

APPENDIX A - INTEGRATED PLAN PRIORITIZED PROJECT LIST

Rank	Project Name	Baseline Scenario 2040	Integrated Plan Scenario 2040	Total Environmental Score	Total Economic Score	Total Social Score	Total Score
1	Northside Interceptor Tunnel Enhanced Alternative Phase 2		Х	2.97	1.72	2.72	7.41
2	Ohio Canal Interceptor Tunnel	Х	Х	3.69	1.68	1.78	7.15
3	Camp Brook Storage Basin (CSO Rack 12)	Х	Х	3.80	1.50	1.46	6.76
4	Erosion-Streambanks-Restoration Stormwater Project Improvements	Х	Х	3.10	1.47	2.10	6.67
5	Mud Run Pump Station & Storage Basin	Х	Х	2.43	2.38	1.79	6.60
6	Merriman Separation Optimized Alternative (CSO Rack 36)		Х	2.87	1.73	1.98	6.58
7	North Hill Separation Optimized Alternative (CSO Rack 22)		Х	3.29	1.19	2.06	6.54
8	Northside Interceptor Tunnel	Х		3.00	1.72	1.78	6.50
9	Northside Interceptor Tunnel Early Action Conveyance Phase 1		Х	3.42	1.11	1.72	6.25
10	WPCS Phase 2, Part 1 Alternative		Х	3.30	1.57	1.31	6.18
11	CSSF Control Gate Optimized Alternative		Х	2.76	1.80	1.57	6.13
12	Sustainability Initiatives	Х	Х	2.20	1.90	2.02	6.12
13	Old Main Sewer Separation (CSO Rack 21)	Х	Х	2.32	1.91	1.81	6.04
14	Ohio Canal Interceptor Tunnel - EHRT	Х		2.80	1.62	1.61	6.03
15	Ohio Canal Interceptor Tunnel - EHRT Enhanced Alternative		Х	2.89	1.11	1.98	5.98
16	Middlebury Separation Optimized Alternative (CSO Rack 5 & 7)		Х	2.87	1.65	1.46	5.98
17	WPCS Phase 2, Part 1	Х		3.18	1.57	1.18	5.93
18	Uhler Conveyance Optimized Alternative (CSO Rack 27 & 29)		Х	2.75	1.11	1.94	5.80
19	WPCS Headworks Improvements		Х	2.88	1.45	1.45	5.78
20	Uhler Storage Basin (CSO Rack 27 & 29)	Х		2.50	1.50	1.61	5.61
21	CMOM 10-Year Cycle		Х	2.55	1.33	1.63	5.51
22	Kelly Storage Basin (CSO Rack 3)	Х		2.14	1.50	1.57	5.21
23	Hazel Storage Basin (CSO Rack 10 & 11)	Х	Х	2.42	1.50	1.29	5.21
24	Dan Sewer Separation (CSO Rack 13)	Х	Х	1.99	1.71	1.46	5.16
25	Howard Storage Basin (CSO Rack 22)	Х		2.15	1.50	1.49	5.14
26	Kelly Optimized Alternate (CSO Rack 3)		Х	2.03	1.11	1.98	5.12
26	Memorial Optimized Alternative (CSO Rack 26 & 28)		Х	2.03	1.11	1.98	5.12
28	Ohio Canal Interceptor Tunnel Otto Street Pump Station		Х	2.17	1.53	1.34	5.04
29	CMOM 5-Year Cycle			2.31	1.09	1.63	5.03
30	Mud Run District I/I Repairs		Х	1.71	1.53	1.67	4.91
31	Carpenter Conveyance Alternative (CSO Rack 30)		Х	1.66	1.68	1.57	4.91
32	Carpenter Sewer Separation (CSO Rack 30)	Х		1.71	1.71	1.46	4.88
33	Memorial Storage Basin (CSO Rack 26 & 28)	Х		1.87	1.50	1.49	4.86
34	WPCS Phase 2, Part 2 Alternative		Х	2.17	1.35	1.29	4.81



Rank	Project Name	Baseline Scenario 2040	Integrated Plan Scenario 2040	Total Environmental Score	Total Economic Score	Total Social Score	Total Score
35	Cascade Village Storage Basin (CSO Rack 15)	Х	Х	1.87	1.50	1.41	4.78
35	Merriman Storage Basin (CSO Rack 36)	Х		1.87	1.50	1.41	4.78
37	Mud Run District I/I Rehabilitation	Х	Х	1.71	1.53	1.51	4.75
38	Removal of the Gorge Dam along Cuyahoga River		Х	1.70	1.09	1.94	4.73
39	Mud Run District Capacity Improvements	Х	Х	1.75	1.45	1.51	4.71
40	Forge Field Storage Basin (CSO Rack 14)	Х	Х	1.87	1.50	1.29	4.66
40	Middlebury Storage Basin (CSO Rack 5 & 7)	Х		1.87	1.50	1.29	4.66
42	WPCS Phase 2, Part 2	Х		2.17	1.05	1.29	4.51
43	Annual Sewer Renewal	Х	Х	0.99	1.61	1.51	4.11
43	Sanitary Sewer Reconstruction 2016 - 2018	Х	Х	0.99	1.61	1.51	4.11
45	White Pond Drive & Sourek Pump Station Replacement	Х	Х	0.40	1.99	1.24	3.63
46	Shullo Drive & Weathervane Lane Pump Station Replacement	Х	Х	0.40	1.71	1.24	3.35
47	Logan Sanitary Sewer Extension	Х	Х	0.00	1.91	1.34	3.25
48	Annual Plant & Pump Station Renewal	Х	Х	1.55	1.45	0.24	3.24
49	Sevilla Trunk Sewer Reconstruction	Х	Х	0.73	1.53	0.98	3.24
50	Seiberling Street Sewer	Х	Х	0.83	1.63	0.70	3.16
51	Main Outfall Relief Sewer Optimized Alternative		Х	1.17	1.29	0.64	3.10
52	Local Flooding Pipe Projects	Х	Х	0.82	0.95	1.08	2.85
53	Miscellaneous Collection System Improvements	Х	Х	0.82	0.91	0.98	2.71
54	Main Outfall Relief Sewer	Х		0.77	1.29	0.64	2.70
55	Stormwater Maintenance Ditches	Х	Х	0.40	0.95	1.08	2.43
56	WPCS 69 kV Substation Improvements	Х	Х	0.89	1.27	0.24	2.40
57	Activated Gallery Boiler Replacement	Х	Х	0.56	1.27	0.24	2.07
58	Tallmadge Avenue Sanitary Sewer Lining	Х	Х	0.33	1.15	0.41	1.89
59	Sewer Maintenance Yard Relocation & Maintenance Vehicle Building	Х	Х	0.40	1.21	0.17	1.78
60	Flow Monitoring & Rain Gauge	Х	Х	0.57	0.18	0.38	1.13



APPENDIX B – AKRON INTEGRATED PLAN TRIPLE BOTTOM LINE SCORING DEFINITIONS

Table B-1. TBL Scoring Definitions for Economic Criteria

	TBL CRITERIA	SCORE	SCORING DEFINITION
	Operational	10	Project will have a major, measurable, positive impact on efficiency or cost alleviating frequent corrective maintenance & inspection.
	Efficiency. Improve overall	7	Project will have a significant positive impact on efficiency or cost reducing required preventive and corrective maintenance & inspection.
	efficiency, cost or	5	Project will have a moderate positive impact on efficiency or cost addressing minor concerns or issues.
	business performance	3	Project will have a minor positive impact on efficiency or cost addressing minor concerns or issues on non-critical assets.
	or address asset condition or performance issues.	0	Project does not impact operational efficiency.
7	Revenue Growth.	10	Project serves committed growth or customer expansion plans.
<u>5</u>	Provide opportunity for	7	Project serves planned or anticipated growth or customer expansion plans.
Ц	development or	5	Project facilitates location of customers through improved access or technology hubs.
Ā	customer growth.	3	Project provides educational or training opportunities that could attract customers.
		0	Project does not provide revenue growth opportunities.
	Local Jobs. Improve economic conditions in the City by retaining or creating jobs within the City.	10	Project is projected to create or retain permanent, skilled jobs paying more than the median wage rate for the region.
		7	Project is projected to create or retain permanent, non-skilled jobs paying less than the median wage rate for the region.
		5	Project is projected to create or retain temporary construction-related jobs.
Ц		3	Project is unlikely to create or retain local jobs, but is projected to support the local economy through secondary impact jobs.
		0	Project is not projected to have any impact on local jobs.
	Cooperative Funding Sources.	10	Project has, or is eligible for, alternative funding (grants, private partnerships, other departments, etc.) for 50 percent or more of the estimated project cost.
	Provide external funding in terms of	7	Project has, or is eligible for, alternative funding (grants, private partnerships, other departments, etc.) for less than 50 percent of the estimated project cost.
	grants, low cost loans,	5	Project has, or is eligible for, a lower than market-rate loan.
	developer contributions	3	Project has, or is eligible for, a market-rate loan.
	or public/private participation.	0	Project is not eligible for alternative funding contributions or sources.



Table B-2. TBL Scoring Definitions for Social Criteria

	TBL CRITERIA	SCORE	SCORING DEFINITION
	Community Engagement and	10	Project includes opportunities for component, supporting or beneficial project elements to be performed or provided by private property owners, businesses, industries or non-profit groups at reduced or no cost to the public.
	Stewardship.	7	Project includes installation(s) of educational kiosks or signage in an accessible public location that directly relates to CSO LTCP goals of improved water quality.
	for education,	5	Project includes on-going opportunities for web-based or hard copy dissemination of general water, wastewater, storm water or water quality impacts.
	personal/business	3	Project includes only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, storm water or water quality impacts.
	relative to improving receiving water quality.	0	Project does not contain private property, business or industry support and does not facilitate education or communication opportunities.
	Public Health	10	Project reduces potential for both basement backups and localized flooding.
	Protection. Improve receiving water	7	Project reduces potential for either basement backups or localized flooding and flooding controls include pollutant reduction best management practices.
-	quality, reduce potential	5	Project reduces potential for localized flooding, but does not include pollutant reduction best management practices.
$\overline{\mathbf{S}}$	for basement backups	3	Project does not reduce potential for basement backups or localized flooding, but improves receiving water quality.
	or reduce potential for localized flooding.	0	Project does not impact receiving water quality or basement backups.
	Quality of Life. Improve the urban environment, community aesthetics or green infrastructure secondary benefits.	10	Project provides significant, multiple opportunities to enhance the urban environment in more than three of the following areas: by improving sewerage facilities, by reducing potential overflows, by returning developed areas to a more natural landscape, by adding community aesthetics and green infrastructure benefits.
200		7	Project provides multiple opportunities to enhance the urban environment by doing at least three of the following areas: by improving sewerage facilities, by reducing potential overflows, by returning developed areas to a more natural landscape, by adding community aesthetics and green infrastructure benefits.
		5	Project provides multiple opportunities to enhance the urban environment by doing at least two of the following areas: by improving sewerage facilities, by reducing potential overflows, by returning developed areas to a more natural landscape, by adding community aesthetics and green infrastructure benefits.
		3	Project provides a single opportunity to enhance the urban environment by improving sewerage facilities, by reducing potential overflows, by returning developed areas to a more natural landscape, by adding community aesthetics and green infrastructure secondary benefits.
		0	Project does not improve sewerage facilities, reduce the potential for overflows, return to the natural landscape, improve community aesthetics or add green infrastructure secondary benefits.
	Recreational Opportunities.	10	Project significantly creates or improves recreational opportunities (e.g., walking/running, biking, picnicking, swimming, boating or fishing).
	Improve recreational	5	Project somewhat improves downstream recreational opportunities (e.g., walking/running, biking, picnicking, swimming, boating or fishing).
	national and local parks).	0	Project does not improve recreational opportunities.



Table B-3. TBL Scoring Definitions for Environmental Criteria

	TBL CRITERIA	SCORE		SCORING DEFINITION					
	Regulatory	10	Project meets regulator	y or permit requirements	and provides additional envi	ronmental benefits (e.g., stream			
	Meet existing or	7	Project is part of a requ	ration, nigher compliance level, etc.).					
	anticipated regulatory	5	Project is part of a pern	nit implementation schedu	ile but not as a result of a re	aulatory violation or consent decree			
	requirements.	3	Project is part of a period	liance or makes compliar	ice easier or cheaper to attai	n			
		0	Project does not impac	piect does not impact regulatory compliance					
•	Sustainability Initiatives.	10	Project will have a majo	pact on energy use, conservation, environmental responsibility or					
F	Promote sustainable environment such as	7	Project will have a sign livability.	ificant positive impact on	energy use, conservation, er	vironmental responsibility or urban			
-	energy, carbon neutrality, urban	5	Project will have a mod livability.	lerate positive impact on e	energy use, conservation, en	vironmental responsibility or urban			
5	livability, etc.	3	Project will provide a fo	bject will provide a foundation for a future, significant impact project (such as a future sewer separation project).					
		0	Project does not have s	sustainability components					
ç	Pollutant Reduction.	Project s	Project scoring definitions for Pollutant Reduction are customized for each of the four main project types.						
	Reduce CSO discharge volumes, reduce potential for SSO events, reduce mass nutrient loading for plants or reduce trash discharges for storm water.	Score	CSO Project Scores	SSO Project Scores	Treatment Plant Project Scores	Storm Water Project Scores			
		10	Project reduces model- predicted Typical Year overflows by 50 or more MG.	Project reduces potential SSOs in multiple recurring or repeat SSO-prone locations.	Project will have a major, measurable reduction of pollutant plant effluent discharge.	Project incorporates storm water BMPs that will have a major, measurable reduction in pollutant discharge.			
		7	Project reduces model- predicted Typical Year overflows between 25 and 49 MG.	Project reduces potential SSOs in one recurring or repeat SSO location.	Project will have a significant reduction of pollutant plant effluent discharge.	Project incorporates storm water BMPs that will have a significant reduction in pollutant discharge.			
		5	Project reduces model- predicted Typical Year overflows between 5 and 24 MG.	Project reduces potential multiple dry weather SSO causes.	Project will have a moderate reduction of pollutant effluent discharge.	Project incorporates storm water BMPs that will have a moderate reduction in pollutant discharge.			
		3	Project reduces model- predicted Typical Year overflows less than 5 MG.	Project reduces potential dry weather SSOs for one cause.	Project will have a minor reduction of pollutant effluent discharge.	Project incorporates storm water BMPs that will have a minor reduction in pollutant discharge.			
		0	Project does not reduce pollutant loadings.						



TBL CRITERIA	SCORE	SCORING DEFINITION
Habitat Enhancement	10	Project significantly improves, enhances, preserves or restores at least two of the listed resources (e.g., streams,
and Restoration.	10	floodplains or wetlands).
Improve, enhance,	7	Project significantly improves, enhances, preserves or restores one of the listed resources (e.g., streams, floodplains or
preserve or restore		wetiands).
streams, floodplains or wetland habitat.	5	Project marginally improves, enhances, preserves or restores at least two of the listed resources (e.g., streams, floodplains or wetlands).
	3	Project marginally improves, enhances, preserves or restores one of the listed resources (e.g., streams, floodplains or wetlands).
	0	Project does not have habitat or stream restoration components.



APPENDIX C – INTEGRATED PLAN PROJECT DESCRIPTIONS

Appendix C, Integrated Plan Project Descriptions, includes descriptions for the projects in the *City of Akron Integrated Plan*.

The project description sheets are arranged as follows:

Project Summary Information:

City Contact: Name of individual who serves as the point of contact for the City of Akron.

Date Last Updated: Date of last update to the project description sheet, primarily related to project costs and/or triple bottom line scores.

<u>City Project(s) ID:</u> Unique identification number assigned to a project after project initiation.

<u>Project Classification</u>: Classification of project as either Annual (project occurs on annual basis), LTCP (project as designated in the currently approved Long Term Control Plan Update 2011), LTCP ALT (alternative project proposed under the *City of Akron Integrated Plan*), non-LTCP (capital project currently being designed or constructed).

<u>Utility Division</u>: City group that the project is assigned to: WW (Wastewater), WRF (Water Reclamation Facility), or SW (Stormwater).

Project Cost (2015\$): Total project cost including design, construction and contingency in 2015 dollars. Escalation not included. Project cost is utilized for model development in the *City of Akron Integrated Plan* and reflects the cost at the initiation of the integrated planning efforts. The cost may not necessarily reflect current project costs.

Project Overview: High-level, brief description of project intent and scope.

Project Grouped With: Indicates if project is associated with other projects or existing contracts.

Consent Decree Milestone Dates: Identifies milestone dates if currently identified in the Long Term Control Plan 2011 Update.

Location: Identifies the location of the project site, including street boundaries if applicable.

Anticipated Project Start: Identifies the project start date in terms of funding availability as modeled for the *City* of Akron Integrated Plan. Start date is typically at the start of the design phase. Although specific months and days are provided to give the general anticipated timeline, the model rounds to the nearest year for the assumed project fund duration as used in the Expert Choice[™] Model scenarios and may not reflect actual project start dates.

<u>Anticipated Project Completion</u>: Identifies the project completion date in terms of final payment, usually well after construction completion. Although specific months and days are provided to give the general anticipated timeline, the model rounds to the nearest year for the assumed project fund duration as used in the Expert Choice Model scenarios and may not reflect actual construction completion dates.

<u>Start Date Constrained by Other Projects or Construction Progress:</u> Identifies whether or not the project, as sequenced in the Integrated Plan Scenarios, is constrained. If a constraint exists, a brief description of the constraint is provided.

<u>Scenario Inclusion</u>: Provides indication of whether the project is included in the Baseline Scenario 2040, the Integrated Plan Scenario 2040, or both.

Project Details: Includes a slightly more detailed description of the project.

<u>Triple Bottom Line Scoring Table:</u> Provides the 12 scoring criteria used in the *City of Akron Integrated Plan*, the score assigned to the project through the scoring sessions, and comments on the associated score. Raw score for the project is totaled at the bottom of the table.



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ANNUAL PLANT & PUMP STATION RENEWAL

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Brian Gresser <u>Date Last Updated:</u> May 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> Annual <u>Utility Division:</u> WRF <u>Project Cost (2015\$):</u> \$130,000,000 \$5,000,000 per year through program length.

Project Overview:

The renewal includes miscellaneous projects for improvements to the Water Pollution Control Station (WPCS) facilities and the support of pilot programs as well as miscellaneous improvements to pump stations.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide, multiple locations.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained start date to beginning of period. Annual cash flow.

Scenario Inclusion:

Baseline Scenario 2040



This annual contract is necessary to identify, design, and construct repairs and rehabilitation on treatment plant and pump station assets to ensure effective and efficient operations, and is part of effective asset management.

This contract also includes provisions for pilot programs to evaluate alternative technologies and approaches to achieve compliance with National Pollution Discharge Elimination System (NPDES), Long Term Control Plan Update 2011 (LTCP) and other Clean Water Act provisions.

TBL Criteria	Score	Comments
Regulatory Compliance	3	This project will facilitate regulatory compliance and/or enable compliance to be met more easily or less costly.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	3	This project will result in a minor reduction of pollutant effluent discharge.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	0	This project will not contain private property, business, or industry support, and does not facilitate education or communication opportunities.
Public Health Protection	0	This project will not impact receiving water quality or reduce the potential for basement backups.
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by improving sewerage facilities.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	39	



ANNUAL SEWER RENEWAL

Project Description Sheet:

Project Summary Information:

City Contact: Rob Scarlatelli

Date Last Updated: Jul 14, 2015

City Project(s) ID: N/A

Project Classification: Annual

Utility Division: WW

Project Cost (2015\$): \$285,000,000

Start at \$5,000,000 in 2015 with incremental annual increases to \$15,000,000 over the next 20 years, then remain at \$15,000,000 through program end.

Project Overview:

This project exists as a program to proactively replace deteriorating sanitary and storm assets prior to failure.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide sewer system.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained start date to beginning of period. Annual cash flow.

Scenario Inclusion:

Baseline Scenario 2040



This program serves to repair and replace deteriorating storm and sanitary assets throughout the system in a proactive manner. This program will start at \$5,000,000 in 2015 with incremental annual increases to \$15,000,000 over the next twenty years, then remain at \$15,000,000 through program end. This allocation of funds allows for a proactive approach to replace these assets prior to failure.

TBL Criteria	Score	Comments
Regulatory Compliance	3	This project will facilitate regulatory compliance and/or enable compliance to be met more easily or less costly.
Sustainability Initiatives	3	This project will provide a foundation for a future significant impact project.
Pollutant Reduction	3	Some sewer improvement projects may reduce the potential for SSO events by correcting "root cause" conditions such as root intrusion, sags or protruding taps that cause blockages. Other sewer improvement projects may add capacity in capacity-limited areas and reduce the potential for wet weather SSOs.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	7	This project will have a significant impact on efficiency or cost reductions by reducing necessary preventive and corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	7	This project will be eligible for alternate funding for less than 50% of the project costs, and will most likely be funded with Ohio Public Works Commission or State Special Revenue (SSR) grants.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater or water quality impacts.
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	45	



EROSION-STREAMBANKS-RESTORATION STORMWATER PROJECT IMPROVEMENTS

Project Description Sheet:

Project Summary Information:

City Contact: Pat Gsellman

Date Last Updated: May 7, 2015

City Project(s) ID: N/A

Project Classification: Annual

Utility Division: SW

Project Cost (2015\$): \$12,000,000

Start at \$100,000 in 2015 with incremental annual increases to \$500,000 over the next five years, then remain at \$500,000 per year through program end.

Project Overview:

This project accounts for various stormwater project improvements including streambank restoration and erosion control.

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

Start Date Constrained by Other Projects or Construction in Progress? Yes, constrained start date to beginning of period. Annual cash flow.

Scenario Inclusion:

Baseline Scenario 2040

 \boxtimes Integrated Plan Scenario 2040



Annually, the City of Akron engages in various stormwater-related efforts to address issues such as erosion control, stream bank stabilization, and ecosystem restoration.

These efforts ensure the protection, functionality, and sustainability of the overland stormwater conveyance system within the Cuyahoga River and Tuscarawas River watersheds. These projects result in the improvement of receiving water quality, reduction of the potential for localized flooding, and enhancement of the urban environment. These projects are dependent upon funding availability.

TBL Criteria	Score	Comments
Regulatory Compliance	0	There are no regulatory or permit requirements for this project. This type of project is not normally performed by the City.
Sustainability Initiatives	10	This project will include a stream protection component and will have a significant positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	10	The project will address soil erosion, and will result in a major, measureable reduction in pollutant and sediment loadings into the receiving stream.
Habitat Enhancement and Restoration	10	This project will address bank stability and will significant improve, enhance, preserve, and restore streams, floodplains, and wetlands.
Operational Efficiency	7	This project will have a significant impact on efficiency or cost reductions by reducing necessary preventive and corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	10	This project will most likely be funded by a grant.
Community Engagement and Stewardship	7	This project will include the installation of educational kiosks or signage in an accessible public location that directly relates to the Combined Sewer Overflow (CSO) Long Term Control Plan Update 2011 (LTCP) goals of improved water quality.
Public Health Protection	7	This project will reduce the potential for localized flooding and basement backups.
Quality of Life	7	This project will provide multiple opportunities to enhance the urban environment by improving returning developed areas to a more natural landscape, by adding community aesthetics, and green infrastructure benefits.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	78	



FLOW MONITORING & RAIN GAUGE

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Rob Solomon <u>Date Last Updated:</u> May 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> Annual <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$1,300,000 \$50,000 per year through program length.

Project Overview:

This project includes flow monitoring and rain gauge data collection to support the City of Akron's modeling efforts.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes. Constrained start date to beginning of period. Annual cash flow.

Scenario Inclusion:

Baseline Scenario 2040



The City of Akron uses the U.S. Environmental Protection Agency's (USEPA) Storm Water Management Model (SWMM) to plan, analyze, and design collection system configurations related to stormwater runoff, combined and sanitary sewers, and other drainage systems in its service area.

SWMM is a dynamic hydrology-hydraulic water quantity and quality model that is used to simulate stormwater runoff resulting from single rainfall events and continuous long-term precipitation conditions. The transport component of SWMM is used to evaluate the response of collection systems to the stormwater runoff that enters the system through pipes, channels, storage/treatment systems, and regulators. SWMM can also be used to model the hydrologic performance of green infrastructure and other low impact development (LID) controls.

The maintenance of this model is critical to complying with the system evaluation and capacity analysis planning component of the Consent Decree requirement for a Capacity, Management, Operations and Maintenance (CMOM) Program. In order to calibrate the model, the City relies on flow monitoring and rain gauge data obtained through this professional services contract.

TBL Criteria	Score	Comments
Regulatory Compliance	3	This project is needed in support of the City's hydraulic modeling efforts and will facilitate regulatory compliance.
Sustainability Initiatives	3	This project will provide a foundation for a future significant impact project.
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	3	This project will have a minor impact on the efficiency or cost reduction efforts.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	0	This project is not projected to have any impact on local jobs.
Cooperative Funding Sources	0	This project will not be eligible for alternative funding contributions or sources.
Community Engagement and Stewardship	3	This project will include opportunities for stream gauge meter information to be available to others.
Public Health Protection	1	This project is needed to support the hydraulic study that is related to basement backups and sewer overflows.
Quality of Life	1	This project will provide a minor opportunity to enhance the urban environment by provided information necessary for the City to develop projects that will result in a reduction of overflows.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	14	



LOCAL FLOODING PIPE PROJECTS

Project Description Sheet:

Project Summary Information:

City Contact: Pat Gsellman

Date Last Updated: May 7, 2015

City Project(s) ID: N/A

Project Classification: Annual

Utility Division: SW

Project Cost (2015\$): \$24,000,000

Start at \$200,000 in 2015 with incremental annual increases to \$1,000,000 over the next five years, then remain at \$1,000,000 per year through program end.

Project Overview:

This project accounts for the construction, repair, and rehabilitation of storm sewers, culverts, and other structures that impact local flooding.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained start date to beginning of period. Annual cash flow.

Scenario Inclusion:

Baseline Scenario 2040



The City of Akron responds to local stormwater flooding occurrences by constructing, repairing, and rehabilitating storm sewers, culverts, and other structures. This effort is needed to reduce the potential for localized flooding and will enhance the urban environment.

TBL Criteria	Score	Comments
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	3	This pipe restoration project will incorporate stormwater Best Management Practices (BMP) that will have a minor reduction in pollutant discharge.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	5	This project will have a moderate positive impact on efficiency by addressing minor concerns.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	0	This project will not be eligible for alternative funding contributions or sources.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater or water quality impacts.
Public Health Protection	5	This project will reduce the potential for localized flooding or basement backups.
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by improving sewerage facilities.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	29	



MISCELLANEOUS COLLECTION SYSTEM IMPROVEMENTS

Project Description Sheet:

Project Summary Information:

City Contact: Rob Scarlatelli Date Last Updated: May 7, 2015 City Project(s) ID: N/A Project Classification: Annual **Utility Division: WW** Project Cost (2015\$): \$11,700,000 \$450,000 per year through program length.

Project Overview:

This annual project includes: Commercial Sewer Lateral Replacements (\$50,000/year), Miscellaneous Structure Improvements (\$50,000/year), Septic Tank Elimination Studies (\$50,000/year), and Vehicle & Equipment Replacement (\$300,000/year).

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

Start Date Constrained by Other Projects or Construction in Progress? Yes, constrained start date to beginning of period. Annual cash flow.

Scenario Inclusion:

Baseline Scenario 2040

 \boxtimes Integrated Plan Scenario 2040



Annually, the City of Akron completes projects for a variety of collection system-related issues such as commercial sewer lateral replacements, site specific (e.g., one-off) structure improvements, and septic tank elimination studies. Additionally, the annual allocation includes provisions for vehicle and equipment replacement.

The annual allocation for this grouping of projects is needed to ensure the protection, functionality, and sustainability of the collection system, operations and maintenance group, and overall protection to receiving waters within the Cuyahoga River watershed. It includes: Commercial Sewer Lateral Replacements (\$50,000/year), Miscellaneous Structure Improvements (\$50,000/year), Septic Tank Elimination Studies (\$50,000/year), and Vehicle & Equipment Replacement (\$300,000/year).

TBL Criteria	Score	Comments
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	3	Minor reduction in pollutants is predicted.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	0	This project will not be eligible for alternative funding contributions or sources.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	26	



STORMWATER MAINTENANCE DITCHES

Project Description Sheet:

Project Summary Information:

City Contact: Pat Gsellman

Date Last Updated: May 7, 2015

City Project(s) ID: N/A

Project Classification: Annual

Utility Division: SW

Project Cost (2015\$): \$12,000,000

Start at \$100,000 in 2015 with incremental annual increases to \$500,000 over the next five years, then remain at \$500,000 per year through program end.

Project Overview:

This project includes annual project expenditure for the maintenance of ditches that carry stormwater.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained start date to beginning of period. Annual cash flow.

Scenario Inclusion:

Baseline Scenario 2040



The City of Akron has the authority to maintain roadside ditches and ditches located on private and publicly owned property to ensure the functionality of the overland stormwater conveyance system. This effort is needed to reduce the potential for localized flooding and will enhance the urban environment.

TBL Criteria	Score	Comments
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	5	This project will have a moderate positive impact on efficiency by addressing minor concerns.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	0	This project will not be eligible for alternative funding contributions or sources.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater or water quality impacts.
Public Health Protection	5	This project will reduce the potential for localized flooding.
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by improving sewerage facilities.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	26	



SUSTAINABILITY INITIATIVES

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Rob Scarlatelli <u>Date Last Updated:</u> May 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> Annual <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$26,000,000 \$1,000,000 per year through program length.

Project Overview:

This project encompasses installation of sewage backwater valves throughout the City of Akron to prevent diluted sewage from entering homes during large rain events. This project will also include a rain barrel program for stormwater management.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained start date to beginning of period. Annual cash flow.

Scenario Inclusion:

Baseline Scenario 2040



The City of Akron is committed to preventing and mitigating the backup of sewage into homes during intense and/or sustained rain events.

This project includes the installation of backwater valves in areas that have experienced sewage backups. This project will result in the reduction of the potential for backups and will have a direct impact to public health and quality of life. This project will also include a rain barrel program for the community to manage stormwater.

TBL Criteria	Score	Comments
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	10	The inclusion of rain barrel distributions is expected to divert stormwater to beneficial use and may in some cases reduce the CSO magnitude.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will create or retain permanent skilled jobs paying more than the median wage.
Cooperative Funding Sources	0	This project will not be eligible for alternative funding contributions or sources.
Community Engagement and Stewardship	5	This project will include on-going opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	10	This project will reduce the potential for basement backups and localized flooding.
Quality of Life	5	This project provides multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	60	



CAMP BROOK STORAGE BASIN (CSO RACK 12)

Project Description Sheet:

Project Summary Information:

City Contact: David Wright Date Last Updated: May 4, 2015 City Project(s) ID: 2012-066-00 Project Classification: LTCP Utility Division: WW Project Cost (2015\$): \$32,540,329

Project Overview:

This project includes design and construction of a storage basin with a 2014 model-recalibrated size of 6.52 million gallons (MG). The Long Term Control Plan Update 2011 (LTCP) requires construction of a 6,004,454 gallon storage basin.

Project Grouped With: CSO Rack 12 Sewer Separation

Consent Decree Milestone Dates:

Bidding of Control Measure: Nov 30, 2014 Achievement of Full Operation: Oct 31, 2017 Performance Criteria (Typical Year): Zero CSOs

Location: The CSO Rack 12 Storage Basin is located north of Camp Brook and the Little Cuyahoga River, east of the CSX rail lines, and south of Evans Avenue.

Anticipated Project Start: Oct 1, 2012 | Anticipated Project Completion: Oct 31, 2017

Start Date Constrained by Other Projects or Construction in Progress? Yes. Constrained to current construction schedule.

Scenario Inclusion:

 \mathbf{X} **Baseline Scenario 2040**

 \bowtie Integrated Plan Scenario 2040





The LTCP requires construction of a 6,004,454 gallon storage basin to achieve zero overflows during the adjusted 1994 Typical Year (Typical Year). The model was recalibrated using flow monitoring data in early 2014. The results of the recalibration indicated the need to upsize the basin to 9.0 MG and include approximately 600 linear feet (LF) of sewer separation north of Evans Avenue to meet the performance requirements of the LTCP. The model was updated again in late 2014. The updated model indicated the need for a 5.6 MG basin along with the approximately 600 LF of sewer separation.

Although design had been completed for a 9.0 MG basin, the City of Akron decided to revise the plans to call for a 6.52 MG basin due to economies of construction and to proceed with construction of sewer separation under a separate construction contract. To accommodate this change, the design eliminated the eastern most cell of the storage basin. The revised plans were submitted to the City of Akron in early March 2015. Green infrastructure was investigated for this project but did not prove to be cost effective and could not meet the requirements of the Consent Decree.

TBL Criteria	Score	Comments
Regulatory Compliance	10	This project meets regulatory requirements and includes stream restoration, sewer separation, and additional storage components that will provide additional environmental benefits.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	10	Project reduces model-predicted Typical Year overflows by 50 or more MG.
Habitat Enhancement and Restoration	10	This project is anticipated to significantly address floodplain issues by restoring the stream, creating wetlands and enhancing onsite habitat protection.
Operational Efficiency	0	This project will negatively impact operational efficiency (by adding operational complexity).
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project will be located near the Freedom Trail creating opportunities for web-based or hard copy outreach.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	7	This project will provide multiple opportunities to enhance the urban environment by reducing potential overflows, adding community aesthetics (i.e., street resurfacing), and adding green infrastructure secondary benefits.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	70	



CARPENTER SEWER SEPARATION (CSO RACK 30)

Project Description Sheet:

Project Summary Information:

City Contact: Christine Jonke Date Last Updated: May 15, 2015 City Project(s) ID: 2012-061-00 Project Classification: LTCP Utility Division: WW Project Cost (2015\$): \$3,098,000

Project Overview:

This project includes separation of combined sewers in the CSO Rack 30 tributary area as required by the Long Term Control Plan Update 2011 (LTCP).

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: Nov 13, 2017 Performance Criteria: Eliminate CSOs

Location: Cuyahoga Street, Burns Avenue, Salome Avenue, Carlyle Street, Carpenter Street, Mildred Avenue.

Anticipated Project Start: Dec 31, 2012 | Anticipated Project Completion: Dec 31, 2017

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040





The purpose of this project is to separate the sanitary and storm sewer flows in the CSO Rack 30 service area to eliminate combined sewer overflows (CSOs) as required by the LTCP.

Sewers will be separated by construction of new sanitary (8- and 12-inch) and storm sewers (12- to 30-inches). All storm flow from the area will be directed to the Cuyahoga River and all sanitary flow to CSO Rack 40.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	10	This project will not require energy use, and will result in a significant measurable impact on urban livability.
Pollutant Reduction	1	This project will have a minor impact on the reduction of pollutants as the separated sewers will flow into the Cuyahoga Street Storage Facility (CSSF).
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project will include on-going opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	7	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, and adding community aesthetics (i.e., roadway resurfacing).
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	60	



CASCADE VILLAGE STORAGE BASIN (CSO RACK 15)

Project Description Sheet:

Project Summary Information:

City Contact: David Wright Date Last Updated: May 4, 2015 City Project(s) ID: 2012-030-00 Project Classification: LTCP **Utility Division: WW** Project Cost (2015\$): \$10,163,078

Project Overview:

This project includes design and construction of a storage basin as required by the Long Term Control Plan Update 2011 (LTCP) with a minimum storage volume of 1,446,246 gallons.

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: Nov 30, 2013 Achievement of Full Operation: Oct 31, 2015 Performance Criteria (Typical Year): Zero CSOs

Location: The project site is bounded by the Little Cuyahoga River to the south, Elizabeth Parkway to the west, and Lods Street to the north.

Anticipated Project Start: Apr 4, 2012 | Anticipated Project Completion: Dec 31, 2015

Start Date Constrained by Other Projects or Construction in Progress? Yes, constrained to current construction schedule.

Scenario Inclusion:

 \square Baseline Scenario 2040

Integrated Plan Scenario 2040 X





The LTCP requires construction of a 1,446,246 gallon combined sewer overflow (CSO) storage basin.

The storage basin is to control overflows from the CSO Rack 15 combined sewer system (Forest Hill District, 230 acres) and will include proposed influent and effluent sewers, flow control, screening, hydraulic structures, civil site work, and an operations building.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	5	This project will reduce model-predicted adjusted 1994 Typical Year (Typical Year) overflows between 5 and 24 million gallons (MG).
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, CSO operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project provides multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	52	



CMOM 5-YEAR CYCLE

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Rob Scarlatelli <u>Date Last Updated:</u> Jul 9, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP

Utility Division: WW Project Cost (2015\$): \$169,000,000

\$6,500,000 per year through program length.

Project Overview:

The Capacity, Management, Operations, and Maintenance (CMOM) program involves many tasks to maintain and improve the collection system. Acute defect repairs are meant to fix serious pipe defects, such as collapsed pipes, within one year of identification. Aggregate cleaning and inspection of the entire gravity sewer system is required every five years. This project also involves as-needed projects identified through sanitary sewer overflow (SSO) root cause analysis to help prevent SSOs in the system based on main line blockages.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide sewer system.

Anticipated Project Start: N/A | Anticipated Project Completion: N/A

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current schedule. Start date on 2015. Constrained to end of planning period.

Scenario Inclusion:

Baseline Scenario 2040



The City's Capacity, Management, Operations and Maintenance (CMOM) Project includes capital expenditures required to implement CMOM throughout the collection systems. Implementation of CMOM involves creating an environment of continuous improvement so that O&M moves from reactive to proactive activities. Thus, a number of the projects include preventive repairs, rehabilitation or replacement of either assets or tools and equipment. The types of activities include:

- Acute defect repairs to fix serious pipe defects within one year of identification.
- Sewer cleaning and inspection including routine cleaning and inspection of the collection system along with data analysis and reviewing defined areas where specific corrective actions or preventive maintenance are required.
- Data analysis and evaluation for root cause identification for problems within the collection system to ensure recommended corrective action projects solve the underlying conditions.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	7	This project will have a significant positive impact on energy use, conservation, environmental responsibility, and urban livability. CMOM will have a major positive impact on the sewers, so a five year cleaning cycle may be less efficient and sustainable. It is scored as a seven because there is the potential that the sewers may be cleaned too frequently (clean sewers may not need to be cleaned).
Pollutant Reduction	7	Implementation of a continuous improvement O&M philosophy that includes root cause analysis, preventive O&M and operator training to solve underlying causes of SSOs and CSOs.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	3	This project will have a minor positive impact on efficiency. The five-year cycle means pipes may be inspected or cleaned before it is necessary to prevent overflows and basement backups.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	0	This project will not be eligible for alternative funding contributions or sources.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.
Quality of Life	5	This project will enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	3	
Total Raw Score	49	



DAN SEWER SEPARATION (CSO RACK 13)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Christine Jonke <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> 2012-060-00 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$4,500,800

Project Overview:

This project includes separation of combined sewers in the CSO Rack 13 area as required by the Long Term Control Plan Update 2011 (LTCP).

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: N/A

Achievement of Full Operation: Nov 13, 2017 Performance Criteria: Eliminate CSOs

Location: Dan Street, Victoria Avenue, Gardendale Avenue, Moraine Avenue, Davis Street, Damon Street.

Anticipated Project Start: Nov 23, 2012 | Anticipated Project Completion: Dec 31, 2016

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained by construction schedule. Separation of combined sewers in the CSO Rack 13 will proceed to meet the Consent Decree requirements.

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires the separation of combined sewers to eliminate overflows at CSO Rack 13. Separation of combined sewers will occur by constructing a new storm sewer (12- to 30-inches) and/or new sanitary sewers (8-inches). The existing sewer system will be lined by cured-in-place pipe (CIPP). The rack will be removed and stormwater will flow directly into the Little Cuyahoga River. Sanitary flow will flow to the Little Cuyahoga Interceptor (LCI).

TBL Criteria	Score	Comments
Regulatory Compliance	7	This is a required separation project and is a component of the LTCP.
Sustainability Initiatives	10	This project will not require energy use, and will result in a significant measurable impact on urban livability.
Pollutant Reduction	3	This project will reduce model-predicted adjusted 1994 Typical Year (Typical Year) overflow less than 5 million gallons (MG).
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project will include on-going opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	7	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, and adding community aesthetics (i.e., street resurfacing).
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	62	



FORGE FIELD STORAGE BASIN (CSO RACK 14)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Karen Dyer <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> 2012-067-00 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$18,671,924

Project Overview:

This project includes design and construction of a 2.0 million gallon (MG) storage basin to meet the Long Term Control Plan Update 2011 (LTCP) minimum requirement of 1,927,842 gallons.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: Oct 31, 2014 Achievement of Full Operation: Apr 30, 2017 Performance Criteria (Typical Year): Zero CSOs

<u>Location</u>: The CSO Rack 14 Storage Basin is located north of the Little Cuyahoga River and southwest of the intersection of East North Street and North Arlington Street.

Anticipated Project Start: Oct 1, 2012 | Anticipated Project Completion: Dec 31, 2016

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040




The LTCP requires construction of a storage basin for flow tributary to CSO Rack 14 to achieve zero overflows within the adjusted 1994 Typical Year (Typical Year). The storage basin is required to store a minimum of 1,927,842 gallons.

Design was completed in Fall 2014 for construction of a 2.0 MG storage basin, and the City of Akron is proceeding with construction in 2015. The construction duration is estimated to be approximately two years.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project will include on-going opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	50	



HAZEL STORAGE BASIN (CSO RACK 10 & 11)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Heather Ullinger <u>Date Last Updated:</u> Jul 1, 2015 <u>City Project(s) ID:</u> 2015-032-00 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$23,260,702

Project Overview:

This project includes design and construction of a 4.5 million gallon (MG) storage basin size to control overflows in the adjusted 1994 Typical Year (Typical Year). The Long Term Control Plan Update 2011 (LTCP) requires a minimum 2,518,616 gallon storage basin.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Jun 30, 2018 Achievement of Full Operation: Dec 31, 2020 Performance Criteria (Typical Year): Zero CSOs

Location: The LTCP proposed a location on the property of a recycling facility near Hazel Street.

Anticipated Project Start:

Baseline Scenario: Jan 1, 2017 Integrated Plan Scenario: Jan 1, 2036 Anticipated Project Completion: Baseline Scenario: Dec 31, 2021 Integrated Plan Scenario: Dec 31, 2040

 \mathbf{X}

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires construction of a 2,518,616 gallon storage basin to achieve zero overflows in the Typical Year. However, the 2015 model recalibration calculated a required minimum storage volume of 4.5 MG. Green infrastructure was investigated for this project but did not prove to be cost effective and could not meet the requirements of the Consent Decree.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the consent-decree implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	7	This project will reduce model-predicted Typical Year overflows between 25 and 49 MG.
Habitat Enhancement and Restoration	3	This project is located adjacent to the Little Cuyahoga River; a bank stabilization project or green solutions could be incorporated into this project.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project may include a river restoration element in an area that is difficult for the public to access; however, some level of community engagement is anticipated.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	55	



HOWARD STORAGE BASIN (CSO RACK 22)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Heather Ullinger <u>Date Last Updated:</u> May 22, 2015 <u>City Project(s) ID:</u> 2013-044-00 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$18,864,399

Project Overview:

This project includes design and construction of a 2,424,446 gallon storage basin as required by the Long Term Control Plan Update 2011 (LTCP).

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Oct 31, 2015 Achievement of Full Operation: Dec 31, 2017 Performance Criteria (Typical Year): Zero CSOs

<u>Location</u>: The proposed storage basin is located on City-owned property south of Cuyahoga Street between North Howard Street and Otto Street.

Anticipated Project Start: Jul 1, 2013 | Anticipated Project Completion: Dec 31, 2017

Start Date Constrained by Other Projects or Construction in Progress? No.

 \mathbf{X}

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires construction of a 2,424,446 gallon storage basin to achieve zero overflows in the adjusted 1994 Typical Year (Typical Year). Based on the 2014 recalibration of the LTCP model, the storage volume needed to achieve zero overflows was revised to 1.95 MG. The CSO Rack 22 drainage area is approximately 400 acres in size.

The preliminary design in the Advanced Facility Plan (AFP) consists of a 2.4 MG storage basin, proposed to be constructed on the south side of Cuyahoga Street between North Howard Street and Otto Street. The proposed storage basin will be designed to add a cover in the future, if needed.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule. It has already been submitted to the U.S. Environmental Protection Agency (USEPA).
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	7	This project will reduce model-predicted Typical Year overflows between 25 and 49 MG.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project is located close to the Towpath Trail, and will include the installation of education kiosks or signage in an accessible public location.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	7	This project will create and/or improve recreational opportunities due to its location near the Towpath Trail and Mustill Store.
Total Raw Score	56	



KELLY STORAGE BASIN (CSO RACK 3)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Heather Ullinger <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> 2010-009-00 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$19,605,576

Project Overview:

This project includes design and construction of a storage basin with a 2015 model-recalibrated size of 2.1 million gallons (MG). The Long Term Control Plan Update 2011 (LTCP) requires construction of a 1,865,006 gallon storage basin.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Jun 30, 2018 Achievement of Full Operation: Nov 30, 2020 Performance Criteria (Typical Year): Zero CSOs

Location: East Akron near the intersection of Kelly Avenue and 3rd Avenue, just north of I-76.

Anticipated Project Start: Jan 1, 2016 | Anticipated Project Completion: Dec 31, 2020

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040

Integrated Plan Scenario 2040





The LTCP requires construction of a 1,865,006 gallon storage basin to achieve zero overflows during the adjusted 1994 Typical Year (Typical Year). According to the 2015 model recalibration, a minimum storage volume of 2.1 MG is required. The basin is proposed to be constructed under a parking lot near the old Goodyear Headquarters.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	3	This project is located immediately downstream of a mile-long restoration stream project. If the outlet is located within the modified stream segment, bank stabilization will be included in the project.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	10	There is a potential opportunity for partnership with Industrial Realty Group (IRG) on this project. It is anticipated that this will be a high profile project due to the ongoing redevelopment in the area, creation of a new trail, and stream restoration work.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project provides multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	58	



MAIN OUTFALL RELIEF SEWER

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Travis Capper <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> 2012-52-00 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$54,946,415

Project Overview:

This project consists of a new parallel relief sewer to reduce surcharging of the existing Main Outfall Interceptor (MOI) to convey at least 180 million gallons per day (MGD) to the Water Pollution Control Station (WPCS).

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Jul 31, 2015 Achievement of Full Operation: Nov 30, 2017 Performance Criteria (Typical Year): Conveyance capacity under normal operating conditions of projects outlined in Rows 21 and 22 to allow transmission of 280 MGD to the WPCS Legend WATER POLLUTION CONTROL STATION MAIN OUTFALL RELIEF SEWER CITY OF AKRON

Location: The existing MOI sewer is located along Riverview Road from approximately Weathervane Lane (1821 Merriman Road) to the WPCS.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2017

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained by construction schedule.

Scenario Inclusion:

Baseline Scenario 2040



The Long-Term Control Plan Update 2011 (LTCP) requires the construction of a Main Outfall Relief sewer parallel to the existing MOI from the point of existing transition of concrete sewer pipe to brick arch construction to the WPCS. This relief sewer is required to have a capacity of at least 180 MGD. After construction of the relief sewer, the combined capacity of the existing MOI sewer and the newly constructed relief sewer will be 280 MGD.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	0	This project will not include any sustainability components.
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	3	This project will have a minor positive impact on cost by eliminating maintenance need of brick cap.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This Project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project will disrupt access to the Towpath Trail during construction, however, it will allow for the installation of education kiosks or signage in an accessible public location.
Public Health Protection	0	This project will not impact receiving water quality or reduce the potential for basement backups.
Quality of Life	3	This project will enhance the urban environment by improving sewerage facilities.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	32	



MEMORIAL STORAGE BASIN (CSO RACK 26 & 28)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Heather Ullinger <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$20,301,749

Project Overview:

This project includes design and construction of a 2,296,669 gallon storage basin as required by the Long Term Control Plan Update 2011 (LTCP) to eliminate overflows in the adjusted 1994 Typical Year (Typical Year). The 2015 model recalibration indicates storage requirement of 1.5 million gallon (MG) to achieve this level of control.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Oct 31, 2021 Achievement of Full Operation: Dec 31, 2022 Performance Criteria (Typical Year): Zero CSOs

Location: The proposed storage basin location is south of Memorial Parkway, east of Hickory Street, and west of the Little Cuyahoga River.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2020

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040

Integrated Plan Scenario 2040





The LTCP requires construction of a 2.3 MG storage basin to achieve zero overflows during the Typical Year. A 2015 model recalibration indicated a storage requirement of 1.5 MG to achieve this level of control.

The storage basin outlined in the LTCP is located south of Memorial Drive, west of the Little Cuyahoga River and east of Hickory Street.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project will be located close to the Towpath Trail, and will include the installation of education kiosks or signage in an accessible public location.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	7	This project will create and/or improve recreational opportunities due to its location adjacent to the Towpath Trail and a dog park.
Total Raw Score	54	



MERRIMAN STORAGE BASIN (CSO RACK 36)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Genny Hanna <u>Date Last Updated:</u> Apr 29, 2015 <u>City Project(s) ID:</u> 2013-045-00 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$13,338,188

Project Overview:

This project includes design and construction of a 1,133,074 gallon storage basin as required by the Long Term Control Plan Update 2011 (LTCP). The 2014 model recalibration revised the required volume to 1.15 million gallons (MG).

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Oct 31, 2015 Achievement of Full Operation: Oct 31, 2017 Performance Criteria (Typical Year): Zero CSOs

Location: The project area is bounded primarily by North Portage Path to the west and Merriman Road to the east. The north boundary is approximately Newport Road and runs diagonally to the northern most point of Kingswood Drive. The southern border of the project area is approximately Cazenovia Avenue. A small portion of the project area is east of the railroad, north of Kingswood Drive.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2017

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires construction of a 1,133,074 gallon storage basin to achieve zero overflows in the adjusted 1994 Typical Year (Typical Year). The 2014 model recalibration revised the volume to 1.15 MG.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project will be located close to the Towpath Trail, and will include the installation of education kiosks or signage in an accessible public location.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	52	

MIDDLEBURY STORAGE BASIN (CSO RACK 5 & 7)

Project Description Sheet:

Project Summary Information:

City Contact: Genny Hanna Date Last Updated: Apr 30, 2015 City Project(s) ID: 2013-043-00 Project Classification: LTCP **Utility Division: WW** Project Cost (2015\$): \$19,429,415

Project Overview:

This project includes design and construction of a 1.2 million gallon (MG) storage basin as determined by a 2014 model recalibration. The Long Term Control Plan Update 2011 (LTCP) requires construction of a 1,105,920 gallon storage basin.

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: Oct 31, 2015 Achievement of Full Operation: Oct 31, 2017

Performance Criteria (Typical Year): Zero CSOs

Location: The proposed storage basin is located on the east side of Akron, at the northwest corner of Case

Street and River Street. CSO Rack 5 and 7 are two drainage areas separated by Johnston Street.

Anticipated Project Start: Jan 1, 2033 | Anticipated Project Completion: Dec 31, 2035

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

 \mathbf{X} **Baseline Scenario 2040**

Integrated Plan Scenario 2040





The LTCP requires construction of a 1,105,920 gallon storage basin to achieve zero overflows in the adjusted 1994 Typical Year (Typical Year). The 2014 model recalibration revised the volume to 1.2 MG.

The storage basin is proposed to be constructed at the northwest corner of Case Street and River Street. The proposed storage basin would have two cells and would be covered. The basin would fill by gravity and have submersible pump for dewatering. The storage basin would also have an operations building and odor control building.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project will be located near a women's shelter and within the Rubber City Heritage Trail Corridor creating opportunities for web-based or hard copy outreach.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	50	



MUD RUN DISTRICT CAPACITY IMPROVEMENTS

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Jason Zajac <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> 2012-048-03 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$4,947,717

Project Overview:

The Mud Run Pump Station Improvements are part of Section VIII - Mud Run Pump Station Program in the Consent Decree and involve increasing the capacity of the sanitary sewers from the Mud Run Trunk Sewer.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: Oct 15, 2015 Performance Criteria (Typical Year): See Mud Run Remedial Report

Location: This project is bordered by the Ohio Canal to the east and south and Vernon Odom Road to the north.

Anticipated Project Start: Jan 13, 2012 | Anticipated Project Completion: Oct 15, 2015

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040





The Mud Run District Capacity Improvements are part of Section VIII - Mud Run Pump Station Program in the Consent Decree. The Basis of Design for this project is included in the Report of Findings and the Remedial Report that were submitted for review and approval by the U.S. Environmental Protection Agency (USEPA) and Department of Justice (DOJ).

The purpose of this project is to increase the capacity of the sanitary sewers from the Mud Run Trunk Sewer along Chandler Avenue, 24th Street SW, Battles Avenue, and 13th Street SW to Polk Avenue to prevent sewage backup along this sewer run and along Kenmore Boulevard. As part of this project, the high flow bypass that diverts flow from Battles to Kenmore Boulevard along 13th Street will be effectively eliminated.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	7	This project will have a significant positive impact on environmental responsibility and urban livability.
Pollutant Reduction	3	This project will reduce model-predicted adjusted 1994 Typical Year (Typical Year) overflow less than 5 million gallons (MG).
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will fully replace 5,400 feet of sanitary sewer and will have a major, measurable positive impact on efficiency and costs associated with frequent corrective maintenance and inspection.
Revenue Growth	0	This project does not provide revenue growth opportunities as it will provide service to existing sewered homes.
Local Jobs	5	This project will create or retain temporary construction-related jobs
Cooperative Funding Sources	5	The project will be eligible for Water Pollution Control Loan Fund (WPCLF) loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater or water quality impacts.
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and adding community aesthetics (i.e., roadway resurfacing).
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	52	



MUD RUN DISTRICT I/I REHABILITATION

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Robert Solomon <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> 2012-48-08 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$4,135,660

Project Overview:

The Mud Run inflow and infiltration (I/I) Rehabilitation (lining) is part of Section VIII - Mud Run Pump Station Program in the Consent Decree.

Project Grouped With:

Mud Run District I/I Repairs

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A



Location: This project is bordered by the Ohio Canal to the east and south and Vernon Odom Road to the north.

Anticipated Project Start:

Baseline Scenario: Jan 1, 2018 Integrated Plan Scenario: Jan 1, 2019 Anticipated Project Completion: Baseline Scenario: Dec 31, 2019

Integrated Plan Scenario: Dec 31, 2020

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040



The Consent Decree stipulates Mud Run Pump Station Improvement Projects. The purpose of this project is to reduce I/I in the Mud Run Pump Station tributary area. This project will reduce I/I in manholes and sewer segments by internally lining these assets.

TBL Criteria	Score	Comments
Regulatory Compliance	3	This project will reduce I/I entering the collection system and will result in improved system performance and cost savings.
Sustainability Initiatives	5	This project will result in reduced pump station influent flows and will have a moderate positive impact on energy use.
Pollutant Reduction	7	This project will address I/I and have a significant effect on pollutant reduction.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	7	This project will have a significant impact on efficiency as it will address issues that require preventing and corrective maintenance and inspection work.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	49	



MUD RUN DISTRICT I/I REPAIRS

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Robert Solomon <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> 2012-048-07 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$3,857,846

Project Overview:

The Mud Run inflow and infiltration (I/I) Repairs (excavate and repair/replace) are part of Section VIII -Mud Run Pump Station Program in the Consent Decree.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: This project is bordered by the Ohio Canal to the east and south and Vernon Odom Road to the north..

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2017

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040





The Consent Decree stipulates Mud Run Pump Station Improvement Projects. The purpose of this project is to reduce I/I in the Mud Run Pump Station tributary area. This project will reduce I/I in manholes and sewer segments by repairing and/or replacing these defective assets.

TBL Criteria	Score	Comments
Regulatory Compliance	3	This project will reduce I/I entering the collection system and will result in improved system performance and cost savings.
Sustainability Initiatives	5	This project will result in reduced pump station influent flows and will have a moderate positive impact on energy use.
Pollutant Reduction	7	This project will address I/I and have a significant effect on pollutant reduction.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	7	This project will have a significant impact on efficiency as it will address issues that require preventing and corrective maintenance and inspection work.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.
Quality of Life	7	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, and adding community aesthetics (i.e., street resurfacing).
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	51	



MUD RUN PUMP STATION & STORAGE BASIN

Project Description Sheet:

Project Summary Information:

City Contact: Jason Zajac Date Last Updated: May 4, 2015 City Project(s) ID: 2012-048-05 Project Classification: LTCP Utility Division: WW Project Cost (2015\$): \$13,759,541

Project Overview:

The Mud Run Pump Station Improvements are part of Section VIII - Mud Run Pump Station Program in the Consent Decree and involve improvements and expansions of the Mud Run Pump Station and construction of a Storage Basin.

Project Grouped With:

Mud Run PS Program, 2010-014-00, \$2,250,500; Mud Run PS Improvements (Design), 2012-048-01, \$1,447,116; Mud Run Storage Basin Improvements (Design), 2012-048-02, \$598,675

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: Jan 8, 2016 Performance Criteria (Typical Year): See Mud Run Remedial Report

Location: Mud Run Pump Station on Eagon Street.

Anticipated Project Start: Nov 14, 2012 | Anticipated Project Completion: Dec 31, 2016

Start Date Constrained by Other Projects or Construction in Progress? Yes, constrained to current construction schedule.

Scenario Inclusion:

 \mathbf{X} **Baseline Scenario 2040**

 \boxtimes Integrated Plan Scenario 2040





Section VIII of the Consent Decree requires the Achievement of Full Operation of the selected alternative in the approved Mud Run Pump Station Remedial Report.

This project will rehabilitate the existing Mud Run Pump Station by expanding the pump station dry well and wet well, replacing four existing pumps, adding two storm pumps, installing mechanical bar screens, a new heating, ventilation, and air-conditioning (HVAC) system, electrical and controls upgrades, an emergency generator, and completing miscellaneous site improvements. The project also includes construction of a 1,400,000 gallon storage basin and associated site work. The storage basin will accept excess wastewater flows during periods of wet weather.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	9	This project will result in a major, measurable reduction of pollutants discharged to the receiving stream.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency and cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	7	This project serves planned or anticipated growth.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater or water quality impacts.
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	7	This project will create and/or improve recreational opportunities.
Total Raw Score	75	



NORTHSIDE INTERCEPTOR TUNNEL

Project Description Sheet:

Project Summary Information:

City Contact: Michelle DiFiore Date Last Updated: Jul 13, 2015 City Project(s) ID: N/A Project Classification: LTCP Utility Division: WW Project Cost (2015\$): \$231,853,496

Project Overview:

This original Long Term Control Plan Update 2011 (LTCP) Project will include a new tunnel to prevent overflows for the largest adjusted 1994 Typical Year (Typical Year) storm event.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Apr 30, 2023 Achievement of Full Operation: Dec 31, 2026 Performance Criteria (Typical Year): Zero CSOs Produce River BROAD BLVD BRO

Location: The project area is located in northern Akron; approximately bounded by the Cuyahoga River to the north, Home Avenue to the east, Tallmadge Avenue to the south, and Howard Street to the west.

Anticipated Project Start: Jan 1, 2038 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, the timing of this project is constrained by the completion of the Ohio Canal Interceptor Tunnel (OCIT) project.

Scenario Inclusion:

Baseline Scenario 2040



The LTCP requires a tunnel to store the equivalent of 23 million gallons (MG) from Rack 32, 33, 34 and 35. The Northside Interceptor Tunnel (NSIT) Advanced Facility Plan (AFP) (2013) recommended:

- A 24-foot (internal diameter) tunnel, 6,850 feet in length;
- Four drop shafts and modifications to CSO Rack 32, 33, 34 and 35;
- Tunnel to provide conveyance for dry weather flow from CSO Rack 32, 33, 34 and 35 and wet weather storage of 23 MG;
- Upper NSIT (above CSO Rack 33) would be abandoned; and
- Consolidation of wet weather overflows up to a 10-year storm event to tunnel overflow between CSO Rack 32 and 33.

This project will result in zero combined sewer overflow (CSO) overflows for the Typical Year.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	7	This project will have a significant positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	10	This CSO project will reduce model-predicted Typical Year overflows by more than 50 million gallons (MG).
Habitat Enhancement and Restoration	3	This project will marginally improve existing stream habitat through bank stabilization at the tunnel inflow.
Operational Efficiency	3	As a gravity tunnel, this project will have a minor positive impact on efficiency.
Revenue Growth	1	This project will provide revenue growth opportunities related to potential tourists.
Local Jobs	10	This project will support permanent, skilled, operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	10	This project will include opportunities for component, supporting, or beneficial project elements to be performed or provided by private property owners, businesses, industries, parks, and non-profit groups at reduced or no cost to the public.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	10	This project will create or significantly improve recreational opportunities.
Total Raw Score	74	



OHIO CANAL INTERCEPTOR TUNNEL

Project Description Sheet:

Project Summary Information:

City Contact: Michelle DiFiore

Date Last Updated: Apr 29, 2015

<u>City Project(s) ID:</u> 2012-001-00, 2012-001-01, 2012-001-02, 2012-001-03

Project Classification: LTCP

Utility Division: WW Project Cost (2015\$): \$320,913,436

Project Overview:

This project will include a 27 foot (internal diameter) tunnel to control combined sewer overflows (CSOs) at nine rack locations.

Project Grouped With:

2012-001-01 OCIT-1CS, 2012-001-02 OCIT-2CS, 2012-001-03 OCIT-3CS Cancelled, 2012-001-04 OCIT-Odor Control, 2012-001-05-OCIT-Instrumentation and Controls, 2012-001-06 OCIT-36 WM Relocation, 2012-001-07 OCIT-Lining Protection of LCI, 2012-001-08 OCIT-Otto S

Consent Decree Milestone Dates:

Bidding of Control Measure Apr 30, 2014

Achievement of Full Operation: Dec 31, 2018

Performance Criteria (Typical Year): No More than seven CSOs in a Typical Year until the Enhanced High Rate Treatment (EHRT) is constructed

Location: From Little Cuyahoga River near Maple/Hickory Streets to Exchange Street and Lock 1 in downtown Akron.

Anticipated Project Start: Jan 4, 2012 | Anticipated Project Completion: Dec 31, 2018

Start Date Constrained by Other Projects or Construction in Progress? Yes, constrained to current schedule.

Scenario Inclusion:

Baseline Scenario 2040





The Ohio Canal Interceptor Tunnel (OCIT) is a 27 foot (internal diameter) tunnel approximately 6,200 feet long that will have a minimum storage volume of 25,600,000 gallons. It will control CSOs at seven rack locations tributary to the Ohio Canal and two rack locations tributary to the Little Cuyahoga River with no more than seven untreated CSOs in an adjusted 1994 Typical Year (Typical Year) at the downstream end of the tunnel until the EHRT process is constructed at the downstream tunnel site. The CSOs will be controlled from the following CSO Racks: 4, 16,17,18,19, 20, 23, 24, and 37. This project represents a bundle of the following OCIT projects: OCIT 1CS, OCIT 36 WM Relocation, OCIT I&C, OCIT Lining Protection of the Little Cuyahoga Interceptor (LCI), OCIT Odor Control, and OCIT Exchange Street Utility Relocation.

TBL Criteria	Score	Comments
Regulatory Compliance	10	This project meets regulatory requirements and includes a stream restoration component that will provide additional environmental benefits.
Sustainability Initiatives	7	This is a gravity tunnel project that will have a significant positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	10	This CSO project will reduce model-predicted Typical Year overflows by more than 50 million gallons (MG).
Habitat Enhancement and Restoration	7	This project will significantly enhance streams through stream restoration, bank stabilization and reduced CSOs.
Operational Efficiency	3	This project will have a minor positive impact on efficiency and cost as a gravity tunnel and through elimination of a portion of OCIT and racks.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	10	This project will include opportunities for component, supporting, or beneficial project elements to be performed or provided by private property owners, businesses, industries, or non-profit groups at reduced or no cost to the public.
Public Health Protection	3	Post-construction stormwater Best Management Practices (BMP) and Tunnel Diversion Structure permanent pavement located at shaft sites will improve water quality of the receiving stream but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, and adding community aesthetics; however, a canopy of trees will be removed in order for the tunnel to be constructed.
Recreational Opportunities	10	This project will result in a reduction of CSOs and improve water quality at a very visible site to boaters and trail users near the Mustill Store and Richard Howe House.
Total Raw Score	80	



OHIO CANAL INTERCEPTOR TUNNEL - EHRT

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Michelle DiFiore <u>Date Last Updated:</u> Feb 23, 2015 <u>City Project(s) ID:</u> 2012-001-03 <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$67,890,865

Project Overview:

An Enhanced High Rate Treatment (EHRT) system of specialized water treatment process equipment, chemical feed equipment, concrete tanks, piping and buildings to treat overflow from the Ohio Canal Interceptor Tunnel (OCIT) before it discharges to the Little Cuyahoga River. This is expected to be ballasted flocculation unit or equivalent technology that meets the design and performance criteria and Consent Decree Milestone dates.



Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Apr 30, 2024 Achievement of Full Operation: Oct 31, 2027 Performance Criteria (Typical Year): No more than seven activations

Location: End of OCIT between Hickory Street and the Little Cuyahoga River.

Anticipated Project Start: Apr 1, 2035 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, the OCIT must be completed before this project can begin.

Scenario Inclusion:

Baseline Scenario 2040



This EHRT project will include an ACTIFLO ballasted flocculation unit (sand ballast technology) or an equivalent technology approved by U.S. Environmental Protection Agency (USEPA) and Ohio Environmental Protection Agency (Ohio EPA) that meets the performance criteria, including disinfection, with a minimum sustained design capacity of 300 million gallons per day (MGD) (208,000 gallons per minute). The hydraulic loading rate shall not exceed the manufacturer's recommendation. EHRT system will treat overflow from the Ohio Canal Interceptor Tunnel before it discharges to the Little Cuyahoga River. The system model predicts that it will activate seven times in the adjusted 1994 Typical Year (Typical Year).

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	0	This project does not include any sustainability components.
Pollutant Reduction	10	Project reduces model-predicted Typical Year overflows by 50 or more MG.
Habitat Enhancement and Restoration	7	This project will significantly enhance streams through stream restoration, bank stabilization and reduced combined sewer overflows (CSOs).
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	3	This project will facilitate the location of customers through a technology hub (AGUA).
Local Jobs	10	This project will support permanent, skilled, operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project will include the installation of education kiosks or signage in an accessible public location that directly relates to CSO Long Term Control Plan Update 2011 (LTCP) goals of improved water quality.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	10	This project will create or significantly improve recreational opportunities.
Total Raw Score	67	



OHIO CANAL INTERCEPTOR TUNNEL OTTO STREET PUMP STATION

Project Description Sheet:

Project Summary Information:

City Contact: Mike Wytrzyszczewski Date Last Updated: May 4, 2015 City Project(s) ID: 2012-001-08 Project Classification: LTCP Utility Division: WW Project Cost (2015\$): \$984,750

Project Overview:

This project consists of design and construction of a pump station at Otto Street.

Project Grouped With: Ohio Canal Interceptor Tunnel (OCIT)

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: 158 Otto Street.

Anticipated Project Start: Sep 16, 2013 | Anticipated Project Completion: Dec 31, 2016

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040





This project involves design and construction of a pump station at Otto Street in order to remove an existing pipe across the Little Cuyahoga River. To prevent further damage to the Little Cuyahoga River from the addition of OCIT overflow discharge, Ohio Environmental Protection Agency (Ohio EPA) has requested removal of the current sewer crossing that acts like a dam and causes erosion issues.

TBL Criteria	Score	Comments
Regulatory Compliance	10	This project meets a permit requirement and includes the removal of a sewer crossing that was requested by the Ohio EPA.
Sustainability Initiatives	10	This project will remove a major river impairment and have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.
Habitat Enhancement and Restoration	3	This project will marginally improve, enhance, preserve, or restore a stream, floodplain, or wetlands.
Operational Efficiency	7	This project will have a significant positive impact on efficiency as a sewer crossing will be eliminated where significant erosions exists; however, a new pump station will be constructed as part of this project.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	7	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, and adding community aesthetics.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities by removing a sewer crossing, which may increase future recreational opportunities.
Total Raw Score	60	



OLD MAIN SEWER SEPARATION (CSO RACK 21)

Project Description Sheet:

Project Summary Information:

<u>City Contact</u>: Robert Solomon <u>Date Last Updated</u>: May 4, 2015 <u>City Project(s) ID</u>: 2012-024-00 <u>Project Classification</u>: LTCP <u>Utility Division</u>: WW <u>Project Cost (2015\$):</u> \$5,225,095

Project Overview:

This project consists of separation of combined sewers in the CSO Rack 21 area as required by the Long Term Control Plan Update 2011 (LTCP).

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: Nov 13, 2017 Performance Criteria: Eliminate CSOs

Location: The CSO Rack 21 service area is roughly

bounded by Market Street to the south, the Little Cuyahoga River to the north, CSX railroad tracks to the east, and the Innerbelt and Howard Street to the west.

Anticipated Project Start: Oct 1, 2012 | Anticipated Project Completion: Dec 31, 2016

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040





The Old Main Sewer Separation (CSO Rack 21) Project is one of the Separation Projects listed under the Specific Action Projects in the Consent Decree.

The CSO Rack 21 project will construct approximately 4,750 feet of new sanitary sewer. The project will also construct approximately 3,000 feet of storm sewer. Deficient sewers in the area will also be addressed to facilitate proper inspection and maintenance in the future.

TBL Criteria	Score	Comments
Regulatory Compliance	10	This project meets regulatory requirements and provides additional environmental benefits due to water quality Best Management Practices (BMPs).
Sustainability Initiatives	10	This project does not require energy and will have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	3	This project will reduce model-predicted adjusted 1994 Typical Year (Typical Year) overflow less than 5 million gallons (MG).
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	5	This project facilitates the location of customers through a biomedical corridor (technology hub).
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project will be located in a very visible downtown area that is accessible by the public and will include the installation of education kiosks or signage that directly relates to combined sewer overflow (CSO) LTCP goals of improved water quality.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	10	This project will improve sewerage facilities, reduce the potential for overflows, return the project area to the natural landscape, add community aesthetics, or add green infrastructure secondary benefits.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	75	



UHLER STORAGE BASIN (CSO RACK 27 & 29)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Heather Ullinger <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$16,322,060

Project Overview:

This project includes design and construction of a storage basin with a 2015 model-recalibrated size of 1.5 million gallon (MG) to control overflows in the adjusted 1994 Typical Year (Typical Year). The Long Term Control Plan Update 2011 (LTCP) requires construction of a 1,290,276 gallon storage basin.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Jan 31, 2018 Achievement of Full Operation: Dec 31, 2019 Performance Criteria (Typical Year): Zero CSOs

Location: The project area is located in northwest Akron, east of the Little Cuyahoga River, north of Memorial Parkway, and west of Uhler Avenue.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2019

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires construction of a 1,290,276 gallon storage basin to achieve zero overflows during the Typical Year. A 2015 model recalibration indicates a larger 1.5 MG basin is required to control Typical Year overflows.

The LTCP proposed a storage basin to be located north of Memorial Parkway and east of the Little Cuyahoga River and west of Uhler Avenue.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	7	This project will significantly enhance streams as it requires the removal of a river crossing.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will support permanent, skilled, Combined Sewer Overflow (CSO) operator positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project will be located close to the Towpath Trail, and will include the installation of education kiosks or signage in an accessible public location.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	10	This project will create and/or improve recreational opportunities due to its location adjacent to the Towpath Trail and a dog park. The existing river crossing causes an approximate 50 foot bank of erosion upstream.
Total Raw Score	64	



WPCS PHASE 2, PART 1

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Genny Hanna <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP <u>Utility Division:</u> WRF <u>Project Cost (2015\$):</u> \$45,000,000

Project Overview:

This project includes expanding secondary treatment capacity to 170 million gallons per day (MGD) with step-feed modifications to meet requirements of the Long Term Control Plan Update 2011 (LTCP).

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Feb 28, 2019 Achievement of Full Operation: Dec 31, 2021 Performance Criteria (Typical Year): No more than 10 bypasses



Location: Water Pollution Control Station (WPCS), 2460 Akron-Peninsula Road.

Anticipated Project Start: Jun 1, 2034 | Anticipated Project Completion: Dec 31, 2040

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040


This project will upgrade conventional secondary treatment capacity at the WPCS to 170 MGD.

TBL Criteria	Score	Comments
Regulatory Compliance	10	Project meets regulatory or permit requirements and provides additional environmental benefits.
Sustainability Initiatives	9	Project will have a significant positive impact on environmental responsibility by expanding secondary treatment capacity.
Pollutant Reduction	10	Project will have a major, measurable reduction of pollutant plant effluent discharge.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	3	This project will provide educational or training opportunities that could attract customers.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	68	



WPCS PHASE 2, PART 2

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Genny Hanna <u>Date Last Updated:</u> Feb 25, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP <u>Utility Division:</u> WRF <u>Project Cost (2015\$):</u> \$97,217,311

Project Overview:

This project includes installation of BioACTIFLO ballasted flocculation to treat all flow that does not receive conventional secondary treatment to meet the Row 16 performance criteria within the Long Term Control Plan Update 2011 (LTCP).

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Apr 30, 2017
Achievement of Full Operation: Apr 30, 2019
Performance Criteria (Typical Year): Treated
discharges must not exceed the following limitations:
1.) 30 day average of 30mg/L for TSS;
2.) An average weekly discharge limitation of 298/100mL E. coli (during recreational season);
3.) An average monthly discharge limitation of 126/100 mL E. coli

Location: Water Pollution Control Station (WPCS), 2460 Akron - Peninsula Road.

Anticipated Project Start: Jan 1, 2037 | Anticipated Project Completion: Dec 31, 2040

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040





A minimum sustained capacity of 110 million gallons per day (MGD) BioACTIFLO ballasted flocculation to treat all secondary treatment bypasses is required under the Row 16 performance criteria within the LTCP. This project will install BioACTIFLO ballasted flocculation to treat all flow that does not receive conventional secondary treatment. In addition, all flows through the BioACTIFLO process shall receive disinfection. Maximum loading rates shall not exceed the manufacturer's recommendations.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	0	This project will not include any sustainability components.
Pollutant Reduction	10	Project will have a major, measurable reduction of pollutant plant effluent discharge.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	5	This project facilitates the location of customers through improved access or technology hubs.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project will include on-going opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	50	



CARPENTER CONVEYANCE ALTERNATIVE (CSO RACK 30)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Christine Jonke <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$0

Project Overview:

This alternative project includes conveying CSO Rack 30 flows to the Cuyahoga Street Storage Facility (CSSF). The conveyance pipe was installed during the construction of the CSSF.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): Zero CSOs



Location: Cuyahoga Street, Burns Avenue, Salome Avenue, Carlyle Street, Carpenter Street, Mildred Avenue.

Anticipated Project Start: This project has been completed.

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> No, this project will replace its respective grey/Long Term Control Plan Update 2011 (LTCP) project as an alternative.

Scenario Inclusion:

Baseline Scenario 2040



As an alternative to sewer separation in the CSO Rack 30 tributary area, this project conveys the system flow directly from CSO Rack 30 to the CSSF.

CSO Rack 30 will continue to control the adjusted 1994 Typical Year (Typical Year) storm flows to zero overflows.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	4	This project will have a moderate positive impact on environmental responsibility and urban livability due to sewer separation, but will not have a positive impact on conservation or energy use due to the storage basin and discharge treatment system.
Pollutant Reduction	1	This project will have a minor impact on the reduction of pollutants as the combined sewers will flow to the Water Pollution Control Station (WPCS) and/or CSSF.
Habitat Enhancement and Restoration	3	This project will marginally preserve the existing habitat by addressing one of the listed resources (marginal improvement of the existing stream); however, the treated discharge from CSO Rack 35 may add chemicals to the receiving stream.
Operational Efficiency	5	This project will have a minor positive impact on efficiency and cost savings for maintenance and inspection due to the sewer separation; however, the storage basin, pumping system and discharge treatment system will have to be maintained.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will result in the creation or retention of skilled operators to maintain the storage basin that are paid more than the median wage rate for the region.
Cooperative Funding Sources	5	The project is eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project includes on-going opportunities for an educational kiosk or interactive display on the treatment system, web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	7	This project provides multiple opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, and adding community aesthetics (i.e., roadway resurfacing).
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	57	



CMOM 10-YEAR CYCLE

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Rob Scarlatelli <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$98,800,000 \$3,800,000 per year through program length.

Project Overview:

The Capacity, Management, Operations, and Maintenance (CMOM) program involves many tasks to maintain and improve the collection system. Acute defect repairs are meant to fix serious pipe defects, such as collapsed pipes, within one year of identification. This project involves the aggregate cleaning and inspection of the entire gravity sewer system every ten years. This project also involves asneeded projects identified through sanitary sewer overflow (SSO) root cause analysis to help prevent SSOs in the system based on main line blockages.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: City-wide sewer system locations.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, this project will replace its respective grey/Long Term Control plan Update 2011 (LTCP) project as an alternative.

Scenario Inclusion:

Baseline Scenario 2040



The City's Capacity, Management, Operations and Maintenance (CMOM) Project includes capital expenditures required to implement CMOM throughout the collection systems. Implementation of CMOM involves creating an environment of continuous improvement so that O&M moves from reactive to proactive activities. Thus, a number of the projects include preventive repairs, rehabilitation or replacement of either assets or tools and equipment. The types of activities include:

- Acute defect repairs to fix serious pipe defects within one year of identification.
- Sewer cleaning and inspection including routine cleaning and inspection of the collection system along with data analysis and reviewing defined areas where specific corrective actions or preventive maintenance are required.
- Data analysis and evaluation for root cause identification for problems within the collection system to ensure recommended corrective action projects solve the underlying conditions.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project will facilitate regulatory compliance and/or enable compliance to be met more easily or less costly.
Sustainability Initiatives	10	This project will have a significant positive impact on energy use, conservation, environmental responsibility, and urban livability. CMOM will have a major positive impact on the sewers, and a ten year cleaning cycle is very efficient and sustainable.
Pollutant Reduction	7	Implementation of a continuous improvement O&M philosophy that includes root cause analysis, preventive O&M and operator training to solve underlying causes of SSOs and CSOs is expected to reduce both the number and magnitude of SSO and CSO events
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	7	This project will have a significant impact on efficiency or cost reductions due to less frequently required preventive and corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	0	This project will be eligible for alternate funding for less than 50% of the project costs.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	3	
Total Raw Score	56	



CSSF CONTROL GATE OPTIMIZED ALTERNATIVE

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Pat Gsellman <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$7,000,000

Project Overview:

This project includes implementation of a smart control gate at the existing Cuyahoga Street Storage Facility (CSSF). This smart gate will allow for optimized use of the capacity in the Little Cuyahoga Interceptor (LCI)/ Main Outfall Interceptor (MOI) by closing when the CSSF is full to prevent overflows while the interceptor continues to flow up to full capacity. This project will result in only three overflows in the adjusted 1994 Typical Year (Typical Year).

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: Cuyahoga Street Storage Facility

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2018

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, this project will be complete at the same time as the Ohio Interceptor Canal Tunnel (OCIT).

Scenario Inclusion:

Baseline Scenario 2040

ME GGLEN AVE



Currently, there is interdependency on the rate at which the Cuyahoga Street Storage Facility fills up and the level in the LCI/ MOI. By implementing a smart control gate at the influent of the CSSF, the full capacity of the storage tank can be utilized without the potential for an untreated overflow. The smart gate also allows for the full capacity of the LCI/ MOI to be utilized to convey flow to the treatment plant.

The proposed CSSF Control Gate Optimized Alternative provides for downstream controls at the CSSF consisting of a new control gate that maintains full pipe flow in the LCI/ MOI, while still providing relief for the LCI/ MOI under high flow and surcharge conditions. This modification allows for the more optimized dewatering of the OCIT, and results in only three overflows with an estimated volume of 75 million gallons (MG) in the Typical Year. This proposed alternate would be completed by the time the OCIT is completed.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	4	This project will have a moderate positive impact on environmental responsibility and urban livability due to sewer separation, but will not have a positive impact on conservation or energy use due to the storage basin and discharge treatment system.
Pollutant Reduction	10	This project will have a significant impact on the reduction of pollutants as the combined sewers will flow to the Water Pollution Control Station (WPCS) and/or CSSF.
Habitat Enhancement and Restoration	3	This project will marginally preserve the existing habitat by addressing one of the listed resources (marginal improvement of the existing stream).
Operational Efficiency	5	This project will have a moderate positive impact on efficiency and cost savings for maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	10	This project will result in the creation or retention of skilled operators to maintain the storage basin that are paid more than the median wage rate for the region.
Cooperative Funding Sources	5	The project is eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project includes on-going opportunities for an educational kiosk or interactive display on the treatment system, web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	7	This project provides multiple opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, and adding community aesthetics (i.e., roadway resurfacing).
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	66	



KELLY OPTIMIZED ALTERNATIVE (CSO RACK 3)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Heather Ullinger <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$9,820,523

Project Overview:

This alternative project will include upsizing the existing CSO Rack 3 underflow to maximize conveyance, plus green infrastructure within Priority Catchment Areas (PCAs) with real time controls to prevent overflows for the largest adjusted 1994 Typical Year (Typical Year) storm event. This alternative eliminates the need for a 1,865,006 gallon storage basin as specified in the Long Term Control Plan Update 2011 (LTCP).



Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Jun 30, 2018 Achievement of Full Operation: Nov 30, 2020 Performance Criteria (Typical Year): Zero CSOs

Location: This project area is in southeast Akron and is bound by 5th Avenue to the north, Kelly Avenue to the east, Hudson Avenue to the west, and Lovers Lane to the south. The existing CSO Rack 3 underflow route runs along Kelly Ave from south of I-76 to north of the interstate.

Anticipated Project Start: Jan 1, 2025 | Anticipated Project Completion: Dec 31, 2029

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, this project will serve as a pilot project for the proposed optimized conveyance alternatives such as Memorial, Uhler, and Northside Interceptor Tunnel Enhanced Alternative Phase 2.

Scenario Inclusion:

Baseline Scenario 2040



The LTCP requires a 1,865,006 gallon storage basin for CSO Rack 3 flows. Based on flow metering and 2015 hydraulic model recalibration, a 2.1 million gallon (MG) storage basin is needed. This alternative to the storage basin controls overflows to the largest Typical Year storm event through:

- Increasing the size of the underflow pipe from CSO Rack 3 to convey the overflow volume directly to the Little Cuyahoga Interceptor (LCI); and
- Distributive green infrastructure such as green streets (Arlington Street and 5th Avenue) and mid-sized Best Management Practices (BMPs) near Talbot Park and 5th Avenue with partial sewer separation to convey the stormwater to the BMP for attenuation, then reintroduce to the combined system after the storm.

This project will serve as a pilot project for the proposed optimized conveyance projects, such as Memorial, Uhler, and Northside Interceptor Tunnel Enhanced Alternative Phase 2.

TBL Criteria	Score	Comments
Regulatory Compliance	7	Green infrastructure and upsized overflow are used to meet this project's regulatory requirements.
Sustainability Initiatives	7	This project will have a significant, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	0	This project does not have habitat or stream restoration components.
Operational Efficiency	0	This project negatively impacts operational efficiency because there will be more system components to maintain, including distributed green infrastructure.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will create or retain permanent, non-skilled jobs paying less than the median wage for the region.
Cooperative Funding Sources	5	The project is eligible for a lower than market rate loan.
Community Engagement and Stewardship	10	This project will support components of the East Akron Redevelopment Plan and include opportunities for component, supporting, or beneficial project elements to be performed or provided by private property owners, businesses, industries, or non-profit groups at reduced or no cost to the public.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	10	This project will reduce the potential for overflows, return the project area to the natural landscape, add community aesthetics, or add green infrastructure secondary benefits.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	59	

CSO Rack 3 will continue to control the Typical Year storm flows to zero overflows.



MAIN OUTFALL RELIEF SEWER OPTIMIZED ALTERNATIVE

Project Description Sheet:

Project Summary Information:

City Contact: Travis Capper Date Last Updated: Jul 13, 2015 City Project(s) ID: 2012-052-01 Project Classification: LTCP ALT Utility Division: WW Project Cost (2015\$): \$25,000,000

Project Overview:

This project includes rehabilitation of the existing Main Outfall Interceptor by augmenting the brick crown of the existing sewer with a new reinforced concrete cap section in the locations where the existing sewer is surcharging.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Jul 31, 2015

Achievement of Full Operation: Nov 30, 2017

Performance Criteria (Typical Year): Conveyance

capacity under normal operating conditions of projects outlined in Rows 21-22 to allow transmission of 280 million gallons per day (MGD) to the Water Pollution Control Station (WPCS)

Location: The existing Main Outfall Interceptor sewer is located along Riverview Road, south of the City of Akron Water Pollution Control Station (WPCS) and north of Weathervane Lane 1821 Merriman Road.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2017

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, this project will replace its respective grey/Long Term Control Plan Update 2011 (LTCP) project as an alternative.

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires the installation of a Main Outfall Relief Sewer parallel to the existing Main Outfall Interceptor (MOI). This alternative proposes rehabilitation of the existing MOI sewer by augmenting the brick crown of the existing sewer with a new reinforced concrete cap section. The length to be rehabilitated will be the length of pipe that experiences surcharge, to be defined by level sensor data collected over the next year.

The reinforced cap can be constructed while the existing sewer remains in service and requires no upstream diversion structure. If a new sewer bridge is desired, a small diversion structure will be necessary to divert the sewer from its current course to a new bridge.

Construction of this project has already started.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	5	This project is located next to the Towpath Trail, and will have a moderate positive impact on environmental responsibility and urban livability.
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	3	This alternate project will have a minor impact on efficiency when evaluated against original project. Additional infrastructure maintenance required.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	7	This project will include opportunities for component, supporting, or beneficial project elements to be performed or provided by Ohio Department of Transportation (ODOT), private property owners, businesses, industries, parks, and non-profit groups (e.g., Bell Street) at reduced or no cost to the public.
Public Health Protection	0	This project will not impact receiving water quality or reduce the potential for basement backups.
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by adding community aesthetics.
Recreational Opportunities	0	This will be a sewerage facility improvement project that will not improve recreational opportunities.
Total Raw Score	37	



MEMORIAL OPTIMIZED ALTERNATIVE (CSO RACK 26 & 28)

Project Description Sheet:

Project Summary Information:

City Contact: Heather Ullinger Date Last Updated: Jul 7, 2015 City Project(s) ID: N/A Project Classification: LTCP ALT **Utility Division: WW** Project Cost (2015\$): \$5,401,318

Project Overview:

This alternative project will include upsizing the existing CSO Rack 26 and 28 underflows to maximize conveyance, plus green infrastructure within Priority Catchment Areas (PCAs) with real time controls to prevent overflows for the largest 1994 adjusted Typical Year (Typical Year) storm event.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Oct 31, 2021 Achievement of Full Operation: Dec 31, 2022 Performance Criteria (Typical Year): Zero CSOs

Location: This project area is bound by Mentor Road to the north, Hickory Street and the Little Cuyahoga River to the east, North Portage Path to the west and Market Street to the south.

Anticipated Project Start: Jan 1, 2032 | Anticipated Project Completion: Dec 31, 2037

Start Date Constrained by Other Projects or Construction in Progress? Yes, Kelly Optimized Alternative will serve as a pilot project for increased conveyance and should be complete two years before this project begins.

Scenario Inclusion:

Baseline Scenario 2040

 \mathbf{X} Integrated Plan Scenario 2040





The Long Term Control Plan Update 2011 (LTCP) requires a 2.3 million gallon (MG) storage basin for CSO Rack 26 and 28. Based on flow metering and 2015 hydraulic model recalibration, it was determined that a 1.5 MG storage basin is necessary. This alternative to the storage basin controls overflows to the largest Typical Year storm event.

This alternative consists of:

- Increasing the size of the underflow pipe from CSO Rack 26 and 28 to convey the overflow volume directly to the interceptor;
- Partial sewer separation for attenuation (which is then reintroduced to the combined system);
- Distributive green infrastructure such as green streets (Aqueduct Street); and
- Removal of an existing retention tank that has been out of service near the dog park.

CSO Rack 26 and 28 will continue to control the Typical Year storm flows to zero overflows.

TBL Criteria	Score	Comments
Regulatory Compliance	7	The green infrastructure and upsized underflow are used to meet this project's regulatory requirements.
Sustainability Initiatives	7	This project will have a significant, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	0	This project does not have habitat or stream restoration components.
Operational Efficiency	0	This project negatively impacts operational efficiency because there will be more system components to maintain, including distributed green infrastructure.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will create or retain permanent, non-skilled jobs paying less than the median wage for the region.
Cooperative Funding Sources	5	The project is eligible for a lower than market rate loan.
Community Engagement and Stewardship	10	This project will include opportunities for component, supporting, or beneficial project elements to be performed or provided by private property owners, businesses, industries, or non-profit groups at reduced or no cost to the public due to its proximity to the dog park and the Memorial Trailhead.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	10	This project will improve sewerage facilities, reduce the potential for overflows, return the project area to the natural landscape, add community aesthetics, or add green infrastructure secondary benefits.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities; however there is no river access at this location.
Total Raw Score	59	



MERRIMAN SEPARATION OPTIMIZED **ALTERNATIVE (CSO RACK 36)**

Project Description Sheet:

Project Summary Information:

City Contact: Genny Hanna Date Last Updated: May 29, 2015 City Project(s) ID: 2013-045-01 Project Classification: LTCP ALT **Utility Division: WW** Project Cost (2015\$): \$12,337,332

Project Overview:

The alternative to the current Merriman Storage Basin Long Term Control Plan Update 2011 (LTCP) project involves complete sewer separation on multiple streets with bioretention between the curb and sidewalk (bump-ins) on some streets.

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: Oct 31, 2015 Achievement of Full Operation: Oct 31, 2017 Performance Criteria: Eliminate CSOs

Location: The project area is bounded mostly by North Portage Path to the west and Merriman Road to the east. The north boundary is approximately Newport Road on the west side and runs diagonally to the northern most point of Kingswood Drive. The southern border of the project area is approximately Cazenovia Avenue.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2017

Start Date Constrained by Other Projects or Construction in Progress? Yes, this project will replace its respective grey/LTCP project as an alternative.

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires construction of a 1,133,074 gallon storage basin to achieve zero overflows in the adjusted 1994 Typical Year (Typical Year). With model recalibration, the storage volume needed to achieve zero overflows was revised to 1.15 million gallons (MG). Due to lack of available land and constructability issues in the area, other alternatives needed to be investigated. The investigation and comparison of alternatives yielded sewer separation as the cost effective alternative to eliminate overflows for the CSO Rack 36 drainage area.

Similarly, no sites were identified for central or mid-sized green infrastructure for combined sewer overflow (CSO) abatement due to lack of available land. However, the entire stormwater contributing area (88 acres) provides an offloading green infrastructure opportunity to the Cuyahoga River through separate storm sewers with distributed green infrastructure (green streets) measures within the tree lawns/roadway right-of-way to provide water quality benefits.

Construction of a new sanitary sewer will direct all wastewater flow to the Main Outfall Interceptor (MOI). The existing combined sewer will be converted to a storm sewer. The green infrastructure is sized to treat the volume of runoff generated from a 0.75-inch rainfall in the priority catchment area. This distributive Best Management Practice (BMP) is proposed to consist of approximately 30 bioretention bump-ins, approximately 6 feet x 150 feet each, for a total of 27,000 square feet. The City of Akron expects to provide at least two bioretention planting options from which property owners can select.

TBL Criteria	Score	Comments
Regulatory Compliance	10	This is a total sewer separation project that includes a green component, providing additional environmental benefits. This project meets regulatory or permit requirements.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 MG.
Habitat Enhancement and Restoration	3	This project will marginally improve, enhance, preserve, or restore a stream, floodplain, or wetlands.
Operational Efficiency	9	This project will have a major, measureable positive impact on efficiency or cost alleviating frequent corrective maintenance and inspection though BMPs will require maintenance.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	7	This project will be eligible for alternative funding for less than 50% of the estimated project cost. Grants may be available to fund the green streets component.
Community Engagement and Stewardship	10	This project will disrupt access to the Towpath Trail, and will include the installation of education kiosks or signage in an accessible public location that directly relates to CSO LTCP goals of improved water quality.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	10	This project will improve sewerage facilities, reduce the potential for overflows, return the project area to the natural landscape, add community aesthetics, or add green infrastructure secondary benefits.
Recreational Opportunities	5	This project will result in significant water quality benefits and somewhat improve recreational opportunities.
Total Raw Score	79	



MIDDLEBURY SEPARATION OPTIMIZED ALTERNATIVE (CSO RACK 5 & 7)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Genny Hanna <u>Date Last Updated:</u> May 22, 2015 <u>City Project(s) ID:</u> 2013-043-01 <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$18,823,688

Project Overview:

This project is an optimized alternative to the Middlebury Storage Basin Long Term Control Plan Update 2011 (LTCP) Project and involves complete sewer separation on multiple streets with constructed stormwater wetlands.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: Oct 31, 2015 Achievement of Full Operation: Oct 31, 2017 Performance Criteria: Eliminate CSOs

Location: CSO Rack 5 is approximately bordered by East Market Street and South Arlington Street to the north and east and Mason Park to the west and Johnston Street to the south. CSO Rack 7 is bounded by South Arlington Street to the east, I-76 to the south and Inman Street to the west and Johnston Street to the north. The green infrastructure wetlands will be constructed on both sides of South Case Avenue between the abandoned railroad and River Street.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2017

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, this project will replace its respective grey/LTCP project as an alternative.

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires construction of a 1,105,920 gallon combined sewer overflow (CSO) storage basin to achieve zero overflows in the adjusted 1994 Typical Year (Typical Year). With model recalibration, the storage volume needed to achieve zero overflows was revised to 1.2 million gallons (MG). The investigation and comparison of alternatives yielded sewer separation as the cost effective alternative to eliminate overflows for the CSO Rack 5 and 7 drainage area.

Complete sewer separation as proposed would also achieve zero overflows, not only in the Typical Year, but also in all wet weather events, since the CSO in this alternative would be eliminated. It has been determined that complete sewer separation can be accomplished by constructing a new sanitary sewer parallel to existing combined sewer and reconnecting the sanitary laterals to the new sewer. The existing combined sewer would function as a storm sewer and flow would be directed to the proposed constructed wetlands. The existing rack structures would be modified to separate the sanitary and stormwater flow. Sanitary flow would be directed to the Little Cuyahoga Interceptor (LCI) at both CSO Rack 5 and 7. Stormwater would be treated with constructed wetlands and would flow to the outfall at the Little Cuyahoga River at CSO Rack 7.

TBL Criteria	Score	Comments
Regulatory Compliance	10	This is a total sewer separation project that includes a green component that provides additional environmental benefits. This project meets regulatory or permit requirements.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	5	This project will incorporate stormwater Best Management Practices (BMPs) that will result in a significant reduction in pollutant discharge.
Habitat Enhancement and Restoration	3	This project will marginally improve, enhance, preserve, or restore a stream, floodplain, or wetlands.
Operational Efficiency	9	This project will have a major, measureable positive impact on efficiency or cost alleviating frequent corrective maintenance and inspection though BMPs will require maintenance.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project will include on-going opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	7	This project will provide multiple opportunities to enhance the urban environment by improving reducing potential overflows, adding community aesthetics (i.e., street resurfacing), and adding green infrastructure secondary benefits.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	69	



NORTH HILL SEPARATION OPTIMIZED ALTERNATIVE (CSO RACK 22)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Heather Ullinger <u>Date Last Updated:</u> May 22, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$12,272,062

Project Overview:

This alternative project will include partial sewer separation, offloading green infrastructure with a centralized Best Management Practice (BMP) on properties owned by the City of Akron, and adjusting the flow to the Little Cuyahoga Interceptor (LCI) by increasing the size of the CSO Rack 22 underflow pipe to 30-inches.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Oct 31, 2015 Achievement of Full Operation: Dec 31, 2017 Performance Criteria (Typical Year): Zero CSOs

Location: Area bounded by East Cuyahoga Falls Avenue to the north, East North Street to the south, Howard Street to the west, and State Route 8 to the east.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2017

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, this project will replace its respective grey/Long Term Control Plan Update 2011 (LTCP) project as an alternative.

Scenario Inclusion:

Baseline Scenario 2040





The LTCP requires construction of a 2,424,446 gallon storage basin to achieve zero overflows in the adjusted 1994 Typical Year (Typical Year). With model recalibration, the storage volume needed to achieve zero overflows was revised to 1.95 million gallons (MG). The proposed offloading Priority Catchment Area (PCA) consists of five main subareas – Cuyahoga Falls Avenue, Main Street, Tallmadge Avenue west of Main Street, Tallmadge Avenue east of Main Street, and Glenwood Avenue. Detailed LTCP modeling of the offloading green infrastructure opportunities resulted in a reduction in storage volume required by 0.9 MG.

Construction would include partial sewer separation, modified manholes, green streets, and a centralized constructed wetland located under the SR 261 Bridge to offload stormwater from the combined sewer system. The BMP could be constructed on City owned property. The remaining storage needed for CSO Rack 22 can be eliminated by optimizing the sewer system that conveys flow to the LCI. Upstream of CSO Rack 22 at CSO Rack 12, a storage basin is being constructed with 0.9 MG excess capacity beyond what is required to eliminate CSO Rack 12 overflows in a Typical Year. Modeling of the LCI system indicated that retaining flow in the larger CSO Rack 12 storage basin provides additional capacity in the LCI for CSO Rack 22 to utilize. Upsizing the underflow at CSO Rack 22, from 12-inch and 20-inch diameter pipe to 30-inch diameter pipe, allows more flow to pass through to the LCI and eliminates the need for a storage basin at CSO Rack 22.

TBL Criteria	Score	Comments
Regulatory Compliance	8	This project meets regulatory requirements. Although this is a partial sewer separation project, additional environmental benefits will be realized from its green component.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	7	This project will reduce model-predicted Typical Year overflows between 25 and 49 MG.
Habitat Enhancement and Restoration	7	This project will include stream restoration and wetland construction, and will significantly improve and enhance these resources.
Operational Efficiency	0	This project negatively impacts operational efficiency because there will be more system components to maintain.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	7	This project will be eligible for alternative funding for less than 50% of the estimated project cost. It is anticipated that Ohio Department of Transportation (ODOT) could provide partial funding and there is a potential for grant funding for the stream restoration component of the project.
Community Engagement and Stewardship	10	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	10	This project will improve sewerage facilities, reduce the potential for overflows, return the project area to the natural landscape, add community aesthetics, and add green infrastructure secondary benefits.
Recreational Opportunities	7	This project will create and/or improve recreational opportunities due to its location near the Towpath Trail and Muscle Store.
Total Raw Score	76	



NORTHSIDE INTERCEPTOR TUNNEL **EARLY ACTION CONVEYANCE PHASE 1**

Project Description Sheet:

Project Summary Information:

City Contact: Michelle DiFiore Date Last Updated: Jul 13, 2015 City Project(s) ID: N/A Project Classification: LTCP ALT **Utility Division: WW** Project Cost (2015\$): \$34,695,100

Project Overview:

This early action project will include pipe replacement and trail/road stabilization of the upper Northside Interceptor (NSI) racks to achieve greater environmental benefits sooner than currently required by the Consent Decree.

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: Apr 30, 2023 Achievement of Full Operation: Dec 31, 2026 Performance Criteria (Typical Year): N/A

Location: Along the Highbridge Trail in Northern Akron

Anticipated Project Start: Jan 1, 2016 | Anticipated Project Completion: Dec 31, 2020

Start Date Constrained by Other Projects or Construction in Progress? Yes, constrained to achieve greater environmental benefits sooner.

Scenario Inclusion:

ΓL **Baseline Scenario 2040**

Integrated Plan Scenario 2040 X





To achieve greater environmental benefits sooner, the City of Akron could fast-track the replacement and upsizing of the upper NSI (CSO Rack 34 and 35). This will produce more environmental benefits ahead of the Long Term Control Plan Update 2011 (LTCP) project schedule. The remaining sewer separation and pipe replacement and upsizing of the lower NSI (CSO Rack 32 and 33) (included in the "Northside Interceptor Tunnel Enhanced Alternative Phase 2") could then be completed in strategic order to continue to achieve the greatest environmental benefit at an affordable cost.

Project conveyance components include:

- In-line storage at CSO Rack 32 and 35,
- Upsizing the upper NSI in the current alignment and upsizing underflows at CSO Rack 34 and 35, and
- Trail/road stabilization.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project meets Consent Decree-mandated requirements.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability.
Pollutant Reduction	10	Project reduces model-predicted Typical Year overflows by 50 or more MG.
Habitat Enhancement and Restoration	5	This project will marginally improve, enhance, preserve, and restore receiving streams and wetlands.
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will create or retain permanent, non-skilled jobs paying less than the median wage for the region.
Cooperative Funding Sources	5	The project is eligible for a lower than market rate loan.
Community Engagement and Stewardship	5	This project includes on-going opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, and water quality impacts.
Public Health Protection	5	This project will reduce the potential for localized flooding, but will not include pollutant reduction Best Management Practices (BMPs).
Quality of Life	7	This project provides opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, and adding community aesthetics.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	66	



NORTHSIDE INTERCEPTOR TUNNEL ENHANCED ALTERNATIVE PHASE 2

Project Description Sheet:

Project Summary Information:

City Contact: Michelle DiFiore Date Last Updated: Jul 13, 2015 City Project(s) ID: Project Classification: LTCP ALT Utility Division: WW Project Cost (2015\$): \$85,153,707

Project Overview:

This project serves as an alternative to the Northside Interceptor Tunnel (NSIT) and involves increased conveyance for the lower Northside Interceptor (NSI) and sewer separation at CSO Rack 34 and 35.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: Apr 30, 2023 Achievement of Full Operation: Dec 31, 2026 Performance Criteria (Typical Year): Zero CSOs



Location: The project area is located in northern Akron; approximately bounded by the Cuyahoga River to the north, Home Avenue to the east, Tallmadge Avenue to the south, and Howard Street to the west.

Anticipated Project Start: Jan 1, 2032 | Anticipated Project Completion: Dec 31, 2040

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, Kelly Optimized Alternative will serve as a pilot project for increased conveyance and should be complete two years before this project begins.

Scenario Inclusion:

Baseline Scenario 2040



This project serves as an alternative to the NSIT and involves increased conveyance for the entire NSI (outlined in the NSIT Early Action Conveyance Phase 1 project). This alternative consists of:

- Full sewer separation of CSO Rack 34 and 35, and
- Increased conveyance of the lower NSI.

There would be no combined sewer overflows (CSOs) from CSO Rack 34 and 35 after sewer separation; however, CSO Rack 32 and 33 would continue to overflow beyond adjusted 1994 Typical Year (Typical Year) storm event.

TBL Criteria	Score	Comments
Regulatory Compliance	8	This project will exceed Consent Decree-mandated requirements because of the separation of combined sewers tributary to CSO Rack 34 and includes green infrastructure.
Sustainability Initiatives	7	This project will have a significant positive impact on conservation, environmental responsibility and urban livability due to sewer separation and green infrastructure, but will not have a positive impact on energy use due to the hydraulic controls and storage basin maintenance.
Pollutant Reduction	9	This CSO project will reduce model-predicted Typical Year overflows by almost 50 million gallons (MG) in a Typical Year.
Habitat Enhancement and Restoration	3	This project will marginally preserve the existing habitat by addressing one of the listed resources (marginal improvement of the existing stream). The green infrastructure will be distributed between the urban environments.
Operational Efficiency	3	This project will have a minor positive impact on efficiency and cost savings for maintenance and inspection due to the sewer separation; however, the storage basin, pumping system, and green infrastructure will have to be maintained.
Revenue Growth	1	This project will provide revenue growth opportunities related to the potential for attracting tourists to the area.
Local Jobs	10	This project will result in the creation or retention of skilled operators to maintain the storage basin that are paid more than the median wage rate for the region.
Cooperative Funding Sources	5	The project is eligible for a lower than market rate loan.
Community Engagement and Stewardship	10	This project will include opportunities for component, supporting, or beneficial project elements to be performed or provided by private property owners, businesses, industries, parks, and non-profit groups at reduced or no cost to the public.
Public Health Protection	7	This project will improve the receiving stream water quality, reduce localized flooding, and includes Best Management Practices (BMP) for pollutant reduction.
Quality of Life	10	This project provides multiple opportunities to enhance the urban environment by improving sewerage facilities, reducing potential overflows, improving community aesthetics, and incorporating green infrastructure.
Recreational Opportunities	10	This project will create or significantly improve recreational opportunities.
Total Raw Score	83	



OHIO CANAL INTERCEPTOR TUNNEL - EHRT ENHANCED ALTERNATIVE

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Michelle DiFiore <u>Date Last Updated:</u> Jul 10, 2015 <u>City Project(s) ID:</u> 2012-001-03 <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$6,400,000

Project Overview:

This alternative project will include green infrastructure and hydraulic controls to attenuate flows upstream of the Ohio Canal Interceptor Tunnel (OCIT) in lieu of constructing the Consent Decree-required Enhanced High Rate Treatment (EHRT) facility.

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: Apr 30, 2024 Achievement of Full Operation: Oct 31, 2027

Performance Criteria (Typical Year): Three CSOs

Location: Multiple Locations.

TALLMADGE AVE W MARKET ST 8 ExCHANGE ST \$ DIAGONAL 59 S BROAL VERNON ODOM BLVD **NNERBEL** Ohit 77 s BROWN Legend PROPOSED INLINE STORAGE LOCATION GREEN INFRASTRUCTURE

Anticipated Project Start: Jan 1, 2032 | Anticipated Project Completion: Dec 31, 2036

Start Date Constrained by Other Projects or Construction in Progress? No.

Scenario Inclusion:

Baseline Scenario 2040



This proposed project consists of reducing and attenuating flow upstream of the OCIT to reduce the needed capacity of the EHRT. The elements of this project include:

- Green infrastructure at SR-59 and Bell, and
- In-Line storage.

This proposed alternative further reduces overflow volume downstream of the OCIT to 57 million gallons (MG) in the Typical Year after the early benefits of the "CSSF Control Gate Optimized Alternative".

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	9	This project will require less chemicals and energy usage, and will have a major, measurable positive impact on energy use, conservation, environmental responsibility, and urban livability (no longer treatment facility along the Towpath Trail).
Pollutant Reduction	10	Project reduces model-predicted Typical Year overflows by 50 or more MG.
Habitat Enhancement and Restoration	0	This project does not have habitat or stream restoration components.
Operational Efficiency	0	This project does not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will create or retain permanent, non-skilled jobs paying less than the median wage for the region.
Cooperative Funding Sources	5	The project is eligible for a lower than market rate loan.
Community Engagement and Stewardship	10	This project will include opportunities for component, supporting, or beneficial project elements to be performed or provided by Ohio Department of Transportation (ODOT), private property owners, businesses, industries, parks, and non-profit groups (e.g., Bell Street) at reduced or no cost to the public due to its proximity to the Towpath Trial.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	10	This project will improve sewerage facilities, reduce the potential for overflows, return the project area to the natural landscape, add community aesthetics, or add green infrastructure secondary benefits. Revegetation of the proposed EHRT location is also a co-benefit.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	66	



REMOVAL OF THE GORGE DAM ALONG CUYAHOGA RIVER

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Pat Gsellman <u>Date Last Updated:</u> Mar 2, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$10,000,000

Project Overview:

This project consists of the removal of a 68 foot high, 429 foot wide concrete dam in the Gorge Metro Park to improve water quality in the Cuyahoga River.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: Gorge Dam is located within the Gorge Metro Park (main entrance is at 1160 Front Street, Cuyahoga Falls, OH 44221).

Anticipated Project Start: Dec 1, 2020 | Anticipated Project Completion: Dec 31, 2024

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, project funds to be available beginning in 2020.

Scenario Inclusion:

Baseline Scenario 2040





The concrete dam located within the Gorge Metro Park creates a 34 acre pool (reservoir) that extends 1.4 miles. The Ohio Environmental Protection Agency (Ohio EPA) has determined that the Gorge Dam adversely impacts the water quality of the Lower Cuyahoga River as a result of changes to the hydraulic regime, thermal and chemical water quality changes, and impaired habitat. Additionally, the Gorge Dam may reduce or eliminate downstream flooding needed by some wetland and riparian areas and impede or block fish migration routes.

Supporting funds to this dam removal project reflects the City's commitment to a healthy Cuyahoga River. It is anticipated that funding for this project will be shared amongst other local and national entities/programs. These may include Section 206 (the U.S. Army Corps of Engineers), Section 319 (Ohio EPA), Metro Parks, and various local foundations.

TBL Criteria	Score	Comments
Regulatory Compliance	0	This project is not required per the Consent Decree or National Pollutant Discharge Elimination System (NPDES) permit.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on conservation, environmental responsibility, and urban livability.
Pollutant Reduction	0	This project does not reduce pollutant loading.
Habitat Enhancement and Restoration	10	This project will significantly improve, enhance, preserve, or restore the floodplain and wetland habitat.
Operational Efficiency	0	This project will not impact on operational efficiency.
Revenue Growth	1	This project will provide revenue growth opportunities related to the potential for attracting tourists to the area.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	10	This project may be eligible for alternative funding from the U.S. Army Corps of Engineers, Ohio EPA, and other funding agencies.
Community Engagement and Stewardship	10	This project will include opportunities for component, supporting, or beneficial project elements to be performed or provided by private property owners, businesses, industries, or non-profit groups at reduced or no cost to the public.
Public Health Protection	3	This project will improve receiving water quality.
Quality of Life	7	This project will return the project area to the natural landscape, and enhance the urban environment.
Recreational Opportunities	10	This project will significant improve downstream recreational opportunities.
Total Raw Score	66	



UHLER CONVEYANCE OPTIMIZED ALTERNATIVE (CSO RACK 27 & 29)

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Heather Ullinger <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$4,505,969

Project Overview:

This alternative project will include removing the existing sewer downstream of CSO Rack 27 and constructing a larger sewer across the Little Cuyahoga River. This project also includes installing a new 36-inch diameter sewer and upsizing the existing sewer downstream of CSO Rack 29.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Jan 31, 2018 Achievement of Full Operation: Dec 31, 2019 Performance Criteria (Typical Year): Zero CSOs

Location: An aerial pipe will cross the Little Cuyahoga River near Memorial Parkway and Uhler Avenue and return underground below the Towpath Trail. Pipe upgrades will occur along Cuyahoga Street near the Cuyahoga Street Storage Facility.

Anticipated Project Start: Jan 1, 2032 | Anticipated Project Completion: Dec 31, 2036

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, Kelly Optimized Alternative will serve as a pilot project for increased conveyance and should be complete two years before this project begins.

Scenario Inclusion:

Baseline Scenario 2040





The Long Term Control Plan Update 2011 (LTCP) requires a 1,290,276 gallon storage basin for CSO Rack 27 and 29. Based on recent flow metering and refined hydraulic modeling, a 1.5 MG storage basin is needed.

In lieu of constructing the storage basin, this alternative consists of:

- Increasing the underflow pipe size from CSO Rack 27 and removing an existing pipe,
- Increasing the underflow pipe size from CSO Rack 29, and
- Constructing a new sewer and increasing the size of the existing sewer along Cuyahoga Street to CSO Rack 29.

CSO Rack 27 and 29 will continue to control the adjusted 1994 Typical Year (Typical Year) storm flows to zero overflows.

TBL Criteria	Score	Comments
Regulatory Compliance	7	This project is required per the Consent Decree-mandated implementation schedule.
Sustainability Initiatives	7	This project will have a significant positive impact on energy use and conservation.
Pollutant Reduction	5	This project will reduce model-predicted Typical Year overflows between 5 and 24 million gallon (MG).
Habitat Enhancement and Restoration	8	This project will significantly improve, enhance, preserve, and restore the receiving waters (removal of a river crossing).
Operational Efficiency	0	This project will not impact operational efficiency.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will create or retain permanent, non-skilled jobs paying less than the median wage for the region.
Cooperative Funding Sources	5	The project is eligible for a lower than market rate loan.
Community Engagement and Stewardship	10	This project is located close to the Towpath Trail and will include the installation of education kiosks or signage in an accessible public location that directly relates to combined sewer overflow (CSO) LTCP goals of improved water quality. Visibility for the project includes close proximity to the dog park and the Memorial Tralihead. The proposed aerial crossing will also provide an opportunity to educate the community about the program and solution.
Public Health Protection	3	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	7	This project provides multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows, returning developed areas to a more natural landscape, and adding community aesthetics.
Recreational Opportunities	10	This project will create and/or improve recreational opportunities due to its location adjacent to the Towpath Trail. The existing river crossing causes approximately a 50 foot bank of erosion upstream. Removal of the crossing will aid in removal of the resulting silt and debris in the river.
Total Raw Score	69	



WPCS PHASE 2, PART 1 ALTERNATIVE

Project Description Sheet:

Project Summary Information:

City Contact: Genny Hanna Date Last Updated: May 4, 2015 City Project(s) ID: N/A Project Classification: LTCP ALT Utility Division: WRF Project Cost (2015\$): \$52,000,000

Project Overview:

This project will increase conventional secondary treatment capacity to 220 million gallons per day (MGD) to exceed the Row 15 performance criteria within the Long Term Control Plan Update 2011 (LTCP). The alternative would replace Water Pollution Control Station (WPCS) Phase 2, Part 1 project in the Consent Decree.

Project Grouped With: WPCS Headworks Improvements

Consent Decree Milestone Dates: Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: Water Pollution Control Station (WPCS), 2460 Akron - Peninsula Road.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2019

Start Date Constrained by Other Projects or Construction in Progress? Yes, this project will replace its respective grey/LTCP project as an alternative.

Scenario Inclusion:

Baseline Scenario 2040

Integrated Plan Scenario 2040 \mathbf{X}





The LTCP requires the upgrade of the WPCS's conventional secondary treatment capacity to 170 million gallons per day (MGD). The scope of the WPCS Final Settling Tank Improvements project was expanded from improving the capacity of final settling tanks 1A through 4C only to increasing the peak process capacity of the entire WPCS secondary treatment facility above the current 130 MGD capacity to reduce secondary bypass.

Based on the site investigations, inspections, modeling, and analyses presented in the Basis of Design Report, it is recommended to refurbish and/or reconstruct and modify structures within the secondary treatment facility to support operation at process flows up to 220 MGD, and to generally replace or repair deteriorated equipment that has reached or exceeded its useful life. The improvements will include additional process and hydraulic control features on all six secondary treatment trains, and all 18 secondary clarifiers to operate the secondary facility in a step feed mode and include an anaerobic selector zone for biological phosphorus removal.

The expanded scope of the WPCS Final Settling Tank Improvements project meets the Row 15 performance criteria within the LTCP, and significantly reduces the need for the planned BioACTIFLO project in Row 16 of the LTCP. The remaining small volume of bypass flow could be treated with Chemically Enhanced Primary Treatment (CEPT) through the Stormwater Retention Tank described in WPCS Phase 2, Part 2 Alternative.

TBL Criteria	Score	Comments
Regulatory Compliance	10	This project meets regulatory or permit requirements and provides additional environmental benefits.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility and urban livability.
Pollutant Reduction	10	Project will have a major, measurable reduction of pollutant plant effluent discharge.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	3	This project will provide educational opportunities that could attract customers.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	4	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	70	



WPCS PHASE 2, PART 2 ALTERNATIVE

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Genny Hanna <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> LTCP ALT <u>Utility Division:</u> WRF <u>Project Cost (2015\$):</u> \$31,875,000

Project Overview:

This project involves Chemically Enhanced Primary Treatment (CEPT) as an alternative to BioACTIFLO treatment on bypass flow at the Water Pollution Control Station (WPCS).

Project Grouped With: WPCS Headworks Improvements

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A



Location: Water Pollution Control Station (WPCS), 2460 Akron - Peninsula Road.

Anticipated Project Start: Jan 1, 2017 | Anticipated Project Completion: Dec 31, 2021

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, this project will replace its respective grey/Long Term Control Plan Update 2011 (LTCP) project as an alternative.

Scenario Inclusion:

Baseline Scenario 2040



As discussed with the WPCS Phase 2, Part 1 Alternative, secondary expansion up to 220 million gallons per day (MGD). This expansion in treatment capacity significantly reduces the need for the planned BioACTIFLO project in Row 16 of the LTCP. The remaining small volume of bypass flow (60 MGD) could be treated with CEPT through the Stormwater Retention Tank (SRT). The SRT will be reconstructed to accommodate CEPT and the associated chemical storage and chemical feed systems.

TBL Criteria	Score	Comments
Regulatory Compliance	10	This project meets regulatory or permit requirements and provides additional environmental benefits.
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility and urban livability.
Pollutant Reduction	10	Project will have a major, measurable reduction of pollutant plant effluent discharge.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	5	This project will create or retain temporary construction-related jobs.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	4	This project will improve water quality of the receiving stream, but will not reduce the potential for basement backups or localized flooding.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.
Total Raw Score	67	



ACTIVATED GALLERY BOILER REPLACEMENT

Project Description Sheet:

Project Summary Information:

<u>City Contact</u>: Tom Smith <u>Date Last Updated:</u> Mar 17, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> Non-LTCP <u>Utility Division:</u> WRF <u>Project Cost (2015\$):</u> \$100,000

Project Overview:

This project will replace the boiler with a new highefficiency unit.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A



Location: Water Pollution Control Station (WPCS), 2460 Akron - Peninsula Road.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2015

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040


The City of Akron has identified that the existing boiler located in the WPCS Activated Gallery has reached the end of its useful service life. The boiler system will be replaced with a new high efficiency model and will be relocated to a more accessible location.

The new boiler will reduce natural gas consumption by approximately 10% to 15% when compared to the existing boiler. Additionally, the new boiler will be specified so that area reduction of nitrogen oxide emissions is reduced from current levels.

TBL Criteria	Score	Comments	
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.	
Sustainability Initiatives	7	This project will have a significant positive impact on energy use, conservation, environmental responsibility, and urban livability.	
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.	
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.	
Operational Efficiency	7	This project will have a significant impact on efficiency or cost reductions by reducing necessary preventive and corrective maintenance and inspection.	
Revenue Growth	0	This project will not provide revenue growth opportunities.	
Local Jobs	5	This project will create or retain temporary construction-related jobs.	
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.	
Community Engagement and Stewardship	0	This project will not contain private property, business, or industry support, and does not facilitate education or communication opportunities.	
Public Health Protection	0	This project will not impact receiving water quality or reduce the potential for basement backups.	
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by improving sewerage facilities.	
Recreational Opportunities	0	This project will not improve recreational opportunities.	
Total Raw Score	27		



LOGAN SANITARY SEWER EXTENSION

Project Description Sheet:

Project Summary Information:

City Contact: Christine Jonke Date Last Updated: Mar 2, 2015 City Project(s) ID: 2013-002-00 Project Classification: Non-LTCP Utility Division: WW Project Cost (2015\$): \$105,900

Project Overview:

This project will extend the sanitary sewer in Logan Parkway North.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: Logan Parkway to approximately 400 feet north through an existing easement.

Anticipated Project Start: Jan 28, 2013 | Anticipated Project Completion: Dec 31, 2015

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040





This project involves design and construction of an extension to a sanitary sewer along Logan Parkway at Turkeyfoot Road to serve an industrial park. This project is necessary for further development of the industrial park and to provide sanitary sewer service to an area that is presently served by onsite septic systems.

TBL Criteria	Score	Comments	
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.	
Sustainability Initiatives	0	This project will not include any sustainability components.	
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.	
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.	
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.	
Revenue Growth	10	This project will serve a committed growth plan.	
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.	
Cooperative Funding Sources	0	This project will not be eligible for alternative funding contributions or sources.	
Community Engagement and Stewardship	3	This project includes only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.	
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.	
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by improving sewerage facilities.	
Recreational Opportunities	0	This project will not improve recreational opportunities.	
Total Raw Score	40		



SANITARY SEWER RECONSTRUCTION 2016-2018

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Pat Gsellman <u>Date Last Updated:</u> Jul 7, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> Non-LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$25,000,000

Project Overview:

This project represents requirements as part of a sound asset management program to proactively replace or rehabilitate assets associated with Little Cuyahoga Interceptor prior to failure.

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: Achievement of Full Operation: N/A Performance Criteria (Typical Year):

Location: City-wide sewer system locations.

Anticipated Project Start: Jan 1, 2016 | Anticipated Project Completion: Dec 31, 2018

Start Date Constrained by Other Projects or Construction in Progress? Yes, constrained to current schedule.

Scenario Inclusion:

Baseline Scenario 2040



This project represents the budgetary spending for the period 2016-2018 for anticipated sewer lining, rehabilitation, and peak flow management in the collection system.

TBL Criteria	Score	Comments
Regulatory Compliance	3	This project will facilitate regulatory compliance and/or enable compliance to be met more easily or less costly.
Sustainability Initiatives	3	This project will provide a foundation for a future significant impact project.
Pollutant Reduction	3	Project is predicted to have a minor impact on pollutant reduction.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	7	This project will have a significant impact on efficiency or cost reductions due to less frequently required preventive and corrective maintenance and inspection.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	7	This project will be eligible for alternate funding for less than 50% of the project costs.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	7	This project will reduce the potential for basement backups and sewer overflows.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	45	



SEIBERLING STREET SEWER

Project Description Sheet:

Project Summary Information:

City Contact: Mike Teodecki Date Last Updated: Mar 2, 2015 City Project(s) ID: 2013-030-00 Project Classification: Non-LTCP Utility Division: WW Project Cost (2015\$): \$4,986,000

Project Overview:

This project includes the construction of a new 24-inch diameter sewer, replacement of minor local sewers to main service to existing businesses, and abandonment of deteriorated trunk and local sewers that will no longer be needed to serve the area.

Project Grouped With: N/A

Project Grouped With:

Consent Decree Milestone Dates: Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: Seiberling Street from Innovation Way to Archwood Avenue.

Anticipated Project Start: Jul 3, 2013 | Anticipated Project Completion: Dec 31, 2016

Start Date Constrained by Other Projects or Construction in Progress? Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040

 \mathbf{X} Integrated Plan Scenario 2040





The City of Akron included the construction of a 24-inch diameter sanitary sewer along Seiberling Street from Innovation Way to Archwood Avenue in the Sanitary Sewer Master Plan developed in 2009 for the Goodyear Redevelopment Area. This project includes the construction of this a new 24-inch diameter sewer, replacement of minor local sewers to main service to existing businesses, and abandonment of deteriorated trunk and local sewers that will no longer be needed to serve the area.

This project will result in a reduced potential of sewer overflows and improve the operation, functionality, and sustainability of the collection system.

TBL Criteria	Score	Comments	
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.	
Sustainability Initiatives	7	This project will have a significant positive impact on energy use, conservation, environmental responsibility, and urban livability. This project will assist with Goodyear redevelopment.	
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.	
Habitat Enhancement and Restoration	3	This project includes lining an old sewer through a river restoration area; the structural liner will provide protection to the river.	
Operational Efficiency	7	Sewer lining, replacement, and abandonment will have a significant impact on efficiency or cost reductions from fewer required preventive and corrective maintenance and inspections.	
Revenue Growth	7	This project is designed for the Goodyear redevelopment initiative and will serve planned or anticipated growth.	
Local Jobs	5	This project will create or retain temporary construction-related jobs.	
Cooperative Funding Sources	7	This project will be eligible for alternate funding for less than 50% of the project costs; a grant may be available to fund a portion of this project.	
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.	
Public Health Protection	0	This project will not impact receiving water quality or reduce the potential for basement backups.	
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by improving sewerage facilities.	
Recreational Opportunities	7	This project will create and/or improve recreational opportunities as a portion of the sewer work will be located near trails.	
Total Raw Score	49		



SEVILLA TRUNK SEWER RECONSTRUCTION

Project Description Sheet:

Project Summary Information:

City Contact: Robert Solomon Date Last Updated: Feb 25, 2015 City Project(s) ID: 2012-044-00 Project Classification: Non-LTCP Utility Division: WW Project Cost (2015\$): \$4,628,202

Project Overview:

This project consists of rehabilitation of the Sevilla Trunk Sewer.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: Waterloo Road at 25th to the intersection of Cordelia and Sevilla.

Anticipated Project Start: Aug 13, 2012 | Anticipated Project Completion: Dec 31, 2016

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current schedule, going to bid. The Sevilla Trunk Sewer Reconstruction is a City of Akron priority project due to the numerous structural defects of the sewer and overall poor condition.

Scenario Inclusion:

Baseline Scenario 2040





The City of Akron has identified the need to reconstruct the Sevilla Trunk Sewer from Waterloo Road at 25th Street SW to the Mud Run Pump Station south of Eagon Street in order to address structural defects and to reduce the potential for basement backups.

This project consists of:

- Reconstruction of approximately 3,070 linear feet (LF) of 24- to 36-inch diameter sanitary sewers, including manholes and sanitary lateral connections;
- Relocation of approximately 1,100 LF of inactive force main; and
- Alternate bid item includes replacement of an additional 720 LF of inactive force main.

TBL Criteria	Score	Comments
Regulatory Compliance	3	This project will facilitate regulatory compliance and/or enable compliance to be met more easily or less costly.
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.
Operational Efficiency	7	This project will have a significant impact on efficiency as it will address issues requiring maintenance and inspection work.
Revenue Growth	0	This project will not provide revenue growth opportunities.
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.
Public Health Protection	3	This project will reduce the potential for basement backups, but will not improve receiving water quality.
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.
Recreational Opportunities	0	This project will not improve recreational opportunities.
Total Raw Score	38	



SEWER MAINTENANCE YARD RELOCATION & MAINTENANCE VEHICLE BUILDING

Project Description Sheet:

Project Summary Information:

City Contact: Rob Scarlatelli Date Last Updated: Mar 2, 2015 City Project(s) ID: 2014-054-00 Project Classification: Non-LTCP Utility Division: WRF Project Cost (2015\$): \$2,500,000

Project Overview:

This project involves the relocation of the sewer maintenance facility to the Water Pollution Control Station (WPCS).

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: Akron WPCS on Akron-Peninsula Road.

Anticipated Project Start: Sep 25, 2014 | Anticipated Project Completion: Dec 31, 2016

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040





This project involves the relocation of the sewer maintenance facility to the WPCS. The relocation will provide efficiencies and cost savings.

TBL Criteria	Score	Comments	
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.	
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.	
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.	
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.	
Operational Efficiency	5	This project will have a moderate positive impact on efficiency by addressing minor concerns.	
Revenue Growth	0	This project will not provide revenue growth opportunities.	
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.	
Cooperative Funding Sources	0	This project will not be eligible for alternative funding contributions or sources.	
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.	
Public Health Protection	0	This project will not impact receiving water quality or reduce the potential for basement backups.	
Quality of Life	0	This project will not improve sewerage facilities, reduce the potential for overflows, return the project area to the natural landscape, add community aesthetics, or add green infrastructure secondary benefits.	
Recreational Opportunities	0	This project will not improve recreational opportunities.	
Total Raw Score	20		



SHULLO DRIVE & WEATHERVANE LANE PUMP STATION REPLACEMENT

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Mike Teodecki <u>Date Last Updated:</u> Feb 25, 2015 <u>City Project(s) ID:</u> 2011-040-00, 2011-041-00 <u>Project Classification:</u> Non-LTCP <u>Utility Division:</u> WW <u>Project Cost (2015\$):</u> \$1,950,000

Project Overview:

This project involves rehabilitation of the Shullo Drive and Weathervane Lane Pump Stations.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

<u>Location</u>: The Shullo Pump Station is located at the northeast side of the cul-de-sac on Shullo Drive. The Weathervane Pump Station is located at 1317 Weathervane Lane.

Anticipated Project Start: Sep 3, 2012 | Anticipated Project Completion: Dec 31, 2015

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040





The City of Akron has investigated and evaluated the performance of the Shullo Drive and Weathervane Lane Pump Stations. This project addresses necessary equipment upgrades and other improvements for the two pump stations. The existing pump stations, wet wells, connections, and associated controls will be removed or abandoned and new pre-fabricated pump stations, wet wells, connections, and controls will be installed. Additionally, the existing 6-inch diameter force main at the Weathervane Lane Pump Station will be abandoned and a new 8-inch force main will be connected to the new pump station.

These projects are necessary to ensure the long-term operation, functionality, and sustainability of the collection system. The projects will result in a reduction in the potential of sewer overflows and basement backups.

TBL Criteria	Score	Comments	
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.	
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.	
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.	
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.	
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.	
Revenue Growth	0	As this project is not sized for future development, it is not expected to provide revenue growth opportunities.	
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.	
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.	
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.	
Public Health Protection	5	This project reduces the potential for localized flooding, but does not include pollutant reduction Best Management Practices (BMPs).	
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.	
Recreational Opportunities	0	This project will not improve recreational opportunities.	
Total Raw Score	40		



TALLMADGE AVENUE SANITARY SEWER LINING

Project Description Sheet:

Project Summary Information:

City Contact: Michelle DiFiore Date Last Updated: Mar 2, 2015 City Project(s) ID: N/A Project Classification: Non-LTCP Utility Division: WW Project Cost (2015\$): \$2,440,000

Project Overview:

This project involves rehabilitation of the sanitary sewer along Tallmadge Avenue.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A

Location: Tallmadge Avenue.

Anticipated Project Start: Jan 1, 2015 | Anticipated Project Completion: Dec 31, 2016

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040





The City of Akron has identified that the Tallmadge Avenue sanitary sewer needs to be rehabilitated due to the severity of identified defects and previous emergency point repairs. This project will be completed using the cured-in-place pipe (CIPP) trenchless technology.

TBL Criteria	Score	Comments	
Regulatory Compliance	3	This project will facilitate regulatory compliance and/or enable compliance to be met more easily or less costly.	
Sustainability Initiatives	0	This project will not include any sustainability components.	
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.	
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.	
Operational Efficiency	5	This project will have a moderate positive impact on efficiency by addressing minor concerns.	
Revenue Growth	0	This project will not provide revenue growth opportunities.	
Local Jobs	5	This project will create or retain temporary construction-related jobs.	
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.	
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.	
Public Health Protection	0	This project will not impact receiving water quality or reduce the potential for basement backups.	
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by improving sewerage facilities.	
Recreational Opportunities	0	This project will not improve recreational opportunities.	
Total Raw Score	24		



WHITE POND DRIVE & SOUREK PUMP STATION REPLACEMENT

Project Description Sheet:

Project Summary Information:

City Contact: Robert Solomon Date Last Updated: Feb 25, 2015 City Project(s) ID: 2014-013-00 Project Classification: Non-LTCP Utility Division: WW Project Cost (2015\$): \$1,583,916

Project Overview:

This project includes the complete replacement of White Pond Drive and Sourek Pump Stations.

Project Grouped With: N/A

Consent Decree Milestone Dates: Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A



Location: The Sourek Pump Station is located in a parcel on the west side of Sourek Road between 2541 Sourek and 2549 Sourek. The White Pond Pump Station is located on the southwest corner of White Pond Drive and Park West Boulevard.

Anticipated Project Start: Mar 5, 2014 | Anticipated Project Completion: Dec 31, 2016

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained by the City of Akron to finish by the end of 2016.

Scenario Inclusion:

Baseline Scenario 2040



The City of Akron has investigated and evaluated the performance of the White Pond and Sourek Pump Stations and determined that both pump stations need to be replaced. New buildings will be constructed at each location. In addition, due to flow monitoring results and basement backup occurrences, the service area tributary to the Sourek Road Pump Station will be investigated for sources of inflow and infiltration (I/I).

These projects are necessary to ensure the long-term operation, functionality, and sustainability of the collection system. The projects will result in a reduction in the potential of basement backups.

TBL Criteria	Score	Comments	
Regulatory Compliance	0	There are no regulatory or permit requirements for this project.	
Sustainability Initiatives	5	This project will have a moderate positive impact on energy use, conservation, environmental responsibility, or urban livability.	
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.	
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.	
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.	
Revenue Growth	7	This project is sized for future growth.	
Local Jobs	7	This project will support local jobs by retaining the sewer maintenance positions.	
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.	
Community Engagement and Stewardship	3	This project includes only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.	
Public Health Protection	5	This project will reduce the potential for basement backups.	
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.	
Recreational Opportunities	0	This project will not improve recreational opportunities.	
Total Raw Score	47		



WPCS 69 KV SUBSTATION IMPROVEMENTS

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Tom Smith <u>Date Last Updated:</u> Feb 25, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> Non-LTCP <u>Utility Division:</u> WRF <u>Project Cost (2015\$):</u> \$750,000

Project Overview:

This project includes a miscellaneous safety and equipment improvements for a 1982 vintage substation including transformers, switches, insulators, ground system, etc.

Project Grouped With: N/A

<u>Consent Decree Milestone Dates:</u> Bidding of Control Measure: N/A Achievement of Full Operation: N/A Performance Criteria (Typical Year): N/A



Location: Water Pollution Control Station (WPCS), 2460 Akron - Peninsula Road.

Anticipated Project Start: Jan 1, 2014 | Anticipated Project Completion: Dec 31, 2015

<u>Start Date Constrained by Other Projects or Construction in Progress?</u> Yes, constrained to current construction schedule.

Scenario Inclusion:

Baseline Scenario 2040



The City of Akron has evaluated the 69 Kilovolt (kV) substation located at the WPCS and determined that it is in need of equipment replacement and improvements to bring it into compliance with current electrical code. This project will include installing new superstructure steel, reclosers and controls, electrical metering, and switches. These improvements will address safety issues and bring the substation into compliance with current electrical standards.

TBL Criteria	Score	Comments	
Regulatory Compliance	3	This project will facilitate regulatory compliance and/or enable compliance to be met more easily or less costly.	
Sustainability Initiatives	7	This project will have a significant positive impact on energy use, conservation, environmental responsibility, and urban livability.	
Pollutant Reduction	0	This project will not reduce pollutant loadings to the receiving stream.	
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.	
Operational Efficiency	7	This project will have a significant impact on efficiency or cost reductions by reducing necessary preventive and corrective maintenance and inspection.	
Revenue Growth	0	This project will not provide revenue growth opportunities.	
Local Jobs	5	This project will create or retain temporary construction-related jobs.	
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.	
Community Engagement and Stewardship	0	This project will not contain private property, business, or industry support, and does not facilitate education or communication opportunities.	
Public Health Protection	0	This project will not impact receiving water quality or reduce the potential for basement backups.	
Quality of Life	3	This project will provide an opportunity to enhance the urban environment by improving sewerage facilities.	
Recreational Opportunities	0	This project will not improve recreational opportunities.	
Total Raw Score	30		



WPCS HEADWORKS IMPROVEMENTS

Project Description Sheet:

Project Summary Information:

<u>City Contact:</u> Genny Hanna <u>Date Last Updated:</u> May 4, 2015 <u>City Project(s) ID:</u> N/A <u>Project Classification:</u> Non-LTCP <u>Utility Division:</u> WRF <u>Project Cost (2015\$):</u> \$35,000,000

Project Overview:

The Water Pollution Control Station (WPCS) Headworks Improvement project will provide firm headworks peak flow capacity of 280 million gallons per day (MGD) and replace current grit removal facilities.

Project Grouped With: N/A

Consent Decree Milestone Dates:

Bidding of Control Measure: Apr 30, 2017 Achievement of Full Operation: Apr 30, 2020 Performance Criteria (Typical Year): N/A



Location: Water Pollution Control Station (WPCS), 2460 Akron - Peninsula Road.

Anticipated Project Start: Jan 1, 2017 | Anticipated Project Completion: Dec 31, 2021

Start Date Constrained by Other Projects or Construction in Progress? Yes.

Scenario Inclusion:

Baseline Scenario 2040



The WPCS is required to have a firm peak flow capacity of 280 MGD. While the current facility can typically handle peak flows at this rate, there is no backup or spare capacity in the Headworks facility, specifically for raw sewage screening equipment. If one bar screen were to fail, the plant would be unable to process 280 MGD and would experience an emergency raw sewage bypass upstream of the plant. In addition, the existing detritors for grit removal have exceeded their useful life, have multiple operation and maintenance issues due to age, and are also prone to overloading during extended wet weather events.

The Headworks Improvements project will include adding a spare bar screen and screening bypass gates so that the potential for raw bypasses is effectively eliminated. In addition, new grit removal equipment will be installed to replace the existing grit detritors.

TBL Criteria	Score	Comments	
Regulatory Compliance	10	This project meets regulatory or permit requirements and provides additional environmental benefits.	
Sustainability Initiatives	10	This project will have a major, measurable positive impact on energy use, conservation, environmental responsibility and urban livability.	
Pollutant Reduction	7	This project will result in a significant reduction of wastewater plant pollution discharge.	
Habitat Enhancement and Restoration	0	This project will not have habitat or stream restoration components.	
Operational Efficiency	10	This project will have a major, measurable positive impact on efficiency or cost by alleviating frequent corrective maintenance and inspection.	
Revenue Growth	0	This project will not provide revenue growth opportunities.	
Local Jobs	5	This project will create or retain temporary construction-related jobs.	
Cooperative Funding Sources	5	The project will be eligible for a lower than market rate loan.	
Community Engagement and Stewardship	3	This project will include only initial, construction-related opportunities for web-based or hard copy dissemination of general water, wastewater, stormwater, or water quality impacts.	
Public Health Protection	5	This project reduces the potential for localized flooding, but does not include pollutant reduction Best Management Practices (BMPs).	
Quality of Life	5	This project will provide multiple opportunities to enhance the urban environment by improving sewerage facilities and reducing potential overflows.	
Recreational Opportunities	5	This project will somewhat improve downstream recreational opportunities.	
Total Raw Score	65		



APPENDIX D – SCHEDULE CONSTRAINTS

Table D-1.	Baseline Scenario	o 2040 Constraints	
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PROJECT INFORMATION		
Project Name	Classification	CONSTRAINT INFORMATION
Annual Plant & Pump Station Renewal	Annual	Annual cash flow from 2015 to 2040
Annual Sewer Renewal	Annual	Annual cash flow from 2015 to 2040
Erosion-Streambanks-Restoration Stormwater Project Improvements	Annual	Annual cash flow from 2015 to 2040
Flow Monitoring & Rain Gauge	Annual	Annual cash flow from 2015 to 2040
Local Flooding Pipe Projects	Annual	Annual cash flow from 2015 to 2040
Miscellaneous Collection System Improvements	Annual	Annual cash flow from 2015 to 2040
Stormwater Maintenance Ditches	Annual	Annual cash flow from 2015 to 2040
Sustainability Initiatives	Annual	Annual cash flow from 2015 to 2040
Camp Brook Storage Basin (CSO Rack 12)	LTCP	Project constrained to current construction schedule
Carpenter Sewer Separation (CSO Rack 30)	LTCP	
Cascade Village Storage Basin (CSO Rack 15)	LTCP	Project constrained to current construction schedule
CMOM 5-Year Cycle	LTCP	Annual cash flow from 2015 to 2040
Dan Sewer Separation (CSO Rack 13)	LTCP	Project constrained to current design schedule
Forge Field Storage Basin (CSO Rack 14)	LTCP	Project constrained to current construction schedule
Hazel Storage Basin (CSO Rack 10 & 11)	LTCP	
Howard Storage Basin (CSO Rack 22)	LTCP	
Kelly Storage Basin (CSO Rack 3)	LTCP	
Main Outfall Relief Sewer	LTCP	Project start date 2015
Memorial Storage Basin (CSO Rack 26 & 28)	LTCP	
Merriman Storage Basin (CSO Rack 36)	LTCP	
Middlebury Storage Basin (CSO Rack 5 & 7)	LTCP	
Mud Run District Capacity Improvements	LTCP	Project constrained to current construction schedule
Mud Run District I/I Rehabilitation	LTCP	Project start after Mud Run I/I Repairs completes
Mud Run District I/I Repairs	LTCP	Project start date 2015
Mud Run Pump Station & Storage Basin Construction	LTCP	Project constrained to current construction schedule
Northside Interceptor Tunnel	LTCP	Project start after Ohio Canal Interceptor Tunnel completes



PROJECT INFORMATION			
Project Name	Classification	CONSTRAINT INFORMATION	
Ohio Canal Interceptor Tunnel	LTCP	Project constrained to current design schedule	
Ohio Canal Interceptor Tunnel - EHRT	LTCP	Project start after Ohio Canal Interceptor Tunnel completes	
Ohio Canal Interceptor Tunnel Otto Street Pump Station	LTCP	Project constrained to current construction schedule	
Old Main Sewer Separation (CSO Rack 21)	LTCP		
Uhler Storage Basin (CSO Rack 27 & 29)	LTCP		
WPCS Phase 2, Part 1	LTCP		
WPCS Phase 2, Part 2	LTCP		
Activated Gallery Boiler Replacement	Non-LTCP	Project start date 2015	
Logan Sanitary Sewer Extension	Non-LTCP	Project constrained to current design schedule	
Sanitary Sewer Reconstruction 2016-2018	Non-LTCP	Project start date 2016	
Seiberling Street Sewer	Non-LTCP	Project constrained to current design schedule	
Sevilla Trunk Sewer Reconstruction	Non-LTCP	Project constrained to current design schedule	
Sewer Maintenance Yard Relocation & Maintenance Vehicle Building	Non-LTCP	Project constrained to current design schedule	
Shullo Drive & Weathervane Lane Pump Station Replacement	Non-LTCP	Project constrained to current design schedule	
Tallmadge Avenue Sanitary Sewer Lining	Non-LTCP	Project constrained to current design schedule	
White Pond Drive & Sourek Pump Station Replacement	Non-LTCP	Project constrained to current design schedule	
WPCS 69 kV Substation Improvements	Non-LTCP	Project constrained to current construction schedule	
WPCS Headworks Improvements	Non-LTCP	Project start date 2017	



Table D-2.	Integrated	Plan	Scenario	2040	Constraints
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PROJECT INFORMATION			
Project Name	Classification	CONSTRAINT INFORMATION	
Annual Plant & Pump Station Renewal	Annual	Annual cash flow from 2015 to 2040	
Annual Sewer Renewal	Annual	Annual cash flow from 2015 to 2040	
Erosion-Streambanks-Restoration Stormwater Project Improvements	Annual	Annual cash flow from 2015 to 2040	
Flow Monitoring & Rain Gauge	Annual	Annual cash flow from 2015 to 2040	
Local Flooding Pipe Projects	Annual	Annual cash flow from 2015 to 2040	
Miscellaneous Collection System Improvements	Annual	Annual cash flow from 2015 to 2040	
Stormwater Maintenance Ditches	Annual	Annual cash flow from 2015 to 2040	
Sustainability Initiatives	Annual	Annual cash flow from 2015 to 2040	
Camp Brook Storage Basin (CSO Rack 12)	LTCP	Project constrained to current construction schedule	
Cascade Village Storage Basin (CSO Rack 15)	LTCP	Project constrained to current construction schedule	
Dan Sewer Separation (CSO Rack 13)	LTCP	Project constrained to current design schedule	
Forge Field Storage Basin (CSO Rack 14)	LTCP	Project constrained to current construction schedule	
Hazel Storage Basin (CSO Rack 10 & 11)	LTCP		
Mud Run District Capacity Improvements	LTCP	Project constrained to current construction schedule	
Mud Run District I/I Rehabilitation	LTCP	Project start after Mud Run I/I Repairs completes	
Mud Run District I/I Repairs	LTCP	Project start date 2015	
Mud Run Pump Station and Storage Basin Construction	LTCP	Project constrained to current construction schedule	
Ohio Canal Interceptor Tunnel	LTCP	Project constrained to current design schedule	
Ohio Canal Interceptor Tunnel Otto Street Pump Station	LTCP	Project constrained to current construction schedule	
Old Main Sewer Separation (CSO Rack 21)	LTCP		
Carpenter Conveyance Alternative (CSO Rack 30)	LTCP ALT	Project has been completed	
CMOM 10-Year Cycle	LTCP ALT	Annual cash flow from 2015 to 2040	
CSSF Control Gate Optimized Alternative	LTCP ALT	Project start date 2015	
Kelly Optimized Alternative (CSO Rack 3)	LTCP ALT		
Main Outfall Relief Sewer Optimized Alternative	LTCP ALT	Project start date 2015	
Memorial Optimized Alternative (CSO Rack 26 & 28)	LTCP ALT	Project start no sooner than two years after Kelly Optimized Alternative completes	
Merriman Separation - Optimized Alternative (CSO Rack 36)	LTCP ALT	Project start date 2015	
Middlebury Separation - Optimized Alternative (CSO Rack 5 & 7)	LTCP ALT	Project start date 2015	



PROJECT INFORMATION			
Project Name	Classification		
North Hill Separation Optimized Alternative (CSO Rack 22)	LTCP ALT	Project start date 2015	
Northside Interceptor Tunnel Early Action Conveyance Phase 1	LTCP ALT	Project start date 2016	
Northside Interceptor Tunnel Enhanced Alternative Phase 2	LTCP ALT	Project start no sooner than two years after Kelly Optimized Alternative completes	
OCIT EHRT Enhanced Alternative	LTCP ALT		
Removal of the Gorge Dam Along Cuyahoga River	LTCP ALT	Project start date 2020	
Uhler Conveyance - Optimized Alternative (CSO Rack 27 & 29)	LTCP ALT	Project start no sooner than two years after Kelly Optimized Alternative completes	
WPCS Phase 2, Part 1 Alternative	LTCP ALT	Project start date 2017	
WPCS Phase 2, Part 2 Alternative	LTCP ALT	Project start date 2017	
Activated Gallery Boiler Replacement	Non-LTCP	Project start date 2015	
Logan Sanitary Sewer Extension	Non-LTCP	Project constrained to current design schedule	
Sanitary Sewer Reconstruction 2016-2018	Non-LTCP	Project start date 2016	
Seiberling Street Sewer	Non-LTCP	Project constrained to current design schedule	
Sevilla Trunk Sewer Reconstruction	Non-LTCP	Project constrained to current design schedule	
Sewer Maintenance Yard Relocation and Maintenance Vehicle Building	Non-LTCP	Project constrained to current design schedule	
Shullo Drive & Weathervane Lane Pump Station Replacement	Non-LTCP	Project constrained to current design schedule	
Tallmadge Avenue Sanitary Sewer Lining	Non-LTCP	Project constrained to current design schedule	
White Pond Drive & Sourek Pump Station Replacement	Non-LTCP	Project constrained to current design schedule	
WPCS 69 kV Substation Improvements	Non-LTCP	Project constrained to current construction schedule	
WPCS Headworks Improvements	Non-LTCP	Project start date 2017	

APPENDIX E - INTEGRATED PLAN SCENARIO 2040 GANTT CHART



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APPENDIX F - BASELINE SCENARIO 2040 GANTT CHART

