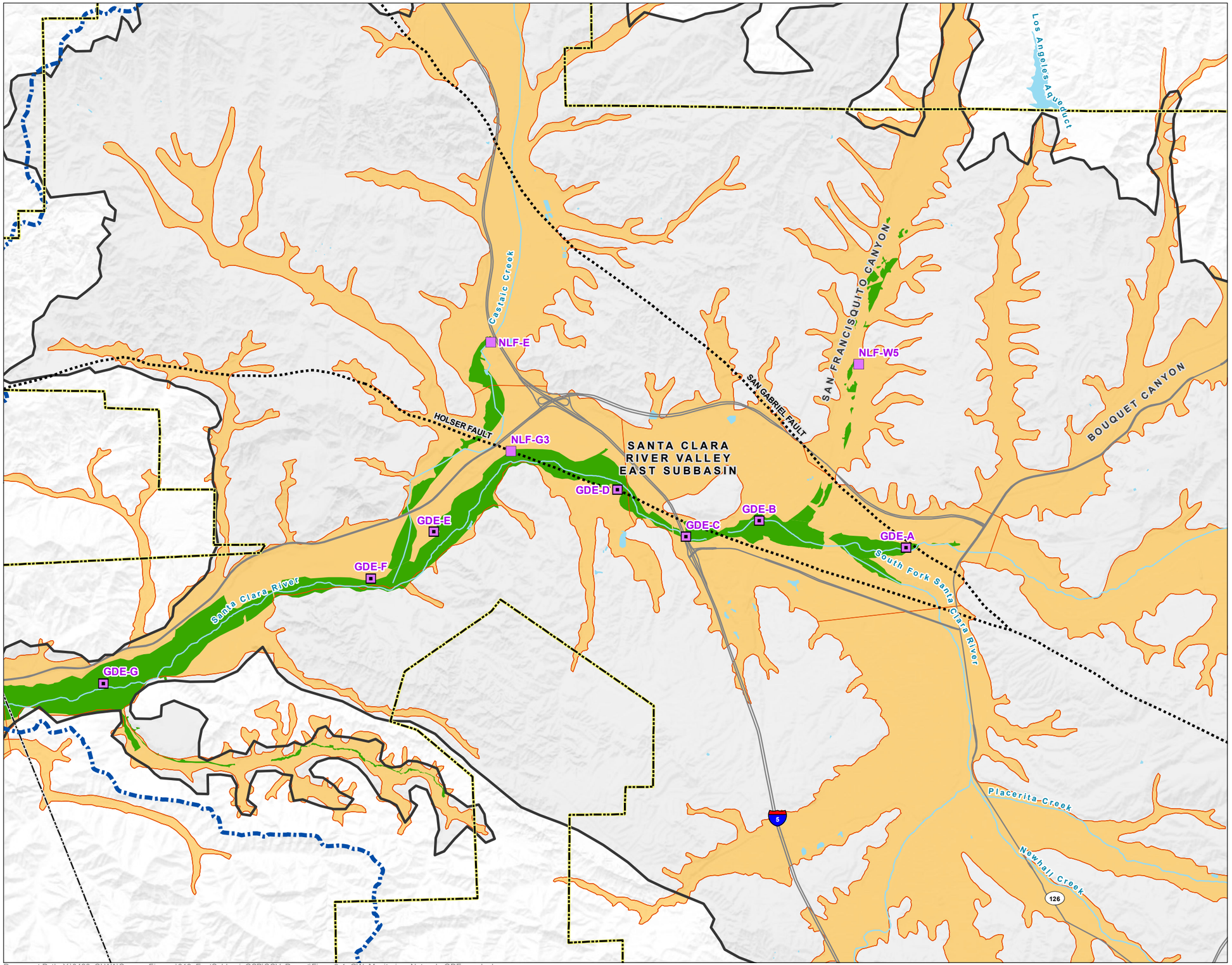
APPENDIX D

Hydrographs Showing Initial Measurable Objectives and Initial Trigger Levels for the GDE Monitoring Well Network

FIGURE 8-1

Groundwater Monitoring Network for GDEs

Santa Clara River Valley
East Groundwater Basin
Groundwater Sustainability Plan



LEGEND

GDE Monitoring Well in the Alluvial Aquifer

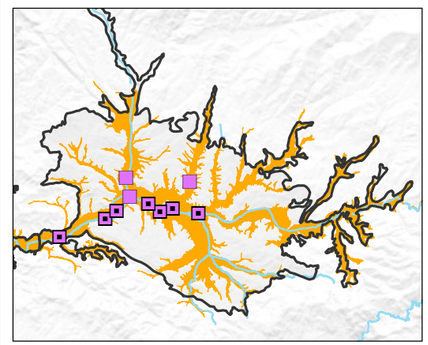
- Existing Observation Well
- New Observation Well (to be constructed)

Phreatophyte Locations

- Riparian Mixed Hardwood

All Other Features

- Santa Clara River Valley Groundwater Basin
- Alluvium
- Watershed Boundary
- Service Area Boundary for SCV Water
- Major Road
- Watercourse
- Waterbody



NOTE:
SCV Water: Santa Clarita Valley Water Agency

N

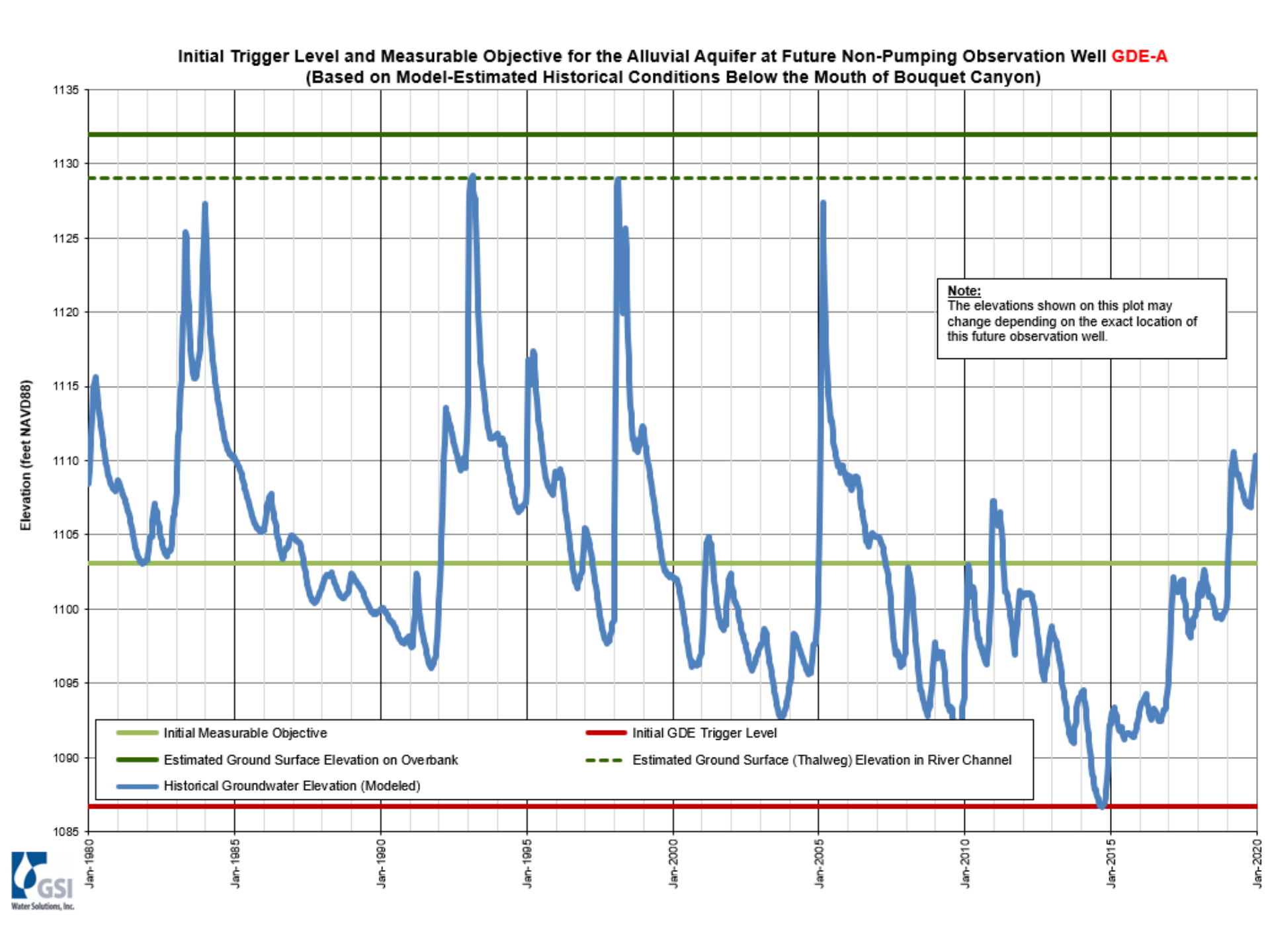
0 2,000 4,000 6,000
Feet

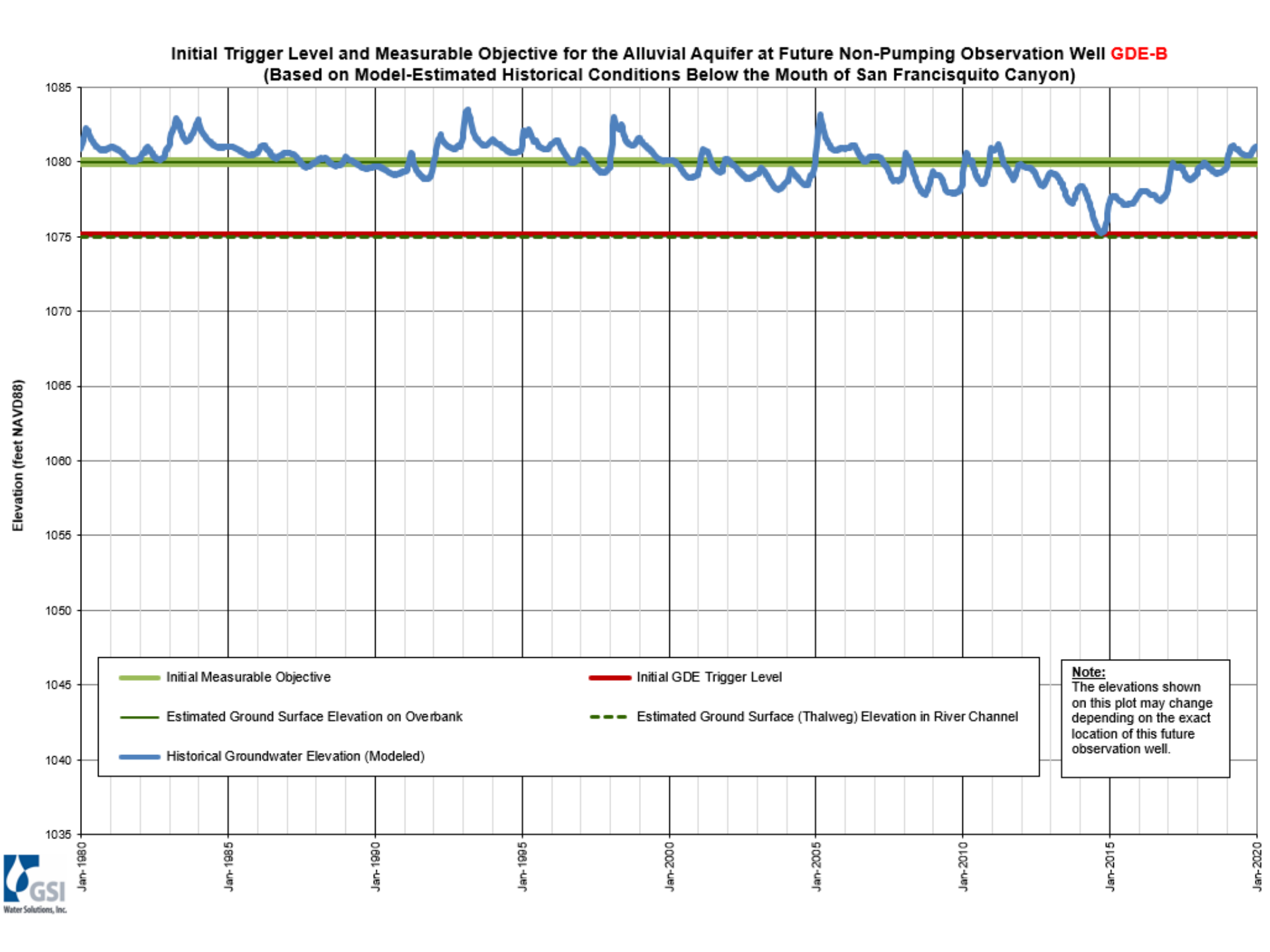
DRAFT

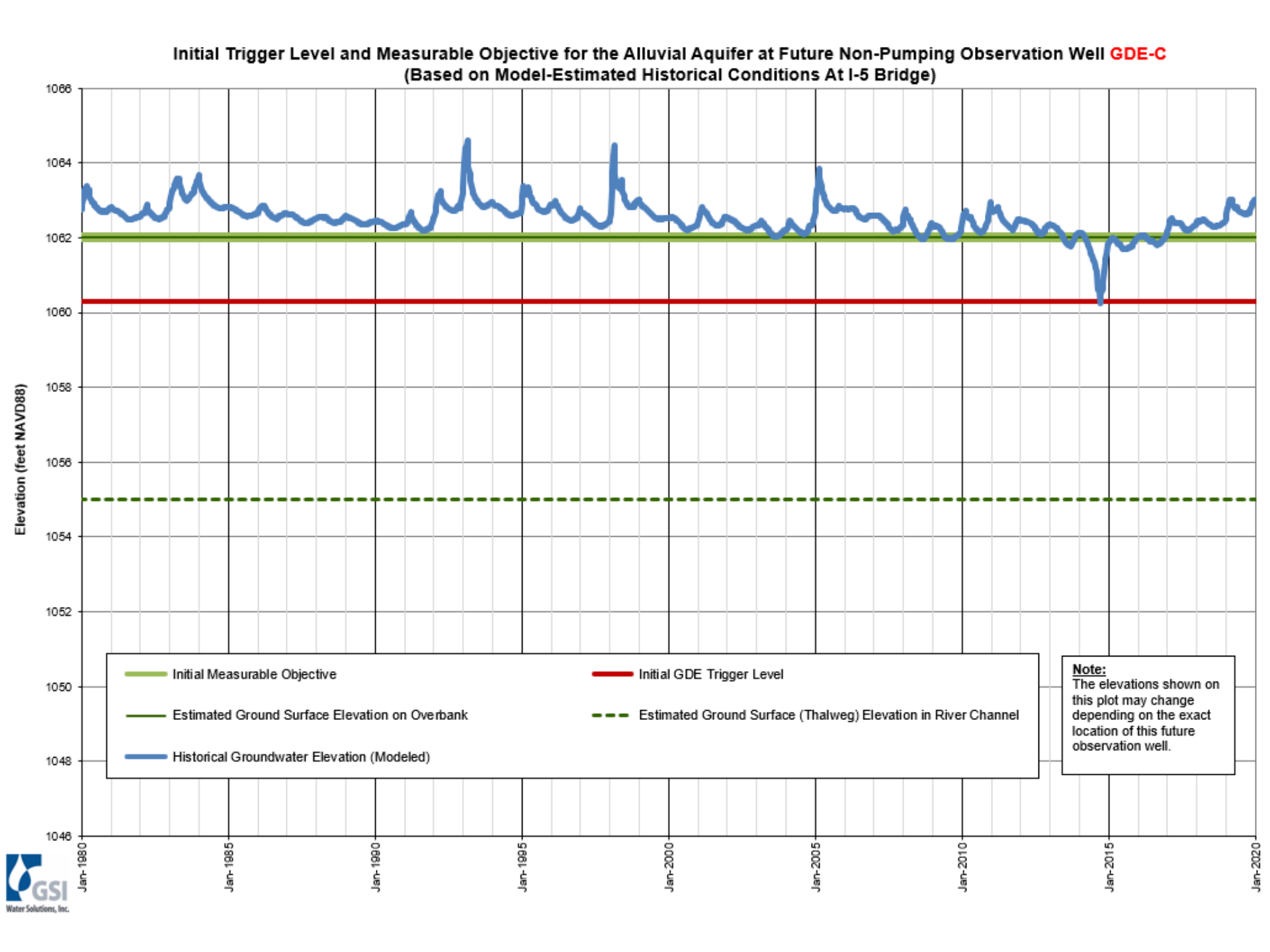
Date: February 4, 2021
Data Sources: USGS, DWR Bulletin 118, ESA

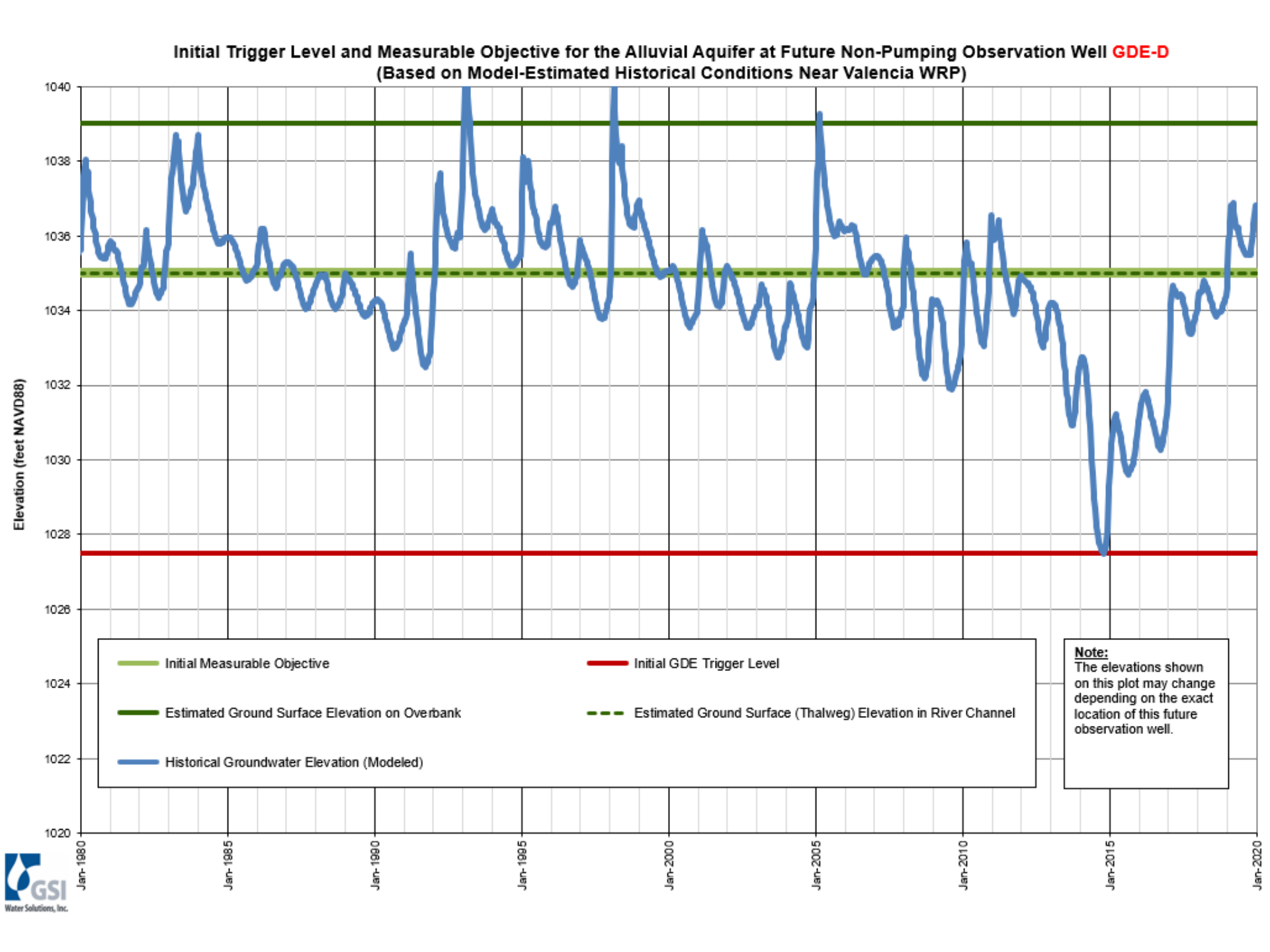
GSI Water Solutions, Inc.

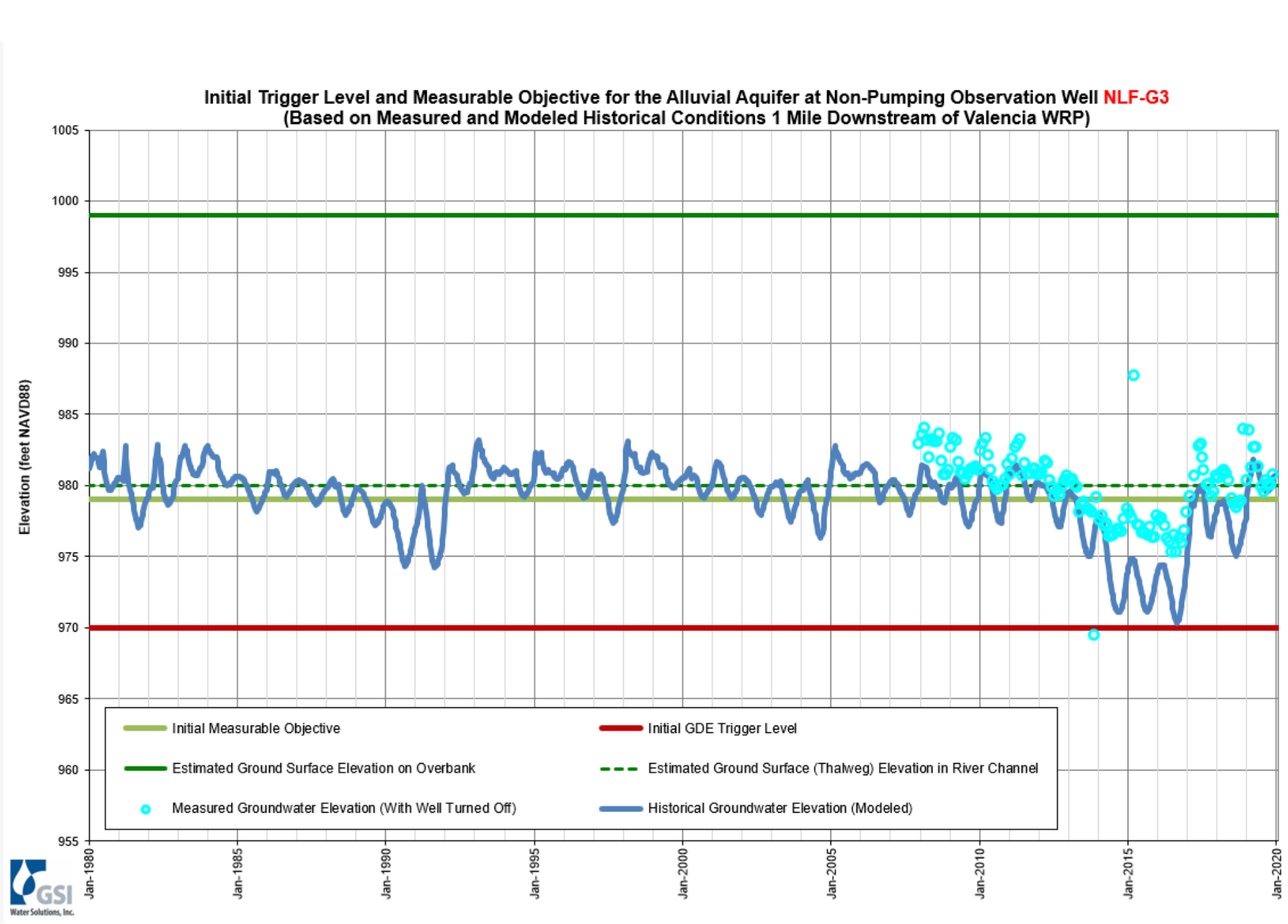
Document Path: Y:\0420_CLWA\Source_Figures\019_EastSubbasinGSP\SCV_Report\Figure8-1_GW_Monitoring_Network_GDEs.mxd, abarry

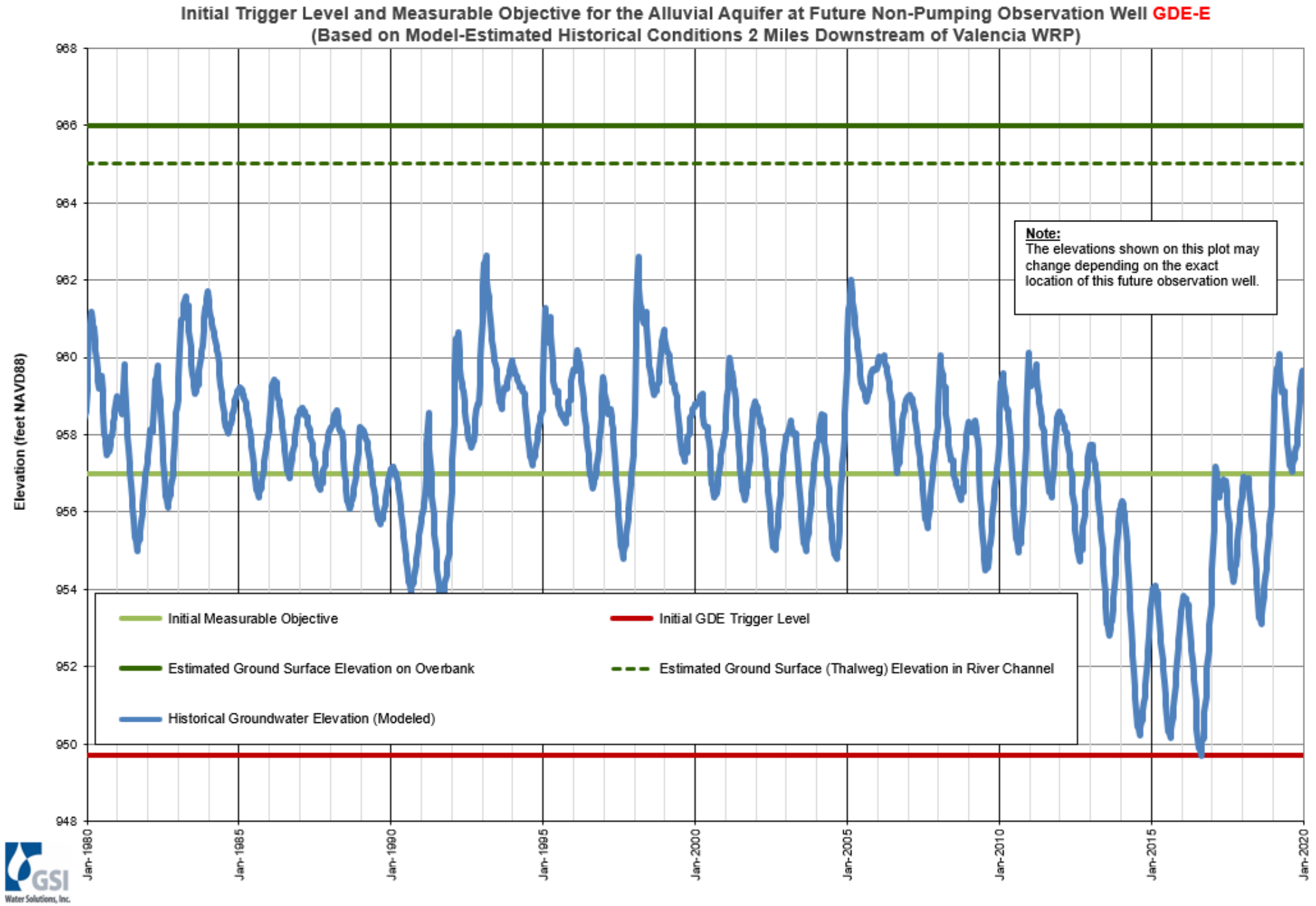

Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Future Non-Pumping Observation Well GDE-A
(Based on Model-Estimated Historical Conditions Below the Mouth of Bouquet Canyon)
Elevation (feet NAVD88)
1135
1130
1125
1120
1115
1110
1105
1100
1095
1090
1085
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Note:
The elevations shown on this plot may change depending on the exact location of this future observation well.
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Historical Groundwater Elevation (Modeled)
GSI
Water Solutions, Inc.

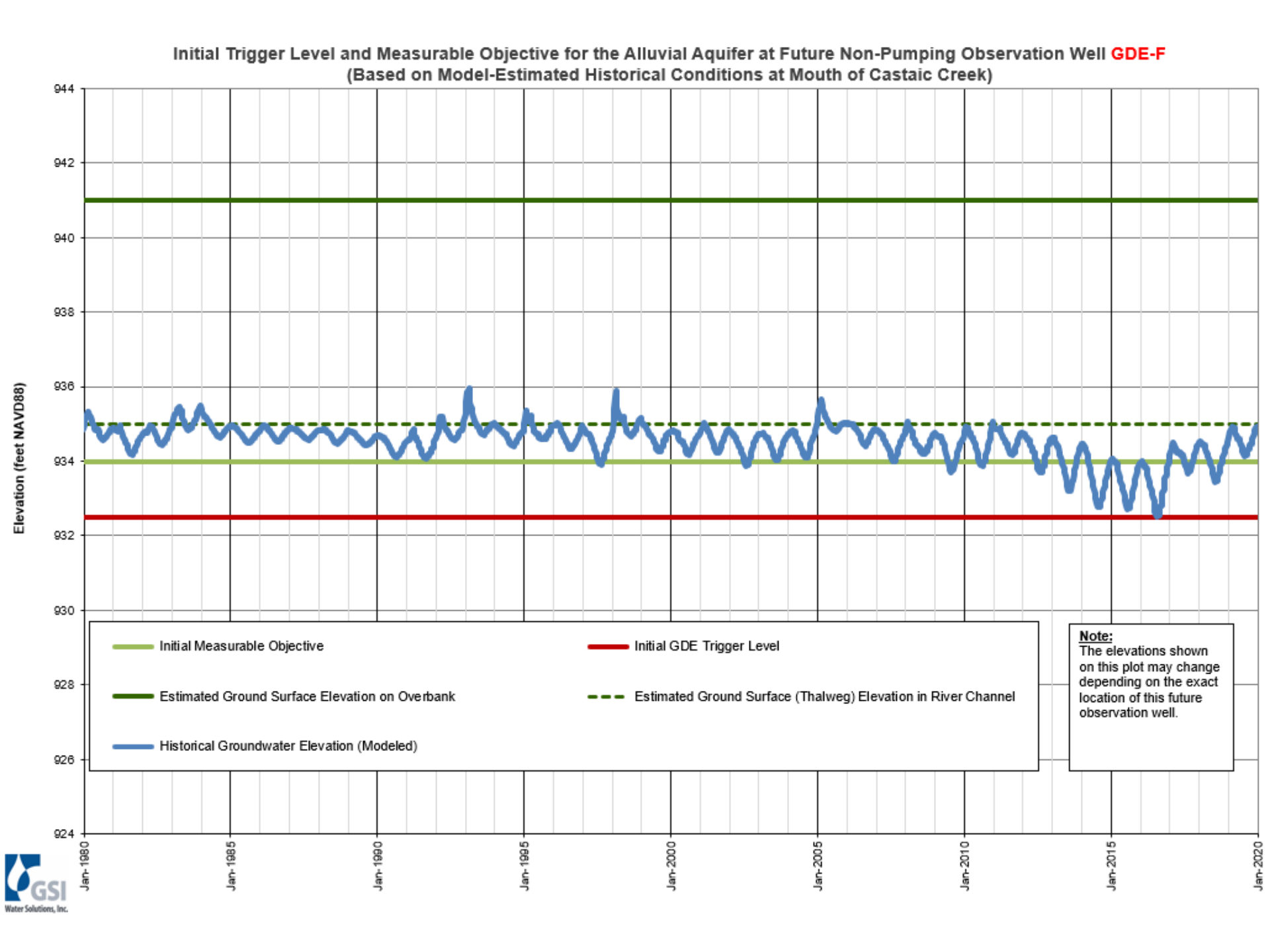

Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Future Non-Pumping Observation Well GDE-B
(Based on Model-Estimated Historical Conditions Below the Mouth of San Francisquito Canyon)
Elevation (feet NAVD88)
1085
1080
1075
1070
1065
1060
1055
1050
1045
1040
1035
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Historical Groundwater Elevation (Modeled)
Note:
The elevations shown on this plot may change depending on the exact location of this future observation well.
GSI
Water Solutions, Inc.


Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Future Non-Pumping Observation Well GDE-C
(Based on Model-Estimated Historical Conditions At I-5 Bridge)
Elevation (feet NAVD88)
1066
1064
1062
1060
1058
1056
1054
1052
1050
1048
1046
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Historical Groundwater Elevation (Modeled)
Note:
The elevations shown on this plot may change depending on the exact location of this future observation well.
GSI
Water Solutions, Inc.

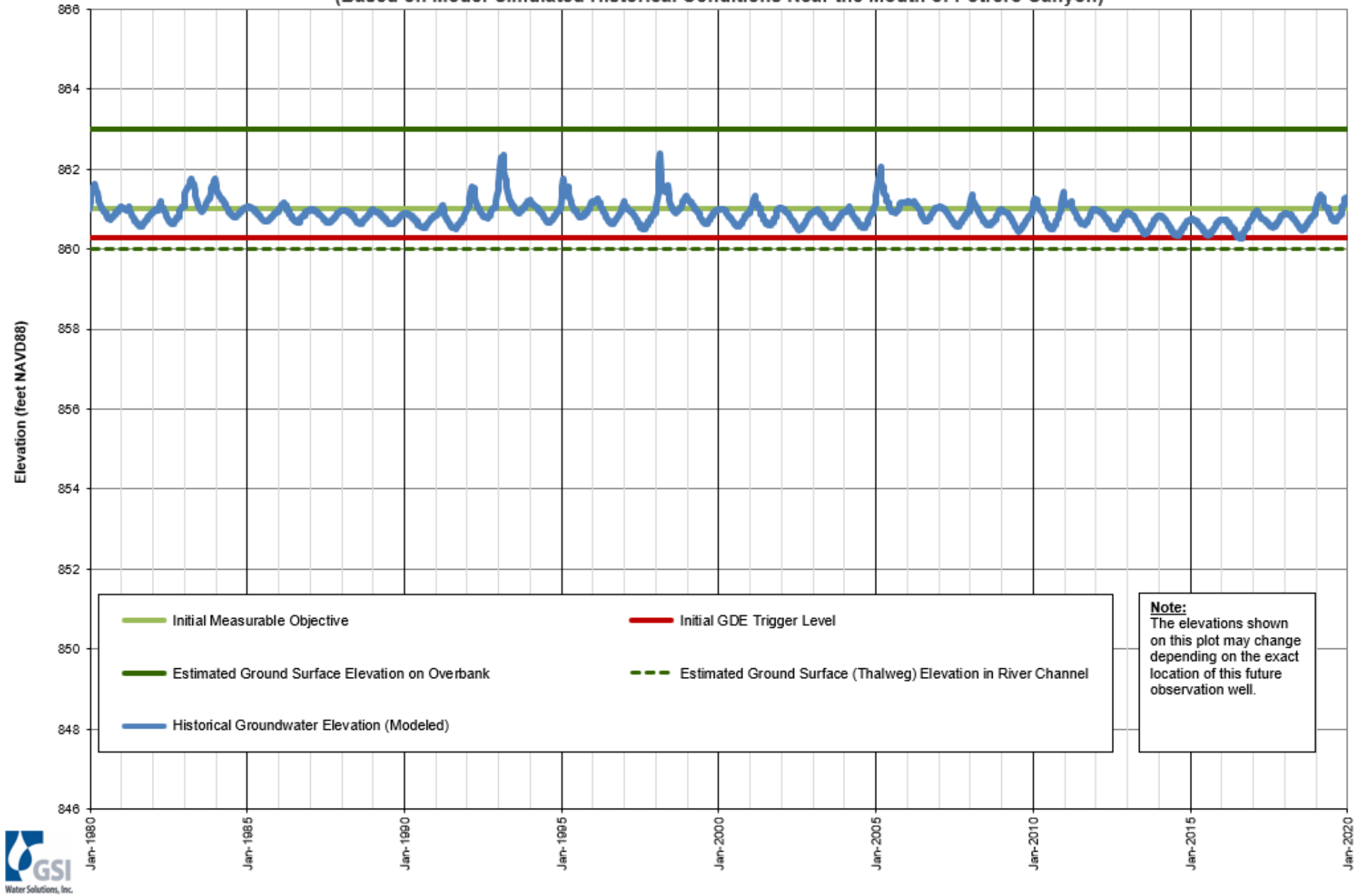

Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Future Non-Pumping Observation Well GDE-D
(Based on Model-Estimated Historical Conditions Near Valencia WRP)
Elevation (feet NAVD88)
1040
1038
1036
1034
1032
1030
1028
1026
1024
1022
1020
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Historical Groundwater Elevation (Modeled)
Note:
The elevations shown on this plot may change depending on the exact location of this future observation well.
GSI
Water Solutions, Inc.


Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Non-Pumping Observation Well NLF-G3
(Based on Measured and Modeled Historical Conditions 1 Mile Downstream of Valencia WRP)
Elevation (feet NAVD88)
1005
1000
995
990
985
980
975
970
965
960
955
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Measured Groundwater Elevation (With Well Turned Off)
Historical Groundwater Elevation (Modeled)
GSI
Water Solutions, Inc.

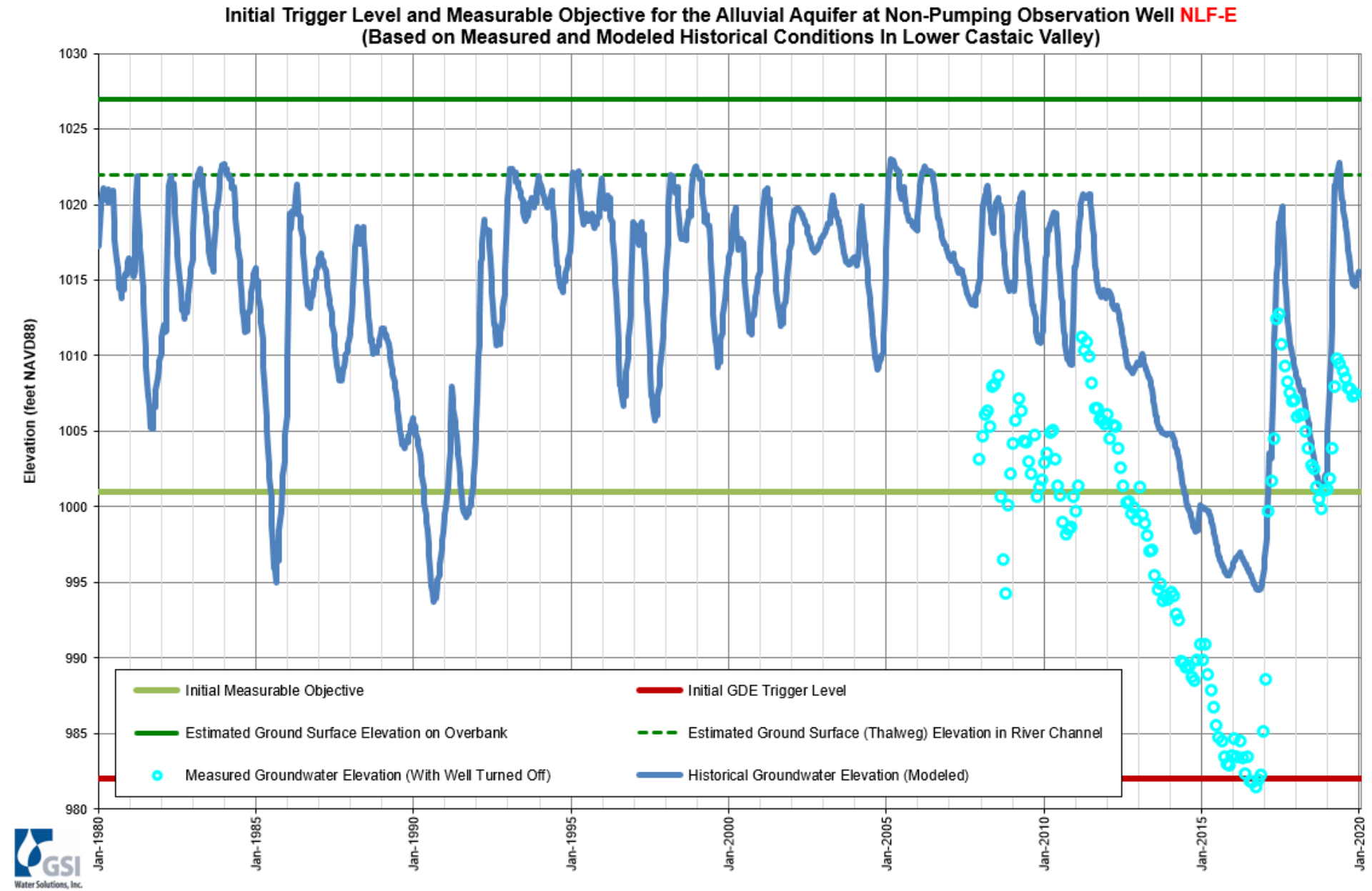

Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Future Non-Pumping Observation Well GDE-E
(Based on Model-Estimated Historical Conditions 2 Miles Downstream of Valencia WRP)
Elevation (feet NAVD88)
968
966
964
962
960
958
956
954
952
950
948
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Note:
The elevations shown on this plot may change depending on the exact location of this future observation well.
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Historical Groundwater Elevation (Modeled)
GSI
Water Solutions, Inc.

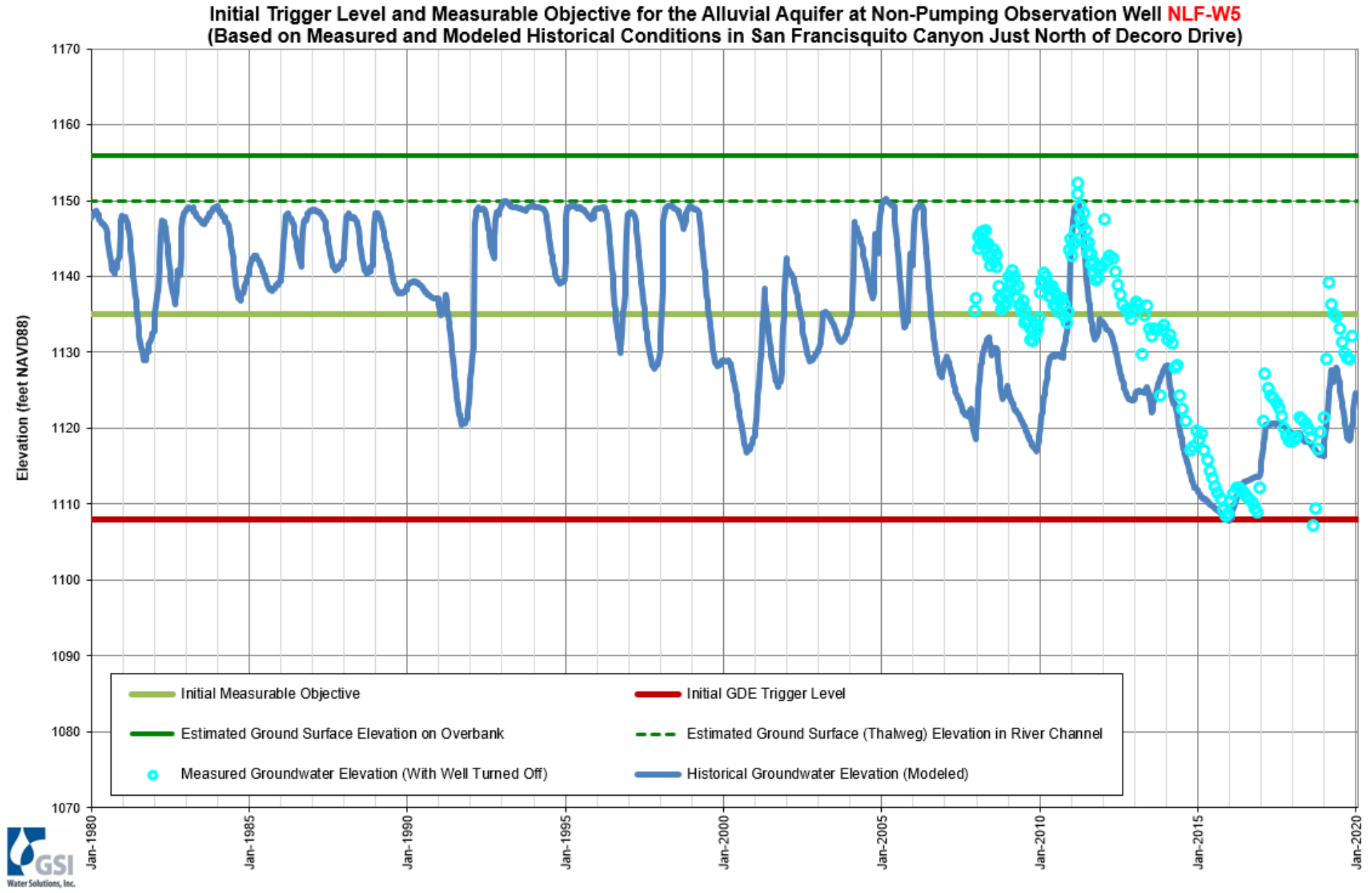

Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Future Non-Pumping Observation Well GDE-F
(Based on Model-Estimated Historical Conditions at Mouth of Castaic Creek)
Elevation (feet NAVD88)
944
942
940
938
936
934
932
930
928
926
924
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Historical Groundwater Elevation (Modeled)
Note:
The elevations shown on this plot may change depending on the exact location of this future observation well.
GSI
Water Solutions, Inc.

Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Future Non-Pumping Observation Well GDE-G
(Based on Model-Simulated Historical Conditions Near the Mouth of Potrero Canyon)



GSI Water Solutions, Inc.


Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Non-Pumping Observation Well NLF-E
(Based on Measured and Modeled Historical Conditions In Lower Castaic Valley)
Elevation (feet NAVD88)
1030
1025
1020
1015
1010
1005
1000
995
990
985
980
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Measured Groundwater Elevation (With Well Turned Off)
Historical Groundwater Elevation (Modeled)
GSI
Water Solutions, Inc.


Initial Trigger Level and Measurable Objective for the Alluvial Aquifer at Non-Pumping Observation Well NLF-W5
(Based on Measured and Modeled Historical Conditions in San Francisquito Canyon Just North of Decoro Drive)
Elevation (feet NAVD88)
1170
1160
1150
1140
1130
1120
1110
1100
1090
1080
1070
Jan-1980
Jan-1985
Jan-1990
Jan-1995
Jan-2000
Jan-2005
Jan-2010
Jan-2015
Jan-2020
Initial Measurable Objective
Initial GDE Trigger Level
Estimated Ground Surface Elevation on Overbank
Estimated Ground Surface (Thalweg) Elevation in River Channel
Measured Groundwater Elevation (With Well Turned Off)
Historical Groundwater Elevation (Modeled)
GSI
Water Solutions, Inc.