

**OWRB Clean Water State Revolving Fund
FY 2014 Intended Use Plan
Appendices
July 1, 2013**

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STATE OF OKLAHOMA
Appendix A. FY 2014-2018 Clean Water SRF DRAFT Project Priority List
Prepared for the EPA - Effective July 1, 2013 - June 30, 2014
July 1, 2013

	OPDES Permit #	Loan Type	Name	Disadvantaged Community Y/N	Project No.	Target B.C. Date	Priority List Amount*	GPR**	GPR Type	Subsidy***	Project Description
FY 2014 Fundable Projects (July 2013 - June 2014)											
1	OK0028339	LC	Ramona PWA	Y	ORF-13-0007-CW	07/16/13	\$1,239,050	\$1,239,050	EI	\$317,314	New land application system to correct for discharge violations (Cat. I & IIIB)
2	OK0020320	LC	Commerce DA	Y	ORF-13-0002-CW	10/15/13	\$900,000	\$900,000	EI	\$0	Secondary lagoon expansion with new land application system to meet discharge requirements as outlined in ODEQ CO#08-299 (Cat. II)
3	OK0020303	LC	Owasso PWA	N	ORF-13-0005-CW	07/16/13	\$5,000,000	\$0	NA	\$0	Ranch creek interceptor relief line replacement to accommodate for inflow and infiltration (Cat. IIIA & IIIB)
4	OK0035599	LC	Oilton PWA	Y	ORF-13-0012-CW	07/16/13	\$2,767,058	\$0	NA	\$317,314	Rehabilitation to existing lagoons and construction of new lagoon (Cat. I)
5	OK0034517	LC	Ochelata UA	Y	ORF-13-0008-CW	07/16/13	\$1,486,340	\$0	NA	\$0	New extended aeration WWTP to address ODEQ CO# 05-024 for deficiencies at the existing partial-mix aeration lagoon treatment facility due to more stringent permit limits(Cat. II)
6	OK0028771	LC	Kiefer PWA	Y	ORF-14-0006-CW	10/15/13	\$660,323	\$0	NA	\$0	Construct new disinfection unit, new post aeration structure, and lift station improvements (Cat. I)
7	OK0027111	LC	El Reno MA	Y	ORF-13-0003-CW	09/17/13	\$16,000,000	\$2,000,000	EI	\$0	New 2 MGD mechanical WWTP with solar or wind for partial energy for operation of plant. Project will correct for total retention and land application unpermitted discharges and address ODEQ CO# 07-380(A) (B)
8	NS-OK0026221 SS-OK0026236 HC-OK0034363	LC	Tulsa MUA	Y	ORF-14-0002-CW	11/19/13	\$34,791,000	\$0	NA	\$0	Sanitary sewer and WWTP rehabilitation and improvements and new interceptor (Cat. I, II, IIIA, IIIB, IVA, & IVB)
9	OK0028037	LC	Altus MA	Y	ORF-14-0007-CW	11/19/13	\$3,000,000	\$600,000	EE	\$0	WWTP Improvements including replacement of headworks, new bar screen, new energy saving motors and pumping controls, new clarifier, new effluent disinfection system, and site work (Cat. II)
10	OK0027189	LC	Frederick PWA	Y	ORF-13-0011-CW	08/20/13	\$7,698,000	\$0	NA	\$0	Wastewater treatment facilities improvements including lift station upgrades and rehabilitation of existing lagoons to modify them to aerated lagoons with improvements to valving and piping (Cat. I & IIIB)
11	OK0038440	LC	Ardmore PWA	Y	ORF-14-0009-CW	06/17/14	\$9,000,000	\$0	NA	\$0	Sanitary sewer rehabilitation and replacement in multiple subbasins based on SSES findings (Cat. IIIA & IIIB)
12	OK0029190	LC	Norman UA	N	ORF-14-0005-CW	10/15/13	\$52,000,000	\$13,000,000	EE/EI	\$0	Water Reclamation Facility Improvements including flow metering, rehabilitation to primary clarifiers, activated sludge treatment basins, clarifiers, UV disinfection, effluent aeration structure, oufall line, sludge handling and processing improvements, odor control equipment (Cat II & IIIB)
13	OK0020303	LC	Owasso PWA	N	ORF-14-0001-CW	05/20/14	\$6,000,000	\$0	NA	\$0	WWTP Improvements to meet 2015 Wastewater Master Plan including the addition of aeratino basin, final clarifier, replacement of main plant liftstation, and other appurtenances (Cat. II)
14	OK0030694	R	Quinton PWA	Y	ORF-13-0016-CW	07/16/13	\$800,000	\$0	NA	\$0	Refinance construction of 779 linear feet of new 8" gravity sewer line, rehabilitation of 30,338 linear feet of existing 8" gravity sewer line, and appurtenances (Cat. IIIB & IVA)
15	OK0040053	LC	Broken Arrow MA	N	ORF-12-0012-CW	03/18/14	\$4,000,000	\$0	NA	\$0	Replacement of existing 27" sanitary sewer interceptor with 36" inch PVC including manholes and appurtenances (Cat. IIIA & IIIB)
16	ND	LC	Ardmore PWA	Y	ORF-14-0008-CW	02/18/14	\$3,500,000	\$0	NA	\$0	Sanitary sewer system rehabilitation of the Ardmore Airpark and construction of a new lift station and force main (Cat. IIIB & IVB)
FY 2015 Planning/Contingency Projects (July 2014 - June 2015)											
1	NS-OK0026221 SS-OK0026236 HC-OK0034363	LC	Tulsa MUA	Y	ORF-15-0001-CW	10/21/14	\$36,364,000	\$0	NA	N	Sanitary sewer and WWTP rehabilitation and improvements and new interceptor (Cat. I, II, IIIA, IIIB, IVA, & IVB)
2	OK0026913	LC	Bixby PWA	N	ORF-14-0003-CW	12/16/14	\$21,000,000	\$0	NA	N	Construction of new mechanical WWTP (Cat. 1)
FY 2016 Planning/Contingency Projects (July 2015 - June 2016)											
1	NS-OK0026221 SS-OK0026236 HC-OK0034363	LC	Tulsa MUA	Y	ORF-16-0001-CW	10/20/15	\$43,961,000	\$0	NA	N	Sanitary sewer and WWTP rehabilitation and improvements and new interceptor (Cat. I, II, IIIA, IIIB, IVA, & IVB)

FY 2017 Planning/Contingency Projects (July 2016 - June 2017)											
1	NS-OK0026221 SS-OK0026236 HC-OK0034363	LC	Tulsa MUA	Y	ORF-17-0001-CW	10/18/16	\$41,733,000	\$0	NA	N	Sanitary sewer and WWTP rehabilitation and improvements and new interceptor (Cat. I, II, IIIA, IIIB, IVA, & IVB)
FY 2018 Planning/Contingency Projects (July 2017 - June 2018)											
1	NS-OK0026221 SS-OK0026236 HC-OK0034363	LC	Tulsa MUA	Y	ORF-18-0001-CW	10/17/17	\$56,821,000	\$0	NA	N	Sanitary sewer and WWTP rehabilitation and improvements and new interceptor (Cat. I, II, IIIA, IIIB, IVA, & IVB)

LC = Long-term Construct
 NC = Non-Construction
 R = Refinance
 NA=Not Applicable
 ND= Non Discharging

GPR = Green Reserve Project
 GI=Green Infrastructure
 WE=Water Efficiency
 EE= Energy Efficiency
 EI = Environmental Innovative
 BC=Business Case
 CAT=Categorical

Loan Totals (All Loans)

FY 14	\$148,841,771
FY 15	\$36,364,000
FY 16	\$43,961,000
FY 17	\$41,733,000
FY 18	\$56,821,000
TOTALS	\$327,720,771

Potential GPR for FY 2014: \$17,739,050
 Potential Subsidy for FY 2014: \$634,627

* Projects requiring a Single Audit will be determined at the end of 2014. The information will be included in the FY 2014 Annual Report.

**The GPR Amount may change based on the completion of appropriate planning documents and business cases. The numbers reflected here are OWRB's best guess based on preliminary information. Final numbers will be available on OWRB's website, subsequent amendments, and the CWSRF Annual Report.

***Subsidy is provided on Readiness to Proceed for Board Approval. The subsidy amounts may change based on a project movement thru the funding process. Final numbers will be available on OWRB's website, subsequent amendments, and the CWSRF Annual Report.

2012 Clean Water State Revolving Fund 10% Green Project Reserve: Guidance for Determining Project Eligibility

I. Introduction: The Fiscal Year (FY) 2012 Appropriation Act (P.L. 112-74) included additional requirements affecting the Clean Water State Revolving Fund (SRF) program. This attachment is included in the *Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2012 Appropriation Affecting the Clean Water and Drinking Water State Revolving Fund Programs*. This attachment includes the details for determining green project reserve (GPR) eligibility for the Clean Water SRF program.

Public Law 112-74 states: “*Provided, That for fiscal year 2012, to the extent there are sufficient eligible project applications, not less than 10 percent of the funds made available under this title to each State for Clean Water State Revolving Fund capitalization grants shall be used by the State for projects to address green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities.*” These four categories of projects are the components of the Green Project Reserve (GPR).

II. GPR Goals: Congress’ intent in enacting the GPR is to direct State investment practices in the water sector to guide funding toward projects that utilize green or soft-path practices to complement and augment hard or gray infrastructure, adopt practices that reduce the environmental footprint of water and wastewater treatment, collection, and distribution, help utilities adapt to climate change, enhance water and energy conservation, adopt more sustainable solutions to wet weather flows, and promote innovative approaches to water management problems. Over time, GPR projects could enable utilities to take savings derived from reducing water losses and energy consumption, and use them for public health and environmental enhancement projects. Additionally, EPA expects that green projects will help the water sector improve the quality of water services without putting additional strain on the energy grid, and by reducing the volume of water lost every year.

III. Background: For the FY 2010 GPR Guidance, EPA used an inclusive approach to determine what is and is not a ‘green’ water project. Wherever possible, this guidance references existing consensus-based industry practices to provide assistance in developing green projects. Input was solicited from State-EPA and EPA-Regional workgroups and the water sector. EPA staff also reviewed approaches promoted by green practice advocacy groups and water associations, and green infrastructure implemented by engineers and managers in the water sector. EPA also assessed existing ‘green’ policies within EPA and received input from staff in those programs to determine how EPA funds could be used to achieve shared goals.

The FY 2012 SRF GPR Guidance provides States with information needed to determine which projects count toward the GPR requirement. The intent of the GPR Guidance is to describe projects and activities that fit within the four specific categories listed in the FY 2012

Appropriations Act. This guidance defines each category of GPR projects and lists projects that are clearly eligible for GPR, heretofore known as categorically eligible projects. For projects that do not appear on the list of categorically projects, they may be evaluated for their eligibility within one of the four targeted types of GPR eligible projects based upon a business case that provides clear documentation (see the *Business Case Development* sections in Parts A & B below).

GPR may be used for planning, design, and/or building activities. Entire projects, or the appropriate discrete components of projects, may be eligible for GPR. Projects do not have to be part of a larger capital project to be eligible. All projects or project components counted toward the GPR requirement must clearly advance one or more of the objectives articulated in the four categories of GPR discussed below.

The Green Project Reserve sets a new precedent for the SRFs by targeting funding towards projects that States may not have funded in prior years. Water quality benefits from GPR projects rely on proper operation and maintenance to achieve the intended benefits of the projects and to achieve optimal performance of the project. EPA encourages states and funding recipients to thoroughly plan for proper operation and maintenance of the projects funded by the SRFs, including training in proper operation of the project. It is noted, however, that the SRFs cannot provide funding for operation and maintenance costs, including training, in the SRF assistance agreements.

CWSRF Eligibility Principles

State SRF programs are responsible for identifying projects that count toward GPR. The following overarching principles, or decision criteria, apply to all projects that count toward GPR and will help states identify projects.

- 0.1 All GPR projects must otherwise be eligible for CWSRF funding. The GPR requirement does not create new funding authority beyond that described in Title VI of the CWA. Consequently, a subset of 212, 319 and 320 projects will count towards the GPR. The principles guiding CWSRF funding eligibility include:
- 0.2 All Sec 212 projects must be consistent with the definition of “treatment works” as set forth in section 212 of the Clean Water Act (CWA).
- 0.2-1 All section 212 projects must be publicly owned, as required by CWA section 603(c)(1).
- 0.2-2 All section 212 projects must serve a public purpose.
- 0.2-3 POTWs as a whole are utilized to protect or restore water quality. Not all portions of the POTW have a direct water quality impact in and of themselves (i.e. security fencing). Consequently, POTW projects are not required to have a direct water quality benefit, though most of them will.
- 0.3 Eligible nonpoint source projects implement a nonpoint source management program under an approved section 319 plan or the nine element watershed plans required by the 319 program.
- 0.3-1 Projects prevent or remediate nonpoint source pollution.
- 0.3-2 Projects can be either publicly or privately owned and can serve either public or private purposes. For instance, it is acceptable to fund land conservation activities that preserve the water quality of a drinking water source, which represents a public purpose project. It is also acceptable to fund agricultural BMPs that reduce nonpoint source pollution, but also improve the profitability of the agricultural operation. Profitability is an example of a private purpose.
- 0.3-3 Eligible costs are limited to planning, design and building of capital water quality projects. The CWSRF considers planting trees and shrubs, purchasing equipment, environmental cleanups and the development and initial delivery of education programs as capital water quality projects. Daily maintenance and operations, such as expenses and salaries are not considered capital costs.
- 0.3-4 Projects must have a direct water quality benefit. Implementation of a water quality project should, in itself, protect or improve water quality. States should be able to estimate the quantitative and/or qualitative water quality benefit of a nonpoint source project.
- 0.3-5 Only the portions of a project that remediate, mitigate the impacts of, or prevent water pollution or aquatic or riparian habitat degradation should be funded. Where water quantity projects improve water quality (e.g. reduction of flows from impervious surfaces that adversely affect stream health, or the modification of irrigation systems to reduce runoff and leachate from irrigated lands), they would

be considered to have a water quality benefit. In many cases, water quality protection is combined with other elements of an overall project. For instance, brownfield revitalization projects include not only water quality assessment and cleanup elements, but often a redevelopment element as well. Where the water quality portion of a project is clearly distinct from other portions of the project, only the water quality portion can be funded by the CWSRF.

- 0.3-6 Point source solutions to nonpoint source problems are eligible as CWSRF nonpoint source projects. Section 319 Nonpoint Source Management Plans identify sources of nonpoint source pollution. In some cases, the most environmentally and financially desirable solution has point source characteristics and requires an NPDES discharge permit. For instance, a septage treatment facility may be crucial to the proper maintenance and subsequent functioning of decentralized wastewater systems. Without the septage treatment facility, decentralized systems are less likely to be pumped, resulting in malfunctioning septic tanks.

- 0.4 Eligible projects under section 320 implement an approved section 320 Comprehensive Conservation Management Plan (CCMP).
 - 0.4-1 Section 320 projects can be either publicly or privately owned.
 - 0.4-2 Eligible costs are limited to capital costs.
 - 0.4-3 Projects must have a direct benefit to the water quality of an estuary. This includes protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on water, and requires the control of point and nonpoint sources of pollution to supplement existing controls of pollution.
 - 0.4-4 Only the portions of a project that remediate, mitigate the impacts of, or prevent water pollution in the estuary watershed should be funded.

- 0.5 GPR projects must meet the definition of one of the four GPR categories. The Individual GPR categories do not create new eligibility for the CWSRF. The projects that count toward GPR must otherwise be eligible for CWSRF funding.

- 0.6 GPR projects must further the goals of the Clean Water Act.¹

¹ Drinking Water Utilities can apply for CWSRF funding

CWSRF Technical Guidance

The following sections outline the technical aspects for the CWSRF Green Project Reserve. It is organized by the four categories of green projects: green infrastructure, water efficiency, energy efficiency, and environmentally innovative activities. Categorically green projects are listed, as well as projects that are ineligible. Design criteria for business cases and example projects that would require a business case are also provided.

1.0 GREEN INFRASTRUCTURE

- 1.1 Definition: Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintain and restore natural hydrology by infiltrating, evapotranspiring and harvesting and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale green infrastructure consists of site- and neighborhood-specific practices, such as bioretention, trees, green roofs, permeable pavements and cisterns.

- 1.2 Categorical Projects
 - 1.2-1 Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-ways), for either new development, redevelopment or retrofits including: permeable pavement², bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.
 - 1.2-2 Wet weather management systems for parking areas including: permeable pavement², bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.
 - 1.2-3 Implementation of comprehensive street tree or urban forestry programs, including expansion of tree boxes to manage additional stormwater and enhance tree health.
 - 1.2-4 Stormwater harvesting and reuse projects, such as cisterns and the systems that allow for utilization of harvested stormwater, including pipes to distribute stormwater for reuse.
 - 1.2-5 Downspout disconnection to remove stormwater from sanitary, combined sewers and separate storm sewers and manage runoff onsite.
 - 1.2-6 Comprehensive retrofit programs designed to keep wet weather discharges out of all types of sewer systems using green infrastructure technologies and approaches such as green roofs, green walls, trees and urban reforestation, permeable

² The total capital cost of permeable pavement is eligible, not just the incremental additional cost when compared to impervious pavement.

pavements and bioretention cells, and turf removal and replacement with native vegetation or trees that improve permeability.

- 1.2-7 Establishment or restoration of permanent riparian buffers, floodplains, wetlands and other natural features, including vegetated buffers or soft bioengineered stream banks. This includes stream day lighting that removes natural streams from artificial pipes and restores a natural stream morphology that is capable of accommodating a range of hydrologic conditions while also providing biological integrity. In highly urbanized watersheds this may not be the original hydrology.
 - 1.2-8 Projects that involve the management of wetlands to improve water quality and/or support green infrastructure efforts (e.g., flood attenuation).³
 - 1.2-8a Includes constructed wetlands.
 - 1.2-8b May include natural or restored wetlands if the wetland and its multiple functions are not degraded and all permit requirements are met.
 - 1.2-9 The water quality portion of projects that employ development and redevelopment practices that preserve or restore site hydrologic processes through sustainable landscaping and site design.
 - 1.2-10 Fee simple purchase of land or easements on land that has a direct benefit to water quality, such as riparian and wetland protection or restoration.
- 1.3 Projects That Do Not Meet the Definition of Green Infrastructure
- 1.3-1 Stormwater controls that have impervious or semi-impervious liners and provide no compensatory evapotranspirative or harvesting function for stormwater retention.
 - 1.3-2 Stormwater ponds that serve an extended detention function and/or extended filtration. This includes dirt lined detention basins.
 - 1.3-3 In-line and end-of-pipe treatment systems that only filter or detain stormwater.
 - 1.3-4 Underground stormwater control and treatment devices such as swirl concentrators, hydrodynamic separators, baffle systems for grit, trash removal/floatables, oil and grease, inflatable booms and dams for in-line underground storage and diversion of flows.
 - 1.3-5 Stormwater conveyance systems that are not soil/vegetation based (swales) such as pipes and concrete channels. Green infrastructure projects that include pipes to collect stormwater may be justified as innovative environmental projects pursuant to Section 4.4 of this guidance.
 - 1.3-6 Hardening, channelizing or straightening streams and/or stream banks.
 - 1.3-7 Street sweepers, sewer cleaners, and vactor trucks unless they support green infrastructure projects.

1.4 Decision Criteria for Business Cases

³ Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, vernal pools, and similar areas.

- 1.4-1 Green infrastructure projects are designed to mimic the natural hydrologic conditions of the site or watershed.
 - 1.4-2 Projects that capture, treat, infiltrate, or evapotranspire water on the parcels where it falls and does not result in interbasin transfers of water.
 - 1.4-3 GPR project is in lieu of or to supplement municipal hard/gray infrastructure.
 - 1.4-4 Projects considering both landscape and site scale will be most successful at protecting water quality.
 - 1.4-5 Design criteria are available at:
<http://cfpub.epa.gov/npdes/greeninfrastructure/munichandbook.cfm> and
<http://cfpub.epa.gov/npdes/greeninfrastructure/technology.cfm>
- 1.5 Examples of Projects Requiring A Business Case
- 1.5-1 Fencing to keep livestock out of streams and stream buffers. Fencing must allow buffer vegetation to grow undisturbed and be placed a sufficient distance from the riparian edge for the buffer to function as a filter for sediment, nutrients and other pollutants.

2.0 WATER EFFICIENCY

- 2.1 Definition: EPA's WaterSense program defines water efficiency as the use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future.
- 2.2 Categorical Projects
 - 2.2-1 Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances
 - 2.2-1a For example -- shower heads, toilets, urinals and other plumbing devices
 - 2.2-1b Where specifications exist, WaterSense labeled products should be the preferred choice (<http://www.epa.gov/watersense/index.html>).
 - 2.2-1c Implementation of incentive programs to conserve water such as rebates.
 - 2.2-2 Installing any type of water meter in previously unmetered areas
 - 2.2-2a If rate structures are based on metered use
 - 2.2-2b Can include backflow prevention devices if installed in conjunction with water meter
 - 2.2-3 Replacing existing broken/malfunctioning water meters, or upgrading existing meters, with:
 - 2.2-3a Automatic meter reading systems (AMR), for example:
 - 2.2-3a(i) Advanced metering infrastructure (AMI)
 - 2.2-3a(ii) Smart meters
 - 2.2-3b Meters with built in leak detection
 - 2.2-3c Can include backflow prevention devices if installed in conjunction with water meter replacement
 - 2.2-4 Retrofitting/adding AMR capabilities or leak detection equipment to existing meters (not replacing the meter itself).

- 2.2-5 Water audit and water conservation plans, which are reasonably expected to result in a capital project.
 - 2.2-6 Recycling and water reuse projects that replace potable sources with non-potable sources,
 - 2.2-6a Gray water, condensate and wastewater effluent reuse systems (where local codes allow the practice)
 - 2.2-6b Extra treatment costs and distribution pipes associated with water reuse.
 - 2.2-7 Retrofit or replacement of existing landscape irrigation systems with more efficient landscape irrigation systems, including moisture and rain sensing equipment.
 - 2.2-8 Retrofit or replacement of existing agricultural irrigation systems with more efficient agricultural irrigation systems.
- 2.3 Projects That Do Not Meet the Definition of Water Efficiency
- 2.3-1 Agricultural flood irrigation.
 - 2.3-2 Lining of canals to reduce water loss.
 - 2.3-3 Replacing drinking water distribution lines. This activity extends beyond CWSRF eligibility and is more appropriately funded by the DWSRF.
 - 2.3-4 Leak detection equipment for drinking water distribution systems, unless used for reuse distribution pipes.
- 2.4 Decision Criteria for Business Cases
- 2.4-1 Water efficiency can be accomplished through water saving elements or reducing water consumption. This will reduce the amount of water taken out of rivers, lakes, streams, groundwater, or from other sources.
 - 2.4-2 Water efficiency projects should deliver equal or better services with less net water use as compared to traditional or standard technologies and practices
 - 2.4-3 Efficient water use often has the added benefit of reducing the amount of energy required by a POTW, since less water would need to be collected and treated; therefore, there are also energy and financial savings.
- 2.5 Examples of Projects Requiring a Business Case.
- 2.5-1 Water meter replacement with traditional water meters (see AWWA M6 *Water Meters – Selection Installation, Testing, and Maintenance*).
 - 2.5-2 Projects that result from a water audit or water conservation plan
 - 2.5-3 Storage tank replacement/rehabilitation to reduce loss of reclaimed water.
 - 2.5-4 New water efficient landscape irrigation system (where there currently is not one).
 - 2.5-5 New water efficient agricultural irrigation system (where there currently is not one).

3.0 ENERGY EFFICIENCY

- 3.1 Definition: Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water quality projects, use energy in a more efficient way, and/or produce/utilize renewable energy.

3.2 Categorical Projects

- 3.2-1 Renewable energy projects such as wind, solar, geothermal, micro-hydroelectric, and biogas combined heat and power systems (CHP) that provide power to a POTW. (<http://www.epa.gov/cleanenergy>). Micro-hydroelectric projects involve capturing the energy from pipe flow.
 - 3.2-1a POTW owned renewable energy projects can be located onsite or offsite.
 - 3.2-1b Includes the portion of a publicly owned renewable energy project that serves POTW's energy needs.
 - 3.2-1c Must feed into the grid that the utility draws from and/or there is a direct connection.
- 3.2-2 Projects that achieve a 20% reduction in energy consumption are categorically eligible for GPR⁴. Retrofit projects should compare energy used by the existing system or unit process⁵ to the proposed project. The energy used by the existing system should be based on name plate data when the system was first installed, recognizing that the old system is currently operating at a lower overall efficiency than at the time of installation. New POTW projects or capacity expansion projects should be designed to maximize energy efficiency and should select high efficiency premium motors and equipment where cost effective. Estimation of the energy efficiency is necessary for the project to be counted toward GPR. If a project achieves less than a 20% reduction in energy efficiency, then it may be justified using a business case.
- 3.2-3 Collection system Infiltration/Inflow (I/I) detection equipment
- 3.2-4 POTW energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas, which are reasonably expected to result in a capital project are eligible. Guidance to help POTWs develop energy management programs, including assessments and audits is available at http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymanagement.pdf.

3.3 Projects That Do Not Meet the Definition of Energy Efficiency

- 3.3-1 Renewable energy generation that is *privately* owned or the portion of a publicly owned renewable energy facility that does not provide power to a POTW, either through a connection to the grid that the utility draws from and/or a direct connection to the POTW.
- 3.3-2 Simply replacing a pump, or other piece of equipment, because it is at the end of its useful life, with something of average efficiency.
- 3.3-3 Facultative lagoons, even if integral to an innovative treatment process.

⁴ The 20% threshold for categorically eligible CWSRF energy efficiency projects was derived from a 2002 Department of Energy study entitled *United States Industrial Electric Motor Systems Market Opportunities Assessment, December 2002* and adopted by the Consortium for Energy Efficiency. Further field studies conducted by Wisconsin Focus on Energy and other State programs support the threshold.

⁵ A unit process is a portion of the wastewater system such as the collection system, pumping stations, aeration system, or solids handling, etc.

- 3.3-4 Hydroelectric facilities, except micro-hydroelectric projects. Micro-hydroelectric projects involve capturing the energy from pipe flow.
- 3.4 Decision Criteria for Business Cases
 - 3.4-1 Project must be cost effective. An evaluation must identify energy savings and payback on capital and operation and maintenance costs that does not exceed the useful life of the asset.
http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymangement.pdf
 - 3.4-2 The business case must describe how the project maximizes energy saving opportunities for the POTW or unit process.
 - 3.4-3 Using existing tools such as Energy Star’s Portfolio Manager (http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager) or Check Up Program for Small Systems (CUPSS) (<http://www.epa/cupss>) to document current energy usage and track anticipated savings.
- 3.5 Examples of Projects Requiring a Business Case
 - 3.5-1 POTW projects or unit process projects that achieve less than a 20% energy efficiency improvement.
 - 3.5-2 Projects implementing recommendations from an energy audit that are not otherwise designated as categorical.
 - 3.5-3 Projects that cost effectively eliminate pumps or pumping stations.
 - 3.5-4 Infiltration/Inflow (I/I) correction projects that save energy from pumping and reduced treatment costs and are cost effective.
 - 3.5-4a Projects that count toward GPR cannot build new structural capacity. These projects may, however, recover existing capacity by reducing flow from I/I.
 - 3.5-5 I/I correction projects where excessive groundwater infiltration is contaminating the influent requiring otherwise unnecessary treatment processes (i.e. arsenic laden groundwater) and I/I correction is cost effective.
 - 3.5-6 Replacing pre-Energy Policy Act of 1992 motors with National Electric Manufacturers Association (NEMA) premium energy efficiency motors.
 - 3.5-6a NEMA is a standards setting association for the electrical manufacturing industry (<http://www.nema.org/gov/energy/efficiency/premium/>).
 - 3.5-7 Upgrade of POTW lighting to energy efficient sources such as metal halide pulse start technologies, compact fluorescent, light emitting diode (LED).
 - 3.5-8 SCADA systems can be justified based upon substantial energy savings.
 - 3.5-9 Variable Frequency Drive can be justified based upon substantial energy savings.

4.0 ENVIRONMENTALLY INNOVATIVE

- 4.1 Definition: Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way.

- 4.2 Categorical Projects
- 4.2-1 Total/integrated water resources management planning likely to result in a capital project.
 - 4.2-2 Utility Sustainability Plan consistent with EPA SRF's sustainability policy.
 - 4.2-3 Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry)
 - 4.3-3a Note: GHG Inventory and mitigation plan is eligible for CWSRF funding.
 - 4.2-3b EPA Climate Leaders:
 - <http://www.epa.gov/climateleaders/basic/index.html>
 - Climate Registry: <http://www.theclimateregistry.org/>
 - 4.2-4 Planning activities by a POTW to prepare for adaptation to the long-term effects of climate change and/or extreme weather.
 - 4.2-4a Office of Water – Climate Change and Water website:
 - <http://www.epa.gov/water/climatechange/>
 - 4.2.5 Construction of US Building Council LEED certified buildings or renovation of an existing building on POTW facilities.
 - 4.2-5a Any level of certification (Platinum, Gold, Silver, Certified).
 - 4.2-5b All building costs are eligible, not just stormwater, water efficiency and energy efficiency related costs. Costs are not limited to the incremental additional costs associated with LEED certified buildings.
 - 4.2-5c U.S. Green Building Council website:
 - <http://www.usgbc.org/displaypage.aspx?CategoryID=19>
 - 4.2-6 Decentralized wastewater treatment solutions to existing deficient or failing onsite wastewater systems.
 - 4.2-6a Decentralized wastewater systems include individual onsite and/or cluster wastewater systems used to collect, treat and disperse relatively small volumes of wastewater. An individual onsite wastewater treatment system is a system relying on natural processes and/or mechanical components, that is used to collect, treat and disperse or reclaim wastewater from a single dwelling or building. A cluster system is a wastewater collection and treatment system under some form of common ownership that collects wastewater from two or more dwellings or buildings and conveys it to a treatment and dispersal system located on a suitable site near the dwellings or buildings. Decentralized projects may include a combination of these systems. EPA recommends that decentralized systems be managed under a central management entity with enforceable program requirements, as stated in the *EPA Voluntary Management Guidelines*.
 - http://www.epa.gov/owm/septic/pubs/septic_guidelines.pdf
 - 4.2-6b Treatment and Collection Options: A variety of treatment and collection options are available when implementing decentralized wastewater systems. They typically include a septic tank, although many configurations include additional treatment components following or in place of the septic tank, which provide for advanced treatment solutions. Most disperse treated effluent to the soil where further treatment occurs, utilizing either conventional soil absorption fields or alternative soil dispersal methods which provide advanced treatment. Those that

discharge to streams, lakes, tributaries, and other water bodies require federal or state discharge permits (see below). Some systems promote water reuse/recycling, evaporation or wastewater uptake by plants. Some decentralized systems, particularly cluster or community systems, often utilize alternative methods of collection with small diameter pipes which can flow via gravity, pump, or siphon, including pressure sewers, vacuum sewers and small diameter gravity sewers. Alternative collection systems generally utilize piping that is less than 8 inches in diameter, or the minimum diameter allowed by the state if greater than 8 inches, with shallow burial and do not require manholes or lift stations. Septic tanks are typically installed at each building served or another location upstream of the final treatment and dispersal site. Collection systems can transport raw sewage or septic tank effluent. Another popular dispersal option used today is subsurface drip infiltration. Package plants that discharge to the soil are generally considered decentralized, depending on the situation in which they are used. While not entirely inclusive, information on treatment and collection processes is described, in detail, in the “*Onsite Wastewater Treatment Technology Fact Sheets*” section of the EPA Onsite Manual http://www.epa.gov/owm/septic/pubs/septic_2002_osdm_all.pdf and on EPA’s septic system website under Technology Fact Sheets. http://cfpub.epa.gov/owm/septic/septic.cfm?page_id=283

4.2-6c For the purposes of the CWSRF, decentralized systems are considered to be section 319 projects and Davis-Bacon does not apply.

4.3 Projects That Do Not Meet the Definition of Environmentally Innovative

- 4.3-1 Air scrubbers to prevent nonpoint source deposition.
- 4.3-2 Facultative lagoons, even if integral to an innovative treatment processes.
- 4.3-3 Surface discharging decentralized wastewater systems where there are cost effective soil-based alternatives.
- 4.3-4 Higher sea walls to protect POTW from sea level rise.
- 4.3-5 Reflective roofs at POTW to combat heat island effect.

4.4 Decision Criteria for Business Cases

- 4.4-1 State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical or climatological conditions.
 - 4.4-1a Technology or approach whose performance is expected to address water quality but the actual performance has not been demonstrated in the state;
 - 4.4-1b Technology or approach that is not widely used in the State, but does perform as well or better than conventional technology/approaches at lower cost; or
 - 4.4-1c Conventional technology or approaches that are used in a new application in the State.

4.5 Examples of Projects Requiring a Business Case

- 4.5-1 Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal.
 - 4.5-1a Natural wetlands, as well as the restoration/enhancement of degraded wetlands, may not be used for wastewater treatment purposes and must comply with all regulatory/permitting requirements.
 - 4.5-1b Projects may not (further) degrade natural wetlands.
- 4.5-2 Projects or components of projects that result from total/integrated water resource management planning consistent with the decision criteria for environmentally innovative projects and that are Clean Water SRF eligible.
- 4.5-3 Projects that facilitate adaptation of POTWs to climate change identified by a carbon footprint assessment or climate adaptation study.
- 4.5-4 POTW upgrades or retrofits that remove phosphorus for beneficial use, such as biofuel production with algae.
- 4.5-5 Application of innovative treatment technologies or systems that improve environmental conditions and are consistent with the Decision Criteria for environmentally innovative projects such as:
 - 4.5-5a Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment;
 - 4.5-5b Treatment technologies or approaches that significantly reduce the volume of residuals, minimize the generation of residuals, or lower the amount of chemicals in the residuals. (National Biosolids Partnership, 2010; *Advances in Solids Reduction Processes at Wastewater Treatment Facilities Webinar*; http://www.e-wef.org/timssnet/meetings/tnt_meetings.cfm?primary_id=10CAP2&Action=LONG&subsystem=ORD%3cbr).
 - 4.5-5b(i) Includes composting, class A and other sustainable biosolids management approaches.
- 4.5-6 Educational activities and demonstration projects for water or energy efficiency.
- 4.5-7 Projects that achieve the goals/objectives of utility asset management plans (http://www.epa.gov/safewater/smallsystems/pdfs/guide_smallsystems_assetmanagement_bestpractices.pdf; <http://www.epa.gov/owm/assetmanage/index.htm>).
- 4.5-8 Sub-surface land application of effluent and other means for ground water recharge, such as spray irrigation and overland flow.
 - 4.5-8a Spray irrigation and overland flow of effluent is not eligible for GPR where there is no other cost effective alternative.

Business Case Development

This guidance is intended to be comprehensive: however, EPA understands our examples projects requiring a business case may not be all inclusive. A business case is a due diligence document. For those projects, or portions of projects, which are not included in the categorical projects lists provided above, a business case will be required to demonstrate that an assistance recipient has thoroughly researched anticipated ‘green’ benefits of a project. Business cases will be approved by the State (see section IV.A.a. in the *Procedures for Implementing Certain Provisions of EPA’s Fiscal Year 2012 Appropriations Affecting the Clean Water and Drinking Water State Revolving Fund Programs*). An

approved business case must be included in the State’s project files and contain clear documentation that the project achieves identifiable and substantial benefits. The following sections provide guidelines for business case development.

- 5.0 Length of a Business Case
 - 5.0-1 Business cases must address the decision criteria for the category of project
 - 5.0-2 Business cases should be adequate, but not exhaustive.
 - 5.0-2a There are many formats and approaches. EPA does not require any specific one.
 - 5.0-2b Some projects will require detailed analysis and calculations, while others may not require more than one page.
 - 5.0-2c Limit the information contained in the business case to only the pertinent ‘green’ information needed to justify the project.
 - 5.0-3 A business case can simply summarize results from, and then cite, existing documentation – such as engineering reports, water or energy audits, results of water system tests, etc.
- 5.1 Content of a Business Case
 - 5.1-1 Quantifiable water and/or energy savings or water loss reduction for water and energy efficiency projects should be included.
 - 5.1-2 The cost and financial benefit of the project should be included, along with the payback time period where applicable. (NOTE: Clean Water SRF requires energy efficiency projects to be cost effective.)
- 5.2 Items Which Strengthen Business Case, but Are Not Required
 - 5.2-1 Showing that the project was designed to enable equipment to operate most efficiently.
 - 5.2-2 Demonstrating that equipment will meet or exceed standards set by professional associations.
 - 5.2-3 Including operator training or committing to utilizing existing tools such as Energy Star’s Portfolio Manager or CUPSS for energy efficiency projects.
- 5.3 Example Business Cases Are Available at <http://www.srfbusinesscases.net/>



ORF-000
Rev-05/10

Oklahoma Clean Water State Revolving Fund Green Project Reserve (GPR) Checklist

Purpose

The Oklahoma Water Resources Board (OWRB) Clean Water State Revolving Fund (CWSRF) loan program's GPR checklist is a tool to aid loan applicants and consultants in determining the green components of any given project, identifying both green performance targets and submittal materials that will be used for the implementation of the green components. It is also a tool to aid OWRB staff in tracking the implementation of the GPR throughout Oklahoma.

How to Use the Checklist

The following checklist is provided as a resource for CWSRF loan program applicants and consultants. The CWSRF loan program may accept components and technologies other than those listed in the attachment EPA CWSRF GPR Specific Guidance upon OWRB staff review and approval. Applicants are encouraged to introduce additional innovative green technologies in the proposed projects. The Checklist should be provided to the consultants by Loan applicants' staff at the earliest possible stage of the project planning process, ideally during pre-application consultation.

How to Submit the Checklist

It is the applicant's responsibility to obtain the necessary approvals and permits, and to properly design, build and effectively operate and maintain the proposed facilities covered in the Engineering Report (ER) or planning document. Loan applicants should return a completed copy of the checklist with their ER. The completion of the Checklist is equally valuable for projects that do not meet the GPR, since it will help OWRB staff to track the implementation of the various features within the GPR.

Contact for more Information: Jennifer Wasinger, Assistant Chief, FAD or Your OWRB project engineer @405-530-8800

I. CWSRF Loan Applicant Information

Loan Number (if assigned): _____
Applicant Name: _____
Project Name/Location: _____
Latest date this list was last updated by the Applicant: _____

II. Categories

Please mark, from the categories below, all the GPR components that are proposed for the project.

1. Energy Efficiency Components:

Definition: Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water quality projects, use energy in a more efficient way, and/or produce/utilize renewable energy.

Projects that achieve a 20% reduction in energy consumption are categorically eligible for GPR, energy savings < 20% requires a business case. (Sample business cases are in attachment)

N/A Yes

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | a. Site plan for facilities includes sustainable building components. |
| <input type="checkbox"/> | <input type="checkbox"/> | b. The design includes an energy reduction plan with at least a 20% reduction goal |
| <input type="checkbox"/> | <input type="checkbox"/> | c. The Treatment Facility participates in EPA energy star program ¹ |
| <input type="checkbox"/> | <input type="checkbox"/> | d. Project utilizes high efficiency fixtures, energy star components in heating, ventilating, and air conditioning (HVAC) equipment, Power Smart technology |
| <input type="checkbox"/> | <input type="checkbox"/> | e. Project utilizes a SCADA system to reduce overall energy consumption by 20% and enhance process control. (Please show in business case the energy and cost saved in \$\$\$numbers) |
| <input type="checkbox"/> | <input type="checkbox"/> | f. Use of renewable energy alternatives (e.g., geothermal, solar, off grid, Hydro Wind) (Categorical) |
| <input type="checkbox"/> | <input type="checkbox"/> | g. Project proposes to use high efficiency pumps (achieve 20% reduction in energy consumption) (categorical-documentation required) |
| <input type="checkbox"/> | <input type="checkbox"/> | h. Infiltration/Inflow (I/I) correction projects that save energy from pumping and reduced treatment costs and are cost effective. Projects that count toward GPR cannot build new structural capacity. These projects may, however, recover existing capacity by reducing flow from I/I (business case required) |
| <input type="checkbox"/> | <input type="checkbox"/> | i. Collection system Infiltration/Inflow (I/I) detection equipment (Categorical) |

2. Water Efficiency Components:

Definition: EPA's WaterSense program defines water efficiency as the use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future.

N/A Yes

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | a. The project utilizes on site stormwater management/rain harvesting (e.g., green roof, permeable paving, on-site drainage, rain garden) (Categorical) |
| <input type="checkbox"/> | <input type="checkbox"/> | b. Recycling and water reuse projects that replace potable sources with non-potable sources, Extra treatment costs and distribution pipes associated with water (Categorical) |
| <input type="checkbox"/> | <input type="checkbox"/> | c. The project incorporates water use reduction measures (e.g., low consumption fixtures, grey water systems, and stormwater irrigation measures) (Categorical) |
| <input type="checkbox"/> | <input type="checkbox"/> | d. The Treatment Facility participates in EPA's Water sense Program. |
| <input type="checkbox"/> | <input type="checkbox"/> | e. Gray water, condensate and wastewater effluent reuse systems (where local codes allow the practice) (Categorical) |
| <input type="checkbox"/> | <input type="checkbox"/> | f. Installing any type of water meter in previously unmetered areas
(i) If rate structures are based on metered use
(ii)Can include backflow prevention devices if installed in conjunction with water meter (Categorical) |
| <input type="checkbox"/> | <input type="checkbox"/> | g. Replacing existing broken/malfunctioning water meters, or upgrading existing meters, (Categorical) with:
(i) Automatic meter reading systems (AMR), for example Advanced metering infrastructure (AMI), Smart meters
(ii) Meters with built in leak detection
(iii)Can include backflow prevention devices if installed in conjunction with water meter replacement |
| <input type="checkbox"/> | <input type="checkbox"/> | h. Water efficient landscaping (e.g., drought resistant and/or native plantings, use of non-potable water for irrigation, high efficiency irrigation |

3. Green Infrastructure Components:

Definition: Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintains and restores natural hydrology by infiltrating, evapotranspiring and harvesting and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale green infrastructure consists of site- and neighborhood-specific practices, such as bioretention, trees, green roofs, permeable pavements and cisterns.

N/A Yes

- a. Implementation of green streets (combinations of green infrastructure practices in transportation right-of-ways), for either new development, redevelopment or retrofits including: permeable pavement, bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. Vector trucks and other capital equipment necessary to maintain green infrastructure projects. (Categorical)
- b. Wet weather management systems for parking areas including: permeable pavement, bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. (Categorical)
- c. Offsite reuse of either treated wastewater or a bio solids treatment process
Significantly reduces residuals disposal.
- d. The project provides enhanced waste diversion facilities
(e.g., on-site recycling, on-site composting) (Categorical)
- e. Establishment or restoration of permanent riparian buffers, floodplains, wetlands and other natural features, including vegetated buffers or soft bioengineered stream banks (categorical)
- f. The project beneficially utilizes recycled materials. (Categorical)
- g. Low-impact development (LID).
- h. Downspout disconnection to remove stormwater from combined sewers and storm sewers (Categorical)

4. Environmentally Innovative Project (EIP) Component

Definition: *Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way.*

- a. Utility Sustainability Plan consistent with EPA's SRF sustainability policy.
- b. Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry)
 - (i). EPA Climate Leaders: <http://www.epa.gov/climateleaders/basic/index.html>
 - (ii). Registry: <http://www.theclimateregistry.org/>
- c. Construction of US Building Council LEED certified buildings or renovation of an existing building on POTW facilities.
- d. Decentralized wastewater treatment solutions to existing deficient or failing onsite wastewater systems

Total Present worth Cost Analysis Component:

To properly evaluate a project’s long-term costs, a Total Present Worth (TPW) cost analysis of feasible alternatives is strongly recommended. TPW cost for each alternative includes Construction Cost, Non construction Cost (e.g., Engineering, Inspection, Legal, Land, Easements, Soils/Foundation Testing, Permits, O& M Manual and Other cost), estimated annual operation and maintenance (O&M) costs during the service life (for example 20 years) discounted to its present value and added to the Construction & Non construction Cost together known as TPW*. The resulting TPW allows participants to assess the true cost of construction projects. **Prepare a comparison of the selected alternative for the project with and without the proposed GPR components.**

**SRF Loan Programs will provide the participant/applicant an estimated interest rate to be used in the life- cycle analysis.*

5. Cost Estimate for Green Project Components:

Provide a cost estimate for the green infrastructure project or components. (Add pages if necessary)

(Description)	(GPR Component)	(Cost \$\$)
i. _____	_____	_____
ii. _____	_____	_____
iii. _____	_____	_____
		Total: _____

6. Please describe the problems with the existing system and explain the technical and financial benefits of using green components included in the project. (Please add pages if necessary)

1. For more information on energy star see http://www.energystar.gov/index.cfm?c=government.wastewater_drinking_water
2. For more information on LEED (Leadership in Energy and Environmental Design) certification see http://www.usgbc.org/LEED/LEED_main.asp
3. For more information on green building see <http://www.epa.gov/greenbuilding/>

Sample calculation for energy and cost savings for SCADA control:

Project #	LS #	kWh Consumption for Current Run Times/yr	Energy Cost/yr	Excessive kWh Consumption/yr	kWh Consumption/yr after SCADA	Energy Cost/yr	Cost Savings	Energy Savings	Eligible Costs			
E1	20	111,521	\$ 104,829.74	7,806	103,715	\$ 97,491.66	\$ 7,338.08	7%	\$ 4,500.00	Efficiency Calc:		
E4	48	50,093	\$ 47,087.42	1,503	48,590	\$ 45,674.80	\$ 1,412.62	3%	\$ 4,500.00			
Sub 1	82	3,335	\$ 3,134.90	200	3,135	\$ 2,946.81	\$ 188.09	6%	\$ 4,500.00	(Total Run Hours - Excess Run Hours)/Total Run Hours		
	109	35,292	\$ 33,174.48	706	34,586	\$ 32,510.99	\$ 663.49	2%	\$ 4,500.00			
Sub 4	17	4,792	\$ 4,504.48	144	4,648	\$ 4,369.35	\$ 135.13	3%	\$ 4,500.00			
Sub 5	27	15,570	\$ 14,635.80	1,246	14,324	\$ 13,464.94	\$ 1,170.86	8%	\$ 4,500.00			
Sub 6	64	170,718	\$ 160,474.92	8,536	162,182	\$ 152,451.17	\$ 8,023.75	5%	\$ 4,500.00			
Sub 8	8	113,280	\$ 106,483.20	3,398	109,882	\$ 103,288.70	\$ 3,194.50	3%	\$ 4,500.00			
Sub 9	49	24,749	\$ 23,264.06	990	23,759	\$ 22,333.50	\$ 930.56	4%	\$ 4,500.00			
	61	27,594	\$ 25,938.36	1,656	25,938	\$ 24,382.06	\$ 1,556.30	6%	\$ 4,500.00			
	74	6,693	\$ 6,291.42	67	6,626	\$ 6,228.51	\$ 62.91	1%	\$ 4,500.00			
	76	27,213	\$ 25,580.22	816	26,397	\$ 24,812.81	\$ 767.41	3%	\$ 4,500.00			
Sub 9b	68	39,127	\$ 36,779.38	2,739	36,388	\$ 34,204.82	\$ 2,574.56	7%	\$ 4,500.00			
Sub 11	34	18,015	\$ 16,934.10	1,081	16,934	\$ 15,918.05	\$ 1,016.05	6%	\$ 4,500.00			
	36	19,590	\$ 18,414.60	1,763	17,827	\$ 16,757.29	\$ 1,657.31	9%	\$ 4,500.00			
	42	12,440	\$ 11,693.60	871	11,569	\$ 10,875.05	\$ 818.55	7%	\$ 4,500.00			

Guidance on Energy Efficiency Business Case for Wastewater Pumping Systems for Green Project Reserve

Modifications, retrofits or replacement of existing wastewater pumping systems that achieve a 20% increase in energy efficiency will categorically qualify for the Green Project Reserve (GPR). Projects that do not achieve a 20% increase in energy efficiency can also count towards the GPR if they have a business case showing how the project significantly improves energy efficiency. Information to be included in a business case for wastewater pumping stations is provided below.

Business cases for wastewater pumping systems must include information that demonstrates that energy efficiency is the primary goal of the project. They should clearly show that: 1) the most energy efficient equipment is being used in the project, 2) that energy efficient design and operational considerations and practices are followed, 3) the percent increase in energy efficiency and KWH saved, and 4) why further energy efficiency improvements cannot be achieved.

1) Energy Efficient Equipment : The business case shall demonstrate that selected equipment is of the highest efficiency suitable for the project. The following are examples of standards or guidelines to be met:

- Selection of new or replacement electrical equipment should meet or exceed energy efficiency standards set forth by professional engineering and manufacturers associations such as the National Electrical Manufacturers Association (NEMA).
- If it is not possible to select new electrical equipment that can meet or exceed energy efficiency standards then applicants must provide acceptable evidence of why this could not be achieved, with rationale for selecting alternate equipment if the goal of energy efficiency is to be achieved.

2) Energy Efficient Design Practices and Considerations: The business case shall demonstrate that all energy efficient design practices and considerations suitable for the project were used. The following are general examples of design considerations where energy efficiency could be demonstrated:

- Pumping systems should be designed to operate in their most efficient zone. Pumps should be selected to operate close to the Best Efficiency Point (BEP) on a pump curve defined as the point with maximum efficiency of the pump. Choose pumps that result in the lowest friction head loss and ensure that pumps are properly sized for the pumping system.
- Pumping systems should be designed to reduce flows to be pumped where possible.
- Reduce pipe friction and lower head losses to reduce the energy needed for pumping. Note that repair and replacement of the collection system piping does not qualify as “green” except in the most dramatic infiltration/inflow cases.

- Where appropriate for energy efficiency purposes, use distributed control systems to operate the most efficient combination of pumps, and at the proper pump speeds, for needed flow rates and pressures.

3) Energy Savings: Comparing the energy requirements of the existing system with the energy requirements of the proposed upgrades yields the increase in energy efficiency. Business cases for energy efficient wastewater pumping projects should calculate the increase in energy efficiency as follows:

$$\frac{\text{kWh/year used prior to the upgrade} - \text{kWh/year used after the upgrade}}{\text{kWh/year used prior to the upgrade}}$$

The answer is expressed as a percentage improvement. The business case should clearly report the kWh/year saved by the project.

4) Energy Saving Justification: Business cases that demonstrate significant energy efficiency improvements will utilize all practical opportunities to improve energy efficiency. Consequently, each business case should discuss why the project cannot achieve a higher level of energy efficiency. One possible answer is that prior energy efficiency improvements have elevated the operation to a point where the remaining gains represent a smaller improvement.

Sample Calculation for energy and cost savings for Pumps:

Demonstrating Energy and Cost Savings for Pumps		
Pump Parameter	Comparison Pump	New Pump (Proposed Pump, Spec)
Manufacturer	EPA Region 6 Criteria	
Voltage/ Phase	240/3	
Motor Efficiency, %	89	
Pump Efficiency	72.5	
Power usage, Kw-Hr/Yr	283,021	
Power Cost, \$/Yr	0.09	
Operational Cost, \$/Yr	25472	
Savings, \$/Yr	N/A	
Base Standard Efficiency, %	77	0

New Standard Grade Efficiency: Pumps -72.5%; Motors-89% : $0.725 \times 0.89 = 0.65$

Adding 20% efficiency to the standard grade Efficiency:

Base Std. Efficiency, %	77
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CHART 1. FY 2014 Oklahoma CWSRF Intended Use Projects and Administrative Costs
(Beginning July 1, 2013)

PART 1. Section 212 Publicly Owned Treatment Works Projects

	TYPE ¹	PROJECT NAME/ COMMUNITY	PROJECT NUMBER	ASSISTANCE AMOUNT (\$)	2010 CENSUS POPULATION	DISCHARGE PERMIT REQUIREMENTS ² NEEDS CATEGORIES ³														BINDING COMMIT- MENT DATE ⁴	CONSTRUCT START DATE ⁵	INITIATION OF OPERATIO N DATE ⁶				
						CBOD	BOD	TSS	NH3-N	P	Min. DO	Fecal	I	II	IIIA	IIIB	IVA	IVB	VI				VII	X		
1	LC	Ramona PWA	ORF-13-0007	1,239,050	535		25.0	90.0					X			X								07/16/13	09/14/13	09/14/14
2	LC	Commerce DA	ORF-13-0002	900,000	2,473	18.0		60.0	6.0		4.0			X										10/15/13	12/14/13	12/14/14
3	LC	Owasso PWA	ORF-13-0005	5,000,000	28,915	15.0		30.0	3.0		5.0				X	X								07/16/13	09/14/13	09/14/15
4	LC	Oilton PWA	ORF-13-0012	2,767,058	1,099		20.0	30.0					X											07/16/13	09/14/13	09/14/14
5	LC	Ochelata UA	ORF-13-0008	1,486,340	424	10.0	25.0	15.0	2.0		3.0			X										07/16/13	09/14/13	09/14/14
6	LC	Kiefer PWA	ORF-13-0006	660,323	1,685		30.0	60.0			6.0		X											10/15/13	12/14/13	06/15/14
7	LC	El Reno MA	ORF-13-0003	16,000,000	16,749	20.0		30.0	4.1		5.0			X										09/17/13	11/16/13	11/16/15
8	LC	Tulsa MUA	ORF-14-0002	34,791,000	391,906	10.0	15 & 30	30.0	3.0		6.0		X	X	X	X					X			11/19/13	01/18/14	01/18/16
9	LC	Altus MA	ORF-14-0007	3,000,000	19,813	10.0		15.0	3.2		2.0			X										11/19/13	01/18/14	01/18/15
10	LC	Frederick PWA	ORF-13-0011	7,698,000	3,940		30.0	90.0			5.0		X			X								08/20/13	10/19/13	10/19/15
11	LC	Ardmore PWA	ORF-14-0009	9,000,000	24,283	5.0		15.0	1.0		5.5				X	X								06/17/14	08/16/14	08/15/16
12	LC	Norman UA	ORF-14-0005	52,000,000	110,925	13.0	30.0	30.0	4.5		5.0			X		X								10/15/13	12/14/13	12/14/15
13	LC	Owasso PWA	ORF-14-0001	6,000,000	28,915	15.0		30.0	3.0		5.0				X									05/20/14	07/19/14	07/18/16
14	R	Quinton PWA	ORF-13-0016	800,000	1,051		30.0	90.0								X	X							07/16/13	09/14/13	09/14/14
15	LC	Broken Arrow MA	ORF-12-0012	4,000,000	98,850		30.0	30.0							X	X								03/18/14	05/17/14	05/17/15
16	LC	Ardmore PWA	ORF-14-0008	3,500,000	24,283	5.0		15.0	1.0		5.5					X								02/18/14	04/19/14	04/19/15
Total--212				\$148,841,771																						

PART 2. Section 319 Nonpoint Source Mgmt. Projects

Total-- NPS Cat. VII	\$0
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PART 3. Section 320 Estuary Program Projects

Total-- No Estuaries	\$0
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PART 4. CWSRF Program Administrative Costs

Total-- 4% Program Admin. Fees Banked	\$800,000
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TOTAL PARTS 1 through 4	\$149,641,771
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¹ R = Refinancing LC = Long-term Construction Loan HG = Hardship Grant NC = Non-construction GPR = Green Project Reserve

² ND = No Discharge NA = Not Applicable A = Administrative Cost

³ I = Secondary Treatment, II = Advanced Treatment, IIIA = Inflow/Infiltration Correction, IIIB = Major Sewer System Rehab.,

IVA = New Collection System, IVB = New Interceptor, VI = Urban Stormwater, Nonpoint source pollution control activities,

X = Conveyance of Recycled Water

⁴ "Binding Commitment Date" is target date for OWRB board approval and commitment of funds (prior to loan closing).

⁵ Estimated based on assumption that construction start is 60 days following Binding Commitment Date.

⁶ Construction time estimated based on cost of project: <\$500,000 = 2 quarters or 183 days; \$500,000-\$3.5 million = 4 quarters or 365 days; >\$3.5 million = 8 quarters or 730 days.

CHART 2. Binding Commitment Requirements with Respect to Federal Payments by Federal Fiscal Quarter

(Beginning July 1, 2013)

This table lists "binding commitments," those wastewater construction projects that meet the requirements of the federal capitalization grant, including all federal crosscutting laws and authorities. These projects may receive loan proceeds from any source within the CWSRF, including capitalization grant/State matching funds, bond funds, or "2nd round" funds (loan repayments). Refinancing loans are not included on this table.

PROJECT NAME/COMMUNITY SERVED	PROJECT NUMBER	BINDING COMMITMENT DATE	Federal FY 2013	Federal FY 2014				TOTALS
			QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	
N	ORF-13-0007	07/16/13	1,239					1,239
Commerce DA	ORF-13-0002	10/15/13		900				900
Owasso PWA	ORF-13-0005	07/16/13	5,000					5,000
Oilton PWA	ORF-13-0012	07/16/13	2,767					2,767
Ochelata UA	ORF-13-0008	07/16/13	1,486					1,486
Kiefer PWA	ORF-13-0006	10/15/13		660				660
El Reno MA	ORF-13-0003	09/17/13	16,000					16,000
Tulsa MUA	ORF-14-0002	11/19/13		34,791				34,791
Altus MA	ORF-14-0007	11/19/13		3,000				3,000
Frederick PWA	ORF-13-0011	08/20/13	7,698					7,698
Ardmore PWA	ORF-14-0009	06/17/14				9,000		9,000
Norman UA	ORF-14-0005	10/15/13		52,000				52,000
Owasso PWA	ORF-14-0001	05/20/14				6,000		6,000
Quinton PWA	ORF-13-0016	07/16/13	800					800
Broken Arrow MA	ORF-12-0012	03/18/14			4,000			4,000
Ardmore PWA	ORF-14-0008	02/18/14			3,500			3,500
Capitalization Grant Administration (from banked funds)	N/A	N/A	-	200	200	200	200	800
(1) Annual Select Binding Commitment Totals			34,990	91,551	7,700	15,200	200	139,736
(2) Cumulative Binding Commitment Totals ¹			1,041,920	1,076,911	1,168,462	1,176,162	1,191,362	1,191,562
(3) Fiscal Year Select Binding Commitment Totals			34,990	91,551	7,700	15,200	200	
(4) CAP Grant Award & State Match			6471.6	6471.6	0	0	0	12,943
(5) Cumulative Required Binding Commitment Totals			334,999	341,470	347,942	347,942	347,942	
(6) Binding Commitment Totals as a Percentage of Required Binding Commitment Totals			311.0%	315.4%	335.8%	338.0%	342.4%	342.5%

¹ Projections

CHART 3 FY 2014 CWSRF Loan Fund Sources

(Beginning July 1, 2013)

SOURCES OF FUNDS	TOTALS
BEGINNING UNRESTRICTED BALANCE (FY 13 Carryover)	90,833,708.71
2013 CAPITALIZATION GRANT PAYMENTS	10,786,000.00
STATE MATCH DEPOSITS	2,157,200.00
PROPOSED 2014 BOND ISSUE	100,000,000.00
RELEASE OF 2004 BOND RESERVE FUNDS	2,932,506.50
LOANS:	
Interest Earnings	8,793,838.10
Principal Repayments	23,698,051.10
INVESTMENT INCOME-TREASURY	
State Treasurer's Cash Management Program Interest (recycled funds)	171,925.80
Lawton Investment Principal/Interest	623,787.00
Investment Earnings 2004 Bond Proceeds *	2,065,666.00
Short-Term Investment Earnings-BancTrust	13,657.90
TOTAL SOURCES	242,076,341.11

FUND COMMITMENTS	TOTALS
LOAN OBLIGATIONS - ON FY 2014 PRIORITY LIST	\$ 148,841,771.00
LOAN OBLIGATIONS - PRIOR YEARS	104,045,073.41
OWRB ADMINISTRATIVE EXPENSES	800,000.00
BOND INTEREST for 2004 CWSRF Bonds:	4,025,887.50
BOND PRINCIPAL for 2004 CWSRF Bonds:	6,455,000.00
BOND INTEREST for 2011 CWSRF Bonds:	3,659,087.50
BOND PRINCIPAL for 2011 CWSRF Bonds:	4,660,000.00
BOND INTEREST for 2012 CWSRF Bonds:	3,799,000.00
BOND PRINCIPAL for 2012 CWSRF Bonds:	620,000.00
TOTAL FUND COMMITMENTS	276,905,819.41

ADDITIONAL FUNDS NEEDED**	-34,829,478.30
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* Funds are restricted for 2004 Bond debt service and arbitrage rebate liability

** Will use future cap grants, state match and bond issues to fund future needs.

CHART 3A FY 2014 Sources and Uses of Administrative Fees ----- held outside of the CWSRF Loan Fund

Beginning Balance, 7/1/13*	\$	1,761,908.69
Projected Application Fees	\$	2,000.00
Projected Administrative Fee Revenue	\$	2,007,091.40
Total Sources	\$	3,771,000.09
Projected Expenses**:	\$	1,500,000.00
Projected Ending Balance, 6/30/14	\$	2,271,000.09

*Balance projected through 6/30/13

**Includes Personnel, Travel, Professional Services, Equipment, etc.

Appendix C, Chart 3B

Historical Funding Sources Oklahoma Clean Water State Revolving Fund As of June 1, 2013

Fiscal Year	Federal Cap Grant Amount	State Match Amount	Over Match Amount	Bond Issue Proceeds	Notes	Less 4% Administration	Total Available For Assistance
1988	\$9,278,000.00	\$1,855,600.00	\$0.00	\$0.00	(1)	\$371,120.00	\$10,762,480.00
1989	\$7,597,400.00	\$1,519,480.00	\$0.00	\$0.00	(2)	\$303,896.00	\$8,812,984.00
1990	\$7,862,000.00	\$1,572,400.00	\$0.00	\$0.00	(3)	\$314,480.00	\$9,119,920.00
1991	\$16,580,619.00	\$3,316,123.80	\$0.20	\$0.00	(3)	\$663,224.76	\$19,233,518.24
1992	\$15,697,737.00	\$3,139,547.40	\$0.60	\$0.00	(4)	\$627,909.48	\$18,209,375.52
1993	\$15,528,546.00	\$3,105,709.20	-\$0.20	\$0.00	(5)	\$621,141.84	\$18,013,113.16
1994	\$9,632,600.00	\$1,926,520.00	\$0.00	\$0.00	(6)	\$385,304.00	\$11,173,816.00
1995	\$9,951,183.00	\$1,990,236.60	\$0.40	\$0.00	(7)	\$398,047.32	\$11,543,372.68
1996	\$16,300,350.00	\$3,260,070.00	-\$1.00	\$0.00	(7,8)	\$652,014.00	\$18,908,405.00
1997	\$4,986,100.00	\$997,220.00	\$21,450.00	\$0.00	(8)	\$199,444.00	\$5,805,326.00
1998	\$10,879,110.00	\$2,175,822.00	\$8,644.94	\$0.00	(9)	\$435,164.40	\$12,628,412.54
1999	\$10,880,001.00	\$2,176,000.20	\$105,646.80	\$0.00	(10)	\$435,200.04	\$12,726,447.96
2000	\$10,996,702.00	\$2,199,340.40	\$82,990.54	\$0.00	(11)	\$439,868.08	\$12,839,164.86
2001	\$10,746,747.00	\$2,149,349.40	\$677.89	\$0.00	(12)	\$429,869.88	\$12,466,904.41
2002	\$10,770,705.00	\$2,154,141.00	\$0.00	\$26,000,000.00	(12,13)	\$430,828.20	\$38,494,017.80
2003	\$10,700,700.00	\$2,140,140.00	\$0.00	\$127,500,000.00	(14)	\$428,028.00	\$139,912,812.00
2004	\$10,720,400.00	\$2,144,080.00	\$0.00	\$0.00	(14)	\$428,816.00	\$12,435,664.00
2005	\$8,693,800.00	\$1,738,760.00	\$0.00	\$0.00	(14)	\$347,752.00	\$10,084,808.00
2006	\$7,046,300.00	\$1,409,260.00	\$67,760.00	\$0.00	(14)	\$281,852.00	\$8,241,468.00
2007/2008	\$14,087,400.00	\$2,817,480.00	\$0.00	\$0.00	(15)	\$563,496.00	\$16,341,384.00
ARRA	\$31,662,100.00	N/A	\$0.00	\$0.00		\$1,266,484.00	\$30,395,616.00
2009/2010	\$21,914,100.00	\$4,382,820.00	\$0.00	\$107,638,872.09	(15,16)	\$876,564.00	\$133,059,228.09
2011	\$11,930,000.00	\$2,386,000.00	\$0.00	\$0.00	(16)	\$477,200.00	\$13,838,800.00
2012	\$11,419,000.00	\$2,283,800.00	\$0.00	\$112,377,000.00	(16,17)	\$456,760.00	\$125,623,040.00
2013*	\$10,786,000.00	\$2,157,200.00	\$0.00	\$0.00	(17)	\$431,440.00	\$12,511,760.00
Totals	\$306,647,600.00	\$52,839,900.00	\$287,170.17	\$373,515,872.09		\$11,377,704.00	\$710,670,078.26

Notes:

- 1 FY 1988 state match appropriated by the legislature from the Statewide Water Development Revolving Fund. - 7/30/88, H.B. 1571
- 2 FY 1989 state match appropriated by the legislature from the Statewide Water Development Revolving Fund. - 4/26/89, S.B. 51
- 3 FYs 1990 and 1991 state matches appropriated by the legislature from the Special Cash Fund. - 3/20/91, S.B. 144
- 4 \$2,892,047 of FY 1992 state match appropriated by the legislature from the Constitutional Reserve Fund. - 5/28/93, S.B. 390; \$200,000 in state match provided by Ute settlement - State of New Mexico and \$47,501 in state match provided from OWRB grant account.
- 5 FY 1993 state match appropriated by the legislature from the Constitutional Reserve Fund. - 5/18/94, H.B. 2761
- 6 OWRB issued its \$1,950,000 SRF Program Notes, Series 1994 on October 25, 1994. The Series 1994 Notes were paid from monies in the Debt Service Reserve Fund for the Board's 1985 State Loan Program Bonds.
- 7 OWRB issued its \$4,050,000 CWSRF Revenue Notes, Series 1996 on May 22, 1996. The Series 1996 Notes were paid from investment and interest earnings on CWSRF accounts and repayments on the Guymon and Ketchum State Loan Program Bond loans. \$1,990,237 went toward meeting the FY 1995 state match and \$2,018,545 toward the FY 1996 state match.
- 8 OWRB issued its \$2,275,000 CWSRF Revenue Notes, Series 1997 on June 26, 1997. The Series 1997 Notes were paid from investment and interest earnings on CWSRF accounts and repayments on the Guymon and Ketchum State Loan Program Bond loans. \$1,241,524 went toward meeting the FY 1996 state match and \$1,018,670 toward the FY 1997 state match.
- 9 OWRB issued its \$2,200,000 CWSRF Revenue Notes, Series 1998 on June 25, 1998. The Series 1998 Notes were paid from investment and interest earnings on CWSRF accounts and repayments on the Guymon and Ketchum State Loan Program Bond loans.
- 10 OWRB issued its \$2,300,000 CWSRF Revenue Notes, Series 1999 on February 15, 1999. The Series 1999 Notes were paid from investment and interest earnings on CWSRF accounts and repayments on the Guymon and Ketchum State Loan Program Bond loans.
- 11 OWRB issued its \$2,300,000 CWSRF Revenue Notes, Series 2000 on June 22, 2000. The Series 2000 Notes were paid from investment and interest earnings on CWSRF accounts and repayments on the Guymon and Ketchum State Loan Program Bond loans.
- 12 OWRB issued its \$4,345,000 CWSRF Revenue Notes, Series 2001 on April 11, 2001. The Series 2001 Notes were paid from investment and interest earnings on CWSRF accounts. \$2,149,349.40 went toward meeting the FY 2001 state match and \$2,154,141.00 went toward meeting the FY 2002 state match.
- 13 OWRB issued a \$28,890,000 CWSRF Interim Construction Loan Revenue Bonds, Series 2001, on August 15, 2001. The Series 2001 Bonds are to be paid from principal and interest payments made on CWSRF loans made from bond proceeds.
- 14 OWRB issued a \$204,480,000 CWSRF/DWSRF Interim Construction Loan Revenue Bonds, Series 2004, on October 26, 2004. The Series 2004 Bonds are to be paid from principal and interest payments made on CWSRF loans made from bond proceeds. Match for 2003, 2004, 2005, 2006 with \$67,760 left.
- 15 Reallocation of bond funds from the 2004 Bond Issue to state matching funds - \$3,908,100 for the 2007, 2008 and 2009 cap grants.
- 16 OWRB issued a \$85,000,000 Revenue Bond Issue, Series 2011 on April 13, 2011 with \$6,492,200 for the 2010 and 2011 cap grants and a portion of the 2012 cap grant. \$814,000 for the 2012 state match will be available from the 2011 bond issue the remainder will need to come from another source.
- 17 OWRB issued a \$86,505,000 Revenue Bond Issue, Series 2012B on November 7, 2012 with \$2,047,000 for the remainder of the 2012 cap grant. The state match for the 2013 cap grant will be provided with a reallocation of the 2012B bond proceeds of \$1,500,000 and overmatch from 2006 of \$67,760 and overmatch from 2012B Bonds of \$644,960.

* Estimated amount of capitalization grant and subsequent state match.

Chart 2. Projected Environmental Benefits for Proposed FY 14 CWSRF Loans Page 1 of 2

PROJECT	Ramona PWA	Commerce DA	Owasso PWA	Oilton PWA	Ochelata UA	Kiefer PWA	El Reno MA	Tulsa MUA
Project Number	ORF-13-0007	ORF-13-0002	ORF-13-0005	ORF-13-0012	ORF-13-0008	ORF-14-0006	ORF13-0003-CW	ORF-14-0002
Binding Commitment Year	2014	2014	2014	2014	2014	2014	2014	2014
Population	535	2,473	28,915	1,099	424	1,685	16,749	391,906
Assistance Amount Total	\$1,239,050	\$900,000	\$5,000,000	\$2,767,058	\$1,486,340	\$770,665	\$16,000,000	\$34,791,000
Category I				\$2,767,058		\$770,665		\$400,000
Category II	\$918,750	\$900,000			\$1,486,340		\$16,000,000	\$505,000
Category IIIA			\$2,500,000					\$10,300,000
Category IIIB	\$320,300		\$2,500,000					\$18,677,000
Category IVA								\$2,060,000
Category IVB								\$2,849,000
Category VI								
Category VII								
Category X								
Waterbody name	Double Cr.	Tar Cr.	Trib to Owasso Cr. (trib of Bird Cr.)	Cimarron R. into Keystone Lake	East Keller Cr.	Childress Cr.	N. Canadian R.	Arkansas R. & Bird Cr. & Haikey Cr.
Affected Waterbody I.D.	OK1214000140_00	OK 121600040060_00	OK 121300010010_00	OK 620900010170_10	OK121400010322_00	OK120420020160_00	OK 520530000010_10	OK 120420010010_00 OK 120420010010_00 OK 121300010010_00
PROJECT TYPE FACTOR								
Consent Order or Enforceable NPDES Permit Schedule	X	X		X	X	X	X	X
Eliminate or reduce documented health threat or NPDES violation within watershed that is a water supply				X			X	X
Eliminate or reduce documented health threat or NPDES violation	X	X			X	X		
All other projects sustaining or reducing current degree of treatment, increasing capacity, reliability, or efficiency, reclaim/reuse water, or reduce documented water quality threat			X					X
WATER QUALITY RESTORATION FACTOR								
Affects 303d listed stream		X	X	X		X	X	X
Top-ten NPS Priority Watershed		X	X				X	X
Project implements water quality plan	X	X		X	X		X	X
WATER QUALITY PROTECTION FACTOR								
Appendix A water								
Outstanding Resource Water								
High Quality Water								
Sensitive Water Supply								
Scenic River								
Cultural Significance								
Appendix B water								
Waters with recreational and/or ecological significance	X	X	X	X	X			X
Source water protection area							(NLW Watershed)	
Groundwater vulnerability								
Low	X	X	X		X	X		X
Moderate				X				
High Quality Water								
Very High							X	X

* Approximated Cost Breakout

Chart 2. Projected Environmental Benefits for Proposed FY 14 CWSRF Loans Page 2 of 2

PROJECT	Altus MA	Frederick PWA	Ardmore PWA	Norman UA	Owasso PWA	Quinton PWA	Broken Arrow MA	Ardmore PWA
Project Number	ORF-14-0007	ORF-13-0011	ORF-14-0009	ORF-14-0005	ORF-14-0001	ORF-13-0016	ORF-13-0010	ORF-14-0008
Binding Commitment Year	2014	2014	2014	2014	2014	2014	2014	2014
Population	19,813	3,940	24,283	110,925	28,915	1,051	98,850	24,283
Assistance Amount Total	\$3,000,000	\$7,698,000	\$9,000,000	\$52,000,000	\$6,000,000	\$800,000	\$7,000,000	\$3,500,000
Category I								
Category II	\$3,000,000			\$33,000,000	\$6,000,000	\$600,000		
Category IIIA			\$4,500,000					\$2,500,000
Category IIIB		\$7,698,000	\$4,500,000	\$19,000,000			\$7,000,000	
Category IVA						\$200,000		
Category IVB								\$1,000,000
Category VI								
Category VII								
Category X								
Waterbody name	Unnamed Trib of Stinking Cr.	Little Deep Red Cr.	Sand Cr.	Canadian R.	Trib to Owasso Cr. (trib of Bird Cr.)	Unnamed Trib to San Bois Cr.	Arkansas R.	Washita R.
Affected Waterbody I.D.	ok 311500	OK 311310030040_00	OK 310800030020_00	ok 520310010010_05	OK 121300010010_00	ok 220200040010_40	OK 1204410010080_00	OK 310800020010_00
PROJECT TYPE FACTOR								
Consent Order or Enforceable NPDES Permit Schedule	X	X	X					
Eliminate or reduce documented health threat or NPDES violation within watershed that is a water supply	X	X	X					
Eliminate or reduce documented health threat or NPDES violation				X				
All other projects sustaining or reducing current degree of treatment, increasing capacity, reliability, or efficiency, reclaim/reuse water, or reduce documented water quality threat	X				X	X	X	X
WATER QUALITY RESTORATION FACTOR								
Affects 303d listed stream		X		X	X	X	X	X
Top-ten NPS Priority Watershed					X			
Project implements water quality plan	X		X	X				
WATER QUALITY PROTECTION FACTOR								
Appendix A water								
Outstanding Resource Water								
High Quality Water								
Sensitive Water Supply								
Scenic River								
Cultural Significance								
Appendix B water								
Waters with recreational and/or ecological significance	X	X	X	X	X	X	X	X
Source water protection area								
Groundwater vulnerability								
Low	X	X	X		X	X		X
Moderate								
High Quality Water								
Very High				X			X	

* Approximated Cost Breakout

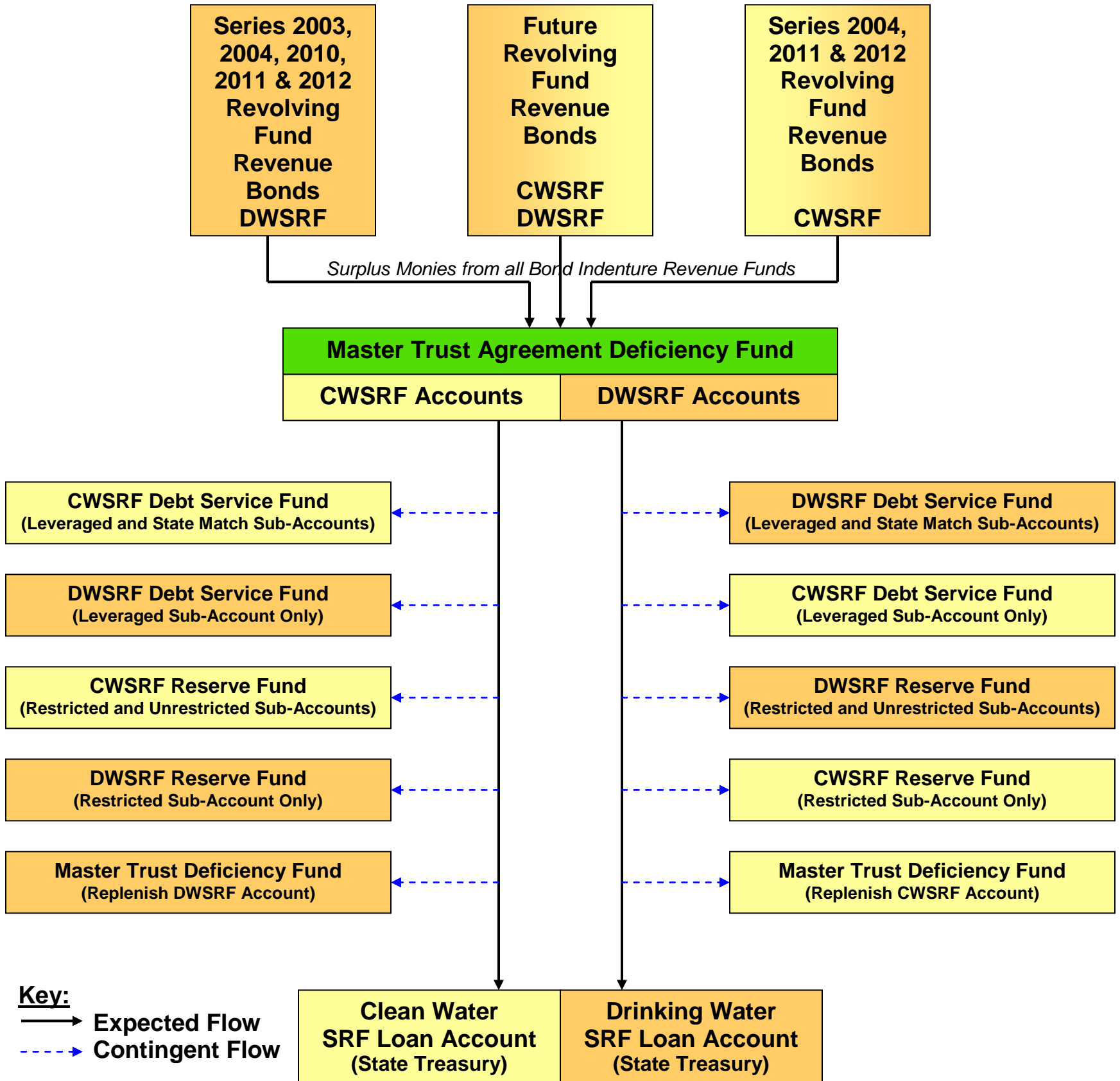
Oklahoma Water Resources Board to Hold Public Meeting on Clean Water State Revolving Fund FY 2014 Intended Use Plan

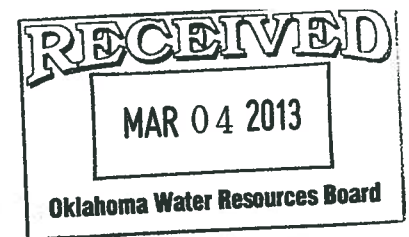
OKLAHOMA CITY - The Oklahoma Water Resources Board will hold a public meeting to receive comments on the Draft FY 2014 Clean Water State Revolving Fund (CWSRF) Intended Use Plan and Project Priority List on Tuesday, June 4, 2013, at 10:30a.m. at 3800 North Classen Blvd, Oklahoma City, OK 73118. Eligible public systems may receive below market interest rate financing for construction and improvement of collection and treatment works, stormwater, abandoned site remediation, water/energy efficiency, green infrastructure, innovative green projects and nonpoint source pollution control activities which maintain and/or improve Oklahoma's surface and groundwater resources.

A copy of the draft plan is available at the above address or www.owrb.ok.gov/CWSRF. To submit a project to be considered for funding or for further information contact: Jennifer Wasinger, Financial Assistance Division, (405)530-8800.

Cross-Collateralization

under the
Master Trust Agreement
Oklahoma Water Resources Board
Clean Water and Drinking Water State Revolving Funds





E. SCOTT PRUITT
ATTORNEY GENERAL OF OKLAHOMA

February 27, 2013

Mr. Ron Curry
Regional Administrator, Region VI
United States Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202-2733

Re: Certification of FY 2013 CWSRF Capitalization Grant

Dear Mr. Curry:

The Federal Water Pollution Control Act, 33 U.S.C §§1381, *et seq.*, as amended, provides authority to Congress to make capitalization grants available to the states for water pollution control revolving fund programs. In connection with the application of the state for the capitalization grant, 40 C.F. R §35.3110 requires that the state's Attorney General provide certification of the state's authority to enter into capitalization grant agreements.

This letter certifies that the Oklahoma Water Resources Board ("OWRB") has the authority to participate on behalf of the State of Oklahoma in this federal grant program. The statutes that specify the OWRB's authority includes the following language:

"...the Oklahoma Water resources Board shall have the following jurisdictional area of responsibility:...Administration of the federal State Revolving Fund Program including, but not limited to, making application for and receiving capitalization grant awards, wastewater prioritization for funding, technical project reviews, environmental review process, and financial review and administration."

27 O.S. §1-3-101 (C)(6). Additional authority for the OWRB to apply for, receive and administer federal capitalization grant awards is specified in Oklahoma Const. Art. X §39 and 82 O.S. §§1085.53 *et seq.* Should you have further questions, or need additional information, please feel free to contact my office.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Scott Pruitt", written over a horizontal line.

E. SCOTT PRUITT
Oklahoma Attorney General

Oklahoma SAAP Grants (ACTIVE)

Oklahoma SAAP Grants (ACTIVE)					
<i>FY 2009</i>					
Ada	\$500,000	XP-00F33501-0	EPA issued CE 01/26/2011	Wastewater System Improvements	Under Construction
<i>FY 2010</i>					
Lawton	\$750,000	XP-97690301	EPA issued CE on 12/22/2011	12,770 LF of 18" Water line const.	Will Start Construction in May 2013