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Appendix 2-A. Expanded Basin Setting

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⁶ **Expanded Basin Setting**

⁷ This Appendix provides further background information for Section 2.2 - Basin Setting, such as
⁸ additional geologic maps, cross-sections, and groundwater elevation maps.

⁹ *Geology Background*

¹⁰ The geologic map based on observations of May 1954 forms the basis of the hydrogeologic model
¹¹ and is shown in Figure 1 (Wood 1960).

¹² The locations of all cross-sections in the GSP are show in Figure 2.

¹³ Cross-sections D-D', E-E' and F-F' are shown in Figure 3, Figure 4, and Figure 5. Cross-sections
¹⁴ A-A', B-B', and C-C' are in the main text.

Appendix 2-A. Expanded Basin Setting

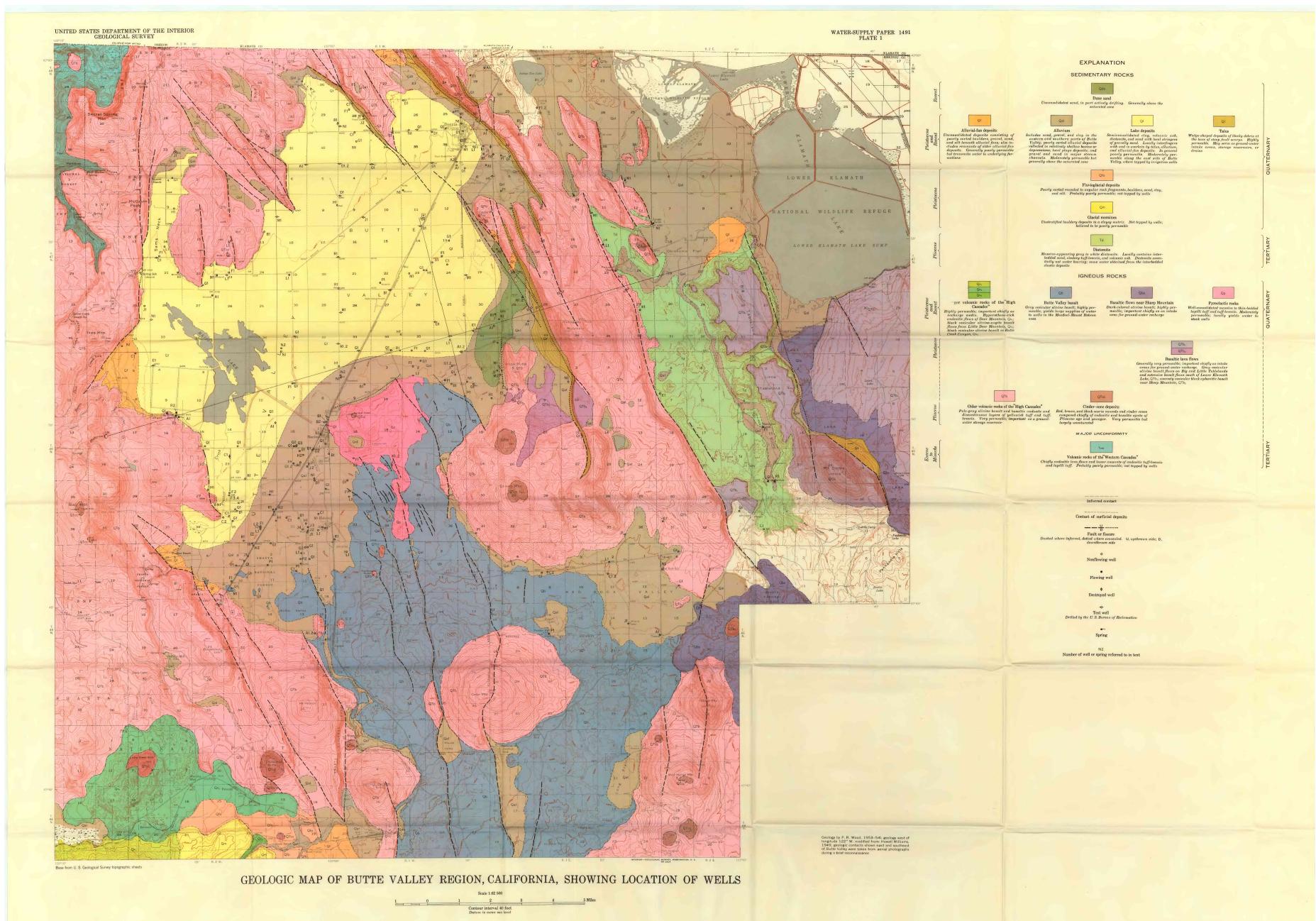


Figure 1: Detailed geology map that forms the basis of the hydrogeologic model (Wood 1960). The image is high quality so text can be distinguished when zoomed in.

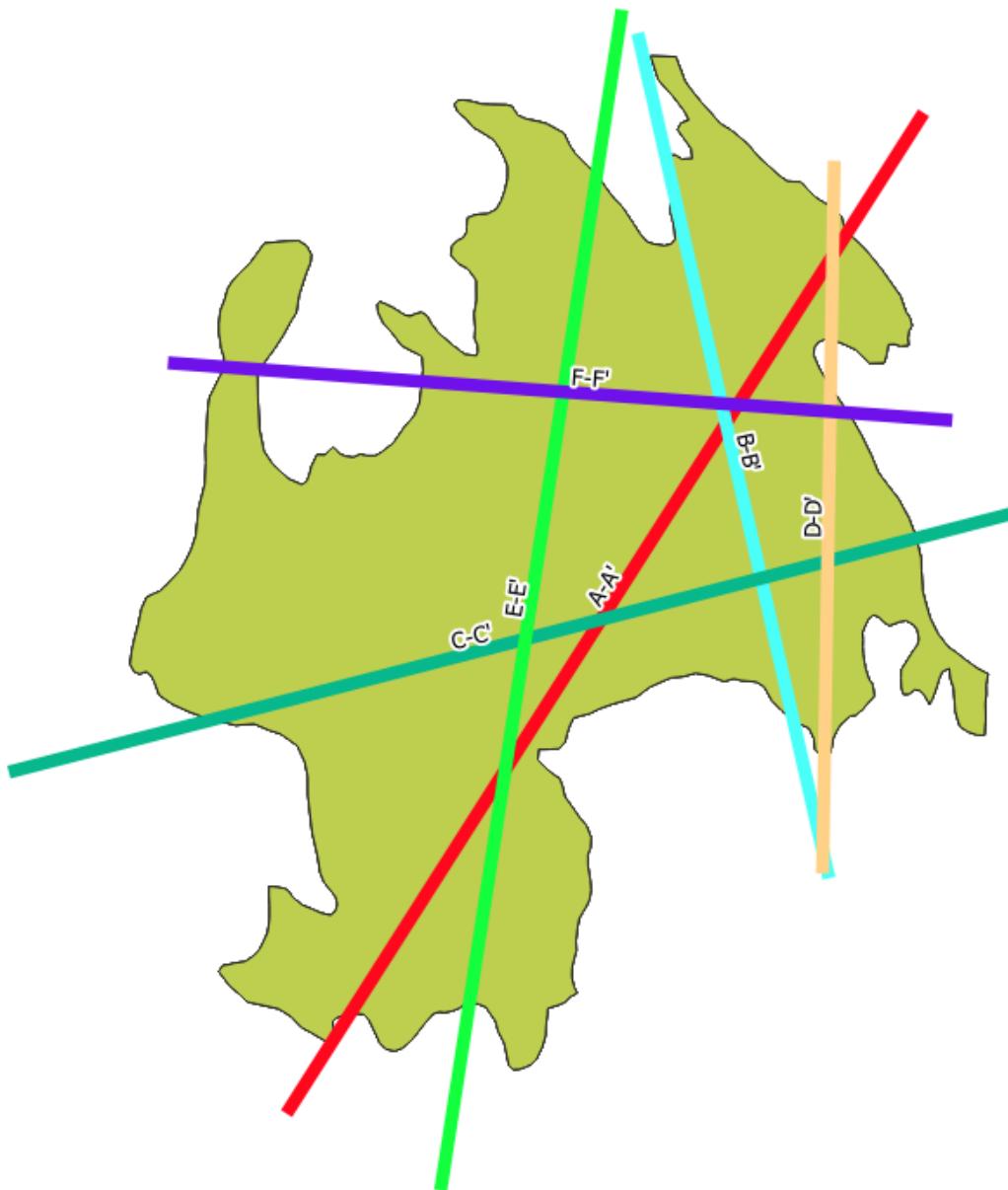


Figure 2: General cross-section locations - *this figure will be updated in the final Appendix*.

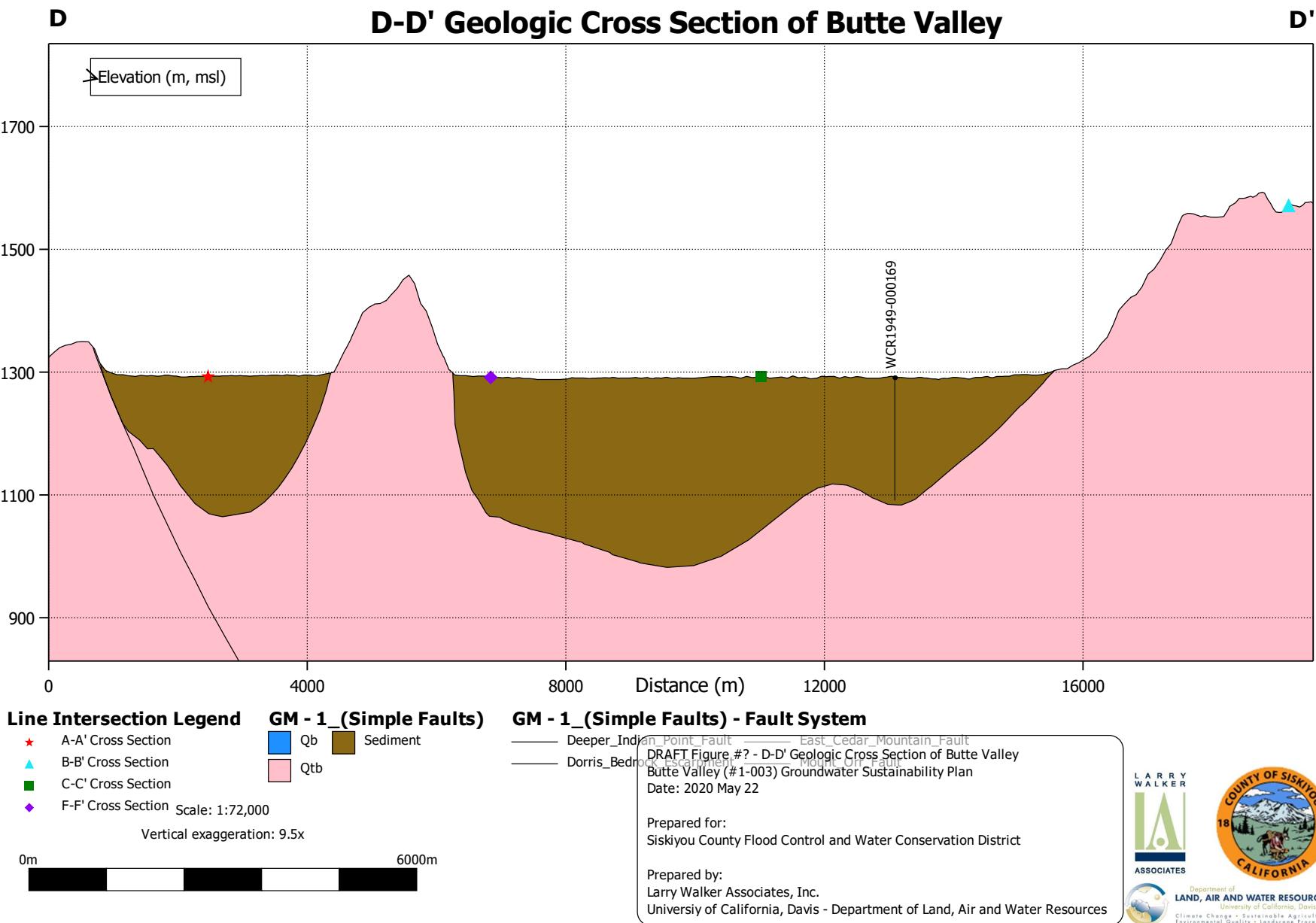


Figure 3: Cross Section D-D'

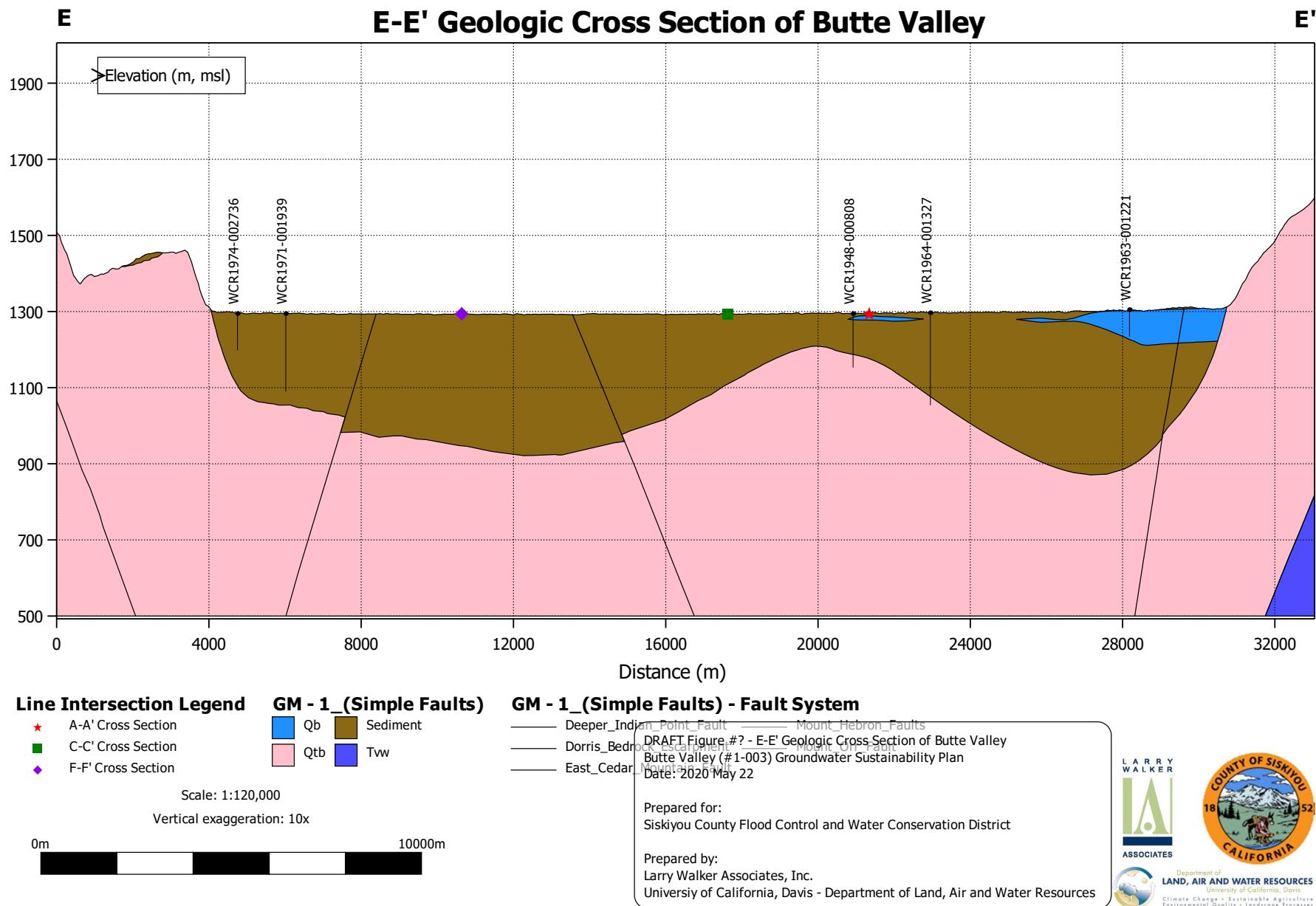


Figure 4: Cross Section E-E'

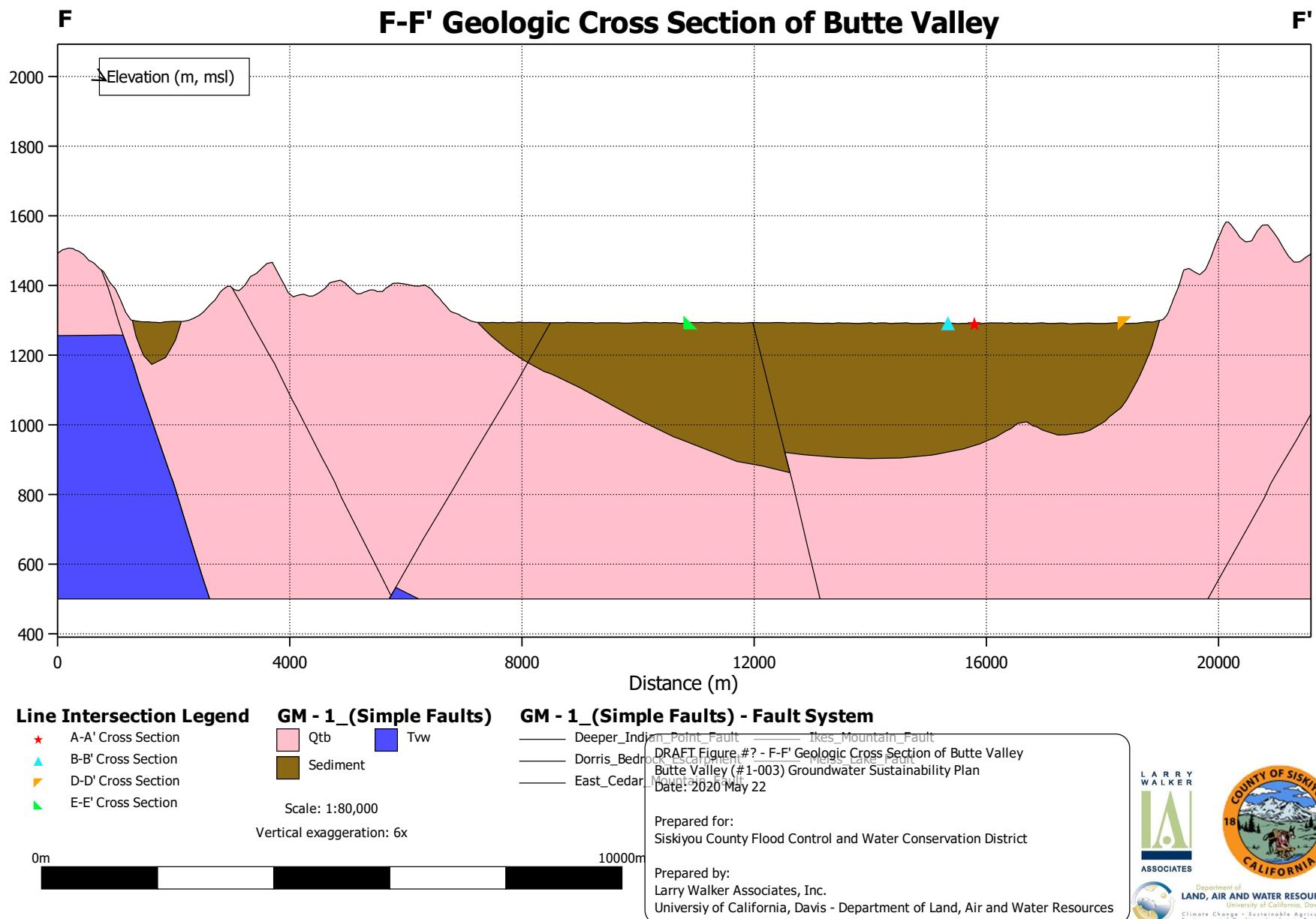


Figure 5: Cross Section F-F'

¹⁵ *Soils*

- ¹⁶ The original map of general soil units in Butte Valley, as defined by the 1994 USDA Soil Survey of
¹⁷ the Butte Valley-Tule Lake Area, is shown in Figure 6.

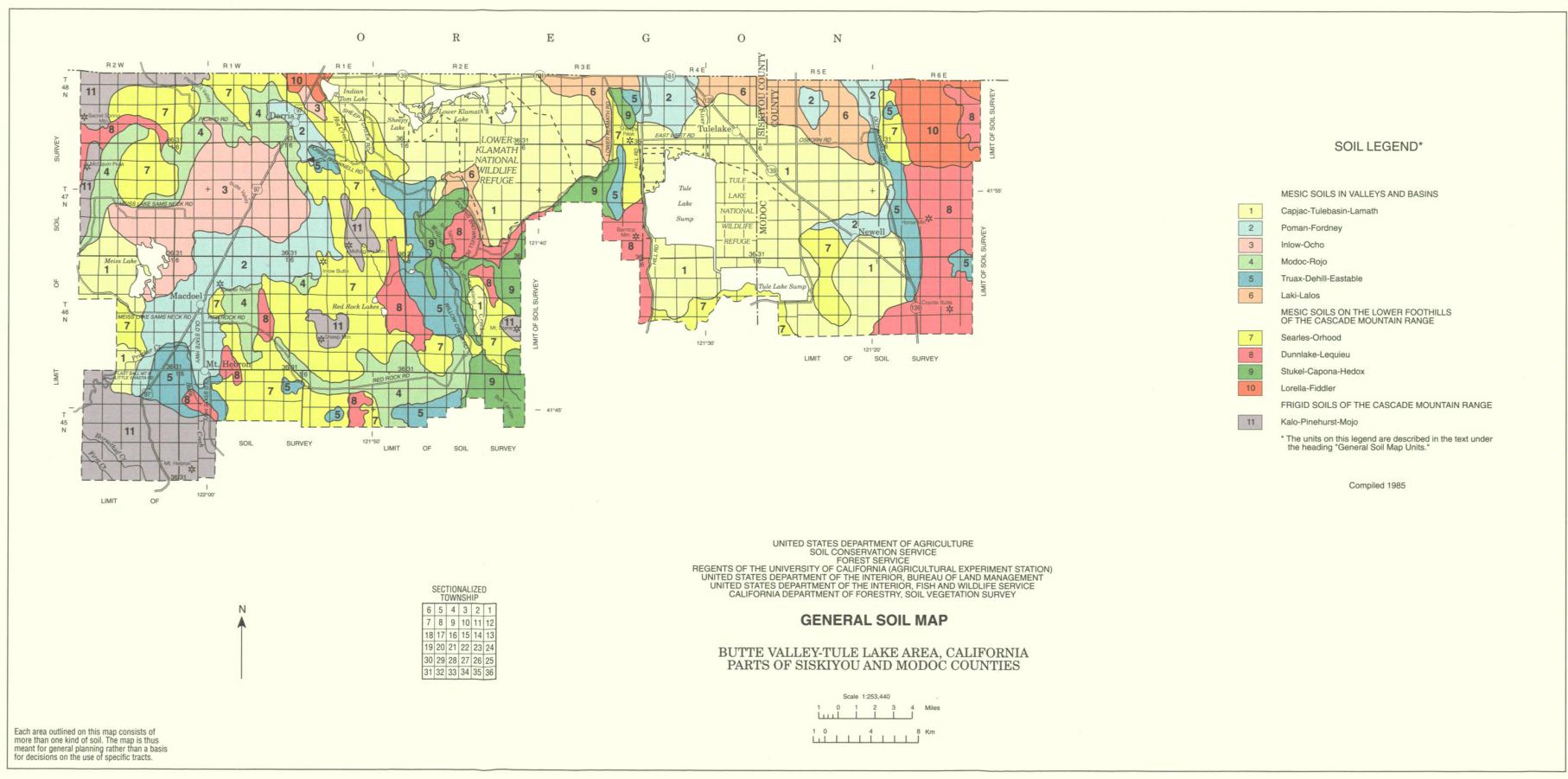


Figure 6: 1994 USDA Soil Survey of the Butte Valley-Tule Lake Area

18 *Groundwater Elevation*

19 Water level changes are shown in Figure 21 for the period between Spring 1978 and Spring 2018.
20 Groundwater Elevations in Spring 2019 are shown in Figure 9. Spring 2018 groundwater elevations
21 are shown in Figure 11. Spring 2017 groundwater elevations are shown in Figure 12. Spring 2016
22 groundwater elevations are shown in Figure 13. Spring 2008 groundwater elevations are shown in
23 Figure 16. Spring 1991 groundwater elevations are shown in Figure 17. Spring 1986 groundwater
24 elevations are shown in Figure 18. Spring 1979 groundwater elevations are shown in Figure 19.

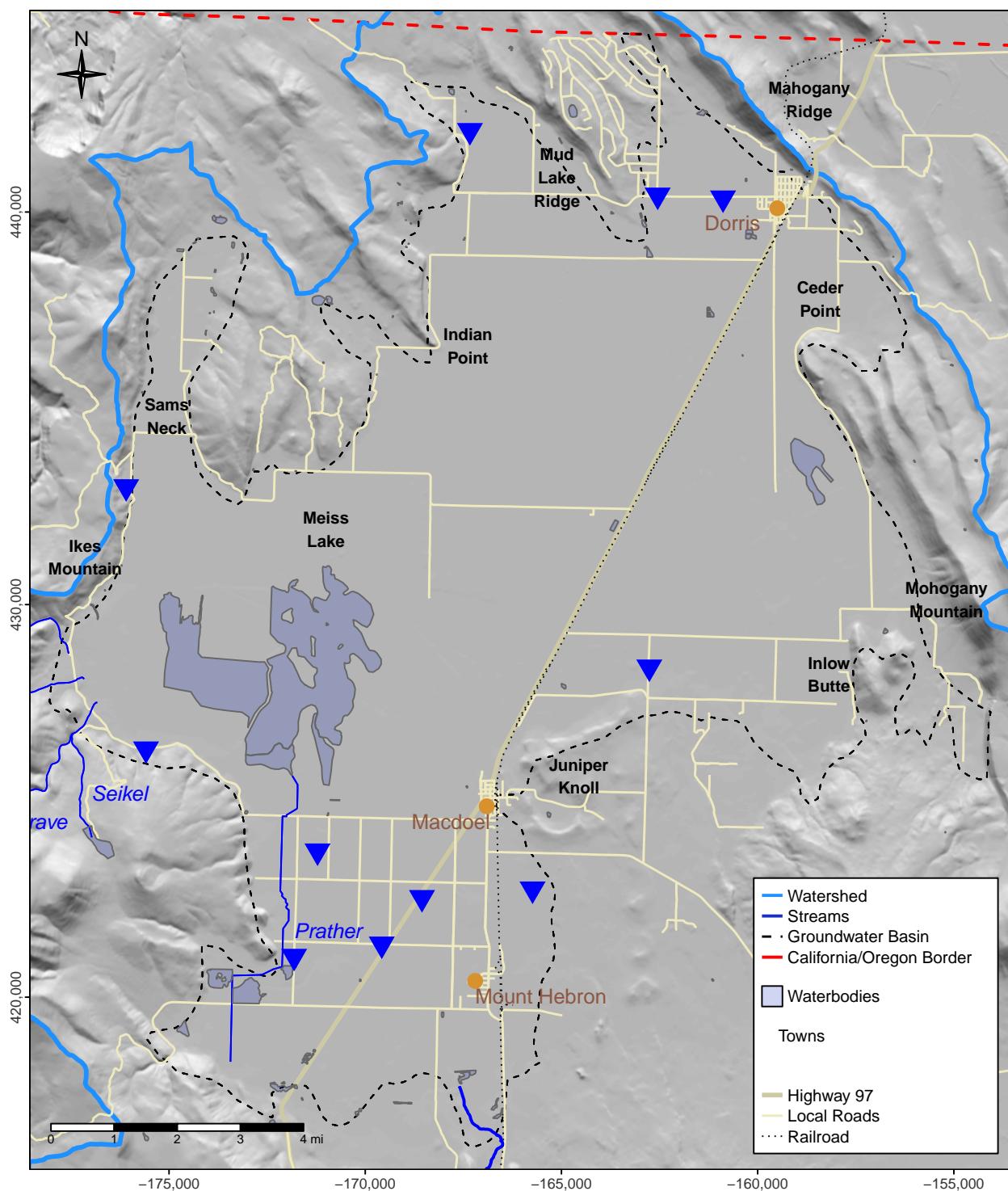


Figure 7: Continuous Monitoring Well Locations

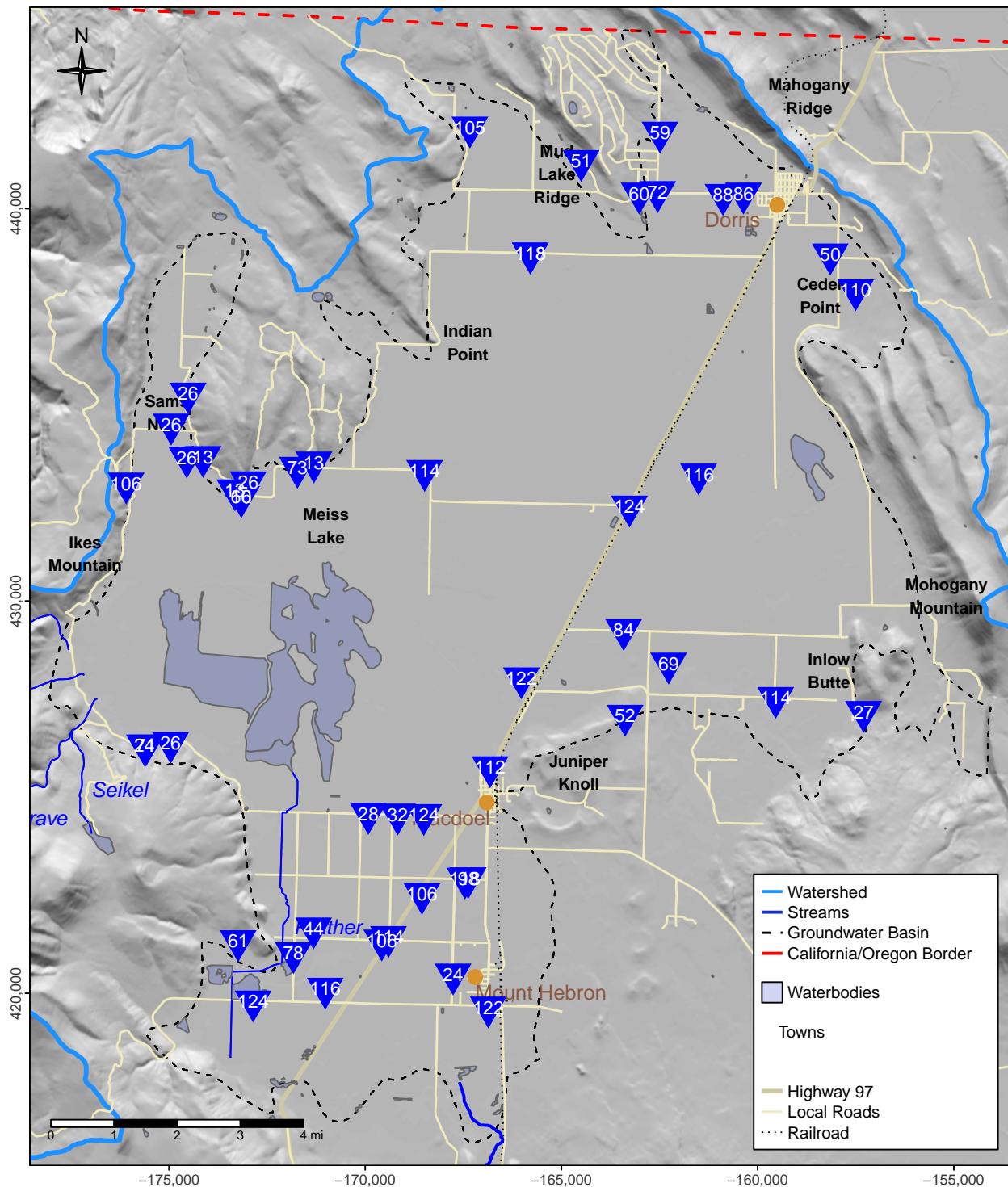


Figure 8: Periodic Monitoring Well Locations

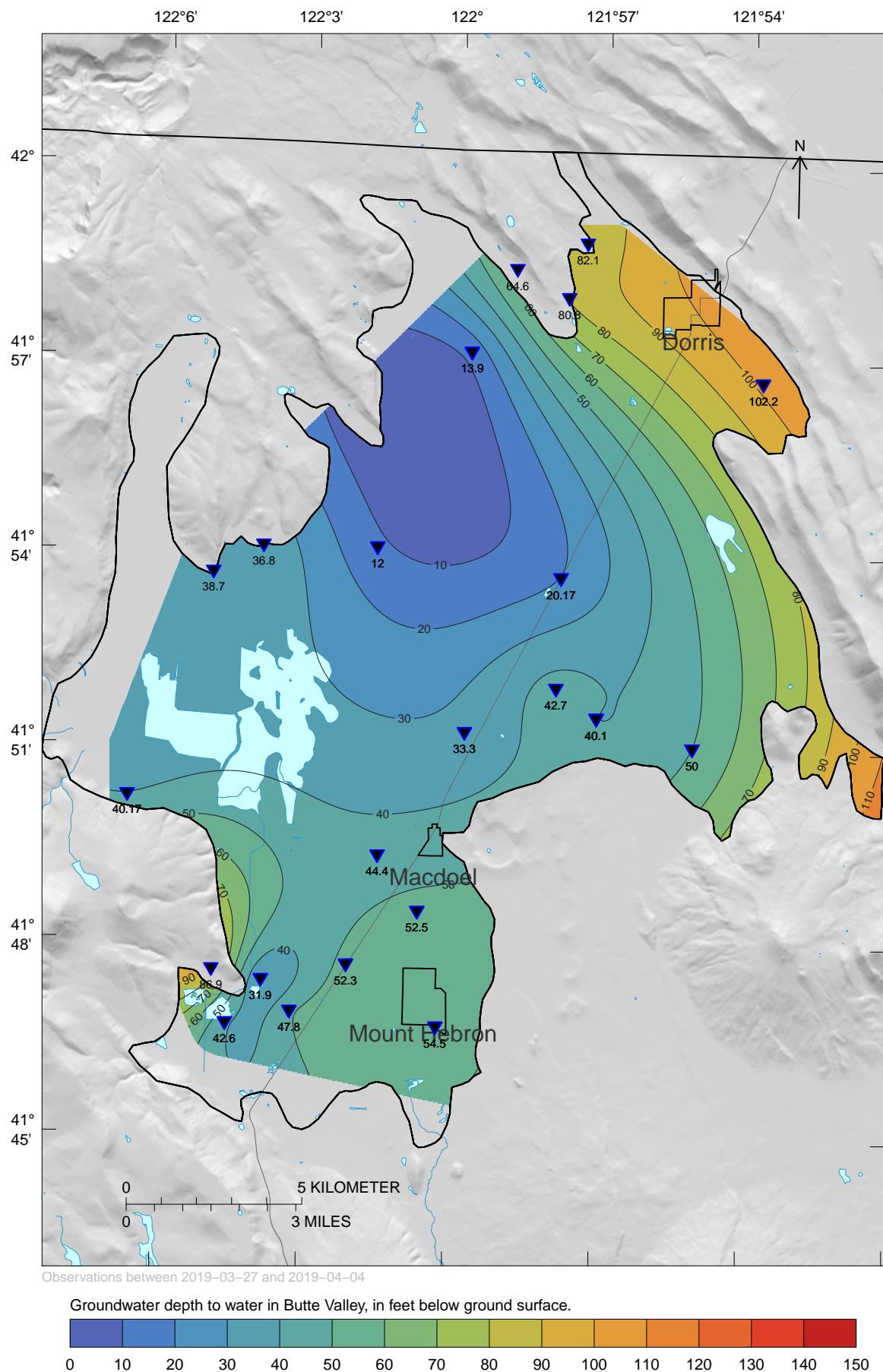


Figure 9: Butte Valley Groundwater Elevations, Spring 2019

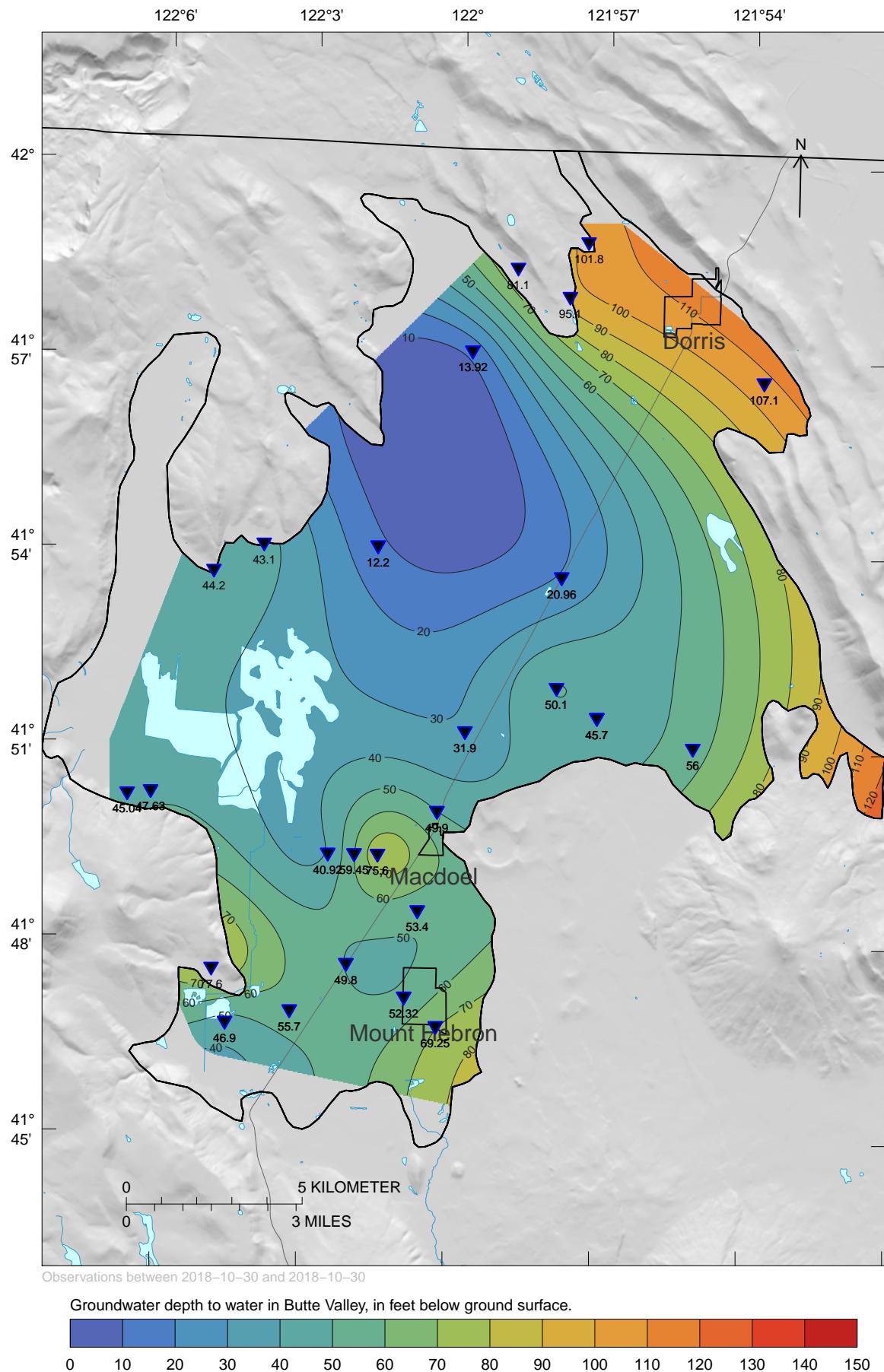


Figure 10: Butte Valley Groundwater Elevations, Fall 2018

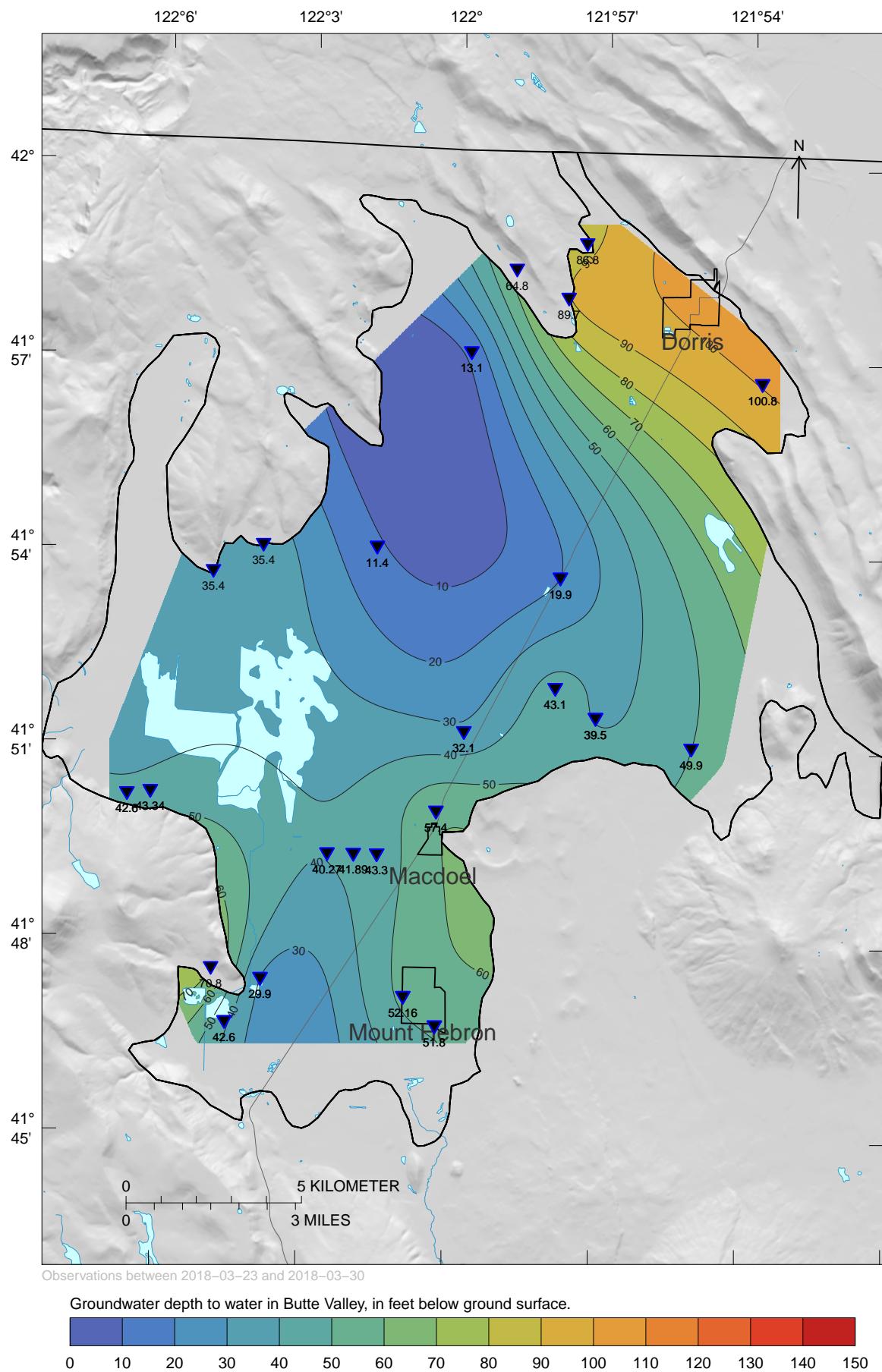


Figure 11: Butte Valley Groundwater Elevations, Spring 2018

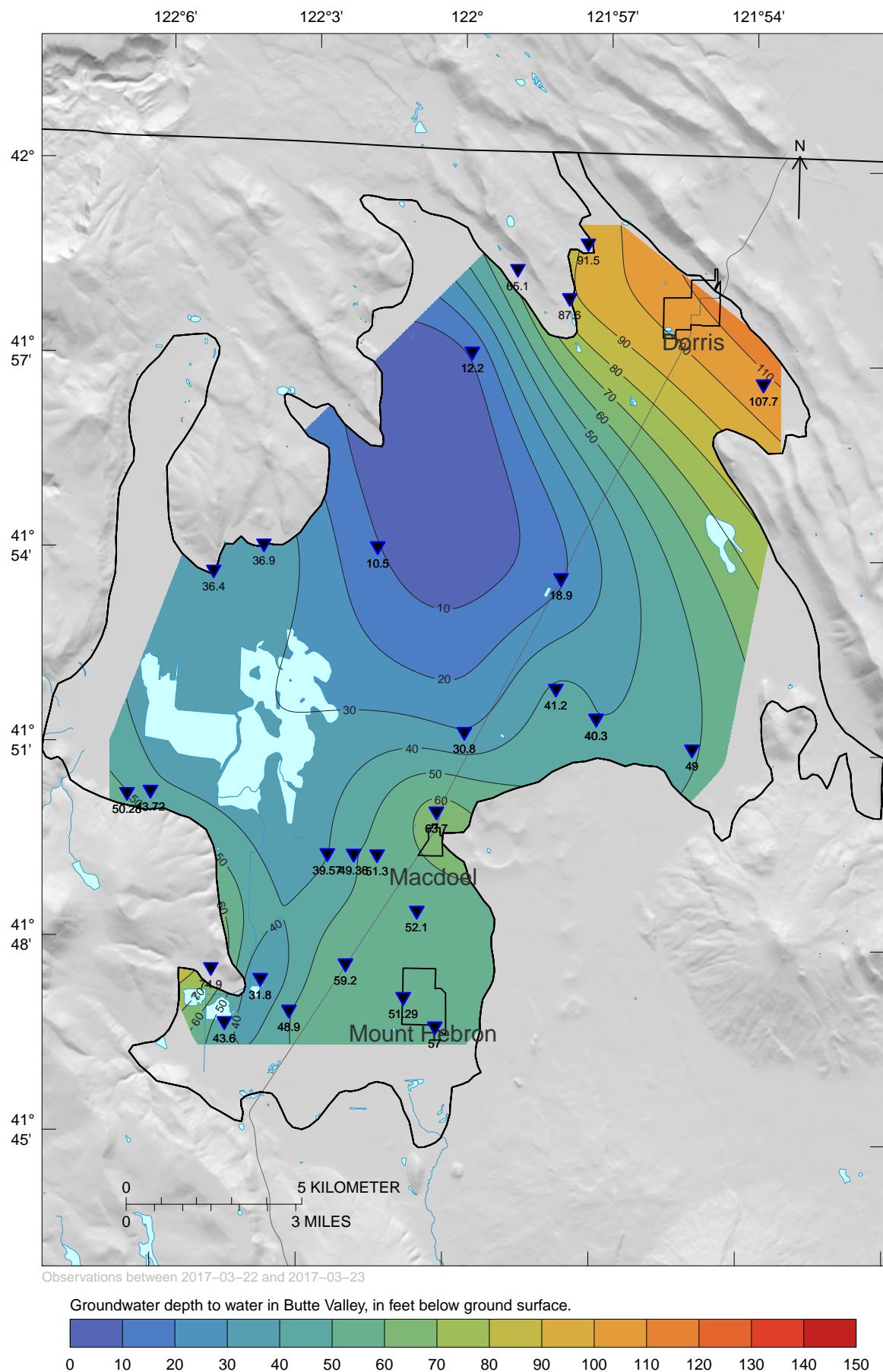


Figure 12: Butte Valley Groundwater Elevations, Spring 2017

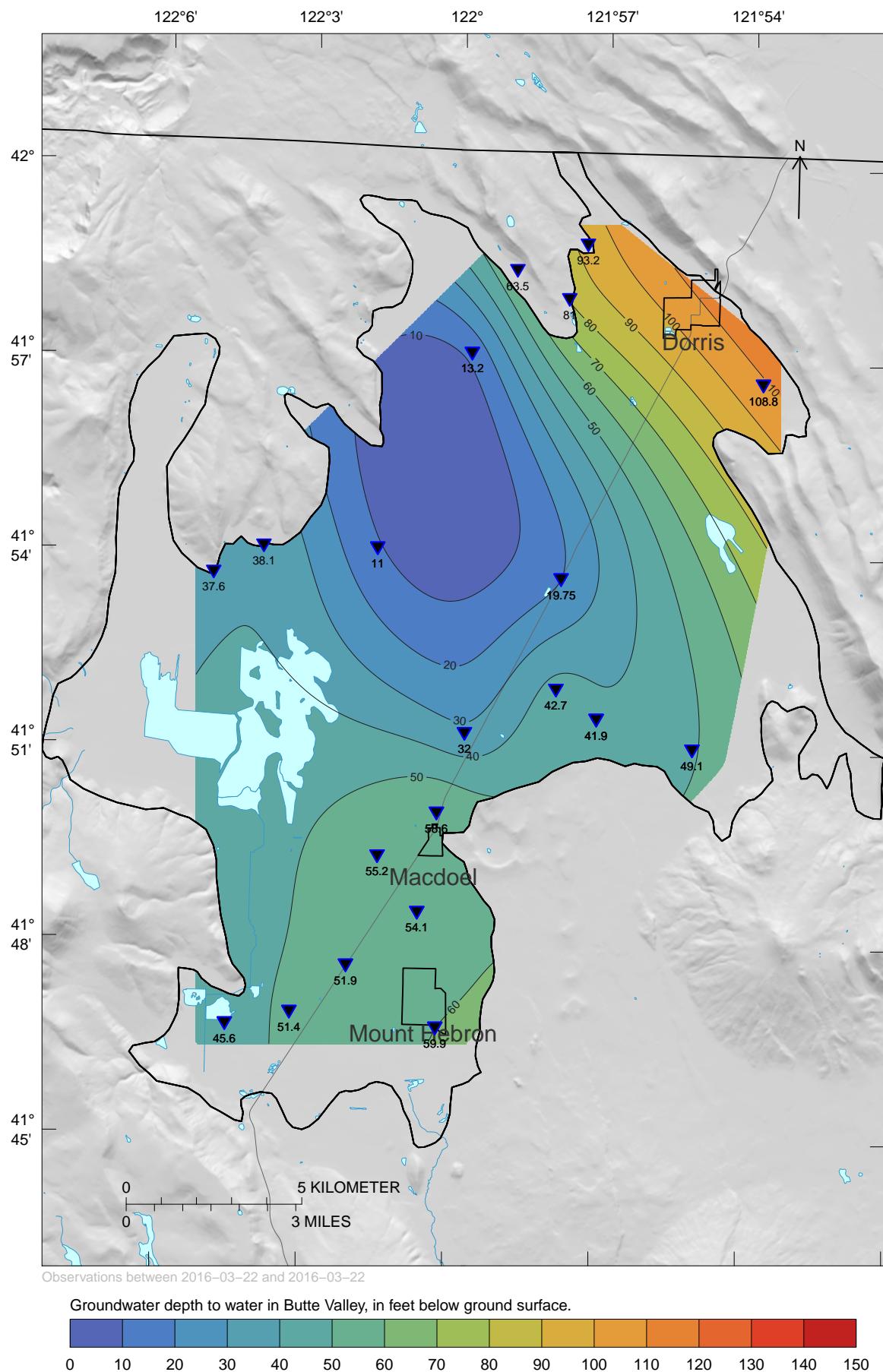


Figure 13: Butte Valley Groundwater Elevations, Spring 2016

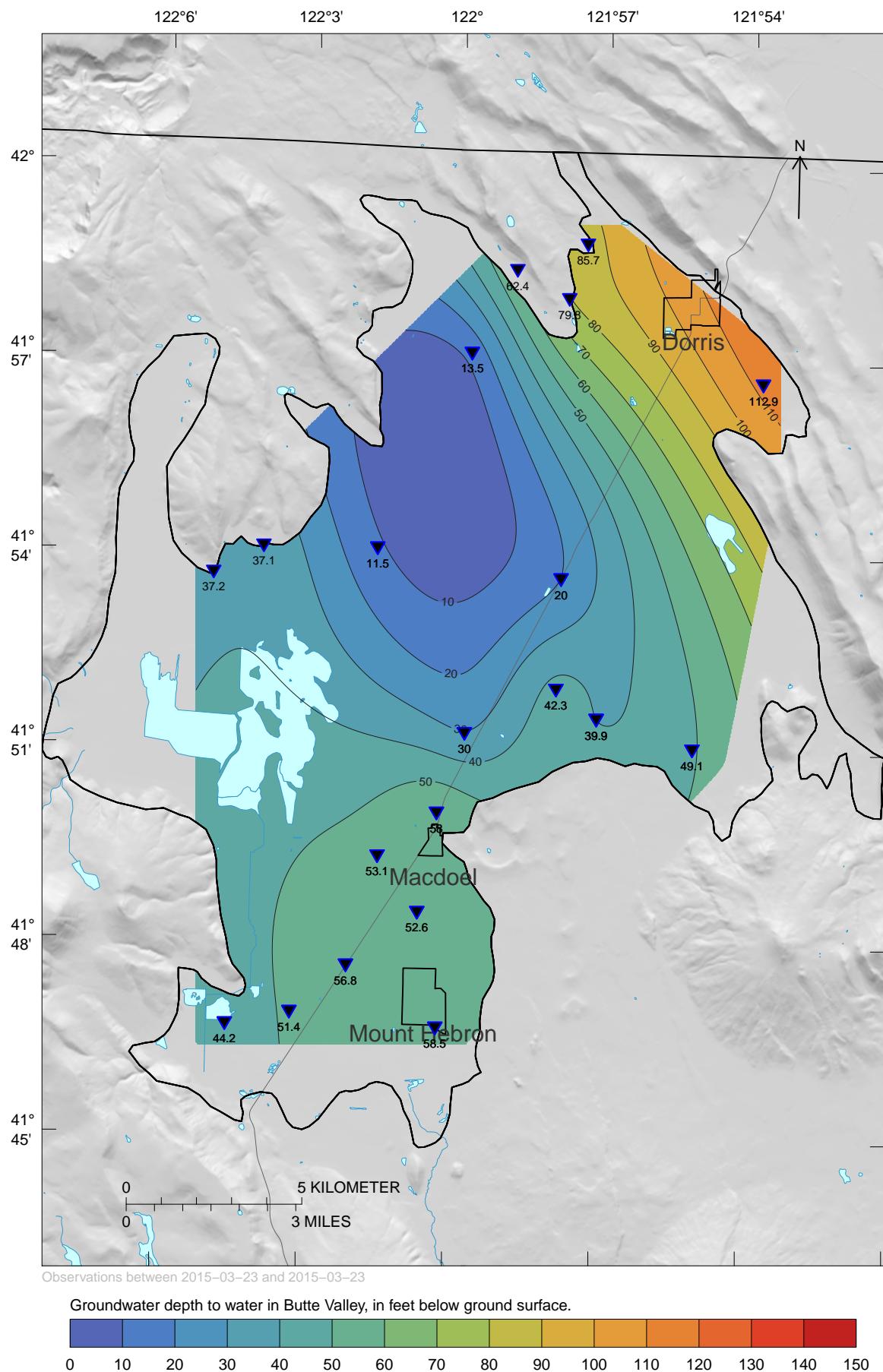


Figure 14: Butte Valley Groundwater Elevations, Spring 2015

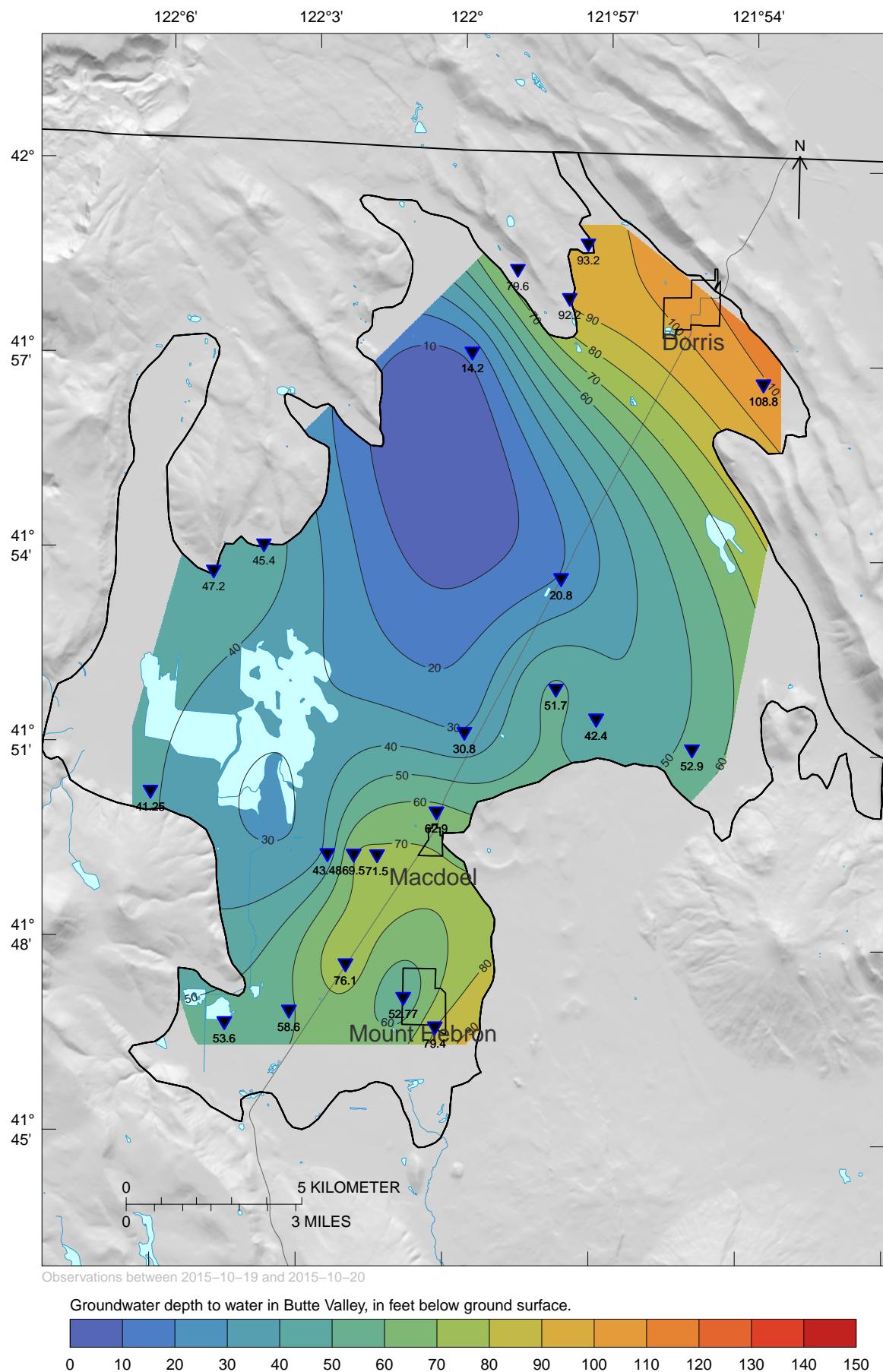


Figure 15: Butte Valley Groundwater Elevations, Fall 2015

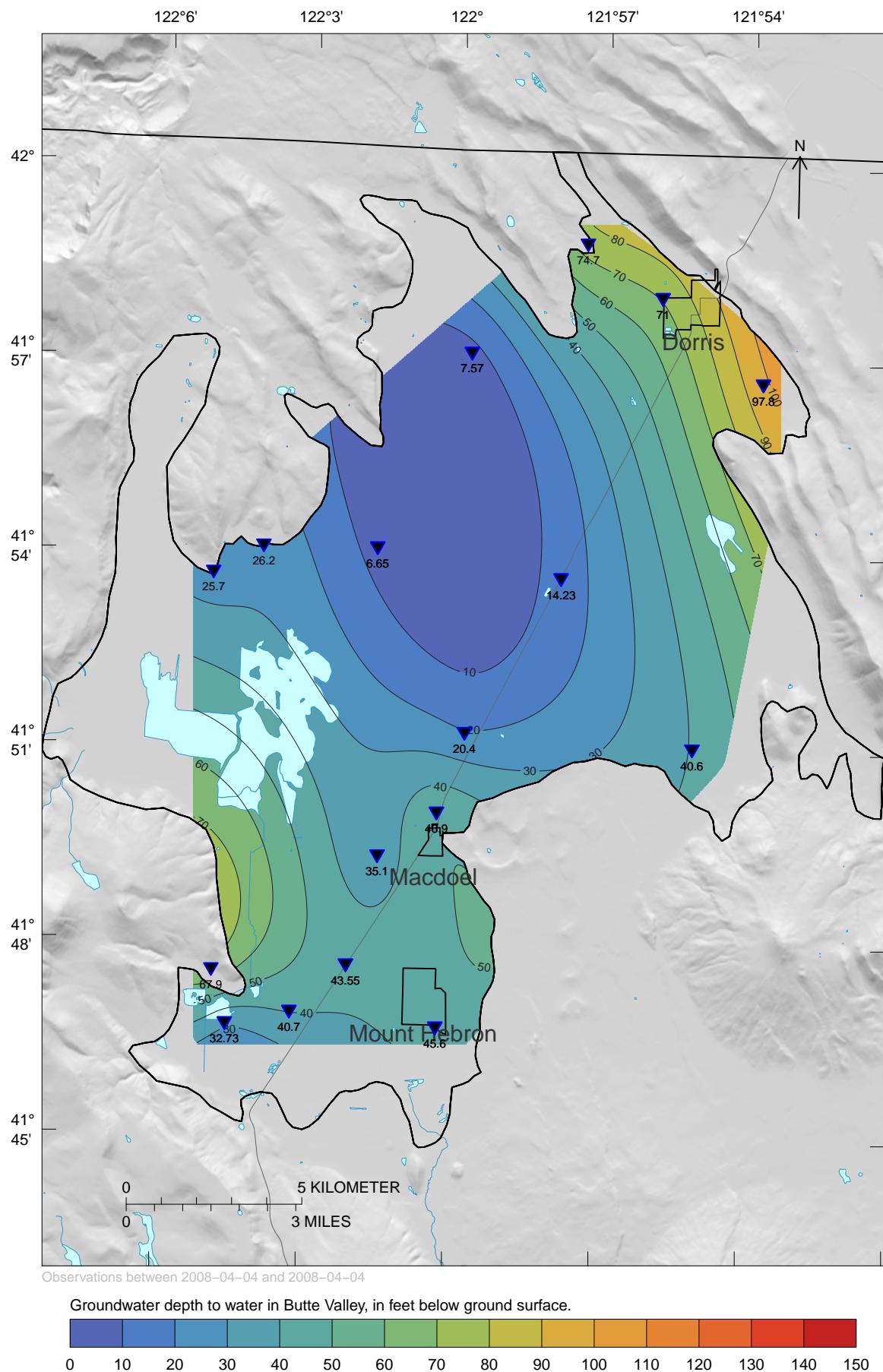


Figure 16: Butte Valley Groundwater Elevations, Spring 2008

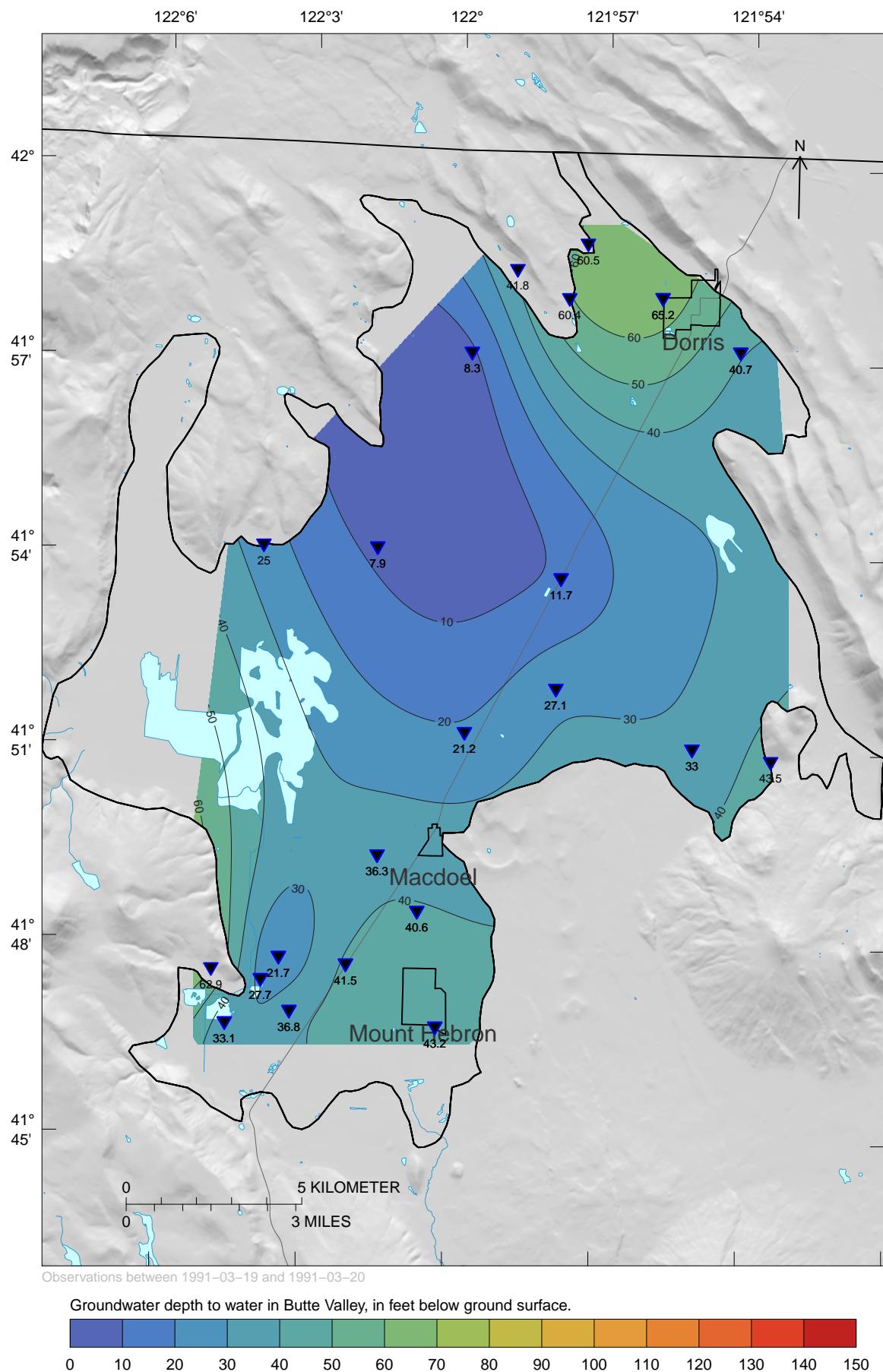


Figure 17: Butte Valley Groundwater Elevations, Spring 1991

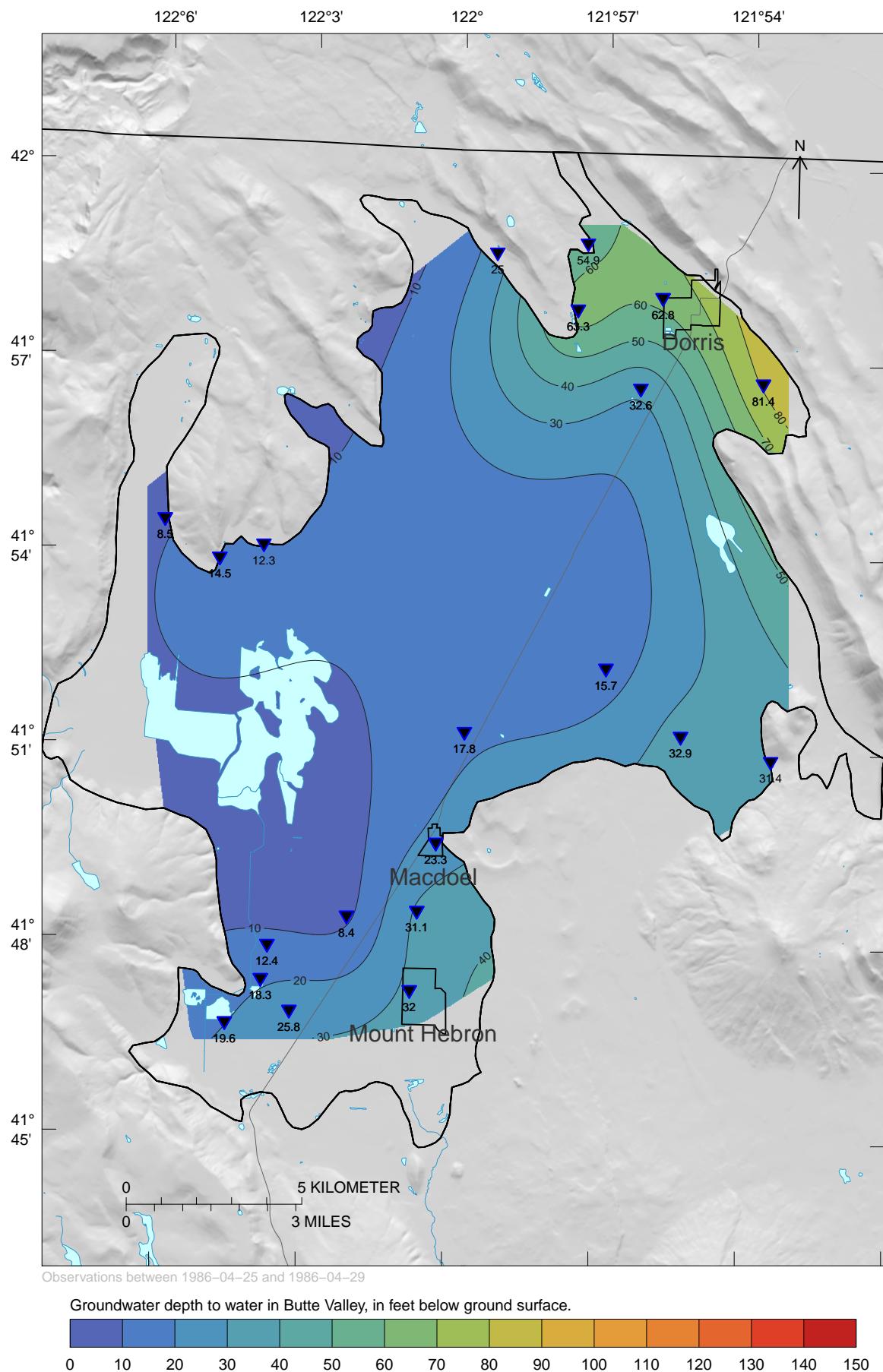


Figure 18: Butte Valley Groundwater Elevations, Spring 1986

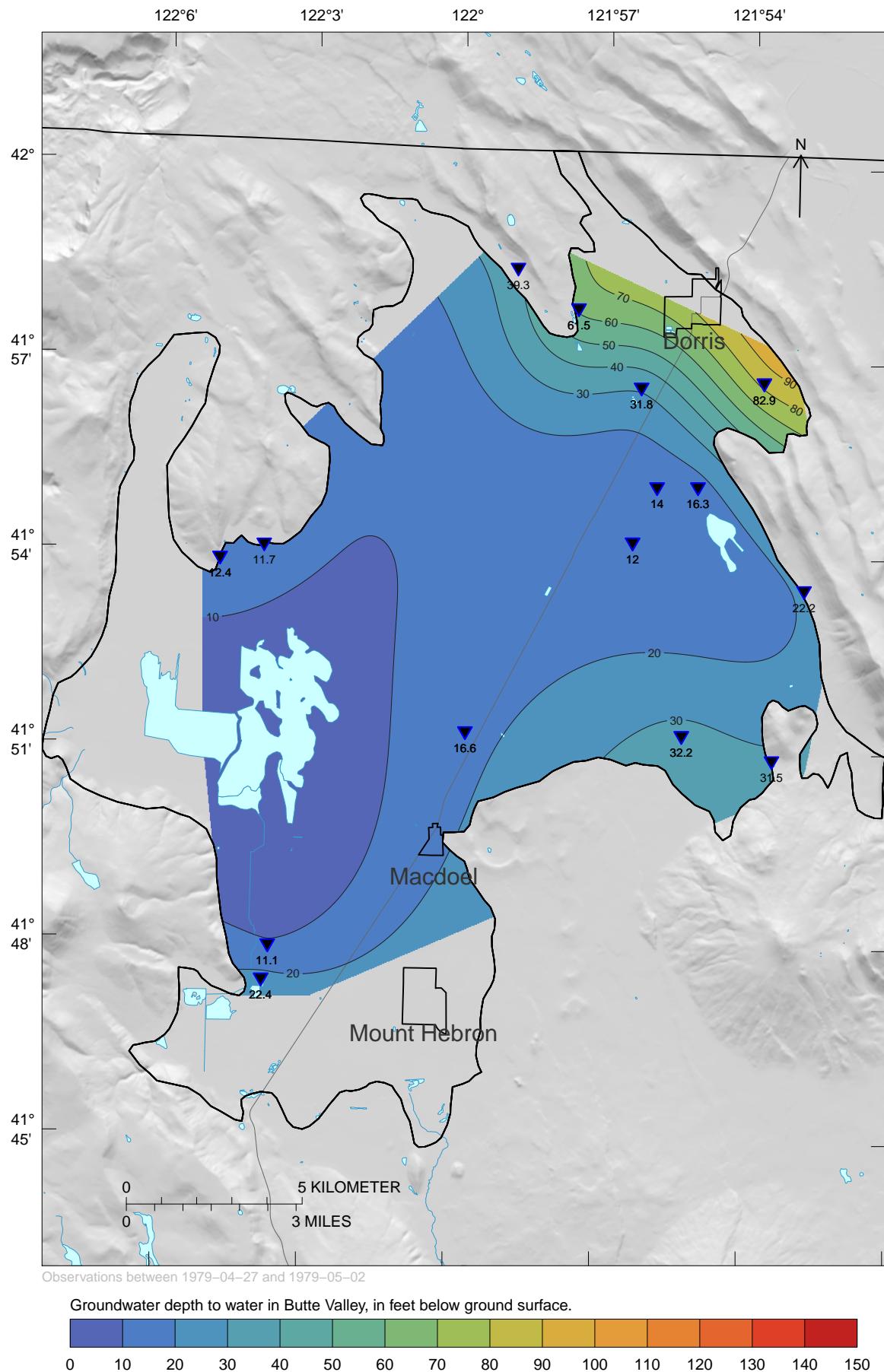


Figure 19: Butte Valley Groundwater Elevations, Spring 1979

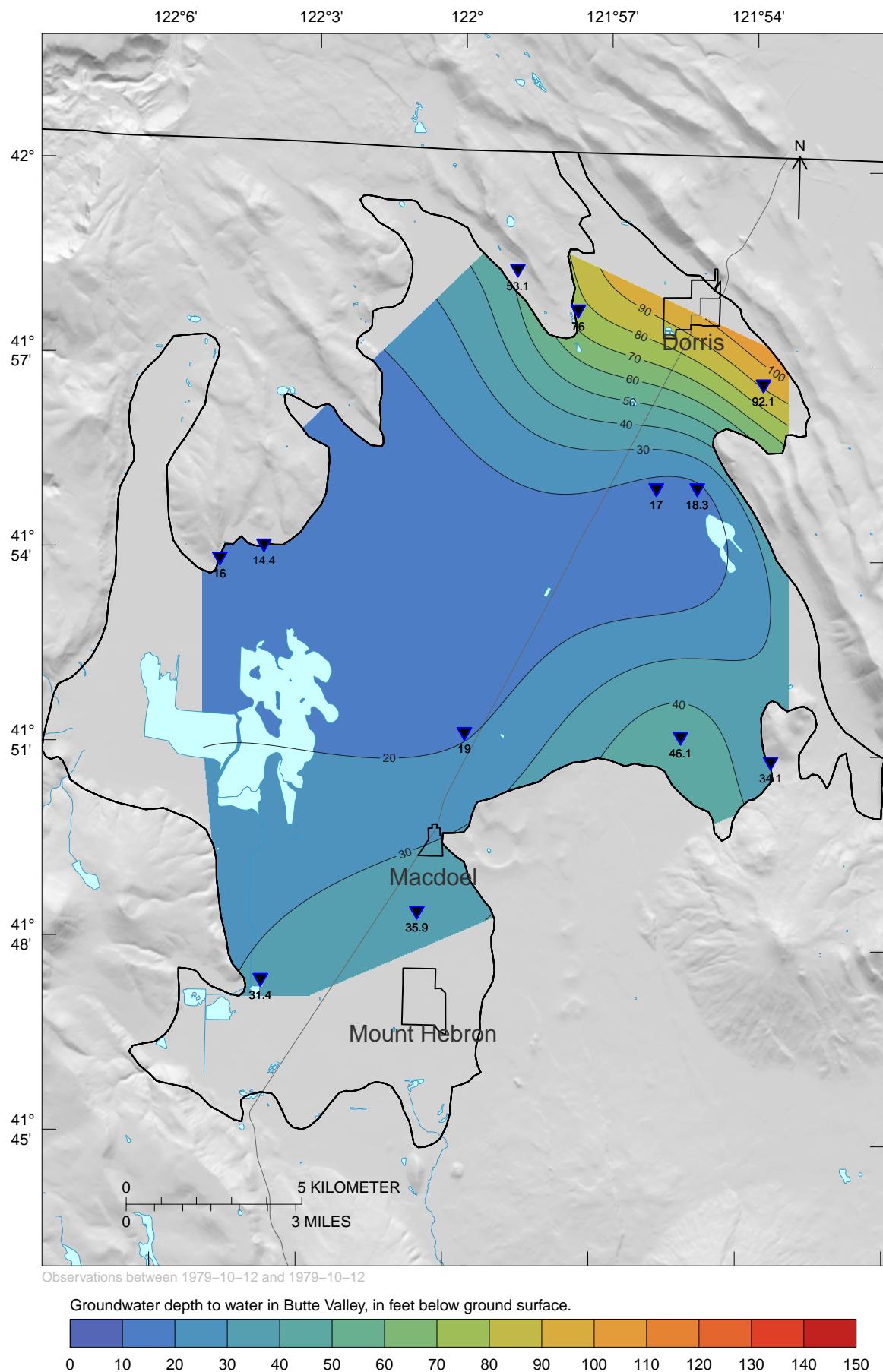


Figure 20: Butte Valley Groundwater Elevations, Fall 1979

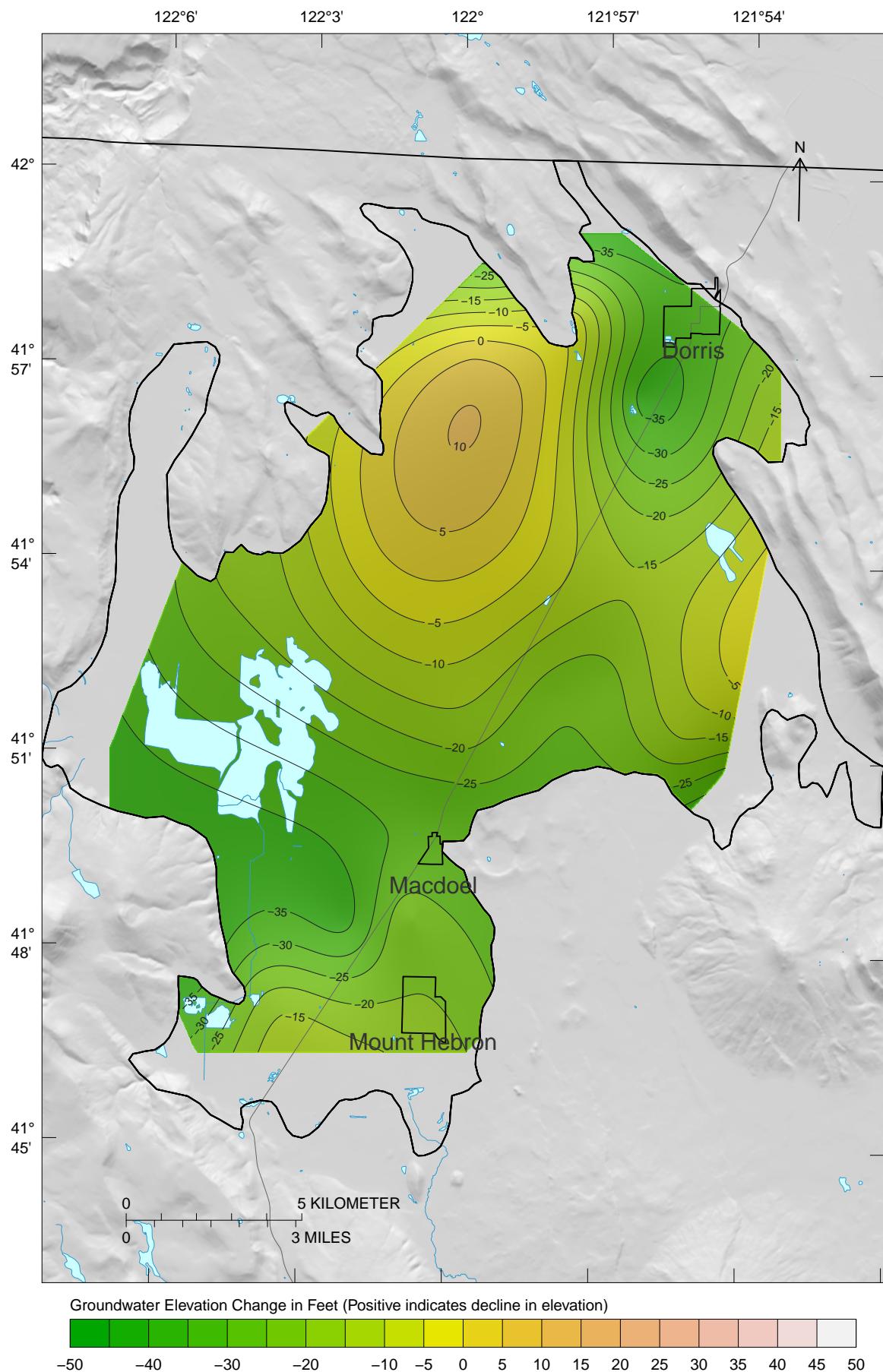


Figure 21: Butte Valley Groundwater Change from Spring 1986 to Spring 2018

²⁵ **References**

- ²⁶ Wood, P. R. 1960. "Geology and Groundwater Features of the Butte Valley Region, Siskiyou County California," no. 1491: 1–155.
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