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SISKIYOU COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

Scott Valley Groundwater Sustainability Plan – WY 2025 Annual Report



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**Siskiyou County Flood Control & Water
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Executive Summary

The Scott Valley Groundwater Sustainability Plan (GSP) was adopted in December 2021 by the Siskiyou County Flood Control and Water Conservation District, the Groundwater Sustainability Agency (GSA) for the Scott Valley groundwater basin (Basin; see [Figure 1](#)). The GSA formed in accordance with the Sustainable Groundwater Management Act (SGMA) of 2014 to coordinate, develop, and implement a GSP for the Basin (DWR Basin No. 1-005). The GSP was submitted to the California Department of Water Resources (DWR), ahead of the January 31, 2022 deadline for medium priority basins.

California Water Code (CWC) §356.2 requires the submission of an annual report to DWR by April 1 of each year following the adoption of the GSP. The annual report includes information for the preceding water year. This is the fourth annual report submitted to DWR and provides an update on Basin conditions and GSP implementation progress for water year (WY) 2025 (October 1, 2024 to September 30, 2025). It also includes changes in conditions that have occurred between the baseline year assessed in the GSP and the conditions in WY 2025. CWC §356.2 requires annual reports to include general information about the Basin and GSP, groundwater elevation data (contour maps and hydrographs), groundwater extraction, surface water supply, changes in groundwater storage, and a description of progress towards implementation of the GSP since the adoption of the previous annual report. [Table 1](#) provides a summary of the definition of undesirable results included in Chapter 3 of the GSP. **Overall, there were no occurrences of undesirable results and minimum thresholds (MTs) have not been exceeded in WY 2025 for the applicable sustainability indicators (SIs).**

For WY 2025, the Fort Jones CDEC station annual precipitation is higher than its long-term mean (WY 1936-2025), and the highest recorded annual total precipitation since WY 2018. In Scott Valley, WY 2025 is categorized as a *Wet* water year, and both WY 2024 and 2023 are categorized as *Below Normal* water years, an improvement from the *Critical* water year type during WYs 2020-2022¹. On December 19, 2023, the State Water Resources Control Board adopted a drought emergency regulation in the Shasta and Scott River Watersheds². In September 2025, California State Legislation enacted AB263.

¹Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years

²https://www.waterboards.ca.gov/drought/scott_shasta_rivers/

Groundwater Levels

Measured groundwater levels in water year 2025 do not indicate the occurrence of undesirable results. Fall 2025 groundwater levels were compared to the MO and MT. The minimum groundwater level measurement taken in September – October 2024 was used for each well (“fall low”). Two wells did not have measurements taken during the period and the closest available measurements (in November) were used for the comparison. None of the fall low measurements in the groundwater level representative monitoring point (RMP) network were below their MT in Fall 2025. Undesirable results for Groundwater Levels are defined to occur when 25% of fall measurements in the RMP network are below the MT for 2 consecutive years. Therefore, undesirable results for Groundwater Levels did not occur in WY 2025. Contour maps of groundwater elevation are shown in Section 2.1 and hydrographs are included in Appendix A.

Groundwater Storage

The **Groundwater Storage SI** uses groundwater levels RMPs as a proxy to assess compliance with the SMCs. Since no RMP wells recorded a fall low groundwater level measurement below the MT for two consecutive years, no undesirable results occurred for the **Groundwater Storage**.

Water Use and Groundwater Budget

Total groundwater extractions for the 2025 water year are estimated to be 36,375 AF (Section 2.2). Total water use is estimated to be 64,710 AF (Section 2.4). The Scott Valley Integrated Hydrologic Model (SVIHM) was used to develop a water budget for the basin to estimate the change in storage of the Scott Valley Basin during water year 2025. The estimate of basin storage increased about 8,454 AF during the water year (Section 2.5).

Land Subsidence

Land subsidence was measured by satellite data (i.e., InSAR). Estimated land subsidence was less than 0.1 ft of subsidence, which avoids the occurrence of undesirable results. A map of land subsidence in water year 2025 can be found in Section 4.6.

Groundwater Quality

Groundwater quality SMCs are defined for nitrate and specific conductance. Measured groundwater concentrations during water year 2025 are presented in Section 4.5 and do not indicate the occurrence of undesirable results. No RMPs exceeded the MT for nitrate. Specific conductivity was not measured in any of the RMPs in Water Year 2025, as the monitoring frequency is not annual.

Plan Implementation Progress

Progress continues in the implementation of the GSP. Summary of progress on the implementation of the GSP in water year 2025, including implementation of projects and management actions, and an overview of plan implementation activities anticipated for the coming year can be found in Chapter 5 of this report.

Recent years have seen the introduction of additional regulations that were not considered in the approved Groundwater Sustainability Plan (GSP), submitted in 2022. These regulations influence the assumptions made within the GSP regarding water usage and the implementation of the GSP itself. Notably, the State Water Resource Control Board's (SWRCB) Scott and Shasta River Watersheds Emergency Regulations authorize water use curtailments when measured flows fall below the established emergency minimum flows, as outlined in the regulation. This functions as a management action, not implemented by the GSA, that influences the Basin's path to sustainability, as measured with the defined sustainable management criteria.

Ongoing research is being conducted to evaluate and quantify the effects of these regulations on the sustainability indicators, using the SVIHM. Additionally, the SWRCB is working to establish permanent instream flow requirements for the Scott and Shasta Rivers. The GSA will continue to track and engage with these regulations and evaluate the consequences for the GSP implementation. The GSA is already implementing projects to achieve the interim milestones and measurable objectives set for the interconnected surface water sustainability indicator.

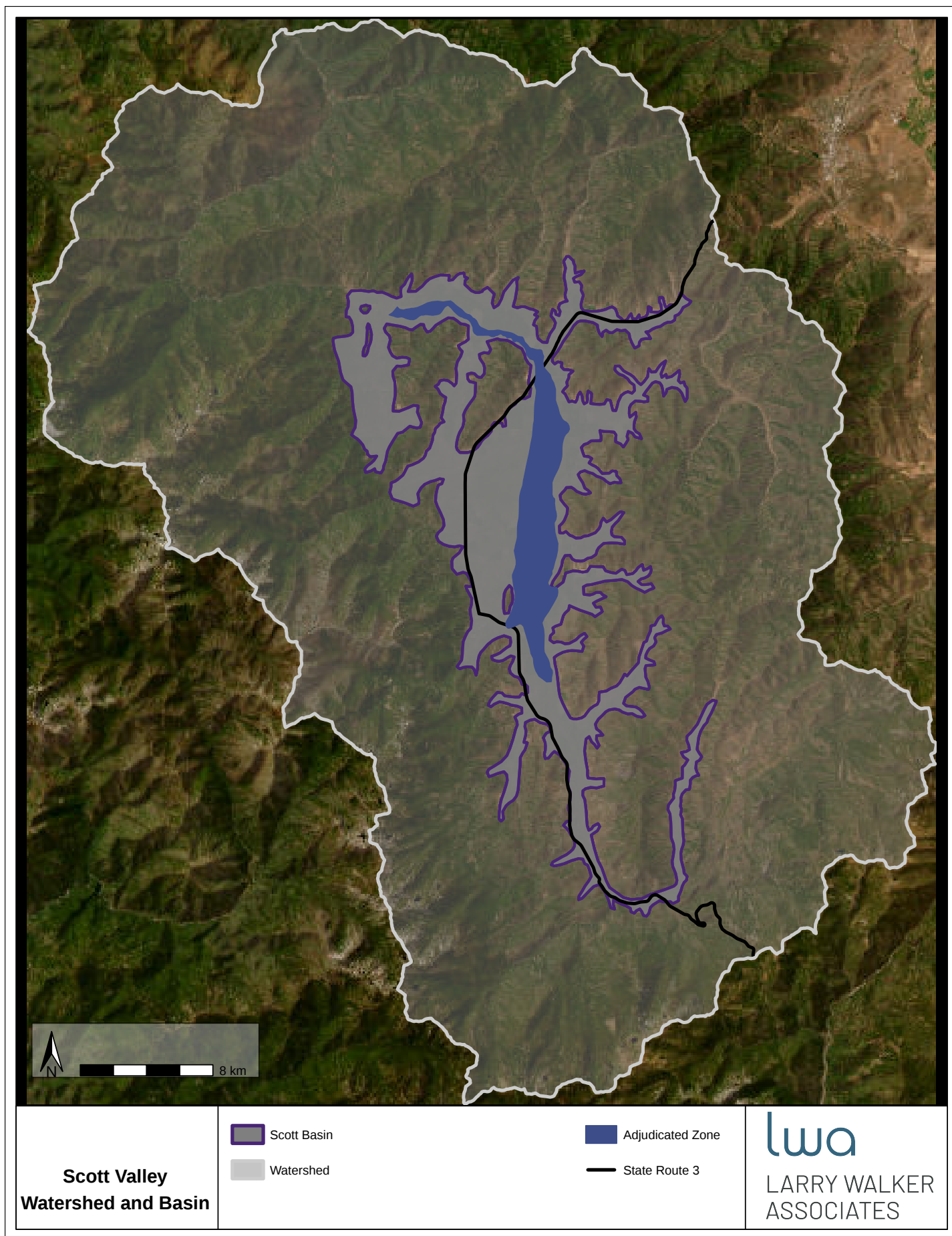


Figure 1: Scott Valley Bulletin 118 basin boundary (DWR 2018) and area subject to the 1980 Scott River Adjudication Decree (Superior Court of Siskiyou County 1980).

Table 1: Summary of Sustainable Management Criteria.

Sustainability Indicator	Minimum/Maximum Threshold (MT)	Measurable Objective (MO)	Undesirable Result Defined	WY 2025 Annual Report Status
Groundwater Levels	Historic maximum depth to water measurement prior to 2015 with a buffer of 10% of historic max depth or 10 feet, whichever is smaller.	75th percentile of the fall measurement range (i.e., water levels > 25% of historic record).	The fall low water level observation in any of the representative monitoring sites in the Basin falls below the respective minimum threshold for 2 consecutive years.	No occurrence of undesirable results, with data gaps at wells Q32 and QV18
Groundwater Storage	Groundwater levels used as a proxy for this sustainability indicator.	Groundwater levels used as a proxy for this sustainability indicator.	Same as "Chronic Lowering of Groundwater Levels."	No occurrence of undesirable results, with data gaps at wells Q32 and QV18
Water Quality	Nitrate = 10 mg/L, Specific Conductivity = 900 umhos/cm	More than 90% of wells monitored for water quality maintain their range of water quality measurements measured during 1990 to 2020.	More than 25% of groundwater quality wells exceed the maximum threshold for concentration and/or concentrations in over 25% of groundwater quality wells increase by more than 15% per year, on average over ten years.	No occurrence of undesirable results.

Table 1: Summary of Sustainable Management Criteria. *(continued)*

Sustainability Indicator	Minimum/Maximum Threshold (MT)	Measurable Objective (MO)	Undesirable Result Defined	WY 2025 Annual Report Status
Interconnected Surface Water	Average 15% stream depletion reversal caused by groundwater pumping from outside the adjudicated zone in 2042 and thereafter.	Average relative stream depletion reversal of 20% or above in 2042 and thereafter.	Ecological stress from <15% average stream depletion reversal of the depletion caused by groundwater pumping outside of the adjudicated zone in 2042 and later, as defined by specific reference scenarios with SVIHM.	To be evaluated with current data for the 2027 GSP Evaluation.
Seawater Intrusion	This sustainability indicator is not applicable in the Subbasin.		Not applicable for the Basin.	
Land Subsidence	<0.1 ft of subsidence in any one year.	Maintain current ground surface elevations.	Groundwater pumping induced subsidence is greater than the minimum threshold of 0.1 ft (0.03 m) in any single year;	No occurrence of undesirable results.

Chapter 1

Introduction

1.1 Purpose

Annual reports will be completed throughout the course of GSP implementation. The purpose of these reports is to provide periodic updates on the progress towards Basin sustainability, current Basin conditions, and any improvements and/or additions to the monitoring networks. Changes in land ownership, well status, monitoring personnel availability, or monitoring program participation may limit data collected at the representative monitoring sites, as identified in the GSP. As changes to monitoring site status occur, the monitoring network is reevaluated to ensure adequate measurement density and spatial coverage of the Basin.

1.2 Scott Valley GSA

The Siskiyou County Flood Control and Water Conservation District is the sole GSA for the Basin. The Siskiyou County Flood Control and Water Conservation District Act (Cal Uncod. Water Deer, Act 1240 §§ 1-38) was adopted by the State Legislature in 1959. This Act established a special district of the same name, and of limited powers that could provide flood protection, water conservation, recreation and aesthetic enhancement within its boundaries. At the time of its creation, the jurisdictional boundaries of the Flood District were smaller than those of the County. In 1983, following County of Siskiyou Local Agency Formation Commission (LAFCO) action, the balance of the County was annexed into the District, making its jurisdictional boundaries coincide with the County. The District is governed by a Board of Directors that is composed of the Board of Supervisors; however, the District is a separate legal entity from the County, with independent rights and limited powers set forth in its originating act. The District's purpose is the conservation and control of storm, flood, and other waters and ensuring beneficial use thereof.

The Siskiyou County Flood Control and Water Conservation District approved the GSP for Basin in December 2021 and submitted the GSP to DWR in January 2022. The GSA submits an annual report to DWR documenting the progress in achieving groundwater sustainability, by April 1st, for each preceding water year. The monitoring data for the preceding water year is compiled to present the most current groundwater conditions to identify whether the Sustainable Management Criteria (SMCs) were met. Additionally, all progress in project management action implementation is presented.

1.3 Basin Description

The Scott Valley Groundwater Basin (“Basin”) is located in the Scott River watershed (“Watershed”), part of the larger Klamath River watershed which spans sections of Northern California and Southern Oregon. The Basin covers 100 sq mi (259 sq km) while the Watershed is much larger, encompassing 814 square miles (2,108 square km). Under the 2019 basin prioritization conducted by the California Department of Water Resources (DWR), the Basin (DWR Basin 1-005) was designated as medium priority (DWR 2019).

Scott Valley is encircled by mountain ranges with the Scott Bar, Marble, Salmon, and Scott Mountains to the north, west, southwest, and south, respectively, and hills and ridges east of the Scott Valley that divide the Scott and Shasta watersheds. The Scott River is the main water feature in the Basin, and is one of the major undammed streams in California. Within the Basin boundary, the Scott River flows south to north until it turns westward near Fort Jones. The Scott River flows northwest out of the Basin, traveling around the Scott Bar Mountains through a steep canyon to join the Klamath River at River Mile 143 (Harter and Hines 2008). The Basin includes two areas not required to form GSA or develop GSPs under SGMA: the interconnected zone covered by a groundwater adjudication (Figure 1) and the Quartz Valley Indian Reservation (Figure 1.1). While outside the jurisdiction of the GSA, these portions of the Basin are considered by the GSP as they are within or adjacent to the GSA area. In 1980, the Scott River and some of the surrounding interconnected groundwater were adjudicated by decree No. 30662 (Superior Court of Siskiyou County 1980). Pursuant to Water Code section 10720.8, DWR requires adjudicated basins to submit reports by April 1 of each year. These reports must include data on groundwater elevation, storage, and extraction, as well as surface water use. An adjudicated basin report for the Scott River Stream System is submitted to DWR annually in accordance with this requirement¹.

¹<https://sgma.water.ca.gov/adjudbasins/report/publicview>

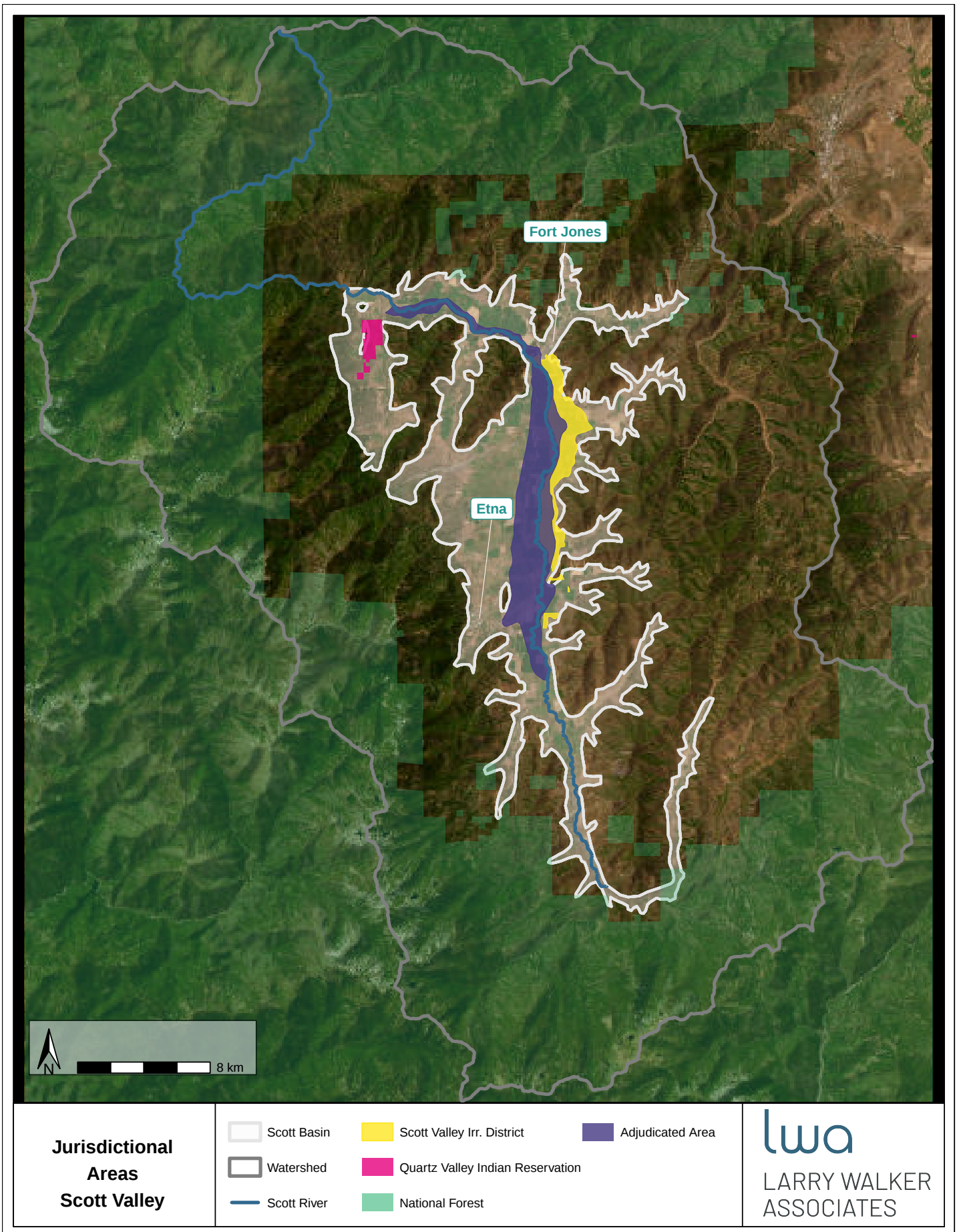


Figure 1.1: Jurisdictional areas within Scott Valley.

The Basin boundary encompasses the incorporated communities of Etna and Fort Jones; the unincorporated communities of Callahan, Greenview, and Quartz Valley/Mugginsville; and the Quartz Valley Indian Reservation (QVIR) on tribal trust lands. The population of Scott Valley was estimated at 8,000 (SRWC 2005), including the populations of the two incorporated towns. In the 2010 Census, the number of residents of Fort Jones and Etna was estimated at 839 and 737, respectively (U.S. Census Bureau 2012). Three communities in Scott Valley are categorized as disadvantaged: Fort Jones, Etna, and Greenview (Figure 1.3). Fort Jones relies on groundwater as a municipal water source, while Etna is reliant on surface water. A water district, the Scott Valley Irrigation District (SVID) serves water to users east of the Scott River (Figure 1.1). The Scott Valley and Shasta Valley Watermaster District, which manages the diversion of surface water in accordance with court adjudications or agreements, is operational in the Basin for French and Wildcat Creeks.

The majority of land within the Scott River watershed is under private ownership (two-thirds of the total area) with the remaining area managed by QVIR, the United States (U.S.) Department of the Interior Bureau of Land Management (BLM) and U.S. Forest Service (USFS) (Harter and Hines 2008). Much of the watershed surrounding Scott Valley is National Forest land. According to land use surveys conducted by DWR (DWR 2017), half of the Basin area is covered by agriculture, with most of that split approximately evenly between pasture and an alfalfa/grain rotation.

Scott Valley has two major geologic components, the alluvial deposits in the valley and the underlying bedrock, which also forms the surrounding mountains. The Basin boundary generally corresponds to the area covered by valley alluvium, bounded by the contact between the alluvium and older bedrock. The complex geology of Scott Valley has previously been simplified by grouping geologic units into four main categories: Quaternary deposits, granitic bedrock, mafic and ultramafic bedrock, and sedimentary bedrock (NCRWQCB 2005). Generally, Quaternary deposits are composed of unconsolidated gravel sand and soils and make up the low gradient valley floor, extending up some tributary valleys. The granitic bedrock is in the mountains to the west of the Valley, ranging in composition from granite to granodiorite (NCRWQCB 2005; Mack 1958). Mafic and ultramafic bedrock is largely altered to serpentine and is found in the Marble Mountains in the northeast part of the Watershed and the Scott Mountains in the southeast part of the Watershed. Mafic and ultramafic bedrock also form a discontinuous band, extending from the southeast to northeast regions of the Watershed.

Folding, faulting, and shearing have caused deformation which has, in the last 1–2 million years, caused subsidence of the valley floor and uplift of the mountains (NCRWQCB 2005). In the Quaternary and late Tertiary, faulting resulted in a depression in the middle portion of Scott Valley, which lies several hundred feet lower than the bedrock in the northern part of the valley. Streams have deposited sediment throughout this area, resulting in the alluvial fill that comprises the main water bearing units today. The Basin underlying the alluvial floodplain is the primary groundwater feature in the area. Valley alluvium is mostly Recent in age with a few isolated Pleistocene sections along the edges of the Valley. As defined by DWR (2004), the Basin is 28 mi (45km) in length, 0.5 to 4 mi (0.8 to 6 km) in width and covers a surface area of 100 sq mi (259 sq km). The predominant water-bearing units in Scott Valley are Quaternary stream channel, floodplain, and alluvial fan deposits (DWR 2004). The combined thickness of the water-bearing units is somewhat irregular, with the greatest thicknesses (estimated at 200 feet in Tolley, Foglia, and Harter 2019), located in central-western region of the Basin, and thinning out towards the Basin boundary.

1.3.1 Climate

Scott Valley has a Mediterranean climate with distinctive seasons of cool, wet winters and warm, dry summers. The orographic effect of the mountains to the west and south of the Valley creates a rain-shadow in eastern areas of the Valley. The higher elevation areas to the west and south of the Valley historically receive greater annual precipitation than the east side of the Valley. At elevations below 4,000 ft (1219 m), precipitation mostly occurs as rainfall, as is the case on the valley floor. Precipitation accumulates as snow in the surrounding mountains, with a rain-snow transition zone between 4,000 and 5,000 ft (1219 and 1524 m) ([McInnis and Williams 2012](#)).

The long-term historical precipitation record indicates that recent average precipitation and snowfall are lower than levels recorded in the middle of the 20th century. Over the past 15 years, the 10-year rolling average precipitation has been consistently below the long-term average of 20.9 inches and has shown a decreasing trend. Additionally, average snow depth at snow measurement stations near the western boundary of the Watershed has gradually decreased over time. Although, the snow depths have remained relatively stable at three stations near the southern boundary of the Watershed. There has also been a decrease in the percentage of precipitation falling as snow on a regional scale over the past 70 years, as noted by Lynn et. al ([2020](#)) and shown in [Figure 1.2](#). Notably, total precipitation in WY 2025 was about 31 inches, which has been the highest record since 2018.

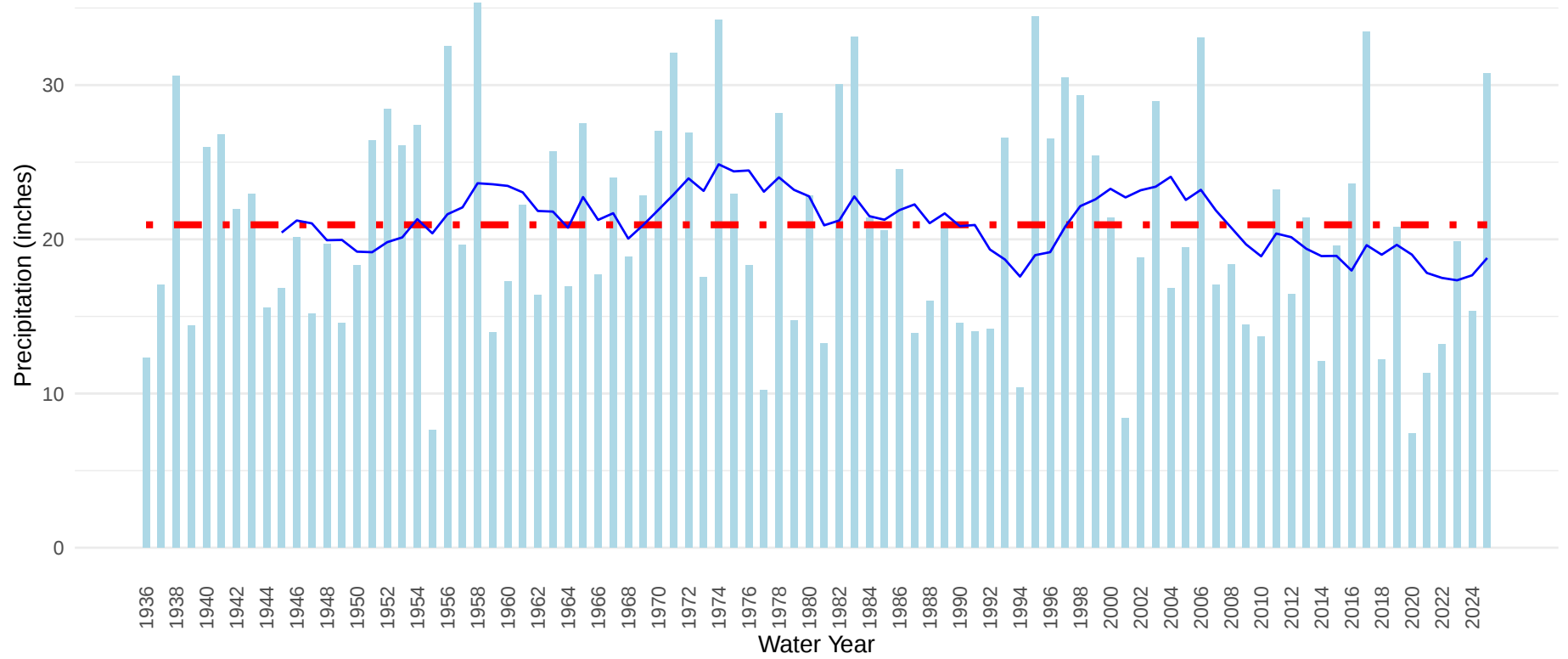


Figure 1.2: Fort Jones annual precipitation, water year 1936 to 2025, according to CDEC data. The long-term mean is shown as a red dashed line, and the ten year rolling mean is the blue trendline.

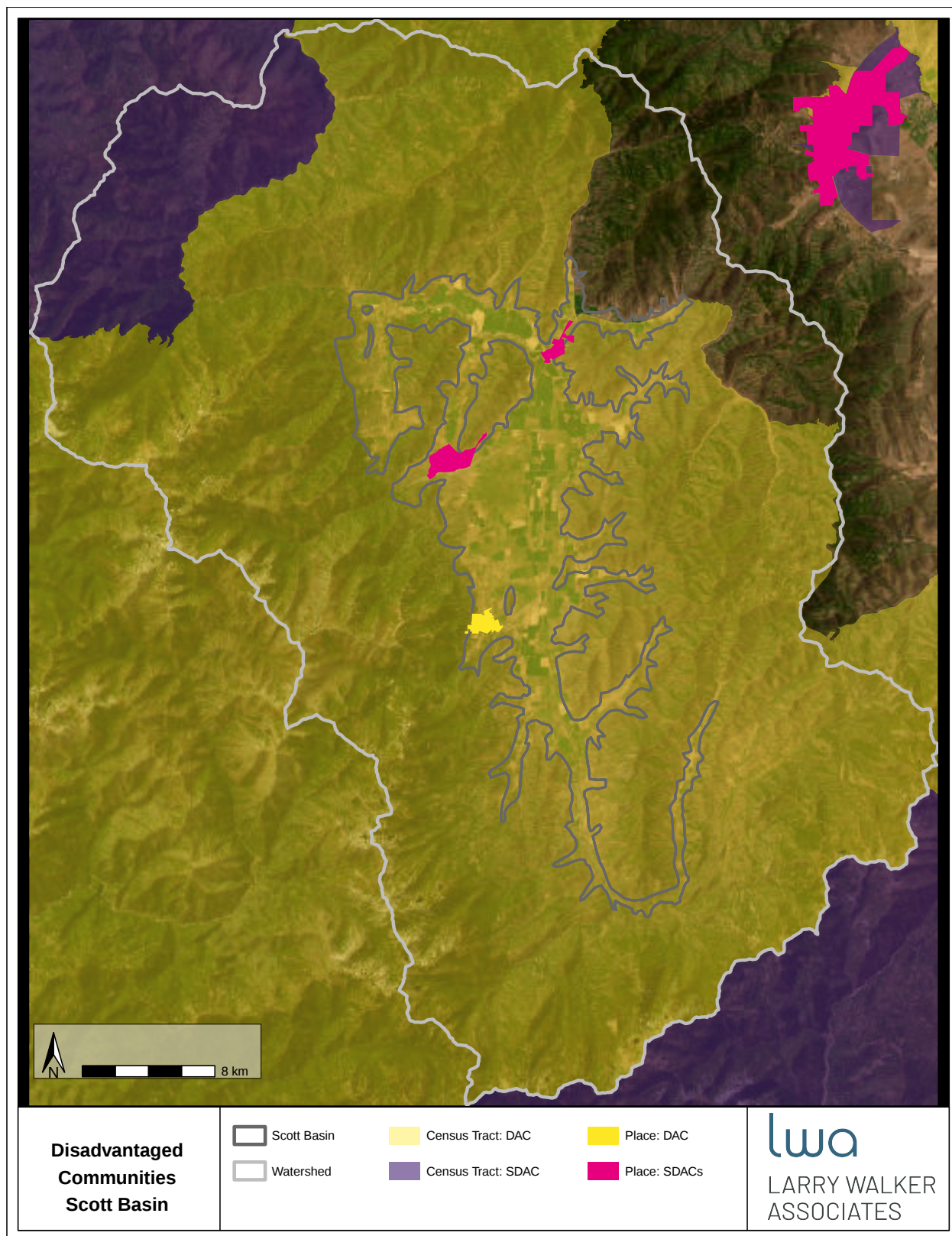


Figure 1.3: Based on the 2016 U.S. Census, place and tract boundaries of Disadvantaged Communities (DACs: $\$42,737 \leq \text{MHI} < \$56,982$) and Severely Disadvantaged Communities (SDACs: $\text{MHI} < \$42,737$) in the Scott Valley watershed, using data from the DWR DAC Mapping Tool (DWR 2016b).

1.3.2 Drought Emergency Regulations

In May 2021, Governor Gavin Newsom declared a drought emergency for 41 counties in California, including Siskiyou County. A proclamation in September 2024 by Governor Gavin Newsom terminated the states of emergency in 19 counties in California but the state of emergency remained in effect for Siskiyou County. In August 2021, the State Water Resources Control Board (SWRCB) adopted drought Emergency Regulations, regarding the Scott and Shasta Rivers which were read-opted, with amendments, in July 2022². These Emergency Regulations authorized curtailments of surface water diversions when flows did not meet SWRCB approved drought emergency minimum monthly flow targets.

On May 23, 2023, the Karuk Tribe of California, Environmental Law Foundation, Pacific Coast Federation of Fishermen's Associations, and Institute for Fisheries Resources submitted a petition for rulemaking to the State Water Board requesting a permanent regulation establishing minimum flows in the Scott. After an August 15, 2023 hearing on the petition, the State Water Board directed Division of Water Rights staff to move forward with an emergency regulation and identify the scientific work needed to pursue long-term flows in the Scott River and Shasta River watersheds, and update the Board on that work. The new emergency regulation for Scott and Shasta River Watersheds was adopted on December 19, 2023 and became effective since approval on February 1, 2024.

Effective July 25, 2024, The Division of Water Rights issued two Orders curtailing surface water and groundwater diversions in the Scott River Watershed:

- Order WR 2024-0024-DWR: Curtails surface water diversions in the Scott River watershed.
- Order WR 2024-0025- DWR: Curtails adjudicated groundwater rights and groundwater diversions associated with parcels listed in Attachment A of the Order, for the Scott River watershed.

In September 2025, California State Legislation enacted AB263, which ensures that the State Water Resource Control Board's drought-related emergency flow regulation for the Scott and Shasta Rivers remain in effect until permanent long term instream flow requirements are adopted, or until January 1, 2031, whichever comes first.

It is unknown at this time the impacts curtailment of surface water diversions had on the underlying aquifer and impacts to rural residential and groundwater dependent ecosystem (GDE) water use are still being evaluated.

²https://www.waterboards.ca.gov/drought/scott_shasta_rivers/

Chapter 2

Groundwater Basin Conditions

2.1 Groundwater Elevations

This section describes the change in groundwater elevations in WY 2025 and general observations of groundwater level declines or increases in WY 2025. This summary includes quantified changes observed during the water year, hydrographs and contour maps of groundwater elevation. The contour maps and hydrographs below include available data that has undergone quality assurance and quality control processes.

[Figure 2.1](#) shows groundwater elevation time series for select wells in each hydrogeologic zone to illustrate the historical record of these wells. **Appendix A** shows hydrographs of the SMC network, showing measurable objectives, primary triggers, and minimum thresholds along with hydrographs of other wells in the Basin that are not included in the SMC network.

[Figure 2.2](#) and [Figure 2.3](#) show groundwater elevation contours for the seasonal high and low groundwater conditions (i.e., Spring and Fall). During WY 2025, the interpolation method for contour maps were updated. The previous interpolation method used Thin Plate Spline (TPS) interpolation, which fits a smooth surface through measured water levels based solely on the X-Y coordinates of well locations and does not follow general terrain trends as well as other methods. Now, the groundwater elevations are generated using regression kriging, a geostatistical method that combines a deterministic trend model with spatial interpolation of residuals. This approach accounts for regional hydrogeologic gradients while capturing local variations in groundwater levels. In addition, the temporal selection of measurements for the contour maps was also updated in WY 2025. Rather than using all measurements within a seasonal window, the new approach identifies the optimal 2-week period within each season that maximizes the number of wells with concurrent measurements. This approach:

1. Minimizes temporal spread in the data used for each interpolation, reducing artifacts from seasonal water level trends.
2. Maximizes spatial coverage by selecting the period when the greatest number of wells were measured.
3. Produces surfaces representative of a snapshot of conditions rather than a time-averaged condition.

For each well with multiple measurements in the optimal window, the median value is used. The following date ranges represent the seasonal windows:

- Spring: March 1–May 31
- Fall: September 15–October 31

Both [Figure 2.2](#) and [Figure 2.3](#) show characteristically lower groundwater elevations in the north-east portion of the basin (near Fort Jones) that increase towards the Basin’s western, southern, and southeastern boundaries. Regions of highest groundwater elevation are in the northwestern arm of the Basin southwest of Quartz Valley and the Basin’s southern valley at the confluence of the East and South Fork of the Scott River. [Figure 2.3](#) shows groundwater conditions in Fall 2025, marking conditions at the end of WY 2025.

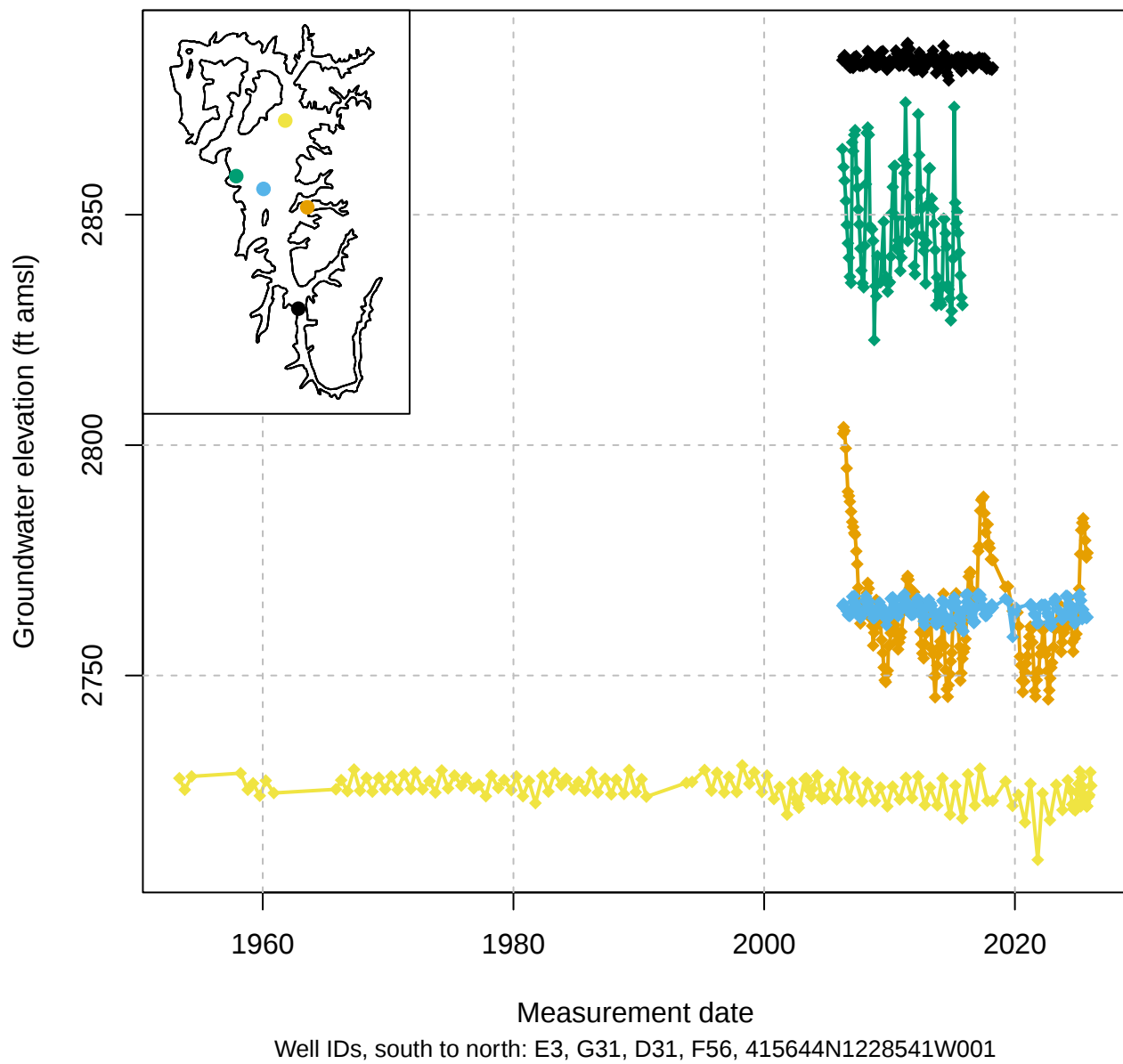


Figure 2.1: Select long-term groundwater elevation measurements in five wells, one located in each hydrogeologic zone of the Scott Valley Groundwater Basin.

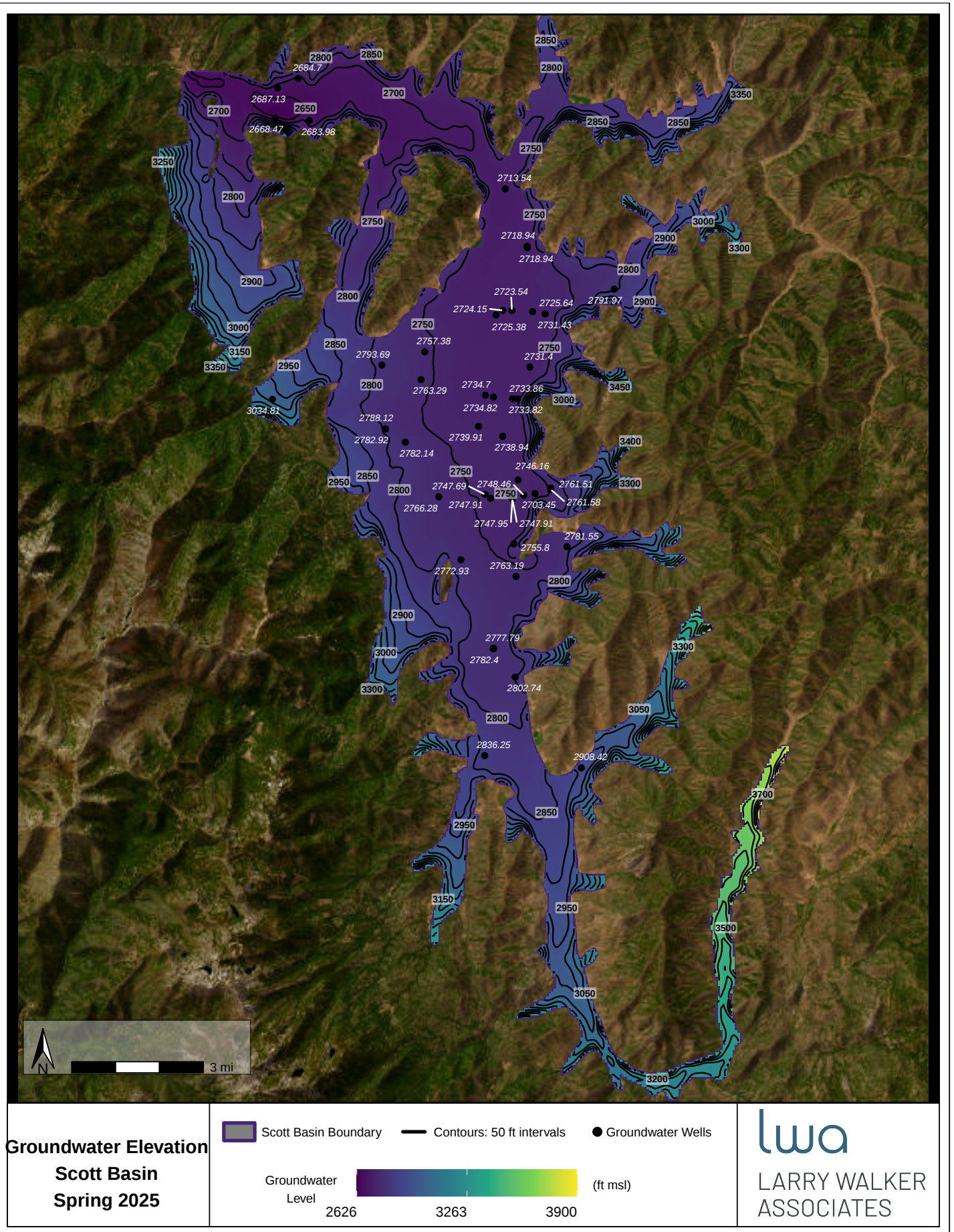


Figure 2.2: Scott Valley Groundwater Elevations, Spring 2025. Observations between 2025-04-14 and 2025-04-16.

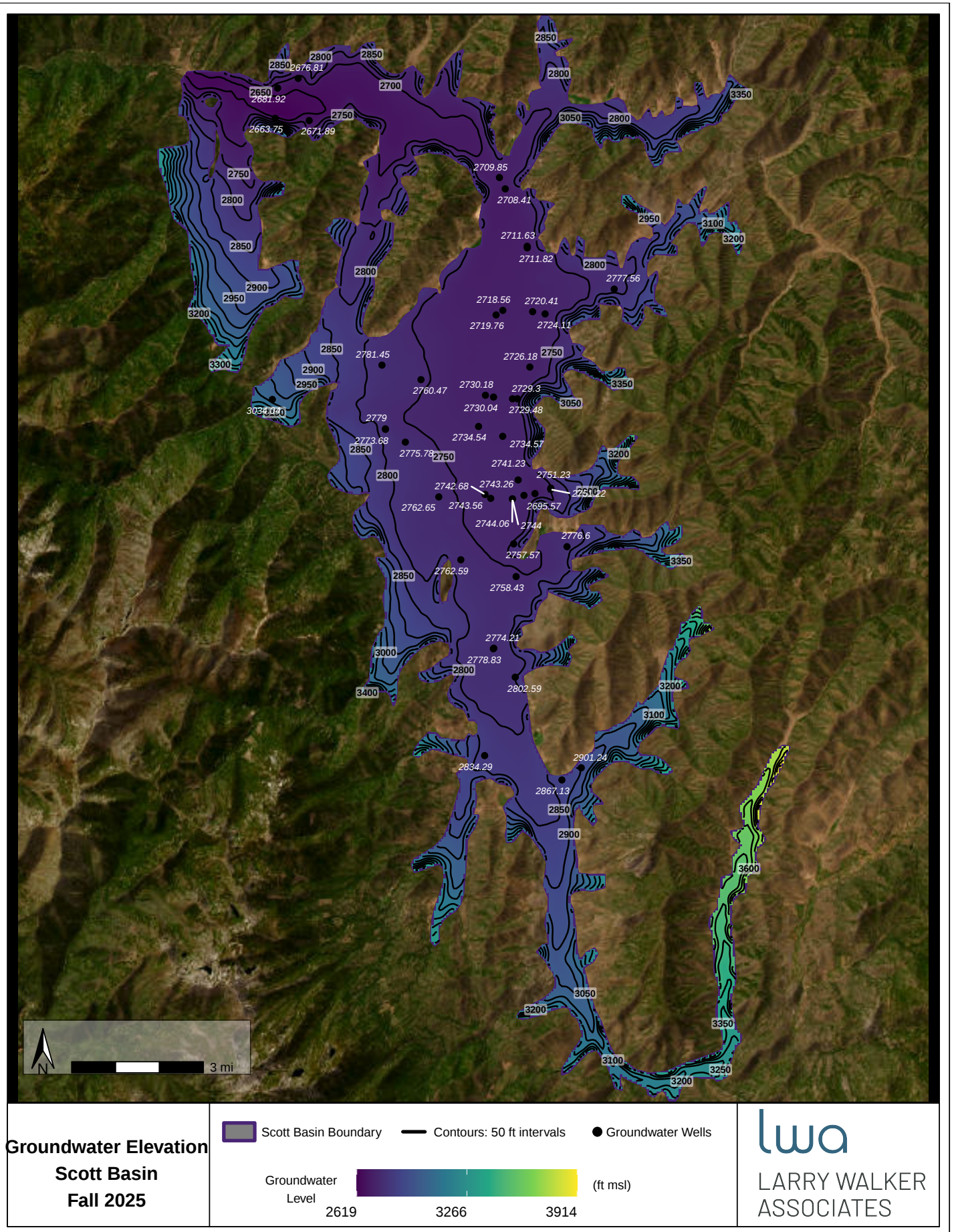


Figure 2.3: Scott Valley Groundwater Elevations, Fall 2025. Observations between 2025-10-15 and 2025-10-17.

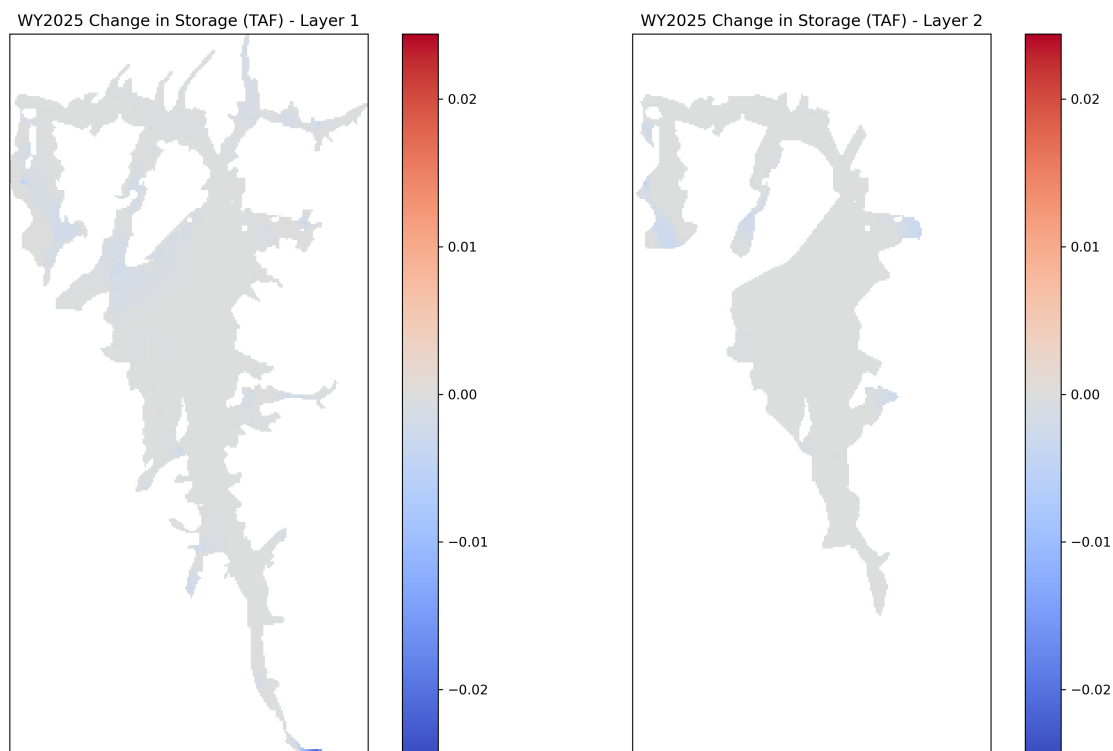


Figure 2.4: Estimated spatial distribution of change in storage (TAF) in WY 2025 using the based on the SVIHM groundwater model simulation.

2.2 Groundwater Extractions

This section summarizes monthly groundwater extractions for water year 2025 with the data available and defines the method of measurement by water use sector. The best method available to estimate groundwater extraction in Scott Valley is through the Scott Valley Integrated Hydrologic Model (SVIHM) simulation. Specifically, values are based on the SVIHM Soil Water Budget Model (SWBM) incorporating local cooperative solutions (LCSs). LCSs are voluntary local water conservation agreements that can be used in place of curtailments under the SWRCB's Drought Emergency Regulations for Scott Valley. Each year, the SWRCB identifies applicable LCS types (i.e., Best Management Practices, Graduated Reduction, or Percent Reduction) and the participating fields for the annual SVIHM update. LCSs have been implemented in SVIHM for 2021 through 2025¹. The general location with volume and rate of groundwater extraction are provided in Figure 2.5 and Figure 2.6, respectively. As shown, the highest levels of pumping occur in the northern portion of the Basin near Fort Jones and also along the Scott River beginning near the confluence of French Creek.

Groundwater extraction for agricultural pumping, as estimated by SVIHM for WY 2025, is 35,375 acre-feet (AF). There is an additional 1,000 AF of groundwater extraction based on population data and municipal water use estimates².

¹ Additional information on the LCS program, LCS types, and the implementation in the past years is available on the SWRCB's webpage: https://www.waterboards.ca.gov/drought/scott_shasta_rivers/

² Estimate assumes 1 AF per 3.5 persons/year and population of 3,520 people (population based on estimate in 2019 Basin Prioritization).

2.3 Surface Water Supply Used for Groundwater Recharge or In-Lieu Use

SGMA requires that the GSP annual report tabulate “Surface water supply used or available for use” (CCR §356.2 [b] [3]). For WY 2025 surface water supply was estimated by the SVIHM as 28,335 AF. Emergency regulations were readopted on January 27, 2025, but the regulation is not considered to have significantly reduced the amount of surface water use compared to the full allocation of previous years.

Surface water diversion was used for groundwater recharge in WY 2025, with 868 AF diverted for recharge. As discussed in the later section covering projects and management actions, flows in the Scott River met or surpassed the threshold in the temporary permit, thereby enabling meaningful groundwater recharge. The impact of the groundwater recharge is currently being evaluated with SVIHM. A breakdown of groundwater extraction and total water use by water use sector for WY 2025 is provided in [Table 2.1](#) and [Table 2.2](#), respectively.

2.4 Total Water Use

This section summarizes groundwater use and surface water available for use for the reporting period. Total water use is estimated by summing surface water supply data and estimated groundwater extraction. For WY 2025 total water use is estimated to be 64,710 AF. Note that the 868 AF of WY 2025 surface water diversion for recharge is presented in the Managed Recharge under the category of Water Use Sector in [Table 2.2](#) for record.

2.5 Change in Groundwater Storage

The change in groundwater storage for the Basin was estimated based on the SVIHM. The change in groundwater storage for WY 2025 is estimated as 8,454 AF (gains in water storage). For SMCs, groundwater levels are used as proxy for groundwater storage. The MT, MO, and IM are identical to those defined for groundwater levels.

[Figure 2.7](#) depicts water year type and annual change in groundwater storage, cumulative change in groundwater storage for the Basin. Results are extracted from the SVIHM based on historical data to the greatest extent available, from WY 1991 to current reporting year. [Figure 2.4](#) shows the spatial change in storage in AF in WY 2025 as calculated by the SVIHM.

WY 2025 GW Irrigation Volume by Field

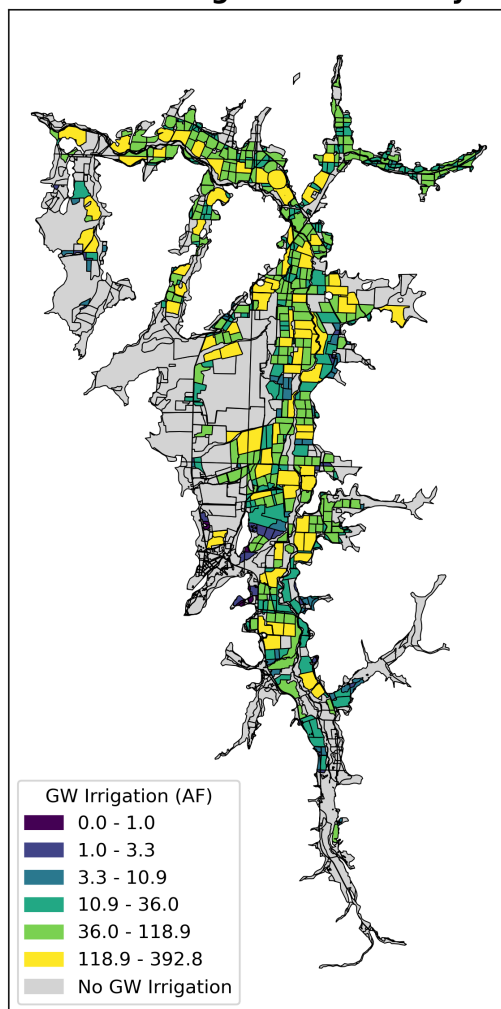


Figure 2.5: Map of land use polygon specific average annual pumping rates (acre-feet/year) between Fall 2024 and Fall 2025. This map provides an approximate spatial distribution of average groundwater extraction estimates that is still applicable to the current SVIHM.

WY 2025 GW Irrigation Depth by Field

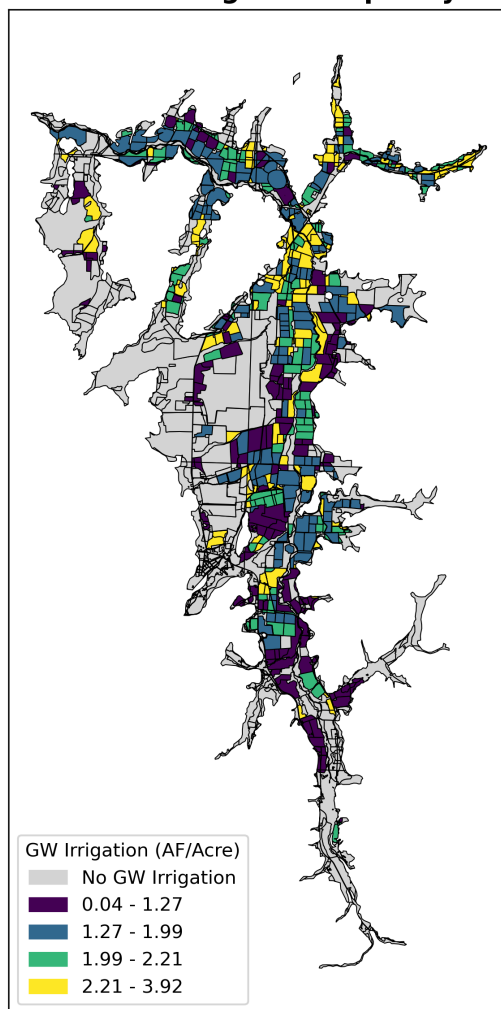


Figure 2.6: Map of land use polygon specific average annual pumping rates (acre-feet/acre/year) between Fall 2024 and Fall 2025. This map provides an approximate spatial distribution of average groundwater extraction estimates that is still applicable to the current SVIHM.

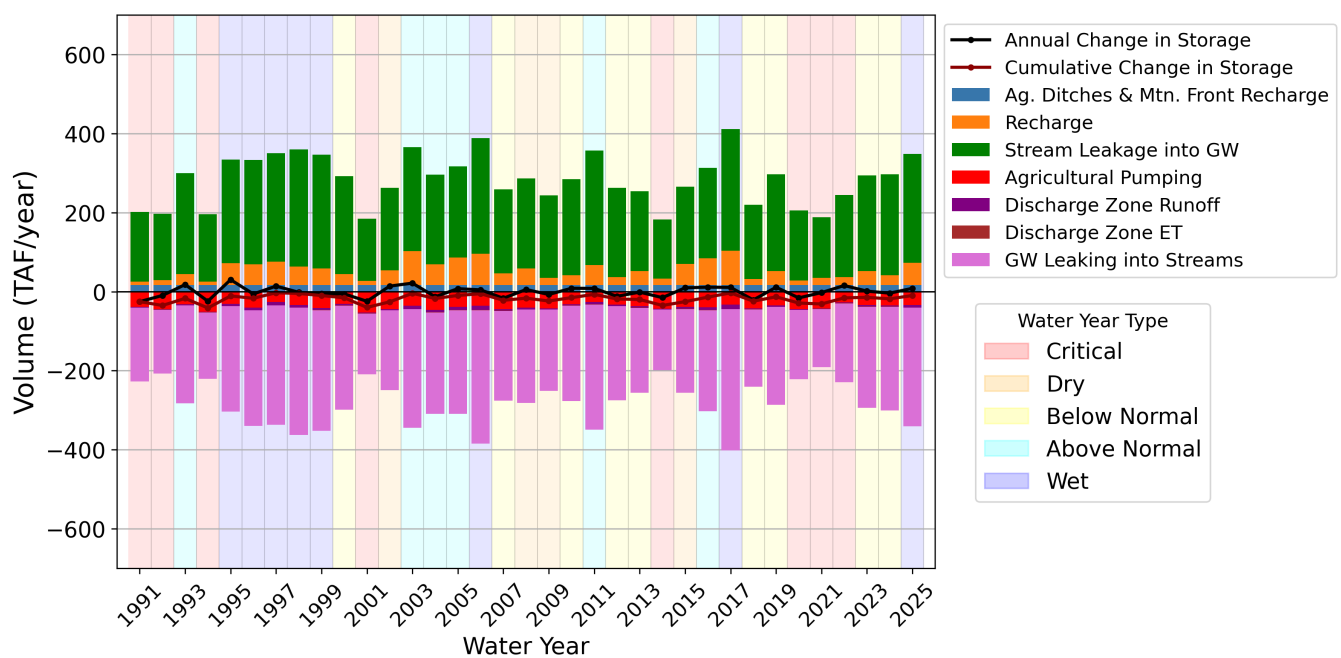


Figure 2.7: Groundwater storage change based on difference in fall groundwater contours between years as estimated by the SVIHM. 'dStorage' refers to the change in water storage such that positive dStorage refers to gains in water storage (more inflow than outflow over the time period), while negative dStorage refers to losses in water storage (less inflow than outflow over the time period).

Table 2.1: Groundwater Extraction in WY 2025 by water use sector.

Water Use Sector	Groundwater Extraction (AF)	Method	Accuracy
Urban / Domestic	1,000	Estimate	Other
Industrial	0		
Agricultural	35,375	Estimate	60-70%
Managed Wetlands	0		
Managed Recharge	0		
Native Vegetation	0		
Other	0		

Table 2.2: Total Water Use in WY 2025 by water use sector.

Category	Water Use Type/Sector	Applied Water (AF)	Method	Accuracy
WY 2025 Total	Total Water Use	64,710	Estimate	60-70%
Water Source Type	Groundwater	36,375	Estimate	60-70%
	Surface Water	28,335		
	Recycled Water	0		
	Reused Water	0		
	Other	0		
Water Use Sector	Urban / Domestic	1,000	Estimate	Other
	Industrial	0		
	Agricultural	35,375	Estimate	60-70%

Table 2.2: Total Water Use in WY 2025 by water use sector. *(continued)*

Category	Water Use Type/Sector	Applied Water (AF)	Method	Accuracy
	Managed Wetlands	0		
	Managed Recharge (1)	868		
	Native Vegetation	0		
	Other (2)	27,467	Estimate	60-70%

Note:

(1) Recorded surface water diversion from the SVID Recharge Project that benefits underground water storage.

(2) Water Use Sector - Managed Recharge diverted water from an agriculture-use canal (SVID), so the amount of applied water is considered to be within the SVIHM surface water estimate (28,335 AF SVIHM surface water - 868 AF managed recharge = 27,467 AF water use sector "other").

Chapter 3

Monitoring Network

As described in Chapter 2, the groundwater level RMP network is a subset of the full GSP monitoring network. The groundwater level RMP network is used to evaluate SMCs for individual sustainability indices for the Basin and will continue be used to demonstrate the sustainability of the Basin through 2042. The full GSP monitoring network provides further insight into Basin conditions.

The GSP monitoring network consists of wells with continuous monitoring and hand-collected measurements ran by a few programs. Continuous monitoring offers the best data coverage while periodic monitoring is generally completed either monthly as part of the Community Groundwater Measuring Program or twice a year (spring and fall) as part of the California Statewide Groundwater Elevation Monitoring Program (CASGEM). A subset of the monitoring wells are instrumented with continuous dataloggers (temperature and water level measured collected every 15 minutes) with telemetry, while the rest of the wells come from the CASGEM Program, which collect measurements bi-annually, and voluntary programs of QVIR monitoring program and Community Groundwater Measuring Program, which collect measurements monthly to quarterly.

The expansion of monitoring network has been ongoing, and the continuous monitoring network developed during the first four years of GSP development and ongoing implementation is undergoing continued maturation and data collection. An update regarding the groundwater level monitoring network is further discussed in Chapter 5 (*Progress Toward Plan Implementation*).

The water quality RMP network is similarly a subset of the GSP monitoring network and is used to evaluate water quality SMCs. With the exceptions of streamflow, land subsidence, and stream depletion due to groundwater pumping, monitoring is performed using wells.

3.1 Groundwater Level Monitoring Network

The groundwater level network consists of twenty-nine representative monitoring point (RMP) wells in the Basin in the 2022 GSP. The distribution of RMP wells is shown in [Figure 3.1](#).

Water level monitoring network status update

Monitoring at twelve wells has been discontinued since GSP adoption due to landowner requests or cessation of the monitoring efforts. This GSA is reevaluating the monitoring network, including consideration of expanding the continuous monitoring network. Details on the current status of the

RMP network are further discussed in Section *Chronic Lowering of Groundwater Levels* of Chapter 4 of this report. Updates on the RMP network will be provided in the first Five Year Assessment.

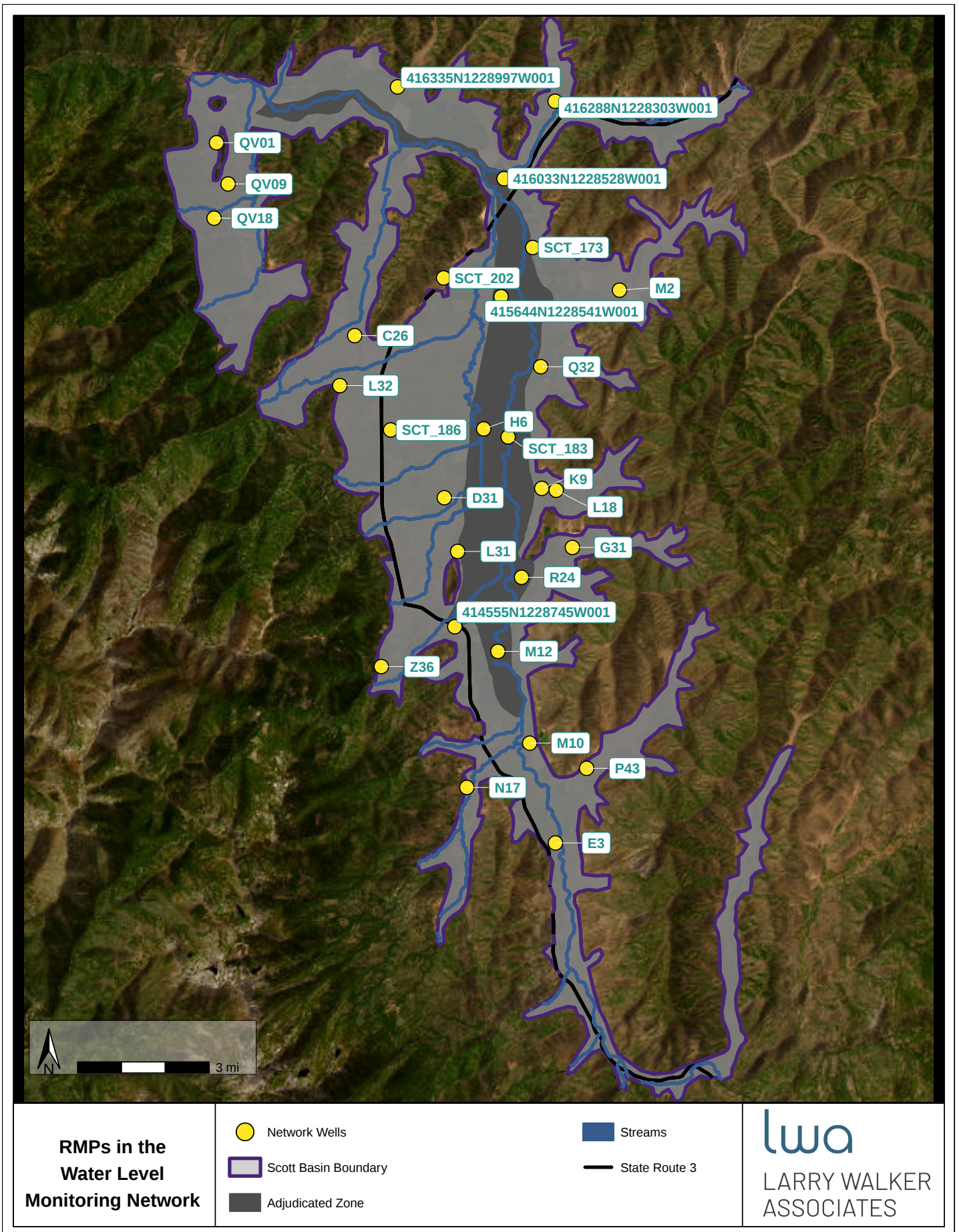


Figure 3.1: RMP Wells in the Water Level Monitoring Network.

3.2 Groundwater Quality Monitoring Network

Existing wells used for monitoring groundwater quality in the Basin include public water supply wells and monitoring wells, which are shown in [Figure 3.2](#). Initially, the groundwater quality monitoring network is based on wells that are regularly sampled as part of existing monitoring programs for the constituents for which SMCs are set: nitrate and specific conductivity. Efforts are currently underway to identify additional wells for inclusion in the water quality network.

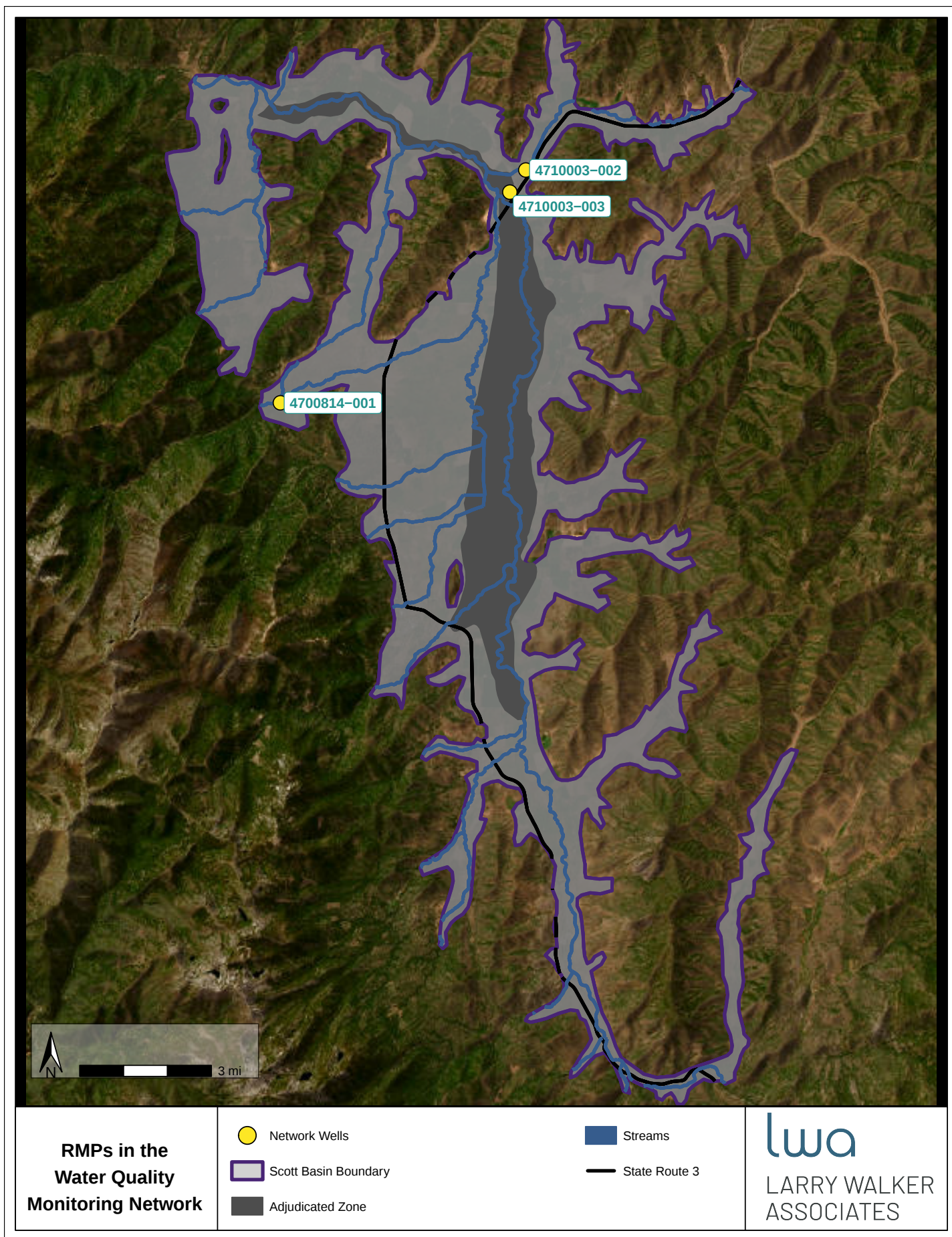


Figure 3.2: RMP wells in the Water Quality Monitoring Network.

Chapter 4

Sustainable Management Criteria

The GSP defines Sustainable Management Criteria (SMC) with respect to quantifiable impacts to beneficial users of groundwater that if exceeded, would lead to the identification of undesirable results. Here, we examine the six sustainability indicators: Groundwater levels, groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletions of interconnected surface water; we assess the status of these indicators in WY 2025 by comparing the SMCs to measured data. The SMCs include minimum and maximum thresholds, measurable objectives, and interim milestones.

4.1 Interim Milestones

Interim Milestones are anticipated to be achieved over the course of GSP implementation in increments of five years, pursuant to the CCR definition “Target values representing measurable groundwater conditions, in increments of five years, set by Agency as part of a Plan” [CCR Title 23, Division 2 §351(q)]. Progress toward achieving Interim Milestones since submitting the GSP are provided in the AR Section “Groundwater Basin Conditions”. Further updates are expected in the first Five Year Assessment for the GSP, with status checks provided in future annual reporting.

4.2 Groundwater Levels

The RMPs and associated minimum thresholds (MTs) and measurable objectives (MOs) are shown in [Table 4.1](#). The minimum MO is set as the 75th percentile of the fall measurement range - i.e., the measurement at which 25 percent of groundwater elevation measurements fall below it. The primary trigger (PT) is set at the historic low groundwater elevation measurement. The MT is set at the historic low plus a buffer. The buffer is either 10 percent of the historic low, or 10 feet, whichever is smaller. At the time of GSP submittal, because undesirable results were not occurring, the management objective of the GSA is to maintain groundwater levels above historic lows and defined MTs. Interim milestones were determined to not be needed for this sustainability indicator.

The status of WY 2025 water levels measured at RMPs in terms of fall low in comparison to their SMCs is shown in [Figure 4.1](#) and summarized in [Table 4.1](#). The fall low is the maximum depth to groundwater during the period of September 15 - October 31, 2025. If no measurement was

taken during that period, the closest available measurement was used for the comparison. On [Figure 4.1](#), Measurements are sorted into the following categories: Near or Above Measurable Objective, Within Central Operational Range, Near Minimum Threshold, or At or Below Minimum Threshold. These ranges are defined below and are based on the MO, MT, and PT.

Near or Above Measurable Objective: measurement (depth to groundwater) < MO

Within Central Operational Range: MO < measurement (depth to groundwater) < PT

Near Minimum Threshold: PT < measurement (depth to groundwater) < MT

At or Below Minimum Threshold: measurement (depth to groundwater) > MT

Of the 15 RMPs monitored in fall 2025, none were below the established MTs, one was above the PT and below the MO, and the remaining 14 were above the established MOs. Fourteen of the twenty-nine RMPs did not have fall 2025 measurements. One of these fourteen RMPs were not monitored due to access difficulties (well Q32), and the monitoring efforts in the remaining thirteen RMPs have been discontinued, with details provided in [Table 4.1](#). The RMP monitoring network is undergoing reevaluation, including consideration of incorporating additional existing continuously monitored wells into the network.

Updates on the water level monitoring network will continue to be provided in following Annual Reports.

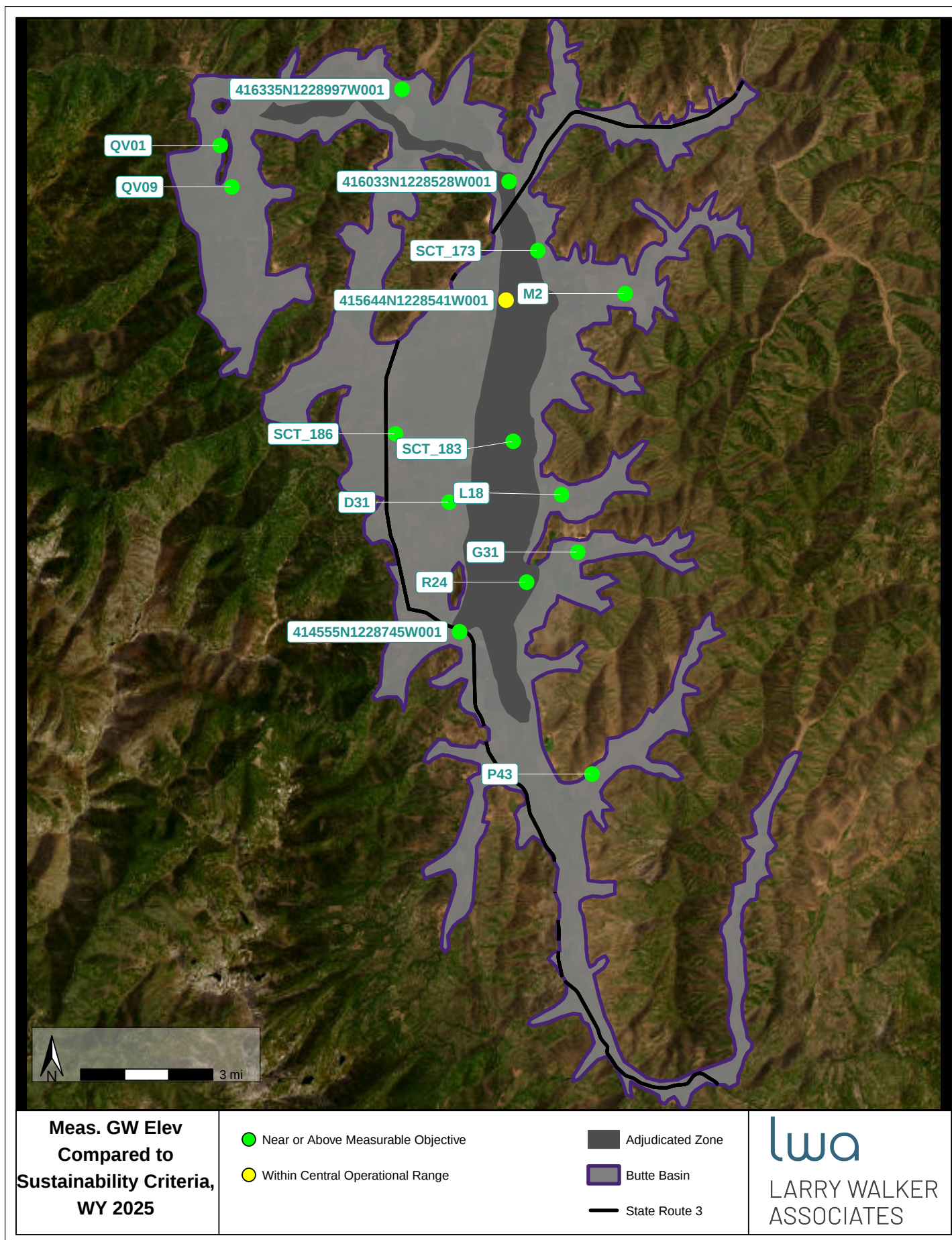


Figure 4.1: Status of the groundwater level RMP network for Fall 2025.

Table 4.1: Comparison of Fall 2025 groundwater measurements to SMC values. Measurements represent depth to groundwater and fall low is defined as the maximum depth to groundwater during the period September 15 - October 31, 2025; if no measurement was taken during that period, the closest available measurement was used.

Well Code	Well Name	SampleDate	MT (ft bgs)	PT (ft bgs)	MO (ft bgs)	2025 Fall Low (ft bgs)	Status
414555N1228745W001	42N09W27N002M	2025-09-22	25.9	23.5	18.2	15.5	Above MO
415644N1228541W001	43N09W23F001M	2025-09-22	14.5	13.2	8.5	9.7	Above PT, below MO
416033N1228528W001	43N09W02P002M	2025-09-22	29.7	27.0	20.1	17.3	Above MO
416288N1228303W001*	44N09W25R001M*	NA	24.4	22.2	17.8	NA	No measurement
416335N1228997W001	44N09W29J001M	2025-09-22	49.2	44.7	40.6	40.3	Above MO
C26*	C26*	NA	22.2	20.2	14.3	NA	No measurement
E3*	E3*	NA	11.4	10.3	7.4	NA	No measurement
H6*	H6*	NA	10.7	9.8	6.9	NA	No measurement
K9*	K9*	NA	45.3	41.2	37.1	NA	No measurement
L31*	L31*	NA	26.0	23.6	19.6	NA	No measurement
L32*	L32*	NA	68.4	62.2	48.7	NA	No measurement
M10*	M10*	NA	8.2	7.4	6.5	NA	No measurement
M12*	M12*	NA	18.7	17.0	16.6	NA	No measurement
M2	M2	2025-10-17	83.3	75.8	67.4	32.2	Above MO
N17*	N17*	NA	40.4	36.7	24.2	NA	No measurement
P43	P43	2025-10-17	21.3	19.4	14.1	8.1	Above MO
Q32(1)	Q32(1)	NA	14.4	13.1	9.7	NA	No measurement
R24	R24	2025-09-16	17.8	16.2	13.8	11.6	Above MO
SCT_173	SCT_173	2025-09-20	18.5	16.9	16.3	13.9	Above MO
SCT_186	SCT_186	2025-10-26	38.5	35.0	34.5	26.6	Above MO
QV09(2)	QV09(2)	2025-11-19	45.1	41.0	39.8	32.5	Above MO
D31	D31	2025-09-16	11.6	10.5	7.8	5.9	Above MO
G31	G31	2025-09-16	89.4	81.3	77.0	52.4	Above MO
L18	L18	2025-10-17	78.6	71.4	67.3	57.7	Above MO
Z36*	Z36*	NA	50.1	45.5	33.9	NA	No measurement
SCT_202*	SCT_202*	NA	150.0	140.0	140.0	NA	No measurement
QV18(3)	QV18(3)	NA	74.9	68.1	65.4	NA	No measurement
QV01(2)	QV01(2)	2025-11-19	17.8	16.2	14.7	11.3	Above MO

SCT_183	SCT_183	2025-09-21	20.9	19.0	18.7	13	Above MO
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Note:

(*) Monitoring has been discontinued due to landowner request or cessation of the monitoring efforts.

(1) The fall measurements were not available at Q32 and QV18 due to access difficulty.

(2) Fall measurements at QV01 and QV09 were taken in November 2025.

(3) Monitoring effort at QV18 discontinued after summer 2025 due to the drinking water wells being replaced by a new community water system on Yamitch and Kuut.

4.3 Groundwater Storage

Groundwater levels are the proxy for groundwater storage and the sustainability management criteria are identical. According to the United States Geologic Survey, estimates of groundwater storage rely on groundwater level data and sufficiently accurate knowledge of hydrogeologic properties of the aquifer. Direct measurements of groundwater levels can be used to estimate changes in groundwater storage. As groundwater levels fall or rise, the volume of groundwater storage changes accordingly. Unacceptable groundwater decline indicates unacceptable storage loss. The hydrogeologic model outlined in Chapter 2 of the GSP provides the needed hydrogeologic properties of the aquifer. As with the groundwater level sustainability indicator, there is no occurrence of undesirable results for the groundwater storage sustainability indicator in WY 2025.

4.4 Seawater Intrusion

This sustainability indicator is not applicable in this Basin.

4.5 Groundwater Quality

This section compares groundwater quality monitoring to the GSP's sustainable management criteria and provides a summary of ongoing water quality coordination activities conducted by the GSA. Groundwater quality data for the evaluation is obtained from the Groundwater Ambient Monitoring and Assessment (GAMA) Groundwater Information System.

The maximum concentration of nitrate as N and specific conductivity sampled from the groundwater quality RMP network in WY 2025 is shown in [Table 4.2](#). Data sampled for constituents without SMCs but monitored by the GSA is shown in [Table 4.3](#). The results are compared to the MT and MO for each of the 3 groundwater quality RMPs in the network. The MT for nitrate as N is 10 mg/L (the Title 22 Primary Maximum Contaminant Level, or MCL), and the MT for specific conductivity is 900 micromhos/cm (Title 22 Recommended Secondary Maximum Contaminant Level, or SMCL). The MO is achieved when more than 90% of wells monitored for water quality maintain their range of water quality measurements measured during 1990 to 2020. Interim milestones are set equivalent to the MO of each RMP well.

One RMP had water quality data for WY 2025. Well CA4710003_003_003, located at and the southwest of Fort Jones, had nitrate measurements on February 3, 2025 of 2.55 mg/L. This concentration is below the MT of 10 mg/L and below the MO ([Table 4.2](#)). The status of specific conductivity in regards to the SMCs was not evaluated in WY 2025, as the monitoring frequency for this constituent is not annual. Efforts are underway to increase the sampling frequency of specific conductivity.

To ensure that current water quality data is available for future annual reports, efforts will be made to contact the monitoring entities of the wells with missing measurements to facilitate continued data collection. If this communication is not successful, a process to plan for the continued collection of representative water quality data will be developed. Options may include planning alternate monitoring entities for the wells, or inclusion of different wells in the network.

As per the GSP, SMC are not defined for benzene; however, data is provided and evaluated to track potential mobilization, or exceedances of the primary MCL (1 µg/L) in Table 4. It is noted that the well series beginning with T0609300022 and T0609300118 are associated with two open Leaking Underground Storage Tank (LUST) clean-up sites near Etna and are expected to have high concentrations until cleanup is complete.

Table 4.2: Water quality data from WY2025 in the RMP network (Nitrate MT is 10 mg/L; Specific Conductance MT is 900 micromhos/cm).

Well ID	GSP ID	Nitrate MO (mg/L)	Nitrate WY 2025 Max Measurement (mg/L)	Nitrate Status	SC MO (micromhos/cm)	SC WY 2025 Max Measurement (micromhos/cm)	SC Status
CA4700814_001_001(1)	4700814-001	1.02	NA	No measurement	NA	NA	No measurement
CA4710003_002_002(2)	4710003-002	4.28	NA	No measurement	500	NA	No measurement
CA4710003_003_003	4710003-003	2.83	2.55	Within MO	448	NA	No measurement

Note:
 MOs with NAs indicate that the analyte has not been historically monitored at the well. Measurements equal to NA indicate that well was not monitored for the analyte in WY2025.
 (1) Well has been included in the RMP network for nitrate monitoring only; no SC monitoring has been conducted.
 (2) Well is shown as inactive on the CA Public Drinking Water Watch data webpage.

Table 4.3: Water quality data from WY2025 for benzene.

Well ID	Analyte	Date	Result	Units	MCL
T0609300022-MW-1	Benzene	2024-12-18	11	ug/L	1
T0609300022-MW-2	Benzene	2024-12-18	710	ug/L	1
T0609300022-MW-3	Benzene	2024-12-18	2.6	ug/L	1
T0609300022-MW-5	Benzene	2024-12-18	690	ug/L	1
T0609300022-MW-6	Benzene	2024-12-18	<0.083	ug/L	1
T0609300022-MW-7	Benzene	2024-12-18	<0.083	ug/L	1
T0609300022-MW-8	Benzene	2024-12-18	13	ug/L	1
T0609300118-MW-5S	Benzene	2024-12-17	<0.083	ug/L	1
T0609300118-MW-6S	Benzene	2024-12-17	7.2	ug/L	1
T0609300118-MW-7S	Benzene	2024-12-17	<0.083	ug/L	1
T0609300118-MW-9S	Benzene	2024-12-17	<0.083	ug/L	1

4.6 Land Subsidence

To monitor subsidence, the Basin relies on data provided by DWR based on Interferometric Synthetic Aperture Radar (InSAR), a satellite-based remote sensing technique that measures vertical ground surface displacement changes at high degrees of measurement resolution and spatial detail. This data is made available through the DWR SGMA Data Viewer¹ and shows overall subsidence less than 0.1 feet for the entire Basin during the water year 2025² (Figure 4.2). This avoids the occurrence of undesirable results as defined by the GSP.

¹<https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#currentconditions>

²Measurements are within the range of -0.06 feet to 0.02 feet.

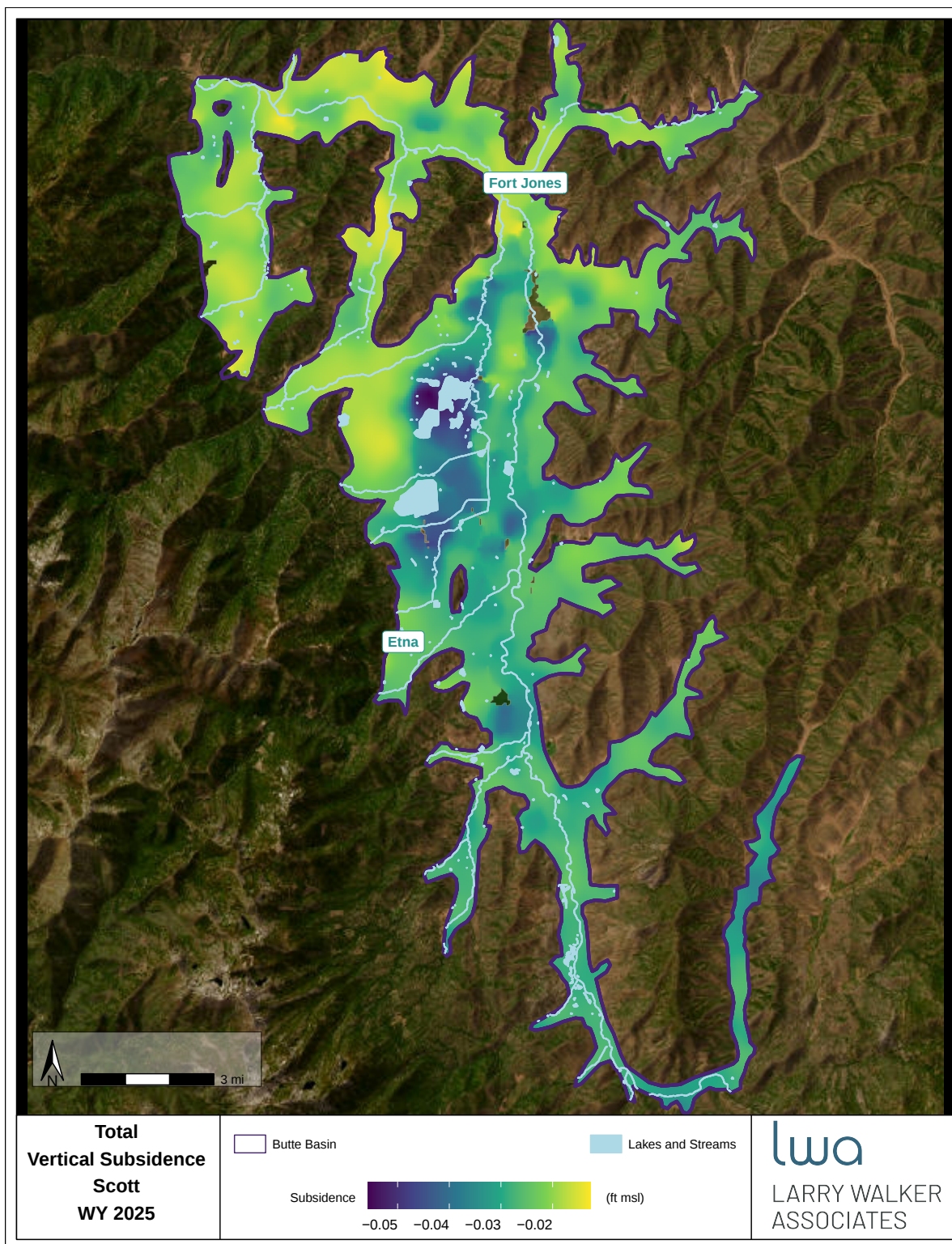


Figure 4.2: InSAR satellite measured total vertical subsidence (feet) in WY 2025. Note that the processed InSAR instrument and GIS conversion error is roughly +/-0.1 feet (<https://gis.water.ca.gov/arcgisimg/rest/services/SAR>).

4.7 Interconnected Surface Water

Interconnected surface waters in the Basin are not determined for WY 2025. The updated method using the SVIHM will be ready following additional model calibration and updates as part of the five-year evaluation. In future water years the SVIHM will be used to determine the location, timing and rate of interconnected surface waters in the Basin. However, at the time of GSP submittal, it was determined that the basin conditions are below the MT and that the basin is experiencing undesirable results. These conditions likely continue in WY 2025.

The MT is defined as an average 15% stream depletion reversal caused by groundwater pumping from outside the adjudicated zone in 2042 and thereafter. The next interim milestone will be fulfilled by 2027, where PMAs have been implemented so that the yield average relative stream depletion reversal is at least 5%. The Scott Valley Irrigation District's groundwater recharge project is one of the PMAs that was implemented in WY 2023 to contribute to the 15% stream depletion reversal. This project is discussed under section 5.1.2 (*SVID Recharge Project*).

Chapter 5

Progress Toward Implementing the Plan

This section provides updates on progress towards implementing the GSP, including implementation of projects and management actions since adoption of the GSP and the most recent annual report. This section also describes projects and management actions that the GSA is coordinating with other agencies, as well as regulatory issues that impact groundwater management or water resources in the Basin. The project and management actions that are described in the GSP are summarized in [Table 5.1](#), which provides the status of the project as of WY 2025, the project's management category (i.e., demand management), and targeted sustainability indicator.

The GSA continued activities (e.g. RMP data collection) necessary to implement the GSP and put the Basin on a path toward sustainable management and has made progress towards implementation of the project and management actions outlined in the GSP.

5.1 Implementation of Projects and Management Actions

5.1.1 Progress Made on Addressing Recommended Corrective Actions in the Department's GSP Determination

On April 27, 2023, DWR send a letter to the GSA, approving the Scott Valley GSP, with five recommended corrective actions. Below is the progress on implementing those actions:

RECOMMENDED CORRECTIVE ACTION 1 - Provide a current water budget as required by the GSP regulations.

Corrective Action 1 Progress: The current water budget is provided in the current report in [Figure 2.7](#), generated by SVIHM. The next GSP Periodic Evaluation will have the latest water budget after completed model calibration and updates.

RECOMMENDED CORRECTIVE ACTION 2 - Provide a description of the relationship between established minimum thresholds for the chronic lowering of groundwater levels and how they avoid undesirable results for each of the other sustainability indicators.

Corrective Action 2 Progress: The current minimum thresholds are based on the lowest historical groundwater level measurements, with a buffer that is either 10% of the historic maximum depth to water measurement, or 10 feet, whichever is smaller. This gives a buffer for operational flexibility

under natural causes such as climate change while the GSA works toward groundwater sustainability. The GSP provided a well failure analysis, discussing the impact of the minimum thresholds on the groundwater basin. During GSP implementation, the GSA has completed a well inventory and updated the well risk assessment to address this corrective action. Results will be presented in the 2027 Periodic Evaluation.

RECOMMENDED CORRECTIVE ACTION 3 – Water Quality.

Corrective Action 3 Progress: The GSA is working with local agencies to expand the water quality network, which currently relies on public supply wells. The GSA has initiated the necessary work to address this corrective action in the GSP Periodic Evaluation, and the requested changes to the definition of undesirable results and minimum thresholds for water quality will be considered during the five-year update.

RECOMMENDED CORRECTIVE ACTION 4 – Stream Depletion.

Corrective Action 4 Progress: SVIHM is in the process of being updated so interconnected surface water and stream completion can be determined for future water years. See Section 3 for additional work by the GSA regarding interconnected surface water. The GSA has initiated work to address this corrective action in the GSP Periodic Evaluation.

RECOMMENDED CORRECTIVE ACTION 5 - The GSA should provide identification of the physical monitoring that will be used to support the SVIHM's estimates of depletions of surface water for the interconnected surface water monitoring network.

Corrective Action 5 Progress: Section 5 lists PMAs that expand physical monitoring for depletions of surface water, including stream gages and geochemical sampling. The GSA has initiated the necessary work to address this corrective action in the GSP Periodic Evaluation.

5.1.2 Project Activities in WY 2025

The GSA continued activities (e.g. RMP data collection) necessary to implement the GSP and put the Basin on a path toward sustainable management. Quarterly Advisory Committee meetings continued in WY 2025 to track progress, provide updates on Basin conditions and discuss ongoing implementation actions including a well inventory, groundwater recharge projects, and upland management.

The progress of specific PMAs is described below:

Irrigation Efficiency Improvements - In spring and summer of 2025, seven soil moisture and evapotranspiration stations were installed, along with one Eddy Covariance station. The stations were installed to better understand agricultural water consumption and the efficiency of irrigation systems. The study will take place over three crop seasons and will (1) collect data on actual crop water use (ET), soil moisture, and irrigation practices to improve the accuracy of hydrologic models and provide better information on water consumption; and (2) advise farmers on how to improve irrigation efficiency, thereby reducing water and energy consumption. A preliminary report, and a stakeholder engagement meeting will be held in Spring 2026. The Farm Bureau and the GSA are collaborating on this effort.

SVID Recharge Project - Scott Valley Irrigation District received State Water Resource Control Board's Temporary Permit 21465 on October 22, 2024. The SVID recharge project diverts water during high flows from Scott River into the SVID ditch for recharge via ditch infiltration and flood

irrigation of lands within SVID. The beneficial use of this water is ultimately to enhance instream flow contributions through augmentation of groundwater during periods of high flow, increasing the amount of water that is then available to return to the river in drier months. Diversion and conveyance of river water to the targeted fields is through the existing SVID infrastructure.

Diversions for recharge commenced February 6 and ended on March 31, 2025, with a hold on recharge activities due to closure of the Scott Valley Irrigation Ditch (SVID) for maintenance from March 13 through March 25. A total of 868 AF was diverted for recharge. Currently, modeling scenarios using SVIHM are being run to evaluate instream flow benefits based on actual 2024 implementation. In 2025, a 5-year temporary permit was also secured for this project, enabling longer-term implementation.

Well Drilling Permits - The GSA continued to work with the Siskiyou County Environmental Health Department's well permitting staff to support well permitting.

Data Gaps and Data Collection – There was continued progress in 2025 to fill data gaps and increase data collection. Steps were taken to reduce data gaps in the Basin including continued collection of continuous groundwater level and surface water data, as well as geochemical data.

Additionally, data collected and used to support GSP efforts was largely made accessible through the Data Management System (DMS)¹. The DMS provides access to well location and construction details, historical water level data, telemetered water level data (collected by the GSA and DWR), and lithology data.

Well Inventory Program - During WY 2025 the GSA continued to make progress on the well inventory for Scott Valley. The GSA conducted a well inventory which compiled and improved well location data from the state's OSWCR database by cross-referencing Well Completion Reports with parcel data, addresses, and aerial imagery to correct wells placed at inaccurate PLSS section centroids. To identify wells missing from public records, parcels with 911 addresses outside public water systems were reviewed via satellite imagery to assess the likelihood of domestic well presence. The effort produced an enhanced geospatial database with improved location accuracy and identified data gaps, establishing a foundation for better groundwater modeling and future assessments of well vulnerability.

During water year 2025, the GSA began developing an updated well outage analysis to assess wells within the basin that are at risk of outage due to declining groundwater levels and to provide a basis for evaluating the potential need for mitigation measures during the GSP implementation. This update refines the well risk assessment conducted in the GSP by using an improved dataset of well locations from the well inventory and enhanced assessment methods. This includes updated spatial interpolation and other methodological refinements to better characterize groundwater levels and the potential impact on wells across the basin for the years and basin conditions evaluated.

GDE analysis - The revised Groundwater Dependent Ecosystem (GDE) analysis builds on the foundational GDE identification efforts completed for the Scott Valley GSP, incorporating improved statewide datasets, refined groundwater depth representations, and additional analytical tools developed since adoption of the original GSPs. Potential vegetation and wetland GDEs were identified using the California Department of Water Resources' Natural Communities Commonly Associated with Groundwater Version 2 (NCCAG v2) dataset, which provides updated and regionally improved mapping of vegetation alliances and wetland types commonly associated with groundwater. Riparian GDEs were delineated separately using a screening-level buffer extending 100 feet from mapped blue-line stream centerlines, representing areas likely influenced by shallow groundwater,

¹<https://siskiyou-sigma.gladata.com/#>

hyporheic exchange, or near-channel alluvial aquifers. Where NCCAG-mapped vegetation or wetlands overlapped the riparian buffer, those areas were classified as riparian GDEs consistent with a hierarchical framework that prioritizes hydrologically connected stream-adjacent systems. Representative root zone depths were assigned to each NCCAG v2 vegetation and wetland mapped potential GDE based on available literature and dataset attributes, recognizing inherent variability while providing a consistent basis for screening-level evaluation of groundwater connectivity.

Seasonal depth-to-groundwater surfaces were developed in a parallel modeling effort and integrated with the GDE spatial datasets using batched geoprocessing and zonal statistics. For each potential GDE polygon, depth to groundwater was compared to assumed root zone depth for multiple seasonal conditions. Where groundwater depth was shallower than the representative root zone, the feature was assumed to be hydraulically connected for that season. The frequency of seasonal connectivity was then summarized and used to classify potential GDEs into tiers of likelihood, ranging from “Very Likely GDE” (connected in $\geq 75\%$ of evaluated seasons) to “Very Unlikely GDE” (connected in $< 25\%$ of seasons). In addition, a multispectral Normalized Difference Vegetation Index (NDVI) analysis was conducted using Copernicus 10-meter imagery from late spring and late summer for water years 2020 through 2024 to identify areas exhibiting persistent greenness after seasonal soil moisture depletion. Urban and agricultural lands were removed prior to analysis, and areas already mapped as riparian or NCCAG v2 vegetation or wetland GDEs were excluded. The NDVI screening identified additional areas where vegetation greenness remained relatively stable between spring and late summer, suggesting potential access to groundwater. These areas are considered supplemental, unverified potential GDEs and are intended to inform future field investigations, vegetation characterization, and refinement of root zone assumptions rather than serve as definitive GDE designations.

Scott Valley Integrated Hydrologic Model (SVIHM) Model Update – The SVIHM Model has been updated in preparation for final calibration. The streamflow and recharge components of the Scott Valley Precipitation Runoff Modeling System (PRMS) model were also updated and extended through water year 2025.

Upland Management – In WY 2025, existing spatial datasets of prescribed burns, wildfires, and past upland management projects were acquired to assess their impacts on water resources. During water year 2025 existing data (including the efforts to evaluate the impact of mountain meadows on water resources) were evaluated to assess how management activities were correlated with existing data on streamflow, groundwater levels, precipitation, and snowfall. A report discussing the scenarios, analysis, and conclusions will be included in the 2027 Periodic Evaluation.

Voluntary Managed Land Repurposing - As part of a grant-funded project from the California Department of Fish and Wildlife, the Siskiyou County Farm Bureau worked with landowners to fallow fields in both Scott and Shasta Valleys. In Scott Valley, a total of 781.4 acres were fallowed in 2024, and a total of 3,038.6 acres were fallowed in 2025

Public Outreach - The GSA has continued public outreach by visiting local well owners who report concerns about groundwater levels in their wells and also worked to develop opportunities to improve monitoring and data collection to aid the GSA in characterizing and improving groundwater reliability. Quarterly Advisory Committee meetings, open to the public, were also conducted.

5.2 Activities Anticipated for the Coming Year

The GSA intends to continue activities necessary to implement the GSP and put the Basin on a path toward sustainable management. This section provides an overview of implementation activities anticipated over WY 2026.

Data Gaps and Data Collection - In WY2026, the GSA will focus on closing data gaps ahead of the 5-year GSP Periodic Evaluation, with specific focus on streamflow, groundwater level monitoring networks, and water quality. Additional monitoring data, including groundwater level, surface water monitoring, or rain stations may be added to support quantification of project benefits, as necessary. The DMS will continue to be refined as new stations are added.

Identification of Interconnected Surface Water - To compare groundwater elevation data to SVIHM output and identify interconnected surface waters in the Scott Valley, groundwater elevations from both seasonally measured and telemetered stations were compared to nearby streambed ground surface elevations extracted from 1 meter resolution LiDAR raster data. Due to uncertainties in LiDAR measurements and potential capillary effects below streambeds, groundwater elevation measurements were binned at a relatively wide 10-foot increment. This provided three categories, disconnected (greater than 10 feet below streambed), likely connected (between 10 feet below and 10 feet above streambed), and connected (10 feet above streambed). These classification systems will reveal whether the main stem of the Scott River and its tributaries are connected or likely connected year-round.

Further comparison between SVIHM output will involve estimating the magnitude and timing of ISW depletions by groundwater pumping using analytical stream depletion functions. Analytical stream depletion functions, as detailed in ([Zipper et al. 2019](#)) are a powerful tool to quickly quantify depletions by using simplifying assumptions of aquifer properties and stream geometries. Combining these equations with a suite of apportionment equations and influence radius estimates allows for the exploration of over 75 scenarios of ISW depletions in the Scott Valley, with many combinations of equations flagged by ([Zipper et al. 2019](#)) as agreeing well with the numerical estimates of software such as MODFLOW elsewhere in California.

Well Inventory Program – The updated well outage analysis discussed in the previous section of WY 2025 activities is expected to be completed during water year 2026.

Well Permitting – The GSA will continue to work with the County to evaluate the impact of potential new wells on surface and groundwater.

Upland Management – In WY2026, a final report on findings from evaluation of existing data sets will be developed and will identify potential of different management actions in the upland areas of the basin to impact water resources. Data from existing spatial datasets of prescribed burns, wildfires, and past upland management projects will continue to be evaluated to assess their effects on water resources. Streamflow data, and other hydrologic data including precipitation and snowfall, will be used during the evaluation.

Scott Valley Integrated Hydrologic Model (SVIHM) Model Update – The calibration of SVIHM will continue and be completed within WY 2026, with a final model available for scenarios.

Public Outreach – The GSA will continue public outreach by working with the public to develop opportunities to improve monitoring and data collection. Quarterly Advisory Committee Meetings, open to the public, will also be conducted.

Regulatory Coordination - The GSA continues to track the SWRCB's AB263, permanent flow setting process, and the resulting impacts on water use, the ability to achieve interim milestones for sustainable management criteria, and any changes to project and management actions. So far, in WY2025, the GSA has been engaged in the SWRCB's permanent flow setting process, which had an adopted resolution following the October 16, 2024, Board Meeting on Flow Efforts in the Scott River and Shasta River. On January 3, 2025, a Notice of Proposed Rulemaking for Minimum Flows in the Scott River and Shasta River Watersheds was released. A meeting on proposed emergency regulations was held on January 7, 2025, and an emergency action re-adopting regulations concerning Scott and Shasta River Watershed drought requirements was put into effect on January 27, 2025. The GSA anticipates continue to track and engage with the permanent flow setting process through public comments, coordination on relevant GSP implementation efforts, and sharing data collected through the GSA's monitoring networks.

Other notable regulatory items in the coming water year include the North Coast Regional Water Quality Control Board's (NCRWQCB's) Proposed Order No. R1-2025-0011 to Renew Order No. R1-2018-0018 and Order No. R1-2018-0019, Scott and Shasta River TMDL Conditional Waiver of Waste Discharge Requirements. Order No. R1-2012-0084, Order No. R1-2018-0018, Order No. R1-2023-0005, and Proposed Order No. R1-2025-0011 are all revisions and/or extensions of the requirements of Order No. R1-2006-0081, adopted on August 9, 2006 (Conditional Waiver). This extension allows time to develop Waste Discharge Requirements (WDRs) for ranchers in the Scott and Shasta River Watersheds. The GSA anticipates continuing to track and engage with this process to coordinate efforts and minimize overlap between the WDR and GSP implementation.

5.3 Coordination

State Water Resources Control Board – GSA staff meets biweekly with SWRCB staff to discuss updates and activities related to SWRCB's Emergency Regulation Curtailments. The two parties discuss updates to curtailment actions in place, including Local Cooperative Extensions (LCS) and activities that may have impacts on groundwater management.

Karuk Tribe – During water year 2023 the GSA worked to finalize the Memorandum of Understanding (MOU) with the Karuk Tribe regarding coordinating on aspects of the GSP implementation in the Scott and Shasta basins, and the Final MOU was signed on May 3, 2023. Staff-to-staff meetings between the GSA and the Karuk Tribe were continued in WY 2025, with one meeting taking place in August of 2025. The purpose of these meetings are to coordinate plans related to implementing the GSP, implementing the SGM Grants and further identifying opportunities for coordination at a staff-to-staff level. The Shasta groundwater committee has a Karuk staff member as a representative. GSA staff continually works with DWR provided facilitation support services staff to engage with the Karuk Tribe to discuss pertinent updates regarding GSP implementation and project development.

Regulatory Coordination: Instream Flow Requirements - In May 2023, a petition for rulemaking was submitted to the State Water Board by the Karuk Tribe of California, Environmental Law Foundation, Pacific Coast Federation of Fishermen's Associations, and Institute for Fisheries Resources. This petition requested permanent regulation establishing minimum flows in the Scott River. A subsequent hearing on August 15, 2023 resulted in a decision to move forward with an emergency regulation and investigate the scientific work required to establish long-term flow requirements in both Scott and Shasta River Watersheds. The State Water Board adopted a new emergency

regulation for the Scott and Shasta River Watersheds on December 19, 2023 and the Office of Administrative Law approved the emergency regulation on February 1, 2024. This regulation is in effect for one year, unless re-adopted or rescinded. ².

Table 5.1: Project and Management Actions Summary.

Project Title	Status	Category	Project Description
Well Drilling Permits	Ongoing	Demand Management	Siskiyou County Well Drilling Permits (Standards for Wells, Title 5, Chapter 8 of Siskiyou County Code of Ordinances). Location limitations for new wells with respect to the interconnected zone (per Scott River Adjudication Decree No. 30662).
Scott River Groundwater Monitoring	Ongoing	Supply augmentation, recharge	This project will provide monitoring services related to groundwater enhancement and recharge projects. During the 2020 drought, the SRCD will be involved with groundwater transactions in Reach 9 of the Scott River (between Highway 3 and the National Forest Land). This includes daily monitoring of the groundwater response to restrictions in irrigation in both Scott River and in adjacent fields through temporary wells and established wells.
Avoiding Significant Increase of Total Net Groundwater Use from the Basin	Ongoing	Demand Management	Avoid significant future increase of total net groundwater use within the Basin through planning and coordination with land use zoning and well permitting agencies
High Mountain Lakes	Planning Phase	Supply Augmentation	Use of dams at the outlets of high-altitude lakes in Scott Valley to increase streamflow. A feasibility study is planned and is funded through US Fish and Wildlife Service.
Irrigation Efficiency Improvements	Ongoing	Demand Management	Increase irrigation efficiency (and in some cases, yields) through infrastructure or equipment improvements. Consider funding incentives through the NRCS EQIP program.

²https://www.waterboards.ca.gov/drought/scott_shasta_rivers/

Table 5.1: Project and Management Actions Summary. *(continued)*

Project Title	Status	Category	Project Description
Stockwater diversion and delivery system Improvements	Conceptual Phase	Demand management	Assessment and implementation of options related to stockwater diversion and delivery to increase efficiency.
Scott Valley Irrigation District Groundwater Recharge Project	Ongoing	Recharge	Evaluate use of groundwater recharge as to augment Scott River flows during critical periods (i.e., late summer and fall). Renamed to reflect project, not funding source. Recharge was implemented in 2025 and a full description of activities in 2025 and associated benefits can be found in the Diversion Report.
MAR & ILR	Conceptual Phase	Recharge	Managed aquifer recharge and - during the irrigation season - in lieu recharge on irrigated agricultural land to increase baseflow during the critical summer and fall low flow period.
Voluntary Managed Land Repurposing	Ongoing	Demand Management	Reduce water use through voluntary managed land repurposing activities including term contracts, crop rotation, irrigated margin reduction, conservation easements, and other uses
Well Inventory Program	Ongoing	Demand Management	Development of an inventory and definition of active wells in the Basin.
Scott River Basin Stream Flow Monitoring	No Update	Monitoring	Reinstate historic stream flow monitoring activated throughout the watershed to improve knowledge of stream flow response in relation to existing and modified conditions. The SRCD will reinstall instream monitoring devices and monitoring wells to measure water levels, temperature, and water quality across all tributaries to the Scott River. This network will assess surface water contributions to groundwater and will augment and inform the SVIHM (as laid out in Chapter 3, Section 3.3, lines 238-246). This network will also be used to inform agencies involved with protecting and conserving GDEs in the system.

Table 5.1: Project and Management Actions Summary. *(continued)*

Project Title	Status	Category	Project Description
Alternative, lower ET crops	No Update	Demand Management	Pilot programs on introducing alternative crops with lower ET but sufficient economic value. Incentivize and provide extension on long-term shift to lower ET crops.
Strategic Groundwater Pumping Restriction	Conceptual Phase	Demand Management	Strategic timing of groundwater pumping restrictions. This management action would only be developed if Tier I and Tier II PMAs are insufficient. It would be an alternative tool for the GSA in support of the groundwater level SMC.

Appendix A - Groundwater Level Hydrographs

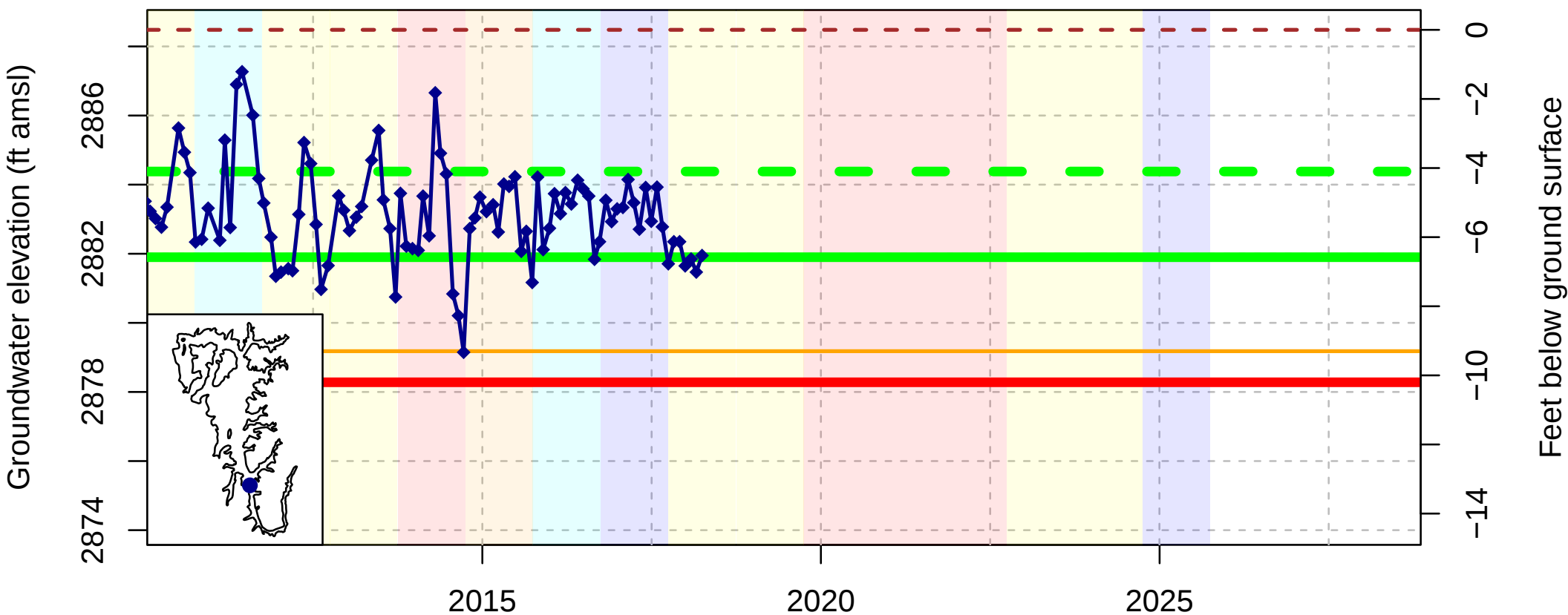
The hydrographs used to set the minimum thresholds (MT) and measurable objectives (MO) for each representative monitoring point are shown in the following figures (Appendix A.1). Data points used to calculate the MTs and MOs are marked with a red dot. The groundwater level data used in the regression to calculate minimum thresholds have gone through a quality assurance and quality control (QAQC) process that removes data from the analysis for the following reasons:

- Oil or other foreign substances were floating at the groundwater surface inside the well and the data had high uncertainty as a result.
- The well was pumped recently.
- During the minimum threshold process and generation of a regression equation, a data point was deemed an outlier, which may result from the interference of drawdown from nearby wells.

Appendix A.2 shows general hydrographs for the larger GSP monitoring network, including wells for which SMCs were not defined. Water Year Types from WY 2019–2025 have been updated in hydrographs below. Note that these are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

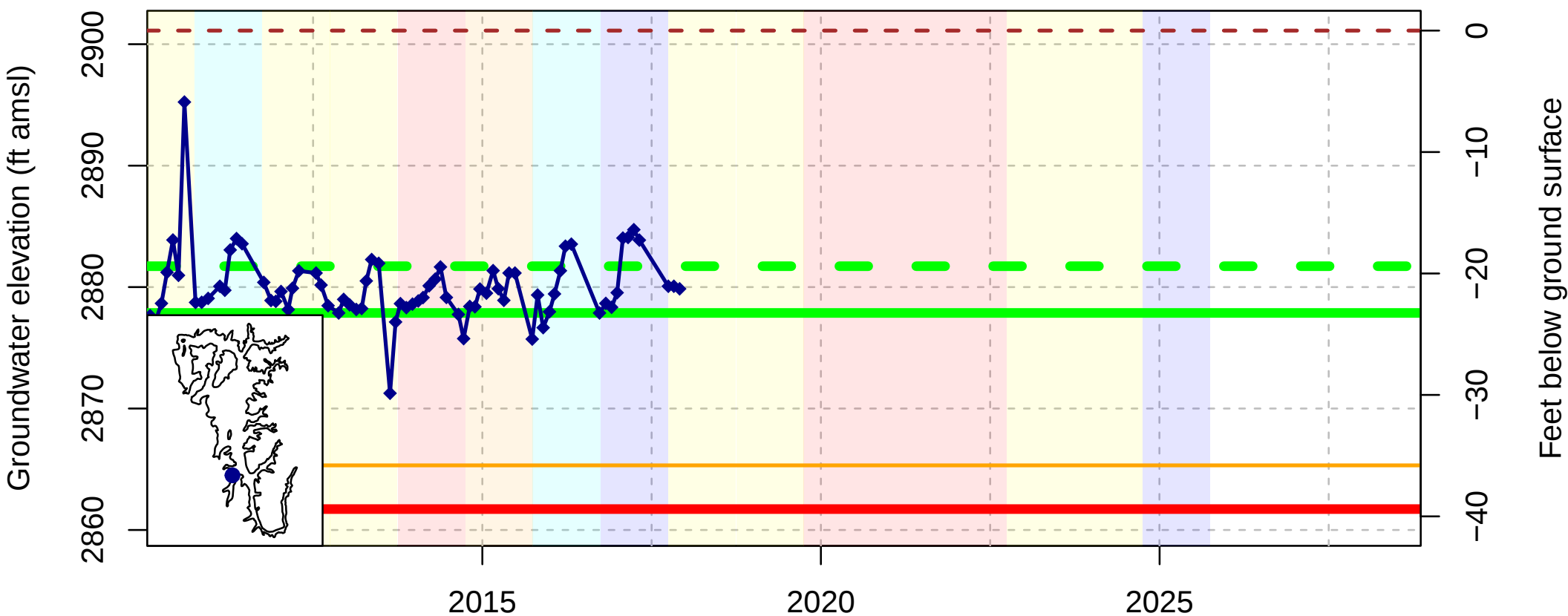
Appendix A.1 - Groundwater Elevation Hydrographs for the RMP Network.

DWR Stn_ID: ; well_code: E3; well_name: E3; well_swn:



Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: N17; well_name: N17; well_swn:



◆ Groundwater Obs.

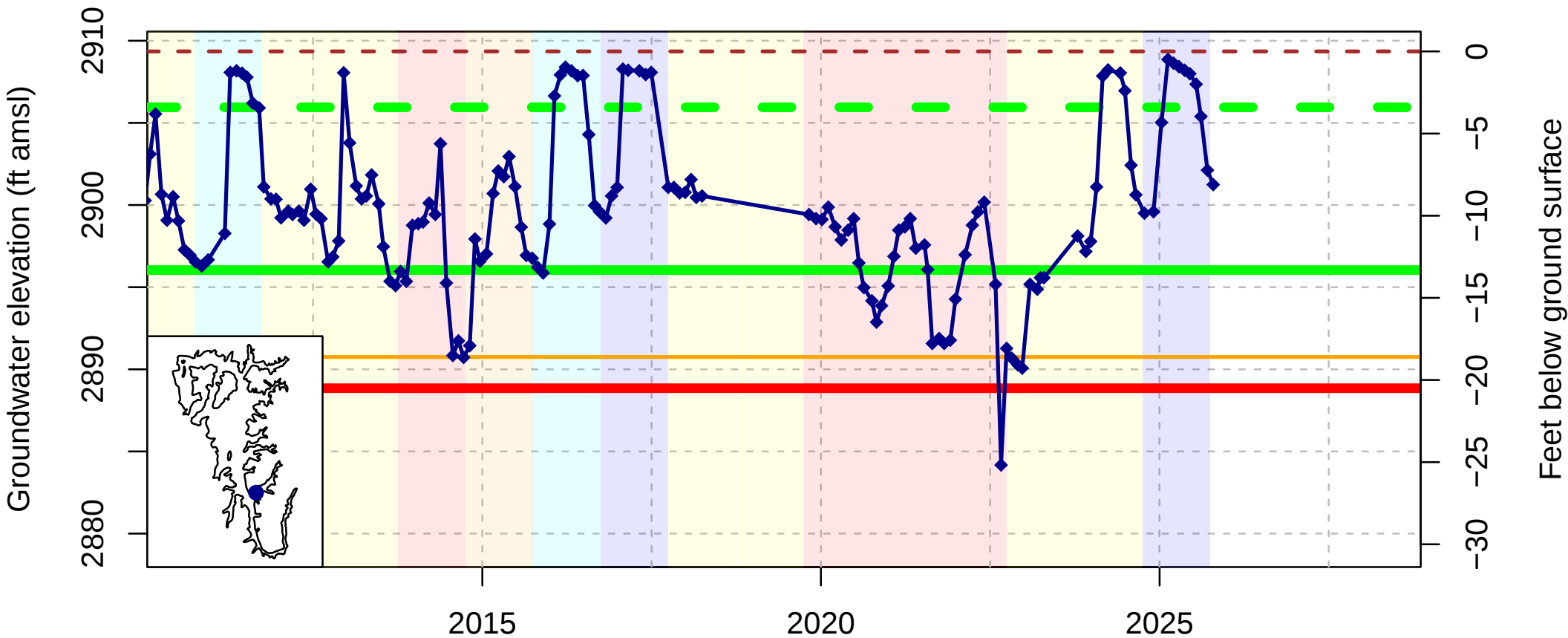
- Ground Surface (2901 ft amsl)
- Measurable Objective (Upper Fall High) (19 ft bgs)
- Measurable Objective (Lower 75th Quantile) (23 ft bgs)
- Trigger (Fall Low) (36 ft bgs)
- Minimum Threshold (Exceptional Fall Low) (39 ft bgs)

Water Year Type

- Critical
- Dry
- Below Normal
- Above Normal
- Wet

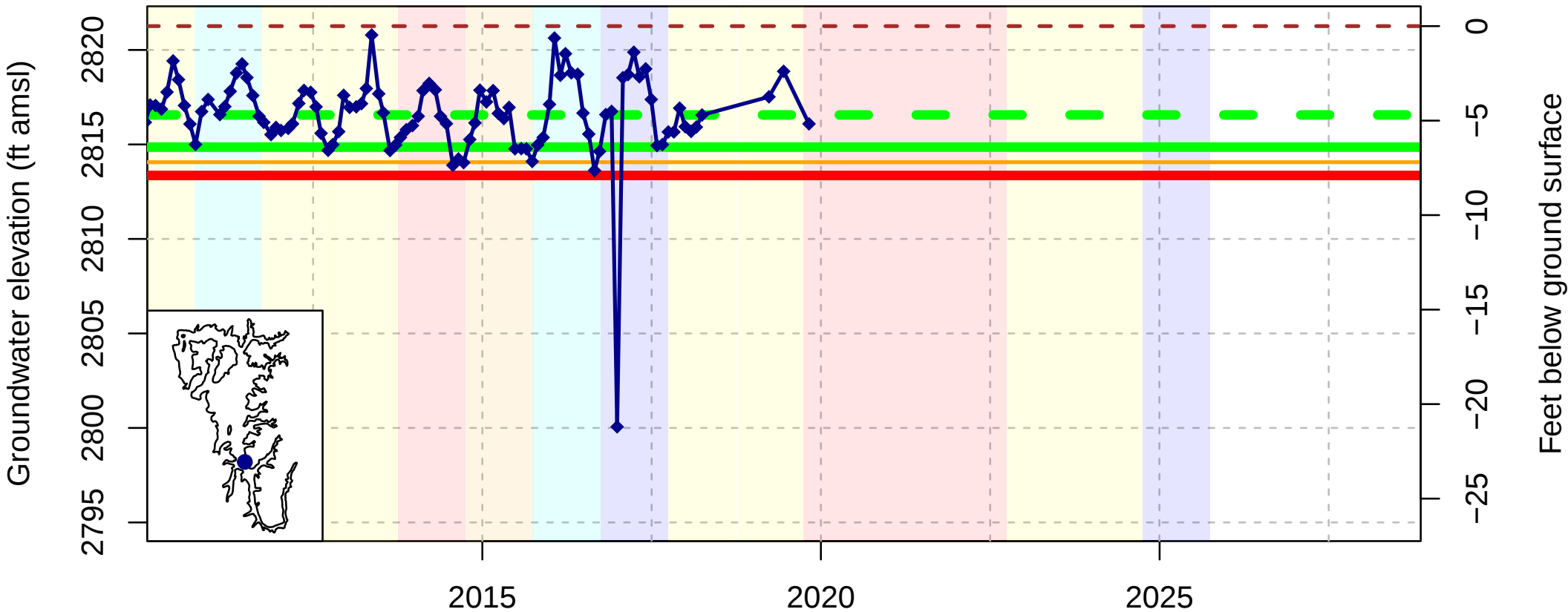
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: P43; well_name: P43; well_swn:



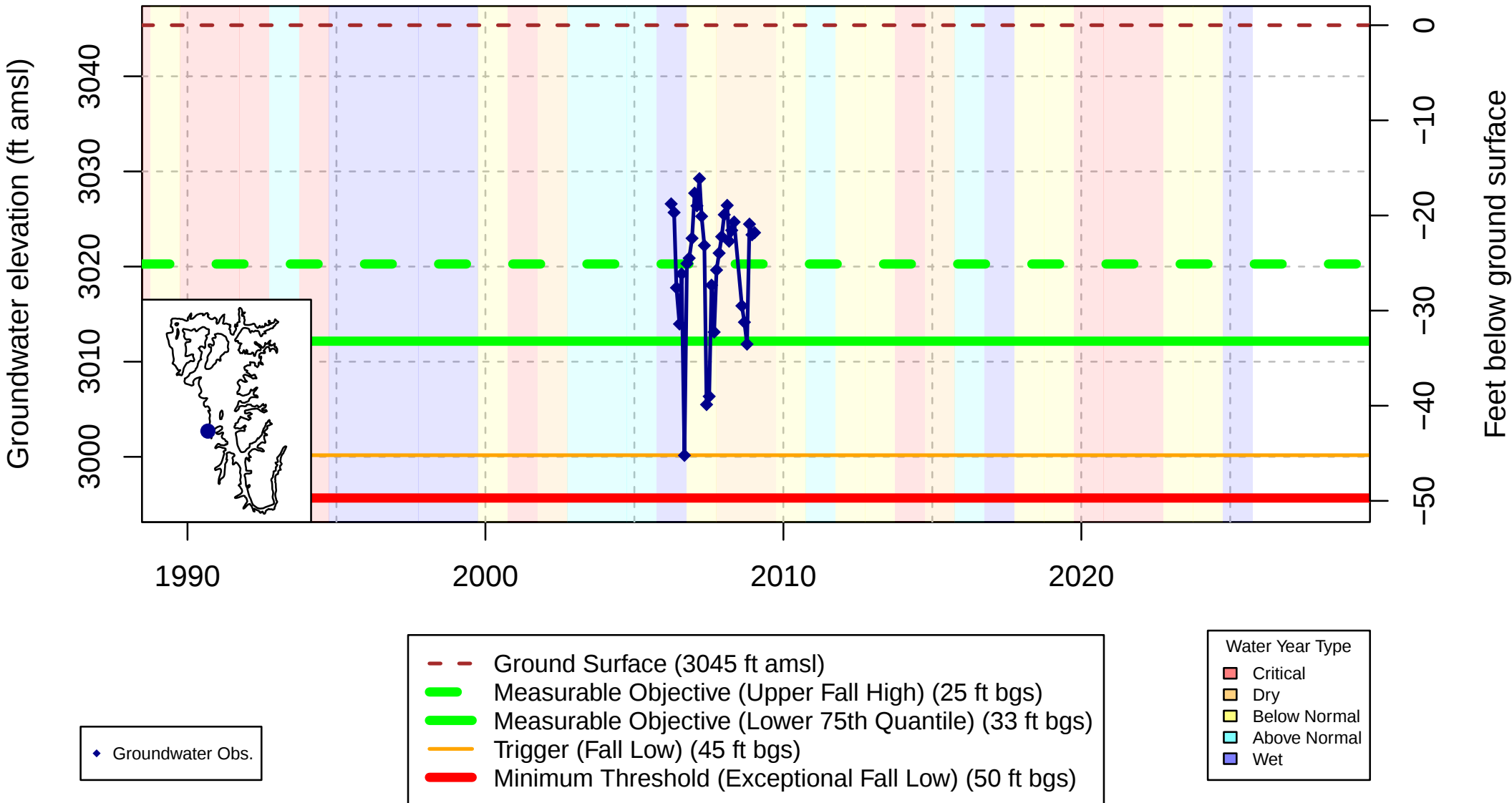
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: M10; well_name: M10; well_swn:



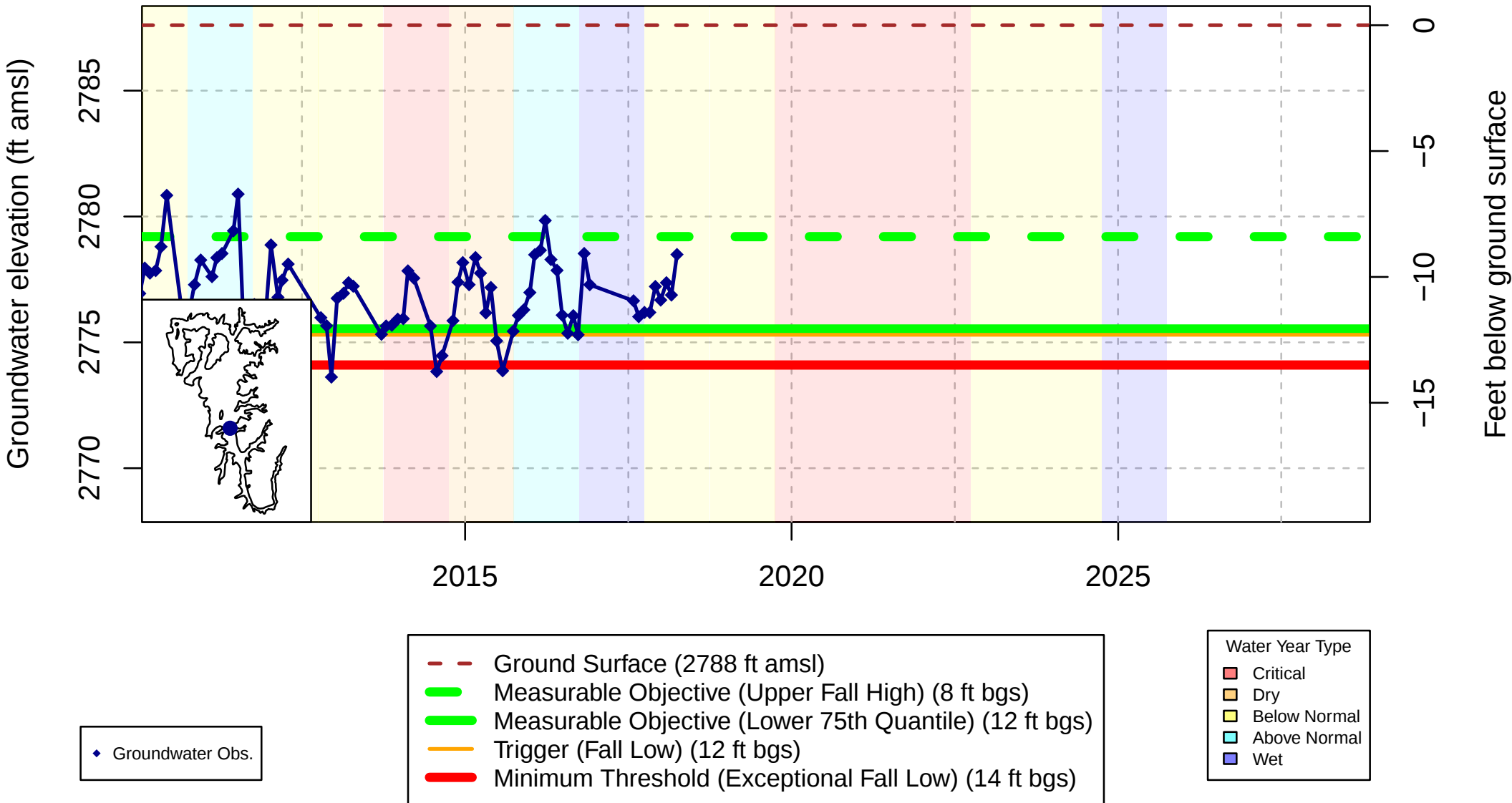
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: Z36; well_name: Z36; well_swn:



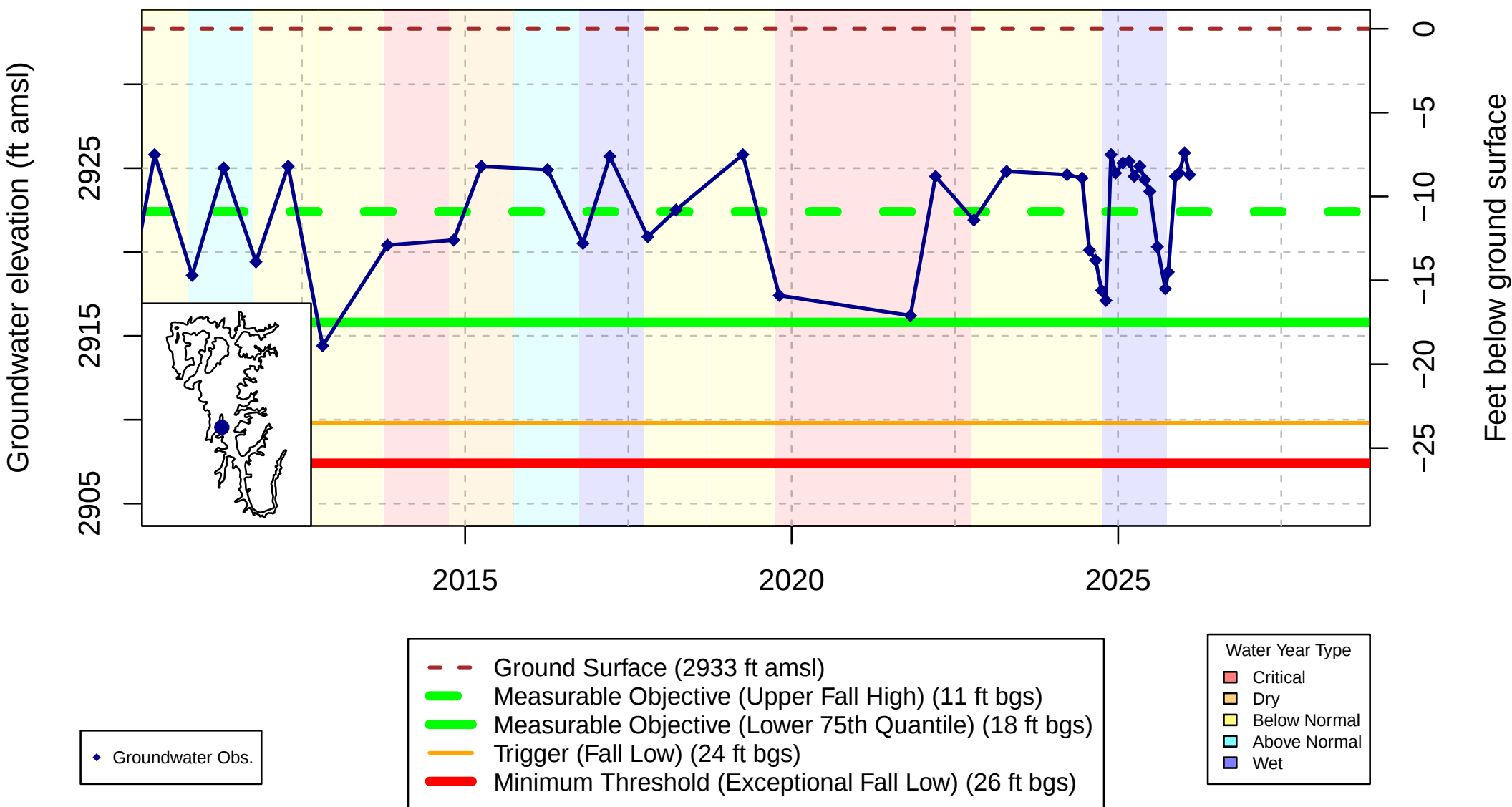
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: M12; well_name: M12; well_swn:



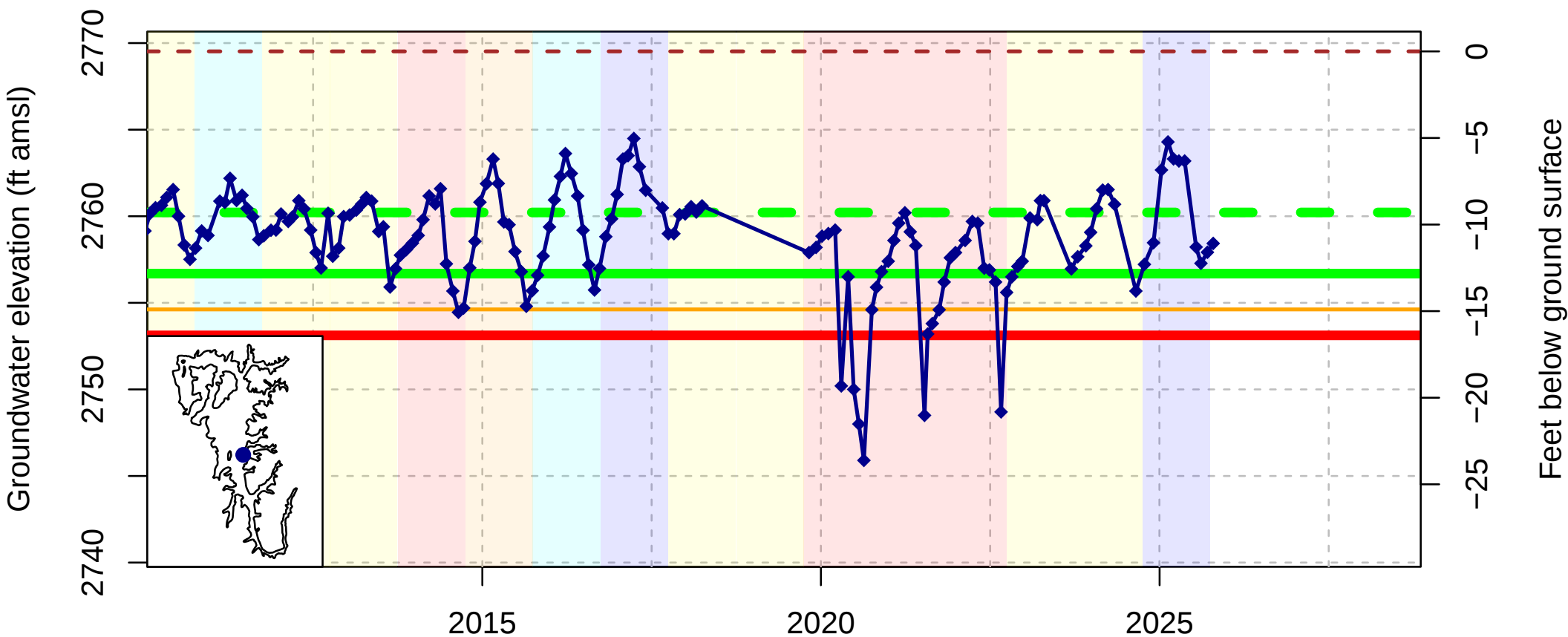
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: 22367; well_code: 414555N1228745W001; well_name: 42N09W27N002M; well_swn: 42N09W27N002M



Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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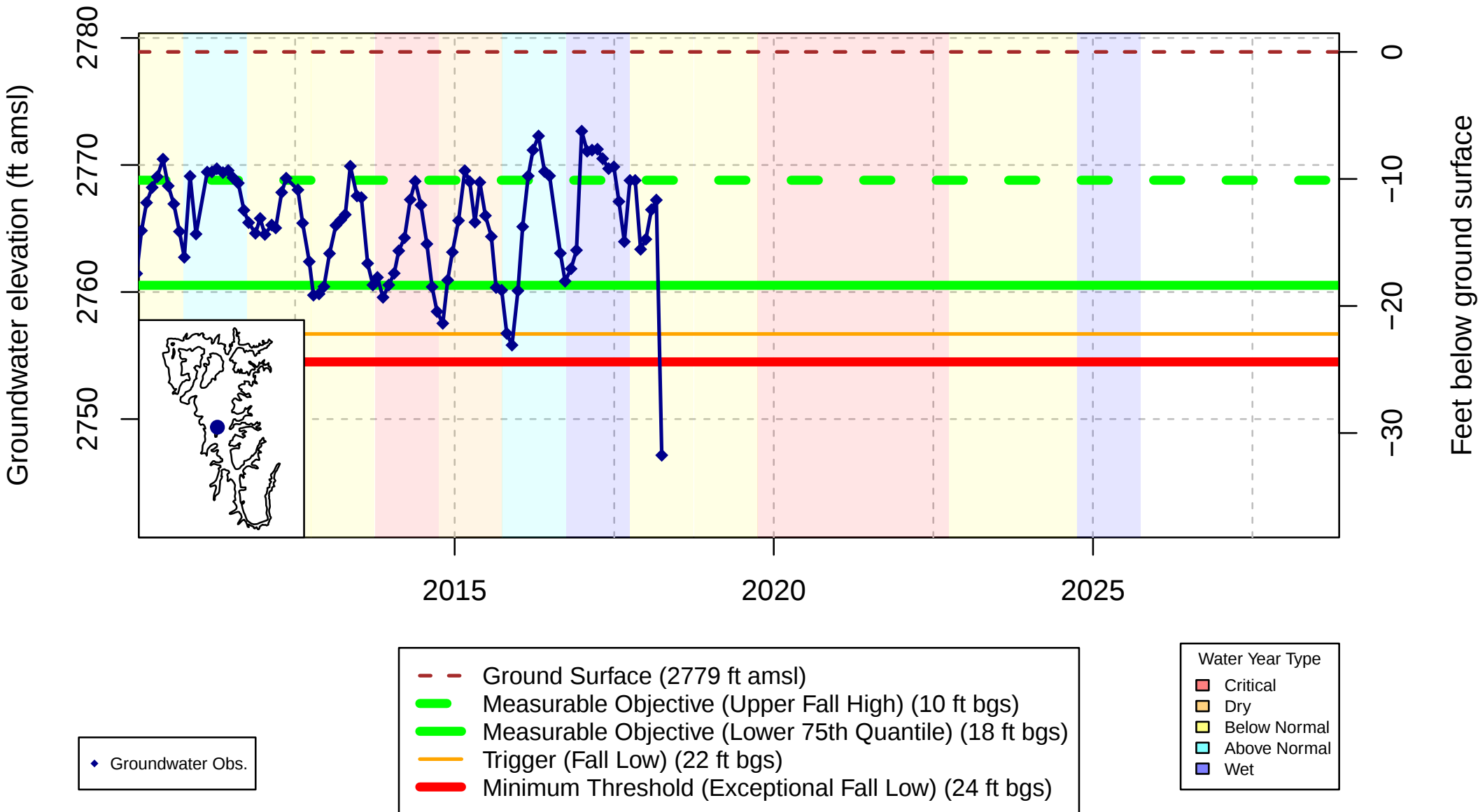
◆ Groundwater Obs.

- Ground Surface (2770 ft amsl)
- Measurable Objective (Upper Fall High) (9 ft bgs)
- Measurable Objective (Lower 75th Quantile) (13 ft bgs)
- Trigger (Fall Low) (15 ft bgs)
- Minimum Threshold (Exceptional Fall Low) (16 ft bgs)

- Water Year Type
- Critical
 - Dry
 - Below Normal
 - Above Normal
 - Wet

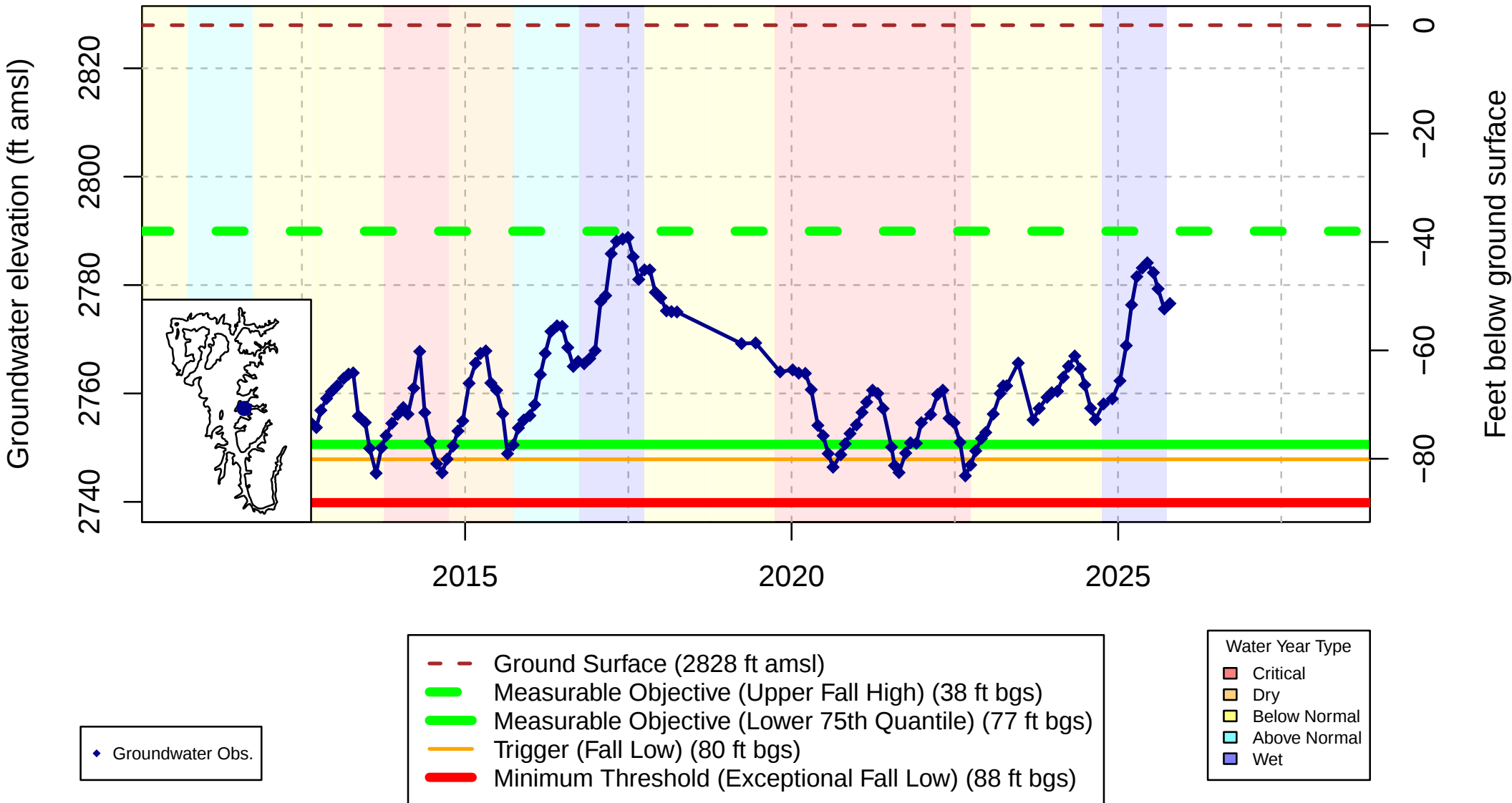
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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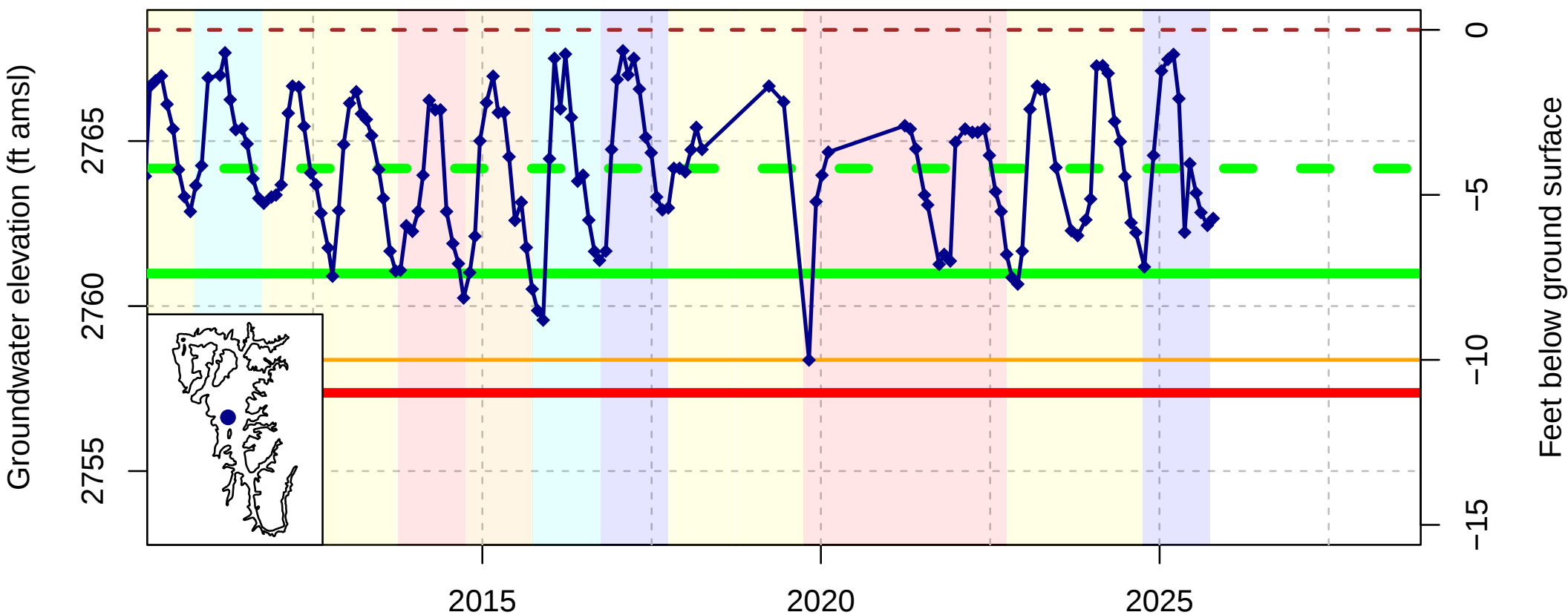
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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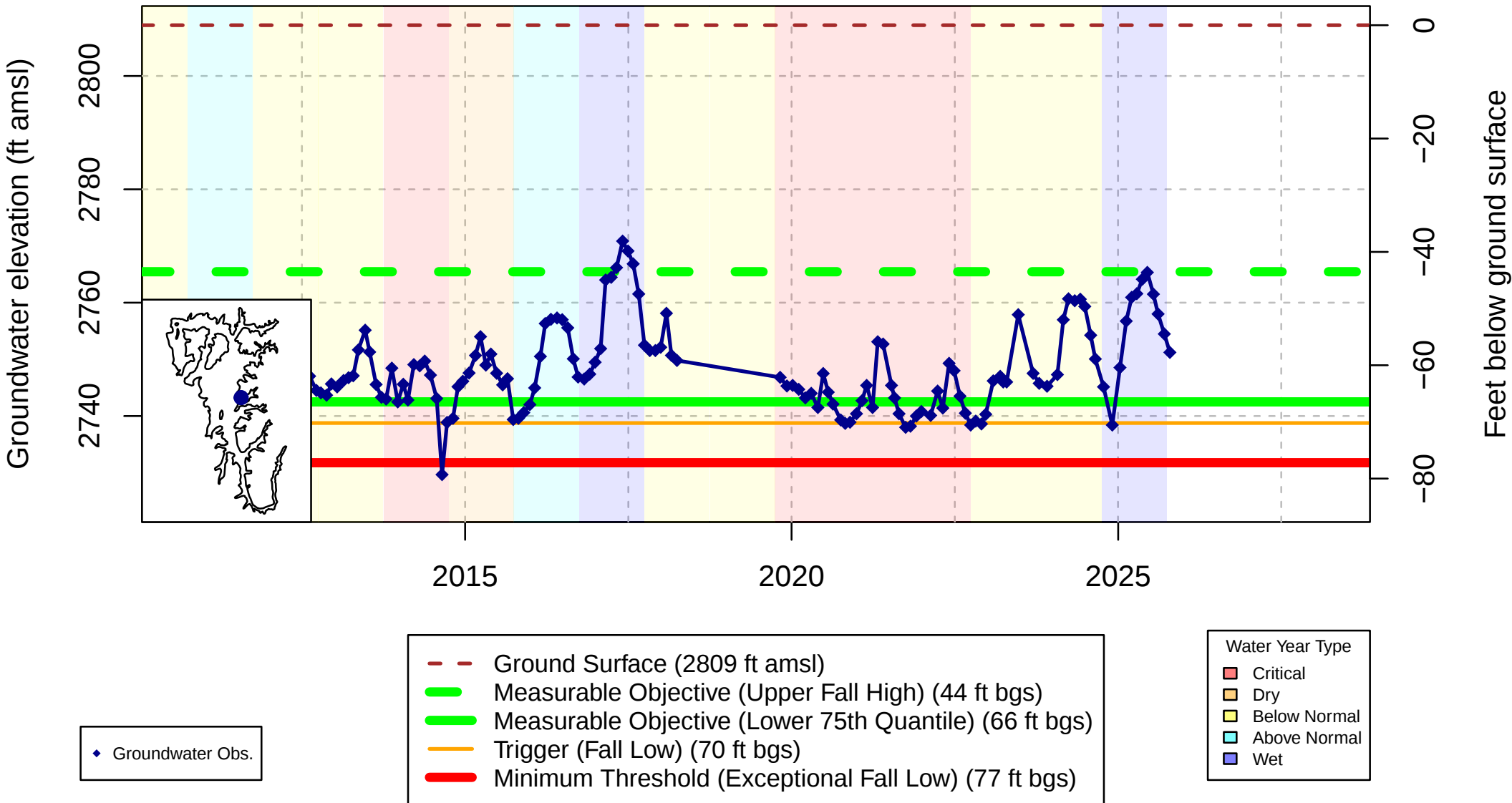
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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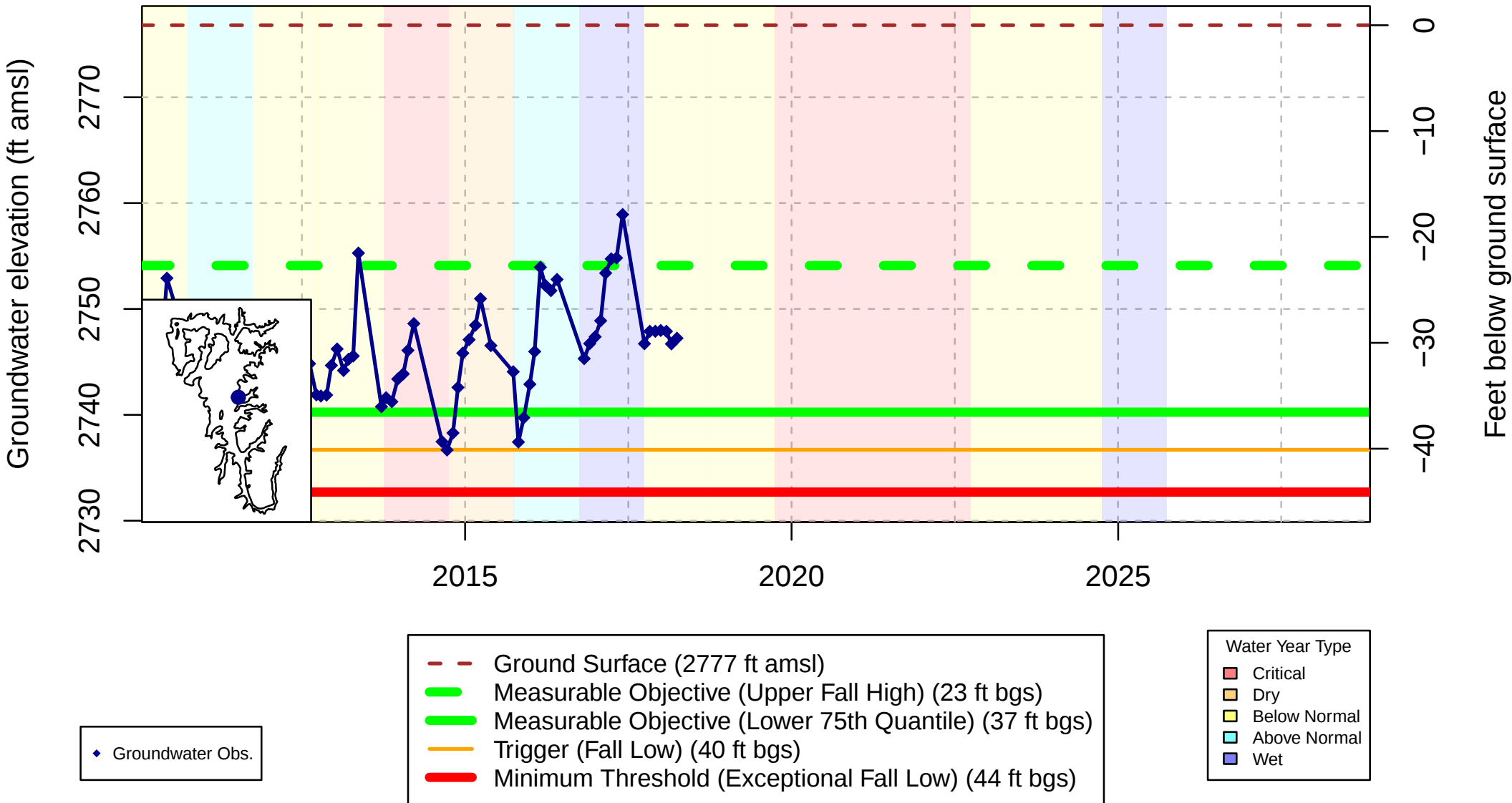
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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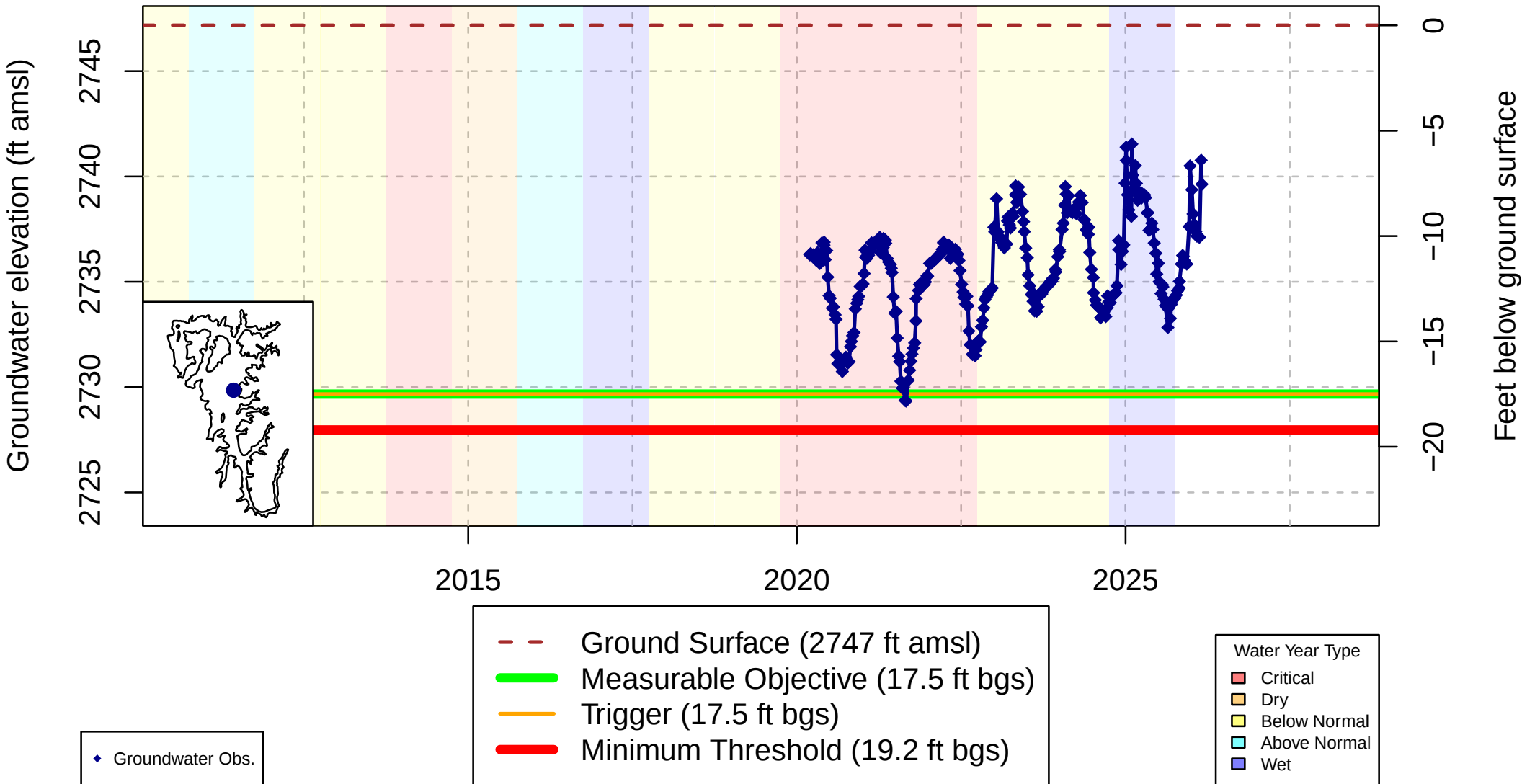
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: K9; well_name: K9; well_swn:



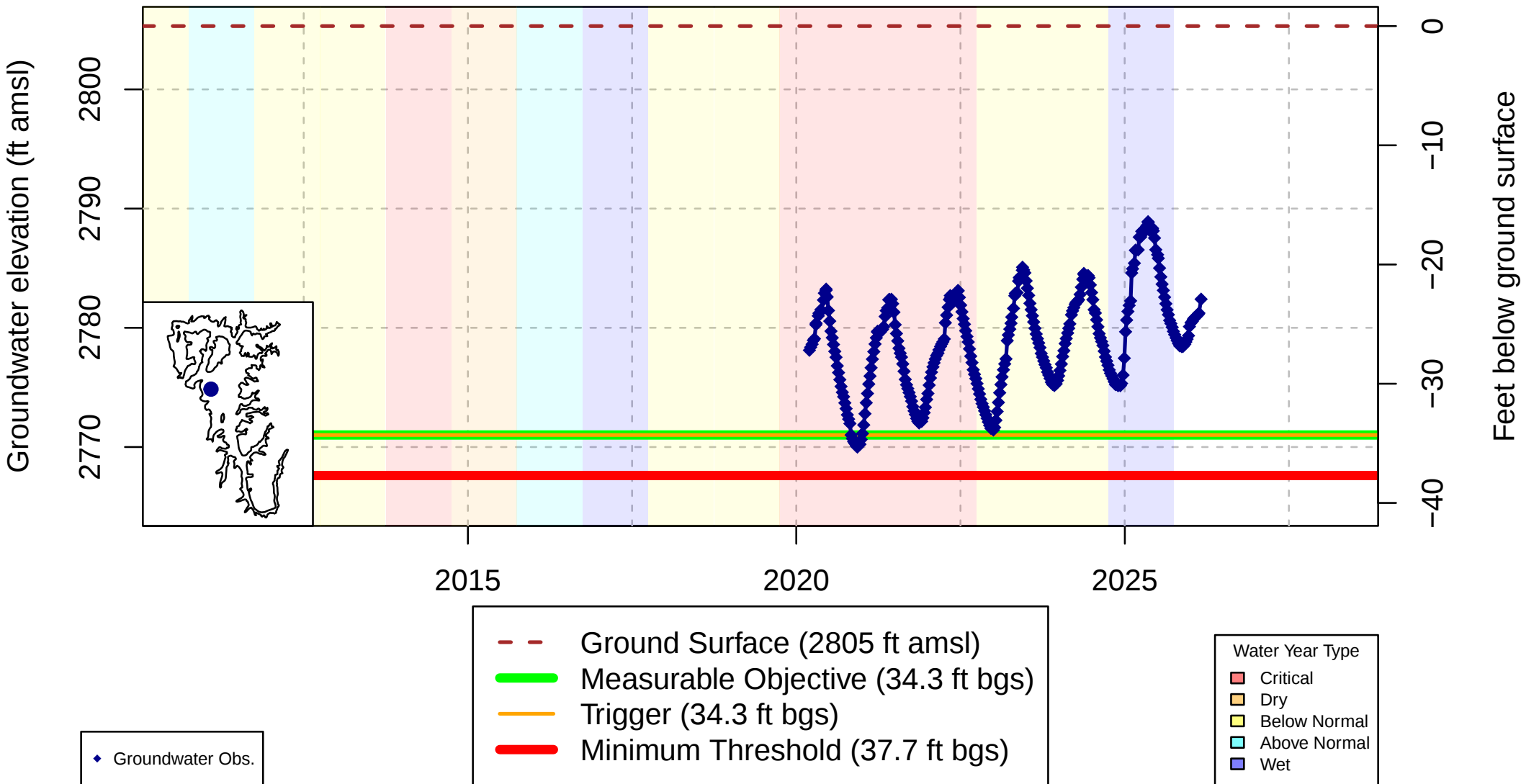
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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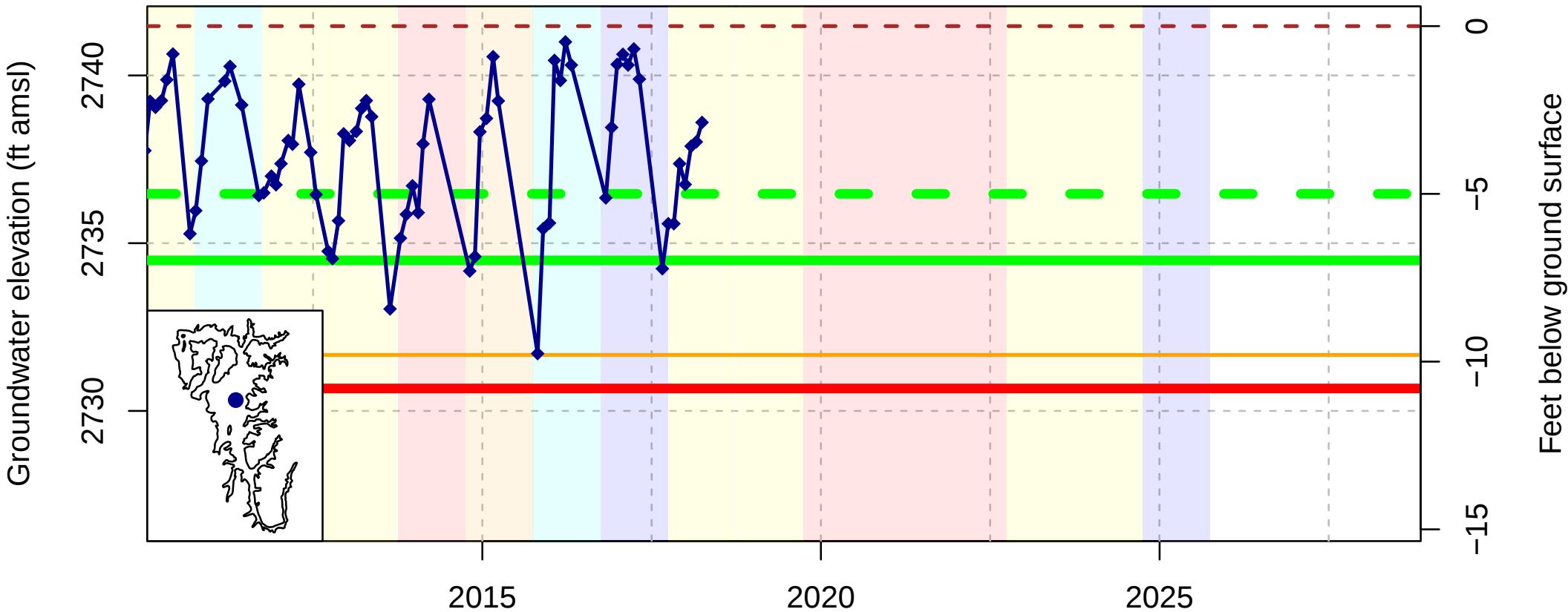
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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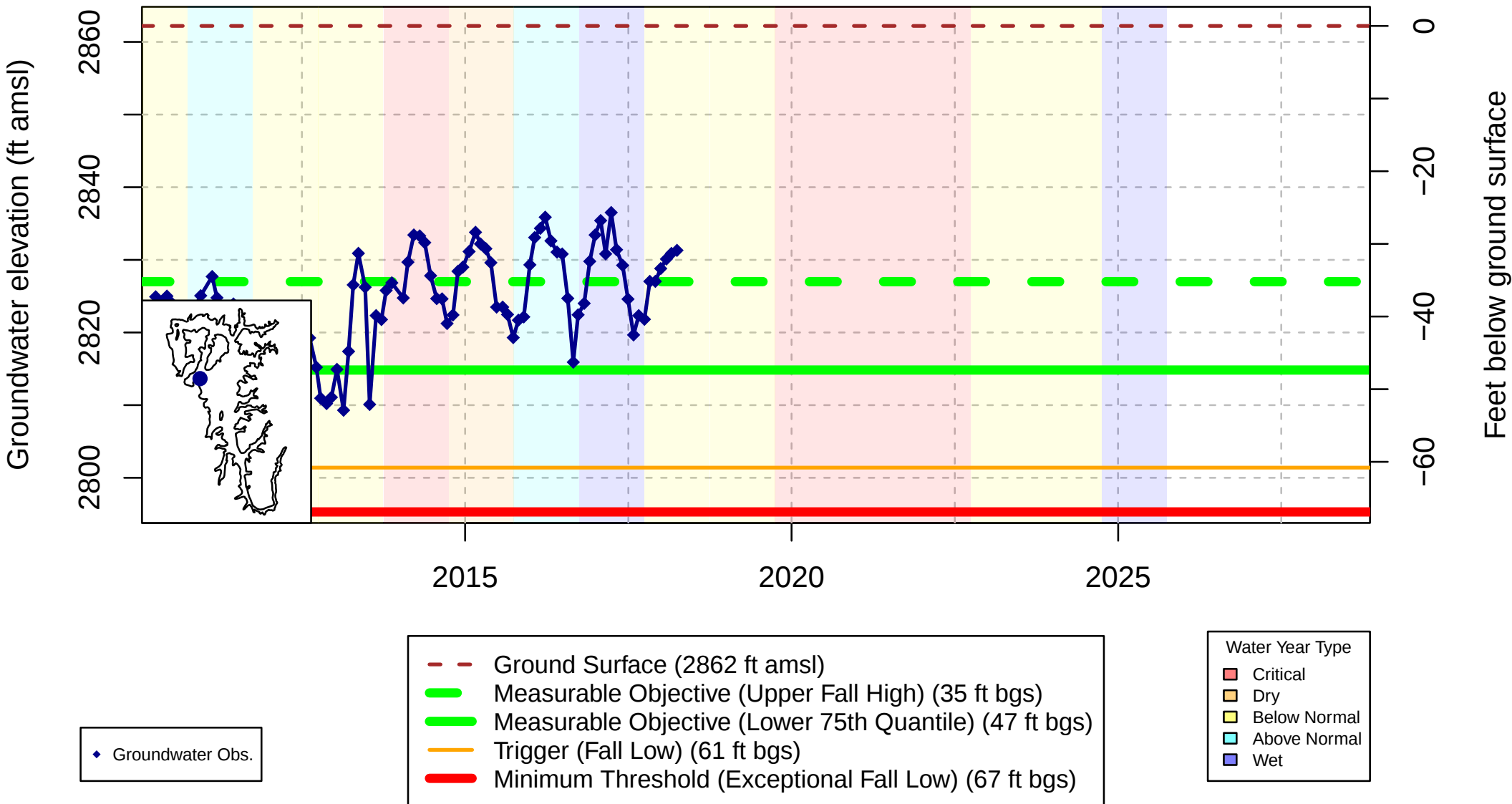
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: H6; well_name: H6; well_swn:



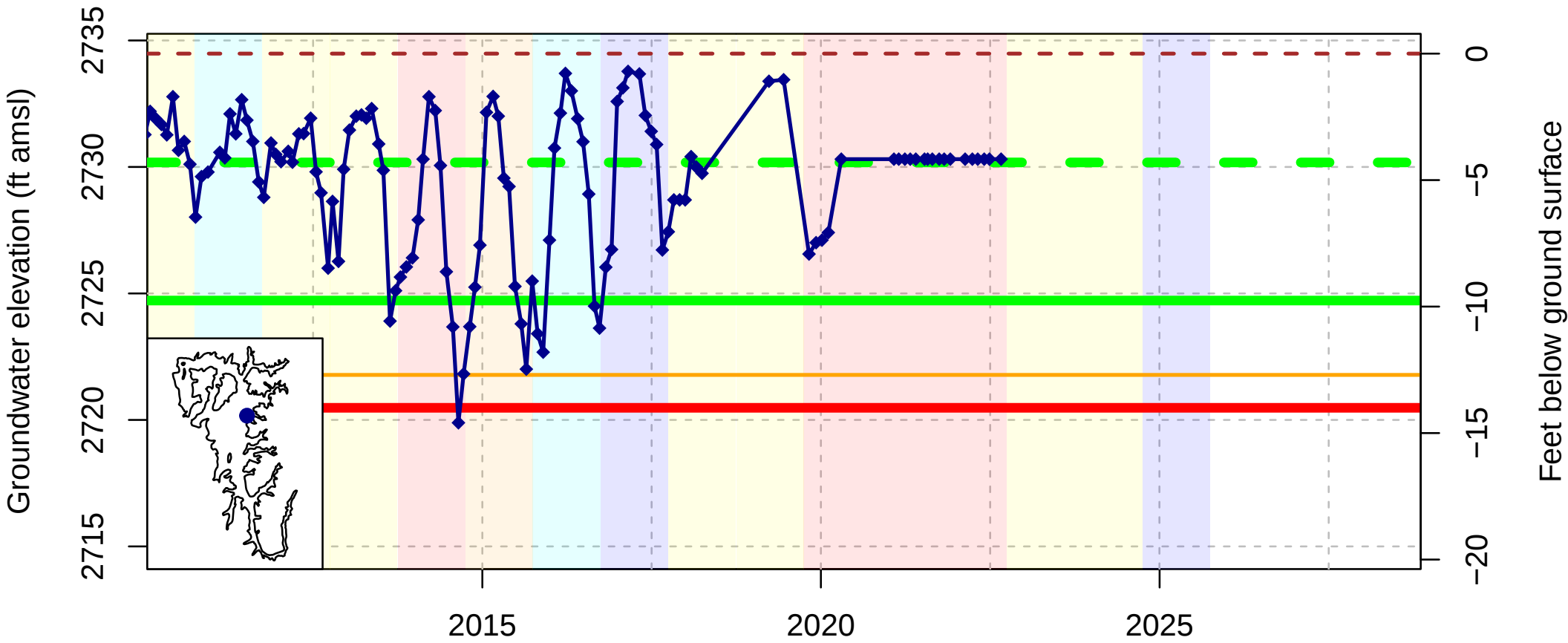
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: L32; well_name: L32; well_swn:



Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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◆ Groundwater Obs.

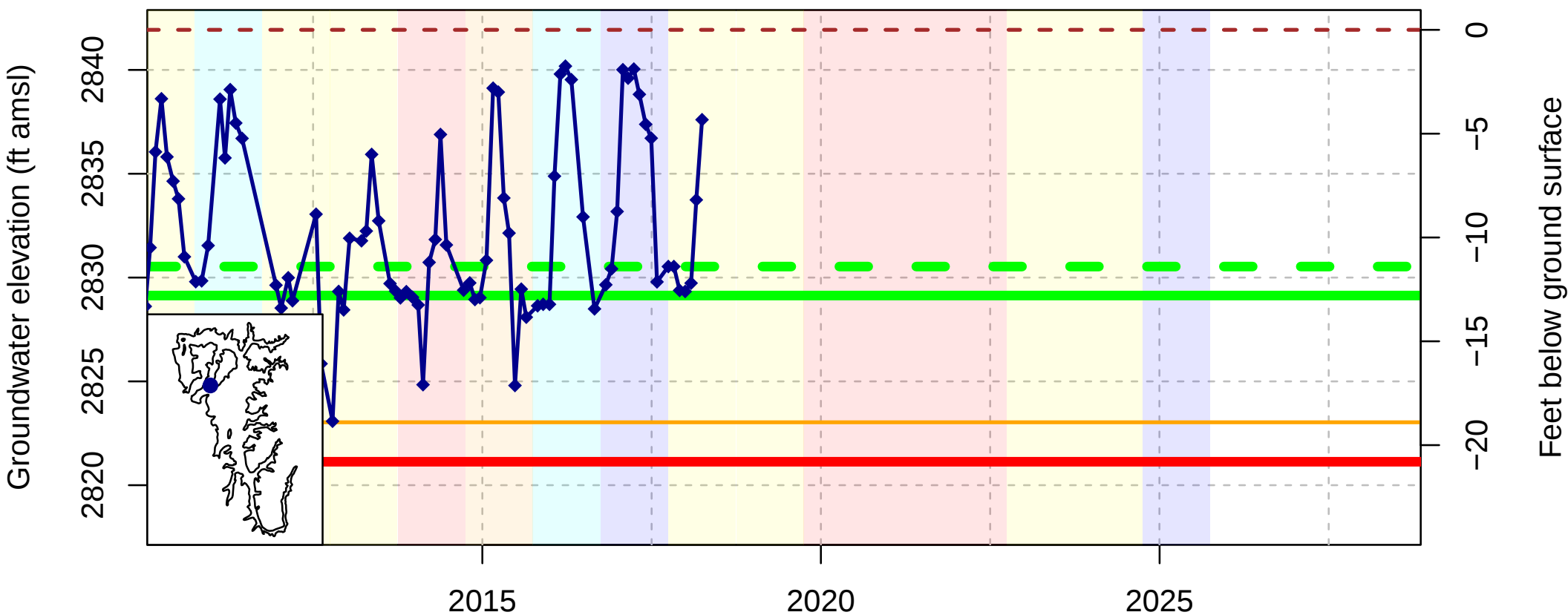
--- Ground Surface (2734 ft amsl)
--- Measurable Objective (Upper Fall High) (4 ft bgs)
--- Measurable Objective (Lower 75th Quantile) (10 ft bgs)
--- Trigger (Fall Low) (13 ft bgs)
--- Minimum Threshold (Exceptional Fall Low) (14 ft bgs)

Water Year Type

■ Critical
■ Dry
■ Below Normal
■ Above Normal
■ Wet

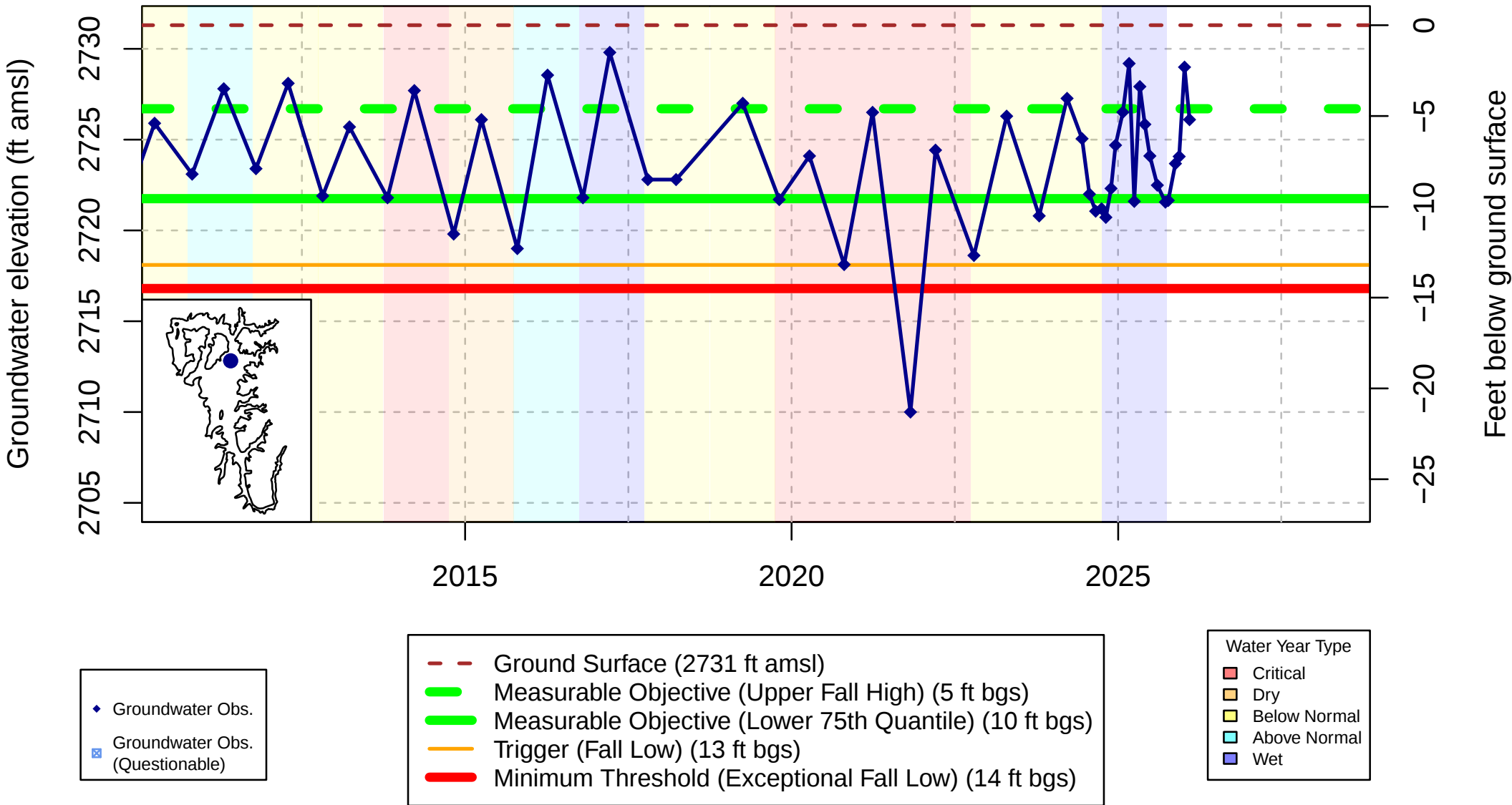
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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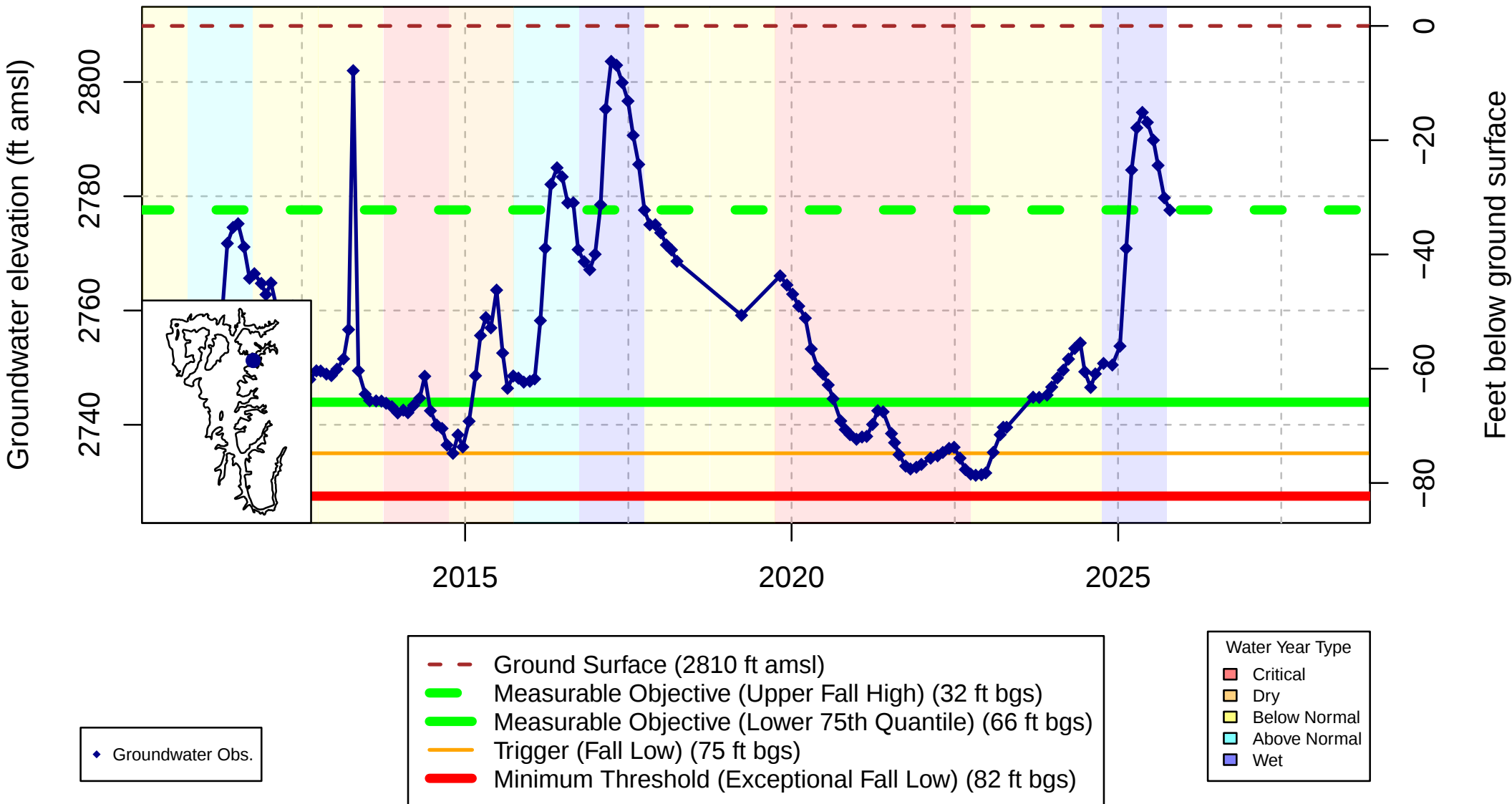
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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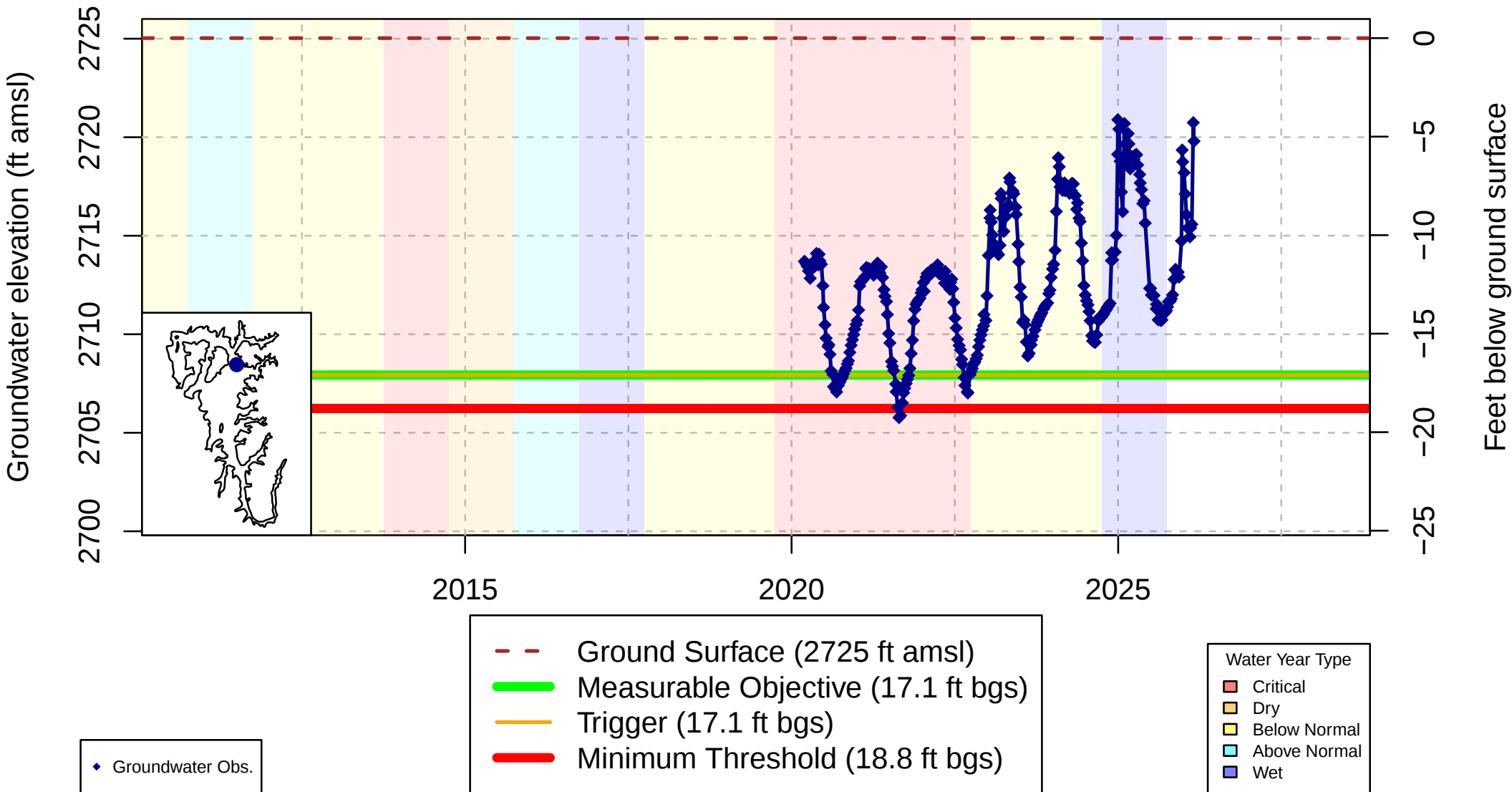
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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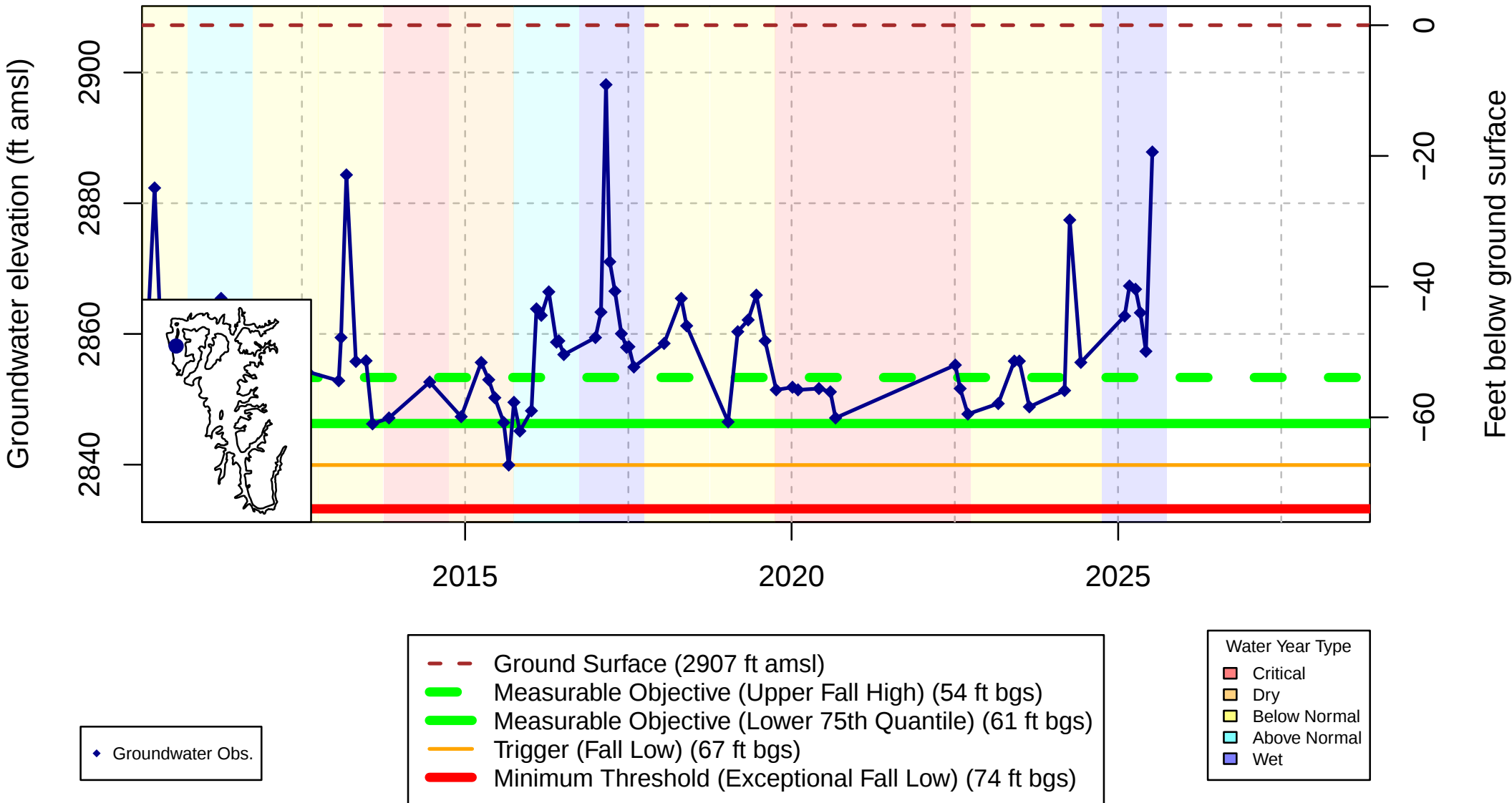
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: SCT_173; well_name: ; well_swn:



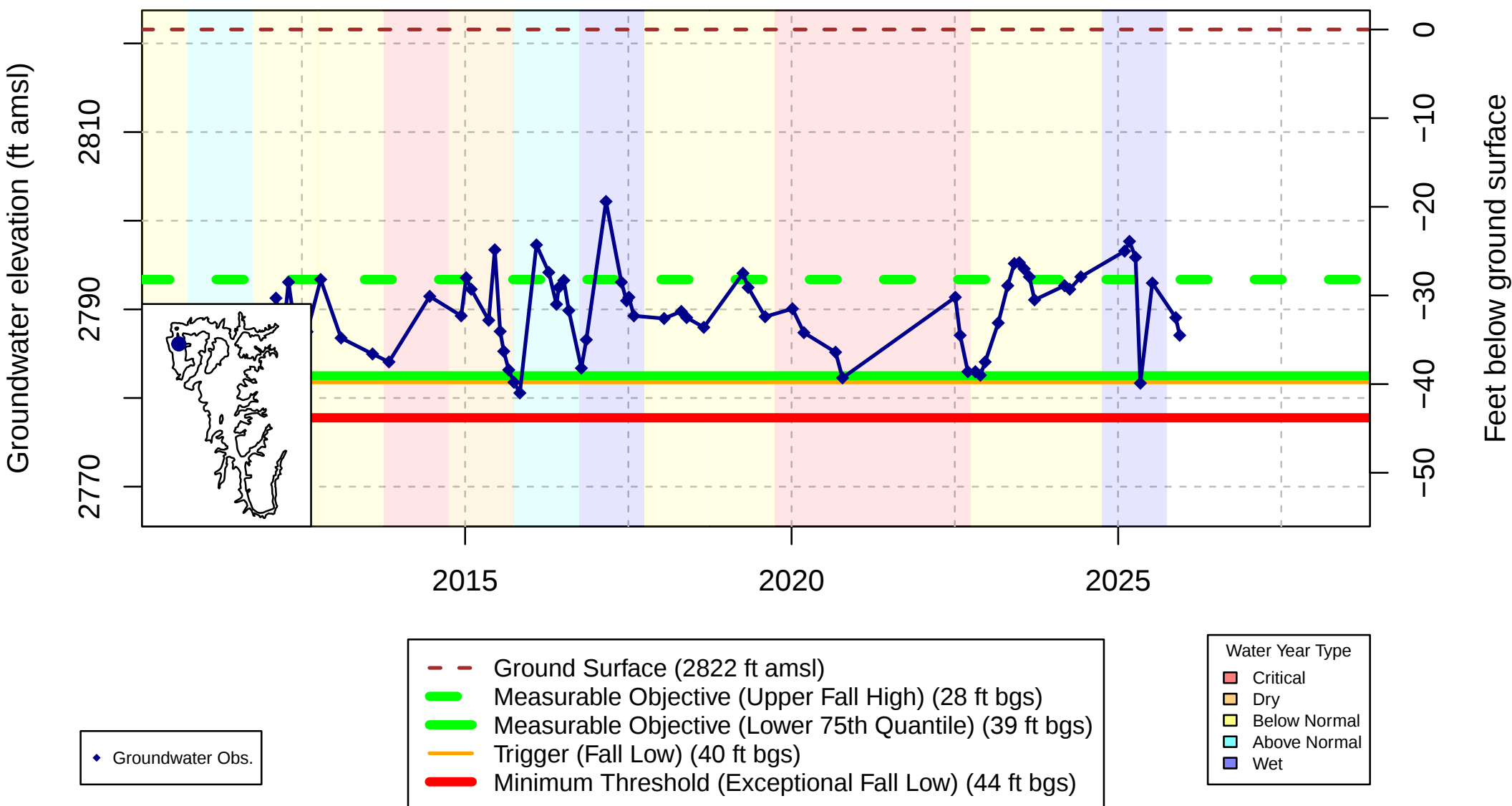
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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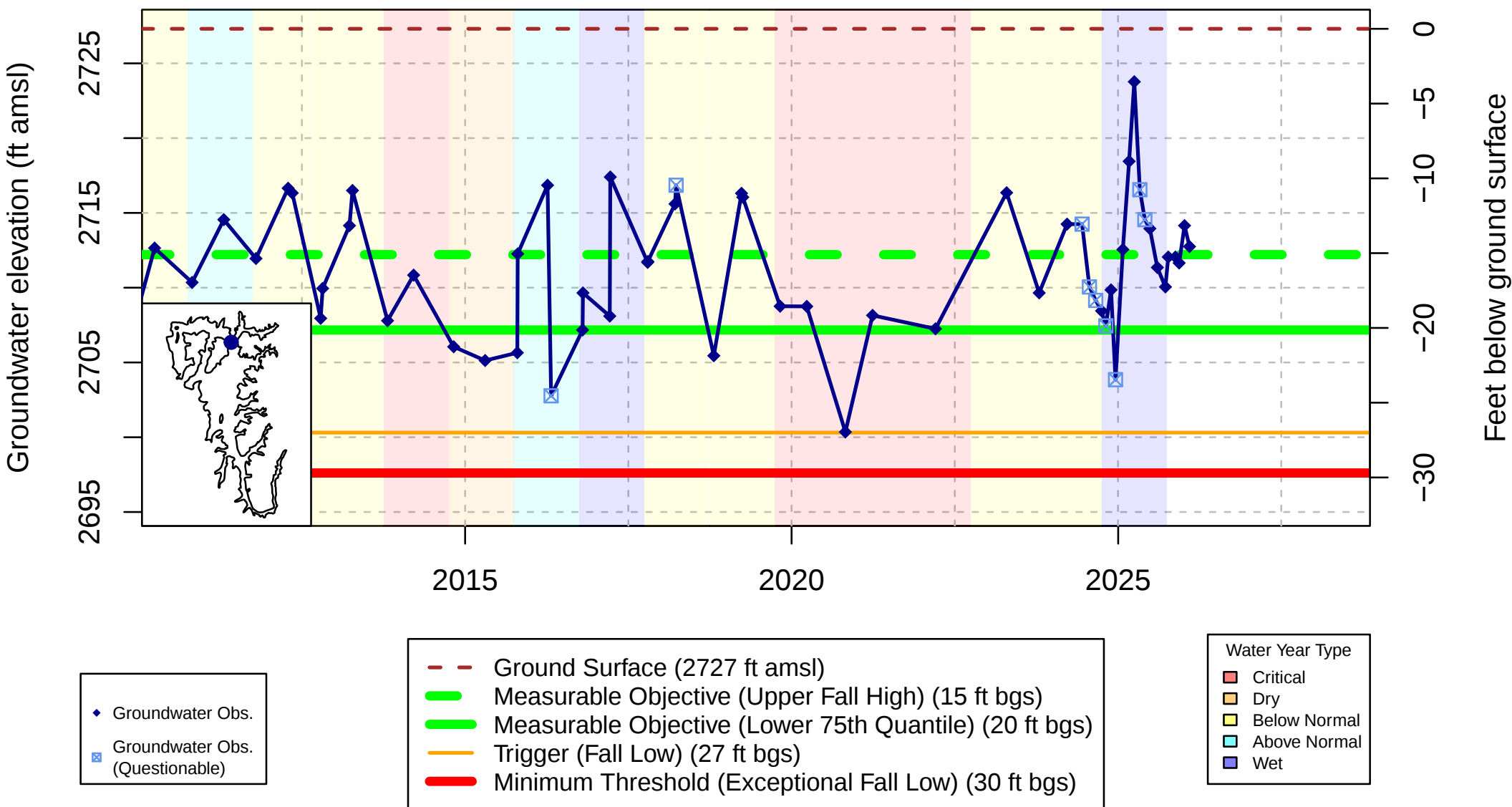
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

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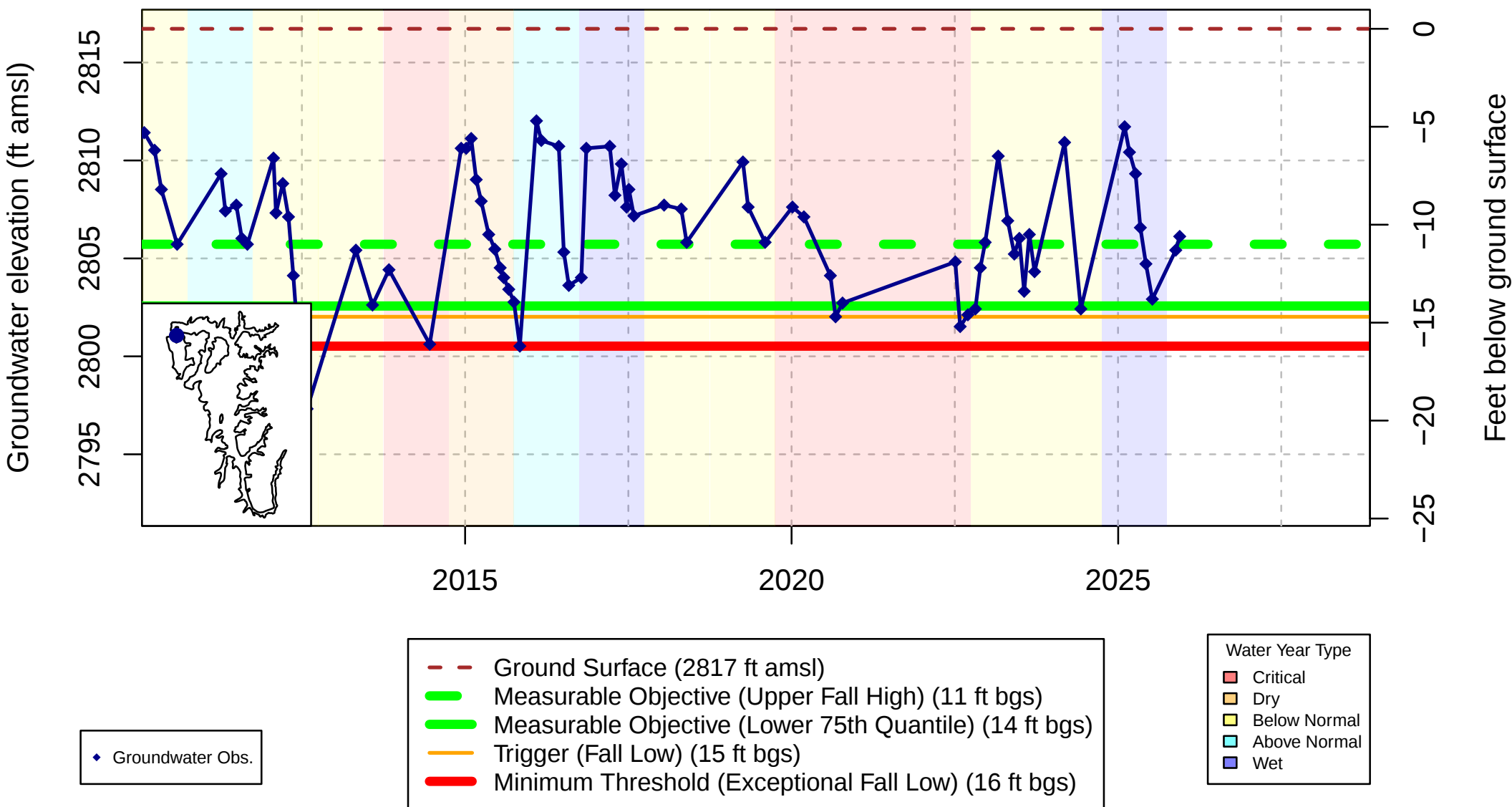
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: 25973; well_code: 416033N1228528W001; well_name: SCV03; well_swn: 43N09W02P002M



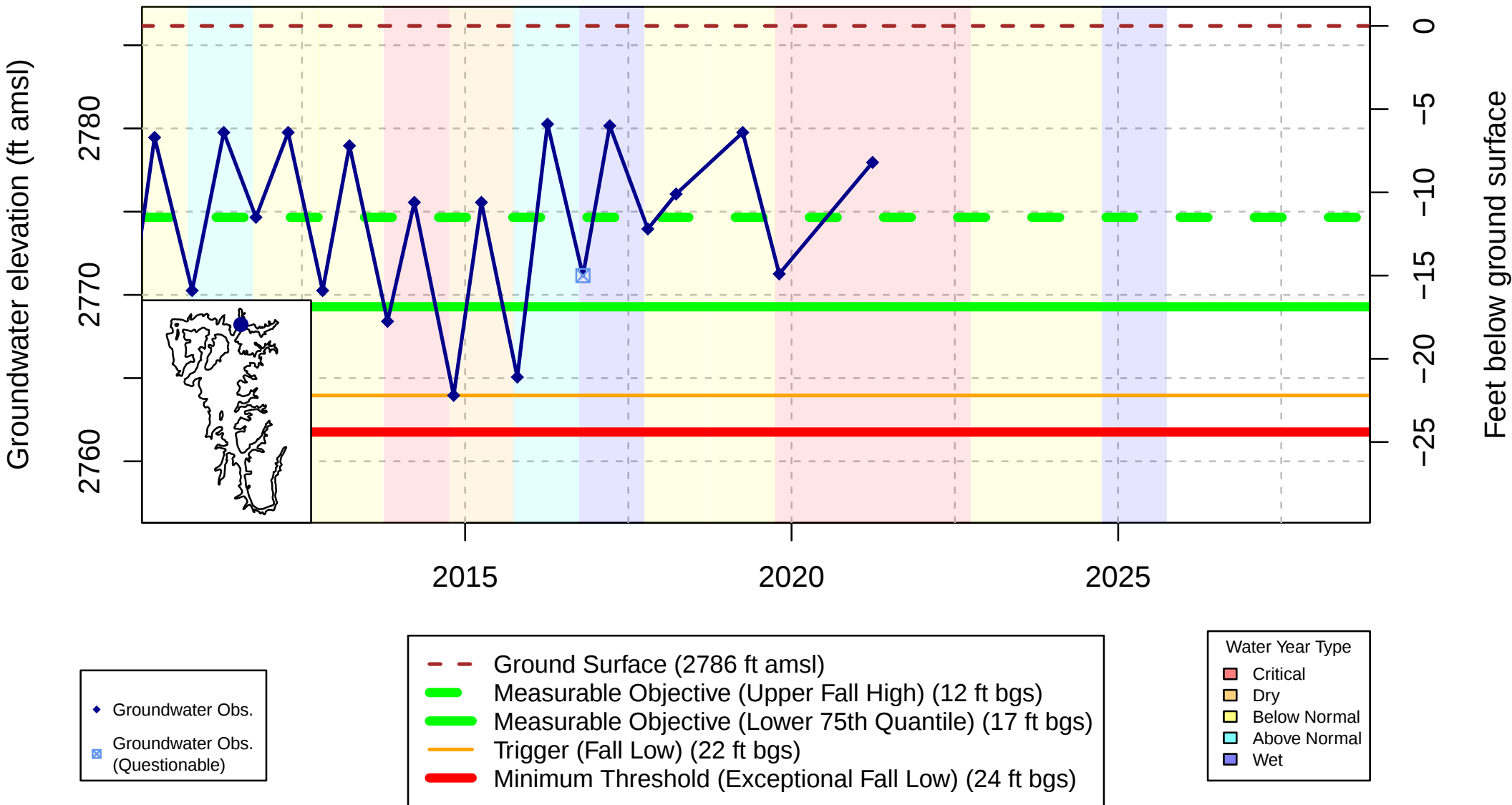
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: ; well_code: QV01; well_name: 9009_BigMeadows; well_swn:



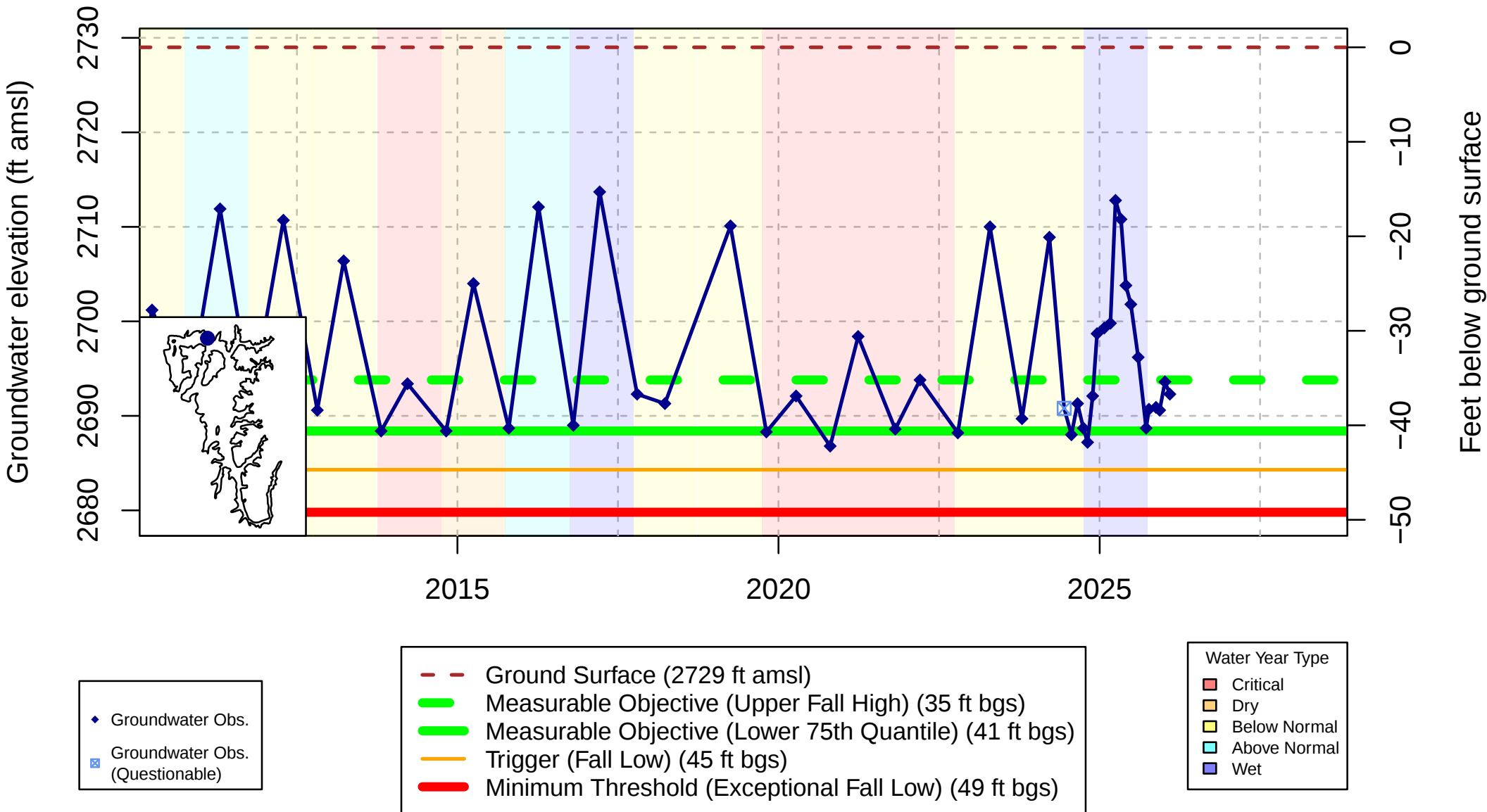
Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

DWR Stn_ID: 37719; well_code: 416288N1228303W001; well_name: 44N09W25R001M; well_swn: 44N09W25R001M



Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

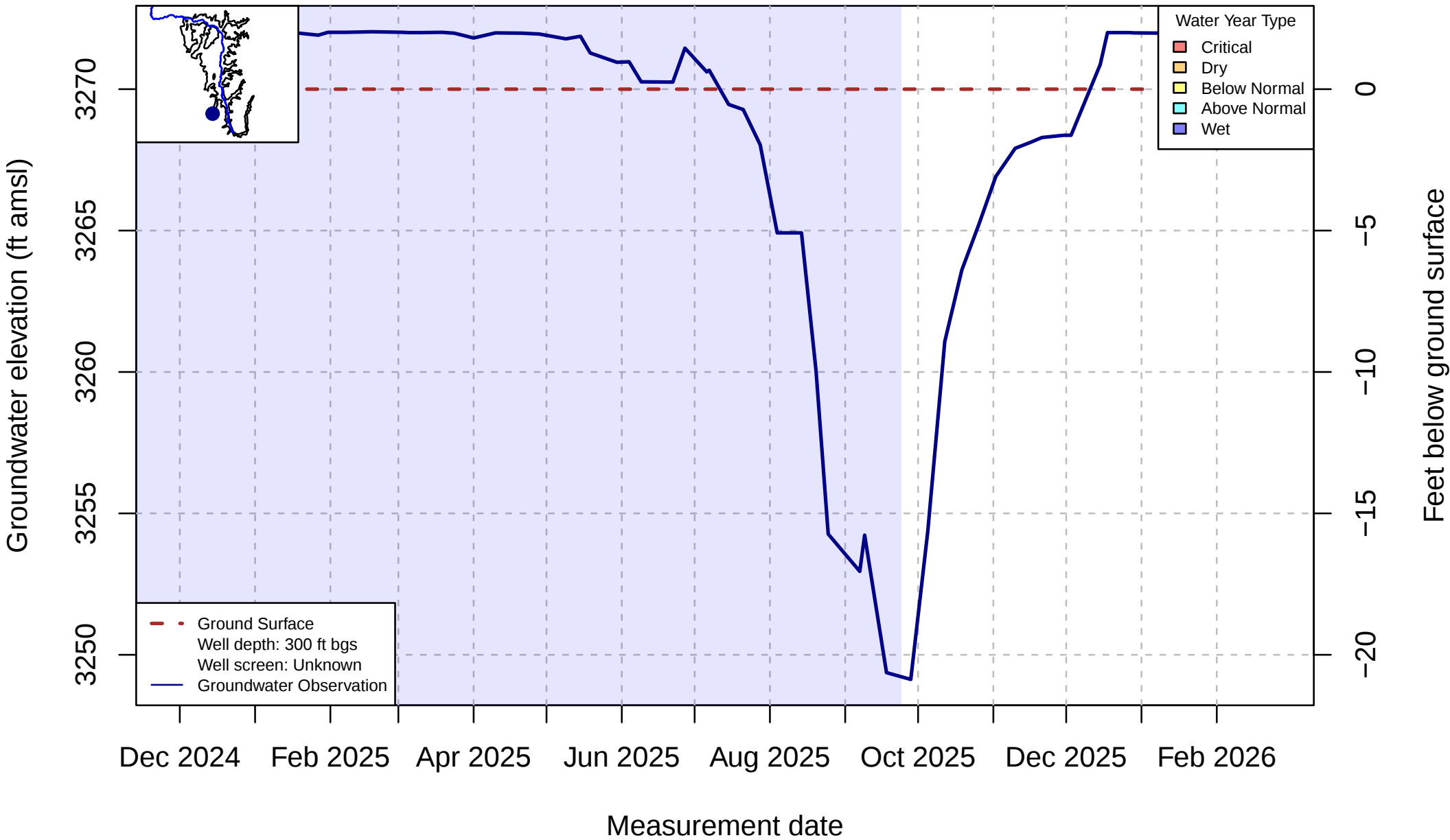
DWR Stn_ID: 50392; well_code: 416335N1228997W001; well_name: 44N09W29J001M; well_swn: 44N09W29J001M



Water Year Types from WY 2019–2025 are preliminary results calculated based on SGMA Water Year Type Dataset Development Report. The results will be finalized once DWR updates the water year type dataset for these years.

Appendix A.2 - Additional Groundwater Elevation Hydrographs

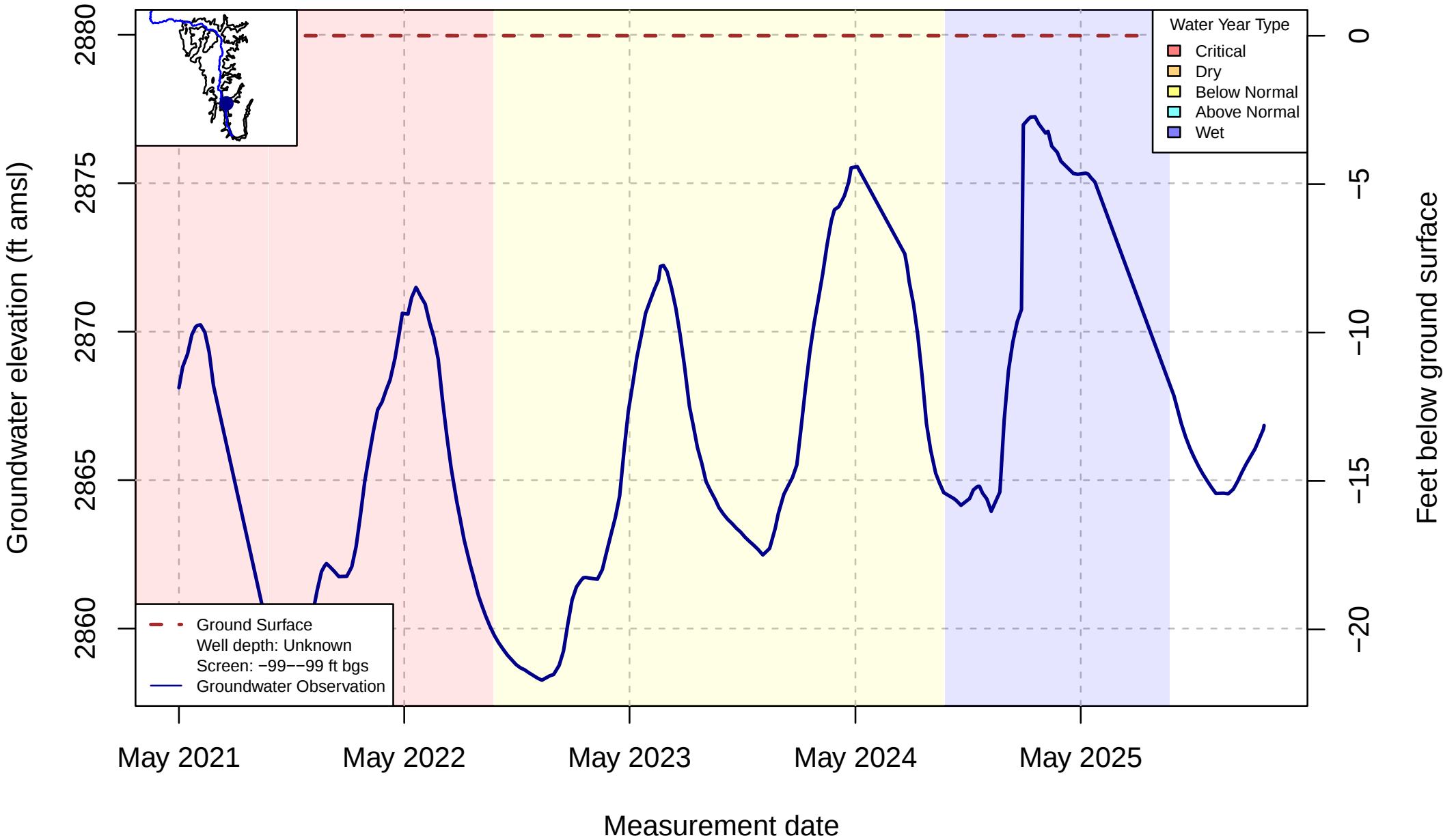
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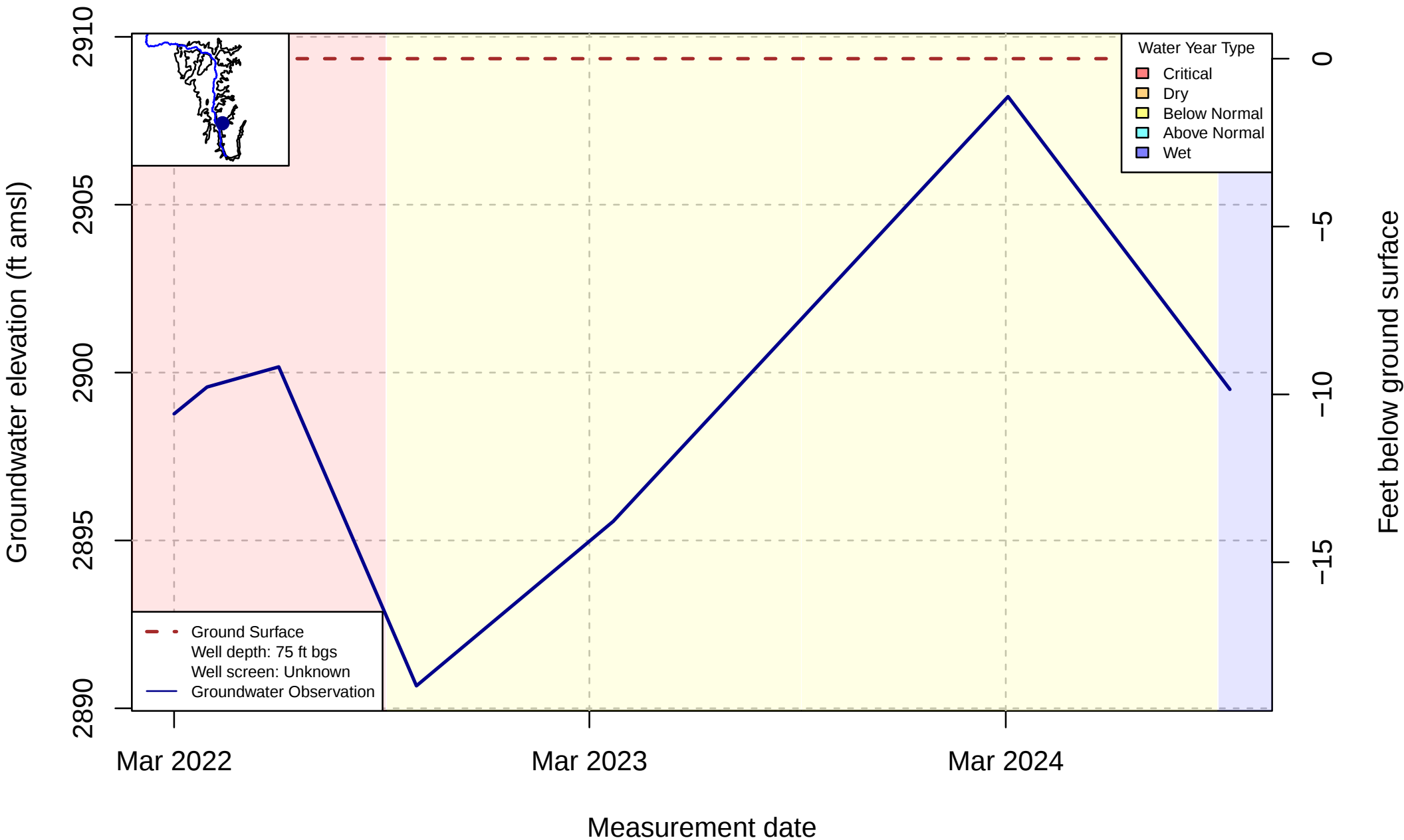
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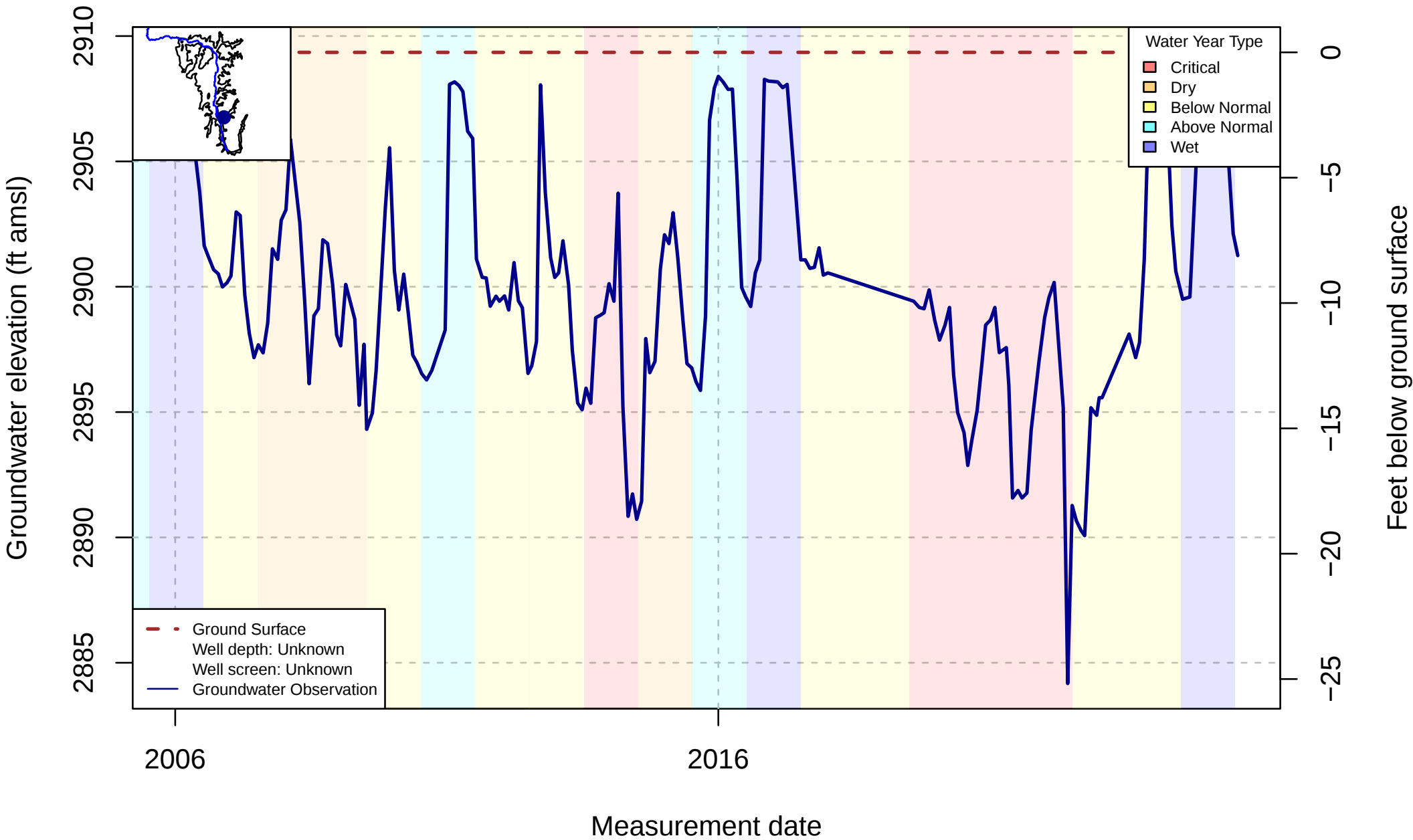
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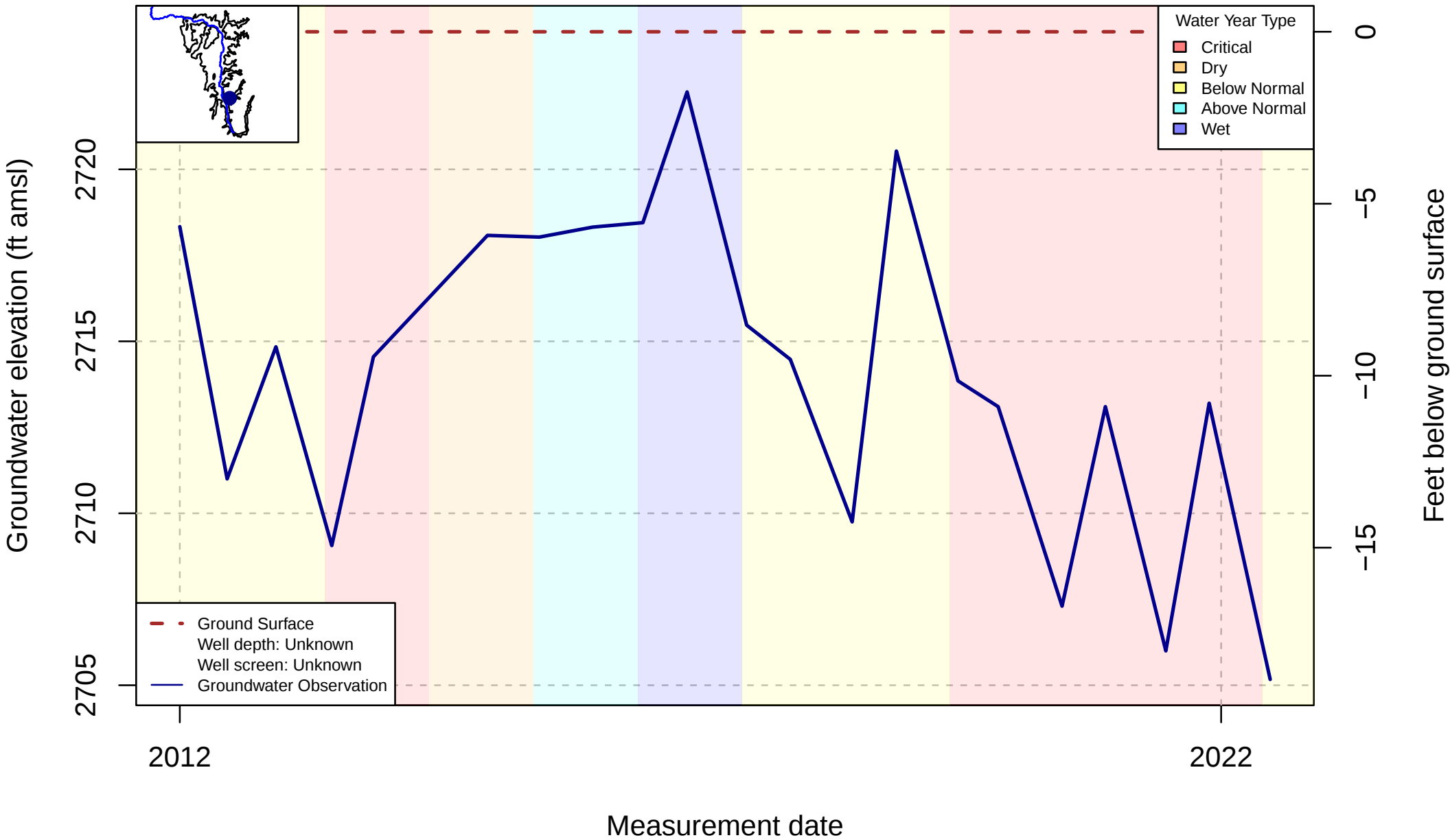
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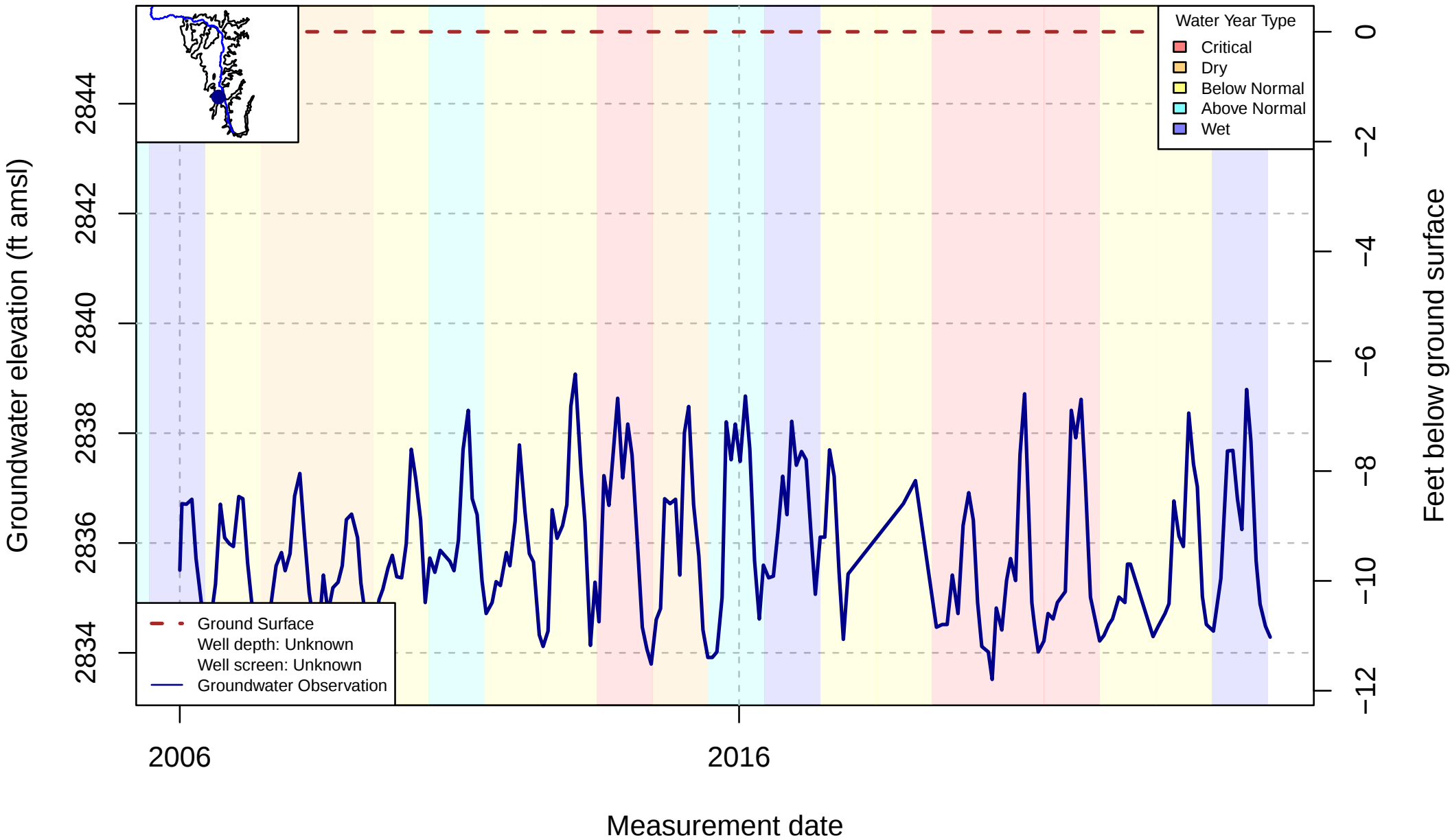
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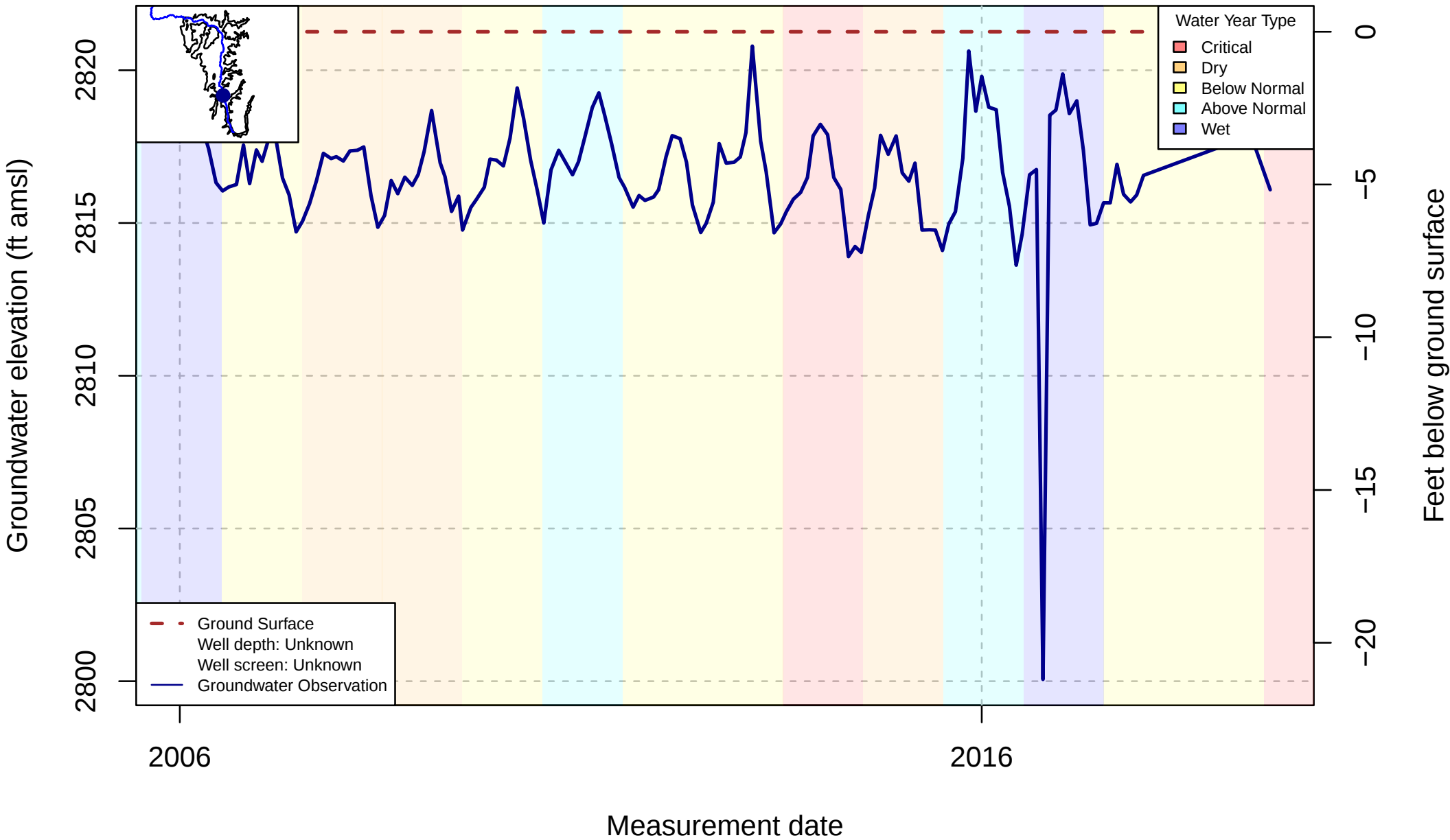
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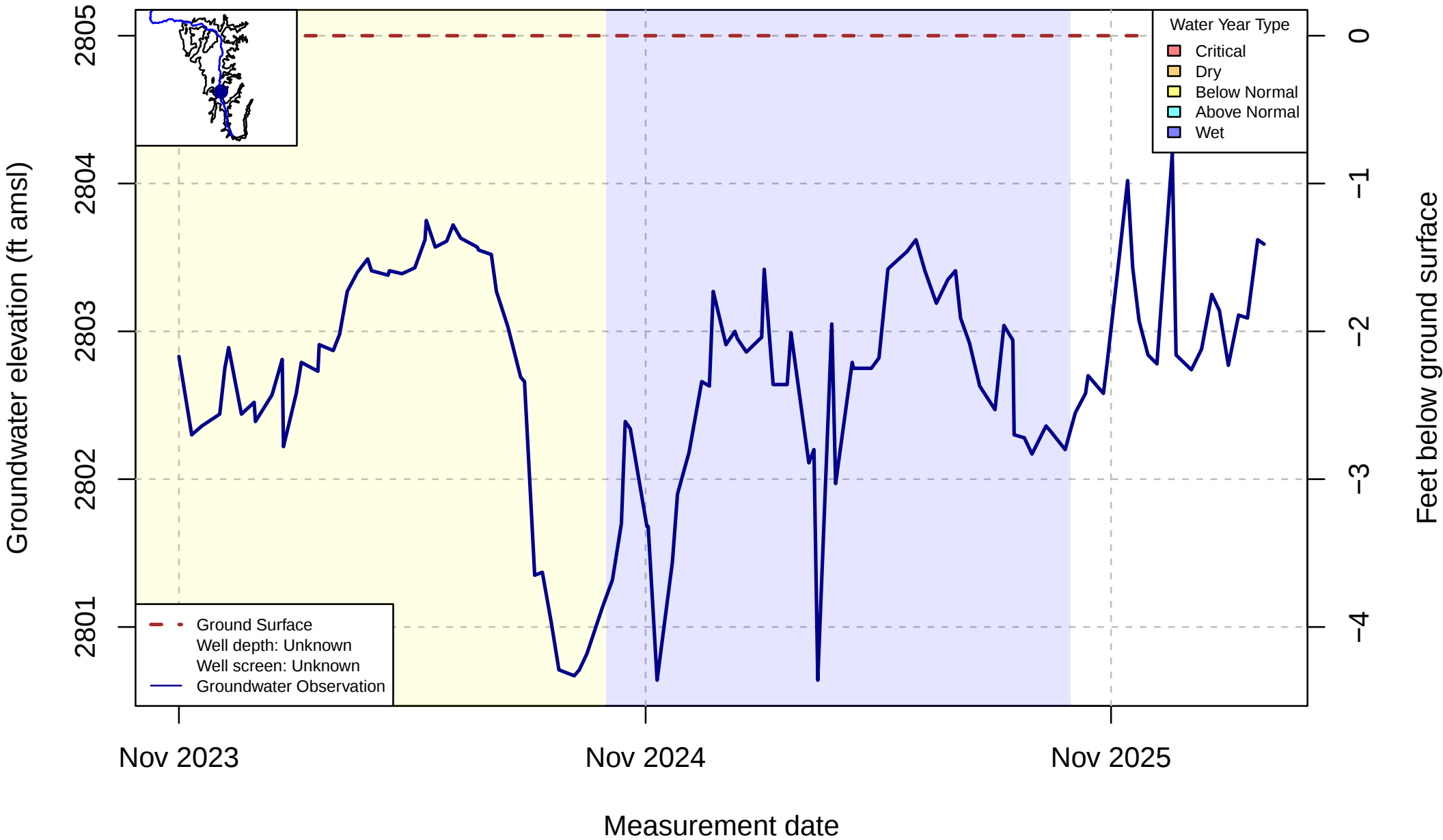
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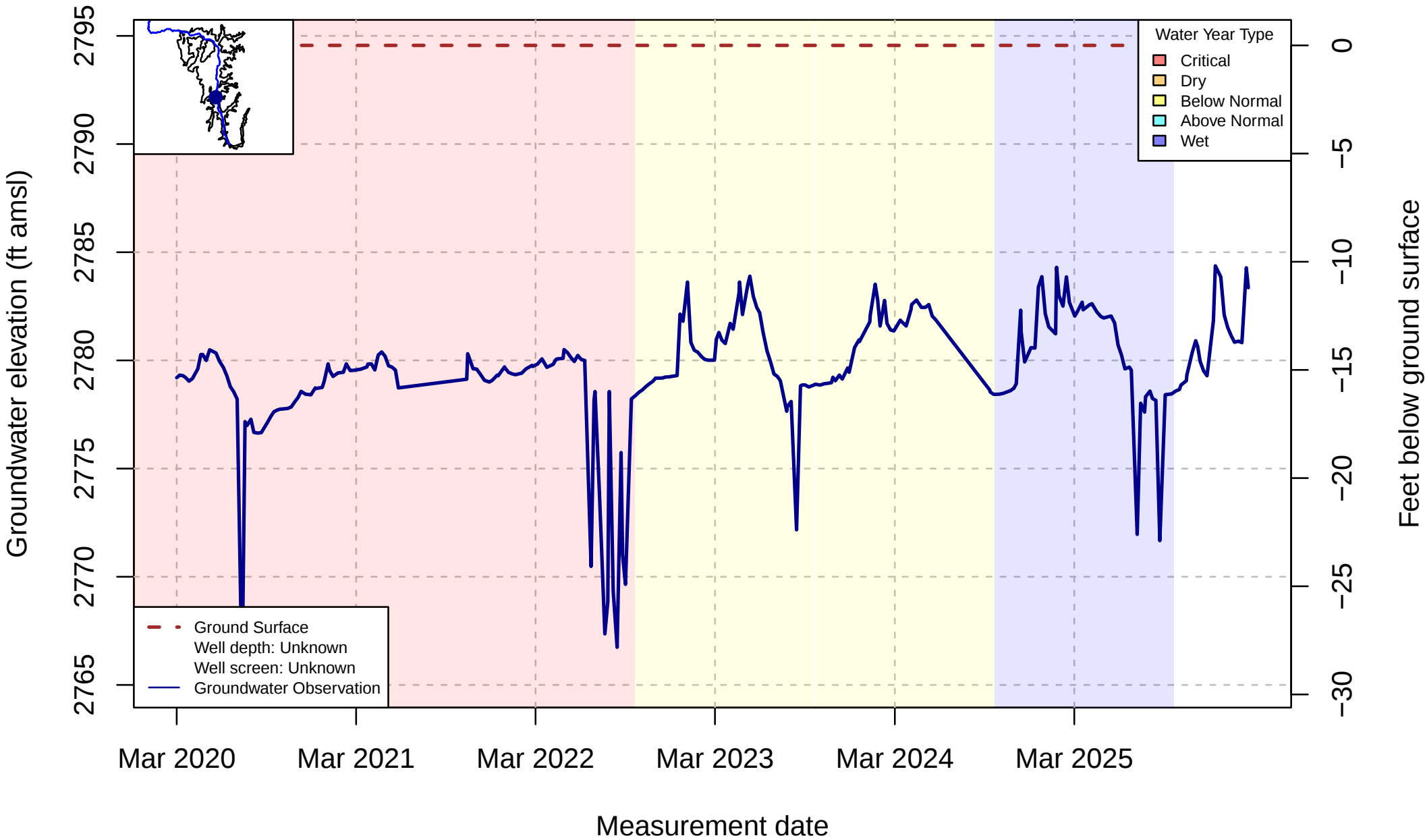
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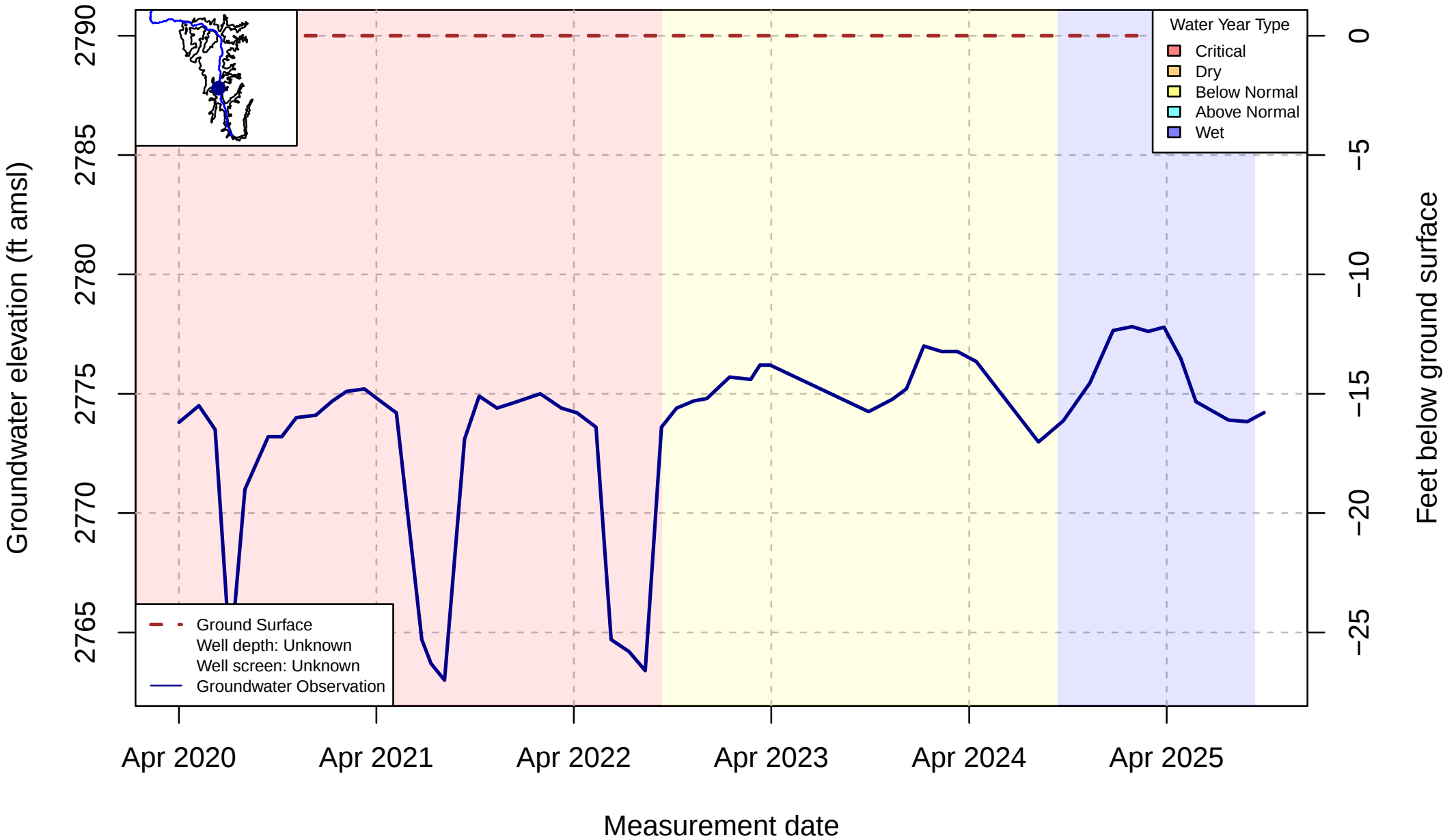
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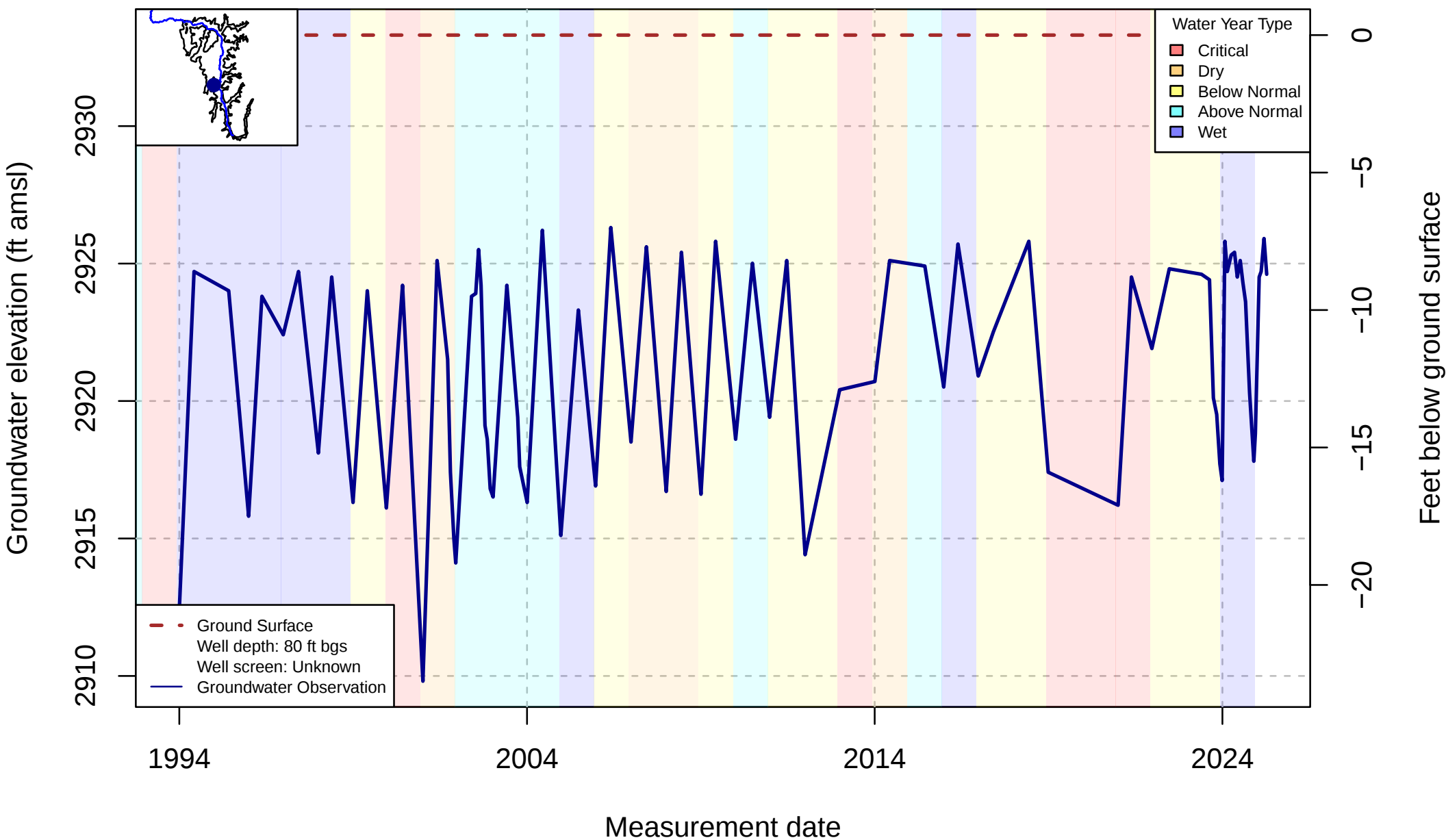
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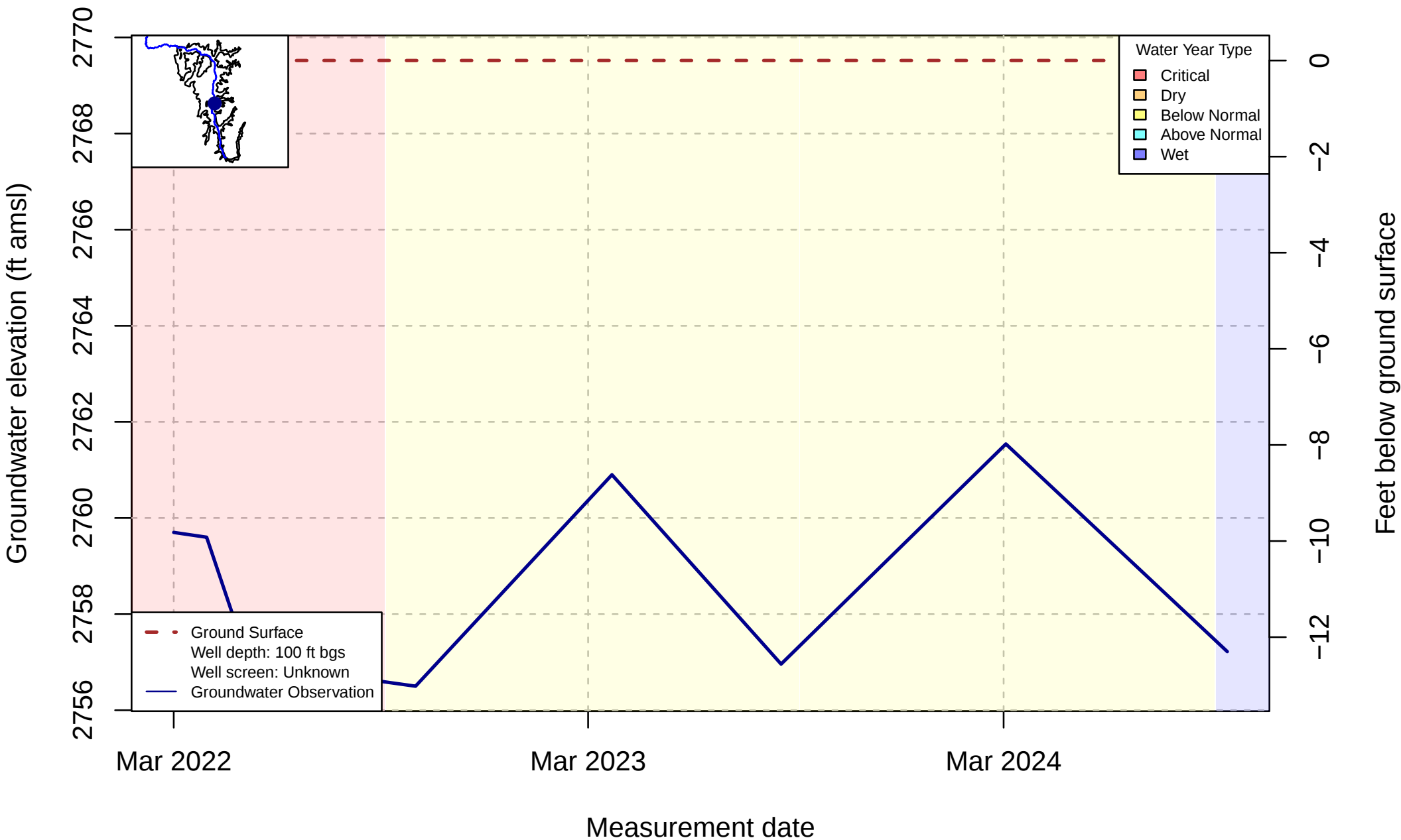
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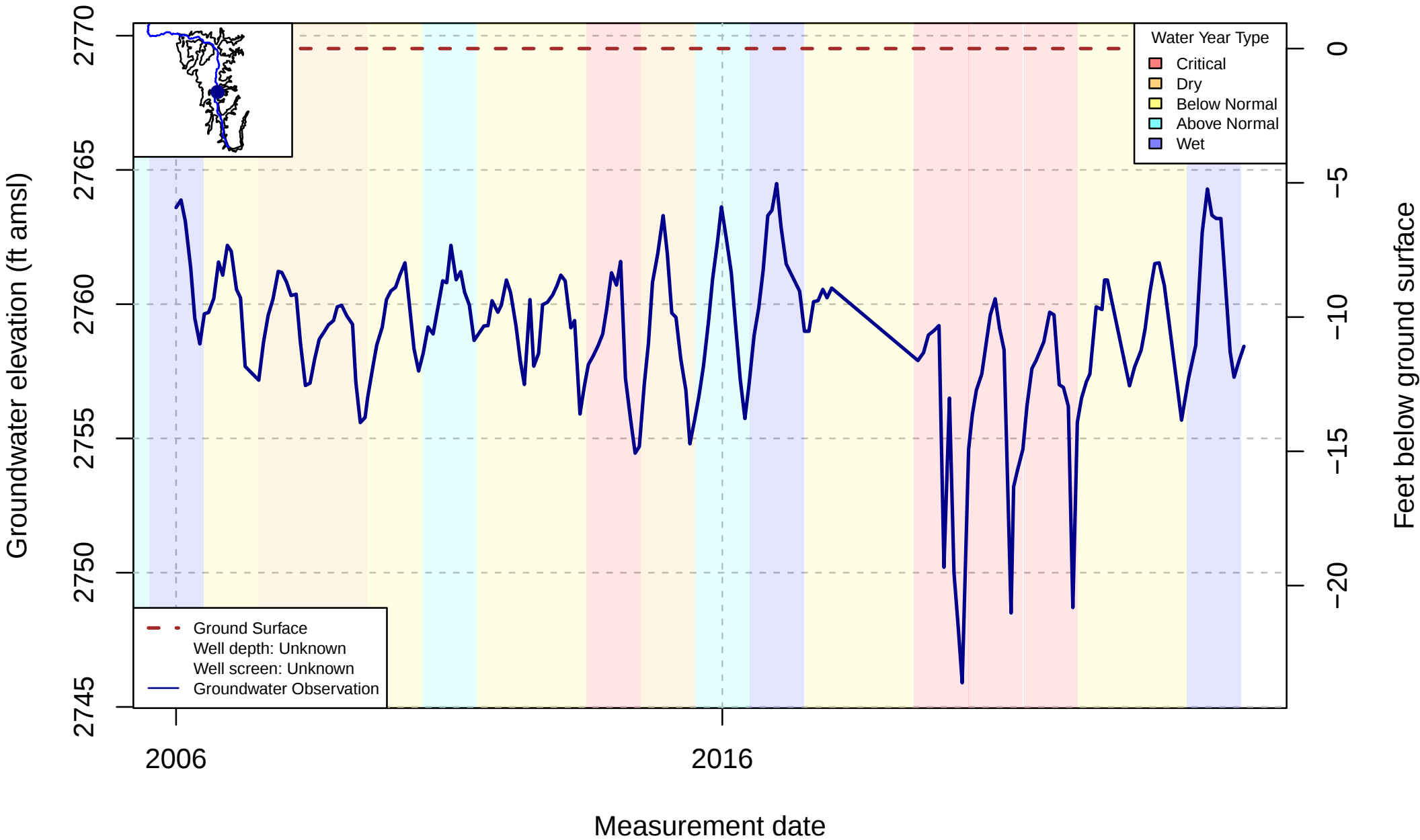
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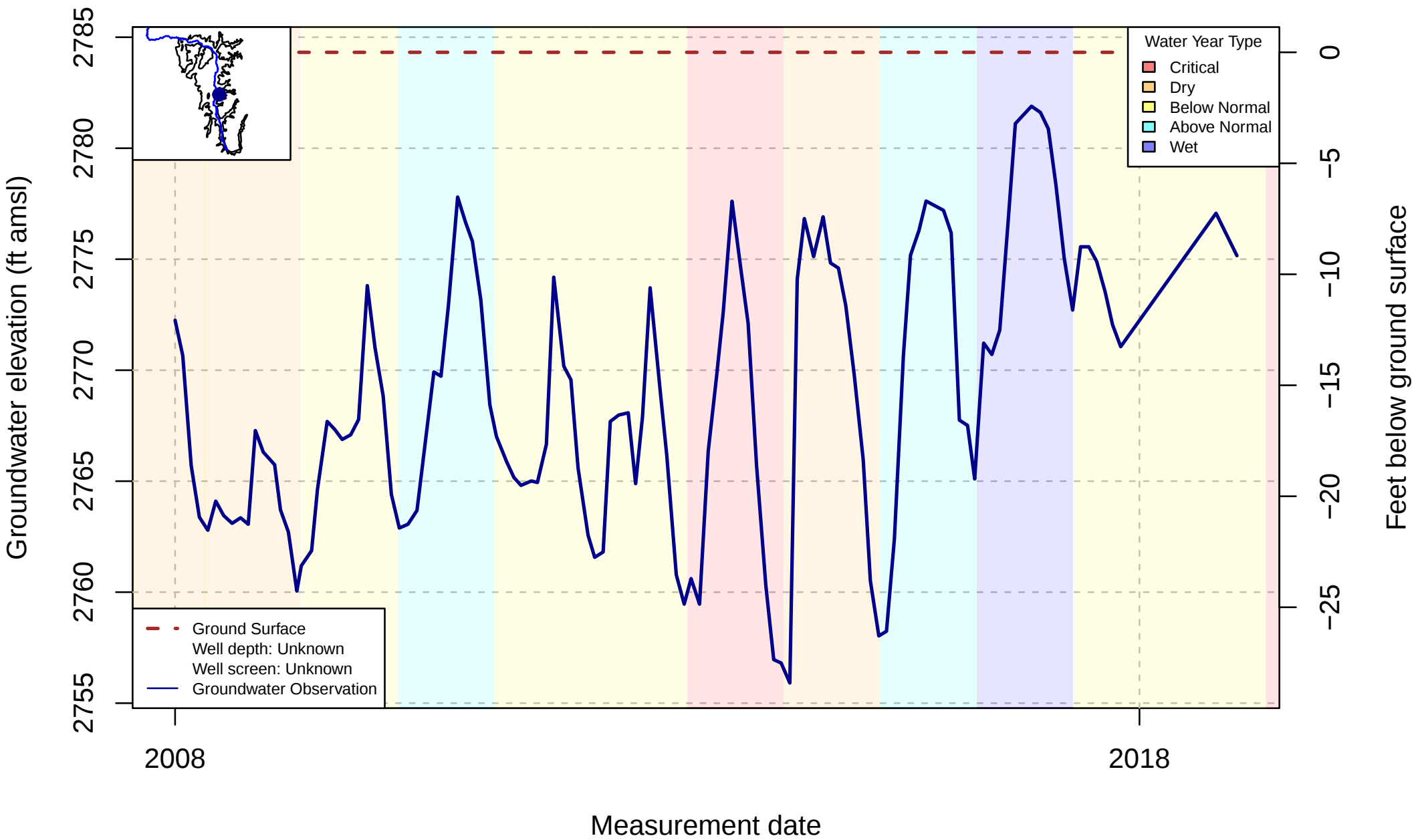
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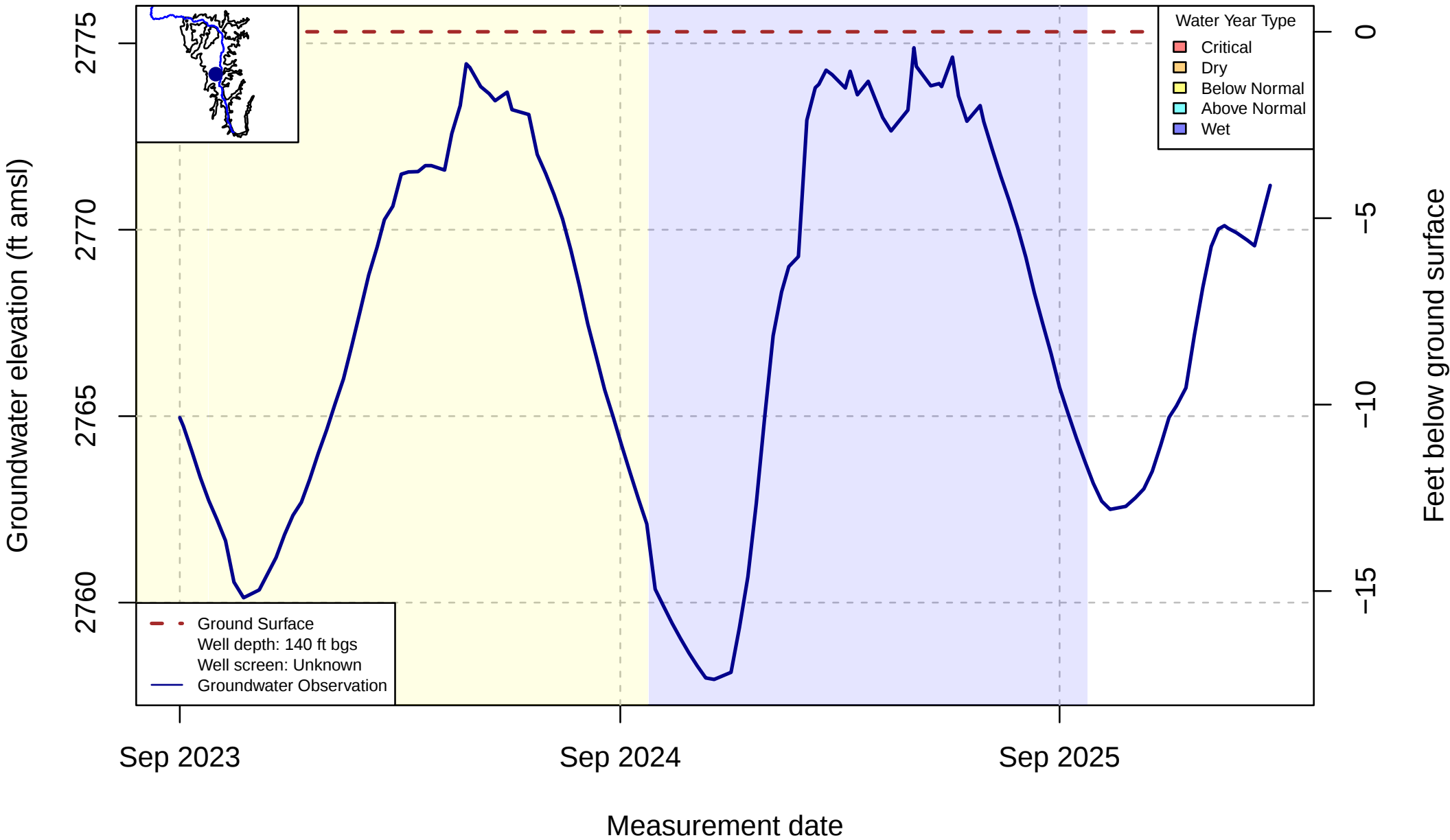
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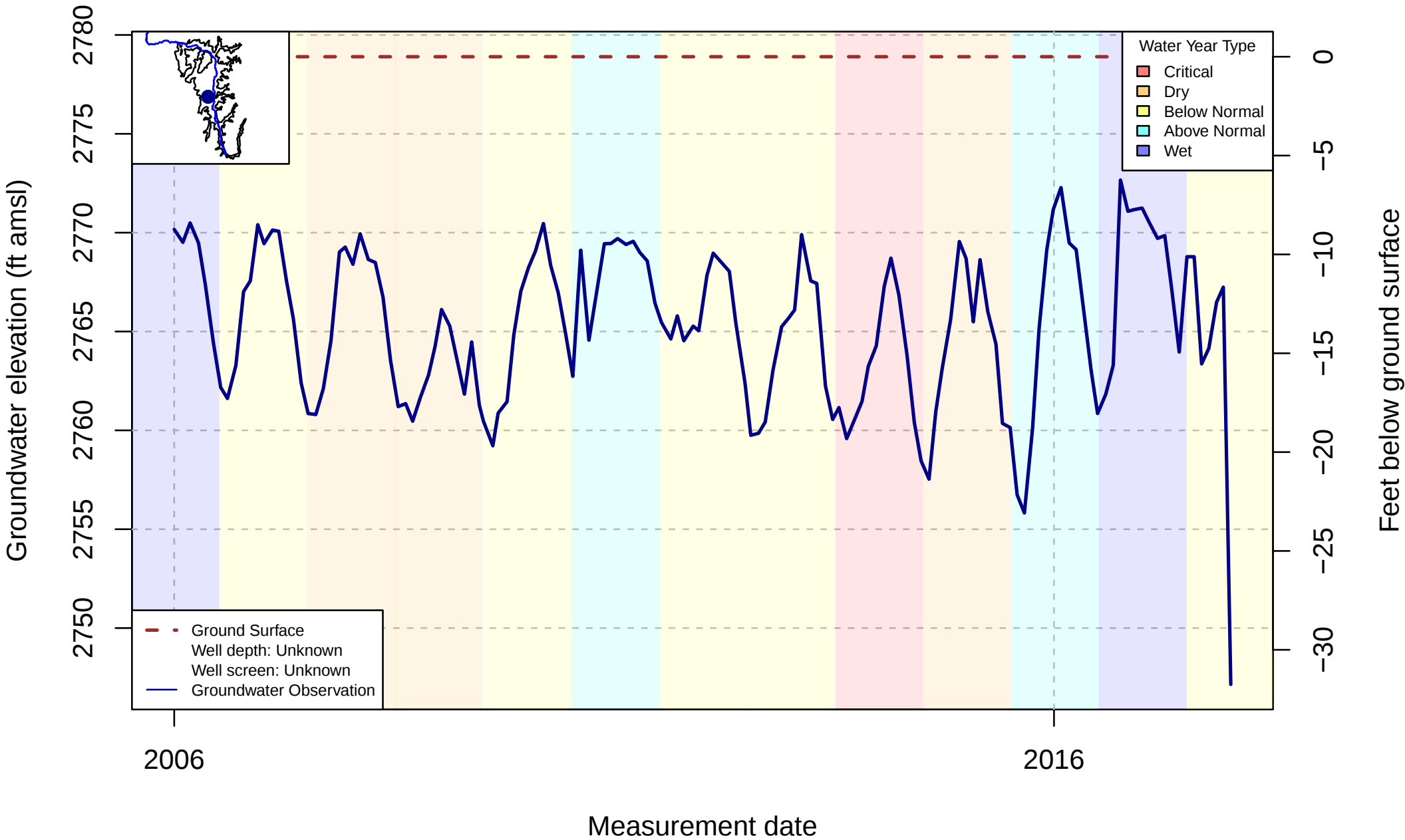
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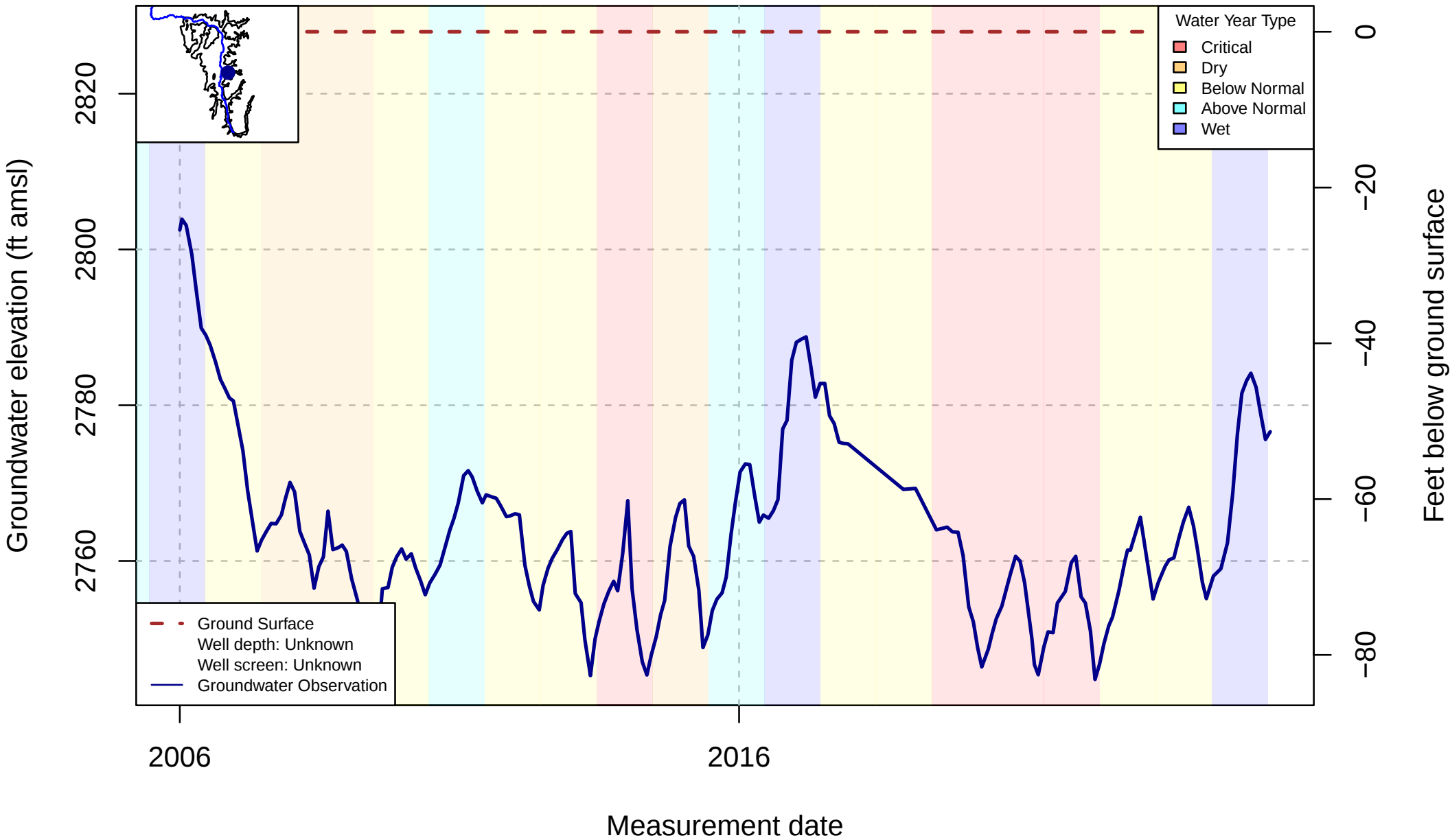
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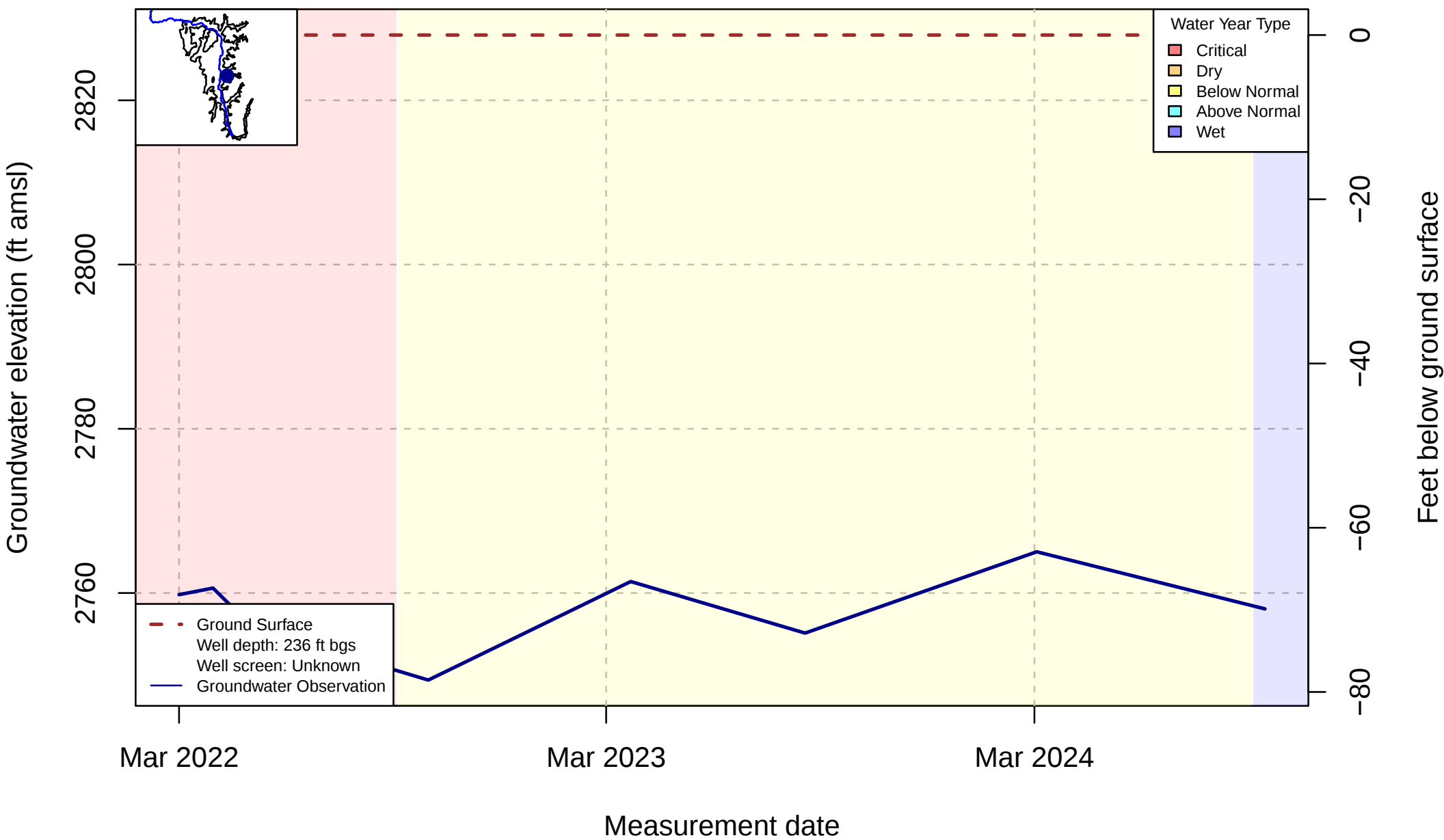
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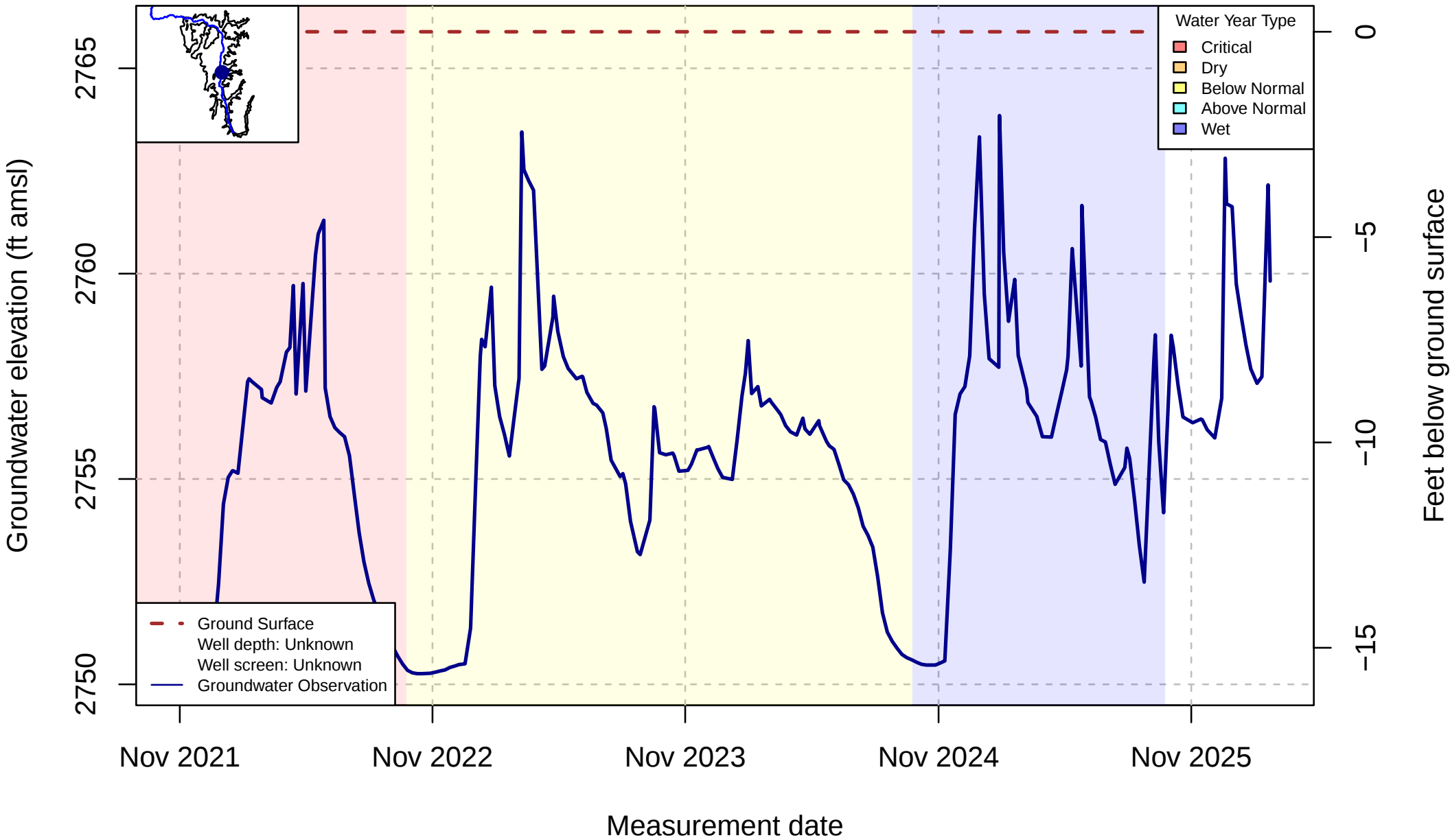
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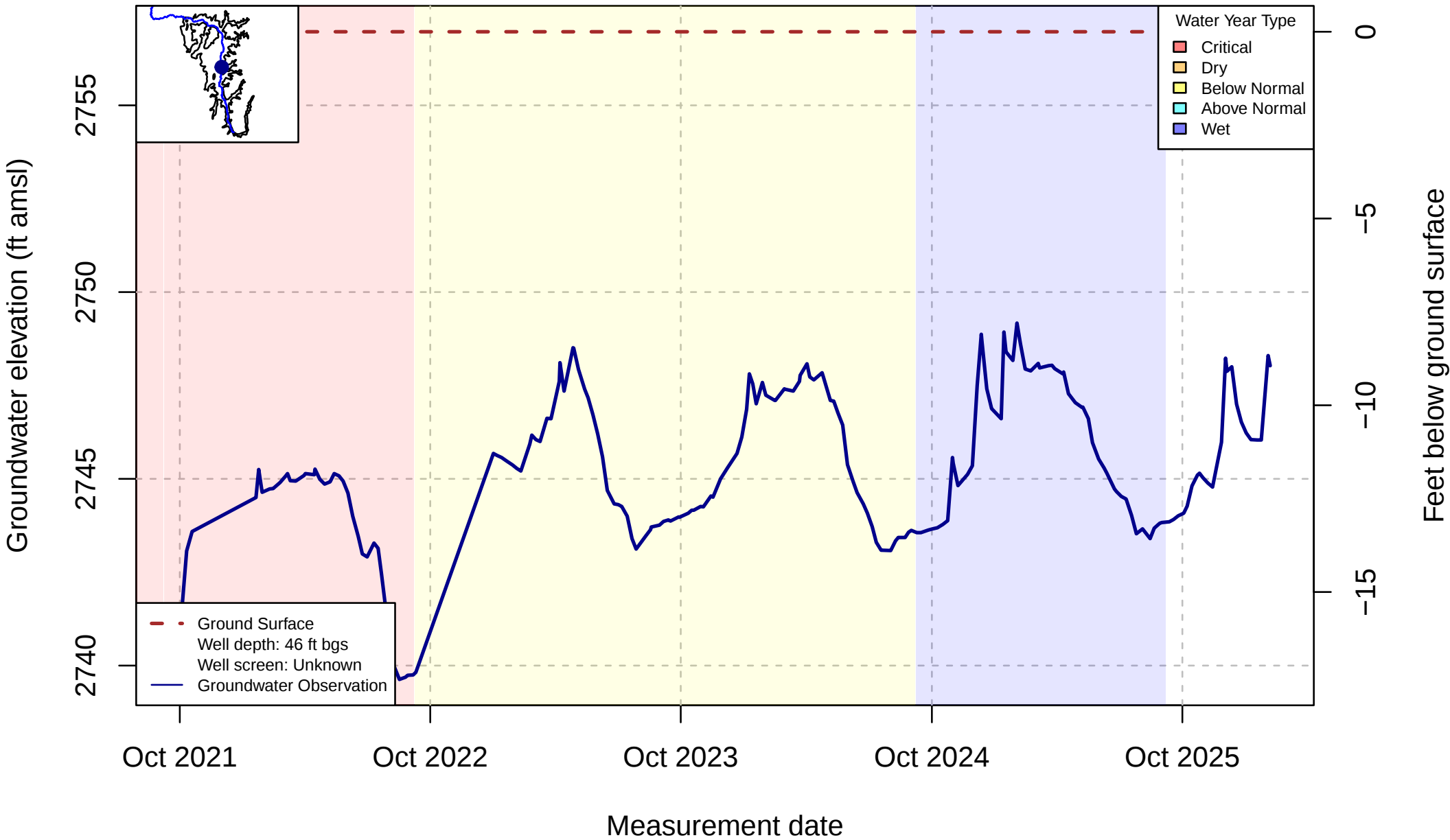
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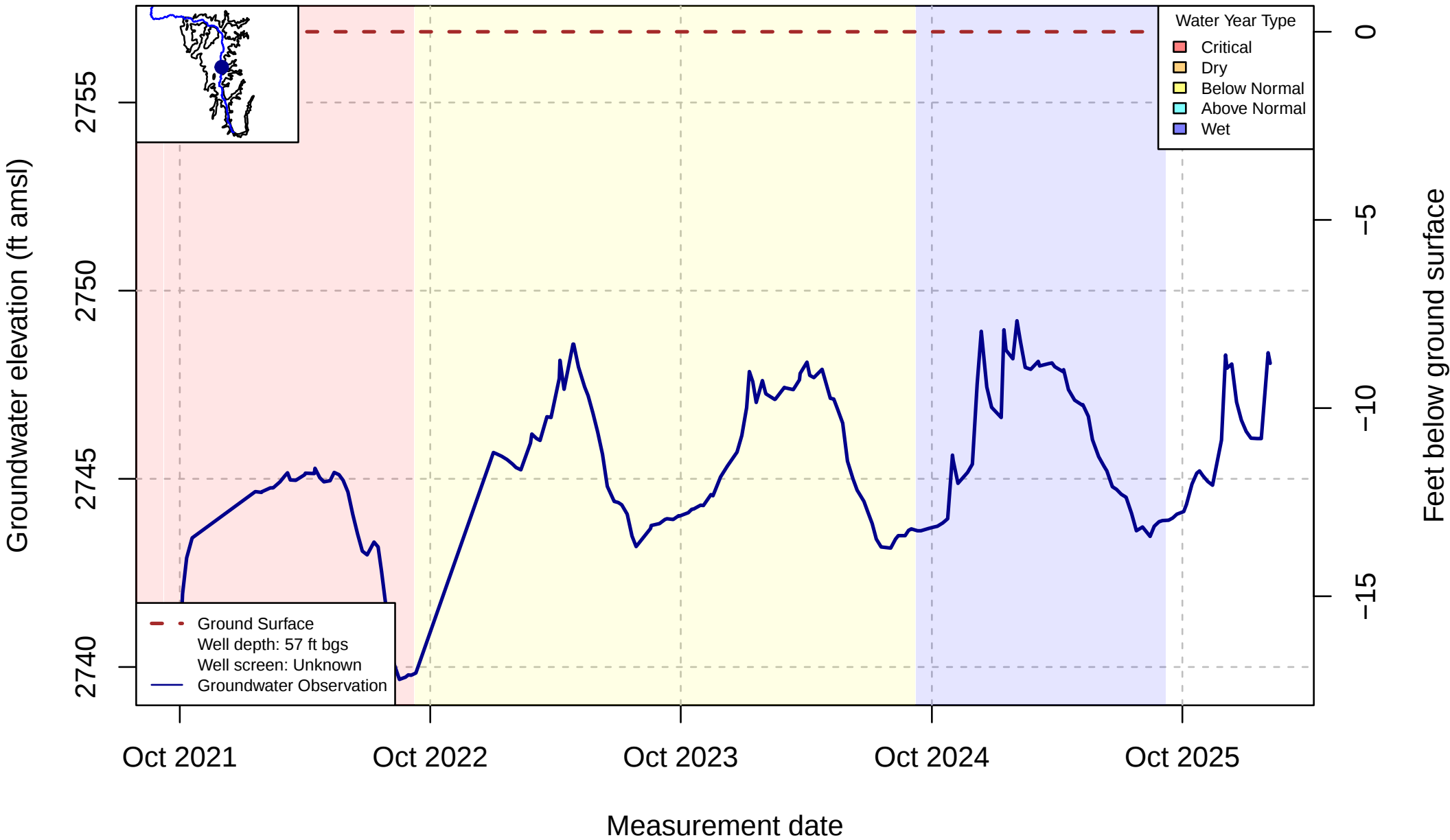
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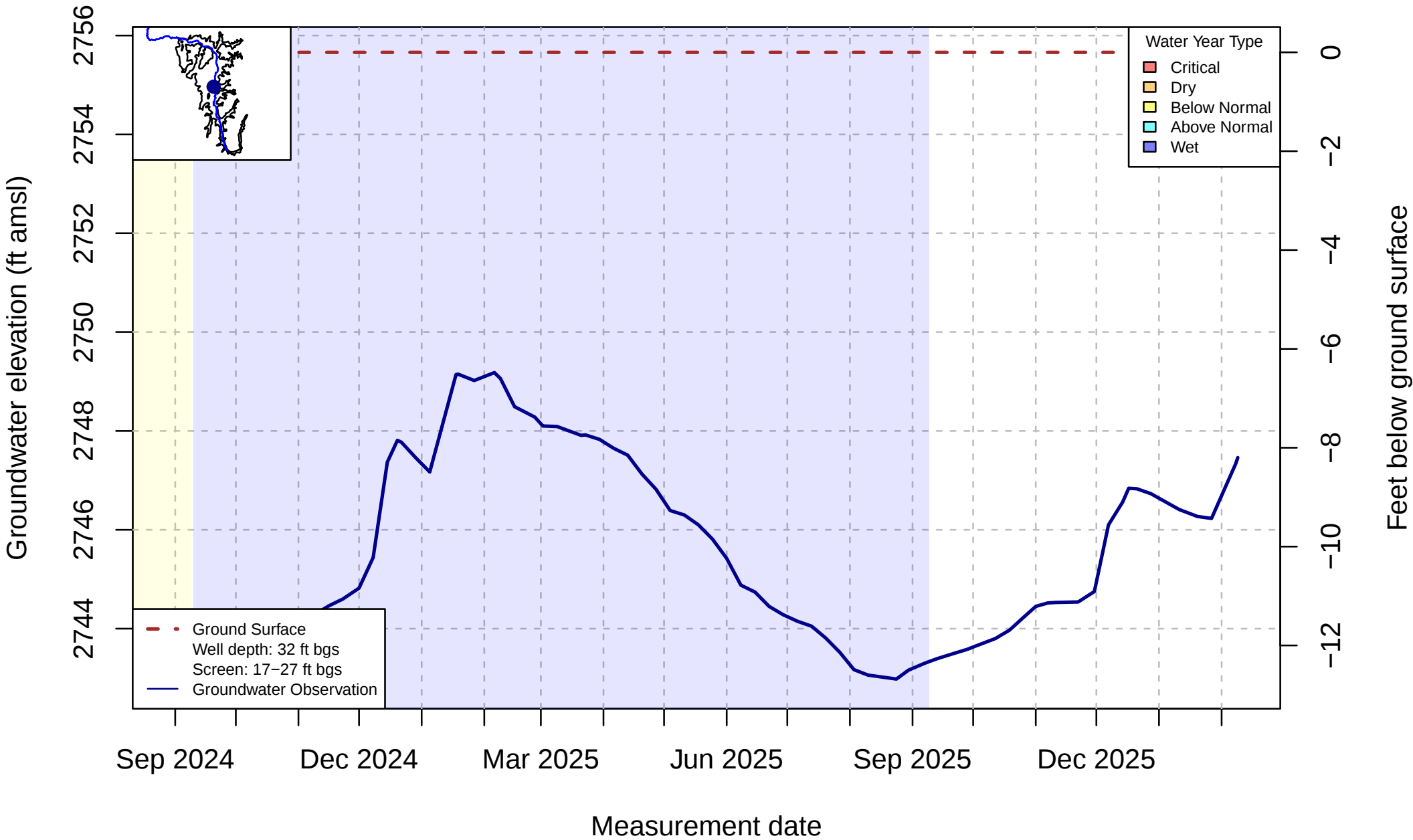
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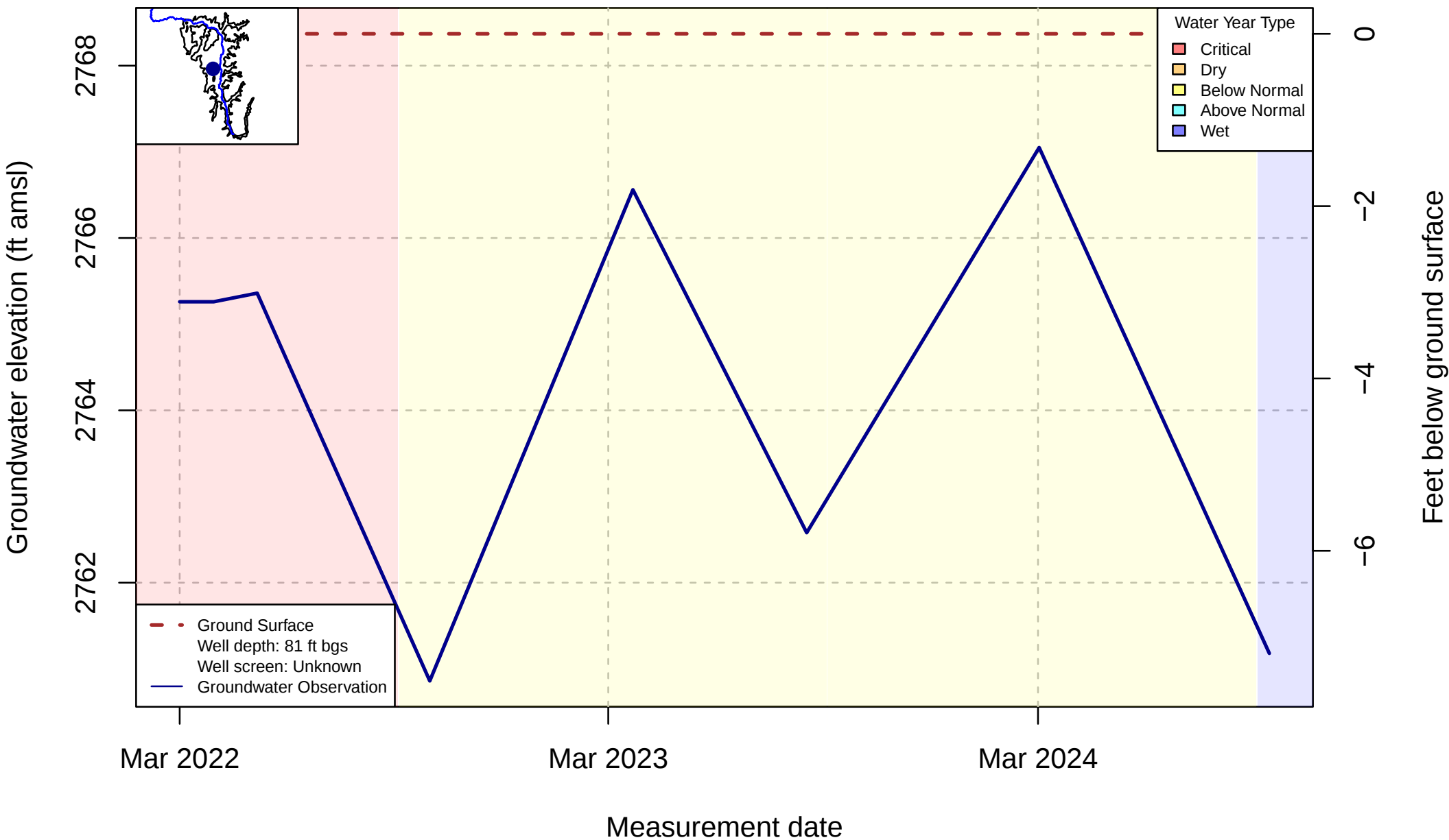
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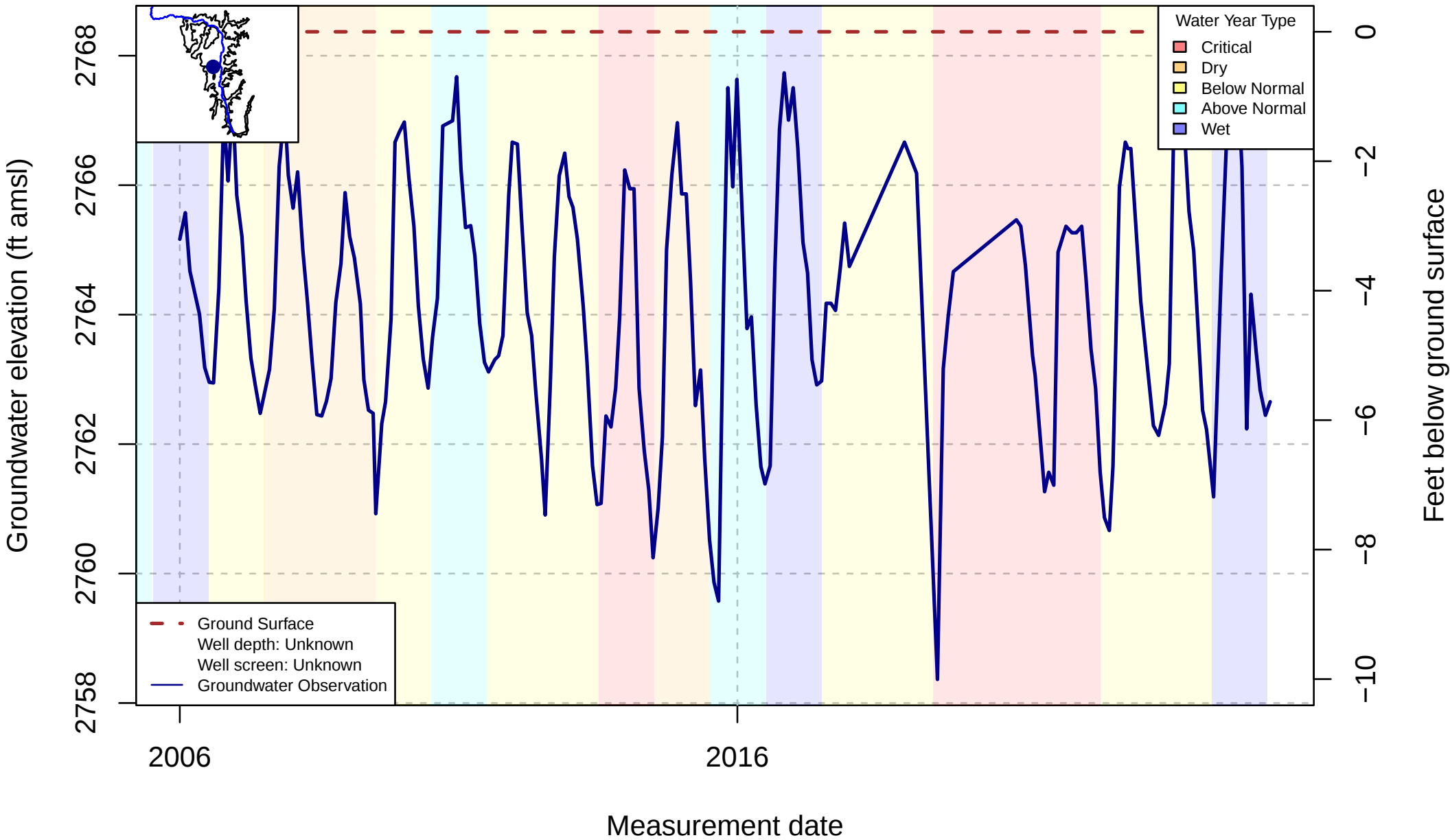
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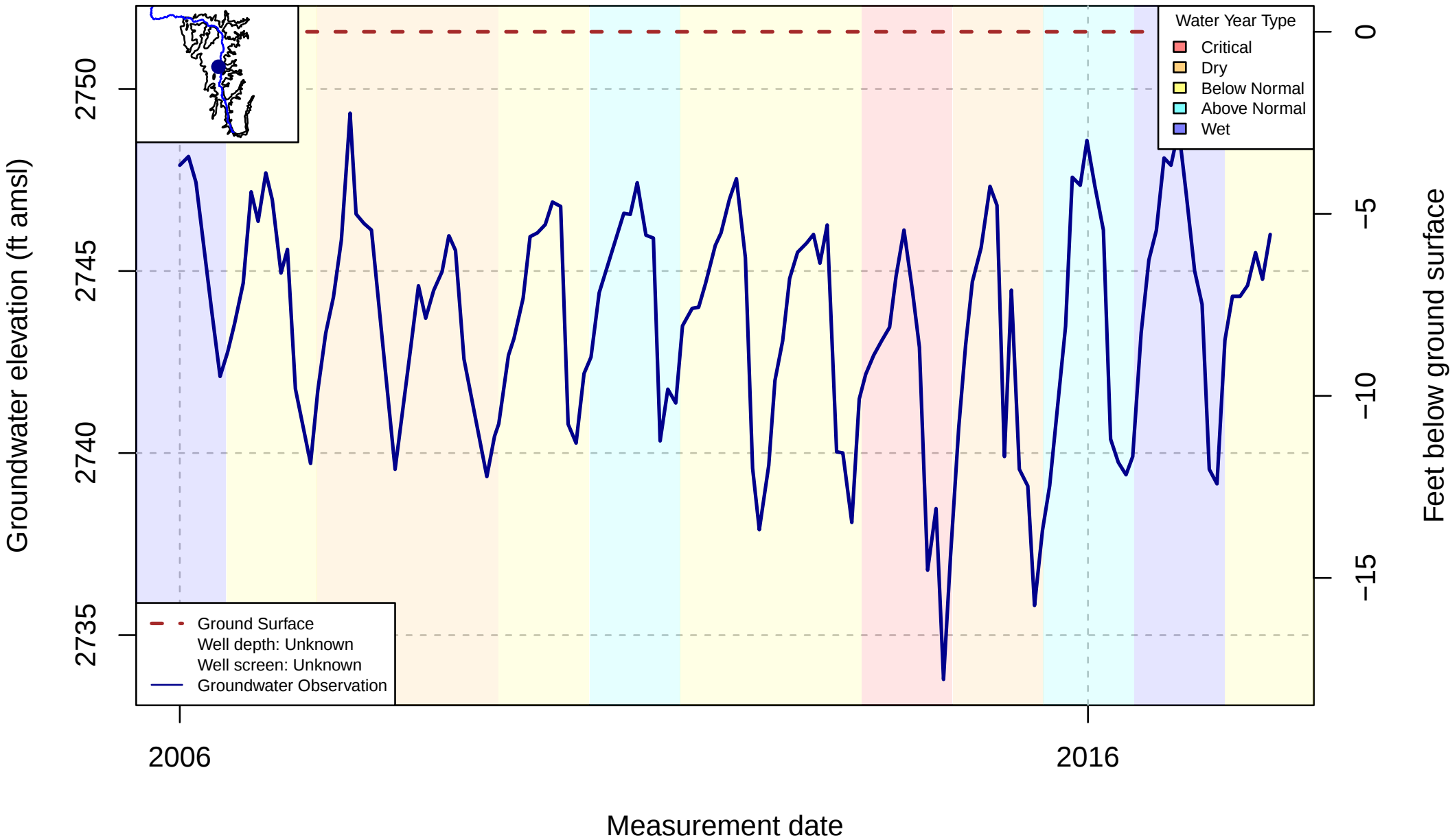
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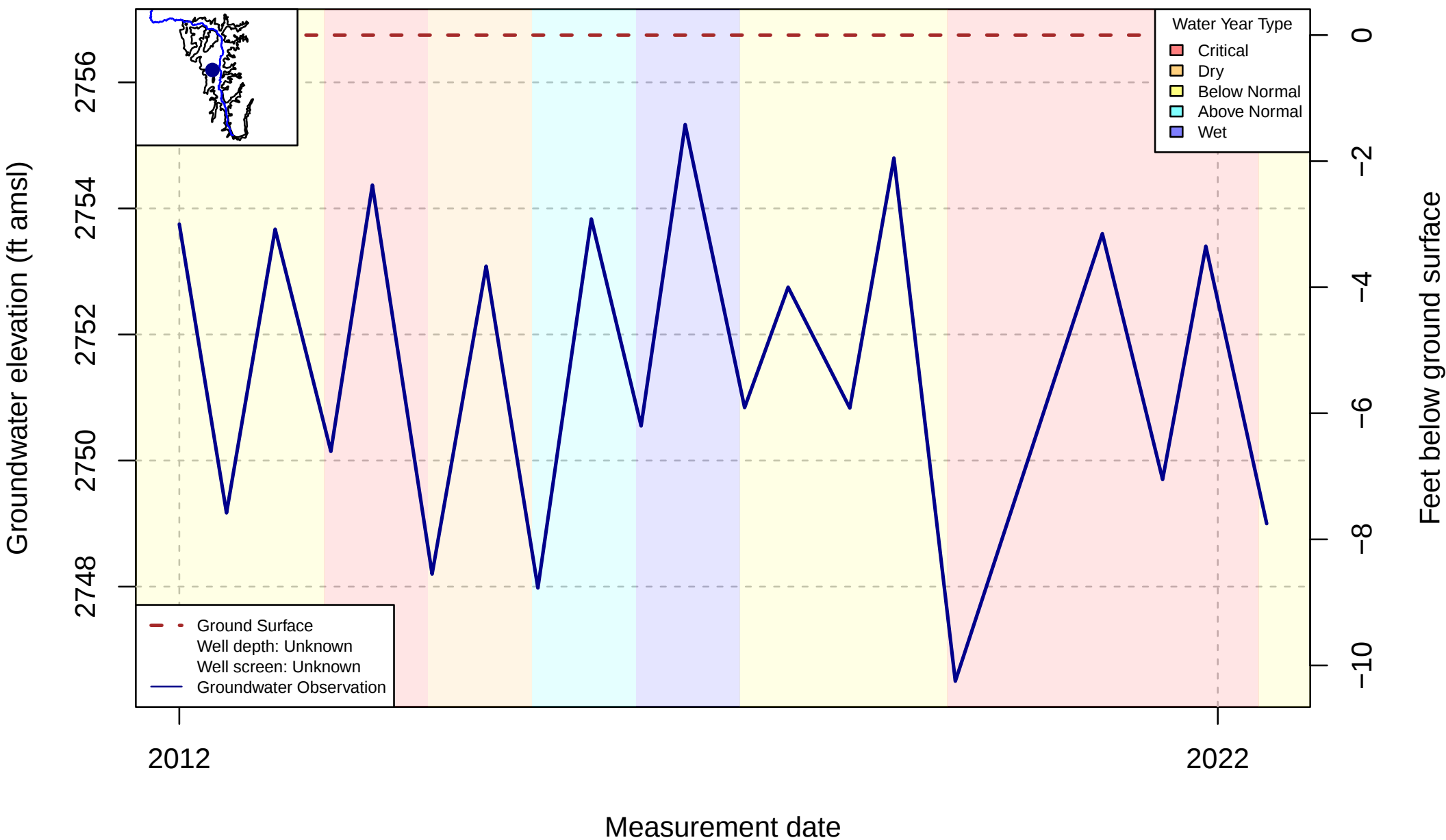
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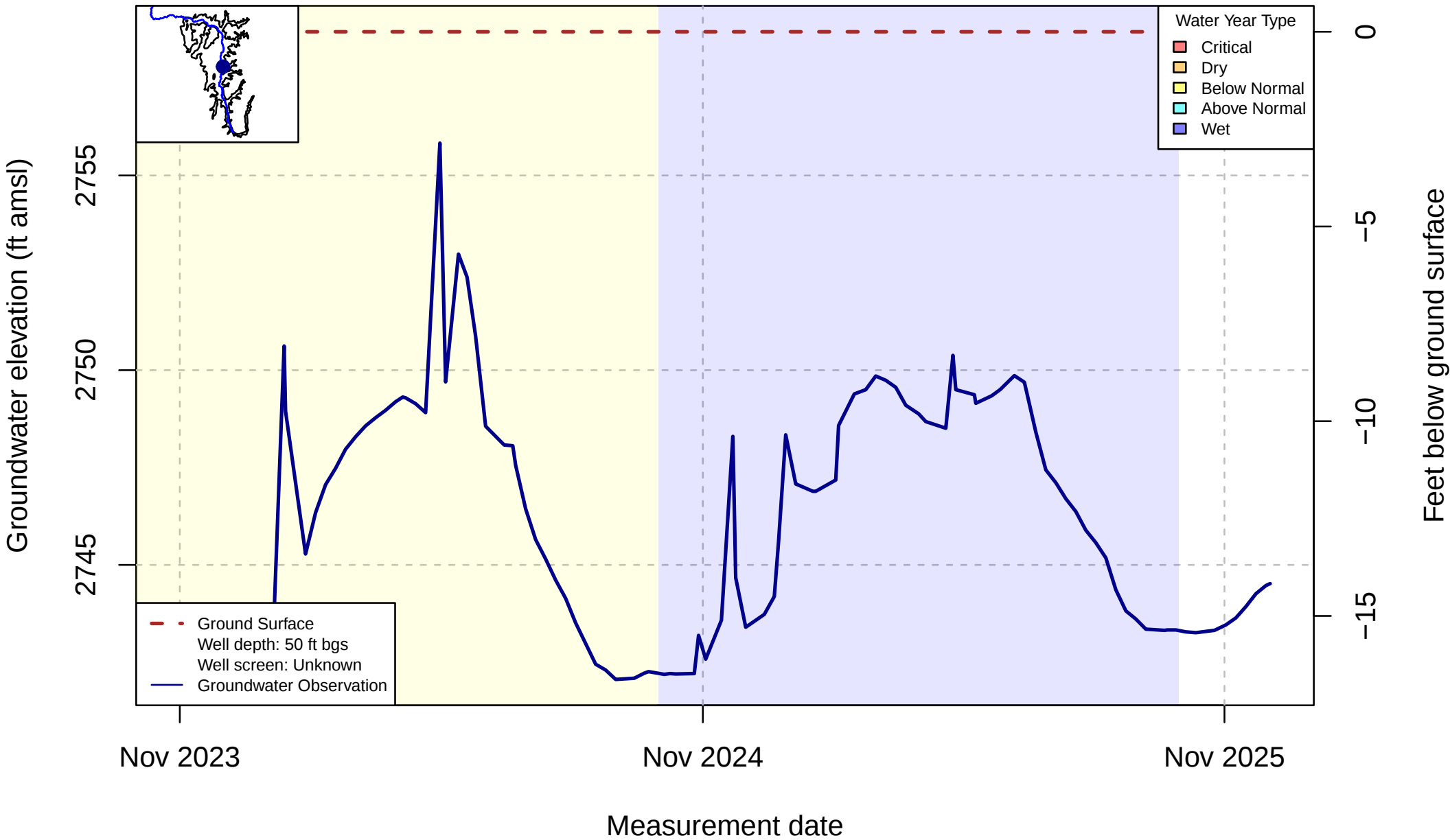
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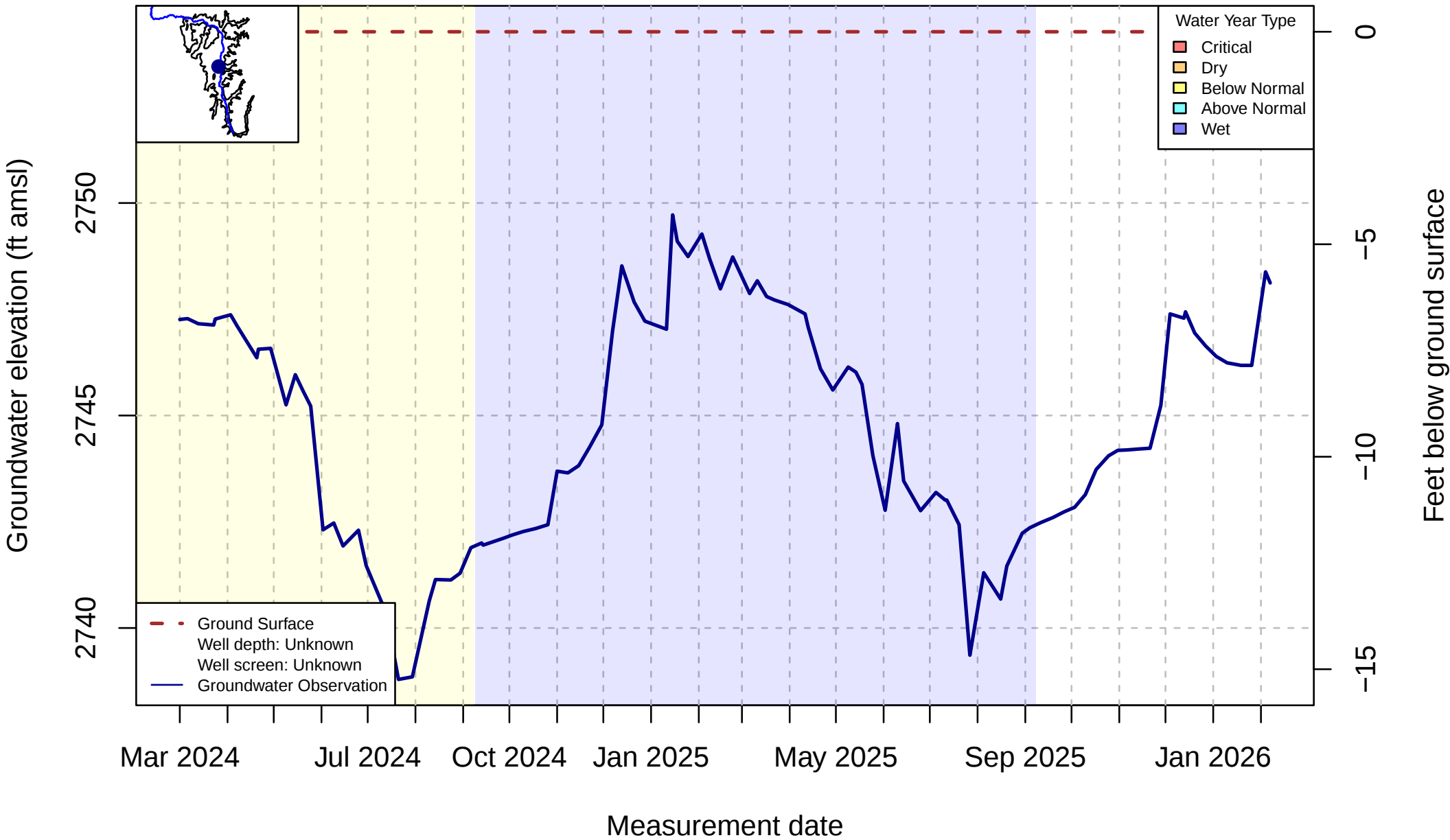
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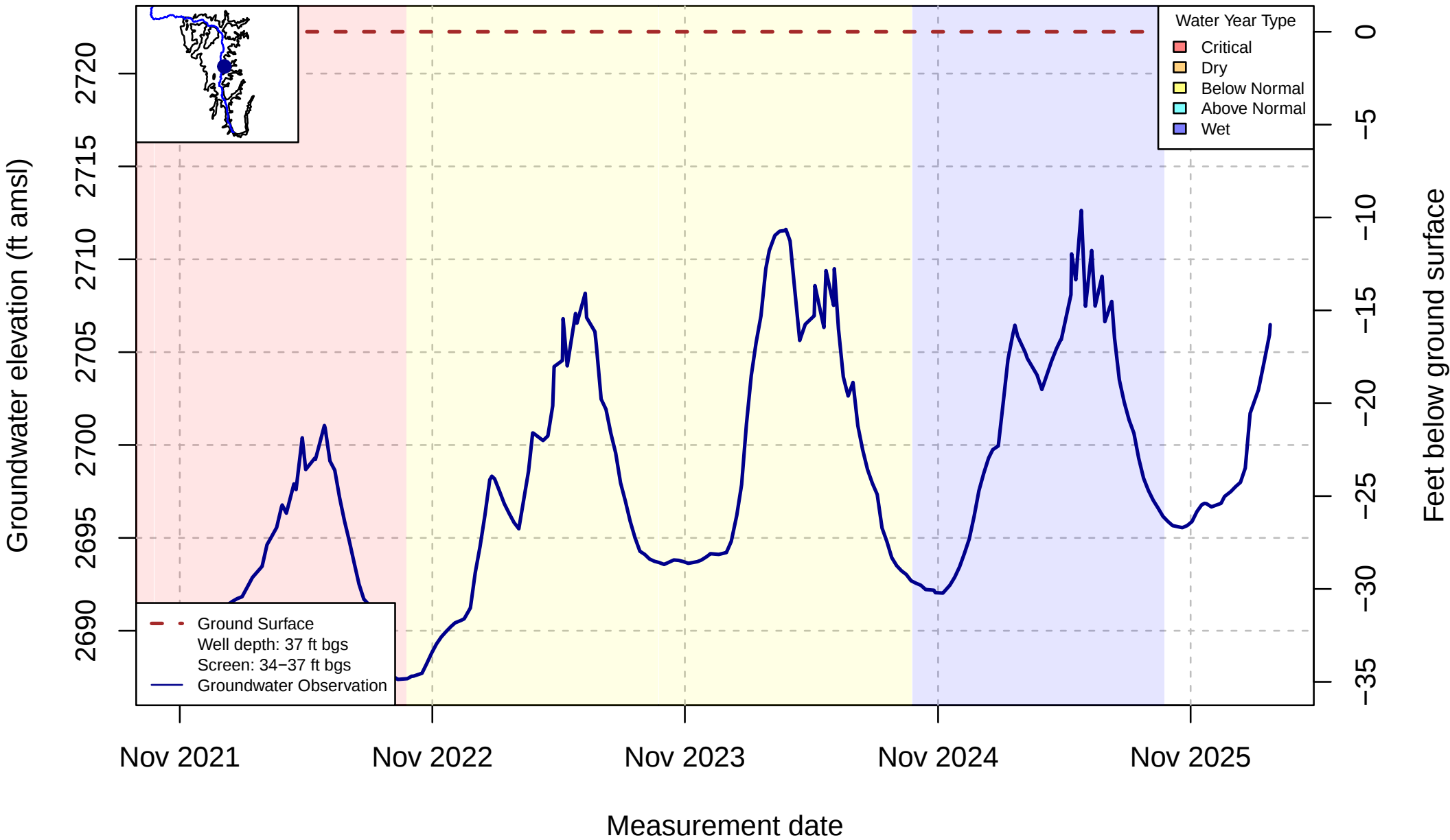
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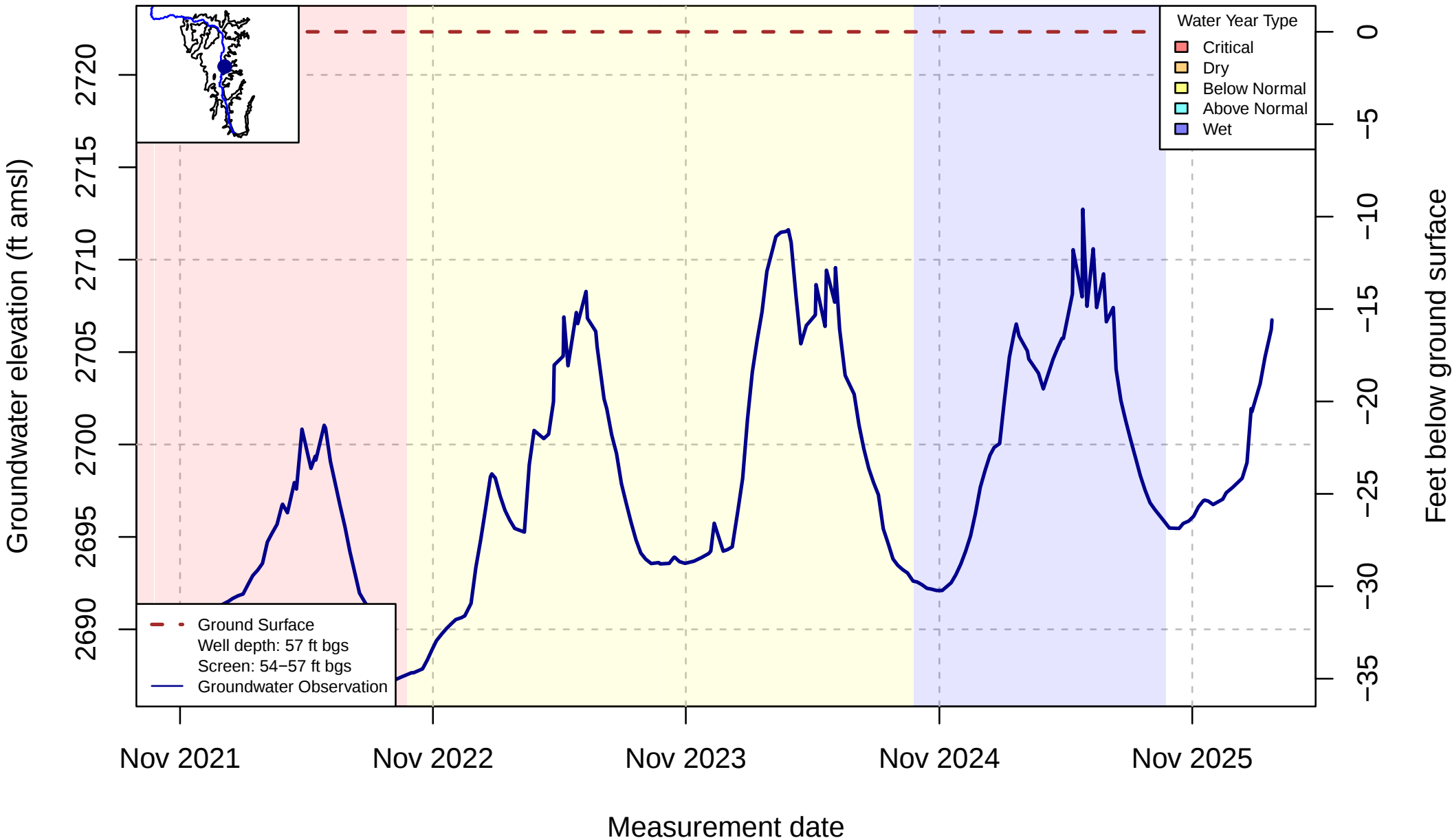
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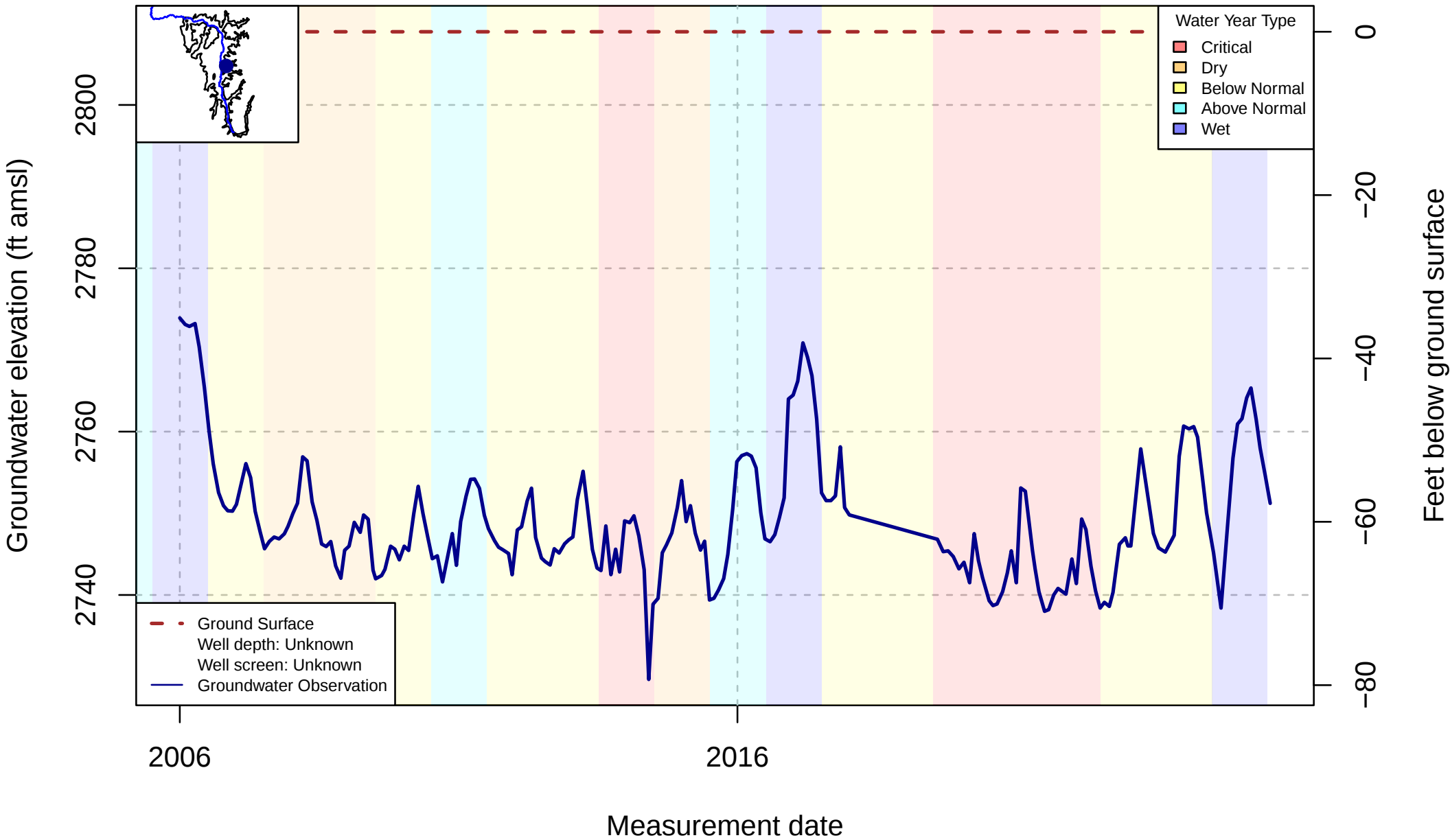
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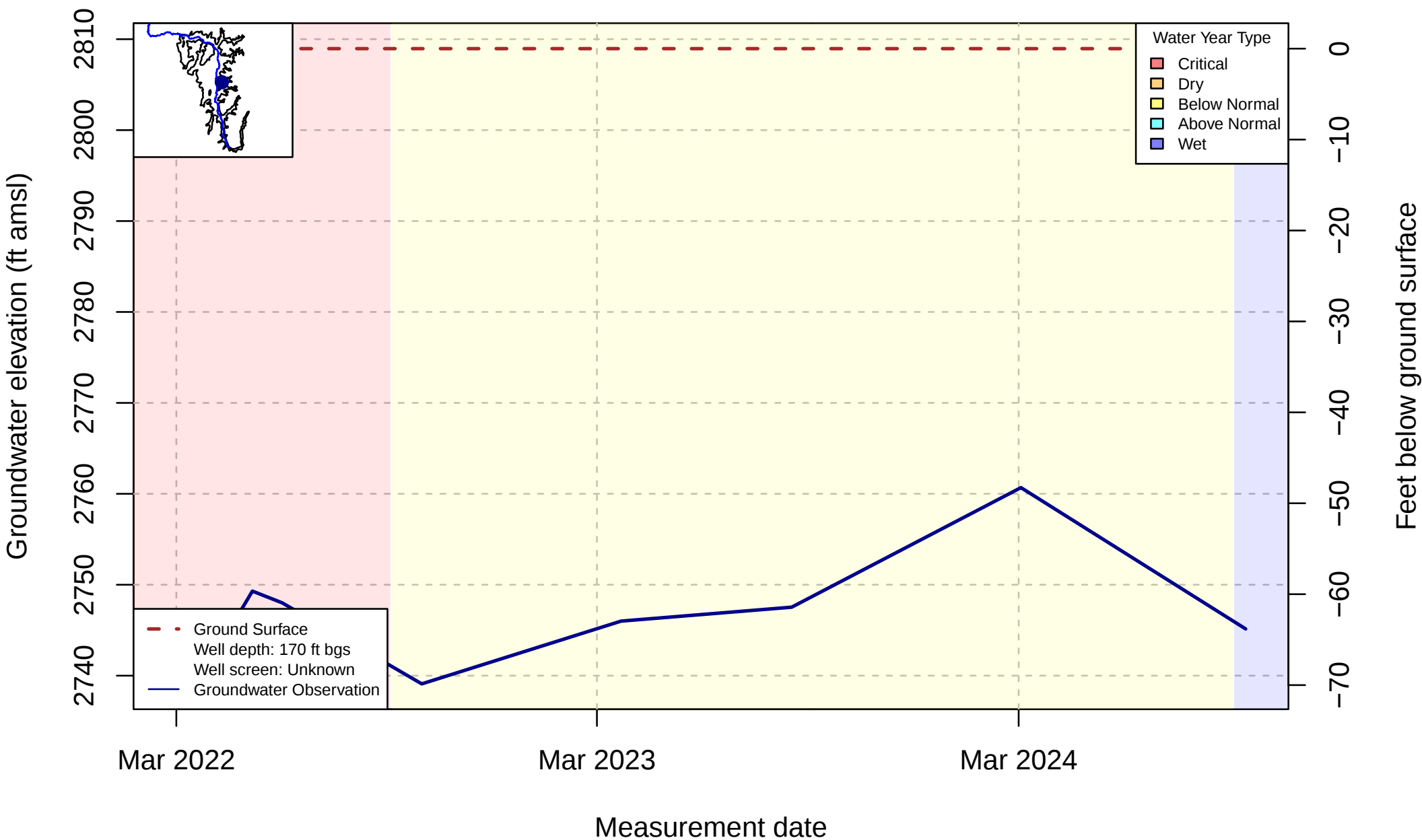
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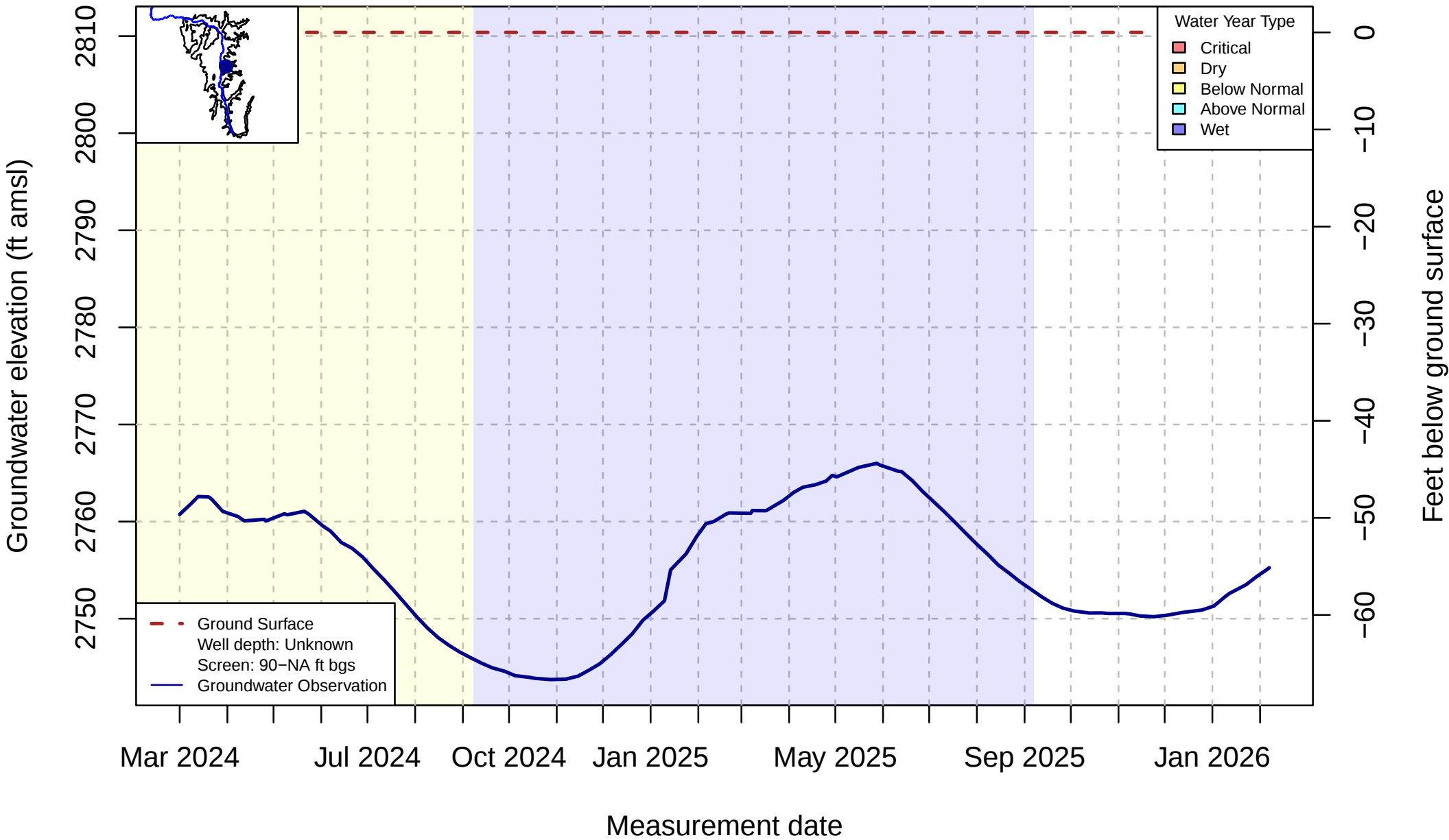
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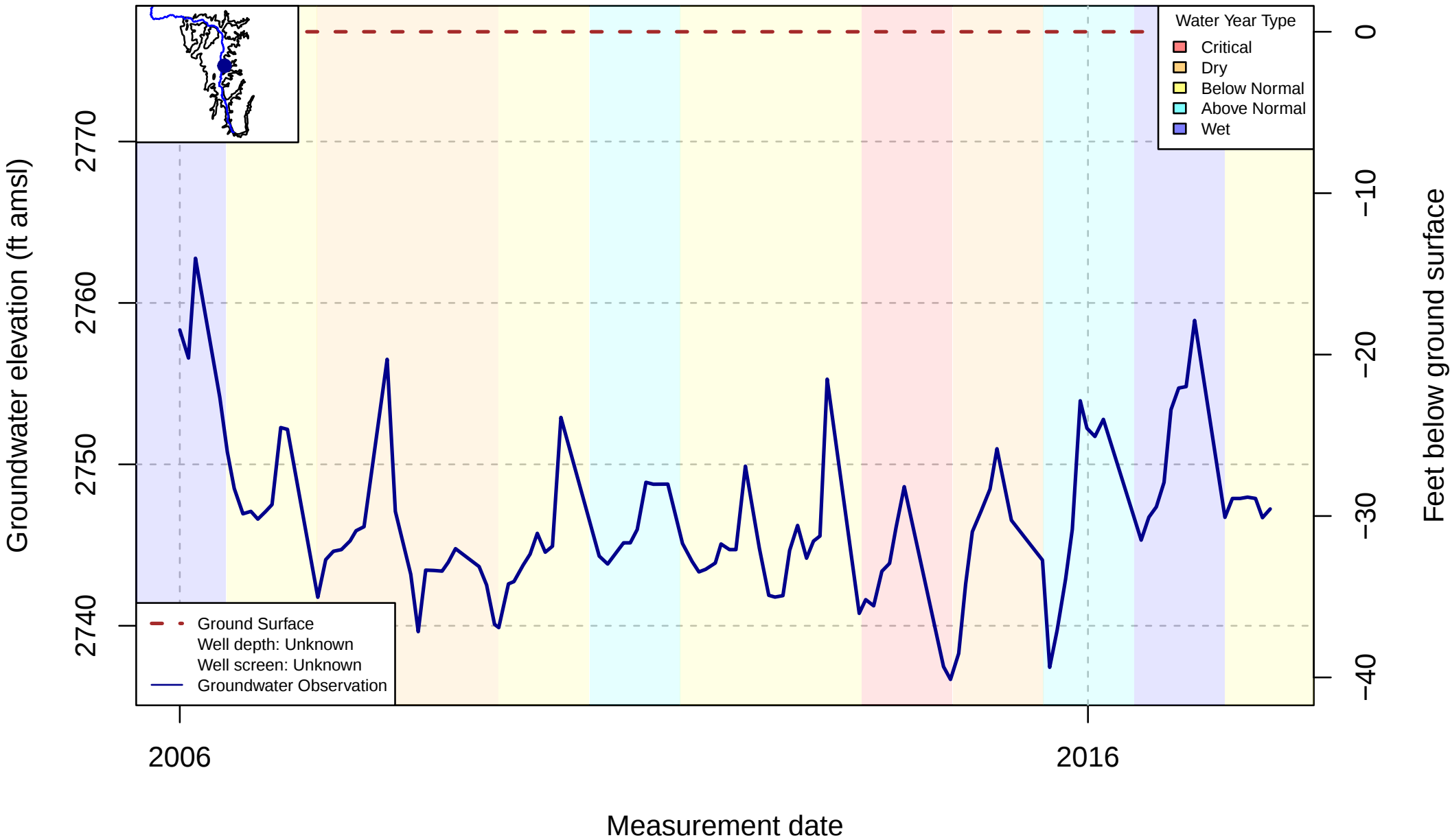
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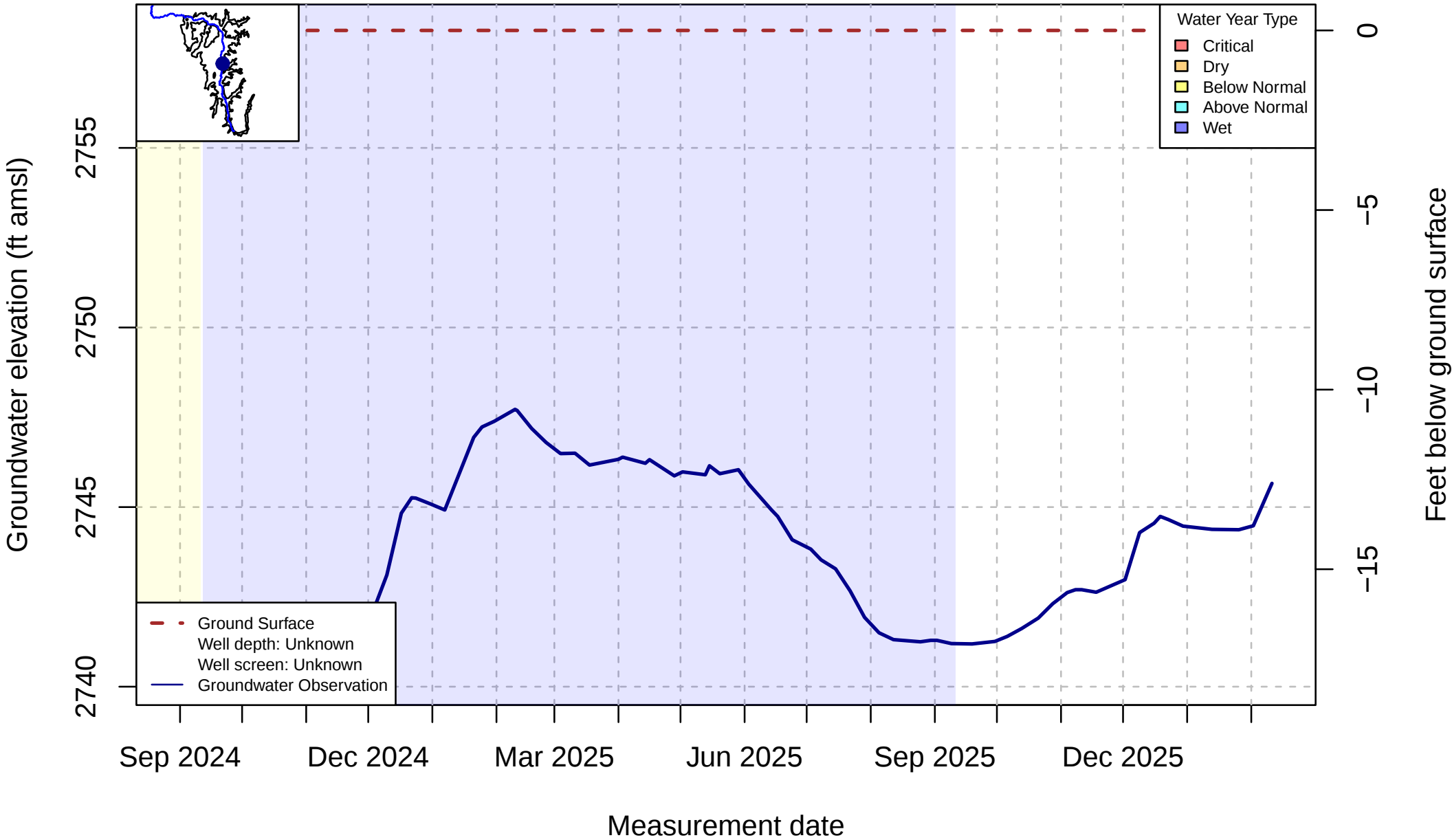
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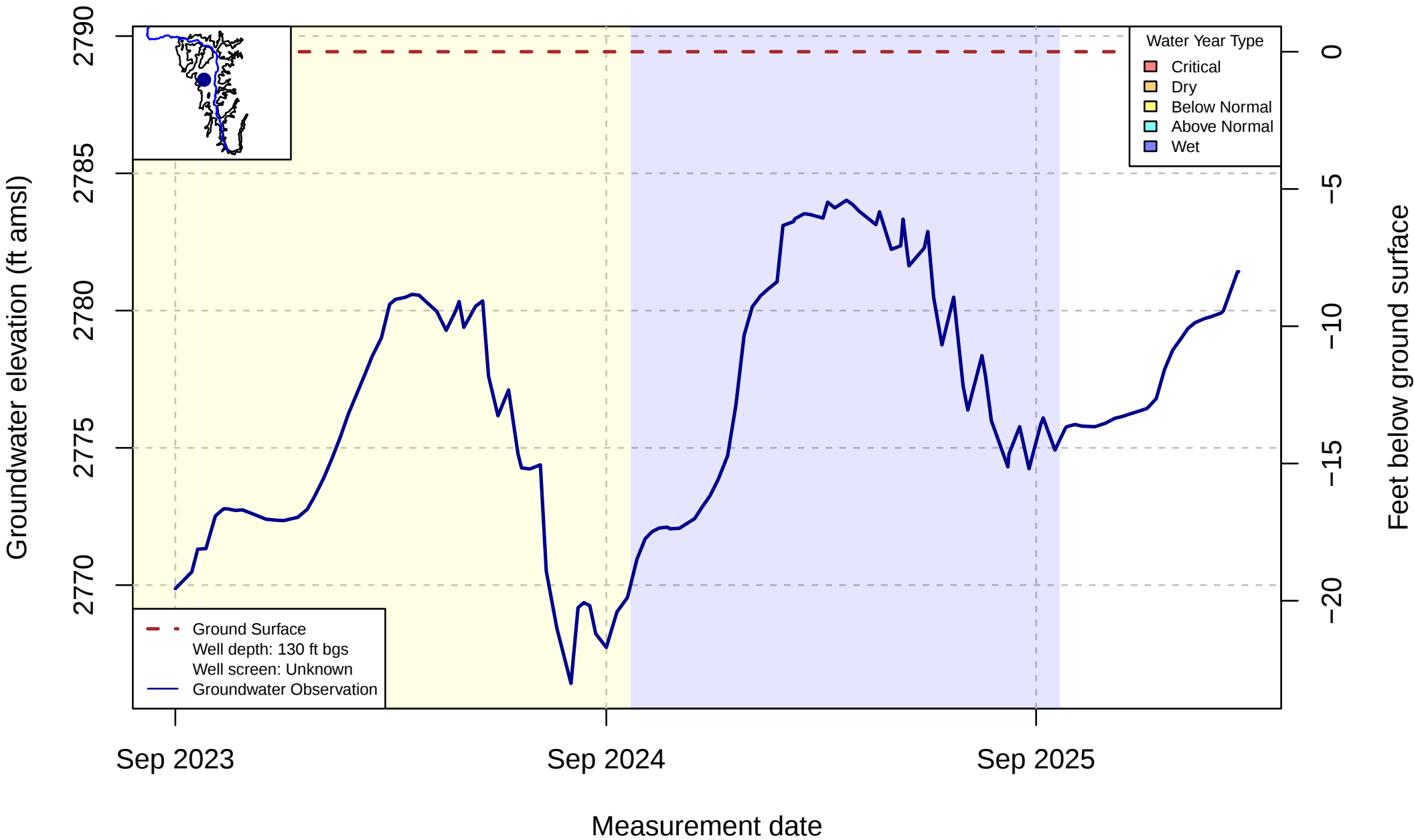
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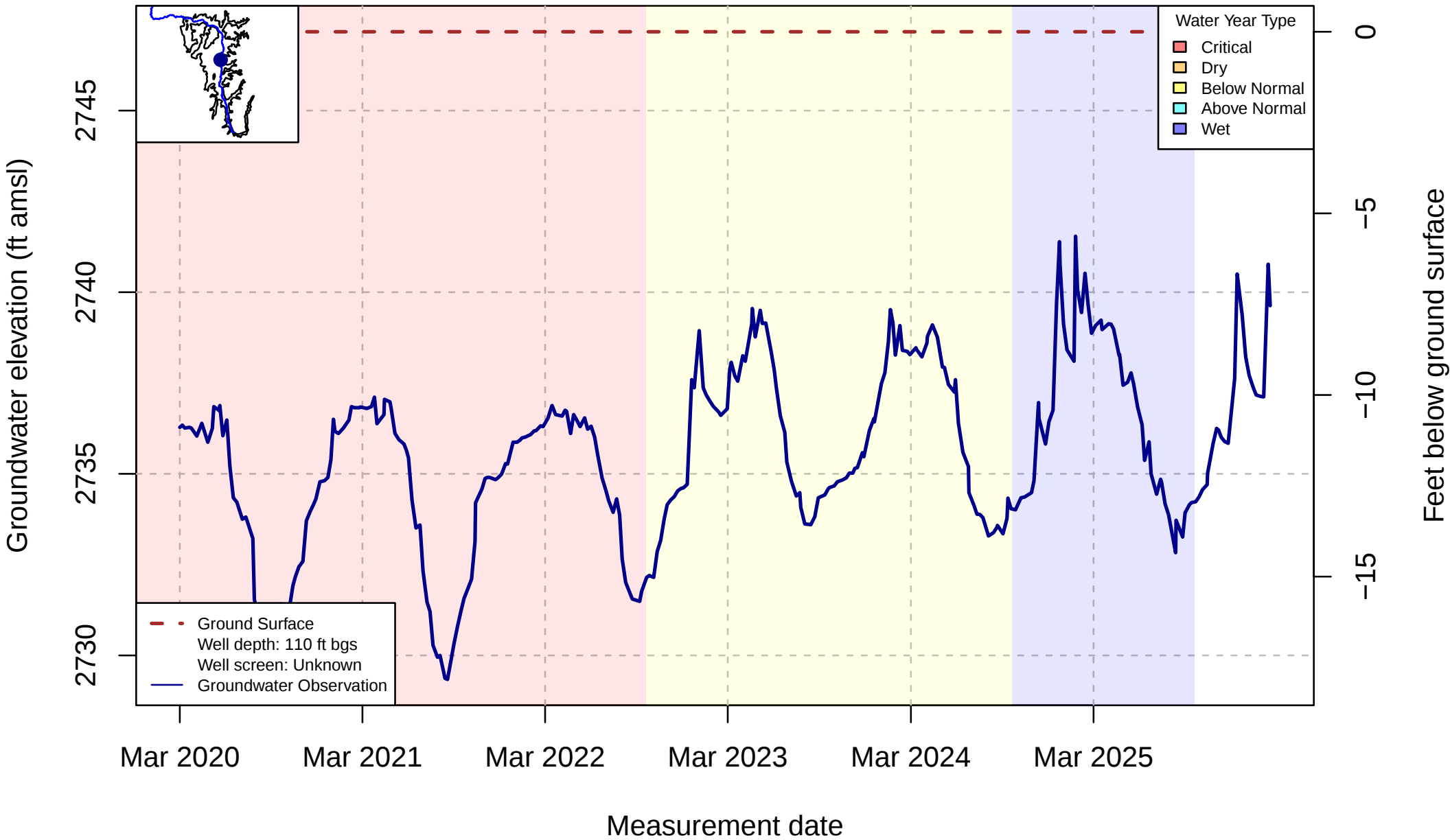
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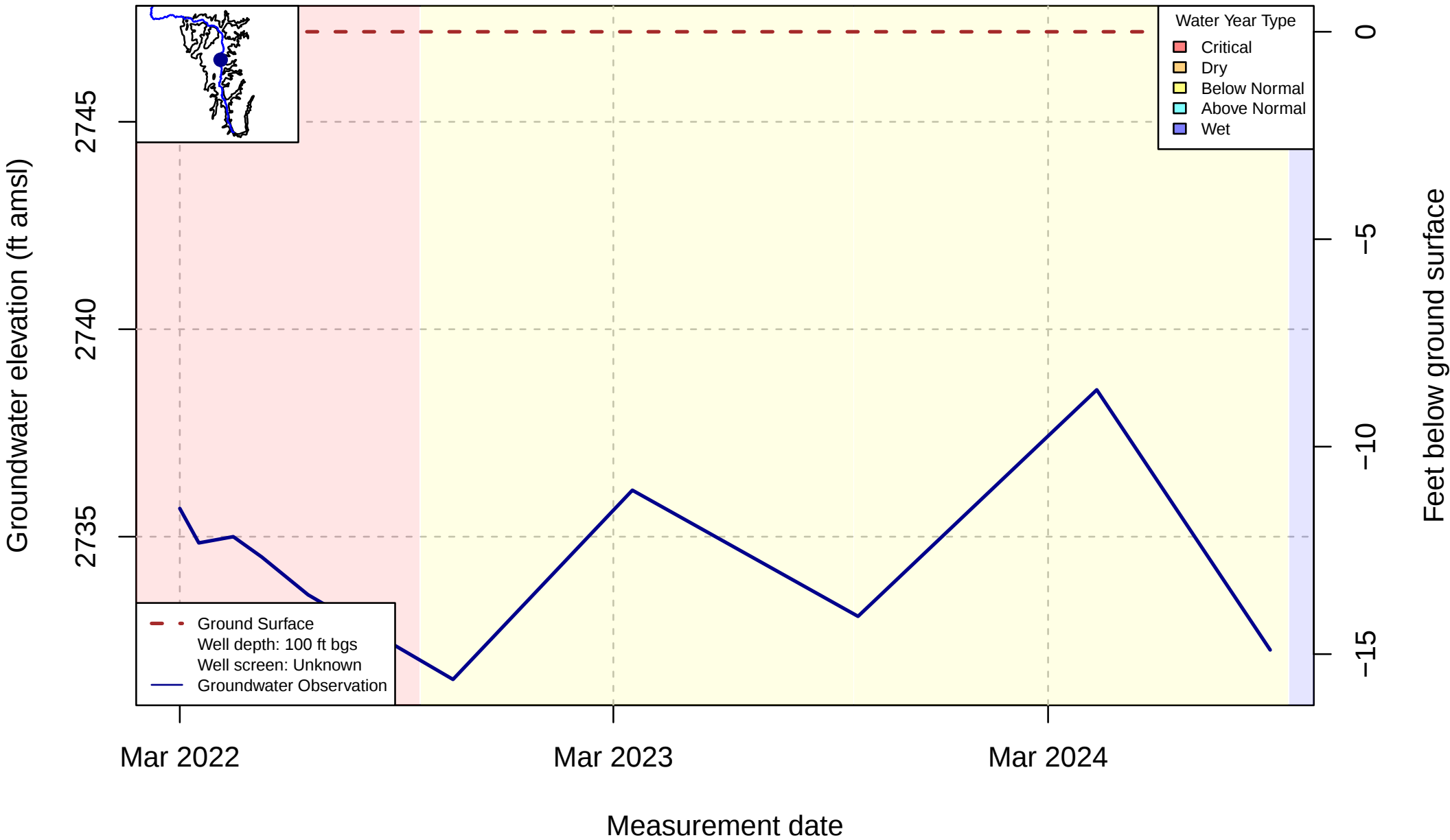
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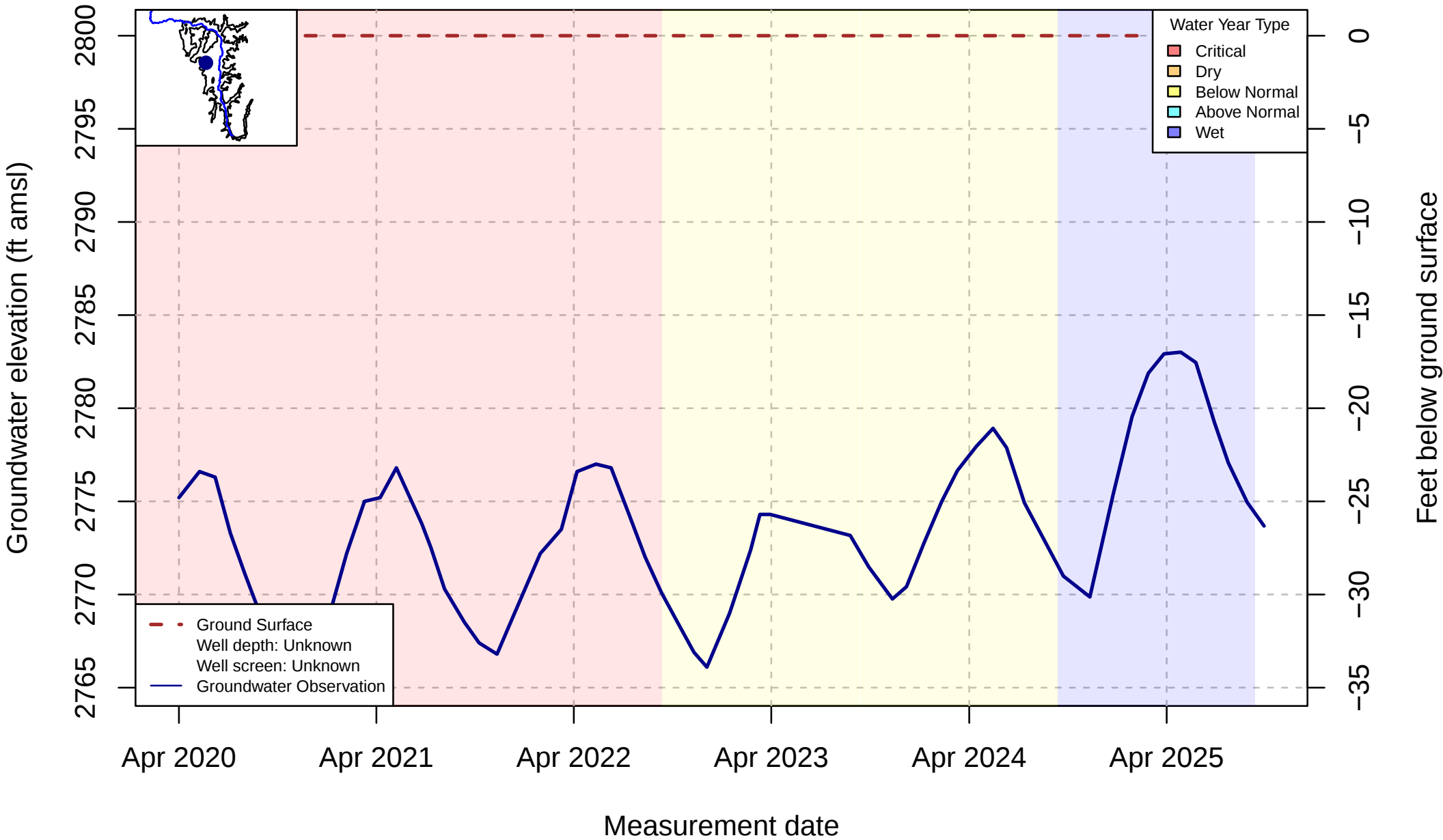
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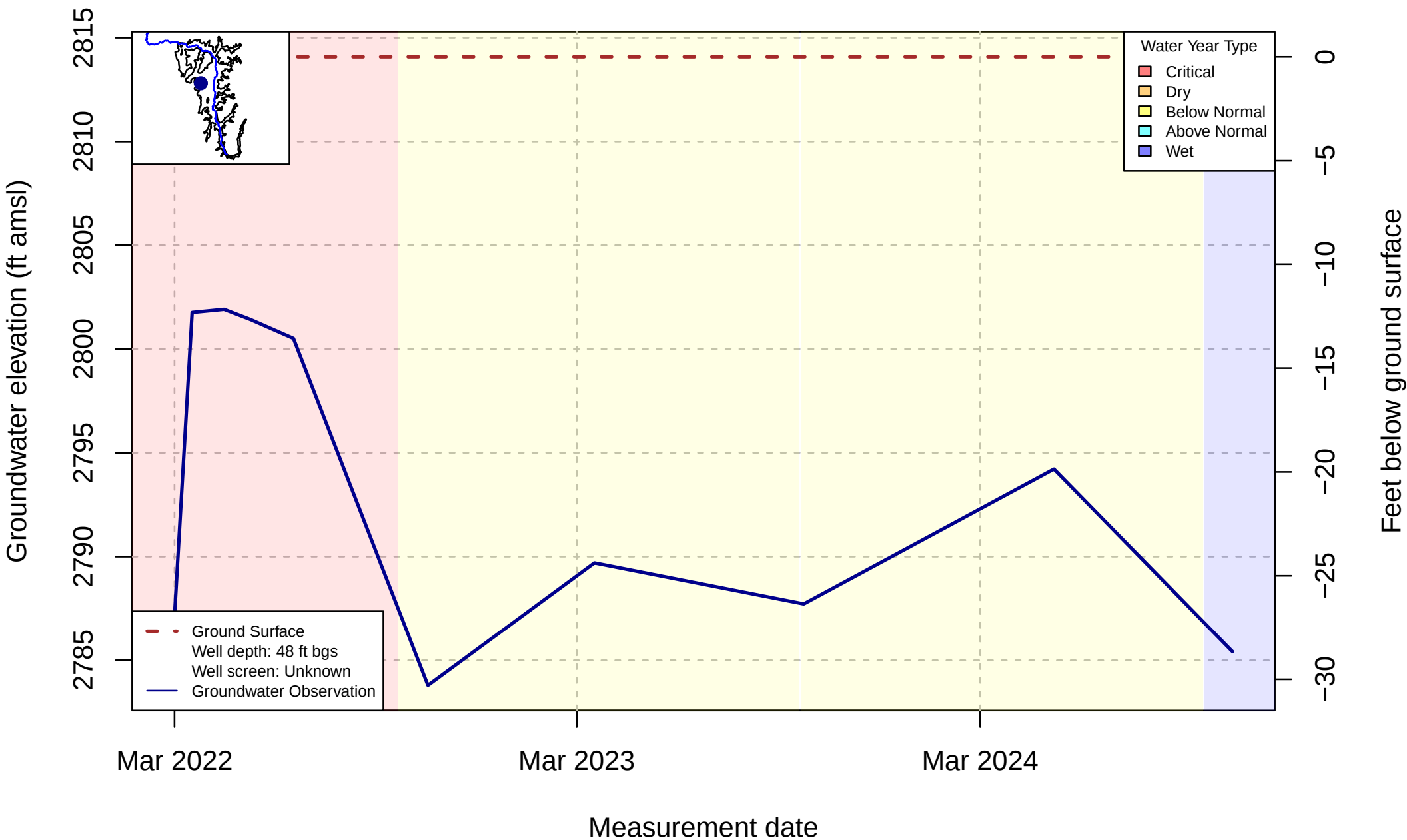
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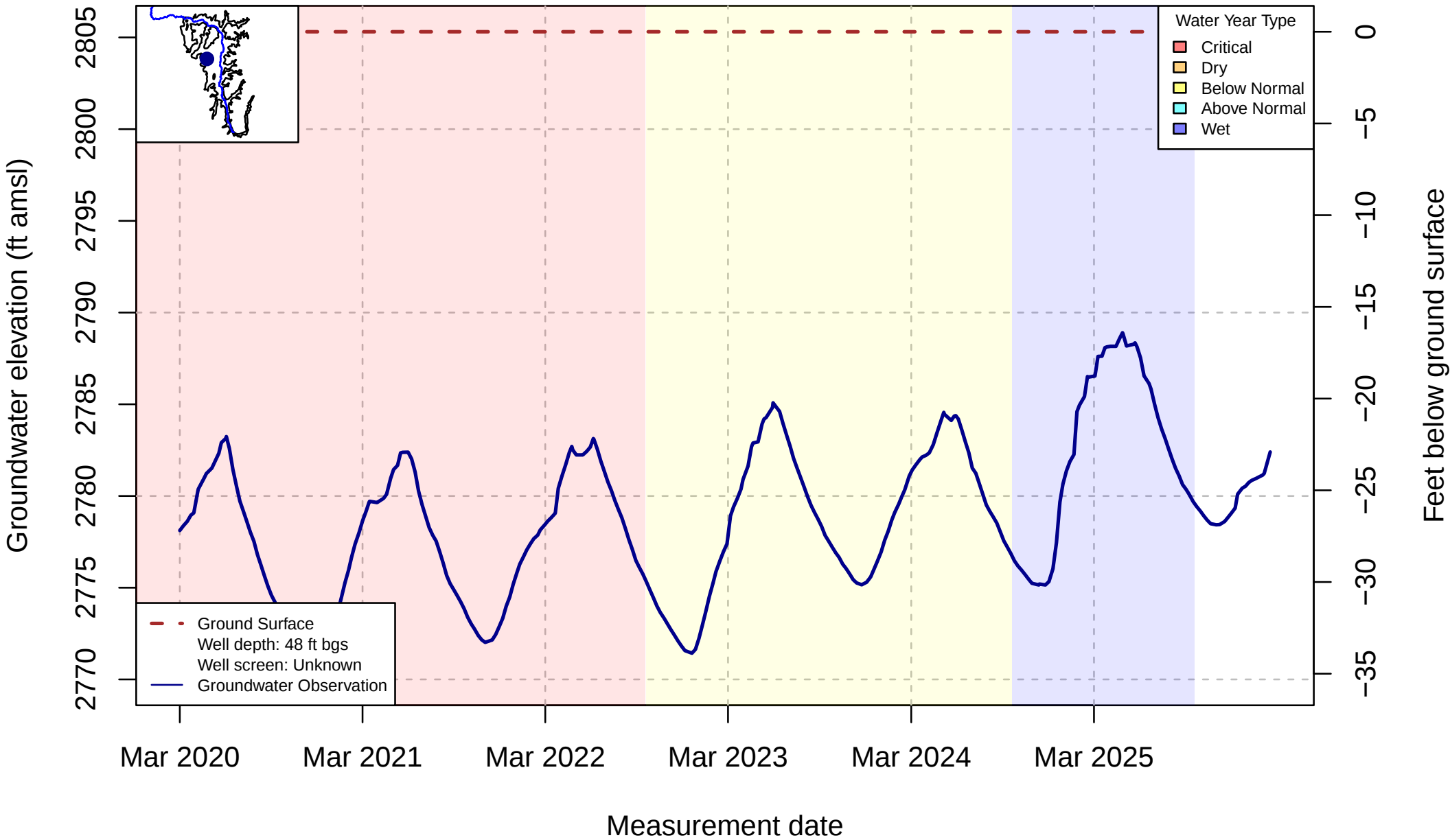
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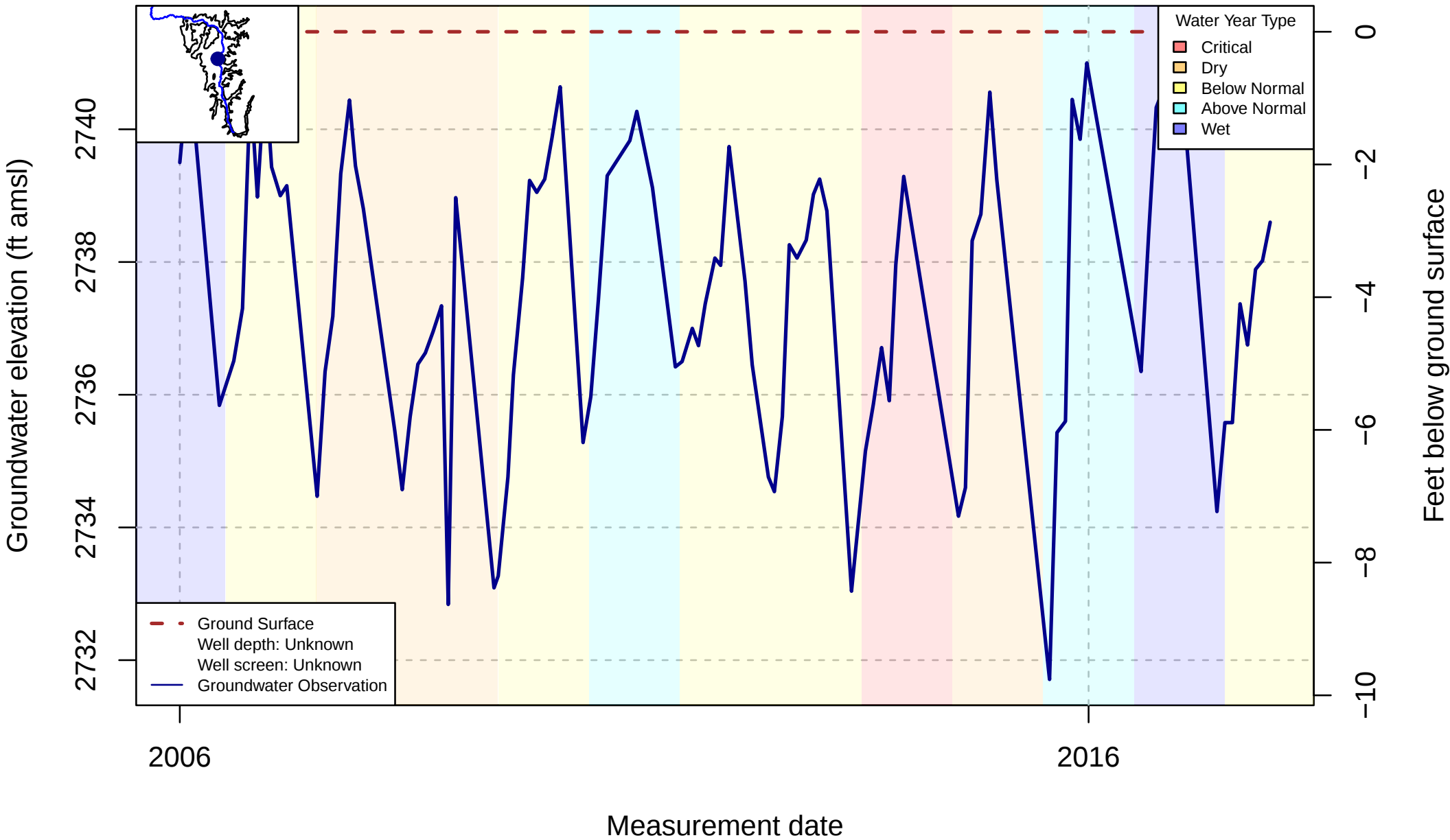
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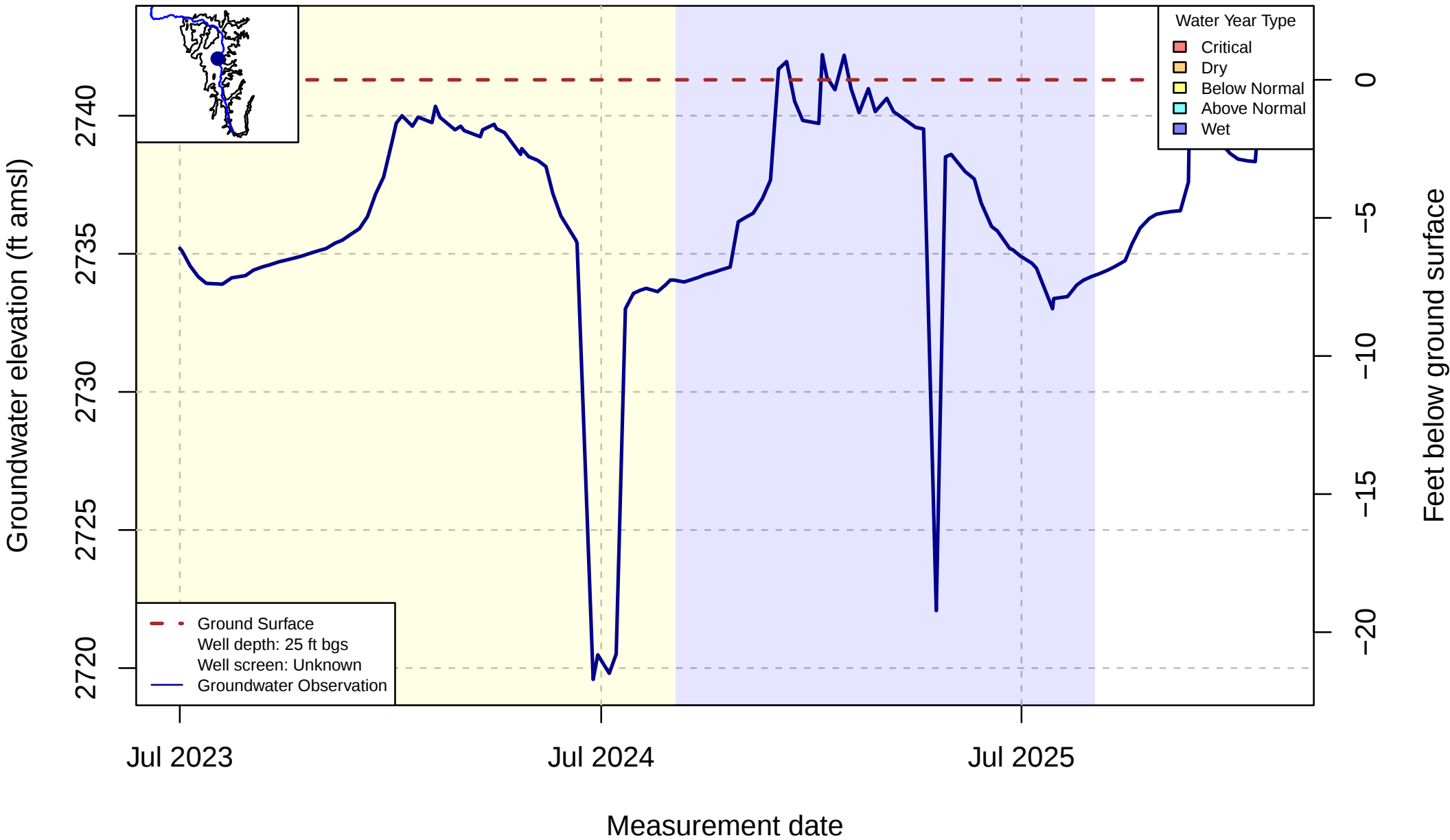
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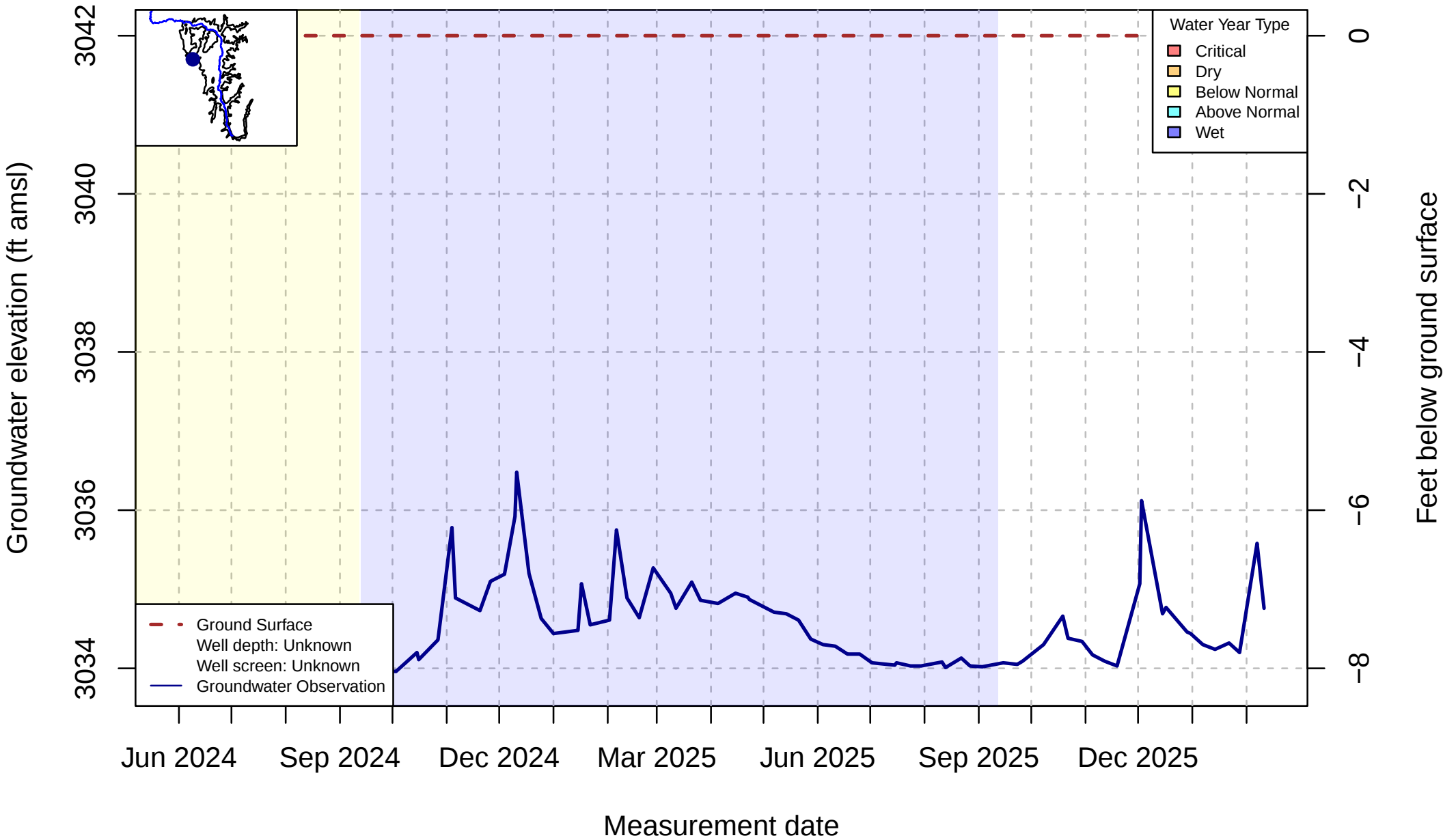
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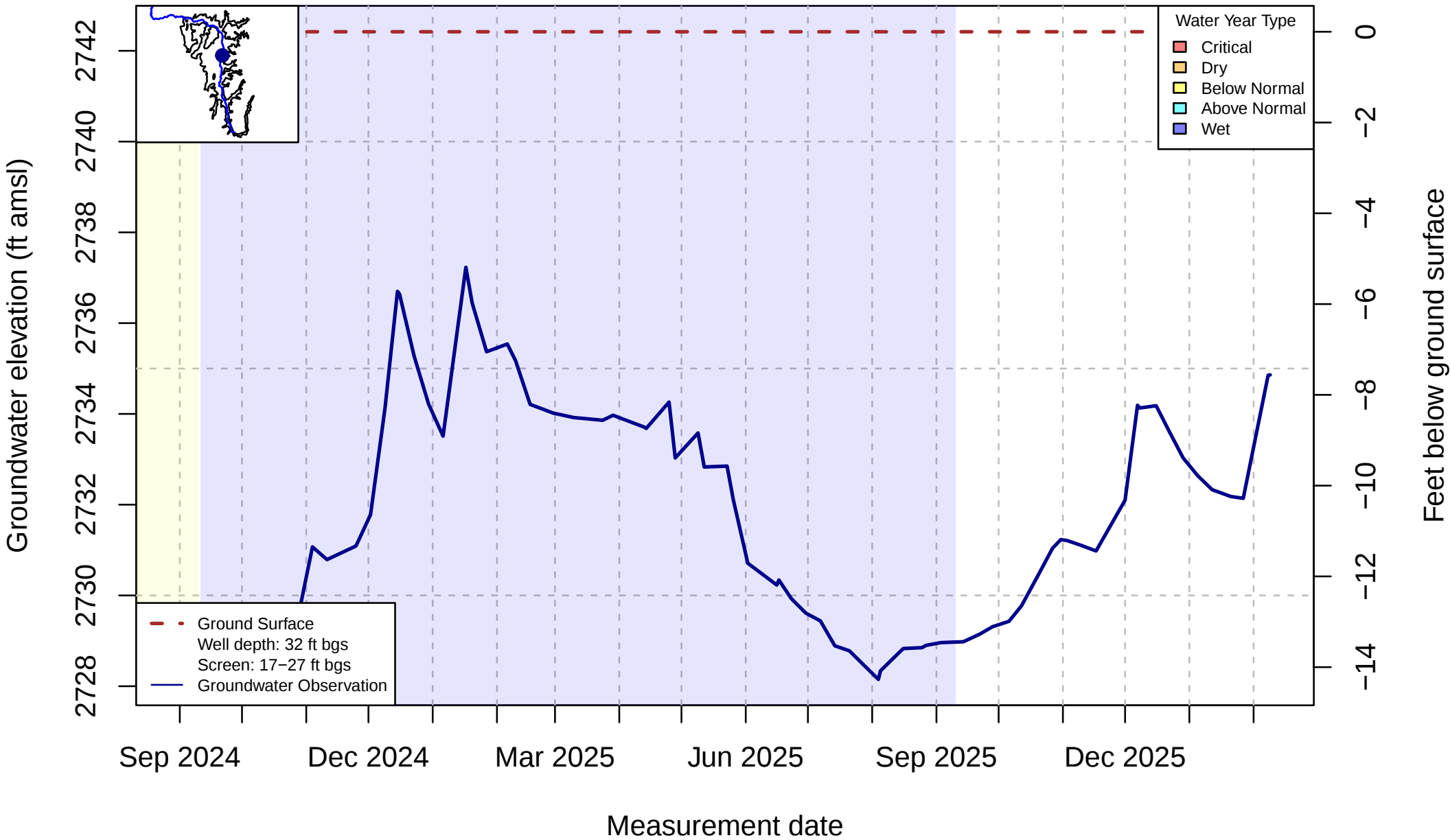
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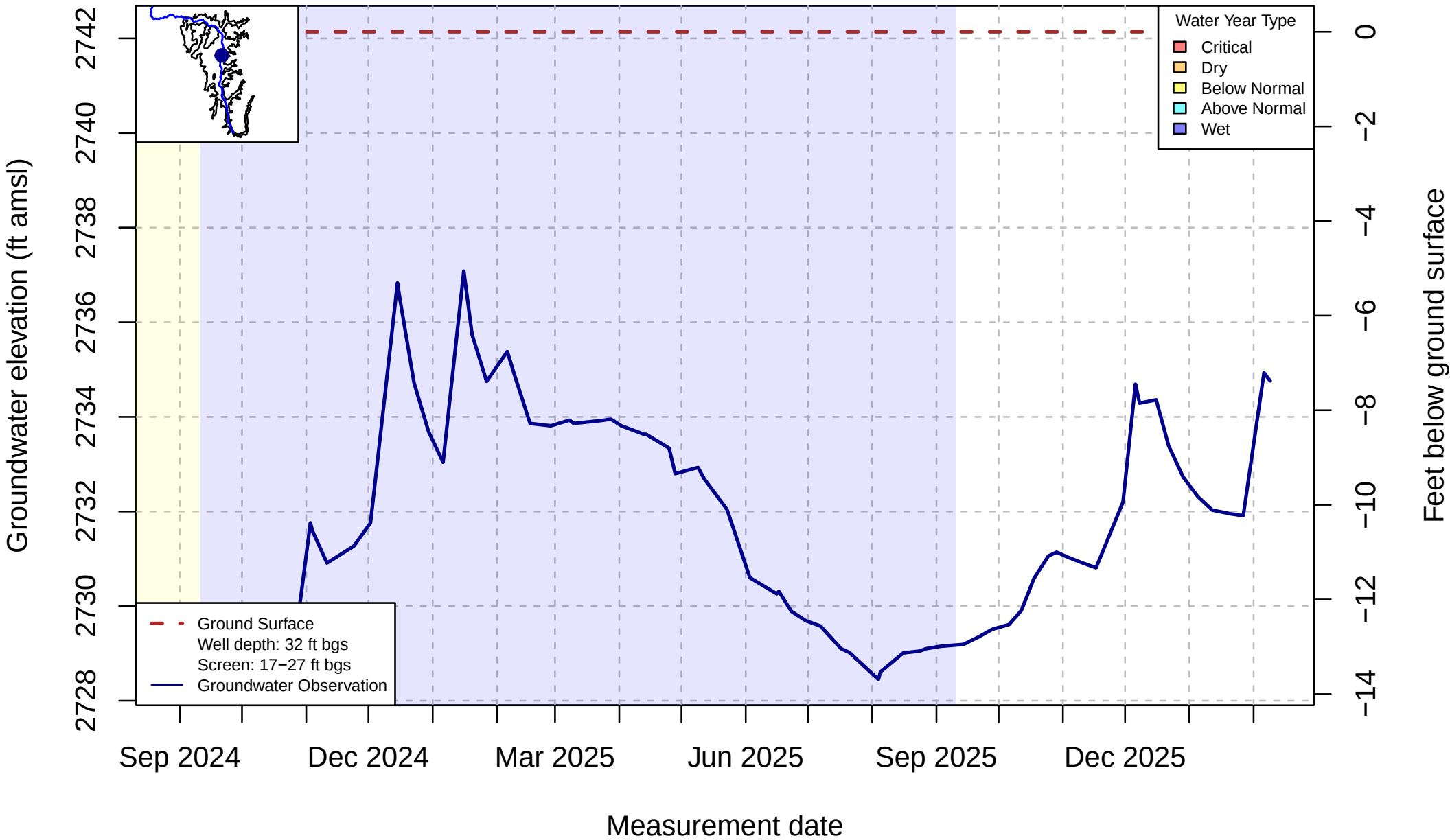
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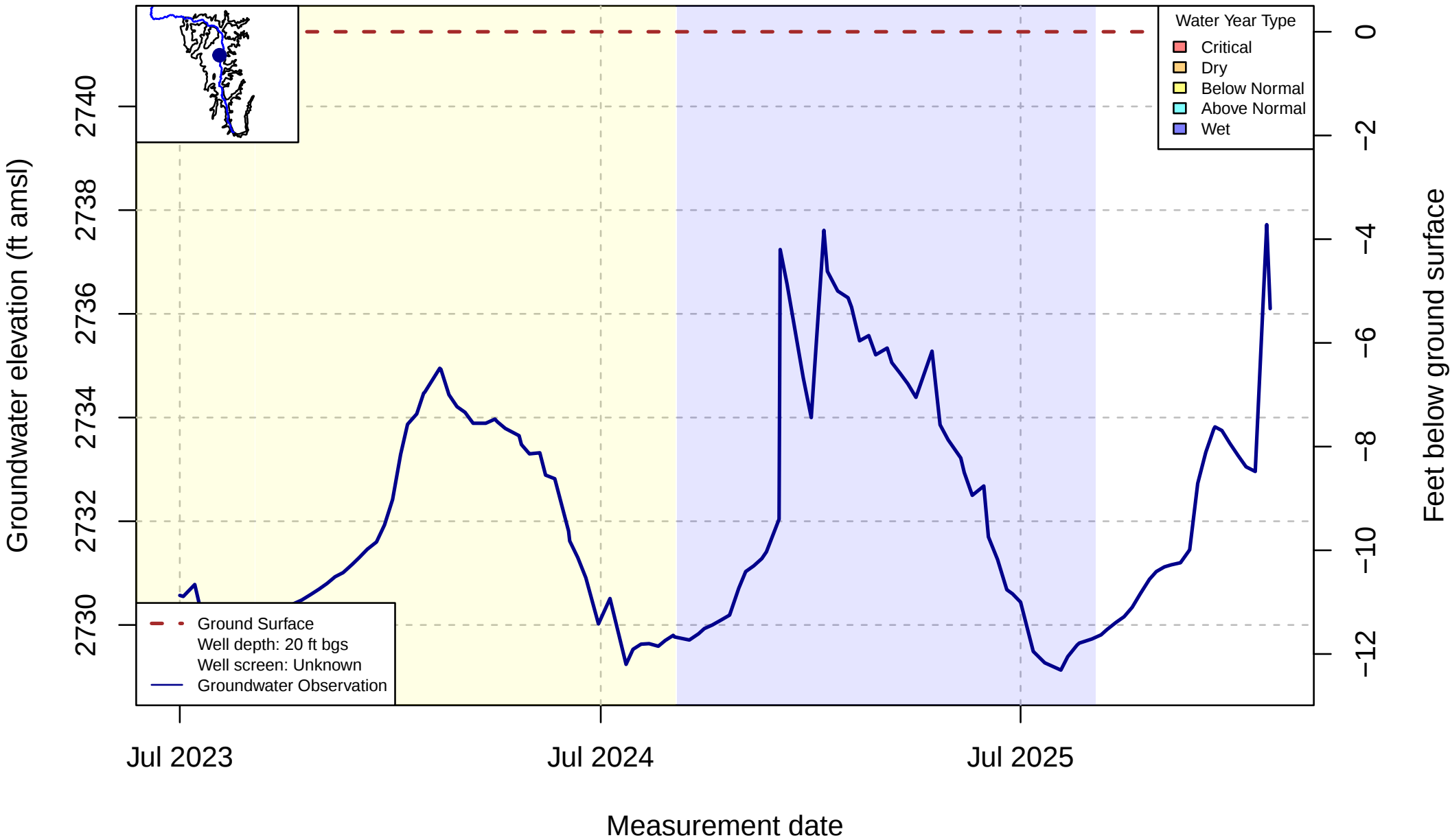
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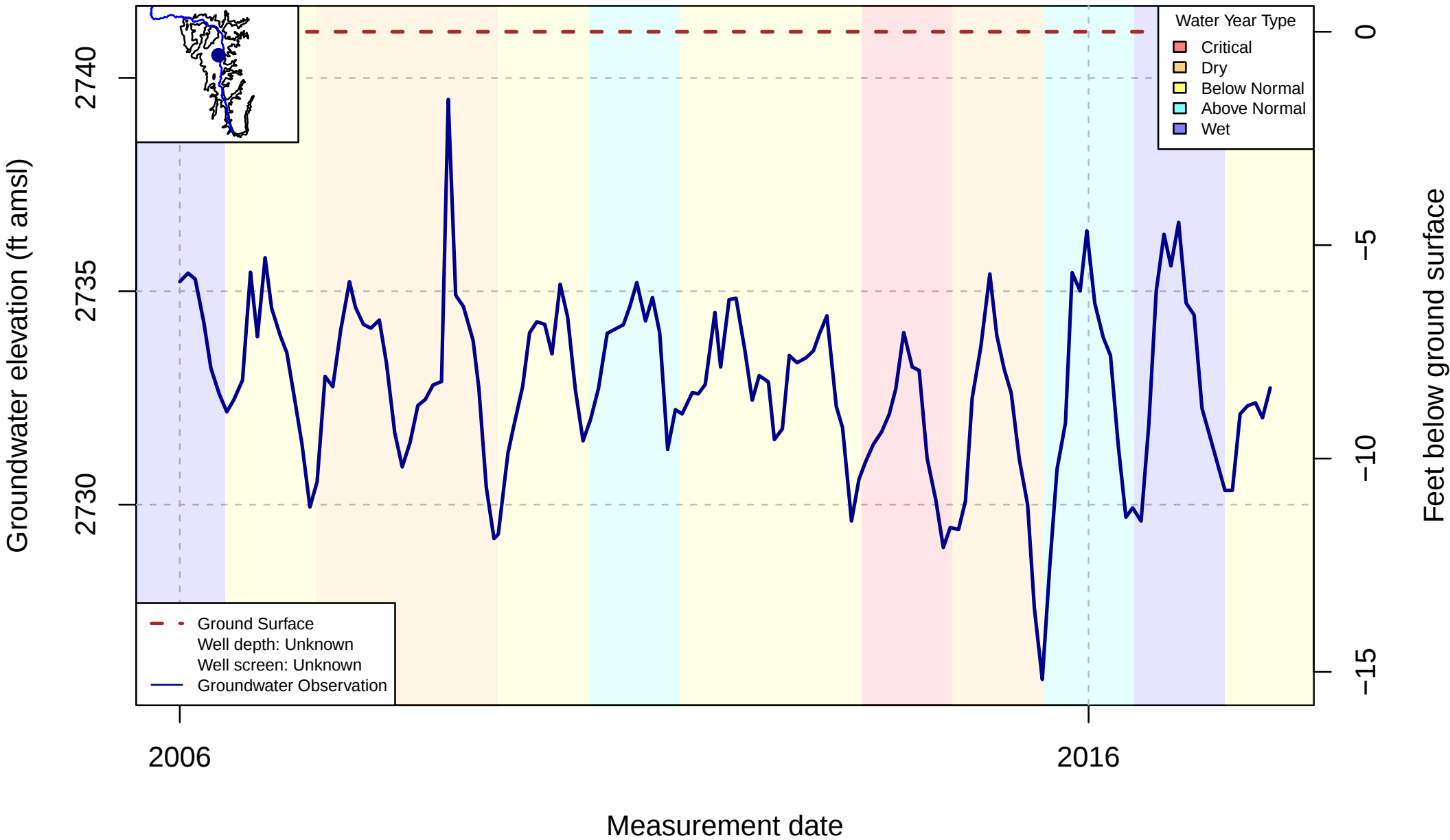
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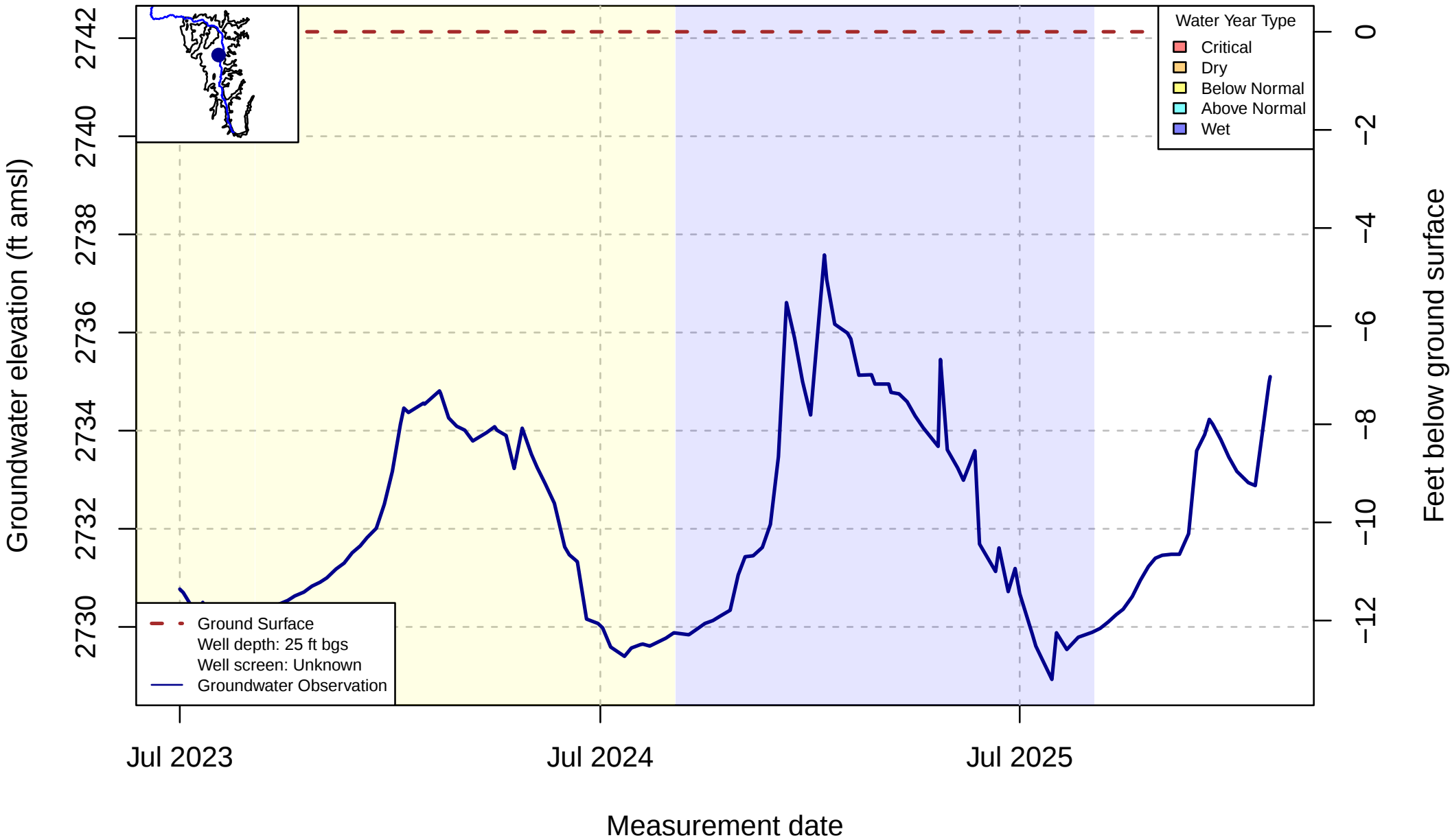
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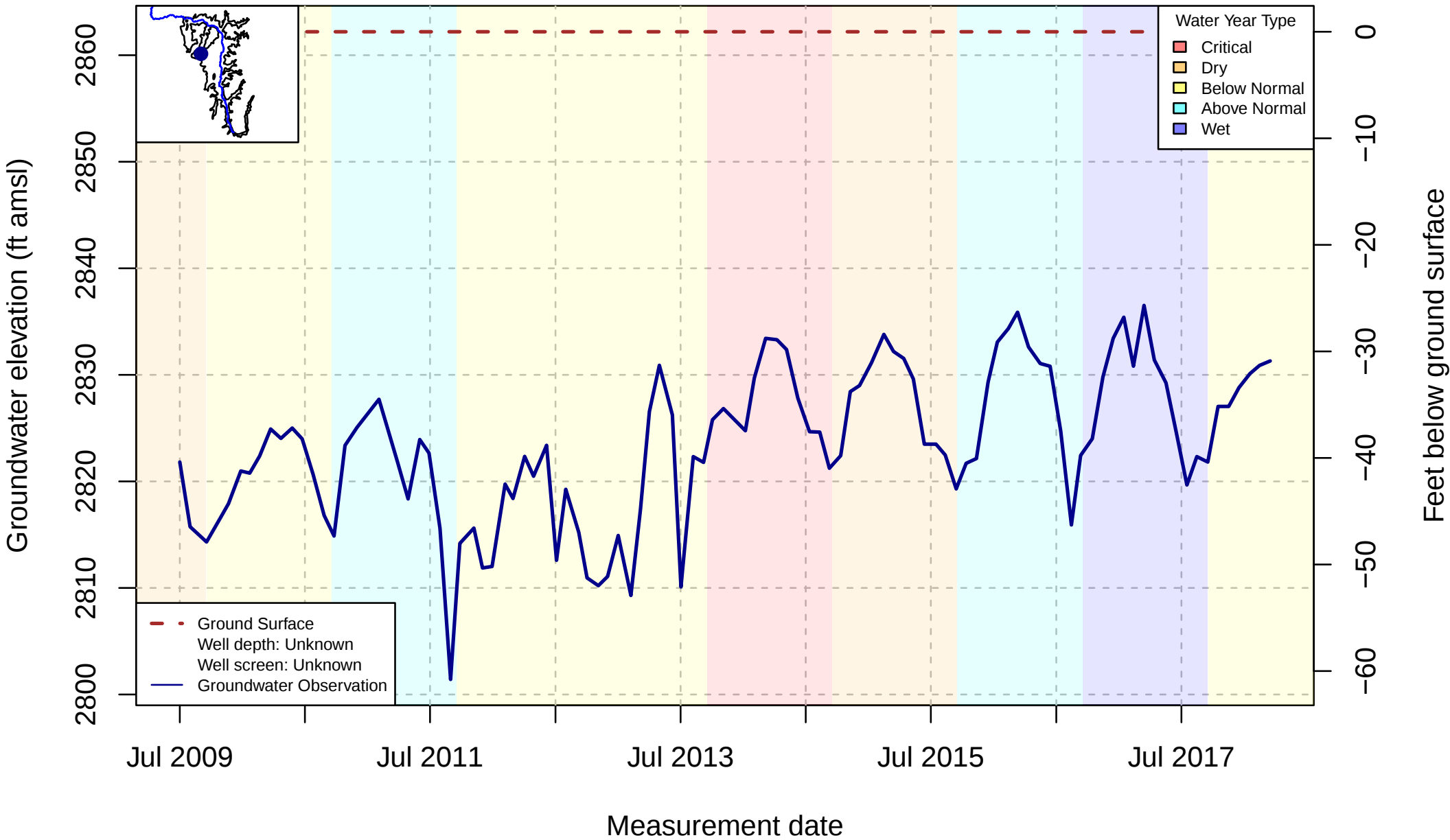
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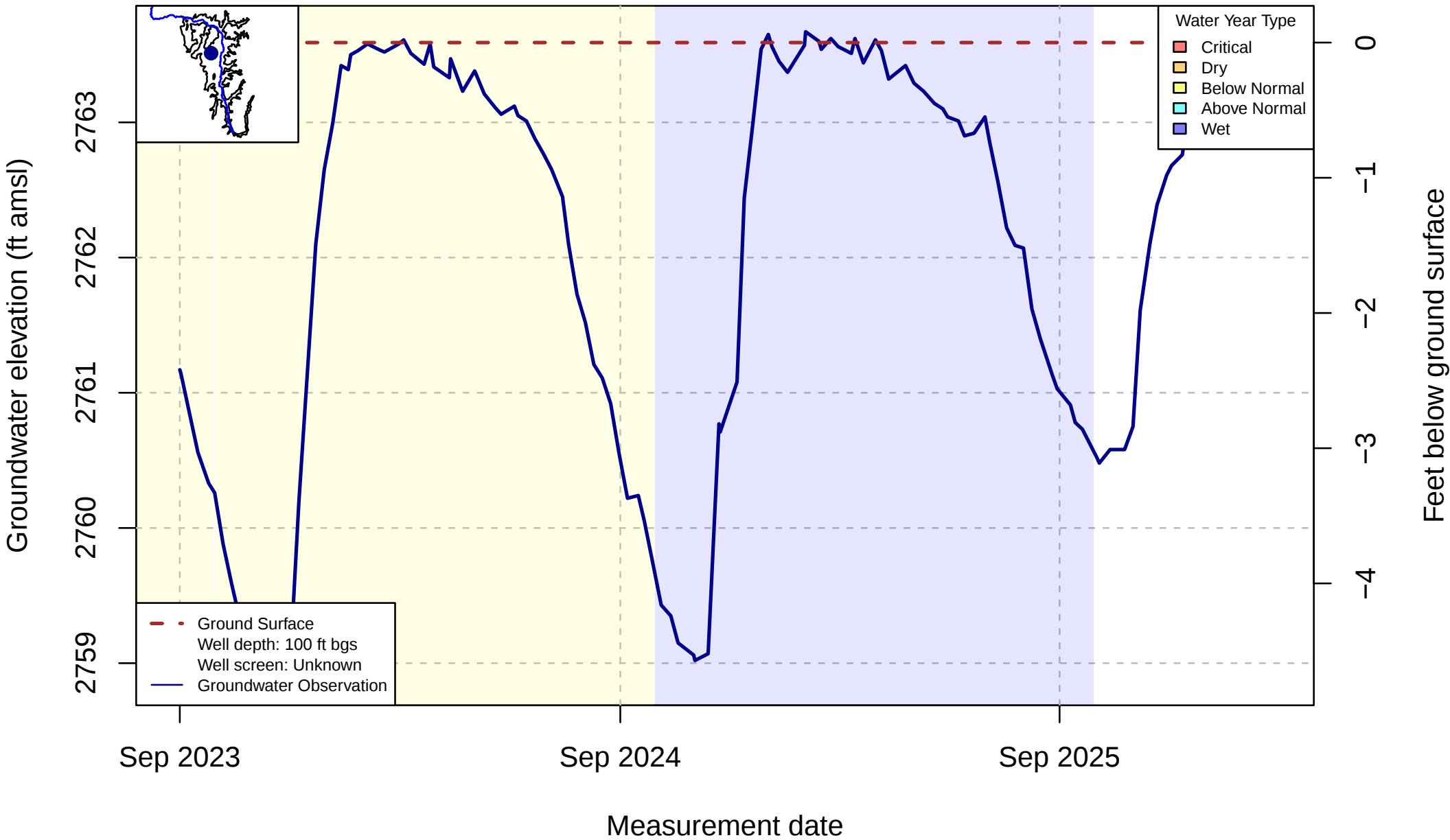
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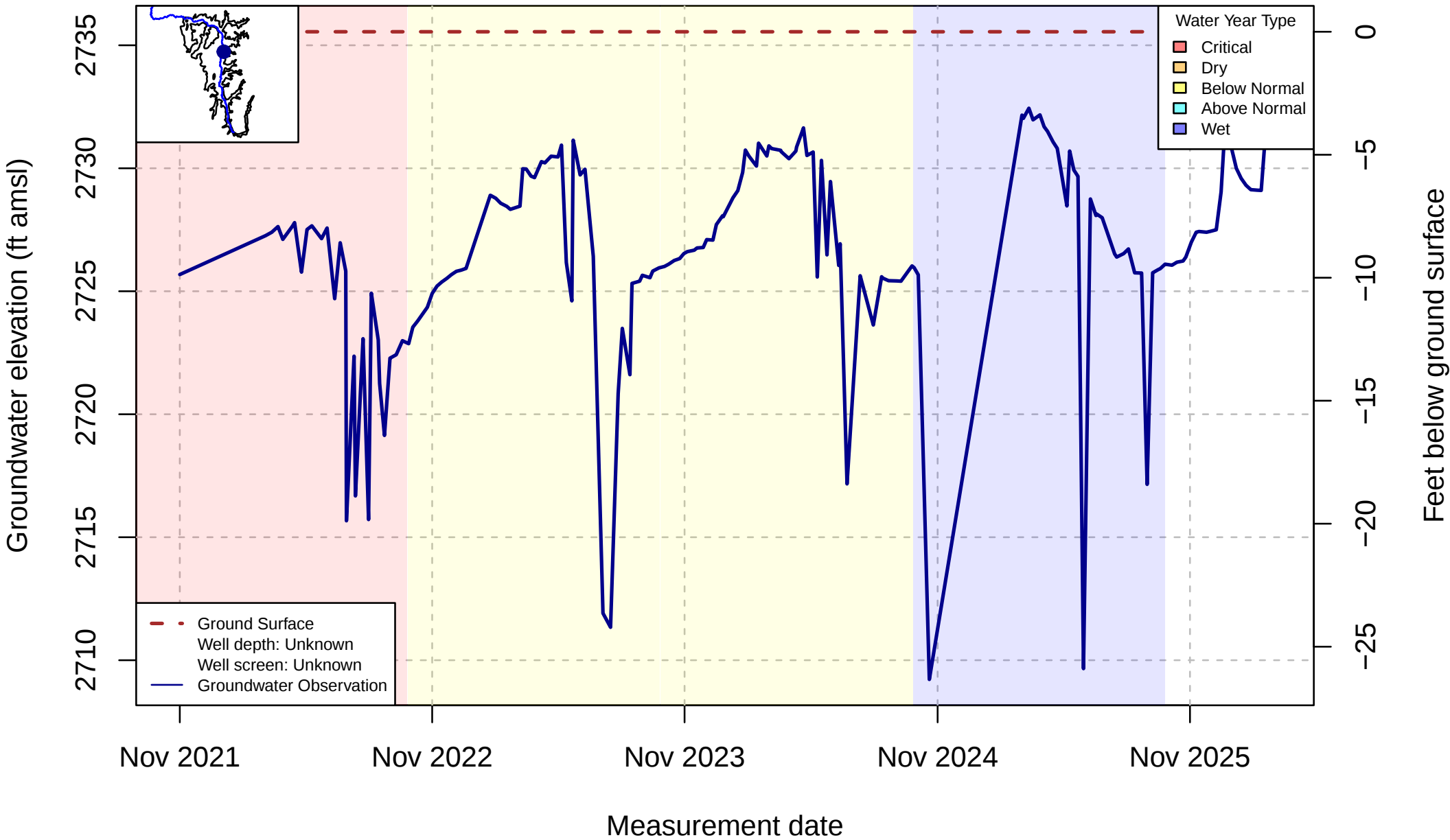
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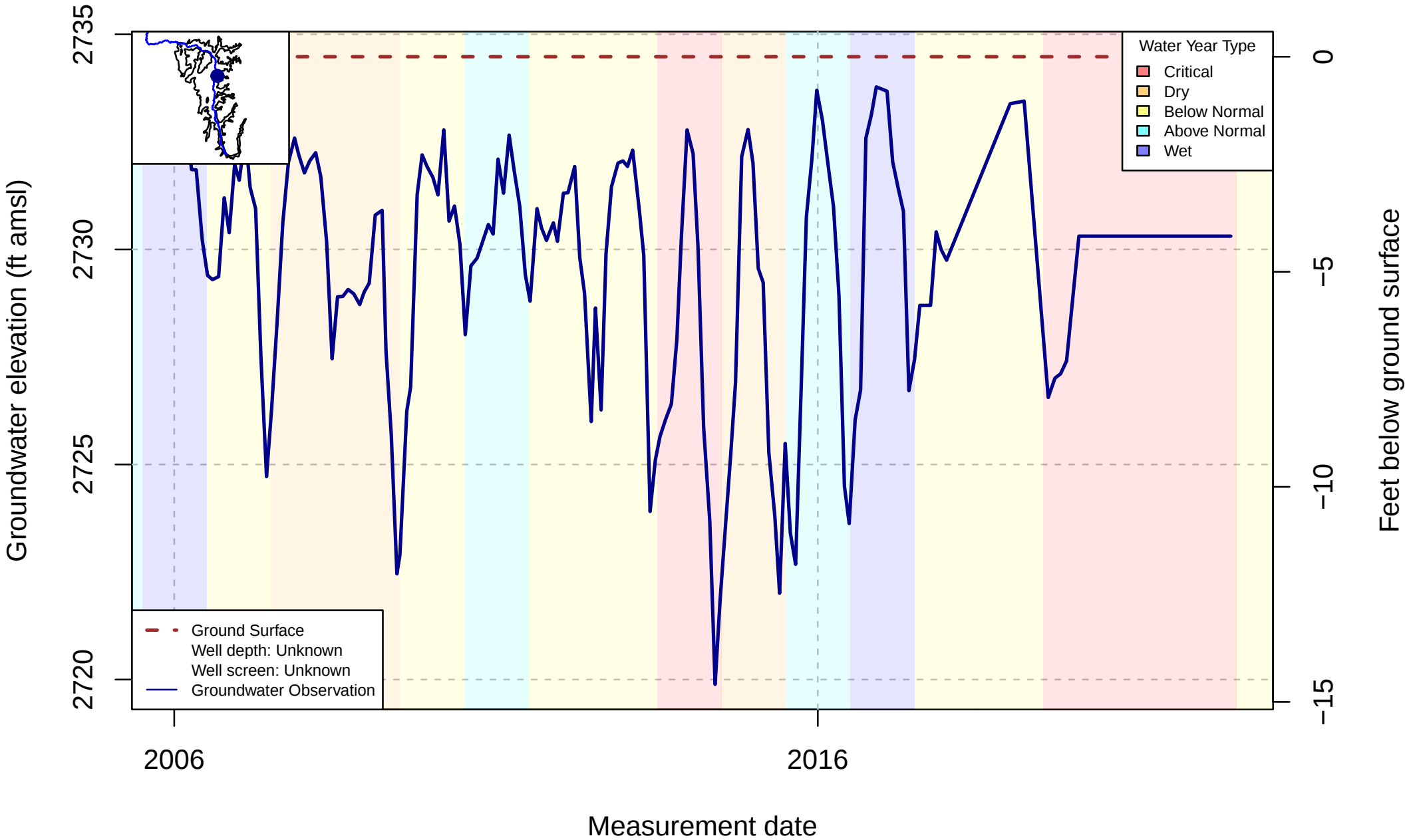
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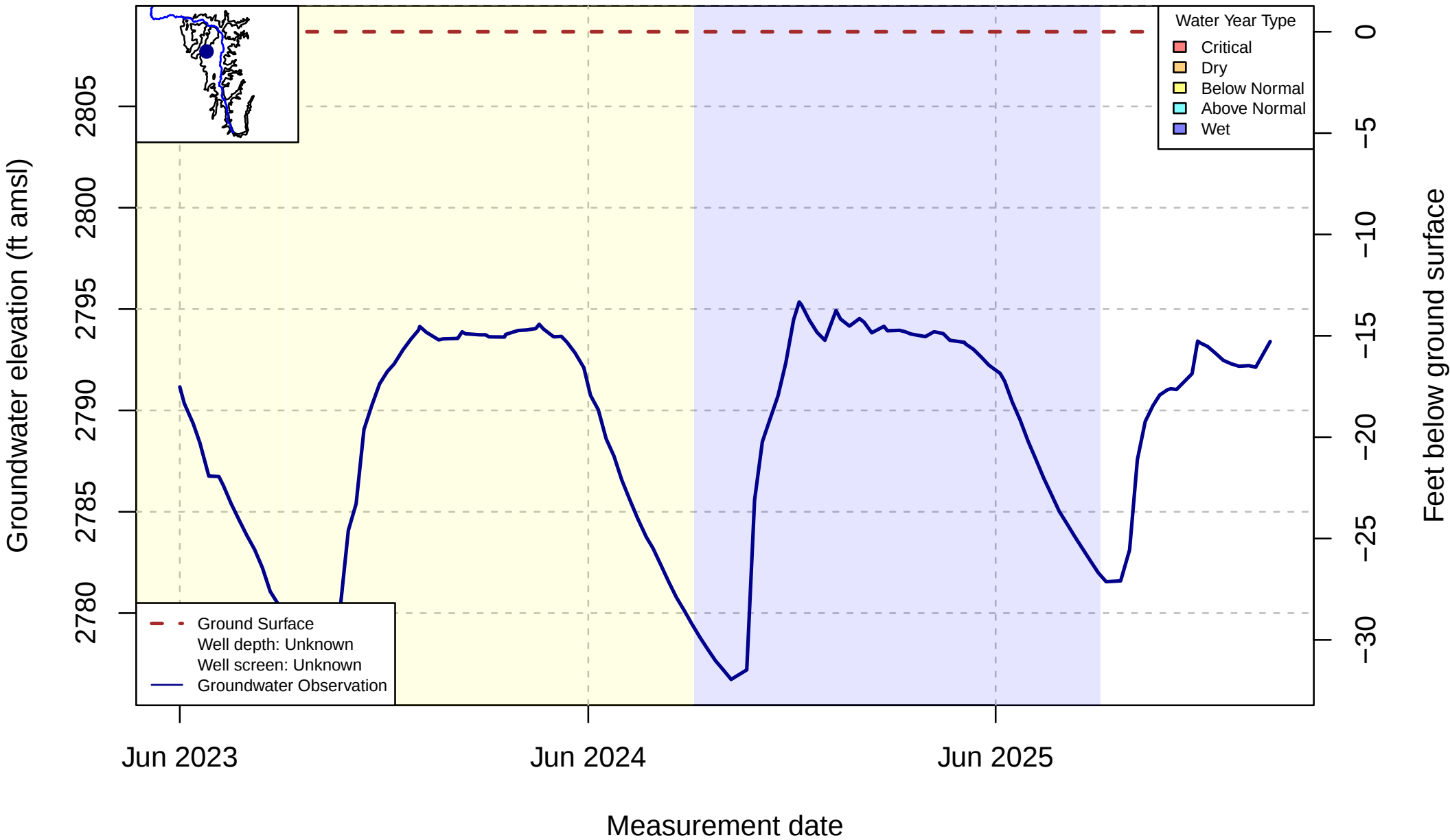
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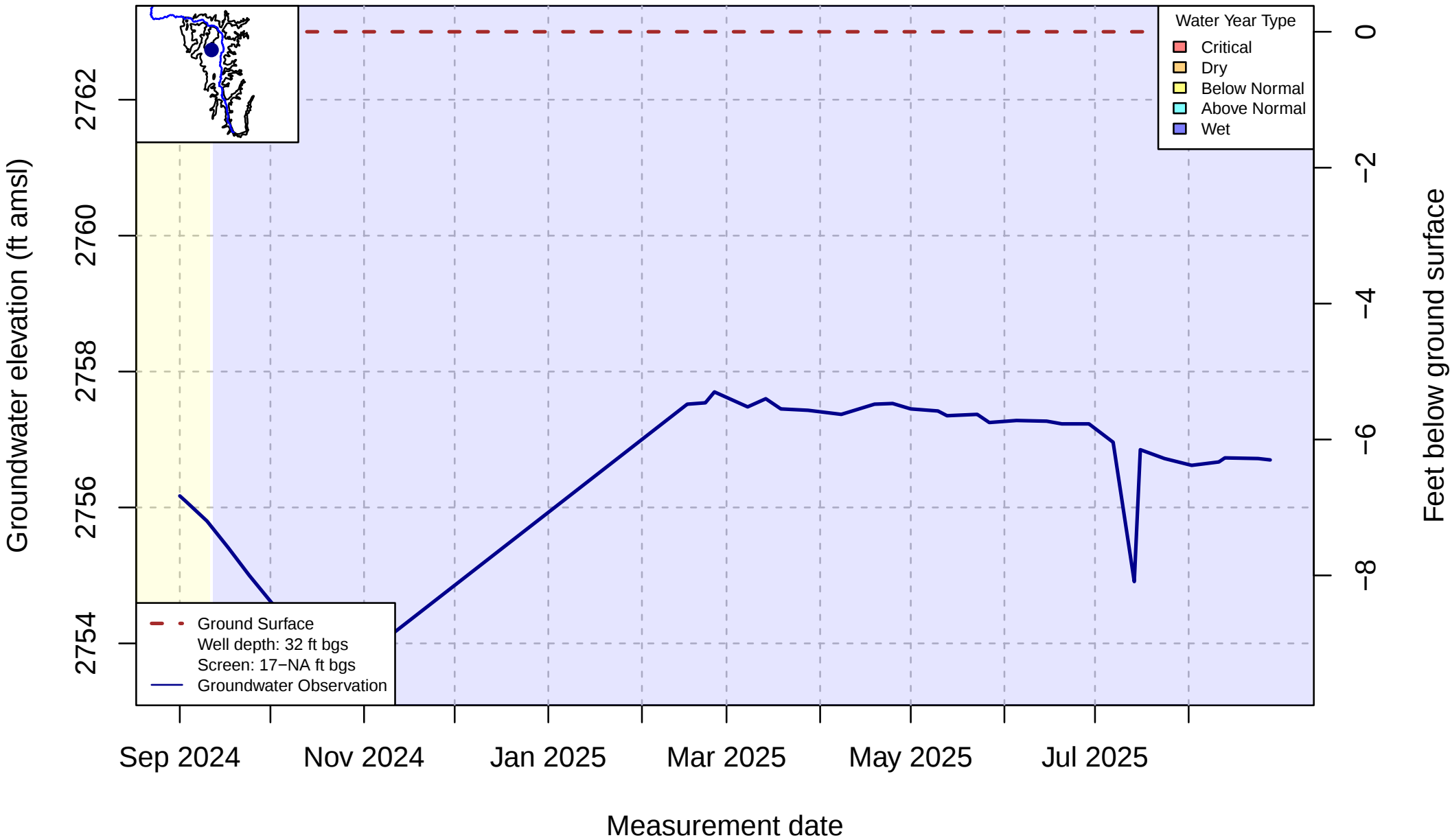
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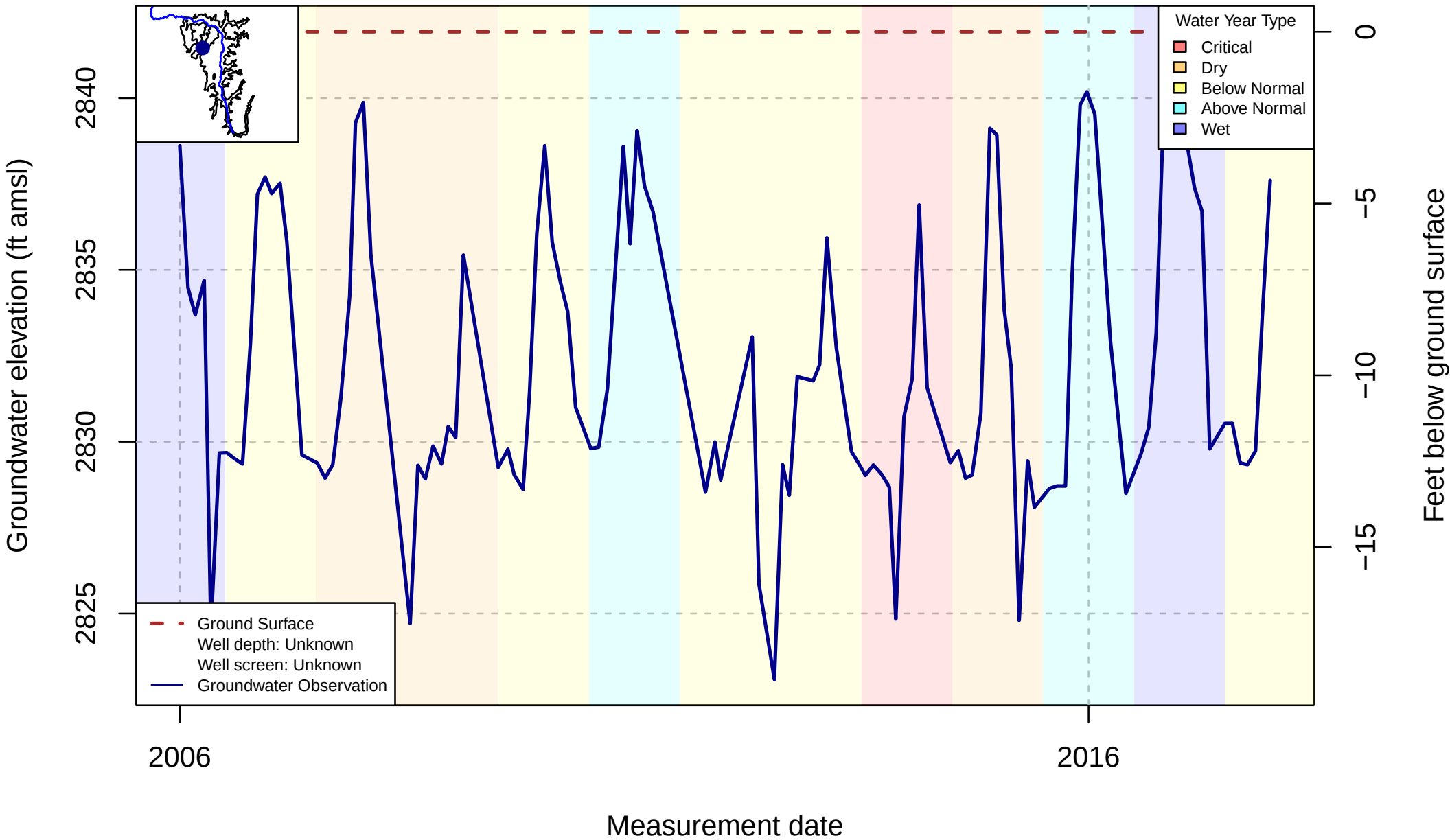
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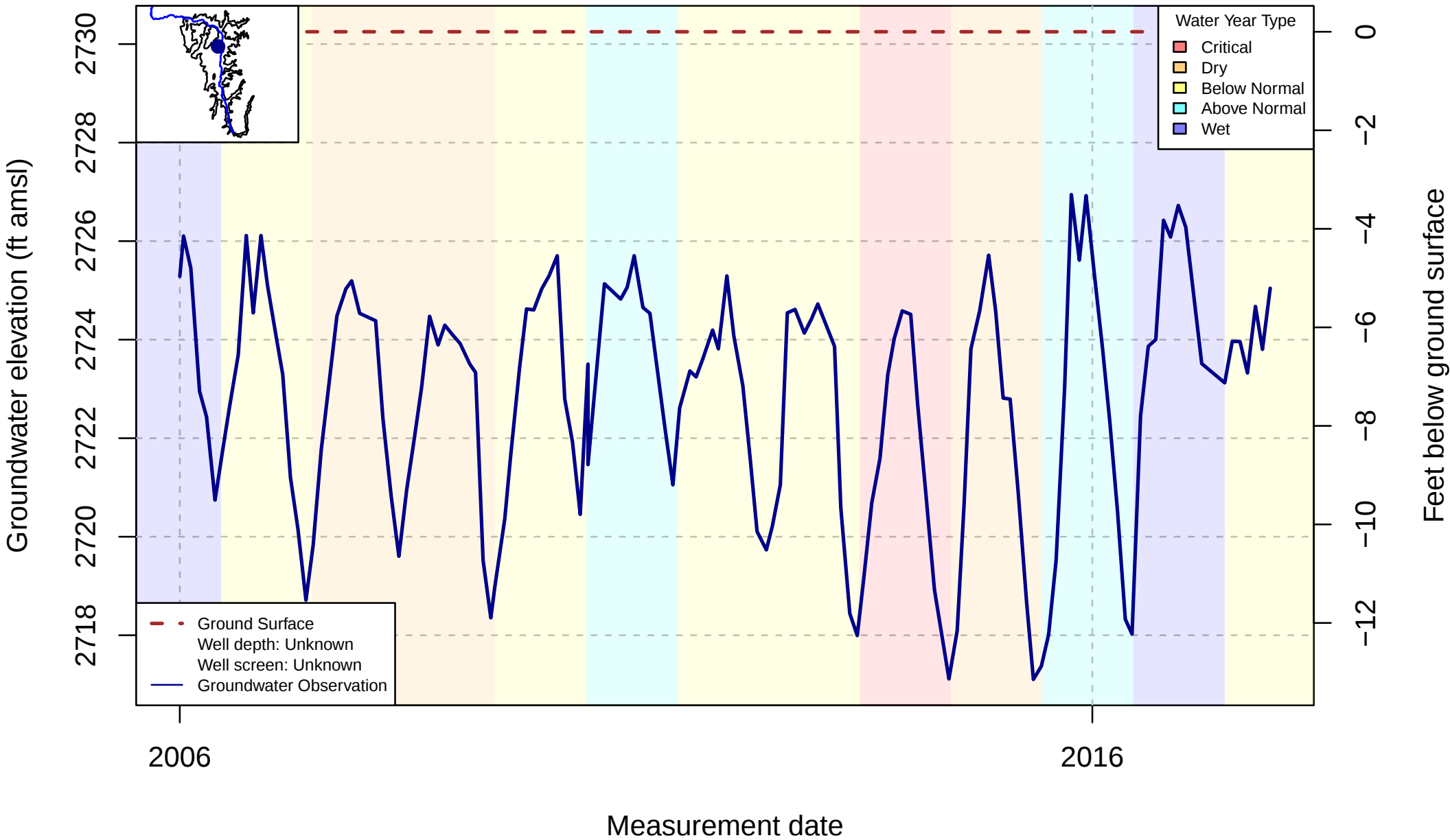
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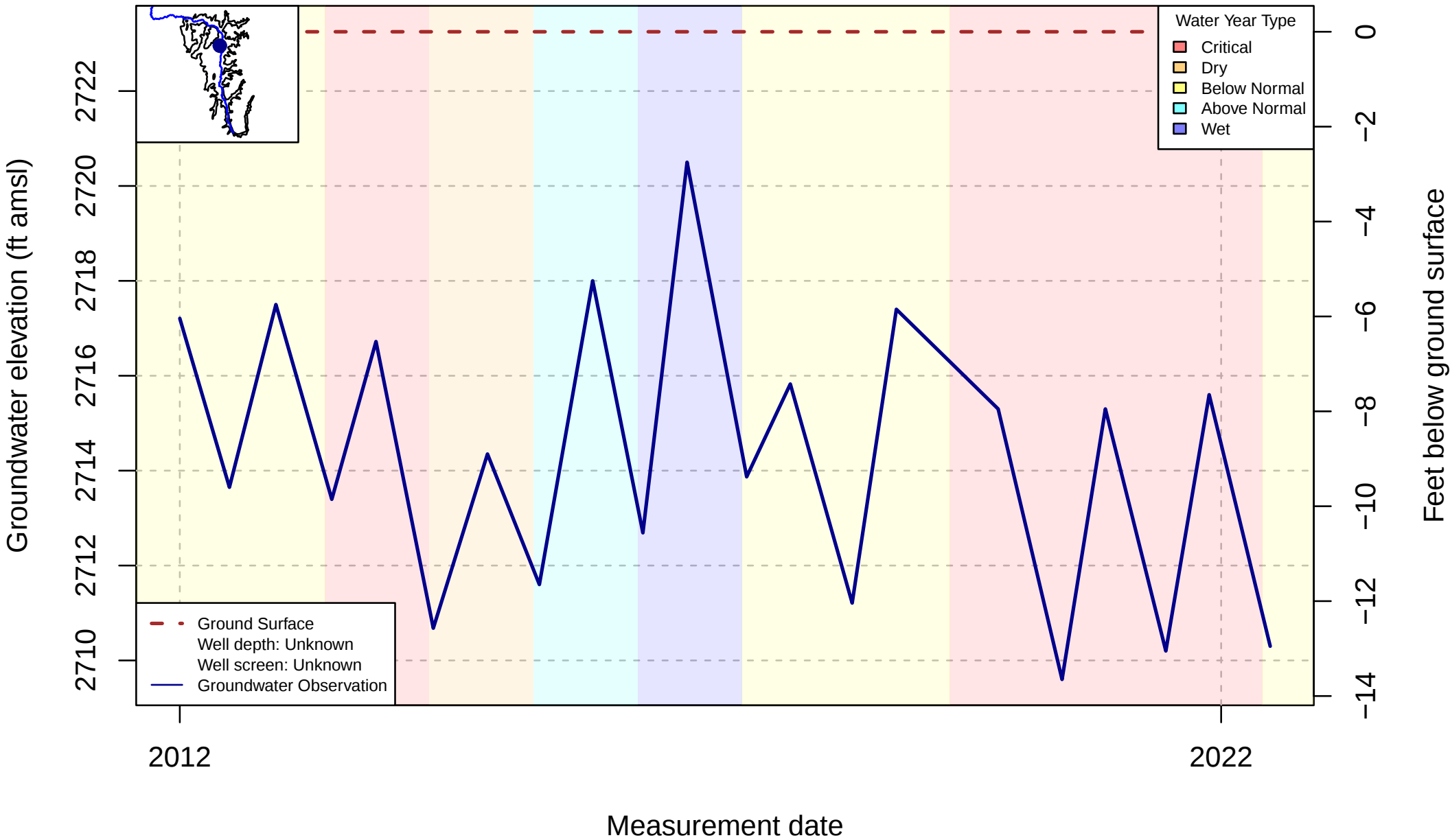
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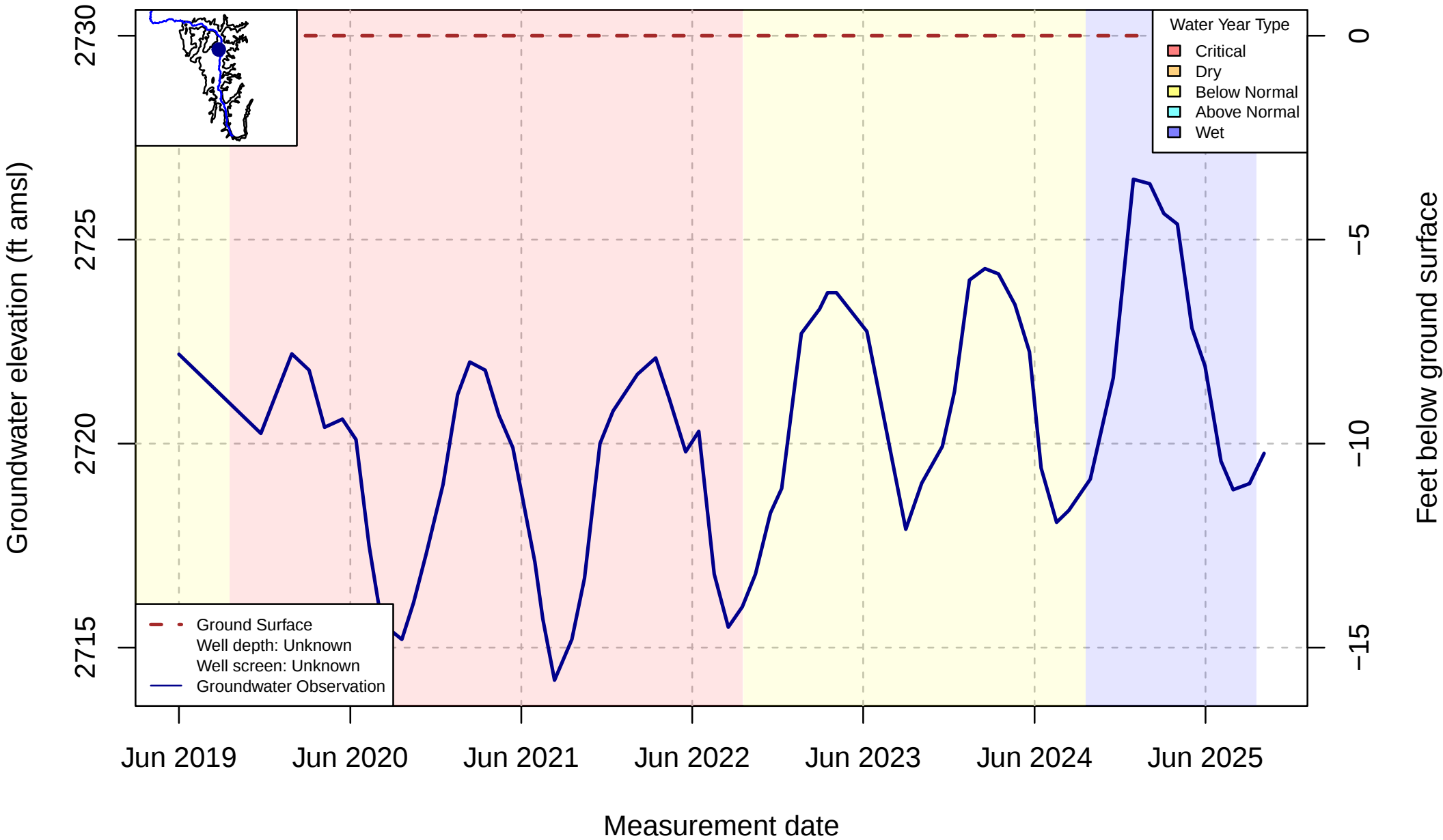
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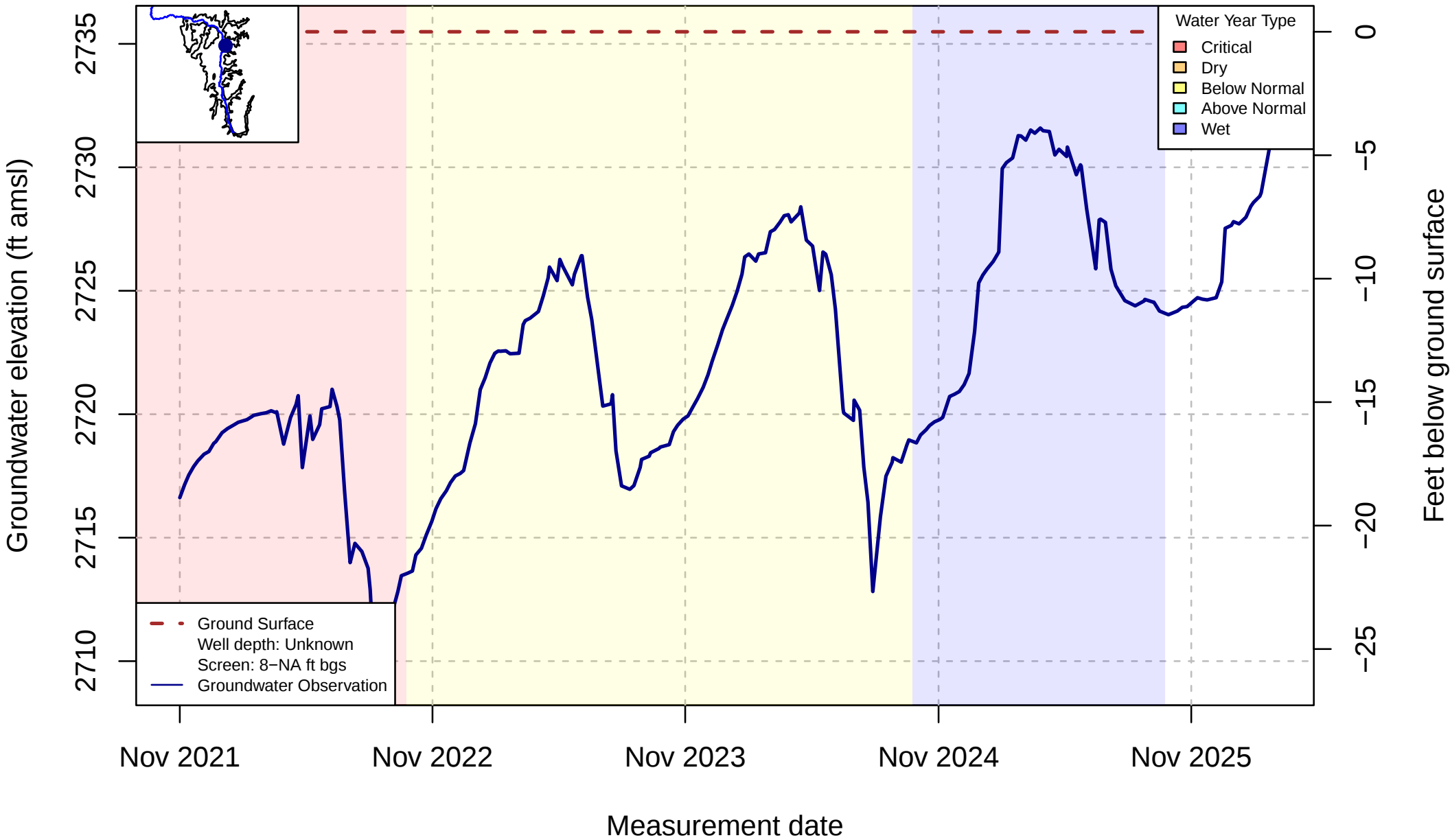
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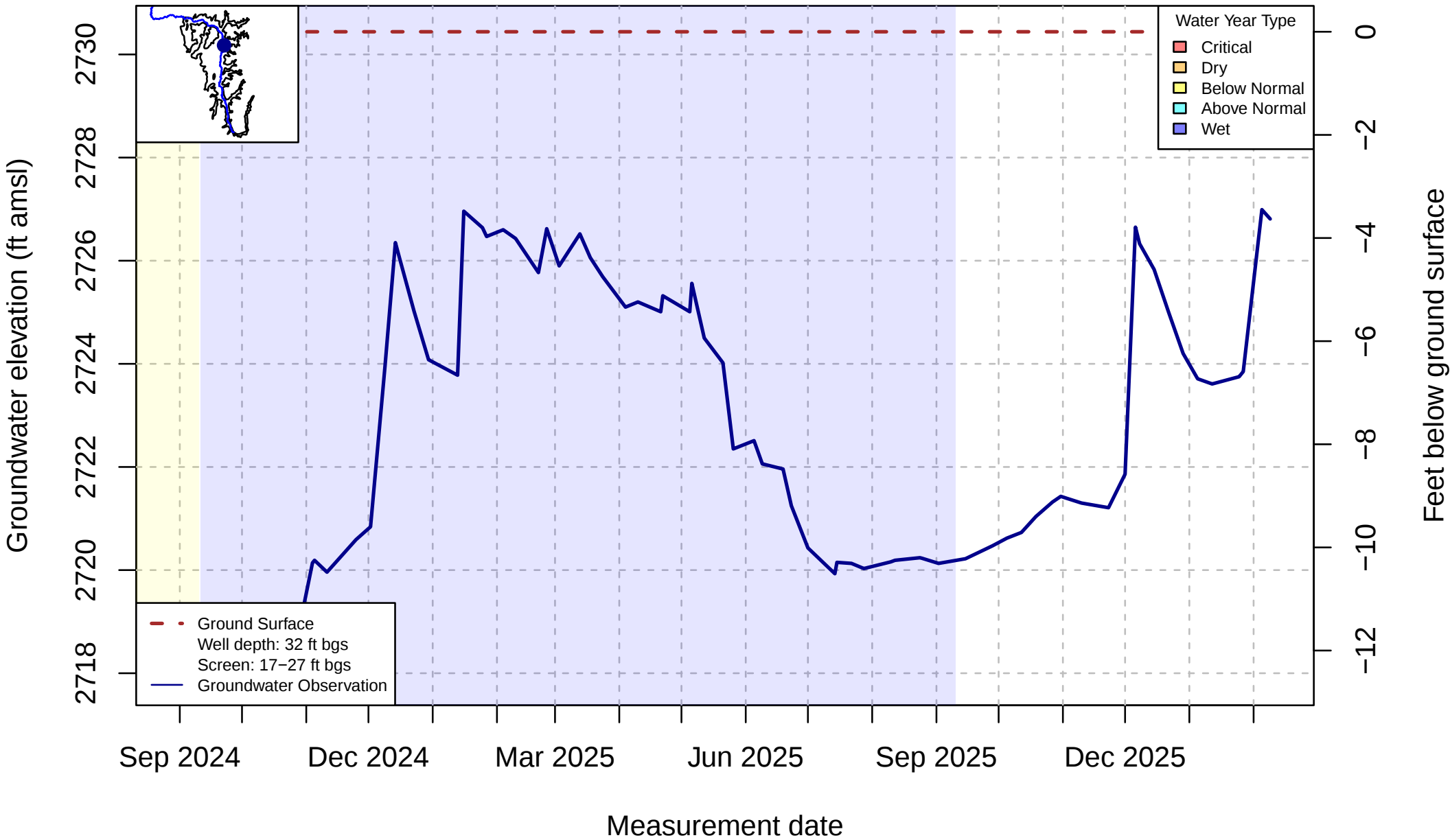
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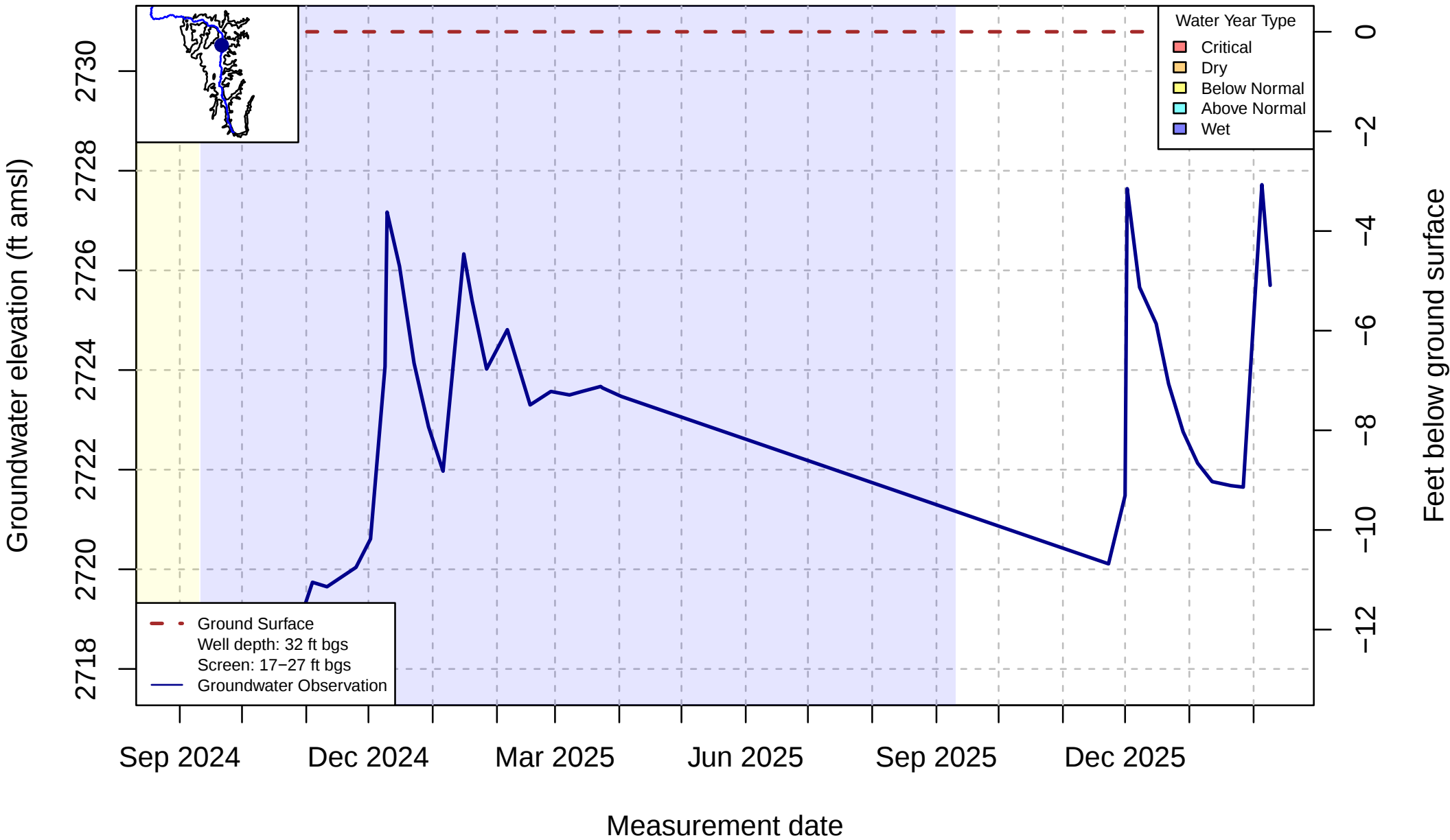
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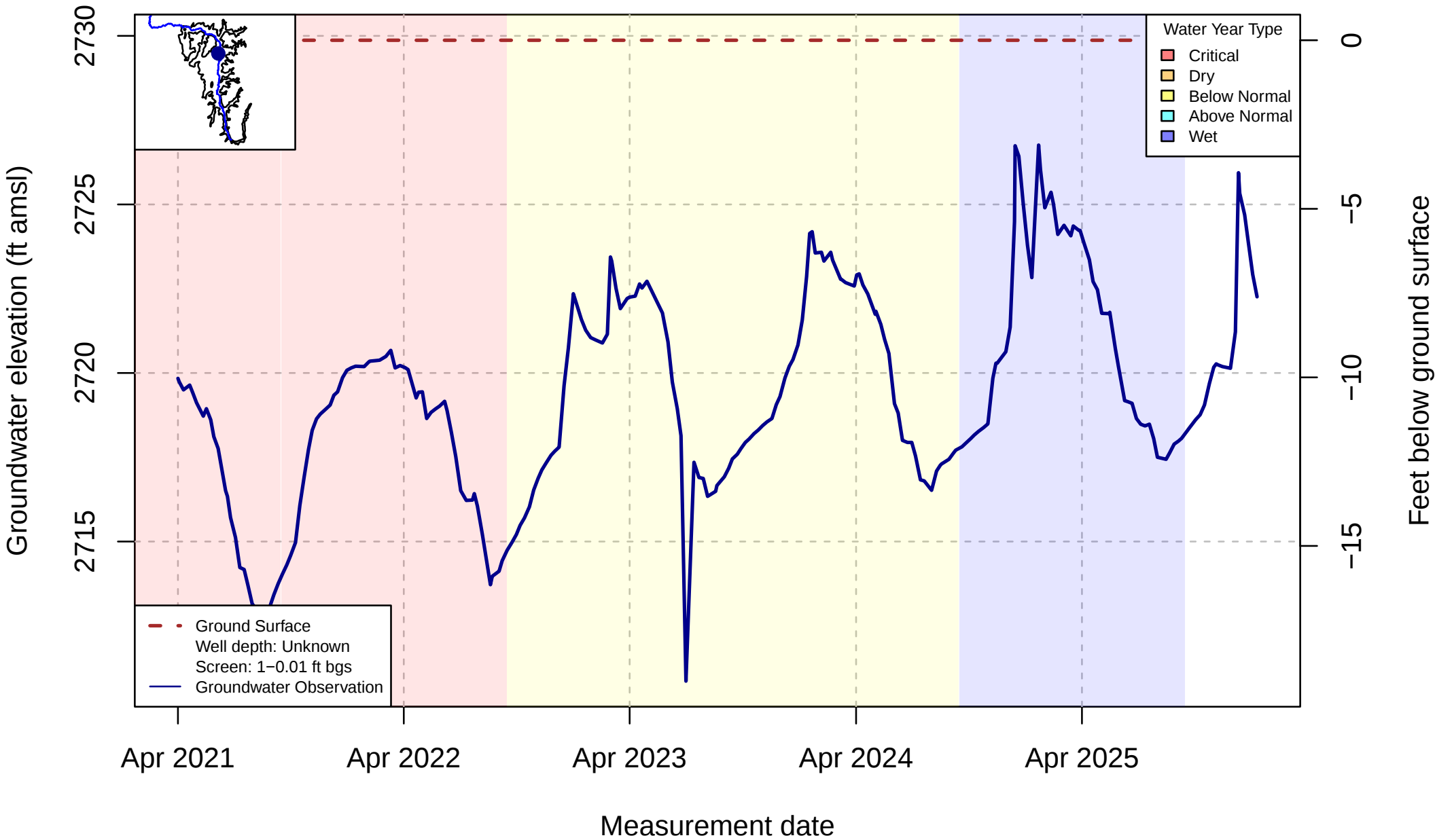
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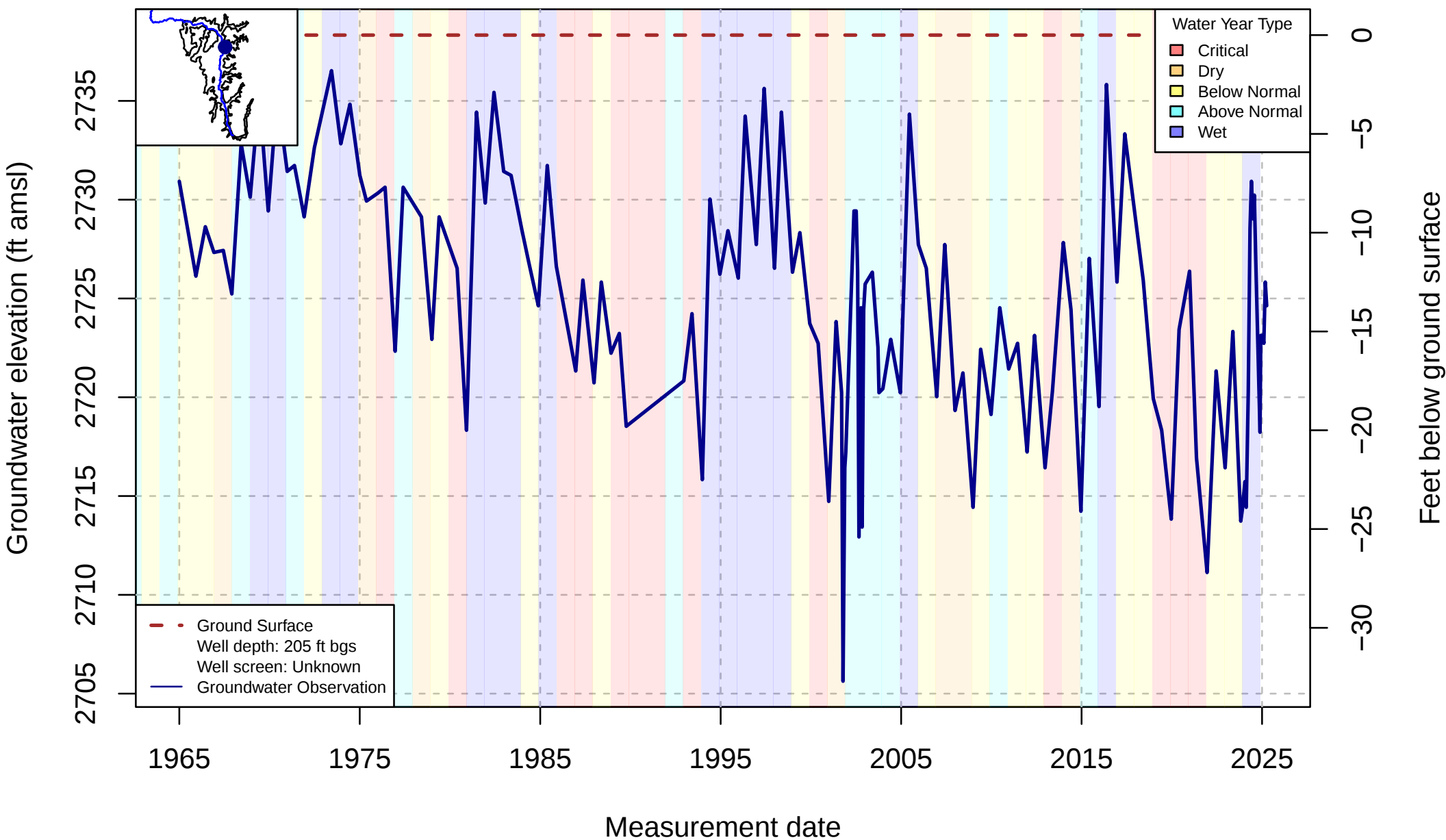
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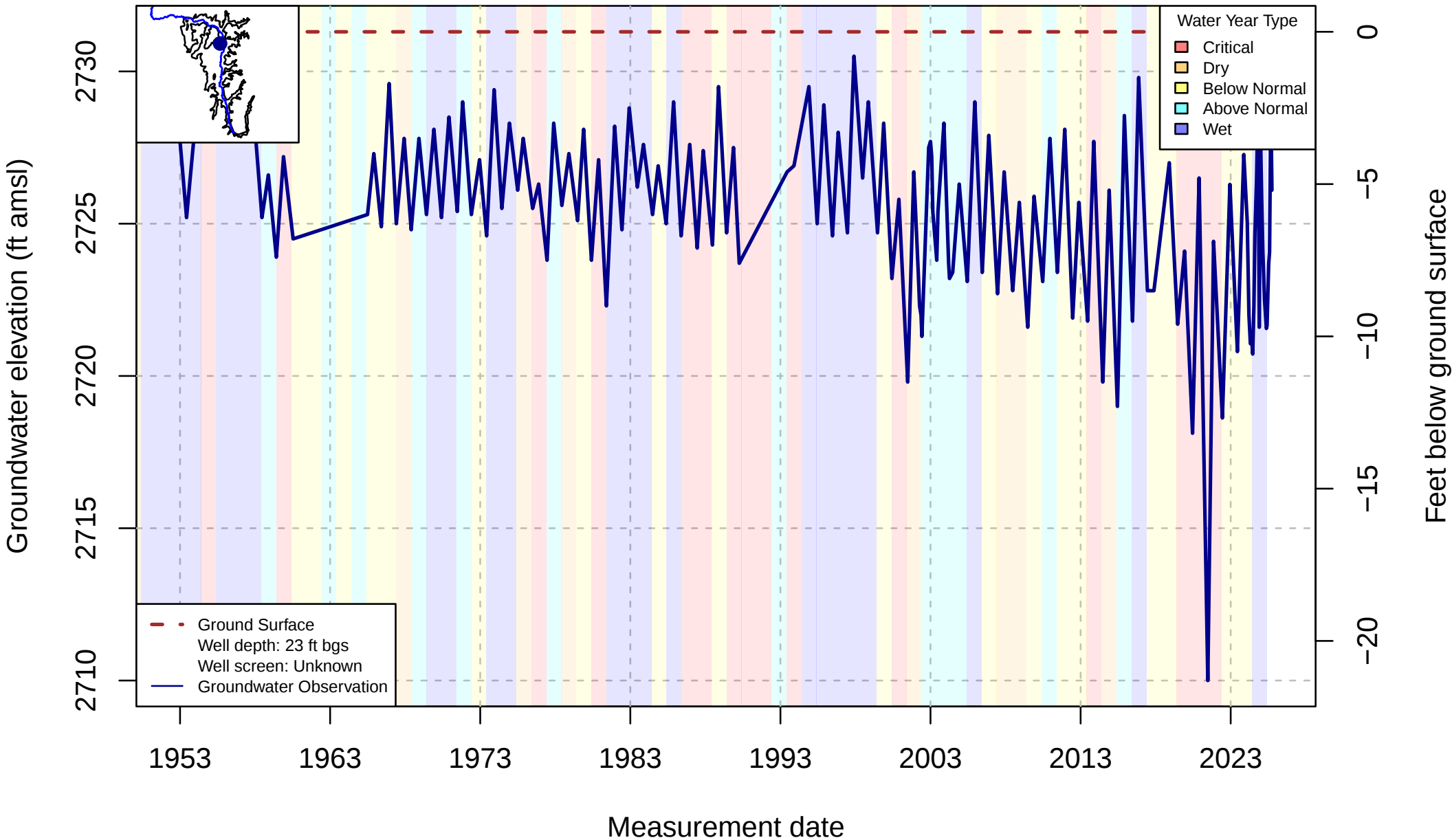
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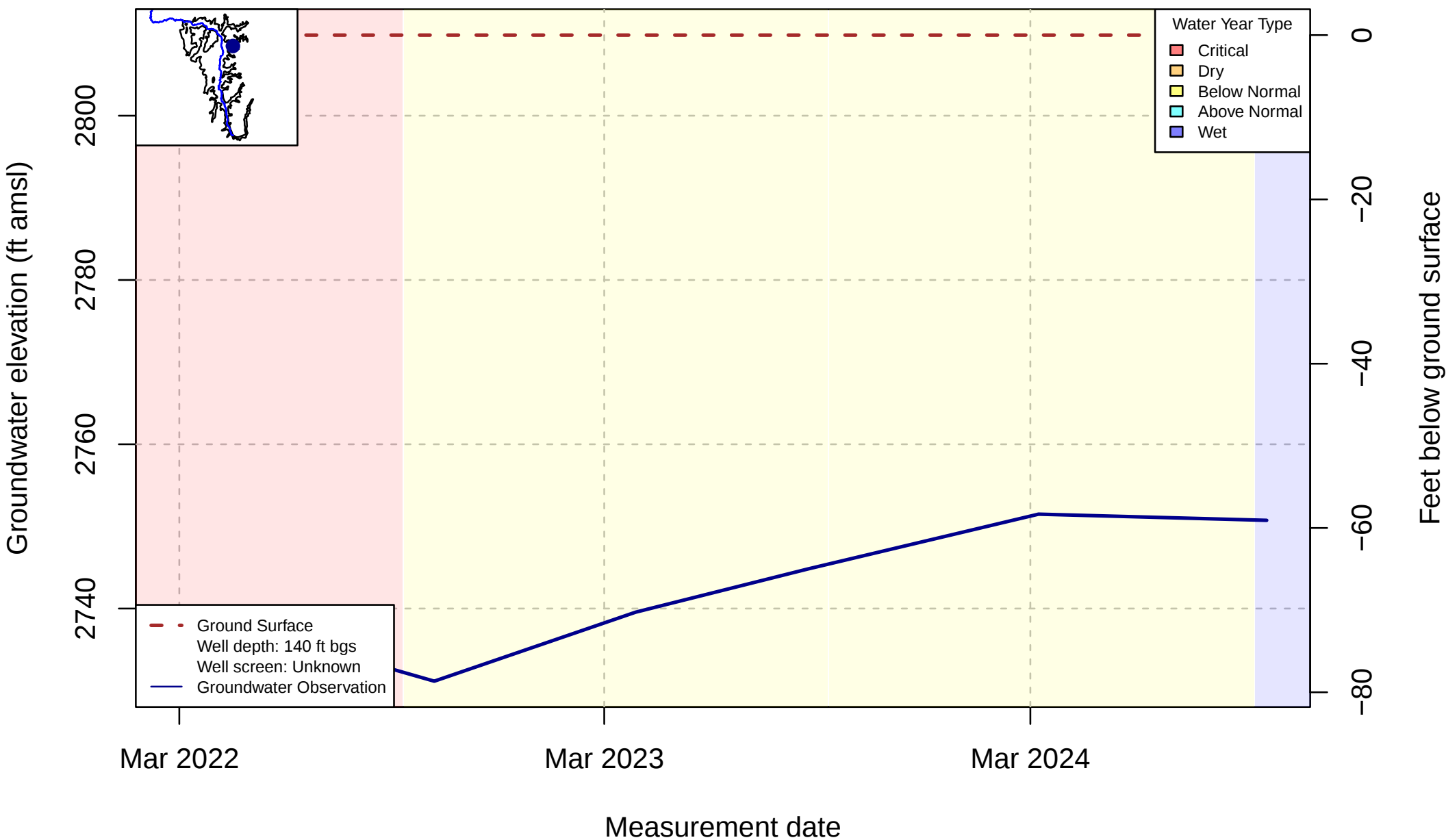
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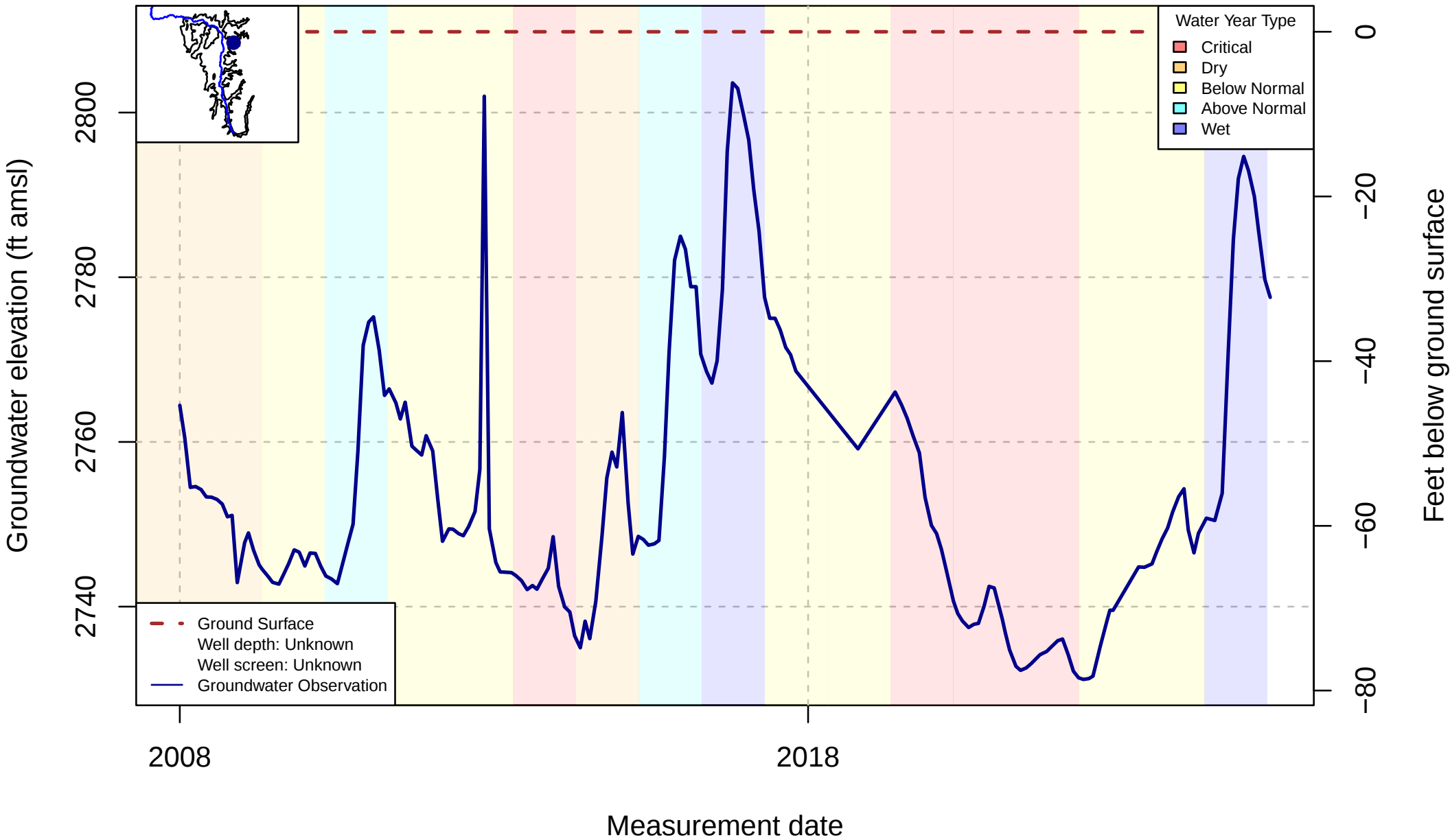
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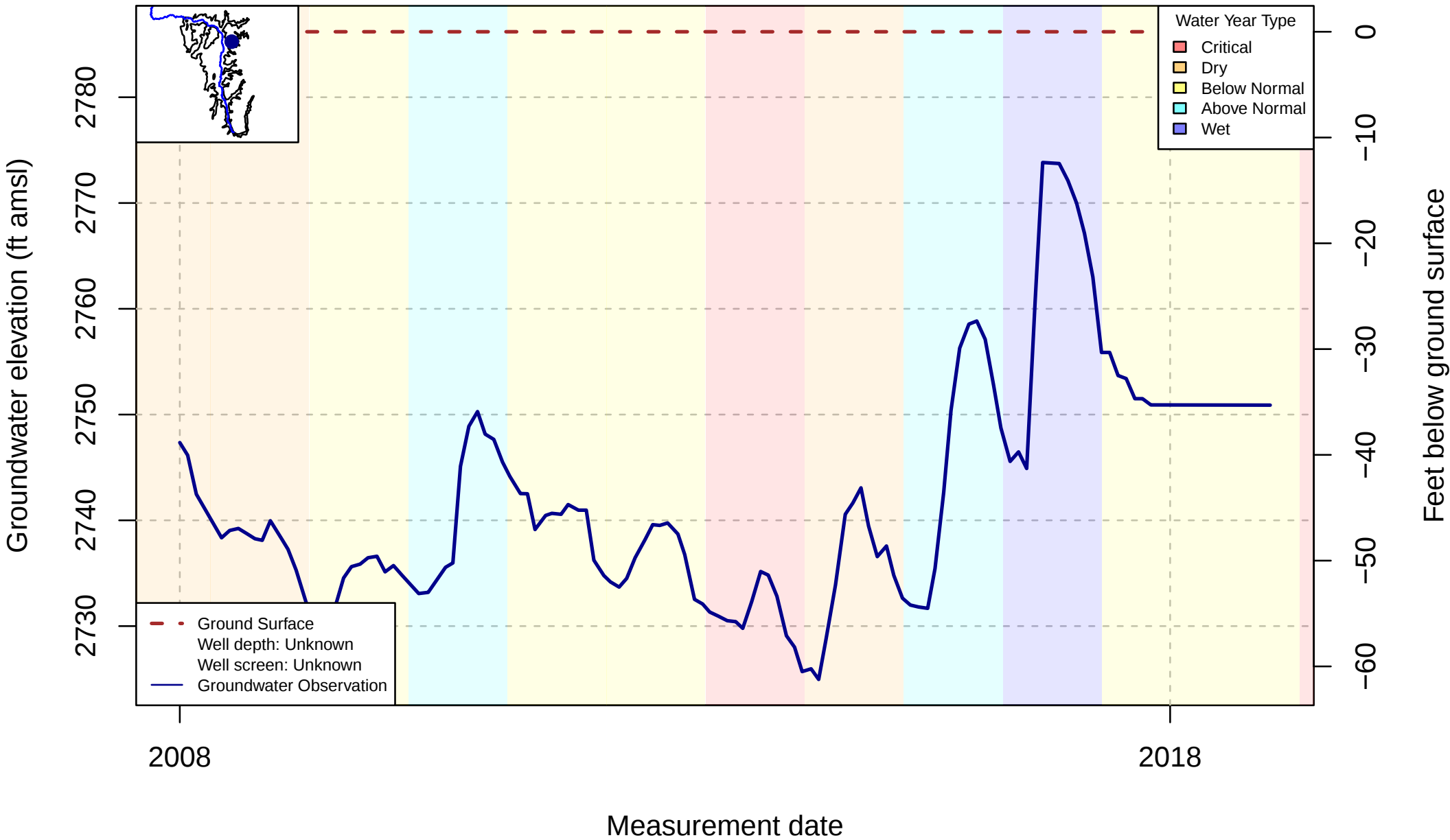
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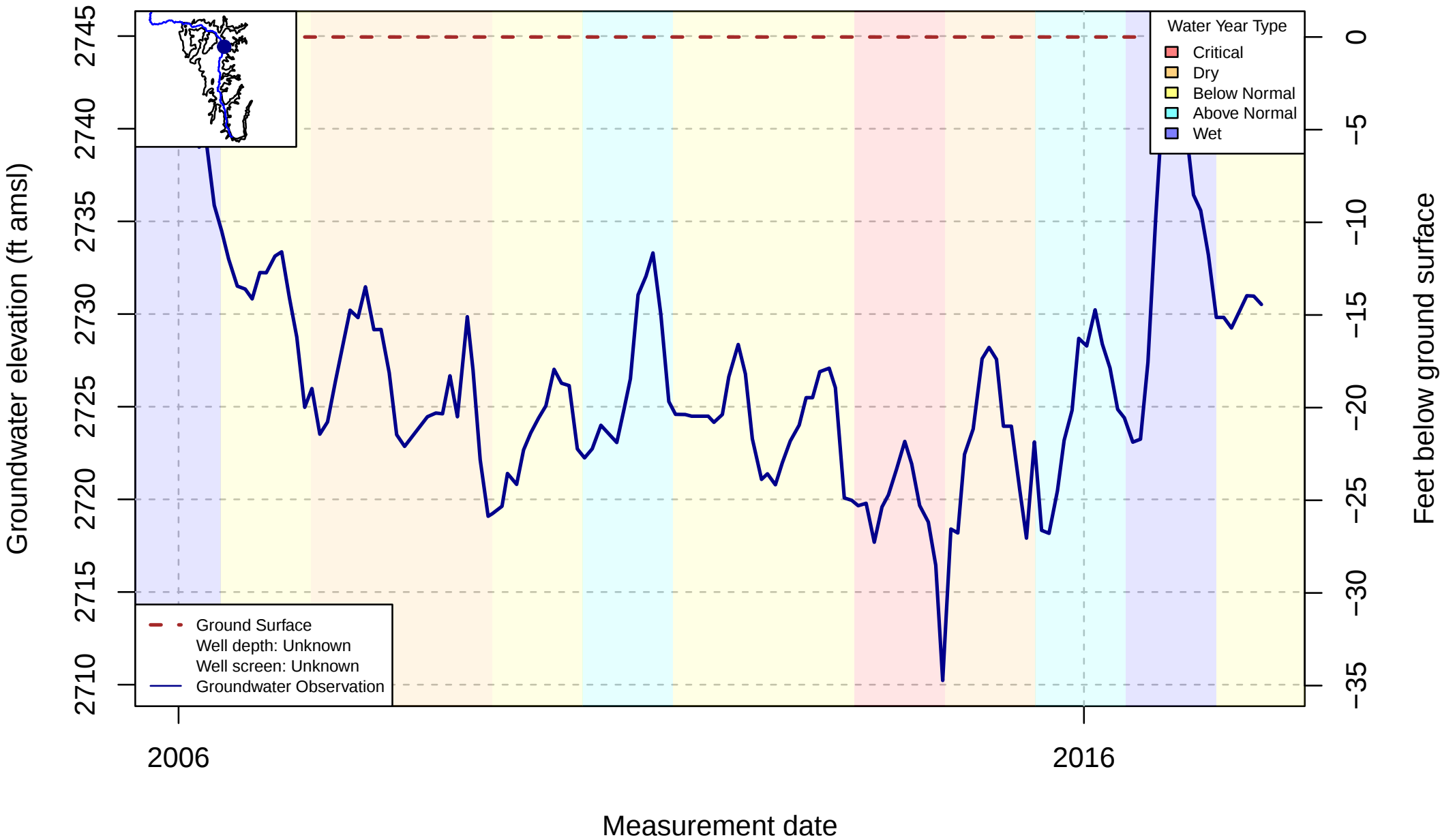
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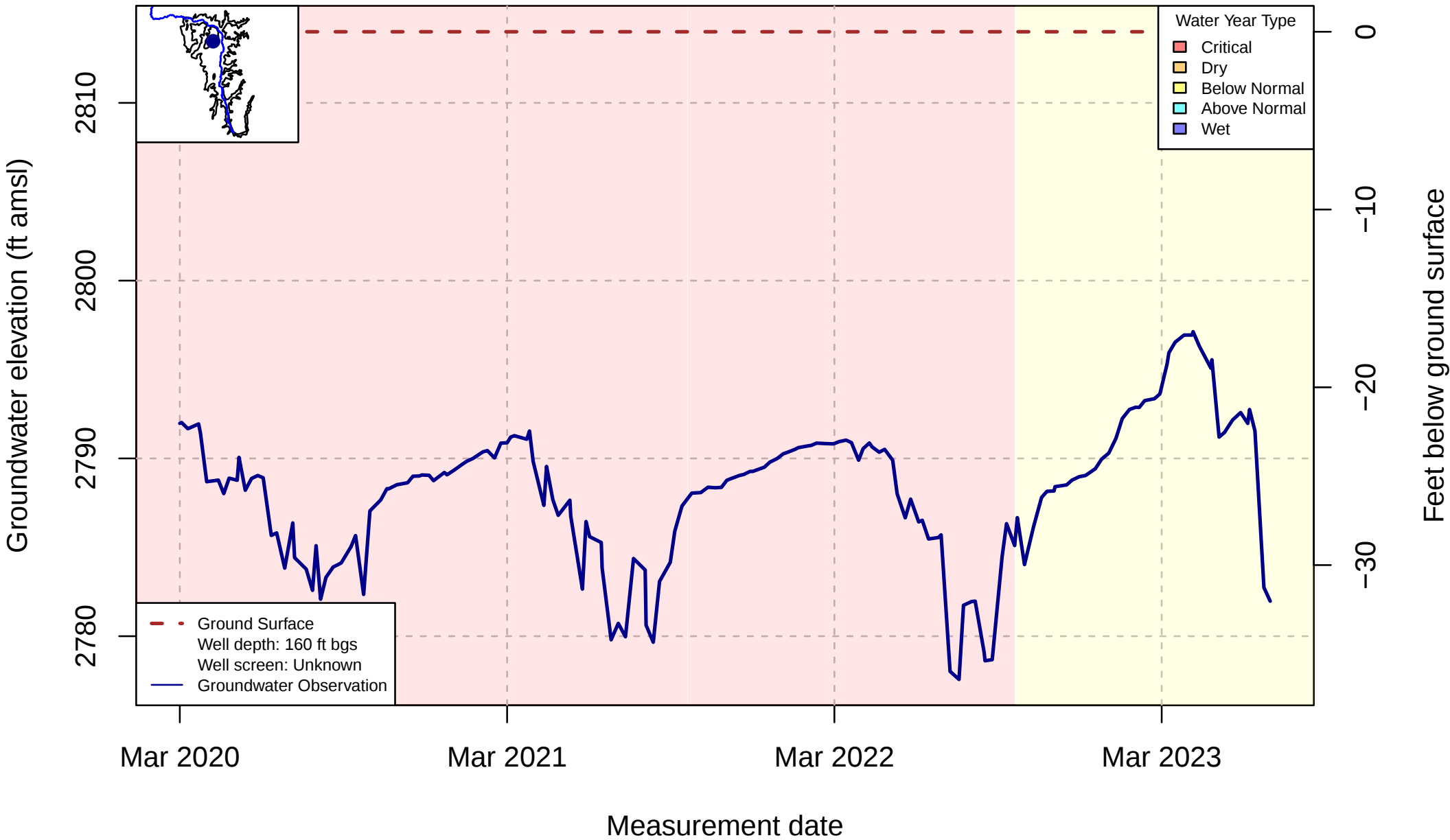
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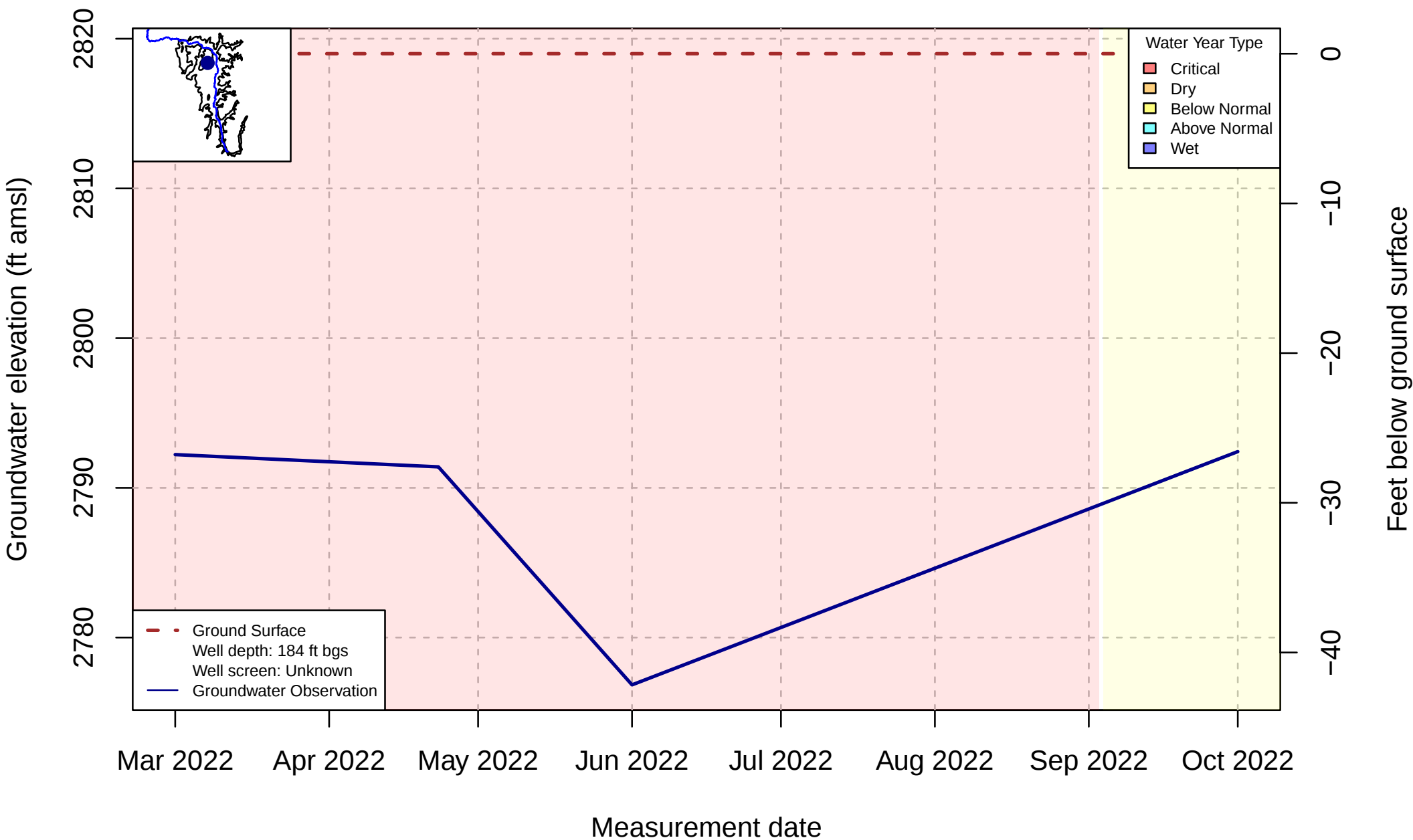
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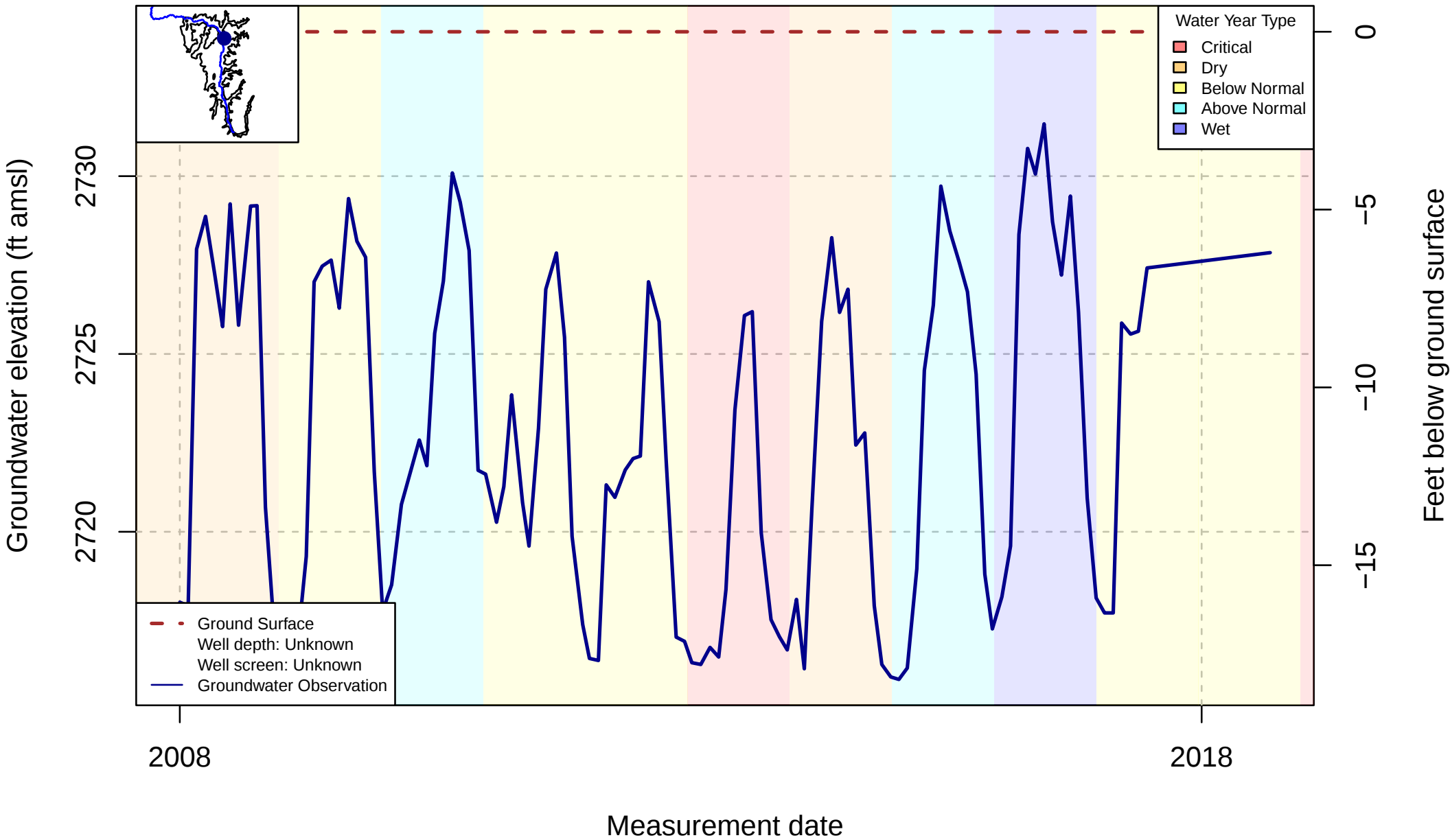
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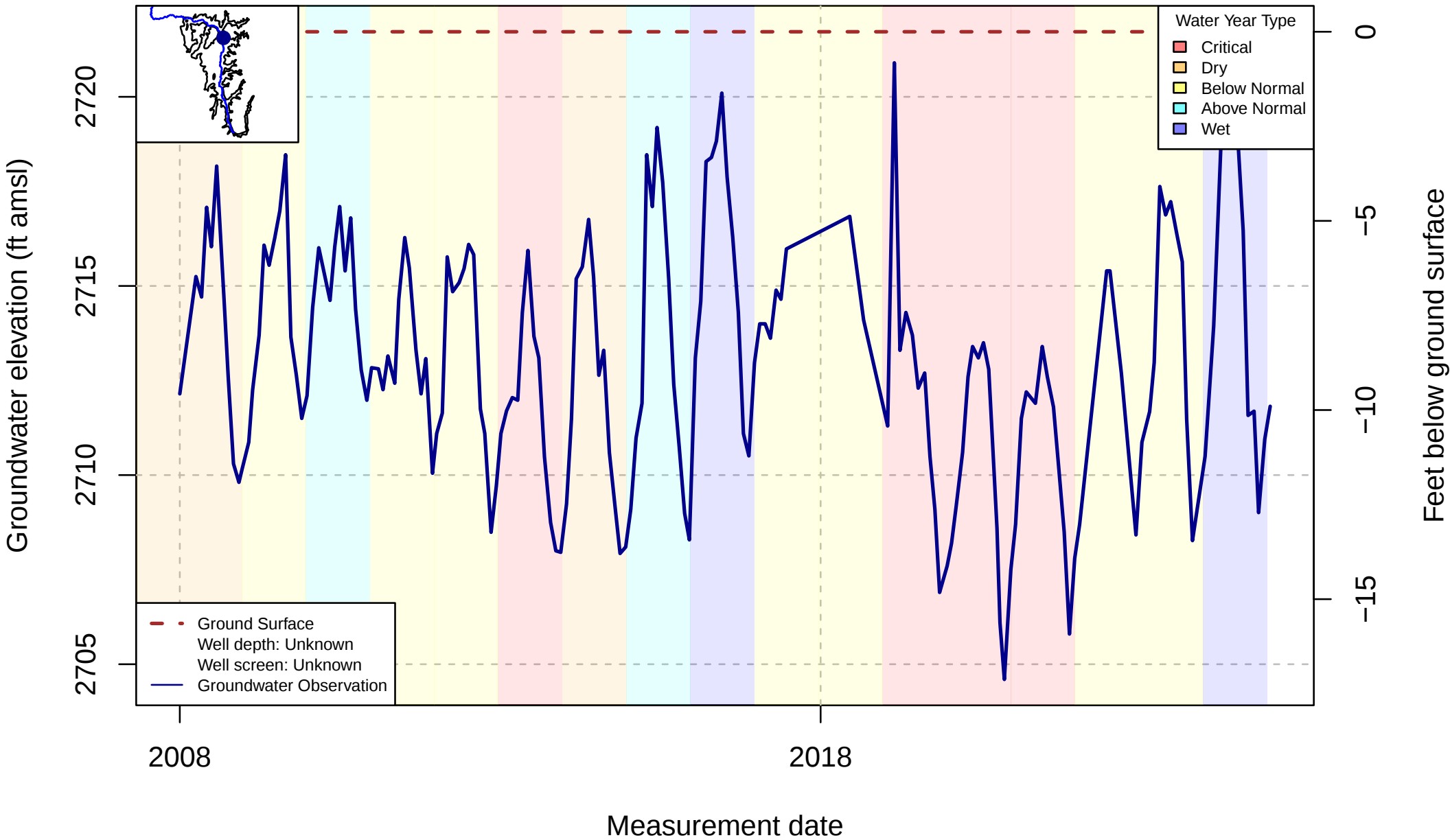
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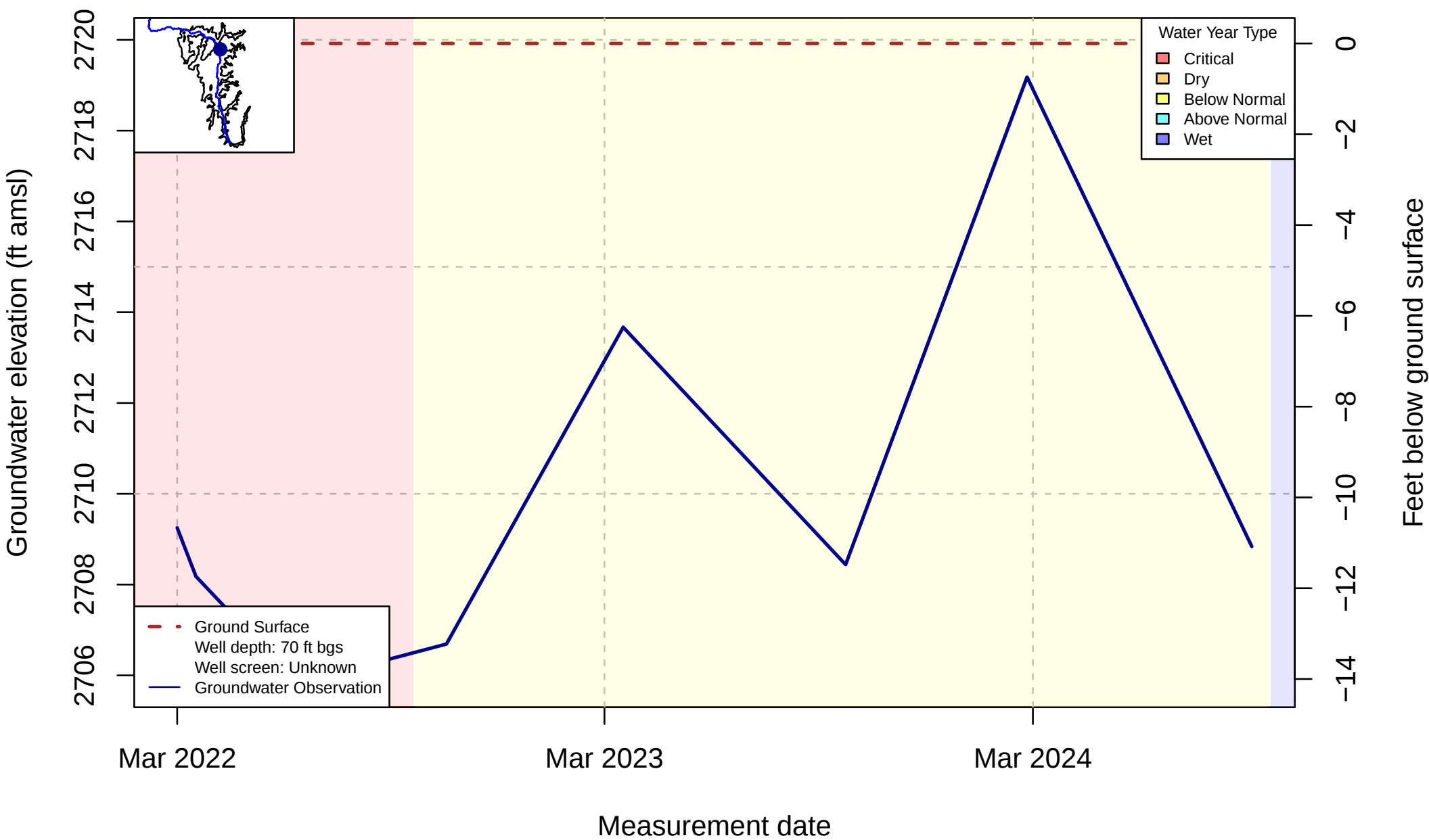
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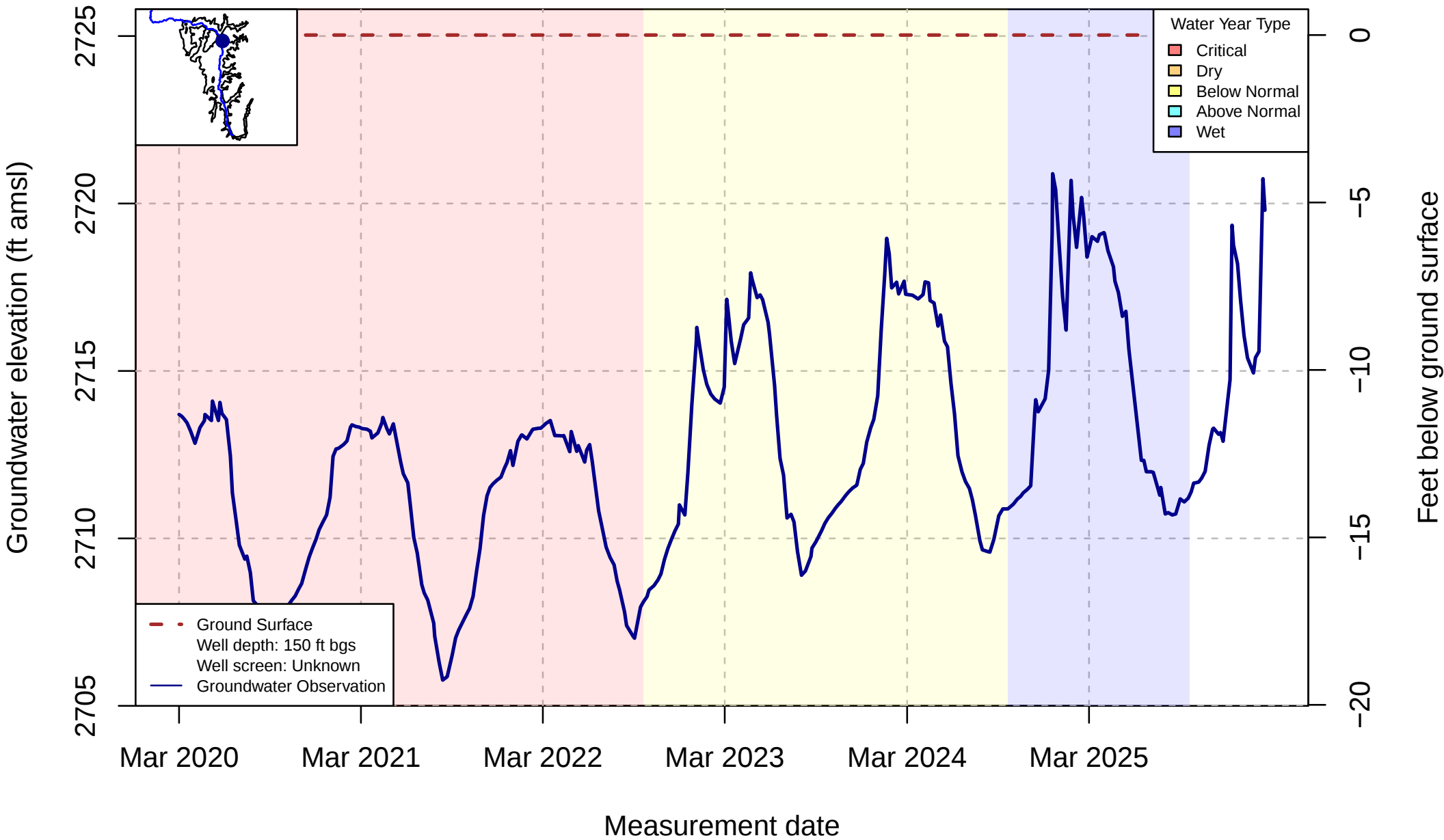
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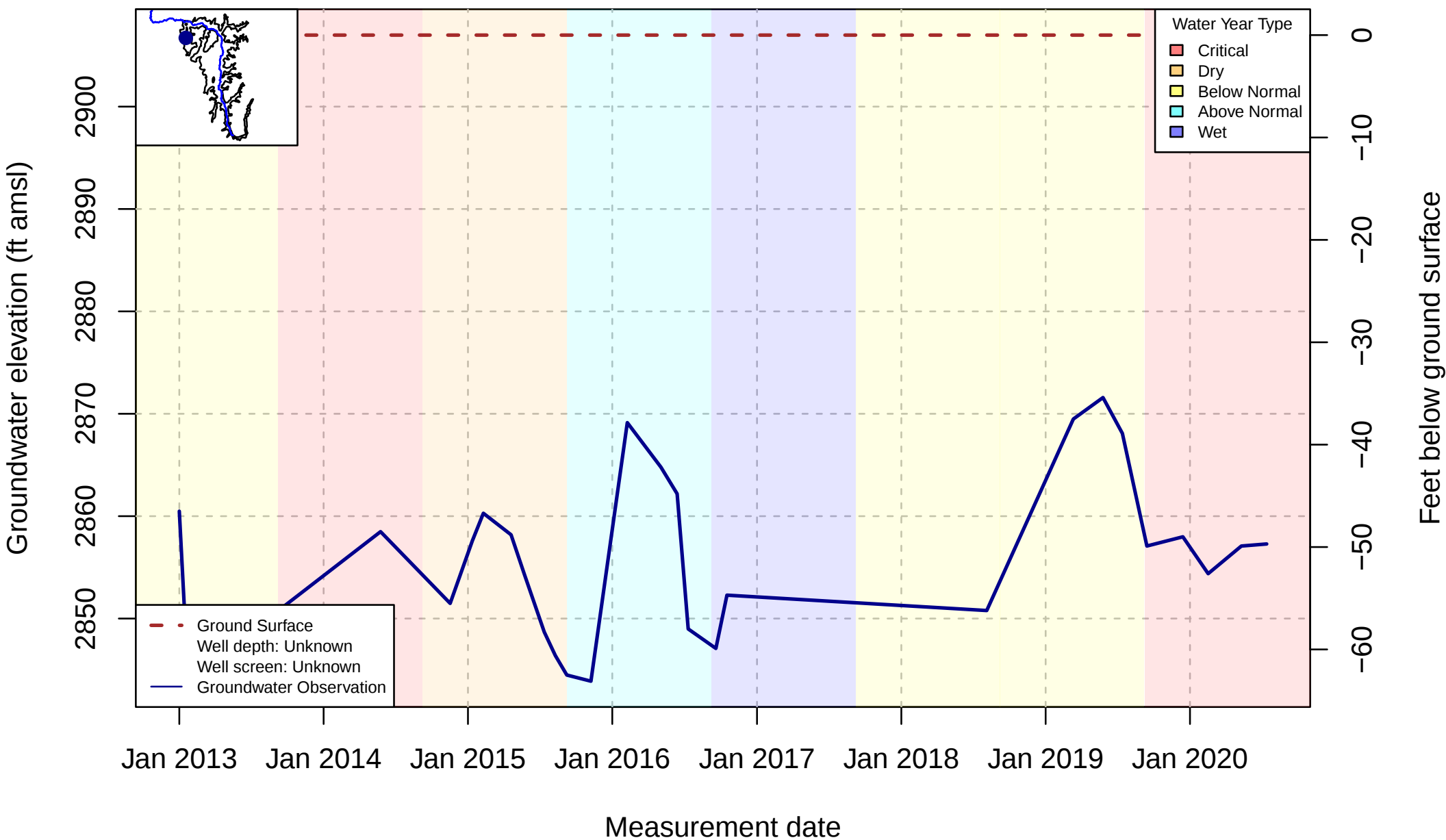
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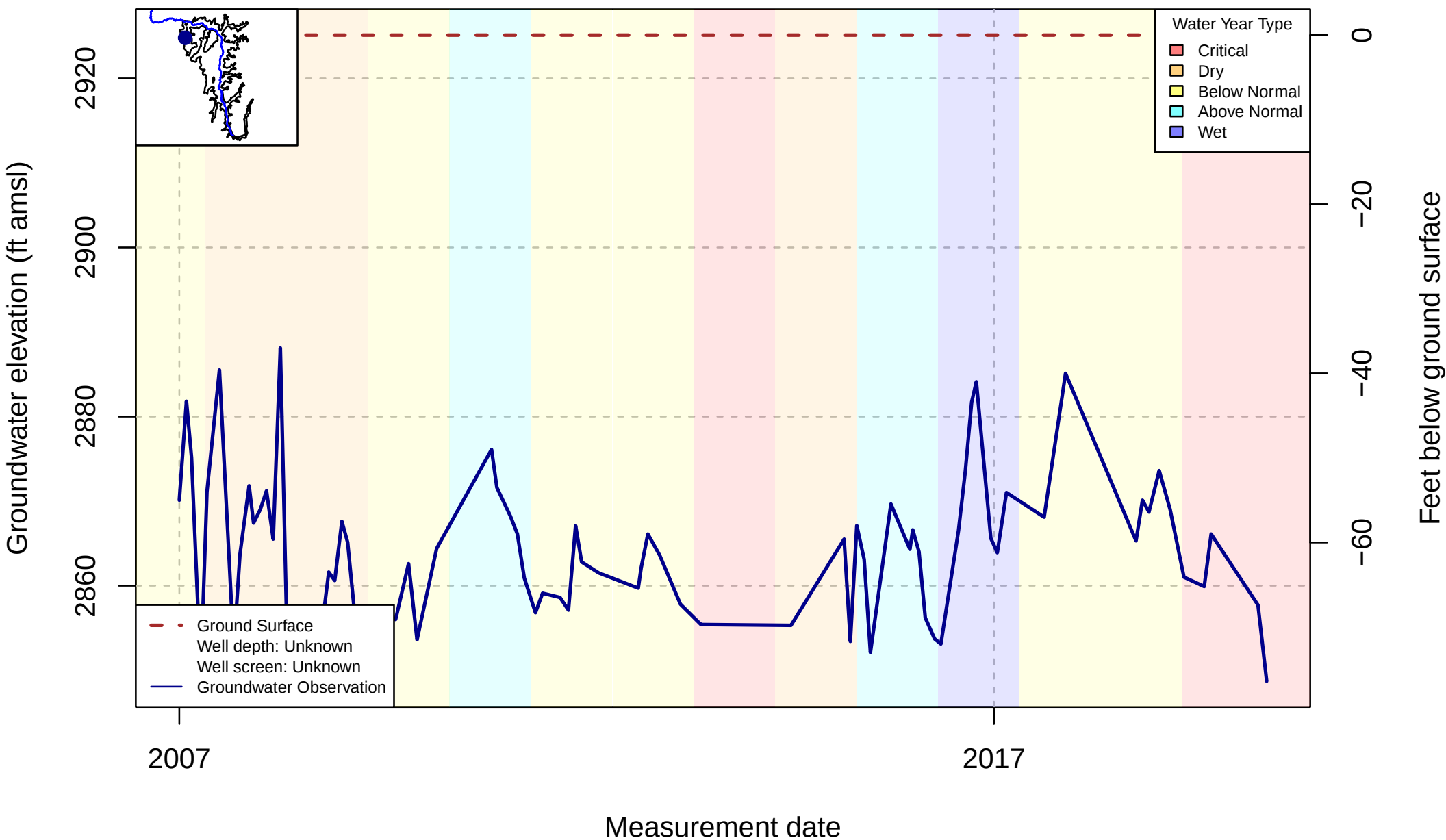
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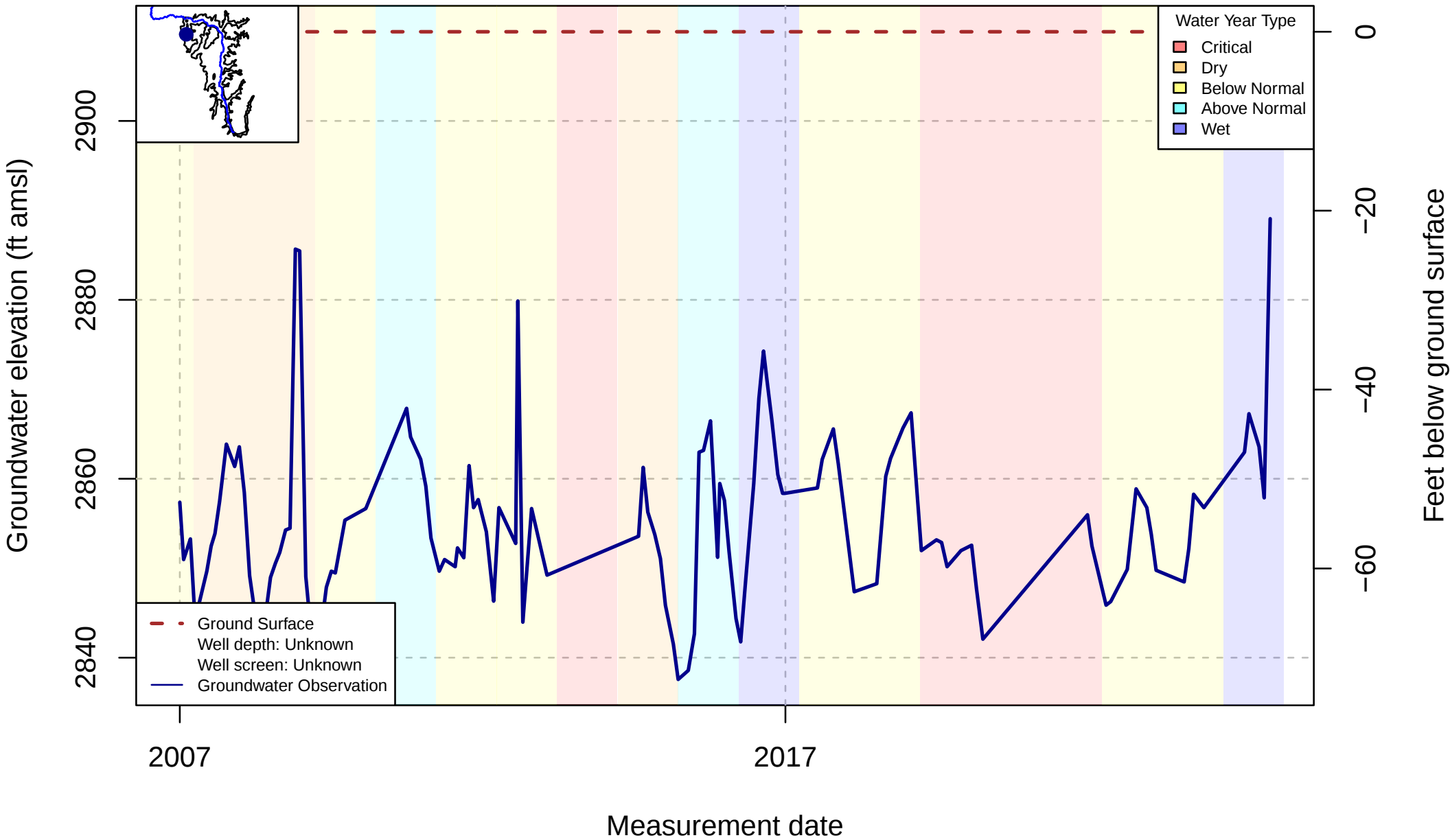
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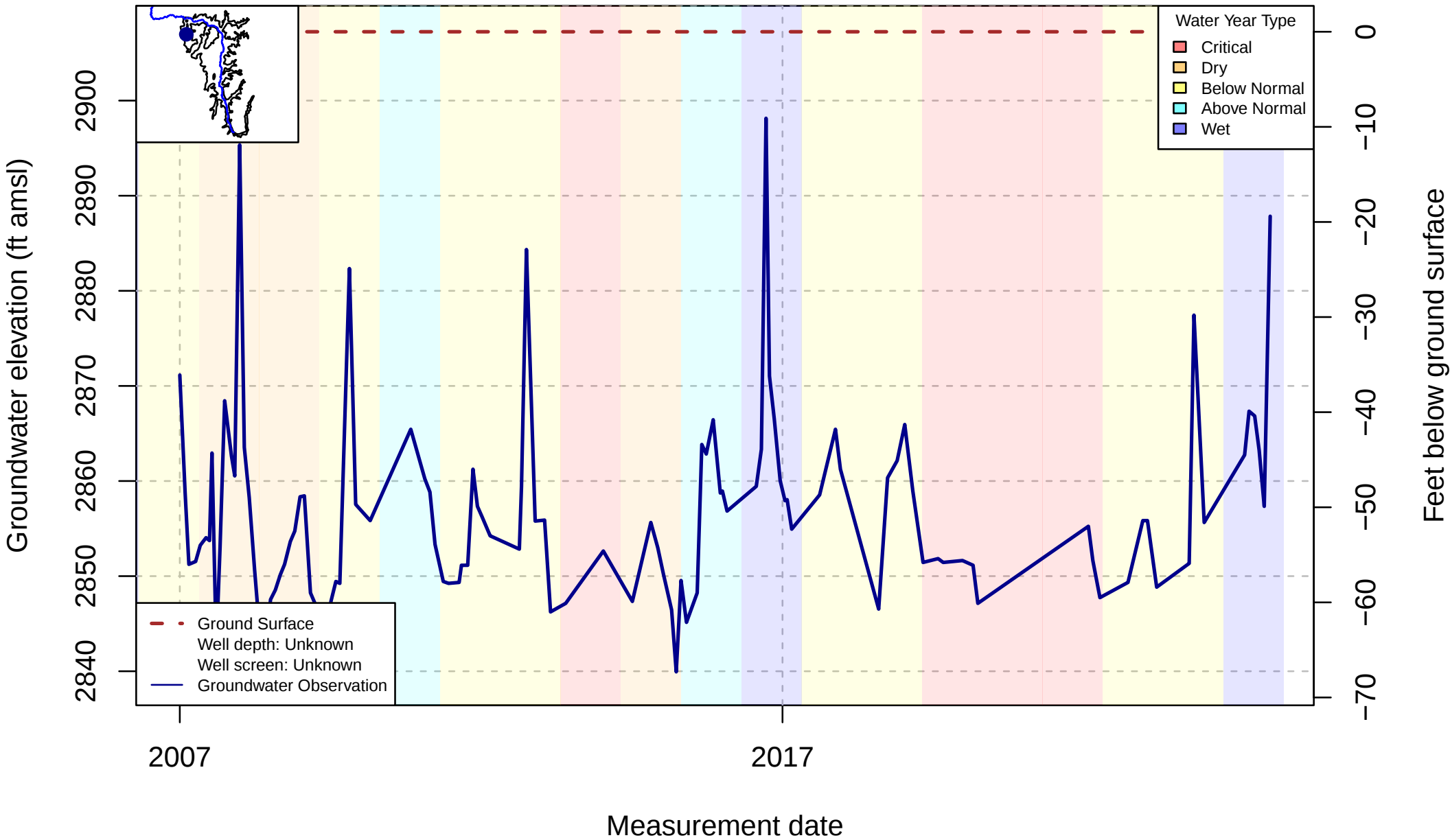
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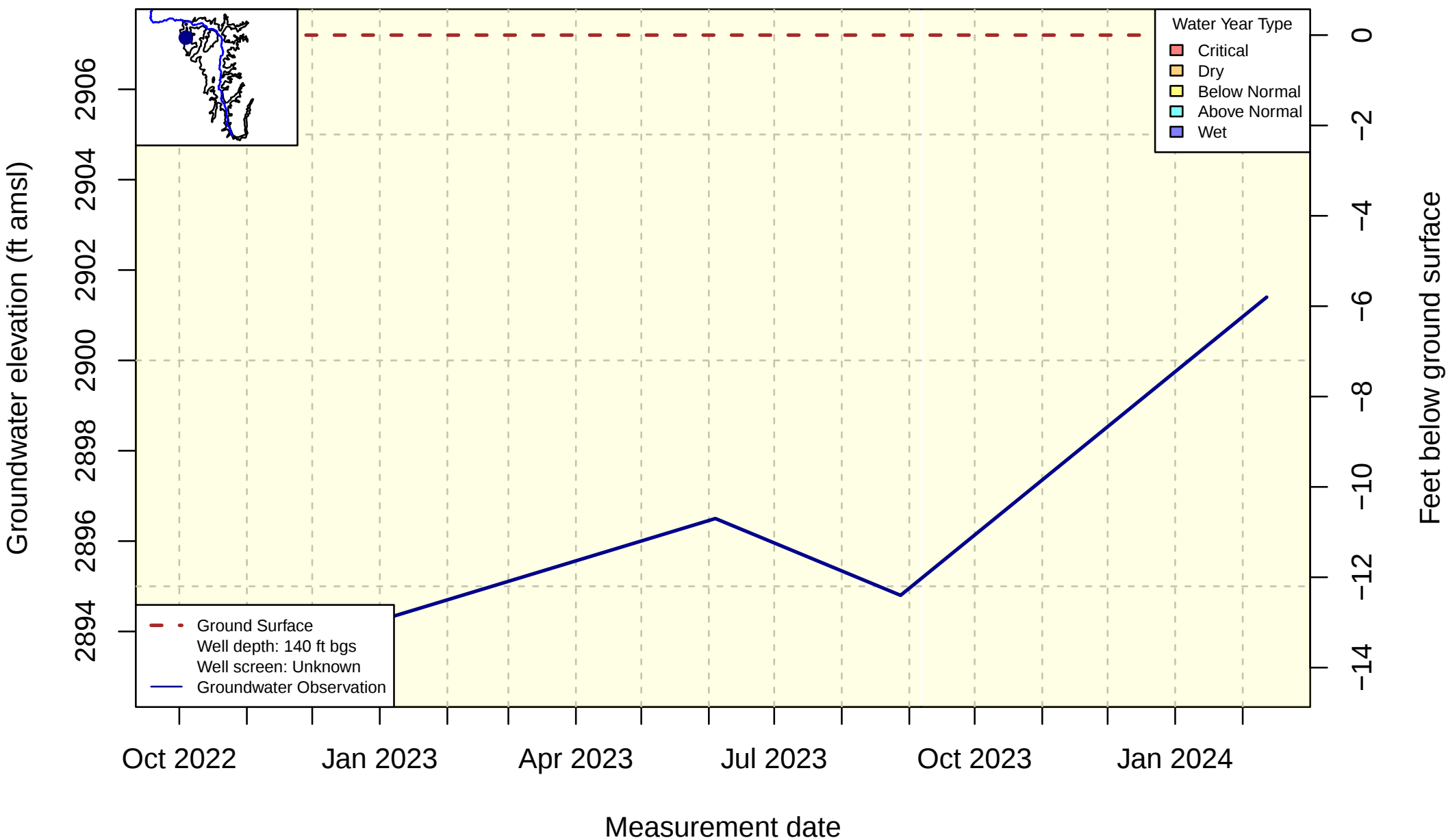
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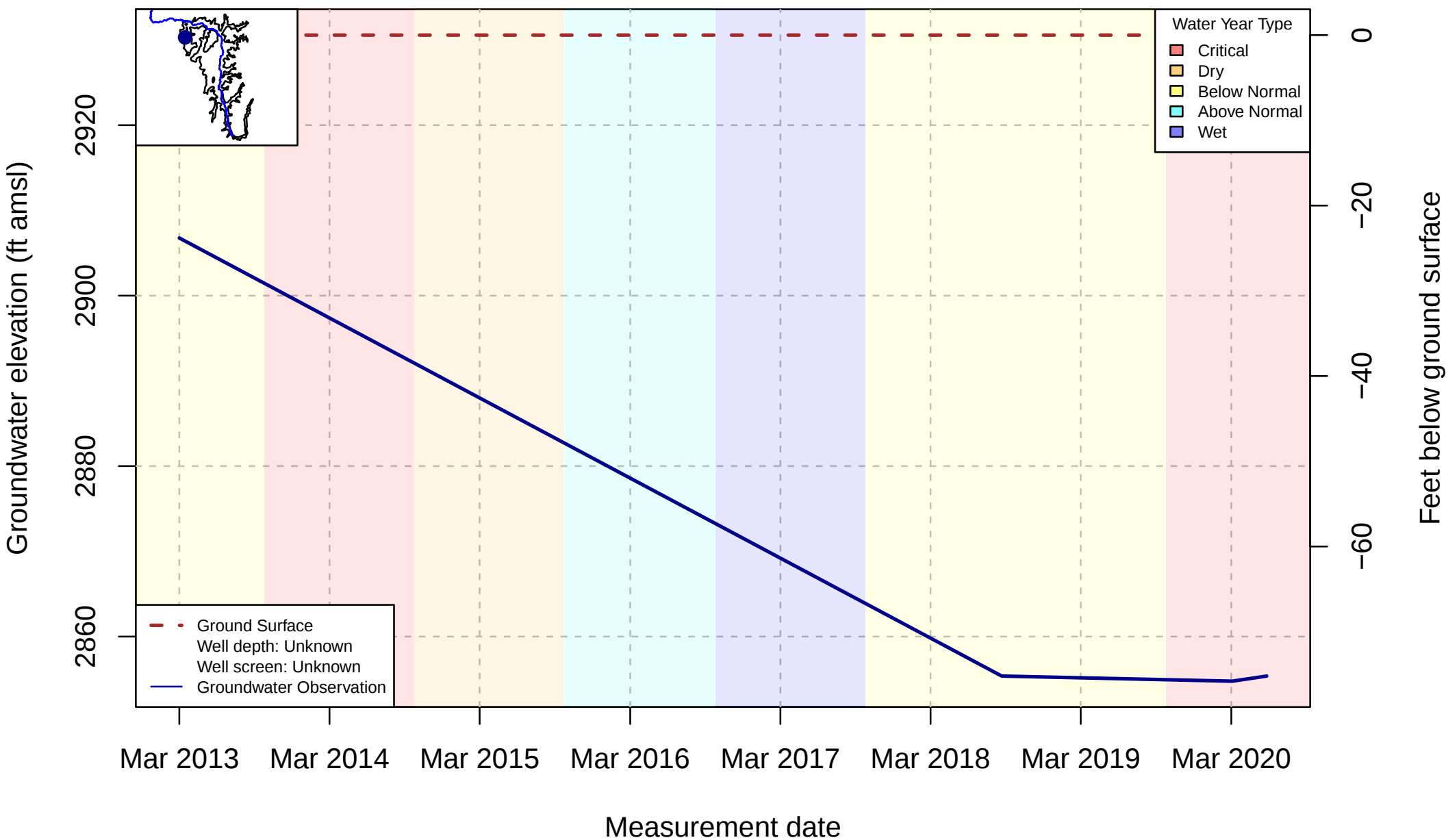
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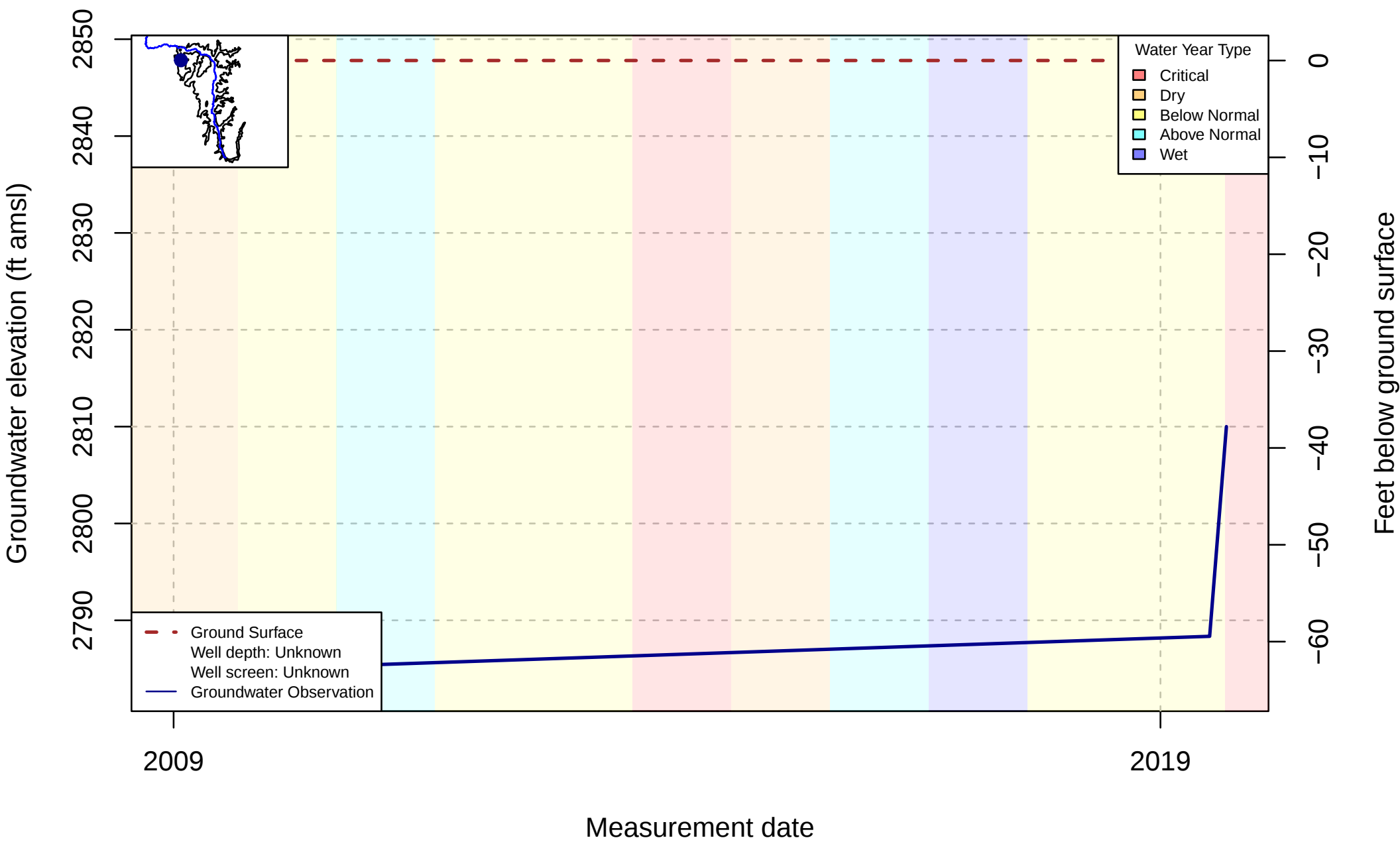
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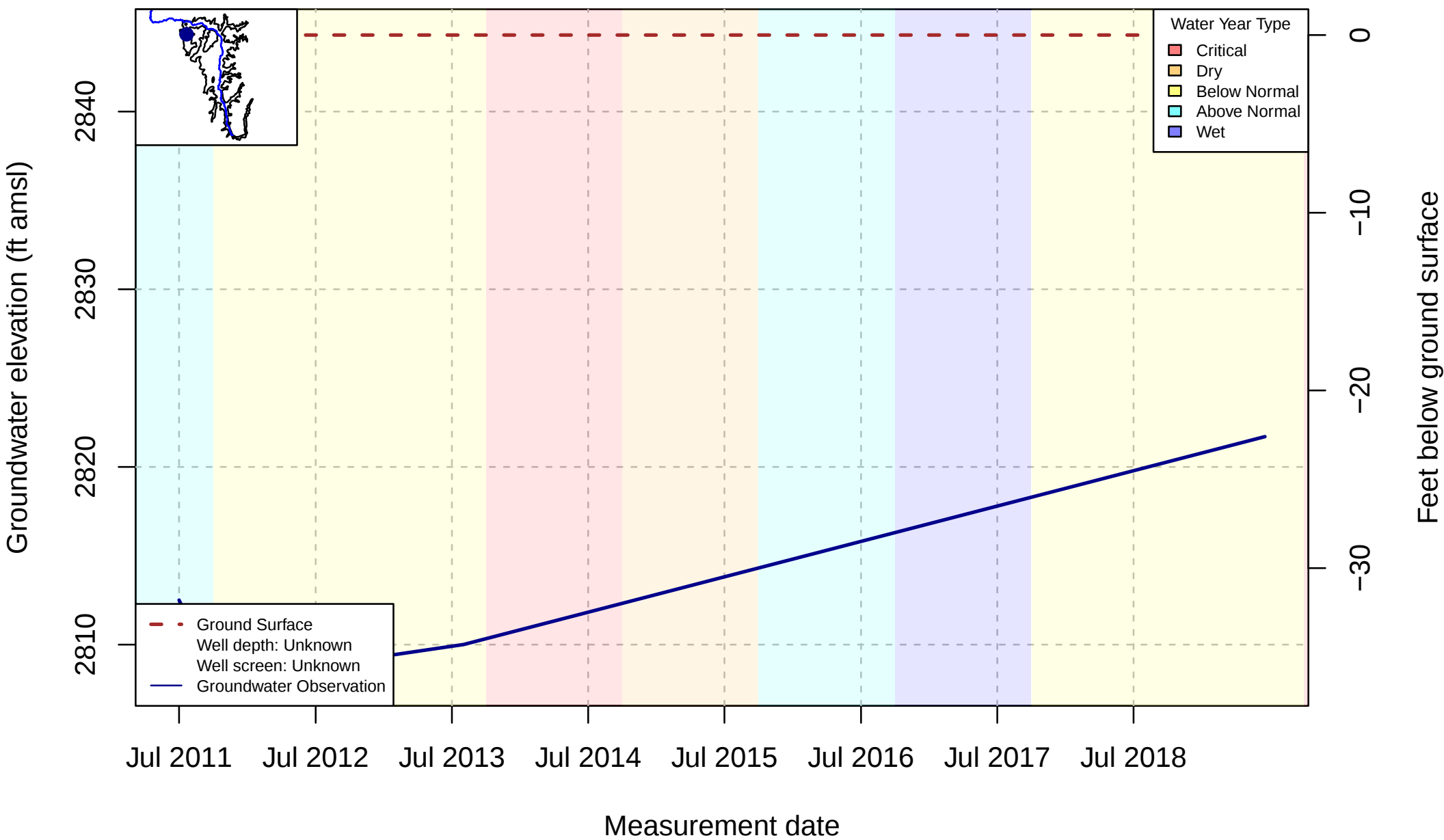
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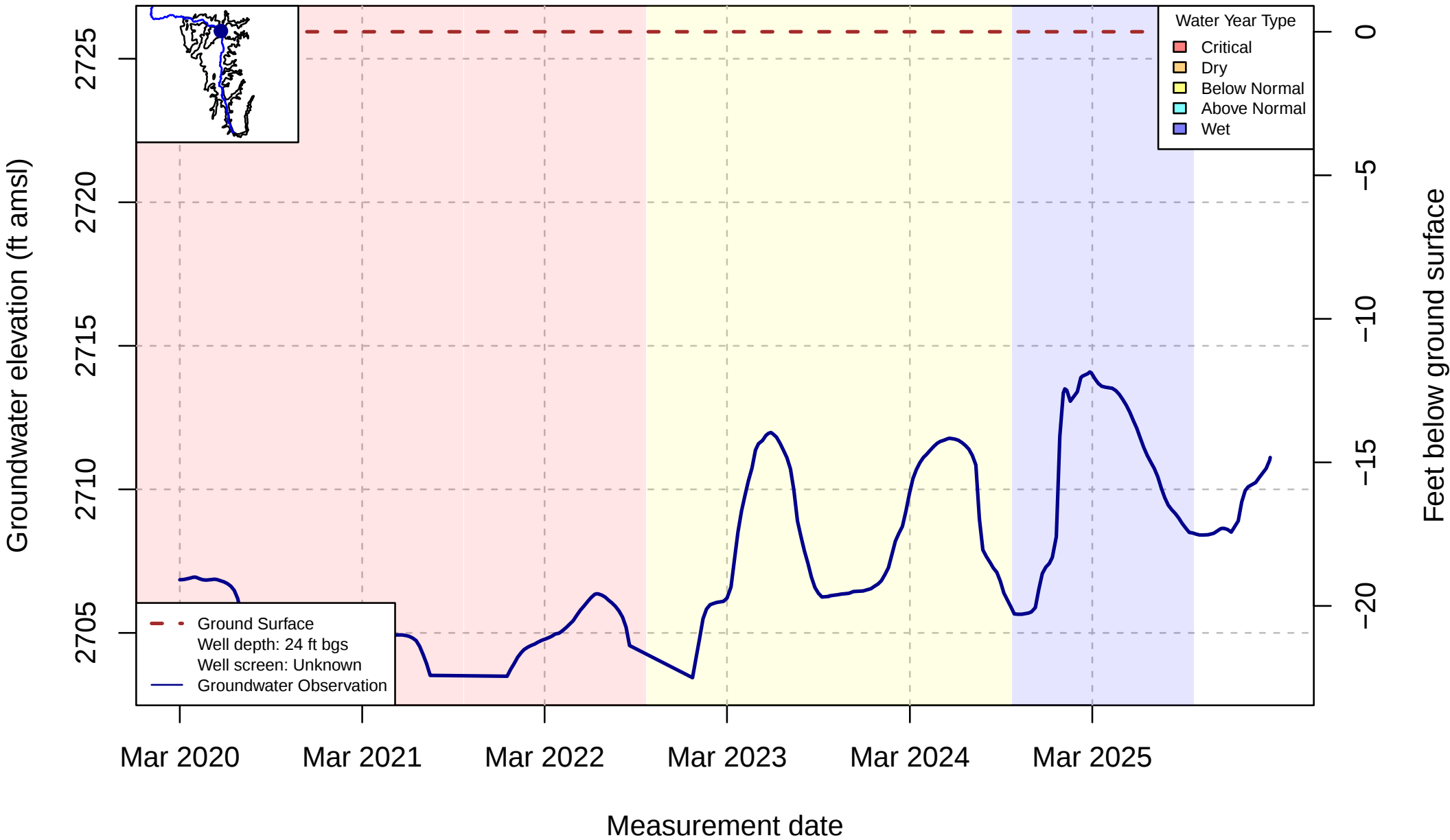
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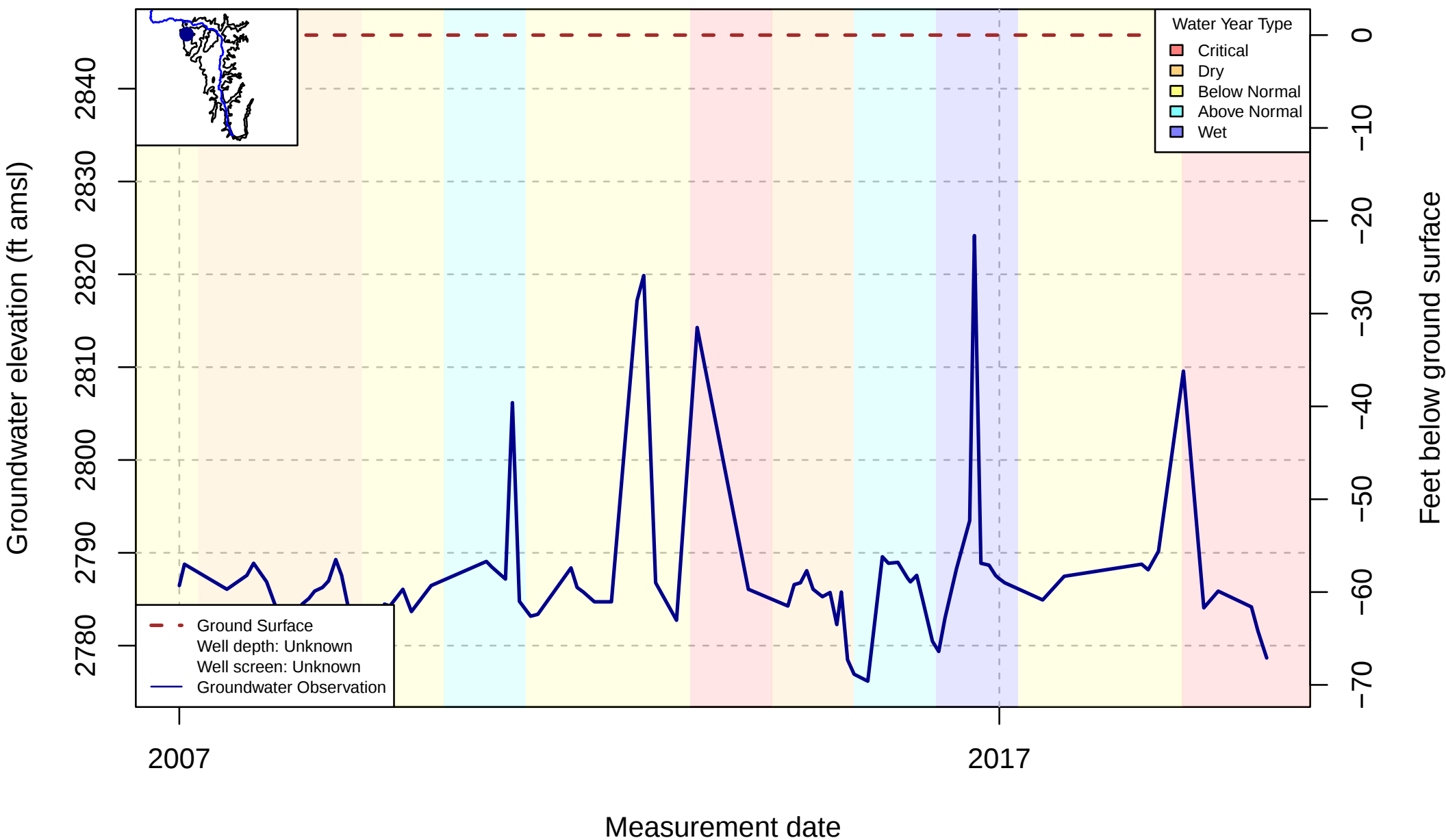
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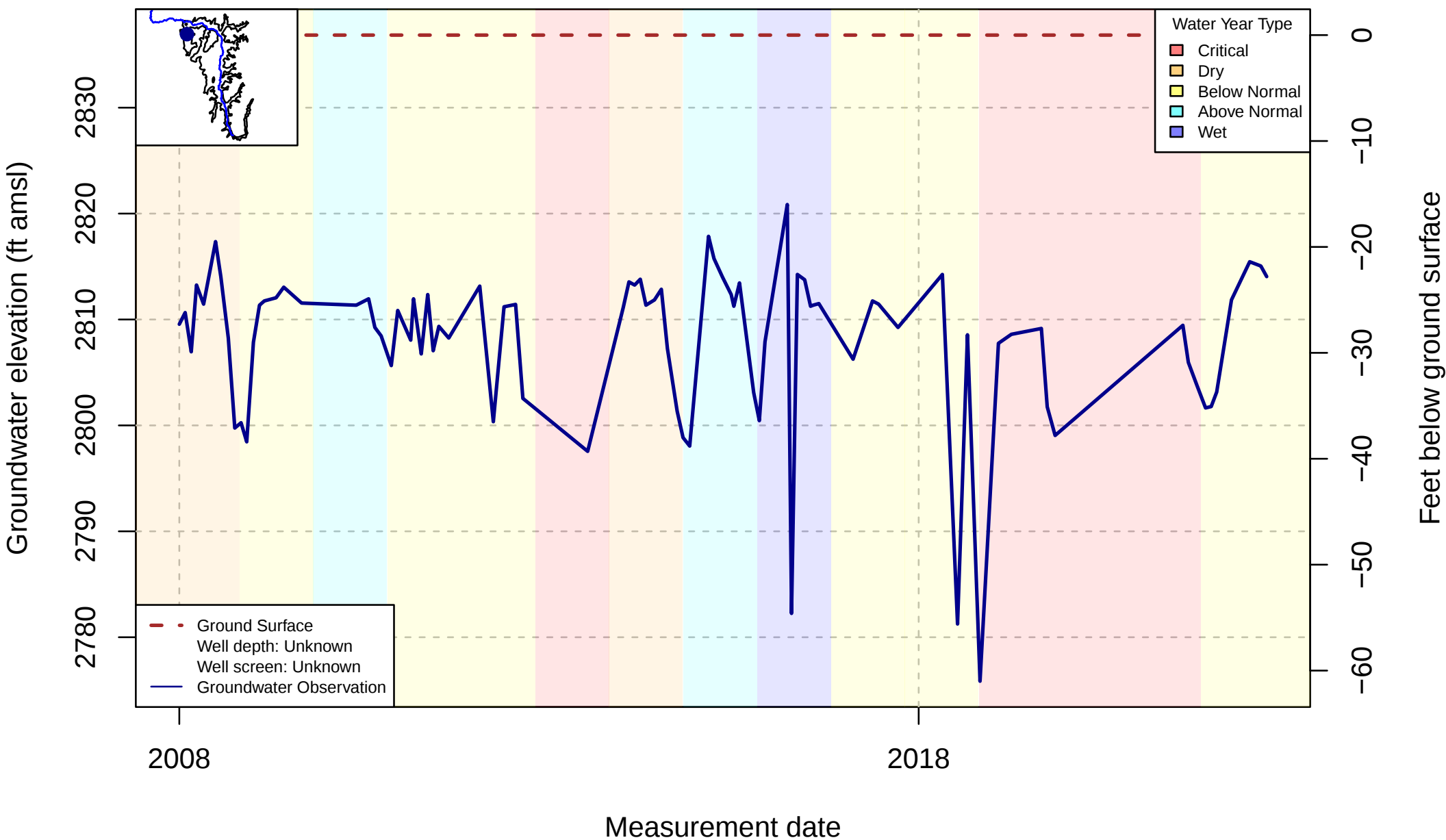
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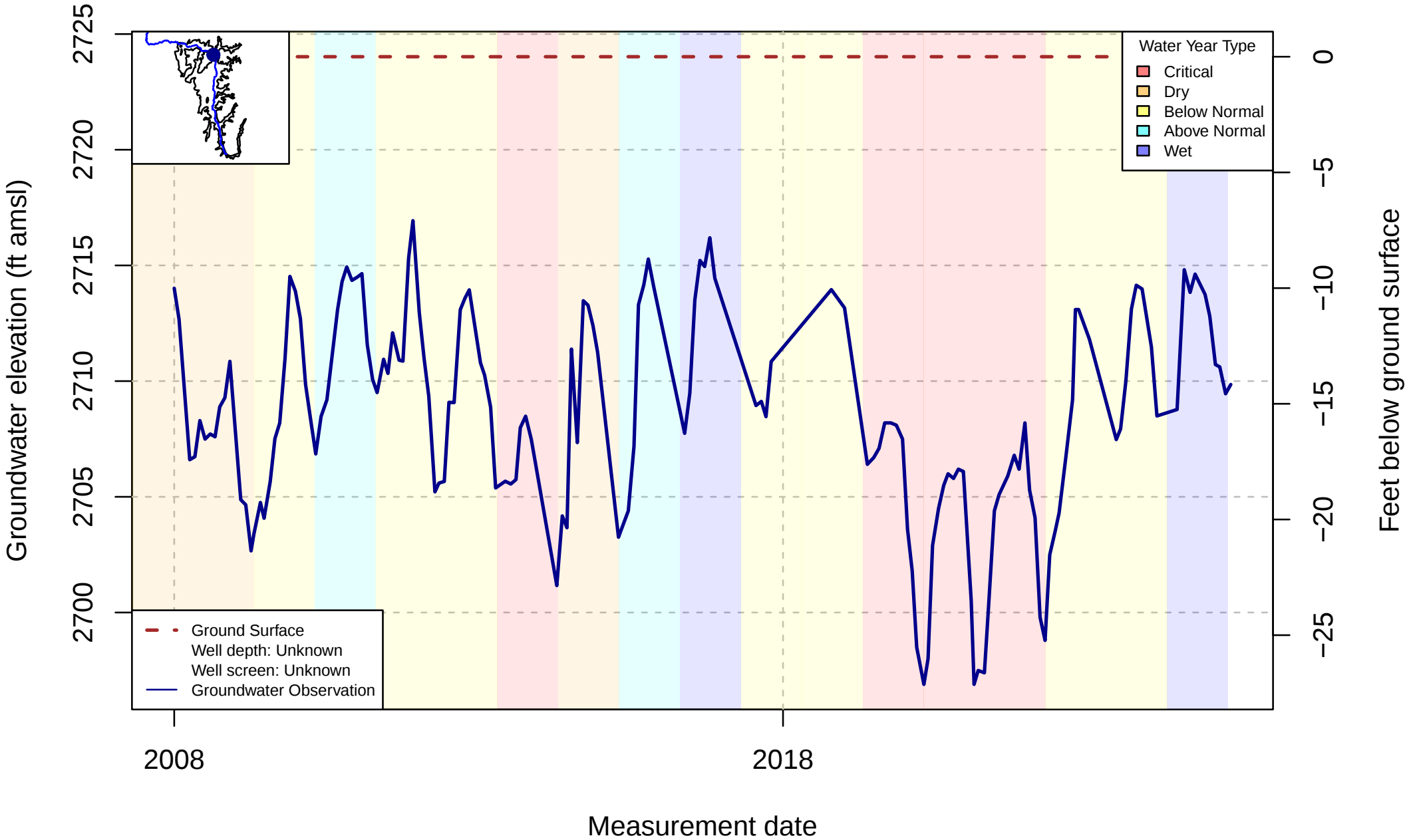
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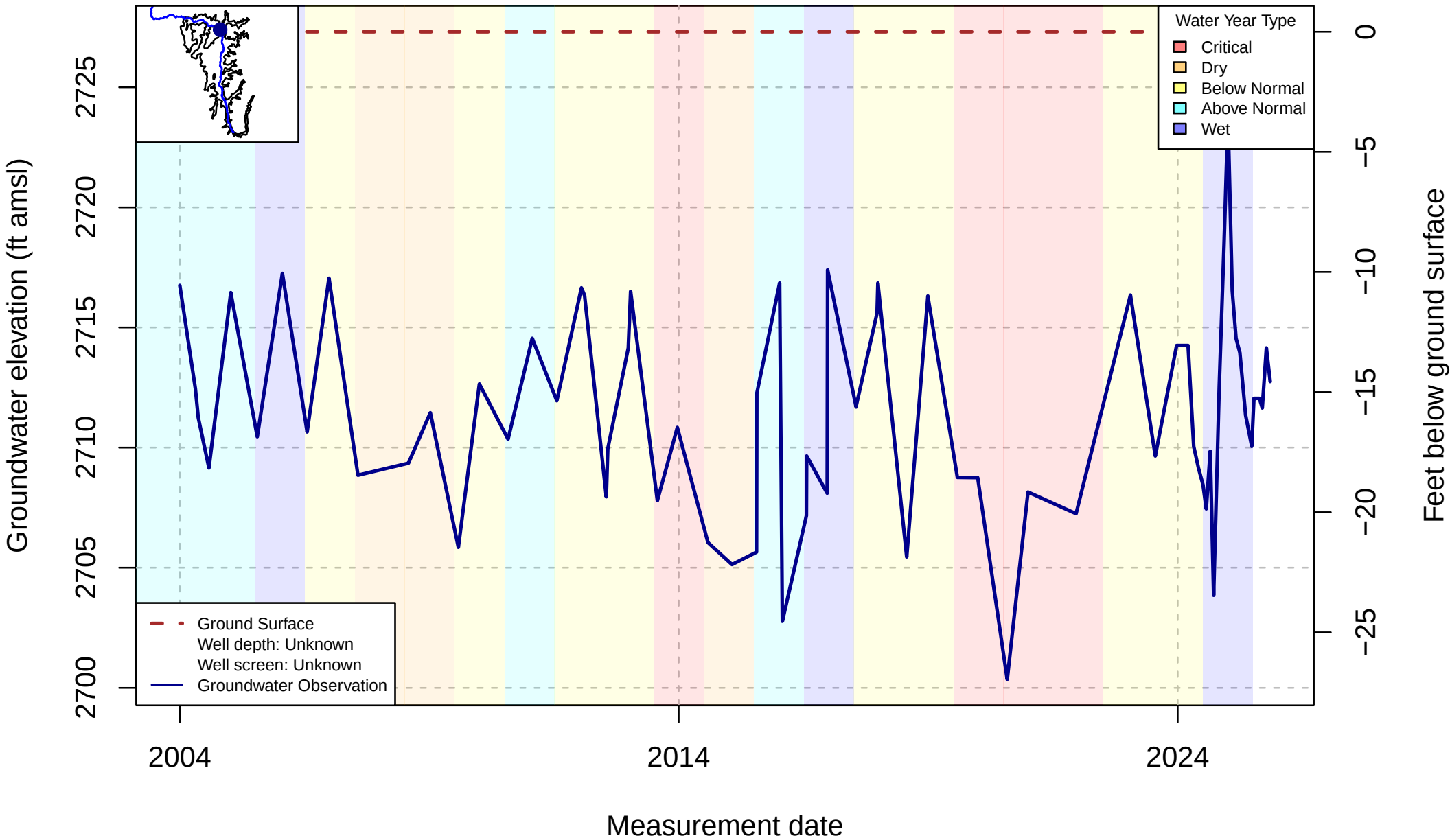
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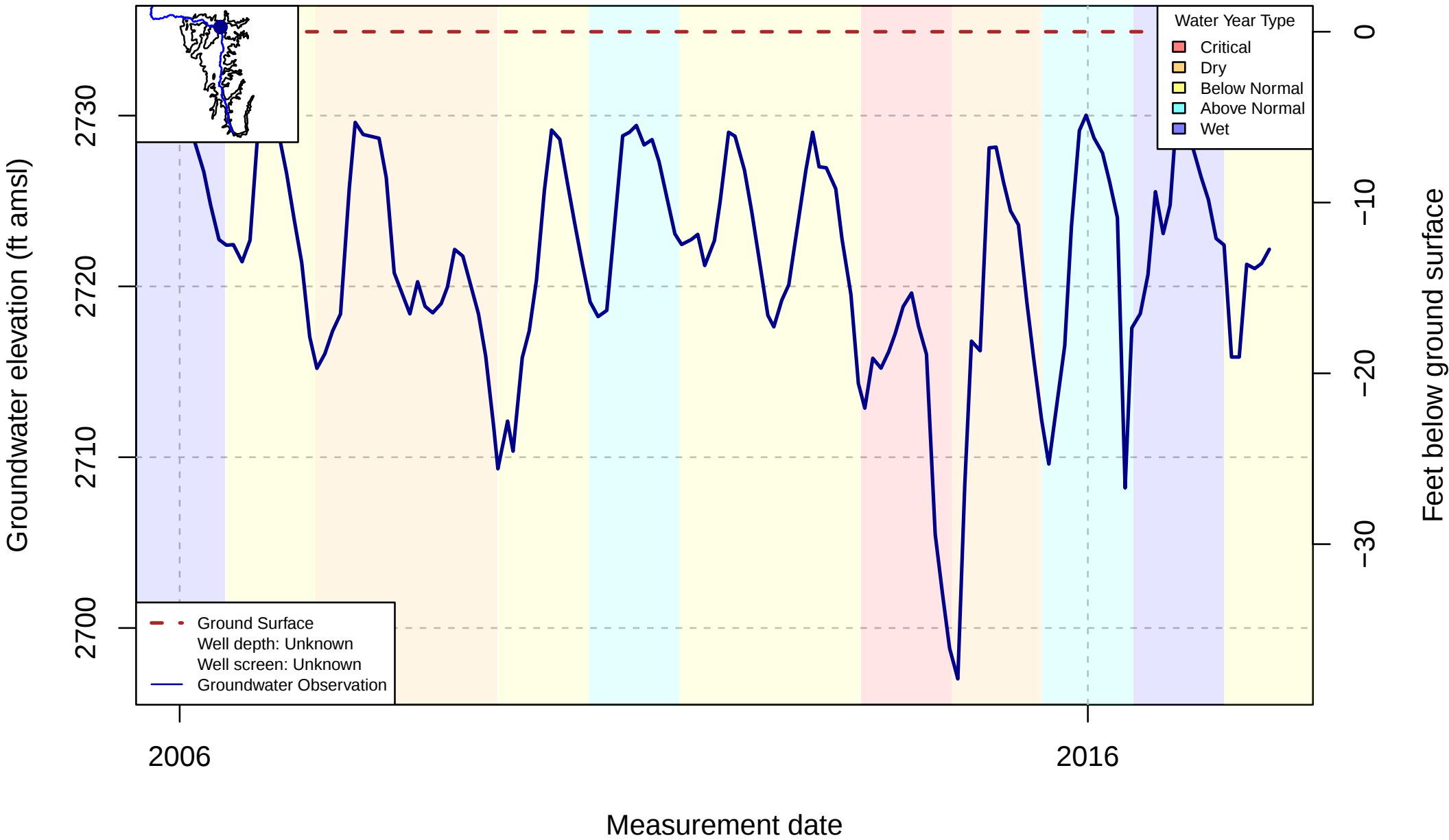
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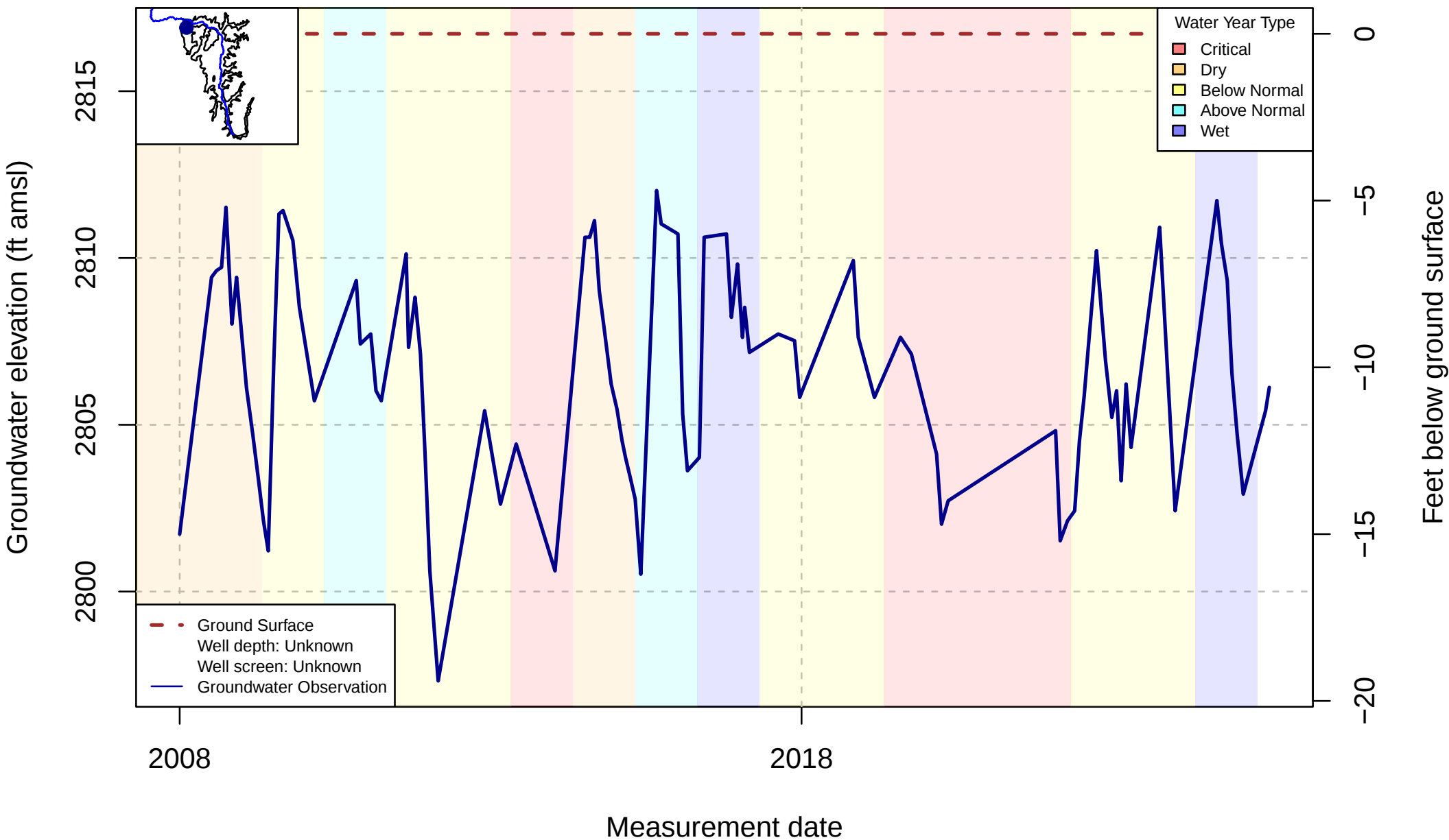
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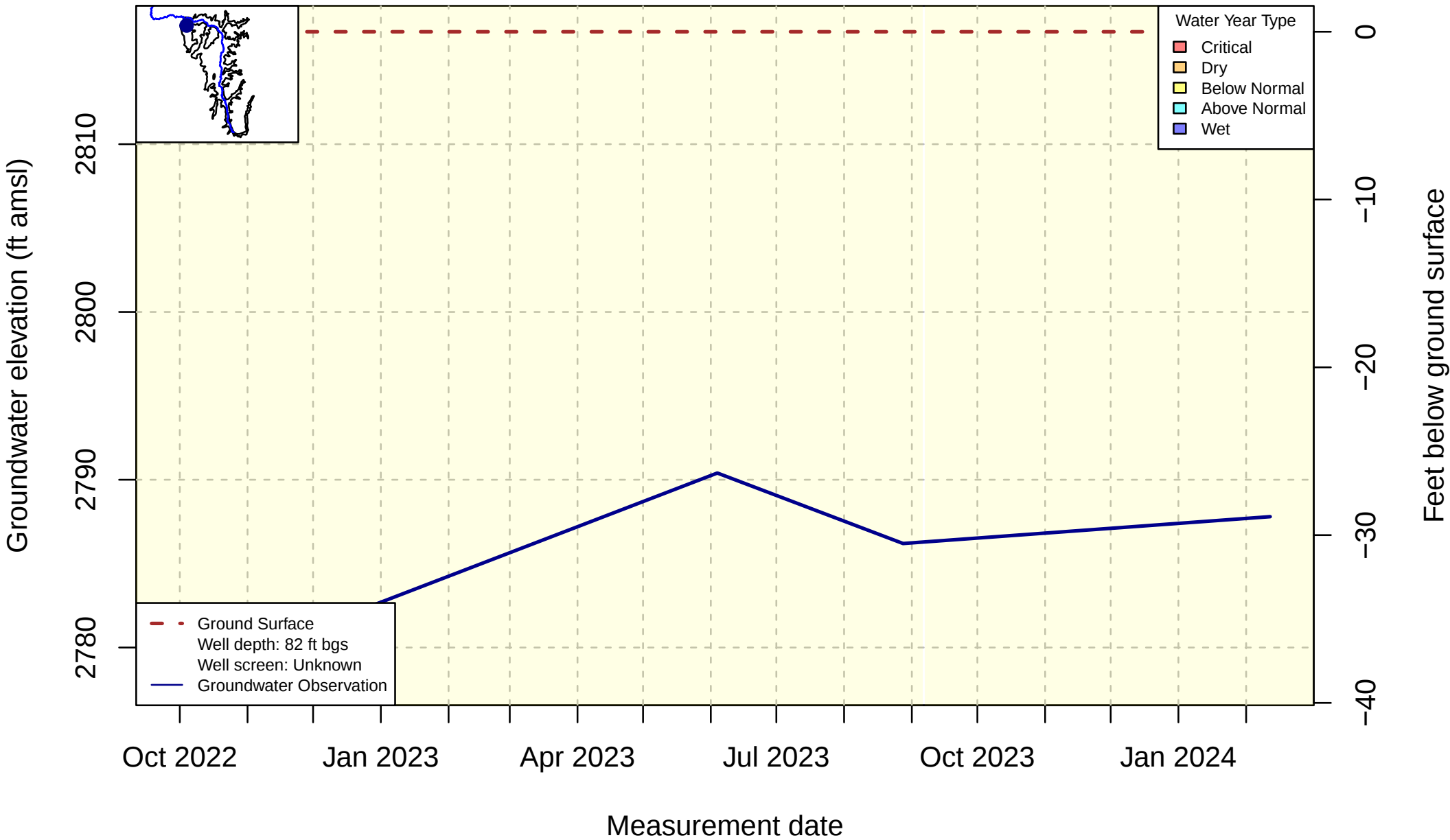
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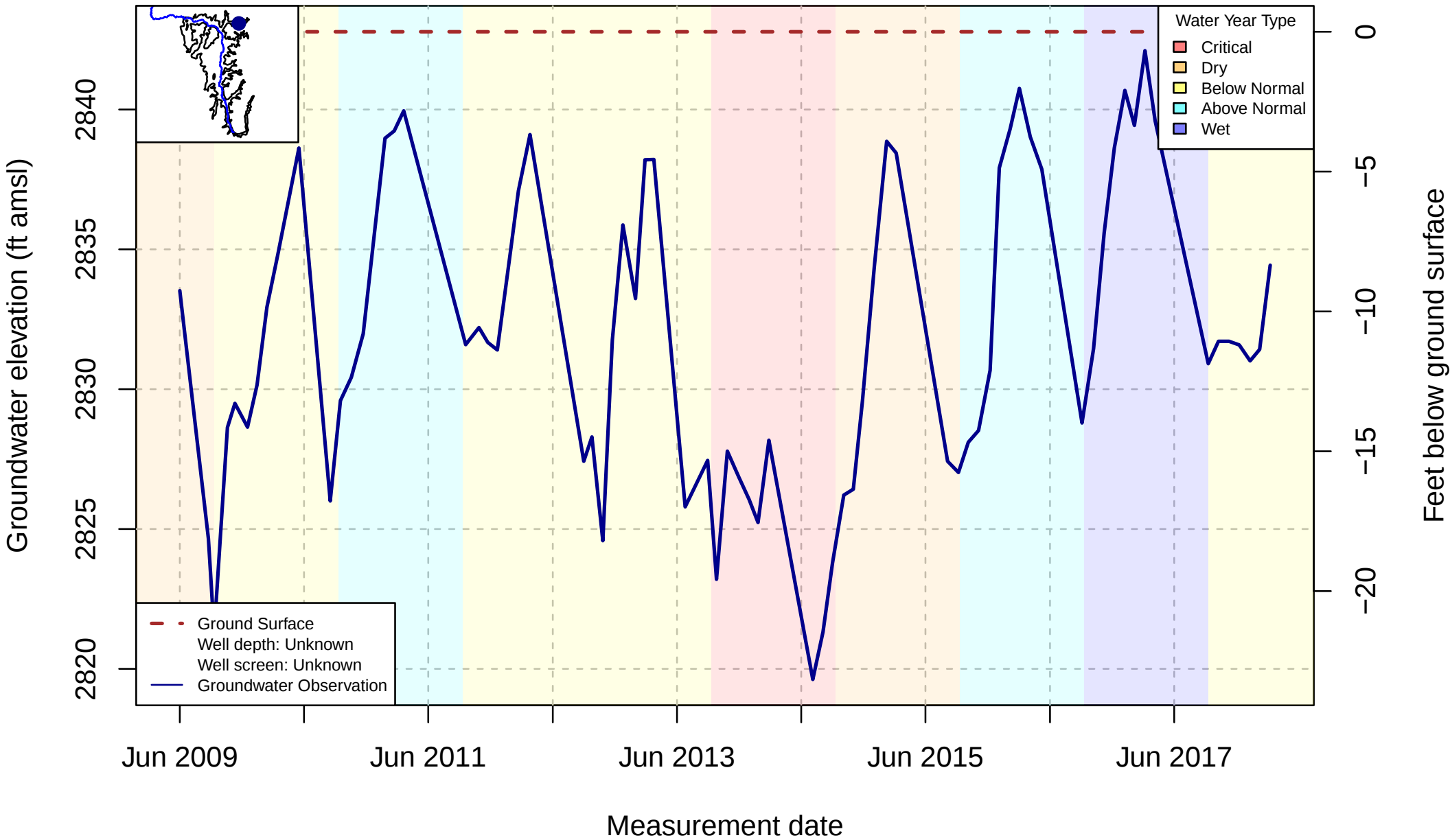
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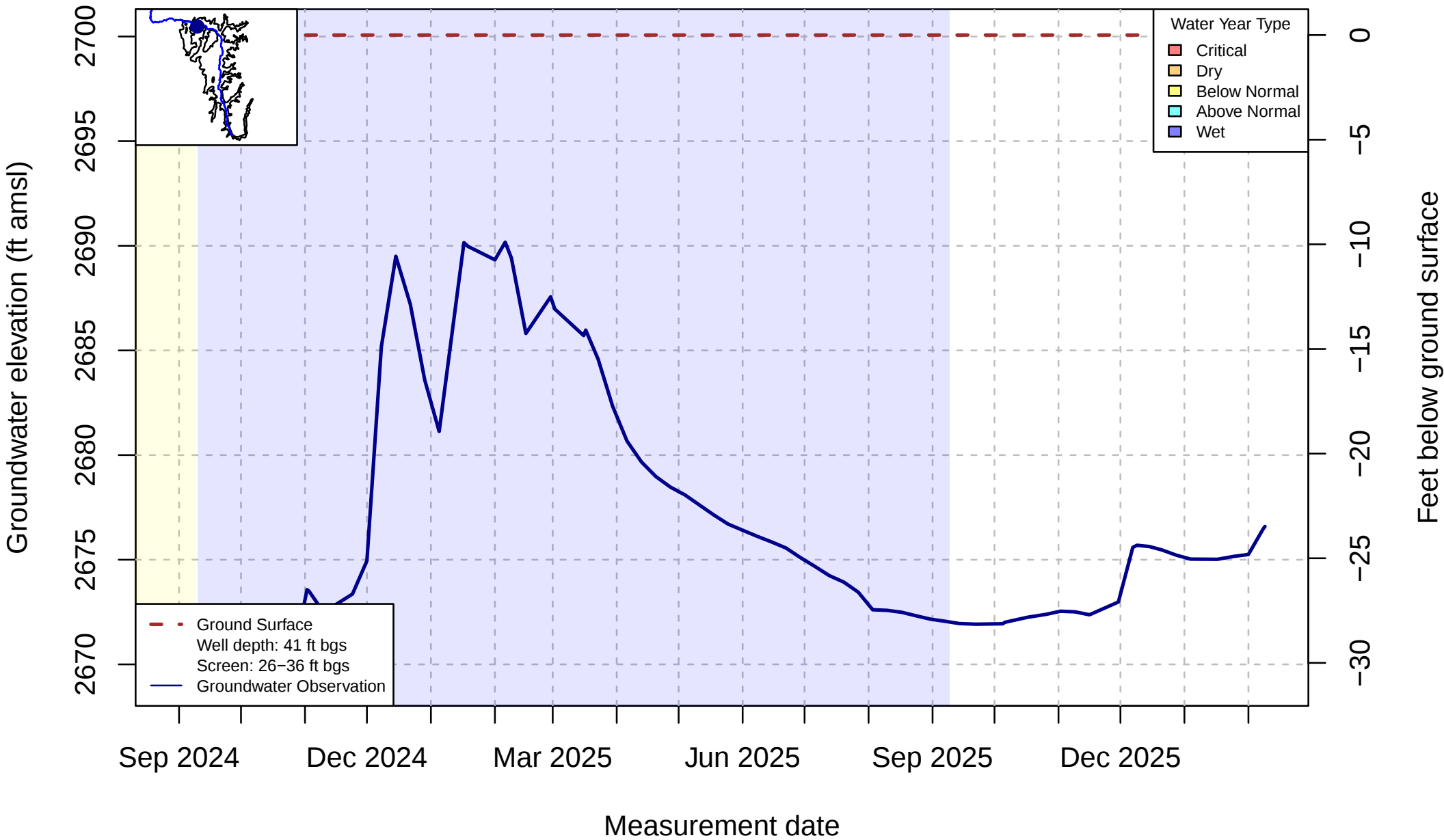
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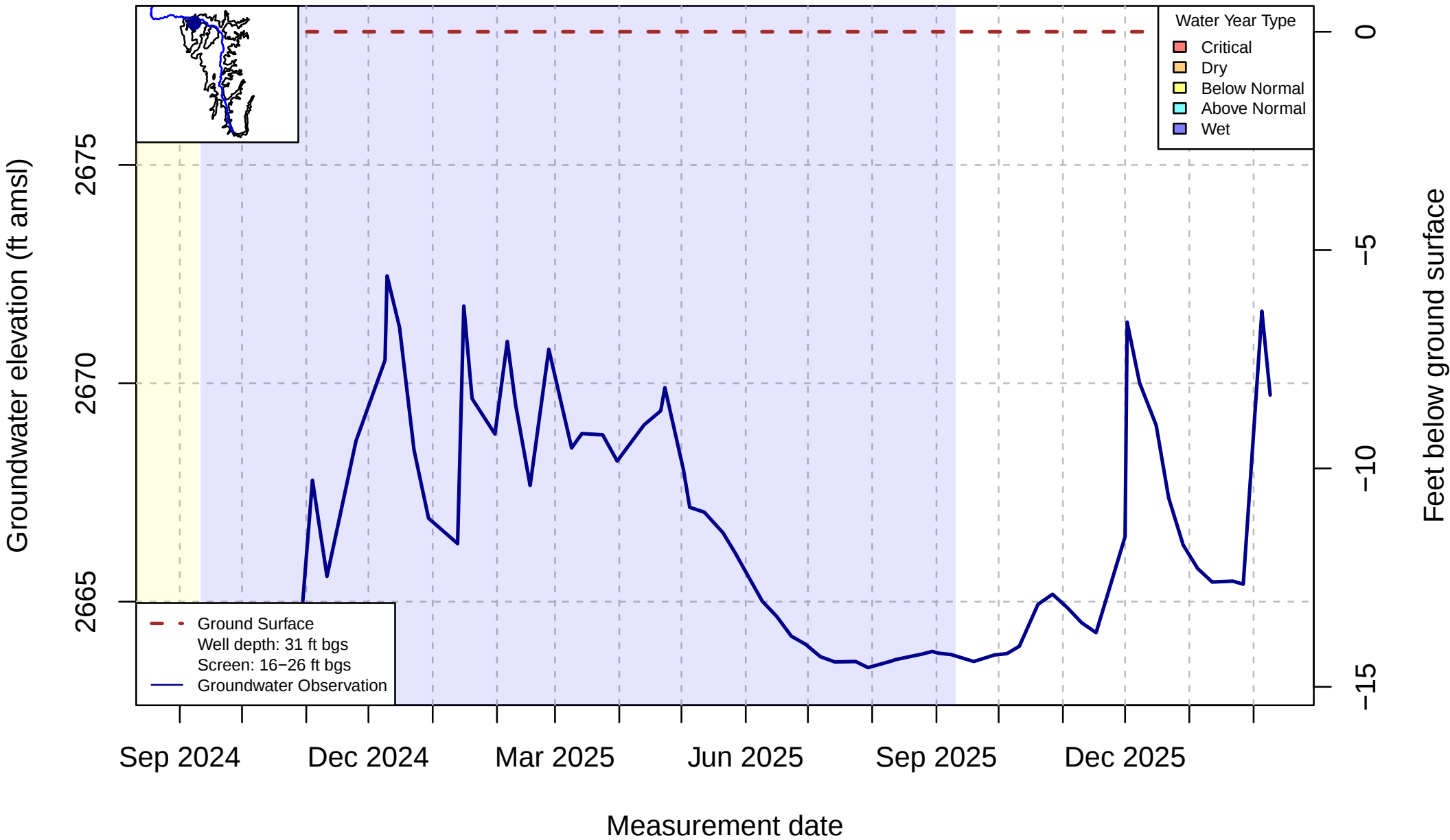
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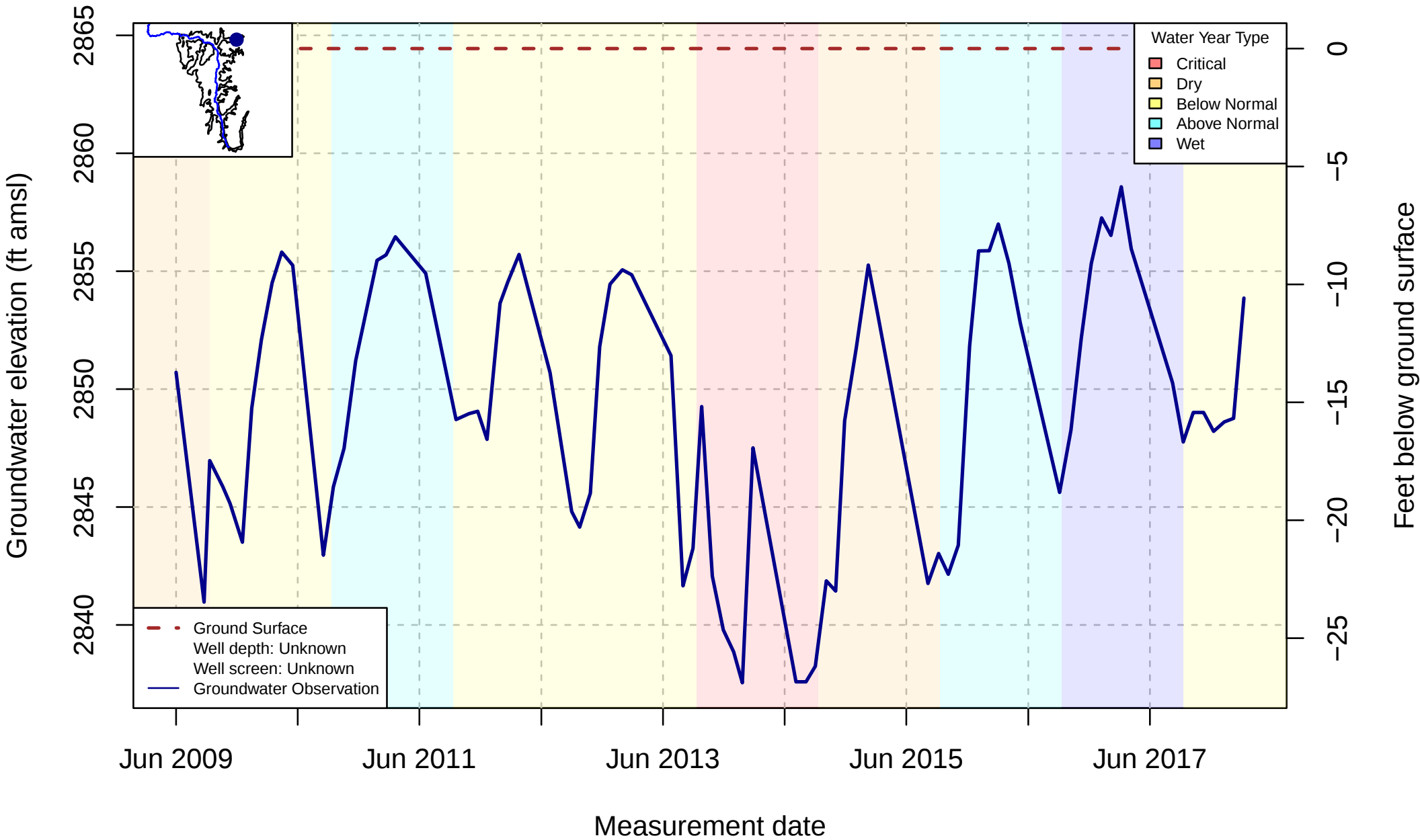
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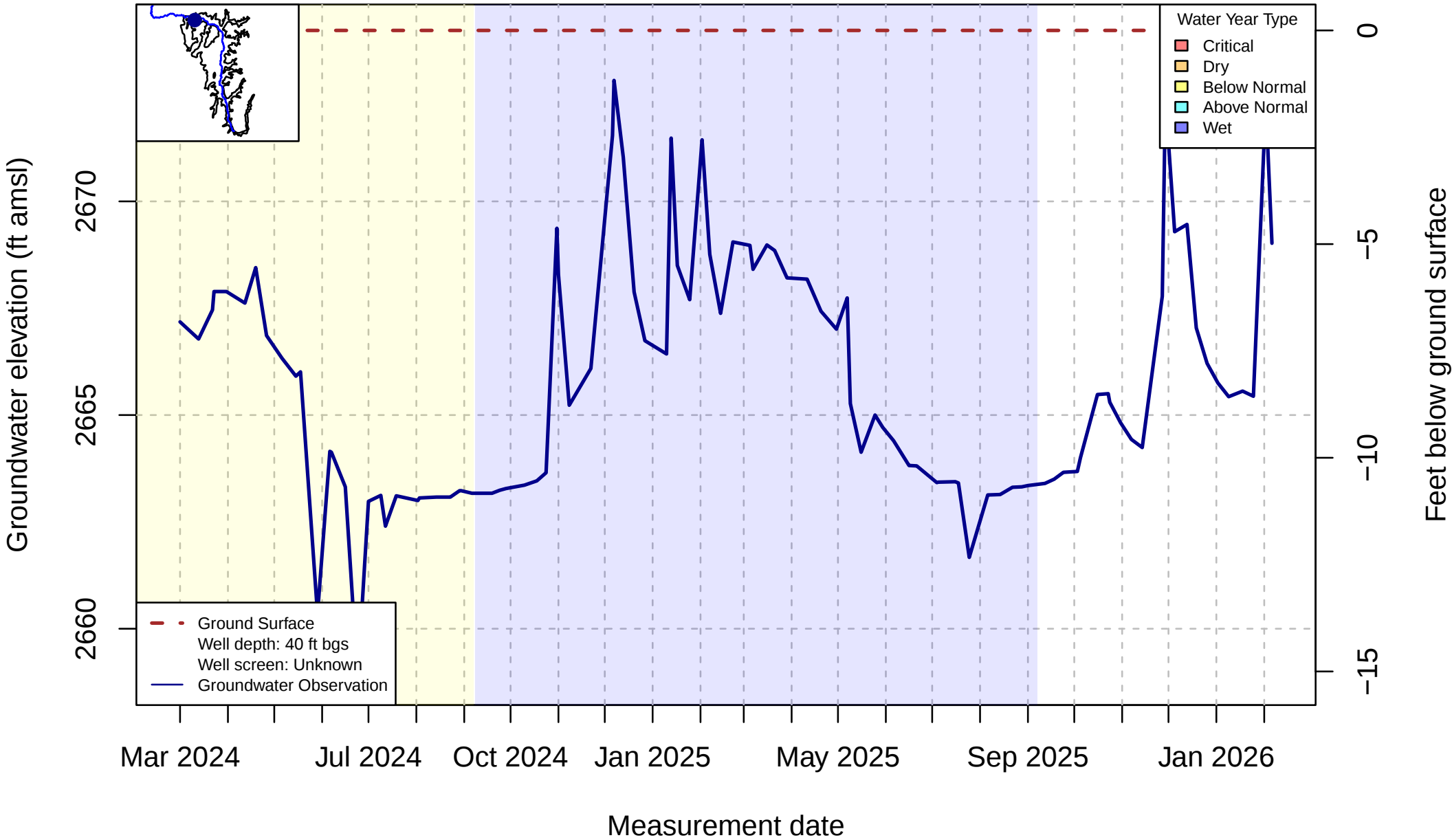
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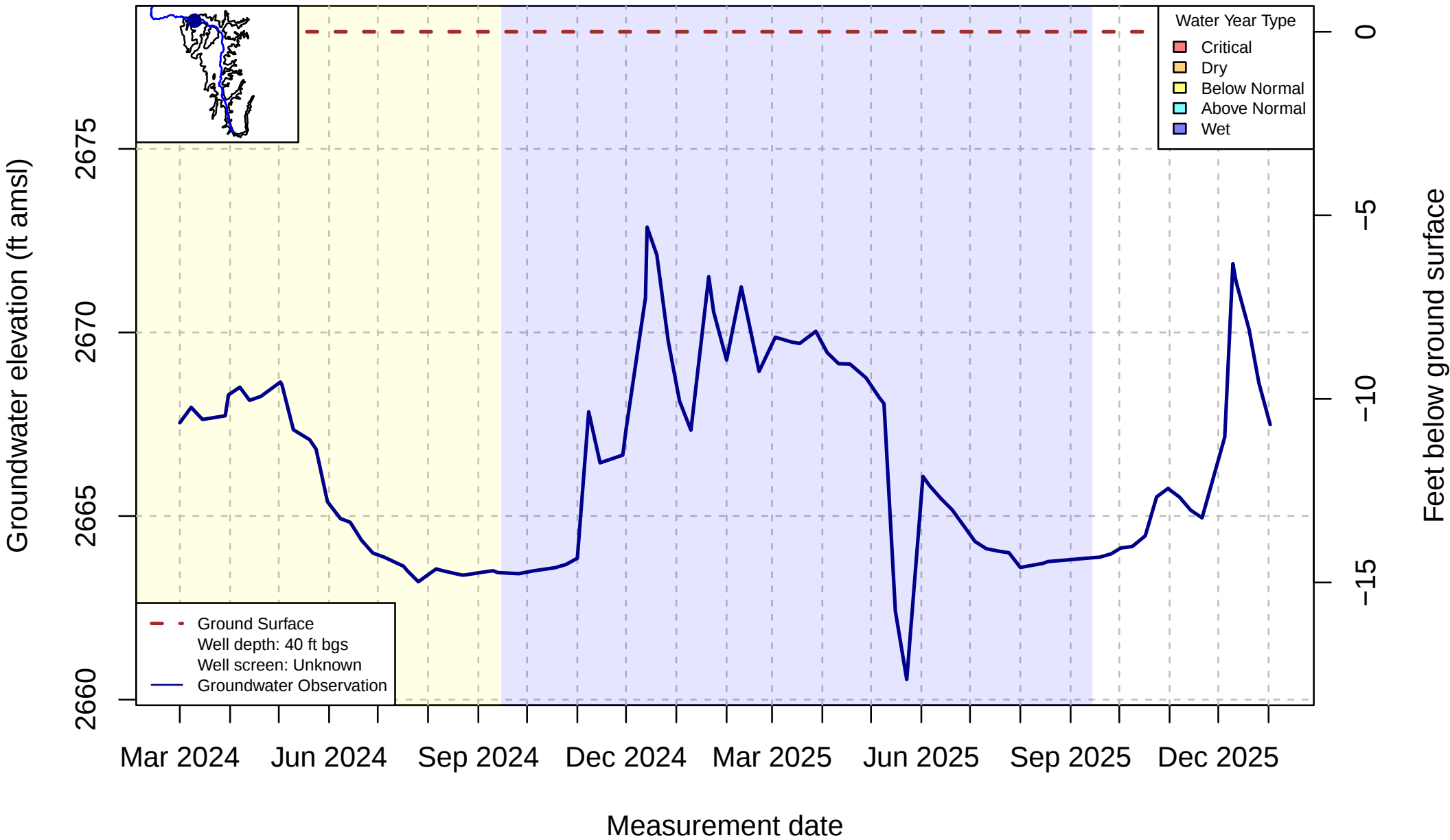
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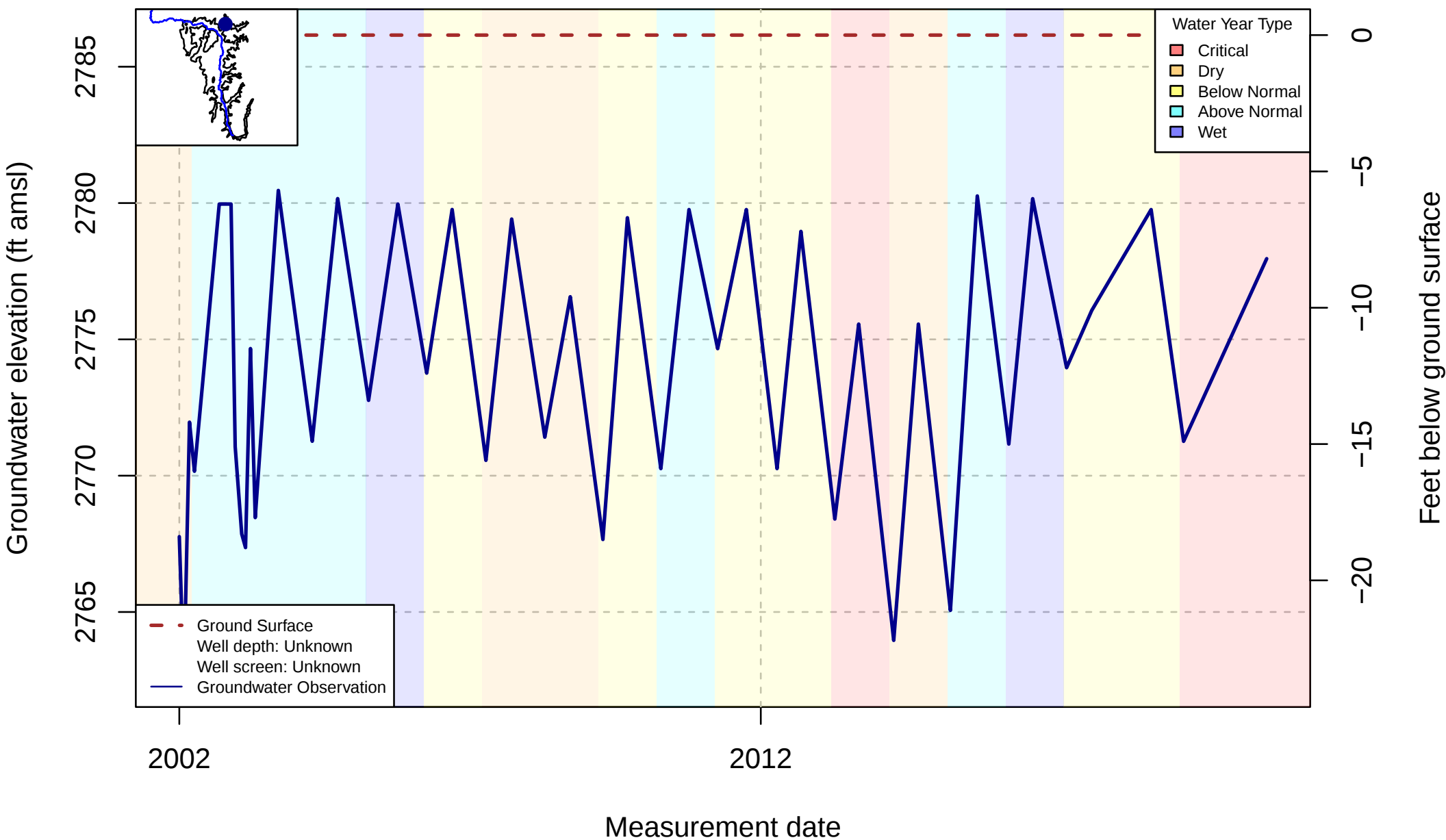
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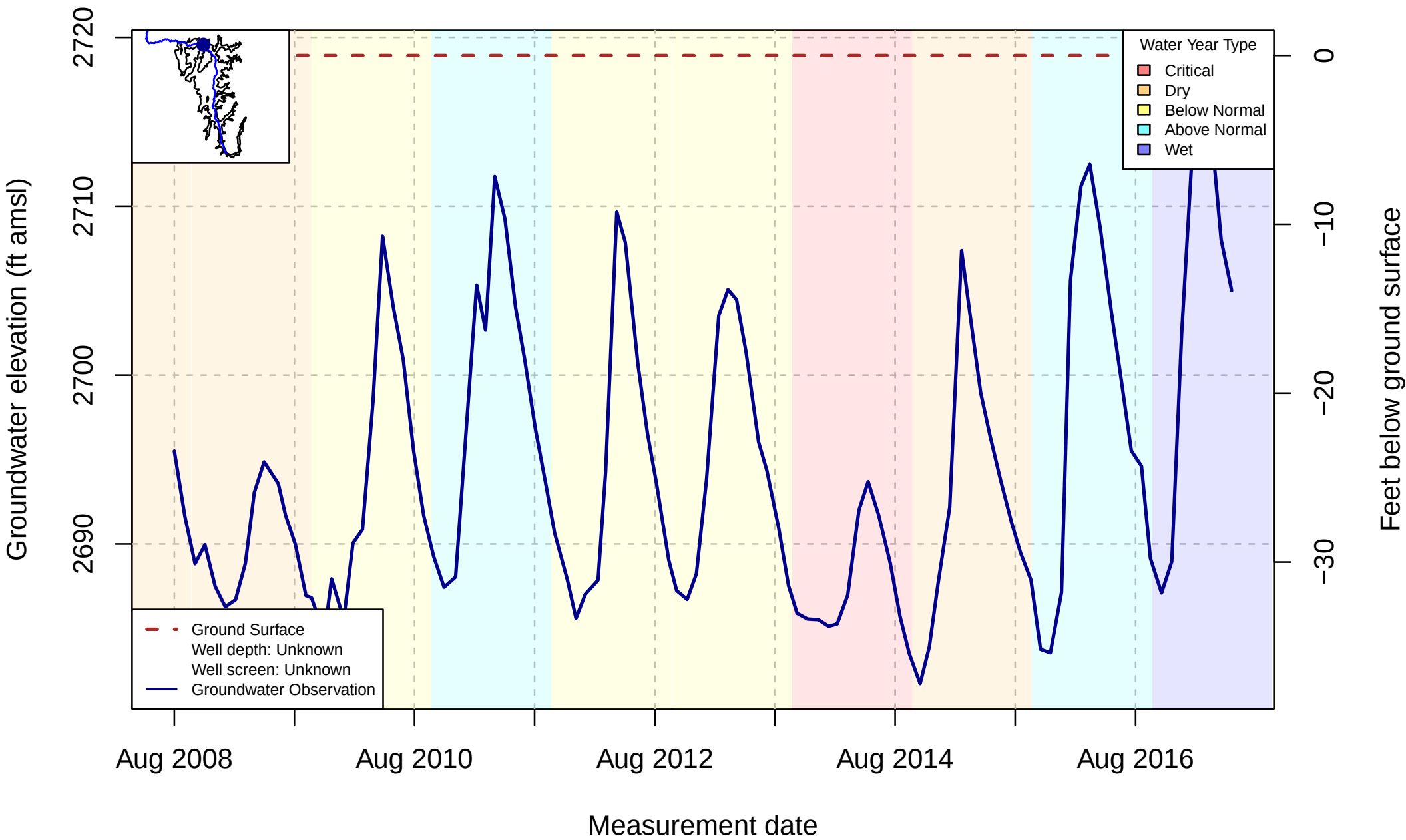
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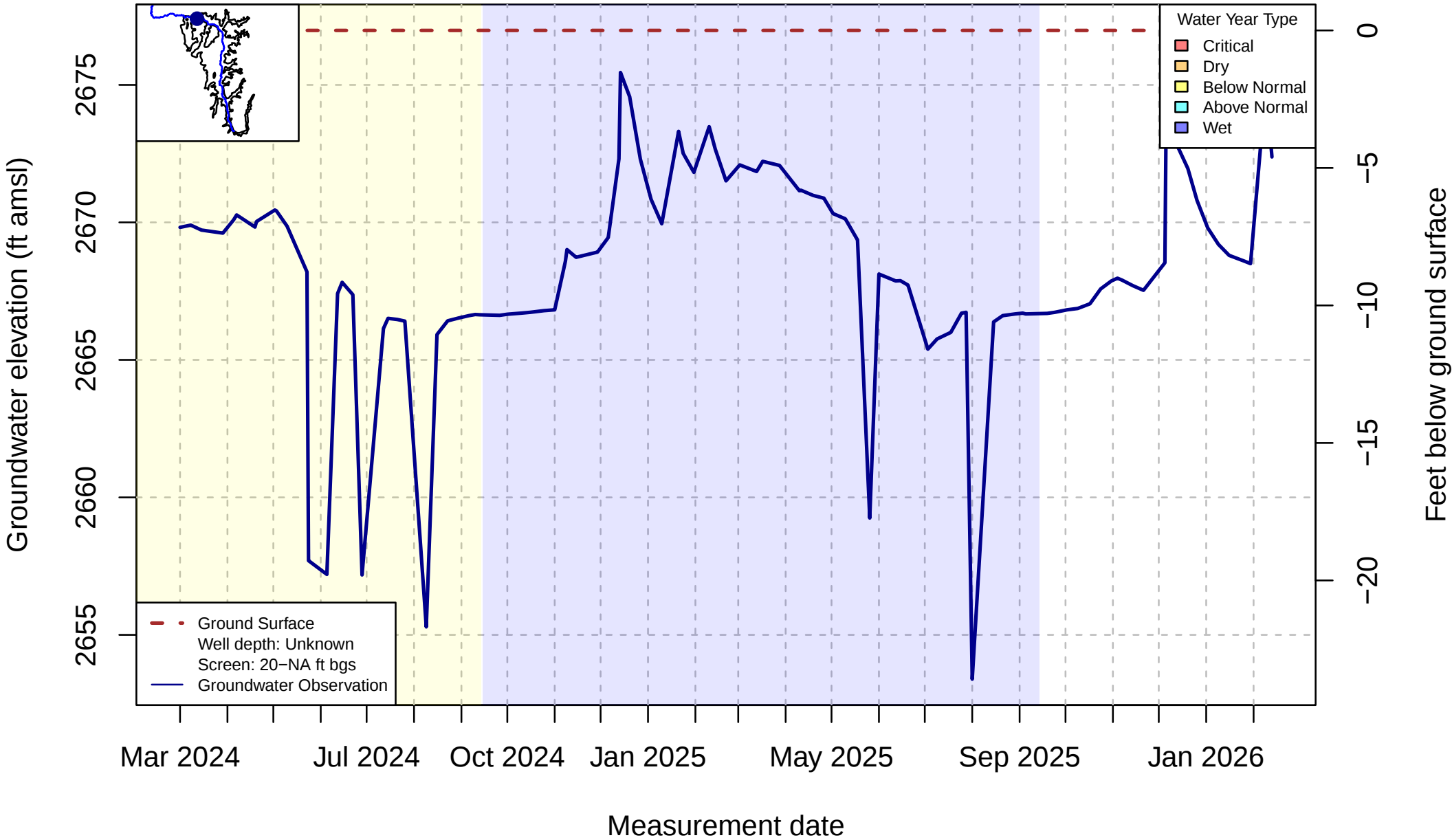
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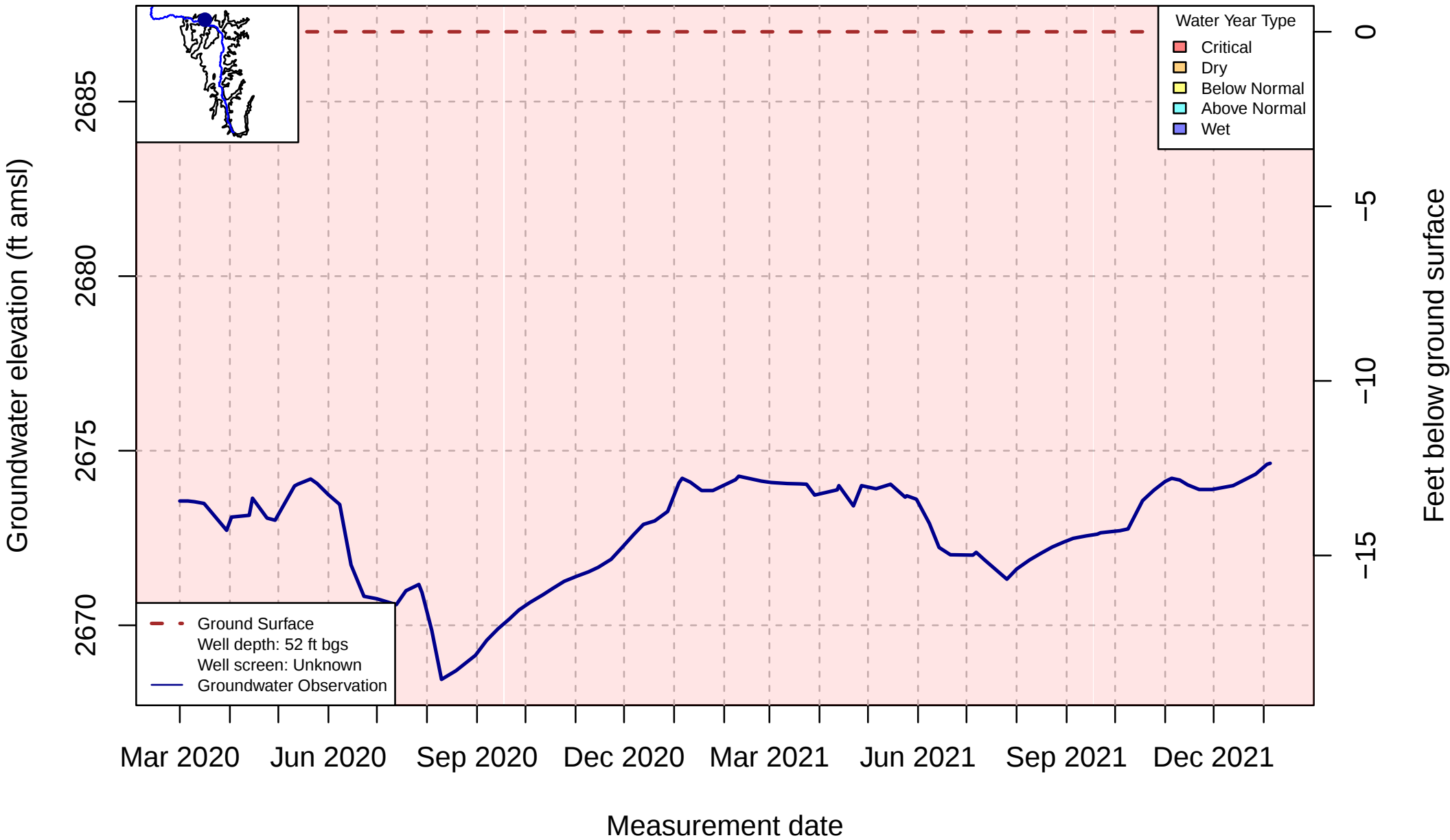
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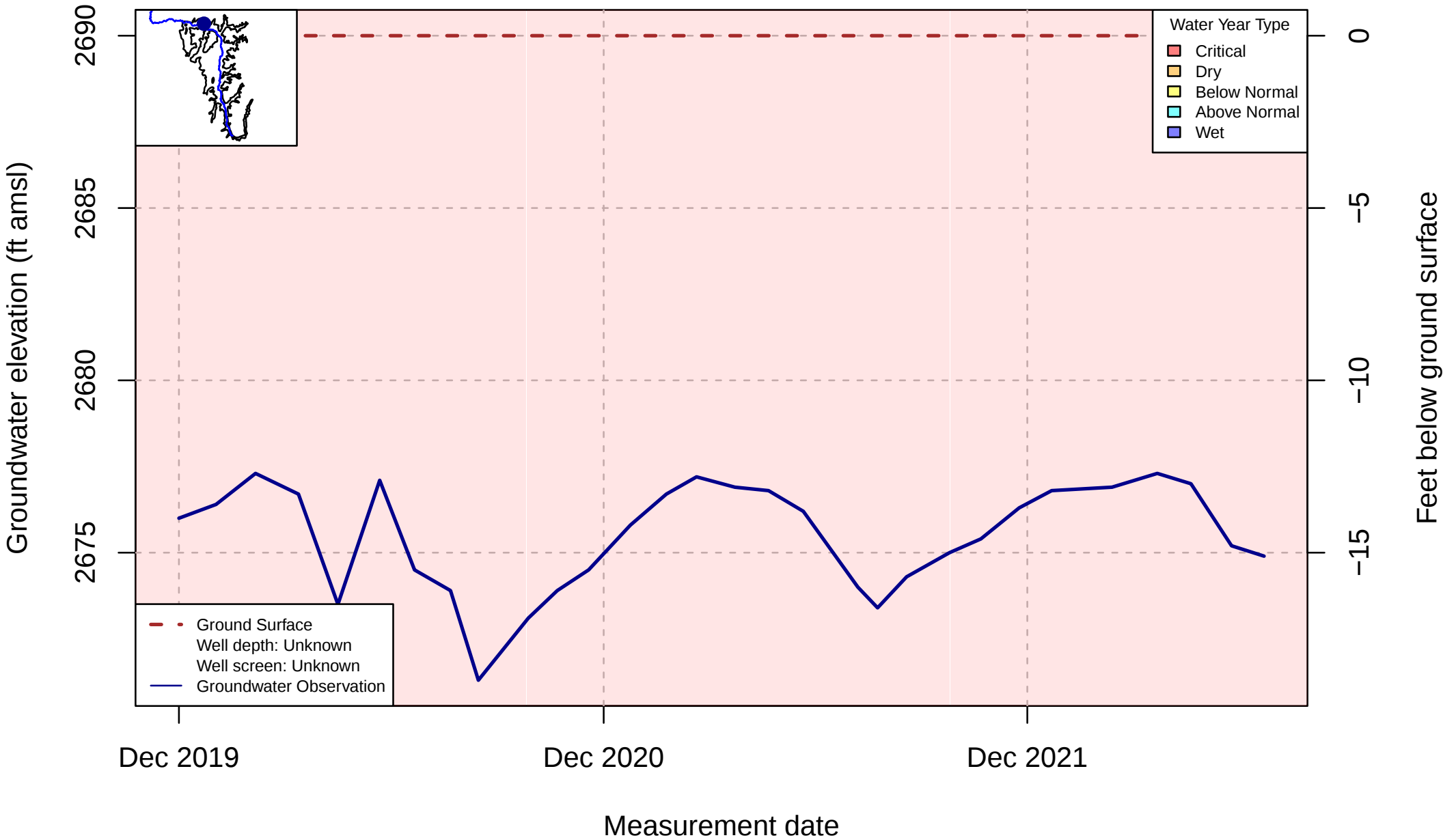
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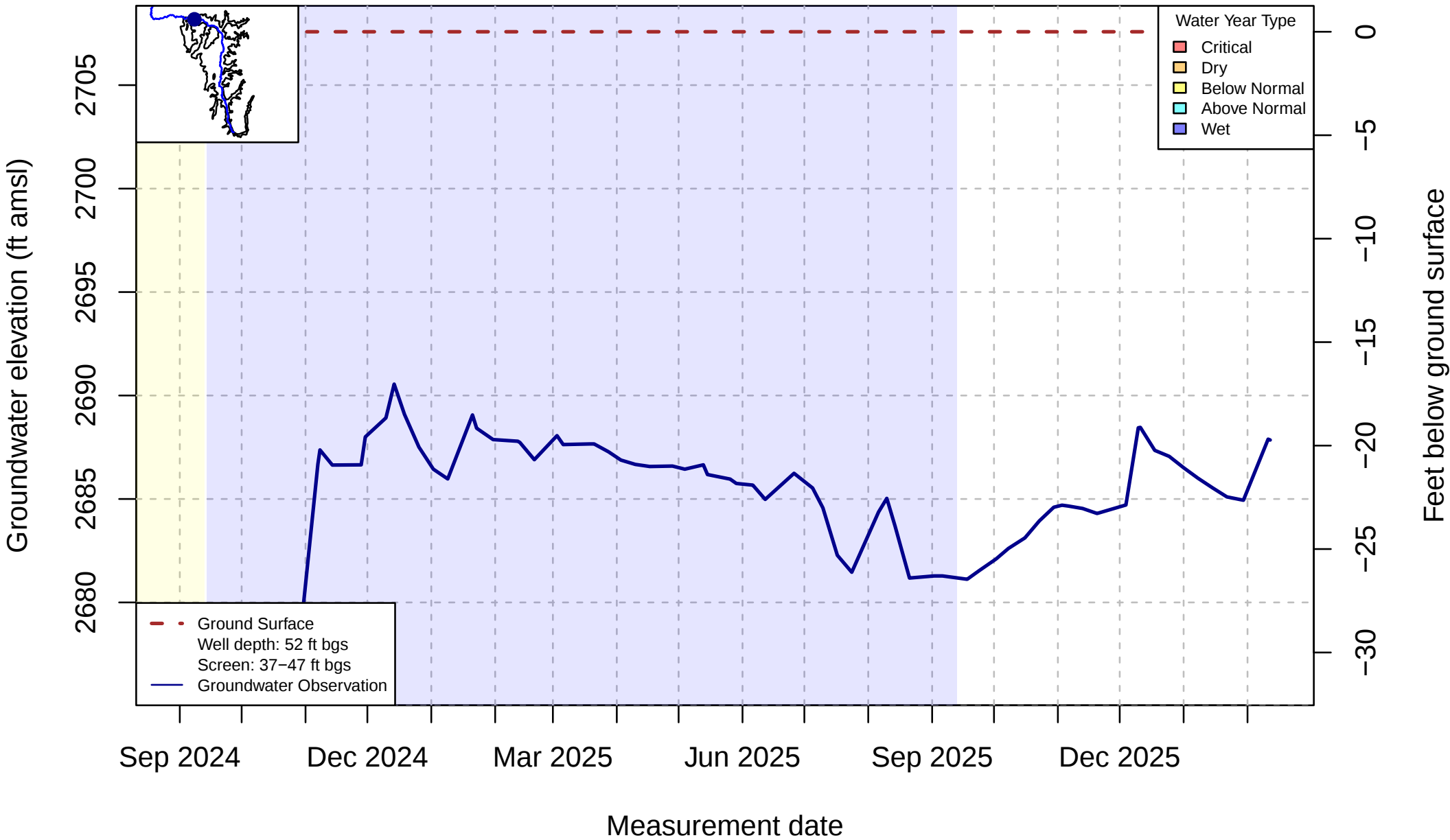
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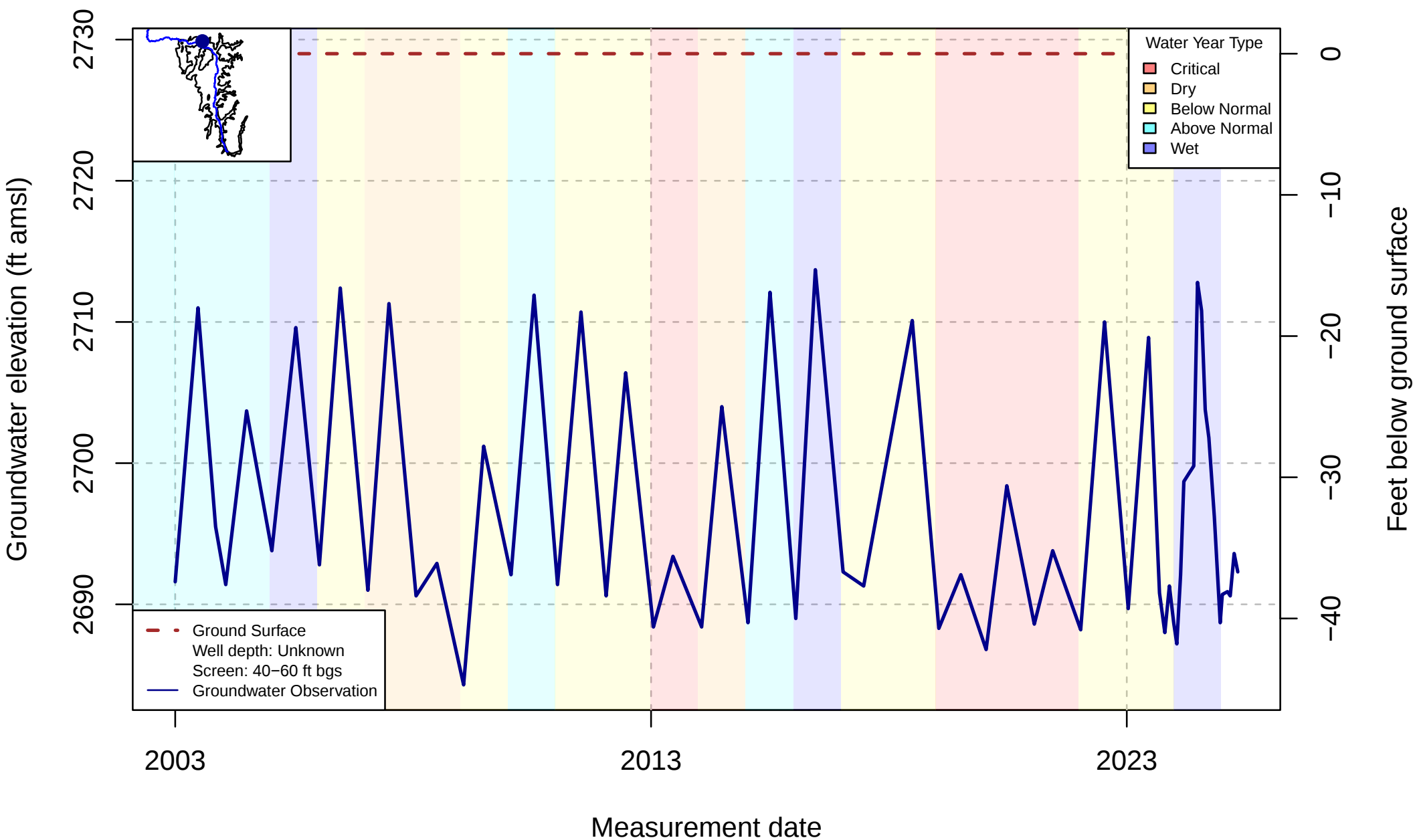
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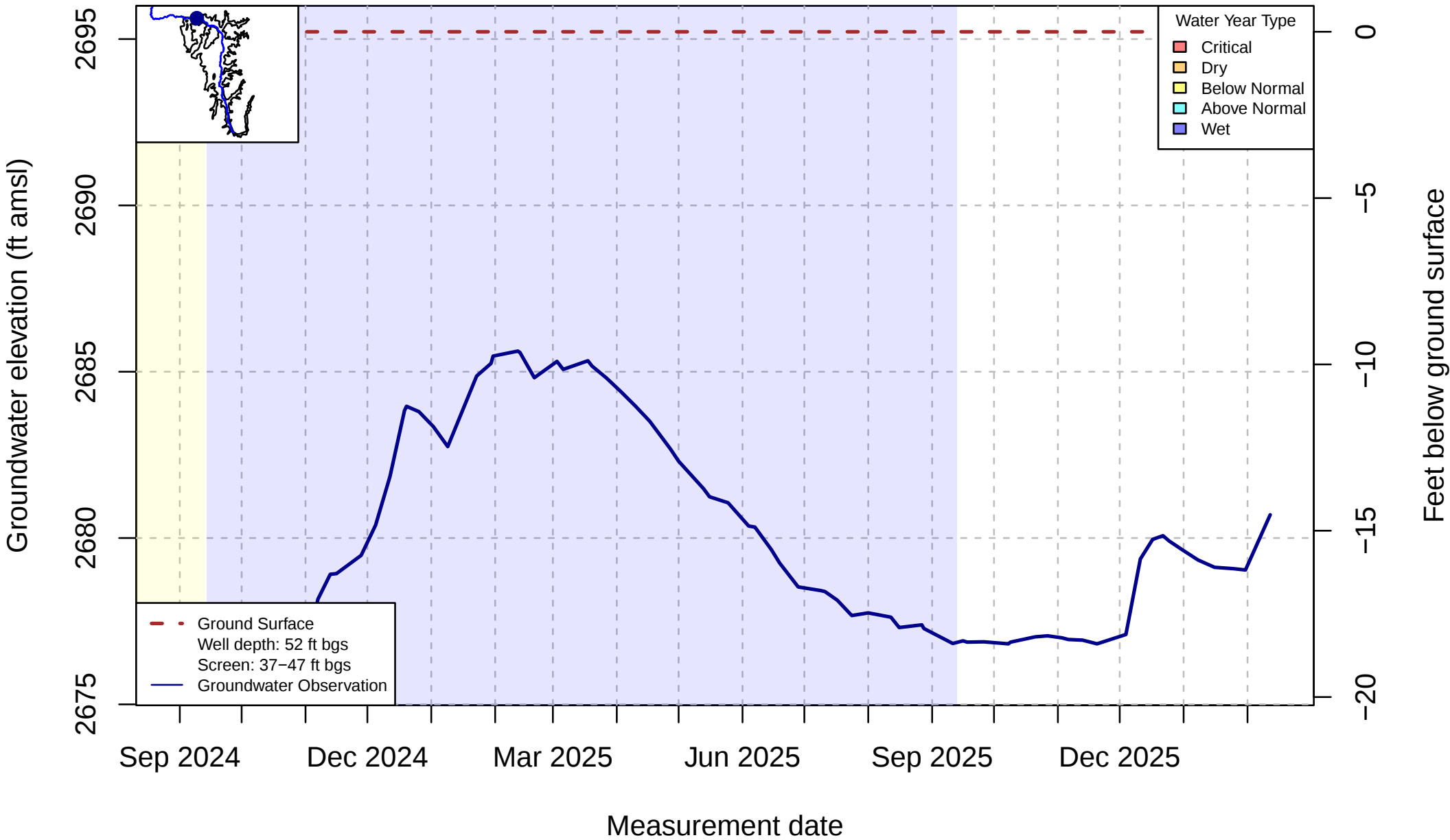
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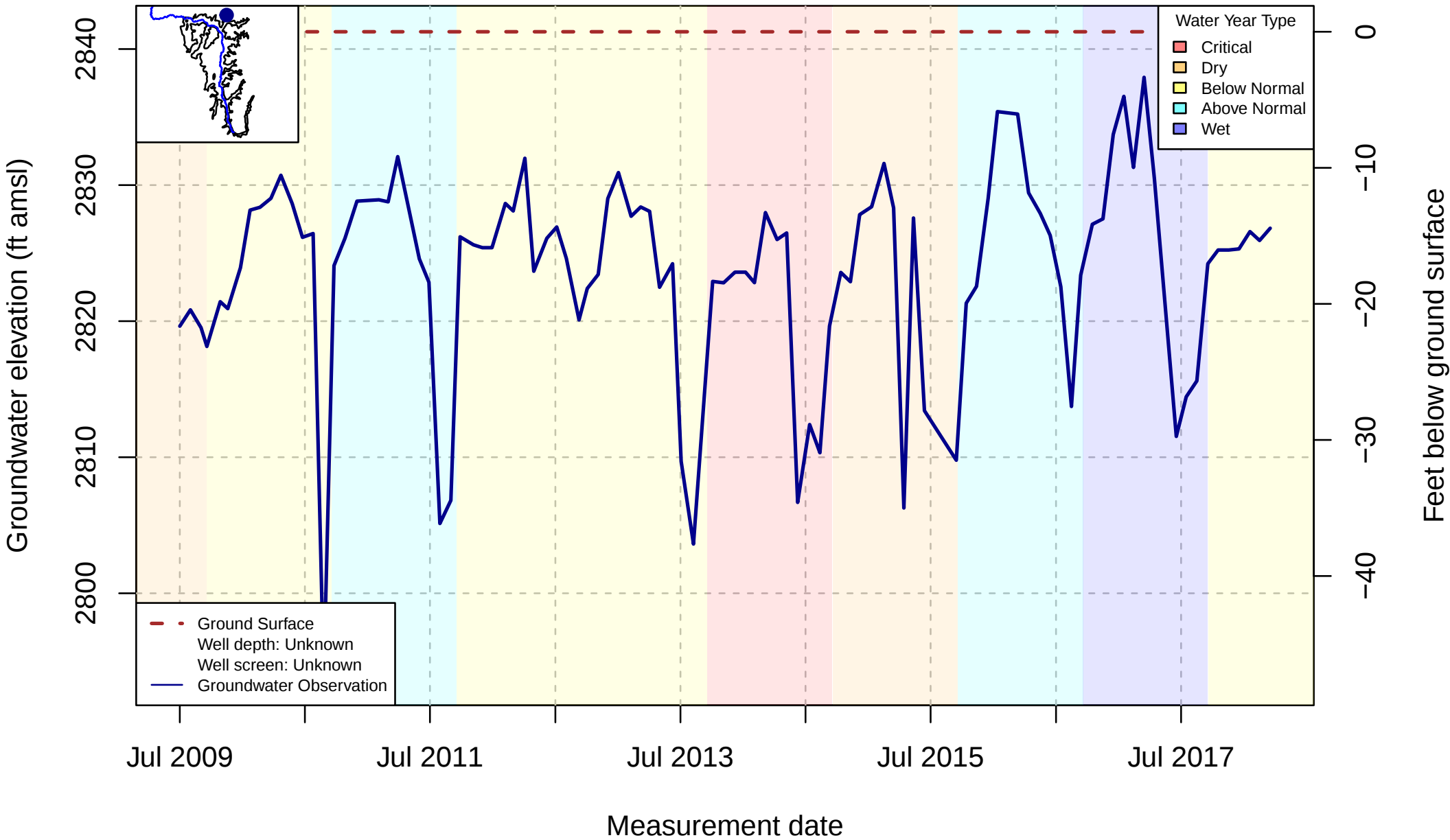
Well Code: 416335N1228997W001; SWN: 44N09W29J001M



Well Code: SCT_089; SWN:



Well Code: G40; SWN:



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