

# 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: Stream Baseflow Calibration Target Results

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### **EXPLANATION**

Following the update to the Western Water Use Management Modeling ground water model through April 2014, the model calibration was demonstrated utilizing stream baseflow calibration targets. This document presents the graphs for 35 flux (node) calibration targets for streams throughout the model area. For a detailed description of the stream baseflow calibration and estimation process, see the additional documentation *Western Water Use Management Ground Water Model Update through April 2014* (Kuntz and Reedy, 2016) as well as *Technical Documentation: Update of Stream Baseflow Calibration Targets* (Kuntz and Reedy, 2015).

Each graph presents the observed stream baseflow, as estimated using a single-parameter digital filter applied to corrected historical stream gage flow, along with the computed or simulated stream baseflow from the ground water model. The estimated baseflow was post-processed as described in Kuntz and Reedy, 2016 for all calibration targets. 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.

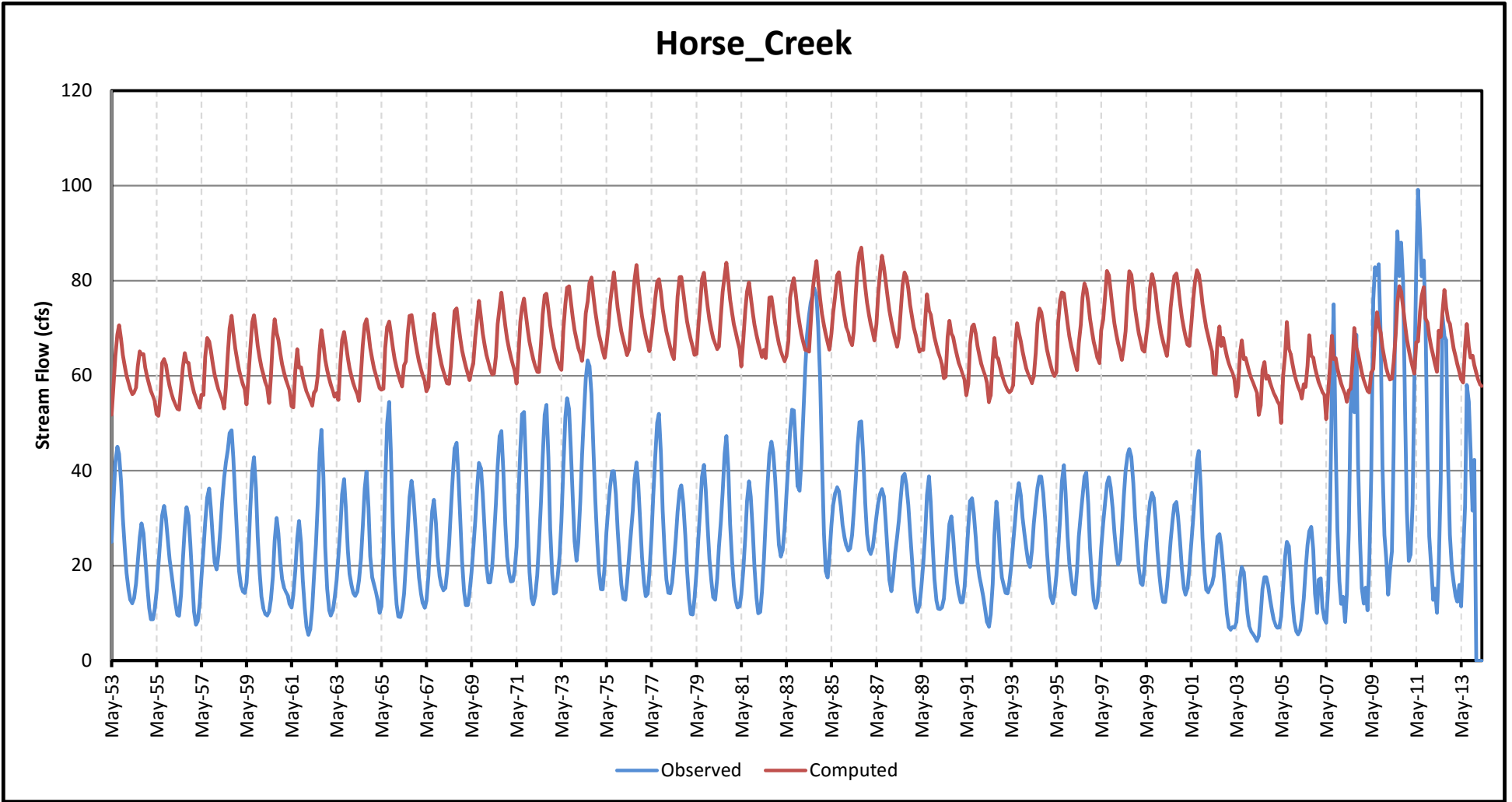
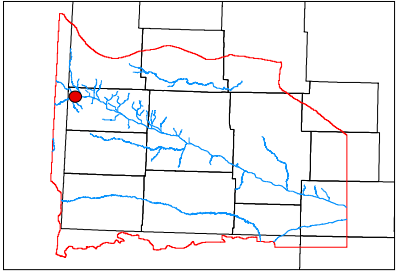
For all streamflow calibration targets, the graph name corresponds to the stream and gage location and is displayed on the map above and to the left of the graph. The red circle represents the target, the blue lines represent streams, the red outline corresponds to the active model boundary, and the thicker black lines correspond to the county boundaries.

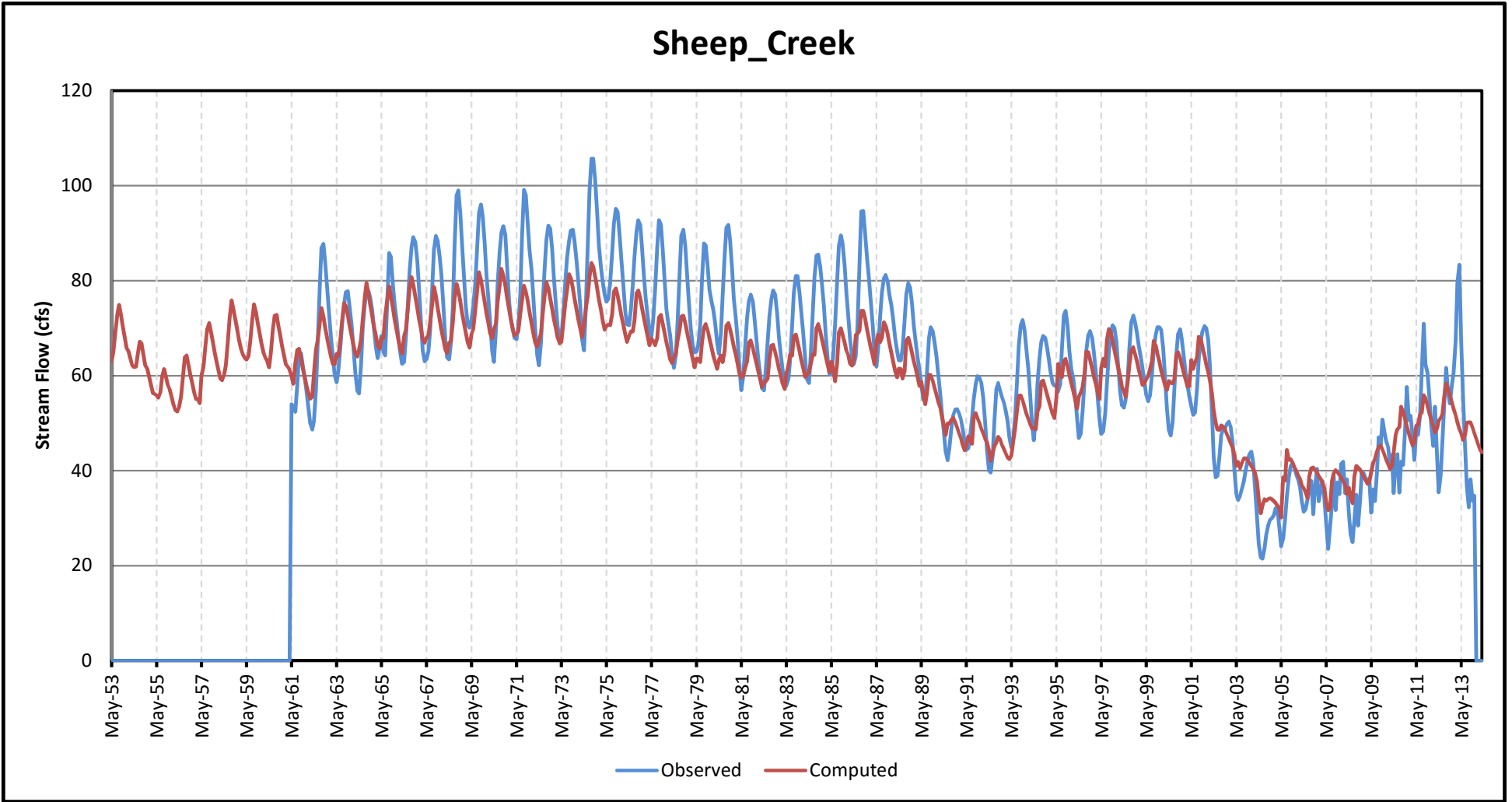
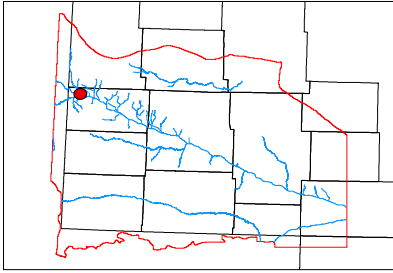
### **REFERENCES**

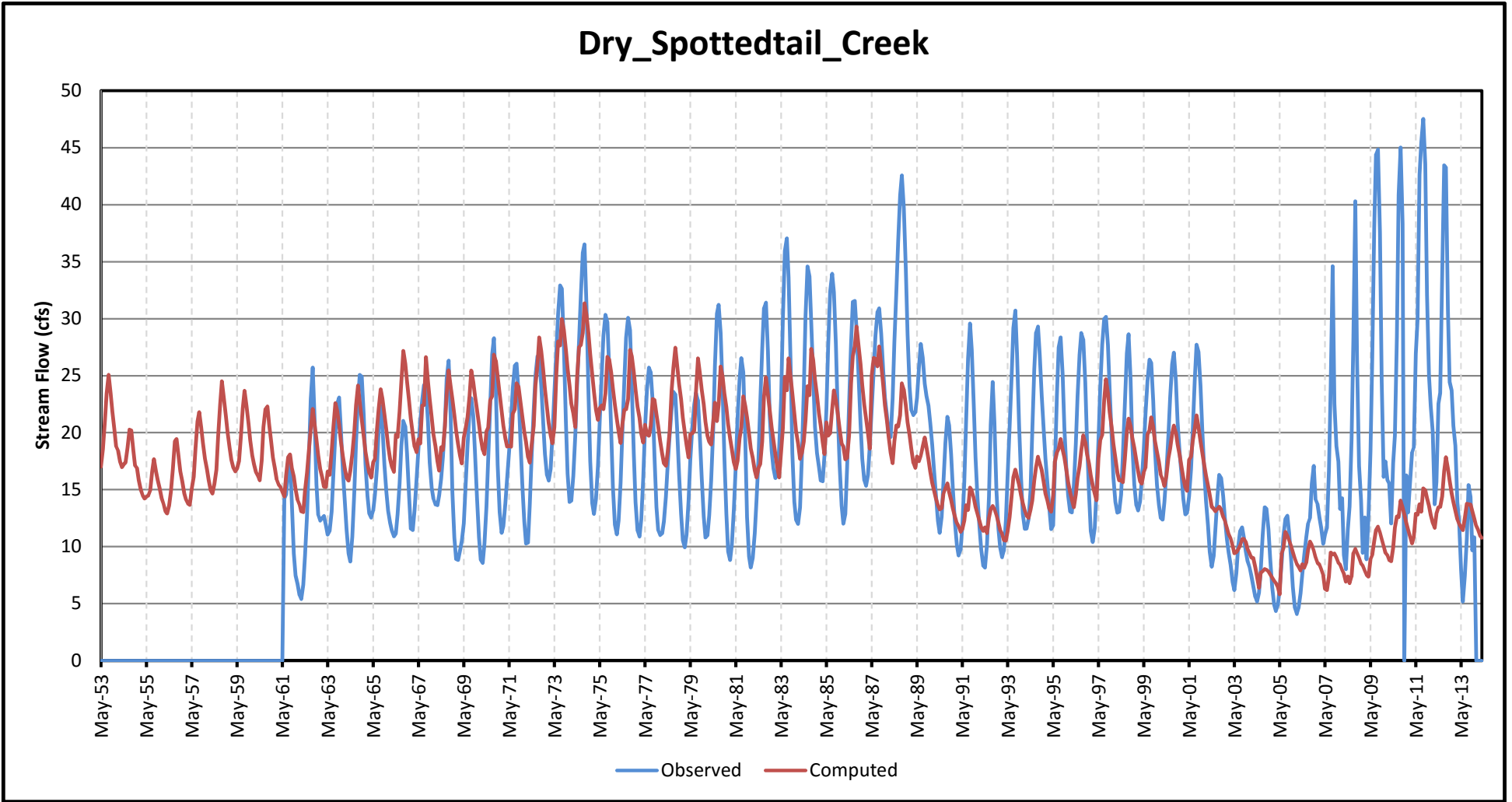
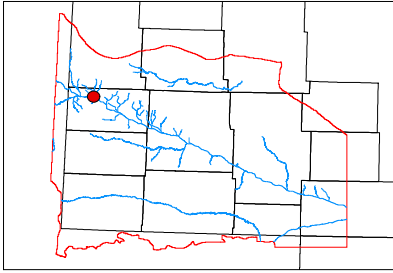
Kuntz, T.A., and Reedy, J.R., 5/21/2016, Western Water Use Management Ground Water Model Update through April 2014, Western Water Use Management Modeling Joint Board

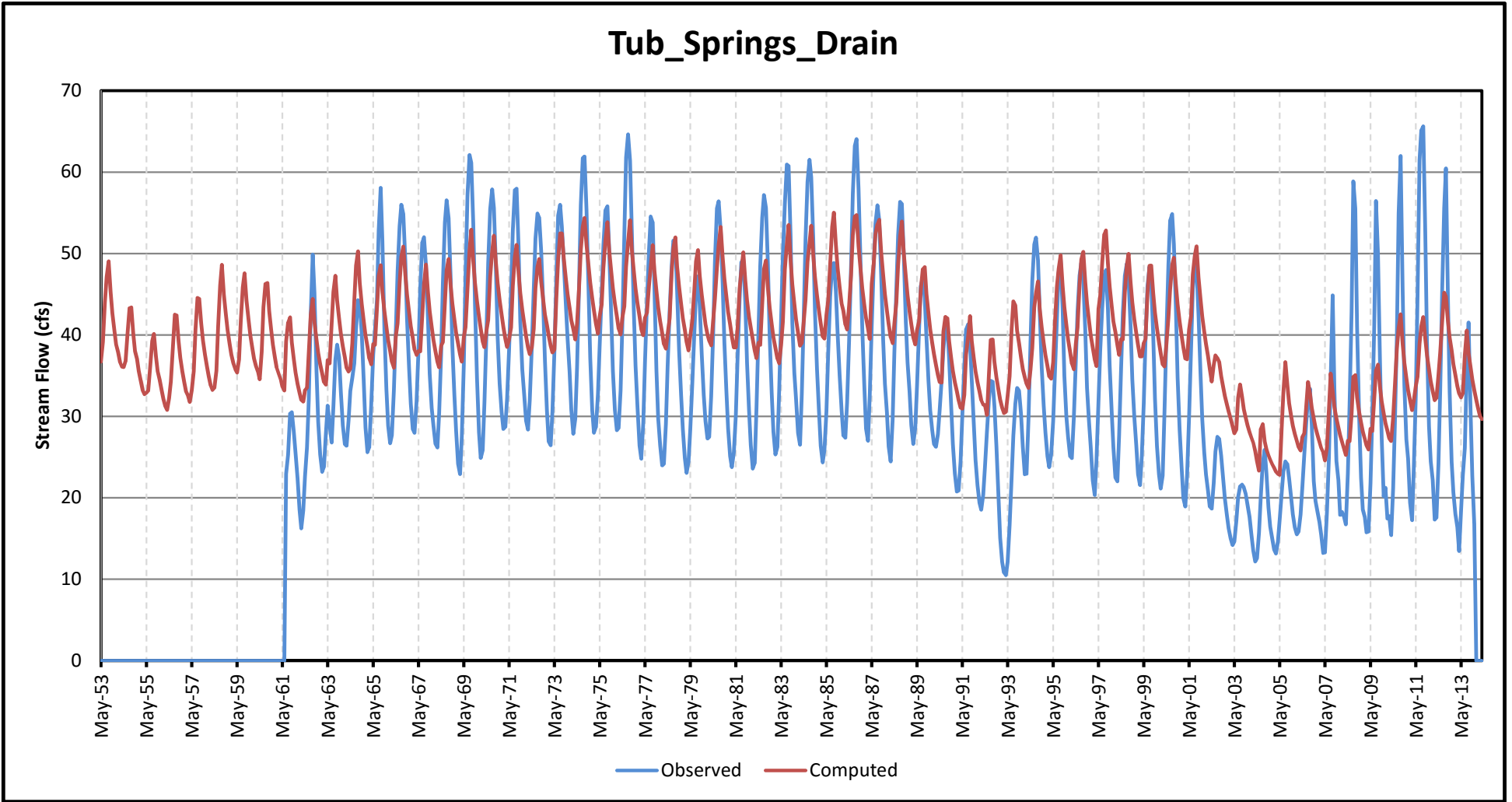
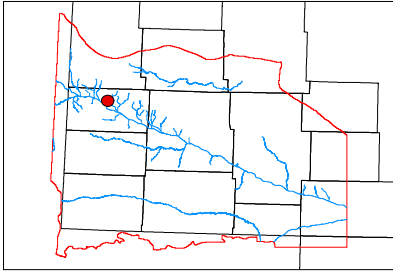
Kuntz, T.A., and Reedy, J.R., 12/14/2015, Technical Documentation: Update of Stream Baseflow Calibration Targets, Western Water Use Management Modeling Joint Board

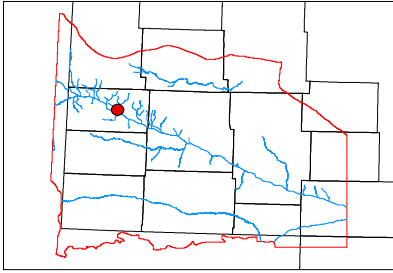




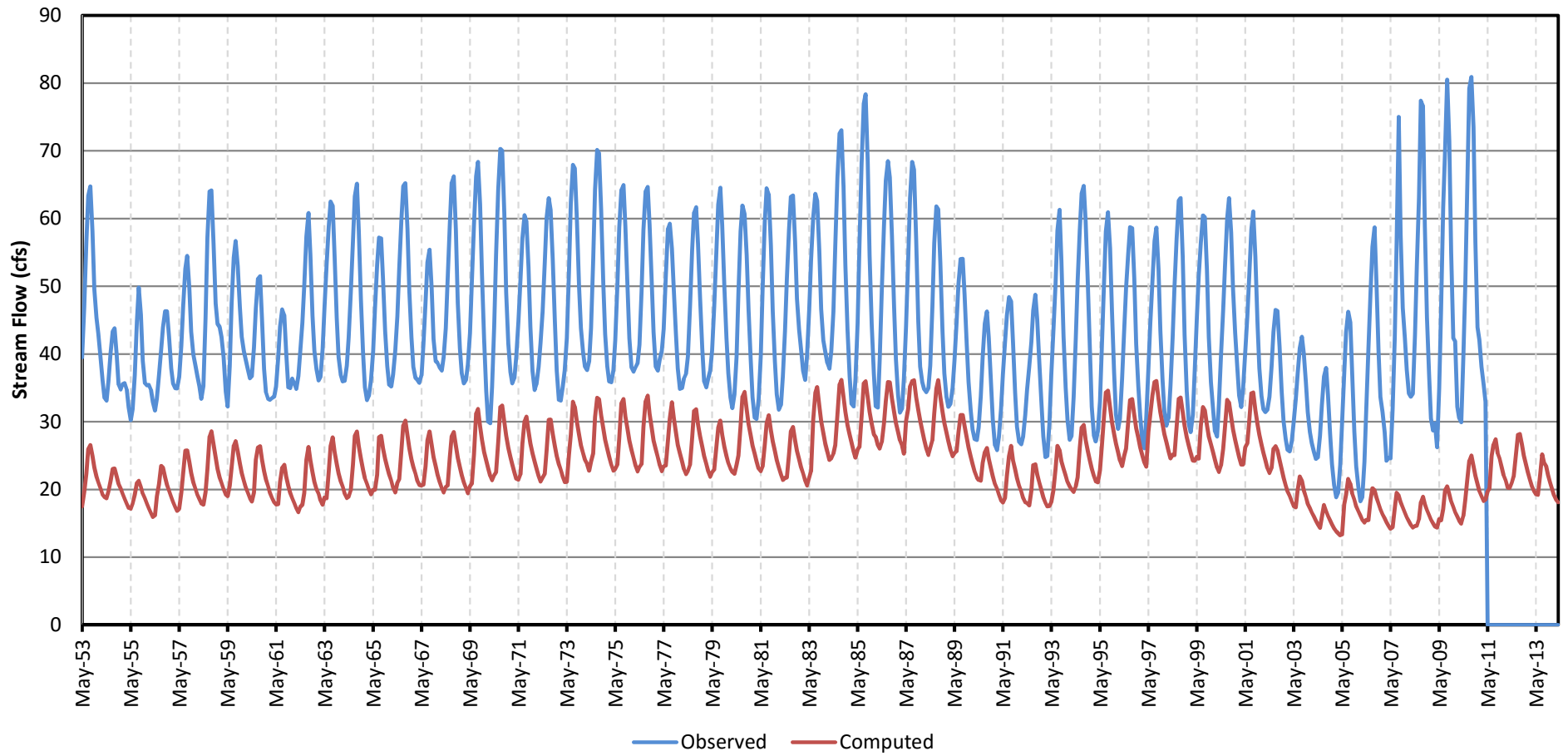


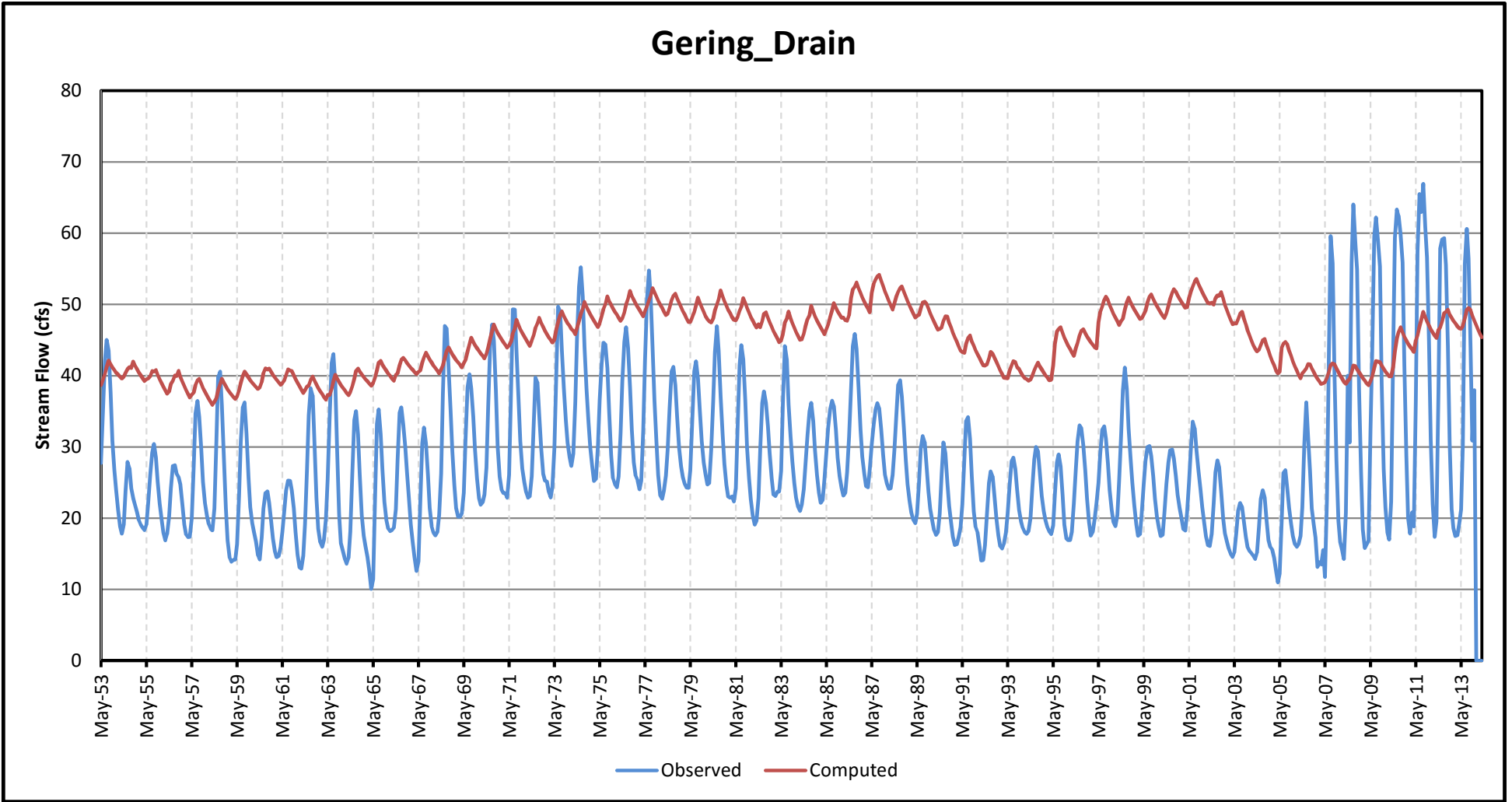
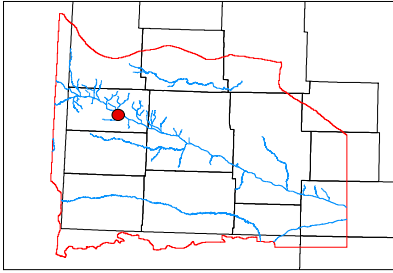


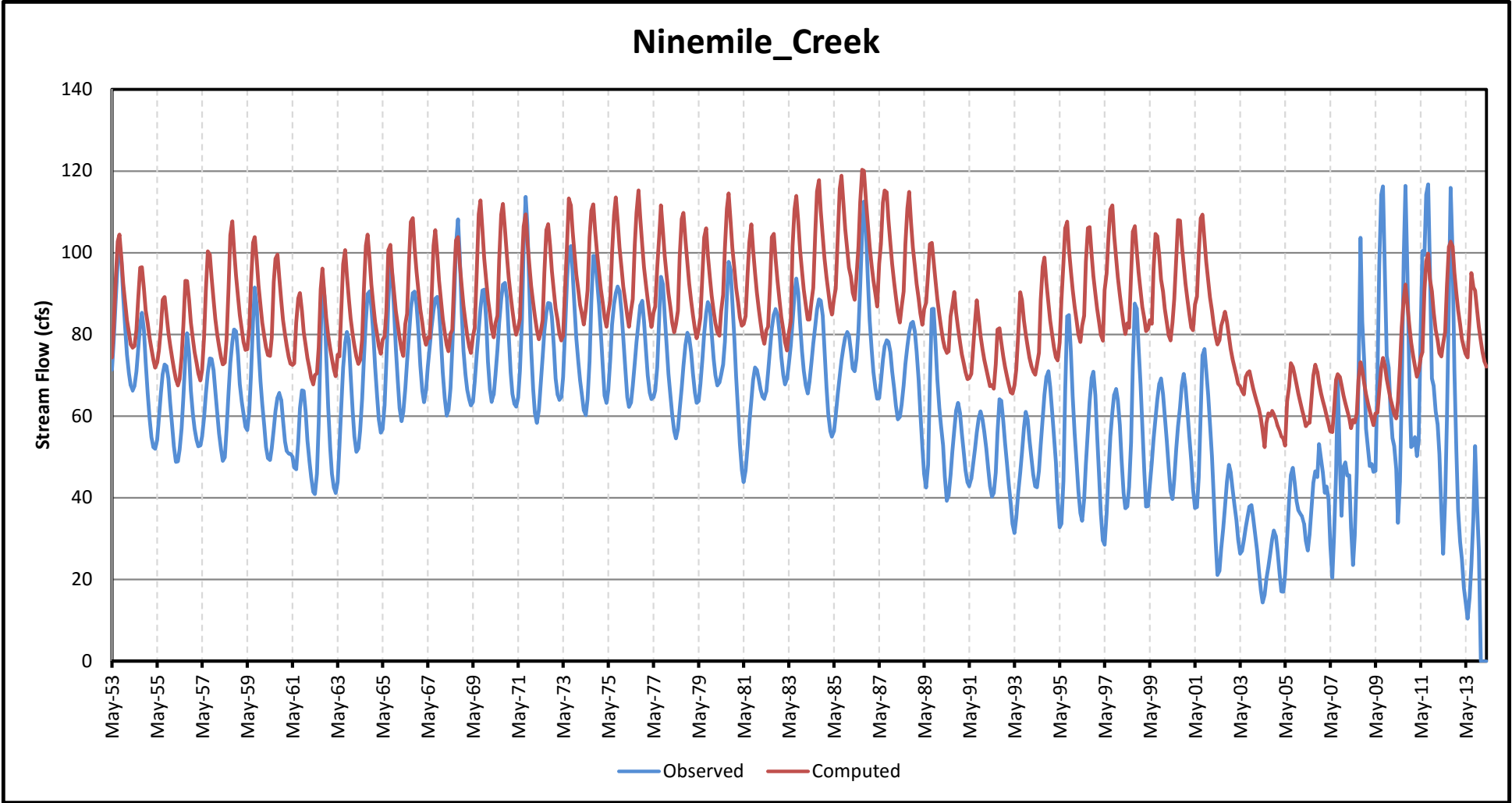
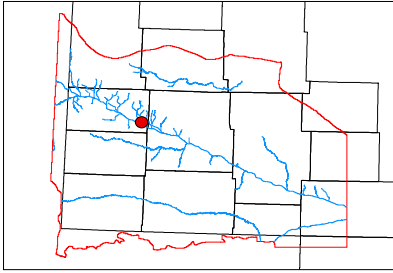




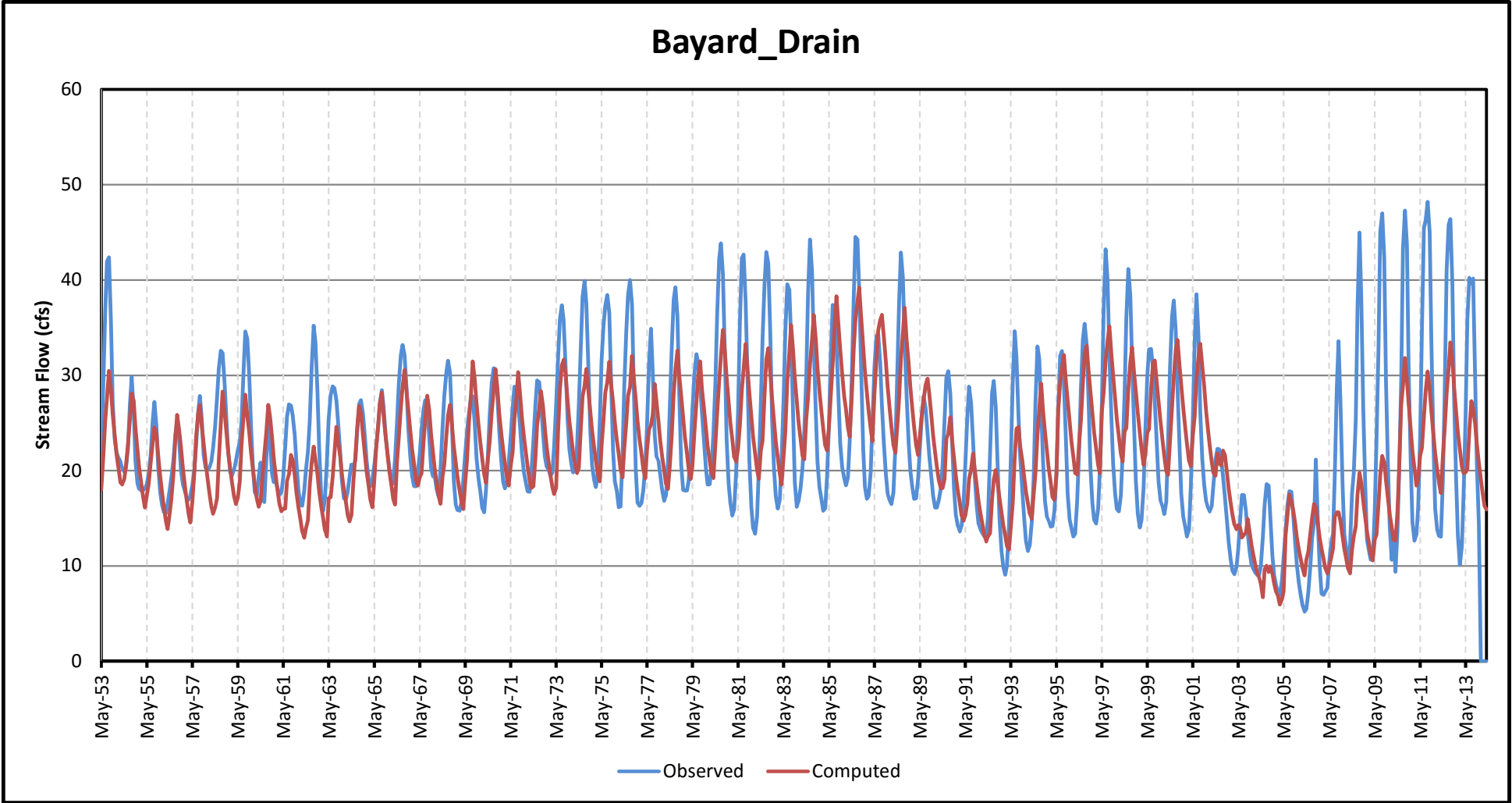
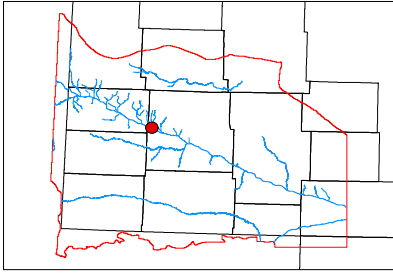
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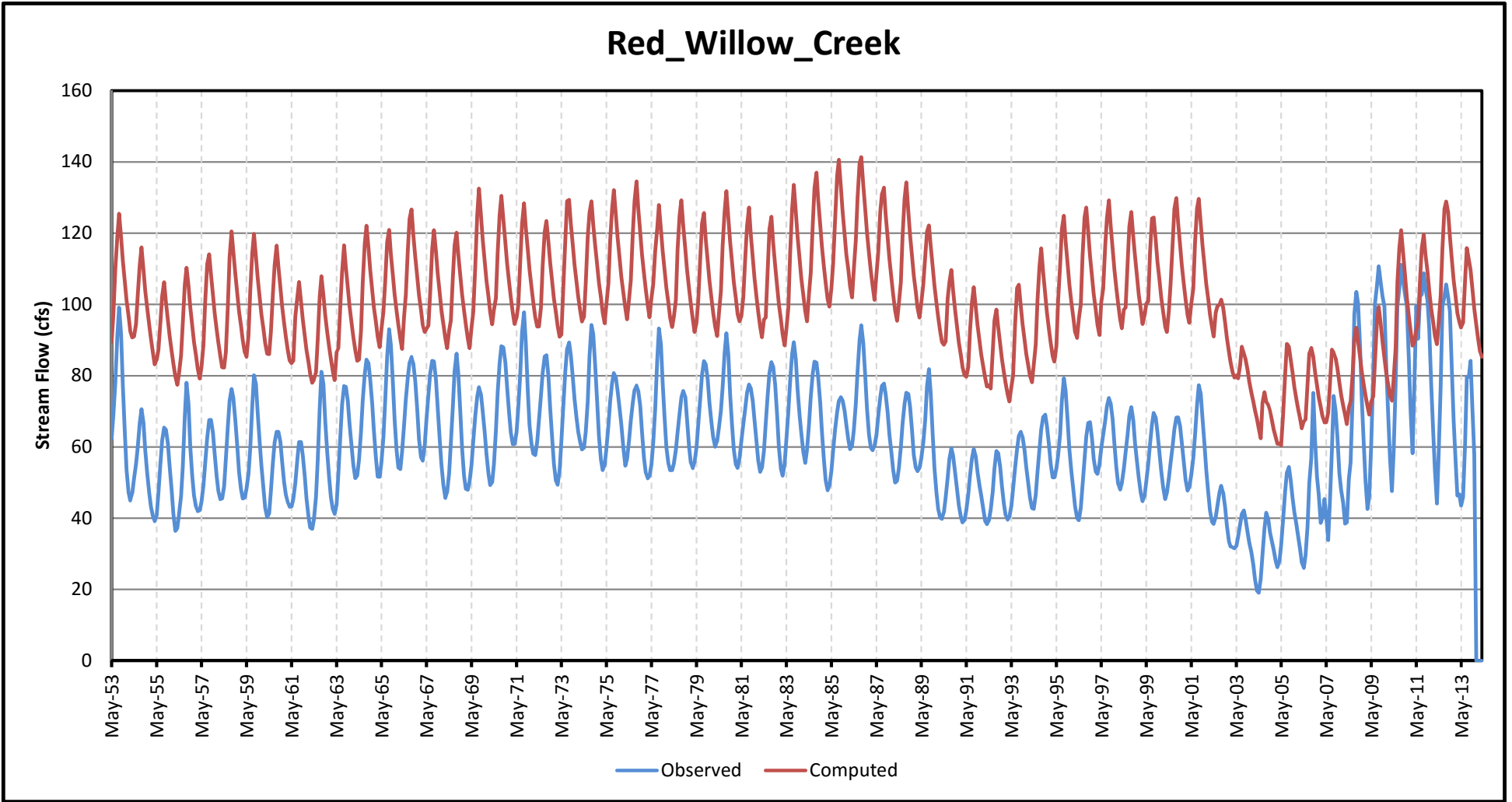
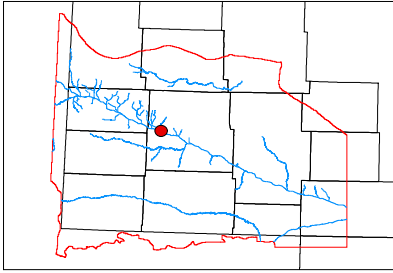


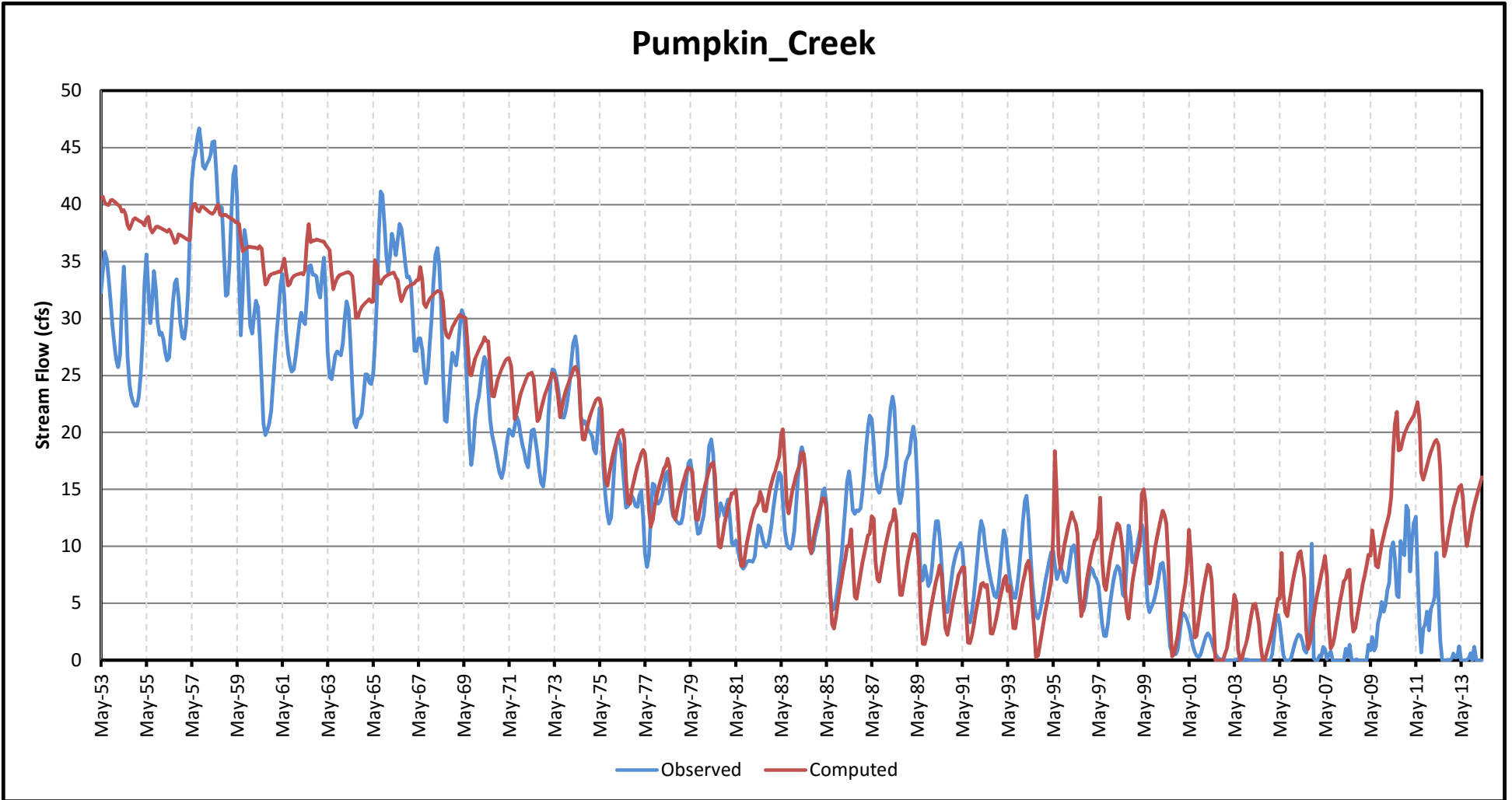
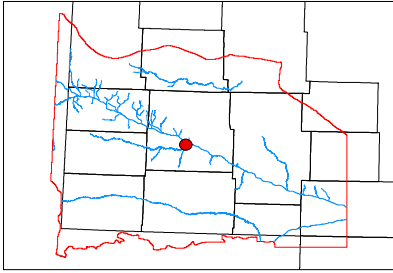


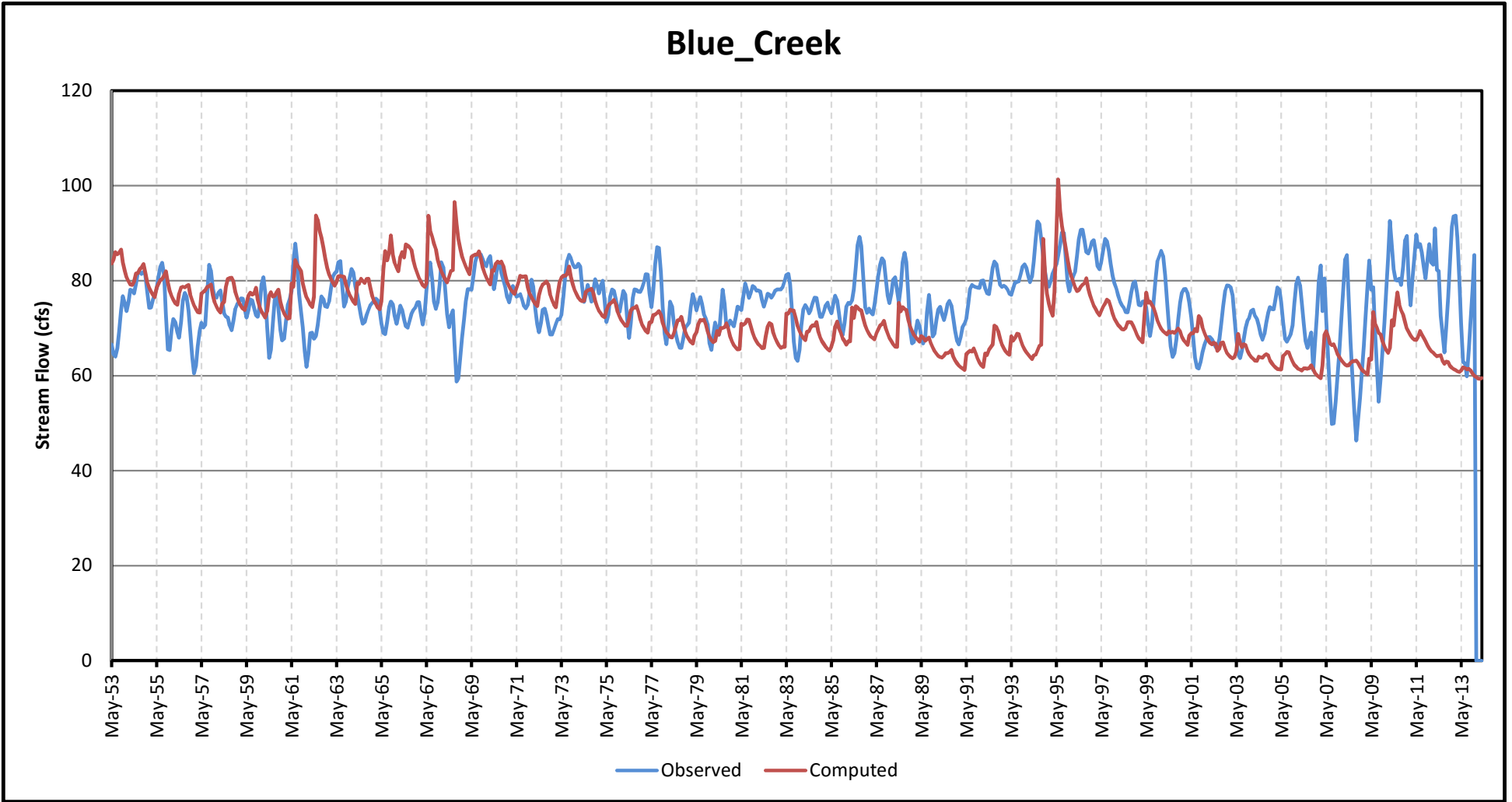
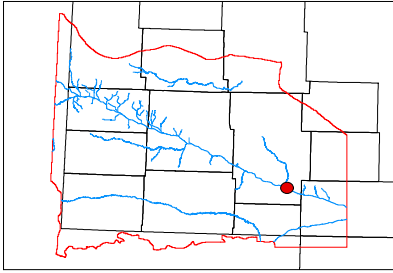


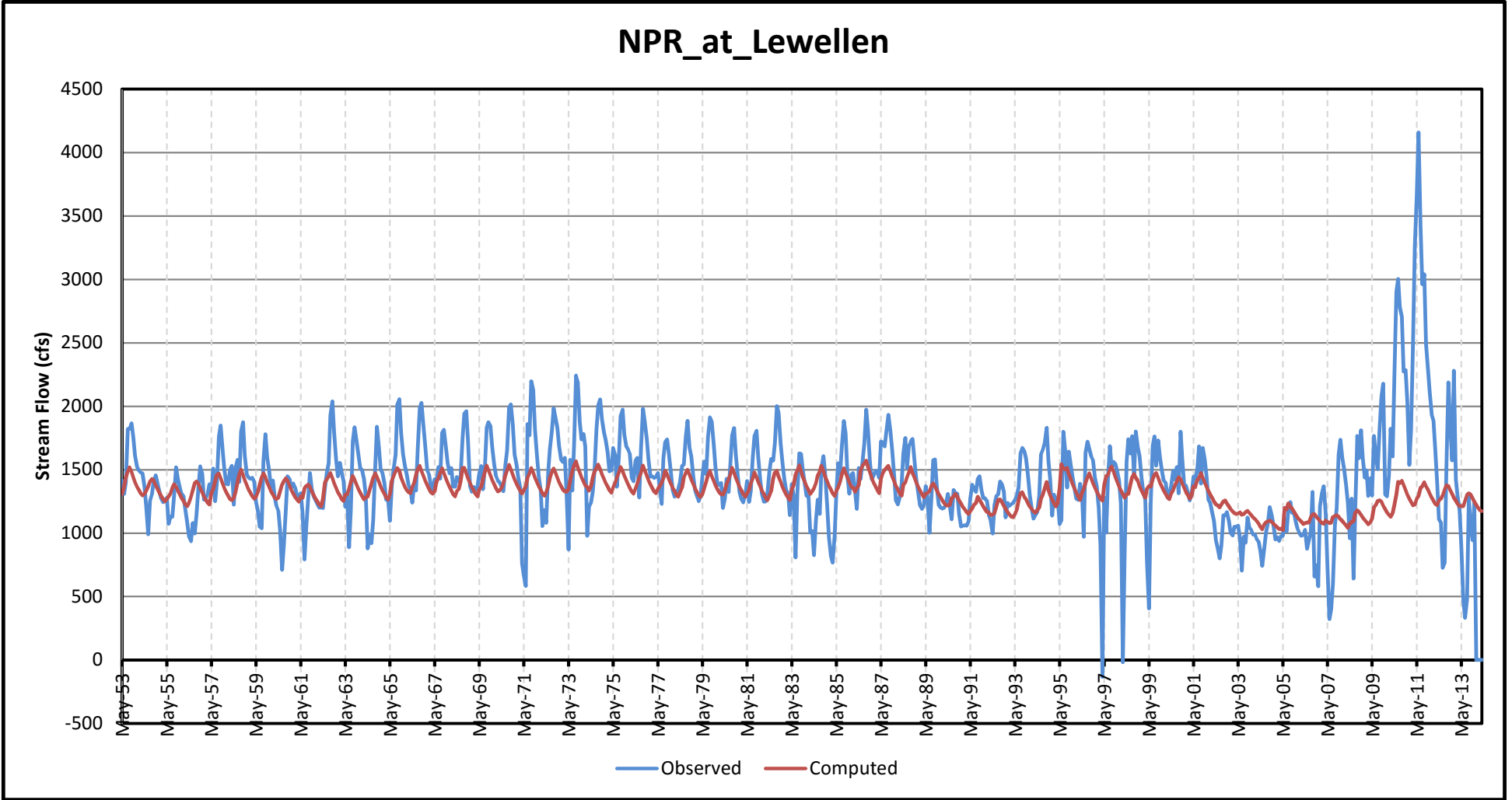
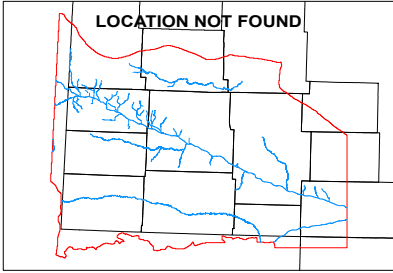


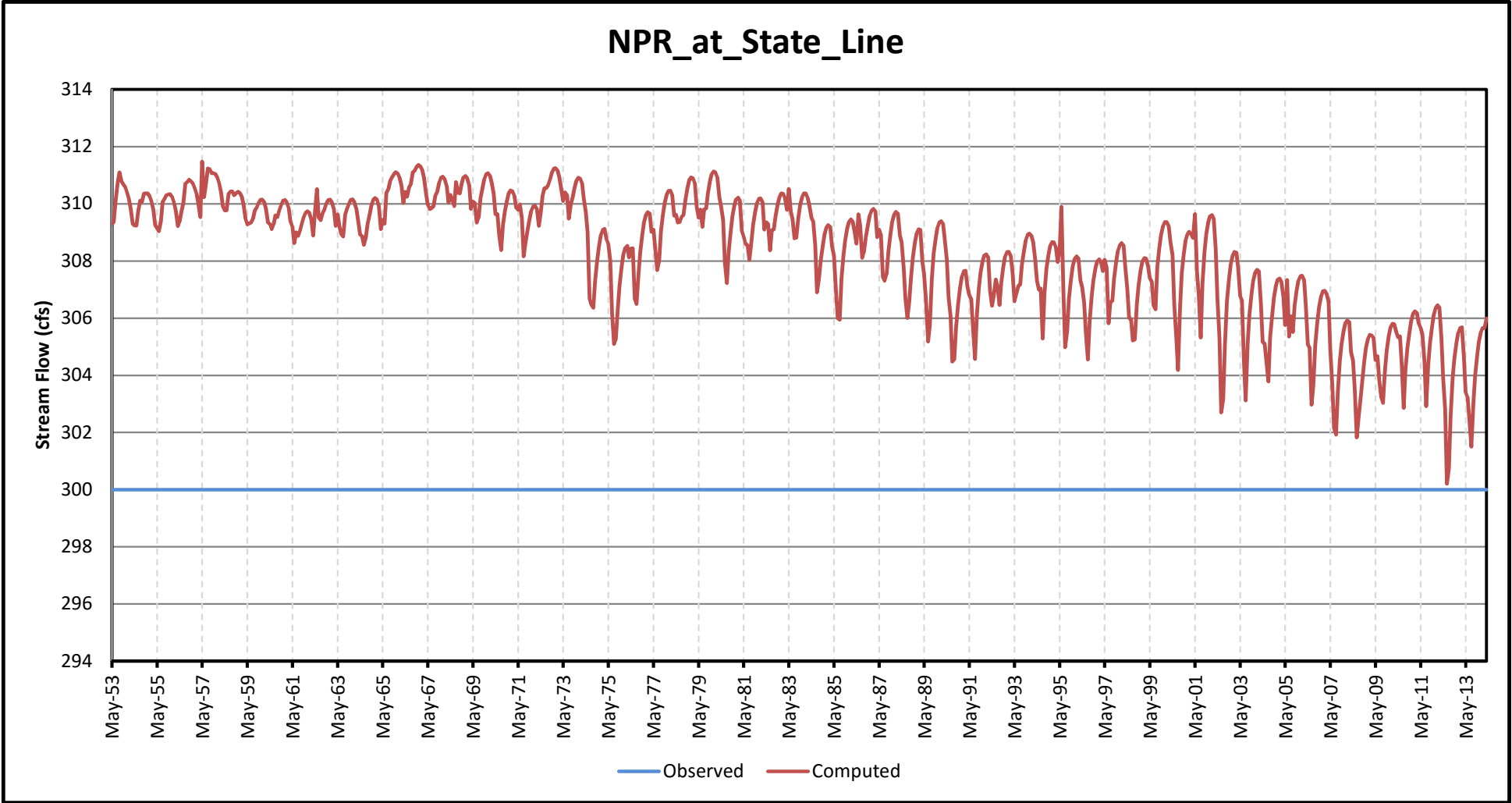
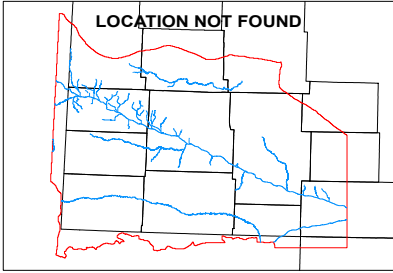


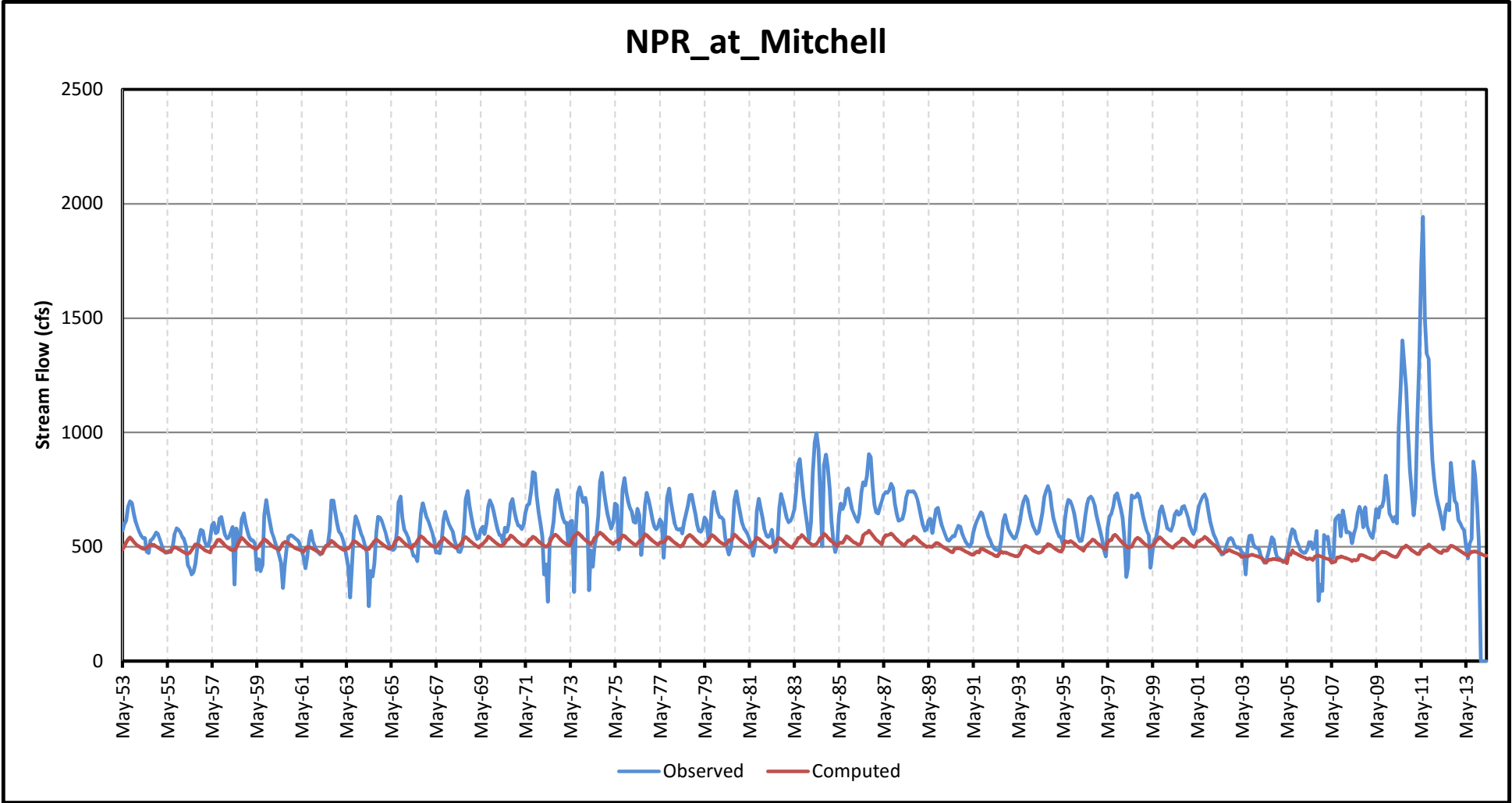
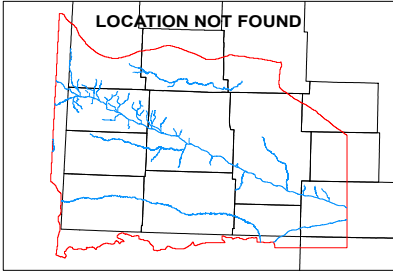


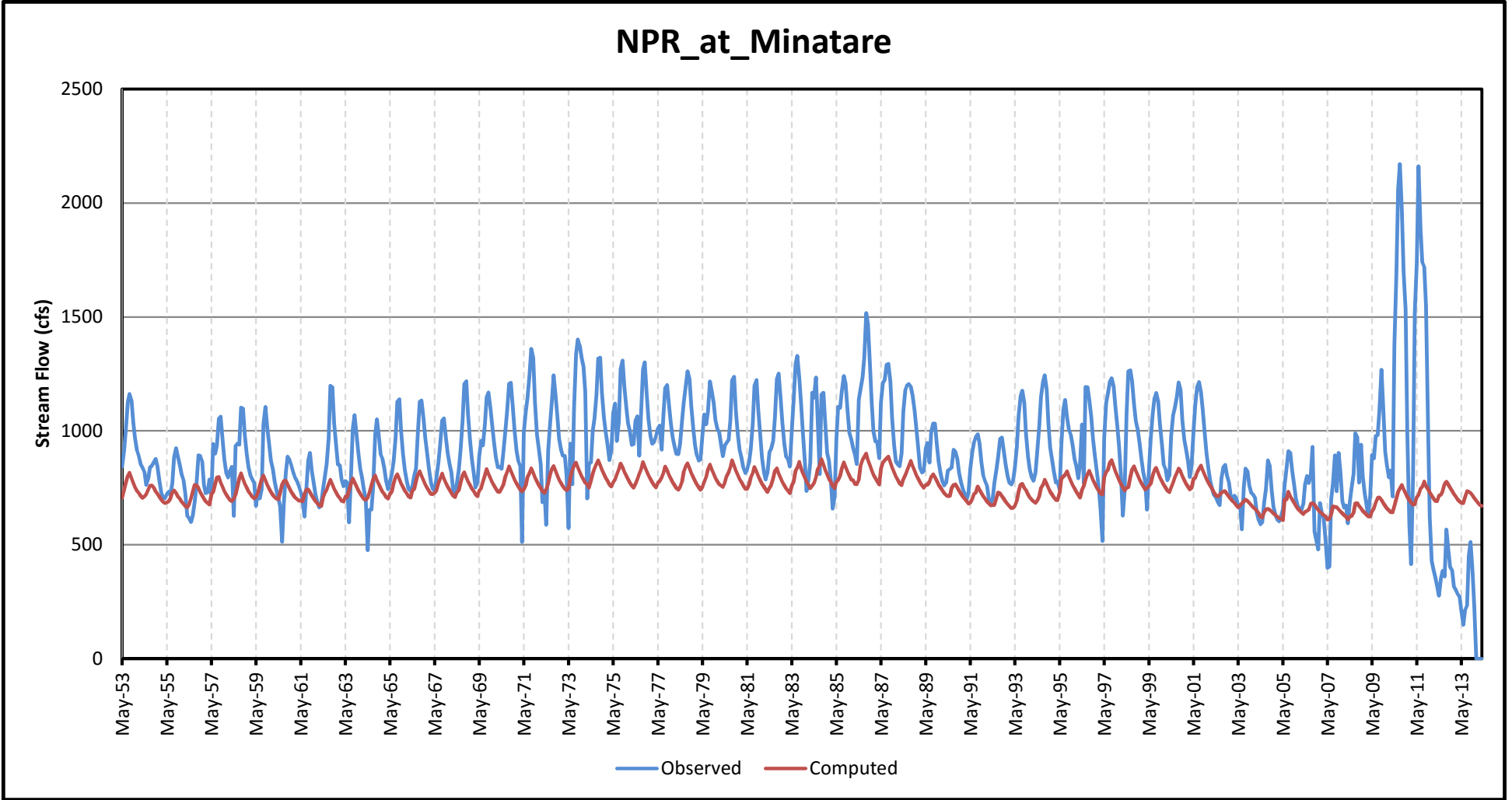
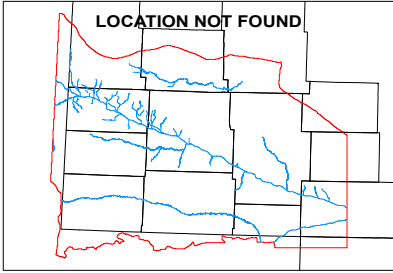




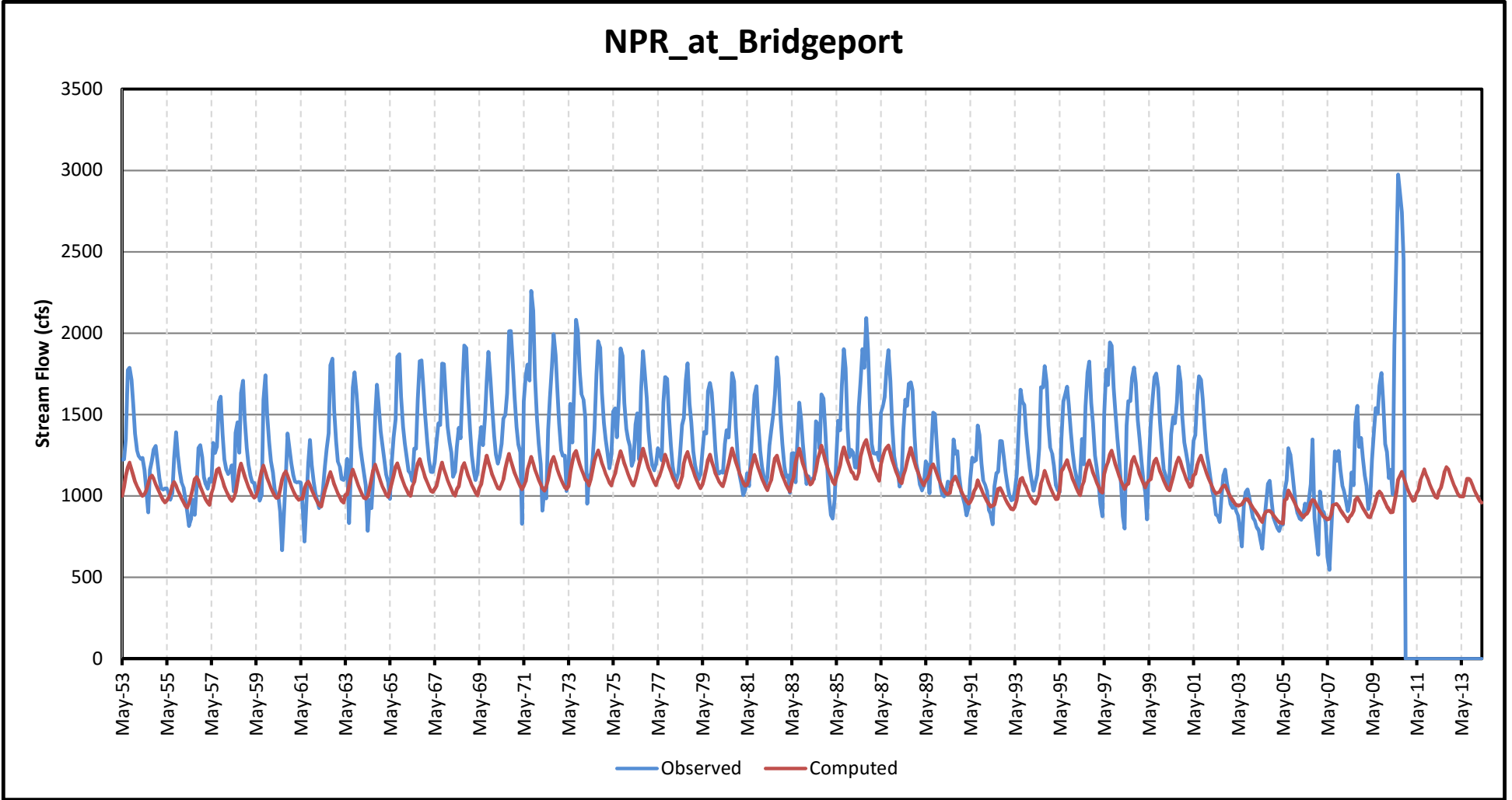
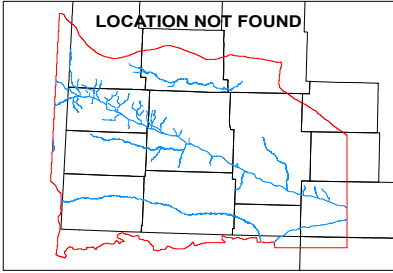


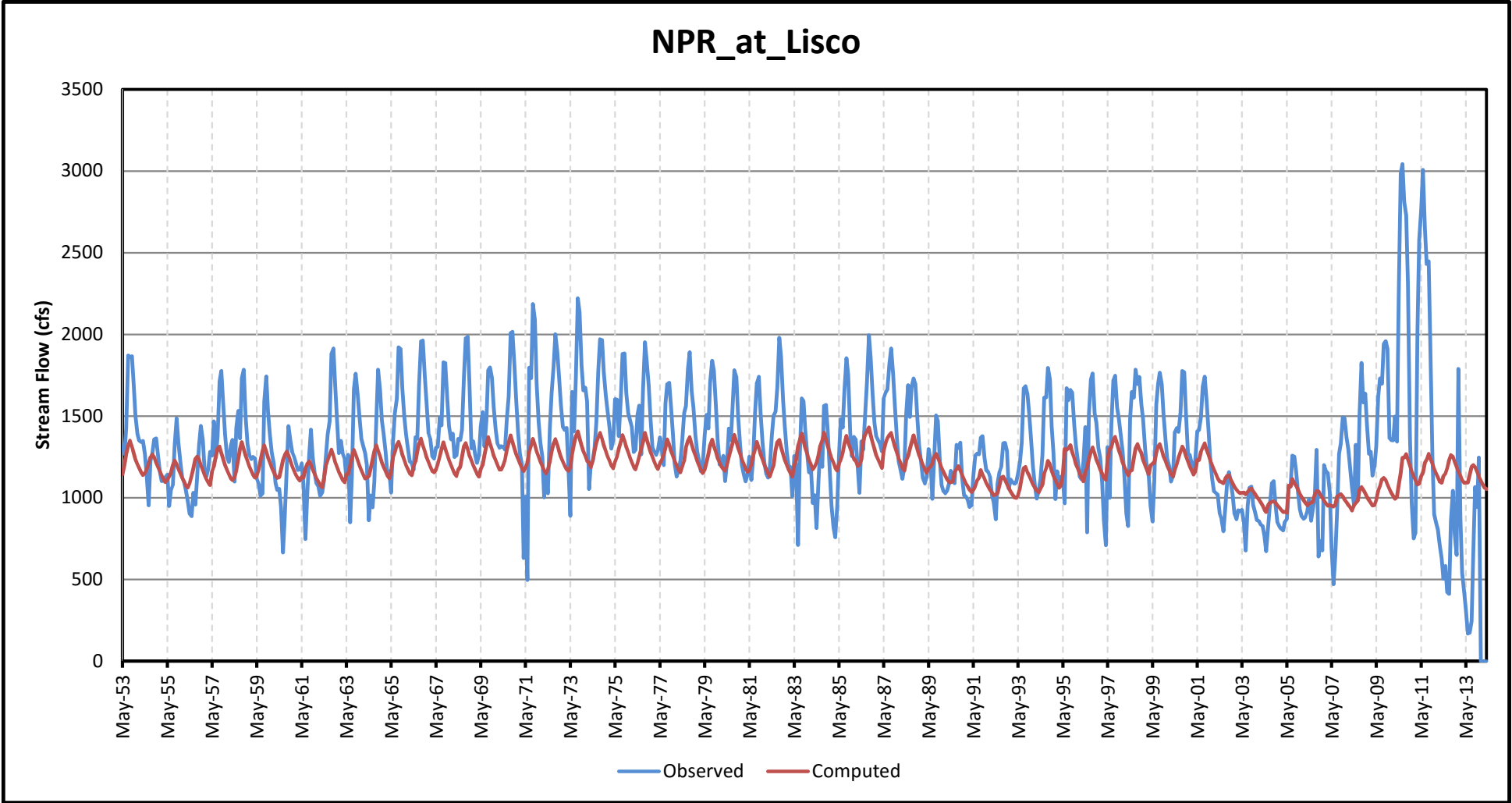
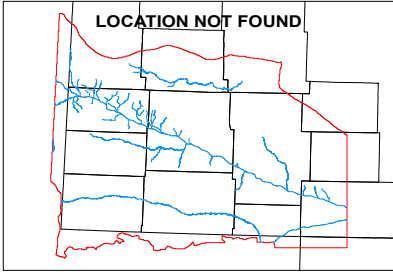


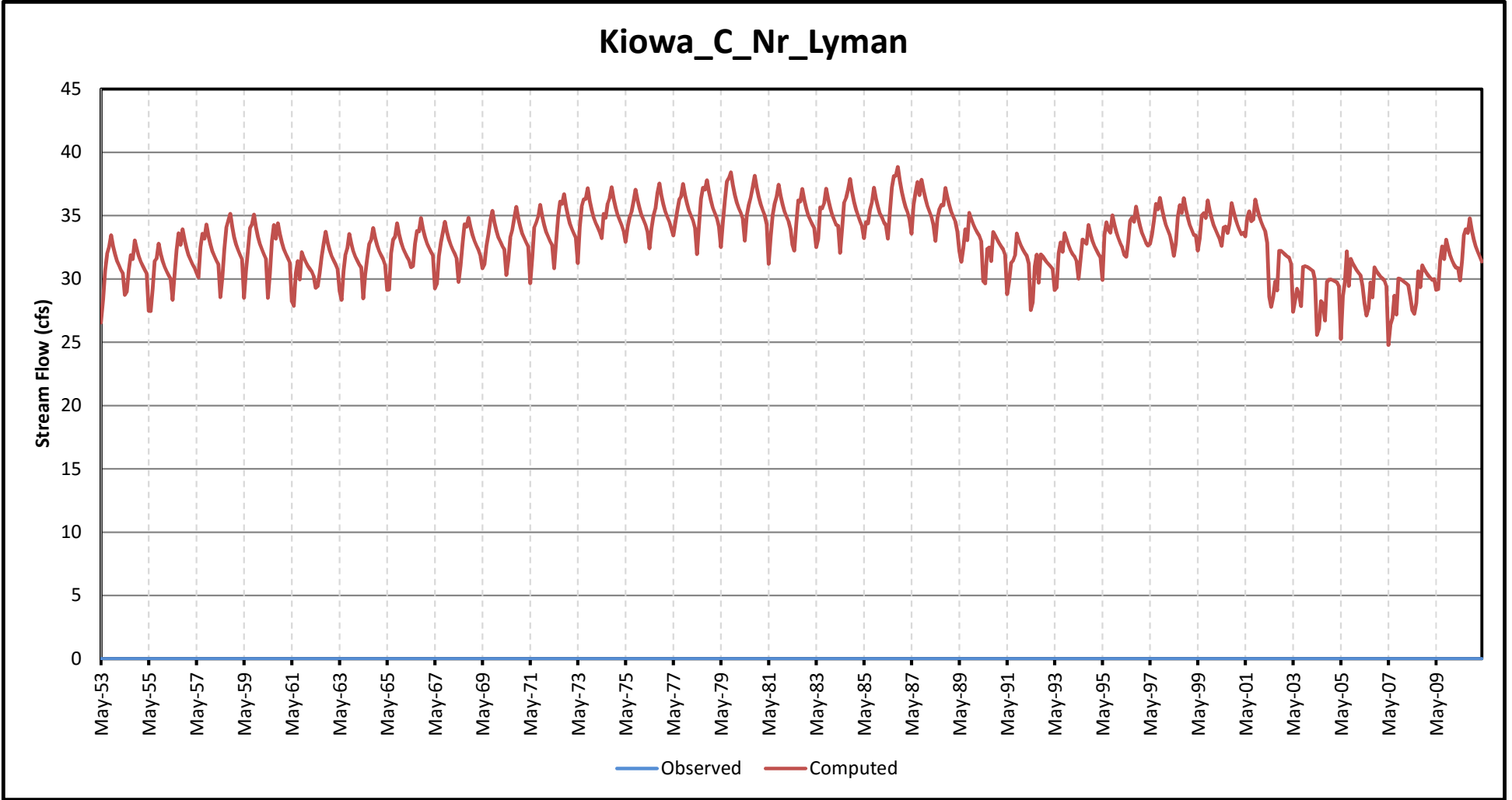
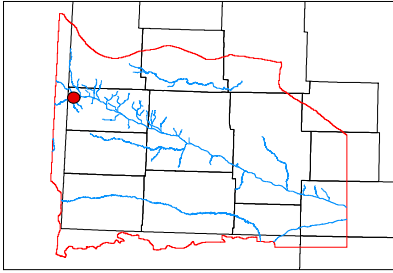


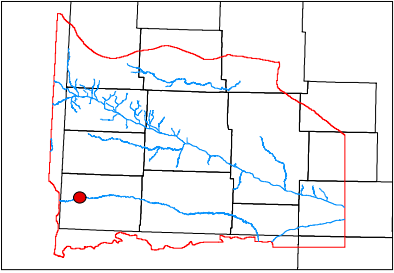




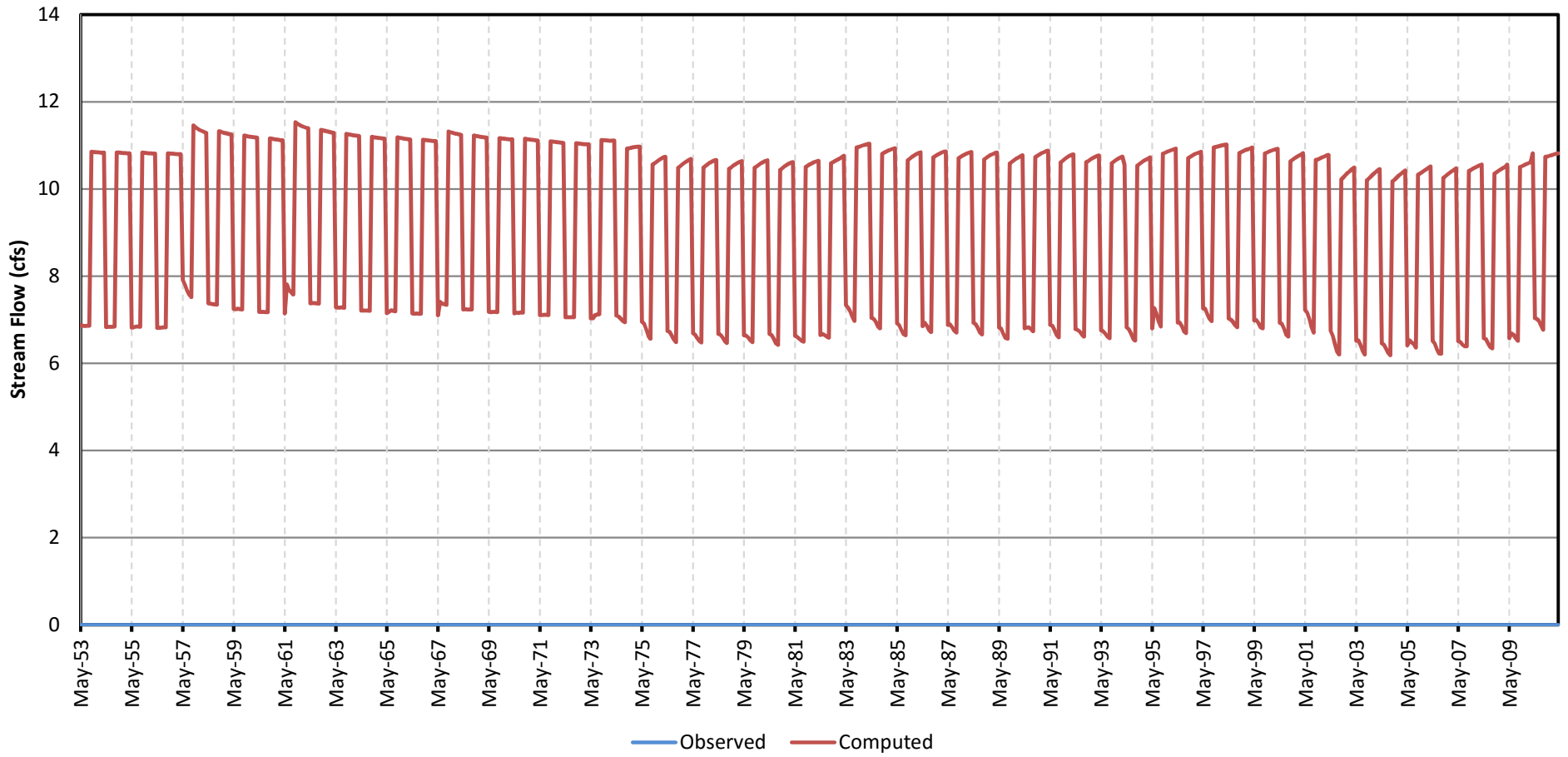


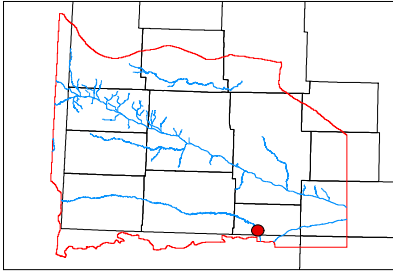




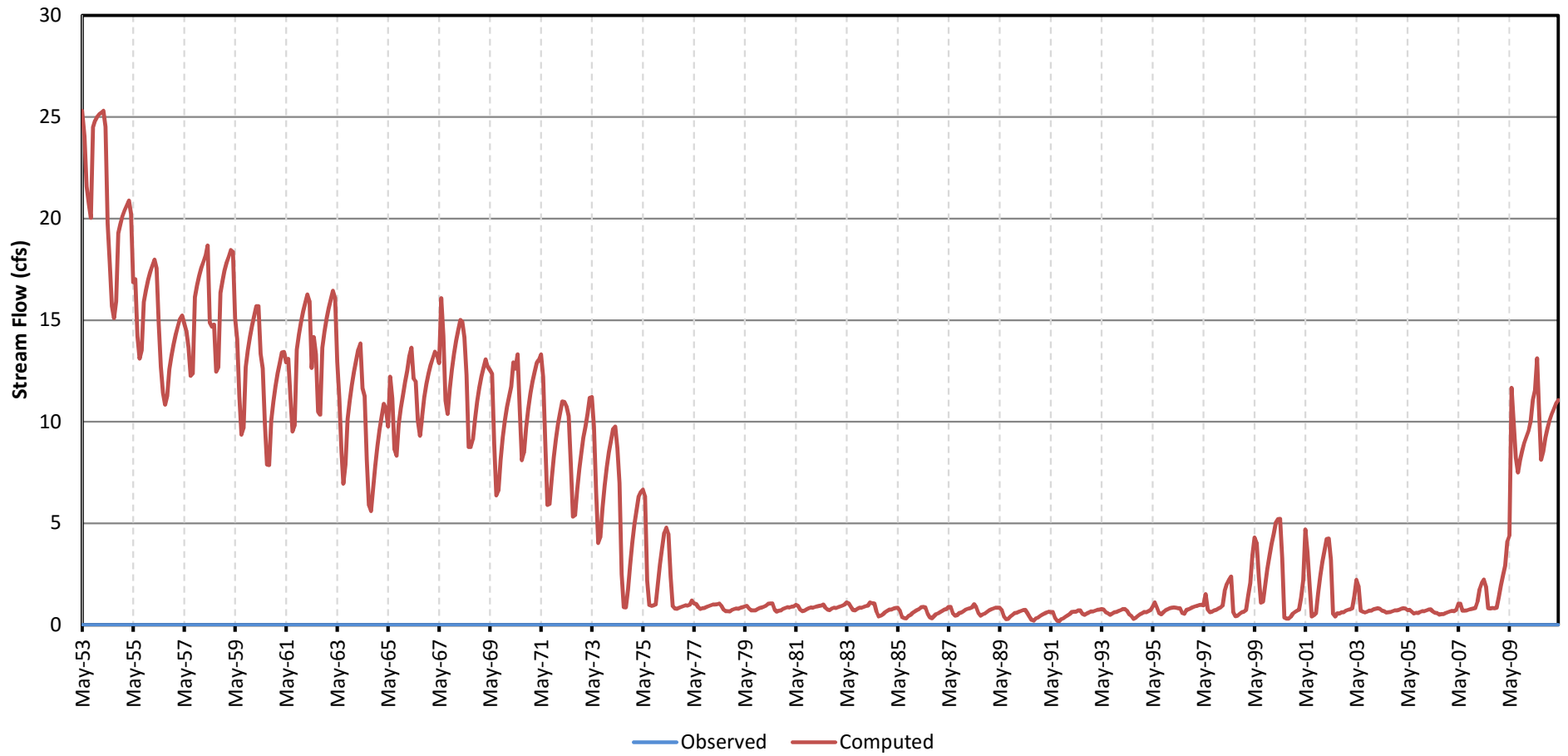


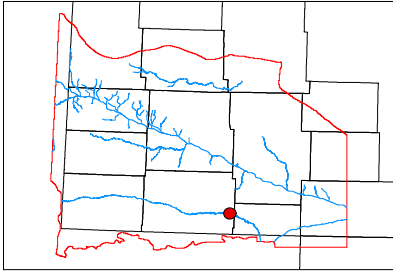
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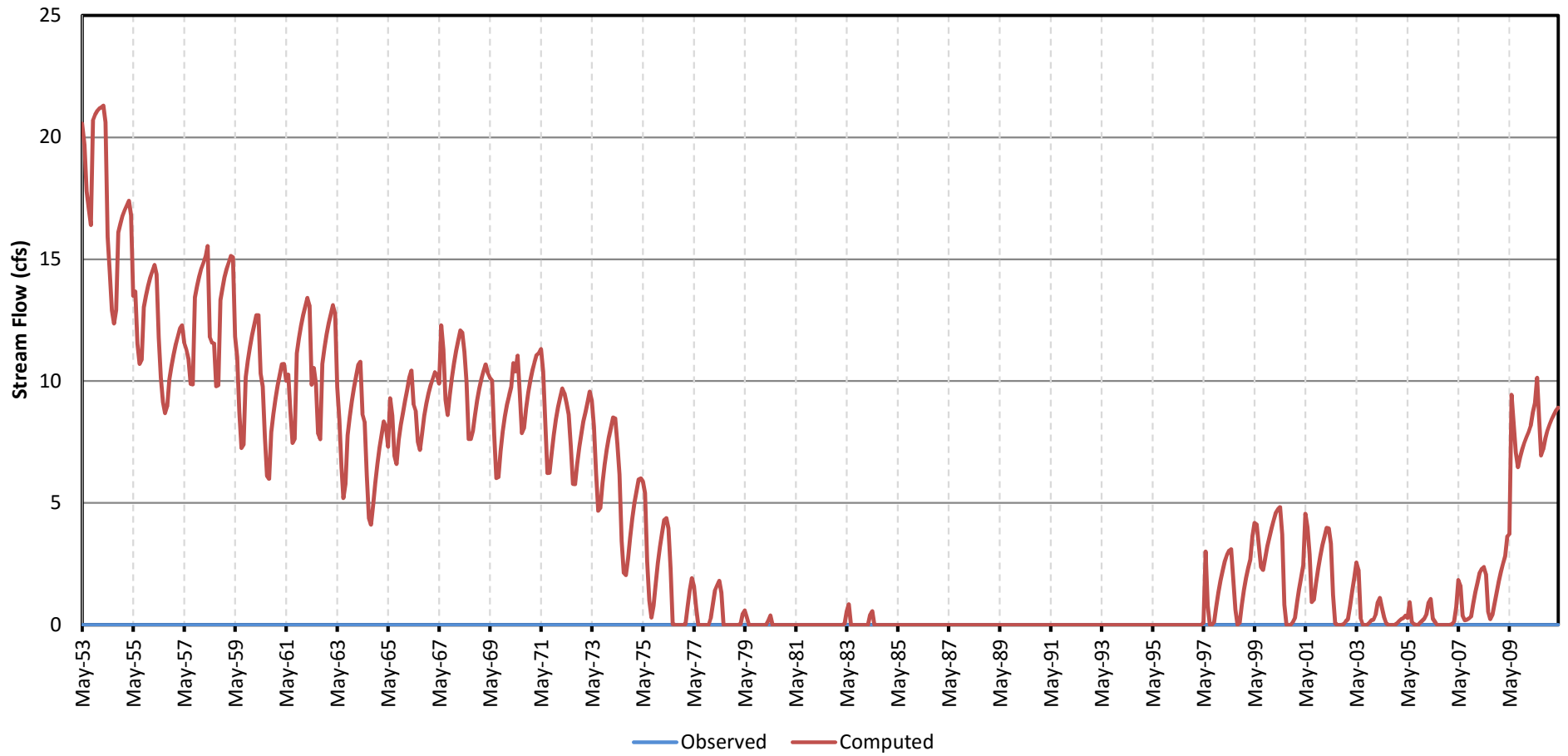


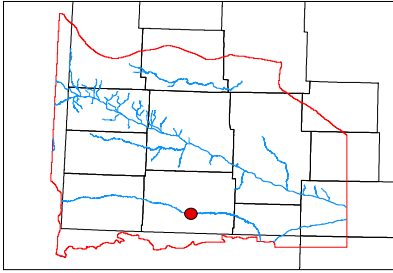
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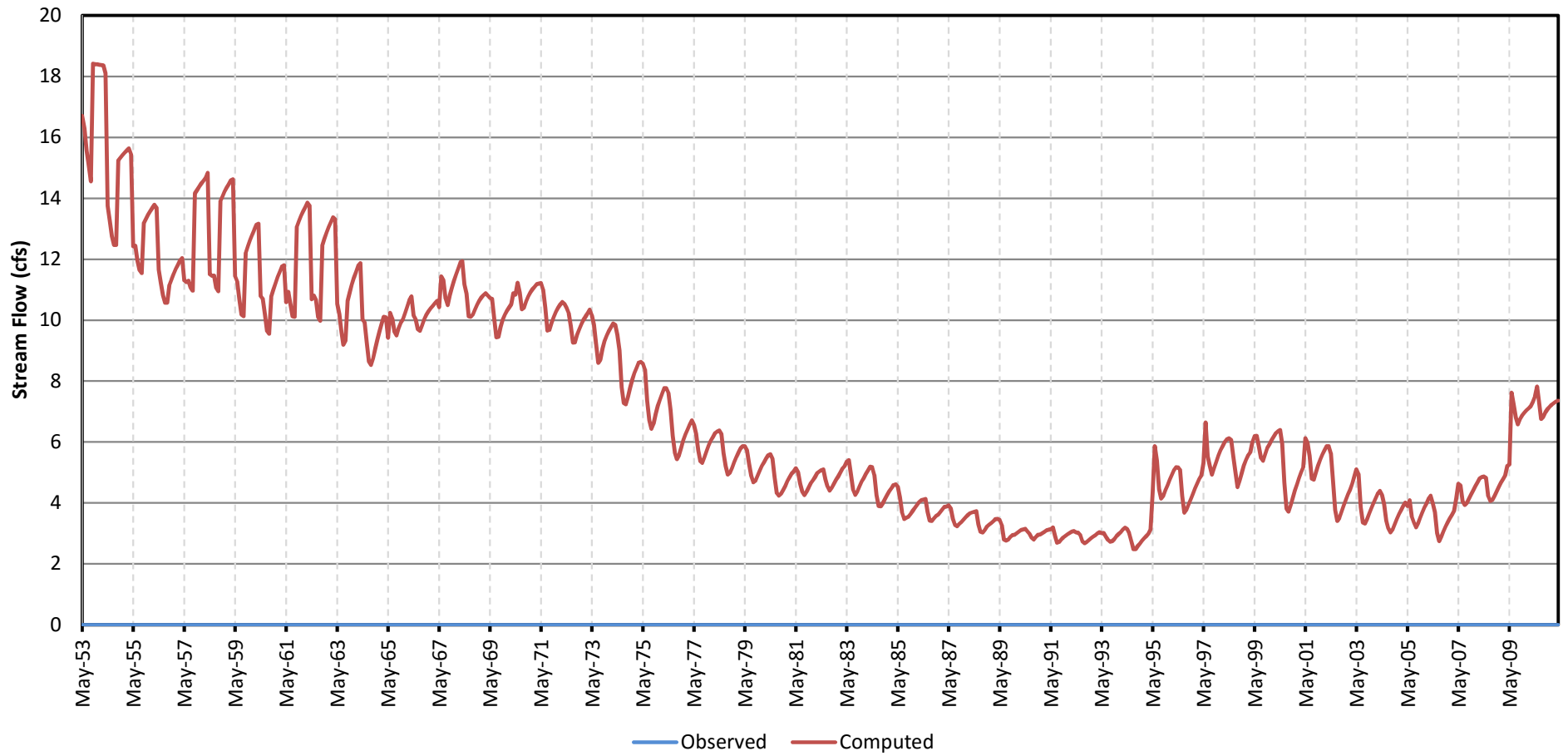


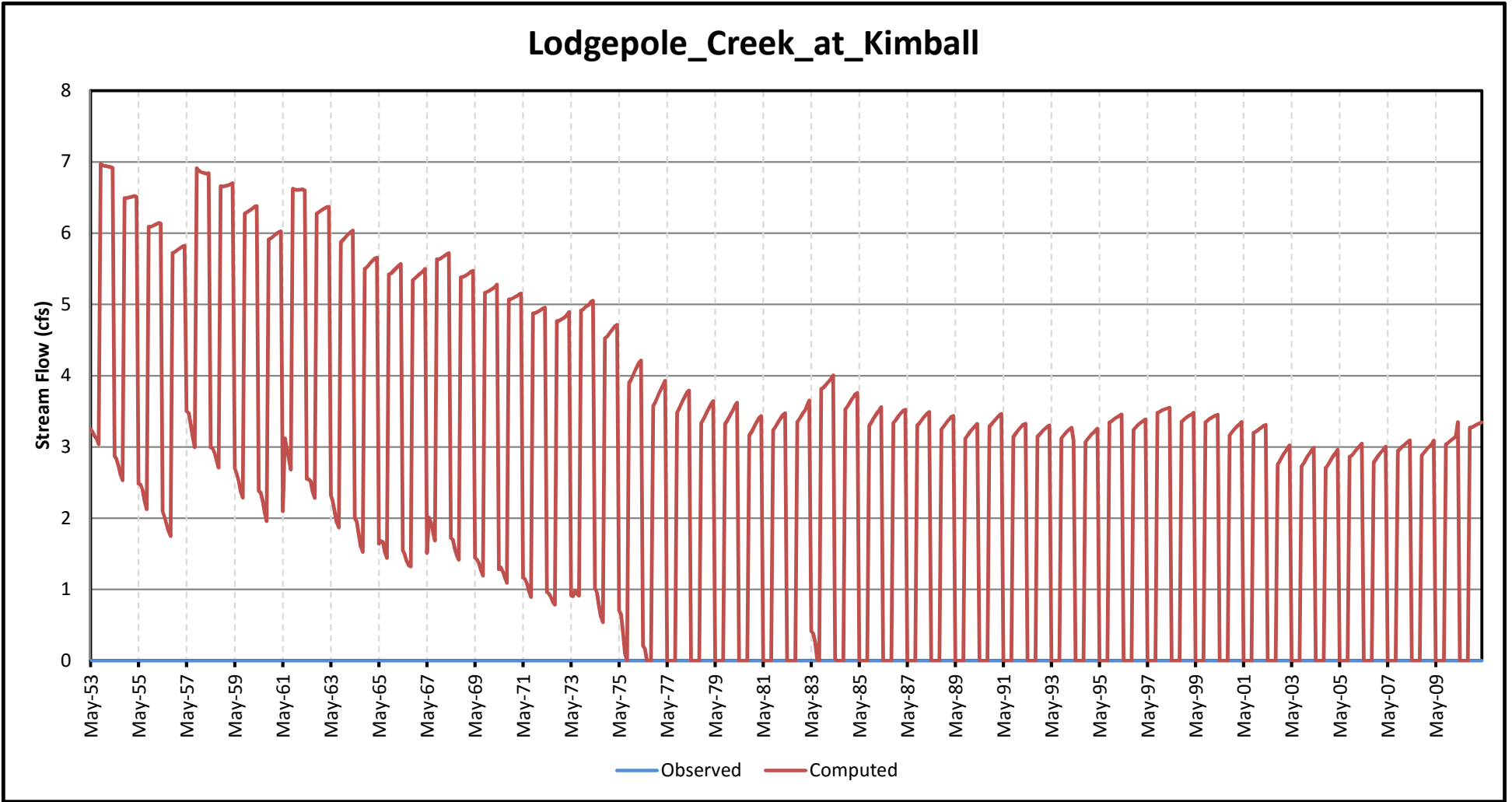
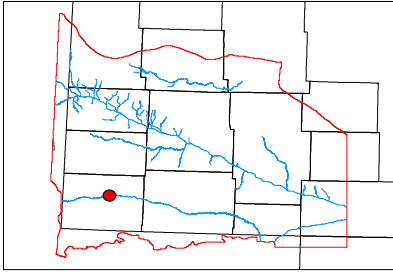
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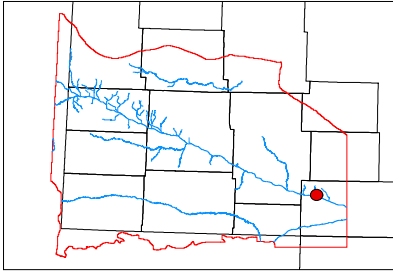


### Lodgepole\_Creek\_at\_Sidney

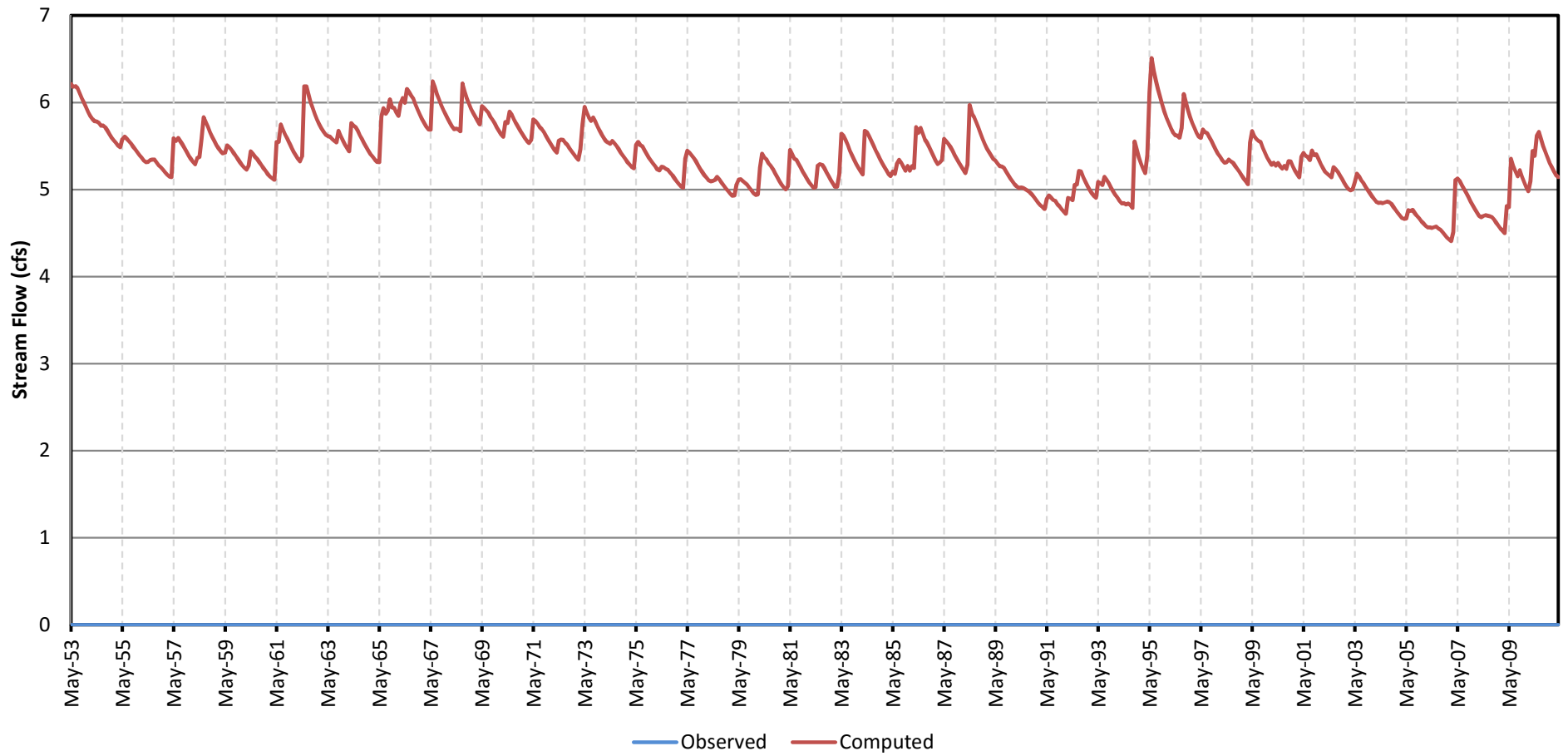


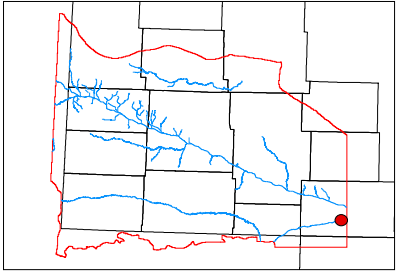




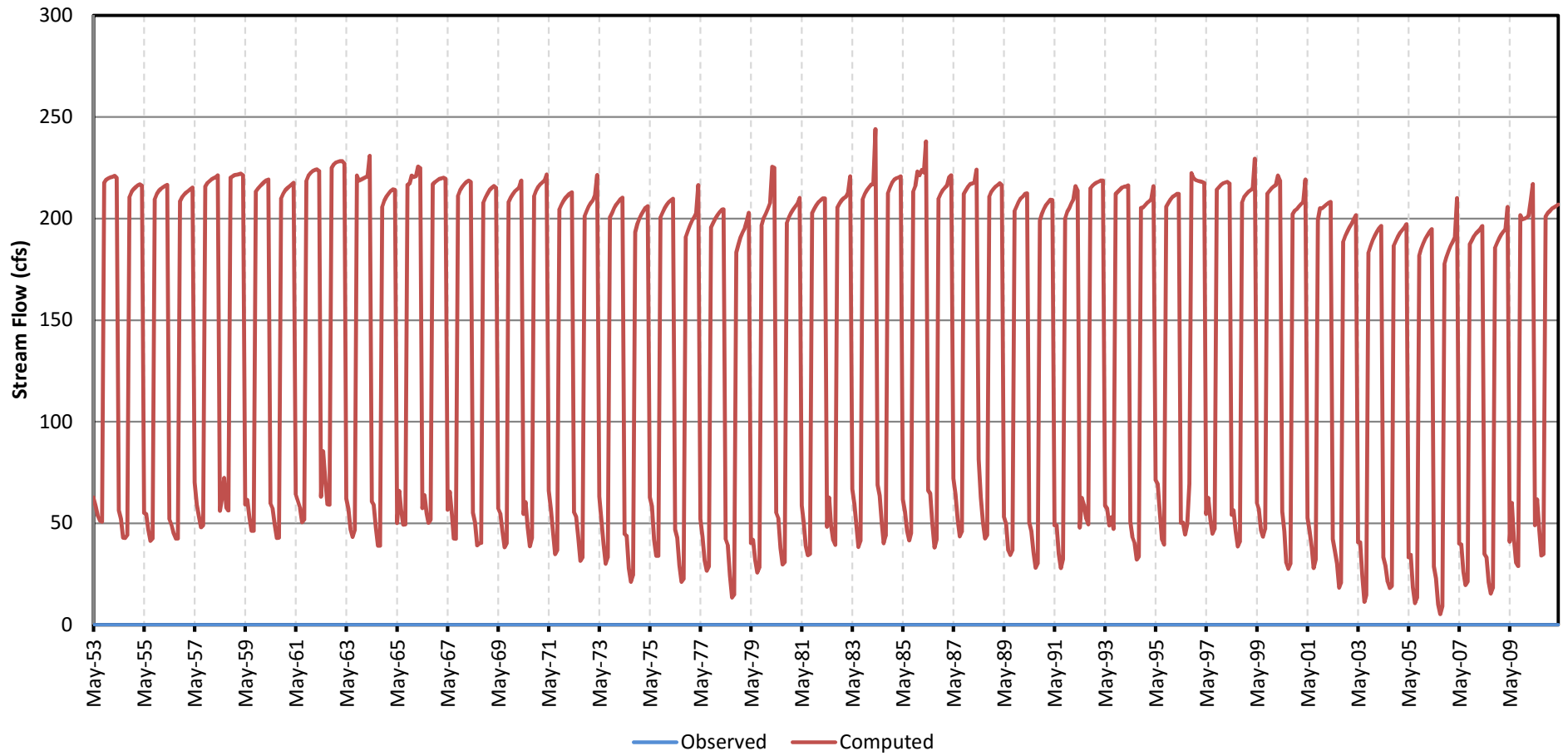


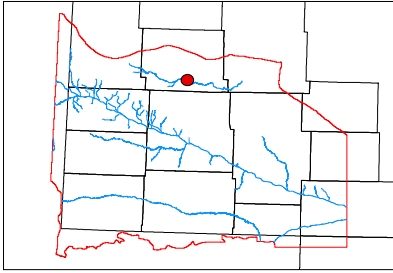
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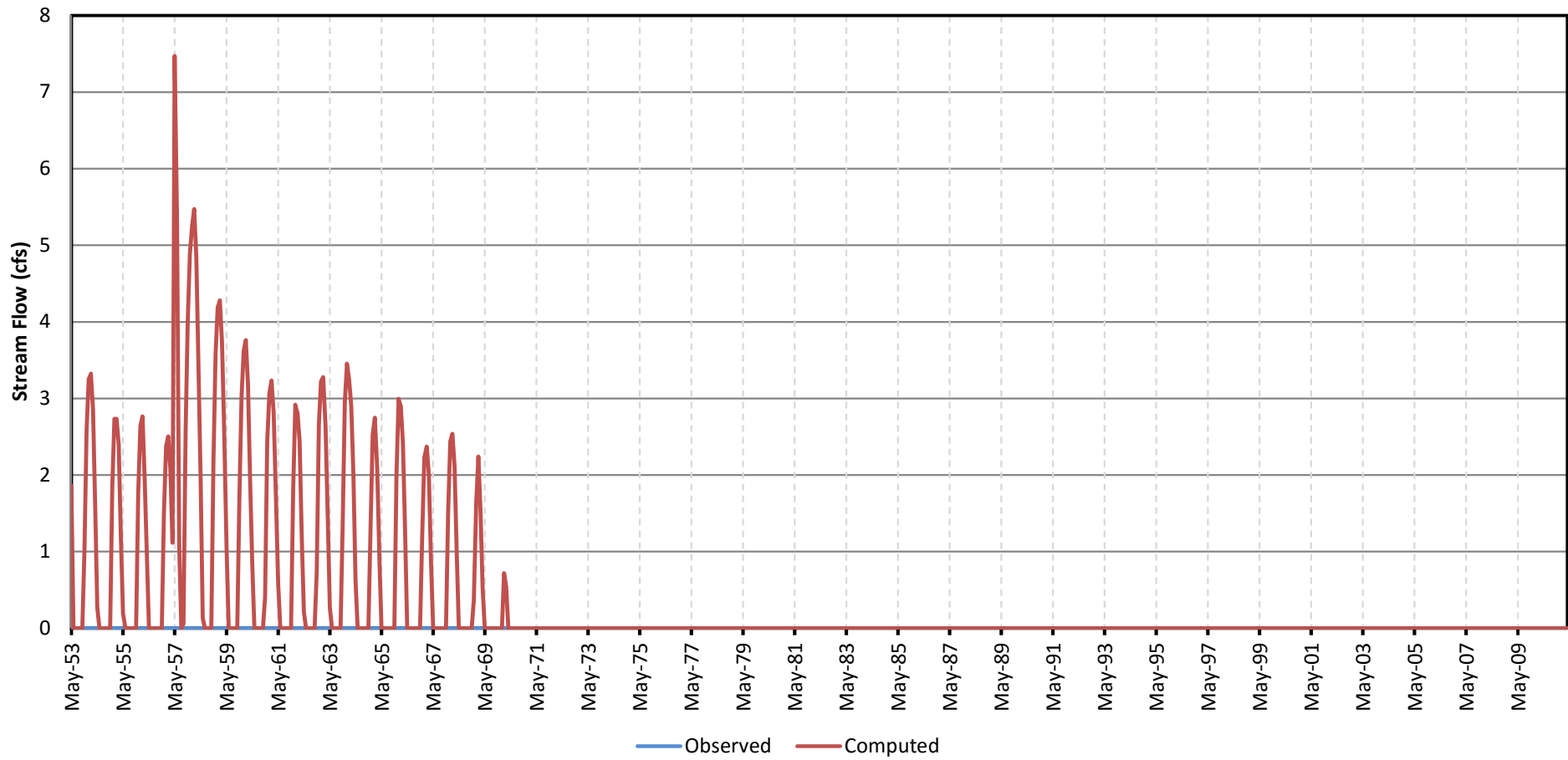


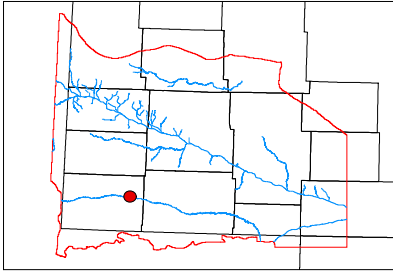
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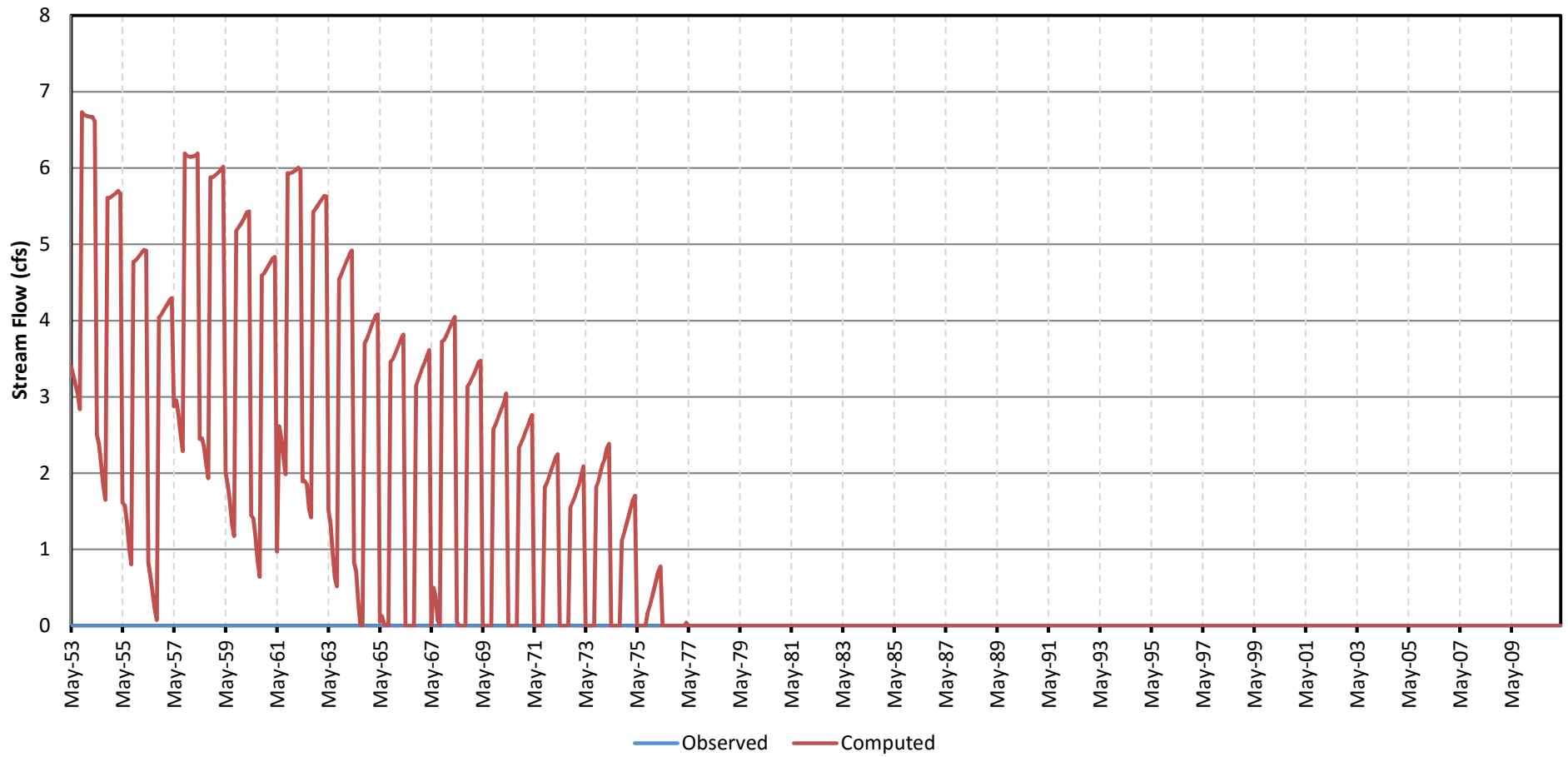


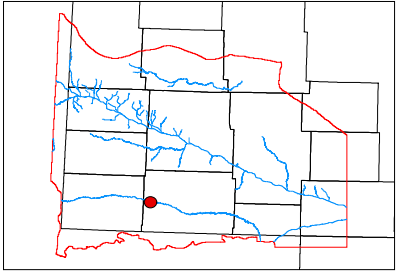
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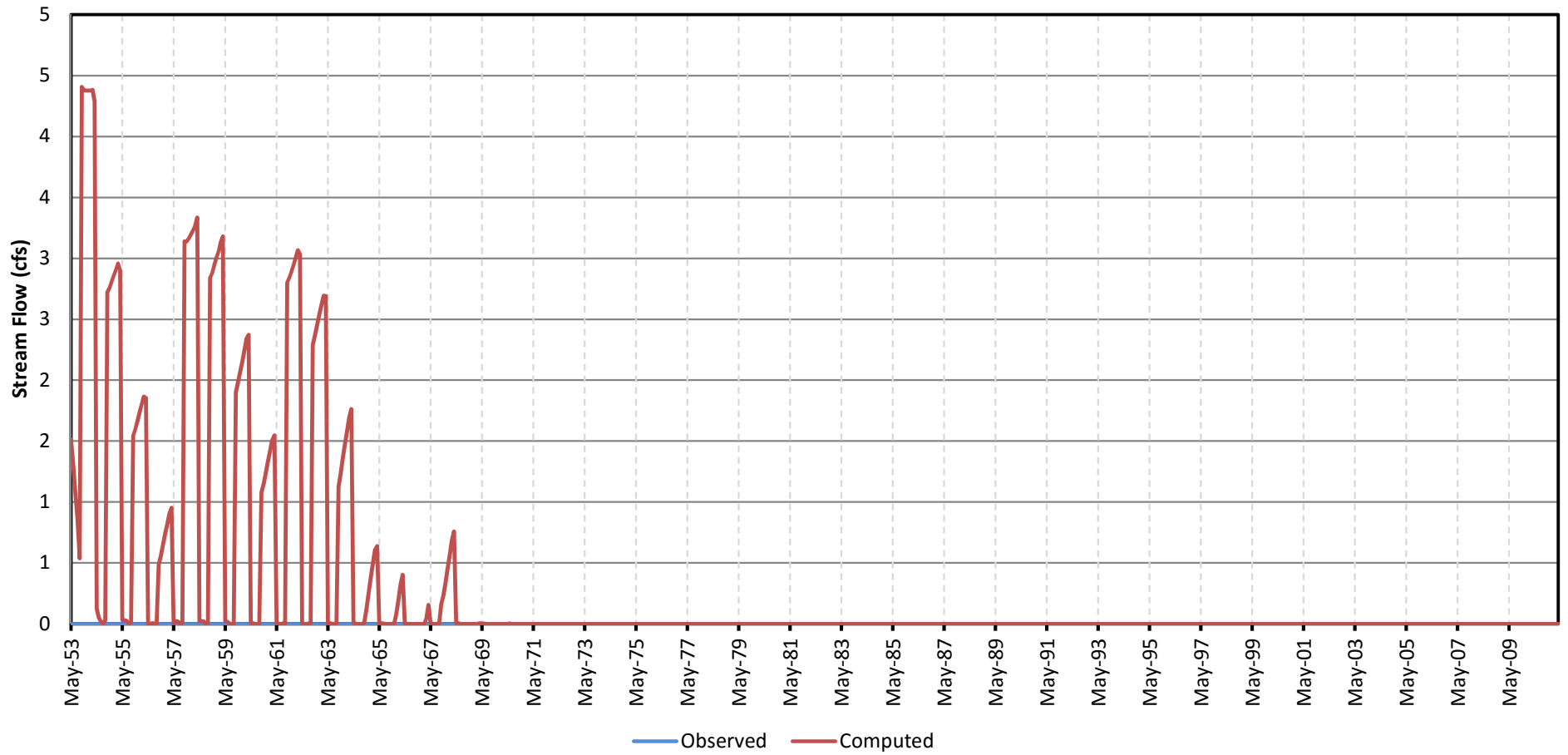


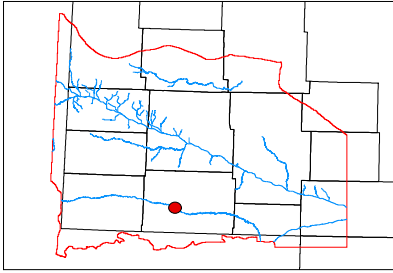
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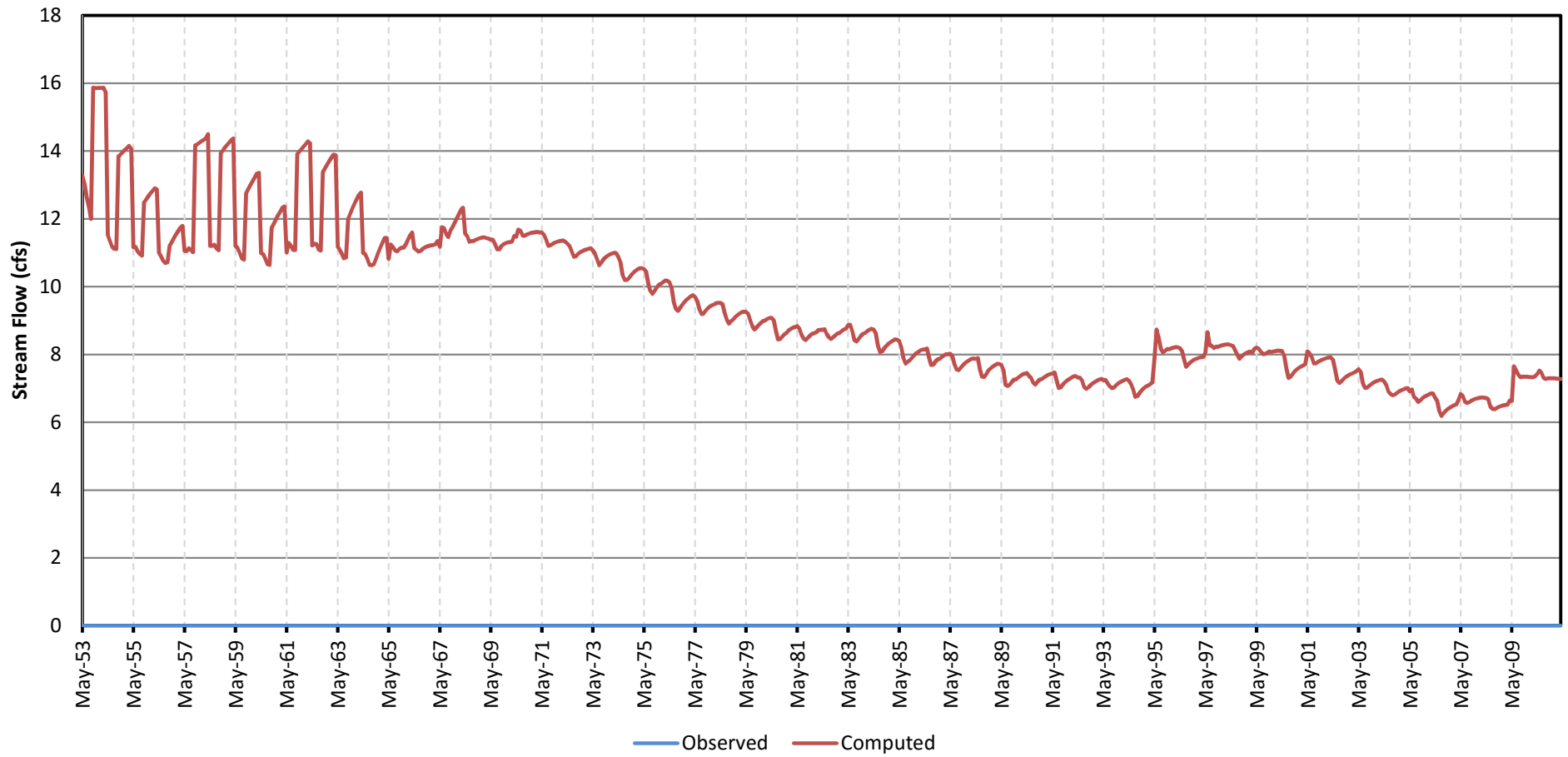


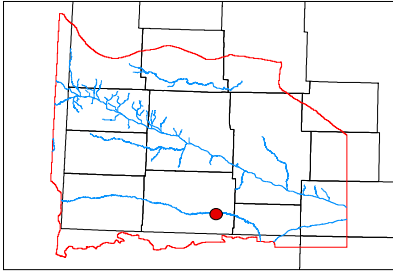
### Lodgepole\_Creek\_at\_Potter





### Lodgepole\_Creek\_at\_Brownson





### Lodgepole\_Creek\_at\_Sunol

