

Memo

Adaptive Resources, Inc.

To: Western Water Use Management Modeling Joint Board
From: Thad Kuntz, P.G., and Joe Reedy
Date: 1/26/2016
Re: Technical Documentation: Water Level Calibration Target Results

EXPLANATION

Following the update to the Western Water Use Management Modeling ground water model through April 2014, the model calibration is demonstrated utilizing water level calibration targets. This document presents the graphs for 131 head calibration targets spread throughout the model area. For a detailed description of the water level calibration and target selection process, please see the additional documentation *Western Water Use Management Ground Water Model Update through April 2014* (Kuntz and Reedy, 2016) as well as *Technical Documentation: Development of Water Level Calibration Targets* (Kuntz et al., 2015).

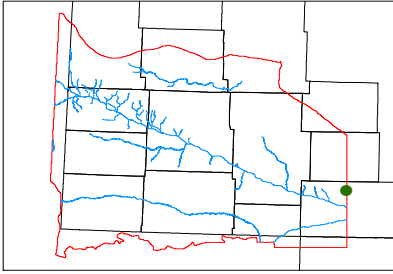
Each graph presents the observed water level, from the historical monitor well water level readings, along with the computed or simulated water level from the ground water model. A Microsoft Excel macro was provided by the Nebraska Department of Natural Resources for the creation of the graphs and maps; it was modified to account for the model period or data format since the last model calibration.

For all water level calibration targets the graph name corresponds to the well identification number used in the previous model calibration (Luckey, 2013). The location of each water level target is displayed on the map above and to the left of the graph. The green circle represents the target, the blue lines represent the streams, the red outline corresponds to the active model boundary, and the thicker black lines correspond to the county boundaries. Additionally, the legal description of the well location is also provided above the graph to the right of the map.

REFERENCES

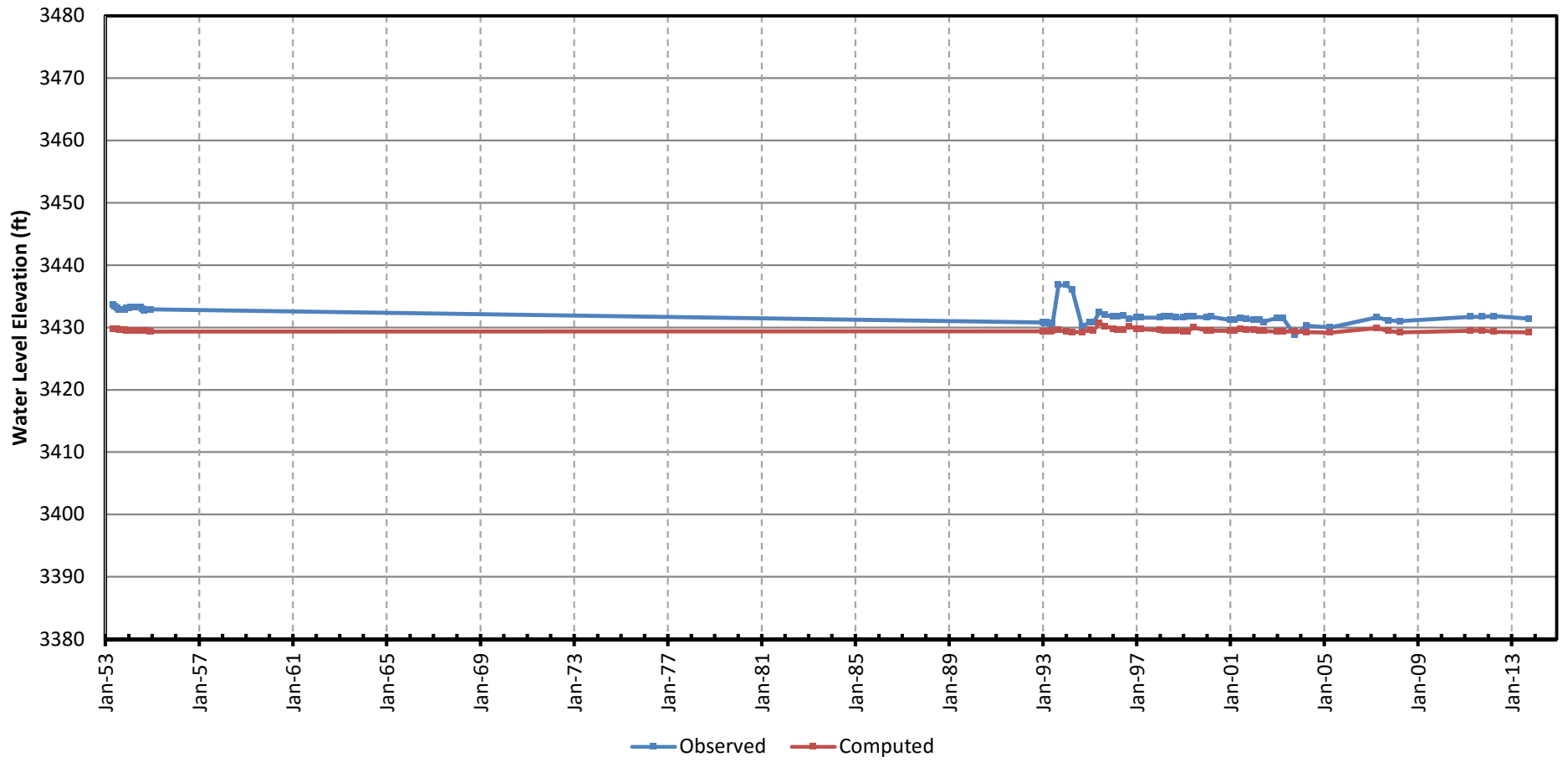
- Kuntz, T.A., and Reedy, J.R., 5/20/2016, Western Water Use Management Ground Water Model Update through April 2014, Report to Western Water Use Management Modeling Joint Board
- Kuntz, T.A., Reedy, J.R., and Yuill, J.C., 12/14/2015, Technical Documentation: Update of Stream Baseflow Calibration Targets, Western Water Use Management Modeling Joint Board
- Luckey, R.R., June 2013, Ground Water Flow Model for the Southern Half of the Nebraska Panhandle: Nebraska Department of Natural Resources/North Platte Natural Resources District/South Platte Natural Resources District Report

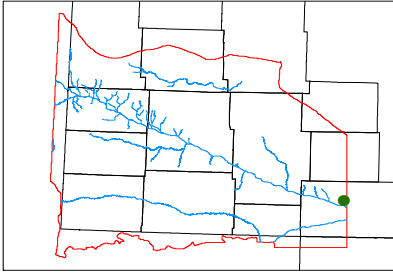




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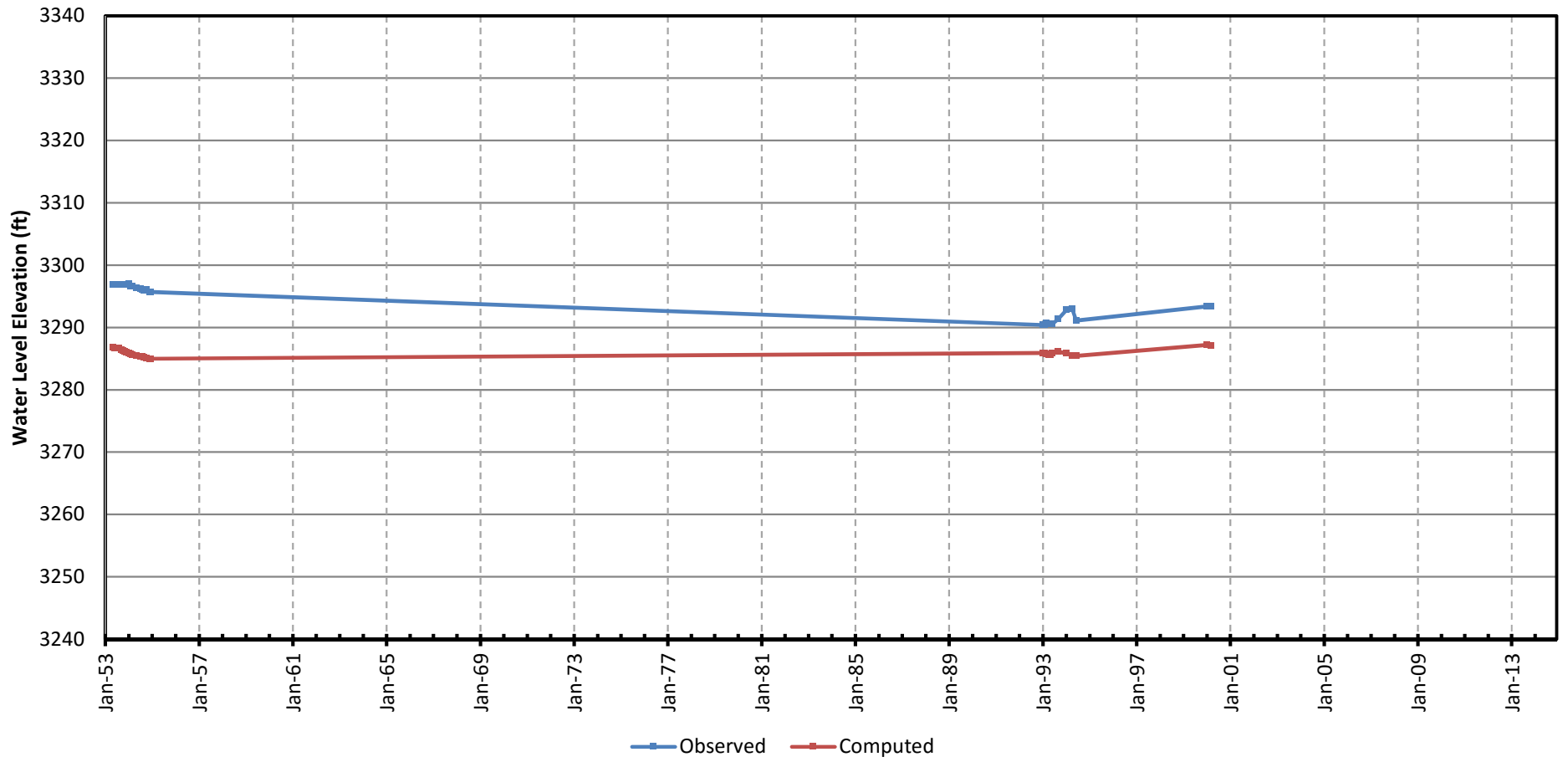
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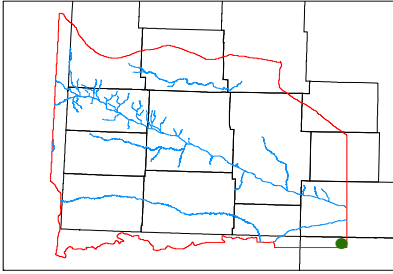




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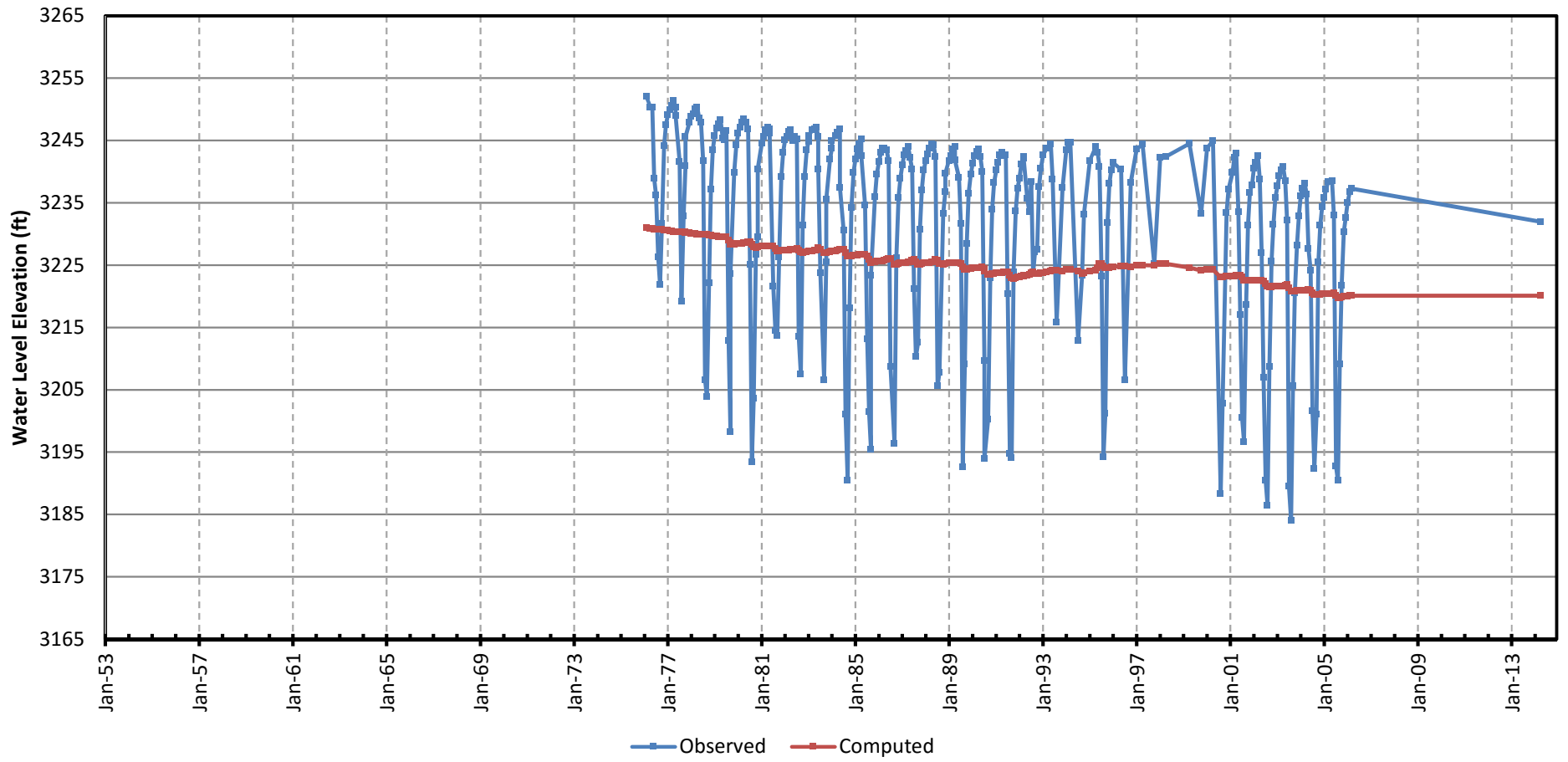
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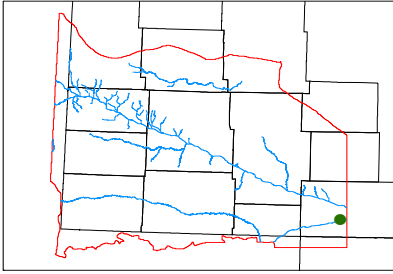




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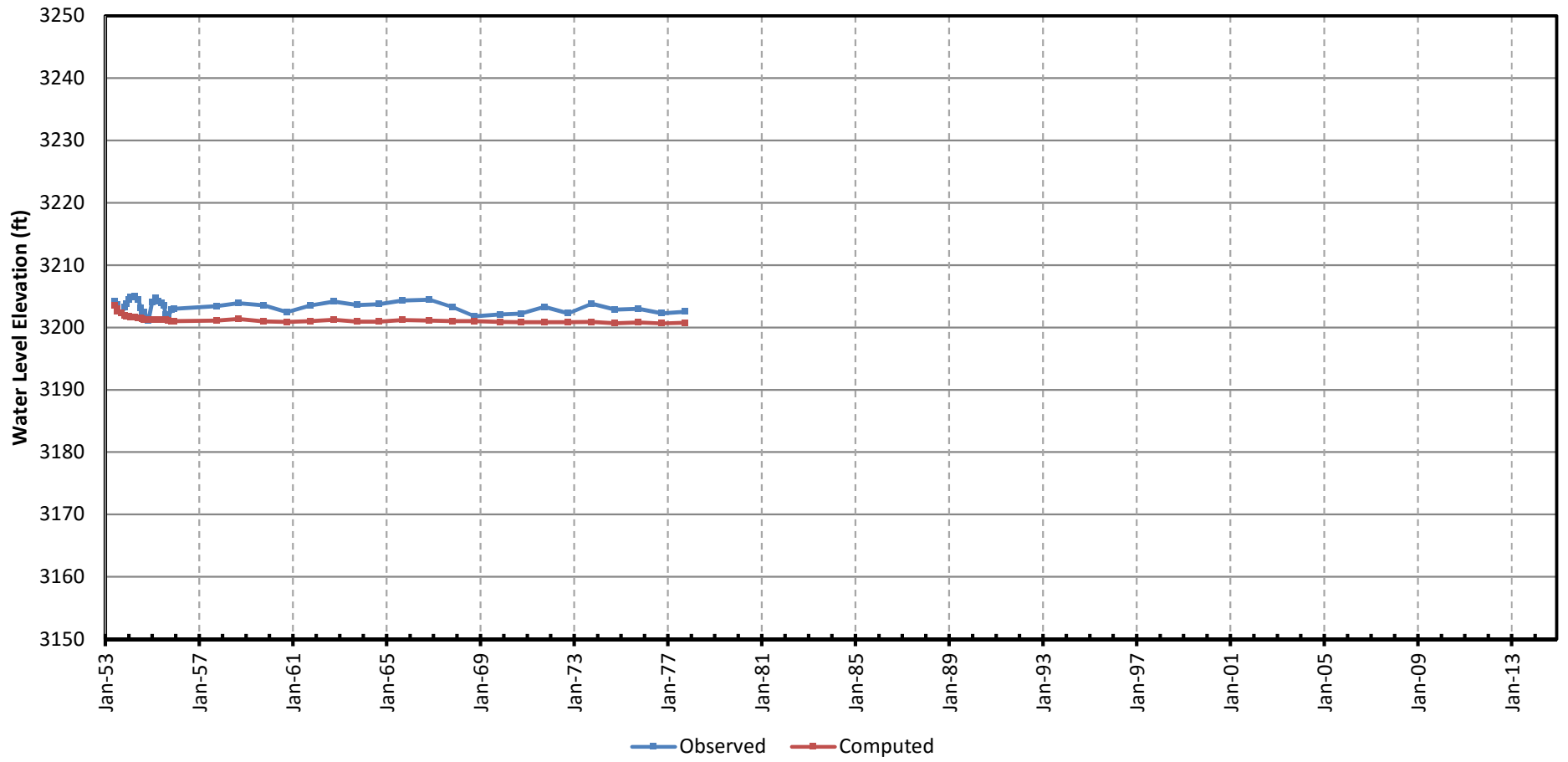
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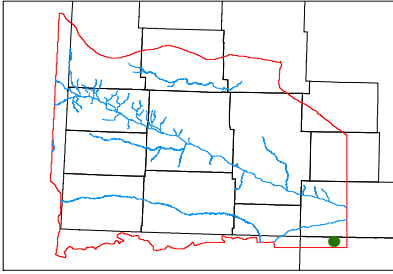




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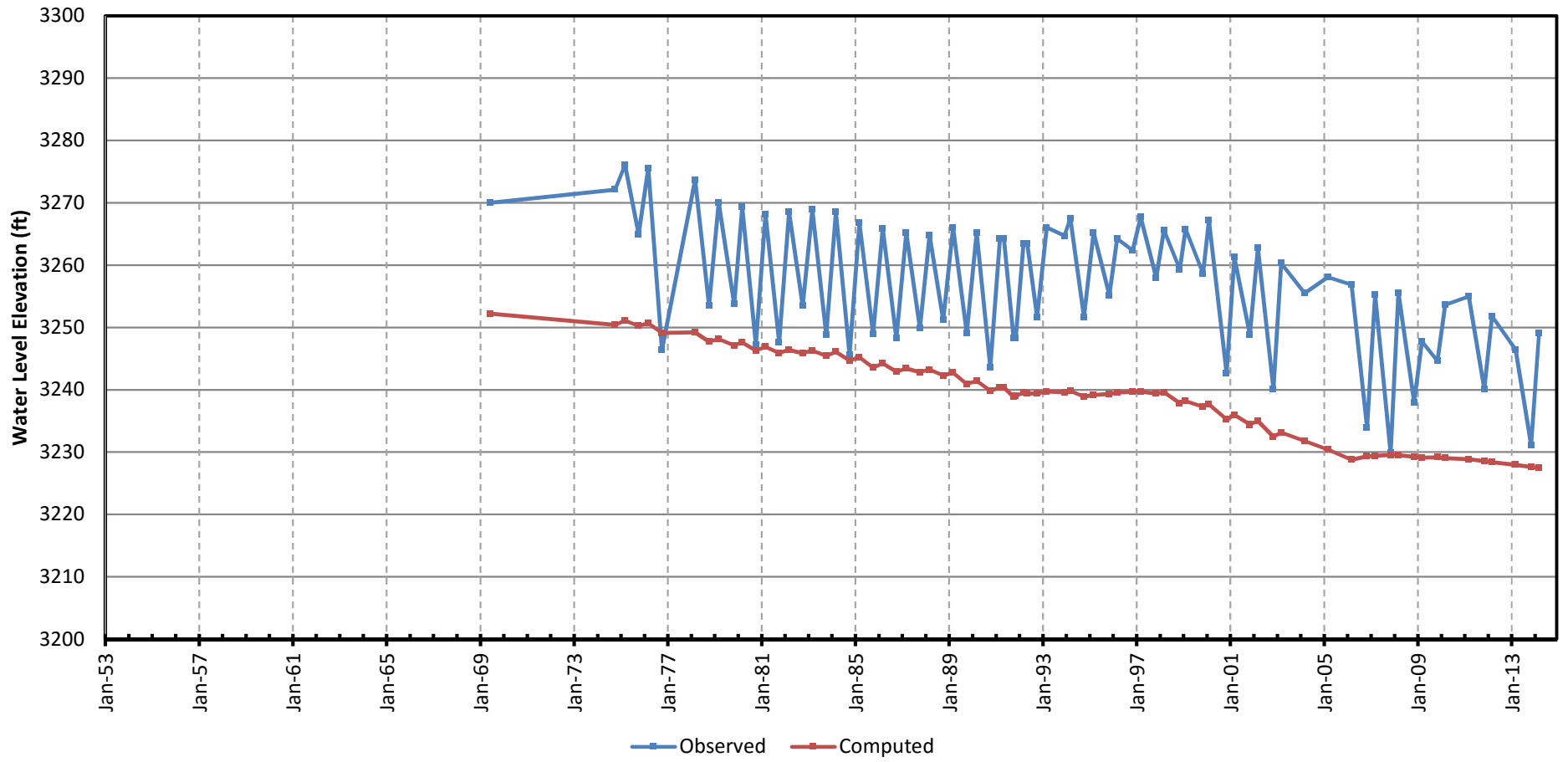
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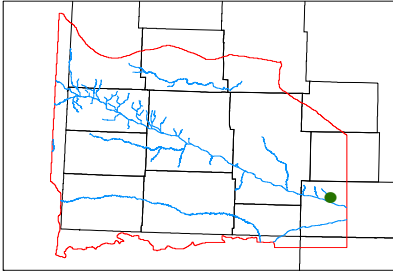




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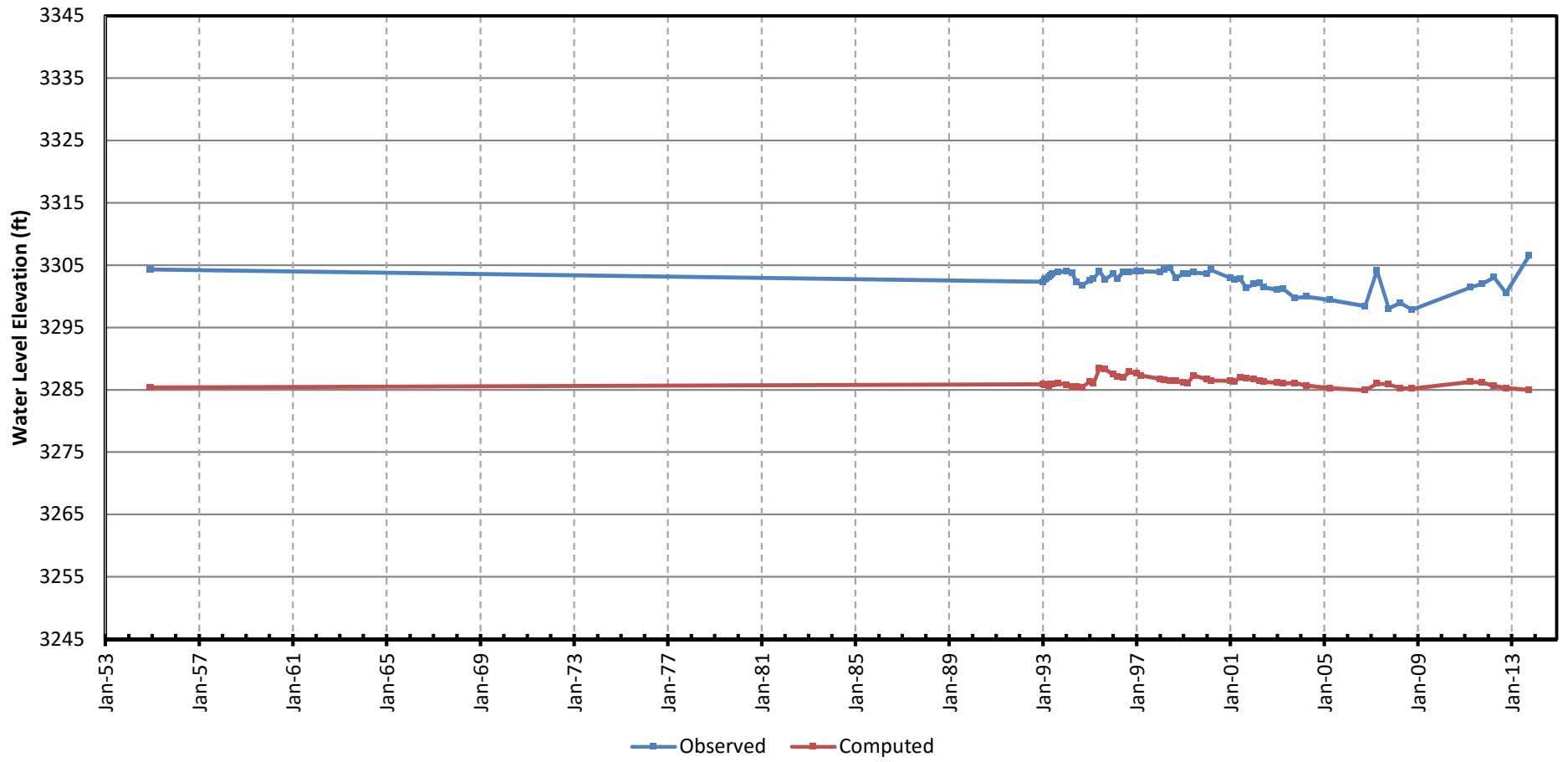
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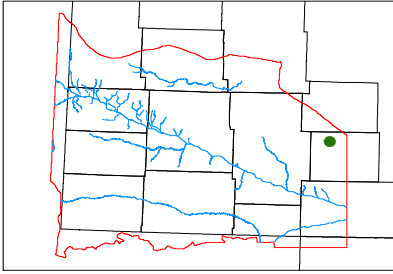




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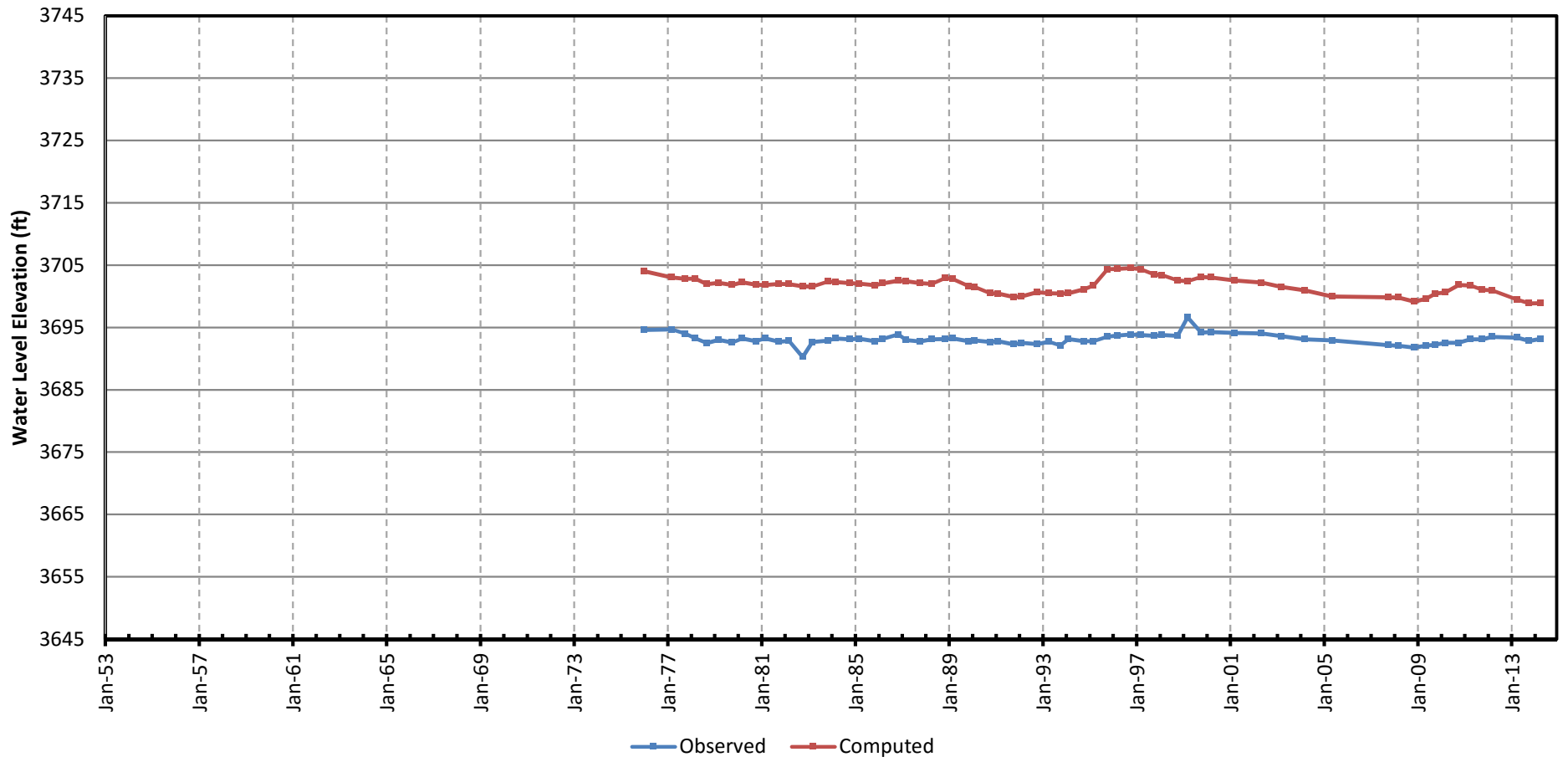
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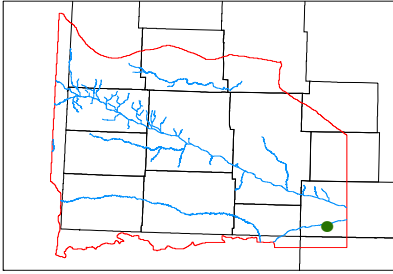




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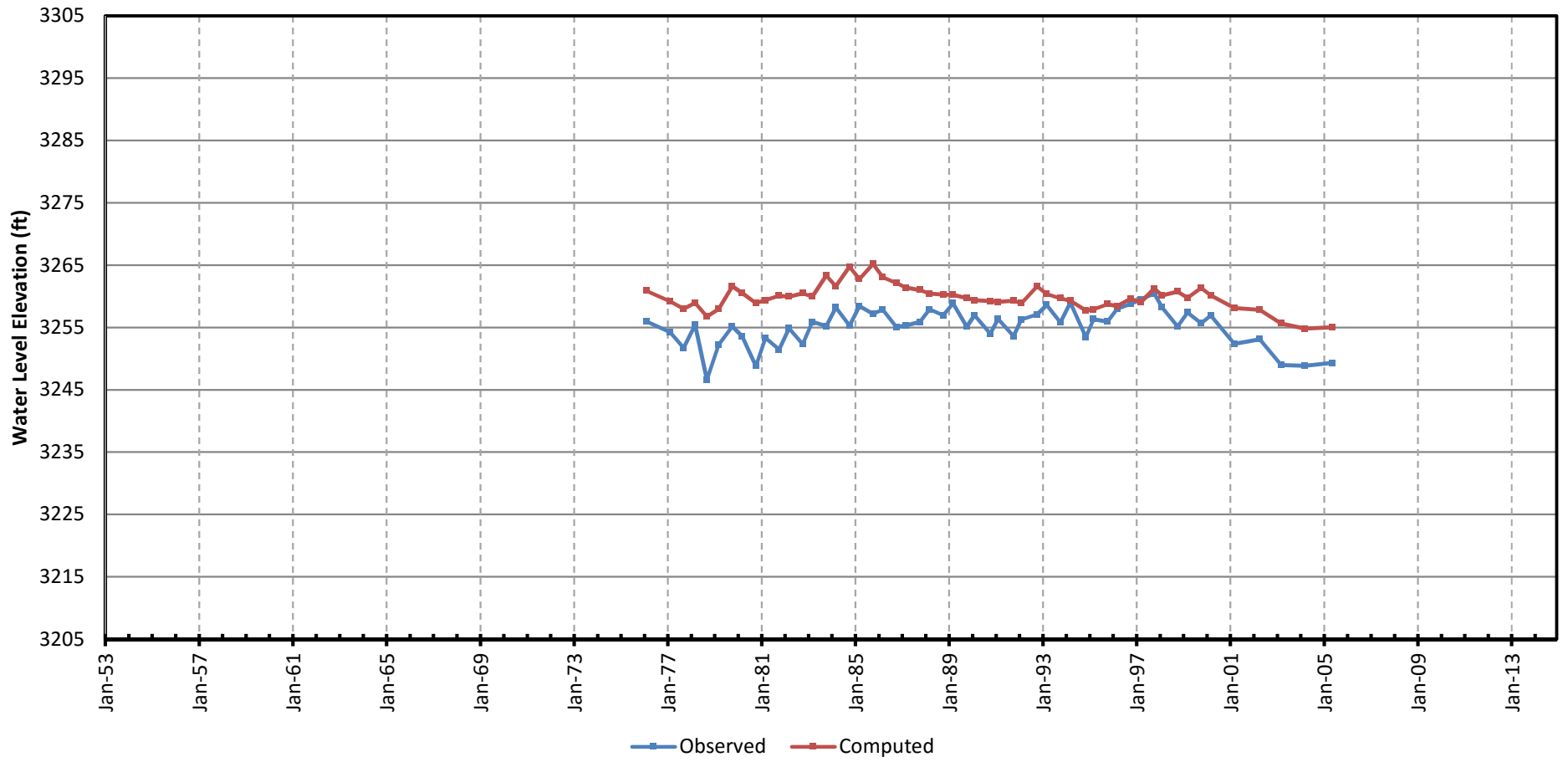
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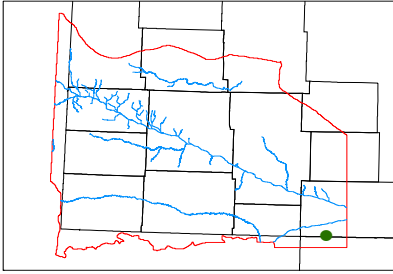




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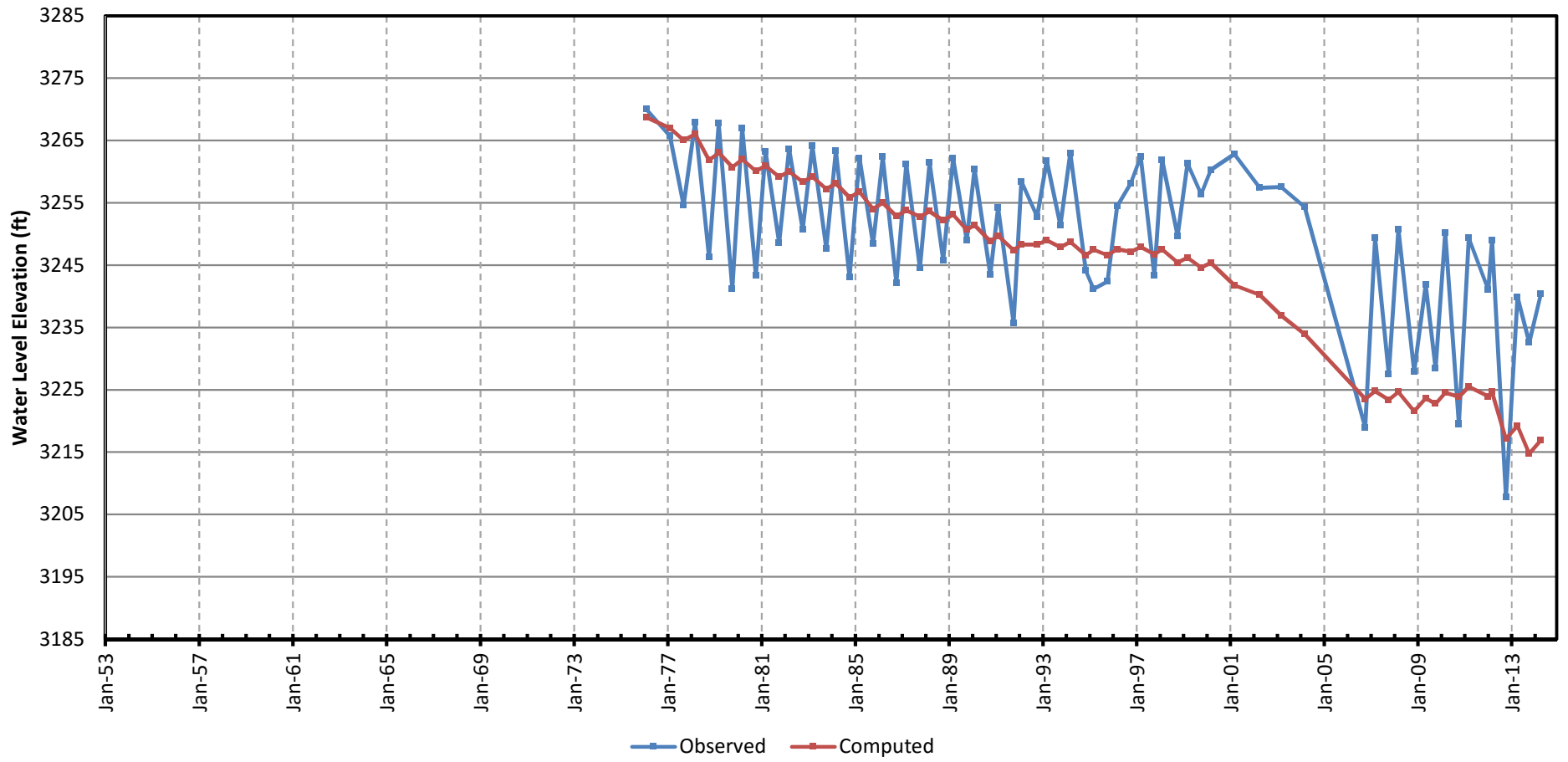
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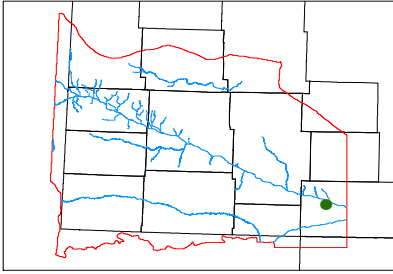




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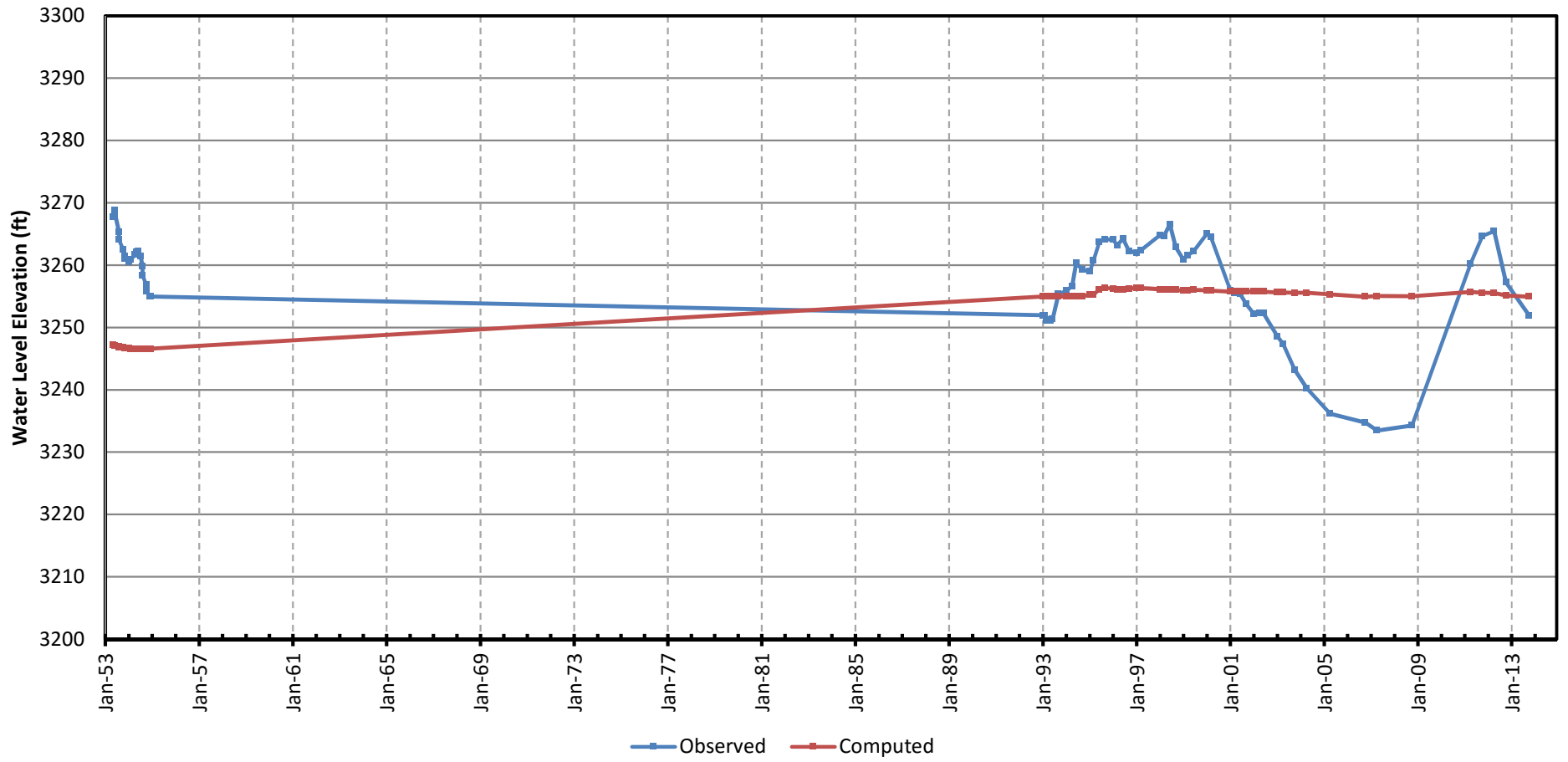
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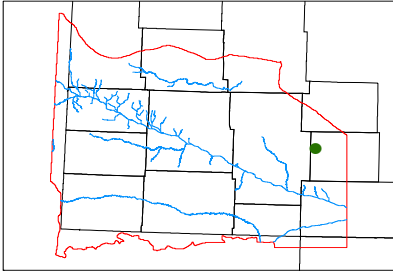




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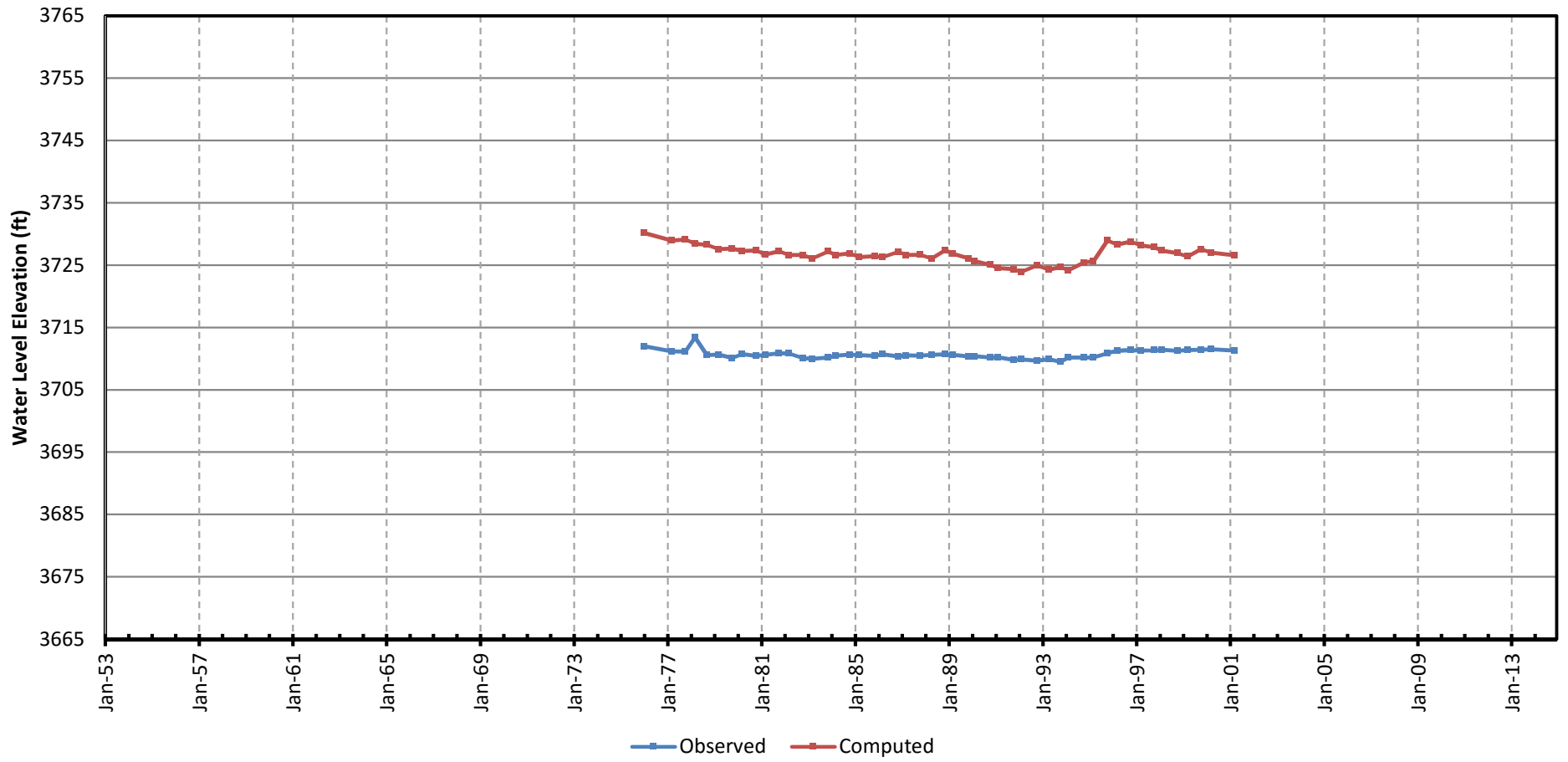
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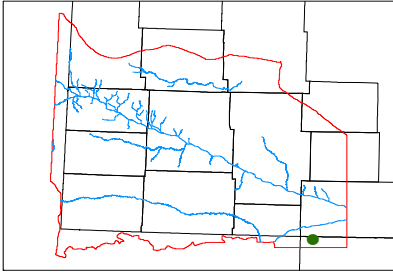




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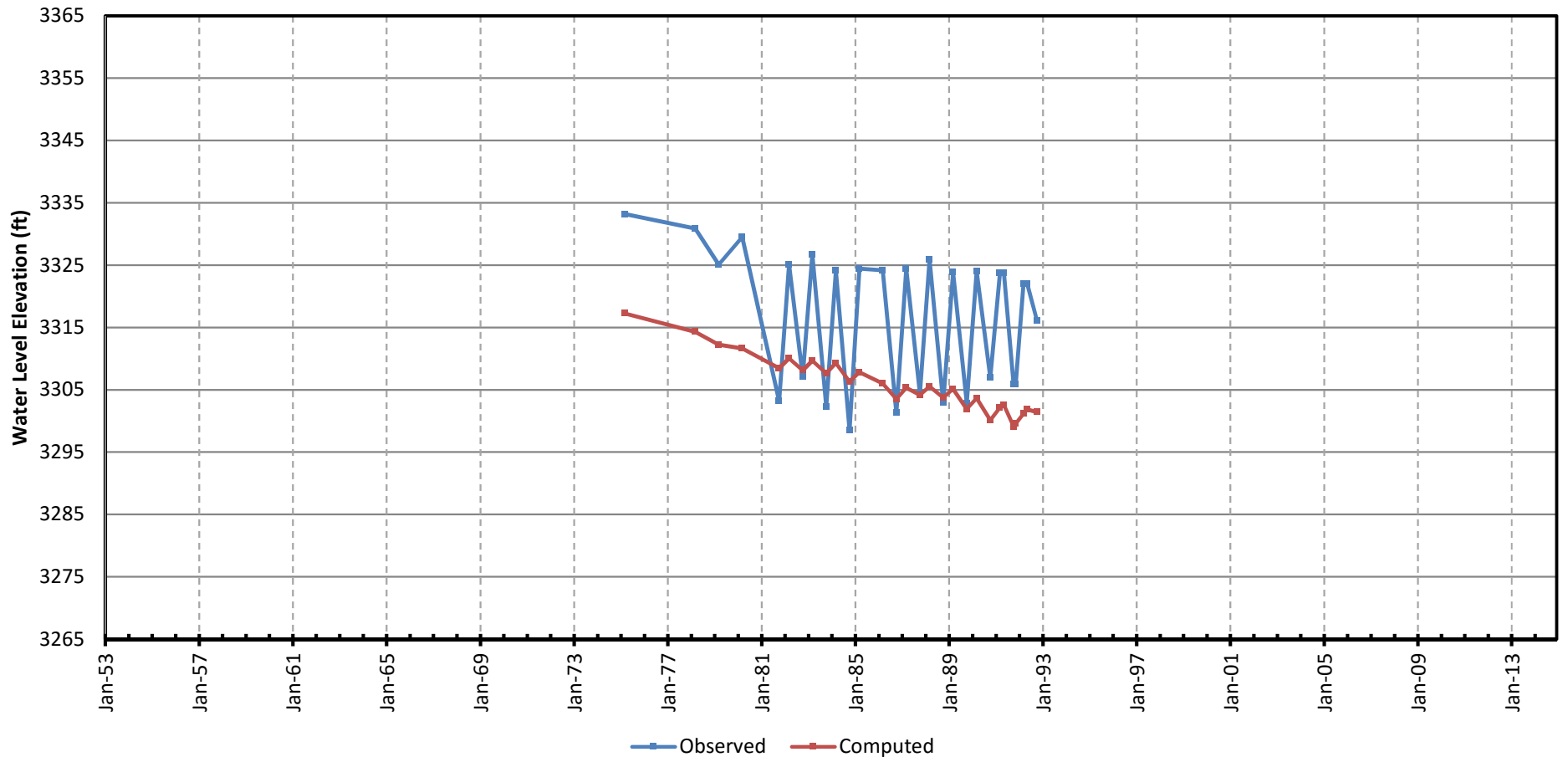
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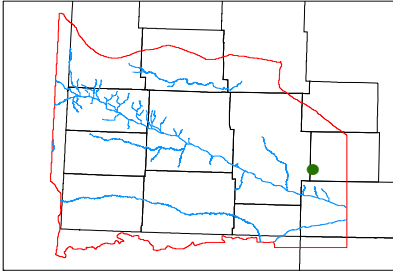




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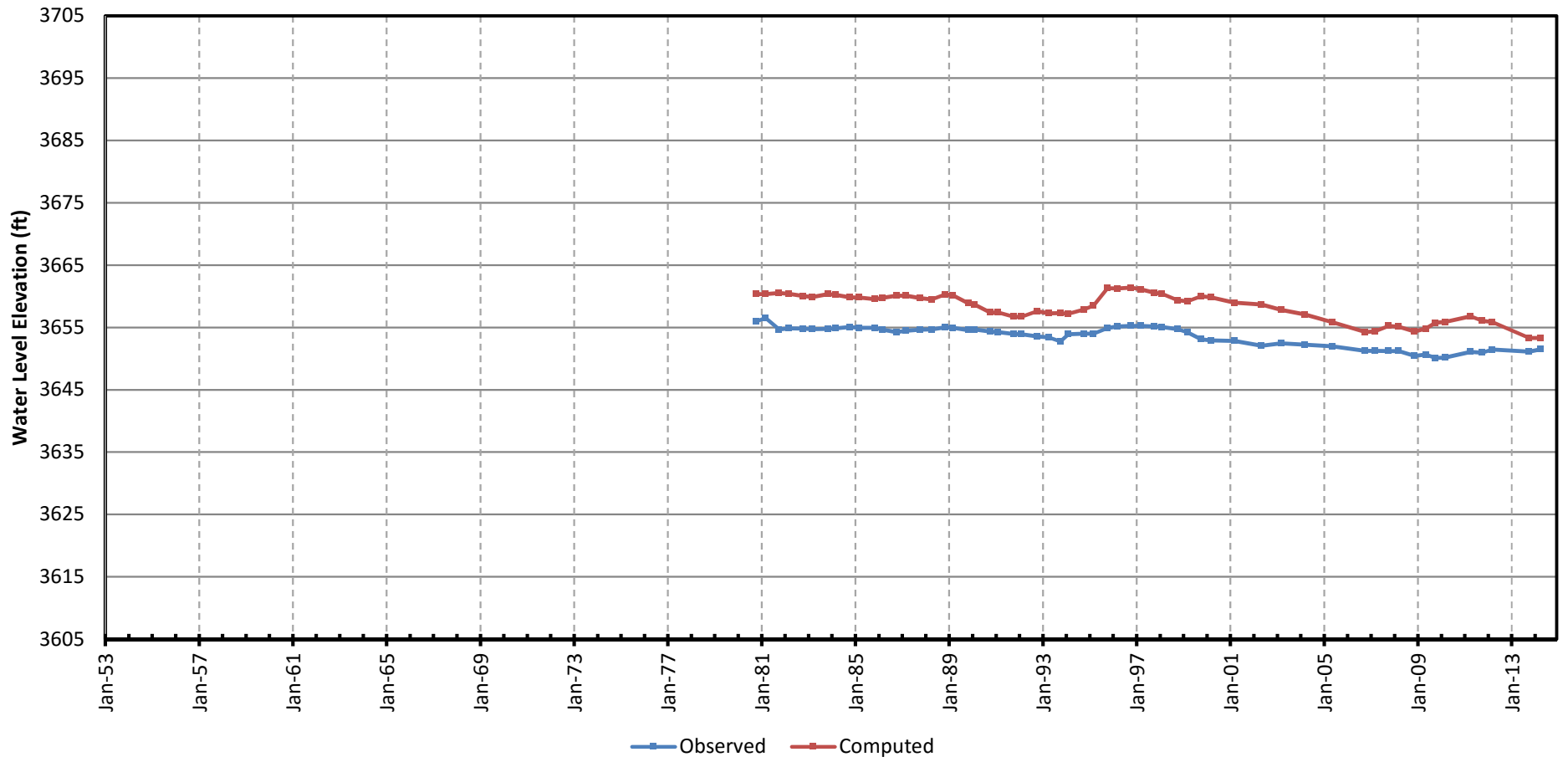
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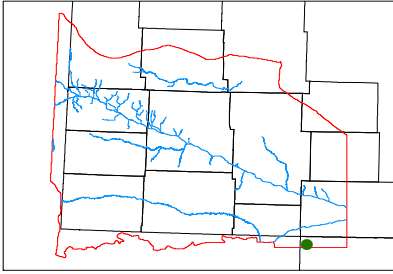




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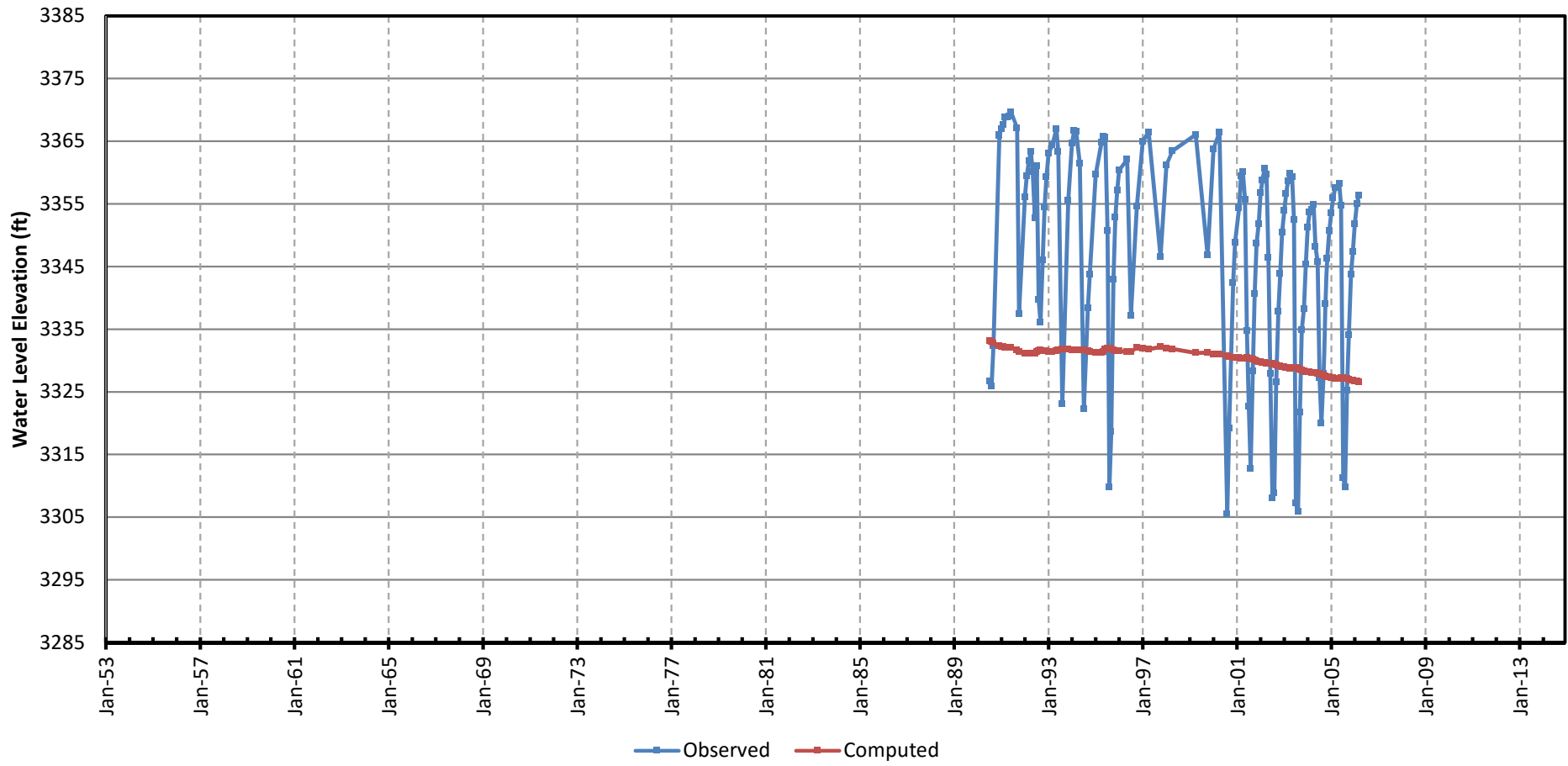
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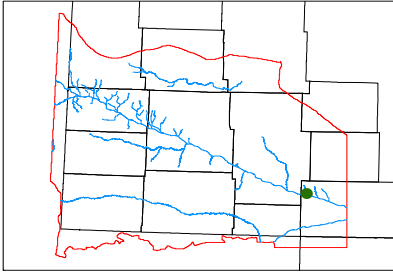




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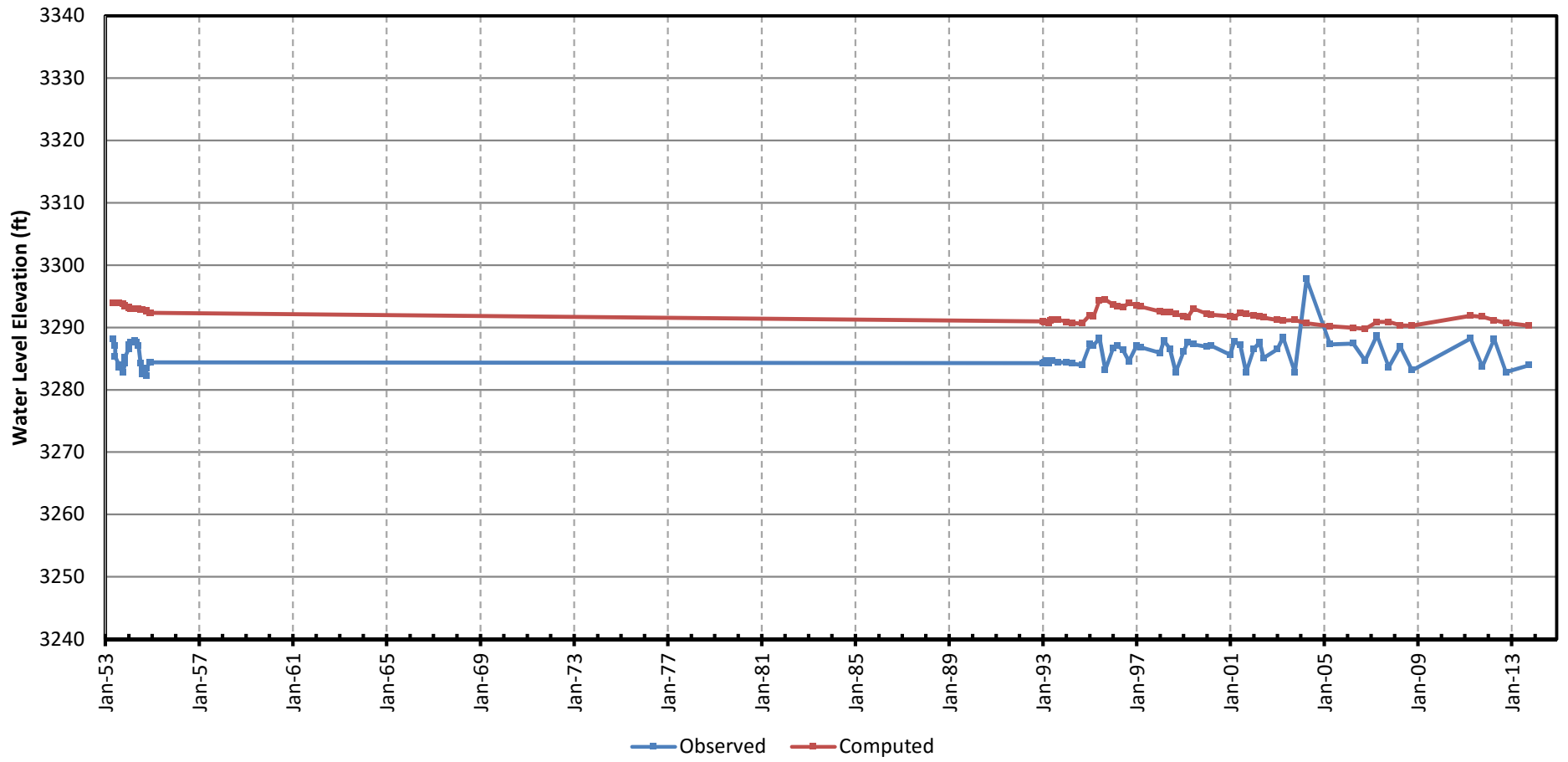
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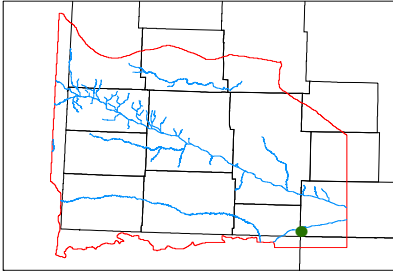




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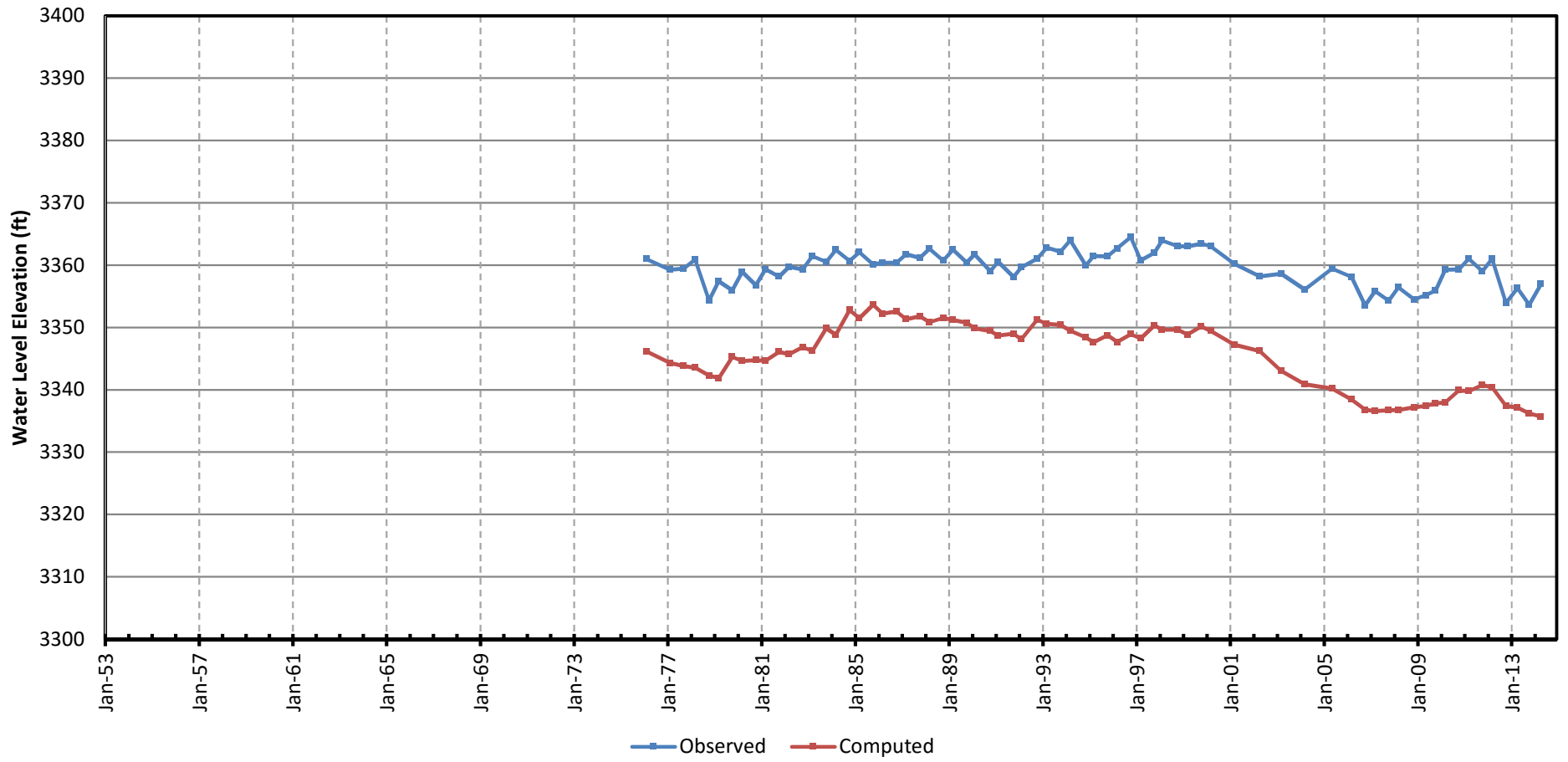
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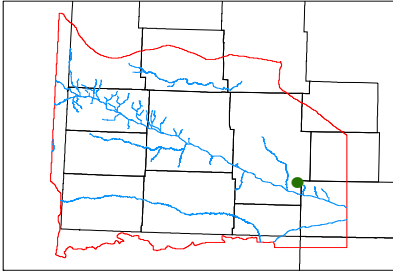




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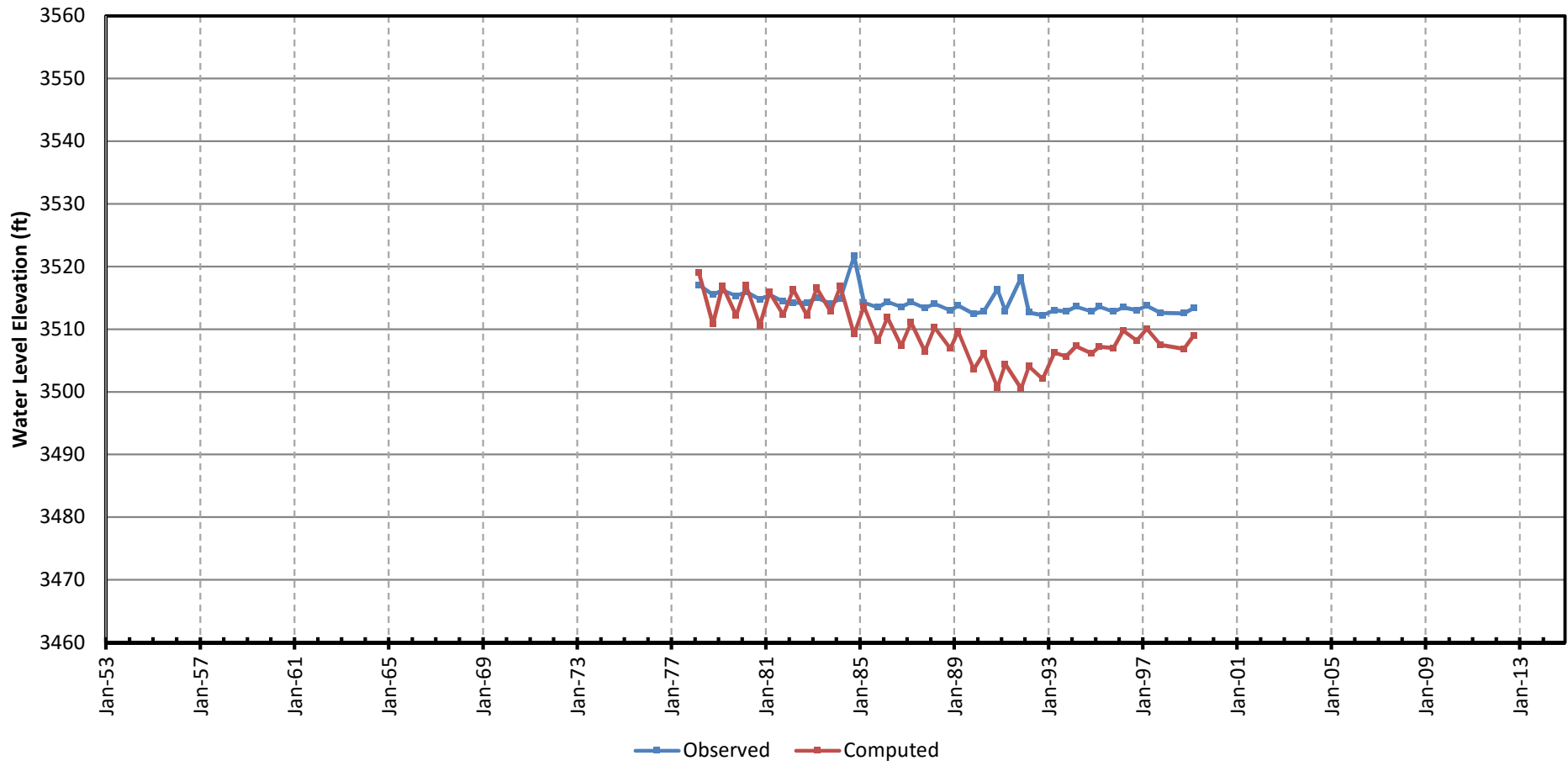
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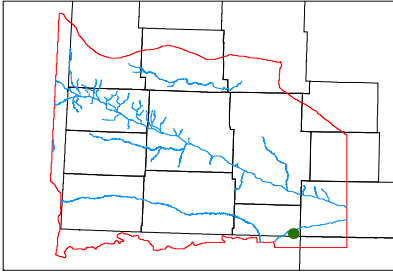




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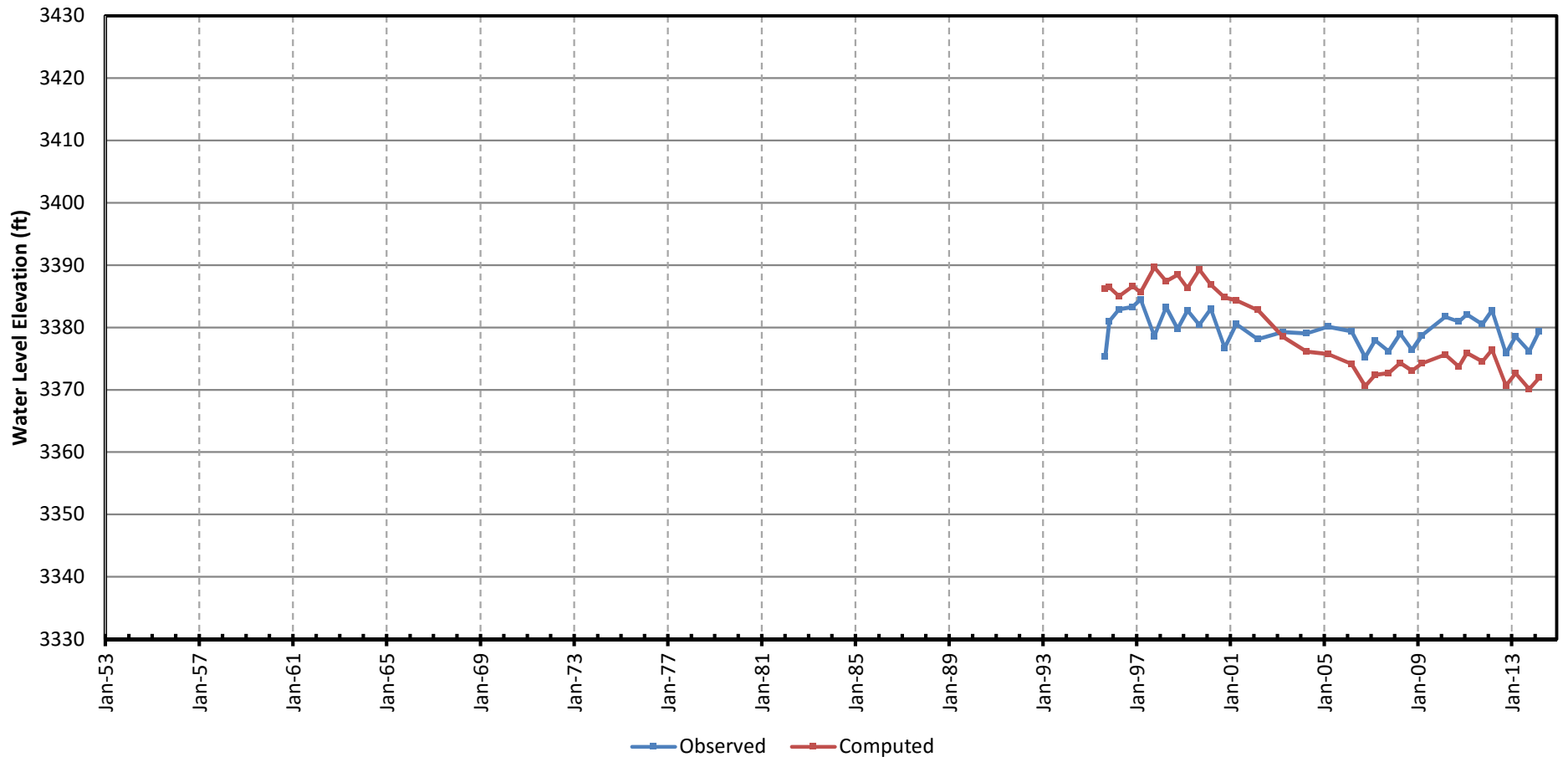
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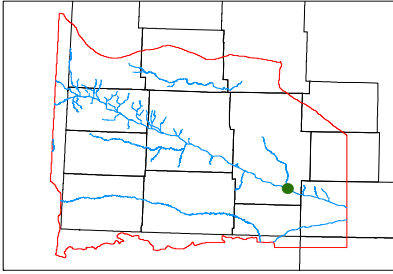




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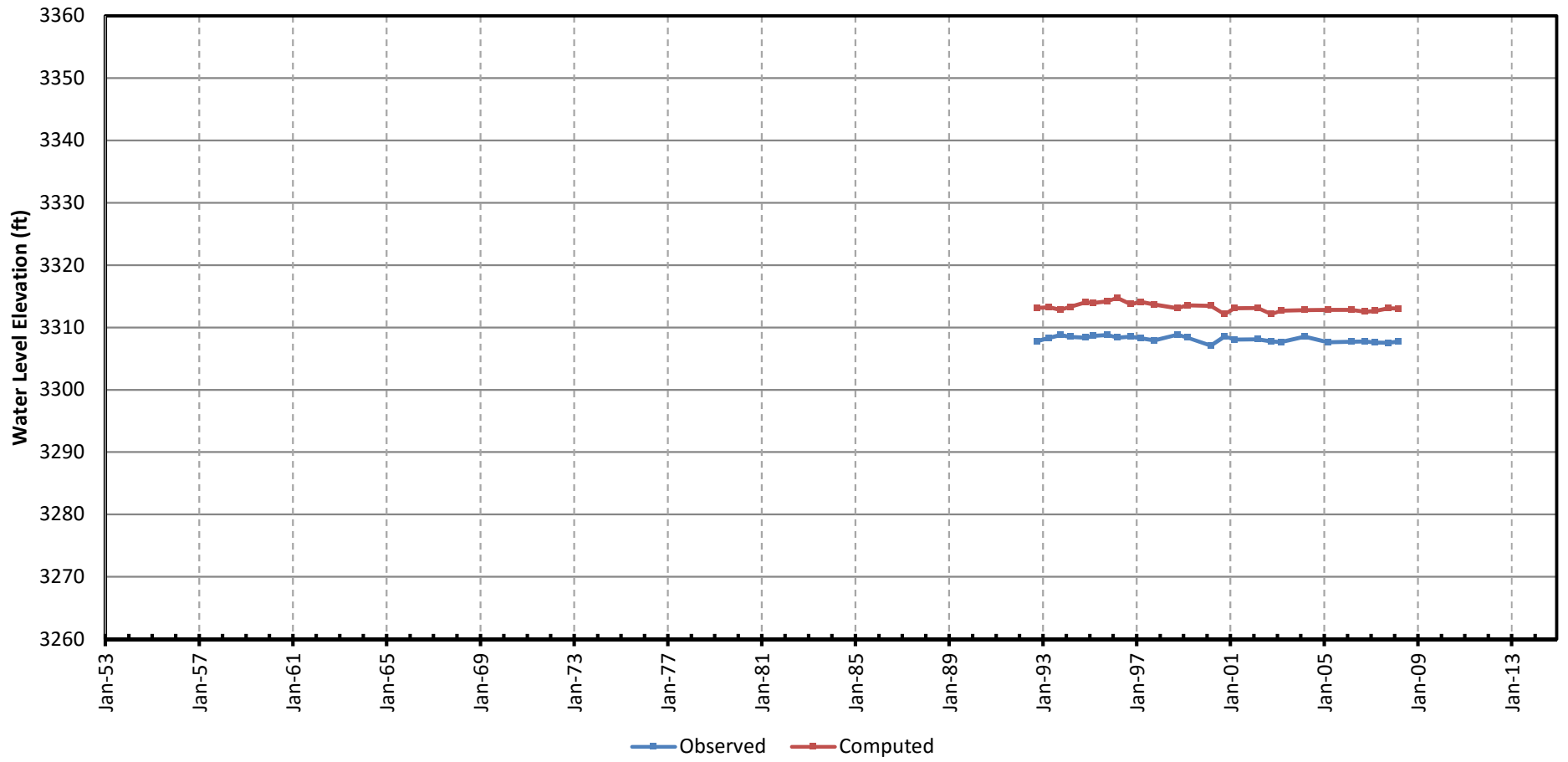
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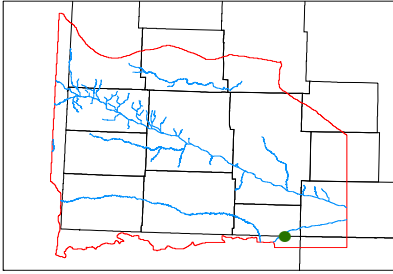




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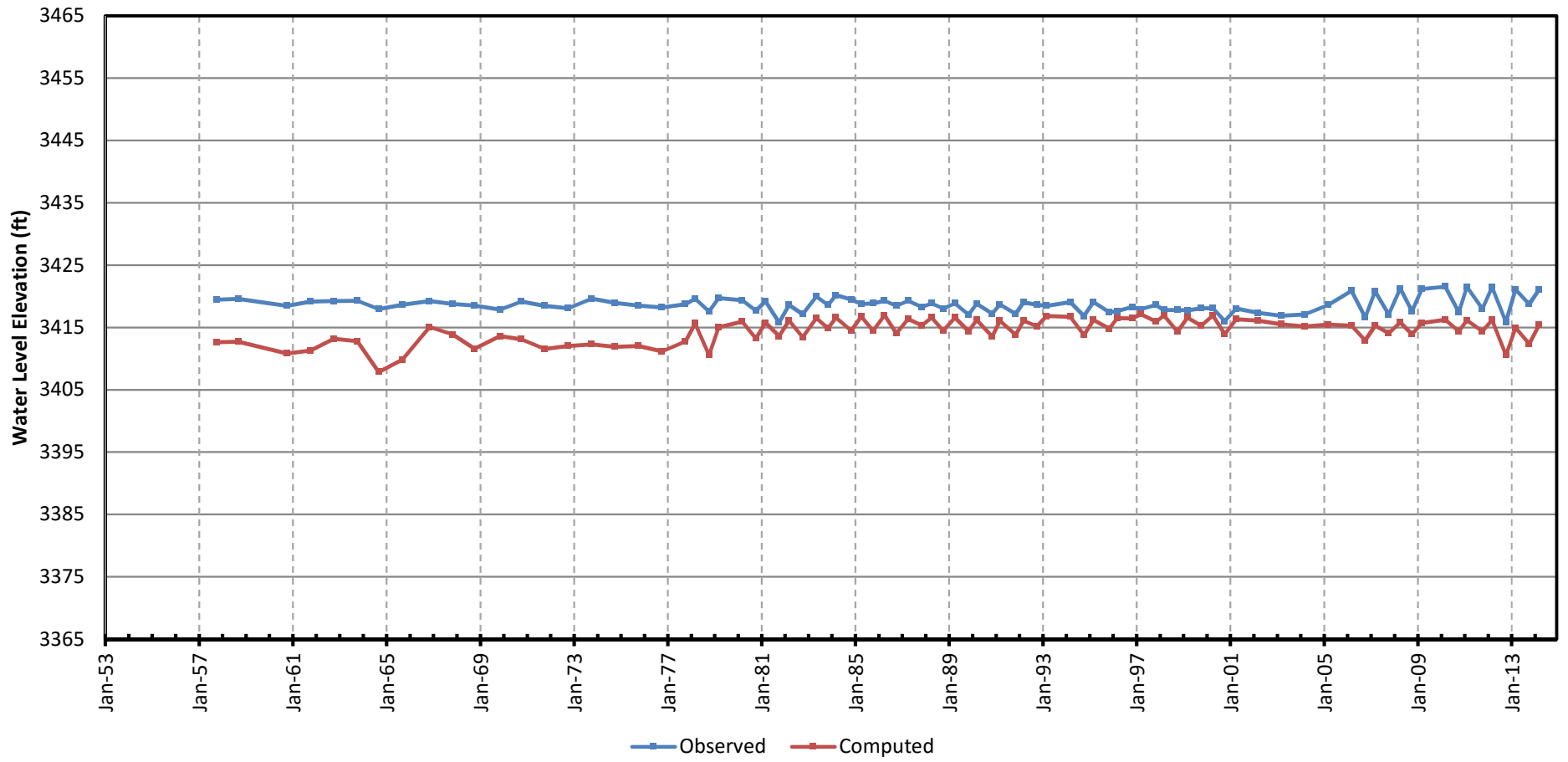
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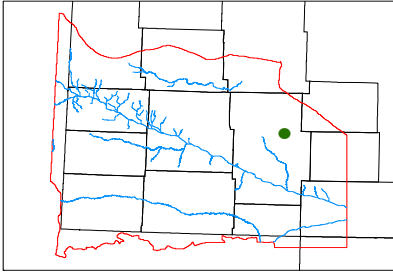




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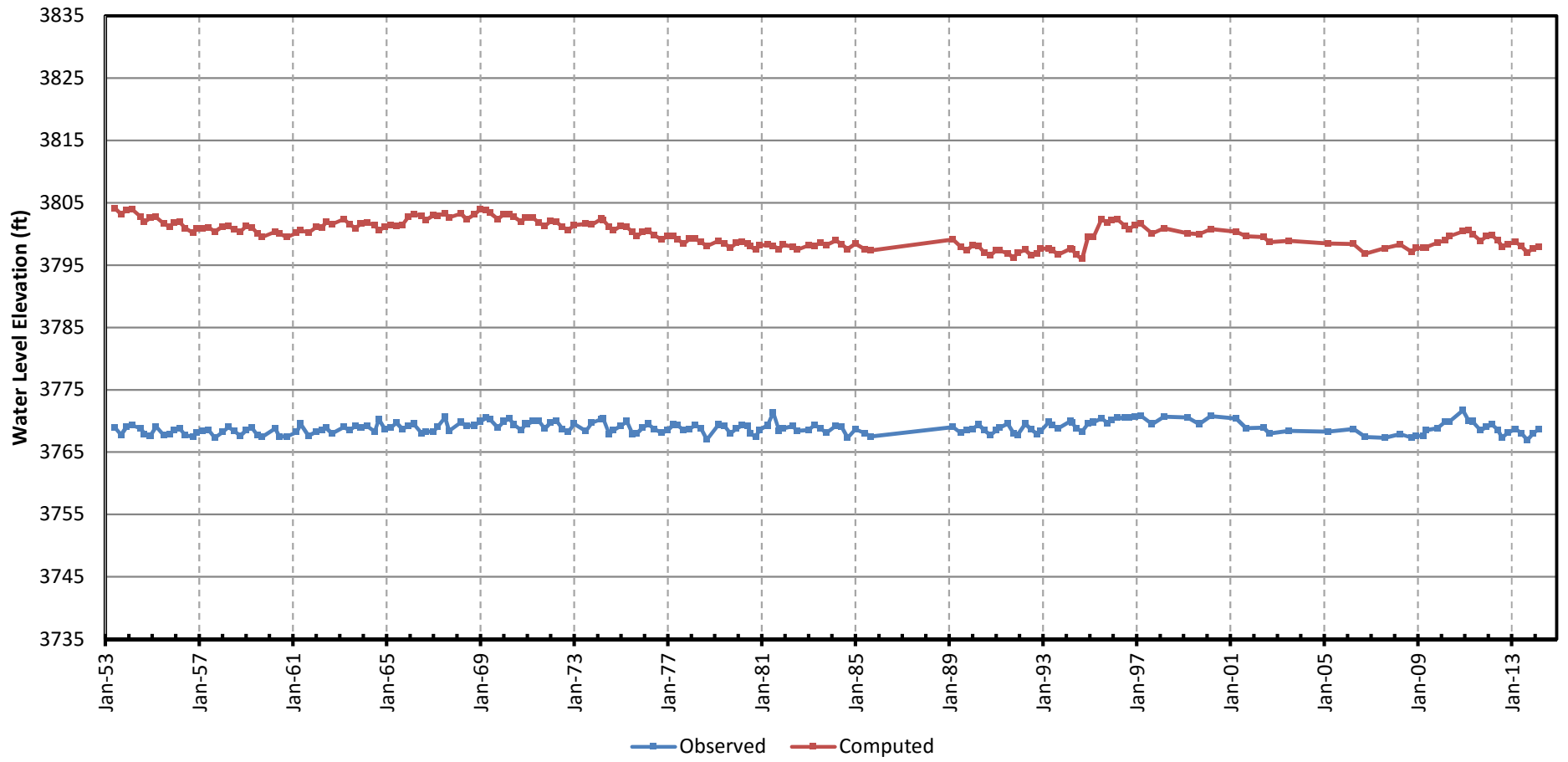
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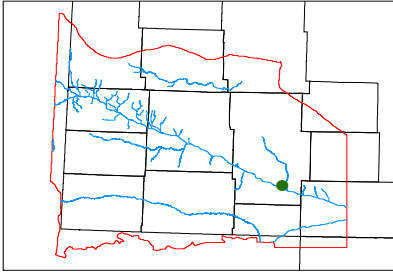




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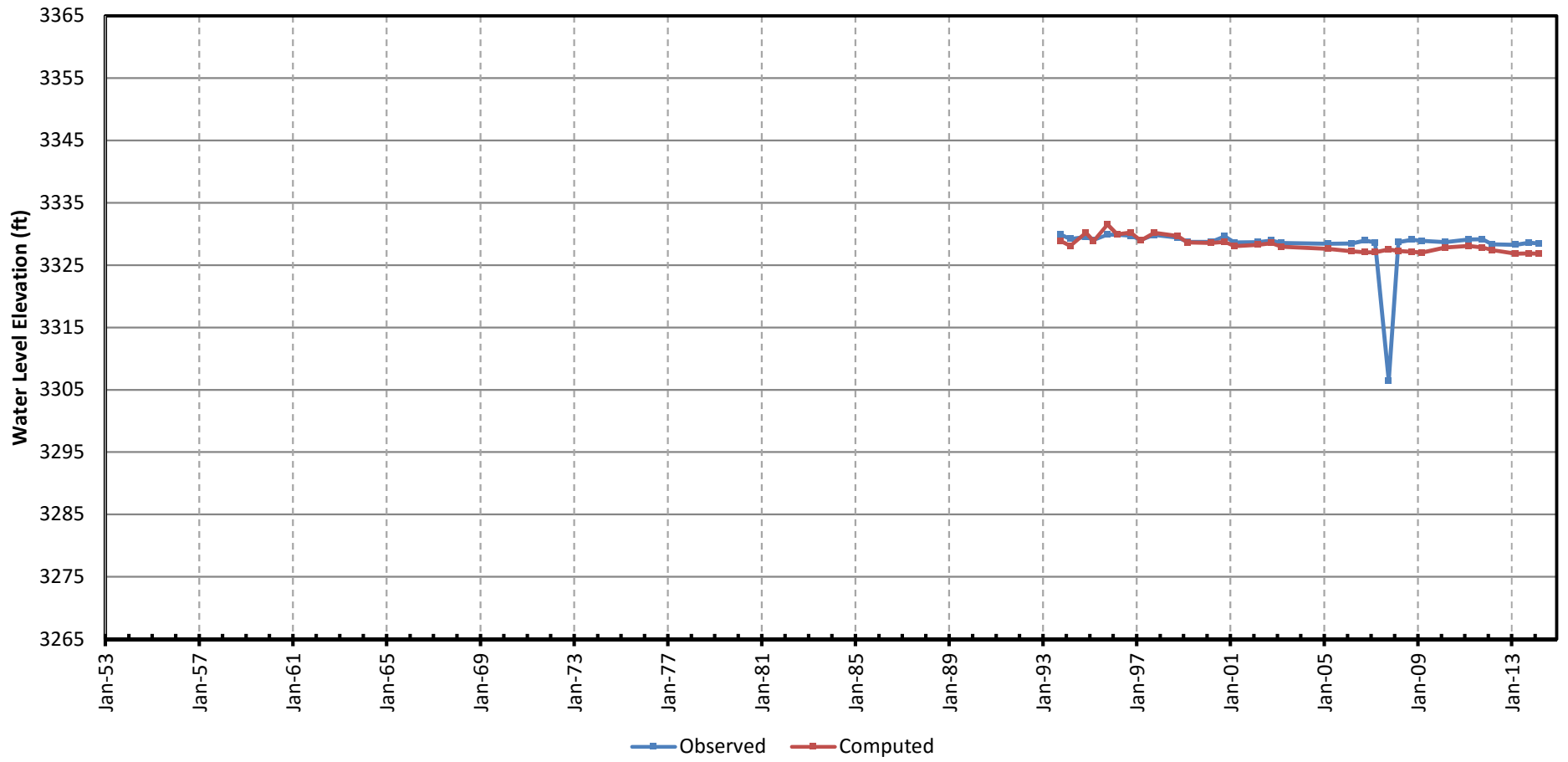
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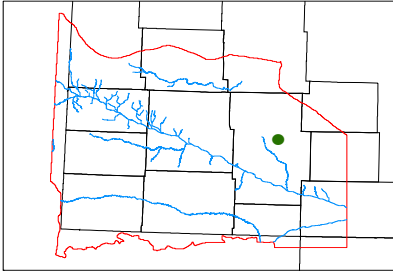




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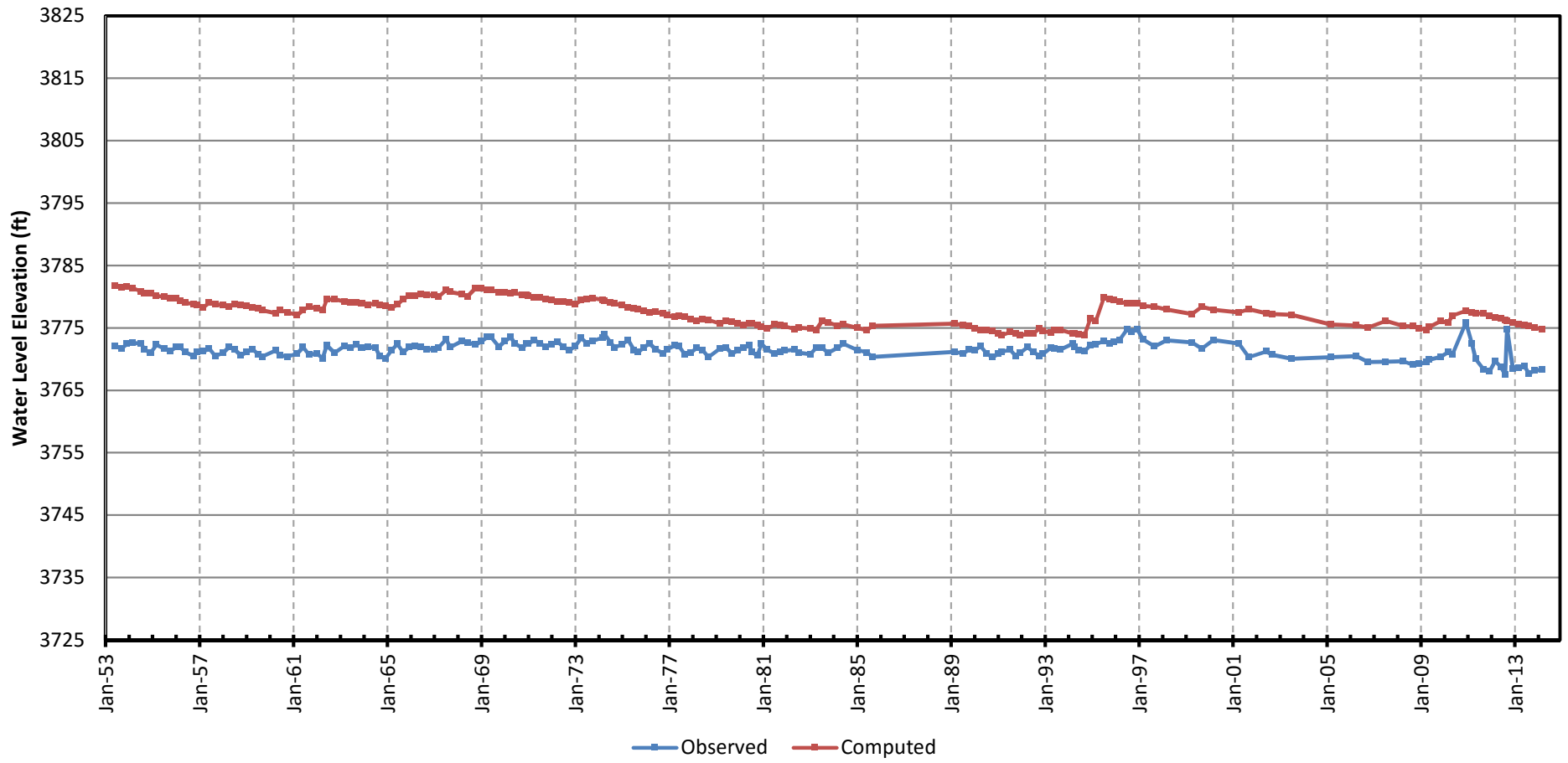
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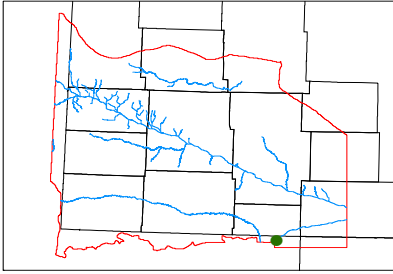




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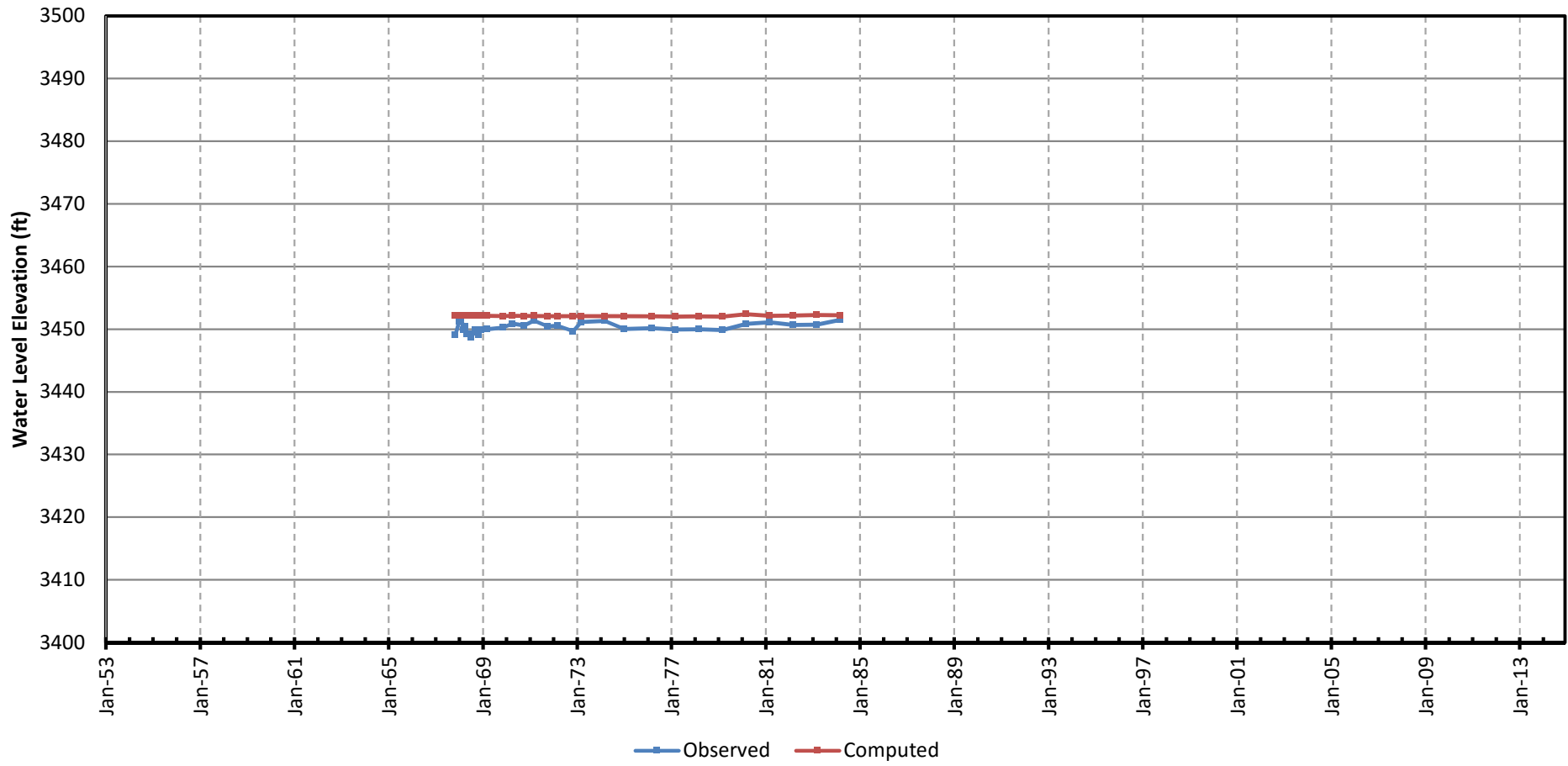
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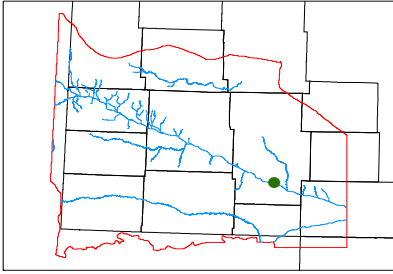




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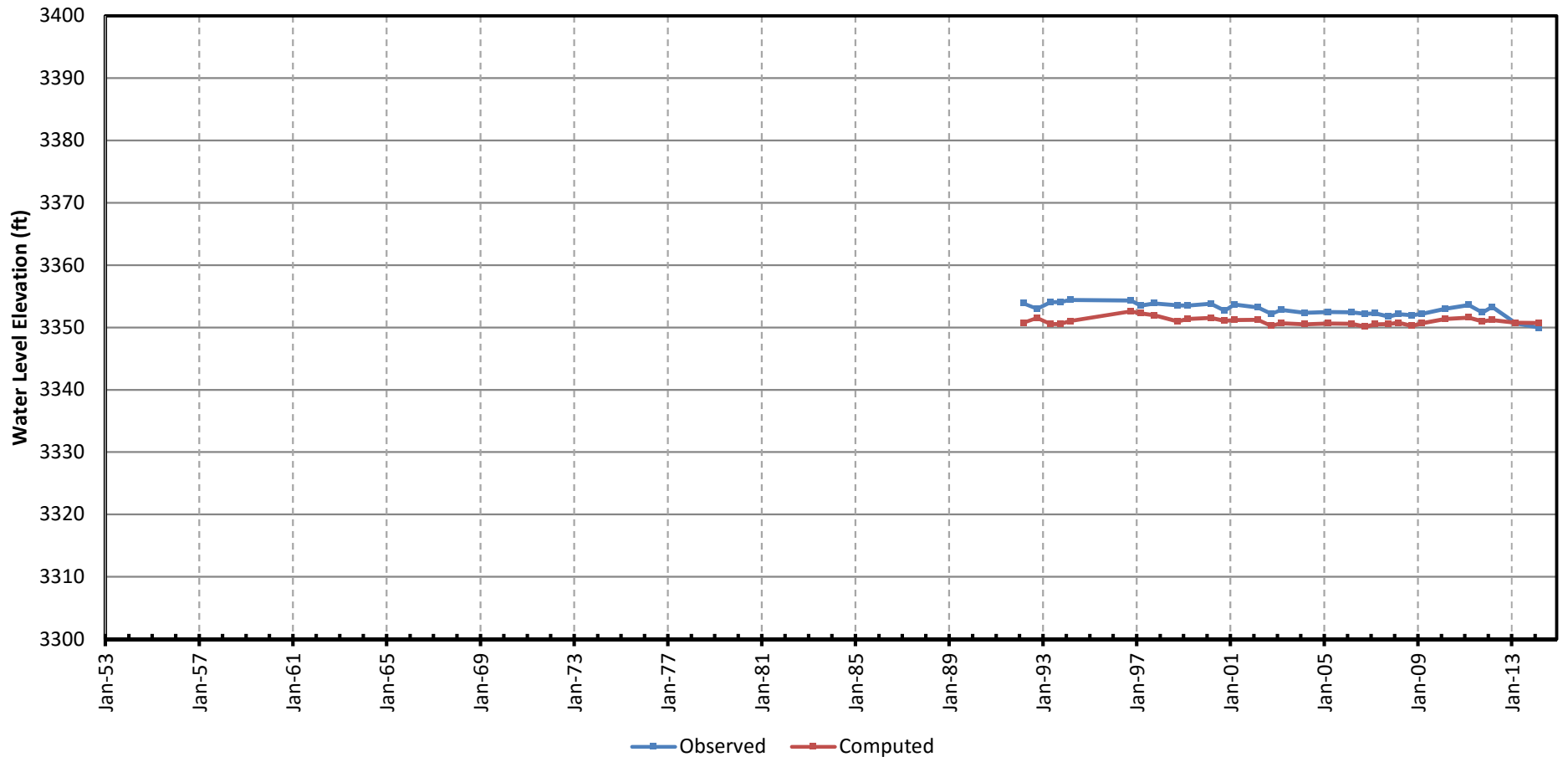
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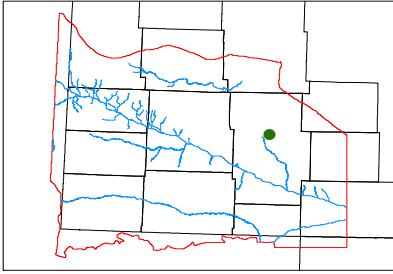




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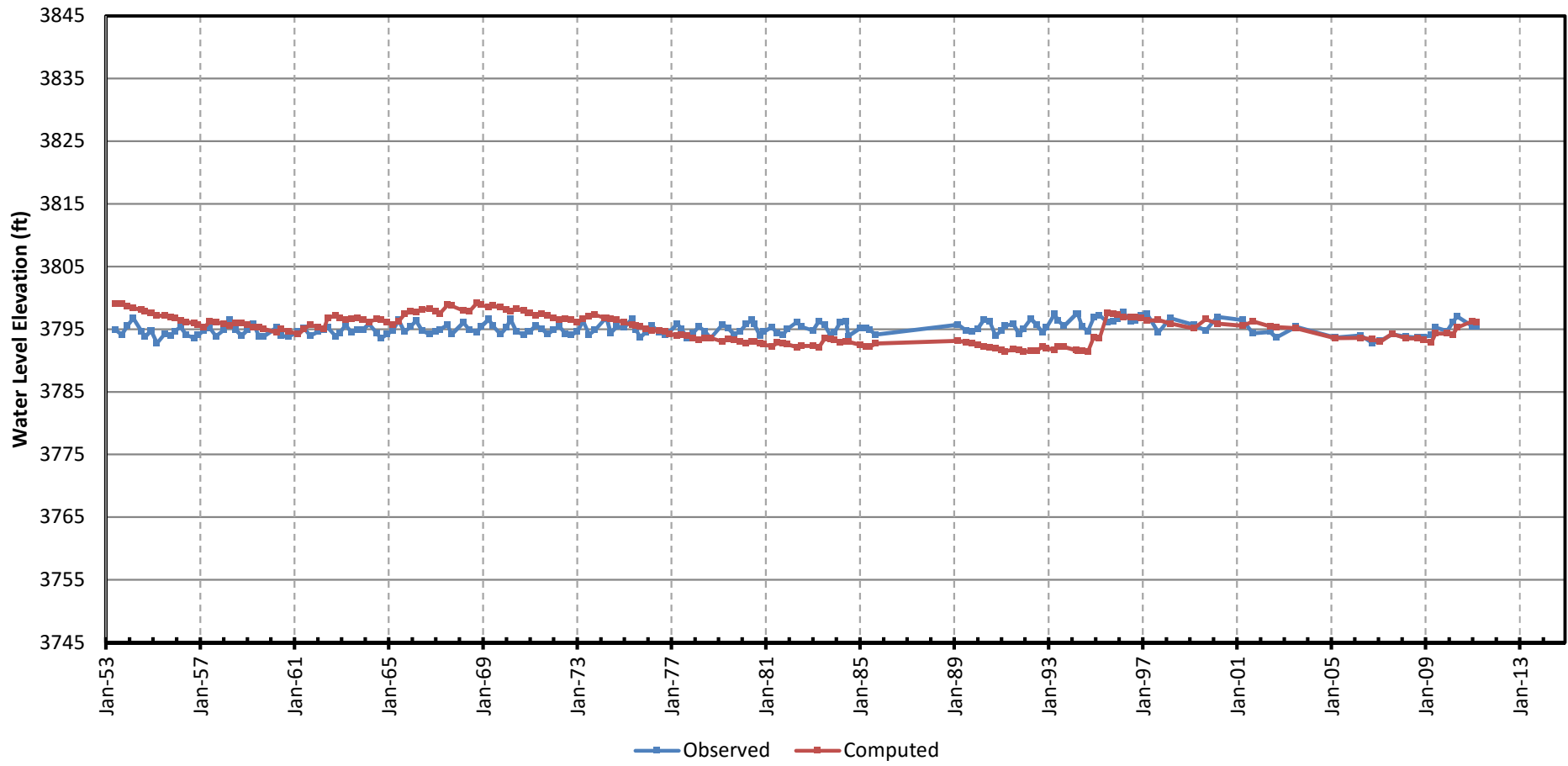
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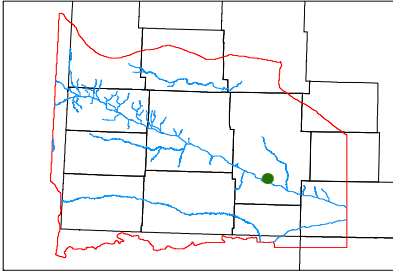




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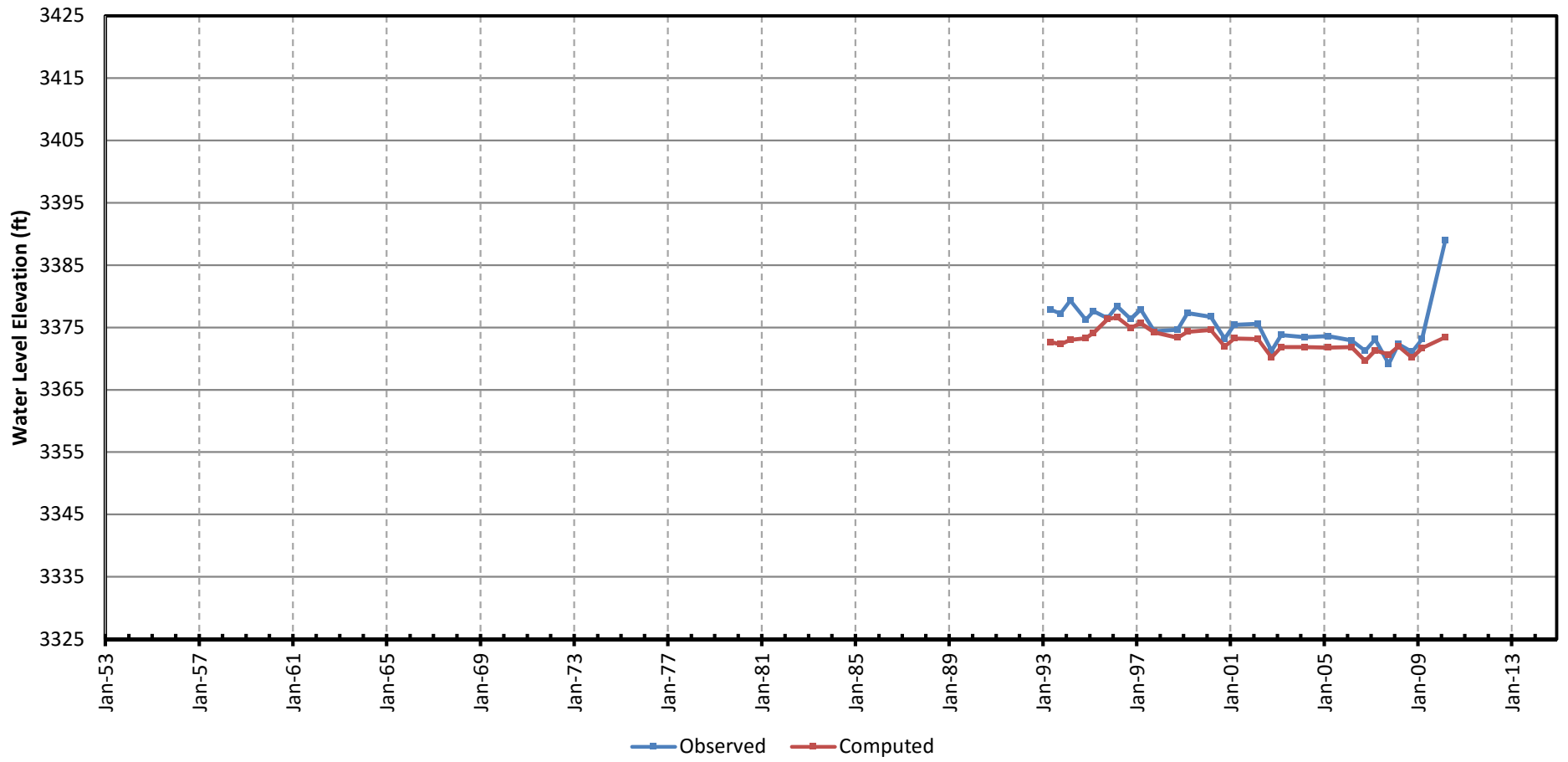
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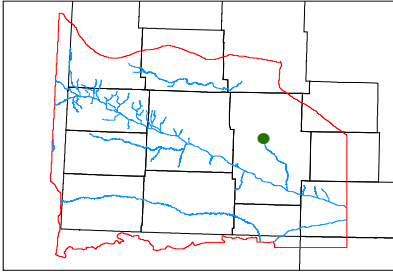




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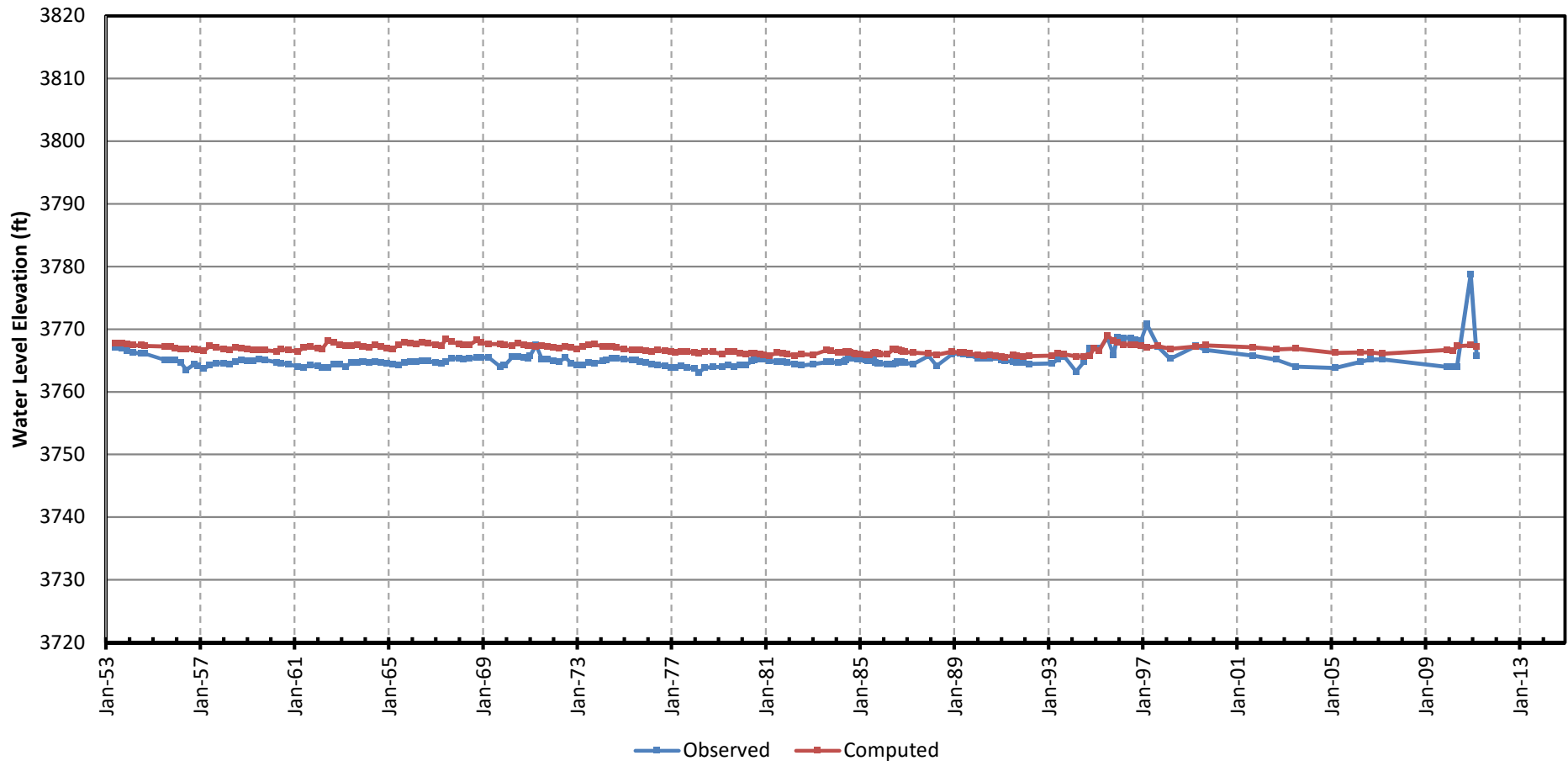
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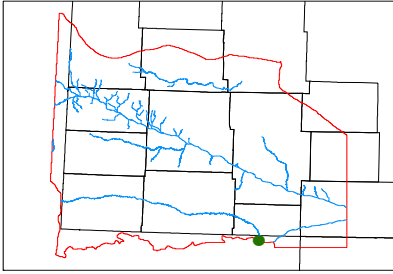




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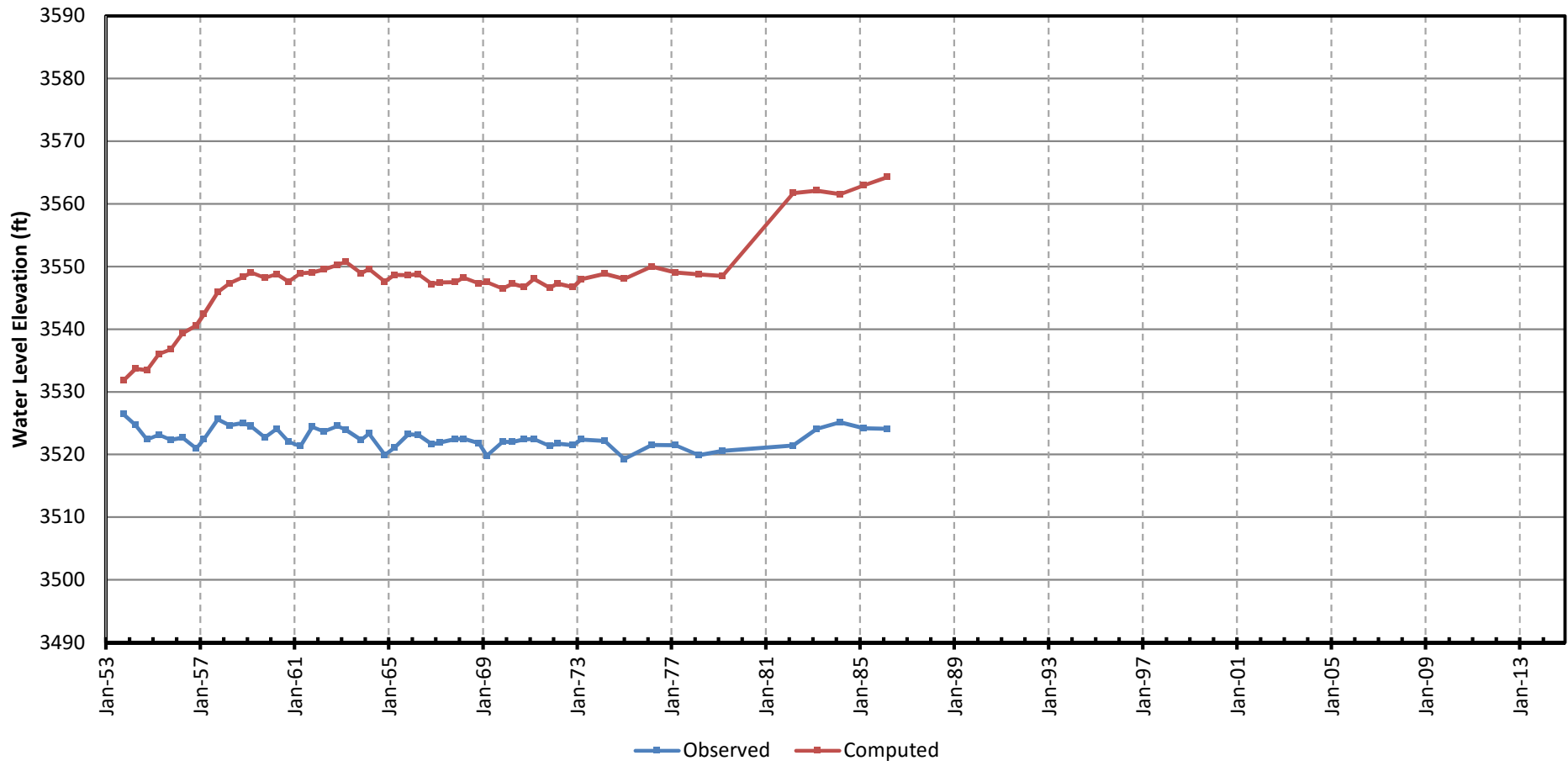
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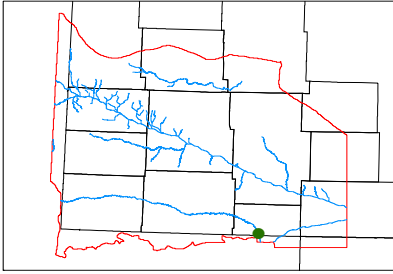




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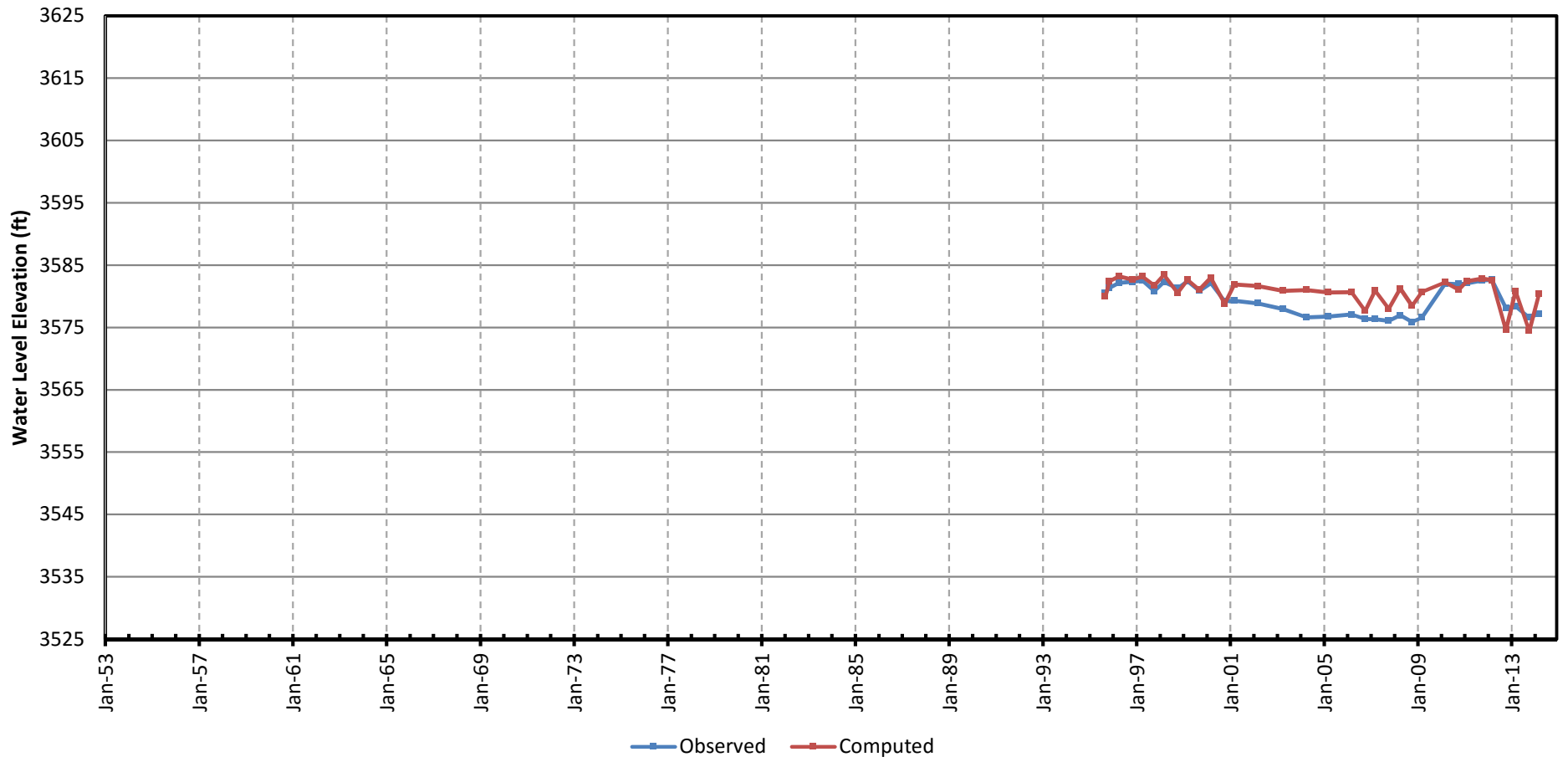
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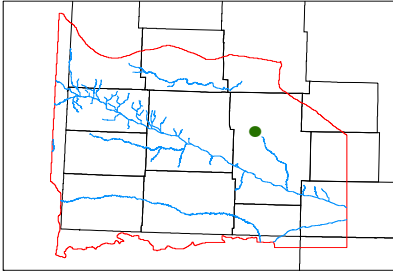




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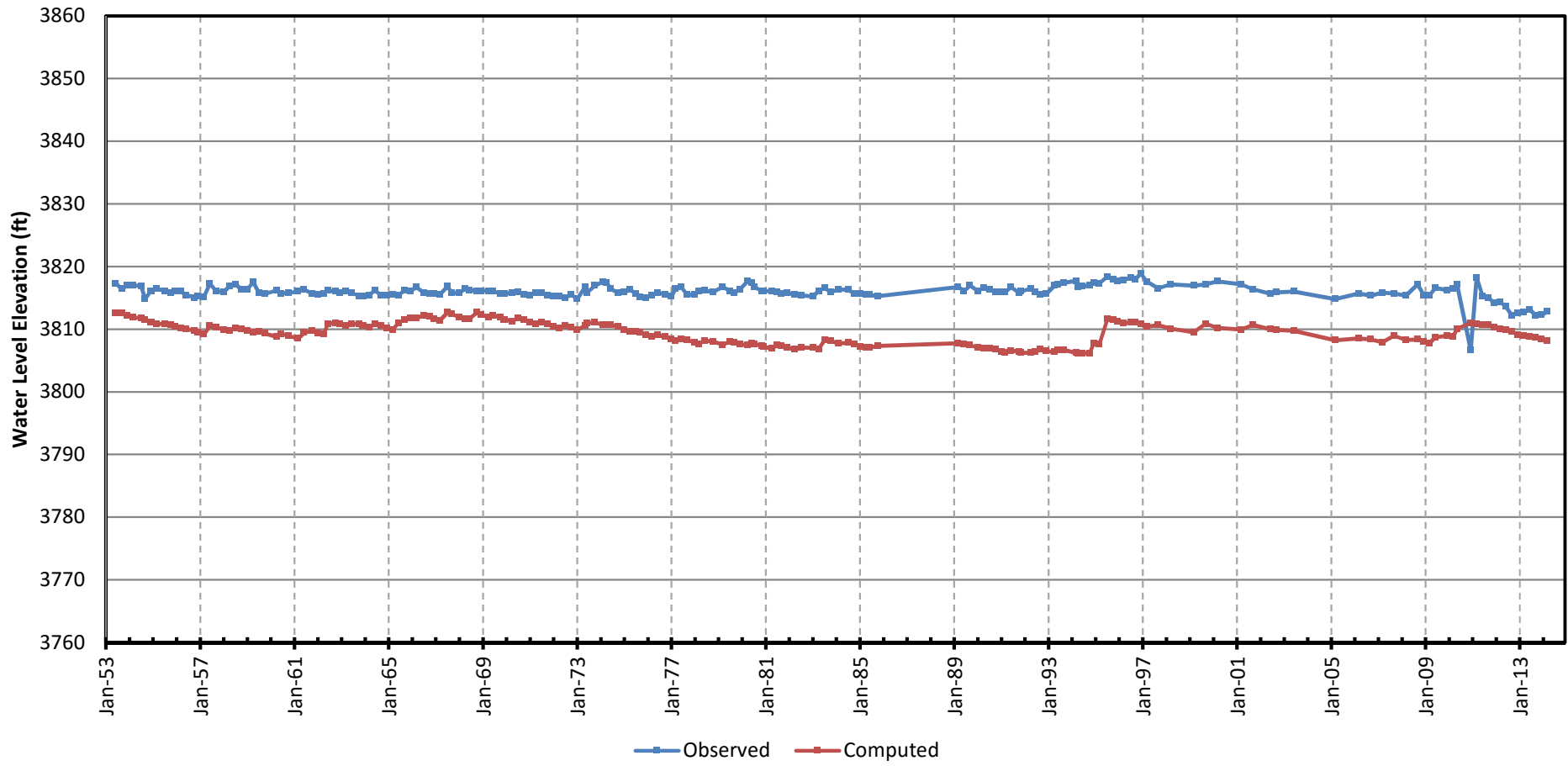
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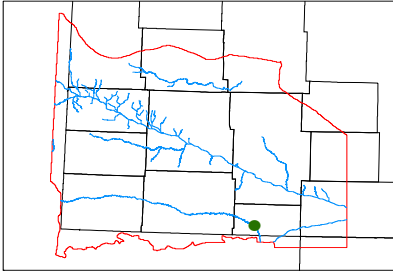




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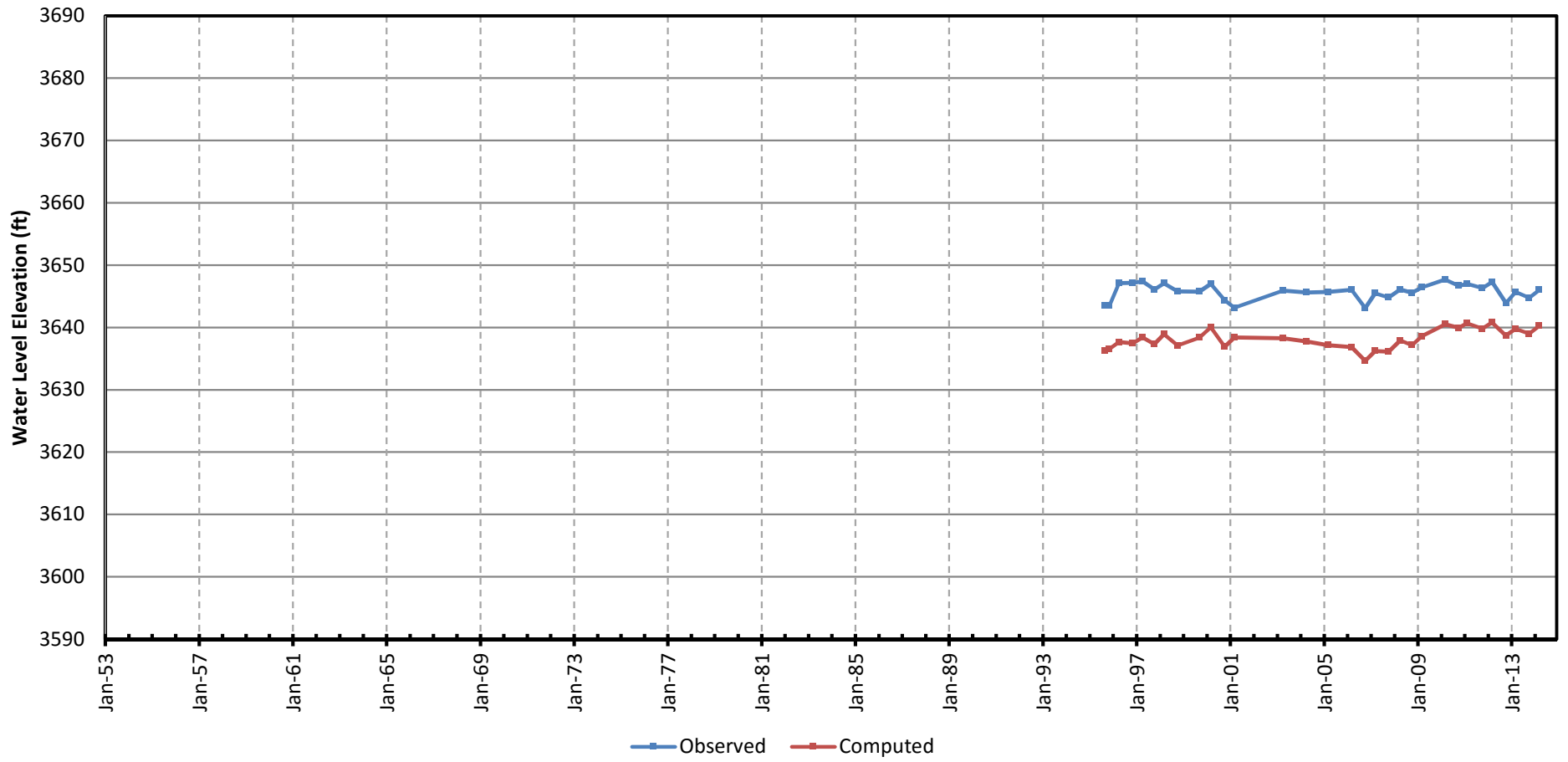
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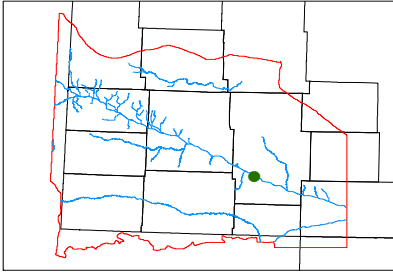




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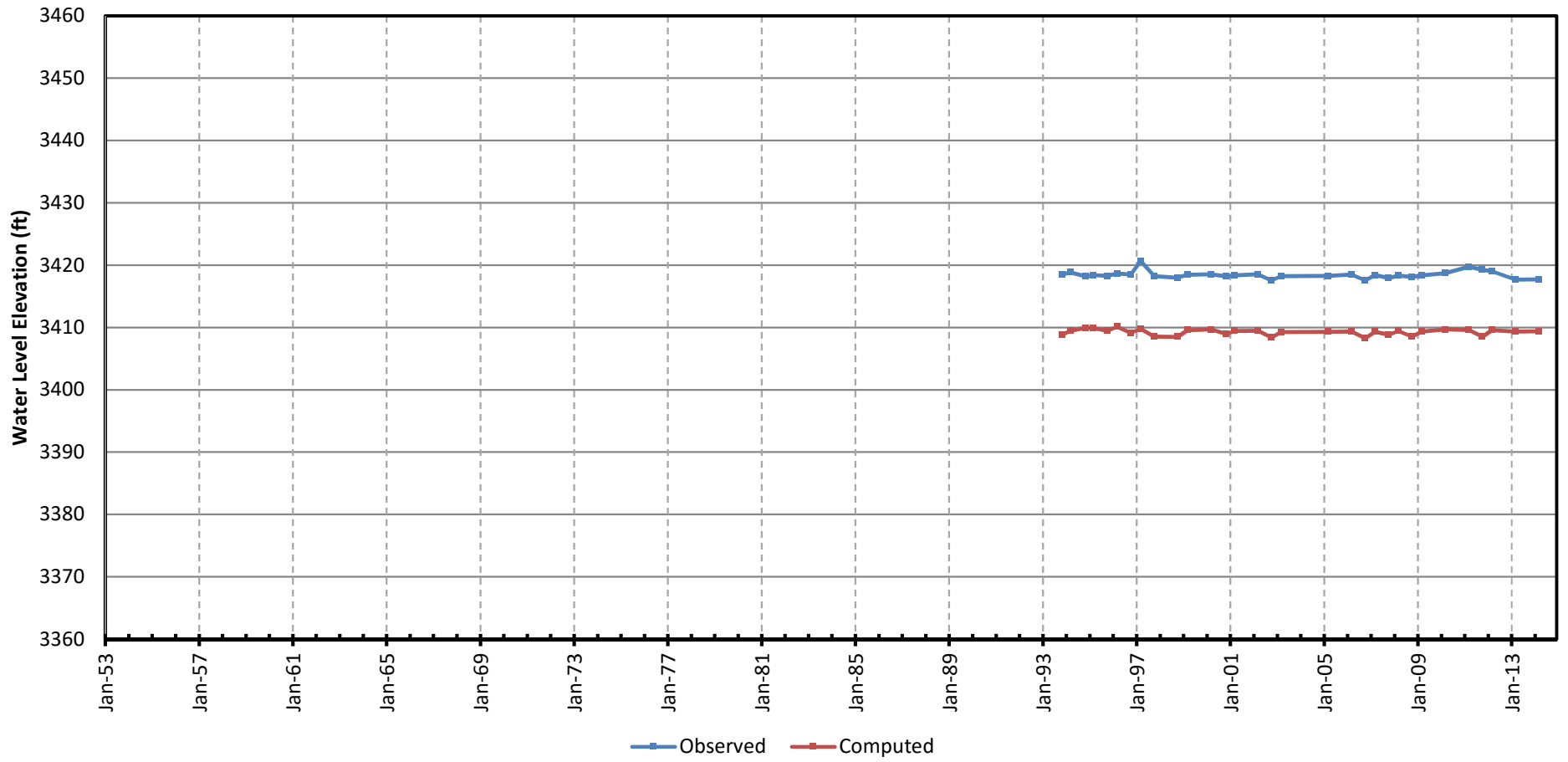
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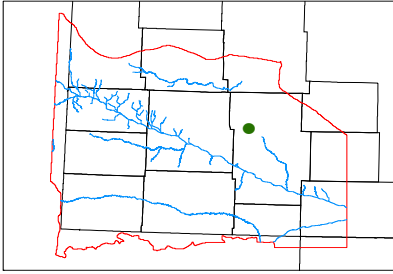




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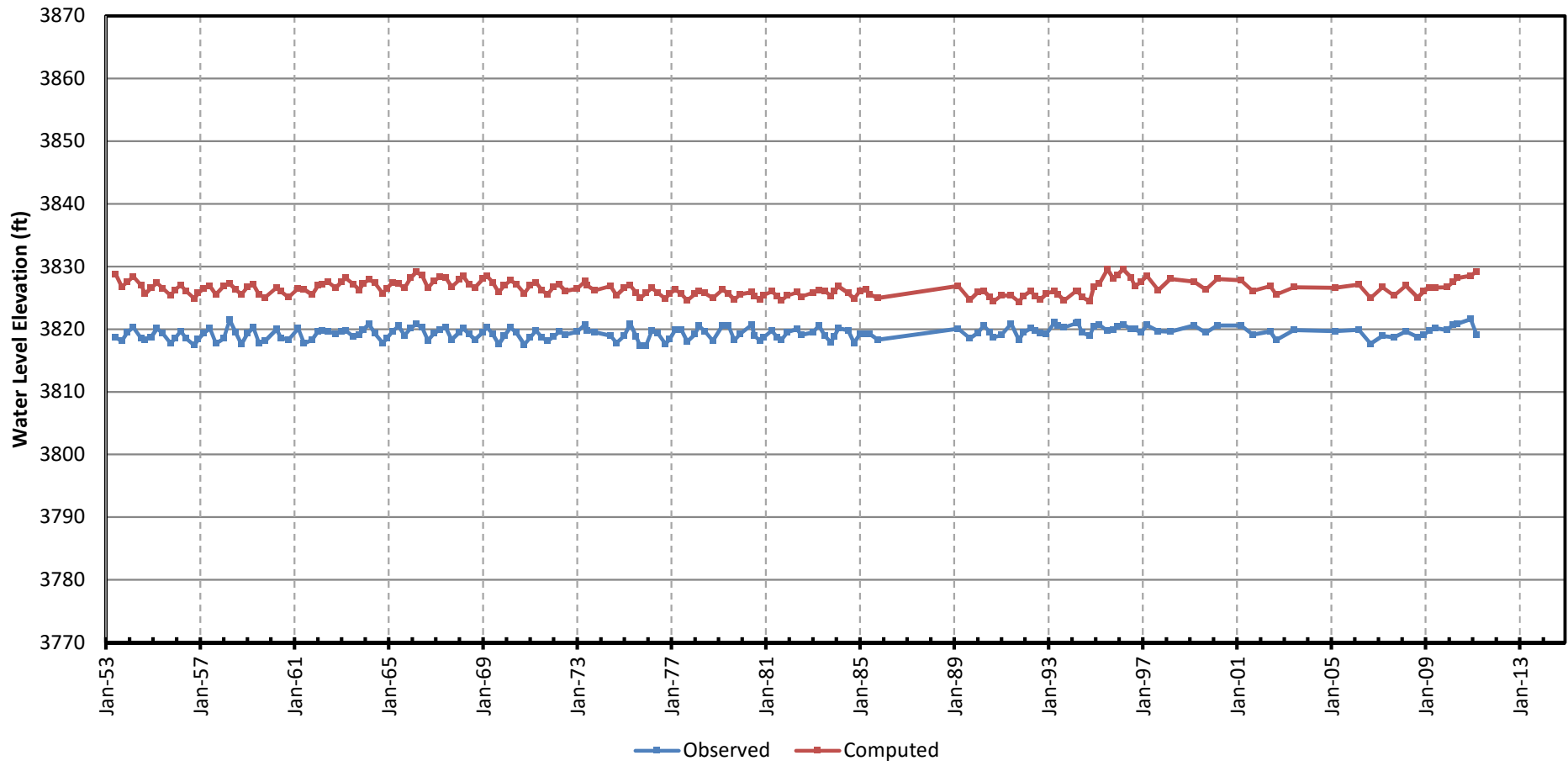
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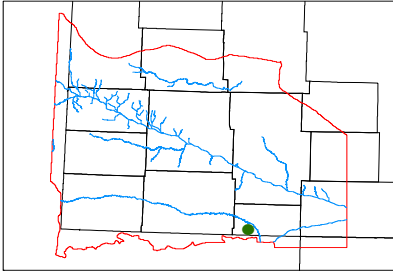




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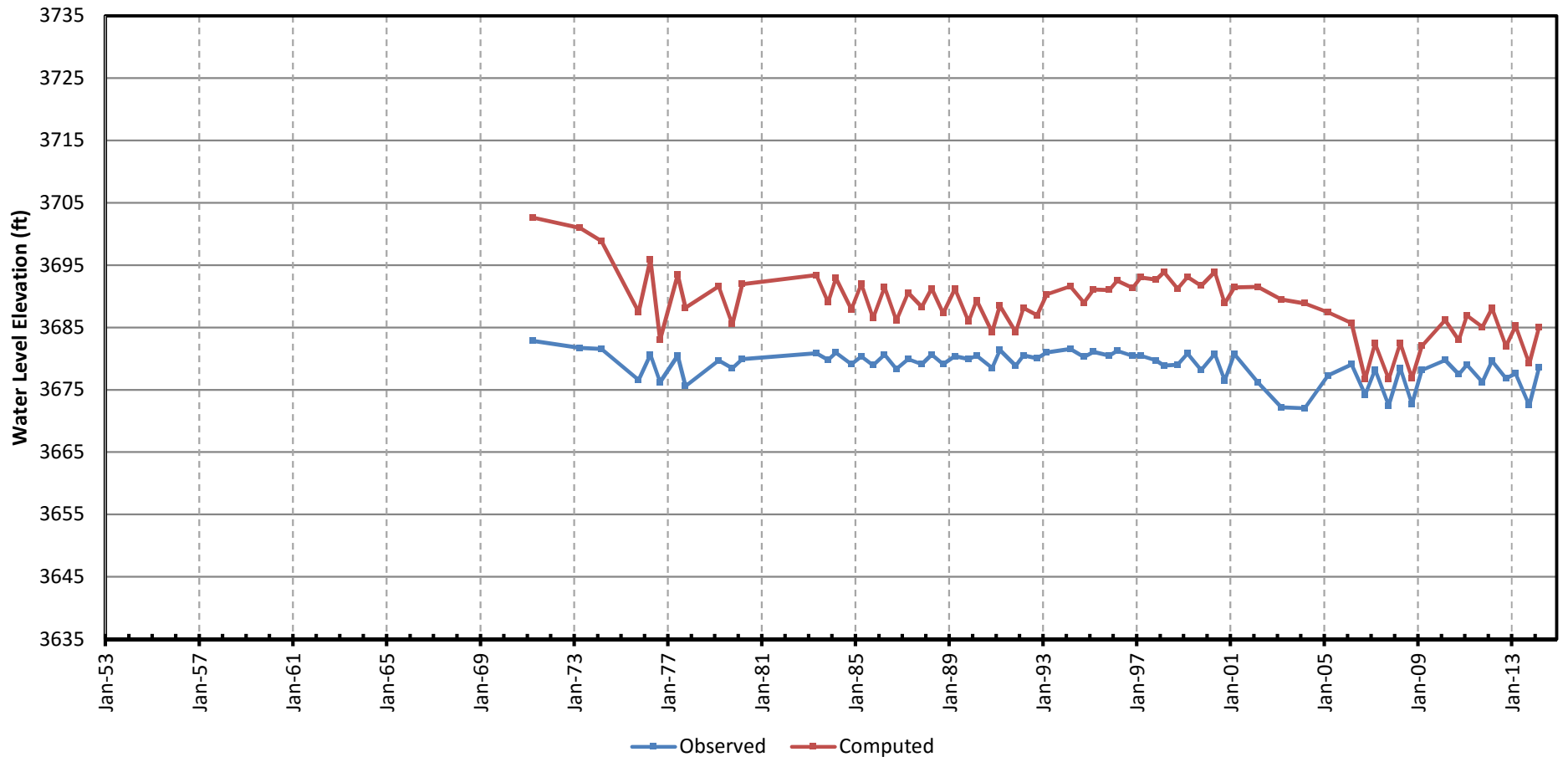
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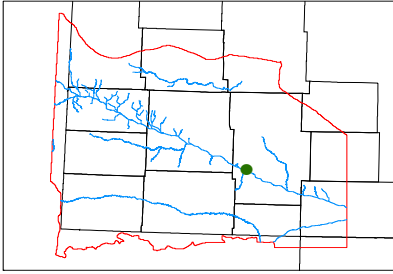




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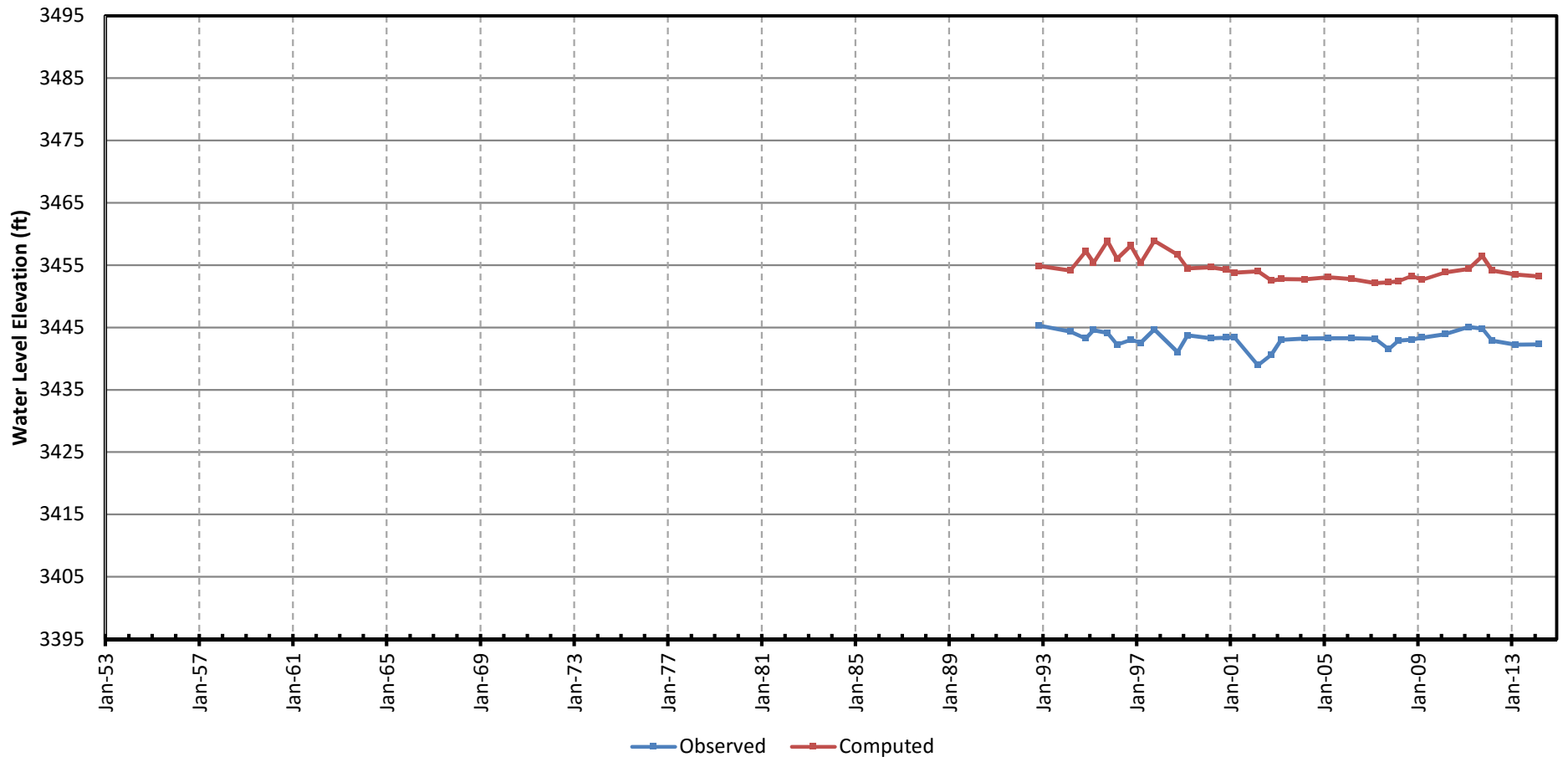
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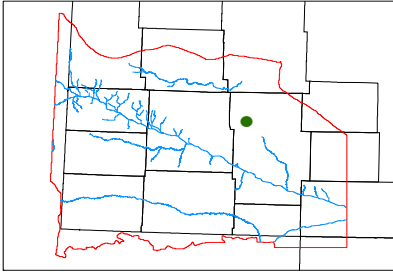




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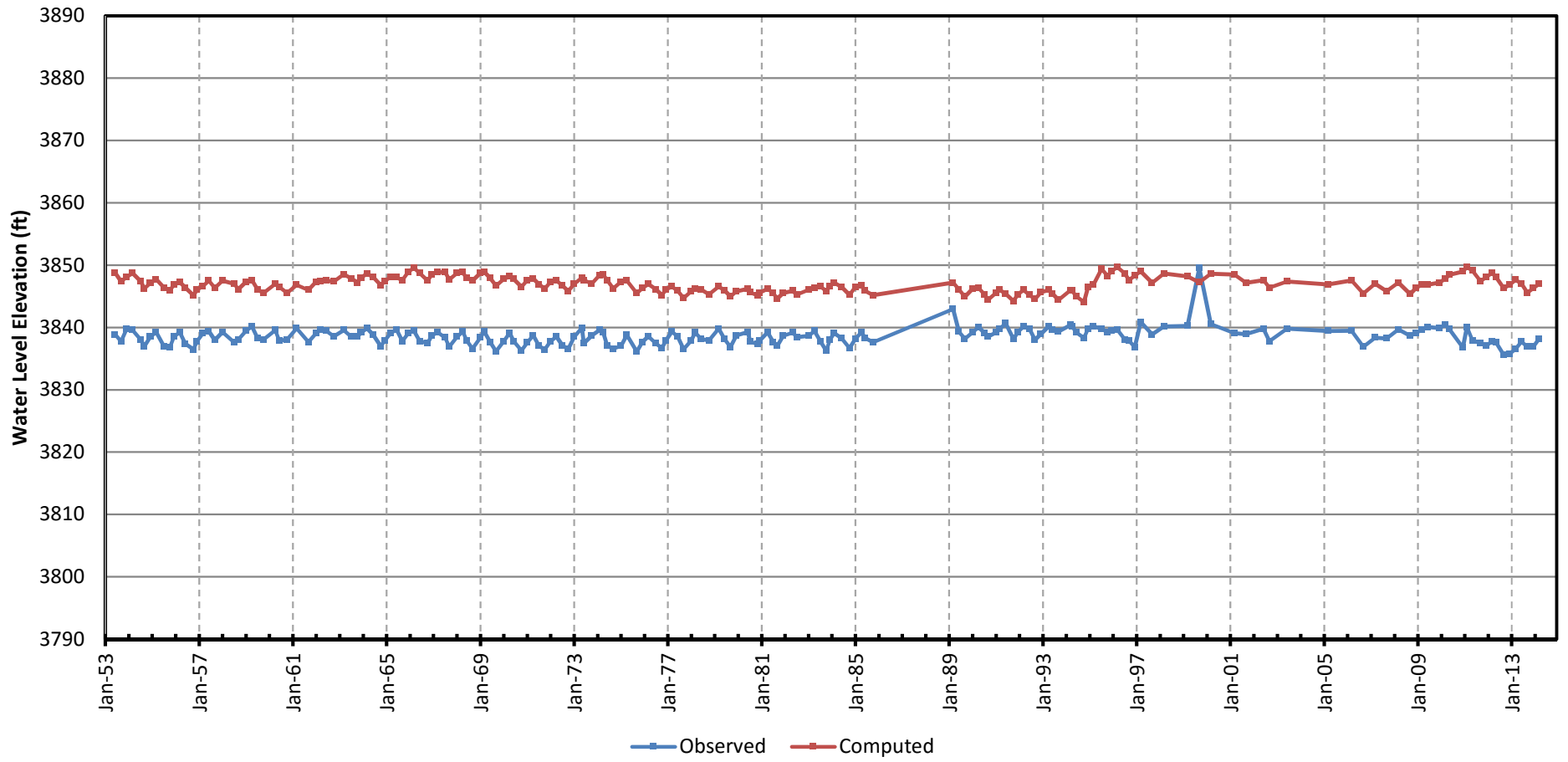
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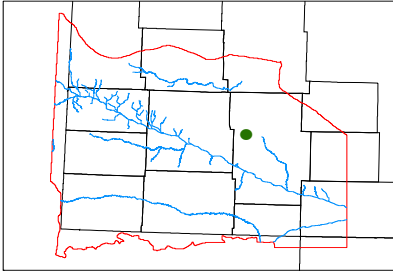




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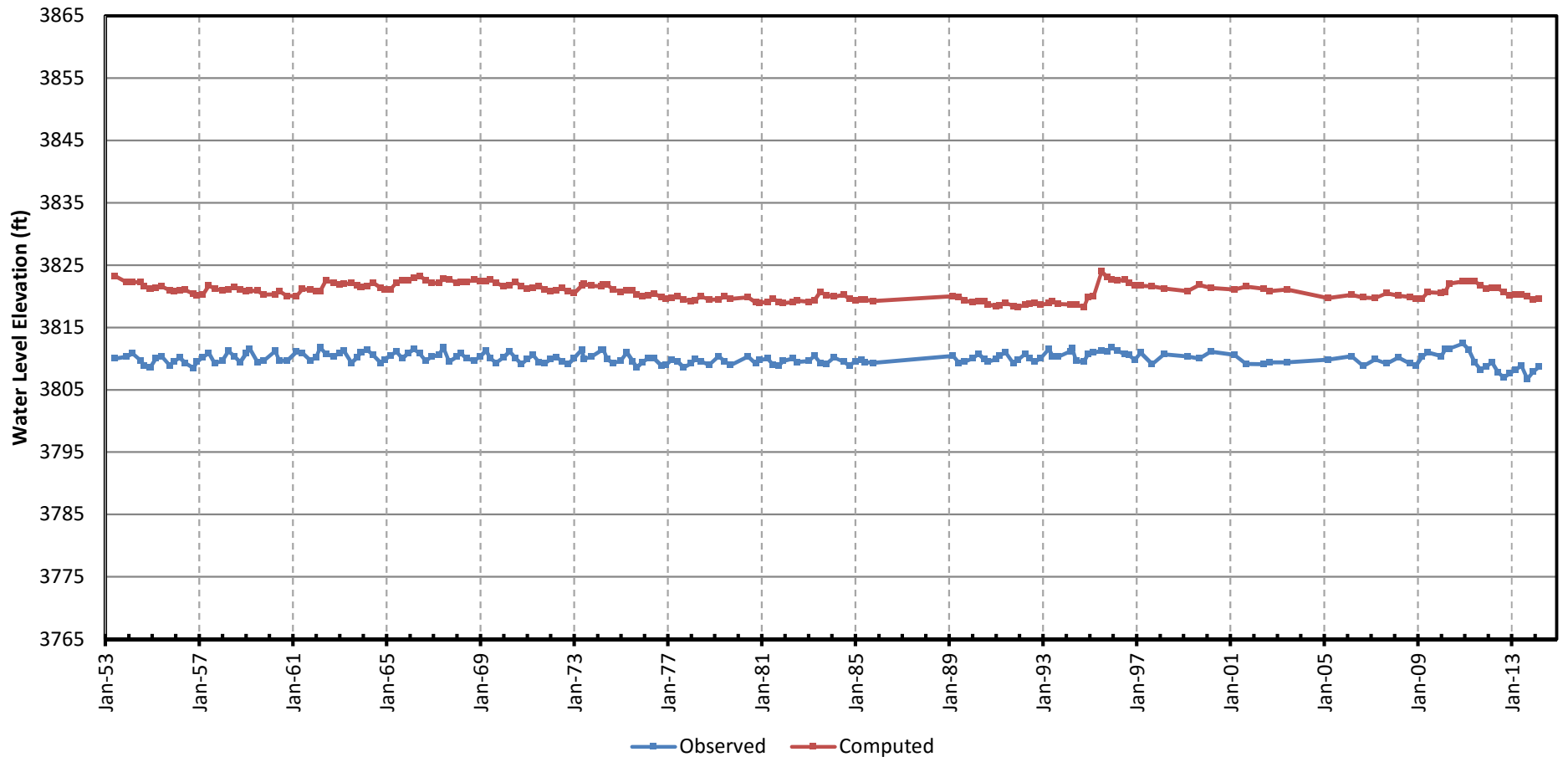
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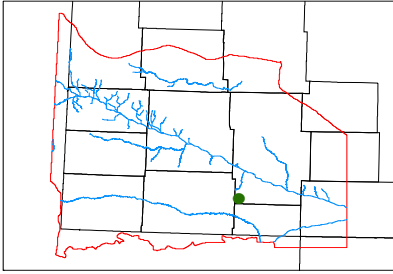




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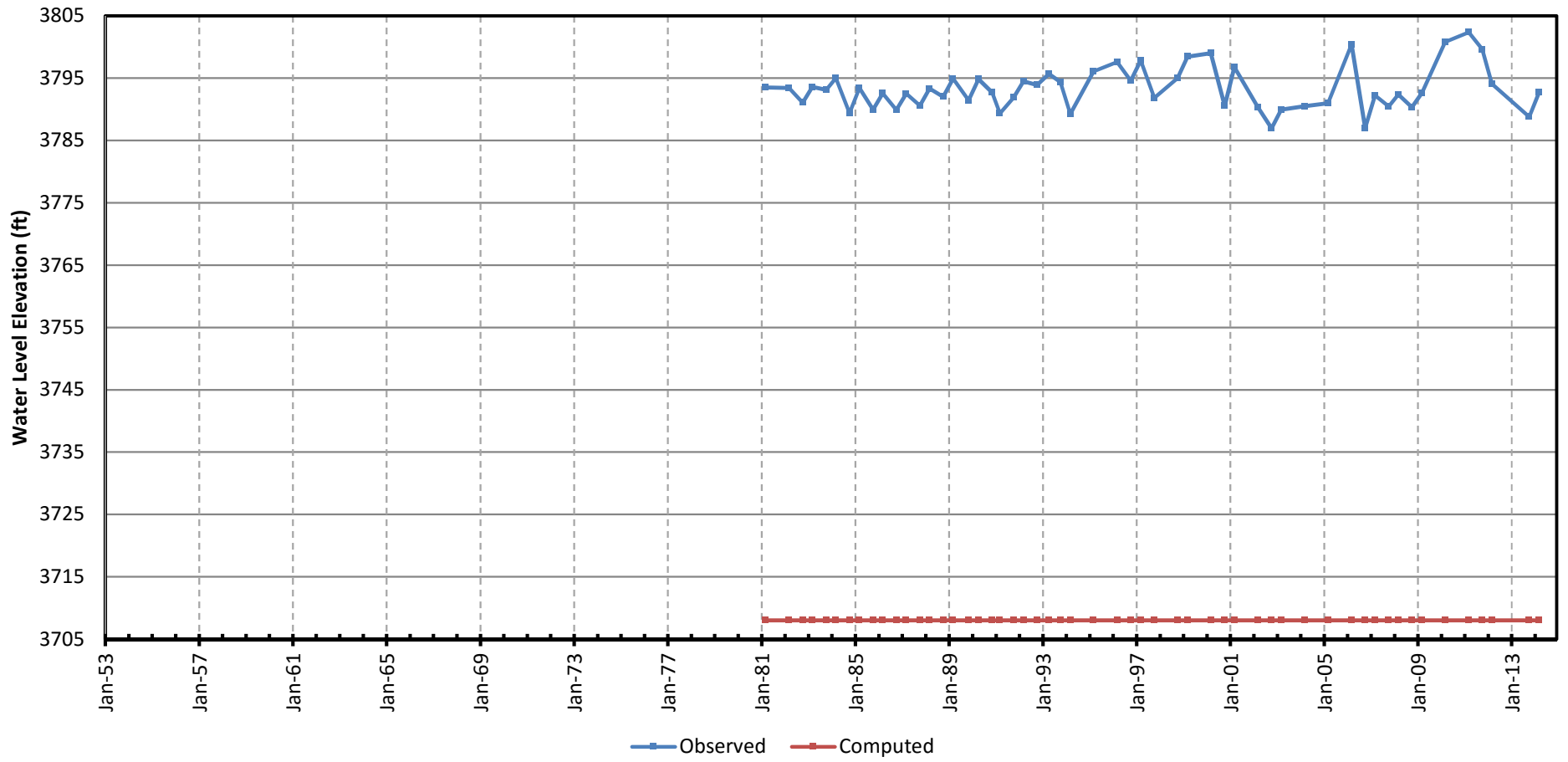
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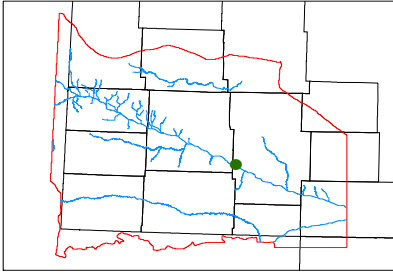




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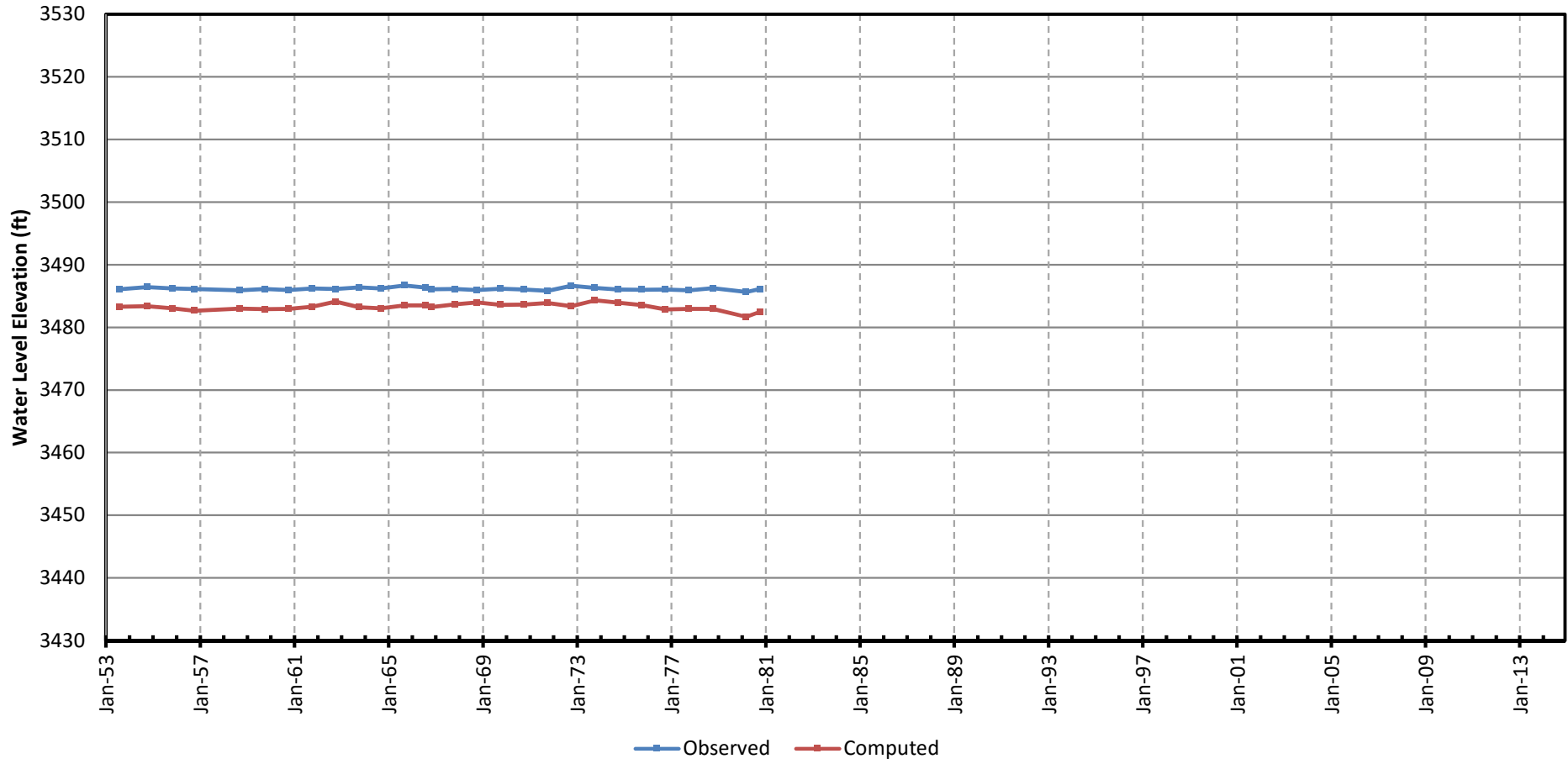
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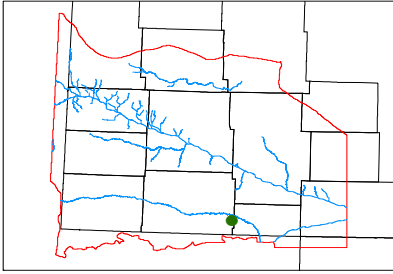




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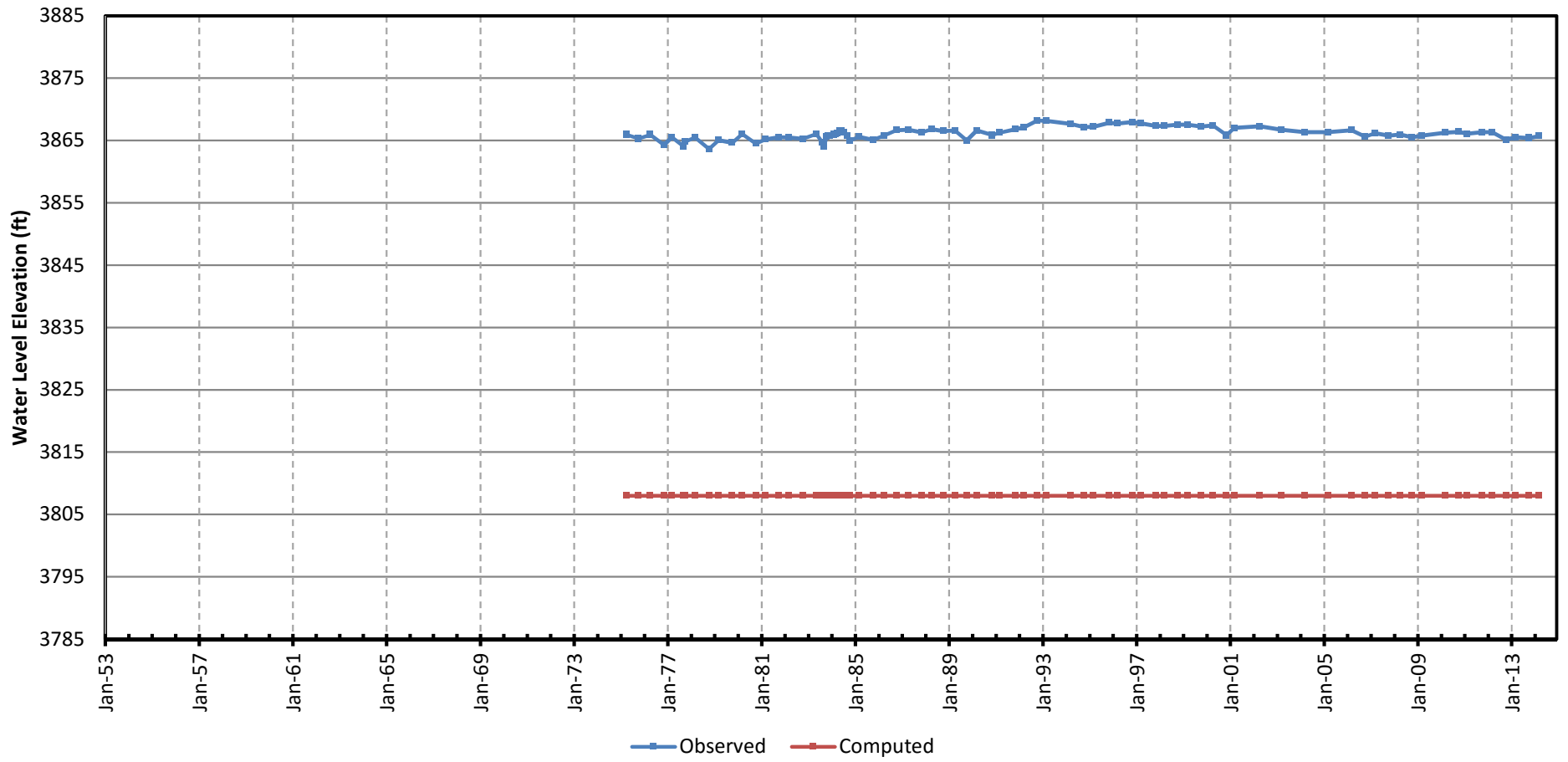
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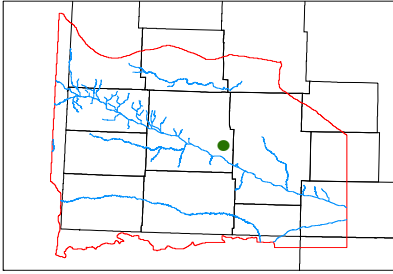




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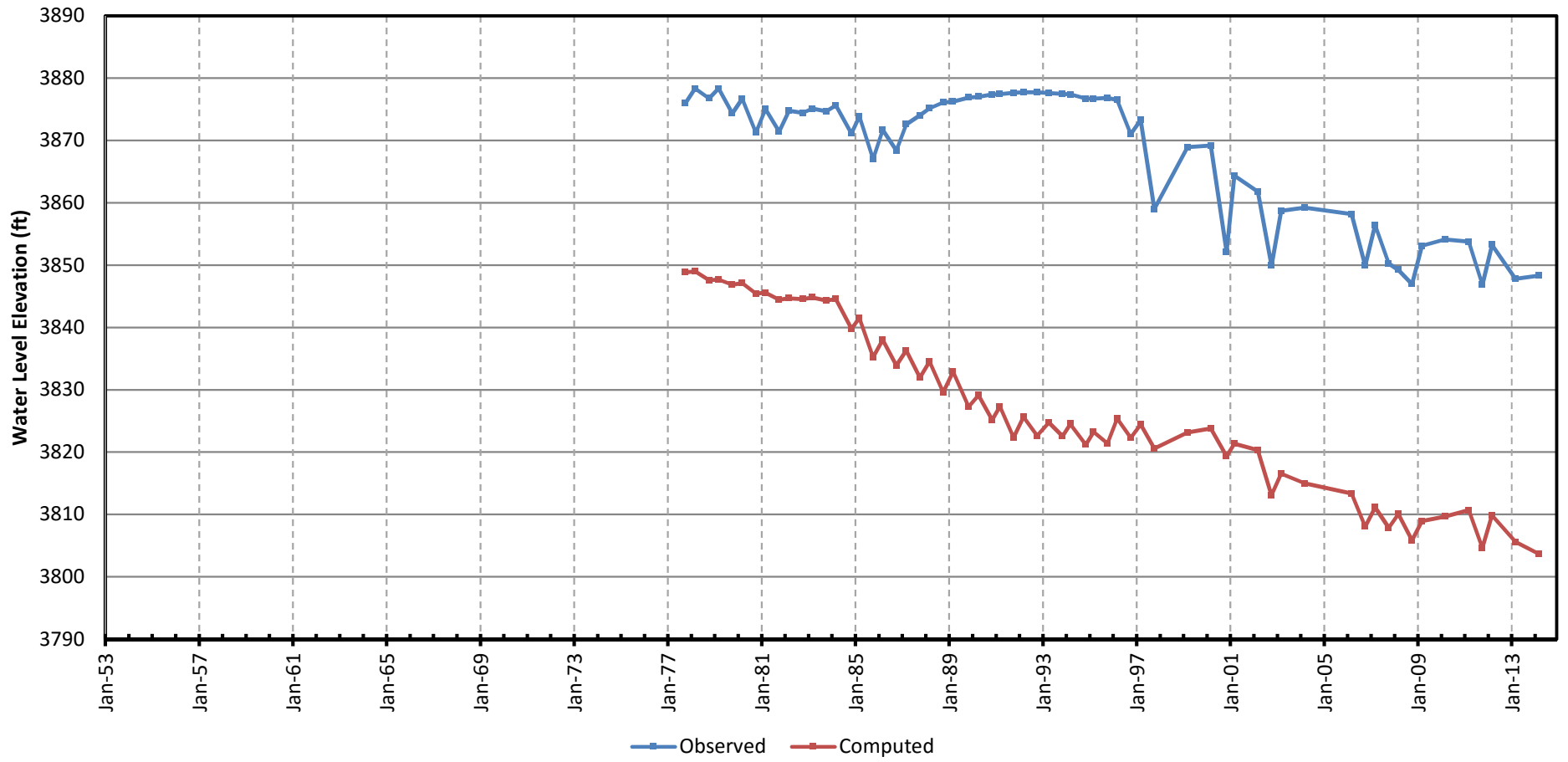
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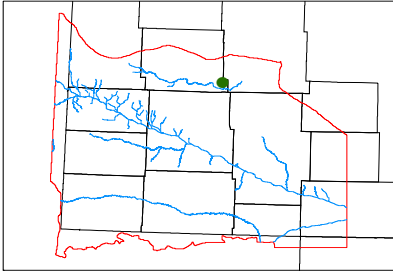




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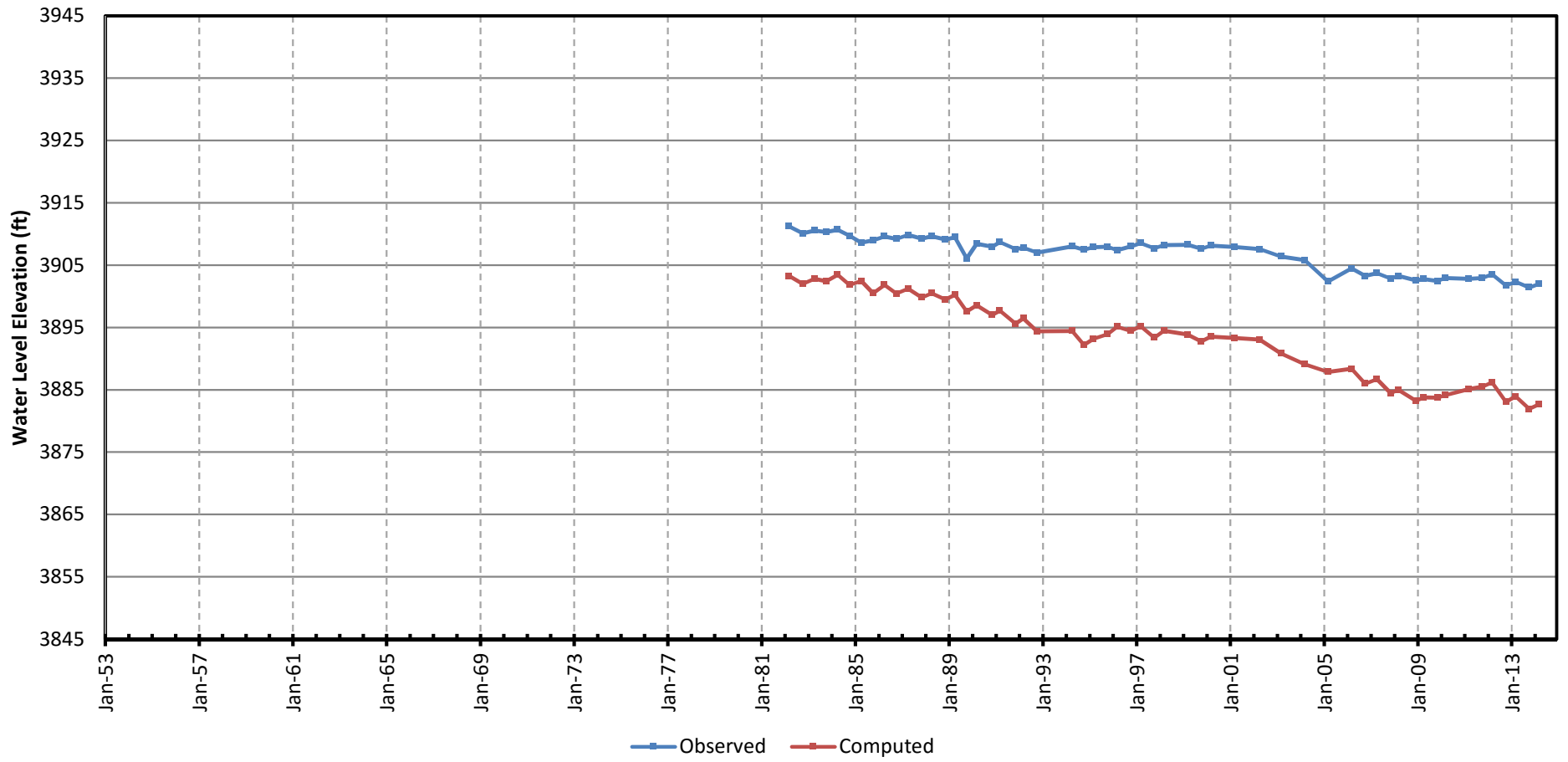
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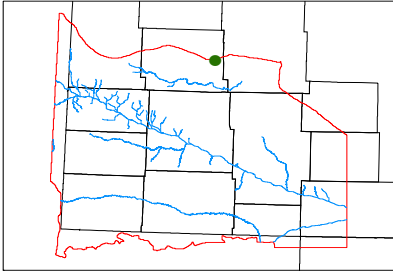




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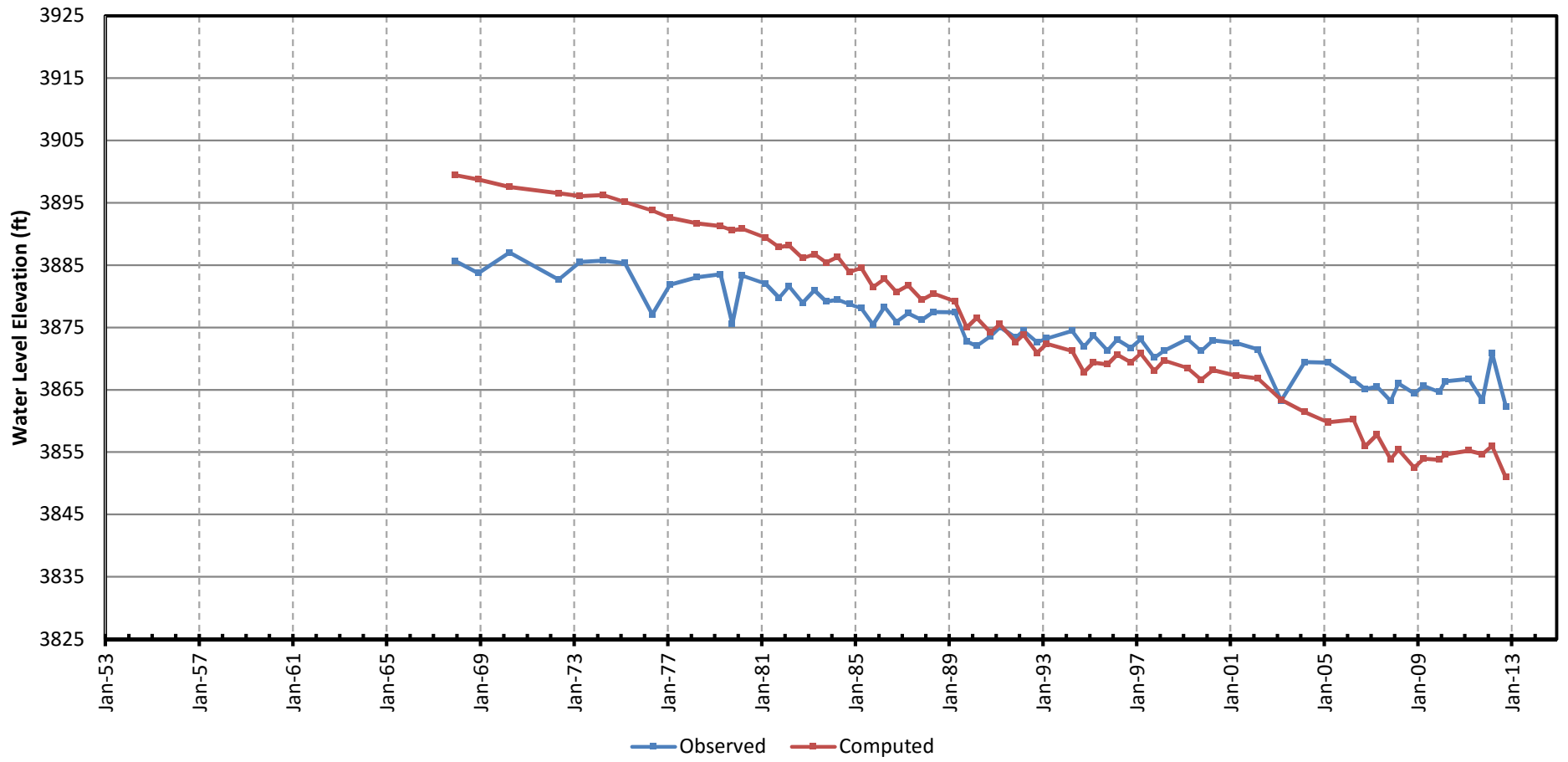
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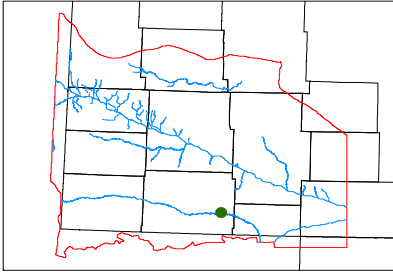




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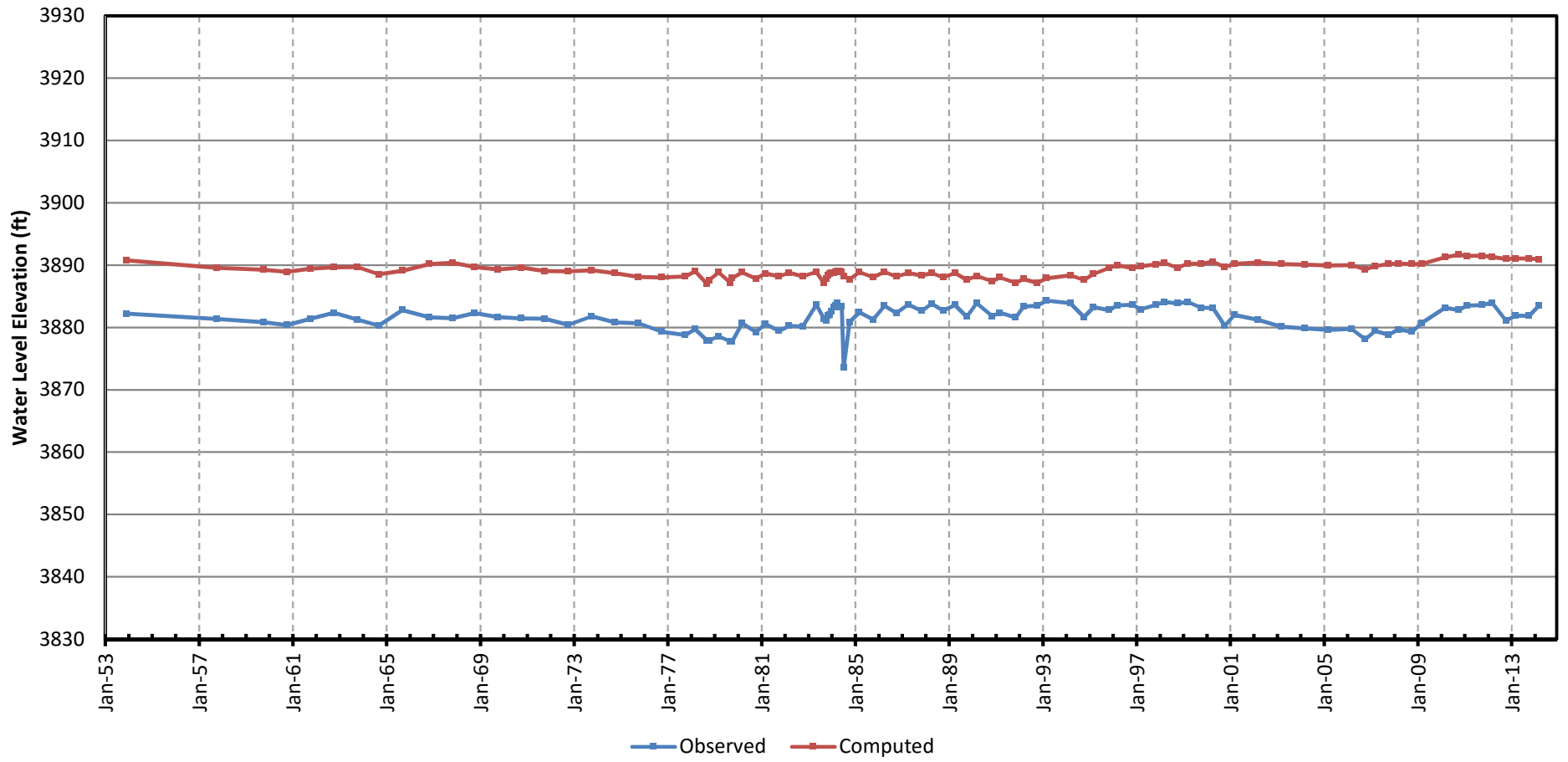
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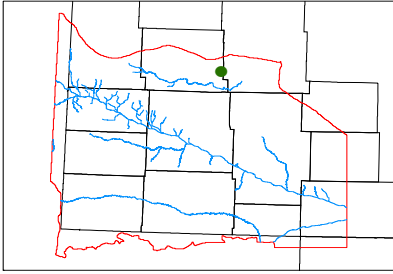




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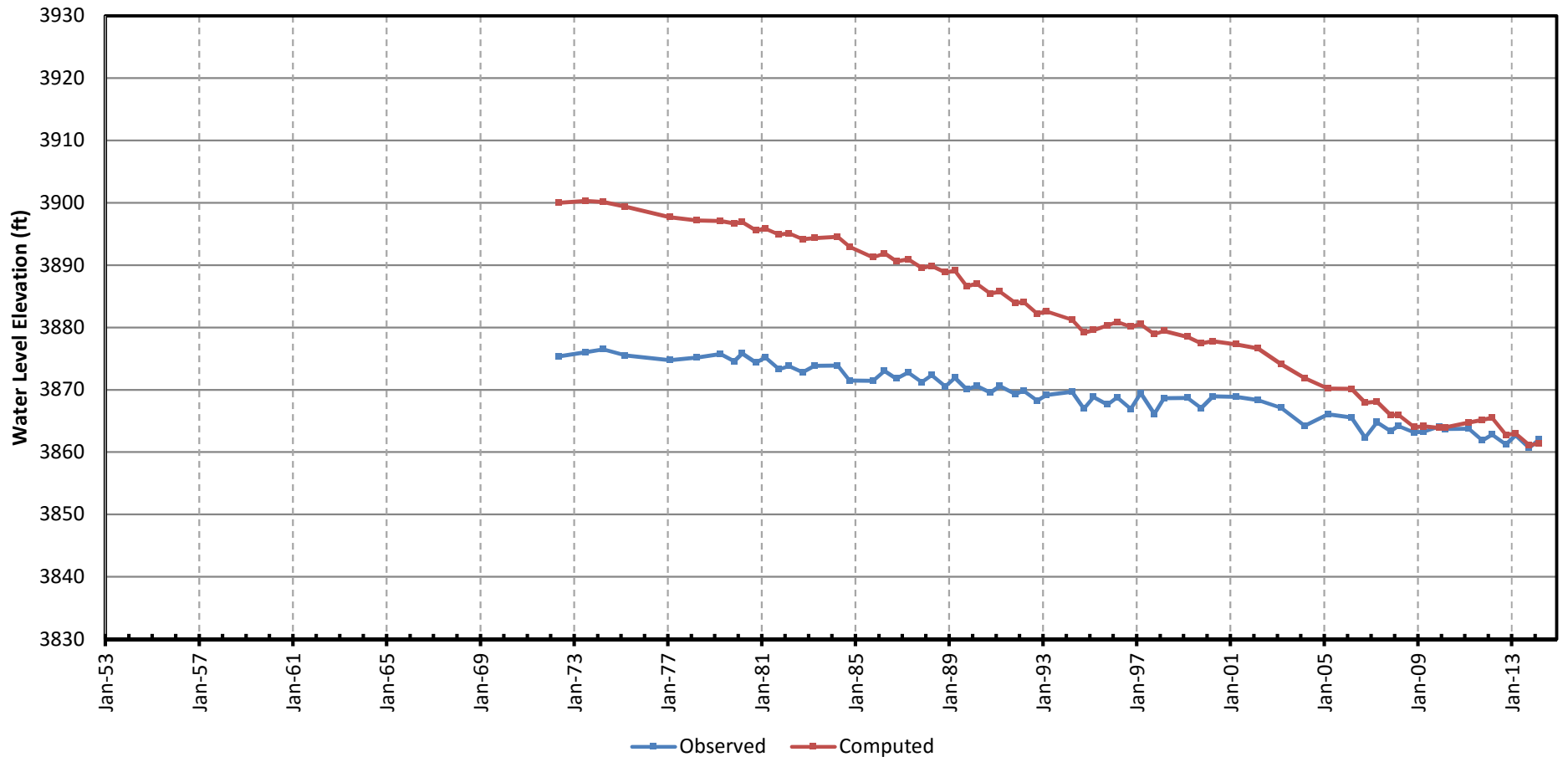
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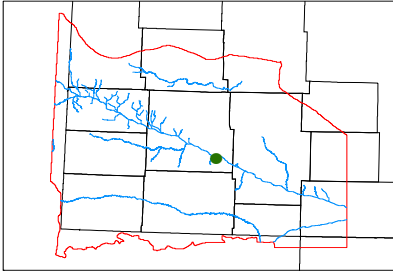




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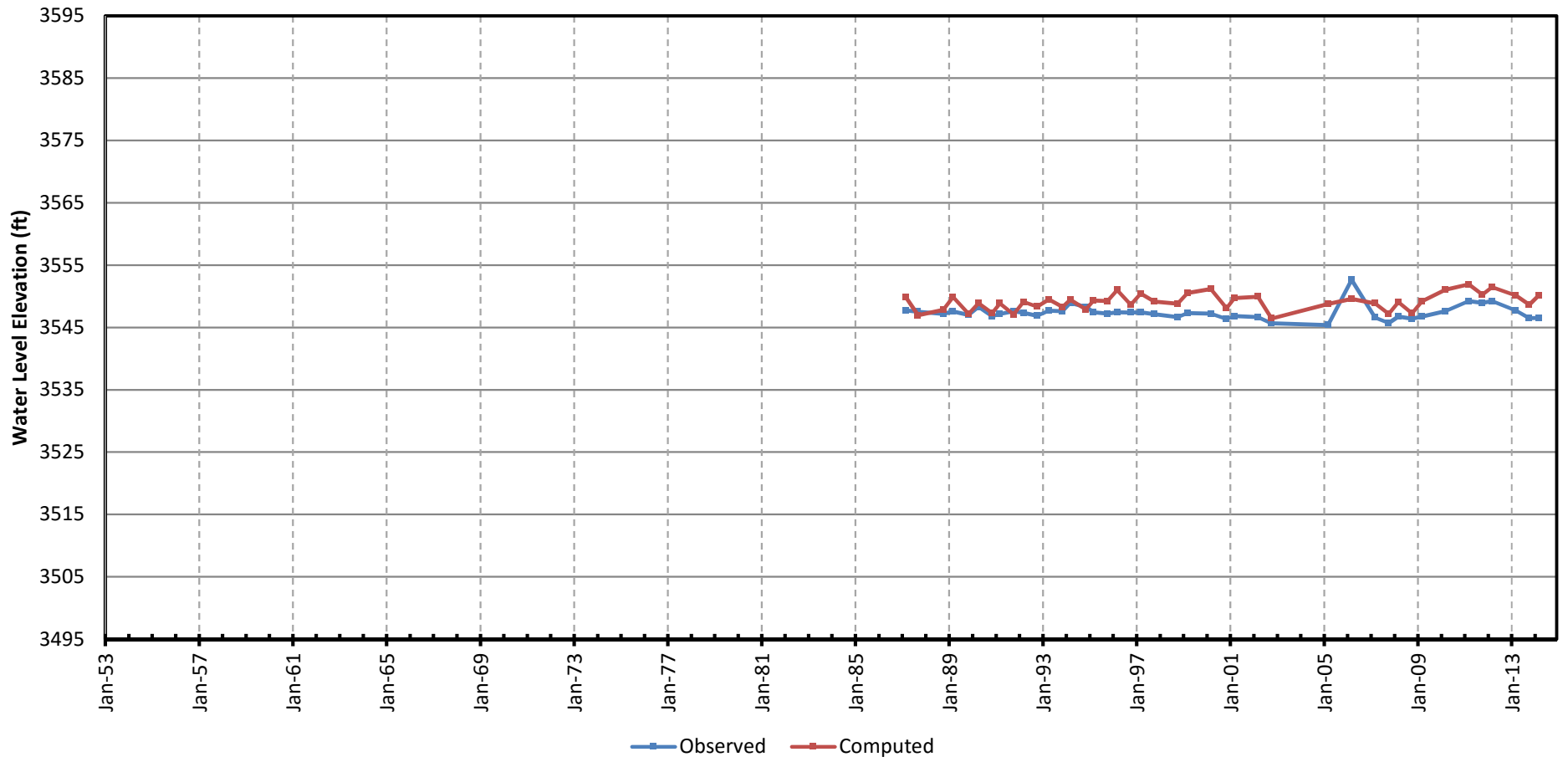
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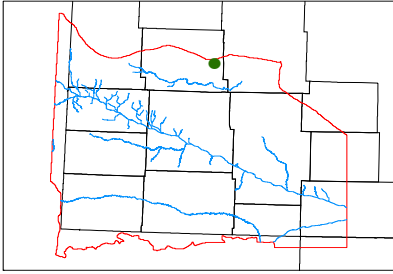




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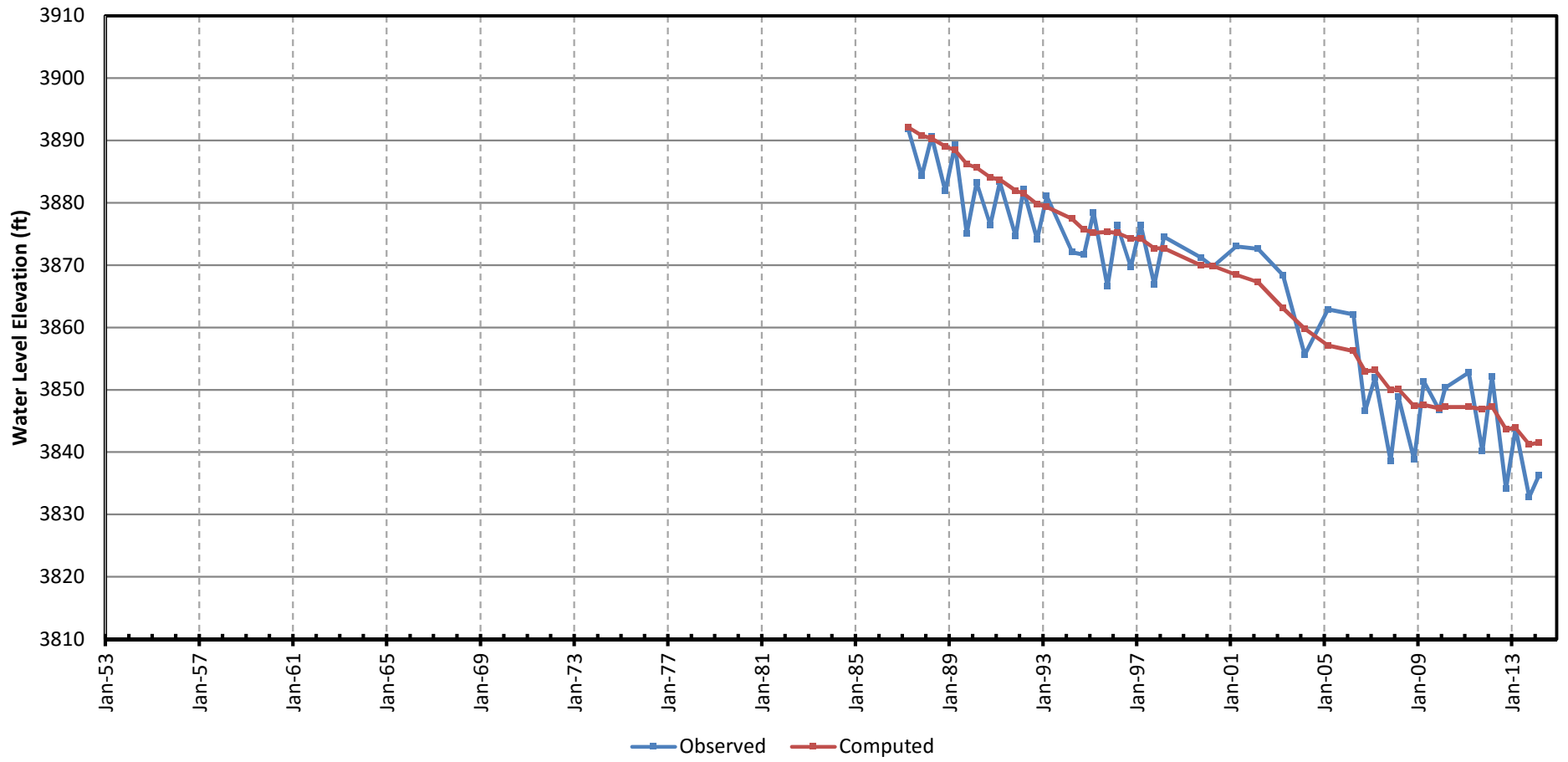
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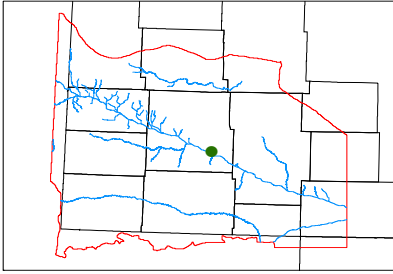




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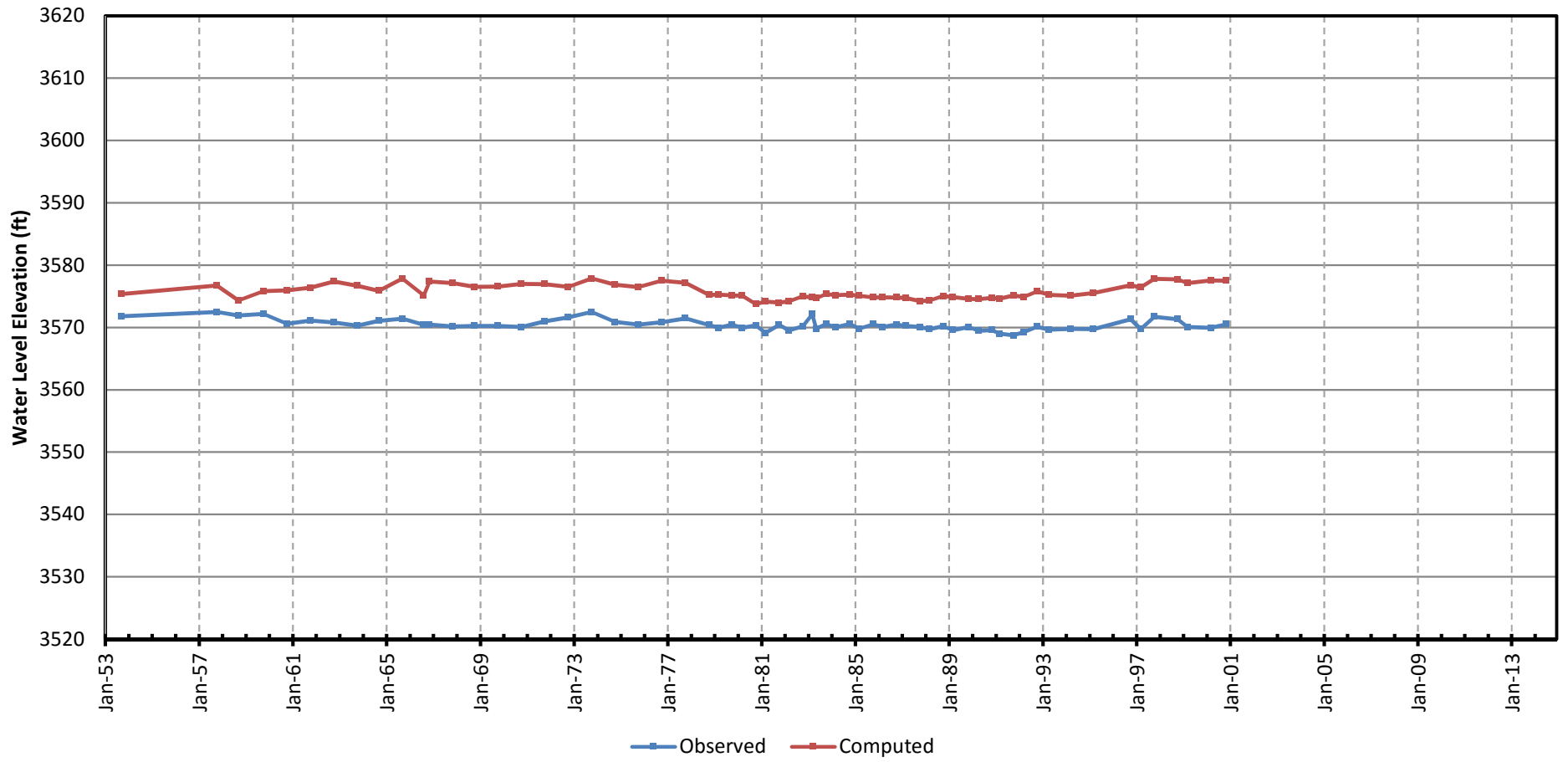
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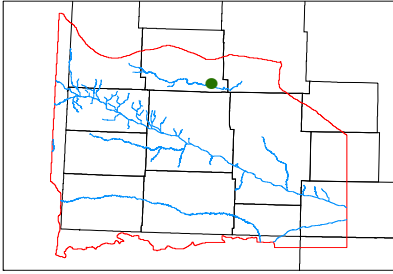




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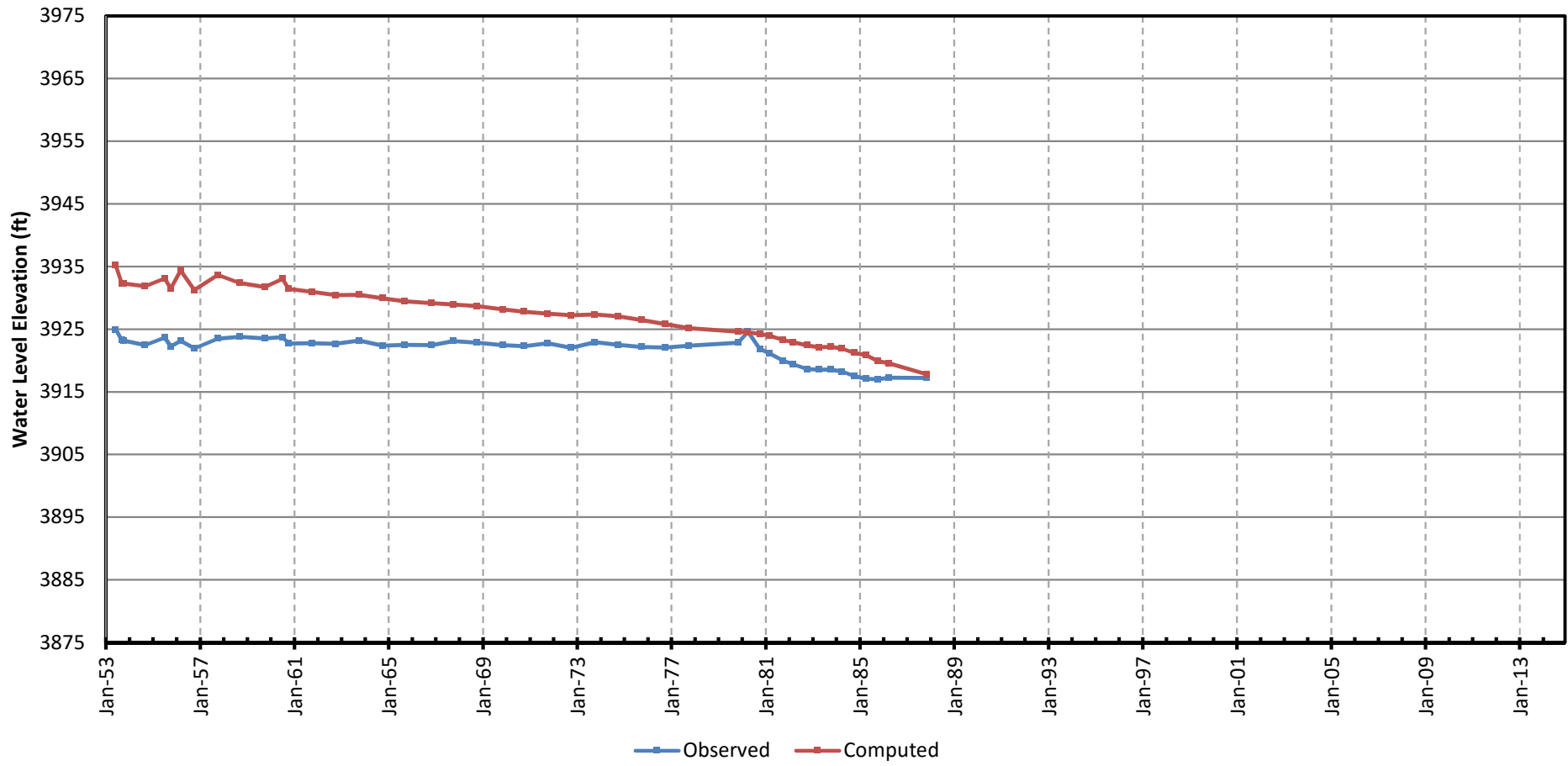
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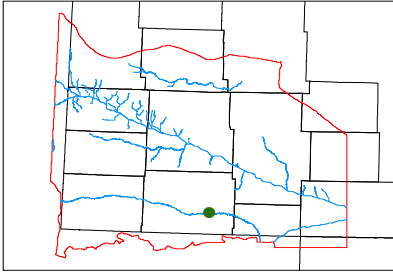




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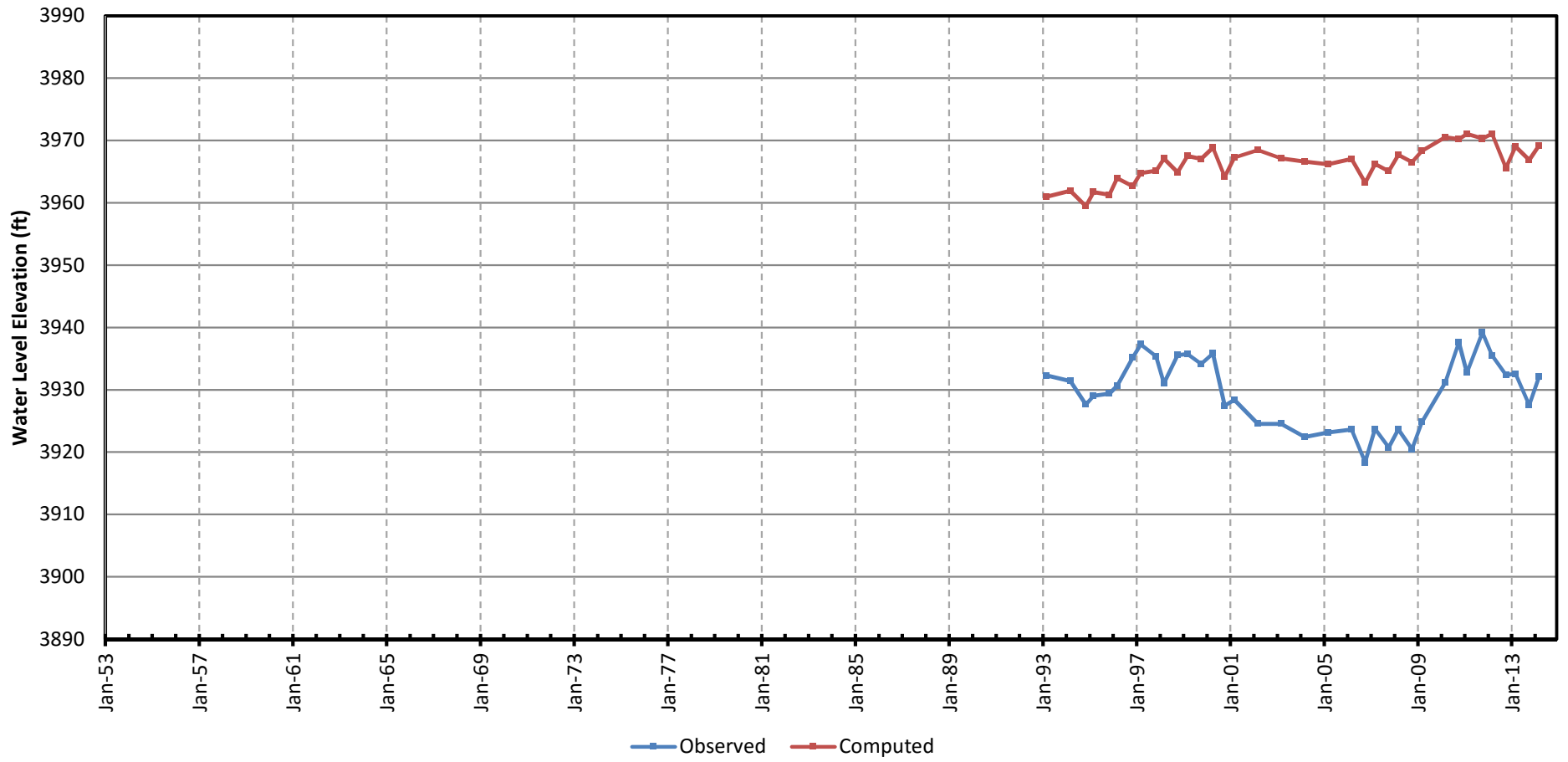
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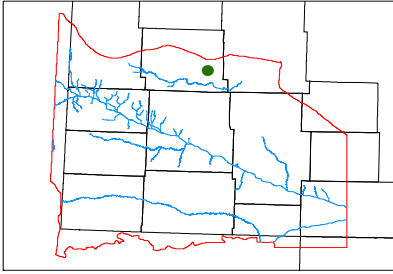




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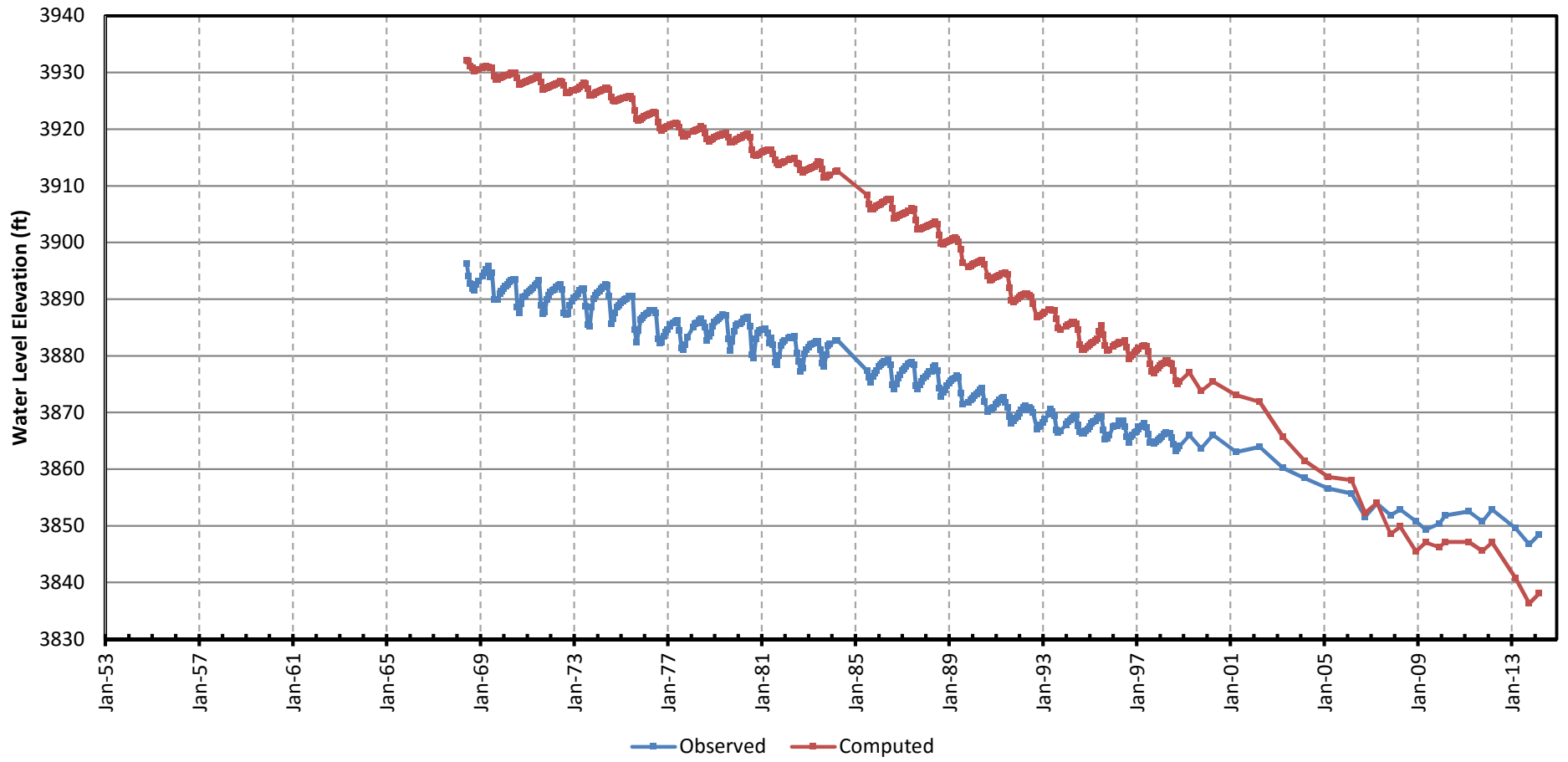
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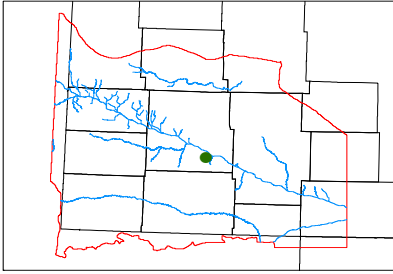




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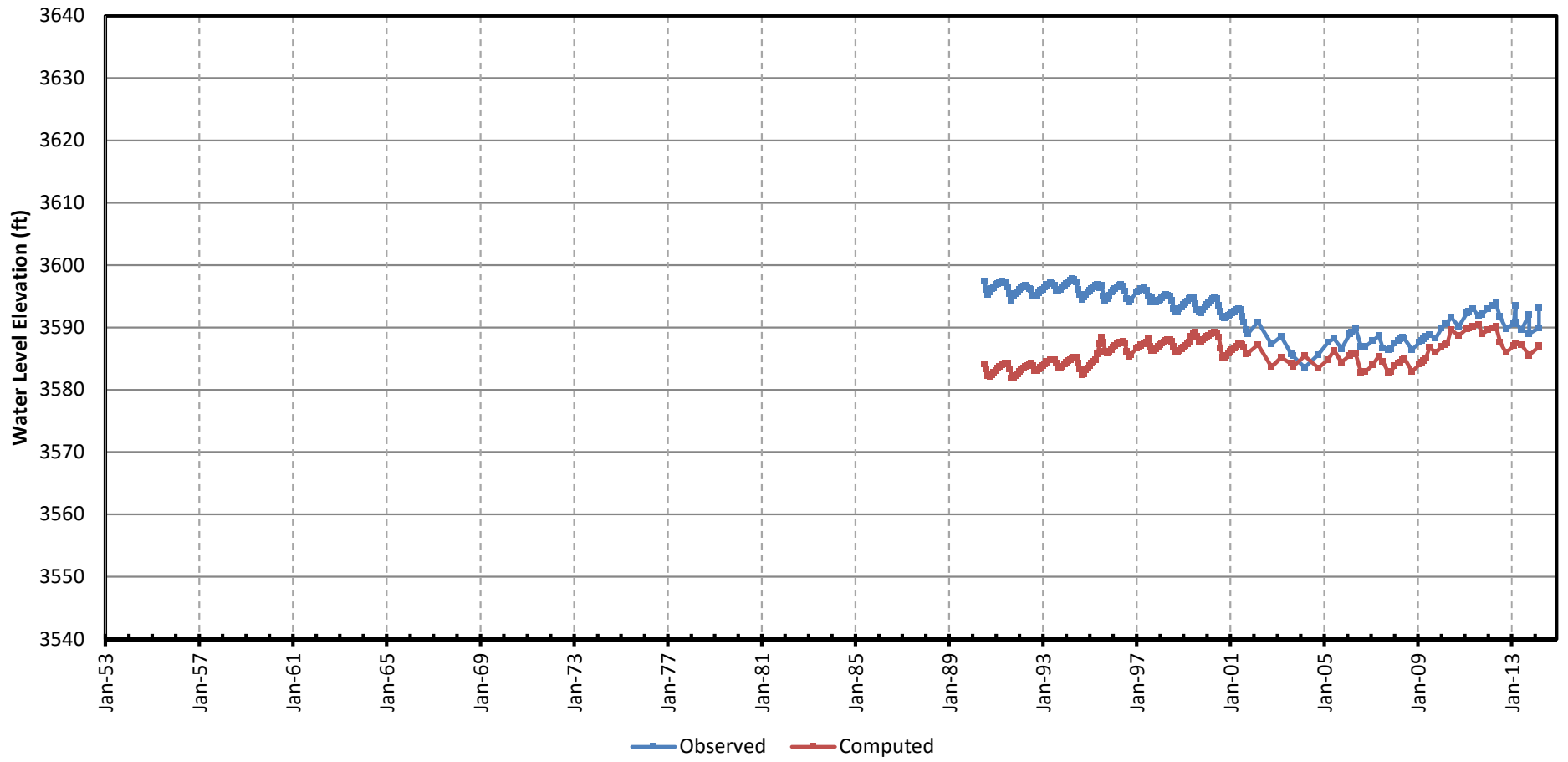
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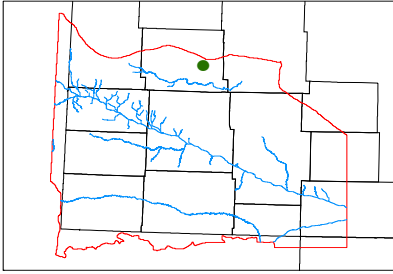




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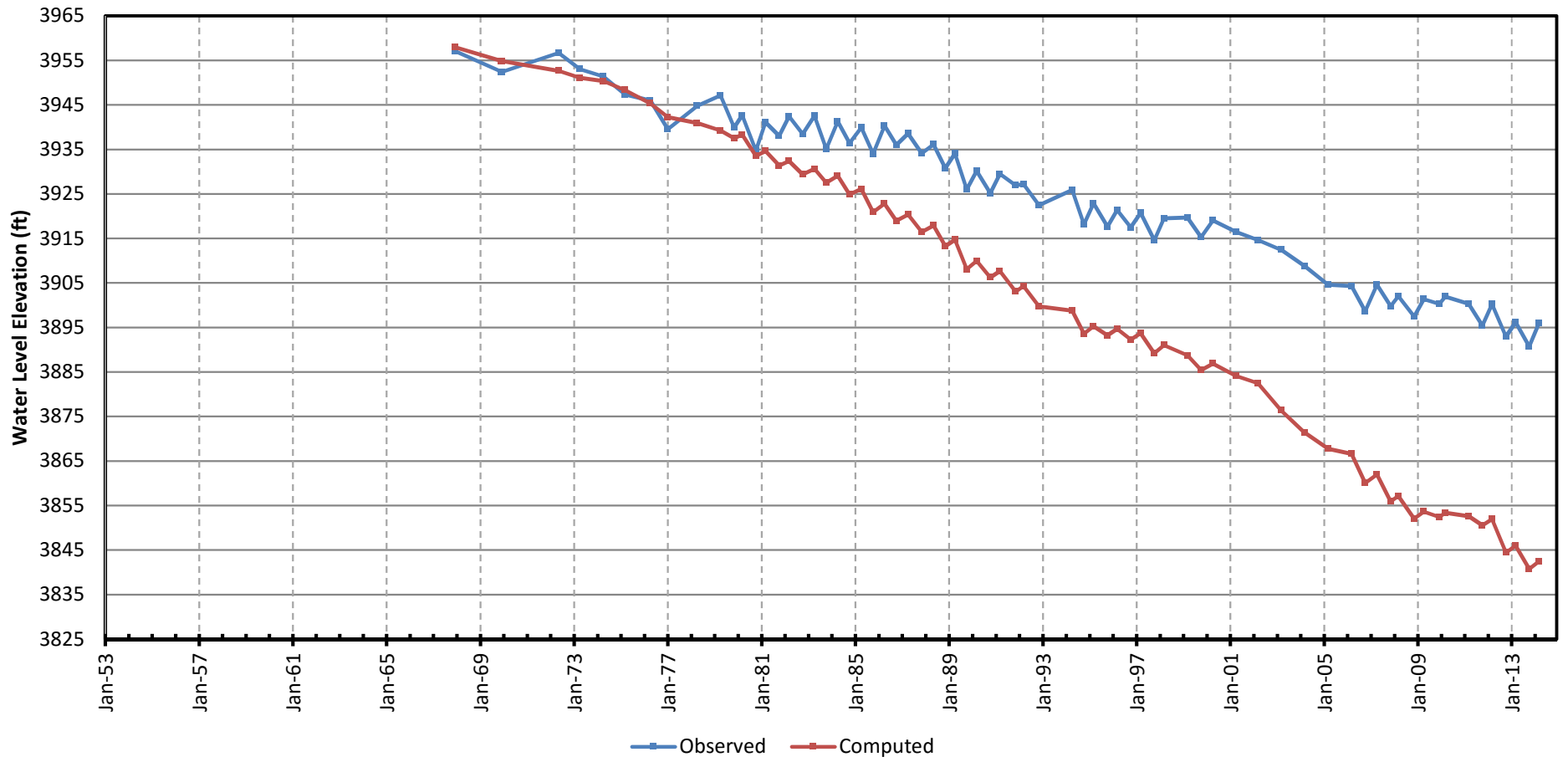


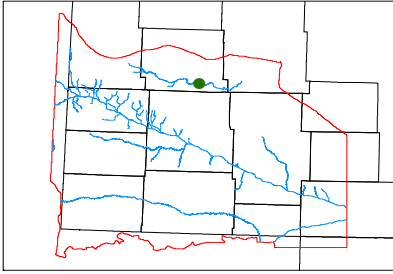


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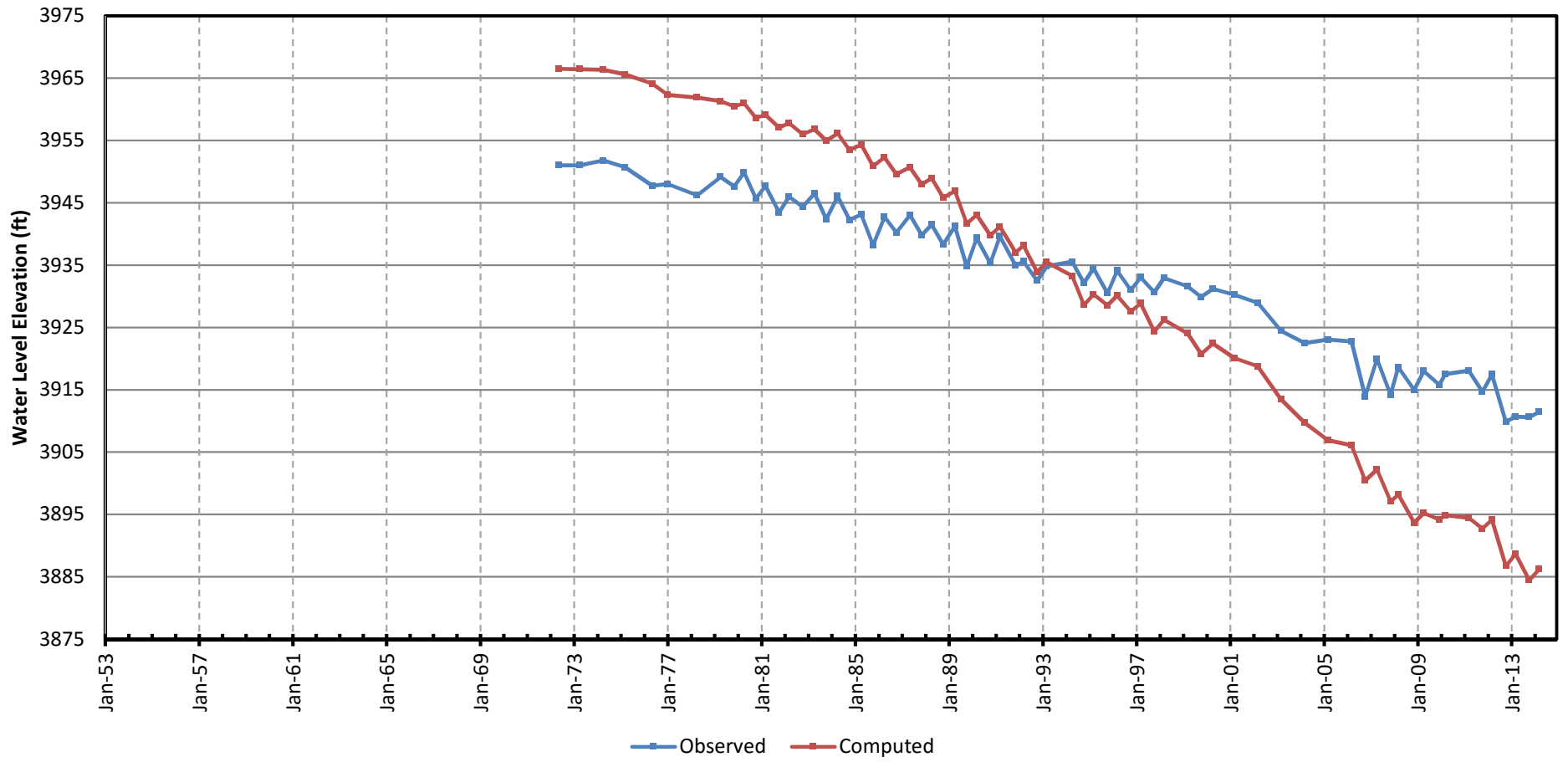
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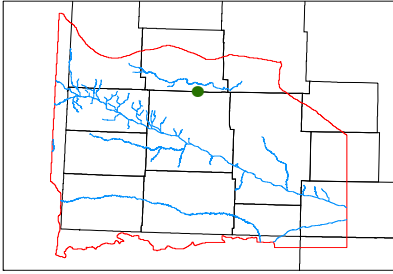




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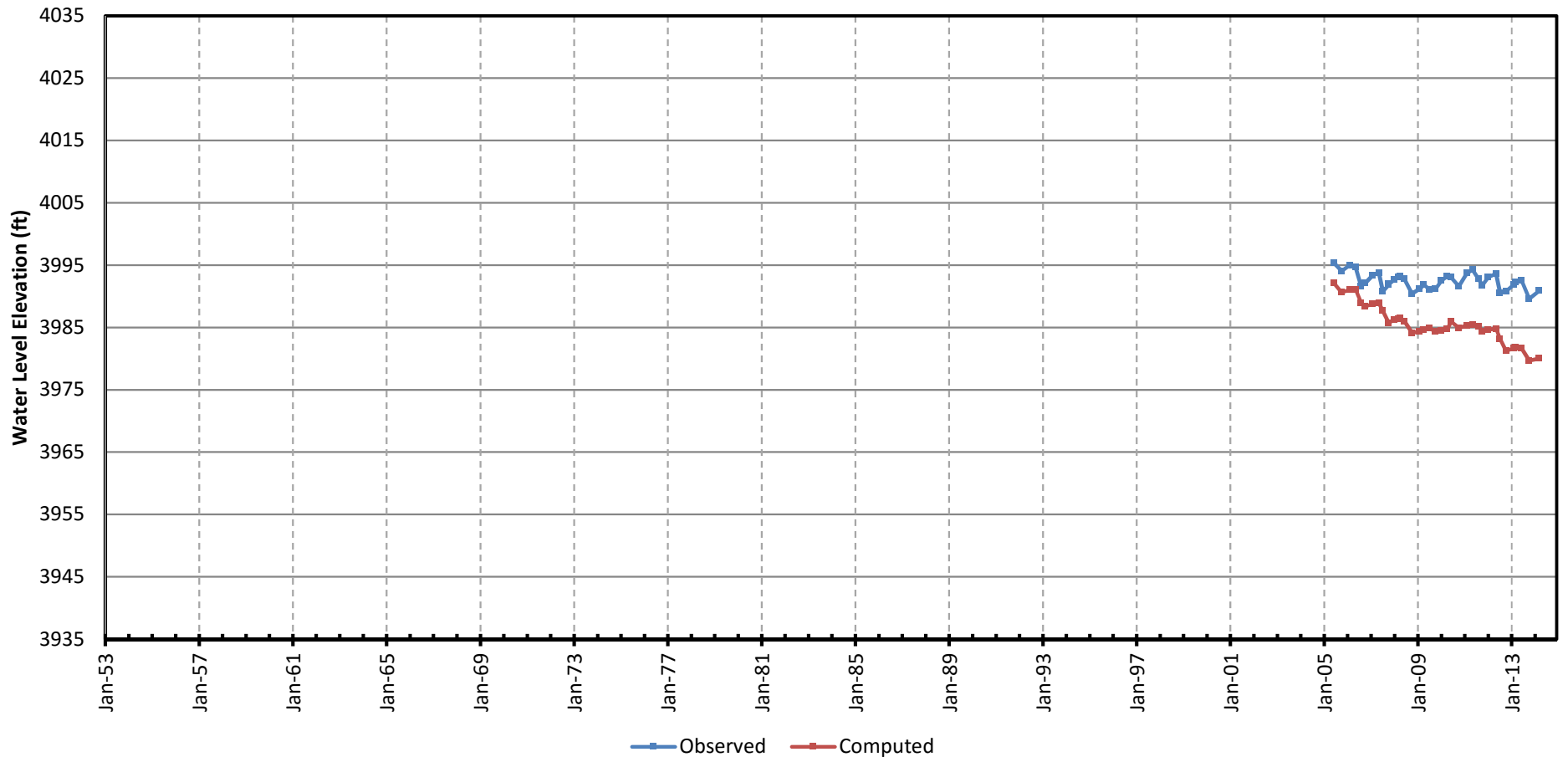
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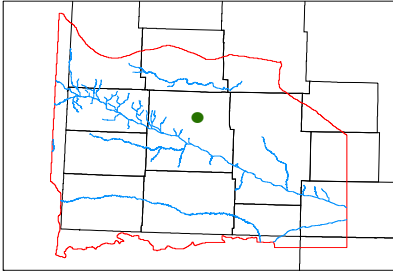




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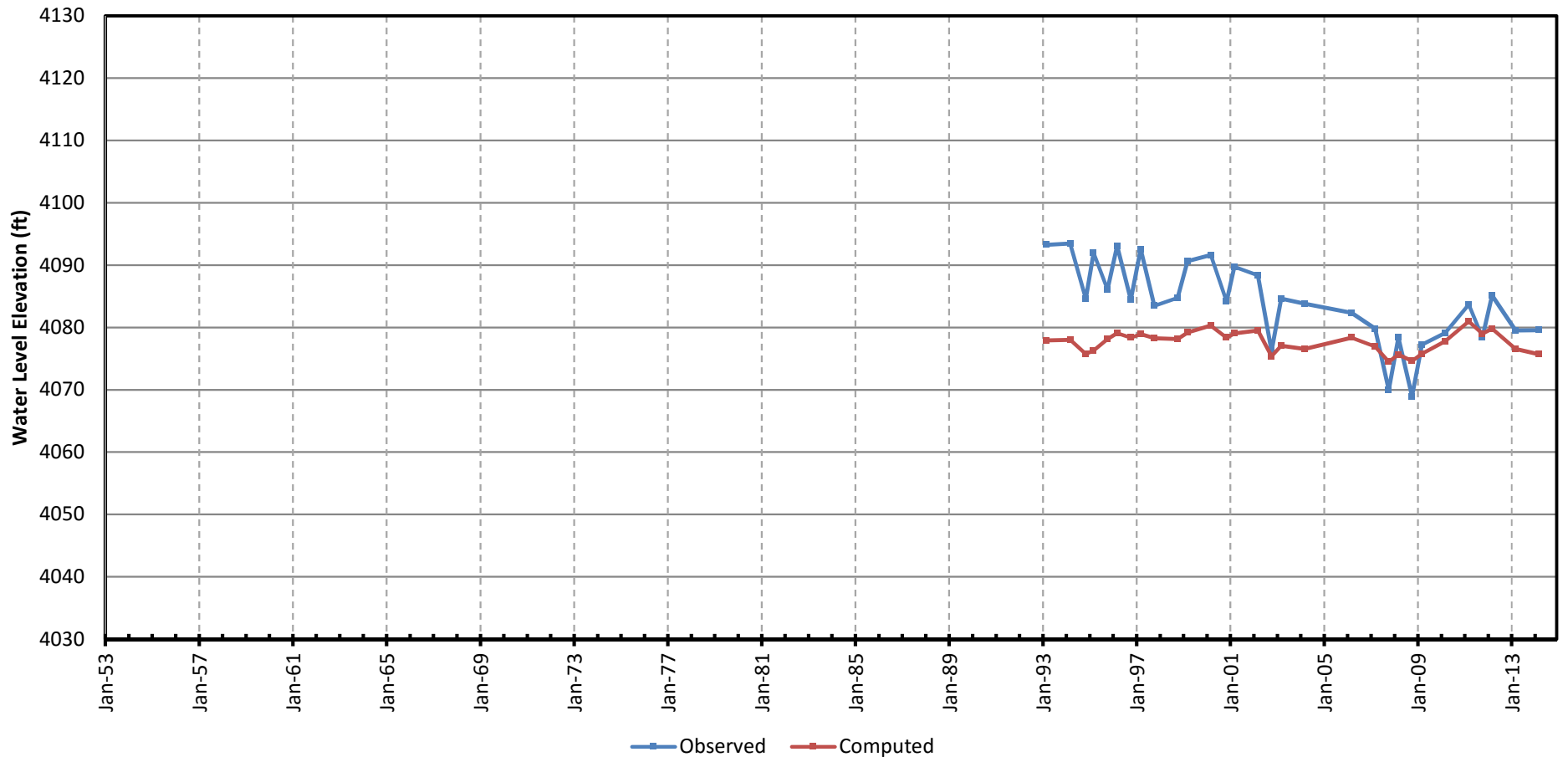
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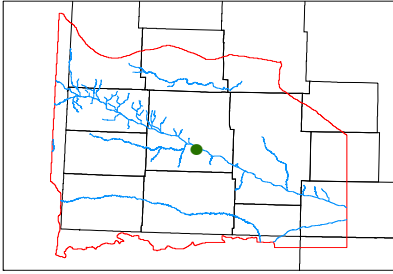




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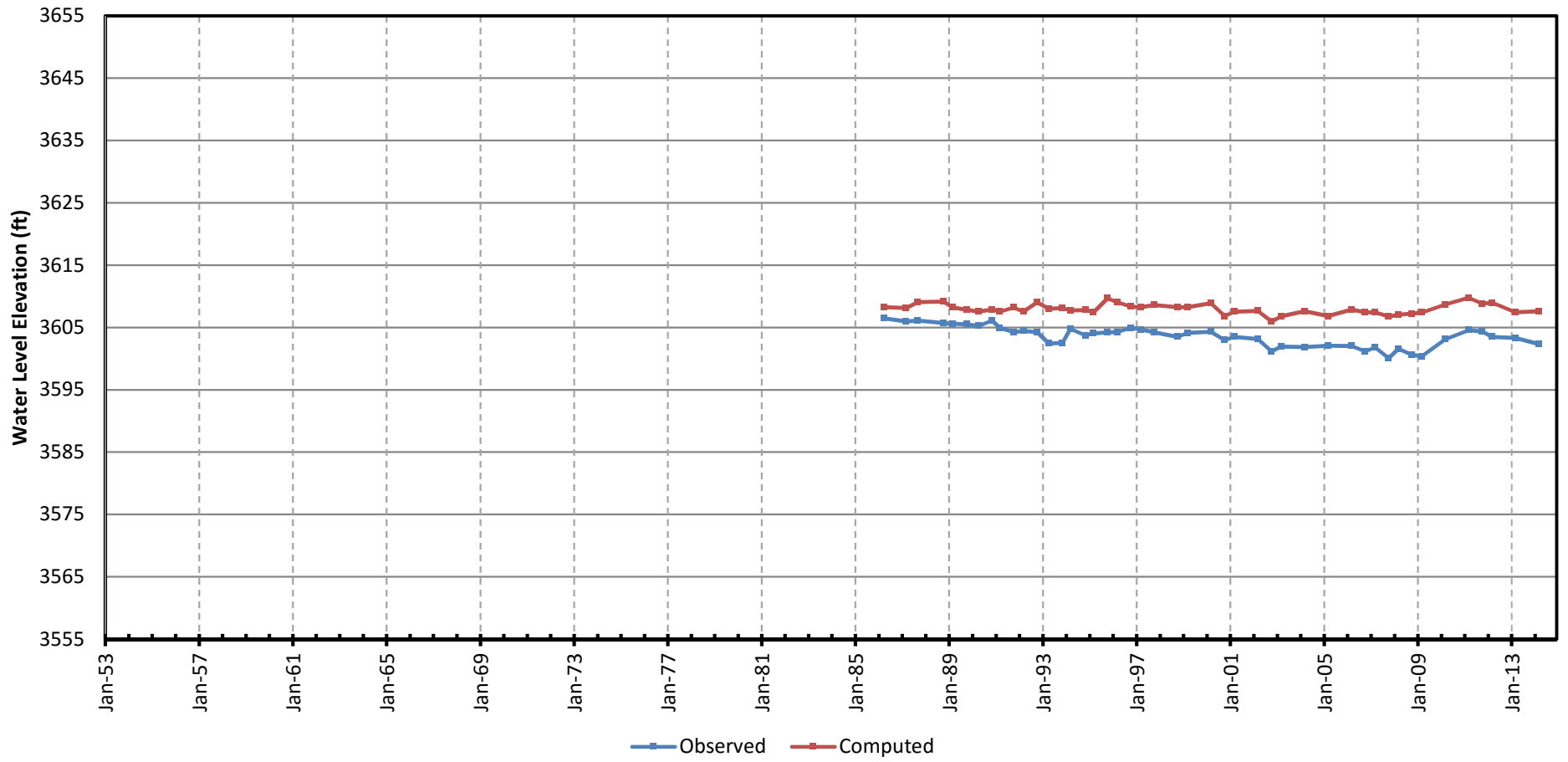
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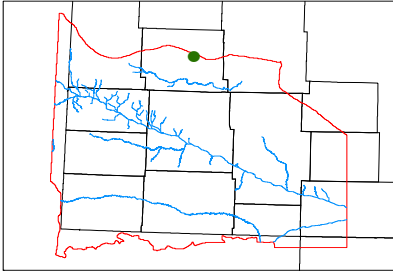




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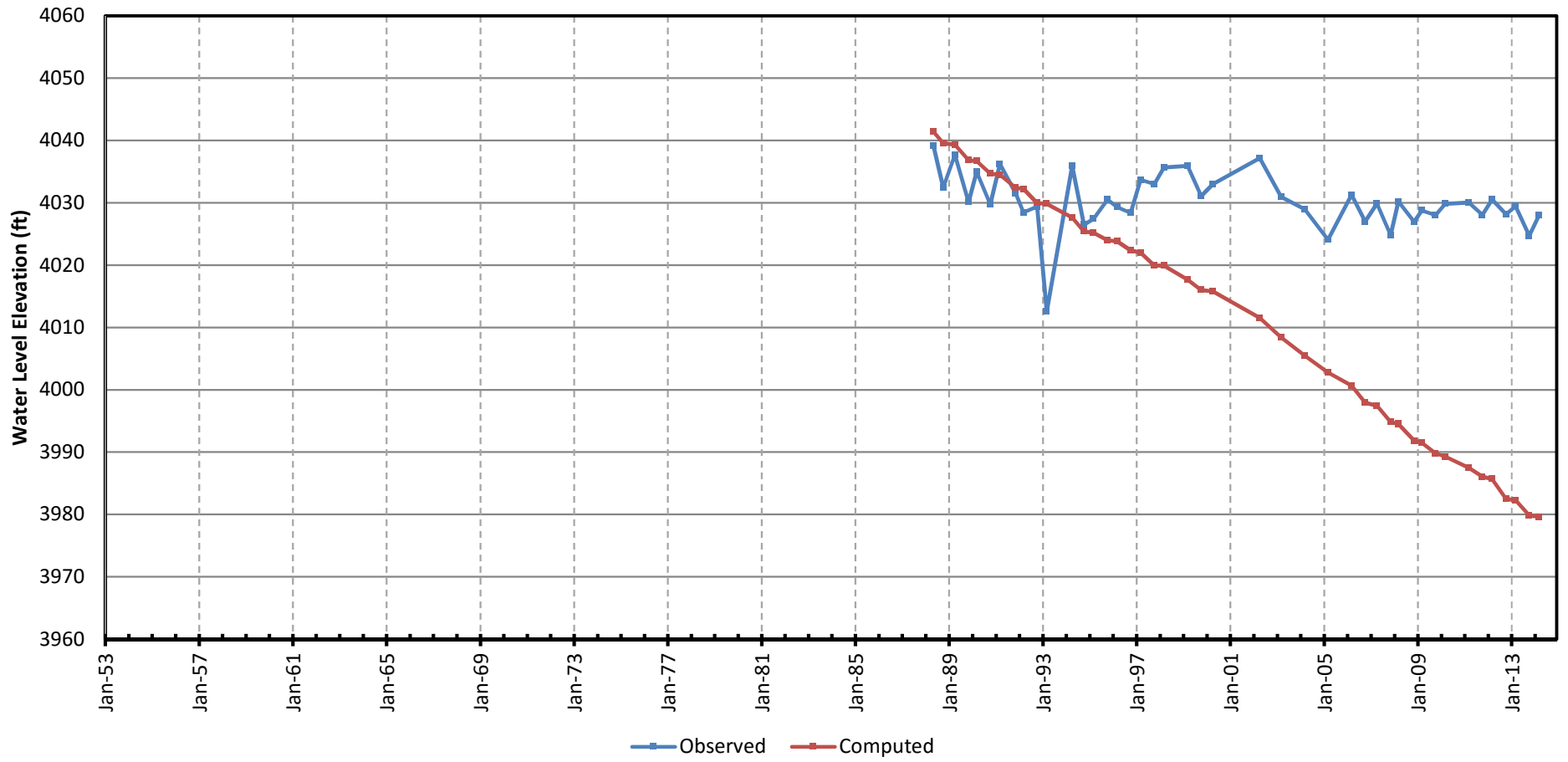
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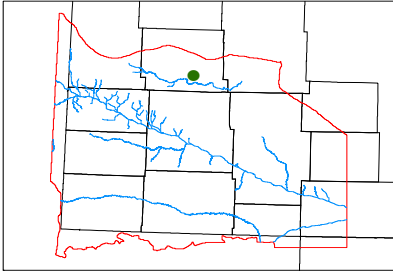




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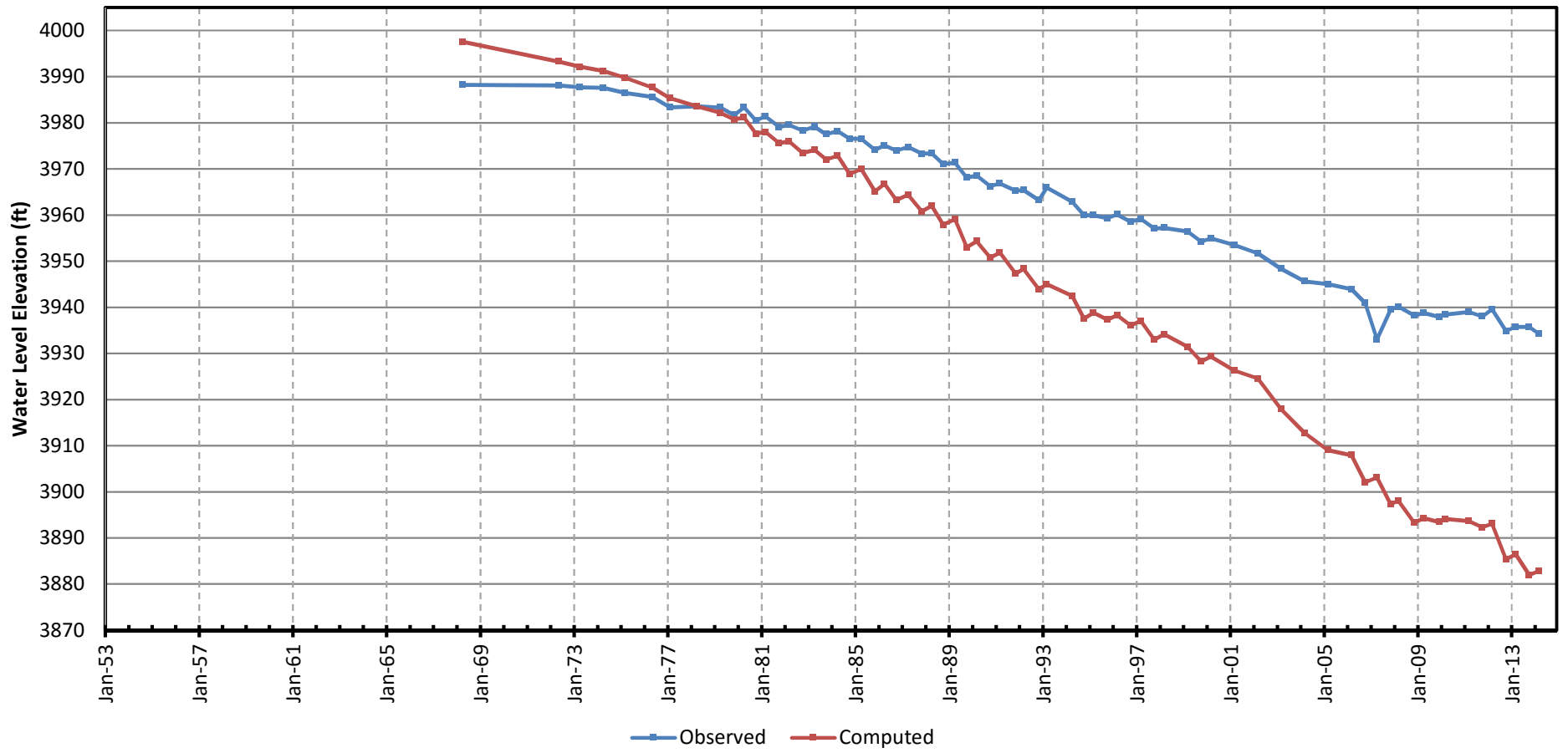


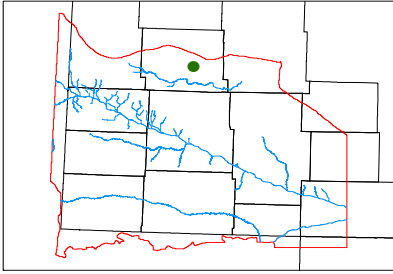


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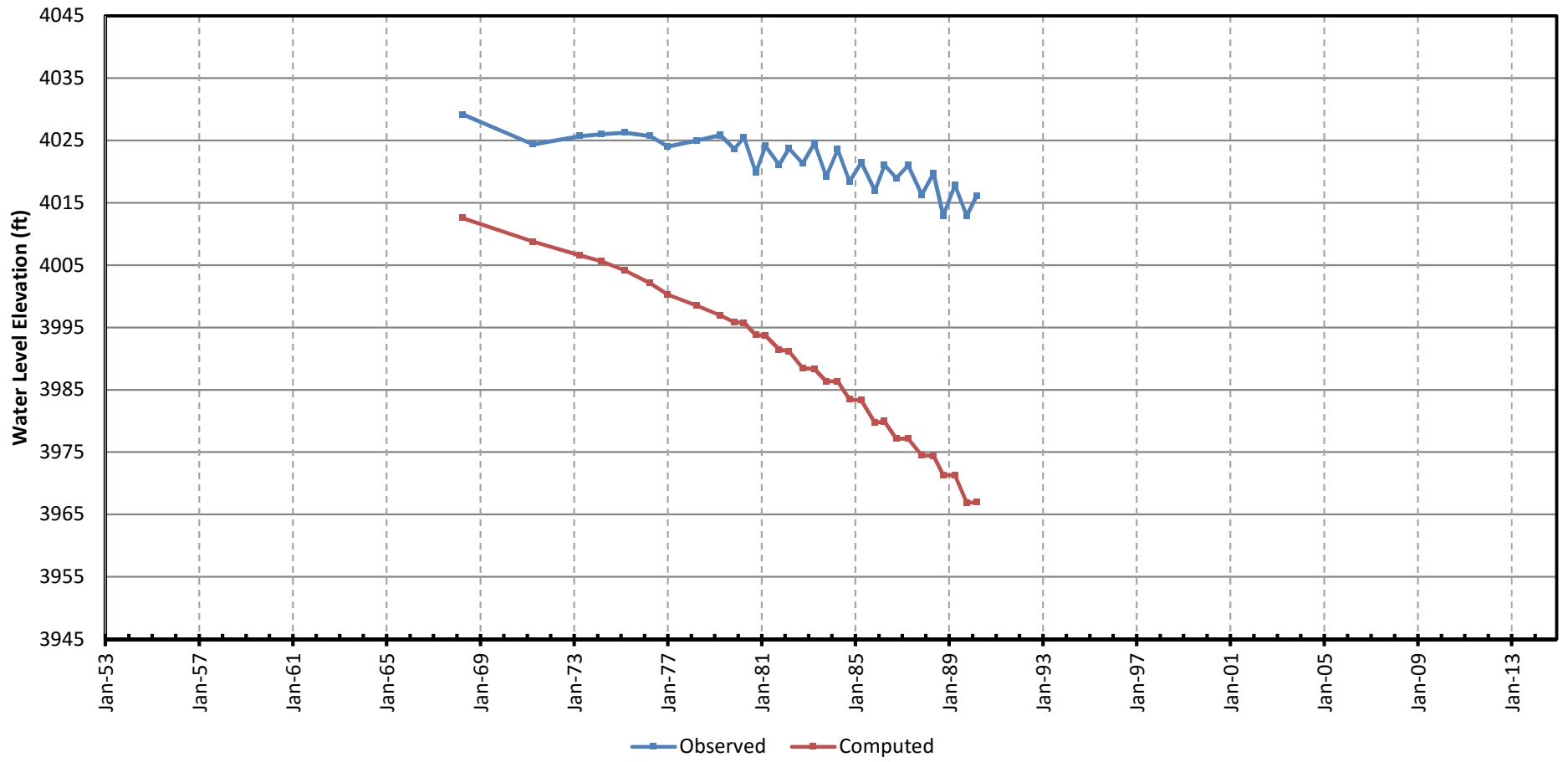
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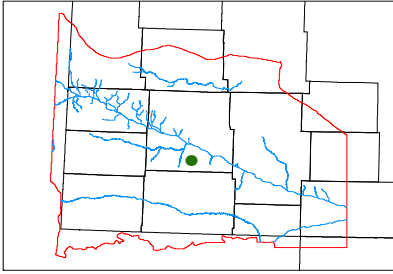




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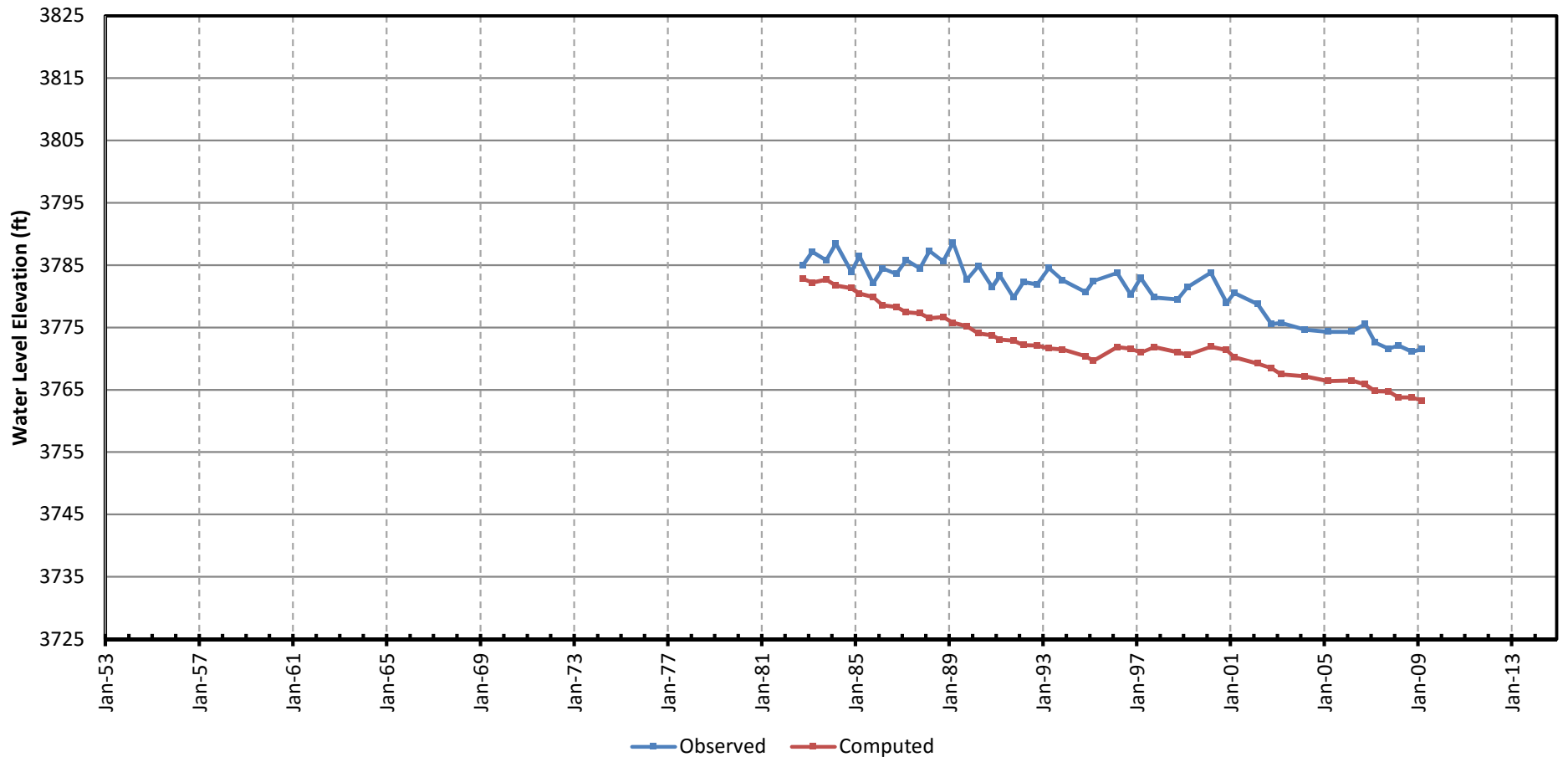
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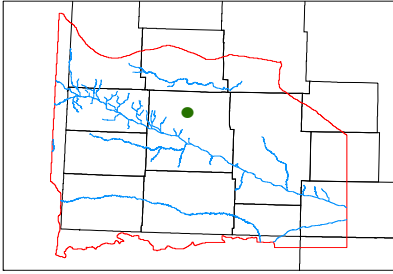




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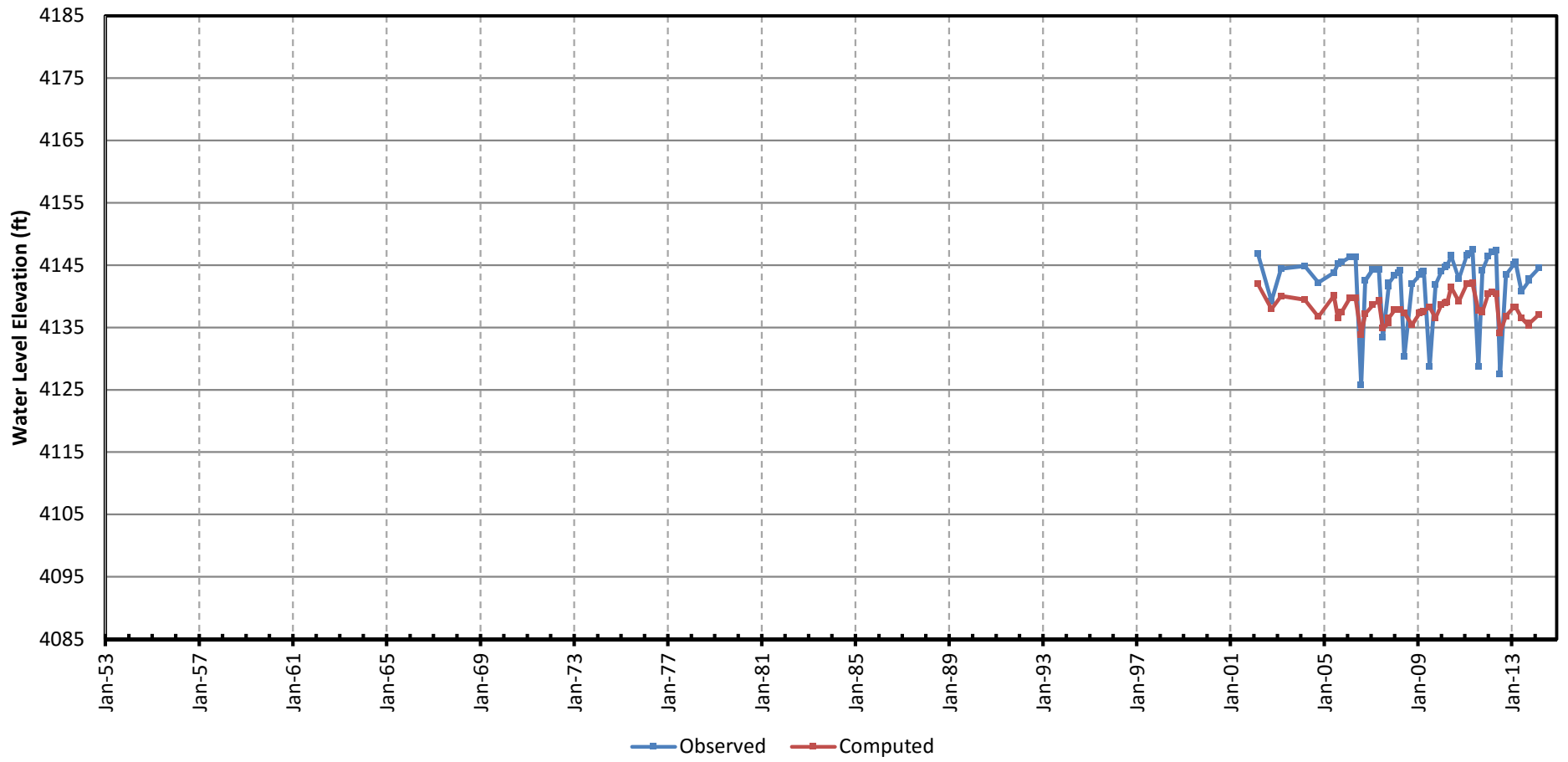
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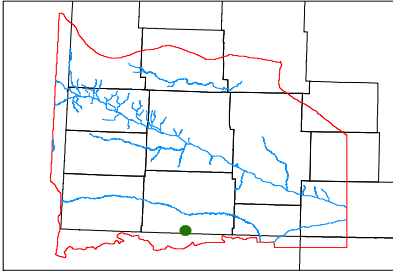




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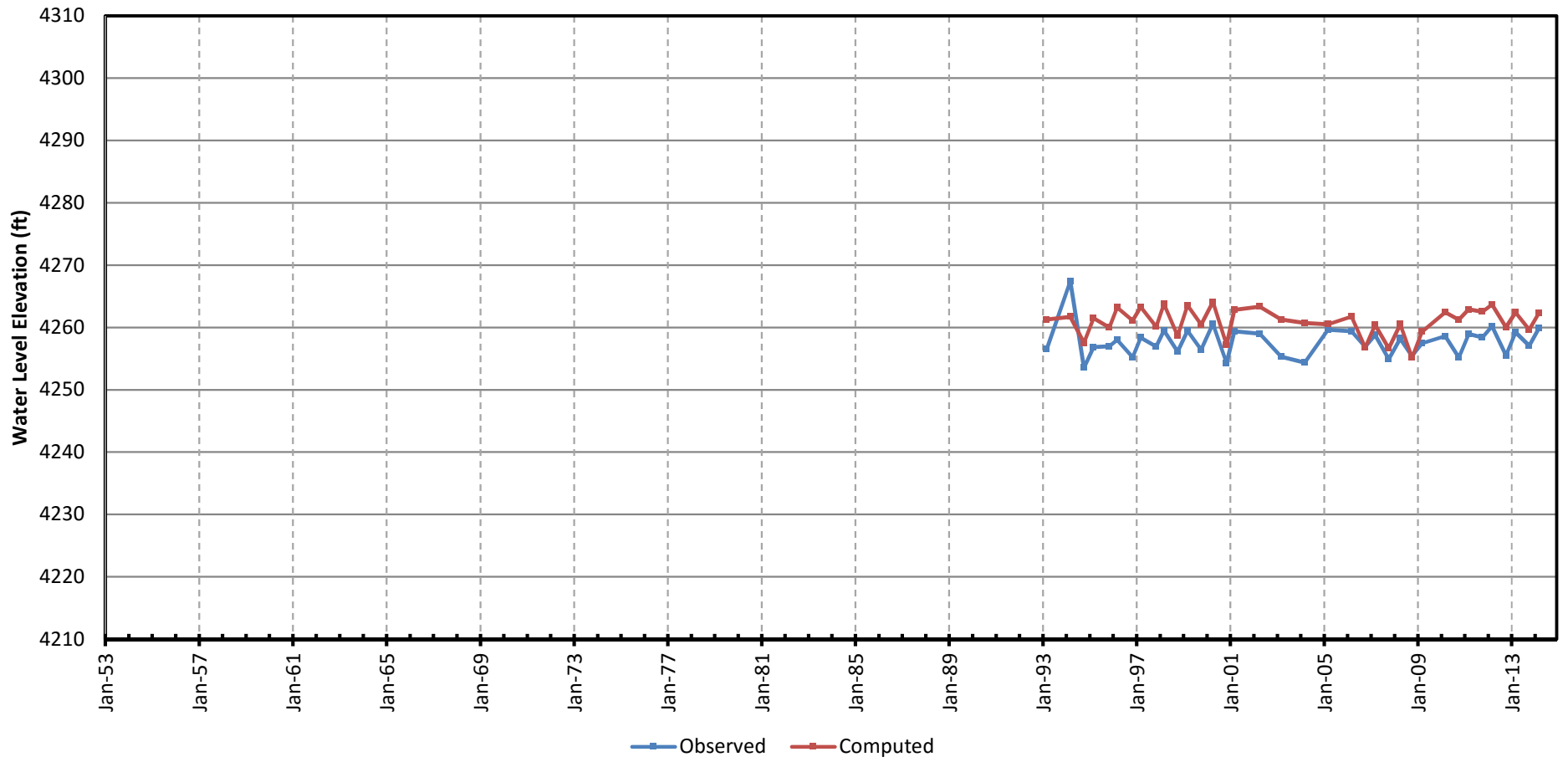
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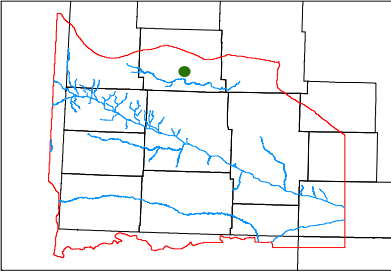


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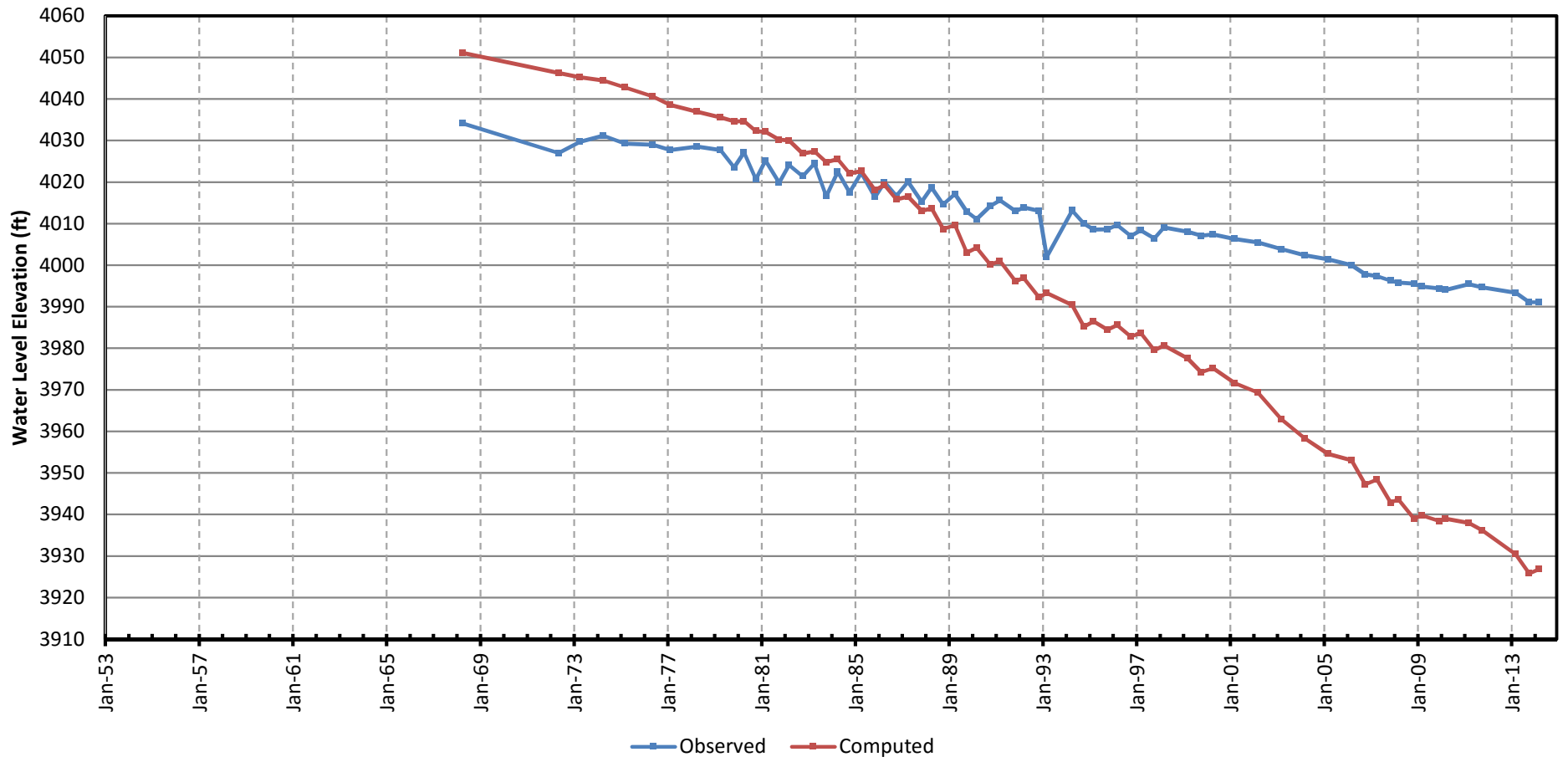
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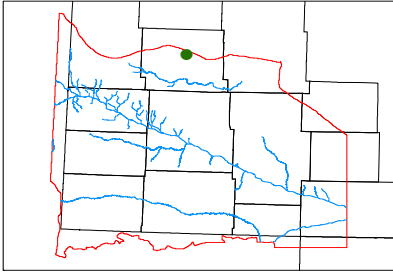


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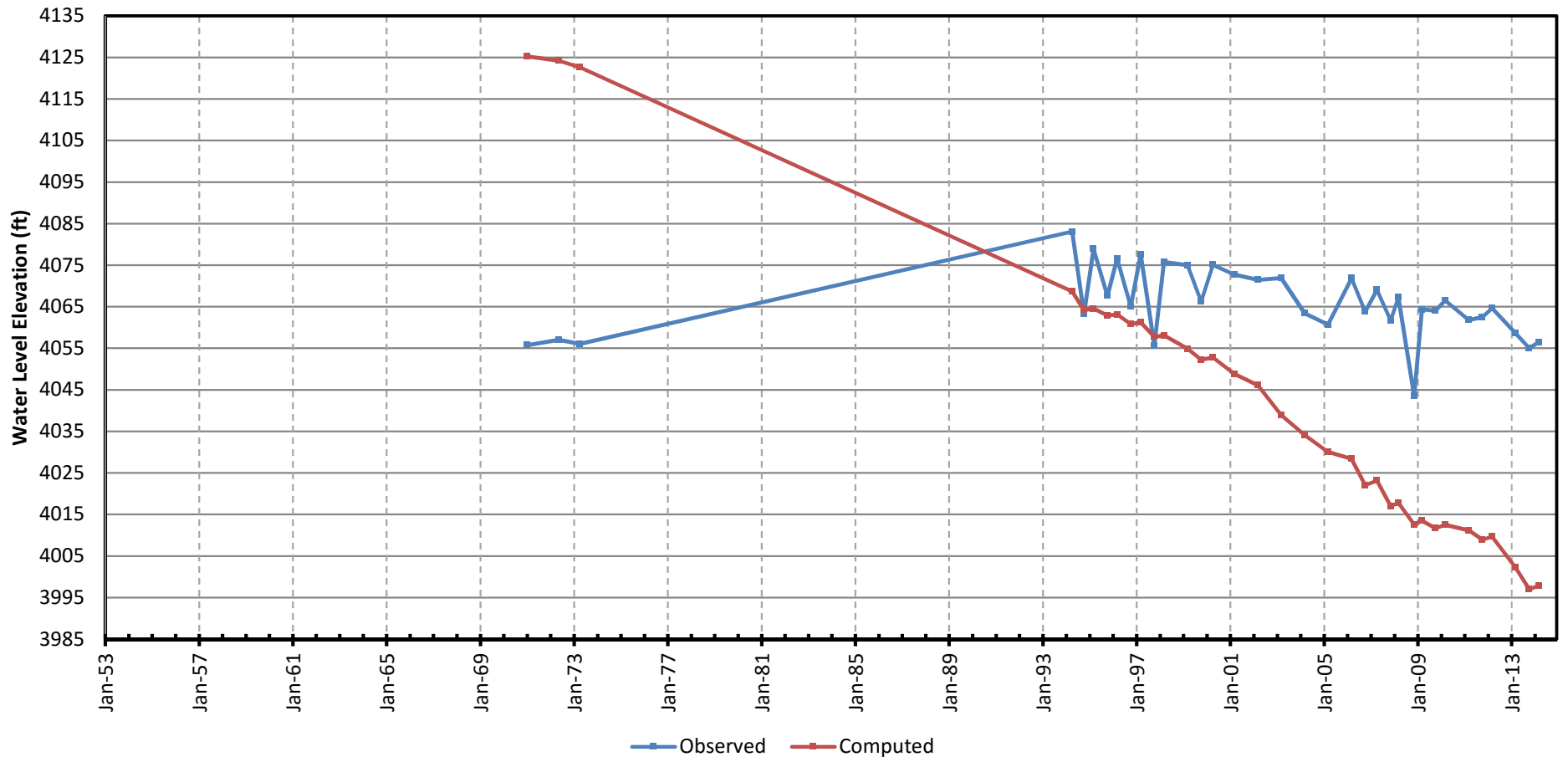


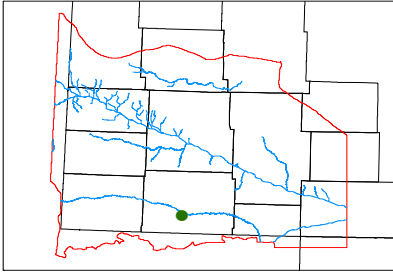


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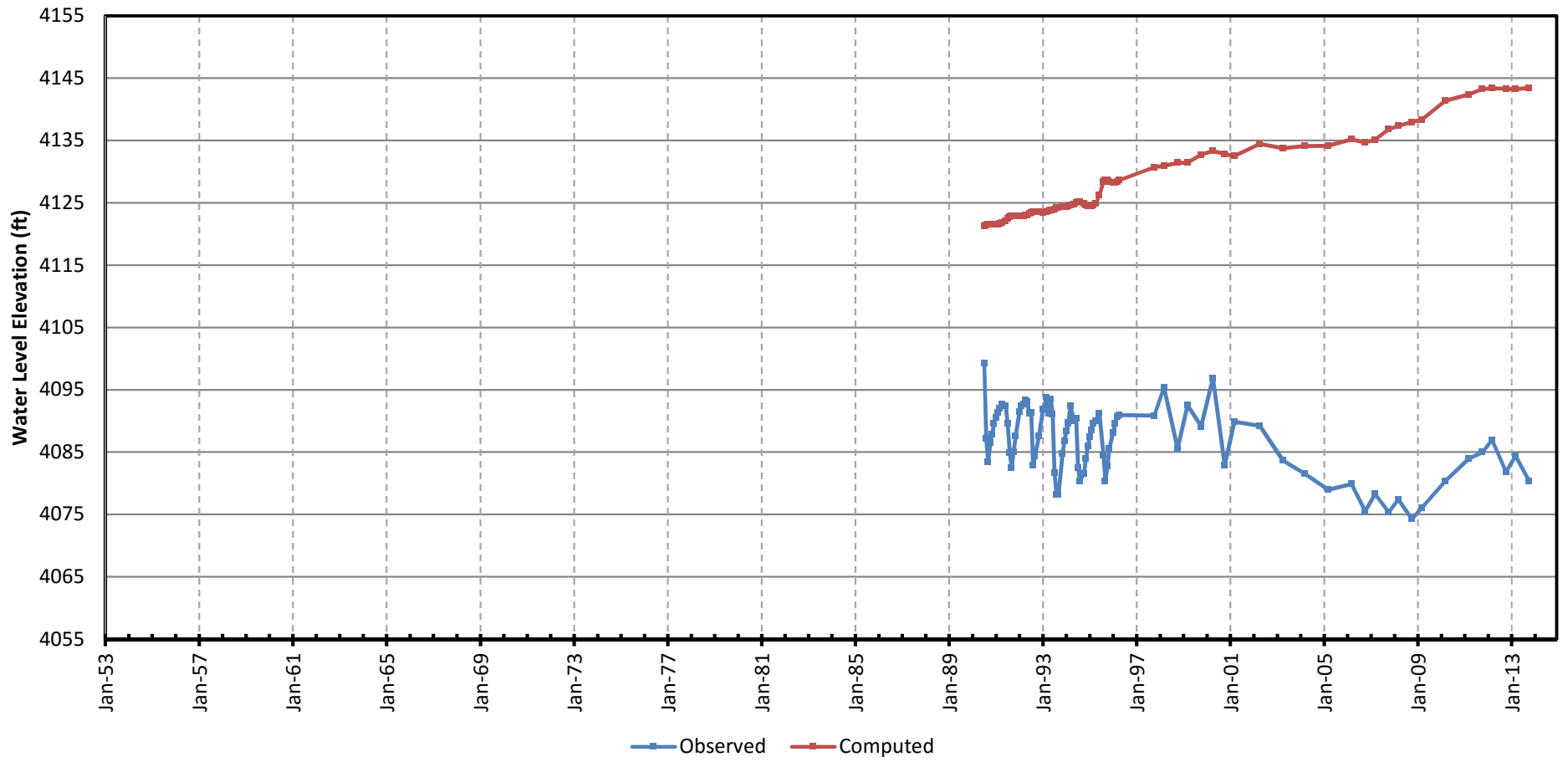
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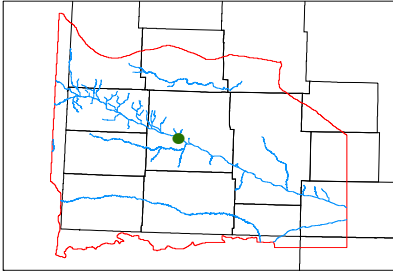




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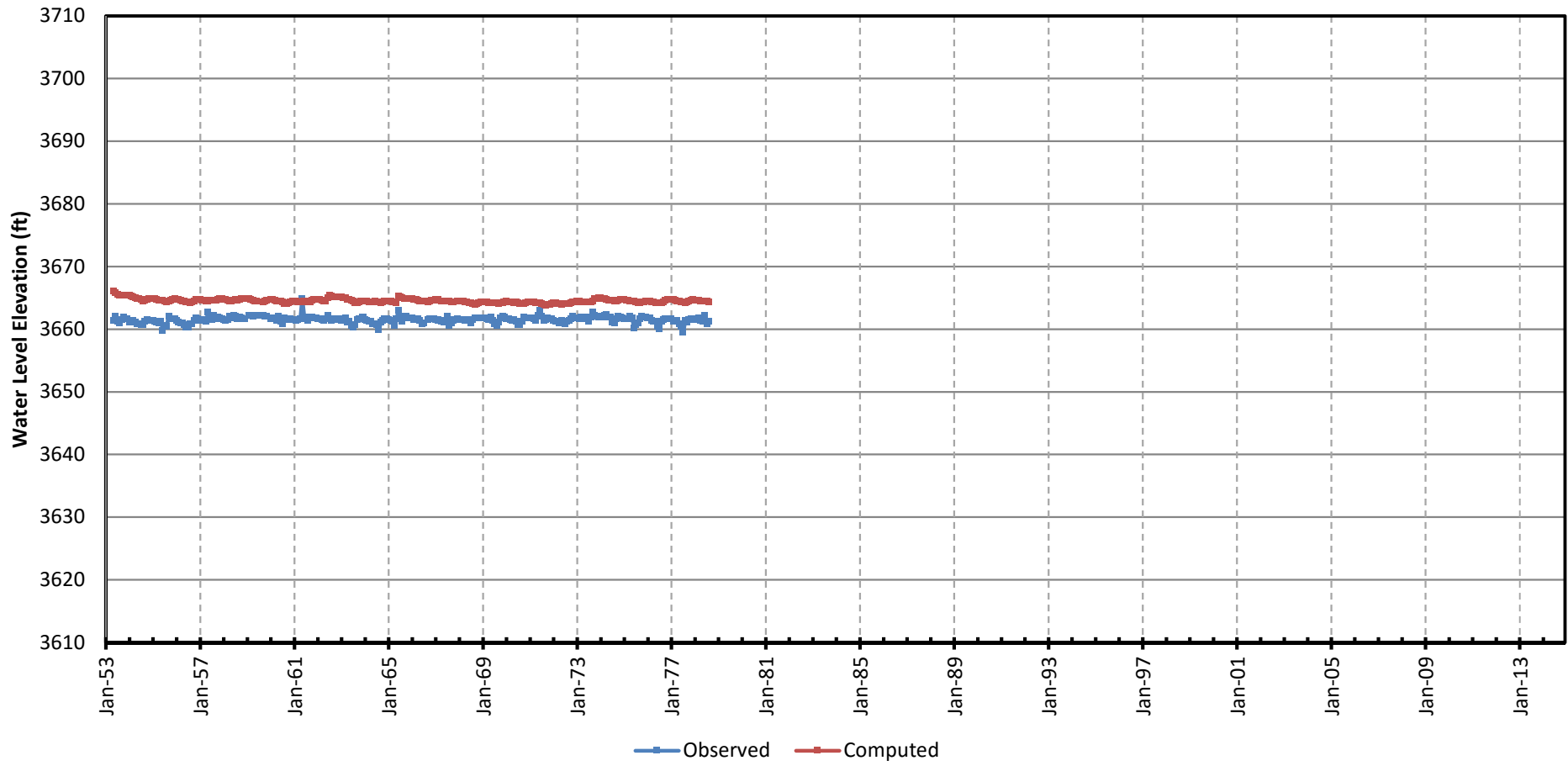
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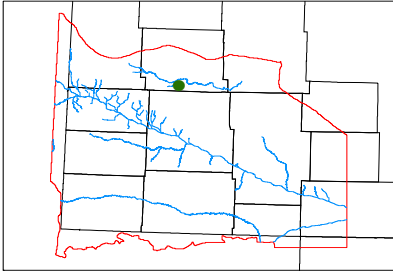




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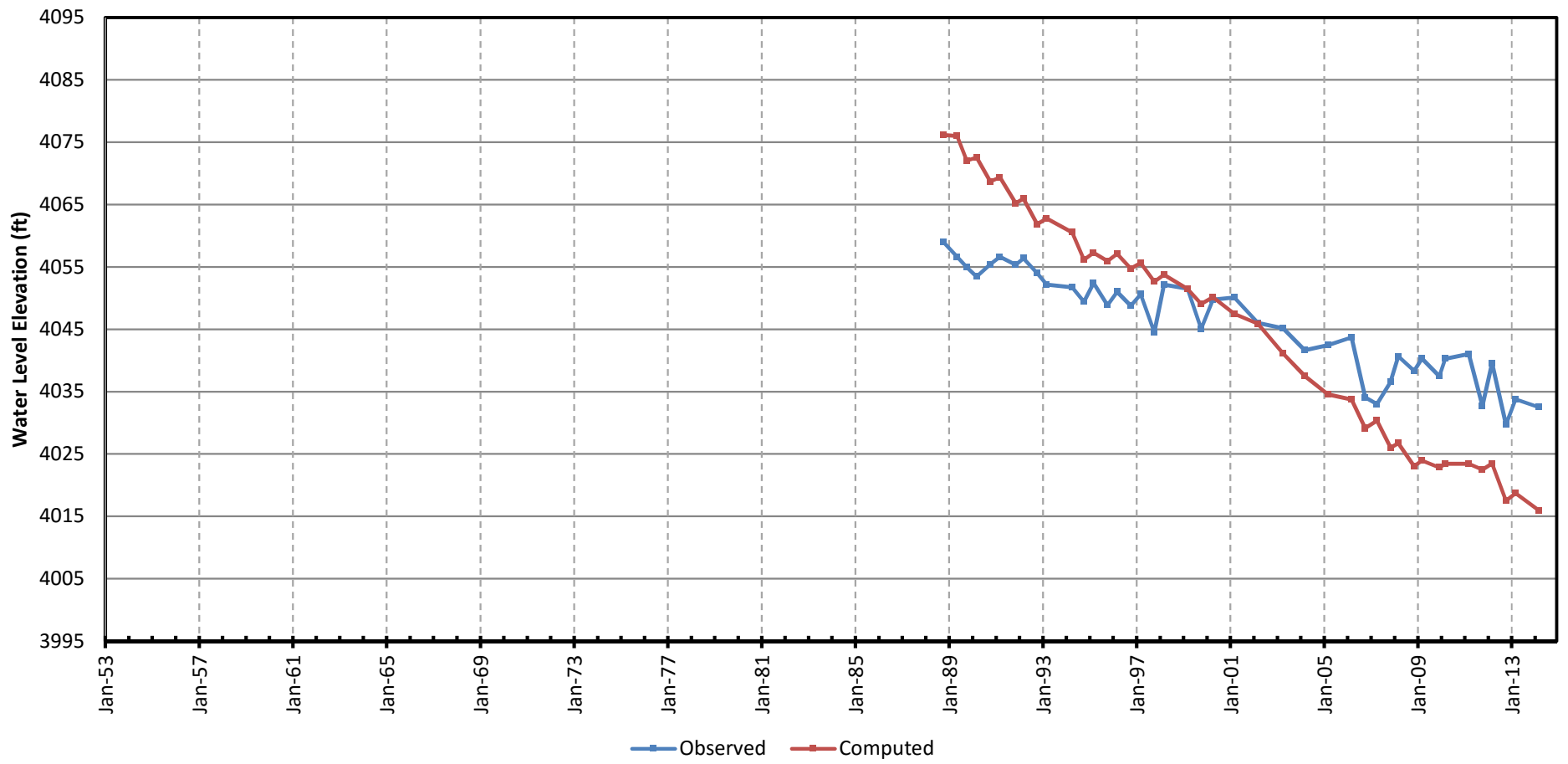
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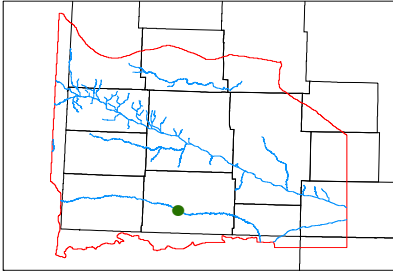




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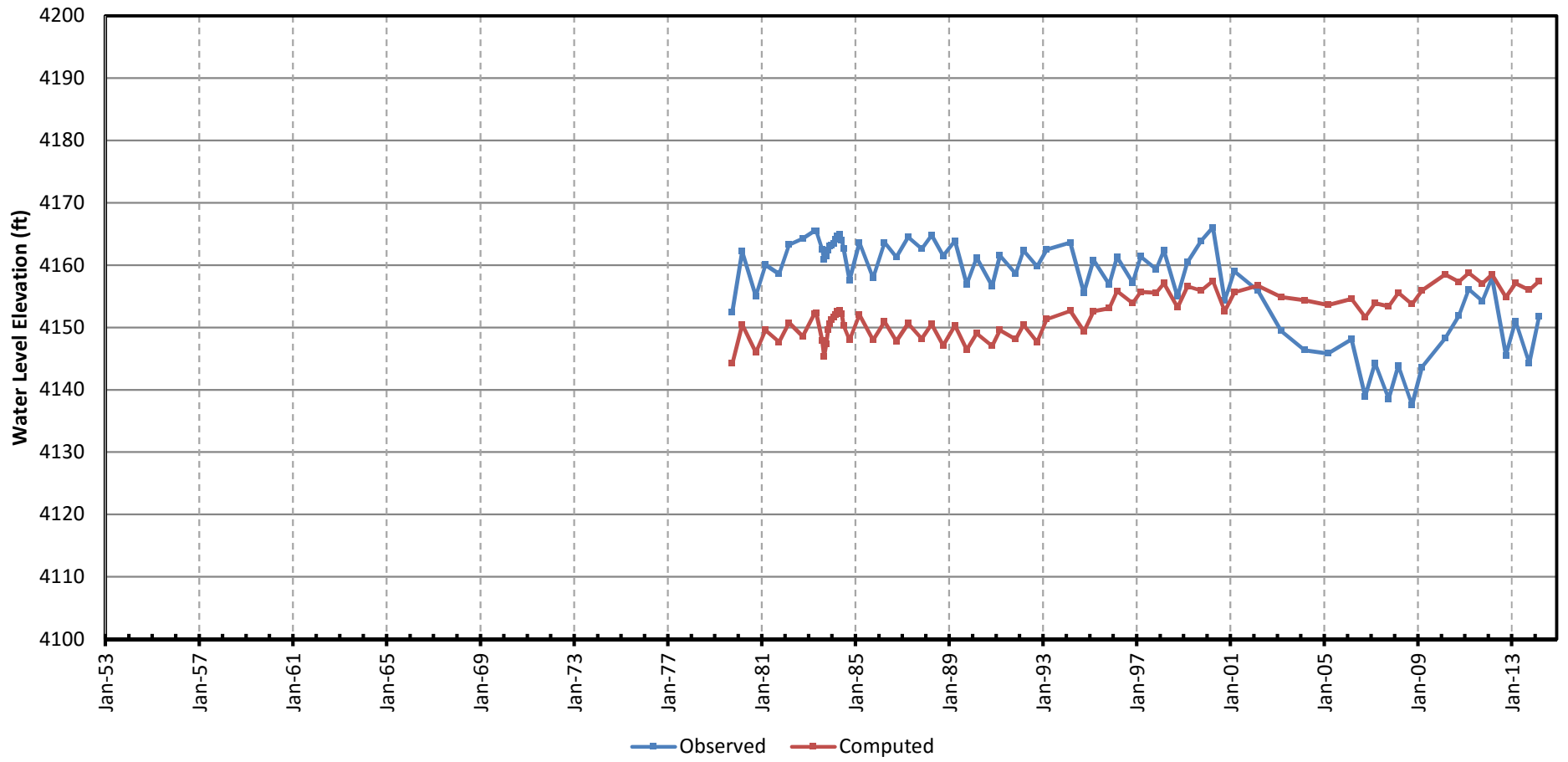
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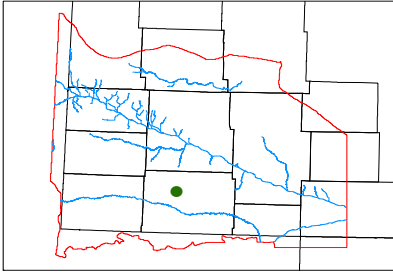




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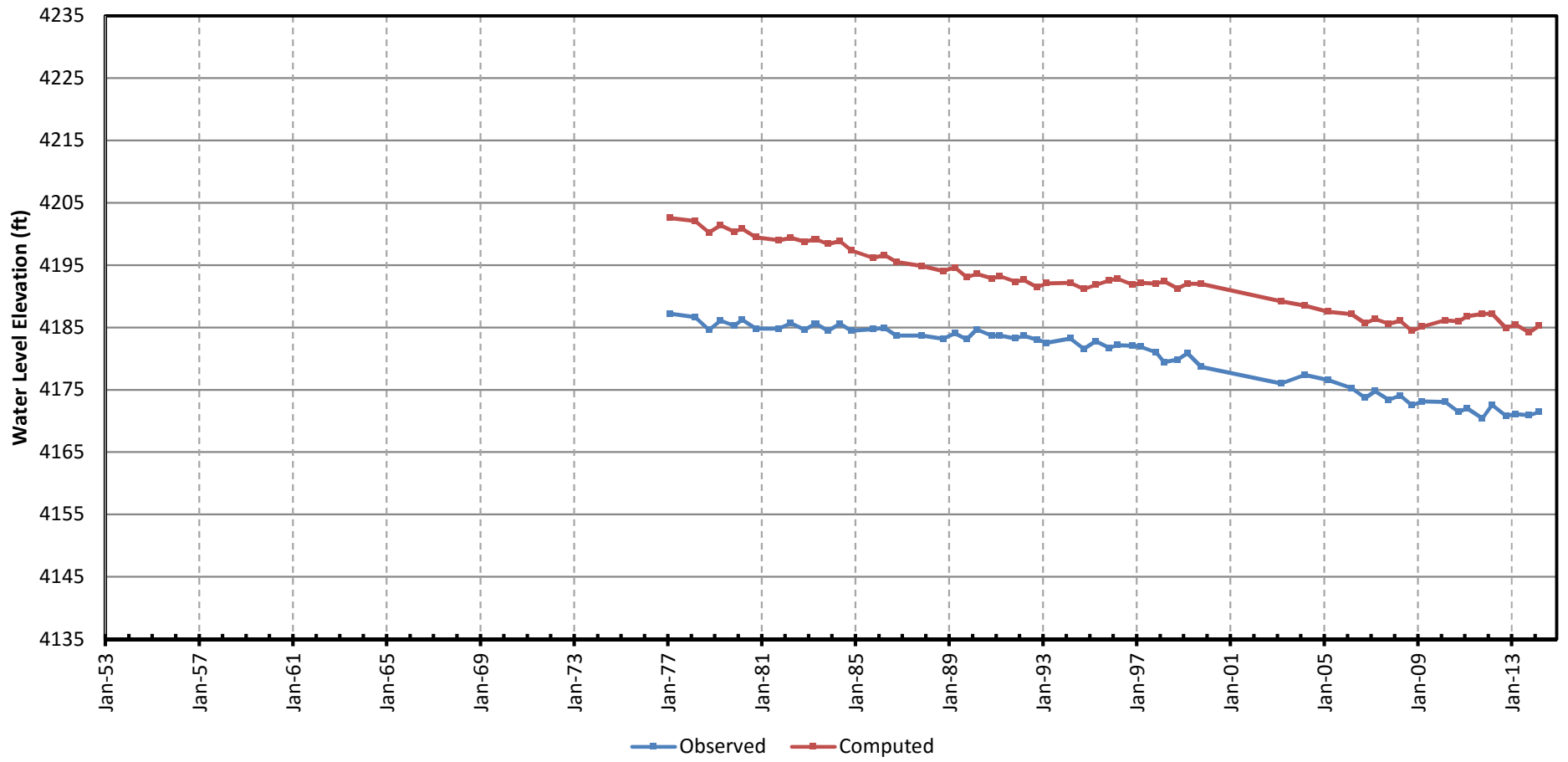
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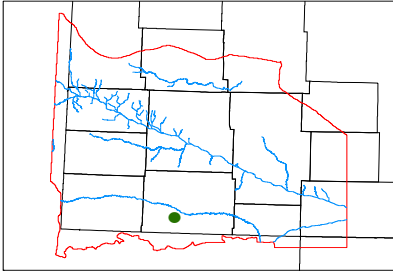




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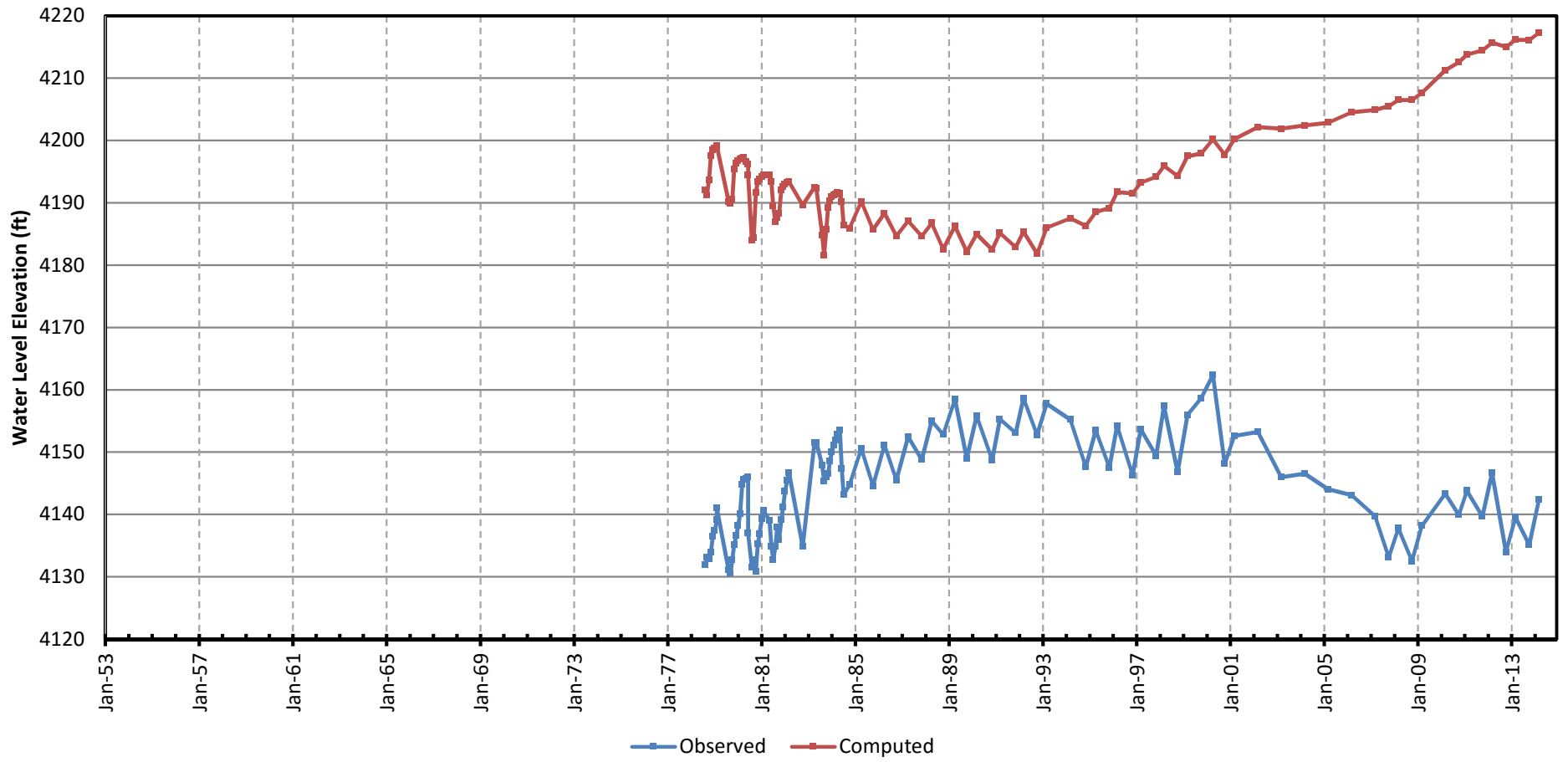
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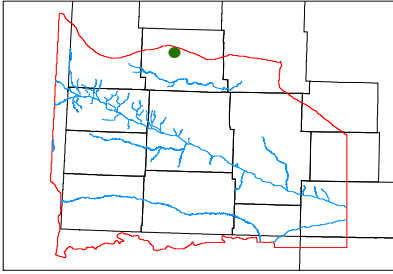




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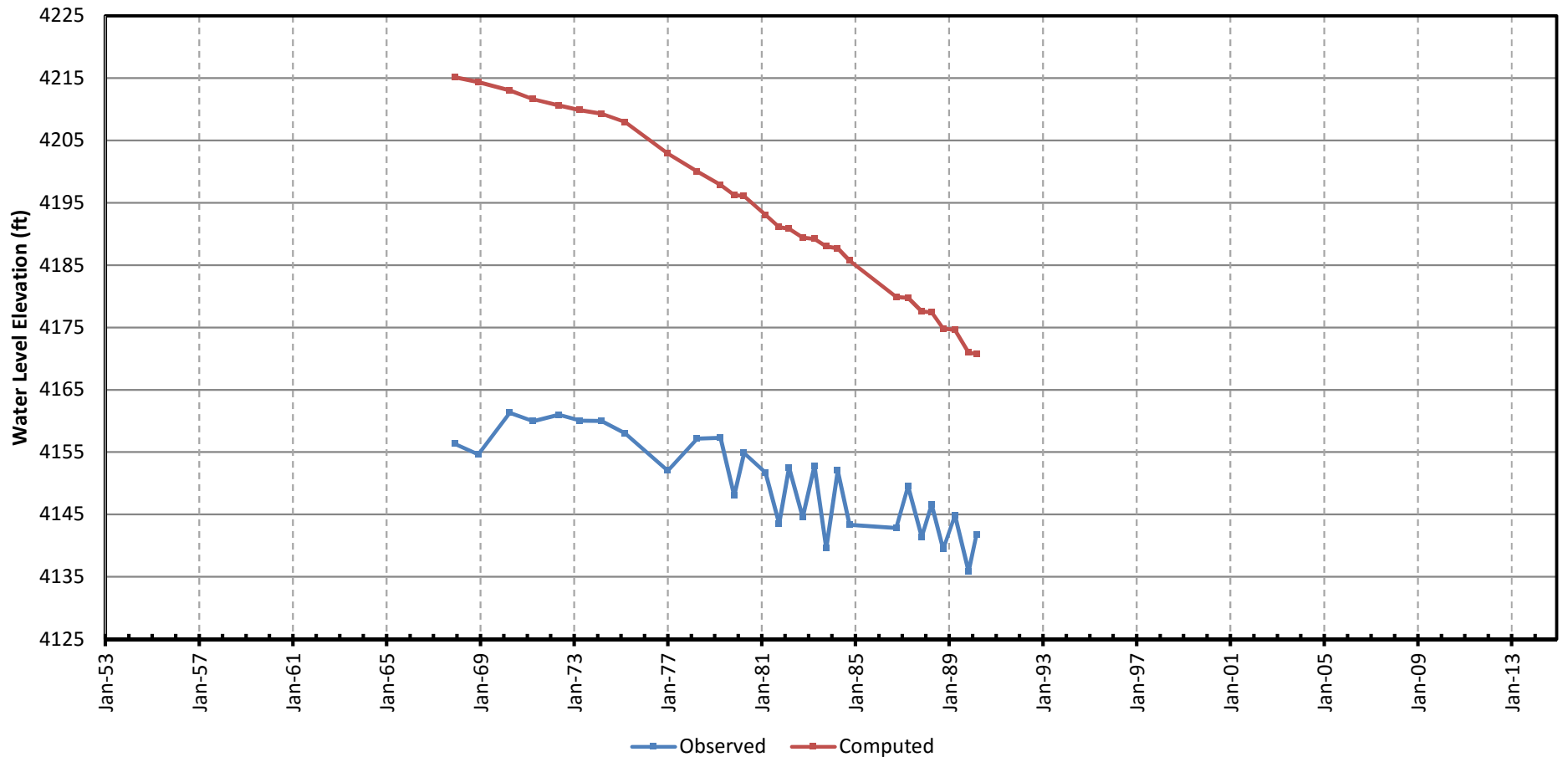
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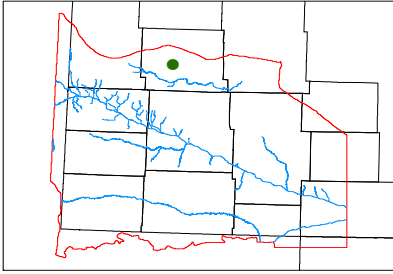




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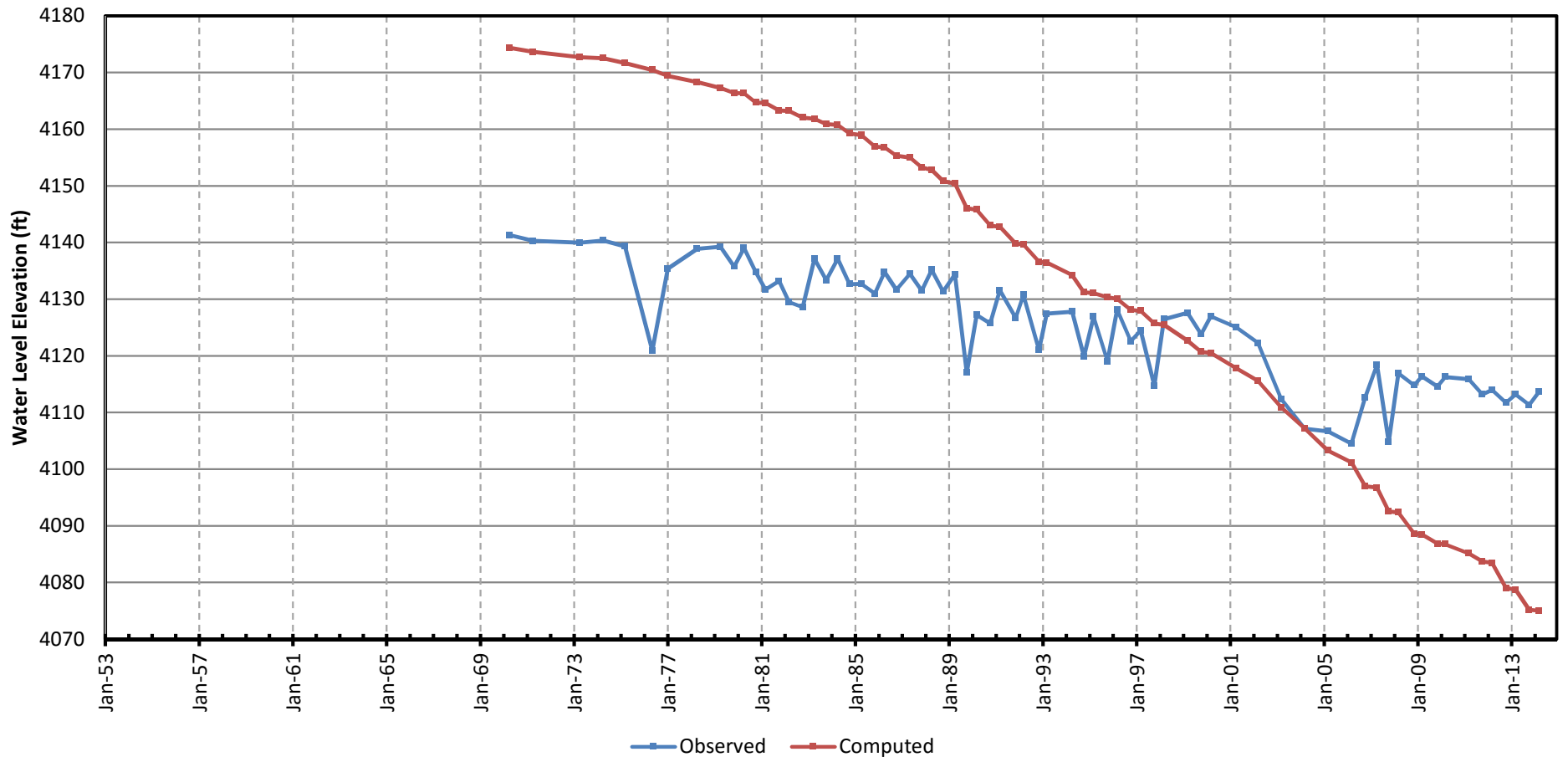
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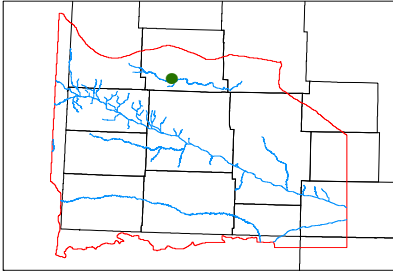




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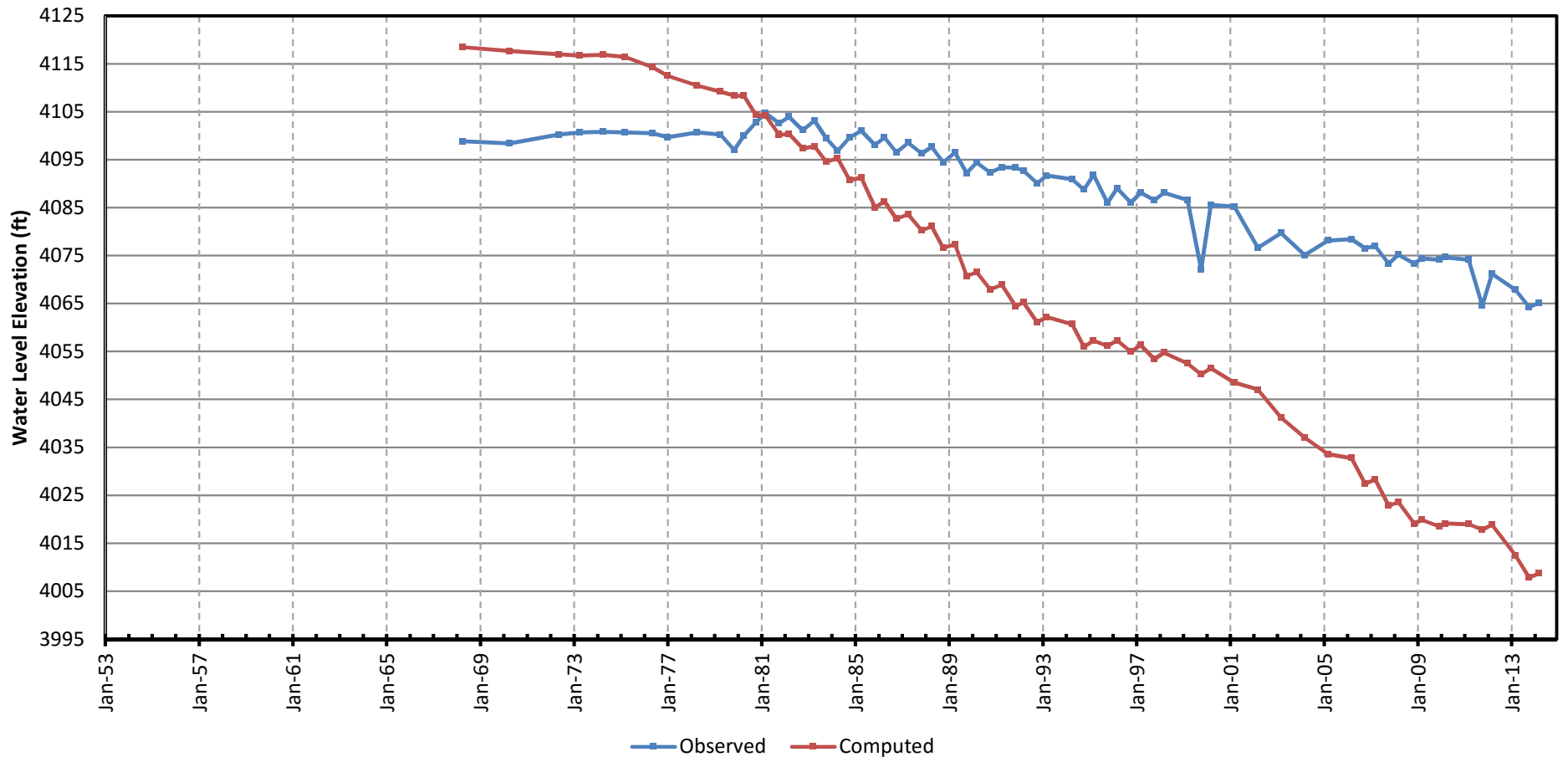
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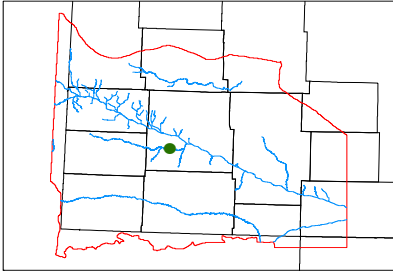
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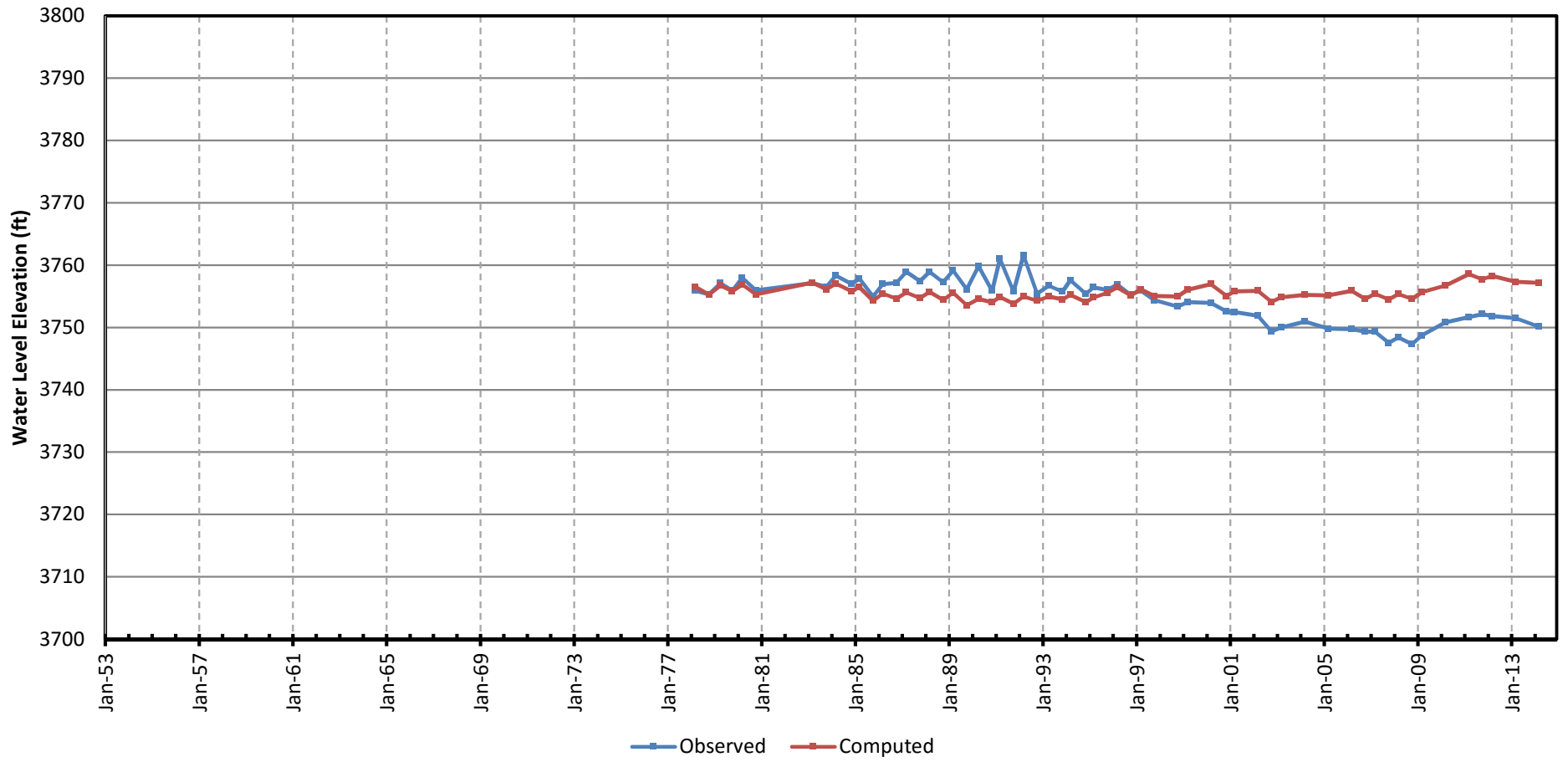
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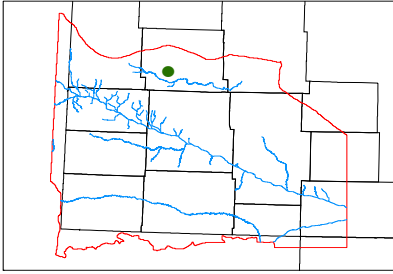




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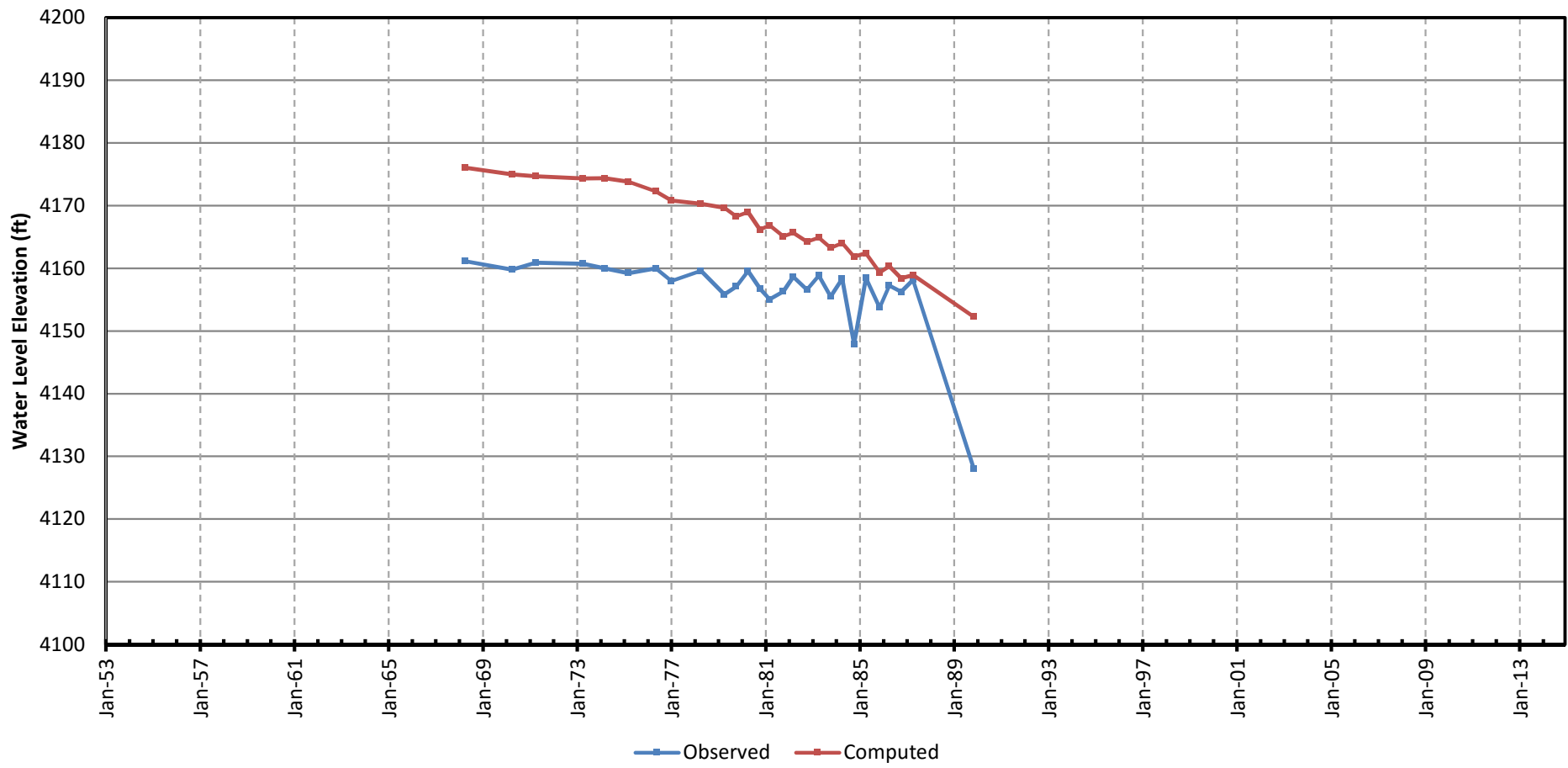
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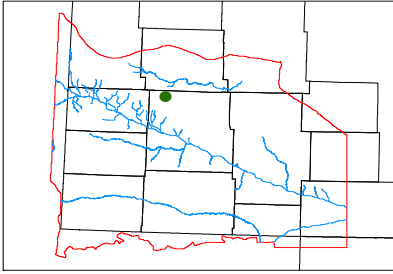




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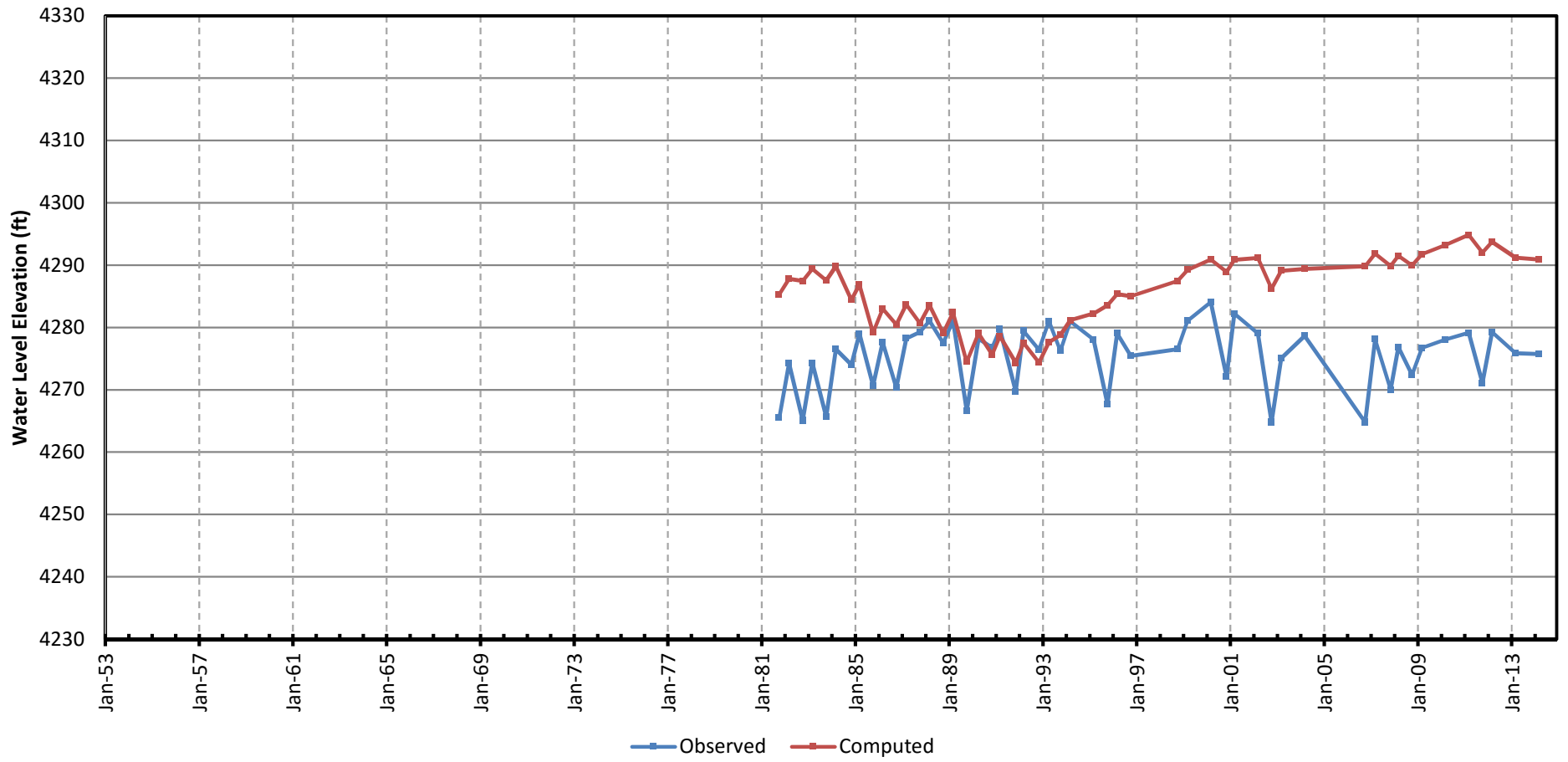
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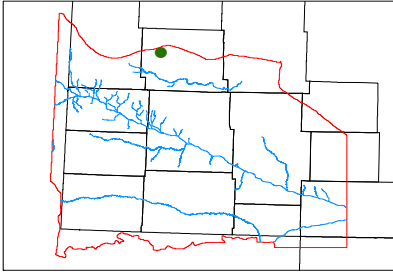




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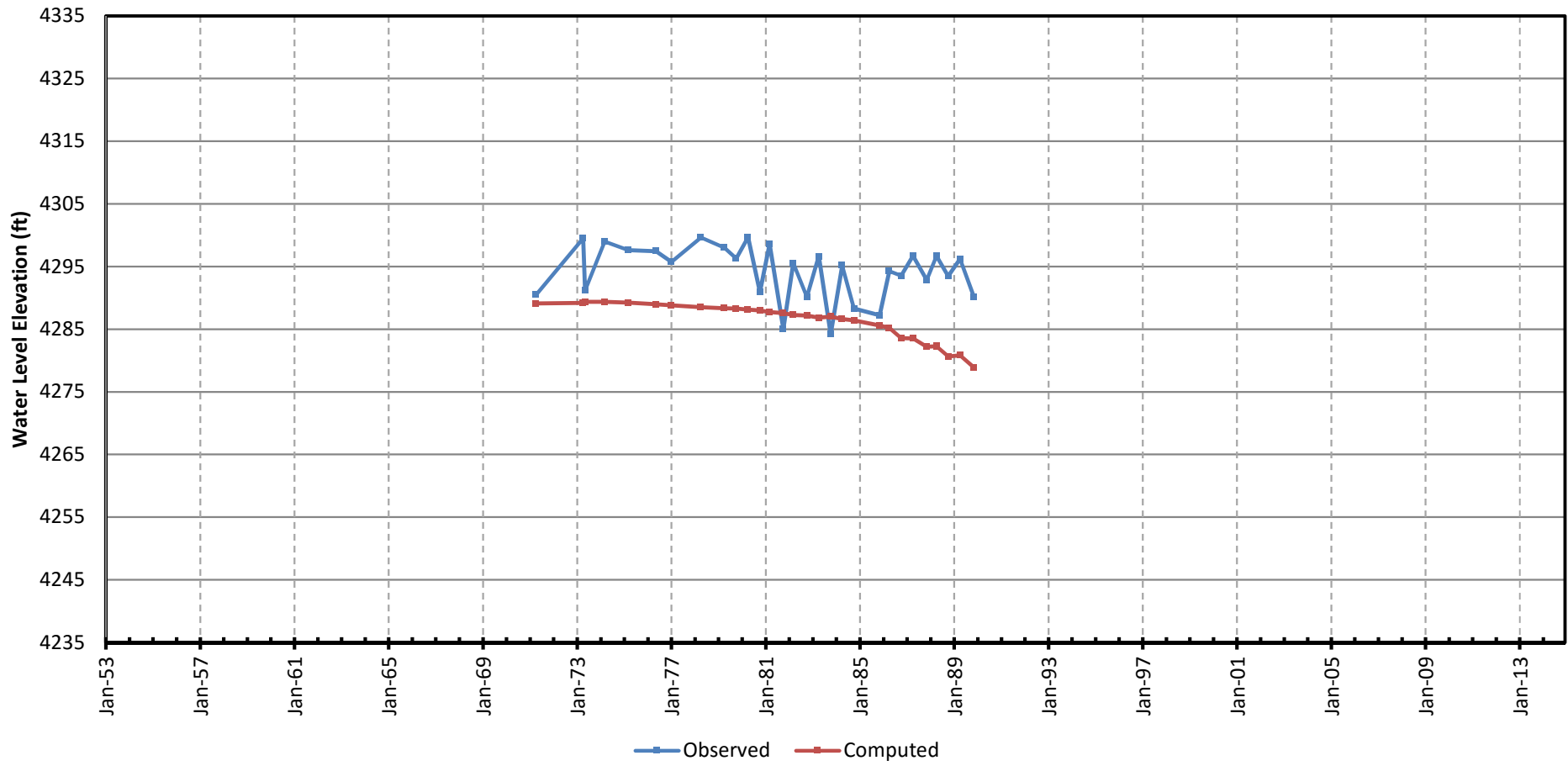
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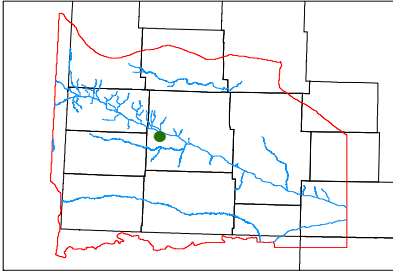




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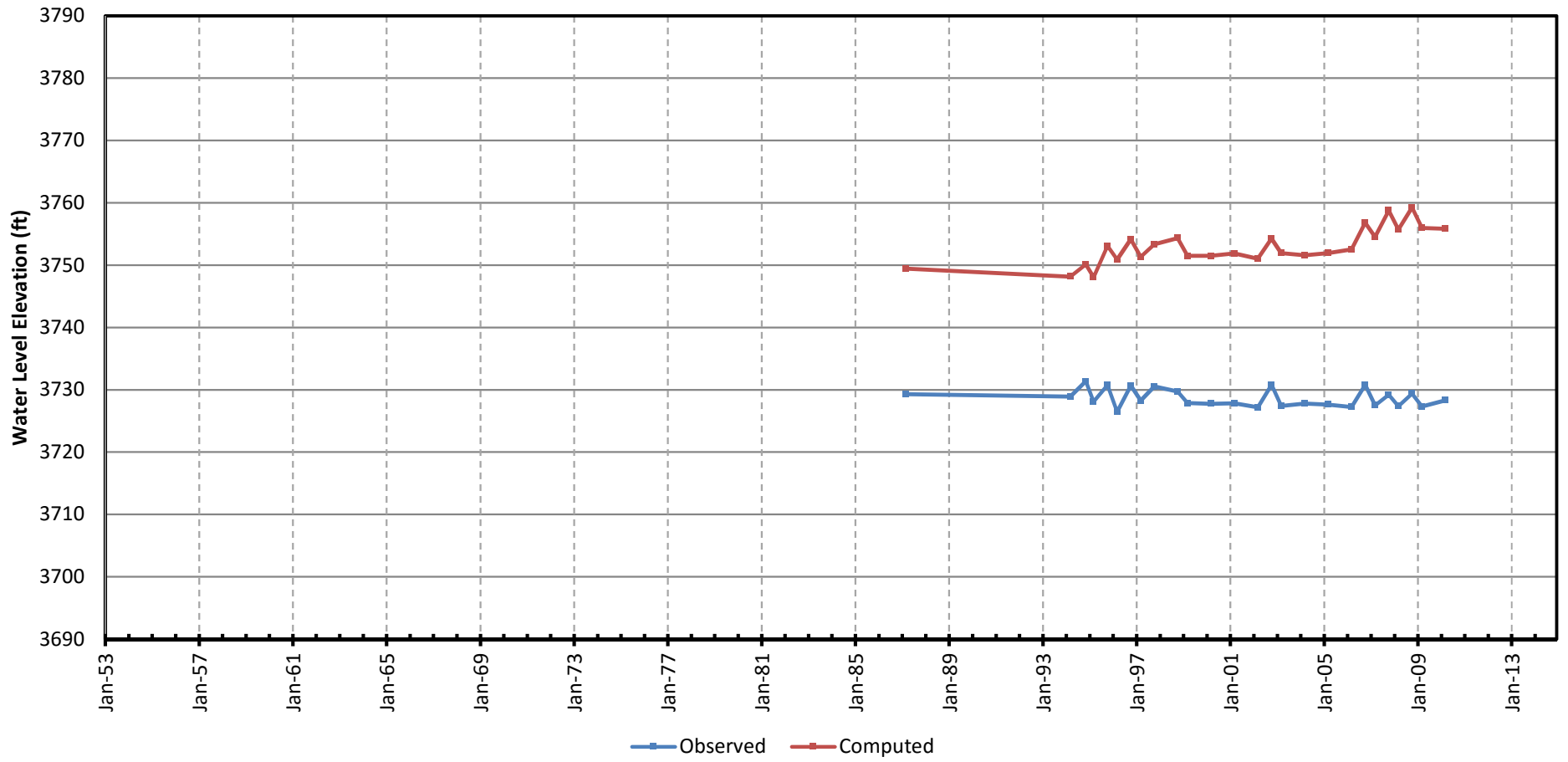
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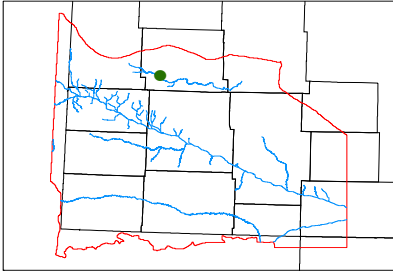




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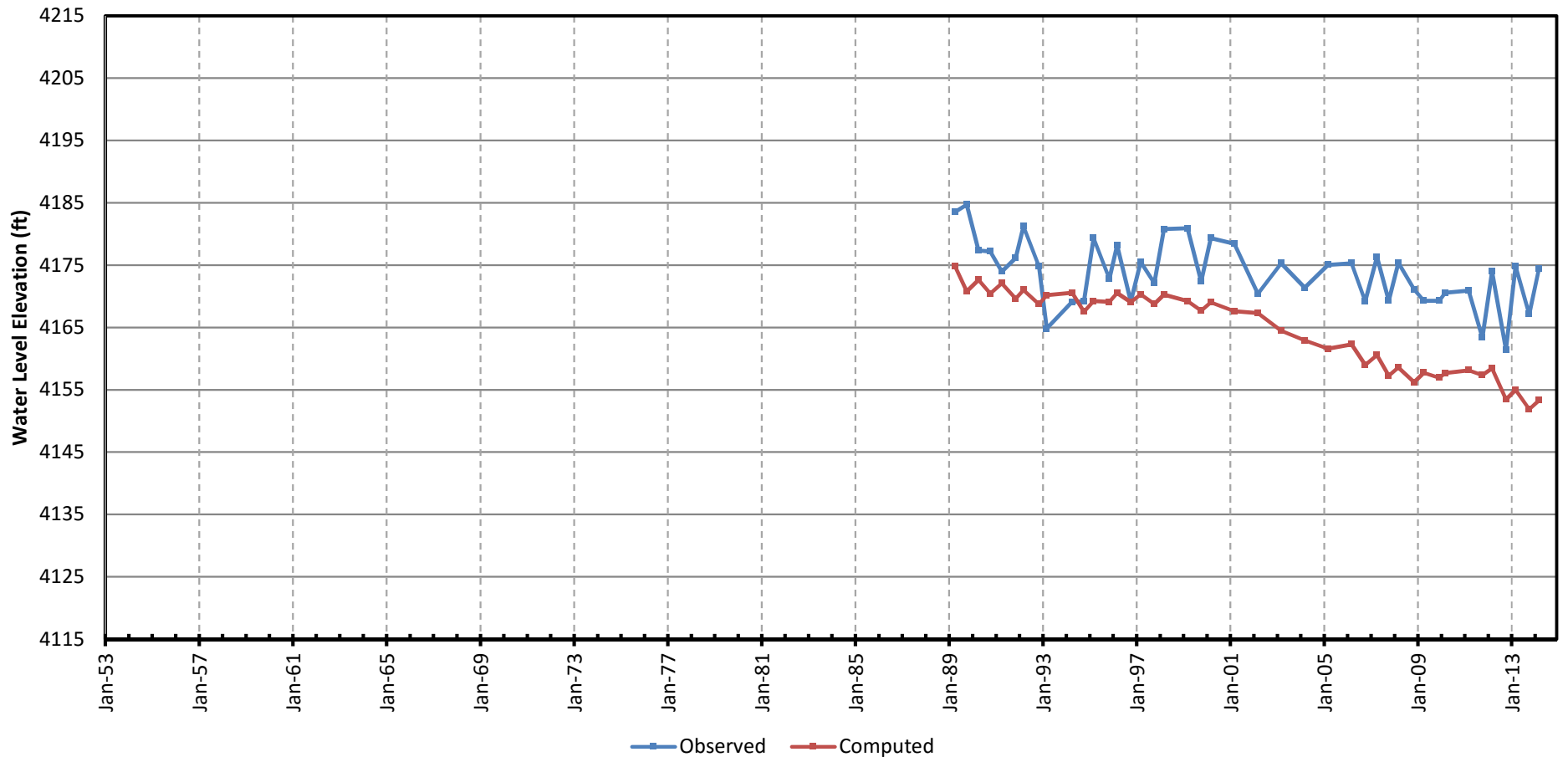
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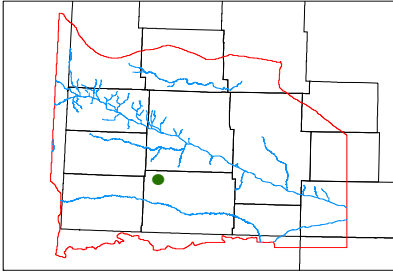




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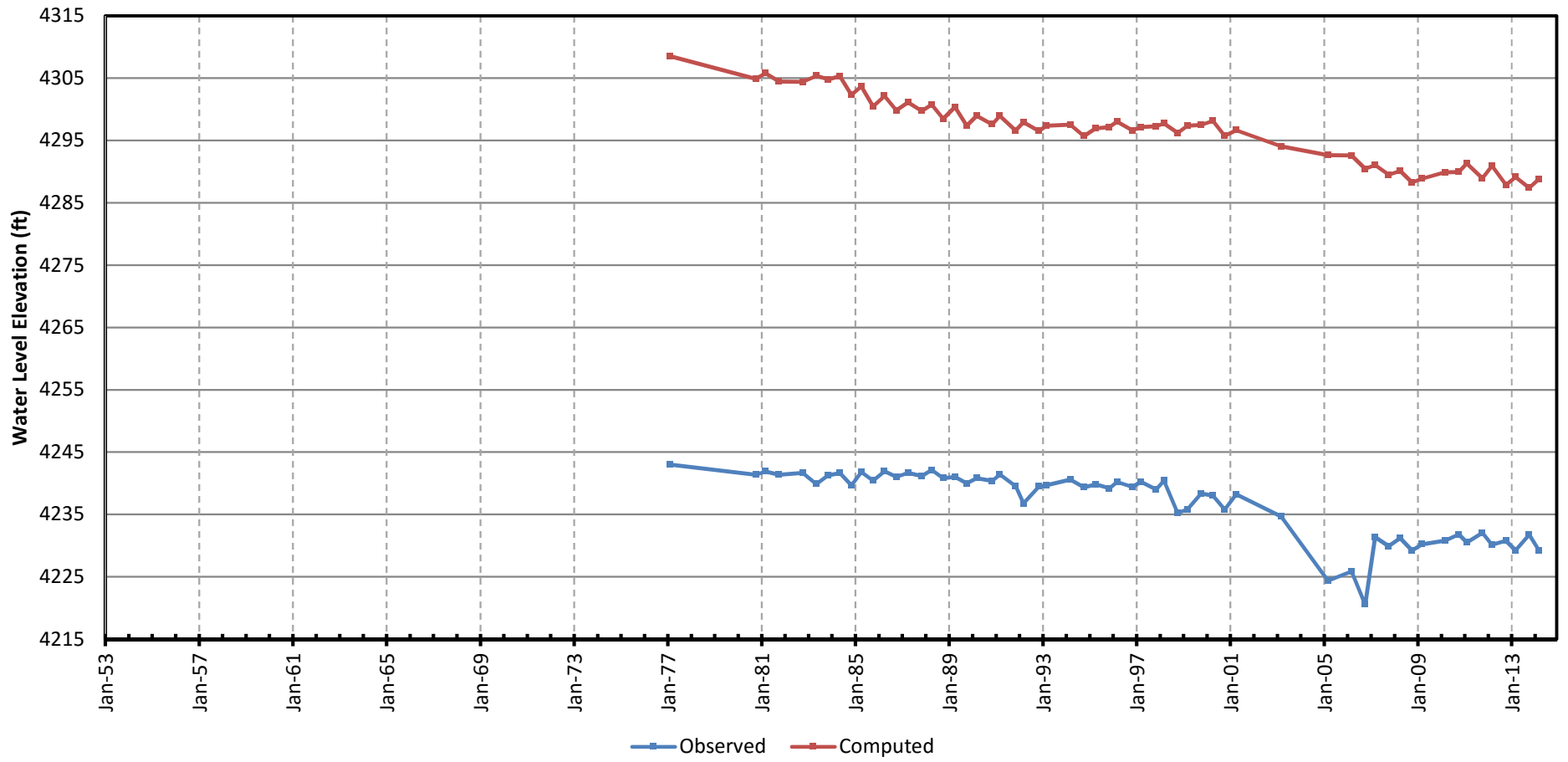
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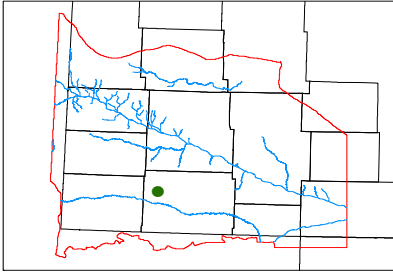




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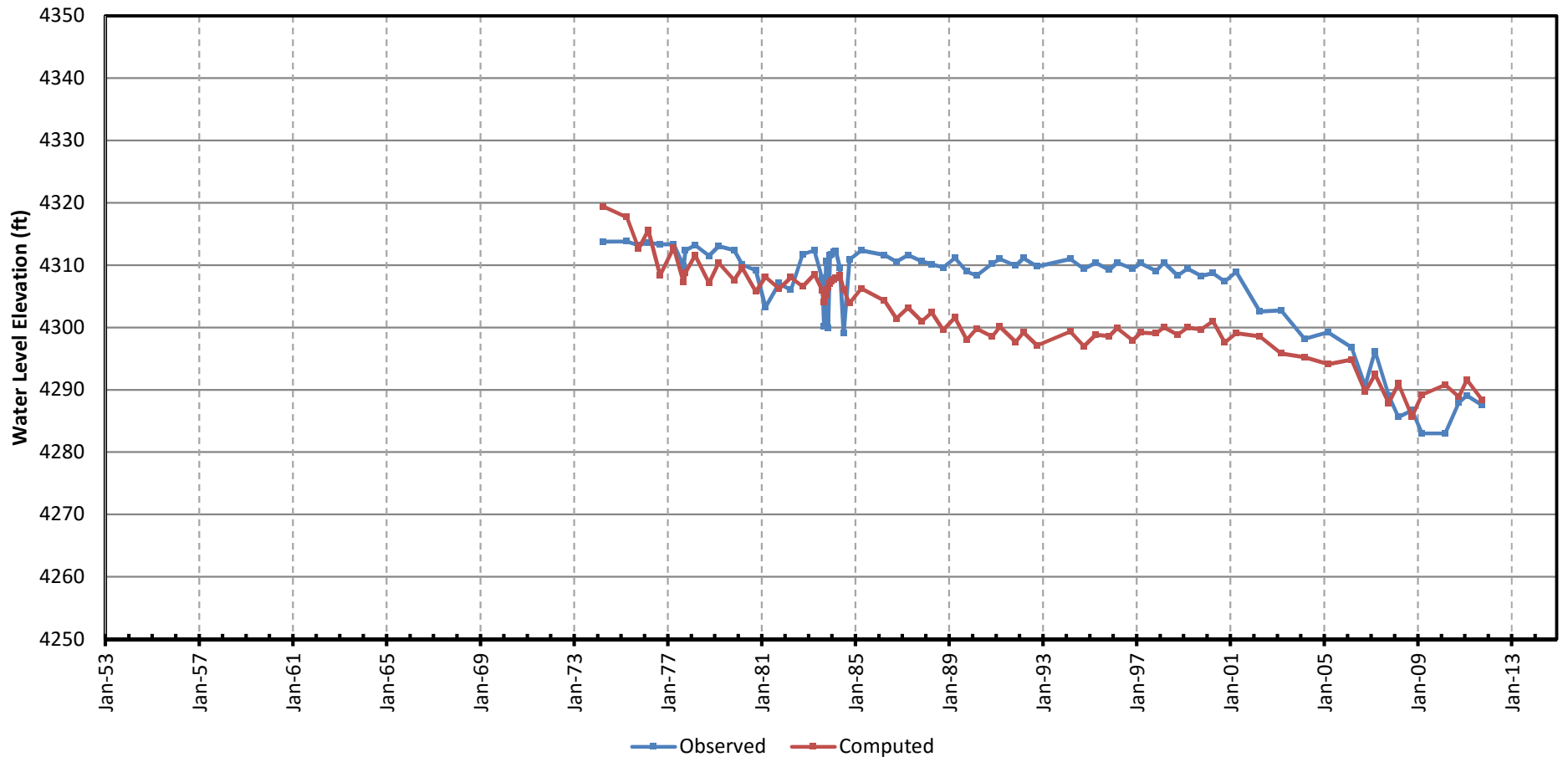
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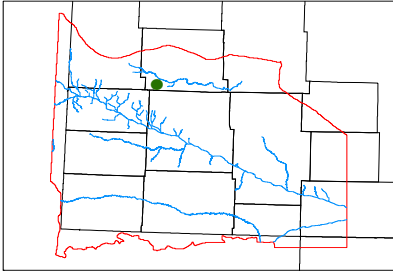




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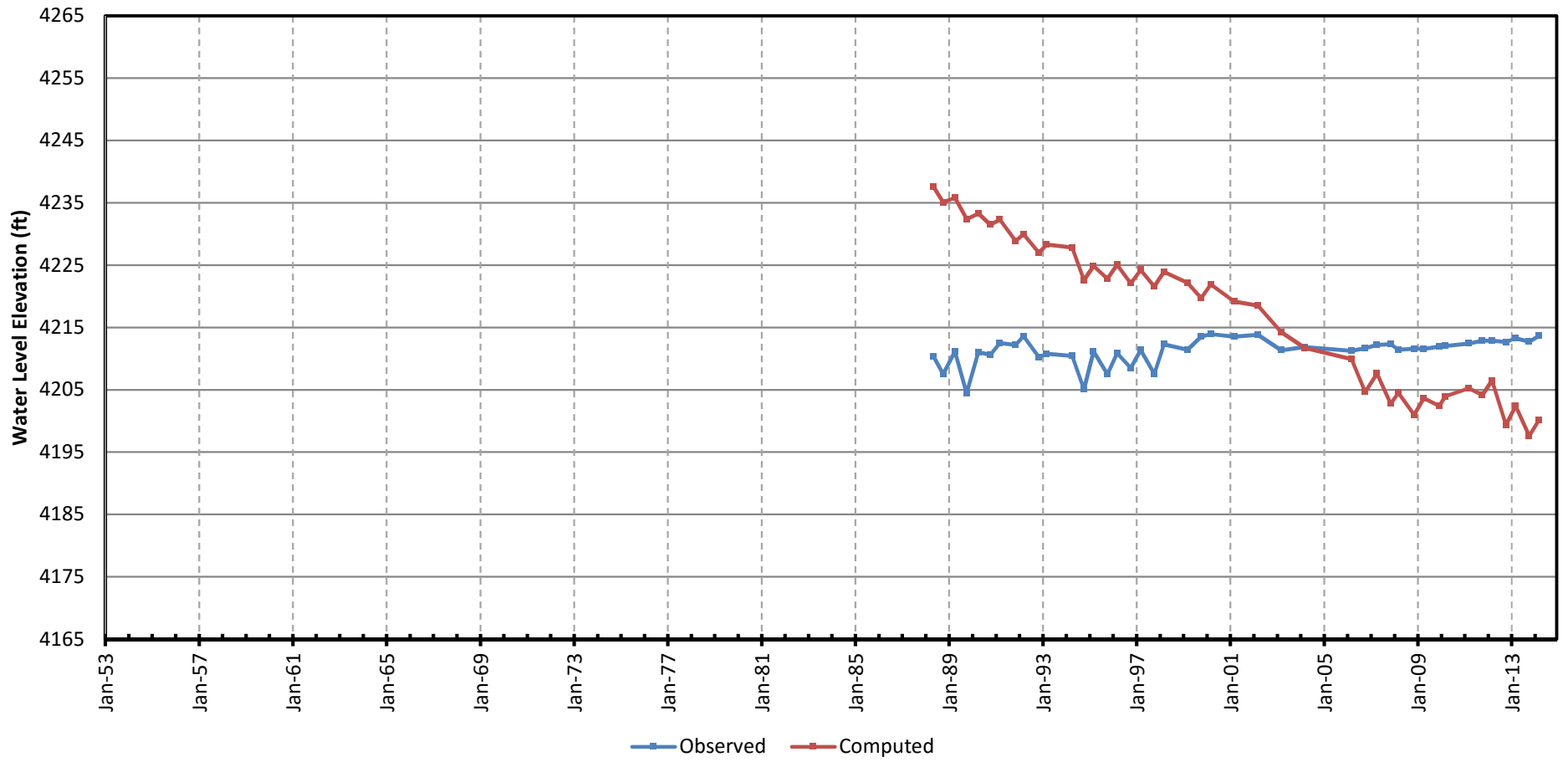
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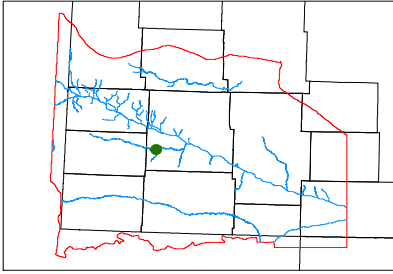




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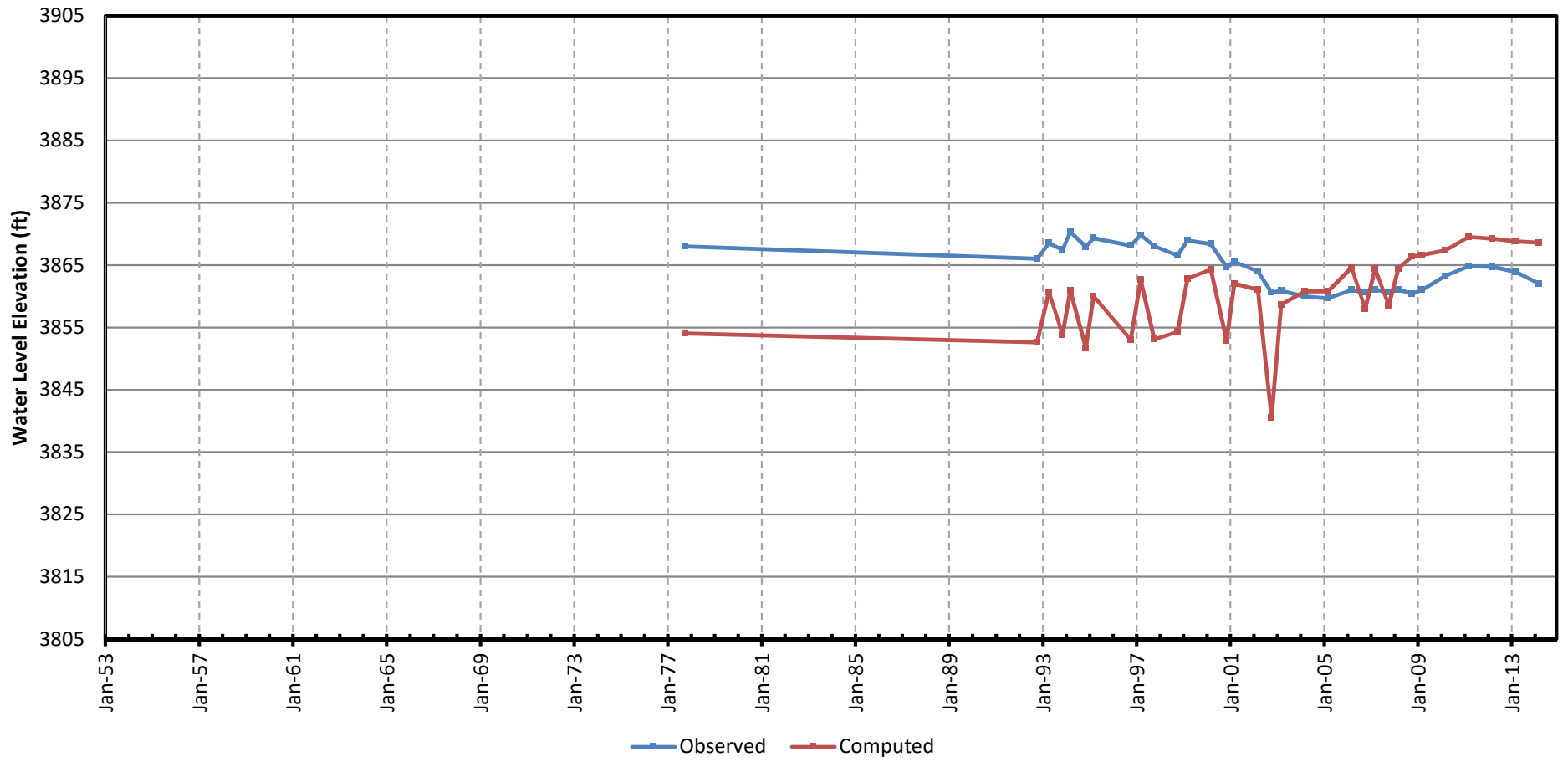
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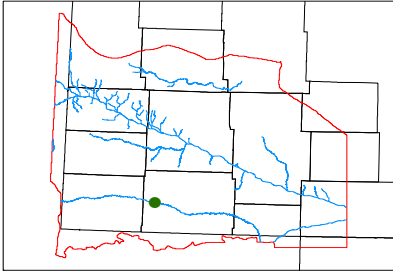




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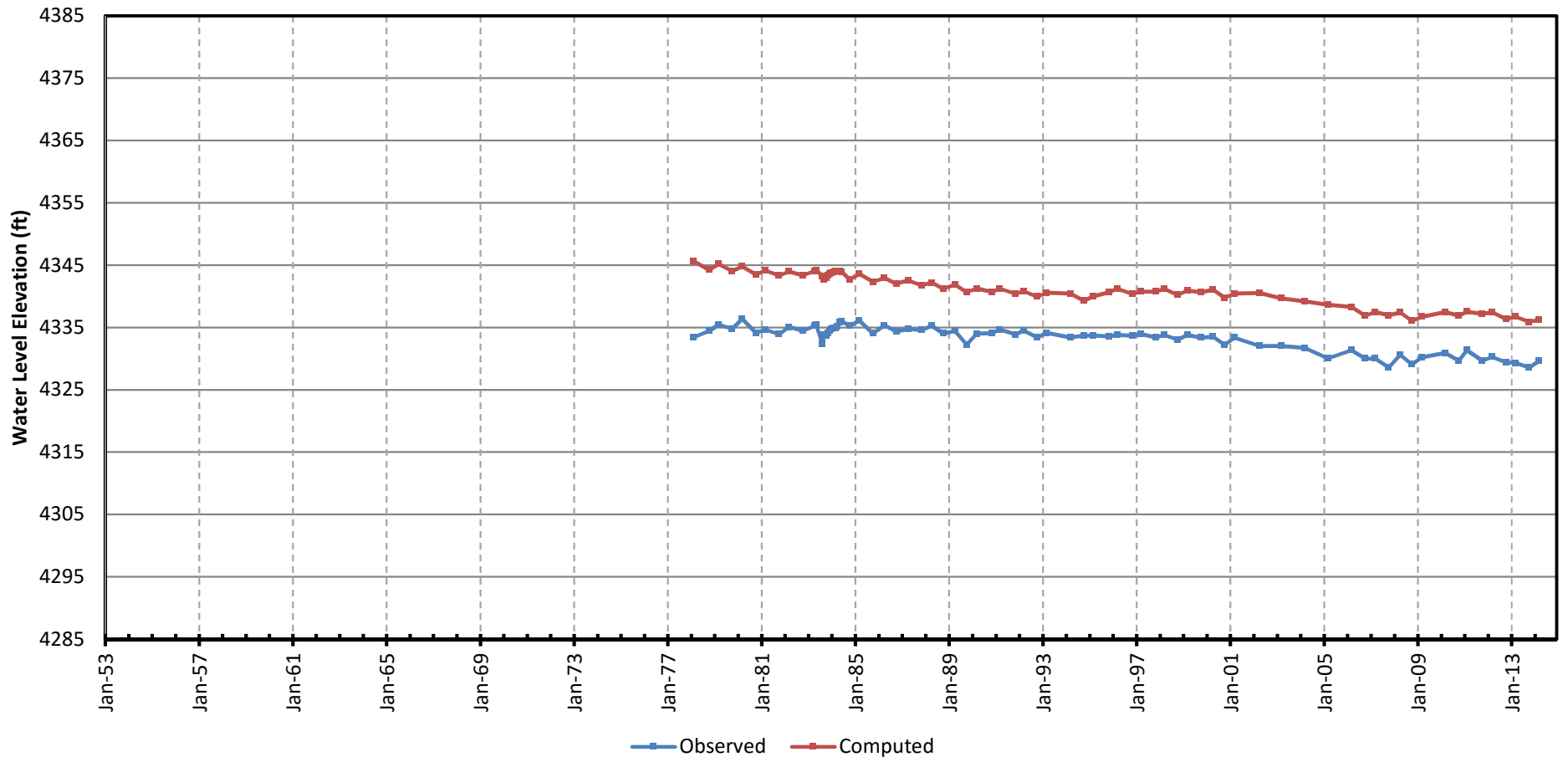
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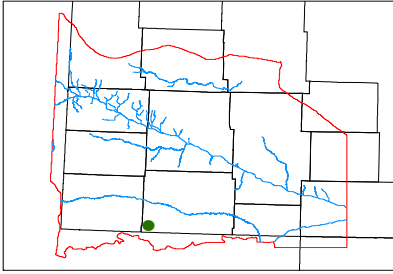




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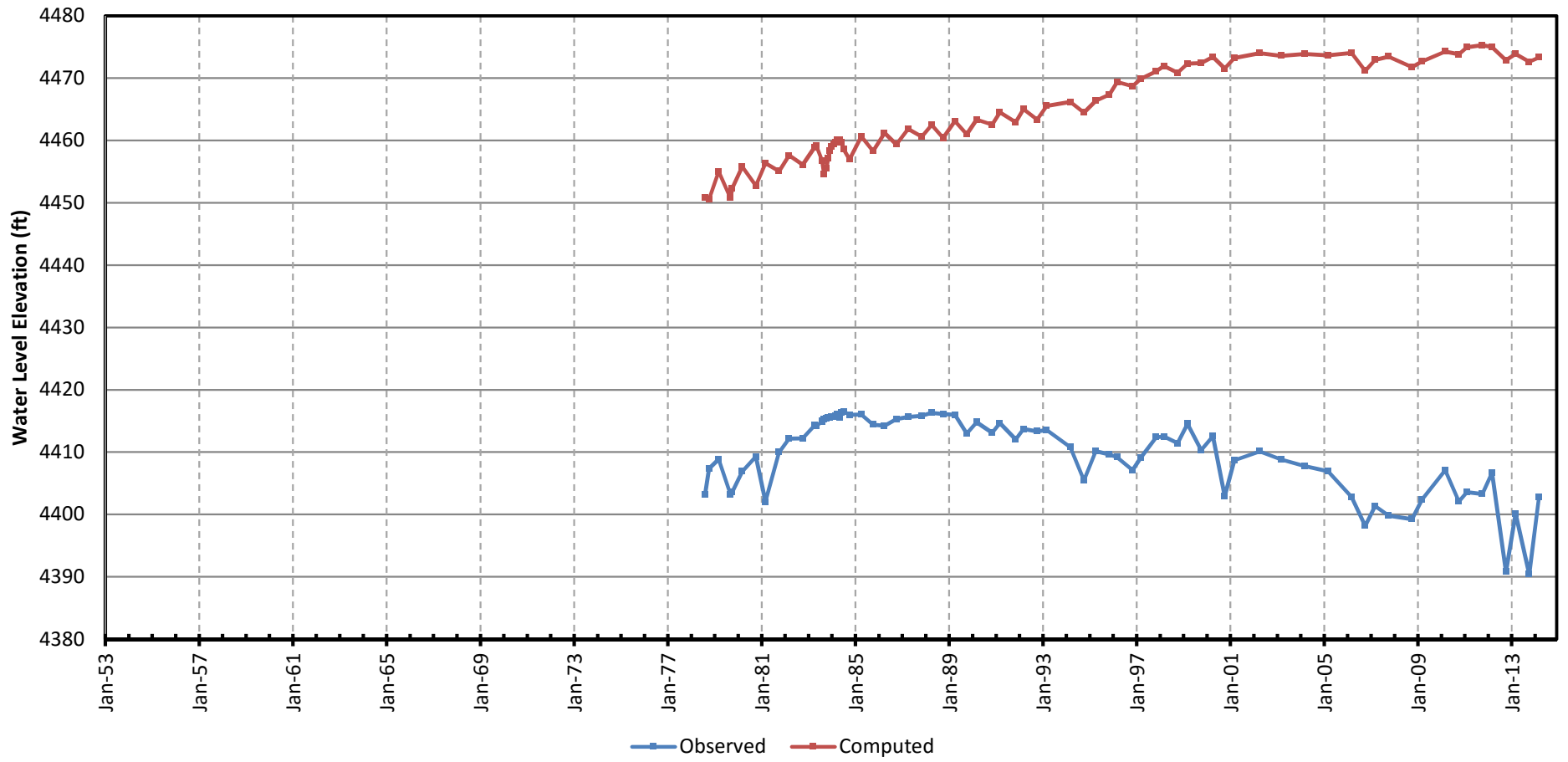
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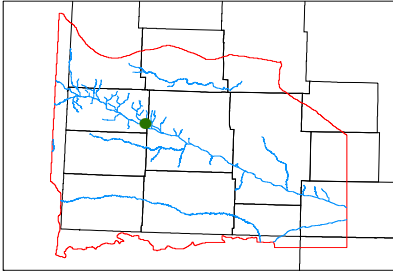




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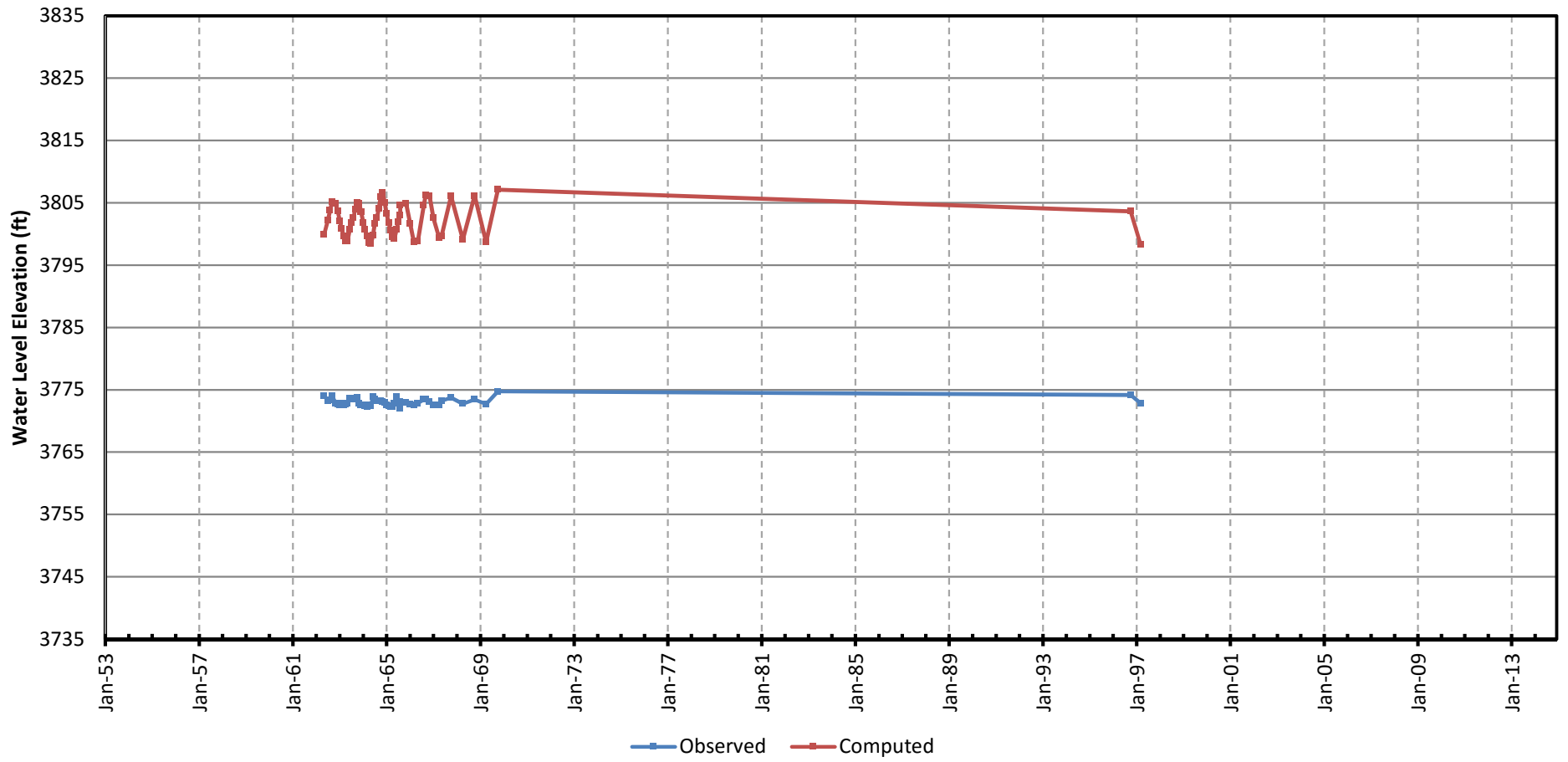
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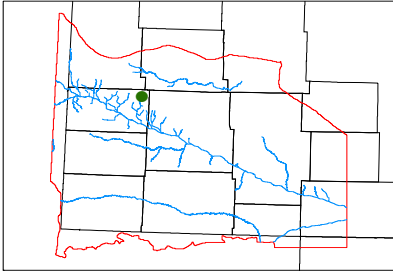




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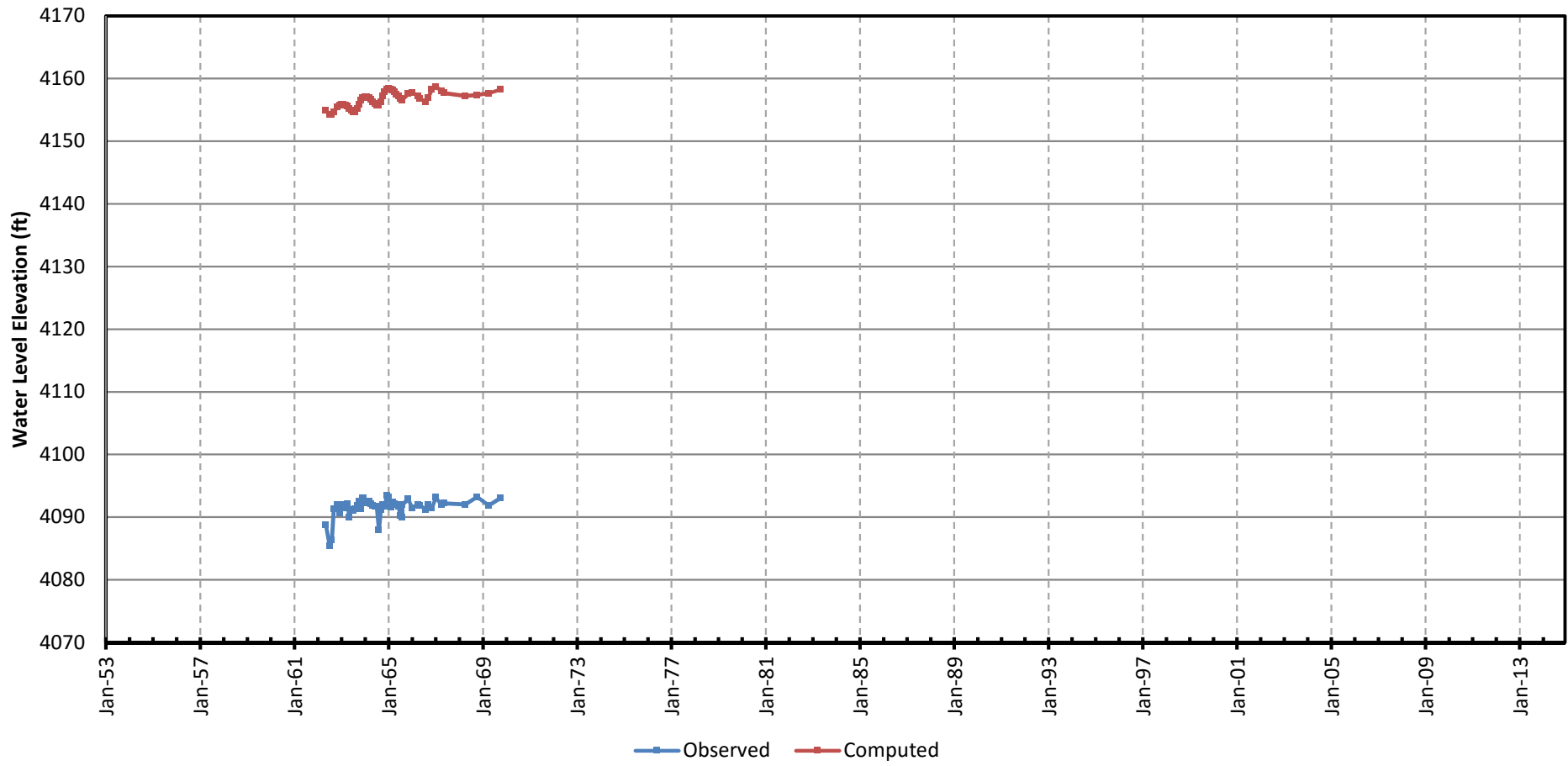
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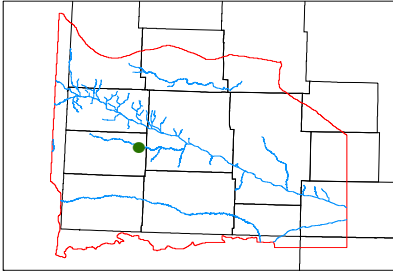




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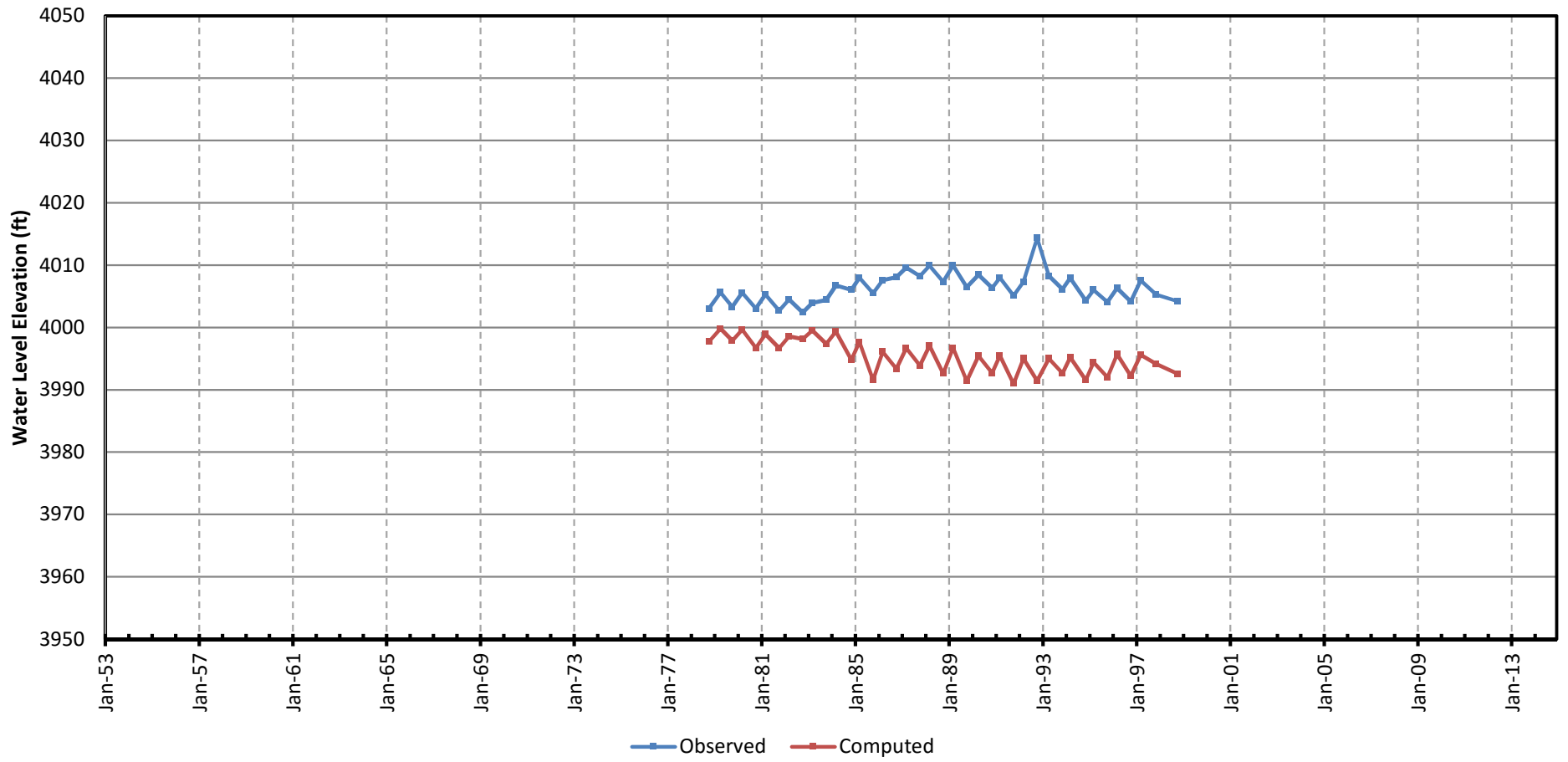
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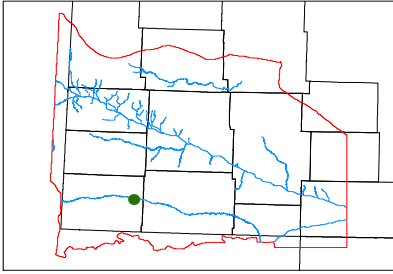




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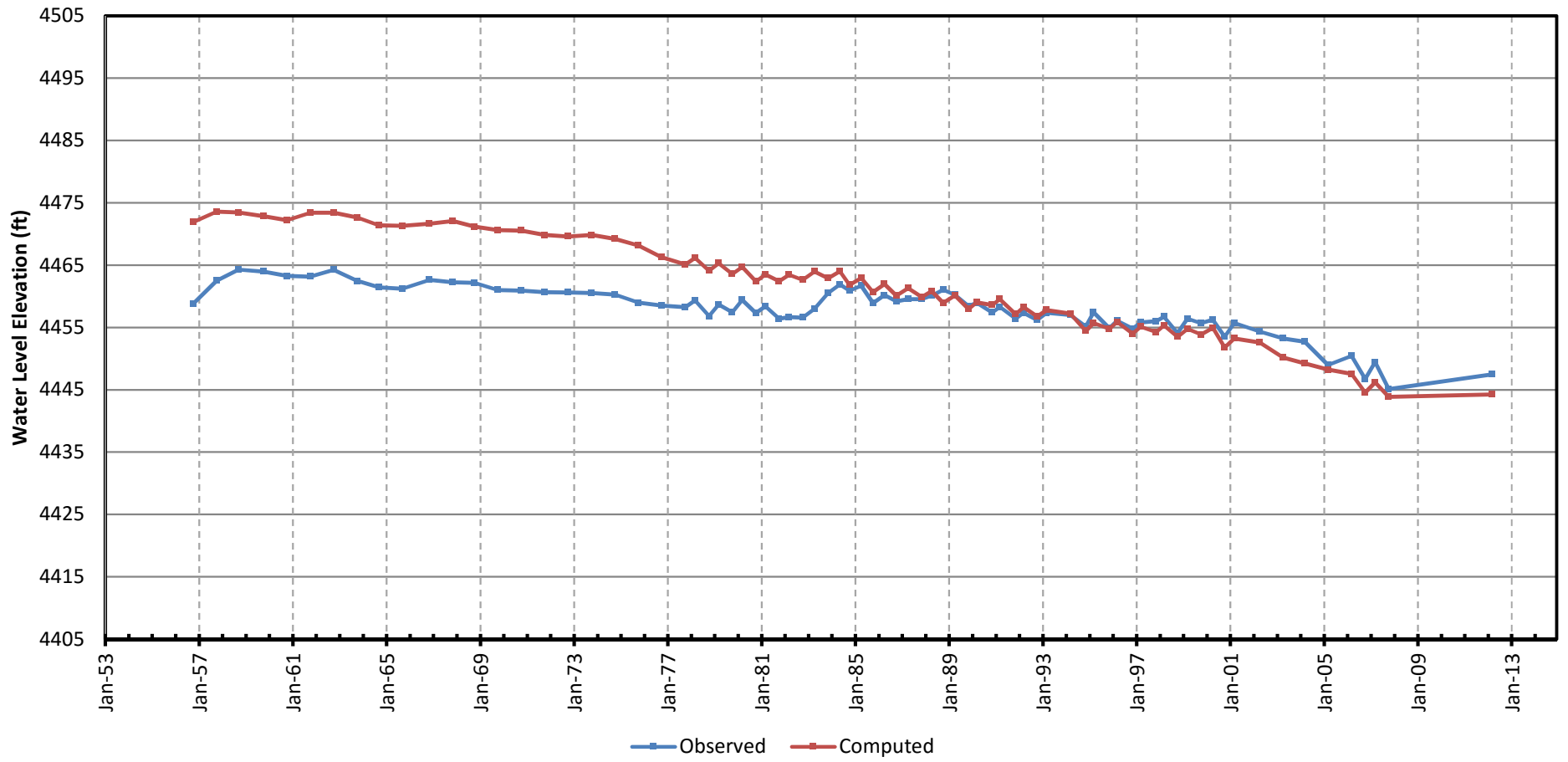
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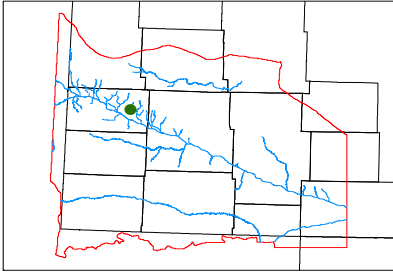




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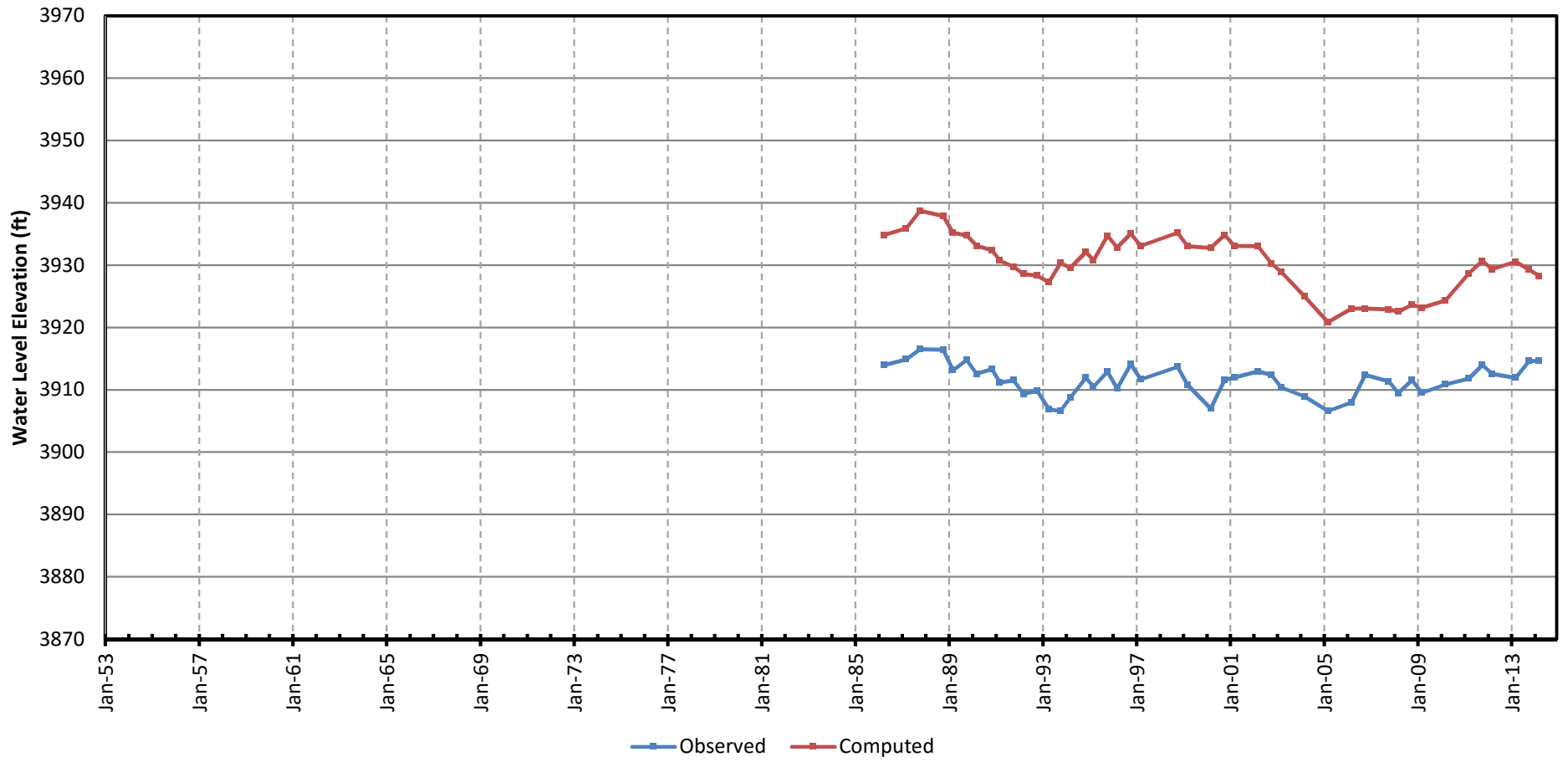
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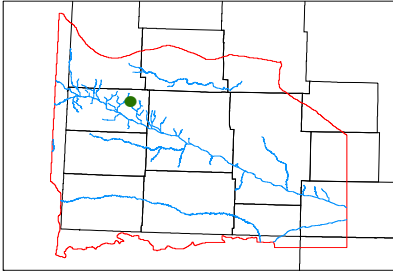




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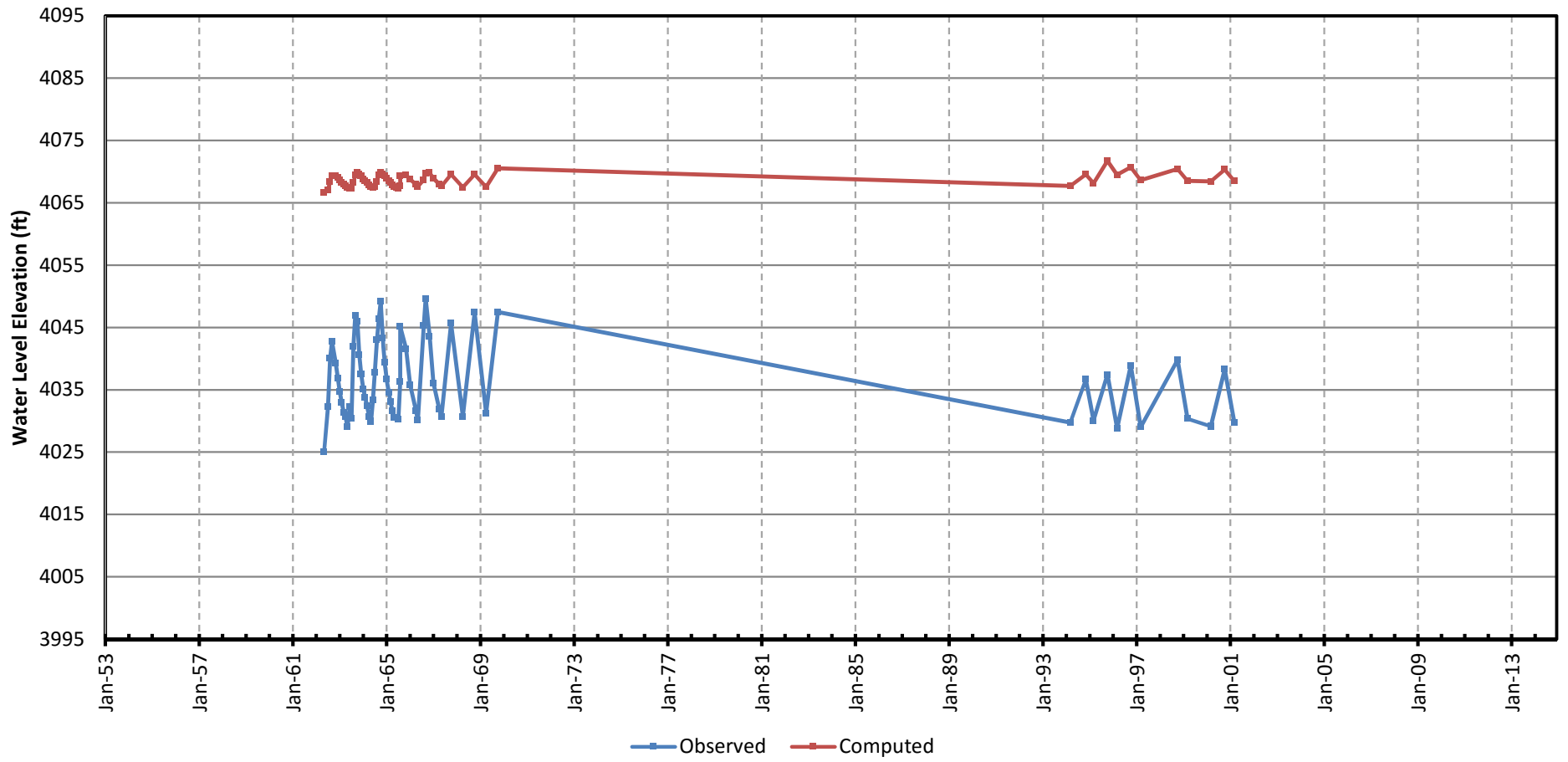
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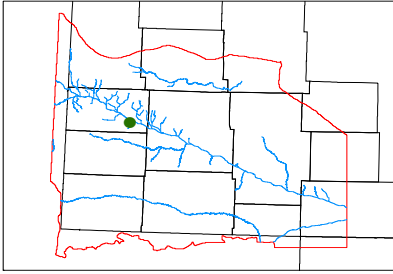




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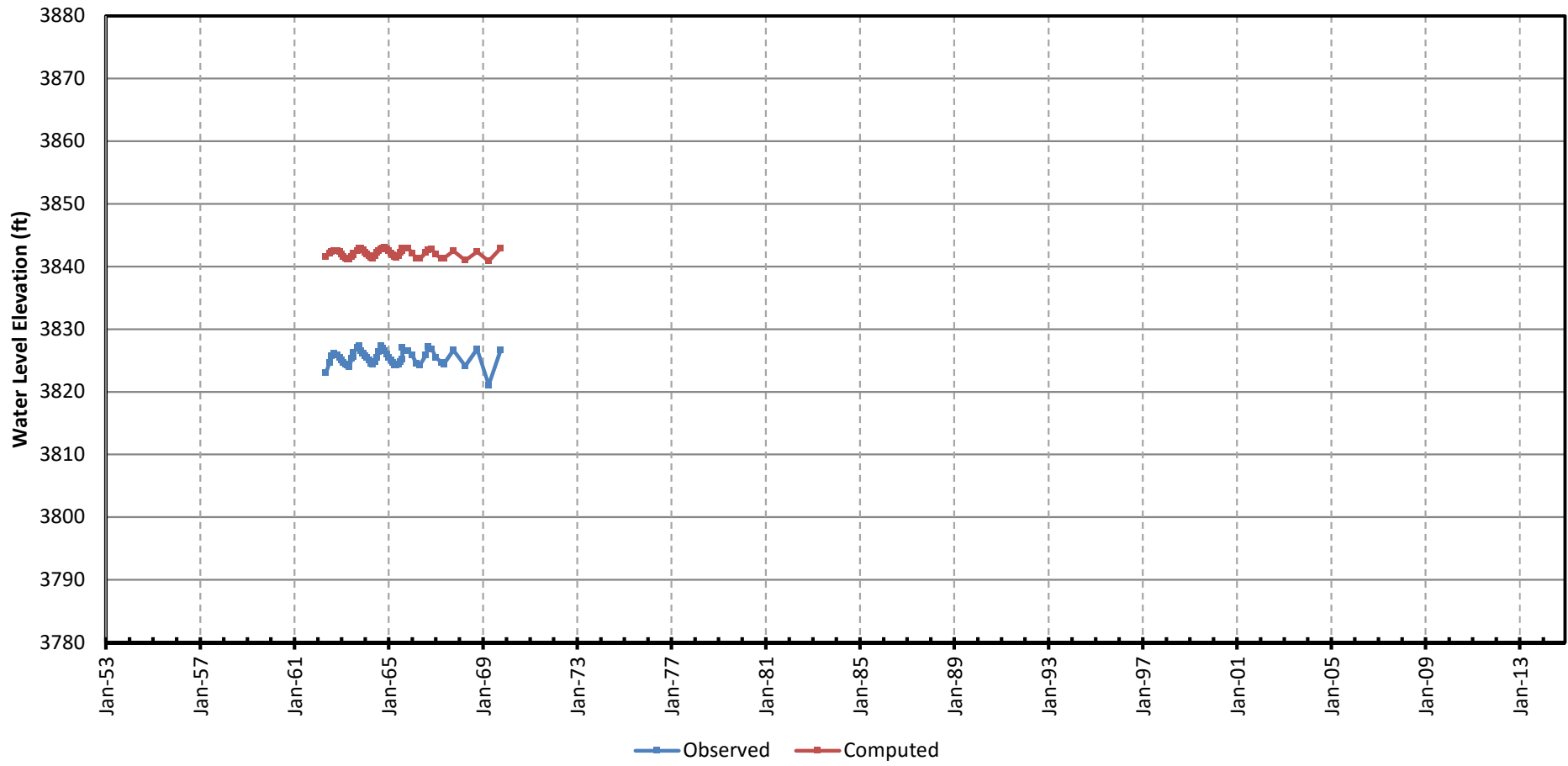
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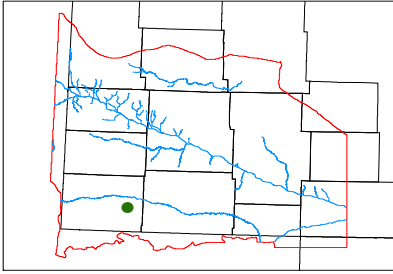




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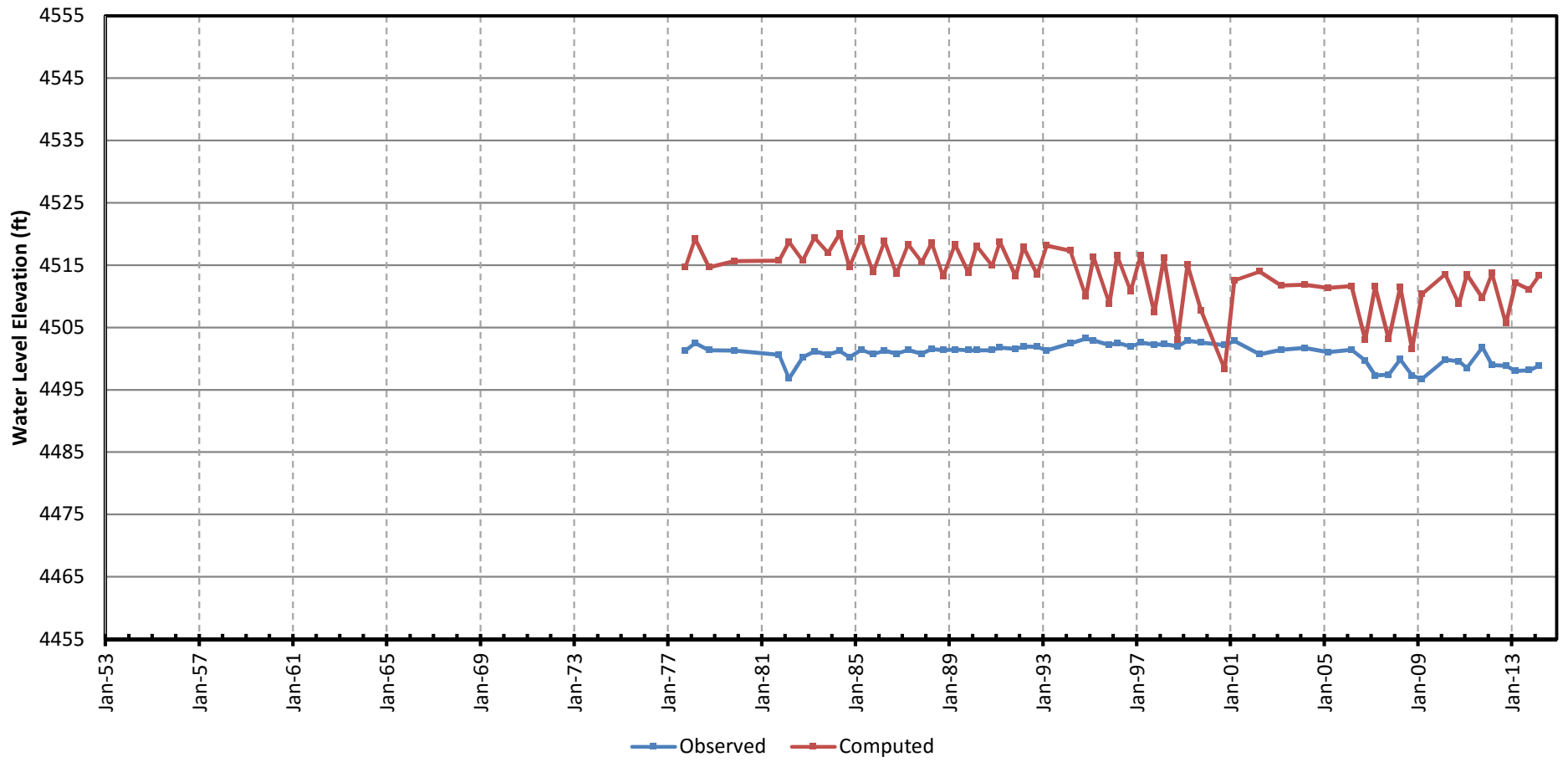
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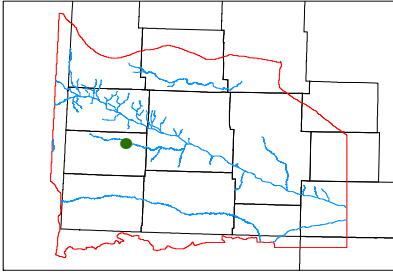




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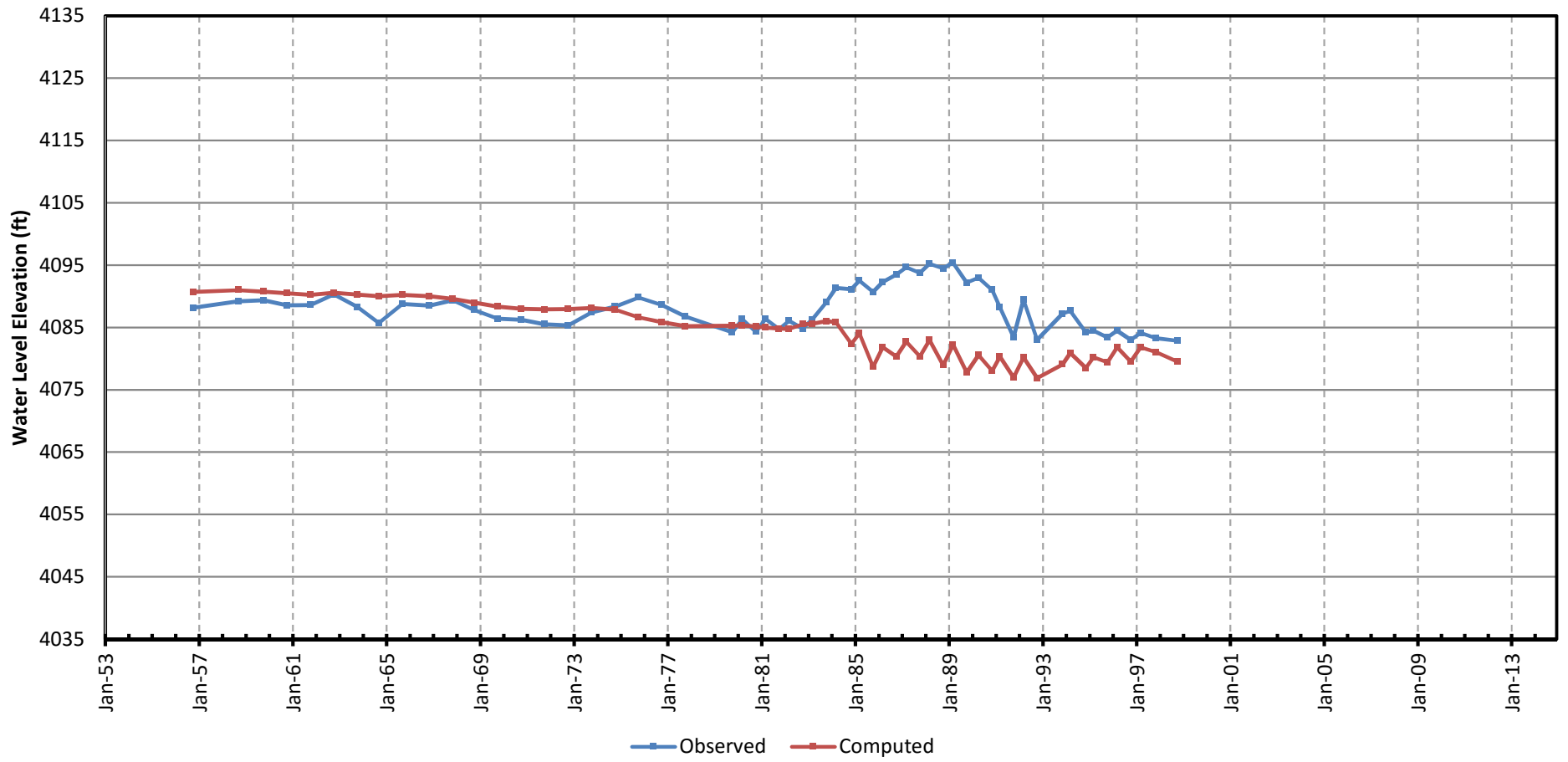
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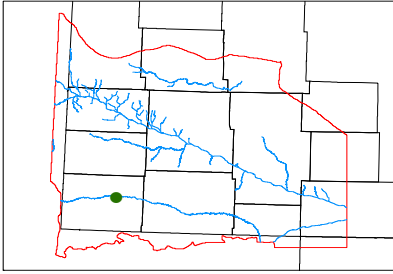




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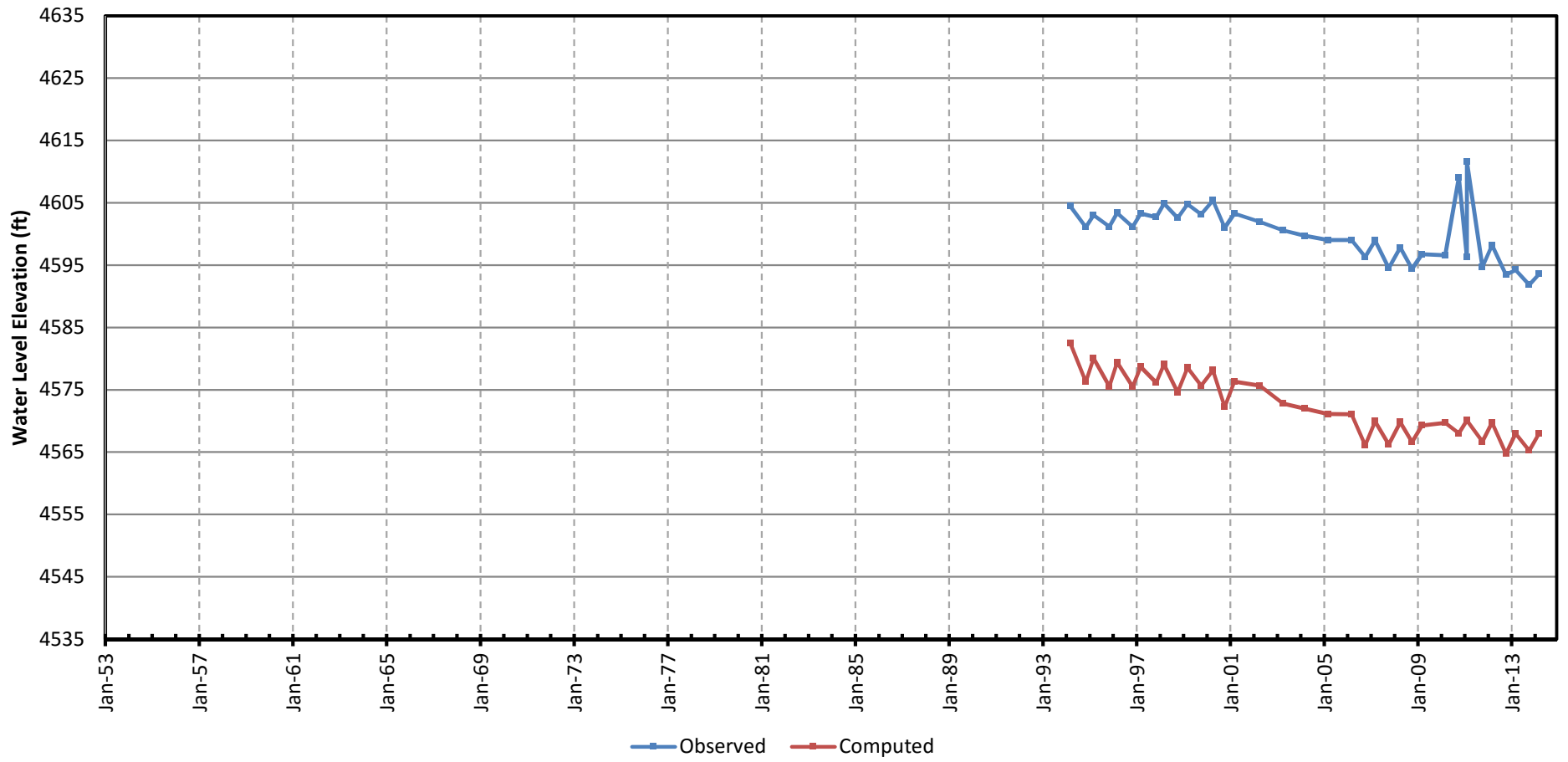
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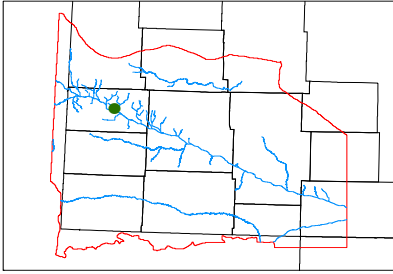




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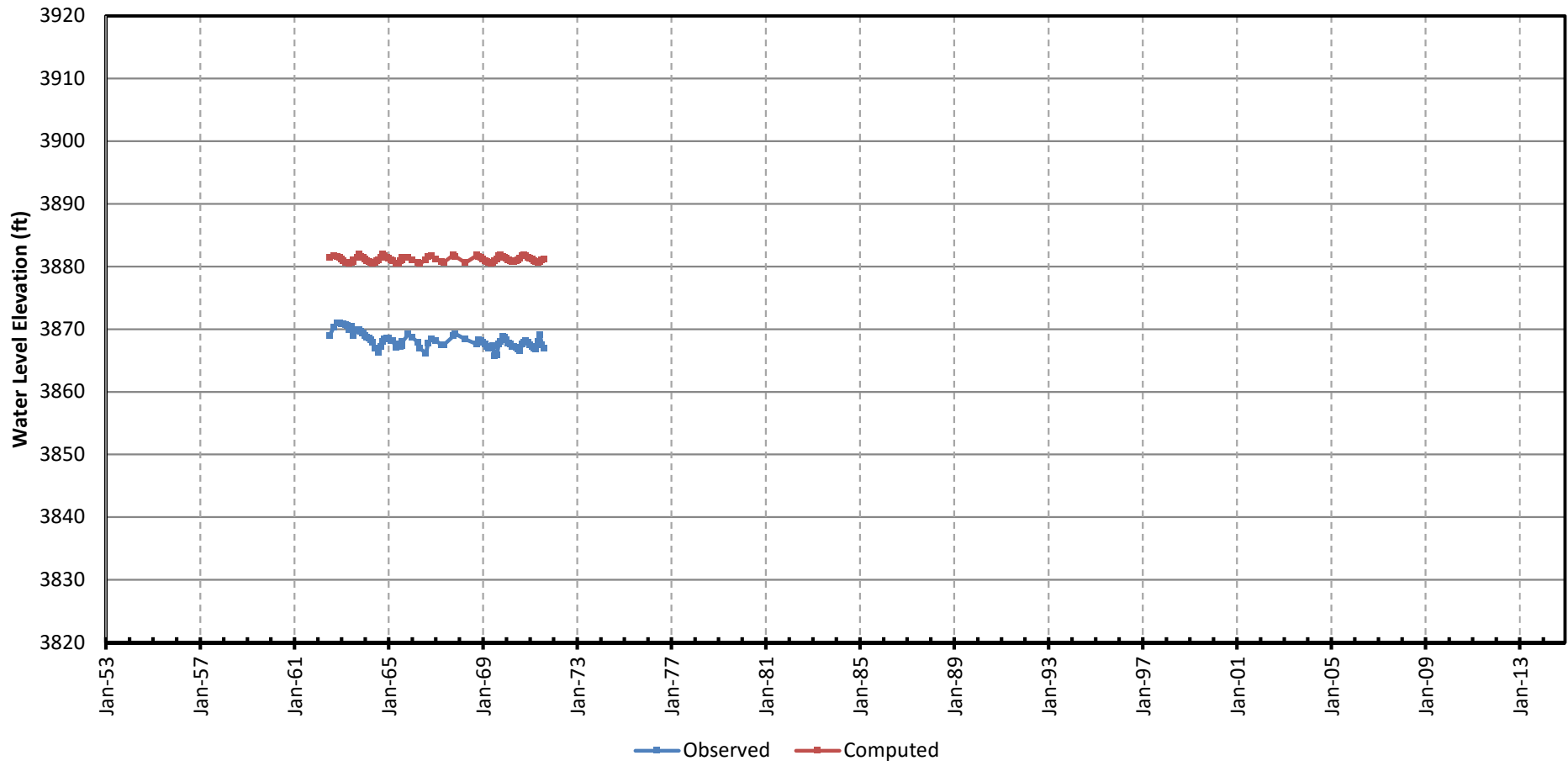
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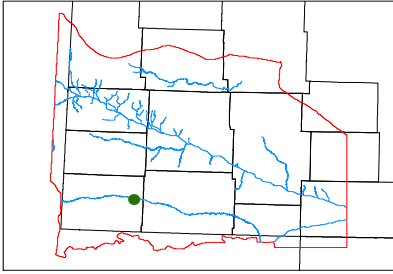




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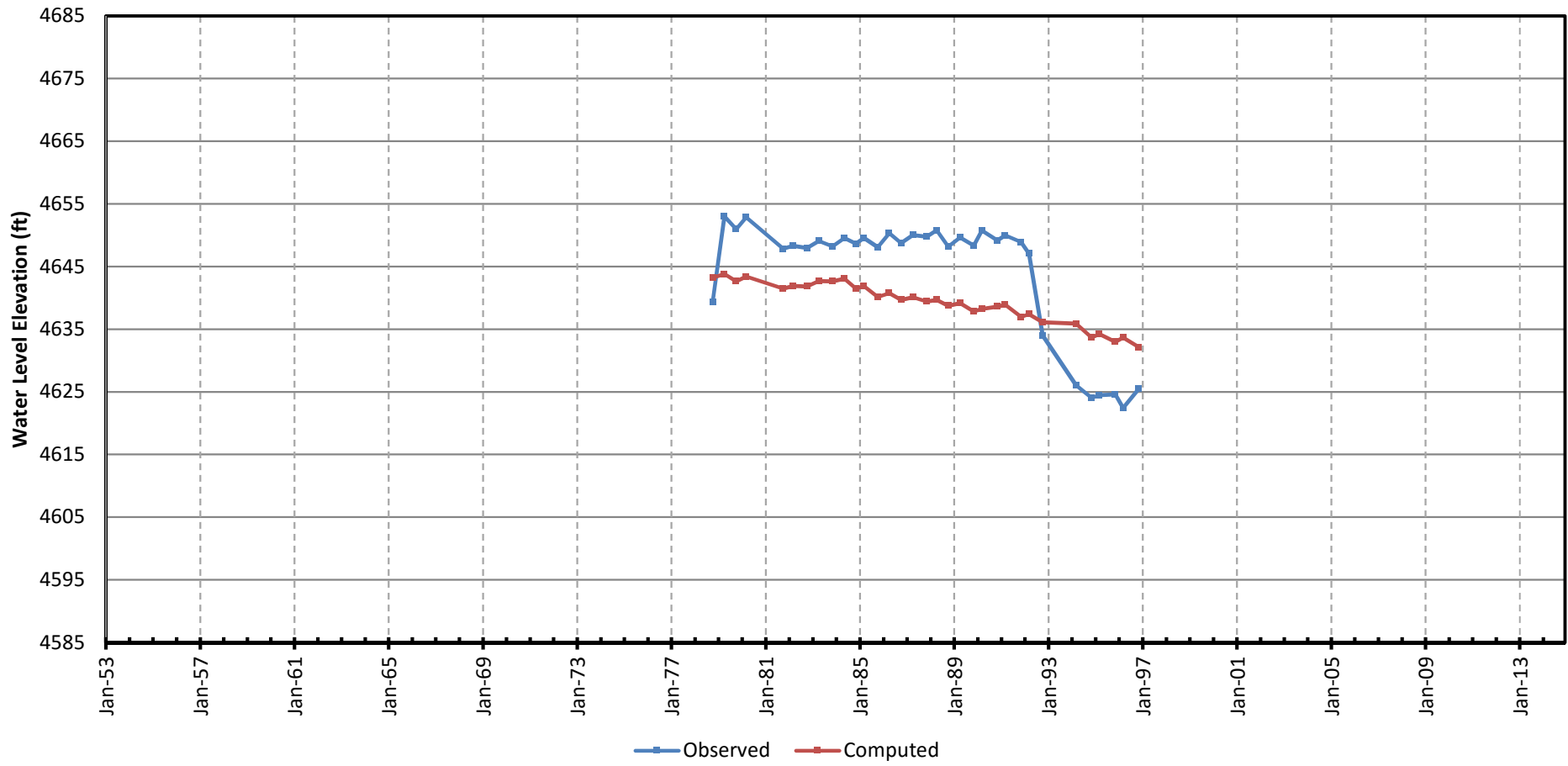
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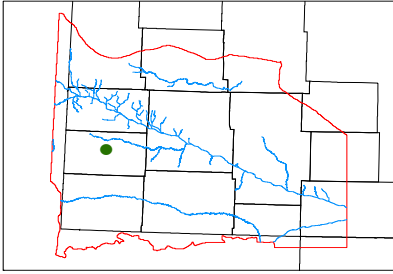




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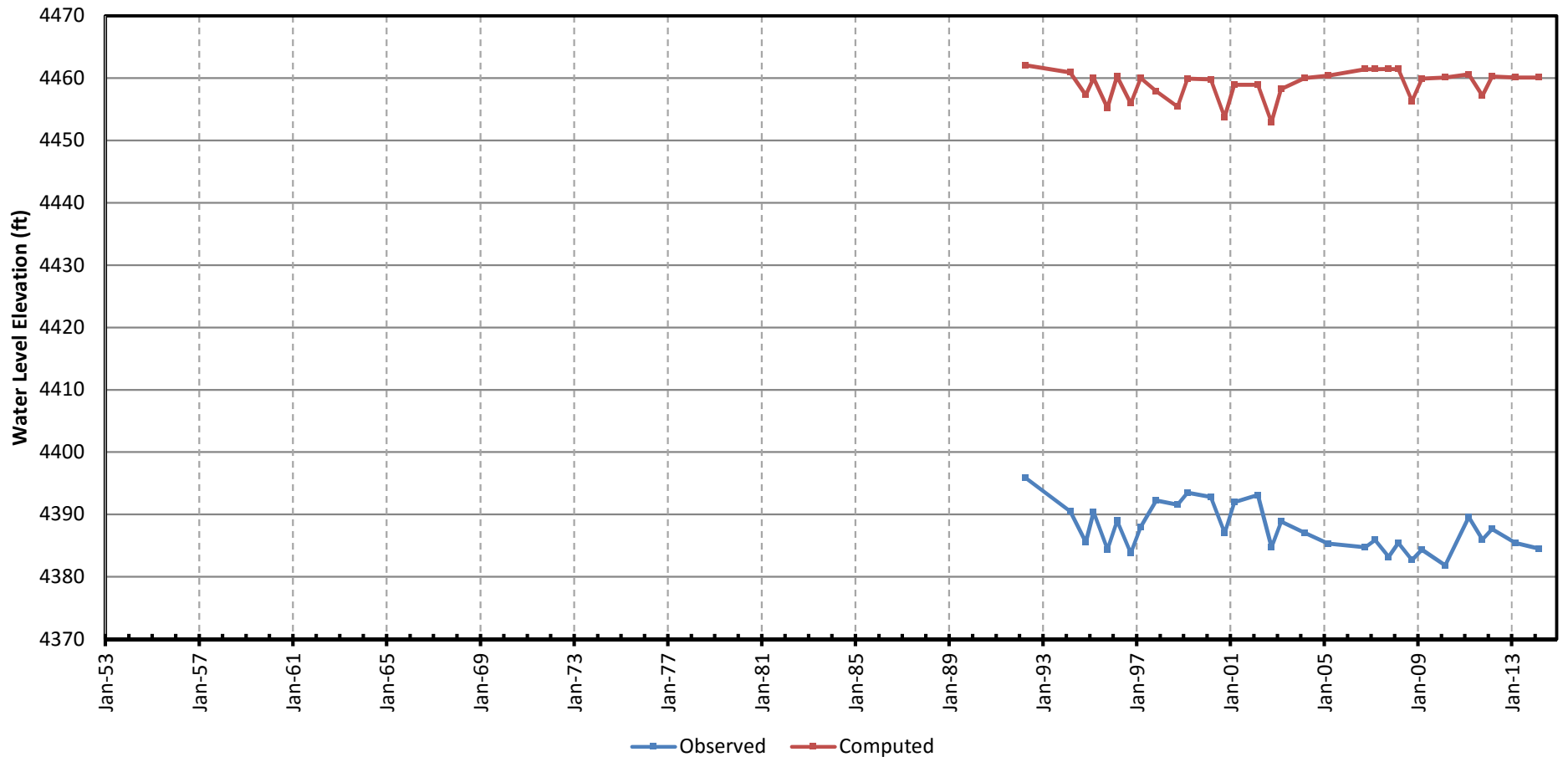
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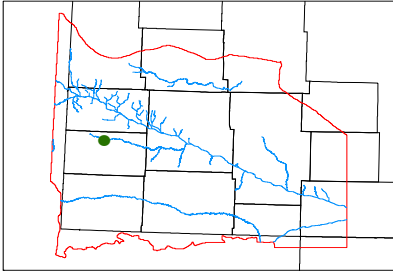




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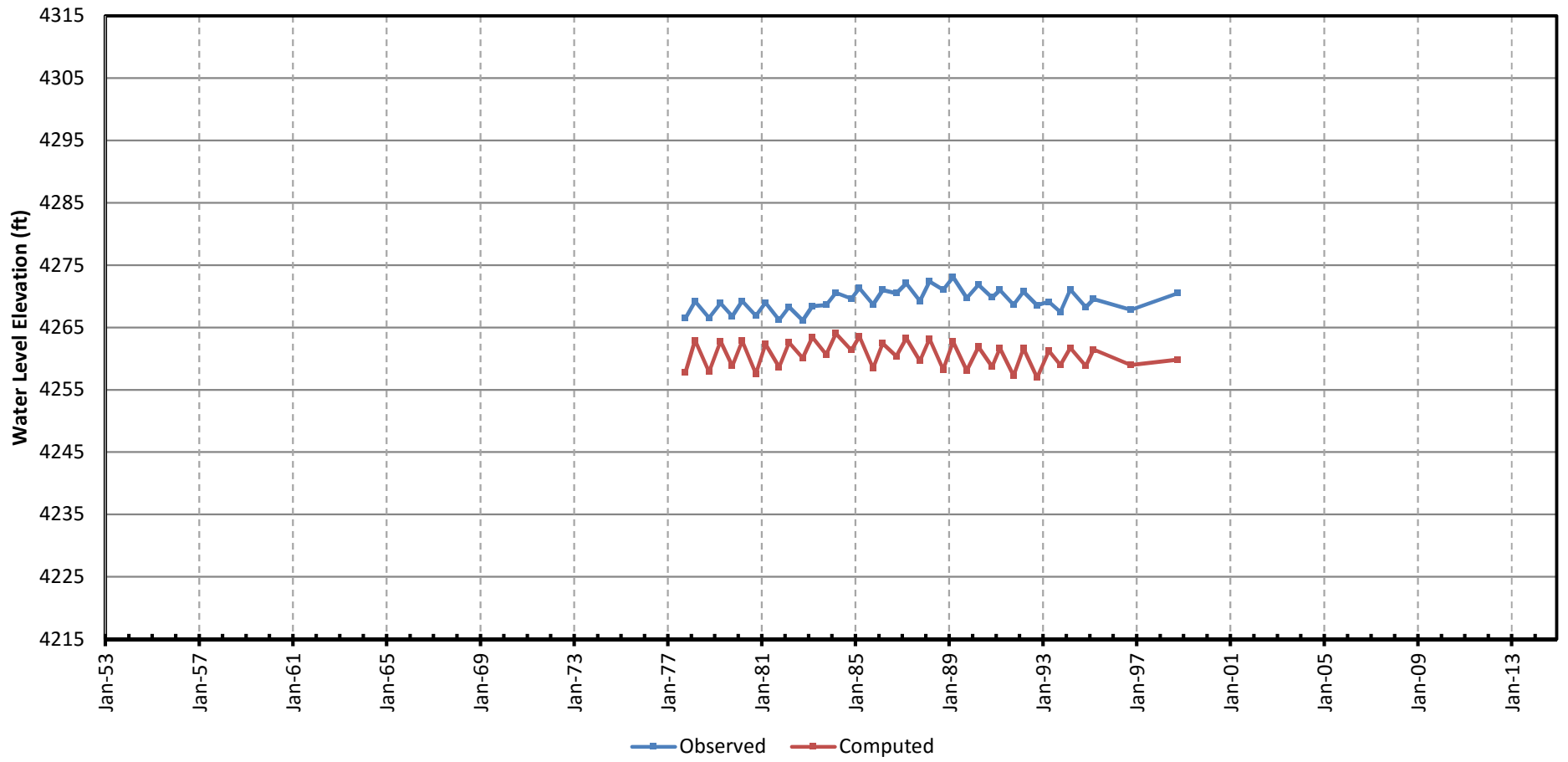
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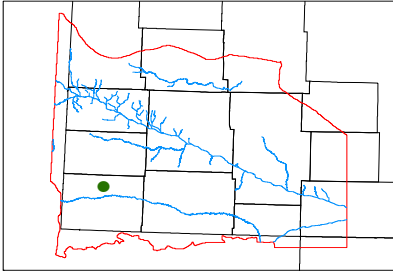




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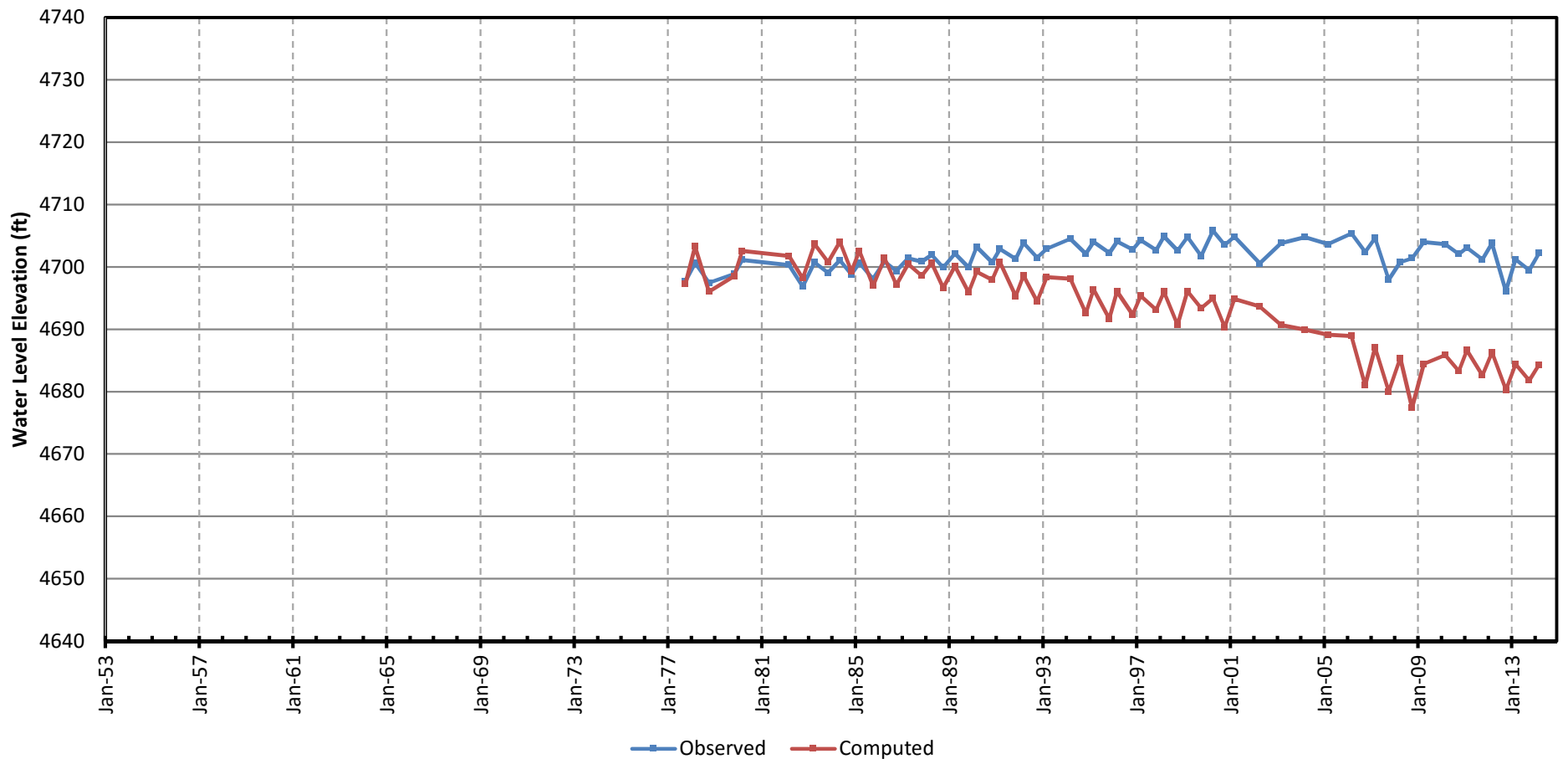
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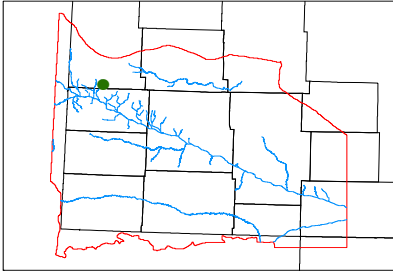




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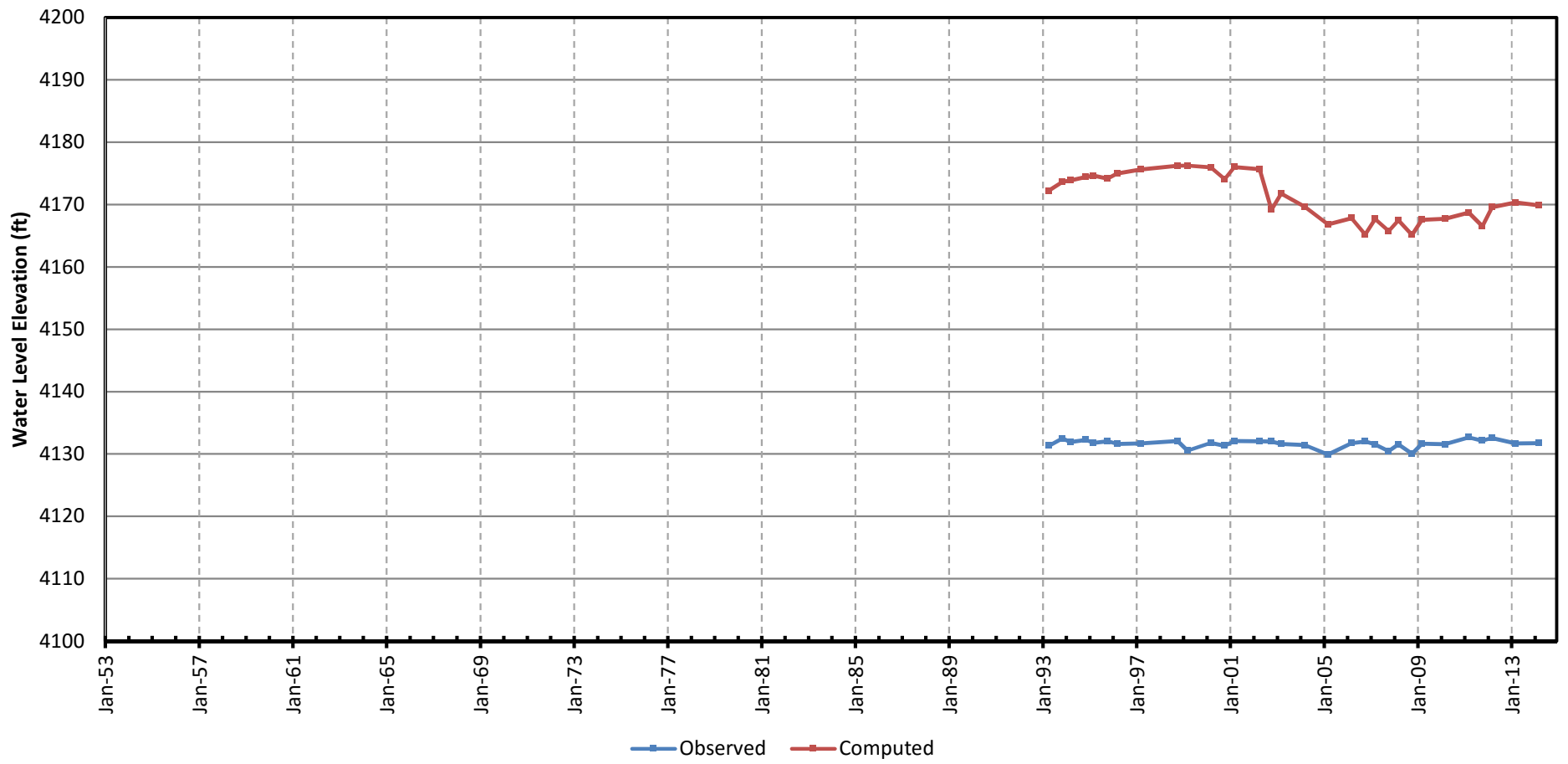
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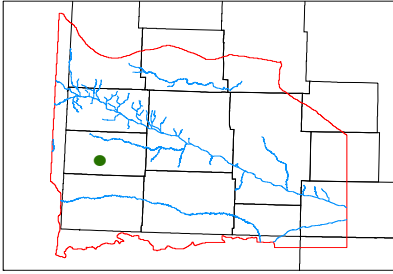




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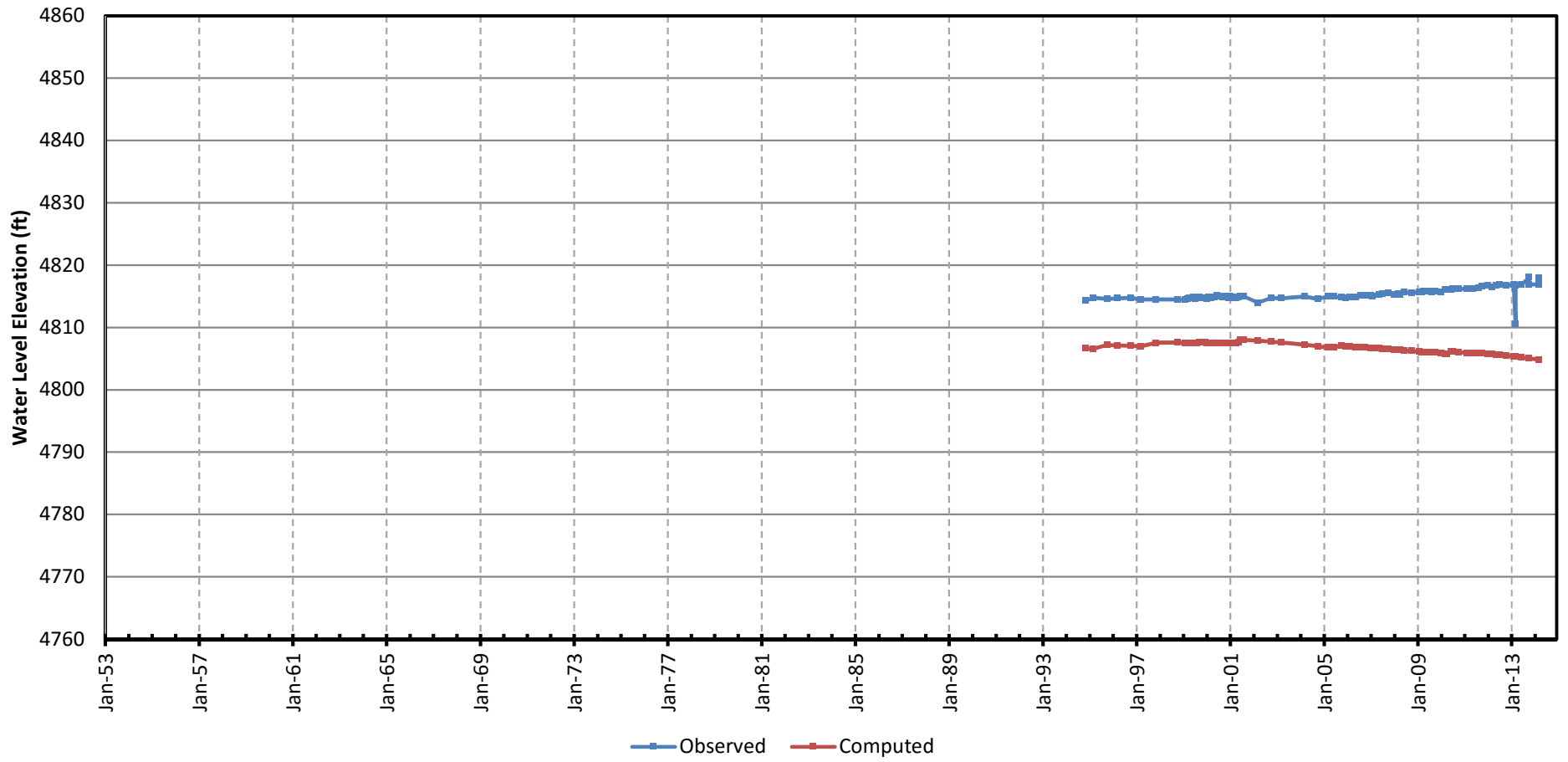
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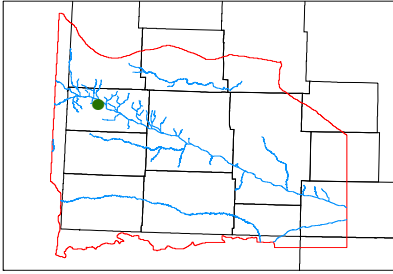




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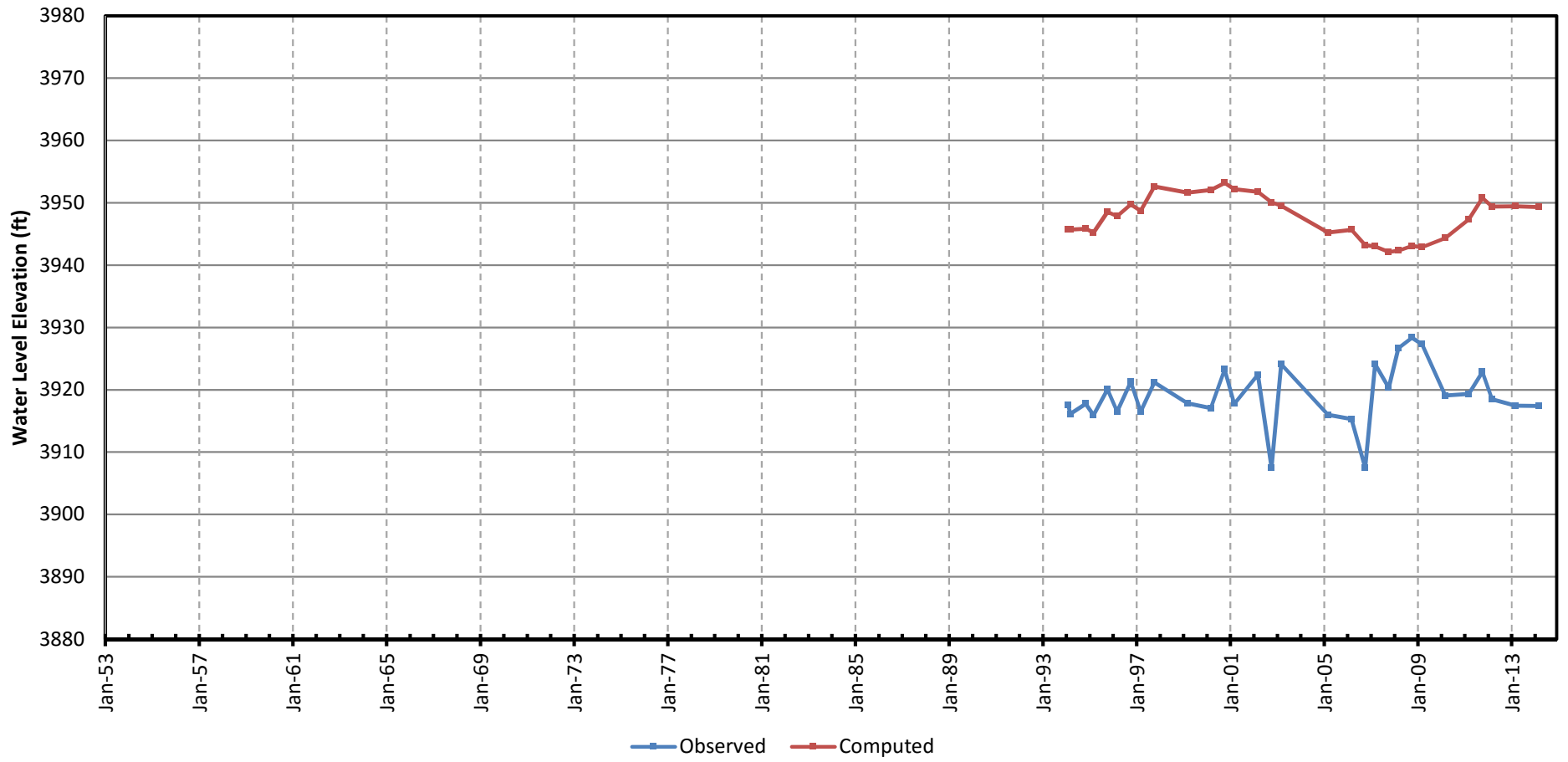
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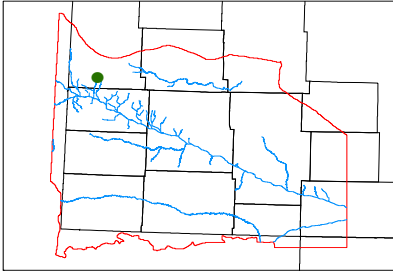




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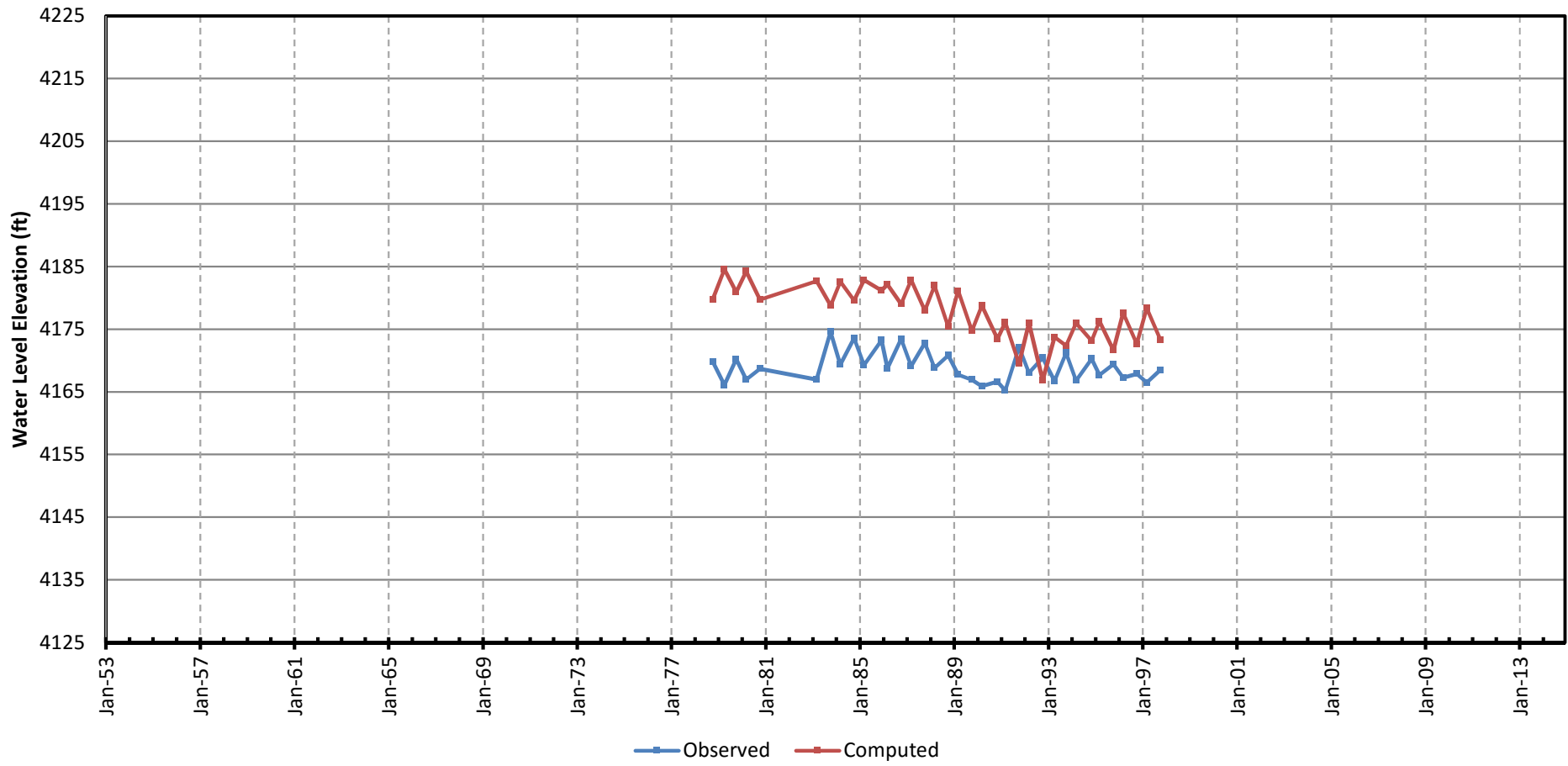
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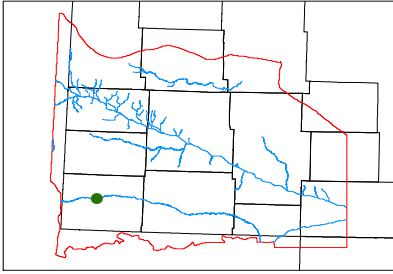




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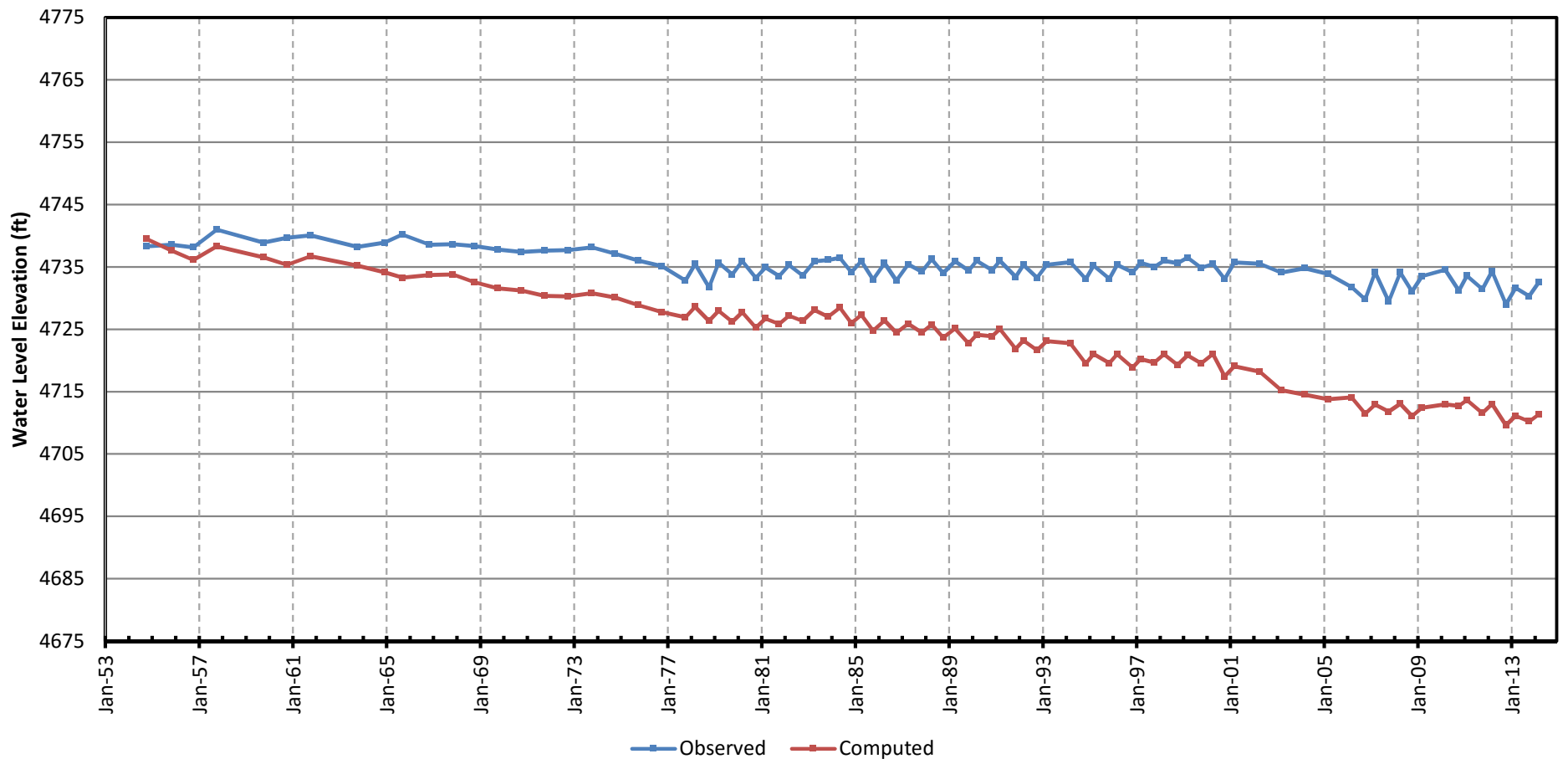
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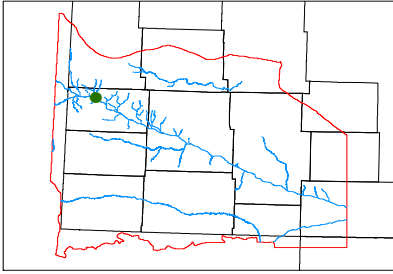




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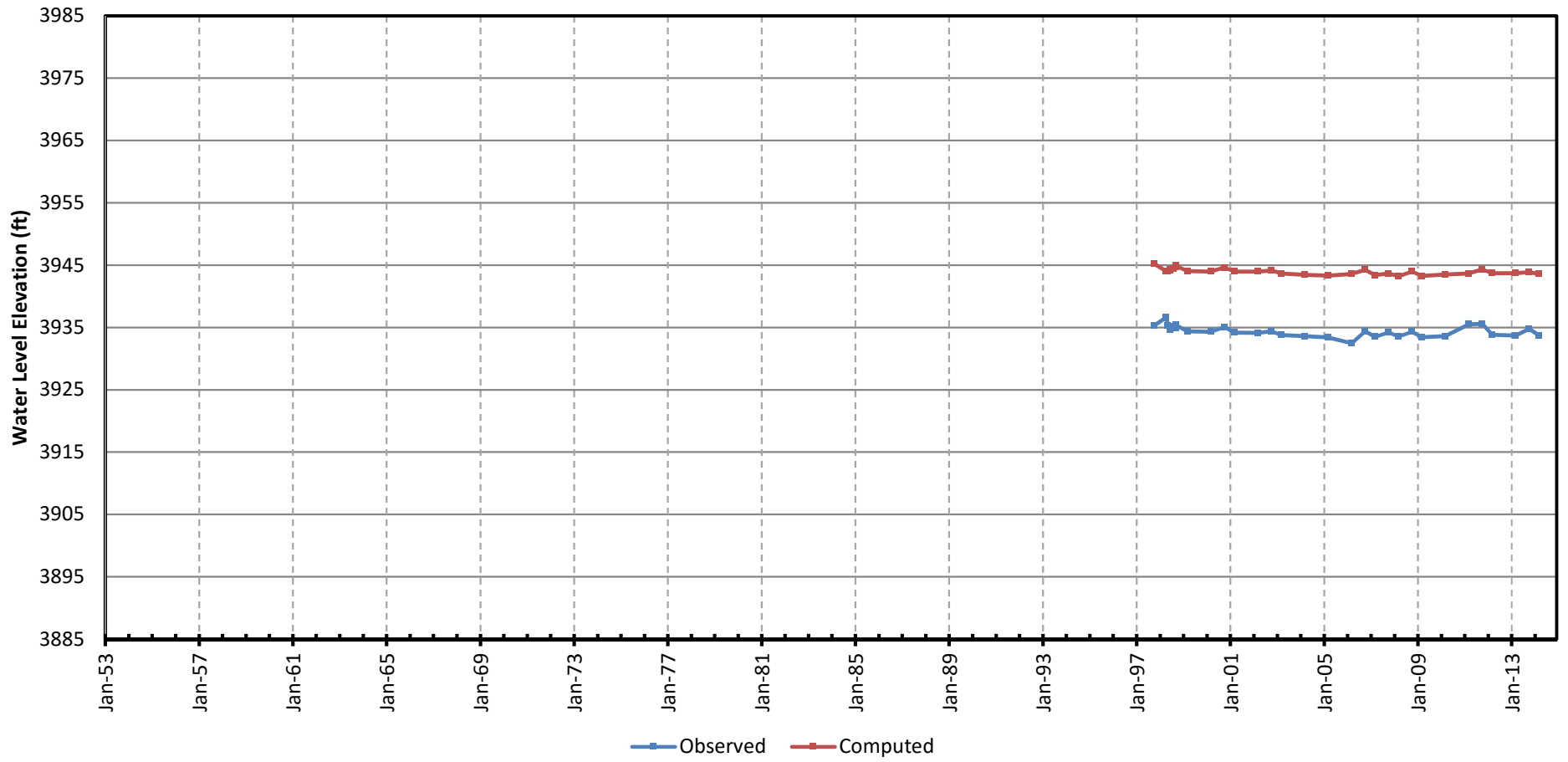
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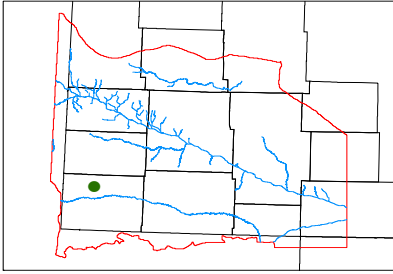




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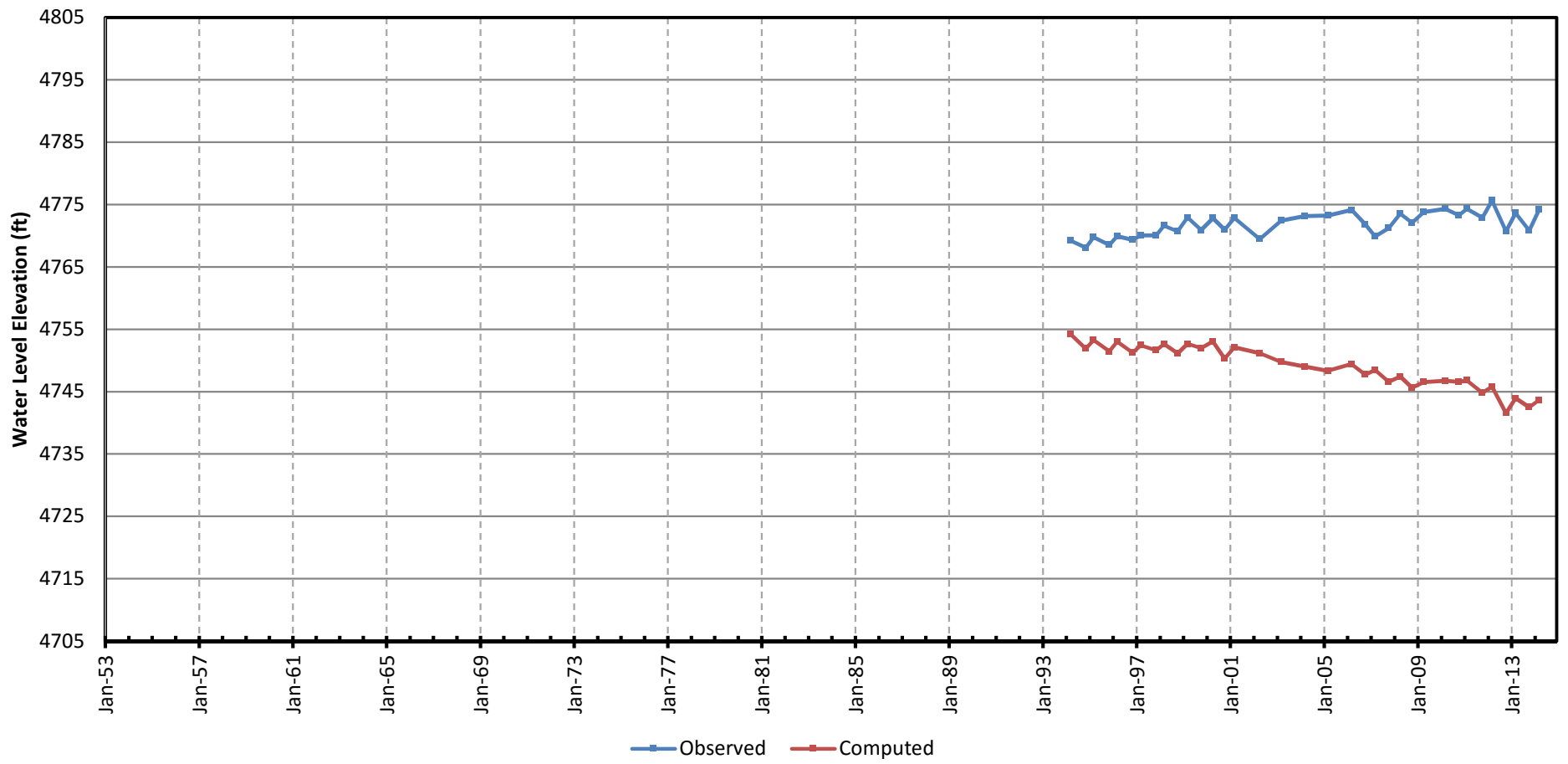
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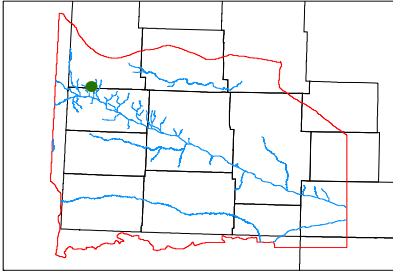




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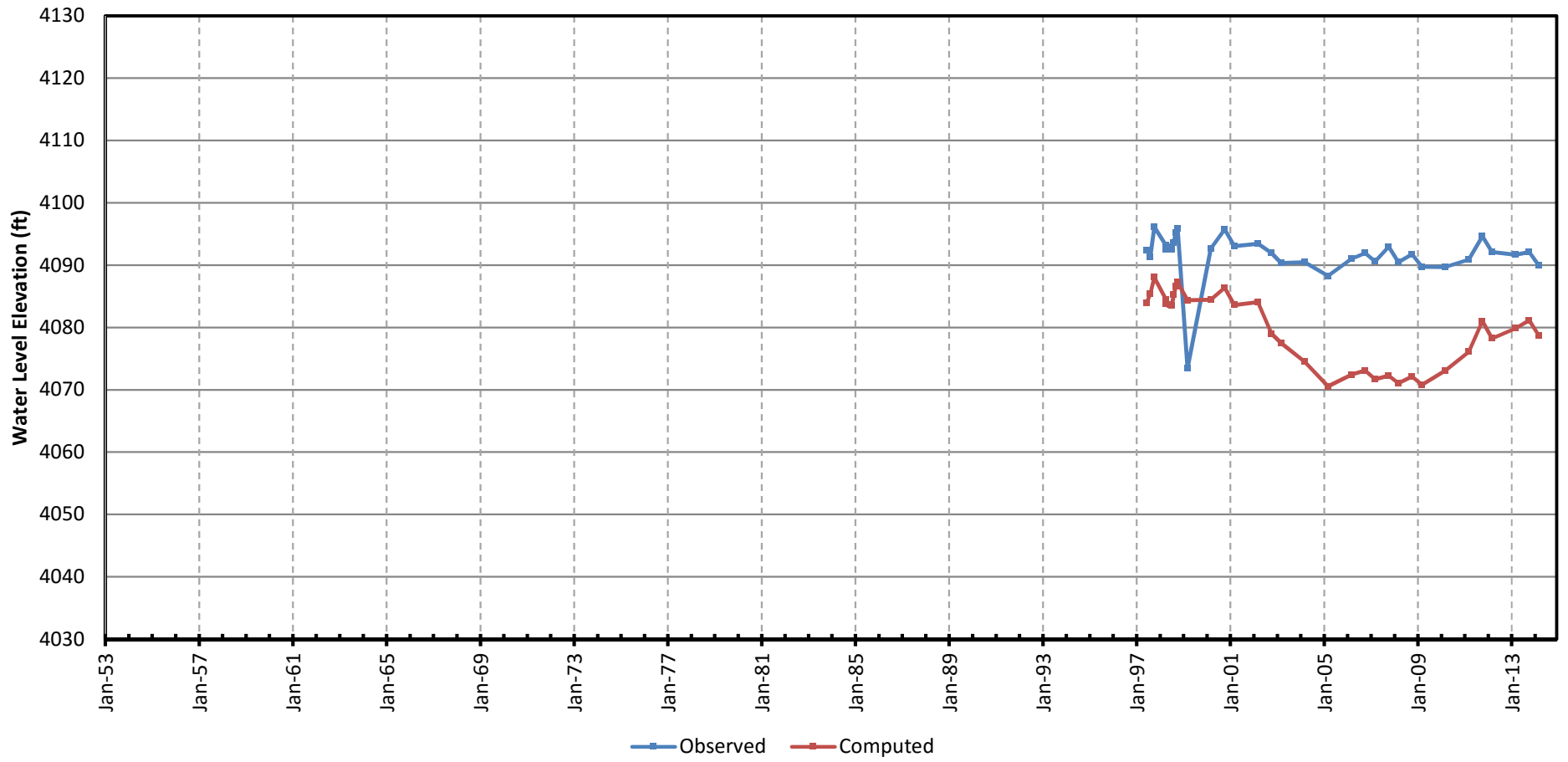
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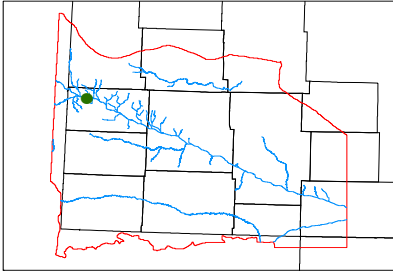




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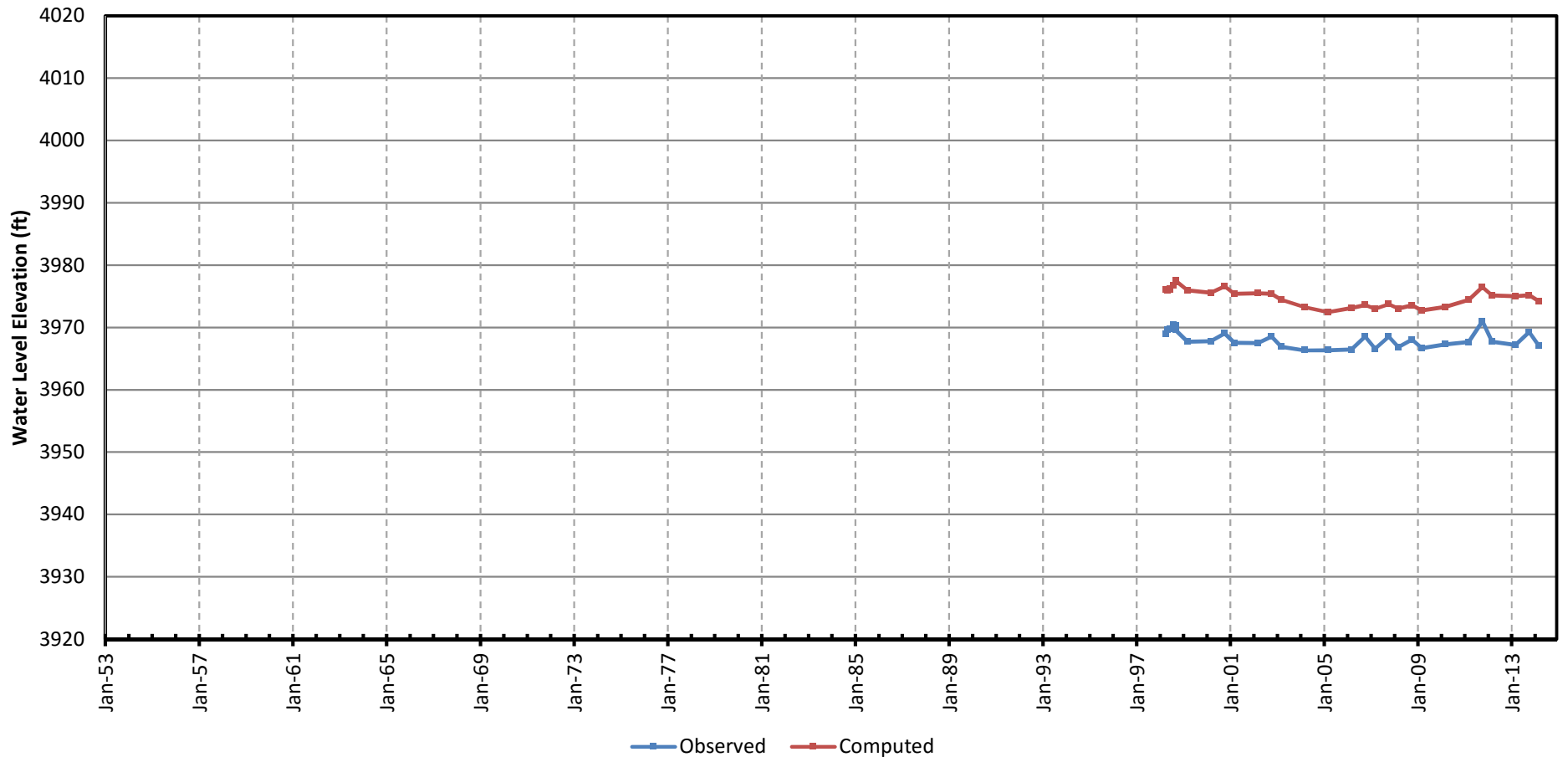
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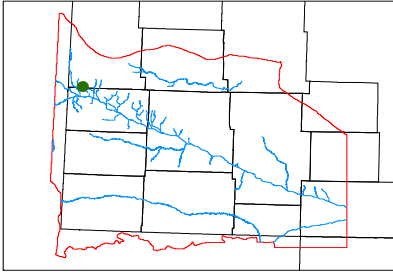




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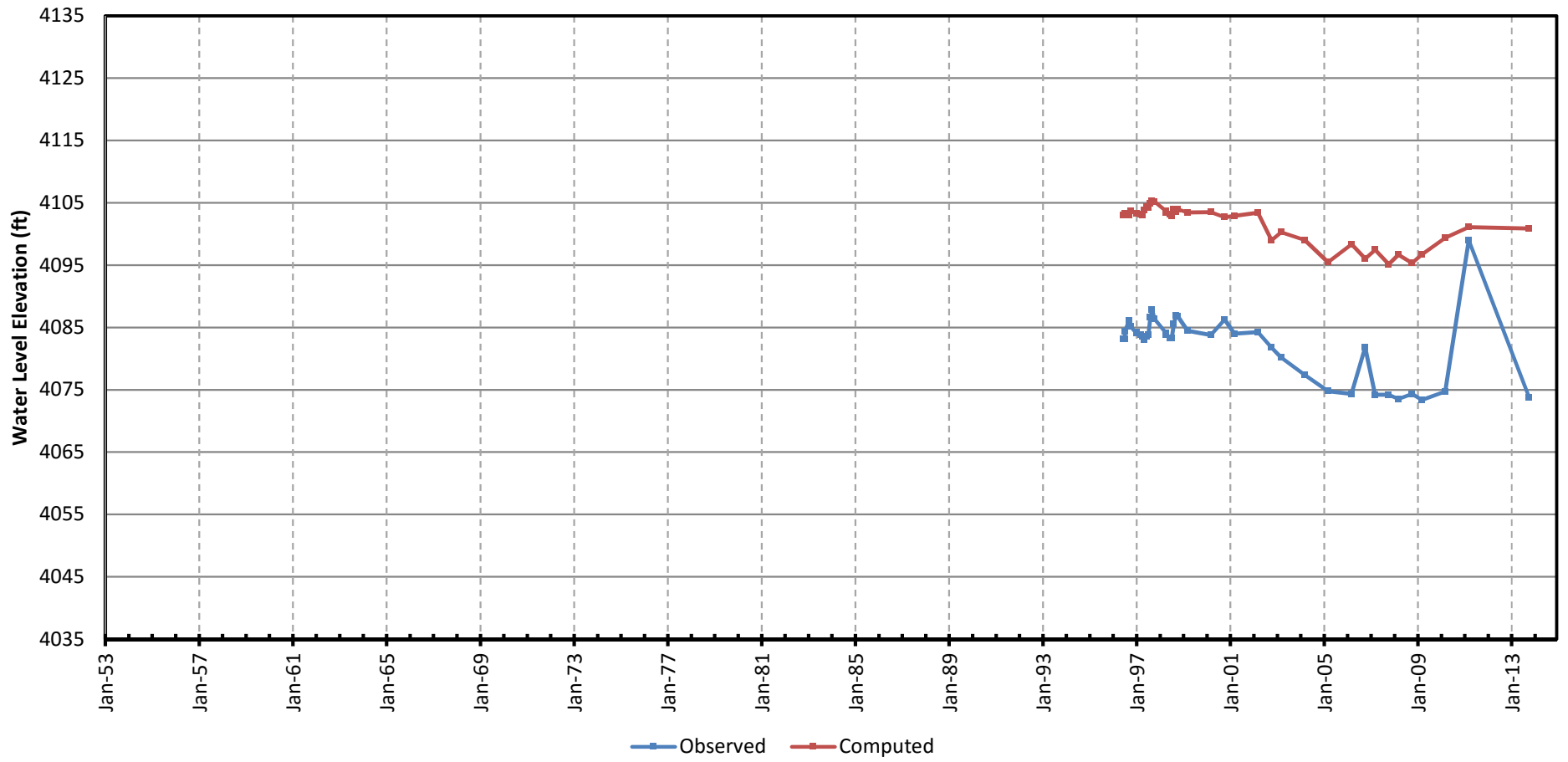
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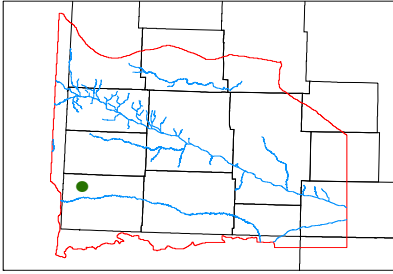




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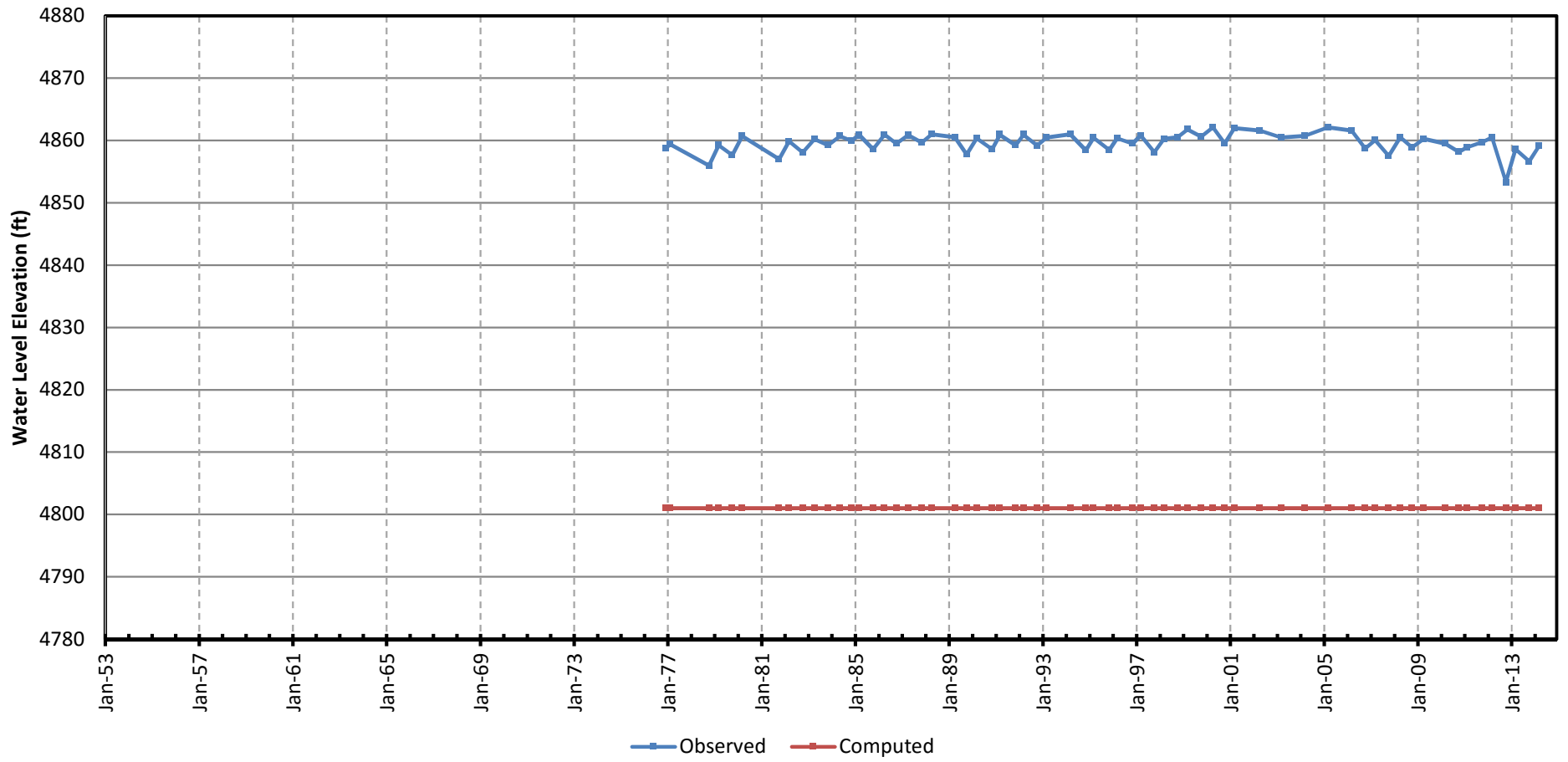
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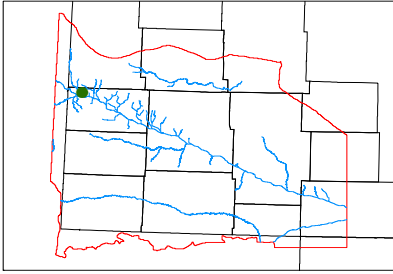




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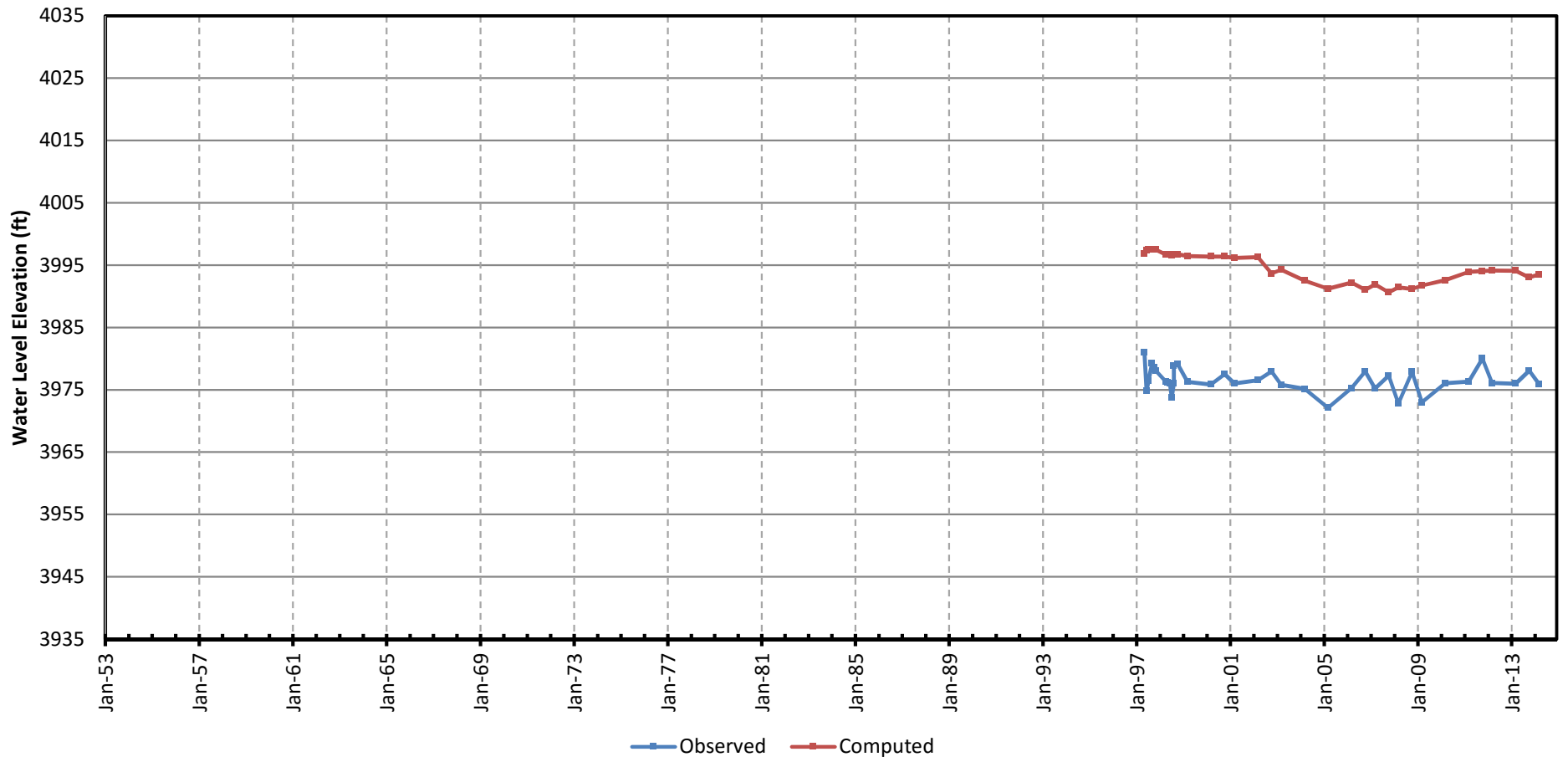
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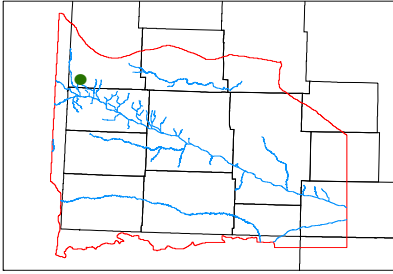




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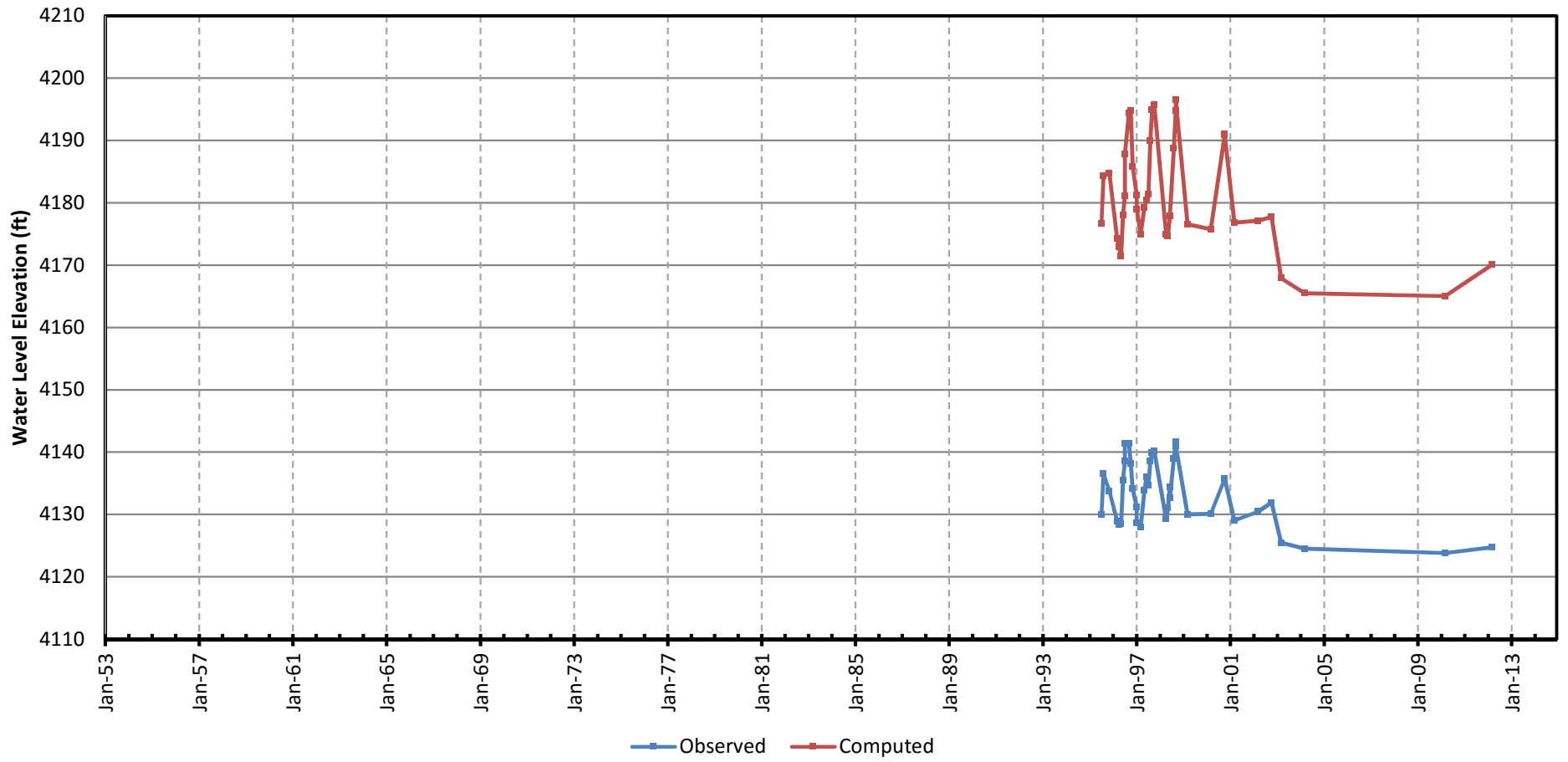
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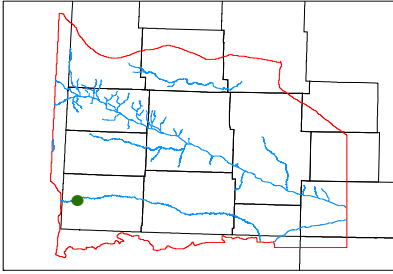




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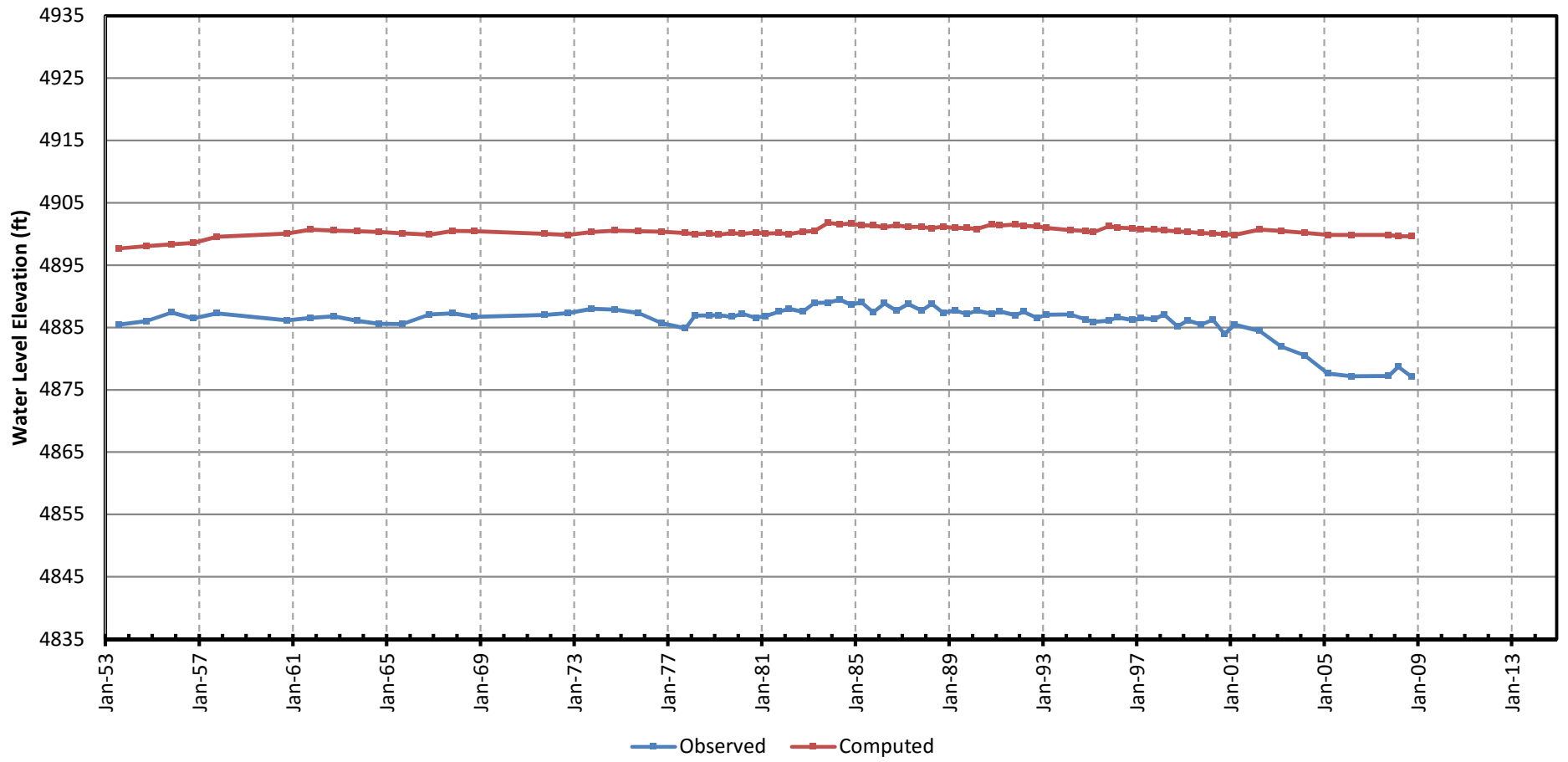
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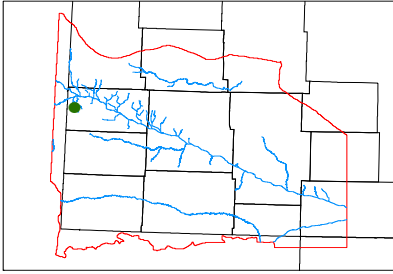




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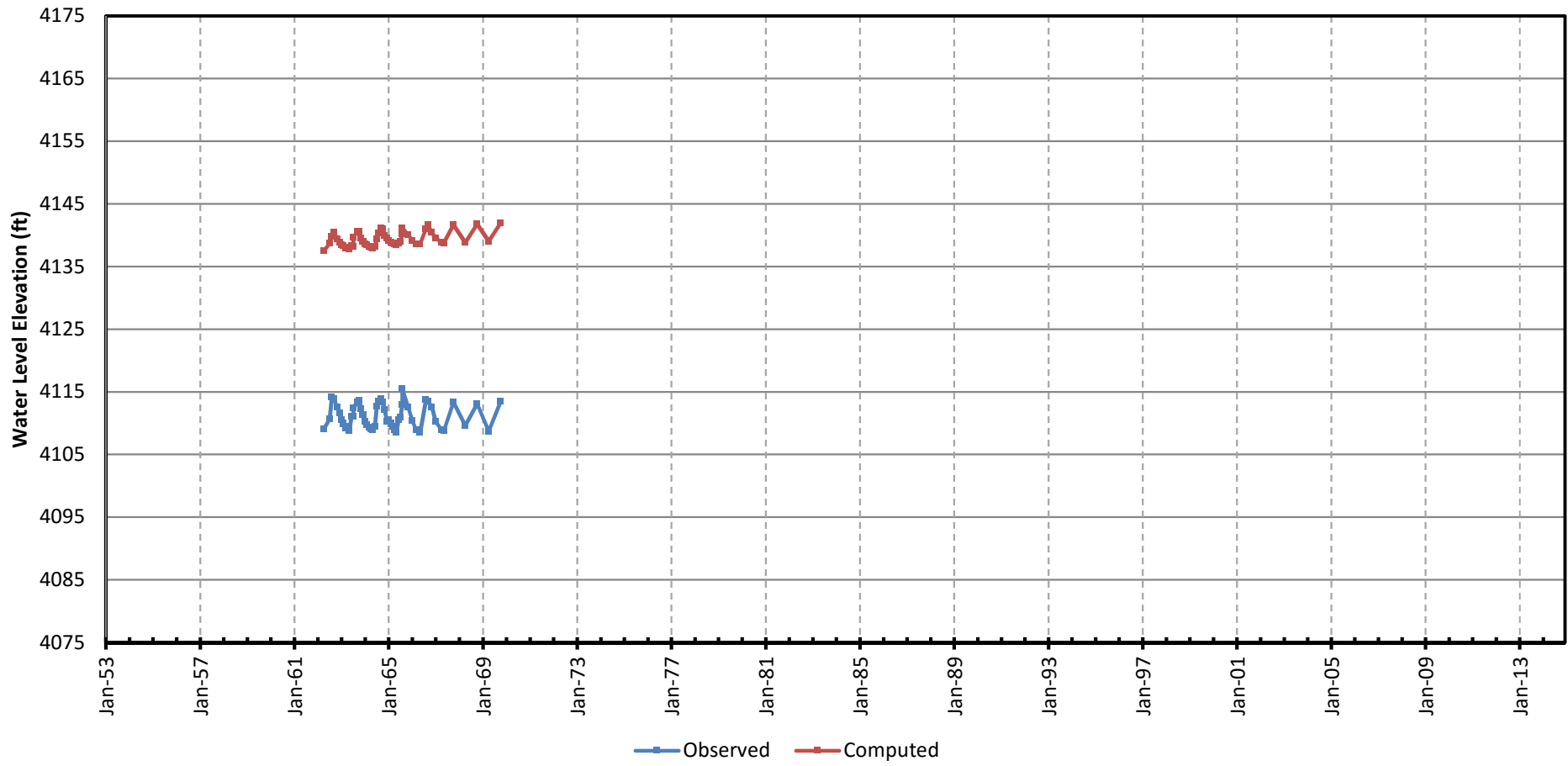
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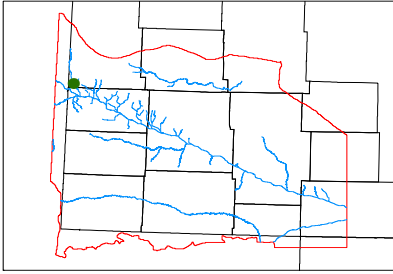




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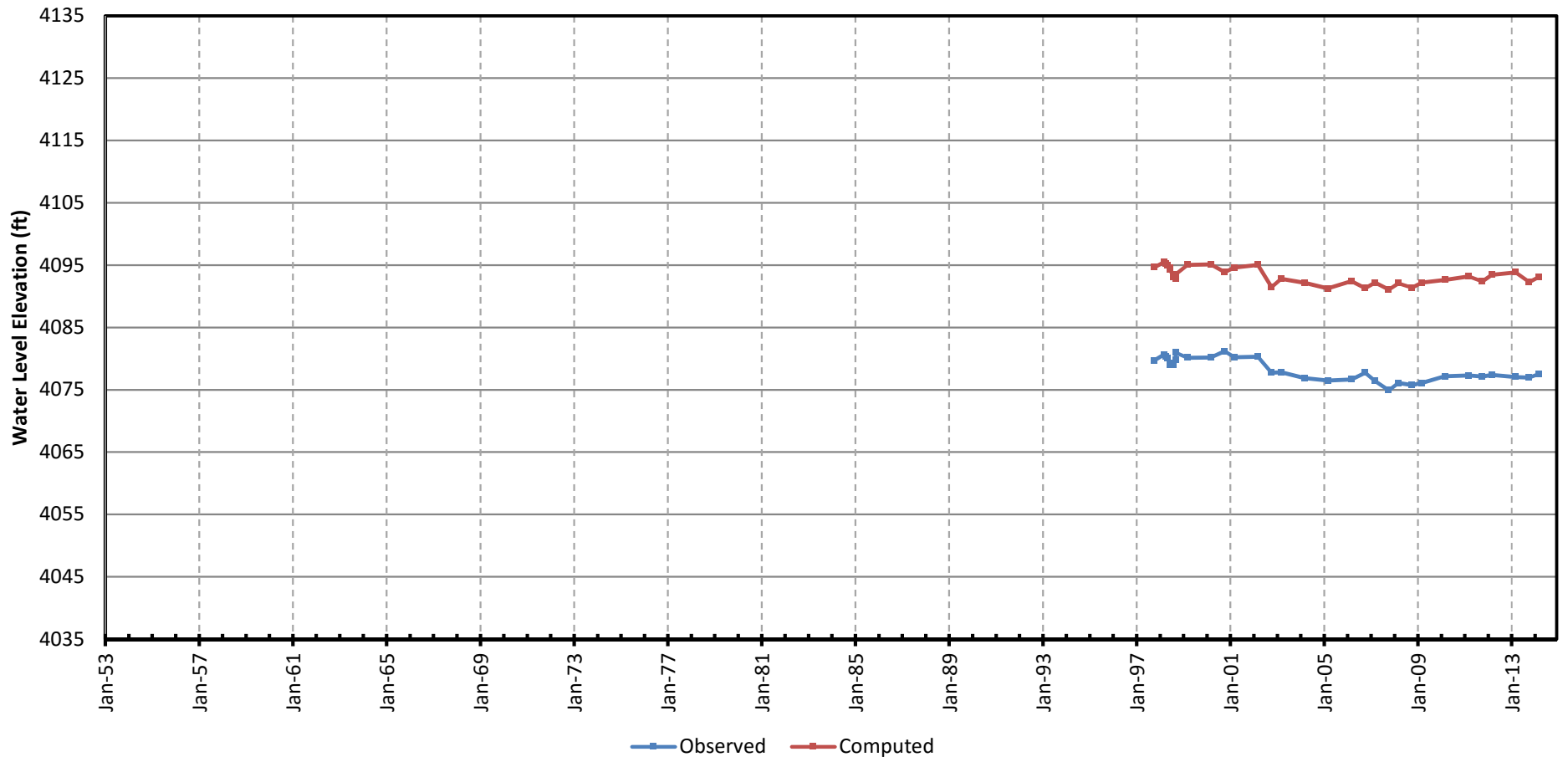
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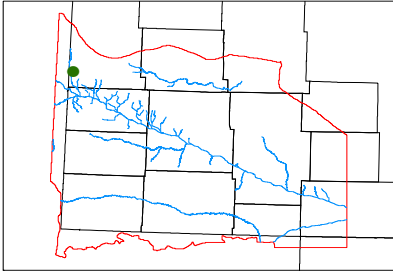




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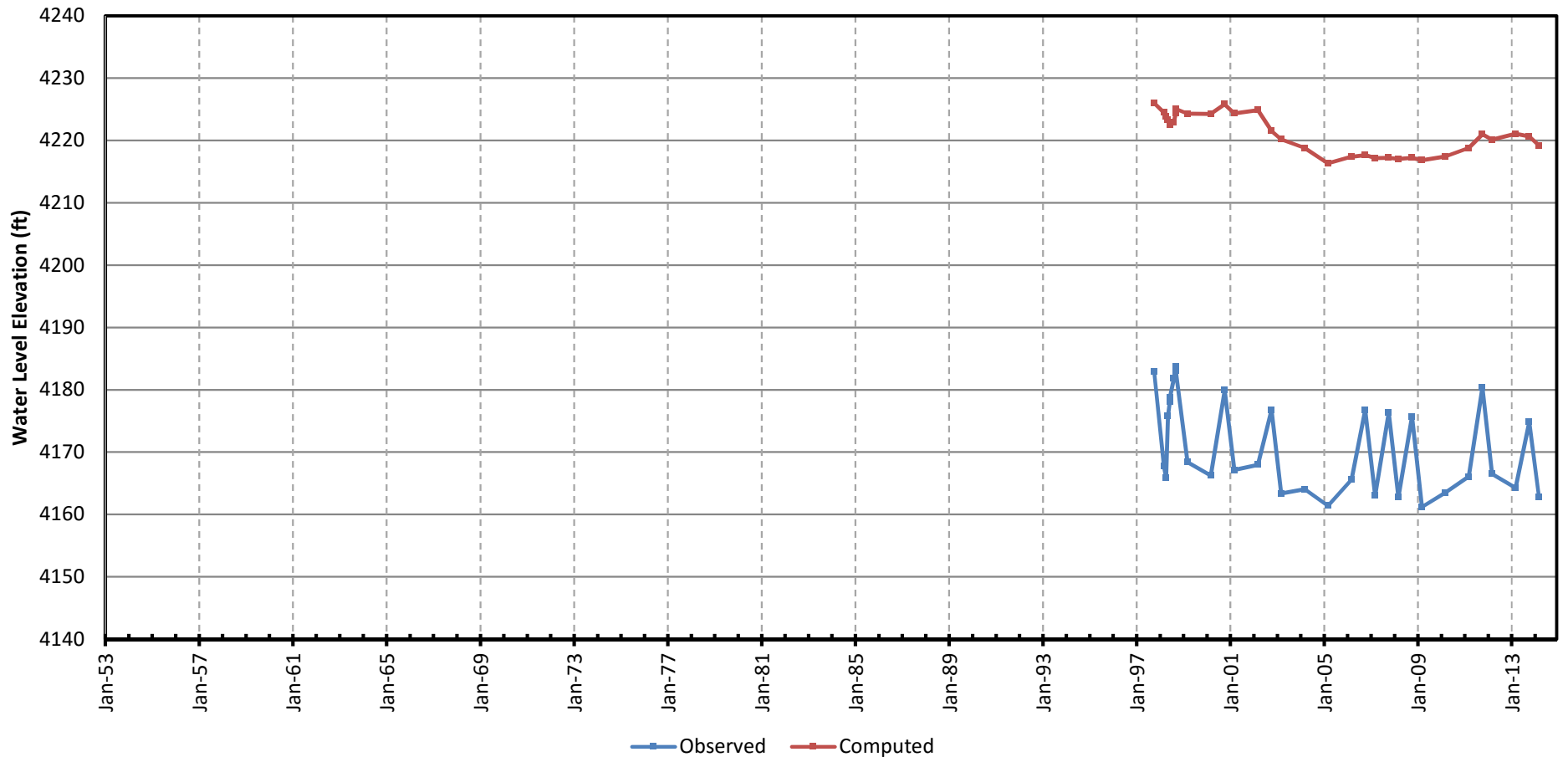
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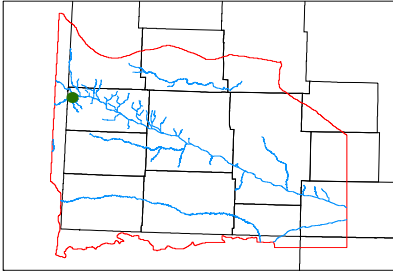




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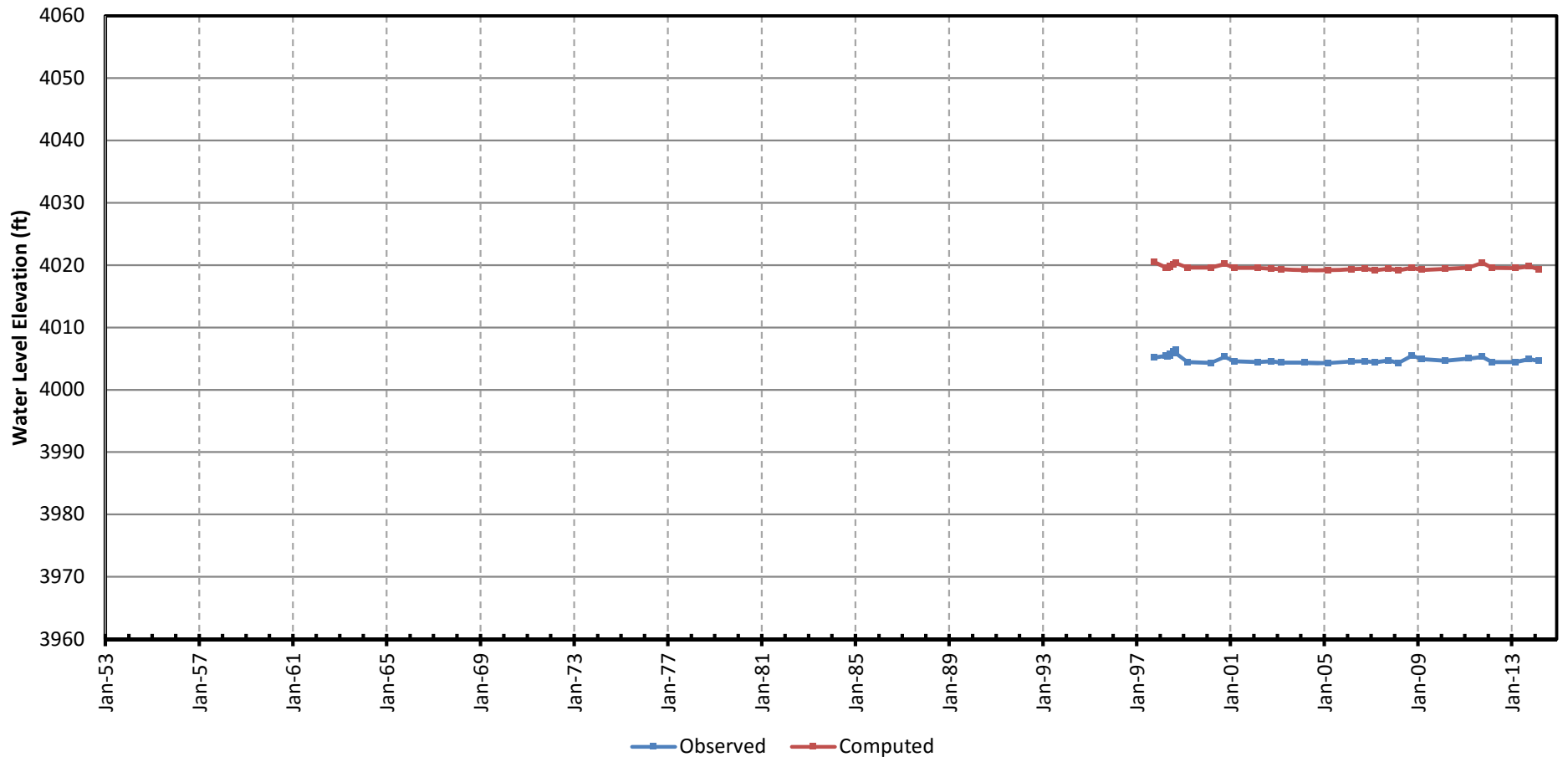
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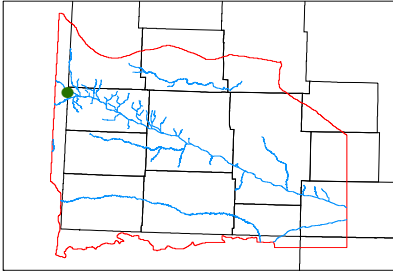




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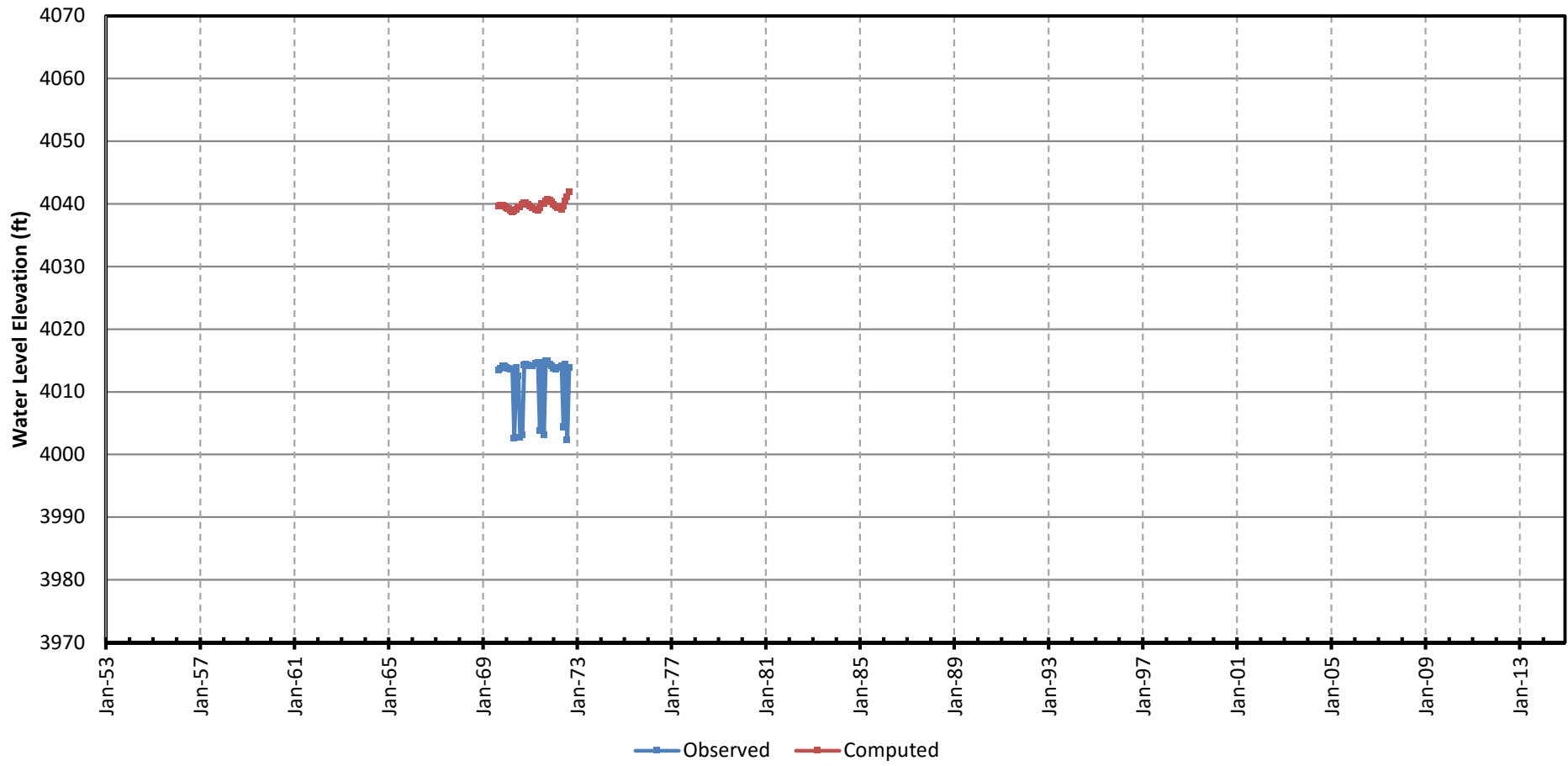
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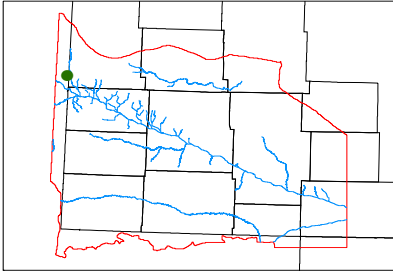




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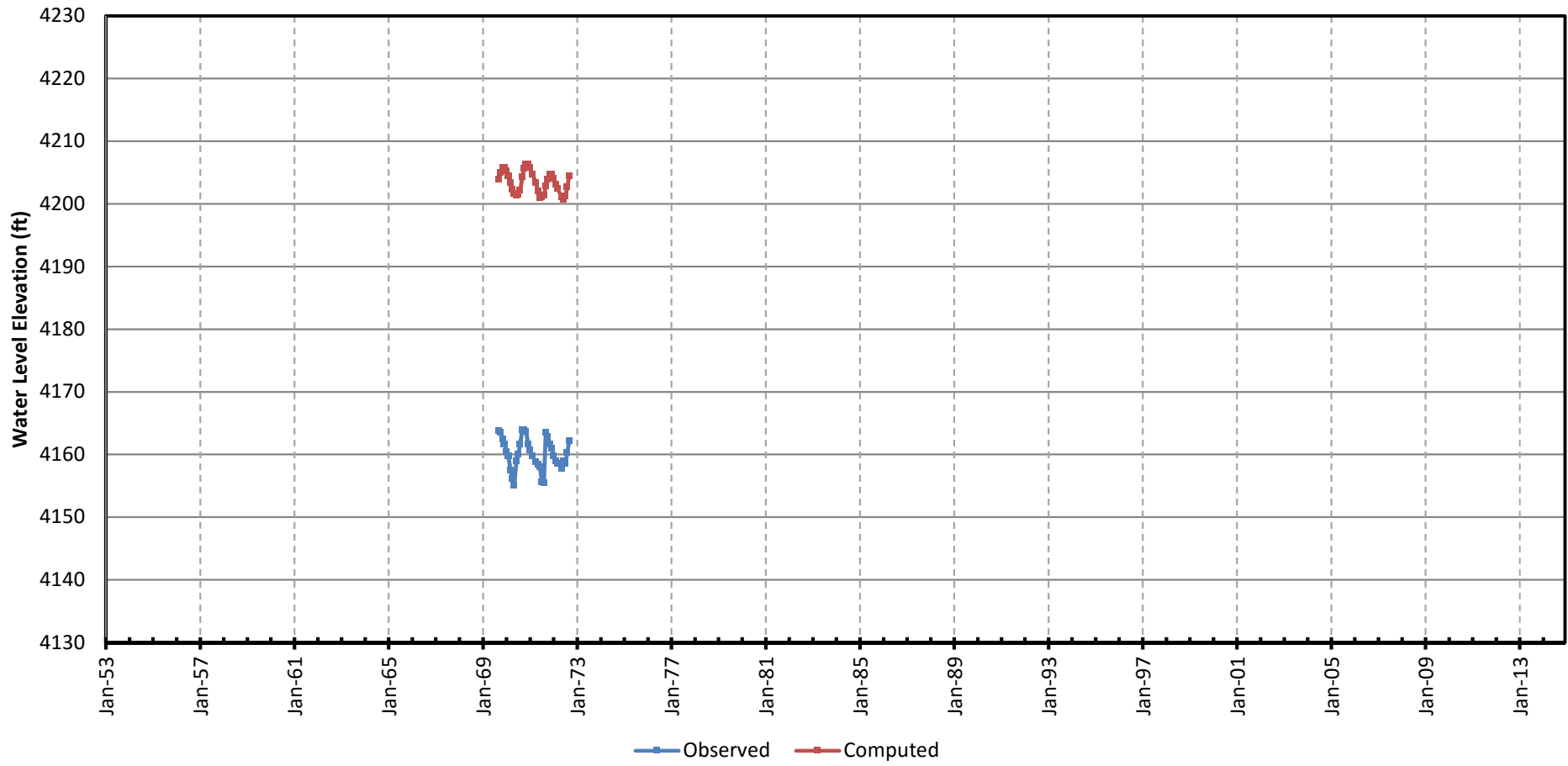
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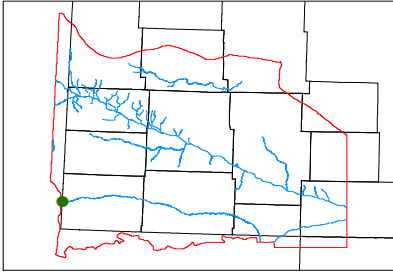




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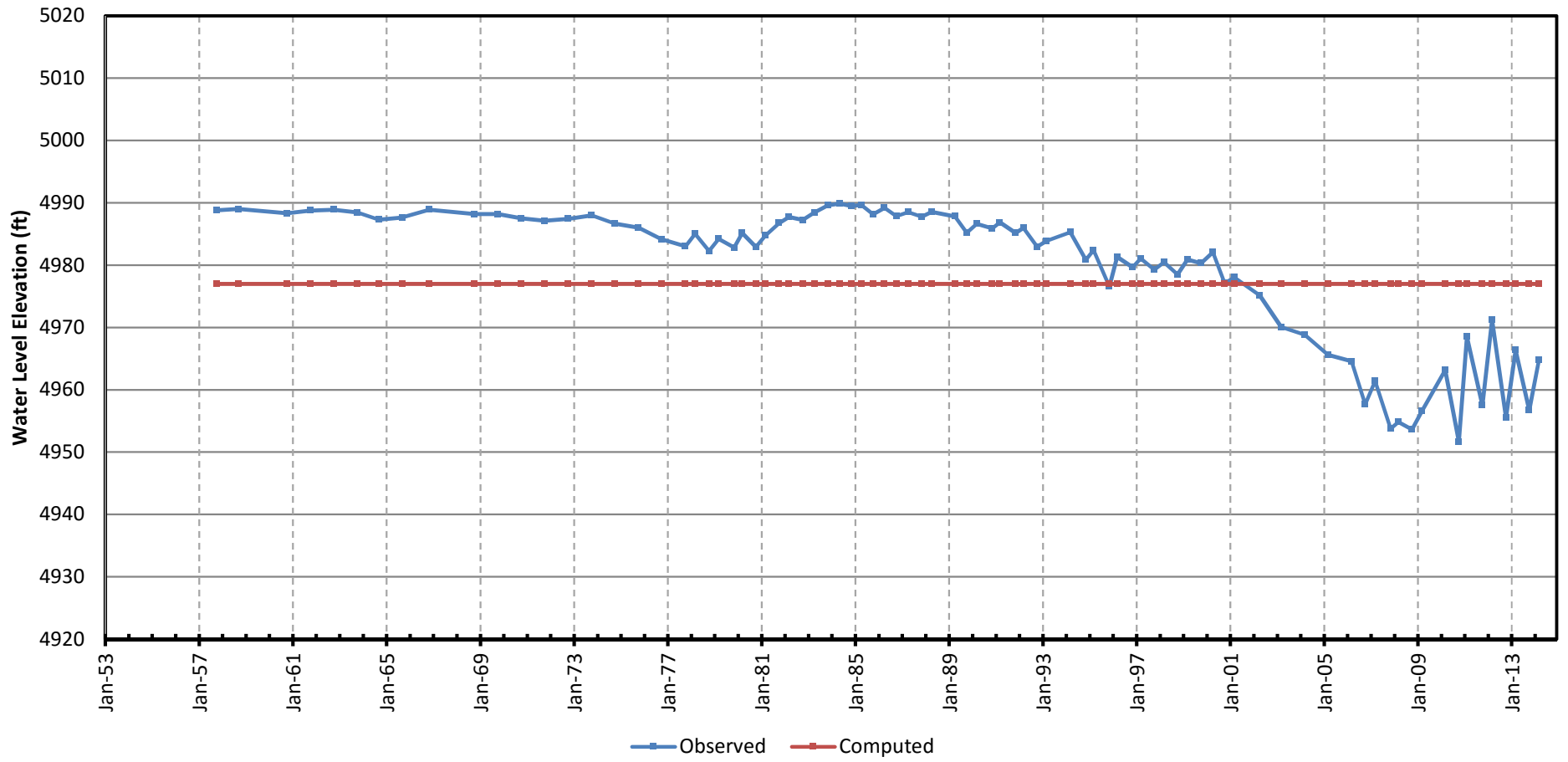
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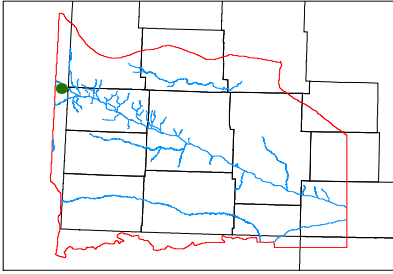




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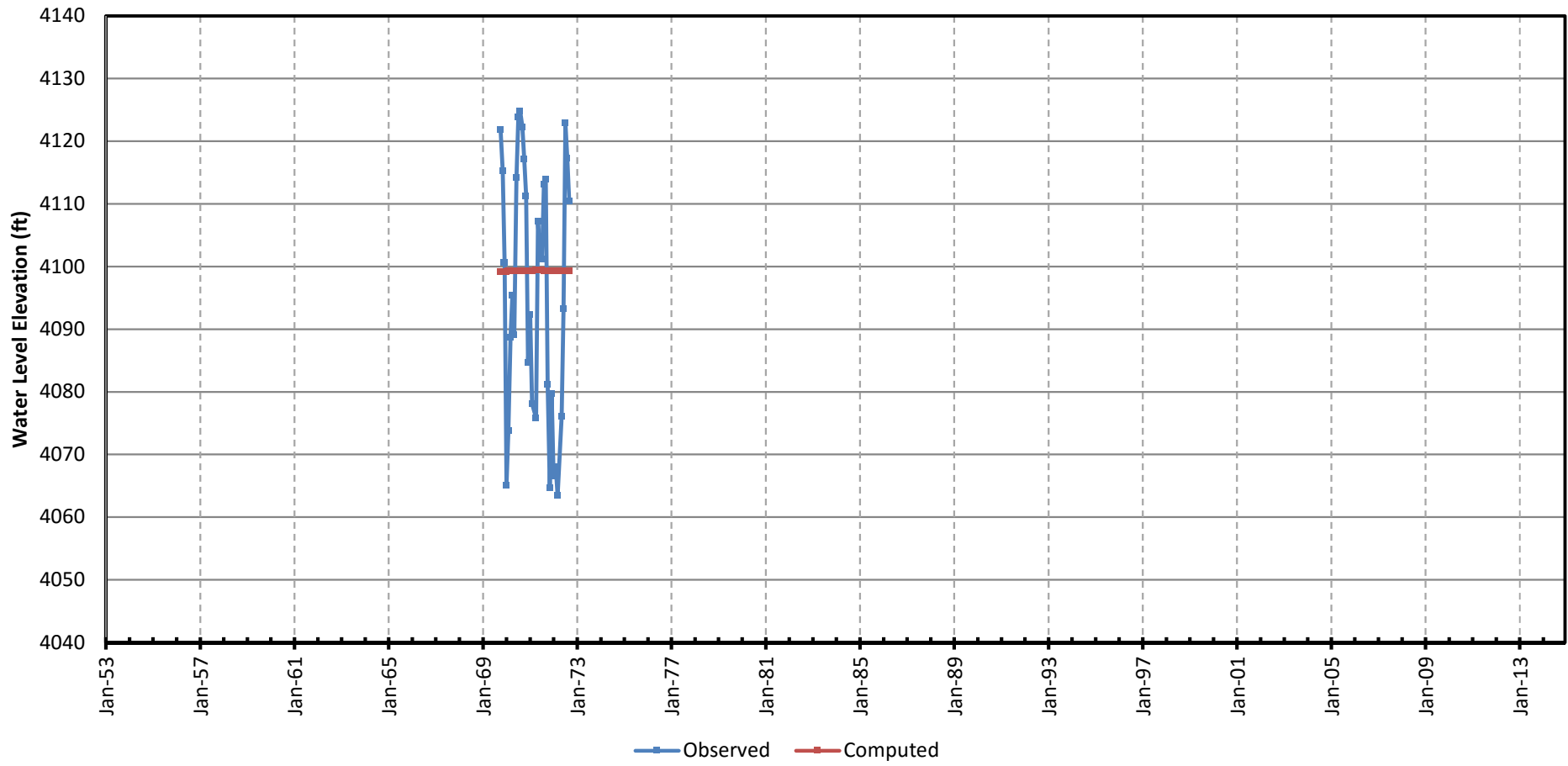
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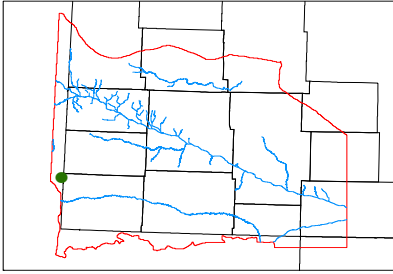


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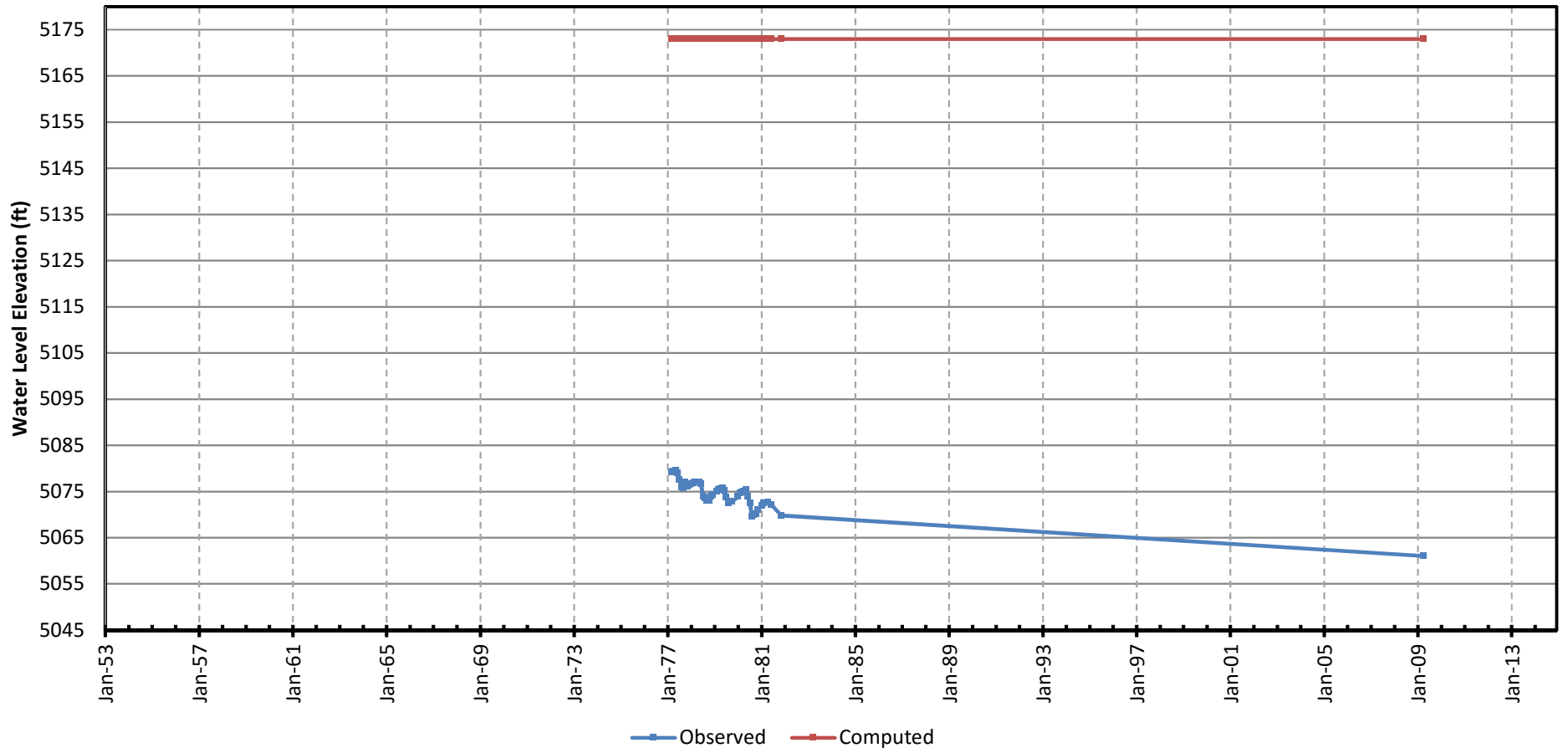
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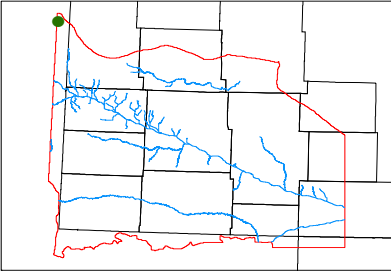
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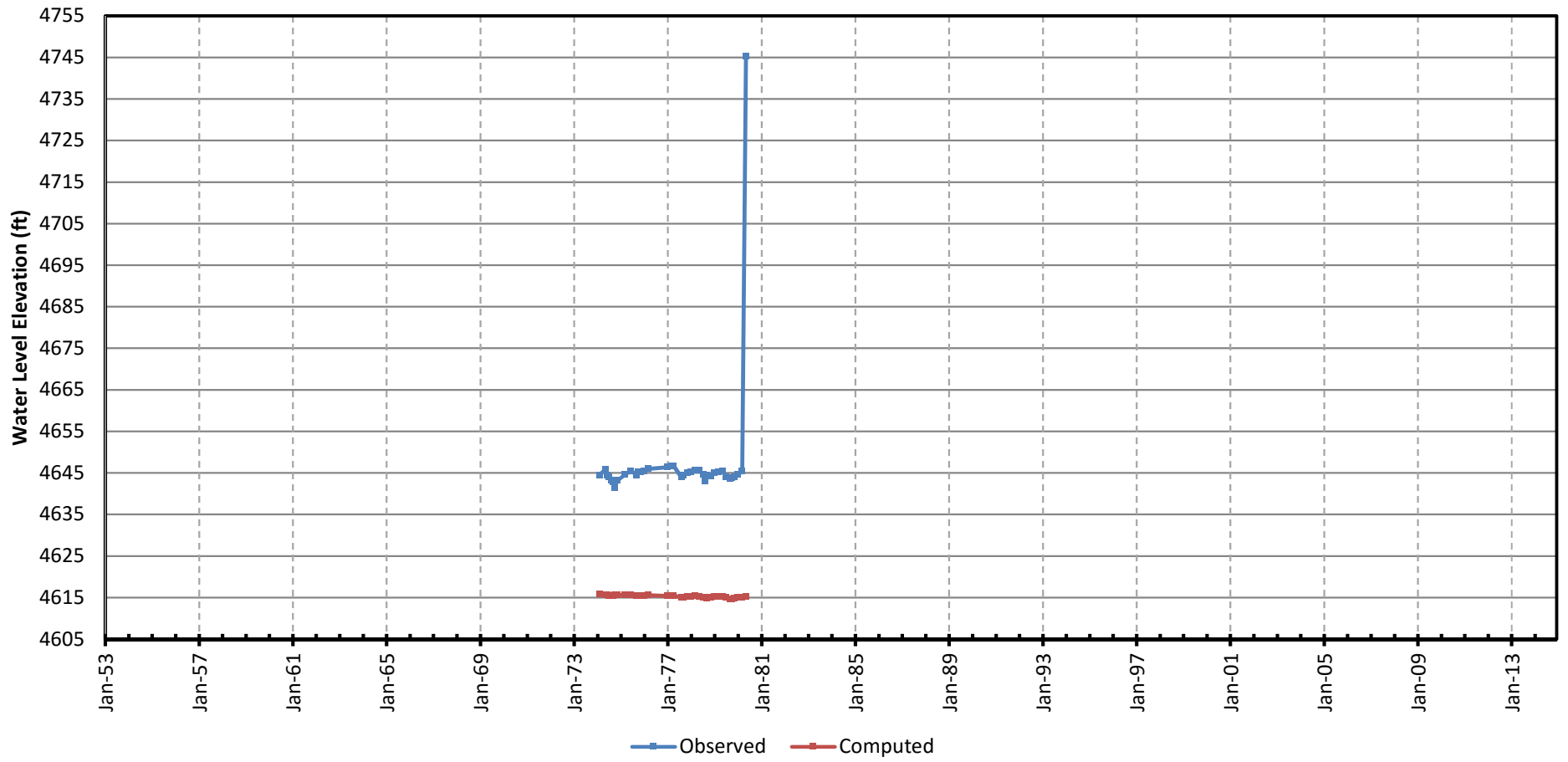
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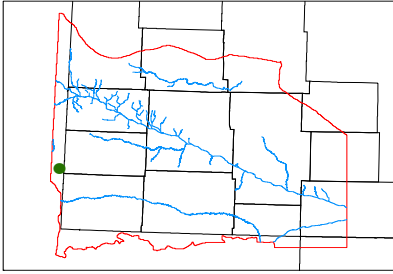


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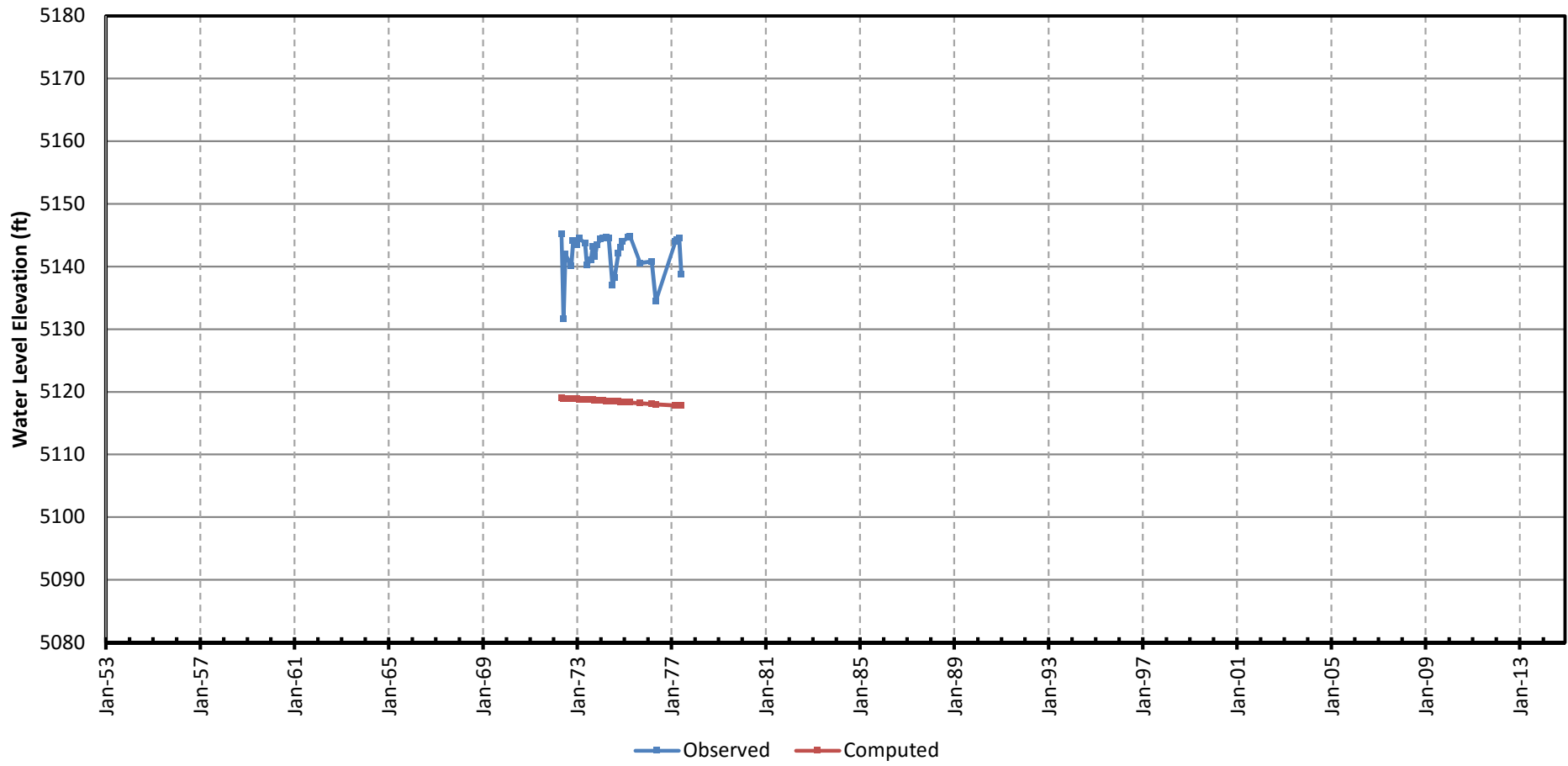
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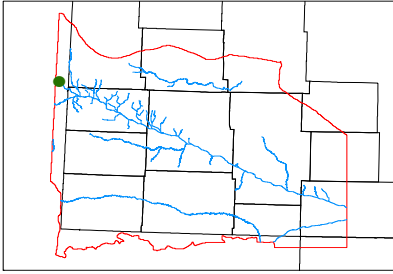




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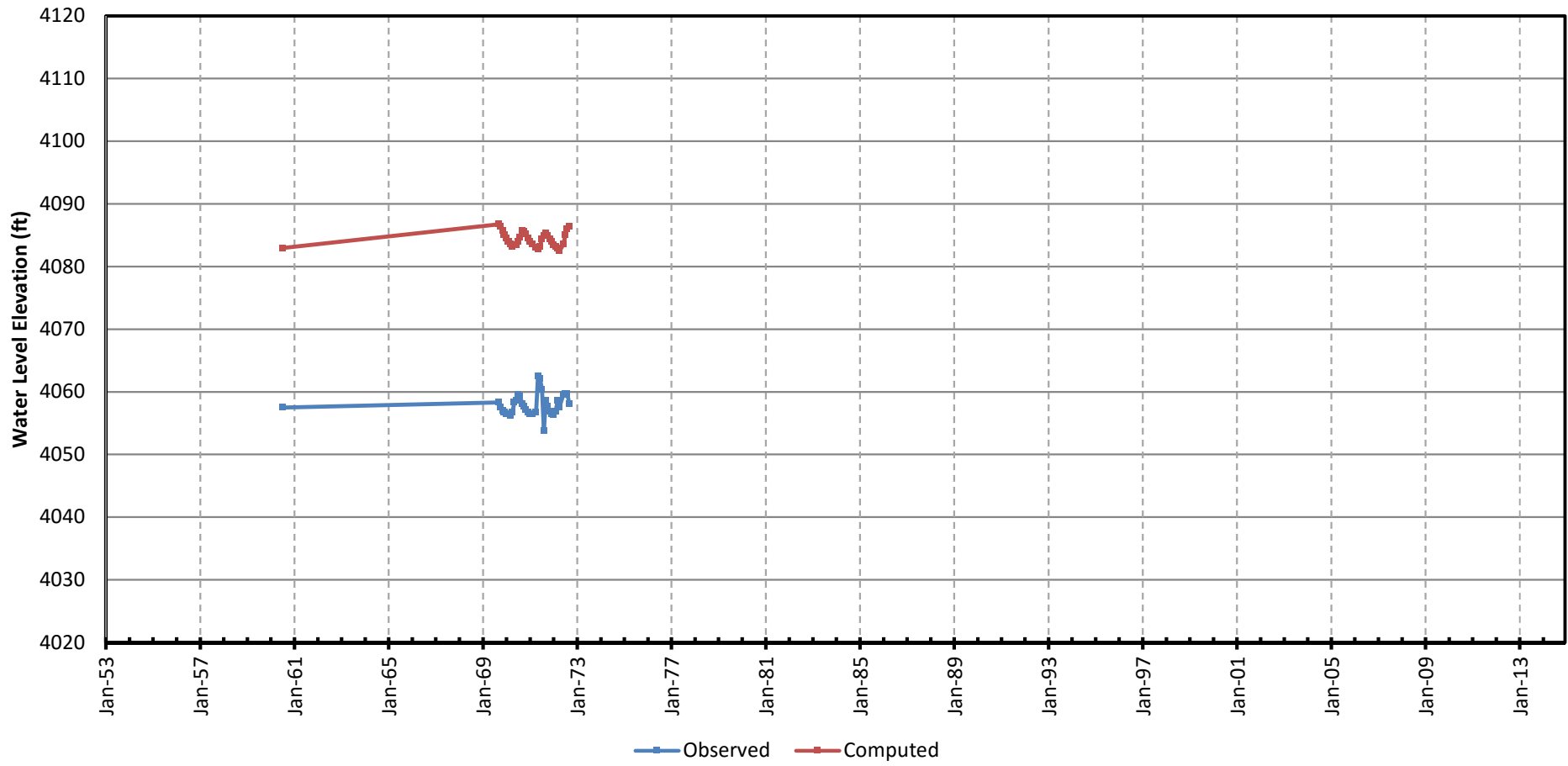
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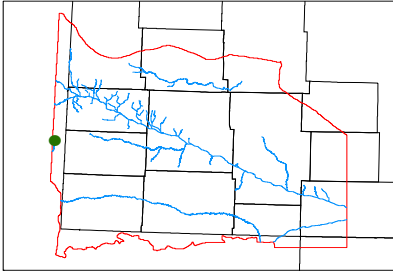




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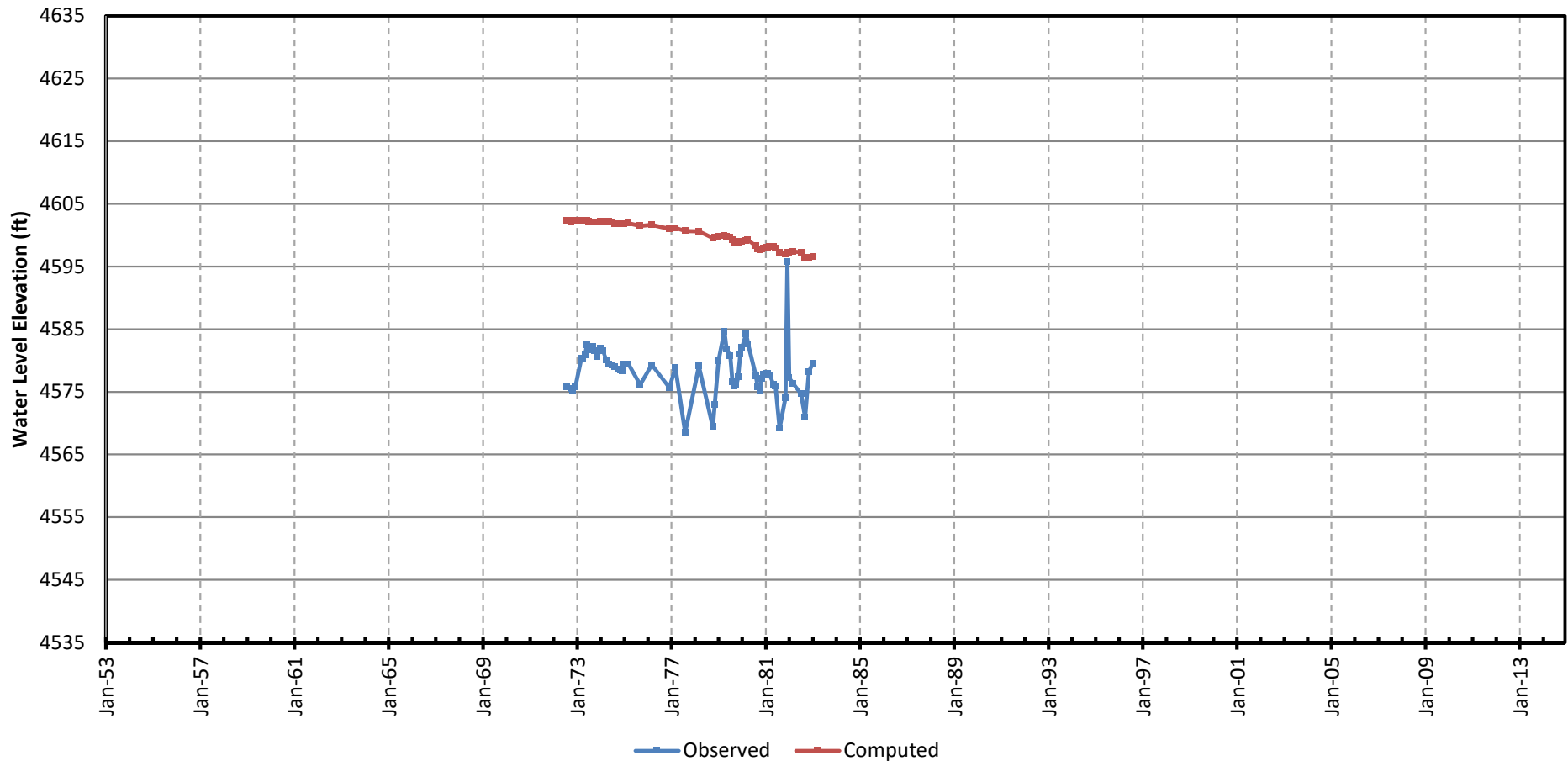
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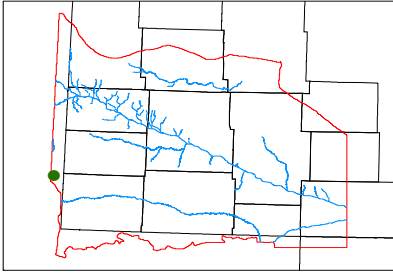




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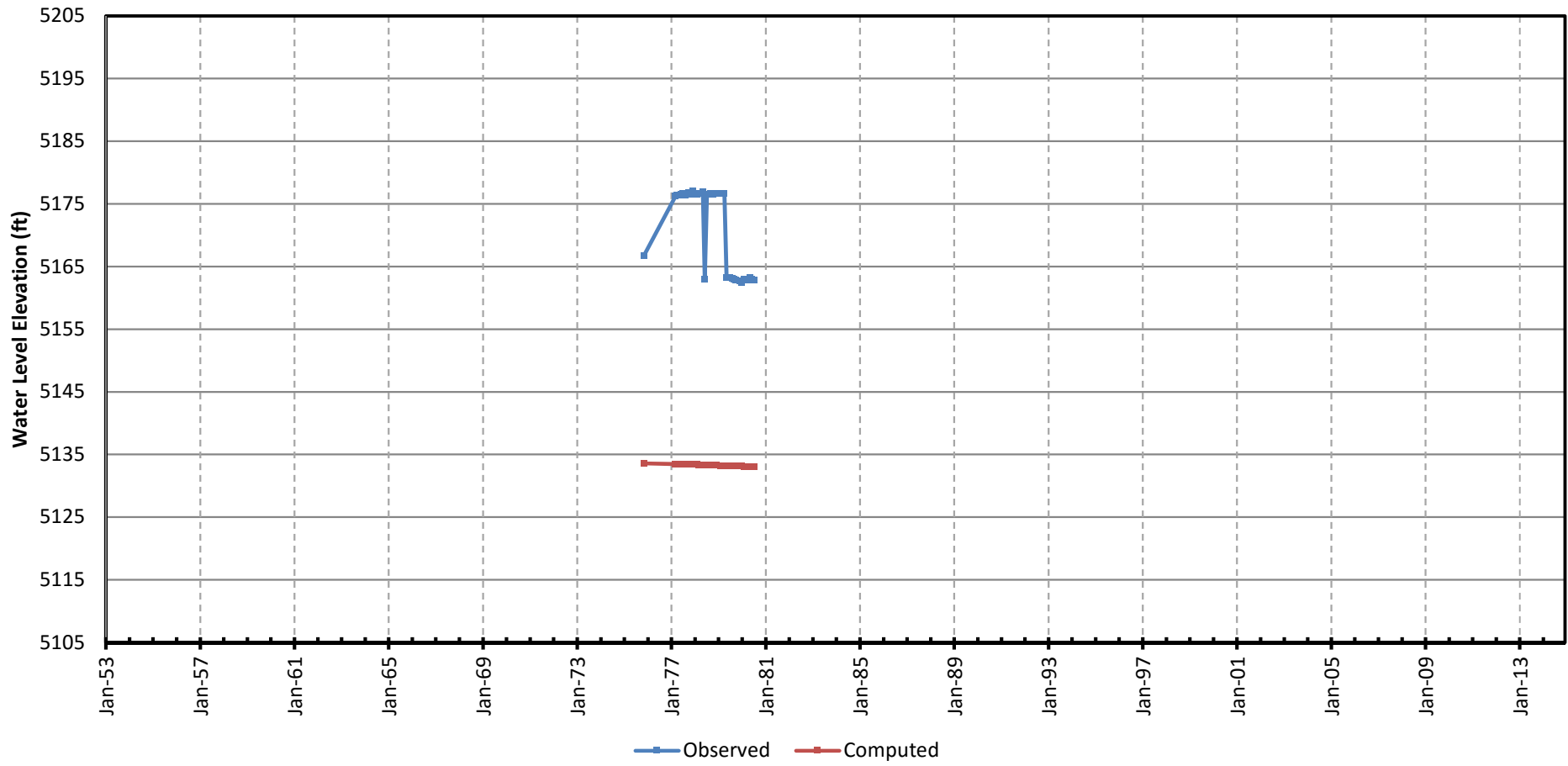
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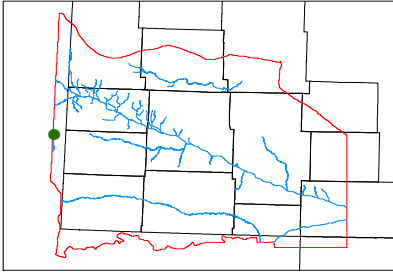




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