

# Industrial Water Depot Use and Telemetry Pilot Study



Michael Hove  
North Dakota Office of the State Engineer

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## Main Topics

- Water Depot Use :
- Real-Time Water Use Monitoring (Telemetry ):
- Water Rates:

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## What is a Water Depot?

### Variety of Water Depot Construction

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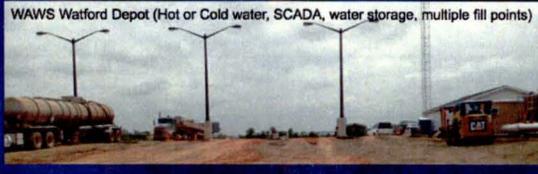
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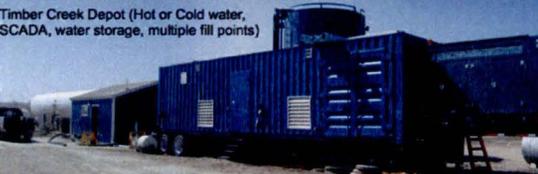
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### Depot Construction Examples

WAWS Watford Depot (Hot or Cold water, SCADA, water storage, multiple fill points)



Timber Creek Depot (Hot or Cold water, SCADA, water storage, multiple fill points)



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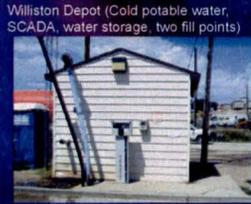
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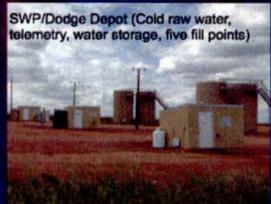
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### Depot Construction Examples

Williston Depot (Cold potable water, SCADA, water storage, two fill points)



SWP/Dodge Depot (Cold raw water, telemetry, water storage, five fill points)



Gaskjen Depot (Cold raw water, SCADA, four fill points)



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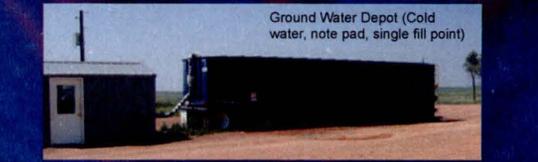
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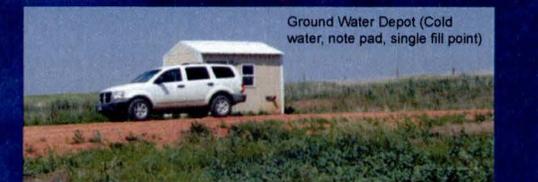
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### Depot Construction Examples

Ground Water Depot (Cold water, note pad, single fill point)



Ground Water Depot (Cold water, note pad, single fill point)



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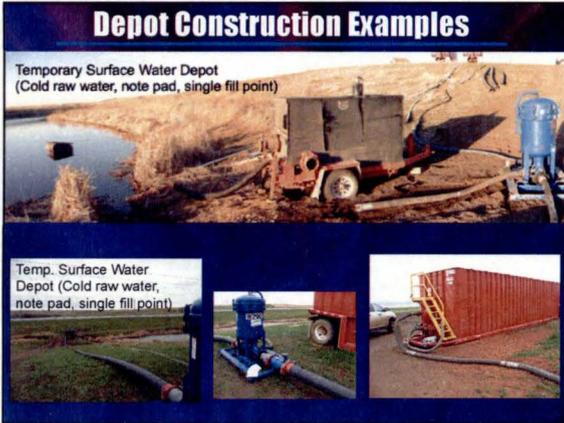
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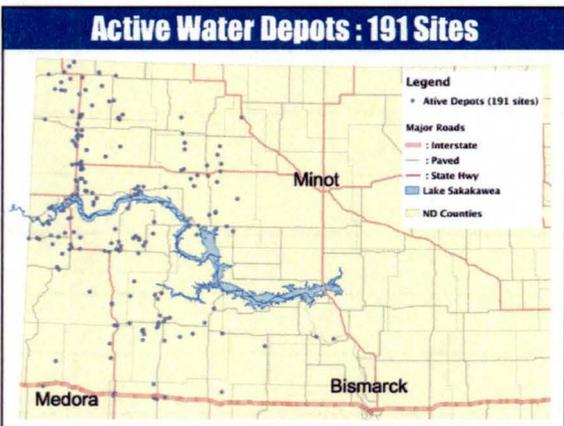
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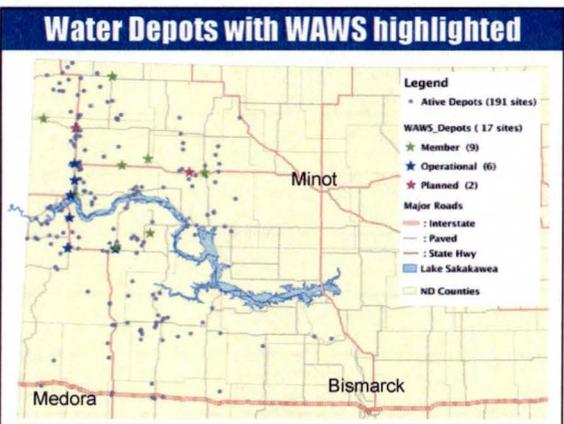
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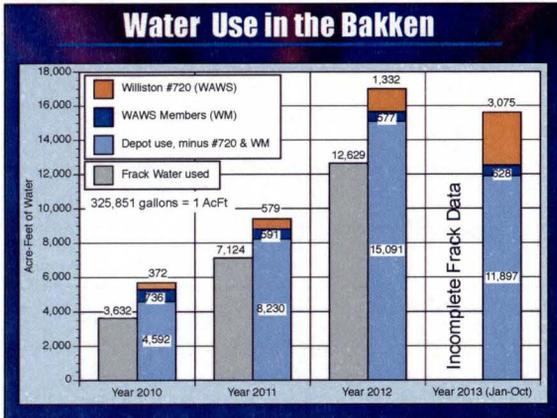
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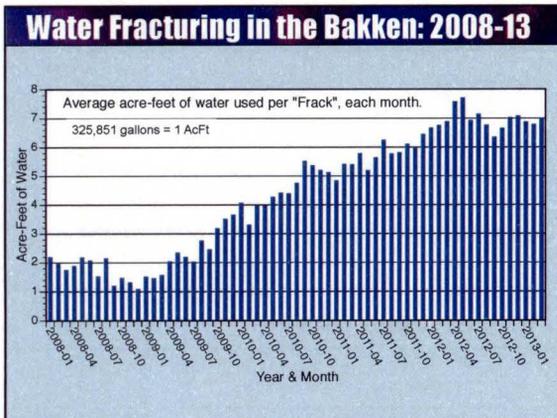
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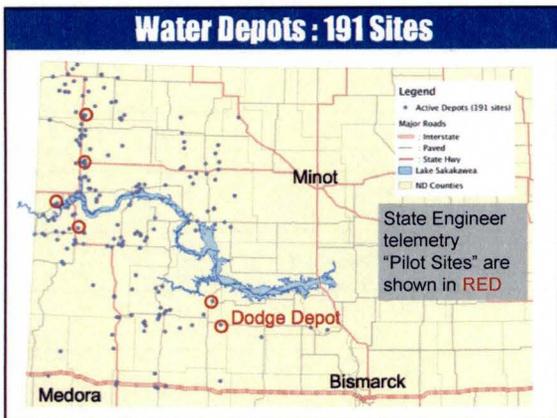
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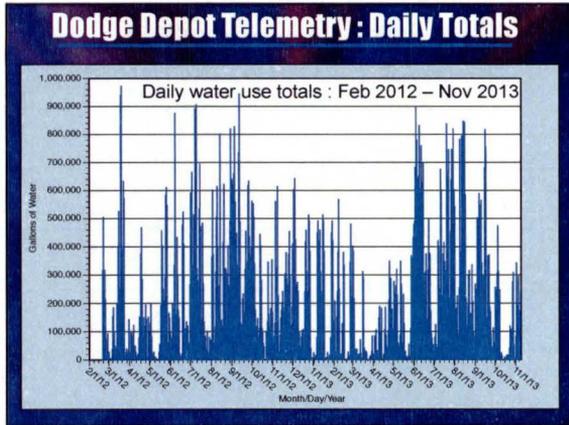
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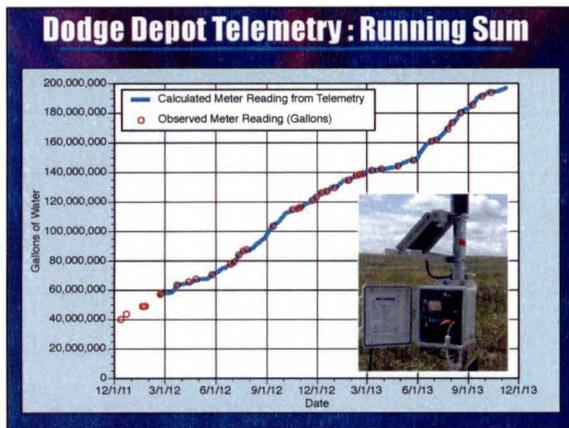
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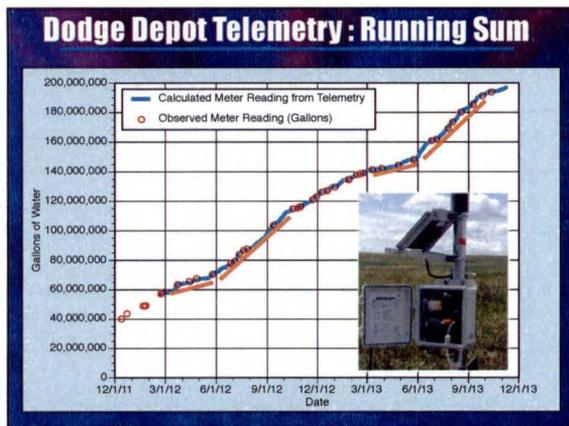
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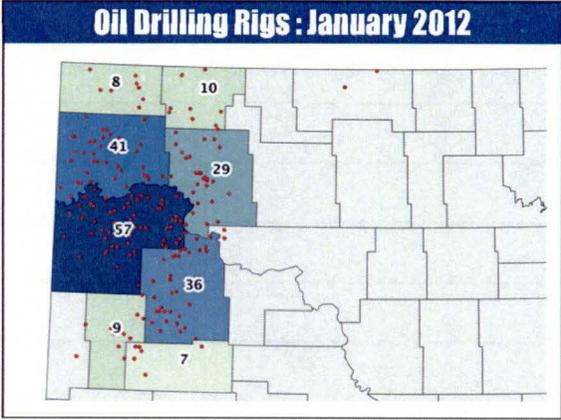
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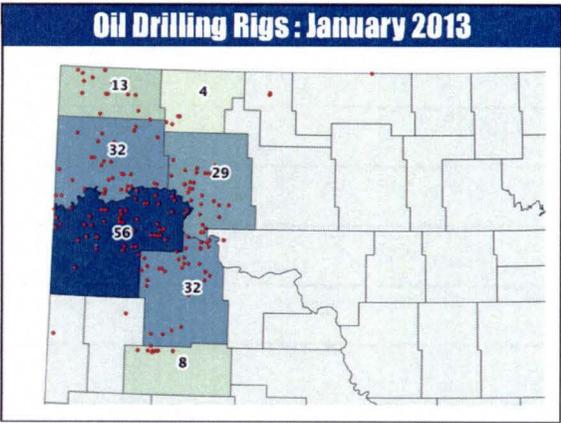
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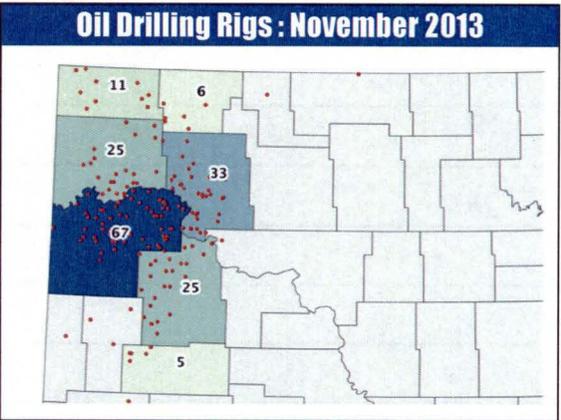
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### Water Use & Telemetry History

#### State Engineer Water Use Monitoring.

Statute requires annual reporting , which has been enhanced by:

1. Increased frequency of meter readings by staff
2. Develop monthly meter reports for permit holder
3. Implemented a telemetry pilot study

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### Telemetry : Data : ? - ? : Database

How did we make this connection?

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### Telemetry : Data : SOAP : Database

#### The SOAP connection

SOAP Service developed by agency I.T. - Chris Bader

- SOAP ( Simple Object Access Protocol )
- Open Standard Web Service ( XML )
- Hardware and Software Independent

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## Telemetry : Data : SOAP : Database

### The SOAP connection

- Telemetry Hardware becomes "Transparent"
- Data is "pushed" to the agency database
  - Savages Industries (Ames Water)
  - IDT ( South Dakota )
  - McCrometer ( California )
  - Well Head Automation Inc. ( N. Dak. )

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## Water Depot Database - SOAP

Water Depot : Schaper (J and L Water) Depot  
Depot Index : 22

Depot Info | History | Documents

Name : Schaper (J and L Water) Depot  
 Location : 14609120AADA Long, Lat : -102.29089, 47.45593  
 X-Coord, Y-Coord : 1,525,486, 657,601

Contact : Jim Schaper Modify Credentials Send Credentials  
 Address 1 : 279 Hwy 8 N  
 Address 2 : Remote Login Enabled!  
 City, State, Zip : Halliday ND 58636-0000  
 Phone : (701) 938-4431 Cell Phone :  
 E-Mail : steve@jdt.us.com  
 County : Dounn Status : Developed

Meter Station	Location Name	Location	Model	Serial No	Meter Units
	South Fill Station	14609120AADA	T2AWWA Class 1	75524755	Gallons
	North Fill Station	14609120AADA	T2AWWA Class 1	75838666	Gallons

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## Water Depot Database - SOAP

- SOAP Credentials - auto sent by e-mail

- Station ID
- User Name
- Password

You can access the SOAP Telemetry information at <http://www.sws.nd.gov/SWCTelemetry/SOAPSenc.html>  
 The Web Services specification can be accessed at <http://dbase1.sws.nd.gov:8082/sdsws/>

Following is summary information that will be required to set up the communication services on your meter equipment:

Depot Name : Johnsrud Water Depot  
 Depot ID : 40  
 Username : Johnsrud  
 Password : **\*\*\*\*\***  
 Notification E-Mail : swscoanotify@nd.gov

Meter Station Information :

Station ID : 60  
 Location (TRK) : 15109831DD8  
 Location Name : North Power Fuels fill  
 Longitude : -103.26610  
 Latitude : 47.85066  
 Meter Name : McCrometer  
 Meter Model :  
 Meter Serial No : GP11-1540  
 Meter Units : Barrels  
 Meter Precision : 1

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### Variability of Rates

- State Engineer does not establish rates.
- What we have learned:
  - Rates are dynamic: ~ \$0.50 to \$0.85 per barrel of water, or \$12 to \$20 per 1,000 gallons.
  - Vary from location to location (Proximity & access)
  - Heated or not heated
  - Seasonal variability
  - Delivery method : Pipe line or truck
  - Source: G.W. & S.W. ( Raw / Treated )
  - Hydraulic fracturing formulas vary

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### Conclusions

- Water Depot Use :
  - Rapid increase from 2010-2012 leveling off in 2013.
  - Use can be driven by external factors ( rigs – roads )
- Real-Time Water Use ( Telemetry – SOAP ):
  - SOAP service completed within existing budgets.
  - Agency IT staff knowledge of workflow key factor.
  - Queries from other States on SOAP implementation.
- Rates vary from about \$0.50 to \$0.85 per barrel

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<b>Project Name</b>	<b>Executive Project Summary: Phases I - IV</b>
<b>Costs Incurred Through Date</b>	<b>10/31/2013</b>

	<b>Contracted Amounts To-Date</b>	<b>Actual To-Date</b>	<b>Best Estimate To-Date</b>
<b>Phase I Totals</b>	\$ 31,060,951	\$ 29,668,255	\$ 30,992,200
<b>Phase II Totals</b>	\$ 87,052,750	\$ 79,017,884	\$ 87,989,736
<b>Phase I - II Totals</b>	<u>\$ 118,113,701</u>	<u>\$ 108,686,139</u>	<u>\$ 118,981,937</u>
<b>Phase III Totals</b>	\$ 38,892,314	\$ 2,723,532	\$ 108,176,763
<b>Phase I - III Totals</b>	<u>\$ 157,006,015</u>	<u>\$ 111,409,671</u>	<u>\$ 227,158,699</u>
<b>Phase IV Totals</b>	\$ -	\$ -	\$ 141,776,445
<b>Phase I - IV Totals</b>	<u>\$ 157,006,015</u>	<u>\$ 111,409,671</u>	<u>\$ 368,935,144</u>

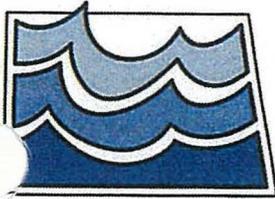
<b>Report Name</b>	<b>Executive Project Summary: Phases I - IV</b>
<b>Capital Costs Incurred Through Date</b>	<b>10/31/2013</b>

	<b>Contracted Amounts To-Date</b>	<b>Actual To-Date</b>	<b>Best Estimate To-Date</b>	
<b>Phase I</b>				
Task Order No. 4 - Regional Water Service Phase I Pipeline	\$ 9,771,148	\$ 9,771,148	\$ 9,771,148	*1 *2
Task Order No. 5 - Regional Water Service Phase I Reservoir	\$ 5,280,253	\$ 5,168,198	\$ 5,180,000	*1
Task Order No. 6 - Regional Water Service to Crosby/BDW	\$ 5,811,580	\$ 5,453,548	\$ 5,811,580	*1
Task Order No. 7 - Regional Water Service System IV	\$ 10,355,463	\$ 9,432,854	\$ 10,386,966	
Task Order No. 7 - Regional Water Service System IV - Cost Sharing	\$ (677,904)	\$ (677,904)	\$ (677,904)	
Task Order No. 8 - Program Management Phase I & II	\$ 509,888	\$ 509,888	\$ 509,888	
Task Order No. 8a - Public Information ACT Request	\$ 10,523	\$ 10,523	\$ 10,523	
<b>Phase II</b>				
Task Order No. 10 - Williston Water Treatment Facility Expansion	\$ 15,468,902	\$ 12,417,195	\$ 15,718,742	
Task Order No. 11 - Transmission Pipeline Improvements	\$ 36,885,929	\$ 35,714,832	\$ 36,891,258	
Task Order No. 11 - Transmission Pipeline Improvement - Cost Sharing	\$ (642,887)	\$ (642,887)	\$ (642,887)	
Task Order No. 12 - Reservoirs and Pump Stations	\$ 15,442,590	\$ 14,803,726	\$ 15,443,930	
Task Order No. 13 - Hydraulic Modeling	\$ 150,000	\$ 150,000	\$ 150,000	
Task Order No. 14 - Fill Depots	\$ 9,426,254	\$ 8,279,331	\$ 9,944,591	
Task Order No. 15 - Rural Water System Expansion	\$ 569,000	\$ 318,373	\$ 569,000	
Task Order No. 15a-1 - WRWD West Expansion Engineering	\$ 660,000	\$ 656,713	\$ 660,000	
Task Order No. 15a-1 - WRWD West Expansion	\$ 3,221,483	\$ 3,196,483	\$ 3,362,146	
Task Order No. 15a-1 - WRWD West Expansion - Cost Sharing	\$ (1,700,000)	\$ (1,700,000)	\$ (1,700,000)	
Task Order No. 16 - Right of Way Procurement	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	
<b>Phase III Engineering</b>				
Task Order No. 10 - Williston WTP Expansion from 14 - 21 MGD	\$ 1,223,400	\$ 1,209,416	\$ 1,223,400	
Task Order No. 16 - Right of Way Procurement	\$ 480,000	\$ 480,000	\$ 480,000	
Task Order No. 17 - By Pass Transmission Lines (30" & 36")	\$ 494,000	\$ 308,560	\$ 494,000	
Task Order No. 18 - WRWD - West Expansion - Part 2	\$ 322,000	\$ 322,000	\$ 322,000	
Task Order No. 19 - Transmission Pipeline Improvements (Keene Loop)	\$ 395,000	\$ 393,400	\$ 395,000	
Task Order No. 20 - Operations Plan	\$ 141,000	\$ 128,631	\$ 141,000	
Task Order No. 21 - Williston WTP Intake	\$ 254,000	\$ 83,390	\$ 254,000	
Phase III WTP Expansion from 14 - 21 MGD Filter Fit-Ups	\$ 1,363,360	\$ -	\$ 1,363,360	
Total Legal and Administrative for Phases I and II - Capitalized	\$ 870,196	\$ 870,196	\$ 870,196	
Crop Damage - Appurtenances and Payments	\$ 528,524	\$ 528,524	\$ 550,000	
<b>Phase III</b>				
Task Order No. 9 - Program Management Phase III	\$ 65,443	\$ 40,067	\$ 65,443	
Task Order No. 10 - Williston WTP Expansion from (14-21 MGD)	\$ 24,475,900	\$ 967,809	\$ 25,615,745	
Task Order No. 17 - West Williston By-Pass Transmission Lines (30" & 36")	\$ -	\$ -	\$ 7,951,000	
Task Order No. 16 - Right of Way Procurement	\$ 200,000	\$ 168,246	\$ 200,000	
Task Order No. 18 - WRWD - West Expansion - Part 2	\$ 4,842,650	\$ 11,948	\$ 5,053,200	
Task Order No. 19 - Transmission Pipeline Improvements (Keene Loop)	\$ 6,743,033	\$ 12,873	\$ 7,060,185	
R&T WSCA Well Field Expansion & WTP Improvements	\$ 1,450,038	\$ 1,307,433	\$ 1,522,540	
Task Order No. 22 - Williston Regional WTP Pretreatment Options	\$ 197,000	\$ 117,400	\$ 197,000	
Task Order No. 22a - Williston Regional WTP Pretreatment Improvements	\$ 918,250	\$ 97,757	\$ 5,000,000	
Task Order No. 24 - R&T - Epping Transmission - Part 1	\$ -	\$ -	\$ 7,400,000	
Task Order No. 25 - MCRWD - System I (Watford City and Tobacco Garden)	\$ -	\$ -	\$ 6,950,000	
Task Order No. 26 - WRWD - East Transmission - Part 2 (East Williston By-Pass)	\$ -	\$ -	\$ 10,135,000	
Task Order No. 35 - Stanley - Distribution - Part 1 (Stanley Area East Branch)	\$ -	\$ -	\$ 6,720,000	
Task Order No. 27 - WRWD - Part 1 (Blacktail Dam Area Distribution)	\$ -	\$ -	\$ 5,974,000	
Task Order No. 28 - R&T - Rural Distribution - Part 2	\$ -	\$ -	\$ 3,900,000	
Task Order No. 29 - WRWD - East Transmission - Part 1	\$ -	\$ -	\$ 3,811,000	
Task Order No. 7a - MCRWD - Rural Distribution (System IV Part 3a)	\$ -	\$ -	\$ 3,760,000	
Task Order No. 30 - BDW - Distribution - Part 1	\$ -	\$ -	\$ 5,540,000	
Task Order No. 21 - Williston Intake Improvements - Preliminary Engineering	\$ -	\$ -	\$ 821,650	
Crop Damage - Appurtenances and Payments	\$ -	\$ -	\$ 500,000	
<b>Phase IV (Indexed @ 5%)</b>				
Fill Depots	\$ -	\$ -	\$ 2,153,915	
WRWD - Transmission Line (13 mile to 29 mile)	\$ -	\$ -	\$ 6,489,000	
WRWD - Grenora (29 Mile to Grenora)	\$ -	\$ -	\$ 1,648,000	
WRWD - North Transmission - Part 1 (58th St. to 60th St.)	\$ -	\$ -	\$ 655,080	
WRWD - West Transmission North - Part 3 (Pump Station to 60th St.)	\$ -	\$ -	\$ 3,275,400	
Other Phase IV Totals	\$ -	\$ -	\$ 127,555,050	

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<b>Phase I - IV Totals</b>	\$ 157,006,015	\$ 111,409,671	\$ 368,935,144

\* Basic engineering services were paid with the \$1.5M State Water Commission grant provided to McKenzie County Water Resource District. These fees are not included in the estimated total project cost so as to only track estimated loan dollars utilized for the project. Task Order No. 4 Best Estimate To-Date has been reduced to maximum Actual To-Date as the project is being closed out.

\*2 - As projects (task orders) are being closed out, their contingency allocations are being redistributed as needed.



# North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850  
701-328-2750 • TTY 800-366-6888 • FAX 701-328-3696 • INTERNET: <http://swc.nd.gov>

*Agenda M1)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TJS* Todd Sando, P.E., Chief Engineer-Secretary  
**SUBJECT:** Western Area Water Supply – Overall Plan Approval and \$40 Million Loan  
**DATE:** September 16, 2013

The Western Area Water Supply Authority (Authority) is requesting overall plan approval of projects for Western Area Water Supply Project (Project), the request is enclosed for your information. This recommendation is for overall plan approval of nine additional projects, which are a priority for the Authority to move forward, and for approval of proceeding with a \$40 million loan from the contract fund. The State Water Commission had included \$79 million in this biennium's budget for the Project with a portion loan and a portion grant. In separate legislation the State Water Commission is required to seek funding if the industrial sales are unable to cover the payments on the Bank of North Dakota loans, so a portion of the current budget for the Project will be reserved for this purpose.

### Overall Plan Review

The Authority has requested approval on the projects in Table 1. This approval will allow design work to be initiated on all projects and construction to continue. Completion dates for these projects range from June 2014 to December 2015.

### Loan Funding Approval

The recommendation to the State Water Commission is to establish a \$40 million loan from the resources trust fund for the Project. Recommendation is to work through the Bank of North Dakota or Public Finance Authority to establish the loan with the Authority with the following conditions: 2.5 percent interest rate which includes a loan administration fee, 20 year repayment, interest to incur with first disbursement, no principal payment required until 18 months following first disbursement. The interest rate and repayment schedule is recommended similar to that used by the Health Department for the Drinking Water State Revolving Loan Fund. The delay in principal repayment is to allow time for distribution system construction and new user connection onto the system. The industrial sale payments that are tracked by the Industrial Commission do not include this loan in their payment schedule, and it is important to note that repayment on this loan would be from the water user rates.

**I recommend the State Water Commission approve the nine projects shown in Table 1, and establish a \$40 million loan from the contract fund that can be accessed by the Authority for approved projects.**

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY

**Table 1: Summary WAWSA Remaining Phase III Projects**

	<b>Project</b>	<b>Description</b>	<b>Location</b>	<b>Cost (Millions)</b>
1	Williston Water Treatment Plant Pretreatment Improvements	Handle high turbidity events on Missouri River	Existing Williston site	\$5.000
2	Williams Rural Water District – East Transmission – Part 1 (Hwy 2 to 133 <sup>rd</sup> Ave and South)	Nine miles of 20” to 6” pipeline	Five miles northeast of Williston with service to 1,600 new sub-division users and 365 future users	\$3.811
3	R&T - Epping Transmission – Part 1 (Ray High Point to Epping)	30 miles of 12” to 4” pipeline and 250,000 gallon water tower and 23 miles of distribution pipeline	West and south of Ray with service to Wheelock and Epping, 30 rural users and 1,080 new sub-division users	\$7.400
4	McKenzie County Water Resource District – System 1 (Watford City & Tobacco Garden)	21 miles of 6” and 91 miles of 4” to 2” pipeline	New service to 56 users by Watford City and 49 users near Tobacco Garden Bay area	\$6.950
5	Williams Rural Water District – East Transmission – Part 2 (East Williston By-Pass)	Seven miles of 16” to 10” pipeline and 1,000,000 gallon water tower	Three miles northeast of Williston with service to 655 new sub-division users and supplement 145 existing users	\$10.135
6	Williams Rural Water District – Part 1 (Blacktail Dam Area Transmission and Distribution)	18 miles of 8” and 28.5 miles of 3” to 2” pipeline	13 miles north of Williston with service to 70 new users and 200 potential users (includes 104 in Grenora)	\$5.974
7	R&T – Rural Distribution – Part 2	Five miles of 6” pipeline and 66 miles of distribution pipeline	New service to 44 users north of Ray and east	\$3.900
8	McKenzie County Water Resource District – System IV Part 3a (Rural Distribution)	23 miles of 8” to 6” and 36 miles of distribution pipeline	Service to 30 new users and 30 potential users South of Alexander	\$3.760
9	BDW – Rural Distribution – Part 1	110 miles of 4” to 2” of pipeline	New service to 13 users near Columbus and 67 users between Fortuna and Crosby	\$5.540
			<b>Total</b>	<b>\$ 52.470</b>

**Sixty-third Legislative Assembly of North Dakota  
In Regular Session Commencing Tuesday, January 8, 2013**

SENATE BILL NO. 2233  
(Senators Grindberg, Wardner, Heckaman)  
(Representatives Carlson, Hofstad, Onstad)

AN ACT to provide a declaration of water policy and goals and objectives for water project development, the Mouse River enhanced flood control project, the lower Heart River Morton County enhanced flood control project, the southwest pipeline project, the Garrison diversion unit, and the Fargo-Moorhead flood control project; to create and enact a new subdivision to subsection 2 of section 28-32-01, a new subdivision to subsection 1 of section 54-10-14, a new section to chapter 61-02, and four new sections to chapter 61-40 of the North Dakota Century Code, relating to exempting certain activities of the industrial commission from the Administrative Agencies Practice Act, western area water supply authority industrial water sales audits, an infrastructure revolving loan fund, and franchise protection rights of the western area water supply authority; to amend and reenact sections 54-35-02.7, 61-24.7-01, 61-24.7-05, 61-40-01, 61-40-02, 61-40-03, 61-40-04, 61-40-05, and 61-40-09 of the North Dakota Century Code, relating to jurisdiction of the water-related topics overview committee, the Red River valley water supply project, the location of industrial water depots, and the western area water supply project; to repeal sections 61-24.7-02, 61-24.7-03, 61-24.7-04, and 61-40-06 of the North Dakota Century Code, relating to funding of the Red River valley water supply project and oversight of western area water supply authority projects; to provide a continuing appropriation; to provide a statement of legislative intent; and to provide for reports to the legislative management.

**BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:**

**SECTION 1.** A new subdivision to subsection 2 of section 28-32-01 of the North Dakota Century Code is created and enacted as follows:

The industrial commission with respect to approving or setting water rates under chapter 61-40.

**SECTION 2.** A new subdivision to subsection 1 of section 54-10-14 of the North Dakota Century Code is created and enacted as follows:

Western area water supply authority industrial water sales on an annual basis.

**SECTION 3. AMENDMENT.** Section 54-35-02.7 of the North Dakota Century Code is amended and reenacted as follows:

**54-35-02.7. (~~Effective through November 30, 2013~~) Water-related topics overview committee - Duties.**

The legislative management, during each interim, shall appoint a water-related topics overview committee in the same manner as the legislative management appoints other interim committees. The committee must meet quarterly and is responsible for legislative overview of water-related topics and related matters, the Garrison diversion project, and for any necessary discussions with adjacent states on water-related topics. During the 2011-12 interim, the committee shall review the state's irrigation laws and rules and evaluate the process of the prioritization of water projects. The committee shall work collaboratively with the state water commission to develop policies to further define the state role in major flood control projects and in the prioritization of water projects. During the 2013-14 interim, the committee shall review water supply routes and alternatives for the Red River valley water supply project. The committee consists of thirteen members and the legislative management shall designate

the chairman of the committee. The committee shall operate according to the statutes and procedure governing the operation of other legislative management interim committees.

~~(Effective after November 30, 2013) Garrison diversion overview.~~ The legislative management is responsible for legislative overview of the Garrison diversion project and related matters and for any necessary discussions with adjacent states on water-related topics.

#### **SECTION 4.**

##### **Declaration of policy.**

The legislative assembly declares that major water development and water management goals must be set forth and implemented in order to protect the long-term interests, economic vitality, and future benefits of the state and its citizens; that such water development and water management goals are essential for the economic growth and quality of life across the entire state; that rights to the use and enjoyment of waters of the Missouri River flowing through this state cannot be restricted by the federal government; that it is necessary to develop and utilize waters of the Missouri River for municipal, domestic, rural, and industrial purposes in this state; that flood control works are necessary to protect the lives and property of the citizens of this state; that major flood control works in and around major cities and other cities are necessary to address the record and damaging floods that have occurred; that regional water supply and rural water projects must be completed in order to provide a long-term, dependable quality and adequate quantity water supply for municipal, domestic, rural, and industrial uses; that irrigation provides a significant opportunity to further the agricultural opportunities in the state; and that an infrastructure loan fund will enable these goals and policies to be achieved and implemented, and will provide significant economic and financial benefits to the people of this state.

#### **SECTION 5.**

##### **Legislative intent - Reports to legislative assembly.**

The legislative assembly declares and establishes the following goals and objectives:

1. That it is necessary for the long-term welfare and economic well-being of the Souris River basin, and the entire state and its citizens, that the planning, design, and construction of the Mouse River enhanced flood control project be completed and implemented.
2. That the Red River valley water supply project is critical to provide a dependable water supply for current and future generations in eastern North Dakota and is essential to provide for the long-term welfare, economic well-being, and quality of life for the entire state.
3. That it is necessary for the long-term welfare and economic well-being of the Red River basin, and the entire state and its citizens, that the planning, design, and construction of the Fargo-Moorhead flood control project be completed and implemented.
4. That regional water supply and rural water systems are necessary to provide a dependable and adequate quantity and quality water supply for municipal, domestic, rural, and industrial uses.
5. That the state water commission and the southwest water authority shall begin the process of reviewing capital repayment and revenues being returned to the resources trust fund; payments necessary to meet obligations of existing bonds and other loans; mill levies; ownership of land and associated facilities; existing construction documents; liabilities; contracts with cities, bulk users, companies, and other users; and other items, and shall report to the legislative assembly those steps necessary for the transfer of ownership and responsibility of the southwest pipeline project from the state water commission to the southwest water authority.

6. That the state water commission and the Garrison Diversion Conservancy District shall enter discussions with the bureau of reclamation concerning Garrison diversion unit facilities.
7. That projects receiving state funds for construction and implementation not assert, claim, or seek to prevent other opportunities, either public or private, to utilize waters of the Missouri River for industrial uses in this state.
8. That local water management and flood control projects are necessary for the economic well-being and quality of life of citizens in those local areas.
9. That irrigation development offers significant opportunities for agriculture in this state.
10. That an infrastructure loan fund for water development and management will provide significant financial benefits to projects and the citizens of this state, and will provide new capabilities to implement necessary water infrastructure projects across the state.

**SECTION 6.**

**Mouse River enhanced flood control project.**

1. The legislative assembly declares its intent to provide state funding for a share of the nonfederal or local cost of constructing the Mouse River enhanced flood control project.
2. Any funds appropriated for the construction of the Mouse River enhanced flood control project may be carried over to future bienniums.
3. State funding for the Mouse River enhanced flood control project may be appropriated at the time and in the manner determined by the legislative assembly, either concurrently or separately from federal and local funding for the Mouse River enhanced flood control project.

**SECTION 7.**

**Lower Heart River, Morton County, enhanced flood control project.**

The legislative assembly declares its intent to provide state funding for a share of the nonfederal or local cost for construction of the lower Heart River, Morton County, flood control project.

**SECTION 8.**

**Southwest pipeline project - Report to legislative assembly.**

The state water commission and the southwest water authority shall begin the process of reviewing capital repayment and revenues being returned to the resources trust fund; payments necessary to meet obligations of existing bonds and other loans; ownership of land and associated facilities; existing construction documents; liabilities; contracts with cities, bulk users, companies, and other users; and other items, and shall report to the legislative assembly those steps necessary for the transfer of ownership and responsibility of the southwest pipeline project from the state water commission to the southwest water authority.

**SECTION 9.**

**Garrison diversion unit.**

The Garrison diversion unit has extensive federal facilities that have been constructed. It is the intent of the legislative assembly that the state water commission and Garrison Diversion Conservancy District begin discussions with the bureau of reclamation concerning the Garrison diversion unit facilities.

**SECTION 10.**

**Fargo-Moorhead flood control project.**

1. The sixty-third legislative assembly declares its intent to provide state funding not to exceed four hundred fifty million dollars for one-half of the nonfederal or local cost of constructing a federally authorized Fargo-Moorhead flood control project.
2. Notwithstanding any other law, any funds appropriated for the construction of the Fargo-Moorhead flood control project may be carried over to future bienniums.
3. State funding for the Fargo-Moorhead flood control project may be appropriated at the time and in the manner determined by the legislative assembly, either concurrently or separately from federal and local funding for the Fargo-Moorhead flood control project.

**SECTION 11.** A new section to chapter 61-02 of the North Dakota Century Code is created and enacted as follows:

**Infrastructure revolving loan fund - Continuing appropriation - Rules.**

1. An infrastructure revolving loan fund is established on January 1, 2015, within the resources trust fund to provide loans for water supply, flood protection, or other water development and water management projects. Ten percent of oil extraction moneys deposited in the resources trust fund are made available on a continuing basis for making loans in accordance with this section. Accounts may be established in the resources trust fund as necessary for its management and administration.
2. The commission shall consider the following information when evaluating projects:
  - a. A description of the nature and purposes of the proposed infrastructure project, including an explanation of the need for the project, the reasons why it is in the public interest, and the overall economic impact of the project.
  - b. The estimated cost of the project and the amount of the loan sought and other proposed sources of funding.
  - c. The extent to which completion of the project will provide a benefit to the state or regions within the state.
3. The commission shall approve projects and loans from the infrastructure loan fund, and the Bank of North Dakota shall manage and administer loans from the infrastructure loan fund and individual accounts in the fund. The commission may adopt policies for the review and approval of loans under this section. Loans made under this section must be made at an interest rate of one and one-half percent.
4. Annually the Bank of North Dakota may deduct a service fee of one-half of one percent for administering the infrastructure loan fund.
5. Projects not eligible for the state revolving fund will be given priority for these funds.

**SECTION 12. AMENDMENT.** Section 61-24.7-01 of the North Dakota Century Code is amended and reenacted as follows:

**61-24.7-01. Legislative findings and intent - Authority to issue bonds.**

4. The legislative assembly finds that the provision of water of sufficient quantity and quality to supply homes, businesses, industries, wildlife, and recreation in the Red River valley within this state is necessary for the protection of health, property, and enterprises and for the promotion of prosperity and the general welfare of the people of the Red River valley and that construction of the Red River valley

water supply project involves and requires the exercise of the sovereign powers of the state and concerns a public purpose. Therefore, it is declared necessary and in the public interest that the state by and through the state water commission provide a ~~one-third~~ share of the cost of constructing the Red River valley water supply project.

- ~~2. In furtherance of the public purpose set forth in subsection 1, the state water commission may issue bonds under chapter 61-02 and the proceeds are appropriated for construction of the Red River valley water supply project authorized and funded in part by the federal government and designed to provide reliable sources of water of sufficient quantity and quality to supply homes, businesses, industries, wildlife, and recreation in the Red River valley within this state.~~
- ~~3. This chapter does not affect the state water commission's authority to otherwise issue bonds pursuant to chapter 61-02 or section 61-24.3-01.~~

**SECTION 13. AMENDMENT.** Section 61-24.7-05 of the North Dakota Century Code is amended and reenacted as follows:

**61-24.7-05. State funding plan.**

1. The legislative assembly declares its intent to provide state funding for ~~one-third~~ a share of the ~~total~~ nonfederal or local cost of constructing the Red River valley water supply project.
2. Any general funds appropriated for the construction of the Red River valley water supply project may be carried over to future bienniums.
3. State funding for the Red River valley water supply project may be appropriated at the time and in the manner determined by the legislative assembly, either concurrently or separately from federal and local funding for the Red River valley water supply project.

**SECTION 14. AMENDMENT.** Section 61-40-01 of the North Dakota Century Code is amended and reenacted as follows:

**61-40-01. Legislative declarations - Authority of western area water supply authority.**

The legislative assembly declares that many areas and localities in western North Dakota do not enjoy adequate quantities of high-quality drinking water; that other areas and localities in western North Dakota do not have sufficient quantities of water to ensure a dependable, long-term domestic or industrial water supply; that greater economic security and the protection of health and property benefits the land, natural resources, and water resources of this state; and that the promotion of the prosperity and general welfare of all of the people of this state depend on the effective development and utilization of the land and water resources of this state and necessitates and requires the exercise of the sovereign powers of this state and concern a public purpose. To accomplish this public purpose, it is declared necessary that a water authority to treat, store, and distribute water to western North Dakota be established to provide for the supply and distribution of water to the people of western North Dakota for purposes, including domestic, rural water, municipal, livestock, industrial, oil and gas development, and other uses, and provide for the future economic welfare and prosperity of the people of this state, and particularly the people of western North Dakota, by the creation and development of a western area water supply project for beneficial and public uses. The western area water supply authority may acquire, construct, improve, develop, and own water supply infrastructure and may enter water supply contracts with member cities, water districts, and private users, such as oil and gas producers, for the sale of water for use within or outside the authority boundaries or the state. The western area water supply authority shall consider in the process of locating industrial water depots the location of private water sellers so as to minimize the impact on private water sellers. The independent water providers shall consider in the process of locating industrial water depots the location of private water sellers so as to minimize the impact on private water sellers.

**SECTION 15. AMENDMENT.** Section 61-40-02 of the North Dakota Century Code is amended and reenacted as follows:

**61-40-02. Western area water supply authority.**

The western area water supply authority consists of participating political subdivisions located within McKenzie, Williams, Burke, Divide, and Mountrail Counties which enter a water supply contract with the authority. Other cities and water systems, within or outside the authority counties' boundaries, including cities or water systems in Montana, may contract with the authority for a bulk water supply. The authority is a political subdivision of the state, a governmental agency, body politic and corporate, with the authority to exercise the powers specified in this chapter, or which may be reasonably implied. Participating member entities may be required to pay dues or water sale income to the authority, as determined by the bylaws and future resolutions of the authority. Participating member entities may not withdraw from the authority or fail or refuse to pay any water sale income to the authority ~~if the twenty-five million dollar zero interest loan from the state water commission has not been repaid until the state-guaranteed loans have been repaid.~~ The provisions of subsections 1 through 5 of section 61-35-02.1 apply if the authority's board of directors unanimously votes to convert to a water district.

**SECTION 16. AMENDMENT.** Section 61-40-03 of the North Dakota Century Code is amended and reenacted as follows:

**61-40-03. Western area water supply authority - Board of directors.**

1. The initial board of directors of the western area water supply authority consists of two representatives from each of the following entities: Williams rural water district, McKenzie County water resource district, the city of Williston, BDW water system association, and R&T water supply association. The governing body of each member entity shall select two representatives to the authority board who are water users of the member entity. If a vacancy arises for a member entity, the governing body of the member entity shall select a new representative to act on its behalf on the authority board. ~~In addition, the state engineer or designee is a voting member on the authority's board of directors.~~ Directors have a term of one year and may be reappointed.
2. Additional political subdivisions or water systems may be given membership on the board upon two-thirds majority vote of the existing board. To be eligible for membership on the board, the member entity must first contract with the authority for financial participation in the project.
3. A member entity may designate an alternate representative to attend meetings and to act on the member's behalf. The board may designate associate members who are nonvoting members of the board. Notwithstanding this section, ~~except for the state engineer or designee,~~ initial board members must be removed if they have not entered a contract with the authority, before August 1, 2013, for financial participation in the project.

**SECTION 17. AMENDMENT.** Section 61-40-04 of the North Dakota Century Code is amended and reenacted as follows:

**61-40-04. Board of directors - Officers - Meetings.**

1. The board of directors shall adopt such rules and bylaws for the conduct of the business affairs of the authority as it determines necessary, including the time and place of regular meetings of the board, financial participation structure for membership in the authority, and membership appointment and changes. Bylaws need to be approved by member entity boards.
2. The board shall elect from its members a chairman and a vice chairman. The board shall elect a secretary and a treasurer, which offices may be held by the same individual, and either or both offices may be held by an individual who is not a member of the board. Special meetings of the board may be called by the secretary on order of the chairman or upon written request of a majority of the qualified members of the board. Notice of a special meeting must be mailed to each member of the board at least six days before the meeting, provided that a

special meeting may be held at any time when all members of the board are present or consent in writing.

3. Board members are entitled to receive as compensation an amount determined by the board not to exceed the amount per day provided members of the legislative management under section 54-35-10 and must be reimbursed for their mileage and expenses in the amount provided for by sections 44-08-04 and 54-06-09.
4. ~~The initial board bylaws must direct board voting protocol. A weighted voting structure for board members is acceptable if the voting is based upon the volume of water purchased, the financial contributions of the stakeholder entities, or any other formula agreed by a majority of the board.~~
5. ~~Before the bylaws become effective, the bylaws must be reviewed and approved by the attorney general.~~

**SECTION 18. AMENDMENT.** Section 61-40-05 of the North Dakota Century Code is amended and reenacted as follows:

**61-40-05. Authority of the western area water supply authority.**

In addition to authority declared under section 61-40-01, the board of directors of the western area water supply authority may:

1. Sue and be sued in the name of the authority.
2. Exercise the power of eminent domain in the manner provided by title 32 or as described in this chapter for the purpose of acquiring and securing any right, title, interest, estate, or easement necessary or proper to carry out the duties imposed by this chapter, and particularly to acquire the necessary rights in land for the construction of an entire part of any pipeline, reservoir, connection, valve, pumping installation, or other facility for the storage, transportation, or utilization of water and all other appurtenant facilities used in connection with the authority. However, if the interest sought to be acquired is a right of way for any project authorized in this chapter, the authority, after making a written offer to purchase the right of way and depositing the amount of the offer with the clerk of the district court of the county in which the right of way is located, may take immediate possession of the right of way, as authorized by section 16 of article I of the Constitution of North Dakota. Within thirty days after notice has been given in writing to the landowner by the clerk of the district court that a deposit has been made for the taking of a right of way as authorized in this subsection, the owner of the property taken may appeal to the district court by serving a notice of appeal upon the acquiring agency, and the matter must be tried at the next regular or special term of court with a jury unless a jury be waived, in the manner prescribed for trials under chapter 32-15.
3. Accept funds, property, services, pledges of security, or other assistance, financial or otherwise, from federal, state, and other public or private sources for the purpose of aiding and promoting the construction, maintenance, and operation of the authority. The authority may cooperate and contract with the state or federal government, or any department or agency of state or federal government, or any city, water district, or water system within the authority, in furnishing assurances and meeting local cooperation requirements of any project involving treatment, control, conservation, distribution, and use of water.
4. Cooperate and contract with the agencies or political subdivisions of this state or other states, in research and investigation or other activities promoting the establishment, construction, development, or operation of the authority.
5. Appoint and fix the compensation and reimbursement of expenses of employees as the board determines necessary to conduct the business and affairs of the authority and to procure the

services of engineers and other technical experts, and to retain attorneys to assist, advise, and act for the authority in its proceedings.

6. Operate and manage the authority to distribute water to authority members and others within or outside the territorial boundaries of the authority and this state.
7. Hold, own, sell, or exchange any and all property purchased or acquired by the authority. All money received from any sale or exchange of property must be deposited to the credit of the authority and may be used to pay expenses of the authority.
8. Enter contracts to obtain a supply of bulk water through the purchase of infrastructure, bulk water sale or lease, which contracts may provide for payments to fund some or all of the authority's costs of acquiring, constructing, or reconstructing one or more water supply or infrastructure.
9. Acquire, construct, improve, and own water supply infrastructure, office and maintenance space in phases, in any location, and at any time.
10. Enter contracts to provide for a bulk sale, lease, or other supply of water for beneficial use to persons within or outside the authority. The contracts may provide for payments to fund some or all of the authority's costs of acquiring, constructing, or reconstructing one or more water system projects, as well as the authority's costs of operating and maintaining one or more projects, whether the acquisition, construction, or reconstruction of any water supply project actually is completed and whether water actually is delivered pursuant to the contracts. The contracts the cities, water districts, and other entities that are members of the western area water supply authority are authorized to execute are without limitation on the term of years.
11. Borrow money as provided in this chapter.
12. Make all contracts, execute all instruments, and do all things necessary or convenient in the exercise of its powers or in the performance of its covenants or duties or in order to secure the payment of its obligations, but an encumbrance, mortgage, or other pledge of property of the authority may not be created by any contract or instrument.
13. Accept from any authorized state or federal agency loans or grants for the planning, construction, acquisition, lease, or other provision of a project, and enter agreements with the agency respecting the loans or grants. Other than state-guaranteed loans, additional debt that may form the basis of a claim for territorial or franchise protection for industrial water sales for oil and gas exploration and production may be acquired by the authority or member entities only upon approval by the industrial commission and the emergency commission.
14. Contract debts and borrow money, pledge property of the authority for repayment of indebtedness, and provide for payment of debts and expenses of the authority.
15. Operate and manage the authority to distribute water to any out-of-state cities or water systems that contract with the authority.
16. Accept, apply for, and hold water allocation permits.
17. Adopt rules concerning the planning, management, operation, maintenance, sale, and ratesetting regarding water sold by the authority. The authority may adopt a rate structure with elevated rates set for project industrial water depot and lateral supplies in recognition that a large component of the project expense is being incurred to meet the demands of industrial users. The industrial water depot and lateral rate structure must be approved in accordance with section 20 of this Act.
18. Develop water supply systems; store and transport water; and provide, contract for, and furnish water service for domestic, municipal, and rural water purposes; milling,

manufacturing, mining, industrial, metallurgical, and any and all other beneficial uses; and fix the terms and rates therefore. The authority may acquire, construct, operate, and maintain dams, reservoirs, ground water storage areas, canals, conduits, pipelines, tunnels, and any and all treatment plants, works, facilities, improvements, and property necessary the same without any required public vote before taking action.

19. Contract to purchase or improve water supply infrastructure or to obtain bulk water supplies without requiring any vote of the public on the projects or contracts. In relation to the initial construction of the system and for the purposes of entering a contract with the authority, municipalities are exempt from the public voting requirements or water contract duration limitations otherwise imposed by section 40-33-16.
20. Accept assignment by member entities of contracts that obligate member entities to provide a water supply, contracts that relate to construction of water system infrastructure, or other member entity contracts that relate to authorities transferred to the authority under this chapter.

**SECTION 19.** A new section to chapter 61-40 of the North Dakota Century Code is created and enacted as follows:

**Industrial water depot and lateral sales.**

1. An accounting of industrial water depot and lateral sales collected and distributed by the authority must be reported to the industrial commission on a monthly basis. Participating member entities shall transfer industrial water depot and lateral sales to the authority within thirty days of receipt of the revenues. The boards of the authority and participating member entities must be notified of the sweep of revenues; however, board approval is not required. Upon the receipt of industrial water depot and lateral revenues by the authority, the authority shall apply immediately all revenues each month in the following order:
  - a. One hundred fifty thousand dollars per biennium to the industrial commission for one additional full-time equivalent position to implement this Act.
  - b. Reimburse the authority for industrial water depot capital improvements and the cost for delivery of potable or nonpotable water sold at industrial water depots and lateral lines, at a cost no greater than the participating member, or submember, if applicable, entity rate at the location of the depot or lateral line.
  - c. Regular payments on the participating member entity debt as described in the agreements with the authority as of March 31, 2013, and baseline 2010 industrial water sales included in and subject to the terms of the authority and participating member agreements as of March 31, 2013. Baseline 2010 industrial water sales for the city of Tioga in the year 2013 are limited to the lesser of legally permitted industrial water sales or the amount in the member agreement.
  - d. Required monthly payments on state-guaranteed loans. The required transfer must occur no later than the twentieth day of the following month.
  - e. Additional principal payment on state-guaranteed loans.
  - f. Payment to the resources trust fund.
2. If the state-guaranteed loans have not been repaid, without the written consent of the industrial commission the authority may not sell, lease, abandon, encumber, or otherwise dispose of any part of the property used in a water system of the authority if the property is used to provide revenue. Any requirements on the state-guaranteed loans for establishment of reserve funds for operation and maintenance or debt service are waived.

3. The state water commission shall approve the planning, location, and water supply contracts of any authority depots, laterals, taps, turnouts, and risers for industrial sales for oil and gas exploration and production after the effective date of this Act.

**SECTION 20.** A new section to chapter 61-40 of the North Dakota Century Code is created and enacted as follows:

**Water rates.**

The authority shall develop an industrial water depot and lateral retail rate and present the rate to the industrial commission for approval. Any industrial water depot and lateral rate adjustment must have approval of the industrial commission before going into effect. The authority shall develop domestic water rates that must include all costs for operation, maintenance, and operating and capital reserves, and debt repayment of all infrastructure managed or constructed by the authority, with the exception of the costs identified in section 19 of this Act which are paid for by industrial water depot and lateral sales.

**SECTION 21.** A new section to chapter 61-40 of the North Dakota Century Code is created and enacted as follows:

**Construction funding.**

The authority shall follow the state water commission requirements for funding through the resources trust fund or Bank of North Dakota state-guaranteed loans and shall present the overall plan and project components to the state water commission for funding approval. Priority on project funding first is reserved for state-guaranteed loan payments if not met by industrial water depot and lateral sales, second is for full repayment of existing federal debt if 7 U.S.C. 1926(b) protection for oil and gas exploration and production industrial water sales is asserted, and third for expanding domestic water supply to areas currently not served. In accepting construction funding, the authority and participating member entities agree to not hinder or prevent depot and lateral industrial water sales for oil and gas exploration and production.

**SECTION 22. AMENDMENT.** Section 61-40-09 of the North Dakota Century Code is amended and reenacted as follows:

**61-40-09. Default.**

~~If the authority is in default in the payment of the principal or interest on any of the obligations of the authority under this chapter and if the budget section determines that the authority is unable to reimburse the state in the time period required by the budget section, the budget section may give written notice to the governing board of the authority that the state has taken possession and ownership of the water system of the authority and the liabilities of the authority. In addition, the state assumes the powers of the authority. The industrial commission may review the ability of water depot and lateral sales to meet expenses in subdivisions a through d of subsection 1 of section 19 of this Act, and if the industrial commission is uncertain of that ability, the industrial commission shall provide written notification to the state water commission and direct the Bank of North Dakota to consider revision of the terms of the loan repayments. If the authority is in default in the payment of the principal or interest on the obligation to the Bank of North Dakota for a loan for which the Bank of North Dakota is the source of funds for the loan, the state water commission shall request funding from the legislative assembly to repay the principal and interest due. Upon written notice, the members of the governing board of the authority are immediately removed, and the state water commission is the governing board from the date of notice. If the state water commission determines that governance, possession, and ownership of the water system is not necessary for the authority to be able to reimburse the state in the necessary time period, the state water commission may develop a plan to return governance, possession, and ownership to the authority, subject to approval of the plan by the budget section.~~

**SECTION 23.** A new section to chapter 61-40 of the North Dakota Century Code is created and enacted as follows:

**Franchise protection.**

Notwithstanding any other provision of law, neither the authority nor its participating member entities may be required to waive the right to assert franchise protection under state or federal law with regard to water used for purposes other than industrial sales for oil and gas exploration and production.

**SECTION 24. REPEAL.** Sections 61-24.7-02, 61-24.7-03, 61-24.7-04, and 61-40-06 of the North Dakota Century Code are repealed.

**SECTION 25. LEGISLATIVE INTENT.** It is the intent of the sixty-third legislative assembly that after all loans to the state of North Dakota and contractual responsibilities to participating members are fulfilled, that any revenues generated by industrial water-related sales for oil and gas exploration and production be prioritized for use for infrastructure development in oil and gas-impacted areas of the state.

**SECTION 26. REPORTS TO THE LEGISLATIVE MANAGEMENT.** The independent water providers and the western area water supply authority shall report to the water-related topics overview committee on a regular basis and collaborate with the committee and the state water commission to monitor water usage, rates, and market share. The water-related topics overview committee shall report to the legislative management with recommendations to assure the state's ability to maintain its payment schedule. The legislative management shall report its findings and recommendations, together with any legislation required to implement the recommendations, to the sixty-fourth legislative assembly.

\_\_\_\_\_  
President of the Senate

\_\_\_\_\_  
Speaker of the House

\_\_\_\_\_  
Secretary of the Senate

\_\_\_\_\_  
Chief Clerk of the House

This certifies that the within bill originated in the Senate of the Sixty-third Legislative Assembly of North Dakota and is known on the records of that body as Senate Bill No. 2233.

Senate Vote:    Yeas 42            Nays 2            Absent 3

House Vote:    Yeas 90            Nays 3            Absent 1

\_\_\_\_\_  
Secretary of the Senate

Received by the Governor at \_\_\_\_\_ M. on \_\_\_\_\_, 2013.

Approved at \_\_\_\_\_ M. on \_\_\_\_\_, 2013.

\_\_\_\_\_  
Governor

Filed in this office this \_\_\_\_\_ day of \_\_\_\_\_, 2013,

at \_\_\_\_\_ o'clock \_\_\_\_\_ M.

\_\_\_\_\_  
Secretary of State



# WESTERN AREA

WATER SUPPLY AUTHORITY

January   October  
**2013**  
**Industrial Water Sales**

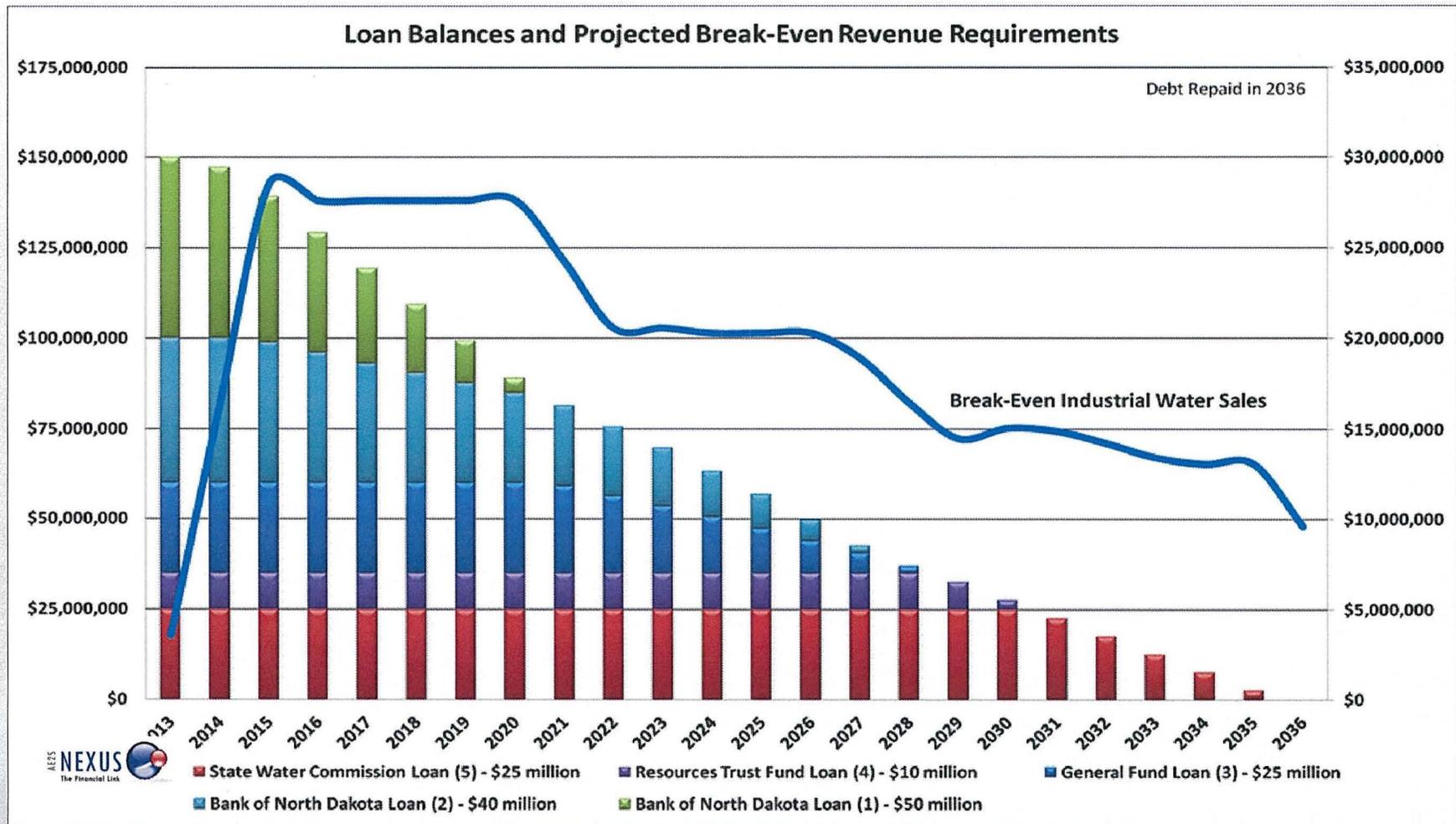
Depot	January	February	March	April	May	June	July	August	September	October	Totals
<i>2nd Street (Cold)</i>	\$130,003	\$86,181	\$139,691	\$78,229	\$113,665	\$46,701	\$66,049	\$12,840	\$29,486	\$52,962	\$755,806
<i>2nd Street (Hot)</i>	\$42,661	\$137,328	\$107,938	\$17,465	\$75,930	\$22,340	\$49,646	\$16,241	\$23,864	\$37,155	\$530,568
<i>Keene</i>	\$99,982	\$37,743	\$63,866	\$96,787	\$61,202	\$69,756	\$53,449	\$29,813	\$33,358	\$41,800	\$587,756
<i>Watford City (Cold)</i>	\$87,048	\$383,856	\$360,176	\$269,609	\$361,199	\$402,737	\$315,052	\$322,009	\$458,392	\$344,885	\$3,304,963
<i>Watford City (Hot)</i>	\$0	\$0	\$0	\$26,931	\$100,642	\$82,503	\$6,548	\$298,556	\$68,881	\$4,987	\$589,047
<i>Crosby</i>	\$28,720	\$17,798	\$0	\$20,098	\$0	\$0	\$0	\$0	\$0	\$0	\$66,616
<i>North Williston (Cold)</i>	\$158,107	\$51,144	\$105,281	\$87,611	\$89,251	\$108,690	\$43,910	\$125,791	\$132,405	\$185,554	\$1,087,745
<i>North Williston (Hot)</i>	\$144,580	\$283,893	\$236,077	\$306,573	\$234,830	\$220,009	\$97,309	\$88,512	\$100,882	\$38,166	\$1,750,831
<i>Indian Hill</i>	\$167,357	\$126,340	\$159,586	\$174,229	\$86,395	\$70,219	\$163,309	\$103,845	\$267,257	\$138,447	\$1,456,984
<i>Stanley</i>	\$63,853	\$66,608	\$78,855	\$70,558	\$96,293	\$125,428	\$112,527	\$126,043	\$104,753	\$115,395	\$960,313
<i>Alexander</i>	\$342,879	\$326,403	\$517,114	\$89,057	\$81,750	\$169,748	\$173,817	\$274,052	\$207,541	\$206,578	\$2,388,939
<i>13 Mile Corner</i>	\$494	\$34,533	\$72,832	\$71,130	\$85,483	\$45,497	\$38,865	\$86,329	\$60,859	\$154,265	\$650,286
<i>Direct Connections</i>	\$408,646	\$506,588	\$804,332	\$599,647	\$583,900	\$323,313	\$989,176	\$299,036	\$838,568	\$1,106,405	\$6,459,610
<i>MCWRD - Bulk Commerical Water Sold thru Depot Jan - July</i>							-\$278,795				-\$278,795
<i>WRWD - Bulk Commerical Water Sold thru Depot Jan - July</i>							-\$13,037				-\$13,037
<i>City of Williston - Bulk Commerical Water Sold thru Depot Jan - July</i>							-\$18,621				-\$18,621
<b>Totals</b>	<b>\$1,674,330</b>	<b>\$2,058,414</b>	<b>\$2,645,748</b>	<b>\$1,907,924</b>	<b>\$1,970,541</b>	<b>\$1,686,940</b>	<b>\$1,799,204</b>	<b>\$1,783,067</b>	<b>\$2,326,246</b>	<b>\$2,426,599</b>	<b>\$20,279,011</b>

# WESTERN AREA WATER SUPPLY PROJECT

OCTOBER 1, 2013

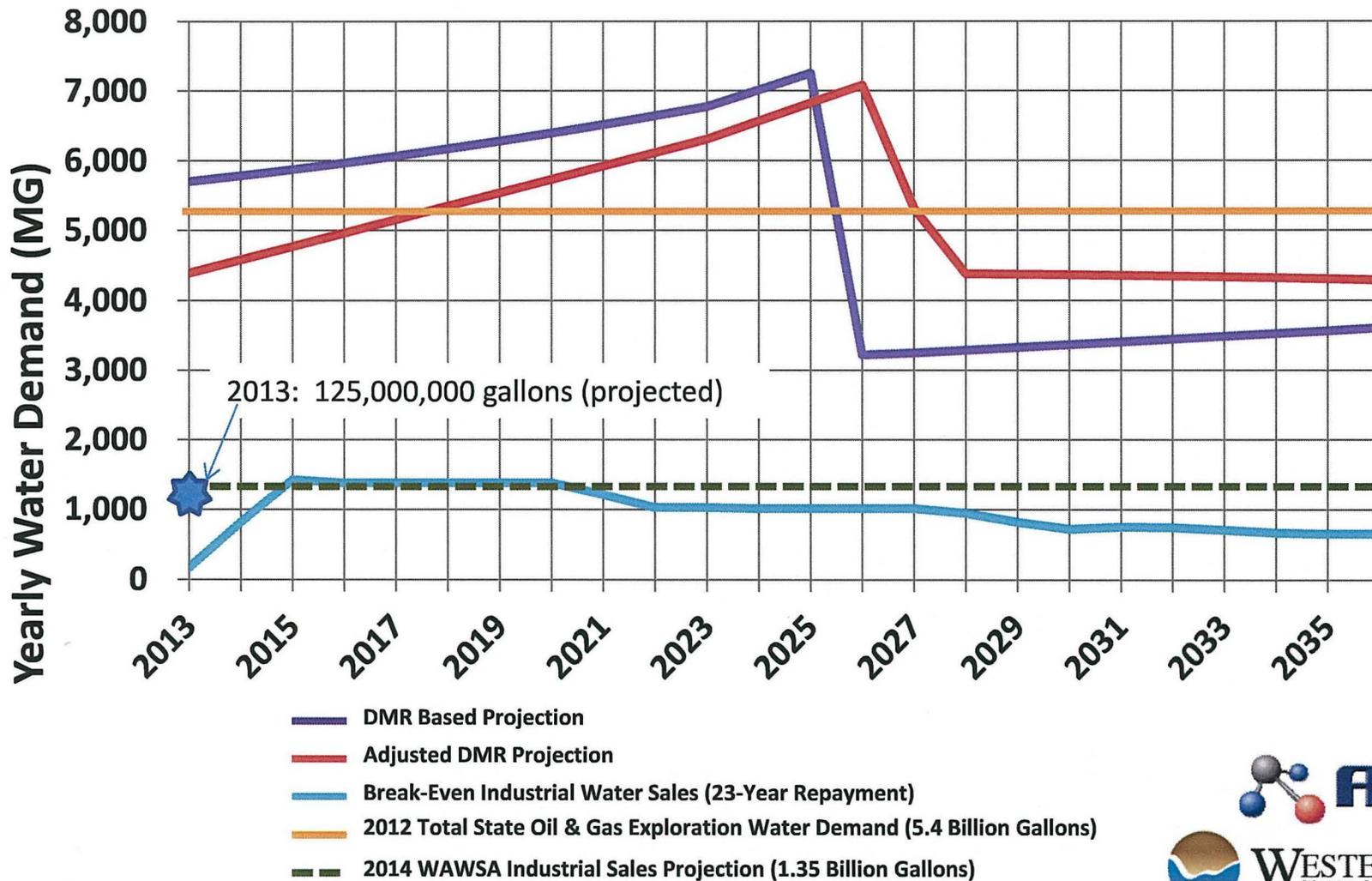
## 2013 BUSINESS PLAN UPDATE FINANCIAL EXCERPT

**FIGURE 3: LOAN BALANCES AND PROJECTED BREAK-EVEN REVENUE REQUIREMENTS**



# Oil Companies Play a Critical Role

## WAWSA Service Area Projected Industrial Water Demands





**\$435**  
**BILLION**

in total project value

Not only are these projects **STRATEGIC** to the region's **GROWTH**, but here you can see a coherent set of projects that will **TRANSFORM** North America.

—NORMAN F. ANDERSON,  
PRESIDENT & CEO OF CG/LA

## The Strategic Top 100 North American Infrastructure Projects The 2013/2014 List

The 5<sup>th</sup> Annual Strategic Top 100 North America Infrastructure Project list is a departure from the past, because this year we've built the list on a series of Competitiveness Visions, designed to select and rank the one hundred projects that we need to build in order to re-take our competitiveness. The total estimated value of 2013/2014 list is \$435.7 billion with a conservatively estimated potential to create 3.3 million direct jobs over the next two years, and add 1% to our national GDP each year from 2015 through 2020.

The overall goal is to double the level of infrastructure investment in North America, while making optimized choices on the projects we will build, and to make sure that we build those projects as quickly and as productively as possible. For our country to grow we need to invest in infrastructure and to do that we need to be creative, resourceful and above all bold, in identifying projects, and getting those projects approved and built quickly.

**The Strategic Top 100 Projects.** CG/LA defined six Competitiveness Visions through which the 100 projects were identified, and then ranked according to our proprietary scoring system (see below). The Competitiveness Visions, including the value of the projects within each vision, are:

- 📍 **Gateway Hubs (\$35 B)** - Projects identified as strategic, including ports, logistics systems and waterways improvements, to the increased ability of North America to competitively engage in international commerce. The focus is on productivity, as a driver of investment - and growth;
- 📍 **Champion Cities (\$45 B)** - Projects critical to the increased performance of cities, and their surrounding urban areas, so that they can attract the most productive and creative resources, serving both as engines for economic growth and as increasingly attractive places to live and work;
- 📍 **Connecting the Region (\$141 B)** - These are the projects that bring us together. Connecting our countries - within and outside of the Interstate Highway System - is a strategic necessity

for our countries. Here we identify the priority projects required to efficiently transport goods, services, people, and information from region to region.

📍 **Energy Independence (\$135 B)** - Incredibly, we are within sight of energy independence, a goal that seemed impossible five years ago when the shale gas revolution was unleashed. These are the projects that result from those newfound resources - from power generation, to large scale renewable projects, to liquids pipelines, to the infrastructure needed to support new developments, to the resources drawn from new gas and oil production that pays for strategic projects. Note: Mexico is still to take part in this revolution, importing one third of its natural gas, and 50% of its gasoline.

📍 **Heartland Waterways (\$52 B)** - A strategic core for US competitiveness is our waterway system, a critical economic artery for the country - and for the great cities predicated on its optimal condition. Currently the US Army Corps of Engineers, the caretaker of the system, has a \$4.5 billion annual capital budget, and a \$65 billion backlog;

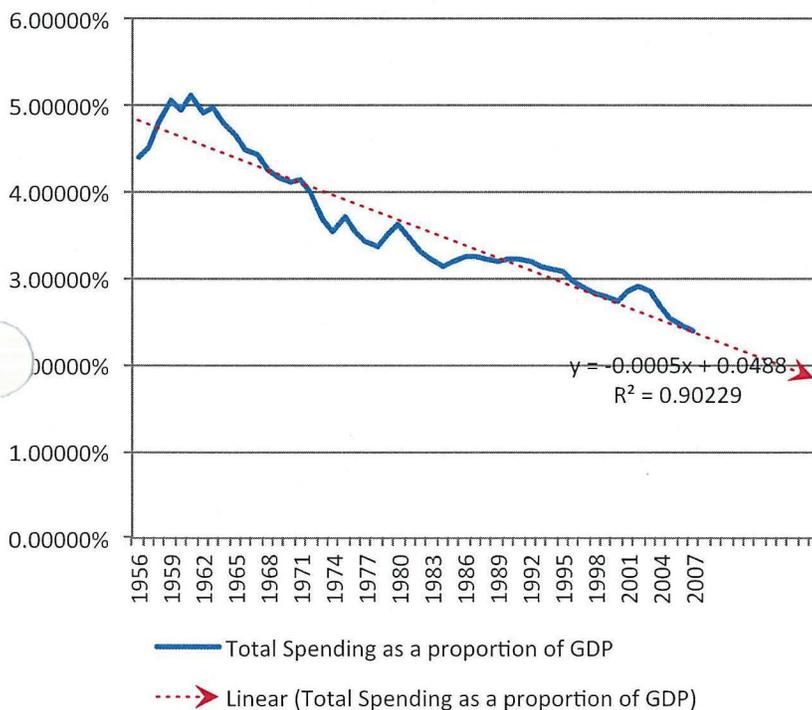
and

📍 **Partnerships for Competitiveness (\$27 B)**. The Strategic Top 100 list includes Canada and Mexico, those projects that are fundamental to our competitiveness. Our largest goods trading partners are our neighbors. Goods and services traded with Canada, by far our largest trading partner totaled over \$680 Billion annually. While in Mexico we traded over \$500 Billion annually. As near-shoring becomes an ever greater possibility an entire new generation of strategic projects have appeared, creating whole new opportunities with our neighbors.

**Overall Demand - The 2018 US Infrastructure Demand Model.** The US invests only 1.3% of GDP in infrastructure, lower than any other OECD country, according to CG/LA's also just released **US Infrastructure Demand 2018 Report**. The Strategic Top 100 list is designed to bring everyone together - business, policy executives, citizens - around projects that will grow our economy now, and that will serve as building blocks for the next generation.

The Strategic Top 100 list shows a path forward, as against a path that is nothing short of disastrous. Note in the graph on the following page that US investment as a percentage of GDP has declined from nearly 5% at the height of the Eisenhower years to today's current 1.3% level.

### Total Spending as a proportion of GDP



Put another way, the Report shows that out of the 0.05% annual decrease in spending, 0.04% of it has been in Capital Spending. This implies that the U.S. has been investing 0.04% less in adding new infrastructure to its economy, on average, every year, for the last 57 years.

The picture in terms of infrastructure investment per capita is just as worrisome. The graph on the following page shows an abrupt decline, particularly in the period since 2003 - From 2003 to 2007, there has been a 3% decrease in per capita investment in infrastructure.

Please let us know what you think of these numbers, and whether you would like to order the **US Infrastructure Demand Report 2018**. Presentation comes in the form of a data model, an extensive slide deck and an optional briefing. See our web page ([www.cg-la.com](http://www.cg-la.com)) for details. The **Global Infrastructure Demand Report 2018** is also available. The Global Report details conditions in 66 countries around the world, and is presented in slide decks by sector, and region.

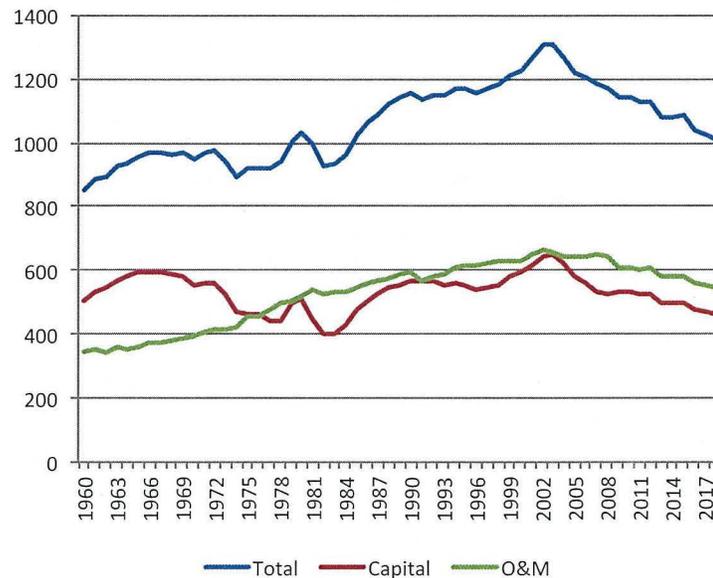
**Note:** O&M spending has increased to the point that it exceeds, in most sectors, capital spending - just another indication of the anemic state of our investment (along with the aging of our infrastructure).

## Ranking Strategic Infrastructure

The Strategic Top 100 list is compiled as a way of showing the way forward, and at the same time highlighting the requirement that we need to do much better than we are doing now in terms of finding ways to fund our infrastructure.

The current policy discussion focuses only on a steady state spend, which will be disastrous for our country; we need to, at a minimum, double investment in our infrastructure - that is, double capital spending. This requires new thinking.

Investment in Infrastructure/  
Capita (OECD GDP, CG/LA  
Projections)



In terms of the process we use to select and rank the Strategic Top 100 projects, CG/LA follows a systematic and disciplined approach, that is both analytic and subjective. Over the course of three months, our process beginning with our data base of over 5,000 infrastructure projects, combined with interviews with industry and policy leaders from around the country. The initial result is a list of roughly 250 candidate projects. Then we begin a process of informally - and then formally - ranking each project against a list of five criteria. First, however, we make a decision whether a project offers a business opportunity in the next 3-12 months - unless we believe that the project is going forward in some material way then it is removed from the candidate list.

The five categories are:

1. Business Opportunity
2. Competitiveness Contribution
3. Productivity Contribution
4. Job Creation Potential (including over the life of the project)
5. Carbon Efficiency.

Assigning grades on a 1-5 scale (1-7 in the case of job creation, 1-3 in the case of carbon efficiency) is an exercise that is both analytic, based on the numbers, and subjective, based on our expertise. This is a structure that we imagine a national infrastructure bank would need to develop and follow in a disciplined manner - a discussion for another day, but fundamental for doubling the level of real infrastructure investment in North America.

\* \* \*

We have an extraordinary group of professionals involved in the Strategic Top 100 exercise as well as in building the US and global demand models. I'd like to personally thank Frank Hollowell and Andrés Quinche for their leadership in building the Strategic Top 100 North America list; and special thanks to our powerhouse analyst Zeeshan Haidar for his tremendous work in updating, and drawing out new meaning from CG/LA's data model.

# PROJECT LIST

STRATEGIC 100 | 2013

Project	Sponsor	Stage	Value	Sector	Country	State
<b>Gateway Hubs</b>						
Southern California International Gateway	BNSF & City of Los Angeles	Design	\$500 Million	Freight	USA	California
San Francisco International Airport Expansion	San Francisco International Airport Authority	Planned	\$4.1 Billion	Airport	USA	California
LaGuardia Airport Central Terminal & Infrastructure Redevelopment	Port Authority of New York & New Jersey	RFP Expected 2013	\$3.6 Billion	Airport	USA	New York
Port of Jacksonville Expansion	JAXPORT	Design	\$45 Million	Freight	USA	Florida
Port of Savannah Expansion - Garden City Terminal	Georgia Port Authority	Under Construction	\$1.2 Billion	Freight	USA	Georgia
Charleston Harbor New Terminal	South Carolina Port Authority	RFQ	\$1.3 Billion	Freight	USA	South Carolina
CSX's Mount Clare Yard	CSX & Maryland DOT	Permitting	\$90 Million	Freight	USA	Maryland
MT 2015 - Charlotte Douglas International Airport	City of Charlotte	Planning - Ongoing	\$1.15 Billion	Airport	USA	North Carolina
Next Generation Air Transportation System	Federal Aviation Administration	Ongoing	\$19 Billion	Airport	USA	Nation Wide
Louisiana International Gulf Transfer Terminal	LIGTT	Concept	\$1.5 Billion	Freight	USA	Louisiana
Salt Lake City Airport Upgrade	Salt Lake City International Airport Authority	Planned	\$2.0 Billion	Airport	USA	Utah
Napoleon Avenue Container Terminal Expansion	Port of New Orleans	Planned	\$580 Million	Freight	USA	Louisiana
Port of Oakland Expansion	SSA Terminals	Planned	\$430 Million	Freight	USA	Louisiana
<b>Champion Cities</b>						
Expo Line - Phase 2	Los Angeles County Metropolitan Transportation Authority	Under construction	\$1.5 Billion	Mass Transit	USA	California

# PROJECT LIST

STRATEGIC 100 | 2013

Project	Sponsor	Stage	Value	Sector	Country	State
The Metro Crenshaw/ LAX Corridor Project	Los Angeles County Metropolitan Transportation Authority	Contract approved	\$1.7 Billion	Mass Transit	USA	California
The Red/Purple Line Modernization	Chicago Transit Authority	Environmental Impact Statement	\$4 Billion	Mass Transit	USA	Illinois
Regional Commuter Rail Operations and Maintenance Contract	DART	Under construction	\$500 Million	Mass Transit	USA	Texas
Houston Metro Blue/Gold Line Project	METRO Houston	Planned	\$750 Million	Mass Transit	USA	Texas
BART Silicon Valley Extension Project	Santa Clara Transportation Authority	Under construction	\$2.3 Billion	Mass Transit	USA	California
East Link Expansion	Sound Transit	Final Design	\$2.8 Billion	Mass Transit	USA	Washington
East Side Access	Metropolitan Transit Authority (MTA)	Under Construction	\$8.5 billion	Mass Transit	USA	New York
Atlanta Beltline	Invest Atlanta	Under Construction	\$2.8 Billion	Surface	USA	Georgia
Green Line Extension Project	Metro Transit	Planning	\$1.25 Billion	Mass Transit	USA	Minnesota
Moynihan Rail Station Project	Moynihan Station Development Corporation (MSDC)	Planned	Phase 1 \$267 Million, Phase 2 \$1.1 Billion	Mass Transit	USA	New York
Southeast to West LTR	City of Edmonton	RFQ	\$3.2 billion	Mass Transit	Canada	Alberta
Eglinton CrossTown LRT	Metrolinx	Under Construction	\$4.9 Billion	Mass Transit	Canada	Ontario
Scarborough LRT	Metrolinx	RFPs	\$1.8 Billion	Mass Transit	Canada	Ontario
Honolulu Rail Transit Project	Hawaii DOT	Phase 1 of 4 Under Construction	\$5.2 Billion	Mass Transit	USA	Hawaii
Line 3 - Monterrey Metro	SCT	Feasibility Study	\$470 Million	Mass Transit	Mexico	Nuevo Leon
Detroit M-1 Rail Line	M-1 Rail	RFP's	\$140 Million	Mass Transit	USA	Michigan
DC Streetcar	District DOT	Under Construction	TBD	Mass Transit	USA	District of Columbia
Purple Line	Maryland Transit Administration	Planned	\$2.2 Billion	Mass Transit	USA	Maryland

# PROJECT LIST

STRATEGIC 100 | 2013

Project	Sponsor	Stage	Value	Sector	Country	State
Sepulveda Pass Corridor	Los Angeles County Metropolitan Transportation Authority	Design	\$6 Billion	Mass Transit	USA	California
Tacoma Link Expansion	Sound Transit	Environmental Impact Statement	\$600 million	Mass Transit	USA	Washington
<b>Energy Independence</b>						
Alaska South Central LNG Project	TransCanada, ExxonMobil, BP, ConocoPhillips	Contract Approved	\$65 Billion	Oil & Gas	USA	Alaska
Flanagan South Pipeline Project	Enbridge	Permitting	\$2.8 Billion	Oil & Gas	USA	Illinois to Oklahoma
Sandpiper Pipeline	Enbridge	Planned	\$2.8 Billion	Oil & Gas	USA	North Dakota to Wisconsin
Cameron LNG Export Terminal	Sempra Energy	Permitting	\$10 Billion	Oil & Gas	USA	Louisiana
20 MW Solar Power Project	San Diego Gas & Electric	Planning		Generation	USA	California
Wyoming-Colorado Intertie	Wyoming Infrastructure Authority	Permitting	\$150 Million	Transmission	USA	Wyoming, Colorado
TransWest Express	Anschutz Corp	Permitting	\$3 Billion	Transmission	USA	Wyoming to Nevada
Illinois River Transmission Project	American Transmission Company of Illinois (ATXI)	Permitting	\$2.2 Billion	Transmission	USA	Illinois
Thumb Loop Project	ITC Holdings Corp	Under construction	\$510 Million	Transmission	USA	Michigan
Sierra Madre and Chokeycherry Wind Project	Power Company of Wyoming	Permitting	\$200 Million	Generation	USA	Wyoming
300 MW Blackspring Ridge Wind Project	EDF Energies and Enbridge Inc	Planned	\$600 Million	Generation	Canada	Alberta
500 MW Rocky Creek Wind Energy Project	Rupert Peace Power Holdings	Feasibility Study	\$1.5 Billion	Generation	Canada	British Columbia
Panda Mattawoman Plant	Panda Power Funds	Permitting	\$860 Million	Generation	USA	Maryland
Coastal GasLink	TransCanada	Permitting	\$5.2 Billion	Oil & Gas	Canada	British Columbia

# PROJECT LIST

STRATEGIC 100 | 2013

Project	Sponsor	Stage	Value	Sector	Country	State
Energy East Pipeline	TransCanada	Planned	\$12 Billion	Oil & Gas	Canada	Calgary to Nova Scotia
Los Ramones Phase 2	Pemex	RFQ/RFP's	\$3.3 Billion	Oil	Mexico	Nuevo Leon
Grain Belt Line Express Clean Line	Clean Line Energy	Permitting	\$1.8 Billion	Transmission	USA	Kansas
Duke Smart Grid	Duke Energy	Ongoing	\$1 Billion	Transmission	USA	Midwest
Rhode Island Off-Shore Wind Farm	Deepwater Wind, Department of Interior (DOI)	Permitting	\$4.5 Billion	Generation	USA	Rhode Island
Centennial West Clean Line	Clean Line Energy	Permitting	\$2.5 Billion	Transmission	USA	New Mexico
Southern California Reliability Project	SDG&E and Southern California Edison	Concept	\$3.8 Billion	Transmission	USA	California
Riviere Du Moulin Wind Project	EDF	Under Construction	\$800 Million	Generation	Canada	Quebec
<b>Connecting the Region</b>						
Amtrak Aboard Florida	Florida East Coast Industries	Planned	\$1 Billion	Passenger Rail	USA	Florida
Cotton Line	DART & The T	Planned	\$1 Billion	Mass Transit	USA	Texas
California HSR	California High Speed Rail Authority	Multi-Phase, RFQ	\$69 Billion	Passenger Rail	USA	California
Illiana Corridor	Indiana DOT & Illinois DOT	Planned	\$2.87 Billion	Surface	USA	Indiana & Illinois
CA-91 Expansion	Riverside County Transportation Commission	Design	\$1.3 Billion	Surface	USA	California
Northeast Corridor HSR	Amtrak	Planned	\$40 Billion	Passenger Rail	USA	Northeastern States
LSTAR	Union Pacific & State of Texas	Environmental Review and Funding	\$2.4 Billion	Passenger Rail	USA	Texas
US Highway 85 Four-Lane Project	North Dakota DOT	Permitting	\$300 Million	Surface	USA	North Dakota
Denver Beltway Projects	Colorado DOT	Planning & Design	\$300 Million	Surface	United States	Colorado

# PROJECT LIST

STRATEGIC 100 | 2013

Project	Sponsor	Stage	Value	Sector	Country	State
I-70 Denver Interstate Expansion & Upgrade	Colorado DOT	Planning	\$1.8 Billion	Surface	USA	Colorado
Virginia I-64 - 264 rehabilitation	Virginia DOT	Planned	\$120 Million	Surface	USA	Virginia
Virginia I-66	Virginia DOT	Planned	\$78 Million	Surface	USA	Virginia
Cline Avenue Toll Bridge	INDOT	Design	\$250 Million	Surface	USA	Indiana
I-64 Daniel Boone Bridge	Missouri DOT	Consortium Awarded	\$111 Million	Surface	USA	Missouri
Hyperloop		Concept	\$6 Billion	Surface	USA	California
High Desert Multipurpose Corridor	Los Angeles County Metropolitan Transportation Authority	Concept	\$6 Billion	Surface	USA	California
I-710 Expansion	Los Angeles County Metropolitan Transportation Authority	Design	\$7 Billion	Surface	USA	California
Brent Spence Replacement Bridge	Ohio & Kentucky DOTs	Planning	\$2.7 Billion	Surface	USA	Ohio

## Heartland Waterways

New Orleans Canal and Pump Station	Army Corps of Engineers	Construction Began July 2013	\$614 Million	Water Management	USA	Louisiana
Morganza to Gulf Levee System	Army Corps of Engineers	Planning	\$10.3 Billion	Water Management	USA	Louisiana
Fall Creek/White River Deep Storage Tunnel	Citizen Water	Design	\$389 Million	Wastewater	USA	Indiana
NYC Storm Protection Plan	City of New York	Concept	\$19 Billion	Water Management	USA	New York, New York
DC Clean Rivers Program	DCWASA	Ongoing	\$2.6 Billion	Wastewater	USA	Washington DC
Miami-Dade Water and Sewer System Projects	Miami-Dade County	Planning	\$1.6 Billion	Wastewater	USA	Miami, Florida
Olmstead Locks & Dam Project	Army Corps of Engineers	Suspended	\$2.9 Billion	Water Transport	USA	Kentucky & Illinois
Western Area Water Supply Project	North Dakota Western Area Water Supply Authority	Phase III to start construction	\$230 Million	Public Water Supply	USA	North Dakota

Project	Sponsor	Stage	Value	Sector	Country	State
Sacramento Levee System	California Department of Water Resources	Ongoing	\$500 Million	Water Management	USA	California
Sacramento-San Joaquin Delta Water Tunnel	California Department of Water Resources	Ongoing	\$14 Billion	Water Management	USA	California
New Cumberland Locks & Dam	Army Corps of Engineers	Planned	\$200 Million	Water Management	USA	Ohio & West Virginia
Calaveras Dam Replacement Project	San Francisco Public Utilities Commission	Under Construction	\$621 Million	Water Management	USA	California
Prince George's County Pipeline of Projects	Prince George's County Department of Environmental Resources	Planning	\$1.2 Billion	Water Management	USA	Maryland
<b>Building Competitiveness</b>						
New Mexico City Airport	SCT	Concept	\$4.5 Billion	Airport	Mexico	D.F.
Rail between Mexico City & Querétaro	SCT	Feasibility	\$2.58 Billion	Rail	Mexico	Querétaro
Mexico City-Toluca Passenger Train Line	SCT	Feasibility	\$1.5 Billion	Passenger Rail	Mexico	Mexico
Port of Veracruz Expansion	Port Authority of Veracruz	Planning	\$3 Billion	Freight	Mexico	Veracruz
CSX Intermodal Terminal	CSX	Under Construction	\$107 million	Freight	Canada	Quebec
New International Trade Crossing	Transport Canada	Permitting	\$2.0 Billion	Surface	Canada	Ontario
Continental Rail Gateway	Windsor Port Authority	EIS	\$400 Million	Freight	Canada	Ontario
Vancouver International Airport Upgrades	Vancouver Airport Authority	Design	\$1.74 Billion	Airport	Canada	British Columbia
New Bridge for the St. Lawrence	Transport Quebec	Financial Closing	\$5 Billion	Surface	Canada	Quebec
Calgary International Airport Developments	Calgary Airport Authority	Under construction	\$2 Billion	Airport	Canada	Alberta
Maher Malford Terminal	Maher Terminal	Financial Close	\$350 Million	Freight	Canada	Nova Scotia
San Ysidro Land Port of Entry	General Service Administration	Planning Phase 2 & 3	\$732 Million	Freight	USA Mexico	California, Baja California