

LOCAL GOVERNEMENT INFRASTRUCTURE PROJECT

A Report Prepared for the
Legislative Finance Committee

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Introduction

The Legislative Finance Committee (LFC) included a local government infrastructure project in the FY 2013-2014 work plan. This brief report, along with the executive and local government presentations, will serve to kick-off the work related to this project.

Infrastructure Overview

As defined by the Oxford Dictionary, infrastructure is “the basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise.” Infrastructure facilities have several common characteristics. These facilities 1) have high capital costs, 2) are time-consuming to plan and build, 3) are durable, exhibiting a long useful life, 4) may have low operating costs, 5) are often systems, and 6) have costs that may not be fully recovered by user charges. Infrastructure typically exhibits economies of scale¹ and are socially desirable but may not be privately profitable, leading governmental provision of the facilities.

This report addresses “basic infrastructure”, or infrastructure used by individuals and business every day. Under this premise, the project will not concentrate on what may be referred to as “soft infrastructure”, meaning the network of support services needed for the operation of communities, such as police, fire, and social services. The project will involve the various types of “hard” infrastructure, for which the list is extensive and includes:

- airports
- bridges
- broadband
- canals
- dams
- energy generation
- energy transmission
- hazardous waste
- hospitals
- parks
- mass transit
- public housing
- schools
- public spaces
- rail facilities
- roads
- sewage
- solid waste
- telecommunications
- utilities
- water supply
- wastewater

Infrastructure facilities may be owned and operated by all levels of government, as well as private business interests (electricity and energy generation and transmission, rail facilities, hospitals, etc.). The federal government owns/operates/maintains infrastructure such as the interstate highway system, generally beneficial to the wider national population, and the state operates and maintains the state highway system and other state government facilities, primarily for the beneficial use of the state population. For this project, local government infrastructure will describe facilities that provide services to the smaller community populations of cities and counties.

Infrastructure Investment

A recently released survey by the American Association of Civil Engineers ranked the nation with a “D+” in infrastructure categories, stating that while the nation has shown improvement in upgrades and maintenance, “our infrastructure systems are failing to keep pace with the current and expanding needs, and investment in infrastructure is faltering.”² While individual state grades were not provided, the report leads to the conclusion that improvements are needed within all the states.

There are numerous factors that necessitate infrastructure investments. Much of Montana’s local government infrastructure is approaching the end of its useful life, requiring if not full replacement of systems then significant rehabilitation of the existing facilities. Beyond life-cycle concerns, local governments must be aware of anticipated population growth in relation to system capacity, which can necessitate system expansion. Events

¹ The cost advantages that enterprises obtain due to size, with cost per unit of output generally decreasing with increasing scale as fixed costs are spread out over more units of output.

² American Association of Civil Engineers (2013). 2013 Report Card for America’s Infrastructure. <http://www.infrastructurereportcard.org/a/#p/overview/executive-summary>.

such as floods and fires can trigger unplanned repairs and maintenance. Additionally, technological advancements drive the need for improvements to existing systems. Another significant driver in infrastructure investments are regulatory requirements at both the federal and state level that can cause local governments to find their systems out of compliance with law.

The local government investment in infrastructure construction and maintenance is typically financed through fees and taxes, which require public participation in the funding decisions. Consequently, constraints may be imposed by the population, often leading to fees and user charges which are inadequate to manage the maintenance and replacement costs of their facilities. Many of the widely spread communities of Montana have small populations, and are unable to benefit from the economies of scale. Smaller communities are often unable to collect fees and taxes that will adequately provide for the costs of maintenance and upgrades to their infrastructure assets. Consequently, routine maintenance may be deferred to the point where projects become more extensive and necessitate greater investment.

Recent Infrastructure Costs

Most forms of infrastructure have high capital costs, which often exceed the local government's ability to finance. Additionally, major repairs and maintenance can also be costly. Recent examples of the significant project costs include:

- \$8.9 million for the rehabilitation and expansion of the current waste water plant in Havre
- \$8.8 million for a dam (drinking water containment) replacement in Libby
- \$3.0 million to replace inflatable rubber gates, procure new steel bulkheads, and replace the existing wooden flashboards at the Toston Dam
- \$72.8 million to reconstruct the Tongue River Rd., pavement and gravel sections (funding not approved at this time)

In Montana, federal and state governments partner with local governments to finance some of the critical infrastructure investments. Local governments benefit when infrastructure partnerships are developed. The assistance can mitigate financial stresses related to the management of critical infrastructure. Furthermore, partnering on infrastructure investment tends to increase the amount of routine systems maintenance and ultimately reduces costs at the local government level.

Conclusion

This report is meant to provide a kick-off for the LFC local government infrastructure project by providing a definition of infrastructure and a brief discussion of the challenges underlying infrastructure investment. The construction and maintenance of local government infrastructure is a costly endeavor, and local governments benefit when financial partnerships are formed. Because infrastructure is such a broad topic area, even when limited to local government infrastructure, the staff requests further guidance on the local government infrastructure project. In that light, the LFC may wish to discuss and address the following questions:

- 1) What is the ultimate goal of this project?
- 2) What types of infrastructure does the committee want to consider?
- 3) What information is important to consider?
 - a. Inventories?
 - b. Condition?
 - c. Adequacy?
 - d. Regulatory or other obstacles?
- 4) Adequacy of current programs?
 - a. Funding availability?
 - b. Funding delivery?
 - c. Current rules?

“Rigorous analysis around all aspects of infrastructure spending is needed to improve... performance to date. Perhaps the worst time to relieve under-provision of infrastructure is during a (financial) crisis, especially when evaluation and delivery have not been thought through well in advance. A more transparent process of evaluation and delivery, as well as an improved understanding of the complexities of infrastructure, are investments in policy infrastructure well worth making.”

Timo Henckel (2010). *The Economics of Infrastructure in a Globalized World: Issues, Lessons and Future Challenges*

Attachments

Local Government Waste Water and Water Projects

The first attachment to this report makes use of the project lists from the local government grants programs authorized in the 2013 Legislative Session. These project lists are used to demonstrate 1) the cost of system construction/maintenance and 2) the governmental partnerships formed to reduce the pressures on local government budgets. For example, in this biennium's program waste water system improvements average \$3.7 million and water improvements average \$2.3 million. As demonstrated in the table, the funding for these projects is anticipated (not all funding sources have been secured as of this time) from four state sources and six federal sources. The local governments make use of two governmental loan programs to round out the complete project funding. The various funding sources may be read across the columns with the acronyms meaning:

- TSEP-Treasure State Endowment Program
- RRGL-Renewable Resource Grant and Loan Program
- Coal Board-Coal Board Grants Program
- SRF-State Revolving Loan Funds Programs (loans and loan forgiveness)
- CDBG-Community Development Block Grant Program
- RD-Rural Development (grants and loans)
- WRDA-Water Resource Development Act Grants
- STAG-State and Tribal Assistance Grants
- BOR-Bureau of Reclamation Grants Programs

Additional information on the above mentioned funding sources is found in the third attachment,

TSEP Project Funding Graphic

The second attachment provides a graphic of the TSEP infrastructure funding proposals. The TSEP program is a state program that provides funding for the construction and major maintenance of water infrastructure and bridges. In the series of pie charts, the first depicts the total distribution of TSEP funds by project type. For example, of the total TSEP funding appropriated in the 2015 biennium, 56% is anticipated to be granted to local governments for waste water projects and 27% for water projects. The two pie charts below show the overall project funding by source of funds. These charts provide the average of "partnership" funding for the infrastructure projects. For water system improvements, local governments are anticipating state grants to contribute 31% of the total cost and federal grants contributions of 26%. Ultimately, the local governments will cover the remaining 43% in part with 40% of the investment taking the form of governmental loans, generally thought to have lower interest rates than other types of debt financing. The chart for waste water projects can be read in the same way.

Note: The attached TSEP charts shows waste water and water projects that were approved by the legislature for grants in the 2015 biennium. The table does not include combined waste water/water, storm water, and bridge projects included in the full list of TSEP grant awards. Additionally, it should be noted that the proposed project funding packages have not been fully secured at the time of this writing, and some of the planned grants and loans may not materialize in the overall funding presentation.

Funding Source Matrix

The third attachment to this report provides a matrix of local government infrastructure funding available. The matrix shows various local government funding programs by the providing government entity and then by the governmental unit that houses the program. The matrix is not, at this time, fully inclusive and additions will be made to the matrix over time. Of note, are the financial partnerships formed in the construction, maintenance, and upgrades of local government infrastructure.

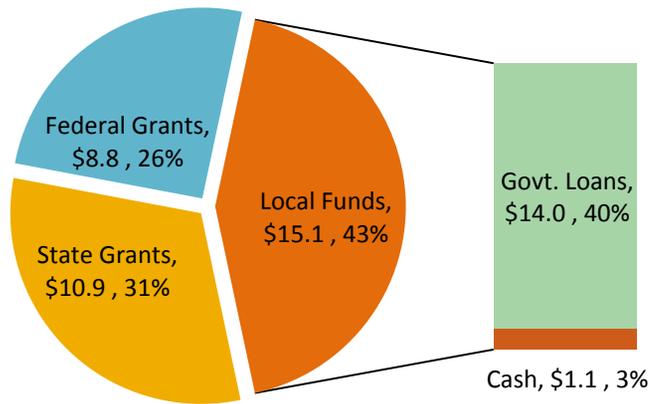
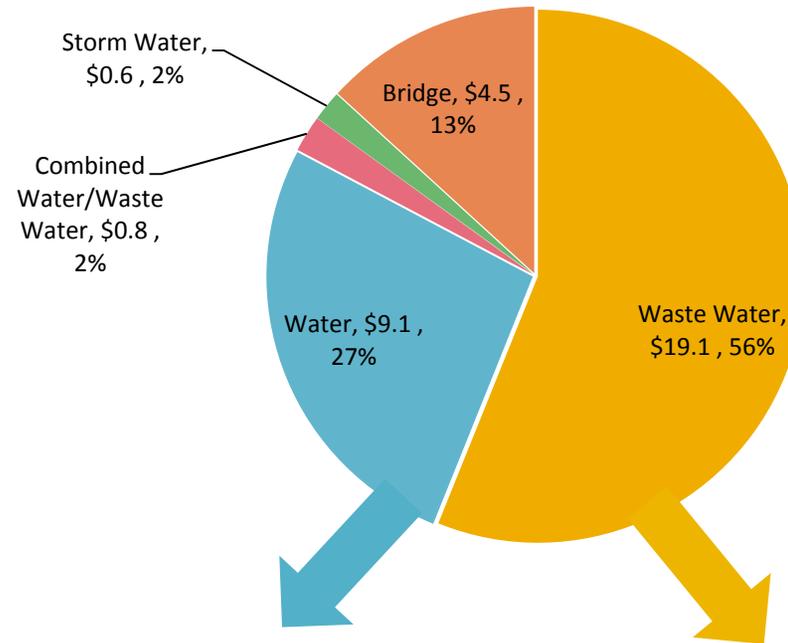
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**Local Government Water and Waste Water Projects
With TSEP and RRGL Grants Authorized in the 2013 Session**

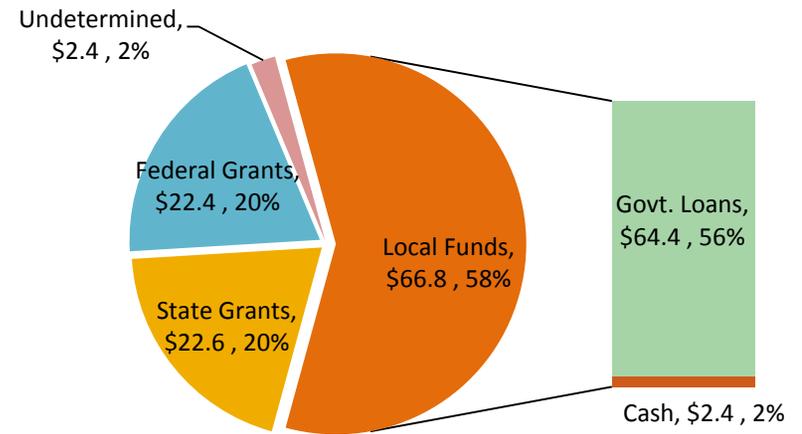
Applicant/County	Pop. Served	Project Cost	Anticipated State Grant Funding				Anticipated Federal Grant Funding						Anticipated Govt. Loans		Local Funds	Unknown			
			TSEP	RRGL	Coal Board	SRF (loan forgiveness)	CDBG	RD Grant	WRDA	STAG	BOR	Water SMART	SRF Loan	RD Loan					
Waste Water Projects																			
Craig Co WSD, Lewis & Clark	103	\$3,332,755	\$750,000	\$100,000				\$1,328,115								\$8,029,392	\$1,086,640	\$68,000	
Glendive, Dawson	4,729	8,879,392	750,000	100,000															
Valier, Pondera	498	1,983,930	750,000	100,000				523,350									610,580		
Hill County - North Havre, Hill	973	423,000	211,500													105,750			105,750
Dawson Co/West Glendive, Dawson	1,833	3,047,631	750,000	100,000												2,197,631			
Seeley Lake Sewer Dist, Missoula	780	6,907,000	750,000	100,000			450,000	1,300,000	680,000	1,521,700							2,105,300		
Three Forks, Gallatin	1,728	4,529,155	750,000	100,000												3,679,155			
Richland County, Richland	297	2,165,000	750,000	100,000	100,000			364,500									850,500		
Amsterdam/Churchill Sewer Dist., Gallatin	727	3,160,368	750,000	100,000													2,310,368		
Fort Benton, Chouteau	1,594	4,230,000	750,000	100,000				2,366,000									1,014,000		
Moore, Fergus	186	1,880,000	625,000	100,000				512,500									512,500	5,000	125,000
Forsyth, Rosebud	1,944	3,434,700	500,000	100,000	250,000											2,199,700		385,000	
Vaughn Co WSD, Cascade	701	1,972,645	750,000	100,000												1,122,645			
Choteau, Teton	1,781	7,804,370	750,000	100,000			450,000	250,000									6,254,370		
Boulder, Jefferson	1,300	4,882,000	625,000	100,000			450,000	750,000									2,757,000	200,000	
Cut Bank, Toole	3,105	8,131,000	625,000	100,000													7,406,000		
White Sulphur Springs, Meagher	984	988,000	460,500	100,000												427,500			
Winnett, Petroleum	185	2,304,000	750,000	100,000			450,000										1,004,000		
Harlowton, Wheatland	1,062	1,611,000	625,000	100,000				210,000									676,000		
Stevensville, Ravalli	1,553	3,755,630	750,000	100,000			450,000	676,689									1,578,941	200,000	
Lodge Grass, Big Horn	510	3,721,000	750,000	100,000	200,000		450,000										2,221,000		
Harlem, Blaine	848	2,363,829	625,000	100,000			450,000	355,749									833,080		
Winifred, Fergus	208	2,513,000	500,000	100,000			450,000	122,850				300,000					150,150	125,000	765,000
Havre, Hill	9,621	8,966,411	500,000	100,000				2,569,923									5,271,488	400,000	125,000
Fairfield, Teton	659	2,629,753	625,000	100,000				518,926									1,210,827	50,000	125,000
Miles City, Custer	8,487	8,400,800	500,000	100,000				1,950,200									5,850,600		
Drummond, Granite	318	2,342,000	750,000	100,000				445,000									1,037,000	10,000	
Alberton, Mineral	374	623,000	292,000	100,000												192,000			39,000
Belt, Cascade	633	2,525,205	625,000	100,000				500,000									830,205		170,000
Joliet, Carbon	575	2,388,000	154,200	100,000				831,500									831,500		470,800
Hamilton, Ravalli	3,705	2,301,000	322,262	100,000			450,000											1,001,000	427,738
Total Waste Water Projects		\$114,195,574	\$19,065,462	\$3,000,000	\$550,000	\$0	\$4,050,000	\$15,575,302	\$680,000	\$1,521,700	\$300,000	\$300,000	\$17,953,773	\$46,402,049	\$2,444,000	\$2,353,288			
% of Total Funding			16.7%	2.6%	0.5%	0.0%	3.5%	13.6%	0.6%	1.3%	0.3%	0.3%	15.7%	40.6%	2.1%	2.1%			
Average Waste Water Project Cost		<u>\$3,683,728</u>	% State Share <u>19.8%</u>				% Federal Share <u>19.6%</u>						% Local Share <u>58.5%</u>						
Water Projects																			
Manhattan, Gallatin	1,520	\$1,855,000	\$750,000	\$100,000		\$200,000			\$300,000				\$505,000						
Cascade, Cascade	819	2,069,051	750,000	100,000		219,000	450,000						550,051						
Pinesdale, Ravalli	742	2,541,939	750,000	100,000			450,000	372,582									869,357		
Musselshell Co WSD, Musselshell	60	900,250	450,125		150,000			207,500									92,625		
Hot Springs, Sanders	531	1,185,100	592,550				450,000						142,550						
Chinook, Blaine	1,386	2,998,900	750,000	100,000				644,220									1,503,180	1,500	
Roundup, Musselshell	1,931	1,250,273	500,000	100,000			450,000											200,273	
Libby, Lincoln	2,626	8,797,000	750,000	100,000			450,000	3,204,000									3,916,000	377,000	
Philipsburg, Granite	914	1,120,000	550,000	100,000				112,500									357,500		
Dutton, Teton	389	832,555	408,500	100,000		92,500							231,555						
Polson, Lake	4,041	1,480,620	625,000	100,000									755,620						
Conrad, Pondera	2,753	1,479,995	625,000										854,995						
Malta, Phillips	2,120	6,157,500	500,000	100,000				1,667,250									3,890,250		
Eureka, Lincoln	1,017	1,100,000	550,000	100,000				90,000									360,000		
Plevna, Fallon	138	1,100,000	500,000	100,000														500,000	
Total Water Projects		\$34,868,183	\$9,051,175	\$1,200,000	\$150,000	\$511,500	\$2,250,000	\$6,298,052	\$300,000	\$0	\$0	\$0	\$3,039,771	\$10,988,912	\$1,078,773	\$0			
% of Total Funding			26.0%	3.4%	0.4%	1.5%	6.5%	18.1%	0.9%	0.0%	0.0%	0.0%	8.7%	31.5%	3.1%	0.0%			
Average Water Project Cost		<u>\$2,324,546</u>	% State Share <u>31.3%</u>				% Federal Share <u>25.4%</u>						% Local Share <u>43.3%</u>						

TREASURE STATE ENDOWMENT PROGRAM

**Project Funding 2015 Biennium
(millions)**



Water System Project Funding



Waste Water System Project Funding