

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION INTO)
EXCESSIVE WATER LOSS BY KENTUCKY’S) CASE NO. 2019-00041
JURISDICTIONAL WATER UTILITIES)

HYDEN-LESLIE COUNTY WATER DISTRICT’S STATUS REPORT
ON COMPLIANCE WITH ORDER OF NOVEMBER 22, 2019

Pursuant to the Commission’s Order of April 7, 2020, Hyden-Leslie County Water District (“Hyden-Leslie District”) submits the following report on the status of its efforts to comply with the Order of November 22, 2019

Funding Projects Currently in the Water Resource Information System (“WRIS”).

Hyden-Leslie District’s Board of Commissioners has designated Michael Maggard of Sisler-Maggard Engineering PLLC as its representative to federal and state funding agencies. Mr. Maggard has prepared a report, which is attached as Exhibit A, on the status of funding for each project that Hyden-Leslie District currently has listed in the WRIS. The project profiles for these projects are attached as Exhibits B through F.

Fire Department Water Usage. Hyden-Leslie District’s General Manager has contacted all fire departments within its territory and explained the importance of making monthly reports. At the present time, all fire departments are complying with the reporting requirements. Hyden-Leslie District will submit documentation of usage in its final report to the Commission.

Water Audit. In its Order of November 22, 2019, the Commission directed Hyden-Leslie District to “provide the results of a comprehensive water audit.” Hyden-Leslie District has requested the assistance of Kentucky Rural Community Assistance Program (“RCAP”) to prepare

a water audit. Hyden-Leslie District is unclear as to the procedures and methodologies to follow to perform such audit. At its request, RCAP representatives made informal and unofficial inquiries to Commission Staff to ascertain the Commission's expectations but did not receive a definitive response. Hyden-Leslie District is aware of Big Sandy Water District's written inquiry to Commission Staff on the same subject and is waiting to review the response to that inquiry before proceeding. Hyden-Leslie District continues to reach out to non-government organizations for assistance in performing a comprehensive water audit.

Preparation of a Written Leak Detection Policy. Hyden-Leslie District is preparing a written leak detection policy. Attached as Exhibit G is the current version of that policy. Hyden-Leslie District continues to review this policy and may revise prior to its final submission to the Commission in September 2020.

Tariff Sheet Addressing Missed or Underbilled Customers. Hyden-Leslie District's counsel has prepared a revised tariff that is currently under review. The revised tariff is expected to be filed with the Commission by June 30, 2020.

Funding for and Performance of Repairs at Water Storage Tanks. Funding for repairs to the two water storage tanks referenced in the Order of November 22, 2010 is found in the proposed Phase IIIB Water System Improvement Project. Hyden-Leslie District is attempting to meet the remaining conditions set forth in a Rural Development Letter of Conditions to access the funds for the project. Hyden-Leslie District has performed temporary repairs on one of the water storage tanks but recognizes that permanent repairs should be made as soon as funding becomes available.

Upgrading Billing Software. Hyden-Leslie District has contacted two billing software providers - Muni-link and United Systems – regarding the purchase and installation of a new

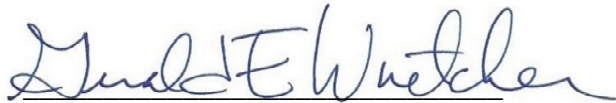
billing software system. Currently, Hyden-Leslie District lacks sufficient funds to purchase a billing software system. It has applied for a rate adjustment. Once a rate adjustment is authorized, Hyden-Leslie will be bettered positioned financially to purchase new billing software.

Written Policy Addressing Theft of Water Service. Hyden-Leslie District has commenced work on a written policy but does not expect to complete this policy until late Summer 2020. Upon advice of counsel, this policy will not be contained in Hyden-Leslie District's tariff but will be set forth in a separate internal document.

Reduction in Water Loss. Hyden-Leslie District has reduced its water loss from 32.87 percent reported for calendar year 2018 to 24.40 percent in calendar year 2019.

Dated: May 22, 2020

Respectfully submitted,



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Counsel for Hyden-Leslie County Water District

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Hyden-Leslie County Water District's electronic filing of this Report is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Public Service Commission on May 22, 2020; that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding; and within 30 days following the end of the state of emergency announced in Executive Order 2020-215 this Report in paper medium will be delivered to the Public Service Commission.


Counsel for Hyden-Leslie County Water District

EXHIBIT A



SISLER-MAGGARD ENGINEERING, PLLC

220 EAST REYNOLDS ROAD, SUITE A3

LEXINGTON, KY 40517

(859) 271-2978

Fax (859) 271-5670

Email: sme@sislermaggard.com

May 20, 2020

Hyden – Leslie County Water District
356 Wendover Road
Hyden, KY 41749

Ref: Phase III – Water System Improvements
Hyden – Leslie County Water District – Leslie County
SME #14014

LJ,

Per your request, please the following update for funding for the projects listed in

WRIS system:

PSC RESPONSE CASE 2019-00041

1. WX21131002 – PHASE IIIB – WATER SYSTEM IMPROVEMENTS PROJECT

FUNDING:	loan or grant ID	amount	status
HB 303 Reallocation	37C-2017	\$2,500	committed
CDBG	2020	\$900,000	applying
Kia SRF Fund F loan	F21-062	\$1,000,000	ranked
AML	2020	\$323,000	applied
LGEDF – Coal Sev	37C-2017	\$15,700	committed
ARC	2020	\$500,000	applied
USDA RD Grant	2018	\$1,727,000	committed
USDA RD Loan	2018	\$1,152,000	committed

TOTAL AMOUNT COMMITTED AS OF THIS DATE - \$ 2,897,200

REMAINING AMOUNT TO BE SECURED AS OF THIS DATE - \$ 1,723,800

TOTAL PROJECT AMOUNT \$ 4,621,000

2. WX21131004 – PHASE IV – WATER SYSTEM IMPROVEMENTS PROJECT

FUNDING:	loan or grant ID	amount	status
Local Funds	2021	\$63,500	
ARC Grant	2021	\$250,000	
CDBG	2021	\$950,000	

TOTAL AMOUNT COMMITTED AS OF THIS DATE - \$ 0

REMAINING AMOUNT TO BE SECURED AS OF THIS DATE - \$ 1,263,500

TOTAL PROJECT AMOUNT \$ 1,263,500

Once phase III is completed then this project can have funding applications applied

3. WX21131009 – PHASE VI – WATER SYSTEM IMPROVEMENTS PROJECT

FUNDING:	loan or grant ID	amount	status
Kia SRF Fund Loan F	2021	\$655,000	

TOTAL AMOUNT COMMITTED AS OF THIS DATE - \$ 0

REMAINING AMOUNT TO BE SECURED AS OF THIS DATE - \$ 655,000

TOTAL PROJECT AMOUNT \$ 655,000

Once phase III is completed then this project can have funding applications applied

4. WX21131009 – SR 1850 – RYE COVE – WATER LINE EXTENSION PROJECT

FUNDING:	loan or grant ID	amount	status
AML GRANT	2021	\$500,000	APPLIED

TOTAL AMOUNT COMMITTED AS OF THIS DATE - \$ 0

REMAINING AMOUNT TO BE SECURED AS OF THIS DATE - \$ 500,000

TOTAL PROJECT AMOUNT \$ 500,000

5. WX21131011 – PHASE III A – WATER SYSTEM IMPROVEMENTS PROJECT

FUNDING:	loan or grant ID	amount	status
CDBG	2020	\$900,000	applying
ARC	2020	\$500,000	applied
USDA RD Grant	2018	\$830,000	committed
USDA RD Loan	2018	\$830,000	committed

REMAINING AMOUNT TO BE SECURED AS OF THIS DATE - \$ 1,400,000

TOTAL PROJECT AMOUNT \$ 3,060,000

THIS IS SAME PROJECT AS WX21131002 WITHOUT THE WATERLINE EXTENSIONS.
PROJECT SEPARATED FOR FUNDING PURPOSES.

Sincerely,



Michael K. Maggard
Sisler-Maggard Engineering, PLLC

EXHIBIT B



Drinking Water Project Profile

Legal Applicant: **Hyden-Leslie County Water District**

Project Title: **Phase III b Water System Improvements**

Project Number: **WX21131002** [View Map](#)

Submitted By: **KRADD**

Funding Status: **Partially Funded**

Primary County: **Leslie**

Project Status: **Approved**

Planning Unit: **Leslie**

Project Schedule: **3-5 Years**

Multi-County: **No**

E-Clearinghouse SAI: **KY201805310680**

ECH Status: **Approved**

Applicant Entity Type: **Water District (KRS 74)**

ADD WMC Contact: **Jennifer McIntosh**

Date Approved (AWMPC): **03-09-2016**

Project Description:

Project will include the rehabilitation of the existing dam structure of the raw water source located on the Middlefork of the Kentucky River. Project also includes installation of VFD's at the plant as well as steps. New pump station at Nebraska Lane and Middlefork . Replacing pump stations at Essie, Wilder, Honeysuckle Lane, Muncy Creek, Hurricane, Wolfe Creek and Gladly Branch. Installation of a new waterline at Phillips Fork, Yeaddiss, Head of Cutshin, Stinnett Wendover and Sams Branch. A new water booster at Nebraska Lane and Middlefork. Budget includes loan refinancing in the amount of \$2,400,000 and interest during construction in the amount of \$30,000. Project will also add a 200,000 gallon water tank to be installed adjacent to the existing Muncy Creek Tank. All work will be completed in WX21131011 except construction of lines which will be completed in this profile.

Need for Project:

Briefly describe how this project promotes public health or achieves and/or maintains compliance with the Clean Water Act or Safe Drinking Water Act:

Project will ensure that the surface source remains able to provide sufficient water. Will also provide for adequate service to customers.

Project Alternatives:

Alternate A:

Phase project

Alternate B:

Repair Dam as needed

Legal Applicant:

Entity Type: **Water District (KRS 74)**

PSC Group ID: **23300**

Entity Name: **Hyden-Leslie County Water District**

Web URL:

Office EMail: **hlwater@tds.net**

Office Phone: **606-672-2791**

Toll Free:

Fax: **606-672-7510**

Mail Address Line 1: **PO Box 906**

Phys Address Line 1: **356 Wendover Rd**

Mail Address Line 2:

Phys Address Line 2:

Mail City, State Zip: **Hyden, KY 41749**

Phys City, State Zip: **Hyden, KY 41749**

Contact: **L.J. Turner**

Financial Contact:

Auth Official: **Augustus Roberts**

Contact Title: **Manager**

Financial Contact Title:

Auth Official Title: **Chairman**

Contact EMail: **hlwater@tds.net**

Financial Contact EMail:

Auth Official EMail: **hlwater@tds.net**

Contact Phone: **606-672-2791**

Financial Contact Phone:

Auth Official Phone: **606-672-2791**

Data Source: **Kentucky Infrastructure Authority**

Date Last Modified: 09.12.2018



Drinking Water Project Profile

WX21131002 - Hyden-Leslie County Water District
Phase III b Water System Improvements

Project Administrator (PA) Information

Name: **Mike Maggard**

Title: **Vice President**

Organization: **Sisler-Maggard Engineering, PLLC**

Address Line 1: **220 East Reynolds Road, Suite A3**

Address Line 2:

City: **Lexington** State: **KY** Zip: **40517**

Phone: **859-271-2978** Fax: **589-271-5670**

Applicant Contact (AC) Information

Name: **L J Turner**

Title: **Manager**

Organization: **Hyden Leslie Water District**

Address Line 1: **PO Box 906**

Address Line 2:

City: **Hyden** State: **KY** Zip: **41749**

Phone: **606-672-2791** Fax: **606-672-7510**

Project Engineer (PE) Information:

This project requires a licensed Professional Engineer.

A Professional Engineer has been procured for this project.

Project Engineer Information:	Engineering Firm Information:
License No: PE 6324	Permit No: 1850
PE Name: Joseph F. Sisler	Firm Name: Sisler-Maggard Engineering, PLLC
Phone: 859-231-9831 Fax: 859-233-0046	Phone: 859-271-2978 Fax: 859-271-5670
E-Mail: joe@sislermaggard.com	Web URL:
Firm Name: Sisler-Maggard Engineering, PLLC	E-Mail: joe@sislermaggard.com
Addr Line 1: Sisler-Maggard Engineering, PLLC	Addr Line 1: 220 East Reynolds Rd., Suite A-3
Addr Line 2: 501 Quail Run	Addr Line 2: Suite A-3
Addr Line 3:	City: Lexington State: KY Zip: 40517
City: Lexington State: KY Zip: 40517	Status: Current Disciplinary Actions: NO
Status: Current Disciplinary Actions: NO	Issued: 06-19-2002 Expires: 12-31-2020
Issued: 07-13-1966 Expires: 06-30-2020	

Estimated Budget

Project Cost Categories:	
Cost Category	Cost
Administrative Expenses:	\$ 50,000
Legal Expenses:	\$ 30,000
Land, Appraisals, Easements:	\$ 15,000
Relocation Expenses & Repayments:	
Planning:	\$ 10,000
Engineering Fees - Design:	\$ 192,000
Engineering Fees - Construction:	\$ 64,000
Engineering Fees - Inspection:	\$ 157,000
Engineering Fees - Other:	\$ 60,000
Construction:	\$ 3,648,000
Equipment:	
Miscellaneous:	\$ 30,000
Contingencies:	\$ 365,000
Total Project Cost:	\$ 4,621,000

Construction Cost Categories:	
Cost Category	Cost
Treatment:	\$ 100,000
Transmission & Distribution:	\$ 2,338,000
Source:	\$ 800,000
Storage:	\$ 410,000
Purchase of Systems:	
Restructuring:	
Land Acquisition:	
Non-Categorized:	
Total Construction Cost:	\$ 3,648,000

Total Sustainable Infrastructure Costs:

Note: Total Sustainability Infrastructure Costs are included within construction and other costs reported in this section. This breakout is provided for SRF review purposes.



Drinking Water Project Profile

WX21131002 - Hyden-Leslie County Water District
Phase III b Water System Improvements

Project Funding Sources:

Total Project Cost: **\$4,621,000**

Total Committed Funding: **\$2,500**

Funding Gap: **\$4,618,500 (Partially Funded)**

This project will be requesting SRF funding for fiscal year 2021.

Estimated Project Schedule:

Est. Environmental Review Submittal Date: **12-01-2020**

Estimated Bid Date: **01-01-2021**

Estimated Construction Start Date: **02-01-2021**

Estimated Construction Completion Date: **06-01-2022**

Funding Source	Loan or Grant ID	Fiscal Year	Amount	Status	Applicable Date
HB 303 Reallocation	37C-2017	2017	\$2,500	Committed	8/7/2017
CDBG	17-042	2017	\$900,000	Withdrawn	6/30/2017
KIA SRF Fund F Loan (DW)	F21-062	2021	\$1,000,000	Ranked	5/4/2020
AML			\$323,000	Applied For	7/1/2014
LGEDF - Single County Coal Severance	37C-2017		\$15,700	Anticipated	
ARC		2018	\$500,000	Anticipated	
CDBG		2018	\$900,000	Anticipated	
USDA RD Loan		2018	\$1,727,000	Anticipated	
USDA RD Grant		2018	\$1,152,800	Anticipated	
KIA SRF Fund F Loan (DW)	F20-041	2020	\$1,000,000	Applied For	9/18/2019
Total Committed			\$2,500		

Funding Source Notes:

The following systems are beneficiaries of this project:

KY0660204 Hyden Leslie Co Water District

Note: Check mark indicates primary system for this project.

Project Ranking by AWMPC:

Regional Ranking(s): _____

Planning Unit Ranking: _____

Total Points: _____

- Plans and specs have been sent to DOW.
- Plans and specs have been reviewed by DOW.
- Plans and specs have been sent to PSC.
- Plans and specs have been reviewed by PSC.

Economic, Demographic and Geographic Impacts

Economic Impacts	
Jobs Created:	
Jobs Retained:	

*Demographic Impacts (GIS Census Overlay)			
Serviceable Demographic	Project Area	Included Systems	Included Utilities
Population:	146	10,296	10,296
Households:	68	4,788	4,788
MHI:	\$28,520	\$32,083	*\$32,083
MHI MOE	\$6,531	\$7,277	*\$7,277
MOE as Pct:	23%	23.0%	23.0%
**NSRL:		2	2



Drinking Water Project Profile

WX21131002 - Hyden-Leslie County Water District
Phase III b Water System Improvements

Population and household counts are based on 2010 census block values from the SF1 (100%) dataset.

MHI Source is from the American Community Survey 2014-2018 5Yr Estimates (Table B19013) *(for the primary system operated by the above listed beneficiary utilities).

MHI MOE = Med HH Income Margin of Error.

** NSRL (Non-Standard Rate Levels):
 0 = Income above Kentucky MHI (KMHI).
 1 = Income between 80% KMHI and KMHI.
 2 = Income less than or equal to 80% KMHI.
 - KMHI = \$48,392
 - 80% KHMI = \$38,714

New Customers	
New Residential Customers:	
New Commercial Customers:	
New Institutional Customers:	
New Industrial Customers:	

New or Improved Service		
Service Demographic	Survey Based	Census Overlay*
To Unserved Households:	66	68
To Underserved Households:	3,500	
To Total Households:	3,566	68
** Cost Per Household:	\$1,296	

Geographic Impacts For Project Area	
Counties	
Leslie	
Legislative Districts	
District Name	Legislator
House 090	Derek Lewis
Senate 30	Brandon Smith
Congressional 5	Hal Rogers
Groundwater Sensitivity Zones	
HUC 10 Watersheds	
HUC Code	Watershed Name
0510020201	Cutshin Creek
0510020202	Upper Middle Fork Kentucky River
0510020302	Red Bird River

Geographic Impacts For Included System(s)	
Counties	
Clay	
Leslie	
Perry	
Legislative Districts	
District Name	Legislator
House 084	Chris Fugate
House 090	Derek Lewis
Senate 25	Robert Stivers II
Senate 30	Brandon Smith
Congressional 5	Hal Rogers

* GIS Census block overlay figures are estimates of population and households potentially served by systems and projects based on a proximity analysis of relevant service lines to census block boundaries.

** Cost per household is based on surveyed household counts, not GIS overlay values.



Drinking Water Project Profile
 WX21131002 - Hyden-Leslie County Water District
 Phase III b Water System Improvements

DW Specific Impacts:

- This project relates to a public health emergency.
- This project will assist a non-compliant system to achieve compliance.
- This project will assist a compliant system to meet future requirements
- This project will provide assistance not compliance related.
- This project is necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree.
- Primary system has not received any SDWA Notices of Violation within the previous state fiscal year-July through June, i.e. July 2014 – June 2015).

Project Inventory (Mapped Features):

Mapped Line Features						
DOW Permit ID	Line Type	Purpose	Activity	Size (in.)	Material	Length (LF)
KY0660204	WATER LINE: FINISHED	DISTRIBUTION	EXTENSION	3.00	PVC	9,964
KY0660204	WATER LINE: FINISHED	DISTRIBUTION	EXTENSION	4.00	PVC	46,435
					Total Length	56,399

Administrative Components:

- Planning
 Design
 Construction
 Management

Regionalization Components:

Public Water Systems Eliminated:

- this project includes the elimination of public water system(s) through merger or acquisition.

Water Treatment Plants Eliminated:

- This project includes the elimination of water treatment plant(s) through interconnect(s).

Supplementation of Raw Water Supply:

- This project includes supplementing the existing raw water supply.

Supplementation of Potable Water Supply:

- This project includes supplementing the existing potable water supply.

Emergency Only Water Supply:

- This project provides emergency only water supply.

Water Source Protection:

- This project includes land acquisition for water source protection.



Drinking Water Project Profile

WX21131002 - Hyden-Leslie County Water District
Phase III b Water System Improvements

Water Treatment Components:

- This project includes water treatment components

Treatment Activities:

- This project includes a new water treatment plant.
- This project includes an expansion of an existing water treatment plant.
- This project includes rehabilitation of an existing water treatment plant.
- This project includes upgrades to an existing water treatment plant.
- This project includes emergency power generators for treatment activities.
- This project includes redundant treatment processes.

Acute Public Health Risk:

- This project includes infrastructure options to meet Cryptosporidium removal/inactivation requirements.
- This project includes infrastructure options to meet CT inactivation requirements.

Chronic Public Health Risk:

- This project includes treatment modifications to meet the Disinfectants/Disinfection Byproducts Rule at the water treatment plant.
- This project will provide treatment modifications for VOCs, IOCs, SOC, or Radionuclides.

Secondary Contaminants:

- This project includes treatment modifications to address Secondary Contaminants.

Security:

- This project includes security components for water treatment facilities.

Water Distribution and Storage:

- This project includes water distribution and/or storage components.

Water Line Extensions:

- This project includes water line extension(s).

Length of extensions: **56,399 LF**

Number of new connections: **66**

Redundancy Components:

- This project includes emergency power generators for distribution and/or storage activities.

Number of units provided: **0**

- This project includes redundant distribution and/or storage processes.



Drinking Water Project Profile

WX21131002 - Hyden-Leslie County Water District
Phase III b Water System Improvements

Finished Water Quality:

- This project includes infrastructure to address inadequate water turnover and disinfection byproducts (DBPs).
- This project includes infrastructure to address inability to maintain disinfection residual.

Water Line Replacement:

- This project replaces problem water lines (breaks, leaks, or restrictive flows due to age), water lines consisting of lead and/or asbestos-cement (AC), and/or inadequately sized water lines.

Water Storage and Pressure Components:

- This project includes the construction of new water tank(s).
- This project includes the replacement of existing water tank(s).
- This project includes the rehabilitation of existing water tank(s).
- This project includes the construction of new pump station(s).
- This project includes the rehabilitation of existing pump station(s).

Security:

- This project includes security components for water distribution infrastructure.

Sustainable Infrastructure - Green Infrastructure:

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:

Component	Cost
<input type="checkbox"/> Bioretention	\$0
<input type="checkbox"/> Trees	\$0
<input type="checkbox"/> Green Roofs	\$0
<input type="checkbox"/> Permeable Pavement	\$0
<input type="checkbox"/> Cisterns	\$0
Total Green Infrastructure Cost:	\$0

There are no Green Infrastructure components specified for this project.



Drinking Water Project Profile
 WX21131002 - Hyden-Leslie County Water District
 Phase III b Water System Improvements

Sustainable Infrastructure - Water Efficiency:

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. Examples include:

Component	Cost
<input type="checkbox"/> Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals).	\$0
<input type="checkbox"/> Installing any type of water meter in previously unmetred areas (can include backflow prevention if in conjunction with meter replacement).	\$0
<input type="checkbox"/> Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention.	\$0
<input type="checkbox"/> Retrofitting/adding AMR capabilities or leak equipment to existing meters.	\$0
<input type="checkbox"/> Conducting water utility audits, leak detection studies, and water use efficiency baseline studies, which are reasonably expected to result in a capital project or in a reduction in demand to alleviate the need for additional capital investment.	\$0
<input type="checkbox"/> Developing conservation plans/programs reasonable expected to result in a water conserving capital project or in a reduction in demand to alleviate the need for capital investment.	\$0
<input type="checkbox"/> Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate, and wastewater effluent reuse systems, extra treatment or distribution costs associated with water reuse).	\$0
<input type="checkbox"/> Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems.	\$0
<input type="checkbox"/> Water meter replacement with traditional water meters.*	\$0
<input type="checkbox"/> Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks.*	\$0
<input type="checkbox"/> Storage tank replacement/rehabilitation to reduce water loss.*	\$0
<input type="checkbox"/> New water efficient landscape irrigation system, where there currently is not one.*	\$0
Total Water Efficiency Cost:	\$0

* Indicates a business case may be required for this item.

There are no Water Efficiency components specified for this project.

Sustainable Infrastructure - Energy Efficiency:

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

Component	Cost
<input type="checkbox"/> Renewable energy projects, which are part of a public health project, such as wind, solar, geothermal, and micro-hydroelectric that provides power to a utility.	\$0
<input type="checkbox"/> Utility-owned or publicly-owned renewable energy projects.	\$0
<input type="checkbox"/> Utility energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas.	\$0
<input type="checkbox"/> Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)).*	\$0
<input type="checkbox"/> Pump refurbishment to optimize pump efficiency.*	\$0
<input type="checkbox"/> Projects that result from an energy efficient related assessment.*	\$0
<input type="checkbox"/> Projects that cost effectively eliminate pumps or pumping stations.*	\$0
<input type="checkbox"/> Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.*	\$0
<input type="checkbox"/> Upgrade of lighting to energy efficient sources.*	\$0
<input type="checkbox"/> Automated and remote control systems (SCADA) that achieve substantial energy savings.*	\$0
Total Energy Efficiency Cost:	\$0

* Indicates a business case may be required for this item.

There are no Energy Efficiency components specified for this project.



Drinking Water Project Profile
 WX21131002 - Hyden-Leslie County Water District
 Phase III b Water System Improvements

Sustainable Infrastructure - Environmentally Innovative:

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

Component	Cost
<input type="checkbox"/> Total integrated water resources management planning, or other planning framework where project life cycle costs are minimized, which enables communities to adopt more efficient and cost-effective infrastructure solutions.	\$0
<input type="checkbox"/> Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.	\$0
<input type="checkbox"/> Source water protection planning (delineation, monitoring, modeling).	\$0
<input type="checkbox"/> Planning activities to prepare for adaptation to the long-term effects of climate change and/or extreme weather.	\$0
<input type="checkbox"/> Utility sustainability plan consistent with EPA's sustainability policy.	\$0
<input type="checkbox"/> Greenhouse gas inventory or mitigation plan and submission of a GHG inventory to a registry as long as it is being done for an SRF eligible facility.	\$0
<input type="checkbox"/> Construction of US Building Council LEED certified buildings, or renovation of an existing building.	\$0
<input type="checkbox"/> Projects that significantly reduce or eliminate the use of chemicals in water treatment.*	\$0
<input type="checkbox"/> 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.*	\$0
<input type="checkbox"/> Trenchless or low impact construction technology.*	\$0
<input type="checkbox"/> Using recycled materials or re-using materials on-site.*	\$0
<input type="checkbox"/> Educational activities and demonstration projects for water or energy efficiency (such as rain gardens).*	\$0
<input type="checkbox"/> Projects that achieve the goals/objectives of utility asset management plans.*	\$0
Total Environmentally Innovative Cost:	\$0

* Indicates a business case may be required for this item.

There are no Environmentally Innovative components specified for this project.

Sustainable Infrastructure - Asset Management:

If a category is selected, the applicant must provide proof to substantiate claims. The documents must be submitted to Anshu Singh (Anshu.Singh@ky.gov) for CW projects

Component
Last Rate Adjustment Date: 10-29-2010 Download Fee Schedule
Rate Adjustment Age: 111 months
System's monthly water bill, based on 4,000 gallons, as a percentage of MHI: 1.18%
<input type="checkbox"/> The system(s) has a Capital Improvement Plan or similar planning document.
<input type="checkbox"/> The system(s) involved in this project have specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure.

Project Notes:

Date	Notes
06/30/2014	Approved 5/7/14

Project Status: Approved Date Approved: 08-13-2014 Date Revised: 03-09-2016

EXHIBIT C



Drinking Water Project Profile

Legal Applicant: **Hyden-Leslie County Water District**

Project Title: **Phase IV Water System Improvements**

Project Number: **WX21131004** [View Map](#)

Submitted By: **KRADD**

Funding Status: **Not Funded**

Primary County: **Leslie**

Project Status: **Pending**

Planning Unit: **Leslie**

Project Schedule: **3-5 Years**

Multi-County: **No**

E-Clearinghouse SAI:

ECH Status:

Applicant Entity Type: **Water District (KRS 74)**

ADD WMC Contact: **Jennifer McIntosh**

Date Approved (AWMPC):

Project Description:

Project will provide new service to approximately 50 unserved customers with approximately 10 miles of waterline. Project will also include a 50,000 gallon water tank and a booster station with telemetry.

***profile was approved 9-14-11 contingent on full profile details being submitted by engineer.**

Need for Project:

Briefly describe how this project promotes public health or achieves and/or maintains compliance with the Clean Water Act or Safe Drinking Water Act:

To provide residents with a safe and reliable drinking water source.

Project Alternatives:

Alternate A:

Phase out project

Alternate B:

Drill new wells

Legal Applicant:

Entity Type: **Water District (KRS 74)**

PSC Group ID: **23300**

Entity Name: **Hyden-Leslie County Water District**

Web URL:

Office EMail: **hlwater@tds.net**

Office Phone: **606-672-2791**

Toll Free:

Fax: **606-672-7510**

Mail Address Line 1: **PO Box 906**

Phys Address Line 1: **356 Wendover Rd**

Mail Address Line 2:

Phys Address Line 2:

Mail City, State Zip: **Hyden, KY 41749**

Phys City, State Zip: **Hyden, KY 41749**

Contact: **L.J. Turner**

Financial Contact:

Auth Official: **Augustus Roberts**

Contact Title: **Manager**

Financial Contact Title:

Auth Official Title: **Chairman**

Contact EMail: **hlwater@tds.net**

Financial Contact EMail:

Auth Official EMail: **hlwater@tds.net**

Contact Phone: **606-672-2791**

Financial Contact Phone:

Auth Official Phone: **606-672-2791**

Data Source: **Kentucky Infrastructure Authority**

Date Last Modified: 09.12.2018



Drinking Water Project Profile

WX21131004 - Hyden-Leslie County Water District
Phase IV Water System Improvements

Project Administrator (PA) Information

Name: **L J Turner**
 Title: **Manager**
 Organization: **Hyden Leslie Water District**
 Address Line 1: **PO Box 906**
 Address Line 2:
 City: **Hyden** State: **KY** Zip: **41749**
 Phone: **606-672-2791** Fax: **606-672-7510**

Applicant Contact (AC) Information

Name: **L J Turner**
 Title: **Manager**
 Organization: **Hyden Leslie Water District**
 Address Line 1: **PO Box 906**
 Address Line 2:
 City: **Hyden** State: **KY** Zip: **41749**
 Phone: **606-672-2791** Fax: **606-672-7510**

Estimated Budget

Project Cost Categories:	
Cost Category	Cost
Administrative Expenses:	\$ 5,000
Legal Expenses:	\$ 5,000
Land, Appraisals, Easements:	
Relocation Expenses & Repayments:	
Planning:	\$ 1,500
Engineering Fees - Design:	\$ 66,375
Engineering Fees - Construction:	\$ 22,125
Engineering Fees - Inspection:	\$ 56,000
Engineering Fees - Other:	\$ 7,500
Construction:	\$ 1,000,000
Equipment:	
Miscellaneous:	
Contingencies:	\$ 100,000
Total Project Cost:	\$ 1,263,500

Construction Cost Categories:	
Cost Category	Cost
Treatment:	
Transmission & Distribution:	\$ 675,000
Source:	
Storage:	\$ 325,000
Purchase of Systems:	
Restructuring:	
Land Acquisition:	
Non-Categorized:	
Total Construction Cost:	\$ 1,000,000
Total Sustainable Infrastructure Costs:	

Note: Total Sustainability Infrastructure Costs are included within construction and other costs reported in this section. This breakout is provided for SRF review purposes.

Project Funding Sources:

Total Project Cost: **\$1,263,500**
 Total Committed Funding: **\$0**
 Funding Gap: **\$1,263,500 (Not Funded)**

This project will be requesting SRF funding for fiscal year 2021.

Estimated Project Schedule:

Est. Environmental Review Submittal Date:
 Estimated Bid Date:
 Estimated Construction Start Date:
 Estimated Construction Completion Date:

Funding Source	Loan or Grant ID	Fiscal Year	Amount	Status	Applicable Date
Local			\$63,500	Anticipated	
ARC			\$250,000	Anticipated	
CDBG			\$600,000	Anticipated	
Total Committed					

Funding Source Notes:

The following systems are beneficiaries of this project:

✓ **KY0660204** Hyden Leslie Co Water District



Drinking Water Project Profile

WX21131004 - Hyden-Leslie County Water District
Phase IV Water System Improvements

Note: Check mark indicates primary system for this project.

Project Ranking by AWMP:

Regional Ranking(s): _____

Planning Unit Ranking: _____

Total Points: _____

- Plans and specs have been sent to DOW.
- Plans and specs have been reviewed by DOW.
- Plans and specs have been sent to PSC.
- Plans and specs have been reviewed by PSC.

Economic, Demographic and Geographic Impacts

Economic Impacts	
Jobs Created:	
Jobs Retained:	

*Demographic Impacts (GIS Census Overlay)			
Serviceable Demographic	Project Area	Included Systems	Included Utilities
Population:		10,296	10,296
Households:		4,788	4,788
MHI:		\$32,083	*\$32,083
MHI MOE		\$7,277	*\$7,277
MOE as Pct:		23.0%	23.0%
**NSRL:		2	2

Population and household counts are based on 2010 census block values from the SF1 (100%) dataset.

MHI Source is from the American Community Survey 2014-2018 5Yr Estimates (Table B19013) *(for the primary system operated by the above listed beneficiary utilities).

MHI MOE = Med HH Income Margin of Error.

** NSRL (Non-Standard Rate Levels):
 0 = Income above Kentucky MHI (KMHI).
 1 = Income between 80% KMHI and KMHI.
 2 = Income less than or equal to 80% KMHI.
 - KMHI = \$48,392
 - 80% KHMI = \$38,714

Geographic Impacts For Project Area	
Counties	
Legislative Districts	
District Name	Legislator
Groundwater Sensitivity Zones	
HUC 10 Watersheds	
HUC Code	Watershed Name

Geographic Impacts For Included System(s)	
Counties	
Clay	
Leslie	
Perry	
Legislative Districts	
District Name	Legislator
House 084	Chris Fugate
House 090	Derek Lewis
Senate 25	Robert Stivers II
Senate 30	Brandon Smith
Congressional 5	Hal Rogers

New Customers	
New Residential Customers:	
New Commercial Customers:	
New Institutional Customers:	
New Industrial Customers:	

New or Improved Service		
Service Demographic	Survey Based	Census Overlay*
To Unserved Households:		
To Underserved Households:	50	
To Total Households:	50	
** Cost Per Household:	\$25,270	

* GIS Census block overlay figures are estimates of population and households potentially served by systems and projects based on a proximity analysis of relevant service lines to census block boundaries.

** Cost per household is based on surveyed household counts, not GIS overlay values.



Drinking Water Project Profile

WX21131004 - Hyden-Leslie County Water District
Phase IV Water System Improvements

DW Specific Impacts:

- This project relates to a public health emergency.
- This project will assist a non-compliant system to achieve compliance.
- This project will assist a compliant system to meet future requirements
- This project will provide assistance not compliance related.
- This project is necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree.
- Primary system has not received any SDWA Notices of Violation within the previous state fiscal year-July through June, i.e. July 2014 – June 2015).

Project Inventory (Mapped Features):

Administrative Components:

- Planning Design Construction Management
-

Regionalization Components:

Public Water Systems Eliminated:

- this project includes the elimination of public water system(s) through merger or acquisition.

Water Treatment Plants Eliminated:

- This project includes the elimination of water treatment plant(s) through interconnect(s).

Supplementation of Raw Water Supply:

- This project includes supplementing the existing raw water supply.

Supplementation of Potable Water Supply:

- This project includes supplementing the existing potable water supply.

Emergency Only Water Supply:

- This project provides emergency only water supply.
-

Water Source Protection:

- This project includes land acquisition for water source protection.
-



Drinking Water Project Profile

WX21131004 - Hyden-Leslie County Water District
Phase IV Water System Improvements

Water Treatment Components:

- This project includes water treatment components

Treatment Activities:

- This project includes a new water treatment plant.
- This project includes an expansion of an existing water treatment plant.
- This project includes rehabilitation of an existing water treatment plant.
- This project includes upgrades to an existing water treatment plant.
- This project includes emergency power generators for treatment activities.
- This project includes redundant treatment processes.

Acute Public Health Risk:

- This project includes infrastructure options to meet Cryptosporidium removal/inactivation requirements.
- This project includes infrastructure options to meet CT inactivation requirements.

Chronic Public Health Risk:

- This project includes treatment modifications to meet the Disinfectants/Disinfection Byproducts Rule at the water treatment plant.
- This project will provide treatment modifications for VOCs, IOCs, SOC, or Radionuclides.

Secondary Contaminants:

- This project includes treatment modifications to address Secondary Contaminants.

Security:

- This project includes security components for water treatment facilities.

Water Distribution and Storage:

- This project includes water distribution and/or storage components.

Water Line Extensions:

- This project includes water line extension(s).

Redundancy Components:

- This project includes emergency power generators for distribution and/or storage activities.
- This project includes redundant distribution and/or storage processes.

Finished Water Quality:

- This project includes infrastructure to address inadequate water turnover and disinfection byproducts (DBPs).
- This project includes infrastructure to address inability to maintain disinfection residual.



Drinking Water Project Profile
 WX21131004 - Hyden-Leslie County Water District
 Phase IV Water System Improvements

Water Line Replacement:

- This project replaces problem water lines (breaks, leaks, or restrictive flows due to age), water lines consisting of lead and/or asbestos-cement (AC), and/or inadequately sized water lines.

Water Storage and Pressure Components:

- This project includes the construction of new water tank(s).
- This project includes the replacement of existing water tank(s).
- This project includes the rehabilitation of existing water tank(s).
- This project includes the construction of new pump station(s).
- This project includes the rehabilitation of existing pump station(s).

Security:

- This project includes security components for water distribution infrastructure.

Sustainable Infrastructure - Green Infrastructure:

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:

Component	Cost
<input type="checkbox"/> Bioretention	\$0
<input type="checkbox"/> Trees	\$0
<input type="checkbox"/> Green Roofs	\$0
<input type="checkbox"/> Permeable Pavement	\$0
<input type="checkbox"/> Cisterns	\$0
Total Green Infrastructure Cost:	\$0

There are no Green Infrastructure components specified for this project.



Drinking Water Project Profile
 WX21131004 - Hyden-Leslie County Water District
 Phase IV Water System Improvements

Sustainable Infrastructure - Water Efficiency:

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. Examples include:

Component	Cost
<input type="checkbox"/> Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals).	\$0
<input type="checkbox"/> Installing any type of water meter in previously unmetred areas (can include backflow prevention if in conjunction with meter replacement).	\$0
<input type="checkbox"/> Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention.	\$0
<input type="checkbox"/> Retrofitting/adding AMR capabilities or leak equipment to existing meters.	\$0
<input type="checkbox"/> Conducting water utility audits, leak detection studies, and water use efficiency baseline studies, which are reasonably expected to result in a capital project or in a reduction in demand to alleviate the need for additional capital investment.	\$0
<input type="checkbox"/> Developing conservation plans/programs reasonable expected to result in a water conserving capital project or in a reduction in demand to alleviate the need for capital investment.	\$0
<input type="checkbox"/> Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate, and wastewater effluent reuse systems, extra treatment or distribution costs associated with water reuse).	\$0
<input type="checkbox"/> Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems.	\$0
<input type="checkbox"/> Water meter replacement with traditional water meters.*	\$0
<input type="checkbox"/> Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks.*	\$0
<input type="checkbox"/> Storage tank replacement/rehabilitation to reduce water loss.*	\$0
<input type="checkbox"/> New water efficient landscape irrigation system, where there currently is not one.*	\$0
Total Water Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Water Efficiency components specified for this project.

Sustainable Infrastructure - Energy Efficiency:

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

Component	Cost
<input type="checkbox"/> Renewable energy projects, which are part of a public health project, such as wind, solar, geothermal, and micro-hydroelectric that provides power to a utility.	\$0
<input type="checkbox"/> Utility-owned or publicly-owned renewable energy projects.	\$0
<input type="checkbox"/> Utility energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas.	\$0
<input type="checkbox"/> Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)).*	\$0
<input type="checkbox"/> Pump refurbishment to optimize pump efficiency.*	\$0
<input type="checkbox"/> Projects that result from an energy efficient related assessment.*	\$0
<input type="checkbox"/> Projects that cost effectively eliminate pumps or pumping stations.*	\$0
<input type="checkbox"/> Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.*	\$0
<input type="checkbox"/> Upgrade of lighting to energy efficient sources.*	\$0
<input type="checkbox"/> Automated and remote control systems (SCADA) that achieve substantial energy savings.*	\$0
Total Energy Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Energy Efficiency components specified for this project.



Drinking Water Project Profile
 WX21131004 - Hyden-Leslie County Water District
 Phase IV Water System Improvements

Sustainable Infrastructure - Environmentally Innovative:

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

Component	Cost
<input type="checkbox"/> Total integrated water resources management planning, or other planning framework where project life cycle costs are minimized, which enables communities to adopt more efficient and cost-effective infrastructure solutions.	\$0
<input type="checkbox"/> Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.	\$0
<input type="checkbox"/> Source water protection planning (delineation, monitoring, modeling).	\$0
<input type="checkbox"/> Planning activities to prepare for adaptation to the long-term effects of climate change and/or extreme weather.	\$0
<input type="checkbox"/> Utility sustainability plan consistent with EPA's sustainability policy.	\$0
<input type="checkbox"/> Greenhouse gas inventory or mitigation plan and submission of a GHG inventory to a registry as long as it is being done for an SRF eligible facility.	\$0
<input type="checkbox"/> Construction of US Building Council LEED certified buildings, or renovation of an existing building.	\$0
<input type="checkbox"/> Projects that significantly reduce or eliminate the use of chemicals in water treatment.*	\$0
<input type="checkbox"/> 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.*	\$0
<input type="checkbox"/> Trenchless or low impact construction technology.*	\$0
<input type="checkbox"/> Using recycled materials or re-using materials on-site.*	\$0
<input type="checkbox"/> Educational activities and demonstration projects for water or energy efficiency (such as rain gardens).*	\$0
<input type="checkbox"/> Projects that achieve the goals/objectives of utility asset management plans.*	\$0
Total Environmentally Innovative Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Environmentally Innovative components specified for this project.

Sustainable Infrastructure - Asset Management:

If a category is selected, the applicant must provide proof to substantiate claims. The documents must be submitted to Anshu Singh (Anshu.Singh@ky.gov) for CW projects

Component
Last Rate Adjustment Date: 10-29-2010 Download Fee Schedule
Rate Adjustment Age: 111 months
System's monthly water bill, based on 4,000 gallons, as a percentage of MHI: 1.18%
<input type="checkbox"/> The system(s) has a Capital Improvement Plan or similar planning document.
<input type="checkbox"/> The system(s) involved in this project have specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure.

Project Status: Pending

Date Approved:

Date Revised:

EXHIBIT D



Drinking Water Project Profile

Legal Applicant: **Hyden-Leslie County Water District**

Project Title: **Phase VI Water System Improvements**

Project Number: **WX21131006** [View Map](#)

Submitted By: **KRADD**

Funding Status: **Not Funded**

Primary County: **Leslie**

Project Status: **Approved**

Planning Unit: **Leslie**

Project Schedule: **3-5 Years**

Multi-County: **No**

E-Clearinghouse SAI:

ECH Status:

Applicant Entity Type: **Water District (KRS 74)**

ADD WMC Contact: **Jennifer McIntosh**

Date Approved (AWMPC): **09-14-2011**

Project Description:

Project will eliminate approximately 10,165 LF of existing asbestos cement water line and replace with 6" PVC.

Need for Project:

Briefly describe how this project promotes public health or achieves and/or maintains compliance with the Clean Water Act or Safe Drinking Water Act:

Will ensure residents are delivered safe and reliable drinking water.

Project Alternatives:

Alternate A:

Replace line PVC as it breaks.

Alternate B:

Do replacement in sections

Legal Applicant:

Entity Type: **Water District (KRS 74)**

PSC Group ID: **23300**

Entity Name: **Hyden-Leslie County Water District**

Web URL:

Office EMail: **hlwater@tds.net**

Office Phone: **606-672-2791**

Toll Free:

Fax: **606-672-7510**

Mail Address Line 1: **PO Box 906**

Phys Address Line 1: **356 Wendover Rd**

Mail Address Line 2:

Phys Address Line 2:

Mail City, State Zip: **Hyden, KY 41749**

Phys City, State Zip: **Hyden, KY 41749**

Contact: **L.J. Turner**

Financial Contact:

Auth Official: **Augustus Roberts**

Contact Title: **Manager**

Financial Contact Title:

Auth Official Title: **Chairman**

Contact EMail: **hlwater@tds.net**

Financial Contact EMail:

Auth Official EMail: **hlwater@tds.net**

Contact Phone: **606-672-2791**

Financial Contact Phone:

Auth Official Phone: **606-672-2791**

Data Source: **Kentucky Infrastructure Authority**

Date Last Modified: 09.12.2018

Project Administrator (PA) Information

Name: **L J Turner**

Title: **Manager**

Organization: **Hyden Leslie Water District**

Address Line 1: **PO Box 906**

Address Line 2:

City: **Hyden** State: **KY** Zip: **41749**

Phone: **606-672-2791** Fax: **606-672-7510**

Applicant Contact (AC) Information

Name: **L J Turner**

Title: **Manager**

Organization: **Hyden Leslie Water District**

Address Line 1: **PO Box 906**

Address Line 2:

City: **Hyden** State: **KY** Zip: **41749**

Phone: **606-672-2791** Fax: **606-672-7510**



Drinking Water Project Profile

WX21131006 - Hyden-Leslie County Water District
Phase VI Water System Improvements

Estimated Budget

Project Cost Categories:	
Cost Category	Cost
Administrative Expenses:	\$ 5,000
Legal Expenses:	\$ 5,000
Land, Appraisals, Easements:	
Relocation Expenses & Repayments:	
Planning:	\$ 1,500
Engineering Fees - Design:	\$ 38,625
Engineering Fees - Construction:	\$ 12,875
Engineering Fees - Inspection:	\$ 37,000
Engineering Fees - Other:	\$ 5,000
Construction:	\$ 500,000
Equipment:	
Miscellaneous:	
Contingencies:	\$ 50,000
Total Project Cost:	\$ 655,000

Construction Cost Categories:	
Cost Category	Cost
Treatment:	
Transmission & Distribution:	\$ 500,000
Source:	
Storage:	
Purchase of Systems:	
Restructuring:	
Land Acquisition:	
Non-Categorized:	
Total Construction Cost:	\$ 500,000
Total Sustainable Infrastructure Costs:	

Note: Total Sustainability Infrastructure Costs are included within construction and other costs reported in this section. This breakout is provided for SRF review purposes.

Project Funding Sources:

Total Project Cost: **\$655,000**
 Total Committed Funding: **\$0**
 Funding Gap: **\$655,000 (Not Funded)**

This project will be requesting SRF funding for fiscal year 2021.

Estimated Project Schedule:

Est. Environmental Review Submittal Date: **07-01-2019**
 Estimated Bid Date: **10-01-2019**
 Estimated Construction Start Date: **12-01-2019**
 Estimated Construction Completion Date: **12-01-2020**

Funding Source	Loan or Grant ID	Fiscal Year	Amount	Status	Applicable Date
KIA SRF Fund F Loan (DW)	F20-046	2020	\$655,000	Bypassed	8/5/2019
Total Committed					

Funding Source Notes:

The following systems are beneficiaries of this project:

KY0660204 Hyden Leslie Co Water District

Note: Check mark indicates primary system for this project.

Project Ranking by AWMPC:

Regional Ranking(s): _____
 Planning Unit Ranking: _____
 Total Points: _____

- Plans and specs have been sent to DOW.
- Plans and specs have been reviewed by DOW.
- Plans and specs have been sent to PSC.
- Plans and specs have been reviewed by PSC.

Economic, Demographic and Geographic Impacts

Economic Impacts	
Jobs Created:	
Jobs Retained:	

*Demographic Impacts (GIS Census Overlay)			
Serviceable Demographic	Project Area	Included Systems	Included Utilities
Population:	137	10,296	10,296
Households:	66	4,788	4,788
MHI:	\$33,920	\$32,083	*\$32,083
MHI MOE	\$6,466	\$7,277	*\$7,277



Drinking Water Project Profile

WX21131006 - Hyden-Leslie County Water District
Phase VI Water System Improvements

MOE as Pct:	19%	23.0%	23.0%
**NSRL:		2	2

Population and household counts are based on 2010 census block values from the SF1 (100%) dataset.

MHI Source is from the American Community Survey 2014-2018 5Yr Estimates (Table B19013) *(for the primary system operated by the above listed beneficiary utilities).

MHI MOE = Med HH Income Margin of Error.

** NSRL (Non-Standard Rate Levels):

- 0 = Income above Kentucky MHI (KMHI).
- 1 = Income between 80% KMHI and KMHI.
- 2 = Income less than or equal to 80% KMHI.
- KMHI = \$48,392
- 80% KHMI = \$38,714

New Customers	
New Residential Customers:	
New Commercial Customers:	
New Institutional Customers:	
New Industrial Customers:	

New or Improved Service		
Service Demographic	Survey Based	Census Overlay*
To Unserved Households:		
To Underserved Households:	400	66
To Total Households:	400	66
** Cost Per Household:	\$1,638	

* GIS Census block overlay figures are estimates of population and households potentially served by systems and projects based on a proximity analysis of relevant service lines to census block boundaries.

** Cost per household is based on surveyed household counts, not GIS overlay values.

Geographic Impacts For Project Area	
Counties	
Leslie	
Legislative Districts	
District Name	Legislator
House 090	Derek Lewis
Senate 30	Brandon Smith
Congressional 5	Hal Rogers
Groundwater Sensitivity Zones	
HUC 10 Watersheds	
HUC Code	Watershed Name
0510020201	Cutshin Creek
0510020202	Upper Middle Fork Kentucky River

Geographic Impacts For Included System(s)	
Counties	
Clay	
Leslie	
Perry	
Legislative Districts	
District Name	Legislator
House 084	Chris Fugate
House 090	Derek Lewis
Senate 25	Robert Stivers II
Senate 30	Brandon Smith
Congressional 5	Hal Rogers



Drinking Water Project Profile

WX21131006 - Hyden-Leslie County Water District
Phase VI Water System Improvements

DW Specific Impacts:

- This project relates to a public health emergency.
- This project will assist a non-compliant system to achieve compliance.
- This project will assist a compliant system to meet future requirements
- This project will provide assistance not compliance related.
- This project is necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree.
- Primary system has not received any SDWA Notices of Violation within the previous state fiscal year-July through June, i.e. July 2014 – June 2015).

Project Inventory (Mapped Features):

Mapped Line Features						
DOW Permit ID	Line Type	Purpose	Activity	Size (in.)	Material	Length (LF)
KY0660204	WATER LINE: FINISHED	DISTRIBUTION	REHAB - REPLACE LEAD AND/OR ASBESTOS-CEMENT LINES	6.00	PVC	10,165
					Total Length	10,165

Administrative Components:

- Planning
 Design
 Construction
 Management

Regionalization Components:

Public Water Systems Eliminated:

- this project includes the elimination of public water system(s) through merger or acquisition.

Water Treatment Plants Eliminated:

- This project includes the elimination of water treatment plant(s) through interconnect(s).

Supplementation of Raw Water Supply:

- This project includes supplementing the existing raw water supply.

Supplementation of Potable Water Supply:

- This project includes supplementing the existing potable water supply.

Emergency Only Water Supply:

- This project provides emergency only water supply.

Water Source Protection:

- This project includes land acquisition for water source protection.



Drinking Water Project Profile

WX21131006 - Hyden-Leslie County Water District
Phase VI Water System Improvements

Water Treatment Components:

- This project includes water treatment components

Treatment Activities:

- This project includes a new water treatment plant.
- This project includes an expansion of an existing water treatment plant.
- This project includes rehabilitation of an existing water treatment plant.
- This project includes upgrades to an existing water treatment plant.
- This project includes emergency power generators for treatment activities.
- This project includes redundant treatment processes.

Acute Public Health Risk:

- This project includes infrastructure options to meet Cryptosporidium removal/inactivation requirements.
- This project includes infrastructure options to meet CT inactivation requirements.

Chronic Public Health Risk:

- This project includes treatment modifications to meet the Disinfectants/Disinfection Byproducts Rule at the water treatment plant.
- This project will provide treatment modifications for VOCs, IOCs, SOC, or Radionuclides.

Secondary Contaminants:

- This project includes treatment modifications to address Secondary Contaminants.

Security:

- This project includes security components for water treatment facilities.

Water Distribution and Storage:

- This project includes water distribution and/or storage components.

Water Line Extensions:

- This project includes water line extension(s).

Redundancy Components:

- This project includes emergency power generators for distribution and/or storage activities.

Number of units provided: **0**

- This project includes redundant distribution and/or storage processes.

Finished Water Quality:

- This project includes infrastructure to address inadequate water turnover and disinfection byproducts (DBPs).
- This project includes infrastructure to address inability to maintain disinfection residual.



Drinking Water Project Profile

WX21131006 - Hyden-Leslie County Water District
Phase VI Water System Improvements

Water Line Replacement:

- This project replaces problem water lines (breaks, leaks, or restrictive flows due to age), water lines consisting of lead and/or asbestos-cement (AC), and/or inadequately sized water lines.

Roads Serviced by Line Replacements:	
Road Name	LF Serviced
Highway 80	4,953
Highway 421	5,212
Total LF Serviced	10,165

Water Storage and Pressure Components:

- This project includes the construction of new water tank(s).
- This project includes the replacement of existing water tank(s).
- This project includes the rehabilitation of existing water tank(s).
- This project includes the construction of new pump station(s).
- This project includes the rehabilitation of existing pump station(s).

Security:

- This project includes security components for water distribution infrastructure.

Sustainable Infrastructure - Green Infrastructure:

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:

	Component	Cost
<input type="checkbox"/> Bioretention		\$0
<input type="checkbox"/> Trees		\$0
<input type="checkbox"/> Green Roofs		\$0
<input type="checkbox"/> Permeable Pavement		\$0
<input type="checkbox"/> Cisterns		\$0
Total Green Infrastructure Cost:		\$0

There are no Green Infrastructure components specified for this project.



Drinking Water Project Profile

WX21131006 - Hyden-Leslie County Water District
Phase VI Water System Improvements

Sustainable Infrastructure - Water Efficiency:

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. Examples include:

Component	Cost
<input type="checkbox"/> Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals).	\$0
<input type="checkbox"/> Installing any type of water meter in previously unmetered areas (can include backflow prevention if in conjunction with meter replacement).	\$0
<input type="checkbox"/> Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention.	\$0
<input type="checkbox"/> Retrofitting/adding AMR capabilities or leak equipment to existing meters.	\$0
<input type="checkbox"/> Conducting water utility audits, leak detection studies, and water use efficiency baseline studies, which are reasonably expected to result in a capital project or in a reduction in demand to alleviate the need for additional capital investment.	\$0
<input type="checkbox"/> Developing conservation plans/programs reasonable expected to result in a water conserving capital project or in a reduction in demand to alleviate the need for capital investment.	\$0
<input type="checkbox"/> Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate, and wastewater effluent reuse systems, extra treatment or distribution costs associated with water reuse).	\$0
<input type="checkbox"/> Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems.	\$0
<input type="checkbox"/> Water meter replacement with traditional water meters.*	\$0
<input type="checkbox"/> Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks.*	\$0
<input type="checkbox"/> Storage tank replacement/rehabilitation to reduce water loss.*	\$0
<input type="checkbox"/> New water efficient landscape irrigation system, where there currently is not one.*	\$0
Total Water Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Water Efficiency components specified for this project.

Sustainable Infrastructure - Energy Efficiency:

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

Component	Cost
<input type="checkbox"/> Renewable energy projects, which are part of a public health project, such as wind, solar, geothermal, and micro-hydroelectric that provides power to a utility.	\$0
<input type="checkbox"/> Utility-owned or publicly-owned renewable energy projects.	\$0
<input type="checkbox"/> Utility energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas.	\$0
<input type="checkbox"/> Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)).*	\$0
<input type="checkbox"/> Pump refurbishment to optimize pump efficiency.*	\$0
<input type="checkbox"/> Projects that result from an energy efficient related assessment.*	\$0
<input type="checkbox"/> Projects that cost effectively eliminate pumps or pumping stations.*	\$0
<input type="checkbox"/> Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.*	\$0
<input type="checkbox"/> Upgrade of lighting to energy efficient sources.*	\$0
<input type="checkbox"/> Automated and remote control systems (SCADA) that achieve substantial energy savings.*	\$0
Total Energy Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Energy Efficiency components specified for this project.



Drinking Water Project Profile
 WX21131006 - Hyden-Leslie County Water District
 Phase VI Water System Improvements

Sustainable Infrastructure - Environmentally Innovative:

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

Component	Cost
<input type="checkbox"/> Total integrated water resources management planning, or other planning framework where project life cycle costs are minimized, which enables communities to adopt more efficient and cost-effective infrastructure solutions.	\$0
<input type="checkbox"/> Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.	\$0
<input type="checkbox"/> Source water protection planning (delineation, monitoring, modeling).	\$0
<input type="checkbox"/> Planning activities to prepare for adaptation to the long-term effects of climate change and/or extreme weather.	\$0
<input type="checkbox"/> Utility sustainability plan consistent with EPA's sustainability policy.	\$0
<input type="checkbox"/> Greenhouse gas inventory or mitigation plan and submission of a GHG inventory to a registry as long as it is being done for an SRF eligible facility.	\$0
<input type="checkbox"/> Construction of US Building Council LEED certified buildings, or renovation of an existing building.	\$0
<input type="checkbox"/> Projects that significantly reduce or eliminate the use of chemicals in water treatment.*	\$0
<input type="checkbox"/> 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.*	\$0
<input type="checkbox"/> Trenchless or low impact construction technology.*	\$0
<input type="checkbox"/> Using recycled materials or re-using materials on-site.*	\$0
<input type="checkbox"/> Educational activities and demonstration projects for water or energy efficiency (such as rain gardens).*	\$0
<input type="checkbox"/> Projects that achieve the goals/objectives of utility asset management plans.*	\$0
Total Environmentally Innovative Cost:	\$0

* Indicates a business case may be required for this item.

There are no Environmentally Innovative components specified for this project.

Sustainable Infrastructure - Asset Management:

If a category is selected, the applicant must provide proof to substantiate claims. The documents must be submitted to Anshu Singh (Anshu.Singh@ky.gov) for CW projects

Component
Last Rate Adjustment Date: 10-29-2010 Download Fee Schedule
Rate Adjustment Age: 111 months
System's monthly water bill, based on 4,000 gallons, as a percentage of MHI: 1.18%
<input type="checkbox"/> The system(s) has a Capital Improvement Plan or similar planning document.
<input type="checkbox"/> The system(s) involved in this project have specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure.

Project Status: Approved

Date Approved: 09-14-2011

Date Revised:

EXHIBIT E



Drinking Water Project Profile

Legal Applicant: **Hyden-Leslie County Water District**

Project Title: **SR 1850 Rye Cove Waterline Extension**

Project Number: **WX21131009** [View Map](#)

Submitted By: **KRADD**

Funding Status: **Not Funded**

Primary County: **Leslie**

Project Status: **Approved**

Planning Unit: **Leslie**

Project Schedule: **3-5 Years**

Multi-County: **No**

E-Clearinghouse SAI:

ECH Status:

Applicant Entity Type: **Water District (KRS 74)**

ADD WMC Contact: **Jennifer McIntosh**

Date Approved (AWMPC): **12-05-2017**

Project Description:

Project will include approximately two miles (10,560 LF) of 3" PVC waterline and two new water booster stations with 20 GPM pumps to SR 1850 Rye Cove. Project will provide potable water to approximately 12 households and four cabins that are used for elk guides and hunters and elk viewing. The residents currently have little or no access to water. The households are located in an area where it is not feasible to drill wells and water must be hauled.

Need for Project:

Briefly describe how this project promotes public health or achieves and/or maintains compliance with the Clean Water Act or Safe Drinking Water Act:

Residents currently do not have access to potable water due to the steep location wells cannot be drilled. Project will provide access to safe, potable water.

Project Alternatives:

Alternate A:

Install a water selling station for residents to purchase water from a central location.

Alternate B:

Do nothing

Legal Applicant:

Entity Type: **Water District (KRS 74)**

PSC Group ID: **23300**

Entity Name: **Hyden-Leslie County Water District**

Web URL:

Office EMail: hlwater@tds.net

Office Phone: **606-672-2791**

Toll Free:

Fax: **606-672-7510**

Mail Address Line 1: **PO Box 906**

Phys Address Line 1: **356 Wendover Rd**

Mail Address Line 2:

Phys Address Line 2:

Mail City, State Zip: **Hyden, KY 41749**

Phys City, State Zip: **Hyden, KY 41749**

Contact: **L.J. Turner**

Financial Contact:

Auth Official: **Augustus Roberts**

Contact Title: **Manager**

Financial Contact Title:

Auth Official Title: **Chairman**

Contact EMail: hlwater@tds.net

Financial Contact EMail:

Auth Official EMail: hlwater@tds.net

Contact Phone: **606-672-2791**

Financial Contact Phone:

Auth Official Phone: **606-672-2791**

Data Source: **Kentucky Infrastructure Authority**

Date Last Modified: 09.12.2018



Drinking Water Project Profile

WX21131009 - Hyden-Leslie County Water District
SR 1850 Rye Cove Waterline Extension

Project Administrator (PA) Information

Name: **L J Turner**
 Title: **Manager**
 Organization: **Hyden Leslie Water District**
 Address Line 1: **PO Box 906**
 Address Line 2:
 City: **Hyden** State: **KY** Zip: **41749**
 Phone: **606-672-2791** Fax: **606-672-7510**

Applicant Contact (AC) Information

Name: **L J Turner**
 Title: **Manager**
 Organization: **Hyden Leslie Water District**
 Address Line 1: **PO Box 906**
 Address Line 2:
 City: **Hyden** State: **KY** Zip: **41749**
 Phone: **606-672-2791** Fax: **606-672-7510**

Estimated Budget

Project Cost Categories:	
Cost Category	Cost
Administrative Expenses:	
Legal Expenses:	
Land, Appraisals, Easements:	\$ 5,000
Relocation Expenses & Repayments:	
Planning:	\$ 7,000
Engineering Fees - Design:	\$ 42,800
Engineering Fees - Construction:	
Engineering Fees - Inspection:	\$ 32,000
Engineering Fees - Other:	\$ 1,000
Construction:	\$ 390,000
Equipment:	
Miscellaneous:	
Contingencies:	\$ 22,200
Total Project Cost:	\$ 500,000

Construction Cost Categories:	
Cost Category	Cost
Treatment:	
Transmission & Distribution:	\$ 390,000
Source:	
Storage:	
Purchase of Systems:	
Restructuring:	
Land Acquisition:	
Non-Categorized:	
Total Construction Cost:	\$ 390,000
Total Sustainable Infrastructure Costs:	

Note: Total Sustainability Infrastructure Costs are included within construction and other costs reported in this section. This breakout is provided for SRF review purposes.

Project Funding Sources:

Total Project Cost: **\$500,000**
 Total Committed Funding: **\$0**
 Funding Gap: **\$500,000 (Not Funded)**

This project will be requesting SRF funding for fiscal year 2021.

Estimated Project Schedule:

Est. Environmental Review Submittal Date: **03-01-2018**
 Estimated Bid Date: **04-01-2018**
 Estimated Construction Start Date: **05-01-2018**
 Estimated Construction Completion Date: **05-01-2019**

Funding Source	Loan or Grant ID	Fiscal Year	Amount	Status	Applicable Date
AML		2017	\$500,000	Anticipated	
Total Committed					

Funding Source Notes:

The following systems are beneficiaries of this project:

✓ **KY0660204** Hyden Leslie Co Water District

Note: Check mark indicates primary system for this project.



Drinking Water Project Profile

WX21131009 - Hyden-Leslie County Water District
SR 1850 Rye Cove Waterline Extension

Project Ranking by AWWPC:

Regional Ranking(s): _____

Planning Unit Ranking: _____

Total Points: _____

- Plans and specs have been sent to DOW.
- Plans and specs have been reviewed by DOW.
- Plans and specs have been sent to PSC.
- Plans and specs have been reviewed by PSC.

Economic, Demographic and Geographic Impacts

Economic Impacts	
Jobs Created:	
Jobs Retained:	

*Demographic Impacts (GIS Census Overlay)			
Serviceable Demographic	Project Area	Included Systems	Included Utilities
Population:	33	10,296	10,296
Households:	15	4,788	4,788
MHI:	\$27,825	\$32,083	*\$32,083
MHI MOE	\$9,636	\$7,277	*\$7,277
MOE as Pct:	35%	23.0%	23.0%
**NSRL:		2	2

Population and household counts are based on 2010 census block values from the SF1 (100%) dataset.

MHI Source is from the American Community Survey 2014-2018 5Yr Estimates (Table B19013) *(for the primary system operated by the above listed beneficiary utilities).

MHI MOE = Med HH Income Margin of Error.

** NSRL (Non-Standard Rate Levels):
 0 = Income above Kentucky MHI (KMHI).
 1 = Income between 80% KMHI and KMHI.
 2 = Income less than or equal to 80% KMHI.
 - KMHI = \$48,392
 - 80% KHMI = \$38,714

New Customers	
New Residential Customers:	16
New Commercial Customers:	
New Institutional Customers:	
New Industrial Customers:	

New or Improved Service		
Service Demographic	Survey Based	Census Overlay*
To Unserved Households:	16	15
To Underserved Households:		
To Total Households:	16	15
** Cost Per Household:	\$31,250	

Geographic Impacts For Project Area	
Counties	
Leslie	
Legislative Districts	
District Name	Legislator
House 090	Derek Lewis
Senate 30	Brandon Smith
Congressional 5	Hal Rogers
Groundwater Sensitivity Zones	
HUC 10 Watersheds	
HUC Code	Watershed Name
0510020202	Upper Middle Fork Kentucky River
0510020302	Red Bird River

Geographic Impacts For Included System(s)	
Counties	
Clay	
Leslie	
Perry	
Legislative Districts	
District Name	Legislator
House 084	Chris Fugate
House 090	Derek Lewis
Senate 25	Robert Stivers II
Senate 30	Brandon Smith
Congressional 5	Hal Rogers

* GIS Census block overlay figures are estimates of population and households potentially served by systems and projects based on a proximity analysis of relevant service lines to census block boundaries.

** Cost per household is based on surveyed household counts, not GIS overlay values.



Drinking Water Project Profile

WX21131009 - Hyden-Leslie County Water District
SR 1850 Rye Cove Waterline Extension

DW Specific Impacts:

- This project relates to a public health emergency.
- This project will assist a non-compliant system to achieve compliance.
- This project will assist a compliant system to meet future requirements
- This project will provide assistance not compliance related.
- This project is necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree.
- Primary system has not received any SDWA Notices of Violation within the previous state fiscal year-July through June, i.e. July 2014 – June 2015).

Project Inventory (Mapped Features):

Mapped Point Features							
DOW Permit ID	Count	FeatureType	Purpose	Status	Existing Capacity	Proposed Capacity	Units
KY0660204	2	PUMP STATION	PUMP - BOOST PRESSURE	NEW		20.00	GPM
KY0660204	1	HYDRANT	FLUSHING HYDRANT	NEW			EA
KY0660204	4	WATER PUMP	ENERGY EFF - PUMP EFFICIENCY	NEW			EA

Mapped Line Features							
DOW Permit ID	Line Type	Purpose	Activity	Size (in.)	Material	Length (LF)	
KY0660204	WATER LINE: FINISHED	DISTRIBUTION	EXTENSION	3.00	PVC	9,471	
					Total Length	9,471	

Administrative Components:

- Planning
 Design
 Construction
 Management

Regionalization Components:

Public Water Systems Eliminated:

- this project includes the elimination of public water system(s) through merger or acquisition.

Water Treatment Plants Eliminated:

- This project includes the elimination of water treatment plant(s) through interconnect(s).

Supplementation of Raw Water Supply:

- This project includes supplementing the existing raw water supply.

Supplementation of Potable Water Supply:

- This project includes supplementing the existing potable water supply.

Emergency Only Water Supply:

- This project provides emergency only water supply.



Drinking Water Project Profile

WX21131009 - Hyden-Leslie County Water District
SR 1850 Rye Cove Waterline Extension

Water Source Protection:

- This project includes land acquisition for water source protection.

Water Treatment Components:

- This project includes water treatment components

Treatment Activities:

- This project includes a new water treatment plant.
- This project includes an expansion of an existing water treatment plant.
- This project includes rehabilitation of an existing water treatment plant.
- This project includes upgrades to an existing water treatment plant.
- This project includes emergency power generators for treatment activities.
- This project includes redundant treatment processes.

Acute Public Health Risk:

- This project includes infrastructure options to meet Cryptosporidium removal/inactivation requirements.
- This project includes infrastructure options to meet CT inactivation requirements.

Chronic Public Health Risk:

- This project includes treatment modifications to meet the Disinfectants/Disinfection Byproducts Rule at the water treatment plant.
- This project will provide treatment modifications for VOCs, IOCs, SOC, or Radionuclides.

Secondary Contaminants:

- This project includes treatment modifications to address Secondary Contaminants.

Security:

- This project includes security components for water treatment facilities.

Water Distribution and Storage:

- This project includes water distribution and/or storage components.

Water Line Extensions:

- This project includes water line extension(s).

Length of extensions: **9,471 LF**

Number of new connections: **16**



Drinking Water Project Profile

WX21131009 - Hyden-Leslie County Water District
SR 1850 Rye Cove Waterline Extension

Redundancy Components:

- This project includes emergency power generators for distribution and/or storage activities.
Number of units provided: **0**

- This project includes redundant distribution and/or storage processes.

Finished Water Quality:

- This project includes infrastructure to address inadequate water turnover and disinfection byproducts (DBPs).
- This project includes infrastructure to address inability to maintain disinfection residual.

Water Line Replacement:

- This project replaces problem water lines (breaks, leaks, or restrictive flows due to age), water lines consisting of lead and/or asbestos-cement (AC), and/or inadequately sized water lines.

Water Storage and Pressure Components:

- This project includes the construction of new water tank(s).
- This project includes the replacement of existing water tank(s).
- This project includes the rehabilitation of existing water tank(s).
- This project includes the construction of new pump station(s).
- This project includes the rehabilitation of existing pump station(s).

Security:

- This project includes security components for water distribution infrastructure.

Sustainable Infrastructure - Green Infrastructure:

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:

Component	Cost
<input type="checkbox"/> Bioretention	\$0
<input type="checkbox"/> Trees	\$0
<input type="checkbox"/> Green Roofs	\$0
<input type="checkbox"/> Permeable Pavement	\$0
<input type="checkbox"/> Cisterns	\$0
Total Green Infrastructure Cost:	\$0

There are no Green Infrastructure components specified for this project.



Drinking Water Project Profile
 WX21131009 - Hyden-Leslie County Water District
 SR 1850 Rye Cove Waterline Extension

Sustainable Infrastructure - Water Efficiency:

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. Examples include:

Component	Cost
<input type="checkbox"/> Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals).	\$0
<input type="checkbox"/> Installing any type of water meter in previously unmetred areas (can include backflow prevention if in conjunction with meter replacement).	\$0
<input type="checkbox"/> Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention.	\$0
<input type="checkbox"/> Retrofitting/adding AMR capabilities or leak equipment to existing meters.	\$0
<input type="checkbox"/> Conducting water utility audits, leak detection studies, and water use efficiency baseline studies, which are reasonably expected to result in a capital project or in a reduction in demand to alleviate the need for additional capital investment.	\$0
<input type="checkbox"/> Developing conservation plans/programs reasonable expected to result in a water conserving capital project or in a reduction in demand to alleviate the need for capital investment.	\$0
<input type="checkbox"/> Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate, and wastewater effluent reuse systems, extra treatment or distribution costs associated with water reuse).	\$0
<input type="checkbox"/> Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems.	\$0
<input type="checkbox"/> Water meter replacement with traditional water meters.*	\$0
<input type="checkbox"/> Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks.*	\$0
<input type="checkbox"/> Storage tank replacement/rehabilitation to reduce water loss.*	\$0
<input type="checkbox"/> New water efficient landscape irrigation system, where there currently is not one.*	\$0
Total Water Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Water Efficiency components specified for this project.

Sustainable Infrastructure - Energy Efficiency:

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

Component	Cost
<input type="checkbox"/> Renewable energy projects, which are part of a public health project, such as wind, solar, geothermal, and micro-hydroelectric that provides power to a utility.	\$0
<input type="checkbox"/> Utility-owned or publicly-owned renewable energy projects.	\$0
<input type="checkbox"/> Utility energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas.	\$0
<input type="checkbox"/> Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)).*	\$0
<input type="checkbox"/> Pump refurbishment to optimize pump efficiency.*	\$0
<input type="checkbox"/> Projects that result from an energy efficient related assessment.*	\$0
<input type="checkbox"/> Projects that cost effectively eliminate pumps or pumping stations.*	\$0
<input type="checkbox"/> Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.*	\$0
<input type="checkbox"/> Upgrade of lighting to energy efficient sources.*	\$0
<input type="checkbox"/> Automated and remote control systems (SCADA) that achieve substantial energy savings.*	\$0
Total Energy Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Energy Efficiency components specified for this project.



Drinking Water Project Profile
 WX21131009 - Hyden-Leslie County Water District
 SR 1850 Rye Cove Waterline Extension

Sustainable Infrastructure - Environmentally Innovative:

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

Component	Cost
<input type="checkbox"/> Total integrated water resources management planning, or other planning framework where project life cycle costs are minimized, which enables communities to adopt more efficient and cost-effective infrastructure solutions.	\$0
<input type="checkbox"/> Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.	\$0
<input type="checkbox"/> Source water protection planning (delineation, monitoring, modeling).	\$0
<input type="checkbox"/> Planning activities to prepare for adaptation to the long-term effects of climate change and/or extreme weather.	\$0
<input type="checkbox"/> Utility sustainability plan consistent with EPA's sustainability policy.	\$0
<input type="checkbox"/> Greenhouse gas inventory or mitigation plan and submission of a GHG inventory to a registry as long as it is being done for an SRF eligible facility.	\$0
<input type="checkbox"/> Construction of US Building Council LEED certified buildings, or renovation of an existing building.	\$0
<input type="checkbox"/> Projects that significantly reduce or eliminate the use of chemicals in water treatment.*	\$0
<input type="checkbox"/> 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.*	\$0
<input type="checkbox"/> Trenchless or low impact construction technology.*	\$0
<input type="checkbox"/> Using recycled materials or re-using materials on-site.*	\$0
<input type="checkbox"/> Educational activities and demonstration projects for water or energy efficiency (such as rain gardens).*	\$0
<input type="checkbox"/> Projects that achieve the goals/objectives of utility asset management plans.*	\$0
Total Environmentally Innovative Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Environmentally Innovative components specified for this project.

Sustainable Infrastructure - Asset Management:

If a category is selected, the applicant must provide proof to substantiate claims. The documents must be submitted to Anshu Singh (Anshu.Singh@ky.gov) for CW projects

Component
Last Rate Adjustment Date: 10-29-2010 Download Fee Schedule
Rate Adjustment Age: 111 months
System's monthly water bill, based on 4,000 gallons, as a percentage of MHI: 1.18%
<input type="checkbox"/> The system(s) has a Capital Improvement Plan or similar planning document.
<input type="checkbox"/> The system(s) involved in this project have specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure.

Project Status: Approved

Date Approved: 12-05-2017

Date Revised:

EXHIBIT F



Drinking Water Project Profile

Legal Applicant: **Hyden-Leslie County Water District**

Project Title: **Phase III a Water System Improvements**

Project Number: **WX21131011** [View Map](#)

Submitted By: **KRADD**

Funding Status: **Not Funded**

Primary County: **Leslie**

Project Status: **Approved**

Planning Unit: **Leslie**

Project Schedule: **3-5 Years**

Multi-County: **No**

E-Clearinghouse SAI: **KY201805300678**

ECH Status: **Approved**

Applicant Entity Type: **Water District (KRS 74)**

ADD WMC Contact: **Jennifer McIntosh**

Date Approved (AWMPC): **03-09-2016**

Project Description:

Project will include the rehabilitation of the existing dam structure of the raw water source located on the Middlefork of the Kentucky River. Project also includes installation of VFD's at the plant as well as steps. Install cover and piping at drying beds. New pump station at Nebraska Lane and Middlefork . Replacing pump stations at Essie, Wilder, Honeysuckle Lane, Muncy Creek, Hurricane, Wolfe Creek and Gladly Branch. A new water booster at Nebraska Lane and Middlefork. Project will also add a 200,000 gallon water tank to be installed adjacent to the existing Muncy Creek Tank.Repair 1,000,000 gallon Dollar Store Tank. Repair 209,000 gallon Spur Tank.

Need for Project:

Briefly describe how this project promotes public health or achieves and/or maintains compliance with the Clean Water Act or Safe Drinking Water Act:

Project will ensure that the surface source remains able to provide sufficient water. Will also provide for adequate service to customers.

Project Alternatives:

Alternate A:

Phase project

Alternate B:

Repair as needed

Legal Applicant:

Entity Type: **Water District (KRS 74)**

PSC Group ID: **23300**

Entity Name: **Hyden-Leslie County Water District**

Web URL:

Office EMail: hlwater@tds.net

Office Phone: **606-672-2791**

Toll Free:

Fax: **606-672-7510**

Mail Address Line 1: **PO Box 906**

Phys Address Line 1: **356 Wendover Rd**

Mail Address Line 2:

Phys Address Line 2:

Mail City, State Zip: **Hyden, KY 41749**

Phys City, State Zip: **Hyden, KY 41749**

Contact: **L.J. Turner**

Financial Contact:

Auth Official: **Augustus Roberts**

Contact Title: **Manager**

Financial Contact Title:

Auth Official Title: **Chairman**

Contact EMail: hlwater@tds.net

Financial Contact EMail:

Auth Official EMail: hlwater@tds.net

Contact Phone: **606-672-2791**

Financial Contact Phone:

Auth Official Phone: **606-672-2791**

Data Source: [Kentucky Infrastructure Authority](#)

Date Last Modified: 09.12.2018



Drinking Water Project Profile

WX21131011 - Hyden-Leslie County Water District
Phase III a Water System Improvements

Project Administrator (PA) Information

Name: **Bryan Kirby**
 Title: **President**
 Organization: **Ceda**
 Address Line 1: **PO Box 855**
 Address Line 2:
 City: **Richmond** State: **KY** Zip: **40476**
 Phone: **859-626-8859** Fax: **859-626-8859**

Applicant Contact (AC) Information

Name: **L J Turner**
 Title: **Manager**
 Organization: **Hyden Leslie Water District**
 Address Line 1: **PO Box 906**
 Address Line 2:
 City: **Hyden** State: **KY** Zip: **41749**
 Phone: **606-672-2791** Fax: **606-672-7510**

Project Engineer (PE) Information:

- This project requires a licensed Professional Engineer.
- A Professional Engineer has been procured for this project.

Project Engineer Information:	Engineering Firm Information:
License No: PE 6324 PE Name: Joseph F. Sisler Phone: 859-231-9831 Fax: 859-233-0046 E-Mail: joe@sislermaggard.com Firm Name: Sisler-Maggard Engineering, PLLC Addr Line 1: Sisler-Maggard Engineering, PLLC Addr Line 2: 501 Quail Run Addr Line 3: City: Lexington State: KY Zip: 40517 Status: Current Disciplinary Actions: NO Issued: 07-13-1966 Expires: 06-30-2020	Permit No: 1850 Firm Name: Sisler-Maggard Engineering, PLLC Phone: 859-271-2978 Fax: 859-271-5670 Web URL: EMail: joe@sislermaggard.com Addr Line 1: 220 East Reynolds Rd., Suite A-3 Addr Line 2: Suite A-3 City: Lexington State: KY Zip: 40517 Status: Current Disciplinary Actions: NO Issued: 06-19-2002 Expires: 12-31-2020

Estimated Budget

Project Cost Categories:	
Cost Category	Cost
Administrative Expenses:	\$ 50,000
Legal Expenses:	\$ 30,000
Land, Appraisals, Easements:	\$ 25,000
Relocation Expenses & Repayments:	
Planning:	\$ 60,000
Engineering Fees - Design:	\$ 175,500
Engineering Fees - Construction:	
Engineering Fees - Inspection:	\$ 120,750
Engineering Fees - Other:	
Construction:	\$ 2,335,000
Equipment:	
Miscellaneous:	\$ 30,000
Contingencies:	\$ 233,750
Total Project Cost:	\$ 3,060,000

Construction Cost Categories:	
Cost Category	Cost
Treatment:	\$ 100,000
Transmission & Distribution:	\$ 1,025,000
Source:	\$ 800,000
Storage:	\$ 410,000
Purchase of Systems:	
Restructuring:	
Land Acquisition:	
Non-Categorized:	
Total Construction Cost:	\$ 2,335,000

Total Sustainable Infrastructure Costs:

Note: Total Sustainability Infrastructure Costs are included within construction and other costs reported in this section. This breakout is provided for SRF review purposes.



Drinking Water Project Profile

WX21131011 - Hyden-Leslie County Water District
Phase III a Water System Improvements

Project Funding Sources:

Total Project Cost: **\$3,060,000**

Total Committed Funding: **\$0**

Funding Gap: **\$3,060,000 (Not Funded)**

This project will be requesting SRF funding for fiscal year 2021.

Estimated Project Schedule:

Est. Environmental Review Submittal Date: **03-01-2019**

Estimated Bid Date: **04-01-2019**

Estimated Construction Start Date: **05-01-2019**

Estimated Construction Completion Date: **05-01-2020**

Funding Source	Loan or Grant ID	Fiscal Year	Amount	Status	Applicable Date
CDBG	18-037	2018	\$900,000	Withdrawn	2/15/2019
ARC		2018	\$500,000	Anticipated	
CDBG		2018	\$900,000	Anticipated	
USDA RD Loan		2018	\$830,000	Anticipated	
USDA RD Grant		2018	\$830,000	Anticipated	
Total Committed					

Funding Source Notes:

The following systems are beneficiaries of this project:

KY0660204 Hyden Leslie Co Water District

Note: Check mark indicates primary system for this project.

Project Ranking by AWMPC:

Regional Ranking(s):

Planning Unit Ranking:

Total Points:

- Plans and specs have been sent to DOW.
- Plans and specs have been reviewed by DOW.
- Plans and specs have been sent to PSC.
- Plans and specs have been reviewed by PSC.

Economic, Demographic and Geographic Impacts

Economic Impacts	
Jobs Created:	
Jobs Retained:	

*Demographic Impacts (GIS Census Overlay)			
Serviceable Demographic	Project Area	Included Systems	Included Utilities
Population:		10,296	10,296
Households:		4,788	4,788
MHI:		\$32,083	*\$32,083
MHI MOE		\$7,277	*\$7,277
MOE as Pct:		23.0%	23.0%
**NSRL:		2	2

Population and household counts are based on 2010 census block values from the SF1 (100%) dataset.

MHI Source is from the American Community Survey 2014-2018 5Yr Estimates (Table B19013) *(for the primary system operated by the above listed beneficiary utilities).

MHI MOE = Med HH Income Margin of Error.

** NSRL (Non-Standard Rate Levels):

- 0 = Income above Kentucky MHI (KMHI).
- 1 = Income between 80% KMHI and KMHI.
- 2 = Income less than or equal to 80% KMHI.
- KMHI = \$48,392
- 80% KHMI = \$38,714

Geographic Impacts For Project Area	
Counties	
Leslie	
Legislative Districts	
District Name	Legislator
House 090	Derek Lewis
Senate 30	Brandon Smith
Congressional 5	Hal Rogers
Groundwater Sensitivity Zones	
HUC 10 Watersheds	
HUC Code	Watershed Name
0510020201	Cutshin Creek
0510020202	Upper Middle Fork Kentucky River
0510020203	Middle Middle Fork Kentucky River

Geographic Impacts For Included System(s)	
Counties	
Clay	
Leslie	
Perry	
Legislative Districts	
District Name	Legislator
House 084	Chris Fugate
House 090	Derek Lewis
Senate 25	Robert Stivers II
Senate 30	Brandon Smith
Congressional 5	Hal Rogers



Drinking Water Project Profile

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Phase III a Water System Improvements

New Customers	
New Residential Customers:	
New Commercial Customers:	
New Institutional Customers:	
New Industrial Customers:	

New or Improved Service		
Service Demographic	Survey Based	Census Overlay*
To Unserved Households:	66	
To Underserved Households:	3,500	
To Total Households:	3,566	
** Cost Per Household:	\$858	

* GIS Census block overlay figures are estimates of population and households potentially served by systems and projects based on a proximity analysis of relevant service lines to census block boundaries.

** Cost per household is based on surveyed household counts, not GIS overlay values.



Drinking Water Project Profile

WX21131011 - Hyden-Leslie County Water District
Phase III a Water System Improvements

DW Specific Impacts:

- This project relates to a public health emergency.
- This project will assist a non-compliant system to achieve compliance.
- This project will assist a compliant system to meet future requirements
- This project will provide assistance not compliance related.
- This project is necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree.
- Primary system has not received any SDWA Notices of Violation within the previous state fiscal year-July through June, i.e. July 2014 – June 2015).

Project Inventory (Mapped Features):

Mapped Point Features							
DOW Permit ID	Count	FeatureType	Purpose	Status	Existing Capacity	Proposed Capacity	Units
KY0660204	2	PUMP STATION	PUMP - BOOST PRESSURE	NEW			
KY0660204	2	PUMP STATION	PUMP - BOOST PRESSURE	REHAB			
KY0660204	3	PUMP STATION	PUMP - BOOST PRESSURE	REHAB		25.00	GPM
KY0660204	1	PUMP STATION	PUMP - BOOST PRESSURE	REHAB		100.00	GPM
KY0660204	1	PUMP STATION	PUMP - BOOST PRESSURE	REHAB		220.00	GPM
KY0660204	1	WATER TANK		REHAB	1,000,000.00		GALLONS
KY0660204	1	WATER TANK	TANK REHAB	REHAB	209,000.00		GALLONS
KY0660204	1	WATER TANK	TANK - INCREASE STORAGE	NEW		200,000.00	GALLONS
KY0660204	1	WATER TREATMENT PLANT	COVER AND PIPING INSTALL AT DRYING BEDS	WTP - UPGRADE	1.50		MGD
KY0660204	1	WATER TREATMENT PLANT	VARIABLE FREQUENCY DRIVE (VFD)	WTP - UPGRADE	1.50		MGD
KY0660204	1	SURFACE SOURCE	DAM REPAIR	REHAB			EA

Administrative Components:

- Planning
 Design
 Construction
 Management

Regionalization Components:

Public Water Systems Eliminated:

- this project includes the elimination of public water system(s) through merger or acquisition.

Water Treatment Plants Eliminated:

- This project includes the elimination of water treatment plant(s) through interconnect(s).

Supplementation of Raw Water Supply:

- This project includes supplementing the existing raw water supply.

Supplementation of Potable Water Supply:



Drinking Water Project Profile

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Phase III a Water System Improvements

-
- This project includes supplementing the existing potable water supply.

Emergency Only Water Supply:

- This project provides emergency only water supply.

Water Source Protection:

- This project includes land acquisition for water source protection.

Water Treatment Components:

- This project includes water treatment components

Treatment Activities:

- This project includes a new water treatment plant.
Proposed design capacity (MGD): **0.000**
- This project includes an expansion of an existing water treatment plant.
Current design capacity (MGD): **0.000**
Proposed design capacity (MGD): **0.000**
- This project includes rehabilitation of an existing water treatment plant.
- This project includes upgrades to an existing water treatment plant.
- This project includes emergency power generators for treatment activities.
Number of units provided: **0**
- This project includes redundant treatment processes.

Acute Public Health Risk:

- This project includes infrastructure options to meet Cryptosporidium removal/inactivation requirements.
- This project includes infrastructure options to meet CT inactivation requirements.

Chronic Public Health Risk:

- This project includes treatment modifications to meet the Disinfectants/Disinfection Byproducts Rule at the water treatment plant.
- This project will provide treatment modifications for VOCs, IOCs, SOC, or Radionuclides.

Secondary Contaminants:

- This project includes treatment modifications to address Secondary Contaminants.

Security:

- This project includes security components for water treatment facilities.

Water Distribution and Storage:

- This project includes water distribution and/or storage components.



Drinking Water Project Profile

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Phase III a Water System Improvements

Water Line Extensions:

- This project includes water line extension(s).

Redundancy Components:

- This project includes emergency power generators for distribution and/or storage activities.

Number of units provided: **0**

- This project includes redundant distribution and/or storage processes.

Finished Water Quality:

- This project includes infrastructure to address inadequate water turnover and disinfection byproducts (DBPs).
- This project includes infrastructure to address inability to maintain disinfection residual.

Water Line Replacement:

- This project replaces problem water lines (breaks, leaks, or restrictive flows due to age), water lines consisting of lead and/or asbestos-cement (AC), and/or inadequately sized water lines.

Water Storage and Pressure Components:

- This project includes the construction of new water tank(s).

Number of new tank(s): **1**

Proposed storage capacity of new tank(s): **200,000**

To increase pressure and resiliency throughout system.

- This project includes the replacement of existing water tank(s).
- This project includes the rehabilitation of existing water tank(s).
- This project includes the construction of new pump station(s).
- This project includes the rehabilitation of existing pump station(s).

Security:

- This project includes security components for water distribution infrastructure.
-



Drinking Water Project Profile
 WX21131011 - Hyden-Leslie County Water District
 Phase III a Water System Improvements

Sustainable Infrastructure - Green Infrastructure:

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:

Component	Cost
<input type="checkbox"/> Bioretention	\$0
<input type="checkbox"/> Trees	\$0
<input type="checkbox"/> Green Roofs	\$0
<input type="checkbox"/> Permeable Pavement	\$0
<input type="checkbox"/> Cisterns	\$0
Total Green Infrastructure Cost:	\$0

There are no Green Infrastructure components specified for this project.

Sustainable Infrastructure - Water Efficiency:

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. Examples include:

Component	Cost
<input type="checkbox"/> Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals).	\$0
<input type="checkbox"/> Installing any type of water meter in previously unmetered areas (can include backflow prevention if in conjunction with meter replacement).	\$0
<input type="checkbox"/> Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention.	\$0
<input type="checkbox"/> Retrofitting/adding AMR capabilities or leak equipment to existing meters.	\$0
<input type="checkbox"/> Conducting water utility audits, leak detection studies, and water use efficiency baseline studies, which are reasonably expected to result in a capital project or in a reduction in demand to alleviate the need for additional capital investment.	\$0
<input type="checkbox"/> Developing conservation plans/programs reasonable expected to result in a water conserving capital project or in a reduction in demand to alleviate the need for capital investment.	\$0
<input type="checkbox"/> Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate, and wastewater effluent reuse systems, extra treatment or distribution costs associated with water reuse).	\$0
<input type="checkbox"/> Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems.	\$0
<input type="checkbox"/> Water meter replacement with traditional water meters.*	\$0
<input type="checkbox"/> Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks.*	\$0
<input type="checkbox"/> Storage tank replacement/rehabilitation to reduce water loss.*	\$0
<input type="checkbox"/> New water efficient landscape irrigation system, where there currently is not one.*	\$0
Total Water Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Water Efficiency components specified for this project.



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 WX21131011 - Hyden-Leslie County Water District
 Phase III a Water System Improvements

Sustainable Infrastructure - Energy Efficiency:

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

Component	Cost
<input type="checkbox"/> Renewable energy projects, which are part of a public health project, such as wind, solar, geothermal, and micro-hydroelectric that provides power to a utility.	\$0
<input type="checkbox"/> Utility-owned or publicly-owned renewable energy projects.	\$0
<input type="checkbox"/> Utility energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas.	\$0
<input type="checkbox"/> Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)).*	\$0
<input type="checkbox"/> Pump refurbishment to optimize pump efficiency.*	\$0
<input type="checkbox"/> Projects that result from an energy efficient related assessment.*	\$0
<input type="checkbox"/> Projects that cost effectively eliminate pumps or pumping stations.*	\$0
<input type="checkbox"/> Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.*	\$0
<input type="checkbox"/> Upgrade of lighting to energy efficient sources.*	\$0
<input type="checkbox"/> Automated and remote control systems (SCADA) that achieve substantial energy savings.*	\$0
Total Energy Efficiency Cost:	\$0

* Indicates a business case may be required for this item.

There are no Energy Efficiency components specified for this project.

Sustainable Infrastructure - Environmentally Innovative:

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

Component	Cost
<input type="checkbox"/> Total integrated water resources management planning, or other planning framework where project life cycle costs are minimized, which enables communities to adopt more efficient and cost-effective infrastructure solutions.	\$0
<input type="checkbox"/> Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.	\$0
<input type="checkbox"/> Source water protection planning (delineation, monitoring, modeling).	\$0
<input type="checkbox"/> Planning activities to prepare for adaptation to the long-term effects of climate change and/or extreme weather.	\$0
<input type="checkbox"/> Utility sustainability plan consistent with EPA's sustainability policy.	\$0
<input type="checkbox"/> Greenhouse gas inventory or mitigation plan and submission of a GHG inventory to a registry as long as it is being done for an SRF eligible facility.	\$0
<input type="checkbox"/> Construction of US Building Council LEED certified buildings, or renovation of an existing building.	\$0
<input type="checkbox"/> Projects that significantly reduce or eliminate the use of chemicals in water treatment.*	\$0
<input type="checkbox"/> 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.*	\$0
<input type="checkbox"/> Trenchless or low impact construction technology.*	\$0
<input type="checkbox"/> Using recycled materials or re-using materials on-site.*	\$0
<input type="checkbox"/> Educational activities and demonstration projects for water or energy efficiency (such as rain gardens).*	\$0
<input type="checkbox"/> Projects that achieve the goals/objectives of utility asset management plans.*	\$0
Total Environmentally Innovative Cost:	\$0

* Indicates a business case may be required for this item.

There are no Environmentally Innovative components specified for this project.



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 Phase III a Water System Improvements

Sustainable Infrastructure - Asset Management:

If a category is selected, the applicant must provide proof to substantiate claims. The documents must be submitted to Anshu Singh (Anshu.Singh@ky.gov) for CW projects

Component

Last Rate Adjustment Date: **10-29-2010** [Download Fee Schedule](#)

Rate Adjustment Age: **111 months**

System's monthly water bill, based on 4,000 gallons, as a percentage of MHI: **1.18%**

- The system(s) has a Capital Improvement Plan or similar planning document.
- The system(s) involved in this project have specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure.

Project Notes:

Date	Notes
05/29/2018	This profile is an extension of WX21131002 and was broken into two profiles for funding purposes.

Project Status: Approved

Date Approved: 03-09-2016

Date Revised:

EXHIBIT G

WATER LOSS PREVENTION AND LEAK DETECTION

The goal of the water loss program is to reduce “unaccounted-for water” to 15%. In doing so, real and apparent losses must be addressed. Real loss consists of physical water losses from leaks, line breaks, tank overflows, etc. and potentially places a financial and operational burden on the utility. Apparent loss consists of unauthorized consumption, customer metering inaccuracies, and errors in the meter reading and billing processes. This can result in overtime and wasted hours testing for leaks that are not real.

Water Accountability

Water Produced – Water Sold = Non-Revenued Water

Non-Revenued Water – Water Used (i.e. flushing, Utility Usage, etc.) = Accounted-for Water

Non-Revenued Water - Accounted-For Water = Unaccounted-For Water

Proper distribution management is the key to reducing water loss. Standard methods such as creating hydraulically isolated zones, accurate metering, pressure monitoring, tank performance, demand factoring and preventative maintenance are needed to identify real water loss.

The following plan outlines processes and procedures the District will conduct on a routine basis to identify and repair water line leaks, monitor water usage, eliminate tank overflows, to reduce its overall water loss.

1. Records

A. Infrastructure: Knowledge of water system components and how they function under normal operating conditions is crucial to identifying where water loss occurs. Infrastructure inventory, maintenance and operational performance records are maintained where applicable.

- Water meters
- Water mains
- Service lines
- Valves
- Hydrants
- Storage tank

B. Customer: Billing and water usage data needs to be maintained as a historic record so that apparent losses can be identified.

- Meter readings
- Billing adjustments
- Count of active/in-active meters
- Total water usage by zone

2. Routine Procedures:

A. Daily

- Record all WTP plant totals (Raw Water, High Service, Utility Usage Meter, etc.)
- Distribution system tank drawdowns must be completed each night during low customer demand periods. If the usage is greater than the goal usage, the operator will record and report the finding.
- All distribution personnel, shall immediately report any identified water leaks, tank overflows, or other concerns that are presently or could result in water leaks or loss.
- Water leaks, given the urgency of the problem reported are repaired immediately or at the earliest possible time;
- All office personnel shall immediately report any customer reported leaks, tank overflows, pressure problems, or other issues (whether during regular operational hours or after hours) to the Operator or Manager.

B. Monthly

- Read customer meters approximately the same time
- Record fire department usage
- Compile estimated loss from flushing, line brakes, overflows, etc.
- Compile customer usage by hydraulic zone
- Analyze data with water usage analysis and water loss spreadsheets

C. Annually

- Customer meters will be tested every ten years to ensure that they are registering water accurately;
- All meters will be replaced, as warranted.

3. Leak Detection Procedures

- A. On a routine basis, as system operations permit, the Manager will assemble a leak detection team to check zones during a time when customer usage is minimal. This allows field personnel to go valve to valve (and often meter to meter) with listening devices and detect abnormal flows without affecting customer service. Personnel will perform leak detection in those areas with the highest known water loss, based on routine data collection and analysis.
- B. Outside consultants such as Kentucky Rural Water, contract engineer or industry specialists are utilized as circumstances dictate.