



Public Hearing On Proposed Groundwater Management Areas

December 14, 2017

Following Public Hearing on Proposed Groundwater Rules and
Regulations

**Natural Resource Center
8901 S. 154th Street, Omaha, NE**

AGENDA

1. Hearing Called to Order
2. Evidence of Proof of Publication of Hearing Notice
3. Explanation of the Purpose of the Hearing
4. Identification of Exhibits
5. Explanation of the Purpose and Scope of the Plan
6. Receive Testimony and Statements
7. Reception of Exhibits
8. Hearing Adjournment

View Proposed Groundwater Management Areas at <http://bit.ly/GMPplan>

NEW Papio-Missouri River NRD Groundwater Management Plan

Frequently Asked Questions

WHY REVISE THE EXISTING PLAN?

The purpose of the Groundwater Management Plan is to use the best available information to enhance the understanding of the sources and quality of groundwater, and then utilize that knowledge to protect the sustainability and integrity of groundwater for future generations.

The current Papio-Missouri River NRD (P-MRNRD) Groundwater Management Plan, last revised in 1994, acknowledged a lack of existing information about groundwater quantity and quality. Incorporating more recent data, the new plan has been prepared with the input of stakeholders from across the District who rely on groundwater. The NEW plan is expected to completely replace the existing plan.

WHAT WOULD BE REQUIRED?

The P-MRNRD has the obligation to declare certain areas Groundwater Management Areas to improve groundwater quality or quantity. Minimum rules and regulations are recommended in the NEW plan for Groundwater Management Areas that encompass the entire P-MRNRD. These minimum rules and regulations include:

- 1) No nitrogen fertilizer application in the Platte and Elkhorn River Valley until after March 1st and no fall fertilizer applications until after November 1st in all other areas of the District.
- 2) Require well permits from the P-MRNRD prior to the construction of all new wells capable of pumping over 50 gpm.
- 3) Minimum well spacing of 600 ft between any water supply well, including domestic wells.

WHO WOULD BE AFFECTED?

- 1) Well drillers who work within the P-MRNRD will have to apply for and receive a permit prior to installing a well that pumps over 50 gpm and comply with well spacing requirements.
- 2) Agricultural crop producers throughout the P-MRNRD will have to follow the minimum nitrogen fertilizer application dates.
- 3) Communities within the P-MRNRD that supply their own municipal water will need to work with the District to enhance protections for their Wellhead Protection Area.
- 4) Homeowners with their own domestic well will be encouraged to test their drinking water at least once every four years.

WHAT ARE THE BENEFITS?

Improved management as a result of the NEW plan is intended to help protect the drinking water supplies of over 750,000 people in our District who receive their water from a community or rural water system. The plan is also focused on enhancing the monitoring, identification, and response to groundwater quality issues that may impact the estimated 21,000 people who get their water from private domestic wells. The availability of groundwater supplies will be monitored and better managed to allow for future uses without jeopardizing long-term sustainability.

NEW Papio-Missouri River NRD Groundwater Management Plan

Frequently Asked Questions

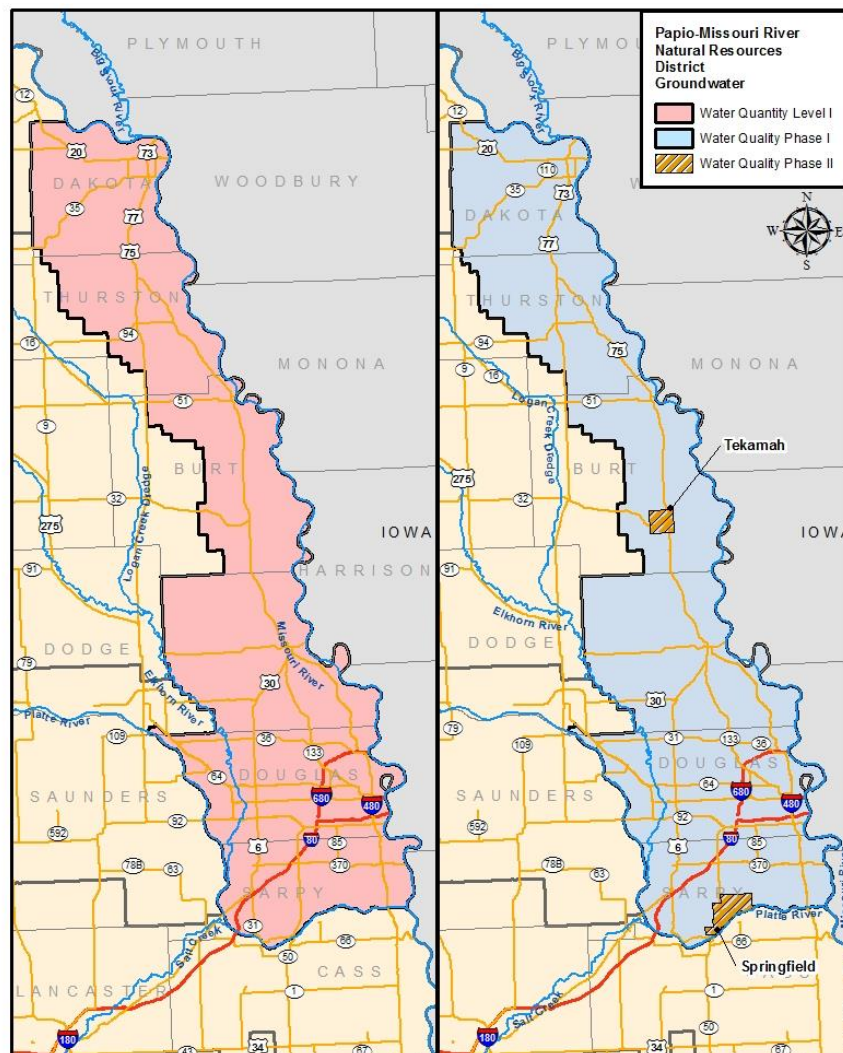
WHEN AND WHERE ARE THE PUBLIC HEARINGS?

Three public hearings are tentatively planned across the District to gather feedback on the NEW plan, proposed rules and regulations and the designation of Groundwater Management Areas.

- 1) November 30, 2017 @ 6:30 p.m. – Dakota City Field Office, 1505 Broadway, Dakota City, NE
- 2) December 7, 2017 @ 6:30 p.m. – First Northeast Bank of Nebraska, 2nd Floor Conference Room, 448 South 13th Street, Tekamah, NE
- 3) December 14, 2017 @ 7:00 p.m. – Natural Resources Center, 8901 S. 154th Street, Omaha, NE

WHAT PORTIONS OF THE P-MRNRD MAY BE DESIGNATED A GROUNDWATER MANAGEMENT AREA?

The entire P-MRNRD would be designated as a Level I Groundwater Quantity Management Area and Phase I Groundwater Quality Management Area. Subareas with elevated groundwater nitrate levels around Tekamah and south of Springfield would be Phase II Groundwater Quality Management Areas.



Proposed P-MRNRD Groundwater Quality Rules, Regulations and Actions¹

	Phase I	Phase II	Phase III
	<i>0 - 5 ppm nitrate or < 50% of any MCL in 50% of the samples</i>	<i>>5 - 8 ppm or 50 - 80 % of any MCL in 50% of the samples</i>	<i>> 8 ppm or >80% of any MCL in 50% of the samples</i>
Wellhead Protection Plans	Rule 6.6: Encourage Wellhead Protection Area Plans	Rule 7.5: Encourage Wellhead Protection Area Plans ²	Rule 8.1: NRD may develop and implement WHPA plans for communities as Phase III requirements
Fertilizer Applications/ Nitrogen Management¹	Rule 6.3: Encourage both rural and urban fertilizer and irrigation management training	Rule 7.3: Require fertilizer and irrigation management certification	
	Rule 6.1: No non-organic nitrogen fertilizer application before March 1 in areas that are considered hydrologically connected. Rule 6.2: In all other areas of the NRD, fall non-organic nitrogen fertilizer applications must occur after Nov 1 and a split application and appropriate inhibitor is encouraged.	Rule 7.2: No non-organic nitrogen fertilizer application until after March 1 in areas that are considered hydrologically connected. Rule 7.1: Require an 80% fall and 20% spring split application of non-organic nitrogen fertilizer with the use of an inhibitor between Nov 1 and March 1 on all non-hydrologically connected areas.	Rule 8.2: No non-organic fertilizer before March 1 and the use of an inhibitor and/or split application is required.
	(No rule) Encourage chemigation by minimizing permit fee		
	Rule 6.4 and 6.6: Encourage groundwater nitrate testing, soil sample in root zone and fertilizer application report.	Rule 7.4: Require nitrogen management plan and annual groundwater nitrate testing, soil sample in root zone and fertilizer application report for organic and non-organic nitrogen fertilizer applications	
Water Testing	Rule 6.7: Encourage domestic drinking water well testing every 4 years and host voluntary well testing events	(No rule) NRD will collect and test additional well samples (and use results for district-wide assessments)	
Cost-Share²	(No rule) Offer cost-share for well abandonment, cover crops, selected BMPs, and soil and water quality testing	(No rule) NRD may offer cost-share on Wellhead Protection Area Plans	

¹ Required rules shown in red must be adopted by the Papio-Missouri River NRD Board of Directors before enforcement.

² COST SHARE PROGRAMS WILL BE DEVELOPED AND ADOPTED SEPERATELY

Proposed P-MRNRD Groundwater Quantity Rules, Regulations and Actions¹

	Level I	Level II	Level III
	<i>All areas (Entire NRD)</i>	<i>Average 10% decline in saturated thickness of an unconfined aquifer in 50% of wells in a sub-area for 3 consecutive years</i>	<i>Average 15% decline in saturated thickness of an unconfined aquifer in 50% of wells a sub-area for 3 consecutive years</i>
Water Conservation¹	Rule 9.2: Offer water conservation education for rural and urban users	Rule 10.2: Require irrigation management certification	
	Rule 9.3: Encourage flow meters on all water supply wells and annual water use reporting. Rule 14.1: 5 years after adopting rules and regs, water meters are required on all wells in HCA ² .	Rule 10.1: Require flow meters and annual water use report	Rule 11.1: Require acre-inch allocations
	Rule 14.2: Require irrigated acre certification in IMP area	(No rule) Evaluate effects of reducing irrigated acres outside IMP area	Rule 11.2: Require reduction of irrigated acres in selected additional areas (eliminate the use of end guns)
	Rule 14.3: Limit expansion of irrigated acres in IMP area		Rule 11.3: Require implementation of two water conservation BMPs ⁵
Policies and Procedures¹	Rule 4.1: Require well permits for all new wells: Class 1 - encourage applications for domestic wells <50 gpm for review, Class 2 - all wells >50 gpm, but < 300 ac-ft per year, Class 3 - all wells >50 gpm and > 300 ac-ft per year require model and analysis (\$500 review fee)		
	Rule 9.1: Require minimum well spacing (600 feet from registered domestic well)**		
	Rule 12.1: Permit groundwater transfers and enable water banking transactions via IMP ³		
	Rule 5.1: Enforce irrigation runoff rules		
Cost-Share Programs⁴	Rule 9.4: Encourage water conservation BMPs ⁵ . (No rule) Offer cost-share for Water Conservation BMPs based on NRCS EQIP program and cost-share rates		

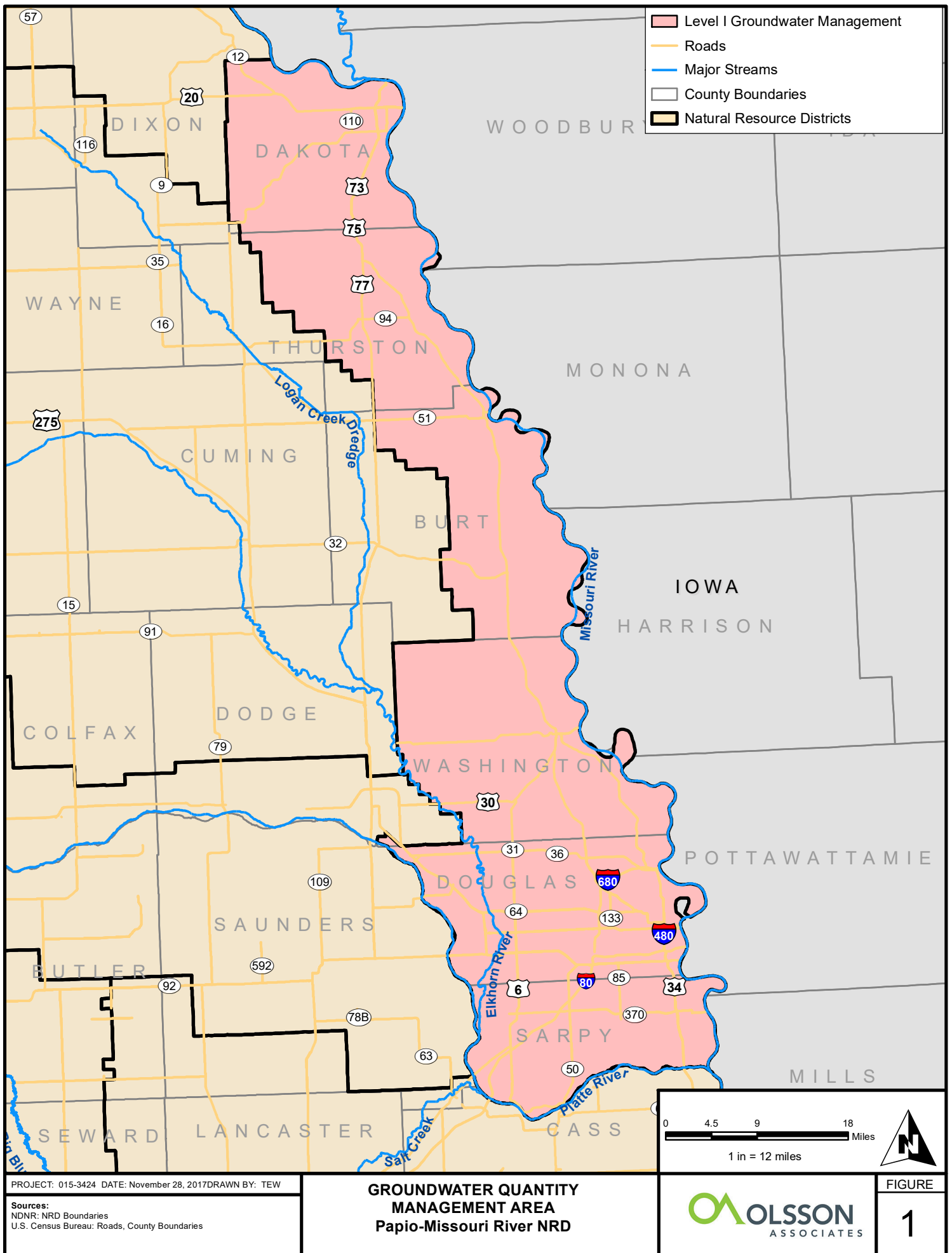
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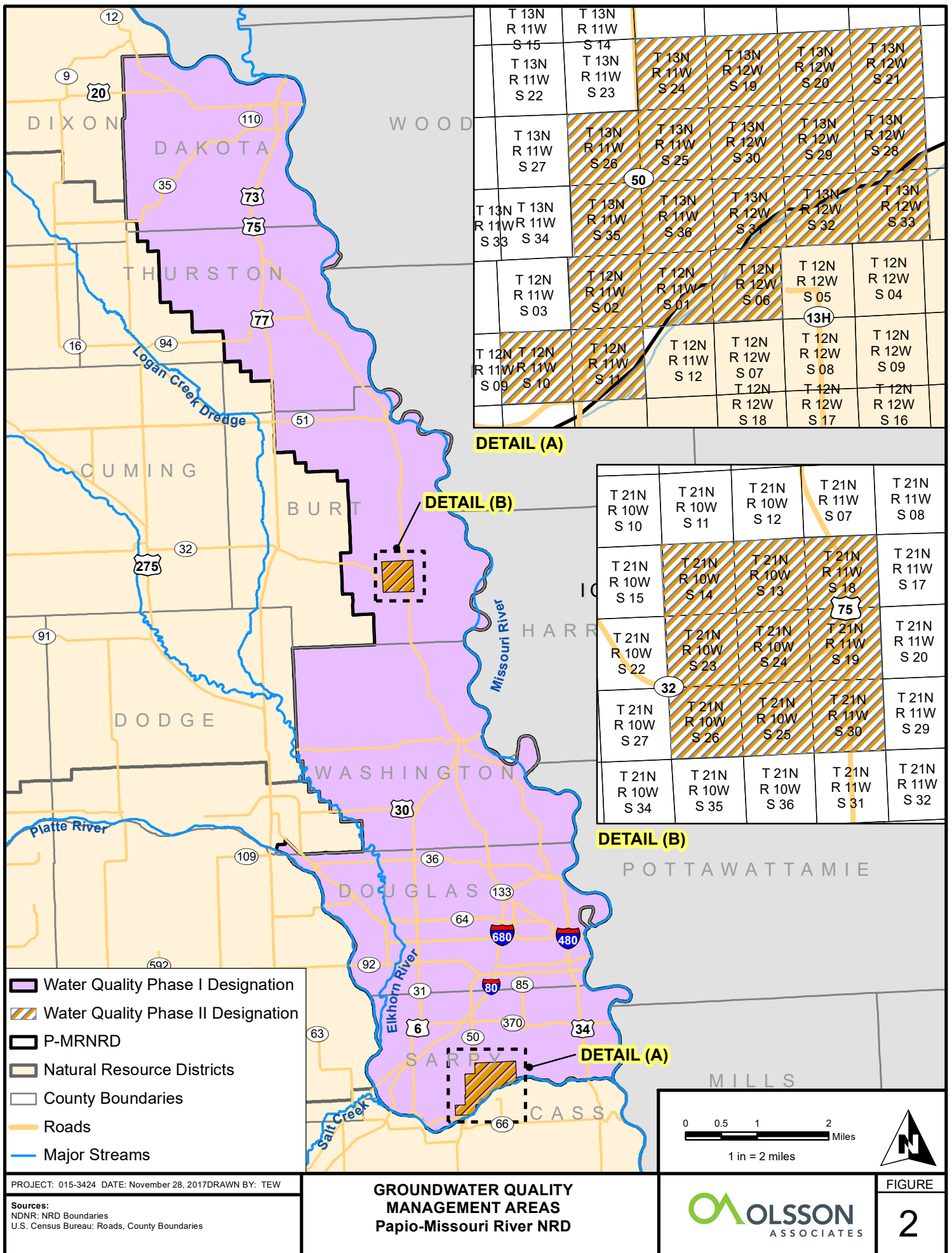
² HCA is the hydrologically connected area in the Platte and Elkhorn River valley.

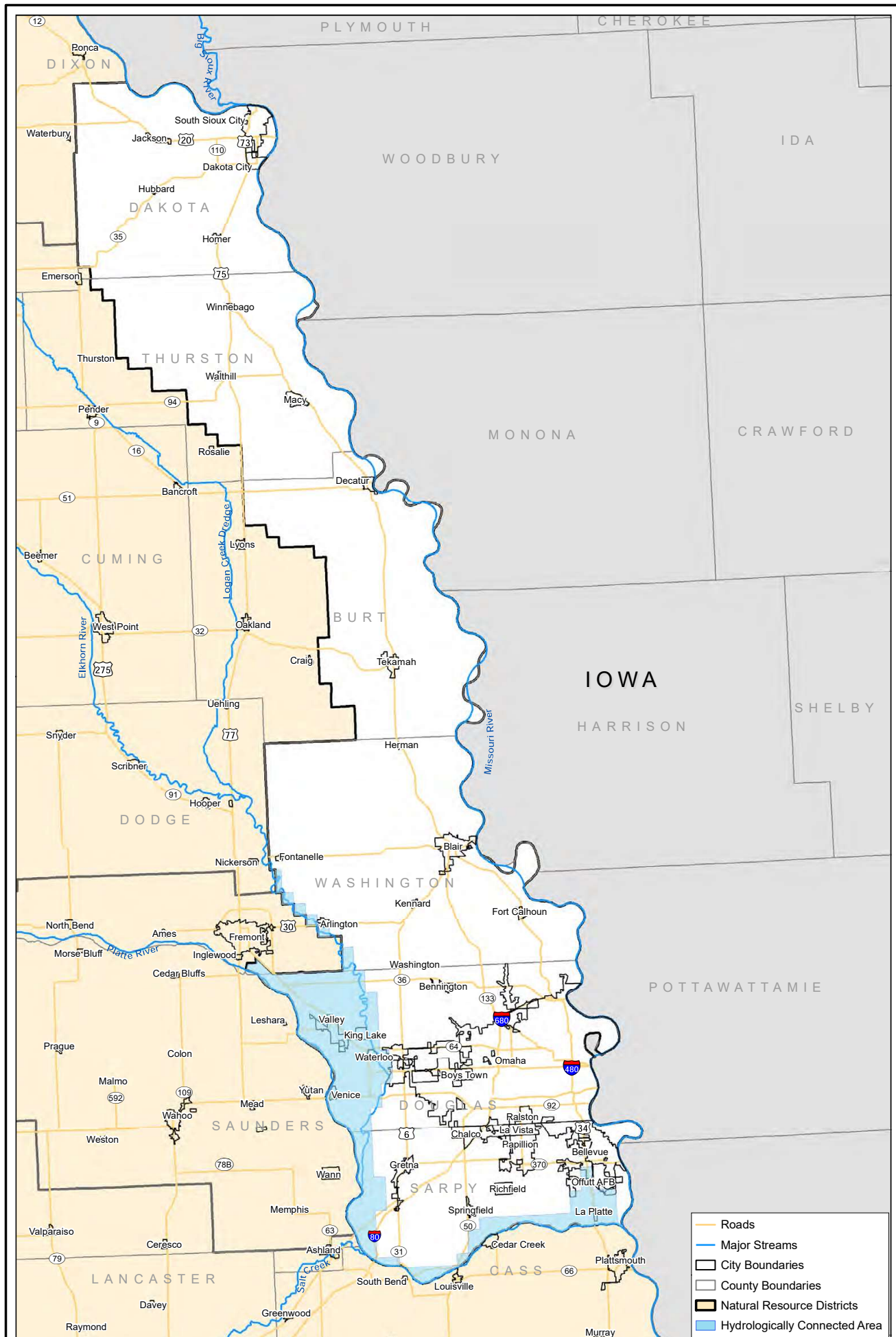
³ IMP is the P-MRNRD Intergrated Management Plan

⁴ COST SHARE PROGRAMS WILL BE DEVELOPED AND ADOPTED SEPERATERLY

⁵ Example water conservation BMPs include flow meters, GPS control units for pivots, soil-moisture sensors and telemetry, low-pressure irrigation system







PROJECT: 015-3424 DATE: August 23, 2017 DRAWN BY: MKM

Sources:
 NDNR: NRD Boundaries, Registered Wells
 USGS: National Hydrography Dataset
 U.S. Census Bureau: Roads, County Boundaries, Municipal Boundaries
 HPRCC: Weather Stations; NCDC: Weather Stations

0 2.75 5.5 11
 Miles
 1 in = 7 miles



Hydrologically Connected Area
 Pappo-Missouri River NRD

OLSSON
 ASSOCIATES

FIGURE

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