
14.02	Radiation Safety (Post cap)	year	$100,000	5	$500,000
14.03	Radon/Air Particulate Monitoring	year	$200,000	5	$1,000,000
14.04	Regulatory Reporting	year	$500,000	5	$2,500,000
14.05	NRC Fees	year	$500,000	5	$2,500,000
15.00	**TOTAL O&M COSTS** *(through project closeout)*				**$217,935,190**
PERIODIC COSTS:					
16.00	**Periodic Treatment System Capital**				**$34,000,000**
16.01	EP2 Re-lining (Year 5)	LS	$6,500,000	1	$6,500,000
16.02	EP3 Re-lining (Year 12)	LS	$6,500,000	1	$6,500,000
16.03	RO Expansion for Redundancy (Year 11)	LS	$16,000,000	1	$16,000,000
16.04	Zeolite Expansion/Improvements for Redundancy (Year 11)	LS	$5,000,000	1	$5,000,000
17.00	**LTP Well Abandonment (Year 24)**				**$820,080**
17.01	5" Tailings Well Abandonment	EA	$1,890	210	$396,900
17.02	2" Tailings Well Abandonment	EA	$1,260	130	$163,800
17.03	Perched Alluvial Well Abandonment	EA	$2,090	56	$117,040
17.04	*Project Management*	*%*		*10*	*$67,780*
17.05	*Contingency*	*%*		*10*	*$74,560*
18.00	**Treatment Systems Decommissioning (Year 24)**				**$497,310**
18.01	Demolition of zeolite treatment system	LS	$191,000	1	$191,000
18.02	Demolition of RO treatment system	LS	$220,000	1	$220,000
18.03	*Project Management*	*%*		*10*	*$41,100*
18.04	*Contingency*	*%*		*10*	*$45,210*
19.00	**LTP Cover (Year 25)**				**$7,296,140**
19.01	Installation of LTP Cover	LS	$6,317,000	1	$6,317,000
19.02	*Project Management*	*%*		*5*	*$315,850*
19.03	*Contingency*	*%*		*10*	*$663,290*

ALTERNATIVE 2					**COST ESTIMATE SUMMARY**
Groundwater Containment and Removal					**Appendix F - Sheet 2**
20.00	**Well Abandonment/Closure (Year 30)**				**$3,762,070**
20.01	Alluvial Well Abandonment	EA	$2,090	1,000	$2,090,000
20.02	U. Chinle Well Abandonment	EA	$2,600	32	$83,200
20.03	M. Chinle Well Abandonment	EA	$2,600	60	$156,000
20.04	L. Chinle Well Abandonment	EA	$2,600	30	$78,000
20.05	San Andres Well Abandonment	EA	$100,000	8	$800,000
20.06	Reporting	LS	$50,000	1	$50,000
20.06	*Project Management*	*%*		*5*	*$162,860*
20.07	*Contingency*	*%*		*10*	*$342,010*
21.00	**TOTAL PERIODIC COSTS** (*through project closeout*)				**$46,375,600**

PROJECT COST SCHEDULE & PRESENT VALUE ANALYSIS

Item No.	DESCRIPTION	YEAR	PERIOD COST	CUMULATIVE COST	DISCOUNT FACTOR	PERIOD NET PRESENT VALUE
22.00	**Annual Cost**					
22.00	GW System O&M, GW Monitoring	0	$9,479,069	$9,479,069	1.000	$9,479,069
22.01	GW System O&M, GW Monitoring	1	$9,479,069	$18,958,138	0.887	$8,407,522
22.02	GW System O&M, GW Monitoring	2	$9,479,069	$28,437,207	0.787	$7,457,107
22.03	GW System O&M, GW Monitoring	3	$9,479,069	$37,916,276	0.698	$6,614,129
22.04	GW System O&M, GW Monitoring	4	$9,479,069	$47,395,345	0.619	$5,866,445
22.05	GW System O&M, GW Monitoring	5	$15,979,069	$63,374,414	0.549	$8,771,283
22.06	GW System O&M, GW Monitoring	6	$9,214,574	$72,588,988	0.487	$4,486,310
22.07	GW System O&M, GW Monitoring	7	$9,214,574	$81,803,562	0.432	$3,979,162
22.08	GW System O&M, GW Monitoring	8	$8,791,844	$90,595,406	0.383	$3,367,430
22.09	GW System O&M, GW Monitoring	9	$8,791,844	$99,387,250	0.340	$2,986,764
22.10	GW System O&M, GW Monitoring	10	$8,528,504	$107,915,754	0.301	$2,569,781
22.11	GW System O&M, GW Monitoring	11	$29,528,504	$137,444,258	0.267	$7,891,637
22.12	GW System O&M, GW Monitoring	12	$14,431,369	$151,875,627	0.237	$3,420,862
22.13	GW System O&M, GW Monitoring	13	$7,931,369	$159,806,996	0.210	$1,667,548
22.14	GW System O&M, GW Monitoring	14	$7,931,369	$167,738,365	0.186	$1,479,043
22.15	GW System O&M, GW Monitoring	15	$7,931,369	$175,669,734	0.165	$1,311,847
22.16	GW System O&M, GW Monitoring	16	$7,931,369	$183,601,103	0.147	$1,163,551
22.17	GW System O&M, GW Monitoring	17	$7,931,369	$191,532,472	0.130	$1,032,019
22.18	GW System O&M, GW Monitoring	18	$7,931,369	$199,463,841	0.115	$915,356
22.19	GW System O&M, GW Monitoring	19	$7,931,369	$207,395,210	0.102	$811,881
22.20	GW System O&M, GW Monitoring	20	$7,931,369	$215,326,579	0.091	$720,103
22.21	GW System O&M, GW Monitoring	21	$7,931,369	$223,257,948	0.081	$638,700
22.22	GW System O&M, GW Monitoring	22	$7,931,369	$231,189,317	0.071	$566,499
22.23	GW System O&M, GW Monitoring	23	$7,931,369	$239,120,686	0.063	$502,460
22.24	LTP Well Aband, System Decomm, GW Monitoring	24	$3,636,474	$242,757,160	0.056	$204,332
22.25	LTP Cover, GW Monitoring	25	$9,615,224	$252,372,384	0.050	$479,201
22.26	GW Monitoring	26	$1,669,084	$254,041,468	0.044	$73,780
22.27	GW Monitoring	27	$1,669,084	$255,710,552	0.039	$65,440
22.28	GW Monitoring	28	$1,669,084	$257,379,636	0.035	$58,042
22.29	GW Monitoring	29	$1,669,084	$259,048,720	0.031	$51,481
22.30	Well Aband/Closure	30	$5,262,070	$264,310,790	0.027	$143,955
TOTAL PROJECT COSTS			**$264,310,790**			**$87,182,741**

COST SUMMARIES	**CURRENT DOLLAR**	**NPV**
Costs through Year 10	**$107,916,000**	**$63,986,000**
Costs through Year 20	**$215,327,000**	**$84,399,000**
Costs through Year 30	**$264,311,000**	**$87,183,000**

Note: * Annual cost is shown and is multiplied by the number of years for inclusion in Total O&M Costs.

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ALTERNATIVE 3 **COST ESTIMATE SUMMARY**

Groundwater Containment and Removal and In Situ Treatment **Appendix F - Sheet 3**

Site: HMC Grants Reclamation Project **Phase:** Groundwater Corrective Action **Base Year:** 2020
Location Grants, NM **Date:** 12/11/2019 **Duration:** 30 Years

Description: Alternative 3 includes maintaining access and groundwater use restrictions in the form of ICs (environmental restrictive covenants, land use zoning or deed restrictions) and ECs (fencing) to limit Site access. Alternative 3 includes continued operation of the groundwater containment and removal systems for 10 years (through Year 9) followed by installation of hydroxyapatite PRBs to treat and contain impacted groundwater. Two PRBs would be constructed to treat groundwater in the Alluvial Aquifer southwest of the LTP (2,400 feet long PRB) and groundwater at the bottom of the Alluvial and top of the Upper Chinle south of the LTP (1,500 feet long). The above ground groundwater treatment systems would continue to operate through Year 9. The engineered final cover would be installed on the LTP by Year 12. Expansion of the PRBs to add treatment residence time (PRB width) is assumed to occur during Year 25 and would be along 75% of the previously installed PRBs.

CAPITAL COSTS (YEAR 0):

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
1.00	**TOTAL CAPITAL COST**				**$0**

O&M COSTS:

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
2.00	**Groundwater Containment and Removal System O&M (Years 0-9)**				**$4,215,750**
2.01	Groundwater Extraction & Injection System O&M	year	$365,000	10	$3,650,000
2.02	*Project Management*	%		*5*	*$182,500*
2.03	*Contingency*	%		*10*	*$383,250*
3.00	**RO Treatment System O&M (Years 0-9)**				**$31,127,250**
3.01	RO Treatment System O&M up to 900 GPM	year	$2,695,000	10	$26,950,000
3.02	*Project Management*	%		*5*	*$1,347,500*
3.03	*Contingency*	%		*10*	*$2,829,750*
4.00	**Zeolite Treatment System O&M (Years 0-5)**				**$7,387,380**
4.01	Zeolite Treatment System O&M up to 1200 GPM	year	$1,066,000	6	$6,396,000
4.02	*Project Management*	%		*5*	*$319,800*
4.03	*Contingency*	%		*10*	*$671,580*
5.00	**Zeolite Treatment System O&M (Years 6-7)**				**$1,933,470**
5.01	Zeolite Treatment System O&M up to 900 GPM	year	$837,000	2	$1,674,000
5.02	*Project Management*	%		*5*	*$83,700*
5.03	*Contingency*	%		*10*	*$175,770*
6.00	**Zeolite Treatment System O&M (Years 8-9)**				**$1,404,480**
6.01	Zeolite Treatment System O&M up to 600 GPM	year	$608,000	2	$1,216,000
6.02	*Project Management*	%		*5*	*$60,800*
6.03	*Contingency*	%		*10*	*$127,680*
7.00	**Spray Evaporation Treatment System O&M (Years 0-7)**				**$7,955,640**
7.01	Spray Evaporation Treatment System O&M (100%)	year	$861,000	8	$6,888,000
7.02	*Project Management*	%		*5*	*$344,400*
7.03	*Contingency*	%		*10*	*$723,240*
8.00	**Spray Evaporation Treatment System O&M (Years 8-9)**				**$1,672,440**
8.01	Spray Evaporation Treatment System O&M (75%)	year	$724,000	2	$1,448,000
8.02	*Project Management*	%		*5*	*$72,400*
8.03	*Contingency*	%		*10*	*$152,040*
9.00	**PRB Performance Monitoring (Years 12-13)***				**$276,580** *
9.01	Sampling Monitoring Wells	EA	$500	200	$100,000
9.02	Groundwater Analytical	EA	$414	200	$82,800
9.03	Evaluation and Reporting	LS	$50,000	1	$50,000
9.03	*Project Management*	%		*8*	*$18,630*
9.04	*Contingency*	%		*10*	*$25,150*
10.00	**PRB Performance Monitoring (Years 14-18)***				**$168,000** *
10.01	Sampling Monitoring Wells	EA	$500	100	$50,000
10.02	Groundwater Analytical	EA	$414	100	$41,400
10.03	Evaluation and Reporting	LS	$50,000	1	$50,000
10.03	*Project Management*	%		*8*	*$11,320*
10.04	*Contingency*	%		*10*	*$15,280*

ALTERNATIVE 3					COST ESTIMATE SUMMARY
Groundwater Containment and Removal and In Situ Treatment					**Appendix F - Sheet 3**
11.00	**PRB Performance Monitoring (Years 19-29)***				**$113,700 ***
11.01	Sampling Monitoring Wells	EA	$500	50	$25,000
11.02	Groundwater Analytical	EA	$414	50	$20,700
11.03	Evaluation and Reporting	LS	$50,000	1	$50,000
11.03	*Project Management*	*%*		*8*	*$7,660*
11.04	*Contingency*	*%*		*10*	*$10,340*
12.00	**Groundwater Monitoring (Years 0-29)***				**$169,084 ***
12.01	Sampling Monitoring Wells	EA	$500	101	$50,500
12.02	Groundwater Analytical	EA	$414	101	$41,814
12.03	Evaluation and Reporting	LS	$50,000	1	$50,000
12.03	*Project Management*	*%*		*8*	*$11,390*
12.04	*Contingency*	*%*		*10*	*$15,380*
13.00	**Facility Annual Operation (Years 0-9)**				**$35,500,000**
13.01	Site Staffing and Management (GW System Active)	year	$750,000	10	$7,500,000
13.02	Hydrology & Geochemical Consultants	year	$100,000	10	$1,000,000
13.03	RO Consulting Support	year	$100,000	10	$1,000,000
13.04	Electrical Maintenance Support	year	$500,000	10	$5,000,000
13.05	General Equipment Operation and Maintenance	year	$150,000	10	$1,500,000
13.06	Radiation Safety (Pre cap)	year	$500,000	10	$5,000,000
13.07	Radon/Air Particulate Monitoring	year	$200,000	10	$2,000,000
13.08	Impoundment Maintenance & Monitoring	year	$250,000	10	$2,500,000
13.09	Regulatory Reporting	year	$500,000	10	$5,000,000
13.10	NRC Fees	year	$500,000	10	$5,000,000
14.00	**Facility Annual Operation (Years 10-11)**				**$4,300,000**
14.01	Site Staffing and Management (GW System Inactive)	year	$200,000	2	$400,000
14.02	Radiation Safety (Pre cap)	year	$500,000	2	$1,000,000
14.03	Radon/Air Particulate Monitoring	year	$200,000	2	$400,000
14.04	Impoundment Maintenance & Monitoring	year	$250,000	2	$500,000
14.05	Regulatory Reporting	year	$500,000	2	$1,000,000
14.06	NRC Fees	year	$500,000	2	$1,000,000
15.00	**Facility Annual Operation (Years 12-30)**				**$28,500,000**
15.01	Site Staffing and Management (GW System Inactive)	year	$200,000	19	$3,800,000
15.02	Radiation Safety (Post cap)	year	$100,000	19	$1,900,000
15.03	Radon/Air Particulate Monitoring	year	$200,000	19	$3,800,000
15.04	Regulatory Reporting	year	$500,000	19	$9,500,000
15.05	NRC Fees	year	$500,000	19	$9,500,000
16.00	**TOTAL O&M COSTS** *(through project closeout)*				**$131,712,790**
PERIODIC COSTS:					
17.00	**Periodic Treatment System Capital**				**$6,500,000**
17.01	EP2 Re-lining (Year 5)	LS	$6,500,000	1	$6,500,000
18.00	**LTP Well Abandonment (Year 10)**				**$857,350**
18.01	5" Tailings Well Abandonment	EA	$1,890	210	$396,900
18.02	2" Tailings Well Abandonment	EA	$1,260	130	$163,800
18.03	Perched Alluvial Well Abandonment	EA	$2,090	56	$117,040
18.04	*Project Management*	*%*		*10*	*$67,780*
18.05	*Contingency*	*%*		*15*	*$111,830*
19.00	**Treatment Systems Decommissioning (Year 10)**				**$497,310**
19.01	Installation of LTP Cover	LS	$191,000	1	$191,000
19.02	Demolition of zeolite treatment system	LS	$220,000	1	$220,000
19.03	*Project Management*	*%*		*10*	*$41,100*
19.04	*Contingency*	*%*		*10*	*$45,210*

ALTERNATIVE 3					COST ESTIMATE SUMMARY
Groundwater Containment and Removal and In Situ Treatment					**Appendix F - Sheet 3**
20.00	**PRB - Remedial Investigaion & Design (Year 10)**				**$311,850**
20.01	Work Plan & Implementation - Labor	LS	$50,000	1	$50,000
20.02	Drilling & Sample Collection (Soil and GW)	LS	$45,000	1	$45,000
20.03	Laboratory Analysis of Soil and GW	LS	$10,000	1	$10,000
20.04	Remedial Design Reports/Work Plans	LS	$165,000	1	$165,000
20.05	*Project Management*	*%*		*5*	*$13,500*
20.06	*Contingency*	*%*		*10*	*$28,350*
21.00	**PRB - Installation (Year 11)**				**$5,441,610**
21.01	Install/Develop/Sample Injection Wells - Alluvial	EA	$7,900	110	$869,000
21.02	Install/Develop/Sample Injection Wells - U. Chinle	EA	$9,100	60	$546,000
21.03	Install/Develop/Sample Monitoring Wells - Alluvial	EA	$7,900	30	$237,000
21.04	Install/Develop/Sample Monitoring Wells - U. Chinle	EA	$9,100	20	$182,000
21.05	Laboratory Analysis of Soil and GW	LS	$50,000	1	$50,000
21.06	Apatite Chemicals	EA	$5,000	195	$975,000
21.07	Mob/Demob - Apatite Solution Injection Equipment	LS	$40,000	1	$40,000
21.08	Apatite Solution Injection	EA	$3,500	195	$682,500
21.09	Drilling & Injection Oversight	LS	$200,000	1	$200,000
21.10	Mob/Demob - Post Injection Confirmation Sampling	LS	$25,000	1	$25,000
21.11	Post Injection Confirmation Sampling	EA	$5,000	40	$200,000
21.12	Post Injection Confirmation - Laboratory Analysis	LS	$75,000	1	$75,000
21.13	Post Injection Confirmation Sampling Oversight	LS	$40,000	1	$40,000
21.14	Other Direct Costs (Per Diem, Equipment, Supplies, Travel)	LS	$265,000	1	$265,000
21.15	Techncial Support, Data Analysis & Validation, Design Repo	LS	$120,000	1	$120,000
21.16	*Project Management*	*%*		*5*	*$225,330*
21.17	*Contingency*	*%*		*15*	*$709,780*
22.00	**LTP Cover (Year 11)**				**$7,296,140**
22.01	Installation of LTP Cover	LS	$6,317,000	1	$6,317,000
22.02	*Project Management*	*%*		*5*	*$315,850*
22.03	*Contingency*	*%*		*10*	*$663,290*
23.00	**PRB - Installation (Year 25)**				**$4,426,100**
23.01	Install/Develop/Sample Injection Wells - Alluvial	EA	$7,900	90	$711,000
23.02	Install/Develop/Sample Injection Wells - U. Chinle	EA	$9,100	50	$455,000
23.03	Install/Develop/Sample Monitoring Wells - Alluvial	EA	$7,900	20	$158,000
23.04	Install/Develop/Sample Monitoring Wells - U. Chinle	EA	$9,100	15	$136,500
23.05	Laboratory Analysis of Soil and GW	LS	$50,000	1	$50,000
23.06	Apatite Chemicals	EA	$5,000	140	$700,000
23.07	Mob/Demob - Apatite Solution Injection Equipment	LS	$40,000	1	$40,000
23.08	Apatite Solution Injection	EA	$3,500	140	$490,000
23.09	Drilling & Injection Oversight	LS	$200,000	1	$200,000
23.10	Mob/Demob - Post Injection Confirmation Sampling	LS	$25,000	1	$25,000
23.11	Post Injection Confirmation Sampling	EA	$5,000	40	$200,000
23.12	Post Injection Confirmation - Laboratory Analysis	LS	$75,000	1	$75,000
23.13	Post Injection Confirmation Sampling Oversight	LS	$40,000	1	$40,000
23.14	Other Direct Costs (Per Diem, Equipment, Supplies, Travel)	LS	$265,000	1	$265,000
23.15	Techncial Support, Data Analysis & Validation, Design Repo	LS	$120,000	1	$120,000
23.16	*Project Management*	*%*		*5*	*$183,280*
23.17	*Contingency*	*%*		*15*	*$577,320*
24.00	**Well Abandonment/Closure (Year 30)**				**$4,801,000**
24.01	Alluvial Well Abandonment	EA	$2,090	1,250	$2,612,500
24.02	U. Chinle Well Abandonment	EA	$2,600	177	$460,200
24.03	M. Chinle Well Abandonment	EA	$2,600	60	$156,000
24.04	L. Chinle Well Abandonment	EA	$2,600	30	$78,000
24.05	San Andres Well Abandonment	EA	$100,000	8	$800,000
24.06	Reporting	LS	$50,000	1	$50,000
24.06	*Project Management*	*%*		*5*	*$207,840*
24.07	*Contingency*	*%*		*10*	*$436,460*
25.00	**TOTAL PERIODIC COSTS** *(through project closeout)*				**$30,131,360**

ALTERNATIVE 3						**COST ESTIMATE SUMMARY**
Groundwater Containment and Removal and In Situ Treatment						**Appendix F - Sheet 3**

PROJECT COST SCHEDULE & PRESENT VALUE ANALYSIS

Item No.	DESCRIPTION	YEAR	PERIOD COST	CUMULATIVE COST	DISCOUNT FACTOR	PERIOD NET PRESENT VALUE
26.00	**Annual Cost**					
26.00	GW System O&M, GW Monitoring	0	$9,479,069	$9,479,069	1.000	$9,479,069
26.01	GW System O&M, GW Monitoring	1	$9,479,069	$18,958,138	0.887	$8,407,522
26.02	GW System O&M, GW Monitoring	2	$9,479,069	$28,437,207	0.787	$7,457,107
26.03	GW System O&M, GW Monitoring	3	$9,479,069	$37,916,276	0.698	$6,614,129
26.04	GW System O&M, GW Monitoring	4	$9,479,069	$47,395,345	0.619	$5,866,445
26.05	GW System O&M, GW Monitoring	5	$15,979,069	$63,374,414	0.549	$8,771,283
26.06	GW System O&M, GW Monitoring	6	$9,214,574	$72,588,988	0.487	$4,486,310
26.07	GW System O&M, GW Monitoring	7	$9,214,574	$81,803,562	0.432	$3,979,162
26.08	GW System O&M, GW Monitoring	8	$8,791,844	$90,595,406	0.383	$3,367,430
26.09	GW System O&M, GW Monitoring	9	$8,791,844	$99,387,250	0.340	$2,986,764
26.10	PRB Inv/Design, LTP Well Aband, System Decomm, GW Monitoring	10	$3,985,594	$103,372,844	0.301	$1,200,926
26.11	PRB Install, LTP Cover, GW Monitoring	11	$15,056,834	$118,429,678	0.267	$4,024,012
26.12	PRB & GW Monitoring	12	$1,945,664	$120,375,342	0.237	$461,207
26.13	PRB & GW Monitoring	13	$1,945,664	$122,321,006	0.210	$409,070
26.14	PRB & GW Monitoring	14	$1,837,084	$124,158,090	0.186	$342,580
26.15	PRB & GW Monitoring	15	$1,837,084	$125,995,174	0.165	$303,853
26.16	PRB & GW Monitoring	16	$1,837,084	$127,832,258	0.147	$269,505
26.17	PRB & GW Monitoring	17	$1,837,084	$129,669,342	0.130	$239,039
26.18	PRB & GW Monitoring	18	$1,837,084	$131,506,426	0.115	$212,017
26.19	PRB & GW Monitoring	19	$1,782,784	$133,289,210	0.102	$182,492
26.20	PRB & GW Monitoring	20	$1,782,784	$135,071,994	0.091	$161,862
26.21	PRB & GW Monitoring	21	$1,782,784	$136,854,778	0.081	$143,565
26.22	PRB & GW Monitoring	22	$1,782,784	$138,637,562	0.071	$127,336
26.23	PRB & GW Monitoring	23	$1,782,784	$140,420,346	0.063	$112,941
26.24	PRB & GW Monitoring	24	$1,782,784	$142,203,130	0.056	$100,174
26.25	PRB & GW Monitoring	25	$6,208,884	$148,412,014	0.050	$309,437
26.26	PRB & GW Monitoring	26	$1,782,784	$150,194,798	0.044	$78,806
26.27	PRB & GW Monitoring	27	$1,782,784	$151,977,582	0.039	$69,898
26.28	PRB & GW Monitoring	28	$1,782,784	$153,760,366	0.035	$61,996
26.29	PRB & GW Monitoring	29	$1,782,784	$155,543,150	0.031	$54,988
26.30	Well Aband/Closure	30	$6,301,000	$161,844,150	0.027	$172,377
TOTAL PROJECT COSTS			**$161,844,150**			**$70,453,301**

COST SUMMARIES	**CURRENT DOLLAR**	**NPV**
Costs through Year 10	**$103,373,000**	**$62,617,000**
Costs through Year 20	**$135,072,000**	**$69,222,000**
Costs through Year 30	**$161,845,000**	**$70,454,000**

Note: * Annual cost is shown and is multiplied by the number of years for inclusion in Total O&M Costs.

SUMMARY OF ESTIMATED COSTS

COST ESTIMATE SUMMARY

Comparison by Remedial Alternative

Appendix F - Sheet 4

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: Groundwater Corrective Action Plan
Base Year 2020
For: 30 Years
Date: 12/11/2019

Alternative Descriptions:
1) No Action - Natural Attenuation
2) Groundwater Containment and Removal
3) Groundwater Containment and Removal and In Situ Treatment

PROJECT COST SCHEDULE & PRESENT VALUE ANALYSIS

YEAR	DISCOUNT FACTOR	PERIOD CURRENT COSTS BY ALTERNATIVE			CUMULATIVE NPV BY ALTERNATIVE		
		1	2	3	1	2	3
0	1.000	$3,636,474	$9,479,069	$9,479,069	$3,636,474	$9,479,069	$9,479,069
1	0.887	$9,615,224	$9,479,069	$9,479,069	$12,164,760	$17,886,591	$17,886,591
2	0.787	$1,669,084	$9,479,069	$9,479,069	$13,477,814	$25,343,698	$25,343,698
3	0.698	$1,669,084	$9,479,069	$9,479,069	$14,642,437	$31,957,827	$31,957,827
4	0.619	$1,669,084	$9,479,069	$9,479,069	$15,675,407	$37,824,272	$37,824,272
5	0.549	$1,669,084	$15,979,069	$15,979,069	$16,591,606	$46,595,555	$46,595,555
6	0.487	$1,669,084	$9,214,574	$9,214,574	$17,404,234	$51,081,865	$51,081,865
7	0.432	$1,669,084	$9,214,574	$9,214,574	$18,125,001	$55,061,026	$55,061,026
8	0.383	$1,669,084	$8,791,844	$8,791,844	$18,764,289	$58,428,457	$58,428,457
9	0.340	$1,669,084	$8,791,844	$8,791,844	$19,331,310	$61,415,221	$61,415,221
10	0.301	$1,669,084	$8,528,504	$3,985,594	$19,834,233	$63,985,002	$62,616,147
11	0.267	$1,669,084	$29,528,504	$15,056,834	$20,280,304	$71,876,639	$66,640,160
12	0.237	$1,669,084	$14,431,369	$1,945,664	$20,675,950	$75,297,501	$67,101,367
13	0.210	$1,669,084	$7,931,369	$1,945,664	$21,026,870	$76,965,049	$67,510,437
14	0.186	$1,669,084	$7,931,369	$1,837,084	$21,338,121	$78,444,092	$67,853,017
15	0.165	$1,669,084	$7,931,369	$1,837,084	$21,614,187	$79,755,939	$68,156,870
16	0.147	$1,669,084	$7,931,369	$1,837,084	$21,859,046	$80,919,490	$68,426,375
17	0.130	$1,669,084	$7,931,369	$1,837,084	$22,076,225	$81,951,510	$68,665,414
18	0.115	$1,669,084	$7,931,369	$1,837,084	$22,268,853	$82,866,866	$68,877,431
19	0.102	$1,669,084	$7,931,369	$1,782,784	$22,439,706	$83,678,747	$69,059,923
20	0.091	$1,669,084	$7,931,369	$1,782,784	$22,591,245	$84,398,850	$69,221,785
21	0.081	$1,669,084	$7,931,369	$1,782,784	$22,725,654	$85,037,550	$69,365,350
22	0.071	$1,669,084	$7,931,369	$1,782,784	$22,844,868	$85,604,050	$69,492,685
23	0.063	$1,669,084	$7,931,369	$1,782,784	$22,950,607	$86,106,510	$69,605,626
24	0.056	$1,669,084	$3,636,474	$1,782,784	$23,044,392	$86,310,842	$69,705,800
25	0.050	$1,669,084	$9,615,224	$6,208,884	$23,127,575	$86,790,043	$70,015,237
26	0.044	$1,669,084	$1,669,084	$1,782,784	$23,201,355	$86,863,823	$70,094,043
27	0.039	$1,669,084	$1,669,084	$1,782,784	$23,266,795	$86,929,263	$70,163,941
28	0.035	$1,669,084	$1,669,084	$1,782,784	$23,324,837	$86,987,305	$70,225,937
29	0.031	$1,669,084	$1,669,084	$1,782,784	$23,376,318	$87,038,786	$70,280,924
30	0.027	$5,262,070	$5,262,070	$6,301,000	$23,520,273	$87,182,741	$70,453,301
Total	-	$65,248,120	$264,310,790	$161,844,150	$23,520,273	$87,182,741	$70,453,301