# Rubin & Hays

Kentucky Home Trust Building, 450 South Third Street, Louisville, Kentucky 40202-1410 Telephone (502) 569-7525 Telefax (502) 569-7555 www.rubinhays.com

CHARLES S. MUSSON W. RANDALL JONES CHRISTIAN L. JUCKETT

March 27, 2017

RECEIVED

MAR 2 7 2017

PUBLIC SERVICE COMMISSION

Dr. Talina Mathews Executive Director Public Service Commission P.O. Box 615 Frankfort, Kentucky 40602

Re: Western Pulaski County Water District - PSC Case No. 2017-00063

Dear Dr. Mathews:

Enclosed please find the original and ten (10) copies of a supplemental record filing of the Western Pulaski County Water District in connection with the above referenced Case.

If you need any additional information or documentation, please let us know.

Sincerely,

Rubin & Hays

W. Randall Jones

WRJ:jlm Enclosures

cc: Distribution List



RECEIVED

Legal Applicant: Western Pulaski County Water District

Project Title: Water System Improvements & Replacements

MAR 2 7 2017

Project Number: WX21199123

View Map

Submitted Bv: LCADD

Planning Unit: Western Pulaski

Funding Status: Fully Funded

Primary County: Pulaski

**PUBLIC SERVICE** 

Project Status: Approved

Multi-County: No

COMMISSION

Project Schedule: 3-5 Years

E-Clearinghouse SAI: KY201603310298

ECH Status: Approved

Applicant Entity Type: Water District (KRS 74)

ADD WMC Contact: Lindsay Dudgeon

Date Approved (AWMPC): 12-04-2014

### Project Description:

Project consists of approximately 7,300 LF of 6 inch waterline replacement along WTLO Road; 1,700 LF of 6 inch waterline replacement along Kentucky Highway 80: 2,000 LF of 3/4 inch service line replacement along Clifty Road; 1,800 LF of 6 inch waterline replacement along Slate Branch Road/Oak Hill Road; and 17,600 LF of new 12 inch water transmission main along the Somerset Bypass (KY 914). The project also includes the installation of one (1) 300,000 gallon elevated water storage tank to replace an existing 100,000 gallon ground storage tank at Hickory Nut Ridge Road; the installation of two (2) new pressure reducing stations along Wesley Warren Road and KY Highway 1676/King Bee Area; & 100 radio read meter system; and a new water booster pump station.

### 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;

This project will provide major improvements to the District's water distribution system. Project will eliminate several dilapidated and undersized water lines. the project will provide additional water storage by replacing an undersized water storage tank. The project will improve the quality of water by renovating an existing water storage tank that is experiencing large scale paint loss on both the interior and exterior surfaces. There are also certain structural and safety components which will require repair in order to ensure its continued operation. In addition, the project will provide a pressure reduction to areas experiencing high pressures.

### **Project Alternatives:**

Alternate A:

Continue to use existing undersized and deteriorating water lines and install same size water line parallel with existing water line - does not meet desired improvements. Build additional tank next to existing tank of twice the size.

Alternate B:

Replace waterlines with larger size waterline and/or install alternate materials such as ductile iron - increases project cost without significant increase in benefit.

### Legal Applicant:

Entity Type: Water District (KRS 74)

PSC Group ID: 7000500

Entity Name: Western Pulaski County Water District

Web URL:

Office EMail: joe-mcclendon@hotmail.com

Office Phone: 606-679-1569

Toll Free:

Fav

Mail Address Line 1: 2128 W Hwy 80

Phys Address Line 1: 2128 W Hwy 80

Mail Address Line 2:

Phys Address Line 2:

Mail City, State Zip: Somerset, KY 42503

Phys City, State Zip: Auth Official: Don Calder

Contact: Joe McClendon Contact Title: Field Manager

Auth Official Title: Chairman

Contact EMail: joe-mcclendon@hotmail.com

Auth Official EMail:

Contact Phone: 606-679-1569

Auth Official Phone: 606-679-3793

Contact Cells

Auth Official Cell: 606-383-0899

Data Source: Kentucky Infrastructure Authority

Date Last Modified: 05.21,2014



WX21199123 - Western Pulaski County Water District Water System Improvements & Replacements

Project Administrator (PA) Information

Name: Deron Byrne

Title: Project Engineer

Organization: Monarch Engineer

Address Line 1: 556 Carlton Dr

Address Line 2:

City: Lawrenceburg State: KY Zip: 40342 Phone: 502-839-1310 Fax: 502-839-1373

**Applicant Contact (AC) Information** 

Name: Joe McClendon

Title: Manager

Organization: Western Pulaski County Water District

Address Line 1: 1059 W Hwy 80

Address Line 2:

City: Somerset State: KY Zip: 42503

Phone: 606-679-1569 Fax:

Project Engineer (PE) Information:

This project requires a licensed Professional Engineer.

License No: PE 15483

PE Name: David Michael Bowles

Phone: 502-839-1310 Fax: 502-839-1373

E-Mail: dbowles@monarchengineering.net

Firm Name: Monarch Engineering, Incorporated

Addr Line 1: Monarch Engineering Incorporated

Addr Line 2: 556 Carlton Dr.

Addr Line 3:

City: Lawrenceburg State: KY Zip: 40342

Status: Current Disciplinary Actions: NO

Issued: 07-20-1988 Expires: 06-30-2017

**Engineering Firm Information:** 

Permit No: 857

Firm Name: Monarch Engineering, Incorporated

Phone: 502-839-1310 Fax: 502-839-1373

Web URL:

EMail: dbowles@monarchengineering.net

Addr Line 1: 556 Carlton Drive

Addr Line 2:

City: Lawrenceburg State: KY Zip: 40342

Status: Current Disciplinary Actions: NO

Issued: 08-30-1994 Expires: 12-31-2017



WX21199123 - Western Pulaski County Water District Water System Improvements & Replacements

# **Estimated Budget**

Project Cost Classification:		Construction Cost Categories:		
Administrative Exp.:	\$ 15,000	Treatment:		
Legal Exp.:	\$ 15,000	Transmission & Distribution:	\$ 1,893,450	
Land, Appraisals, Easements:		Source:		
Relocation Exp. & Payments:		Storage:	\$ 775,000	
Planning:		Purchase of Systems:		
Engineering Fees - Design:	\$ 196,000	Restructuring:		
Engineering Fees - Construction:		Land Acquisision:		
Engineering Fees - Inspection:	\$ 112,000	Non-Catagorized:		
Engineering Fees - Other:	\$ 30,000	Total Construction:	\$ 2,668,450	
Construction:	\$ 2,668,450			
Equipment:		Total Sustainable Infrastructure Costs:		
Miscellaneous:		Note: Total Sustainability Infrastructure Costs are in construction and other costs reported in this section		
Contingencies:	\$ 267,550	breakout is provided for SRF review purposes.		
Total Project Cost:	\$ 3,304,000			
Project Funding Sources:		Estimated Project Schedule:		
Total Project Cost: \$3,304,000 Total Committed Funding: \$3,304,000		Est. Environmental Review Submittal Date: Estimated Bid Date:	04-01-2016 06-01-2016	

**Estimated Construction Start Date:** 

**Estimated Construction Completeion Date:** 

☐ This project will be	e requesting S	RF funding	g for fiscal year	2018.	
Funding Source	Loan or Grant ID	Fiscal Year	Amount	Status	Applicable Date
KIA SRF Fund F Loan (DW)	F16-003	2016	\$3,304,000	Committed	11/5/2015
Total Committed			\$3.304.000		

Funding Gap: \$0 (Fully Funded)

Funding Source Notes:	
The following systems are benefi	ciaries of this project:
✓ KY1000363 Western Pulaski (	County Water District
Note: Check mark indicates primary syst	tem for this project.
Project Ranking by AWMPC:	Plans and specs have been sent to DOW
Regional Ranking(s):	<ul> <li>Plans and specs have been reviewed by DOW.</li> </ul>
Planning Unit Ranking:	Plans and specs have been sent to PSC.
Total Points:	Plans and specs have been reviewed by PSC.
	Economic, Demographic and Geographic Impacts

07-25-2016

03-15-2017



WX21199123 - Western Pulaski County Water District Water System Improvements & Replacements

Economic Imp	acts
Jobs Created:	
Jobs Retained:	

*Demographi	c Impacts (	GIS Census	Overlay)
Servceable Demographic	Project Area	Included Systems	Included Utilities
Population:	182	16,960	16,960
Households:	82	8,949	8,949
MHI:	\$32,408	\$38,067	*\$38,067
MHI MOE	\$4,561	\$6,820	*\$6,820
MOE as Pct:	14%	18.0%	18.0%
**NSRL:		1	1

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

MHI Source is from the American Community Survey 2011-2015 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 = \$43,740
- 80% KHMI = \$34,992

New Customers	
New Residential Customers:	5
New Commercial Customers:	
New Institutional Customers:	
New Industrial Customers:	·····

New or Improved	Service	
Service Demographic	Survey Based	Census Overlay*
To Unserved Households:	5	
To Underserved Households:	800	82
To Total Households:	805	82
** Cost Per Household:	\$4,	104

- 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.

	ographic Impacts or Project Area				
Counties					
Pulaski					
, ė, į, ė, Leç	islative Districts				
District Name	Legislator				
House 052	Ken Upchurch				
House 080	David Meade				
House 083	Jeff Hoover				
Senate 15	Rick Girdler				
Congressional	5 Hal Rogers				
Groundw	Groundwater Sensitivity Zones				
HU	C.10 Watersheds				
HUC Code	Watershed Name				
0513010302	Pitman Creek-Cumberland River				
0513010303	Fishing Creek				
0513010304	Wolf Creek-Cumberland River				

	Geog For Inc	raphic Impacts luded System(s)
	Counties	,
	Casey	
	McCreary	
	Pulaski	
	Russell	
	Wayne	
	Legis	lative Districts
	District Name	Legislator
I	House 052	Ken Upchurch
	House 054	Daniel Elliott
	House 080	David Meade
	House 083	Jeff Hoover
	House 085	Tommy Turner
ll	Senate 14	Jimmy Higdon
	Senate 15	Rick Girdler
I	Senate 16	Max Wise
	Congressional 1	James Comer
I	Congressional 5	Hal Rogers



			••	a.o. 0,0.0	m improvomonio a nepia	OCITICING				
W Speci	fic Impa	cts:							-	
☐ This	project rela	ates to a public hea	lth emergency	<b>'</b> .						
☐ This	project will	l assist a non-comp	liant system to	achieve co	ompliance.					
☑ This	project will	assist a compliant	system to mee	et future req	quirements					
☐ This	project will	provide assistance	not complian	ce related.						
☐ This decre	ргојесt is r ee.	necessary to achiev	e full or partial	l compliance	e with a court order, agreed o	rder, or a judio	ial or a	dministrat	ive consent	
☐ Prim June	ary system 2015).	n has not received a	any SDWA Not	tices of Viola	ation within the previous state	e fiscal year-Ju	ly throu	gh June,	i.e. July 2014	-
roject In	ventory	(Mapped Feat	ures):							
DOW Permit ID	Count	Feature	Type	Ma	pped Point Features Purpose	Status		xisting apacity	Proposed Capacity	Units
KY100036	1	PUMP STATION		PUMP - BO	OST PRESSURE	NEW		apaoity	833.00	GPM
KY100036	3 1	WATER TANK	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TANK - INC	REASE STORAGE	REPLACE - DECOMMISSI ON		0,000.00	trifentercollisecco in consessor com income	GALLONS
KY100036	3 1	WATER TANK	1	TANK - INC	REASE STORAGE	REPLACE - NEW			300,000.00	GALLONS
KY100036	PRESSURE REDUCING			REDUCE PI	RESSURE	NEW				
DOW Permit ID		Line Type	Purpose		pped Line Features Activity		Size in.)	Ma	terial	Length (LF)
KY1000363	WATER	LINE: FINISHED	DISTRIBUTION	ON EXTE	NSION	strens se via volektorymið minne	6.00	F	vC	2,408
KY1000363	WATER	LINE: FINISHED	DISTRIBUTION	ON REHA	B - REPLACE PROBLEM LII	NES	4.00	F	vc	4,786
		LINE: FINISHED	DISTRIBUTION	ON REHA	AB - REPLACE PROBLEM LI	NES	6.00	DUCT	LE IRON	1,707
***************************************	···	LINE: FINISHED	DISTRIBUTION		AB - REPLACE UNDERSIZED	LINES	6.00	F	VC	7,218
KY1000363	WATER	LINE: FINISHED	TRANSMISS N	EXTE	NSION		12.00	F	VC	20,544
								Total	Length	36,663
Admin	istrative	e Components	:							
□ F	Planning	⊡	] Design		✓ Construction			Manage	ement	
Regiona	alization	Components:								
Public	: Water	Systems Elimi	nated:							
	this proje	ect includes the elin	nination of pub	olic water sy	stem(s) through merger or ac	quisition.				
Water	Treatm	ent Plants Elin	ninated:							
				iter treatmei	nt plant(s) through interconne	ct(s).				
		tion of Raw Wa			. (, 0	• •				

☐ 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.
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.



WX21199123 - Western Pulaski County Water District Water System Improvements & Replacements

### Water Line Extensions:

This project includes water line extension(s).

Length of extensions: 22,952 LF

Number of new connections: 5

# **Redundancy Components:**

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

Total length of line replacement:

13,711

Roads Serviced by Line Replacements:	
Road Name	LF Serviced
Sleepy Hollow Road	800
Pleasant Point Drive	1,000
Ky Highway 80	1,700
Slate Branch/Oak Hill Road	1,800
Wesley Road	3,400
Clifty Road	4,800
Wtlo Road	7,300
Ky Highway 1674/Old Salts Road	12,000
Total LF Serviced	32,800



Wate	Storage and Pressure Components:			
	This project includes the construction of new water tank(s).	•		
☑	This project includes the replacement of existing water tank(s).			
	Number of new tank(s):	0		
	Existing storage capacity of tank(s) being decommissioned:	100,000		
	Proposed storage capacity of new tank(s):	0		
	This project includes the rehabilitation of existing water tank(s).			
	Number of rehabilitated tanks: 0			
$\square$	This project includes the construction of new pump station(s).			
	Number of new pump stations: 1			
	☑ This project includes new pump stations for boosting press	sure.		
	☐ This project includes new pump stations for filling water tar	nks.		
	This project includes the rehabilitation of existing pump station(s)	).		
	Number of rehabilitated pump stations: 1			
Secur	ty:			
	This project includes security components for water distribution	infrastructure.		
Sustainable	Infrastructure - Green Infrastructure:		_	
Green stor and restor infrastruct with policie	mwater infrastructure includes a wide array of practices at i es natural hydrology by infiltrating, evapotranspiring and ha	features, such as forests, floodplains, and wetlands, coupled erviousness in a watershed. On the local scale, green		
	Component	Cost		
☐ Bioretent	on			
☐ Trees				
☐ Green Ro	ofs			
☐ Permeab	e Pavement			
☐ Cisterns				
***************************************		Total Green Infrastructure Cost: \$0		
There are	There are no Green Infrastructure components specified for this project.			



WX21199123 - Western Pulaski County Water District Water System Improvements & Replacements

# 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
	Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals).	
	Installing any type of water meter in previously unmetered areas (can include backflow prevention if in conjunction with meter replacement).	
	Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention.	
x	Retrofitting/adding AMR capabilities or leak equipment to existing meters.	\$50,197
	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.	
	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.	
	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).	
	Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems.	
	Water meter replacement with traditional water meters.*	
×	Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks.*	\$1,372,150
	Storage tank replacement/rehabilitation to reduce water loss.*	
	New water efficient landscape irrigation system, where there currently is not one.*	
	Total Water Efficiency Cost:	\$1,422,347
	* Indicates a business case may be required for this item.	***************************************
	Project will eliminate several dilapidated and undersized water lines and purchase 100 radio read meters.	
Su	stainable Infrastructure - Energy Efficiency:	
	Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water project energy in a more efficient way, and/or produce/utilize renewable energy. Examples include:	ts, use
	Component	Cost
	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.	
	Utility-owned or publicly-owned renewable energy projects.	
	Utility energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas.	
	Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs).*	
	Pump refurbishment to optimize pump efficiency.*	
	Projects that result from an energy efficient related assessment.*	
	Projects that cost effectively eliminate pumps or pumping stations.*	
	Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.*	
	Upgrade of lighting to energy efficient sources.*	
	Automated and remote control systems (SCADA) that achieve substantial energy savings.*	
	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
	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.	
	Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.	
	Source water protection planning (delineation, monitoring, modeling).	
	Planning activities to prepare for adaptation to the long-term effects of climate change and/or extreme weather.	
	Utility sustainability plan consistent with EPA's sustainability policy.	
	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.	
	Construction of US Building Council LEED certified buildings, or renovation of an existing building.	
	Projects that significantly reduce or eliminate the use of chemicals in water treatment.*	
	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.*	
	Trenchless or low impact construction technology.*	
	Using recycled materials or re-using materials on-site.*	
	Educational activities and demonstration projects for water or energy efficiency (such as rain gardens).*	
	Projects that achieve the goals/objectives of utility asset management plans.*	
	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.	
Su	stainable Infrastructure - Asset Management:	
	If a category is selected, the applicant must provide proof to substantiate claims. The documents must be submitted to Singh (Anshu.Singh@ky.gov) for CW projects	Anshu
	Component	
l	_ast Rate Adjustment Date: 06-02-2014 Download Fee Schedule	
	Rate Adjustment Age: 31 months	
Sys	stem's monthly water bill, based on 4,000 gallons, as a percentage of MHI: 0.07%	
	, , , , , , , , , , , , , , , , , , , ,	
	The system(s) involved in this project have specifically allocated funds for the rehabilitation and replacement of aging deteriorating infrastructure.	and
	ny boxes are checked above, please describe each below:	
We	stern Pulaski County Water District have appropriate rates to build, Operate, and maintain their system.	



WX21199123 - Western Pulaski County Water District Water System Improvements & Replacements

Pro	ject	No	tes:
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Date Notes

03/18/2016

Narrative revised by KIA. Original narrative was as follows:

Project consists of approximately 1,800 LF of 3-inch water line replacement along Pleasant Point Drive and Sleepy Hollow Road; 650 LF water line extension along McClendon Road; 8,200 LF of 4-inch water line replacement along Clifty Road and Wesley Road; 21,000 LF of 6-inch water line replacement along WTLO Road, KY Highway 80 and KY Highway 1674/Old Salts Road; 1,800 LF of 6-inch water line relocation along Slate Branch road and Oak Hill Road; and 7,500 LF of new 12-inch water transmission main along the Somerset Bypass (KY 914). The project also includes the installation of one (1) 300,000 gallon elevated water storage tank to replace an existing 100,000 gallon ground storage tank at Hickory Nut Ridge Road, and the renovation of an existing 300,000 gallon water storage tank. The project will include the installation of two (2) new pressure reducing stations along Wesley Warren road and KY Highway 11676/King Bee Area and 100 radio read meter system.

Project Status: Approved: 12-04-2014 Date Revised: