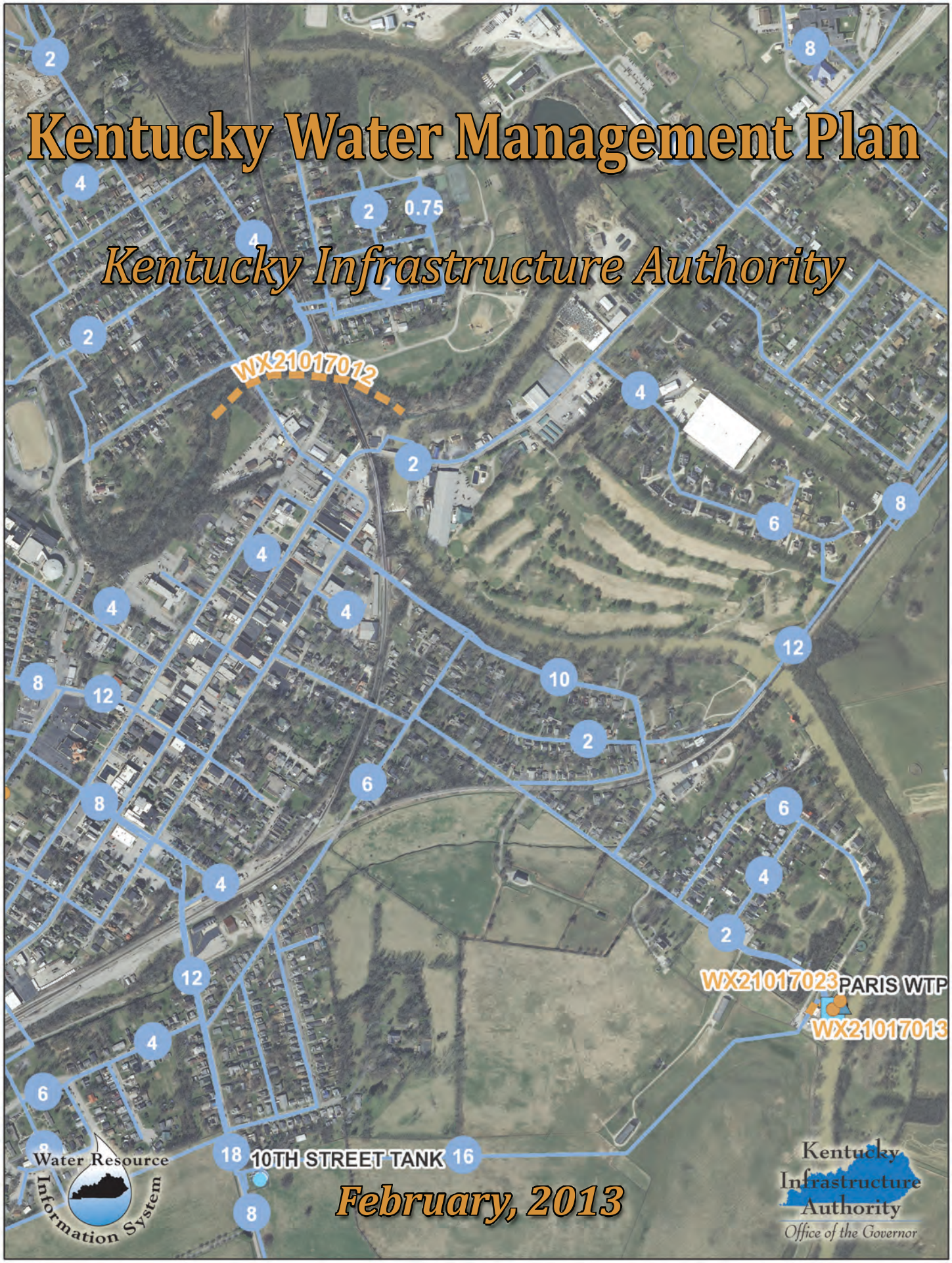
Kentucky Water Management Plan

Kentucky Infrastructure Authority



Water Resource Information System

February, 2013

Kentucky Infrastructure Authority
Office of the Governor

KENTUCKY INFRASTRUCTURE AUTHORITY

Steven L. Beshear
Governor

Capital Center Complex
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601
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John E. Covington III
Executive Director

February 4, 2013

Dear Governor Beshear and Members of the General Assembly:

Drinking water and wastewater infrastructure is vital to Kentucky's future. Adequate drinking water infrastructure is essential to providing clean, safe drinking water and protecting public health. Kentucky is blessed in both quantity and quality of beautiful lakes, rivers and streams. To protect these valuable natural resources, we must build and maintain the necessary wastewater infrastructure. Without both drinking water and wastewater infrastructure our economic future is at risk. New home construction comes to a halt. Businesses cannot start, expand or relocate to our great Commonwealth. Jobs are lost.

Kentucky has long recognized the need for adequate drinking water and wastewater infrastructure. In 2000, the Governor and General Assembly working together established a framework to plan for Kentucky's needs. Area Water Management Councils were created in each of Kentucky's Area Development Districts (ADDs) with the ADDs responsible for facilitating their meetings. The Councils are a forum for local utilities and local officials to discuss and identify each area's drinking water and wastewater needs. The Councils are tasked with reviewing and prioritizing projects that address the local needs.

For the Councils to successfully plan for the future, they must have information about the location and condition of existing infrastructure. The Kentucky Infrastructure Authority (KIA) was given the responsibility for maintaining and updating the Water Resource Information System (WRIS). The WRIS is a geo-database of existing infrastructure and of the projects reviewed by the Councils. The ADDs work with both the Councils and with each individual utility to gather information about the system, its infrastructure and its proposed projects through the creation of Project Profiles. This document was created using the WRIS.

The WRIS facilitates a bottom up planning process and is truly a collaborative effort between the Councils, the ADDs and KIA. The information about Kentucky's drinking water and wastewater utilities, existing drinking water and wastewater infrastructure and the projects needed to maintain and improve the existing drinking water and wastewater infrastructure in the WRIS is an invaluable resource.

Kentucky should be proud of the significant improvements we have made to our drinking water and wastewater infrastructure. This document identifies the drinking water and wastewater needs across the Commonwealth that are still to be met and the projects that will address those needs.

Sincerely

John E. Covington, III
Executive Director

When you talk to us, you talk to all of Kentucky

KCADD

KY Council of Area Development Districts

501 Capital Avenue • Frankfort, Kentucky 40601 • Office 502.875.2515 • Fax 502.875.0946

January 25, 2013

Governor Beshear and Members of the General Assembly:

The Kentucky Area Development Districts (KADD), in conjunction with our local units of government, water and sewer systems, and the Kentucky Infrastructure Authority (KIA), are pleased to be a partner in providing the enclosed Infrastructure Assessment of providers and projects in our districts. Each Area Development District (ADD) collects and updates information in the Water Resource Information System (WRIS) that is critical to the planning process. The ADD's relationship with local utilities and elected officials give us the ability to successfully maintain the information in the WRIS, which was utilized to generate this report. This information is used by numerous agencies throughout the state, and provides much of the information needed for all aspects of water planning and emergency management decision-making.

This report demonstrates the importance of these projects to the viability of our communities, by providing detail as to the affected areas, services needed, residents/businesses impacted, funding requirements, and projected timeframes for completion. Not only have these projects been identified as important within each county, but they have also been reviewed and ranked as priority projects by each ADD Regional Water Management Planning Council. The prioritization process in each ADD is critical to making sure local governments and utilities are involved with and supportive of regional infrastructure planning.

Thank you for your continued interest and support of this process. We look forward to working with you and KIA to continue the planning and development of infrastructure projects within our communities. We hope you find this data helpful, and welcome your comments, suggestions and questions now and in the future.

Sincerely,

Donna Diaz

Donna Diaz
Chairperson
Kentucky Area Development Districts

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Appendix A – Counties by Area Development District A-1

Introduction

Over fifteen years ago, the Water Resource Development Commission was tasked by Governor Paul Patton to prepare a strategic plan for water-resource development in the Commonwealth of Kentucky. The intent of Governor Patton's Executive Order was to provide water and wastewater service to every Kentuckian by the year 2020. The original strategic plan for water developed by the WRDC in 1999 not only was a great barometer for the status of water services in the Commonwealth, but also provided recommendations to be carried out over the next twenty years. Similar in format, the strategic plan for wastewater followed in early 2000. Both plans focused on expanding and improving water and wastewater services to all citizens of Kentucky. Of the original 17 recommendations, a number have already been implemented; none more important than the expansion of the Water Resource Information System (WRIS) Portal.

The WRIS Portal has been developed through the cooperative efforts of water and wastewater treatment systems and local, regional, and state agencies. The WRIS Portal provides much of the information needed for all aspects of water and wastewater planning and emergency management decision making. The WRIS portal is designed to bring together information from a multitude of sources and display that information in one easy to use web application. The Portal is linked to databases at the Kentucky Division of Water, Kentucky Department for Environmental Protection, the Kentucky Department for Local Government, the Kentucky Public Service Commission, the Kentucky Department of Education, the Kentucky Department of Parks, KyWARN, and the Kentucky Infrastructure Authority (KIA).

Not only does the WRIS Portal contain valuable system information, but it also serves as the statewide registry for water and wastewater projects in the Commonwealth of Kentucky. Multiple funding sources require applicants to have a completed Project Profile within the WRIS including the Clean Water and Drinking Water State Revolving Fund (SRF), Community Development Block Grants (CDBG), Appalachian Regional Commission (ARC), Delta Regional Authority, State and Federal Line Item Grants, and Coal Severance Grants. The WRIS Project Profile is the project database that populates the e-Clearinghouse portal for review by all state agencies.

WRIS Portal information originating from KIA is maintained by the Kentucky Area Development Districts through system visits performed annually to each drinking water system and wastewater treatment system in the Commonwealth. In addition, the Kentucky Area Development Districts facilitate the Area Water Management Councils, encompassing the Commonwealth. These Area Water Management Councils meet quarterly and by statute assume the role and function of long range planning efforts for the Public Water and Wastewater Systems represented on the Council.

As we approach the year 2020, it is important to recognize the growth of public water and wastewater systems in the Commonwealth over the past several years. Our hope is that after reading through this report, the reader will recognize that the collaborative efforts of the above mentioned local, regional, and state agencies and public water and wastewater systems have begun the framework for continued growth of sustainable infrastructure throughout the Commonwealth of Kentucky.

Water Management Plan Data Sources

The information contained in this report was acquired from several sources: U.S. Census Bureau's 2010 Census Data, the Division of Water's Safe Drinking Water Information System (SDWIS), the Environmental Protection Agency's Integrated Compliance Information System (ICIS), and the Kentucky Infrastructure Authority's Water Resource Information System (WRIS) Project Profile and System Data. Most importantly, all of the system data and project information originated with the public water and wastewater systems within this report. The information is either self reported by the public water and wastewater systems to the Area Development District Water Management Planners in a semiannual system visit, or a spatial analysis of reported information by the Kentucky Infrastructure Authority's WRIS Team.

As with any report that aggregates, interpolates, and/or extrapolates information, inconsistencies in the data will arise. However, every effort has been made to minimize the amount of inconsistent data. Please find below the explanations for several of the data sources cited in this report.

Serviceability Index – The Serviceable Population and Percent Serviceable information found in State and County Summary pages is derived from a spatial analysis of mapped service lines of public water and wastewater systems and the census blocks from the U.S. Census Bureau. The census blocks are buffered by 250 feet in order to capture a service line that may be able to serve a portion of the census block.

A census block smaller than 10 acres is considered to be fully served if a service line falls within the census block or its buffer zone of 250 feet. If a census block is considered to be fully serviced, then 100% of the census block's population and household count is allocated to the public water or wastewater system that owns the service lines within the given census block.

For a census block larger than 10 acres, an analysis is conducted comparing the ratio of service lines to road centerlines within a given census block. Once the ratio of distribution service line to road centerline is calculated, the ratio is used to allocate a portion of the census block's population and household count to the public water or wastewater system that owns the servcie lines within the given census block. If the ratio exceeds 75% of service line to road centerline, the census block is considered to be fully serviced. For any ratio smaller than 75%, the ratio is used to allocate only a portion of the census block's population and household count to the public water or wastewater system that owns the service lines located within the census block.

Project Summary –A summary of a public water and wastewater system's projects is provided at the bottom of their System Summary page. Only projects that have been approved by the Area Water Management Council and are in need of funding have been annotated in the summary. For more information on a project, please visit www.wris.ky.gov.

Estimated Percentage Water Loss – The estimated percentage water loss for each system is provided in the system's summary. This figure is an estimate calculated by dividing the amount of water provided to their customers by the system's production and/or purchase values. This information is reported to the Water Management Planners at the ADD on an annual basis. For specific system data, please visit www.wris.ky.gov.

Water

Kentucky

- 2010 census population of 4,339,367 (1,927,164 households) with 95% serviceable.
- Projected 2020 population of 4,672,754 (change of 333,387).
- 58,669 miles of existing water lines.
- 11 new water treatment plants proposed in the next 10 years.
- 2,922 miles of line extensions proposed in the next 10 years.
- 1,314 miles of line rehabilitation proposed in the next 10 years.
- 407 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $1,796,298,497.
- Estimated funding needs for projects from 6 to 10 years: $260,696,295.

Kentucky has a 2010 census population count of 4,339,367 (1,927,164 households) with a projected 2020 population count of 4,672,754 (1,909,211 households). Public water is currently available to approximately 95 percent of the state's households based on 2010 census counts. Over the next ten years approximately 142,461 serviceable households will be added through the construction of 2,922 miles of water line extensions and approximately 1,493,814 instances of improved service through the rehabilitation of 1,314 miles of existing water lines and other appurtenances. 11 new water treatment plants and 407 miles of transmission lines are also being proposed within the state over the next ten years.

Area Development District Summary for Kentucky

Area Development District	2010 Population	2020 Population	Serviceable Population	Percent Serviceable	Planned Cost 0 to 10 Years
Bluegrass Area Development District	770,404	862,521	741,297	97%	$ 259,201,586
Barren River Area Development District	284,195	316,297	275,299	97%	$ 128,106,631
Big Sandy Area Development District	154,093	148,051	143,408	94%	$ 73,735,262
Buffalo Trace Area Development District	56,478	58,306	54,772	97%	$ 36,141,500
Cumberland Valley Area Development District	236,618	237,501	229,389	97%	$ 117,623,313
Five County Area Development District	137,884	139,098	131,405	95%	$ 37,450,598
Green River Area Development District	213,472	220,544	206,168	97%	$ 111,886,887
Gateway Area Development District	81,652	87,651	77,453	94%	$ 18,902,540
Kentuckiana Regional Planning and Development Agency	959,091	1,058,343	937,475	98%	$ 323,431,047
Kentucky River Area Development District	114,762	111,267	92,841	81%	$ 122,849,690
Lake Cumberland Area Development District	207,256	221,481	195,979	95%	$ 141,309,907
Lincoln Trail Area Development District	269,117	295,040	243,830	92%	$ 157,578,625
Northern Kentucky Area Development District	438,647	488,377	424,864	97%	$ 223,789,448
Pennyrile Area Development District	219,305	226,580	199,894	95%	$ 195,753,874
Purchase Area Development District	196,393	201,697	154,790	79%	$ 109,233,884
Totals	**4,339,367**	**4,672,754**	**4,108,864**	**95%**	**$ 2,056,994,792**

Percent of Households Serviceable by Public Water Systems in 2010

Prepared By:
Kentucky Infrastructure Authority

Kentucky Infrastructure Authority
1024 Capital Center Drive
Frankfort, KY 40601
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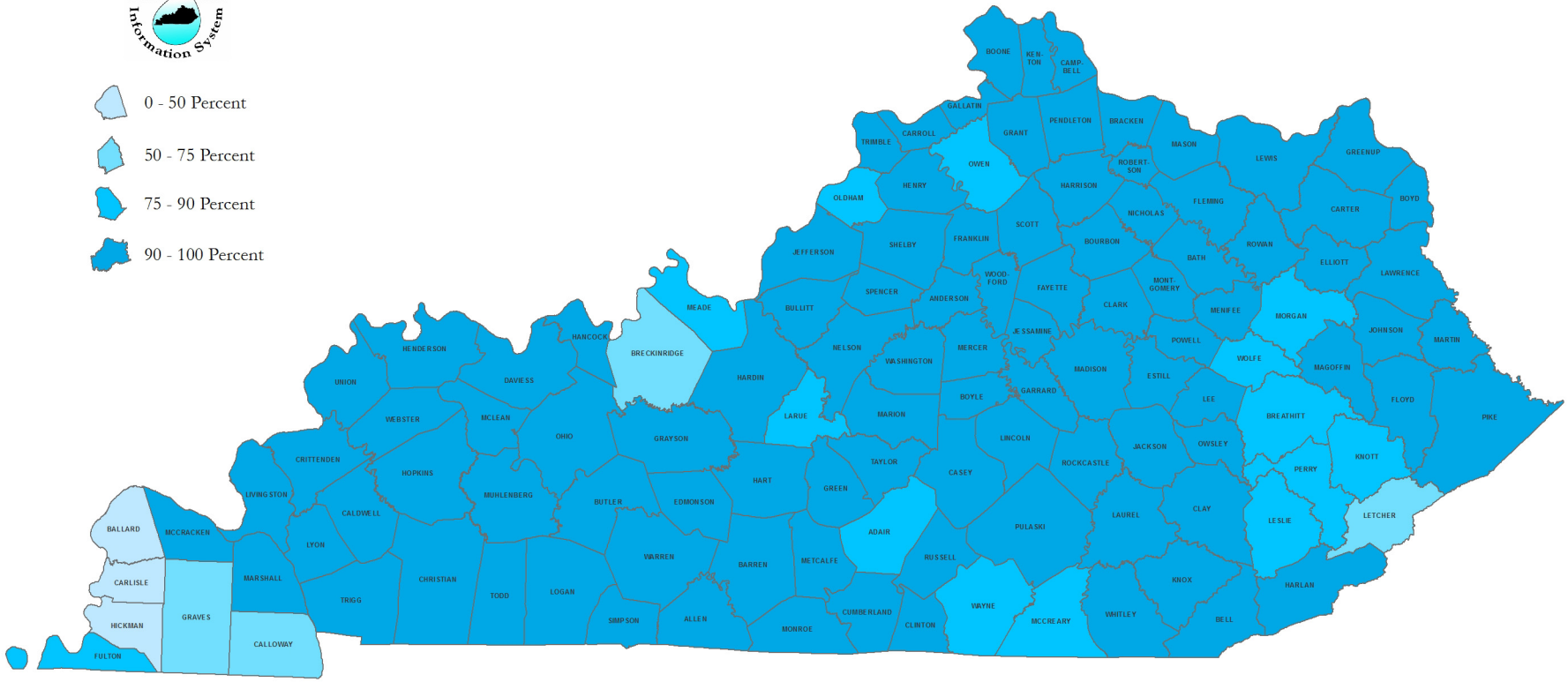
http://kia.ky.gov

January, 2013

Water Resource Information System

- 0 - 50 Percent
- 50 - 75 Percent
- 75 - 90 Percent
- 90 - 100 Percent



Percent Increase in Households Serviceable by Public Water Systems from 2000 to 2010

Prepared By:
Kentucky Infrastructure Authority

Kentucky Infrastructure Authority
1024 Capital Center Drive
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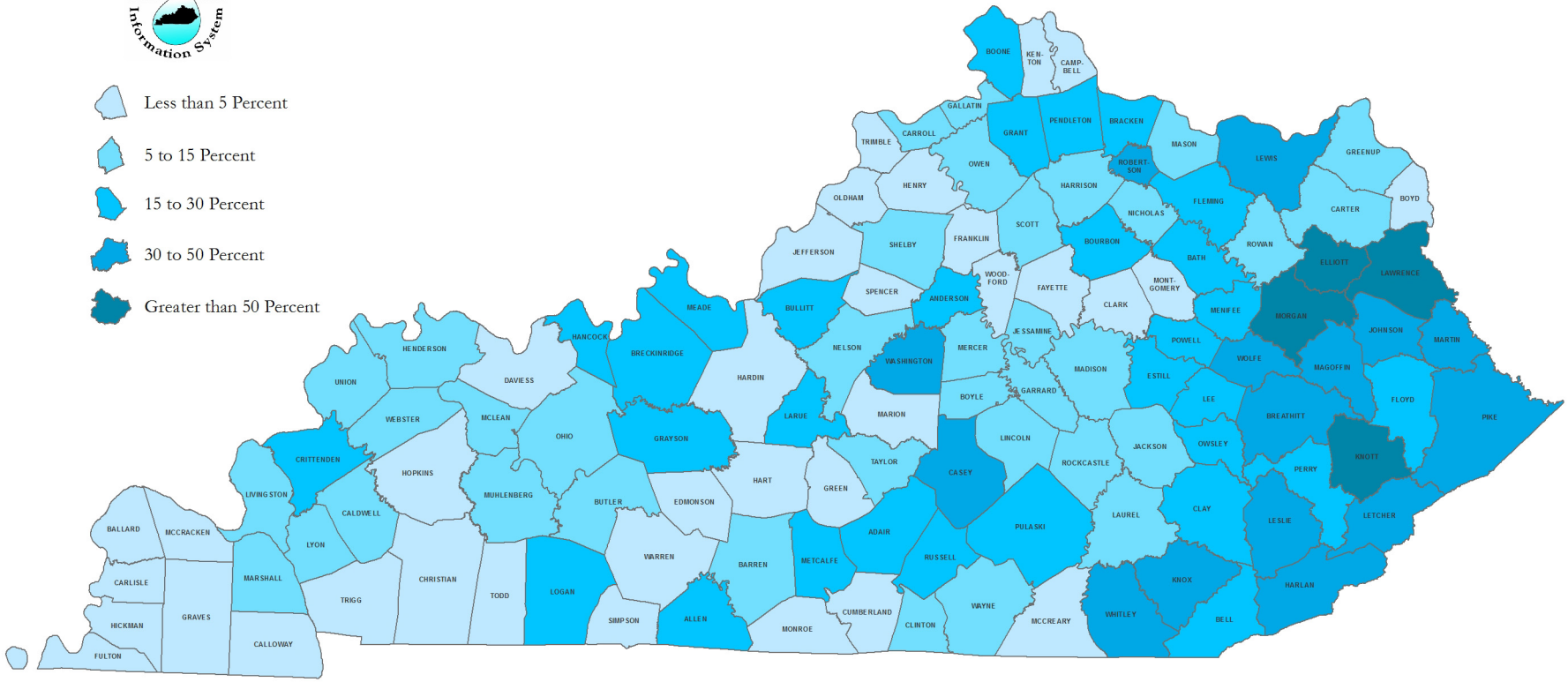
January, 2013

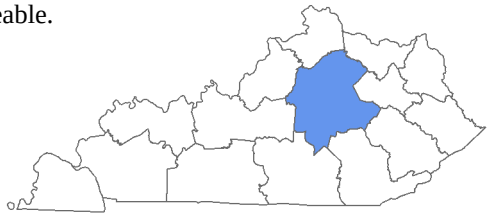
Water Resource Information System

- Less than 5 Percent
- 5 to 15 Percent
- 15 to 30 Percent
- 30 to 50 Percent
- Greater than 50 Percent



Bluegrass Area Development District (BGADD)

- 2010 census population of 770,404 (340,939 households) with 97% serviceable.
- Projected 2020 population of 862,521 (change of 92,117).
- 8,677.73 miles of existing water lines.
- 91.00 miles of line extensions proposed in the next 10 years.
- 118.00 miles of line rehabilitation proposed in the next 10 years.
- 39.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $239,906,856.
- Estimated funding needs for projects from 6 to 10 years: $19,294,730.



Bluegrass Area Development District has a 2010 census population count of 770,404 (340,939 households) with a projected 2020 population count of 862,521 (355,488 households). Public water is currently available to approximately 97 percent of the district's households based on 2010 census counts. Over the next ten years approximately 231 serviceable households will be added through the construction of 91.00 miles of water line extensions and approximately 235,673 instances of improved service through the rehabilitation of 118.00 miles of existing water lines and other appurtenances. 39.00 miles of transmission lines are also proposed within this district.

County Summary for Bluegrass Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Anderson	21,421	9,127	23,555	9,582	9,105	100%	$ 2,083,204
Bourbon	19,985	8,927	20,530	8,478	8,782	98%	$ 4,075,000
Boyle	28,432	12,312	29,048	11,782	12,264	100%	$ 41,131,081
Clark	35,613	15,706	37,985	15,800	15,486	99%	$ 70,034,980
Estill	14,672	6,865	14,359	6,115	6,660	97%	$ 8,437,500
Fayette	295,803	135,160	334,733	141,152	126,151	93%	$ 5,003,960
Franklin	49,285	23,164	50,777	21,761	22,995	99%	$ 38,185,000
Garrard	16,912	7,463	19,122	7,917	7,343	98%	$ 570,010
Harrison	18,846	8,208	19,640	8,006	8,149	99%	$ 5,980,954
Jessamine	48,586	19,331	58,928	22,184	19,288	100%	$ 26,983,953
Lincoln	24,742	10,819	26,170	10,762	10,546	98%	$ 9,888,731
Madison	82,916	35,043	95,333	38,093	34,783	99%	$ 25,710,467
Mercer	21,331	9,941	21,810	9,299	9,838	99%	$ 3,280,525
Nicholas	7,135	3,261	7,411	3,012	3,157	97%	$ 8,722,150
Powell	12,613	5,598	12,319	4,860	5,474	98%	$ 3,161,311
Scott	47,173	19,303	63,984	25,538	18,805	97%	$ 360,000
Woodford	24,939	10,711	26,817	11,147	10,316	96%	$ 5,592,760
Totals	**770,404**	**340,939**	**862,521**	**355,488**	**329,142**	**97%**	**$ 259,201,586**

Community Drinking Water Systems in Bluegrass Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0030239	Lawrenceburg Water & Sewer Department	Anderson	14,779	6,337
KY0030660	South Anderson Water District	Anderson	6,340	2,653
KY0090287	Millersburg Municipal Water Works	Bourbon	936	477
KY0090322	North Middletown Water Department	Bourbon	924	394
KY0090343	Paris Water Works	Bourbon	12,257	5,544
KY0110097	Danville City Water Works	Boyle	23,427	10,371
KY0110345	Parksville Water District	Boyle	3,926	1,695
KY0250981	East Clark County Water District	Clark	6,238	2,698
KY0250473	Winchester Municipal Utilities	Clark	25,160	11,119
KY0330123	Estill County Water District #1	Estill	9,370	4,265
KY0330205	Irvine Municipal Utilities	Estill	4,526	2,225
KY0340250	Kentucky-American Water Company	Fayette	290,894	133,354
KY0370137	Elkhorn Water District	Franklin	1,470	623
KY0370128	Farmdale Water District	Franklin	6,164	2,429
KY0370143	Frankfort Plant Board	Franklin	36,577	18,012
KY0370346	Peaks Mill Water District	Franklin	2,872	1,251
KY0400151	Garrard County Water Association	Garrard	13,042	5,644
KY0400233	Lancaster Water Works	Garrard	3,935	1,839
KY0490096	Cynthiana Municipal Water Works	Harrison	6,634	3,073
KY0490179	Harrison County Water Association	Harrison	13,817	5,821
KY0570214	Jessamine County Water District #1	Jessamine	4,031	1,632
KY0570249	Jessamine- South Elkhorn Water District	Jessamine	7,687	2,975
KY0570315	Nicholasville Utilities	Jessamine	31,464	12,905
KY0570010	Wilmore Water Works	Jessamine	6,403	2,211
KY0690089	Crab Orchard Water Works	Lincoln	1,188	566
KY0690203	Hustonville Water Works	Lincoln	4,261	1,871
KY0690278	McKinney Water District	Lincoln	4,256	1,832
KY0690417	Stanford Water Commission	Lincoln	7,833	3,348
KY0760030	Berea Municipal Utilities	Madison	9,972	4,131
KY0760672	Kirksville Water Association	Madison	4,370	1,820
KY0760224	Madison County Utilities District	Madison	24,581	10,203
KY0760370	Richmond Water, Gas & Sewer	Madison	31,840	13,810
KY0760407	Southern Madison Water District	Madison	11,398	4,745
KY0840048	Burgin Water Department	Mercer	1,043	468
KY0840180	Harrodsburg Municipal Water Department	Mercer	8,366	4,001
KY0840587	Lake Village Water Association	Mercer	4,350	2,090
KY0840321	North Mercer Water District	Mercer	9,521	4,023
KY0910065	Carlisle Water Department	Nicholas	2,045	1,059
KY0910314	Nicholas County Water District	Nicholas	3,484	1,514
KY0990074	Clay City Water System	Powell	1,637	747
KY0990357	Powells Valley Water District	Powell	5,715	2,582
KY0990418	Stanton Water Commission	Powell	5,350	2,296
KY1050157	Georgetown Municipal Water & Sewer Service	Scott	32,987	13,651
KY1200283	Midway Municipal Water Works	Woodford	1,734	757

Community Drinking Water Systems in Bluegrass Area Development District County Note: Serviceable counts include households outside the area development district.				
		Primary	Serviceable Counts	
PWSID	System Name	County	Population	Households
KY1200310	Northeast Woodford County Water District	Woodford	2,277	983
KY1200411	South Woodford County Water District	Woodford	3,750	1,630
KY1200439	Versailles Municipal Water	Woodford	14,368	6,109
		Totals:	729,199	323,783

Bluegrass Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The Bluegrass Area Development District (BGADD) estimates that approximately 946 persons do not have access to a community water supply out of a 2010 population of 770,404 people. This is consistent with a water-unserved population of about 0.13 percent and a water-served population of about 99.87 percent. Given the high percentage of success the BGADD has had with this intiative, the primary need is the repair and replacement of existing infrastructure. The BGADD region wants to make sure that all of the progress made remains in good condition.

The secondary need in this region is to continue to extend service to unserved areas. Our goal is to not only remain at the top of this initiative but to also be the first to have 100% access to public drinking water.

Description and Determination of Planning Units:

The seventeen counties within our district are split up into seven (7) groups of two (2) to three (3) counties. These counties are adjacent to each other and have the potential to work on regional projects together. The Planning Units are designated as follows:

Planning Unit 1 Meeting - Estill and Powell

Planning Unit 2 Meeting – Bourbon, Harrison and Nicholas

Planning Unit 3 Meeting – Boyle, Garrard and Lincoln

Planning Unit 4 Meeting – Anderson and Mercer

Planning Unit 5 Meeting – Franklin, Scott and Woodford

Planning Unit 6 Meeting – Fayette and Jessamine

Planning Unit 7 Meeting – Clark and Madison

Bluegrass Area Development District
Project Ranking Methodology

The Bluegrass Area Water Management Council will examine the following criteria in the ranking of water and wastewater projects for 2012:

• the current and potential customer base that would benefit;
• adequacy of existing water/wastewater infrastructure;
• optimization of scarce resources, cost per customer, and ability to pay;
• the dependability of existing infrastructure to provide adequate service;
• avoidance of duplication of service;
• current user rates as compared to the median for the region;
• Median Household Income (MHI), and
• Project type such as construction, operation, and maintenance types of projects.

To that end, a scoring matrix will be developed with an available score between zero and 20 for the following seven categories:

1. Project Type: More credit is given for construction projects as opposed to projects that could be categorized as routine maintenance or operation efforts that could perhaps be financed from local revenues derived from user charges.
2. Readiness: The more committed to a project a project sponsor appears to be, the more credit the project would be received in this scoring category. If a project had final engineering plans and specifications complete and regulatory agency approval in hand, it would receive more credit. Projects with only rough conceptual ideas would receive fewer points.
3. Enforcement Actions: If a project is in response to a state or a federal regulatory agency's enforcement action, it would receive more points. If a project is developed in an attempt to prevent a regulatory agency's enforcement action, it could be highly scored also, but perhaps not so highly scored as a utility already under an enforcement action.
4. Cost Effectiveness: Factors to be considered under this category are income levels of project area residents, cost per customer, funding already in place (be it local or non-local), project viability, and existing rates being charged.
5. Regionalization: Projects in which inter-local cooperation could in some way be demonstrated would receive more consideration than projects that were simply local in nature. Regional projects in general, tend to promote efficiency and effectiveness in utility delivery service. The Council was looking to give a boost to projects which were, in small part or in large part, regional in nature. Projects exhibiting more regional thought were given an advantage as compared to projects exhibiting less regional thought.
6. Local Rankings: This measure plays heavily in the regional ranking process. A project that is first-ranked at its local ranking would receive 20 points in this scoring category; a second-ranked project, 18 points; a third-ranked project, 16 points, etc, and finally, a tenth-ranked project, 2 points. Projects locally ranked with an eleventh or twelfth ranking or higher would receive no points in the regional ranking and scoring process.
7. Best of Type: For both water projects and for wastewater projects, the first and second ranked locally ranked projects will be disaggregated from the others. As a maximum, this would have resulted in a pool of 34 (17 counties x 2 projects per county) water projects and a similar pool of 34 wastewater projects. The Executive Council will review the project descriptions and the likely financial scenarios and rank these projects top to bottom. The top 15 water projects will be determined. The highest scoring project will get the full 20 points; the next highest ranked project got 19 points, etc.; the 15th ranked water project will receive 6 points. For projects not in the top 15, no points are awarded in this Best of Type category. The same process is repeated for wastewater projects.

A given project, if top-ranked in every category, could score 140 points.

Executive Council recommendations to the full Bluegrass Water Management Council can be modified by the full Council.

Project Rankings For Bluegrass Area Development District

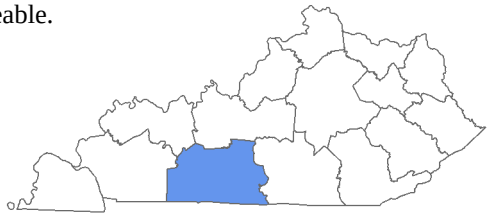
PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21021017	City of Danville Water Treatment Plant and Raw Water Intake Improvement	0-2 Years	Partially Funded	$28,608,171	Boyle	1	1
WX21049015	Water Treatment Plant - 6.0 MGD	0-2 Years	Not Funded	$39,000,100	Clark	2	2
WX21073012	Frankfort Plant Board Reservoir Improvement Project	3-5 Years	Not Funded	$6,427,000	Franklin	3	1
WX21079015	Lancaster - New Water Treatment Plant	0-2 Years	Fully Funded	$12,240,455	Garrard	4	2
WX21113041	Nicholasville – Jessamine South Elkhorn Water District Interconn	0-2 Years	Not Funded	$786,000	Jessamine	5	2
WX21151040	Berea Utilities - Upper Owsley Reservoir	3-5 Years	Partially Funded	$7,000,000	Madison	6	3
WX21197011	Water Treatment Plant Floor Repair	0-2 Years	Partially Funded	$1,186,500	Powell	7	1
WX21017017	Millersburg Water System Upgrades	0-2 Years	Not Funded	$1,400,000	Bourbon	8	5
WX21167026	Harrodsburg - Water Distribution System Improvements	0-2 Years	Not Funded	$888,950	Mercer	9	2
WX21097024	Harrison County Water Association Kelat Tank Replacement	3-5 Years	Not Funded	$939,180	Harrison	10	4
WX21113043	JCWD#1 East Brannon 12" Loop	0-2 Years	Not Funded	$145,000	Jessamine	11	1
WX21239024	Versailles Water System Improvements	0-2 Years	Partially Funded	$1,698,400	Woodford	12	2
WX21151051	MCUD Improvements Phase 4	0-2 Years	Partially Funded	$856,778	Madison	13	4
WX21151008	Standby Power Upgrade for Side Storage and College Hill Plant	0-2 Years	Not Funded	$2,546,700	Madison	14	1
WX21113027	Nicholasville Elevated Water Storage Project	3-5 Years	Partially Funded	$3,103,960	Jessamine	15	4
WX21065004	ECWD Phase 10 Water Line Extension, Tank Improvements	0-2 Years	Not Funded	$2,000,000	Estill	16	3
WX21137043	South Fishing Creek Water Line Extension	0-2 Years	Not Funded	$100,000	Lincoln	17	3
WX21113031	Fort Bramlett/Camp Nelson Waterline Extension	0-2 Years	Not Funded	$709,000	Jessamine	18	3
WX21017019	North Middletown Water Tank Rehabilitation & SCADA	0-2 Years	Not Funded	$680,000	Bourbon	19	2
WX21197016	Happy Top and Ballards Branch PSs Variable Frequency Drives Project	0-2 Years	Not Funded	$174,400	Powell	20	5
WX21167022	Harrodsburg - North Main Water Storage Tank Improvements	0-2 Years	Not Funded	$800,000	Mercer	21	1
WX21167017	Lake Village Water Association - Contract 14 Water Main West Zone Upgrades	0-2 Years	Not Funded	$1,100,000	Mercer	22	3
WX21167021	City of Burgin - Hwy 33 and Norfolk Southern Crossing	0-2 Years	Not Funded	$39,000	Mercer	23	4
WX21239015	South Woodford Water District - Cummins Ferry Water Line Replace	0-2 Years	Not Funded	$412,000	Woodford	24	4
WX21079020	Garrard County Water Association Extension 13	0-2 Years	Not Funded	$96,000	Garrard	25	4
WX21097025	City of Cynthiana West By-Pass Water Main Extension Project	0-2 Years	Not Funded	$581,774	Harrison	26	6
WX21167016	Master Plan Improvements	0-2 Years	Not Funded	$4,121,000	Mercer	27	5
WX21239027	Midway- Water Line Replacement- East and West Higgins Street.	0-2 Years	Not Funded	$198,000	Woodford	28	5
WX21197008	Powells Valley Beechfork Pump Station Replacement Project	0-2 Years	Not Funded	$213,200	Powell	29	2
WX21239023	Woodford County Germany, Shore Acres, Foraker, Watts Ferry & Hippe Agee Project	3-5 Years	Not Funded	$1,254,000	Woodford	30	3
WX21151017	Southern Madison WD-Scaffold Cane Area Waterline Extension Project	0-2 Years	Partially Funded	$313,000	Madison	31	5
WX21113037	Wilmore Elevated Storage Tank Rehabilitation	0-2 Years	Not Funded	$370,000	Jessamine	32	5

Project Rankings For Bluegrass Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21197009	Powells Valley - Stokely Branch Road Waterline Replacement Project	0-2 Years	Not Funded	$90,000	Powell	33	4
WX21017013	City of Paris Filter Rehabilitation At Water Plant	3-5 Years	Not Funded	$125,000	Bourbon	34	1
WX21017012	City of Paris Creek Crossing Pipe Replacement Under Houston and Stoner Creeks.	3-5 Years	Not Funded	$60,000	Bourbon	35	7
WX21017022	Paris - Water Plant Disinfection System Replacement	0-2 Years	Not Funded	$250,000	Bourbon	36	3
			Total Cost:	**$120,513,568**			

Barren River Area Development District (BRADD)

- 2010 census population of 284,195 (126,280 households) with 97% serviceable.
- Projected 2020 population of 316,297 (change of 32,102).
- 6,640.47 miles of existing water lines.
- 118.00 miles of line extensions proposed in the next 10 years.
- 91.00 miles of line rehabilitation proposed in the next 10 years.
- 29.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $119,768,431.
- Estimated funding needs for projects from 6 to 10 years: $8,338,200.



Barren River Area Development District has a 2010 census population count of 284,195 (126,280 households) with a projected 2020 population count of 316,297 (128,239 households). Public water is currently available to approximately 97 percent of the district's households based on 2010 census counts. Over the next ten years approximately 1,146 serviceable households will be added through the construction of 118.00 miles of water line extensions and approximately 69,507 instances of improved service through the rehabilitation of 91.00 miles of existing water lines and other appurtenances. 29.00 miles of transmission lines are also proposed within this district.

County Summary for Barren River Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Allen	19,956	9,307	22,366	9,171	9,029	97%	$ 4,030,970
Barren	42,173	19,188	46,361	19,245	19,069	99%	$ 13,064,000
Butler	12,690	5,877	12,544	5,178	5,662	96%	$ 8,670,150
Edmonson	12,161	6,467	12,628	5,283	6,345	98%	$ 4,675,203
Hart	18,199	8,559	18,690	7,604	8,402	98%	$ 15,030,938
Logan	26,835	12,339	27,382	11,301	12,138	98%	$ 9,523,002
Metcalfe	10,099	4,681	10,329	4,306	4,531	97%	$ 2,591,000
Monroe	10,963	5,204	10,405	4,423	5,065	97%	$ 24,163,200
Simpson	17,327	7,435	18,342	7,429	7,303	98%	$ 9,225,975
Warren	113,792	47,223	137,250	54,299	44,719	95%	$ 37,132,193
Totals	**284,195**	**126,280**	**316,297**	**128,239**	**122,263**	**97%**	**$ 128,106,631**

Community Drinking Water Systems in Barren River Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0020956	Allen County Water District	Allen	13,546	6,122
KY0020386	Scottsville Water Department	Allen	4,920	2,371
KY0050490	Cave City Water System	Barren	2,692	1,301
KY0050344	Caveland Environmental Authority	Barren	586	280
KY0050929	Glasgow Water Company	Barren	36,752	16,717
KY0160052	Butler County Water System	Butler	10,671	4,917
KY0160294	Morgantown Utilities	Butler	2,211	1,019
KY0310706	Brownsville Municipal Water System	Edmonson	586	297
KY0310114	Edmonson County Water District	Edmonson	17,617	10,358
KY0500032	Bonnieville Water District	Hart	316	170
KY0500166	Green River Valley Water District	Hart	16,559	7,447
KY0500476	Horse Cave Water System	Hart	2,122	1,020
KY0500305	Munfordville Water Works	Hart	1,492	747
KY0710001	Adairville Water Works	Logan	922	445
KY0710012	Auburn Water Department	Logan	1,339	627
KY0710951	East Logan Water District	Logan	7,881	3,238
KY0710247	Lewisburg Water Works	Logan	2,513	1,213
KY0710318	North Logan Water District	Logan	1,369	606
KY0710378	Russellville Municipal Water System	Logan	7,149	3,436
KY0710707	South Logan Water Association	Logan	4,112	1,811
KY0850115	Edmonton Water Works	Metcalfe	7,213	3,326
KY0860141	Fountain Run Water District #1	Monroe	872	478
KY0860150	Monroe County Water District	Monroe	7,933	3,683
KY0860426	Tompkinsville Water Works	Monroe	2,250	1,126
KY1070144	Franklin Water Works	Simpson	10,523	4,627
KY1070398	Simpson County Water District	Simpson	6,943	2,872
KY1140038	Bowling Green Municipal Utilities	Warren	46,839	19,740
KY1140487	Warren County Water District	Warren	61,407	25,079
		Totals:	279,335	125,073

Barren River Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The majority of planning units within the BRADD region have identified the repair and replacement of existing infrastructure as the primary need within their respective county. Evidence of this need is reflected by the types of projects currently on record as well as the overall regional priority rankings submitted by each planning unit. Many planning units within the region have identified aging and/or failing existing infrastructure as a major obstacle to improving water service quality and have developed projects to combat this issue. Planning units also indicated that addressing the primary need of repair and replacement will also aid in the pursuit of extending services to unserved areas, which represents the secondary need identified most frequently within the BRADD region. Although to a lesser extent, improving security risks and increasing storage capacity were also identified as secondary needs by multiple planning units.

Description and Determination of Planning Units:

Planning units within the BRADD region are determined by county and are comprised of all water systems located within county boundaries. In addition, water systems that operate on a regional level within multiple counties are included in each planning unit in which they operate. Water planning units within the BRADD region: Allen, Barren, Butler, Edmonson, Hart, Logan, Metcalfe, Monroe, Simpson, and Warren.

Barren River Area Development District
Project Ranking Methodology

The Barren River Water Management Council utilizes the following criteria for the prioritization of water and wastewater projects on a regional scale. The criteria has been adapted from previous versions used by the BRADD combined with examples from other ADDs resulting in a 5 tiered ranking criteria to determine a numerical point value for each project. This process provides for increased collaboration on a local level to increase awareness on the impacts (locally and regionally) of proposed projects.

County Planning Unit Councils meet at least once locally to discuss and rank potential projects. These meetings are hosted by the County Judge/Executive with each local utility, mayor and other officials invited to attend. All proposed projects are reviewed by the council and given a numerical score based on a five tiered ranking criteria including: (1. Project Type 2.Complicance with Enforcement Action 3. Funding Status 4. Project Status and 5. County Ranking). Due to the diverse composition of each planning unit, a wide variety of interests are represented and therefore collaboration and compromise are key factors throughout the ranking process. This also provides for an increased level of understanding regarding the needs of planning unit as a whole and ensures that projects providing the most benefit (both locally and regionally) receive priority.

After all Planning Unit Council meetings have been completed, a summary tabulation of project scores is created and the Area Water Management Council meets to vote and finalize the regional ranking priorities. The top five scoring projects for each county are selected for ranking, resulting in a total of 50 ranked projects each for both water and wastewater. In addition, the top 10 overall projects are comprised of those projects identified as the #1 overall priority for each county (as indicated by each planning unit during regional ranking meetings). In this way each county is assured to have one project appear in the top 10 regional ranking, thus ensuring equal opportunity throughout the region. After the top 10 the projects are ranked based on overall score. The following criteria are used to score projects:

Drinking Water Ranking Criteria

I. Project Type

A. Elimination of a Public Water System (PWS) through a merger = 25 points
B. Elimination of water treatment plant through an interconnection = 23 points
C. Rehabilitation and or replacement of aging infrastructure = 20 points
D. Construction of a supplemental potable/raw water supply = 17 points
E. Construction of a new water treatment plant or expansion = 15 points
F. Construction of a new water storage tank = 10 point

G. Economic Development
- 100+ jobs created or maintained - 20 points
- 75-99 jobs created or maintained - 19 points
- 50-74 jobs created or maintained - 18 points
- 20-49 jobs created or maintained - 15 points
- 10-19 jobs created or maintained - 10 points
- less than 10 jobs created or maintained - 5 points

H. Extension of Service to Unserved Households
- 9+ households per mile - 20 points
- 7-8 households per mile - 19 points
- 5-6 households per mile - 18 points
- 3-4 households per mile - 15 points
- 1-2 households per mile - 10 points

I. Underserved Customers

80-100+ households per mile - 20 points
60-80 households per mile - 19 points
40-60 households per mile - 18 points
20-40 households per mile - 15 points
0-20 households per mile - 10 points

II. Compliance with Enforcement Action (Receive points in either A or B)

A. Does the project address correction of a documented health threat? = 10 Points
B. Is the project necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree? = 5 Points

III. Funding Status (Receive points in either A, B, or C)

A. Funds committed for 50-99% of total project cost = 10 points
B. Funds committed for 1-49% of total project cost = 5 points
C. No funds committed for project = 0 points

IV. Project Status (Can receive points in multiple categories)

A. All necessary approvals obtained to start construction (including rights-of-way) = 20 points
B. Engineering plans & specs submitted to DOW = 15 points
C. Preliminary engineering report complete = 10 points
D. Estimated engineer's budget complete = 5 points

V. County Ranking (Receive points in either A, B, C, or D)

A. Number one ranked project = 24 points
B. Number two ranked project =18 points
C. Number three ranked project = 14 points
D. Number four ranked project = 10 points
E. Number five ranked project = 8 Points

Project Rankings For Barren River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21171027	Monroe County Water District - Treatment Plant Upgrade	3-5 Years	Partially Funded	$16,600,000	Monroe	1	1
WX21169032	Edmonton - Water Storage Tank Renovations/SCADA System - Phase II	3-5 Years	Not Funded	$800,000	Metcalfe	2	1
WX21099034	GRVWD - Water Treatment Plant River Intake Modifications	0-2 Years	Not Funded	$739,200	Hart	3	1
WX21031048	City of Morgantown - Rochester Dam Repair	3-5 Years	Not Funded	$60,000	Butler	4	1
WX21141037	South Logan Water Association - System Upgrades and Extensions	3-5 Years	Not Funded	$1,660,000	Logan	5	1
WX21213034	SCWD- Macedonia Road Fire Protection	3-5 Years	Not Funded	$120,000	Simpson	6	1
WX21003015	City of Scottsville - Old Hartsville Road Water Pump Replacement	3-5 Years	Not Funded	$500,000	Allen	7	1
WX21061006	Edmonson County Water District: 2012 Emergency Needs Project	0-2 Years	Not Funded	$895,000	Edmonson	8	1
WX21227078	Three Springs/Highway 242 Transmission Line	3-5 Years	Not Funded	$850,000	Warren	9	1
WX21009032	Glasgow Water Improvement - 20 Inch Transmission Line to Haywood	3-5 Years	Not Funded	$1,600,000	Barren	10	1
WX21169025	Edmonton - Joe Fields, Chess Jessie, Lone Star Line Replacement	3-5 Years	Not Funded	$150,000	Metcalfe	11	2
WX21213029	City of Franklin - Morgantown Rd Water Line	3-5 Years	Not Funded	$336,000	Simpson	12	2
WX21061027	Edmonson County Water District - Edmonson and Hart Extensions #1	3-5 Years	Not Funded	$977,075	Edmonson	13	2
WX21099035	Edmonson County Water District - Edmonson and Hart Extensions #1	3-5 Years	Not Funded	$977,075	Hart	14	2
WX21031044	BCWS - Rochester Dam Repair	0-2 Years	Not Funded	$280,000	Butler	15	2
WX21141004	Adairville - Water System Improvements / Upgrades	0-2 Years	Not Funded	$266,500	Logan	16	2
WX21171020	Tompkinsville - Beldon Water Tank Painting	3-5 Years	Not Funded	$100,000	Monroe	17	2
WX21003012	City of Scottsville - WTP Emergency Generator Project	3-5 Years	Not Funded	$500,000	Allen	18	2
WX21227077	BGMU - Reservoir Hill Piping Renovation	3-5 Years	Not Funded	$1,240,000	Warren	19	2
WX21009033	Glasgow Water Improvement - 20 Inch Transmission Line Haywood to Grandview Ave	3-5 Years	Not Funded	$1,750,000	Barren	20	2
WX21141025	Russellville Water Project 2	0-2 Years	Not Funded	$933,830	Logan	21	3
WX21031042	Morgantown - Water Plant Improvements	3-5 Years	Not Funded	$500,000	Butler	22	3
WX21061026	City of Brownsville - Brownsville Water Tank Rehabilitation	3-5 Years	Not Funded	$240,000	Edmonson	23	3
WX21213042	SCWD - Rural Fire Protection Project A	3-5 Years	Not Funded	$749,000	Simpson	24	3
WX21003016	ACWD - Emergency Generators	3-5 Years	Not Funded	$300,000	Allen	25	3
WX21099033	Bonnieville - Asbestos Line Replacement	3-5 Years	Not Funded	$1,000,000	Hart	26	3
WX21171037	Fountain Run Water District #1 - Repaint/Rehab Existing Tank	3-5 Years	Not Funded	$123,000	Monroe	27	3
WX21227053	WCWD - Morgantown Road Area Improvements	3-5 Years	Not Funded	$917,000	Warren	28	3
WX21009030	Caveland Environmental - Blair Road	3-5 Years	Not Funded	$198,000	Barren	29	3
WX21169022	Edmonton - A. Smith Rd Extension	3-5 Years	Not Funded	$32,000	Metcalfe	30	3
WX21061020	Edmonson County Water District - Edmonson and Hart Extensions #2	3-5 Years	Not Funded	$1,061,585	Edmonson	31	4
WX21099029	GRVWD - New 500,000 Gallon Concrete Clearwell With Pumps at WTP	3-5 Years	Not Funded	$1,545,000	Hart	32	4
WX21213028	City of Franklin - West Cedar St. Water Line	0-2 Years	Not Funded	$495,975	Simpson	33	4

Project Rankings For Barren River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21031018	BCWS - WTP Capacity Upgrades - Phase 2	3-5 Years	Not Funded	$583,000	Butler	34	4
WX21009035	Caveland Environmental - Cave City Water Line Replacement	3-5 Years	Not Funded	$600,000	Barren	35	4
WX21141020	City of Lewisburg - Radio Read Meter Purchase	0-2 Years	Not Funded	$220,000	Logan	36	4
WX21169031	Metcalfe County Water Main Extension	3-5 Years	Partially Funded	$100,000	Metcalfe	37	4
WX21227044	BGMU - New Southcentral 2.0 Million Gallon Tank (Highland Tank)	3-5 Years	Not Funded	$12,000,000	Warren	38	4
WX21003013	City of Scottsville - WTP Improvements	3-5 Years	Not Funded	$50,000	Allen	39	4
WX21171039	Monroe County Water District Improvements - Water Storage Tanks	3-5 Years	Not Funded	$200,000	Monroe	40	4
WX21213043	SCWD - Rural Fire Protection Project B	0-2 Years	Not Funded	$826,000	Simpson	41	5
WX21003014	City of Scottsville - Maysville Rd Tank Painting and Old Tank De	3-5 Years	Not Funded	$350,000	Allen	42	5
WX21009037	Caveland Environmental - Park City Water Lines #2	3-5 Years	Not Funded	$500,000	Barren	43	5
WX21061005	Edmonson County Water Improvement - Nolin State Park	3-5 Years	Not Funded	$176,000	Edmonson	44	5
WX21099024	Horse Cave - Water Line Improvements	3-5 Years	Not Funded	$950,000	Hart	45	5
WX21227054	WCWD - Glen Lily Area Improvements	0-2 Years	Not Funded	$1,266,000	Warren	46	5
WX21031039	Morgantown - Water Tank	0-2 Years	Not Funded	$200,000	Butler	47	5
WX21169029	City of Edmonton - Water Service to New Bypass	6-10 Years	Not Funded	$2,000,000	Metcalfe	48	5
WX21171013	Tompkinsville Downtown Water Line Replacement	3-5 Years	Not Funded	$500,000	Monroe	49	5
			Total Cost:	**$59,017,240**			

Big Sandy Area Development District (BSADD)

- 2010 census population of 154,093 (70,217 households) with 94% serviceable.
- Projected 2020 population of 148,051 (change of -6,042).
- 2,493.69 miles of existing water lines.
- 84.00 miles of line extensions proposed in the next 10 years.
- 23.00 miles of line rehabilitation proposed in the next 10 years.
- 2.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $59,814,259.
- Estimated funding needs for projects from 6 to 10 years: $13,921,003.

Big Sandy Area Development District has a 2010 census population count of 154,093 (70,217 households) with a projected 2020 population count of 148,051 (61,704 households). Public water is currently available to approximately 94 percent of the district's households based on 2010 census counts. Over the next ten years approximately 120 serviceable households will be added through the construction of 84.00 miles of water line extensions and approximately 778 instances of improved service through the rehabilitation of 23.00 miles of existing water lines and other appurtenances. 2.00 miles of transmission lines are also proposed within this district.

County Summary for Big Sandy Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Floyd	39,451	18,175	37,153	15,594	17,478	96%	$ 16,094,810
Johnson	23,356	10,624	23,265	9,647	9,861	93%	$ 33,853,732
Magoffin	13,333	5,950	13,587	5,696	5,768	97%	$ 14,215,589
Martin	12,929	5,164	12,055	4,410	5,085	99%	$ 1,374,478
Pike	65,024	30,304	61,991	26,357	27,499	91%	$ 8,196,653
Totals	**154,093**	**70,217**	**148,051**	**61,704**	**65,691**	**94%**	**$ 73,735,262**

Community Drinking Water Systems in Big Sandy Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0360272	Martin Water Works	Floyd	651	374
KY0360358	Prestonsburg City's Utilities Commission	Floyd	18,015	8,188
KY0360026	Southern Water & Sewer District	Floyd	19,517	8,979
KY0360463	Wheelwright Utilities Commission	Floyd	1,514	660
KY0580340	Paintsville Utility Commission	Johnson	21,171	9,656
KY0770525	Magoffin County Water District	Magoffin	10,853	4,842
KY0770566	Salyersville Water Works	Magoffin	2,235	997
KY0800273	Martin County Water District	Martin	11,812	5,106
KY0980120	Elkhorn City Water Department	Pike	1,246	623
KY0980575	Mountain Water District	Pike	48,200	22,494
KY0980350	Pikeville Water Department	Pike	9,095	4,158
		Totals:	144,309	66,077

Big Sandy Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Increase Storage Capacity**

Discussion of Area Development District Needs:

In the Big Sandy Area 94% of the population is served by public water. The unserved population lives in very rural areas and waterline extension and maintenance is very expensive. The capital cost of designing and constructing public water system extensions is perhaps the chief impediment to the extension of public service into rural areas of the Big Sandy. The average age of water infrastructure in the region is approximately 50 years old. The primary need for the Big Sandy Area is to repair and replace existing infrastructure. The aging water infrastructure need to be upgraded or replaced. The area's secondary need for sufficient water supply to deal with drought or heavy water usage implementation of inter connectivity among systems would alleviate the problem and some connections have been made.

Description and Determination of Planning Units:

Big Sandy has five Water Planning Areas: Floyd, Johnson, Magoffin, Martin, and Pike Counties. The planning group is made up of Judge Executives, Mayors, and Utilities within the planning area. The planning area follows the county boundary of the respective planning unit.

The water suppliers in the planning groups are as follows:

- Floyd County - Prestonsburg City's, Martin Water Works, Wheelwright Utilities, Southern Water and Sewer District
- Johnson County - Paintsville Utilities
- Magoffin County- Magoffin County Water District, Salyersville Water Works
- Martin County- Martin County Water District,
- Pike County-Mountain Water District, Pikeville Water Department, and Elkhorn City Water Department.

Big Sandy Area Development District
Project Ranking Methodology

The Big Sandy Area staff works in conjunction with the Kentucky Infrastructure Authority (KIA) in services of planning, grants administration, and identifying potential funding sources relating to water and wastewater infrastructure. Projects seeking various federal and State funding, are identified through the Water Management Council.

Yearly, the WMC reviews area projects and originates a priority list based on need for the Big Sandy Area. The Big Sandy Area currently has water needs for more efficient service to the existing customer base and distribution to the un-served. The population in the Big Sandy Area is mainly un-served by sanitary wastewater system. The lack of sewer in our area proposes a health hazard to several communities. There is a great need for wastewater projects in the Big Sandy Area. The drinking water and sanitary sewer needs of our area bring about these projects and lead to the process of ranking. The methodology BSADD Water Management Council uses to rank infrastructure projects is a combination of planning area ranking and priority score.

Big Sandy Area WMC Coordinator meets with the Area Utilities individually and discusses projects and identifies a project list for that utility. Once every utility in the region has been visit and each system has a project priority list, the WMC Coordinator then meets with all utilities in a planning area. Big Sandy has five Water and Wastewater planning areas, Floyd, Johnson, Magoffin, Martin, and Pike Counties. The Water Management Coordinator provides a list of projects provided by each utility to the planning group. The planning group is made up of Judge Executives, Mayors, and Utilities within the planning area. The group places a number of projects in rank order based on their perceived or measured importance to the planning area.

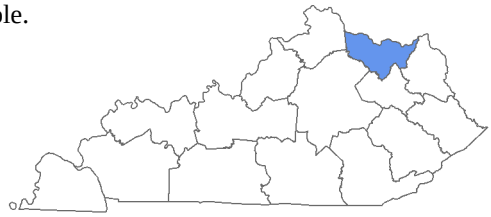
Regionally projects are scored. There are a total of 80 points possible for each project. The scoring criteria includes, project type, delivery area, project status, and funding status. Once the projects are scored we look back at the planning area ranking. The number 1 project for each planning area is ranked subsequently in order of the score they received on the sheets, and then move on to the number 2 project for each county and so on until each project submitted is ranked. In the event of a tie, the cost per connection is considered in the ranking.

Projects are placed in a fiscal year ranking order and presented to area council. The WMC approves the ranking. The rankings are submitted to KIA and provided to local and state officials for review.

Project Rankings For Big Sandy Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21071007	Southern Water - Water Treatment Plant Improvements	3-5 Years	Not Funded	$757,659	Floyd	1	1
WX21153023	Magoffin County Water District - Radio Telemetry System	3-5 Years	Not Funded	$600,000	Magoffin	2	1
WX21195638	MWD - Ridgeline Road Water Supply Project Section 2 Jonican	11-20 Years	Fully Funded	$808,846	Pike	3	1
WX21153018	Aging Water Main Phase III Broadway, College and Patrick Street	0-2 Years	Unknown	$0	Magoffin	5	2
WX21071731	Southern Water & Sewer District – Water Meter Change Out Program	3-5 Years	Not Funded	$1,200,000	Floyd	6	2
WX21115016	Paintsville Utility Water Line Extension #1	0-2 Years	Not Funded	$180,000	Johnson	7	2
WX21195024	By-pass Waterline Extension	0-2 Years	Not Funded	$225,000	Pike	8	2
WX21153032	Magoffin County Waterline Extension to Sand Bottom	3-5 Years	Not Funded	$89,700	Magoffin	9	3
WX21195611	MWD-Lower Johns Creek Phase IV	11-20 Years	Not Funded	$740,000	Pike	10	3
WX21195019	Elkhorn City Waterline Improvements	3-5 Years	Not Funded	$256,500	Pike	11	4
WX21071002	Wheelwright Rehabilitation of Water Tanks	0-2 Years	Not Funded	$200,000	Floyd	12	3
WX21071003	Water Tank Security Project	3-5 Years	Not Funded	$125,000	Floyd	13	4
			Total Cost:	**$5,182,705**			

Buffalo Trace Area Development District (BTADD)



- 2010 census population of 56,478 (26,144 households) with 97% serviceable.
- Projected 2020 population of 58,306 (change of 1,828).
- 1,726.44 miles of existing water lines.
- 39.00 miles of line extensions proposed in the next 10 years.
- 95.00 miles of line rehabilitation proposed in the next 10 years.
- There are no transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $12,763,000.
- Estimated funding needs for projects from 6 to 10 years: $23,378,500.

Buffalo Trace Area Development District has a 2010 census population count of 56,478 (26,144 households) with a projected 2020 population count of 58,306 (24,059 households). Public water is currently available to approximately 97 percent of the district's households based on 2010 census counts. Over the next ten years approximately 283 serviceable households will be added through the construction of 39.00 miles of water line extensions and approximately 42,267 instances of improved service through the rehabilitation of 95.00 miles of existing water lines and other appurtenances.

County Summary for Buffalo Trace Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Bracken	8,488	3,840	8,744	3,538	3,796	99%	$ 4,876,500
Fleming	14,348	6,623	14,880	6,231	6,500	98%	$ 7,310,000
Lewis	13,870	6,481	13,899	5,717	6,113	94%	$ 7,521,000
Mason	17,490	8,105	18,419	7,608	7,805	96%	$ 14,249,000
Robertson	2,282	1,095	2,364	965	1,081	99%	$ 2,185,000
Totals	**56,478**	**26,144**	**58,306**	**24,059**	**25,295**	**97%**	**$ 36,141,500**

Community Drinking Water Systems in Buffalo Trace Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0120013	Augusta Regional WTP	Bracken	1,167	572
KY0120039	Bracken County Water District	Bracken	6,067	2,701
KY0120044	Brooksville Water	Bracken	655	297
KY0350133	Fleming County Water Association	Fleming	9,576	4,230
KY0350134	Flemingsburg Water	Fleming	2,907	1,491
KY0910675	Western Fleming Water District	Fleming	2,792	1,254
KY0680153	Garrison Water	Lewis	2,808	1,247
KY0680438	Vanceburg Water	Lewis	6,238	2,954
KY0810046	Buffalo Trail Water Association	Mason	3,375	1,583
KY0810275	Maysville Water	Mason	11,273	5,409
KY0810366	Western Lewis-Rectorville Water & Gas District	Mason	4,880	2,201
KY0810460	Western Mason Water District	Mason	2,191	954
KY1010297	Mount Olivet Water	Robertson	460	219
		Totals:	54,389	25,112

Buffalo Trace Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Increase Storage Capacity**

Discussion of Area Development District Needs:

Buffalo Trace Area Development District (BTADD) is comprised of Bracken, Fleming, Lewis, Mason and Robertson Counties. Thirteen (13) water systems provide potable water to the residents of the area. In addition, one water commission provides water on a wholesale basis to other utilities. During a Regional Water Management Council meeting, the systems were given the opportunity to meet with the other systems in their respective county to discuss the needs for their system and determine the needs that were most prevalent in the county. The needs identified were used in the determination of the primary and secondary of the Buffalo Trace Area Development District.

The primary need identified in the Buffalo Trace Region is Repair and Replace Existing Infrastructure. This is the primary need for four of the five planning units and was identified as the secondary need for the other county. Many of the utilities have identified this as their primary need due to aging infrastructure and undersized lines. Approximately 250 miles of water line in the region was constructed prior to 1970, with more than 200 miles being constructed of AC line. In addition, wells need to be replaced and tanks need to be cleaned.

The secondary need identified is Increase Storage Capacity. This was identified as the primary need in one planning unit and secondary in two planning units. Several areas do not have adequate storage to meet regular demands within the area.

Additional secondary needs identified by the planning units include: Economic Stimulation and Meet Regulatory Requirements

Description and Determination of Planning Units:

The Buffalo Trace Area Development covers five planning units, each encompassing a political county boundary. The five planning units are: Bracken County, Fleming County, Lewis County, Mason County and Robertson County.

There are five water utilities in Bracken County: Augusta Regional WTP, Bracken County Water District, Brooksville Utility, Buffalo Trail Water Association and Western Mason Water District.

Four utilities serve residences in Fleming County. They include: Fleming County Water Association, Flemingsburg Utility, Western Fleming Water District and Rowan Water, Inc. In addition, Greater Fleming Regional Water Commission is a wholesale provider to Fleming County Water Association, Flemingsburg Utility and Western Fleming Water District.

Lewis County residents are served by three systems: Garrison Quincy Heights Water District, Vanceburg Electric Plant Board and Western Lewis Rectorville Water District.

Mason County is served by six utilities: Maysville Utility System, Western Mason Water District, Western Lewis Rectorville Water District, Buffalo Trail Water Association, Bracken County Water District and Fleming County Water Association.

Robertson County has service provided by Mt. Olivet Water and Buffalo Trail Water Association.

Buffalo Trace Area Development District
Project Ranking Methodology

Buffalo Trace completes county meetings. Every person who is on the mailing list for the Water Management Council (systems, Judge Executives, Mayors, engineers, Health Departments, DOW, etc.) is notified of the meetings. Each project is discussed and then the individuals present at the meeting rank the projects by what they determine to be most important and beneficial for the county. The rankings are reached by consensus.

After the county meetings, the Water Management Council ranks the projects on a regional basis. Each project that received a #1 ranking at the county meeting is presented. The Council then ranks those projects as to what is determined to be the most important and beneficial for the region. After those five projects are ranked and consensus reached, the projects are ranked on an alternating basis. The county that received the number 1 rank then receives the number 10 rank. The county that received the 2 rank receives the 9 rank. The county that received the 3 rank receives the 8 rank. The county that received the 4 rank receives the 7 rank. The county that received the 5 rank receives the 6 rank.

The rankings continue in an alternating fashion.
Basically;
County A receives regional rankings of 1, 10, 11, 20, etc.
County B receives regional rankings of 2, 9, 12, 19, etc.
County C receives regional rankings of 3, 8, 13, 18, etc.
County D receives regional rankings of 4, 7, 14, 17, etc.
County E receives regional rankings of 5, 6, 15, 16, etc.

This process is completed for both water and sewer projects. The order of regional rankings for water and sewer projects are completed independently of each other.

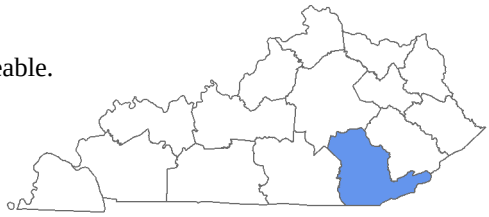
Project Rankings For Buffalo Trace Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21135015	GQWD- Phase I AC Water Line Replacement- Bentleyville to Quincy	6-10 Years	Not Funded	$430,000	Lewis	1	1
WX21069036	City of Flemingsburg Crestview Water Line Replacement	0-2 Years	Not Funded	$245,000	Fleming	2	1
WX21201016	BTWA-KY1029 From Ogden Ridge to KY 165	6-10 Years	Not Funded	$400,000	Robertson	3	1
WX21023039	Augusta Lagoon Cleaning	3-5 Years	Not Funded	$80,000	Bracken	4	1
WX21161040	WLRWD Well 3 Rehab	6-10 Years	Not Funded	$30,000	Mason	5	1
WX21161024	Mayslick Tank	6-10 Years	Not Funded	$750,000	Mason	6	2
WX21023036	Augusta-New Water Tank	3-5 Years	Not Funded	$806,000	Bracken	7	2
WX21201013	BTWA-Scattered Lines	6-10 Years	Not Funded	$365,000	Robertson	8	2
WX21069022	FCWA 12" Bypass Water Line	3-5 Years	Not Funded	$501,000	Fleming	9	2
WX21135018	GQWD- Phase II, AC Water Line Replacement- Old County Ln (In Qui	6-10 Years	Not Funded	$451,000	Lewis	10	2
WX21135019	GQWD- Phase III, New Water Line to Connect to the South Shore Wa	11-20 Years	Not Funded	$279,000	Lewis	11	3
WX21069030	WFWD-Nepton Rd & Connector Rd	3-5 Years	Not Funded	$40,000	Fleming	12	3
WX21201014	Mt. Olivet Water Upgrade-Waterworks Rd/KY 617/KY 165 S	6-10 Years	Not Funded	$370,000	Robertson	13	3
WX21023042	BCWD-County Roads Without Water	3-5 Years	Not Funded	$279,000	Bracken	14	3
WX21161037	WMWD-Augusta Dover Road Water Line Upgrade	3-5 Years	Not Funded	$385,000	Mason	15	3
WX21161035	Maysville Plant Upgrade	6-10 Years	Not Funded	$30,000	Mason	16	4
WX21023033	BCWD - Shofstall to Locust Creek & Old 19	6-10 Years	Not Funded	$750,000	Bracken	17	4
WX21201009	BTWA - Start At 539 @ US 62 Nursing Home to Louderback Ln	6-10 Years	Not Funded	$500,000	Robertson	18	4
WX21069034	Flemingsburg Water - East Water Street Water Line Replacement	3-5 Years	Not Funded	$215,000	Fleming	19	4
WX21161023	WLRWD - Lewis County Extension Project	3-5 Years	Not Funded	$1,500,000	Lewis	20	4
WX21135007	Garrison Quincy Water District-Phase 4	3-5 Years	Not Funded	$1,709,000	Lewis	21	5
WX21069033	Flemingsburg Telemetry	3-5 Years	Not Funded	$260,000	Fleming	22	5
WX21201010	BTWA - KY 1029 & Gayles Gorge	6-10 Years	Not Funded	$550,000	Robertson	23	5
WX21023032	Brooksville Improvements	6-10 Years	Not Funded	$500,000	Bracken	24	5
WX21161013	Maysville Utility Telemetry/Security Improvements	6-10 Years	Not Funded	$150,000	Mason	25	5
WX21161022	WLRWD - Orangeburg Tank	3-5 Years	Not Funded	$2,000,000	Mason	26	6
WX21023034	BCWD-Phase V-Roads Without Water & Upgrades	6-10 Years	Not Funded	$549,500	Bracken	27	6
WX21069035	WFWD-Office Upgrade	6-10 Years	Not Funded	$50,000	Fleming	28	6
WX21069032	Western Fleming AC Replacement	6-10 Years	Not Funded	$5,049,000	Fleming	29	7
WX21023025	Bracken Co Water District - Asbsetos Cement Water Line Replacement	3-5 Years	Not Funded	$977,000	Bracken	30	7
WX21161014	Hydraulic Analysis of Maysville Utility Commission & Southern Mason	11-20 Years	Not Funded	$200,000	Mason	31	7
WX21161039	WLR Water System Improvements Project	6-10 Years	Not Funded	$700,000	Mason	32	8
WX21023031	Bracken County Water District AMR and GIS	6-10 Years	Not Funded	$280,000	Bracken	33	8
WX21069018	Flemingsburg Automatic Read Meters	6-10 Years	Not Funded	$350,000	Fleming	34	8

Project Rankings For Buffalo Trace Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21069010	Western Fleming Water District Automatic Read Meters	3-5 Years	Not Funded	$170,150	Fleming	35	9
WX21023037	Brooksville & Augusta AMR & GIS	6-10 Years	Not Funded	$250,000	Bracken	36	9
WX21161034	BTWA-Sardis Upgrade	3-5 Years	Not Funded	$150,000	Mason	37	9
WX21161033	BTWA-Happy Ridge Upgrade	3-5 Years	Not Funded	$205,000	Mason	38	10
WX21023035	Augusta Water Tank Repair & Painting	3-5 Years	Not Funded	$20,000	Bracken	39	10
WX21069019	GFCRWC Lime Softening Upgrade	6-10 Years	Not Funded	$4,800,000	Fleming	40	10
WX21069008	Greater Fleming County Regional Water Commission -Phase 2 Extension	11-20 Years	Not Funded	$7,944,000	Fleming	41	11
WX21023020	AA Highway	11-20 Years	Not Funded	$1,100,000	Bracken	42	11
WX21161029	Washington Pressure Zone Upgrade	3-5 Years	Not Funded	$75,000	Mason	43	11
WX21161038	BTWA - Old Sardis Pike	6-10 Years	Not Funded	$200,000	Mason	44	12
WX21069013	GFCRWC- Phase III	11-20 Years	Not Funded	$16,338,000	Fleming	45	12
WX21161002	Phase V - Service Extension Project	6-10 Years	Not Funded	$1,900,000	Mason	46	13
WX21161036	WMWD-Walton Pike Water Line Upgrade	6-10 Years	Not Funded	$209,000	Mason	47	14
			Total Cost:	**$55,091,650**			

Cumberland Valley Area Development District (CVADD)



- 2010 census population of 236,618 (104,865 households) with 97% serviceable.
- Projected 2020 population of 237,501 (change of 883).
- 4,499.68 miles of existing water lines.
- 360.00 miles of line extensions proposed in the next 10 years.
- 61.00 miles of line rehabilitation proposed in the next 10 years.
- 57.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $93,915,583.
- Estimated funding needs for projects from 6 to 10 years: $23,707,730.

Cumberland Valley Area Development District has a 2010 census population count of 236,618 (104,865 households) with a projected 2020 population count of 237,501 (97,085 households). Public water is currently available to approximately 97 percent of the district's households based on 2010 census counts. Over the next ten years approximately 22,715 serviceable households will be added through the construction of 360.00 miles of water line extensions and approximately 164,922 instances of improved service through the rehabilitation of 61.00 miles of existing water lines and other appurtenances. 57.00 miles of transmission lines are also proposed within this district.

County Summary for Cumberland Valley Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Bell	28,691	13,154	27,648	11,714	12,853	98%	$ 11,364,948
Clay	21,730	8,875	20,289	7,421	8,356	94%	$ 12,700,200
Harlan	29,278	13,513	26,099	10,856	12,811	95%	$ 5,037,809
Jackson	13,494	6,523	13,771	5,961	6,101	94%	$ 12,501,797
Knox	31,883	14,485	32,132	13,362	14,144	98%	$ 16,473,900
Laurel	58,849	25,446	64,713	26,415	25,259	99%	$ 32,625,426
Rockcastle	17,056	7,703	17,593	7,308	7,425	96%	$ 15,936,606
Whitley	35,637	15,166	35,256	14,048	14,620	96%	$ 10,982,627
Totals	**236,618**	**104,865**	**237,501**	**97,085**	**101,569**	**97%**	**$ 117,623,313**

Community Drinking Water Systems in Cumberland Valley Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0070353	Pineville Water System	Bell	15,609	7,060
KY0070282	Water Service Corporation of Kentucky	Bell	12,022	5,726
KY0260737	Manchester Water Works	Clay	13,187	5,701
KY0260266	North Manchester Water Association Inc	Clay	6,662	2,284
KY0480028	Benham Water Plant	Harlan	758	398
KY0480265	Black Mountain Utility - Coxton	Harlan	577	258
KY0480277	Black Mountain Utility - Dayhoit	Harlan	1,935	884
KY0480603	Black Mountain Utility - Kenvir	Harlan	1,199	521
KY0480498	Black Mountain Utility - Louellen	Harlan	738	358
KY0480650	Black Mountain Utility - Rosspoint	Harlan	1,641	763
KY0480461	Black Mountain Utility - Sukey Ridge	Harlan	748	350
KY0480572	Black Mountain Utility - Wallins	Harlan	1,644	771
KY0480565	Cawood Water District	Harlan	4,516	1,974
KY0483727	Cawood Water District - Pathfork	Harlan	486	231
KY0480262	City of Lynch	Harlan	825	490
KY0483458	Coap, Inc.	Harlan	73	31
KY0480092	Cumberland Municipal Water Works	Harlan	3,551	1,724
KY0480125	Evarts Municipal Water Plant	Harlan	3,409	1,396
KY0480341	Green Hills Water District	Harlan	1,400	632
KY0480178	Harlan Municipal Water Works	Harlan	4,288	2,051
KY0550784	City of McKee	Jackson	845	446
KY0550209	Jackson County Water Association Inc	Jackson	11,651	5,538
KY0610016	Barbourville Utility Commission	Knox	15,846	7,072
KY0610110	Knox County Utility Commission	Knox	7,849	3,768
KY0630797	East Laurel Water District	Laurel	12,977	5,484
KY0630238	Laurel Water District #2	Laurel	14,677	6,151
KY0630255	London Utility Commission	Laurel	9,161	4,159
KY0630451	West Laurel Water Association	Laurel	12,274	5,278
KY0630477	Wood Creek Water District	Laurel	11,745	5,130
KY1020889	City of Brodhead	Rockcastle	1,512	680
KY1020299	City of Mount Vernon	Rockcastle	4,316	1,990
KY1020288	Eastern Rockcastle County Water Association	Rockcastle	1,592	784
KY1020253	Livingston Municpal Water Works	Rockcastle	376	194
KY1020891	Western Rockcastle Water Association	Rockcastle	10,732	4,732
KY1180085	Corbin Utilities Commission	Whitley	14,913	6,851
KY1180093	Cumberland Falls Highway Water District	Whitley	8,894	3,688
KY1183728	Whitley County Water District	Whitley	425	184
KY1180468	Whitley County Water District #1	Whitley	3,398	1,443
KY1180962	Whitley County Water District #2	Whitley	4,544	2,008
KY1180999	Whitley County Water District #3	Whitley	3,138	1,324
KY1180471	Williamsburg Municipal WTP	Whitley	5,123	1,924
		Totals:	231,256	102,431

Cumberland Valley Area Development District
Regional Water Needs Assessment

Primary Need: **Extend Services to Unserved Areas**
Secondary Need: **Improve Security Risks**

Discussion of Area Development District Needs:

The Cumberland Valley Area Water Management Planning Council held meetings at the county level to assess current and future water needs in the region. Most of those water needs are described in project profiles, but information on potential growth areas (subdivisions) is not available. During the review it was noted that repair and replacing aging infrastructure is common need in the entire region while extending lines to unserved areas is not a need in Laurel and a few other counties. All customers in those counties have access to public water if needed. Counties with unserved customers include: Bell County 400, Jackson County 619, Harlan County 35, and Knox Count 150 customers and Rockcastle county 13 customes. Other needs in the region are water storage, regionalization, source protection, improved security , economic stimulation and meeting regulatory requirement.

Repair or replace aging infrastructure, remain a major need in the Cumberland Valley ADD region. That need is reflected by the number of proposed projects in the database. Extending lines to unserved customers is the primary need in the region because of the Council's goal to extend lines to unserved households by 2020. Many miles of older lines have been replaced since 2001 when the planning process began, but some line connections installed before 1930 are still in use. Cumberland Fall Stake Park in Whitley County has more older lines than any other utility. The Park is owned by the State of Kentucky and cannot propose and submit project through the Water Management Planning Council like other utilities. As such no line replacement has taken place. The water management planning council is working hard to ensure that all aging infrastructure is replaced and unserved households have access to public water by the year 2020.

Description and Determination of Planning Units:

This section describes the geographic area of the plan and how the planning council members reached agreement on the composition of the management areas within the planning unit. The Cumberland Valley Area Development District Planning Unit encompasses eight counties comprised of Bell, Clay, Harlan, Knox, Laurel, Jackson, Rockcastle, Whitley and other surrounding counties as follows.

The Eight Water Management Planning Areas are as follows:

- Water Management Area 01 is all that area of land served or proposed to be served by all the water entities of Rockcastle, Lincoln, Pulaski, and Garrard Counties.
- Water Management Area 02 is all that area of land served or proposed to be served by all the water entities of Jackson, Estill and Owsley Counties.
- Water Management Area 03 is all that area of land served or proposed to be served by all the water entities of Laurel County.
- Water Management Area 04 is all that area of land served or proposed to be served by all the water entities of Clay County.
- Water Management Area 05 is all that area of land served or proposed to be served by all the water entities of Whitley and McCreary Counties.
- Water Management Area 06 is all that area of land served or proposed to be served by all the water entities of Knox County.
- Water Management Area 07 is all that area of land served or proposed to be served by all the water entities of Bell County.
- Water Management Area 08 is all that area of land served or proposed to be served by all the water entities of Harlan and Leslie Counties.

Cumberland Valley Area Development District
Project Ranking Methodology

A multicriterion decision - making concept is applied to meet utility, county and state diverse criterion of prioritizing water projects for funding purposes. The aim is to arrive at a methodology that will objective and meet state requirements as well as generate more effective discussions between conflicting groups.

The Cumberland Valley ADD project ranking system describes the ranking methodology for a wide municipal and non- municipal water and projects that are eligible for financial assistance through various state and federal programs. Since any governmental agency, as defined in KRS 224A.001, or investor owned water system, as provided for in KRS 96.540, 224A.308, and 224A.310, is eligible to apply to receive financial assistance for construction of infrastructure projects, the Cumberland Valley ADD will rank all eligible projects unless there is a reason not to do so.

Water Ranking at the Utility Level

Prior to ranking wastewater project at the County level, each utility prioritizes all its projects as high (0-2 years), medium (3-5 years) or low (6-10 years) depending on several factors ranging from need for the project to potential funding sources. Project readiness and construction work load are all factored in the decision making process. Once projects are prioritized at the utility level, they are submitted to the ADD planner's office to be entered into the database. Thereafter, the project is approved or deferred by the Area Water management planning Council at one of the quarterly meetings. At another meeting, all County proposed projects are evaluated and ranked from 1 to 10 or whatever number is agreed upon by those in attendance. All 0-2 project are usually ranked, but some of the lower priority projects may not be ranked.

Water Ranking at the County Level

CVADD ranking system gives highest priority to projects that propose to extend water lines to unserved areas within the Cumberland Valley ADD planning unit. Projects that enhance the health, safety and welfare in local communities, total cost of the project, availability of other funding for the project, number of unserved and underserved households, regional impact of the project and consistency with the Area Water Management Plan.

Water Ranking at the Regional Level

The method used to rank projects at the regional level was determined when the council was first created and afforded the responsibility to rank water projects for funding purposes. At that initial meeting, counties were designated numbers 1-8. The county designated number 1, had their county number one project ranked first at the regional level. The county ranked number one the first time would have their number one project ranked 8 in the next ranking cycle. Rotation continues from one year to the next. This ranking methodology is easy for the Council and the planner and gives every county project the opportunity to ranked number one at some point. Secondly, this methodology allows for objectivity and eliminates biases. The only disadvantage with this ranking method is that some of the project ranked 1-8 may not be competitive enough at the state level. During the September, 2012 meeting, the Council had a discussion to review and possibly change the methodology, but no decision was arrived at. Instead, the motion to change the current methodology was deferred to the next water council meeting.

Project Rankings For Cumberland Valley Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21203523	Mount Vernon - Phase #2 - Potable Water Storage Tanks and Lines	0-2 Years	Fully Funded	$2,600,000	Rockcastle	1	1
WX21125003	West 5th Street/College Street Waterline Replacement - Phase 1	3-5 Years	Not Funded	$127,658	Laurel	2	1
WX21121532	Knox County - Water Projects	0-2 Years	Partially Funded	$2,777,500	Knox	3	1
WX21235403	CFHWD Water - New Line Extension Project	0-2 Years	Partially Funded	$933,000	Whitley	4	1
WX21095003	Cumberland Water System Improvements	3-5 Years	Not Funded	$1,664,000	Harlan	5	1
WX21051060	Unserved Areas of Clay County	0-2 Years	Partially Funded	$1,650,000	Clay	6	1
WX21109722	Jackson County Water Association – Transmission Main From McKee	0-2 Years	Partially Funded	$3,612,436	Jackson	7	1
WX21013920	Pineville: Browns Creek Cubbage Hill	0-2 Years	Fully Funded	$1,650,000	Bell	8	1
WX21203538	City of Livingston - Wood Creek Water Connection	3-5 Years	Not Funded	$1,096,000	Rockcastle	9	2
WX21125002	East 9th Street Waterline Replacement	3-5 Years	Not Funded	$281,158	Laurel	10	2
WX21121550	Rehab of The Water Treatment Plant	3-5 Years	Not Funded	$250,000	Knox	11	2
WX21121540	Knox County Utility Commission - Whitley County Line Extension	3-5 Years	Not Funded	$350,000	Whitley	12	2
WX21095642	Raw Water Suppily Line for Evarts Water Plant	0-2 Years	Partially Funded	$275,000	Harlan	13	2
WX21051007	Big Creek Booster Pump Station Replacement	3-5 Years	Not Funded	$285,000	Clay	14	2
WX21109721	Jackson County Water Association – 2010 Waterline Extension	3-5 Years	Not Funded	$1,534,000	Jackson	15	2
WX21013918	Pineville: WTP Expansion Project	3-5 Years	Not Funded	$975,000	Bell	16	2
WX21203556	Eastern Rockcastle - Water Line Extension and Connection	3-5 Years	Not Funded	$836,000	Rockcastle	17	3
WX21125004	North Mill Street Waterline Replacement	3-5 Years	Not Funded	$102,524	Laurel	18	3
WX21121551	New Water Treatment Plant	3-5 Years	Not Funded	$6,000,000	Knox	19	3
WX21235002	CFHWYWD - Line Replacement and Reinforcement	3-5 Years	Not Funded	$1,120,000	Whitley	20	3
WX21109720	Jackson County: Phase 5 Waterline Project.	6-10 Years	Not Funded	$7,108,350	Jackson	22	3
WX21210139	Pmria- Waterline Ext. to Proposed Industrial Park	0-2 Years	Partially Funded	$6,500,000	Bell	23	3
WX21203559	Western Rockcastle Water Association - Sinking Valley Springs Rd Water Line	3-5 Years	Not Funded	$89,900	Rockcastle	24	4
WX21125005	Parker Road to West KY 80 Waterline Extension	3-5 Years	Not Funded	$334,960	Laurel	25	4
WX21235434	Whitley County: Water System Improvements	3-5 Years	Partially Funded	$2,374,500	Whitley	26	4
WX21051002	Horse Creek Asbestos Water Line Replacement	3-5 Years	Not Funded	$412,000	Clay	27	4
WX21013919	Pineville SCADA Expansion	3-5 Years	Not Funded	$225,000	Bell	28	4
WX21203534	Livingston Ky - Water System Debt Reduction	3-5 Years	Not Funded	$52,500	Rockcastle	29	5
WX21235803	Williamsburg - Phase III Water System Improvements	3-5 Years	Not Funded	$3,250,000	Whitley	31	5
WX21051003	Downtown Water Line Replacement	3-5 Years	Not Funded	$1,264,500	Clay	32	5
WX21013912	City of Pineville - A/C Waterline Replacement	3-5 Years	Not Funded	$1,854,948	Bell	33	5
WX21203519	Eastern Rockcastle Water Association - Water System Improvements	0-2 Years	Partially Funded	$604,000	Rockcastle	34	6
WX21125007	Bakersfield Subdivision Water Line Upgrade Project	3-5 Years	Not Funded	$179,693	Laurel	35	6

Project Rankings For Cumberland Valley Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21121537	Knox: Water Line Extension In Whitley County	0-2 Years	Partially Funded	$318,000	Whitley	36	6
WX21051006	Water Meter Replacement	3-5 Years	Not Funded	$1,000,000	Clay	37	6
WX21013926	Radio Read Meter Metering System	3-5 Years	Not Funded	$1,380,000	Bell	38	6
WX21203003	W. Rockastle Water Association - Us Highway 150 & 461 Water Line	3-5 Years	Not Funded	$858,000	Rockcastle	39	7
WX21125008	Hidden Acres Road Water Line Extension Project	3-5 Years	Not Funded	$64,195	Laurel	40	7
WX21235003	Cumberland Falls HWY way Water District - US 25E Transmission Main	3-5 Years	Not Funded	$1,200,000	Whitley	41	7
WX21051005	Water Tank Project	3-5 Years	Not Funded	$3,700,000	Clay	42	7
WX21125009	Meadowlane Subdivision Water Line Extension Project	3-5 Years	Not Funded	$198,662	Laurel	43	8
WX21051004	High Service Line Replacement	3-5 Years	Not Funded	$1,510,000	Clay	45	8
WX21125011	Laurel County Water District #2 Automatic Meter Read System	3-5 Years	Not Funded	$917,262	Laurel	46	9
WX21051202	North Manchester Water Association Line Extension & Line Upgrade	3-5 Years	Not Funded	$426,700	Clay	47	9
WX21125013	Hammock-Foly-SR1223 Loop Lines Project	3-5 Years	Not Funded	$195,164	Laurel	48	10
WX21125015	HWY 1006 Water Line Extension Project	3-5 Years	Not Funded	$271,763	Laurel	50	12
WX21125452	East Laurel System Improvement to Clay County	3-5 Years	Not Funded	$2,200,000	Laurel	51	13
WX21125453	East Laurel: Hwy 229, Hwy 830 & Hwy 1189 Reinforcements	3-5 Years	Not Funded	$1,069,200	Laurel	52	14
WX21125010	East Laurel Water District - KY 80 / Apple Orchard Rd Transmission Main and Pump	3-5 Years	Not Funded	$3,475,000	Laurel	53	15
WX21125460	East Laurel Water District - 1,000,000 Gallon Storage Tank #3	6-10 Years	Not Funded	$71,000	Laurel	54	16
WX21125477	Wood Creek Water District - Watershed Protection Project #7	3-5 Years	Not Funded	$310,000	Laurel	55	17
WX21125478	Wood Creek Water District - Watershed Protection Project #8	3-5 Years	Not Funded	$130,000	Laurel	56	18
WX21125514	West Laurel Road Without Waterlines (Previosly WX21125513)	3-5 Years	Not Funded	$70,608	Laurel	57	19
			Total Cost:	**$71,735,181**			

Five County Area Development District (FIVCO)

- 2010 census population of 137,884 (61,101 households) with 95% serviceable.
- Projected 2020 population of 139,098 (change of 1,214).
- 2,396.91 miles of existing water lines.
- 109.00 miles of line extensions proposed in the next 10 years.
- 9.00 miles of line rehabilitation proposed in the next 10 years.
- 15.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $37,379,198.
- Estimated funding needs for projects from 6 to 10 years: $71,400.

Five County Area Development District has a 2010 census population count of 137,884 (61,101 households) with a projected 2020 population count of 139,098 (56,252 households). Public water is currently available to approximately 95 percent of the district's households based on 2010 census counts. Over the next ten years approximately 1,892 serviceable households will be added through the construction of 109.00 miles of water line extensions and approximately 52,233 instances of improved service through the rehabilitation of 9.00 miles of existing water lines and other appurtenances. 15.00 miles of transmission lines are also proposed within this district.

County Summary for Five County Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Boyd	49,542	21,803	49,446	20,040	21,737	100%	$ 7,420,000
Carter	27,720	12,311	28,459	11,508	11,572	94%	$ 8,327,000
Elliott	7,852	3,371	8,078	3,011	3,068	91%	$ 2,788,000
Greenup	36,910	16,330	36,923	15,046	15,106	93%	$ 14,530,398
Lawrence	15,860	7,286	16,192	6,647	6,605	91%	$ 4,385,200
Totals	**137,884**	**61,101**	**139,098**	**56,252**	**58,088**	**95%**	**$ 37,450,598**

Community Drinking Water Systems in Five County Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0100011	Ashland Water Department	Boyd	35,815	16,137
KY0100944	Big Sandy Water District	Boyd	13,738	5,942
KY0100064	Cannonsburg Water District	Boyd	8,937	3,710
KY0100004	Overland Development	Boyd	269	104
KY0220164	Grayson Water Department	Carter	10,817	4,588
KY0220335	Olive Hill Water Department	Carter	5,021	2,366
KY0220555	Rattlesnake Ridge Water District	Carter	11,418	5,203
KY0320383	Sandy Hook Water District	Elliott	3,735	1,518
KY0450132	Flatwoods Water Department	Greenup	8,030	3,551
KY0450169	Greenup Water Department	Greenup	10,299	4,477
KY0450365	Raceland Water Department	Greenup	3,168	1,440
KY0450376	Russell Water Department	Greenup	4,893	2,140
KY0450410	South Shore Water Works Inc.	Greenup	4,599	2,175
KY0450478	Worthington Water Department	Greenup	1,615	685
KY0450479	Wurtland Water Department	Greenup	1,473	631
KY0640257	Louisa Water Department	Lawrence	5,476	2,474
		Totals:	129,303	57,141

Five County Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Meet Regulartory Requirements**

Discussion of Area Development District Needs:

Just the mention of aging infrastructure effectively blocks out all other discussion of area needs for the water utilities, but, in truth, most of the specifics all relate back to that general problem. Tanks in need of inspection, cleaning or painting is a function of age. Waterlines breaking are often the result of age or inferior materials or both. The City of Olive Hill, for example, has a 50 year old water treatment plant and a distribution system to match. In many cases there are projects to address these needs but not always. The utilities itemize there needs in the form of projects according to what needs to be done first or what might actually be feasible. Some comment that listing every need is the same as listing none; the task is crippling and stops all progress.

Description and Determination of Planning Units:

The FIVCO Planning Units consist of the FIVCO Counties. With few exceptions, the water systems do not have large customer bases in multiple counties. The exceptions to this are Rattlesnake Ridge Water District covering Carter, Elliott and Lawrence Counties, and the Big Sandy Water District in Boyd and Lawrence Counties. The other 14 water systems are bounded by their county lines. It is good to note that every system in the ADD is in some way interconnected with every other for emergency purposes or as a means of addressing pressure problems in more rural areas. In 2005, Hal Rogers secured funds for a study to connect 40 counties in Eastern Kentucky for the purposes of uninterrupted water supply. The ADDs involved in this study were FIVCO, Gateway, Big Sandy, Kentucky River, Cumberland Valley and Lake Cumberland. At least in the FIVCO area all the systems used the same chlorination process which eased the problems of interconnection somewhat. Though connectivity in the ADD is high, each county has its own plans for economic growth which makes division of the Planning Units by county understandable.

Boyd County is served by the City of Ashland (a large producer) and the Big Sandy Water District (a large distributor) and Cannonsburg Water District. Coverage is nearly 100% though BSWD is only recently working on an interconnect with Ashland. Previously, the Water District purchased the bulk of its supply from the City of Kenova in West Virginia and the City of Louisa in Lawrence County Kentucky.

Carter County is served by the Cities of Grayson and Olive Hill as well as the Rattlesnake Ridge Water District. The Water District has its corporate office in Carter County and its treatment plant in Elliott County.

Elliott County is served by Sandy Hook Water District and Rattlesnake Ridge Water District. Most of the County is served with only small "spurs" remaining to complete coverage.

Lawrence County is served by the Louisa Water and Sewer Commission and the Big Sandy Water District. In the past year, Paintsville Water has been invited to extend service into the southern region of the County around the City of Blaine. The Fiscal Court has paid for this extension.

Greenup County is served by seven of the sixteen water systems with corporate offices in the County as well as service from Ashland Water Department and the Cannonsburg Water District, both from Boyd County. Most of these systems are localized municipalities but the City of Greenup has expanded to provide service to most of the unserved areas of the County. Cannonsburg Water District provides service along the southern part of the Industrial Parkway and provides an interconnect with Greenup Water to help with pressure problems in the more remote reaches on their system.

Five County Area Development District
Project Ranking Methodology

The annual ranking in the FIVCO ADD area begins with a series of county-wide meetings comprised of all the water and sewer utilities in the county where the meeting is taking place. Each utility present decides which of their projects is to be ranked (typically two or three from their list) and determines the importance of those for themselves.

A point system is not used as the members of the Council feel that the importance of a project exists independent of a score based on its position in the development process. To provide some structure to the ranking, however, priority was given to projects dealing with:

• Immanent public health issues
• Critical system failures (current or threatening) that might bring down a utility lacking a backup plan
• Input from DOW such as a Notice of Violation (NOV) or an Agreed Order
• Regionalization

Projects are considered based on the aforementioned criteria and a ranking is produced following amicable discussion by all those present.

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If a Ranking cannot be agreed upon, FIVCO ADD has a backup plan using the following point system. Note, this system has never been used.

Points / Problem Addressed by Project

7 Immanent public health issues or critical system failures that might bring down a utility
6 Agreed Order from DOW
5 Notice of Violation from DOW
4 Regionalization of services
3 Maintenance projects on existing infrastructure
2 Upgrades to the treatment plants, pumps, or the distribution/collection system
1 Extension of new service lines

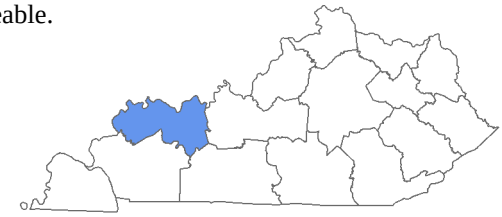
Add five (5) points if plans have been engineered and submitted to DOW for approval.

Discussion within the group can override the points attached to each problem addressed by the project.

Project Rankings For Five County Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21063008	Well Rehabilitation	3-5 Years	Not Funded	$258,000	Elliott	1	1
WX21089061	Raceland: Relocate RR Water Main to Corkey Lane	0-2 Years	Not Funded	$236,100	Greenup	2	1
WX21043033	Olive Hill: Water Treatment Plant Study	0-2 Years	Not Funded	$95,000	Carter	3	1
WX21019039	Cannonsburg WD: Refurbish The Tarpin Ridge and Princess Water T	3-5 Years	Not Funded	$500,000	Boyd	4	1
WX21127005	Louisa: WTP Water Intake Improvements Phase 1	0-2 Years	Not Funded	$265,200	Lawrence	5	1
WX21089059	Wurtland: Industrial Parkway Water Project	0-2 Years	Not Funded	$50,000	Greenup	6	2
WX21043038	Grayson: WTP Emergency Power Generators	0-2 Years	Not Funded	$320,000	Carter	7	2
WX21063002	SHWD: Water System Mapping/GPS	0-2 Years	Not Funded	$30,000	Elliott	8	2
WX21127003	Louisa: Water Distribution Rehab	3-5 Years	Not Funded	$1,250,000	Lawrence	9	2
WX21089053	Raceland: System Loop along US 23 from Caroline Rd to Buckenham	0-2 Years	Not Funded	$395,500	Greenup	10	3
WX21063010	Sandy Hook Water District System Improvements	0-2 Years	Fully Funded	$915,000	Elliott	11	3
WX21043034	Olive Hill: Bailey Creek Waterline Extension	0-2 Years	Not Funded	$75,000	Carter	12	3
WX21127006	Louisa WTP Water Intake Improvements Phase 2	3-5 Years	Not Funded	$1,385,000	Lawrence	13	3
WX21043040	Grayson: Keyhoe Water Line Extension Phase 2	0-2 Years	Not Funded	$150,000	Carter	14	4
WX21089062	Wurtland: Radio Read Meters	3-5 Years	Not Funded	$150,000	Greenup	15	4
WX21043037	Grayson: WTP Flocculation & Clarification System	0-2 Years	Not Funded	$2,638,000	Carter	16	5
WX21089024	Wurtland: Adena Water Tank Security	0-2 Years	Not Funded	$15,000	Greenup	17	5
WX21043011	Grayson: In-Line Chlorinator Booster Stations	0-2 Years	Not Funded	$90,000	Carter	18	6
WX21043010	Grayson: Fire Hydrant Upgrade	0-2 Years	Not Funded	$75,000	Carter	19	7
WX21043012	Grayson: Radio Telemetry for Booster Stations	0-2 Years	Not Funded	$50,000	Carter	20	8
WX21043031	Grayson: Stewart Branch Waterline Extension	0-2 Years	Not Funded	$100,000	Carter	21	9
			Total Cost:	**$9,042,800**			

Green River Area Development District (GRADD)



- 2010 census population of 213,472 (92,066 households) with 97% serviceable.
- Projected 2020 population of 220,544 (change of 7,072).
- 3,974.90 miles of existing water lines.
- 116.00 miles of line extensions proposed in the next 10 years.
- 103.00 miles of line rehabilitation proposed in the next 10 years.
- 48.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $93,839,467.
- Estimated funding needs for projects from 6 to 10 years: $18,047,420.

Green River Area Development District has a 2010 census population count of 213,472 (92,066 households) with a projected 2020 population count of 220,544 (89,593 households). Public water is currently available to approximately 97 percent of the district's households based on 2010 census counts. Over the next ten years approximately 879 serviceable households will be added through the construction of 116.00 miles of water line extensions and approximately 122,410 instances of improved service through the rehabilitation of 103.00 miles of existing water lines and other appurtenances. 48.00 miles of transmission lines are also proposed within this district.

County Summary for Green River Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Daviess	96,656	41,452	102,214	41,878	39,693	96%	$ 3,913,334
Hancock	8,565	3,734	8,843	3,502	3,677	99%	$ 4,612,900
Henderson	46,250	20,320	47,600	19,851	20,057	99%	$ 50,952,709
McLean	9,531	4,264	9,271	3,821	4,079	96%	$ 25,042,888
Ohio	23,842	10,219	24,781	9,786	9,900	97%	$ 3,088,659
Union	15,007	6,141	14,436	5,463	5,882	96%	$ 8,557,057
Webster	13,621	5,936	13,399	5,292	5,731	97%	$ 15,719,340
Totals	**213,472**	**92,066**	**220,544**	**89,593**	**89,019**	**97%**	**$ 111,886,887**

Community Drinking Water Systems in Green River Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0300109	East Daviess County Water Association	Daviess	11,156	4,531
KY0300336	Owensboro Municipal Utilities	Daviess	58,404	26,470
KY0300387	Southeast Daviess County Water District	Daviess	11,584	4,525
KY0300450	West Daviess County Water District	Daviess	10,707	4,249
KY0300467	Whitesville Water Works	Daviess	3,460	1,314
KY0460182	Hawesville Water Works	Hancock	2,723	1,177
KY0460248	Lewisport Municipal Water Works	Hancock	2,595	1,165
KY0510189	Henderson County Water District	Henderson	16,008	6,460
KY0510188	Henderson Water Utility - North	Henderson	30,088	13,758
KY0750529	Beech Grove Water Association	McLean	1,129	493
KY0750055	Calhoun Water Works	McLean	952	482
KY0750207	Island Water Department	McLean	1,056	471
KY0750252	Livermore Water Works	McLean	1,421	676
KY0300320	North McLean County Water District	McLean	2,950	1,224
KY0750907	Sacramento Water Works	McLean	1,824	824
KY0920025	Beaver Dam Municipal Water & Sewer System	Ohio	3,606	1,528
KY0920070	Centertown Water System	Ohio	1,141	482
KY0920136	Fordsville Water Works	Ohio	915	422
KY0920181	Hartford Municipal Water Works	Ohio	2,689	1,159
KY0920332	Ohio County Water District	Ohio	14,817	6,326
KY1130293	Morganfield Water Works	Union	5,534	1,896
KY1130422	Sturgis Water Works	Union	2,453	1,192
KY1130433	Union County Water District	Union	5,264	2,262
KY1130434	Uniontown Water & Sewer Department	Union	1,142	525
KY1170073	Clay Water Works	Webster	1,295	560
KY1170104	Dixon Water Department	Webster	647	231
KY1170361	Providence Water Works	Webster	3,598	1,779
KY1170388	Sebree Water Department	Webster	1,596	601
KY1170400	Slaughters Water Works	Webster	583	248
KY1170995	Webster County Water District	Webster	5,309	2,234
		Totals:	206,646	89,264

Green River Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Source Protection**

Discussion of Area Development District Needs:

The GRADD region covers seven counties and their individual needs vary widely. The counties all know the importance and value of rationalization and regional projects and strive to build them. However, these individual systems do have other needs that need to be addressed on a daily basis, while regional projects can take years to plan and complete.

In the GRADD region, the primary and most important need is the repair and replacement of existing infrastructure. All seven counties of the GRADD region have repair and replacement of existing infrastructure as either their primary or secondary need. Under this need, the most important aspect is repair/replacement of aging water lines to eliminate water loss, improve pressure, and improve water quality. In addition, this need extends to repairing/replacing equipment in the water distribution system such as water pumps and water tanks.

The secondary need of the area is source protection. The need for this varies, but each of the systems in the GRADD region have projects that they have looked at that will protect their source of water. These source protection projects vary from emergency interconnects, work needed at water plants and repair work needed to raw water and transmission lines. However, the three counties of Hancock, Ohio and Union all have direct projects that are looking at protect their water sources.

Description and Determination of Planning Units:

The GRADD Water Management Council adopted the GRADD geographical boundary as its services area. Additional areas were also incorporated into the planning area based on the service areas of the water providers located in the GRADD district. For example, Barren River ADD incorporated a small portion of Ohio County into their planning area based on the service area of one of the water providers in their district.

The following systems serve communities in the Green River Area Development District, and their service areas are included in the Water Management Planning Area:

*Daviess County
1. East Daviess County Water Association
2. Owensboro Municipal Utilities
3. Southeast Daviess County Water District
4. West Daviess County Water District
5. Whitesville Water Works

*Hancock County
1. Hawesville Water Works
2. Lewisport Municipal Water Works

*Henderson County
1. Henderson County Water District
2. Henderson Water Utility--North
3. Henderson Water Utility--South

*McLean County
1. Beech Grove Water Board
2. Calhoun Water Works
3. Island Water Department
4. North McLean County Water District
5. Livermore Water Works
6. Sacramento Water Works

*Ohio County
1. Beaver Dam Municipal Water
2. Fordsville Water Works
3. Hartford Municipal Water Works
4. Ohio County Water District

*Union County
1. Morganfield Water Works
2. Sturgis Water Works
3. Union County Water District
4. Uniontown Water Department

*Webster County
1. Clay Water Works
2. Dixon Water Department
3. Providence Water Works
4. Sebree Water Department
5. Slaughters Water Works
6. Webster County Water District

Green River Area Development District
Project Ranking Methodology

The current needs in the Green River ADD region vary widely between Planning Areas and between water and wastewater systems. Operators of both water and wastewater systems value and strive to complete regional projects; however, they recognize the importance of their systems individual needs. The primary need of the water systems is repair and replacement of existing infrastructure and the secondary need is a variety of source protection projects. For wastewater, the primary need is repair and replace existing infrastructure and the secondary need is new collector sewer and appurtenances. While primary and secondary needs have been chosen for each planning area that does not mean that systems cannot have projects outside of those scopes.

The Green River Area Development District Water Management Council uses a point based ranking system to rank the needs of the area. All of the current partially and unfunded projects were submitted to each of the Planning Units for ranking. Projects were scored on a series of criteria including Type of Project, Delivery Area, Project Status, Funding Status, and Environmental Factors. In the event of a tie, the project's Cost per Connection was used as the deciding factor.

The following point criteria was submitted and endorsed by the Green River Area Development District Water Management Council on September 20, 2012:

Basic Information

- Project County
- Project Owner
- WRIS Project Number
- Project Description
- Estimated Project Cost

Type of Project

Unserved

• 9 or more per mile	20 pts
• 7-8 per mile	19 pts
• 5-6 per mile	18 pts
• 3-4 per mile	15 pts
• 1-2 per mile	10 pts
• <1 per mile	5 pts

Underserved

• 80-100% total customer base impacted	20 pts
• 60-79% total customer base impacted	19 pts
• 40-59% total customer base impacted	18 pts
• 20-39% total customer base impacted	15 pts
• 10-19% total customer base impacted	10 pts
• less than 10% customer base impacted	5 pts

Economic Development

• 100 or more jobs created or retained	20 pts
• 75-99 jobs created or retained	19 pts
• 50-74 jobs created or retained	18 pts
• 20-49 jobs created or retained	15 pts
• 10-19 jobs created or retained	10 pts
• less than 10 jobs created or retained	5 pts

Other (a project that does not meet above criteria, i.e. a building for chemicals)

- 3 pts

Combination

- If a project is a combination of the above, whichever category the project scored higher in (unserved, underserved, or economic development) the project will get those points, plus 3 additional pts

Maximum of 20 points for this section

Delivery Area

• Regional – Consolidation into single system	30 pts
• Regionalization of a WTP or WWTP	20 pts
• Project benefits multiple systems/communities	15 pts
• Project benefits two systems/communities	10 pts
• Non-regional	5 pts
• Non-regional project that eliminates a lift station/ package treatment plant/pump station	10 pts

Project Status

• Engineering plans and specs submitted to DOW	20 pts
• PER	15 pts
• Engineering procurement completed	10 pts
• Cost estimate by PE	10 pts
• Preliminary planning by system	5 pts

Funding Status

A project costing greater than $100,000

1. Funding committed for 50% or more	20 pts
2. Funding committed for 25-49%	10 pts
3. Funding committed for 1-24%	5 pts
4. Pending applications	3 pts

A project costing less than $100,000

1. 10 pts as long as the project is in one of the above four processes

Environmental Factors

Any project can receive as many (or none) of the points below

• Water loss reduction/I&I reduction	5 pts
• Replacing inefficient pumps/motors with high efficiency ones	5 pts
• Use of some other Green Technology not listed above	5 pts

Tie breaker is cost per connection

County Ranking

The highest scoring project in a county will be the number one ranking project for that county. The number two and subsequently ranked projects will follow in order of next highest scoring. The top five ranked projects in the county will be sent to be ranked regionally; however, all county ranked projects will still be submitted to KIA.

Regional Ranking

The highest scoring projects in the region will be determined from the highest ranked projects in the counties.

Project Rankings For Green River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21225021	Morganfield Raw Water Main Replacement Continuation Project	3-5 Years	Partially Funded	$3,200,000	Union	1	1
WX21149042	McLean County Regional Water Commission Water Treatment Plant	0-2 Years	Not Funded	$8,276,000	McLean	2	1
WX21101106	US 60 East Main Replacement	3-5 Years	Not Funded	$1,700,000	Henderson	3	1
WX21101009	HWU - South Water Treatment Plant Expansion	3-5 Years	Not Funded	$11,600,000	Henderson	4	2
WX21183032	Rochester Dam Repair	3-5 Years	Not Funded	$750,000	Ohio	5	1
WX21149031	Calhoun Raw Water Pump Replacement	3-5 Years	Not Funded	$40,000	McLean	6	2
WX21149037	Garrett Street Water Line Improvements Project	0-2 Years	Not Funded	$53,880	McLean	7	3
WX21225038	Morganfield Filter Control Project	3-5 Years	Not Funded	$150,000	Union	8	2
WX21225039	East Side Water Line Extension	3-5 Years	Not Funded	$500,000	Union	9	3
WX21233108	Sebree Scattered Waterline Rehabilitation Project	0-2 Years	Partially Funded	$1,900,000	Webster	10	1
WX21233007	Webster County Water District Water Plant Instrument Improvement	3-5 Years	Not Funded	$40,000	Webster	11	2
WX21149056	McLean County Fire Hydrant Installation	3-5 Years	Not Funded	$139,100	McLean	12	4
WX21091056	Hawesville/Lewisport Emergency Interconnection	3-5 Years	Not Funded	$76,500	Hancock	13	1
WX21233105	Clay Stand Pipe Mixing Valve	3-5 Years	Not Funded	$30,000	Webster	14	3
WX21233090	Hwy 132 - Hwy 109 S. Water Line Replacement and West Elm Replace	3-5 Years	Not Funded	$84,000	Webster	15	4
WX21233009	Webster County Water District Water Tank Maintenance/ Mixing System	3-5 Years	Not Funded	$500,000	Webster	16	5
WX21101004	Green River Supplemental Supply	3-5 Years	Not Funded	$16,650,000	Henderson	17	3
WX21091087	Antoinette Estates Water Line Extension	3-5 Years	Not Funded	$500,000	Hancock	18	2
WX21183033	Fordsville Water Loss Project	0-2 Years	Not Funded	$246,550	Ohio	19	2
WX21149022	431 Tank Project	0-2 Years	Partially Funded	$1,488,000	McLean	20	5
WX21059065	Melba Lane Extension	3-5 Years	Not Funded	$87,840	Daviess	21	1
WX21183023	Ohio Co. Water Distrct/Butler Co. Water District Interconnection	0-2 Years	Not Funded	$400,000	Ohio	22	3
WX21091063	Kelly Heights Tank Demolition	11-20 Years	Not Funded	$50,000	Hancock	23	3
WX21101001	North System Improvements	3-5 Years	Not Funded	$2,100,000	Henderson	24	4
WX21091074	EDCWA Meter Replacement Project (Hancock)	3-5 Years	Not Funded	$251,200	Hancock	25	4
WX21183027	EDCWA Meter Replacement	3-5 Years	Not Funded	$120,000	Ohio	26	4
WX21101110	Hwy 351 Main Replacement	3-5 Years	Not Funded	$1,550,219	Henderson	27	5
WX21059046	East Daviess County Water Association Generator Project	3-5 Years	Not Funded	$60,000	Daviess	28	2
WX21183034	Ohio County Water Dist./Grayson County Water Dist. Interconnect	6-10 Years	Not Funded	$350,000	Ohio	29	5
WX21059027	EDCWA Scattered Water Line Extension #2	3-5 Years	Not Funded	$325,400	Daviess	30	3
WX21059028	Oklahoma Lafoon Road Water Line Extension	6-10 Years	Not Funded	$58,200	Daviess	31	4
WX21091083	Fred Hodges Road Water Tank Rehabilitation	6-10 Years	Not Funded	$70,000	Hancock	32	5
WX21059004	Hall School Road Project	3-5 Years	Not Funded	$37,000	Daviess	33	5
WX21225041	UCWD Radio Read Meter Project	3-5 Years	Not Funded	$450,000	Union	34	4

Project Rankings For Green River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21225040	Morganfield Radio Read Meter Project	3-5 Years	Not Funded	$425,000	Union	35	5
			Total Cost:	**$54,258,889**			

Gateway Area Development District (GWADD)

- 2010 census population of 81,652 (36,780 households) with 94% serviceable.
- Projected 2020 population of 87,651 (change of 5,999).
- 1,683.41 miles of existing water lines.
- 34.00 miles of line extensions proposed in the next 10 years.
- 28.00 miles of line rehabilitation proposed in the next 10 years.
- 3.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $18,902,540.
- There are no projects planned from 6 to 10 years.

Gateway Area Development District has a 2010 census population count of 81,652 (36,780 households) with a projected 2020 population count of 87,651 (34,583 households). Public water is currently available to approximately 94 percent of the district's households based on 2010 census counts. Over the next ten years approximately 204 serviceable households will be added through the construction of 34.00 miles of water line extensions and approximately 220,657 instances of improved service through the rehabilitation of 28.00 miles of existing water lines and other appurtenances. 3.00 miles of transmission lines are also proposed within this district.

County Summary for Gateway Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Bath	11,591	5,405	12,132	5,006	5,152	95%	$ 3,446,820
Menifee	6,306	3,744	6,038	2,422	3,487	93%	$ 1,802,250
Montgomery	26,499	11,699	30,750	12,483	11,641	100%	$ 8,092,070
Morgan	13,923	5,830	14,023	5,126	4,724	81%	$ 2,205,000
Rowan	23,333	10,102	24,708	9,546	9,711	96%	$ 3,356,400
Totals	**81,652**	**36,780**	**87,651**	**34,583**	**34,715**	**94%**	**$ 18,902,540**

Community Drinking Water Systems in Gateway Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0060022	Bath County Water District	Bath	8,848	4,000
KY0060338	Owingsville Water and Sewer	Bath	1,902	951
KY0060392	Sharpsburg Water District	Bath	3,153	1,427
KY0830148	Frenchburg Water & Sewer	Menifee	5,209	3,234
KY0870212	Jeffersonville Water System	Montgomery	4,597	2,002
KY0870147	Judy Water Association	Montgomery	4,713	1,984
KY0870246	Levee Road Water Association, Inc	Montgomery	2,173	916
KY0870290	Montgomery County Water District #1	Montgomery	1,802	751
KY0870298	Mount Sterling Water & Sewer System	Montgomery	12,044	5,537
KY0870367	Reid Village Water District	Montgomery	2,535	1,076
KY0880594	Morgan County Water District	Morgan	7,579	3,493
KY0880452	West Liberty Water Works	Morgan	3,411	887
KY1030480	Morehead State University	Rowan	1,721	186
KY1030292	Morehead Utility Plant Board	Rowan	7,961	3,564
KY1030375	Rowan Water, Inc	Rowan	15,417	7,176
		Totals:	83,065	37,184

Gateway Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Meet Regulartory Requirements**

Discussion of Area Development District Needs:

There are a total of 16 water systems serving the Gateway Area Development District. Each water utility in the Gateway ADD was provided with the opportunity to identify the needs for the system. The needs of every system were considered in the determination of the Gateway Area Development District's primary and secondary Drinking Water needs.

The District's primary Drinking Water need is Repair/Replace Existing Infrastructure. This is the primary need for four of the five planning units, excluding Rowan County. Many of the utilities have identified this as their primary need due to aging waterline infrastructure in which line breaks are becoming more prevalent. Numerous other valve replacements, tank cleanings, and pump station projects are in need of attention due to age and increases in population served.

The secondary Drinking Water need is Meet Regulatory Requirements in the Gateway District. With more stringent rules and regulations being enforced, utilities need additional resources to keep up with changes. Rehabilitation work to treatment plant filters and flushing valves throughout the distribution systems will help keep chemical levels, in the water, within specified requirements.

Additional needs for the District, as identified by utilities, are Increase Storage Capacity to better serve existing customers and, to add additional customers on existing lines. Improve Security Risks by adding cameras and alarm systems to treatment plants and system appurtenances and Extend Services to Un-Served Areas.

Description and Determination of Planning Units:

The Gateway Area Development District covers five planning units, each following a political county boundary. The five planning units are: Bath County, Menifee County, Montgomery County, Morgan County, and Rowan County.

There are three water utilities in Bath County. Two water districts, Bath County Water District and Sharpsburg Water District, and one municipality, City of Owingsville Water and Sewer.

Two utilities are included in the Menifee County Planning Unit, City of Frenchburg Water and Sewer, a municipality, and Cave Run Water Commission. Cave Run Water Commission is a wholesale water producer and does not have residential customers. Cave Run supplies water to the City of Frenchburg Water and Sewer, Jeffersonville Water, and Morgan County Water District.

The Montgomery County Planning unit includes six water utilities. Two utilities are municipalities; Mount Sterling Water and Sewer and Jeffersonville Water, two associations; Judy Water and Levee Road Water, and two water districts; Montgomery County Water District #1 and Reid Village.

One municipality, West Liberty Water Works, and one water district, Morgan County Water District, make up the two water utilities in the Morgan County Planning Unit.

Three water systems are located in the Rowan County Planning Unit. There is one municipality, Morehead Utility Plant Board, one association, Rowan Water, Inc., and one higher education institution, Morehead State University. Morehead State University only serves the population on campus.

Gateway Area Development District
Project Ranking Methodology

The Gateway Area Water Management Council prioritizes projects based on points. Points are given under the following categories: Type of Project, Project Delivery, Project Status, and Funding Status.

Type of Project

Under this category, points are awarded based on un-served households, underserved households, and economic development. Un-served households are homes that currently do not have public water/wastewater service available to them. Underserved households are homes that have public water/wastewater service, but the completion of the proposed project will improve service and/or quality to said areas in the utility's system. Points are allocated to the economic development group based on the number of jobs the completed project will create. The more households and jobs that a project affects/creates, the more points the project is given. A combination of points can be added together among the aforementioned subgroups for a maximum amount of 20 points possible.

Project Delivery

Project Delivery is allotted 20 points for a regional project and 5 points for a non-regional project. A regional project affects more than one utility.

Project Status

Projects are given 5 points for preliminary planning, 10 points for attaining a cost estimate from a project engineer, 10 points for procuring an engineer for the project, 15 points if a preliminary engineering report is completed, or 20 points if engineering plans and specs have been completed and submitted to Division of Water under the Project Status heading.

Funding Status

For projects with a cost estimate less than $100,000, 10 points are awarded within the funding status header. For projects with a cost estimate over $100,000, 3 points are given for a pending application status, 5 points if 1-24% of the funding has been committed, 10 points if 25-49% of funding has been committed, and 20 points if 50% or more of funding has been committed. Funding can be committed by the utility, or another funding source.

The category totals are added together for a maximum of 80 points possible. The higher the cumulative total, the higher the project is ranked. For projects with the same overall point total, a cost per connection tie breaker is utilized. The cost per connection tie breaker is calculated using the estimated project cost divided by the total number of households the project will affect. The lower the cost per connection, the higher ranking the project receives.

All profiled projects that are submitted to the Water Management Council are prioritized and receive both a county and regional ranking. The prioritization of the projects is based on the points allocated during the ranking process.

Moving forward, the Gateway region is facing many of the same issues that other regions and utilities are being confronted with. Since the majority of the Gateway region counties are served by public water, water utilities will be switching their primary focus to maintenance, upkeep and rehab projects within their respective systems. Added costs for new testing and compliance issues cut into both water and wastewater utilities' revenues. Escalated electrical and fuel costs pose a huge hurdle for utilities. If cost effective measures are not taken to lower electrical and fuel consumption, utilities will have no other alternative but to increase rates to their customers. Wastewater systems are challenged with the cost of providing sewer service to customers outside of city limits and to repair and manage inflow and infiltration issues to existing infrastructure.

Project Rankings For Gateway Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21173032	Judy Water Association Interconnect Project	3-5 Years	Not Funded	$100,000	Montgomery	1	1
WX21173134	Mount Sterling Water and Sewer Bottom of Filter Chlorine Analyzers	3-5 Years	Not Funded	$25,000	Montgomery	2	2
WX21173043	Mt. Sterling Water & Sewer WTP Backwash Valve Replacement	3-5 Years	Not Funded	$75,000	Montgomery	3	3
WX21165020	Cave Run Water Commission Lagoon Cleanout Project	3-5 Years	Not Funded	$100,000	Menifee	4	1
WX21173055	Mount Sterling Water and Sewer Greenbrier Reservoir Dam Repair	3-5 Years	Not Funded	$350,000	Montgomery	5	4
WX21205039	Morehead Utility Plant Board 500,000 Gallon Water Tank Project	3-5 Years	Not Funded	$800,000	Rowan	6	1
WX21173042	Mt. Sterling Water & Sewer WTP Filter Rehab	3-5 Years	Not Funded	$175,000	Montgomery	7	5
WX21205041	Morehead Utility Plant Board Water Treatment Plant Improvement Project	3-5 Years	Not Funded	$160,000	Rowan	8	2
WX21011018	Bath County Water District Mapping & GPS Data Collection Project	3-5 Years	Not Funded	$106,000	Bath	9	1
WX21011029	Sharpsburg Water District Telemetry & SCADA System Upgrade Project	3-5 Years	Not Funded	$100,000	Bath	10	2
WX21173094	Mt. Sterling Water & Sewer System Automatic Flush Valve Project	3-5 Years	Not Funded	$35,000	Montgomery	11	6
WX21173090	Levee Road Water Association Gate Valve Project	3-5 Years	Not Funded	$15,000	Montgomery	12	7
WX21173102	Montgomery County Water District No. 1 Automatic Flush Valve Project	3-5 Years	Not Funded	$15,000	Montgomery	13	8
WX21173052	Reid Village Water District Automatic Flush Valve Project	3-5 Years	Not Funded	$25,000	Montgomery	14	9
WX21173121	Judy Water Association Water Tank Inspection Project	3-5 Years	Not Funded	$50,000	Montgomery	15	10
WX21173108	Levee Road Water Association New Computer System & Training Project	3-5 Years	Not Funded	$60,000	Montgomery	16	11
WX21173133	Montgomery County Water District #1 US 460 Vault Valve Replacement	3-5 Years	Not Funded	$60,000	Montgomery	17	12
WX21173107	Levee Road Water Association Phase III Meter Replacement Project	3-5 Years	Not Funded	$100,000	Montgomery	18	13
WX21011030	City of Owingsville Atkinson Road Waterline Extension Project	3-5 Years	Not Funded	$100,000	Bath	19	3
WX21011016	Bath County Water District Standby Power Generator Project	3-5 Years	Not Funded	$200,000	Bath	20	4
WX21205045	Morehead Utility Plant Board MMRC Water Tank Painting Project	3-5 Years	Not Funded	$192,000	Rowan	21	3
WX21205046	Morehead Utility Plant Board Water Meter Riser Project	3-5 Years	Not Funded	$62,400	Rowan	22	4
WX21175013	Morgan County District Water Tank Rehab Project	3-5 Years	Not Funded	$200,000	Morgan	23	1
WX21173126	City of Jeffersonville Lower Spruce Tie In Project	3-5 Years	Not Funded	$40,000	Montgomery	24	14
WX21173112	City of Jeffersonville Radio Read Meter Project	3-5 Years	Not Funded	$225,000	Montgomery	25	15
WX21011021	Sharpsburg Water District Water Tank Rehab Project	3-5 Years	Not Funded	$350,000	Bath	26	5
WX21173110	Montgomery County Water District #1 Fire Hydrant Improvement Project	3-5 Years	Not Funded	$70,000	Montgomery	27	16
WX21173044	Montgomery County Water District #1 Whitaker Lane Vault Valve Replacement	3-5 Years	Not Funded	$60,000	Montgomery	28	17
WX21173050	City of Jeffersonville New Cut Rd Line Replacement Project	3-5 Years	Not Funded	$50,000	Montgomery	29	18
WX21173125	City of Jeffersonville Welch Road Project - Phase II	3-5 Years	Not Funded	$350,000	Montgomery	30	19
WX21173047	Levee Road Water Association Countryside Drive Waterline Extension	3-5 Years	Not Funded	$246,045	Montgomery	31	20

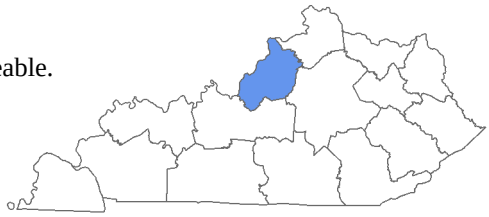
Project Rankings For Gateway Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21011009	Sharpsburg Water District Rich Lan Road Waterline Extension Project	3-5 Years	Not Funded	$100,000	Bath	32	6
WX21205027	Morehead Utility Plant Board Paint US 60 Water Tank Project	3-5 Years	Not Funded	$130,000	Rowan	33	5
WX21011019	Sharpsburg Water District Meter Replacement Project	3-5 Years	Not Funded	$200,000	Bath	34	7
WX21173048	City of Jeffersonville Highway 1050 Line Replacement Project	3-5 Years	Not Funded	$300,000	Montgomery	35	21
WX21175035	Morgan County Water District Phase 14 Waterline Extension Project	0-2 Years	Not Funded	$1,680,000	Morgan	36	2
WX21173066	Mt. Sterling Water & Sewer System Fire Hydrant Project	3-5 Years	Not Funded	$168,000	Montgomery	37	22
WX21173095	Mt. Sterling Water & Sewer System Valve Replacement Project	3-5 Years	Not Funded	$150,000	Montgomery	38	23
WX21205043	Rowan Water Inc. Water Tank Rehab Project	3-5 Years	Not Funded	$600,000	Rowan	39	6
WX21205035	Morehead Utility Plant Board 801 South Waterline Rehab Project	3-5 Years	Not Funded	$712,000	Rowan	40	7
WX21173101	Montgomery County Water District No. 1 System Improvement Project	3-5 Years	Not Funded	$300,000	Montgomery	41	24
WX21173008	Mt. Sterling Water & Sewer Spencer Road Water Main Extension	3-5 Years	Not Funded	$250,000	Montgomery	42	25
WX21205044	Rowan Water Inc. New Pump Station and Tank Project	3-5 Years	Not Funded	$600,000	Rowan	43	8
WX21173041	Mt. Sterling Water & Sewer Main Street Water Main Replacement	3-5 Years	Not Funded	$800,000	Montgomery	44	26
WX21173113	City of Jeffersonville Spruce Valley Waterline Tie In Project	3-5 Years	Not Funded	$50,000	Montgomery	45	27
WX21173136	Levee Road Water Association Radio Read Meter Replacement Project	3-5 Years	Not Funded	$2,400	Montgomery	46	28
WX21173116	City of Jeffersonville Fay Street Tie In Project	3-5 Years	Not Funded	$15,000	Montgomery	47	29
WX21173106	Judy Water Association Meter Changeout Project	3-5 Years	Not Funded	$200,000	Montgomery	48	30
WX21173114	City of Jeffersonville Harpers Ridge Waterline Tie-In Project	3-5 Years	Not Funded	$100,000	Montgomery	49	31
WX21205034	Morehead Utility Plant Board Waterline Rehab Project	3-5 Years	Not Funded	$100,000	Rowan	50	9
WX21011020	Sharpsburg Water District AC Line Replacement Project	3-5 Years	Not Funded	$300,000	Bath	51	8
WX21173051	City of Jeffersonville Corey Lane Improvement Project	3-5 Years	Not Funded	$18,000	Montgomery	52	32
WX21173109	Montgomery County Water District #1 Concrete Abestos Pipe Replacement	3-5 Years	Not Funded	$400,000	Montgomery	53	33
WX21175009	City of West Liberty McClain Way Increase Pressure Project	3-5 Years	Not Funded	$75,000	Morgan	54	3
WX21173049	City of Jeffersonville Highway 213 Line Replacement Project	3-5 Years	Not Funded	$275,000	Montgomery	55	34
WX21011035	Bath County Water District Dickerson Hill Pump Station Project	3-5 Years	Not Funded	$50,000	Bath	56	9
WX21165017	City of Frenchburg Running Ridge Road & Mountain Ridge Road Waterline Extension	3-5 Years	Not Funded	$300,000	Menifee	57	2
WX21165022	City of Frenchburg Leatherwood Area Waterline Extension Project	3-5 Years	Not Funded	$1,377,250	Menifee	58	3
WX21173137	Levee Road Water Association Line Checking Meter Project	3-5 Years	Not Funded	$2,125	Montgomery	59	35
WX21165010	Cave Run Water Commission Storage Building Project	3-5 Years	Not Funded	$25,000	Menifee	60	4
WX21173091	Levee Road Water Association Line Detector Equipment Project	3-5 Years	Not Funded	$3,500	Montgomery	61	36
WX21173117	City of Jeffersonville Equipment Project	3-5 Years	Not Funded	$10,000	Montgomery	62	37

Project Rankings For Gateway Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21173138	Levee Road Water Association Fence Replacement Project	3-5 Years	Not Funded	$10,000	Montgomery	63	38
WX21173123	Montgomery County Water District No. 1 Equipment Project	3-5 Years	Not Funded	$15,000	Montgomery	64	39
WX21173132	Montgomery County Water District #1 Building Project Phase II	3-5 Years	Not Funded	$15,000	Montgomery	65	40
WX21173115	City of Jeffersonville Utility Truck Project	3-5 Years	Not Funded	$50,000	Montgomery	66	41
WX21173140	Reid Village Water District Backhoe Purchase Project	3-5 Years	Not Funded	$37,000	Montgomery	67	42
WX21173046	City of Jeffersonville Single Axle Dump Truck Project	3-5 Years	Not Funded	$70,000	Montgomery	68	43
WX21175025	Morgan County Water District System Improvement Project	3-5 Years	Not Funded	$100,000	Morgan	69	4
WX21173120	Reid Village Water District Maintenance Building Project	3-5 Years	Not Funded	$50,000	Montgomery	70	44
WX21173045	City of Jeffersonville Garage/Maintenance Building Project	3-5 Years	Not Funded	$100,000	Montgomery	71	45
WX21173040	Mt. Sterling Water & Sewer Maysville Road Waterline Replacement	3-5 Years	Not Funded	$375,000	Montgomery	72	46
WX21173088	Judy Water Association Bourbon County Line Upgrade Project	3-5 Years	Not Funded	$200,000	Montgomery	73	47
WX21175030	City of West Liberty Broadway Line Replacement Project	3-5 Years	Not Funded	$150,000	Morgan	74	5
WX21011034	Bath County Water District Route 36 Line Replacement Project	3-5 Years	Not Funded	$398,070	Bath	75	10
WX21011027	Bath County Water District Scattered Site System Improvement Project	3-5 Years	Not Funded	$165,500	Bath	76	11
WX21173065	Mt. Sterling Water & Sewer System South Queen Project	3-5 Years	Not Funded	$300,000	Montgomery	77	48
WX21173111	Mount Sterling Water and Sewer Waterline Rehab Projects - Various Sites	3-5 Years	Not Funded	$600,000	Montgomery	78	49
WX21173054	Mount Sterling Water and Sewer Storage Building Project	3-5 Years	Not Funded	$120,000	Montgomery	79	50
WX21173135	Mount Sterling Water and Sewer Storage Tank Demolition and Maintenance	3-5 Years	Not Funded	$150,000	Montgomery	80	51
WX21173128	Mt. Sterling Water & Sewer System Equipment Project	3-5 Years	Not Funded	$175,000	Montgomery	81	52
WX21173096	Mt Sterling Water & Sewer System GIS Project	3-5 Years	Not Funded	$225,000	Montgomery	82	53
WX21173122	Judy Water Association Equipment Project	3-5 Years	Not Funded	$150,000	Montgomery	83	54
WX21173124	Montgomery County Water District No. 1 Backhoe & Dump Truck Project	3-5 Years	Not Funded	$105,000	Montgomery	84	55
WX21173139	Reid Village Water District Office Building Purchase Project	3-5 Years	Not Funded	$275,000	Montgomery	85	56
			Total Cost:	**$17,625,290**			

Kentuckiana Regional Planning and Development Agency (KIPDA)



- 2010 census population of 959,091 (421,502 households) with 98% serviceable.
- Projected 2020 population of 1,058,343 (change of 99,252).
- 3,211.54 miles of existing water lines.
- 218.00 miles of line extensions proposed in the next 10 years.
- 43.00 miles of line rehabilitation proposed in the next 10 years.
- 94.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $270,293,603.
- Estimated funding needs for projects from 6 to 10 years: $53,137,444.

Kentuckiana Regional Planning and Development Agency has a 2010 census population count of 959,091 (421,502 households) with a projected 2020 population count of 1,058,343 (437,016 households). Public water is currently available to approximately 98 percent of the district's households based on 2010 census counts. Over the next ten years approximately 101,234 serviceable households will be added through the construction of 218.00 miles of water line extensions and approximately 71,649 instances of improved service through the rehabilitation of 43.00 miles of existing water lines and other appurtenances. 94.00 miles of transmission lines are also proposed within this district.

County Summary for Kentuckiana Regional Planning and Development Agency

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Bullitt	74,319	29,318	88,508	34,970	27,854	95%	$ 46,384,141
Henry	15,416	6,640	15,915	6,405	6,317	95%	$ 15,149,000
Jefferson	741,096	337,616	793,817	336,744	334,741	99%	$ 124,227,747
Oldham	60,316	20,688	74,990	26,354	17,858	86%	$ 42,380,750
Shelby	42,074	16,606	51,944	19,663	16,043	97%	$ 74,826,992
Spencer	17,061	6,704	23,655	9,025	6,267	94%	$ 3,109,172
Trimble	8,809	3,930	9,514	3,855	3,593	91%	$ 17,353,245
Totals	**959,091**	**421,502**	**1,058,343**	**437,016**	**412,673**	**98%**	**$ 323,431,047**

Community Drinking Water Systems in Kentuckiana Regional Planning and Development Agency County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0150242	Lebanon Junction Water Works	Bullitt	2,159	921
KY0150300	Mount Washington Water & Sewer Company	Bullitt	19,188	7,634
KY0520122	Eminence Water Works	Henry	2,525	1,091
KY0520192	Henry County Water District #2	Henry	14,496	6,090
KY0520520	New Castle Water Works	Henry	926	428
KY0560258	Louisville Water Company	Jefferson	806,376	361,787
KY0930481	Lagrange Utilities Commission	Oldham	6,796	2,692
KY0930333	Oldham County Water District	Oldham	19,798	5,812
KY1060324	North Shelby Water Company	Shelby	10,885	4,356
KY1060394	Shelbyville Municipal Water & Sewer Commission	Shelby	22,067	8,931
KY1060436	US 60 Water District	Shelby	4,726	1,980
KY1060457	West Shelby Water District	Shelby	4,449	1,716
KY1080425	Taylorsville Water Works	Spencer	18,498	7,233
KY1120289	Milton Water & Sewer Department	Trimble	2,315	1,101
KY1120431	Trimble County Water District #1	Trimble	3,540	1,529
		Totals:	938,744	413,301

Kentuckiana Regional Planning and Development Agency
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The KIPDA Regional Water Council through discussion recognizes that planning needs in the region are constantly changing. What may be viewed as the primary need in the near future could differ from what is viewed as the primary need in the present. All of the listed options are viewed as necessities throughout the region and many are viewed to be intertwined with none being mutually exclusive. With these thoughts in consideration, the KIPDA Regional Water Management Council identified the Repair and Replacement of Existing Infrastructure as its primary planning need which may require Increased Storage Capacity and Regionalization leading to Economic Stimulation.

Much of the current infrastructure in the KIPDA region is aging with many lines approaching 100 years. This causes problems for systems throughout the region in the form of breaks and leaks which lead to substantial water loss. Many of these lines are undersized and not capable of providing fire protection or adequate flow and pressure. Providing redundancy to the existing system is also placed in high priority which can be achieved by adding pipes and Increased Storage Capacity. The Council has placed a high priority on projects that set out to achieve these goals. Additionally, Regionalization is a driving force to provide an alternative water source in times of emergency and to meet future demands. The top priority project in the KIPDA Region is the I-64 Transmission Main which would provide an alternative water source for utilities in Shelby County through a pipeline to Jefferson County and Louisville Water Company. This project would additionally provide for Increased Storage Capacity within the county.

Realizing that capabilities must be in place to drive commercial, industrial, and residential development, the Repair and Replacement of Existing Infrastructure would additionally provide for Economic Stimulation. With a few exceptions, utilities upgrade existing infrastructure when it is replaced. The increased capabilities from these upgrades enables systems to meet demands and provide improved services to areas that may be currently underserved. Through increasing line sizes, water treatment capacity, and storage; cities and counties are much more attractive for future development. The Council realizes that for there to be Economic Stimulation, the infrastructure must be in place.

When the KIPDA Regional Water Management Council was originally formed, providing service to unserved areas was the goal with the initiative of all unserved areas having access to potable drinking water by 2020. Much effort has been provided to accomplish this goal, and systems in the region estimate that better than 97% of residents in the region are either being served or have access to public water. The Council recognizes that the provision of water service is still of high priority due to it's impact on public health, for this reason Extending Service to Unserved areas was consider the Secondary Need of the region. Elected officials and water providers throughout the KIPDA Region continue to work with residents of their communities to identify areas in need of potable water and work in conjunction to develop projects in order to provide this service. Projects that provide water to currently unserved areas take precedence over similarly scored projects during the annual priority ranking process.

Description and Determination of Planning Units:

After reviewing water systems and their respected service areas, the KIPDA Regional Water Management Council designated the KIPDA boundary to be used as the regional management area. Further, the Council designated the seven (7) water management areas in the KIPDA region to be defined by county boundaries.

1. Bullitt County Water Management Planning Area
   - Lebanon Junction, City of
   - Mount Washington Water and Sewer Company

2. Henry County Water Management Planning Area
- Eminence , City of
- Henry County Water District #2
- New Castle, City of

3. Jefferson County Water Management Planning Area
- Louisville Water Company

4. Oldham County Water Management Planning Area
- Oldham County Water District
- LaGrange Utilities Commission

5. Shelby County Water Management Planning Area
- North Shelby Water Company
- Shelbyville Municipal Water and Sewer Commission
- U.S. 60 Water District
- West Shelby Water District

6. Spencer County Water Management Planning Area
- Taylorsville, City of

7. Trimble County Water Management Planning Area
- Milton, City of
- Trimble County Water District #1

Kentuckiana Regional Planning and Development Agency Project Ranking Methodology

he KIPDA Regional Water Management Council prioritizes projects using local input and an established priority ranking scoresheet.

Before projects are brought before the KIPDA Regional Water Management Council to be prioritized, they are ranked at the County level. The County Water Management Councils consist of utility representatives and local elected officials. Projects are ranked based on perceived importance within the county.

To bring continuity and fairness throughout the region, the KIPDA Regional Water Management Council requires all projects that are to be considered for Regional Prioritization to complete a Priority Ranking Scoresheet. The methodology for the scoresheet was established in 2007 by a group of Area Development Water Management Coordinators along with KIA staff. This is no longer required for all water and wastewater projects requesting State funding, but the KIPDA Council choice to continue using this method due to past success.

The scoresheet provides for a maximum of 100 points to be assigned to each project depending on how it scores according to the following criteria:

Type of Project (20 point Maximum)

For unserved and underserved projects, households served are the basis for the priority scoring while jobs created are the consideration for economic development projects. Feasibility studies and other projects that don't involve unserved, underserved, commercial, or industrial development are assigned a specified score.

Project Delivery (20 point Maximum)

Projects are scored on whether they are Regional or Non-Regional. For this purpose, regional is defined as projects involving two or more systems that, through shared or consolidated resources, improve services to consumers and achieve economy of scale.

Project Status (20 point Maximum)

Projects are scored based on their status relative to the planning process, the status of the development of engineering plans and specifications, and the detail of the data used to develop the estimated cost of the project. Projects that are further along in the process will receive a higher priority score.

Funding Status (20 point Maximum)

The projects are categorized based on their status relative its size and the funding needed to execute. Projects that are further along in the funding process will receive a higher priority as indicated below.

Local Importance (20 point Maximum)

The projects are assigned priority points based on their importance to the county as determined by consensus during the County Water Management Councils.

With the intention of each county having equal representation on the priority ranking list, the top projects from each county are ranked against each other according to their priority ranking score. This method is continued for the second, third, fourth, etc projects until all submitted projects receive a ranking.

Project Rankings For Kentuckiana Regional Planning and Development Agency

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21211068	I-64 Transmission Pipeline - Phase II	0-2 Years	Partially Funded	$6,000,000	Shelby	1	1
WX21103039	Morton Ridge Main Upgrade	0-2 Years	Not Funded	$3,370,875	Henry	2	1
WX21111164	Hardin County/FT Knox Transmission	3-5 Years	Partially Funded	$19,492,000	Jefferson	3	1
WX21185013	Halls Hill Road Extension	3-5 Years	Not Funded	$300,000	Oldham	4	1
WX21029241	Ramblin Road Water Main Extension	3-5 Years	Not Funded	$86,000	Bullitt	5	1
WX21215003	Kings Church Road/Dales Lane SR 1319	0-2 Years	Not Funded	$525,000	Spencer	6	1
WX21223021	Trimble Area Optimization Plan	3-5 Years	Not Funded	$2,000,000	Trimble	7	1
WX21185046	System Wide Improvements – Phase 2	6-10 Years	Not Funded	$8,000,000	Oldham	8	2
WX21103037	US 42 Tank	3-5 Years	Not Funded	$3,140,000	Henry	9	2
WX21111168	North Shelby Regional Storage	3-5 Years	Not Funded	$2,500,000	Jefferson	10	2
WX21223004	Tilley Lane Ext.	3-5 Years	Not Funded	$95,000	Trimble	11	2
WX21211072	Peytona Tank	3-5 Years	Not Funded	$2,000,000	Shelby	12	2
WX21029208	Derby - Walnut - Bank Street Upgrades	3-5 Years	Not Funded	$79,200	Bullitt	13	2
WX21215002	Mill Road Upgrade SR 1795	6-10 Years	Not Funded	$330,000	Spencer	14	2
WX21211071	Shelbyville Downtown Water Tank	0-2 Years	Partially Funded	$1,947,000	Shelby	15	3
WX21185017	South Highway 1694 Extension	3-5 Years	Not Funded	$390,000	Oldham	16	3
WX21111163	Water Main Rehabilitation	3-5 Years	Partially Funded	$7,455,000	Jefferson	17	3
WX21029280	Halls Lane Water Main Extension	3-5 Years	Not Funded	$262,000	Bullitt	18	3
WX21215005	Bloomfield Road – South SR 55 Upgrade	6-10 Years	Not Funded	$220,000	Spencer	19	3
WX21223027	Stream Crossing #1, Little Ky River	3-5 Years	Not Funded	$100,000	Trimble	20	3
WX21103052	City of New Castle - East College St. Water Line Replacement	3-5 Years	Not Funded	$89,000	Henry	21	3
WX21111161	Crittenden Drive, 5018 to 7800 Block	3-5 Years	Not Funded	$700,000	Jefferson	22	4
WX21103054	Elm Street Water Main Extension	6-10 Years	Not Funded	$159,826	Henry	23	4
WX21223010	S. Spillman Lane Ext.	6-10 Years	Not Funded	$70,000	Trimble	24	4
WX21029282	Water Main - Kings Hollow Road	3-5 Years	Not Funded	$288,000	Bullitt	25	4
WX21215006	Bloomfield Road North SR 55 - Upgrade	3-5 Years	Not Funded	$85,000	Spencer	26	4
WX21211057	Shelbyville Bypass Loop	3-5 Years	Not Funded	$224,928	Shelby	27	4
WX21029166	Roe Hill Road	6-10 Years	Not Funded	$192,500	Bullitt	28	5
WX21223023	Lehue Road Waterline Replacement	3-5 Years	Not Funded	$100,000	Trimble	29	5
WX21215007	Normandy Road – Upgrade	3-5 Years	Not Funded	$225,000	Spencer	30	5
WX21111169	English Station Storage	3-5 Years	Not Funded	$10,700,000	Jefferson	31	5
WX21103048	City of New Castle - College St Water Line Replacement	3-5 Years	Not Funded	$104,000	Henry	32	5
WX21215014	Goose Creek Loop Line	3-5 Years	Not Funded	$90,000	Spencer	33	6
WX21111172	Vernetta Way Water Main Extension	3-5 Years	Partially Funded	$210,000	Jefferson	34	6

Project Rankings For Kentuckiana Regional Planning and Development Agency

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21029288	Preston Hwy from Collings Hill Rd to Rolling Fork Transmission M	3-5 Years	Not Funded	$6,781,000	Bullitt	35	6
WX21223028	Watson Lane Waterline Extension	6-10 Years	Not Funded	$100,000	Trimble	36	6
WX21103057	Turkey Run Waterline	3-5 Years	Not Funded	$190,229	Henry	37	6
WX21223029	Lower Middle Creek Waterline Extension	6-10 Years	Not Funded	$300,000	Trimble	38	7
WX21111173	Buttermilk Ridge Rd Main Extension	3-5 Years	Partially Funded	$165,000	Jefferson	39	7
WX21029289	Salt River Booster Pump Station	3-5 Years	Not Funded	$1,300,000	Bullitt	40	7
WX21215008	Town Hill Road – Upgrade	3-5 Years	Not Funded	$80,000	Spencer	41	7
WX21111186	Harrod's Old Trace Main Extension	6-10 Years	Partially Funded	$362,000	Jefferson	42	8
WX21029287	Preston Hwy from Chapeze Rd to Beech Grove Rd Transmission Main	3-5 Years	Not Funded	$1,062,000	Bullitt	43	8
WX21215009	Southville Pike – SR 44 Upgrade	3-5 Years	Not Funded	$375,000	Spencer	44	8
WX21111167	Belknap Campus Research Park	3-5 Years	Not Funded	$917,000	Jefferson	45	9
WX21029286	Preston Hwy from Belmont Rd to Timber Ridge Ct Transmission Main	3-5 Years	Not Funded	$926,000	Bullitt	46	9
WX21215011	Plum Ridge Road Upgrade	6-10 Years	Not Funded	$170,000	Spencer	47	9
WX21029283	Beech Grove Booster Pump Station	3-5 Years	Not Funded	$800,000	Bullitt	48	10
WX21215012	Mt. Washington Road, SR 44 12” Water Main Extension	0-2 Years	Not Funded	$425,000	Spencer	49	10
WX21029285	Cedar Grove Transmission Main	3-5 Years	Not Funded	$228,000	Bullitt	50	11
WX21215004	Elk Creek/Wilsonville Road Upgrade	6-10 Years	Not Funded	$145,000	Spencer	51	11
WX21029284	Cedar Grove Booster Pump Station Improvements	3-5 Years	Not Funded	$200,000	Bullitt	52	12
			Total Cost:	**$86,056,558**			

Kentucky River Area Development District (KRADD)

- 2010 census population of 114,762 (52,786 households) with 81% serviceable.
- Projected 2020 population of 111,267 (change of -3,495).
- 2,187.41 miles of existing water lines.
- 393.00 miles of line extensions proposed in the next 10 years.
- 26.00 miles of line rehabilitation proposed in the next 10 years.
- 5.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $106,185,926.
- Estimated funding needs for projects from 6 to 10 years: $16,663,764.

Kentucky River Area Development District has a 2010 census population count of 114,762 (52,786 households) with a projected 2020 population count of 111,267 (45,823 households). Public water is currently available to approximately 81 percent of the district's households based on 2010 census counts. Over the next ten years approximately 5,000 serviceable households will be added through the construction of 393.00 miles of water line extensions and approximately 35,022 instances of improved service through the rehabilitation of 26.00 miles of existing water lines and other appurtenances. 5.00 miles of transmission lines are also proposed within this district.

County Summary for Kentucky River Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Breathitt	13,878	6,231	12,495	5,046	4,829	78%	$ 19,393,596
Knott	16,346	7,461	15,635	6,332	6,021	81%	$ 23,594,471
Lee	7,887	3,436	7,820	3,014	3,132	91%	$ 9,655,286
Leslie	11,310	5,278	10,603	4,377	4,279	81%	$ 4,287,900
Letcher	24,519	11,601	24,237	10,161	7,749	67%	$ 31,734,184
Owsley	4,755	2,328	4,704	1,971	2,208	95%	$ 9,798,960
Perry	28,712	12,791	28,137	11,637	11,253	88%	$ 20,853,260
Wolfe	7,355	3,660	7,636	3,285	3,113	85%	$ 3,532,033
Totals	**114,762**	**52,786**	**111,267**	**45,823**	**42,584**	**81%**	**$ 122,849,690**

Community Drinking Water Systems in Kentucky River Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0131012	Breathitt County Water District	Breathitt	5,566	2,469
KY0130208	Jackson Municipal Water Works	Breathitt	4,824	2,222
KY0600198	Hindman Water Department	Knott	3,267	1,567
KY0600062	Knott Co Water & Sewer District	Knott	8,469	3,740
KY0600129	Phoenix Place Water System	Knott	298	136
KY0650024	Beattyville Water Works	Lee	6,495	2,748
KY0650412	Southside Water Association	Lee	840	406
KY0660204	Hyden Leslie Co Water District	Leslie	9,225	4,284
KY0670279	Fleming-Neon Water Company	Letcher	3,199	1,588
KY0670213	Jenkins Water System	Letcher	2,785	1,334
KY0670462	Letcher County Water and Sewer District	Letcher	7,198	3,406
KY0670466	Whitesburg Water System	Letcher	3,159	1,461
KY0950036	Booneville Water and Sewer	Owsley	4,737	2,322
KY0970184	Hazard Water Department	Perry	22,044	9,818
KY0970484	Vicco Water Supply	Perry	2,727	1,192
KY0971007	Village of Buckhorn	Perry	944	402
KY1190061	Campton Water System	Wolfe	6,229	3,116
		Totals:	92,006	42,211

Kentucky River Area Development District
Regional Water Needs Assessment

Primary Need: **Extend Services to Unserved Areas**
Secondary Need: **Repair and Replace Existing Infrastructure**

Discussion of Area Development District Needs:

The Kentucky River region's main concerns for water projects are those that address establishing new water service to areas that currently rely on failing or contaminated wells and areas that must haul water. The region is also faced with major rehab as most systems have lines that have been in place for 40+ years as well as rehabilitation of existing plants and in cases where rehab is to expensive then the construction of new plants.

Description and Determination of Planning Units:

The Kentucky River Area Water Management Council reviewed the water systems and their service areas located within the Kentucky River Area Development District. The Council designated the Kentucky River Area Development District boundary as the regional management area. Within the Kentucky River Region, the following water systems and their respective water management planning areas were designated by the Council:

Kentucky River Area Water Management Planning Areas:

1. Breathitt County Water Management Planning Area
   a) Breathitt County Water District
   b) Jackson Municipal Water Works
   c) Mount Carmel High Boarding School

2. Knott County Water Management Planning Area
   a) Hindman Water Department
   b) Knott Co. Water and Sewer District
   c) Phoenix Place Water System

3. Lee County Water Management Planning Area
   a) Beattyville Water Works
   b) Southside Water Association

4. Leslie County Water Management Planning Area
   a) Hyden/Leslie Co Water District

5. Letcher County Water Management Planning Area
   a) Fleming-Neon Water Company
   b) Jenkins Water System
   c) Letcher County Water and Sewer District
   d) Whitesburg Water System

6. Owsley County Water Management Planning Area
   a) Booneville Water and Sewer

7. Perry County Water Management Planning Area
   a) Hazard Water Department
   b) Vicco Water Supply
   c) Village of Buckhorn

8. Wolfe County Water Management Planning Area
   a) Campton Water System

Kentucky River Area Development District
Project Ranking Methodology

The KRADD Water Management Council meets once a year to prioritize projects in our area. Our area's utility managers and chief executives begin the ranking by first reviewing the previous year's prioritization and then pair off by county to discuss their current projects. Each county is given a list of the profiles they have in the WRIS and then they rank their basic needs during this portion of the meeting.

Once the counties rank their projects the Council then begins the process of prioritizing the projects that are of the most concern for the region. The council first discusses everyone's top ranked county project. This discussion is based on service population, violations the entity has received, current funding, whether the project is for new or existing customers and the overall community need. Following this discussion the council then begins the process of selecting the top regional projects based on the information presented. The county with the most critical overall need is the first ranked and then the other counties follow suit.

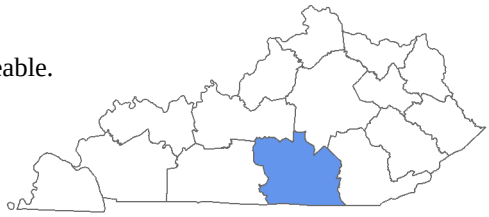
The Kentucky River region's main concerns for water projects are those that address establishing new water service to areas that currently rely on failing or contaminated wells and areas that must haul water. The region is also faced with major rehab as most systems have lines that have been in place for 40+ years as well as rehabilitation of existing plants and in cases where rehab is to expensive then the construction of new plants.

Wastewater concerns are focused on rehabilitation of lift stations and plants and when rehabilitation of the plants is not feasible construction of new ones. The majority of the area is now beginning to turn to wastewater service extensions as the past has mostly been focused on providing reliable and safe potable water to the residents. The majority of our counties are now reaching 80% served and some have even achieved 95-98% served. Our entities are now looking to improve the water quality and the environment by providing a reliable means of wastewater removal which will improve the streams that empty into the rivers most utilize for their water source.

Project Rankings For Kentucky River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21119009	Carr Creek Water Treatment Plant Expansion	0-2 Years	Partially Funded	$2,850,000	Knott	1	1
WX21133043	Jenkins Waterline Improvement Phase IV	3-5 Years	Not Funded	$2,400,000	Letcher	2	1
WX21025511	Jackson Wal-Mart Shopping Center Water Improvement Project	3-5 Years	Not Funded	$490,000	Breathitt	3	1
WX21189003	Booneville Water Treatment Plant	3-5 Years	Not Funded	$6,379,900	Owsley	4	1
WX21193005	KY 1110/KY 28 Water Line Interconnection	0-2 Years	Fully Funded	$930,000	Breathitt	5	2
WX21131111	Hyden/Leslie Water System Improvements Phase II	0-2 Years	Partially Funded	$2,000,000	Leslie	6	1
WX21133012	Letcher - Kings Creek/Oscaloosa	6-10 Years	Not Funded	$2,600,000	Letcher	7	2
WX21025101	Jackson - Hospital Water Tank Project	3-5 Years	Not Funded	$1,210,000	Breathitt	8	3
WX21237007	Campton - Radio Read Meter Replacements	0-2 Years	Fully Funded	$52,100	Wolfe	9	1
WX21237746	Campton South Valeria Water Extension Project	3-5 Years	Not Funded	$1,142,400	Wolfe	10	2
WX21129004	Beattyville - Bear Track Waterline Replacement	3-5 Years	Not Funded	$612,000	Lee	11	1
WX21193196	Hazard - Master Meter Program And System Updates Project	3-5 Years	Partially Funded	$4,543,000	Perry	12	1
WX21133050	Jenkins - Water Plant Improvements	3-5 Years	Not Funded	$3,000,000	Letcher	13	5
WX21189005	Booneville Water Line Extensions - 2010	3-5 Years	Not Funded	$252,000	Owsley	14	2
WX21133024	Hazard-Letcher County Water Interconnection Project	0-2 Years	Partially Funded	$625,000	Letcher	15	4
			Total Cost:	**$29,086,400**			

Lake Cumberland Area Development District (LCADD)



- 2010 census population of 207,256 (101,129 households) with 95% serviceable.
- Projected 2020 population of 221,481 (change of 14,225).
- 5,481.39 miles of existing water lines.
- 308.00 miles of line extensions proposed in the next 10 years.
- 84.00 miles of line rehabilitation proposed in the next 10 years.
- 50.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $119,959,819.
- Estimated funding needs for projects from 6 to 10 years: $21,350,088.

Lake Cumberland Area Development District has a 2010 census population count of 207,256 (101,129 households) with a projected 2020 population count of 221,481 (92,378 households). Public water is currently available to approximately 95 percent of the district's households based on 2010 census counts. Over the next ten years approximately 739 serviceable households will be added through the construction of 308.00 miles of water line extensions and approximately 28,648 instances of improved service through the rehabilitation of 84.00 miles of existing water lines and other appurtenances. 50.00 miles of transmission lines are also proposed within this district.

County Summary for Lake Cumberland Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Adair	18,656	8,568	20,052	8,151	7,695	90%	$ 17,932,215
Casey	15,955	7,487	16,433	6,791	7,305	98%	$ 10,249,000
Clinton	10,272	5,311	10,896	4,755	5,166	97%	$ 4,363,700
Cumberland	6,856	3,690	6,649	2,840	3,484	94%	$ 3,014,000
Green	11,258	5,324	11,112	4,660	5,189	98%	$ 13,805,900
McCreary	18,306	7,507	18,314	6,819	6,268	84%	$ 18,599,227
Pulaski	63,063	31,443	71,036	29,901	30,543	97%	$ 31,041,365
Russell	17,565	9,993	18,782	8,112	9,729	97%	$ 5,585,885
Taylor	24,512	10,864	26,079	10,663	10,583	97%	$ 21,445,115
Wayne	20,813	10,942	22,128	9,686	9,748	89%	$ 15,273,500
Totals	**207,256**	**101,129**	**221,481**	**92,378**	**95,710**	**95%**	**$ 141,309,907**

Community Drinking Water Systems in Lake Cumberland Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0010702	Columbia/Adair Utilities District	Adair	16,726	7,609
KY0230556	East Casey County Water District	Casey	12,037	5,730
KY0230987	Liberty Water & Gas	Casey	2,298	1,002
KY0270003	Albany Municipal Water & Sewer	Clinton	9,908	5,112
KY0290049	Burkesville Municipal Water Works	Cumberland	1,912	952
KY0290271	Cumberland County Water District	Cumberland	4,573	2,490
KY0440167	Green-Taylor Water District	Green	11,263	5,151
KY0440168	Greensburg Water Department	Green	2,283	1,139
KY0740276	McCreary County Water District	McCreary	14,871	6,266
KY1000043	Bronston Water Association	Pulaski	3,117	1,953
KY1000050	Burnside Municipal Water Works	Pulaski	1,164	677
KY1000124	Eubank Water System	Pulaski	10,144	4,469
KY1000362	Science Hill Water Works	Pulaski	4,754	2,054
KY1000403	Somerset Utilities	Pulaski	17,104	8,273
KY1000311	Southeastern Water Association	Pulaski	15,017	8,039
KY1000363	Western Pulaski County Water District	Pulaski	16,907	8,919
KY1000973	Woodson Bend Property Owners Association	Pulaski	142	362
KY1040210	Jamestown Utilities	Russell	7,381	4,204
KY1040377	Russell Springs Sewer & Water Works	Russell	9,270	4,806
KY1090060	Campbellsville Municipal Water & Sewer System	Taylor	21,048	9,371
KY1160291	Monticello Utility Commission	Wayne	17,483	8,627
		Totals:	199,402	97,205

Lake Cumberland Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The Lake Cumberland Area Development District planning units are in need of repairing and replacing existing infrastructure. The systems in the Lake Cumberland Area need to repair and/or replace pump stations, water lines and tanks due to aging infrastructure. The some systems also need to upgrade the existing treatment plants with safer, more efficient methods of treatment.

The Lake Cumberland Area Development District planning units would like to provide service to more customers by extending service to unserved areas. Providing service to unserved areas will eliminate the use of contaminated individual wells in rural areas.

The needs of the Lake Cumberland Regional Water Management Council are a very diverse collection. Other needs of the area include meeting regulatory requirements, increasing storage capacity, and regionalization.

Description and Determination of Planning Units:

The Lake Cumberland Area Development District is made up of fifteen planning units. The planning units were determined by the Lake Cumberland Regional Water Management Council based on local issues in the area such as location, size of area, number of customers, number of systems, and need and ability of systems to plan together. The planning units are Adair (Columbia/Adair County Water Commission and Columbia/Adair Utilities District), Bronston/Burnside (Bronston Water Association and Burnside Municipal Water Works), Campbellsville (Campbellsville Municipal Water & Sewer System), Casey (East Casey County Water District and Liberty Water & Gas), Clinton (Albany Municipal Water & Sewer), Cumberland (Burkesville Municipal Water Works and Cumberland County Water District), Eubank/Science Hill (City of Eubank Water System and Science Hill Water Works), Green-Taylor (Green-Taylor Water District),Greensburg (Greensburg Water Department), McCreary (McCreary County Water District), Russell (Jamestown Utilities and Russell Springs Sewer & Water Works), Somerset (Somerset Utilities), Southeastern (Southeastern Water Association), Wayne (Monticello Utility Commission), and Western (Western Pulaski County Water District).

Lake Cumberland Area Development District
Project Ranking Methodology

The current needs in the Lake Cumberland ADD region are quite sizeable. While water service has been provided to most residents some are still in need of service, expanded treatment capacity and replacement of aging or undersized lines are becoming more and more necessary. For wastewater, the needs include system expansion, unserved areas, aging infrastructure, and expanded treatment capacity.

The Lake Cumberland Regional Water Management Council uses a point based ranking system to rank the needs of the area. Each local system was asked to submit their most needed projects to the Council for ranking. Projects were scored on a series of criteria including Type of Project, Regionalism, Shovel Readiness, Funding Status, Planning Assessment, and Local Need. Additional bonus points were assigned at the discretion of the Council for projects deemed most deserving. In the event of a tie, the project's Cost per Connection was used as the deciding factor.

The following point criteria will be submitted to the Lake Cumberland Regional Water Management Council on December 6, 2012 for approval:

Type of Project (up to 20 points assigned)

Unserved – Points based on number of households served per mile

AVERAGE 9 OR GREATER HOUSEHOLDS PER MILE -	20
AVERAGE 7-8 HOUSEHOLDS PER MILE -	19
AVERAGE 5-6 HOUSEHOLDS PER MILE -	18
AVERAGE 3-4 HOUSEHOLDS PER MILE -	15
AVERAGE 1-2 HOUSEHOLDS PER MILE -	10
AVERAGE OF LESS THAN 1 HOUSEHOLDS PER MILE -	5

Underserved – Points based on percentage of total customer base impacted

80-100% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	20
60-79% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	19
40-59% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	18
20-39% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	15
10-19% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	10
LESS THAN 10% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT –	5

Industrial/Commercial – Points based on number of jobs created/retained

100 OR MORE NEW JOBS CREATED OR JOBS RETAINED -	20
75-99 NEW JOBS CREATED OR JOBS RETAINED -	19
50-74 NEW JOBS CREATED OR JOBS RETAINED -	18
20-49 NEW JOBS CREATED OR JOBS RETAINED -	15
10-19 NEW JOBS CREATED OR JOBS RETAINED -	10
LESS THAN 10 NEW JOBS CREATED OR JOBS RETAINED -	5

Other – 3 points assigned for projects not meeting the above types

Combination – Most favorable listed category plus an additional 3 points

Project Delivery (up to 15 points assigned)

Regional - 15 points
Non-Regional – 5 points

Project Status (up to 15 points assigned)

Engineering Plans and specs submitted to DOW -	15 points
Preliminary Engineering Report completed -	10 points
Cost estimate by PE -	5 points

Funding Status (up to 15 points assigned)

Projects with estimated costs greater than $100,000

Funding committed for 50% or more -	15 points
Funding committed for 1-49% or more -	10 points
Pending applications -	5 points
Projects with estimated costs of $100,000 or less -	10 points

Planning Unit Assessment (up to 15 points assigned)

Meets primary/secondary need -	15 points
Does not meet primary/secondary need –	5 points

Local Need (up to 20 points assigned)

Points assigned based on the planning unit ranking

1ST –	20 POINTS
2ND –	16 POINTS
3RD –	13 POINTS
4TH –	11 POINTS
5TH –	9 POINTS
6TH –	7 POINTS
7TH –	6 POINTS
8TH –	5 POINTS
9TH –	4 POINTS
10TH –	3 POINTS
11TH –	2 POINTS
12TH –	1 POINTS

13TH OR HIGHER – 0 POINTS

Council Input (up to 10 points assigned)

Council assigns 10 bonus points to 15% of projects

Tie Breaker (no points assigned)

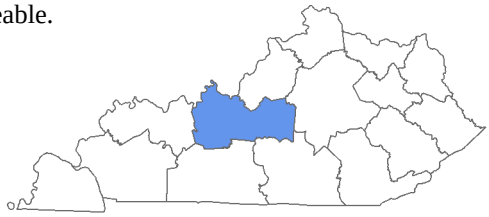
Cost per connection - only used to break point based ties

Lowest cost per connection is ranked highest

Project Rankings For Lake Cumberland Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21147027	MCWD-Water Treatment Plant No.1 Improvements/Upgrades	0-2 Years	Not Funded	$1,845,000	McCreary	1	1
WX21001001	Columbia/Adair Utilities District-Downtown Water System Improvements Phase 2	3-5 Years	Not Funded	$4,100,000	Adair	2	1
WX21217023	Campbellsville Regional Water System Improvements	3-5 Years	Not Funded	$5,951,000	Taylor	3	1
WX21147023	MCWD – Emergency Water Plant Power Supply	3-5 Years	Partially Funded	$1,072,000	McCreary	4	2
WX21199002	Oak Hill 3 MG Storage Tank, 10 MG Booster Station, & Transmission	3-5 Years	Not Funded	$7,600,000	Pulaski	5	1
WX21217021	North Campbellsville Area Water Storage Tank	3-5 Years	Not Funded	$2,565,000	Taylor	6	2
WX21053004	Albany – Albany Bypass Water Transmission Main	3-5 Years	Not Funded	$1,170,000	Clinton	7	1
WX21199039	Somerset/Columbia St Water Distribution Rehabilitation	3-5 Years	Not Funded	$125,000	Pulaski	8	2
			Total Cost:	**$24,428,000**			

Lincoln Trail Area Development District (LTADD)



- 2010 census population of 269,117 (116,687 households) with 92% serviceable.
- Projected 2020 population of 295,040 (change of 25,923).
- 4,859.86 miles of existing water lines.
- 401.00 miles of line extensions proposed in the next 10 years.
- 34.00 miles of line rehabilitation proposed in the next 10 years.
- 41.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $156,588,225.
- Estimated funding needs for projects from 6 to 10 years: $990,400.

Lincoln Trail Area Development District has a 2010 census population count of 269,117 (116,687 households) with a projected 2020 population count of 295,040 (117,392 households). Public water is currently available to approximately 92 percent of the district's households based on 2010 census counts. Over the next ten years approximately 2,994 serviceable households will be added through the construction of 401.00 miles of water line extensions and approximately 92,310 instances of improved service through the rehabilitation of 34.00 miles of existing water lines and other appurtenances. 41.00 miles of transmission lines are also proposed within this district.

County Summary for Lincoln Trail Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Breckinridge	20,059	10,630	21,489	8,788	7,828	74%	$ 46,693,304
Grayson	25,746	13,561	27,048	11,007	13,309	98%	$ 10,231,053
Hardin	105,543	43,261	116,612	46,055	40,774	94%	$ 59,921,440
Larue	14,193	6,172	14,961	6,069	5,233	85%	$ 3,219,000
Marion	19,820	8,182	21,424	8,332	8,024	98%	$ 12,364,325
Meade	28,602	11,762	30,901	11,964	9,161	78%	$ 10,080,683
Nelson	43,437	18,075	50,119	20,219	17,645	98%	$ 7,412,600
Washington	11,717	5,044	12,486	4,958	4,935	98%	$ 7,656,220
Totals	**269,117**	**116,687**	**295,040**	**117,392**	**106,909**	**92%**	**$ 157,578,625**

Community Drinking Water Systems in Lincoln Trail Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0140079	Cloverport Water & Sewer System	Breckinridge	1,101	548
KY0140966	Hardinsburg Water Department	Breckinridge	11,399	6,421
KY0140206	Irvington Water System	Breckinridge	1,411	649
KY0430063	Caneyville Municipal Water Works	Grayson	1,634	797
KY0430616	Grayson County Water District	Grayson	14,125	6,998
KY0430244	Leitchfield Utilities	Grayson	6,534	2,902
KY0470118	Elizabethtown Water Department	Hardin	21,639	9,896
KY0470990	Hardin Co. Water District No. 1 Fort Knox System	Hardin	127	35
KY0470175	Hardin County Water District #2	Hardin	45,000	18,136
KY0470393	Hardin County Water District No. 1	Hardin	27,350	11,652
KY0470440	Vine Grove Water Department	Hardin	3,572	1,520
KY0470455	West Point Water Department	Hardin	835	443
KY0620200	Hodgenville Water Works	Larue	1,961	830
KY0620237	Larue County Water District #1	Larue	9,109	3,889
KY0780241	Lebanon Water Works Co Inc	Marion	6,041	2,806
KY0780268	Marion County Water District	Marion	14,477	5,639
KY0820041	Brandenburg Water Works	Meade	3,313	1,418
KY0820369	Meade County Water District	Meade	15,946	6,193
KY0820481	Muldraugh Water Department	Meade	947	539
KY0900017	Bardstown Municipal Water Department	Nelson	25,498	10,792
KY0900031	Bloomfield Water & Sewer Department	Nelson	4,176	1,785
KY0900312	New Haven Municipal Water Works	Nelson	1,347	577
KY0900323	North Nelson Water District	Nelson	10,696	4,239
KY1150415	Springfield Water & Sewer Commission	Washington	10,410	4,496
		Totals:	238,648	103,200

Lincoln Trail Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Increase Storage Capacity**

Discussion of Area Development District Needs:

The Lincoln Trail ADD region has experienced moderate growth in the more urban areas and urban fringes and slow to stagnant growth in the small, rural communities. This has presented different challenges to each area. The concentrations of population in Hardin and Nelson Counties has focused attention on meeting growing demand needs with upgraded facilities (greater capacities).

The least densely populated areas of the region in Breckinridge and Meade Counties still have large areas without potable water but they have made significant progress in reaching areas expressing interest in public water. There is still some need to meet unserved populations; however, the remaining households are typically sparsely settled and the cost per household and potential maintenance issues will be difficult to overcome.

The smaller, more rural communities have seen slow to negative growth and face increasing pressure to repair and replace aging lines and facilities. Many lines in downtown areas were constructed in the 1940's and 1950's and are nearing their life expectancy and their capacities. Treatment facilities in those communities are also facing outdated technologies, difficulty in meeting new regulatory requirements and, high cost of operation (inefficiency). The smaller systems also face unique challenges in keeping qualified personnel as their populations age and decline. They find it difficult to compete financially for experienced personnel or to train new personnel.

Overall, the district's utilities have done well in adjusting to new demands but the horizon financial burdens may handcuff many smaller systems from making necessary repairs and upgrades.

Description and Determination of Planning Units:

Planning units in the Lincoln Trail Region are primarily set by county boundaries. They generally compose a large enough geographic area and small enough grouping of utilities to provide reasonable interaction, feedback, and information to be a useful planning unit. Two Counties do not have a "County Water District" that is responsible for unserved rural populations - Breckinridge and Washington. The City of Hardinsburg in Breckinridge County has taken on the challenge of serving the rural population while Washington County has formed the Springfield Water Commission that has county responsibility.

Lincoln Trail Area Development District
Project Ranking Methodology

The Lincoln Trail Area Water Management Planning Council uses the following guideline for prioritizing water and wastewater projects on a regional basis. The guideline was adapted from previous versions outlined by KIA which uses five criteria to assign a point value for each project. The process is hopefully inclusive and allows for discussion at the local level to improve understanding of a proposed project's intent and impact.

County Advisory Committees meet at least once locally. That meeting is hosted by the County Judge/Executive (as the Advisory chairperson) with each local utility, Mayor, and local Health Department invited to participate. All proposed projects are reviewed by the committee and given an initial score based upon how the project meets the five criteria (project type, regional connections, design status, funding status, and local need). Most of the discussion by the committees is centered on what projects address the greatest local needs. Since there can be diverse interests represented, this means the committee members must work together to determine what needs are most important in their community and what projects will meet them.

After all the County Advisory meetings have taken place the Area Water Management Council meets to finalize the priorities. Staff then does a summary tabulation of project points. The Council takes up the projects and scoring as presented by staff and County Advisory Committees. In the past two years, the Council has only included the top five projects from each County Advisory group for the regional prioritization list (meaning there is a maximum of 40 projects eligible to receive regional bonus points). The Council can assign bonus points to projects that they feel best represent the regional interest. The bonus points are assigned to the top 15% scoring projects. The following criteria are used for the overall scoring:

Project type [20 points max to 5 points min.]:

- Unserved (customers / mile): 7>/mile=20 pts, 5-6/mile=15 pts, 3-4/mile=10 pts, 2</mile=5 pts;
- Underserved/Improved Service (% of system improved): 75-100%=20 pts, 50-75%=15 pts, 25-49%=10 pts,
- <25% / maintenance = 5 pts;
- Economic Development (# of jobs assisted) 25+ committed= 20pts, 15-24 committed= 15pts, less than 15 committed= 10pts, no quantified jobs= 5 pts; Other (technical improvements, feasibility studies, etc. = 10 points)

Regional Connection [20 points max]:

- Regional project that connects or merges 2 or more systems for the sale or production of water or wastewater treatment (20 pts.)
- Increased connectivity: improved existing connection or emergency connection (10 pts.)
- Non-regional (5 pts.)

Design Status:

- Div. of Water approved plans (20 pts.)
- Preliminary Engineering Report completed (15 pts.)
- Engineer procured for final design (10 pts.)
- Engineer developed profile (5 pts.)

Funding Status: The percentage of cost committed from local sources (20 to 5 points)

- 50% or more from local sources (20pts.)
- 25-49% from local sources (15pts.)
- Less than 25% from local or submitted applications, i.e. CDBG, RD, KIA (10pts)
- Other (5pts)

Local Need:

- Most important project within the planning unit (20 pts.)
- 2nd most important project (18 pts.)
- 3rd most important project (15 pts.)
- 4th most important project (11 pts.)
- 5th most important project (6 pts.)
- Only the top five in each planning unit are scored for local need.

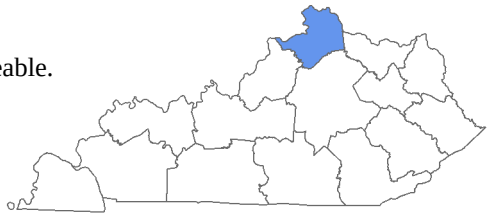
Project Rankings For Lincoln Trail Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21229009	Springfield Danville Interconnect	0-2 Years	Not Funded	$250,000	Washington	1	2
WX21155039	Marion Co. and Taylor Co. Interconnect	3-5 Years	Not Funded	$3,230,000	Marion	2	4
WX21093026	HCWD#1 Automated Meter Reading Conversion	0-2 Years	Not Funded	$1,500,000	Hardin	3	1
WX21163016	Phase VIII Water System Improvements/ Meade Co. Water District	3-5 Years	Not Funded	$2,000,000	Meade	4	2
WX21027008	Rehabilitation of Irvington Water System	3-5 Years	Not Funded	$1,004,055	Breckinridge	5	1
WX21155029	Lebanon Waterworks WTP Disinfection Upgrades	3-5 Years	Not Funded	$400,000	Marion	6	1
WX21229006	Springfield New Raw Water Pump	3-5 Years	Not Funded	$750,000	Washington	8	3
WX21027046	Cloverport Service Line Replacement & Extensions	3-5 Years	Not Funded	$430,810	Breckinridge	9	2
WX21179014	Bloomfield Water System Improvements	3-5 Years	Not Funded	$800,000	Nelson	10	1
WX21123025	Larue Co. W.D. - Hwy 84 Pump Station	3-5 Years	Not Funded	$250,000	Larue	11	1
WX21163007	Brandenburg Old State Road Replacement	3-5 Years	Not Funded	$300,000	Meade	12	1
WX21229010	Springfield - Willisburg Lake Improvements	3-5 Years	Not Funded	$1,500,000	Washington	13	1
WX21155035	Marion County Water District Telemetry Project	0-2 Years	Not Funded	$265,200	Marion	14	3
WX21163002	MeCWD - KY 1638 Transmission Main	0-2 Years	Not Funded	$1,852,783	Meade	15	3
WX21027047	Irvington Heights Water Extensions	3-5 Years	Not Funded	$360,800	Breckinridge	16	4
WX21093035	West Point- South Dixie Water Tower	3-5 Years	Not Funded	$925,000	Hardin	17	2
WX21093027	Hardin County Water District #1, Vulnerability and Protection Measures	0-2 Years	Not Funded	$120,000	Hardin	18	4
WX21085007	City of Leitchfield-Water Tower	3-5 Years	Not Funded	$1,325,000	Grayson	19	1
WX21229008	Springfield Water Supply Study	0-2 Years	Not Funded	$100,000	Washington	20	5
WX21085030	Leitchfield Water AMR Upgrade Project	0-2 Years	Not Funded	$306,500	Grayson	21	5
WX21093037	HCWD #1 - Hwy 1882 Transmission Main Upgrade	0-2 Years	Partially Funded	$723,000	Hardin	22	5
WX21155033	Marion Co. Water District Tank Improvements Phase I	3-5 Years	Not Funded	$622,760	Marion	23	5
WX21027019	City of Hardinsburg: JM Mercer Campsite Rd Water Line Extension	0-2 Years	Not Funded	$151,800	Breckinridge	24	3
WX21093034	HCWD#2 Cecilia Pump Station Emergency Power	3-5 Years	Not Funded	$500,000	Hardin	25	3
WX21155036	Marion County Water District Lebanon Bypass Elevated Tank	3-5 Years	Not Funded	$1,150,000	Marion	26	2
WX21179020	City of Bardstown-Boston Water Improvements	3-5 Years	Not Funded	$1,500,000	Nelson	27	2
WX21179015	Bloomfield Water Line Extensions and Telemetry	3-5 Years	Not Funded	$675,000	Nelson	28	4
WX21027009	Rehabilitation of Water Storage Tank In Cloverport	3-5 Years	Not Funded	$262,990	Breckinridge	29	5
WX21123018	Hodgenville 1618 Water Main Project	3-5 Years	Not Funded	$200,000	Larue	30	5
WX21085023	Grayson Co. Water District - Tank Mixing Upgrades	3-5 Years	Not Funded	$250,000	Grayson	31	2
WX21085024	City of Caneyville- Tank Mixing Upgrade	3-5 Years	Not Funded	$250,000	Grayson	32	3
WX21179009	North Nelson KY 48 / Murrays Run & Samuels Upgrade	0-2 Years	Not Funded	$398,100	Nelson	33	5
WX21123020	Hodgenville Smith Plaza Tower Replacement/Upgrade	3-5 Years	Not Funded	$300,000	Larue	34	3
WX21179023	City of New Haven - Center & Mill St. Waterline Replacement	3-5 Years	Not Funded	$200,000	Nelson	35	3

Project Rankings For Lincoln Trail Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21085029	Grayson Co. Water District Project 18	3-5 Years	Not Funded	$444,500	Grayson	36	4
WX21229005	City of Springfield Waterline Replacement/Upgrade	3-5 Years	Not Funded	$1,000,000	Washington	37	4
WX21123017	Hodgenville North Lincoln Blvd. Supply Improvement Project	3-5 Years	Not Funded	$500,000	Larue	38	2
WX21123026	Larue Co. W.D. - Meter Tap Upgrade	0-2 Years	Not Funded	$50,000	Larue	39	4
WX21163008	Brandenburg Ground Level Water Storage Tank	3-5 Years	Not Funded	$500,000	Meade	40	5
			Total Cost:	**$27,348,298**			

Northern Kentucky Area Development District (NKADD)



- 2010 census population of 438,647 (185,049 households) with 97% serviceable.
- Projected 2020 population of 488,377 (change of 49,730).
- 3,533.50 miles of existing water lines.
- 446.00 miles of line extensions proposed in the next 10 years.
- 33.00 miles of line rehabilitation proposed in the next 10 years.
- 4.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $186,132,644.
- Estimated funding needs for projects from 6 to 10 years: $37,656,804.

Northern Kentucky Area Development District has a 2010 census population count of 438,647 (185,049 households) with a projected 2020 population count of 488,377 (194,345 households). Public water is currently available to approximately 97 percent of the district's households based on 2010 census counts. Over the next ten years approximately 3,103 serviceable households will be added through the construction of 446.00 miles of water line extensions and approximately 223,392 instances of improved service through the rehabilitation of 33.00 miles of existing water lines and other appurtenances. 4.00 miles of transmission lines are also proposed within this district.

County Summary for Northern Kentucky Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Boone	118,811	46,154	153,933	59,951	44,233	96%	$ 30,804,774
Campbell	90,336	39,523	91,642	37,713	38,553	98%	$ 48,379,065
Carroll	10,811	4,696	11,440	4,408	4,578	98%	$ 5,093,018
Gallatin	8,589	3,786	9,264	3,592	3,711	98%	$ 3,164,248
Grant	24,662	9,942	26,917	9,870	9,788	99%	$ 59,350,388
Kenton	159,720	68,975	168,458	68,111	67,485	98%	$ 42,668,562
Owen	10,841	5,634	11,336	4,713	4,850	86%	$ 13,893,318
Pendleton	14,877	6,339	15,387	5,987	5,809	92%	$ 20,436,075
Totals	**438,647**	**185,049**	**488,377**	**194,345**	**179,007**	**97%**	**$ 223,789,448**

Community Drinking Water Systems in Northern Kentucky Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0080034	Boone County Water & Sewer District	Boone	75,972	27,865
KY0081013	Boone-Florence Water Commission	Boone	91	57
KY0080135	Florence Water & Sewer Commission	Boone	30,875	13,493
KY0080442	Walton Waterworks Department	Boone	3,556	1,424
KY0210066	Carroll County Water District #1	Carroll	5,843	2,818
KY0210067	Carrollton Utilities	Carroll	4,692	2,001
KY0210008	West Carroll Water District - Carrollton	Carroll	2,391	1,056
KY0210637	West Carroll Water District - Milton	Carroll	95	50
KY0390130	Gallatin County Water District	Gallatin	5,299	2,233
KY0390444	Warsaw Water Works	Gallatin	1,981	943
KY0410047	Bullock Pen Water District	Grant	19,446	7,490
KY0410662	Corinth Water District	Grant	2,967	1,311
KY0410107	Dry Ridge Water Works Commission	Grant	2,032	811
KY0410472	Williamstown Municipal Water Department	Grant	4,592	1,959
KY0590220	Northern Kentucky Water District	Kenton	242,169	105,216
KY0940430	Kentucky-American Water Company - Northern Division	Owen	8,596	4,241
KY0960051	Butler Water Works	Pendleton	619	285
KY0960112	East Pendleton Water District	Pendleton	5,108	2,170
KY0960126	Falmouth Water Department	Pendleton	2,562	1,176
KY0960348	Pendleton County Water District #1 North	Pendleton	4,790	1,953
KY0960499	Pendleton County Water District #1 South	Pendleton	1,393	569
		Totals:	425,069	179,121

Northern Kentucky Area Development District
Regional Water Needs Assessment

Primary Need: **Extend Services to Unserved Areas**
Secondary Need: **Repair and Replace Existing Infrastructure**

Discussion of Area Development District Needs:

The Northern Kentucky Area Development District's eight counties each have unique challenges. The urban counties have issues with aging infrastructure in the cities in the northern parts, population growth in the suburbs in the middle, and unserved, low density population areas in the south. The rural counties have areas of low density that are a challenge to serve in an economically viable manner, aging infrastructure in the cities, and in some cases, water plants that are at or near capacity.

Description and Determination of Planning Units:

The Northern Kentucky Area Development District is composed of the eight counties of Boone, Campbell, Carroll, Gallatin, Grant, Kenton, Owen, and Pendleton.

Regional Overview - Northern Kentucky ADD
The Northern Kentucky Development District region had an estimated population of 150,000 households in 2012 with a projected population of 191,900 households in 2020. There are approximately 3000 miles of water lines in the region serving about 185,000 households, or about 87% of the region's population. 600 miles of proposed water line extensions for the period 2012-2020 would provide service to an additional 7000 households. About 48,000 people in the region rely on private domestic water systems: 5,000 on wells and 43,000 on hauled water and other sources.

There are 33 public and semi-public water systems serve the region: 25 community systems, 6 non-community systems and 2 non-transient non-community systems.

The NKADD Water Management Council reviewed the water systems and their service areas located within the Northern Kentucky Area Development District. The Council designated the Northern Kentucky Area Development District boundary as the regional management area. Within NKADD, the following water systems and their respective water management planning areas were designated by the Council:

1. Boone County Water Management Planning Area
   - Boone County Water District
   - Florence Water & Sewer Commission
   - Walton Water Works Department

2. Kenton/Campbell Water Management Planning Area
   - Northern Kentucky Water District

3. Carroll County Water Management Planning Area
   - Carrollton Utilities
   - West Carroll Water District

4. Gallatin County Water Management Planning Area
   - Gallatin County Water District

5. Owen County Water Management Planning Area
   - Kentucky American Water Company

6. Grant County Water Management Planning Area
   - Bullock Pen Water District
   - Corinth Water District
   - Dry Ridge Water Works Commission
   - Williamstown Municipal Water Department

7. Pendleton County Water Management Planning Area
   - Pendleton County Water District #1
   - East Pendleton Water District
   - Butler Water Works
   - Falmouth Water Department

Northern Kentucky Area Development District
Project Ranking Methodology

The Water Management Council created a subcommittee to develop a ranking methodology for NKADD. This was based on the methodology created by KIA along with modifications instituted by other ADDs. A point system was developed that looked at several aspects of the projects based on the following criteria:

- Consolidation or regionalization of systems
- Local rankings
- Number of unserved/underserved customers affected
- Cost per household
- Amount of planning and development work completed
- Capacity to provide wastewater service (for waterline extensions)
- Local funding

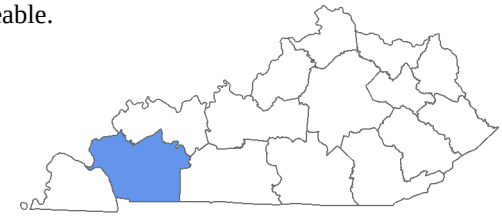
A meeting is held with each Planning Unit to rank their projects. The projects are scored using a matrix developed from the established criteria. At the Water Management Council meeting, these scores are used the rank the projects for the whole ADD. NKADD uses a tiered system so that each Planning Units number one project is in the top 8: the highest number one project is first, the second highest number one project is second, the third highest number one project is third … until all of the projects ranked by the Planning Units are ranked for the whole ADD.

Project Rankings For Northern Kentucky Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21041002	CU - Focusing on Core Mission & Infrastructure Project	0-2 Years	Not Funded	$963,931	Carroll	1	1
WX21081001	Williamstown - New Water Treatment Plant	0-2 Years	Not Funded	$16,660,000	Grant	2	2
WX21191003	Water Storage Reservoir Repair and Roof Replacement	0-2 Years	Not Funded	$396,703	Pendleton	3	1
WX21015514	BCWD - Williams Rd. to Garrison Creek Rd. Phase A	3-5 Years	Not Funded	$1,296,200	Boone	4	1
WX21117211	NKWD - Kenton County Unserved Water Project 2012 (Subdistrict M)	0-2 Years	Partially Funded	$3,399,336	Kenton	5	1
WX21037311	NKWD - Newport/Bellevue/Dayton Water Main Replacement Project	0-2 Years	Not Funded	$5,004,200	Campbell	6	3
WX21077213	Gallatin County Fiscal Court - Kentucky Speedway Area Water Impr	3-5 Years	Not Funded	$500,000	Gallatin	7	1
WX21187002	Owen County Unserved Areas	0-2 Years	Partially Funded	$827,724	Owen	8	1
WX21081305	Bullock Pen - Raw Water Intake	0-2 Years	Not Funded	$95,000	Grant	9	1
WX21117212	NKWD - Covington Water Main Replacement Project	0-2 Years	Not Funded	$5,008,875	Kenton	10	3
WX21015001	Edwards Waterline Replacement Project	0-2 Years	Partially Funded	$176,927	Boone	11	3
WX21037310	NKWD - Campbell County Unserved and Underserved Project 2011 - Subdistrict J	0-2 Years	Not Funded	$4,647,689	Campbell	12	1
WX21015301	Boone-Florence Water Commission - Northwest Water Storage Tank	0-2 Years	Not Funded	$5,000,000	Boone	13	2
WX21037004	Campbell County Water Main Rehabilitation and Treatment Plant Pr	0-2 Years	Not Funded	$5,644,000	Campbell	14	4
WX21117013	Bullock Pen Water Line Extension, Phase 9	3-5 Years	Not Funded	$970,713	Kenton	15	2
WX21081306	Bullock Pen - Phase II Water System Improvements	3-5 Years	Not Funded	$560,380	Grant	16	3
WX21015006	Bullock Pen Water District - Boone County Master Meter and Improvements	0-2 Years	Not Funded	$1,549,600	Boone	17	4
WX21037050	NKWD, Campbell County Waterline Extension W/ PCWD	3-5 Years	Not Funded	$1,166,880	Campbell	18	2
WX21015400	Boone County Rural Water Project - Phase II	0-2 Years	Partially Funded	$9,910,000	Boone	19	5
			Total Cost:	**$63,778,158**			

Pennyrile Area Development District (PEADD)

- 2010 census population of 219,305 (97,910 households) with 95% serviceable.
- Projected 2020 population of 226,580 (change of 7,275).
- 5,116.85 miles of existing water lines.
- 189.00 miles of line extensions proposed in the next 10 years.
- 97.00 miles of line rehabilitation proposed in the next 10 years.
- 8.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $178,141,502.
- Estimated funding needs for projects from 6 to 10 years: $17,612,372.



Pennyrile Area Development District has a 2010 census population count of 219,305 (97,910 households) with a projected 2020 population count of 226,580 (89,133 households). Public water is currently available to approximately 95 percent of the district's households based on 2010 census counts. Over the next ten years approximately 1,319 serviceable households will be added through the construction of 189.00 miles of water line extensions and approximately 89,915 instances of improved service through the rehabilitation of 97.00 miles of existing water lines and other appurtenances. 8.00 miles of transmission lines are also proposed within this district.

County Summary for Pennyrile Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Caldwell	12,984	6,292	12,948	5,518	6,218	99%	$ 6,928,933
Christian	73,955	29,459	77,840	28,340	26,576	90%	$ 60,047,081
Crittenden	9,315	4,569	9,156	3,775	4,333	95%	$ 3,620,000
Hopkins	46,920	21,180	48,007	19,684	20,575	97%	$ 14,839,459
Livingston	9,519	4,824	9,438	4,074	4,644	96%	$ 6,081,000
Lyon	8,314	4,791	8,523	3,430	4,670	98%	$ 4,028,000
Muhlenberg	31,499	13,699	31,466	12,337	13,264	97%	$ 14,593,401
Todd	12,460	5,286	12,958	4,989	5,049	96%	$ 76,970,000
Trigg	14,339	7,810	16,244	6,986	7,632	98%	$ 8,646,000
Totals	**219,305**	**97,910**	**226,580**	**89,133**	**92,961**	**95%**	**$ 195,753,874**

Community Drinking Water Systems in Pennyrile Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0170528	Caldwell County Water District	Caldwell	5,112	2,450
KY0170146	Fredonia Water Department	Caldwell	717	327
KY0170360	Princeton Water & Wastewater Commission	Caldwell	7,012	3,456
KY0240521	Christian County Water District	Christian	15,638	6,593
KY0240201	Hopkinsville Water Environment Authority	Christian	36,217	16,435
KY0240329	Oak Grove Water Department	Christian	8,050	3,556
KY0280267	Marion Water Department	Crittenden	3,035	1,490
KY0540958	Dawson Springs Water & Sewer System	Hopkins	2,587	1,223
KY0540108	Earlington Water & Sewer Department	Hopkins	1,464	732
KY0540656	Hanson Water System	Hopkins	1,151	454
KY0540936	Madisonville Municipal Utilities	Hopkins	21,932	10,225
KY0540269	Mortons Gap Water Department	Hopkins	866	401
KY0540977	Nebo Water District	Hopkins	3,770	1,551
KY0540138	North Hopkins Water District	Hopkins	3,097	1,307
KY0540328	Nortonville Water Department	Hopkins	1,758	778
KY0540406	South Hopkins Water District	Hopkins	7,116	3,192
KY0540465	White Plains Water Department	Hopkins	1,553	667
KY0700532	Crittenden-Livingston County Water District	Livingston	9,043	4,516
KY0700162	Grand Rivers Water System	Livingston	1,999	1,153
KY0700243	Ledbetter Water District	Livingston	2,720	1,206
KY0700380	Salem Municipal Water System	Livingston	752	362
KY0700401	Smithland Water & Sewer System	Livingston	483	254
KY0720113	Eddyville Water Department	Lyon	2,896	1,122
KY0720227	Kuttawa Water Department	Lyon	763	407
KY0720933	Lyon County Water District	Lyon	4,013	2,897
KY0890071	Central City Municipal Water & Sewer System	Muhlenberg	4,775	2,210
KY0890106	Drakesboro Water & Sewer	Muhlenberg	667	311
KY0890170	Greenville Utilities Commission	Muhlenberg	4,726	2,129
KY0890302	Muhlenberg County Water District #1	Muhlenberg	14,041	6,175
KY0890304	Muhlenberg County Water District #3	Muhlenberg	4,970	2,227
KY1100121	Elkton Utilities	Todd	2,173	958
KY1100171	Guthrie Water Works	Todd	1,399	638
KY1100944	Todd County Water District	Todd	8,397	3,734
KY1100428	Trenton Water Works	Todd	599	275
KY1110019	Barkley Lake Water District	Trigg	10,261	5,939
KY1110054	Cadiz Water & Sewer Commission	Trigg	3,929	1,812
		Totals:	199,681	93,162

Pennyrile Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Increase Storage Capacity**

Discussion of Area Development District Needs:

The Pennyrile Area has a lot of varied projects but at this time the majority of our needs fall under the heading of replacing aging infrastructure. This category ranges from replacing aging lines and pumps to replacing tanks and plants. At this time, a large majority of the lines and infrastructure in the Pennyrile region is approaching its designed lifespan. Each system is unique and has different needs but the overall trend is to replace aging cast iron pipe, aging AC (asbestos concrete) lines, and aging pvc lines with newer pvc and ductile iron. One of the problems that we are running into is the shear scope of the replacement projects. In many situations we find that a system needs to replace large sections of their lines or infrastructure. The reason for these large scale replacement projects is that whole sections of the systems were installed during one large project. In the cases of some small municipalities these older projects can cover most of the city. Why do these projects need to addressed? It is because an aging system costs money. These aging systems are inefficient and expensive to maintain. As an area ages it takes more time and resources to address the problems that arise. When a problem area is fixed it frees up manpower and resources which can be used for system maintenance, expansion, and rate stabilization.

The secondary need in the Pennyrile region is an off shoot of the primary need. In many cases the systems do not need to just replace an aging tank but increase the amount of available storage and lines feeding the new structure. Tanks in general are a long term investment for a system. These structures provide the backbone of the system providing pressure and short term storage to the customers. As water systems grow and expand an undersized tank can become a large problem. These undersized tanks can create low pressure zones, bottle necks in the system, and increased pumping and production times at the water treatment plants.

Description and Determination of Planning Units:

The planning units in the Pennyrile region are based on the existing county boundaries. By keeping the planning units based on the county boundaries the systems are familiar with the political structure and the current relationship between them and their neighbors. Currently the Pennyrile region has nine planning units (Caldwell County, Christian County, Crittenden County, Hopkins County, Livingston County, Lyon County, Muhlenberg County, Todd County, and Trigg County). These planning units vary in number of systems from as little as two to as many as ten. In each of these instances the county based planning units seem to work well for the Pennyrile region. Many of the counties systems have grown interconnected and interdependent over the last several years. These relationships help foster cooperation and county/regional planning.

Pennyrile Area Development District
Project Ranking Methodology

Each year, the Water Management Council of the Pennyrile Area Development District (PADD) completes a ranking process of water and wastewater projects in the region. This is a "grassroots" process as it begins at the local (system) level and ends with all projects being ranked on a regional basis.

We begin the process with county-wide ranking meetings during which all water/wastewater systems meet with the PADD Water Management Coordinator and their respective County Judge Executive. We discuss the individual projects from each system and rank them according to the priorities within the county. These rankings are then used in the overall regional ranking process.

The PADD Water Management Council has elected to use a point system to determine the overall regional ranking of each project. Projects are ranked based on five categories; Project Type (Unserved Customers, Underserved Customers, and Aging Infrastructure), Regionalization, Level of Engineering/Project Status, Funding Status, and Local Importance. Projects may receive up 20 points in each category except for regionalization. The Water Management Council recognizes the increasing importance of regionalization and has weighted this category heavier. Overall, a project can achieve 110 points. In the instances where two project score the same numerical value the Water Council has elected to use a simple cost analysis to break the tie. The system that is serving the most people with the least amount of money receives the higher ranking (cost of the project/number of customers served).

Project Rankings For Pennyrile Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21047012	Christian County Water District Phase 7 System Extension Project	3-5 Years	Partially Funded	$5,000,000	Christian	1	1
WX21033009	Caldwell County Water District Waterline Extension	3-5 Years	Partially Funded	$2,092,010	Caldwell	2	1
WX21047013	HWEA - US 41A Water Main Improvement, 2 MG Southpark Tank, and Interconnect Project	0-2 Years	Partially Funded	$6,006,000	Christian	3	2
WX21139026	Crittenden-Livingston Water District - Distribution Upgrade	3-5 Years	Not Funded	$1,160,000	Livingston	4	1
WX21055009	Crittenden-Livingston WD - Moore Hill Tank (Crittenden Co.)	3-5 Years	Not Funded	$610,000	Crittenden	5	1
WX21143006	City of Kuttawa - Water Quality Project	3-5 Years	Partially Funded	$200,000	Lyon	6	3
WX21107034	South Hopkins Water District - Waterline Extension & Tank	3-5 Years	Not Funded	$1,224,004	Hopkins	7	2
WX21177018	Muhlenberg County Water District Nebo Pump Station, Watermain & Tank	3-5 Years	Not Funded	$1,175,985	Muhlenberg	8	1
WX21047014	Christian County Water District: System Extension Project	0-2 Years	Partially Funded	$800,000	Christian	9	3
WX21033006	Princeton - Water Distribution Improvements	3-5 Years	Partially Funded	$500,000	Caldwell	10	2
WX21107038	Madisonville North Pressure Zone Improvements	3-5 Years	Not Funded	$2,299,227	Hopkins	11	3
WX21107001	Nortonville - Water Treatment Plant and Well Upgrade.	0-2 Years	Not Funded	$2,000,000	Hopkins	12	1
WX21047018	Oak Grove - Cross Country and Industrial Park Waterline	0-2 Years	Partially Funded	$2,200,000	Christian	13	4
WX21219023	Logan-Todd Rwc/Guthrie - Clarksville, Tn Interconnection	6-10 Years	Not Funded	$13,000,000	Todd	14	2
WX21221009	Cadiz - IGA Water Tank Replacement	3-5 Years	Not Funded	$870,000	Trigg	15	1
WX21219014	Trenton - Water System Improvements	3-5 Years	Not Funded	$400,000	Todd	16	1
WX21047035	Christian County Water District - Waterline Replacement & Extension	3-5 Years	Not Funded	$3,818,000	Christian	17	5
WX21177029	MCFC - Paradise Park Water Transmission Project	0-2 Years	Not Funded	$898,019	Muhlenberg	18	10
WX21143011	City of Kuttawa - I-24 Water Storage Tank	3-5 Years	Not Funded	$700,000	Lyon	19	1
WX21177027	Greenville - Tanks and Chemical Storage Building Upgrade	3-5 Years	Not Funded	$290,000	Muhlenberg	20	2
WX21055013	Marion - Sludge Basin Rehabilitation	3-5 Years	Not Funded	$375,000	Crittenden	21	2
WX21139017	Grand Rivers - Lake City Waterline Replacement Phase II	3-5 Years	Not Funded	$1,025,000	Livingston	22	2
WX21143003	Lyon County Water District - Waterline Replacement	3-5 Years	Not Funded	$950,000	Lyon	23	2
WX21107022	White Plains - Hwy 813 - South Hopkins Water District Interconnect	3-5 Years	Not Funded	$965,000	Hopkins	24	10
WX21139012	Salem - Water Distribution Upgrades	3-5 Years	Partially Funded	$100,000	Livingston	25	5
WX21221008	Barkley Lake Water District - Water Line Extension	3-5 Years	Not Funded	$3,500,000	Trigg	26	2
WX21055011	CLWD - Line Extensions (Crittenden)	3-5 Years	Not Funded	$975,000	Crittenden	27	3
WX21033015	Princeton - System Upgrade	3-5 Years	Not Funded	$1,445,000	Caldwell	28	3
WX21219018	Todd County Water District - KY Hwy 181 Upgrade	3-5 Years	Not Funded	$2,150,000	Todd	29	3
WX21221013	Cadiz - Line Rehabilitation - Will Jackson Road Hwy 778	3-5 Years	Not Funded	$875,000	Trigg	30	3
WX21047036	Christian County Water District Princeton Road Tank & System Upgrade	3-5 Years	Not Funded	$1,750,000	Christian	31	6
WX21177025	Muhlenberg County Water District #1 - Tank Rehabiliation Project	3-5 Years	Partially Funded	$922,885	Muhlenberg	32	4

Project Rankings For Pennyrile Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21219016	Elkton - Waterline Replacement	3-5 Years	Not Funded	$120,000	Todd	33	4
WX21107040	Mortons Gap Water System Rehab	3-5 Years	Not Funded	$835,000	Hopkins	34	4
WX21143008	LCWD - System Rehabilitation and Improvements	3-5 Years	Not Funded	$1,038,000	Lyon	35	4
WX21047027	HWEA - Crofton Water Line Replacement	3-5 Years	Not Funded	$4,060,995	Christian	36	7
WX21047004	HWEA - Crofton Water Main Extension Project	3-5 Years	Not Funded	$4,746,749	Christian	37	8
WX21219008	Guthrie Water System Rehabilitation Project	3-5 Years	Not Funded	$1,600,000	Todd	38	5
WX21177030	Central City - Wells Community Water System Improvements	3-5 Years	Not Funded	$170,000	Muhlenberg	39	9
WX21107008	Madisonville Noel Av Line Replacement	3-5 Years	Not Funded	$587,600	Hopkins	40	5
WX21033016	Caldwell County WD - Water Tank Replacement and Upgrades	6-10 Years	Not Funded	$2,252,372	Caldwell	41	5
WX21107041	Nebo - Water System Improvements	3-5 Years	Not Funded	$106,282	Hopkins	42	6
WX21177023	Muhlenberg County Water District #1 - System Rehabilitation	3-5 Years	Not Funded	$584,397	Muhlenberg	43	7
WX21219024	Elkton - Water Storage Tank Improvements	3-5 Years	Not Funded	$200,000	Todd	44	6
WX21139022	Ledbetter - Holland Road Main Extension	3-5 Years	Not Funded	$300,000	Livingston	45	6
WX21107044	White Plains - Red Hill Road Ph. III Christian County Interconne	3-5 Years	Not Funded	$155,000	Hopkins	46	21
WX21107025	White Plains - Phase 2 Red Hill Tank, Pump Station and Waterline Extension	3-5 Years	Not Funded	$670,000	Hopkins	47	8
WX21047019	Oak Grove - Hugh Hunter Road Waterline Replacement	0-2 Years	Not Funded	$865,000	Christian	48	9
WX21107029	White Plains - Concord Tank & Pump Station	3-5 Years	Not Funded	$770,000	Hopkins	49	9
WX21139023	Ledbetter - Paris Rd Main Extension	3-5 Years	Not Funded	$150,000	Livingston	50	9
WX21139018	Grand Rivers - Newbern Road Water Line Extension	3-5 Years	Not Funded	$175,000	Livingston	51	10
WX21047021	Oak Grove - Waterline Replacement Project	0-2 Years	Not Funded	$395,000	Christian	52	10
WX21047016	Oak Grove - Northeast Tank Project	3-5 Years	Not Funded	$2,800,000	Christian	53	11
WX21107028	Earlington - Water System Improvements	3-5 Years	Not Funded	$25,000	Hopkins	54	12
WX21047020	Oak Grove - Cross I-24 Waterline	3-5 Years	Not Funded	$530,000	Christian	55	12
WX21139013	Grand Rivers - Waterline Replacement Project	3-5 Years	Not Funded	$850,000	Livingston	56	7
WX21047003	HWEA Hopkinsville Water Main Extension Project	3-5 Years	Not Funded	$8,163,337	Christian	57	13
WX21047037	Oak Grove - Gate 7 Line Extension	3-5 Years	Not Funded	$250,000	Christian	58	14
WX21107009	Madisonville Dozier Heights Waterline Replacement	3-5 Years	Not Funded	$354,413	Hopkins	59	7
WX21033019	Caldwell County Water District - U.S. Hwy 62 Area Water System Improvements	3-5 Years	Not Funded	$1,456,561	Caldwell	60	7
WX21047031	Christian County Water District - Waterline Extensions (10)	3-5 Years	Not Funded	$1,800,000	Christian	61	15
WX21107021	White Plains - US 62/Concord Ch. Rd. - MG Int. (P2)	3-5 Years	Not Funded	$210,000	Hopkins	62	13
WX21139025	CLWD - Line Extensions (Livingston)	3-5 Years	Not Funded	$565,000	Livingston	63	8
WX21047008	Oak Grove 41-A/Hwy 117 Line Extension	3-5 Years	Not Funded	$615,000	Christian	64	16
WX21033018	Princeton - Tank Rehabilitation	3-5 Years	Not Funded	$300,000	Caldwell	65	6
WX21047029	HWEA - Hopkinsville Industrial Foundation Commerce Park West Loop	3-5 Years	Not Funded	$210,000	Christian	66	17

Project Rankings For Pennyrile Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21107019	Hanson - Hopkins County Industrial Park Water Main	3-5 Years	Not Funded	$271,883	Hopkins	67	11
			Total Cost:	**$98,458,719**			

Purchase Area Development District (PUADD)

- 2010 census population of 196,393 (93,709 households) with 79% serviceable.
- Projected 2020 population of 201,697 (change of 5,304).
- 2,185.43 miles of existing water lines.
- 16.00 miles of line extensions proposed in the next 10 years.
- 469.00 miles of line rehabilitation proposed in the next 10 years.
- 12.00 miles of transmission lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $102,707,444.
- Estimated funding needs for projects from 6 to 10 years: $6,526,440.

Purchase Area Development District has a 2010 census population count of 196,393 (93,709 households) with a projected 2020 population count of 201,697 (86,121 households). Public water is currently available to approximately 79 percent of the district's households based on 2010 census counts. Over the next ten years approximately 602 serviceable households will be added through the construction of 16.00 miles of water line extensions and approximately 44,431 instances of improved service through the rehabilitation of 469.00 miles of existing water lines and other appurtenances. 12.00 miles of transmission lines are also proposed within this district.

County Summary for Purchase Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Ballard	8,249	3,885	8,217	3,484	1,936	50%	$ 2,785,050
Calloway	37,191	18,065	40,411	17,019	12,181	67%	$ 7,255,100
Carlisle	5,104	2,441	4,947	2,093	946	39%	$ 10,349,978
Fulton	6,813	3,372	6,223	2,728	2,944	87%	$ 2,146,523
Graves	37,121	16,777	37,630	15,459	11,483	68%	$ 24,227,877
Hickman	4,902	2,342	4,625	1,938	906	39%	$ 850,176
McCracken	65,565	31,079	66,621	29,278	29,462	95%	$ 29,716,000
Marshall	31,448	15,748	33,023	14,122	14,265	91%	$ 31,903,180
Totals	**196,393**	**93,709**	**201,697**	**86,121**	**74,123**	**79%**	**$ 109,233,884**

Community Drinking Water Systems in Purchase Area Development District County

Note: Serviceable counts include households outside the area development district.

PWSID	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0040020	Barlow Water System	Ballard	740	385
KY0040223	Kevil Water Department	Ballard	1,361	648
KY0040228	LaCenter Municipal Water Company	Ballard	1,070	501
KY0040259	Lovelaceville Water Company	Ballard	142	78
KY0040469	Wickliffe Municipal Water System	Ballard	996	463
KY0180509	Center Ridge #2	Calloway	116	119
KY0180502	Center Ridge #3	Calloway	87	59
KY0180549	Center Ridge Water District	Calloway	36	54
KY0180102	Dexter Almo Heights Water District	Calloway	2,121	919
KY0180308	Murray Water District #2	Calloway	714	327
KY0180309	Murray Water District #3	Calloway	643	282
KY0180306	Murray Water System	Calloway	21,109	10,014
KY0180185	South 641 Water District	Calloway	725	357
KY0180914	Stella Trailer Park	Calloway	46	23
KY0200009	Arlington Water Department	Carlisle	380	194
KY0200018	Bardwell City Utilities	Carlisle	776	422
KY0200095	Cunningham Water District	Carlisle	322	153
KY0200284	Milburn Water District	Carlisle	311	144
KY0380149	Fulton Municipal Water System	Fulton	3,256	1,751
KY0380193	Hickman Water Department	Fulton	2,859	1,294
KY0420084	Graves County Water District (Consumers)	Graves	4,891	2,138
KY0420027	Graves County Water District (Fancy Farm)	Graves	1,216	528
KY0420172	Graves County Water District (Hardeman)	Graves	873	405
KY0420194	Graves County Water District (Hickory)	Graves	3,302	1,503
KY0420405	Graves County Water District (South Graves)	Graves	2,331	1,059
KY0420274	Mayfield Electric & Water System	Graves	10,710	5,015
KY0420534	Sedalia Water District	Graves	281	129
KY0420423	Symsonia Water District	Graves	727	372
KY0420475	Wingo Water & Sewer Department	Graves	711	310
KY0530083	Columbus Water Works	Hickman	199	98
KY0530077	Utilities Inc.	Hickman	1,513	707
KY0790029	Benton Water & Sewer System	Marshall	6,554	2,959
KY0790056	Calvert City Municipal Water Department	Marshall	3,564	1,606
KY0790173	Hardin Water Department	Marshall	1,707	768
KY0790216	Jonathan Creek Water District	Marshall	4,526	2,726
KY0790319	North Marshall Water District	Marshall	10,951	5,708
KY0730533	Paducah Water Works	McCracken	59,174	28,251
KY0730454	West McCracken County Water District	McCracken	3,742	1,619
		Totals:	154,782	74,088

Purchase Area Development District
Regional Water Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The Purchase Area as a whole has a primary need to replace or repair existing infrastructure such as lines, plants, and tanks that are aging and past their useful life. The utilities in the Purchase Area strive to bring good quality service to its customers and if the systems are the aging problems within the systems provide a hindrance to the utilities to provide this level of service.

The Purchase Area like the rest of the state has the majority of its area is covered as far as access to public water. There are a few areas that can still be reached with public water which is the secondary need for this area. The unserved areas that are still in need of public water are the rural areas. For the utilities to extend new service is very cost prohibitive since the areas are not heavily populated. Also the groundwater in the Purchase Area is very good and a lot of the unserved customers are not having problems with their private wells and there has not been a huge need to extend service to this areas.

Description and Determination of Planning Units:

The Purchase Area Development District is divided into eight separate planning units, that are based on the eight counties in the Purchase Area. The planning units are: Ballard County planning unit, Calloway County planning unit, Carlisle County planning unit, Fulton County planning unit, Graves County planning unit, Hickman County planning unit, Marshall County planning unit, and McCracken County planning unit.

In the Ballard County planning unit there are five water systems (City of Barlow, City of Kevil, City of Lacenter, Lovelaceville Water Company and City of Wickliffe) that serve approximately 1,922 residents in Ballard County.

The Center Ridge Water District, Center Ridge Water District #2, Center Ridge Water District #3, Dexter-Almo Heights Water District, the City of Murray, Murray Water District #2, Murray Water District #3, South 641 Water District, and the Stella Trailer Park water system make up the seven water systems in the Calloway County planning unit and serve approximately 11,080 residents.

The Carlisle County planning unit is comprised of four water systems (City of Arlington, City of Bardwell, Cunningham Water District, and the Milburn Water District) that serve approximately 940 residents.

The Fulton County planning unit has two water systems (City of Fulton and City of Hickman) that serve approximately 3,034 residents.

The Graves County planning unit also has nine water systems (Graves County Water District (Consumers), Graves County Water District (Fancy Farm), Graves County Water District (Hardeman), Graves County Water District (South Graves), Hickory Water District, Mayfield Electric & Water System, Sedalia Water District, Symsonia Water District, and the City of Wingo) that serve approximately 10,430residents in Graves County.

The Water Service Corporation of Kentucky and the City of Columbus are the two water systems in the Hickman County planning unit and serves approximately 759 residents.

The Marshall County planning unit has five water systems. With those systems being the City of Benton, Calvert City, City of Hardin, Jonathan Creek Water District, and the North Marshall Water District. Together these systems serve approximately 12,648 residents.

Paducah Water Works along with the West McCracken County Water District make up the McCracken County planning unit. These two systems serve approximately 27,647 residents of McCracken County.

Purchase Area Development District
Project Ranking Methodology

The Purchase Area Water Management Council uses a drinking water ranking criteria to establish a regional priority list for water projects in the Purchase Area.

The drinking water ranking criteria consists of five separate categories.

Project Type:

1. Elimination of a Public Water System through a merger- project will receive 25 points if a public water system is being eliminated by merging with other system.
2. Elimination of a water treatment plant through an interconnection- projects will receive 23 points if system is eliminated their WTP and setting up an interconnection with another system to purchase water and will still be a separate system after the interconnection is complete.
3. Rehabilitation and/or replacing aging infrastructure- projects will receive 20 points if an utility is rehabbing any infrastructure within their system.
4. Construction of supplemental potable or raw water supply- projects will receive 17 points if an utility is constructing a new well to supplement their existing supply or an utility is constructing a new interconnect to supplement their existing interconnections.
5. Construction of a new WTP or expansion- projects will receive 15 points if an utility is constructing a new WTP, either to replace the old WTP or a secondary WTP, or if the utility is expanding the capacity of the existing WTP.
6. Construction of new water storage tank- projects will receive 10 points if an utility is constructing a water storage tank to supplement their existing tanks.
7. Extension of service to unserved households- project will receive 20 points if the proposed project will add an average of 9 or more new customers per mile, 19 points for an average of 7-8 new customers per mile, 18 points for an average of 5-6 new customers per mile, 15 points for an average of 3-4 new customers per mile, and 10 points for an average of 1-2 new customers per mile.

Compliance and Enforcement:

A project will receive 5 points if the utility is using this project to achieve full or partial compliance with a court or agreed order.

Funding Status

Projects that are 50%-99% funded and they receive 10 points, the second section is for projects that are 1%-49% funded and they receive 5 points. Any projects that are not funded receive zero points for this category.

Project Status

This category has three sections and a project can receive points in all sections if the utility has completed them. The first section is Engineering plans and specs submitted to DOW, a project will receive 15 points if this step has been completed. The second section is Preliminary engineering report complete, a project will receive 10 points if this step is completed. The third section is Estimated engineer's budget complete, a project will receive 5 points if this step is complete.

County Ranking

In this category, projects will receive points based on their county ranking. A number one ranked project in the county will receive 24 points, a number two ranked project in the county will receive 20 points, a number three ranked project in the county will receive 16 points, a number four ranked project in the county will receive 14 points, and a number five ranked project in the county will receive 12 points. Only the top 5 projects in each county will be ranked regionally. In the event of a tie-breaker between projects, the cost per household will be used to break the tie.

In the event of a tie-breaker between projects, the cost per household will be used to break the tie.

Project Rankings For Purchase Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21007022	Barlow - New Clearwell Construction Project	3-5 Years	Partially Funded	$390,000	Ballard	1	2
WX21083055	Symsonia Water District - New Storage Tank, Wells, and Treatment	0-2 Years	Partially Funded	$895,000	Graves	2	1
WX21157046	Marshall County Fiscal Court-Wv 2020 Projects	0-2 Years	Partially Funded	$6,000,000	Marshall	3	3
WX21035006	Dexter-Almo Water- Hopkins Rd Loop and Metering Installation	0-2 Years	Partially Funded	$455,000	Calloway	4	2
WX21157007	City of Benton-Line Replacement Along Main Street	3-5 Years	Not Funded	$465,000	Marshall	5	1
WX21075005	Hickman Water Department-WTP Rehab	0-2 Years	Partially Funded	$900,523	Fulton	6	1
WX21145001	Paducah Water Works-Interconnection Project	0-2 Years	Not Funded	$250,000	McCracken	7	3
WX21145064	West McCracken Water- Main Replacement Ogden Landing Road	3-5 Years	Not Funded	$980,000	McCracken	8	2
WX21039025	Milburn Water District - Water Tower	3-5 Years	Not Funded	$355,000	Carlisle	9	1
WX21035008	City of Murray- System Improvements	3-5 Years	Not Funded	$315,000	Calloway	10	1
WX21105009	Columbus Water Works - Upgrades to WTP and New Clearwell	3-5 Years	Not Funded	$400,000	Hickman	11	1
WX21075007	Fulton Municipal Water System-Line Replacement	0-2 Years	Partially Funded	$700,000	Fulton	12	4
WX21007006	City of Wicklife- New Well at WTP	3-5 Years	Not Funded	$150,000	Ballard	13	1
WX21083051	Mayfield Electric & Water - Fuller Tank Rehab	3-5 Years	Not Funded	$250,000	Graves	14	2
WX21075002	Fulton Municipal Water-Demolition of Old Clear Well & Degasifier	3-5 Years	Not Funded	$386,000	Fulton	15	2
WX21105010	Columbus Water Works - Water Tank Maintenance	3-5 Years	Not Funded	$40,000	Hickman	16	2
WX21039021	City of Bardwell-Well Relocation	3-5 Years	Not Funded	$300,000	Carlisle	17	2
WX21157037	City of Calvert City-Relocating Water Treatment Plant	3-5 Years	Not Funded	$15,000,000	Marshall	18	2
WX21157044	Jonathan Creek-Phase III Expansion (Near KY-402)	3-5 Years	Not Funded	$200,000	Marshall	19	4
WX21035002	Stella Trailer Park-Line Replacement and Metering	3-5 Years	Not Funded	$66,000	Calloway	20	5
WX21083013	City of Wingo- Replace Water Tank	3-5 Years	Not Funded	$300,000	Graves	21	3
WX21007001	Lovelaceville Water-Meter Replacement & WTP Upgrades	3-5 Years	Not Funded	$50,000	Ballard	22	3
WX21039031	City of Arlington- WTP and Wells Relocation	3-5 Years	Not Funded	$600,000	Carlisle	23	3
WX21035001	Center Ridge Water District #2 & #3 System Improvements.	3-5 Years	Not Funded	$660,000	Calloway	24	3
WX21145014	West McCracken County Water District- Tank Mixers	3-5 Years	Not Funded	$65,000	McCracken	25	4
WX21145079	Paducah Water Work-Massac Elevated Storage Tank	3-5 Years	Not Funded	$2,067,000	McCracken	26	1
WX21007019	LaCenter Municipal Water-Ac Line Replacement Phase I	3-5 Years	Not Funded	$200,000	Ballard	27	4
WX21035026	South 641 Water District-Water Line Replacement & Isolation Valves Installation	3-5 Years	Not Funded	$100,000	Calloway	28	4
WX21083075	Hickory Water District - AC Main Replacement On Treeland	3-5 Years	Not Funded	$80,000	Graves	29	4
WX21039005	Cunningham-Replace AC Mains	3-5 Years	Not Funded	$830,000	Carlisle	30	4
WX21083020	Sedalia Water-Hydrants, Sample Stations, Land Acquisitions	3-5 Years	Not Funded	$10,000	Graves	31	5
WX21157039	City of Calvert City-New Well Field	3-5 Years	Not Funded	$200,000	Marshall	32	5
WX21039030	City of Arlington - WTP Generator	3-5 Years	Not Funded	$51,000	Carlisle	33	5

Project Rankings For Purchase Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
WX21007024	Kevil - Apperson Road Water Main Extension	3-5 Years	Not Funded	$250,000	Ballard	34	5
WX21145016	Paducah Water-Lovelaceville Road Extension	3-5 Years	Not Funded	$105,000	McCracken	35	5
WX21075009	Fulton Municipal Water System-Myatt Road and Holiday Lane	0-2 Years	Partially Funded	$250,000	Fulton	36	5
WX21075015	City of Hickman- New Water Tank	3-5 Years	Not Funded	$150,000	Fulton	37	3
			Total Cost:	**$34,465,523**			

Wastewater

Kentucky

- 2010 census population of 4,339,367 (1,927,164 households) with 60% serviceable.
- Projected 2020 population of 4,672,754 (change of 333,387).
- 17,134 miles of existing sewer lines.
- 23 new sewage treatment plants proposed in the next 10 years.
- 2,274 miles of line extensions proposed in the next 10 years.
- 497 miles of line rehabilitation proposed in the next 10 years.
- 366 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $1,949,747,587.
- Estimated funding needs for projects from 6 to 10 years: $361,438,892.

Kentucky has a 2010 census population count of 4,339,367 (1,927,164 households) with a projected 2020 population count of 4,672,754 (1,909,211 households). Public sewer is currently available to approximately 60 percent of the state's households based on 2010 census counts. Over the next ten years approximately 75,955 serviceable households will be added through the construction of 2,274 miles of sewer line extensions and approximately 354,792 instances of improved service through the rehabilitation of 497 miles of existing sewer lines and other appurtenances. 23 new water treatment plants and 366 miles of interceptor lines are also being proposed within the state over the next ten years.

Area Development District Summary for Kentucky

Area Development District	2010 Population	2020 Population	Serviceable Population	Percent Serviceable	Planned Cost 0 to 10 Years
Bluegrass Area Development District	770,404	862,521	563,261	74%	$ 640,870,556
Barren River Area Development District	284,195	316,297	125,371	44%	$ 157,319,016
Big Sandy Area Development District	154,093	148,051	35,023	23%	$ 97,096,177
Buffalo Trace Area Development District	56,478	58,306	18,687	35%	$ 43,688,883
Cumberland Valley Area Development District	236,618	237,501	76,443	33%	$ 380,635,360
Five County Area Development District	137,884	139,098	70,924	52%	$ 76,369,503
Green River Area Development District	213,472	220,544	134,101	64%	$ 85,860,670
Gateway Area Development District	81,652	87,651	35,253	40%	$ 25,726,861
Kentuckiana Regional Planning and Development Agency	959,091	1,058,343	824,200	88%	$ 200,762,165
Kentucky River Area Development District	114,762	111,267	24,612	21%	$ 98,588,213
Lake Cumberland Area Development District	207,256	221,481	55,460	26%	$ 87,371,151
Lincoln Trail Area Development District	269,117	295,040	76,497	29%	$ 81,086,390
Northern Kentucky Area Development District	438,647	488,377	354,778	81%	$ 60,398,008
Pennyrile Area Development District	219,305	226,580	108,091	51%	$ 107,222,796
Purchase Area Development District	196,393	201,697	95,279	49%	$ 168,190,730
Totals	**4,339,367**	**4,672,754**	**2,597,980**	**60%**	**$ 2,311,186,479**

Percent of Households Serviceable by Public Wastewater Systems in 2010

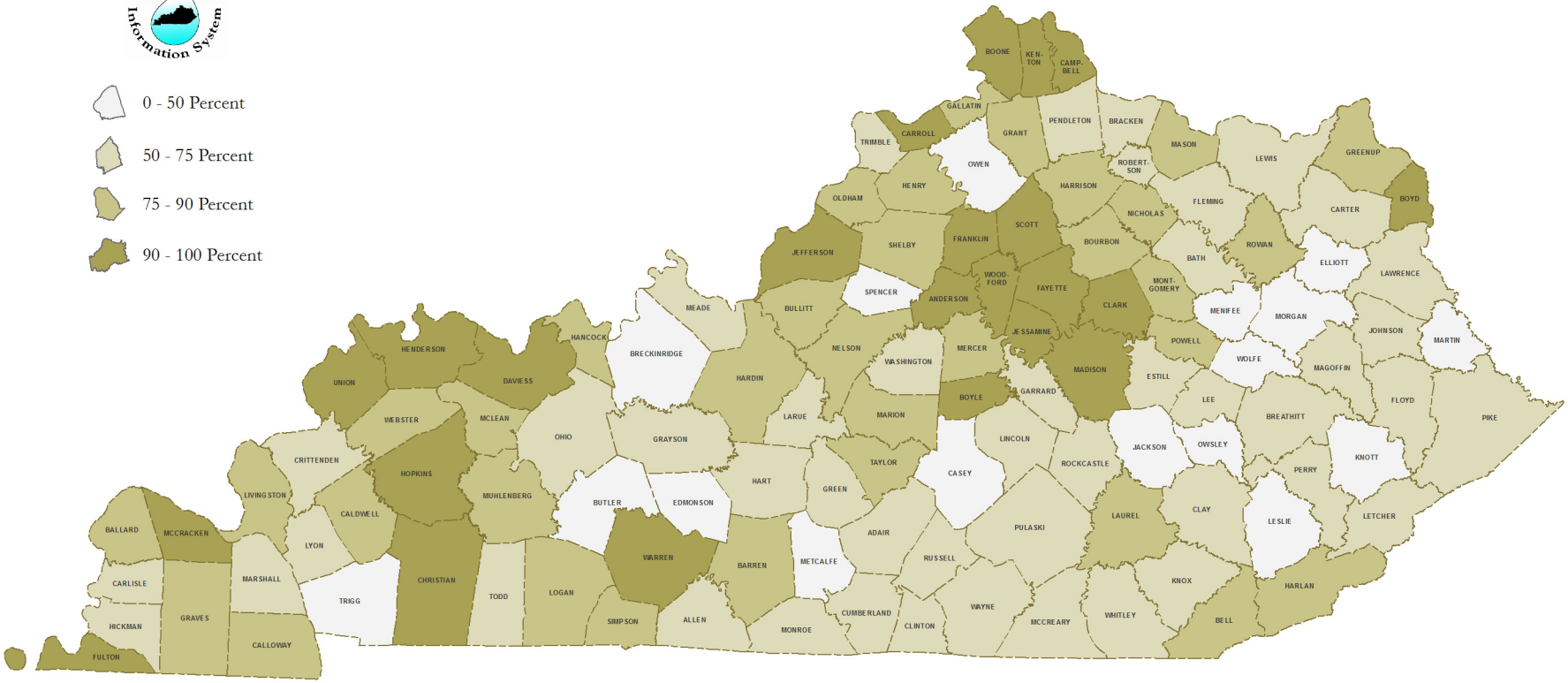
Prepared By:
Kentucky Infrastructure Authority

Kentucky Infrastructure Authority
1024 Capital Center Drive
Frankfort, KY 40601
(502) 573-0260
http://kia.ky.gov

January, 2013

Water Resource Information System

- 0 - 50 Percent
- 50 - 75 Percent
- 75 - 90 Percent
- 90 - 100 Percent



Percent Increase in Households Serviceable by Public Wastewater Systems from 2000 to 2010

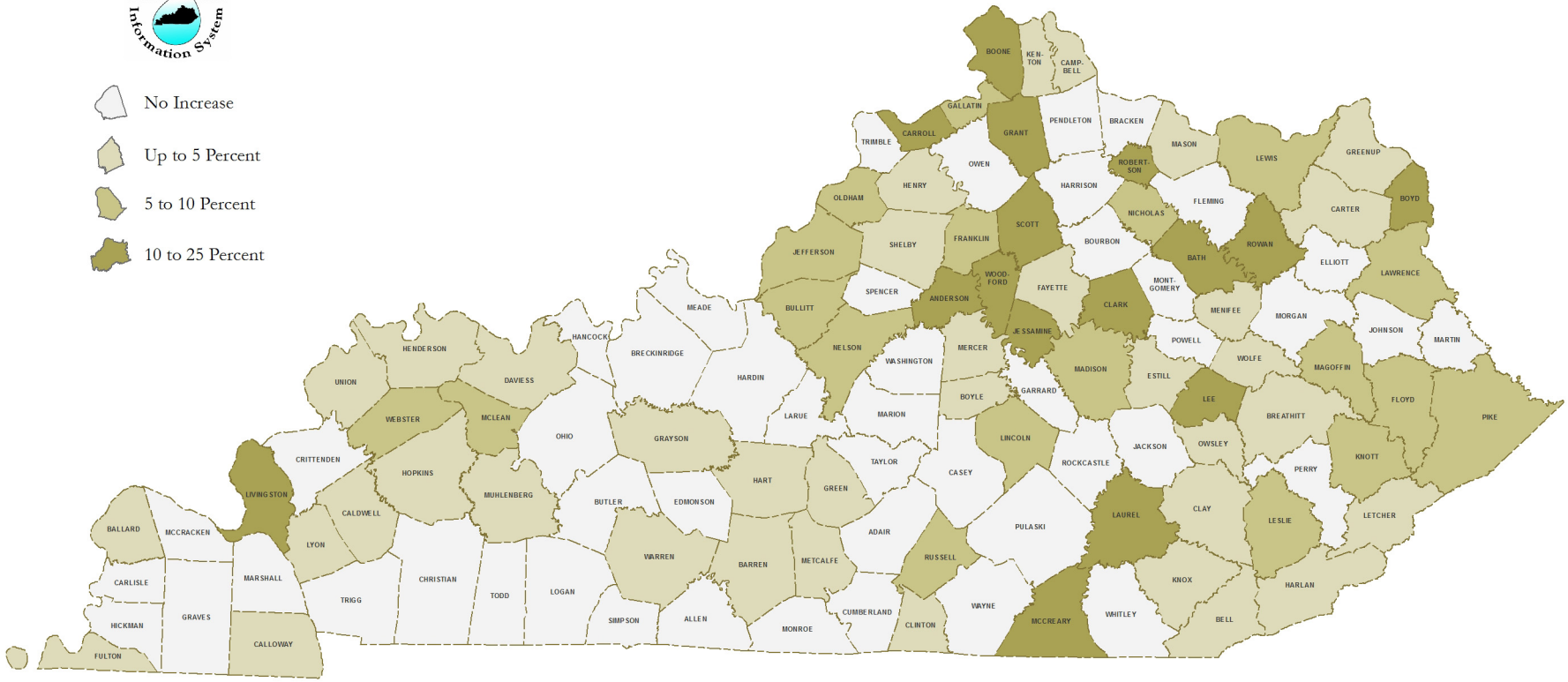
Prepared By:
Kentucky Infrastructure Authority

Kentucky Infrastructure Authority
1024 Capital Center Drive
Frankfort, KY 40601
(502) 573-0260
http://kia.ky.gov

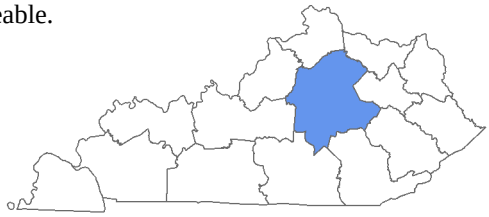
January, 2013

Water Resource Information System

- No Increase
- Up to 5 Percent
- 5 to 10 Percent
- 10 to 25 Percent



Bluegrass Area Development District (BGADD)



- 2010 census population of 770,404 (340,939 households) with 74% serviceable.
- Projected 2020 population of 862,521 (change of 92,117).
- 3,205.63 miles of existing sewer lines.
- 283.00 miles of line extensions proposed in the next 10 years.
- 69.00 miles of line rehabilitation proposed in the next 10 years.
- 139.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $500,399,306.
- Estimated funding needs for projects from 6 to 10 years: $140,471,250.

Bluegrass Area Development District has a 2010 census population count of 770,404 (340,939 households) with a projected 2020 population count of 862,521 (355,488 households). Public sewer is currently available to approximately 74 percent of the district's households based on 2010 census counts. Over the next ten years approximately 8,092 serviceable households will be added through the construction of 283.00 miles of sewer line extensions and approximately 46,445 instances of improved service through the rehabilitation of 69.00 miles of existing sewer lines and other appurtenances. 139.00 miles of interceptor lines are also proposed within this district.

County Summary for Bluegrass Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Anderson	21,421	9,127	23,555	9,582	5,749	63%	$ 5,626,000
Bourbon	19,985	8,927	20,530	8,478	5,314	60%	$ 16,554,000
Boyle	28,432	12,312	29,048	11,782	8,645	70%	$ 17,952,000
Clark	35,613	15,706	37,985	15,800	11,106	71%	$ 33,662,250
Estill	14,672	6,865	14,359	6,115	2,216	32%	$ 65,558,877
Fayette	295,803	135,160	334,733	141,152	131,248	97%	$ 199,438,986
Franklin	49,285	23,164	50,777	21,761	17,077	74%	$ 39,232,750
Garrard	16,912	7,463	19,122	7,917	1,854	25%	$ 2,659,420
Harrison	18,846	8,208	19,640	8,006	3,141	38%	$ 6,450,685
Jessamine	48,586	19,331	58,928	22,184	14,436	75%	$ 99,295,149
Lincoln	24,742	10,819	26,170	10,762	2,679	25%	$ 15,228,420
Madison	82,916	35,043	95,333	38,093	21,990	63%	$ 77,760,994
Mercer	21,331	9,941	21,810	9,299	4,338	44%	$ 29,135,975
Nicholas	7,135	3,261	7,411	3,012	1,158	36%	$ 525,000
Powell	12,613	5,598	12,319	4,860	1,978	35%	$ 6,990,650
Scott	47,173	19,303	63,984	25,538	12,627	65%	$ 3,295,000
Woodford	24,939	10,711	26,817	11,147	7,340	69%	$ 21,504,400
Totals	**770,404**	**340,939**	**862,521**	**355,488**	**252,896**	**74%**	**$ 640,870,556**

Public Sewer Systems in the Bluegrass Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0021067	Lawrenceburg Water and Sewer	Anderson	13,344	5,749
KY0020940	Millersburg Sewer Department	Bourbon	832	430
KY0031836	North Middletown Sewer Treatment Plant	Bourbon	668	281
KY0090654	Paris Sewer Department	Bourbon	10,102	4,610
KY0028355	Danville - Perryville WWTP	Boyle	872	409
KY0057193	Danville Municipal Sewer System	Boyle	19,226	8,339
KY0037991	Winchester Municipal Utilities	Clark	25,141	11,106
KY0095940	Estill County Water District	Estill	778	365
KY0025909	Irvine Municipal Utilities	Estill	3,729	1,851
KY0021491	LFUCG - Town Branch	Fayette	121,836	54,556
KY0022861	Frankfort Sewer Department	Franklin	34,495	17,087
KY0020974	Lancaster Wastewater Treatment Plant and Sewer Department	Garrard	3,991	1,854
05011006	Berry Sewer System	Harrison	288	118
KY0105856	Cynthiana Sewer Department	Harrison	6,532	3,020
KYP000072	Jessamine South Elkhorn Water District	Jessamine	1,615	723
KY0021504	LFUCG - West Hickman	Jessamine	164,967	76,746
KY0100404	Nicholasville Sewer Department	Jessamine	29,008	11,814
KY0028428	Wilmore Sewer Department	Jessamine	5,246	1,845
KY0065897	Crab Orchard Sewer Department	Lincoln	894	446
KY0024619	Stanford Sewer Department	Lincoln	4,851	2,130
KY0079898	Berea Sewer Department	Madison	13,846	5,735
KY0102971	Northern Madison County Sanitation District - Battlefield Estates	Madison	1,320	566
KY0056561	Northern Madison County Sanitation District - Executive Park Subdivision	Madison	201	91
KYP000071	Northern Madison County Sanitation District - Greens Crossing	Madison	790	362
KY0105376	Northern Madison County Sanitation District - Regional Plant	Madison	2,741	1,058
KY0107107	Richmond Utilities - Otter Creek	Madison	31,848	13,957
KY0103357	Richmond Utilities - Silver Creek	Madison	378	215
KY0027421	Harrodsburg Sewer Department	Mercer	8,767	4,128
KYP000080	Mercer County Sanitation District	Mercer	369	197
KY0020923	Carlisle Sewer Department	Nicholas	2,266	1,151
KY0025119	Clay City Wastewater Treatment Plant	Powell	1,142	550
KY0104078	Powells Valley Water District Sewer Division	Powell	82	64
KY0034428	Stanton Sewer Department	Powell	3,109	1,364
KY0020150	GMWSS STP #1	Scott	26,174	10,890
KY0082007	GMWSS STP #2	Scott	3,562	1,377
KY0050512	GMWSS STP #3 - Stamping Ground	Scott	799	357
KY0028410	Midway Sewer Department	Woodford	1,723	752
KY0020621	Versailles Municipal Wastewater	Woodford	15,682	6,578
		Totals:	563,214	252,871

Bluegrass Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Extend Services to Unserved**
Secondary Need: **Repair and Replace Existing Infrastructure Areas**

Discussion of Area Development District Needs:

The Bluegrass Area Development District (BGADD) estimates that approximately 946 persons do not have access to a community water supply out of a 2010 population of 770,404 people. This is consistent with a water-unserved population of about 0.13 percent and a water-served population of about 99.87 percent. The high percentage of access to public water within the BGADD has resulted in an increased need to access to public sewer service. The highest ranking projects in many of the planning units (Lincoln County Phase 1 Sewer Project, Georgetown/Scott County South Sewer Extension, Wisemantown Sewer Extensions, etc.) recognized the need to extend service to previously unserved populations. Extending service to unserved populations will also have positive side effects on public health, the environment and compliance with the Clean Water Act.

The secondary need is to repair an replace existing infrastructure. As new infrastructure is constructed, old and failing septic systems, straight pipes, etc. can be replaced with new and more efficient equipment. Upgrading old and failing infrastructure will also help meet the needs of growing communities.

Description and Determination of Planning Units:

The seventeen counties within our district are split up into seven (7) groups of two (2) to three (3) counties. These counties are adjacent to each other and have the potential to work on regional projects together. The Planning Units are designated as follows:

Planning Unit 1 Meeting - Estill and Powell

Planning Unit 2 Meeting – Bourbon, Harrison and Nicholas

Planning Unit 3 Meeting – Boyle, Garrard and Lincoln

Planning Unit 4 Meeting – Anderson and Mercer

Planning Unit 5 Meeting – Franklin, Scott and Woodford

Planning Unit 6 Meeting – Fayette and Jessamine

Planning Unit 7 Meeting – Clark and Madison

Bluegrass Area Development District
Project Ranking Methodology

The Bluegrass Area Water Management Council will examine the following criteria in the ranking of water and wastewater projects for 2012:

• the current and potential customer base that would benefit;
• adequacy of existing water/wastewater infrastructure;
• optimization of scarce resources, cost per customer, and ability to pay;
• the dependability of existing infrastructure to provide adequate service;
• avoidance of duplication of service;
• current user rates as compared to the median for the region;
• Median Household Income (MHI), and
• Project type such as construction, operation, and maintenance types of projects.

To that end, a scoring matrix will be developed with an available score between zero and 20 for the following seven categories:

1. Project Type: More credit is given for construction projects as opposed to projects that could be categorized as routine maintenance or operation efforts that could perhaps be financed from local revenues derived from user charges.
2. Readiness: The more committed to a project a project sponsor appears to be, the more credit the project would be received in this scoring category. If a project had final engineering plans and specifications complete and regulatory agency approval in hand, it would receive more credit. Projects with only rough conceptual ideas would receive fewer points.
3. Enforcement Actions: If a project is in response to a state or a federal regulatory agency's enforcement action, it would receive more points. If a project is developed in an attempt to prevent a regulatory agency's enforcement action, it could be highly scored also, but perhaps not so highly scored as a utility already under an enforcement action.
4. Cost Effectiveness: Factors to be considered under this category are income levels of project area residents, cost per customer, funding already in place (be it local or non-local), project viability, and existing rates being charged.
5. Regionalization: Projects in which inter-local cooperation could in some way be demonstrated would receive more consideration than projects that were simply local in nature. Regional projects in general, tend to promote efficiency and effectiveness in utility delivery service. The Council was looking to give a boost to projects which were, in small part or in large part, regional in nature. Projects exhibiting more regional thought were given an advantage as compared to projects exhibiting less regional thought.
6. Local Rankings: This measure plays heavily in the regional ranking process. A project that is first-ranked at its local ranking would receive 20 points in this scoring category; a second-ranked project, 18 points; a third-ranked project, 16 points, etc, and finally, a tenth-ranked project, 2 points. Projects locally ranked with an eleventh or twelfth ranking or higher would receive no points in the regional ranking and scoring process.
7. Best of Type: For both water projects and for wastewater projects, the first and second ranked locally ranked projects will be disaggregated from the others. As a maximum, this would have resulted in a pool of 34 (17 counties x 2 projects per county) water projects and a similar pool of 34 wastewater projects. The Executive Council will review the project descriptions and the likely financial scenarios and rank these projects top to bottom. The top 15 water projects will be determined. The highest scoring project will get the full 20 points; the next highest ranked project got 19 points, etc.; the 15th ranked water project will receive 6 points. For projects not in the top 15, no points are awarded in this Best of Type category. The same process is repeated for wastewater projects.

A given project, if top-ranked in every category, could score 140 points.

Executive Council recommendations to the full Bluegrass Water Management Council can be modified by the full Council.

Project Rankings For Bluegrass Area Development District

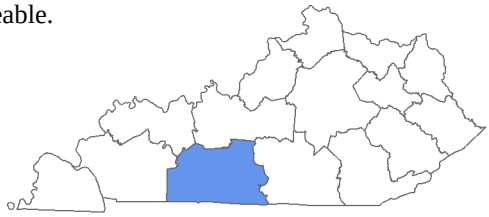
PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21137001	Phase I Sewer Project (Junction City to Moreland Area)	0-2 Years	Not Funded	$4,433,000	Lincoln	1	1
SX21209012	Georgetown/Scott County South Sewer Extension	0-2 Years	Not Funded	$2,945,000	Scott	2	1
SX21049028	Hampton Manor Outfall Sewer	0-2 Years	Not Funded	$1,404,000	Clark	3	2
SX21065002	Wisemantown Sewer Extensions	0-2 Years	Not Funded	$3,400,000	Estill	4	1
SX21167012	City of Burgin Sanitary Sewer Extension	0-2 Years	Partially Funded	$8,510,000	Mercer	5	1
SX21151014	Sugarville/Terrill Branch Interceptor	0-2 Years	Partially Funded	$1,271,140	Madison	6	3
SX21067018	Lower Cane Run Pump Station - LFUCG	0-2 Years	Not Funded	$6,000,000	Fayette	7	3
SX21073029	Phase I Collection System & 0.75 MGD WWTP	0-2 Years	Partially Funded	$9,500,000	Franklin	8	3
SX21113025	Wilmore WWTP Sludge Handling Improvements	0-2 Years	Not Funded	$3,460,000	Jessamine	9	1
SX21049026	East Interceptor Sanitary Sewer System Rehabilitation	6-10 Years	Not Funded	$6,430,000	Clark	10	5
SX21067041	LFUCG - Town Branch WWTP Flow Equalization Storage Tanks - Phase I	0-2 Years	Partially Funded	$31,801,000	Fayette	11	2
SX21017018	City of Paris - Pump Station Elimination and Rehabilitation	3-5 Years	Not Funded	$6,500,000	Bourbon	12	1
SX21067045	LFUCG - Anniston - Wickland SW Improvement - Phase 3	0-2 Years	Partially Funded	$1,879,957	Fayette	13	5
SX21167013	Harrodsburg - Corning-Industrial Pump Station and Force Main Sys	3-5 Years	Not Funded	$810,000	Mercer	14	2
SX21017013	City of Paris - Bedford Acres Sanitary Sewer Project Phase 2	0-2 Years	Not Funded	$1,850,000	Bourbon	15	4
SX21065007	Covey Road Sewer Extension - Irvine Municipal Utilities	0-2 Years	Not Funded	$201,000	Estill	16	4
SX21079015	Lancaster Sewer Line Extension to Industrial Park	0-2 Years	Not Funded	$403,550	Garrard	17	2
SX21065008	Kelly Pump Station 6-Inch Force Main Replacement - Imu	0-2 Years	Not Funded	$250,000	Estill	18	2
SX21017010	City of Paris-Southern Hills Sanitary Sewer Collection Project	3-5 Years	Not Funded	$1,820,000	Bourbon	19	5
SX21137015	Stanford - US 27 South Sewer Expansion Project	0-2 Years	Not Funded	$5,326,420	Lincoln	20	4
SX21197003	Powells Valley WD-Slade/Nada Sewer Line Extensions, Phase 2	3-5 Years	Not Funded	$569,650	Powell	21	5
SX21151039	NMCSD - Madison Village Collection System Rehab	3-5 Years	Not Funded	$1,275,000	Madison	22	1
SX21151045	Berea Gravity Sewer Rehabilitation	0-2 Years	Not Funded	$1,600,000	Madison	23	4
SX21005006	Lawrenceburg - Alton Vacuum Sewer System Replacement Phase 4	3-5 Years	Not Funded	$3,150,000	Anderson	24	3
SX21097015	Cynthiana - Northend Sewer Extension Project	0-2 Years	Not Funded	$1,018,285	Harrison	25	2
SX21167020	Mecer Co. Sanitation District Sanitary Sewer Service Project	0-2 Years	Partially Funded	$561,725	Mercer	26	5
SX21017004	City of Paris - Claysville Trunk Sewer Replacement Project, Phase II	0-2 Years	Not Funded	$1,825,000	Bourbon	27	3
SX21065006	Wall Street Sewer Extension - Irvine Municipal Utilities	0-2 Years	Not Funded	$309,000	Estill	28	3
SX21021015	East Danville/Horkey	3-5 Years	Not Funded	$350,000	Boyle	29	3
SX21239003	Midway Brand Street Sewer Rehab Project	0-2 Years	Not Funded	$517,000	Woodford	30	4
SX21073038	Frankfort Sewer Department - West Frankfort Pump Station	0-2 Years	Not Funded	$3,138,500	Franklin	31	2
SX21167014	Harrodsburg - Cleaning and Rehabilitation of Sanitary Sewer Collector Lines	3-5 Years	Not Funded	$576,000	Mercer	32	4

Project Rankings For Bluegrass Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21021004	Danville Major Sewer System Rehabilitation	3-5 Years	Not Funded	$1,740,000	Boyle	33	5
SX21239005	Emergency Backup Power to Serve The WWTP	0-2 Years	Not Funded	$1,000,000	Woodford	34	5
SX21017009	Bourbon County Fiscal Court - Centerville Sewer Project	0-2 Years	Not Funded	$2,500,000	Bourbon	35	6
SX21167011	Mercer County Sanitation District - Agricultural Heritage Center Sanitary Sewer Extension	0-2 Years	Not Funded	$1,475,000	Mercer	36	8
SX21073050	Frankfort Sewer Department FSD Kentucky Ave. Collector Rehabilitation	0-2 Years	Not Funded	$550,000	Franklin	37	6
SX21167003	Harrodsburg New Wastewater Treatment Plant	6-10 Years	Not Funded	$16,700,000	Mercer	38	7
SX21017016	Millersburg Wastewater Treatment Plant Improvements	0-2 Years	Not Funded	$609,000	Bourbon	39	7
SX21017015	City of Paris Rehab Sanitary Sewer Mains	0-2 Years	Not Funded	$250,000	Bourbon	40	8
			Total Cost:	**$137,909,227**			

Barren River Area Development District (BRADD)

- 2010 census population of 284,195 (126,280 households) with 44% serviceable.
- Projected 2020 population of 316,297 (change of 32,102).
- 985.19 miles of existing sewer lines.
- 171.00 miles of line extensions proposed in the next 10 years.
- 42.00 miles of line rehabilitation proposed in the next 10 years.
- 11.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $145,091,016.
- Estimated funding needs for projects from 6 to 10 years: $12,228,000.



Barren River Area Development District has a 2010 census population count of 284,195 (126,280 households) with a projected 2020 population count of 316,297 (128,239 households). Public sewer is currently available to approximately 44 percent of the district's households based on 2010 census counts. Over the next ten years approximately 3,681 serviceable households will be added through the construction of 171.00 miles of sewer line extensions and approximately 12,376 instances of improved service through the rehabilitation of 42.00 miles of existing sewer lines and other appurtenances. 11.00 miles of interceptor lines are also proposed within this district.

County Summary for Barren River Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Allen	19,956	9,307	22,366	9,171	2,041	22%	$ 11,029,465
Barren	42,173	19,188	46,361	19,245	8,912	46%	$ 29,348,000
Butler	12,690	5,877	12,544	5,178	1,147	20%	$ 5,611,940
Edmonson	12,161	6,467	12,628	5,283	697	11%	$ 13,158,771
Hart	18,199	8,559	18,690	7,604	2,407	28%	$ 1,850,000
Logan	26,835	12,339	27,382	11,301	4,857	39%	$ 36,582,766
Metcalfe	10,099	4,681	10,329	4,306	808	17%	$ 3,875,000
Monroe	10,963	5,204	10,405	4,423	1,508	29%	$ 4,013,000
Simpson	17,327	7,435	18,342	7,429	4,375	59%	$ 28,007,069
Warren	113,792	47,223	137,250	54,299	29,250	62%	$ 23,843,005
Totals	**284,195**	**126,280**	**316,297**	**128,239**	**56,002**	**44%**	**$ 157,319,016**

Public Sewer Systems in the Barren River Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0024783	Scottsville Municipal Water & Sewer Department	Allen	4,151	2,041
KY0021164	Glasgow Water Company	Barren	15,050	7,225
KY0021024	Morgantown Utilities	Butler	2,481	1,147
KY0023396	Brownsville Municipal Water & Sewer	Edmonson	929	480
KY0091561	Caveland Environmental Authority	Hart	7,343	3,524
KY0031755	Munfordville Municipal Water/Sewer Commission	Hart	1,576	774
KY0020885	Adairville Sewer Department	Logan	887	431
KY0021202	Auburn Sewer Department	Logan	1,396	658
KY0024881	Lewisburg Municipal Water & Sewer Department	Logan	854	461
KY0020877	Russellville Municipal Sewer Department	Logan	6,821	3,307
KY0028100	Edmonton Water Works	Metcalfe	1,590	808
KIA171001	Fountain Run Water District #1	Monroe	224	133
KY0095257	Gamaliel Municipal Water & Wastewater Department	Monroe	456	215
KY0020702	Tompkinsville Sewer Department	Monroe	2,325	1,162
KY0027456	Franklin Sewer Department	Simpson	9,948	4,375
KY0022403	Bowling Green Municipal Utilities	Warren	54,397	23,159
KYP000032	Warren County Water District	Warren	14,935	6,091
		Totals:	125,363	55,991

Barren River Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The majority of planning units within the BRADD region have identified the repair and replacement of existing infrastructure as the primary need within their respective county. Evidence of this need is reflected by the types of projects currently on record as well as the overall regional priority rankings submitted by each planning unit. Many planning units within the region have identified aging and/or failing existing infrastructure as a major obstacle to improving water service quality and have developed projects to combat this issue. Planning units also indicated that addressing the primary need of repair and replacement will also aid in the pursuit of extending services to unserved areas which, represents the secondary need most identified most frequently within the BRADD region.

Description and Determination of Planning Units:

Planning units within the BRADD region are determined by county and are comprised of all wastewater systems located within county boundaries. In addition, wastewater systems that operate on a regional level within multiple counties are included in each planning unit in which they operate. Wastewater planning units within the BRADD region:

Allen:
- Scottsville Municipal Water & Sewer Department

Barren:
- Glasgow Water Company

Butler:
- Morgantown Utilities

Edmonson:
- Brownsville Municipal Water & Sewer
- Edmonson County Water District

Hart:
- Caveland Environmental Authority
- Munfordville Municipal Water/Sewer Commission

Logan:
- Adairville Sewer Department
- Auburn Sewer Department
- Lewisburg Municipal Water & Sewer Department
- Russellville Municipal Sewer Department

Metcalfe:
- Edmonton Water Works

- Fountain Run Water District #1
- Gamaliel Municipal Water & Wastewater DepartmentTompkinsville Sewer Department.

Simpson:
- Franklin Sewer Department.

Warren:
- Bowling Green Municipal Utilities
- Warren County Water District.

Barren River Area Development District
Project Ranking Methodology

The Barren River Water Management Council utilizes the following criteria for the prioritization of water and wastewater projects on a regional scale. The criteria has been adapted from previous versions used by the BRADD combined with examples from other ADDs resulting in a 5 tiered ranking criteria to determine a numerical point value for each project. This process provides for increased collaboration on a local level to increase awareness on the impacts (locally and regionally) of proposed projects.

County Planning Unit Councils meet at least once locally to discuss and rank potential projects. These meetings are hosted by the County Judge/Executive with each local utility, mayor and other officials invited to attend. All proposed projects are reviewed by the council and given a numerical score based on a five tiered ranking criteria including: (1. Project Type 2.Complicance with Enforcement Action 3. Funding Status 4. Project Status and 5. County Ranking). Due to the diverse composition of each planning unit, a wide variety of interests are represented and therefore collaboration and compromise are key factors throughout the ranking process. This also provides for an increased level of understanding regarding the needs of planning unit as a whole and ensures that projects providing the most benefit (both locally and regionally) receive priority.

After all Planning Unit Council meetings have been completed, a summary tabulation of project scores is created and the Area Water Management Council meets to vote and finalize the regional ranking priorities. The top five scoring projects for each county are selected for ranking, resulting in a total of 50 ranked projects each for both water and wastewater. In addition, the top 10 overall projects are comprised of those projects identified as the #1 overall priority for each county (as indicated by each planning unit during regional ranking meetings). In this way each county is assured to have one project appear in the top 10 regional ranking, thus ensuring equal opportunity throughout the region. After the top 10 the projects are ranked based on overall score. The following criteria are used to score projects:

Drinking Water Ranking Criteria

I. Project Type

A. Elimination of a Public Water System (PWS) through a merger = 25 points
B. Elimination of water treatment plant through an interconnection = 23 points
C. Rehabilitation and or replacement of aging infrastructure = 20 points
D. Construction of a supplemental potable/raw water supply = 17 points
E. Construction of a new water treatment plant or expansion = 15 points
F. Construction of a new water storage tank = 10 point

G. Economic Development
100+ jobs created or maintained - 20 points
75-99 jobs created or maintained - 19 points
50-74 jobs created or maintained - 18 points
20-49 jobs created or maintained - 15 points
10-19 jobs created or maintained - 10 points
less than 10 jobs created or maintained - 5 points

H. Extension of Service to Unserved Households
9+ households per mile - 20 points
7-8 households per mile - 19 points
5-6 households per mile - 18 points

1-2 households per mile - 10 points

I. Underserved Customers

80-100+ households per mile - 20 points
60-80 households per mile - 19 points
40-60 households per mile - 18 points
20-40 households per mile - 15 points
0-20 households per mile - 10 points

II. Compliance with Enforcement Action (Receive points in either A or B)

A. Does the project address correction of a documented health threat? = 10 Points
B. Is the project necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree? = 5 Points

III. Funding Status (Receive points in either A, B, or C)

A. Funds committed for 50-99% of total project cost = 10 points
B. Funds committed for 1-49% of total project cost = 5 points
C. No funds committed for project = 0 points

IV. Project Status (Can receive points in multiple categories)

A. All necessary approvals obtained to start construction (including rights-of-way) = 20 points
B. Engineering plans & specs submitted to DOW = 15 points
C. Preliminary engineering report complete = 10 points
D. Estimated engineer's budget complete = 5 points

V. County Ranking (Receive points in either A, B, C, or D)

A. Number one ranked project = 24 points
B. Number two ranked project =18 points
C. Number three ranked project = 14 points
D. Number four ranked project = 10 points
E. Number five ranked project = 8 Points

Project Rankings For Barren River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21171007	City of Tompkinsville - Sewer System Rehab	3-5 Years	Not Funded	$1,000,000	Monroe	1	1
SX21031009	Morgantown - Sewer Main Infrastructure Replacement/Repair to Sewer Main	3-5 Years	Not Funded	$500,000	Butler	2	1
SX21169015	Edmonton Water Works - Sewer Rehab Project	3-5 Years	Not Funded	$2,500,000	Metcalfe	3	1
SX21003027	Sewer Plant Improvements	0-2 Years	Partially Funded	$2,093,465	Allen	4	1
SX21213037	31W South Annexation Sewer Extension	3-5 Years	Not Funded	$748,375	Simpson	5	1
SX21009018	Glasgow Southside Interceptor and Old WWTP Retention	0-2 Years	Not Funded	$5,500,000	Barren	6	1
SX21141014	City of Auburn - Upgrade of Existing Wastewater Treatment Plant	3-5 Years	Not Funded	$2,000,000	Logan	7	1
SX21061009	Edmonson County Water District - Collection System Phase III	3-5 Years	Not Funded	$7,843,771	Edmonson	8	1
SX21227074	BGMU - Industrial Dr Interceptor	3-5 Years	Not Funded	$8,000,000	Warren	9	1
SX21099006	Caveland Environmental - Sewer Service to Rolling Hills Community	3-5 Years	Not Funded	$400,000	Hart	10	1
SX21009044	Caveland Environmental - Hiseville School Sewer Project	3-5 Years	Not Funded	$1,000,000	Barren	11	2
SX21171006	City of Gamaliel - Sewer Rehabilitation Project	0-2 Years	Not Funded	$1,010,000	Monroe	12	2
SX21213028	City of Franklin - Sewer Upgrades to Ky Downs	3-5 Years	Not Funded	$7,140,000	Simpson	13	2
SX21227047	WCWD- Alvaton Area Sewer Extension	0-2 Years	Not Funded	$1,087,005	Warren	14	2
SX21061007	Edmonson County Water District - KY 259 Wastewater Collection System	3-5 Years	Not Funded	$3,315,000	Edmonson	15	2
SX21003036	City of Scottsville - Inflow and Infiltration Project, Phase I	0-2 Years	Not Funded	$400,000	Allen	16	2
SX21141001	Adairville Project 1 - City Limits I&I Correction	3-5 Years	Not Funded	$822,800	Logan	17	2
SX21099021	City of Munfordville - SSES and Stormwater Inflow Removal Project	3-5 Years	Not Funded	$1,450,000	Hart	18	2
SX21031010	Morgantown - Sanitary Sewer Infiltration Project-Phase I	3-5 Years	Not Funded	$300,000	Butler	19	2
SX21169012	Edmonton - Old Glasgow Street Area Extension	3-5 Years	Not Funded	$300,000	Metcalfe	20	2
SX21009017	Glasgow Old WWTP Retention and Southside Interceptor	0-2 Years	Not Funded	$5,500,000	Barren	21	3
SX21171014	Fountain Run Water District #1 - Sewer System Improvements	3-5 Years	Not Funded	$360,000	Monroe	22	3
SX21141036	Russellville - Franklin Road Sewer Project	3-5 Years	Not Funded	$1,020,000	Logan	23	3
SX21213024	City of Franklin - Sewer Line Replacement 31W Downtown	3-5 Years	Not Funded	$2,010,000	Simpson	24	3
SX21003011	City of Scottsville - South Court Street Sewer Rehab	3-5 Years	Not Funded	$750,000	Allen	25	3
SX21227079	BGMU - Collet and Fairview Sanitary Sewer Interceptor Rehabilitation	3-5 Years	Not Funded	$1,850,000	Warren	26	3
SX21169007	Edmonton - Cumberland Parkway Area Extension	3-5 Years	Not Funded	$400,000	Metcalfe	27	3
SX21031011	City of Morgantown - Sanitary Sewer Extension - Hwy 231	3-5 Years	Not Funded	$37,840	Butler	28	3
SX21009045	Caveland Environmental - Cave City Replacement	0-2 Years	Not Funded	$900,000	Barren	29	4
SX21003022	City of Scottsville - Pump Station Replacement Project	3-5 Years	Not Funded	$1,250,000	Allen	30	4
SX21169008	Edmonton - River Road Project Extension	3-5 Years	Not Funded	$300,000	Metcalfe	31	4
SX21141024	City of Auburn - Wastewater Project #2 - Replace Lift Stations	3-5 Years	Not Funded	$750,000	Logan	32	4

Project Rankings For Barren River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21171018	Fountain Run Water District #1 - SCADA control system for the sewer system	3-5 Years	Not Funded	$193,000	Monroe	33	4
SX21213027	City of Franklin - Manhole Rehabilitation Project	3-5 Years	Not Funded	$258,750	Simpson	34	4
SX21227044	WCWD - Rivendale Upgrades	3-5 Years	Not Funded	$231,000	Warren	35	4
SX21031005	Morgantown - North Taylor Street Sewer Extension	3-5 Years	Not Funded	$72,000	Butler	36	4
SX21009049	CEA - Cave City WWTP Improvements	3-5 Years	Not Funded	$505,000	Barren	37	5
SX21213019	City of Franklin - Highlands Subdivision Sewer Line Replacement	3-5 Years	Not Funded	$630,000	Simpson	38	5
SX21227070	BGMU - Electrical Quick Connections to Pump Stations	0-2 Years	Not Funded	$400,000	Warren	39	5
SX21141034	Russellville Greens Sewer Project	0-2 Years	Not Funded	$595,000	Logan	40	5
SX21003018	City of Scottsville - Pump Station Telemetry Project	6-10 Years	Not Funded	$650,000	Allen	41	5
SX21031006	Morgantown - Sawmill Road Sewer Extension	3-5 Years	Not Funded	$80,000	Butler	42	5
SX21169013	Edmonton - Sartin Drive Area Extension	3-5 Years	Not Funded	$300,000	Metcalfe	43	5
SX21171003	City of Tompkinsville - Collection System Extensions to Unserved Areas	3-5 Years	Not Funded	$1,000,000	Monroe	44	5
			Total Cost:	**$67,453,006**			

Big Sandy Area Development District (BSADD)

- 2010 census population of 154,093 (70,217 households) with 23% serviceable.
- Projected 2020 population of 148,051 (change of -6,042).
- 351.52 miles of existing sewer lines.
- 156.00 miles of line extensions proposed in the next 10 years.
- 12.00 miles of line rehabilitation proposed in the next 10 years.
- There are no interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $76,854,633.
- Estimated funding needs for projects from 6 to 10 years: $20,241,544.

Big Sandy Area Development District has a 2010 census population count of 154,093 (70,217 households) with a projected 2020 population count of 148,051 (61,704 households). Public sewer is currently available to approximately 23 percent of the district's households based on 2010 census counts. Over the next ten years approximately 4,966 serviceable households will be added through the construction of 156.00 miles of sewer line extensions and approximately 641 instances of improved service through the rehabilitation of 12.00 miles of existing sewer lines and other appurtenances.

County Summary for Big Sandy Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Floyd	39,451	18,175	37,153	15,594	5,030	28%	$ 32,697,892
Johnson	23,356	10,624	23,265	9,647	2,956	28%	$ 10,568,950
Magoffin	13,333	5,950	13,587	5,696	1,307	22%	$ 13,295,698
Martin	12,929	5,164	12,055	4,410	566	11%	$ 5,533,895
Pike	65,024	30,304	61,991	26,357	6,585	22%	$ 34,999,742
Totals	**154,093**	**70,217**	**148,051**	**61,704**	**16,444**	**23%**	**$ 97,096,177**

Public Sewer Systems in the Big Sandy Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0026921	Martin Wastewater Treatment Plant	Floyd	789	442
KY0027413	Prestonsburg City's Utilities	Floyd	7,909	3,676
KY0105228	Southern Water & Sewer District - Wayland STP	Floyd	228	100
KY0107051	Southern Water and Sewer District - Eastern STP	Floyd	37	24
KY0028789	Wheelwright Utility Commission	Floyd	923	374
KY0103578	Paintsville Utilities Commission - Honey Branch	Johnson	2,119	950
KY0020630	Paintsville Utilities Commission - Paintsville STP	Johnson	5,008	2,420
KY0104540	Salyersville Water Works	Magoffin	2,885	1,307
KY0079316	Martin County Sanitation District	Martin	1,193	566
KY0020958	Elkhorn City Water Department	Pike	1,014	493
KY0042811	Mountain Water District - Douglas	Pike	1,722	850
KY0025291	Pikeville Wastewater Treatment Plant	Pike	11,179	5,234
		Totals:	35,006	16,436

Big Sandy Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Extend Services to Unserved Areas**
Secondary Need: **Economic Stimulation**

Discussion of Area Development District Needs:

In the Big Sandy Area wastewater infrastructure is limited outside of corporate boundaries. Current infrastructure does not effectively protect public health, environmental quality or add value to current living conditions and does not accommodate future economic growth. Big Sandy Area infrastructure needs include new developments, expansion of existing community wastewater systems, construction of individual wastewater treatment systems, or the construction of a new community wastewater collection and treatment facilities. Extending current services to residential areas would be beneficial to adequately meet the sewage needs of the current population and eliminate straight pipes and failing septic systems.

Big Sandy's primary clean water need is to extend services to unserved areas. The major projects underway include the Harold Sewer Project located along the US 23 corridor in Floyd County which will result in having public wastewater system availability in this high traffic/high growth area. Project funding for a major wastewater project serving Warfield in Martin County has been secured and is expected to be underway in 2012. Each of these projects will impact hundreds of customers that have never had access to public wastewater systems resulting in a cleaner environment eliminating small package treatment plants and furthering potential for economic development. The secondary need in the Big Sandy Area is for economic simulation.

The systems in the Big Sandy Area lack the capacity to pay for capital improvements and cost associated with operation and maintenance of wastewater system.

Big Sandy has five wastewater planning areas, Floyd, Johnson, Magoffin, Martin, and Pike Counties. The planning group is made up of Judge Executives, Mayors, and Utilities within the planning area. The water suppliers in the planning groups are as follows:

- Floyd County Utilities – Prestonsburg City's, Martin Water Works, Wheelwright Utilities, Southern Water and Sewer District
- Johnson County - Paintsville Utilities
- Magoffin County- Magoffin County Water District, Salyersville Water Works
- Martin County- Martin County Water District
- Pike County-Mountain Water District, Pikeville Water Department, and Elkhorn City Water Department.

The planning areas follow the county boundary of the respective planning unit.

Big Sandy Area Development District
Project Ranking Methodology

The Big Sandy Area staff works in conjunction with the Kentucky Infrastructure Authority (KIA) in services of planning, grants administration, and identifying potential funding sources relating to water and wastewater infrastructure. Projects seeking various federal and State funding, are identified through the Water Management Council.

Yearly, the WMC reviews area projects and originates a priority list based on need for the Big Sandy Area. The Big Sandy Area currently has water needs for more efficient service to the existing customer base and distribution to the un-served. The population in the Big Sandy Area is mainly un-served by sanitary wastewater system. The lack of sewer in our area proposes a health hazard to several communities. There is a great need for wastewater projects in the Big Sandy Area. The drinking water and sanitary sewer needs of our area bring about these projects and lead to the process of ranking. The methodology BSADD Water Management Council uses to rank infrastructure projects is a combination of planning area ranking and priority score.

Big Sandy Area WMC Coordinator meets with the Area Utilities individually and discusses projects and identifies a project list for that utility. Once every utility in the region has been visit and each system has a project priority list, the WMC Coordinator then meets with all utilities in a planning area. Big Sandy has five Water and Wastewater planning areas, Floyd, Johnson, Magoffin, Martin, and Pike Counties. The Water Management Coordinator provides a list of projects provided by each utility to the planning group. The planning group is made up of Judge Executives, Mayors, and Utilities within the planning area. The group places a number of projects in rank order based on their perceived or measured importance to the planning area.

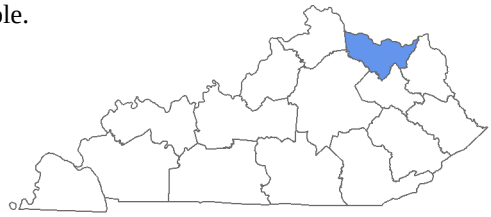
Regionally projects are scored. There are a total of 80 points possible for each project. The scoring criteria includes, project type, delivery area, project status, and funding status. Once the projects are scored we look back at the planning area ranking. The number 1 project for each planning area is ranked subsequently in order of the score they received on the sheets, and then move on to the number 2 project for each county and so on until each project submitted is ranked. In the event of a tie, the cost per connection is considered in the ranking.

Projects are placed in a fiscal year ranking order and presented to area council. The WMC approves the ranking. The rankings are submitted to KIA and provided to local and state officials for review.

Project Rankings For Big Sandy Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21153522	Magoffin County Industrial Park Sewer Extension	3-5 Years	Not Funded	$3,134,998	Magoffin	1	1
SX21115008	Paintsville WWTP I & I Removal Project Phase I	0-2 Years	Not Funded	$5,000,000	Johnson	2	1
SX21195699	Douglas WWTP Expansion	0-2 Years	Partially Funded	$2,800,000	Pike	3	1
SX21071005	Phase III - Harold Sewer Project	3-5 Years	Partially Funded	$3,100,000	Floyd	4	1
SX21159002	Inez Wastewater Sewerline Extension KY 3 Rockcastle Branch	11-20 Years	Not Funded	$2,100,000	Martin	5	1
SX21153004	Magoffin County Garage Lift Station and Line Replacement Project	0-2 Years	Unknown	$0	Magoffin	6	2
SX21071721	SWSD - Wayland Sewer Line Extension Project	6-10 Years	Not Funded	$2,000,000	Floyd	7	2
SX21195024	City of Pikeville KY Waste water Treatment Plant Upgrade	0-2 Years	Partially Funded	$18,925,070	Pike	8	2
SX21115005	Paintsville Utility Commission Sewer Line Extension Thelma	0-2 Years	Not Funded	$2,500,000	Johnson	9	2
SX21159005	Coldwater Sewer Line Extension Phase 1	11-20 Years	Not Funded	$2,535,000	Martin	10	2
SX21195692	MWD - Belfry-Pond Sewer Project	6-10 Years	Not Funded	$4,000,000	Pike	11	3
SX21071215	PCUC - Section 531 Project	3-5 Years	Partially Funded	$785,417	Floyd	12	3
SX21195011	Thompson Road Lift Station	0-2 Years	Not Funded	$275,000	Pike	13	4
SX21195014	Elkhorn City - Sewerlines Replacement At 4th, 5th, and 6th Stree	0-2 Years	Not Funded	$150,000	Pike	14	5
SX21195018	Elkhorn City Wastewater Elkhorn City Wastewater Improvements	0-2 Years	Not Funded	$22,800	Pike	15	6
SX21071001	Extend Service to Golf Hollow and Branham Hollow (Stoker Branch)	3-5 Years	Not Funded	$150,000	Floyd	16	5
			Total Cost:	**$47,478,285**			

Buffalo Trace Area Development District (BTADD)



- 2010 census population of 56,478 (26,144 households) with 35% serviceable.
- Projected 2020 population of 58,306 (change of 1,828).
- 211.75 miles of existing sewer lines.
- 64.00 miles of line extensions proposed in the next 10 years.
- 1.00 miles of line rehabilitation proposed in the next 10 years.
- 12.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $25,072,383.
- Estimated funding needs for projects from 6 to 10 years: $18,616,500.

Buffalo Trace Area Development District has a 2010 census population count of 56,478 (26,144 households) with a projected 2020 population count of 58,306 (24,059 households). Public sewer is currently available to approximately 35 percent of the district's households based on 2010 census counts. Over the next ten years approximately 2,666 serviceable households will be added through the construction of 64.00 miles of sewer line extensions and approximately 5,329 instances of improved service through the rehabilitation of 1.00 miles of existing sewer lines and other appurtenances. 12.00 miles of interceptor lines are also proposed within this district.

County Summary for Buffalo Trace Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Bracken	8,488	3,840	8,744	3,538	954	25%	$ 12,540,000
Fleming	14,348	6,623	14,880	6,231	1,610	24%	$ 12,918,883
Lewis	13,870	6,481	13,899	5,717	1,654	26%	$ 11,180,500
Mason	17,490	8,105	18,419	7,608	4,685	58%	$ 6,390,500
Robertson	2,282	1,095	2,364	965	263	24%	$ 659,000
Totals	**56,478**	**26,144**	**58,306**	**24,059**	**9,166**	**35%**	**$ 43,688,883**

Public Sewer Systems in the Buffalo Trace Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0021261	Augusta Sewer	Bracken	1,165	570
KY0025232	Brooksville Sewer	Bracken	686	311
KY0021229	Flemingsburg Sewer	Fleming	3,022	1,552
KY0105422	Garrison Sewer	Lewis	759	352
KY0102601	Lewis County Sanitation District #1	Lewis	1,112	515
KY0021512	Vanceburg Sewer	Lewis	1,590	786
KY0020257	Maysville Sewer	Mason	8,802	4,381
KYP000081	Western Mason Sanitation District	Mason	848	377
KY0104299	Mount Olivet Sewer	Robertson	560	258
		Totals:	18,544	9,102

Buffalo Trace Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Sanitary Sewer Overflow Correction**

Discussion of Area Development District Needs:

Buffalo Trace Area Development District (BTADD) is comprised of Bracken, Fleming, Lewis, Mason and Robertson Counties. Nine (9) wastewater systems provide sanitary service to the residents of the area. During a Regional Water Management Council meeting, the systems were given the opportunity to meet with the other systems in their respective county to discuss the needs for their system and determine the needs that were most prevalent in the county. The needs identified were used in the determination of the primary and secondary of the Buffalo Trace Area Development District.

The District's primary Clean Water need is to Repair and Replace Existing Infrastructure. This was identified as the primary or secondary need in four of the five planning units. Aging and undersized lines, along with treatment plants being insufficient to handle KY Division of Water limits, were primary reasons cited for determining Repair and Replace Existing Infrastructure as the primary need.

There was a tie to identify the secondary need for the region with Meet Regulatory Requirements and Extend Services to Unserved Areas. Meet Regulatory Requirements is directly related to the primary need. Two planning units have systems that are currently unable to meet regulatory requirements regarding ammonia and phosphorous limits that are required by KY Division of Water. Extend Services to Unserved Areas is also a critical need of the area. Wastewater systems provide service to less than 40% of the households in the Buffalo Trace region.

Additional needs identified as Clean Water needs for the region include Regionalization and Sanitary Sewer Overflow Correction.

Description and Determination of Planning Units:

The Buffalo Trace Area Development covers five planning units, each encompassing a political county boundary. The five planning units are: Bracken County, Fleming County, Lewis County, Mason County and Robertson County.

There are three (3) wastewater utilities in the Bracken County Planning Unit: Augusta Sewer, Brooksville Sewer and a portion of Western Mason Sanitation District.

One (1) wastewater utility, Flemingsburg Utility, primarily serves residences in Fleming County Planning Unit. In addition, there are a minimal number of residences served by Morehead Utility Plant Board.

Lewis County Planning Unit is served by three (3) wastewater systems; Garrison Sewer, Lewis County Sanitation District #1 and Vanceburg Electric Plant Board.

Mason County Planning Unit is served by two (2) wastewater systems. They include: Maysville Utility System and Western Mason Sanitation District.

Mt. Olivet Utilities provides service to residences in the Robertson County Planning Unit.

Buffalo Trace Area Development District
Project Ranking Methodology

Buffalo Trace completes county meetings. Every person who is on the mailing list for the Water Management Council (systems, Judge Executives, Mayors, engineers, Health Departments, DOW, etc.) is notified of the meetings. Each project is discussed and then the individuals present at the meeting rank the projects by what they determine to be most important and beneficial for the county. The rankings are reached by consensus.

After the county meetings, the Water Management Council ranks the projects on a regional basis. Each project that received a #1 ranking at the county meeting is presented. The Council then ranks those projects as to what is determined to be the most important and beneficial for the region. After those five projects are ranked and consensus reached, the projects are ranked on an alternating basis. The county that received the number 1 rank then receives the number 10 rank. The county that received the 2 rank receives the 9 rank. The county that received the 3 rank receives the 8 rank. The county that received the 4 rank receives the 7 rank. The county that received the 5 rank receives the 6 rank.

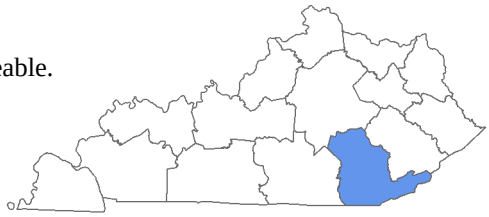
The rankings continue in an alternating fashion.
Basically;
County A receives regional rankings of 1, 10, 11, 20, etc.
County B receives regional rankings of 2, 9, 12, 19, etc.
County C receives regional rankings of 3, 8, 13, 18, etc.
County D receives regional rankings of 4, 7, 14, 17, etc.
County E receives regional rankings of 5, 6, 15, 16, etc.

This process is completed for both water and sewer projects. The order of regional rankings for water and sewer projects are completed independently of each other.

Project Rankings For Buffalo Trace Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21135018	LCSD #1 Sewer Plant Upgrade	3-5 Years	Not Funded	$2,150,000	Lewis	1	1
SX21023005	Augusta/Brooksville Regional Sewer Project	0-2 Years	Partially Funded	$11,550,000	Bracken	2	1
SX21161006	Maysville Utility- Stonelick Line Extension	3-5 Years	Not Funded	$500,000	Mason	3	1
SX21201005	Mt. Olivet Phase III Sewer Line Extension	3-5 Years	Not Funded	$659,000	Robertson	4	1
SX21069017	Ewing Sewer Phase I (Construction)	6-10 Years	Not Funded	$5,870,000	Fleming	5	1
SX21069018	Hillsboro Sewer Phase I (Construction)	6-10 Years	Not Funded	$5,550,000	Fleming	6	2
SX21201004	Mt. Olivet-Extend Service to Sardis From KY 616	11-20 Years	Not Funded	$2,353,000	Robertson	7	2
SX21161021	Western Mason Lift Station Upgrade	3-5 Years	Not Funded	$500,500	Mason	8	2
SX21023007	Augusta-2nd Street Sewer Relinement	3-5 Years	Not Funded	$150,000	Bracken	9	2
SX21135002	Garrison Sewer Phase II	3-5 Years	Not Funded	$2,000,000	Lewis	10	2
SX21135009	Vanceburg-Main Sewer Plant	3-5 Years	Not Funded	$1,500,000	Lewis	11	3
SX21023008	WMSD-Jett Estates Sewer	6-10 Years	Not Funded	$840,000	Bracken	12	3
SX21161020	Phase 2A- Maysville Combined Sewer Elimination (Maysville WWTP I	3-5 Years	Not Funded	$3,500,000	Mason	13	3
SX21069005	Ewing Sewer Phase II	11-20 Years	Not Funded	$2,850,000	Fleming	14	3
SX21069008	Hillsboro Sewer Phase II	11-20 Years	Not Funded	$1,500,000	Fleming	15	4
SX21161002	Mays Lick Sewer System	11-20 Years	Not Funded	$2,500,000	Mason	16	4
SX21135020	LCSD Sewer Extension to Burtonville	6-10 Years	Not Funded	$1,080,000	Lewis	17	4
SX21135016	Vanceburg CSO Renovate Phase II	0-2 Years	Fully Funded	$1,000,000	Lewis	18	5
SX21161024	WMSD Barrett Pike-Clarks Run Expansion	6-10 Years	Not Funded	$950,000	Mason	19	5
SX21069006	Ewing Sewer Phase III	11-20 Years	Not Funded	$2,850,000	Fleming	20	5
SX21069009	Hillsboro Sewer Phase III	11-20 Years	Not Funded	$1,500,000	Fleming	21	6
SX21161004	Maysville Utility Wastewater Dump Station	6-10 Years	Not Funded	$100,000	Mason	22	6
SX21135015	Vanceburg EPB Sanitary Sewer Improvements	6-10 Years	Not Funded	$1,000,000	Lewis	23	6
SX21135013	3037 Collection	6-10 Years	Not Funded	$1,000,000	Lewis	24	7
SX21135007	LCSD-Ribolt Area	3-5 Years	Not Funded	$794,000	Lewis	25	8
SX21135010	Vanceburg - Meadowbrook	6-10 Years	Not Funded	$1,386,500	Lewis	26	9
SX21135003	Garrison Sewer Phase III	11-20 Years	Not Funded	$1,500,000	Lewis	27	10
SX21135022	Tollesboro Industrial Park (Sewer)	3-5 Years	Not Funded	$270,000	Lewis	28	11
			Total Cost:	**$57,403,000**			

Cumberland Valley Area Development District (CVADD)



- 2010 census population of 236,618 (104,865 households) with 33% serviceable.
- Projected 2020 population of 237,501 (change of 883).
- 686.63 miles of existing sewer lines.
- 811.00 miles of line extensions proposed in the next 10 years.
- 112.00 miles of line rehabilitation proposed in the next 10 years.
- 41.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $312,660,703.
- Estimated funding needs for projects from 6 to 10 years: $67,974,657.

Cumberland Valley Area Development District has a 2010 census population count of 236,618 (104,865 households) with a projected 2020 population count of 237,501 (97,085 households). Public sewer is currently available to approximately 33 percent of the district's households based on 2010 census counts. Over the next ten years approximately 27,540 serviceable households will be added through the construction of 811.00 miles of sewer line extensions and approximately 18,299 instances of improved service through the rehabilitation of 112.00 miles of existing sewer lines and other appurtenances. 41.00 miles of interceptor lines are also proposed within this district.

County Summary for Cumberland Valley Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Bell	28,691	13,154	27,648	11,714	6,306	48%	$ 28,802,885
Clay	21,730	8,875	20,289	7,421	1,834	21%	$ 33,937,703
Harlan	29,278	13,513	26,099	10,856	5,318	39%	$ 33,102,785
Jackson	13,494	6,523	13,771	5,961	487	8%	-
Knox	31,883	14,485	32,132	13,362	4,632	32%	$ 12,169,737
Laurel	58,849	25,446	64,713	26,415	9,281	37%	$ 108,326,550
Rockcastle	17,056	7,703	17,593	7,308	1,991	26%	$ 28,438,000
Whitley	35,637	15,166	35,256	14,048	4,917	32%	$ 135,857,700
Totals	**236,618**	**104,865**	**237,501**	**97,085**	**34,766**	**33%**	**$ 380,635,360**

Public Sewer Systems in the Cumberland Valley Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0072885	Middlesboro STP	Bell	10,364	4,971
KY0024058	Pineville Sewer Plant	Bell	3,102	1,327
KY0029122	Manchester STP	Clay	4,514	1,814
KY0025755	Benham STP	Harlan	778	406
KY0021571	City of Cumberland	Harlan	2,198	1,047
KY0073091	Evarts STP	Harlan	1,307	483
KY0026093	Harlan STP	Harlan	5,331	2,463
KY0026115	Loyall STP	Harlan	731	368
KY0024279	Lynch STP	Harlan	839	499
KY0077615	Turner Trailer Park	Harlan	81	43
KY0034444	McKee STP	Jackson	886	487
KY0024082	Barbourville STP	Knox	5,604	2,546
KYP000074	Knox County Utility Commission	Knox	113	60
KY0020133	Corbin STP	Laurel	13,022	6,129
KY0021270	London STP	Laurel	12,410	5,604
KYP000063	Wood Creek Water District	Laurel	4,908	2,227
KY0047431	City of Brodhead	Rockcastle	1,176	531
KY0040703	Livingston STP	Rockcastle	198	105
KY0024694	Mt Vernon STP	Rockcastle	2,867	1,355
KY0028347	Williamsburg STP	Whitley	5,633	2,165
		Totals:	76,062	34,630

Cumberland Valley Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Extend Services to Unserved Areas**
Secondary Need: **Repair and Replace Existing Infrastructure**

Discussion of Area Development District Needs:

The Cumberland Valley ADD wastewater planning needs include extending lines to unserved areas, repairing and replacing existing infrastructure, new collector sewer and appurtenances, sanitary sewer overflow correction, meeting regulatory requirements, ground water protection, regionalization and improving security.
Extending wastewater services to unserved areas, repair and replacing aging infrastructure is a great need in the Cumberland Valley Planning Unit. Each County has identifies wastewater needs and proposed projects to meet those needs. Those projects are listed in the planning unit section.

Lack of wastewater services in rural areas of the Cumberland Valley ADD is a major challenge. A lot of time and effort has been devoted to planning for wastewater services but that has not brought change to many communities in the area. County by county has cluster of communities that could benefit from some on site treatment method, but funding and management issues have held the process. The situation could be improved if more water districts and associations could provide services in their respective service areas. Laurel and Whitley Counties have shown leadership in wastewater planning at the grass root level, but implementation has been held back by lack of funding.

Description and Determination of Planning Units:

The Cumberland Valley ADD wastewater planning units were not determined in the same manner that water planning units were, but now wastewater planning is based on water planning boundaries. That is by region consisting of eight counties: Bell, Clay, Harlan, Jackson, Knox, Laurel, Rockcastle and Whitley counties.

The Cumberland Valley Wastewater Planning Units changed when the idea of water management planning areas was dropped. Unlike water planning, where watershed is not a factor, wastewater planning was initially guided by watershed boundaries. It did not follow county or utility boundaries, but rather went by landscape or elevation. Housing clusters and soil type in the area were other factors considered. Wastewater onsite treatment technologies for communities far from municipal wastewater treatment facilities were proposed. Some of those in Laurel and Whitley Counties are described in project profiles.

Cumberland Valley Area Development District
Project Ranking Methodology

Federal Water Pollution Control Act of 1995 provided a strong role for the federal government in the construction of publicly owned wastewater treatment works. The amendments enacted in 1972, commonly known as the Clean Water Act (CWA), expanded the level of federal aid in an effort to speed up the pace of construction of wastewater treatment facility and the elimination the backlog of needed facilities. The 1977 Amendments to the Clean Water Act directed the Environmental Protection Agency (EPA) to delegate most of its construction grants management functions to the states. The Water Quality Act of 1987, which amended the CWA, authorized EPA to make capitalization grants to each state for the purpose of establishing a water pollution control revolving fund for providing financial assistance for projects that protect and restore water quality.

In 1988, The Kentucky General assembly enacted House Bill 217, which established the Clean Water State Revolving Fund (CWSRF). Funds deposited into CWSRF are used to fund publicly owned treatment works, including storm water projects among others. In order to compete for these funds, the Cumberland Valley ADD ranks projects in a manner that allow them to compete for these and other funds designated for construction of wastewater capital projects. Ranking projects at the at the County and regional level is designed to be in line with the Division of Water project priority ranking and also to provide objectivity to individual utility and county needs.

The Cumberland Valley ADD project ranking system describes the ranking methodology for a wide variety of municipal and non- municipal water and wastewater projects that are eligible for financial assistance through various state and federal programs. The ranking system gives highest priority to projects that are proposing to extend wastewater lines to unserved areas within the Cumberland Valley ADD planning unit. Projects in that category are further evaluated in terms of need. For example, projects extending lines to more customers are ranked higher than those with fewer customers. likewise, project with partial funding get higher priority than those with no funding commitment.

Wastewater Ranking at the Utility Level

Prior to ranking wastewater project at the County level, each utility prioritizes all its projects as high (0-2 years), medium (3-5 years) or low (6-10 years) depending on several factors ranging from need for the project to potential funding sources. Project readiness and construction work load are all factored in the decision making process. Once projects are prioritized at the utility level, they are submitted to the ADD planner's office to be entered into the database. Thereafter, the projects are approved or deferred by the Area Water Management Planning Council at one of the quarterly meetings. At another meeting, all County proposed projects are evaluated and ranked from 1 to 10 or whatever number is agreed upon by those in attendance. All 0-2 projects are usually ranked, but some low priority projects may not be ranked.

Wastewater Ranking at the County Level

Wastewater ranking system at the County level give priority to projects extending lines to unserved areas followed by those that address discharges of raw, or inadequately treated sewage to the State's waters during wet weather, including projects to abate combined sewer overflows (CSOs) and projects to address sanitary sewer system overflow. In general, the Cumberland Valley ranking process is consistent with public health and water quality goals, and pays attention to project needs, decentralization, compliance, water quality, financing, project readiness and the technology to be employed.

Wastewater Ranking at the Regional Level

The method used to rank projects at the regional level was determined when the council was first created and afforded the responsibility to rank water projects for funding purposes. At that initial meeting, counties were designated numbers 1-8. The county designated number 1, had their county number one project ranked first at the regional level. The county ranked number one the first time would have their number one project ranked 8 in the next ranking cycle. Rotation continues from one year to the next. This ranking methodology is easy for the Council and the planner and gives every county project the opportunity to ranked number one at some point. Secondly, this methodology allows for objectivity and eliminates biases. The only disadvantage with this ranking method is that some of the project ranked 1-8 may not be competitive enough at the state level. During the September, 2012 meeting, the Council had a discussion to review and possibly change the methodology, but no decision was arrived at. Instead, the motion to change the current methodology was deferred to the next water council meeting.

Project Rankings For Cumberland Valley Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21125003	Oneal Road Area Sewer Extension	3-5 Years	Not Funded	$1,600,000	Laurel	1	1
SX21121501	Knox County (Bimble) Sewer Extension	3-5 Years	Not Funded	$1,250,000	Knox	2	1
SX21235001	Kentucky Hill Wastewater Treatment Plant	3-5 Years	Not Funded	$742,500	Whitley	3	1
SX21051006	Lift Station Rehabilitation and Replacement	3-5 Years	Not Funded	$500,000	Clay	5	1
SX21109090	City of McKee 400,000 Gallons Wastewater Expansion Plant	0-2 Years	Partially Funded	$5,184,480	Jackson	6	1
SX21013151	Pineville: Virginia Avenue Utility Replacement	0-2 Years	Partially Funded	$2,233,485	Bell	7	1
SX21203316	City of Brodhead - Sewer Rehabilitation	3-5 Years	Not Funded	$1,775,000	Rockcastle	8	1
SX21125151	Wood Creek Wastewater Treatment Facilities	3-5 Years	Not Funded	$4,000,000	Laurel	9	2
SX21121133	Barbourville: Sewer Rehab	3-5 Years	Not Funded	$1,000,000	Knox	10	2
SX21125113	Corbin - Sanitary Sewer Collection System to Serve Dantley Drive	3-5 Years	Not Funded	$1,117,725	Whitley	11	2
SX21095004	City of Loyall - wastewater Line Replacement Project Phase 3	3-5 Years	Not Funded	$1,284,500	Harlan	12	2
SX21051001	Downtown Manchester Sewer Line Rehabilitation and Replacement	3-5 Years	Not Funded	$10,000,000	Clay	13	2
SX21013148	Middlesboro: Noetown Sewer Rehab/Binghamtown PS Rehab	0-2 Years	Partially Funded	$2,550,000	Bell	14	2
SX21203190	City of Mt. Vernon Wastewater Extension Along Main Street	3-5 Years	Not Funded	$1,025,000	Rockcastle	15	2
SX21125322	WCWD - Unserved Customers In Lake Watershed	3-5 Years	Not Funded	$10,150,000	Laurel	16	3
SX21235002	Commercial Area Sewer Line Extension	3-5 Years	Not Funded	$449,000	Whitley	17	3
SX21095053	City of Evarts Wastewater Collection and Treatment Plant Expansion	3-5 Years	Not Funded	$5,000,000	Harlan	18	3
SX21013144	Pineville - PMRIDA Sewer Ext to Industrial Park	0-2 Years	Partially Funded	$4,994,000	Bell	19	3
SX21203317	City of Brodhead - WWTP Upgrade and Improvement	3-5 Years	Not Funded	$3,520,000	Rockcastle	20	3
SX21125311	East Laurel Water District - Wastewater Line Extensions #11	3-5 Years	Not Funded	$1,974,118	Laurel	21	4
SX21125115	Sanitary Sewer Collection Sytem to Serve Sandy Hills Subdvison	3-5 Years	Not Funded	$231,475	Laurel	22	
SX21095054	Evarts - Pride Wastewater Construction Program	3-5 Years	Not Funded	$1,365,000	Harlan	23	4
SX21013145	Pineville: Ferndale Sewerline Extension	3-5 Years	Not Funded	$1,500,000	Bell	24	4
SX21203156	City of Livingston - New 60,000 GPD WWTP	3-5 Years	Not Funded	$718,000	Rockcastle	25	4
SX21125304	East Laurel Water District - Pride: Kentucky Highway 638 to Johnson Elementary School	3-5 Years	Not Funded	$567,625	Laurel	26	5
SX21235219	Whitley County: Package Treatment Plant and Wastewater Line to M	3-5 Years	Not Funded	$1,991,680	Whitley	27	5
SX21095055	Evarts Pride Wastewater Sewer Extension	3-5 Years	Not Funded	$600,000	Harlan	28	5
SX21013029	Turkey Creek Sewer Extension	3-5 Years	Not Funded	$1,000,000	Bell	29	5
SX21203197	City of Mt. Vernon: Rainbow Ridge Area Sanitary Collection and Transfer	3-5 Years	Not Funded	$2,091,000	Rockcastle	30	5
SX21235230	Williamsburg/Cumberland Falls Sewer Improvements	3-5 Years	Not Funded	$6,655,000	Whitley	32	6
SX21013142	Middlesboro - "y" Road Sewer Extension/Whitmer Industrial Park	3-5 Years	Not Funded	$1,097,000	Bell	33	6
SX21203192	Mount Vernon Wastewater Gravity Force Main and Lift Station Hwy 25 South From Mt. Vernon to Burr Area	3-5 Years	Not Funded	$5,385,000	Rockcastle	34	6

Project Rankings For Cumberland Valley Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21125201	WLWA - Wastewater Line Extension #2	3-5 Years	Not Funded	$2,227,454	Laurel	35	7
SX21235224	Whitley County: Wastewater Line Extension to Clio Airport	3-5 Years	Not Funded	$5,802,720	Whitley	36	7
SX21013150	Pineville: Paula Drive Sewer Extension	3-5 Years	Not Funded	$950,000	Bell	37	7
SX21203155	City of Livingston -Update Facility Plan	3-5 Years	Not Funded	$47,000	Rockcastle	38	7
SX21125202	West Laurel - Pride:highway 192 to Cold Hill Elementary School	3-5 Years	Not Funded	$678,170	Laurel	39	8
SX21203161	City of Livingston - Replace Main Sewer Pump Station	3-5 Years	Not Funded	$156,000	Rockcastle	40	8
SX21125300	East Laurel Water District - Wastewater Treatment Plant	6-10 Years	Not Funded	$2,100,080	Laurel	41	9
SX21125318	East Laurel Water District - Wastewater Line Extensions #18	3-5 Years	Not Funded	$1,199,266	Laurel	42	10
SX21125316	East Laurel Water District - Wastewater Line Extensions #16	6-10 Years	Not Funded	$1,520,042	Laurel	43	11
SX21125317	East Laurel - Wastewater Line Extensions #17.	6-10 Years	Not Funded	$1,701,503	Laurel	44	12
			Total Cost:	**$99,933,823**			

Five County Area Development District (FIVCO)

- 2010 census population of 137,884 (61,101 households) with 52% serviceable.
- Projected 2020 population of 139,098 (change of 1,214).
- 579.75 miles of existing sewer lines.
- 73.00 miles of line extensions proposed in the next 10 years.
- 17.00 miles of line rehabilitation proposed in the next 10 years.
- 8.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $71,178,203.
- Estimated funding needs for projects from 6 to 10 years: $5,191,300.

Five County Area Development District has a 2010 census population count of 137,884 (61,101 households) with a projected 2020 population count of 139,098 (56,252 households). Public sewer is currently available to approximately 52 percent of the district's households based on 2010 census counts. Over the next ten years approximately 2,628 serviceable households will be added through the construction of 73.00 miles of sewer line extensions and approximately 36,519 instances of improved service through the rehabilitation of 17.00 miles of existing sewer lines and other appurtenances. 8.00 miles of interceptor lines are also proposed within this district.

County Summary for Five County Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Boyd	49,542	21,803	49,446	20,040	17,597	81%	$ 26,193,750
Carter	27,720	12,311	28,459	11,508	2,873	23%	$ 7,725,033
Elliott	7,852	3,371	8,078	3,011	368	11%	-
Greenup	36,910	16,330	36,923	15,046	9,193	56%	$ 28,342,460
Lawrence	15,860	7,286	16,192	6,647	1,934	27%	$ 14,108,260
Totals	**137,884**	**61,101**	**139,098**	**56,252**	**31,965**	**52%**	**$ 76,369,503**

Public Sewer Systems in the Five County Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0022373	Ashland Sewer Department	Boyd	21,648	10,527
KYP000035	Boyd County Sanitation District #2	Boyd	4,214	1,875
KYP000044	Boyd County Sanitation District #4	Boyd	10,724	4,120
KY0035467	Catlettsburg Sewer Department	Boyd	2,283	1,075
KY0020931	Grayson Sewer Department	Carter	4,637	1,957
KY0025925	Olive Hill Sewer Department	Carter	1,837	903
KY0052264	Sandy Hook Sewer Department	Elliott	688	368
KYP000040	Boyd & Greenup County Sanitation District #1	Greenup	3,044	1,275
KYP000039	Flatwoods Sewer Department	Greenup	7,692	3,431
KY0026450	Greenup Sewer Department	Greenup	1,270	542
KYP000038	Raceland Sewer Department	Greenup	2,436	1,130
KYP000037	Russell Sewer Department	Greenup	854	420
KY0026131	South Shore Sewer Department	Greenup	2,282	1,102
KY0022926	Worthington Sewer Department	Greenup	1,611	682
KY0033553	Wurtland Sewer Department	Greenup	1,429	605
KYP000061	Lawrence County Fiscal Court	Lawrence	820	353
KY0027961	Louisa Sewer Department	Lawrence	3,419	1,581
		Totals:	70,888	31,946

Five County Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Meet Regulartory Requirements**

Discussion of Area Development District Needs:

Aging infrastructure is the primary need across all five counties of the ADD: In Worthington, for example, some collection lines were installed during the 1930's and 1940's, while the City of Ashland has many large brick sewers deeply buried and still in use. With all the maintenance needs of our communities, replacement of older parts of a collection system generally occurs when a failure or collapse focuses the repair crew's attention into that area.

Money. There is a limit to the number of rate hikes the customer base can absorb to keep the system working and still allow the utility to replace/upgrade the older sections. Loans work for a time, but the rebuilt section addressed by a loan ages 30 years during the terms of the loan along with all the other sections of the system.

Extensions: Listing "extend services into unserved areas" should not be limited to municipal gravity lines. The "services" may well be mandatory inspection and repair (by the utility) of on-site systems required per County ordinance. Payment for such a program could come from modest utility bills to fund a responsible entity (such as a municipal system) to perform the function on a three year rotation to different of the county. Such an approach to wastewater treatment in the County surrounding any municipal system could only work if proper ordinances were in place and enforced. Gravity lines or low pressure systems should not be ruled out but may be prohibitively expensive. Satellite treatment that rely on gravity collection systems rather than expensive pump stations may also be an option.

Several utilities expressed a desire for the Fiscal Court of each county to invest in backup generators that could be trucked to areas of need during a crisis that disables part of a utility's system.

Description and Determination of Planning Units:

The Planning Units for the FIVCO ADD follow the county boundaries. This was necessary because of the small, unconnected nature of a collection system. Rarely does one utility’s line come within several miles of the neighboring system and the concerns of one county do not carry over into the next county.

Boyd County is effectively covered throughout the county because of a county ordinance making hook-up to collection system mandatory. Though there are uncovered areas, the collection systems are growing.

Carter County has two municipalities separated by more than 10 miles that do not approach their neighboring counties. Elliott County and Lawrence County each have a municipal system with little extension beyond the cities. Without a mandatory hookup ordinance, extension of service outside city limits is difficult if not impossible for all these counties.

Fully half of the wastewater systems in the FIVCO ADD are in Greenup County. The Greenup County Environmental Commission is a regional treatment plant serving three cities and two sanitation districts. The other communities have their own treatment plants with the remainder of the county covered by on-site systems.

Five County Area Development District
Project Ranking Methodology

The annual ranking in the FIVCO ADD area begins with a series of county-wide meetings comprised of all the water and sewer utilities in the county where the meeting is taking place. Each utility present decides which of their projects is to be ranked (typically two or three from their list) and determines the importance of those for themselves.

A point system is not used as the members of the Council feel that the importance of a project exists independent of a score based on its position in the development process. To provide some structure to the ranking, however, priority was given to projects dealing with:

- Immanent public health issues
- Critical system failures (current or threatening) that might bring down a utility lacking a backup plan
- Input from DOW such as a Notice of Violation (NOV) or an Agreed Order
- Regionalization

Projects are considered based on the aforementioned criteria and a ranking is produced following amicable discussion by all those present.

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If a Ranking cannot be agreed upon, FIVCO ADD has a backup plan using the following point system. Note, this system has never been used.

Points / Problem Addressed by Project

7 Immanent public health issues or critical system failures that might bring down a utility
6 Agreed Order from DOW
5 Notice of Violation from DOW
4 Regionalization of services
3 Maintenance projects on existing infrastructure
2 Upgrades to the treatment plants, pumps, or the distribution/collection system
1 Extension of new service lines

Add five (5) points if plans have been engineered and submitted to DOW for approval.

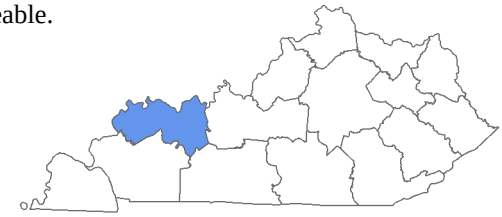
Discussion within the group can override the points attached to each problem addressed by the project.

Project Rankings For Five County Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21019061	Catlettsburg: Rehab Clarifiers at Wastewater Treatment Plant	0-2 Years	Not Funded	$462,000	Boyd	1	1
SX21089095	South Shore: Upgrade Lift Stations 4, 5, and 6	0-2 Years	Not Funded	$707,500	Greenup	2	1
SX21043030	Grayson: Rolling Hills Subdivision Sewer Extension	0-2 Years	Not Funded	$1,200,000	Carter	3	1
SX21127029	Louisa: Wastewater Treatment Plant	0-2 Years	Not Funded	$6,750,000	Lawrence	4	1
SX21089021	Wurtland: Lloyd Sanitary Sewer Project	3-5 Years	Partially Funded	$6,725,000	Greenup	5	2
SX21019062	Sd2: System-Wide Inflow and Infiltration Abatement Project	0-2 Years	Not Funded	$2,173,000	Boyd	6	2
SX21043017	Olive Hill: Rehab of City Lines to Replace Clay Pipe	3-5 Years	Not Funded	$831,775	Carter	7	2
SX21127027	Louisa: Fallsburg Phase 1 Extension to The Top of Five Forks	3-5 Years	Not Funded	$1,900,000	Lawrence	8	2
SX21089028	Wurtland: Conley Subdivision Sewer Project	0-2 Years	Not Funded	$650,000	Greenup	9	3
SX21043003	Grayson: Rt 7 to Landsdowne Subdivision	3-5 Years	Not Funded	$765,000	Carter	10	3
SX21019053	SD4: Systemwide Pump Station Maintenance	0-2 Years	Not Funded	$950,000	Boyd	11	3
SX21127028	Louisa: Fallsburg Phase 2	3-5 Years	Not Funded	$1,935,000	Lawrence	12	3
SX21019064	Catlettsburg: Grit Chamber Rehab/Replacement	0-2 Years	Not Funded	$300,000	Boyd	13	4
SX21043015	Olive Hill: Sparks Avenue Project	3-5 Years	Not Funded	$68,000	Carter	14	4
SX21089069	Raceland: Caroline Road Line Extension	3-5 Years	Not Funded	$220,000	Greenup	15	4
SX21127006	Louisa: Fallsburg Phase 3 Fuller Ridge Sanitary Sewer Main Line	0-2 Years	Not Funded	$3,798,260	Lawrence	16	4
SX21019071	SD4: Molsberger Road Sewer Line	0-2 Years	Not Funded	$325,000	Boyd	17	5
SX21043006	Grayson: Valleyview Subdivision	0-2 Years	Not Funded	$775,000	Carter	18	5
SX21089094	Wurtland: Industrial Parkway Sewer Service	0-2 Years	Not Funded	$100,000	Greenup	19	5
SX21043018	Olive Hill: Woodland Subdivision Sewer Project	3-5 Years	Not Funded	$315,000	Carter	20	6
SX21089017	Raceland: Cherokee Road Sewer Extension	3-5 Years	Not Funded	$102,000	Greenup	21	6
SX21043024	Grayson: Route 1 Sewer Project	0-2 Years	Not Funded	$150,000	Carter	22	7
SX21089038	South Shore: Sewer System Rehabilitation	0-2 Years	Partially Funded	$2,006,000	Greenup	23	7
			Total Cost:	**$33,208,535**			

Green River Area Development District (GRADD)

- 2010 census population of 213,472 (92,066 households) with 64% serviceable.
- Projected 2020 population of 220,544 (change of 7,072).
- 1,001.28 miles of existing sewer lines.
- 65.00 miles of line extensions proposed in the next 10 years.
- 18.00 miles of line rehabilitation proposed in the next 10 years.
- 13.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $78,835,670.
- Estimated funding needs for projects from 6 to 10 years: $7,025,000.



Green River Area Development District has a 2010 census population count of 213,472 (92,066 households) with a projected 2020 population count of 220,544 (89,593 households). Public sewer is currently available to approximately 64 percent of the district's households based on 2010 census counts. Over the next ten years approximately 4,426 serviceable households will be added through the construction of 65.00 miles of sewer line extensions and approximately 69,892 instances of improved service through the rehabilitation of 18.00 miles of existing sewer lines and other appurtenances. 13.00 miles of interceptor lines are also proposed within this district.

County Summary for Green River Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Daviess	96,656	41,452	102,214	41,878	32,204	78%	$ 19,691,115
Hancock	8,565	3,734	8,843	3,502	1,441	39%	$ 6,275,000
Henderson	46,250	20,320	47,600	19,851	13,886	68%	$ 30,350,085
McLean	9,531	4,264	9,271	3,821	1,817	43%	$ 7,872,000
Ohio	23,842	10,219	24,781	9,786	3,290	32%	$ 4,719,570
Union	15,007	6,141	14,436	5,463	3,689	60%	$ 10,369,900
Webster	13,621	5,936	13,399	5,292	2,825	48%	$ 6,583,000
Totals	**213,472**	**92,066**	**220,544**	**89,593**	**59,152**	**64%**	**$ 85,860,670**

Public Sewer Systems in the Green River Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0073377	Regional Water Resource Agency - East	Daviess	31,947	13,434
KY0020095	Regional Water Resource Agency - West	Daviess	40,508	18,472
KY0054941	Whitesville Water Works	Daviess	671	298
KY0020087	Hawesville Water Works	Hancock	1,331	588
KY0025241	Lewisport Municipal Water Works	Hancock	1,828	853
KYP000042	Corydon Wastewater Collection	Henderson	750	307
KY0020711	Henderson Water Utility - North	Henderson	29,780	13,578
KY0020125	Calhoun Water Works	McLean	1,182	566
KY0066605	Island Water Department	McLean	507	229
KY0020613	Livermore Water Works	McLean	1,464	695
KY0091731	Sacramento Water Works	McLean	685	327
KYP000076	Beaver Dam Municipal Water/Sewer	Ohio	3,842	1,619
KYP000078	Centertown Water System	Ohio	521	212
KY0054801	Fordsville Water District	Ohio	562	248
KYP000077	Hartford Municipal Water Works	Ohio	2,655	1,144
KY0105791	Ohio County Regional Wastewater District	Ohio	165	67
KY0021440	Morganfield Water Works	Union	5,706	1,985
KY0025895	Sturgis Water Works	Union	2,096	1,029
KY0025844	Uniontown Water/Sewer Department	Union	1,123	515
KYP000060	Waverly Wastewater Collection	Union	353	160
KY0028096	Clay Water Works	Webster	1,203	523
KY0021296	Providence Water Works	Webster	2,868	1,447
KYP000054	Sebree Collection System	Webster	1,511	572
KYP000055	Webster County Sanitation District	Webster	822	276
		Totals:	134,080	59,144

Green River Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **New Collector and Appurtenances**

Discussion of Area Development District Needs:

The GRADD region covers seven counties and their individual needs vary widely. The counties all know the importance and value of rationalization and regional projects and strive to build them. However, these individual systems have other needs that must be addressed on a daily basis while regional projects can take years to plan and complete.

In the GRADD region, the primary need is the repair and replacement of existing infrastructure. All seven counties in the GRADD region considered repair and replacement of existing infrastructure as their primary need. Under this, the most important aspect is repair/replacement of sewer lines to combat I&I, but also includes repairing/replacing equipment in the distribution system as well as that at sewer plant.

The secondary need of the area is to build new collector sewer and appurtenances. The need for this varies from county to county as well as between systems. The project needs include building new sewer lines that will redesign the systems flow and will help the system run more efficiently, to building out new sewer lines to serving areas that have failing on-site systems or no sewer system at all.

Description and Determination of Planning Units:

The GRADD Water Management Council adopted the GRADD geographical boundary as its services area.

The following wastewater systems serve communities in the Green River Area Development District, and their service areas are included in the Water Management Planning Area:

*Daviess County
1. Regional Water Resource Agency - East Plant
2. Regional Water Resource Agency - West Plant
3. Whitesville Water Works

*Hancock County
1. Hawesville Water Works
2. Lewisport Municipal Water Works

*Henderson County
1. Henderson Water Utility--North
2. Henderson Water Utility--South

*McLean County
1. Calhoun Water Works
2. Island Water Department
3. Livermore Water Works
4. Sacramento Water Works

*Ohio County
1. Beaver Dam Municipal Water
3. Fordsville Water Works
4. Hartford Municipal Water Works
5. Ohio County Regional Wastewater District

*Union County
1. Morganfield Water Works
2. Sturgis Water Works
3. Uniontown Water Department
4. Waverly Wastewater Collection

*Webster County
1. Clay Water Works
2. Providence Water Works
3. Sebree Water Department
4. Webster County Sanitation District

Green River Area Development District
Project Ranking Methodology

The current needs in the Green River ADD region vary widely between Planning Areas and between water and wastewater systems. Operators of both water and wastewater systems value and strive to complete regional projects; however, they recognize the importance of their systems individual needs. The primary need of the water systems is repair and replacement of existing infrastructure and the secondary need is a variety of source protection projects. For wastewater, the primary need is repair and replace existing infrastructure and the secondary need is new collector sewer and appurtenances. While primary and secondary needs have been chosen for each planning area that does not mean that systems cannot have projects outside of those scopes.

The Green River Area Development District Water Management Council uses a point based ranking system to rank the needs of the area. All of the current partially and unfunded projects were submitted to each of the Planning Units for ranking. Projects were scored on a series of criteria including Type of Project, Delivery Area, Project Status, Funding Status, and Environmental Factors. In the event of a tie, the project's Cost per Connection was used as the deciding factor.

The following point criteria was submitted and endorsed by the Green River Area Development District Water Management Council on September 20, 2012:

Basic Information

- Project County
- Project Owner
- WRIS Project Number
- Project Description
- Estimated Project Cost

Type of Project

Unserved

• 9 or more per mile	20 pts
• 7-8 per mile	19 pts
• 5-6 per mile	18 pts
• 3-4 per mile	15 pts
• 1-2 per mile	10 pts
• <1 per mile	5 pts

Underserved

• 80-100% total customer base impacted	20 pts
• 60-79% total customer base impacted	19 pts
• 40-59% total customer base impacted	18 pts
• 20-39% total customer base impacted	15 pts
• 10-19% total customer base impacted	10 pts
• less than 10% customer base impacted	5 pts

Economic Development

• 100 or more jobs created or retained	20 pts
• 75-99 jobs created or retained	19 pts
• 50-74 jobs created or retained	18 pts
• 20-49 jobs created or retained	15 pts
• 10-19 jobs created or retained	10 pts
• less than 10 jobs created or retained	5 pts

Other (a project that does not meet above criteria, i.e. a building for chemicals)

- 3 pts

Combination

- If a project is a combination of the above, whichever category the project scored higher in (unserved, underserved, or economic development) the project will get those points, plus 3 additional pts

Maximum of 20 points for this section

Delivery Area

• Regional – Consolidation into single system	30 pts
• Regionalization of a WTP or WWTP	20 pts
• Project benefits multiple systems/communities	15 pts
• Project benefits two systems/communities	10 pts
• Non-regional	5 pts
• Non-regional project that eliminates a lift station/ package treatment plant/pump station	10 pts

Project Status

• Engineering plans and specs submitted to DOW	20 pts
• PER	15 pts
• Engineering procurement completed	10 pts
• Cost estimate by PE	10 pts
• Preliminary planning by system	5 pts

Funding Status

A project costing greater than $100,000

1. Funding committed for 50% or more	20 pts
2. Funding committed for 25-49%	10 pts
3. Funding committed for 1-24%	5 pts
4. Pending applications	3 pts

A project costing less than $100,000

1. 10 pts as long as the project is in one of the above four processes

Environmental Factors

Any project can receive as many (or none) of the points below

• Water loss reduction/I&I reduction	5 pts
• Replacing inefficient pumps/motors with high efficiency ones	5 pts
• Use of some other Green Technology not listed above	5 pts

Tie breaker is cost per connection

County Ranking

The highest scoring project in a county will be the number one ranking project for that county. The number two and subsequently ranked projects will follow in order of next highest scoring. The top five ranked projects in the county will be sent to be ranked regionally; however, all county ranked projects will still be submitted to KIA.

Regional Ranking

The highest scoring projects in the region will be determined from the highest ranked projects in the counties.

Project Rankings For Green River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21101030	Janalee Drive Pump Station Rehabilitation	3-5 Years	Not Funded	$1,900,000	Henderson	1	1
SX21059031	Sunrise Drive Sewer Extension	0-2 Years	Not Funded	$1,655,565	Daviess	2	1
SX21101038	Finely Addition Sewer Extension	0-2 Years	Partially Funded	$2,100,000	Henderson	3	2
SX21225021	Grangertown Lift Station Rehab and Taylor Mine Road Lift Station Replacement	0-2 Years	Partially Funded	$415,000	Union	4	1
SX21059014	Masonville Sewer Extension	0-2 Years	Not Funded	$1,538,750	Daviess	5	2
SX21233021	Providence Aerobic Digester Aeration Improvement Project	3-5 Years	Not Funded	$80,000	Webster	6	1
SX21225006	Camp Breckenridge Sewer Rehab	0-2 Years	Not Funded	$3,552,800	Union	7	2
SX21183014	Hartford Sewer Rehabilitation Project - Phase II	0-2 Years	Not Funded	$2,165,000	Ohio	8	1
SX21101002	Canoe Creek Phase II Sewer Improvements	3-5 Years	Partially Funded	$11,000,000	Henderson	9	3
SX21183015	Fordsville Wastewater System Improvement/Rehabilitation Project	0-2 Years	Not Funded	$753,450	Ohio	10	2
SX21149017	Sacramento Sewer Pumps 2	3-5 Years	Not Funded	$280,000	McLean	11	1
SX21225012	Sturgis Wastewater Treatment Plant Upgrade	6-10 Years	Partially Funded	$2,710,000	Union	12	3
SX21225007	Morganfield Combine Sewer Separation Project	0-2 Years	Fully Funded	$2,925,000	Union	13	4
SX21149023	Sacramento Gravity Sewer Project, Phase II	0-2 Years	Not Funded	$940,000	McLean	14	2
SX21091012	Hawesville Generator Project	6-10 Years	Not Funded	$75,000	Hancock	16	1
SX21059026	Woodlands South Sewer Extension	0-2 Years	Not Funded	$406,550	Daviess	17	3
SX21233022	Providence Sewer Treatment Plant Generator Project	3-5 Years	Not Funded	$100,000	Webster	18	3
SX21059043	Whitesville Sewer Rehabilitation Project	3-5 Years	Not Funded	$58,000	Daviess	19	4
SX21149024	Island Sewer Plant and Lift Station Generators Project	3-5 Years	Not Funded	$112,000	McLean	20	3
SX21183002	North 231 Sewer Extension Project	3-5 Years	Not Funded	$700,000	Ohio	21	3
SX21225023	Individual Pump Stations for Unsewered Residents of Sturgis	0-2 Years	Not Funded	$115,000	Union	22	5
SX21233010	Providence Sewer Loan Payoff	3-5 Years	Partially Funded	$800,000	Webster	23	4
SX21149026	KY815/KY81 Sanitary Sewer Project	3-5 Years	Not Funded	$800,000	McLean	24	4
SX21091013	Highway 60 East Economic Development	3-5 Years	Not Funded	$500,000	Hancock	25	2
SX21101029	North Treatment Plant Improvements	3-5 Years	Not Funded	$200,000	Henderson	26	4
SX21183013	Beaver Dam Sewer Rehab Debt Payoff	3-5 Years	Not Funded	$580,000	Ohio	27	4
SX21233008	Wheatcroft Sewer Collection System Project - Phase I	3-5 Years	Not Funded	$100,000	Webster	28	5
SX21101036	Thorn Ridge Sewer Extension	3-5 Years	Not Funded	$200,000	Henderson	29	5
SX21149002	Livermore Sewer Line Extensions	3-5 Years	Not Funded	$1,500,000	McLean	30	5
SX21183007	Centertown Sewer Clean Out Machine Purchase Project	3-5 Years	Not Funded	$50,000	Ohio	31	5
SX21091014	Hawesville Lift Station Rehabilitation	3-5 Years	Not Funded	$100,000	Hancock	32	3
SX21091009	Lewisport Slip Lining	3-5 Years	Not Funded	$600,000	Hancock	33	4
SX21059039	Pleasant View Estates Sewer Expansion	3-5 Years	Not Funded	$475,000	Daviess	34	5
			Total Cost:	**$39,487,115**			

Gateway Area Development District (GWADD)

- 2010 census population of 81,652 (36,780 households) with 40% serviceable.
- Projected 2020 population of 87,651 (change of 5,999).
- 328.70 miles of existing sewer lines.
- 36.00 miles of line extensions proposed in the next 10 years.
- 4.00 miles of line rehabilitation proposed in the next 10 years.
- There are no interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $25,726,861.
- There are no projects planned from 6 to 10 years.

Gateway Area Development District has a 2010 census population count of 81,652 (36,780 households) with a projected 2020 population count of 87,651 (34,583 households). Public sewer is currently available to approximately 40 percent of the district's households based on 2010 census counts. Over the next ten years approximately 1,108 serviceable households will be added through the construction of 36.00 miles of sewer line extensions and approximately 64,154 instances of improved service through the rehabilitation of 4.00 miles of existing sewer lines and other appurtenances.

County Summary for Gateway Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Bath	11,591	5,405	12,132	5,006	1,739	32%	$ 4,170,384
Menifee	6,306	3,744	6,038	2,422	547	15%	$ 5,951,915
Montgomery	26,499	11,699	30,750	12,483	6,263	54%	$ 5,260,589
Morgan	13,923	5,830	14,023	5,126	726	13%	$ 6,840,040
Rowan	23,333	10,102	24,708	9,546	5,598	55%	$ 3,503,933
Totals	**81,652**	**36,780**	**87,651**	**34,583**	**14,873**	**40%**	**$ 25,726,861**

Public Sewer Systems in the Gateway Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KIA011001	Bath County Sanitation District	Bath	153	72
KY0024287	Owingsville Water and Sewer	Bath	1,994	991
KY0088421	Sharpsburg Sewer	Bath	387	226
KY0040584	Frenchburg Water and Sewer	Menifee	676	370
KY0100901	Menifee County Sanitation District # 1	Menifee	401	169
KY0069736	Montgomery County Sanitation Dist #2	Montgomery	1,767	791
KY0104400	Mount Sterling Water and Sewer System	Montgomery	11,862	5,472
KY0089567	West Liberty Sewer	Morgan	3,323	726
KY0052752	Morehead Utility Plant Board	Rowan	14,750	6,084
		Totals:	35,313	14,901

Gateway Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

There are nine wastewater systems that serve Gateway Area Development District. Each wastewater utility in the Gateway ADD was provided with the opportunity to identify the needs for the system. The needs of every system were considered in the determination of the Gateway Area Development District's primary and secondary Clean Water needs.

The District's primary Clean Water need is Repair/Replace Existing Infrastructure. This was the primary need of every planning unit in the Gateway ADD with the exception of the Menifee County Planning Unit. The wastewater systems in the region have identified this as a Clean Water need for a variety of reasons. Some areas of the region's sewer infrastructure have been damaged as a result of severe weather events, some portions of the aging infrastructure need to be replaced to prevent pipe bursts, and other portions of the existing infrastructure need to be replaced because the current lines, lift stations, etc. are at/near capacity.

Extend Services to Unserved Areas is the secondary Clean Water need in the Gateway Area Development District. This was identified as the secondary need in three of the planning units and mentioned as an additional need in a forth planning unit. While urbanized areas and the larger communities in the Gateway Area Development District have sewer infrastructure, there are large portions of the region that do not have access to wastewater services. Approximately 60% of the region's population is not served by a wastewater system.

Additional needs that were identified for the region are Economic Stimulation for areas that cannot currently support potential industrial development, New Collector Sewer and Appurtenances, and Sanitary Sewer Overflow Correction for systems that expereince problems with infiltration.

Description and Determination of Planning Units:

The Gateway Area Development District is divided into five planning units which are: Bath County, Menifee County, Montgomery County, Morgan County, and Rowan County. These planning units follow the political county boundaries.

There are three wastewater systems in Bath County. Two of the systems in the Bath County Planning Unit are municipalities (City of Owingsville Water and Sewer and City of Sharpsburg Sewer) and the other is a sanitation district (Bath County Sanitation District).

The Menifee County Planning Unit has two systems; one municipality (City of Frenchburg Water and Sewer) and one sanitation district (Menifee County Sanitation District #1).

The Montgomery County Planning Unit also has two systems; one municipality (Mt. Sterling Water and Sewer) and one sanitation district (Montgomery County Sanitation District #2).

The Morgan and Rowan County Planning Units each have one municipal wastewater system (Morgan County - City of West Liberty Water and Sewer; Rowan County - Morehead Utility Plant Board).

Gateway Area Development District
Project Ranking Methodology

The Gateway Area Water Management Council prioritizes projects based on points. Points are given under the following categories: Type of Project, Project Delivery, Project Status, and Funding Status.

Type of Project

Under this category, points are awarded based on un-served households, underserved households, and economic development. Un-served households are homes that currently do not have public water/wastewater service available to them. Underserved households are homes that have public water/wastewater service, but the completion of the proposed project will improve service and/or quality to said areas in the utility's system. Points are allocated to the economic development group based on the number of jobs the completed project will create. The more households and jobs that a project affects/creates, the more points the project is given. A combination of points can be added together among the aforementioned subgroups for a maximum amount of 20 points possible.

Project Delivery

Project Delivery is allotted 20 points for a regional project and 5 points for a non-regional project. A regional project affects more than one utility.

Project Status

Projects are given 5 points for preliminary planning, 10 points for attaining a cost estimate from a project engineer, 10 points for procuring an engineer for the project, 15 points if a preliminary engineering report is completed, or 20 points if engineering plans and specs have been completed and submitted to Division of Water under the Project Status heading.

Funding Status

For projects with a cost estimate less than $100,000, 10 points are awarded within the funding status header. For projects with a cost estimate over $100,000, 3 points are given for a pending application status, 5 points if 1-24% of the funding has been committed, 10 points if 25-49% of funding has been committed, and 20 points if 50% or more of funding has been committed. Funding can be committed by the utility, or another funding source.

The category totals are added together for a maximum of 80 points possible. The higher the cumulative total, the higher the project is ranked. For projects with the same overall point total, a cost per connection tie breaker is utilized. The cost per connection tie breaker is calculated using the estimated project cost divided by the total number of households the project will affect. The lower the cost per connection, the higher ranking the project receives.

All profiled projects that are submitted to the Water Management Council are prioritized and receive both a county and regional ranking. The prioritization of the projects is based on the points allocated during the ranking process.

Moving forward, the Gateway region is facing many of the same issues that other regions and utilities are being confronted with. Since the majority of the Gateway region counties are served by public water, water utilities will be switching their primary focus to maintenance, upkeep and rehab projects within their respective systems. Added costs for new testing and compliance issues cut into both water and wastewater utilities' revenues. Escalated electrical and fuel costs pose a huge hurdle for utilities. If cost effective measures are not taken to lower electrical and fuel consumption, utilities will have no other alternative but to increase rates to their customers. Wastewater systems are challenged with the cost of providing sewer service to customers outside of city limits and to repair and manage inflow and infiltration issues to existing infrastructure.

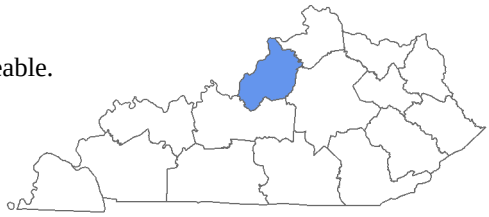
Project Rankings For Gateway Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21205033	Morehead Utility Plant Board Phase 5 Inflow and Infiltration Sew	3-5 Years	Not Funded	$500,000	Rowan	1	1
SX21175013	City of West Liberty Liberty Road Sewer Extension	3-5 Years	Not Funded	$3,257,940	Morgan	2	1
SX21205035	Morehead Utility Plant Board 519 Sewer Extension	3-5 Years	Not Funded	$500,000	Rowan	3	2
SX21173027	Mount Sterling Water and Sewer SCADA System Replacement Project	3-5 Years	Not Funded	$45,000	Montgomery	4	1
SX21173017	Mt. Sterling Water & Sewer Portable Diesel Pump Project	3-5 Years	Not Funded	$75,000	Montgomery	5	2
SX21173023	Mt. Sterling Water & Sewer Long Wood Tie In Project	3-5 Years	Not Funded	$275,000	Montgomery	6	3
SX21173014	Mt. Sterling Water & Sewer System Manhole Rehab Project	3-5 Years	Not Funded	$625,000	Montgomery	7	4
SX21173066	Montgomery County Sanitation Dist #2 Boom and Clarifier Weirs Replacement Project	3-5 Years	Not Funded	$75,000	Montgomery	8	5
SX21011002	City of Owingsville Lagoon System Cleaning Project	3-5 Years	Not Funded	$700,000	Bath	9	1
SX21173046	Montgomery County Sanitation District Upgrade Chlorine Room At W	3-5 Years	Not Funded	$14,500	Montgomery	10	6
SX21205029	Morehead Utility Plant Board Sunnybrook Development Sewer Line E	3-5 Years	Not Funded	$789,750	Rowan	11	3
SX21173063	Montgomery County Sanitation District No. 2 Sludge Holding Tank	3-5 Years	Not Funded	$170,089	Montgomery	12	7
SX21173033	Montgomery County Sanitation District No. 2 Head Works Screen Pr	3-5 Years	Not Funded	$200,000	Montgomery	13	8
SX21173024	Montgomery County Sanitation District No. 2 Pump Station No. 5 P	3-5 Years	Not Funded	$267,000	Montgomery	14	9
SX21011019	City of Owingsville Re-Route Sanitary Sewer to Sbr Plant Project	3-5 Years	Not Funded	$360,000	Bath	15	2
SX21173010	Montgomery Co. Sanitation Dist.#2 Pump Station and Line Upgrade	3-5 Years	Not Funded	$464,000	Montgomery	16	10
SX21173034	Montgomery County Sanitation District No. 2 Pump Station Upgrade	3-5 Years	Not Funded	$510,000	Montgomery	17	11
SX21011016	City of Owingsville Slate Avenue Pipe Bursting Project	3-5 Years	Not Funded	$590,000	Bath	18	3
SX21165017	Menifee County Sanitation District No. 1 Equalization Basin	3-5 Years	Not Funded	$750,000	Menifee	19	1
SX21011015	City of Owingsville Wyoming Road Sewer Line Extension	3-5 Years	Not Funded	$225,000	Bath	20	4
SX21165010	City of Frenchburg Ponder Branch Sewer Extension	3-5 Years	Not Funded	$101,665	Menifee	21	2
SX21165015	City of Frenchburg Bryant Lane/Shotgun Hollow Sewer Line Extension Project	3-5 Years	Not Funded	$650,250	Menifee	22	3
SX21011007	City of Sharpsburg Oaklawn Line Extension Project	3-5 Years	Not Funded	$882,100	Bath	23	5
SX21165013	City of Frenchburg Tower Road and Cresent Hill Wastewater Collection Improvements	3-5 Years	Not Funded	$350,000	Menifee	24	4
SX21011017	City of Owingsville KY 36 North Sewer Extension	3-5 Years	Not Funded	$563,284	Bath	25	6
SX21205036	Morehead Utility Plant Board KY 801 and KY 158 Sewer Extension Project	3-5 Years	Not Funded	$1,498,883	Rowan	26	4
SX21173064	Mt. Sterling Water & Sewer WWTP Generator Project	3-5 Years	Not Funded	$150,000	Montgomery	27	12
SX21173055	Mt. Sterling Water & Sewer I&I Study and Repair Project	3-5 Years	Not Funded	$1,000,000	Montgomery	28	13
SX21175021	City of West Liberty WWTP Equipment Improvement Project	3-5 Years	Not Funded	$200,000	Morgan	29	2
SX21175008	City of West Liberty - Oscar Ln, Old KY 7, Park Hill, Brown Ln, Dye Ln, Wellness Ctr & Vest Ct Sewer Extensions - Contract 3	3-5 Years	Not Funded	$1,232,100	Morgan	30	3

Project Rankings For Gateway Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21011018	Bath County Sanitation District Preston Sewer Project Phase II	3-5 Years	Not Funded	$750,000	Bath	31	7
SX21165007	City of Frenchburg McCausey/Amos Ridge Extension Project	3-5 Years	Not Funded	$4,000,000	Menifee	32	5
SX21011020	City of Owingsville Sewer Extension to Remaining Unserved In Cit	3-5 Years	Not Funded	$100,000	Bath	33	8
SX21173015	Mt. Sterling Water & Sewer Eastland Heights Lift Station Upgrade	3-5 Years	Not Funded	$75,000	Montgomery	34	14
SX21173053	Mt. Sterling Water & Sewer Alliance Acres Lift Station Upgrade	3-5 Years	Not Funded	$85,000	Montgomery	35	15
SX21173051	Mt. Sterling Water & Sewer Doe Run Lift Station Upgrade	3-5 Years	Not Funded	$85,000	Montgomery	36	16
SX21173052	Mt. Sterling Water & Sewer Spencer Road Lift Station Upgrade	3-5 Years	Not Funded	$85,000	Montgomery	37	17
SX21173054	Mt. Sterling Water & Sewer LMS Pump Station Elimination	3-5 Years	Not Funded	$100,000	Montgomery	38	18
SX21173049	Mt. Sterling Water & Sewer Woodford Drive Lift Station Upgrade P	3-5 Years	Not Funded	$100,000	Montgomery	39	19
SX21173048	Montgomery County Sanitation District No. 2 Phosphate Reduction	3-5 Years	Not Funded	$100,000	Montgomery	40	20
SX21173050	Mt. Sterling Water & Sewer Arlington Avenue Lift Station Upgrade	3-5 Years	Not Funded	$175,000	Montgomery	41	21
SX21173056	Mt. Sterling Water & Sewer System Mapping Project	3-5 Years	Not Funded	$225,000	Montgomery	42	22
SX21173059	Mt. Sterling Water & Sewer Combo Vac Truck Project	3-5 Years	Not Funded	$240,000	Montgomery	43	23
SX21205031	MUPB Wastewater Treatment Plant Equipment Upgrade Project	3-5 Years	Not Funded	$215,300	Rowan	44	5
SX21173062	Montgomery County Sanitation District No. 2 Combo Vac Truck Proj	3-5 Years	Not Funded	$120,000	Montgomery	45	24
SX21175020	City of West Liberty Camera Inspection Equipment Purchase Project	3-5 Years	Not Funded	$150,000	Morgan	46	4
SX21165014	Menifee County Sanitation District System Improvement Project Phase 2	3-5 Years	Not Funded	$100,000	Menifee	47	6
			Total Cost:	**$23,726,861**			

Kentuckiana Regional Planning and Development Agency (KIPDA)



- 2010 census population of 959,091 (421,502 households) with 88% serviceable.
- Projected 2020 population of 1,058,343 (change of 99,252).
- 4,060.65 miles of existing sewer lines.
- 30.00 miles of line extensions proposed in the next 10 years.
- 9.00 miles of line rehabilitation proposed in the next 10 years.
- 14.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $167,796,564.
- Estimated funding needs for projects from 6 to 10 years: $32,965,601.

Kentuckiana Regional Planning and Development Agency has a 2010 census population count of 959,091 (421,502 households) with a projected 2020 population count of 1,058,343 (437,016 households). Public sewer is currently available to approximately 88 percent of the district's households based on 2010 census counts. Over the next ten years approximately 1,650 serviceable households will be added through the construction of 30.00 miles of sewer line extensions and approximately 7,306 instances of improved service through the rehabilitation of 9.00 miles of existing sewer lines and other appurtenances. 14.00 miles of interceptor lines are also proposed within this district.

County Summary for Kentuckiana Regional Planning and Development Agency

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Bullitt	74,319	29,318	88,508	34,970	15,723	54%	$ 33,726,115
Henry	15,416	6,640	15,915	6,405	2,328	35%	$ 5,817,779
Jefferson	741,096	337,616	793,817	336,744	329,199	98%	$ 51,092,277
Oldham	60,316	20,688	74,990	26,354	11,526	56%	$ 99,693,431
Shelby	42,074	16,606	51,944	19,663	8,460	51%	$ 6,118,063
Spencer	17,061	6,704	23,655	9,025	667	10%	$ 1,650,000
Trimble	8,809	3,930	9,514	3,855	923	24%	$ 2,664,500
Totals	**959,091**	**421,502**	**1,058,343**	**437,016**	**368,826**	**88%**	**$ 200,762,165**

Public Sewer Systems in the Kentuckiana Regional Planning and Development Agency

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0034169	Bullitt County Sanitation District - BCSD Hillview #2	Bullitt	2,517	924
KY0034177	Bullitt County Sanitation District - BCSD Hillview #3	Bullitt	1,204	446
KY0034801	Bullitt County Sanitation District - Bullitt Hills Subdivision	Bullitt	3,482	1,427
KY0034185	Bullitt County Sanitation District - Pioneer Village Sewer Plt #1	Bullitt	2,519	1,000
KY0094307	Bullitt County Sanitation District - Willabrook Sanitation	Bullitt	479	200
KY0104043	Lebanon Junction Wastewater	Bullitt	1,624	708
KY0033804	Mount Washington Water & Sewer Company	Bullitt	14,575	5,836
KY0027359	Shepherdsville Sewer	Bullitt	12,227	4,922
KY0026883	Eminence Wastewater	Henry	2,549	1,102
KY0031828	New Castle Wastewater	Henry	1,103	507
KYP000036	Pleasureville	Henry	937	415
KY0039021	Louisville & Jefferson County MSD - Bancroft	Jefferson	574	229
KY0036501	Louisville & Jefferson County MSD - Berrytown	Jefferson	855	317
KY0098540	Louisville & Jefferson County MSD - Cedar Creek	Jefferson	30,011	12,243
KY0029459	Louisville & Jefferson County MSD - Chenoweth Hills	Jefferson	2,138	741
KY0078956	Louisville & Jefferson County MSD - Derek R Guthrie	Jefferson	202,642	86,012
KY0102784	Louisville & Jefferson County MSD - Floyds Fork	Jefferson	21,500	8,660
KY0044261	Louisville & Jefferson County MSD - Glenview Bluff	Jefferson	37	19
KY0022420	Louisville & Jefferson County MSD - Hite Creek	Jefferson	28,069	11,716
KY0029106	Louisville & Jefferson County MSD - Hunting Creek North	Jefferson	2,479	983
KY0029114	Louisville & Jefferson County MSD - Hunting Creek South	Jefferson	1,589	722
KY0025194	Louisville & Jefferson County MSD - Jeffersontown	Jefferson	20,504	8,651
KY0022497	Louisville & Jefferson County MSD - Ken Carla	Jefferson	86	45
KY0044342	Louisville & Jefferson County MSD - Lake of the Woods	Jefferson	357	128
KY0029416	Louisville & Jefferson County MSD - McNeely Lake	Jefferson	1,593	667
KY0022411	Louisville & Jefferson County MSD - Morris Forman	Jefferson	409,242	197,428
KY0031810	Louisville & Jefferson County MSD - Shadow Wood Subdivision	Jefferson	336	217
KY0028801	Louisville & Jefferson County MSD - Silver Heights	Jefferson	2,290	980
KY0031712	Louisville & Jefferson County MSD - Starview	Jefferson	742	396
KY0043087	Louisville & Jefferson County MSD - Timberlake	Jefferson	1,106	504
KY0020001	Lagrange Utilities Commission	Oldham	7,962	3,168
KY0024724	Oldham County Environmental Authority - Ash Avenue	Oldham	3,054	1,084
KY0103110	Oldham County Environmental Authority - Buckner	Oldham	3,151	668
KY0060577	Oldham County Environmental Authority - Country Village	Oldham	544	207
KY0047635	Oldham County Environmental Authority - Covered Bridge	Oldham	1,181	430
KY0054674	Oldham County Environmental Authority - Lockwood Estates Subdivision	Oldham	1,084	390
KY0076813	Oldham County Environmental Authority - Mockingbird Valley	Oldham	140	43
KY0106143	Oldham County Environmental Authority - Ohio River	Oldham	6,744	2,256
KY0033821	Oldham County Environmental Authority - Orchard Grass	Oldham	2,894	977
KY0046264	Oldham County Environmental Authority - Willow Creek	Oldham	756	304
KY0078026	Oldham Woods Subdivision	Oldham	143	52
KY0020427	Shelbyville Municipal Water & Sewer Commission	Shelby	18,598	7,475
KY0065889	Simpsonville Wastewater	Shelby	2,389	947
KY0028142	Taylorsville Wastewater	Spencer	1,447	667

Public Sewer Systems in the Kentuckiana Regional Planning and Development Agency

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0069825	Bedford Wastewater	Trimble	987	431
KY0088625	Milton Wastewater	Trimble	1,006	492
		Totals:	821,446	367,736

Kentuckiana Regional Planning and Development Agency
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The KIPDA Regional Water Council through discussion recognizes that planning needs in the region are constantly changing. What may be viewed as the primary need in the near future could differ from what is viewed as the primary need in the present. All of the listed options are viewed as necessities throughout the region and many are viewed to be intertwined with none being mutually exclusive. With these thoughts in consideration, the KIPDA Regional Water Management Council identified the Repair and Replacement of Existing Infrastructure as its primary planning need. This planning need is tied to Economic Stimulation, meeting Regulatory Requirements, and the consolidation of Package Treatment Plants.

With a few exceptions, utilities upgrade existing infrastructure when it is replaced. The increased capabilities from these upgrades enable systems to meet demands and provide improved services to areas which leads to economic stimulation. These upgrades could be in the form of increased size in line replacements to increased treatment and pumping capacity. The ability to provide service drives economic stimulation and the Council realizes that upgrading existing infrastructure is essential to meeting future needs.

Regulatory requirements are often met through the repair and replacement of existing infrastructure. An example from several priority projects in the region includes the identification of of problematic areas within the system and manhole rehabilitation, these projects will address I/I issues and compliance with regulatory requirements. Further examples include expanding treatment capacities to comply with Agreed Orders and construction of chlorine capacity tanks at WWTPs to meet future compliance.

Consolidation in the form of the elimination of package treatment plants was another factor discussed in relation to the repair and replacement of existing infrastructure; especially in Bullitt and Oldham counties. Oldham County is currently in the process of taking five PTPs offline while failing package treatment plants have presented themselves as an issue in Bullitt County. Their elimination will be an improvement of service to customers and to environmental quality in the area. This also relates to what the Council views as the secondary need within the region.

Extending Service to Unserved Areas is viewed by the Council as the secondary need within the region. The caveat in place was the extension of service be to already developed areas. As with the elimination of failing package treatment plants, the benefits of taking customers off septic systems will be realized in the form of improvement to public health, the environment, and water sources in the area.

Further, the Council designated the seven (7) water management areas in the KIPDA region to be defined by county boundaries.

1. Bullitt County Wastewater Management Planning Area
• Bullitt County Sanitation District
• Lebanon Junction, City of
• Mount Washington Water and Sewer Company
• Shepherdsville, City of

2. Henry County Wastewater Management Planning Area
• Eminence, City of
• New Castle, City of
• Pleasureville, City of

3. Jefferson County Water Management Planning Area
• Louisville & Jefferson County MSD

4. Oldham County Water Management Planning Area
• Lagrange Utilities Commission
• Oldham County Environmental Authority

5. Shelby County Water Management Planning Area
• Shelbyville Municipal Water and Sewer Commission
• Simpsonville, City of

6. Spencer County Water Management Planning Area
• Taylorsville, City of

7. Trimble County Water Management Planning Area
• Bedford, City of
• Milton, City of

Kentuckiana Regional Planning and Development Agency Project Ranking Methodology

he KIPDA Regional Water Management Council prioritizes projects using local input and an established priority ranking scoresheet.

Before projects are brought before the KIPDA Regional Water Management Council to be prioritized, they are ranked at the County level. The County Water Management Councils consist of utility representatives and local elected officials. Projects are ranked based on perceived importance within the county.

To bring continuity and fairness throughout the region, the KIPDA Regional Water Management Council requires all projects that are to be considered for Regional Prioritization to complete a Priority Ranking Scoresheet. The methodology for the scoresheet was established in 2007 by a group of Area Development Water Management Coordinators along with KIA staff. This is no longer required for all water and wastewater projects requesting State funding, but the KIPDA Council choice to continue using this method due to past success.

The scoresheet provides for a maximum of 100 points to be assigned to each project depending on how it scores according to the following criteria:

Type of Project (20 point Maximum)

For unserved and underserved projects, households served are the basis for the priority scoring while jobs created are the consideration for economic development projects. Feasibility studies and other projects that don't involve unserved, underserved, commercial, or industrial development are assigned a specified score.

Project Delivery (20 point Maximum)

Projects are scored on whether they are Regional or Non-Regional. For this purpose, regional is defined as projects involving two or more systems that, through shared or consolidated resources, improve services to consumers and achieve economy of scale.

Project Status (20 point Maximum)

Projects are scored based on their status relative to the planning process, the status of the development of engineering plans and specifications, and the detail of the data used to develop the estimated cost of the project. Projects that are further along in the process will receive a higher priority score.

Funding Status (20 point Maximum)

The projects are categorized based on their status relative its size and the funding needed to execute. Projects that are further along in the funding process will receive a higher priority as indicated below.

Local Importance (20 point Maximum)

The projects are assigned priority points based on their importance to the county as determined by consensus during the County Water Management Councils.

With the intention of each county having equal representation on the priority ranking list, the top projects from each county are ranked against each other according to their priority ranking score. This method is continued for the second, third, fourth, etc projects until all submitted projects receive a ranking.

Project Rankings For Kentuckiana Regional Planning and Development Agency

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21029009	Shepherdsville Regional Interceptor Sewer Line (Salt River Interceptor)	3-5 Years	Partially Funded	$1,081,200	Bullitt	1	1
SX21103001	Wastewater Treatment Plant Expansion	0-2 Years	Partially Funded	$1,500,000	Henry	2	1
SX21211017	Shelby County Cooperative Extension Office	0-2 Years	Not Funded	$469,263	Shelby	3	1
SX21185006	Wastewater Treatment Plant Expansion	3-5 Years	Partially Funded	$4,900,000	Oldham	4	1
SX21215002	Sewer System Expansion - Priority 2	0-2 Years	Partially Funded	$1,340,000	Spencer	5	1
SX21223008	Pump Station Rehabilitation	3-5 Years	Not Funded	$95,000	Trimble	6	1
SX21185032	Kentucky State Reformatory - Rehab Phase I	3-5 Years	Not Funded	$2,718,080	Oldham	7	2
SX21029014	Bullitt Hills Subdivision and Hillview Wastewater Treatment System	0-2 Years	Partially Funded	$1,119,000	Bullitt	8	2
SX21103011	Pleasureville Wastewater Capacity Upgrade	3-5 Years	Not Funded	$150,000	Henry	9	2
SX21211008	Eminence Pike Gravity Sewers	3-5 Years	Not Funded	$2,380,000	Shelby	10	2
SX21223009	Wastewater Treatment Plant Improvements	3-5 Years	Not Funded	$250,000	Trimble	11	2
SX21185005	Madison Street Lift Station Upgrade	3-5 Years	Not Funded	$306,500	Oldham	12	3
SX21029015	Willabrook Wastewater Treatment Plant Expansion	3-5 Years	Partially Funded	$3,000,000	Bullitt	13	3
SX21223011	City of Milton - I/I Mitigation	3-5 Years	Not Funded	$350,000	Trimble	14	3
SX21103015	New Castle - WWTP Sludge Removal	3-5 Years	Not Funded	$208,800	Henry	15	3
SX21211014	Fast Action Response & Management (Farm) Project	3-5 Years	Not Funded	$336,000	Shelby	16	3
SX21029029	Shepherdsville-Blue Lick Stormwater Project	3-5 Years	Not Funded	$1,996,250	Bullitt	17	4
SX21185051	OCEA Lift Station Rehab, Renovation, and Replacement	3-5 Years	Not Funded	$2,005,000	Oldham	18	4
SX21103014	I-71 Exit 34 Sewer Extension	0-2 Years	Not Funded	$303,479	Henry	19	4
SX21223010	Collection System Improvements & I/I Mitigation	6-10 Years	Not Funded	$370,000	Trimble	20	4
SX21185036	Ash Avenue Sewer Rehab	0-2 Years	Not Funded	$478,420	Oldham	21	5
SX21029002	Shepherdsville Sewer Rehab	3-5 Years	Not Funded	$500,000	Bullitt	22	5
SX21185045	Septic Tank Management	3-5 Years	Not Funded	$500,000	Oldham	23	6
SX21029006	Woodland Acres Package Plant Project	6-10 Years	Not Funded	$600,000	Bullitt	24	6
SX21185010	I-71 Interceptor Sewer Replacement	3-5 Years	Not Funded	$694,000	Oldham	25	7
SX21185011	South Pump Station	3-5 Years	Not Funded	$688,000	Oldham	26	8
			Total Cost:	**$28,338,992**			

Kentucky River Area Development District (KRADD)

- 2010 census population of 114,762 (52,786 households) with 21% serviceable.
- Projected 2020 population of 111,267 (change of -3,495).
- 255.60 miles of existing sewer lines.
- 162.00 miles of line extensions proposed in the next 10 years.
- 10.00 miles of line rehabilitation proposed in the next 10 years.
- There are no interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $81,398,213.
- Estimated funding needs for projects from 6 to 10 years: $17,190,000.

Kentucky River Area Development District has a 2010 census population count of 114,762 (52,786 households) with a projected 2020 population count of 111,267 (45,823 households). Public sewer is currently available to approximately 21 percent of the district's households based on 2010 census counts. Over the next ten years approximately 5,371 serviceable households will be added through the construction of 162.00 miles of sewer line extensions and approximately 5,370 instances of improved service through the rehabilitation of 10.00 miles of existing sewer lines and other appurtenances.

County Summary for Kentucky River Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Breathitt	13,878	6,231	12,495	5,046	1,403	23%	$ 14,306,150
Knott	16,346	7,461	15,635	6,332	891	12%	$ 16,906,531
Lee	7,887	3,436	7,820	3,014	962	28%	$ 8,000,000
Leslie	11,310	5,278	10,603	4,377	662	13%	$ 6,470,000
Letcher	24,519	11,601	24,237	10,161	3,006	26%	$ 17,832,000
Owsley	4,755	2,328	4,704	1,971	392	17%	$ 7,726,500
Perry	28,712	12,791	28,137	11,637	3,500	27%	$ 27,098,432
Wolfe	7,355	3,660	7,636	3,285	358	10%	$ 248,600
Totals	**114,762**	**52,786**	**111,267**	**45,823**	**11,174**	**21%**	**$ 98,588,213**

Public Sewer Systems in the Kentucky River Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0021288	Jackson Wastewater	Breathitt	2,963	1,403
KY0027685	Hindman Wastewater	Knott	1,303	620
KY0042854	Knott County Water and Sewer District	Knott	547	107
KY0107956	Troublesome Creek Environmental Authority (Ball Creek)	Knott	264	121
KY0021121	Beattyville Wastewater	Lee	2,626	962
KY0021245	Hyden Wastewater Department	Leslie	1,429	662
KY0027405	Fleming-Neon Wastewater	Letcher	1,951	979
KY0038571	Jenkins Wastewater	Letcher	1,878	897
KY0103217	Letcher County Water & Sewer District - Millstone	Letcher	91	39
KY0106283	Whitesburg Wastewater	Letcher	2,350	1,091
KY0033774	Booneville Water and Sewer	Owsley	827	392
KY0020079	Hazard Wastewater	Perry	6,274	2,901
KYP000034	Perry County Sanitation District #1	Perry	960	438
KY0060259	Vicco Wastewater	Perry	433	196
KY0104728	Campton Wastewater Department	Wolfe	700	358
		Totals:	24,596	11,166

Kentucky River Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Extend Services to Unserved Areas**
Secondary Need: **Repair and Replace Existing Infrastructure**

Discussion of Area Development District Needs:

The majority of the area is now beginning to turn to wastewater service extensions as the past has mostly been focused on providing reliable and safe potable water to the residents. The majority of our counties are now reaching 80% served with potable water and some have even achieved 95-98% served. Our entities are now looking to improve the water quality and the environment by providing a reliable means of wastewater removal which will improve the streams that empty into the rivers most use for their water source. Many residents in the area rely on failing septic systems or straight pipes for their wastewater removal needs.

Those utilities who have provided wastewater removal services for the area, have done so for many years and are now facing aging infrastructure that is in constant need of repair and/or replacement. Many of the lines are constantly breaking and the lift stations are failing which creates the potential for contamination. Wastewater concerns are focused on replacement of degraded lines, rehabilitation of lift stations and plants and when rehabilitation of the plants is not feasible construction of new ones.

Description and Determination of Planning Units:

The Kentucky River Area Water Management Council reviewed the wastewater systems and their service areas located within the Kentucky River Area Development District. The Council designated the Kentucky River Area Development District boundary as the regional management area. Within the Kentucky River Region, the following wastewater systems and their respective wastewater management planning areas were designated by the Council:

Kentucky River Area Water Management Planning Areas

1. Breathitt County Wastewater Management Planning Area
a) Breathitt County Water District (Planning to provide wastewater service in near future)
b) Jackson Wastewater
c) Troublesome Creek Environmental Authority (stand alone plant)

2. Knott County Wastewater Management Planning Area
a) Hindman Wastewater
b) Knott Co. Water and Sewer District
c) Troublesome Creek Environmental Authority (stand alone plant)

3. Lee County Wastewater Management Planning Area
a) Beattyville Wastewater

4. Leslie County Wastewater Management Planning Area
a) Hyden Wastewater Department

5. Letcher County Wastewater Management Planning Area
a) Fleming-Neon Wastewater
b) Jenkins Wastewater
c) Letcher County Water and Sewer District
d) Whitesburg Wastewater

6. Owsley County Wastewater Management Planning Area
a) Booneville Water and Sewer

7. Perry County Wastewater Management Planning Area
a) Hazard Wastewater
b) Vicco Wastewater
c) Perry County Sanitation District #1
d) Troublesome Creek Environmental Authority

8. Wolfe County Wastewater Management Planning Area
a) Campton Wastewater

Kentucky River Area Development District
Project Ranking Methodology

The KRADD Water Management Council meets once a year to prioritize projects in our area. Our area's utility managers and chief executives begin the ranking by first reviewing the previous year's prioritization and then pair off by county to discuss their current projects. Each county is given a list of the profiles they have in the WRIS and then they rank their basic needs during this portion of the meeting.

Once the counties rank their projects the Council then begins the process of prioritizing the projects that are of the most concern for the region. The council first discusses everyone's top ranked county project. This discussion is based on service population, violations the entity has received, current funding, whether the project is for new or existing customers and the overall community need. Following this discussion the council then begins the process of selecting the top regional projects based on the information presented. The county with the most critical overall need is the first ranked and then the other counties follow suit.

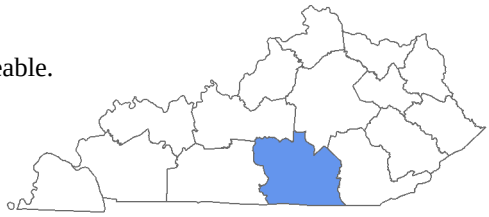
The Kentucky River region's main concerns for water projects are those that address establishing new water service to areas that currently rely on failing or contaminated wells and areas that must haul water. The region is also faced with major rehab as most systems have lines that have been in place for 40+ years as well as rehabilitation of existing plants and in cases where rehab is to expensive then the construction of new plants.

Wastewater concerns are focused on rehabilitation of lift stations and plants and when rehabilitation of the plants is not feasible construction of new ones. The majority of the area is now beginning to turn to wastewater service extensions as the past has mostly been focused on providing reliable and safe potable water to the residents. The majority of our counties are now reaching 80% served and some have even achieved 95-98% served. Our entities are now looking to improve the water quality and the environment by providing a reliable means of wastewater removal which will improve the streams that empty into the rivers most utilize for their water source.

Project Rankings For Kentucky River Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21131211	Hyden - Wooton Sewer Plant Project	6-10 Years	Not Funded	$4,200,000	Leslie	1	1
SX21133009	Crafts Colley Sanitary Sewer Project - Phase 1	0-2 Years	Partially Funded	$2,675,000	Letcher	2	1
SX21133644	Jenkins Dairy Hollow Sewer Extension	3-5 Years	Not Funded	$250,000	Letcher	3	2
SX21193006	Vicco Wastewater Treatment Plant & Sewer Collection Project - Phase III	3-5 Years	Not Funded	$2,036,800	Perry	4	2
SX21193003	Hazard Sanitary Trunk Rehabilitation	3-5 Years	Not Funded	$3,211,510	Perry	5	1
SX21129005	Beattyville Highway 11 South Sewer Line Extension	3-5 Years	Not Funded	$2,000,000	Lee	6	1
SX21025006	Jackson - Wastewater Lift Station Rehabilitation Project	0-2 Years	Fully Funded	$1,200,000	Breathitt	7	1
SX21189003	Booneville - Highway 11 Sewer Extensions	3-5 Years	Not Funded	$2,239,900	Owsley	8	1
SX21237003	Campton Lake Area Sewer Extensions	3-5 Years	Not Funded	$248,600	Wolfe	9	1
SX21025003	Wolverine Sewer Extensions	3-5 Years	Not Funded	$697,500	Breathitt	10	2
SX21129007	Beattyville - Wastewater Treatment Plant Expansion	3-5 Years	Not Funded	$6,000,000	Lee	11	2
SX21189600	Booneville Hwy 1411 Sewer Extension	3-5 Years	Not Funded	$602,600	Owsley	12	2
SX21133020	Jenkins - Wastewater Treatment Plant Improvements	3-5 Years	Not Funded	$1,200,000	Letcher	13	6
SX21193051	TEA - Perry County Sewer Project Phase I	3-5 Years	Partially Funded	$4,689,780	Perry	14	3
SX21193100	PCSD - Chavies Wastewater Treatment Plant	0-2 Years	Partially Funded	$2,660,000	Perry	15	5
			Total Cost:	**$33,911,690**			

Lake Cumberland Area Development District (LCADD)



- 2010 census population of 207,256 (101,129 households) with 26% serviceable.
- Projected 2020 population of 221,481 (change of 14,225).
- 529.51 miles of existing sewer lines.
- 142.00 miles of line extensions proposed in the next 10 years.
- 26.00 miles of line rehabilitation proposed in the next 10 years.
- 25.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $80,232,471.
- Estimated funding needs for projects from 6 to 10 years: $7,138,680.

Lake Cumberland Area Development District has a 2010 census population count of 207,256 (101,129 households) with a projected 2020 population count of 221,481 (92,378 households). Public sewer is currently available to approximately 26 percent of the district's households based on 2010 census counts. Over the next ten years approximately 3,859 serviceable households will be added through the construction of 142.00 miles of sewer line extensions and approximately 2,180 instances of improved service through the rehabilitation of 26.00 miles of existing sewer lines and other appurtenances. 25.00 miles of interceptor lines are also proposed within this district.

County Summary for Lake Cumberland Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Adair	18,656	8,568	20,052	8,151	1,920	22%	$ 8,328,500
Casey	15,955	7,487	16,433	6,791	1,058	14%	$ 4,556,000
Clinton	10,272	5,311	10,896	4,755	1,296	24%	$ 9,551,000
Cumberland	6,856	3,690	6,649	2,840	825	22%	$ 3,500,000
Green	11,258	5,324	11,112	4,660	1,456	27%	$ 1,290,000
McCreary	18,306	7,507	18,314	6,819	1,730	23%	$ 9,823,985
Pulaski	63,063	31,443	71,036	29,901	7,008	22%	$ 14,032,000
Russell	17,565	9,993	18,782	8,112	2,958	30%	$ 7,146,566
Taylor	24,512	10,864	26,079	10,663	5,189	48%	$ 9,252,100
Wayne	20,813	10,942	22,128	9,686	2,925	27%	$ 19,891,000
Totals	**207,256**	**101,129**	**221,481**	**92,378**	**26,365**	**26%**	**$ 87,371,151**

Public Sewer Systems in the Lake Cumberland Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0024317	Columbia/Adair Utilities District	Adair	4,532	1,920
KY0026352	Liberty Water & Gas	Casey	2,059	1,058
KY0024295	Albany Municipal Water & Sewer	Clinton	2,501	1,296
KY0036854	Burkesville Wastewater	Cumberland	1,496	779
KY0023841	Greensburg Sewer Department	Green	2,358	1,179
KY0096881	Sanitation District #1 of Green County	Green	616	277
KY0097837	McCreary County Water District	McCreary	3,884	1,730
KYP000069	Burnside Municipal Water Works	Pulaski	523	278
KY0094447	Science Hill Sewer	Pulaski	1,141	496
KY0026611	Somerset Utilities	Pulaski	12,901	6,233
KY0062995	Jamestown Utilities	Russell	1,885	913
KYP000057	Russell Springs Sewer & Water Works	Russell	3,678	2,043
KY0054437	Campbellsville Municipal Water & Sewer System	Taylor	11,563	5,189
KY0033847	Monticello Utility Commission	Wayne	6,254	2,925
		Totals:	55,391	26,316

Lake Cumberland Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The Lake Cumberland Area Development District planning units are in need of repairing and replacing existing infrastructure. The systems in the Lake Cumberland Area need to repair and/or replace lift stations, sewer lines and manholes due to aging infrastructure. The some systems also need to upgrade the existing treatment plants with safer, more efficient methods of treatment.

The Lake Cumberland Area Development District planning units would like to provide service to more customers by extending service to unserved areas. Providing service to unserved areas will eliminate failing septic systems and straight pipe discharges allowing growth without the potential for health problems resulting from human exposure to untreated sewage.

The needs of the Lake Cumberland Regional Water Management Council are a very diverse collection. Other needs of the area include meeting regulatory requirements and sanitary sewer overflow correction.

Description and Determination of Planning Units:

The Lake Cumberland Area Development District is made up of thirteen planning units. The planning units were determined by the Lake Cumberland Regional Water Management Council based on local issues in the area such as location, size of area, number of customers, number of systems, and need and ability of systems to plan together. The planning units are Adair (Columbia/Adair Utilities District), Bronston/Burnside (Bronston Water Association and Burnside Municipal Water Works), Campbellsville (Campbellsville Municipal Water & Sewer System), Casey (Liberty Water & Gas), Clinton (Albany Municipal Water & Sewer), Cumberland (Burkesville Wastewater and Cumberland County Water District), Eubank/Science Hill (City of Eubank Water System and Science Hill Sewer), Greensburg (Greensburg Sewer Department), McCreary (McCreary County Water District), Russell (Jamestown Utilities and Russell Springs Sewer & Water Works), Somerset (Somerset Utilities), Summersville (Sanitation District #1 of Green County), and Wayne (Monticello Utility Commission).

Lake Cumberland Area Development District
Project Ranking Methodology

The current needs in the Lake Cumberland ADD region are quite sizeable. While water service has been provided to most residents some are still in need of service, expanded treatment capacity and replacement of aging or undersized lines are becoming more and more necessary. For wastewater, the needs include system expansion, unserved areas, aging infrastructure, and expanded treatment capacity.

The Lake Cumberland Regional Water Management Council uses a point based ranking system to rank the needs of the area. Each local system was asked to submit their most needed projects to the Council for ranking. Projects were scored on a series of criteria including Type of Project, Regionalism, Shovel Readiness, Funding Status, Planning Assessment, and Local Need. Additional bonus points were assigned at the discretion of the Council for projects deemed most deserving. In the event of a tie, the project's Cost per Connection was used as the deciding factor.

The following point criteria will be submitted to the Lake Cumberland Regional Water Management Council on December 6, 2012 for approval:

Type of Project (up to 20 points assigned)

Unserved – Points based on number of households served per mile

AVERAGE 9 OR GREATER HOUSEHOLDS PER MILE -	20
AVERAGE 7-8 HOUSEHOLDS PER MILE -	19
AVERAGE 5-6 HOUSEHOLDS PER MILE -	18
AVERAGE 3-4 HOUSEHOLDS PER MILE -	15
AVERAGE 1-2 HOUSEHOLDS PER MILE -	10
AVERAGE OF LESS THAN 1 HOUSEHOLDS PER MILE -	5

Underserved – Points based on percentage of total customer base impacted

80-100% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	20
60-79% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	19
40-59% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	18
20-39% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	15
10-19% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT -	10
LESS THAN 10% OF TOTAL CUSTOMER BASE IMPACTED BY PROJECT –	5

Industrial/Commercial – Points based on number of jobs created/retained

100 OR MORE NEW JOBS CREATED OR JOBS RETAINED -	20
75-99 NEW JOBS CREATED OR JOBS RETAINED -	19
50-74 NEW JOBS CREATED OR JOBS RETAINED -	18
20-49 NEW JOBS CREATED OR JOBS RETAINED -	15
10-19 NEW JOBS CREATED OR JOBS RETAINED -	10
LESS THAN 10 NEW JOBS CREATED OR JOBS RETAINED -	5

Other – 3 points assigned for projects not meeting the above types

Combination – Most favorable listed category plus an additional 3 points

Project Delivery (up to 15 points assigned)

Regional - 15 points
Non-Regional – 5 points

Project Status (up to 15 points assigned)

Engineering Plans and specs submitted to DOW -	15 points
Preliminary Engineering Report completed -	10 points
Cost estimate by PE -	5 points

Funding Status (up to 15 points assigned)

Projects with estimated costs greater than $100,000

Funding committed for 50% or more -	15 points
Funding committed for 1-49% or more -	10 points
Pending applications -	5 points
Projects with estimated costs of $100,000 or less -	10 points

Planning Unit Assessment (up to 15 points assigned)

Meets primary/secondary need -	15 points
Does not meet primary/secondary need –	5 points

Local Need (up to 20 points assigned)

Points assigned based on the planning unit ranking

1ST –	20 POINTS
2ND –	16 POINTS
3RD –	13 POINTS
4TH –	11 POINTS
5TH –	9 POINTS
6TH –	7 POINTS
7TH –	6 POINTS
8TH –	5 POINTS
9TH –	4 POINTS
10TH –	3 POINTS
11TH –	2 POINTS
12TH –	1 POINTS

13TH OR HIGHER – 0 POINTS

Council Input (up to 10 points assigned)

Council assigns 10 bonus points to 15% of projects

Tie Breaker (no points assigned)

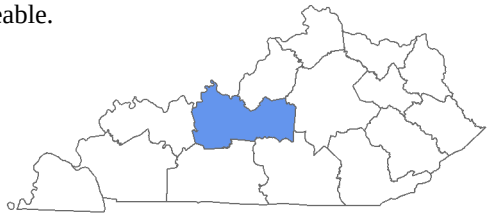
Cost per connection - only used to break point based ties

Lowest cost per connection is ranked highest

Project Rankings For Lake Cumberland Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21199001	Midtown Sanitary Sewer Upgrade	3-5 Years	Fully Funded	$3,000,000	Pulaski	1	1
SX21217002	Wastewater Treatment Plant Flood Mitigation Project	3-5 Years	Not Funded	$2,855,000	Taylor	2	1
SX21001004	Downtown Sewer System Improvements - Phase 1	3-5 Years	Not Funded	$1,930,000	Adair	3	1
SX21147020	Sewer System Extensions – Revelo to Stearns Phase 1	3-5 Years	Not Funded	$930,000	McCreary	4	1
SX21053006	Albany Lift Station Renovation	3-5 Years	Not Funded	$665,000	Clinton	5	1
SX21217008	Campbellsville Sewer System Renovation	3-5 Years	Not Funded	$788,000	Taylor	6	2
SX21199028	Somerset/Bourne Ave Sanitary Sewer Upgrade	3-5 Years	Fully Funded	$375,000	Pulaski	7	2
SX21199029	Somerset/South Central Ave Sanitary Sewer Upgrade	3-5 Years	Fully Funded	$250,000	Pulaski	8	3
SX21087014	Green Co. SD#1 – Wastewater System Upgrades	3-5 Years	Not Funded	$740,000	Green	9	1
SX21053004	Rowena - Lake Cumberland Sewer System Extension	3-5 Years	Not Funded	$1,697,000	Clinton	10	2
			Total Cost:	**$13,230,000**			

Lincoln Trail Area Development District (LTADD)



- 2010 census population of 269,117 (116,687 households) with 29% serviceable.
- Projected 2020 population of 295,040 (change of 25,923).
- 917.18 miles of existing sewer lines.
- 65.00 miles of line extensions proposed in the next 10 years.
- 2.00 miles of line rehabilitation proposed in the next 10 years.
- 32.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $80,827,420.
- Estimated funding needs for projects from 6 to 10 years: $258,970.

Lincoln Trail Area Development District has a 2010 census population count of 269,117 (116,687 households) with a projected 2020 population count of 295,040 (117,392 households). Public sewer is currently available to approximately 29 percent of the district's households based on 2010 census counts. Over the next ten years approximately 1,941 serviceable households will be added through the construction of 65.00 miles of sewer line extensions and approximately 5,283 instances of improved service through the rehabilitation of 2.00 miles of existing sewer lines and other appurtenances. 32.00 miles of interceptor lines are also proposed within this district.

County Summary for Lincoln Trail Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Breckinridge	20,059	10,630	21,489	8,788	1,434	14%	$ 10,534,720
Grayson	25,746	13,561	27,048	11,007	3,415	25%	$ 1,077,500
Hardin	105,543	43,261	116,612	46,055	12,342	29%	$ 43,790,870
Larue	14,193	6,172	14,961	6,069	1,518	25%	$ 1,804,000
Marion	19,820	8,182	21,424	8,332	3,209	39%	$ 5,024,300
Meade	28,602	11,762	30,901	11,964	2,548	22%	$ 608,000
Nelson	43,437	18,075	50,119	20,219	8,257	46%	$ 11,929,000
Washington	11,717	5,044	12,486	4,958	1,305	26%	$ 6,318,000
Totals	**269,117**	**116,687**	**295,040**	**117,392**	**34,028**	**29%**	**$ 81,086,390**

Public Sewer Systems in the Lincoln Trail Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0026701	Cloverport Sewer System	Breckinridge	935	454
KY0028363	Hardinsburg Sewer System	Breckinridge	2,058	980
KY0072044	Caneyville Sewer System	Grayson	613	301
KY0090590	Clarkson Sewer System	Grayson	878	439
KY0022934	Leitchfield Utilities Commission	Grayson	5,789	2,652
KY0022390	Hardin Co. Water District No. 1 Radcliff Sewer System	Hardin	23,296	10,095
KY0024988	Vine Grove Sewer System	Hardin	4,208	1,774
KY0022152	West Point Sewer System	Hardin	878	464
KY0026379	Hodgenville Sewer System	Larue	3,524	1,517
KY0090719	Bradfordsville Sewer System	Marion	311	151
KY0026549	Lebanon Sewer System	Marion	6,011	2,767
KYP000073	Loretto Wastewater System	Marion	674	291
KY0021474	Brandenburg Sewer System	Meade	2,748	1,196
KY0043478	Doe Valley Association Inc	Meade	1,878	820
KYP000051	Muldraugh Sewer System	Meade	936	532
KY0021237	Bardstown Sewer System	Nelson	17,181	7,437
KY0034436	Bloomfield Sewer System	Nelson	913	415
KY0034126	New Haven Sewer System	Nelson	936	406
KY0020907	Springfield Water & Sewer Commission	Washington	2,699	1,305
		Totals:	76,466	33,996

Lincoln Trail Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Sanitary Sewer Overflow Correction**

Discussion of Area Development District Needs:

The Lincoln Trail Area has primary service within municipal boundaries. There are a few pockets of unserved areas within each city (where they have annexed new property or where force-main may be required). Many of the systems are approaching an age where lines and primary mechanical facilities will need replacement and upgrade. Most of the sewer facilities were constructed in the late 1950's, 60's and 70's. Clay tile pipe is still predominate in many communities. Deterioration of these lines, as well as old cast iron lines contribute to high rates of infiltration and inflow.

New developments on the fringes of the high density urban areas (Hardin County areas outside of Elizabethtown) have the need for sanitary sewer service extensions. Many of these areas have poor soil quality for on-site systems and higher densities than practical. The Hardin County Water Districts (primarily No. 2) have begun developing plans to provide sanitary service to the most densely populated areas of Glendale and Rineyville. In particular, Glendale has a need for service due to potential commercial /industrial development along I-65.

The presence of infiltration and inflow in most systems has led to periodic SSO's and less than ideal or efficient treatment conditions at the WWTP's. Many communities have begun studies to prioritize areas for repair and replacement to reduce I & I conditions where possible. The greatest current need will continue to be repair and upgrade of existing lines / manholes to improve flow conditions.

Description and Determination of Planning Units:

Planning units in the Lincoln Trail Region are primarily set by county boundaries. They generally compose a large enough geographic area and small enough grouping of utilities to provide reasonable interaction, feedback, and information to be a useful planning unit. The municipal entities within each county are the primary responsible utilities for provision of sewer service due to the density requirements for collection.

With the widespread availability of potable water, there is a need to constantly review the development appropriateness of sanitary service. Most unincorporated households utilize on-site septic systems which work in varying degrees of success. Poor soil suitability in some areas means less than adequate treatment and potential source water degradation. Unincorporated County areas have the potential to be included in new sanitary districts if formed.

Lincoln Trail Area Development District
Project Ranking Methodology

The Lincoln Trail Area Water Management Planning Council uses the following guideline for prioritizing water and wastewater projects on a regional basis. The guideline was adapted from previous versions outlined by KIA which uses five criteria to assign a point value for each project. The process is hopefully inclusive and allows for discussion at the local level to improve understanding of a proposed project's intent and impact.

County Advisory Committees meet at least once locally. That meeting is hosted by the County Judge/Executive (as the Advisory chairperson) with each local utility, Mayor, and local Health Department invited to participate. All proposed projects are reviewed by the committee and given an initial score based upon how the project meets the five criteria (project type, regional connections, design status, funding status, and local need). Most of the discussion by the committees is centered on what projects address the greatest local needs. Since there can be diverse interests represented, this means the committee members must work together to determine what needs are most important in their community and what projects will meet them.

After all the County Advisory meetings have taken place the Area Water Management Council meets to finalize the priorities. Staff then does a summary tabulation of project points. The Council takes up the projects and scoring as presented by staff and County Advisory Committees. In the past two years, the Council has only included the top five projects from each County Advisory group for the regional prioritization list (meaning there is a maximum of 40 projects eligible to receive regional bonus points). The Council can assign bonus points to projects that they feel best represent the regional interest. The bonus points are assigned to the top 15% scoring projects. The following criteria are used for the overall scoring:

Project type [20 points max to 5 points min.]:

- Unserved (customers / mile): 7>/mile=20 pts, 5-6/mile=15 pts, 3-4/mile=10 pts, 2</mile=5 pts;
- Underserved/Improved Service (% of system improved): 75-100%=20 pts, 50-75%=15 pts, 25-49%=10 pts,
- <25% / maintenance = 5 pts;
- Economic Development (# of jobs assisted) 25+ committed= 20pts, 15-24 committed= 15pts, less than 15 committed= 10pts, no quantified jobs= 5 pts; Other (technical improvements, feasibility studies, etc. = 10 points)

Regional Connection [20 points max]:

- Regional project that connects or merges 2 or more systems for the sale or production of water or wastewater treatment (20 pts.)
- Increased connectivity: improved existing connection or emergency connection (10 pts.)
- Non-regional (5 pts.)

Design Status:

- Div. of Water approved plans (20 pts.)
- Preliminary Engineering Report completed (15 pts.)
- Engineer procured for final design (10 pts.)
- Engineer developed profile (5 pts.)

Funding Status: The percentage of cost committed from local sources (20 to 5 points)

- 50% or more from local sources (20pts.)
- 25-49% from local sources (15pts.)
- Less than 25% from local or submitted applications, i.e. CDBG, RD, KIA (10pts)
- Other (5pts)

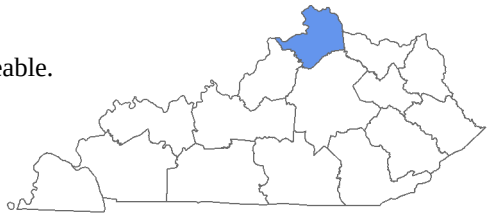
Local Need:

- Most important project within the planning unit (20 pts.)
- 2nd most important project (18 pts.)
- 3rd most important project (15 pts.)
- 4th most important project (11 pts.)
- 5th most important project (6 pts.)
- Only the top five in each planning unit are scored for local need.

Project Rankings For Lincoln Trail Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21093019	HCWD#2 Rineyville Collector Sewers	3-5 Years	Not Funded	$24,000,000	Hardin	1	1
SX21179020	New Haven Phase I Sewer Extension to Gethsemani Monastery	3-5 Years	Not Funded	$791,000	Nelson	2	3
SX21179014	Bardstown Cox	3-5 Years	Not Funded	$1,960,000	Nelson	3	2
SX21179013	New Haven - WWTP Improvements Projects	3-5 Years	Not Funded	$1,136,000	Nelson	4	1
SX21229008	Springfield Hwy 150/KY55 Business Park Sewer	3-5 Years	Not Funded	$578,000	Washington	5	1
SX21085009	Clarkson Sewer / Lift Station Rehabilitation	3-5 Years	Not Funded	$192,500	Grayson	6	1
SX21229006	Springfield - Washington County Regional Sewer Study	3-5 Years	Not Funded	$150,000	Washington	7	3
SX21085003	Leitchfield Health Center Sewer Extension	0-2 Years	Not Funded	$350,000	Grayson	8	2
SX21179017	City of New Haven I and I Sewer Rehab. Phase II	3-5 Years	Not Funded	$646,000	Nelson	9	4
SX21229003	Springfield Wastewater Treatment Plant Upgrade	3-5 Years	Not Funded	$1,190,000	Washington	10	
SX21163006	Brandenburg Main Lift Station Replacement / Upgrade	0-2 Years	Not Funded	$368,000	Meade	11	1
SX21155009	Lebanon Wastewater System Rehabilitation and Improvements	0-2 Years	Not Funded	$995,000	Marion	12	1
SX21085008	Leitchfield Fountain View Sewer Extensions Phase II	3-5 Years	Not Funded	$535,000	Grayson	13	3
SX21093022	HCWD#1 Boone Trace Sewer Improvements	0-2 Years	Not Funded	$2,000,000	Hardin	14	3
SX21093014	Elizabethtown Billy Creek / Valley Creek Interceptor	0-2 Years	Fully Funded	$7,800,000	Hardin	15	2
SX21163005	Muldraugh Sewer Improvements Phase 3	3-5 Years	Not Funded	$240,000	Meade	16	2
SX21155005	Crossroads Industrial Park Sewer Extension	3-5 Years	Not Funded	$390,000	Marion	17	2
SX21027015	Cloverport Trailer Park Sewer Rehab	0-2 Years	Not Funded	$146,040	Breckinridge	18	4
SX21229005	Willisburg Wastewater Project	3-5 Years	Not Funded	$3,400,000	Washington	19	4
SX21027018	Cloverport Sewer System Lift Station Rehabilitation	0-2 Years	Not Funded	$122,100	Breckinridge	20	1
SX21027010	Irvington Sanitary Sewer Improvements	3-5 Years	Not Funded	$3,000,000	Breckinridge	22	5
SX21229004	Springfield, Jim Town Project	3-5 Years	Not Funded	$1,000,000	Washington	24	5
SX21027013	Hardinsburg Sewer System Rehabilitation Phase 2	0-2 Years	Not Funded	$827,240	Breckinridge	25	3
SX21027020	Irvington Manhole Rehabilitation Project	0-2 Years	Not Funded	$91,390	Breckinridge	26	2
SX21093021	West Point Lift Station Upgrad	3-5 Years	Not Funded	$343,350	Hardin	27	4
SX21093011	HCWD #1 Racliff Standby Generator Project	0-2 Years	Not Funded	$1,597,200	Hardin	28	5
SX21155001	Lebanon Wastewater System Improvements	3-5 Years	Not Funded	$293,000	Marion	29	3
			Total Cost:	**$54,141,820**			

Northern Kentucky Area Development District (NKADD)



- 2010 census population of 438,647 (185,049 households) with 81% serviceable.
- Projected 2020 population of 488,377 (change of 49,730).
- 2,077.47 miles of existing sewer lines.
- 45.00 miles of line extensions proposed in the next 10 years.
- 26.00 miles of line rehabilitation proposed in the next 10 years.
- 12.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $60,398,008.
- There are no projects planned from 6 to 10 years.

Northern Kentucky Area Development District has a 2010 census population count of 438,647 (185,049 households) with a projected 2020 population count of 488,377 (194,345 households). Public sewer is currently available to approximately 81 percent of the district's households based on 2010 census counts. Over the next ten years approximately 1,568 serviceable households will be added through the construction of 45.00 miles of sewer line extensions and approximately 13,529 instances of improved service through the rehabilitation of 26.00 miles of existing sewer lines and other appurtenances. 12.00 miles of interceptor lines are also proposed within this district.

County Summary for Northern Kentucky Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Boone	118,811	46,154	153,933	59,951	39,731	86%	$ 24,362,960
Campbell	90,336	39,523	91,642	37,713	34,621	88%	-
Carroll	10,811	4,696	11,440	4,408	3,074	66%	$ 6,530,369
Gallatin	8,589	3,786	9,264	3,592	1,350	36%	$ 3,470,747
Grant	24,662	9,942	26,917	9,870	4,203	42%	$ 11,133,970
Kenton	159,720	68,975	168,458	68,111	64,461	94%	$ 5,102,456
Owen	10,841	5,634	11,336	4,713	933	17%	$ 696,079
Pendleton	14,877	6,339	15,387	5,987	1,584	25%	$ 9,101,427
Totals	**438,647**	**185,049**	**488,377**	**194,345**	**149,957**	**81%**	**$ 60,398,008**

Public Sewer Systems in the Northern Kentucky Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KYP000015	Florence Water & Sewer Commission	Boone	27,925	12,250
KY0094072	SD1 - Rivershore Farms Subdivision	Boone	662	223
KY0093025	SD1 - Verona Commons Subdivision	Boone	87	27
KY0039756	Walton Wastewater System	Boone	3,236	1,272
KY0105031	SD1 - Eastern Regional STP	Campbell	11,861	4,480
KY0092843	Yung Farm Estates Subdivision	Campbell	50	21
KY0104931	Carrollton Utilities	Carroll	8,707	3,894
KYP000056	Carrollton Utilities - Prestonville	Carroll	227	97
KY0028118	Warsaw Wastewater System	Gallatin	2,104	996
KY0098027	Corinth Sewer Department	Grant	405	176
KYP000041	Dry Ridge Sewer Department	Grant	2,031	814
KY0091634	Grant County Sanitary Sewer District	Grant	5,335	2,013
KY0109991	Williamstown Regional WRF	Grant	3,230	1,205
KY0075833	Bel Aire Subdivision	Kenton	104	37
KY0021466	SD1 - Dry Creek	Kenton	284,018	120,251
KY0102164	Walton Industrial Park STP	Kenton	395	152
KY0028312	Kentucky-American Water Company - Northern Division	Owen	1,417	707
KY0021041	Butler Water & Sewer Department	Pendleton	761	350
KY0106267	Falmouth STP (New)	Pendleton	2,661	1,218
		Totals:	355,216	150,183

Northern Kentucky Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Extend Services to Unserved Areas**
Secondary Need: **Combined Sewer Overflow Correction**

Discussion of Area Development District Needs:

The Northern Kentucky Area Development District is one of fifteen regional planning agencies created by the Kentucky General Assembly to provide a mechanism for cooperative planning and development between the various local governments within the region. The Northern Kentucky Area Development District region is comprised of Boone, Campbell, Carroll, Gallatin, Grant, Kenton, Owen and Pendleton Counties. Development patterns in the region range from highly developed urbanized areas to rural farmland with sparse development. The entire eight-county region had a population of 438,647 people according to the 2010 Census. The regional population is projected to increase to over 565,200 people (221,400 households) by 2030. Boone, Grant and Gallatin counties are expected to experience the greatest growth over the next 25 years.

Public wastewater systems serve approximately 74% of the regional population, with the remainder being served by private on-site systems. Campbell and Kenton counties have the highest percentage of residents on public sewers at 85% and 90%, respectively; while in Gallatin, Grant and Owen counties less than one-third to one-fifth of all people have access to public sewers.

The rate of population growth will increase the need for public sewer capacity and availability. Plans are currently underway to accommodate the demands of the projected growth both locally and regionally.
A majority of systems in the eight counties are looking to the future with plans to expand to serve the growing population through a regional approach. Northern Kentucky Sanitation District #1 was formed in 1995 when most municipal jurisdictions in Campbell and Kenton counties merged into a regional system. The District has built two new wastewater treatment plants, one in Boone County, to expand service and protect public health in the fastest growing county in the region and one in Campbell County to replace several smaller treatment facilities that have exceeded capacity.

Carrollton Utilities operates a regional network that is responsible for the systems in the neighboring cities of Campbellsburg, Glencoe, Prestonville, Sanders, Sparta, Ghent and Worthville.
In Grant County, the Grant County Sanitary Sewer District serves the City of Crittenden and northern part of the county. The City of Corinth operates a system in the southern part of the county. There is an interconnect between the cities of Williamstown, which operates the plant, and Dry Ridge. Officials in Pendleton County are also considering a similar regional system.

Description and Determination of Planning Units:

The NKADD Water Management Council reviewed the wastewater systems and their service areas located within the Northern Kentucky Area Development District. The Council designated the Northern Kentucky Area Development District boundary as the regional management area. Within NKADD, the following water systems and their respective water management planning areas were designated by the Council:

<u>BOONE COUNTY</u>
Boone County is the fastest growing county in Northern Kentucky, and was the second fastest growing county in the state between 1990 and 2000, during which time its population increased by 49.3 percent. This growth is expected to continue. With such rapid growth, planning for future infrastructure is essential. There are three publicly-owned wastewater systems in Boone County and 17 PTPs. The cities of Florence and Walton operate municipal wastewater systems and the Northern Kentucky Sanitation District provides sewer service to a small portion of the County as well as Campbell and Kenton counties. The Sanitation District is planning the construction of a new wastewater treatment plant in Boone County. Currently 65% of the population relies on public sewers.

CAMPBELL COUNTY

Campbell County is served by one public utility and 33 PTPs. The Northern Kentucky Sanitation District #1 (SD1) is responsible for the management of wastewater and stormwater in Campbell and Kenton counties as well as portions of Boone County. Campbell County is served by the Eastern Regional STP. Overall the district serves over 325,000 people, approximately 80% of the total population of the three counties.

CARROLL COUNTY

Carroll County is located on the Ohio River, approximately halfway between Cincinnati and Louisville. The County is not expected to see considerable growth in the near future. The topography of the County is rugged and much of the terrain is unsuitable for development. The County is served by 2 public utility and 3 PTPs. The city of Ghent operates a municipal system and Carrolton Utilities serves the cities of Carrollton, Campbellsburg, Ghent, Prestonville, Worthville, and Sanders.

GALLATIN COUNTY

Gallatin County is the smallest county in Kentucky by area but it was the 3rd fastest growing county in the state from 1990 to 2000 when its population increased by nearly 46 percent. Gallatin County has good transportation access via Interstate 71, which connects Louisville and Cincinnati, Ohio; and US 36, which connects Kentucky and Indiana, utilizing the Markland Dam to cross the Ohio River southwest of Warsaw. There are 2 public systems and 2 PTPs in Gallatin County. The city of Warsaw operates a municipal wastewater systems and Carrollton Utilities serves Sparta and Glencoe.

GRANT COUNTY

Grant County was the fourth fastest growing county in the state between 1990 and 2000. That growth rate is expected to continue. The Interstate 75 / U.S. 25 corridor provides convenient transportation and access for future development. Grant County is served by 3 public systems and 10 PTPs. The Grant County Sanitary Sewer District serves the city of Crittenden. The city of Williamstown operates a municipal system and treats the city of Dry Ridge as well. The city of Corinth operates a municipal system.

KENTON COUNTY

Kenton County is the third most populous county in the state. Ninety percent of the population has access to public sanitary sewers. Public sewer service is provided to most of these residents by the Northern Kentucky Sanitation District #1. The City of Walton, which sits on the border of southern Boone and Kenton Counties, provides service within its city limits. The Grant County Sanitary Sewer District may extend service into a small portion of southern Kenton County in the future. Additionally, there are 11 PTPs in the county.

Owen County is more sparsely populated than many other surrounding counties. The total population of 10,547 as of the 2000 Census was dispersed throughout the 352 square mile area the County encompasses resulting in an average population density of 30 persons per square mile. Because of the wide population distribution, only 20% of residents have access to public sewers. In addition to service from the city of Owenton, Carrollton Utilities is planning to extend sewer service into northern Owen County to serve communities along Eagle Creek. Additionally, there are 4 PTPs in the county.

PENDLETON COUNTY

Pendleton County has seen moderate growth over the past decade. The terrain is made up of rolling hills and fertile river valleys. The County is bordered by the Ohio River, which flows for 3.5 miles along its northeast border. The Licking River meanders through the County. The South Fork and main branch meet in Falmouth and flow north past Butler, into Campbell County toward the Ohio River. The county is served by 2 public systems and 9 PTPs. The cities of Butler and Falmouth operate municipal systems.

Northern Kentucky Area Development District
Project Ranking Methodology

The Water Management Council created a subcommittee to develop a ranking methodology for NKADD. This was based on the methodology created by KIA along with modifications instituted by other ADDs. A point system was developed that looked at several aspects of the projects based on the following criteria:

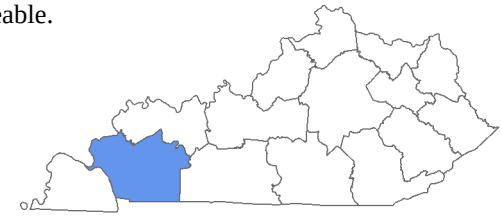
- Consolidation or regionalization of systems
- Local rankings
- Number of unserved/underserved customers affected
- Cost per household
- Amount of planning and development work completed
- Capacity to provide wastewater service (for waterline extensions)
- Local funding

A meeting is held with each Planning Unit to rank their projects. The projects are scored using a matrix developed from the established criteria. At the Water Management Council meeting, these scores are used the rank the projects for the whole ADD. NKADD uses a tiered system so that each Planning Units number one project is in the top 8: the highest number one project is first, the second highest number one project is second, the third highest number one project is third … until all of the projects ranked by the Planning Units are ranked for the whole ADD.

Project Rankings For Northern Kentucky Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21081305	GCSSD - Wastewater Treatment Plant Improvements	3-5 Years	Not Funded	$913,300	Grant	1	1
SX21041111	Carrollton Utilities - Regional SCADA System	0-2 Years	Not Funded	$96,000	Carroll	2	1
SX21191102	Oak Haven Pump Station and Force Main	0-2 Years	Not Funded	$646,034	Pendleton	3	1
SX21015105	City of Union - Gunpowder Greens Sanitary Sewer Extension	0-2 Years	Not Funded	$500,000	Boone	4	1
SX21117001	SD1 - Highland Pike Sewer Replacement	0-2 Years	Partially Funded	$3,185,000	Kenton	5	1
SX21187101	Carrollton Utilities - Obie Cook Road Sanitary Sewer Project	0-2 Years	Not Funded	$337,804	Owen	6	1
SX21077001	Willow Pointe Lift Station and Force Main	0-2 Years	Not Funded	$1,300,000	Gallatin	7	1
SX21191004	WWTP Lagoon Aerator Augmentation	0-2 Years	Not Funded	$464,083	Pendleton	8	2
SX21081307	Grant County Sanitary Sewer District - Bingham Pump Station Replacement	0-2 Years	Not Funded	$348,100	Grant	9	2
SX21015516	City of Walton - Loreco Avenue Sewer Liftstation	0-2 Years	Not Funded	$156,400	Boone	10	3
SX21041104	Carrollton Utilities - Harbor Point Sewer Extensions	3-5 Years	Not Funded	$975,007	Carroll	11	2
SX21191005	Sanitary Sewer and Stormwater Improvements	0-2 Years	Not Funded	$1,919,494	Pendleton	12	3
SX21041002	Carrollton Utilities - 2011 Carroll County Sewer Project	0-2 Years	Not Funded	$2,622,435	Carroll	14	3
SX21015003	SD1 - Sand Run PS Influent Sewer Improvements	0-2 Years	Partially Funded	$1,137,020	Boone	15	4
SX21041102	Carrollton Utilities - Easterday/Lock Road Sanitary Sewer Project	0-2 Years	Not Funded	$2,308,505	Carroll	16	4
SX21015301	Boone County - Twin Lakes Sanitary Sewer Project	0-2 Years	Not Funded	$2,093,280	Boone	17	5
			Total Cost:	**$19,002,462**			

Pennyrile Area Development District (PEADD)



- 2010 census population of 219,305 (97,910 households) with 51% serviceable.
- Projected 2020 population of 226,580 (change of 7,275).
- 1,010.02 miles of existing sewer lines.
- 32.00 miles of line extensions proposed in the next 10 years.
- 11.00 miles of line rehabilitation proposed in the next 10 years.
- 39.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $101,179,096.
- Estimated funding needs for projects from 6 to 10 years: $6,043,700.

Pennyrile Area Development District has a 2010 census population count of 219,305 (97,910 households) with a projected 2020 population count of 226,580 (89,133 households). Public sewer is currently available to approximately 51 percent of the district's households based on 2010 census counts. Over the next ten years approximately 2,148 serviceable households will be added through the construction of 32.00 miles of sewer line extensions and approximately 40,138 instances of improved service through the rehabilitation of 11.00 miles of existing sewer lines and other appurtenances. 39.00 miles of interceptor lines are also proposed within this district.

County Summary for Pennyrile Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Caldwell	12,984	6,292	12,948	5,518	3,236	51%	$ 2,470,000
Christian	73,955	29,459	77,840	28,340	19,450	66%	$ 52,393,550
Crittenden	9,315	4,569	9,156	3,775	1,564	34%	$ 750,000
Hopkins	46,920	21,180	48,007	19,684	13,769	65%	$ 23,409,746
Livingston	9,519	4,824	9,438	4,074	2,024	42%	$ 9,518,000
Lyon	8,314	4,791	8,523	3,430	1,564	33%	$ 1,984,500
Muhlenberg	31,499	13,699	31,466	12,337	5,268	39%	$ 6,000,000
Todd	12,460	5,286	12,958	4,989	1,700	32%	$ 10,697,000
Trigg	14,339	7,810	16,244	6,986	1,441	19%	-
Totals	**219,305**	**97,910**	**226,580**	**89,133**	**50,016**	**51%**	**$ 107,222,796**

Public Sewer Systems in the Pennyrile Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KYP000048	Fredonia Water Department	Caldwell	417	204
KY0028401	Princeton Water & Wastewater Commission	Caldwell	6,148	3,032
KY0066591	Hopkinsville Water Environment Authority - Crofton	Christian	975	476
KY0066532	Hopkinsville Water Environment Authority - Hammond Wood	Christian	34,626	15,695
KY0094056	Hopkinsville Water Environment Authority - Oak Grove	Christian	7,317	3,273
KY0020061	Marion Water Department	Crittenden	3,172	1,564
KY0023868	Dawson Springs Water & Sewer System	Hopkins	2,702	1,286
KYP000043	Earlington Water & Sewer Department	Hopkins	1,415	713
KYP000047	Hanson Water System	Hopkins	874	357
KY0098043	Madisonville Municipal Utilities	Hopkins	21,427	9,948
KYP000050	Mortons Gap Water Department	Hopkins	908	418
KY0066583	Nortonville Sewer Department	Hopkins	1,568	704
KYP000062	White Plains Sewer Department	Hopkins	796	347
KY0027227	Grand Rivers Water System	Livingston	866	602
KY0100251	Ledbetter Water District	Livingston	1,882	850
KY0066541	Salem Municipal Water System	Livingston	787	385
KY0025836	Smithland Water & Sewer System	Livingston	333	187
KY0027979	Eddyville Water Department	Lyon	2,197	907
KY0020419	Kuttawa Water Department	Lyon	896	593
KYP000079	Lyon County Water District	Lyon	82	64
KY0023540	Central City Municipal Water & Sewer System	Muhlenberg	4,799	2,232
KY0066575	Drakesboro Water & Sewer	Muhlenberg	898	413
KY0020010	Greenville Utilities Commission	Muhlenberg	5,490	2,277
KYP000064	Powderly Sewer System	Muhlenberg	718	346
KY0023442	Elkton Utilities	Todd	2,060	910
KY0063649	Guthrie Water Works	Todd	1,334	603
KY0020982	Trenton Water Works	Todd	386	187
KY0026891	Cadiz Water & Sewer Commission	Trigg	2,979	1,423
		Totals:	108,052	49,996

Pennyrile Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Extend Services to Unserved Areas**

Discussion of Area Development District Needs:

The Pennyrile region has lot varied needs but at this time the majority of our needs fall under the heading of repairing and replacing aging infrastructure. This category covers the replacement of individual lines, system wide rehabilitation, to replacing aging or undersized lift stations and finally the replacement of aging or undersized wastewater treatment plants. At this time the majority of the systems in the Pennyrile area are approaching or have passed the designed lifespan of their collection systems and treatment plants. Each system is unique and has different needs but overall problem is the same. Each system has some portion of its collection system that needs to be slip lined, pipe burst, or replaced in its entirety. As the cost of treatment increases it becomes more of a priority for the systems to address the portions of their systems that are allowing I & I (inflow and infiltration). The I & I that is treated by the system is unwanted water that has made it into the collection system. It cost just as much for a system to treat rain or ground water as it does to treat household waste. The addition of I & I drives up the treatment costs for the system which in turn drives up the customer rates.

The secondary need in the Pennyrile region is the extension of services to unserved areas. These projects have a twofold effect. First they provide sewer service to an unserved area which removes septic tanks and straight pipes and improved ground water quality. The second effect is that it increases the systems customer base which in turn increases system revenues. These increased revenues can be used to address system upgrades and maintenance.

Description and Determination of Planning Units:

The planning units in the Pennyrile region are based on the existing county boundaries. By keeping the planning units based on the county boundaries the systems are familiar with the political structure and the current relationship between them and their neighbors. Currently the Pennyrile region has nine planning units (Caldwell County, Christian County, Crittenden County, Hopkins County, Livingston County, Lyon County, Muhlenberg County, Todd County, and Trigg County). These planning units vary in number of systems from as little as one to as many as 8. In each of these instances the county based planning units seem to work well for the Pennyrile region. Many of the counties systems have grown interconnected and interdependent over the last several years. These relationships help foster cooperation and county/regional planning.

Pennyrile Area Development District
Project Ranking Methodology

Each year, the Water Management Council of the Pennyrile Area Development District (PADD) completes a ranking process of water and wastewater projects in the region. This is a "grassroots" process as it begins at the local (system) level and ends with all projects being ranked on a regional basis.

We begin the process with county-wide ranking meetings during which all water/wastewater systems meet with the PADD Water Management Coordinator and their respective County Judge Executive. We discuss the individual projects from each system and rank them according to the priorities within the county. These rankings are then used in the overall regional ranking process.

The PADD Water Management Council has elected to use a point system to determine the overall regional ranking of each project. Projects are ranked based on five categories; Project Type (Unserved Customers, Underserved Customers, and Aging Infrastructure), Regionalization, Level of Engineering/Project Status, Funding Status, and Local Importance. Projects may receive up 20 points in each category except for regionalization. The Water Management Council recognizes the increasing importance of regionalization and has weighted this category heavier. Overall, a project can achieve 110 points. In the instances where two project score the same numerical value the Water Council has elected to use a simple cost analysis to break the tie. The system that is serving the most people with the least amount of money receives the higher ranking (cost of the project/number of customers served).

Project Rankings For Pennyrile Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21107017	Earlington - Sewer System Improvements	0-2 Years	Partially Funded	$1,650,000	Hopkins	1	7
SX21143003	Lyon County WD Sewerline Extensions	3-5 Years	Partially Funded	$1,250,000	Lyon	2	1
SX21107021	Madisonville - WWTP Expansion and Improvements	3-5 Years	Not Funded	$5,955,366	Hopkins	3	4
SX21221002	Cadiz Sewer Main Replacement	3-5 Years	Partially Funded	$900,000	Trigg	4	1
SX21139003	Smithland WWTP Improvements	3-5 Years	Partially Funded	$300,000	Livingston	5	1
SX21219007	Trenton - Sewer System Improvements	0-2 Years	Partially Funded	$535,000	Todd	6	1
SX21177012	Central City - Bremen and South Carrollton Sewer Extension	3-5 Years	Partially Funded	$3,500,000	Muhlenberg	7	3
SX21143004	Eddyville Sewer Lift Station and Sewer Line	3-5 Years	Partially Funded	$1,030,000	Lyon	8	2
SX21139006	Salem - Lift Station Upgrade	3-5 Years	Partially Funded	$618,000	Livingston	9	2
SX21055005	Marion - WWTP Replacement	3-5 Years	Not Funded	$750,000	Crittenden	10	1
SX21107022	Madisonville - Hanson Relief Interceptor	3-5 Years	Not Funded	$5,433,001	Hopkins	11	1
SX21047009	HWEA - Oak Grove Spring Meadows Sewer	3-5 Years	Not Funded	$2,875,000	Christian	12	1
SX21033009	Princeton-Wastewater Treatment Plant Phosphorus Upgrade	3-5 Years	Not Funded	$870,000	Caldwell	13	2
SX21143007	City of Eddyville - Wastewater System Evaluation and Rehabilitation	0-2 Years	Partially Funded	$1,484,500	Lyon	14	3
SX21177008	McFc/Drakesboro - WWTP & Pumpstation Improvements	0-2 Years	Partially Funded	$533,000	Muhlenberg	15	7
SX21047011	HWEA - Oak Grove Wastewater Treatment Plant Expansion - Construction	3-5 Years	Not Funded	$8,200,000	Christian	16	2
SX21177007	Greenville - Sewer Pump Station Improvements	0-2 Years	Not Funded	$500,000	Muhlenberg	17	1
SX21033006	Fredonia - Lift Station Improvements	3-5 Years	Not Funded	$150,000	Caldwell	18	1
SX21139012	City of Smithland - Ledbetter Interceptor	6-10 Years	Not Funded	$3,551,000	Livingston	19	8
SX21107014	St. Charles Sanitary Sewer System - Construction	3-5 Years	Not Funded	$3,400,000	Hopkins	20	6
SX21177013	Greenville Sewer Main Replacement - MH 2.31 - MH 5.24	0-2 Years	Not Funded	$644,272	Muhlenberg	21	2
SX21143008	City of Kuttawa - Wastewater System Rehabilitation	3-5 Years	Not Funded	$200,000	Lyon	22	4
SX21047023	HWEA Oak Grove Village Sewer Project	0-2 Years	Not Funded	$7,500,000	Christian	23	3
SX21047028	HWEA SRF Phase VIII - Expand Hammond-Wood WWTP & Interceptor	0-2 Years	Not Funded	$21,000,000	Christian	24	6
SX21219013	Todd County Fiscal Court - Lake Malone Sewer Study	3-5 Years	Not Funded	$100,000	Todd	25	7
SX21219014	Elkton - Sewer Collection System Rehabilitation	3-5 Years	Not Funded	$500,000	Todd	26	2
SX21033007	Princeton Sewer Rehabilitation Phase II Basins 7 & 8	3-5 Years	Partially Funded	$1,450,000	Caldwell	27	3
SX21139008	Grand Rivers - Wastewater Treatment Plant Replacement	0-2 Years	Fully Funded	$7,100,000	Livingston	28	4
SX21177015	Central City-Wastewater Collection System Upgrade	3-5 Years	Not Funded	$2,600,000	Muhlenberg	29	5
SX21139010	Smithland Sewer Rehabilitation	3-5 Years	Not Funded	$1,517,000	Livingston	30	3
SX21219012	Elkton - Hwy 181 North Sewer Main Extension	6-10 Years	Not Funded	$750,000	Todd	31	6
SX21219018	Elkton - Winding Oaks Sewer Project	3-5 Years	Not Funded	$360,000	Todd	32	3
SX21177017	Greenville - Lift Station Upgrades and Sewer Camera	0-2 Years	Not Funded	$150,000	Muhlenberg	33	4

Project Rankings For Pennyrile Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21219011	Trenton - Wastewater Treatment Plant Expansion	3-5 Years	Not Funded	$1,500,000	Todd	34	4
SX21143009	City of Kuttawa - Old Kuttawa Pump Station and System Rehab.	3-5 Years	Not Funded	$300,000	Lyon	35	5
SX21107009	Madisonville South Main Sewer Interceptor Phase 2	3-5 Years	Not Funded	$1,443,200	Hopkins	36	5
SX21219009	Guthrie - WWTP Expansion	3-5 Years	Not Funded	$7,000,000	Todd	37	5
SX21177010	Central City - WWTP Expansion	3-5 Years	Not Funded	$2,800,000	Muhlenberg	38	6
SX21139009	Grand Rivers - Sewer Line Extension	3-5 Years	Not Funded	$1,450,000	Livingston	39	6
SX21107019	Mortons Gap - Sewer Pump Replacement Project	3-5 Years	Not Funded	$220,000	Hopkins	40	2
SX21139011	Grand Rivers - Wastewater System Rehabilitation	0-2 Years	Not Funded	$1,000,000	Livingston	41	7
SX21047029	HWEA SRF Phase VIII - Rockbridge Interceptor	0-2 Years	Not Funded	$12,328,550	Christian	42	7
SX21107010	Madisonville South Main Sewer Interceptor Phase 3	6-10 Years	Not Funded	$1,742,700	Hopkins	43	9
SX21047006	HWEA Oak Grove Industrial Park Sewer Line Extension	3-5 Years	Not Funded	$490,000	Christian	44	4
SX21177018	Greenville - Lift Station Elimination Project	3-5 Years	Not Funded	$450,000	Muhlenberg	45	8
SX21107013	Hanson - Hopkins County Industrial Park Sewer Main	3-5 Years	Not Funded	$298,856	Hopkins	47	3
			Total Cost:	**$118,379,445**			

Purchase Area Development District (PUADD)

- 2010 census population of 196,393 (93,709 households) with 49% serviceable.
- Projected 2020 population of 201,697 (change of 5,304).
- 932.99 miles of existing sewer lines.
- 139.00 miles of line extensions proposed in the next 10 years.
- 138.00 miles of line rehabilitation proposed in the next 10 years.
- 20.00 miles of interceptor lines proposed in the next 10 years.
- Estimated funding needs for projects from 0 to 5 years: $142,097,040.
- Estimated funding needs for projects from 6 to 10 years: $26,093,690.

Purchase Area Development District has a 2010 census population count of 196,393 (93,709 households) with a projected 2020 population count of 201,697 (86,121 households). Public sewer is currently available to approximately 49 percent of the district's households based on 2010 census counts. Over the next ten years approximately 4,311 serviceable households will be added through the construction of 139.00 miles of sewer line extensions and approximately 27,331 instances of improved service through the rehabilitation of 138.00 miles of existing sewer lines and other appurtenances. 20.00 miles of interceptor lines are also proposed within this district.

County Summary for Purchase Area Development District

County Name	2010 Population	2010 Households	2020 Population	2020 Households	Serviceable Households	Percent Serviceable	Planned Cost 0 to 10 Years
Ballard	8,249	3,885	8,217	3,484	1,557	40%	$ 14,426,257
Calloway	37,191	18,065	40,411	17,019	9,208	51%	$ 50,605,000
Carlisle	5,104	2,441	4,947	2,093	595	24%	$ 9,787,095
Fulton	6,813	3,372	6,223	2,728	2,373	70%	$ 6,301,635
Graves	37,121	16,777	37,630	15,459	5,882	35%	$ 35,973,309
Hickman	4,902	2,342	4,625	1,938	627	27%	$ 850,000
McCracken	65,565	31,079	66,621	29,278	21,651	70%	$ 38,032,659
Marshall	31,448	15,748	33,023	14,122	3,884	25%	$ 12,214,775
Totals	**196,393**	**93,709**	**201,697**	**86,121**	**45,777**	**49%**	**$ 168,190,730**

Public Sewer Systems in the Purchase Area Development District

Note: Serviceable counts include households outside the area development district.

KPDES	System Name	Primary County	Serviceable Counts	
			Population	Households
KY0025747	Barlow Sewer System	Ballard	700	368
KY0033791	Kevil Water & Sewer System	Ballard	711	345
KY0020893	LaCenter Water System	Ballard	1,043	487
KY0025933	Wickliffe Sewer System	Ballard	772	365
KY0072761	Murray Water & Wastewater System	Calloway	19,390	8,983
KY0028371	South 641 Water District	Calloway	417	225
KYP000065	Arlington Water and Sewer Department	Carlisle	356	182
KYP000066	Bardwell City Utilities	Carlisle	777	413
KY0026913	Fulton Municipal Water System	Fulton	2,448	1,330
KY0028436	Hickman Municipal Sewer System	Fulton	2,385	1,043
KY0053562	Graves County Water District (Fancy Farm)	Graves	563	255
KY0021211	Mayfield Electric & Water System	Graves	10,456	4,902
KY0055221	Mayfield Electric & Water Systems (Highland Club)	Graves	27	12
KY0053520	Mayfield Electric & Water Systems (Thomas Country)	Graves	333	134
KY0055271	Symsonia Water District	Graves	594	314
KY0025852	Wingo Water & Sewer System	Graves	595	265
KY0025275	Clinton Sewer	Hickman	1,274	626
KY0021172	Benton Water & Sewer System	Marshall	4,765	2,211
KY0021130	Calvert City Municipal Water & Sewer	Marshall	2,424	1,100
KY0021016	Hardin Sewer System	Marshall	681	317
KY0044164	Marshall County Environmental Services (Golden Acres)	Marshall	69	34
KY0024546	Marshall County Sanitation District #1	Marshall	98	70
KY0044181	Marshall County Sanitation District #2	Marshall	287	131
KY0080845	Marshall County Environmental Services (Great Oaks)	McCracken	522	178
KY0022799	Paducah McCracken County Joint Sewer Agency (Paducah)	McCracken	34,310	17,264
KY0025810	Paducah McCracken County Joint Sewer Agency (Reidland)	McCracken	4,635	2,048
KY0025828	Paducah McCracken County Joint Sewer Agency (Woodlawn)	McCracken	4,467	2,091
KY0044156	Purchase Public Service Corporation (Blandville)	McCracken	142	62
		Totals:	95,241	45,755

Purchase Area Development District
Regional Wastewater Needs Assessment

Primary Need: **Repair and Replace Existing Infrastructure**
Secondary Need: **Meet Regulatory Requirements**

Based on the project profiles developed for the region the primary wastewater treatment need for the Purchase Area Development District is for the repair or replacement of existing infrastructure. The majority of the utilities in the Purchase Area are operating systems that are more than 30 years old and standards have evolved to become more stringent during this period. Many of the collection lines, manholes, and lift stations are beyond their useful life which results in wastewater systems that do not operate on a high efficiency level. Additionally, inflow and infiltration are a major issue in the region. This problem is caused by breaks in the collection system that allow surface or groundwater to penetrate the lines and forces the system to treat an increased volume resulting from major rain events.

With the primary need being replacement of existing infrastructure, the Purchase Area sees the secondary need as meeting regulatory requirements as established by the Kentucky Division of Water. Based on the existing condition of the systems it can be difficult to meet current discharge standards much less future regulations. Getting the current systems to operate on a consistent, efficient level is a high priority to these utilities, so that they can meet current and future Kentucky Pollution Discharge Elimination System (KPDES) standards.

Description and Determination of Planning Units:

The Purchase Area Development District is divided into eight separate planning units, that are based on the eight counties in the Purchase Area. The planning units are: Ballard County planning unit, Calloway County planning unit, Carlisle County planning unit, Fulton County planning unit, Graves County planning unit, Hickman County planning unit, Marshall County planning unit, and McCracken County planning unit.

In the Ballard County planning unit there are four wastewater utilities (City of Barlow, City of Kevil, City of Lacenter, and City of Wickliffe) that serve approximately 1,467 service connections in Ballard County.

The City of Murray and the South 641 Water District make up the two wastewater utilities in the Calloway County planning unit and serve approximately 7,865 service connections.

The Carlisle County planning unit is comprised of two utilities (City of Arlington and City of Bardwell) that collect wastewater but send the wastewater to another utility to be treated. The Carlisle County Sanitation District is the utility that receives wastewater from these two municipalities and also the Carlisle County High School. The City of Arlington and the City of Bardwell serve approximately 577 service connections.

The Fulton County planning unit has two wastewater utilities (City of Fulton and City of Hickman) that serve approximately 2,246 service connections.

The Graves County planning unit also has four wastewater utilities (Graves County Water District, Mayfield Electric & Water System, Symsonia Water District, and the City of Wingo) that serve approximately 5,444 service connections in Graves County.

The City of Clinton is the lone wastewater utility in the Hickman County planning unit and serves approximately 626 service connections.

The Marshall County planning unit has the largest amount of wastewater utilities, which has six wastewater utilities. With those utilities being the City of Benton, Calvert City, City of Hardin, Marshall County Sanitation District #1, Marshall County Sanitation District #2, and the Purchase Public Service Corporation plant at the Golden Acres Subdivision. Together these utilities serve approximately 3,521 service connections.

Paducah-McCracken Joint Sewer Agency along with two Purchase Public Service Corporation plants at the Blandville West Subdivision and Great Oaks Subdivision make up the McCracken County planning unit. These three utilities serve approximately 17,902 service connections of McCracken County.

Purchase Area Development District
Project Ranking Methodology

The Purchase Area Water Management Council uses a clean water ranking criteria to establish a regional priority list for water projects in the Purchase Area.

The clean water ranking criteria consists of five separate categories.

Project Type:

1. Regionalizing- projects receive 25 points if there is a merger of utilities and elimination of permitted discharges.
2. Elimination of sewage treatment plant through interconnection- projects receive 23 points if there is an utility that is eliminating a sewage treatment plant and sending the wastewater to another utility to be treated.
3. New treatment plant/expansion- projects receive 20 points if the utility is building a new sewage treatment plant or expanded the existing capacity of the existing sewage treatment plant.
4. Replacement or rehabilitation of aging infrastructure- project will receive 17 points if the utility is rehabbing out-dated collection lines or out-dated equipment.
5. Extension of sewer service to unserved households- project will receive 20 points if the proposed project will add an average of 9 or more new customers per mile, 19 points for an average of 7-8 new customers per mile, 18 points for an average of 5-6 new customers per mile, 15 points for an average of 3-4 new customers per mile, and 10 points for an average of 1-2 new customers per mile.

Compliance and Enforcement:

A project will receive 5 points if the utility is using this project to achieve full or partial compliance with a court or agreed order.

Funding Status

Projects that are 50%-99% funded and they receive 10 points, the second section is for projects that are 1%-49% funded and they receive 5 points. Any projects that are not funded receive zero points for this category.

Project Status

This category has three sections and a project can receive points in all sections if the utility has completed them. The first section is Engineering plans and specs submitted to DOW, a project will receive 15 points if this step has been completed. The second section is Preliminary engineering report complete, a project will receive 10 points if this step is completed. The third section is Estimated engineer's budget complete, a project will receive 5 points if this step is complete.

County Ranking

In this category, projects will receive points based on their county ranking. A number one ranked project in the county will receive 24 points, a number two ranked project in the county will receive 20 points, a number three ranked project in the county will receive 16 points, a number four ranked project in the county will receive 14 points, and a number five ranked project in the county will receive 12 points. Only the top 5 projects in each county will be ranked regionally. In the event of a tie-breaker between projects, the cost per household will be used to break the tie.

In the event of a tie-breaker between projects, the cost per household will be used to break the tie.

Project Rankings For Purchase Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21157035	Marshall Co. Sanitation District #2 - Ext. to Marshall Co. High	3-5 Years	Not Funded	$3,312,000	Marshall	1	2
SX21157030	Marshall SD 1-Liftstation Repair/Replacement & WWTP Upgrades	0-2 Years	Partially Funded	$550,000	Marshall	2	1
SX21007016	LaCenter - Sanitary Sewer Improvements Phase III	3-5 Years	Not Funded	$4,000,000	Ballard	3	1
SX21145169	Paducah-Mccracken JSA-Paducah Collection System Improvements	0-2 Years	Partially Funded	$4,214,000	McCracken	4	1
SX21145170	Paducah-Mccracken JSA-Reidland Collection System Improvements	0-2 Years	Partially Funded	$600,000	McCracken	5	2
SX21075001	Fulton Mun Water System - Rehab Phase II	3-5 Years	Not Funded	$523,635	Fulton	6	1
SX21039001	Carlisle SD #1-WWTP Surge Basin	0-2 Years	Partially Funded	$1,580,322	Carlisle	7	1
SX21145171	Paducah-Mccracken JSA-Woodlawn Collection System Improvements	0-2 Years	Partially Funded	$3,590,000	McCracken	8	3
SX21035013	Murray-Phase VI Rehab Project South of Murray	3-5 Years	Partially Funded	$270,000	Calloway	9	1
SX21083031	Symsonia-KY 534 Extension	3-5 Years	Not Funded	$135,000	Graves	10	1
SX21145172	Paducah-Mccracken JSA-Massac Creek Pump Station and Force Main	0-2 Years	Over Funded	$5,235,046	McCracken	11	4
SX21007012	City of Wickliffe Sewer Rehabilitation Project Phase I	3-5 Years	Partially Funded	$1,589,920	Ballard	12	2
SX21083004	Mayfield Electric & Water-KY 303, Cuba	3-5 Years	Not Funded	$5,873,200	Graves	13	3
SX21105005	City of Clinton- Hwy 58 Line Replacement	3-5 Years	Not Funded	$250,000	Hickman	14	1
SX21075003	Fulton Municipal Sewer-Wetlands Addition to Lagoon	3-5 Years	Not Funded	$564,000	Fulton	15	4
SX21083018	Mayfield-WWTP Upgrade	0-2 Years	Partially Funded	$2,050,000	Graves	16	4
SX21007014	LaCenter - WWTP Creek Flow Monitoring	3-5 Years	Not Funded	$546,800	Ballard	17	5
SX21039002	Carlisle SD #1-Phase III- Milburn Force Main/Collector System	6-10 Years	Not Funded	$2,964,030	Carlisle	18	4
SX21035004	City of Murray- Sewer Extension to North Elementary	3-5 Years	Not Funded	$350,000	Calloway	19	4
SX21039018	City of Arlington- Collection System Rehab Phase III	3-5 Years	Not Funded	$582,660	Carlisle	20	3
SX21083027	Mayfield Electric & Water - Telemetry for WWTP & North Industrial	3-5 Years	Not Funded	$125,000	Graves	21	2
SX21105006	City of Clinton- Replace Force Main to Lagoon	3-5 Years	Not Funded	$600,000	Hickman	22	2
SX21035023	South 641 - System Rehab Phase II	3-5 Years	Not Funded	$500,000	Calloway	23	2
SX21075004	Hickman Mun Sewer System - Sewer Rehab	3-5 Years	Not Funded	$3,714,000	Fulton	24	2
SX21039017	Bardwell City Utilities- Phase III I&I Reduction	3-5 Years	Not Funded	$300,000	Carlisle	25	2
SX21039004	Carlisle County Sanitation District #1 - Cunningham Force Main and WWTP Upgrades	3-5 Years	Not Funded	$5,500,000	Carlisle	26	5
SX21157001	City of Calvert City-Phase II Colorado Street Sewers	3-5 Years	Not Funded	$195,000	Marshall	27	3
SX21157034	Hardin - Wastewater Rehabilitation Phase II	3-5 Years	Partially Funded	$1,001,000	Marshall	28	4
SX21145168	Paducah-Mccracken JSA-Flow Modeling/Classification	3-5 Years	Not Funded	$300,000	McCracken	29	5
SX21007006	City of Barlow- Demolition of Old WWTP	3-5 Years	Not Funded	$250,000	Ballard	30	3
SX21075005	City of Hickman- CSO Removal Project	3-5 Years	Not Funded	$1,000,000	Fulton	31	3
SX21157027	City of Calvert City-Phase I Ext. With Low Pressure Grinder Pump	3-5 Years	Not Funded	$100,000	Marshall	32	5

Project Rankings For Purchase Area Development District

PNUM	Project Title	Schedule	Funding Status	Project Cost	Primary County	Regional Ranking	Local Ranking
SX21007010	City of Wickliffe- Lagoon Levee Repair	3-5 Years	Not Funded	$200,000	Ballard	33	4
SX21075008	Fulton Municipal Sewer-Interceptor Project	3-5 Years	Not Funded	$500,000	Fulton	34	5
SX21083016	Mayfield-10th Street Lift Station and Sewer Line Rehab	3-5 Years	Not Funded	$515,000	Graves	35	5
SX21035018	Murray - Industrial Park Lift Station Upgrade	3-5 Years	Not Funded	$500,000	Calloway	36	5
SX21035003	City of Murray- Melvin Henley Dr. Extension	3-5 Years	Not Funded	$160,000	Calloway	37	3
			Total Cost:	**$54,240,613**			

Appendix A - Counties by Area Development District

County	ADD
Adair	LCADD
Allen	BRADD
Anderson	BGADD
Ballard	PUADD
Barren	BRADD
Bath	GWADD
Bell	CVADD
Boone	NKADD
Bourbon	BGADD
Boyd	FIVCO
Boyle	BGADD
Bracken	BTADD
Breathitt	KRADD
Breckinridge	LTADD
Bullitt	KIPDA
Butler	BRADD
Caldwell	PEADD
Calloway	PUADD
Campbell	NKADD
Carlisle	PUADD
Carroll	NKADD
Carter	FIVCO
Casey	LCADD
Christian	PEADD
Clark	BGADD
Clay	CVADD
Clinton	LCADD
Crittenden	PEADD
Cumberland	LCADD
Daviess	GRADD
Edmonson	BRADD
Elliott	FIVCO
Estill	BGADD
Fayette	BGADD
Fleming	BTADD
Floyd	BSADD
Franklin	BGADD
Fulton	PUADD
Gallatin	NKADD
Garrard	BGADD

County	ADD
Grant	NKADD
Graves	PUADD
Grayson	LTADD
Green	LCADD
Greenup	FIVCO
Hancock	GRADD
Hardin	LTADD
Harlan	CVADD
Harrison	BGADD
Hart	BRADD
Henderson	GRADD
Henry	KIPDA
Hickman	PUADD
Hopkins	PEADD
Jackson	CVADD
Jefferson	KIPDA
Jessamine	BGADD
Johnson	BSADD
Kenton	NKADD
Knott	KRADD
Knox	CVADD
Larue	LTADD
Laurel	CVADD
Lawrence	FIVCO
Lee	KRADD
Leslie	KRADD
Letcher	KRADD
Lewis	BTADD
Lincoln	BGADD
Livingston	PEADD
Logan	BRADD
Lyon	PEADD
McCracken	PUADD
McCreary	LCADD
McLean	GRADD
Madison	BGADD
Magoffin	BSADD
Marion	LTADD
Marshall	PUADD
Martin	BSADD

County	ADD
Mason	BTADD
Meade	LTADD
Menifee	GWADD
Mercer	BGADD
Metcalfe	BRADD
Monroe	BRADD
Montgomery	GWADD
Morgan	GWADD
Muhlenberg	PEADD
Nelson	LTADD
Nicholas	BGADD
Ohio	GRADD
Oldham	KIPDA
Owen	NKADD
Owsley	KRADD
Pendleton	NKADD
Perry	KRADD
Pike	BSADD
Powell	BGADD
Pulaski	LCADD
Robertson	BTADD
Rockcastle	CVADD
Rowan	GWADD
Russell	LCADD
Scott	BGADD
Shelby	KIPDA
Simpson	BRADD
Spencer	KIPDA
Taylor	LCADD
Todd	PEADD
Trigg	PEADD
Trimble	KIPDA
Union	GRADD
Warren	BRADD
Washington	LTADD
Wayne	LCADD
Webster	GRADD
Whitley	CVADD
Wolfe	KRADD
Woodford	BGADD