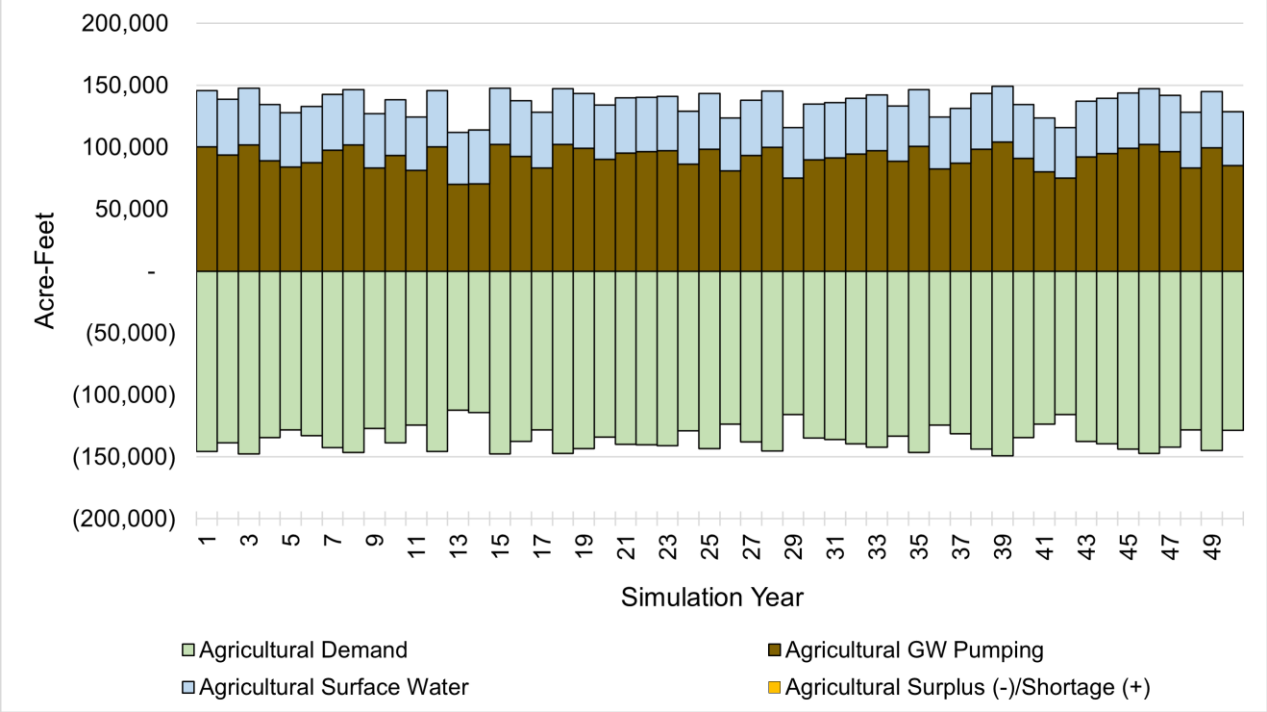


Figure 5-23: Annual Agricultural Water Demand and Supply – South American Subbasin, Projected Conditions Baseline

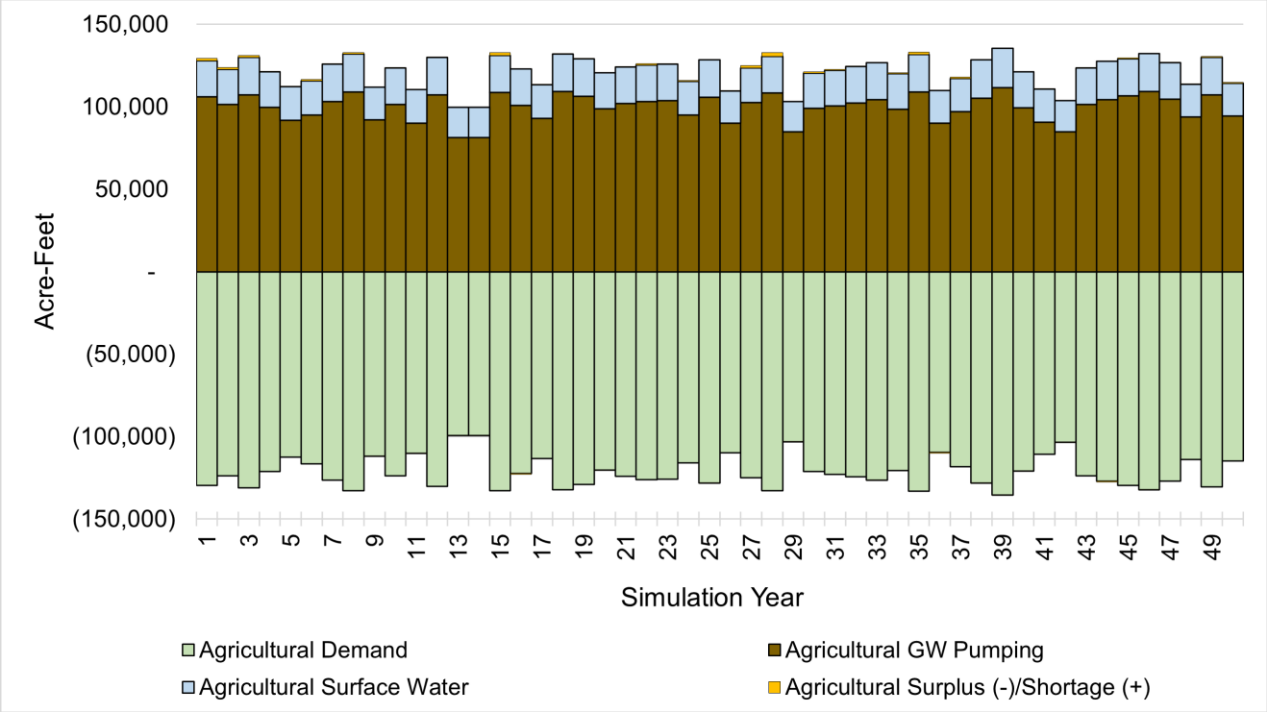


Figure 5-24: Annual Agricultural Water Demand and Supply – Cosumnes Subbasin, Projected Conditions Baseline

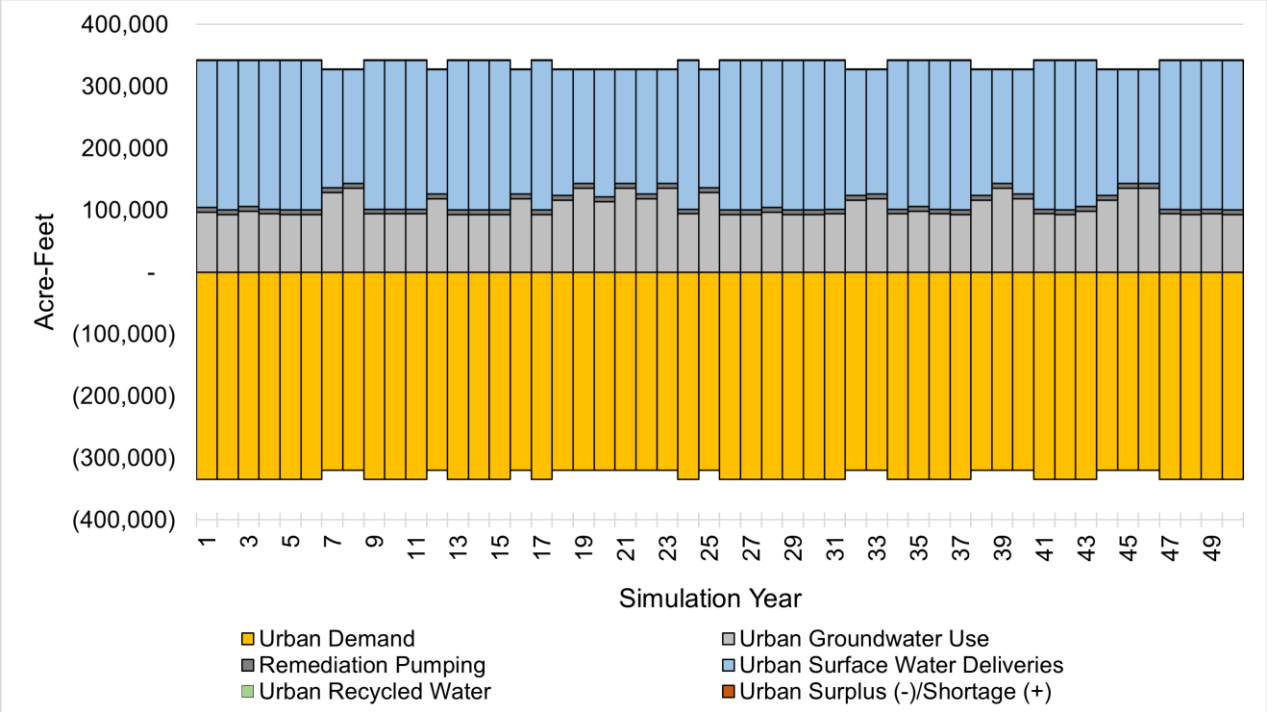


Figure 5-25: Annual Urban Water Demand and Supply – North American Subbasin, Projected Conditions Baseline

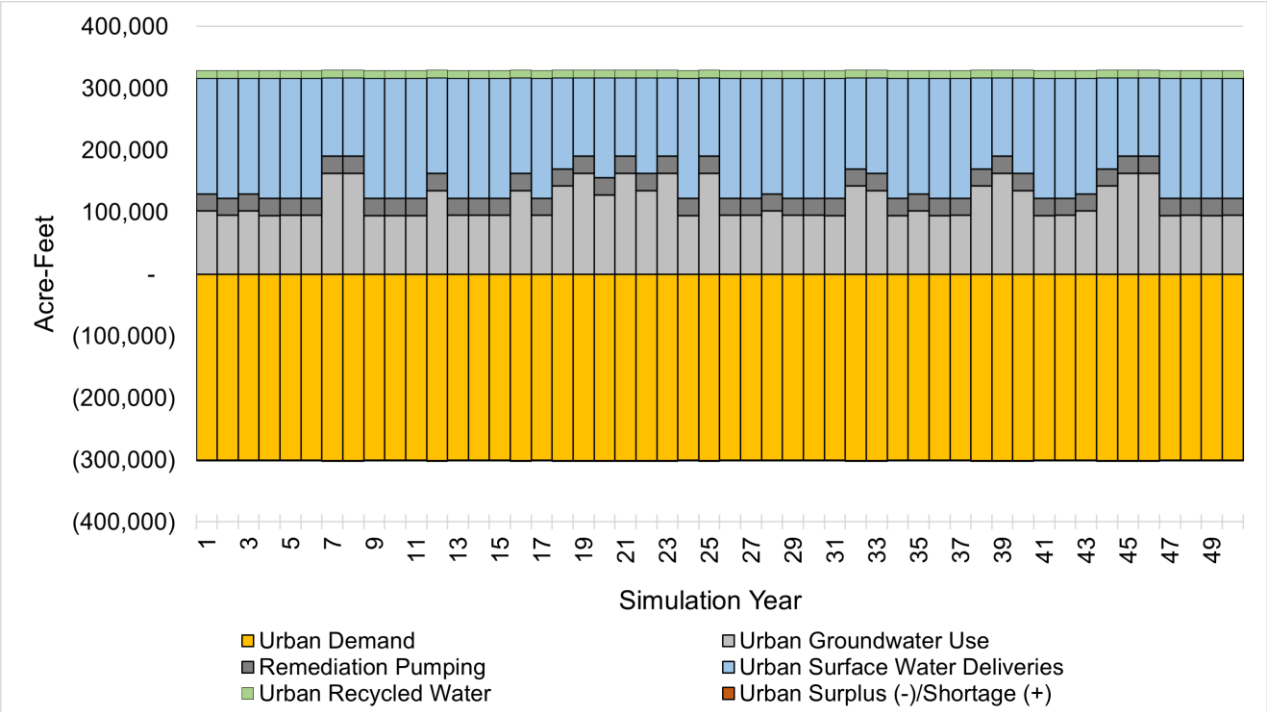
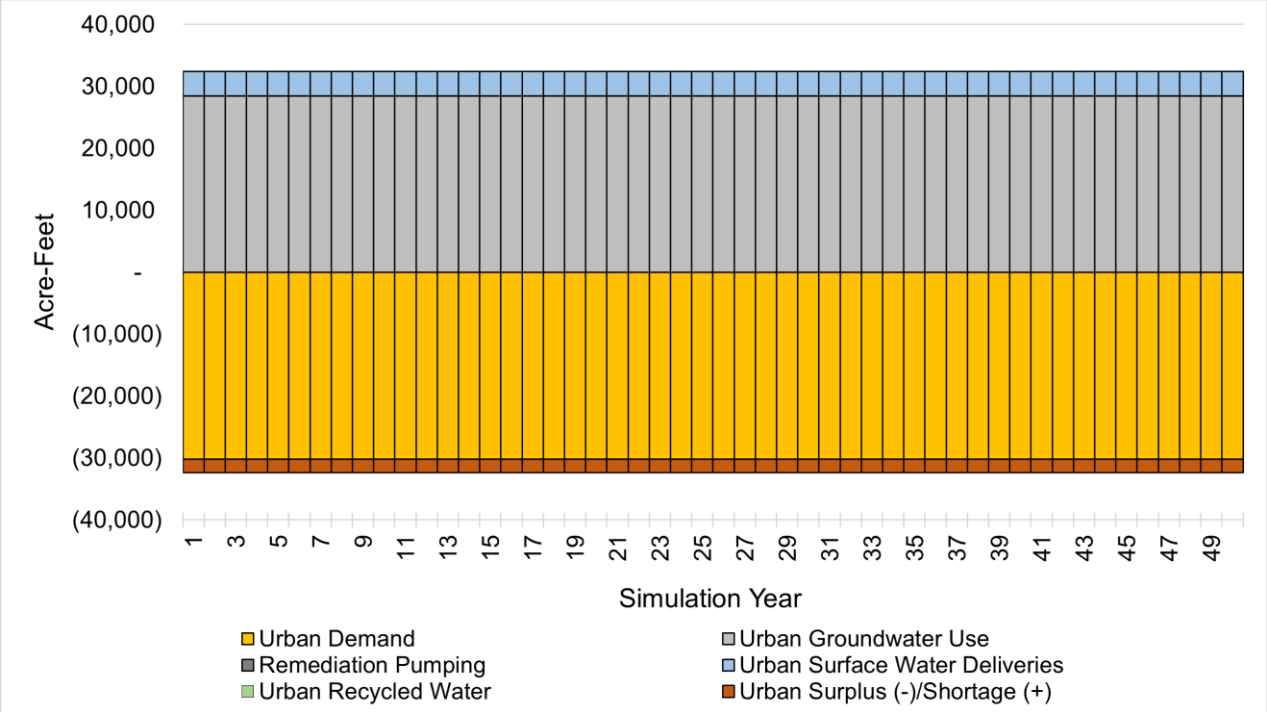


Figure 5-26: Annual Urban Water Demand and Supply – South American Subbasin, Projected Conditions Baseline



Note: Urban groundwater use is specified in the CoSb model input data set. The model-calculated surplus/shortage in urban demand is therefore not utilized to calculate the CoSb groundwater budget.

Figure 5-27: Annual Urban Water Demand and Supply – Cosumnes Subbasin, Projected Conditions Baseline

5.2.6.2 Groundwater Budget

The groundwater budget summarizes all inflows and outflows to the groundwater aquifer system. Average annual PCBL model results by groundwater subbasin are shown in Table 5-6. Annual groundwater budgets with cumulative change in storage by subbasin are shown in Figure 5-28 through Figure 5-30. Appendix I includes model subregion groundwater budgets. Appendix J includes a set of sample hydrographs for the baseline models.

Table 5-6: PCBL Average Annual Groundwater Budget

Subbasin	Pumping (AFY)	Deep Percolation (AFY)	Gain from Stream (AFY)	Recharge from Canals (AFY)	Boundary Flows (AFY)	Subsurface Inflow (AFY)	Change in Storage (AFY)
NASb	323,167	167,424	107,950	16,376	30,140	6,710	5,390
SASb	234,003	121,313	105,665	26	4,886	986	-1,128
CoSb	128,332	107,977	16,494	0	1,536	1,030	-1,293
Total	**685,501**	**396,714**	**230,109**	**16,402**	**36,561**	**8,726**	**2,969**

Note: Boundary Flows term includes flow between areas outside of the CoSANA model domain and baseflow from small watersheds. Subsurface Inflows includes flow between the simulated subbasins in CoSANA and areas outside of Bulletin 118 subbasins.

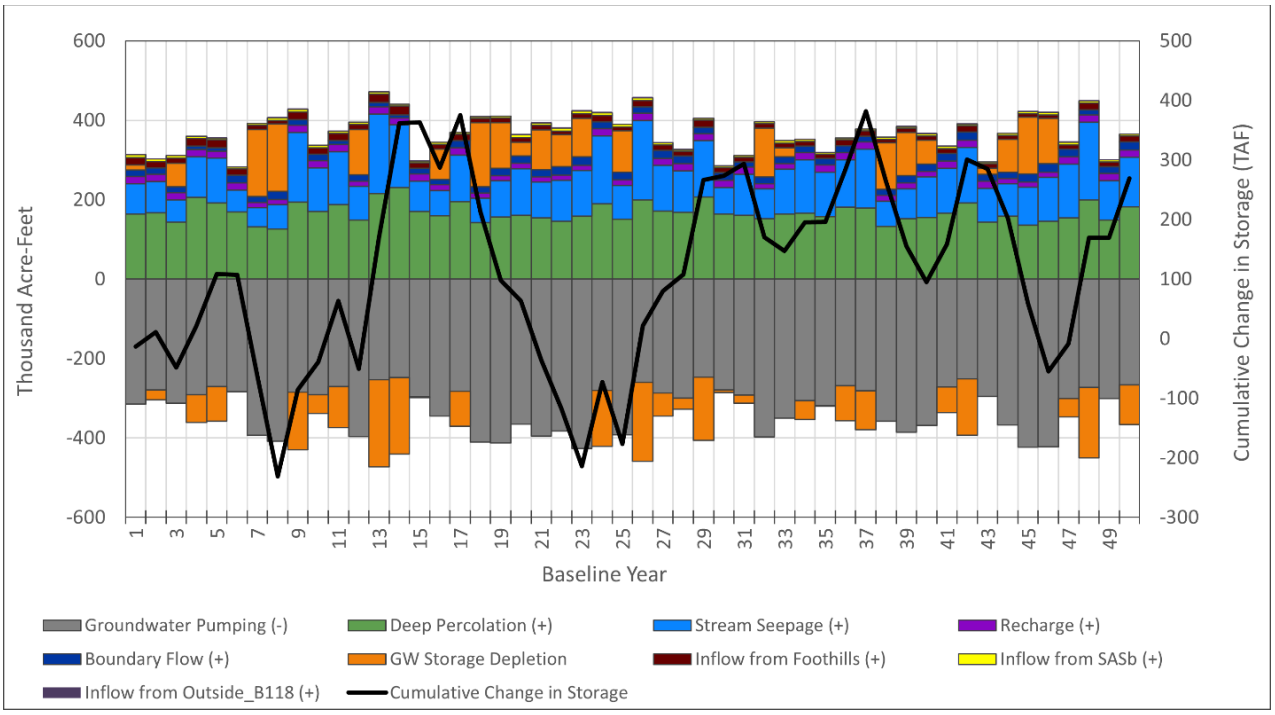


Figure 5-28: Annual Groundwater Budget and Cumulative Change in Storage – North American Subbasin, Projected Conditions Baseline

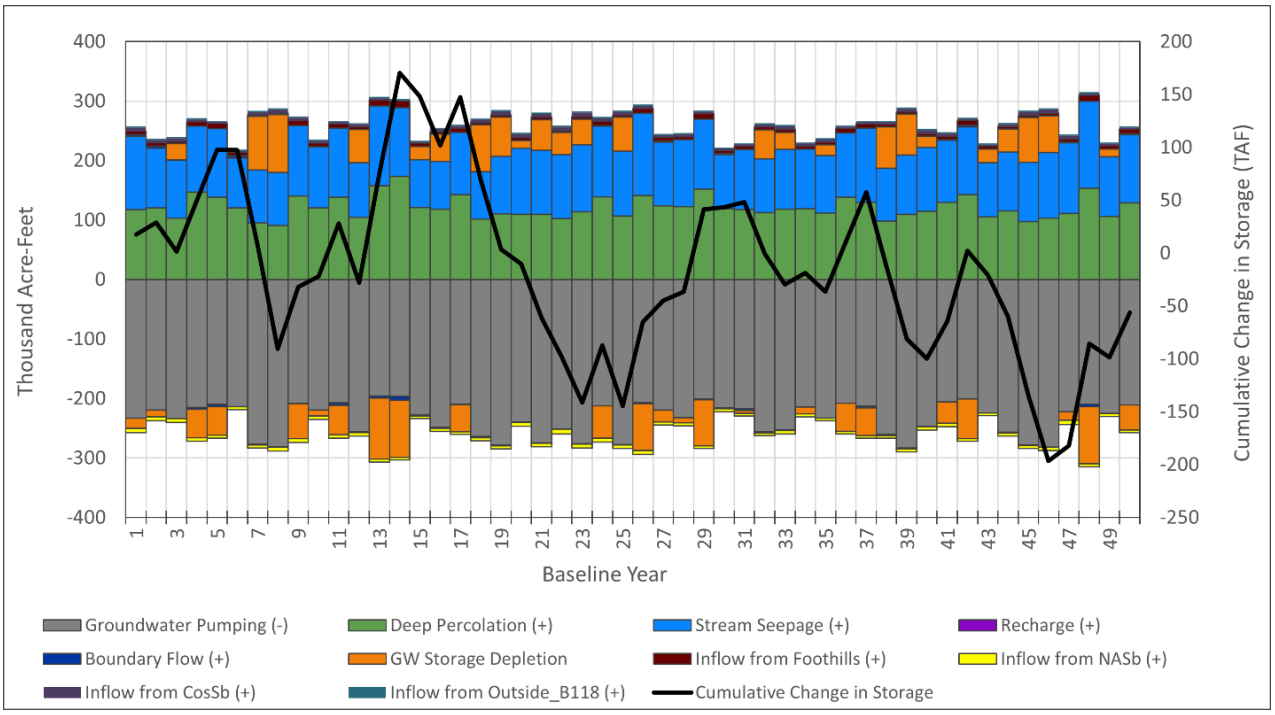


Figure 5-29: Annual Groundwater Budget and Cumulative Change in Storage – South American Subbasin, Projected Conditions Baseline

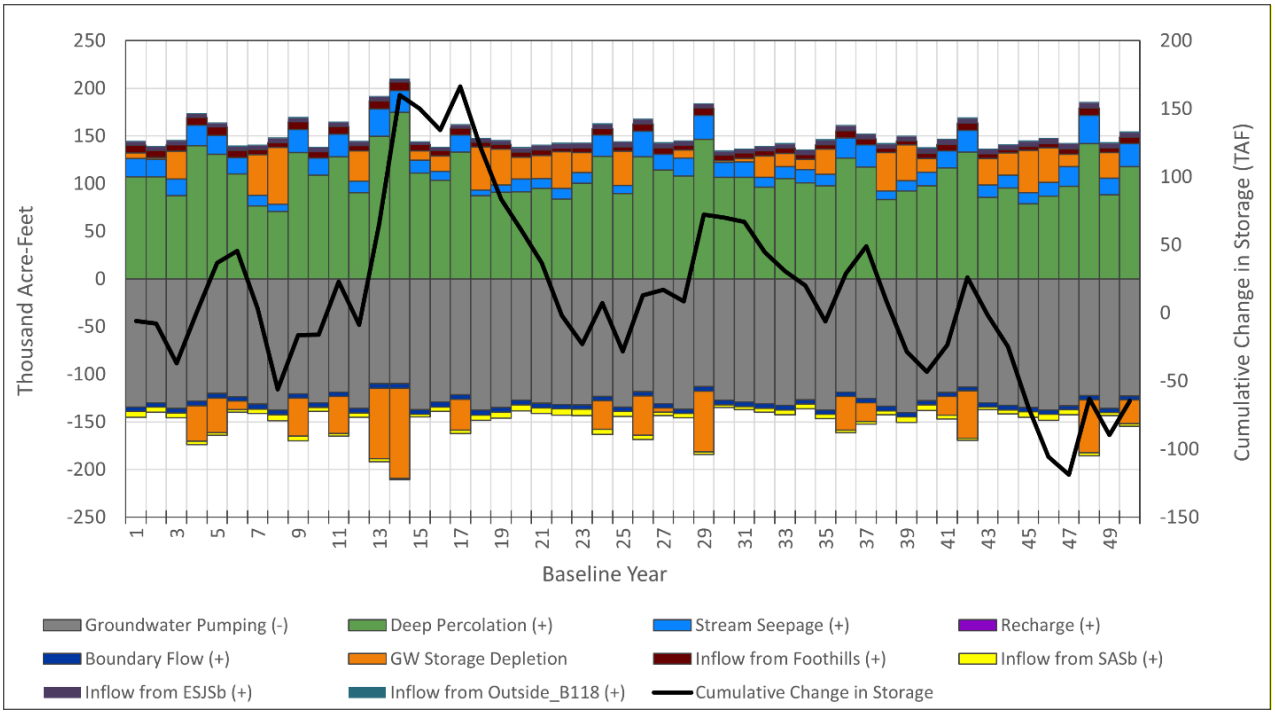


Figure 5-30: Annual Groundwater Budget and Cumulative Change in Storage – Cosumnes Subbasin, Projected Conditions Baseline

5.3 Projected Conditions Baseline with Climate Change

The CoSANA Projected Conditions Baseline with Climate Change (PCBL with Climate Change) shares many of the same inputs as the PCBL, but with additional factors to incorporate potential climate change conditions. These conditions affect the hydrologic cycle as changes in precipitation and temperature. In the CoSANA model files, the change in precipitation is incorporated by the precipitation rate and stream inflow inputs while the change in temperature is reflected by the change in evapotranspiration rate and stream inflow inputs. Changes in water use are incorporated by estimation of agricultural water demands within CoSANA based on changes in precipitation and evapotranspiration. Urban water use is assumed to remain unchanged, based on assumed changes in conservation and landscape choices.

5.3.1 Hydrologic Period

The hydrologic period used for the projected conditions baseline with climate change is the same as the projected conditions baseline (WY 1970 to 2019), modified according to the methodology explained below to incorporate climate change conditions.

5.3.1.1 Methodology

In order to incorporate climate change conditions, precipitation, stream inflow, and evapotranspiration time series data from the projected conditions baseline are modified using the findings from the American River Basin Study (ARBS; Reclamation, in press). ARBS aims to examine the water management challenges around the American River Basin under recent changes in conditions, regulatory requirements, and the science of climate change. Towards this goal, ARBS provides regional climate change data with improved resolution that can be used with other modeling and planning studies.

ARBS used 64 downscaled climate projections with 1/16-degree grid resolution from 32 global climate models under RCP4.5 and RCP8.5 emissions scenarios. These 64 scenarios are then evaluated for three future periods (2040-2069, 2055-2084, and 2070-2099) and grouped into five climate scenarios based on percentiles of projected changes to simulate possible temperature and precipitation effects: Warm-Wet, Warm-Dry, Hot-Wet, Hot-Dry, and Central-Tendency.

The ensemble of climate models used in the study found clear trends with projected temperature changes. Precipitation trends were not found to be as consistent with around half of the projections indicating an increase in precipitation, and the other half indicating a decrease in precipitation.

Upon evaluation of these climate scenarios, the Central Tendency scenario for the 2055-2084 period, also commonly called as 2070CT conditions, was selected for groundwater sustainability planning because it was determined that it has the highest probability and likelihood to be experienced. Other climate scenarios are subject to significantly more uncertainty and less likely to occur. Additionally, to assess uncertainty and the effects of a possible extreme condition, the 2055-2084 Hot-Dry (2070HD) scenario was also simulated, with results presented in Section 5.3.7.

In ARBS, the downscaled climate variables of the scenarios were then used with the Variable Infiltration Capacity (VIC) hydrology model to simulate hydrologic conditions at the land surface. VIC uses a spatial grid that covers the entire CoSANA model domain. This grid was used to resample the precipitation time series from 2070CT and 2070HD conditions to the CoSANA model grid and for the small watersheds using area weighted averaging.

ARBS uses the outputs from the VIC model to develop corresponding inputs to the operations model CalSim 3.0 that covers the entire Sacramento and San Joaquin River Basins. One of those inputs is the evapotranspiration rates for each crop type. For the PCBL with Climate Change scenarios in CoSANA, evapotranspiration time series input from the PCBL were perturbed with the perturbation factors calculated between the 2070CT and 2070HD climate change scenarios and the 2015 baseline scenario for each crop type averaged across the CoSANA domain. Additionally, stream inflow time series input at six locations (Sacramento River at Verona, Folsom Reservoir releases, Cosumnes River, Camanche Reservoir release, Bear River, and Feather River) were replaced with the simulated flows by CalSim 3.0 in ARBS.

A summary comparison table of the ARBS historical baseline hydrology and percent changes to different system components in the 2070CT and 2070HD is shown in Table 5-7.

Table 5-7: Percent Change in Annual Climatic and Hydrologic Indicators in the American River Basin Study*

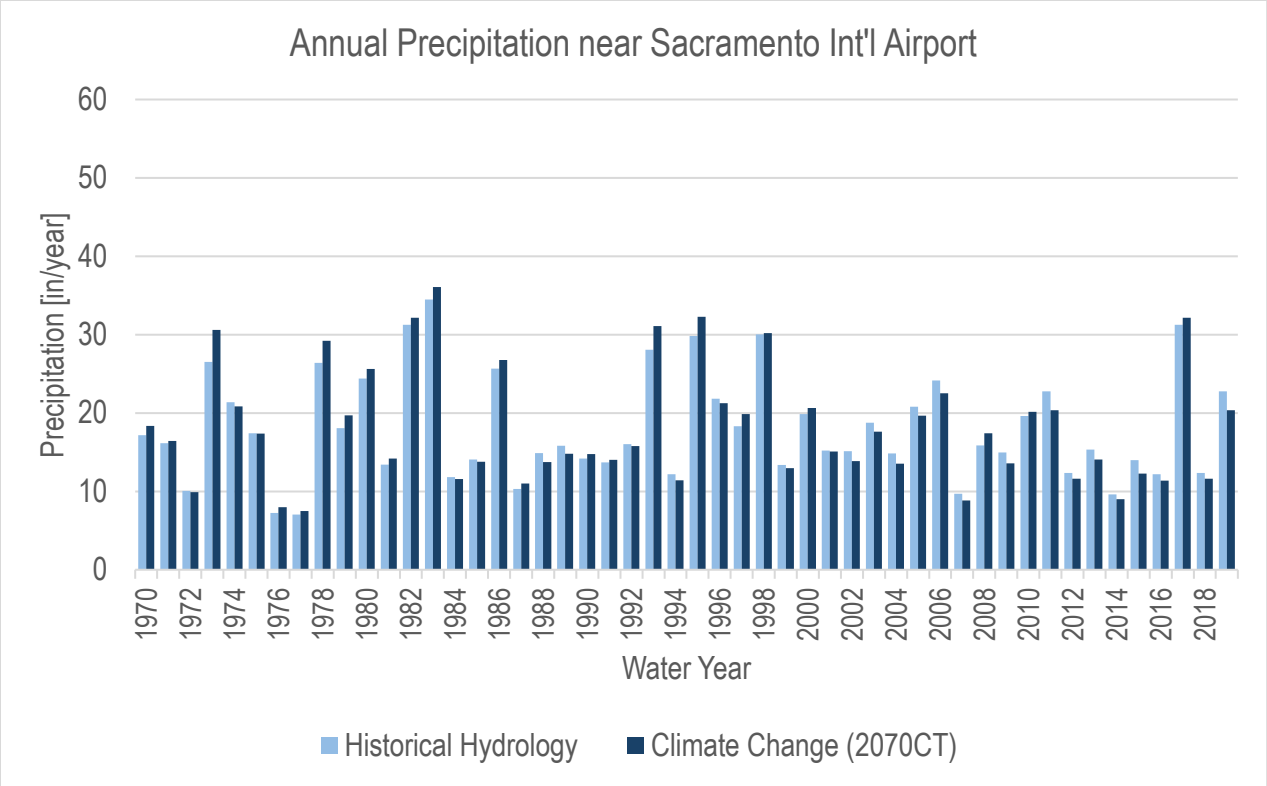
Climate Scenario	Precipitation	Temperature (average)	Potential Evapotranspiration	Runoff
Historical Observations (1915-2015 average)	38.2 inches	54.8^{0}F	42.8 inches	1,458,000 AFY
2070 Central-Tendency	-3%	+11%	+10%	-6%
2070 Hot and Dry	-9%	+14%	+12%	-13%

* The values are for the entire American River Basin Study area and are based on Table 2-4 in the study report.

5.3.1.2 Precipitation

Annual precipitation near Sacramento International Airport and on the small watershed areas are shown in Figure 5-31 for with- and without-climate change conditions for comparison purposes. As a result of the 2070CT climate change conditions, average annual precipitation increased from 17.5 inches to 17.8 inches on the valley floor and increased from 30.6 inches to 30.9 inches on the small watersheds.

Figure 5-32 illustrates the changes in average monthly precipitation before and after climate change conditions are applied. For both the valley floor and the small watersheds, a slight shift in the distribution of precipitation can be observed.



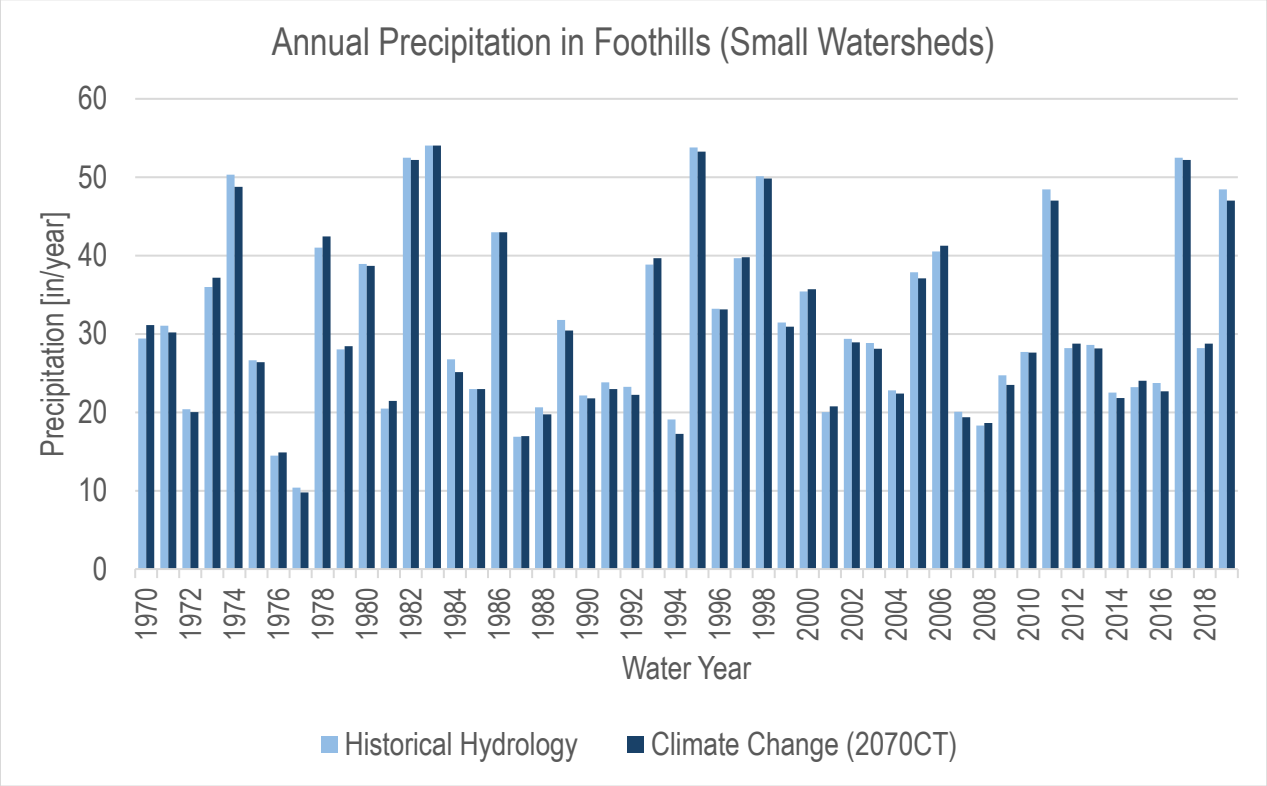


Figure 5-31: Annual Precipitation with and without Climate Change

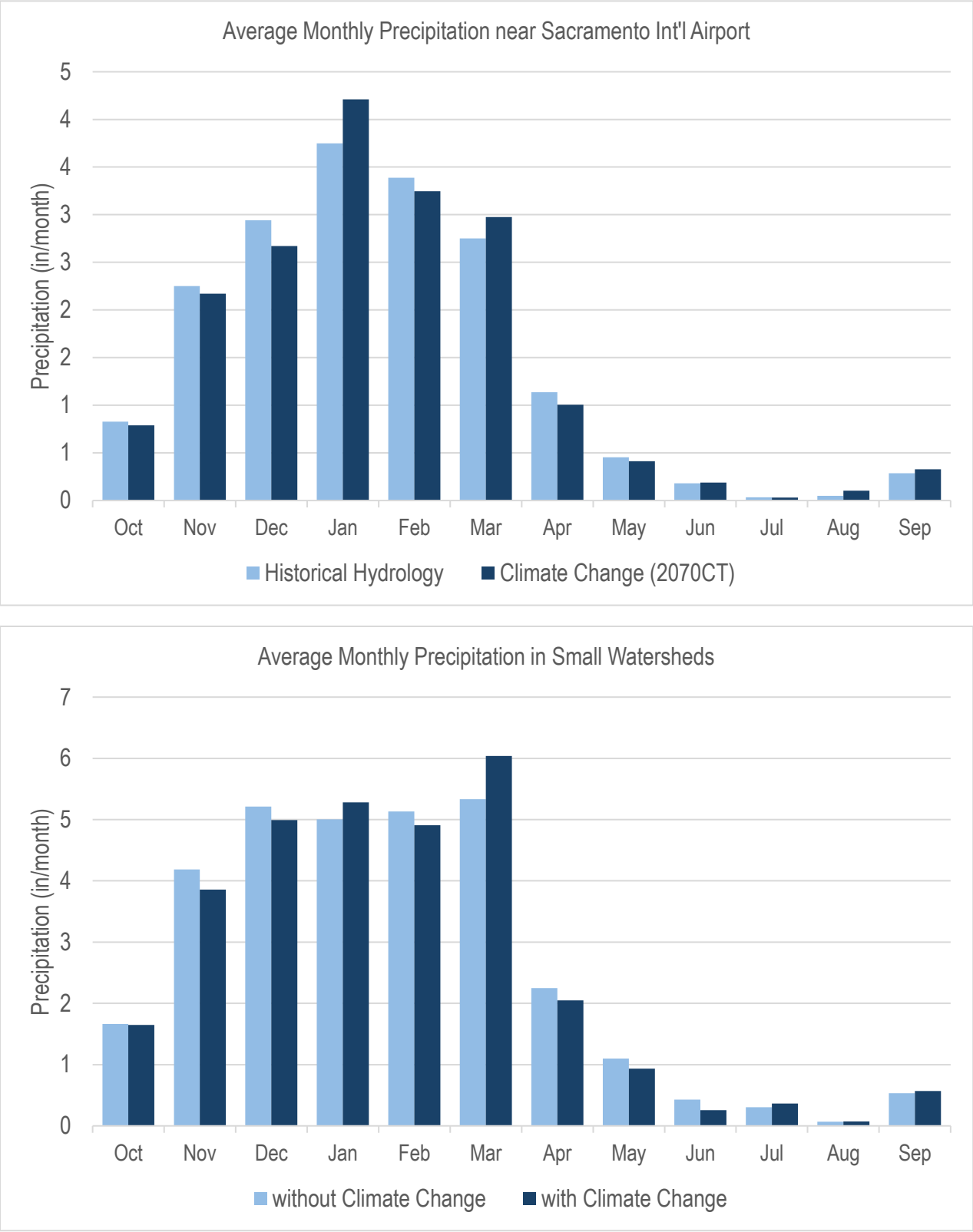


Figure 5-32: Average Monthly Precipitation with and without Climate Change

5.3.1.3 Stream Inflow

Major stream flows entering to the CoSANA domain were modified to accommodate the climate change according to 2070CT conditions. In Figure 5-33, American River releases from the Folsom Reservoir are shown with and without climate change for comparison purposes. As a result of the 2070CT climate change conditions, average annual stream flow on the American River below Folsom Reservoir is decreased from around 3,500 cubic feet per second (cfs) to around 3,000 cfs.

Figure 5-34 illustrates the changes in average monthly stream inflow before and after climate change conditions are applied. According to this chart average flows in early winter and late spring decrease, while March flows increase.

An exceedance chart comparing the monthly Folsom Reservoir Release to American River is given in Figure 5-35 According to this chart, peak monthly flows show an increase in probability, while the probability of lower flows show a slight decrease.

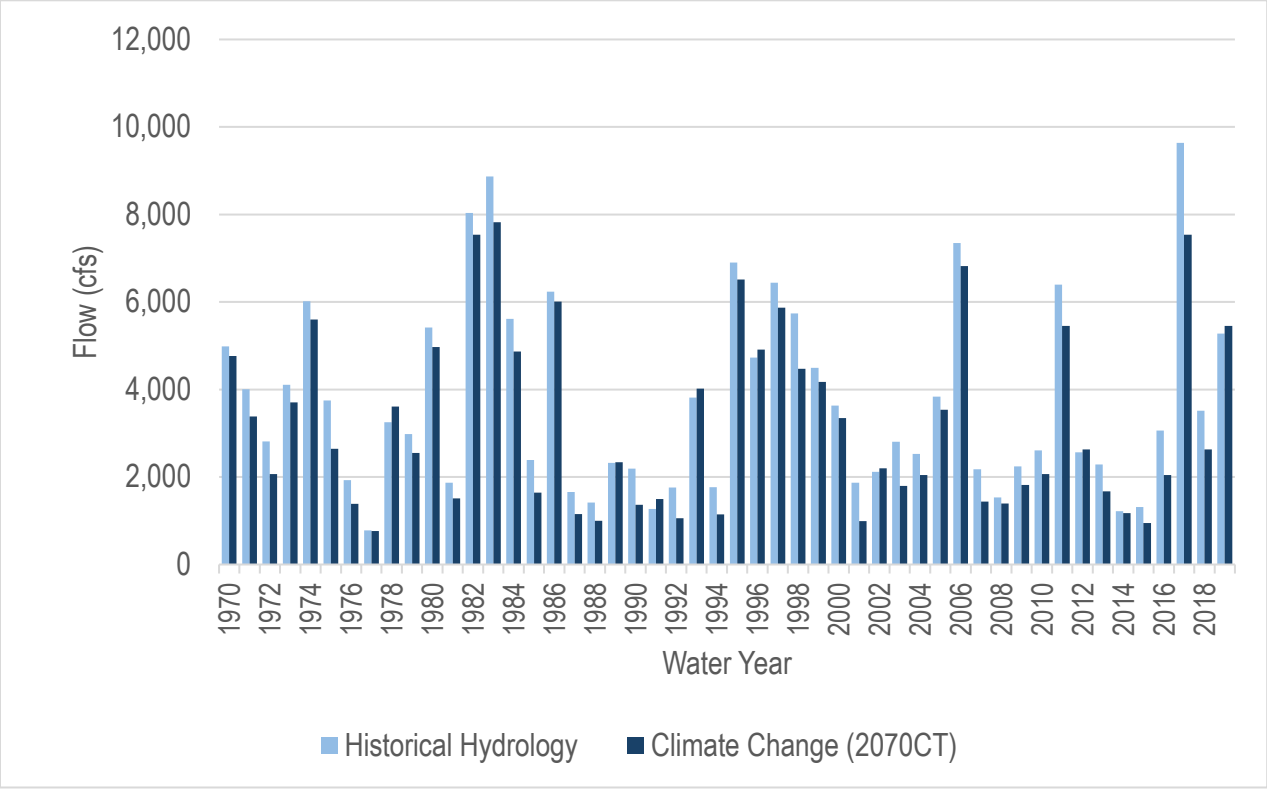


Figure 5-33: Annual Folsom Reservoir Releases to American River with and without Climate Change

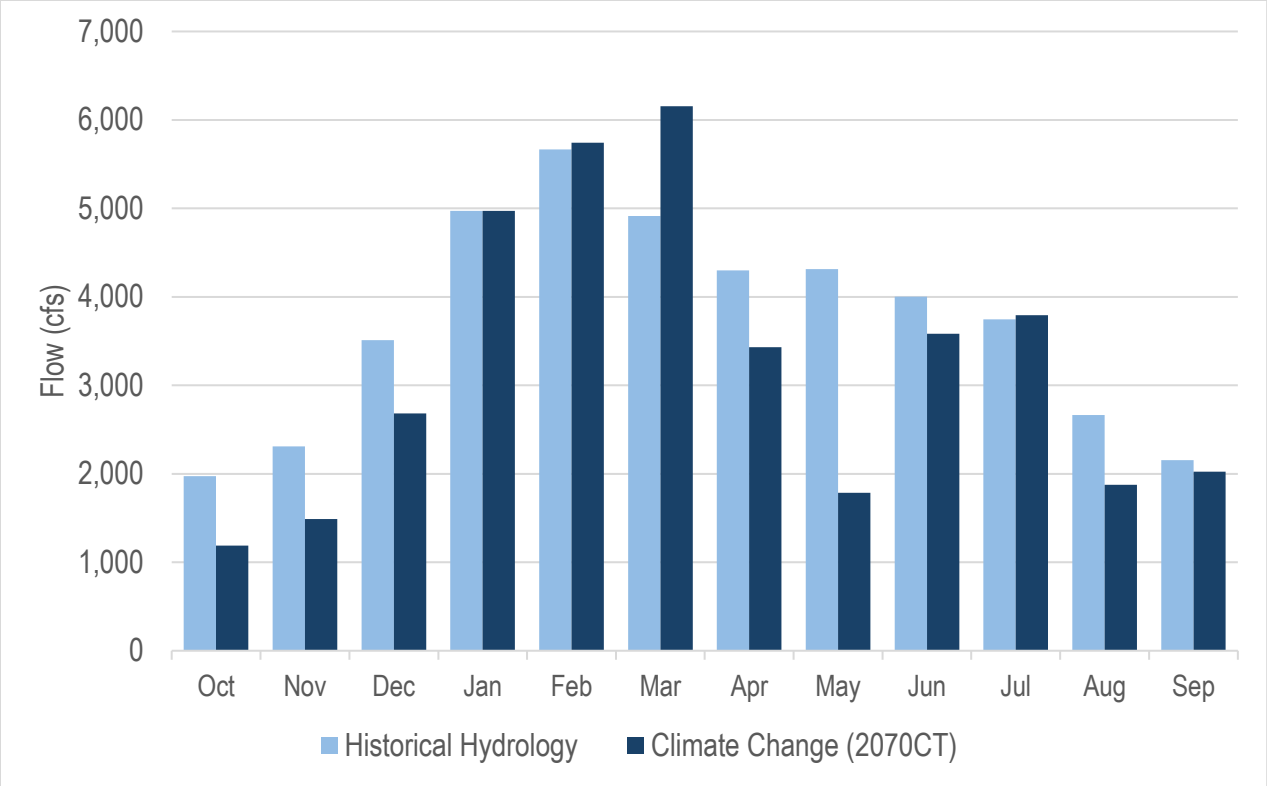


Figure 5-34: Monthly Average Folsom Reservoir Releases to American River

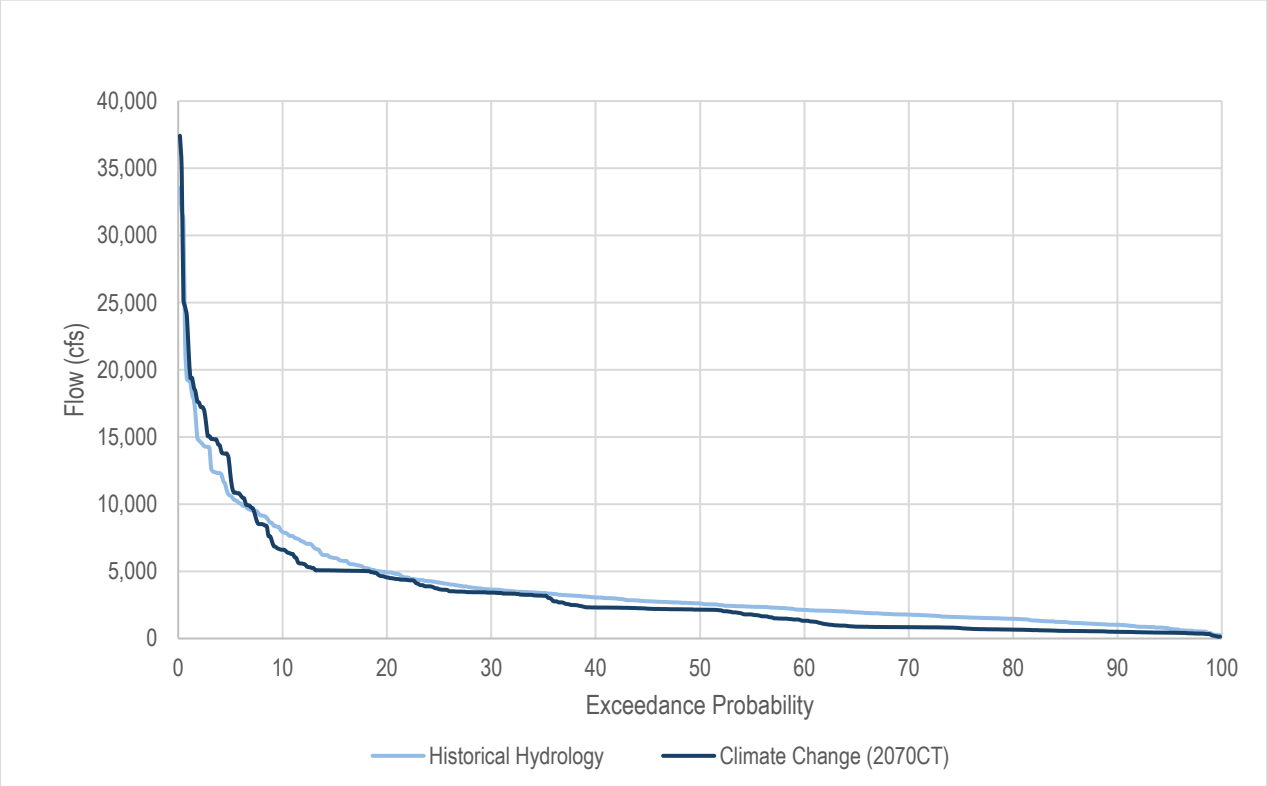


Figure 5-35: Exceedance Chart for the Monthly Folsom Reservoir Releases to American River

5.3.1.4 Evapotranspiration

Potential evapotranspiration time series data for each land cover type in CoSANA were modified to accommodate climate change according to 2070CT conditions. 2070CT conditions predict higher temperature than historical conditions which will result in higher potential evapotranspiration rates. Annual potential evapotranspiration for pasture over the valley floor is shown in Figure 5-36 for with- and without-climate change conditions for comparison purposes. Among all the land cover types defined in CoSANA, pasture was chosen here for its similarity to the reference evapotranspiration. As a result of the 2070CT climate change conditions, average annual potential evapotranspiration for pasture is expected to increase from 49.9 inches to 54.6 inches. Figure 5-37 illustrates the changes in average monthly potential evapotranspiration for pasture before and after climate change conditions are applied.

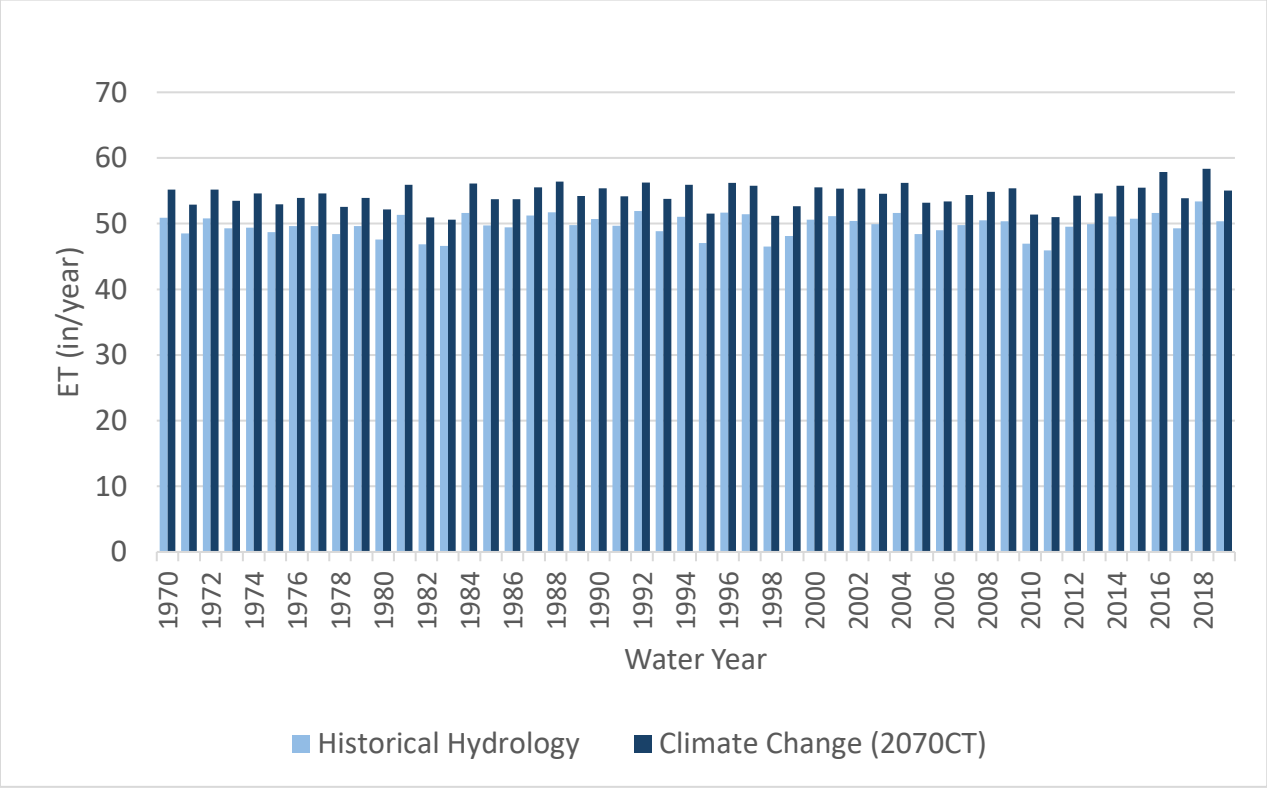


Figure 5-36: Annual Potential Evapotranspiration for Pasture

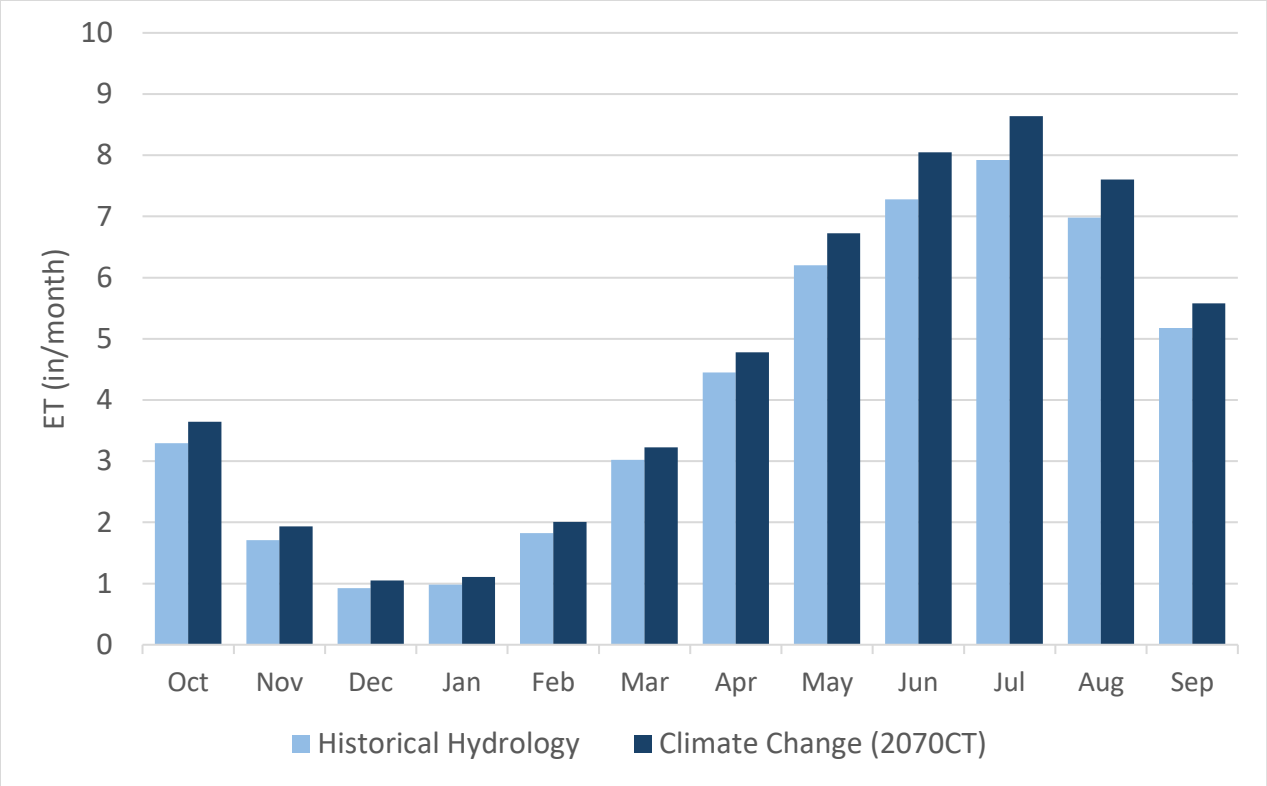


Figure 5-37: Monthly Average Potential Evapotranspiration for Pasture.

5.3.2 Land Use

The PCBL with Climate Change land use is the same as the PCBL, described in Section 5.2.2.

5.3.3 Urban Demand and Supply

The PCBL with Climate Change urban demand and supply is the same as the PCBL, described in Section 5.2.3. It is noted that water demands for urban landscape will increase with increasing ET under climate change, however demand and supply remain unchanged in the baseline due to likely changes in ordinances and likely changes in landscaping practices.

5.3.4 Agricultural Demand and Supply

The PCBL with Climate Change agricultural demand and supply is based on the PCBL, described in Section 5.2.4. The agricultural demand under the climate change conditions is impacted by the effect of climate change on the hydrology, notably evapotranspiration, which increases demands. The increased supply needed to meet this demand is typically met by additional groundwater pumping.

5.3.5 Remediation Operations

Information about future remediation operations is not available, so remediation operations in the PCBL with Climate Change are the same as in the CCBL, discussed in Section 5.1.7.

5.3.6 Results

This section provides a summary of the CoSANA PCBL with Climate Change results.

5.3.6.1 Land and Water Use Budget

The land and water use budget provides details on urban and agricultural demand and the water supply meeting the demand (groundwater pumping, surface water deliveries, recycled water, and remediation pumping). Average annual PCBL with Climate Change model results by groundwater subbasin are shown in Table 5-8. Annual agricultural water demand and supply by subbasin are shown in Figure 5-38 through Figure 5-40. As discussed in Section 5.3.3, urban demand and supply for the PCBL with Climate Change are the same as the PCBL; refer to Figure 5-25 through Figure 5-27 for urban land and water use budgets. Appendix H includes model subregion land and water use budgets.

Table 5-8: PCBL with Climate Change Average Annual Land and Water Use Budget

Subbasin	Ag. Demand (AFY)	Ag. Ground-Water Use* (AFY)	Ag Surface Water Deliveries (AFY)	Urban Demand (AFY)	Urban Ground-Water Use** (AFY)	Urban Surface Water Deliveries (AFY)	Urban Recycled Water (AFY)	Remediation Pumping (AFY)
NASb	372,286	222,061	152,544	328,654	108,492	220,161	-	5,515
SASb	148,520	103,348	45,178	301,060	116,385	167,661	17,200	29,765
CoSb	132,348	108,831	22,744	30,168	28,445	3,943	-	-
Total	**653,154**	**434,240**	**220,466**	**659,882**	**253,322**	**391,765**	**17,200**	**35,280**

Notes:
* Agricultural groundwater use presented in the above table may differ slightly from the values shown in the respective GSP due to minor difference in the methodology on calculation of rural residential water use.
** Urban groundwater use in the above table represents water used that originated from groundwater production but can include water that was pumped in areas outside of the respective subbasin.

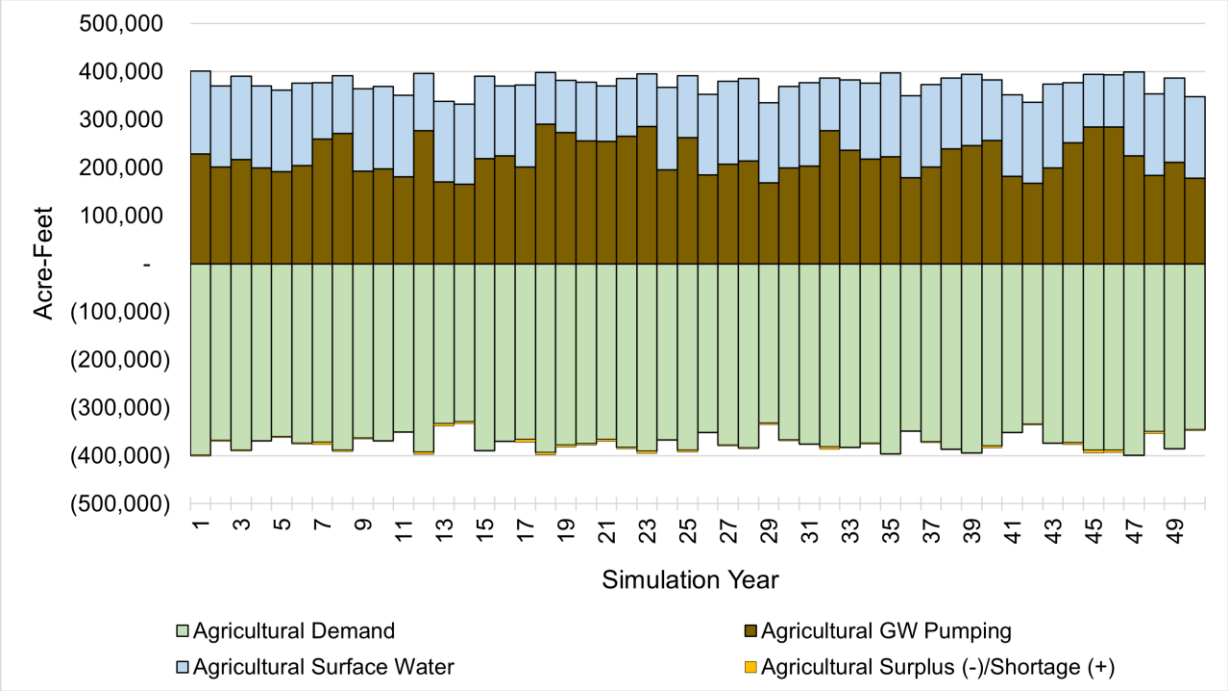


Figure 5-38: Annual Agricultural Water Demand and Supply – North American Subbasin, Projected Conditions Baseline with Climate Change

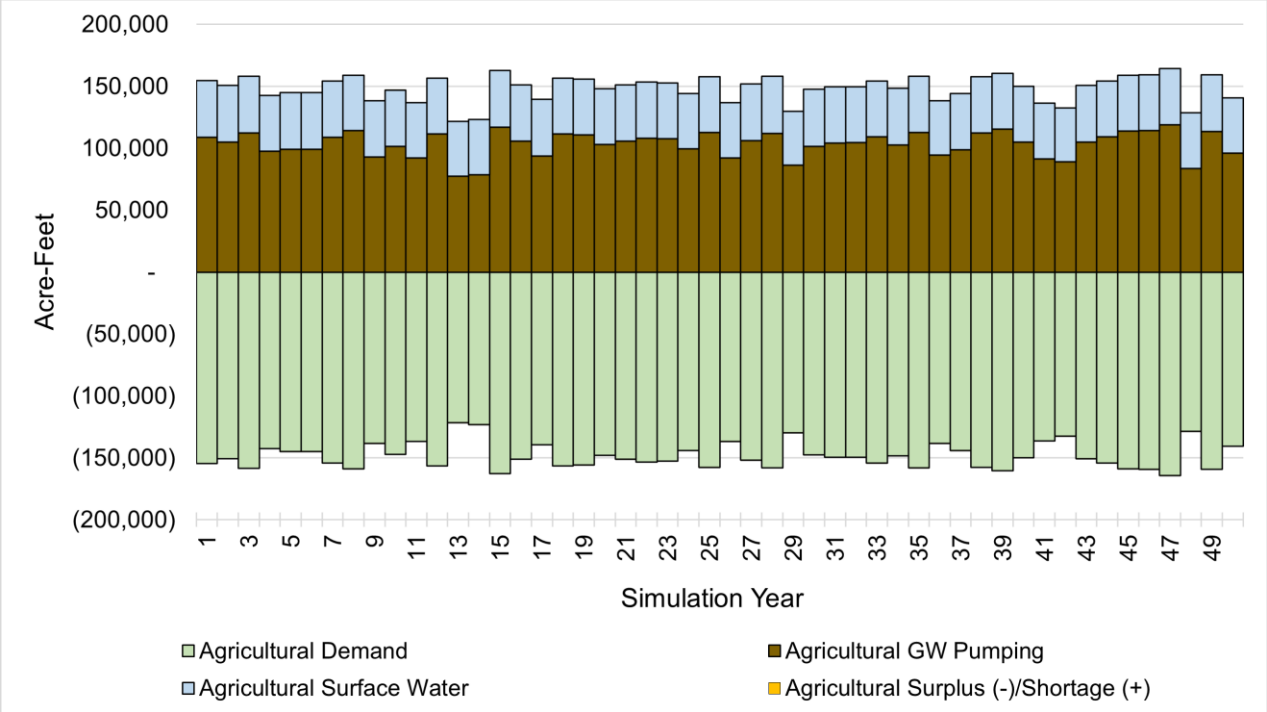


Figure 5-39: Annual Agricultural Water Demand and Supply – South American Subbasin, Projected Conditions Baseline with Climate Change

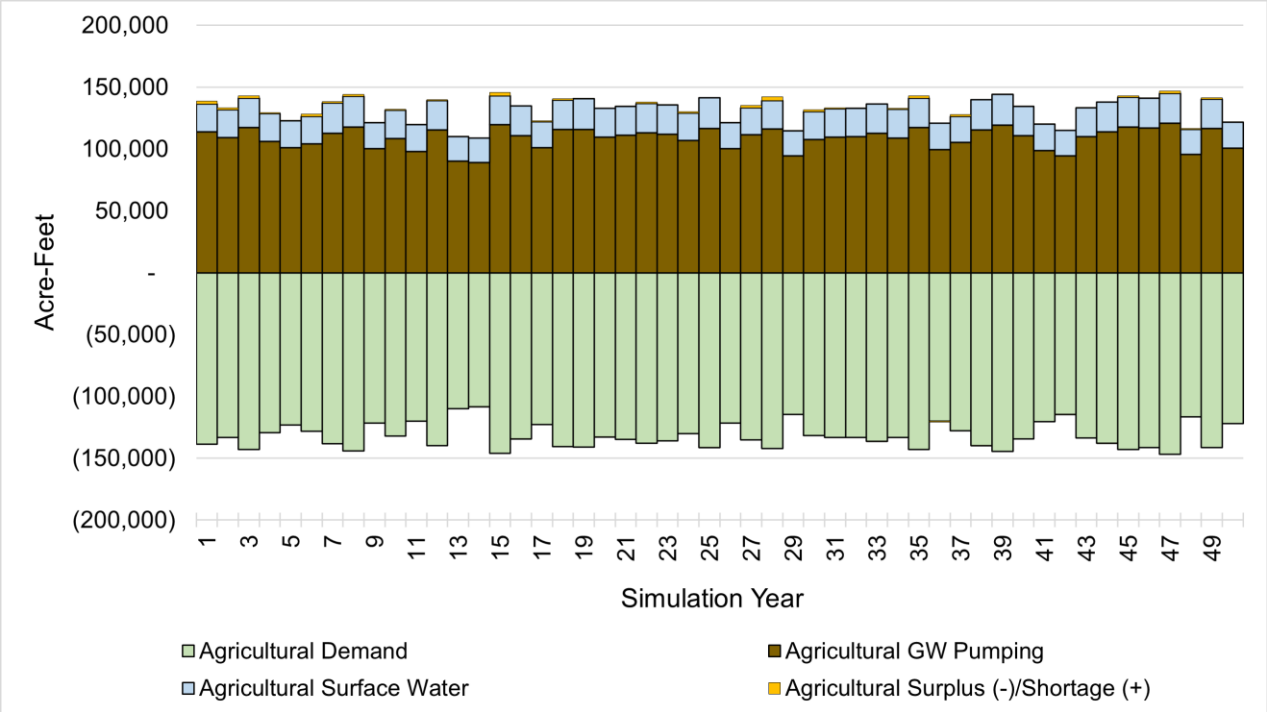


Figure 5-40: Annual Agricultural Water Demand and Supply – Cosumnes Subbasin, Projected Conditions Baseline with Climate Change

5.3.6.2 Groundwater Budget

The groundwater budget provides all inflows and outflows to the groundwater aquifer system. Average annual PCBL with Climate Change model results by groundwater subbasin are shown in Table 5-9. Annual groundwater budgets with cumulative change in storage by subbasin are shown in Figure 5-41 through Figure 5-43. Appendix I includes model subregion groundwater budgets. Appendix J includes a set of sample hydrographs for the baseline models.

Table 5-9: PCBL with Climate Change Average Annual Groundwater Budget

Subbasin	Pumping (AFY)	Deep Percolation (AFY)	Gain from Stream (AFY)	Recharge from Canals (AFY)	Boundary Flows (AFY)	Subsurface Inflow (AFY)	Change in Storage (AFY)
NASb	343,000	160,987	122,181	16,401	32,744	7,228	-3,502
SASb	245,752	114,730	118,164	26	6,198	411	-6,222
CoSb	137,276	101,490	20,744	0	1,540	3,739	-9,762
Total	**726,028**	**377,207**	**261,089**	**16,427**	**40,481**	**11,378**	**-19,486**

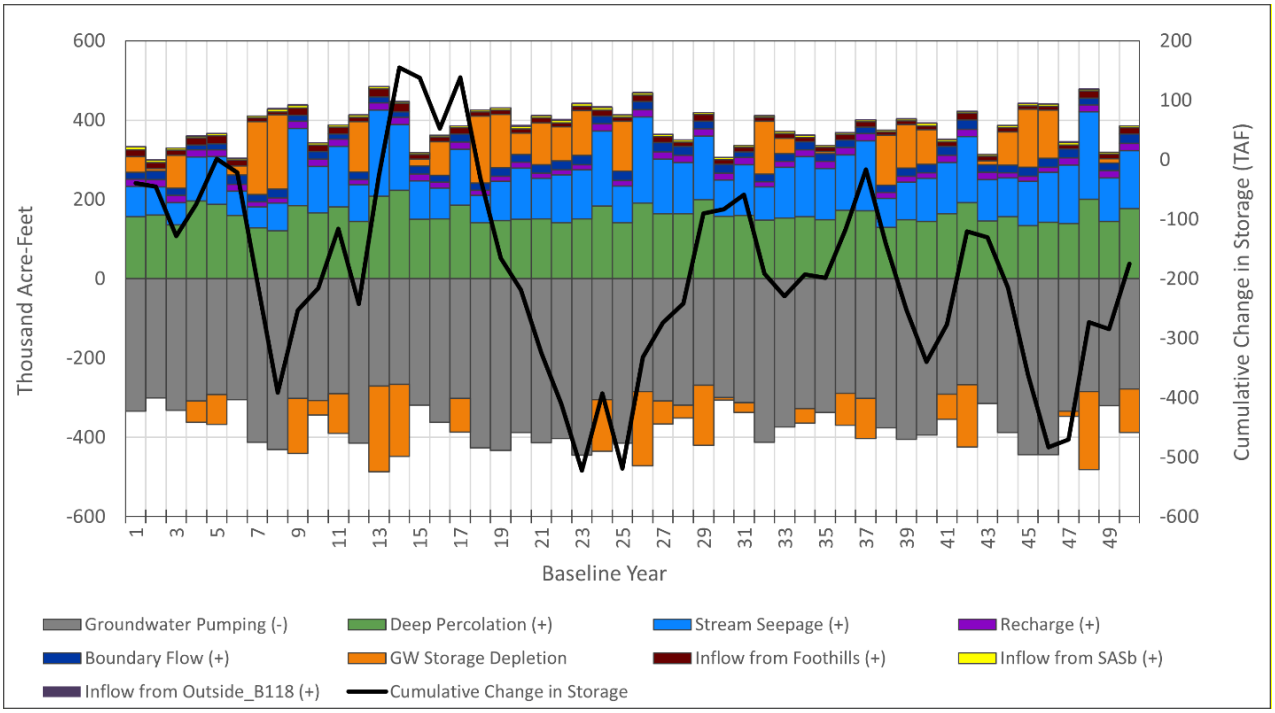


Figure 5-41: Annual Groundwater Budget and Cumulative Change in Storage – North American Subbasin, Projected Conditions Baseline with Climate Change

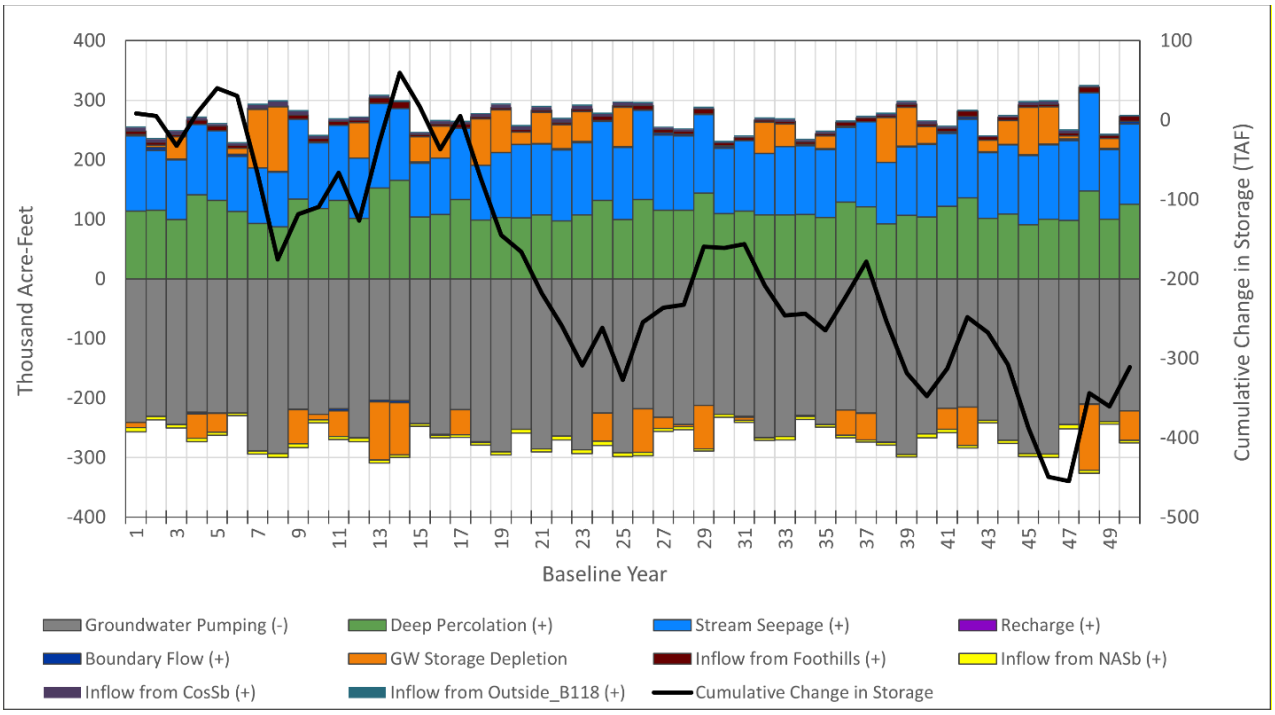


Figure 5-42: Annual Groundwater Budget and Cumulative Change in Storage – South American Subbasin, Projected Conditions Baseline with Climate Change

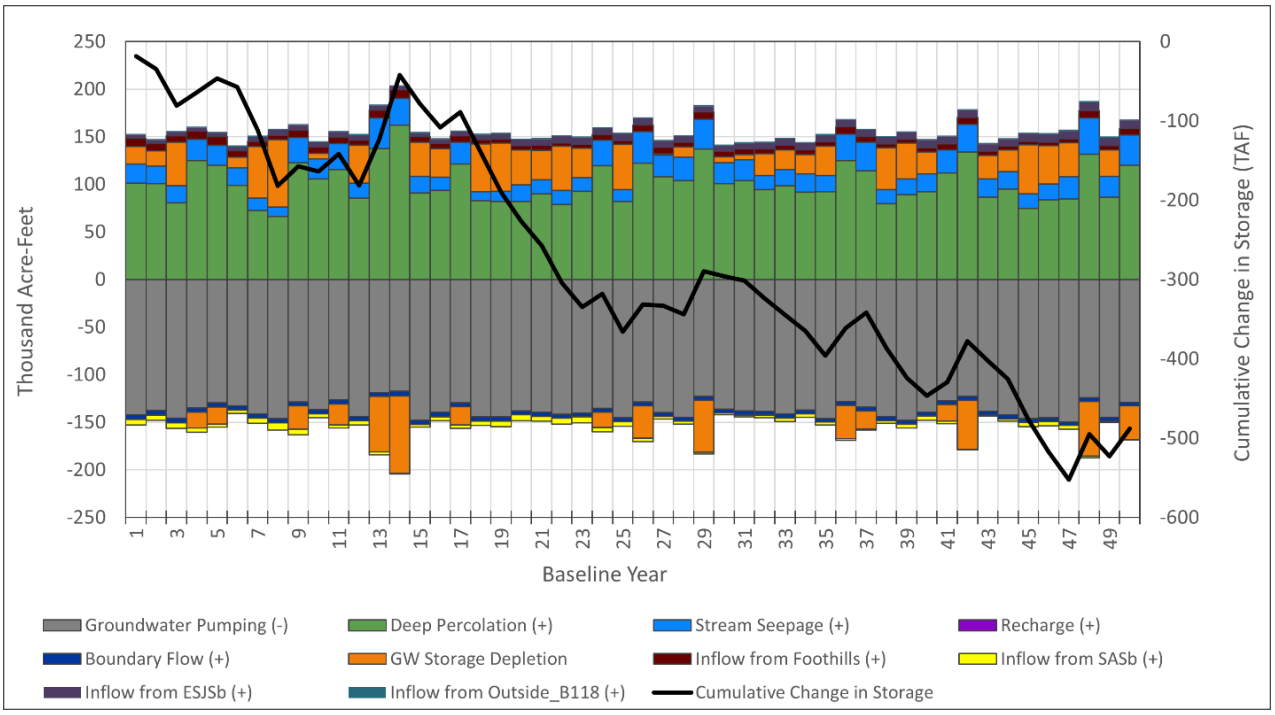


Figure 5-43: Annual Groundwater Budget and Cumulative Change in Storage – Cosumnes Subbasin, Projected Conditions Baseline with Climate Change

5.3.7 Sensitivity Analysis: Hot-Dry Scenario

The 2070HD scenario was analyzed as an extreme case to determine the potential effects of the 2070HD scenario on the groundwater and surface water systems. 2070HD simulates lower overall precipitation, and higher temperature, than the 2070CT. A comparison of groundwater budgets (summation of the 3 subbasins, does not include areas outside of NASb, SASb, and CoSb) can be seen in Table 5-10 below.

Table 5-10: Comparison Groundwater Budgets of CoSANA Climate Change Models to the Projected Conditions Baseline

Model Version	Subbasin	Pumping (AFY)	Deep Percolation (AFY)	Gain from Stream (AFY)	Recharge from Canals (AFY)	Boundary Flows (AFY)	Subsurface Inflow (AFY)	Change in Storage (AFY)
PCBL	NASb	323,167	167,424	107,950	16,376	30,140	6,710	5,390
PCBL	SASb	234,003	121,313	105,665	26	4,886	986	-1,128
PCBL	CoSb	128,332	107,977	16,494	0	1,536	1,030	-1,293
PCBL	**Total**	**685,501**	**396,714**	**230,109**	**16,402**	**36,561**	**8,726**	**2,969**
PCBL+CC (2070CT)	NASb	343,000	160,987	122,181	16,401	32,744	7,228	-3,502
PCBL+CC (2070CT)	SASb	245,752	114,730	118,164	26	6,198	411	-6,222
PCBL+CC (2070CT)	CoSb	137,276	101,490	20,744	0	1,540	3,739	-9,762
PCBL+CC (2070CT)	**Total**	**726,028**	**377,207**	**261,089**	**16,427**	**40,481**	**11,378**	**-19,486**
PCBL+CC (2070HD)	NASb	351,979	155,616	128,609	16,410	33,728	7,482	-10,179
PCBL+CC (2070HD)	SASb	250,445	110,570	122,767	26	7,058	614	-9,409
PCBL+CC (2070HD)	CoSb	140,677	97,337	22,515	0	1,439	4,838	-14,545
PCBL+CC (2070HD)	**Total**	**743,100**	**363,524**	**273,892**	**16,436**	**42,224**	**12,934**	**-34,133**

As shown in Table 5-10, the 2070HD scenario leads to an overall increase in pumping of approximately 2% above the 2070CT, this is largely due to increased evapotranspiration causing an increase in agricultural demand. Decreases in deep percolation are largely attributable to decreasing precipitation. Increases in stream seepage, boundary flows, and subsurface flows are all due to lower groundwater levels being observed in the 2070HD scenario.

6. SUMMARY AND RECOMMENDATIONS

6.1 Summary

The CoSANA model is built upon the previous SacIWRM by migrating to the IWFM platform, providing finer resolution spatially and with depth, and by refining and extending the data incorporated into the model. CoSANA provides a robust, comprehensive, defensible model for assessing water resources conditions in the Sacramento region through integrated modeling of land surface, groundwater, and surface water conditions using detailed local and regional data and the DWR-supported IWFM modeling platform. This includes simulation under historical, current, projected, and projected with climate change conditions. The tool is well calibrated and ready to be used in various water supply and management studies and includes flexibility for updates and refinements to meet future needs of the region.

CoSANA simulates historical hydrology for the water year 1970 – 2018 on a monthly time step, with a focused calibration period of water years 1995 – 2018. Model calibration is based on water budgets, regional groundwater level and flow trends, groundwater level elevations at designated calibration wells, streamflows at selected stream gaging stations, interaction between the stream and the aquifer system along major river courses, surface and subsurface flow contributions from the tributary watersheds to the east, and subsurface flow directions and rates among the three groundwater subbasins within the model.

Three baseline scenarios are developed to support SGMA activities, development of the GSPs within the three subbasins, and other potential water resources planning needs. The Current Conditions Baseline, Projected Conditions Baseline, and Projected Conditions with Climate Change Baseline allow for assessment of water budgets under respective hydrologic, land and water use, and operations conditions and also facilitate analysis of future projects and management activities. The baselines incorporate 50 years of hydrology (1970-2019) to meet SGMA requirements and to provide climatic uncertainty based on 2070 Central Tendency climate change to assess future projects and management actions. A sensitivity analysis was also performed to assess the groundwater conditions under the 2070 Hot and Dry climate conditions.

6.2 Recommendations

CoSANA is intended to be a living model, which would evolve over time for better and more accurate representation of the surface and groundwater systems in the greater Sacramento area. Model refinements and updates need to take place on a regular basis to ensure the most recent and best representation of the changing needs of the region and to incorporate the latest conditions, data, and modeling platforms. During the development of the model, several items were identified for future refinements to improve the capability of CoSANA:

- **Continue collaboration and engagement with local GSAs, water purveyors, groundwater users, and water managers**. Continue working with local agencies and groundwater users in the region to further understand the local operations of the groundwater system and improve representation of groundwater users in the CoSANA.
- **Collaborate with DWR.** The fine grid version of C2VSim as well as the SVSim were developed by DWR to evaluate the integrated surface water and groundwater conditions at a regional scale, and to assess surface water-groundwater interaction and stream depletions at regional scale. CoSANA, being a local scale model with significantly more detail data and information provides a much better platform for evaluation of stream-aquifer interaction for the Sacramento area. It would be important to support the DWR in increasing the accuracy of the regional groundwater conditions in the fine grid C2VSim and SVSim, so that the regional scale results and policy decisions are consistent with the analysis at the local scale. It is therefore recommended that coordination occur with DWR to provide data and information for further refinement and update of the C2VSimFG and SVSim in the CoSANA area.
- **Develop model update schedule.** In order to keep the CoSANA up-to-date and current for analysis of water resources and especially for supporting SGMA implementation, it is recommended that the model

hydrology and land and water use data be updated and used for preparation of the GSP Annual Reports on an annual basis. It is further recommended that the model be updated for other major data sets, as well as enhanced for additional features every 5 years. This 5-year update would include an update of the model calibration and would be developed for use in the 5-year GSP updates for the three subbasins in the model area.

- **Enhance representation of variability of potential evapotranspiration**. The current version of the IDC used for estimation of the consumptive use of crops in the CoSANA uses monthly potential ET values that are uniform across the model domain. Future refinements are recommended to incorporate spatial variability of ET.
- **Map Soil Survey Geographic Database (SSURGO) rootzone parameters directly to CoSANA:** CoSANA used C2VSim rootzone parameters mapped to the CoSANA grid. Due to the difference in grid resolution, this may lead to a loss of detail on the original rootzone parameters. Remapping of the rootzone parameters should be considered to improve this resolution.
- **Refine surface water deliveries in NASb/SASb:** Some surface water diversions have limited detail on the delivery area, with some of this water sent to the appropriate subregion, but not specifically to the delivery area. Additional information on delivery areas is recommended for incorporation into CoSANA, including those in OHWD, and PCWA zone 5.
- **Improve inflow estimates for tributary streams:** Tributary streams were found to have a substantial effect on simulation of groundwater levels during calibration. Improvements could include flow measurements on small streams and/or developing improved regression analyses. Some tributary streams are not connected to a small watershed or receive very little flow from the small watershed simulation (for example: Magpie Creek and Arcade Creek in NASb, Elder Creek in SASb). Finally, subsurface conditions and simulated inflows from small watersheds east of the Cosumnes Subbasin require refinement to address model-calculated water levels that are significantly above land surface (flooded conditions).
- **Improve return flow routing within IWFM and CoSANA:** IWFM allows only one location for return flows, thus surface runoff must be routed to the same stream node as urban wastewater. In much of the Sacramento region, urban wastewater is routed to the Sacramento Regional Wastewater Treatment Plant northwest of Elk Grove. However, surface runoff is typically routed to the nearest surface water course. Coordination with DWR's IWFM development team is recommended to allow flexibility to route these differently according to the physical system.
- **Improve data and simulation of Auburn Ravine flows:** Auburn Ravine has complex operations that include inflows and diversions from several different entities. Currently, CoSANA simulation of Auburn Ravine flows is based on a regression analysis that uses flows from nearby Dry Creek. Though these may represent a reasonable estimate of natural flows that could occur in Auburn Ravine, this analysis does not capture any of the operational flows that occur through the ravine. There is a streamflow gage that is installed in Auburn Ravine, but the gage does not read flows above 200 cfs and therefore cannot be used to develop model inflows. It is recommended that streamflow measurements be taken on Auburn Ravine to either provide a data series for model input or to allow for an improved regression.
- **Develop improved rating tables for major streams:** many of the major stream rating tables are based on C2VSim/SVSim (Sacramento Valley Groundwater-Surface Water Simulation Model) rating tables from a flood study. These rating tables are heavily biased towards high flows that rarely occur in the model. The lower first or second interval includes almost all of the flows observed in a 10-point rating table. This results in the model not having much stage sensitivity, which may affect groundwater / surface water interaction as well as calibration of flow and stage. It is recommended that future efforts to develop rating tables include more focus on low flow conditions that are important for water resource management.
- **Improve simulation of complex water systems:** CoSANA incorporates substantial detail on complex public water systems. In some cases, additional detail on where water is produced, how much water is

lost in transmission, and where water is used can improve the simulation and improve the ease of reporting data from the model. This is typically most relevant to larger public water systems with mixed surface water and groundwater supplies and those systems that utilize interties or perform transfers.

- **Improve data for Mather AFB remediation operations:** Pumping data was received, but well location information is not known. Incorporation of the locations of wells could improve simulation of remediation operations.
- **Improve model information and data sets on the eastern areas:** The model geologic, hydrogeologic, and land use information for the eastern areas of the model near the foothills will need to be further enhanced, once additional data are collected. Such data may include boring logs, groundwater data, or geophysical data such as from airborne electromagnetic surveys. Model calibration will need to be improved upon collection of additional groundwater level data from the representative monitoring wells on the east side.

7. REFERENCES

Amador Water Agency, 2016. 2015 Urban Water Management Plan. Prepared by RMC Water and Environment. June.

Berkstresser, C.F. Jr., 1973. *Base of Fresh Ground Water – Approximately 3,000 Micromhos – in the Sacramento Valley and Sacramento-San Joaquin Delta, California*. December. Accessed online at https://pubs.er.usgs.gov/publication/wri7340.

Brush, Charles F, Emin C Dogrul, and Tariq N Kadir, 2013. *Development and Calibration of the California Central Valley Groundwater-Surface Water Simulation Model (C2VSim), Version 3.02-CG*. accessed online at http://baydeltaoffice.water.ca.gov/modeling/hydrology/C2VSim/download/C2VSim_Model_Report_2016-03_vR374.pdf.

California American Water (Cal-Am), 2016. Final 2015 Urban Water Management Plan for the Northern Division-Sacramento District. Prepared by Water System Consulting, Inc. June 30.

California Geological Survey, 2009. Preliminary Geologic Map of the Lodi 30' x 60' Quadrangle, California.

California Geological Survey, 2011. Preliminary Geologic Map of the Sacramento 30' x 60' Quadrangle, California.

Carmichael Water District, 2016. 2015 Urban Water Management Plan. Prepared by Tully & Young. Final June 27.

Citrus Heights Water District, 2016. 2015 Urban Water Management Plan. Prepared by J. Crowley Group Water Resources Planning and Policy. June.

City of Folsom, 2016. 2015 Urban Water Management Plan. Prepared by Tully & Young. June.

City of Galt, 2016. 2015 Urban Water Management Plan Update. Prepared by Carollo Engineers. July.

City of Lincoln, 2016a. Final 2015 Urban Water Management Plan. Prepared by Tully & Young.

City of Lincoln, 2016b. Water Master Plan, Public review Draft. Prepared by Tully & Young. November.

City of Roseville, 2016. Final 2015 Urban Water Management Plan. Prepared by West Yost Associates Consulting Engineers. May.

City of Sacramento, 2016. 2015 Urban Water Management Plan. Prepared by West Yost Associates Consulting Engineers. June.

City of Sacramento, 2017. Groundwater Master Plan Final Report. Prepared by RMC Water and Environment, a Woodard & Curran Company. December.

Dogrul, Emin C., Tariq N. Kadir, and Charles F. Brush, 2017a. *Integrated Water Flow Model Theoretical Documentation (IWFM-2015), Revision 630*. accessed online at http://baydeltaoffice.water.ca.gov/modeling/hydrology/IWFM/IWFM-2015/v2015_0_630/downloadables/IWFM-2015.0.630_Theoretical Documentation.pdf.

Dogrul, Emin C., Tariq N. Kadir, and Charles F. Brush, 2017b. *DWR Technical Memorandum: Theoretical Documentation and User's Manual for IWFM Demand Calculator (IDC-2015)*, Revision 63. Bay-Delta Office, California Department of Water Resources. accessed online at http://baydeltaoffice.water.ca.gov/modeling/hydrology/IDC/IDC-2015/v2015_0_63/index_ IDCv2015_0_63.cfm.

Doherty, J., 2015. *Calibration and Uncertainty Analysis for Complex Environmental Models*. Watermark Numerical Computing, Brisbane, Australia. ISBN: 978-0-9943786-0-6.

Dunn Environmental, 2012 *Groundwater Supply Study and Integrated Regional Groundwater Management Plan for the Lake Camanche Water Improvement District No. 7*. June.

DWR, 1974. *Evaluation of Ground Water Resources: Sacramento County.* Bulletin 118-3. July.

DWR, 2018a. *Sacramento Valley Groundwater-Surface Water Simulation Model Technical Memorandum 1B*. April.

DWR, 2018b. *California Water Plan*. June. accessed online at https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2018/Final/California-Water-Plan-Update-2018.pdf.

DWR, 2020. *California Central Valley Groundwater-Surface Water Simulation Model – Fine Grid (C2VSimFG): Development and Calibration Version 1.0*. December. accessed online at https://data.cnra.ca.gov/dataset/b313f4b2-1f5a-4028-9680-277cc04f6ded/resource/4f904e97-a47b-4138-81df-9b74bd952948/download/c2vsimfg-report-draft-clean_12072020_adaaccessible.pdf.

Fair Oaks Water District, 2016. 2015 Urban Water Management Plan. Prepared by Peterson Brustad Inc. Engineering Consulting. June.

Golden State Water Company, 2016. 2015 Urban Water Management Plan Cordova. Prepared by Kennedy/Jenks Consultants. June.

Golden State Water Company, 2020. *Supplement to the Water Supply Assessment for Lakeside at Sutter Pointe.* Prepared by Holland Knight and Wood Rodgers. October.

Orange Vale Water Company, 2016. 2015 Urban Water Management Plan. Prepared by J. Crowley Group Water Resources Planning and Policy. June.

Page, 1974. *Base and Thickness of the Post Eocene Continental Deposits in the Sacramento Valley, California.* USGS Water-Resources Investigations 45-73. September. accessed online at https://pubs.usgs.gov/wri/1973/0045/report.pdf.

Placer County Water Agency (PCWA), 2016. 2015 Urban Water Management Plan. Prepared by Tully & Young. June.

RMC Water and Environment, 2012. *Camanche Area Regional Water Supply Plan Feasibility Study and Conceptual Design.* January.

Rancho Murieta Community Services District, 2010. 2010 Integrated Water Supply Master Plan Update. Prepared by Brown and Caldwell. October.

Rio Linda / Elverta Community Water District, 2016. 2015 Urban Water Management Plan. Prepared by J. Crowley Group Water Resources Planning and Policy. June.

Roseville, City of, City of Lincoln, Placer County Water Agency, California American Water Company, 2007. *Western Placer County Groundwater Management Plan*. November.

Sacramento County Water Agency (SCWA), 2021. Draft Zone 40 Water Supply Master Plan Amendment. Prepared by Brown and Caldwell. January.

Sacramento Suburban Water District, 2016. 2015 Urban Water Management Plan. Prepared by Brown and Caldwell. June.

San Juan Water District, 2016. Final 2015 Urban Water Management Plan. Prepared by Kennedy/Jenks Consultants. June.

South Area Water Council, 2011.South Basin Groundwater Management Plan. Prepared by RBI and WRIME. October.

U.S. Bureau of Reclamation, 2019. *Long-Term Water Transfer EIS/R*. September.

U.S. Bureau of Reclamation, in press. *American River Basin Study*.

USDA NRCS, 2007. *National Engineering Handbook*, Part 630 Hydrology, Chapter 7, Hydrologic Soil Groups. May. accessed online at https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba.

APPENDIX A: MODEL SURFACE WATER DELIVERIES

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
1	North-Side Bear River Diversion - Import to Camp Far West ID for Agriculture	Import	Subregion 1	Agriculture	0.14	0.04	1	5,888	SacIWRM	
2	Bear River Diversions - Import to South Sutter WD for Agriculture	Import	Subregion 3	Agriculture	0.14	0.04	1	93,421	SacIWRM, MBK	
3	Auburn Ravine Diversions to South Sutter WD for Agriculture	Auburn Ravine	Subregion 3	Agriculture	0.14	0.04	1	1,529	MBK	
4	Small Stream Diversions - Import to South Sutter WD for Agriculture	Import	Subregion 3	Agriculture	0	0	1	331	MBK	
5	Auburn Ravine Diversions to Zone 5 - Import to Placer County Water Agency for Agriculture	Import	Subregion 4	Agriculture	0.14	0.04	1	9,998	SacIWRM, Placer County Water Agency	
6	Hemphill Canal - Import to Nevada Irrigation District for Agriculture	Import	Subregion 5	Agriculture	0.07	0.02	0.25	19,583	C2VSim, Nevada Irrigation District	Estimated portion of volume coming into model area
7	Auburn Ravine Diversions - Import to Nevada Irrigation District for Agriculture	Import	Subregion 5	Agriculture	0.07	0.02	0.25	3,497	C2VSim, Nevada Irrigation District	Estimated portion of volume coming into model area
8	From PCWA/NID Intertie - Import to City of Lincoln for Urban	Import	Subregion 6	Urban	0	0	1	6,218	SacIWRM, City of Lincoln	
9	Feather River Riparian Diversions for Agriculture	Feather River	Subregion 7	Agriculture	0.12	0.03	1	11,000	SacIWRM	
10	Sacramento River Diversions to Pleasant Grove Verona MWC for Agriculture	Sacramento River Upstream Cross Canal	Subregion 8	Agriculture	0.12	0.03	1	14,528	C2VSim, USBR	
11	Sacramento River Riparian Diversions below Feather River confluence for Agriculture	Sacramento River Upstream Natomas East Drain	Subregion 9	Agriculture	0.12	0.03	1	1,260	SacIWRM	
12	Natomas Mutual Water Company USBR Diversions for Agriculture	Sacramento River Upstream Natomas East Drain	Element group representing / NMWC	Agriculture	0.01	0.0033	1	61,850	SacIWRM, Natomas Mutual Water Company	
13	NOT USED	N/A	Out of model	Agriculture	0	0	0	0	N/A	Not used
14	Folsom Diversions - Import to City of Roseville for Urban	Import	Subregion 13	Urban	0	0	1	27,943	City of Roseville	
15	From PCWA Intertie - Import to City of Roseville for Urban	Import	Subregion 13	Urban	0	0	1	0	N/A	Placeholder, no data
16	From PCWA Intertie - Import to Cal-Am West Placer for Urban	Import	Subregion 14	Urban	0	0	1	725	RWA, GEI	
17	Import to Sacramento Int'l Airport for Urban	Import	Subregion 16	Urban	0	0	1	175	SacIWRM, RWA	
18	Sacramento River Riparian Imports near Sacramento Int'l Airport	Import	Subregion 18	Agriculture	0	0	1	3,124	SacIWRM	
19	Import to Rio Linda Elverta CWD from SSWD Intertie for Urban	Import	Element group representing / Rio Linda Elverta CWD Service Area	Urban	0	0	1	5	RWA	
20	From SSWD Intertie - Import to Cal-Am Antelope for Urban	Import	Subregion 23	Urban	0	0	1	170	RWA	

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
21	From SSWD Intertie - Import to Cal-Am Lincoln Oaks for Urban	Import	Subregion 24	Urban	0	0	1	245	RWA	
22	Folsom Diversions Via SJWD Intertie - Import to Citrus Heights WD for Urban	Import	Subregion 25	Urban	0	0	1	16,015	RWA, SacIWRM	
23	From PCWA Intertie - Import to San Juan WD for Urban	Import	Subregion 26	Urban	0	0	1	0	N/A	Placeholder, no data
24	Total Folsom Diversions Inc. Wholesale - Import to San Juan WD for Urban	Import	Out of model	Urban	0	0	1	33,020	RWA	
25	Retail Only - Import to San Juan WD for Urban	Import	Element group representing / SAN JUAN WD RETAIL AREA	Urban	0	0	0.37	14,043	RWA, SacIWRM	
26	Sac Suburban North District Total GW Production	Import	Subregion 32	Urban	0	0	1	16,044	RWA	
27	From SSWD Intertie - Import to San Juan WD for Urban	Import	Subregion 26	Urban	0	0	1	0	N/A	Placeholder, no data
28	From PCWA Intertie - Import to San Juan WD for Urban	Import	Subregion 26	Urban	0	0	1	0	N/A	Placeholder, no data
29	Folsom Diversions via SJWD Intertie - Import to Orange Vale WC for Urban	Import	Subregion 28	Urban	0	0	1	4,191	RWA, SacIWRM	
30	Folsom Diversions Via SJWD Intertie - Import to Fair Oaks WD for Urban	Import	Subregion 30	Urban	0	0	1	11,145	RWA, SacIWRM	
31	American River Diversions to Carmichael WD for Urban	American River	Subregion 31	Urban	0	0	1	7,155	RWA, SacIWRM	
32	From Sac Suburban Intertie - Import to Carmichael WD for Urban	Import	Subregion 31	Urban	0	0	1	0	N/A	Placeholder, no data
33	From CHWD Intertie - Import to Carmichael WD for Urban	Import	Subregion 31	Urban	0	0	1	0	N/A	Placeholder, no data
34	Sac Suburban North District Imports - Import to Sac Suburban North for Urban	Import	Subregion 32	Urban	0	0	1	8,987	RWA, SacIWRM	
35	From City of Sac Intertie - Import to Sac Suburban South for Urban	Import	Subregion 33	Urban	0	0	1	1,037	RWA	
36	From SSWD SSA Intertie - Import to City of Sacramento for Urban	Import	Element group representing / CITY OF SACRAMENTO	Urban	0	0	1	161	RWA	
37	From PCWA - Import to City of Rocklin for Urban	Import	Element group representing Rocklin	Urban	0	0	1	4,578	Placer County Water Agency	
38	Metro Air Park - Import to Metro Air Park for Urban	Import	Subregion 17	Urban	0	0	1	0	N/A	Placeholder, no data
39	From City of Sac Intertie - Import to Cal-Am Arden for Urban	Import	Subregion 36	Urban	0	0	1	2	RWA, SacIWRM	
40	City of Sacramento - American River Diversions to City of Sacramento for Urban	American River	Out of model	Urban	0	0	1	48,211	RWA	
41	City of Sacramento - Sacramento River Diversions to City of Sacramento for Urban	Sacramento River Upstream Morrison Crk	Out of model	Urban	0	0	1	52,300	RWA	

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
42	City of Sacramento - Retail SW Delivery Volumes - Import to City of Sacramento for Urban	Import	Element group representing / CITY OF SACRAMENTO	Urban	0	0	1	97,195	RWA, SacIWRM	
43	Sac Suburban South District Total GW Production - Import to Sac Suburban South for Urban	Import	Subregion 33	Urban	0	0	1	16,351	RWA, SacIWRM	Represents total GW production for service area
44	NOT USED - Import for Agriculture	Import	Out of model	Agriculture	0	0	0	470	N/A	
45	Arcade American River Diversions to Arcade for Urban	American River Upstream Sacramento R.	Subregion 39	Urban	0	0	1	132	SacIWRM	
46	From City of Sac Intertie - Import to Cal-Am Suburban Rosemont for Urban	Import	Subregion 40	Urban	0	0	1	85	RWA	
47	FSC/American River Diversions - Import to Golden State Water Company Cordova for Urban	Import	Subregion 42	Urban	0	0	1	5,922	SacIWRM, RWA	FSC operations not currently simulated
48	From Carmichael WD - Import to Golden State Water Company Cordova for Urban	Import	Subregion 42	Urban	0	0	1	366	RWA	
49	Aerojet FSC Diversions - Import to Aerojet FSC for Urban	Import	Out of model	Urban	0	0	1	1,083	SacIWRM	FSC operations not currently simulated
50	Folsom Diversions, Estimated Prior to 1983 - Import to City of Folsom for Urban	Import	Subregion 44	Urban	0	0	1	20,451	SacIWRM, RWA	
51	SJWD Intertie) - Placeholder No Dat - Import to City of Folsom for Urban	Import	Subregion 44	Urban	0	0	1	0	N/A	Placeholder, no data
52	From SCWA Intertie - Import to Cal-Am Security Park for Urban	Import	Subregion 45	Urban	0	0	1	0	N/A	Placeholder, no data
53	From City of Sac Intertie - Import to Fruitridge Vista WC for Urban	Import	Subregion 46	Urban	0	0	1	1	RWA	
54	From City of Sac Intertie - Import to Cal-Am Parkway for Urban	Import	Subregion 48	Urban	0	0	1	592	RWA	
55	GW Imports - Import to SCWA - Arden Park Vista for Urban	Import	Subregion 37	Urban	0	0	1	3,911	SacIWRM, RWA, SCWA	Represents total GW production for service area
56	SW Imports - Import to SCWA - Arden Park Vista for Urban	Import	Subregion 37	Urban	0	0	1	0	N/A	Represents total SW delivered to service area
57	RW Imports - Import to SCWA - Arden Park Vista for Urban	Import	Subregion 37	Urban	0	0	1	0	N/A	Represents total RW for service area
58	GW Imports - Import to SCWA - Hood for Urban	Import	Element group representing SCWA - Hood	Urban	0	0	1	47	SacIWRM, RWA, SCWA	Represents total GW production for service area
59	SW Imports - Import to SCWA - Hood for Urban	Import	Element group representing SCWA - Hood	Urban	0	0	1	0	SacIWRM, RWA, SCWA	Represents total SW delivered to service area
60	RW Imports - Import to SCWA - Hood for Urban	Import	Element group representing SCWA - Hood	Urban	0	0	1	0	SacIWRM, RWA, SCWA	Represents total RW for service area

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
61	GW Imports - Import to SCWA - Northgate for Urban	Import	Subregion 20	Urban	0	0	1	940	SacIWRM, RWA, SCWA	Represents total GW production for service area
62	SW Imports - Import to SCWA - Northgate for Urban	Import	Subregion 20	Urban	0	0	1	0	SacIWRM, RWA, SCWA	Represents total SW delivered to service area
63	RW Imports - Import to SCWA - Northgate for Urban	Import	Subregion 20	Urban	0	0	1	0	SacIWRM, RWA, SCWA	Represents total RW for service area
64	GW Imports - Import to SCWA - Laguna Vineyard for Urban	Import	Element group representing SCWA - South and Central Service Areas (including Elk Grove)	Urban	0	0	1	17,340	SacIWRM, RWA, SCWA	Represents total GW production for service area
65	SW Imports - Import to SCWA - Laguna Vineyard for Urban	Import	Element group representing SCWA - South and Central Service Areas (including Elk Grove)	Urban	0	0	1	3,314	SacIWRM, RWA, SCWA	Represents total SW delivered to service area
66	RW Imports - Import to SCWA - Laguna Vineyard for Urban	Import	Element group representing SCWA - South and Central Service Areas (including Elk Grove)	Urban	0	0	1	232	SacIWRM, RWA, SCWA	Represents total RW for service area
67	GW Imports - Import to SCWA Mather for Urban	Import	Element group representing SCWA - NSA	Urban	0	0	1	3,958	SacIWRM, RWA, SCWA	Represents total GW production for service area
68	SW Imports - Import to SCWA Mather for Urban	Import	Element group representing SCWA - NSA	Urban	0	0	1	233	SacIWRM, RWA, SCWA	Represents total SW delivered to service area
69	RW Imports - Import to SCWA Mather for Urban	Import	Element group representing SCWA - NSA	Urban	0	0	1	0	SacIWRM, RWA, SCWA	Represents total RW for service area
70	North Delta WA Ag Diversions - Import to North Delta WA for Agriculture	Import	Element group representing NDWA	Agriculture	0	0	1	43,072	SacIWRM	
71	Cosumnes River diversion 1 for ag use in element group 4 within Cosumnes River South and Sac Co. 8 subregions to for Agriculture	Cosumnes River Upstream Mokolumne R. / EKI	Element group representing CosSb_4	Agriculture	0	0	1	356	eWRIMS	
72	Cosumnes River diversion 2 for ag use in element group 4 within Cosumnes River South and Sac Co. 8 subregions to for Agriculture	Cosumnes River Upstream Laguna Crk /EKI	Element group representing CosSb_4	Agriculture	0	0	1	4	eWRIMS	
73	Cosumnes Subbasin Subregion for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Element group representing CosSb_1	Agriculture	0	0	1	752	eWRIMS	

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
74	East Subregion for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Element group representing CosSb_3	Agriculture	0	0	1	103	eWRIMS and Mark Stretars	
75	Cosumnes River diversion 3 for ag use in element group 4 within Cosumnes River South and Sac Co. 8 subregions for Agriculture	Cosumnes River Upstream Badger Crk / EKI	Element group representing CosSb_4	Agriculture	0	0	1	1,119	eWRIMS	
76	Cosumnes Subbasin Subregion for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Element group representing CosSb_1	Agriculture	0	0	1	1,143	eWRIMS	
77	Cosumnes Subbasin Subregion for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Element group representing CosSb_1	Agriculture	0	0	1	130	eWRIMS	
78	Cosumnes Subbasin Subregion for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Element group representing CosSb_1	Agriculture	0	0	1	307	eWRIMS	
79	Cosumnes Subbasin Subregion for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Element group representing CosSb_1	Agriculture	0	0	1	2,153	eWRIMS	
80	Cosumnes Subbasin Subregion for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Element group representing CosSb_2	Agriculture	0	0	1	354	eWRIMS	
81	East Subregion for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Element group representing CosSb_3	Agriculture	0	0	1	42	eWRIMS	
82	Cos and S Am Subbasins for Urban	Cosumnes River Upstream Deer Crk / EKI	Out of model	Urban	0	0	1	3,755	eWRIMS	
83	Dry Creek diversion for ag use in element group 7 within Amador Co. 1 subregion for Agriculture	Dry Creek Upstream Jackson Crk	Out of model	Agriculture	0	0	1	432	eWRIMS	
84	Dry Creek diversion for ag use in element group 8 within Amador Co. 1 subregion for Agriculture	Dry Creek Upstream Jackson Crk	Out of model	Agriculture	0	0	1	2,238	eWRIMS	
85	Dry Creek diversion 1 for ag use in element group 9 within Amador Co. 1 subregion for Agriculture	Dry Creek Upstream Jackson Crk / EKI	Element group representing CosSb_9	Agriculture	0	0	1	31	eWRIMS	
86	Dry Creek diversion 2 for ag use in element group 9 within Amador Co. 1 subregion for Agriculture	Dry Creek Upstream Jackson Crk	Element group representing CosSb_9	Agriculture	0	0	1	62	eWRIMS	
87	Dry Creek diversion 3 for ag use in element group 9 within Amador Co. 1 subregion for Agriculture	Dry Creek Upstream Jackson Crk	Element group representing CosSb_9	Agriculture	0	0	1	3	eWRIMS	
88	Dry Creek diversion 4 for ag use in element group 9 within Amador Co. 1 subregion for Agriculture	Dry Creek Upstream Jackson Crk	Element group representing CosSb_9	Agriculture	0	0	1	1	eWRIMS	

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
89	Dry Creek diversion 1 for ag use in element group 5 within Cosumnes River South subregion for Agriculture	Dry Creek Upstream Mokolumne R. / EKI	Element group representing CosSb_5	Agriculture	0	0	1	5,398	eWRIMS	
90	East Subregion to for Agriculture	Dry Creek Upstream Mokolumne R.	Element group representing CosSb_6	Agriculture	0	0	1	413	eWRIMS	
91	East Subregion for Agriculture	Dry Creek Upstream Mokolumne R.	Element group representing CosSb_6	Agriculture	0	0	1	59	eWRIMS	
92	Dry Creek diversion 2 for ag use in element group 5 within Cosumnes River South subregion for Agriculture	Dry Creek Upstream Mokolumne R. / EKI	Element group representing CosSb_5	Agriculture	0	0	1	547	eWRIMS	
93	East Subregion for Agriculture	Dry Creek Upstream Mokolumne R.	Element group representing CosSb_6	Agriculture	0	0	1	19	eWRIMS	
94	Dry Creek diversion 3 for ag use in element group 5 within Cosumnes River South subregion for Agriculture	Dry Creek Upstream Mokolumne R. / EKI	Element group representing CosSb_5	Agriculture	0	0	1	1,748	eWRIMS	
95	Dry Creek diversion 4 for ag use in element group 5 within Cosumnes River South subregion for Agriculture	Dry Creek Upstream Mokolumne R. / EKI	Element group representing CosSb_5	Agriculture	0	0	1	1,748	eWRIMS	
96	Dry Creek diversion 5 for ag use in element group 5 within Cosumnes River South subregion for Agriculture	Dry Creek Upstream Mokolumne R. / EKI	Element group representing CosSb_5	Agriculture	0	0	1	1,748	eWRIMS	
97	East Subregion for Agriculture	Badger Creek	Element group representing CosSb_15	Agriculture	0	0	1	10	eWRIMS	
98	West Subregion for Agriculture	Badger Creek	Element group representing CosSb_12	Agriculture	0	0	1	35	eWRIMS	
99	Laguna Creek diversion for ag use in element group 21 within Clay WD subregion for Agriculture	Laguna Creek (Cosumnes Subbasin)	Element group representing CosSb_21	Agriculture	0	0	1	301	eWRIMS	
100	East Subregion for Agriculture	Laguna Creek (Cosumnes Subbasin)	Element group representing CosSb_11	Agriculture	0	0	1	362	eWRIMS	
101	East Subregion for Agriculture	Laguna Creek (Cosumnes Subbasin)	Element group representing CosSb_11	Agriculture	0	0	1	3	eWRIMS	
102	East Subregion for Agriculture	Laguna Creek (Cosumnes Subbasin)	Element group representing CosSb_10	Agriculture	0	0	1	49	eWRIMS	
103	Jackson Creek diversion for ag use in element group 14 within Jackson ID subregion - Import for Agriculture	Import	Element group representing CosSb_14	Agriculture	0	0	1	10,558	eWRIMS	
104	Mokelumne River diversion 1 for ag use in element group 16 within Cosumnes River South subregion for Agriculture	Dry Creek Upstream Mokolumne R. / EKI	Element group representing CosSb_16	Agriculture	0	0	1	2,376	eWRIMS	

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
105	Mokelumne River diversion 2 for ag use in element group 16 within Cosumnes River South subregion for Agriculture	Mokolumne River Upstream Cosumnes R.	Element group representing CosSb_16	Agriculture	0	0	1	436	eWRIMS	
106	Mokelumne River diversion 3 for ag use in element group 16 within Cosumnes River South subregion to for Agriculture	Mokolumne River Upstream Cosumnes R.	Element group representing CosSb_16	Agriculture	0	0	1	232	eWRIMS	
107	Mokelumne River diversion 4 for ag use in element group 16 within Cosumnes River South subregion for Agriculture	Mokolumne River Upstream Cosumnes R.	Element group representing CosSb_16	Agriculture	0	0	1	933	eWRIMS	
108	Mokelumne River diversion 5 for ag use in element group 16 within Cosumnes River South subregion for Agriculture	Mokolumne River Upstream Cosumnes R.	Element group representing CosSb_16	Agriculture	0	0	1	4	eWRIMS	
109	Mokelumne River diversion 6 for ag use in element group 16 within Cosumnes River South subregion for Agriculture	Mokolumne River Upstream Cosumnes R.	Element group representing CosSb_16	Agriculture	0	0	1	141	eWRIMS	
110	East Subregion - Import for Agriculture	Import	Element group representing CosSb_19	Agriculture	0	0	1	1,263	eWRIMS	
111	East Subregion - Import for Agriculture	Import	Element group representing CosSb_17	Agriculture	0	0	1	651	eWRIMS	
112	East Subregion - Import for Agriculture	Import	Element group representing CosSb_18	Agriculture	0	0	1	142	eWRIMS	
113	Diversion from unmodeled stream or spring for ag use in OHWD Cosumnes Subbasin subregion - Import for Agriculture	Import	Subregion 67	Agriculture	0	0	1	232	eWRIMS	
114	East Subregion - Import for Agriculture	Import	Subregion 69	Agriculture	0	0	1	200	eWRIMS	
115	Diversion from unmodeled stream or spring for ag use in Wilton subregion - Import for Agriculture	Import	Subregion 70	Agriculture	0	0	1	11	eWRIMS	
116	Diversion from unmodeled stream or spring for ag use in Sloughhouse RCD West subregion - Import for Agriculture	Import	Subregion 71	Agriculture	0	0	1	133	eWRIMS	
117	Diversion from unmodeled stream or spring for ag use in Galt ID East subregion - Import for Agriculture	Import	Subregion 72	Agriculture	0	0	1	10	eWRIMS	
118	Diversion from unmodeled stream or spring for ag use in SMUD Rancho Seco subregion - Import for Agriculture	Import	Subregion 75	Agriculture	0	0	1	455	eWRIMS	
119	Diversion from unmodeled stream or spring for ag use in Cosumnes River South subregion - Import for Agriculture	Import	Subregion 76	Agriculture	0	0	1	5	eWRIMS	

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
120	Diversion from unmodeled stream or spring for ag use in Amador Co. 1 subregion - Import for Agriculture	Import	Subregion 81	Agriculture	0	0	1	217	eWRIMS	
121	Diversion from unmodeled stream or spring for ag use in Jackson ID subregion - Import for Agriculture	Import	Subregion 83	Agriculture	0	0	1	91	eWRIMS	
122	Diversion from unmodeled stream or spring for ag use in Comanche subregion - Import for Agriculture	Import	Subregion 84	Agriculture	0	0	1	80	eWRIMS	
123	Diversion from unmodeled stream or spring for ag use in Amador County WA subregion - Import or Agriculture	Import	Subregion 85	Agriculture	0	0	0	3	eWRIMS	
124	East Subregion - Import to for Agriculture	Import	Element group representing CosSb_20	Agriculture	0	0	1	150	eWRIMS	
125	Cosumnes Subbasin Subregion - Import for Agriculture	Import	Subregion 67	Agriculture	0	0	1	180	SacIWRM	
126	East Subregion - Import for Agriculture	Import	Subregion 72	Agriculture	0	0	1	1,128	SacIWRM	
127	Tailwater Reuse from fish farms for ag use in Clay WD subregion - Import to for Agriculture	Import	Subregion 73	Agriculture	0	0	1	150	SacIWRM	
128	East) Subregion - Import for Agriculture	Import	Subregion 69	Agriculture	0	0	1	300	SacIWRM	
129	Import to Ione for local surface water supply - Import for Urban	Import	Subregion 82	Urban	0	0	1	1,878	SacIWRM	
130	Recoverable Loss from Rancho Seco Export Water to Laguna Creek - Import for Agriculture	Import	Out of model	Agriculture	0	0	0	12,028	SacIWRM	
131	NOT USED - Import for Agriculture	Import	Out of model	Agriculture	0	0	0	786	N/A	
132	Cosumnes Subbasin) Subregion to O-H for Agriculture	Folsom South Canal (South of Cosumnes R.)	Subregion 67	Agriculture	0	0	0.34	0	SacIWRM	
133	South American) Subregion to O-H for Agriculture	Folsom South Canal (South of Cosumnes R.)	Subregion 66	Agriculture	0	0	0.66	0	SacIWRM	
134	East Subregion to Galt ID for Agriculture	Folsom South Canal (South of Cosumnes R.)	Subregion 72	Agriculture	0	0	1	2,279	SacIWRM	
135	Clay ID FSC diversions to Clay ID subregion to Clay ID for Agriculture	Folsom South Canal (South of Cosumnes R.)	Subregion 73	Agriculture	0	0	1	1,051	SacIWRM	
136	SMUD FSC diversions to SMUD Rancho Seco subregion to SMUD FSC for Agriculture	Folsom South Canal (South of Cosumnes R.)	Subregion 75	Agriculture	0	0	1	14,615	SacIWRM	
137	SCWA Freeport Diversions for Mather and Vineyard SW Supply	Sacramento River at Freeport	Out of model	Urban	0	0	1	3,154	RWA	Retail delivery handled with Divs 65, 68

Model Diversion ID	Description	Diversion Location	Delivery Area	Use	Fraction			Average Annual Diversion 1995-2018 (acre-feet)	Data Source	Notes
					RL	NL	Delivery			
138	Deer Creek diversion to SRCD to Deer Creek for Agriculture	Deer Creek	Subregion 65	Agriculture	0	0	1	29	eWRIMS	
139	Deer Creek diversions to OHWD to Deer Creek for Agriculture	Deer Creek	Subregion 66	Agriculture	0	0	1	175	eWRIMS	
140	Cosumnes River diversion to RMCSD area Ag to Cosumnes River for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Subregion 64	Agriculture	0	0	1	570	eWRIMS	
141	Cosumnes River diversions to OHWD to Cosumnes River for Agriculture	Cosumnes River Upstream Deer Crk / EKI	Subregion 66	Agriculture	0	0	1	1,388	eWRIMS	
142	Not Used	Import	N/A	N/A	1	0	1	0	N/A	
143	Diversion from water stored in Loch Lane for at use, adjusted to meet demand	Import	Element group representing / CosSb_22	Agriculture	0	0	1	2,670	eWRIMS	
144	Galt WWTP flows through Laguna Creek to Galt WWTP for Agriculture	Laguna Creek (Cosumnes Subbasin)	Element group representing / Galt WWTP	Agriculture	0	0	1	700	South Basin Groundwater Management Plan, Robertson-Bryan Inc. and WRIME, 2011	
145	Rancho Murieta diversion from stored water to meet estimated demand. - Import to Rancho Murieta for Urban	Import	Element group representing CosSb_13	Urban	0	0	1	1,833	RMCSD	

RL: Recoverable Loss
NL: Non-recoverable Loss

APPENDIX B: REMEDIATION PUMPING BY ENTITY

Water Year	Aerojet Remediation (NASb) (acre-feet)	Aerojet Remediation (SASb) (acre-feet)	Kiefer Landfill Remediation (acre-feet)	Mather Air Force Base Remediation (acre-feet)	McClellan Air Force Base Remediation (acre-feet)
1995	0	14,568	102	157	745
1996	0	15,189	468	209	1,145
1997	0	14,672	517	209	1,157
1998	270	16,916	898	209	1,167
1999	2,018	14,586	870	209	1,032
2000	1,900	12,747	1,500	209	2,020
2001	1,672	13,297	1,339	209	1,440
2002	1,583	12,657	1,793	209	1,105
2003	1,551	15,267	1,531	209	1,098
2004	1,695	18,682	1,622	209	1,569
2005	1,953	17,591	1,333	209	1,446
2006	2,069	18,892	1,280	209	2,272
2007	2,382	19,568	1,555	209	2,838
2008	2,287	21,786	1,391	209	2,743
2009	2,093	21,383	1,321	209	2,386
2010	2,424	24,938	1,111	209	2,369
2011	2,674	26,618	1,141	209	2,406
2012	3,394	26,058	575	209	2,483
2013	2,125	18,808	488	209	2,394
2014	2,479	21,932	522	209	2,317
2015	2,689	20,137	494	209	2,213
2016	3,482	28,274	375	209	2,432
2017	3,430	29,362	422	209	2,395
2018	3,105	28,935	621	209	2,409
Average WY 1995-2018	**1,970**	**19,703**	**969**	**207**	**1,899**

APPENDIX C: SUBREGION LAND AND WATER USE BUDGETS

Historical Water Use Budget Summary, Annual Average for WY 1995 - 2018

Subregion	Description	Ag Area	Ag Demand	Ag Water Duty	Urban Area	Urban Demand	Urban Water Duty	Total Water Demand	Total Ag Water Supply (Acre-Feet/Year)		Total Urban Water Supply (Acre-Feet/Year)			Total Supply (Acre-Feet/Year)	Remediation Operations	
		(Acres)	(Acre-Feet)	(Acre-Feet/Acre)	(Acres)	(Acre-Feet)	(Acre-Feet/Acre)	(Acre-Feet)	GW Production	SW Deliveries	GW Use	SW Deliveries	Other Supply[2]		Extraction	Injection
1	Camp Far West ID	1,760	9,327	5.3	169	150	0.9	9,477	4,472	4,990	150	-	-	9,612	-	-
2	Sutter Co. 1	147	643	4.4	2	1	0.4	644	643	-	1	-	-	644	-	-
3	South Sutter WD GSA	52,398	183,202	3.5	1,962	1,490	0.8	184,693	103,768	80,796	1,490	-	-	186,055	-	-
4	Placer County WA[1]	12,243	31,383	2.6	7,202	8,308	1.2	39,692	22,996	8,473	3,730	4,578	-	39,778	-	-
5	Nevada ID	3,168	11,467	3.6	482	397	0.8	11,864	6,030	5,770	397	-	-	12,196	-	-
6	Lincoln[1]	527	1,275	2.4	4,573	6,958	1.5	8,233	1,275	-	739	6,218	-	8,233	-	-
7	RD1001 [1]	7,476	28,604	3.8	371	165	0.4	28,769	19,039	9,565	165	-	-	28,769	-	-
8	Pleasant Grove Verona MWC	6,813	23,943	3.5	99	45	0.5	23,988	12,036	12,633	45	-	-	24,714	-	-
9	Sutter Co. 2	985	3,447	3.5	87	39	0.5	3,486	2,278	1,169	39	-	-	3,486	-	-
10	Natomas MWC (Sutter Co.)	11,694	41,428	3.5	436	197	0.5	41,625	717	40,744	197	-	-	41,658	-	-
11	Sutter Co. 3	2,912	9,152	3.1	440	289	0.7	9,441	9,152	-	289	-	-	9,441	-	-
12	Roseville SOI	1,127	3,037	2.7	44	105	2.4	3,141	3,037	-	105	-	-	3,141	-	-
13	City of Roseville	488	623	1.3	16,617	28,069	1.7	28,692	623	-	126	27,943	-	28,692	-	-
14	Cal Am (West Placer)	3,223	6,459	2.0	2,146	725	0.3	7,184	6,459	-	-	725	-	7,184	-	-
15	Natomas MWC (Sacramento Co.)	13,037	41,942	3.2	1,357	2,973	2.2	44,915	687	41,291	2,973	-	-	44,951	-	-
16	Sacramento International Airport	946	893	0.9	1,621	1,143	0.7	2,037	893	-	968	175	-	2,037	-	-
17	Metro Air Park	1,643	1,458	0.9	37	-	0.0	1,458	1,458	-	-	-	-	1,458	-	-
18	Sac Co. 1	928	1,896	2.0	139	604	4.3	2,500	100	1,796	604	-	-	2,500	-	-
19	Sac Co. 2	793	2,636	3.3	141	17	0.1	2,653	2,636	-	17	-	-	2,653	-	-
20	Sac County WA (Northgate 880)	43	52	1.2	792	940	1.2	992	52	-	940	-	-	992	-	-
21	Rio Linda Elverta	630	905	1.4	5,873	8,941	1.5	9,846	905	-	8,936	5	-	9,846	-	-
22	Sac Co. 3	327	250	0.8	214	335	1.6	584	250	-	335	-	-	584	-	-
23	Cal Am (Antelope)	4	8	1.8	2,664	5,790	2.2	5,798	8	-	5,621	170	-	5,798	-	-
24	Cal Am (Lincoln Oaks)	3	8	2.3	4,254	9,114	2.1	9,122	8	-	8,869	245	-	9,122	-	-
25	Citrus Heights WD	66	262	3.9	7,706	16,967	2.2	17,229	262	-	952	16,015	-	17,229	-	-
26	San Juan WD (Placer Co.)	41	18	0.4	1,130	1,817	1.6	1,835	18	-	-	1,817	-	1,835	-	-
27	San Juan WD (Sacramento Co.)	79	246	3.1	2,043	3,378	1.7	3,624	246	-	-	3,378	-	3,624	-	-
28	Orange Vale WC	119	618	5.2	2,839	4,191	1.5	4,809	618	-	-	4,191	-	4,809	-	-
29	Lake Natoma/Mississippi Bar	1	35	36.0	128	-	0.0	35	35	-	-	-	-	35	-	-
30	Fair Oaks WD	97	284	2.9	6,159	12,328	2.0	12,611	284	-	1,183	11,145	-	12,611	1,401	-
31	Carmichael WD	0	0	3.5	5,255	11,234	2.1	11,234	0	-	4,080	7,155	-	11,234	568	-
32	Sacramento Suburban WD (North)	154	74	0.5	13,736	25,031	1.8	25,105	74	-	16,130	8,902	-	25,105	1,843	-
33	Sacramento Suburuban WD (South)	-	-	0.0	7,765	17,388	2.2	17,388	-	-	16,387	1,001	-	17,388	-	-
34	Del Paso Manor WD	-	-	0.0	614	1,549	2.5	1,549	-	-	1,549	-	-	1,549	-	-
35	Golden State WC Arden	-	-	0.0	496	1,169	2.4	1,169	-	-	1,169	-	-	1,169	-	-
36	Cal Am (Arden)	-	-	0.0	640	2,832	4.4	2,832	-	-	2,830	2	-	2,832	-	-
37	Sac County WA (Arden Park	-	-	0.0	1,348	3,911	2.9	3,911	-	-	3,911	-	-	3,911	-	-
38	City of Sacramento (North)	3,522	4,546	1.3	17,106	37,754	2.2	42,300	4,546	-	6,459	31,296	-	42,300	56	-
	Total NASb	127,396	410,120	120	118,685	216,346	58	626,466	205,605	207,227	91,384	124,961	-	629,177	3,869	-
39	City of Sacramento (South)	735	1,230	1.7	35,588	79,828	2.2	81,058	1,146	84	13,767	66,193	-	81,190	-	-
40	Cal Am (Suburban Rosemont)	291	938	3.2	7,186	12,381	1.7	13,318	938	-	12,296	110	-	13,343	131	-
41	Sac Co. 4	65	29	0.4	15	-	0.0	29	29	-	-	-	-	29	-	-
42	Golden State WC (Cordova)	72	76	1.1	6,310	15,264	2.4	15,341	76	-	8,977	6,287	-	15,341	4,422	-
43	Sac Co. 5	-	-	0.0	269	3	0.0	3	-	-	-	3	-	3	7,351	-
44	City of Folsom[1]	53	55	1.1	9,505	20,451	2.2	20,507	35	-	-	20,451	-	20,487	3,137	-
45	Cal Am (Security Park)	-	-	0.0	171	31	0.2	31	-	-	31	0	-	31	48	-
46	Fruitridge Vista WC	-	-	0.0	1,894	4,224	2.2	4,224	-	-	4,387	1	-	4,388	-	-
47	Florin County WD	1	4	3.9	1,369	2,623	1.9	2,628	4	-	2,623	-	-	2,628	-	-
48	Cal Am (Parkway)	5	11	1.9	5,007	11,291	2.3	11,302	11	-	10,699	592	-	11,302	-	-
49	Sac Co. 6	463	898	1.9	1,056	57	0.1	955	598	300	57	-	-	955	-	-
50	Sac County WA (North/Central)	4,080	11,378	2.8	12,881	16,425	1.3	27,803	11,378	-	14,874	1,435	92	27,779	4,819	207
51	Sac County WA (South)	3,303	8,188	2.5	7,996	11,375	1.4	19,564	8,188	-	9,397	1,851	128	19,564	-	-
52	Elk Grove WD (2 - Intertie Service Area)	639	1,717	2.7	2,374	3,430	1.4	5,147	1,717	-	2,833	558	38	5,147	-	-
53	Elk Grove WD (1 - GW Service Area)	33	115	3.5	2,934	5,189	1.8	5,305	115	-	5,189	-	-	5,305	-	-
54	Cosumnes River West	18,072	56,004	3.1	1,824	4,533	2.5	60,536	51,495	4,509	4,533	-	-	60,537	-	-
55	RD744	1,294	2,738	2.1	102	60	0.6	2,798	702	2,036	60	-	-	2,798	-	-
56	Franklin Drainage District	2,825	8,515	3.0	250	158	0.6	8,673	3,180	5,336	125	33	-	8,674	-	-
57	RD813	2,075	4,676	2.3	82	48	0.6	4,724	1,287	3,389	33	15	-	4,724	-	-
58	RD755	354	1,497	4.2	26	16	0.6	1,513	520	978	16	-	-	1,513	-	-
59	RD1002	4,303	10,037	2.3	254	166	0.7	10,203	2,889	7,148	166	-	-	10,203	-	-
60	RD551	7,927	22,522	2.8	423	245	0.6	22,767	6,062	16,462	245	-	-	22,768	-	-
61	RD369	108	382	3.5	37	23	0.6	406	130	252	23	-	-	406	-	-
62	RD2110	1,401	2,033	1.5	52	28	0.5	2,061	409	1,624	28	-	-	2,061	-	-
63	Sac Co. 7	306	680	2.2	88	94	1.1	773	176	504	94	-	-	773	-	-
64	Rancho Murieta (North) [1]	381	1,239	3.2	1,098	1,415	1.3	2,654	740	499	153	1,262	-	2,654	-	-
65	Sloughouse RCD (North)	575	1,318	2.3	631	616	1.0	1,934	1,290	28	584	31	-	1,934	-	-
66	OHWD (Sth American Subbasin)	9,592	24,431	2.5	2,469	1,970	0.8	26,401	23,282	1,517	1,554	431	-	26,784	969	-
	Total SASb	58,954	160,714	62	101,890	191,942	33	352,656	116,398	44,668	92,742	99,252	258	353,318	20,879	207
67	OHWD (Cosumnes Subbasin)	2,633	7,608	2.9	1,049	975	0.9	8,583	5,202	2,407	1,053	-	-	8,661	-	-
68	Rancho Murieta (South)	4	20	4.7	365	465	1.3	485	6	14	-	412	-	432	-	-
69	Sloughouse RCD (East)	8,331	21,515	2.6	1,303	1,322	1.0	22,838	19,813	1,702	109	128	-	21,752	-	-
70	Wilton	1,018	3,611	3.5	3,502	2,742	0.8	6,353	3,600	11	4,352	-	-	7,963	-	-
71	Sloughouse RCD (West)	4,111	10,694	2.6	324	242	0.7	10,936	10,562	132	8	-	-	10,701	-	-
72	Galt ID (East)	14,401	41,762	2.9	6,071	5,336	0.9	47,098	38,080	3,682	9,526	-	-	51,288	-	-
73	Clay WD	1,918	7,109	3.7	172	479	2.8	7,588	5,634	1,474	-	-	-	7,109	-	-
74	Clay	61	180	2.9	2,805	1,945	0.7	2,126	180	-	1,903	-	-	2,084	-	-
75	SMUD Rancho Seco	21	36	1.7	137	138	1.0	174	-	36	7	-	-	43	-	-
76	Cosumnes River South	4,405	12,174	2.8	191	315	1.6	12,488	9,159	3,046	-	-	-	12,205	-	-
77	Galt ID (West)	1,847	5,355	2.9	1,331	1,222	0.9	6,577	5,355	-	707	-	-	6,062	-	-
78	Sac Co. 8	2,882	6,480	2.2	623	924	1.5	7,404	5,124	1,356	165	-	-	6,645	-	-
79	City of Galt	182	361	2.0	3,035	4,650	1.5	5,011	361	-	4,737	-	-	5,099	-	-
80	Sloughouse RCD (South)	1,034	2,418	2.3	320	497	1.6	2,915	2,418	-	56	-	-	2,474	-	-
81	Amador Co. 1	1,812	3,278	1.8	1,832	2,530	1.4	5,809	1,259	2,018	0	-	-	3,277	-	-
82	Ione	153	425	2.8	1,109	2,130	1.9	2,555	425	0	-	1,878	-	2,303	-	-
83	Jackson ID	2,693	9,258	3.4	361	456	1.3	9,713	-	9,018	-	-	-	9,018	-	-
84	Camanche	63	-	0.0	133	164	1.2	164	-	-	76	-	-	76	-	-
85	Amador County WA	0	-	0.0	199	245	1.2	245	-	-	181	-	-	181	-	-
87	Galt WWTP	148	209	1.4	57	88	1.5	297	-	698	-	-	-	698	-	-
	Total CoSb	47,717	132,494	49	24,918	26,866	26	159,360	107,180	25,594	22,881	2,417	-	158,072	-	-
86	Mokelumne	34,664	79,056	2.3	3,200	4,222	1.3	83,278	79,056	-	4,222	-	-	83,278	-	-
	Total Other	34,664	79,056	2.3	3,200	4,222	1.3	83,278	79,056	-	4,222	-	-	83,278	-	-
	CoSANA Grand Total (NASb, SASb, CoSb)	234,067	703,329	231	245,493	435,154	116	1,138,482	429,183	277,488	207,008	226,630	258	1,140,568	24,748	207

Footnotes:
1. Subregion includes areas that fall outside of DWR B118 subbasin boundaries
2. Other Supply includes recycled water deliveries

APPENDIX D: STREAM REACH BUDGETS

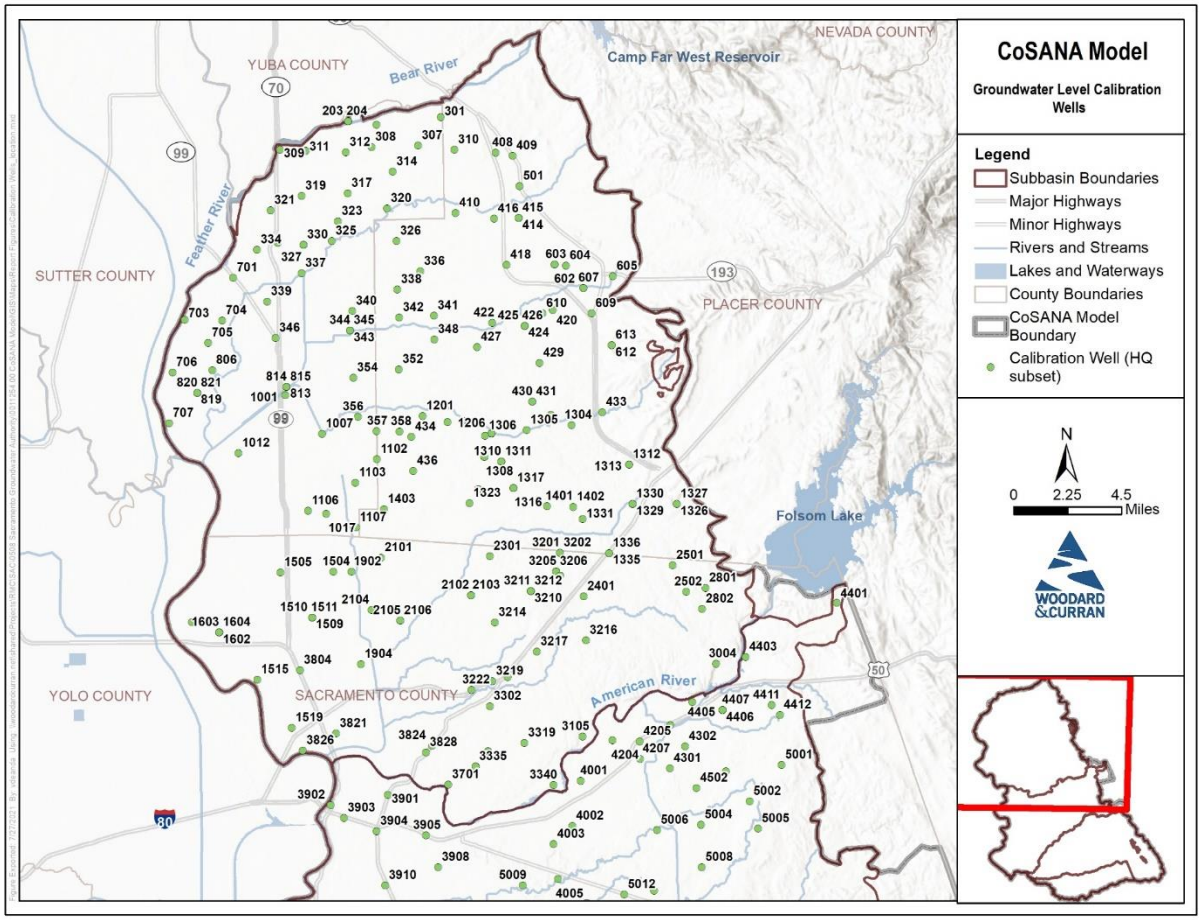
Reach Number	Reach Description	Upstream Inflow (acre-feet)	Downstream Outflow (acre-feet)	Tributary Inflow (acre-feet)	Runoff (acre-feet)	Return Flow (acre-feet)	Gain from Groundwater (acre-feet)	Riparian ET (acre-feet)	Runoff (acre-feet)	Diversion Shortage (acre-feet)
1	Bear River	325,762	362,711	1,587	15,179	3,535	16,654	0	0	0
2	Feather River	5,680,692	5,643,013	0	0	0	-26,679	0	11,000	0
3	Sacramento River Upstream Cross Canal	14,471,419	14,512,137	0	31,663	8,137	15,455	0	14,528	0
4	Racoon Creek (formerly Coon Creek)	28,867	73,106	21,978	35,599	7,876	-21,201	0	0	0
5	East Side Canal I	0	21,499	334	17,074	4,405	-307	0	0	0
6	Auburn Ravine	19,365	26,950	0	13,451	3,115	-7,449	0	1,528	1
7	East Side Canal II	48,450	47,304	0	0	0	-1,146	0	0	0
8	Pleasant Grove Creek	28,846	76,604	386	38,745	12,405	-3,773	0	0	0
9	Pleasant Grove Creek Canal	76,604	73,288	0	0	0	-3,321	0	0	0
10	Cross Canal 1	120,591	114,705	0	0	0	-5,881	0	0	0
11	Cross Canal 2	187,811	189,809	0	0	0	1,998	0	0	0
12	Sacramento River Upstream Natomas East Drain	14,701,946	14,624,027	0	0	0	6,551	0	84,471	0
13	Natomas East Drain Upstream Dry Crk	0	128,860	0	86,007	50,192	-7,347	0	0	0
14	Dry Creek (North American Subbasin)	35,968	47,216	2,438	16,213	7,721	-15,123	0	0	0
15	Natomas East Drain Upstream Magpie Crk	47,216	96,191	0	30,091	20,647	-1,752	0	0	0
16	Magpie Creek	2,470	1,915	0	0	0	-554	0	0	0
17	Natomas East Drain Upstream Arcade Crk	98,107	155,478	0	34,602	26,267	-3,498	0	0	0
18	Arcade Crk	0	0	0	0	0	0	0	0	0
19	Natomas East Drain Upstream Sacramento R.	155,478	147,333	0	0	0	-8,144	0	0	0
20	Sacramento River Upstream American R.	14,771,360	14,777,536	0	0	0	6,176	0	0	0
21	Alder Creek	0	3,728	999	0	0	2,729	0	0	0
22	Buffalo Creek	7,203	53,112	0	32,572	16,776	-3,438	0	0	0
23	American River Upstream Alder Crk	2,747,286	2,754,396	409	0	0	6,700	0	0	0
24	American River Upstream Buffalo Crk	2,758,124	2,750,442	0	0	0	-7,682	0	0	0
25	American River Buffalo Crk to H St Bridge	2,815,189	2,718,995	0	0	0	-40,829	0	55,365	0
26	American River Upstream Sacramento R.	2,718,995	2,736,106	0	0	0	17,242	0	132	0
27	Sacramento River Upstream Morrison Crk	17,513,642	17,502,205	0	42,933	35,792	-34,708	0	55,453	0
28	Morrison Creek Upstream Elder Crk	17,995	77,197	0	41,487	20,118	-2,388	0	0	0
29	Elder Creek	0	0	0	0	0	0	0	0	0
30	Morrison Creek Upstream Beacon Crk	77,197	74,208	0	0	0	-2,989	0	0	0
31	Beacon Creek	0	57	0	0	0	57	0	0	0
32	Morrison Creek Upstream Laguna Crk	74,265	111,174	0	28,492	9,394	-970	0	0	0
33	Laguna Creek (South American Subbasin)	8,342	2,940	0	0	0	-5,402	0	0	0
34	Morrison Creek Upstream Sacramento R.	114,114	134,109	0	11,790	7,076	1,133	0	0	0
35	Sacramento River Upstream Mokolumne Confluence	17,636,315	17,649,814	0	38,822	12,907	-38,209	0	0	0
36	Deer Creek	1,214	104,376	87,005	23,491	2,701	-9,833	0	197	6
37	Cosumnes River Upstream Deer Crk	397,070	409,057	0	25,669	3,406	-8,031	1,239	7,818	197
38	Cosumnes River Upstream Badger Crk	513,433	505,527	0	662	182	-7,340	640	769	0
39	Badger Creek	0	6,524	0	6,425	486	199	579	0	45
40	Cosumnes River Upstream Laguna Crk	512,051	522,840	0	17,105	1,617	-7,584	340	4	0
41	Laguna Creek (Cosumnes Subbasin)	21,012	96,118	17,138	52,214	7,685	1,003	1,544	1,388	0
42	Cosumnes River Upstream Mokolumne R.	618,958	617,231	0	8,449	2,085	-10,375	1,817	68	0
43	Dry Creek Upstream Jackson Crk	30,040	53,117	0	19,708	1,448	4,570	0	2,649	75
44	Jackson Creek	30,295	36,670	804	0	0	5,570	0	0	0
45	Dry Creek Upstream Mokolumne R.	89,787	119,068	0	46,628	6,563	-18,302	1,614	3,955	505
46	Mokolumne River Upstream Dry Crk	569,130	534,845	0	5,415	1,306	-41,001	0	0	0
47	Mokolumne River Upstream Cosumnes R.	653,913	649,754	0	0	0	-3,591	281	290	0
48	Mokolumne River Upstream Sacramento R. Confluence	1,266,985	1,278,877	0	0	0	11,894	0	0	0
49	Folsom South Canal (North of Cosumnes R.)	0	0	0	0	0	0	0	0	0
50	Folsom South Canal (South of Cosumnes R.)	0	0	0	0	0	0	0	0	0
51	Hadselville Creek	12,039	11,985	0	0	0	-27	27	0	0

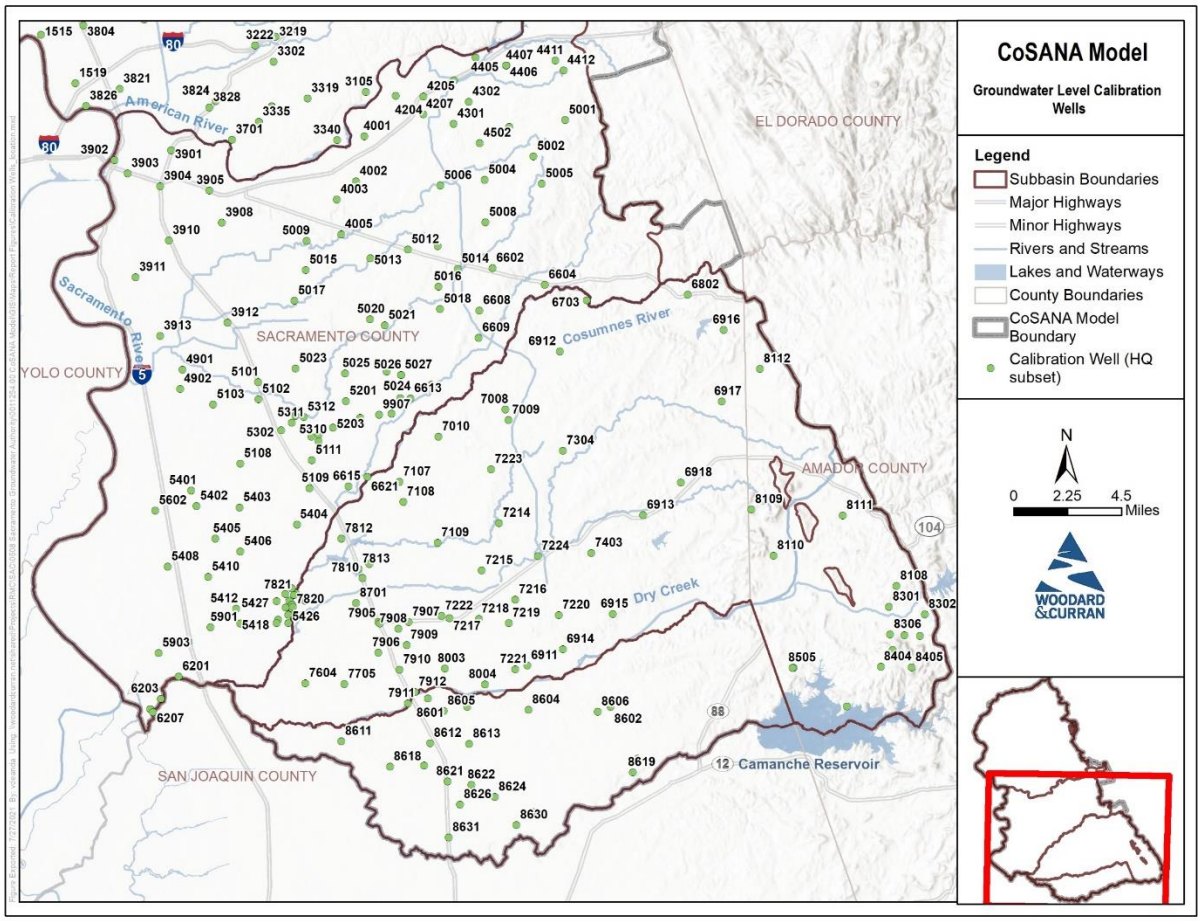
APPENDIX E: SUBREGION GROUNDWATER BUDGETS

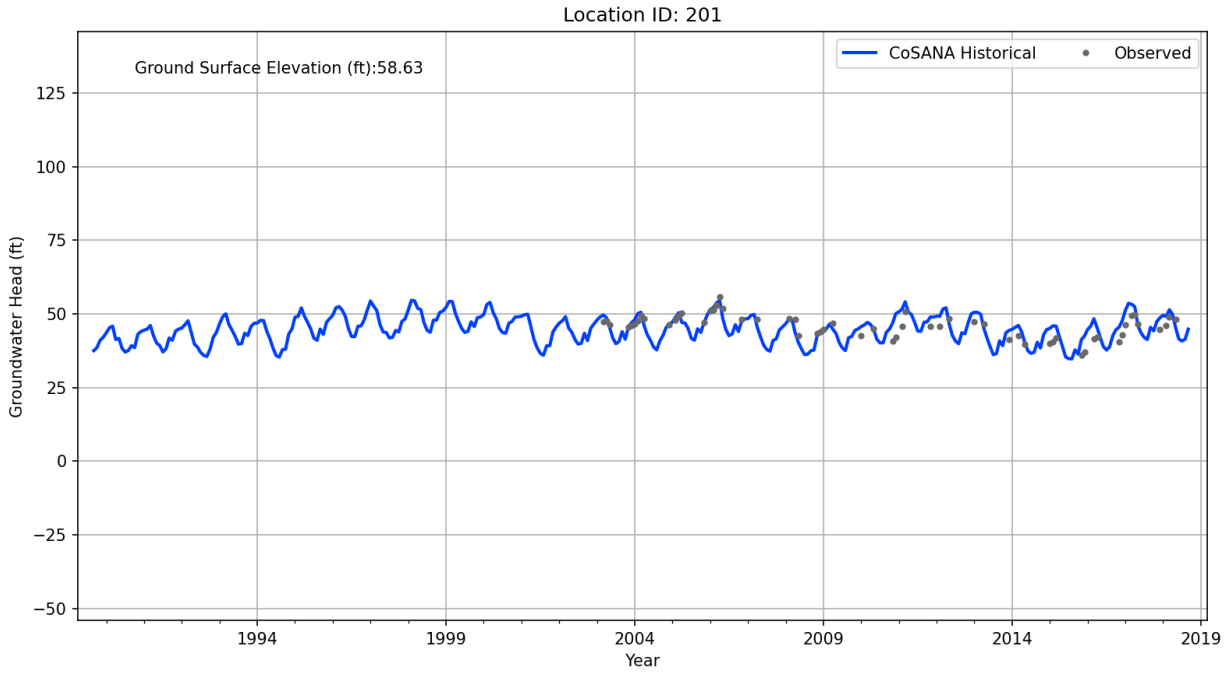
Historical Groundwater Budget Summary, Annual Average for WY 1995 - 2018							
Subregion	**Description**	**Deep Percolation**	**Gain from Stream**	**Recharge (Recoverable Loss)**	**Boundary Inflow**	**Net Subsurface Inflow**	**Pumping**
		(Acre-Feet)	*(Acre-Feet)*	*(Acre-Feet)*	*(Acre-Feet)*	*(Acre-Feet)*	*(Acre-Feet)*
North American Subbasin							
1	Camp Far West ID	6,135	-5,792	699	2,385	1,193	4,622
2	Sutter Co. 1	309	19	0	1,042	-723	644
3	South Sutter WD GSA	53,729	24,620	11,265	3,832	12,707	105,258
4	Placer County WA	32,625	3,435	1,186	1,469	-4,129	26,874
5	Nevada ID	7,990	850	1,616	4,455	-8,249	6,426
6	Lincoln	6,143	933	0	505	-1,859	1,866
7	RD1001	15,990	3,411	1,148	741	-1,978	19,204
8	Pleasant Grove Verona MWC	5,444	2,754	1,516	0	2,447	12,081
9	Sutter Co. 2	1,438	-2,571	140	1,429	1,889	2,318
10	Natomas MWC (Sutter Co.)	7,966	5,839	306	72	-10,265	3,933
11	Sutter Co. 3	3,321	938	0	0	5,114	9,441
12	Roseville SOI	1,287	1,178	0	0	1,043	3,141
13	City of Roseville	5,768	6,041	145	2,486	-8,724	749
14	Cal Am (West Placer)	4,747	4,279	0	0	-1,597	6,465
15	Natomas MWC (Sacramento Co.)	11,773	-3,535	514	4,246	-8,920	3,477
16	Sacramento International Airport	1,060	0	0	0	982	1,862
17	Metro Air Park	878	0	0	0	745	1,468
18	Sac Co. 1	964	-2,655	0	4,068	-1,619	704
19	Sac Co. 2	1,336	2,281	0	0	-242	3,286
20	Sac County WA (Northgate 880)	77	603	0	0	238	846
21	Rio Linda Elverta	2,156	5,736	0	0	2,732	9,840
22	Sac Co. 3	231	793	0	0	-356	584
23	Cal Am (Antelope)	618	663	0	0	4,262	5,134
24	Cal Am (Lincoln Oaks)	618	0	0	0	8,459	8,402
25	Citrus Heights WD	1,760	0	0	476	-292	1,680
26	San Juan WD (Placer Co.)	434	0	0	1,159	-1,751	18
27	San Juan WD (Sacramento Co.)	649	-488	0	811	-931	246
28	Orange Vale WC	1,338	0	0	0	-1,018	618
29	Lake Natoma/Mississippi Bar	1,516	-4,959	0	30	3,461	35
30	Fair Oaks WD	2,910	5,159	0	0	-5,449	2,877
31	Carmichael WD	1,165	6,118	0	0	-1,996	4,906
32	Sacramento Suburban WD (North)	2,802	53	0	0	16,599	17,456
33	Sacramento Suburuban WD (South)	954	7,379	0	0	9,721	17,166
34	Del Paso Manor WD	84	0	0	0	1,550	1,549
35	Golden State WC Arden	45	0	0	0	956	931
36	Cal Am (Arden)	481	0	0	0	1,492	1,901
37	Sac County WA (Arden Park	237	991	0	0	1,819	2,896
38	City of Sacramento (North)	4,793	19,148	0	1,130	1,947	25,074
Total NASb		191,772	83,222	18,535	30,336	19,257	315,980
South American Subbasin							
39	City of Sacramento (South)	16,041	15,444	0	1,403	-28,141	3,252
40	Cal Am (Suburban Rosemont)	1,950	7,140	0	0	4,865	13,511
41	Sac Co. 4	301	2,827	0	0	-3,093	29
42	Golden State WC (Cordova)	6,644	14,347	0	0	-7,641	13,361
43	Sac Co. 5	1,939	0	0	0	5,527	7,351
44	City of Folsom	17,068	-2,544	0	2,135	-10,936	3,171
45	Cal Am (Security Park)	1,608	37	0	0	-1,613	79
46	Fruitridge Vista WC	306	235	0	0	3,194	3,621
47	Florin County WD	158	0	0	0	2,209	2,315
48	Cal Am (Parkway)	857	303	0	0	9,845	10,762
49	Sac Co. 6	1,228	3,807	0	228	-4,544	655
50	Sac County WA (North/Central)	18,508	3,649	207	0	8,510	32,290
51	Sac County WA (South)	5,692	203	0	0	14,360	19,306
52	Elk Grove WD (2 - Intertie Service Area)	1,525	1,066	0	0	1,132	3,758
53	Elk Grove WD (1 - GW Service Area)	493	632	0	0	6,665	7,568
54	Cosumnes River West	23,325	11,899	0	0	21,878	56,028
55	RD744	885	6,948	0	-718	-6,346	762
56	Franklin Drainage District	3,383	6,324	0	-205	-6,030	3,365
57	RD813	1,648	3,037	0	-91	-3,265	1,320
58	RD755	549	1,415	0	-249	-1,180	535
59	RD1002	3,199	0	0	0	-115	3,055
60	RD551	8,934	6,259	0	-1,397	-7,491	6,307
61	RD369	441	2,023	0	-201	-2,110	153
62	RD2110	865	-745	0	516	-197	437
63	Sac Co. 7	407	1,342	0	29	-1,507	270
64	Rancho Murieta (North)	5,053	-1,984	0	0	-1,382	893
65	Sloughouse RCD (North)	4,971	93	0	2,791	-5,805	1,874
66	OHWD (Sth American Subbasin)	11,701	15,439	15	64	-969	25,837
Total SASb		139,681	99,195	222	4,307	-14,179	221,865
Cosumnes Subbasin							
67	OHWD (Cosumnes Subbasin)	5,590	5,181	0	0	-4,272	6,255
68	Rancho Murieta (South)	1,070	-1,843	0	0	768	6
69	Sloughouse RCD (East)	22,178	3,548	0	1,116	-9,591	19,922
70	Wilton	4,641	45	0	0	3,051	7,953
71	Sloughouse RCD (West)	4,099	381	0	0	5,687	10,570
72	Galt ID (East)	20,192	1,970	0	0	23,121	47,606
73	Clay WD	3,514	1,115	0	0	629	5,634
74	Clay	1,051	3	0	0	733	2,084
75	SMUD Rancho Seco	473	0	0	0	-666	7
76	Cosumnes River South	4,860	9,984	0	-523	-5,018	9,159
77	Galt ID (West)	2,736	776	0	0	2,631	6,062
78	Sac Co. 8	4,301	8,367	0	0	-7,323	5,289
79	City of Galt	1,744	668	0	0	2,623	5,099
80	Sloughouse RCD (South)	1,225	993	0	0	224	2,474
81	Amador Co. 1	13,266	-5,448	0	3,367	-8,492	1,259
82	Ione	1,513	0	0	0	-602	425
83	Jackson ID	8,648	-6,775	0	507	-2,429	0
84	Camanche	5,130	0	0	-4,621	-1,420	81
85	Amador County WA	1,477	0	0	5	-1,559	176
87	Galt WWTP	344	0	0	0	-352	0
Total CoSb		108,054	18,964	0	-149	-2,255	130,062
Other							
86	Mokelumne	29,317	49,564	0	3,650	-2,823	83,278
Total Other		29,317	49,564	0	3,650	-2,823	83,278
CoSANA Total (NASb, SASb, CoSb)		439,507	201,381	18,757	34,495	2,823	667,907

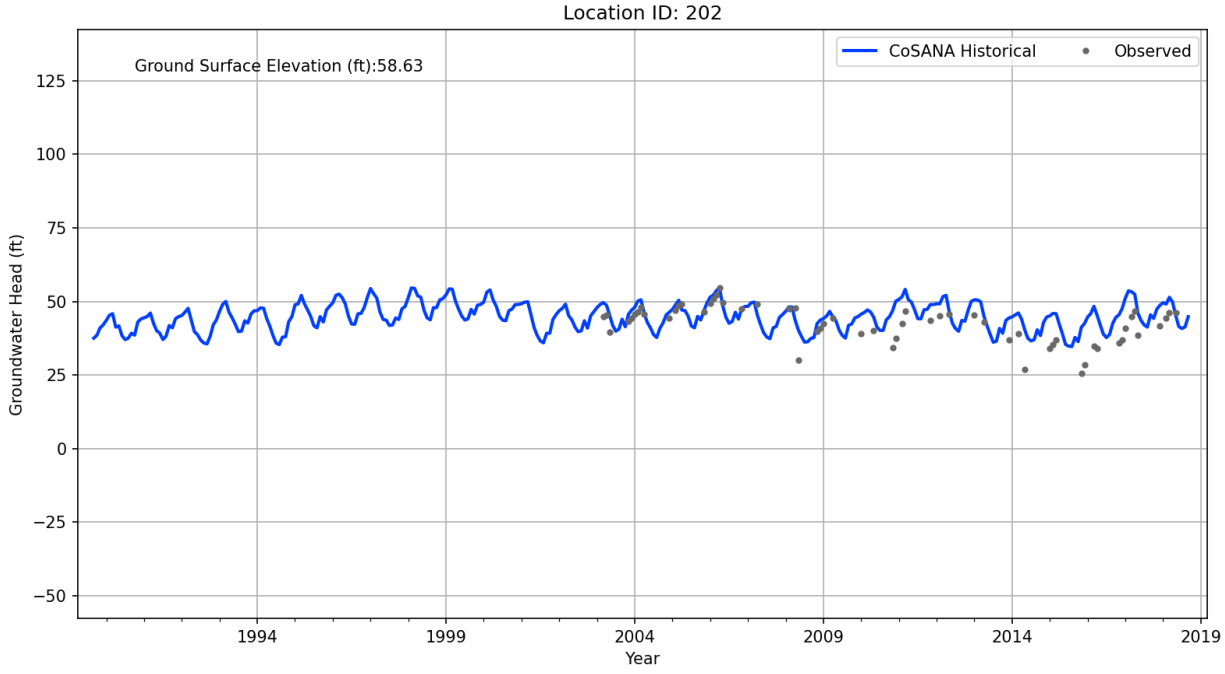
APPENDIX F: CALIBRATION HYDROGRAPHS

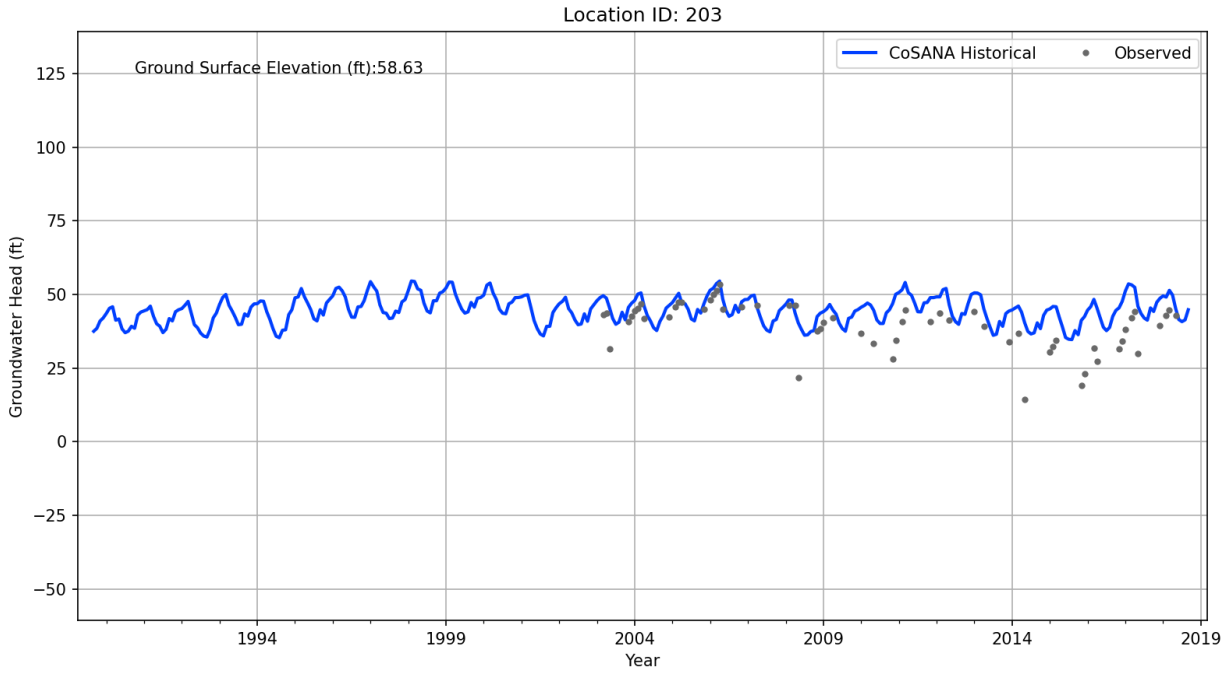
Note: *hydrographs developed for this appendix use a transmissivity-weighted average of layers 2 through 5 for simulated groundwater heads.*

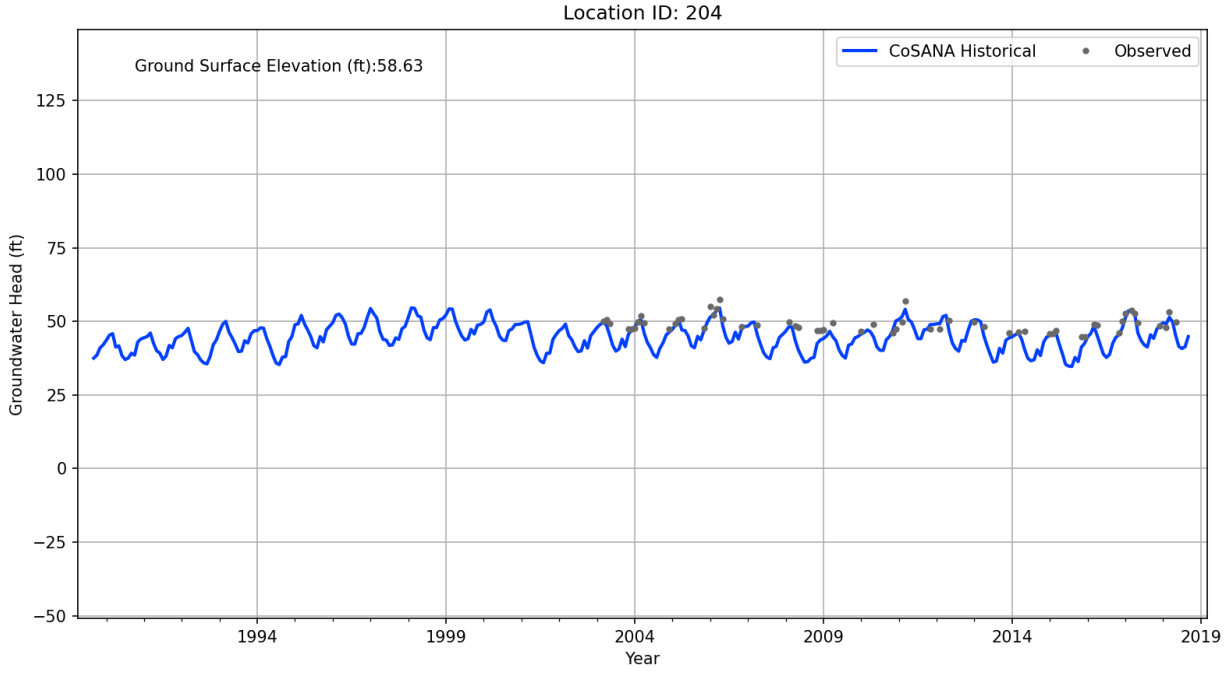


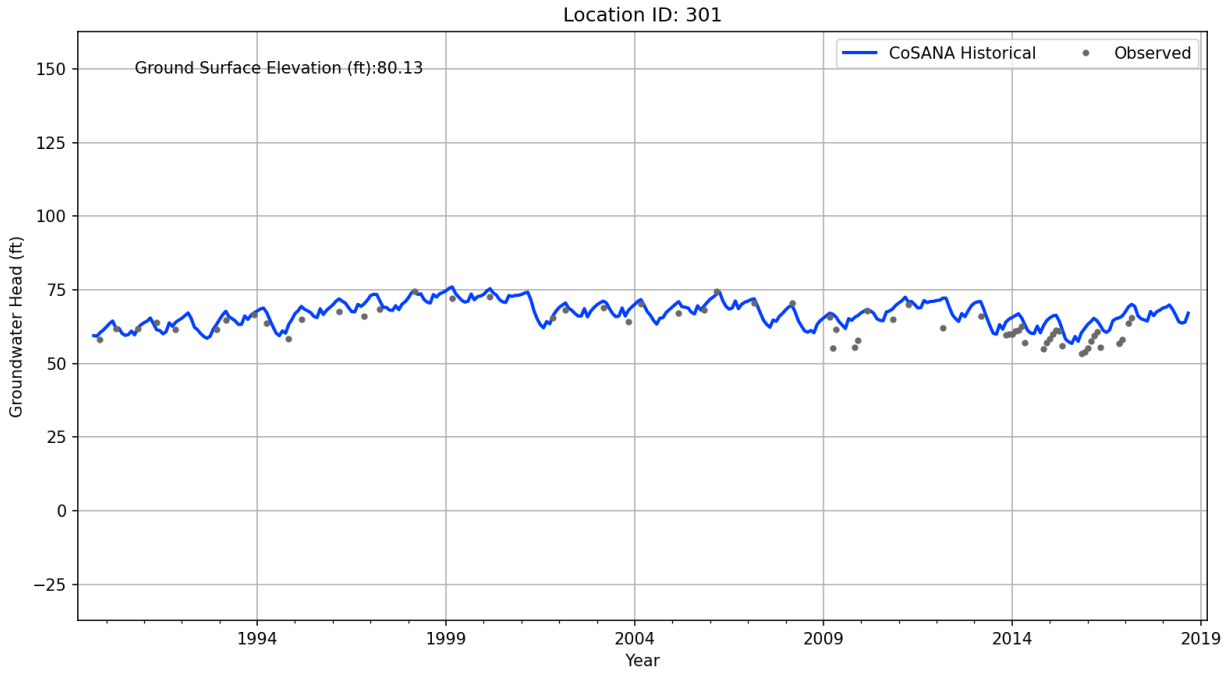

CoSANA Model
Groundwater Level Calibration Wells
Legend
Subbasin Boundaries
Major Highways
Minor Highways
Rivers and Streams
Lakes and Waterways
County Boundaries
CoSANA Model Boundary
Calibration Well (HQ subset)
N
0 2.25 4.5
Miles
WOODARD &CURRAN
EL DORADO COUNTY
SACRAMENTO COUNTY
YOLO COUNTY
AMADOR COUNTY
SAN JOAQUIN COUNTY
American River
Sacramento River
Cosumnes River
Dry Creek
Camanche Reservoir

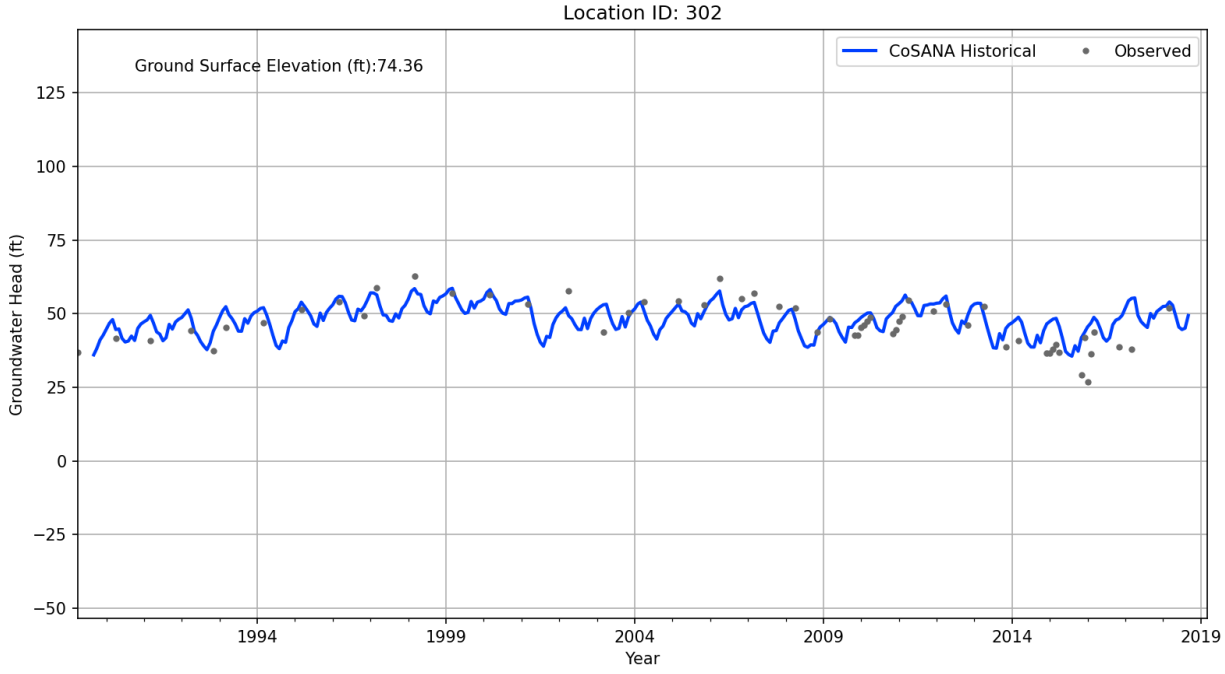

Location ID: 201
Ground Surface Elevation (ft):58.63
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

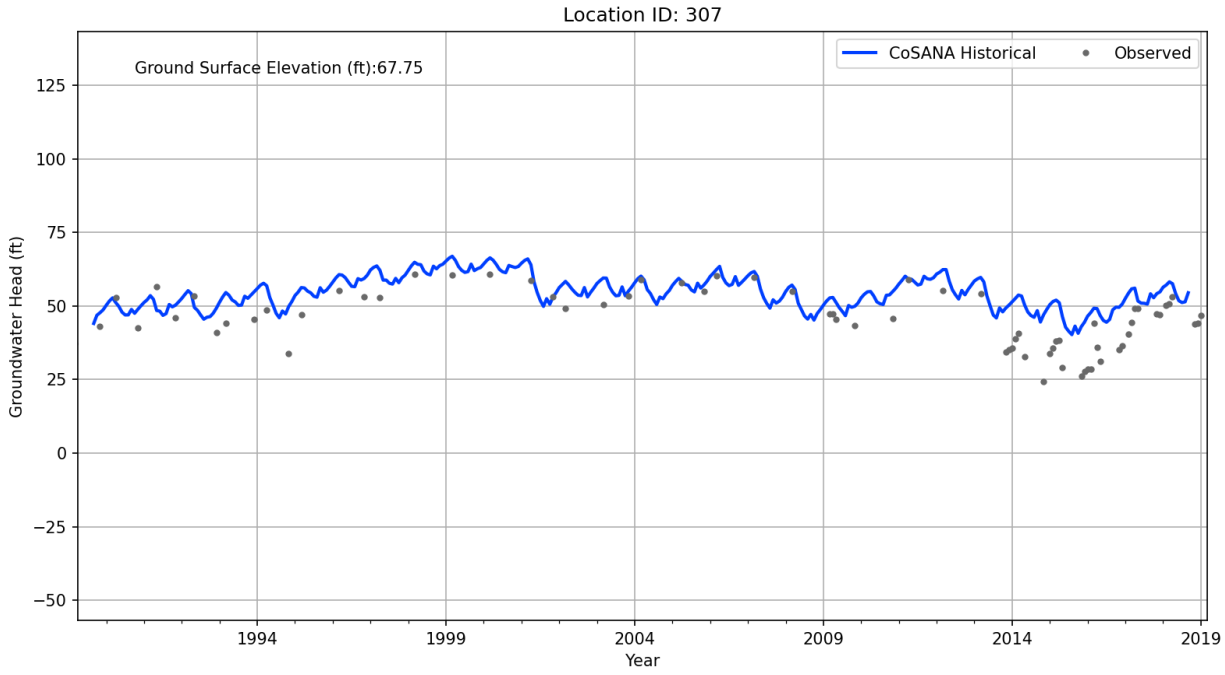

Location ID: 202
Ground Surface Elevation (ft):58.63
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

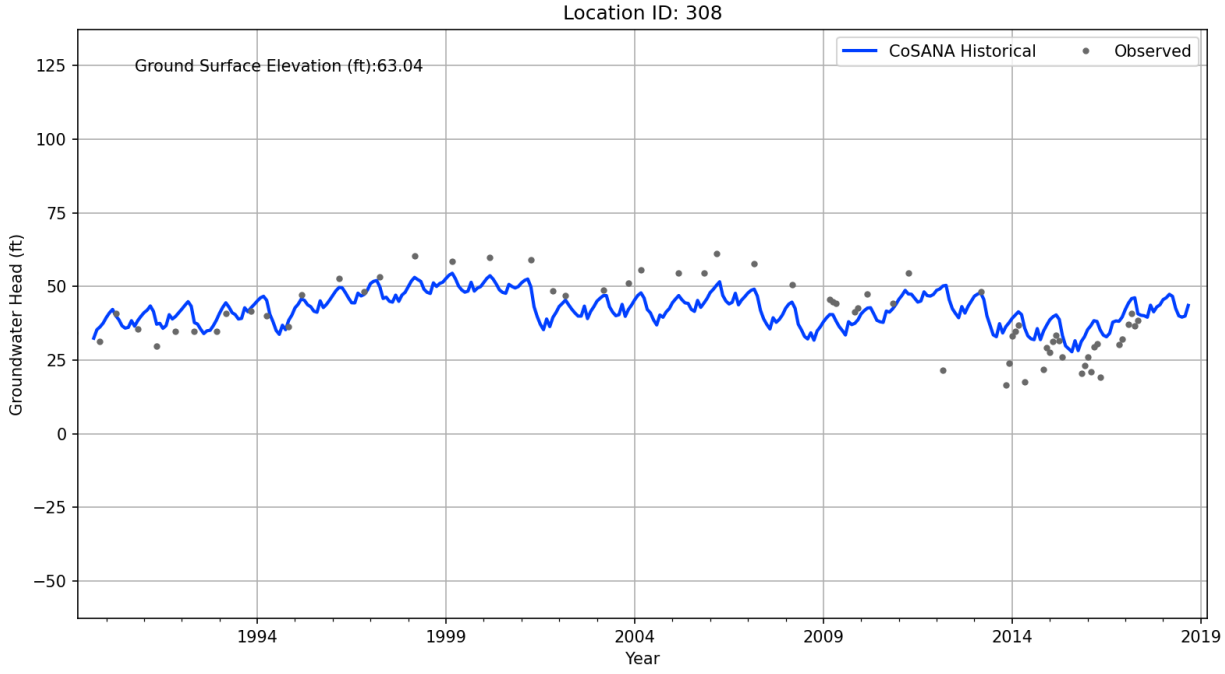

Location ID: 203
Ground Surface Elevation (ft):58.63
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

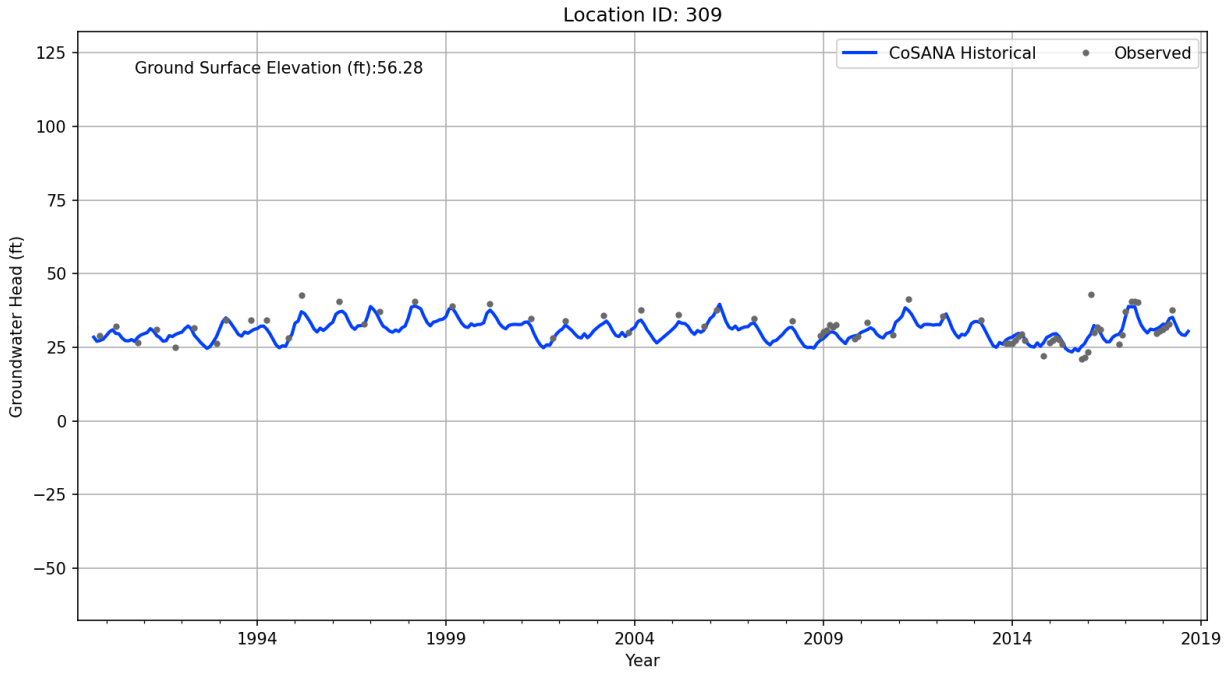

Location ID: 204
Ground Surface Elevation (ft):58.63
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

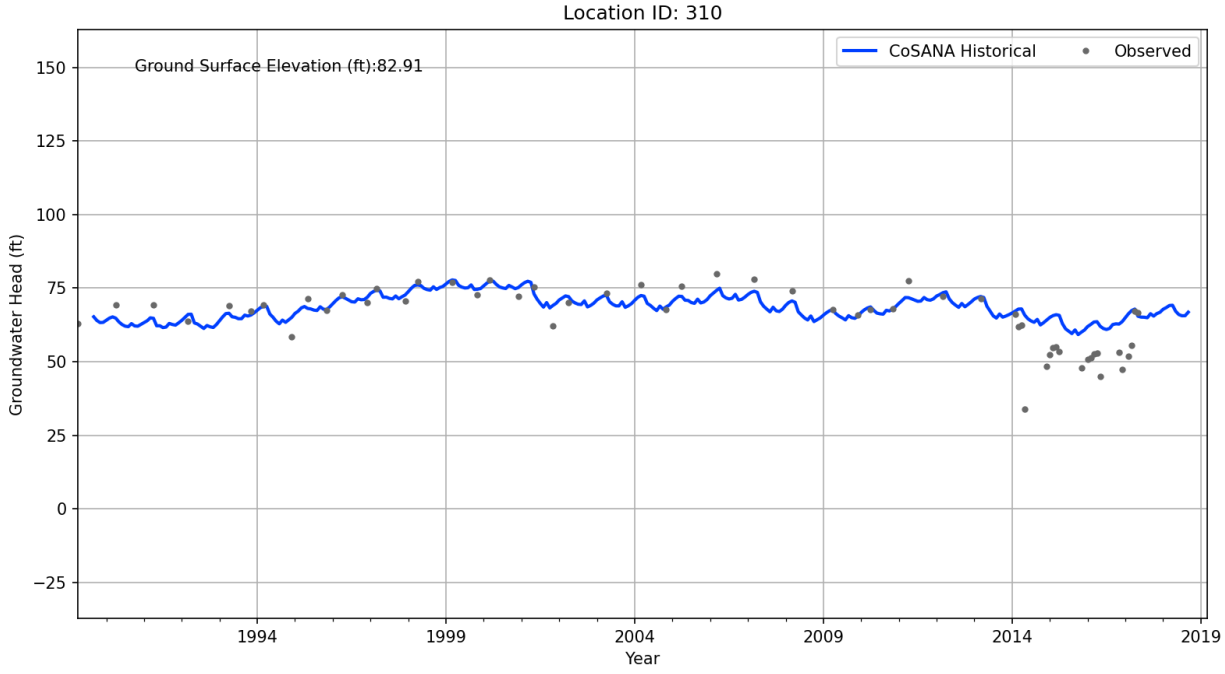

Location ID: 301
Ground Surface Elevation (ft):80.13
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

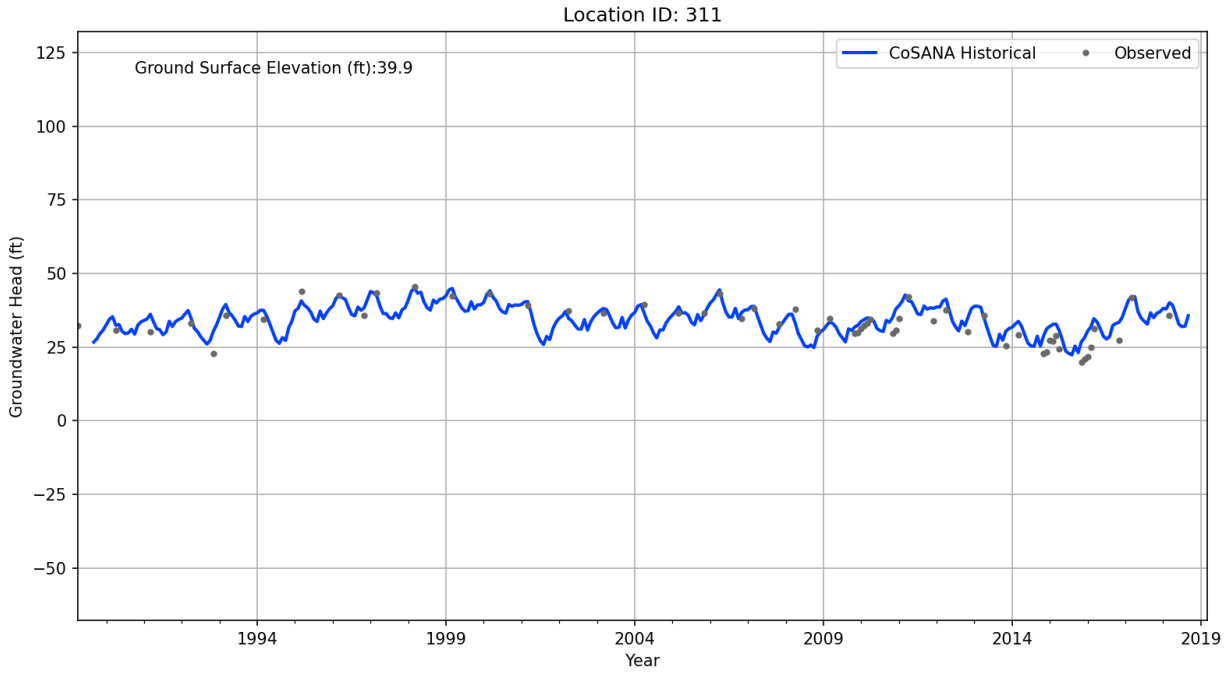

Location ID: 302
Ground Surface Elevation (ft):74.36
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

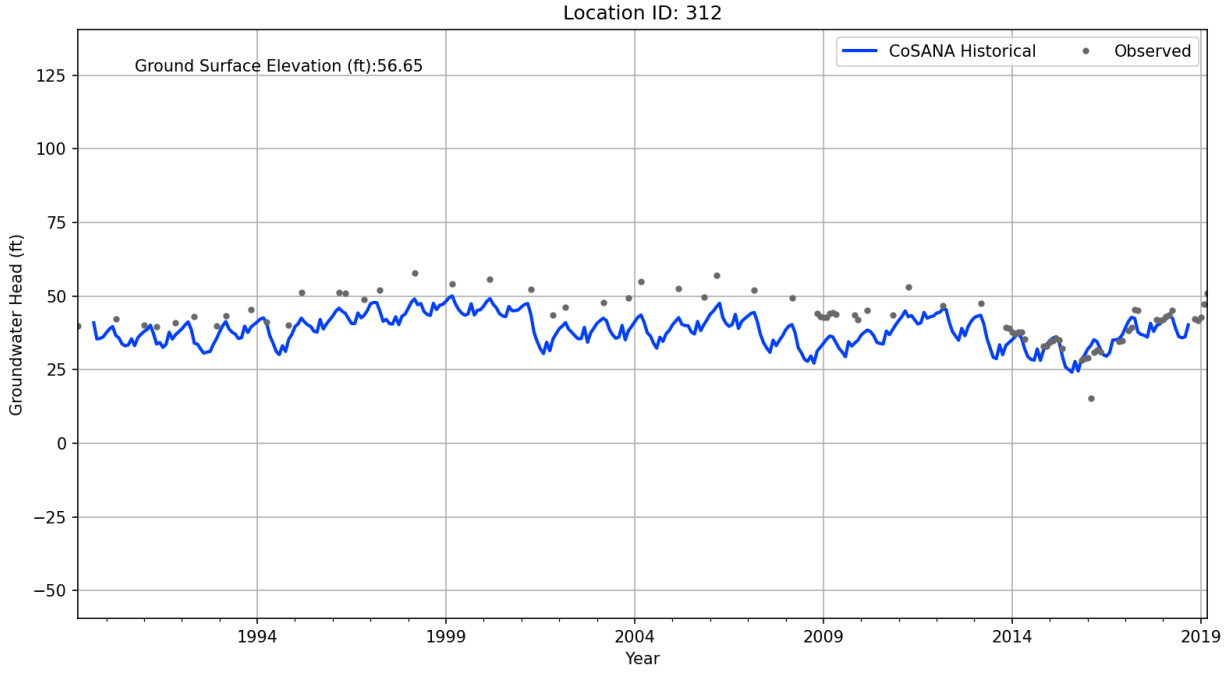

Location ID: 307
Ground Surface Elevation (ft):67.75
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

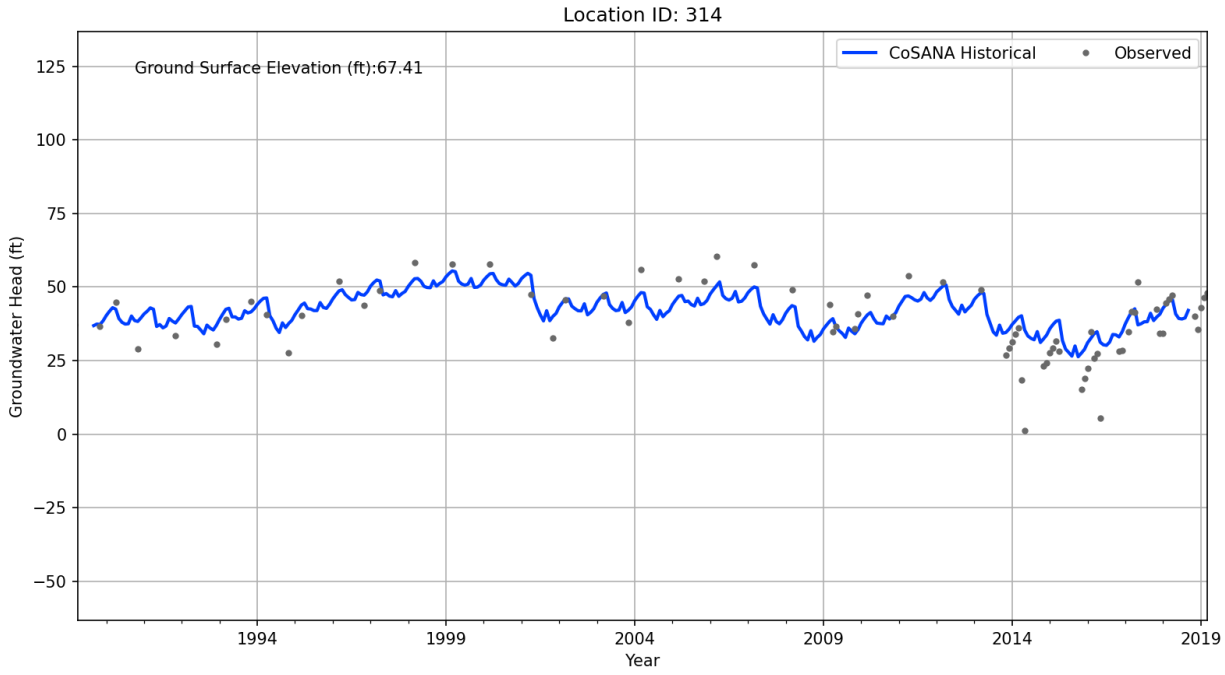

Location ID: 308
Ground Surface Elevation (ft):63.04
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

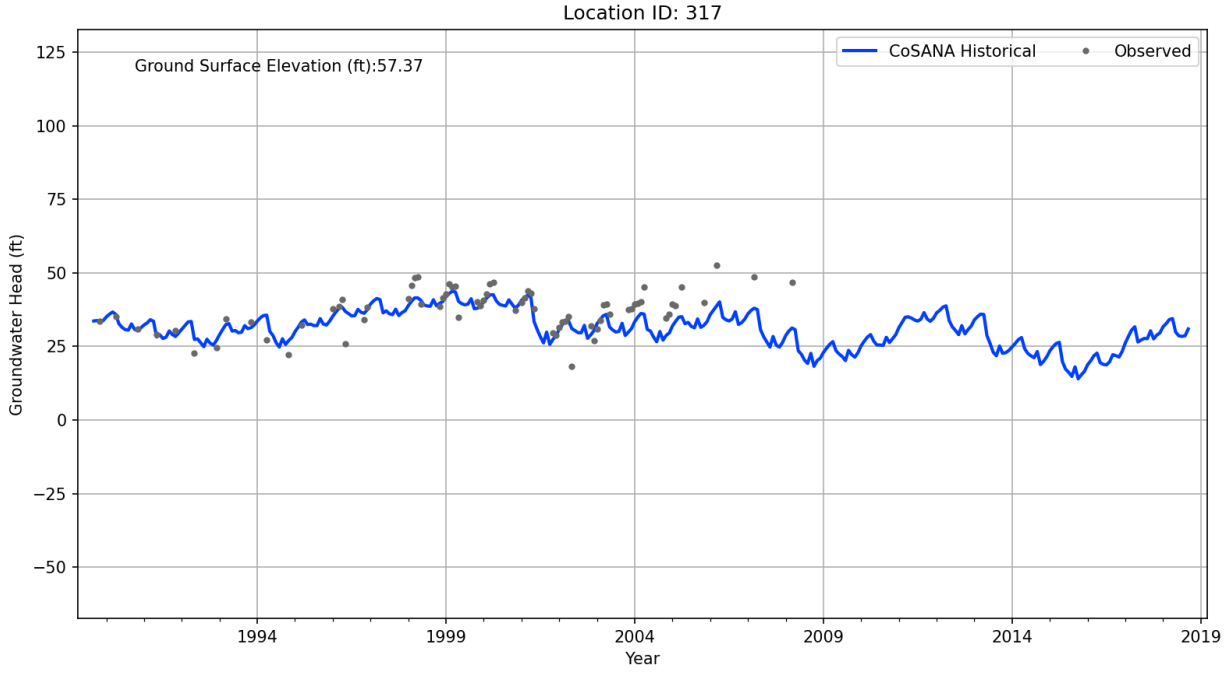

Location ID: 309
Ground Surface Elevation (ft):56.28
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

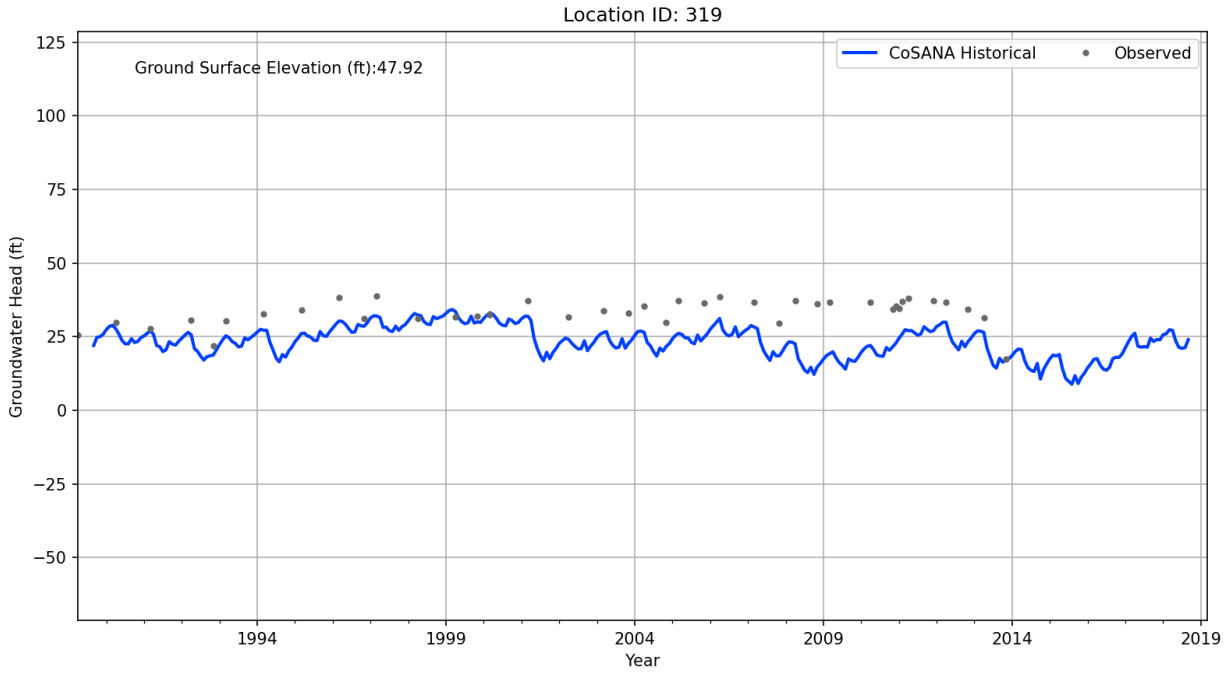

Location ID: 310
Ground Surface Elevation (ft):82.91
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

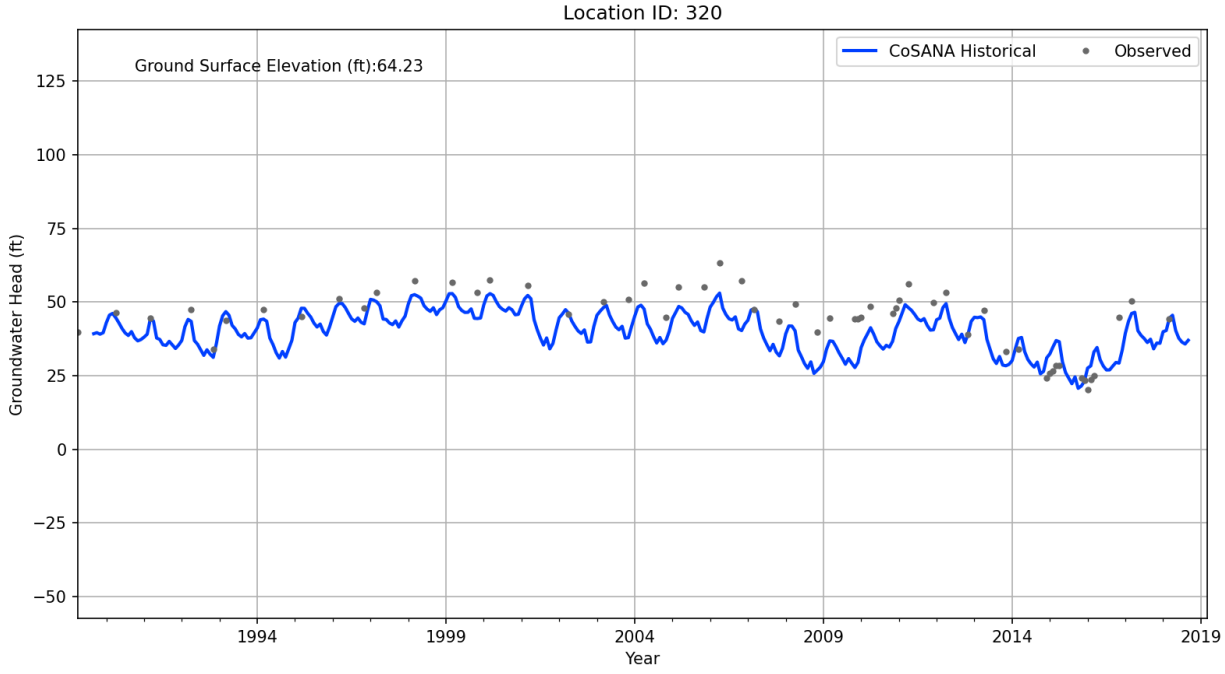

Location ID: 311
Ground Surface Elevation (ft):39.9
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

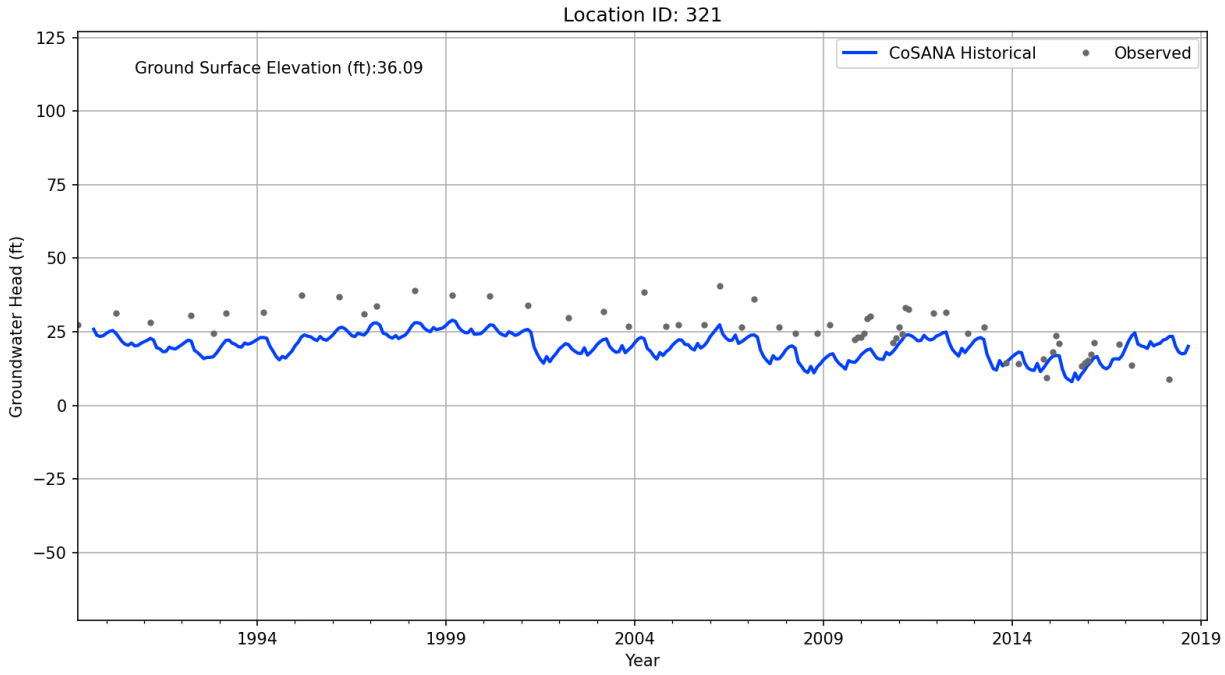

Location ID: 312
Ground Surface Elevation (ft):56.65
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

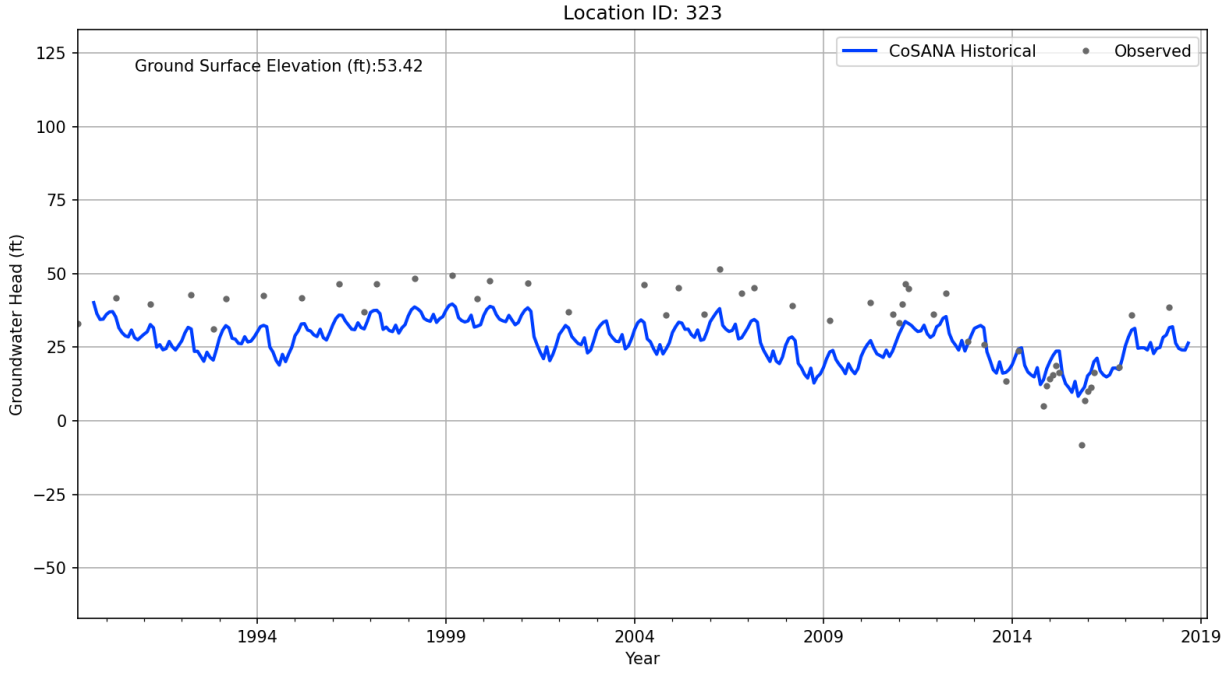

Location ID: 314
Ground Surface Elevation (ft):67.41
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

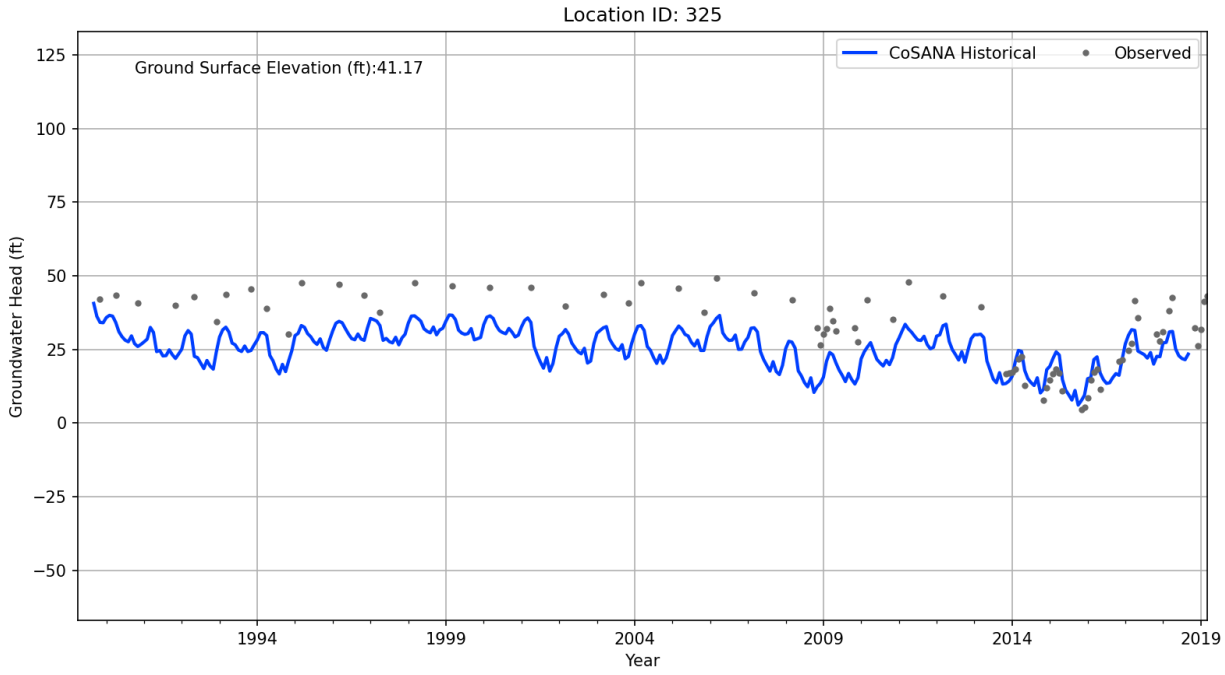

Location ID: 317
Ground Surface Elevation (ft):57.37
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

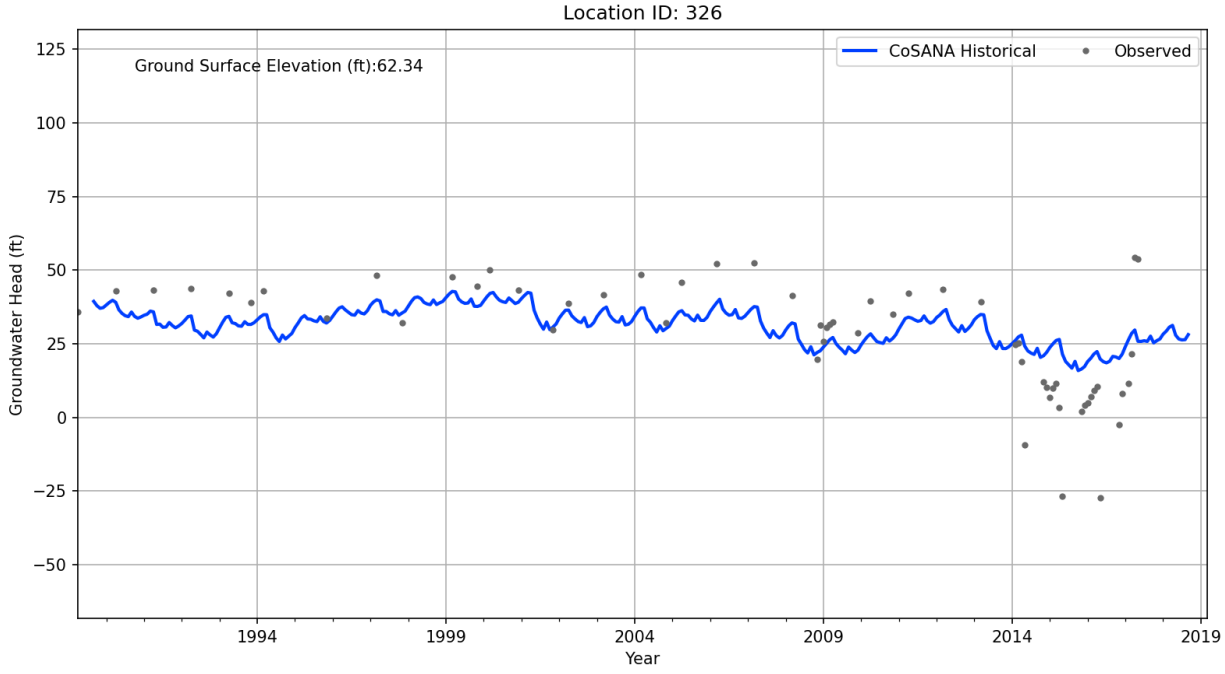

Location ID: 319
Ground Surface Elevation (ft):47.92
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

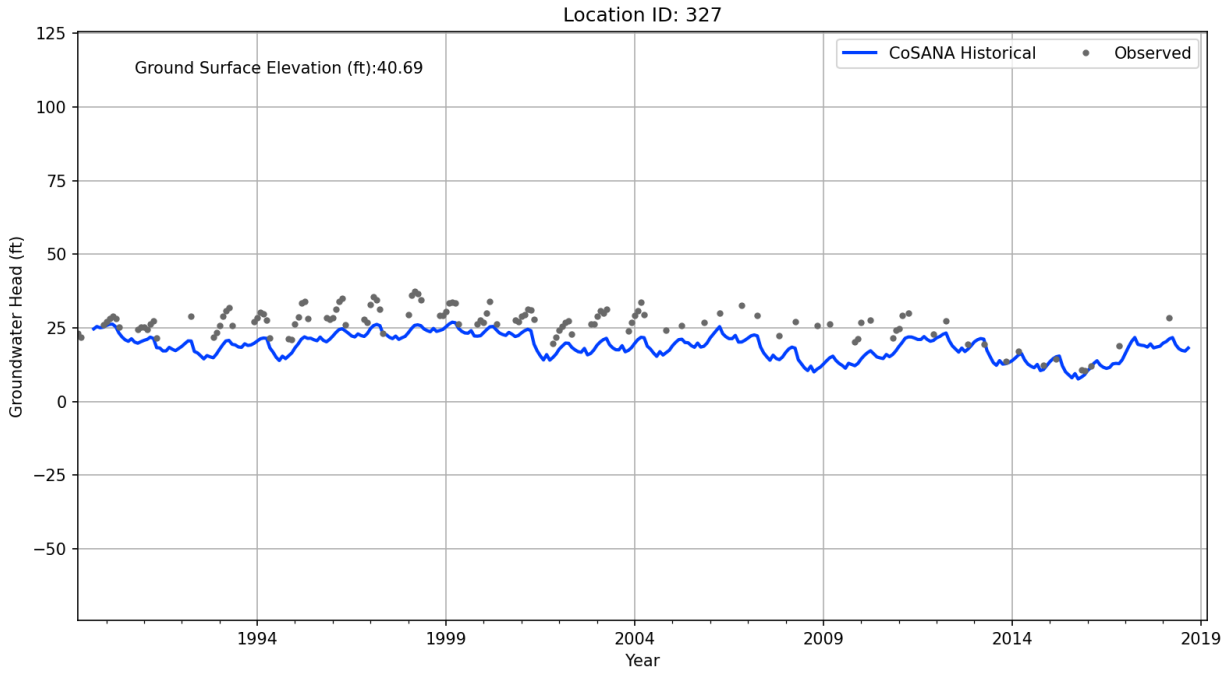

Location ID: 320
Ground Surface Elevation (ft):64.23
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

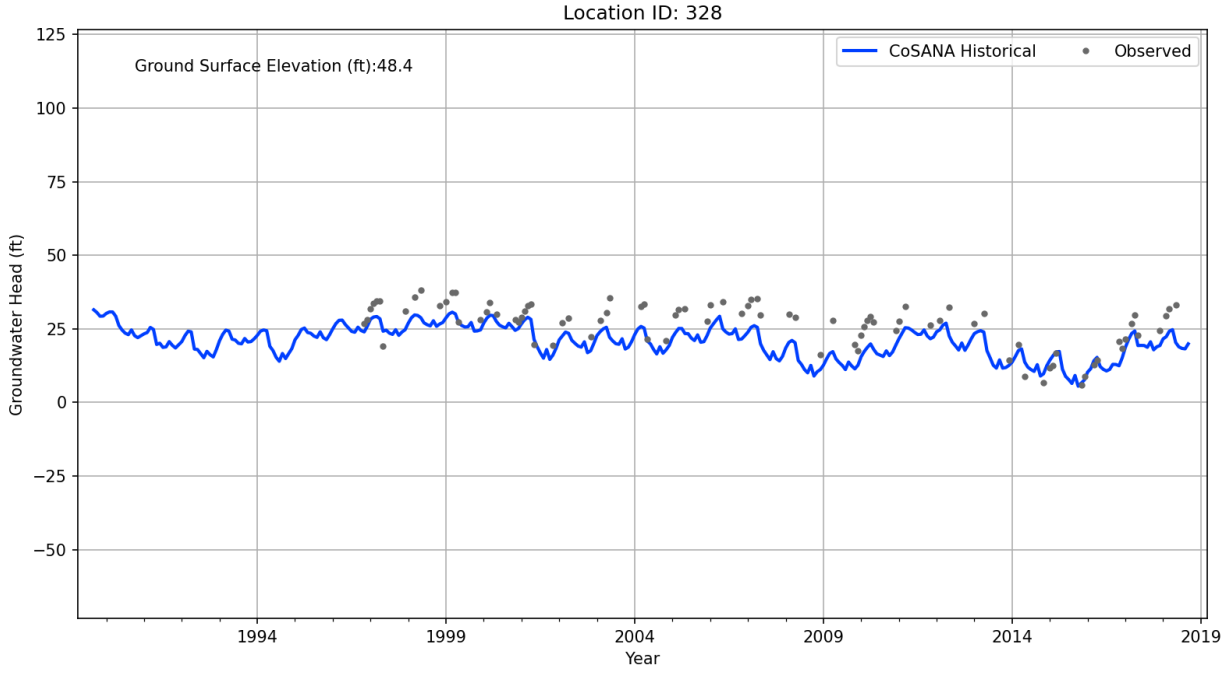

Location ID: 321
Ground Surface Elevation (ft):36.09
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

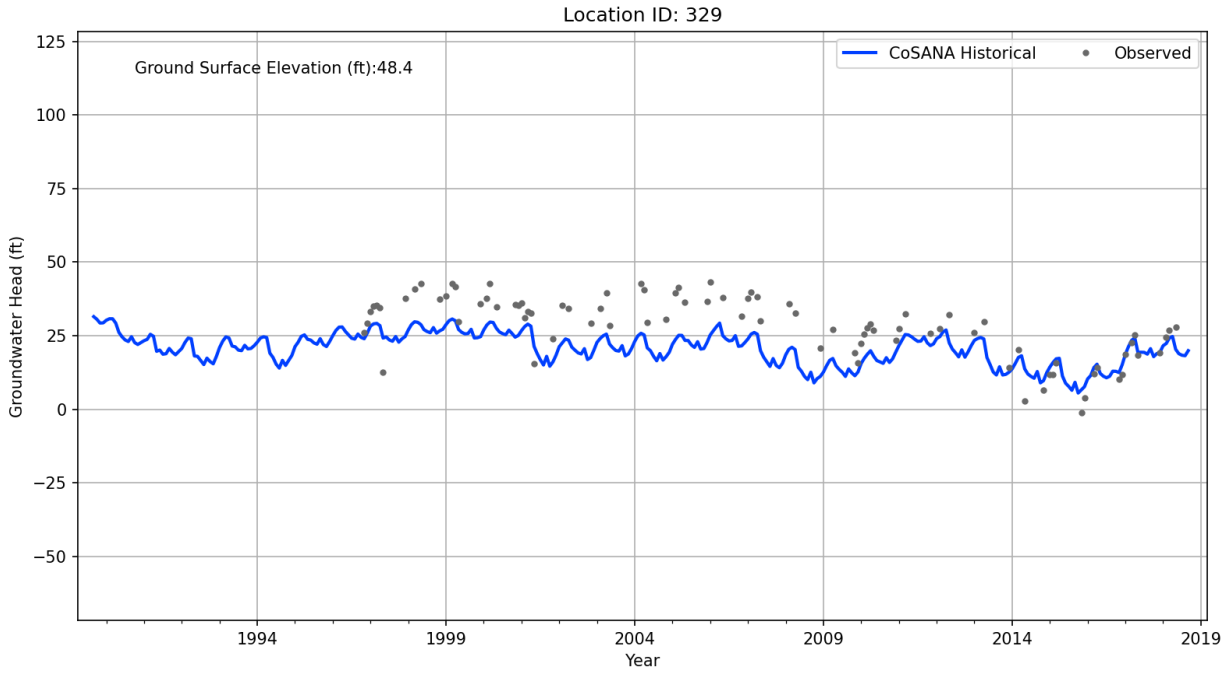

Location ID: 323
Ground Surface Elevation (ft):53.42
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

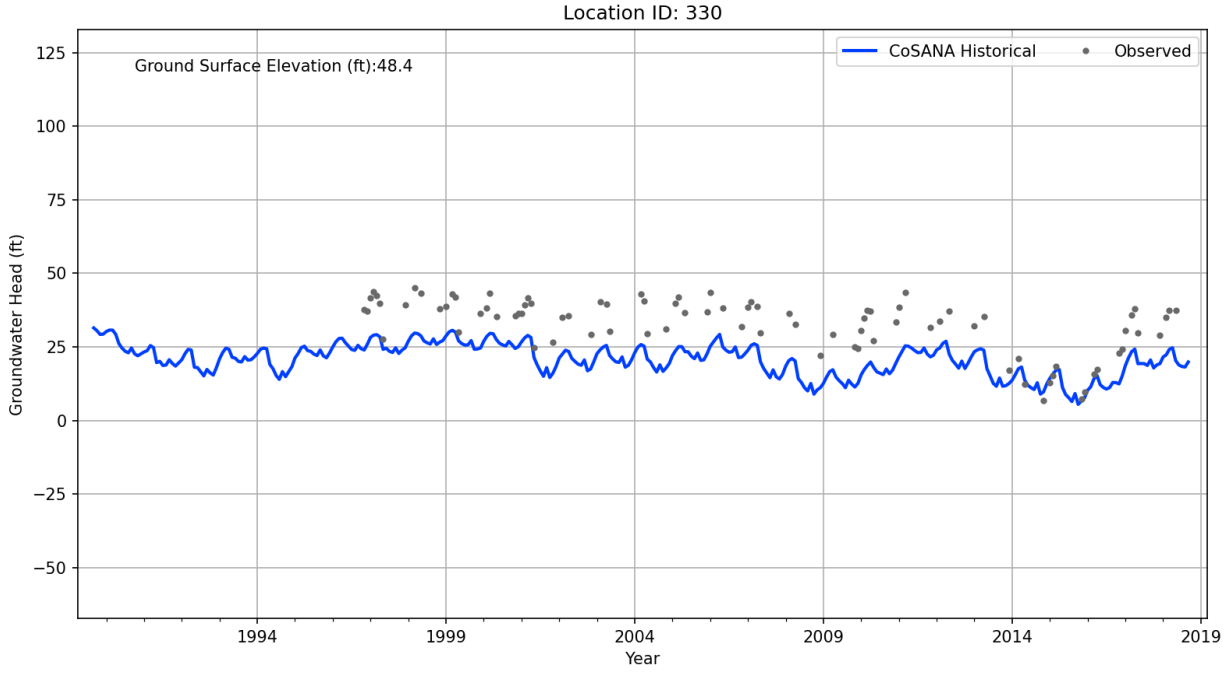

Location ID: 325
Ground Surface Elevation (ft):41.17
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

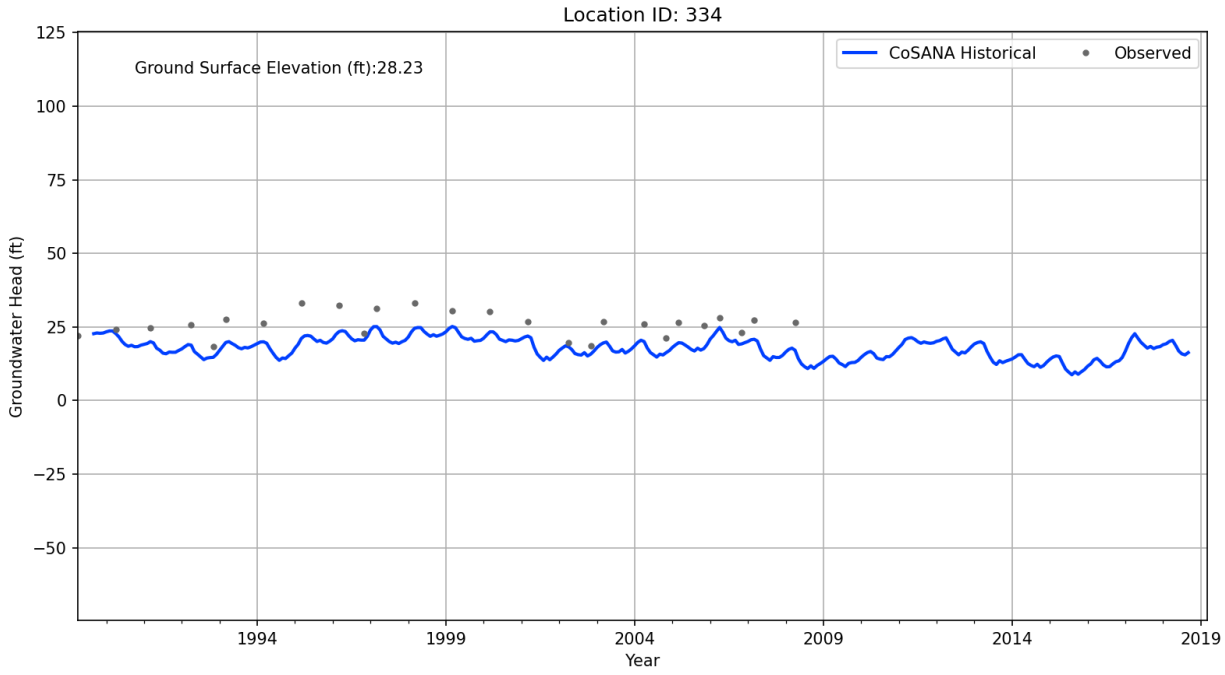

Location ID: 326
Ground Surface Elevation (ft):62.34
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

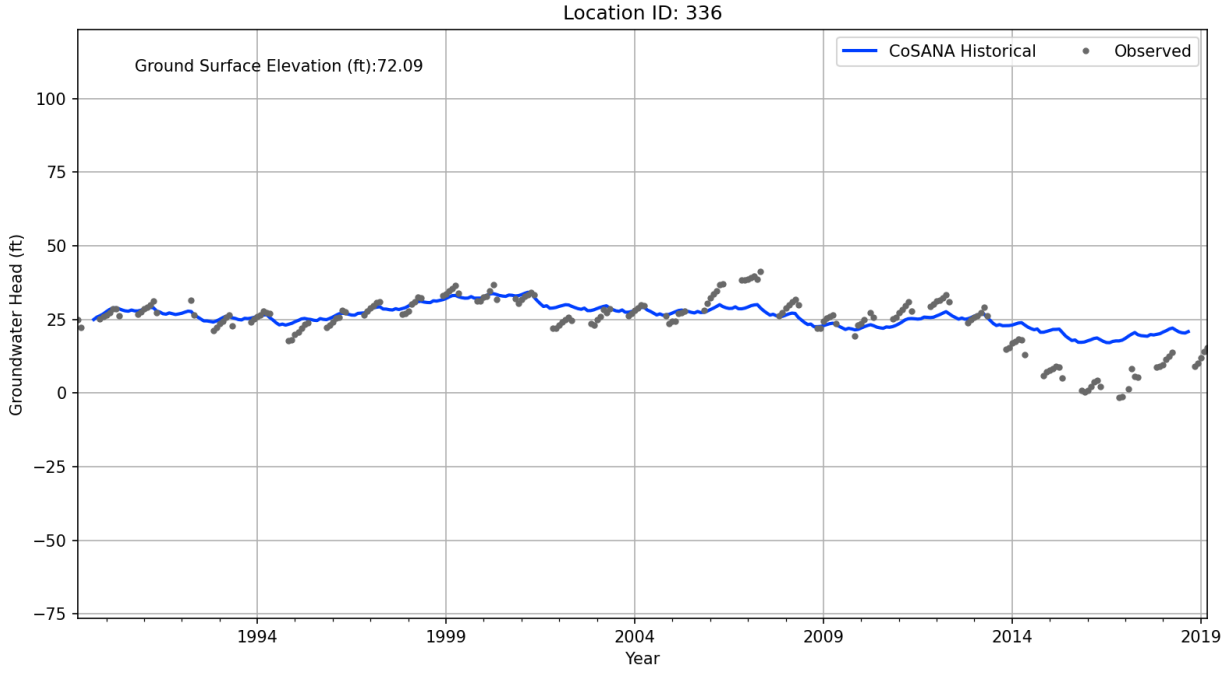

Location ID: 327
Ground Surface Elevation (ft):40.69
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

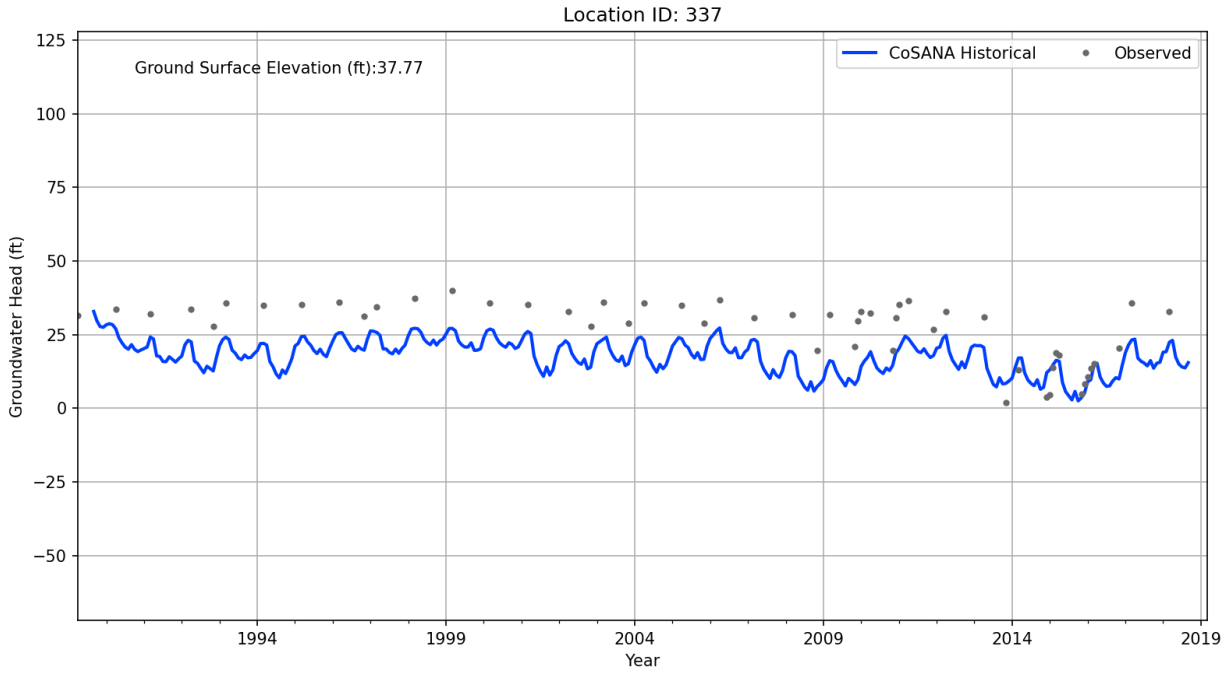

Location ID: 328
Ground Surface Elevation (ft):48.4
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

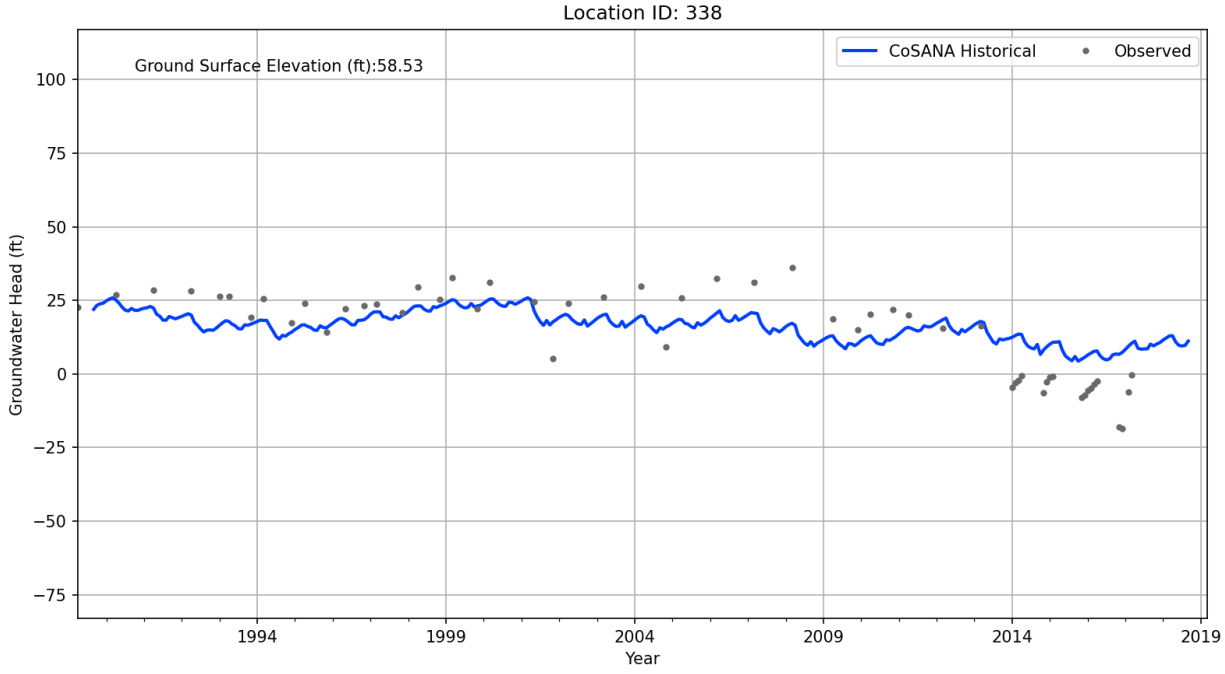

Location ID: 329
Ground Surface Elevation (ft):48.4
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

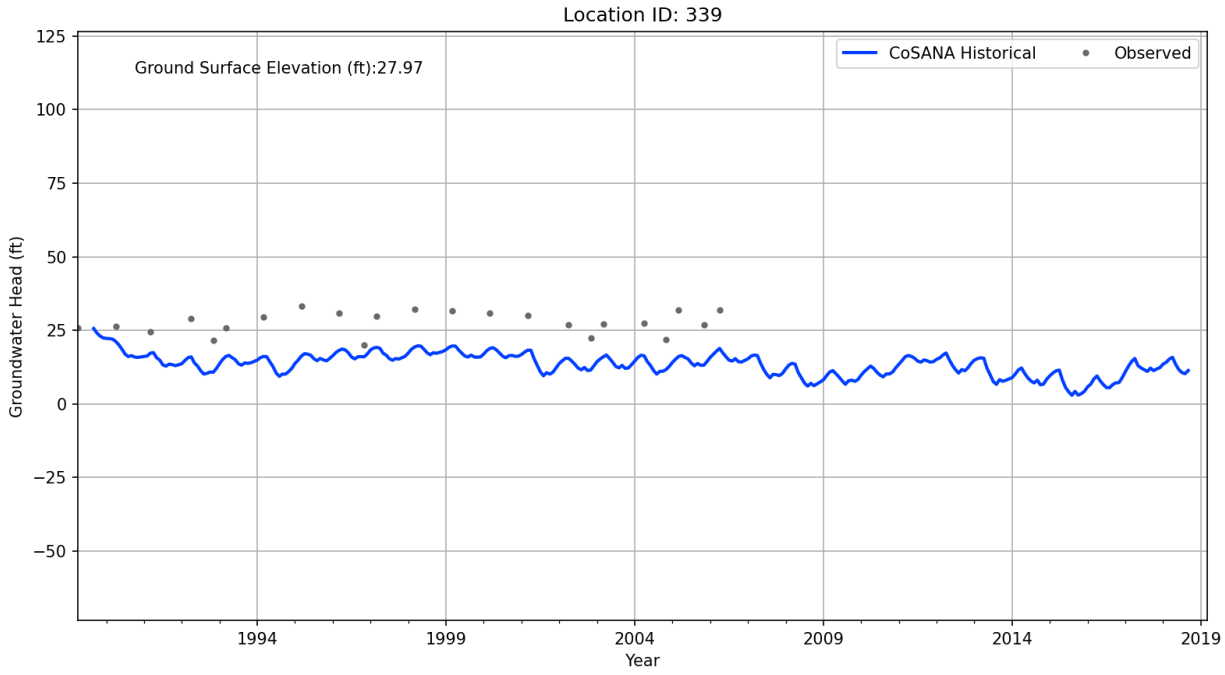

Location ID: 330
Ground Surface Elevation (ft):48.4
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

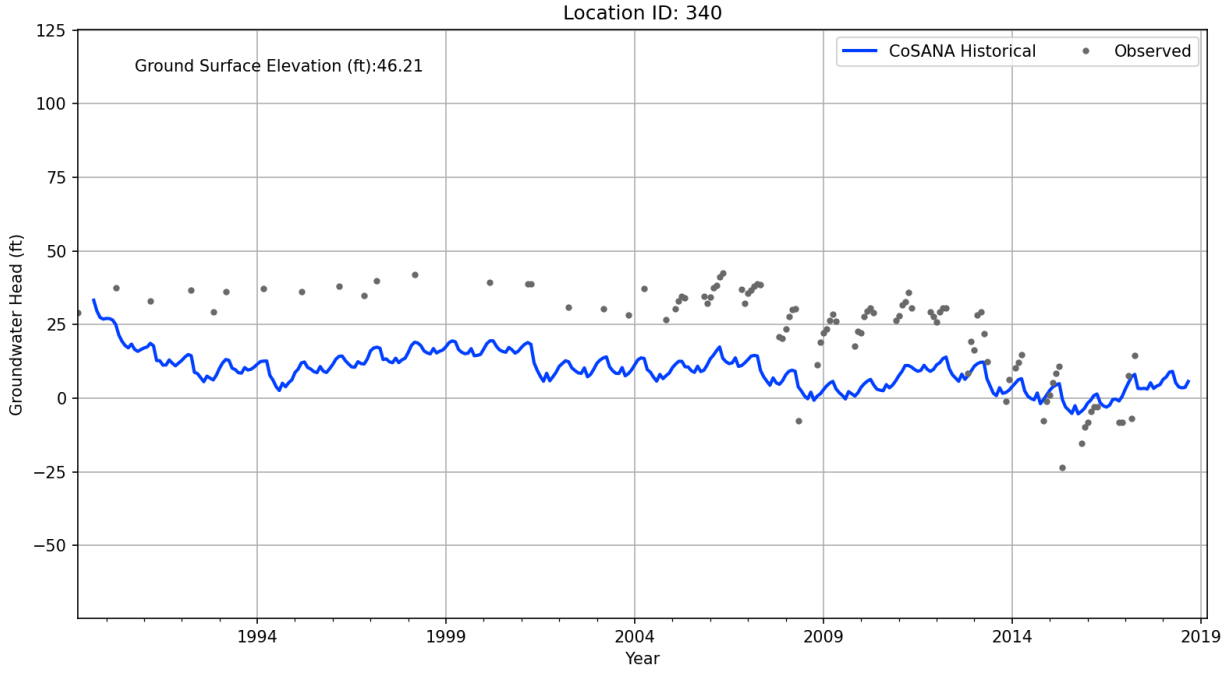

Location ID: 334
Ground Surface Elevation (ft):28.23
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

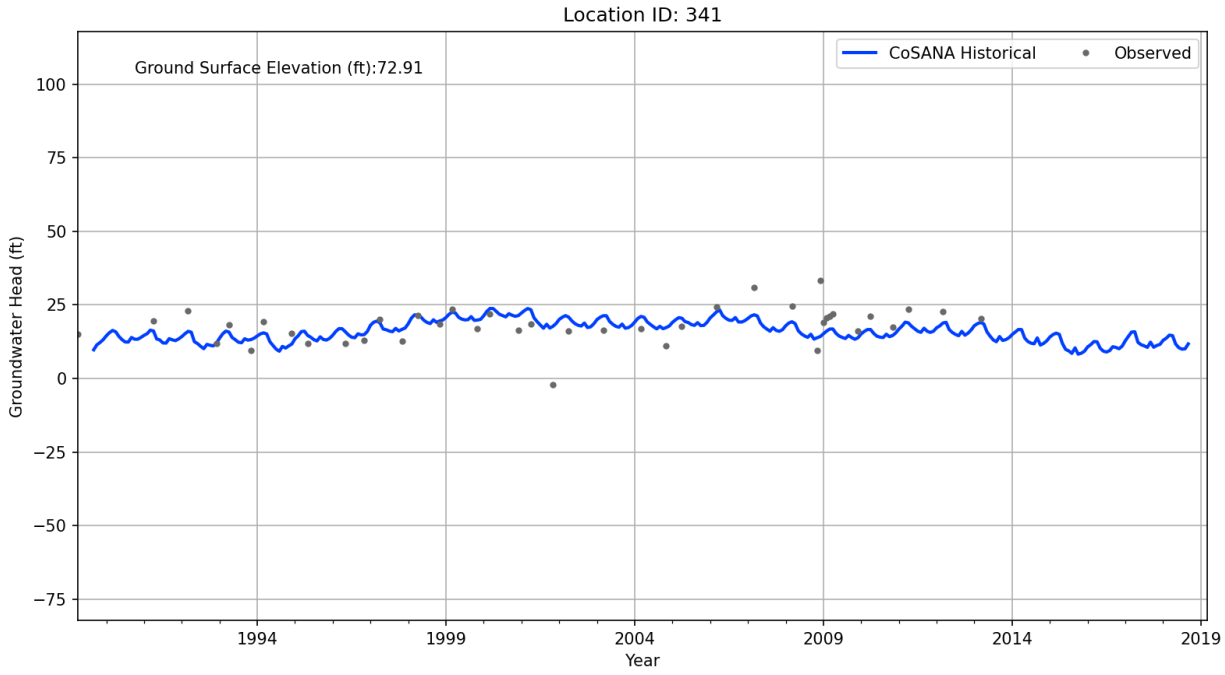

Location ID: 336
Ground Surface Elevation (ft):72.09
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

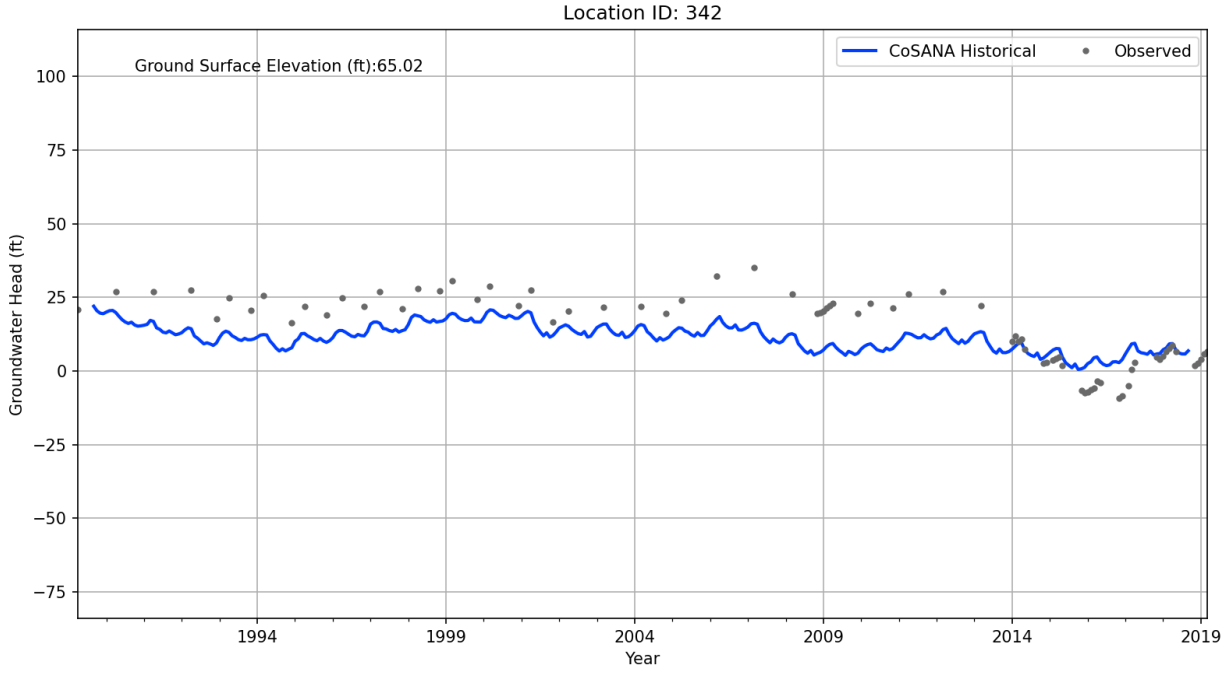

Location ID: 337
Ground Surface Elevation (ft):37.77
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

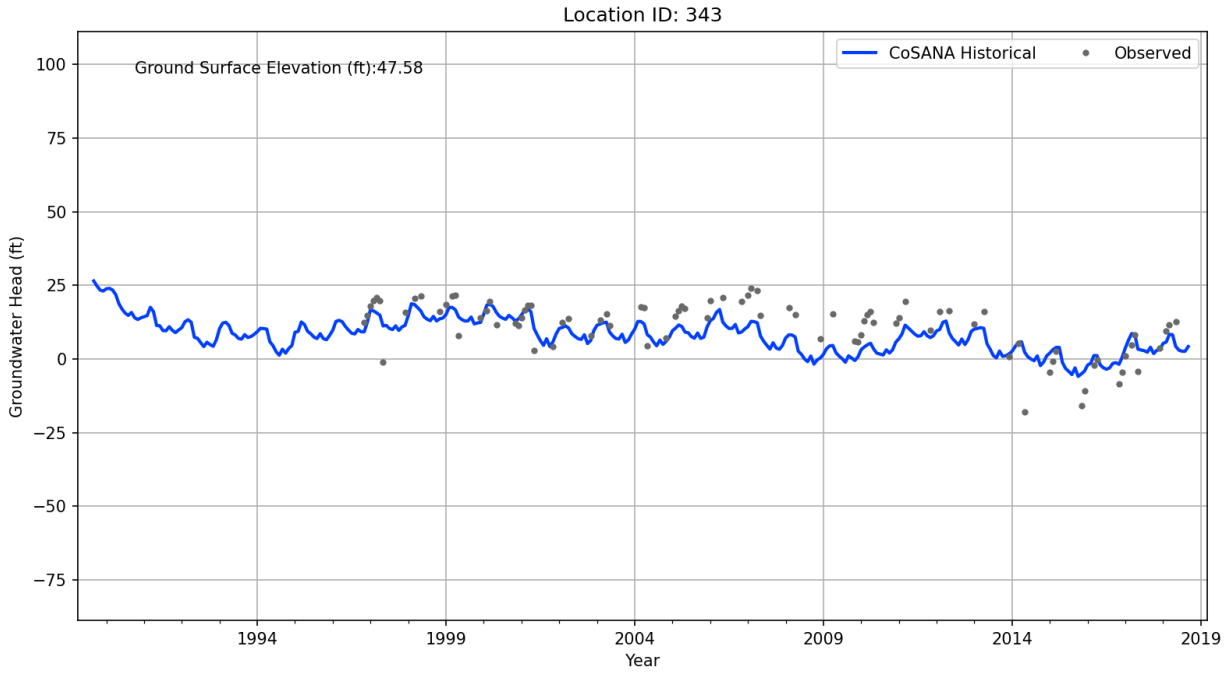

Location ID: 338
Ground Surface Elevation (ft):58.53
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

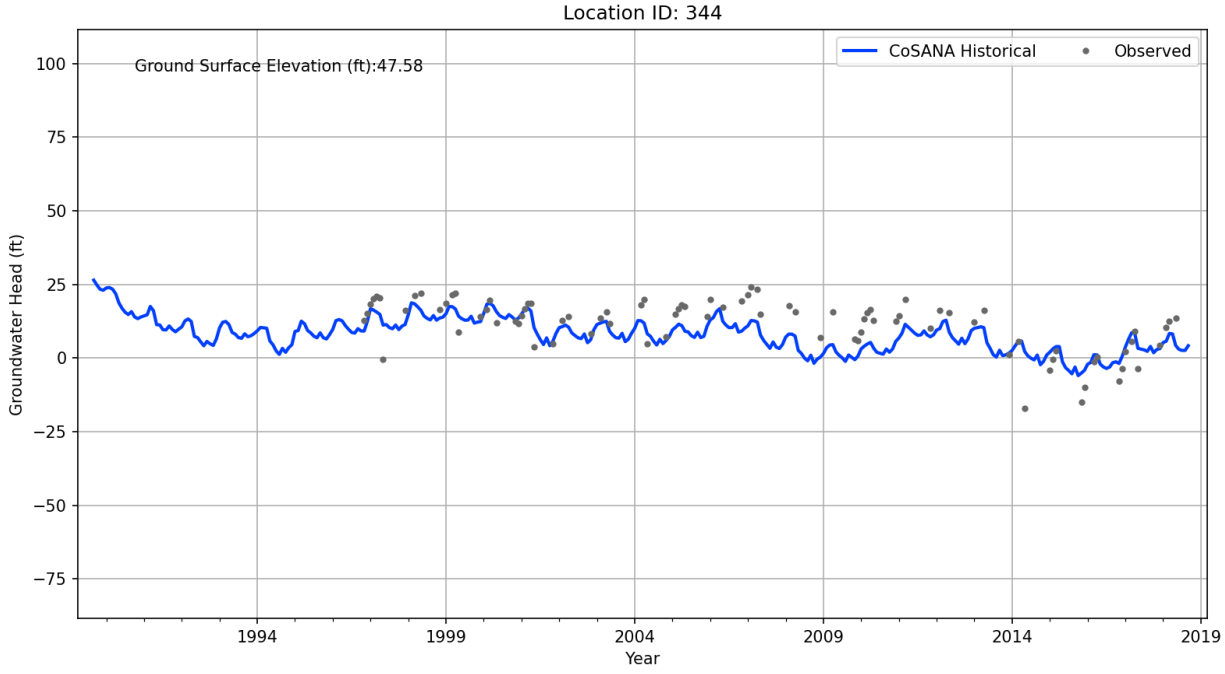

Location ID: 339
Ground Surface Elevation (ft):27.97
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

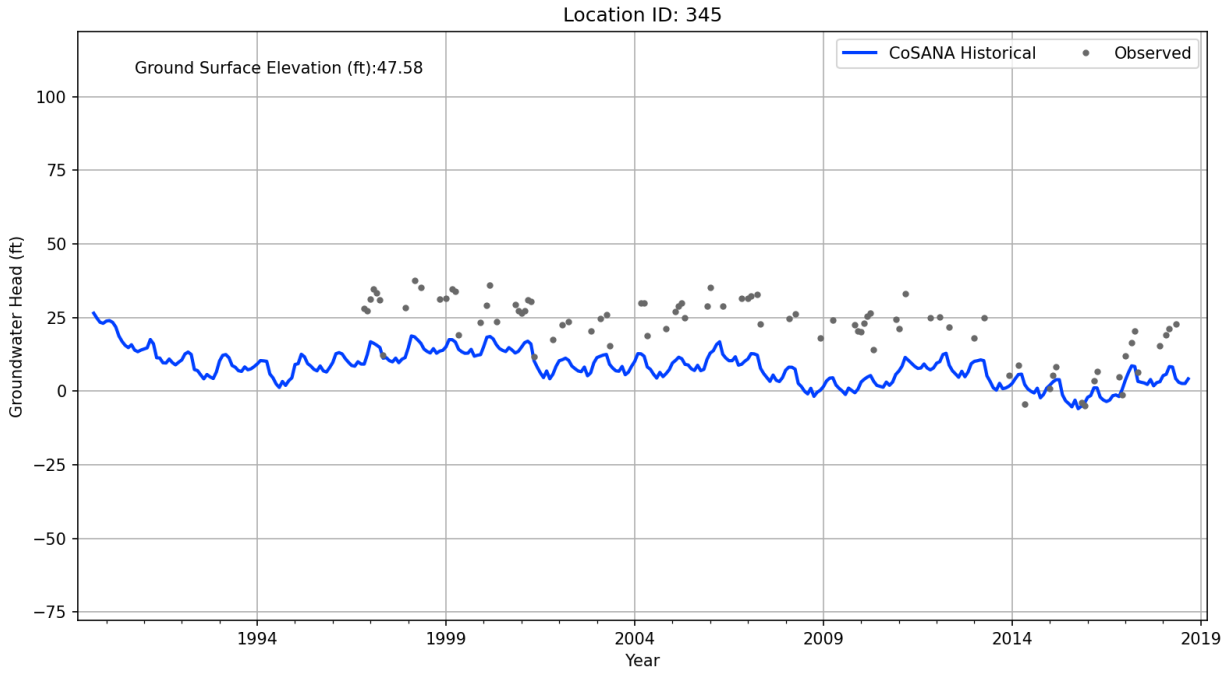

Location ID: 340
Ground Surface Elevation (ft):46.21
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

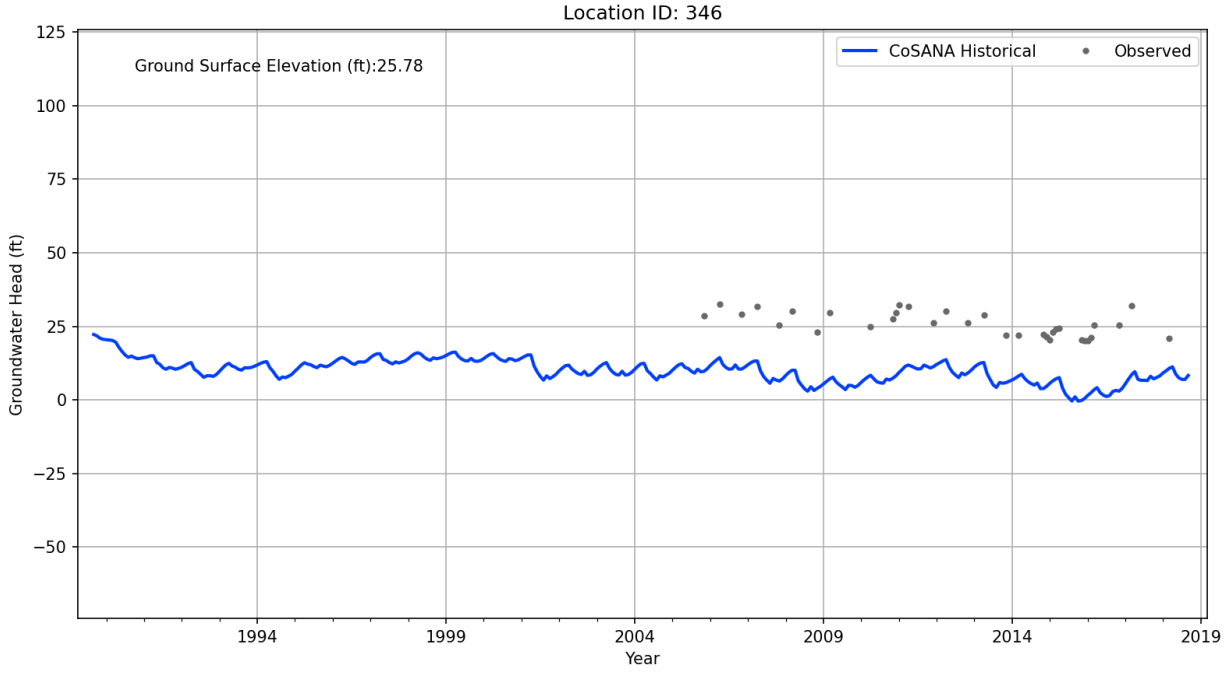

Location ID: 341
Ground Surface Elevation (ft):72.91
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

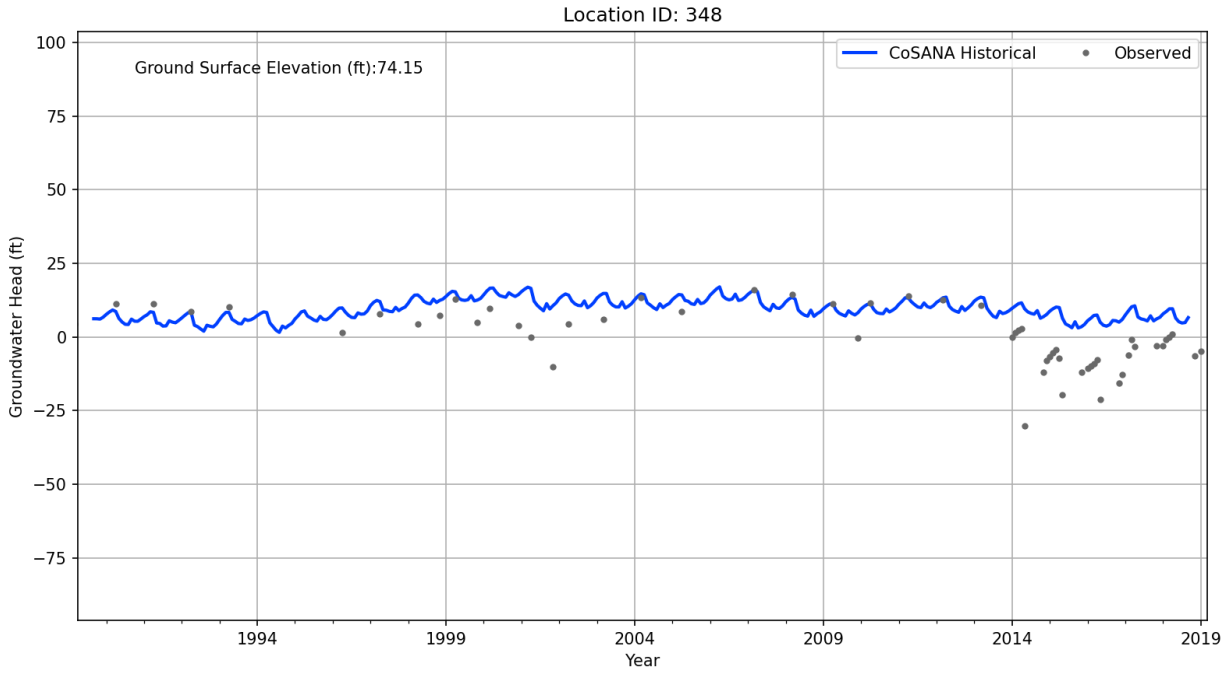

Location ID: 342
Ground Surface Elevation (ft):65.02
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

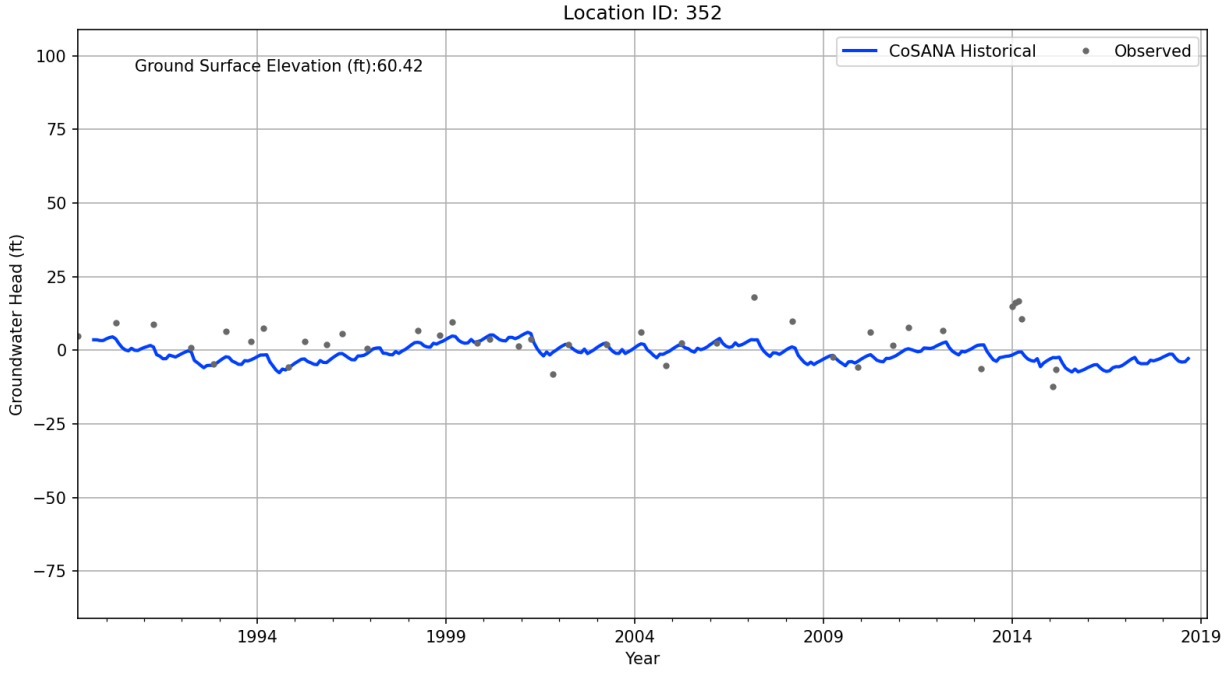

Location ID: 343
Ground Surface Elevation (ft):47.58
CoSANA Historical
Observed
Groundwater Head (ft)
Year
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019

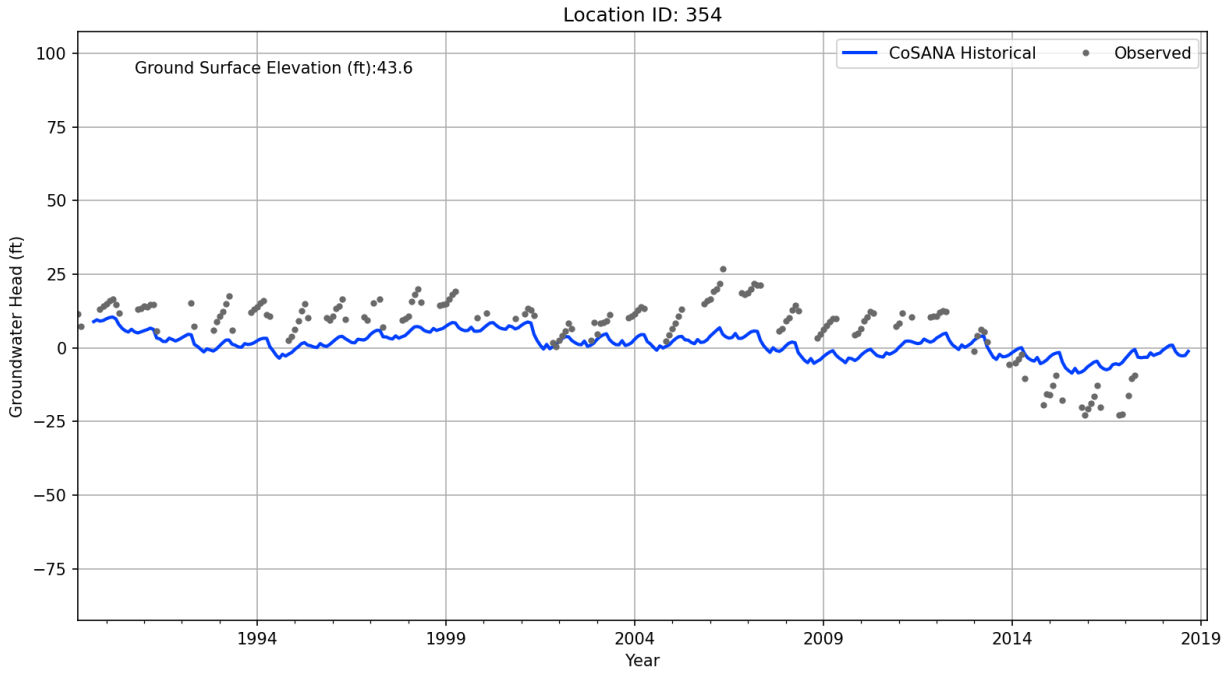

Location ID: 344
Ground Surface Elevation (ft):47.58
CoSANA Historical
Observed
Groundwater Head (ft)
Year
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019

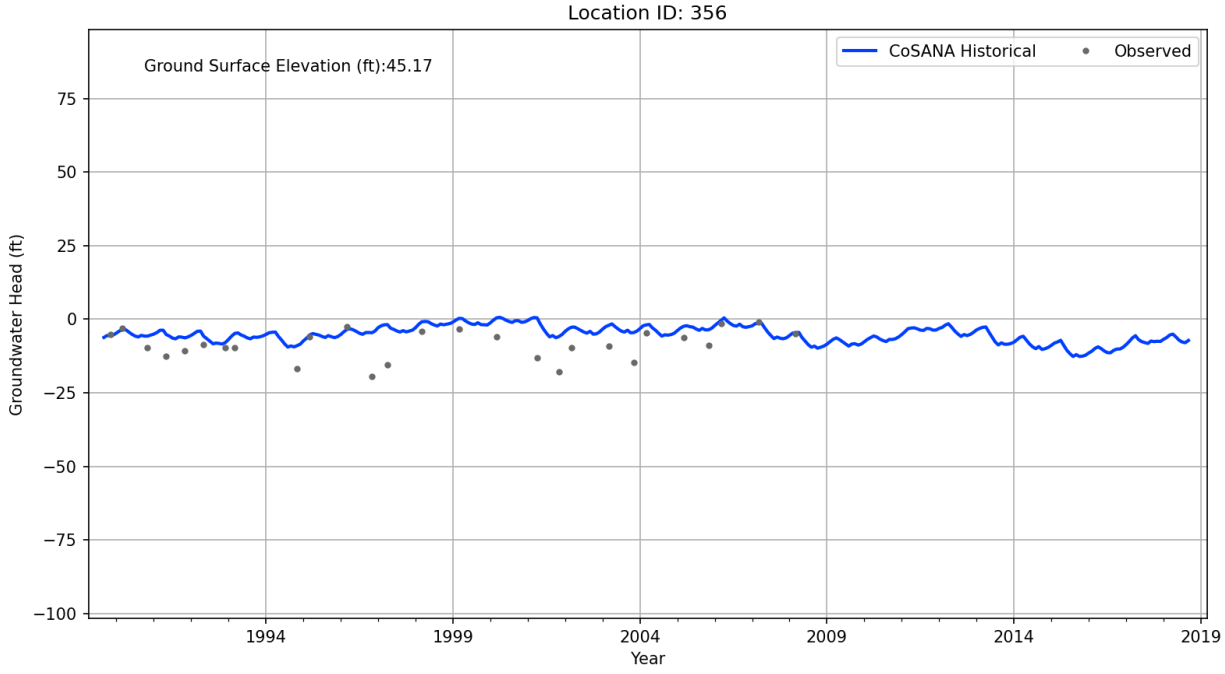

Location ID: 345
Ground Surface Elevation (ft):47.58
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

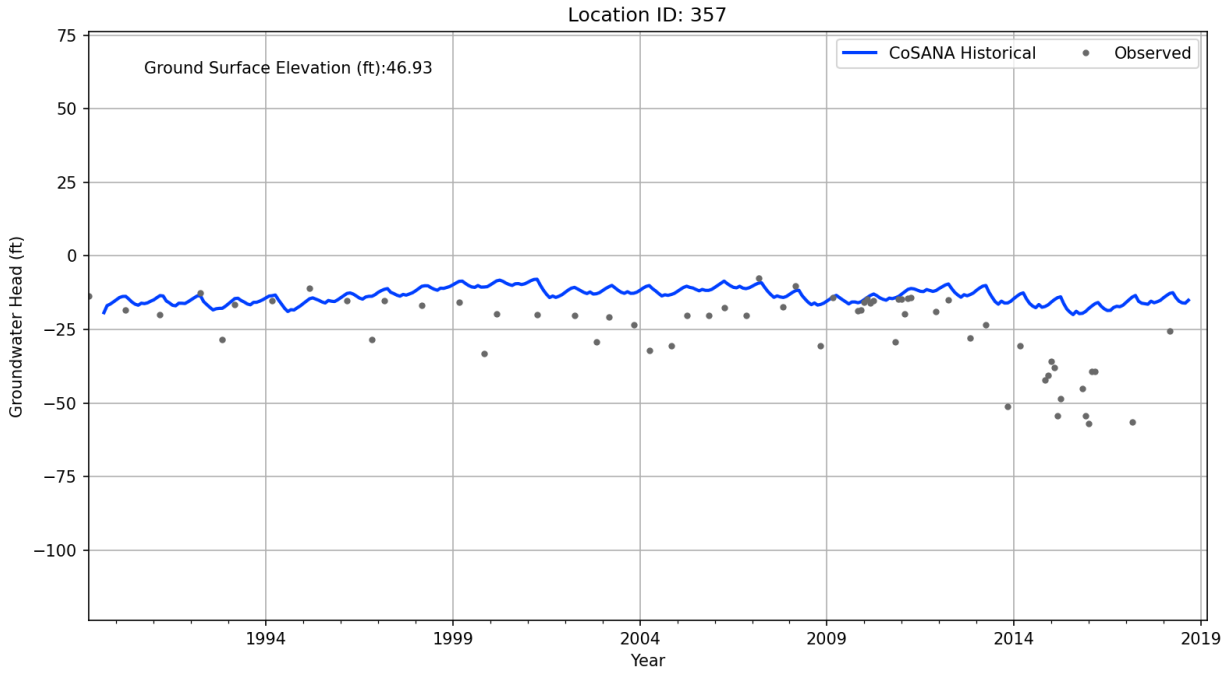

Location ID: 346
Ground Surface Elevation (ft):25.78
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

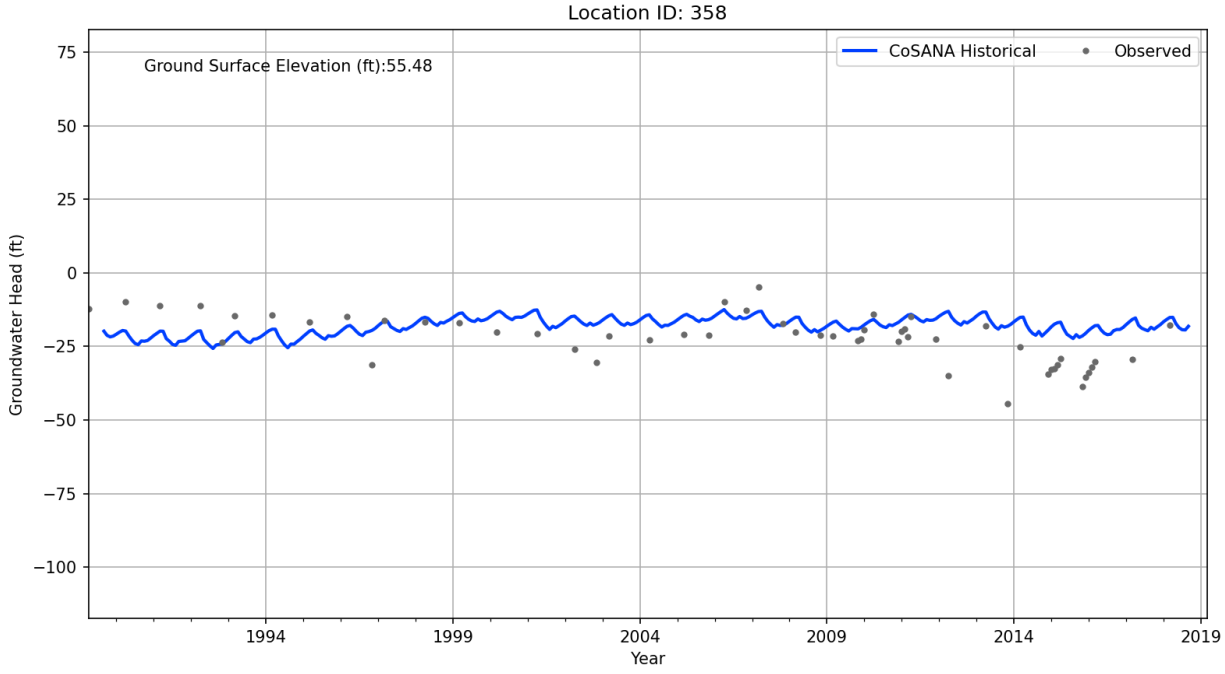

Location ID: 348
Ground Surface Elevation (ft):74.15
CoSANA Historical
Observed
Groundwater Head (ft)
Year
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019

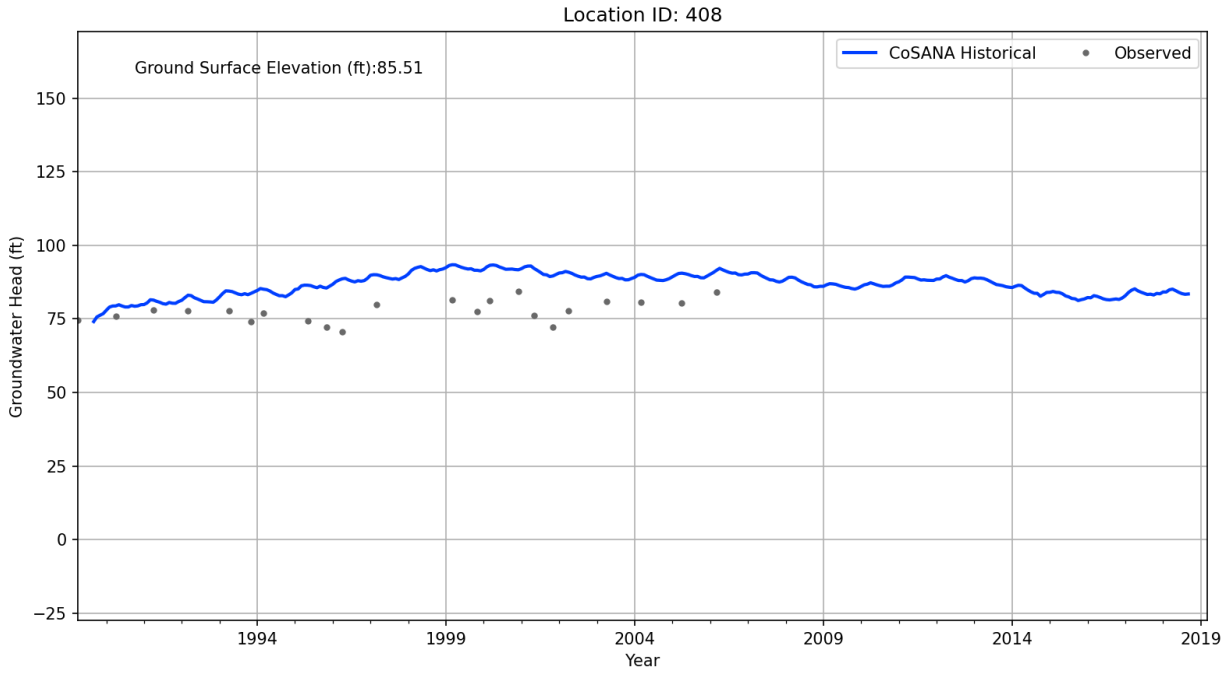

Location ID: 352
Ground Surface Elevation (ft):60.42
CoSANA Historical
Observed
Groundwater Head (ft)
Year
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019

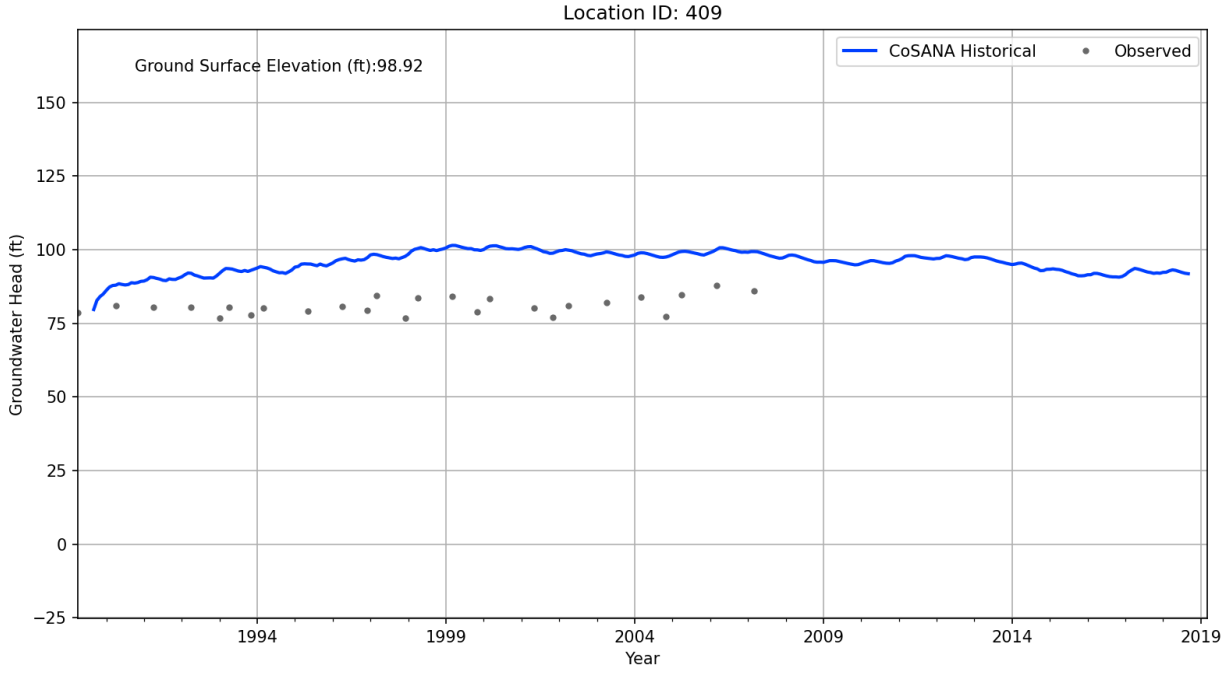

Location ID: 354
Ground Surface Elevation (ft):43.6
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

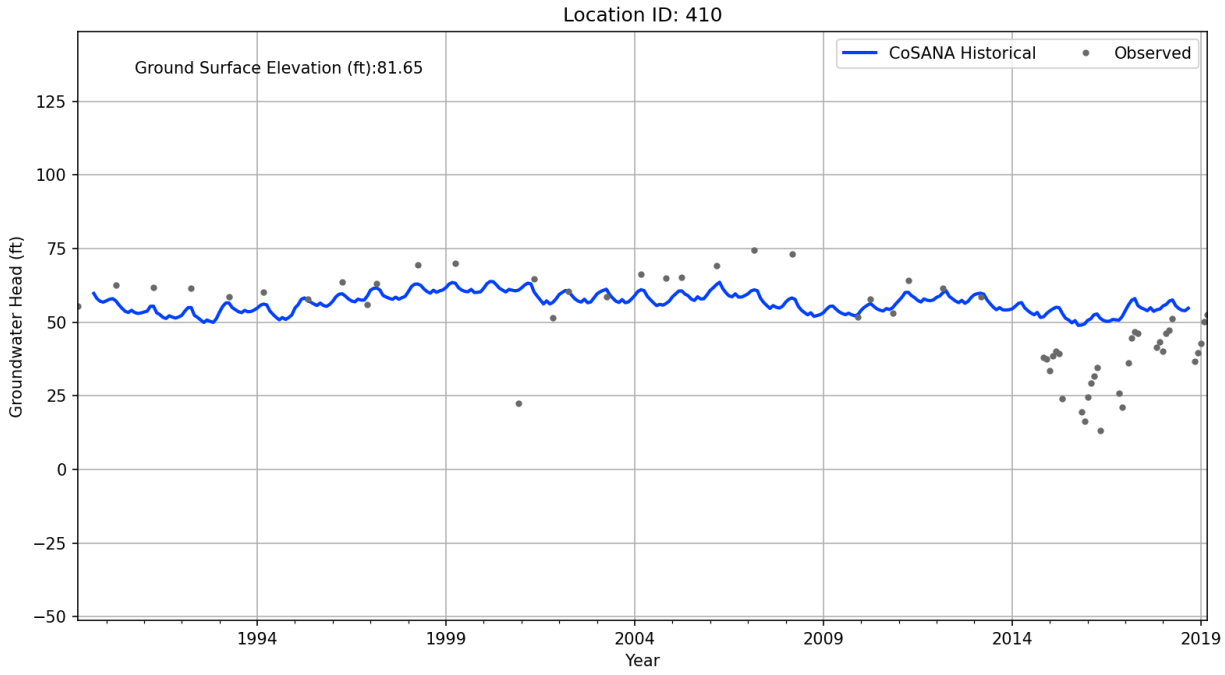

Location ID: 356
Ground Surface Elevation (ft):45.17
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

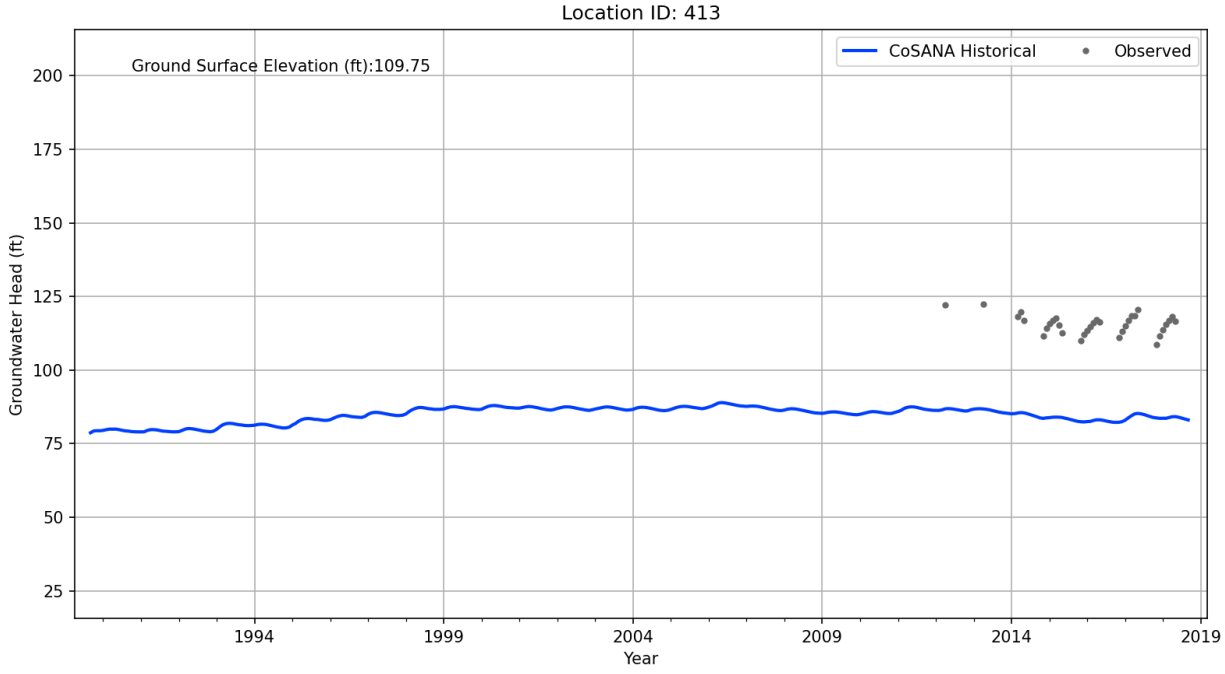

Location ID: 357
Ground Surface Elevation (ft):46.93
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

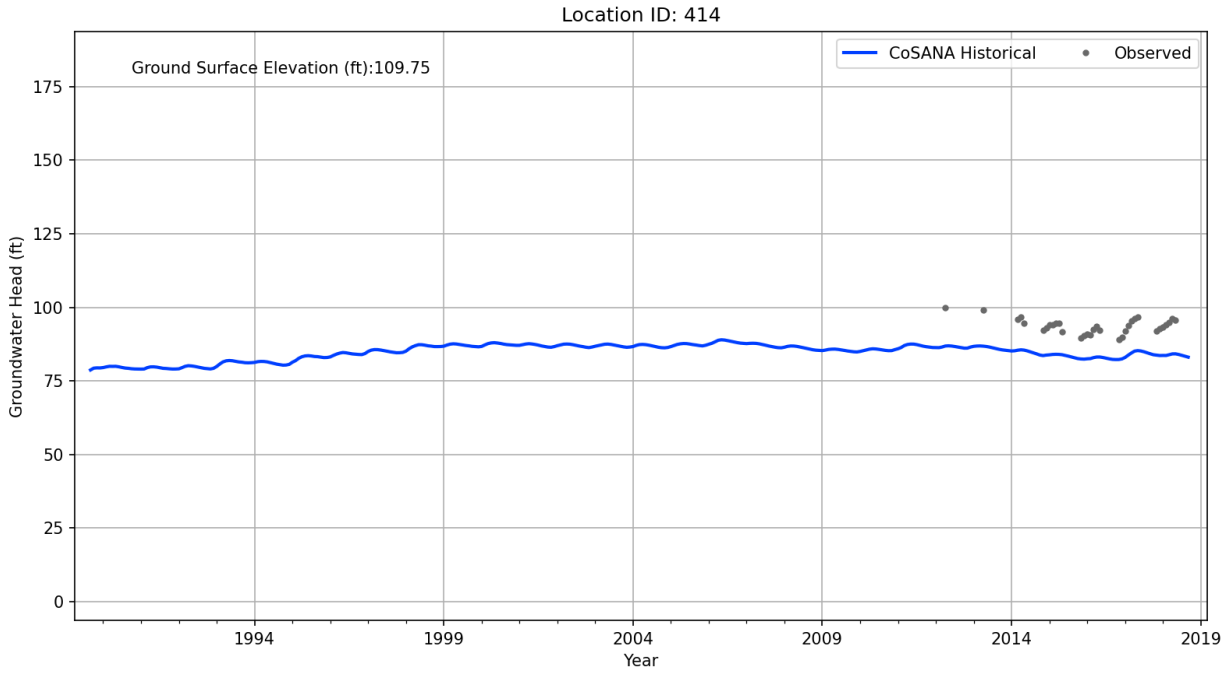

Location ID: 358
Ground Surface Elevation (ft):55.48
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

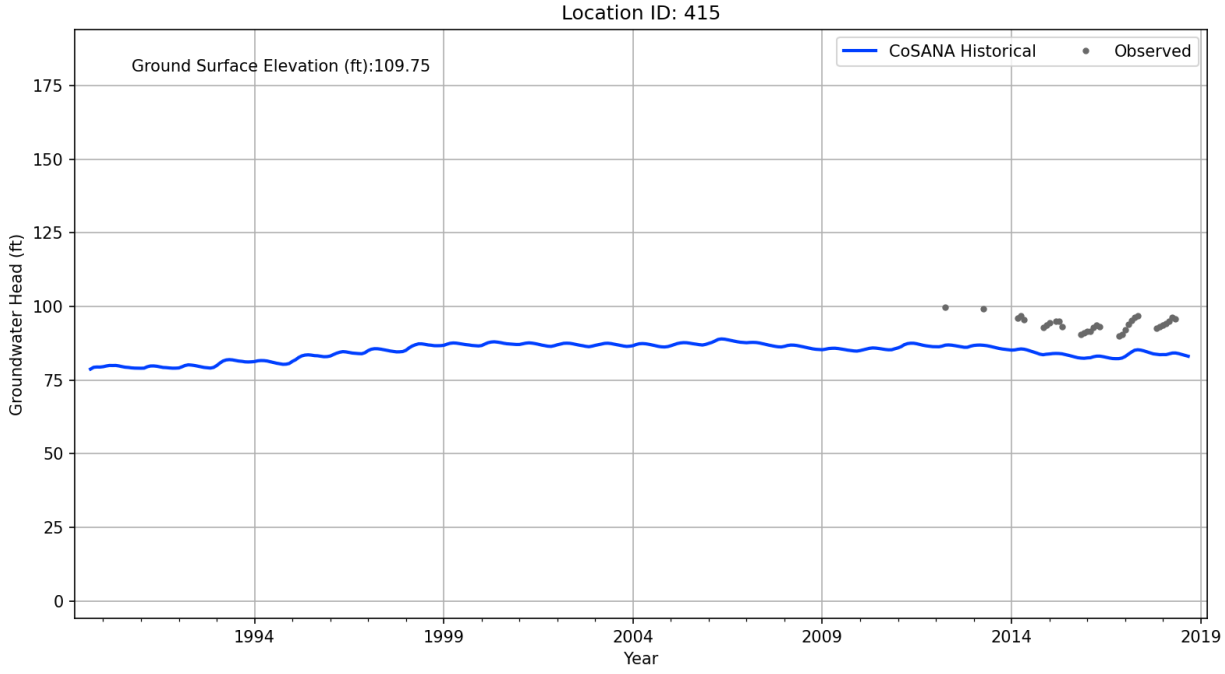

Location ID: 408
Ground Surface Elevation (ft):85.51
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

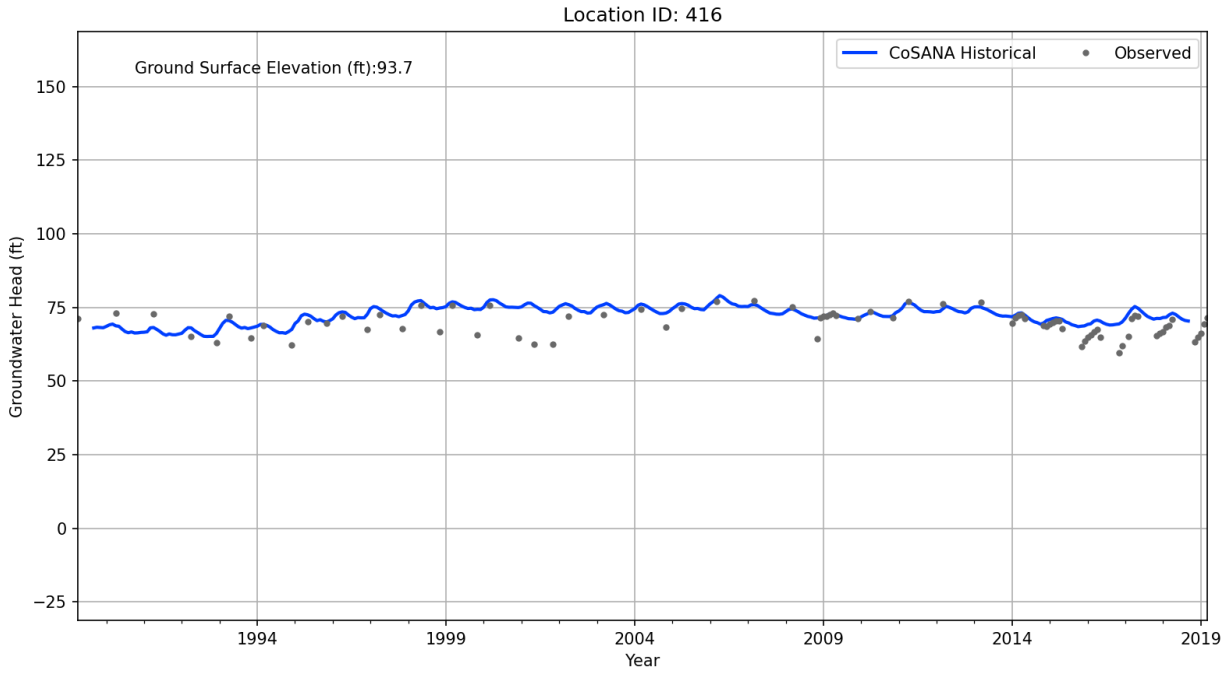

Location ID: 409
Ground Surface Elevation (ft):98.92
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

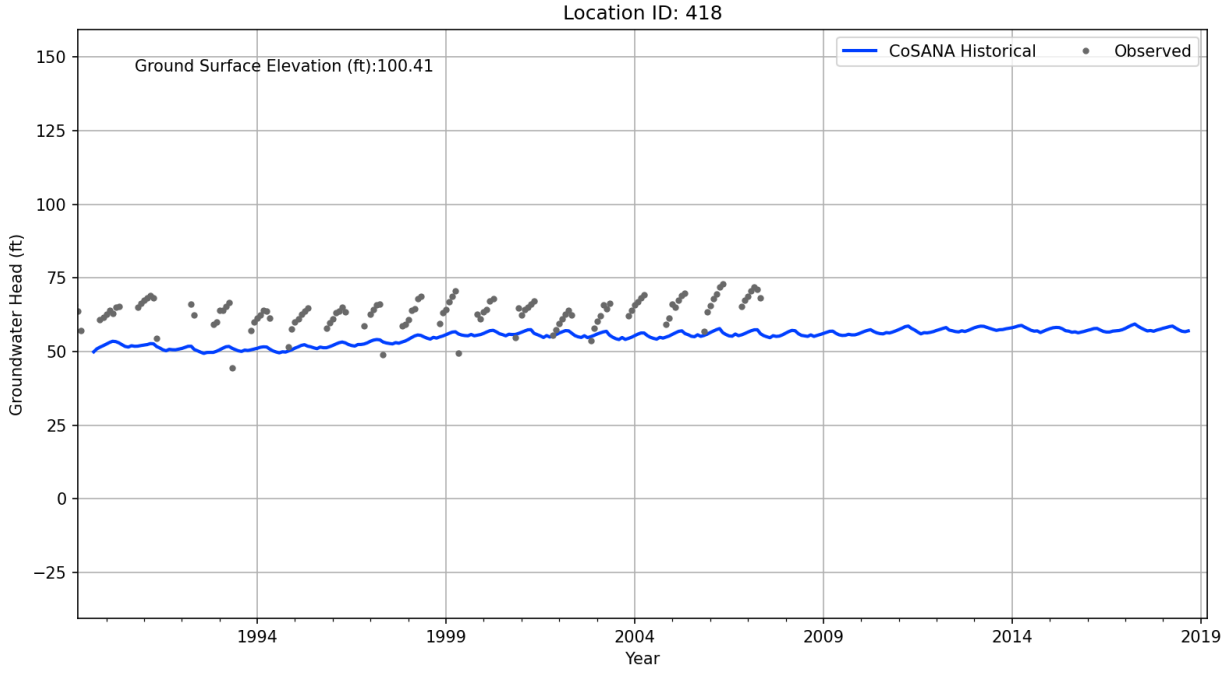

Location ID: 410
Ground Surface Elevation (ft):81.65
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

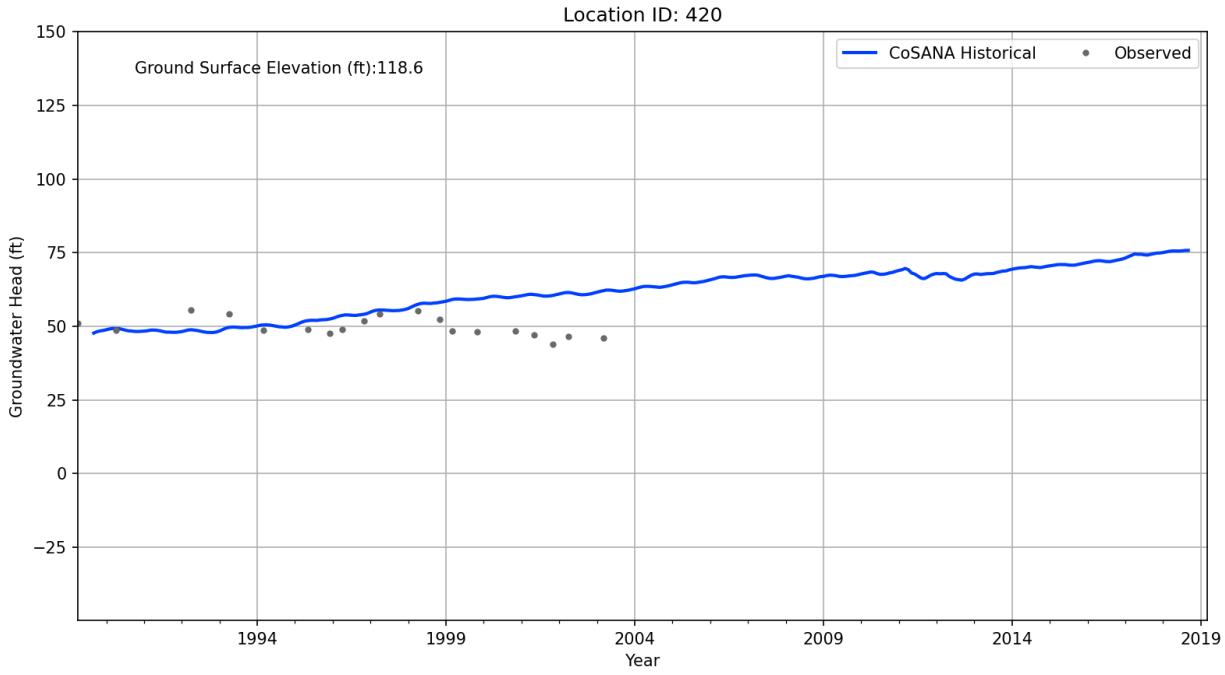

Location ID: 413
Ground Surface Elevation (ft):109.75
CoSANA Historical
Observed
Groundwater Head (ft)
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019
Year

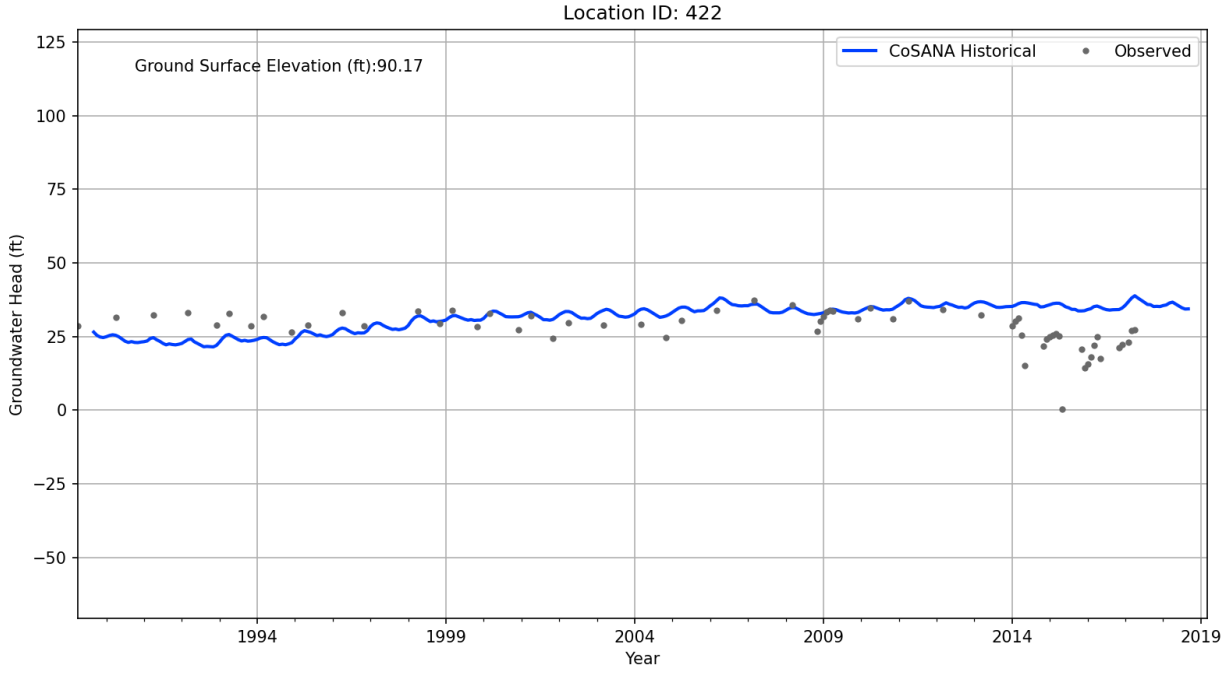

Location ID: 414
Ground Surface Elevation (ft):109.75
CoSANA Historical
Observed
Groundwater Head (ft)
Year
0
25
50
75
100
125
150
175
1994
1999
2004
2009
2014
2019

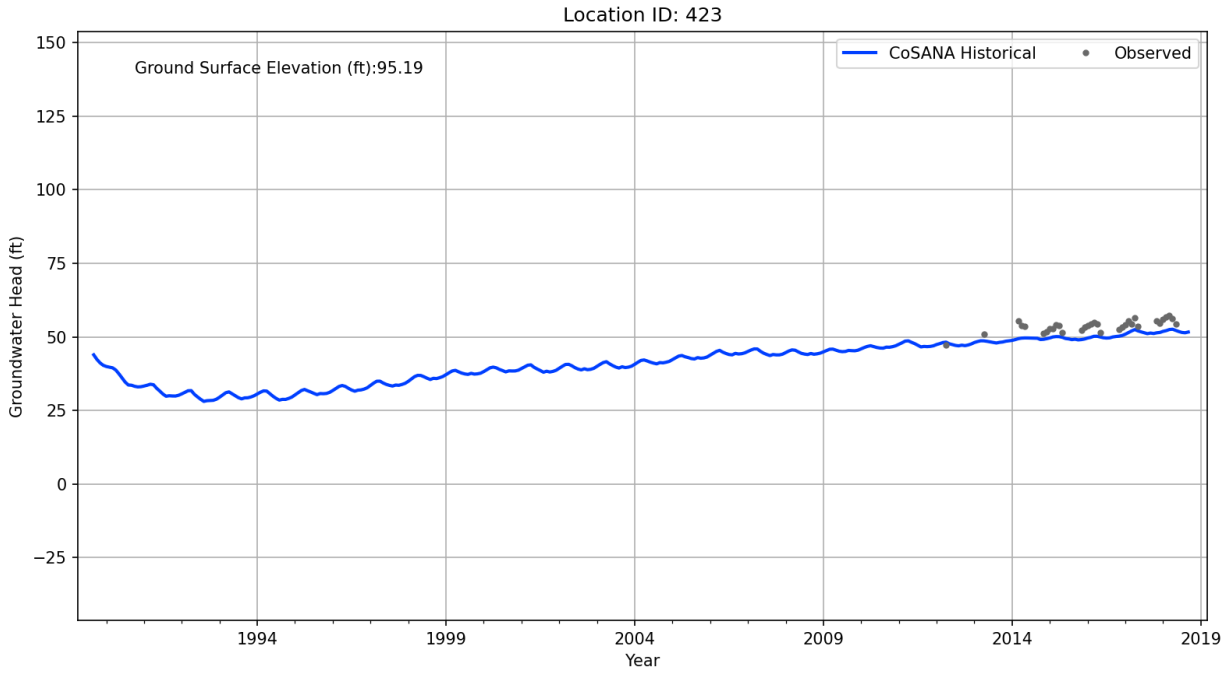

Location ID: 415
Ground Surface Elevation (ft):109.75
CoSANA Historical
Observed
Groundwater Head (ft)
Year
0
25
50
75
100
125
150
175
1994
1999
2004
2009
2014
2019

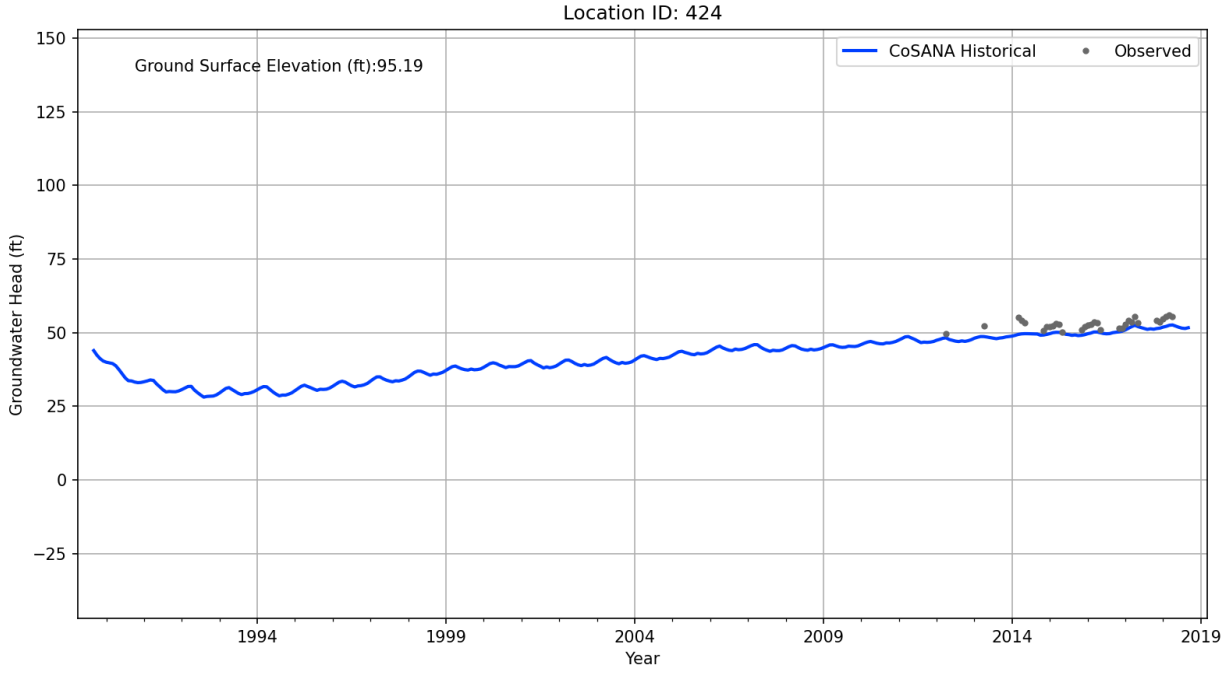

Location ID: 416
Ground Surface Elevation (ft):93.7
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

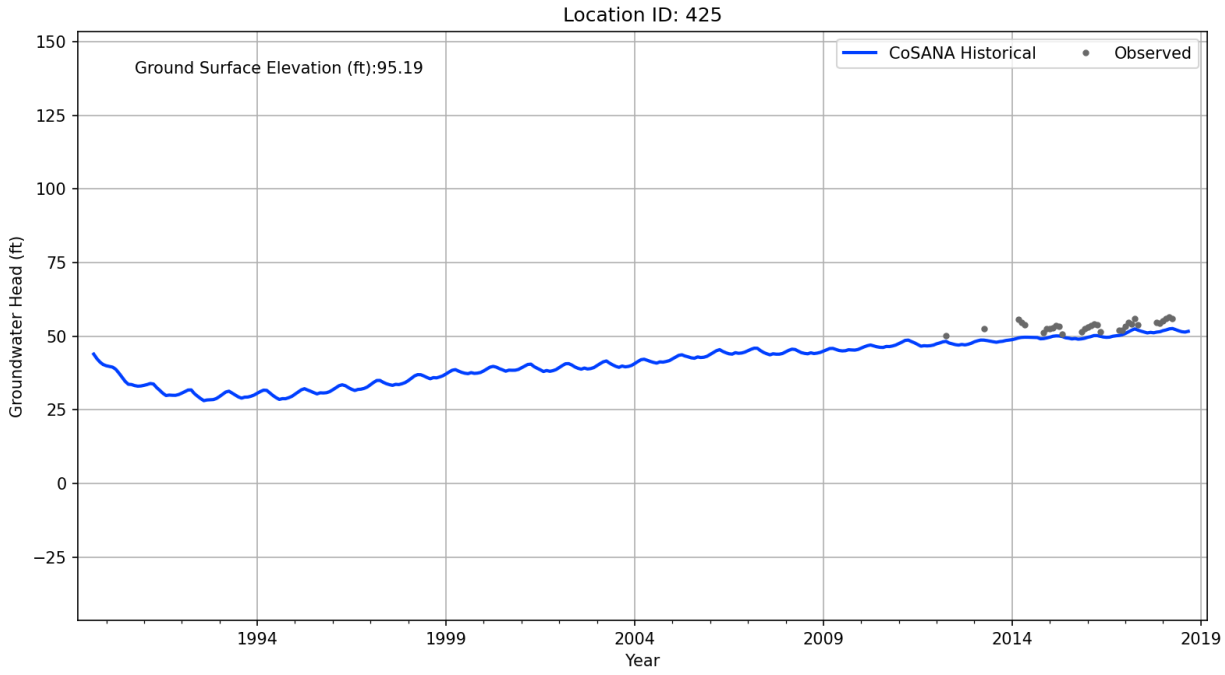

Location ID: 418
Ground Surface Elevation (ft):100.41
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

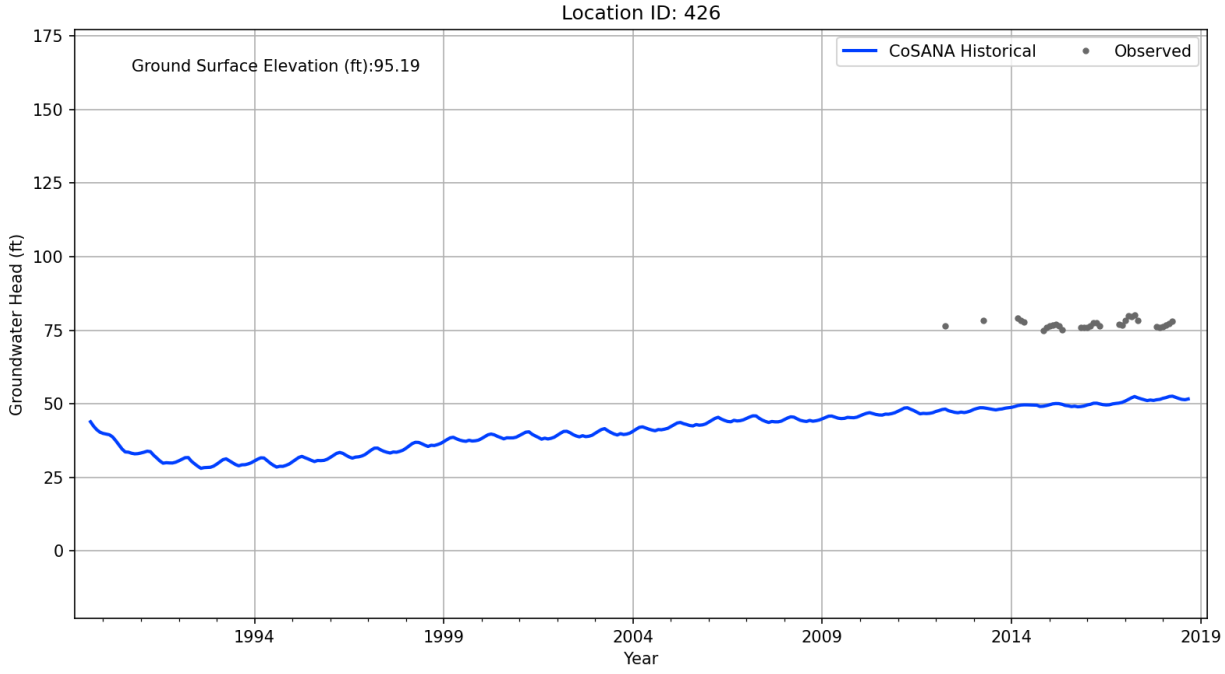

Location ID: 420
Ground Surface Elevation (ft):118.6
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

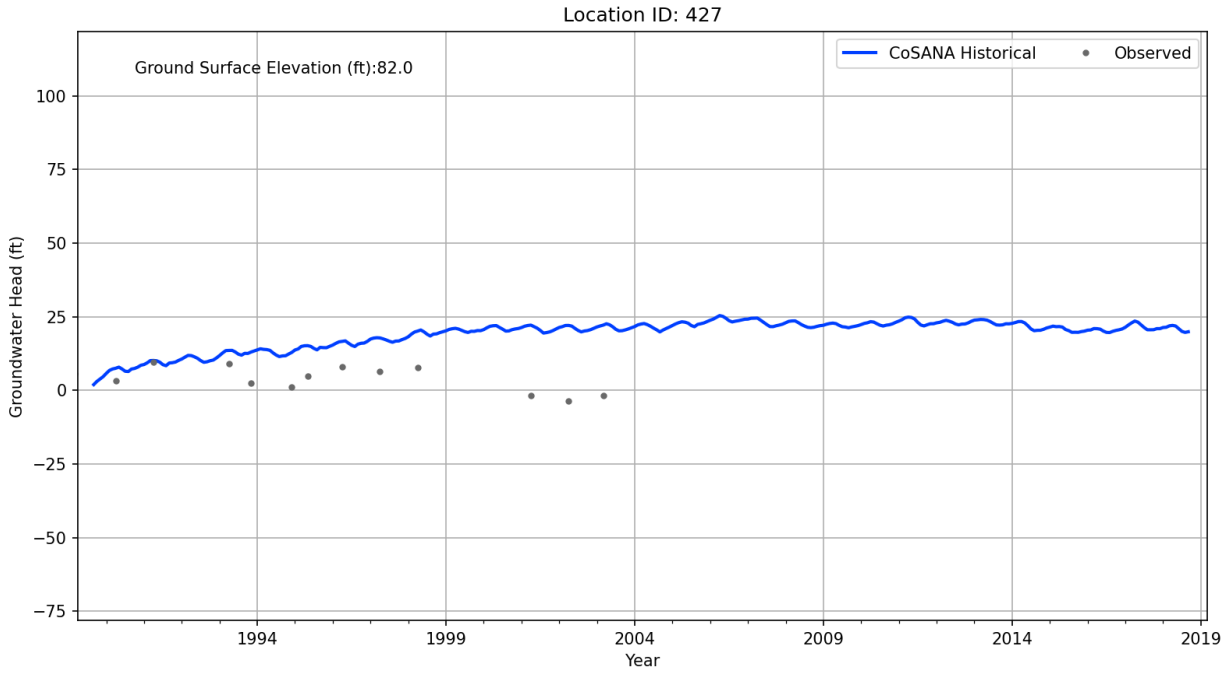

Location ID: 422
Ground Surface Elevation (ft):90.17
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

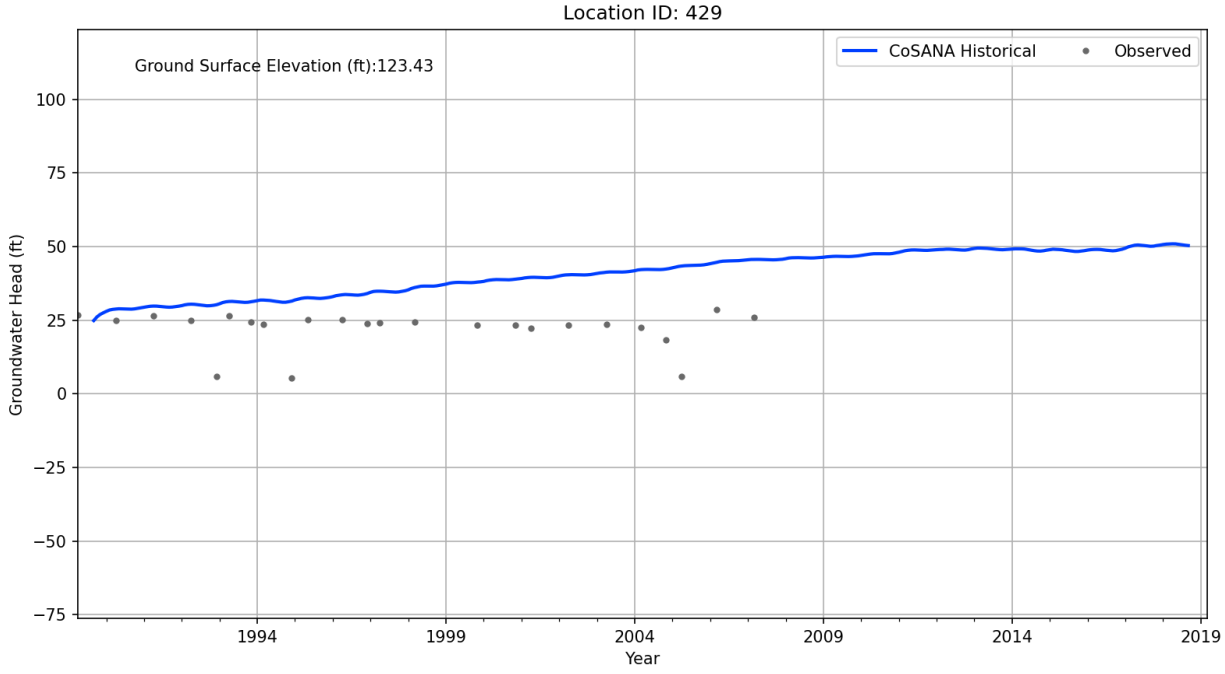

Location ID: 423
Ground Surface Elevation (ft):95.19
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

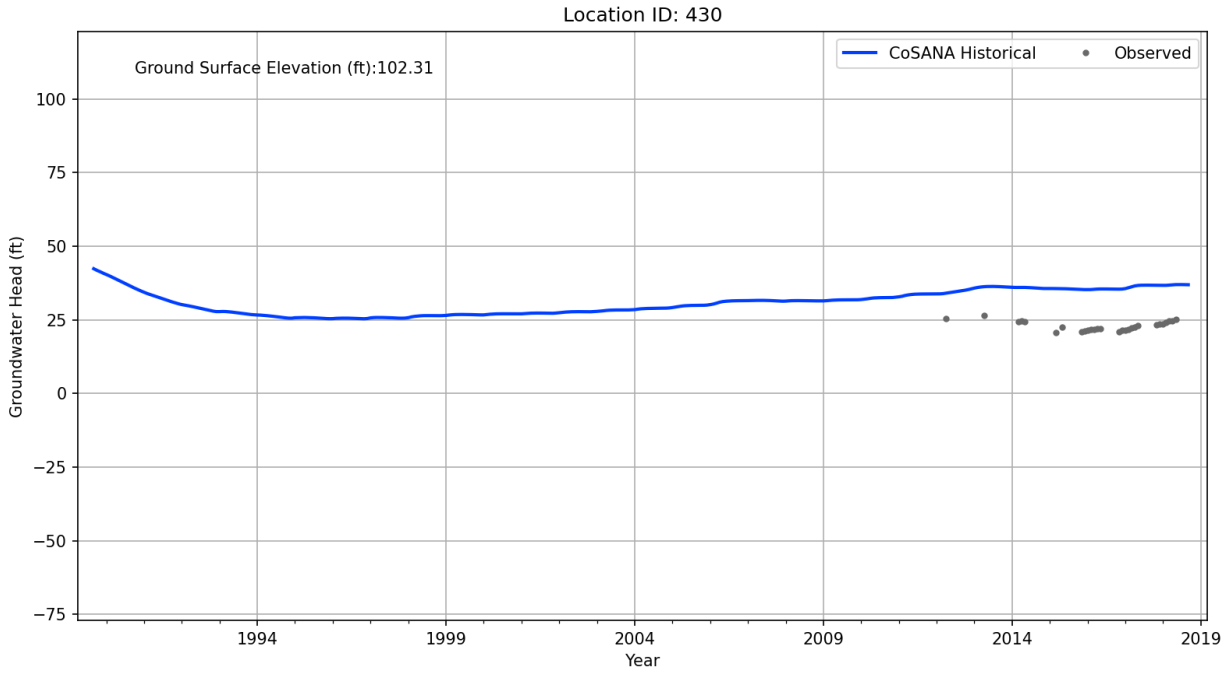

Location ID: 424
Ground Surface Elevation (ft):95.19
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

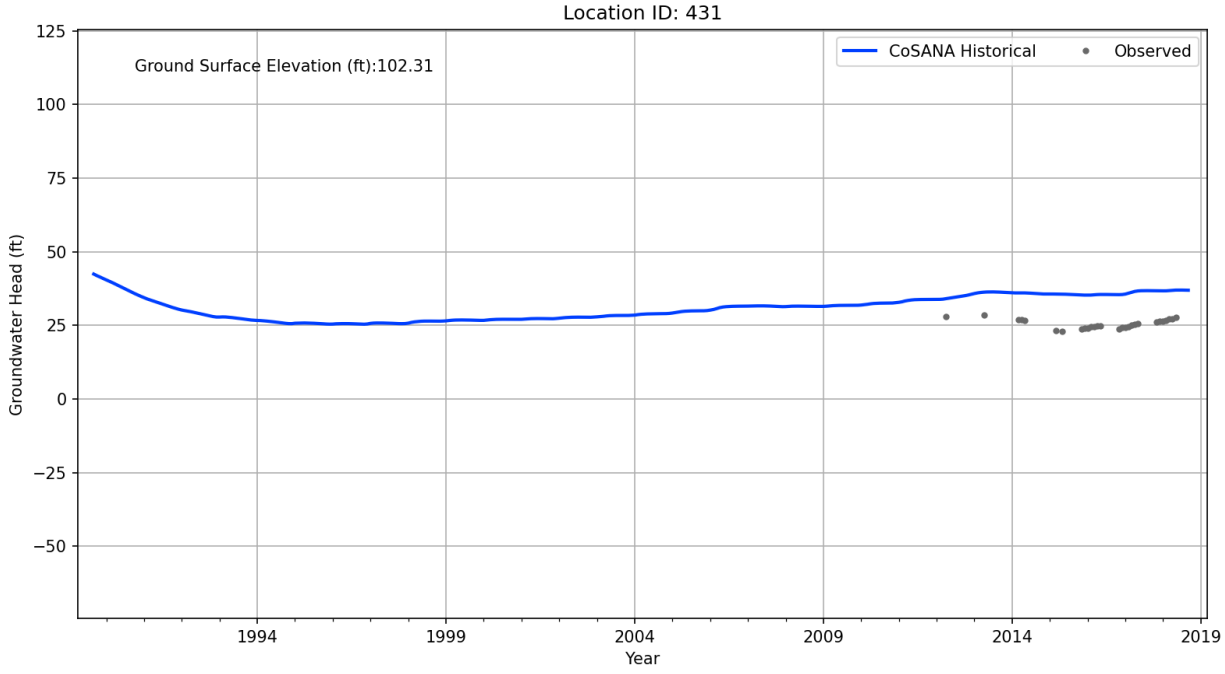

Location ID: 425
Ground Surface Elevation (ft):95.19
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

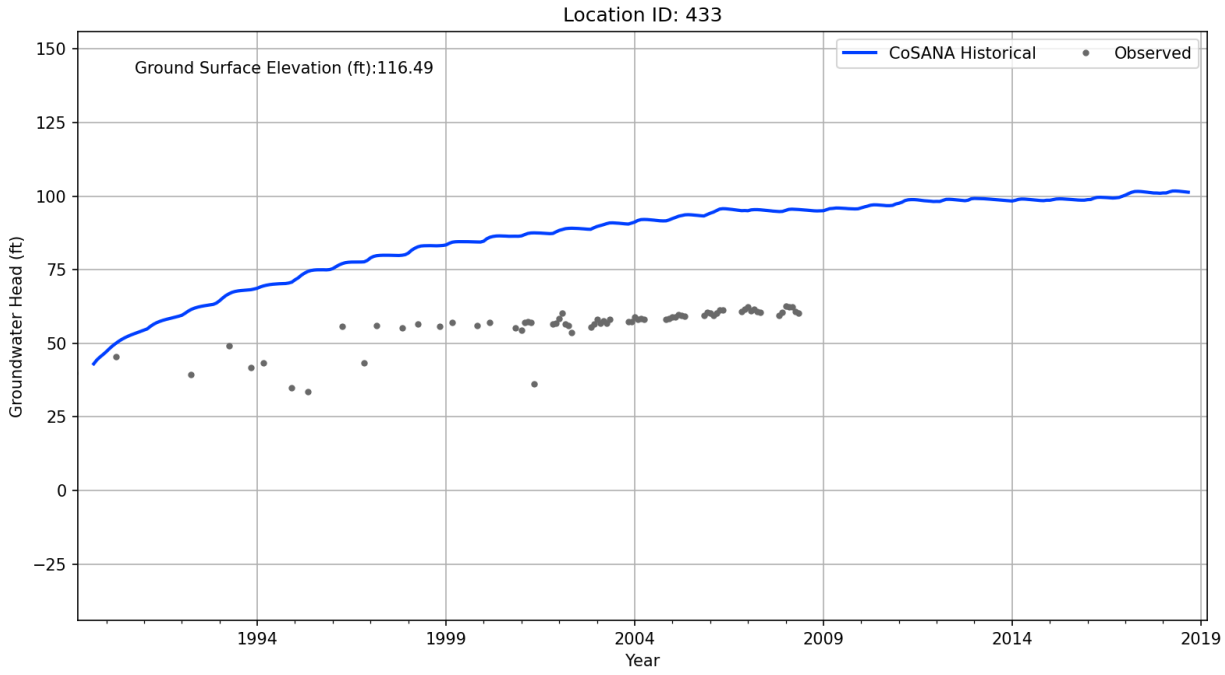

Location ID: 426
Ground Surface Elevation (ft):95.19
CoSANA Historical
Observed
Groundwater Head (ft)
175
150
125
100
75
50
25
0
1994
1999
2004
2009
2014
2019
Year

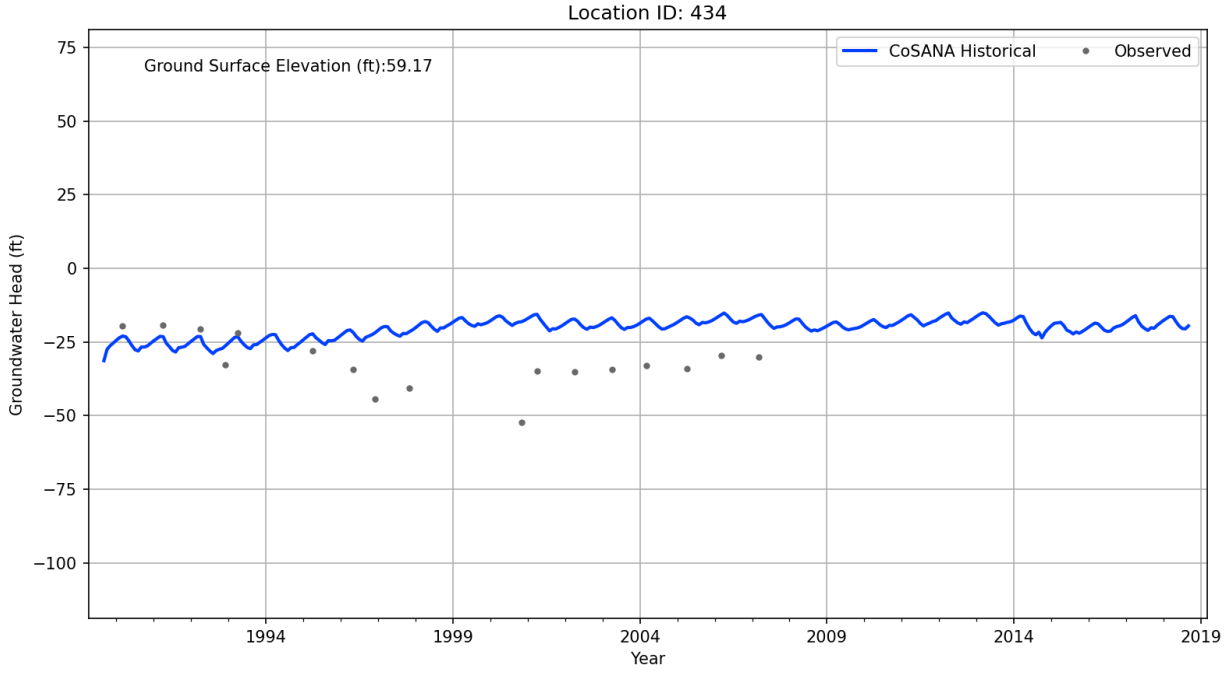

Location ID: 427
Ground Surface Elevation (ft):82.0
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

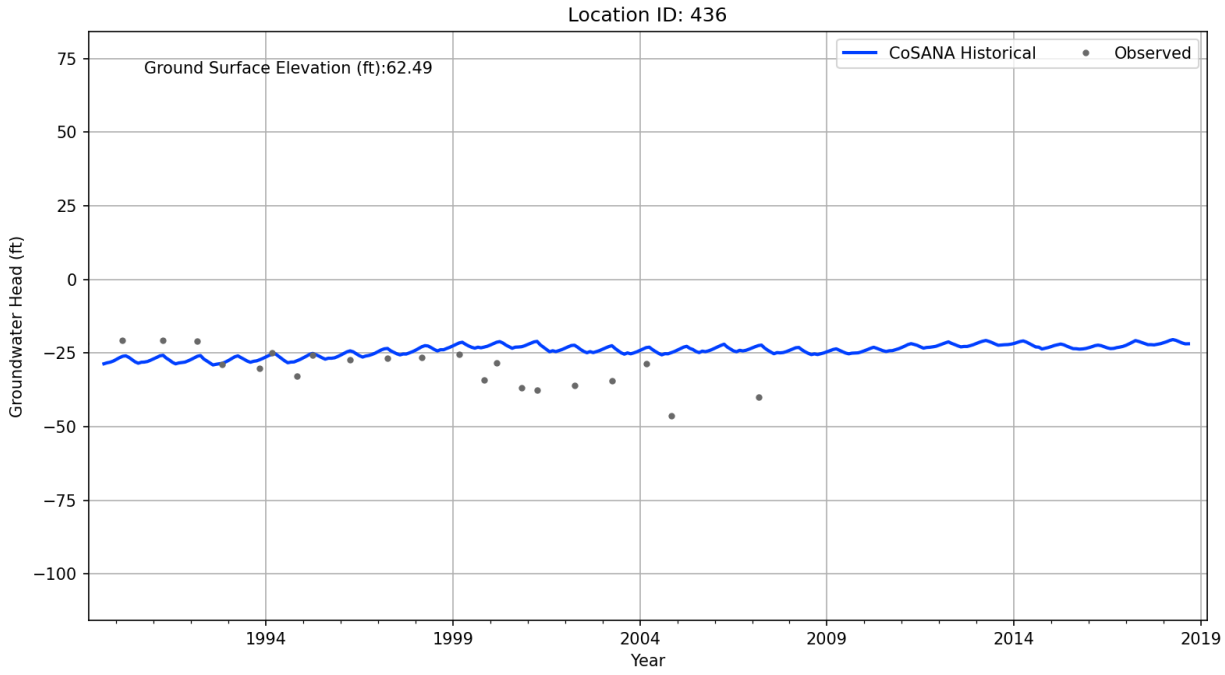

Location ID: 429
Ground Surface Elevation (ft):123.43
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

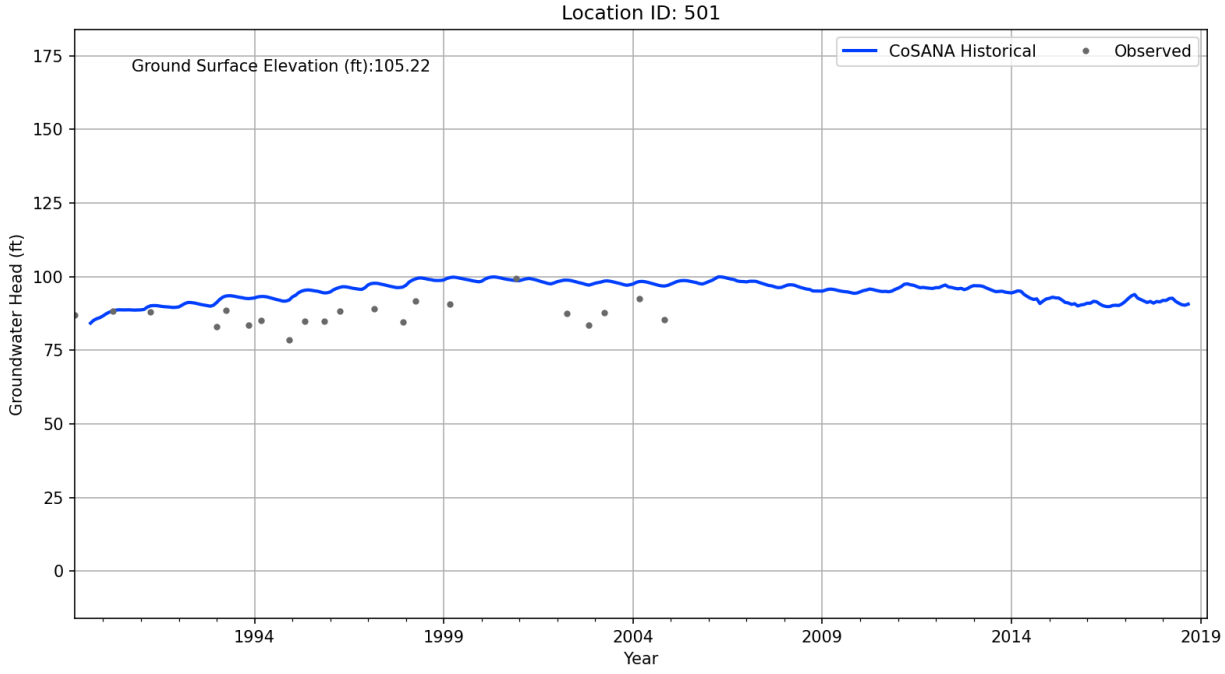

Location ID: 430
Ground Surface Elevation (ft):102.31
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

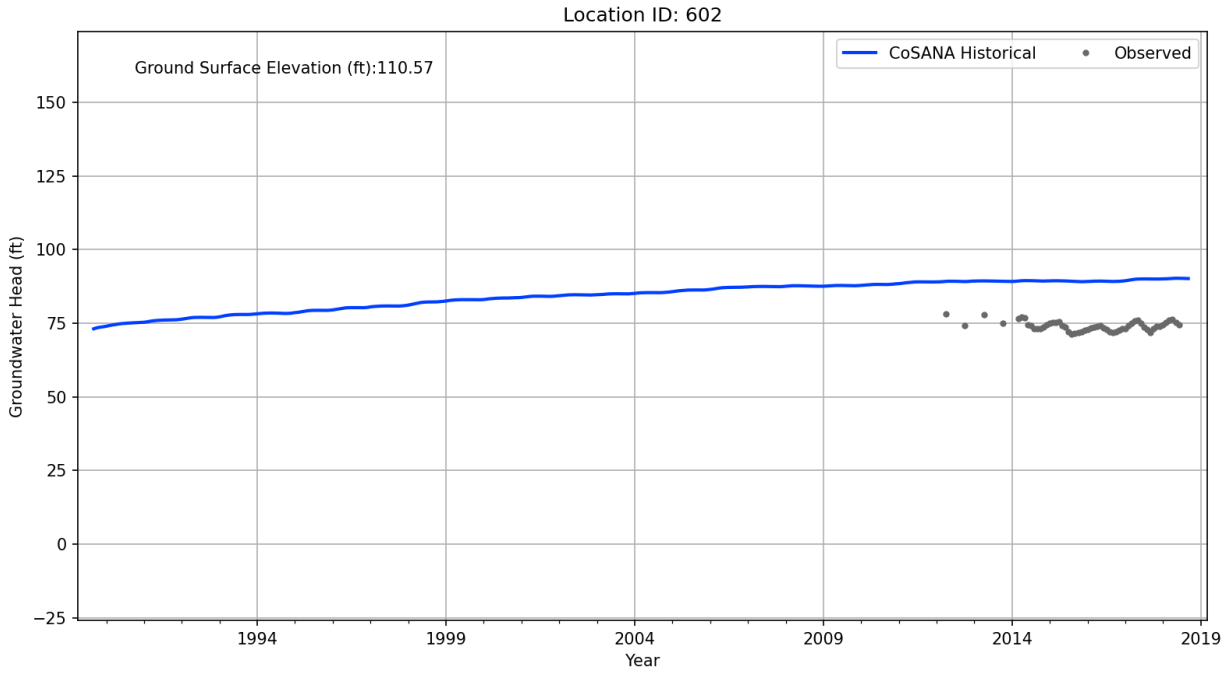

Location ID: 431
Ground Surface Elevation (ft):102.31
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

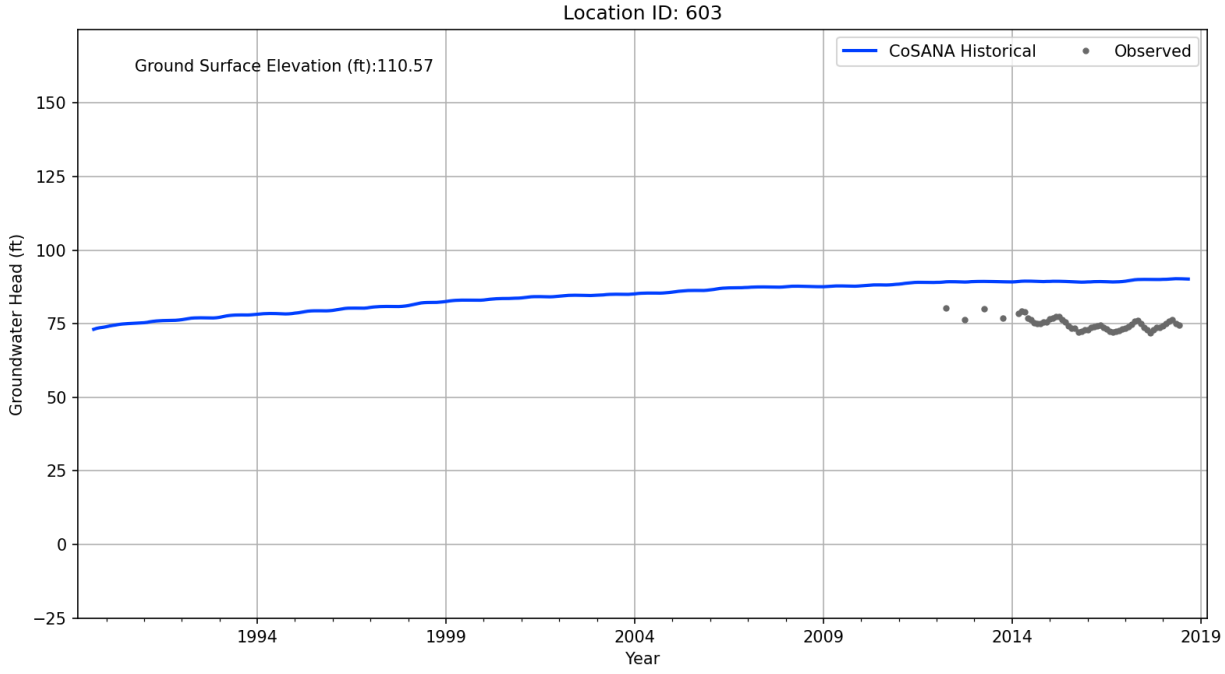

Location ID: 433
Ground Surface Elevation (ft):116.49
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

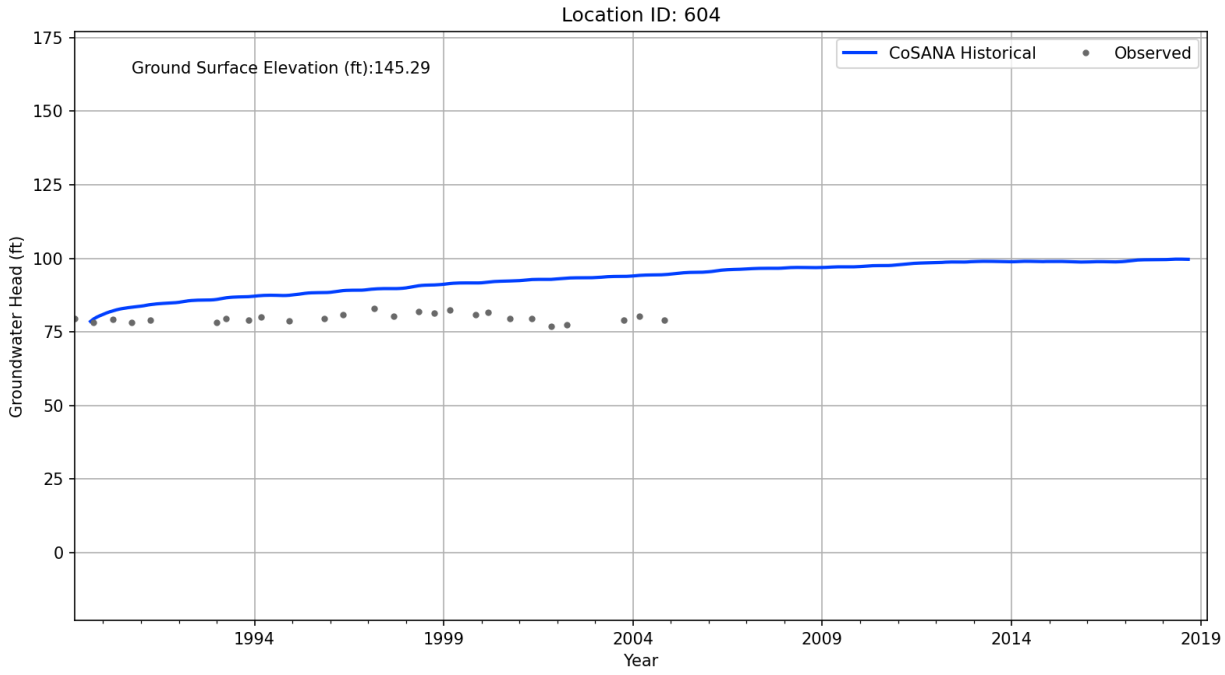

Location ID: 434
Ground Surface Elevation (ft):59.17
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

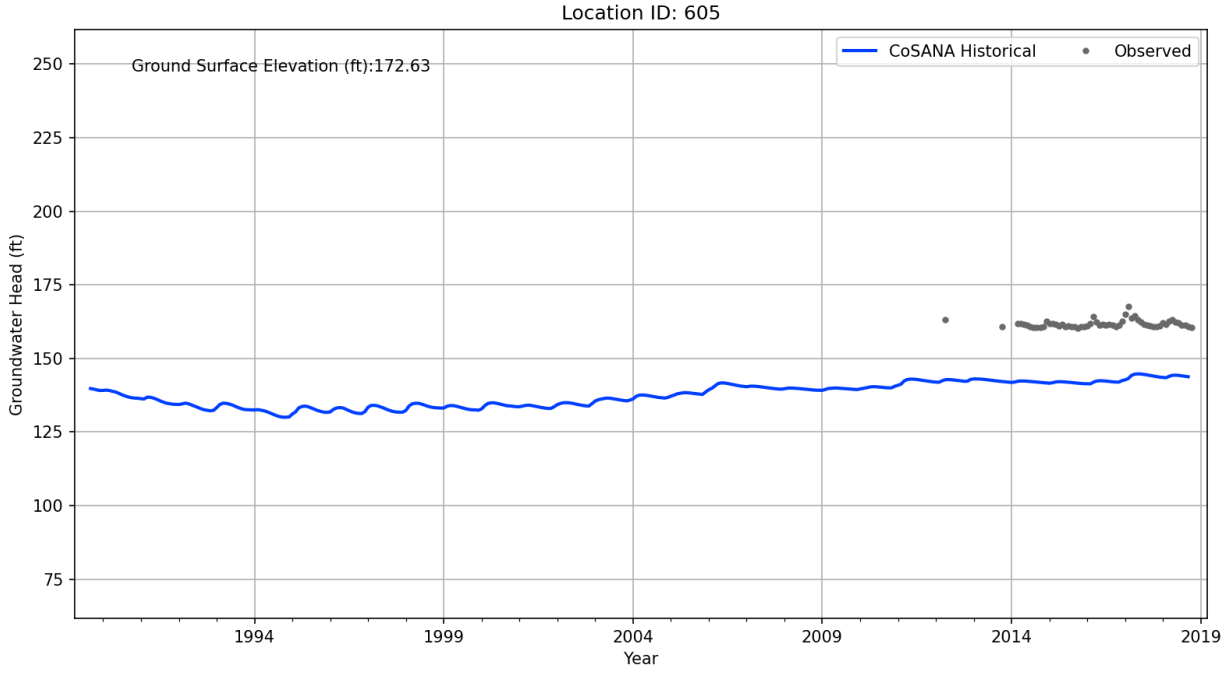

Location ID: 436
Ground Surface Elevation (ft):62.49
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

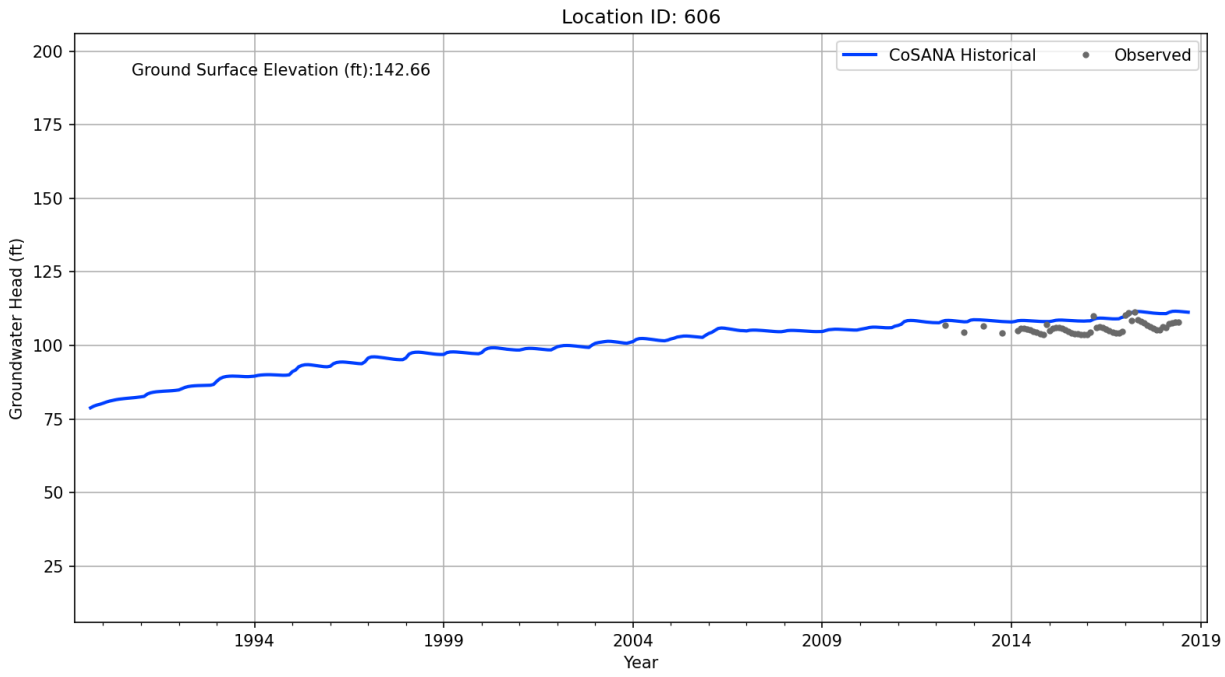

Location ID: 501
Ground Surface Elevation (ft):105.22
CoSANA Historical
Observed
Groundwater Head (ft)
175
150
125
100
75
50
25
0
1994
1999
2004
2009
2014
2019
Year

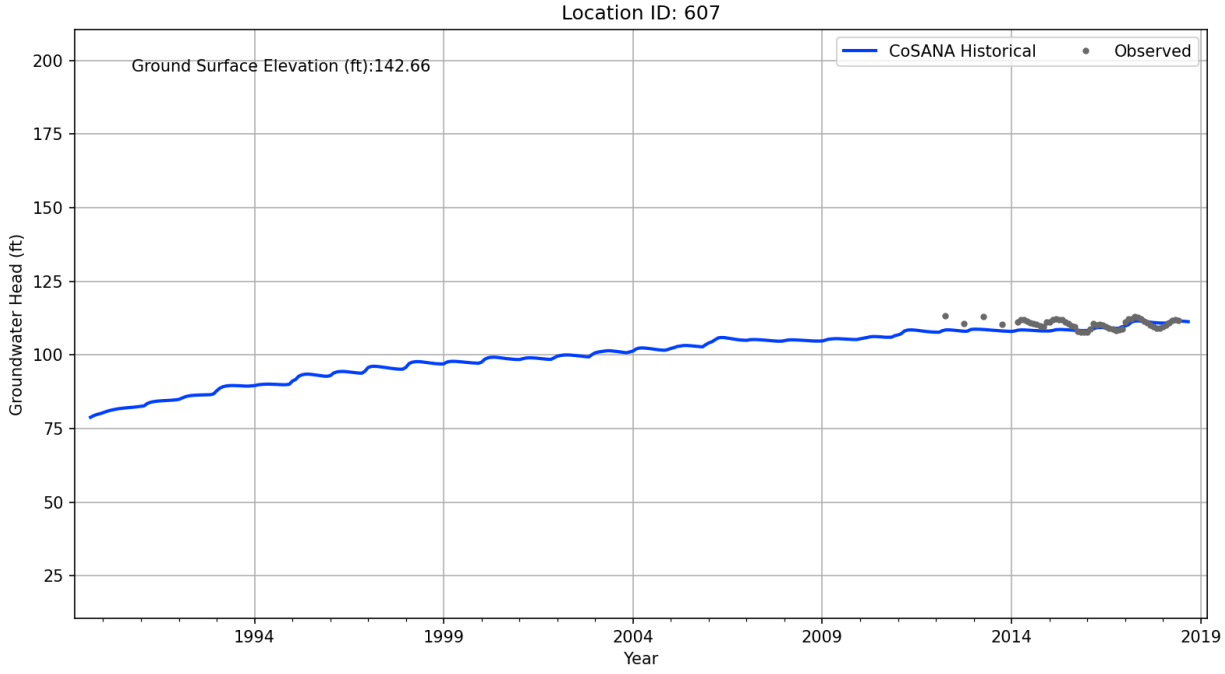

Location ID: 602
Ground Surface Elevation (ft):110.57
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

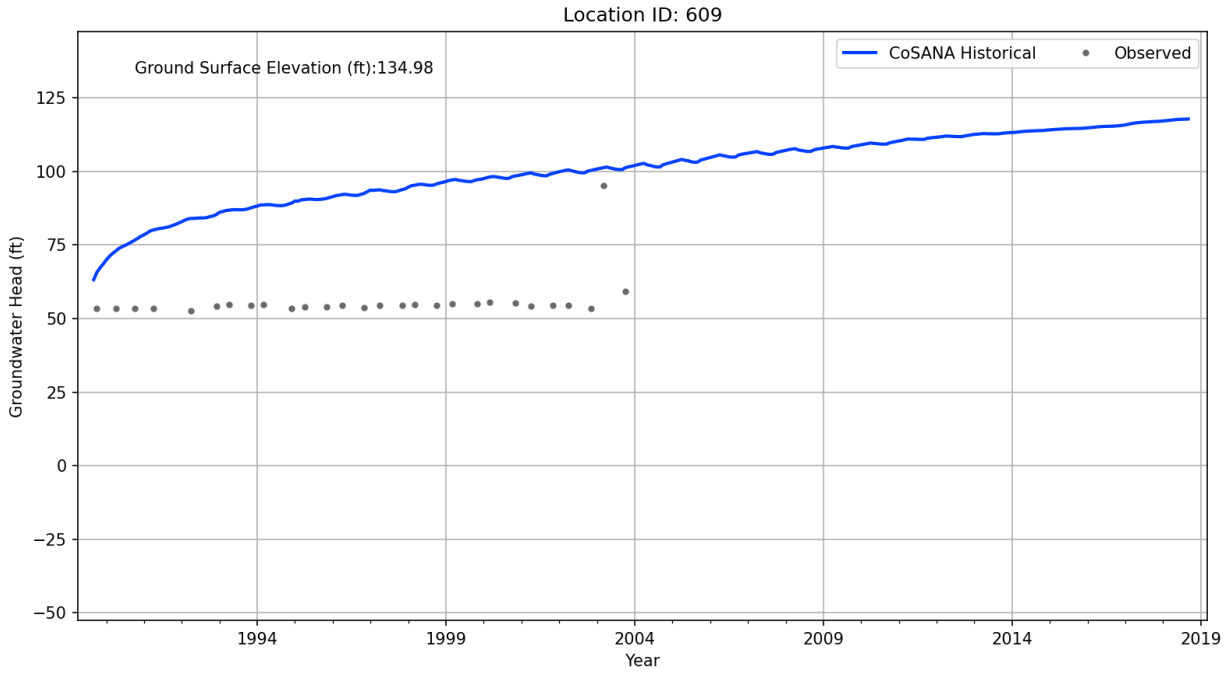

Location ID: 603
Ground Surface Elevation (ft):110.57
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

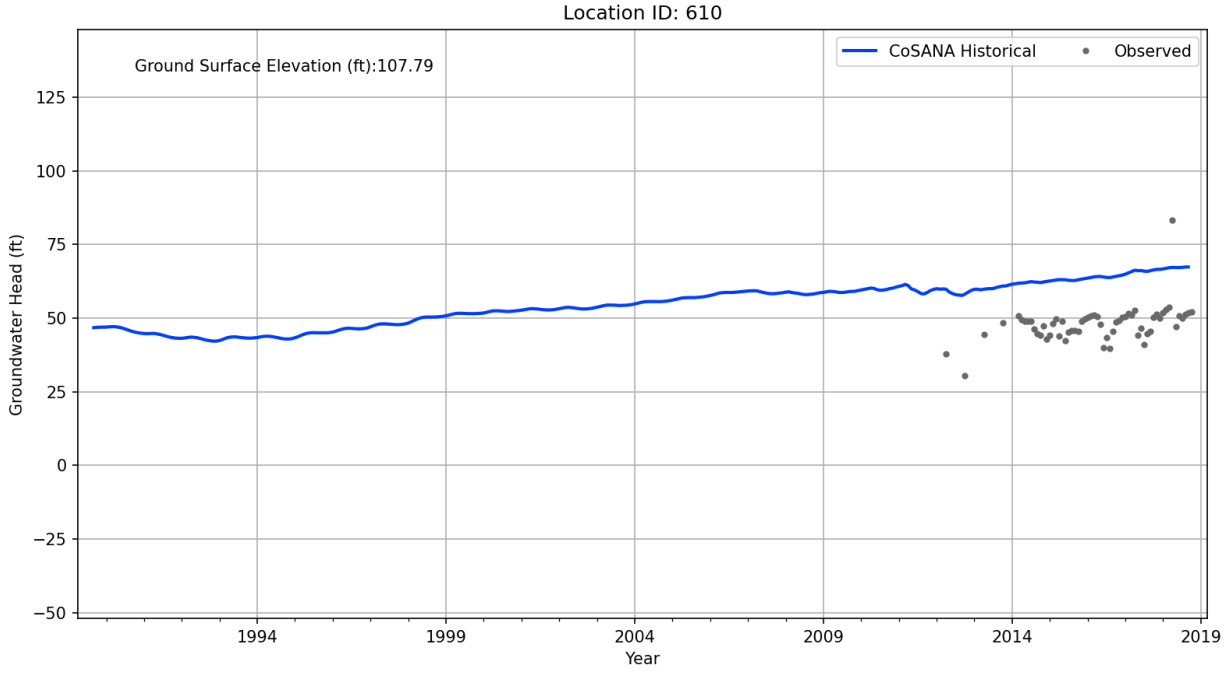

Location ID: 604
Ground Surface Elevation (ft):145.29
CoSANA Historical
Observed
Groundwater Head (ft)
175
150
125
100
75
50
25
0
1994
1999
2004
2009
2014
2019
Year

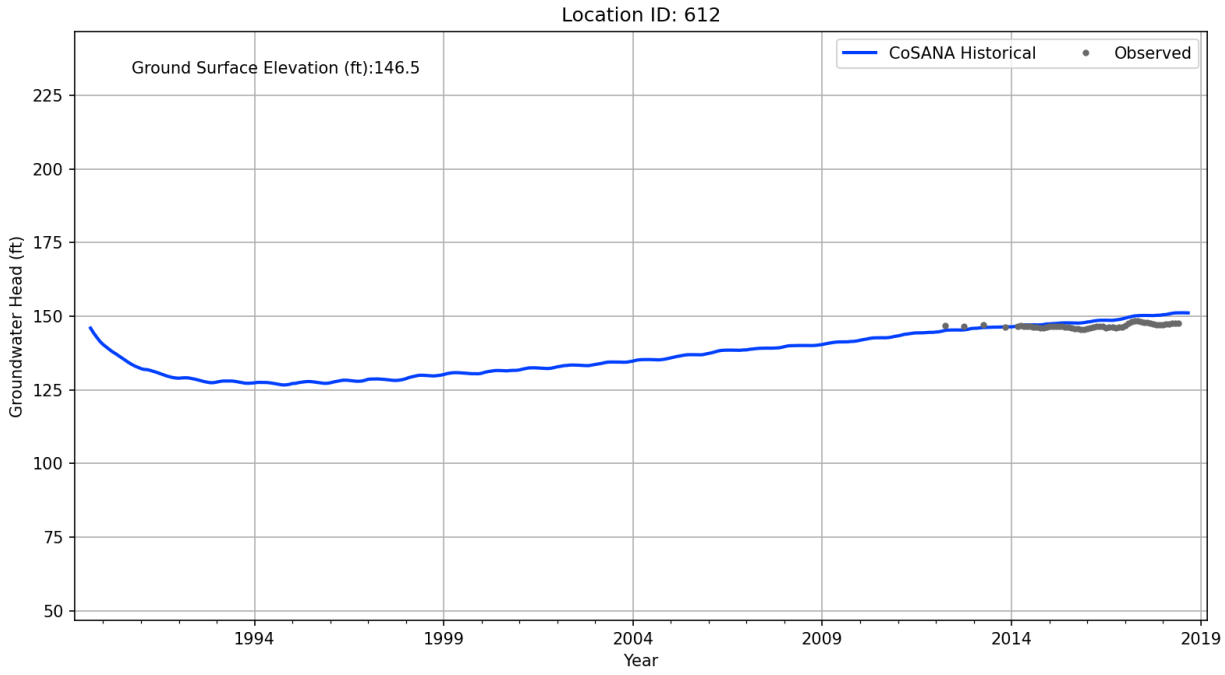

Location ID: 605
Ground Surface Elevation (ft):172.63
CoSANA Historical
Observed
Groundwater Head (ft)
250
225
200
175
150
125
100
75
1994
1999
2004
2009
2014
2019
Year

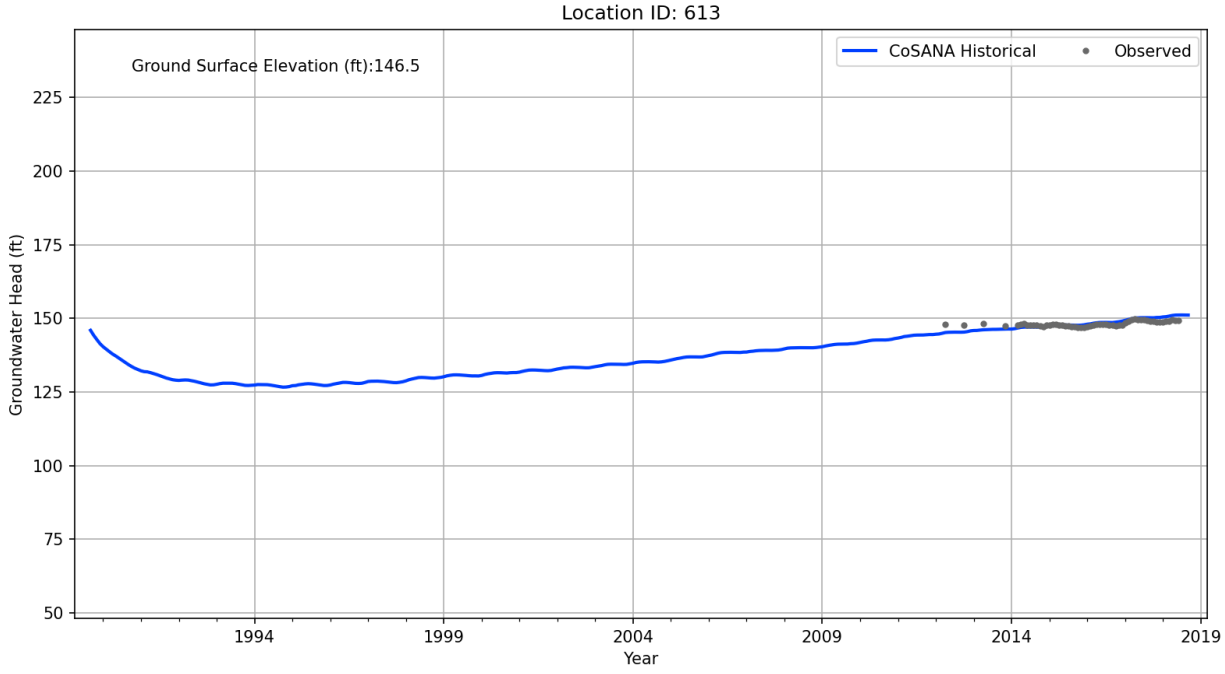

Location ID: 606
Ground Surface Elevation (ft):142.66
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

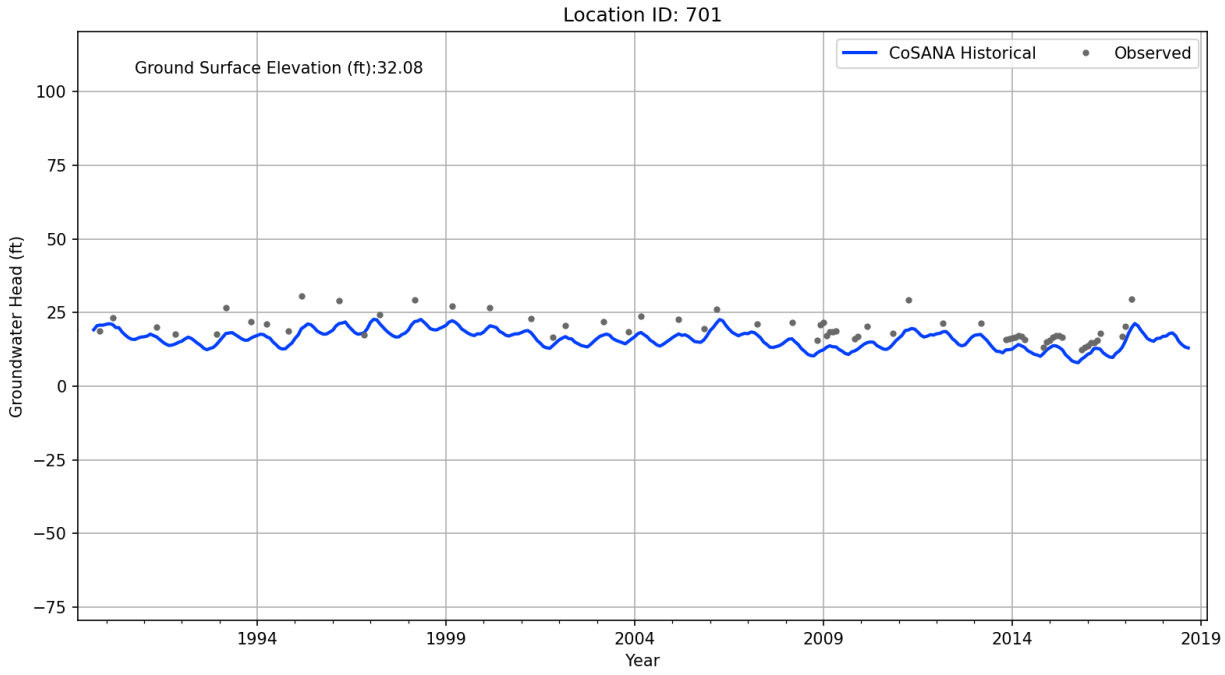

Location ID: 607
Ground Surface Elevation (ft):142.66
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

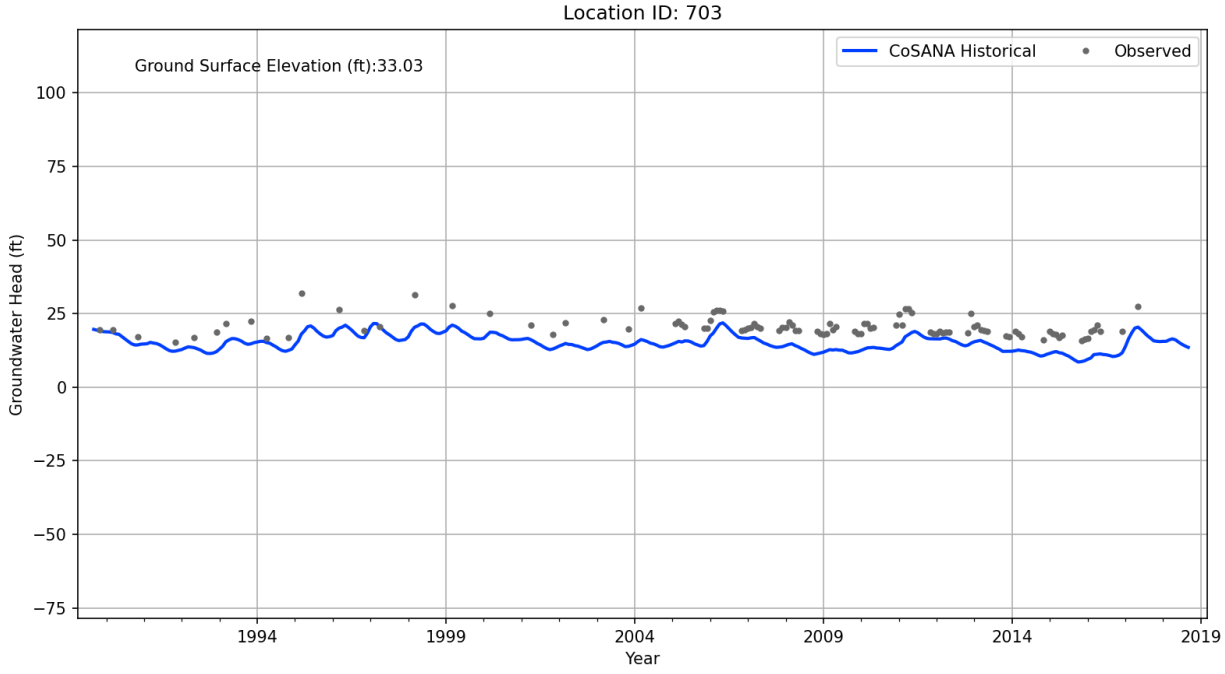

Location ID: 609
Ground Surface Elevation (ft):134.98
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

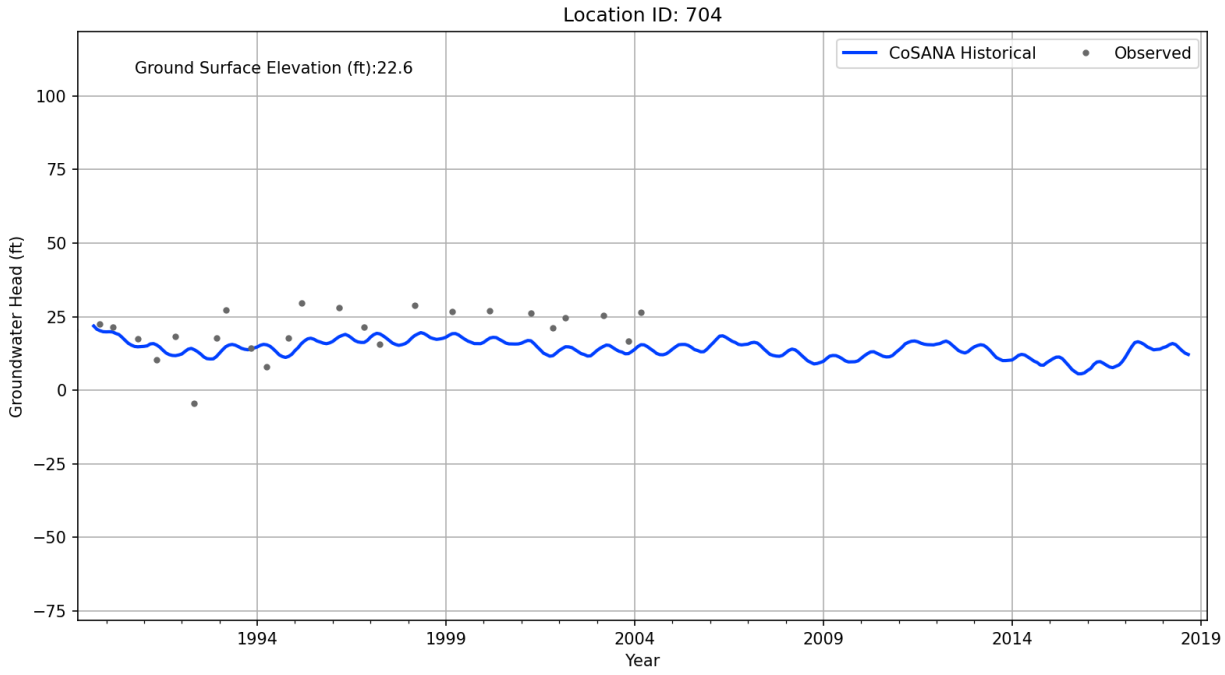

Location ID: 610
Ground Surface Elevation (ft):107.79
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

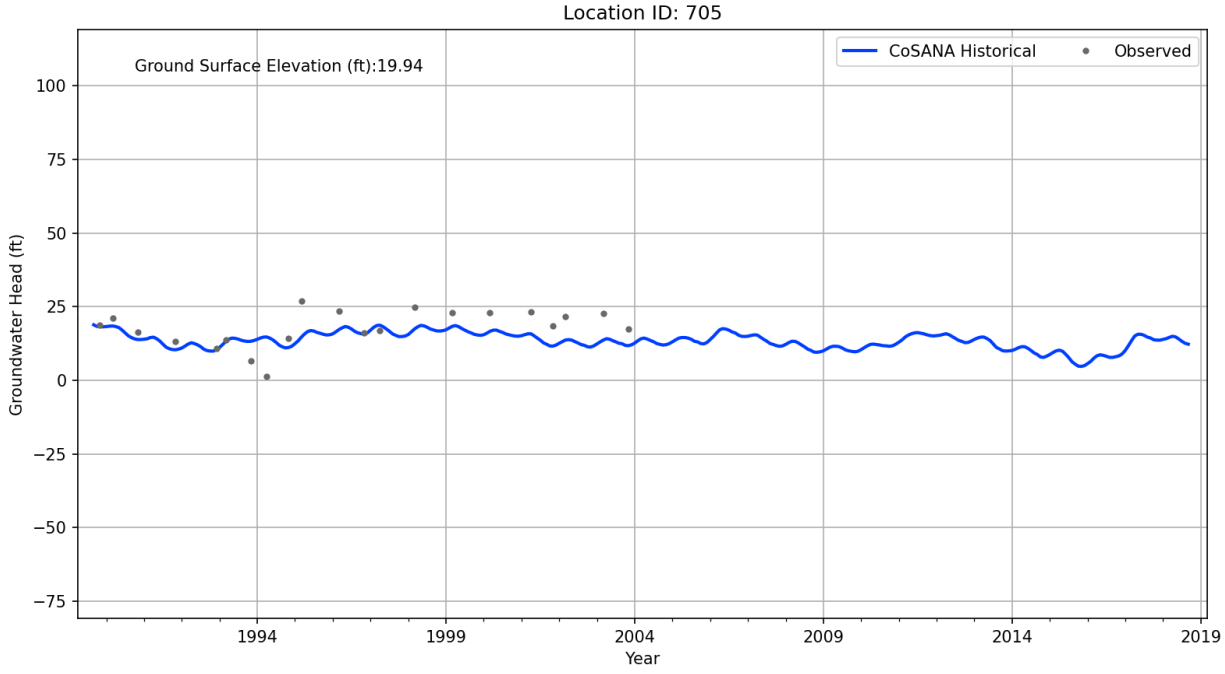

Location ID: 612
Ground Surface Elevation (ft):146.5
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

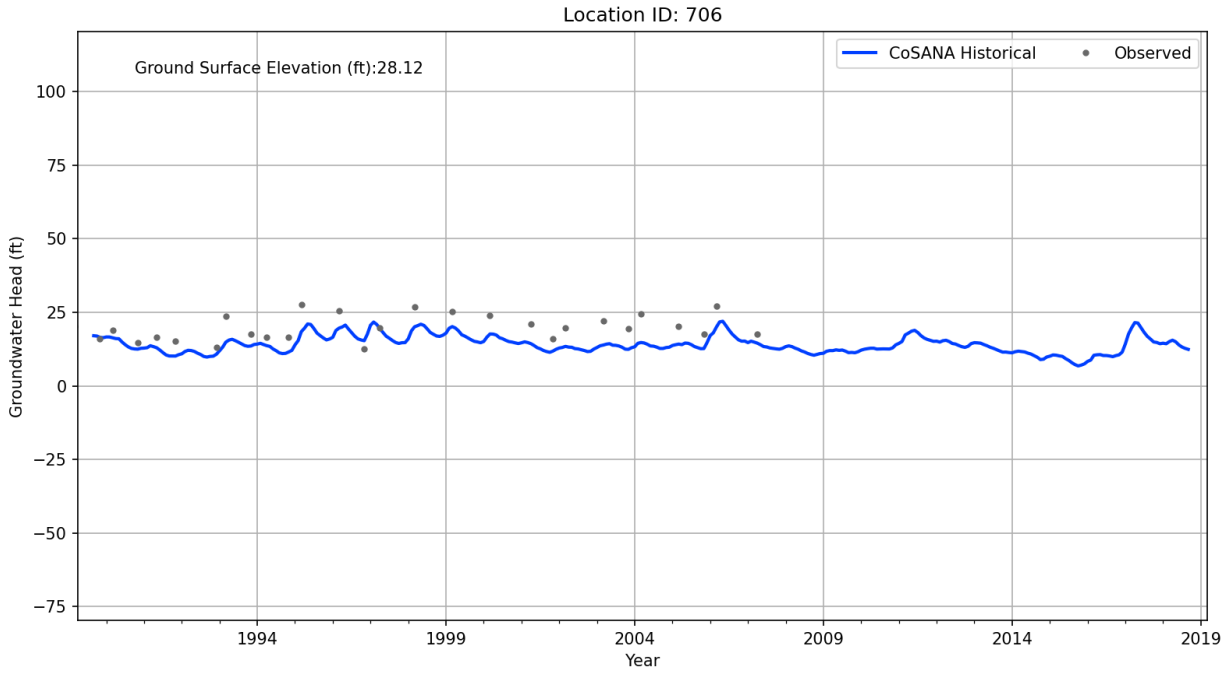

Location ID: 613
Ground Surface Elevation (ft):146.5
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

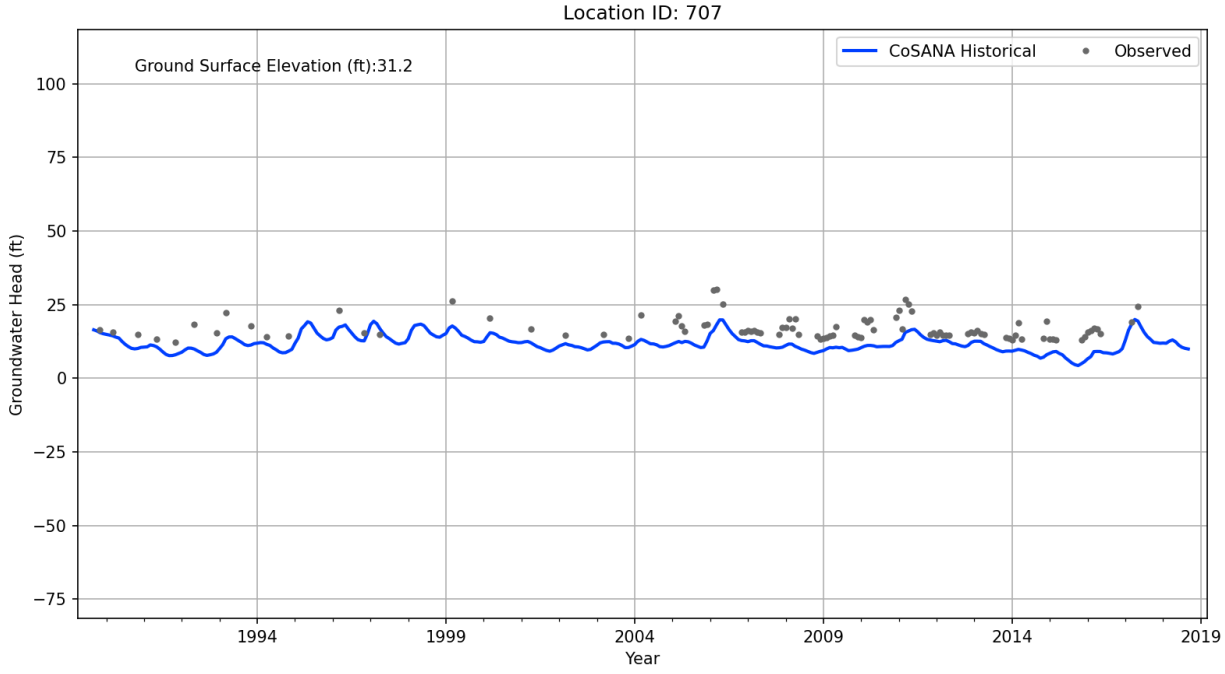

Location ID: 701
Ground Surface Elevation (ft):32.08
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

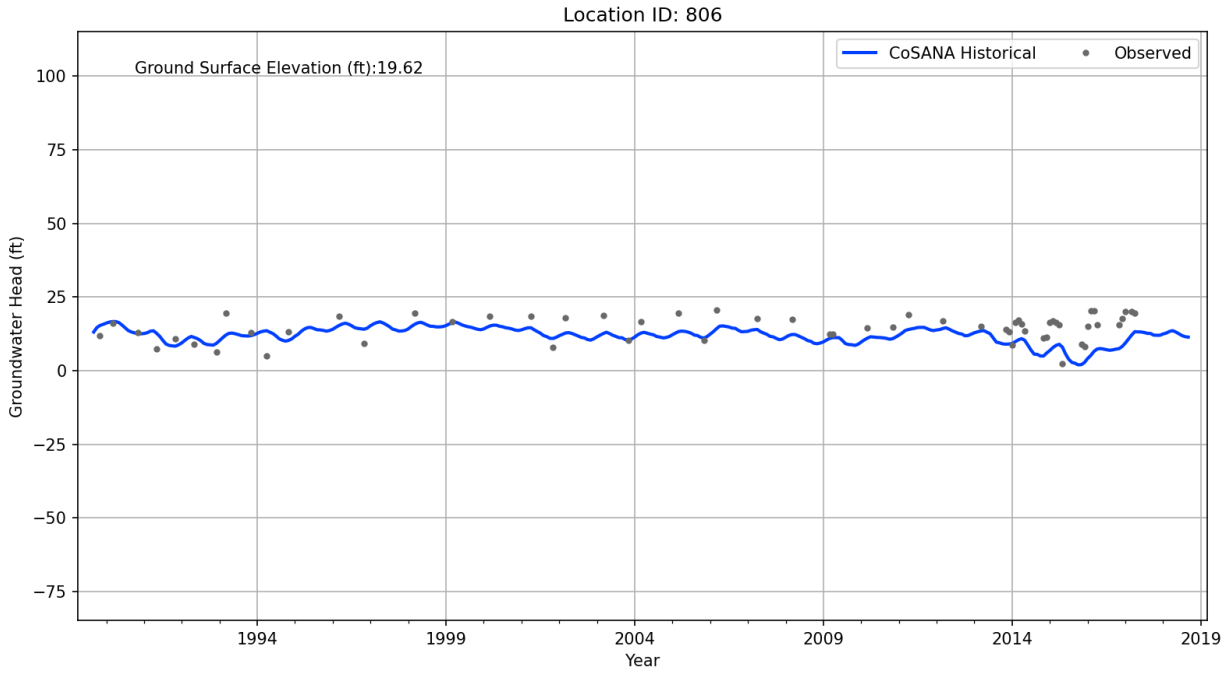

Location ID: 703
Ground Surface Elevation (ft):33.03
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

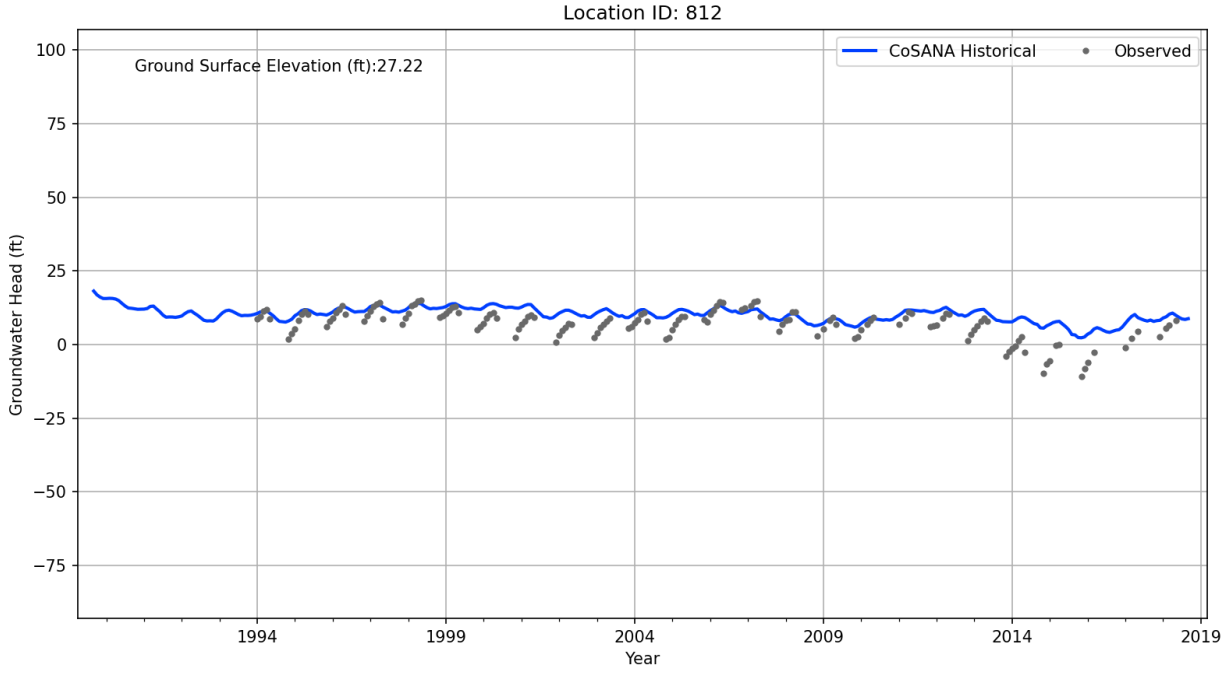

Location ID: 704
Ground Surface Elevation (ft):22.6
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

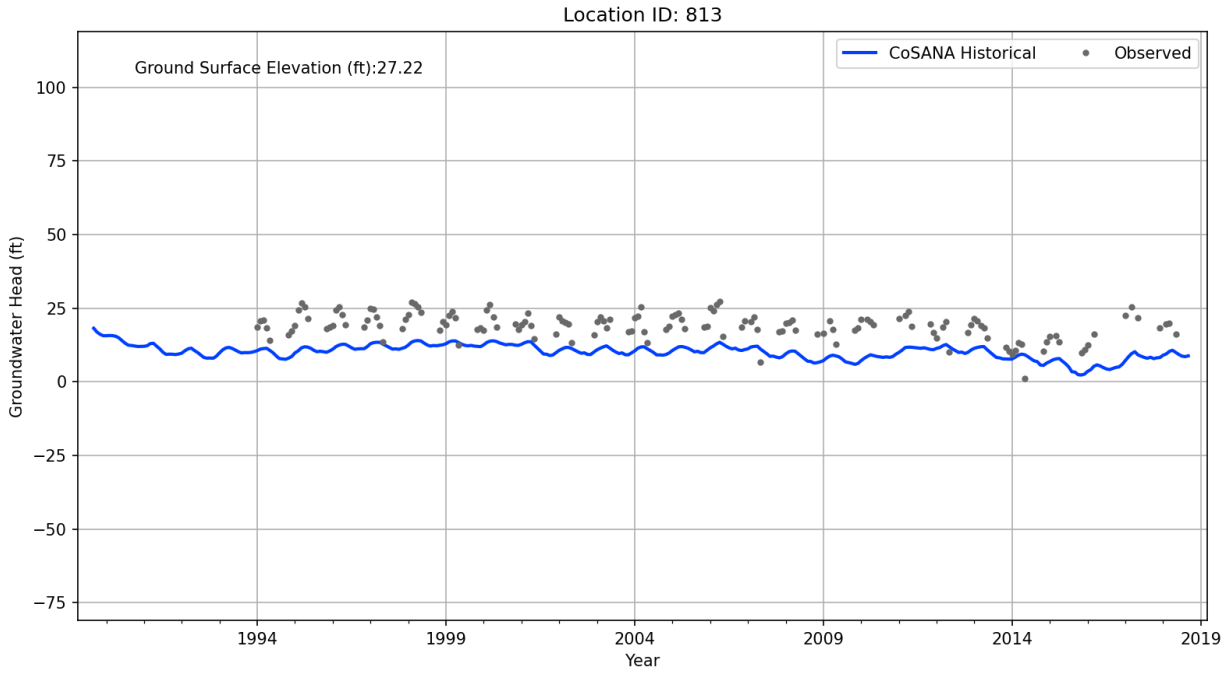

Location ID: 705
Ground Surface Elevation (ft):19.94
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

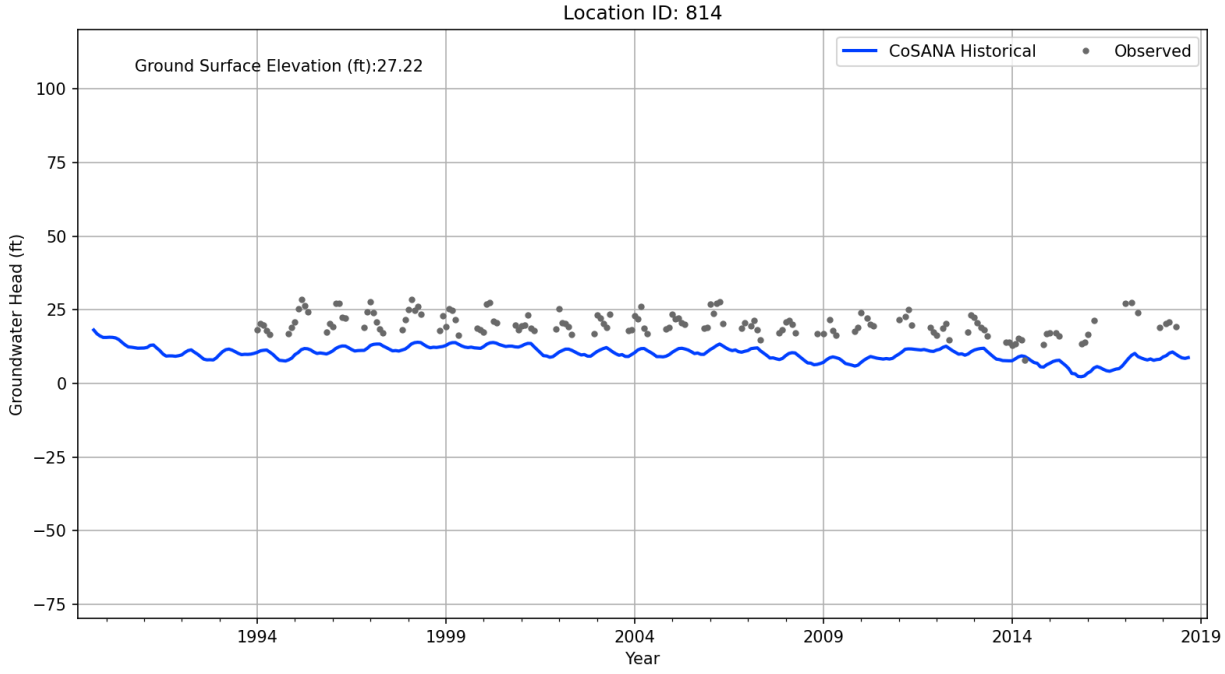

Location ID: 706
Ground Surface Elevation (ft):28.12
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

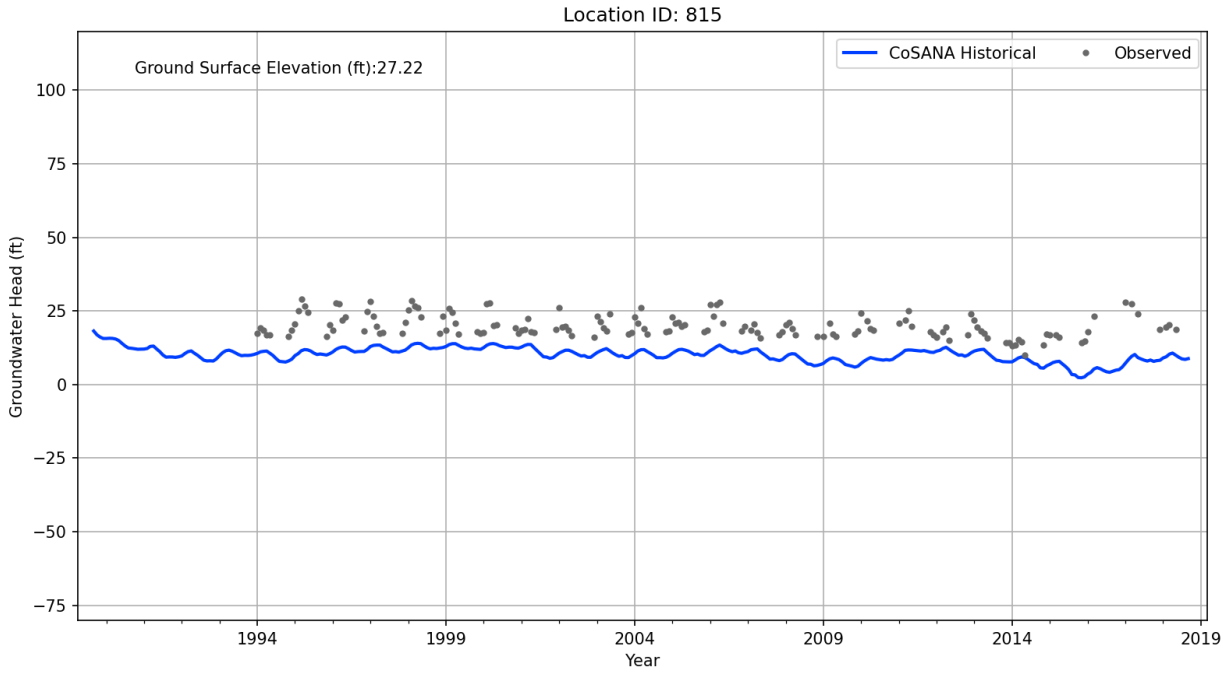

Location ID: 707
Ground Surface Elevation (ft):31.2
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

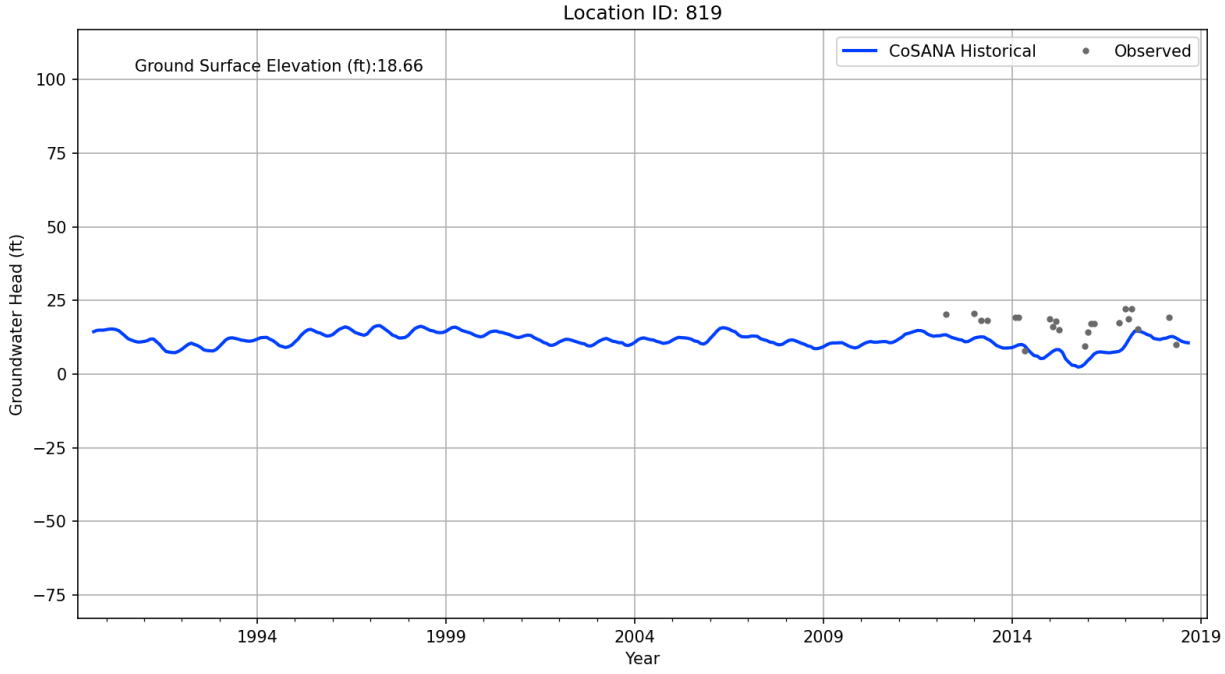

Location ID: 806
Ground Surface Elevation (ft):19.62
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

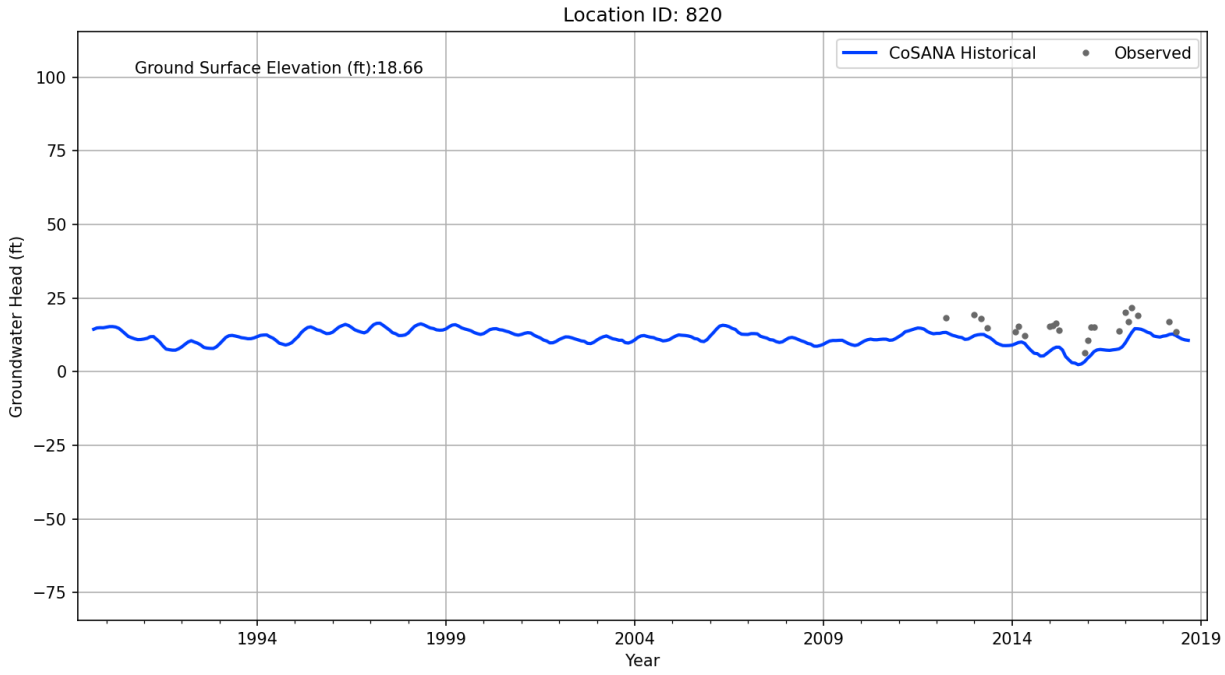

Location ID: 812
Ground Surface Elevation (ft):27.22
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

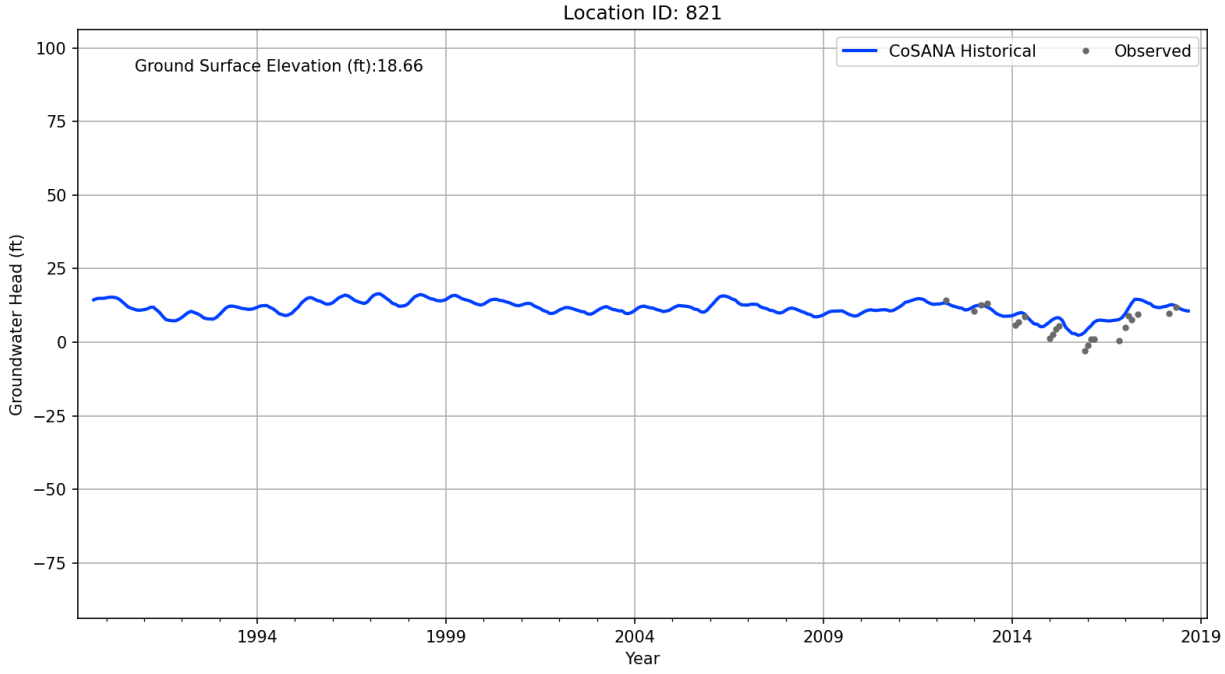

Location ID: 813
Ground Surface Elevation (ft):27.22
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

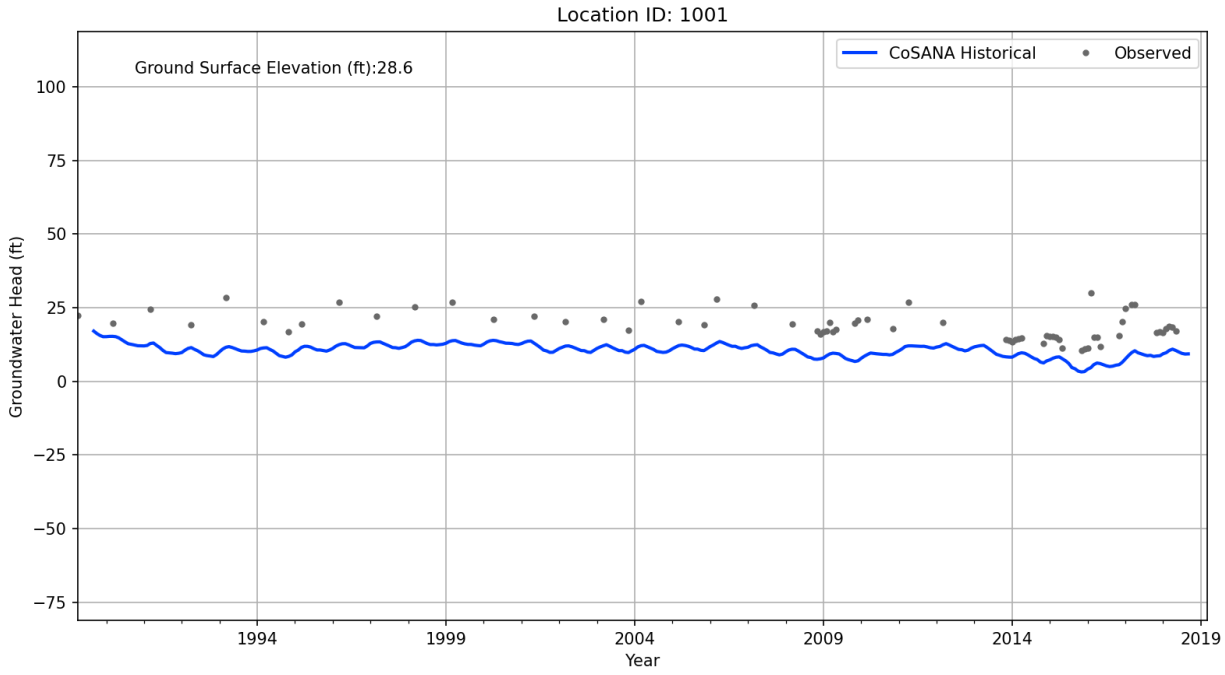

Location ID: 814
Ground Surface Elevation (ft):27.22
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

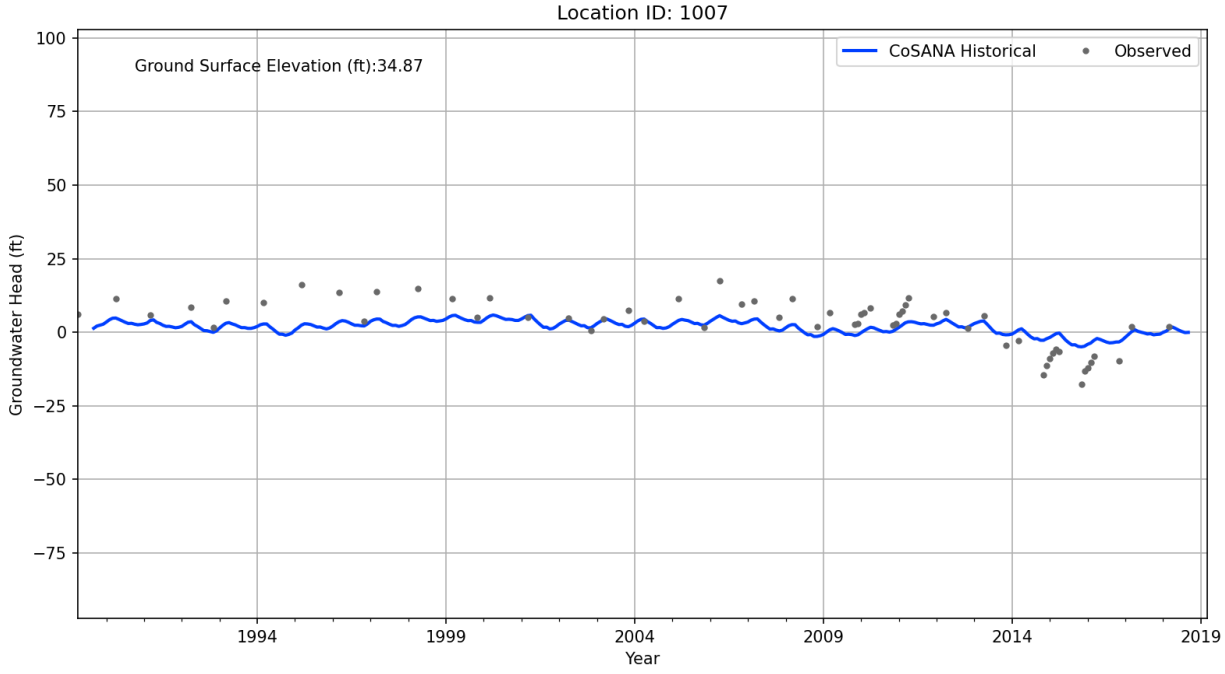

Location ID: 815
Ground Surface Elevation (ft):27.22
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

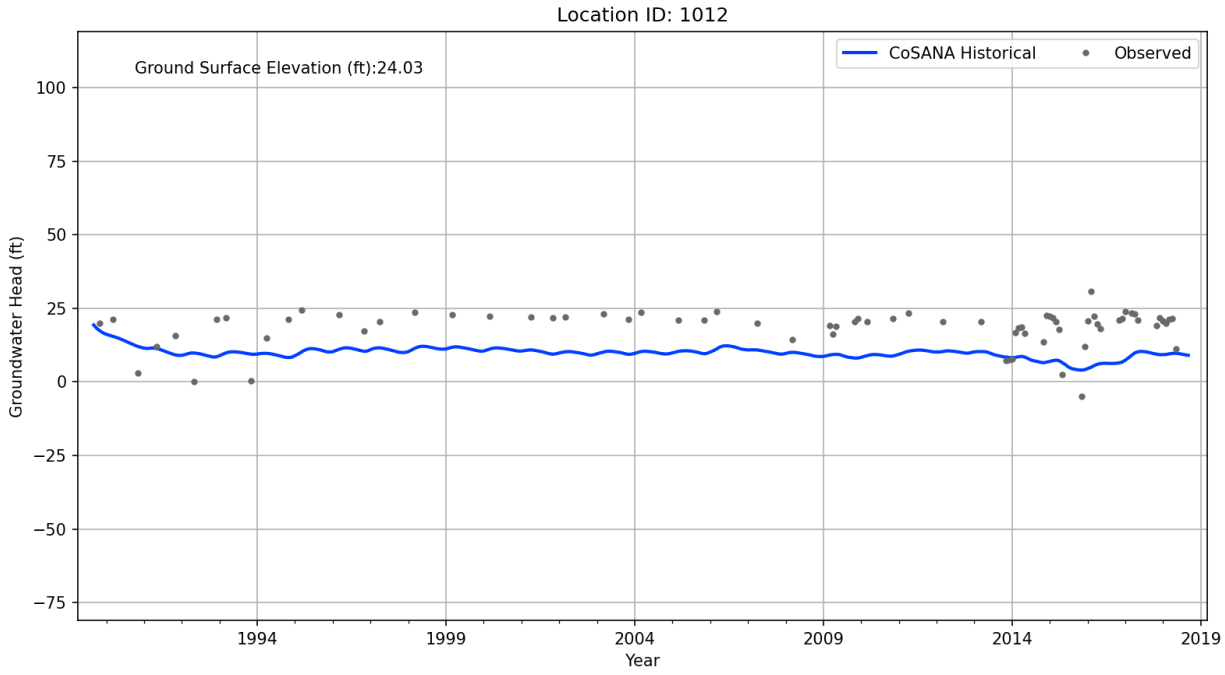

Location ID: 819
Ground Surface Elevation (ft):18.66
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

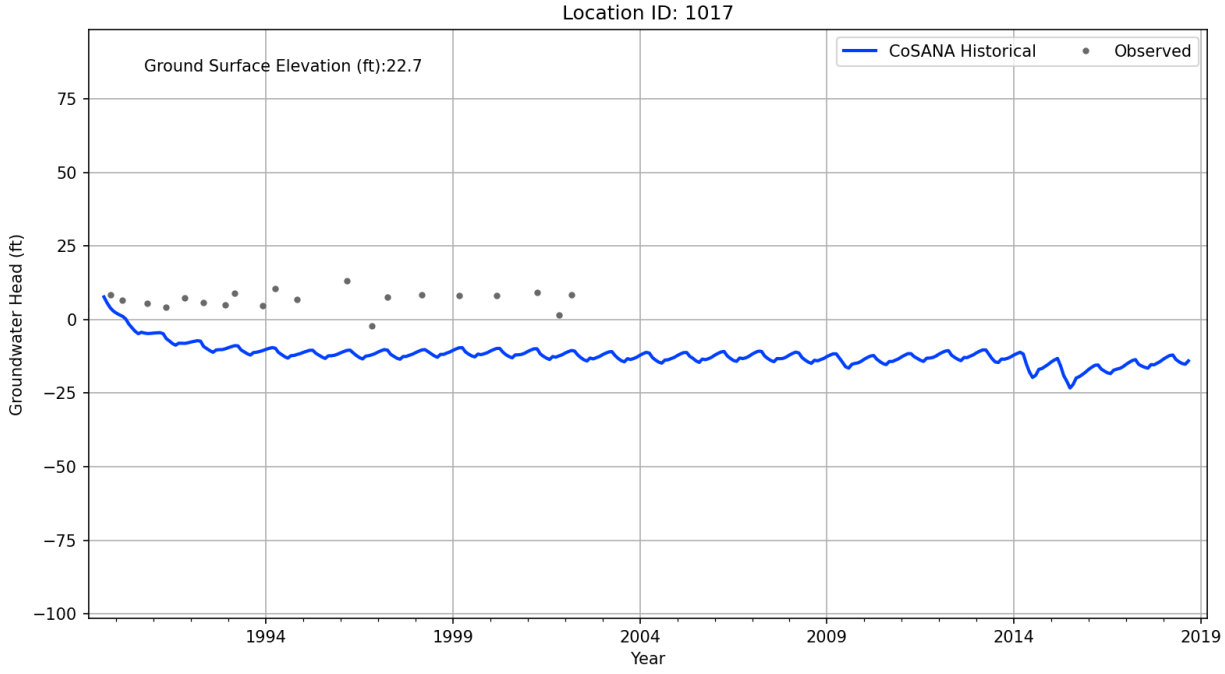

Location ID: 820
Ground Surface Elevation (ft):18.66
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

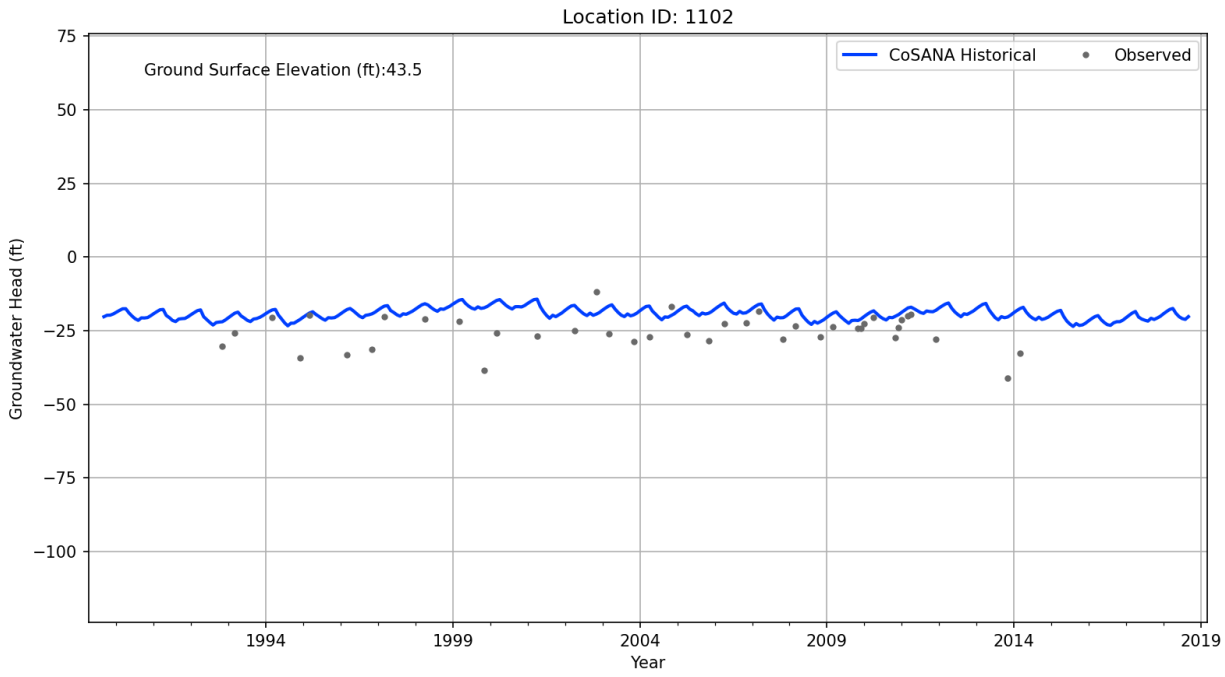

Location ID: 821
Ground Surface Elevation (ft):18.66
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

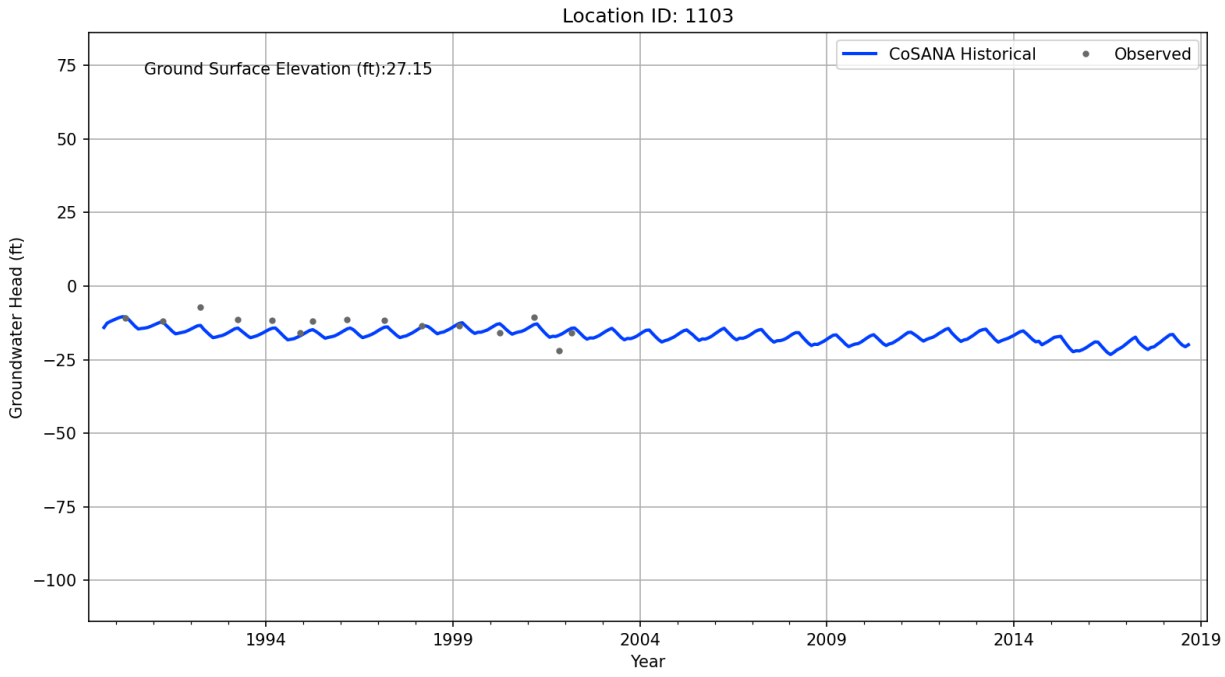

Location ID: 1001
Ground Surface Elevation (ft):28.6
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

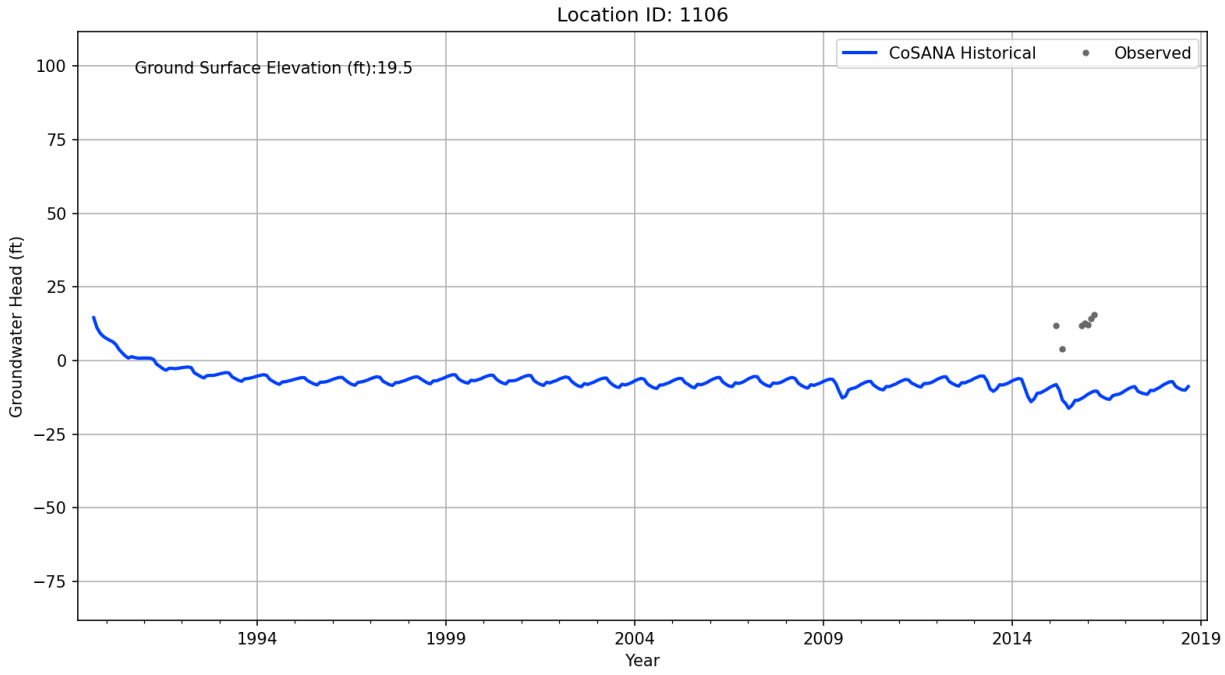

Location ID: 1007
Ground Surface Elevation (ft):34.87
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

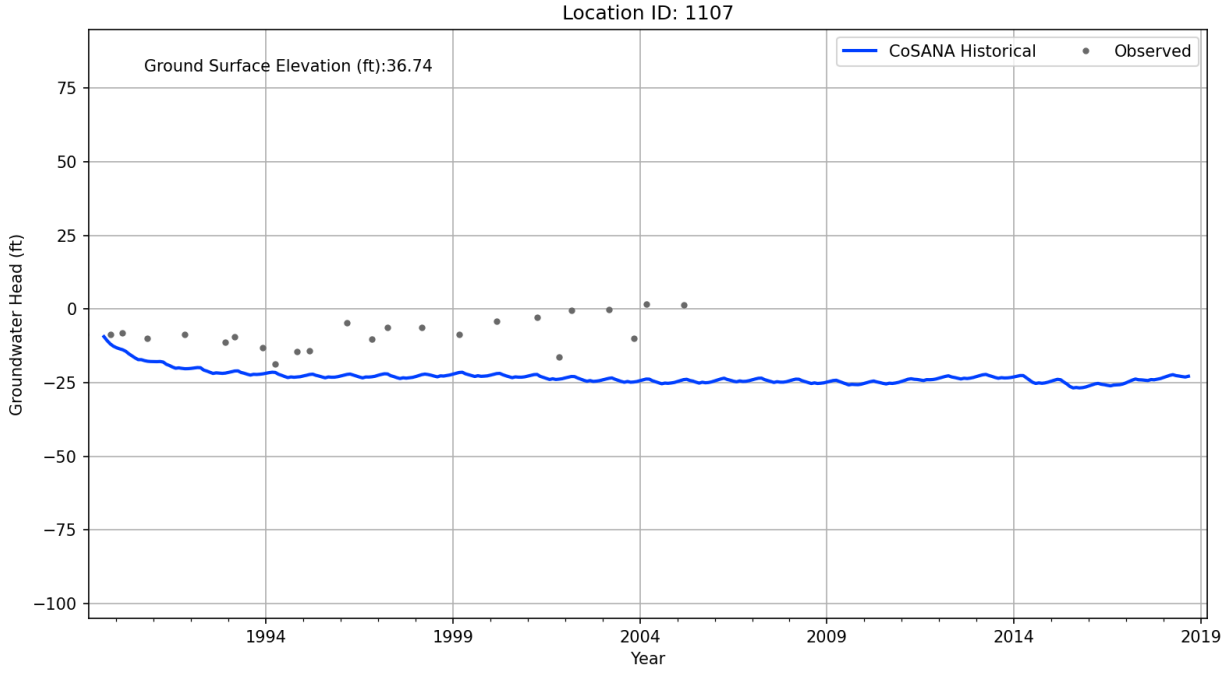

Location ID: 1012
Ground Surface Elevation (ft):24.03
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

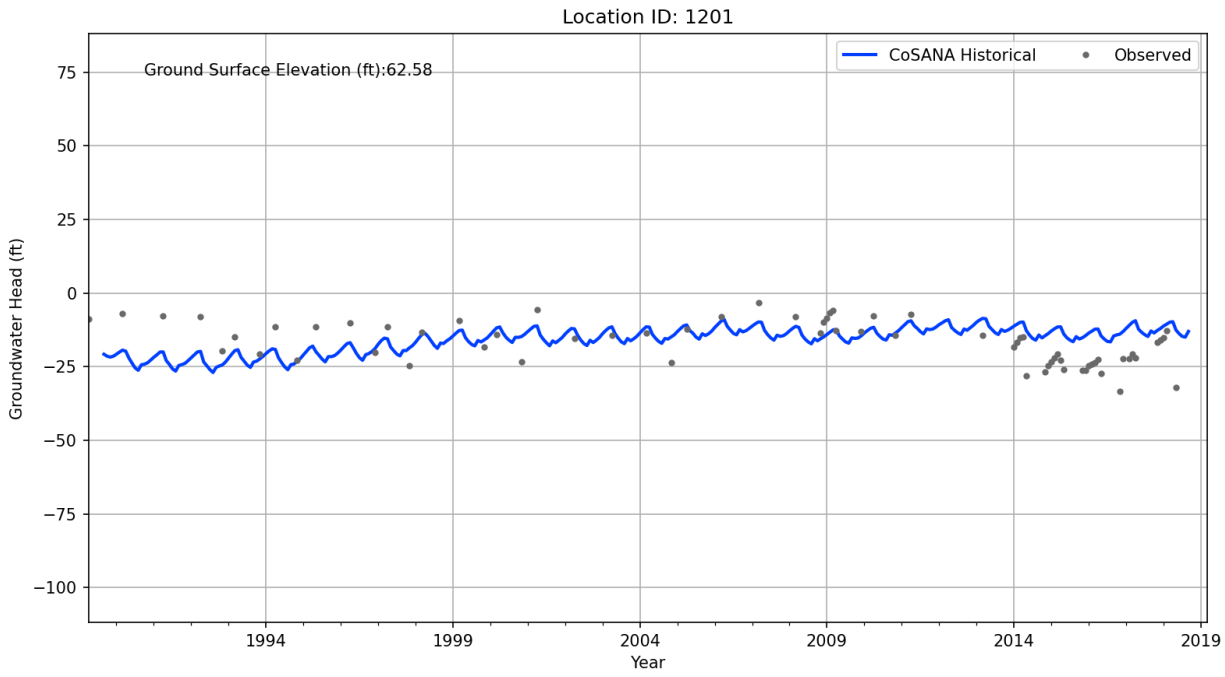

Location ID: 1017
Ground Surface Elevation (ft):22.7
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

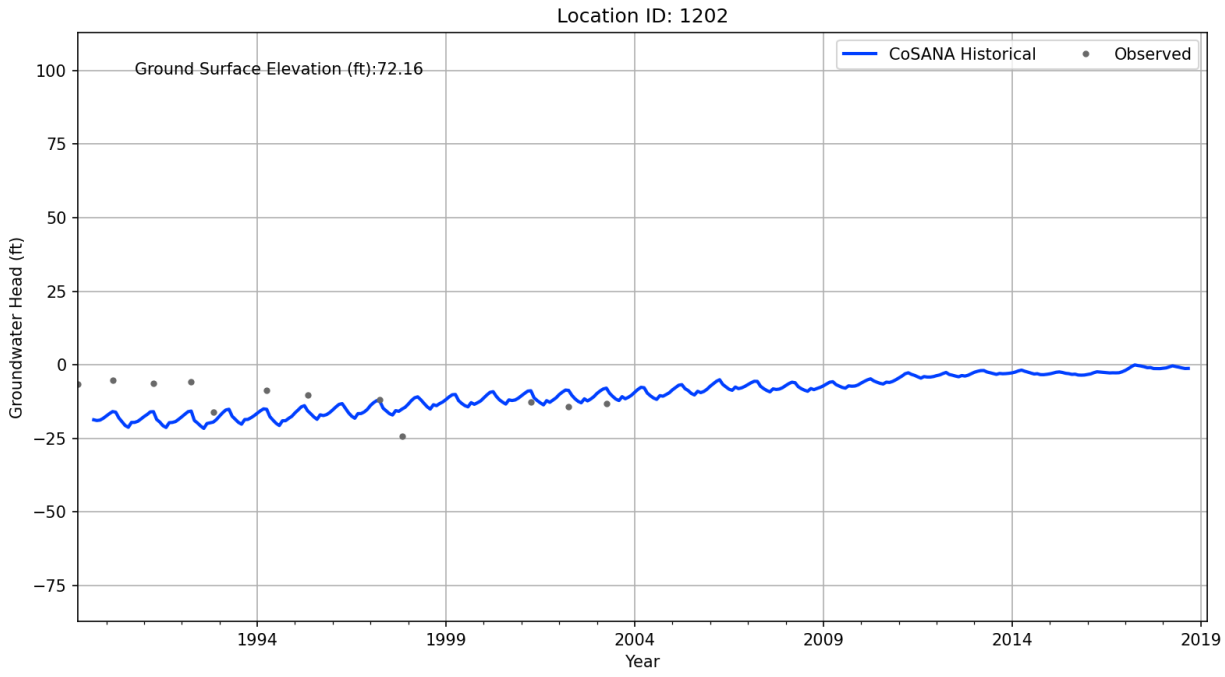

Location ID: 1102
Ground Surface Elevation (ft):43.5
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

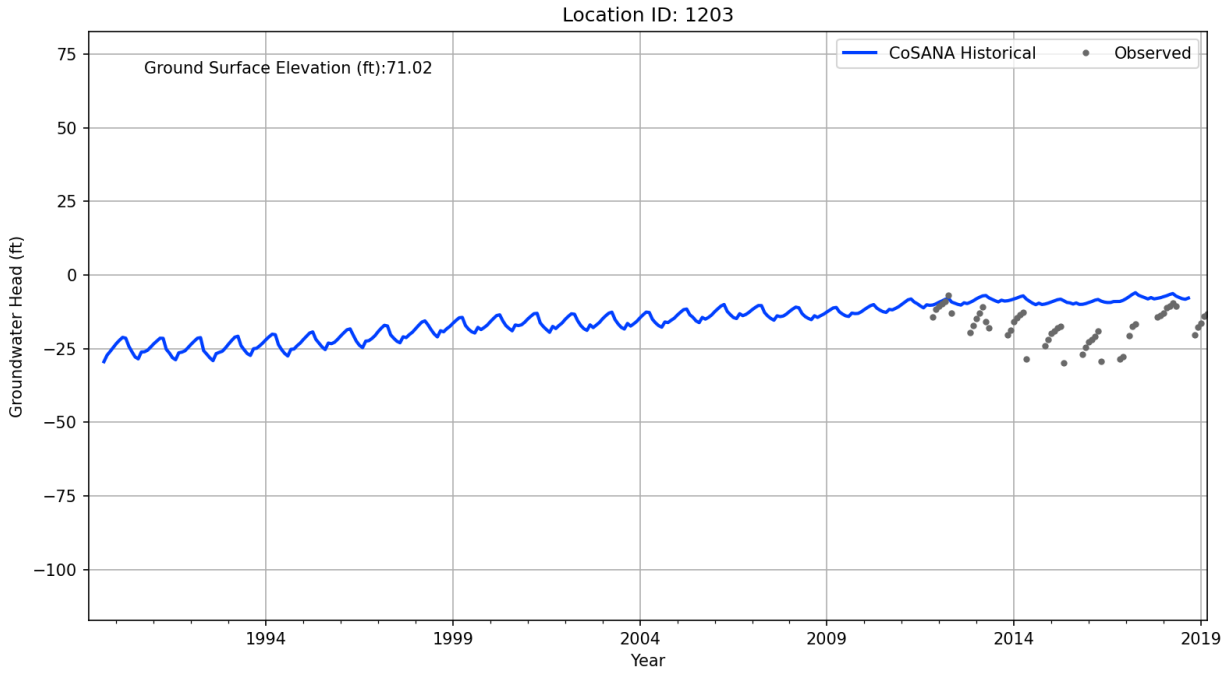

Location ID: 1103
Ground Surface Elevation (ft):27.15
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

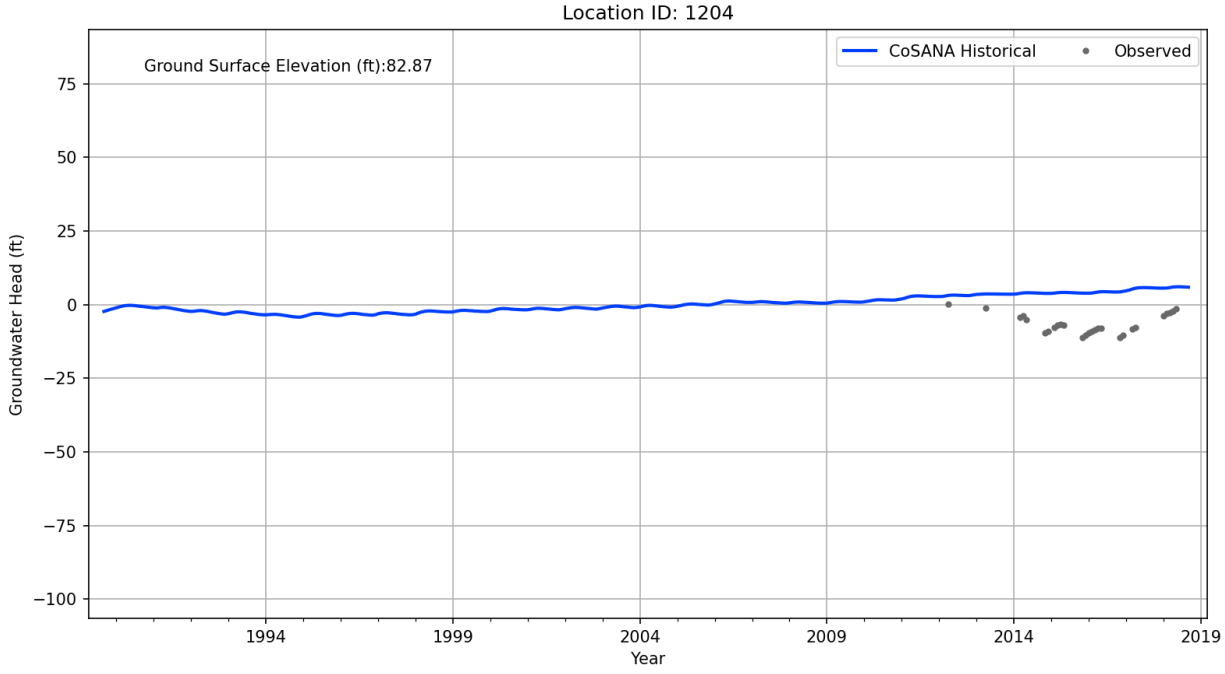

Location ID: 1106
Ground Surface Elevation (ft):19.5
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

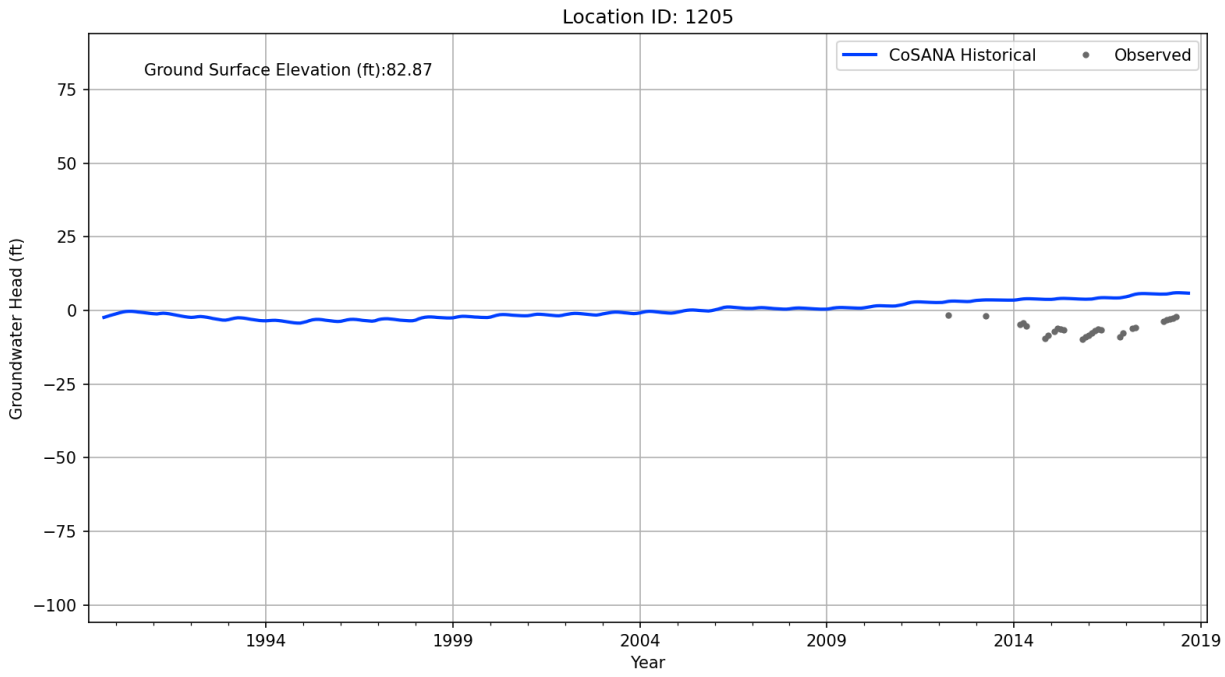

Location ID: 1107
Ground Surface Elevation (ft):36.74
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

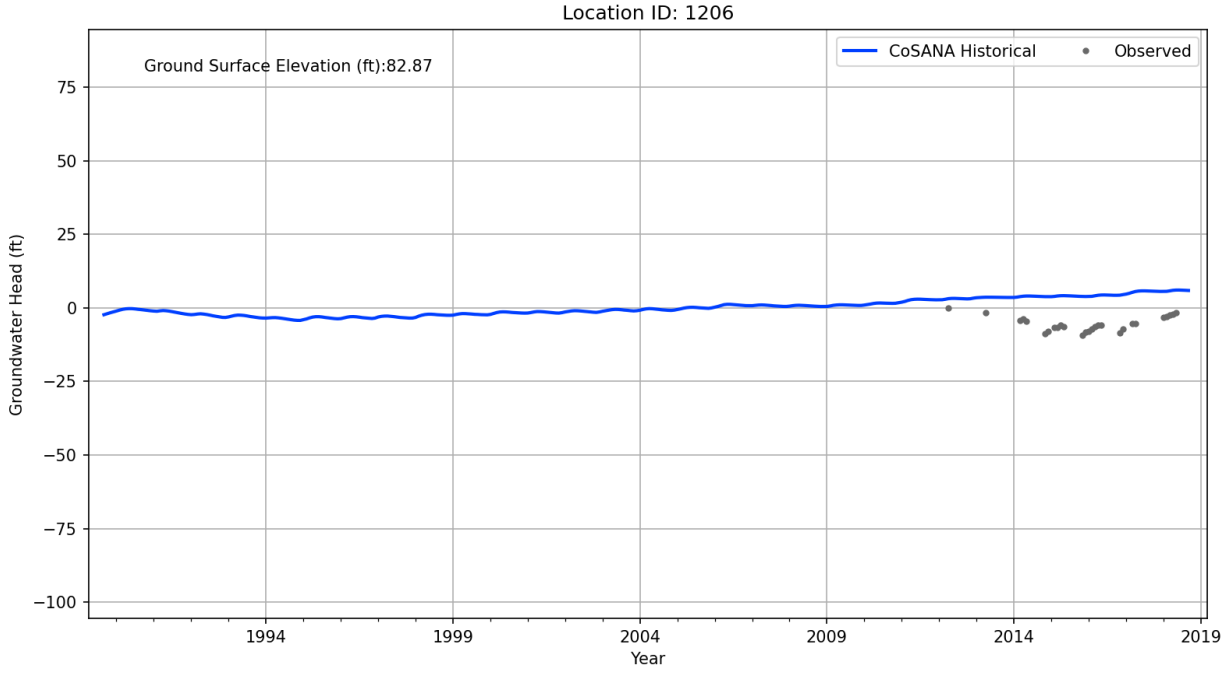

Location ID: 1201
Ground Surface Elevation (ft):62.58
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

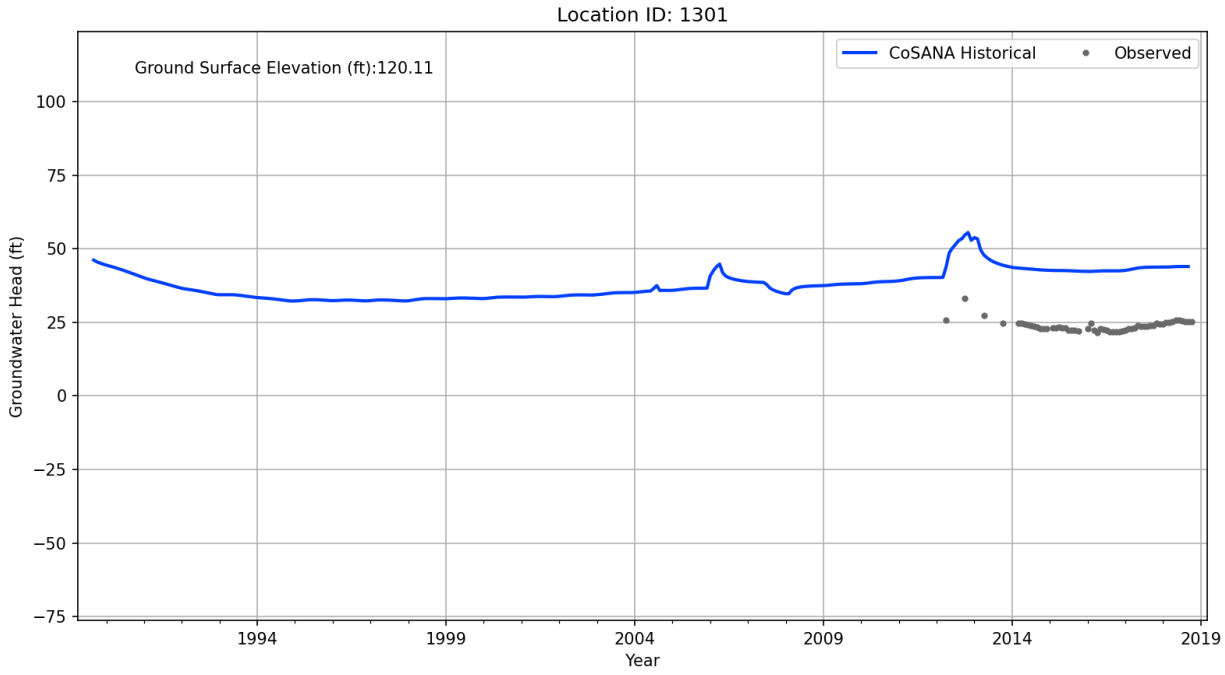

Location ID: 1202
Ground Surface Elevation (ft):72.16
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

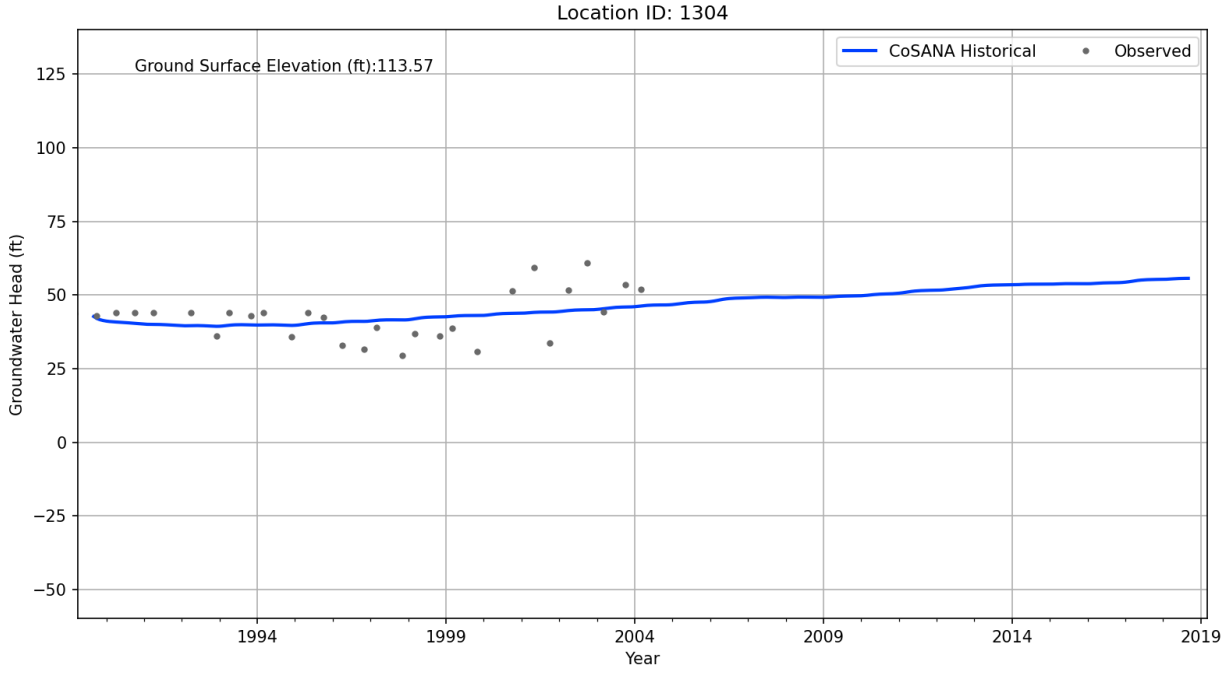

Location ID: 1203
Ground Surface Elevation (ft):71.02
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

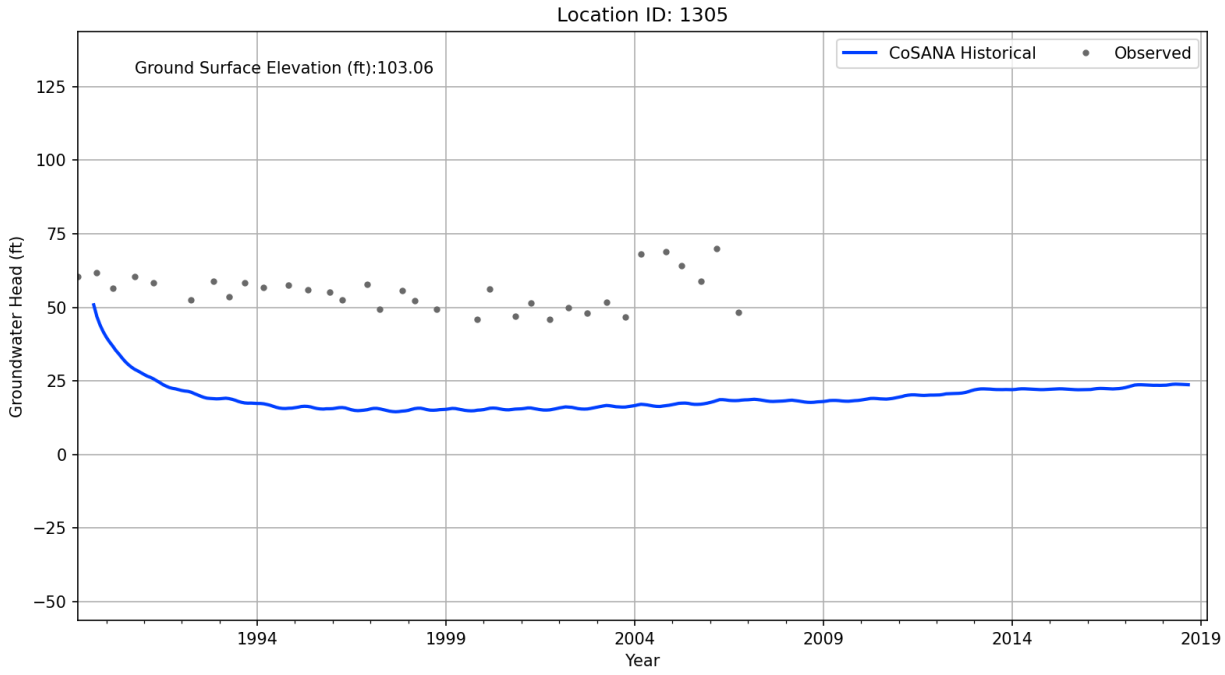

Location ID: 1204
Ground Surface Elevation (ft):82.87
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

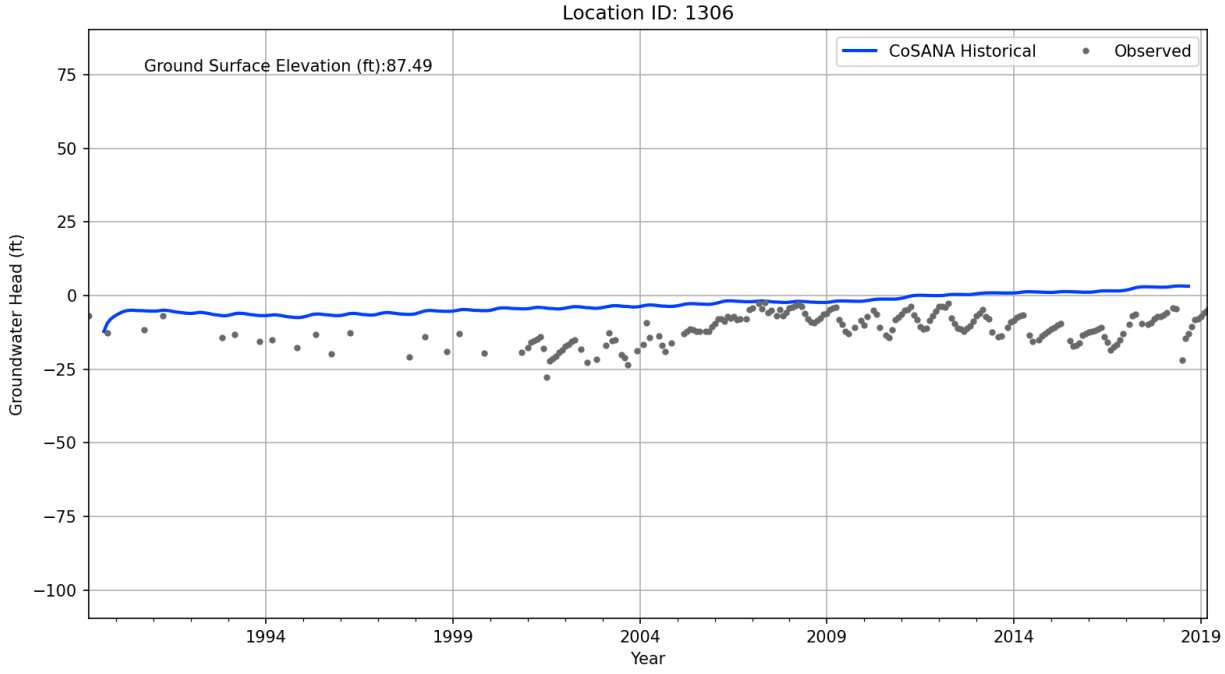

Location ID: 1205
Ground Surface Elevation (ft):82.87
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

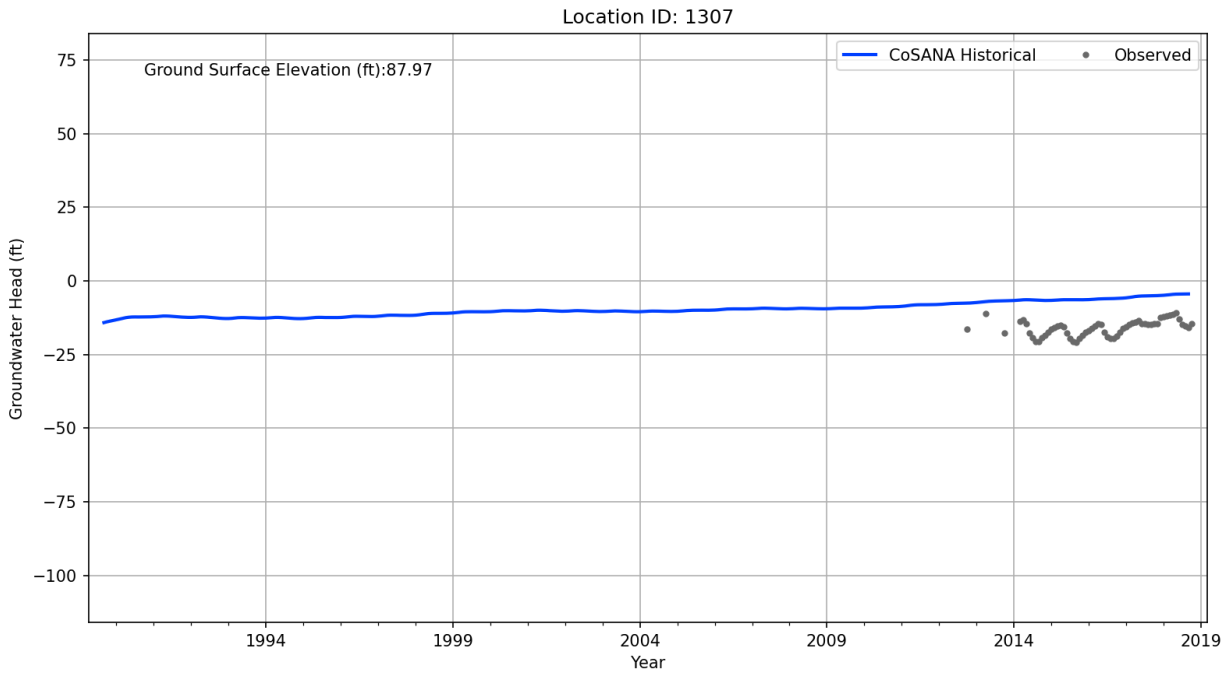

Location ID: 1206
Ground Surface Elevation (ft):82.87
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

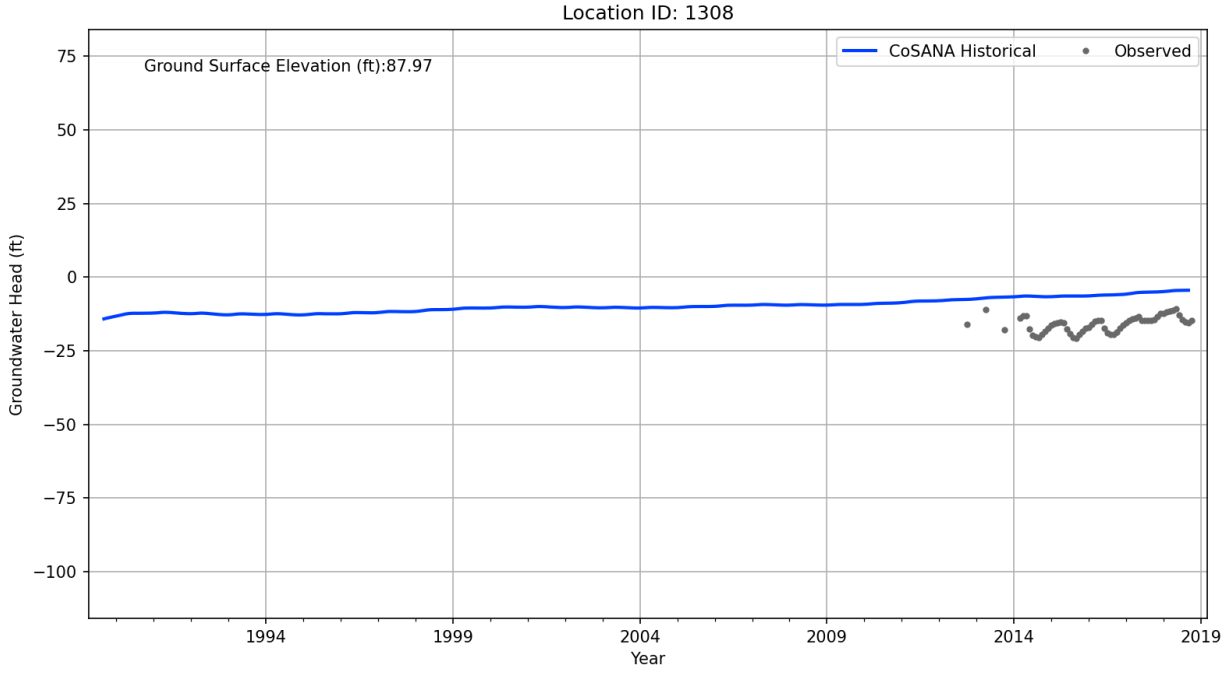

Location ID: 1301
Ground Surface Elevation (ft):120.11
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

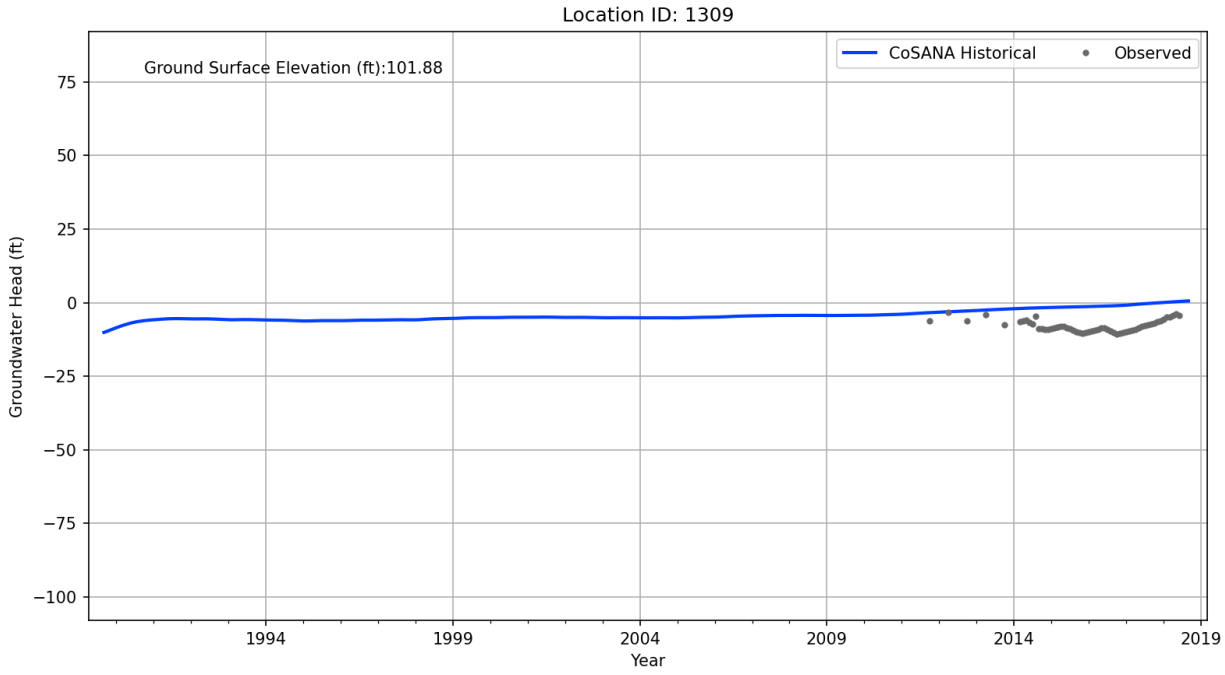

Location ID: 1304
Ground Surface Elevation (ft):113.57
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

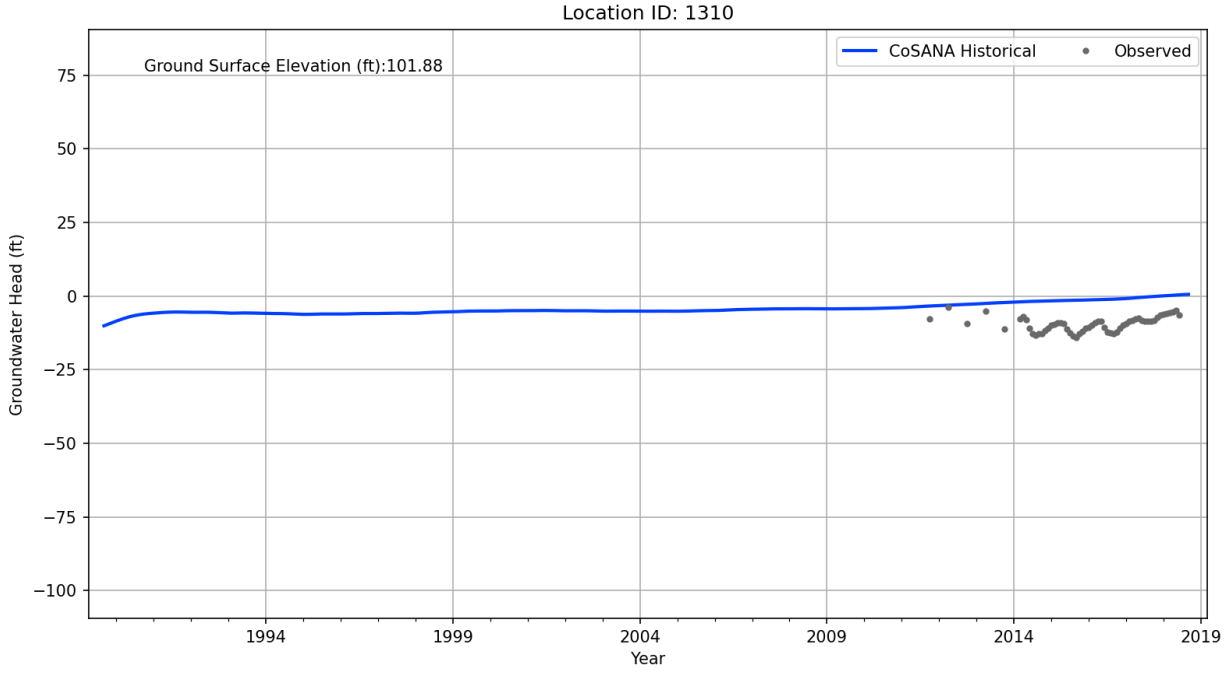

Location ID: 1305
Ground Surface Elevation (ft):103.06
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

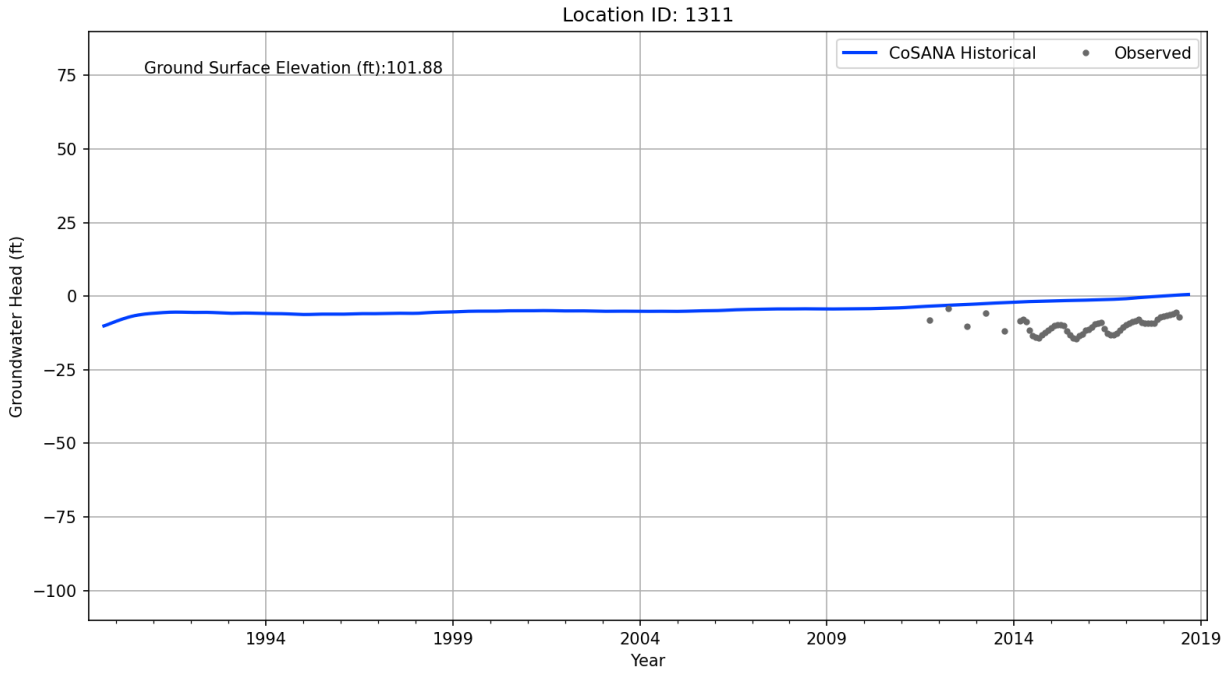

Location ID: 1306
Ground Surface Elevation (ft):87.49
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

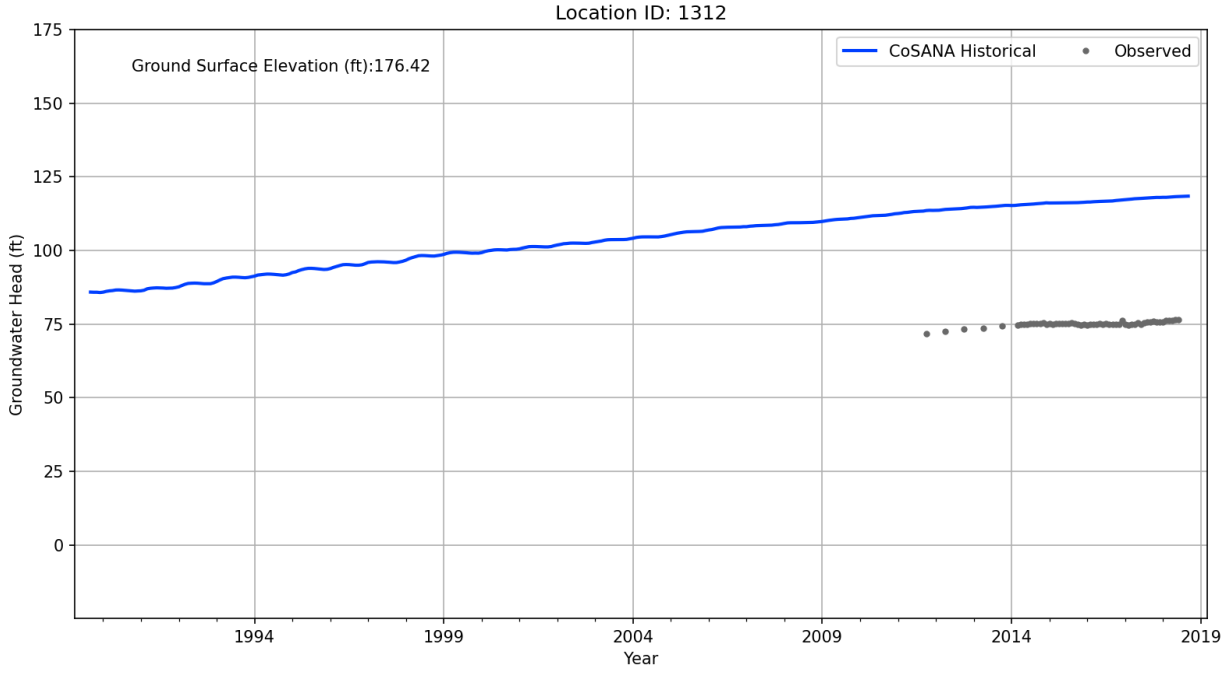

Location ID: 1307
Ground Surface Elevation (ft):87.97
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

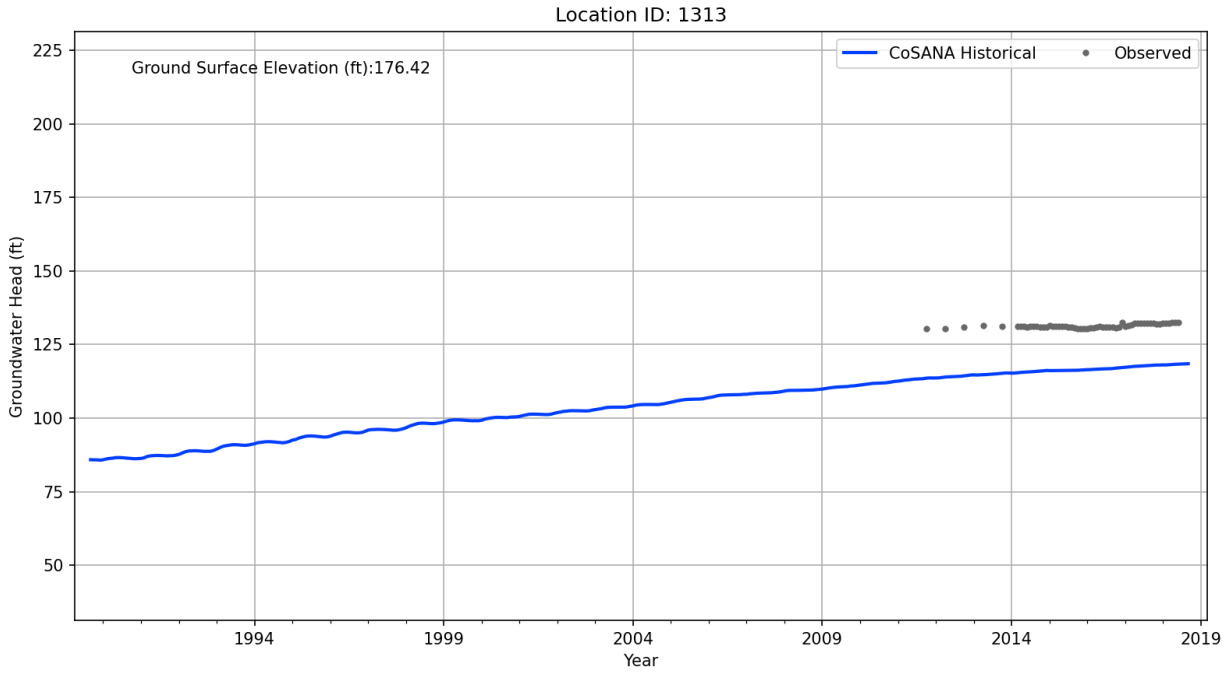

Location ID: 1308
Ground Surface Elevation (ft):87.97
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

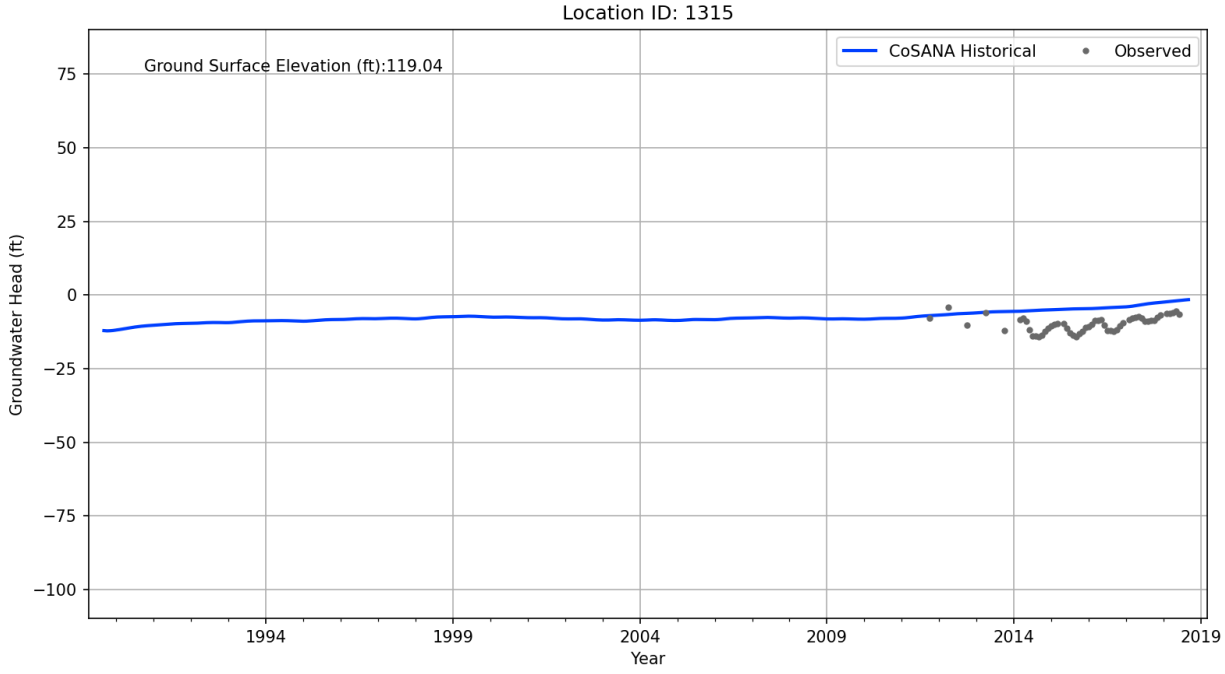

Location ID: 1309
Ground Surface Elevation (ft):101.88
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

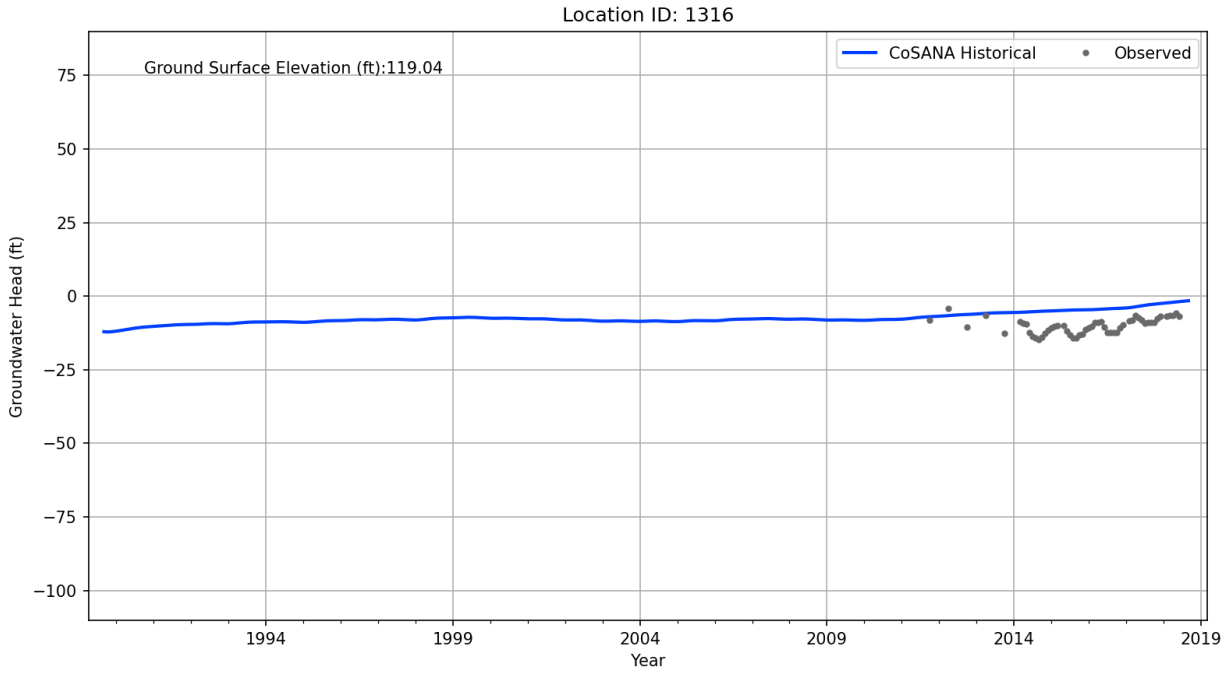

Location ID: 1310
Ground Surface Elevation (ft):101.88
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

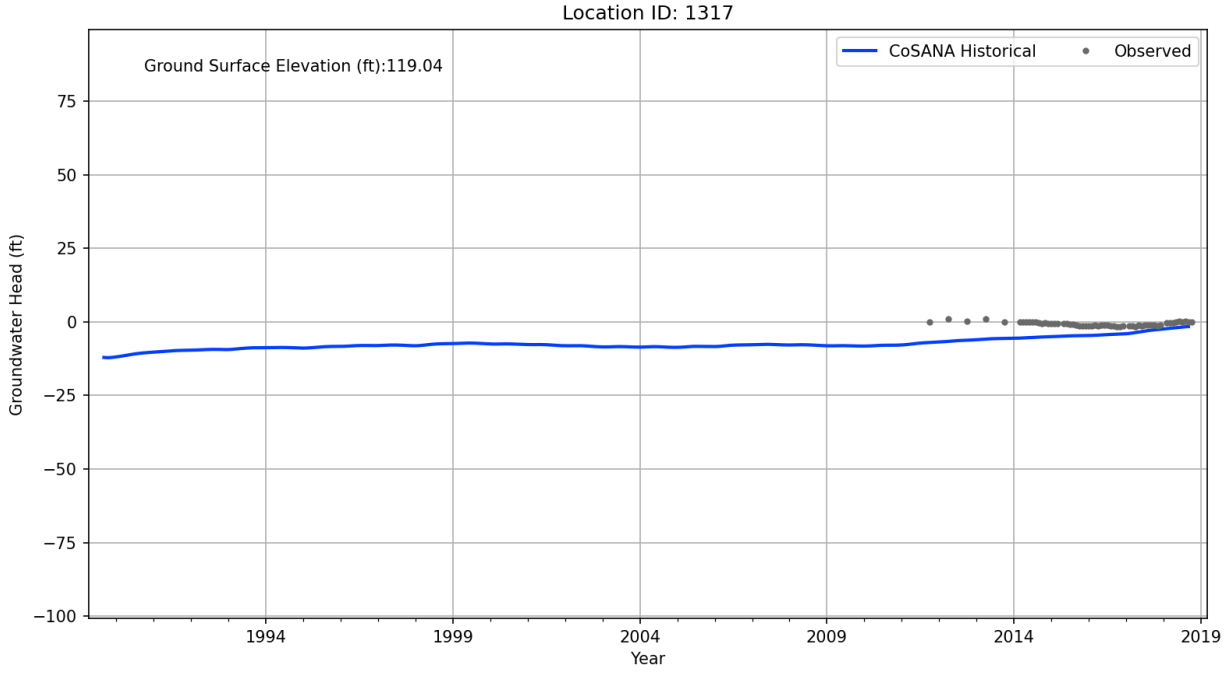

Location ID: 1311
Ground Surface Elevation (ft):101.88
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

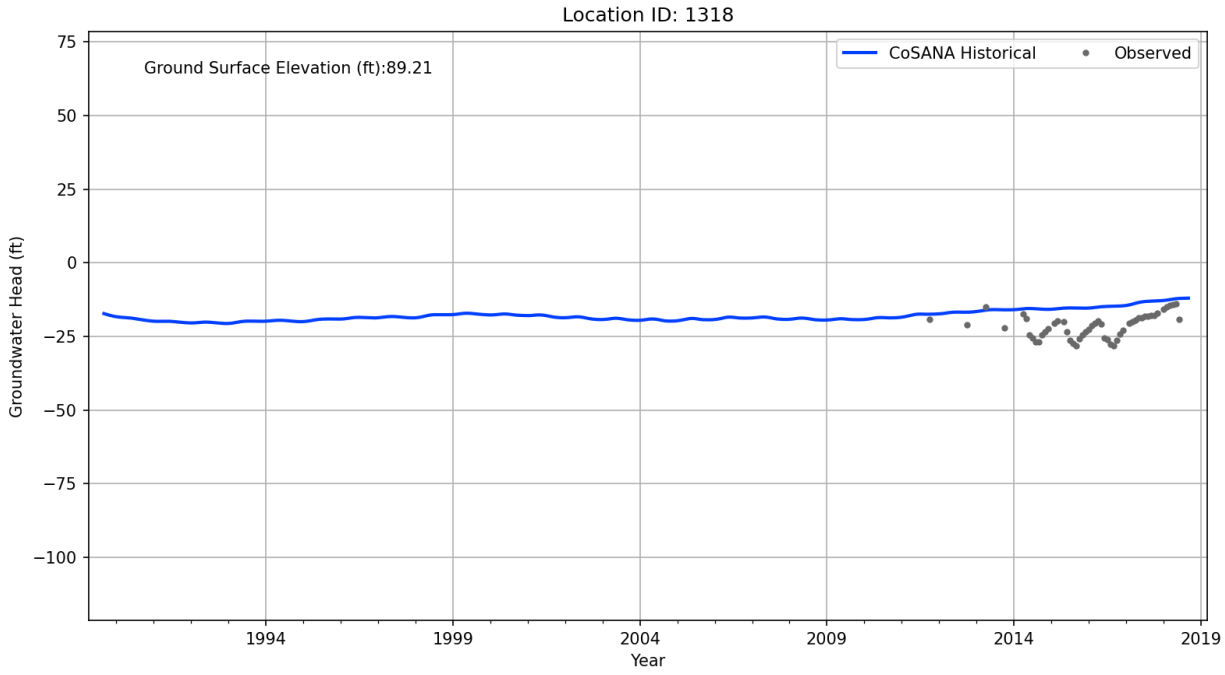

Location ID: 1312
Ground Surface Elevation (ft):176.42
CoSANA Historical
Observed
Groundwater Head (ft)
175
150
125
100
75
50
25
0
1994
1999
2004
2009
2014
2019
Year

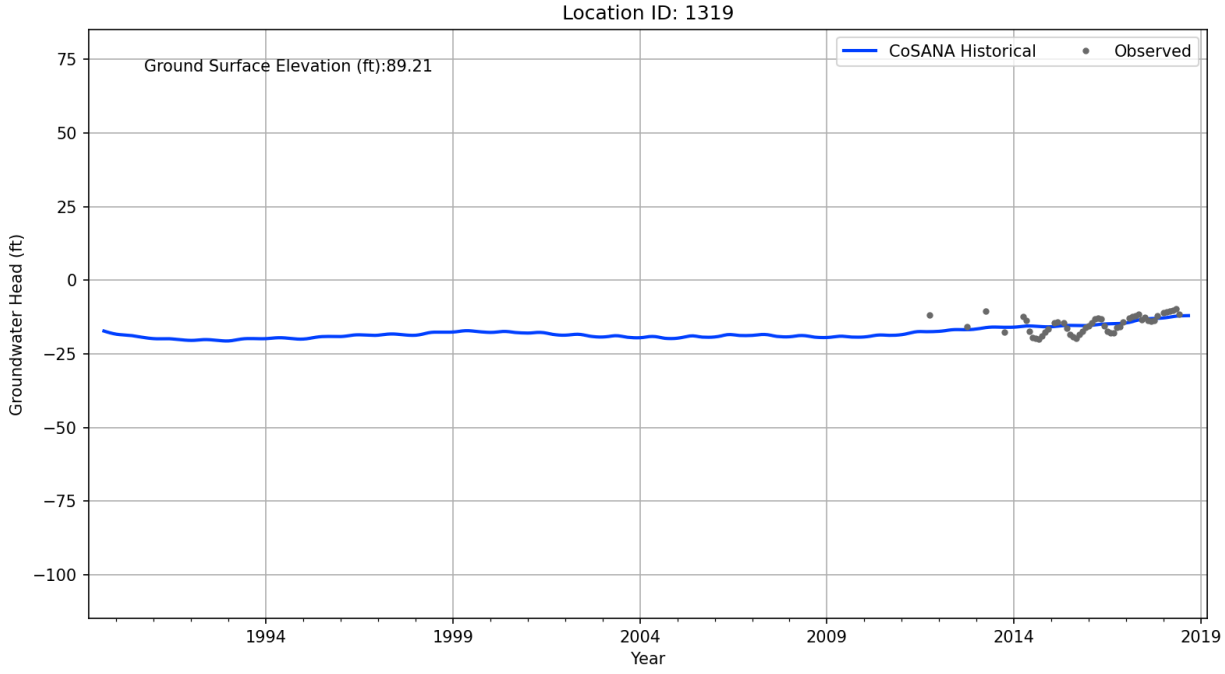

Location ID: 1313
Ground Surface Elevation (ft):176.42
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

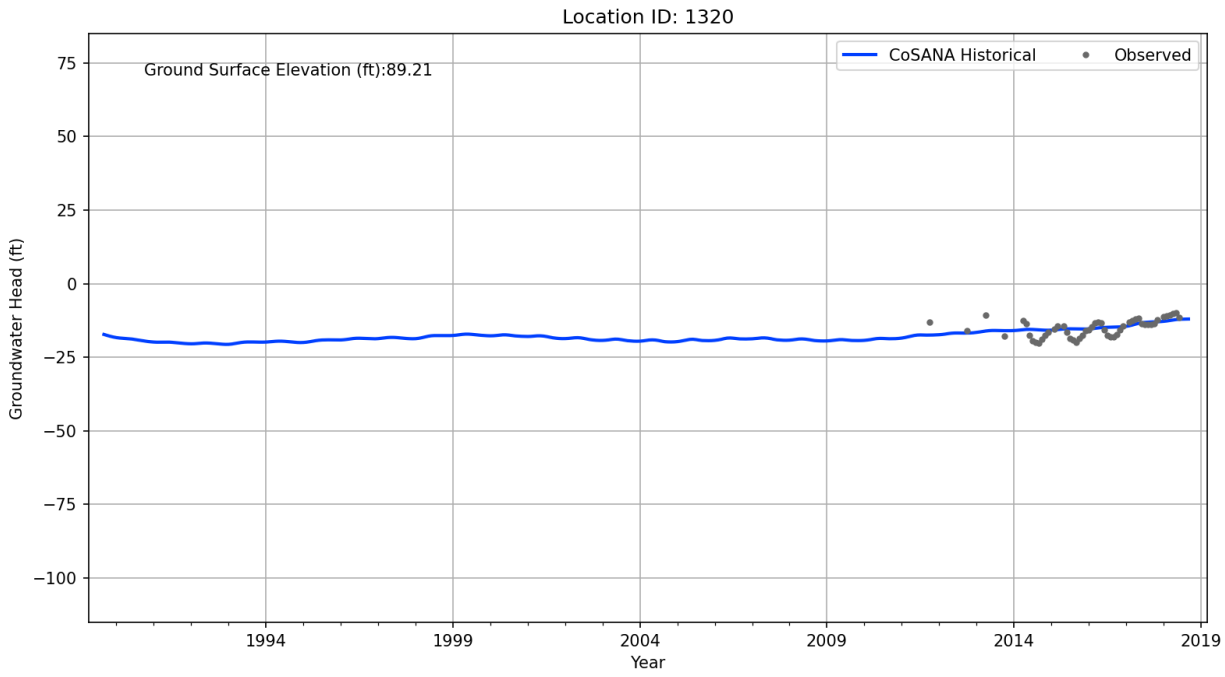

Location ID: 1315
Ground Surface Elevation (ft):119.04
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

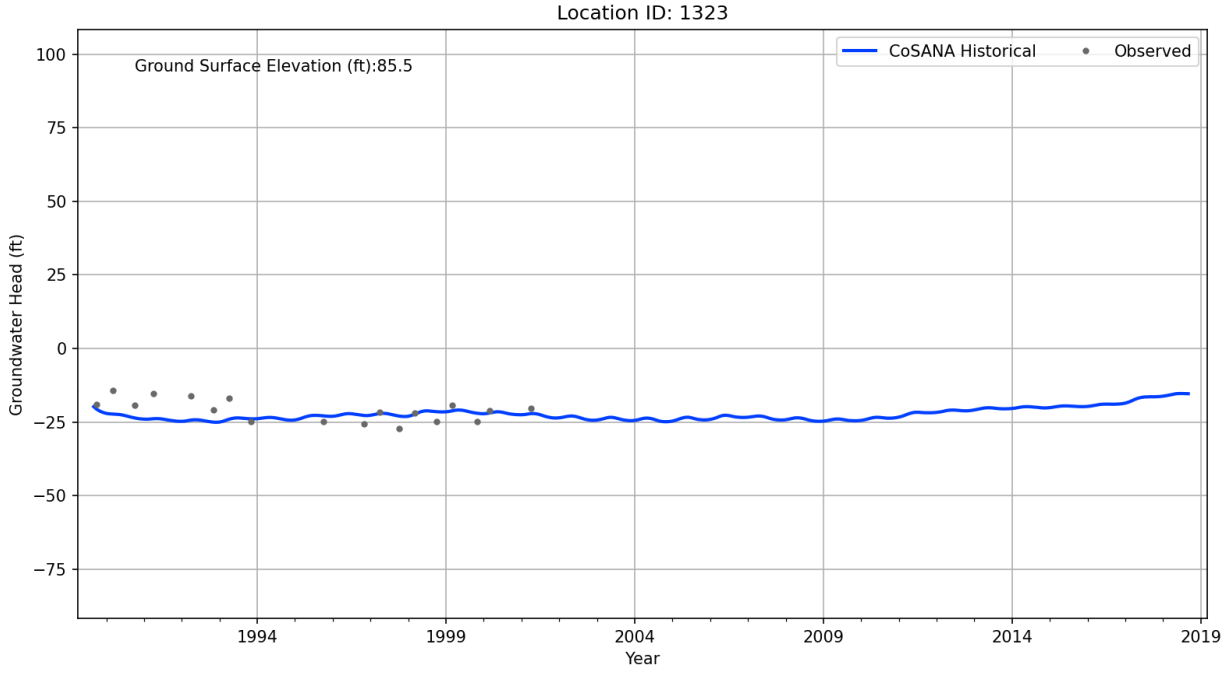

Location ID: 1316
Ground Surface Elevation (ft):119.04
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

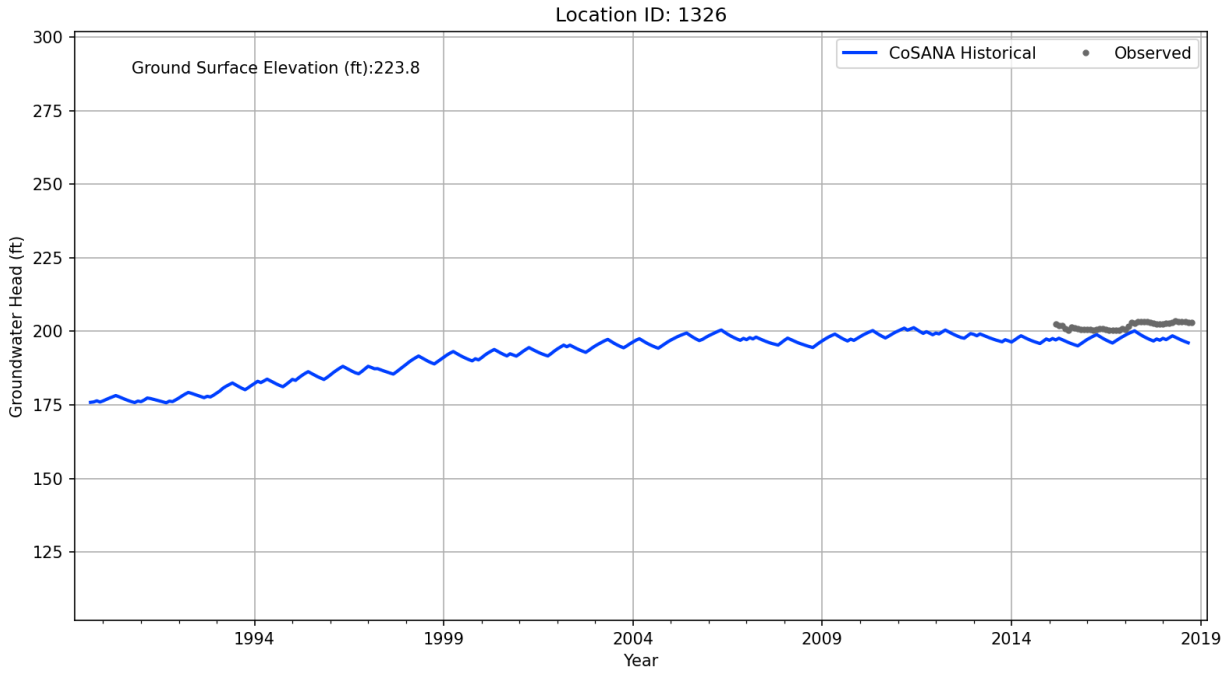

Location ID: 1317
Ground Surface Elevation (ft):119.04
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

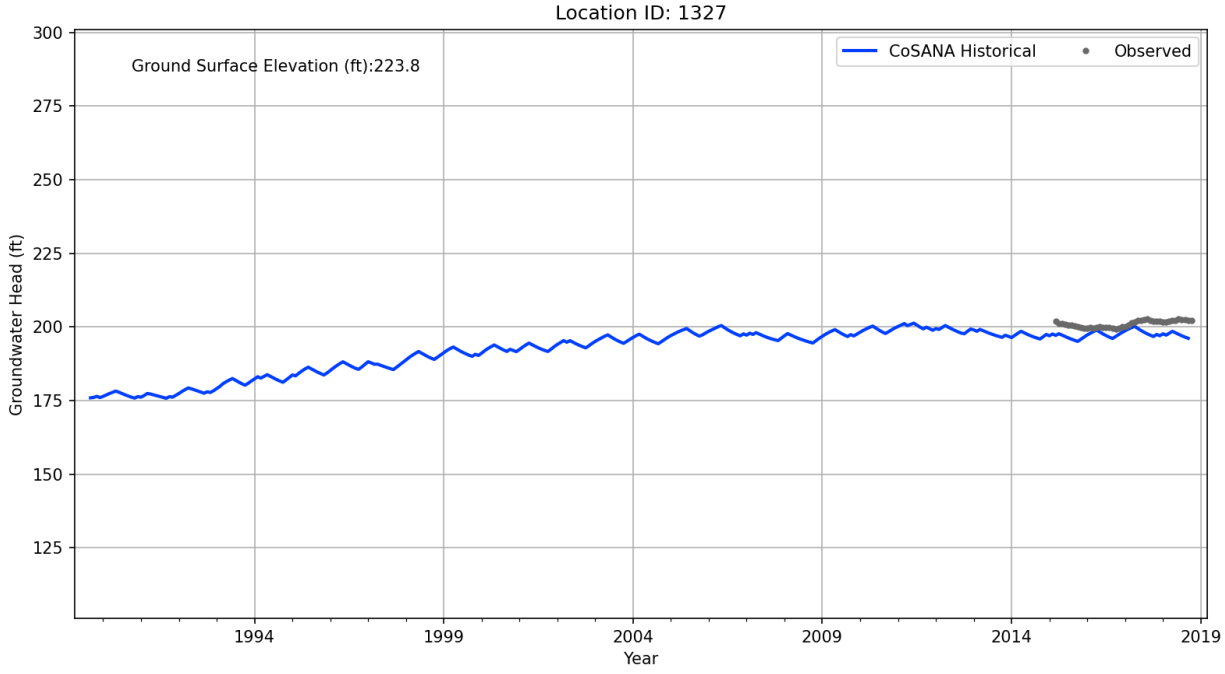

Location ID: 1318
Ground Surface Elevation (ft):89.21
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

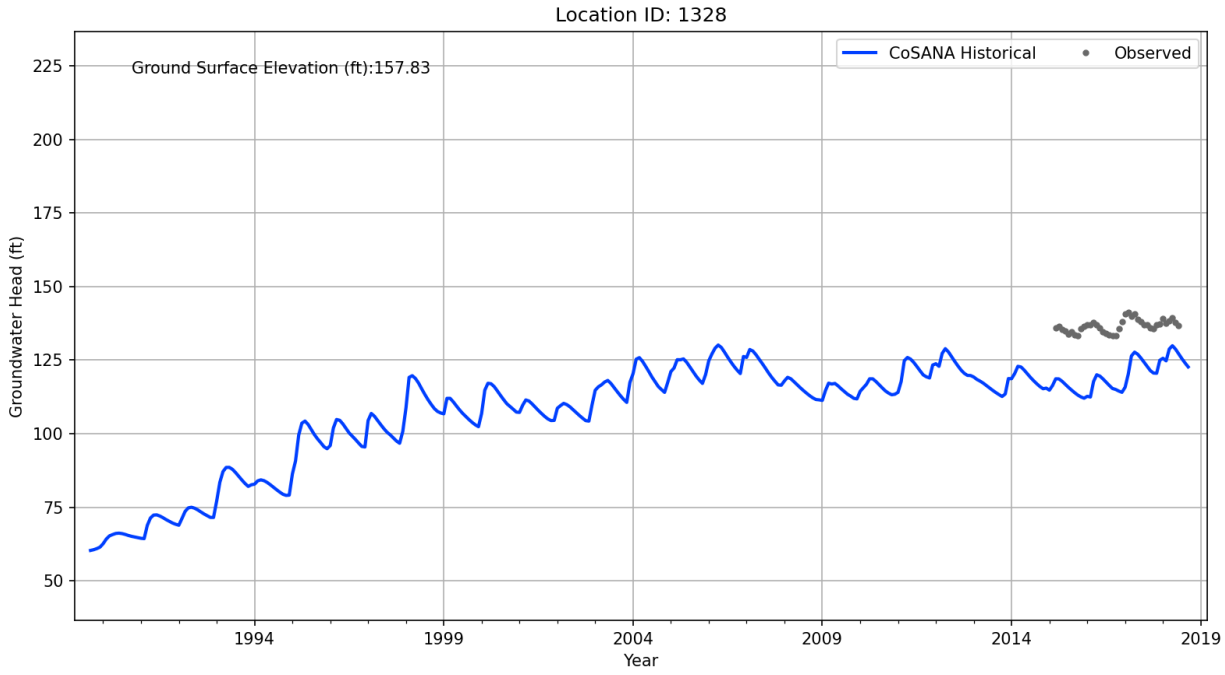

Location ID: 1319
Ground Surface Elevation (ft):89.21
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

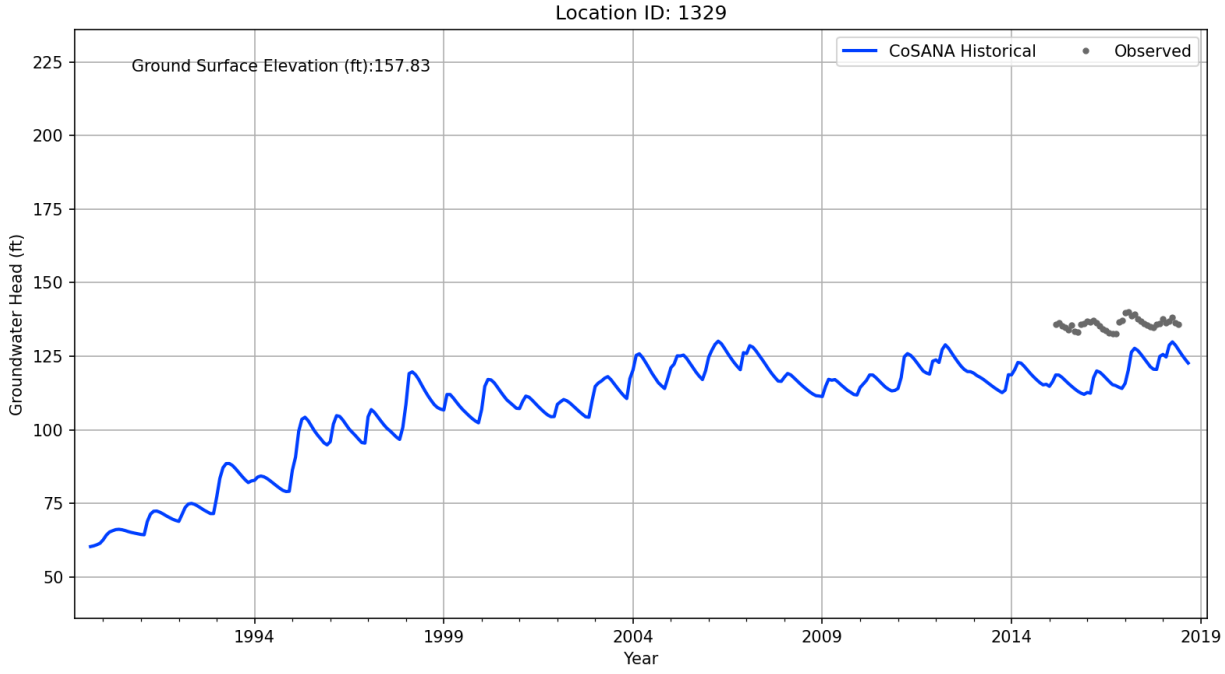

Location ID: 1320
Ground Surface Elevation (ft):89.21
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

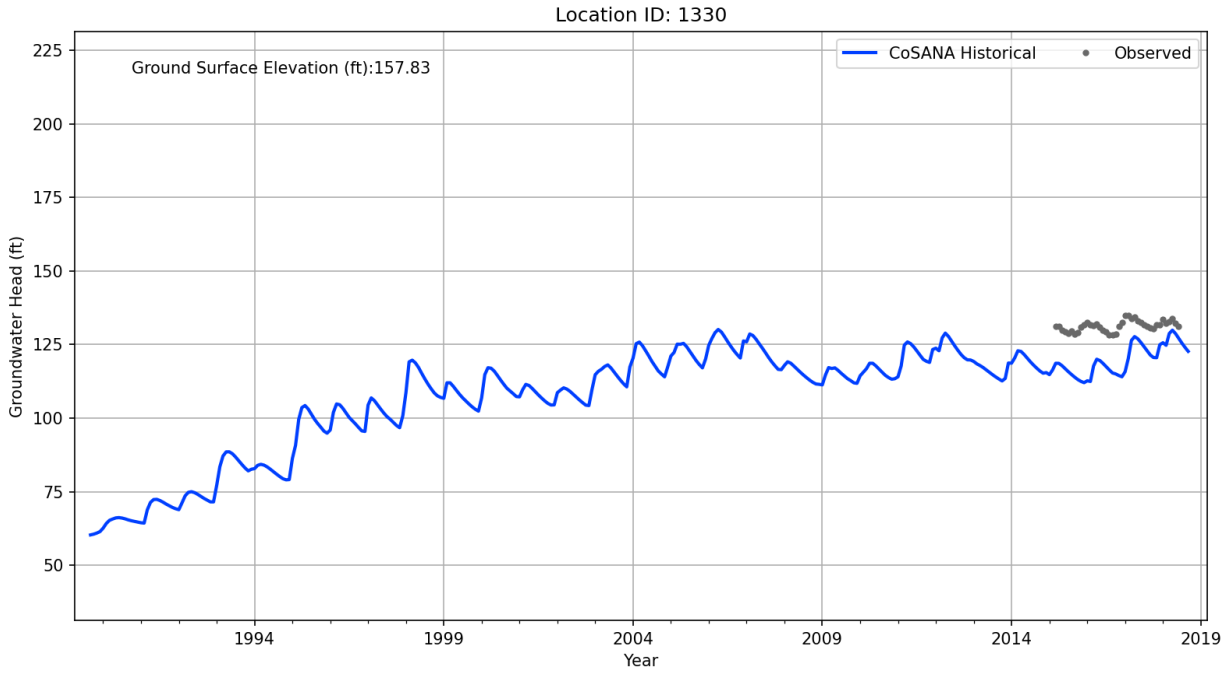

Location ID: 1323
Ground Surface Elevation (ft):85.5
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

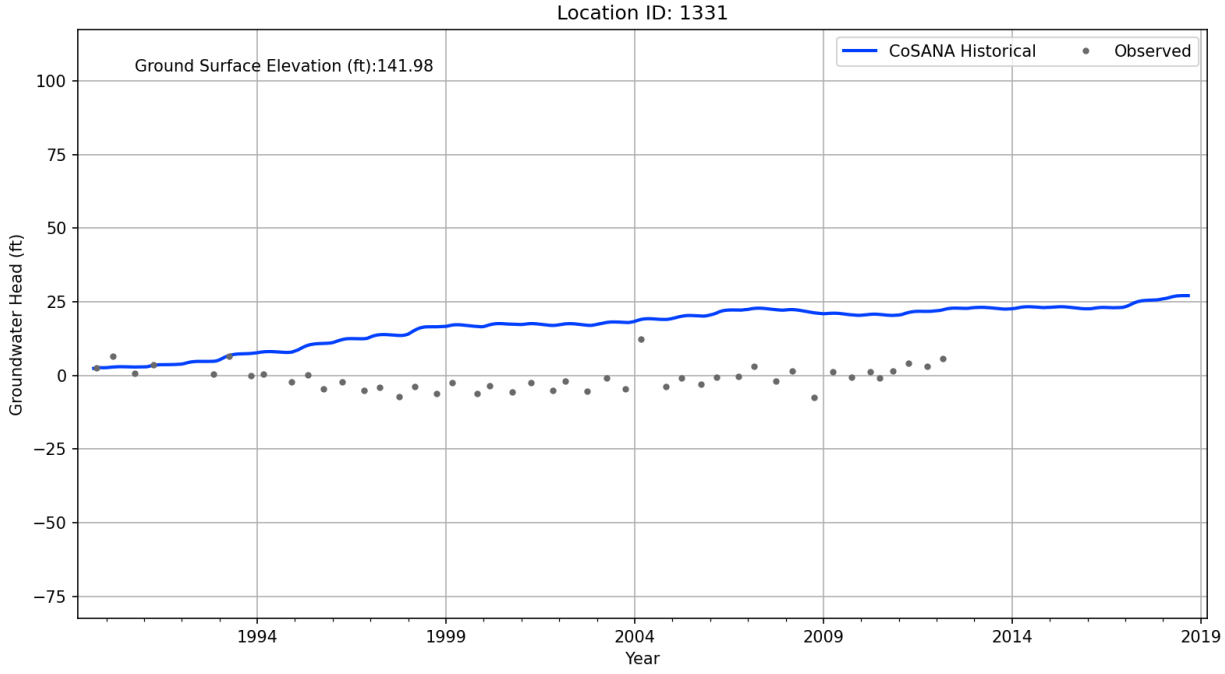

Location ID: 1326
Ground Surface Elevation (ft):223.8
CoSANA Historical
Observed
Groundwater Head (ft)
300
275
250
225
200
175
150
125
1994
1999
2004
2009
2014
2019
Year

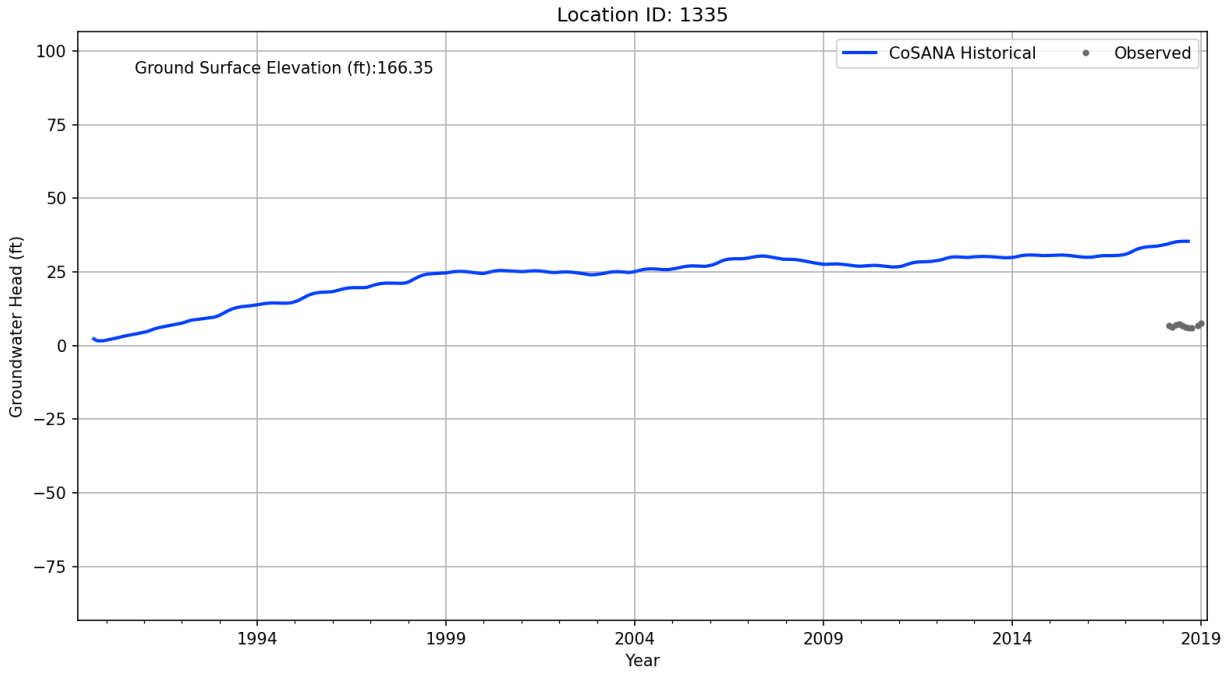

Location ID: 1327
Ground Surface Elevation (ft):223.8
CoSANA Historical
Observed
Groundwater Head (ft)
300
275
250
225
200
175
150
125
1994
1999
2004
2009
2014
2019
Year

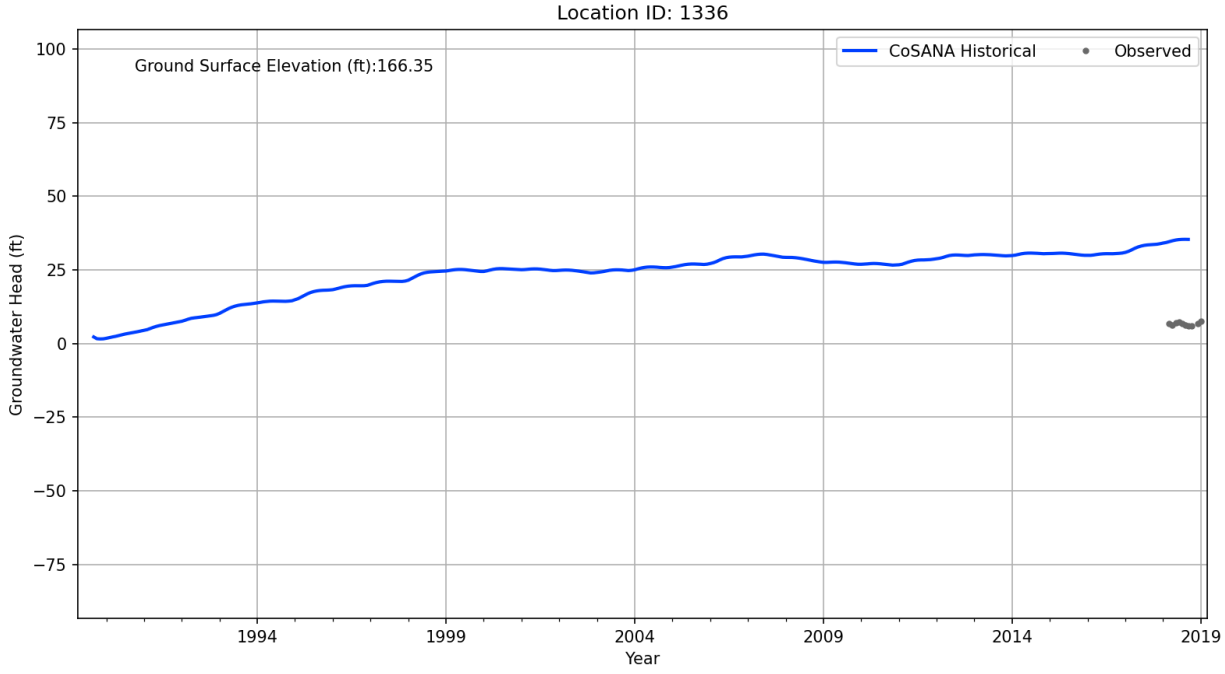

Location ID: 1328
Ground Surface Elevation (ft):157.83
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

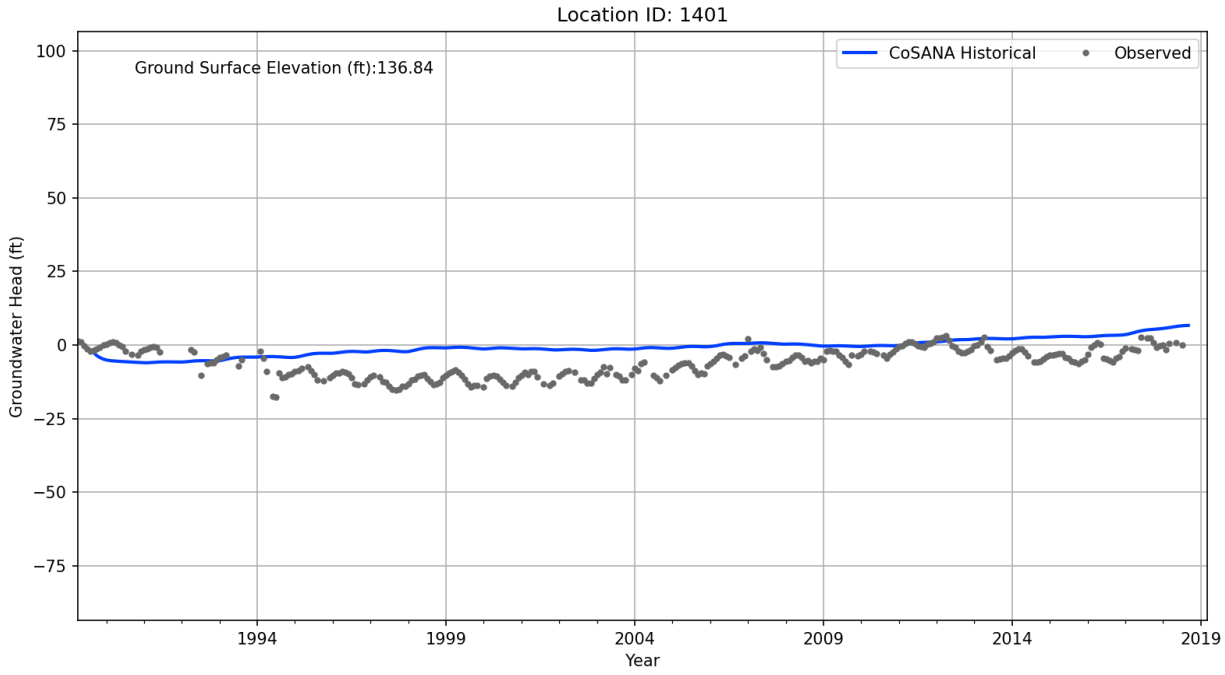

Location ID: 1329
Ground Surface Elevation (ft):157.83
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

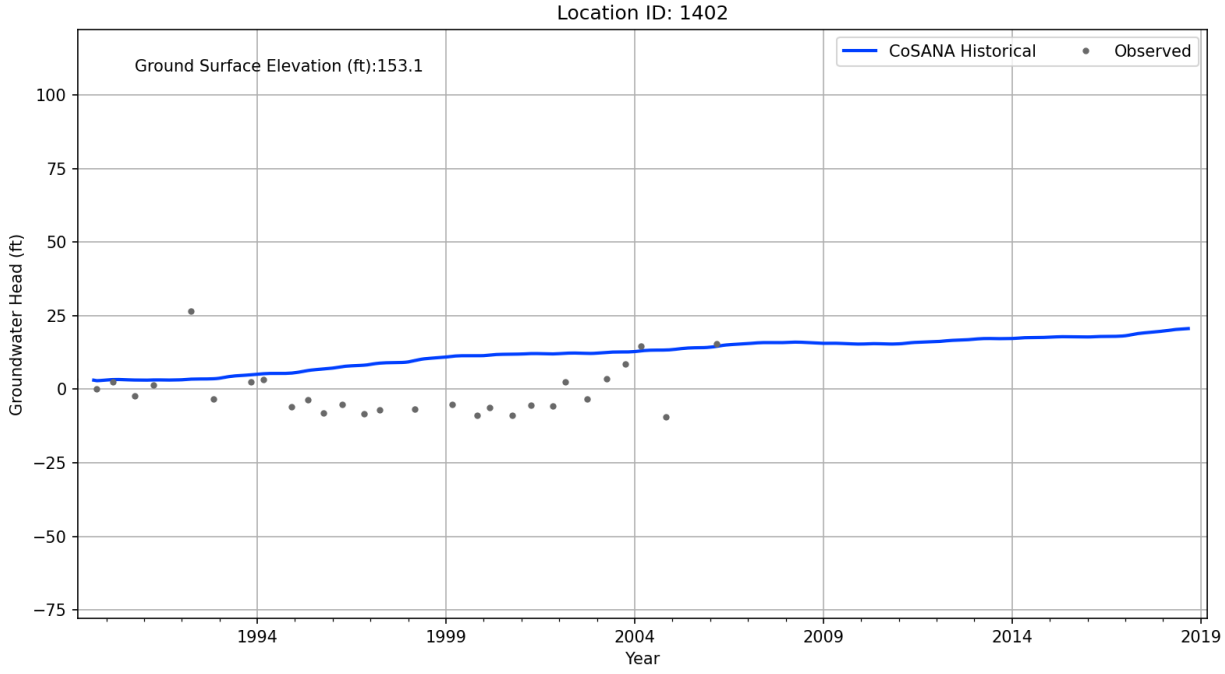

Location ID: 1330
Ground Surface Elevation (ft):157.83
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

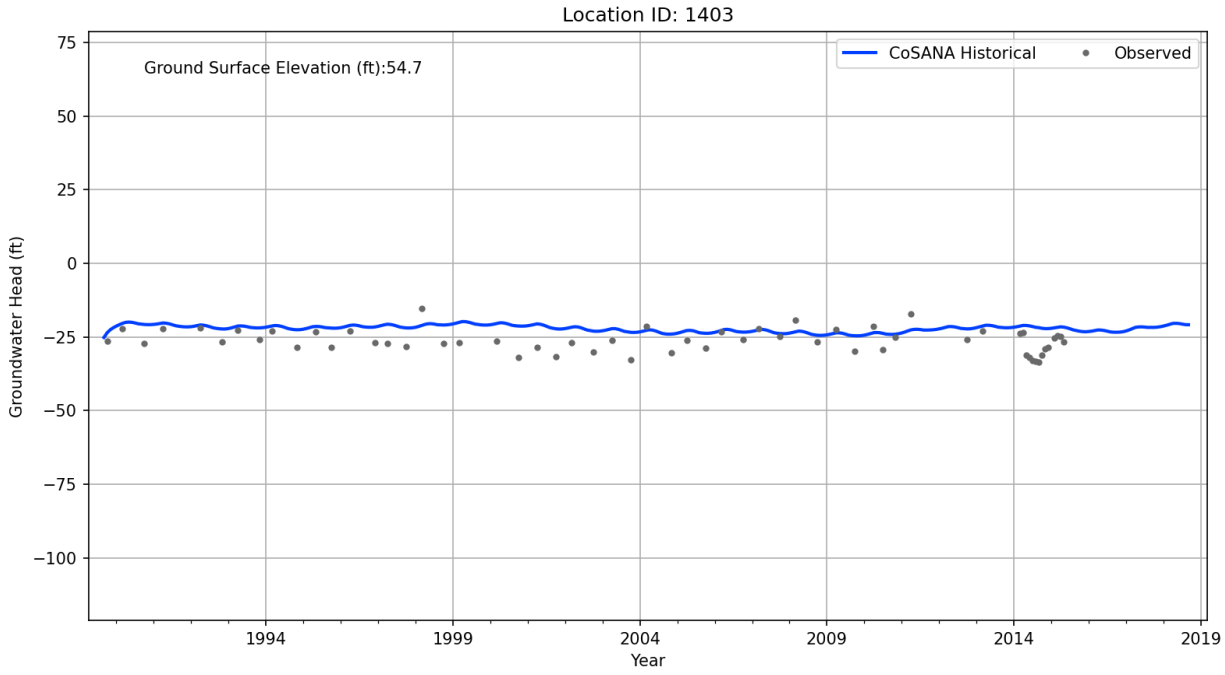

Location ID: 1331
Ground Surface Elevation (ft):141.98
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

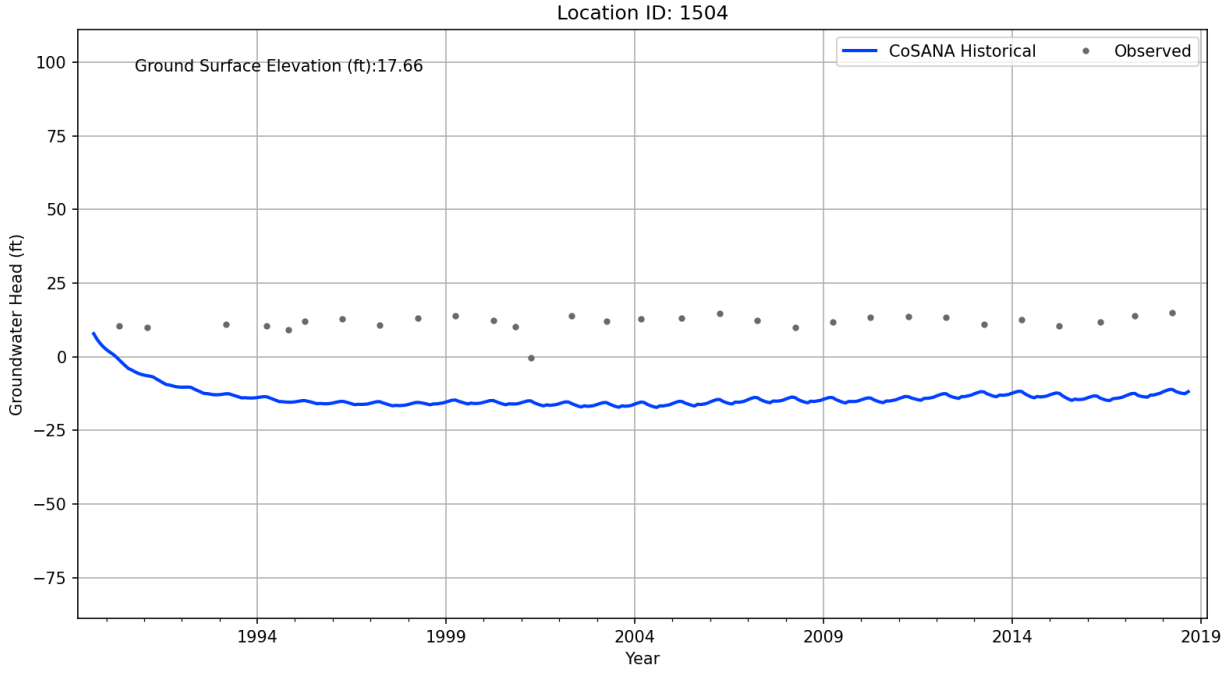

Location ID: 1335
Ground Surface Elevation (ft):166.35
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

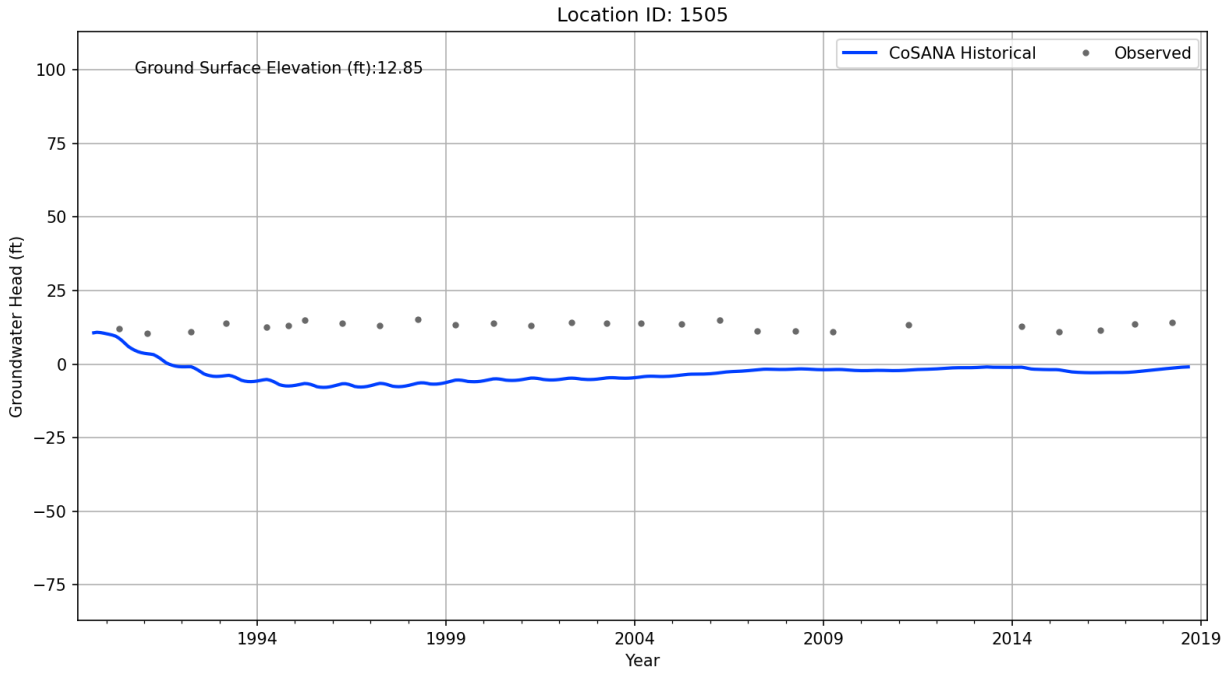

Location ID: 1336
Ground Surface Elevation (ft):166.35
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

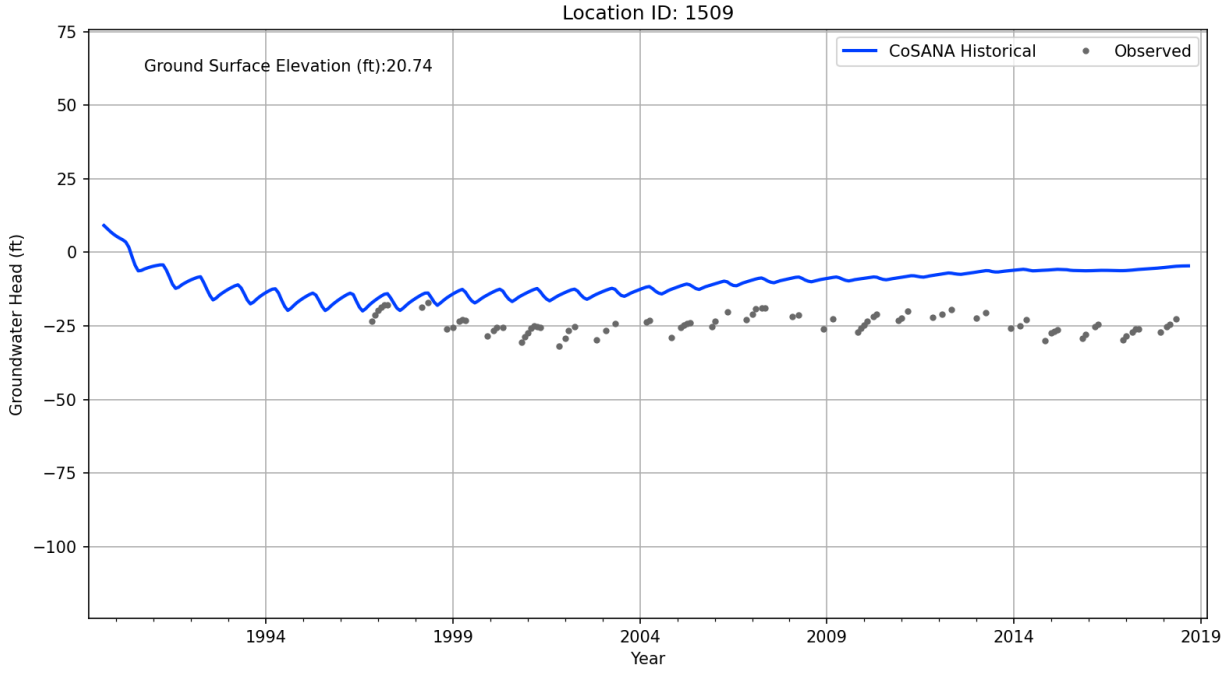

Location ID: 1401
Ground Surface Elevation (ft):136.84
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

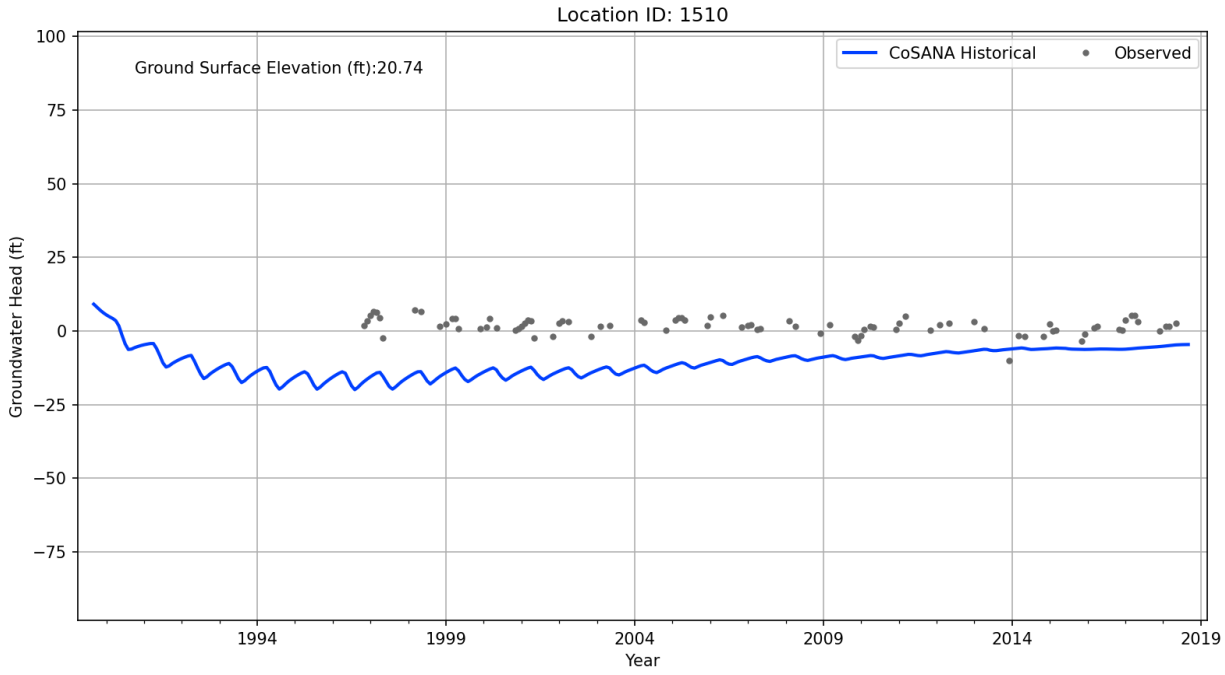

Location ID: 1402
Ground Surface Elevation (ft):153.1
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

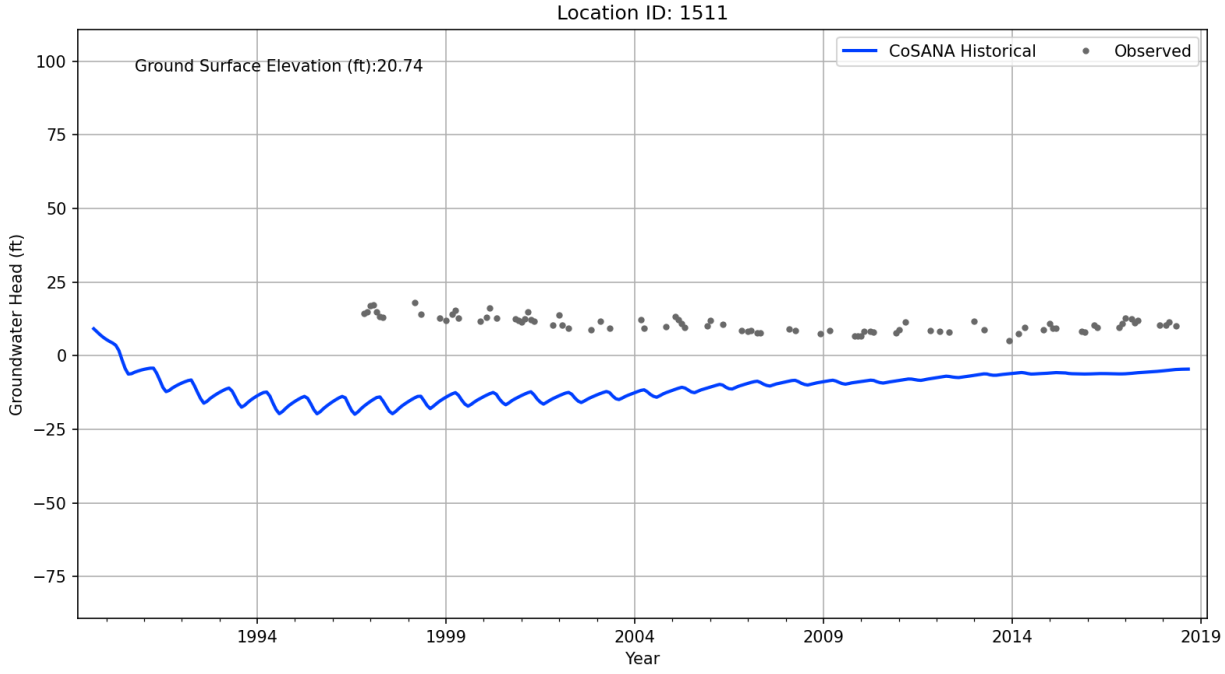

Location ID: 1403
Ground Surface Elevation (ft):54.7
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

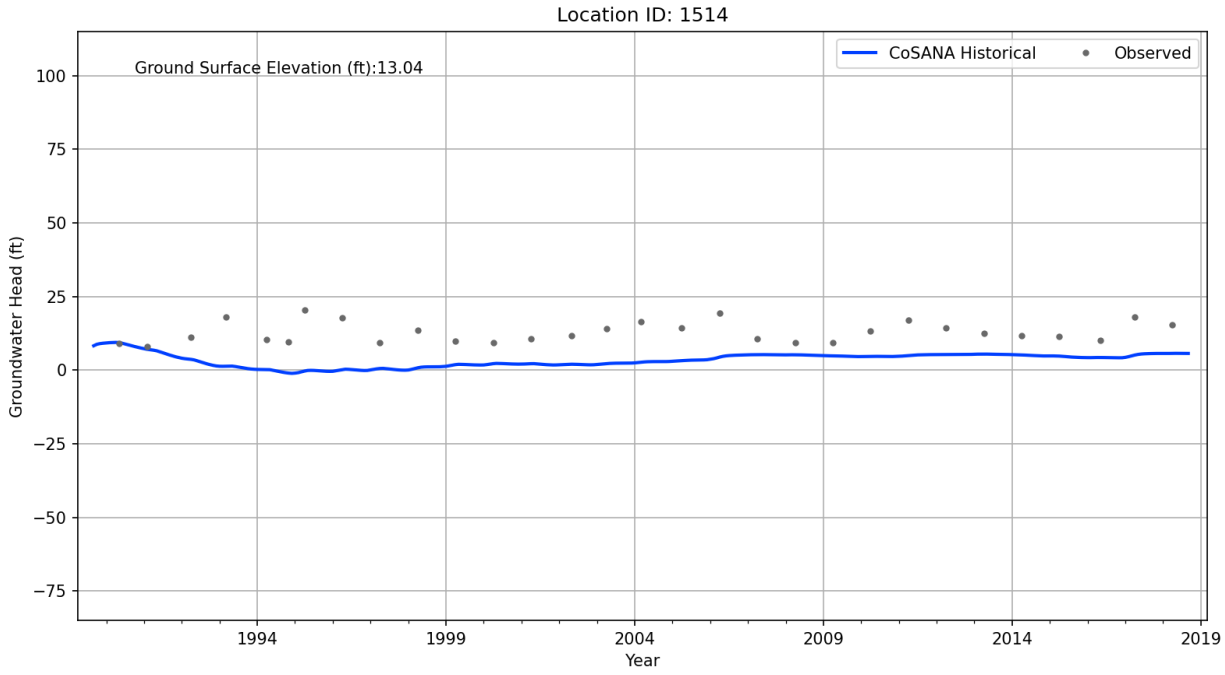

Location ID: 1504
Ground Surface Elevation (ft):17.66
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

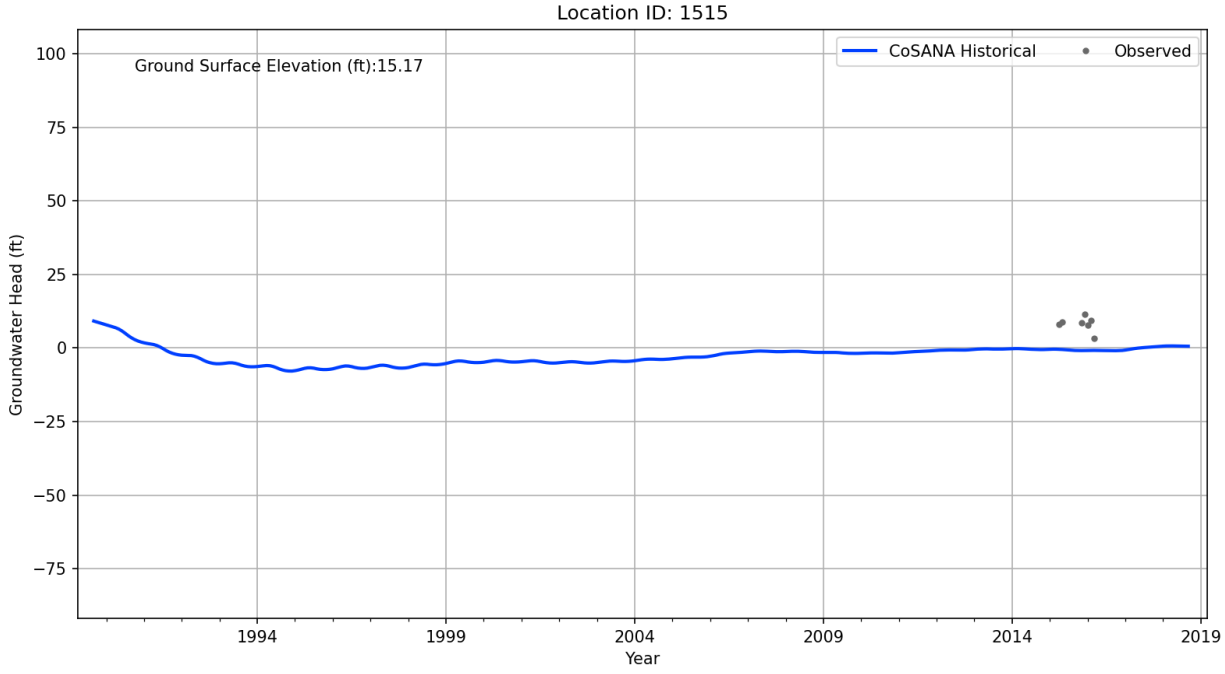

Location ID: 1505
Ground Surface Elevation (ft):12.85
CoSANA Historical
Observed
Groundwater Head (ft)
Year
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019

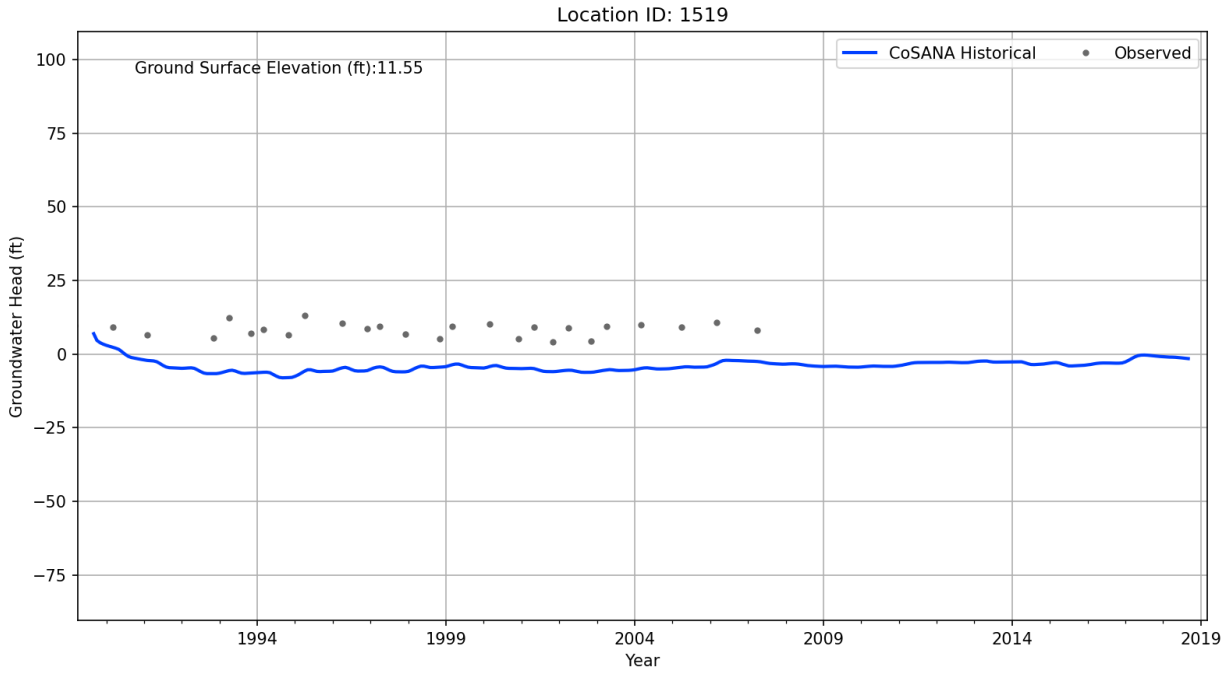

Location ID: 1509
Ground Surface Elevation (ft):20.74
CoSANA Historical
Observed
Groundwater Head (ft)
Year
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019

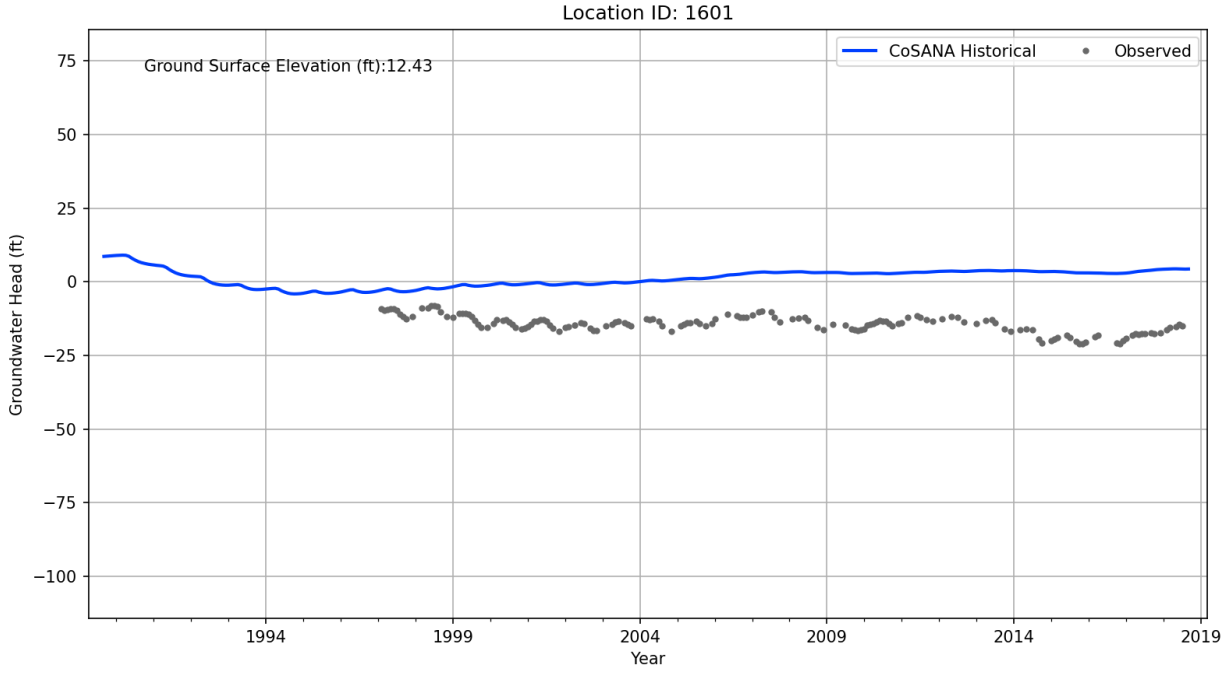

Location ID: 1510
Ground Surface Elevation (ft):20.74
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

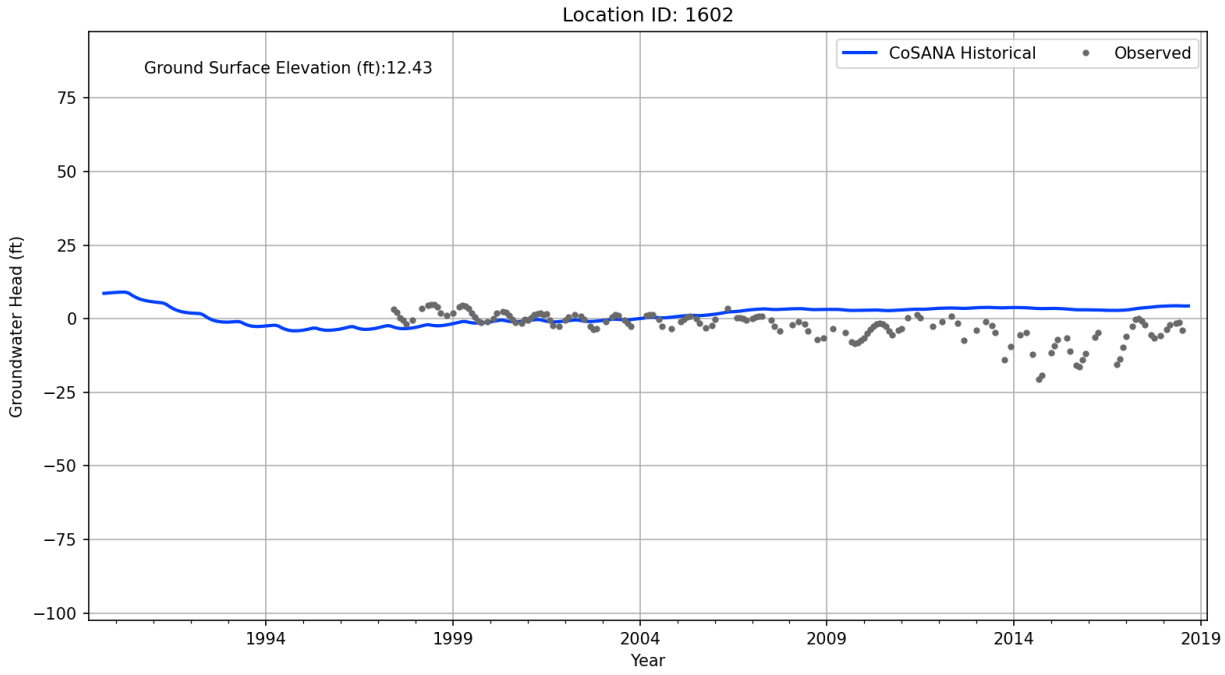

Location ID: 1511
Ground Surface Elevation (ft):20.74
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

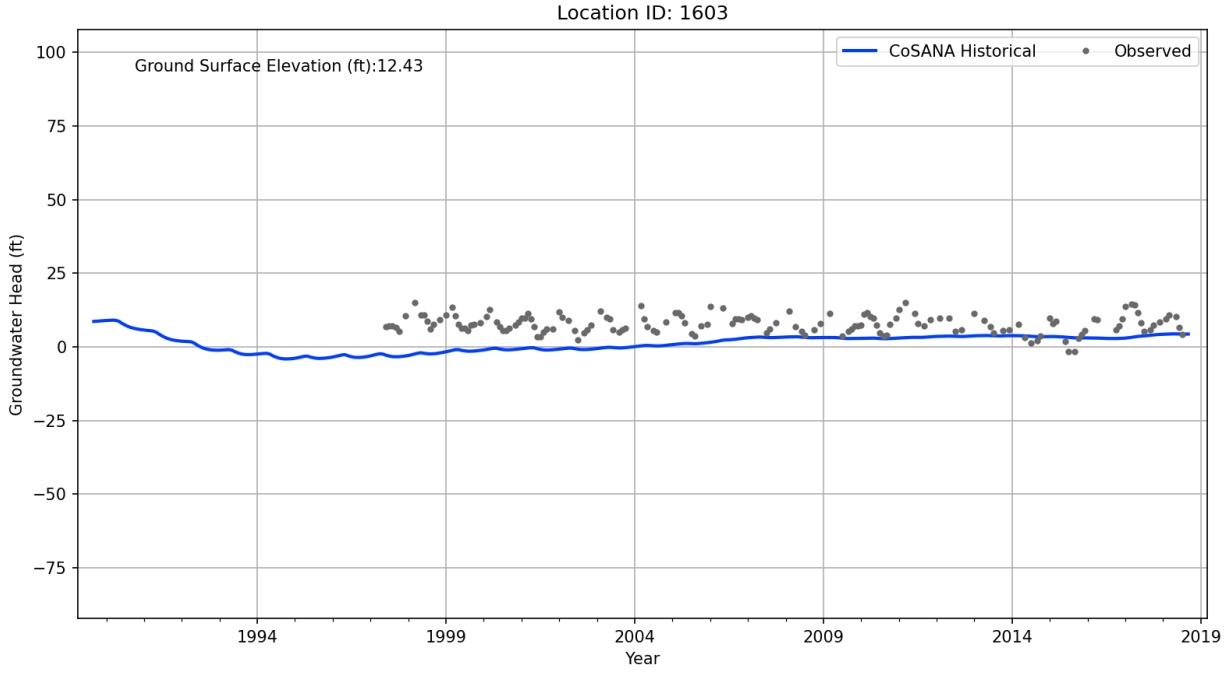

Location ID: 1514
Ground Surface Elevation (ft):13.04
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

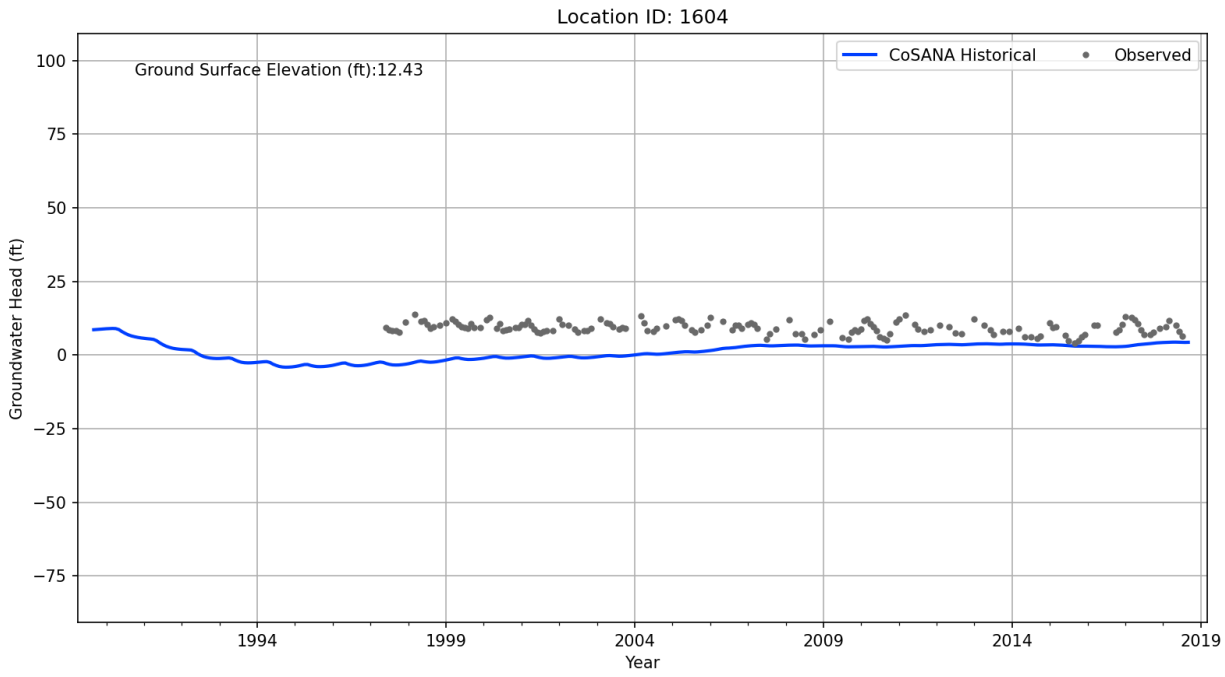

Location ID: 1515
Ground Surface Elevation (ft):15.17
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

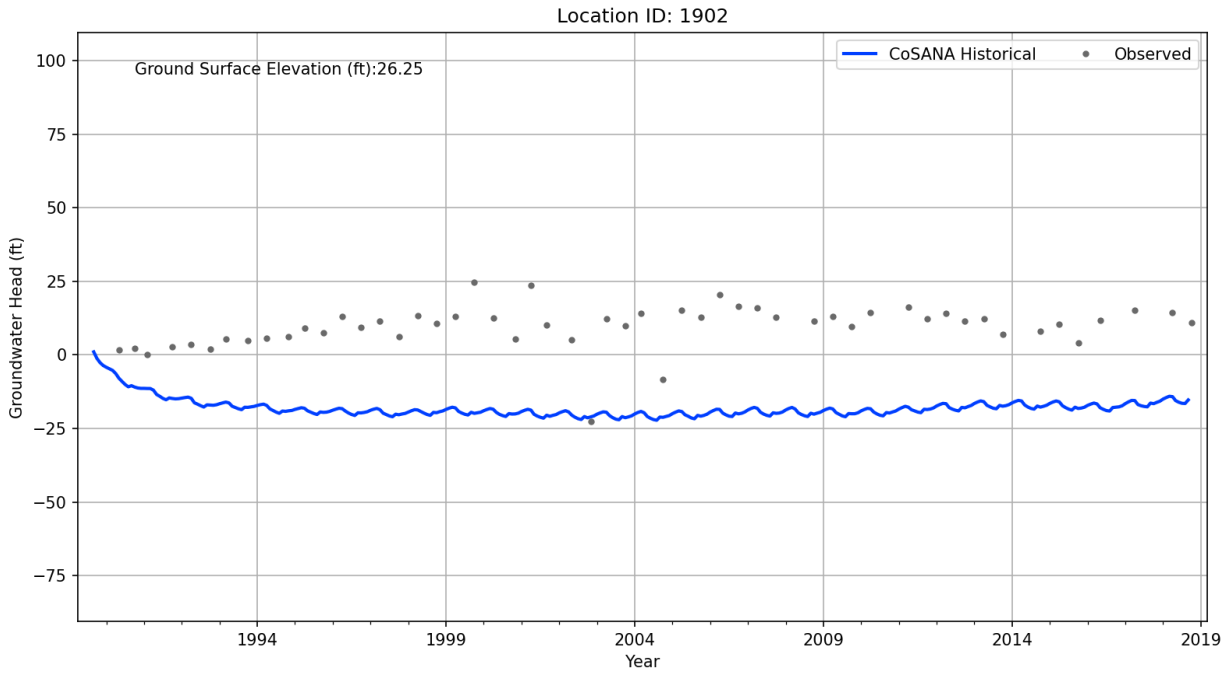

Location ID: 1519
Ground Surface Elevation (ft):11.55
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

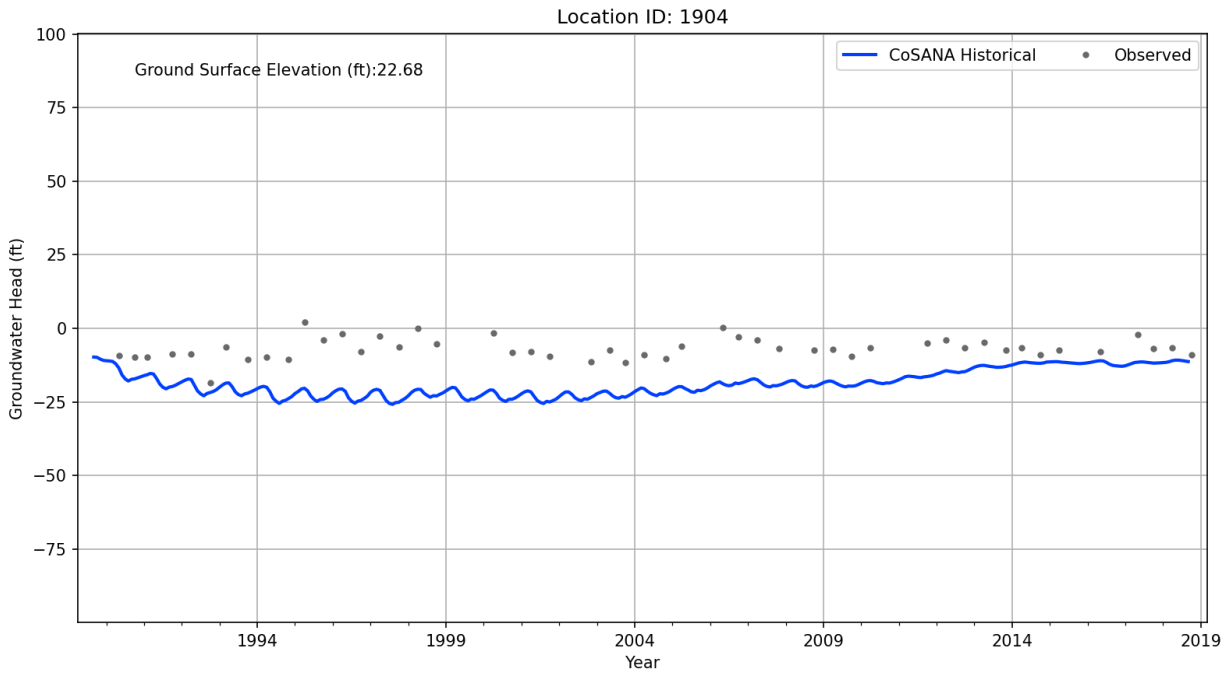

Location ID: 1601
Ground Surface Elevation (ft):12.43
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

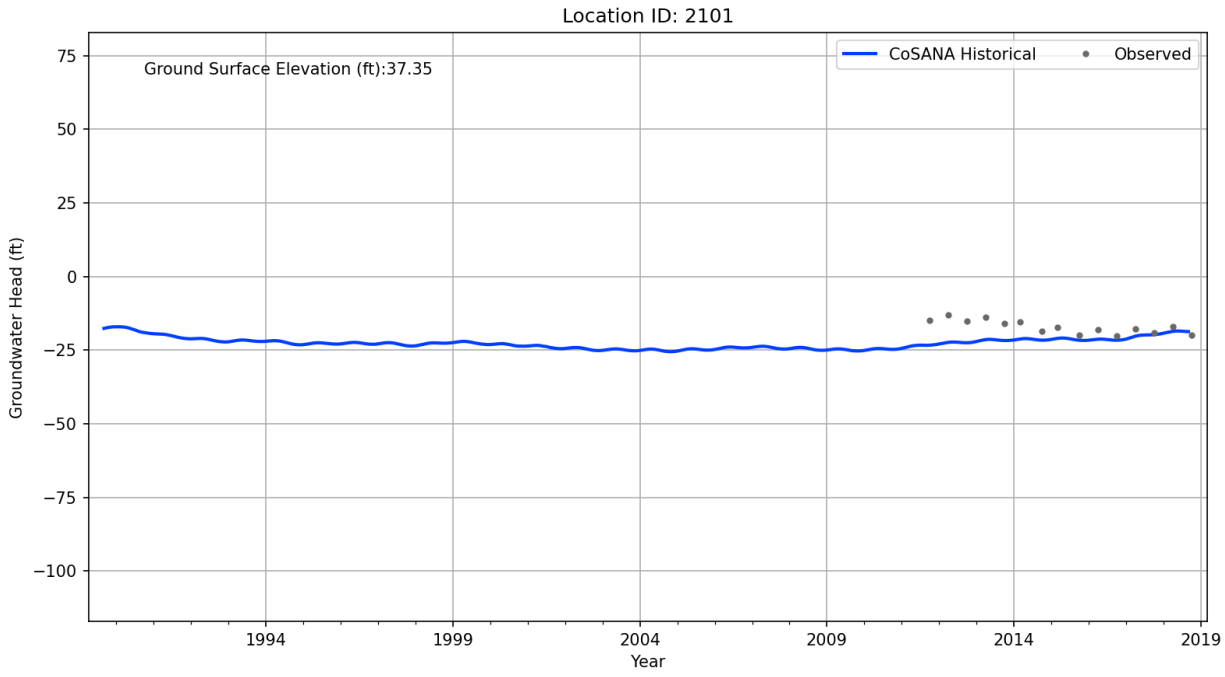

Location ID: 1602
Ground Surface Elevation (ft):12.43
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

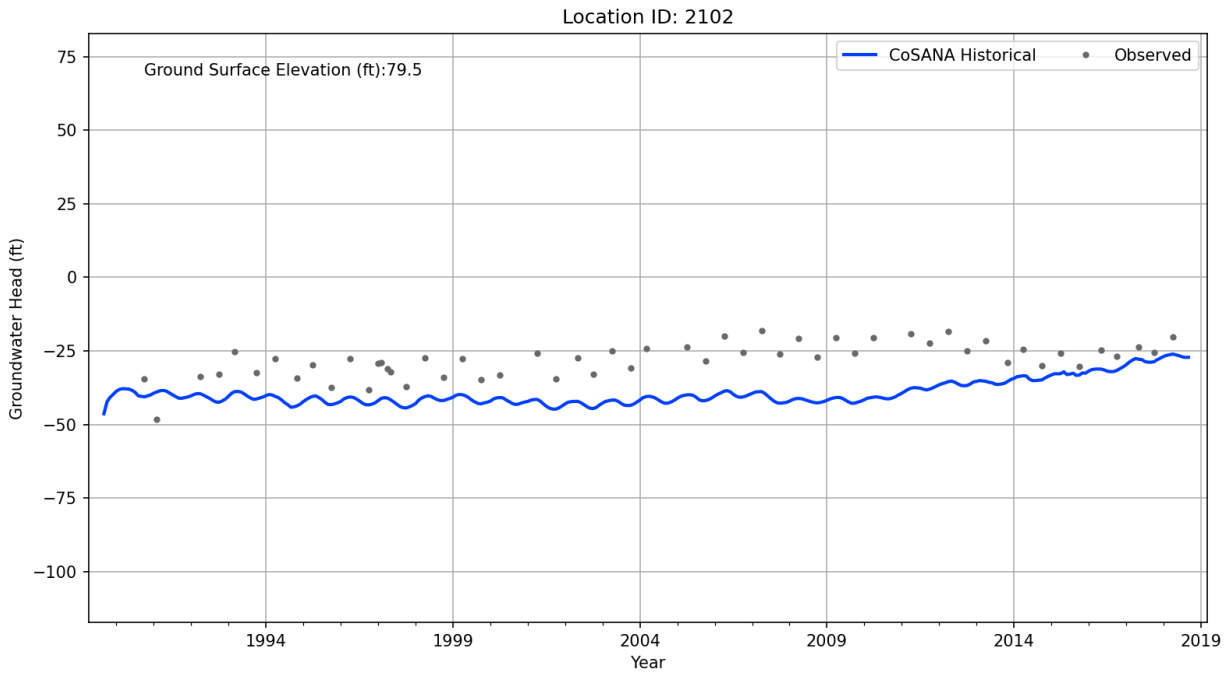

Location ID: 1603
Ground Surface Elevation (ft):12.43
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

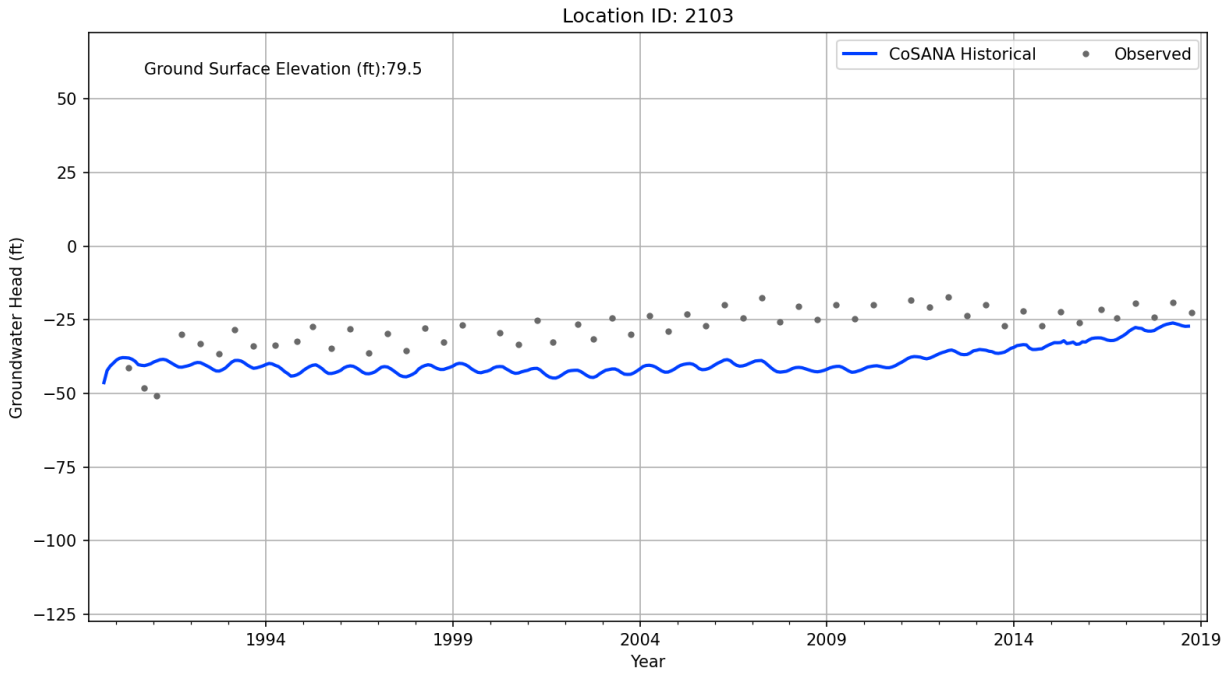

Location ID: 1604
Ground Surface Elevation (ft):12.43
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

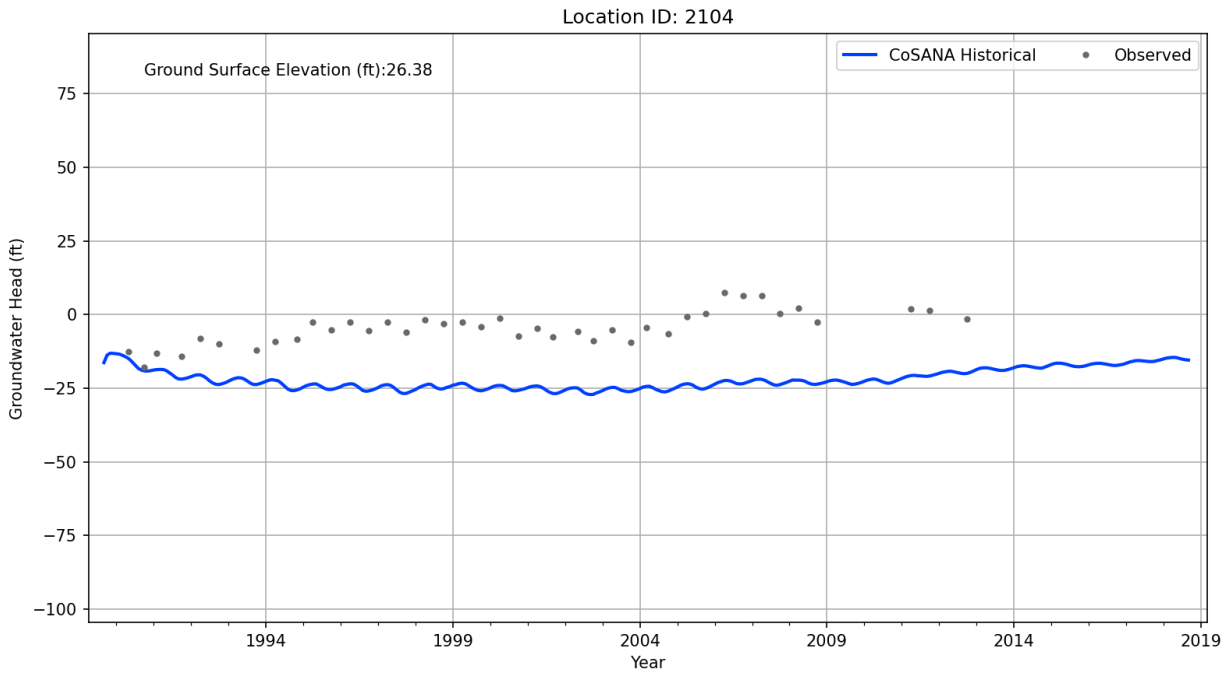

Location ID: 1902
Ground Surface Elevation (ft):26.25
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

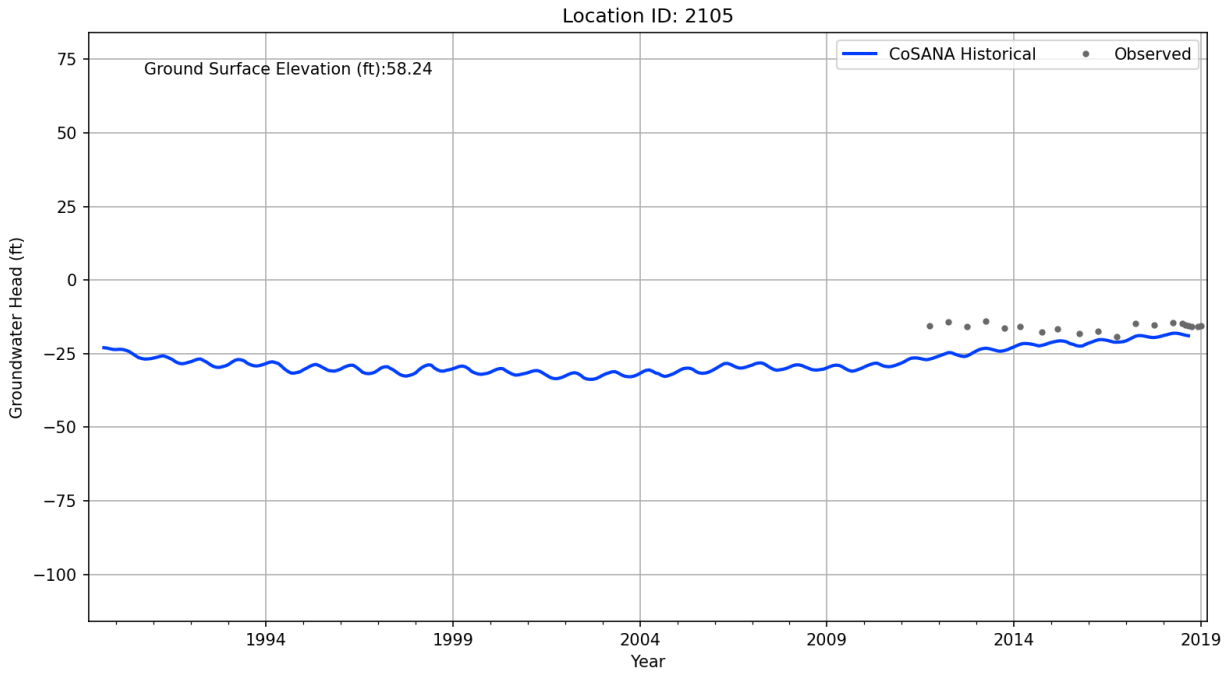

Location ID: 1904
Ground Surface Elevation (ft):22.68
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

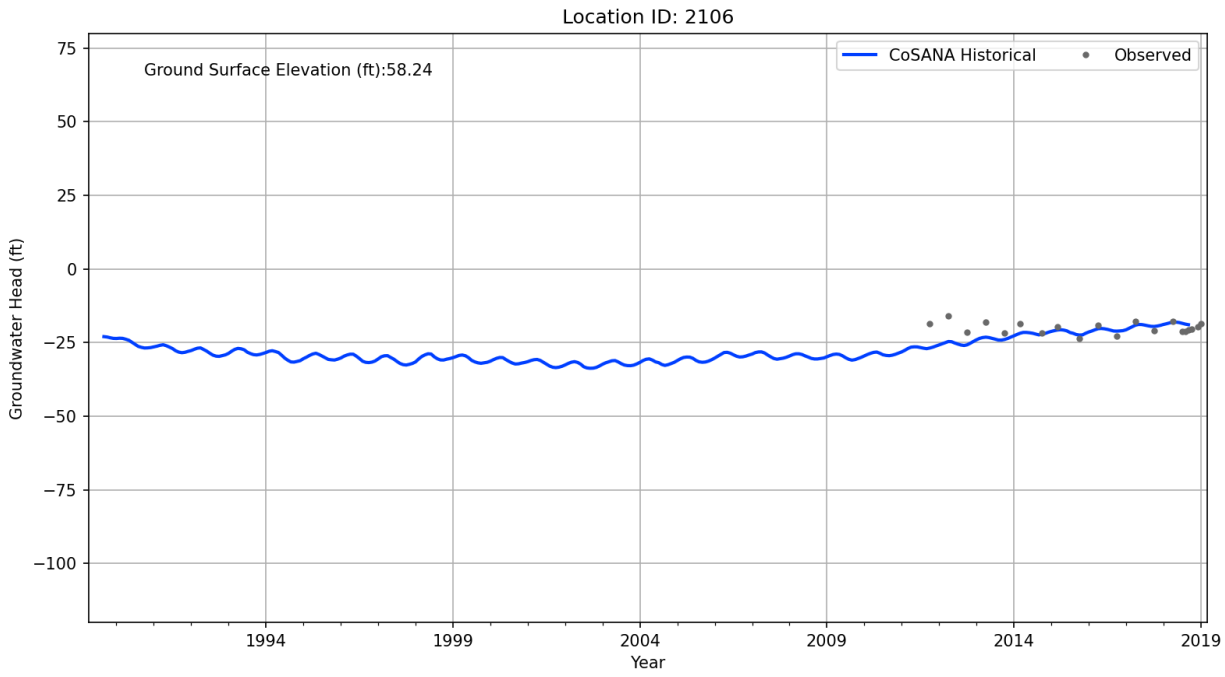

Location ID: 2101
Ground Surface Elevation (ft):37.35
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

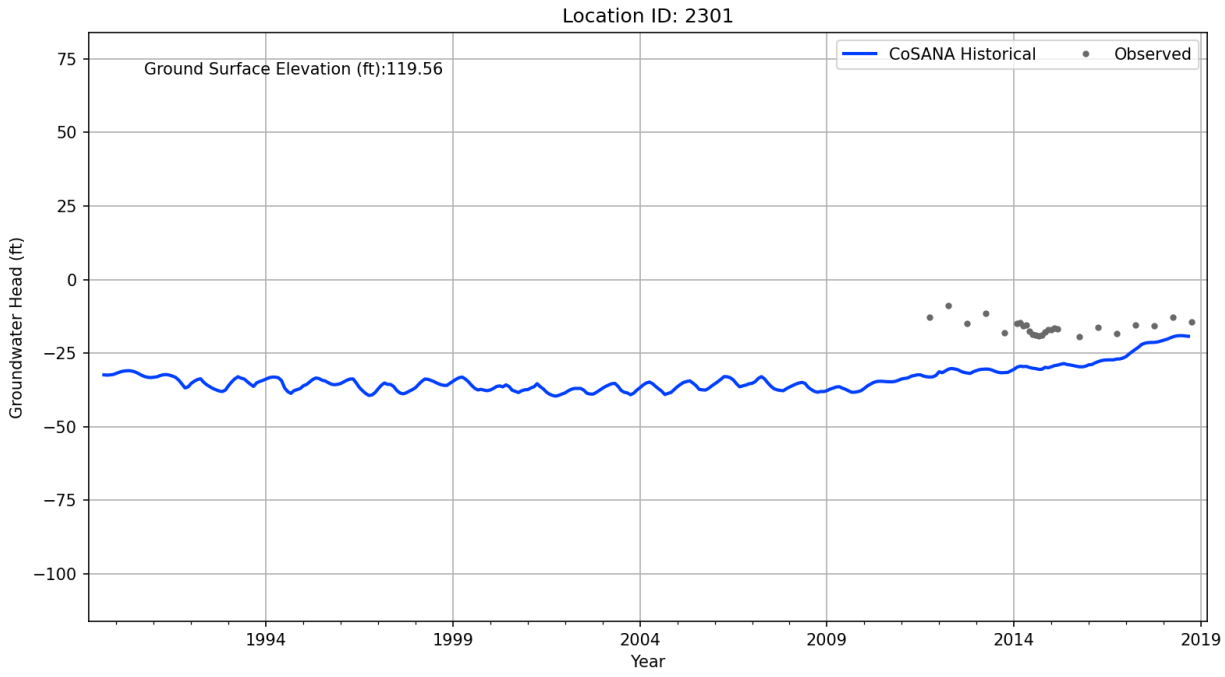

Location ID: 2102
Ground Surface Elevation (ft):79.5
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

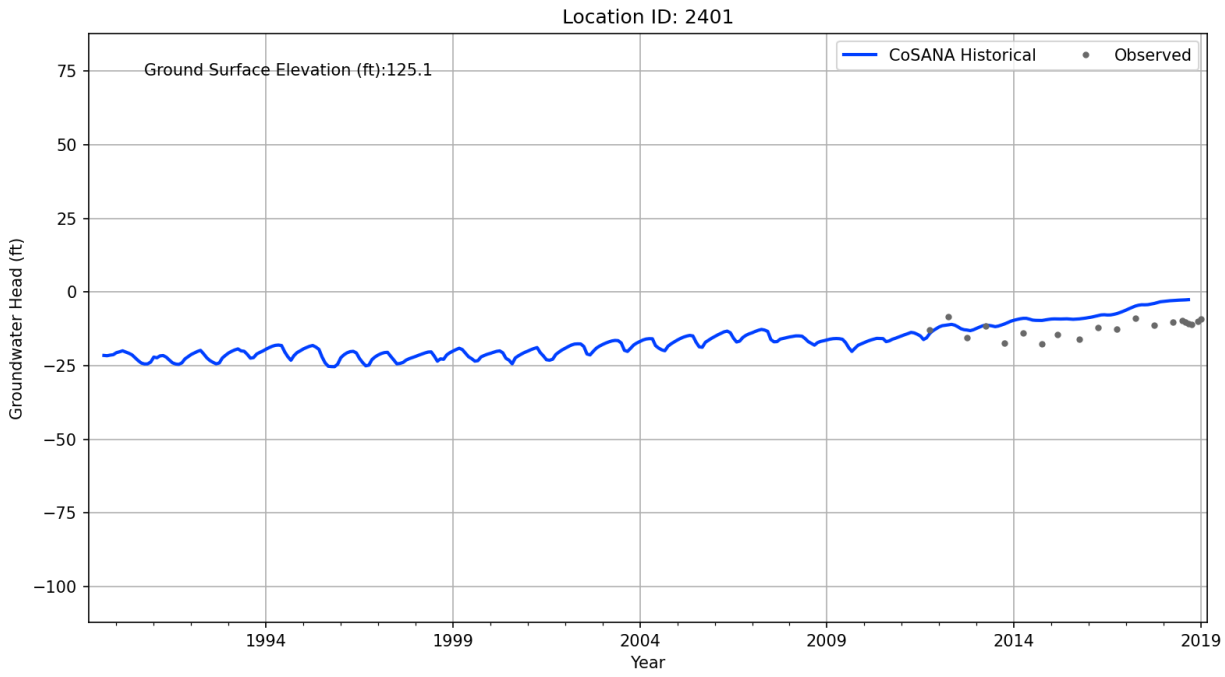

Location ID: 2103
Ground Surface Elevation (ft):79.5
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

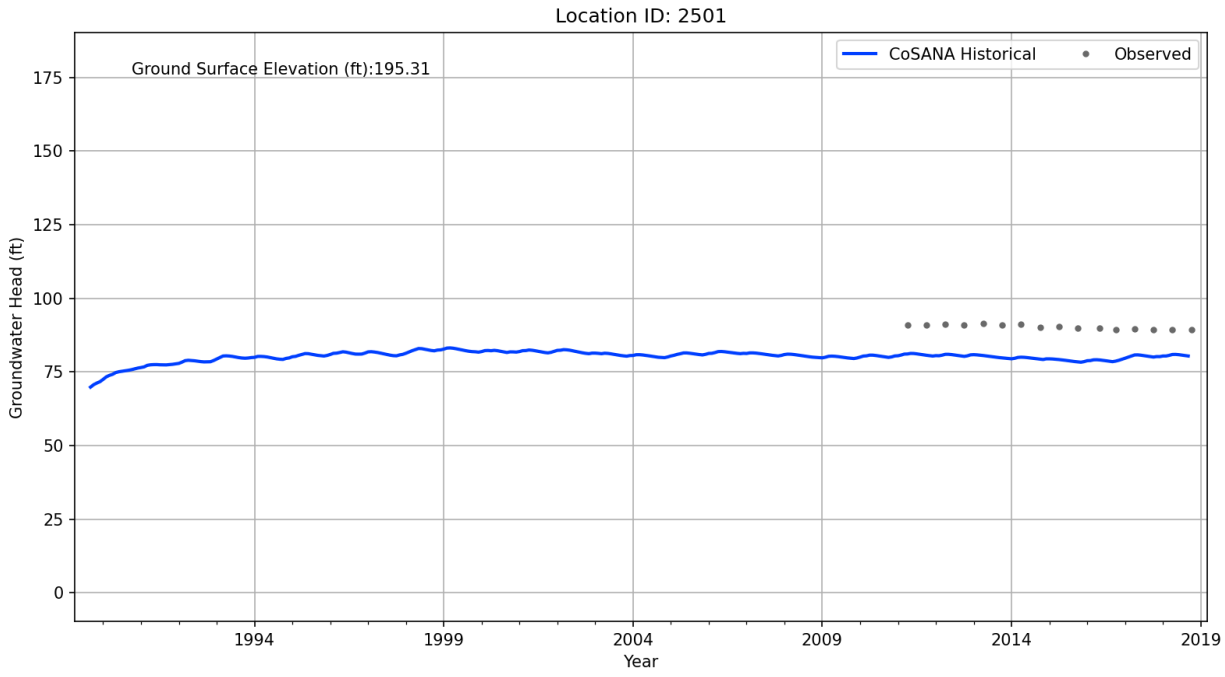

Location ID: 2104
Ground Surface Elevation (ft):26.38
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

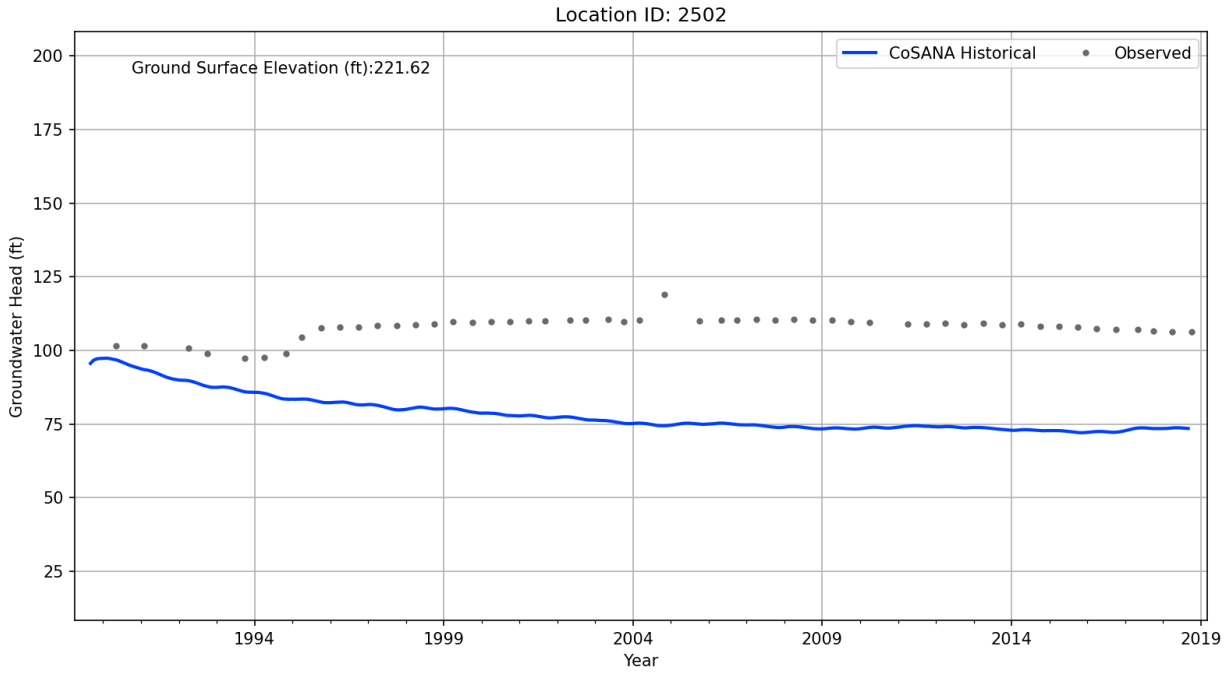

Location ID: 2105
Ground Surface Elevation (ft):58.24
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

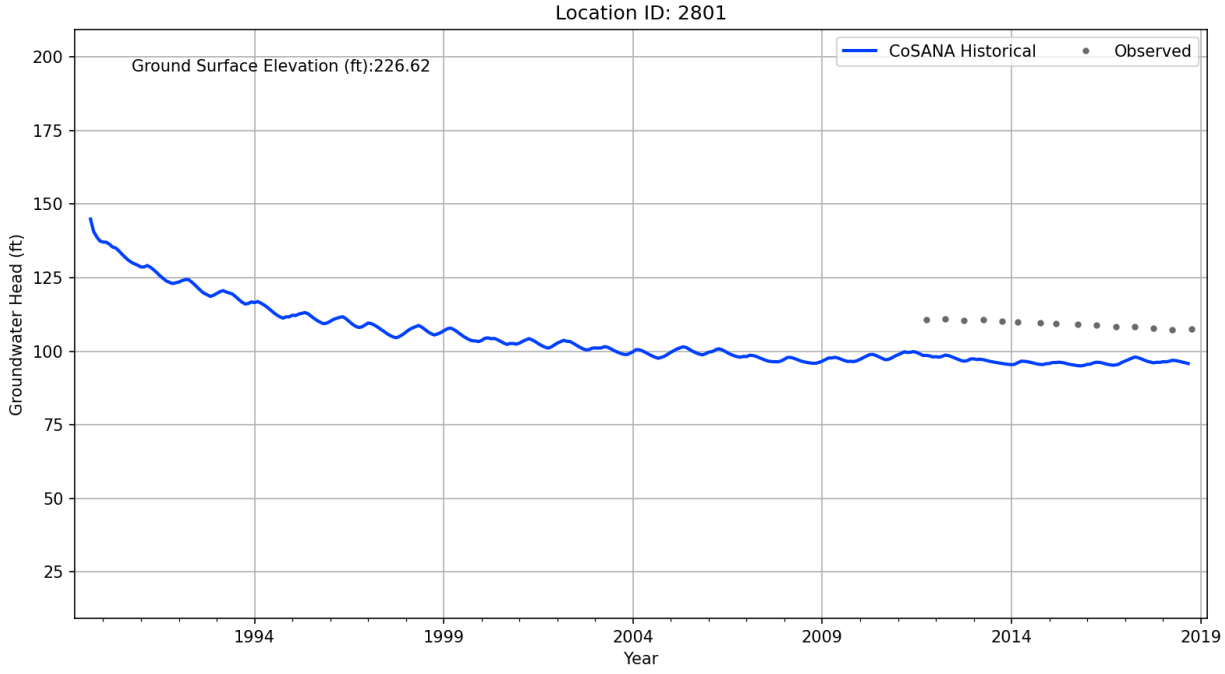

Location ID: 2106
Ground Surface Elevation (ft):58.24
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

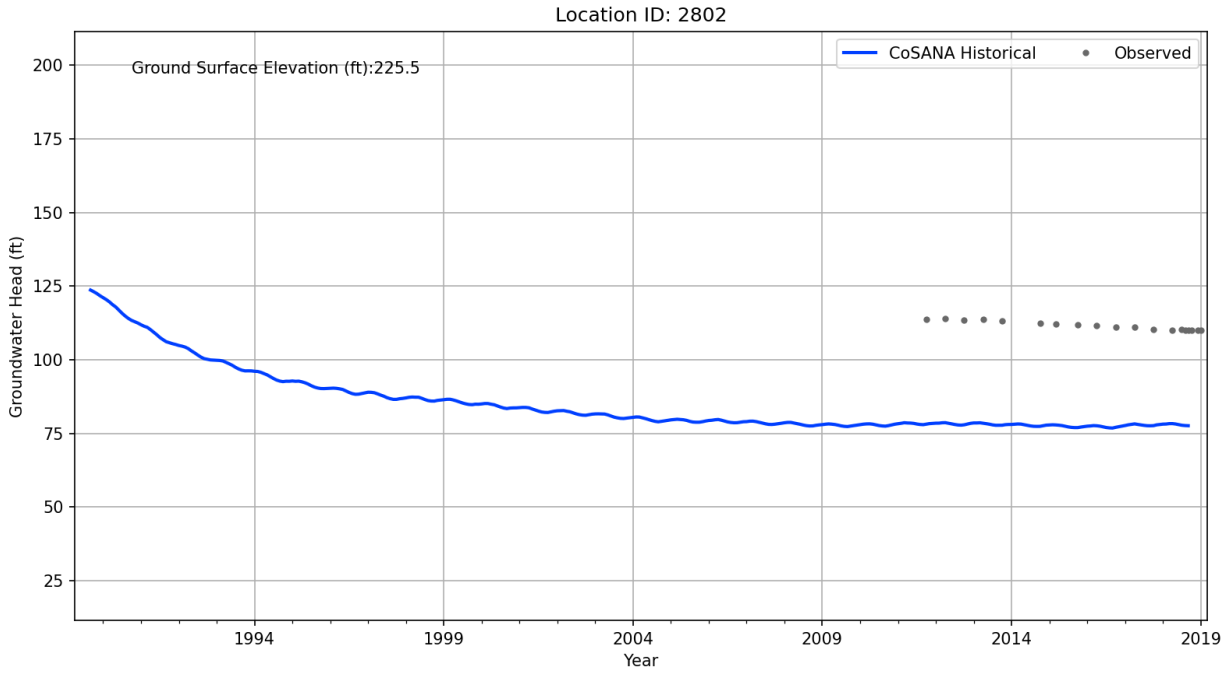

Location ID: 2301
Ground Surface Elevation (ft):119.56
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

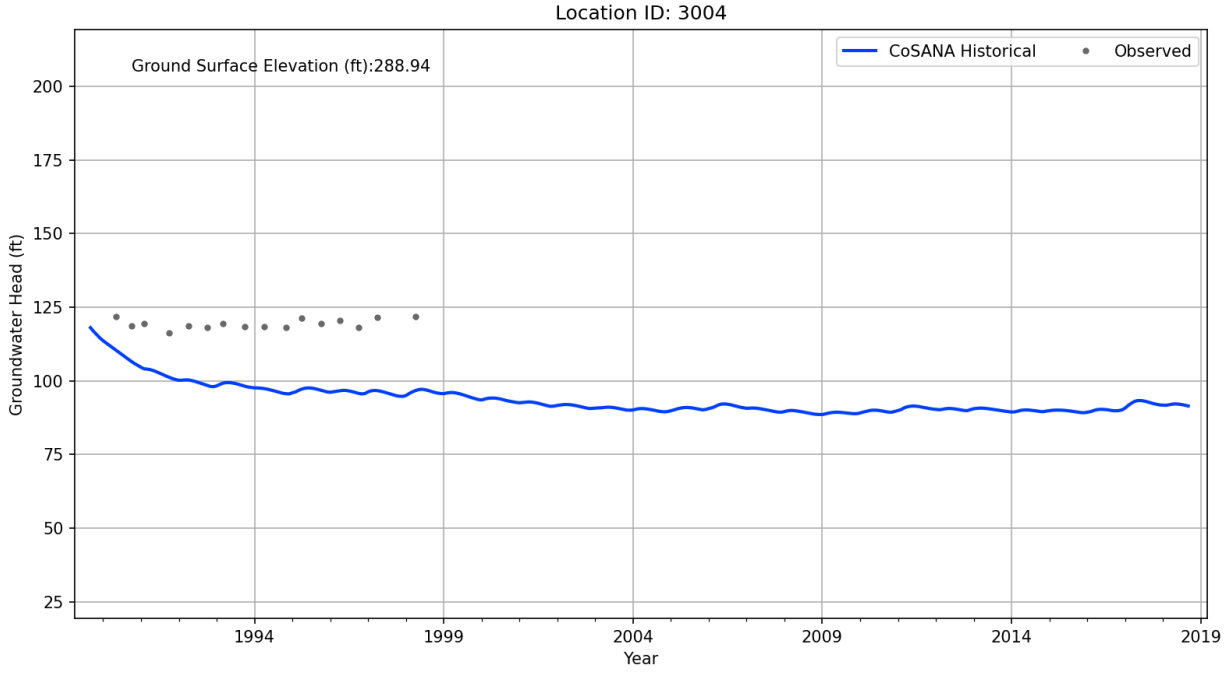

Location ID: 2401
Ground Surface Elevation (ft):125.1
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

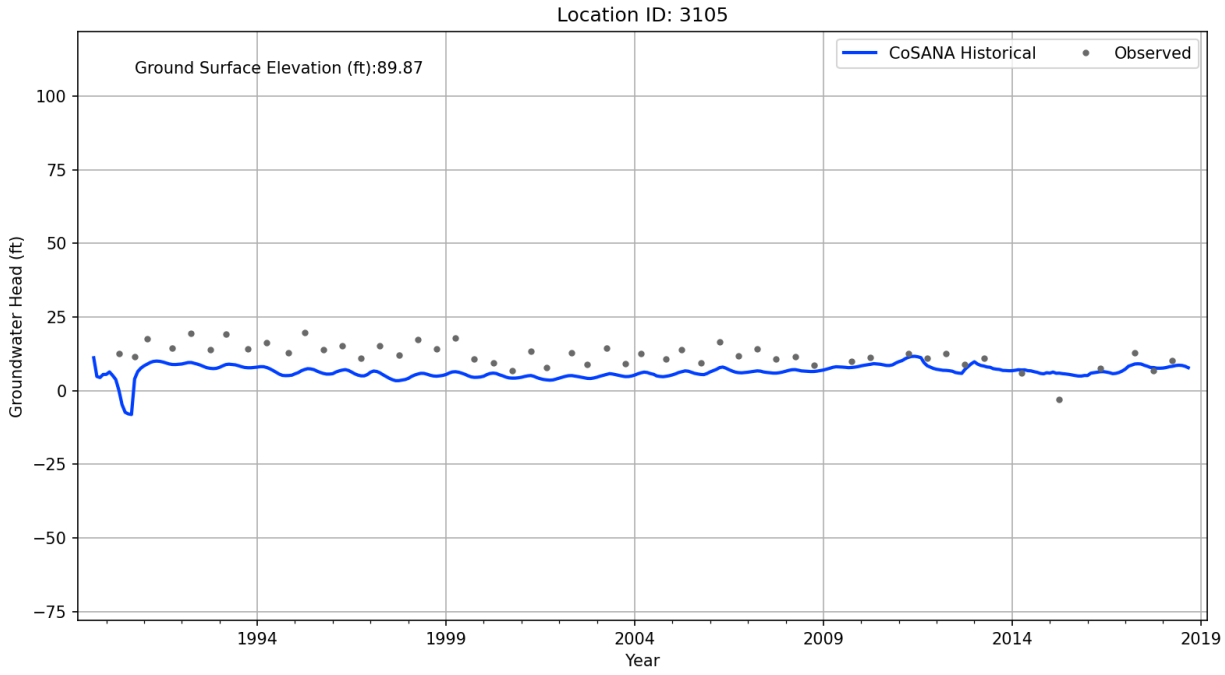

Location ID: 2501
Ground Surface Elevation (ft):195.31
CoSANA Historical
Observed
Groundwater Head (ft)
175
150
125
100
75
50
25
0
1994
1999
2004
2009
2014
2019
Year

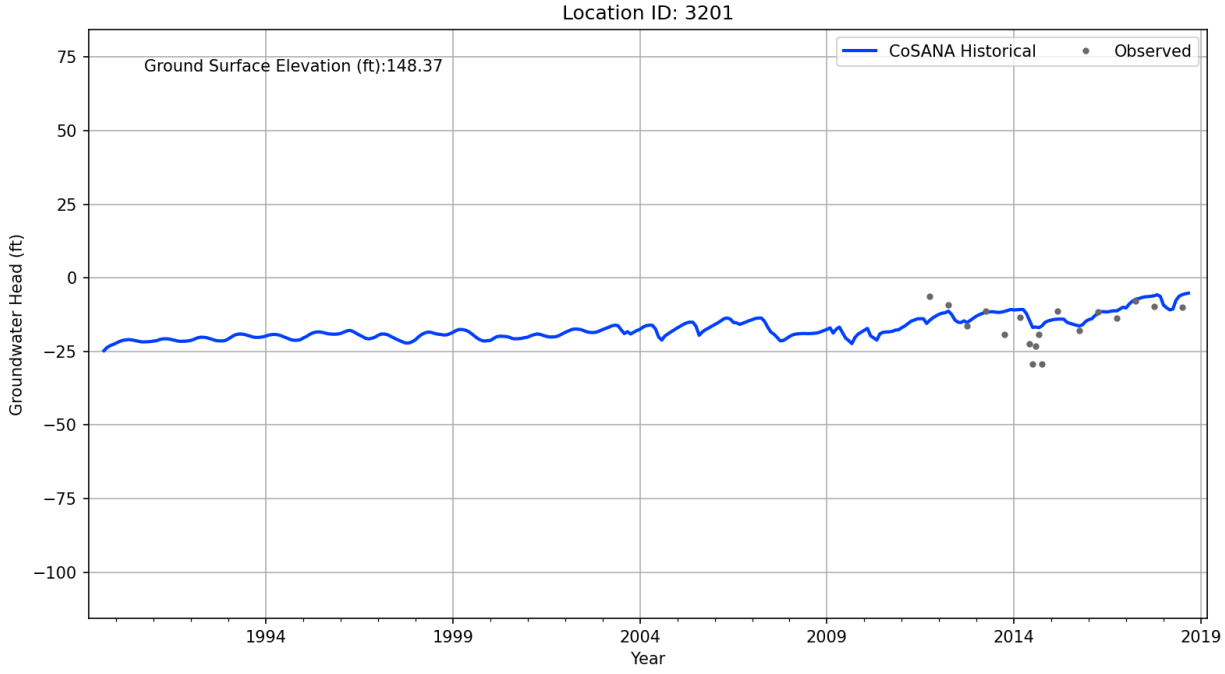

Location ID: 2502
Ground Surface Elevation (ft):221.62
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

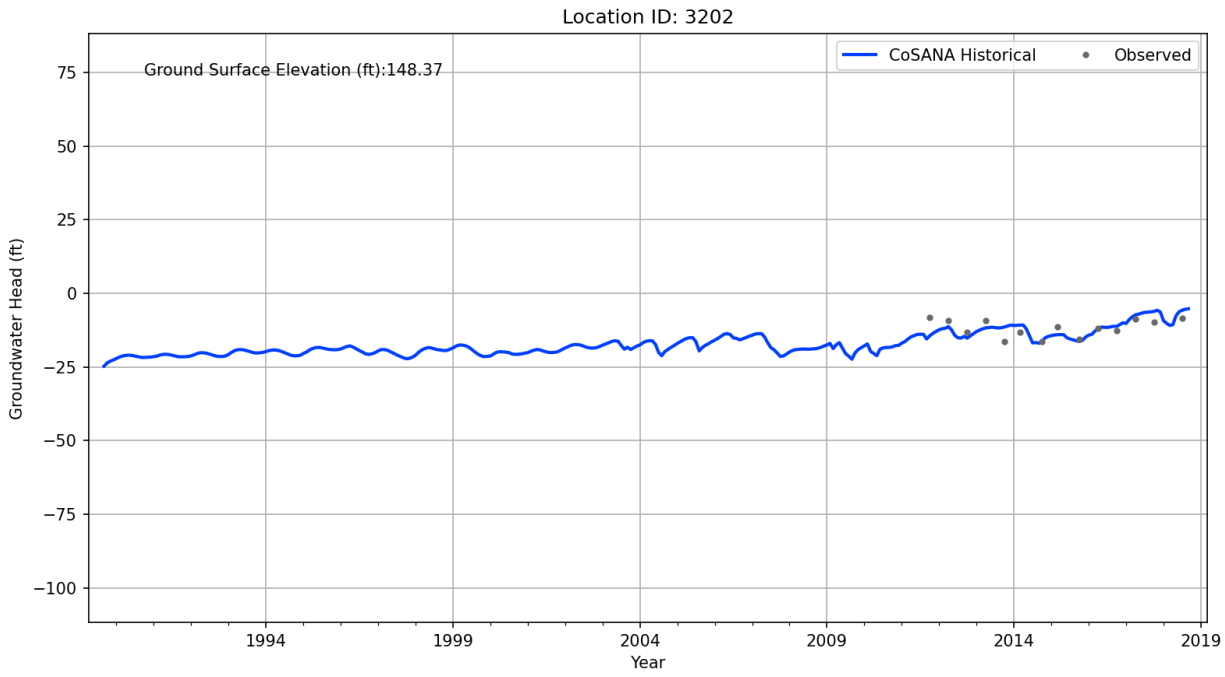

Location ID: 2801
Ground Surface Elevation (ft):226.62
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

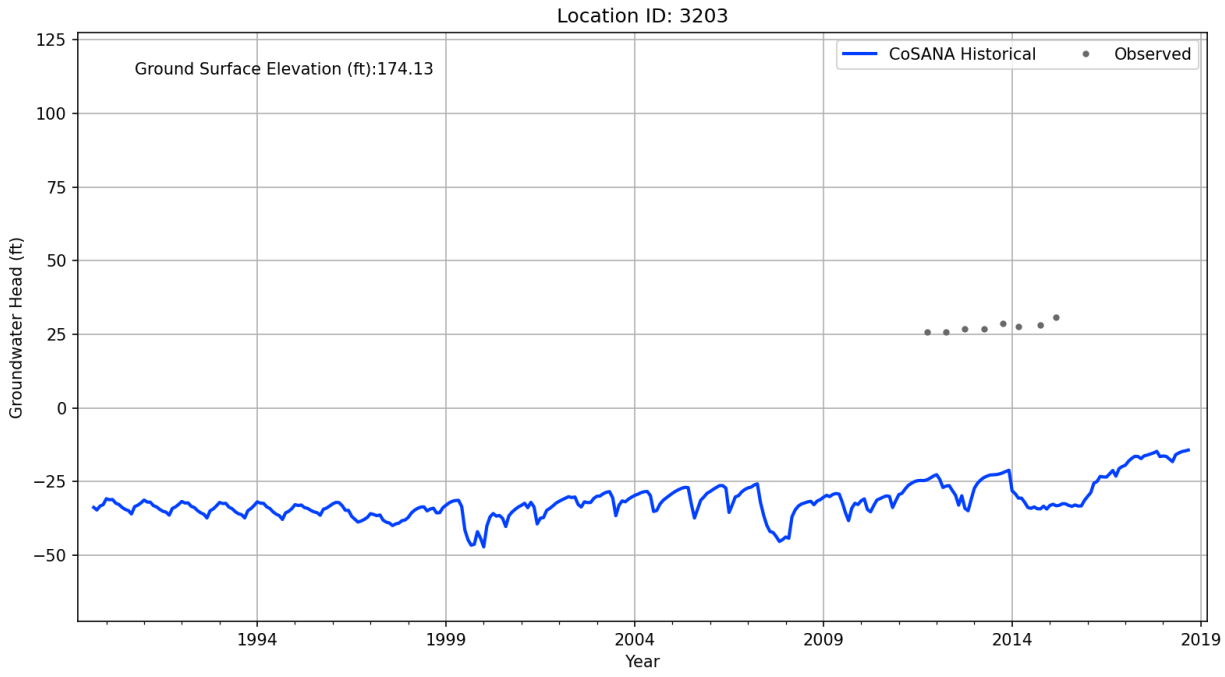

Location ID: 2802
Ground Surface Elevation (ft):225.5
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

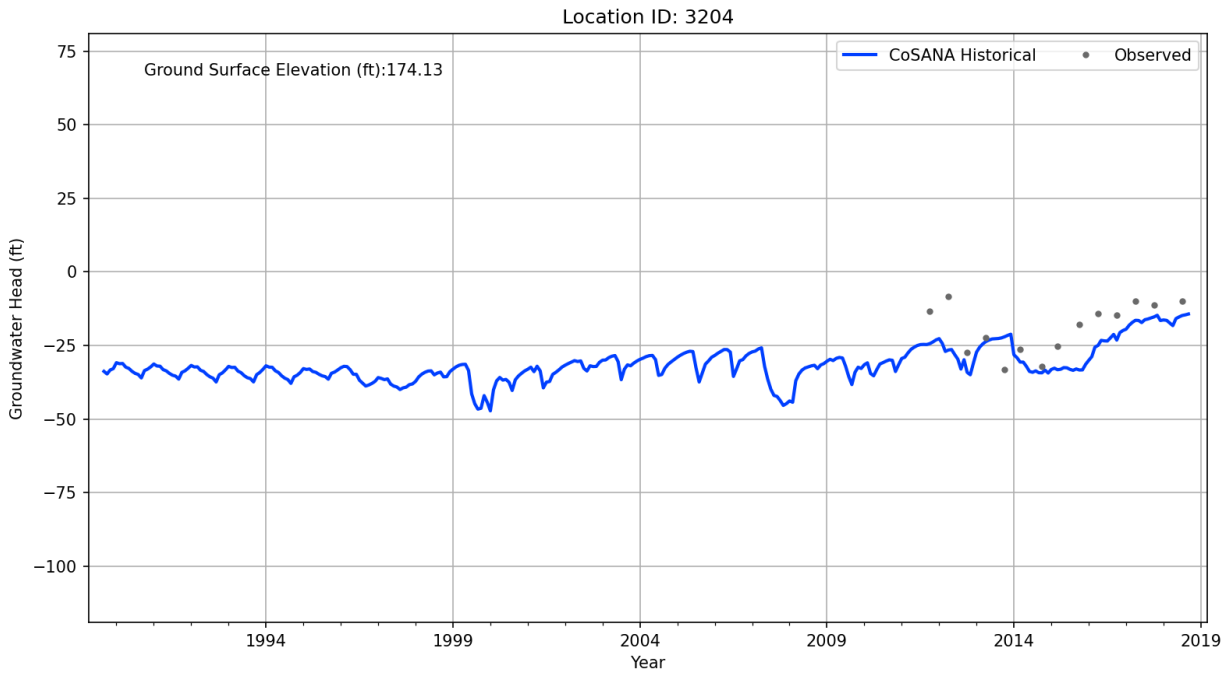

Location ID: 3004
Ground Surface Elevation (ft):288.94
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

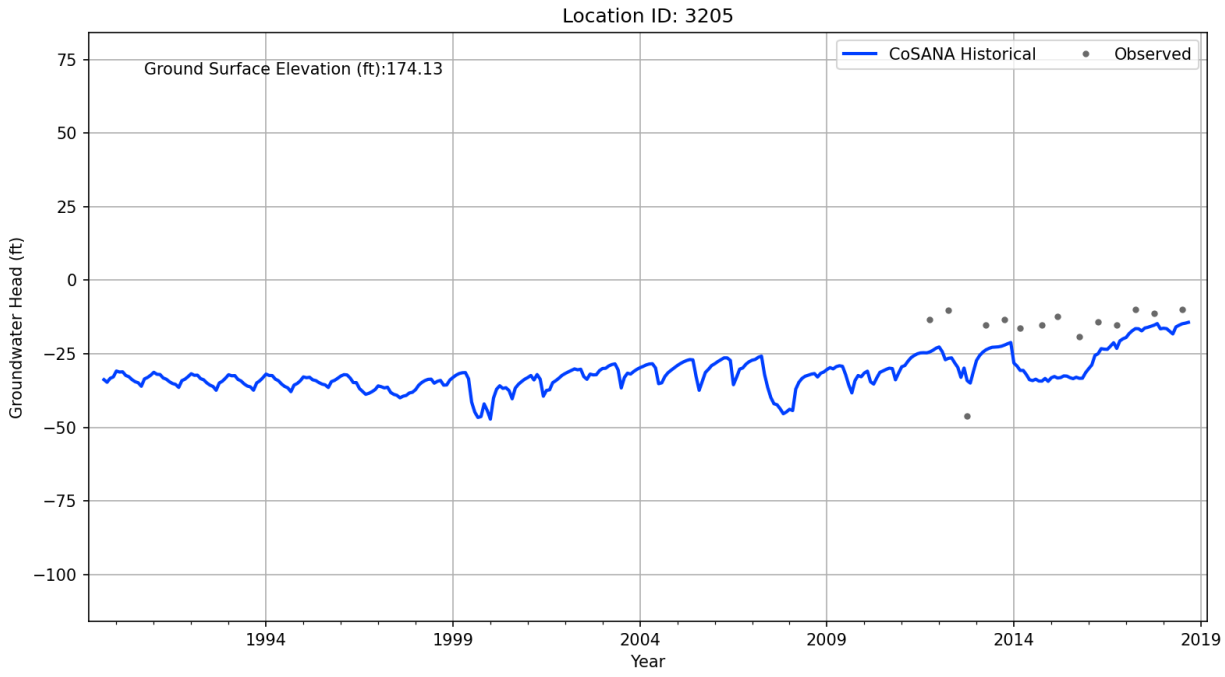

Location ID: 3105
Ground Surface Elevation (ft):89.87
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

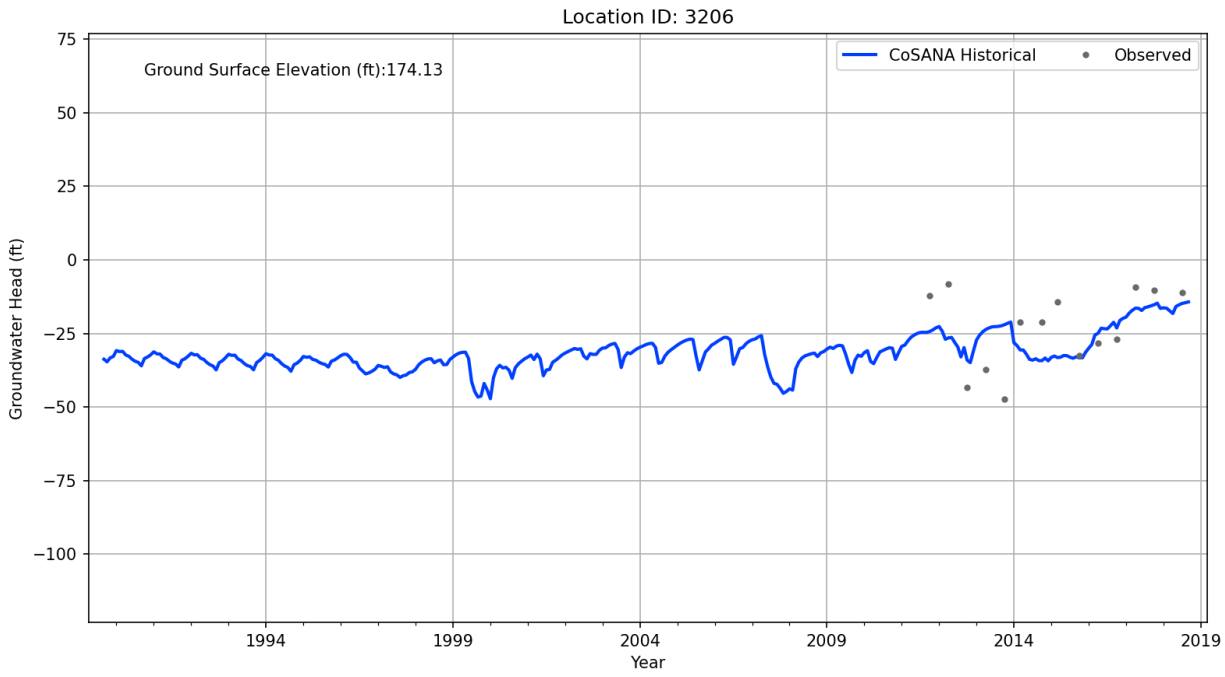

Location ID: 3201
Ground Surface Elevation (ft):148.37
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

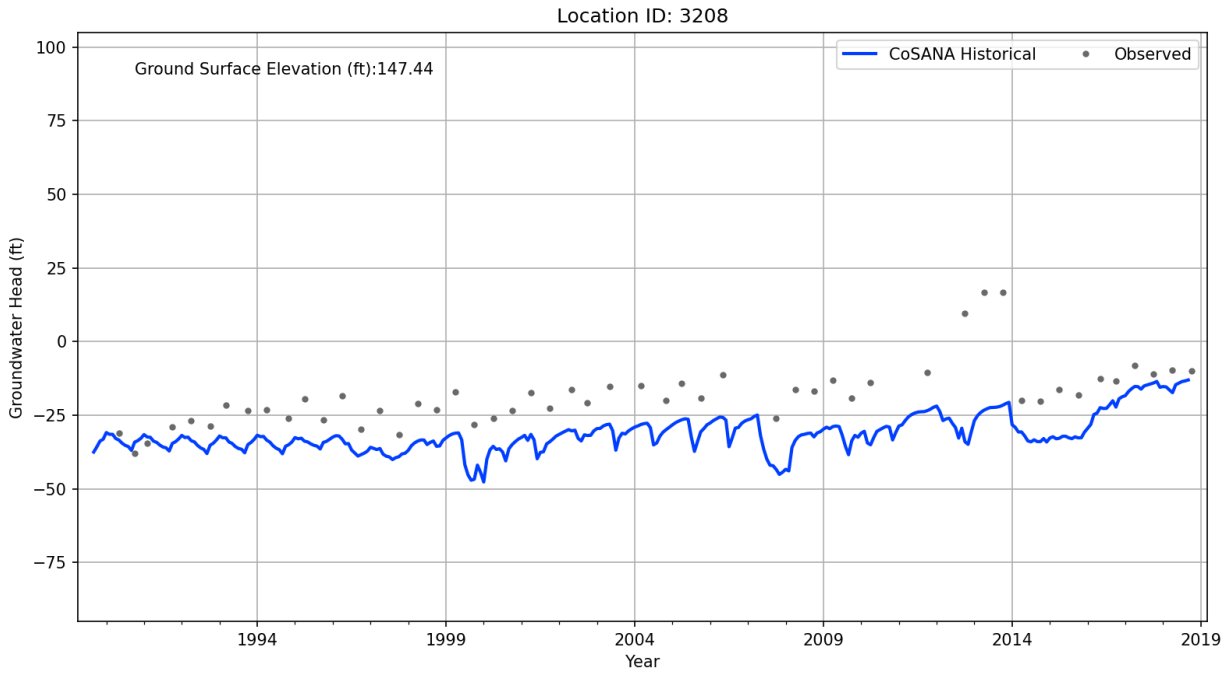

Location ID: 3202
Ground Surface Elevation (ft):148.37
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

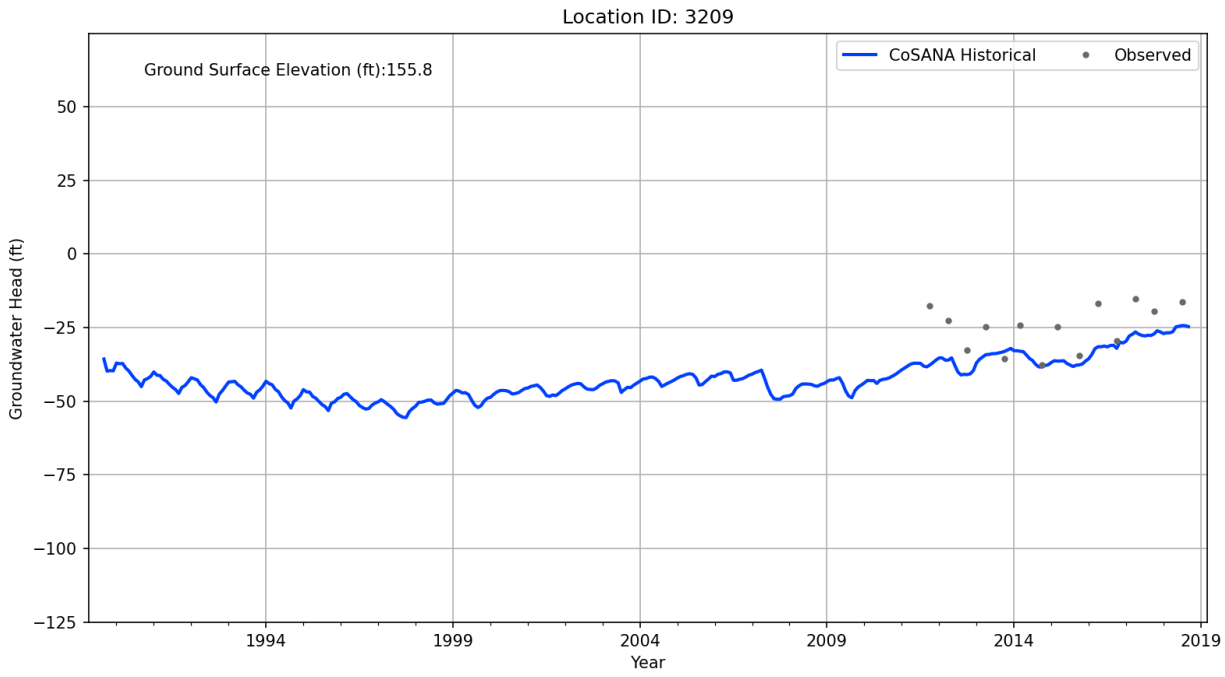

Location ID: 3203
Ground Surface Elevation (ft):174.13
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

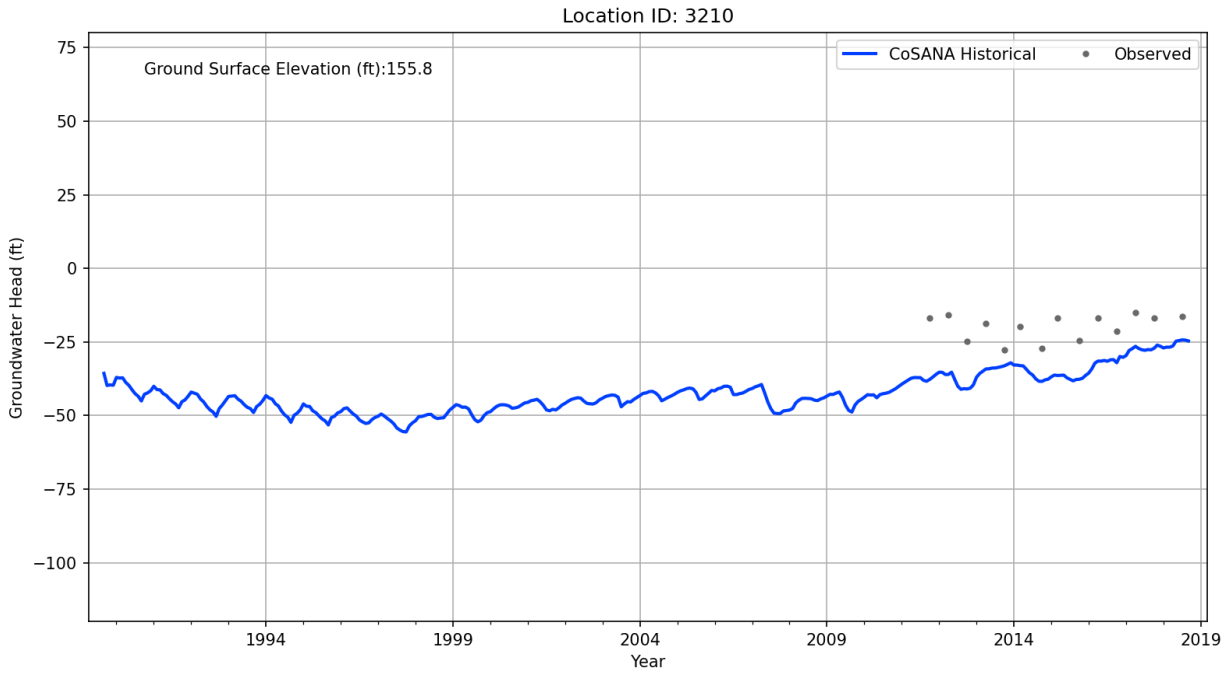

Location ID: 3204
Ground Surface Elevation (ft):174.13
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

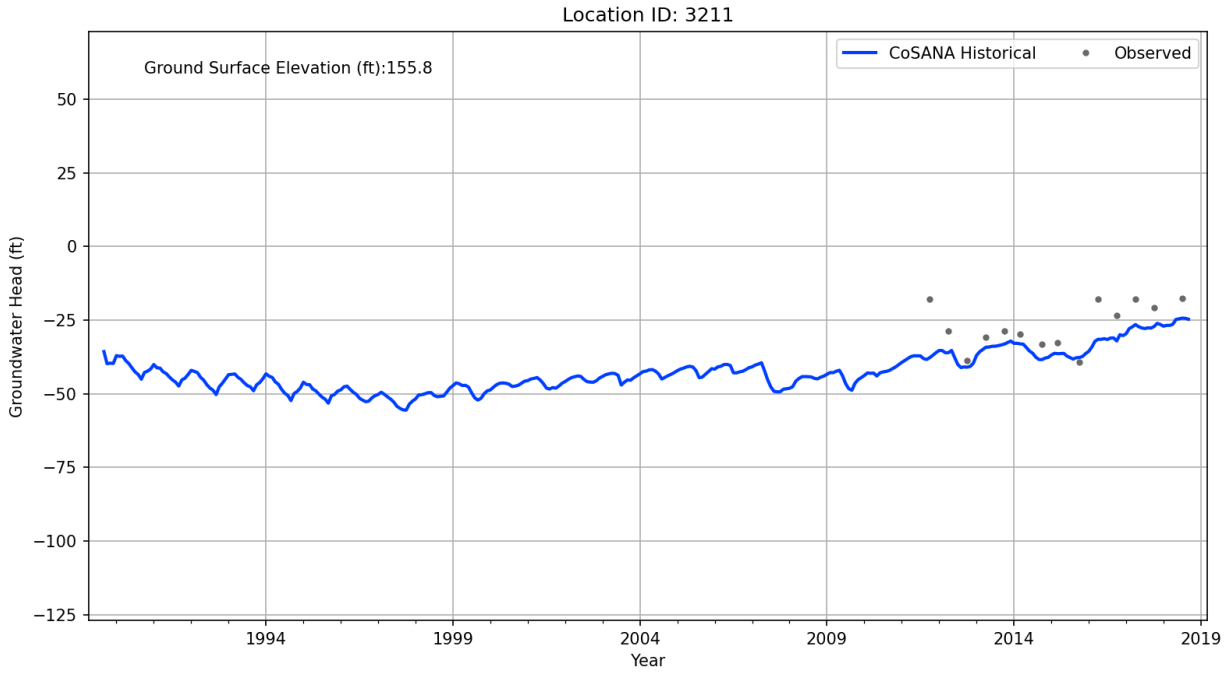

Location ID: 3205
Ground Surface Elevation (ft):174.13
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

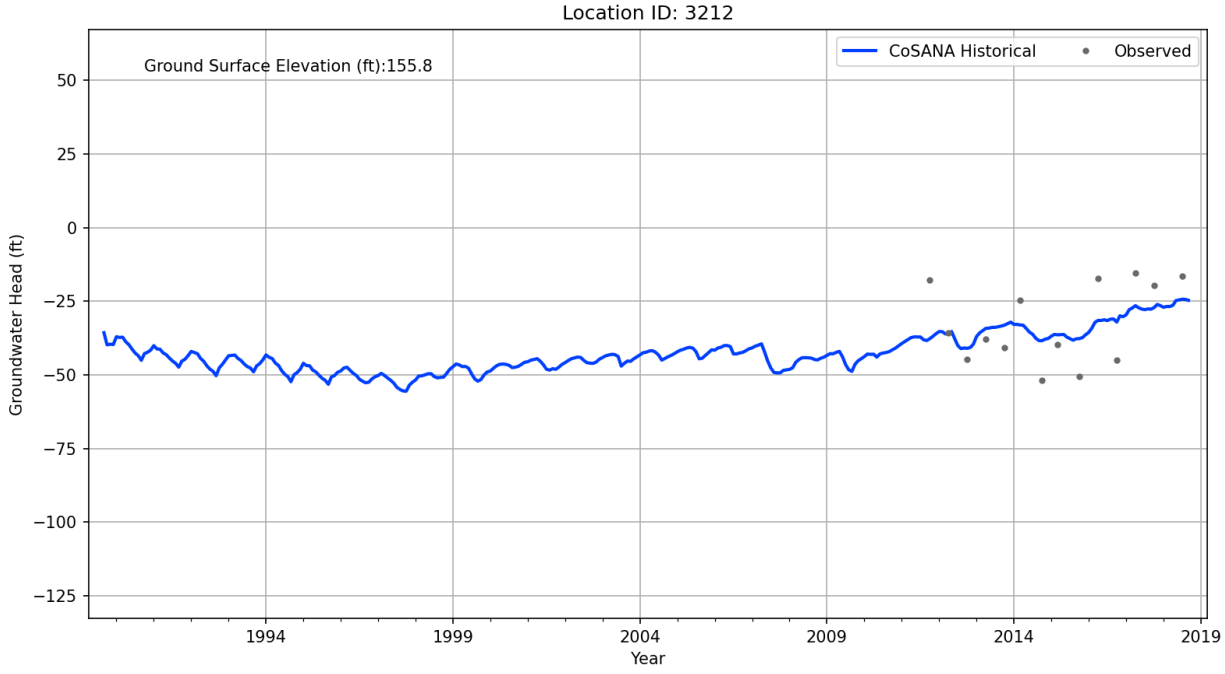

Location ID: 3206
Ground Surface Elevation (ft):174.13
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

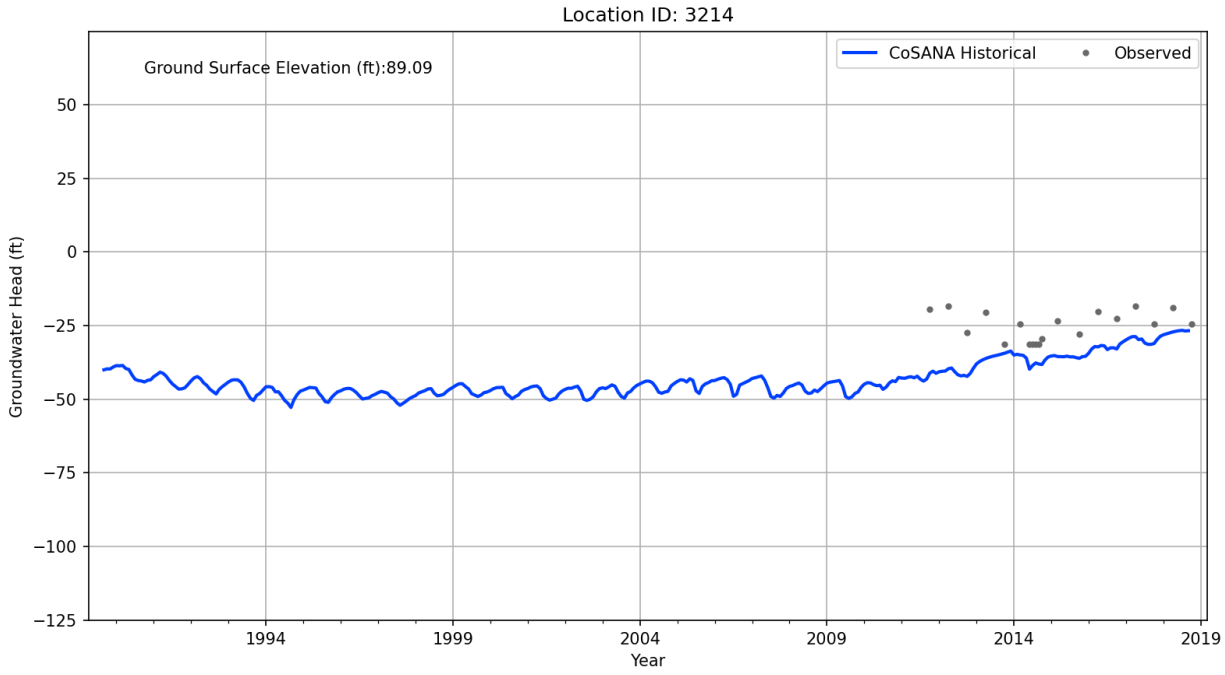

Location ID: 3208
Ground Surface Elevation (ft):147.44
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

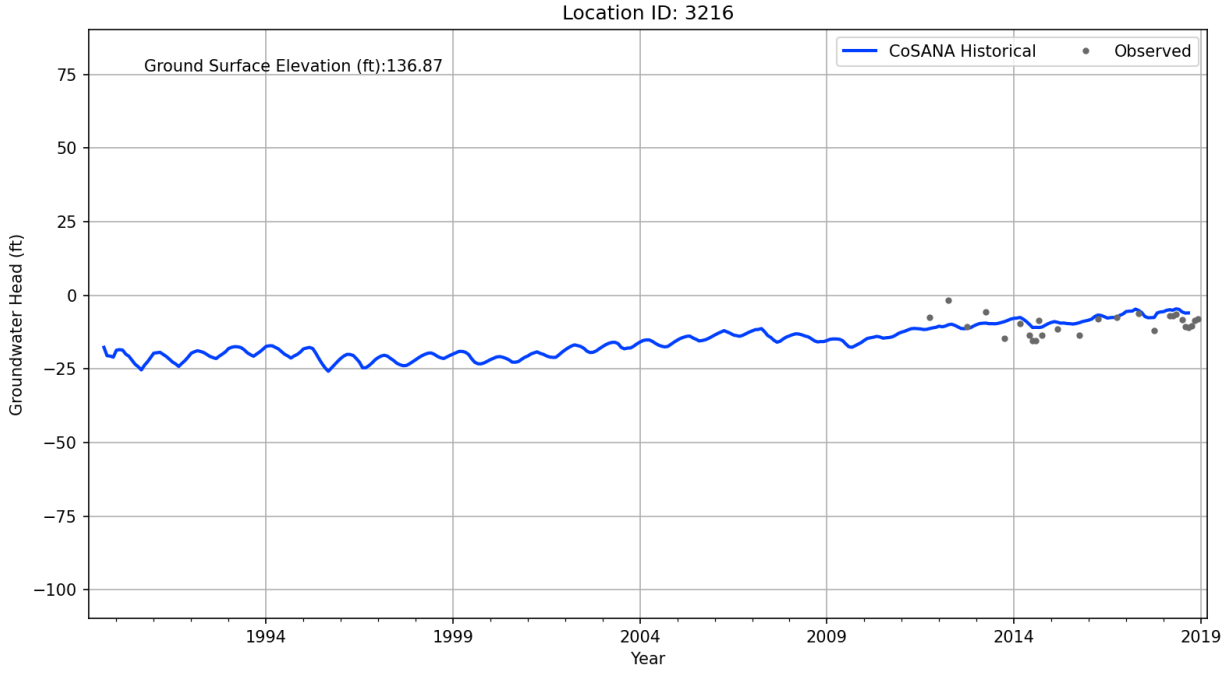

Location ID: 3209
Ground Surface Elevation (ft):155.8
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

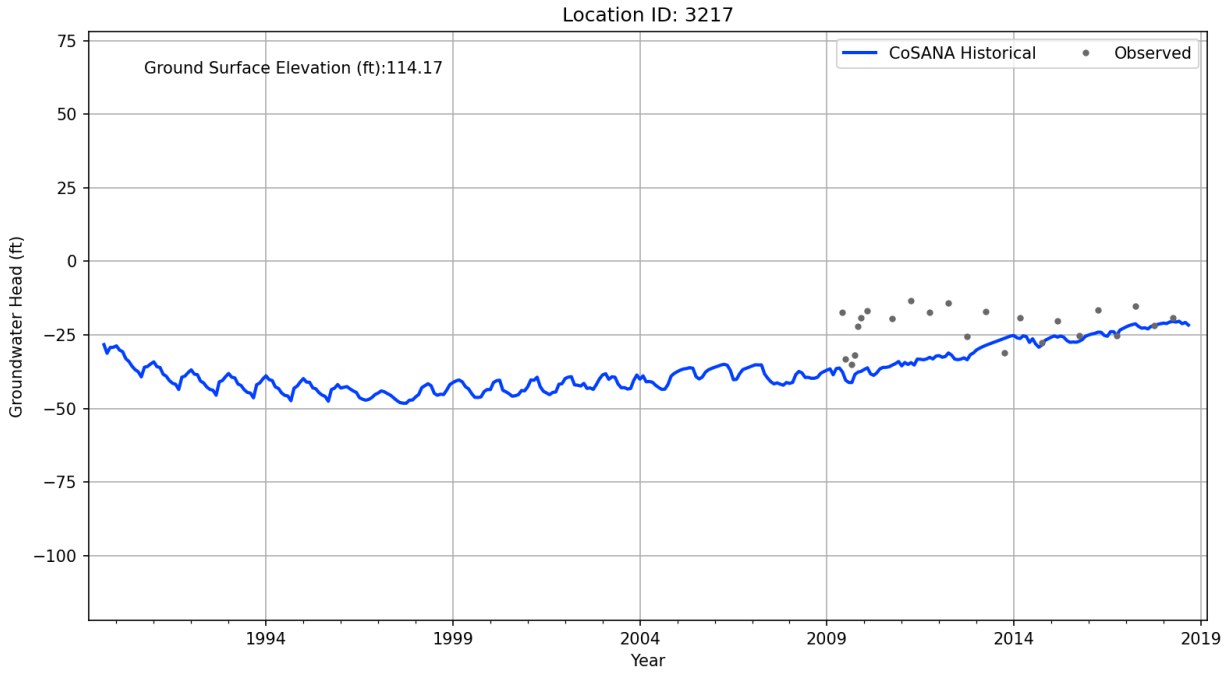

Location ID: 3210
Ground Surface Elevation (ft):155.8
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

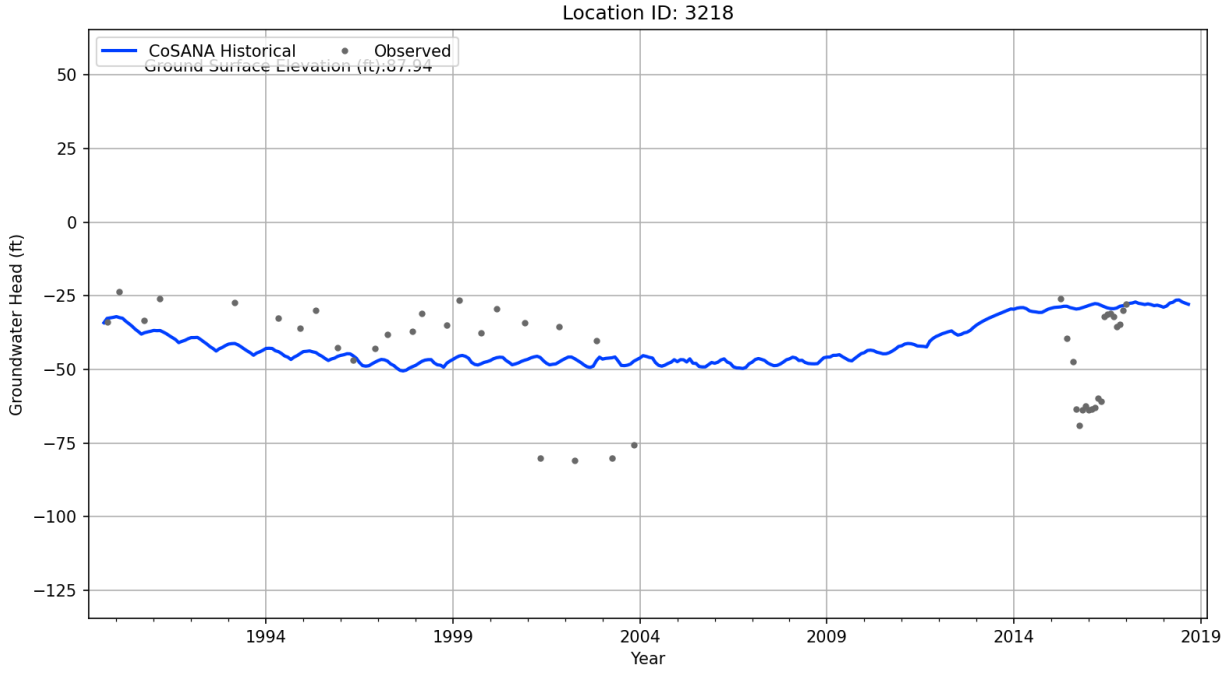

Location ID: 3211
Ground Surface Elevation (ft):155.8
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

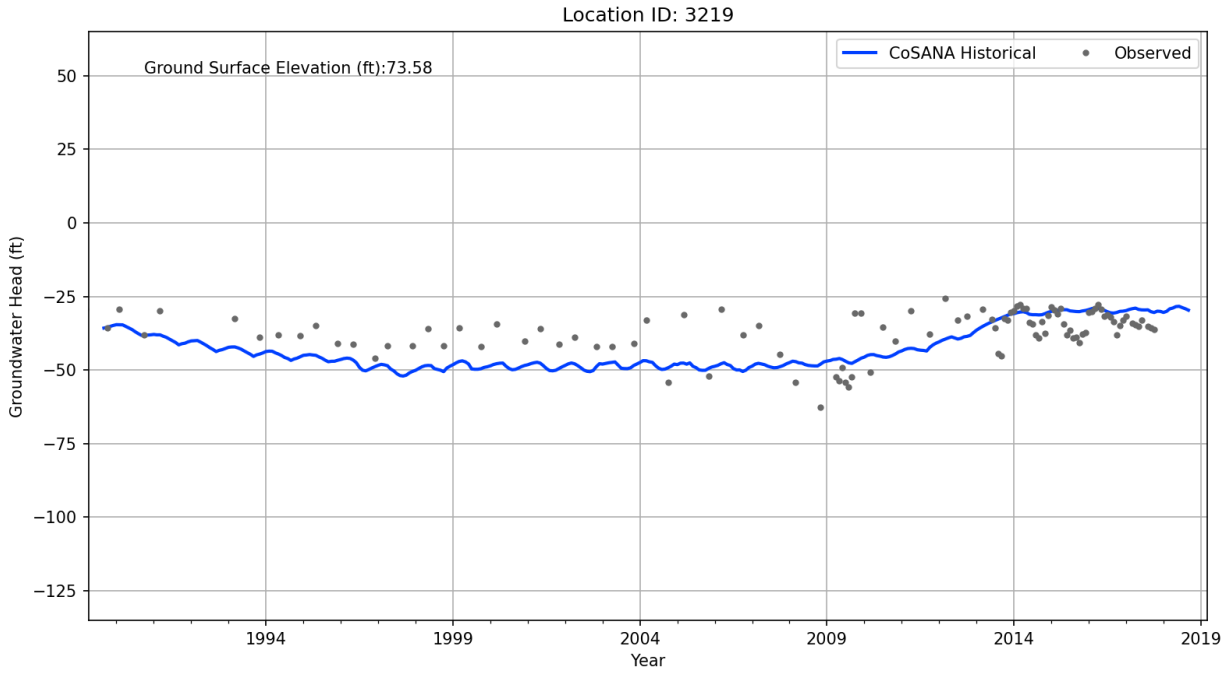

Location ID: 3212
Ground Surface Elevation (ft):155.8
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

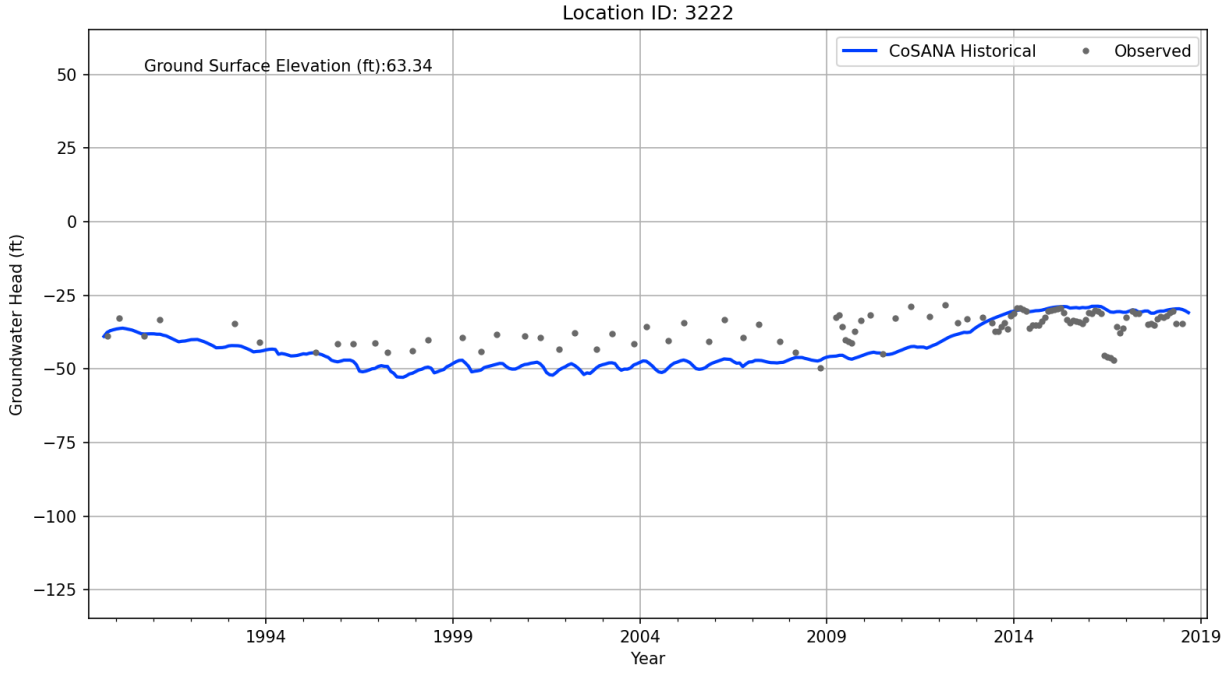

Location ID: 3214
Ground Surface Elevation (ft):89.09
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

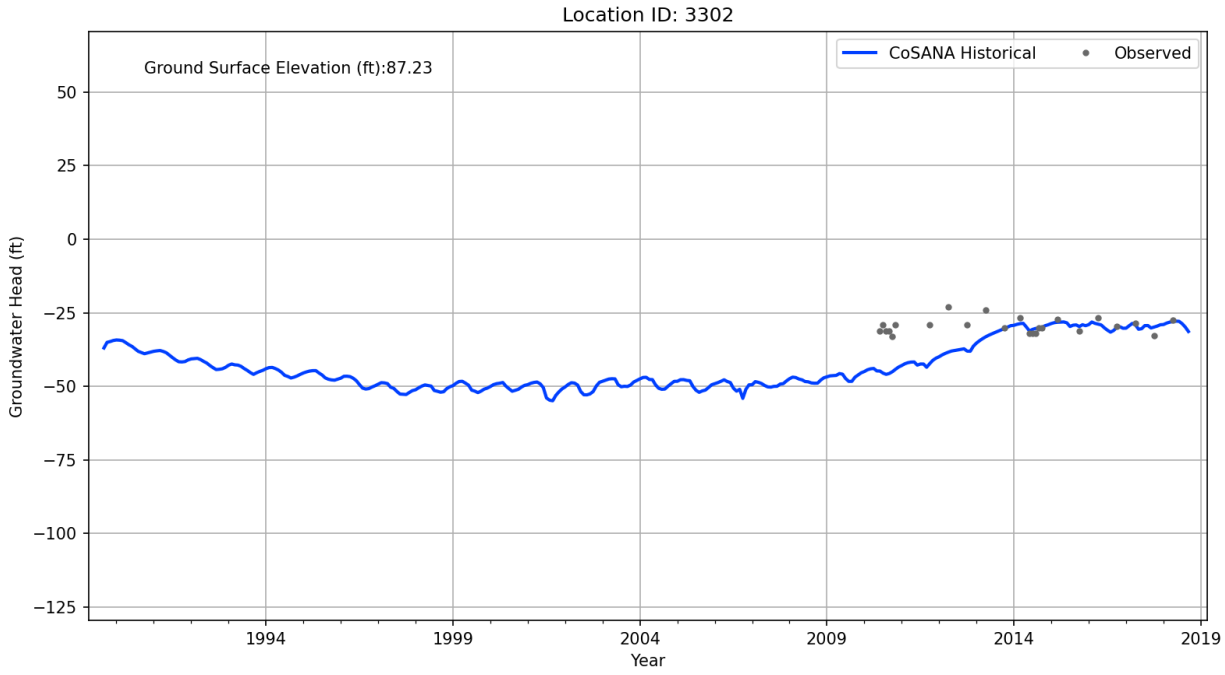

Location ID: 3216
Ground Surface Elevation (ft):136.87
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

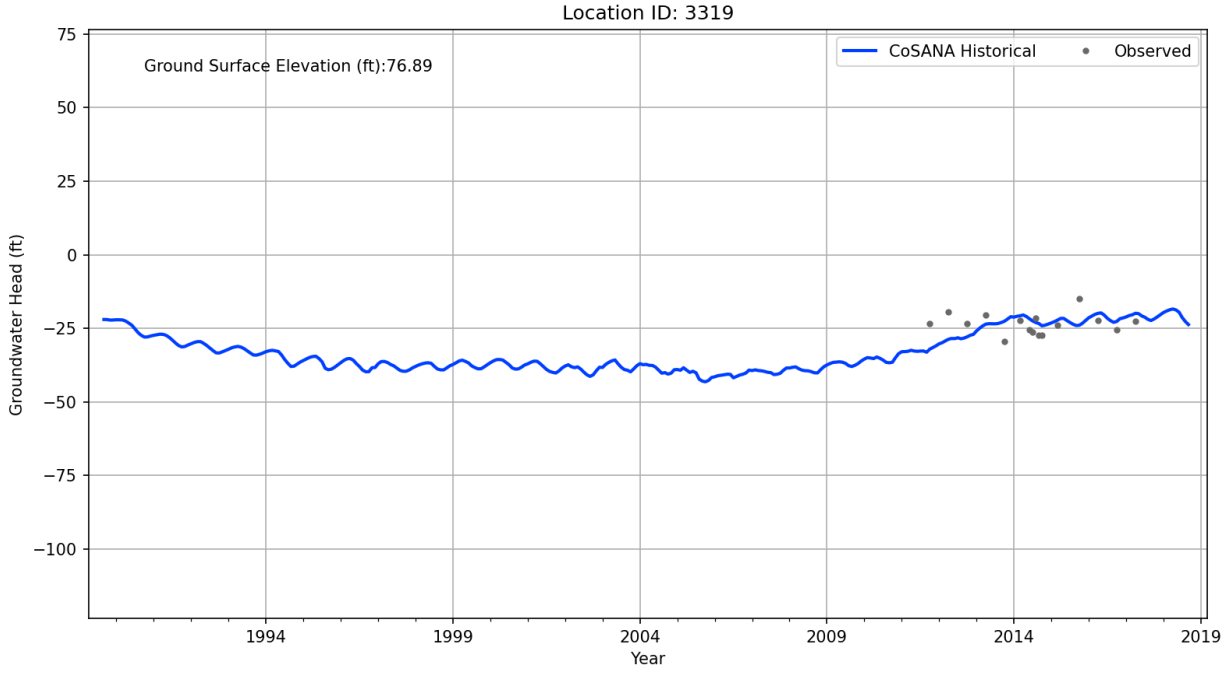

Location ID: 3217
Ground Surface Elevation (ft):114.17
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

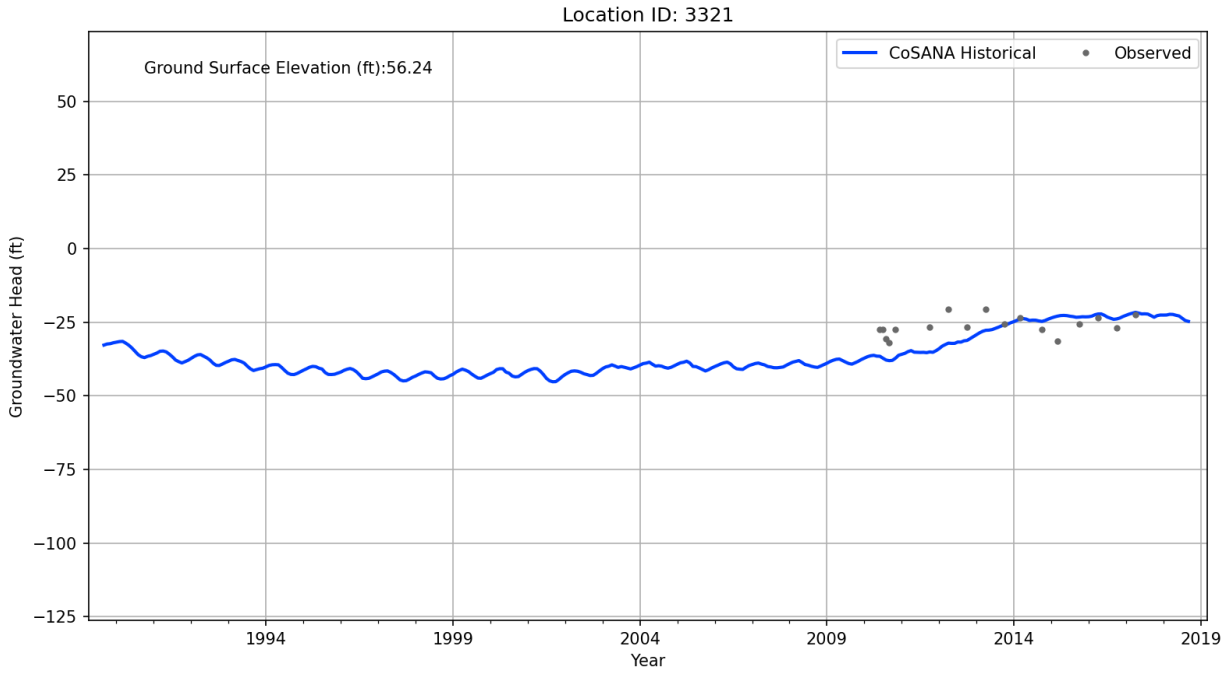

Location ID: 3218
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

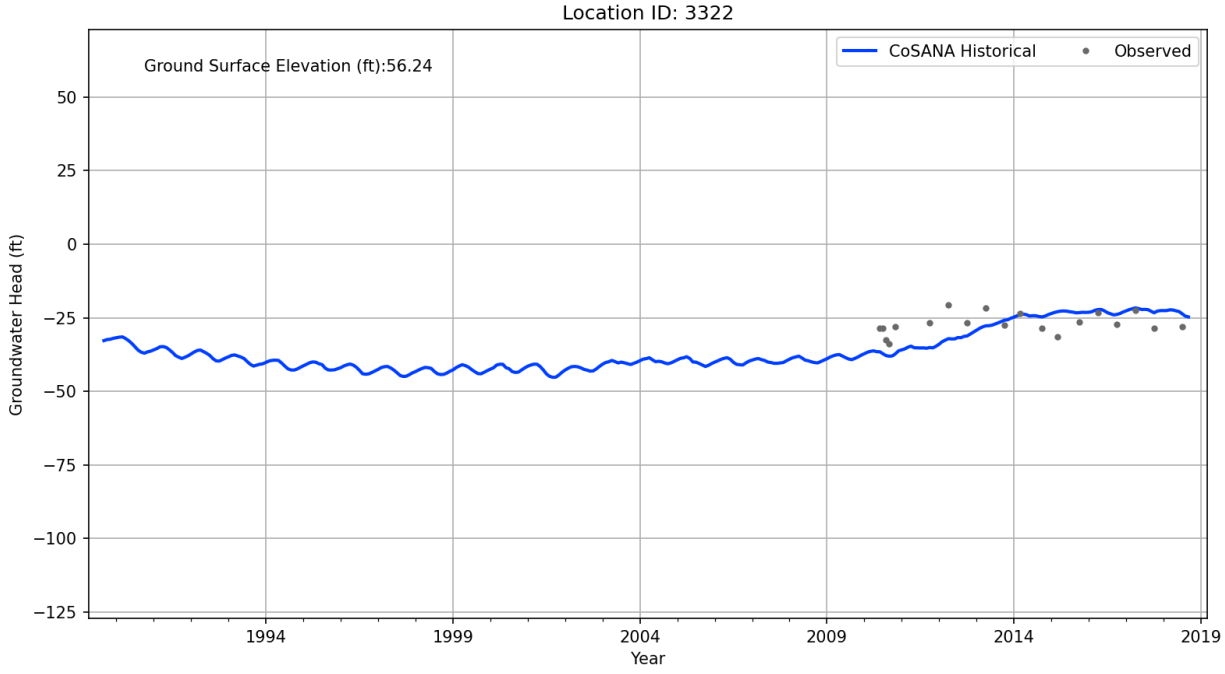

Location ID: 3219
Ground Surface Elevation (ft):73.58
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

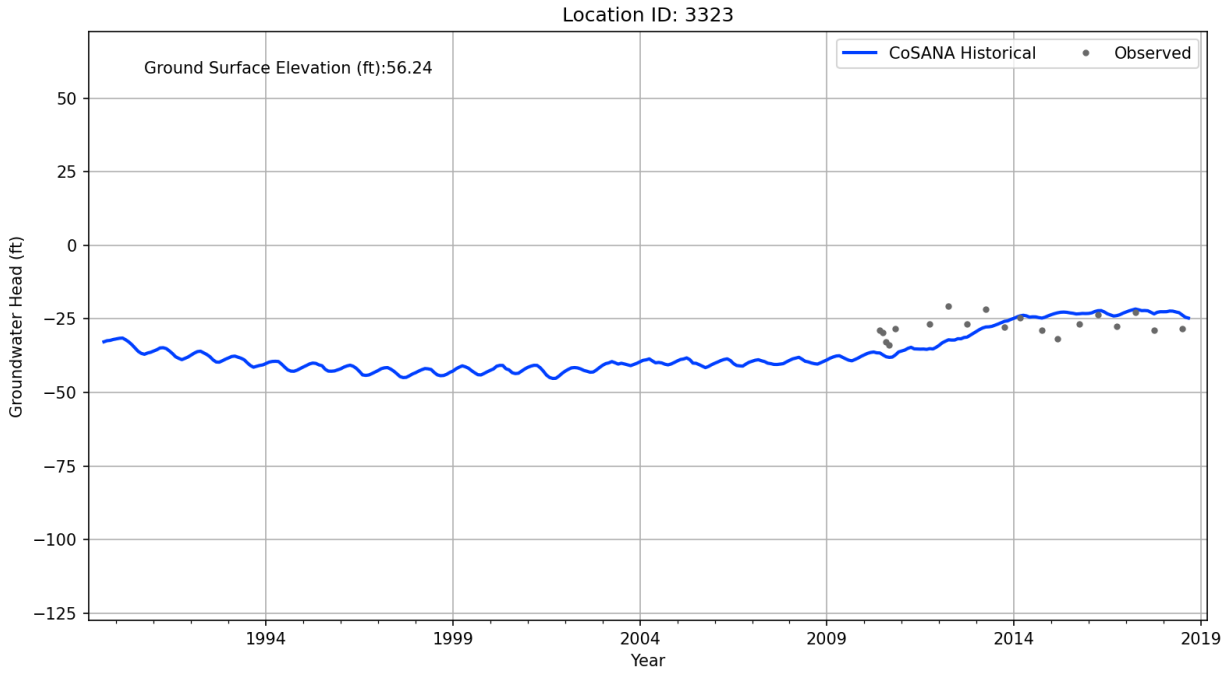

Location ID: 3222
Ground Surface Elevation (ft):63.34
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

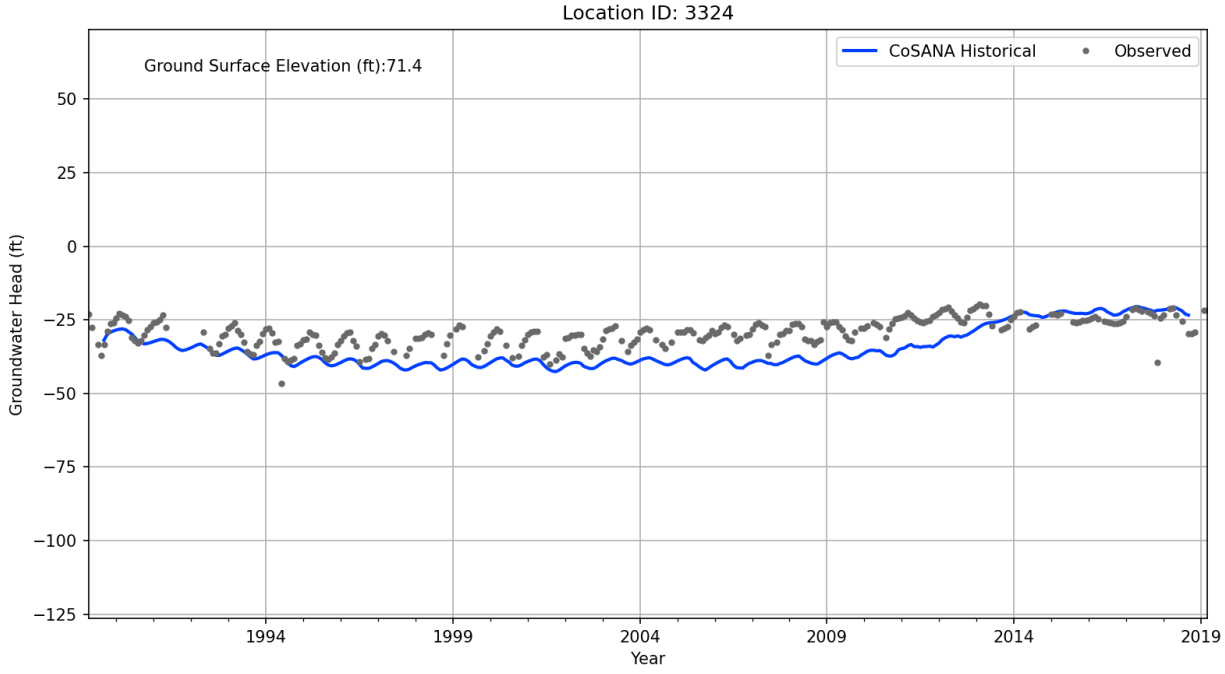

Location ID: 3302
Ground Surface Elevation (ft):87.23
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

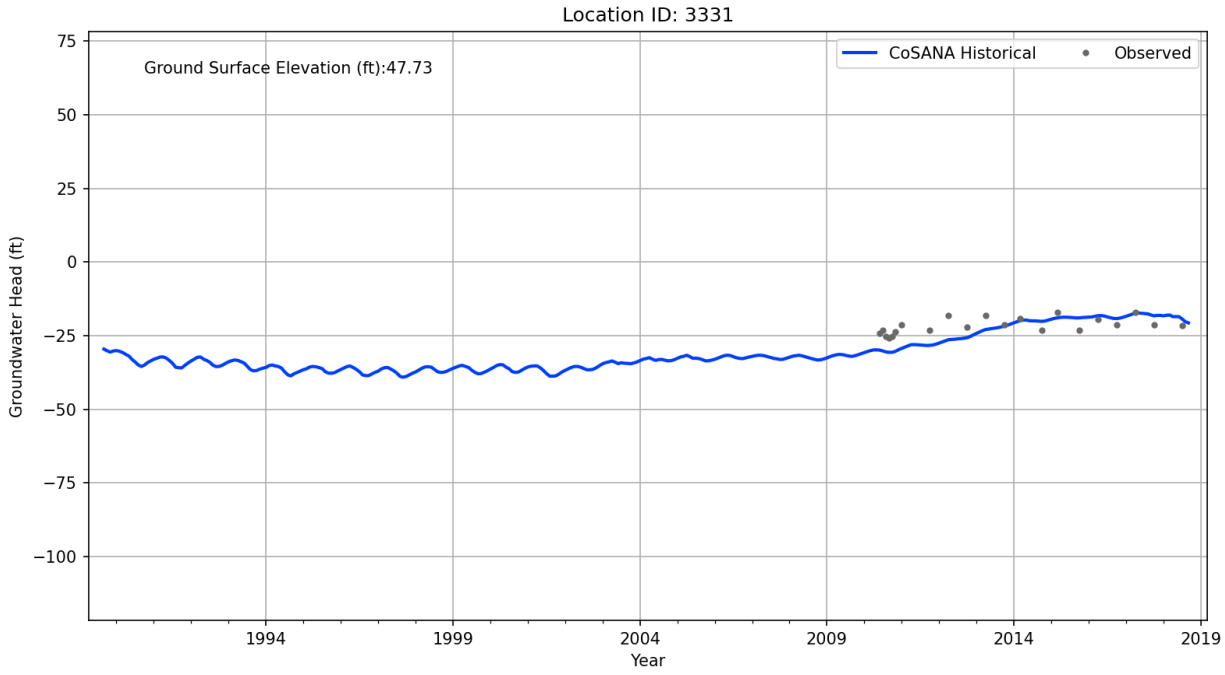

Location ID: 3319
Ground Surface Elevation (ft):76.89
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

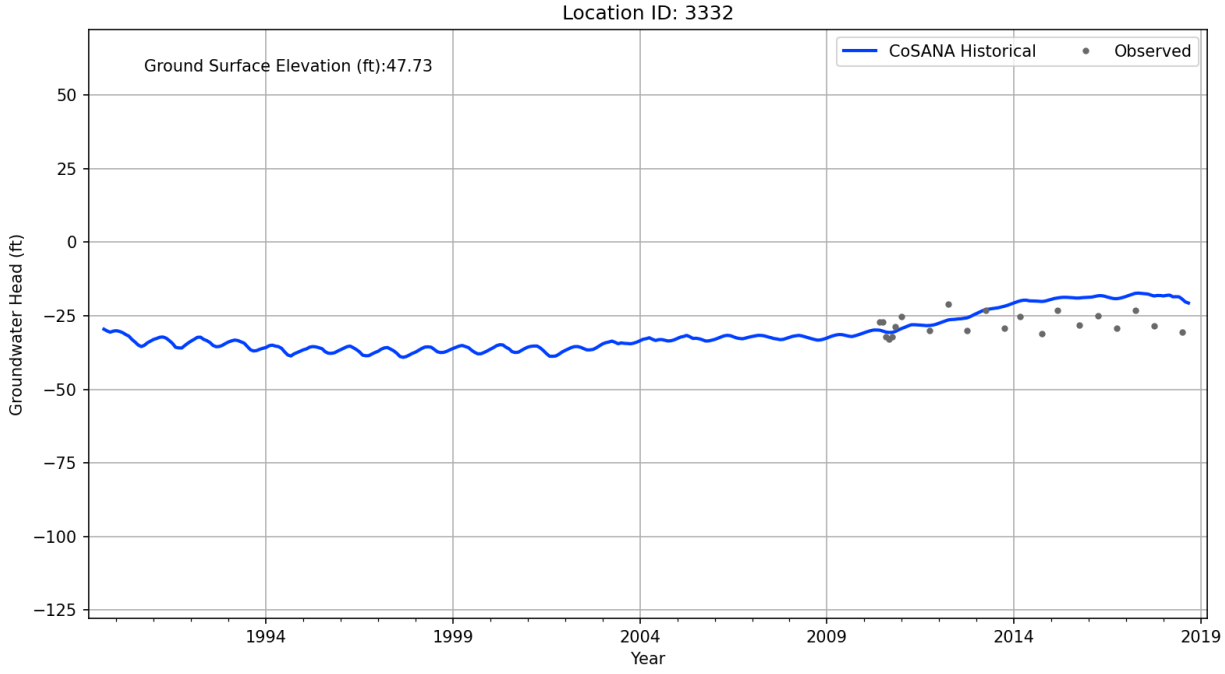

Location ID: 3321
Ground Surface Elevation (ft):56.24
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

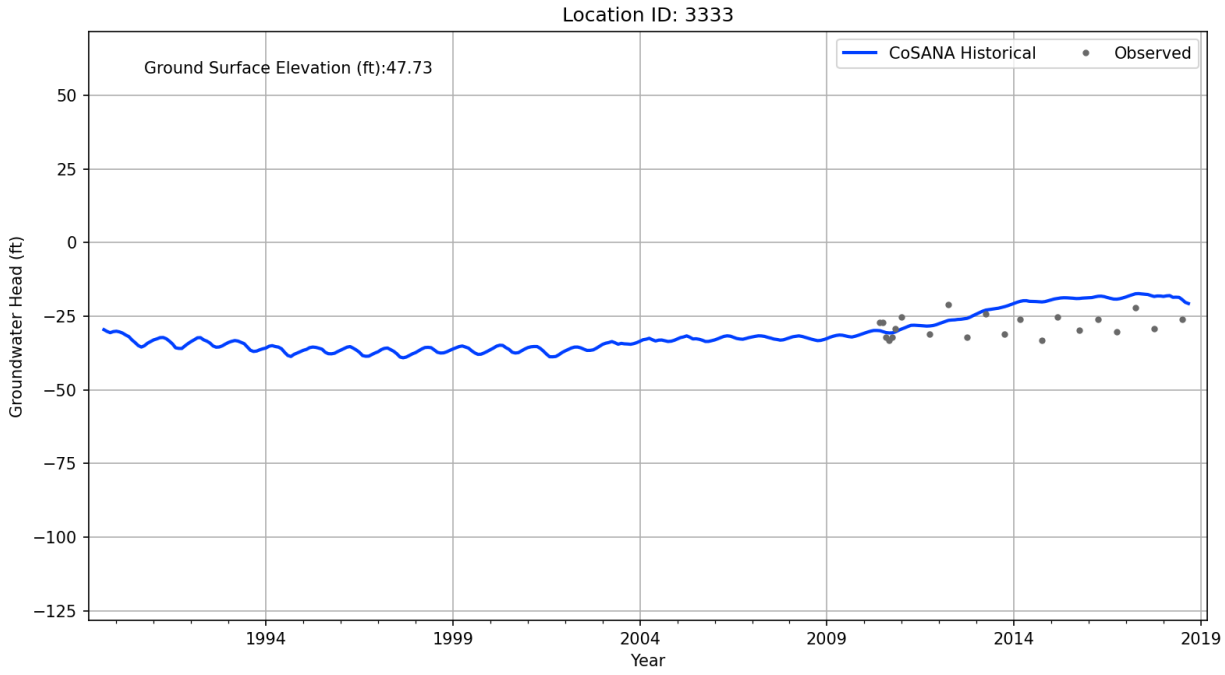

Location ID: 3322
Ground Surface Elevation (ft):56.24
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

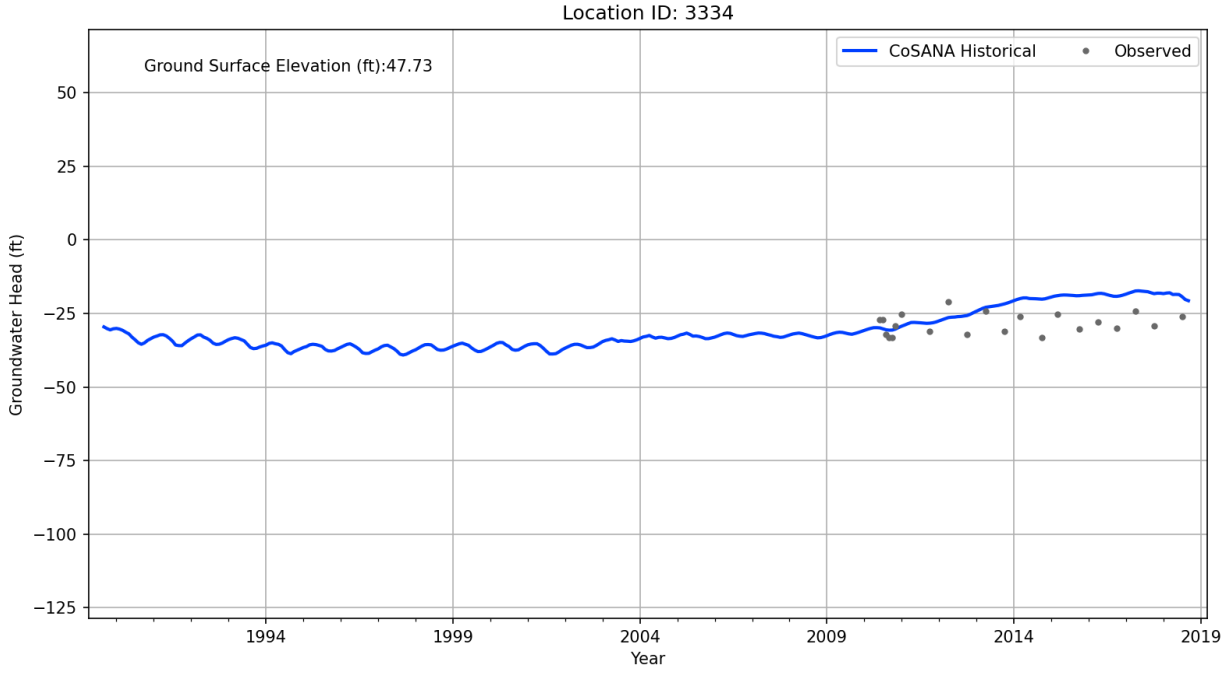

Location ID: 3323
Ground Surface Elevation (ft):56.24
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

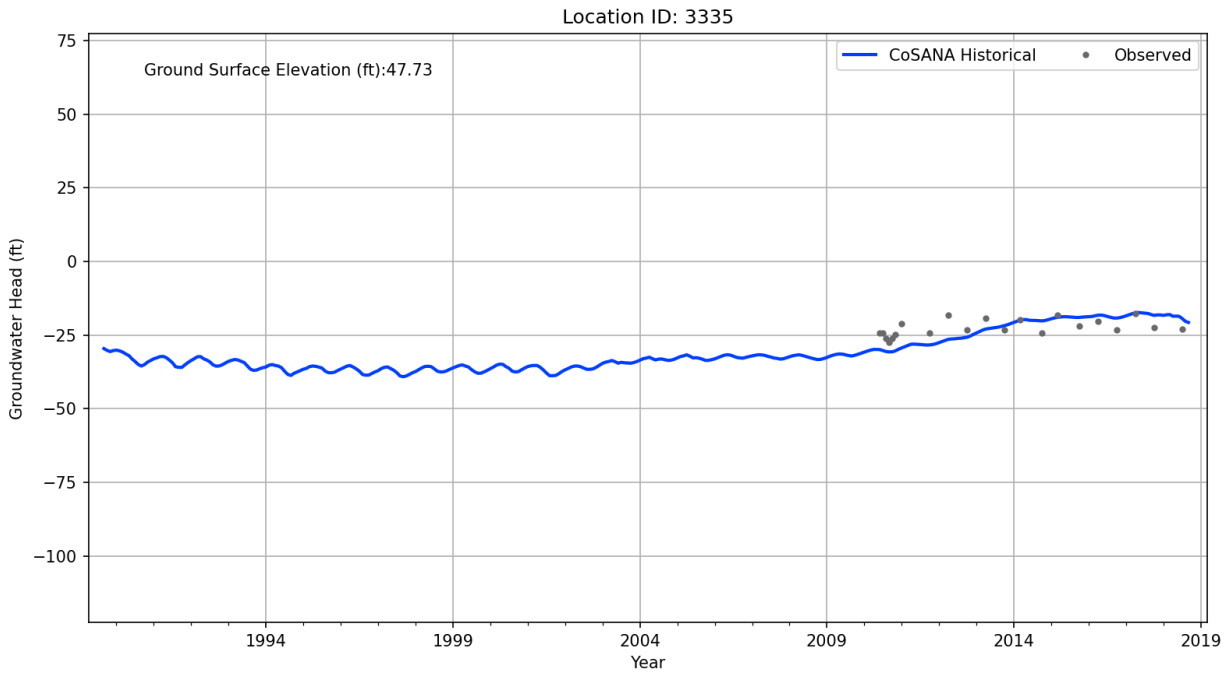

Location ID: 3324
Ground Surface Elevation (ft):71.4
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

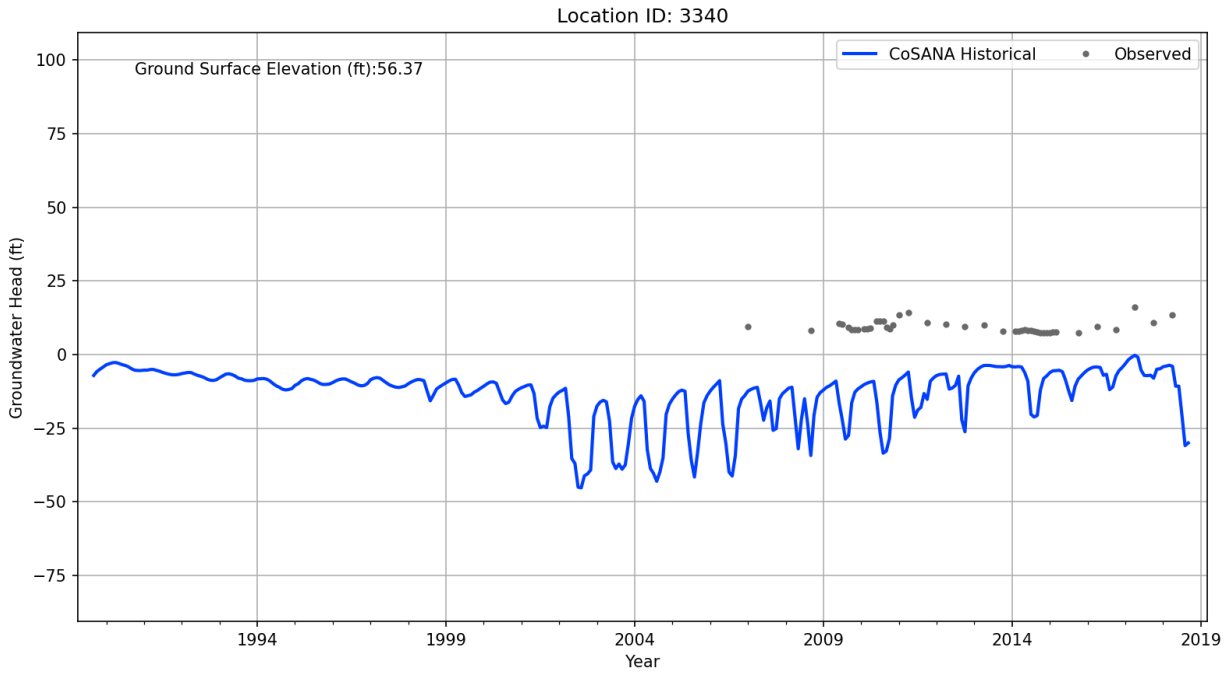

Location ID: 3331
Ground Surface Elevation (ft):47.73
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

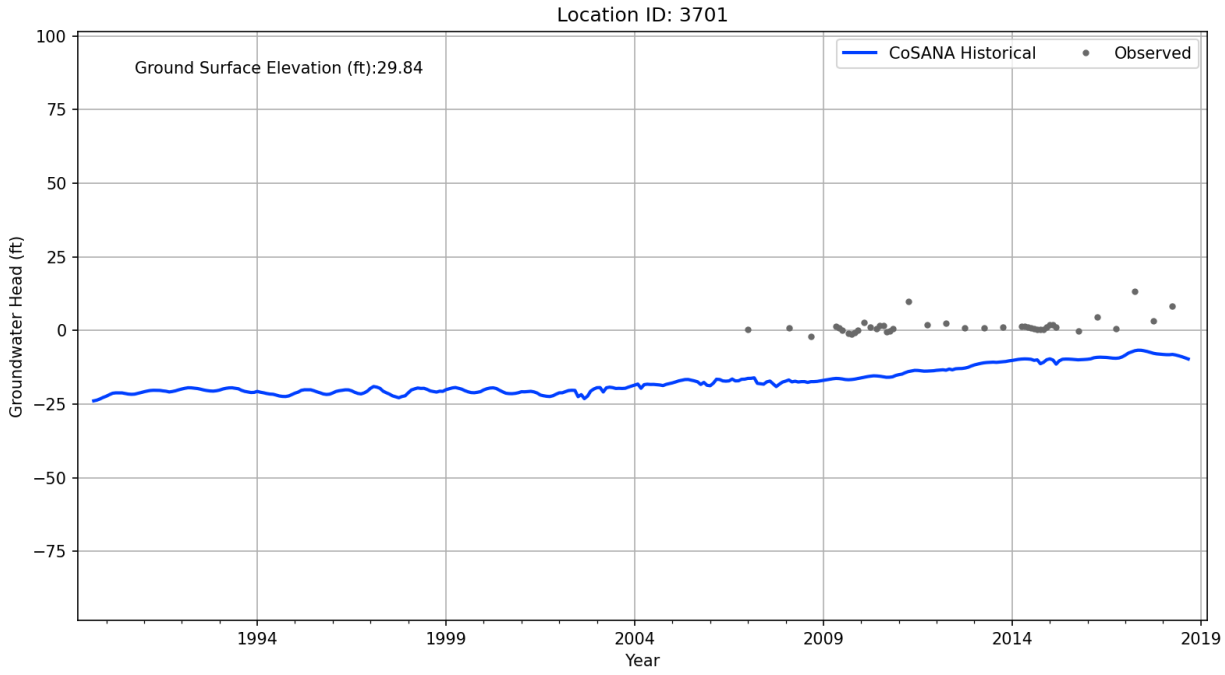

Location ID: 3332
Ground Surface Elevation (ft):47.73
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

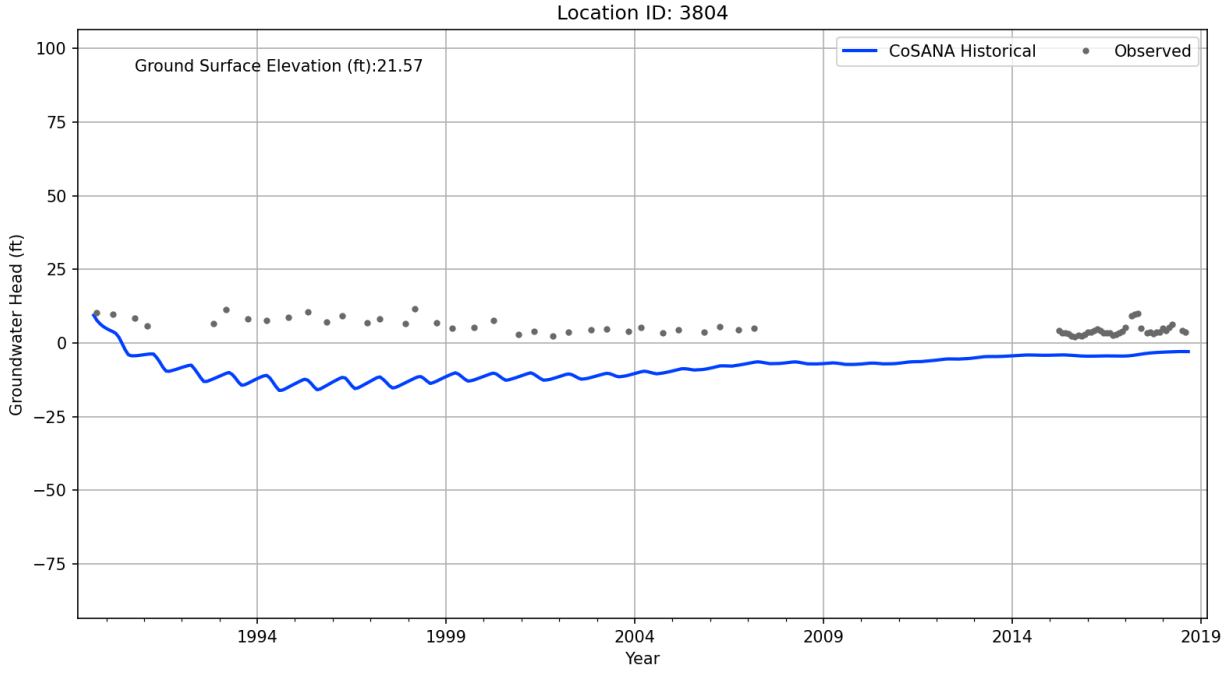

Location ID: 3333
Ground Surface Elevation (ft):47.73
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

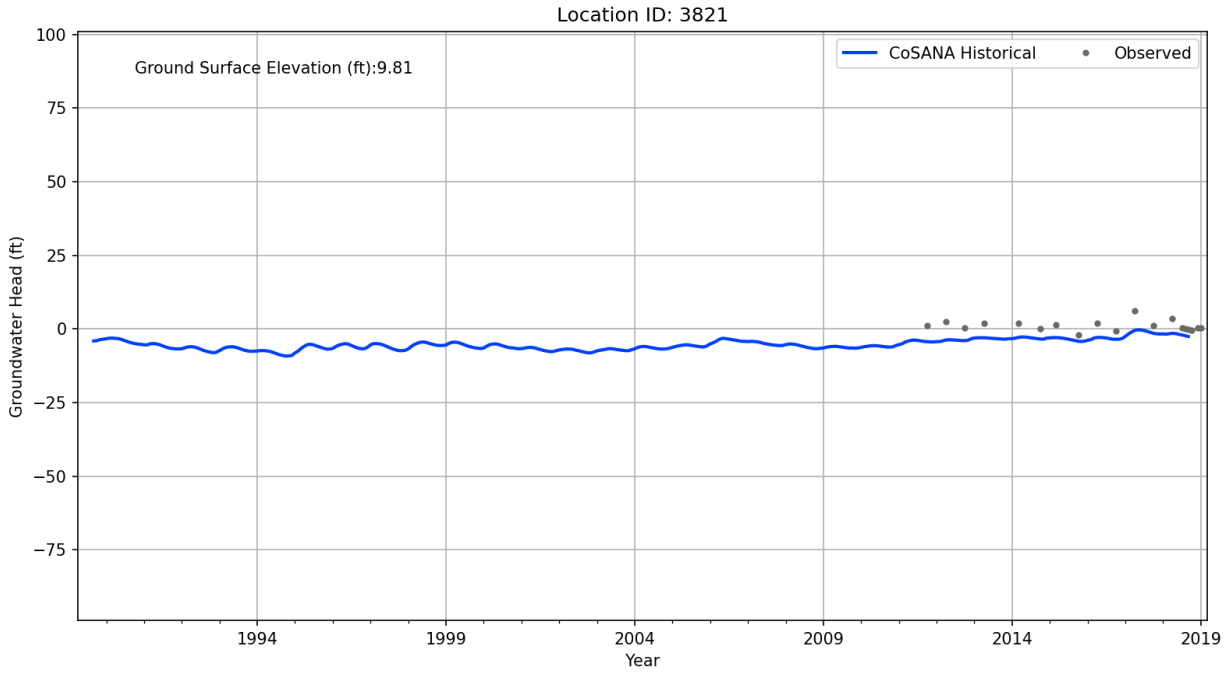

Location ID: 3334
Ground Surface Elevation (ft):47.73
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

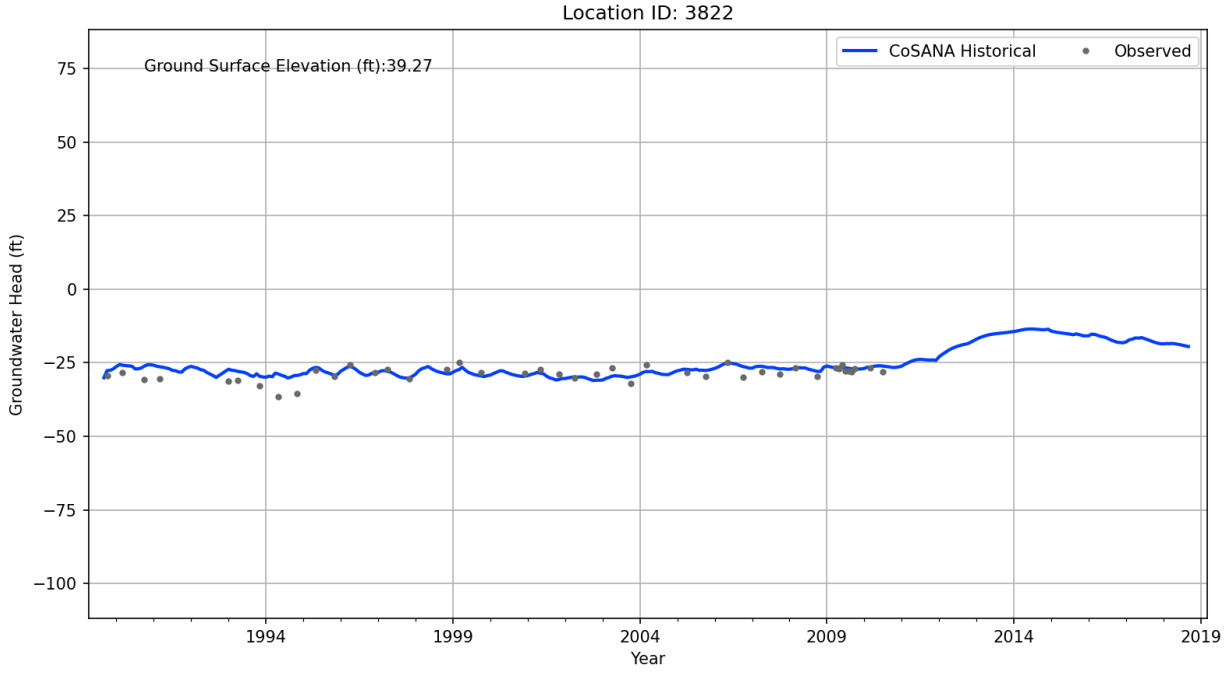

Location ID: 3335
Ground Surface Elevation (ft):47.73
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

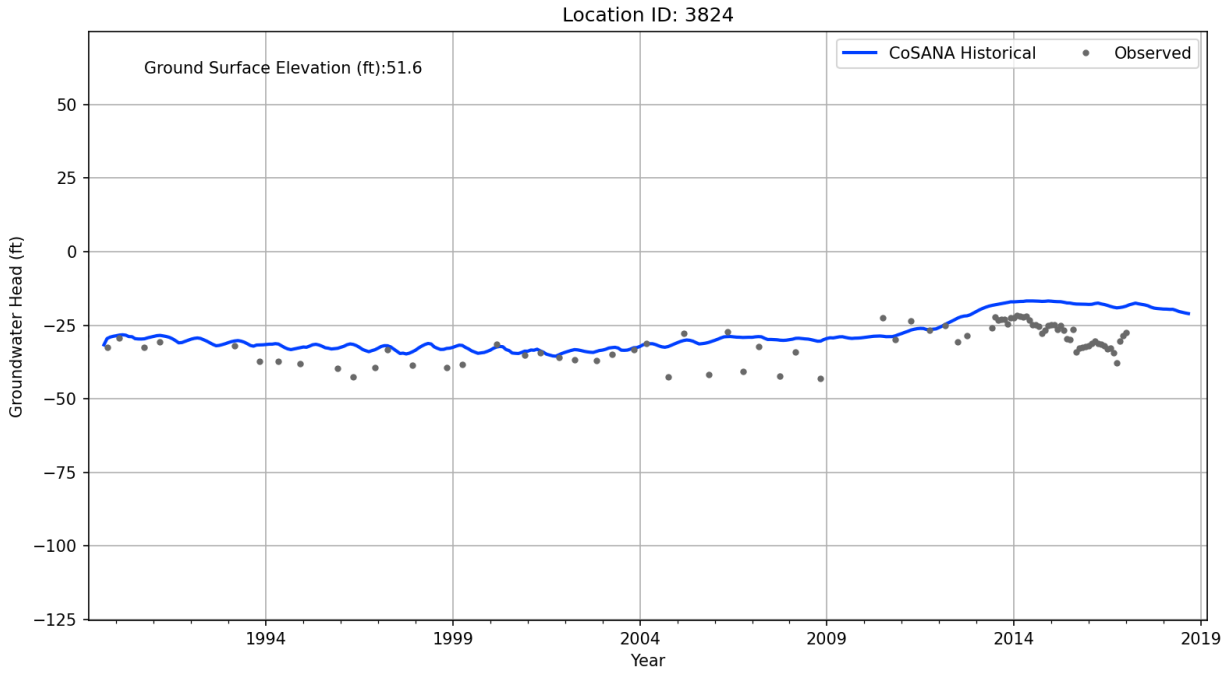

Location ID: 3340
Ground Surface Elevation (ft):56.37
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

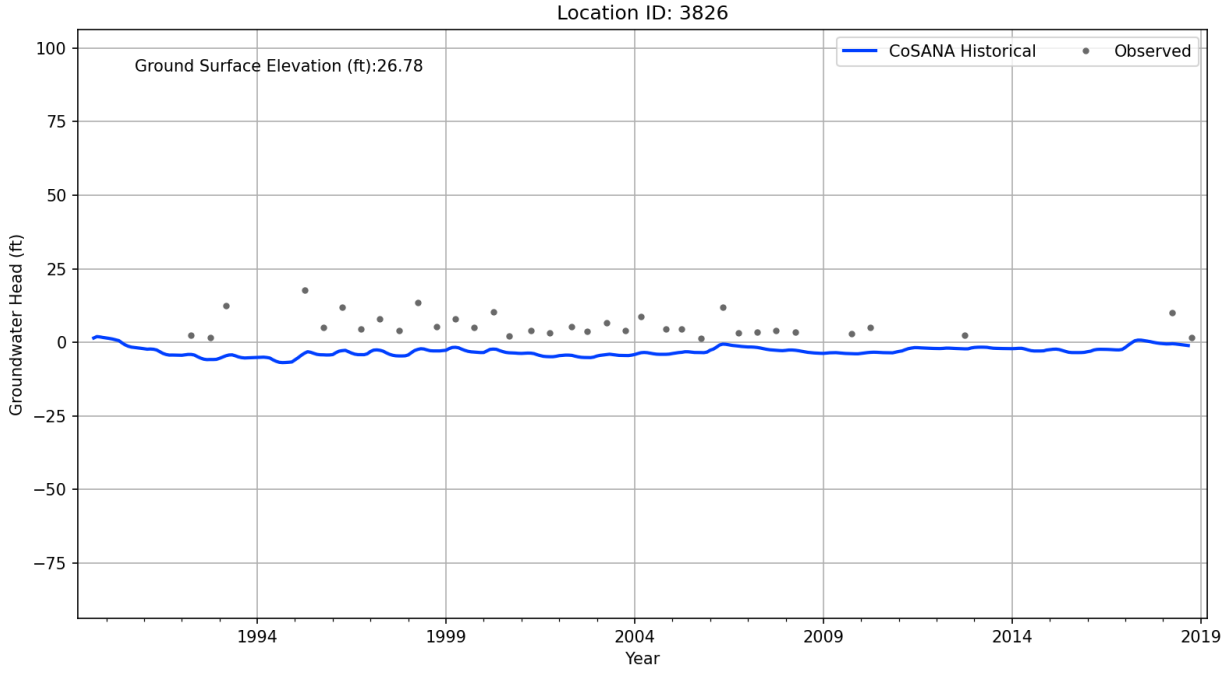

Location ID: 3701
Ground Surface Elevation (ft):29.84
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

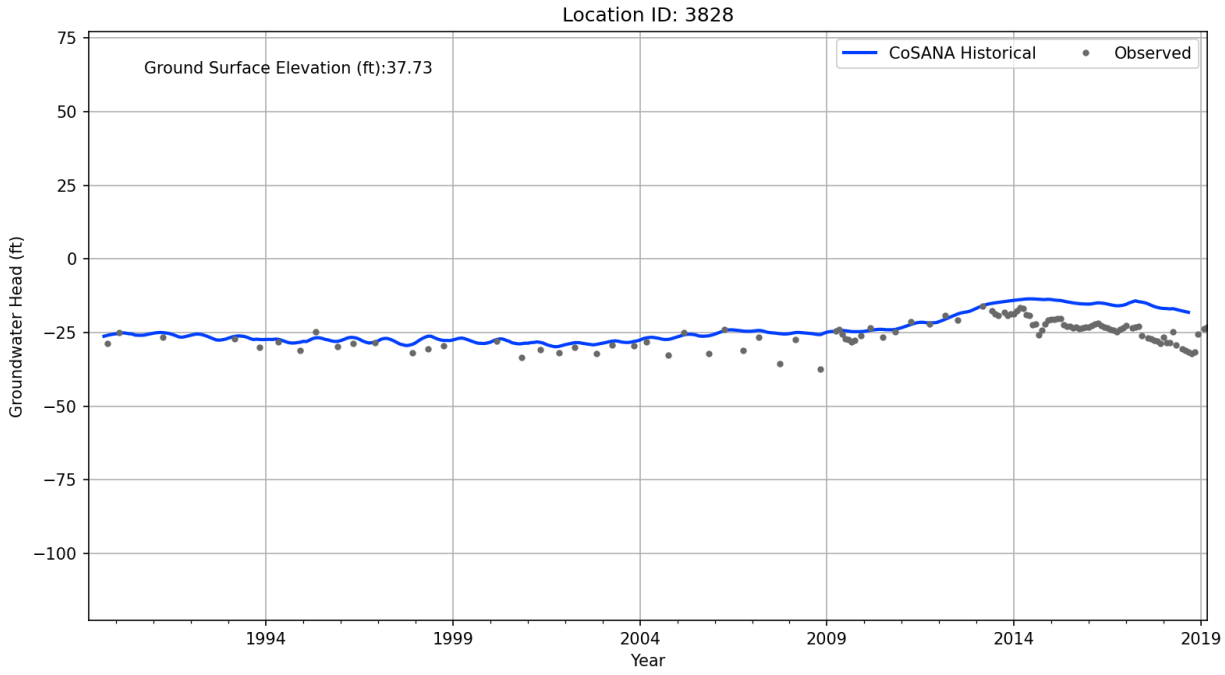

Location ID: 3804
Ground Surface Elevation (ft):21.57
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

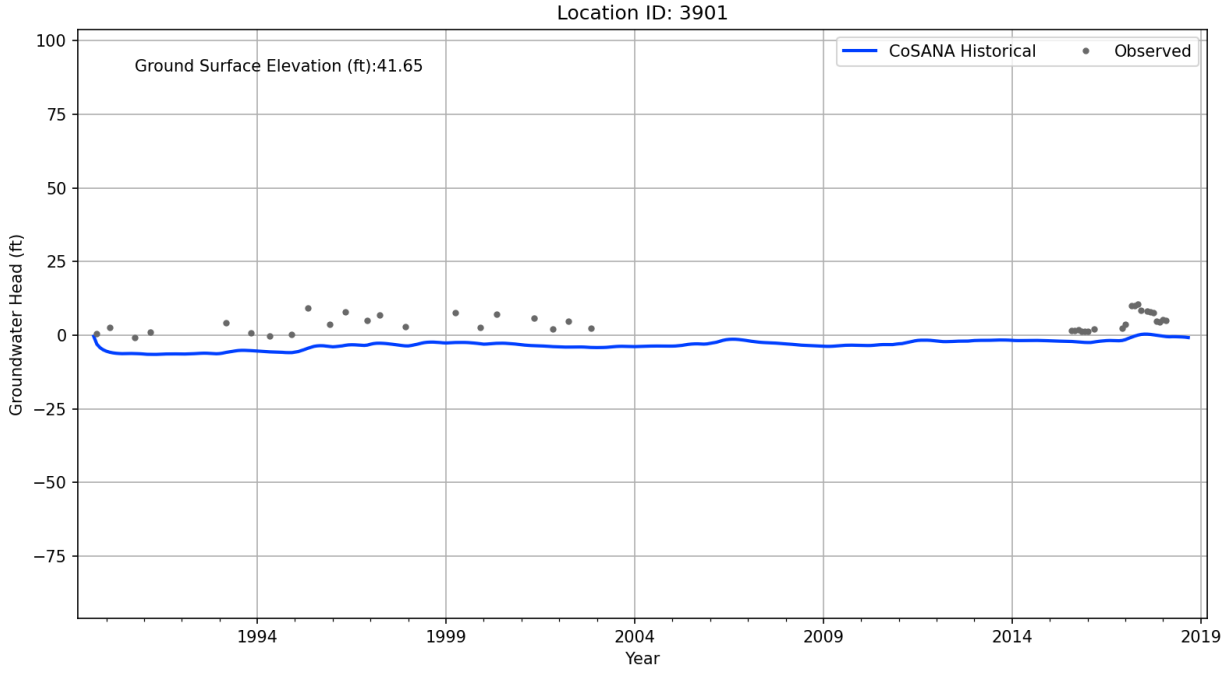

Location ID: 3821
Ground Surface Elevation (ft):9.81
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

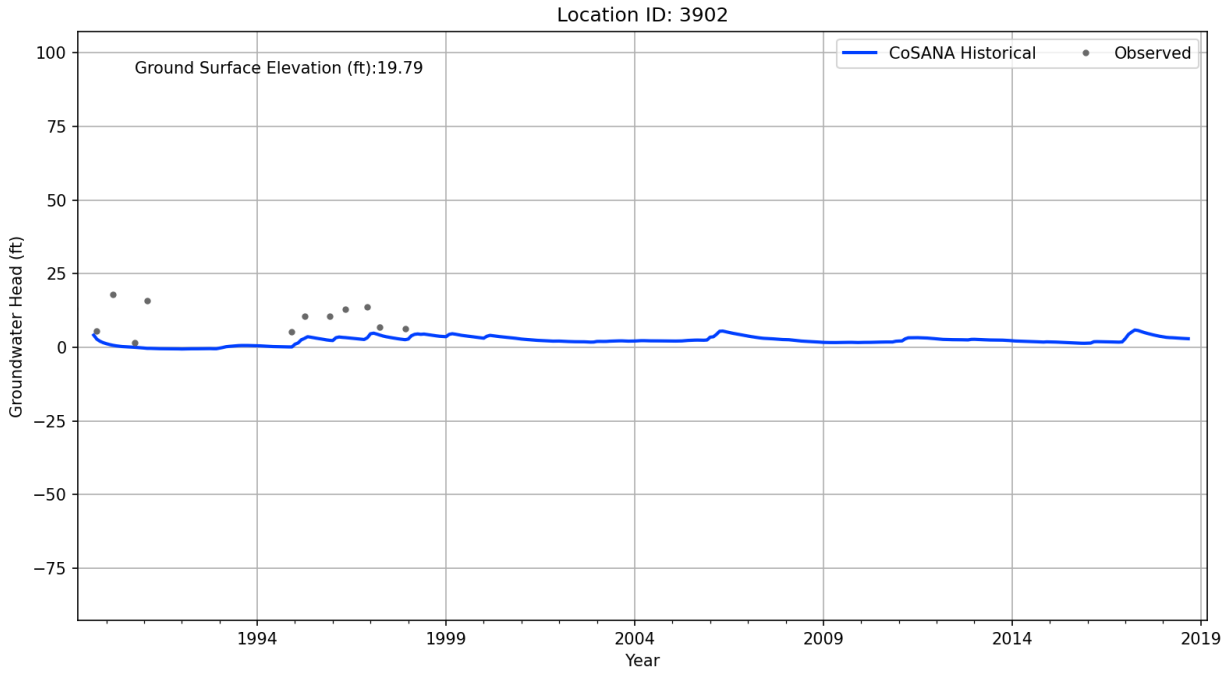

Location ID: 3822
Ground Surface Elevation (ft):39.27
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

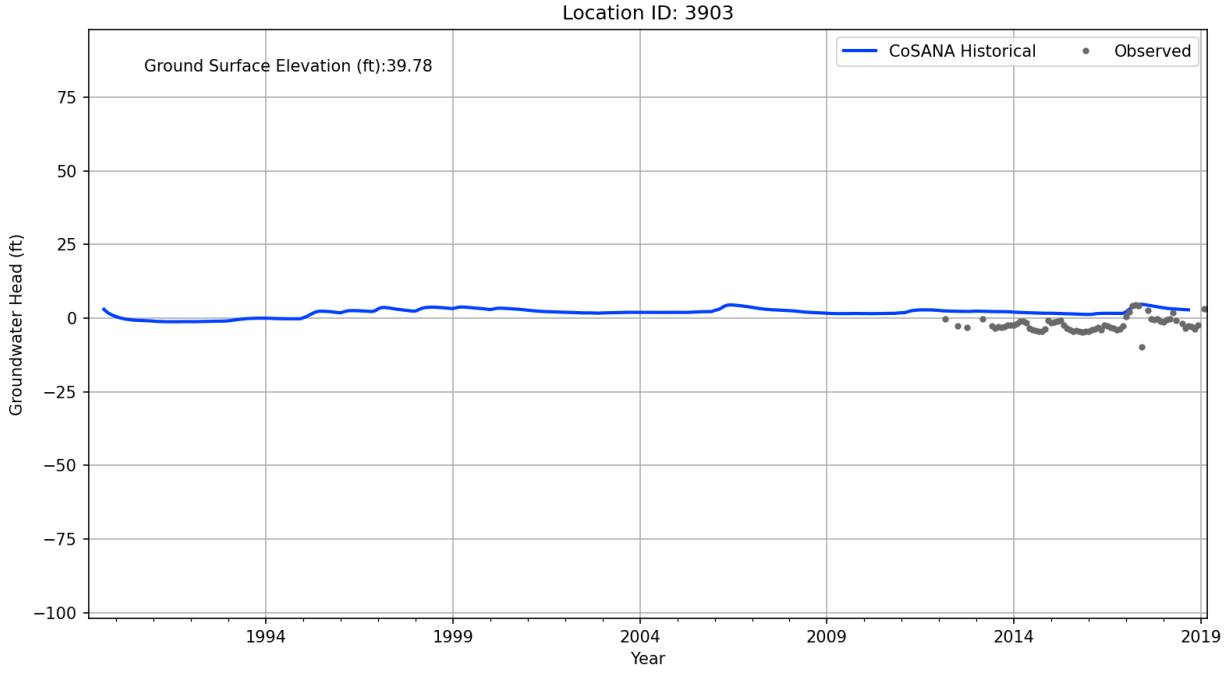

Location ID: 3824
Ground Surface Elevation (ft):51.6
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

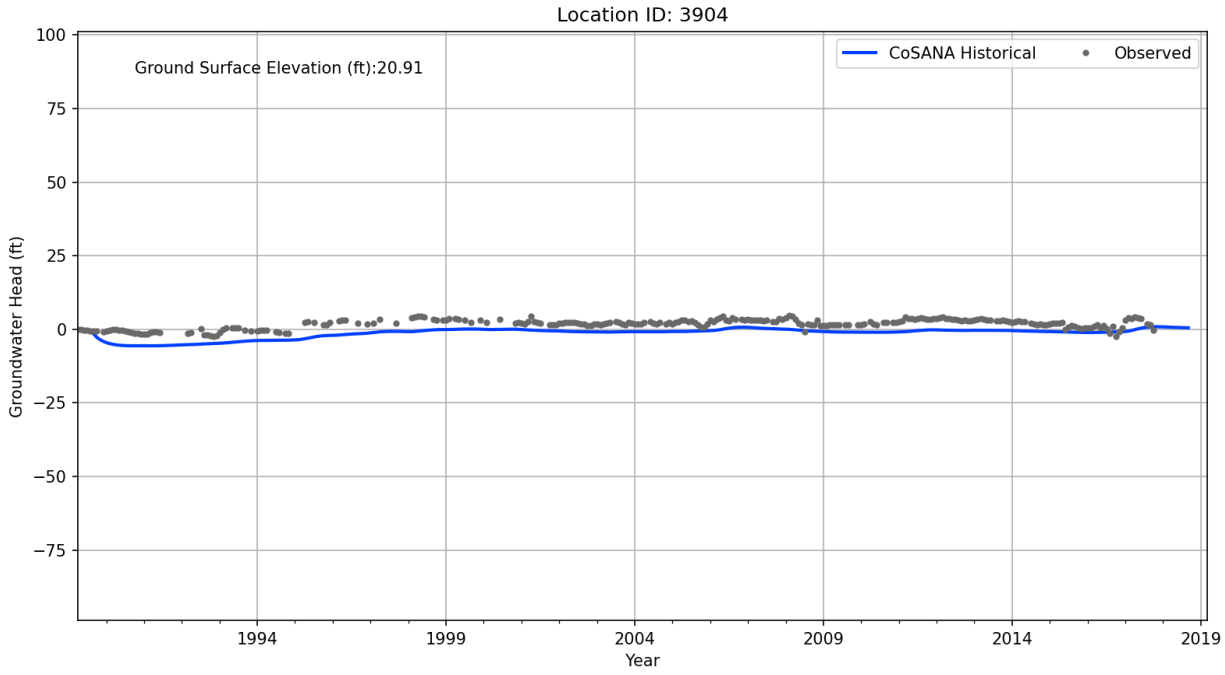

Location ID: 3826
Ground Surface Elevation (ft):26.78
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

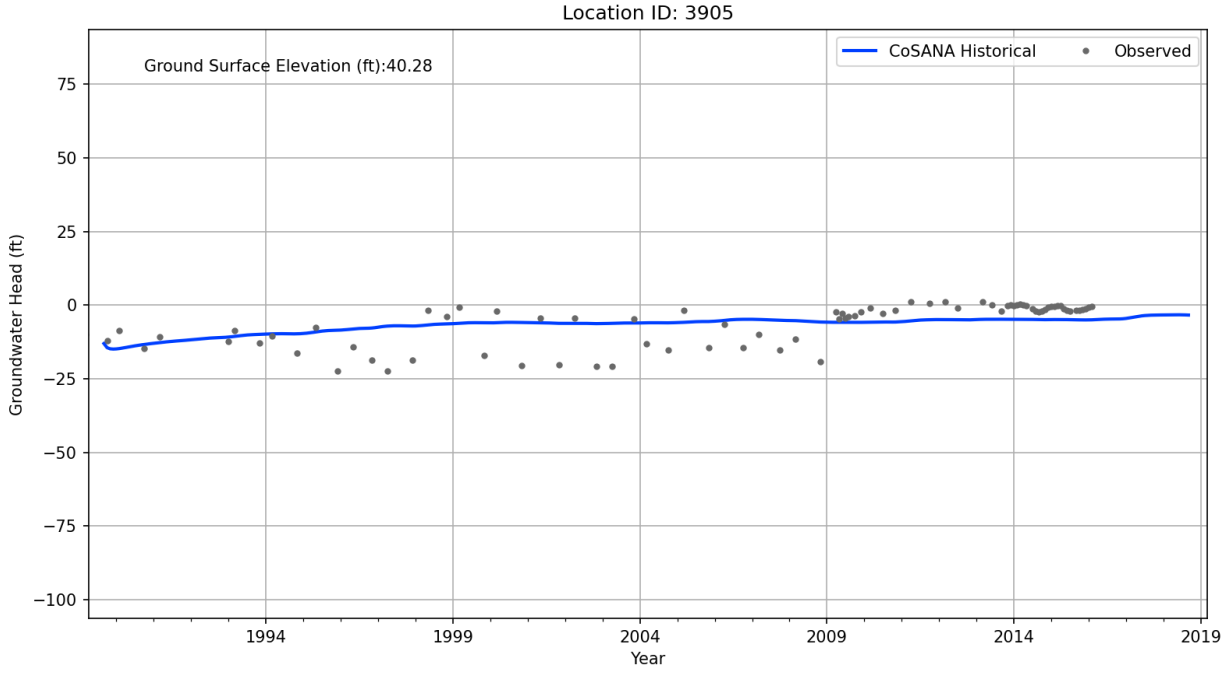

Location ID: 3828
Ground Surface Elevation (ft):37.73
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

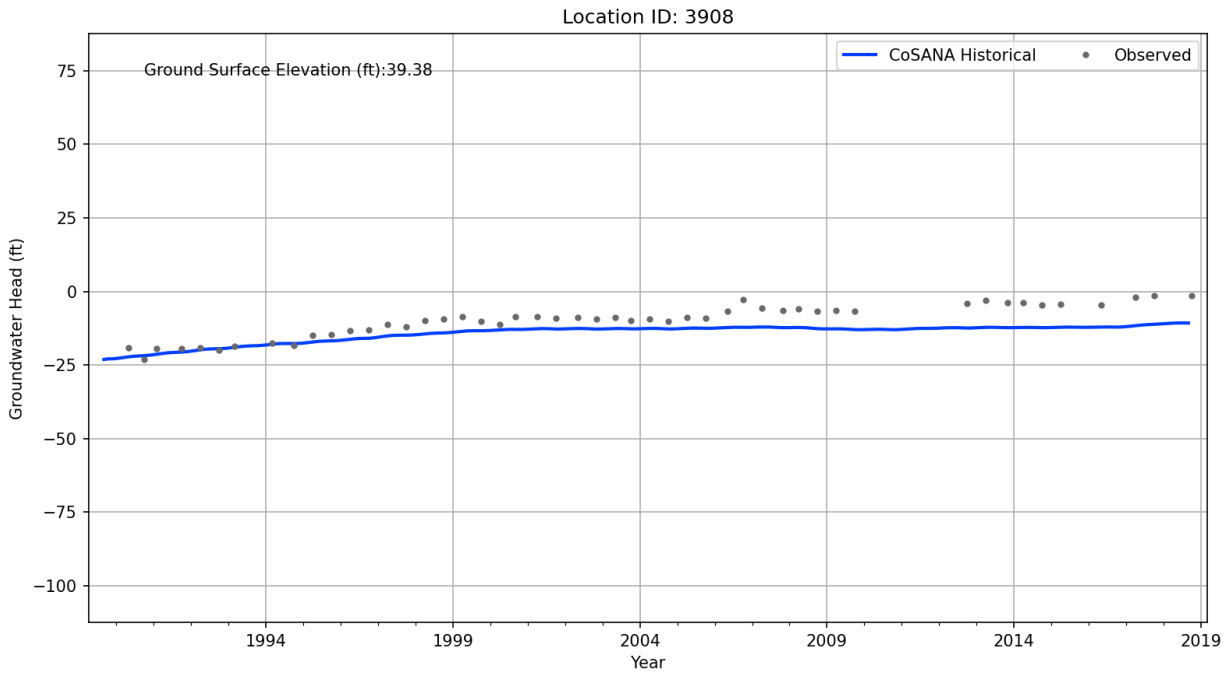

Location ID: 3901
Ground Surface Elevation (ft):41.65
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

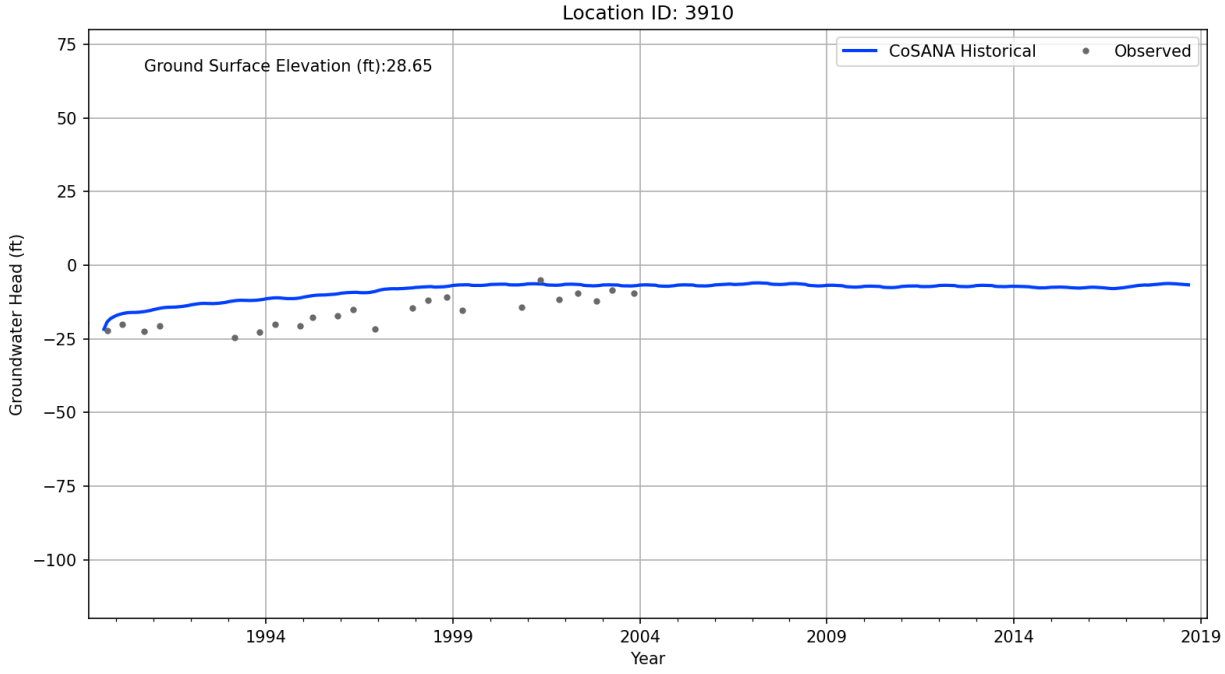

Location ID: 3902
Ground Surface Elevation (ft):19.79
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

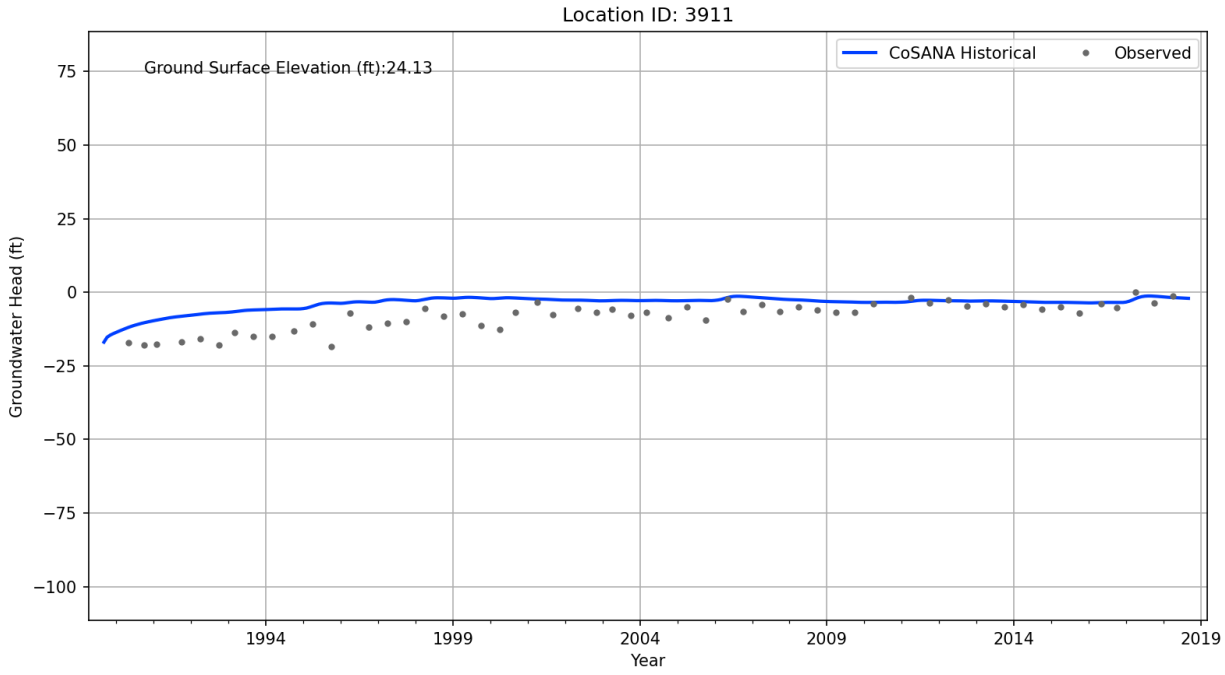

Location ID: 3903
Ground Surface Elevation (ft):39.78
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

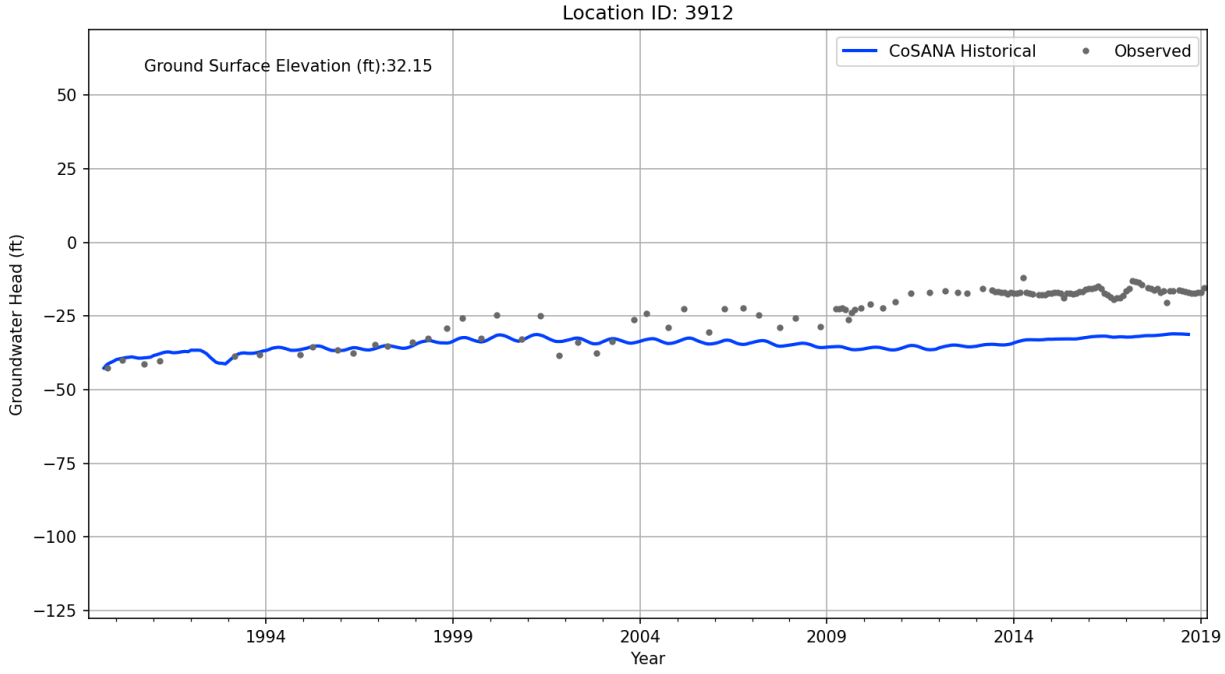

Location ID: 3904
Ground Surface Elevation (ft):20.91
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

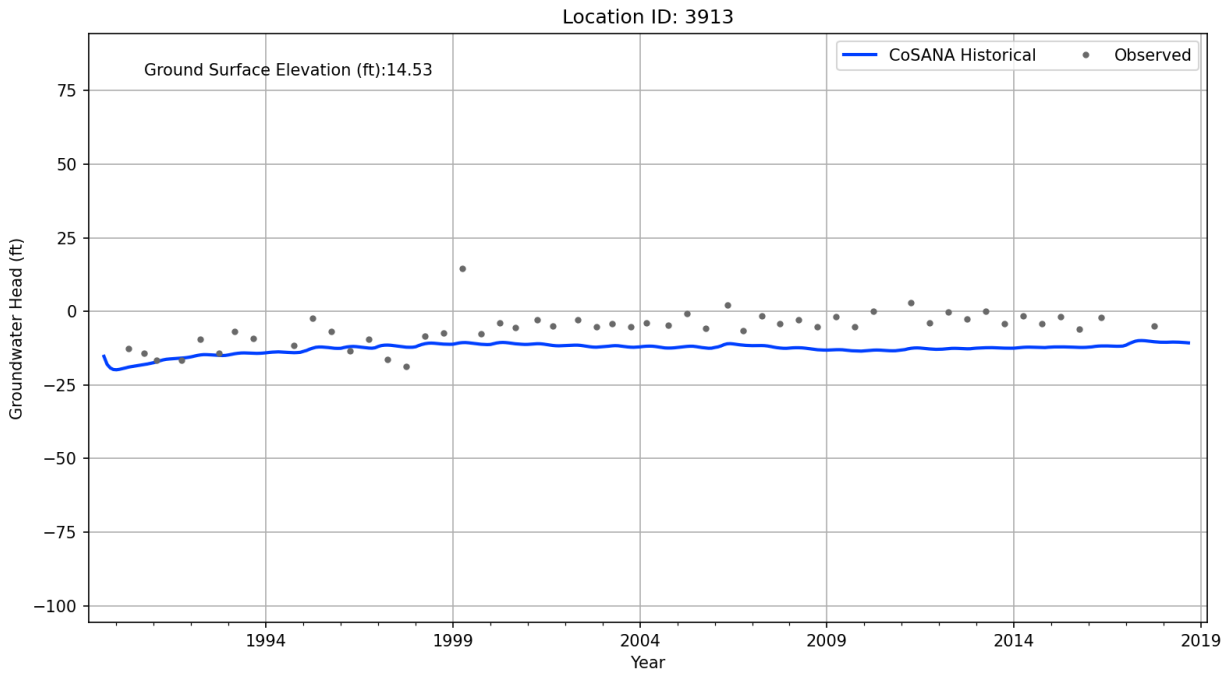

Location ID: 3905
Ground Surface Elevation (ft):40.28
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

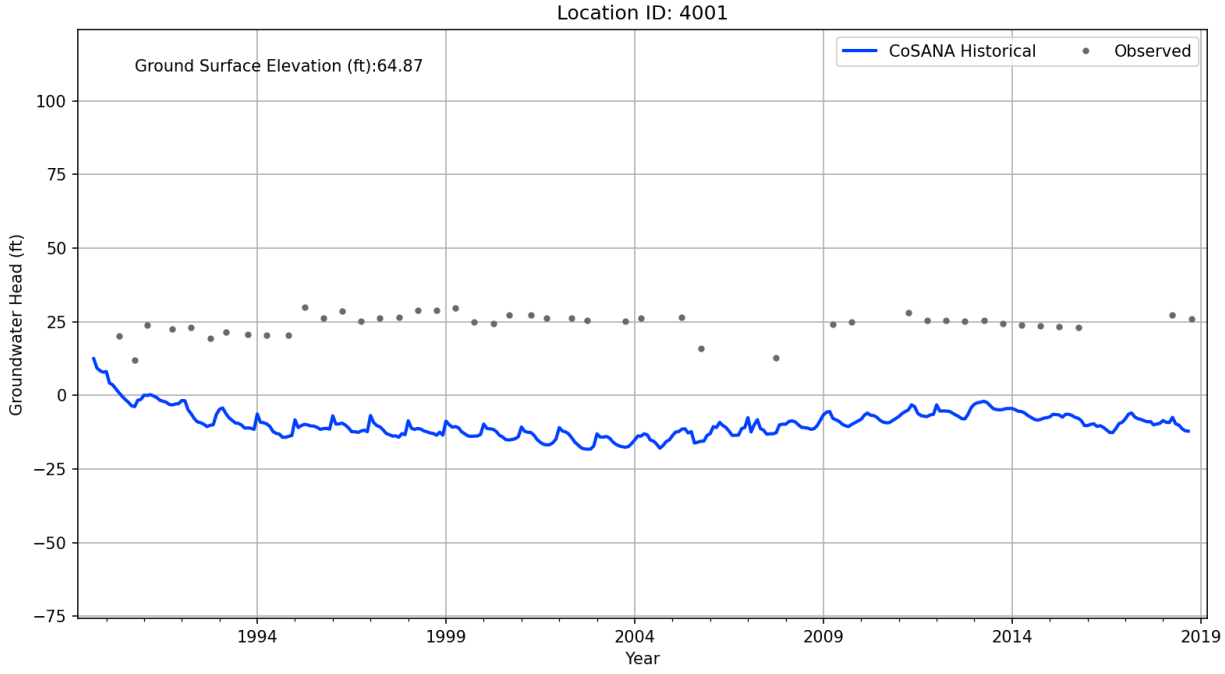

Location ID: 3908
Ground Surface Elevation (ft):39.38
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

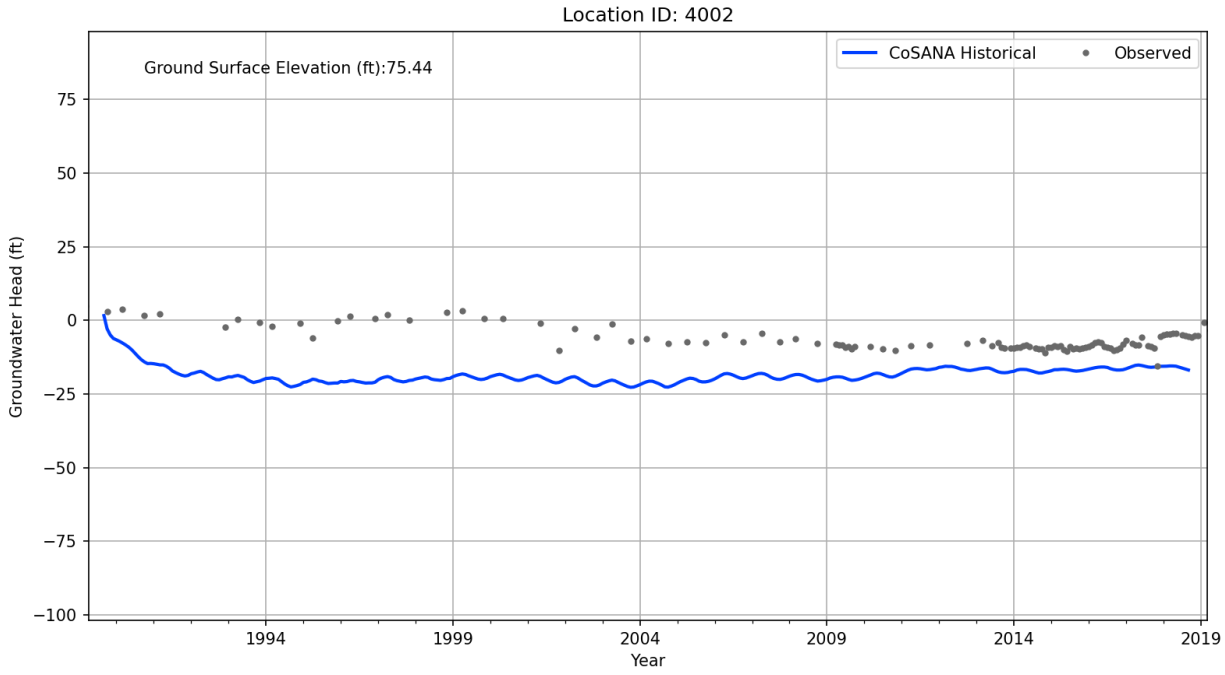

Location ID: 3910
Ground Surface Elevation (ft):28.65
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

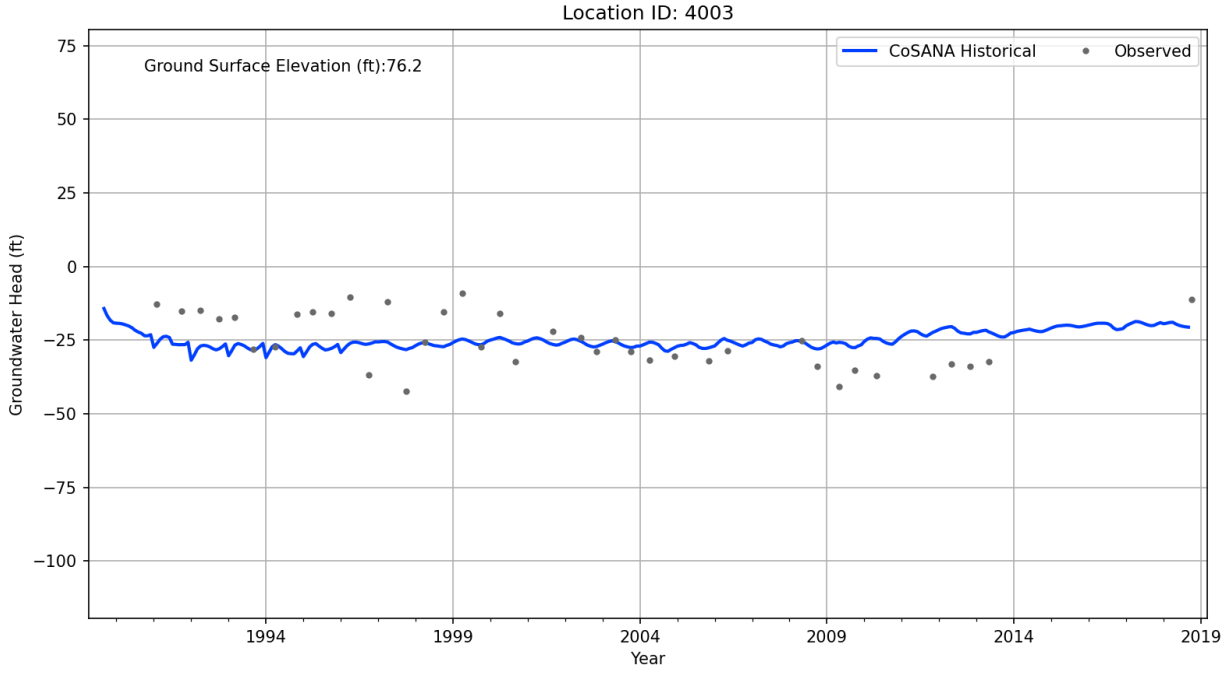

Location ID: 3911
Ground Surface Elevation (ft):24.13
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

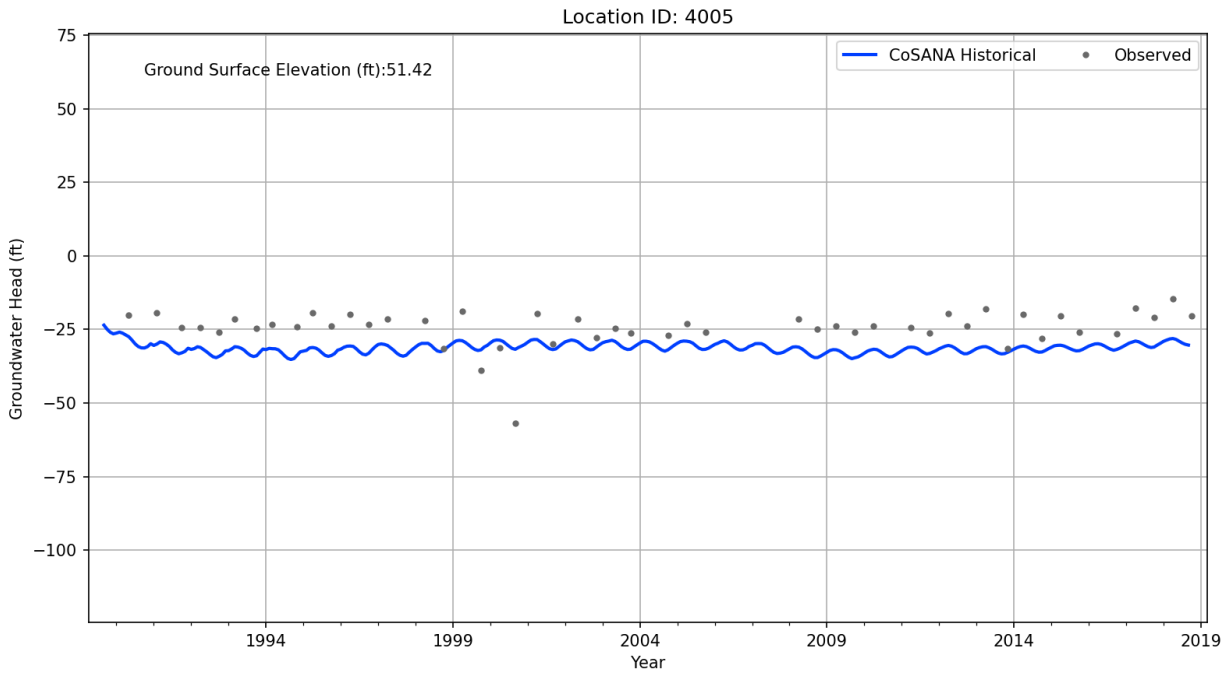

Location ID: 3912
Ground Surface Elevation (ft):32.15
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

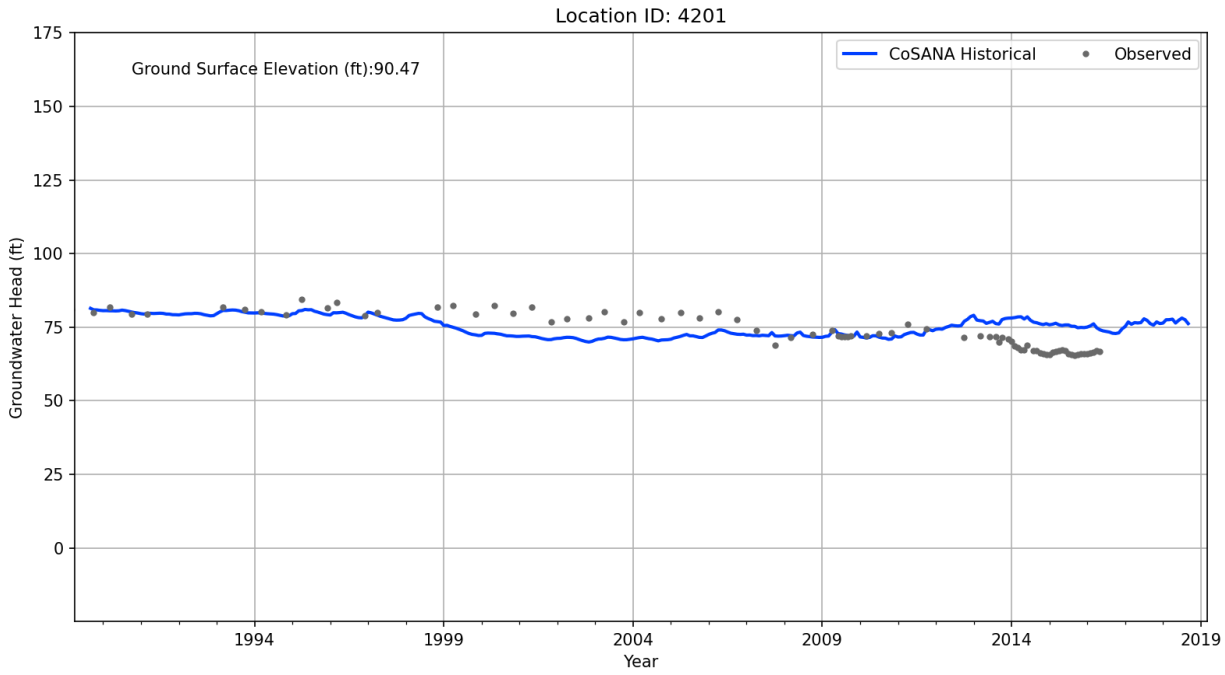

Location ID: 3913
Ground Surface Elevation (ft):14.53
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

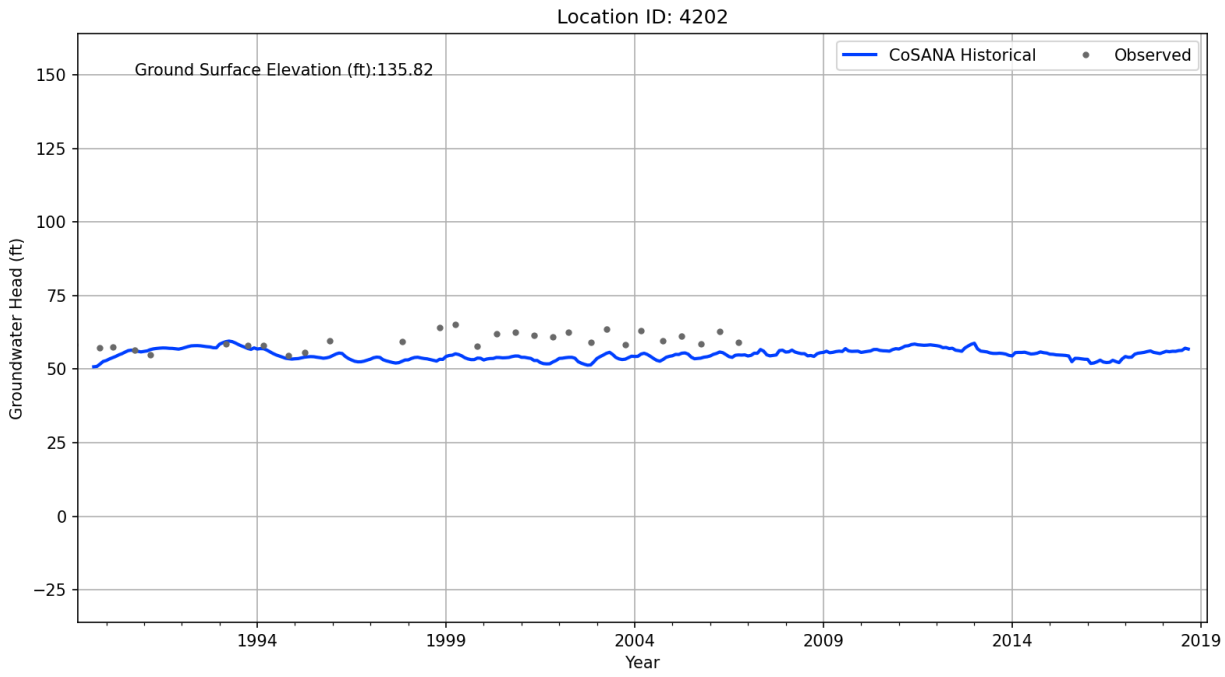

Location ID: 4001
Ground Surface Elevation (ft):64.87
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

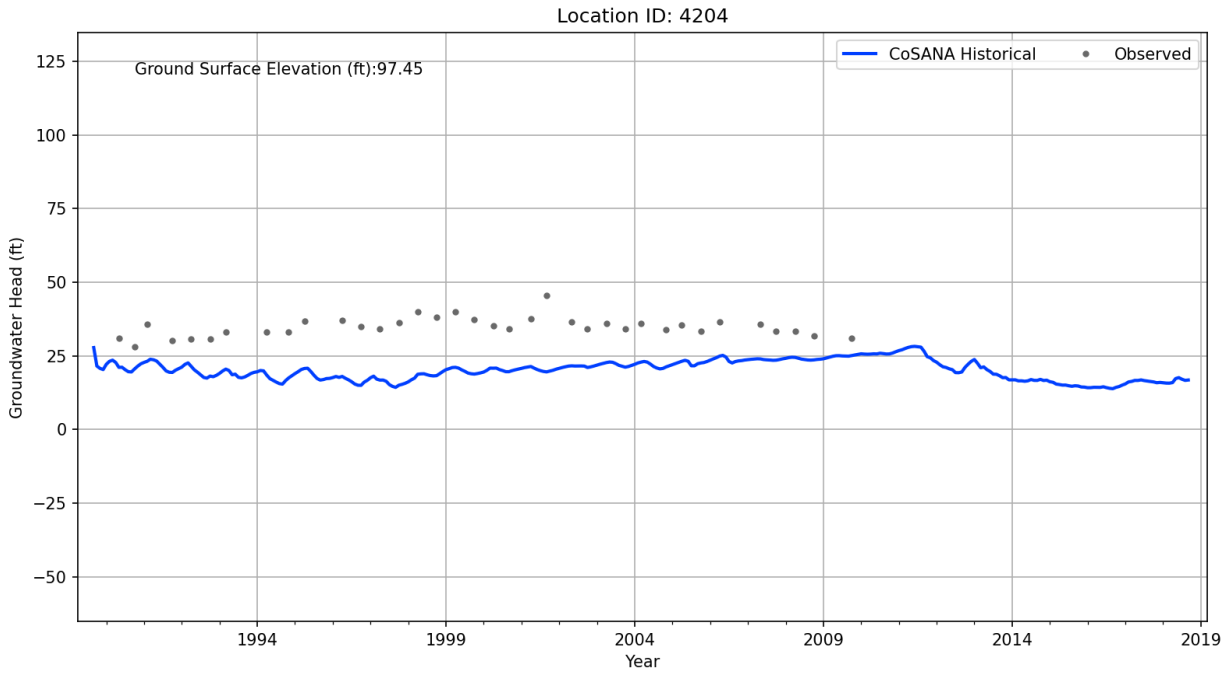

Location ID: 4002
Ground Surface Elevation (ft):75.44
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

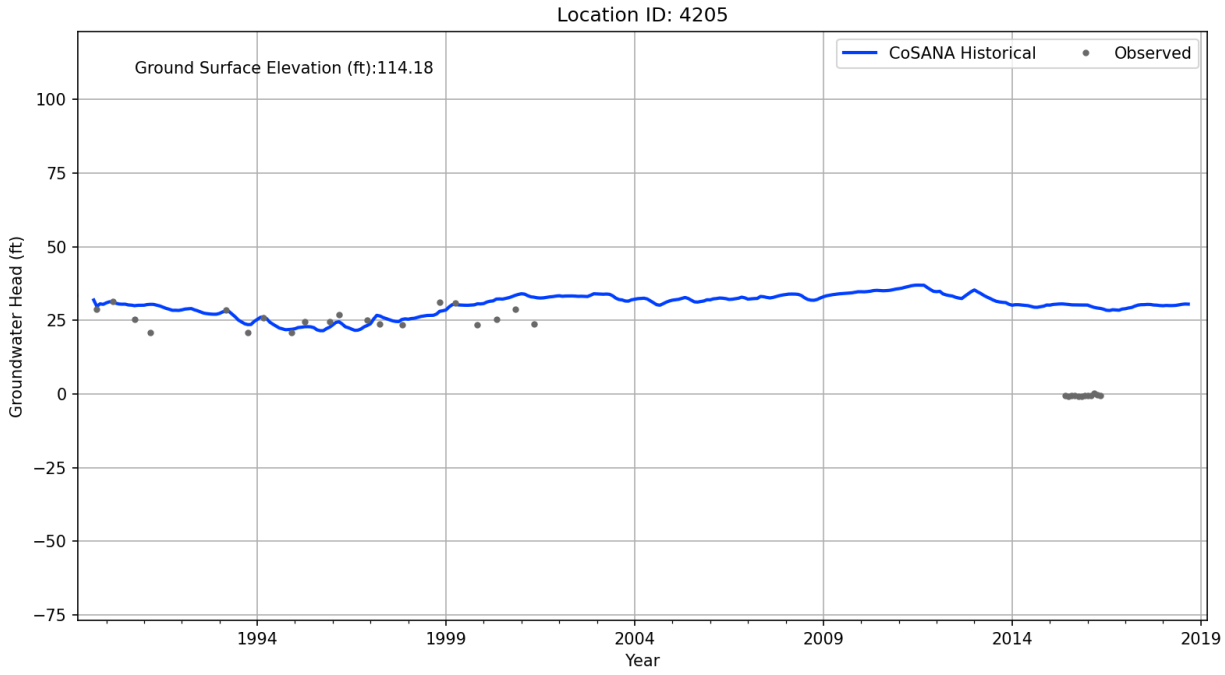

Location ID: 4003
Ground Surface Elevation (ft):76.2
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

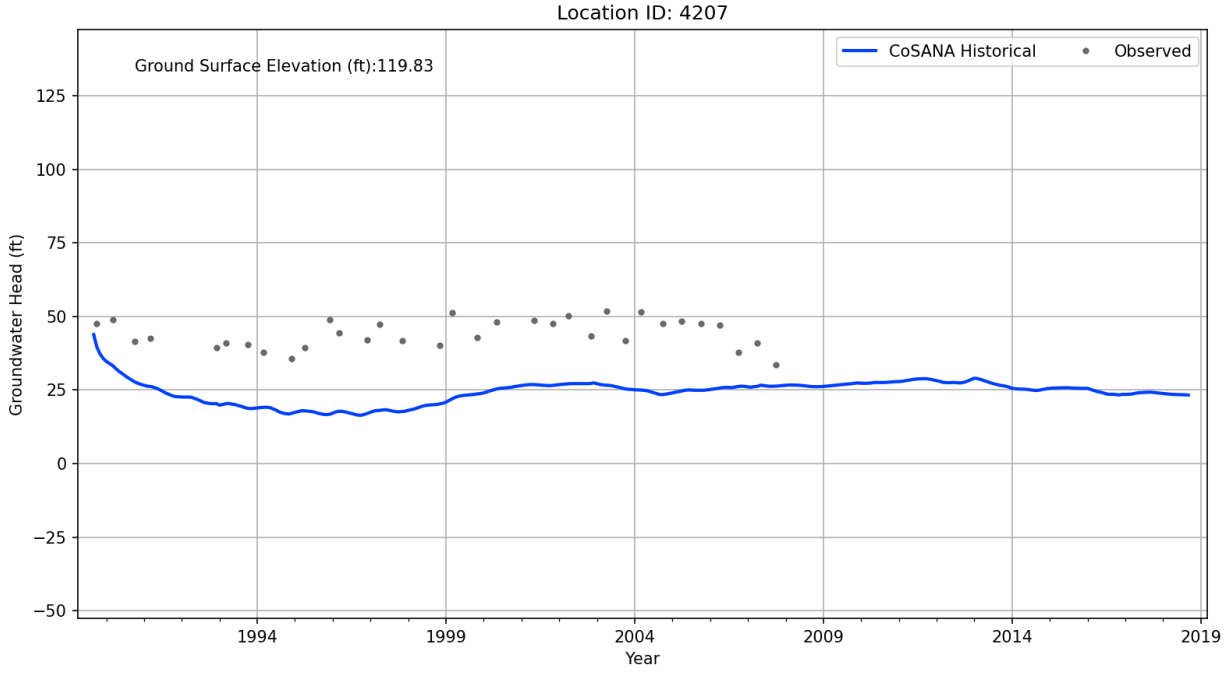

Location ID: 4005
Ground Surface Elevation (ft):51.42
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

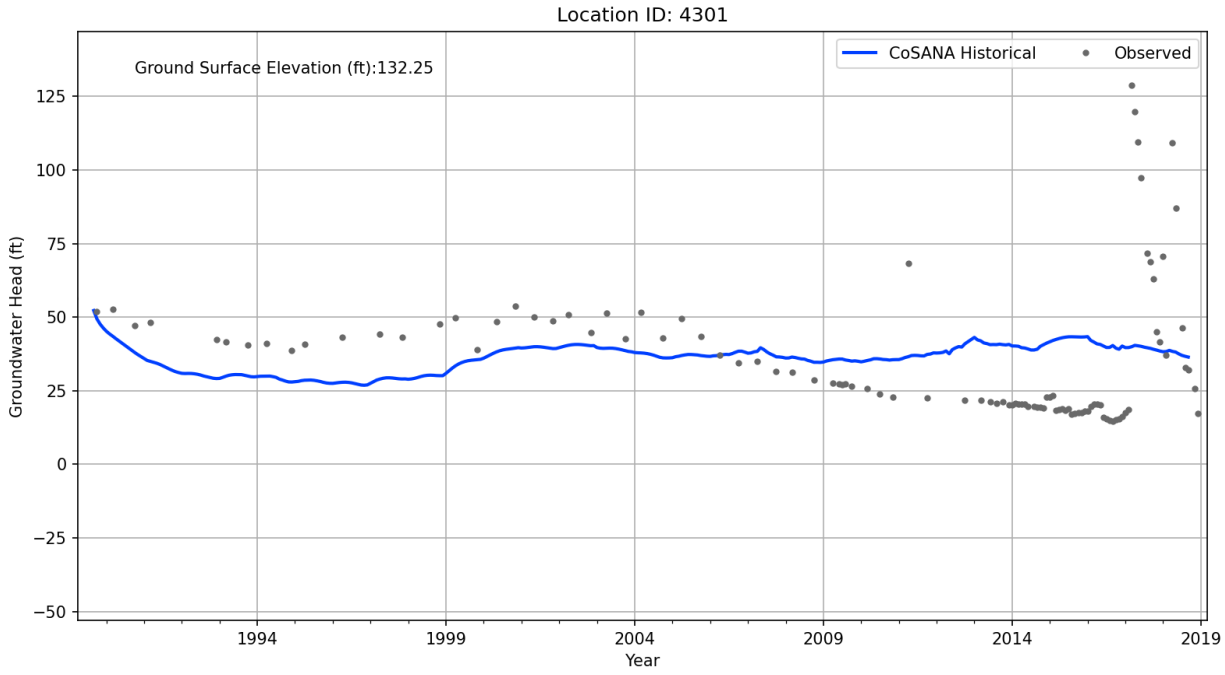

Location ID: 4201
Ground Surface Elevation (ft):90.47
CoSANA Historical
Observed
Groundwater Head (ft)
175
150
125
100
75
50
25
0
1994
1999
2004
2009
2014
2019
Year

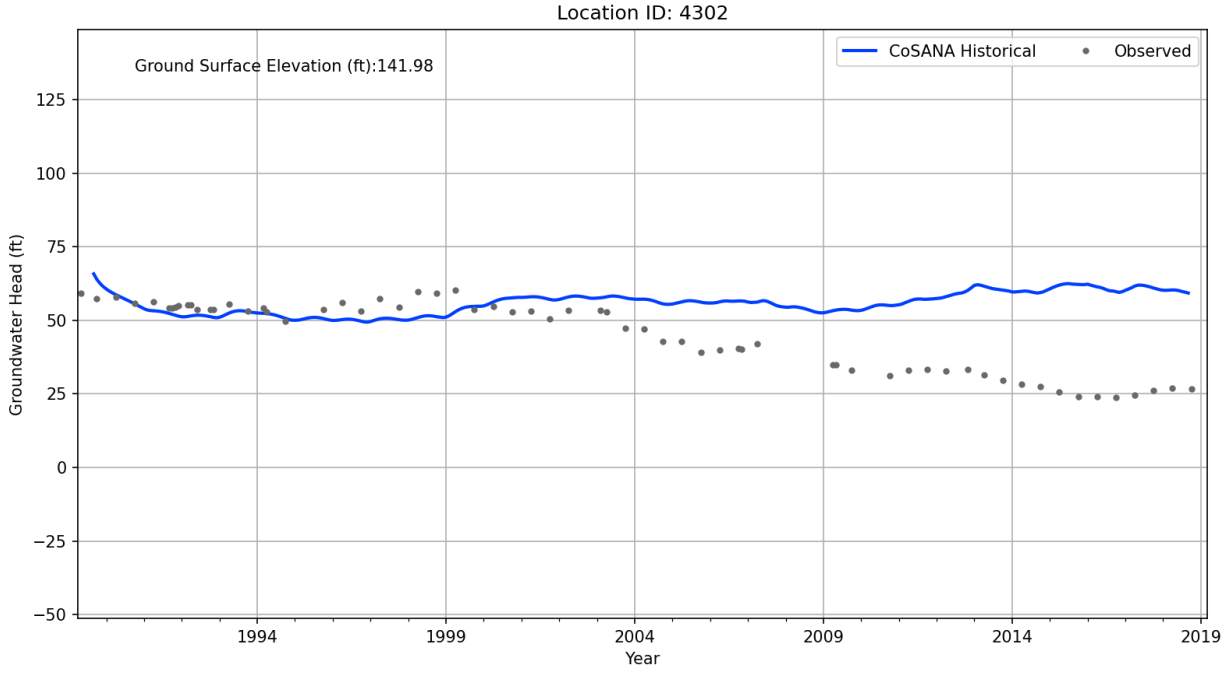

Location ID: 4202
Ground Surface Elevation (ft):135.82
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

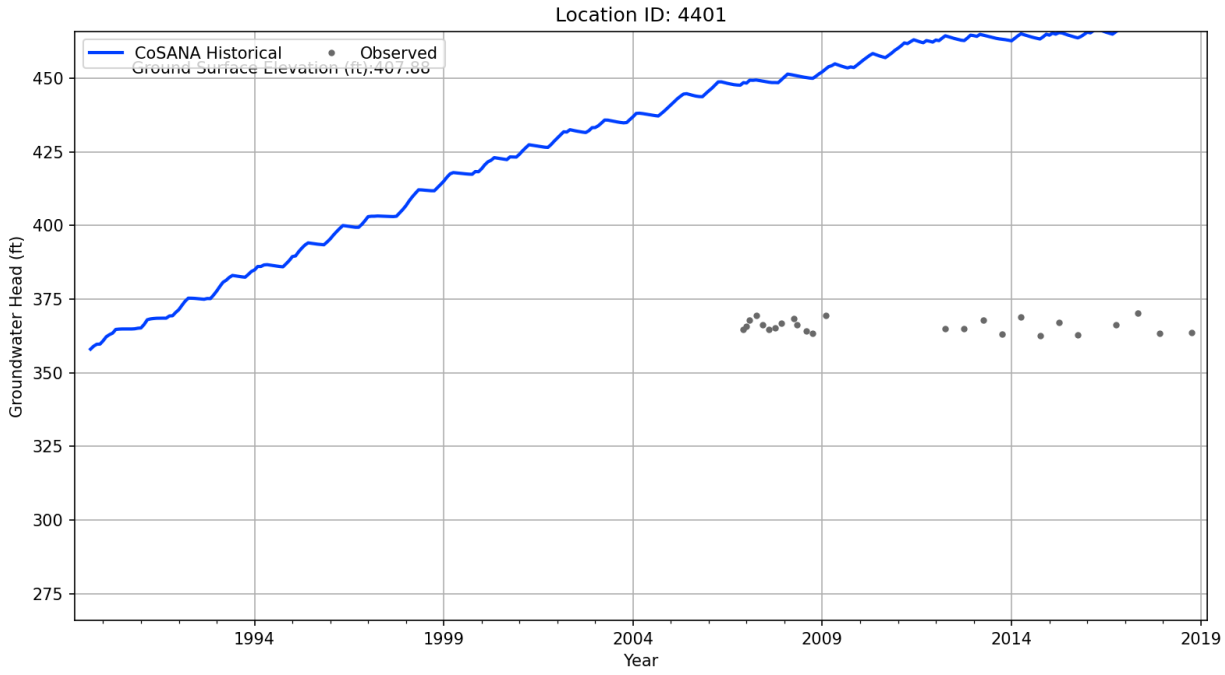

Location ID: 4204
Ground Surface Elevation (ft):97.45
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

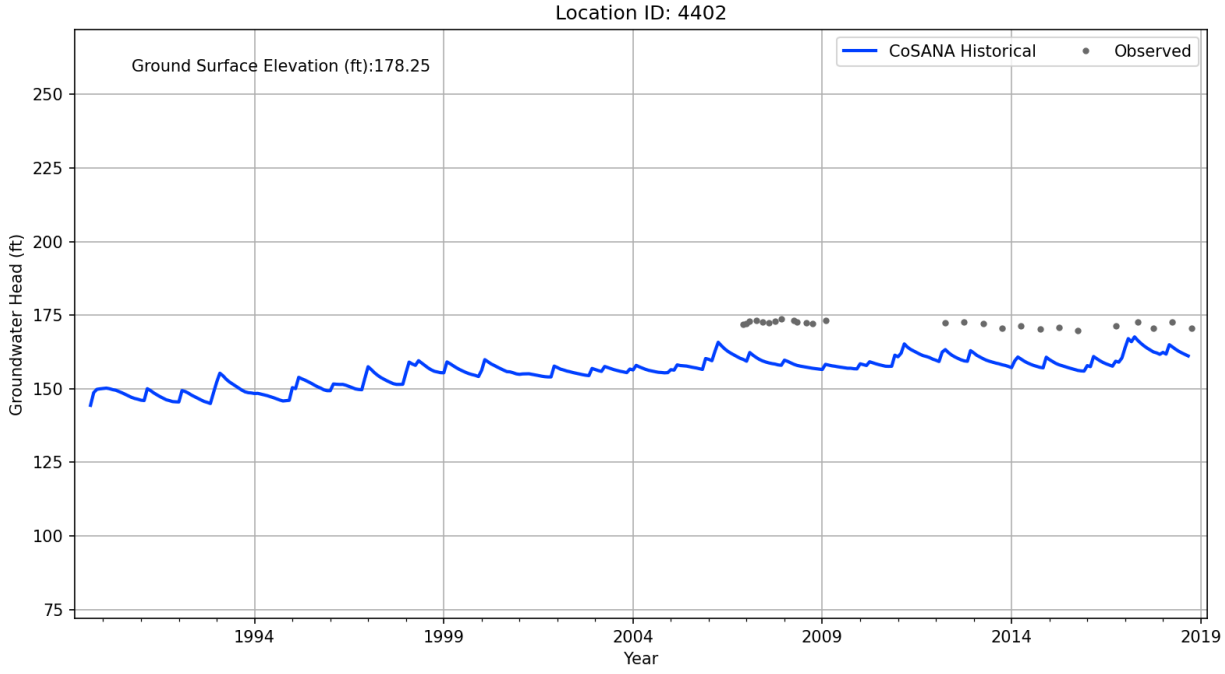

Location ID: 4205
Ground Surface Elevation (ft):114.18
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

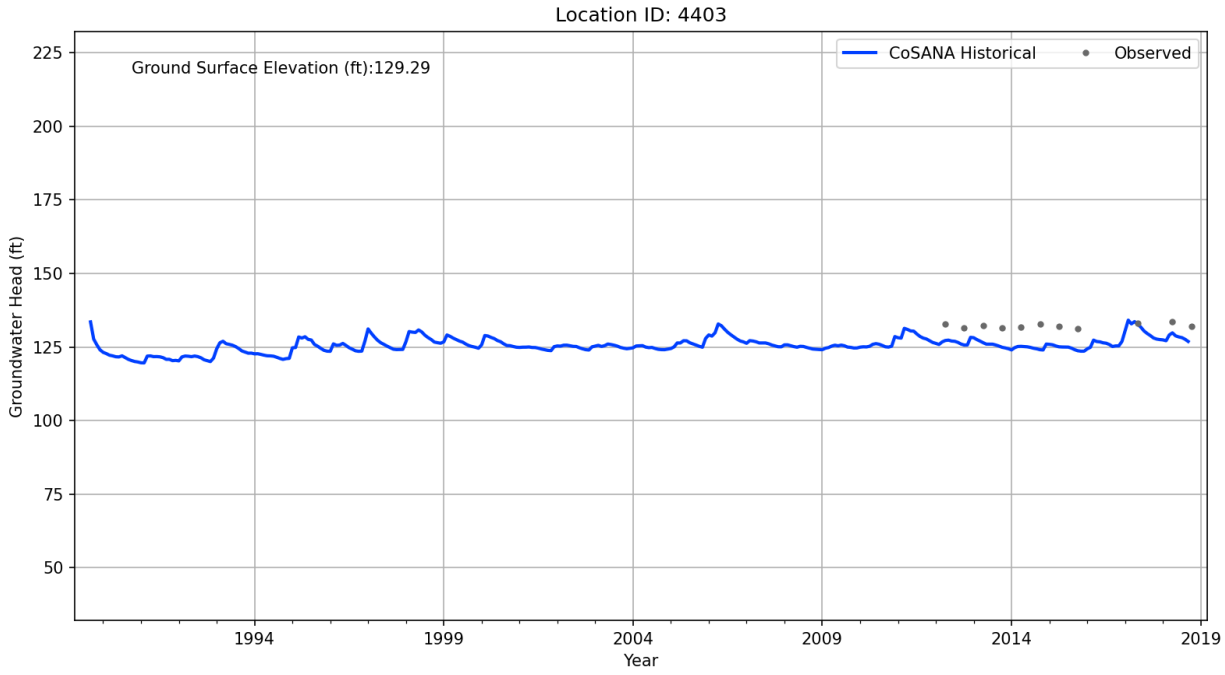

Location ID: 4207
Ground Surface Elevation (ft):119.83
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

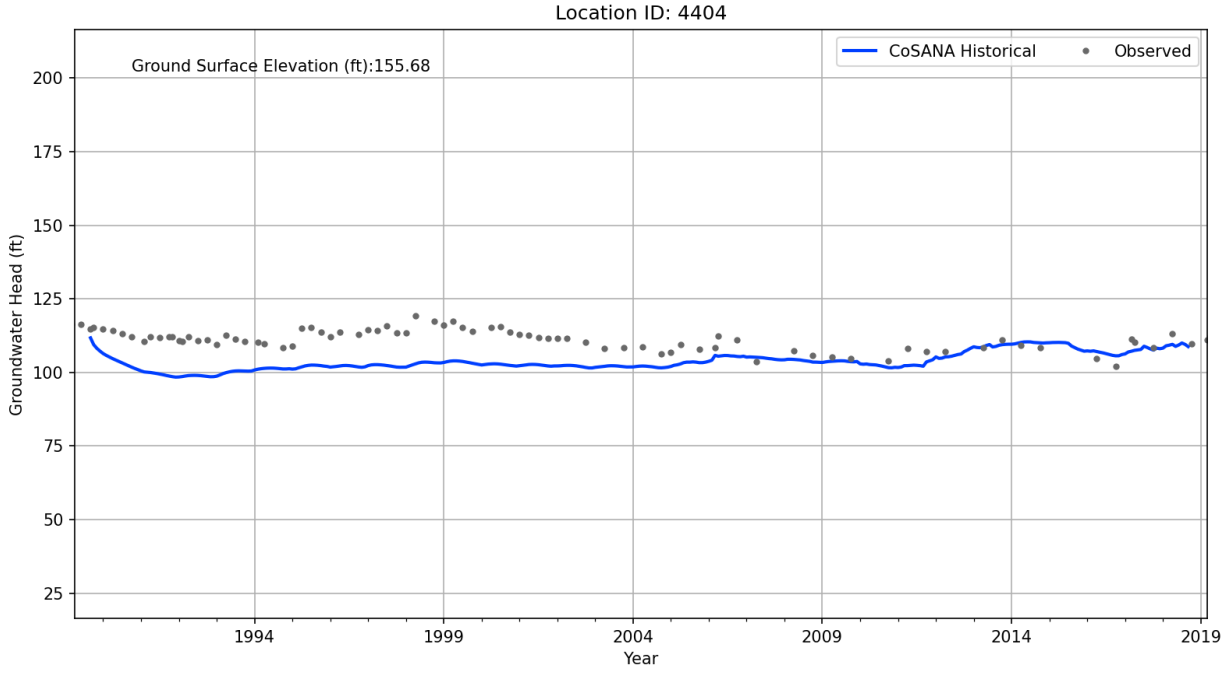

Location ID: 4301
Ground Surface Elevation (ft):132.25
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

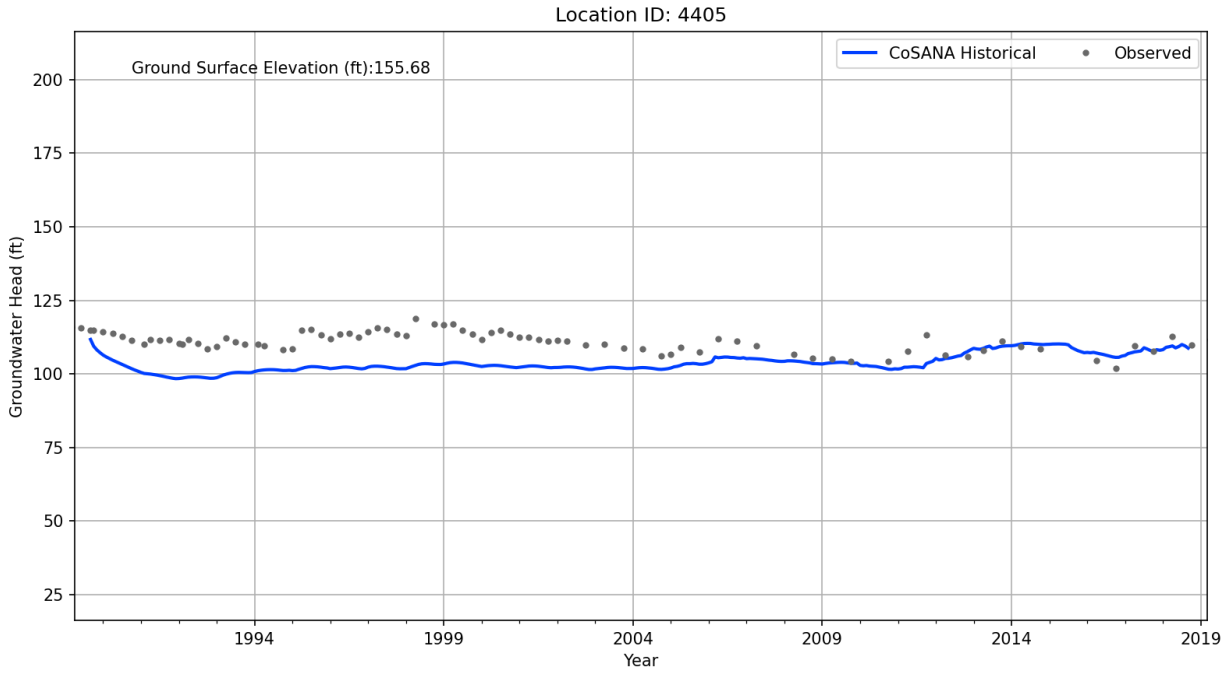

Location ID: 4302
Ground Surface Elevation (ft):141.98
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

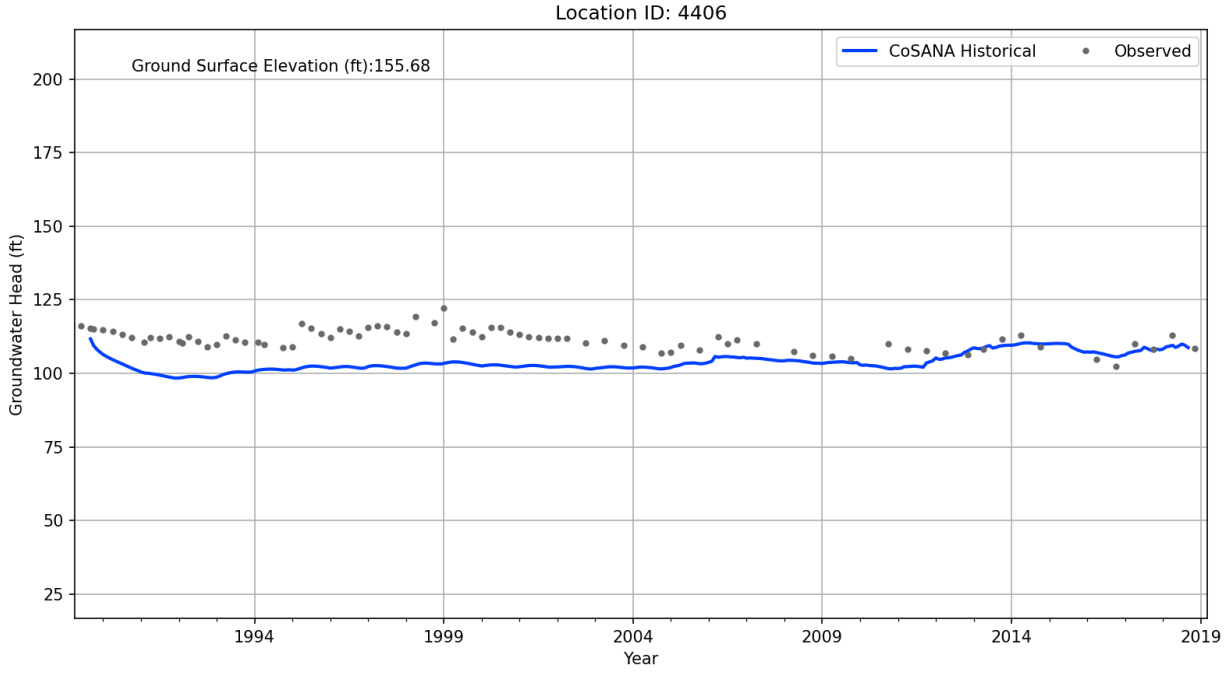

Location ID: 4401
CoSANA Historical
Observed
Ground Surface Elevation (ft):407.88
Groundwater Head (ft)
450
425
400
375
350
325
300
275
1994
1999
2004
2009
2014
2019
Year

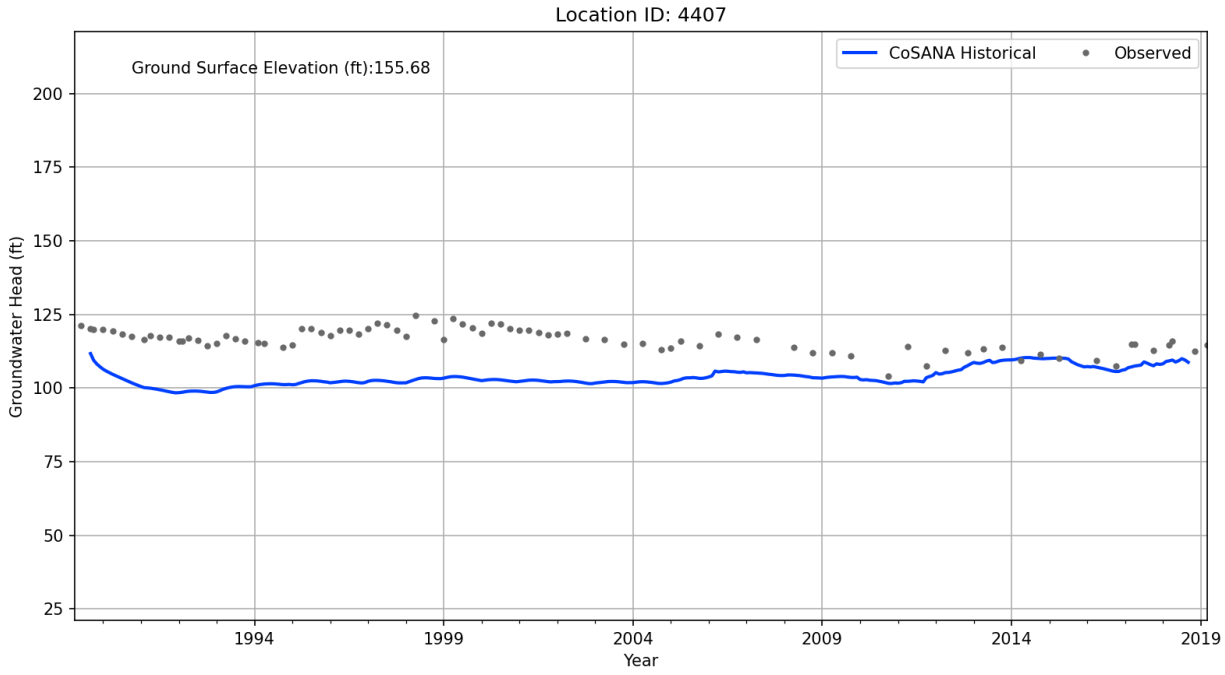

Location ID: 4402
Ground Surface Elevation (ft):178.25
CoSANA Historical
Observed
Groundwater Head (ft)
250
225
200
175
150
125
100
75
1994
1999
2004
2009
2014
2019
Year

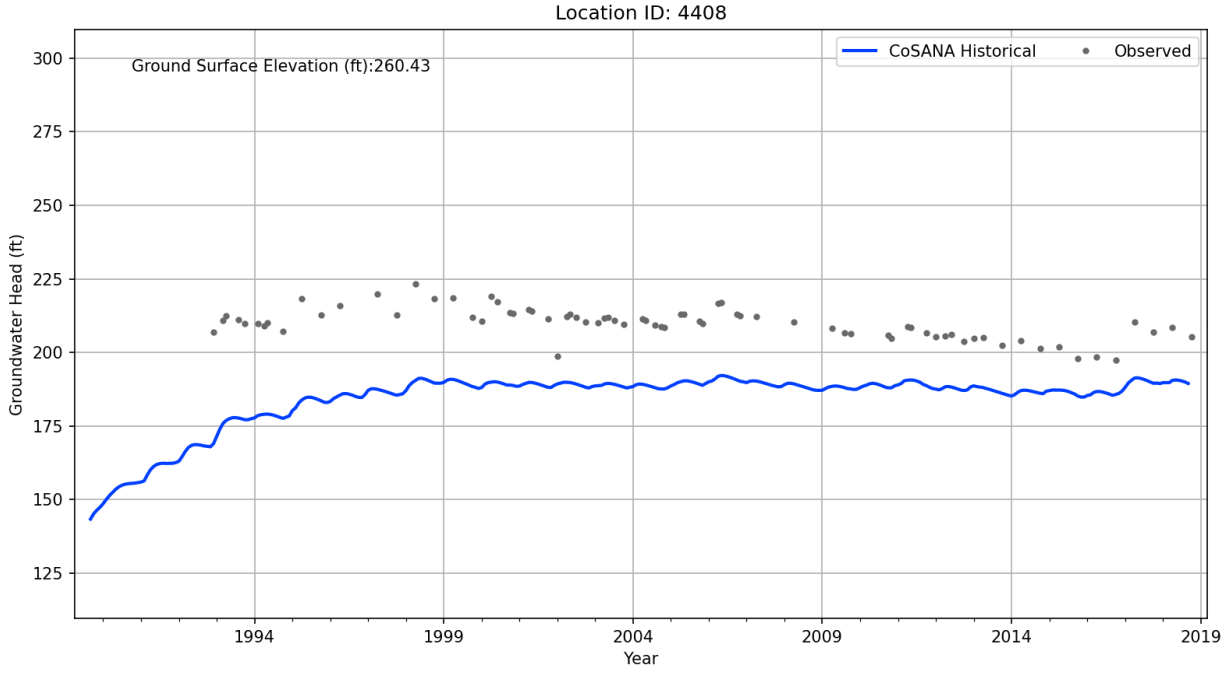

Location ID: 4403
Ground Surface Elevation (ft):129.29
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

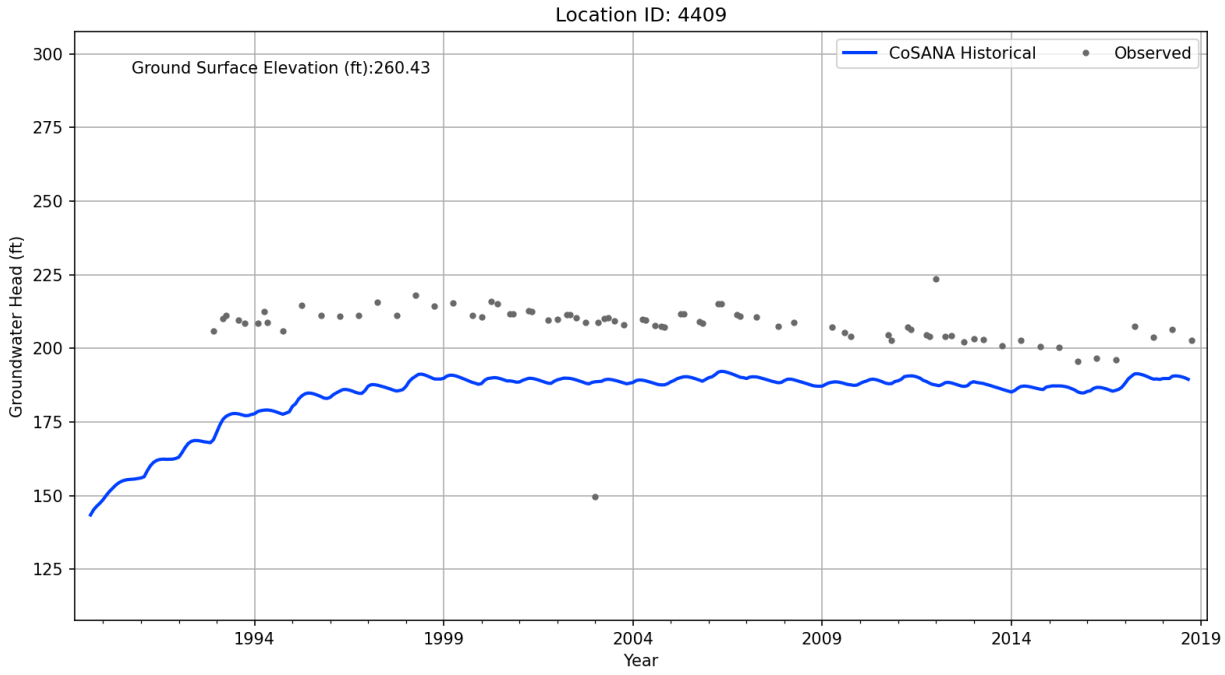

Location ID: 4404
Ground Surface Elevation (ft):155.68
CoSANA Historical
Observed
Groundwater Head (ft)
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019
Year

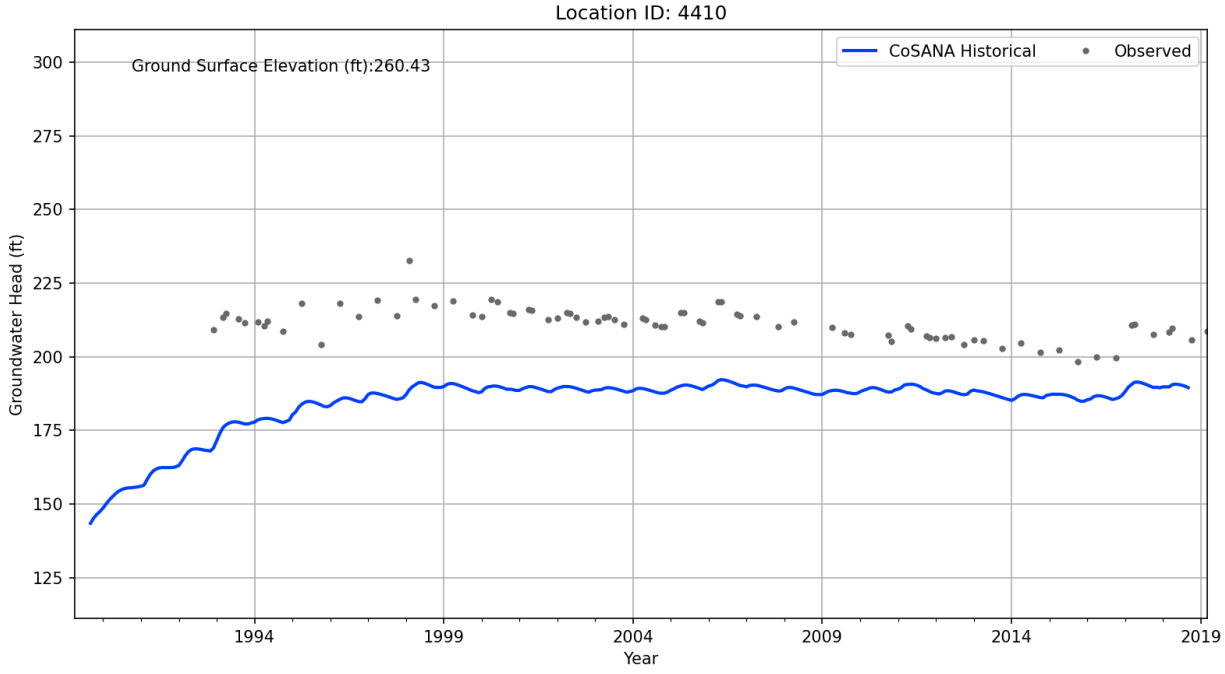

Location ID: 4405
Ground Surface Elevation (ft):155.68
CoSANA Historical
Observed
Groundwater Head (ft)
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019
Year

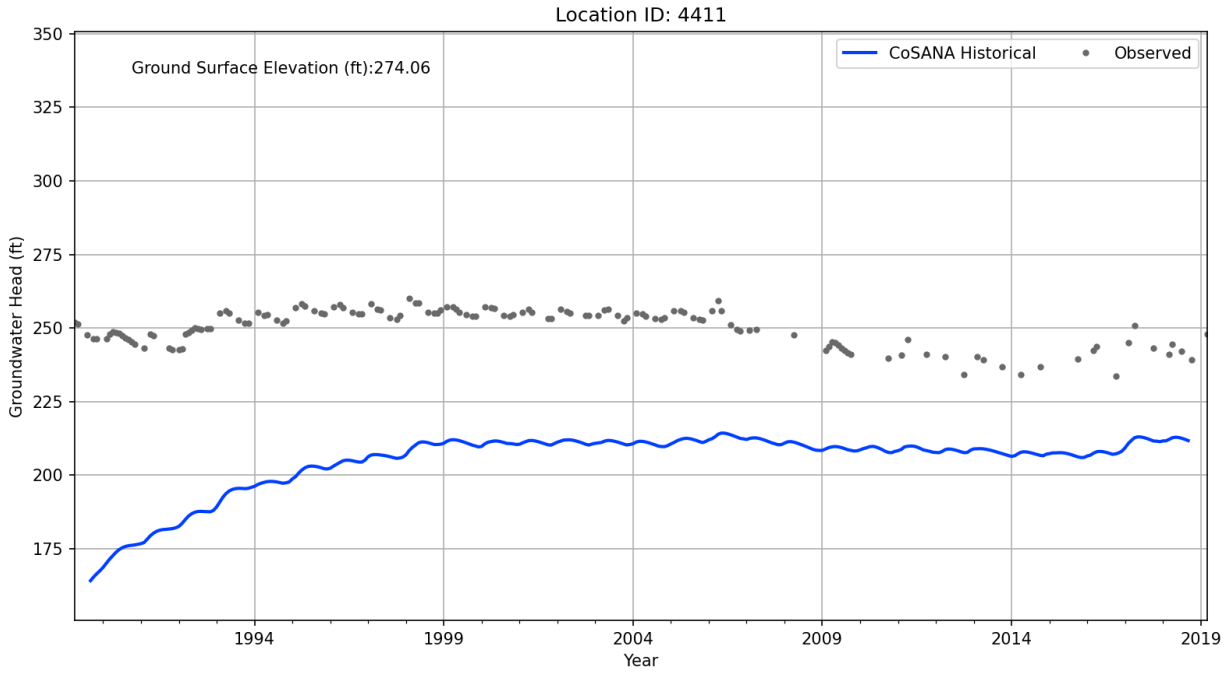

Location ID: 4406
Ground Surface Elevation (ft):155.68
CoSANA Historical
Observed
Groundwater Head (ft)
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019
Year

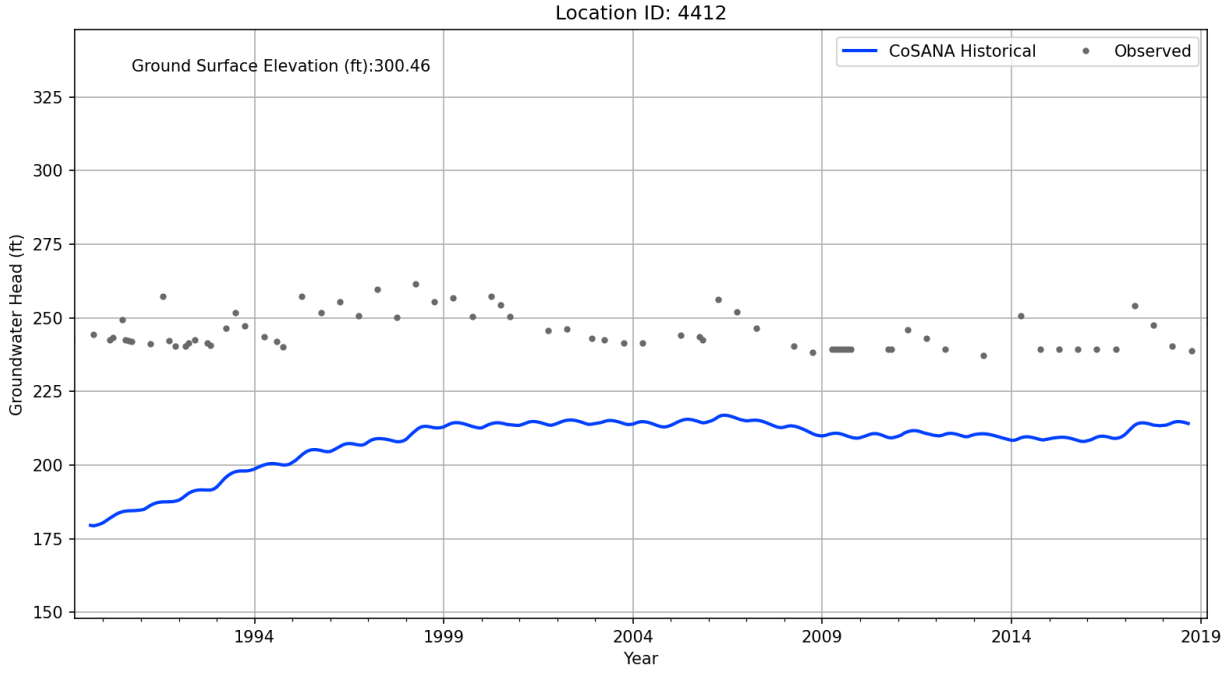

Location ID: 4407
Ground Surface Elevation (ft):155.68
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

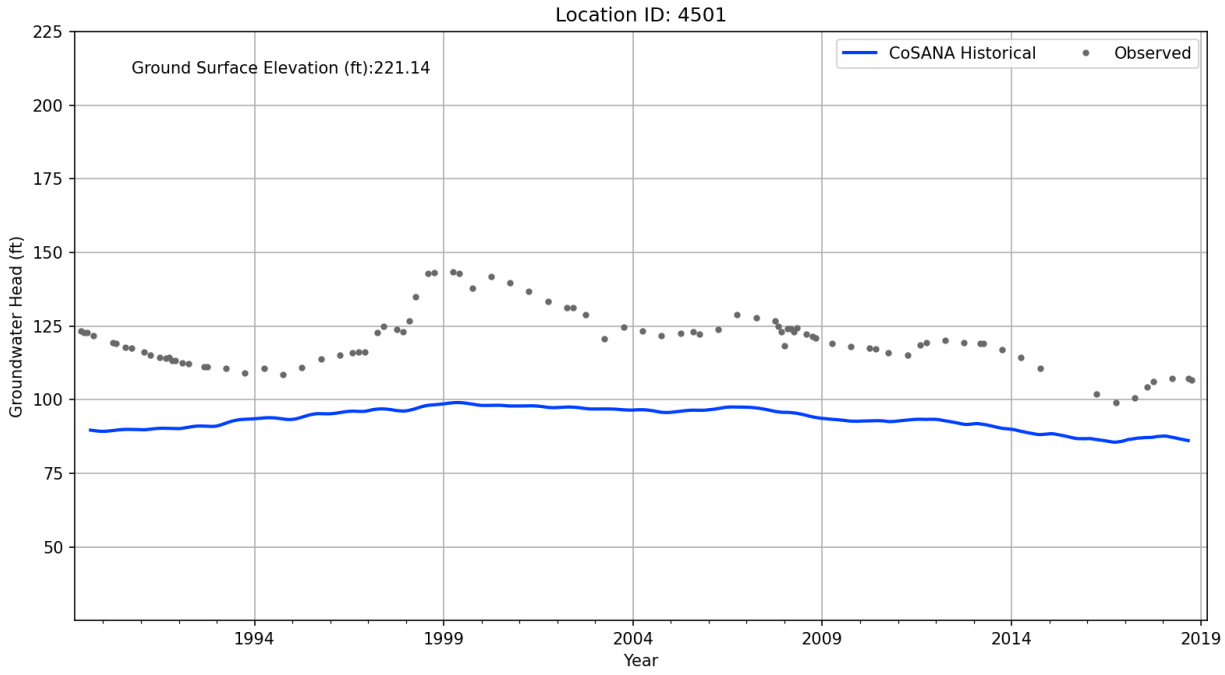

Location ID: 4408
Ground Surface Elevation (ft):260.43
CoSANA Historical
Observed
Groundwater Head (ft)
Year
300
275
250
225
200
175
150
125
1994
1999
2004
2009
2014
2019

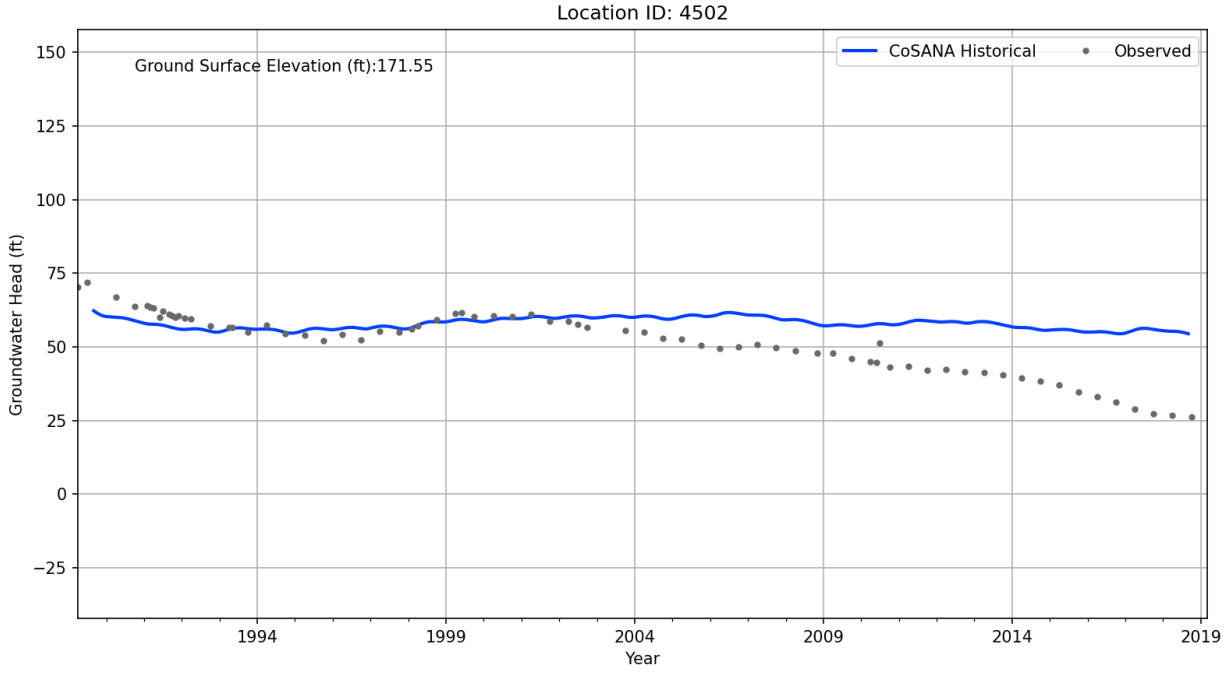

Location ID: 4409
Ground Surface Elevation (ft):260.43
CoSANA Historical
Observed
Groundwater Head (ft)
Year
300
275
250
225
200
175
150
125
1994
1999
2004
2009
2014
2019

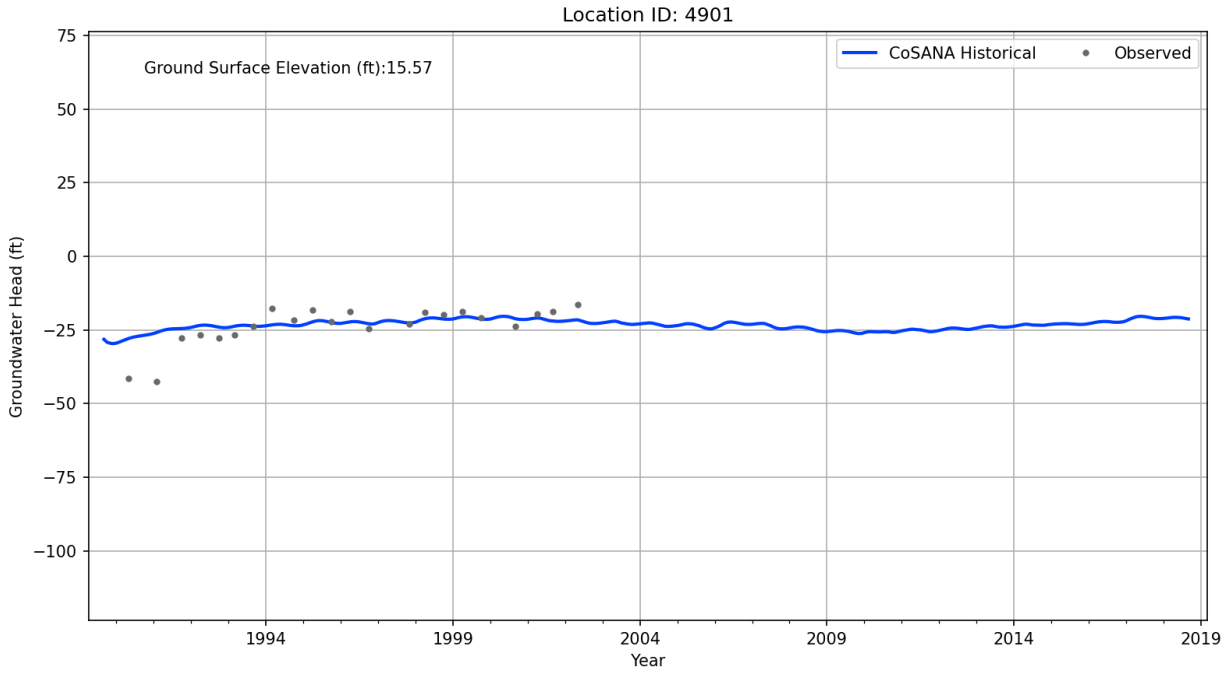

Location ID: 4410
Ground Surface Elevation (ft):260.43
CoSANA Historical
Observed
Groundwater Head (ft)
Year
300
275
250
225
200
175
150
125
1994
1999
2004
2009
2014
2019

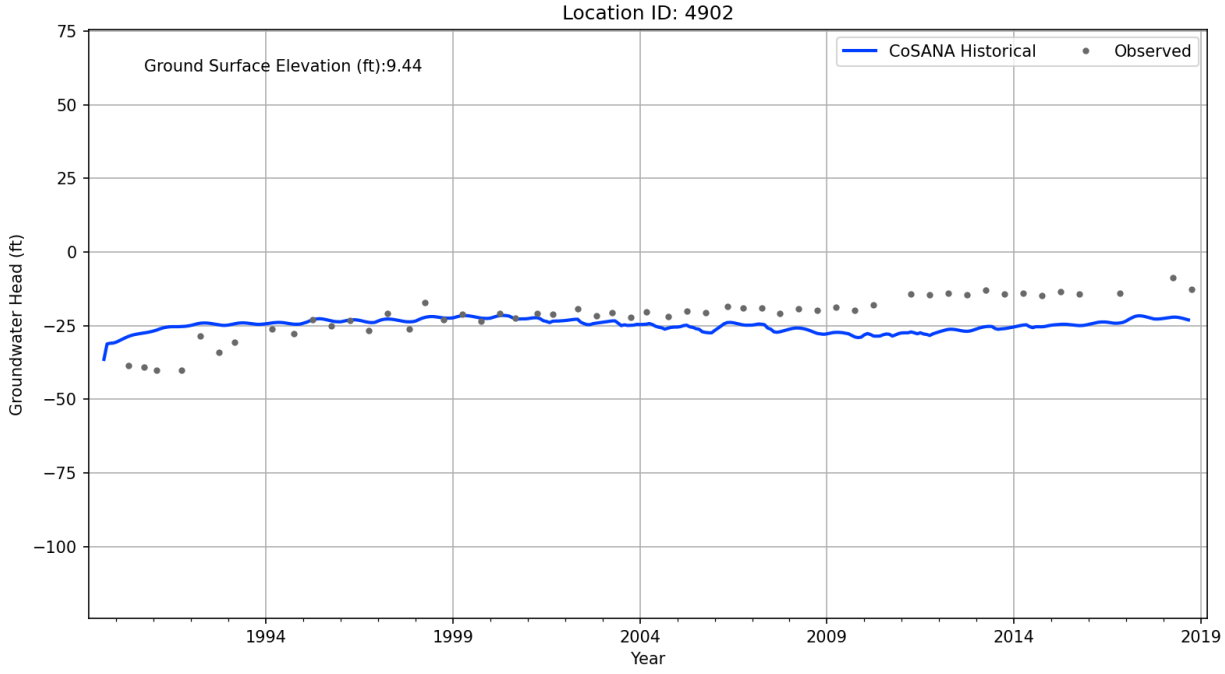

Location ID: 4411
Ground Surface Elevation (ft):274.06
CoSANA Historical
Observed
Groundwater Head (ft)
Year
350
325
300
275
250
225
200
175
1994
1999
2004
2009
2014
2019

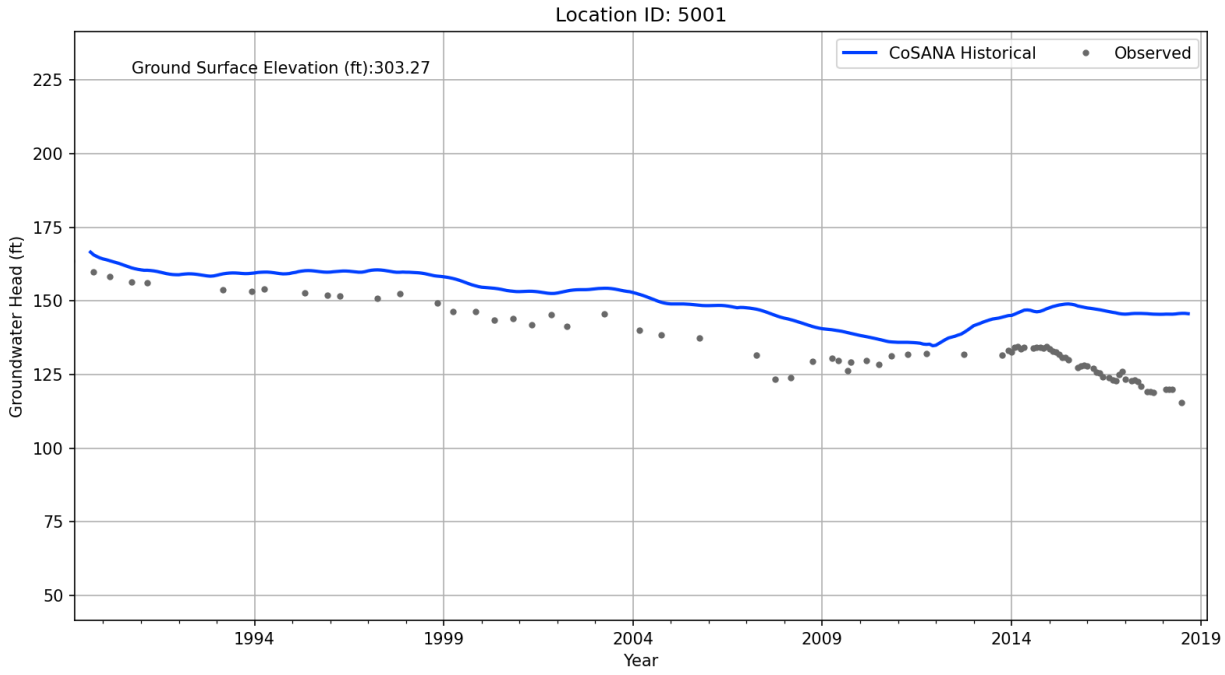

Location ID: 4412
Ground Surface Elevation (ft):300.46
CoSANA Historical
Observed
Groundwater Head (ft)
Year
325
300
275
250
225
200
175
150
1994
1999
2004
2009
2014
2019

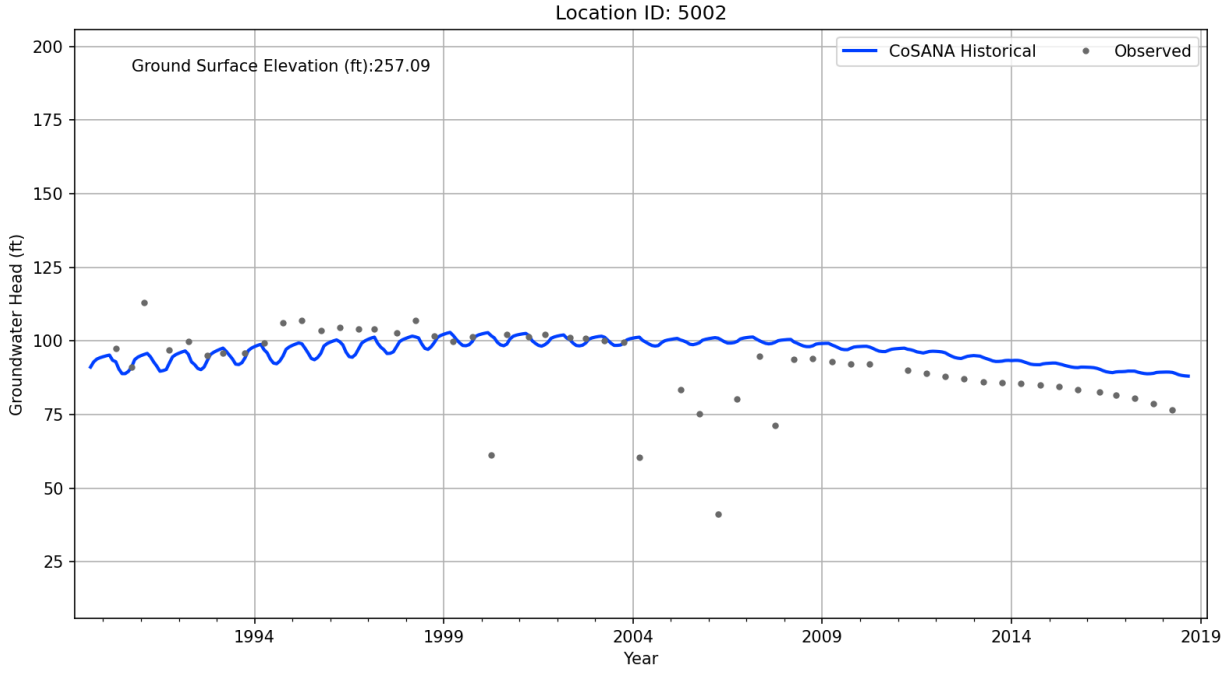

Location ID: 4501
Ground Surface Elevation (ft):221.14
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

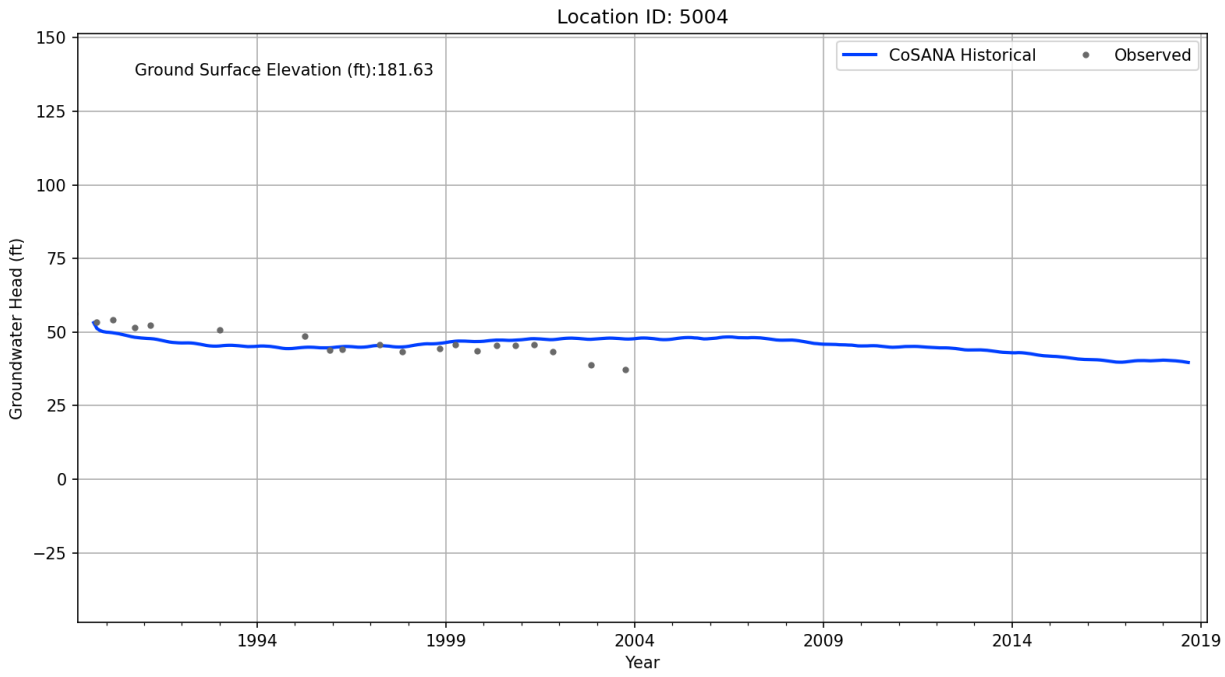

Location ID: 4502
Ground Surface Elevation (ft):171.55
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

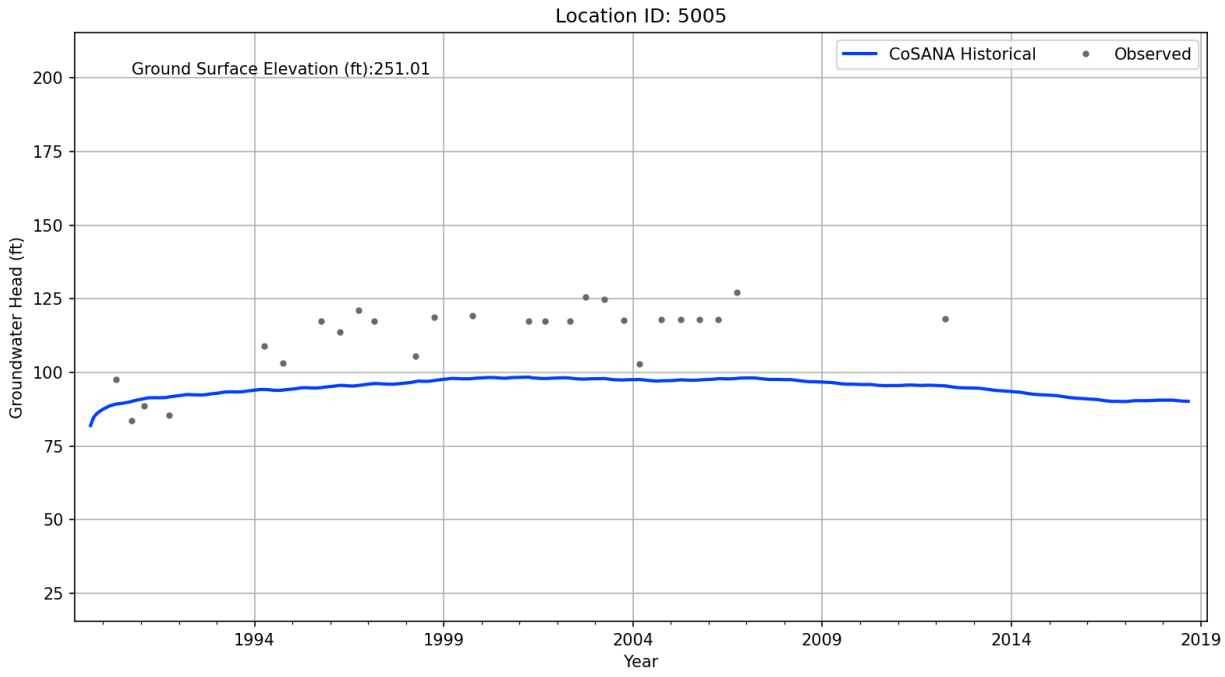

Location ID: 4901
Ground Surface Elevation (ft):15.57
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

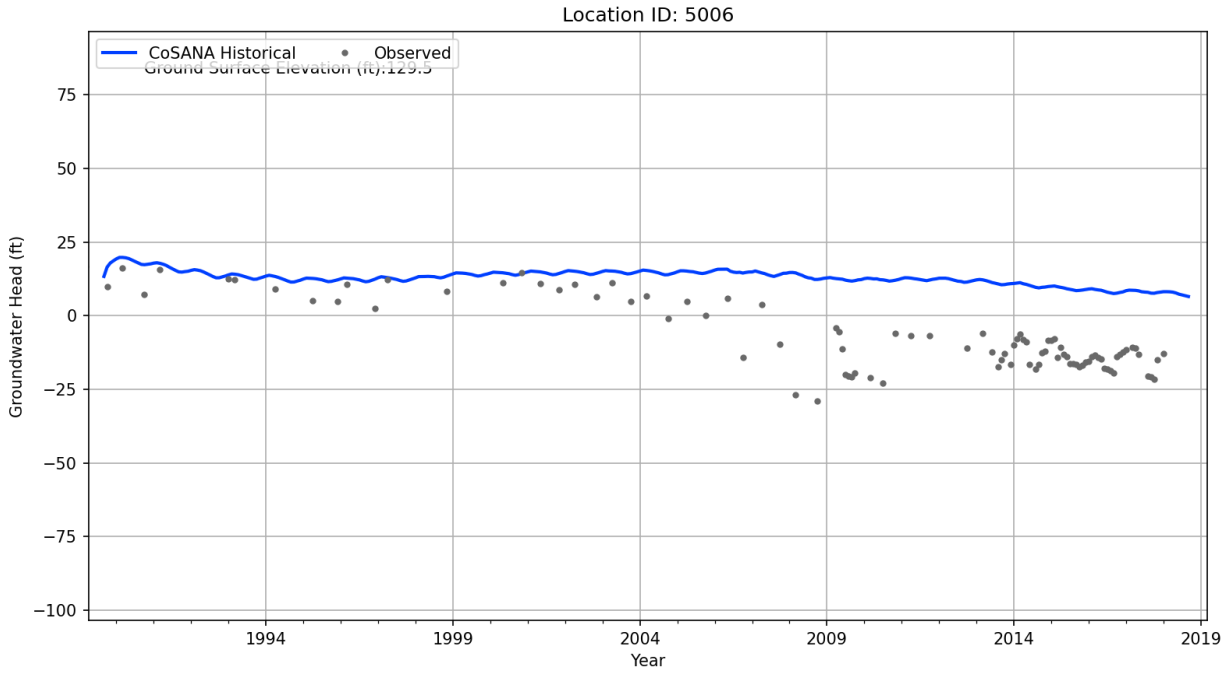

Location ID: 4902
Ground Surface Elevation (ft):9.44
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

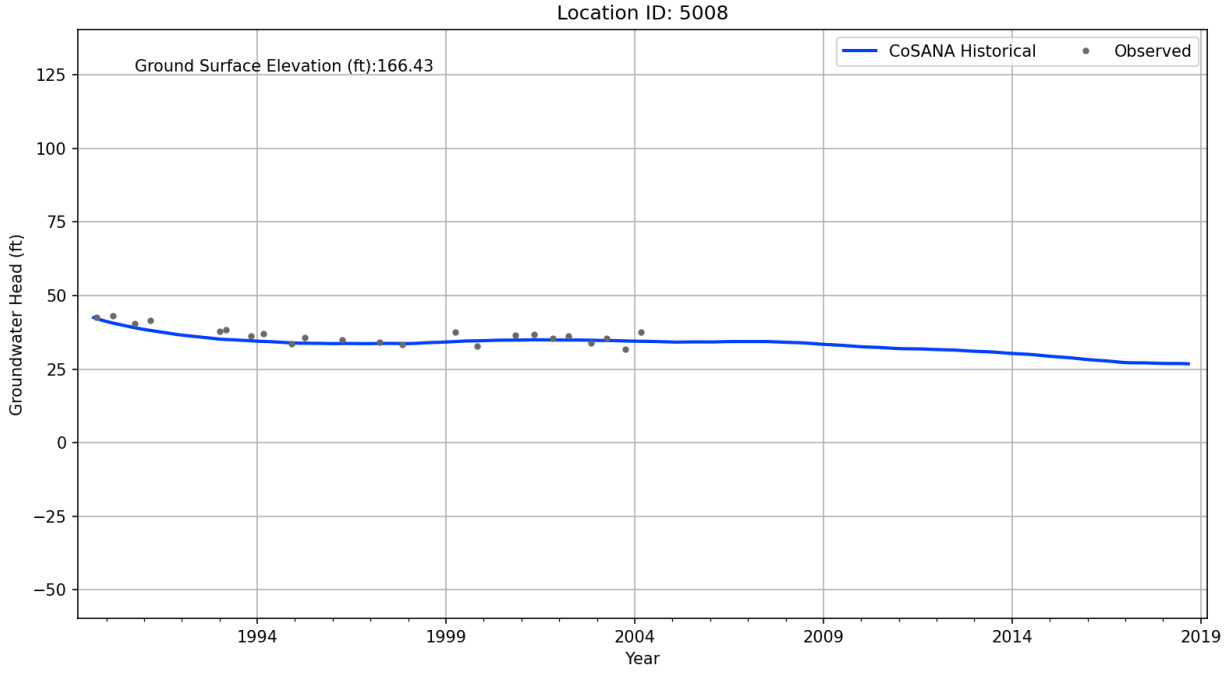

Location ID: 5001
Ground Surface Elevation (ft):303.27
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

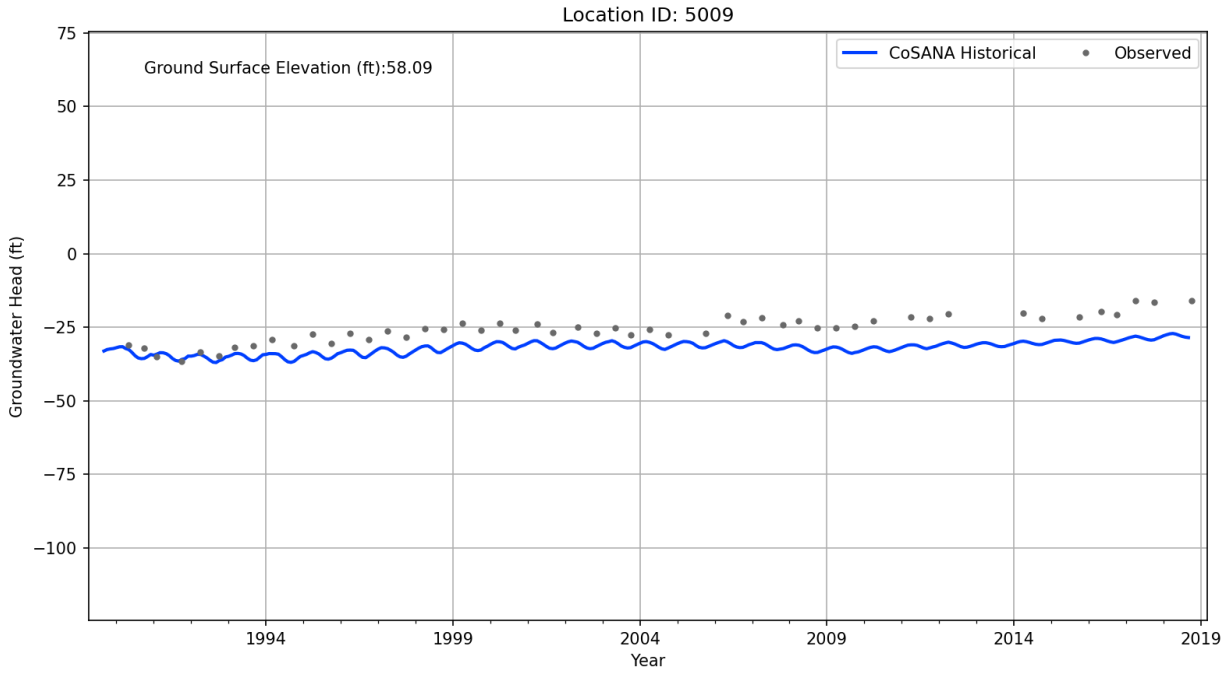

Location ID: 5002
Ground Surface Elevation (ft):257.09
CoSANA Historical
Observed
Groundwater Head (ft)
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019
Year

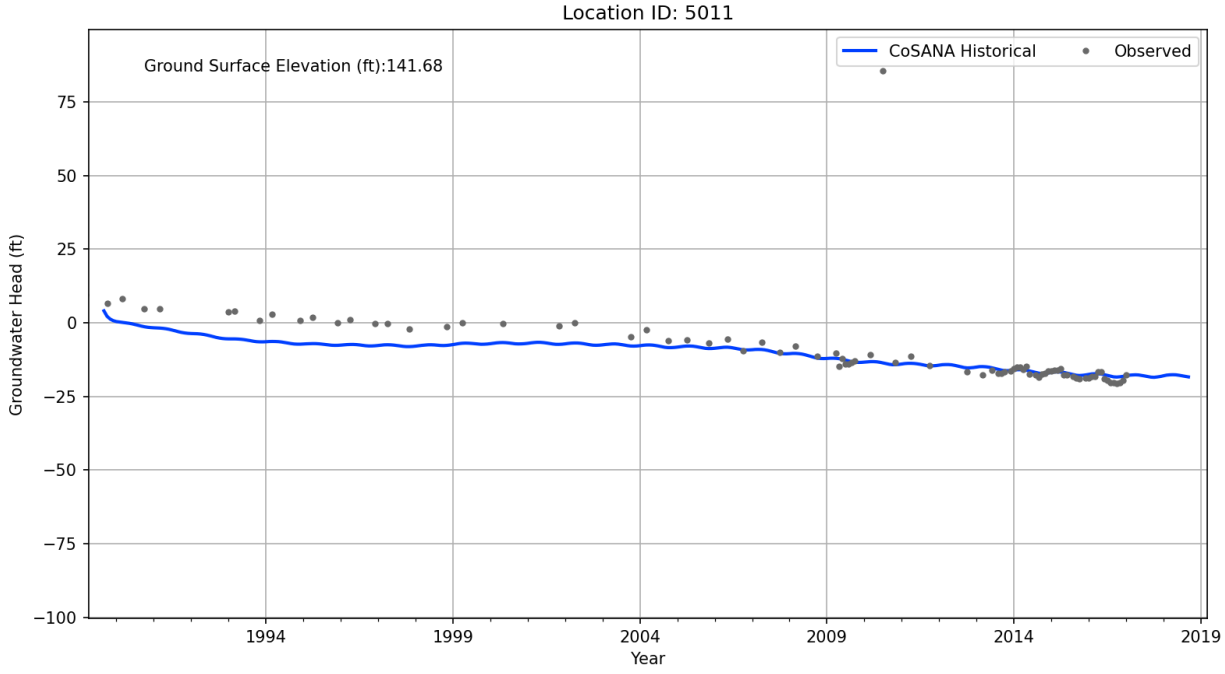

Location ID: 5004
Ground Surface Elevation (ft):181.63
CoSANA Historical
Observed
Groundwater Head (ft)
Year
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019

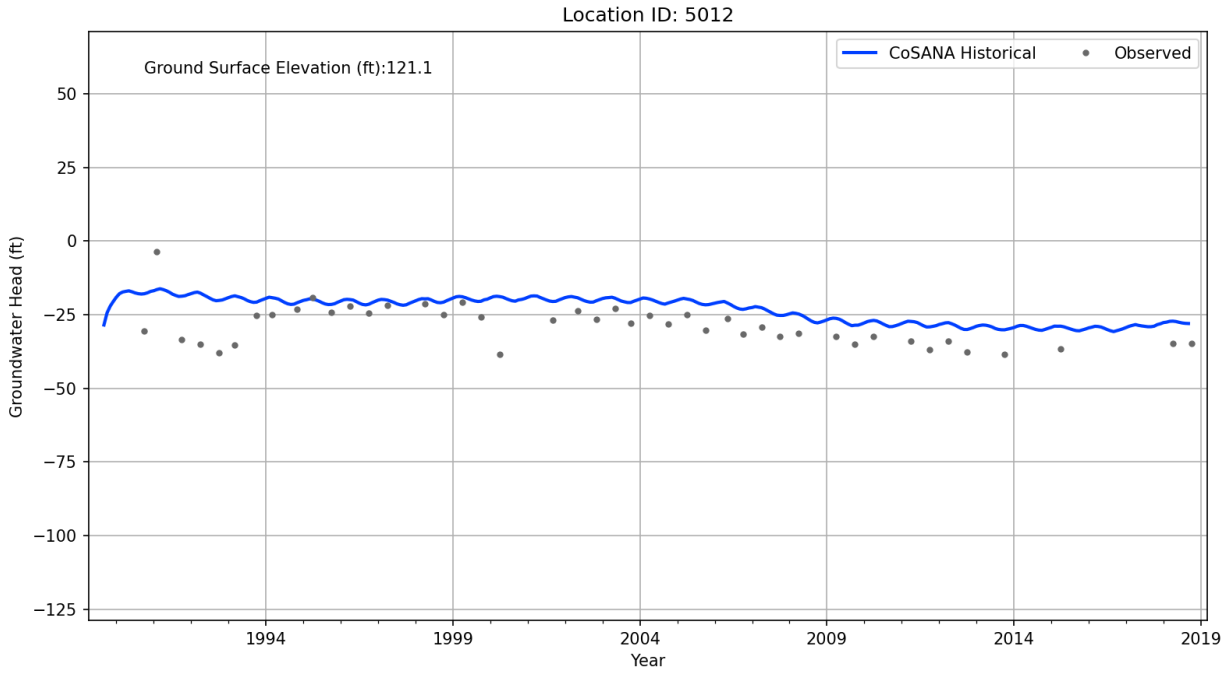

Location ID: 5005
Ground Surface Elevation (ft):251.01
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

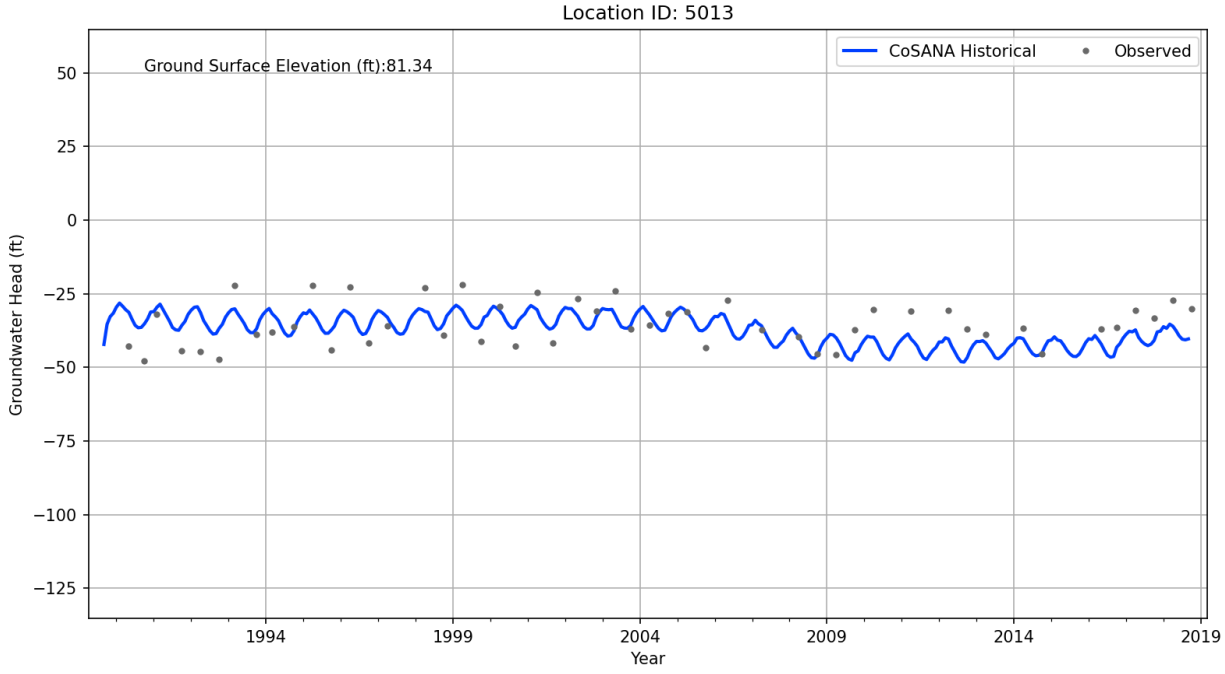

Location ID: 5006
CoSANA Historical
Observed
Ground Surface Elevation (ft):125.5
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

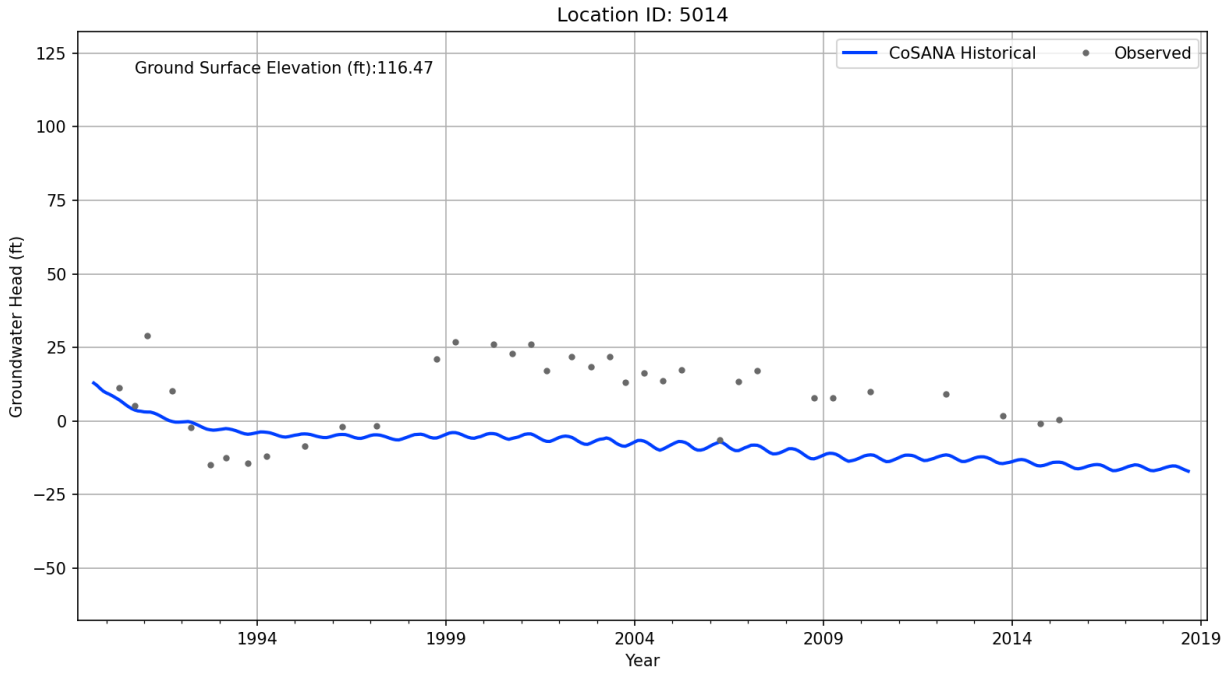

Location ID: 5008
CoSANA Historical
Observed
Ground Surface Elevation (ft):166.43
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

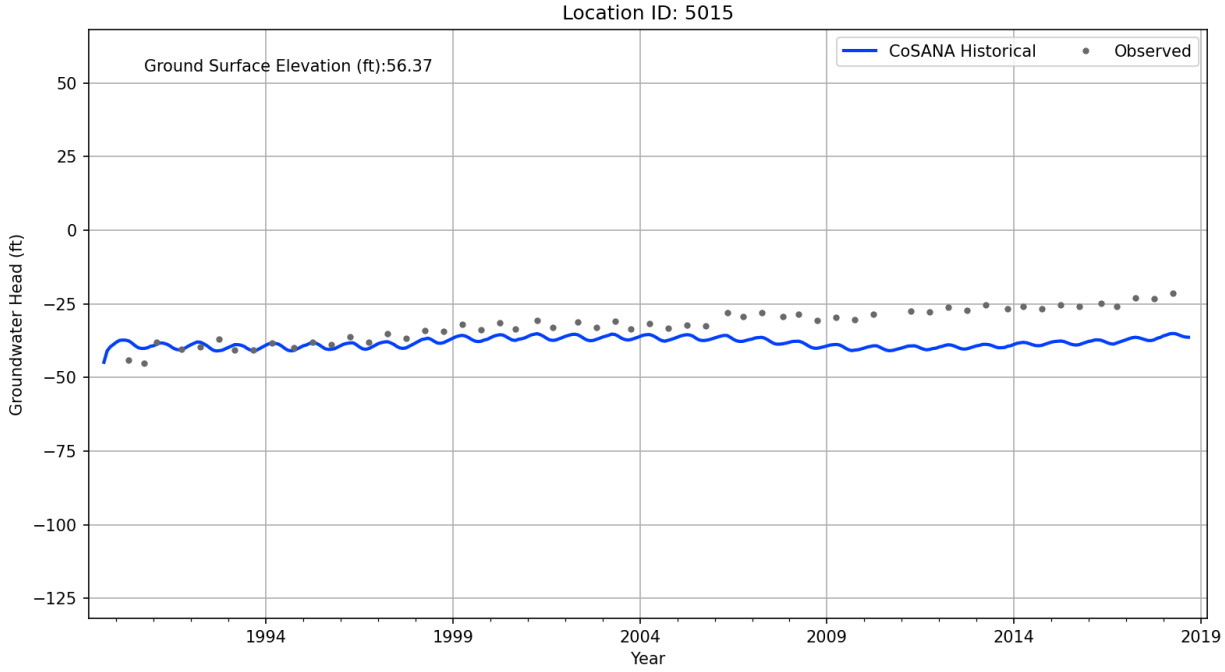

Location ID: 5009
Ground Surface Elevation (ft):58.09
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

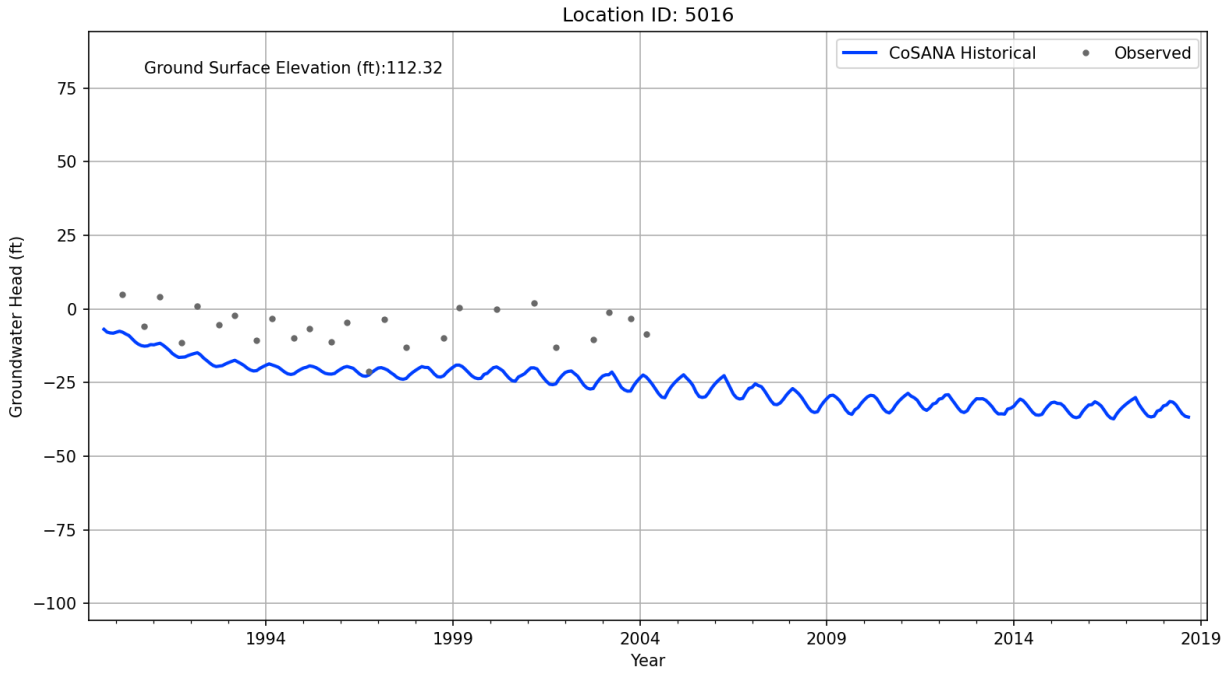

Location ID: 5011
Ground Surface Elevation (ft):141.68
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

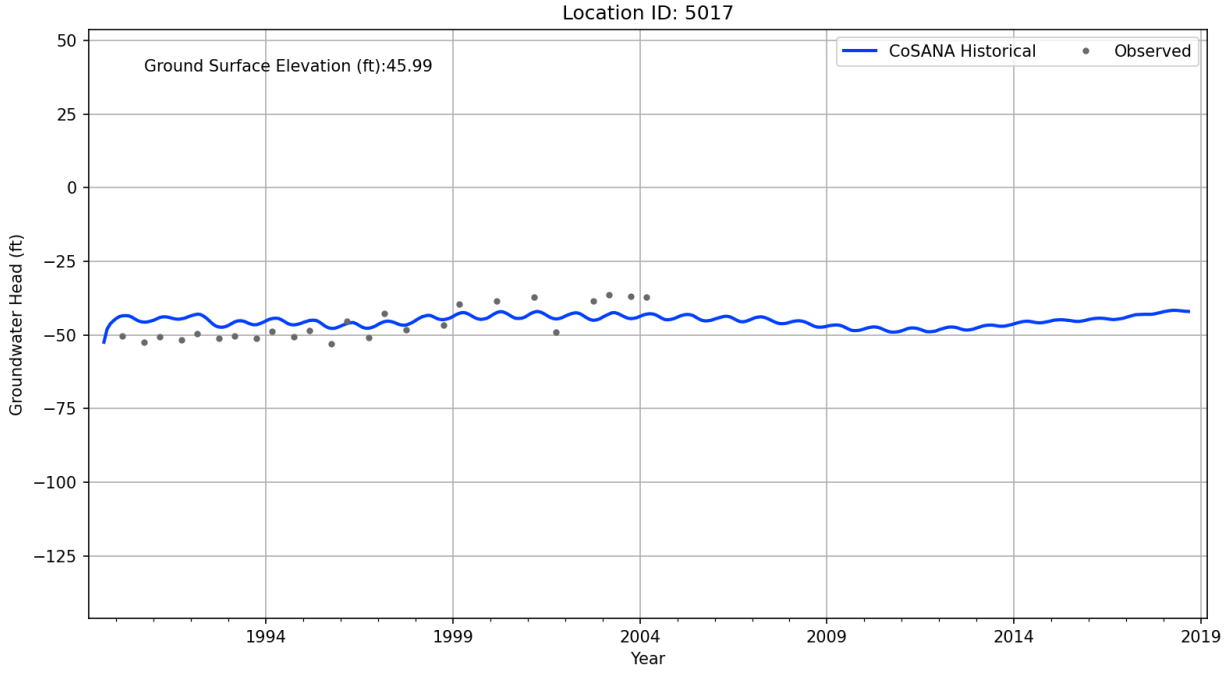

Location ID: 5012
Ground Surface Elevation (ft):121.1
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

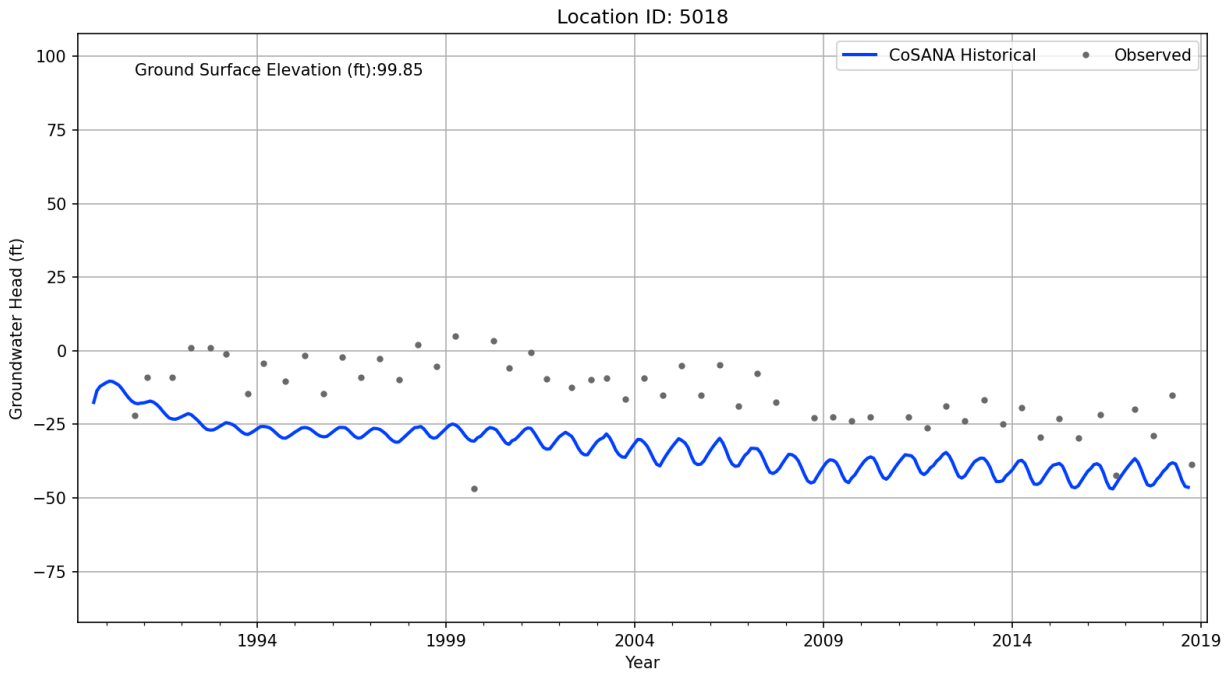

Location ID: 5013
Ground Surface Elevation (ft):81.34
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

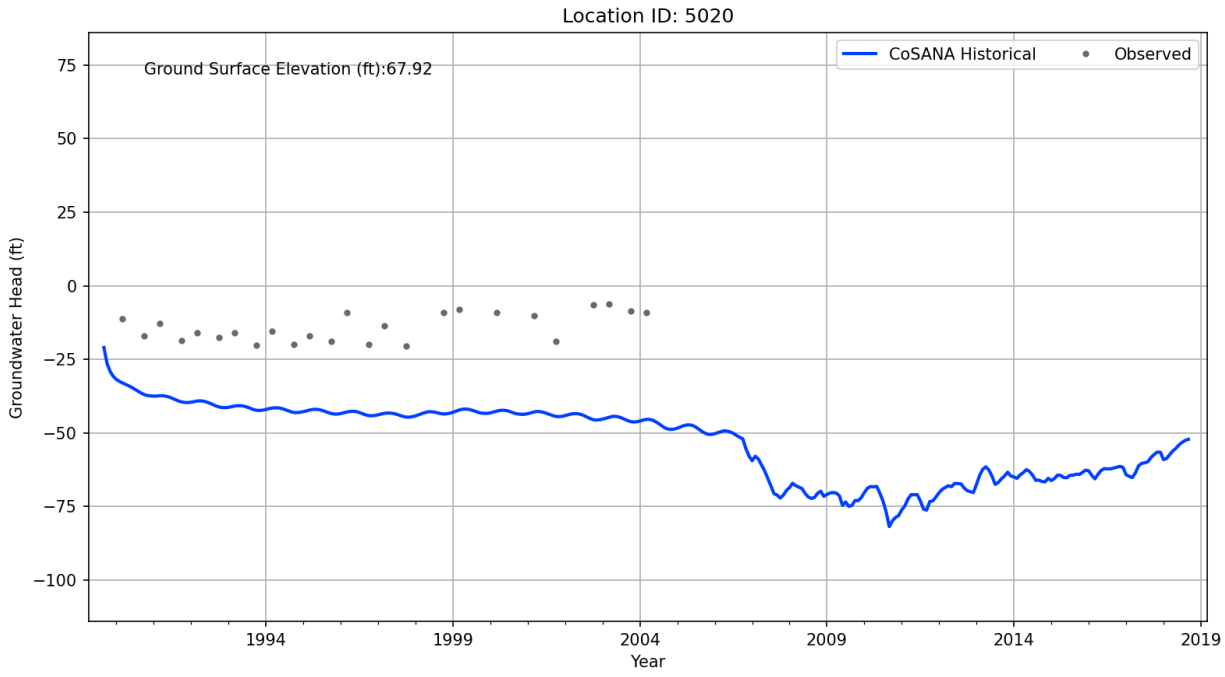

Location ID: 5014
Ground Surface Elevation (ft):116.47
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

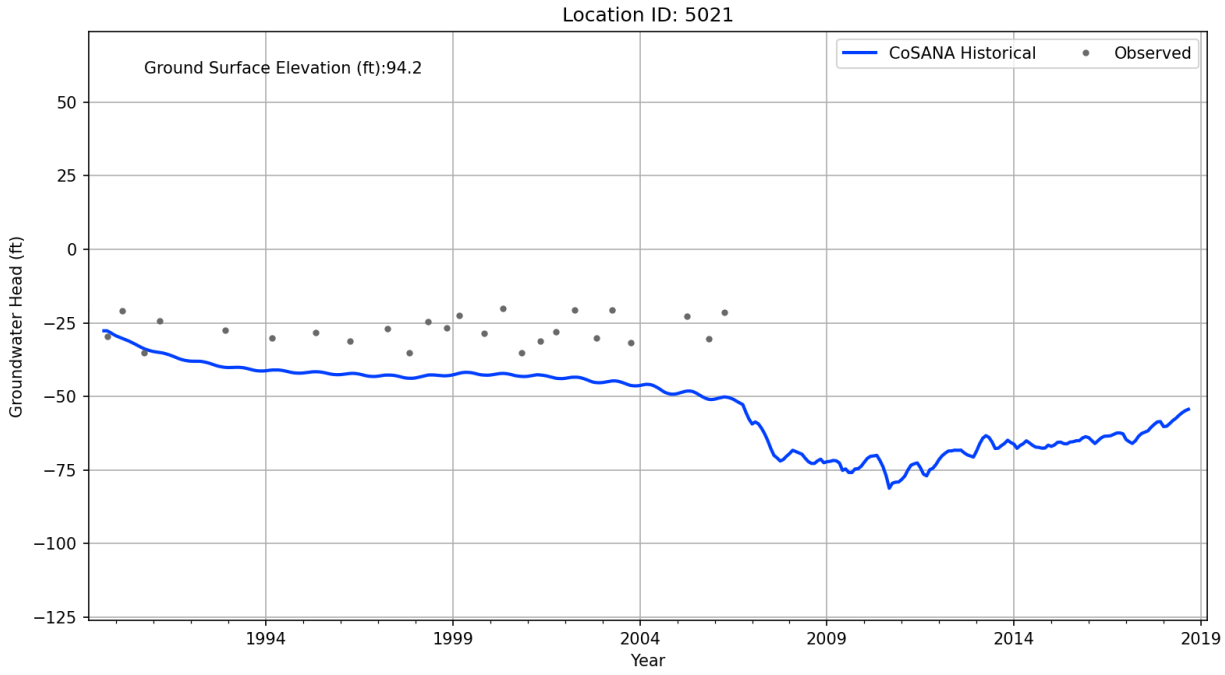

Location ID: 5015
Ground Surface Elevation (ft):56.37
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

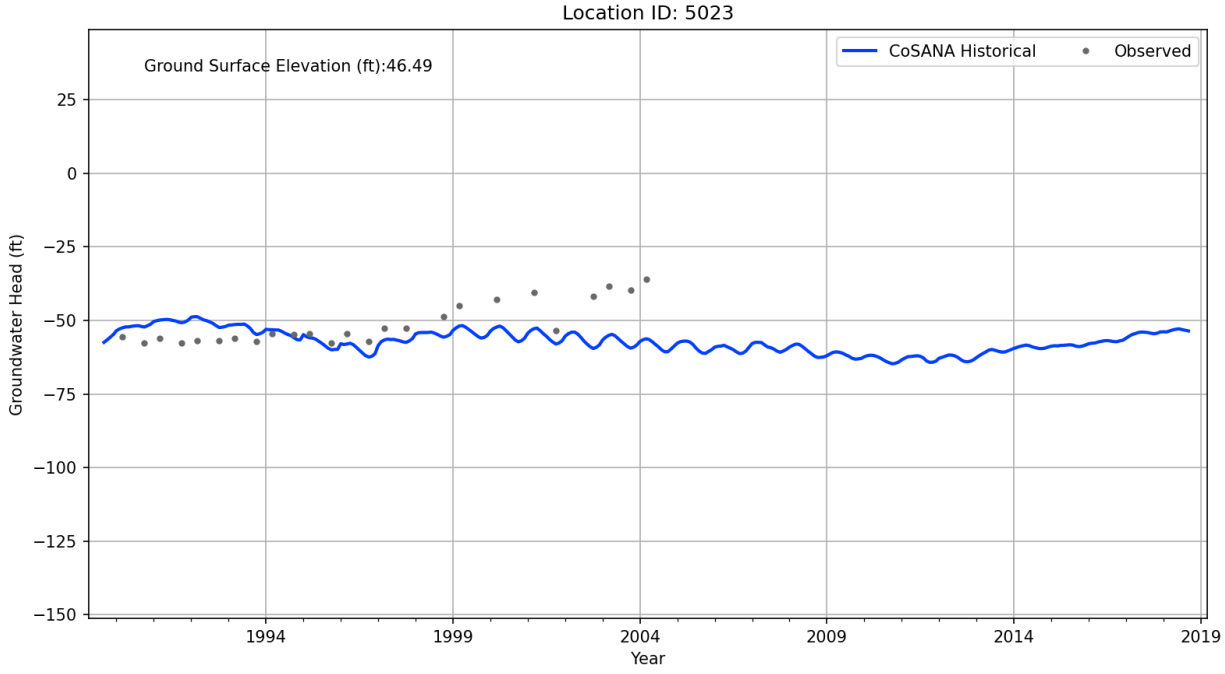

Location ID: 5016
Ground Surface Elevation (ft):112.32
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

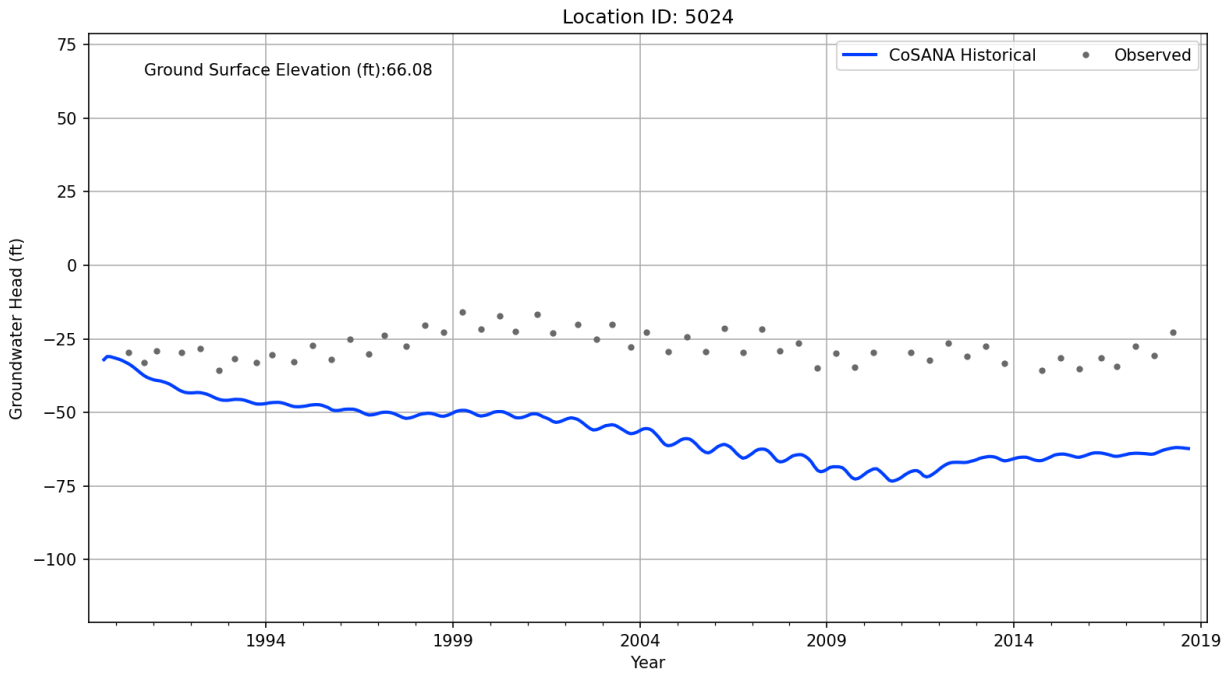

Location ID: 5017
Ground Surface Elevation (ft):45.99
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

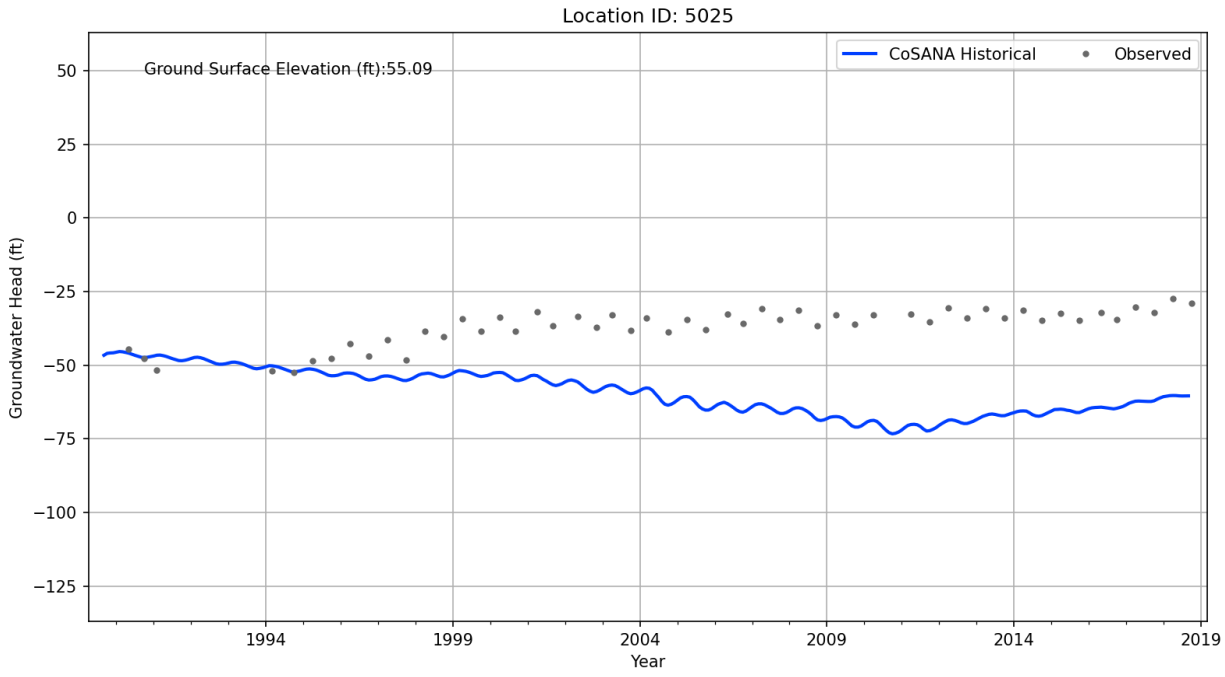

Location ID: 5018
Ground Surface Elevation (ft):99.85
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

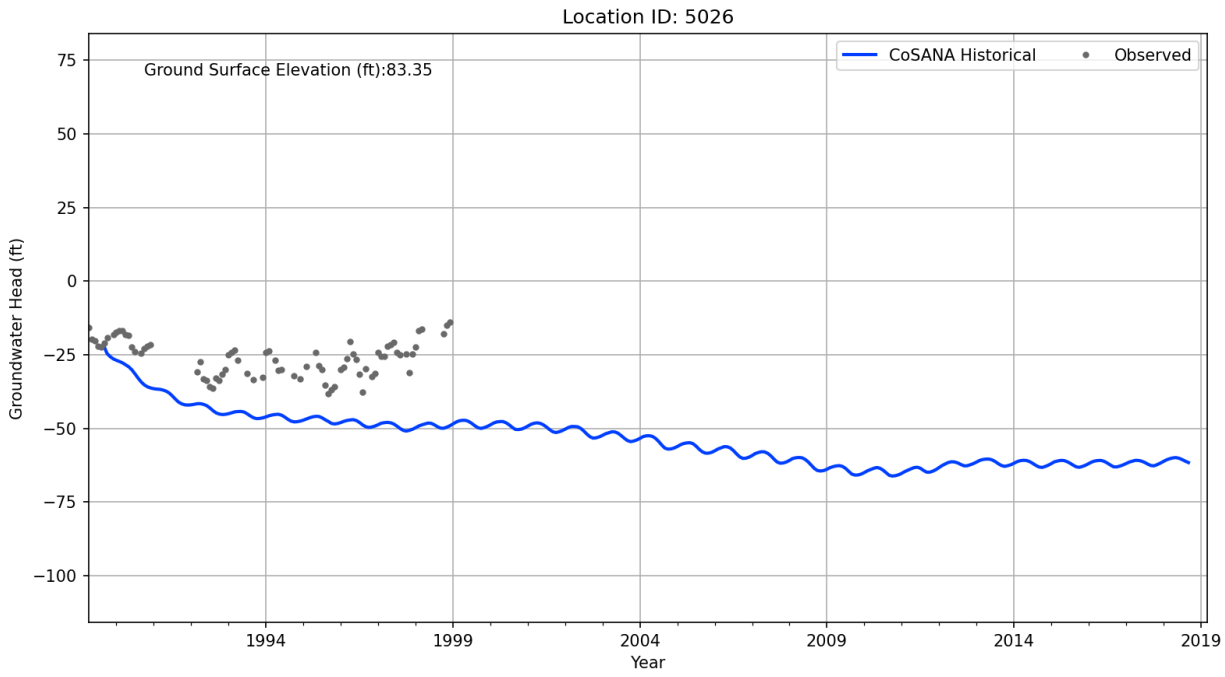

Location ID: 5020
Ground Surface Elevation (ft):67.92
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

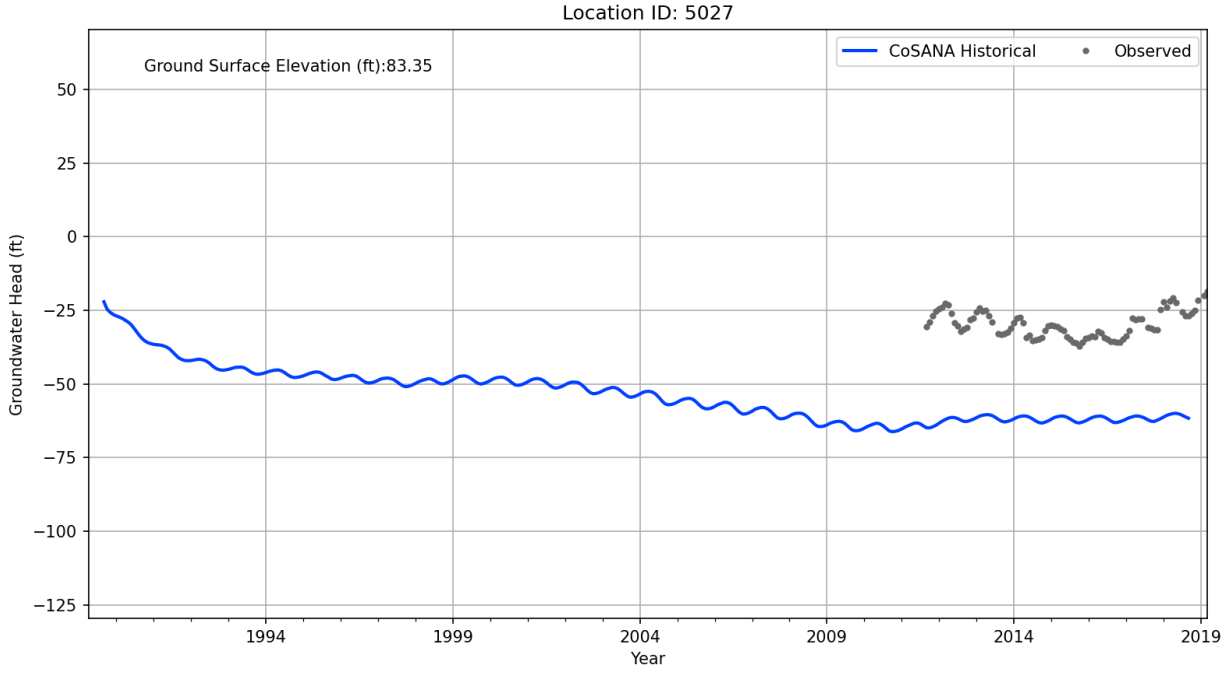

Location ID: 5021
Ground Surface Elevation (ft):94.2
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

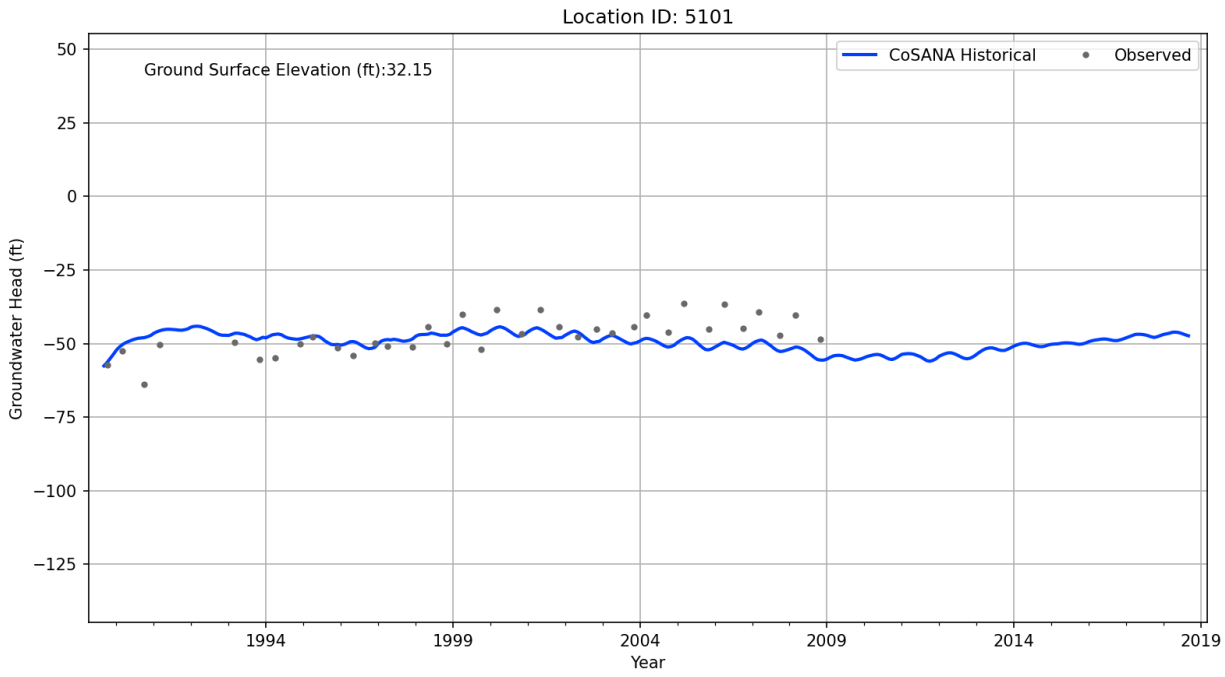

Location ID: 5023
Ground Surface Elevation (ft):46.49
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

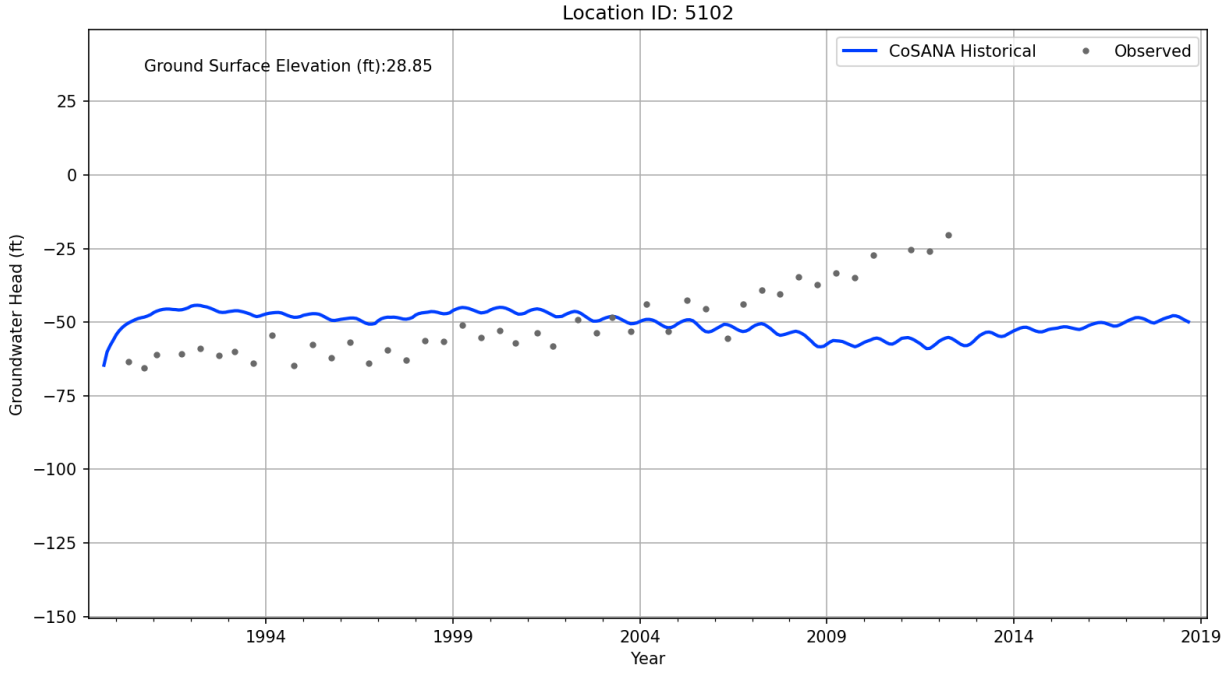

Location ID: 5024
Ground Surface Elevation (ft):66.08
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

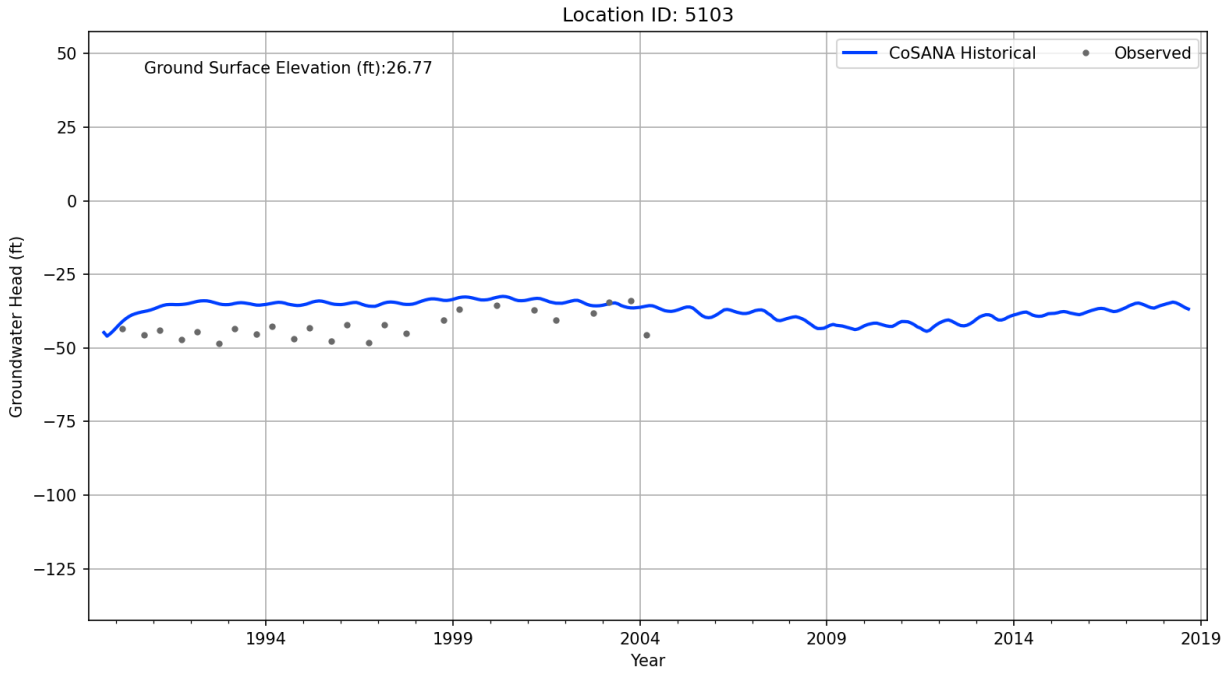

Location ID: 5025
Ground Surface Elevation (ft):55.09
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

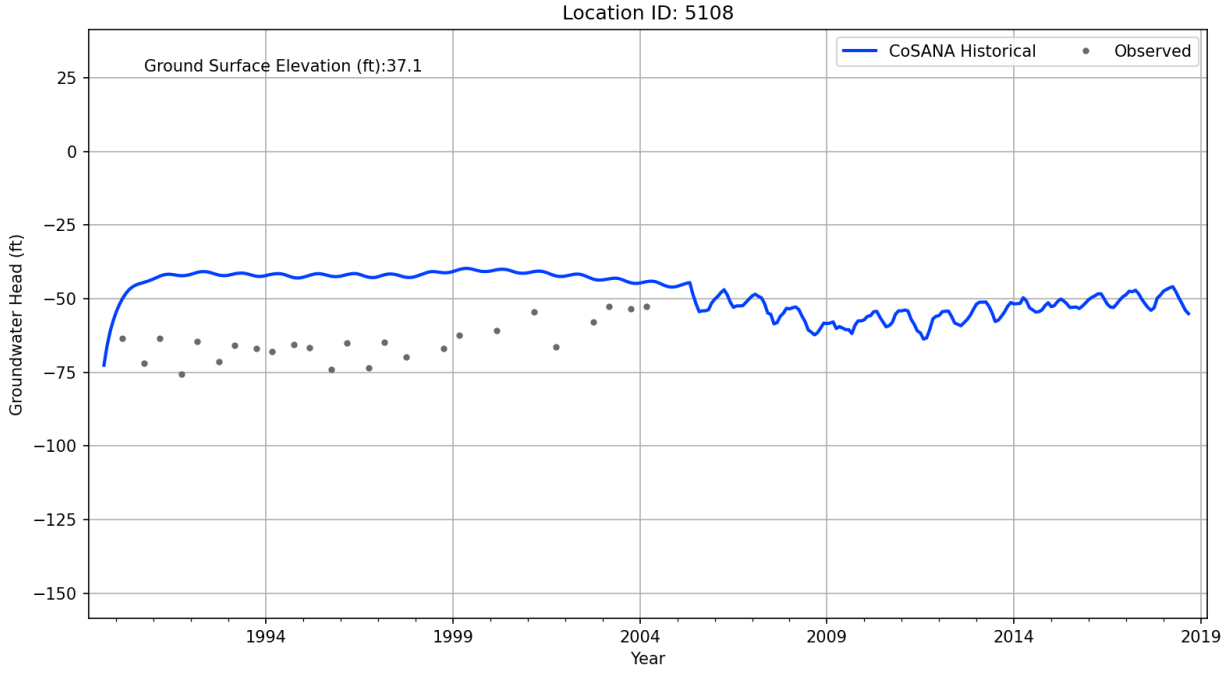

Location ID: 5026
Ground Surface Elevation (ft):83.35
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

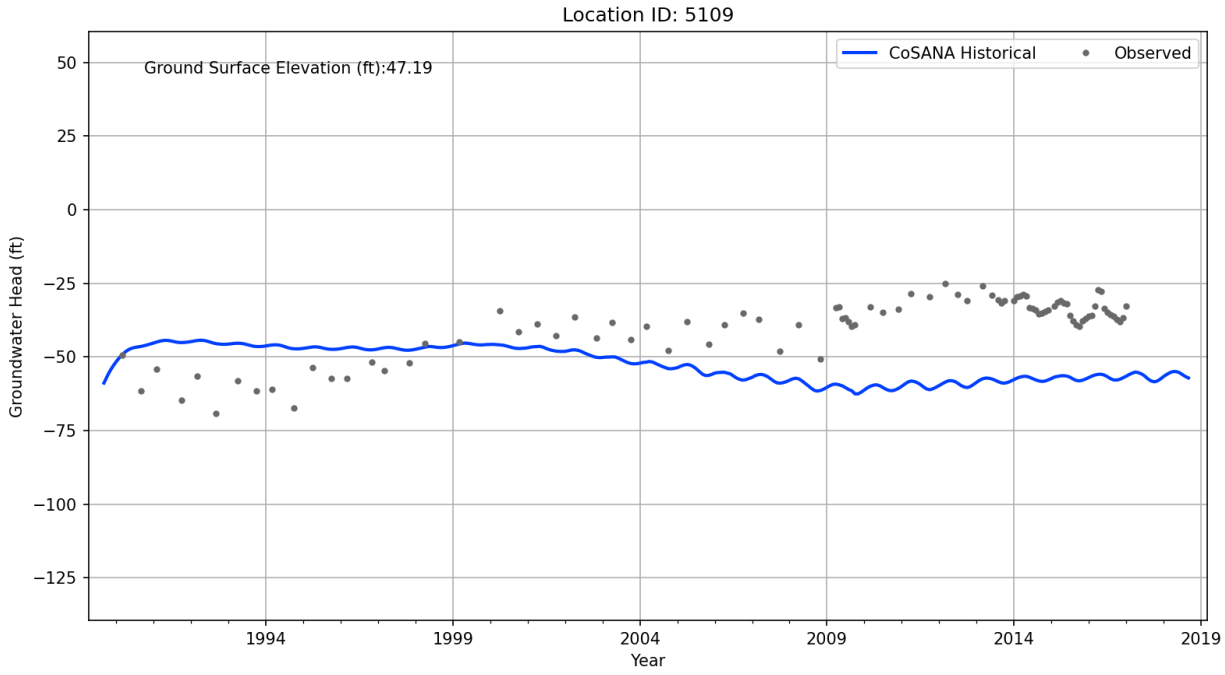

Location ID: 5027
Ground Surface Elevation (ft):83.35
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

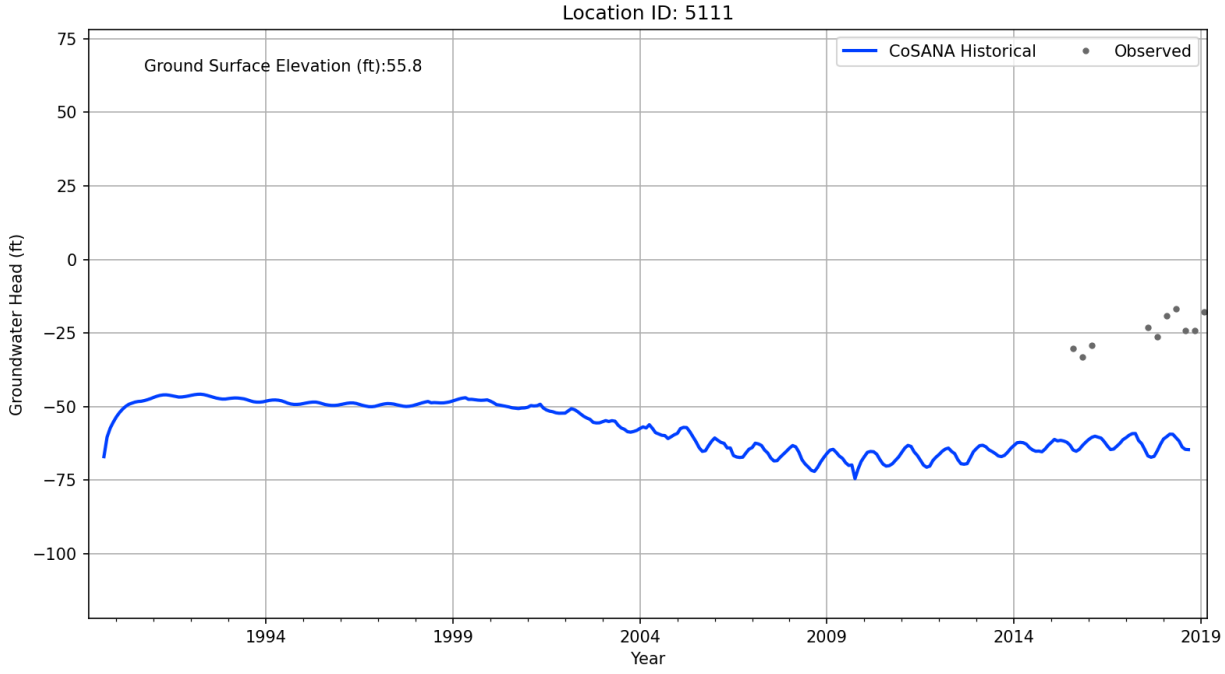

Location ID: 5101
Ground Surface Elevation (ft):32.15
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

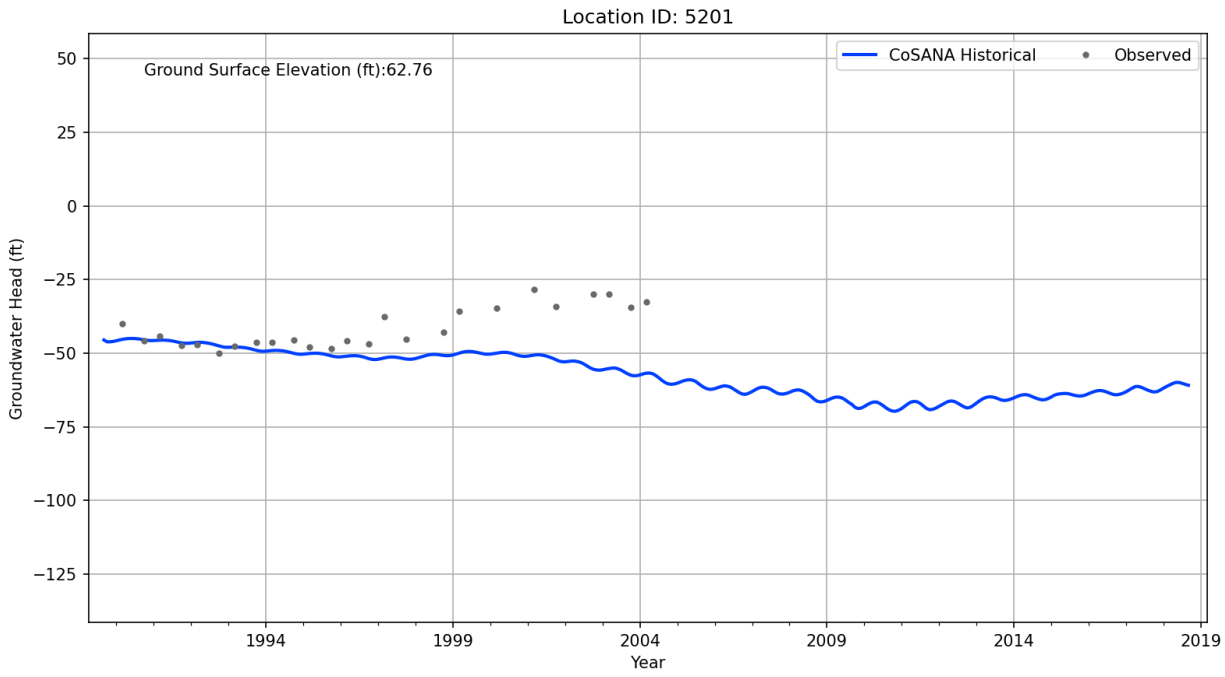

Location ID: 5102
Ground Surface Elevation (ft):28.85
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

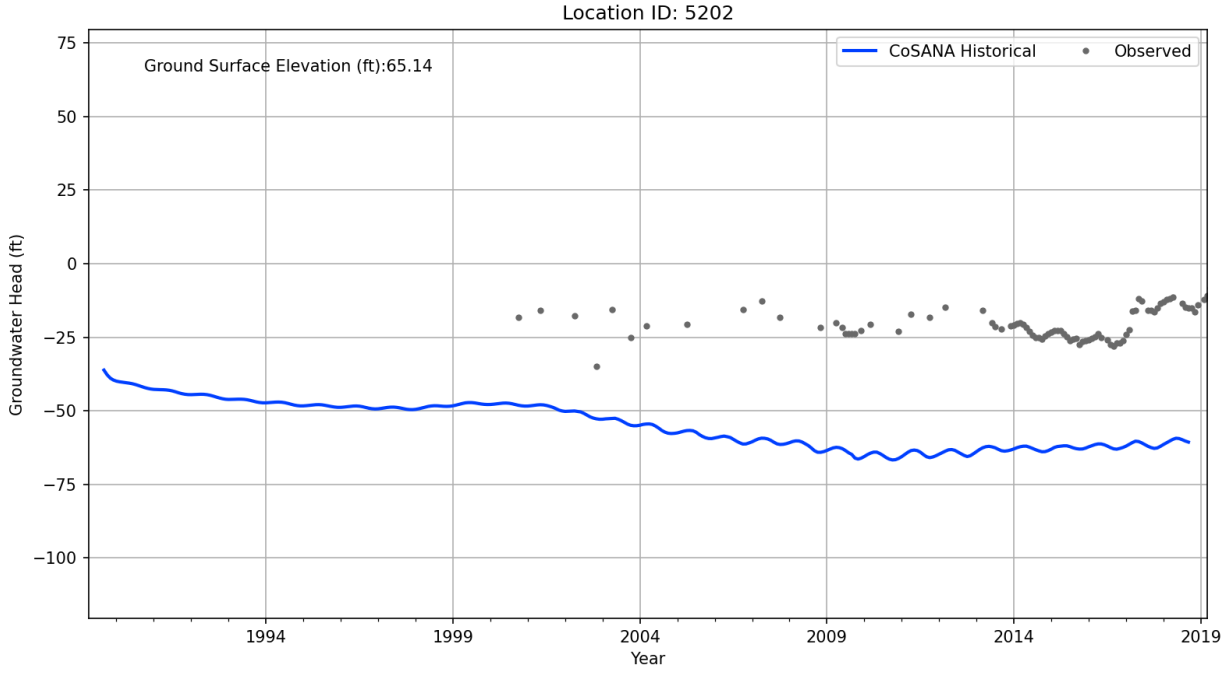

Location ID: 5103
Ground Surface Elevation (ft):26.77
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

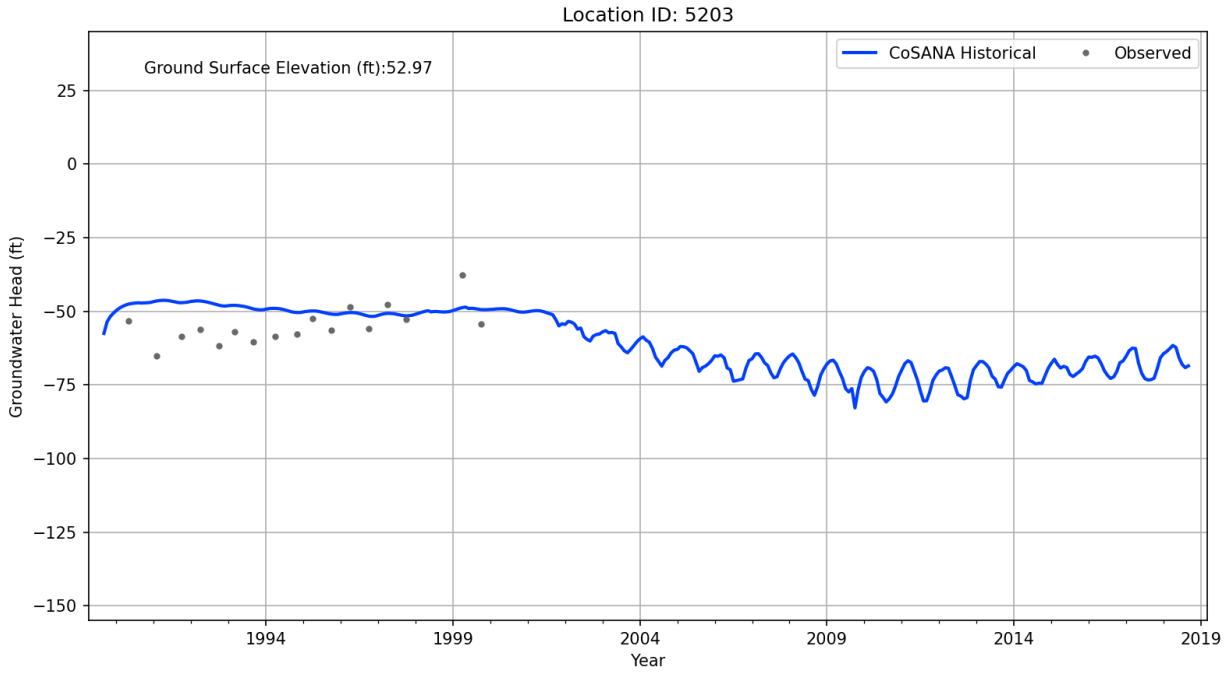

Location ID: 5108
Ground Surface Elevation (ft):37.1
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

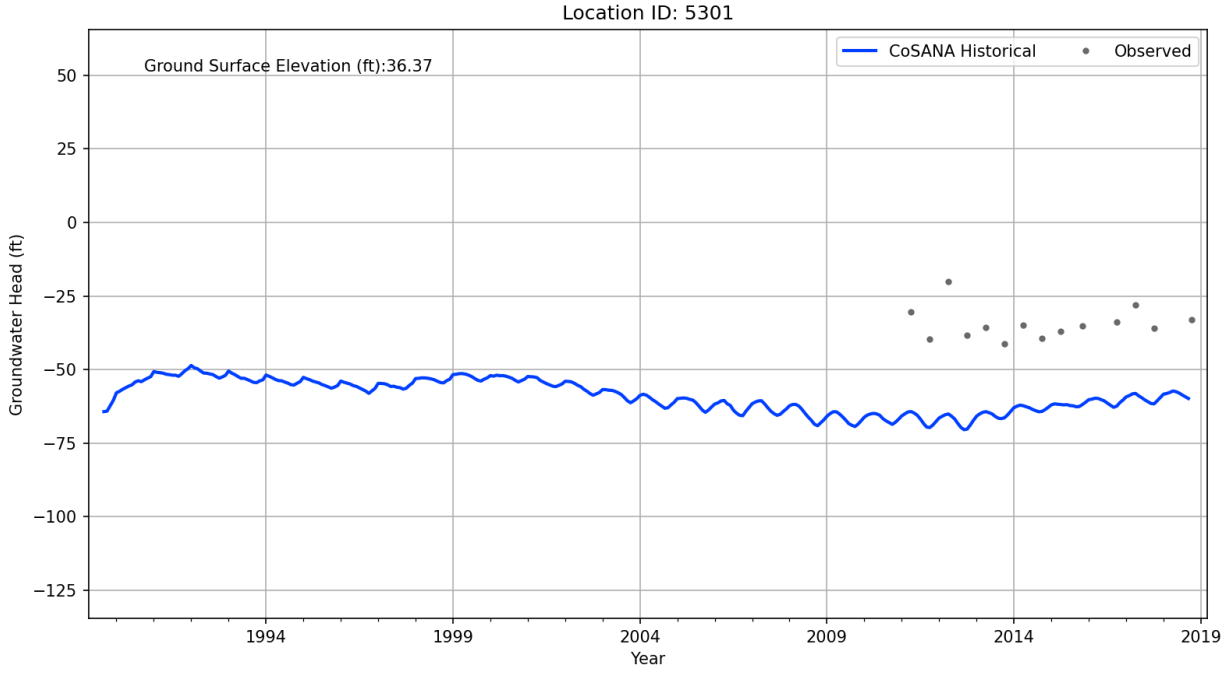

Location ID: 5109
Ground Surface Elevation (ft):47.19
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

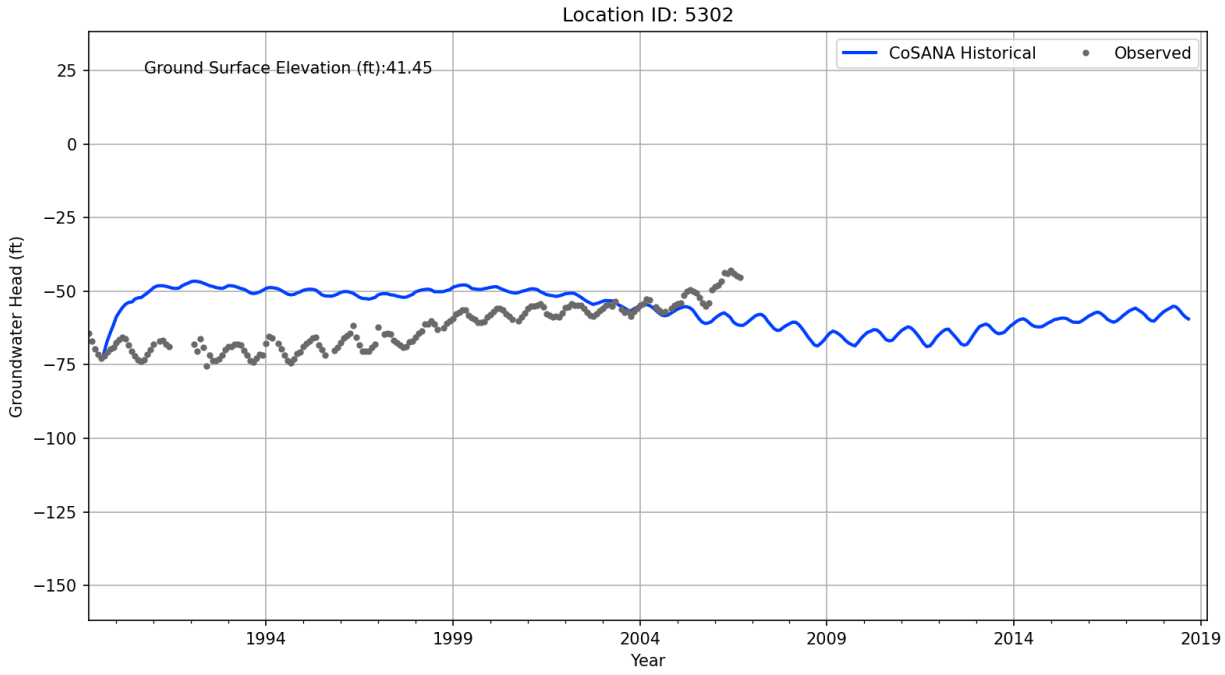

Location ID: 5111
Ground Surface Elevation (ft):55.8
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

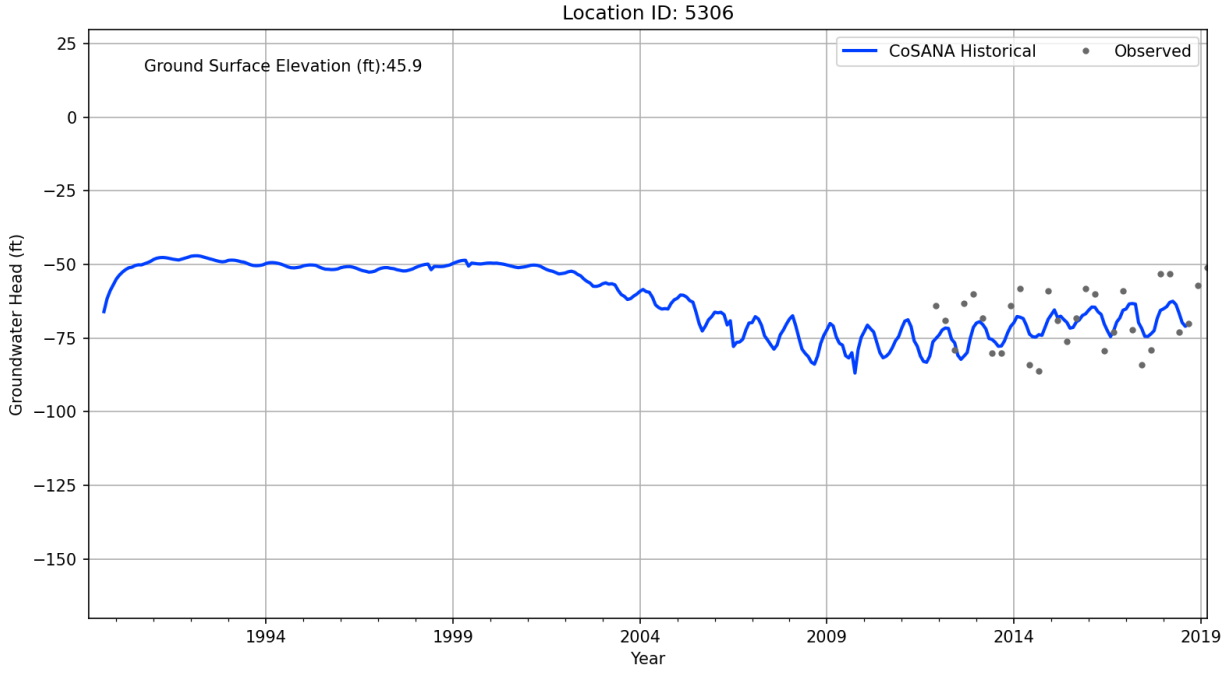

Location ID: 5201
Ground Surface Elevation (ft):62.76
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

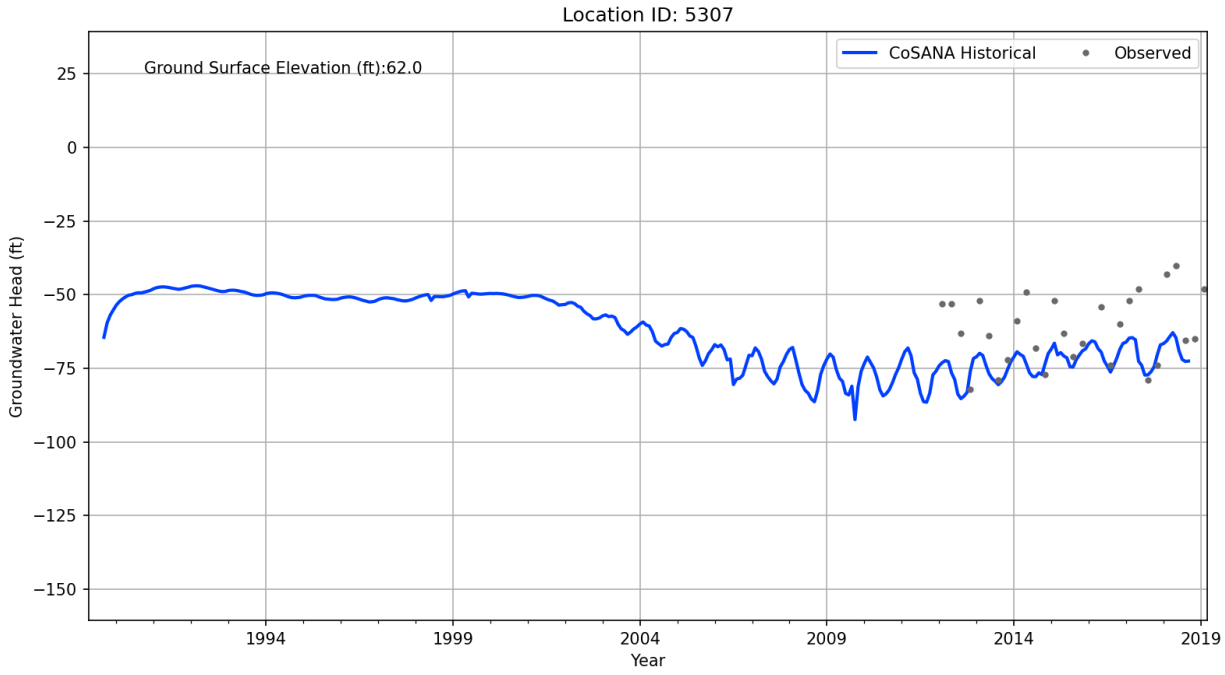

Location ID: 5202
Ground Surface Elevation (ft):65.14
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

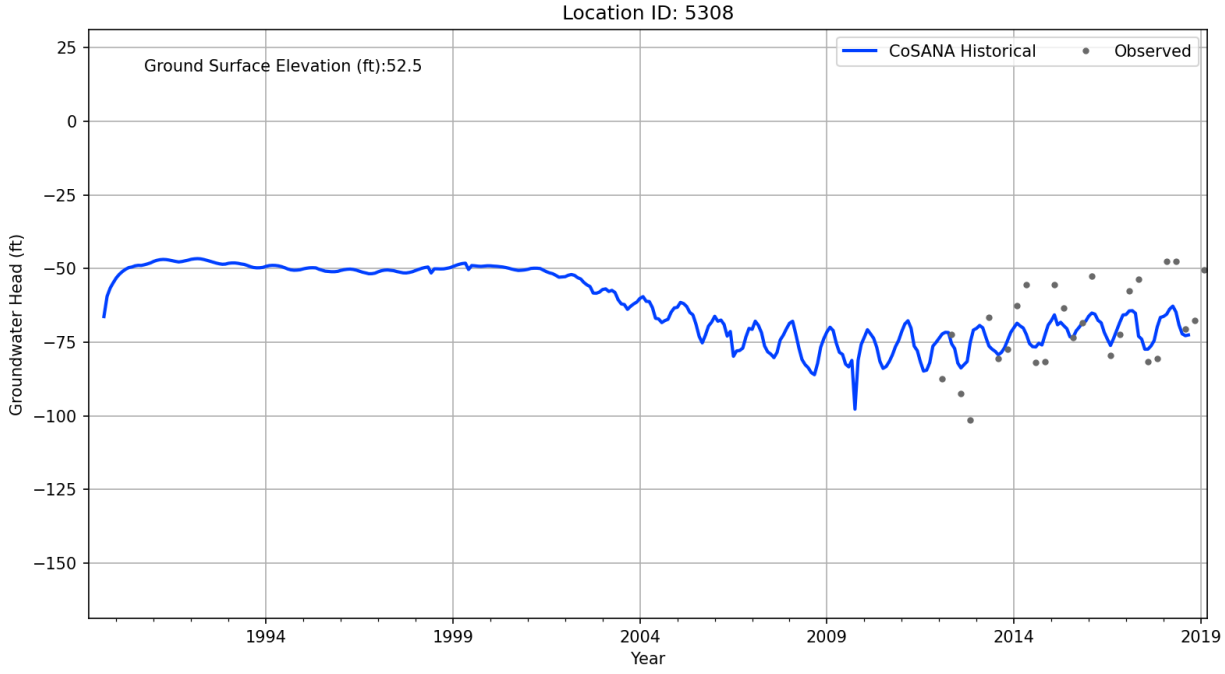

Location ID: 5203
Ground Surface Elevation (ft):52.97
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

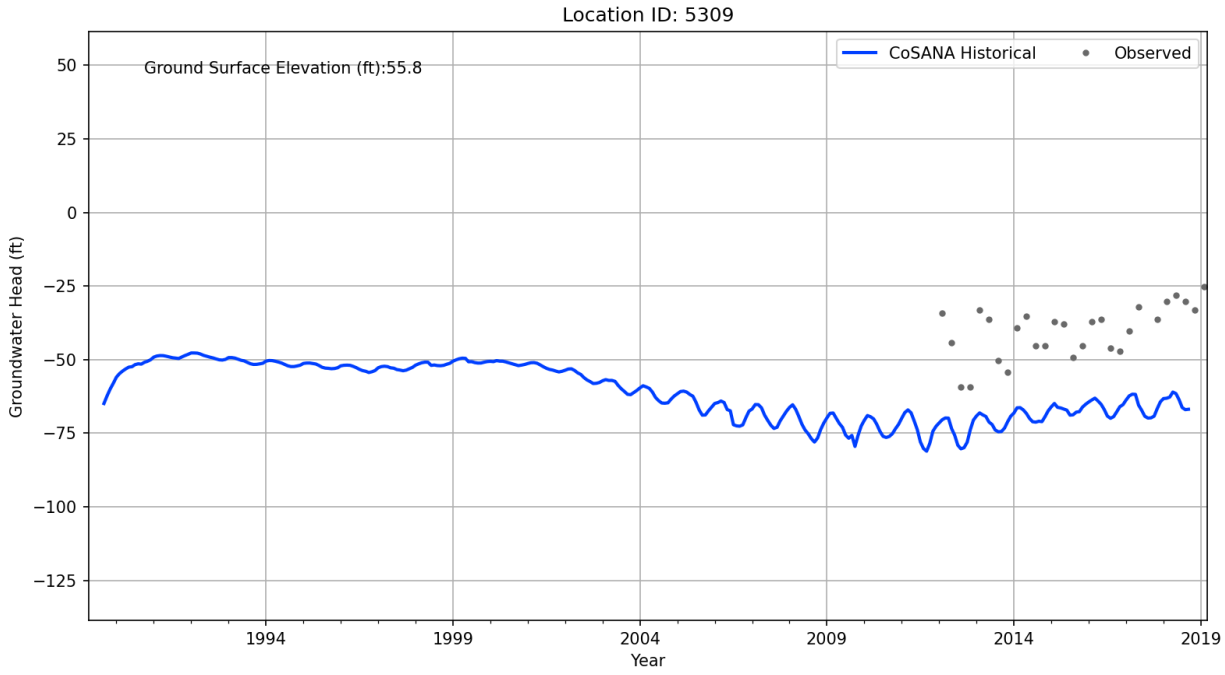

Location ID: 5301
Ground Surface Elevation (ft):36.37
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

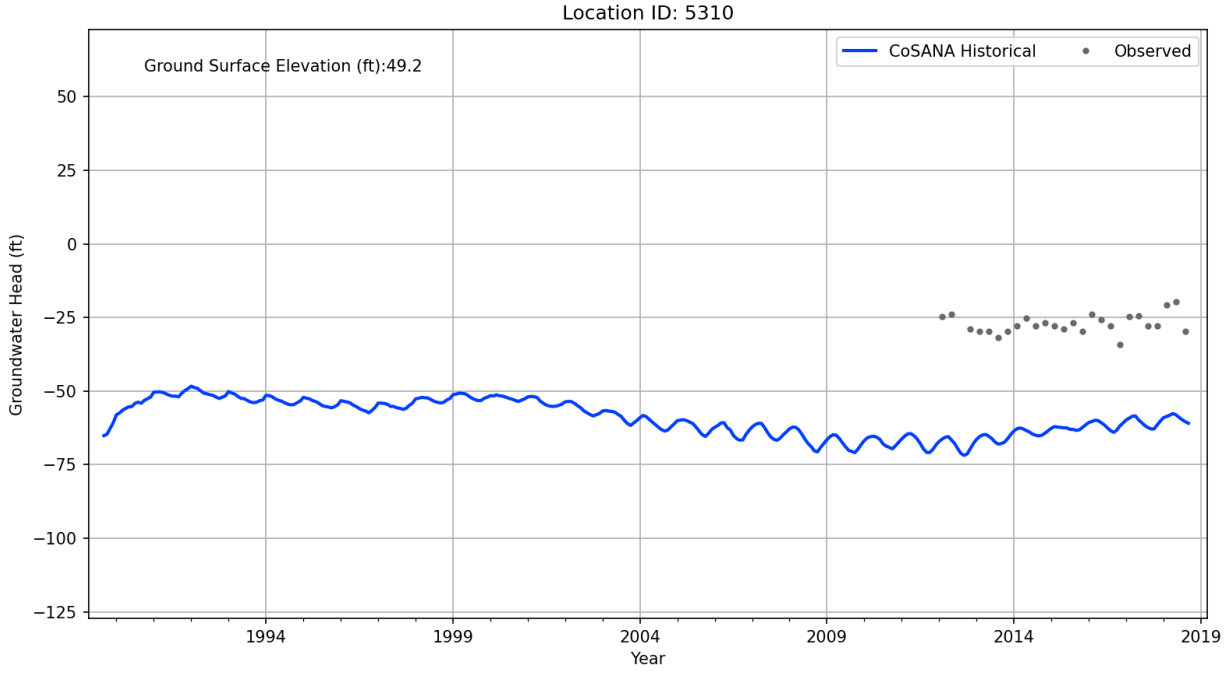

Location ID: 5302
Ground Surface Elevation (ft):41.45
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

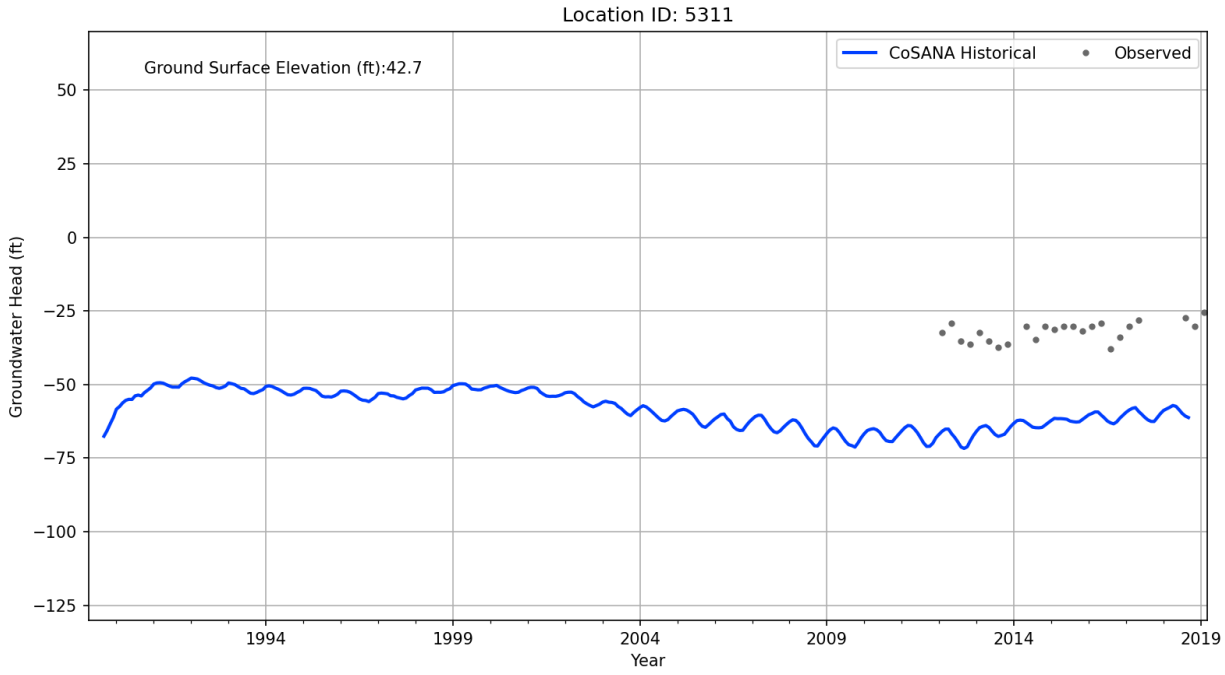

Location ID: 5306
Ground Surface Elevation (ft):45.9
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

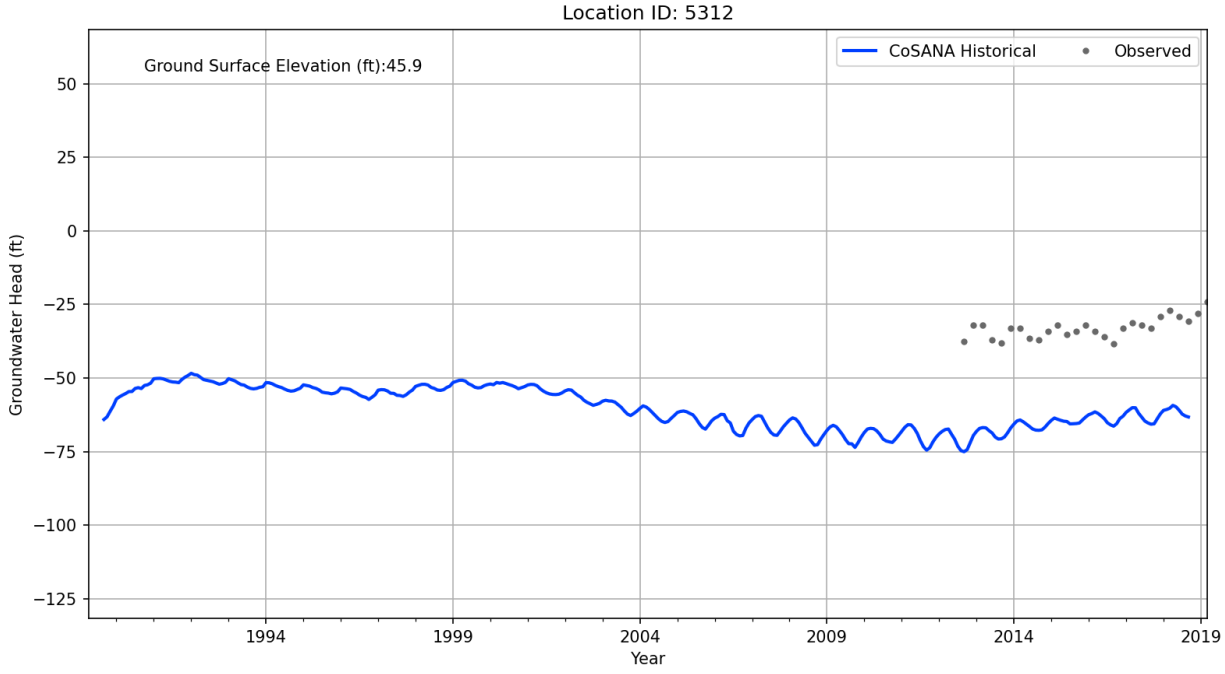

Location ID: 5307
Ground Surface Elevation (ft):62.0
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

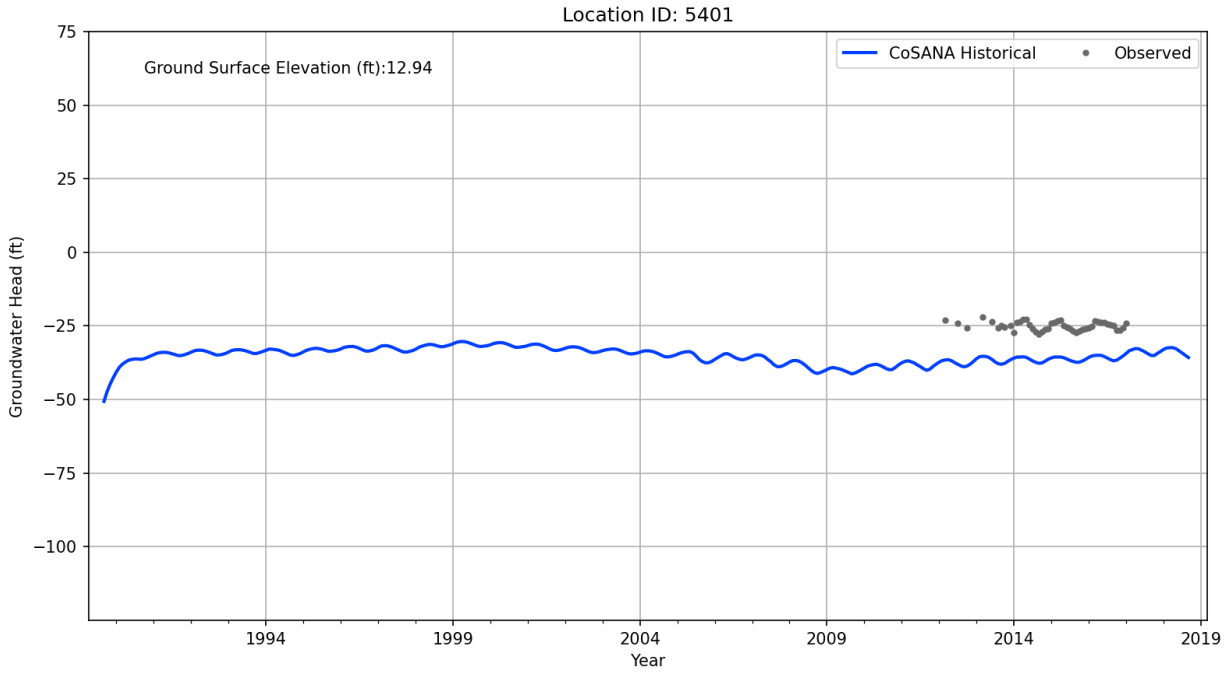

Location ID: 5308
Ground Surface Elevation (ft):52.5
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

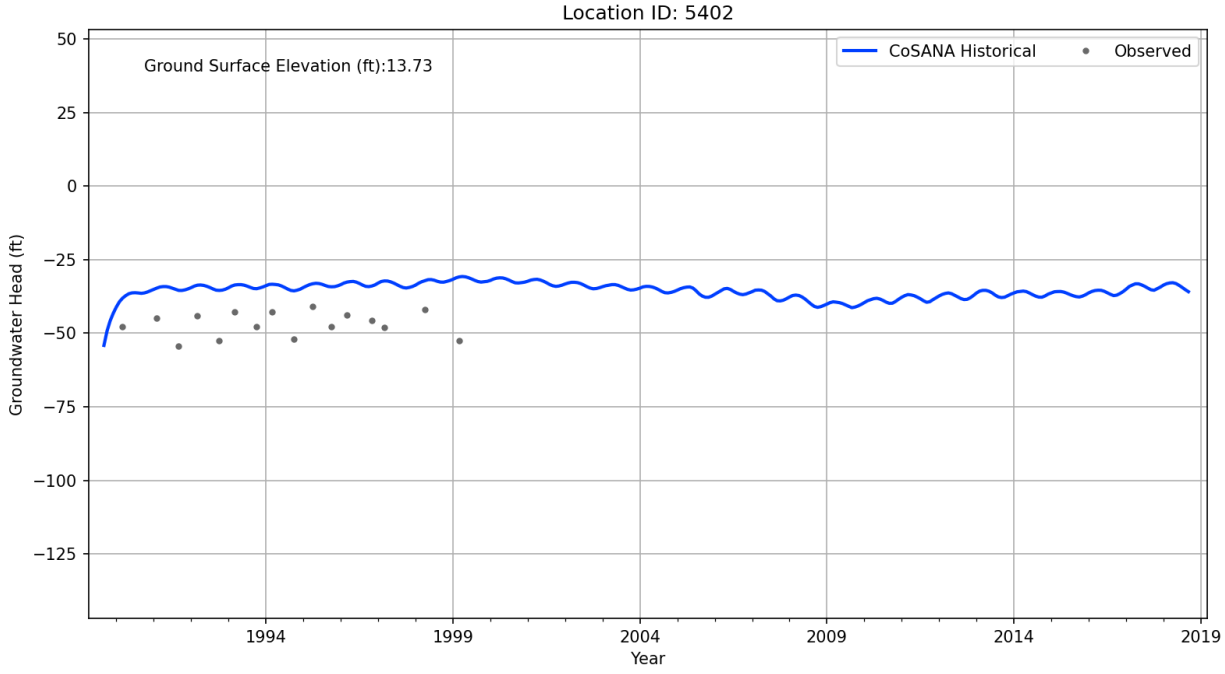

Location ID: 5309
Ground Surface Elevation (ft):55.8
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

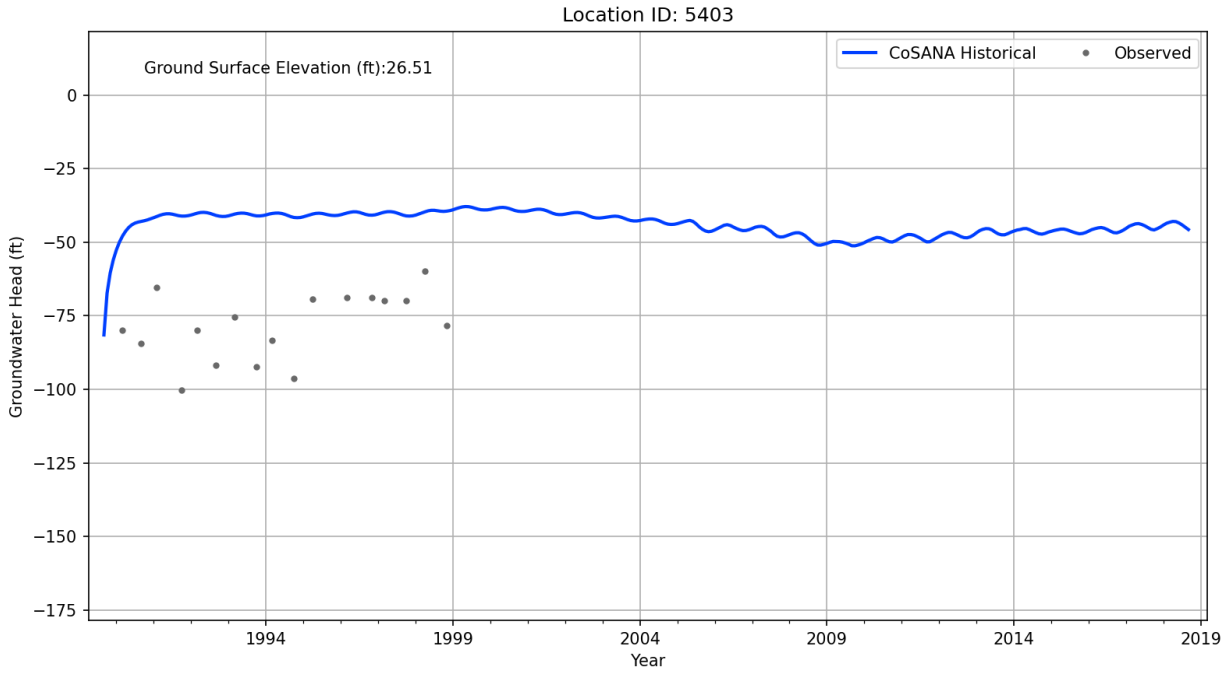

Location ID: 5310
Ground Surface Elevation (ft):49.2
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

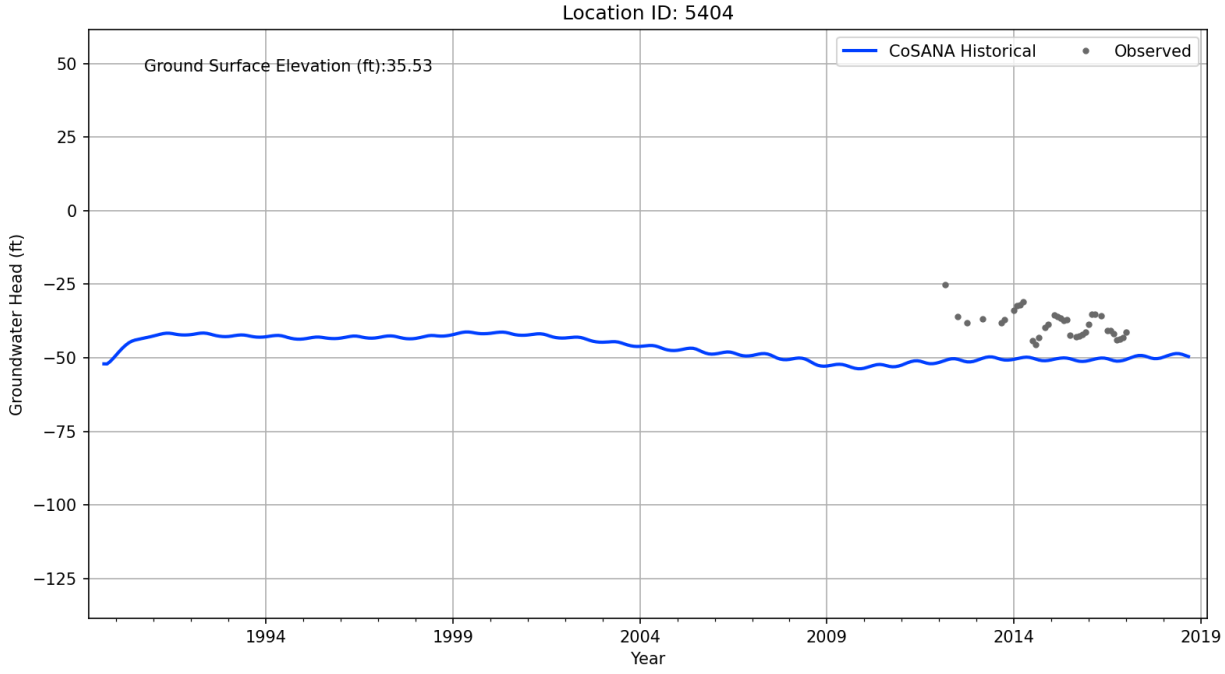

Location ID: 5311
Ground Surface Elevation (ft):42.7
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

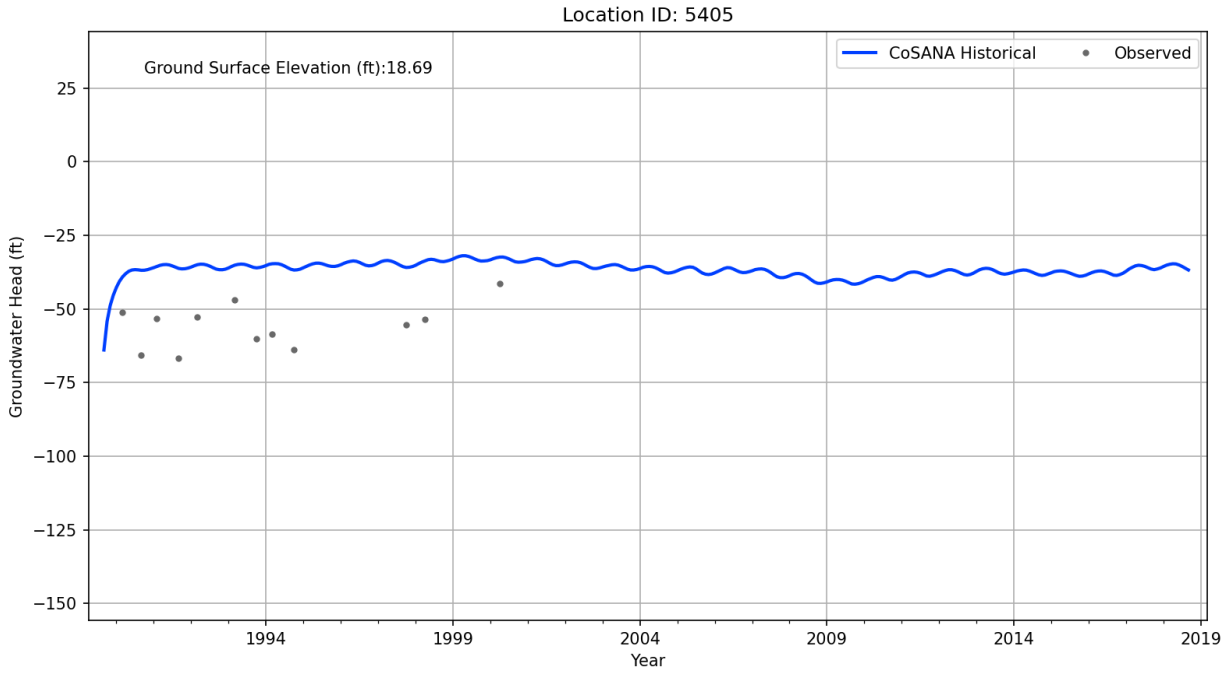

Location ID: 5312
Ground Surface Elevation (ft):45.9
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

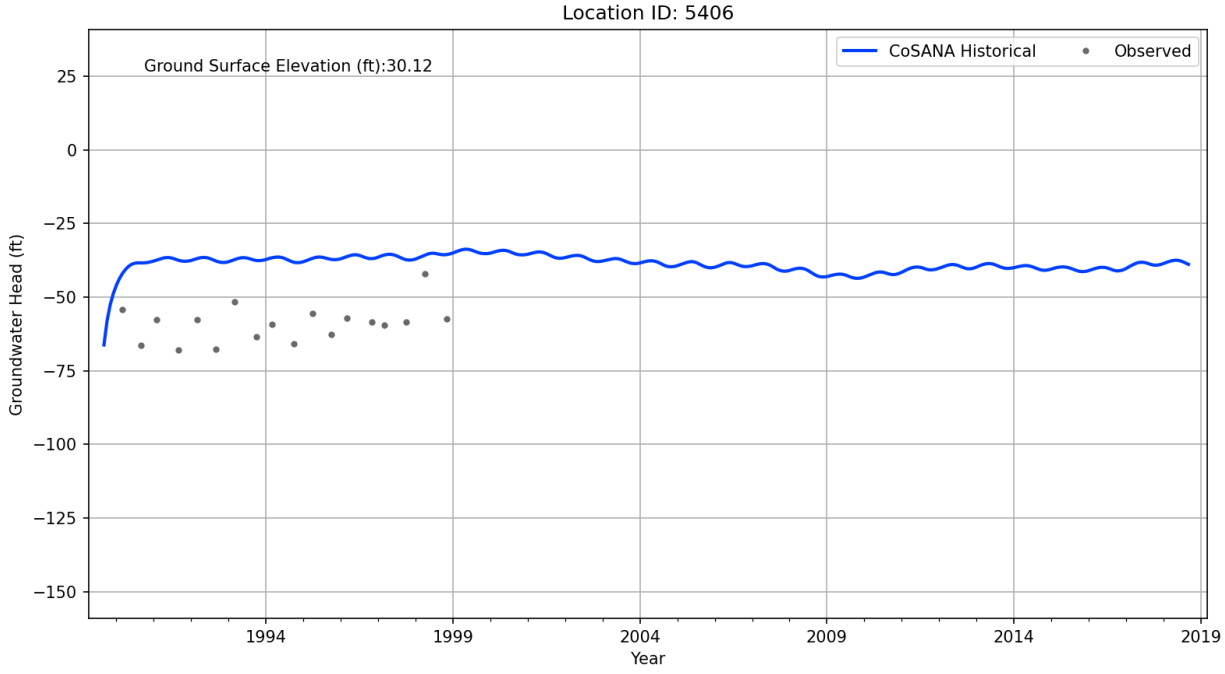

Location ID: 5401
Ground Surface Elevation (ft):12.94
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

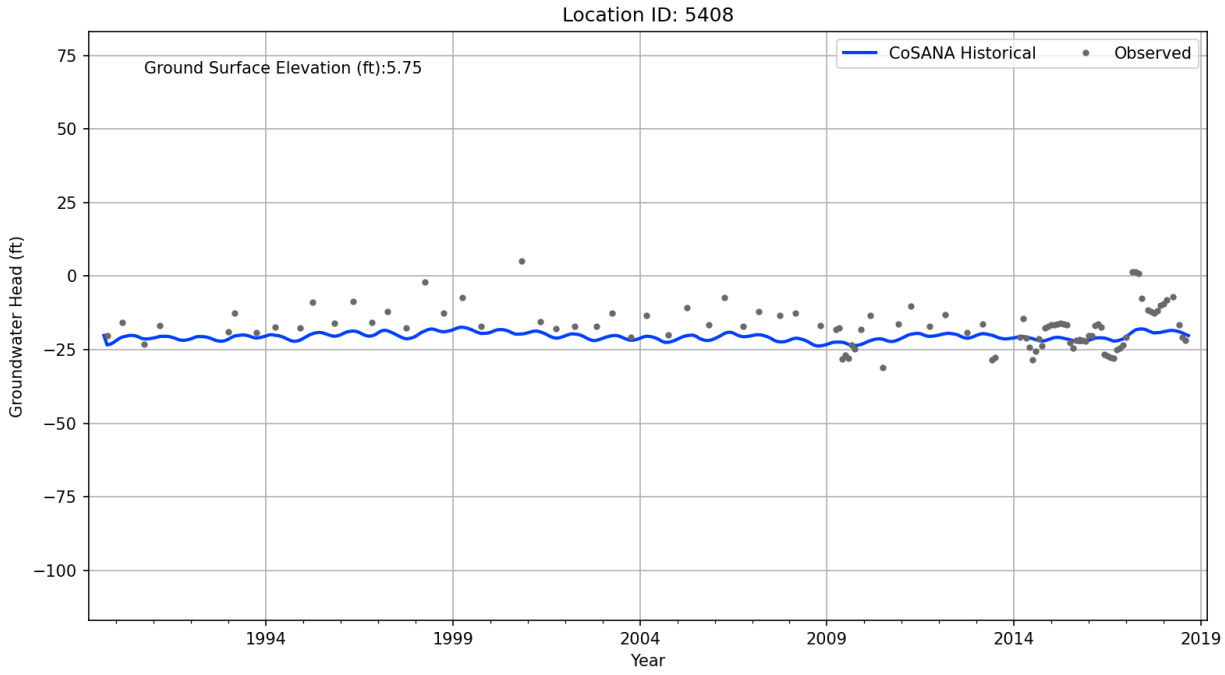

Location ID: 5402
Ground Surface Elevation (ft):13.73
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

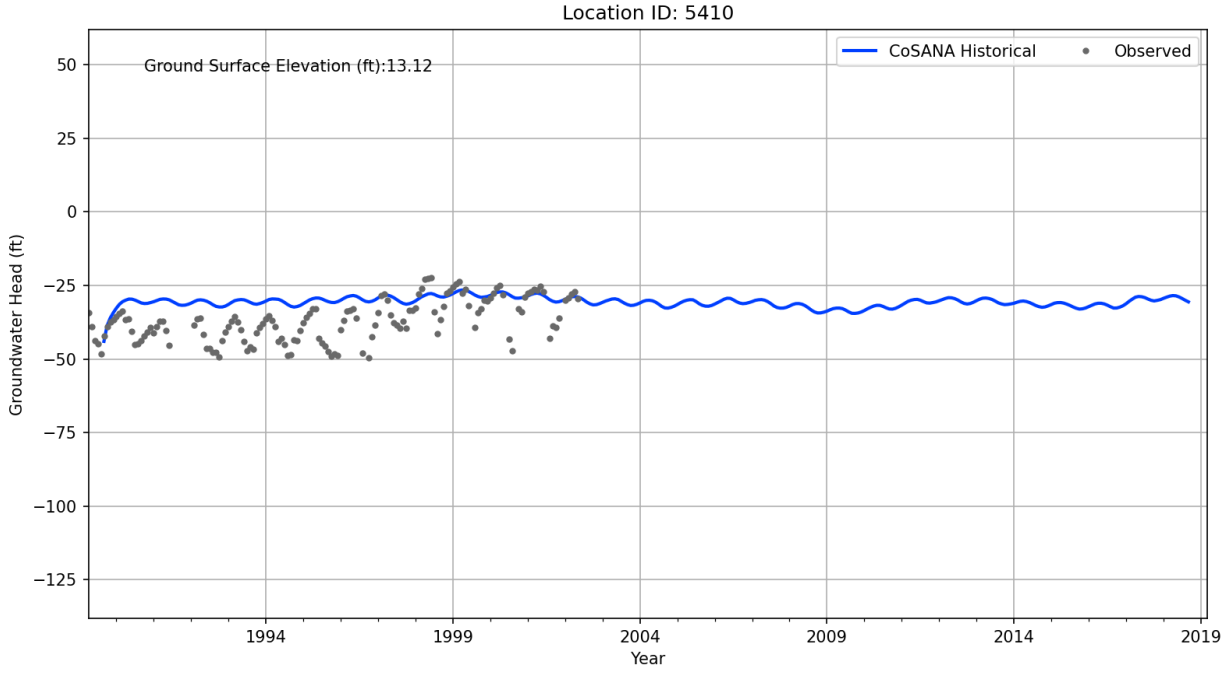

Location ID: 5403
Ground Surface Elevation (ft):26.51
CoSANA Historical
Observed
Groundwater Head (ft)
0
−25
−50
−75
−100
−125
−150
−175
1994
1999
2004
2009
2014
2019
Year

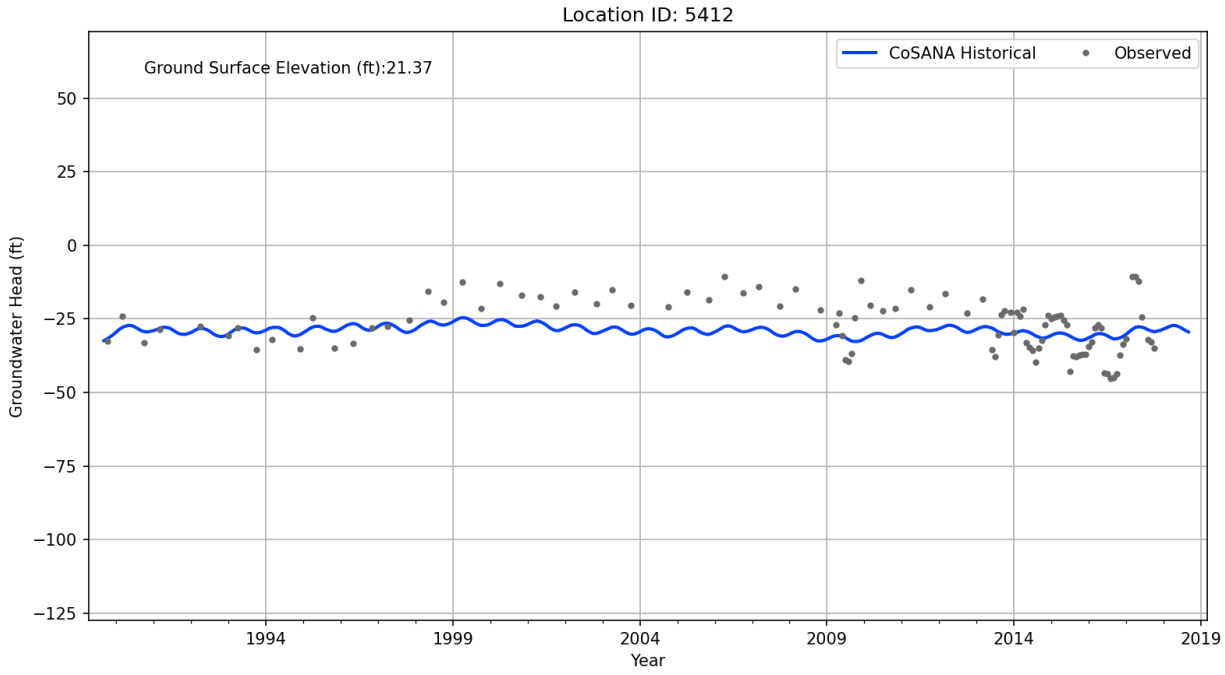

Location ID: 5404
Ground Surface Elevation (ft):35.53
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

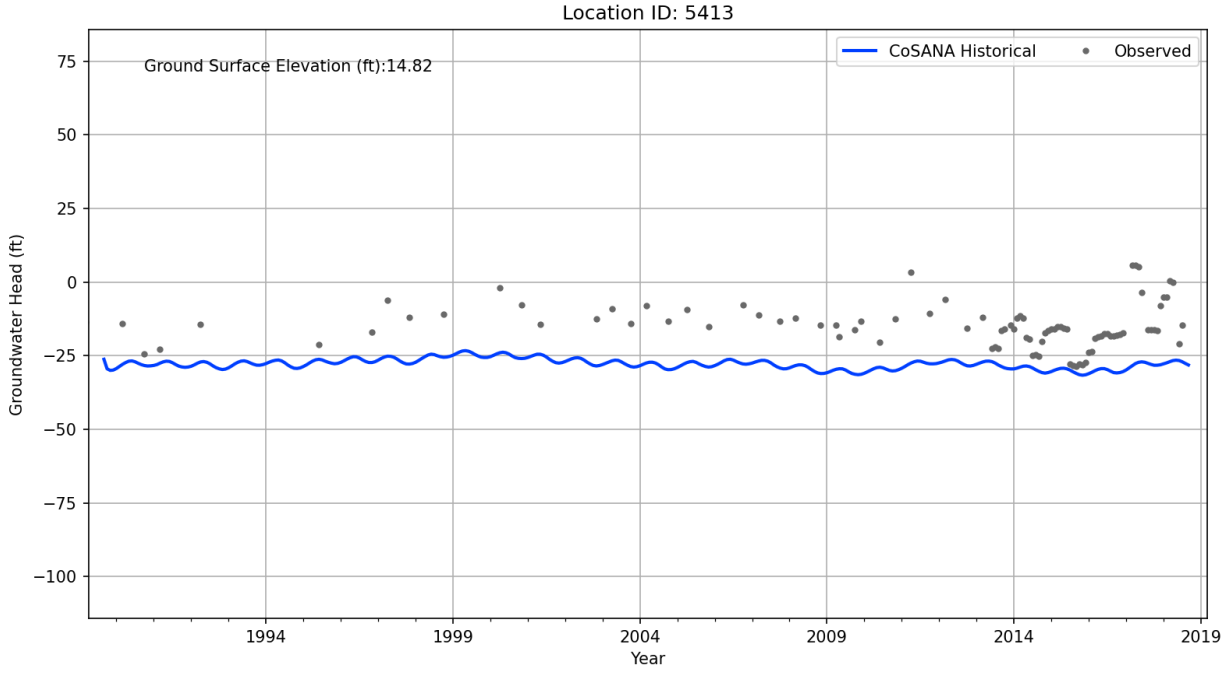

Location ID: 5405
Ground Surface Elevation (ft):18.69
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

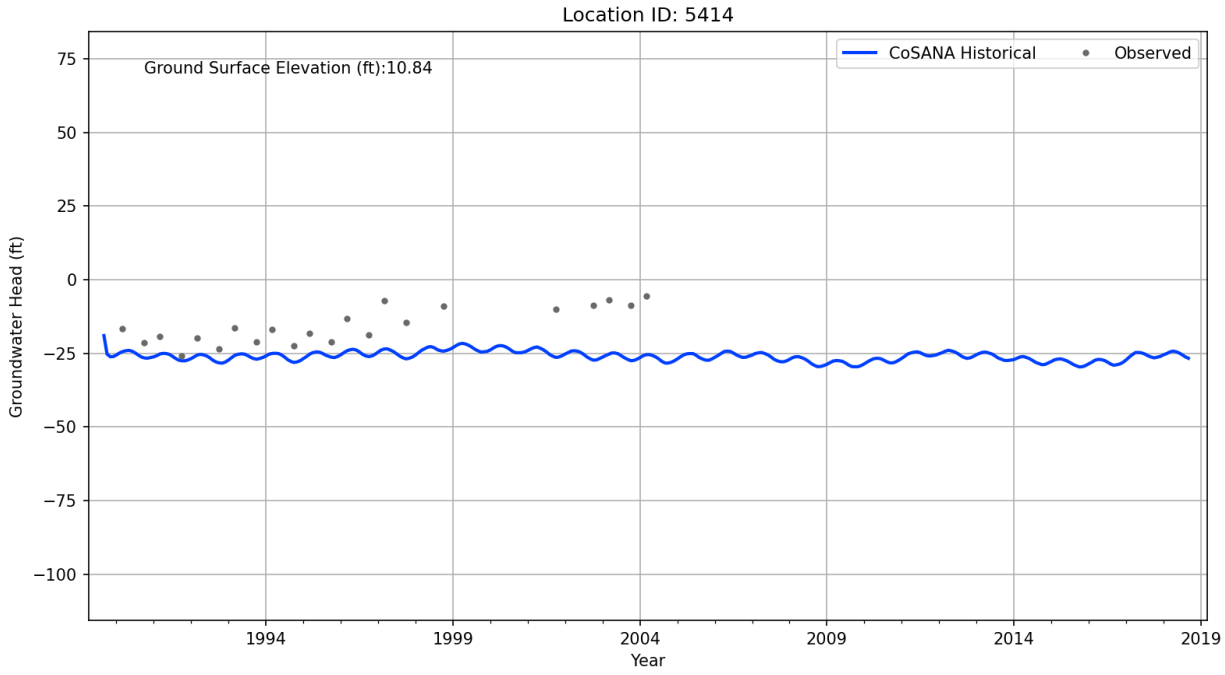

Location ID: 5406
Ground Surface Elevation (ft):30.12
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

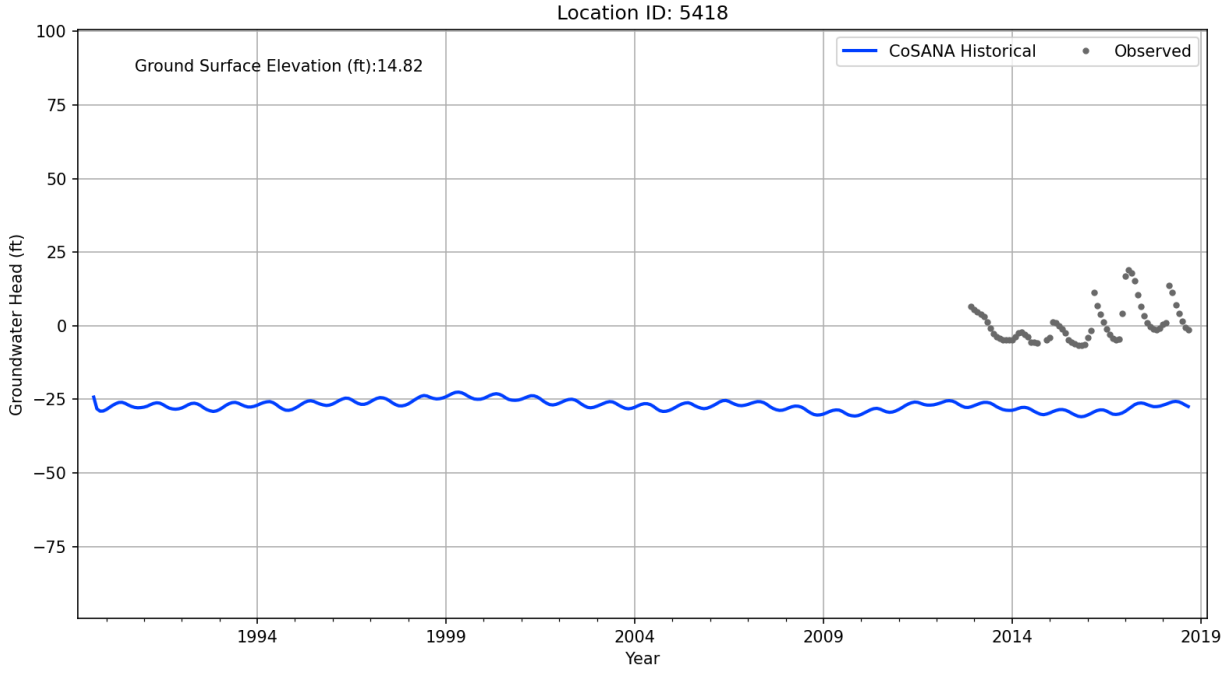

Location ID: 5408
Ground Surface Elevation (ft):5.75
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

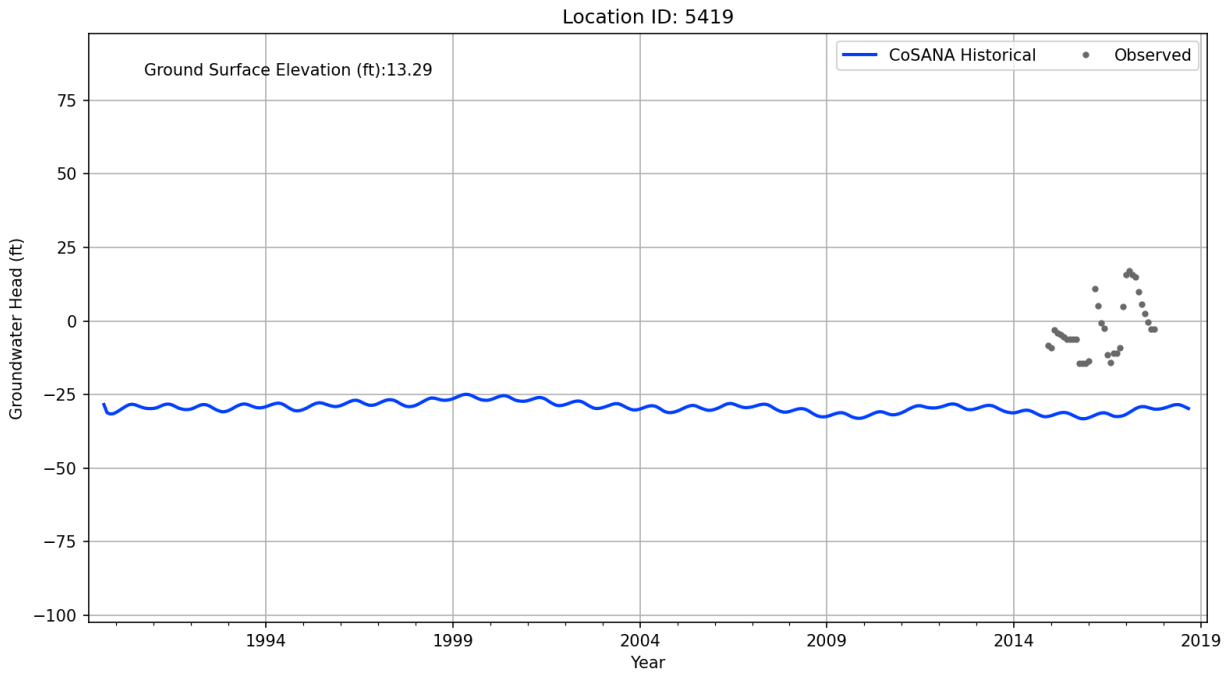

Location ID: 5410
Ground Surface Elevation (ft):13.12
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

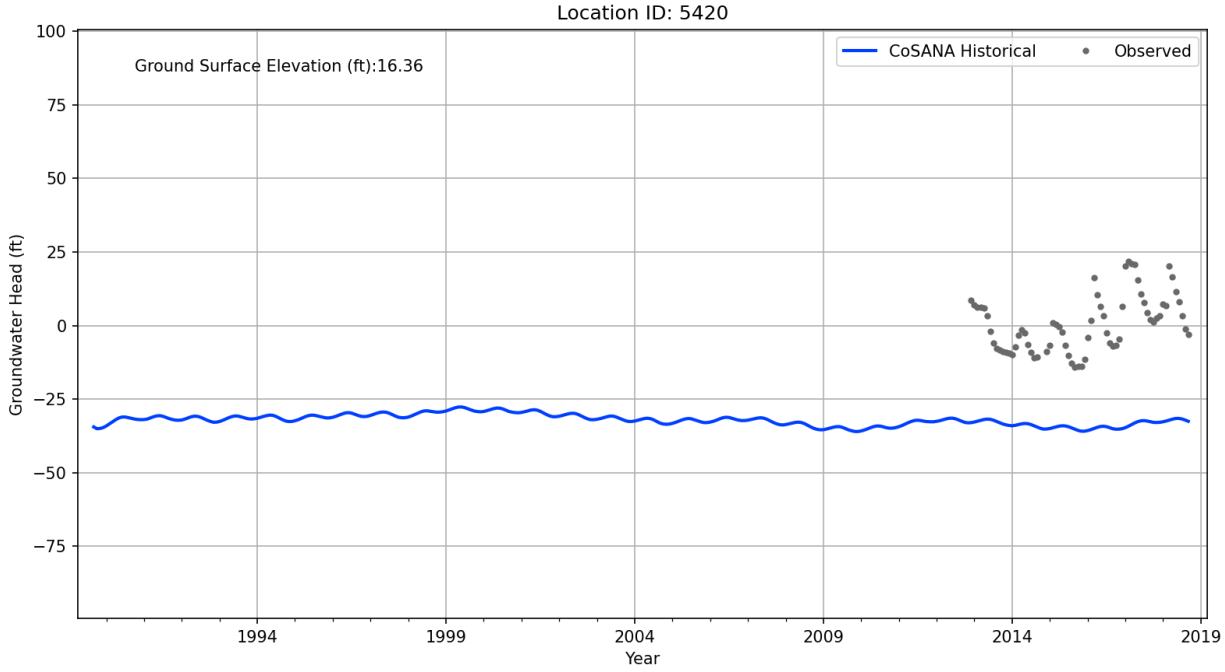

Location ID: 5412
Ground Surface Elevation (ft):21.37
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

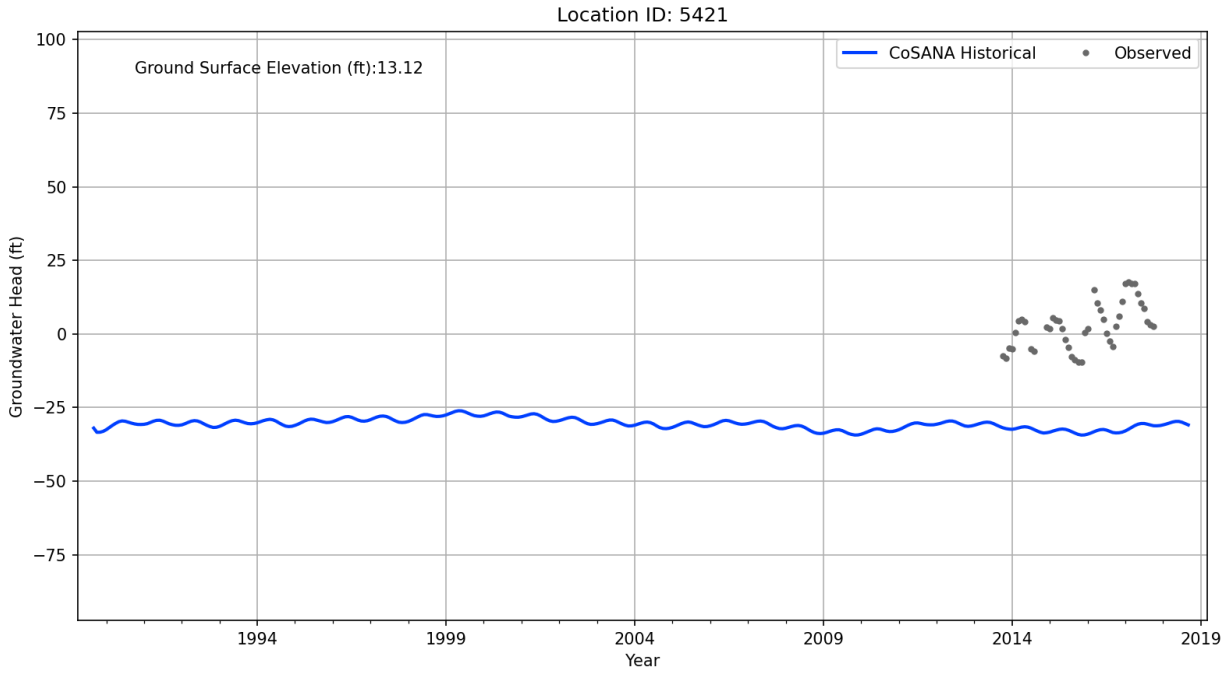

Location ID: 5413
Ground Surface Elevation (ft):14.82
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

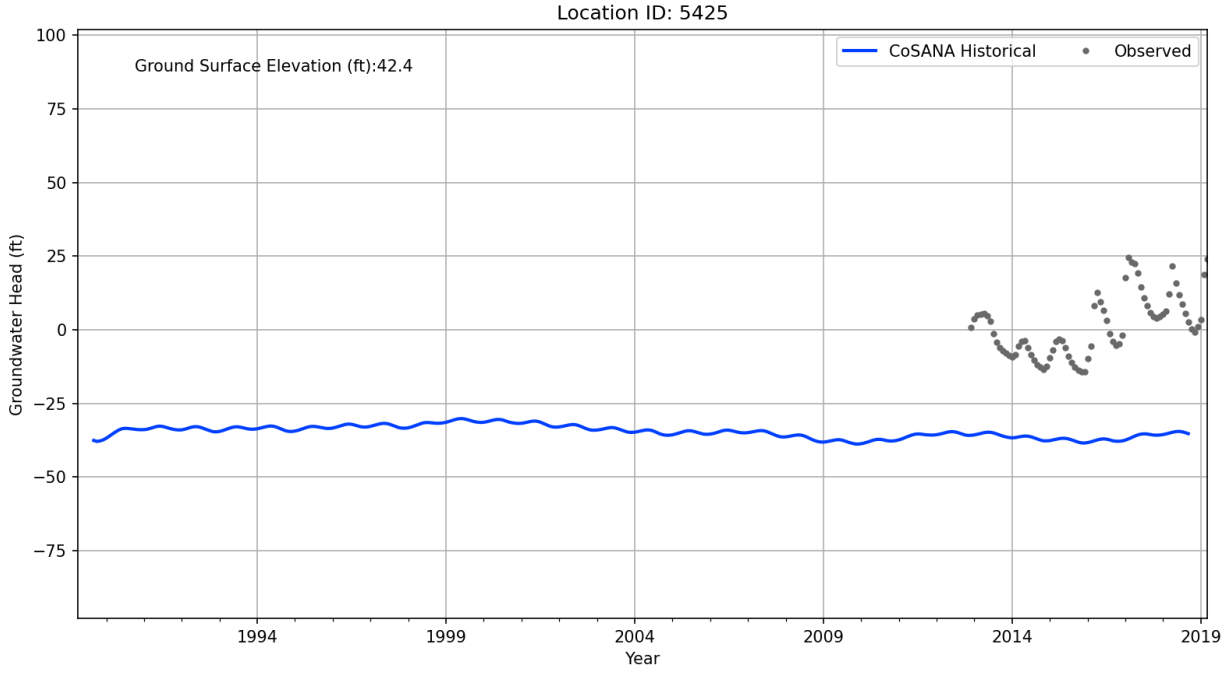

Location ID: 5414
Ground Surface Elevation (ft):10.84
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

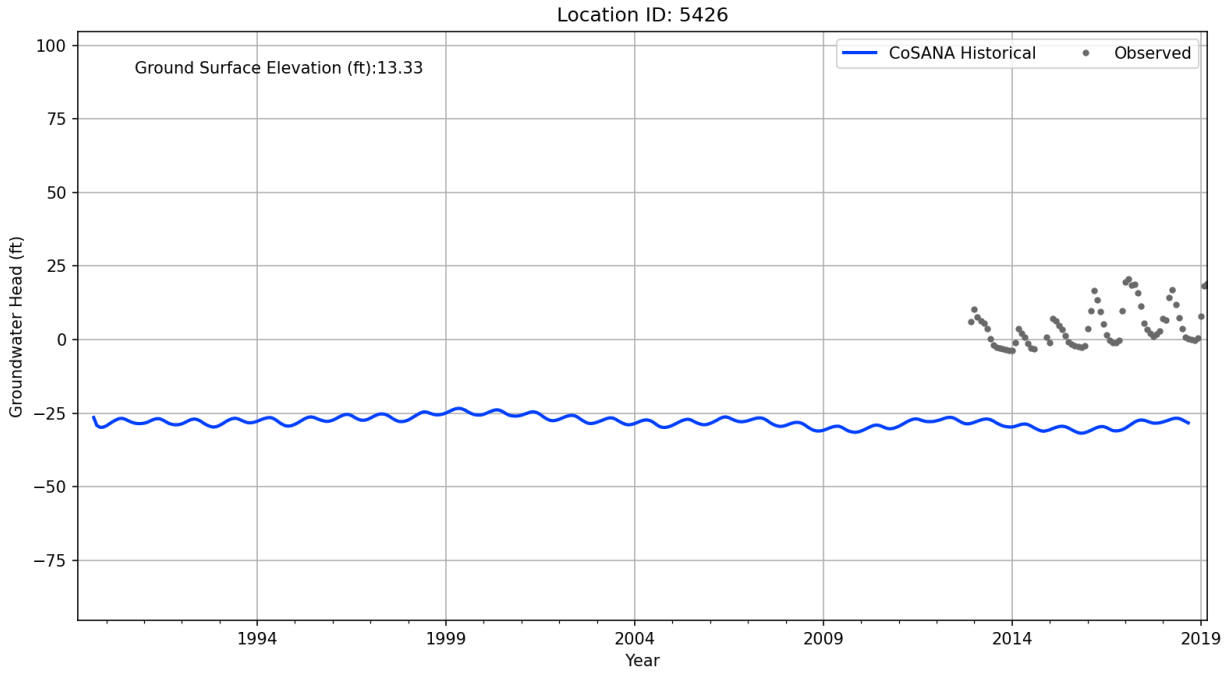

Location ID: 5418
Ground Surface Elevation (ft):14.82
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

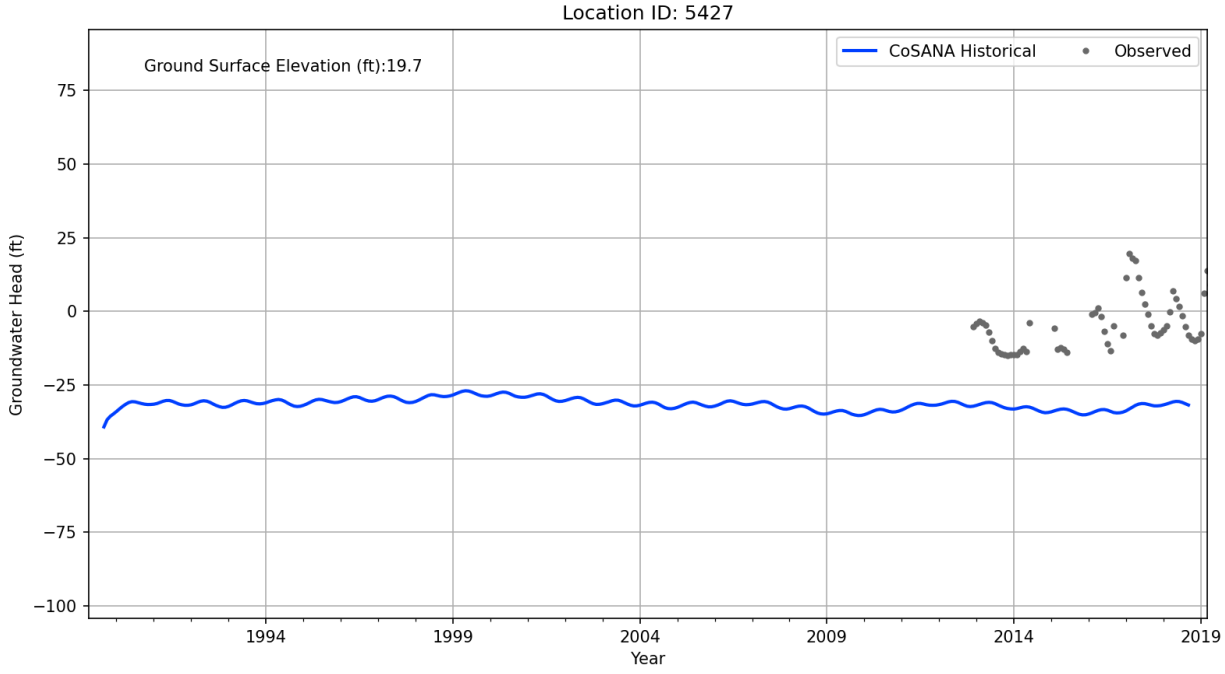

Location ID: 5419
Ground Surface Elevation (ft):13.29
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

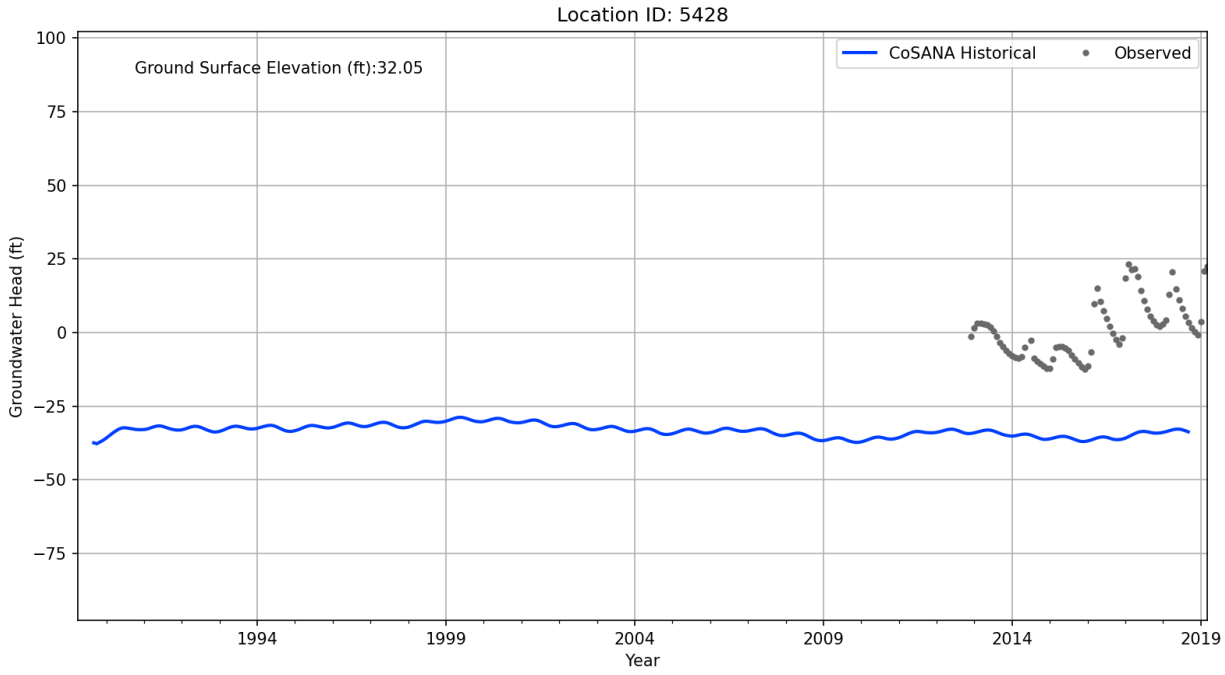

Location ID: 5420
Ground Surface Elevation (ft):16.36
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

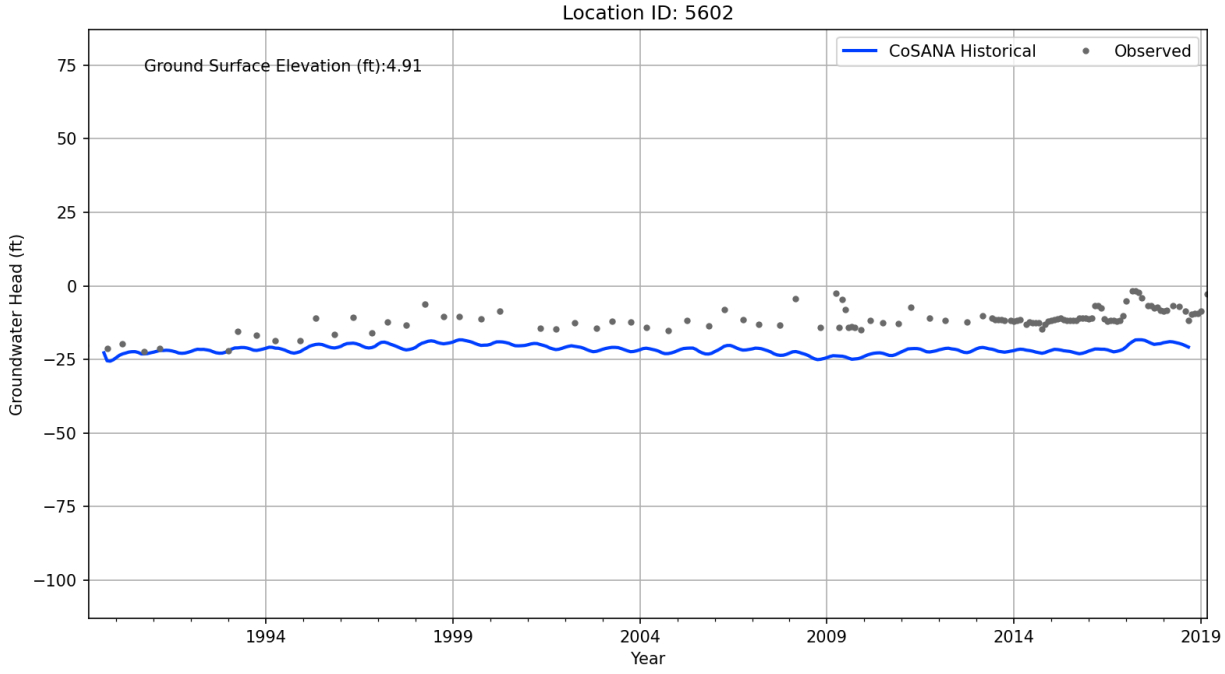

Location ID: 5421
Ground Surface Elevation (ft):13.12
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

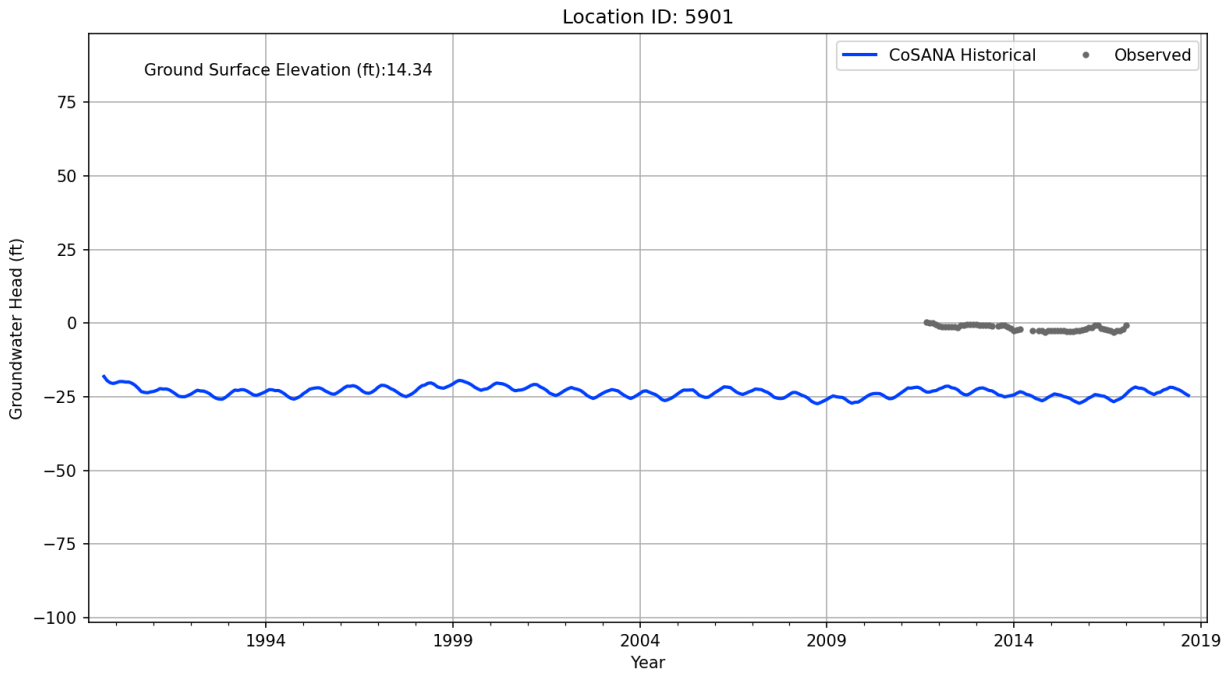

Location ID: 5425
Ground Surface Elevation (ft):42.4
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

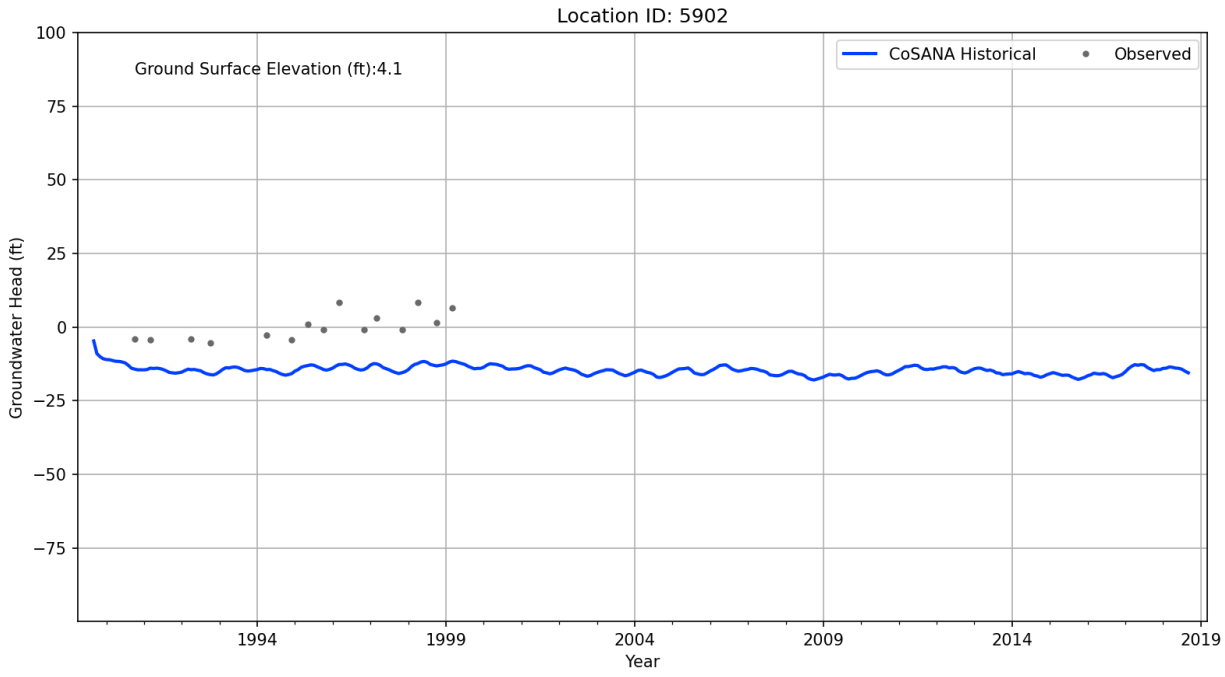

Location ID: 5426
Ground Surface Elevation (ft):13.33
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

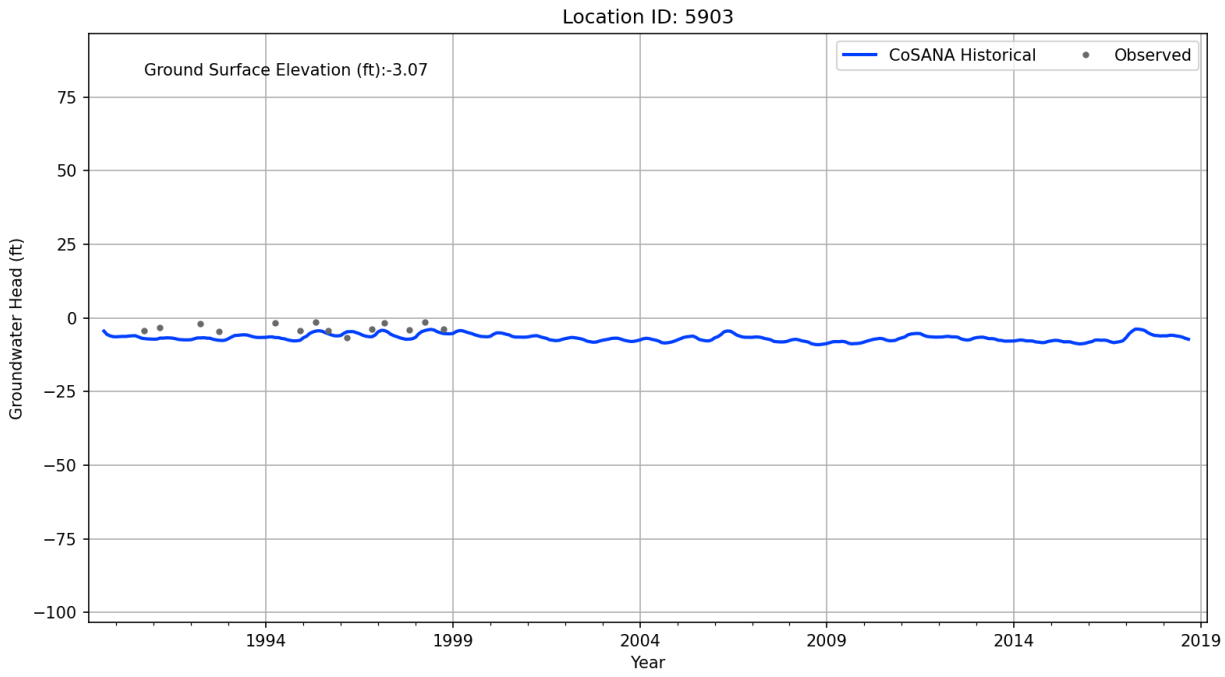

Location ID: 5427
Ground Surface Elevation (ft):19.7
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

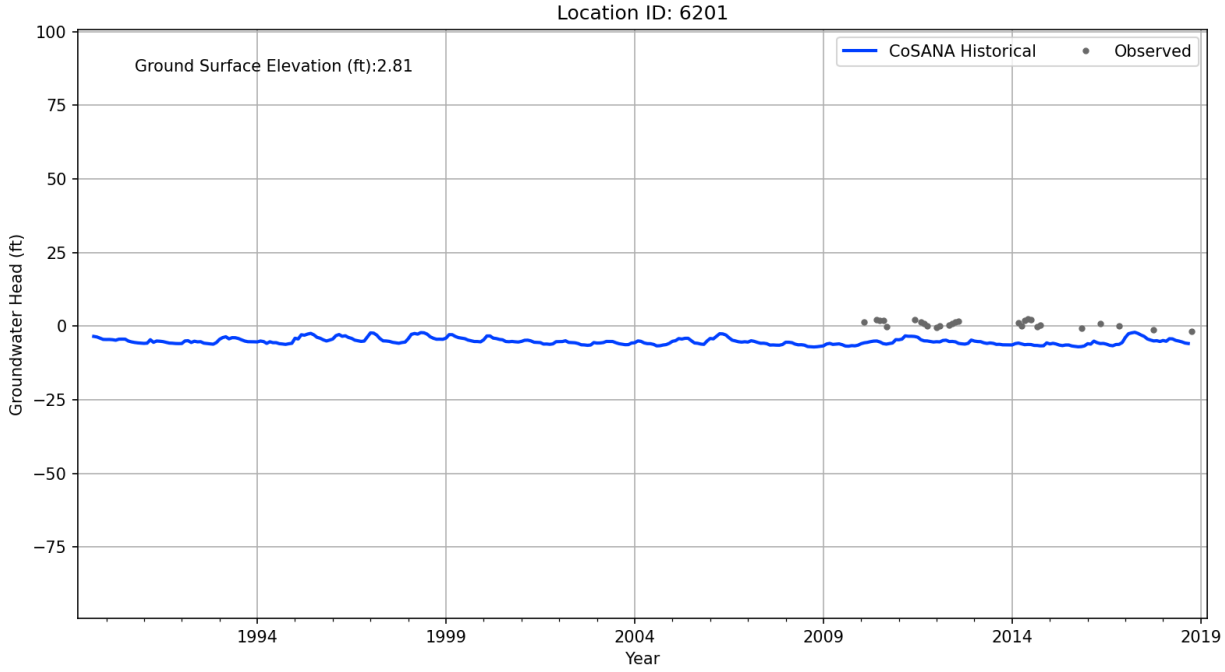

Location ID: 5428
Ground Surface Elevation (ft):32.05
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

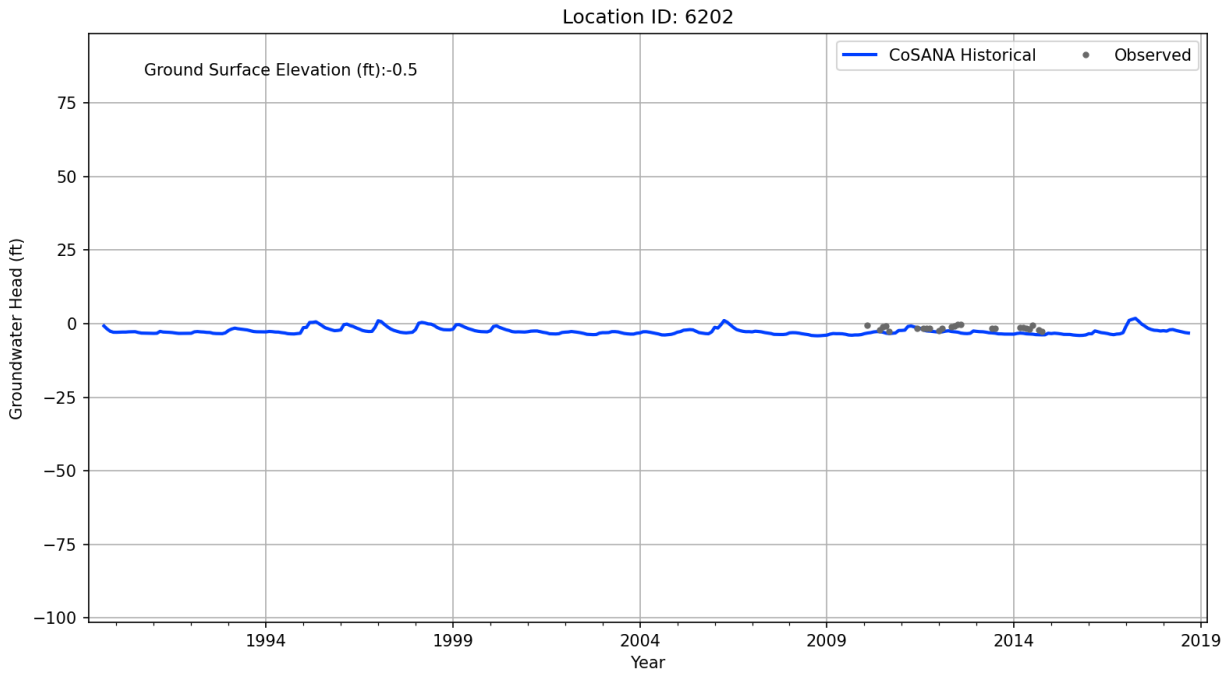

Location ID: 5602
Ground Surface Elevation (ft):4.91
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

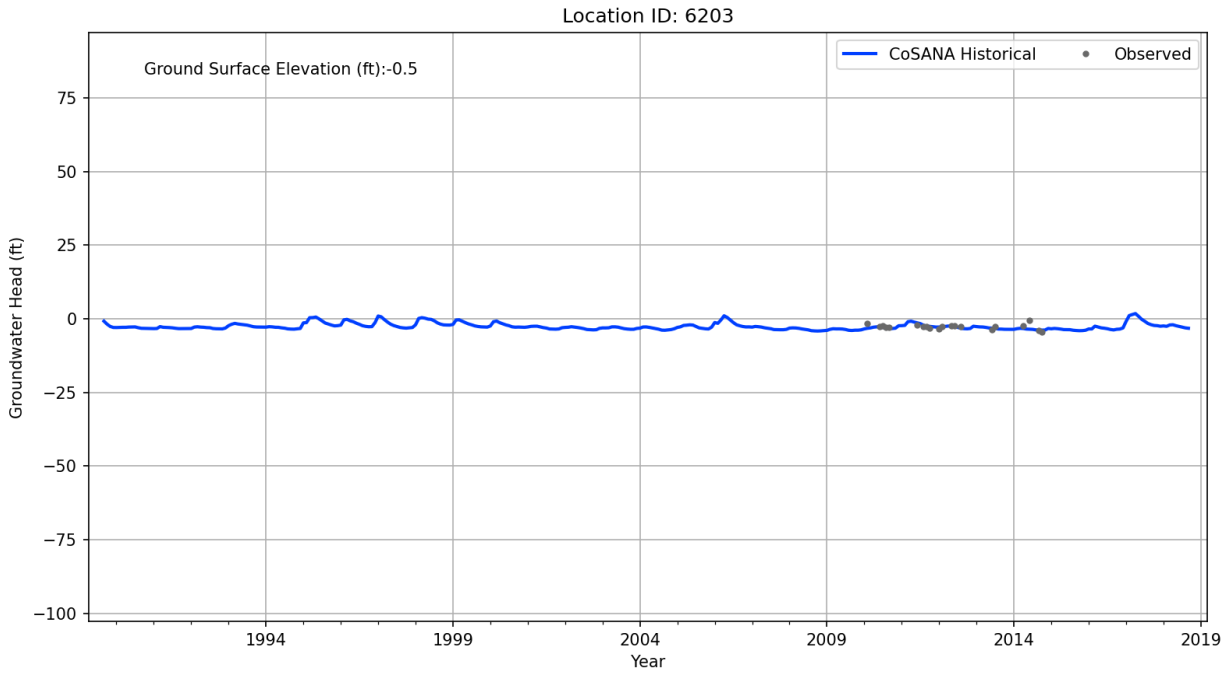

Location ID: 5901
Ground Surface Elevation (ft):14.34
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

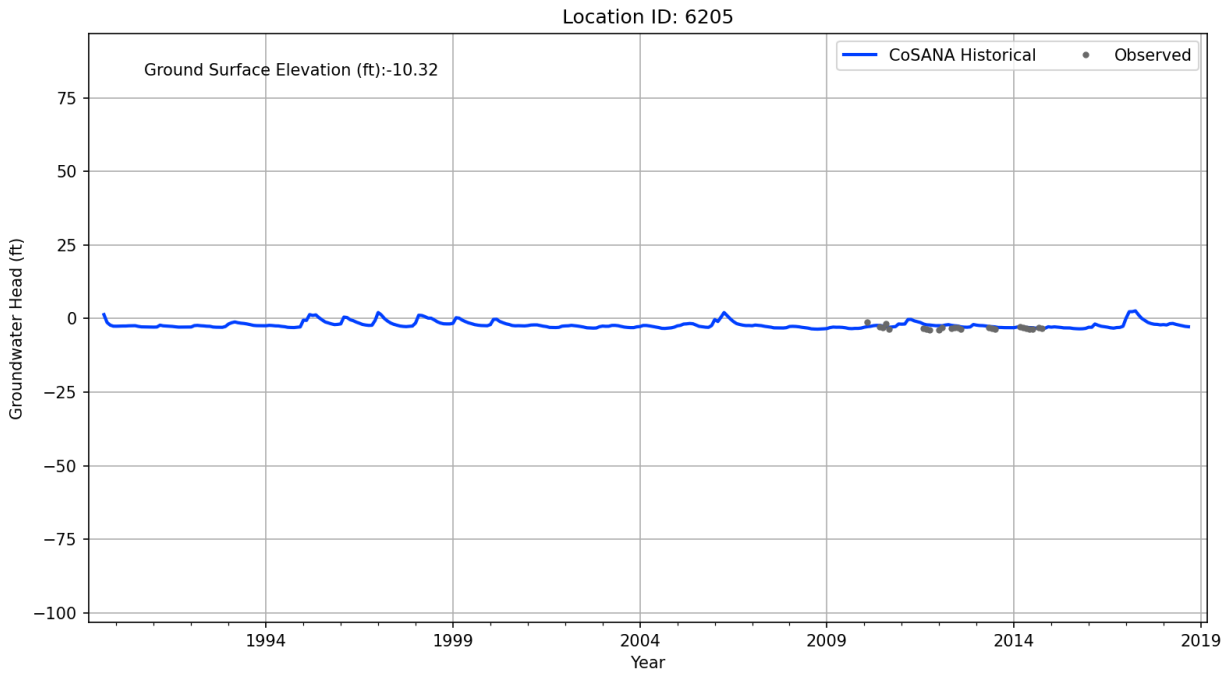

Location ID: 5902
Ground Surface Elevation (ft):4.1
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

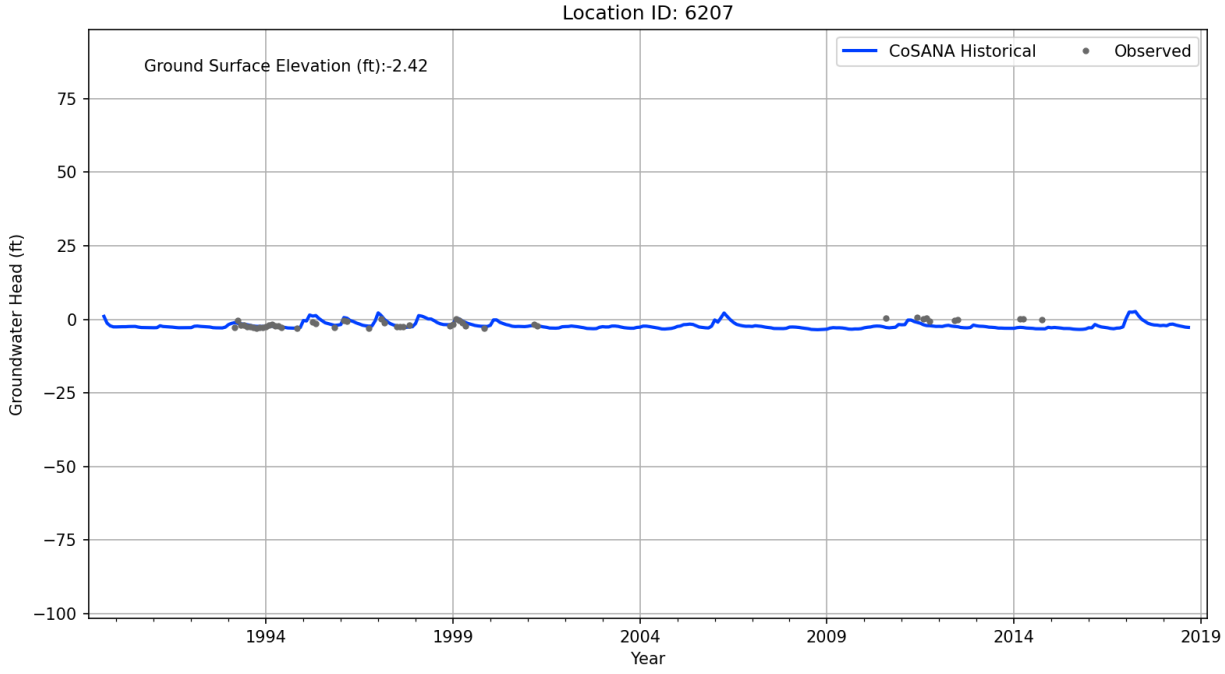

Location ID: 5903
Ground Surface Elevation (ft):-3.07
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

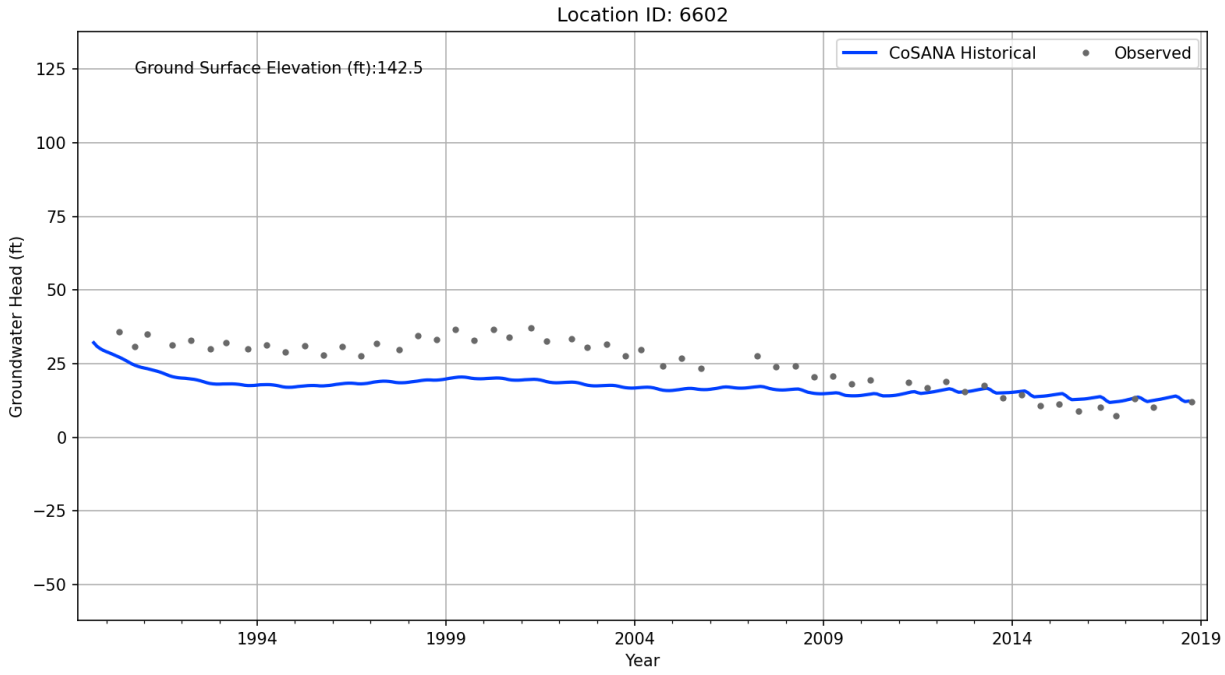

Location ID: 6201
Ground Surface Elevation (ft):2.81
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

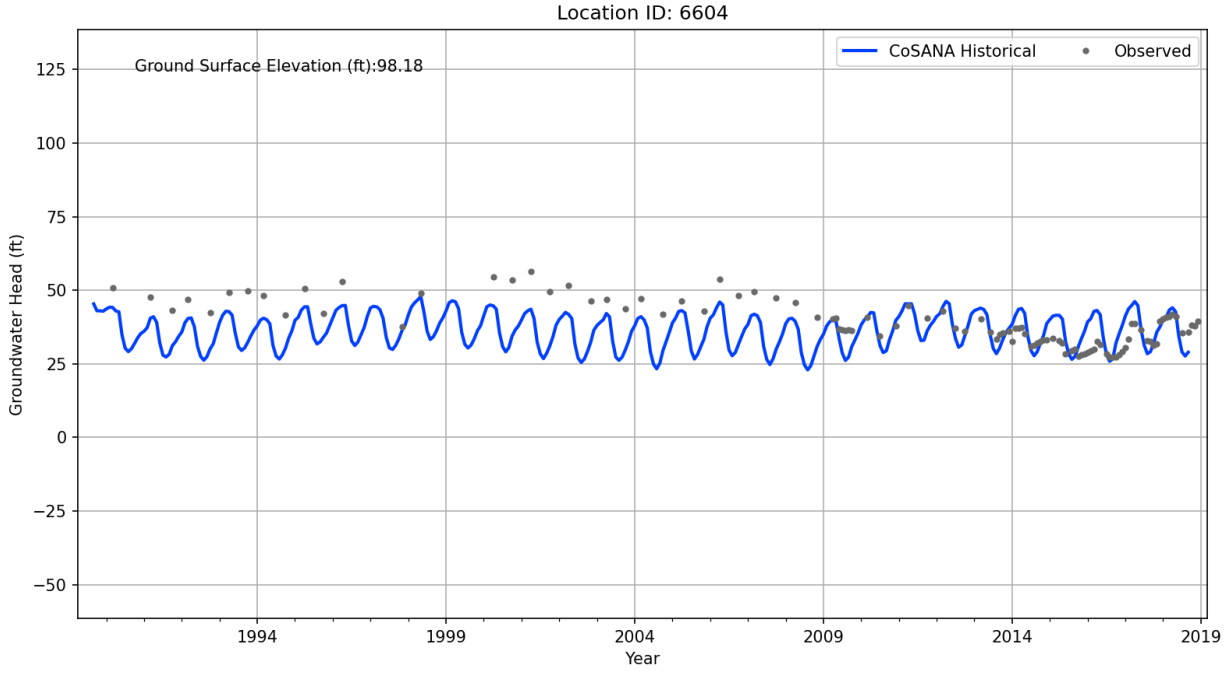

Location ID: 6202
Ground Surface Elevation (ft):-0.5
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

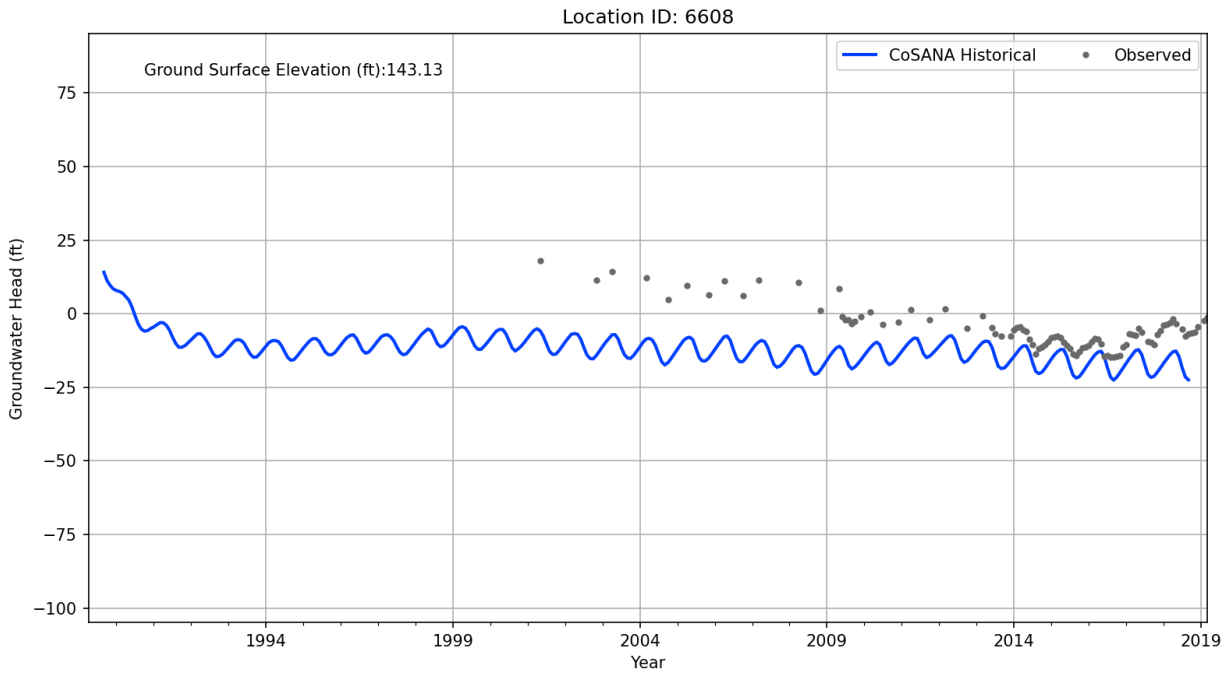

Location ID: 6203
Ground Surface Elevation (ft):-0.5
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

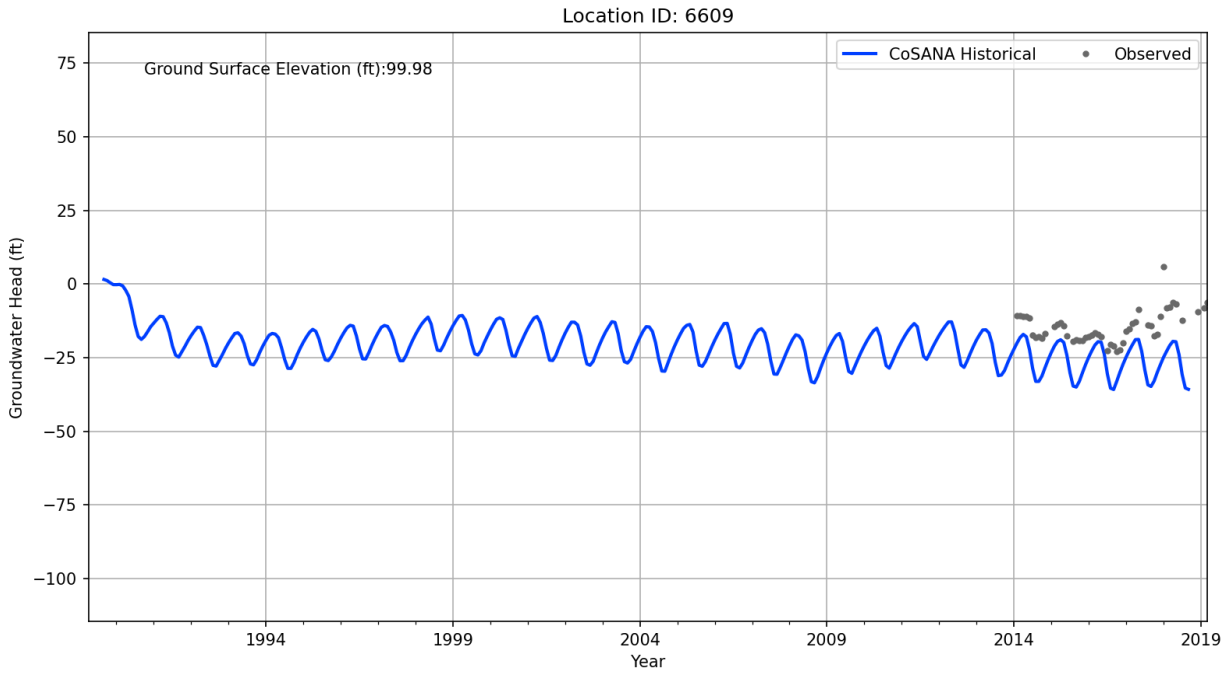

Location ID: 6205
Ground Surface Elevation (ft):-10.32
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

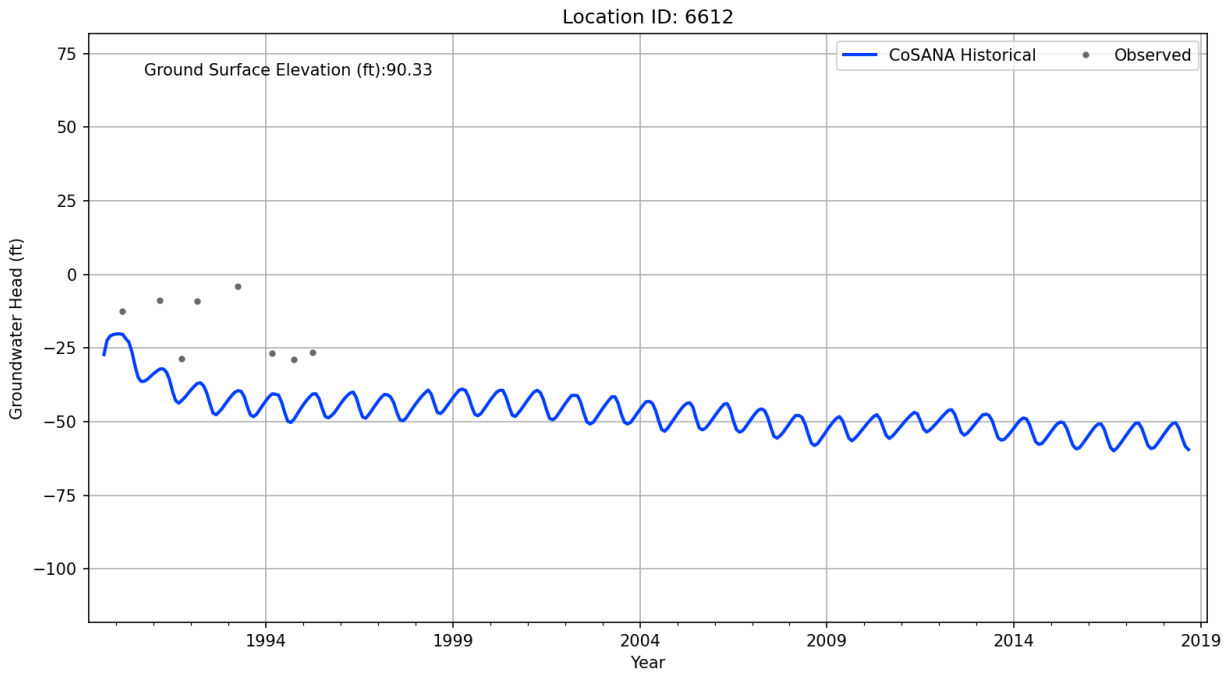

Location ID: 6207
Ground Surface Elevation (ft):-2.42
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

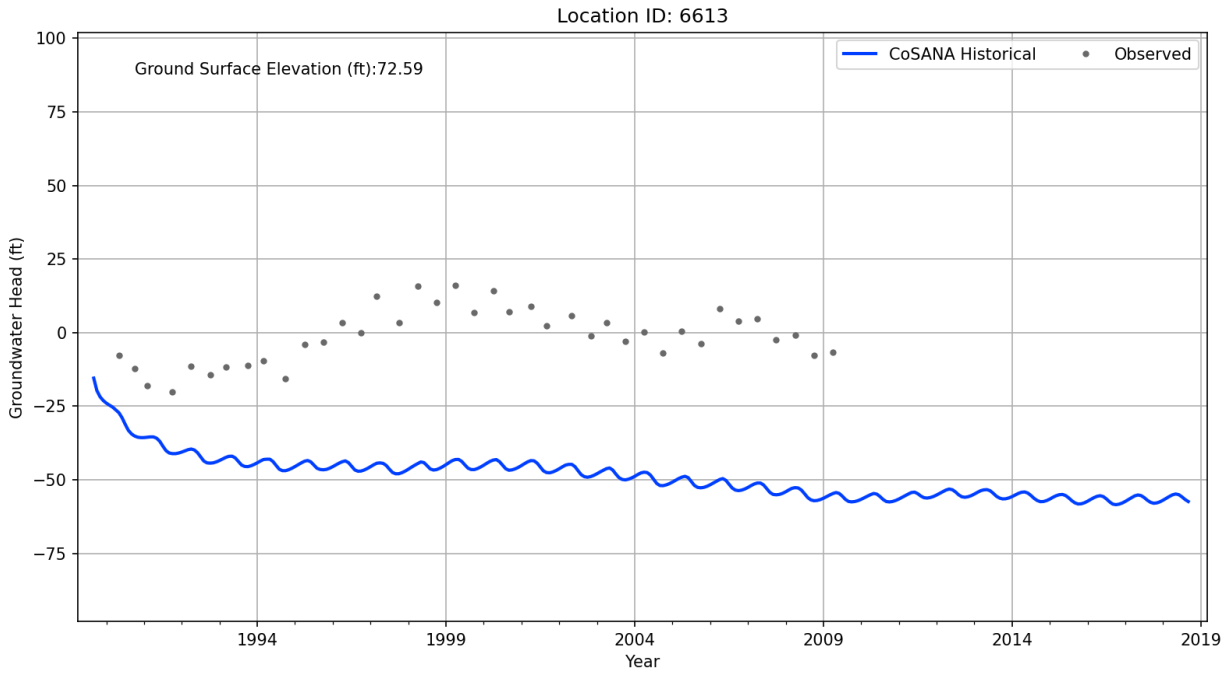

Location ID: 6602
Ground Surface Elevation (ft):142.5
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

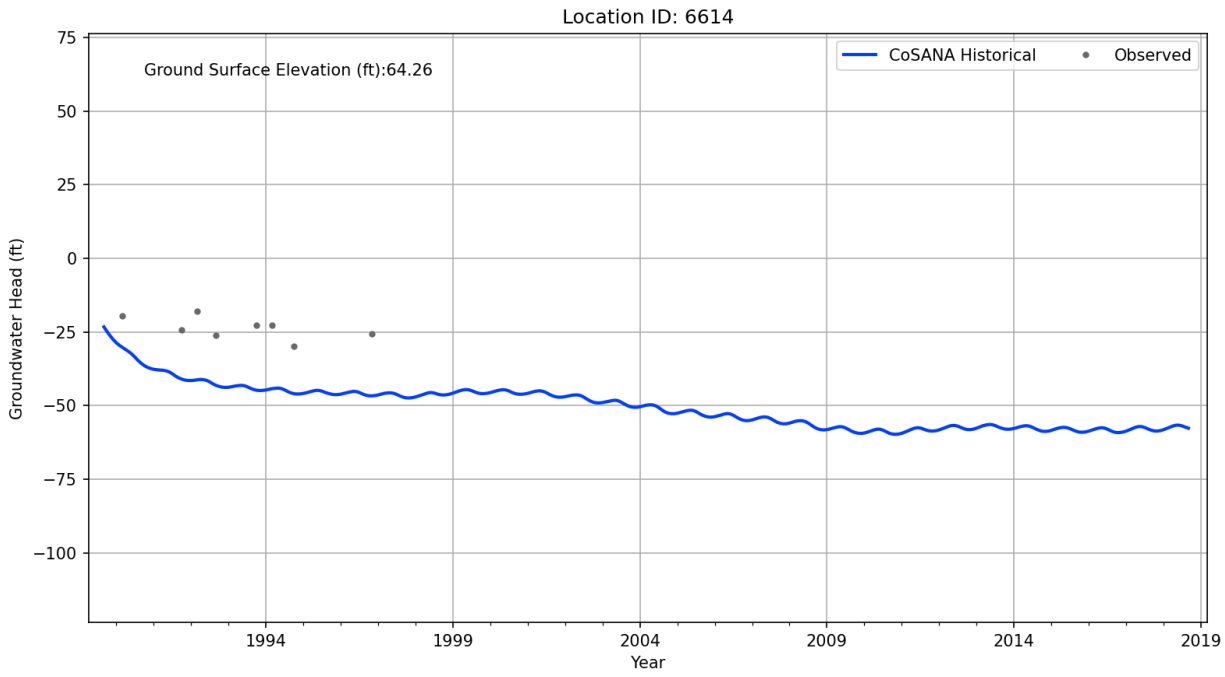

Location ID: 6604
Ground Surface Elevation (ft):98.18
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

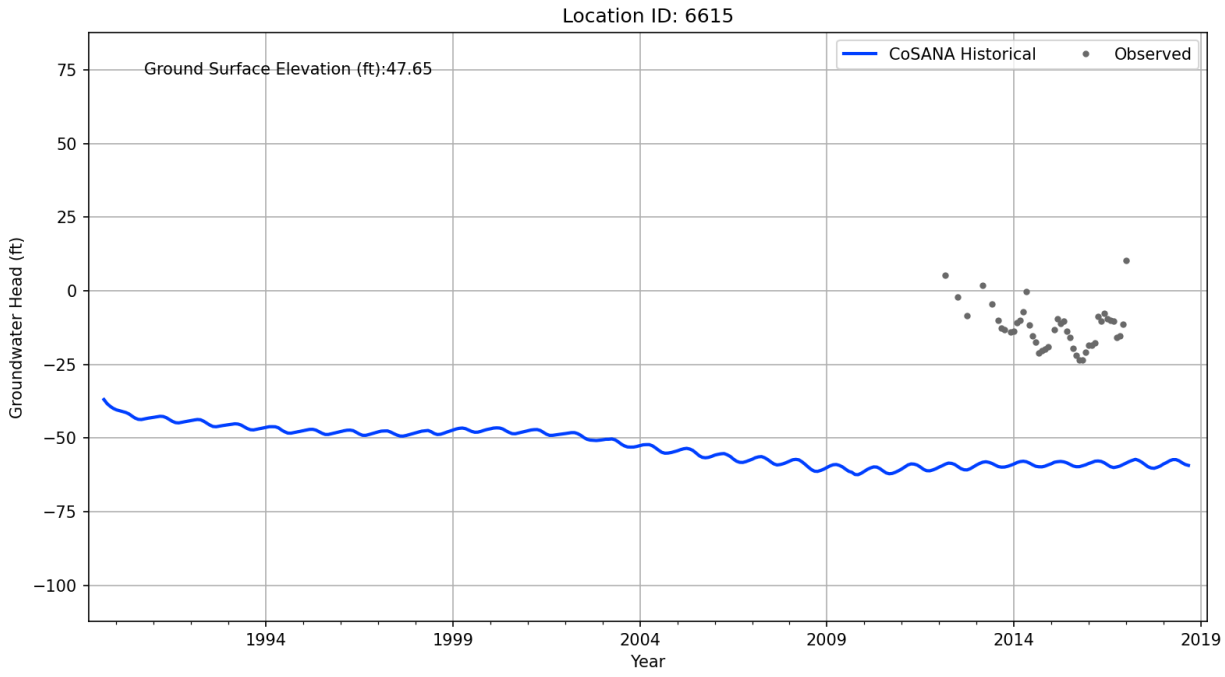

Location ID: 6608
Ground Surface Elevation (ft):143.13
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

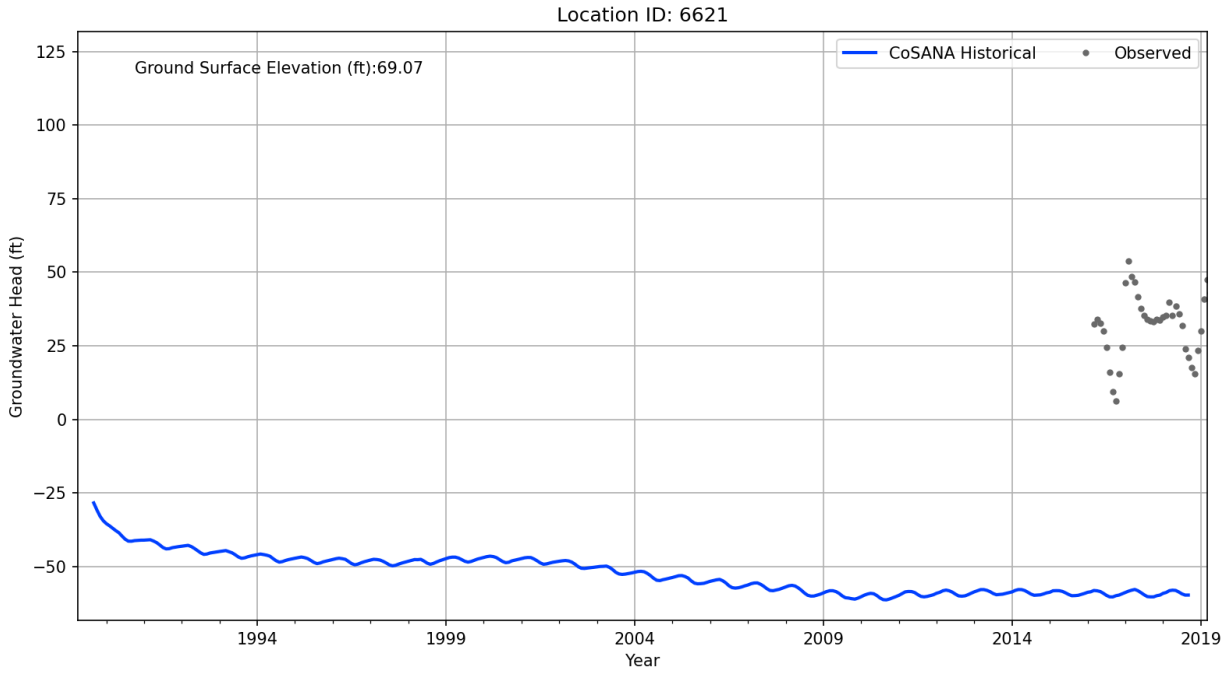

Location ID: 6609
Ground Surface Elevation (ft):99.98
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

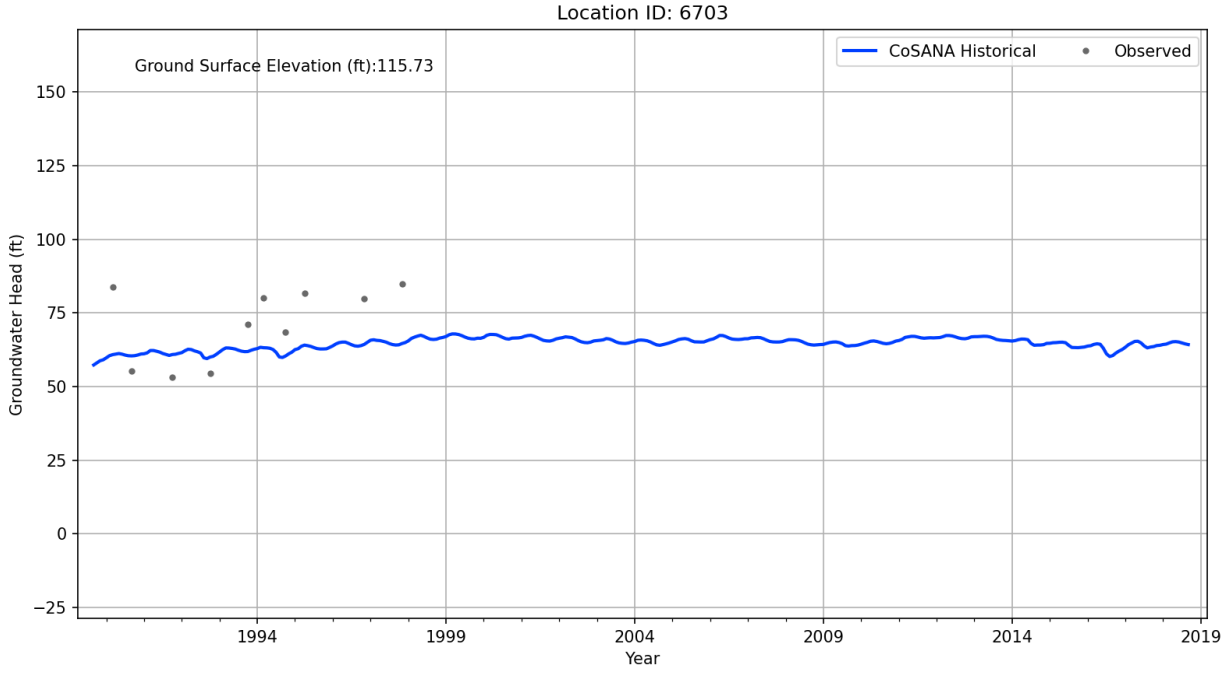

Location ID: 6612
Ground Surface Elevation (ft):90.33
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

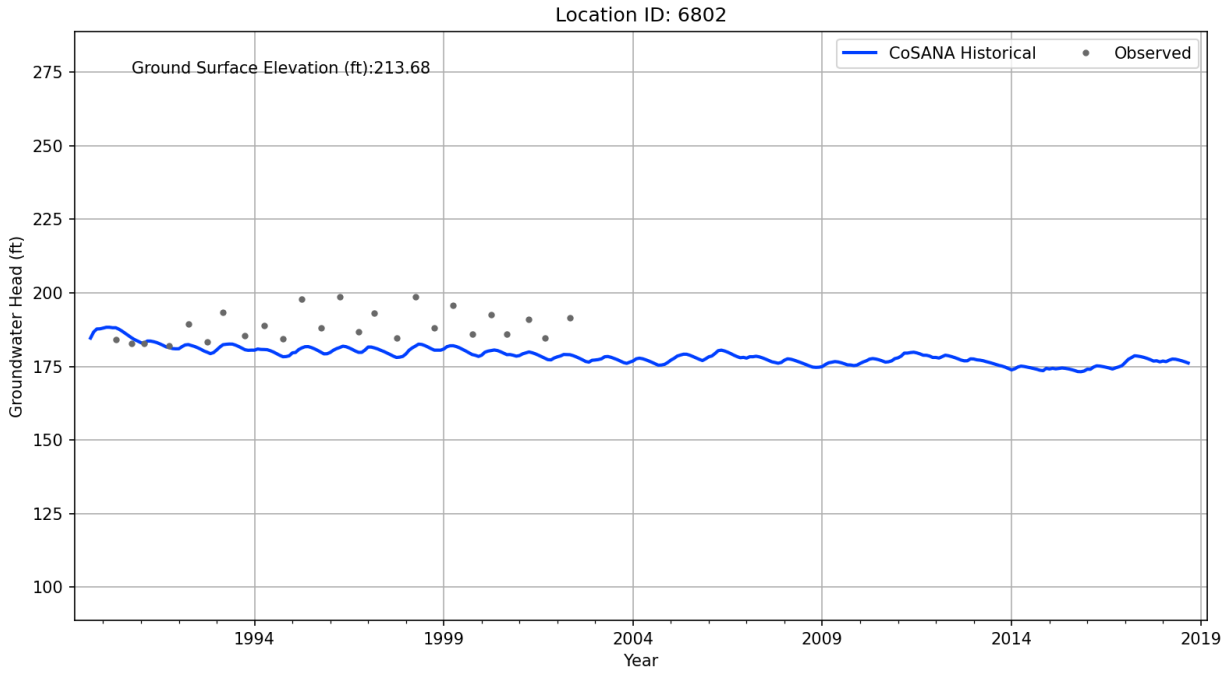

Location ID: 6613
Ground Surface Elevation (ft):72.59
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

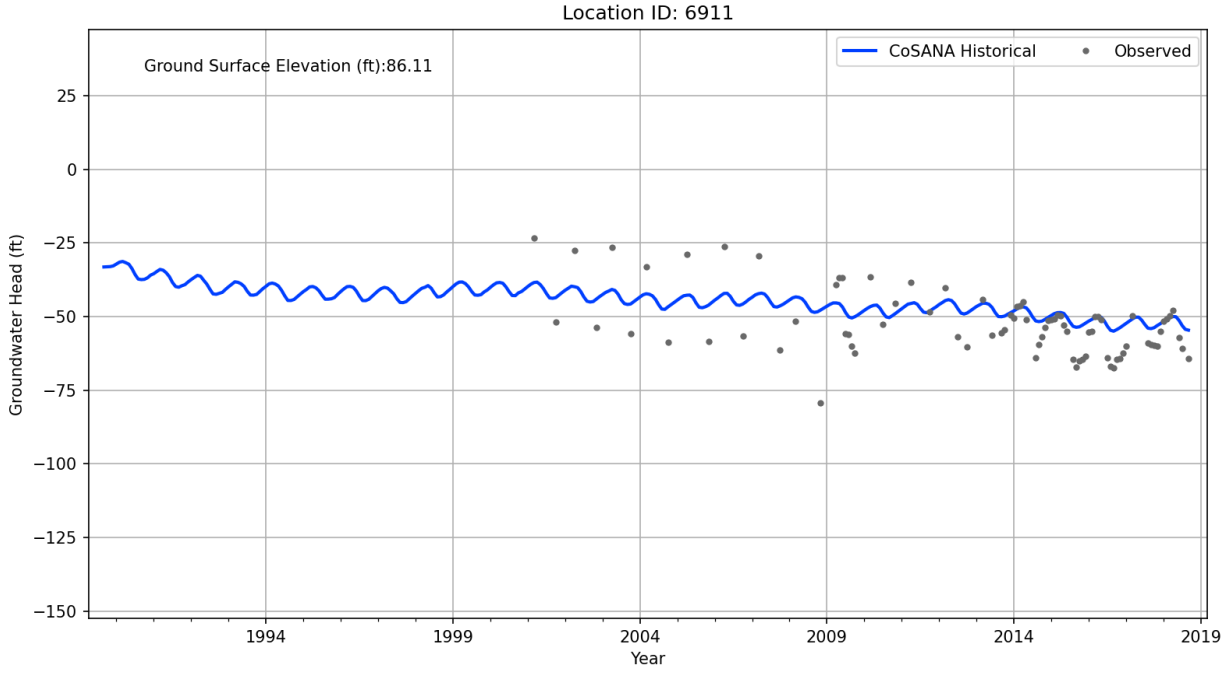

Location ID: 6614
Ground Surface Elevation (ft):64.26
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

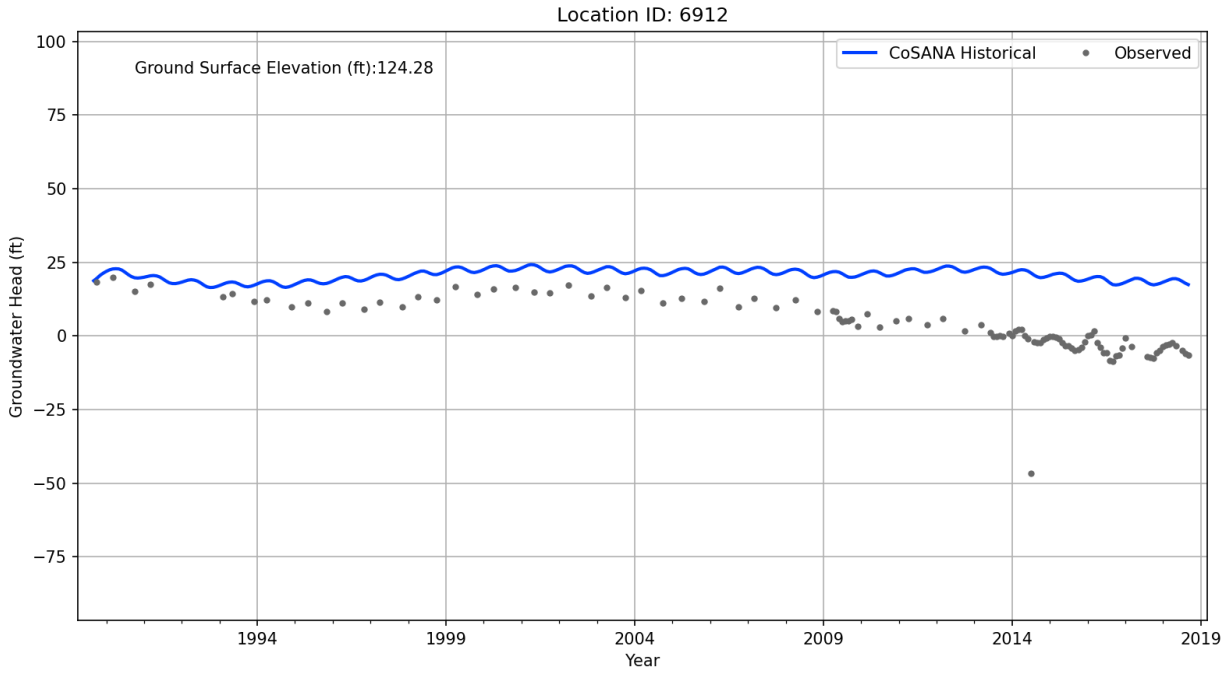

Location ID: 6615
Ground Surface Elevation (ft):47.65
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

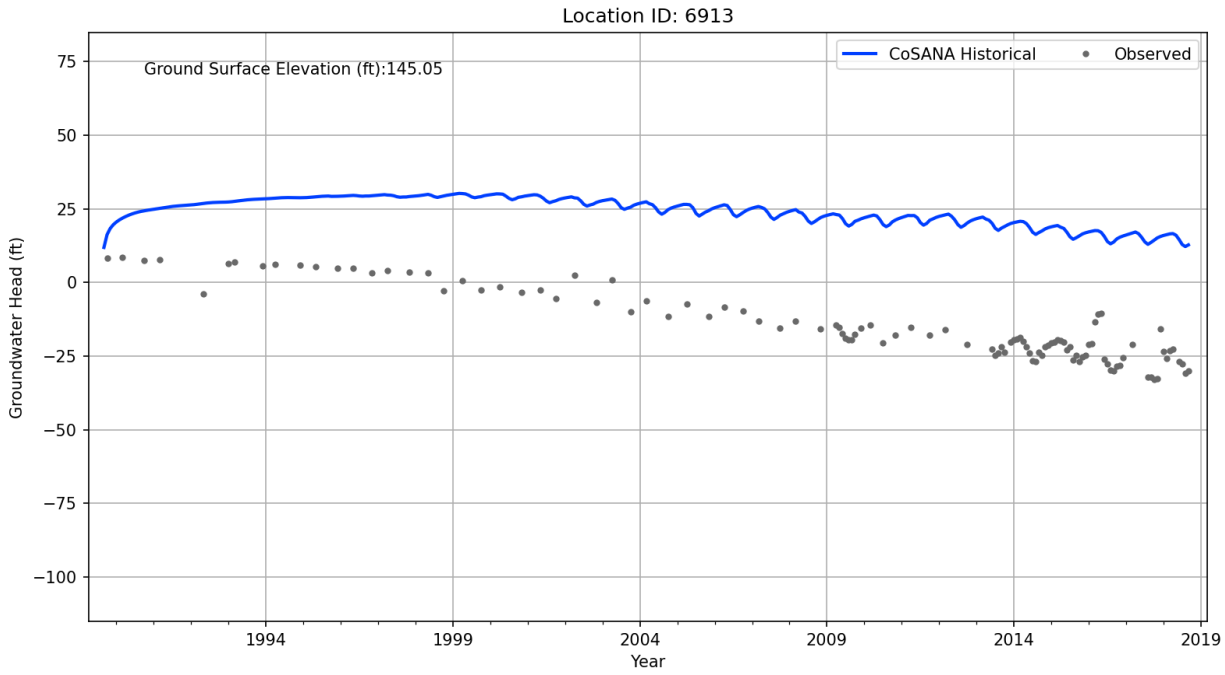

Location ID: 6621
Ground Surface Elevation (ft):69.07
CoSANA Historical
Observed
Groundwater Head (ft)
125
100
75
50
25
0
−25
−50
1994
1999
2004
2009
2014
2019
Year

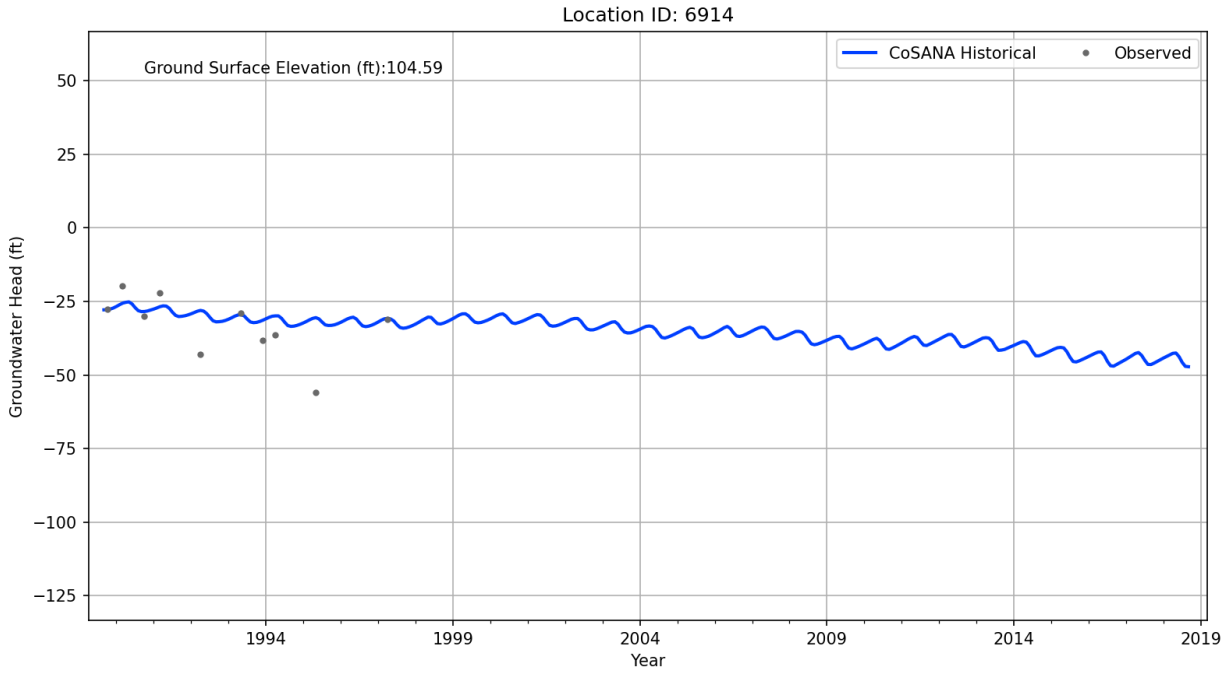

Location ID: 6703
Ground Surface Elevation (ft):115.73
CoSANA Historical
Observed
Groundwater Head (ft)
150
125
100
75
50
25
0
−25
1994
1999
2004
2009
2014
2019
Year

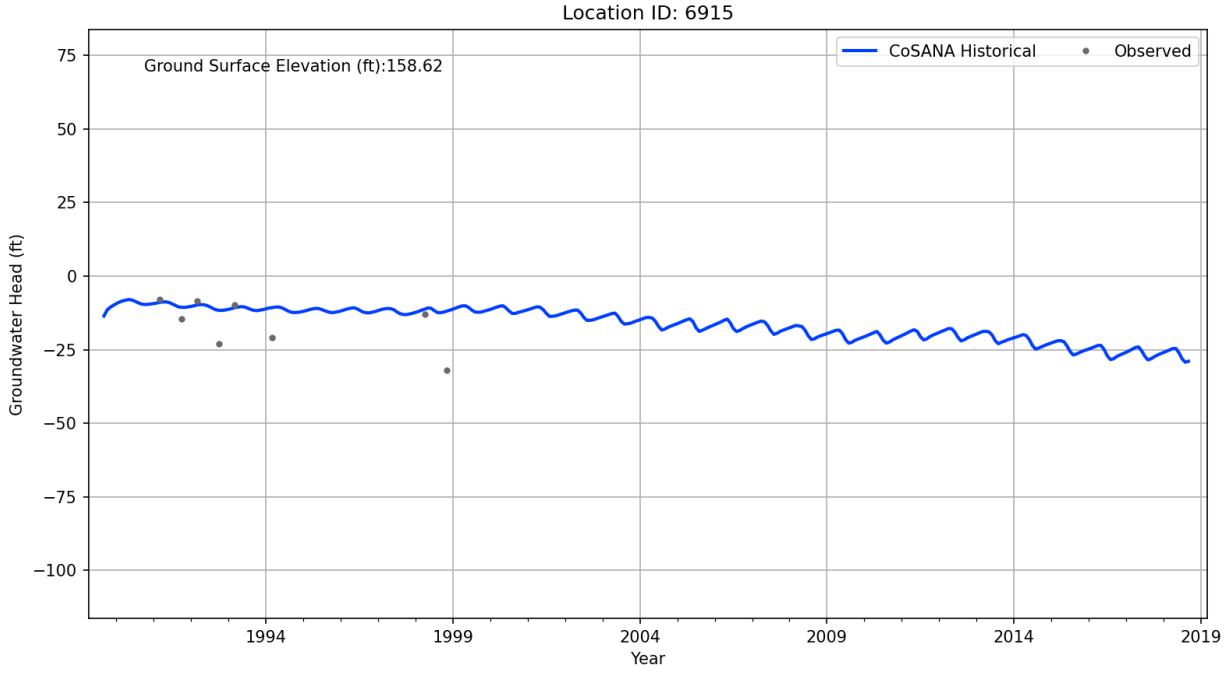

Location ID: 6802
Ground Surface Elevation (ft):213.68
CoSANA Historical
Observed
Groundwater Head (ft)
275
250
225
200
175
150
125
100
1994
1999
2004
2009
2014
2019
Year

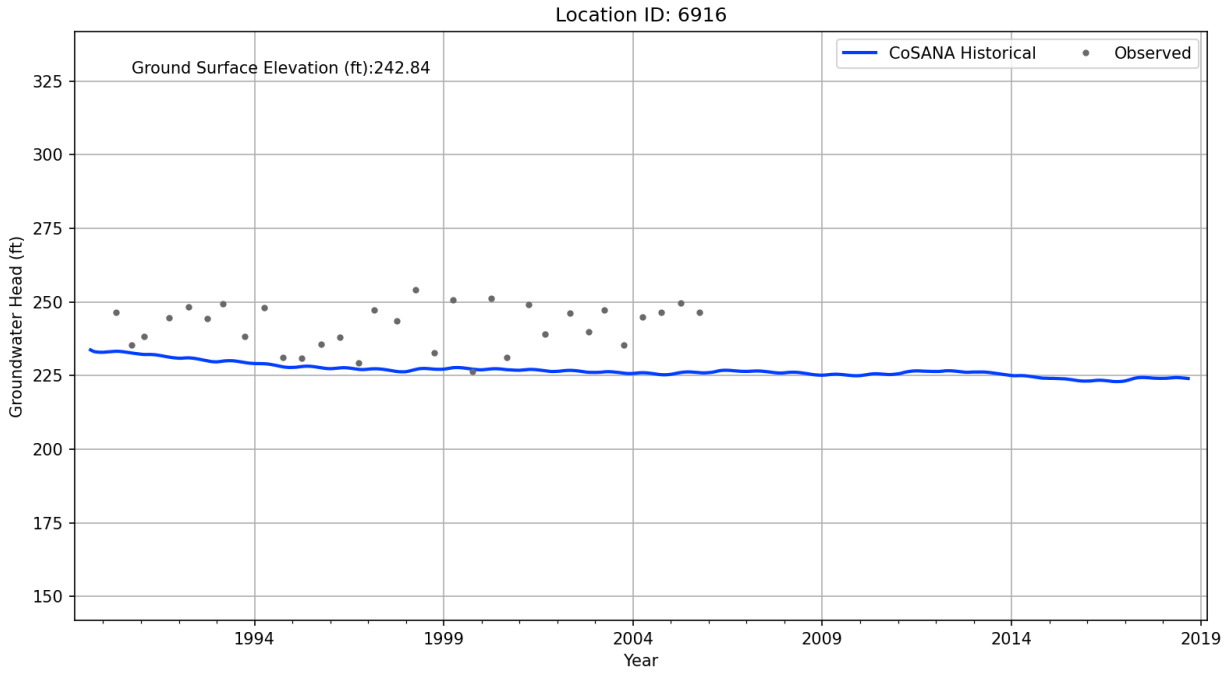

Location ID: 6911
Ground Surface Elevation (ft):86.11
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

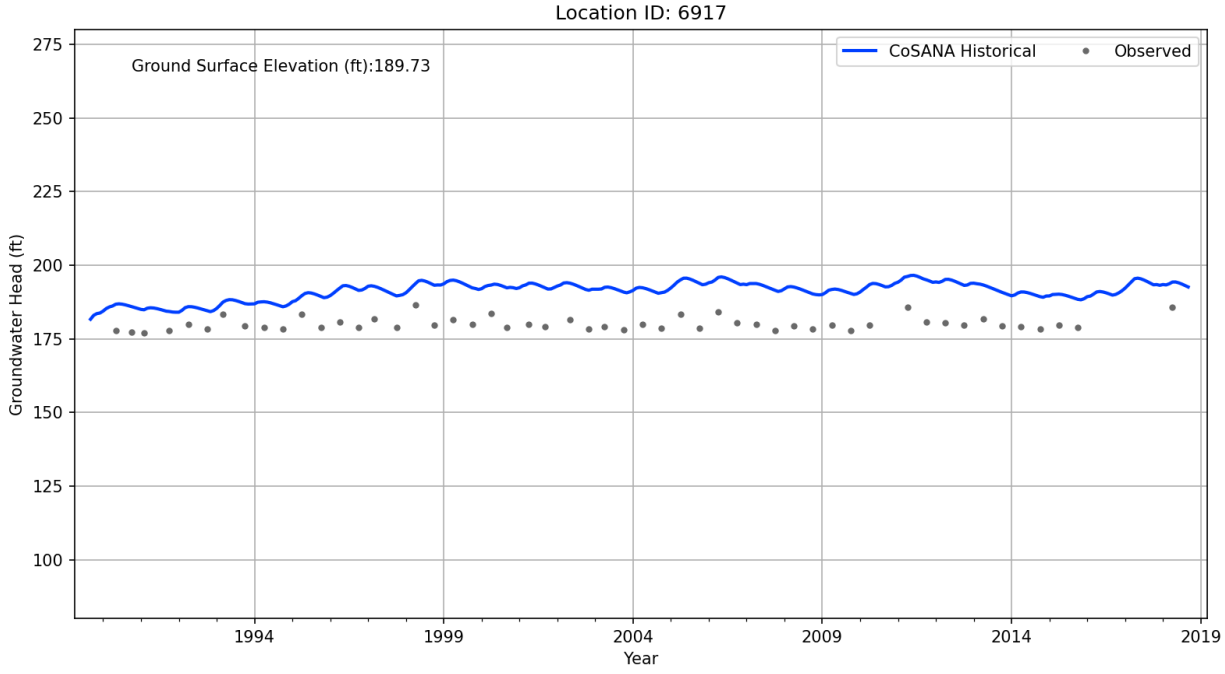

Location ID: 6912
Ground Surface Elevation (ft):124.28
CoSANA Historical
Observed
Groundwater Head (ft)
Year
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019

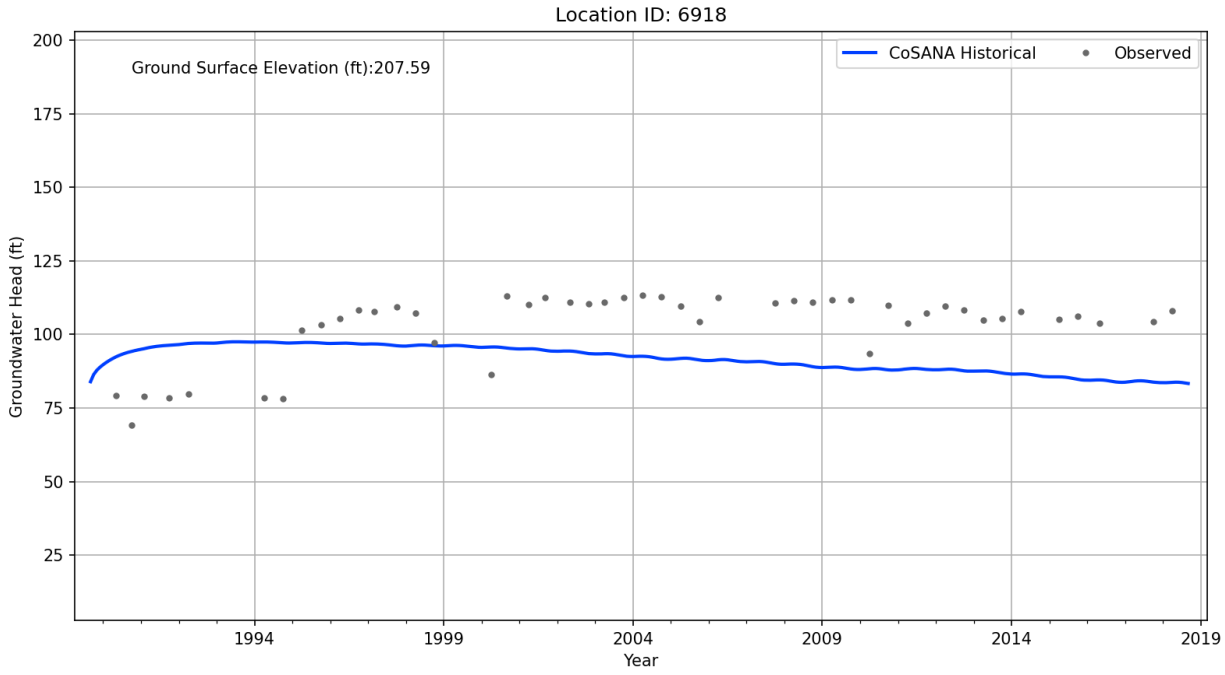

Location ID: 6913
Ground Surface Elevation (ft):145.05
CoSANA Historical
Observed
Groundwater Head (ft)
Year
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019

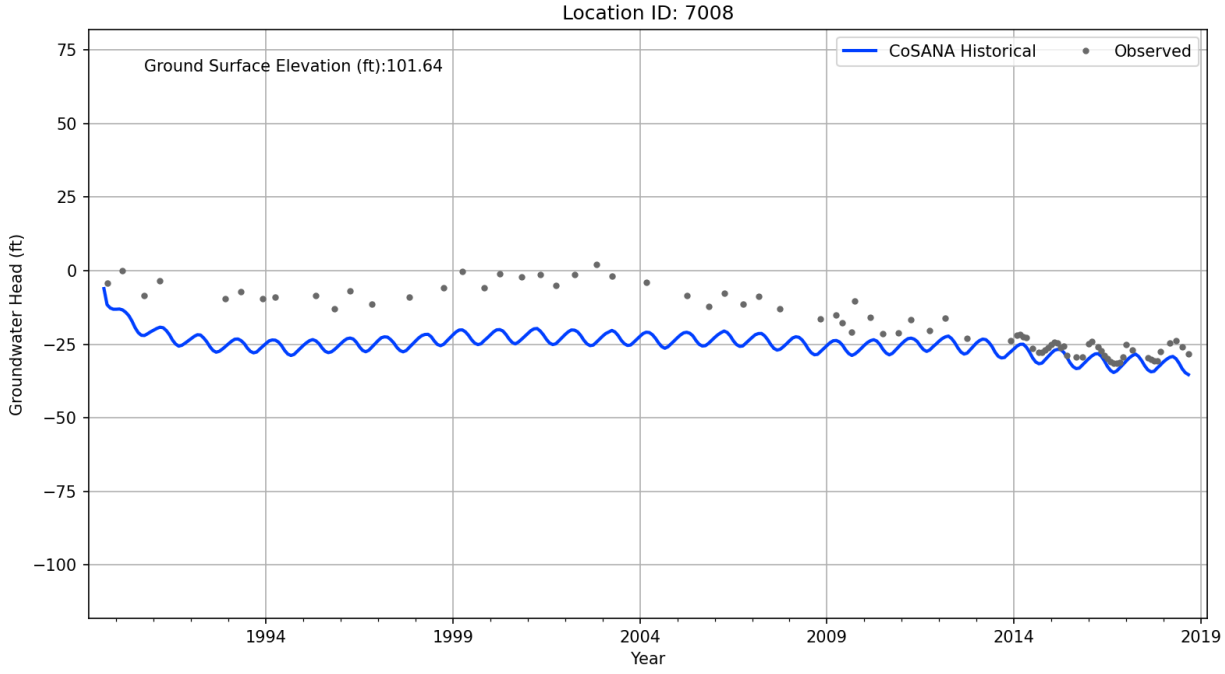

Location ID: 6914
Ground Surface Elevation (ft):104.59
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

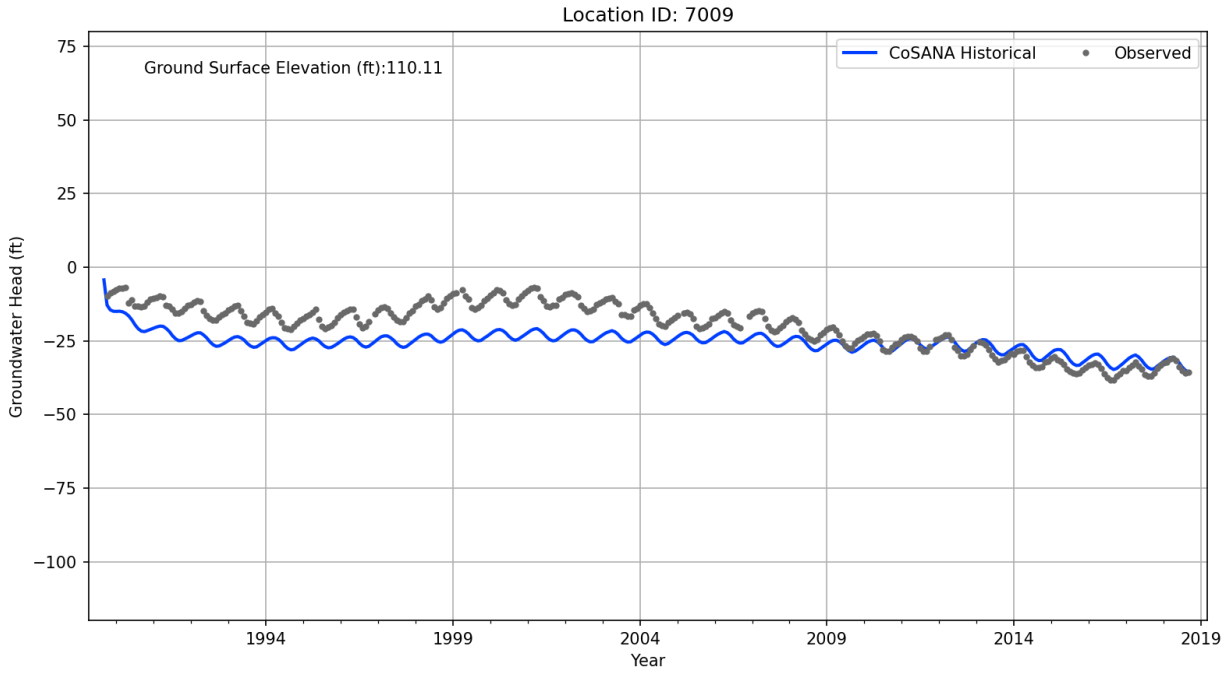

Location ID: 6915
Ground Surface Elevation (ft):158.62
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

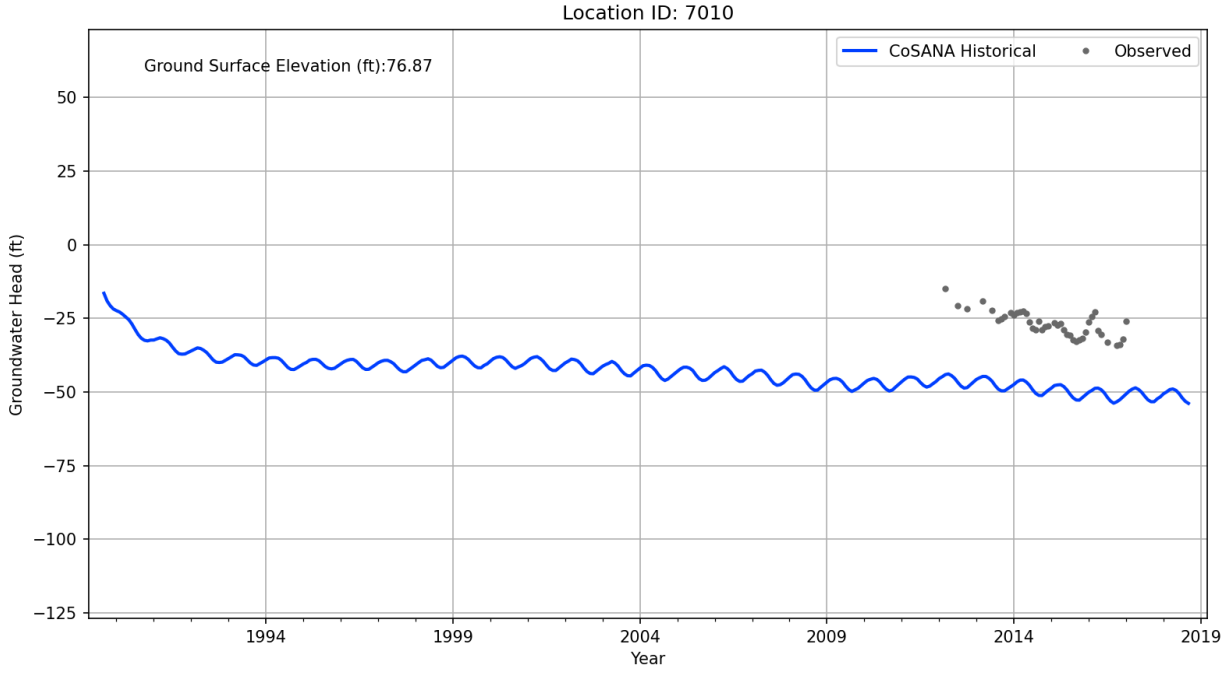

Location ID: 6916
Ground Surface Elevation (ft):242.84
CoSANA Historical
Observed
Groundwater Head (ft)
325
300
275
250
225
200
175
150
1994
1999
2004
2009
2014
2019
Year

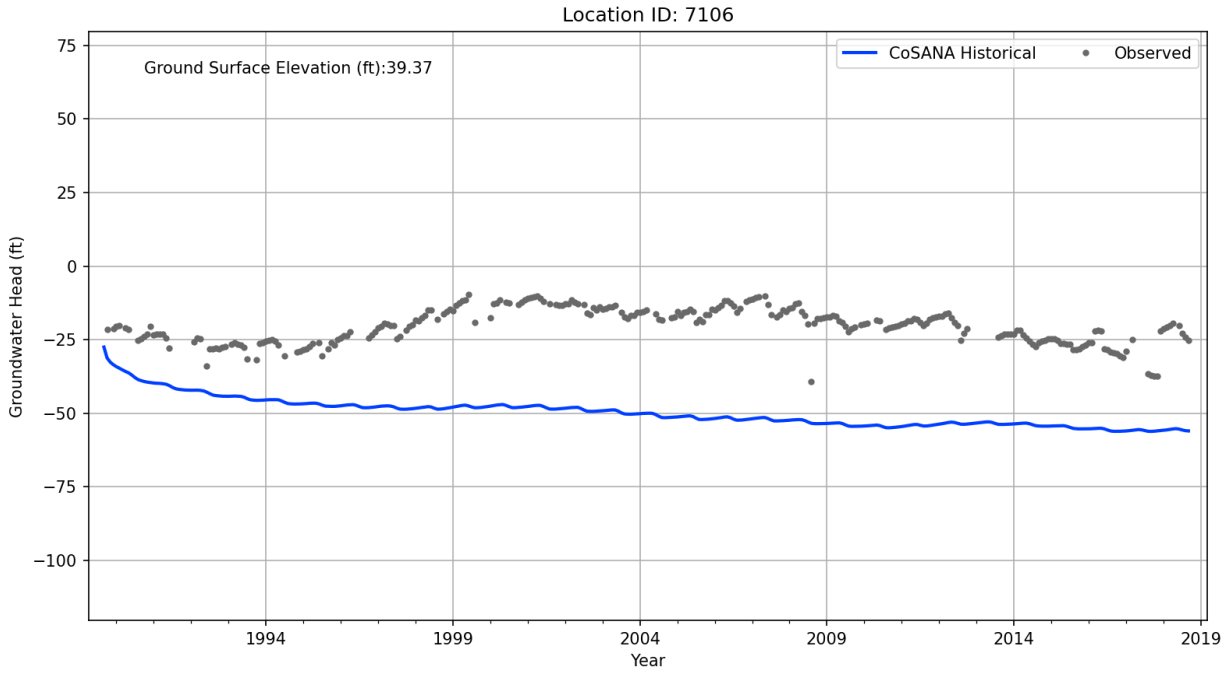

Location ID: 6917
Ground Surface Elevation (ft):189.73
CoSANA Historical
Observed
Groundwater Head (ft)
275
250
225
200
175
150
125
100
1994
1999
2004
2009
2014
2019
Year

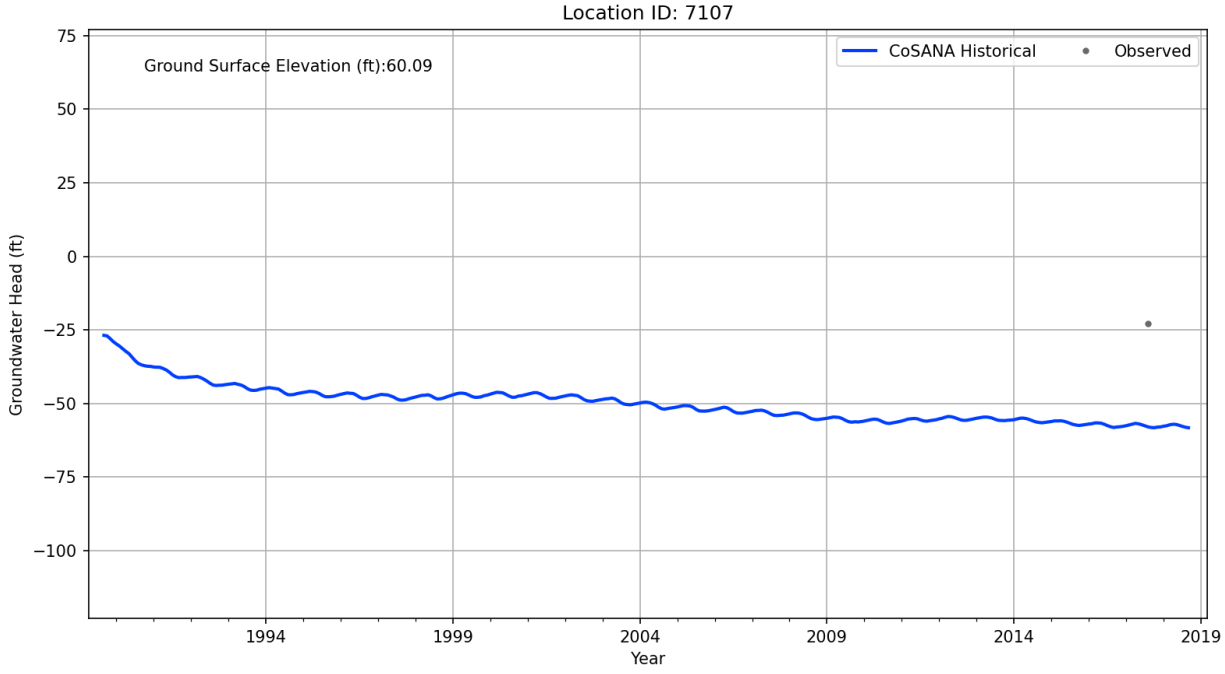

Location ID: 6918
Ground Surface Elevation (ft):207.59
CoSANA Historical
Observed
Groundwater Head (ft)
Year
200
175
150
125
100
75
50
25
1994
1999
2004
2009
2014
2019

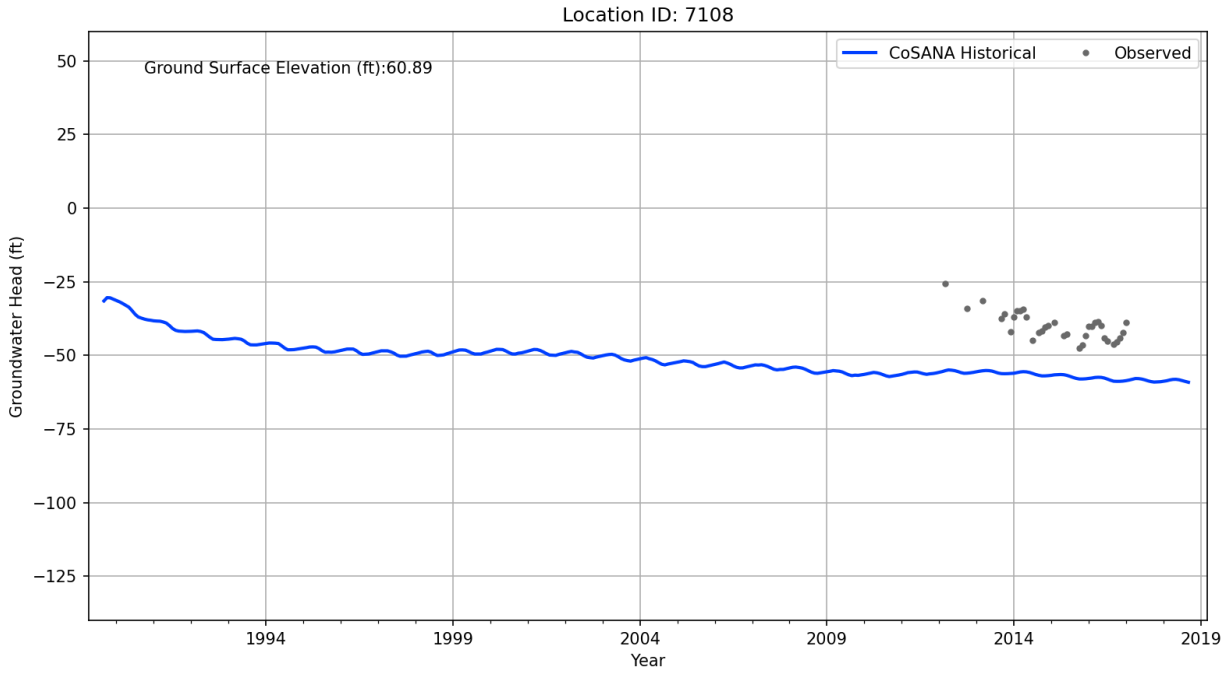

Location ID: 7008
Ground Surface Elevation (ft):101.64
CoSANA Historical
Observed
Groundwater Head (ft)
Year
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019

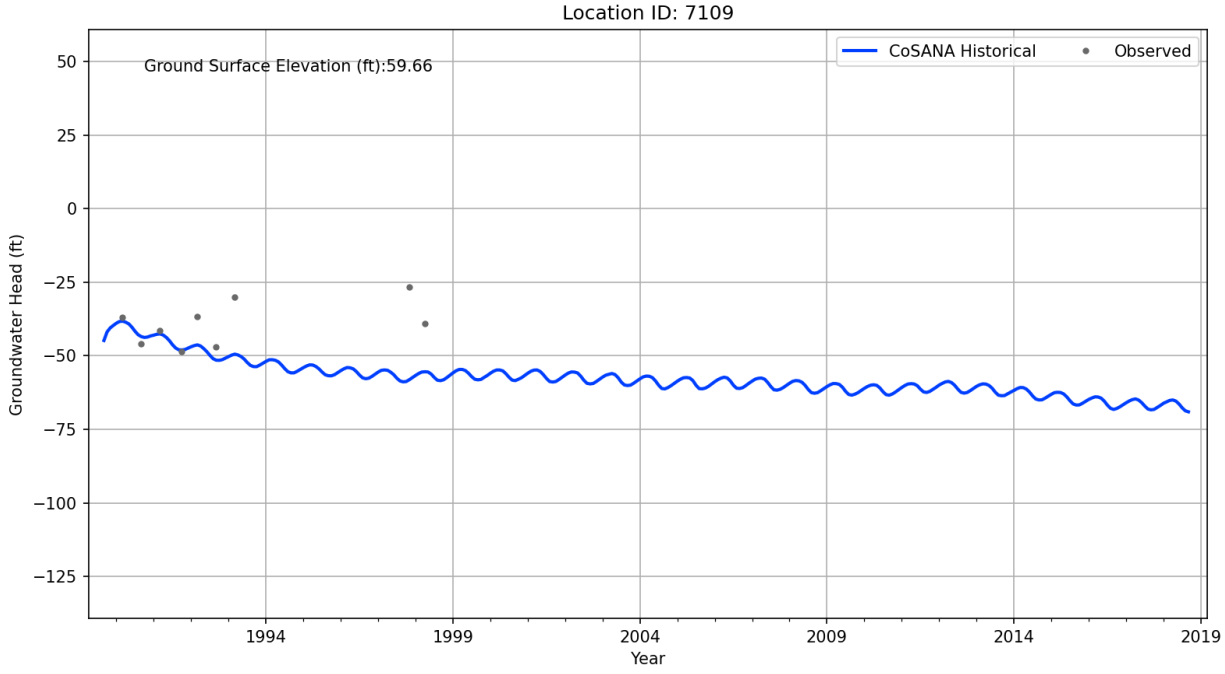

Location ID: 7009
Ground Surface Elevation (ft):110.11
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

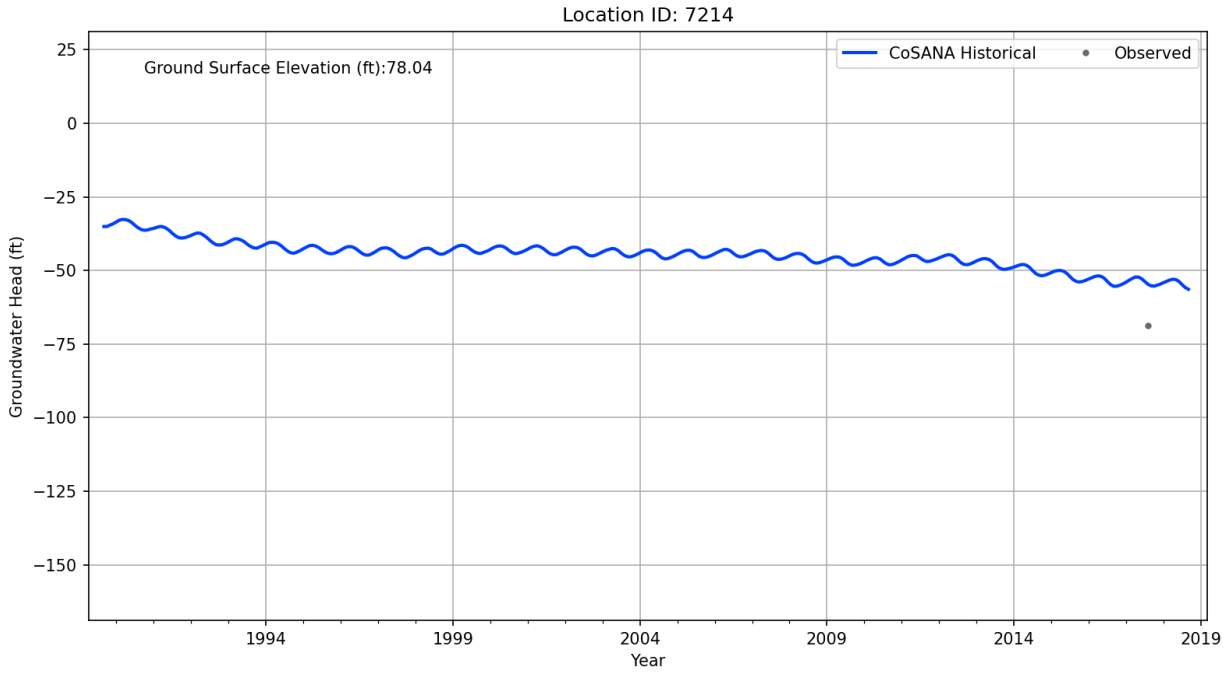

Location ID: 7010
Ground Surface Elevation (ft):76.87
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

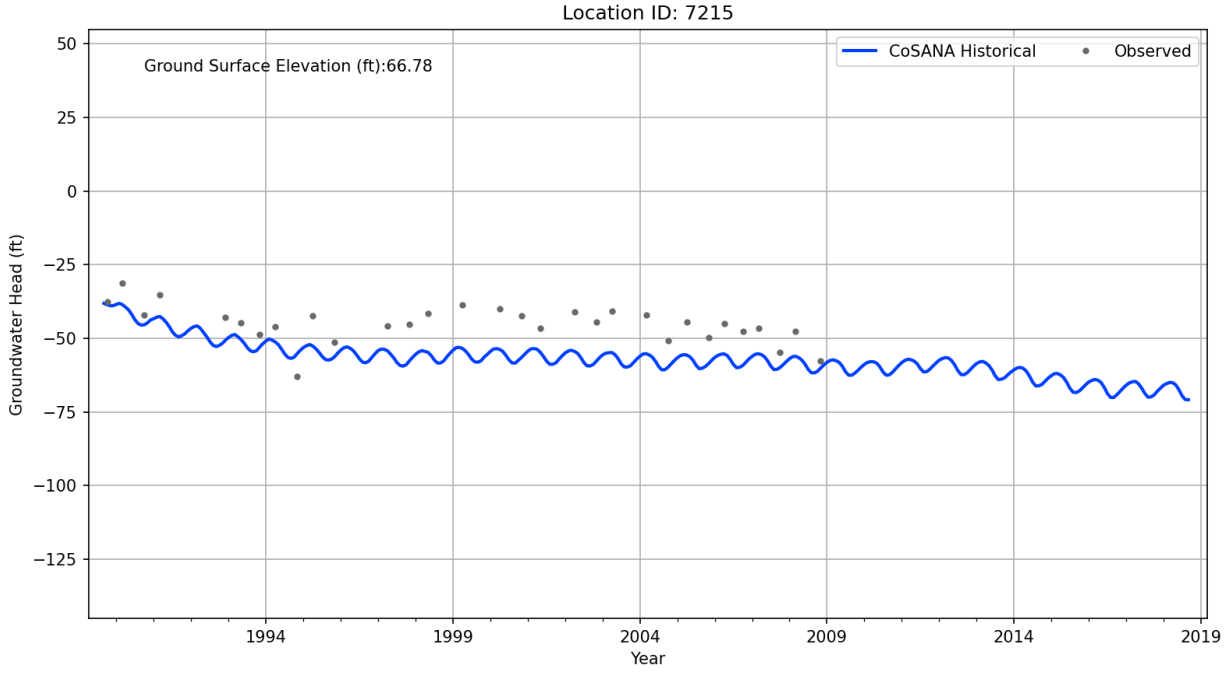

Location ID: 7106
Ground Surface Elevation (ft):39.37
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

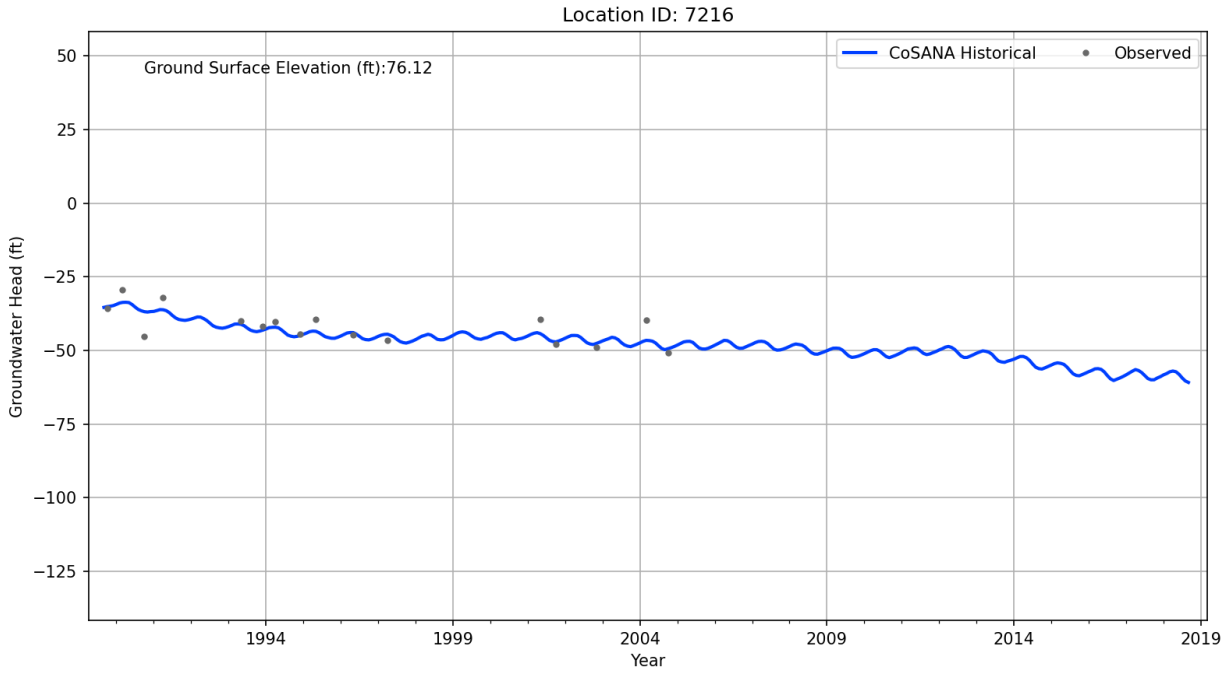

Location ID: 7107
Ground Surface Elevation (ft):60.09
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

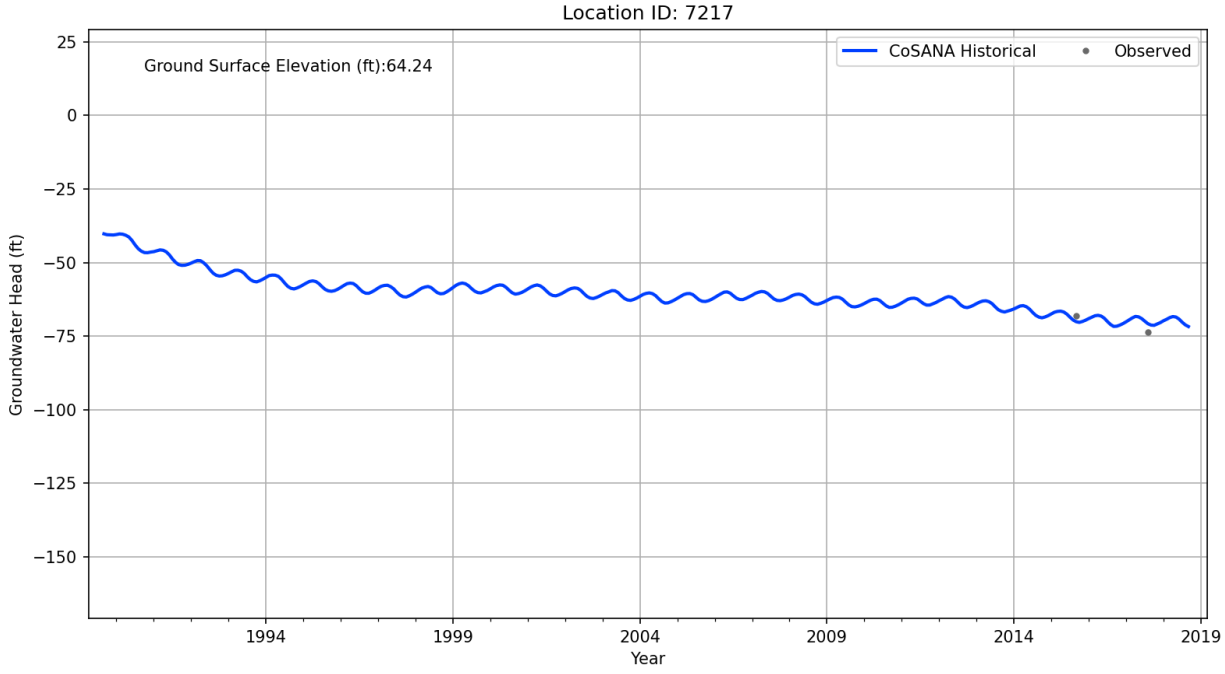

Location ID: 7108
Ground Surface Elevation (ft):60.89
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

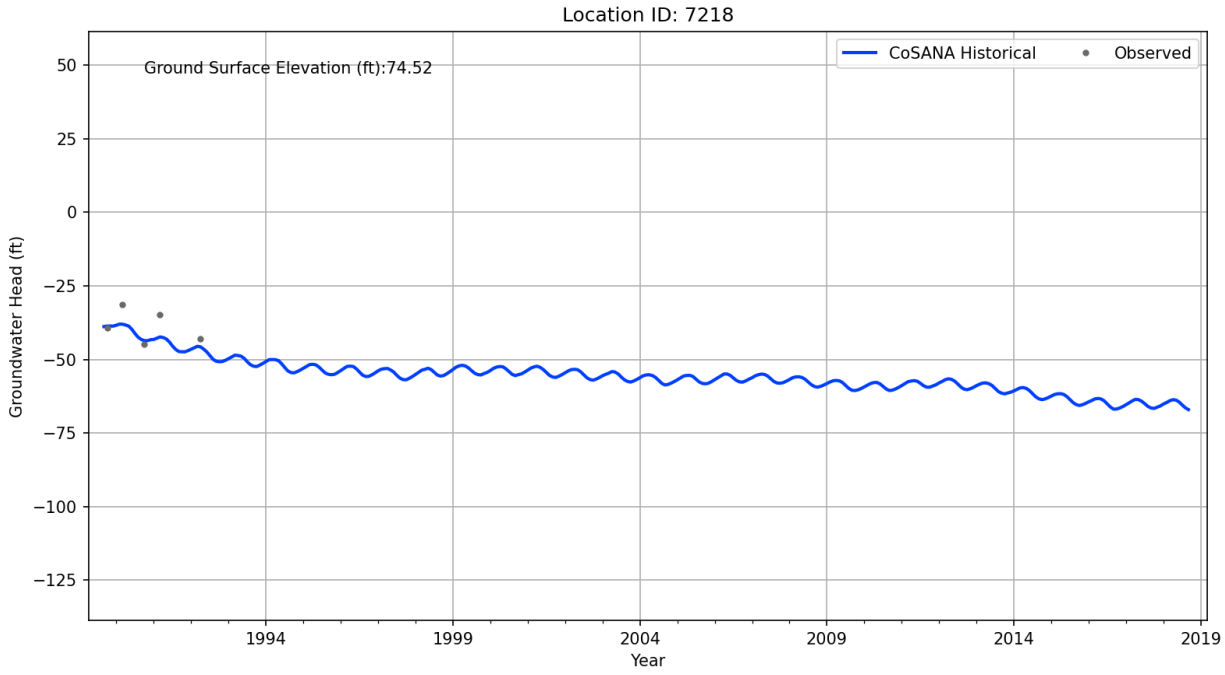

Location ID: 7109
Ground Surface Elevation (ft):59.66
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

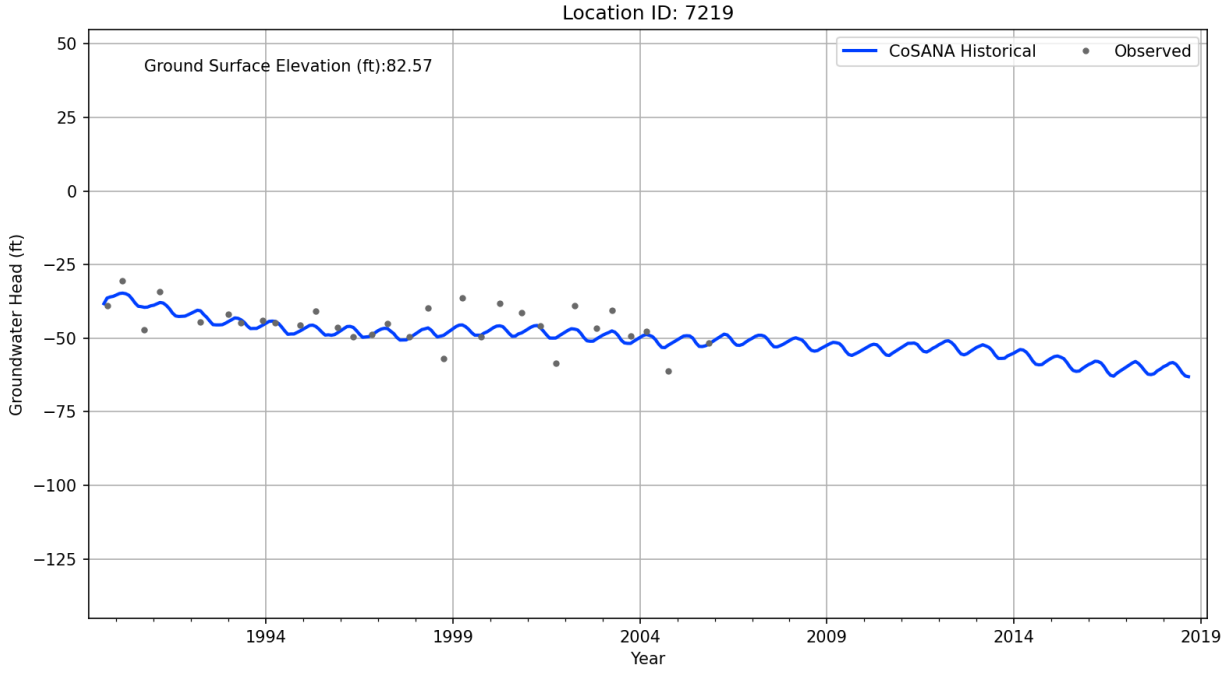

Location ID: 7214
Ground Surface Elevation (ft):78.04
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

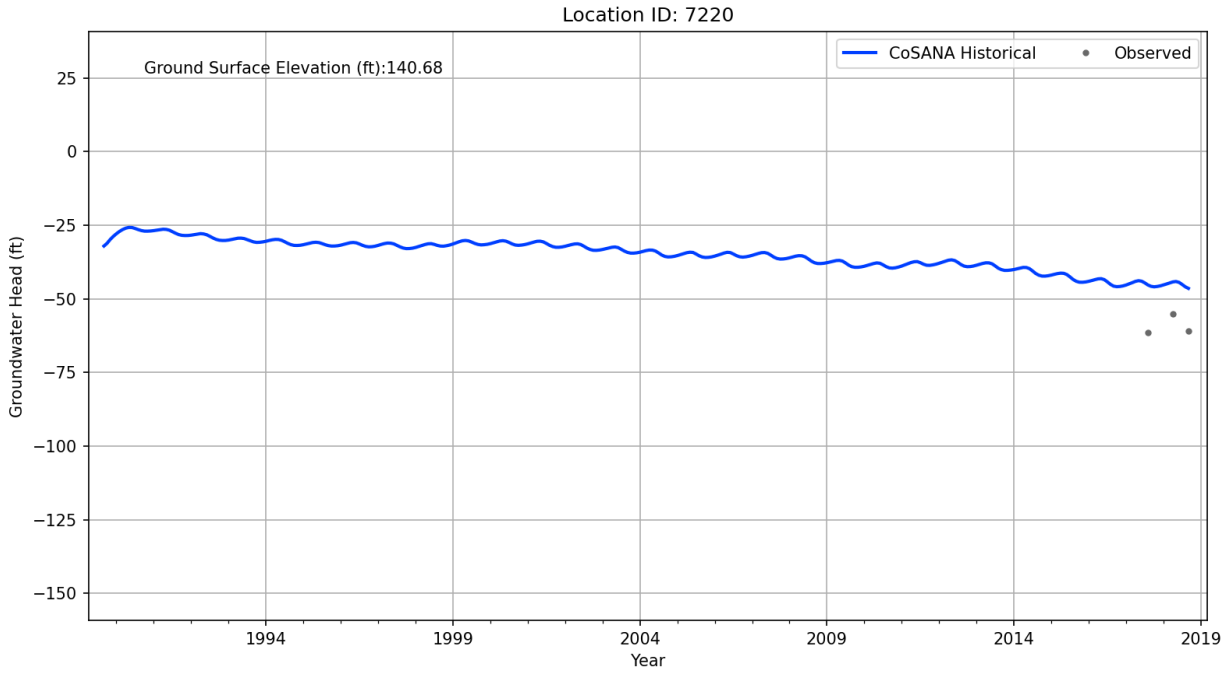

Location ID: 7215
Ground Surface Elevation (ft):66.78
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

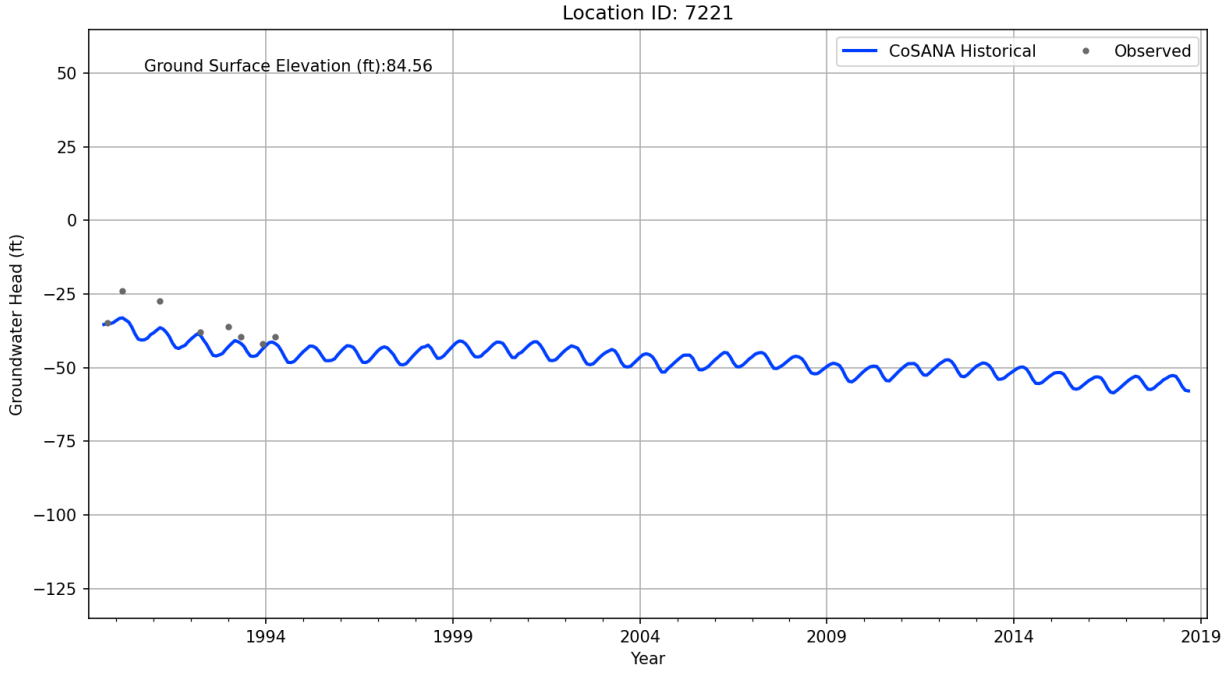

Location ID: 7216
Ground Surface Elevation (ft):76.12
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

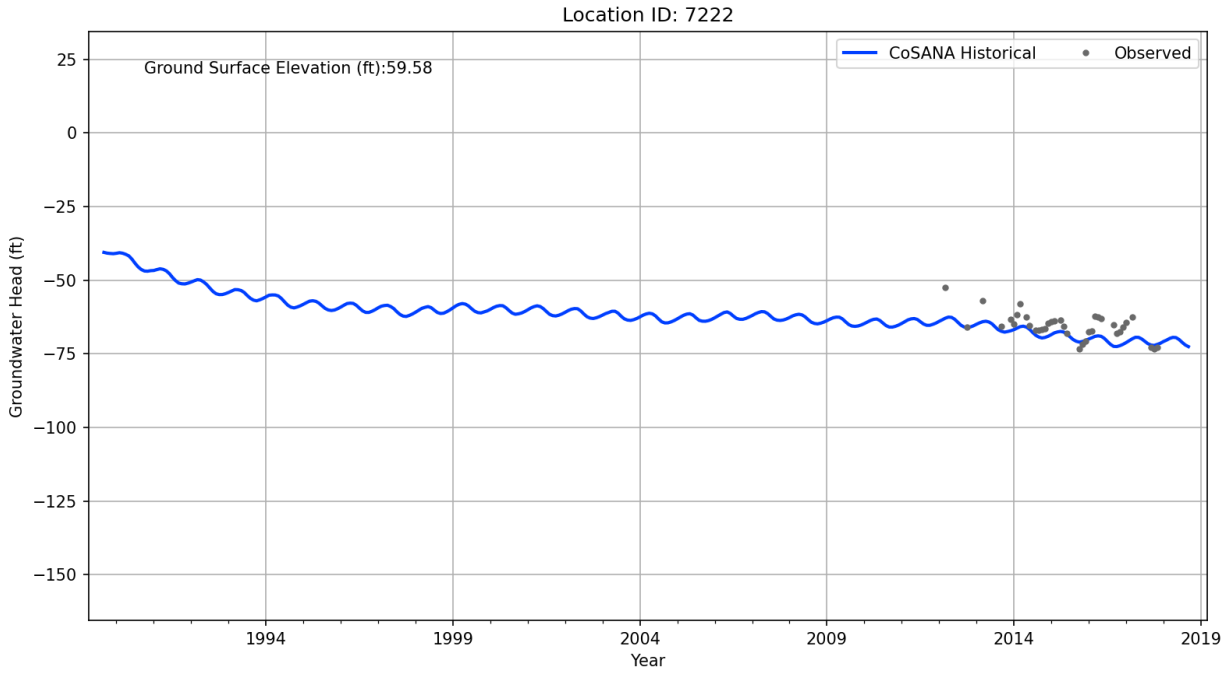

Location ID: 7217
Ground Surface Elevation (ft):64.24
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

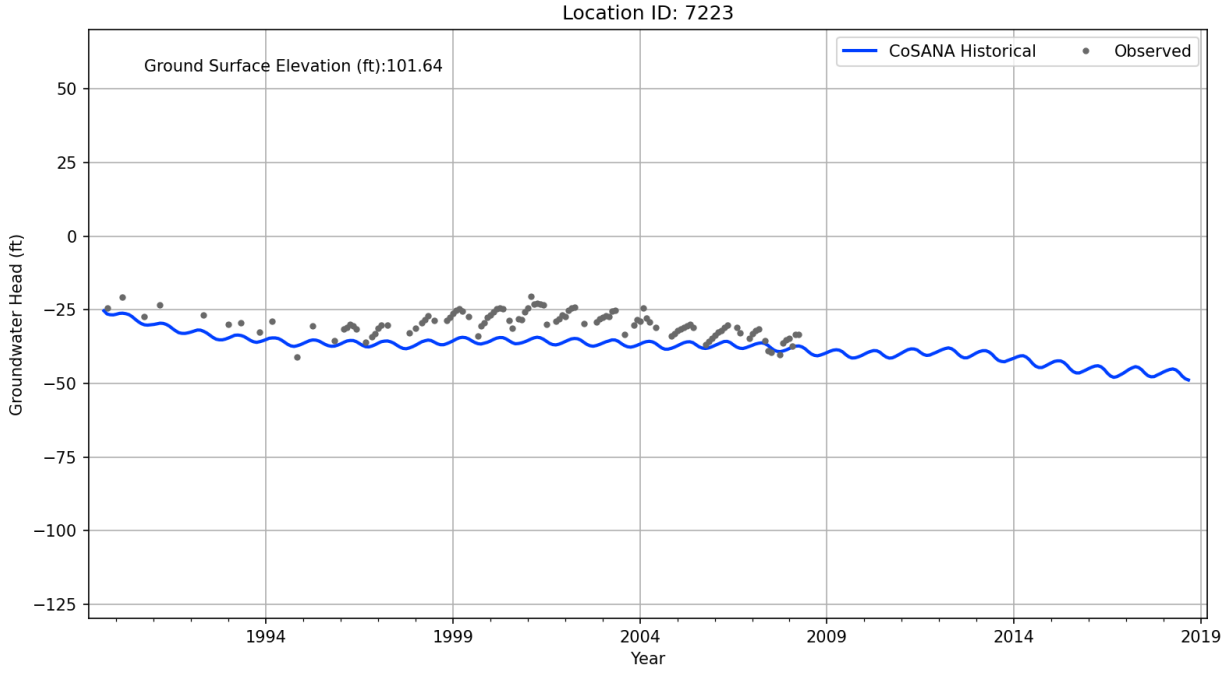

Location ID: 7218
Ground Surface Elevation (ft):74.52
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

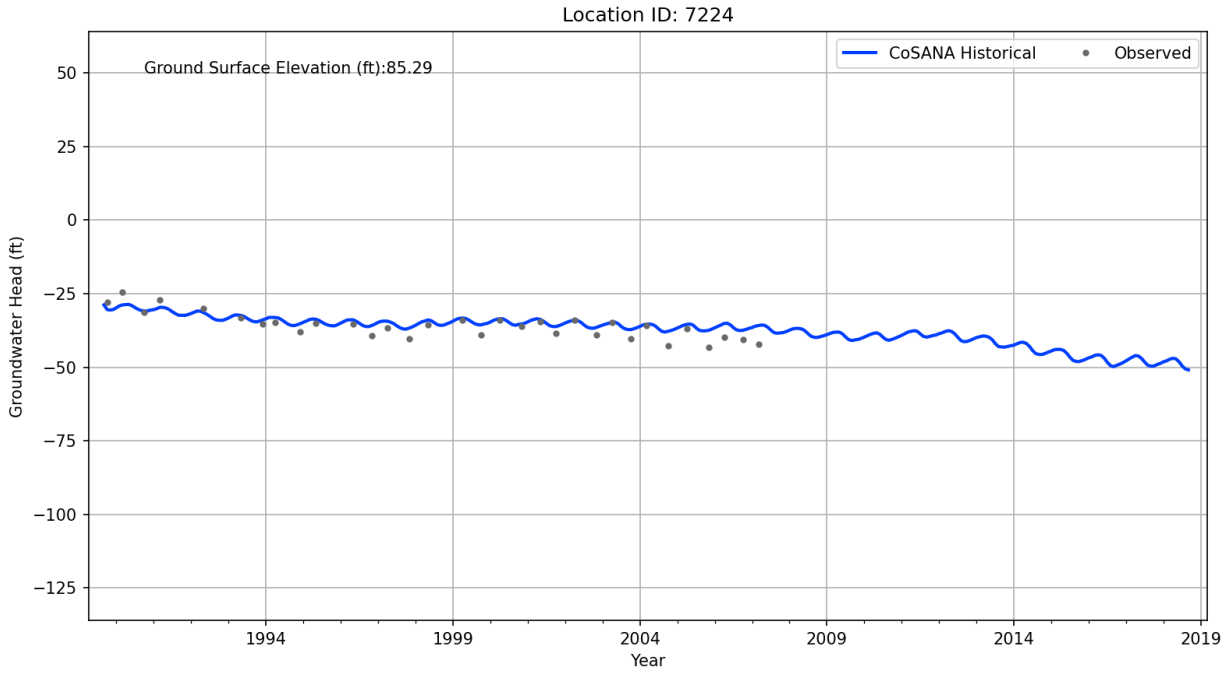

Location ID: 7219
Ground Surface Elevation (ft):82.57
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

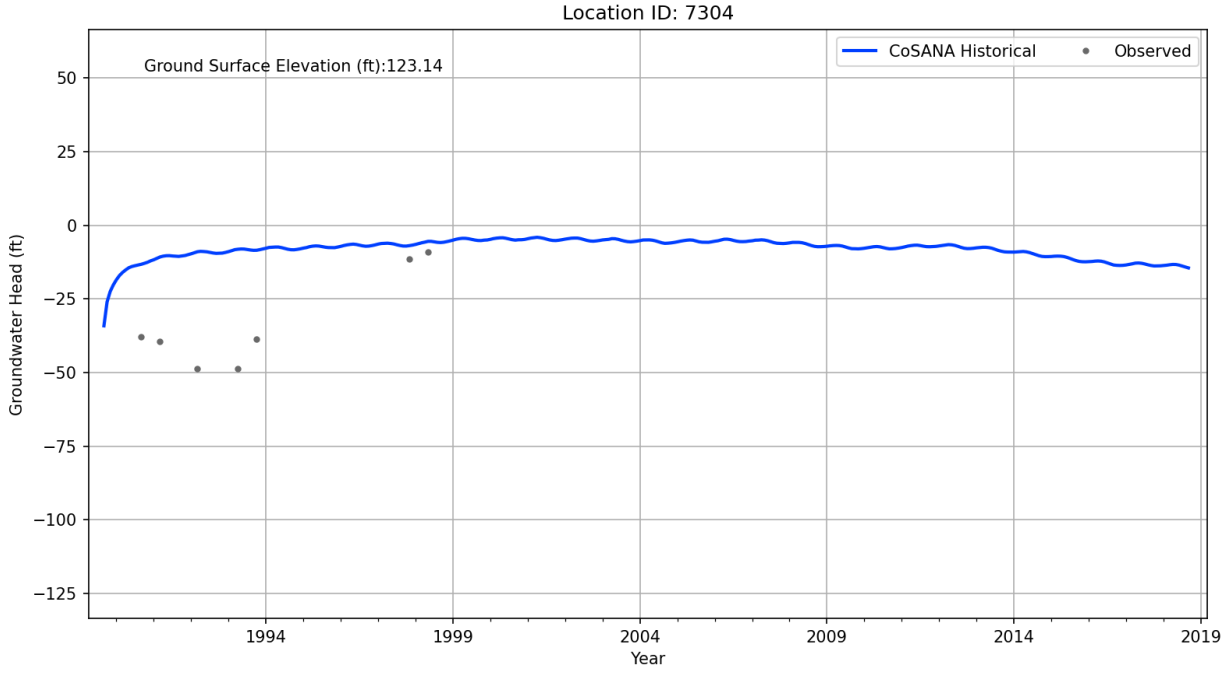

Location ID: 7220
Ground Surface Elevation (ft):140.68
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

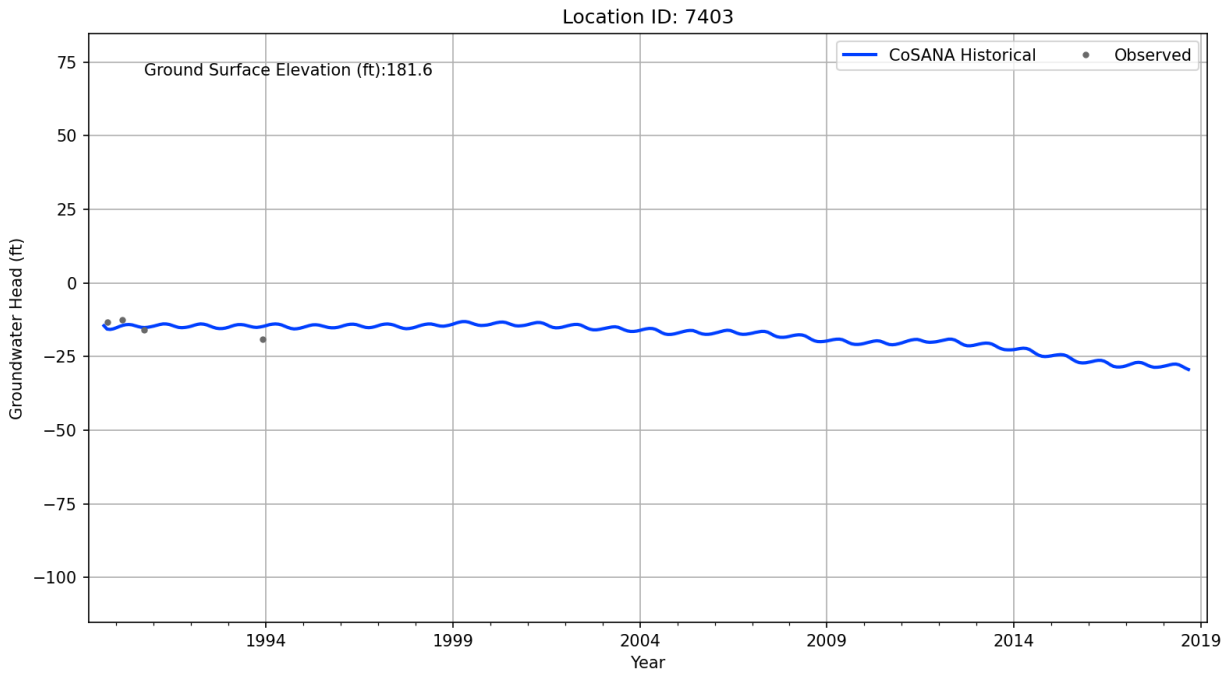

Location ID: 7221
Ground Surface Elevation (ft):84.56
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

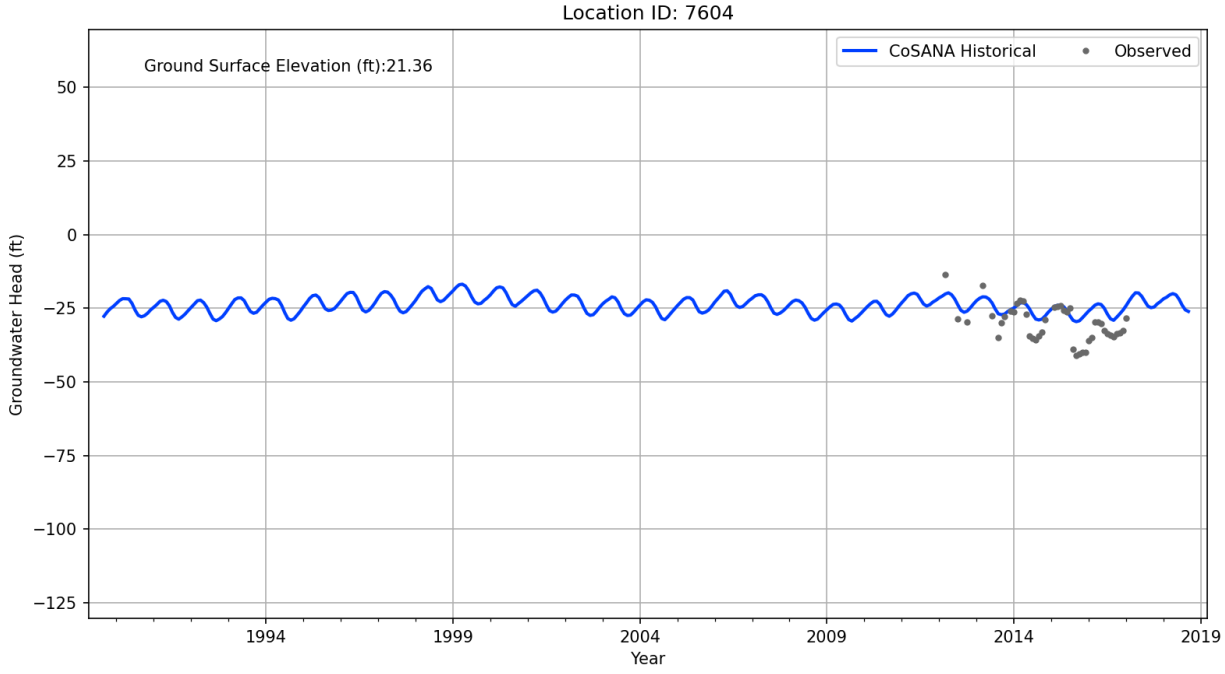

Location ID: 7222
Ground Surface Elevation (ft):59.58
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

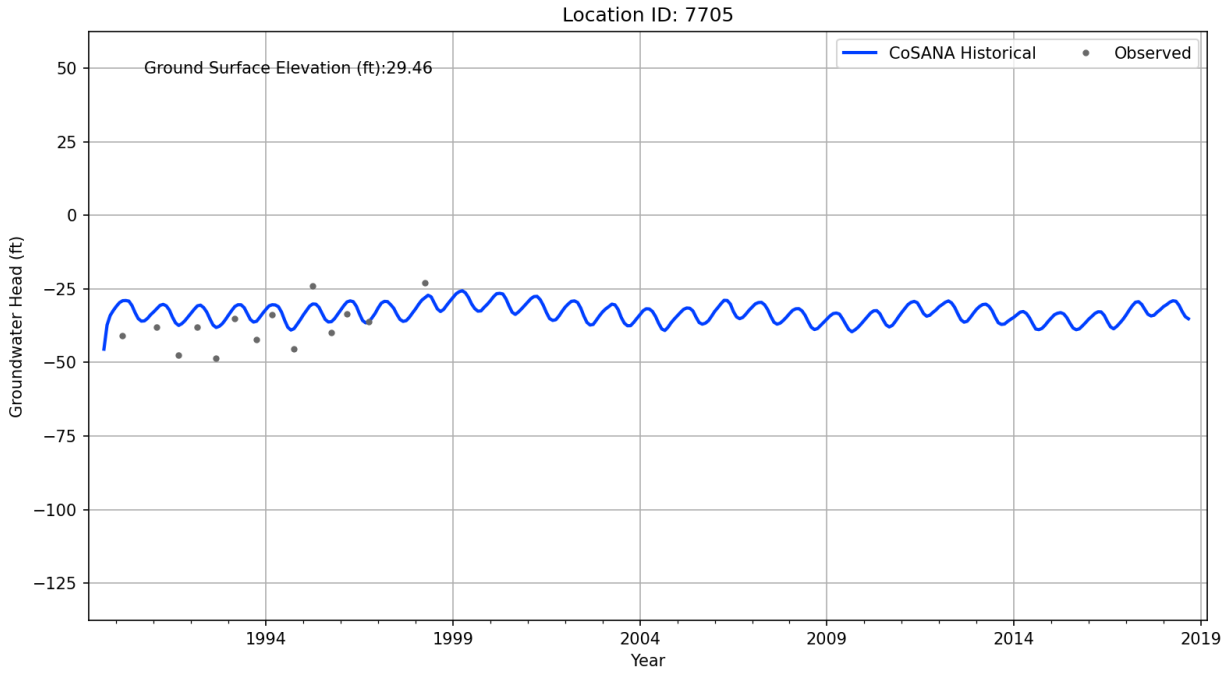

Location ID: 7223
Ground Surface Elevation (ft):101.64
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

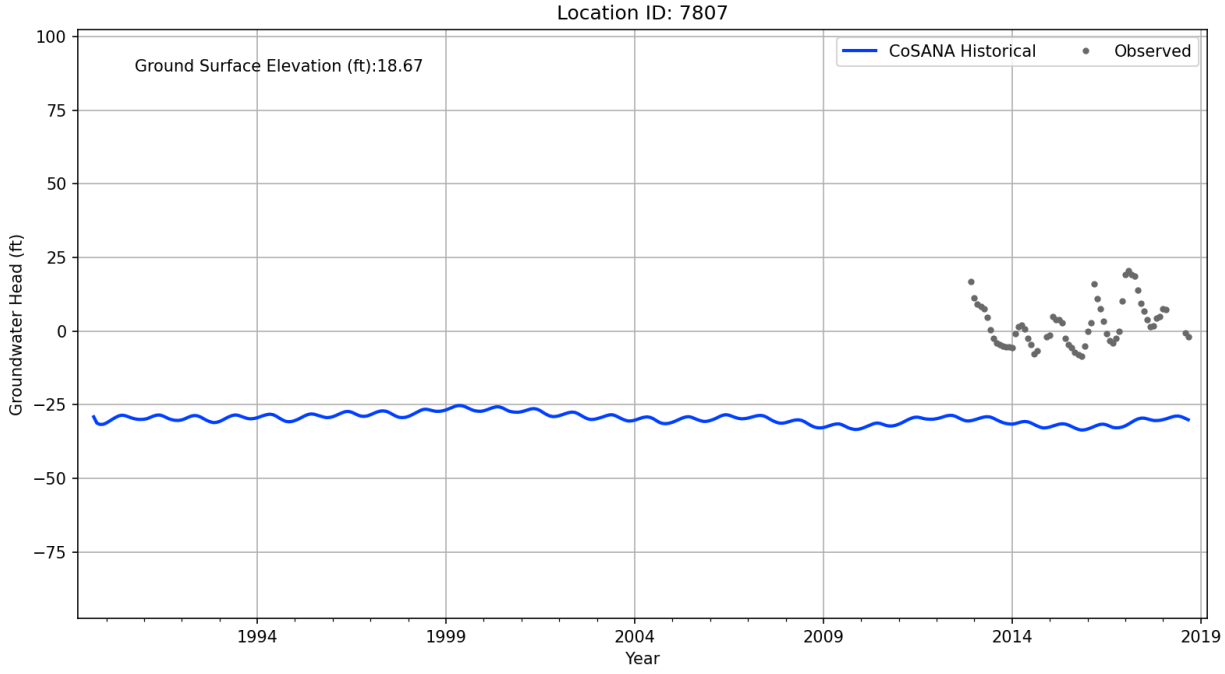

Location ID: 7224
Ground Surface Elevation (ft):85.29
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

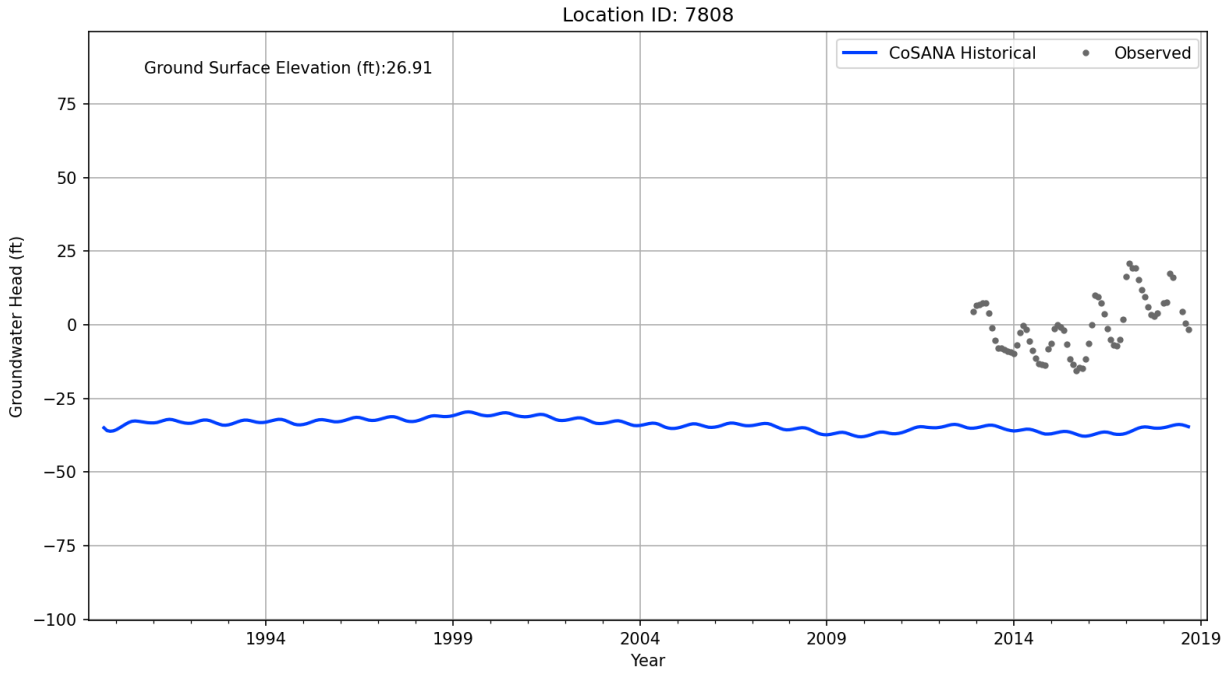

Location ID: 7304
Ground Surface Elevation (ft):123.14
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

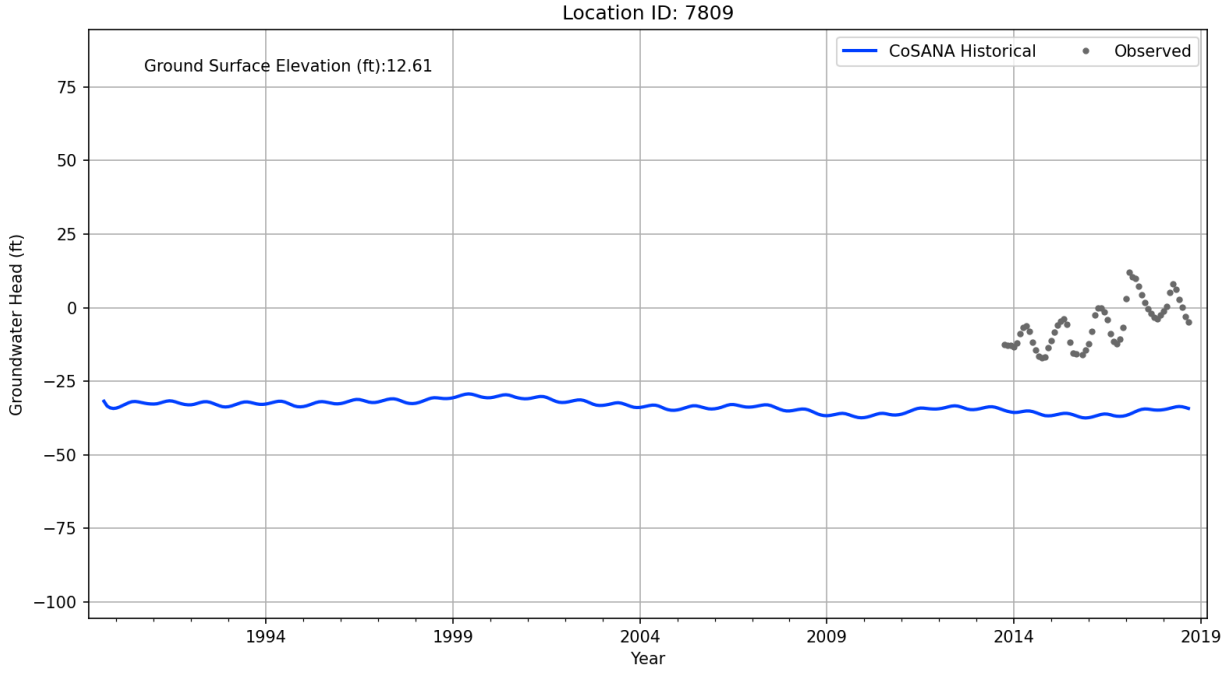

Location ID: 7403
Ground Surface Elevation (ft):181.6
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

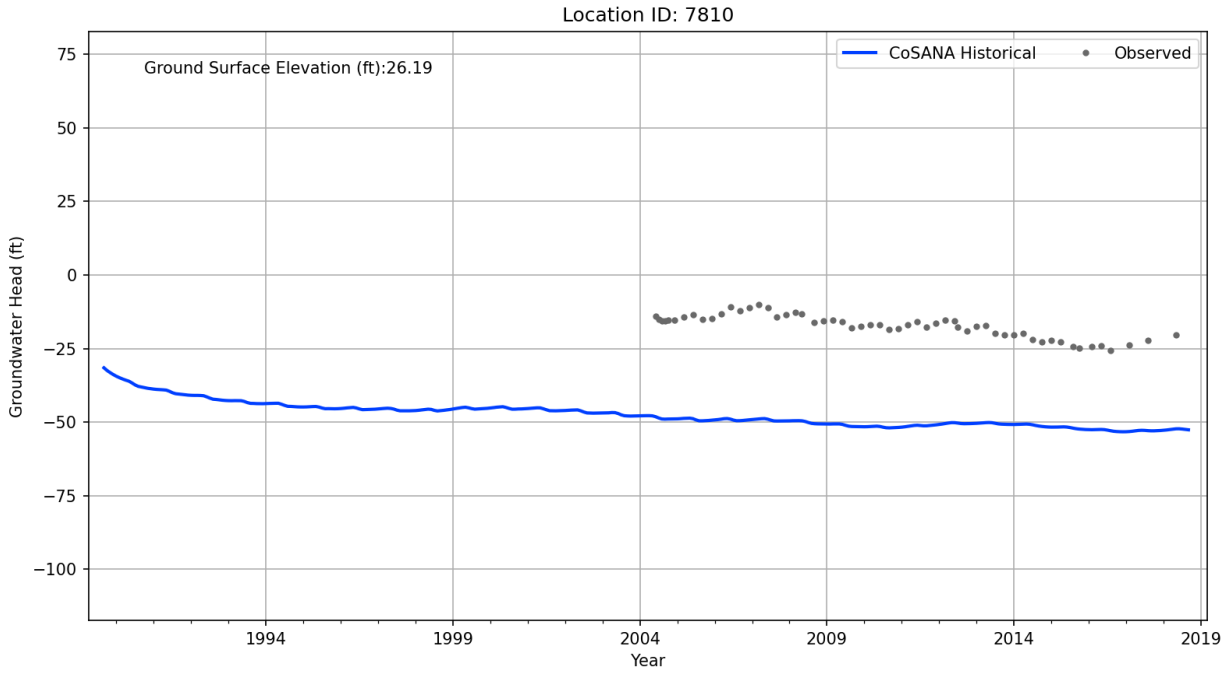

Location ID: 7604
Ground Surface Elevation (ft):21.36
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

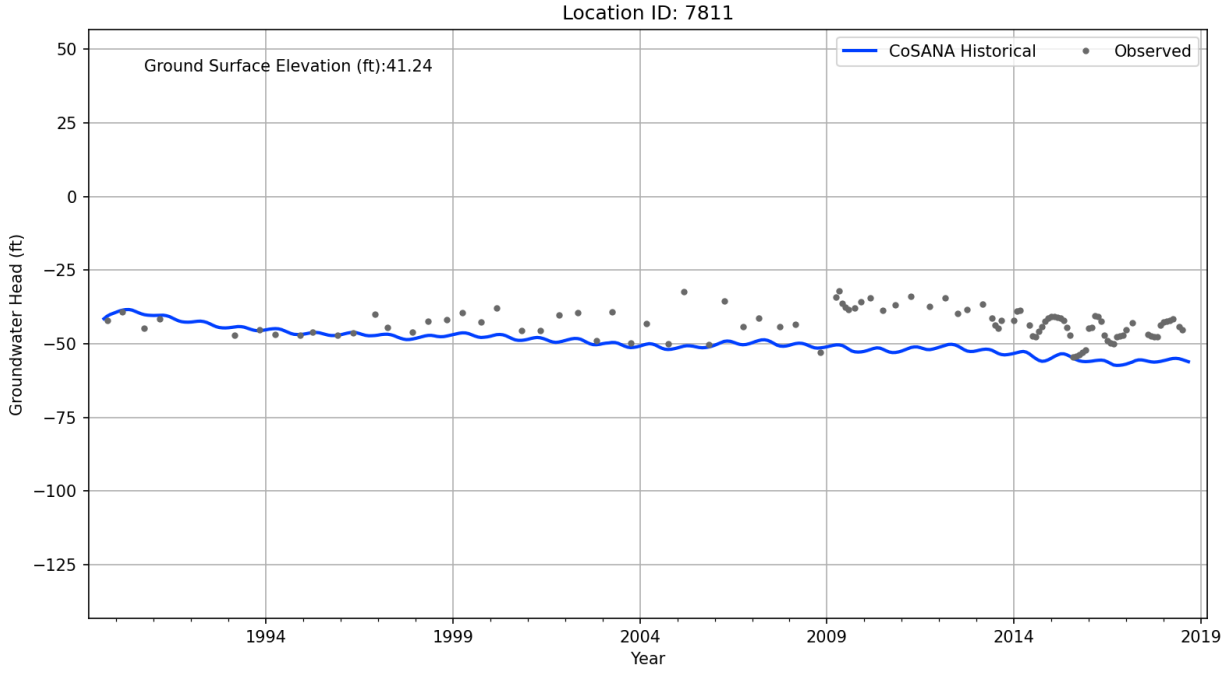

Location ID: 7705
Ground Surface Elevation (ft):29.46
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

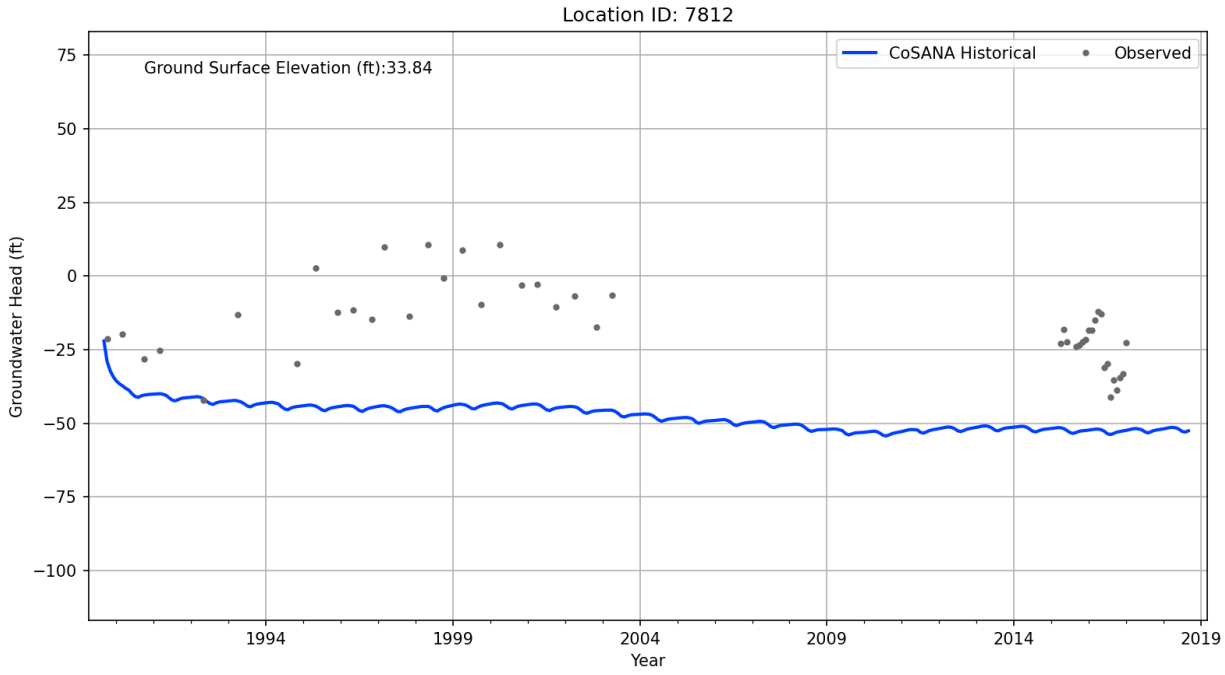

Location ID: 7807
Ground Surface Elevation (ft):18.67
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year

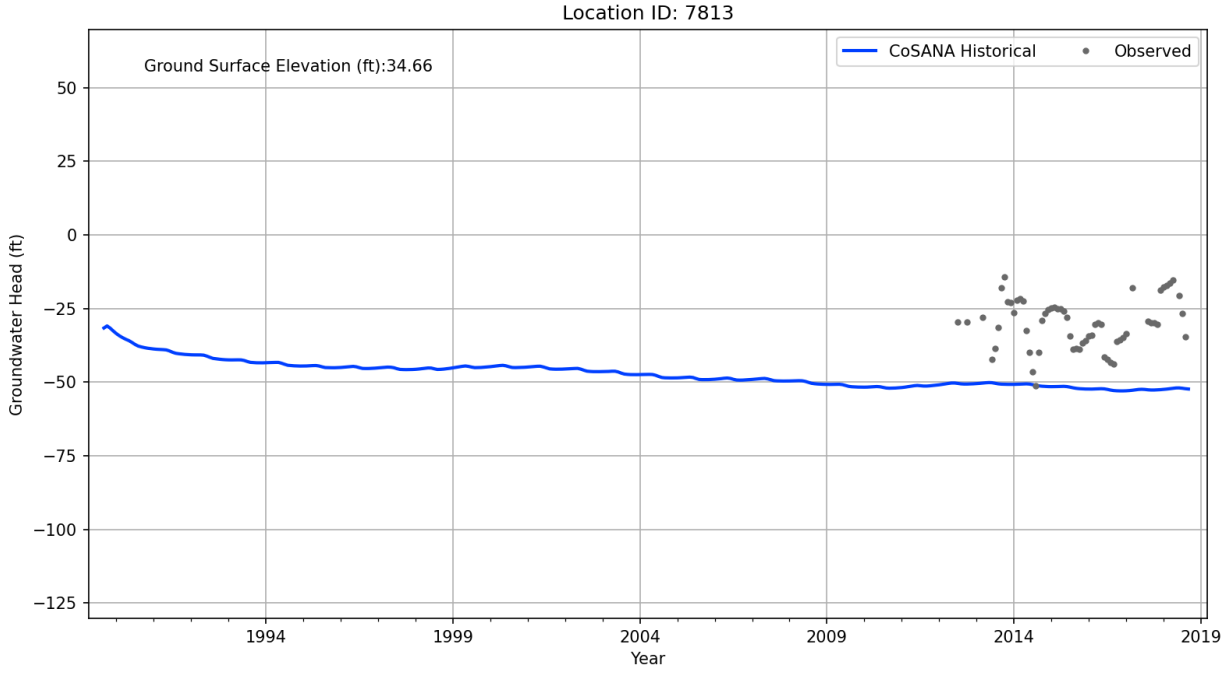

Location ID: 7808
Ground Surface Elevation (ft):26.91
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

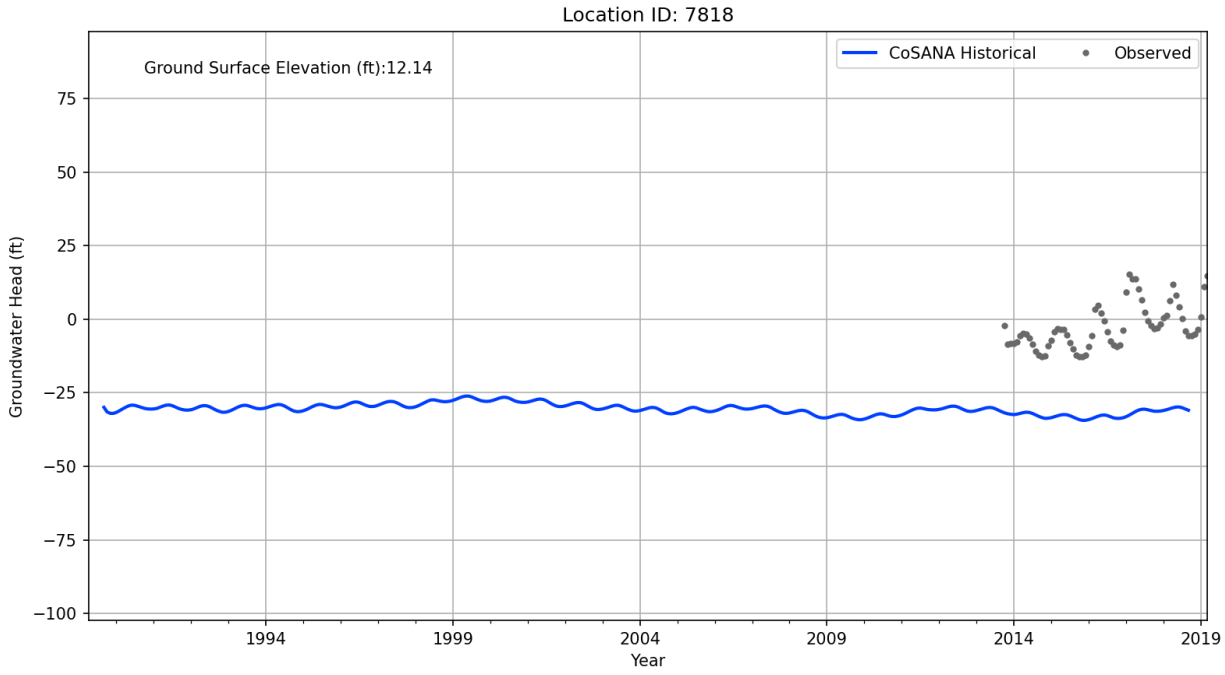

Location ID: 7809
Ground Surface Elevation (ft):12.61
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

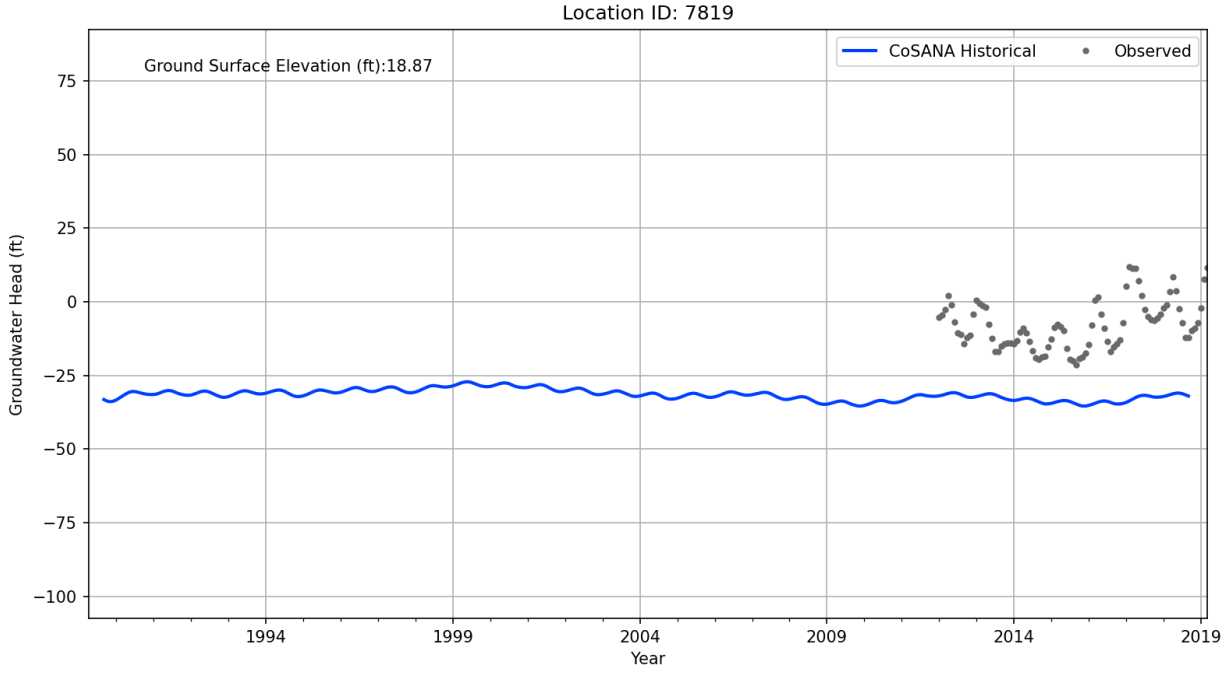

Location ID: 7810
Ground Surface Elevation (ft):26.19
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

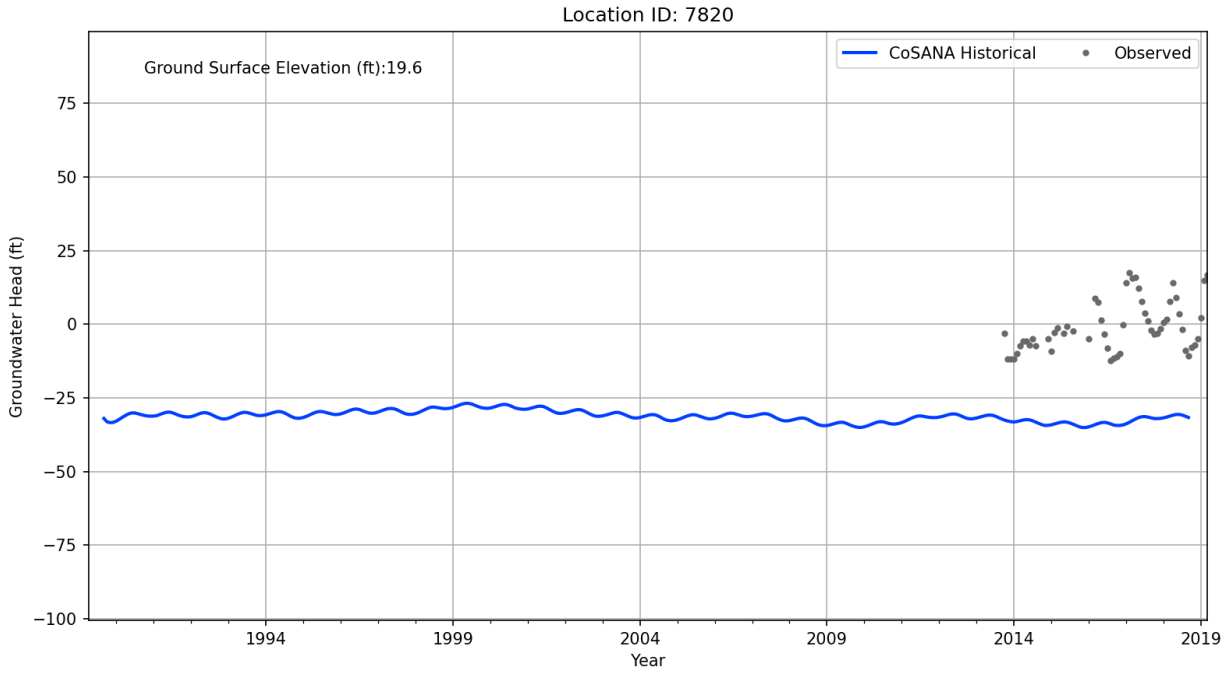

Location ID: 7811
Ground Surface Elevation (ft):41.24
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

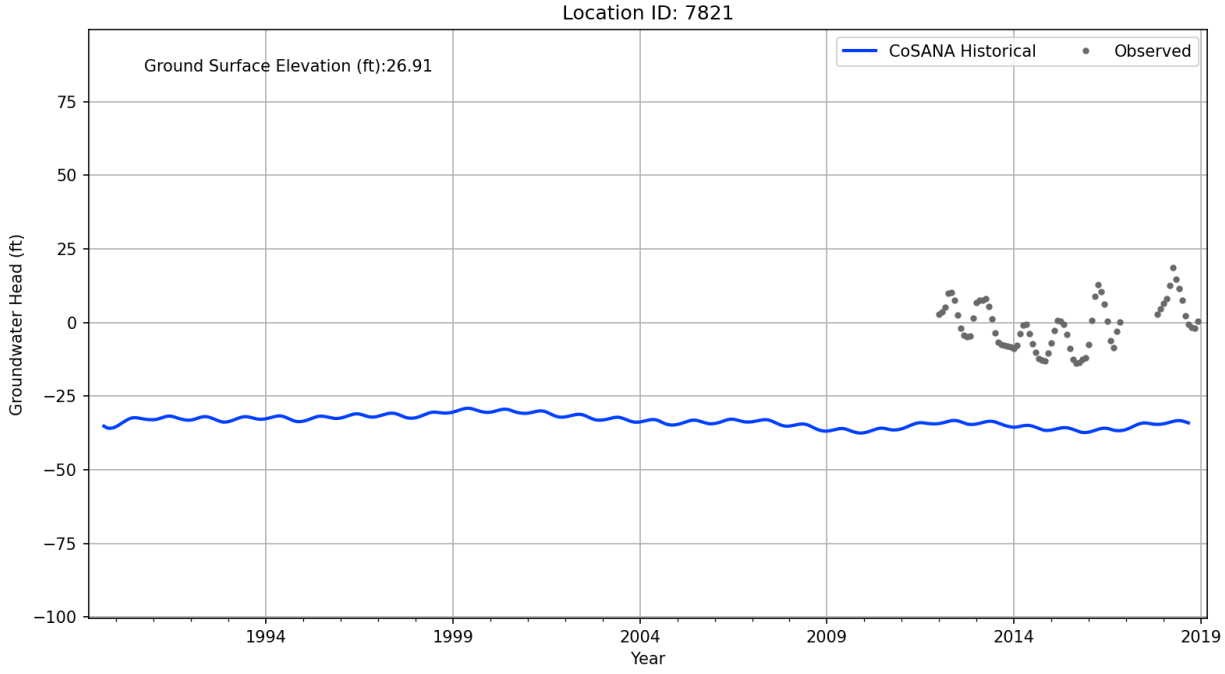

Location ID: 7812
Ground Surface Elevation (ft):33.84
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

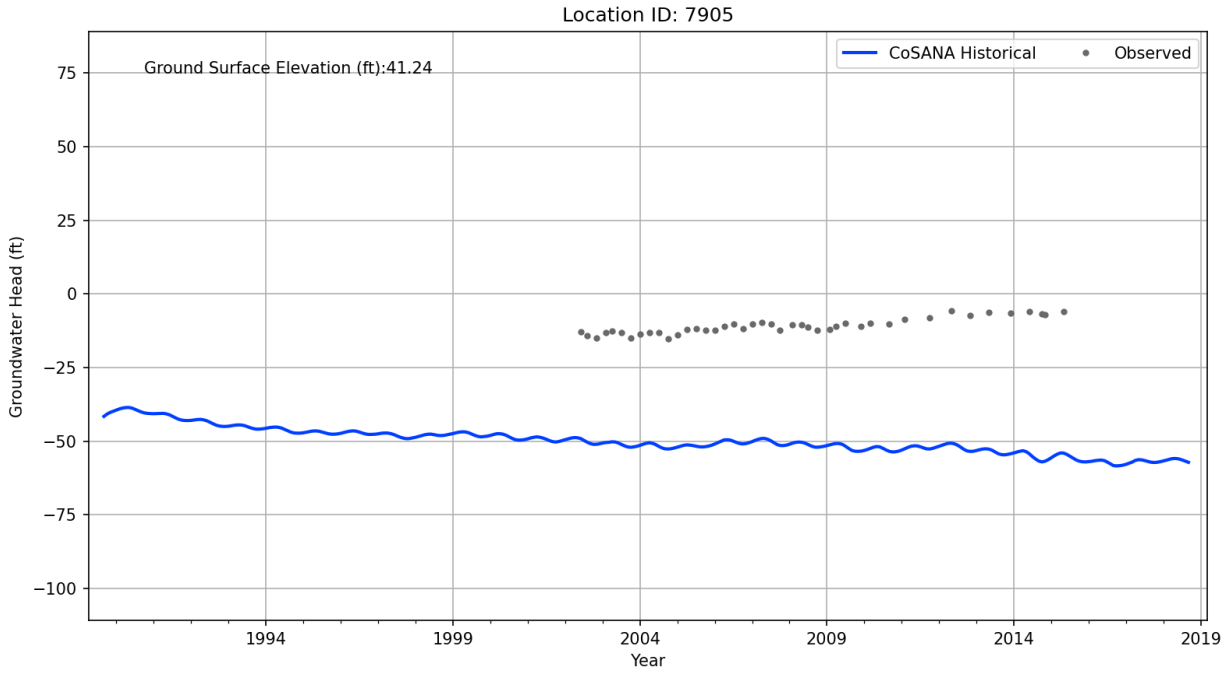

Location ID: 7813
Ground Surface Elevation (ft):34.66
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

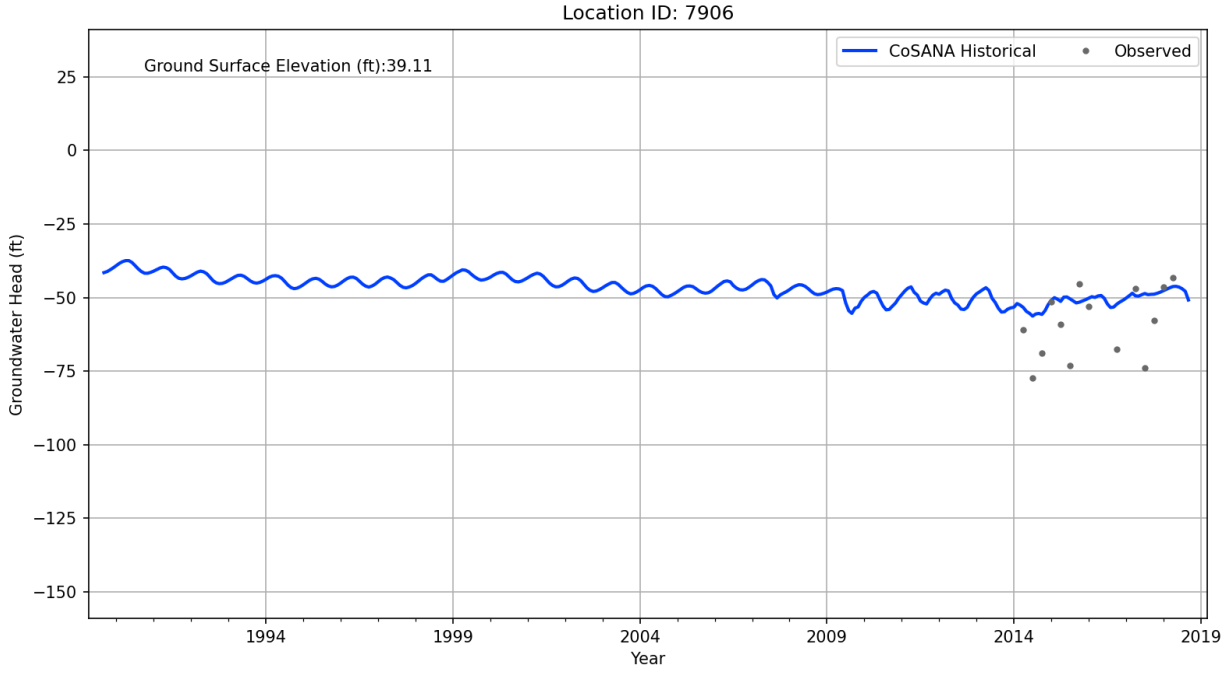

Location ID: 7818
Ground Surface Elevation (ft):12.14
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

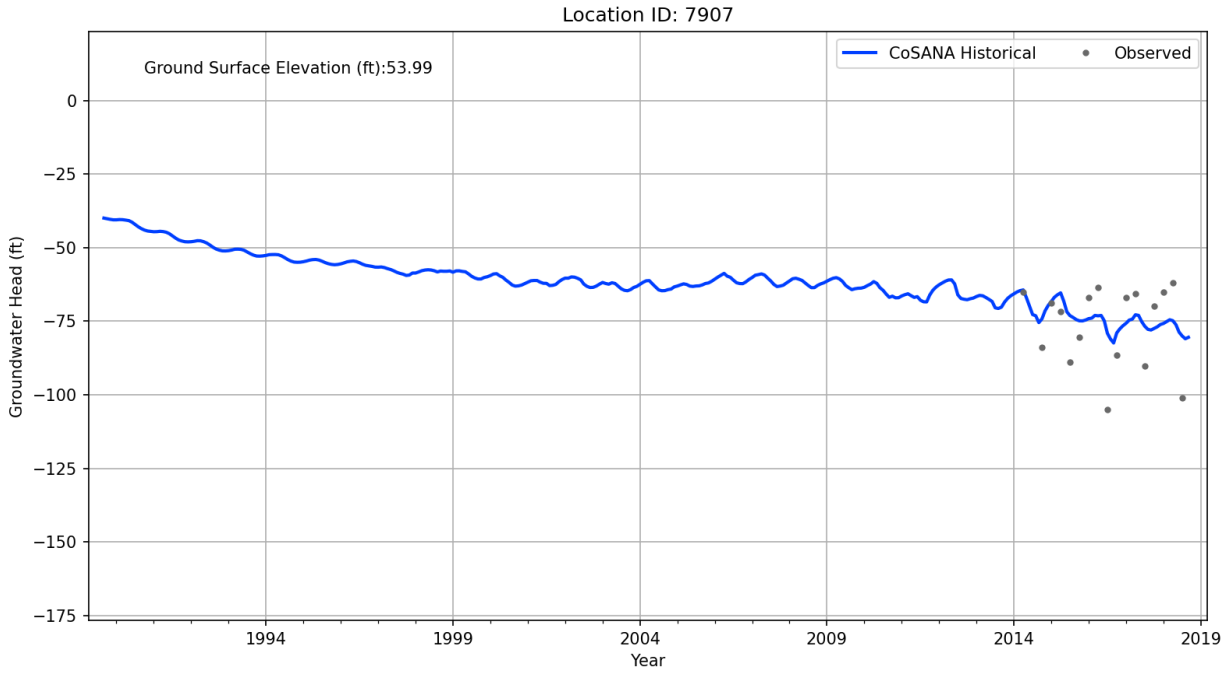

Location ID: 7819
Ground Surface Elevation (ft):18.87
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

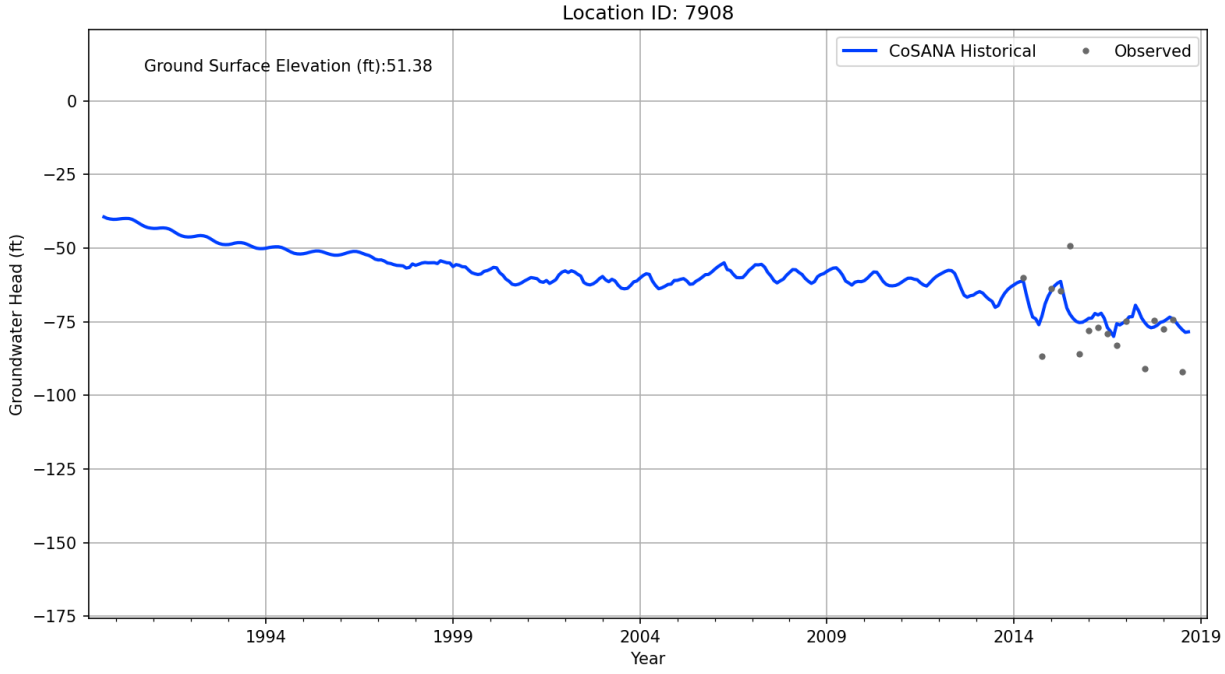

Location ID: 7820
Ground Surface Elevation (ft):19.6
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

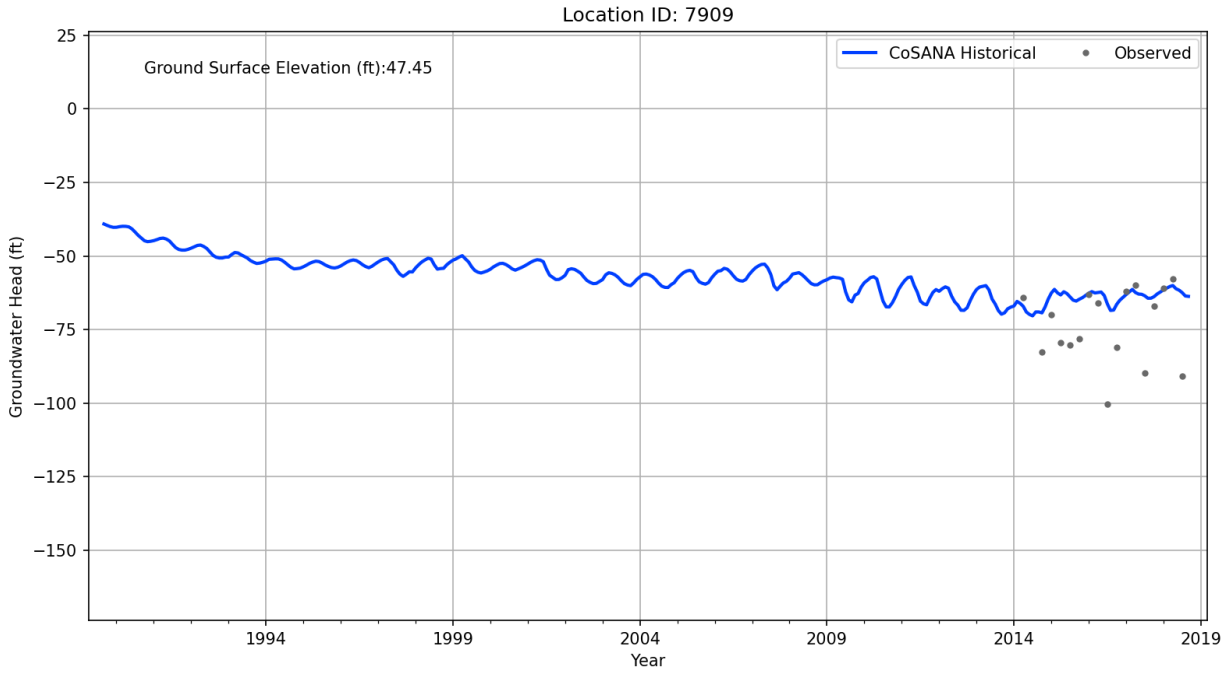

Location ID: 7821
Ground Surface Elevation (ft):26.91
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

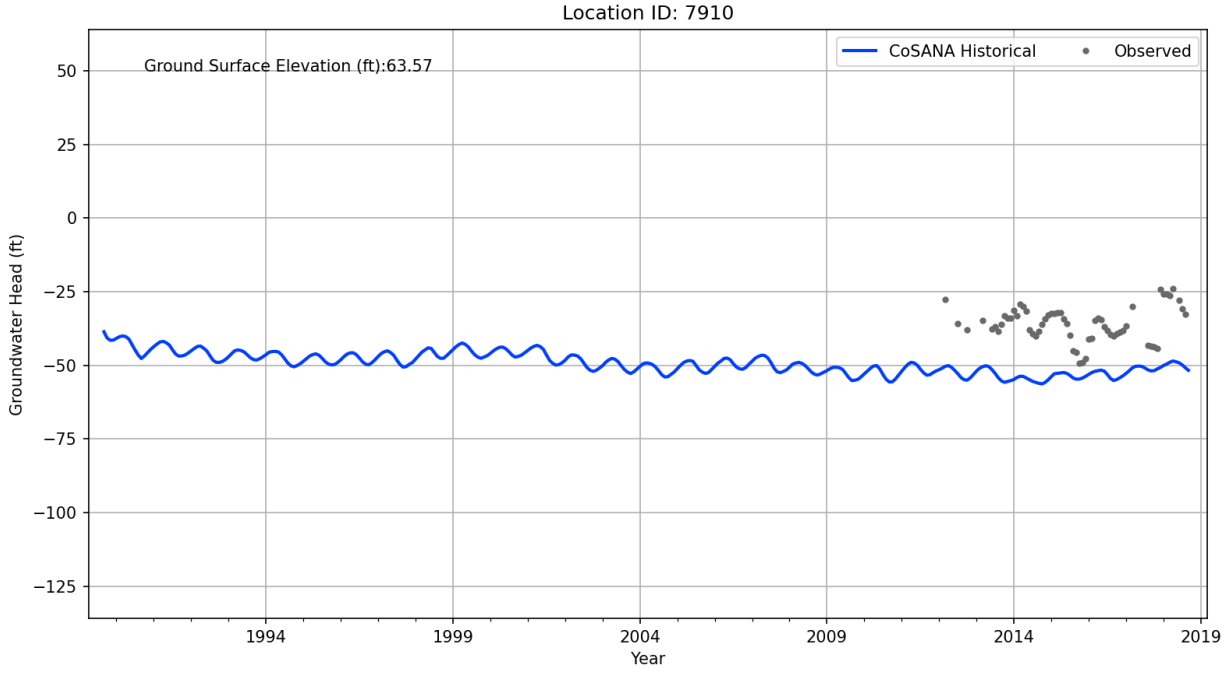

Location ID: 7905
Ground Surface Elevation (ft):41.24
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

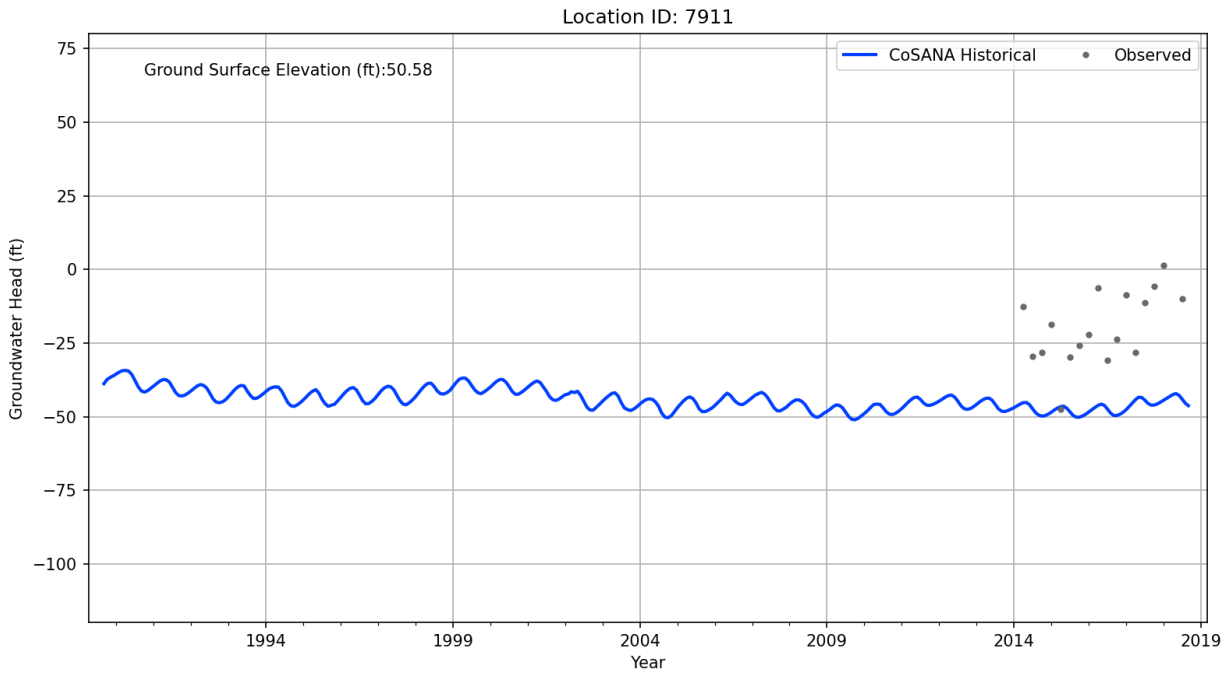

Location ID: 7906
Ground Surface Elevation (ft):39.11
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

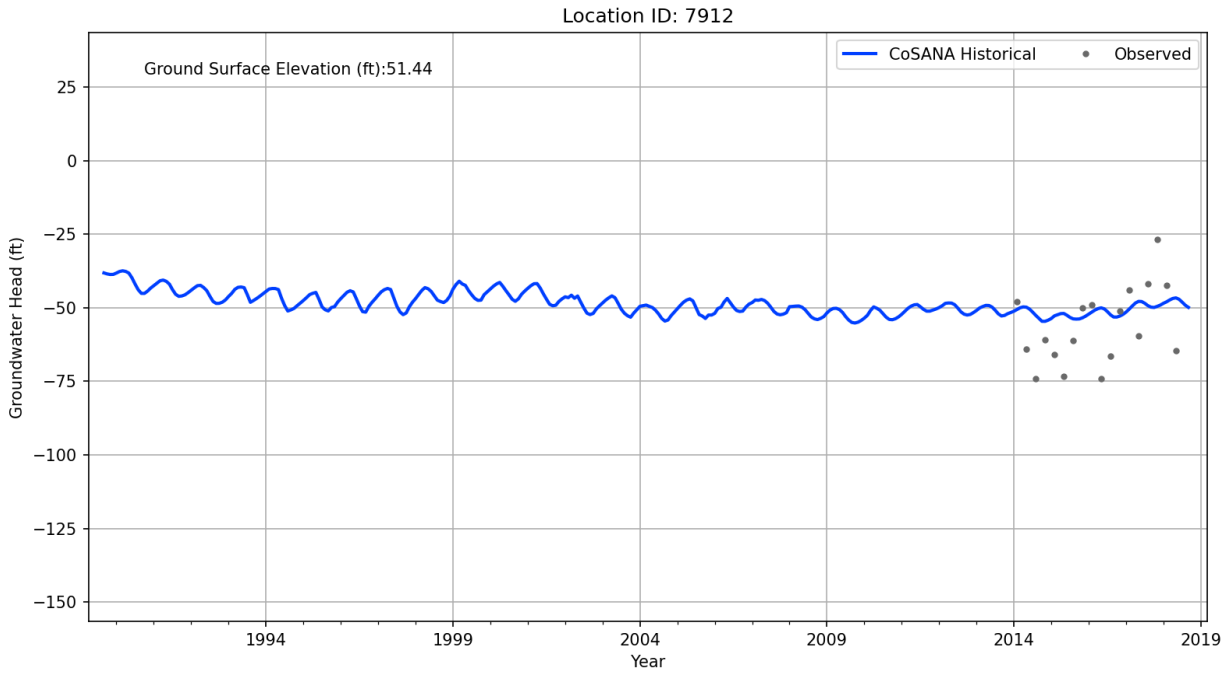

Location ID: 7907
Ground Surface Elevation (ft):53.99
CoSANA Historical
Observed
Groundwater Head (ft)
0
−25
−50
−75
−100
−125
−150
−175
1994
1999
2004
2009
2014
2019
Year

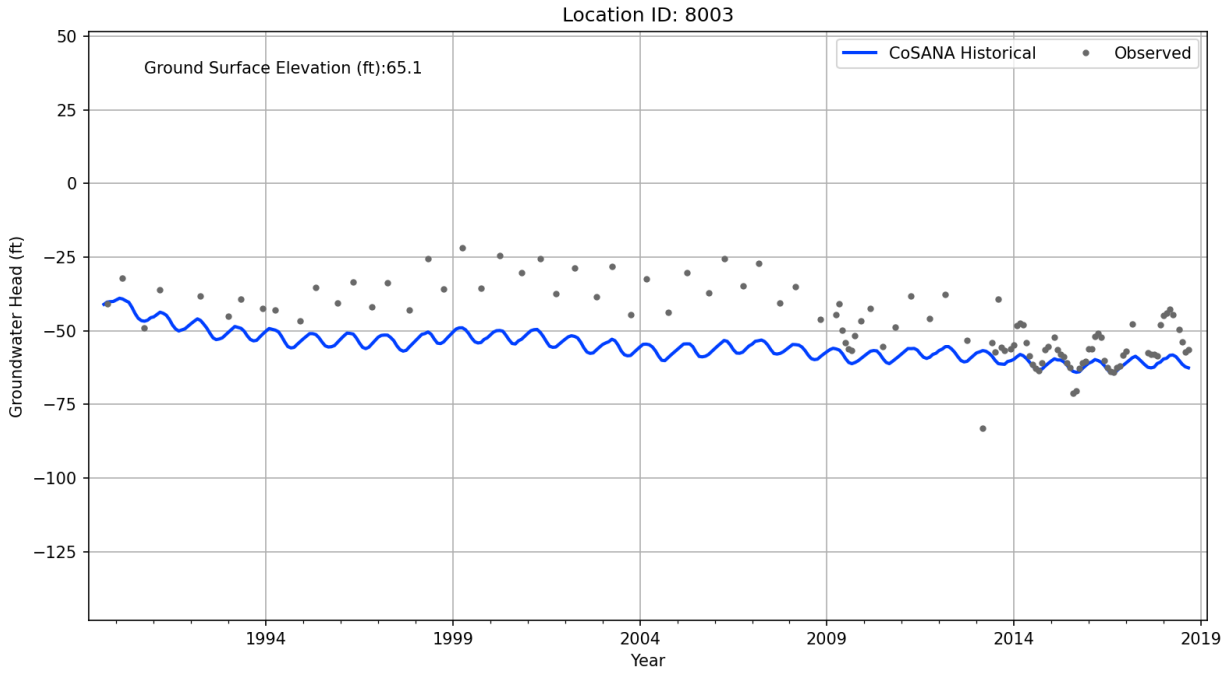

Location ID: 7908
Ground Surface Elevation (ft):51.38
CoSANA Historical
Observed
Groundwater Head (ft)
0
−25
−50
−75
−100
−125
−150
−175
1994
1999
2004
2009
2014
2019
Year

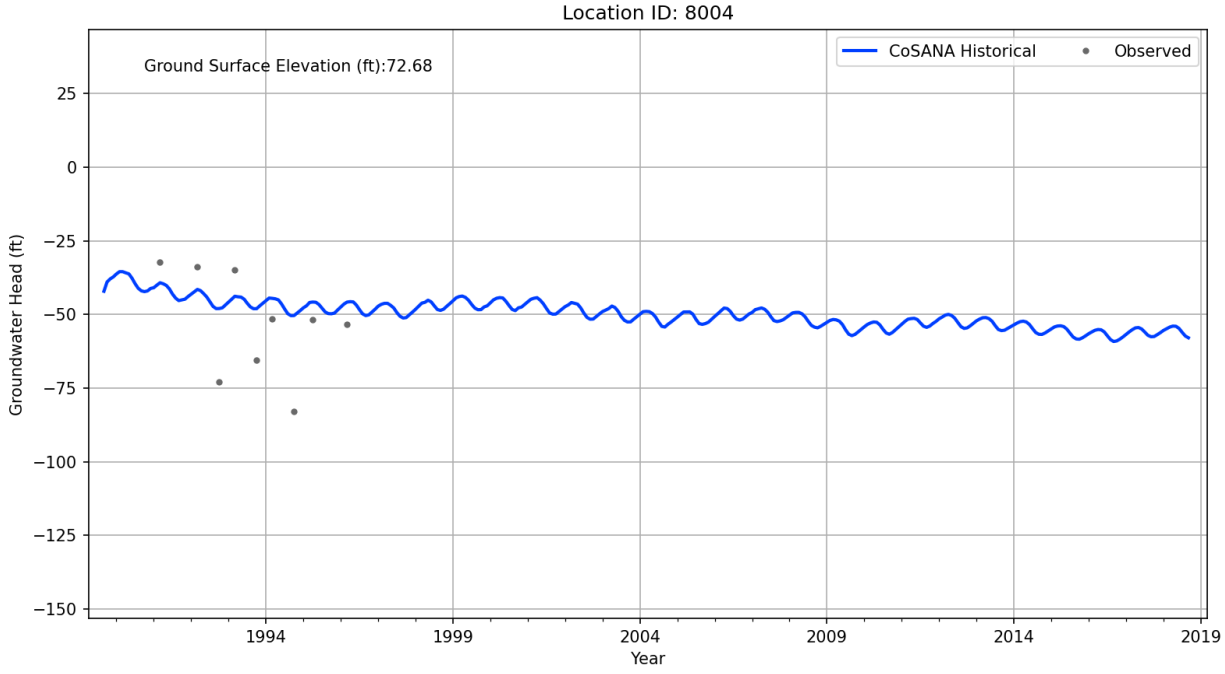

Location ID: 7909
Ground Surface Elevation (ft):47.45
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

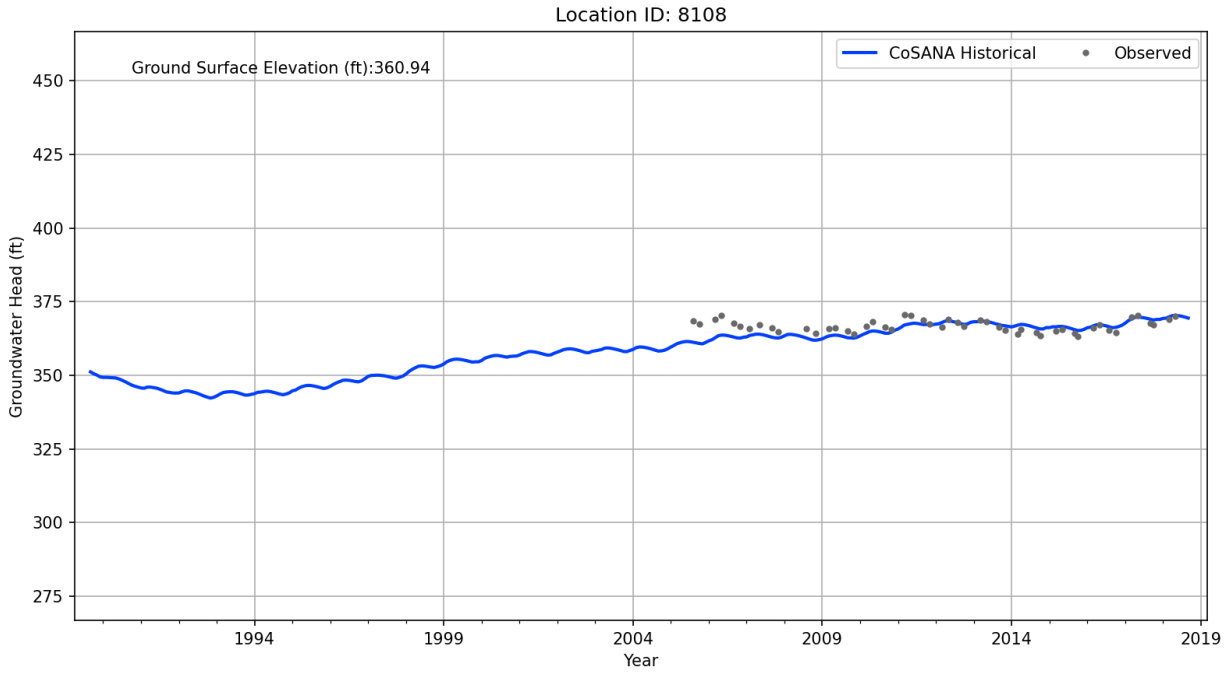

Location ID: 7910
Ground Surface Elevation (ft):63.57
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

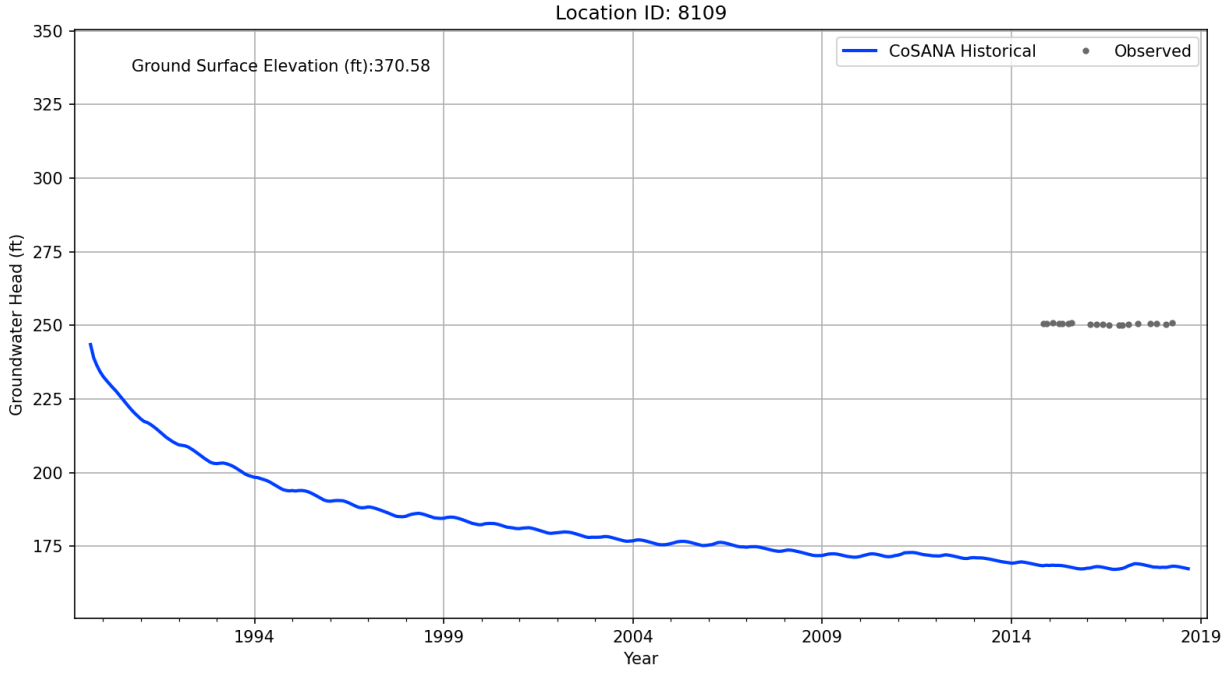

Location ID: 7911
Ground Surface Elevation (ft):50.58
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

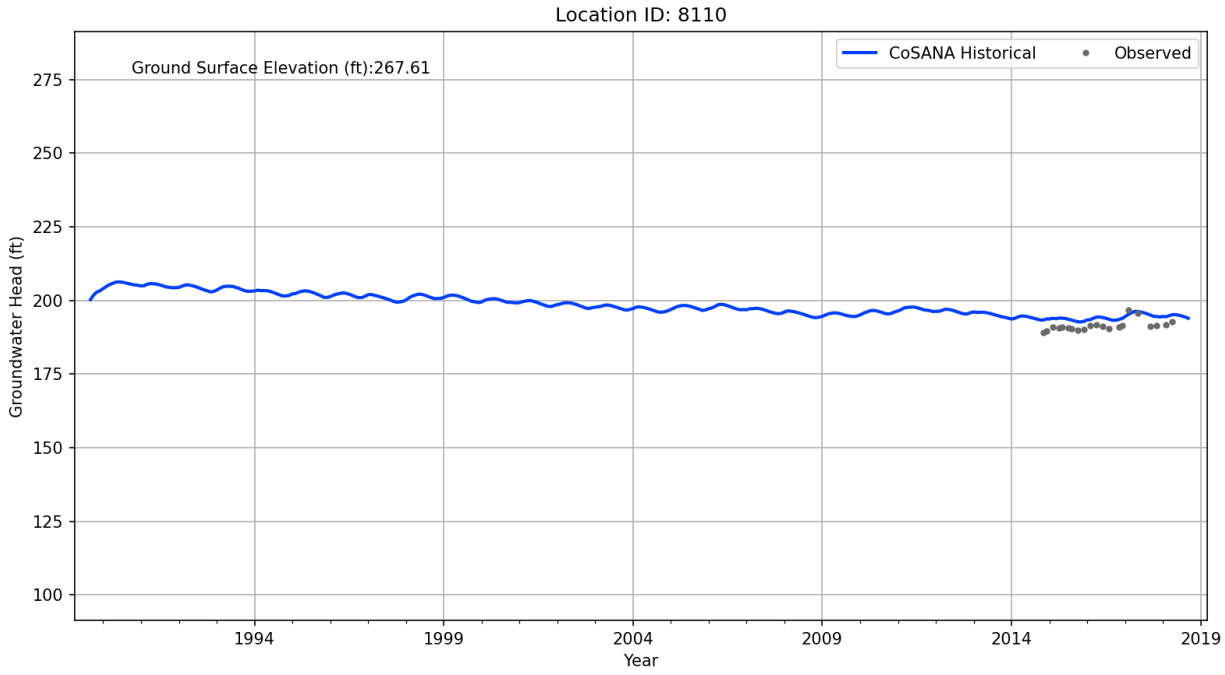

Location ID: 7912
Ground Surface Elevation (ft):51.44
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

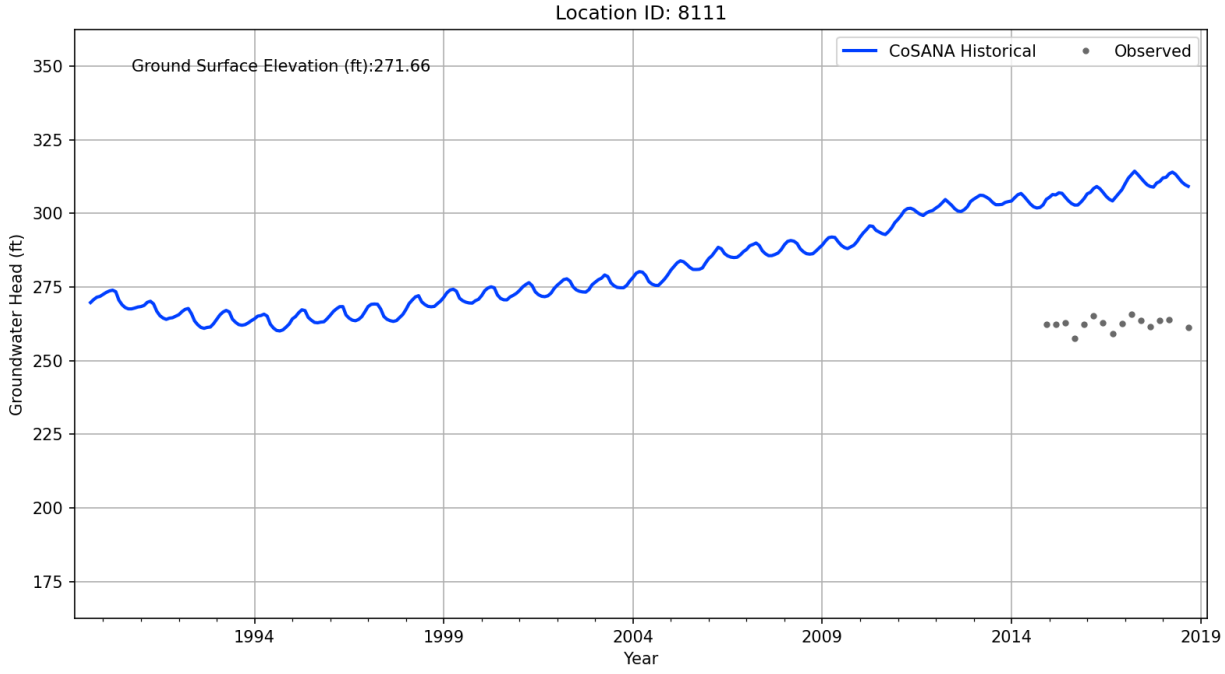

Location ID: 8003
Ground Surface Elevation (ft):65.1
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

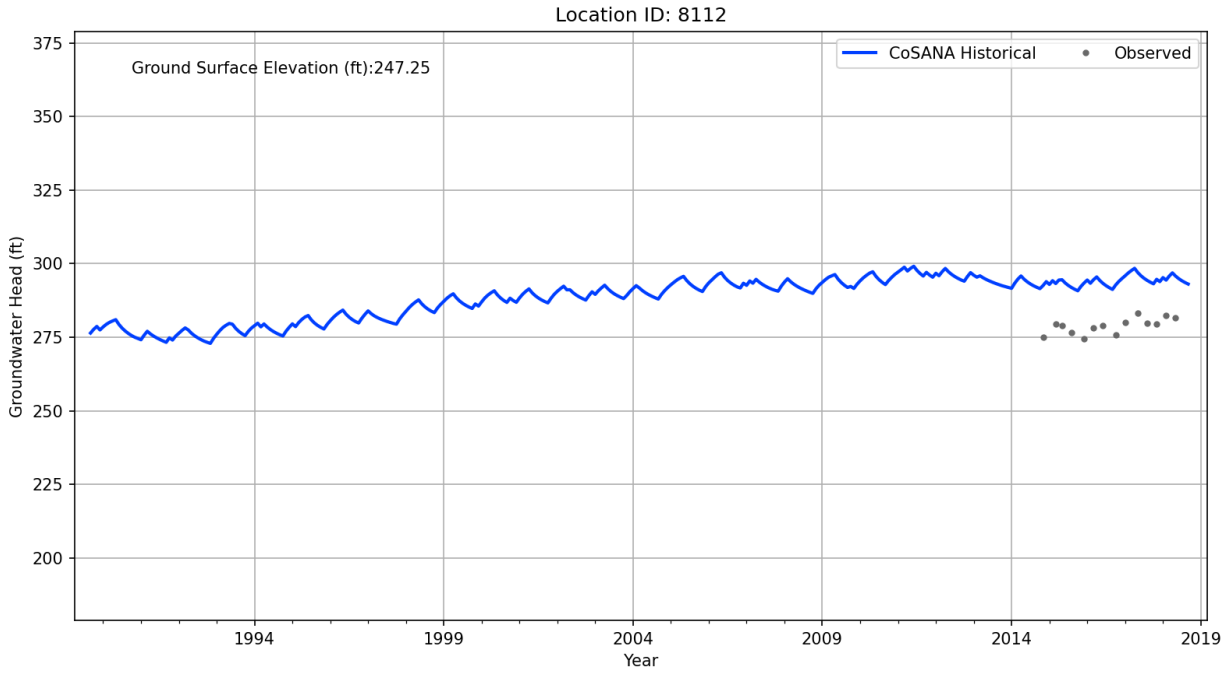

Location ID: 8004
Ground Surface Elevation (ft):72.68
CoSANA Historical
Observed
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

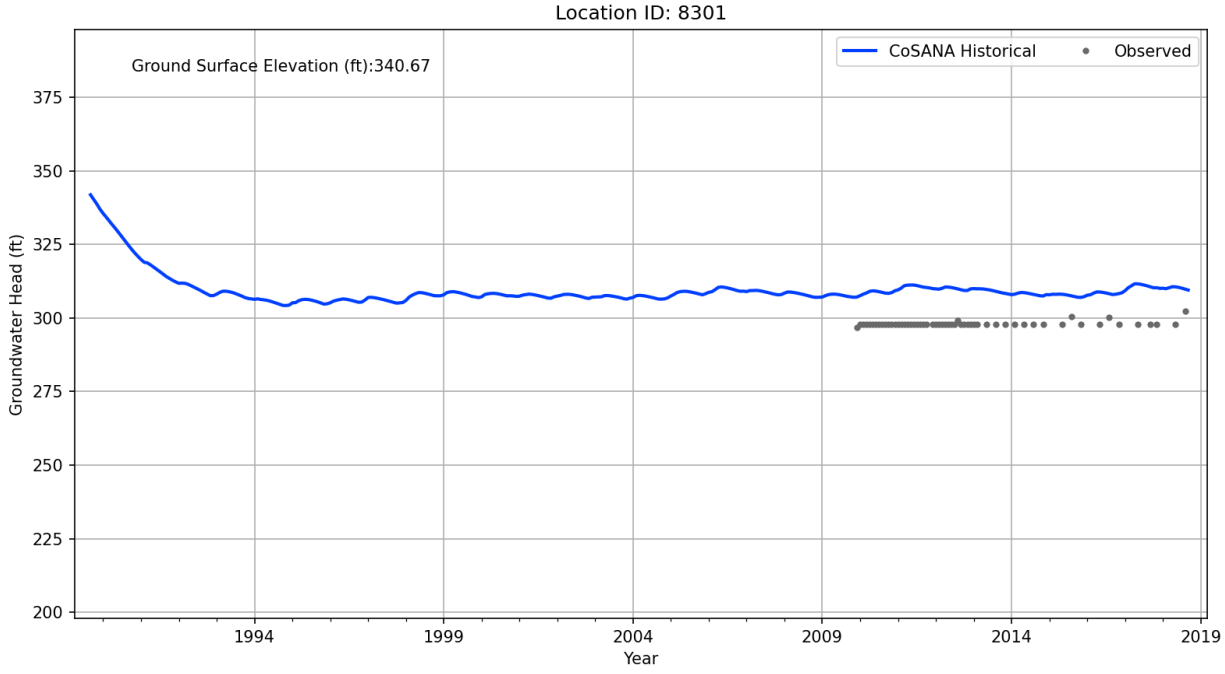

Location ID: 8108
Ground Surface Elevation (ft):360.94
CoSANA Historical
Observed
Groundwater Head (ft)
450
425
400
375
350
325
300
275
1994
1999
2004
2009
2014
2019
Year

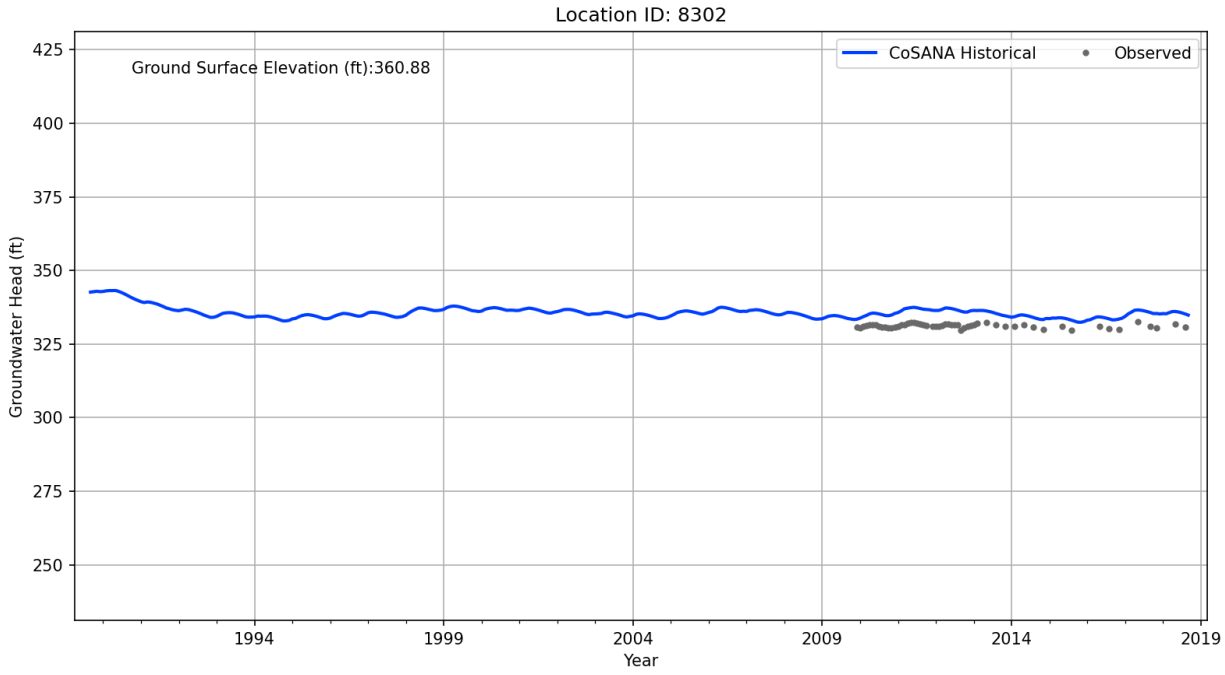

Location ID: 8109
Ground Surface Elevation (ft):370.58
CoSANA Historical
Observed
Groundwater Head (ft)
350
325
300
275
250
225
200
175
1994
1999
2004
2009
2014
2019
Year

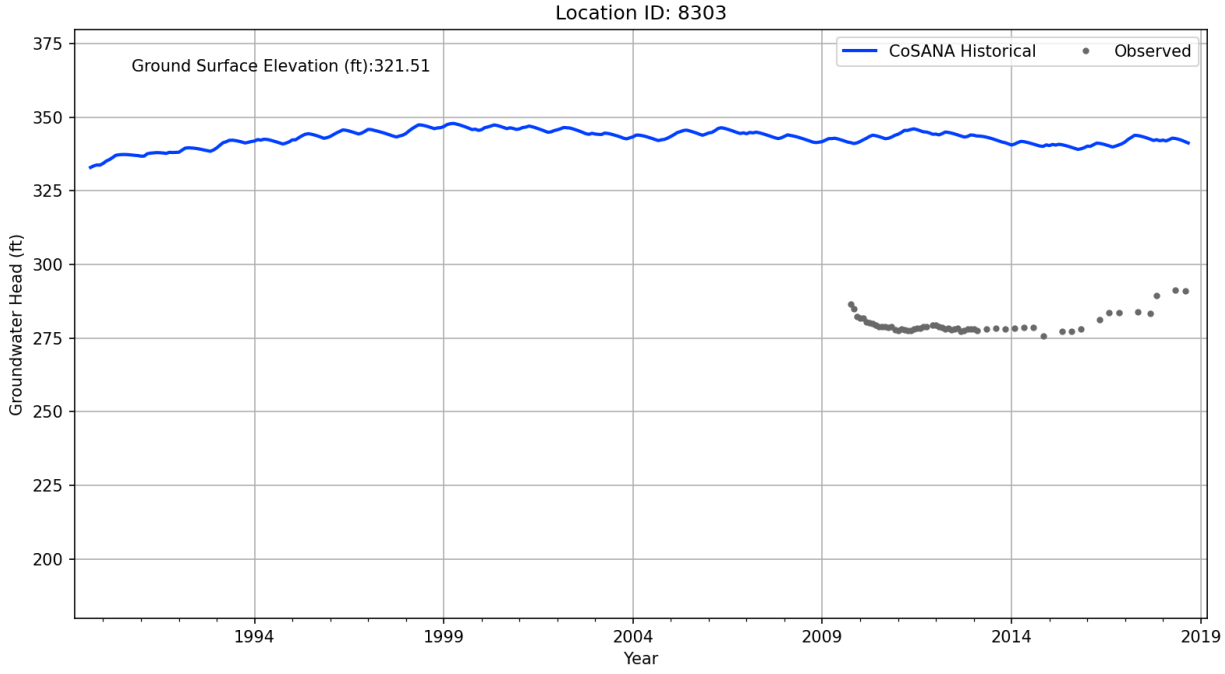

Location ID: 8110
Ground Surface Elevation (ft):267.61
CoSANA Historical
Observed
Groundwater Head (ft)
Year
275
250
225
200
175
150
125
100
1994
1999
2004
2009
2014
2019

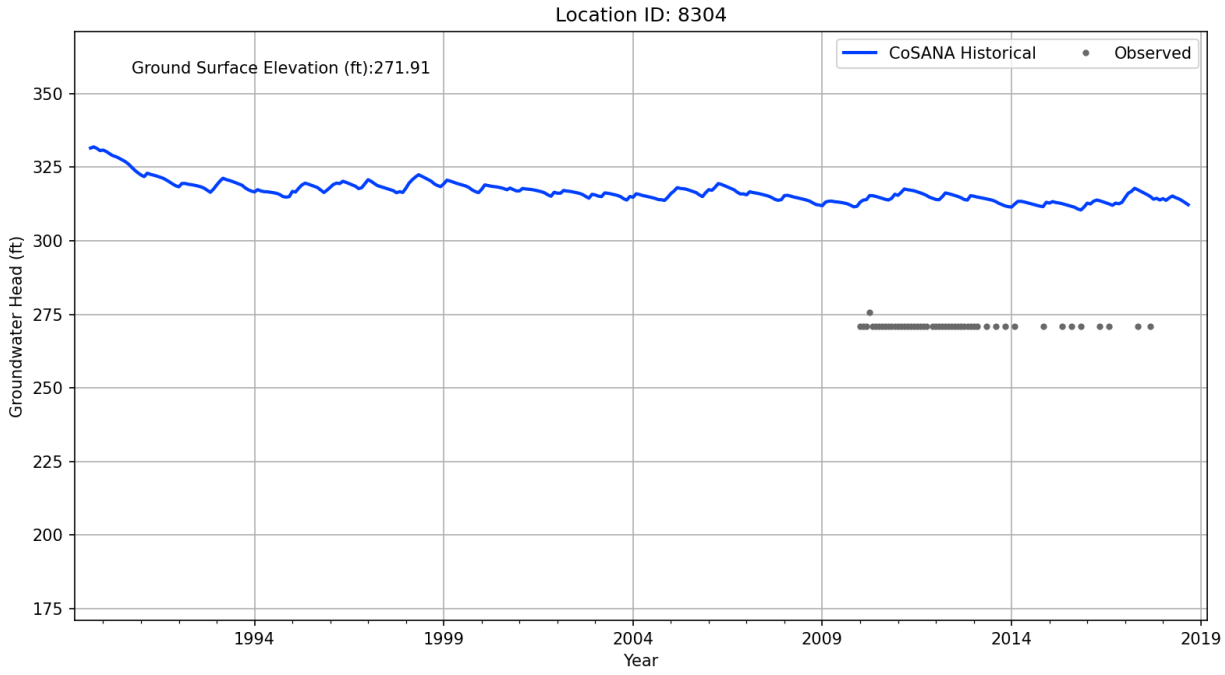

Location ID: 8111
Ground Surface Elevation (ft):271.66
CoSANA Historical
Observed
Groundwater Head (ft)
Year
350
325
300
275
250
225
200
175
1994
1999
2004
2009
2014
2019

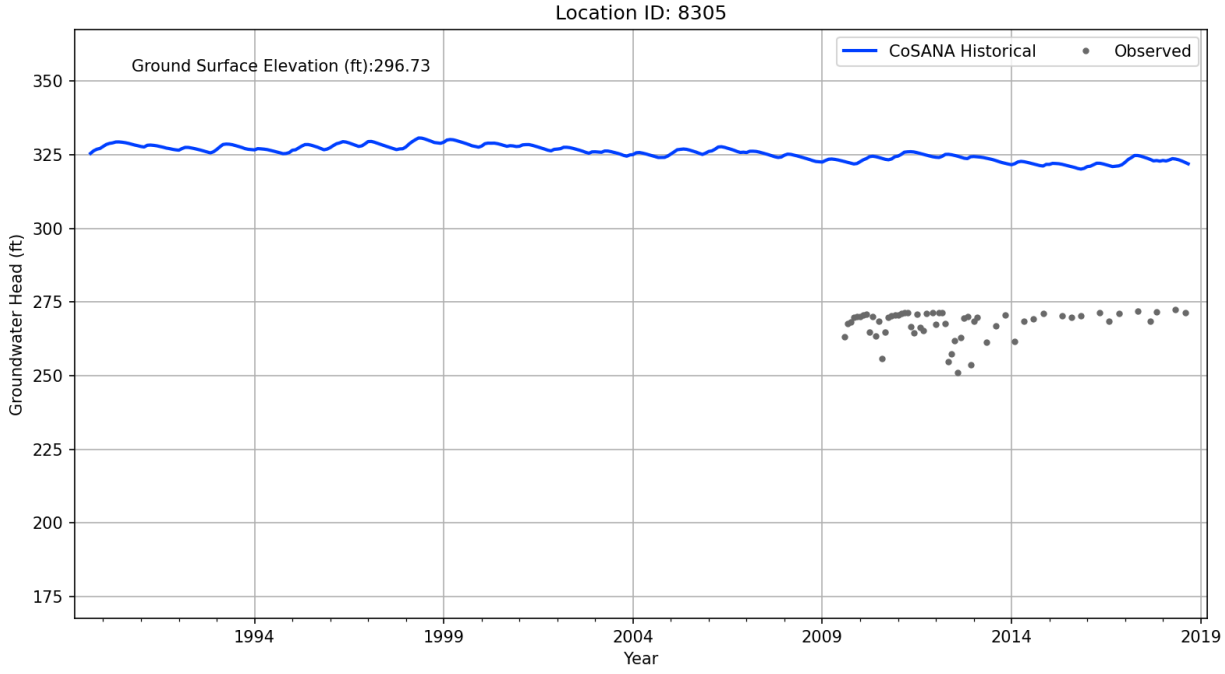

Location ID: 8112
Ground Surface Elevation (ft):247.25
CoSANA Historical
Observed
Groundwater Head (ft)
375
350
325
300
275
250
225
200
1994
1999
2004
2009
2014
2019
Year

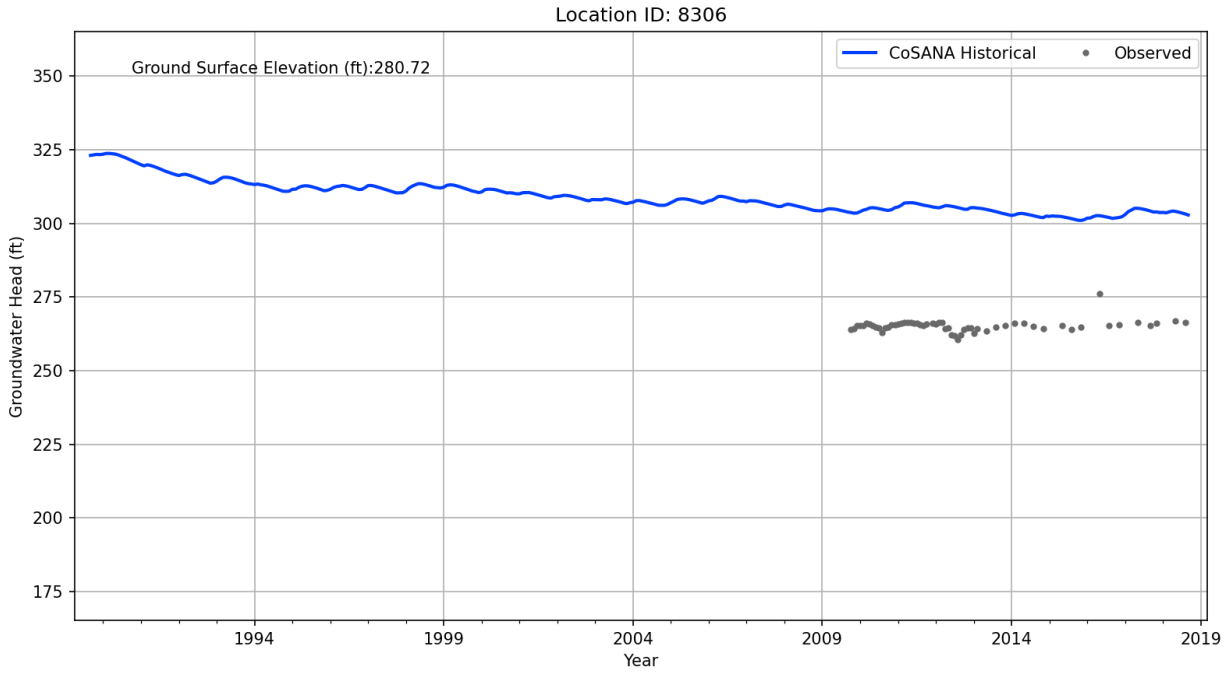

Location ID: 8301
Ground Surface Elevation (ft):340.67
CoSANA Historical
Observed
Groundwater Head (ft)
375
350
325
300
275
250
225
200
1994
1999
2004
2009
2014
2019
Year

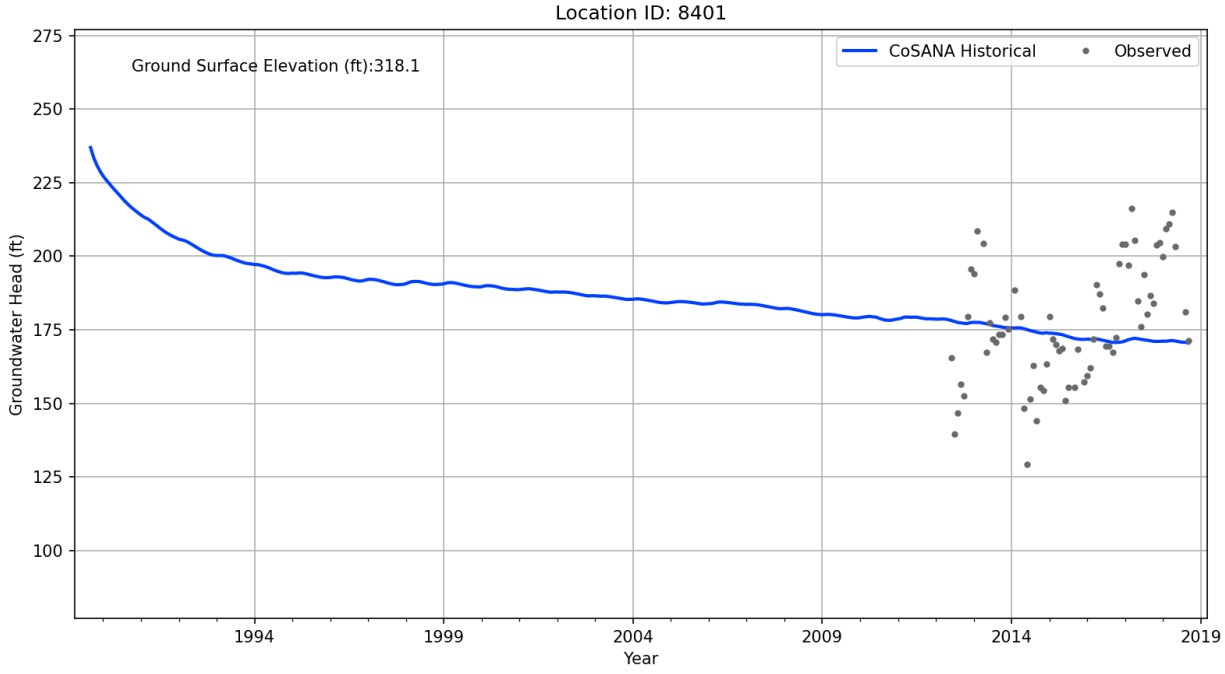

Location ID: 8302
Ground Surface Elevation (ft):360.88
CoSANA Historical
Observed
Groundwater Head (ft)
425
400
375
350
325
300
275
250
1994
1999
2004
2009
2014
2019
Year

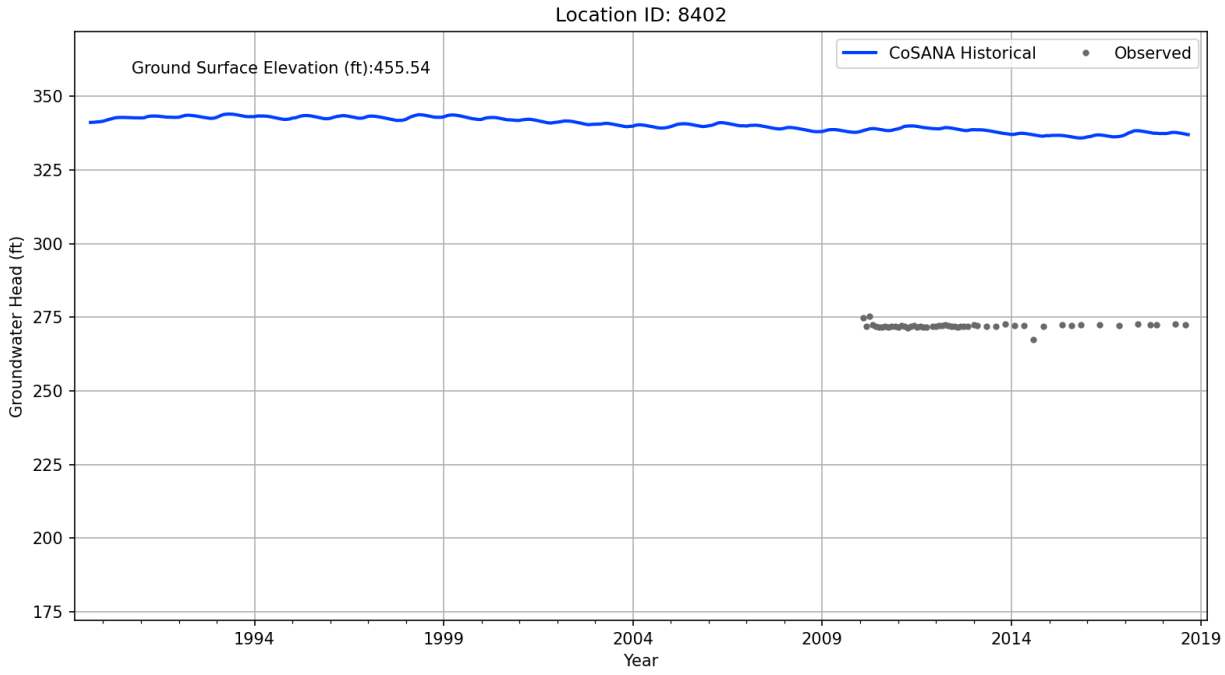

Location ID: 8303
Ground Surface Elevation (ft):321.51
CoSANA Historical
Observed
Groundwater Head (ft)
375
350
325
300
275
250
225
200
1994
1999
2004
2009
2014
2019
Year

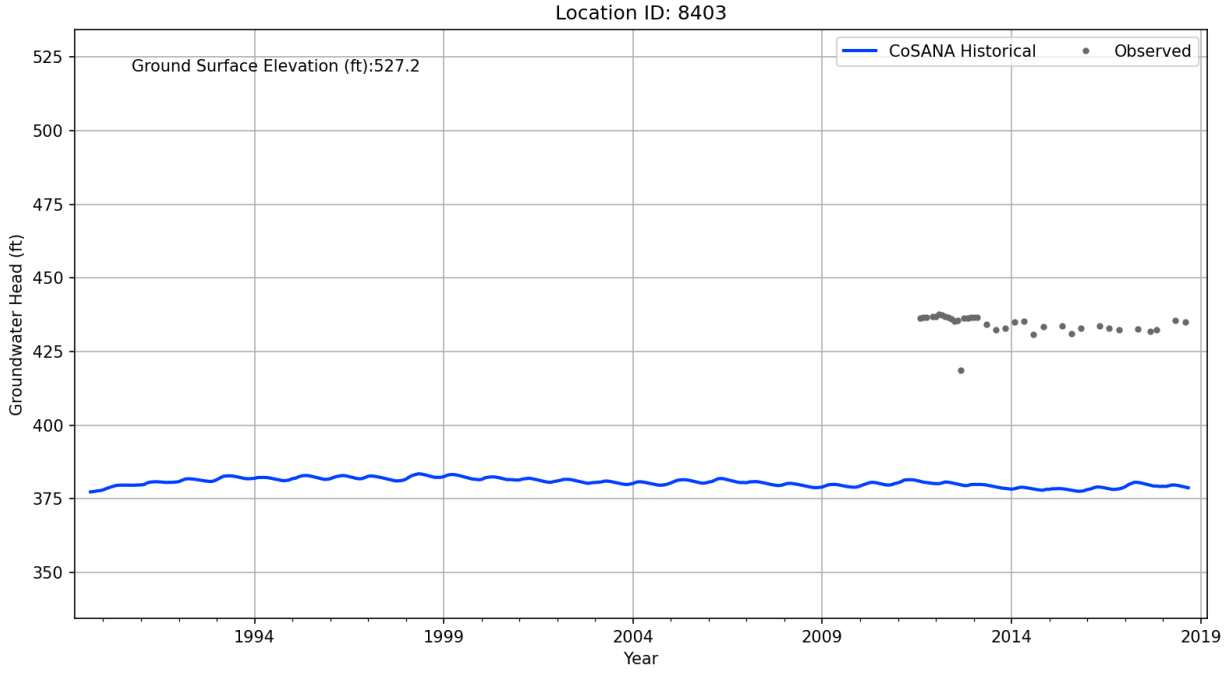

Location ID: 8304
Ground Surface Elevation (ft):271.91
CoSANA Historical
Observed
Groundwater Head (ft)
350
325
300
275
250
225
200
175
1994
1999
2004
2009
2014
2019
Year

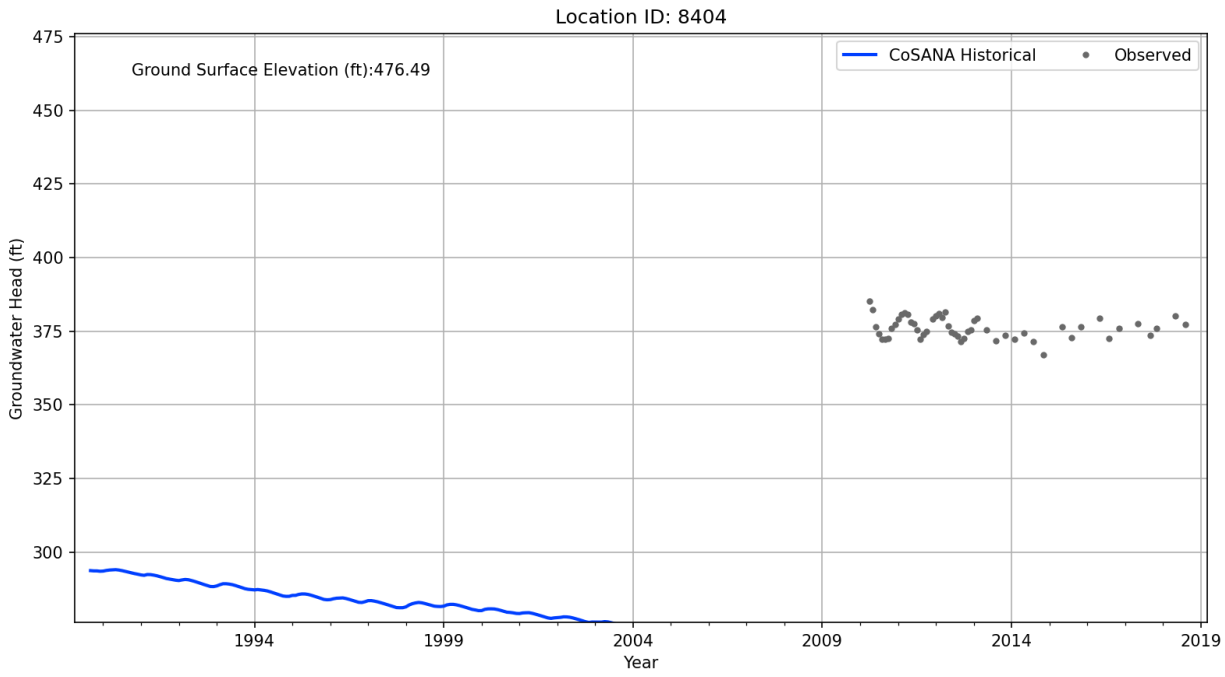

Location ID: 8305
Ground Surface Elevation (ft):296.73
CoSANA Historical
Observed
Groundwater Head (ft)
350
325
300
275
250
225
200
175
1994
1999
2004
2009
2014
2019
Year

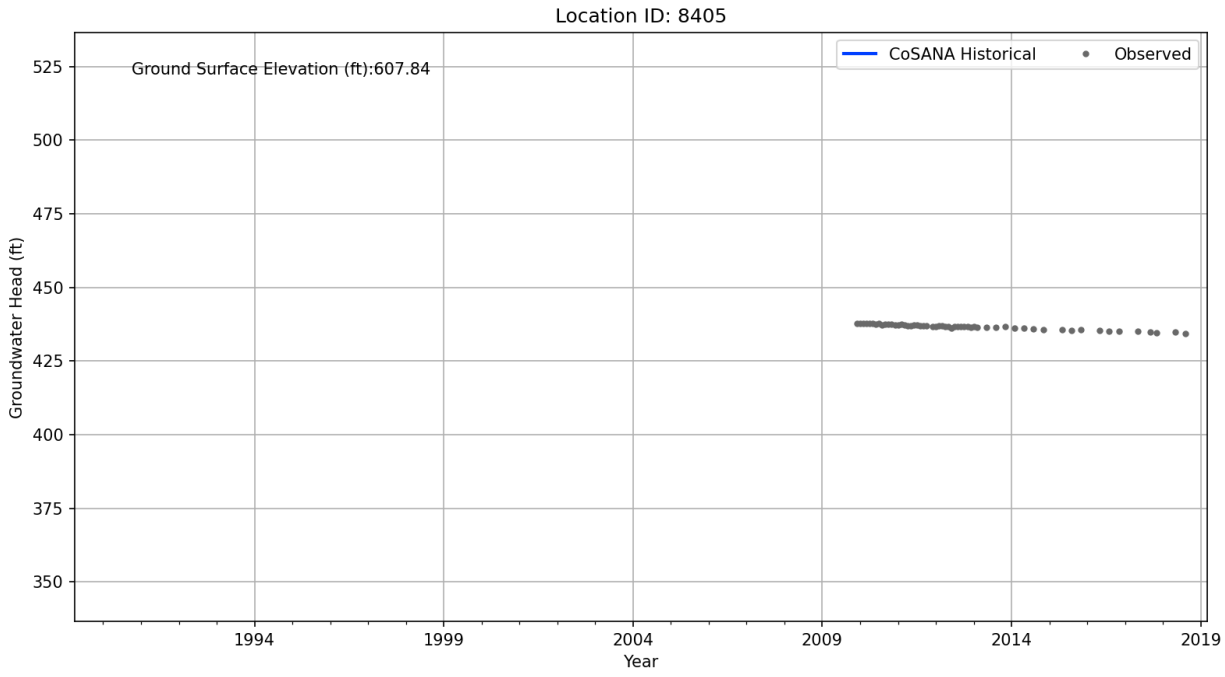

Location ID: 8306
Ground Surface Elevation (ft):280.72
CoSANA Historical
Observed
Groundwater Head (ft)
350
325
300
275
250
225
200
175
1994
1999
2004
2009
2014
2019
Year

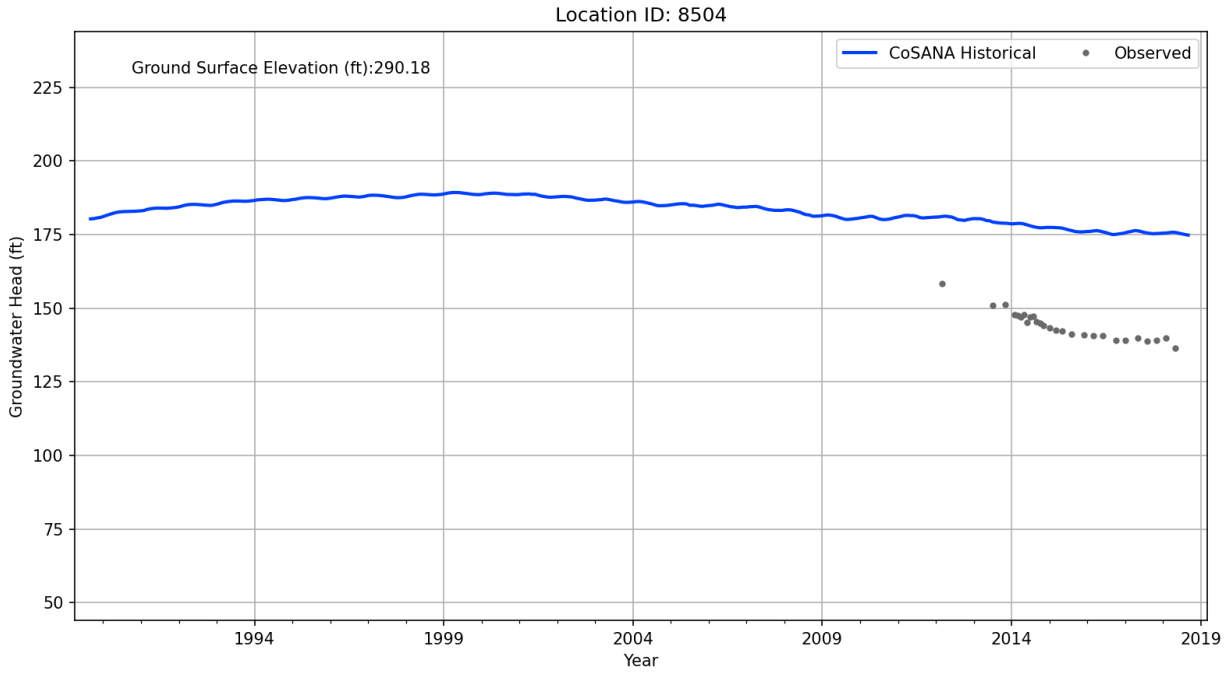

Location ID: 8401
Ground Surface Elevation (ft):318.1
CoSANA Historical
Observed
Groundwater Head (ft)
275
250
225
200
175
150
125
100
1994
1999
2004
2009
2014
2019
Year

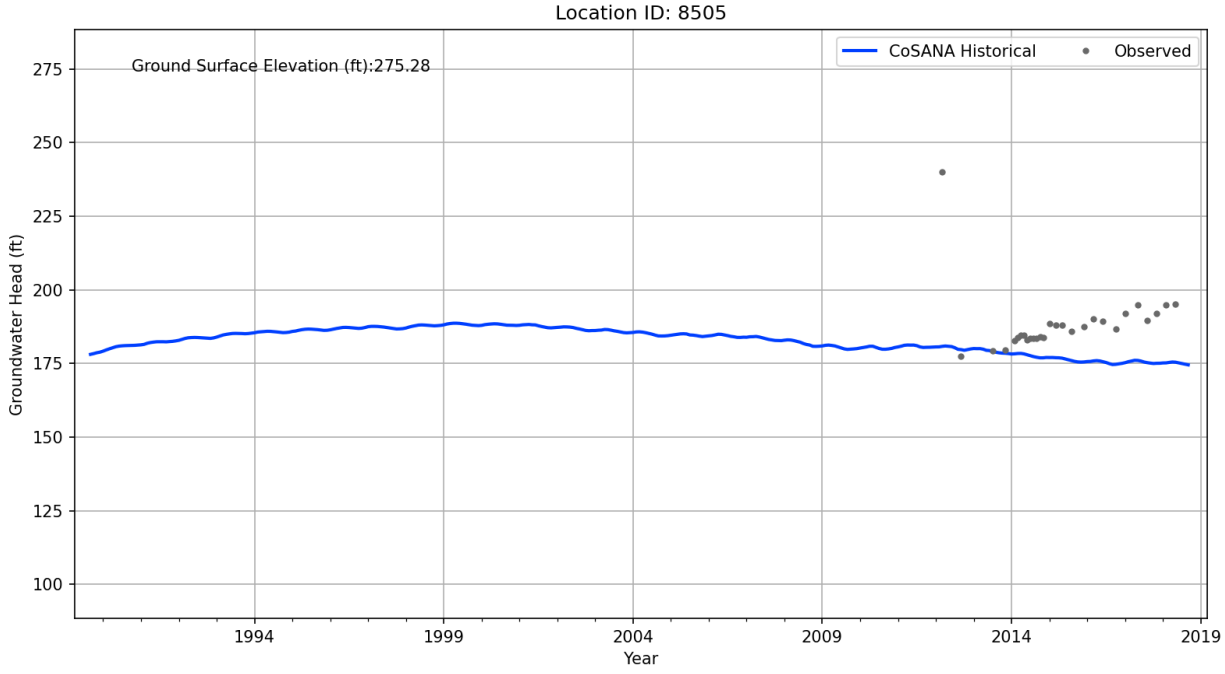

Location ID: 8402
Ground Surface Elevation (ft):455.54
CoSANA Historical
Observed
Groundwater Head (ft)
350
325
300
275
250
225
200
175
1994
1999
2004
2009
2014
2019
Year

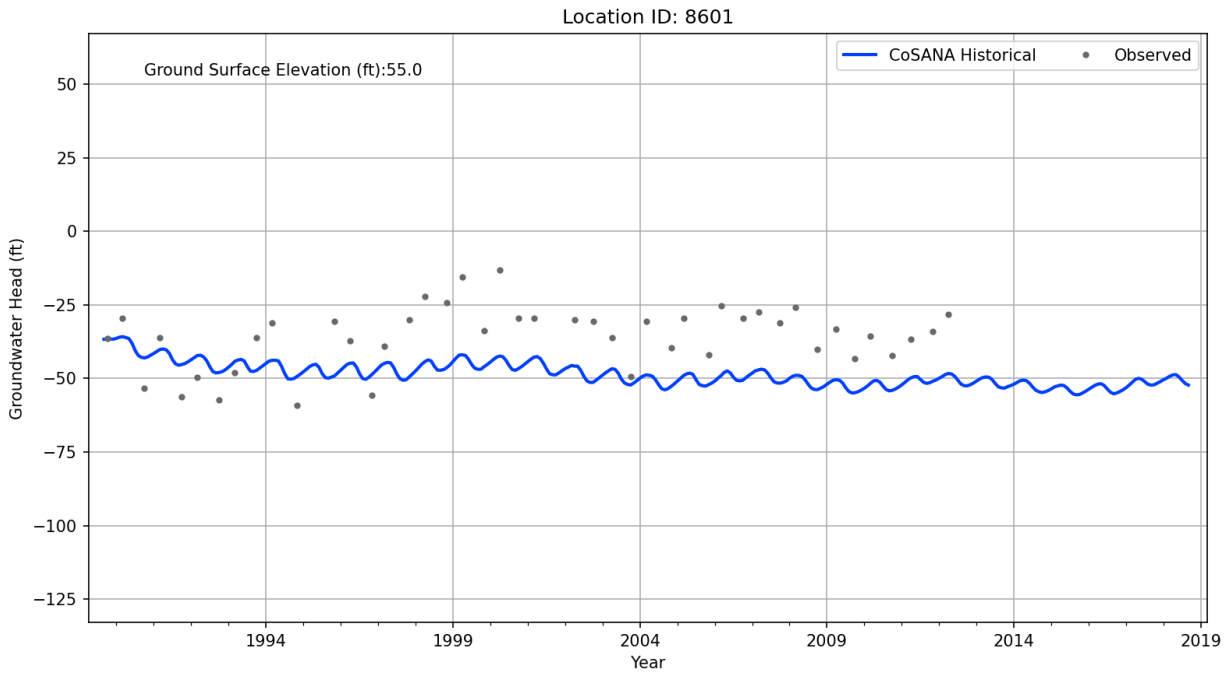

Location ID: 8403
Ground Surface Elevation (ft):527.2
CoSANA Historical
Observed
Groundwater Head (ft)
525
500
475
450
425
400
375
350
1994
1999
2004
2009
2014
2019
Year

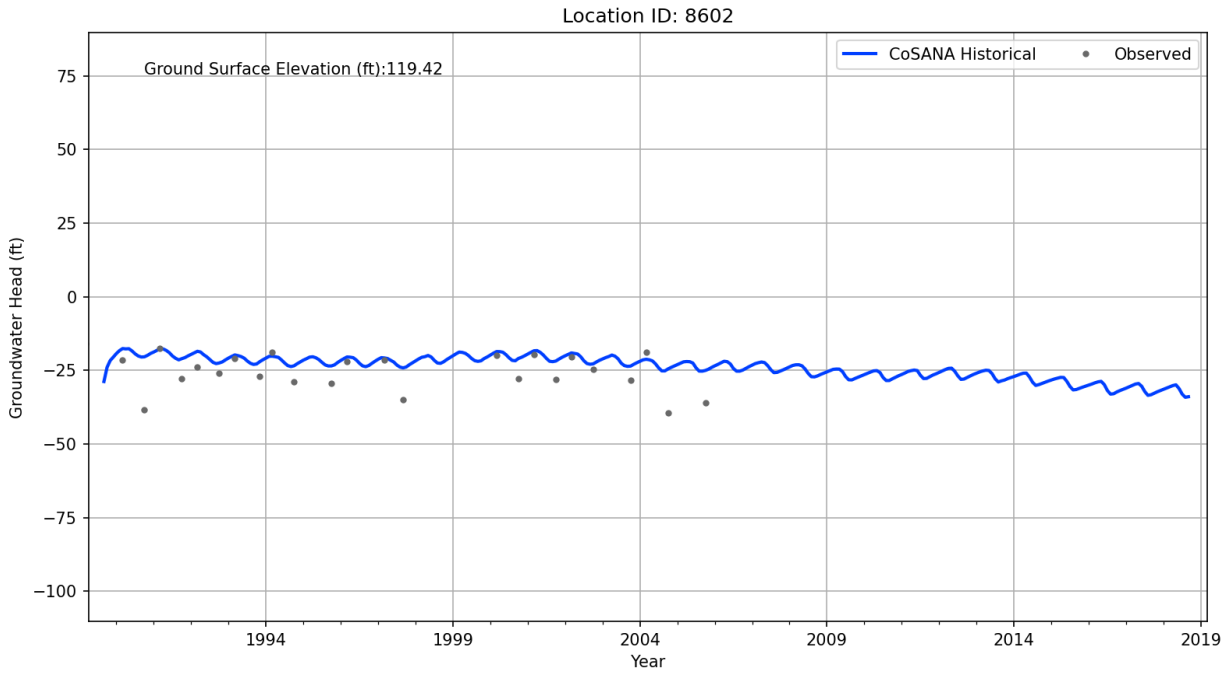

Location ID: 8404
Ground Surface Elevation (ft):476.49
CoSANA Historical
Observed
Groundwater Head (ft)
Year
475
450
425
400
375
350
325
300
1994
1999
2004
2009
2014
2019

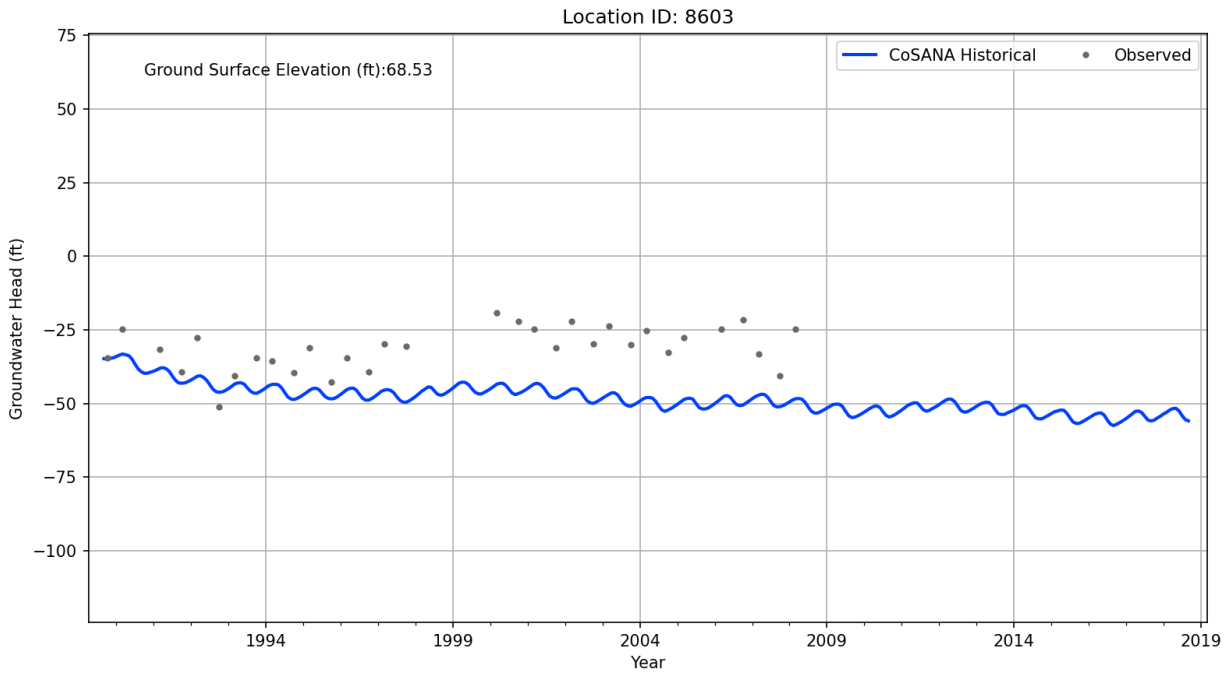

Location ID: 8405
Ground Surface Elevation (ft):607.84
CoSANA Historical
Observed
Groundwater Head (ft)
Year
525
500
475
450
425
400
375
350
1994
1999
2004
2009
2014
2019

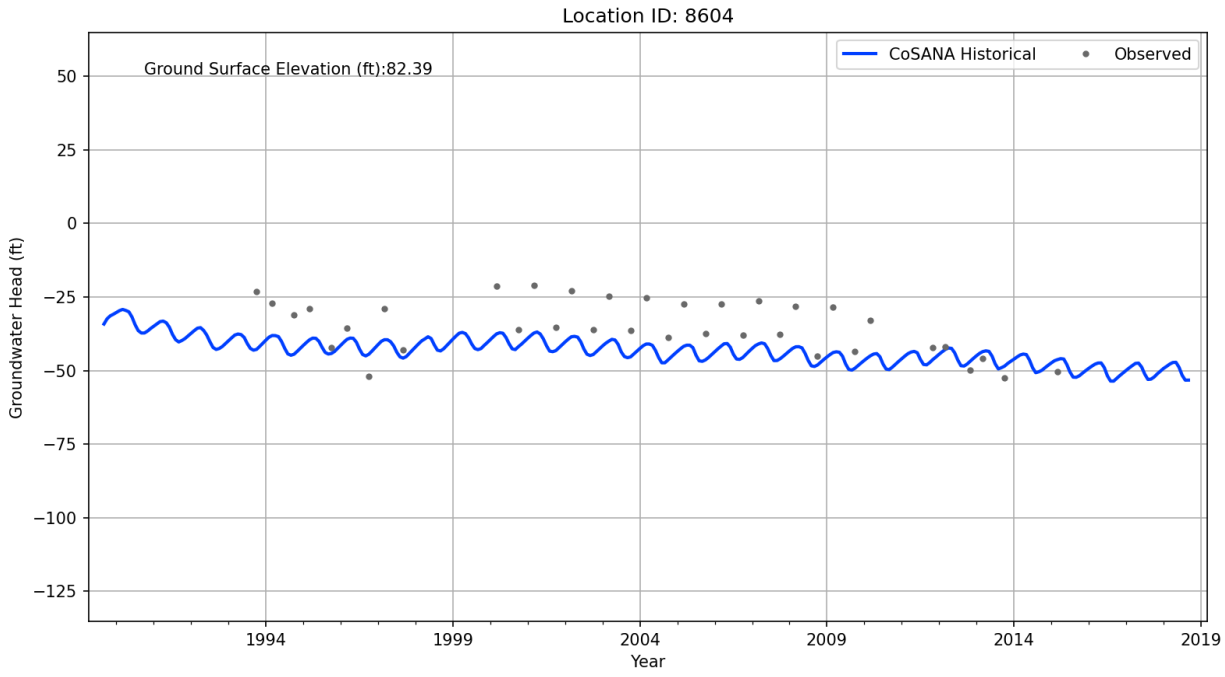

Location ID: 8504
Ground Surface Elevation (ft):290.18
CoSANA Historical
Observed
Groundwater Head (ft)
225
200
175
150
125
100
75
50
1994
1999
2004
2009
2014
2019
Year

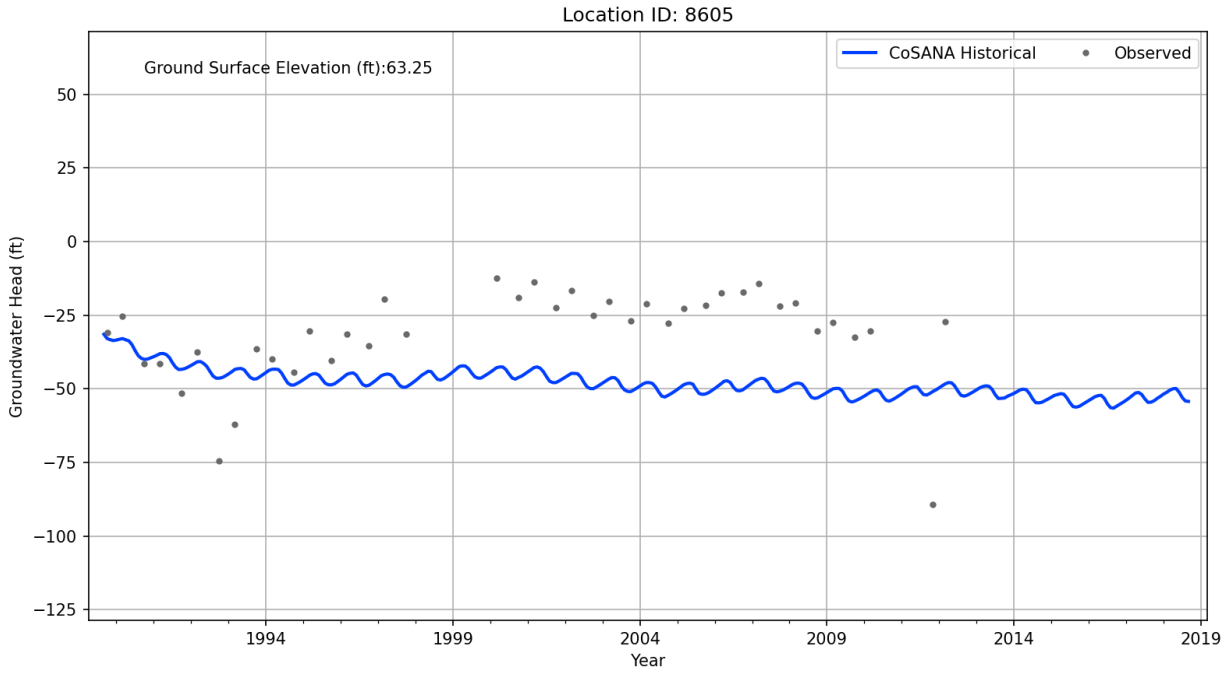

Location ID: 8505
Ground Surface Elevation (ft):275.28
CoSANA Historical
Observed
Groundwater Head (ft)
275
250
225
200
175
150
125
100
1994
1999
2004
2009
2014
2019
Year

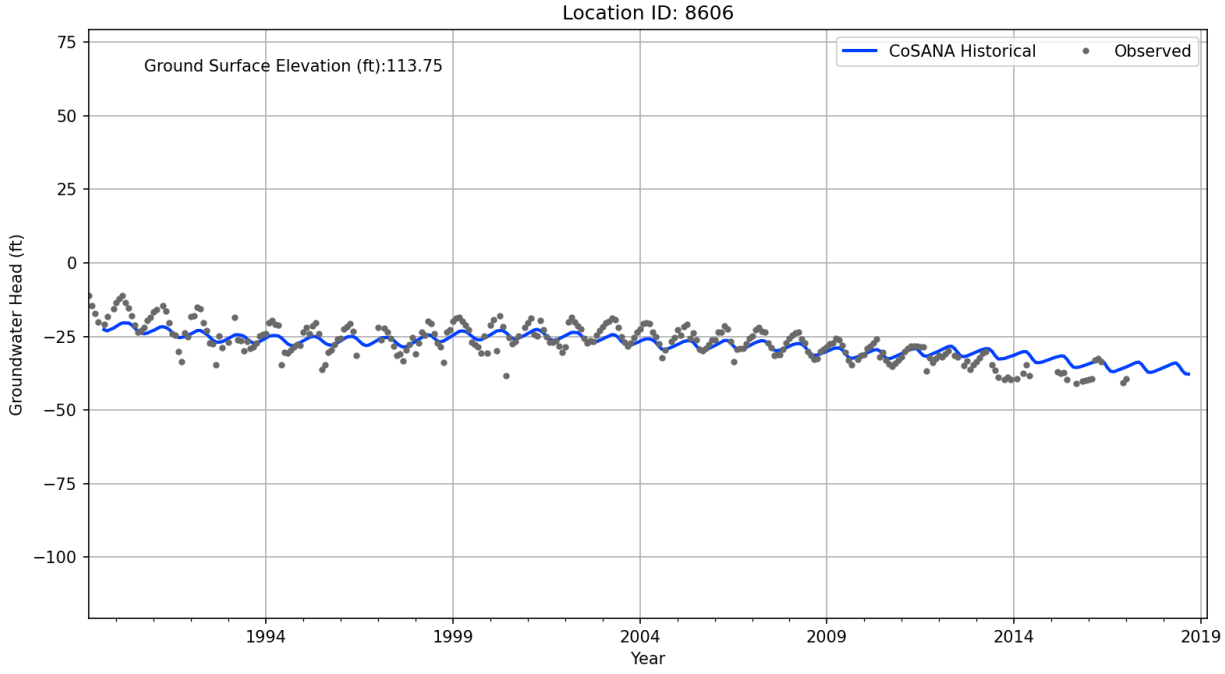

Location ID: 8601
Ground Surface Elevation (ft):55.0
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

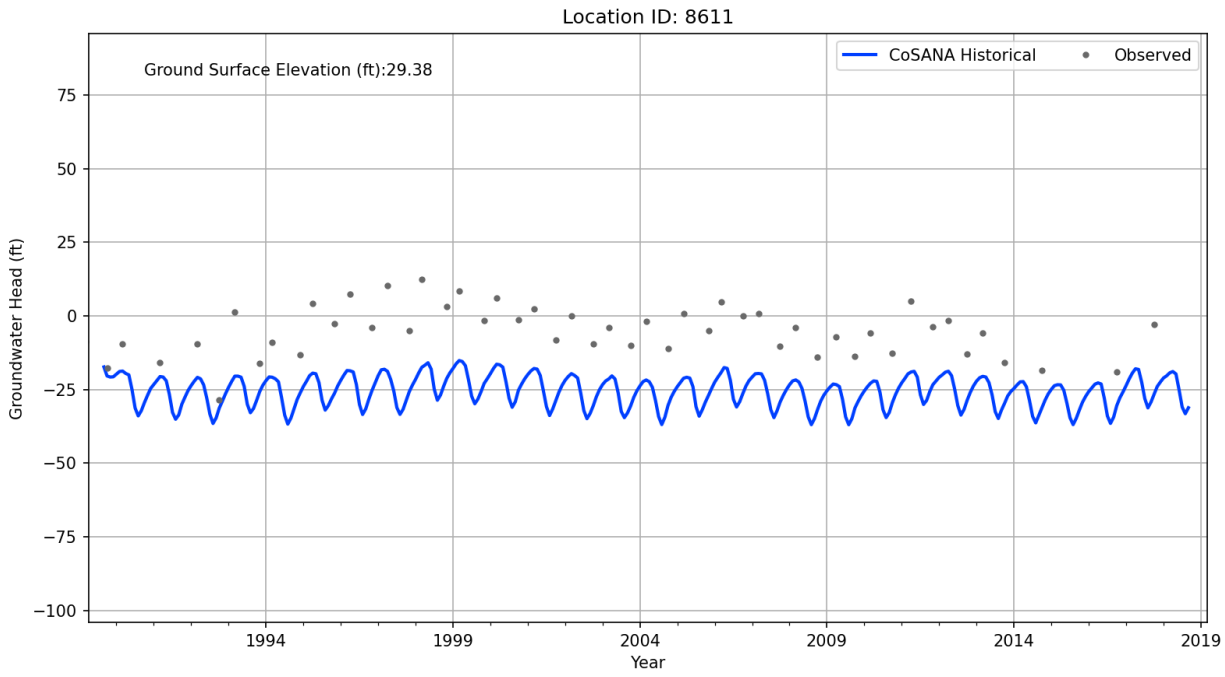

Location ID: 8602
Ground Surface Elevation (ft):119.42
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

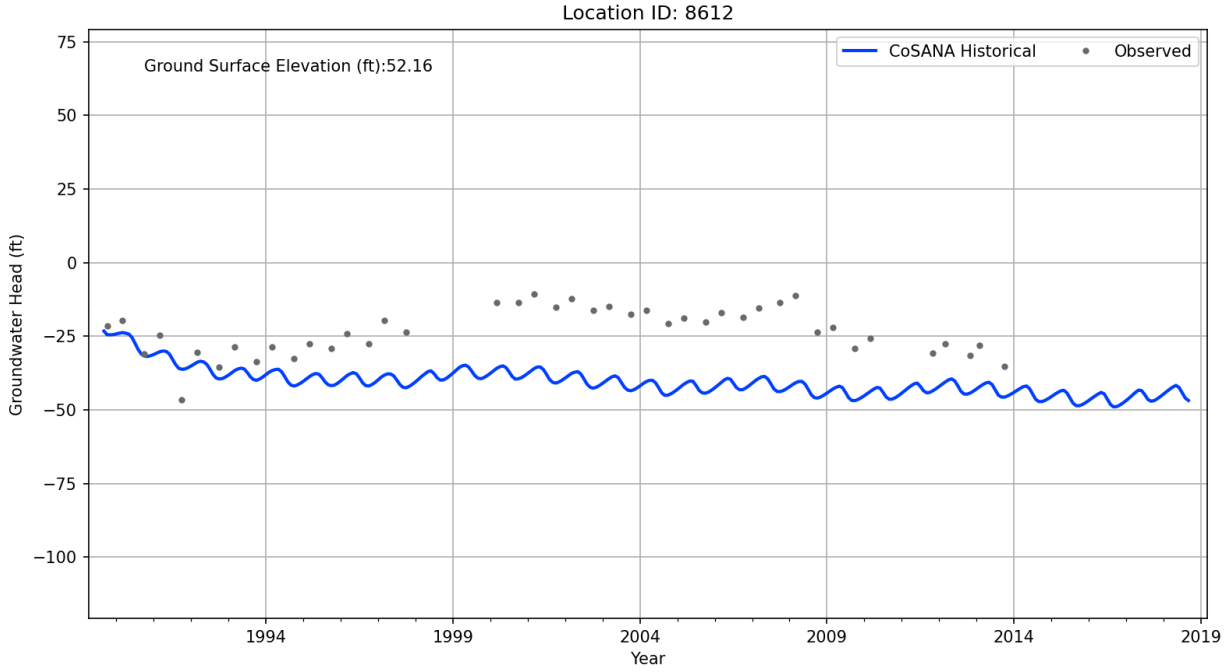

Location ID: 8603
Ground Surface Elevation (ft):68.53
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

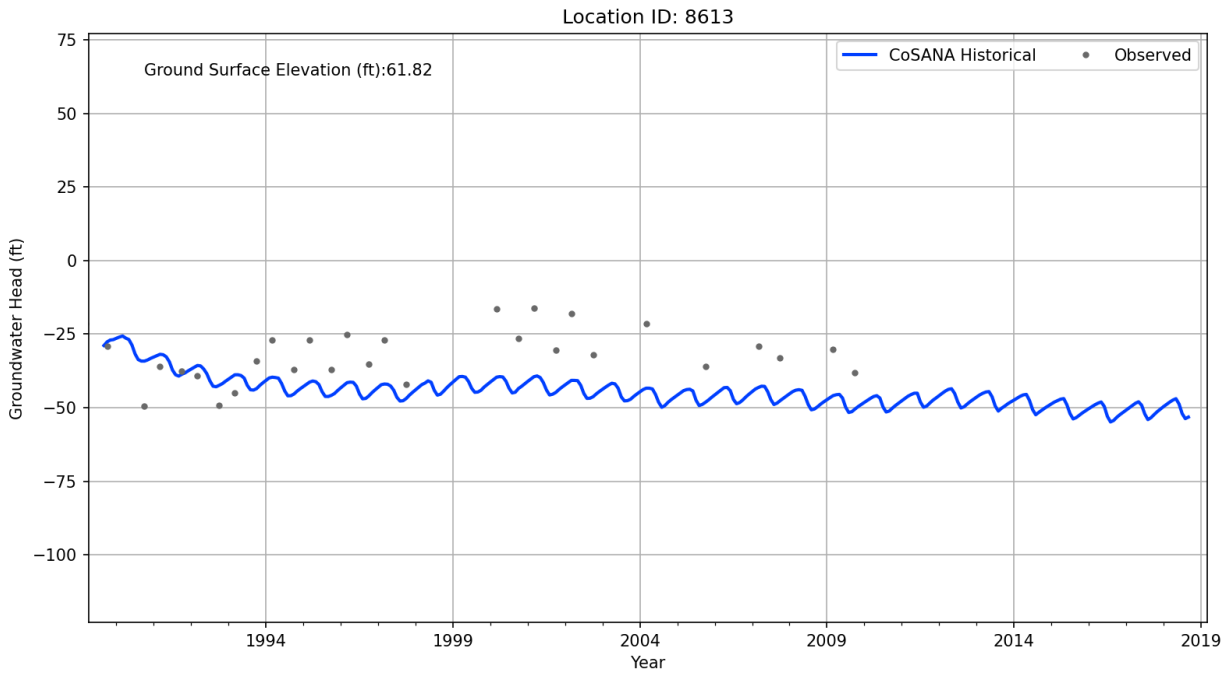

Location ID: 8604
Ground Surface Elevation (ft):82.39
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

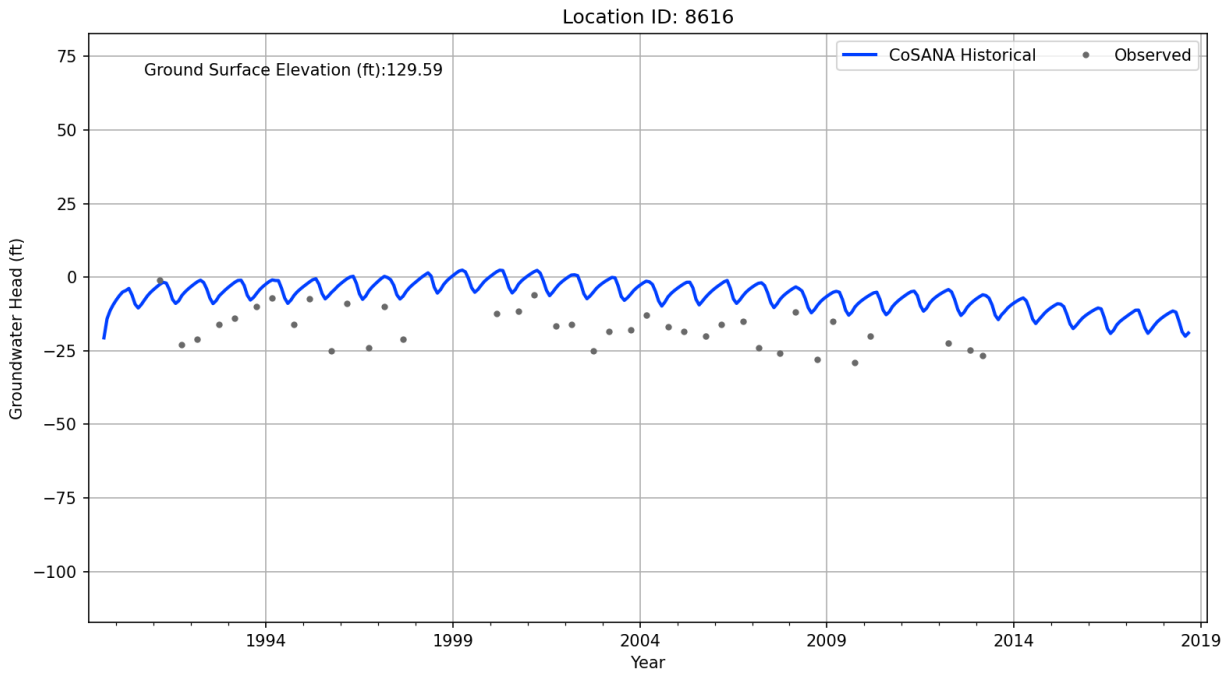

Location ID: 8605
Ground Surface Elevation (ft):63.25
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

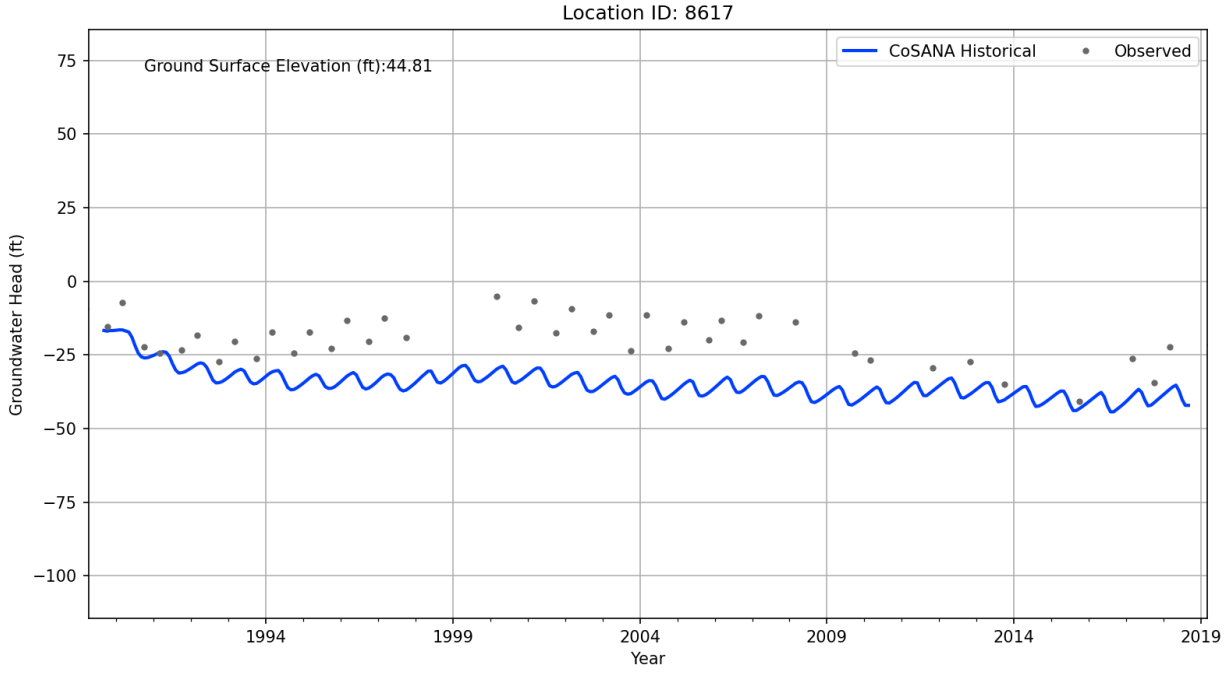

Location ID: 8606
Ground Surface Elevation (ft):113.75
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

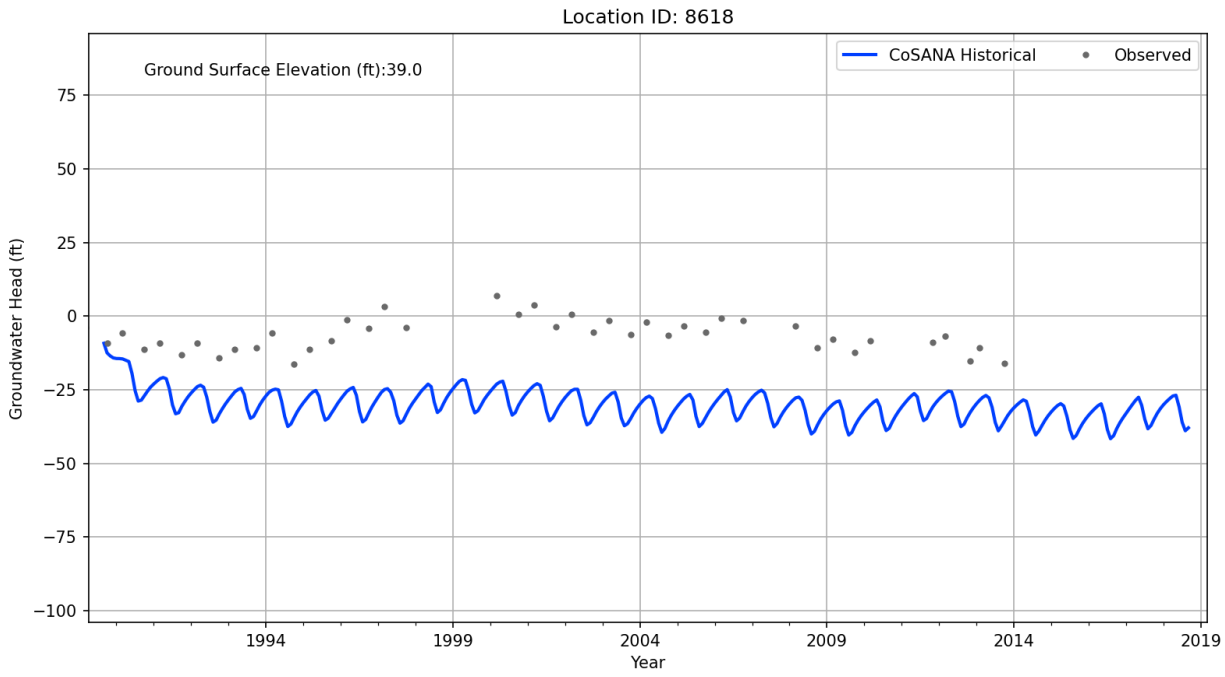

Location ID: 8611
Ground Surface Elevation (ft):29.38
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

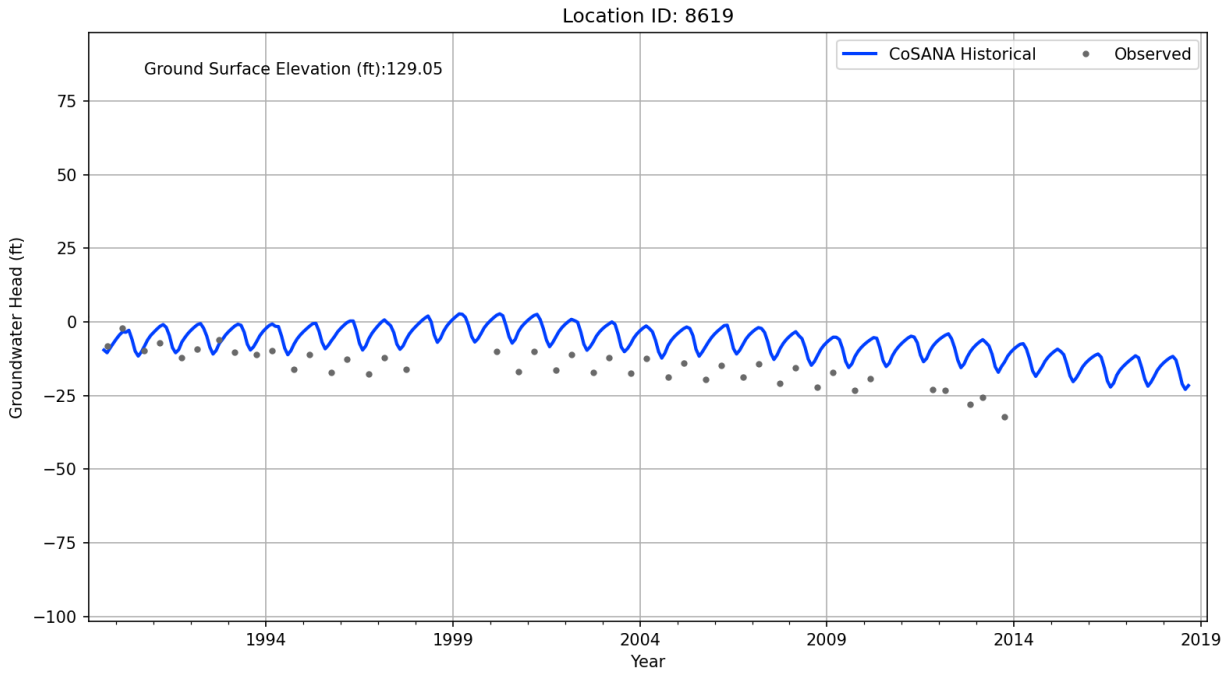

Location ID: 8612
Ground Surface Elevation (ft):52.16
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

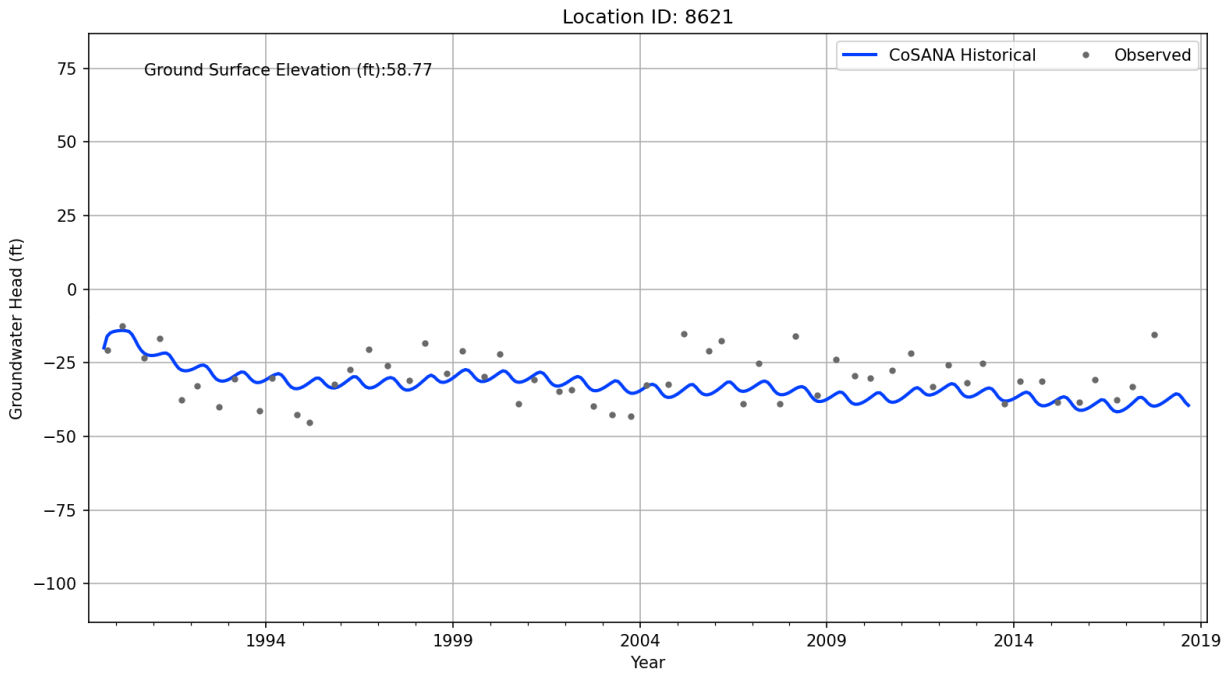

Location ID: 8613
Ground Surface Elevation (ft):61.82
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

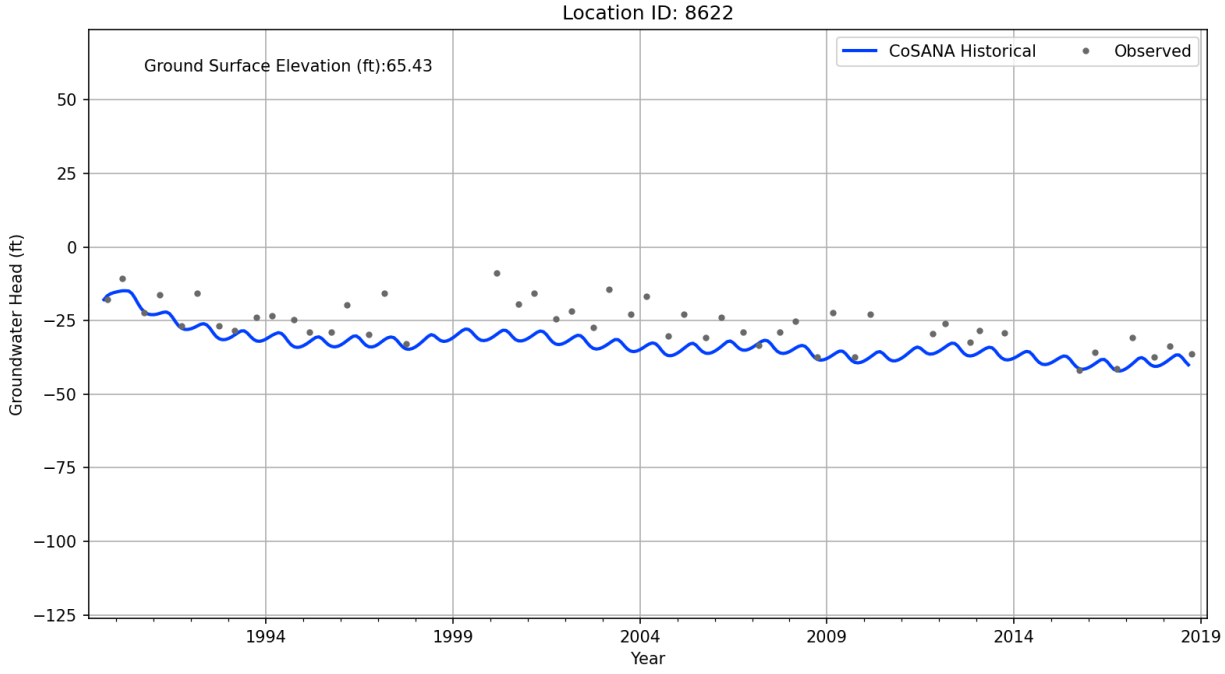

Location ID: 8616
Ground Surface Elevation (ft):129.59
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

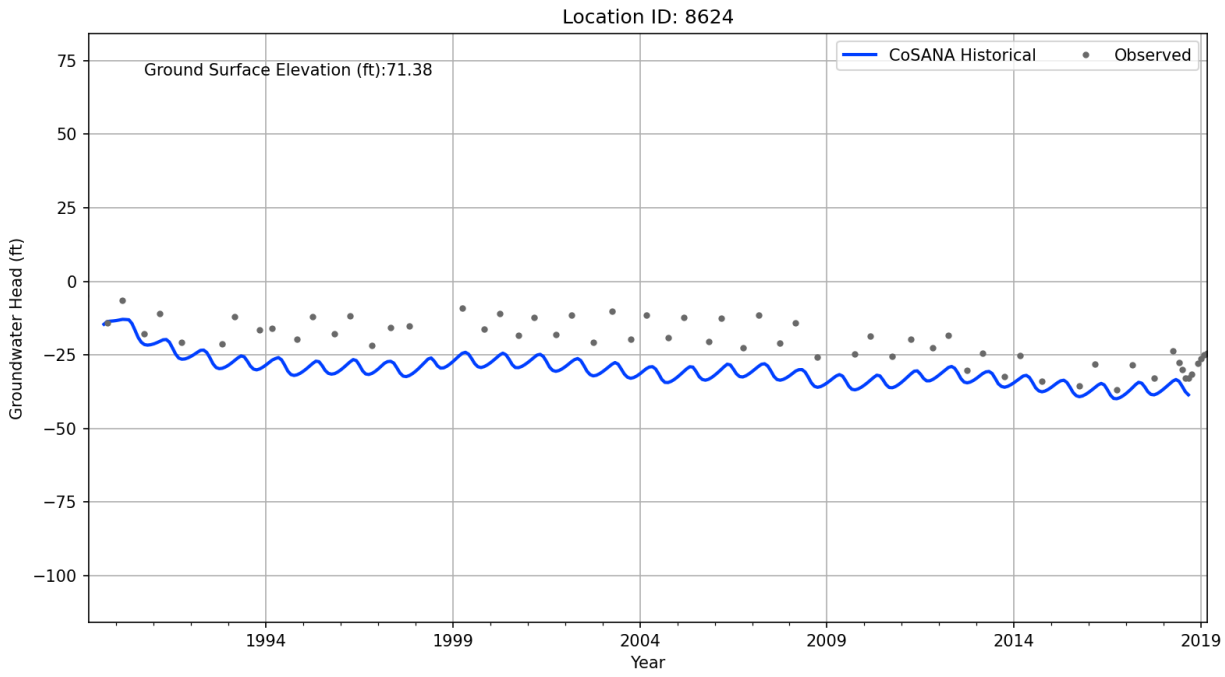

Location ID: 8617
Ground Surface Elevation (ft):44.81
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

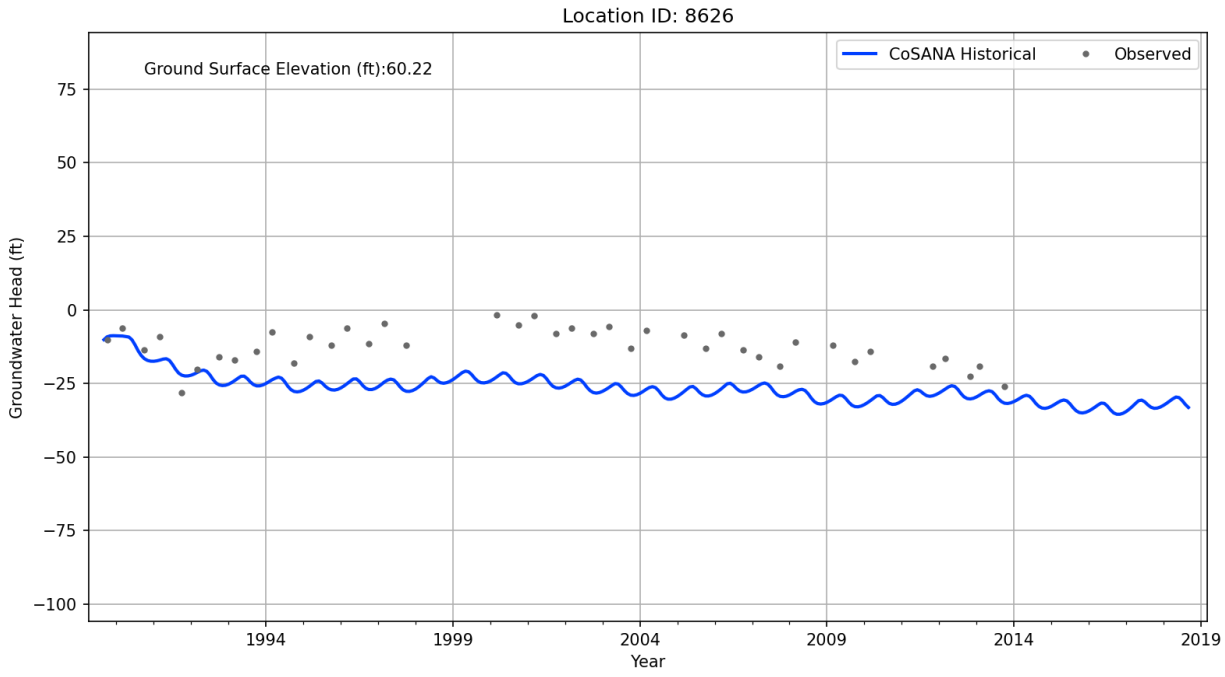

Location ID: 8618
Ground Surface Elevation (ft):39.0
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

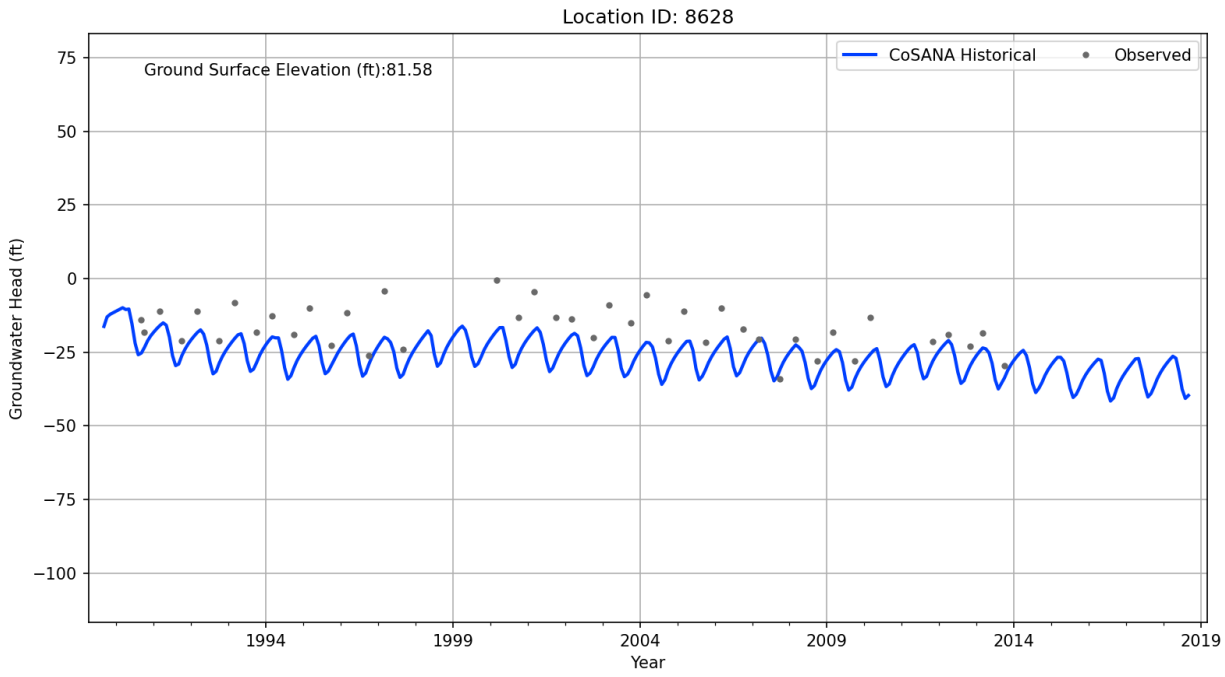

Location ID: 8619
Ground Surface Elevation (ft):129.05
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

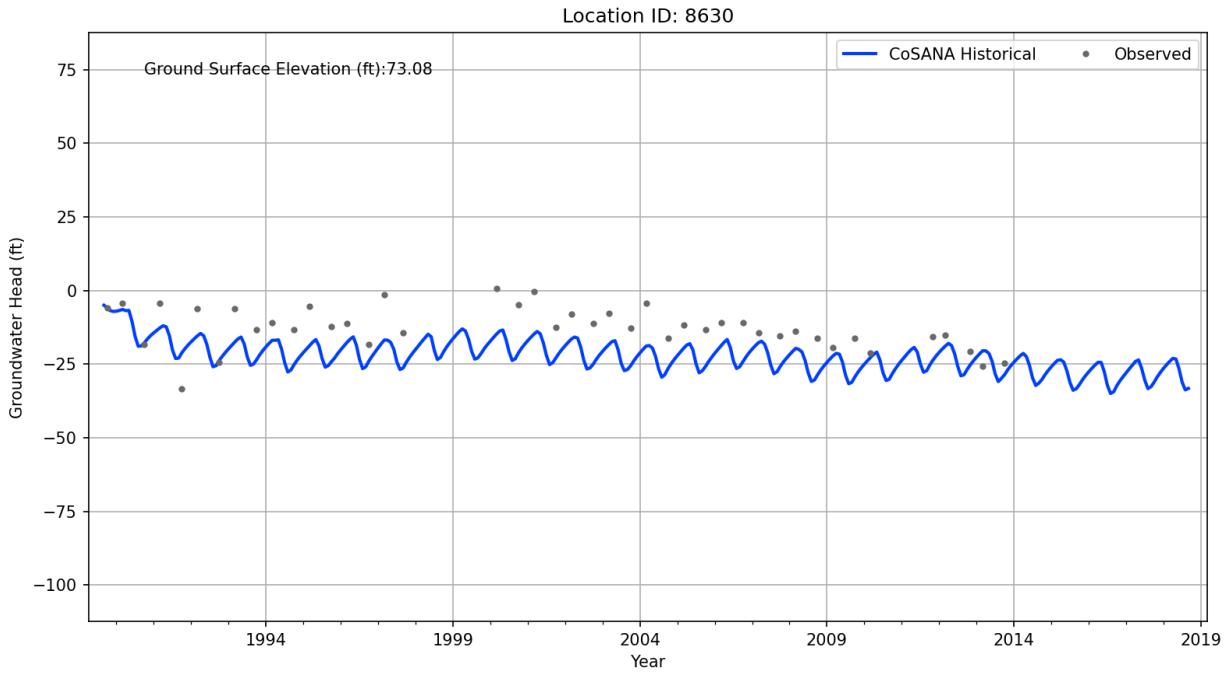

Location ID: 8621
Ground Surface Elevation (ft):58.77
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

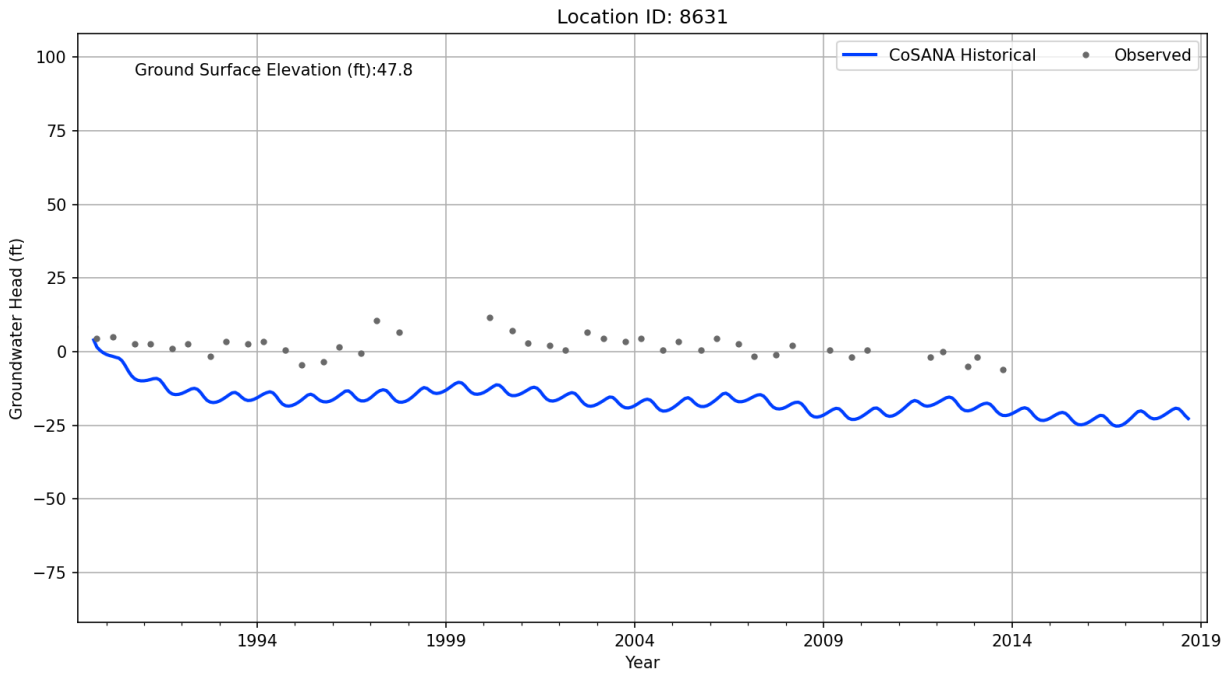

Location ID: 8622
Ground Surface Elevation (ft):65.43
CoSANA Historical
Observed
Groundwater Head (ft)
50
25
0
−25
−50
−75
−100
−125
1994
1999
2004
2009
2014
2019
Year

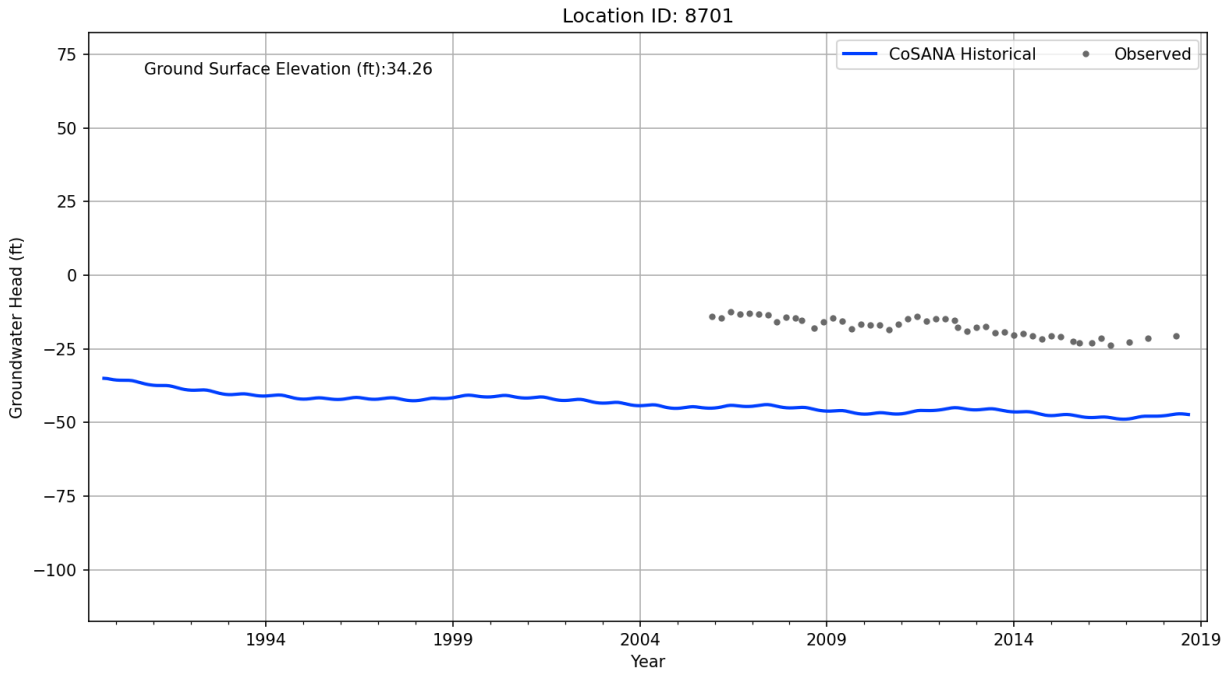

Location ID: 8624
Ground Surface Elevation (ft):71.38
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

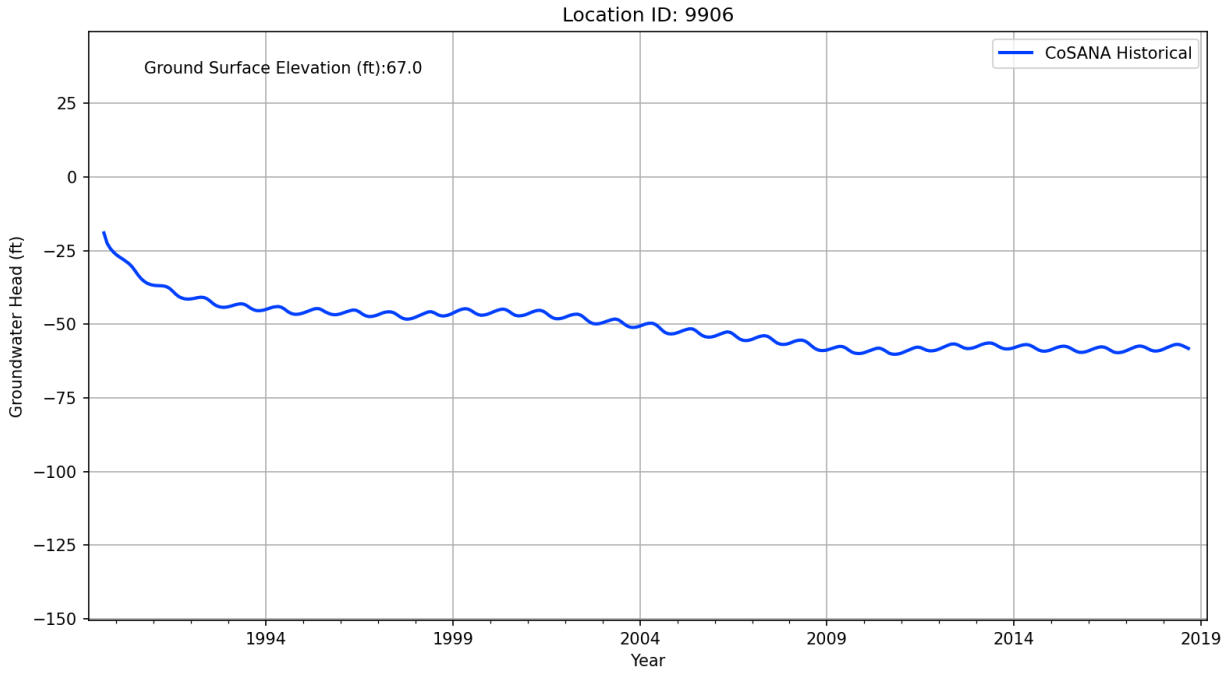

Location ID: 8626
Ground Surface Elevation (ft):60.22
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year

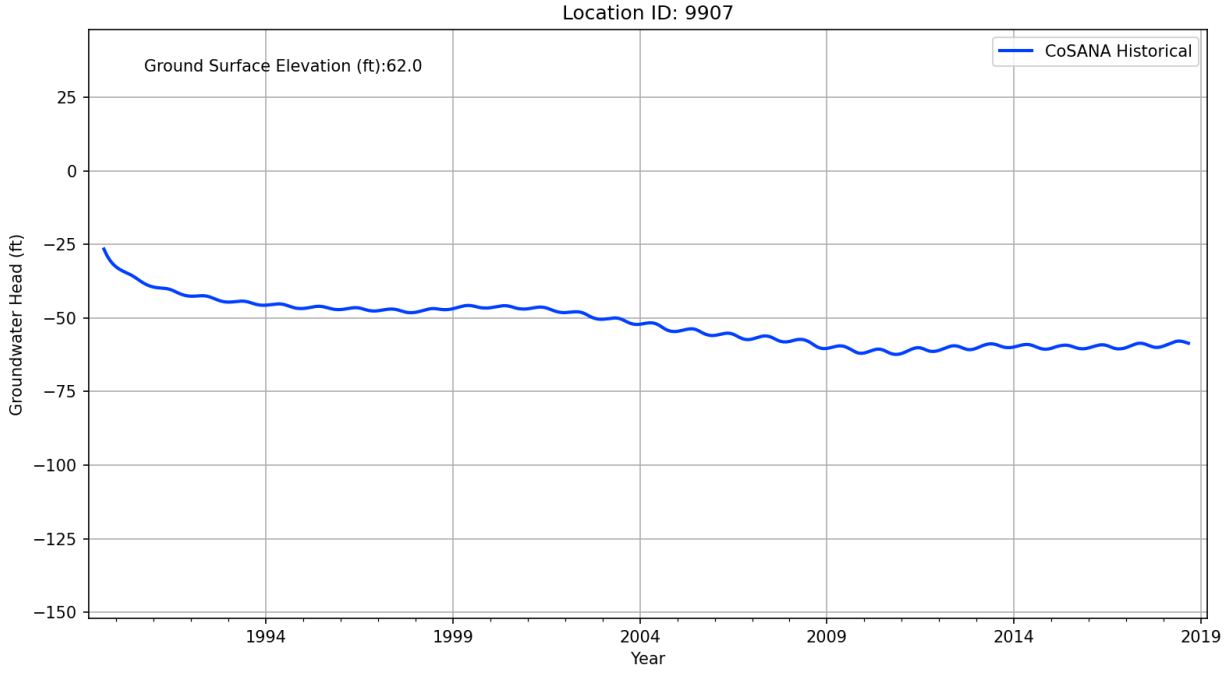

Location ID: 8628
Ground Surface Elevation (ft):81.58
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year


Location ID: 8630
Ground Surface Elevation (ft):73.08
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year


Location ID: 8631
Ground Surface Elevation (ft):47.8
CoSANA Historical
Observed
Groundwater Head (ft)
100
75
50
25
0
−25
−50
−75
1994
1999
2004
2009
2014
2019
Year


Location ID: 8701
Ground Surface Elevation (ft):34.26
CoSANA Historical
Observed
Groundwater Head (ft)
75
50
25
0
−25
−50
−75
−100
1994
1999
2004
2009
2014
2019
Year


Location ID: 9906
Ground Surface Elevation (ft):67.0
CoSANA Historical
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year


Location ID: 9907
Ground Surface Elevation (ft):62.0
CoSANA Historical
Groundwater Head (ft)
25
0
−25
−50
−75
−100
−125
−150
1994
1999
2004
2009
2014
2019
Year

APPENDIX G: BASELINE CONDITIONS DEMAND AND SUPPLY TABLES

CalAm Antelope

Values shown in acre-feet/year

	Current *				Projected **			
Year Type	**Normal**	**Wet**	**Dry**	**50-yr Average**	**Normal**	**Wet**	**Dry**	**50-yr Average**
Total Demand	4,282	4,556	4,950	4,629	5,225	5,225	5,225	5,225
Groundwater	3,728	3,907	4,944	4,251	4,025	4,025	5,225	4,481
Surface Water	554	648	6	378	1,200	1,200	0	744
Recycled Water/ Remediated Water	0	0	0	0	0	0	0	0
Total Supply	4,282	4,556	4,950	4,629	5,225	5,225	5,225	5,225

Notes:

* Current Condition Baseline information for each hydrologic year type was extracted based on the last 10 years of historical operations or the current use and facilities when available. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

** Projected Condition Baseline information is based on latest planning documents for each purveyor (2015 UWMPs, GWMPs, Water Supply Master Plans etc.). Projected demands are assumed to account for each entity's conservation targets. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

CalAm Arden

Values shown in acre-feet/year

	Current *				Projected **			
Year Type	**Normal**	**Wet**	**Dry**	**50-yr Average**	**Normal**	**Wet**	**Dry**	**50-yr Average**
Total Demand	1,421	1,459	1,509	1,467	1,606	1,606	1,606	1,606
Groundwater	1,408	1,459	1,509	1,464	1,123	1,123	1,123	1,123
Surface Water	13	0	0	4	483	483	483	483
Recycled Water/ Remediated Water	0	0	0	0	0	0	0	0
Total Supply	1,421	1,459	1,509	1,467	1,606	1,606	1,606	1,606

Notes:

* Current Condition Baseline information for each hydrologic year type was extracted based on the last 10 years of historical operations or the current use and facilities when available. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

** Projected Condition Baseline information is based on latest planning documents for each purveyor (2015 UWMPs, GWMPs, Water Supply Master Plans etc.). Projected demands are assumed to account for each entity's conservation targets. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

CalAm Fruitridge Vista

Values shown in acre-feet/year

	Current *				Projected **			
Year Type	**Normal**	**Wet**	**Dry**	**50-yr Average**	**Normal**	**Wet**	**Dry**	**50-yr Average**
Total Demand	4,244	4,055	4,142	4,141	6,609	6,609	6,609	6,609
Groundwater	4,238	4,054	4,141	4,139	6,609	6,609	6,609	6,609
Surface Water	6	1	0	2	0	0	0	0
Recycled Water/ Remediated Water	0	0	0	0	0	0	0	0
Total Supply	4,244	4,055	4,142	4,141	6,609	6,609	6,609	6,609

Notes:

* Current Condition Baseline information for each hydrologic year type was extracted based on the last 10 years of historical operations or the current use and facilities when available. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

** Projected Condition Baseline information is based on latest planning documents for each purveyor (2015 UWMPs, GWMPs, Water Supply Master Plans etc.). Projected demands are assumed to account for each entity's conservation targets. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

CalAm Lincoln Oaks

Values shown in acre-feet/year

	Current *				Projected **			
Year Type	**Normal**	**Wet**	**Dry**	**50-yr Average**	**Normal**	**Wet**	**Dry**	**50-yr Average**
Total Demand	6,826	6,395	7,770	7,038	6,213	6,213	6,213	6,213
Groundwater	6,131	5,504	7,766	6,539	5,413	5,413	6,213	5,717
Surface Water	695	891	4	499	800	800	0	496
Recycled Water/ Remediated Water	0	0	0	0	0	0	0	0
Total Supply	6,826	6,395	7,770	7,038	6,213	6,213	6,213	6,213

Notes:

* Current Condition Baseline information for each hydrologic year type was extracted based on the last 10 years of historical operations or the current use and facilities when available. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

** Projected Condition Baseline information is based on latest planning documents for each purveyor (2015 UWMPs, GWMPs, Water Supply Master Plans etc.). Projected demands are assumed to account for each entity's conservation targets. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

CalAm Parkway

Values shown in acre-feet/year

	Current *				Projected **			
Year Type	**Normal**	**Wet**	**Dry**	**50-yr Average**	**Normal**	**Wet**	**Dry**	**50-yr Average**
Total Demand	9,266	8,629	9,538	9,153	16,604	16,604	16,604	16,604
Groundwater	8,821	8,148	8,979	8,652	14,430	14,430	14,430	14,430
Surface Water	445	482	560	501	2,174	2,174	2,174	2,174
Recycled Water/ Remediated Water	0	0	0	0	0	0	0	0
Total Supply	9,266	8,629	9,538	9,153	16,604	16,604	16,604	16,604

Notes:

* Current Condition Baseline information for each hydrologic year type was extracted based on the last 10 years of historical operations or the current use and facilities when available. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

** Projected Condition Baseline information is based on latest planning documents for each purveyor (2015 UWMPs, GWMPs, Water Supply Master Plans etc.). Projected demands are assumed to account for each entity's conservation targets. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

CalAm Security Park

Values shown in acre-feet/year

	Current *				Projected **			
Year Type	**Normal**	**Wet**	**Dry**	**50-yr Average**	**Normal**	**Wet**	**Dry**	**50-yr Average**
Total Demand	10	7	15	11	97	97	97	97
Groundwater	9	7	15	11	0	0	15	6
Surface Water	1	0	0	0	97	97	82	91
Recycled Water/ Remediated Water	0	0	0	0	0	0	0	0
Total Supply	10	7	15	11	97	97	97	97

Notes:

* Current Condition Baseline information for each hydrologic year type was extracted based on the last 10 years of historical operations or the current use and facilities when available. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

** Projected Condition Baseline information is based on latest planning documents for each purveyor (2015 UWMPs, GWMPs, Water Supply Master Plans etc.). Projected demands are assumed to account for each entity's conservation targets. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

CalAm Suburban Rosemont

Values shown in acre-feet/year

	Current *				Projected **			
Year Type	**Normal**	**Wet**	**Dry**	**50-yr Average**	**Normal**	**Wet**	**Dry**	**50-yr Average**
Total Demand	8,278	7,958	9,616	8,678	13,227	13,227	13,227	13,227
Groundwater	8,139	7,936	9,255	8,494	11,053	11,053	11,053	11,053
Surface Water	139	22	360	183	2,174	2,174	2,174	2,174
Recycled Water/ Remediated Water	0	0	0	0	0	0	0	0
Total Supply	8,278	7,958	9,616	8,678	13,227	13,227	13,227	13,227

Notes:

* Current Condition Baseline information for each hydrologic year type was extracted based on the last 10 years of historical operations or the current use and facilities when available. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

** Projected Condition Baseline information is based on latest planning documents for each purveyor (2015 UWMPs, GWMPs, Water Supply Master Plans etc.). Projected demands are assumed to account for each entity's conservation targets. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

CalAm West Placer

Values shown in acre-feet/year

	Current *				Projected **			
Year Type	**Normal**	**Wet**	**Dry**	**50-yr Average**	**Normal**	**Wet**	**Dry**	**50-yr Average**
Total Demand	1,059	1,011	1,042	1,036	6,819	6,819	6,819	6,819
Groundwater	0	0	0	0	0	0	0	0
Surface Water	1,059	1,011	1,042	1,036	6,819	6,819	6,819	6,819
Recycled Water/ Remediated Water	0	0	0	0	0	0	0	0
Total Supply	1,059	1,011	1,042	1,036	6,819	6,819	6,819	6,819

Notes:

* Current Condition Baseline information for each hydrologic year type was extracted based on the last 10 years of historical operations or the current use and facilities when available. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.

** Projected Condition Baseline information is based on latest planning documents for each purveyor (2015 UWMPs, GWMPs, Water Supply Master Plans etc.). Projected demands are assumed to account for each entity's conservation targets. 50-year average projection reflects 50-year hydrologic projected conditions based on the water supplies and demands for each respective hydrologic year type.