National Ground-Water Monitoring Network Montana Update

A National Framework for Ground-Water Monitoring in the United States

Prepared by The Subcommittee on Ground Water of The Advisory Committee on Water Information

Approved by The Advisory Committee on Water Information





John LaFave Montana Bureau of Mines and Geology Presented to SOGW 12/6/16



National Ground-Water Monitoring Network Montana Update



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National Ground-Water Monitoring Network Montana wells and Geology





National Ground-Water Monitoring Network Montana Principal Aquifers (7)



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National Ground-Water Monitoring Network Montana Principal Aquifers



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National Ground-Water Monitoring Network Montana State-Wide Network



Funding – Steering Committee - COOP Online database - mapper



National Ground-Water Monitoring Network Montana Ground Water Information Center



Other Data:

Well Logs

Water Quality

Hydrographs

Maps & Repts

Project data

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National Ground-Water Monitoring Network NGWMN Selection



National Ground-Water Monitoring Network WL: NGWMN Selection – 227 wells



National Ground-Water Monitoring Network WQ: NGWMN Selection – 58 wells





National Ground-Water Monitoring Network NGWMN Portal View





National Ground-Water Monitoring Network NGWMN 'Background'



MBMC

National Ground-Water Monitoring Network NGWMN 'Documented Changes'



National Ground-Water Monitoring Network Network Application - Transboundary issues

three states – four Canadian provinces



Issues: GW development – coal and CBM development



National Ground-Water Monitoring Network Network Application - Transboundary issues

















National Ground-Water Monitoring Network Network Application - Management question Climate (precipitation) controls



Month/Year



Climate & Groundwater levels July–September 2016: departures from average



National Ground-Water Monitoring Network Montana Update - <u>Current NGWMN Projects:</u>

- Provide Well Registry updates and ongoing web services
- obtain survey grade GPS locations and land-surface altitudes
- install protective steel surface casing around PVC-cased wells

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