



Mayor
Jeff Fusco

Service Director
John O. Moore

Deputy Service Director
Phillip J. Montgomery

City of Akron
Integrated Plan
July 31, 2015



Akron Waterways
Renewed!

JOHN O. MOORE
Service Director



PHILLIP J. MONTGOMERY
Deputy Director

JEFF FUSCO
Mayor

DEPARTMENT OF PUBLIC SERVICE
166 S. High St., Room 201
Akron, OH 44308-1657

August 7, 2015

Susan Hedman
Administrator
USEPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Subject: Akron CSO Program, Akron Waterways Renewed!, Integrated Plan

Dear Ms. Hedman,

The City of Akron is pleased to submit the attached *City of Akron Integrated Plan* dated July 31, 2015 and *Financial Capability Assessment* dated August 7, 2015. Combined, both plans serve as the basis for future improvements to Akron's current Consent Decree and Long Time Control Plan.

Akron has developed its Integrated Plan in accordance with the USEPA guidelines and presents the key findings of Akron's integrated planning efforts with a goal of developing an "equal or better environmental plan at a more affordable cost". This plan was developed in concert with our City Council, IP Stakeholders, and environmental partners.

We appreciate your review and look forward to an opportunity to provide an overview in person to USEPA, the State of Ohio EPA, and the Department of Justice.

Respectfully,

John O. Moore
Service Director
City of Akron

Attachments: Akron Integrated Plan and Financial Capabilities Analysis Update



Mayor
Jeff Fusco

Service Director
John O. Moore

Deputy Service Director
Phillip J. Montgomery

City of Akron Integrated Plan

July 31, 2015



Offered by: MAYOR FUSCO, PRESIDENT FREEMAN & COUNCILPERSONS FORNEY, HEFNER, HURLEY, KAMMER, KEITH, SOMMERVILLE AND SWIRSKY

RESOLUTION NO. 246 - 2015, expressing support for the mission of Akron Waterways Renewed to invest in Akron's environmental future by building infrastructure for the next century that will protect public health and maintain water of the highest quality in the most cost-effective manner while providing local jobs for the citizens of Akron; expressing support for the recommendations of the Akron Integrated Plan, and the appropriate Consent Decree modifications required to implement the plan, including the Green Infrastructure elements, which will help to reduce the excessive financial burden of the Consent Decree on Akron ratepayers and allow the City to achieve long-term sustainability; and declaring an emergency.

WHEREAS, over the past 30 years, through the efforts of the City of Akron with upgrades at the Water Reclamation Facility (WRF), elimination of sanitary sewer overflows, implementation of the Industrial Pretreatment Program, increased operation and maintenance activities, and the construction of the Cuyahoga Street Storage Facility (known as CSO Rack 40/31), tremendous improvement in water quality has resulted in the Cuyahoga River, helping the return of the Great Blue Herons at the southern gateway to the Cuyahoga Valley National Park; and

WHEREAS, the financial burden of implementing the Consent Decree requirements, without any Federal or State funding, is excessive, and existing requirements have been shown to be a substantial burden on Akron ratepayers; and

WHEREAS, this Council supports Akron's commitment to the current Consent Decree, until a point where modification, as a result of the Integrated Planning process or Consent Decree modification requests, results in greater benefit and a more cost-effective solution, while creating local jobs; and

WHEREAS, this Council is concerned that Akron is being held to a higher standard and is not being given as much time to complete mandated improvements as other communities, and requests that the Akron Consent Decree terms be modified so that our City will be treated consistently with other Ohio CSO communities such as Cleveland, Cincinnati and Lima; and

WHEREAS, the new Integrated Planning process is intended to bring a balanced approach to infrastructure investments in Akron and will allow for the implementation of cost-effective, maintainable, and sustainable Green infrastructure; and

WHEREAS, this Council encourages the use of a triple bottom line type of evaluation to include non-financial factors such as quality of life, recreational opportunities, and local employment; and

WHEREAS, this Council fully supports the City's technical evaluations and efforts to find optimized project alternatives that meet the intent (performance requirements) of the Consent Decree while minimizing costs; and

WHEREAS, Akron must look beyond the combined sewer system, and the Akron Waterways Renewed program will look into effective and efficient wastewater and storm water management services, not limited to CSO, including the repair and replacement of all sewer and wastewater treatment infrastructure; and

WHEREAS, this Council fully supports Project Labor Agreements, CDL Training, the Pre-apprentice Program, and the City's efforts to develop Green Technology jobs and bring professionals to live and work in Akron; and

WHEREAS, this Council praises the City's efforts to incorporate several new construction delivery methods in these projects, in order to fully utilize local labor, meet minority participation goals, improve design/construction schedules, maintain maximum flexibility, and ensure that money invested by Akron ratepayers creates the greatest possible benefit for the Akron community; and

WHEREAS, although still unaffordable, the Integrated Plan will help to reduce the heavy financial burden on Akron ratepayers and is in the best interests of the citizens of the City of Akron.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Akron:

Section 1. That the Council hereby expresses support for the mission of Akron Waterways Renewed to invest in Akron's environmental future by building infrastructure for the next century that will protect public health and maintain water of the highest quality in the most cost-effective manner while providing local jobs.

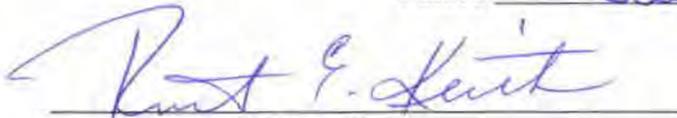
Section 2. That the Council hereby expresses support for the new Integrated Planning process that is intended to bring a balanced approach to infrastructure investments in Akron so that the City of Akron can achieve long-term sustainability, and encourages the use of a triple bottom line type of evaluation to include non-financial factors such as quality of life, recreational opportunities, and local employment.

Section 3. That the Council hereby expresses support for the recommendations of the Akron Integrated Plan and the appropriate Consent Decree modifications required to implement the plan, including the Green Infrastructure elements as provided for in the Consent Decree as minor modifications.

Section 4. That the Clerk of Council be, and is hereby authorized and directed to forward a copy of this resolution to the United States Environmental Protection Agency, the Ohio Environmental Protection Agency, and the United States Department of Justice.

Section 5. That this resolution is hereby declared to be an emergency measure necessary for the immediate preservation of public peace, health, safety and welfare for the reason that it is necessary and appropriate for Council to express its support for the recommendations of the Akron Integrated Plan and the mission of Akron Waterways Renewed, in order to reduce the financial burden on ratepayers and allow the City to achieve long-term sustainability, and provided this resolution receives the affirmative vote of two-thirds of the members elected or appointed to Council, it shall take effect and be in force immediately upon its passage and approval by the Mayor; otherwise, it shall take effect and be in force at the earliest time allowed by law.

Passed July 27, 2015


Clerk of Council


President of Council

Approved JULY 29, 2015


MAYOR

City of Cuyahoga Falls
Office of the Mayor

Mayor Don Walters
2310 Second Street
Cuyahoga Falls OH 44221



Phone: 330-971-8200
Fax: 330-971-8168
mayor@cityofcf.com

April 17, 2015

Susan Headman, Administrator
US EPA Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

RE: City of Akron Integrated Plan Submittal

Dear Administrator Headman:

The City of Cuyahoga Falls, without question, wholly supports the City of Akron's Integrated Plan which will soon be submitted to the U.S. Environmental Protection Agency. As Akron's neighboring municipality, the City of Cuyahoga Falls realizes that the success of each city is inextricably intertwined. The City of Cuyahoga Falls would like to see Akron treated consistently with other Ohio CSO communities, and we are concerned that the City of Akron is being held to a higher standard than other communities by forcing Akron to commit a significant portion of its already limited financial resources to new, largely "gray" infrastructure.

Forcing a City to devote a large portion of its funding to a single project of this proportion forces other much needed improvement projects and infrastructure to be neglected. This is infrastructure that our local residents use on a regular basis. Likewise, if the residents in Akron are forced to pay unreasonable water and sewer bills, they have less money to devote to other needs, which devastates the local economy.

The City of Cuyahoga Falls has had great success using green methods to solve water quality issues. In our Rain Garden Reserve we worked with FEMA to implement Ohio's first use of the Hazard Mitigation Program to purchase and demolish properties and provide storm water management using a water quality feature. This kind of innovative problem solving worked extremely well for the City of Cuyahoga Falls, and we encourage you to allow Akron to implement similar green solutions. These projects will improve the environment at a substantial cost savings.

An integrated plan would allow Akron to balance the interests in a way that is most beneficial to its residents, ours, and the surrounding region as a whole.

Sincerely,

A handwritten signature in black ink, appearing to be "Don Walters", written over a white background.

Don Walters
Mayor

April 16, 2015

Susan Hedman
Administrator
US EPA Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3590



Dear Ms. Hedman:

Reference: Akron Waterways Renewed

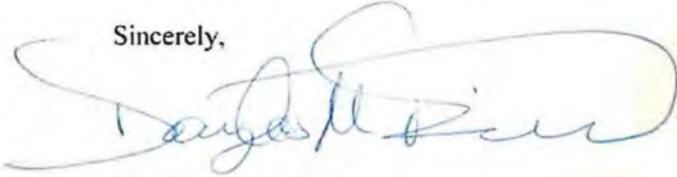
As an institution represented by the Integrated Plan Stakeholder Group, and on behalf of the Akron Zoological Park, please accept this letter of support for the City of Akron's "Integrated Plan".

- The Akron Zoological Park embraces the Integrated Planning process emphasis on inclusion of green infrastructure that will provide additional community environmental and social benefits that are important to our day-to-day activities.
- We are committed to the City's re-constituted and expanded IP Stakeholder Group and want to be actively engaged and participating in all CSO Program decisions being made by the City and the regulatory agencies rather than merely being "informed" or "educated" in such decisions.
- We must have the capacity to address environmental justice concerns for our highly impacted citizens in the poorer areas of town and on limited or fixed incomes where the financial burden of higher sewer rates are a greater burden.
- We encourage the regulatory agencies and the judge to read our local and regional press coverage that has expressed broad community support for the Integrated Planning process the City is now utilizing.
- We have been involved in, and fully support, the City's technical evaluations and efforts to find optimized project alternatives that meet the intent, if not the letter, of the consent decree.
- We must be able to invest our limited financial resources in a manner that balances competing needs without bankrupting either our City or our customers.
- The Akron Zoo has invested in green infrastructure on site to retain and manage storm water on our grounds, and to reduce our water and sewer use.
 - Through good management and employment of green practices / infrastructure we accomplished a 66% reduction in water use by the end of 2013 when compared to a 2009 baseline.
 - During our Grizzly Ridge project design and construction we have contained all storm water from the 4 acre site on grounds beyond the 100 year storm level.
 - We have installed bio-retention basins, green roofs, native landscapes, and bio-swales to direct, contain and absorb water from large scale rain events.

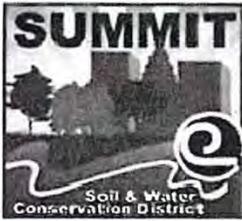
- These activities were planned so that we as an organization can dramatically reduce our contribution to the CSO challenges in our area. We would challenge you to allow the City to employ similar actions across the area described in the consent decree.
- We are encouraged by our new Integrated Planning process that is intended to bring a balanced approach to infrastructure investments in Akron so that we can achieve long-term sustainability.

In closing, the Akron Zoological Park lends it full support to the City of Akron's Integrated Plan. Thank you very much for your consideration of this request.

Sincerely,

A handwritten signature in blue ink, appearing to read "Douglas M. Piekarz". The signature is fluid and cursive, with a large loop at the end.

Douglas M. Piekarz
President & C.E.O.
Akron Zoological Park



Summit Soil & Water Conservation District

2525 State Road , Cuyahoga Falls, Ohio 44223

phone: 330.929.2871 fax: 330.929.2872

email: staff@summitswcd.org web: summitswcd.org

April 10, 2015

Ms. Susan Hedman
USEPA, Region 5
77 West Jackson Blvd.
Chicago, IL 60604-3590

RE: City of Akron's Waterways Renewed/Integrated Plan

Dear Ms. Hedman,

Summit Soil and Water Conservation District and the Board of Supervisors support the City of Akron and their efforts to address the CSO issues and improve water quality in the Cuyahoga River. Over the years Summit SWCD and the City of Akron have developed a working relationship where this office has provided technical and education assistance to the City and its residents to meet their MS4 permit requirements.

Summit SWCD has committed to provide technical SWP3 reviews, perform construction site stormwater inspections, provide education and outreach materials, plan workshops, and assist with the public outreach campaign. This office will coordinate efforts with the City and/or their consultants that would include promoting green infrastructure on City, private and residential projects or properties. These objectives are in line with our Mission Statement: *"To provide local leadership and technical assistance for innovative programs to conserve the soil, improve water quality, and enhance the natural resources of Summit County."*

Summit SWCD and the City of Akron are currently working under an existing Memorandum of Understanding (MOU) to meet the Minimum Control Measures 1, 2, 4 and 5 of their MS4 permit requirements. We are awaiting a new MOU to be signed with the City to include additional measure that would incorporate our efforts and assistance to eliminating or reducing CSO.

If you have any questions pertaining to Summit SWCD's assistance, programs or the agreement between the City and this office, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian P. Kelly".

Brian Prunty CPSWQ, CPESC
District Program Administrator
330-926-2448
bprunty@summitswcd.org

ec: File
Michael Musgrave, Akron Waterways Renewed



Ohio & Erie Canalway Coalition

March 30, 2015

Susan Hedman
Administrator
US EPA Region 5
77 West Jackson Boulevard
Chicago, Illinois
60604-3590

Re: City of Akron CSO, Akron Waterways Renewed program

Dear Administrator Hedman:

As the President and Chief Executive Officer of the Ohio & Erie Canalway Coalition, I am writing to express the Ohio & Erie Canalway Coalition's strong support for the City of Akron's Integrated Plan.

As a regional non-profit organization, our mission is to stimulate public interest and support for the protection, preservation, development and enhancement of the historical, natural and recreational resources along the route of the Ohio & Erie Canal. One of our key priorities is the protection, preservation and enhancement of the Ohio & Erie Canal and Cuyahoga River. By balancing the priorities of resource conservation with community and economic development, we shall improve the quality of life for the residents and build livable and sustainable communities. The City of Akron Integrated Plan addresses the environmental requirements of the Consent Decree while utilizing the latest sustainable and green infrastructure technology. It is imperative that our community is afforded the same opportunities as other Ohio CSO communities such as Cleveland, Cincinnati and Lima. While we strongly support improving the water quality of the Ohio & Erie Canal and Cuyahoga River, it cannot be at the expense of bankrupting our community.

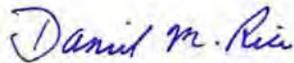
On behalf of the Ohio & Erie Canalway Coalition, I serve as a member of the CSO Community Action Group for Akron Waterways Renewed. As a member of this group I have had the opportunity to learn about the various aspects of the Integrated Plan, including the studies and projects that have been implemented to date, along with the additional projects and controls that the City has committed to implement going forward. I am very impressed by the work that the City has put forward to date to address the CSOs, and I strongly urge EPA Region 5 to allow us to implement the flexibility allowed under the Integrated Planning Framework guidance issued in June 2012 by EPA Headquarters. As citizens, organizations, corporations and businesses paying the bill for the improvement of our water quality, we deserve the right to have input into what we are paying for, otherwise, this is just another unfunded mandate by the federal government.

Administrator Hedman, I have worked for over 21 years to conserve, interpret and develop the natural, historical and recreational resources along the Ohio & Erie Canal in northeast Ohio. We are making significant progress in the revitalization of our waterways, including the return of blue herons, turtles, beavers and mink in downtown Akron. Nothing is more gratifying than to see the revitalization of our natural environment for the 2,500,000 hikers and bicyclists who travel along the 101-mile Towpath Trail that parallels the Ohio & Erie Canal, Cuyahoga and Tuscarawas Rivers. Much of this revitalization is due to the leadership of The City of Akron and their dedication and commitment to revitalizing our waterways for future generations.

I have one request. Before you make a decision on The City of Akron's Integrated Plan, I invite you to come to Akron to see firsthand the revitalization of our Akron Waterways and meet with the citizens, organizations, corporations and businesses who are funding the Integrated Plan improvements and are most directly impacted by this project. I believe that you will be pleased with our progress and share our optimism for the future.

I look forward to hearing from you.

Sincerely,

A handwritten signature in blue ink that reads "Daniel M. Rice". The signature is written in a cursive style with a large initial "D".

Daniel M. Rice
President & Chief Executive Officer

NEFCO

NORTHEAST OHIO FOUR COUNTY REGIONAL PLANNING & DEVELOPMENT ORGANIZATION

175 South Main Street, Room 211
Akron, Ohio 44308-1308

(330) 643-8514 • Fax (330) 643-5046
www.nefcoplanning.org

Richard Regula, Chairman

Joseph Hadley Jr., Executive Director

March 18, 2015

Susan Hedman
Administrator
US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

SUBJECT: Akron CSO Program, Akron Waterways Renewed, Integrated Plan
Submittal

Dear Ms. Hedman:

NEFCO embraces Akron Waterways Renewed's Integrated Planning process emphasis on inclusion of green infrastructure to bring a balanced approach to infrastructure investments. We would like to see the Akron Consent Decree to be treated consistently with other Ohio CSO communities and are concerned that Akron is being held to a higher standard than other communities by forcing the City to commit a significant portion of already limited financial resources to new, largely gray infrastructure. We hope that EPA Region 5 will allow Akron to implement the flexibility allowed under the Integrated Planning Framework guidelines issued in June 2012 by EPA Headquarters.

Since 2003 the office of the Summit County Engineer has been coordinating monthly meetings involving representatives of 30 communities, including the City of Akron, with an objective to seek best management practices to address and to minimize environmental impacts of municipal separate storm sewer systems (MS4). All involved communities are progressively incorporating green infrastructure principles that rely heavily on natural processes as a result of overwhelming evidence that such processes are most cost effective, and for some objectives the only effective approach at any cost.

The inclusion of green infrastructure will provide community environmental and social benefits and has already had great area wide support. We are committed to the City's IP Stakeholder Group, and will continue to be actively engaged and participating in all CSO Program decisions being made by the City.

Sincerely,



Richard Regula
Chairman

February 10, 2015

Susan Hedman, Administrator
US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590



RE: Akron Waterways Renewed!

Dear Ms. Hedman:

Keep Akron Beautiful strongly endorses the Akron Waterways Renewed! Integrated Planning process because having more eco-friendly, sustainable solutions will benefit the community and the environment. This philosophy, in fact, is the heart and soul of our agency.

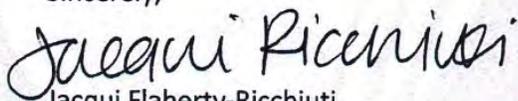
Keep Akron Beautiful (KAB) is a nonprofit organization that was established in 1981 to improve the **quality of life for Akron residents through beautification and responsible environmental management.** Our public education and community improvement programs on litter prevention, recycling, waste management and beautification encourage citizens to take pride in Akron by participating in these activities, and proud they are. Our programs allow the people of Akron to clean up and beautify the city, including blight-stricken areas, through sweat and passion, by planting gardens and doing litter cleanups and dump removal.

Our agency was also a key facilitator in developing the City of Akron's Greenprint sustainability plan for the community and still aids in the continuation of The Summit of Sustainability Awards, a program that grew from Greenprint and recognizes businesses and organizations for sustainability efforts. Through this, we've witnessed and promoted businesses and organizations that have used sustainability to become ZeroWaste facilities. Some of these key players are part of Akron Waterways Renewed! committees.

Through our Greenprint for Akron education initiative and because of our CSO dilemma, we've also witnessed our youth, who are learning about these real issues and attempting to solve these problems through their science fair projects. It is fascinating to see a 7th grader create a template of a possible permeable concrete drain, offer solutions for runoff in their individual neighborhood and start a discussion on how bioswales can be effectively used as part of the solution process. It's obvious that the future generation desires green and sustainable practices.

Again, our agency is committed and wants to be actively engaged in Akron Waterways Renewed! because we need long-term sustainability rather than continued financial burdens that not only take dollars away from programs like ours but will then directly affect the quality of life in our community and, more importantly, of future generations.

Sincerely,


Jacquie Ricchiuti
Executive Director & CEO



June 15, 2015

Susan Hedman
Administrator
US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Subject: Akron CSO Program, Akron Waterways Renewed, Integrated Plan

Dear Ms. Hedman:

The Akron Urban League is a non-profit social service agency, which seeks to improve the economic, cultural, social, educational, and recreational conditions affecting all citizens of Summit County, particularly African Americans, other minorities, and those most in need. As an affiliate of the National Urban League, it reaches nationwide audiences and partners with the over 100 affiliates making it a strong proponent for programs that can be replicated across the country.

Akron Urban League supports the Akron Waterways Renewed Integrated Planning process. We must have the capacity to address environmental justice concerns for our highly impacted citizens in the poorer areas of town and on limited or fixed incomes where the financial burden of higher sewer rates are a greater burden. We would like to see the Akron consent Decree treated consistently with other Ohio CSO communities. We are concerned that Akron is being held at a higher standard than other communities and that Akron is not being given as much time to complete mandated improvements as other communities.

We are committed to the City's re-constructed and expanded IP Stakeholder Group and want to be actively engaged and participating in all CSO Program decisions being made by the City and regulatory agencies rather than merely being "informed" of "educated" in such decisions.

Sincerely,

Carla Matthews
Compliance/EEO

BOARD OF TRUSTEES

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Fred Wright
President & CEO

An Affiliate of the

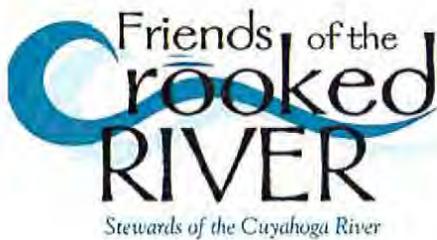


and the



www.akronurbanleague.org





Susan Hedman,
Administrator USEPA, Region 5
77 West Jackson Blvd.
Chicago, IL 60604-3590

Dear Administrator Hedman,

Friends of the Crooked River (FOCR) is writing this letter in support of the City of Akron's request to amend the terms of the consent decree. Over the last two decades, we have witnessed several iterations of the City's plans to correct the CSO problem. Of the plans presented, we believe the currently envisioned Integrated Planning (IP) process provides the greatest water quality potential and the greatest likely-hood of effective and efficient implementation.

FOCR, a non-profit 501(c)(3) organization, is dedicated to preserving and restoring the benefits of the Cuyahoga River. FOCR's mission is to increase public awareness of the vast recreational, cultural, historic and environmental resources of the Cuyahoga River; to expand general understanding of the policies and practices which degrade water quality and wildlife habitat in the watershed; and to promote responsible use of the river's resources.

FOCR believes that the Cuyahoga River is the virtual heart of Northeast Ohio, that it is the perfect reflection of the overall health and economic prosperity of the region and that it can only thrive through informed and appropriate management practices which impact its water quality.

Since FOCR was established in 1989, we have been recognized as a staunch advocate for water quality, both within the Cuyahoga River watershed and throughout the state of Ohio. We have played a critical role towards improving the water quality in the Cuyahoga River. In 2005, we developed a strategic plan to better integrate our efforts with the growing number of watershed-focused groups in the Cuyahoga basin. At that time, with enthusiastic support of these groups, we decided to focus our efforts on the fishable, swimmable goals of the Clean Water Act as it relates to the Cuyahoga River. Much of our educational efforts since then have been associated with removing dams, eliminating the impacts of Combined Sewer Overflows, leading a multi-stakeholder group to establish a water trail and supporting policies that advance the physical, chemical and biological integrity of the river.

FOCR has advocated for correcting Akron's combined sewer overflows for over two decades. In the early days when progress seemed to us to be lacking, our advocacy was quite adversarial in tone. Since 1998, FOCR has been a city-appointed member to advisory groups for every phase of the City's endeavors to correct the enormous impacts of the CSO problem. We have been thoroughly engaged in the process. Every step of the way, we sought clarification, challenged assertions and suggested alternatives.

FOCR believes the health of the Cuyahoga River is dependent on the City's ability to develop and implement a CSO strategy. The City has stated the IP option is affordable to the

citizenry, has the flexibility to respond to changing circumstances and is based on water quality and human health out-comes. As participants in the Integrated Stakeholder Group, we have been very positively impressed with the process. We have asked tough questions and received reasonable and comprehensive answers. We believe the City's IP process provides thorough, detailed information. Therefore, we support the City's assertions concerning affordability, flexibility and environmental outcomes.

Since the 1998 Facility Plan, we have seen the City move from resistance to acquiescence to commitment. Since the consent decree was agreed upon (before it was signed by Judge Adams), the City has operated in good faith and followed the terms of the decree. It has established *Akron Waterways Renewed* as a great platform for community education and partnerships. This approach focuses on the importance and benefits of water quality. The City's commitment to this effort was clearly demonstrated at the recent Blue Heron Homecoming, an Open House held at the Water Reclamation Facility that featured educational displays by over two dozen community partner organizations and agencies. Over 600 people, mostly families, attended the event.

FOCR fully supports the IP's efforts to balance sewer construction with other effective forms of water quality improvements like green infrastructure. We believe looking beyond concrete solutions is absolutely necessary to the long-term sustainability of fishable, swimmable streams. In addition to providing "equivalent or better environmental outcomes" as the plan states, the process has the opportunity to "force" the City to begin replacing concrete and storm-water-promoting planning and construction practices with more evolved "green" procedures. All cities must make these modifications if future urban citizens are to inherit fishable, swimmable streams in their communities.

Another benefit of the IP's focus on alternative methods of reducing overflows is the public education on how these alternatives work. Since communities responded to the Clean Water Act by building sewers and treatment plants, the public has come to expect system-wide, relatively cheap and non-participatory solutions to water quality protection. These expectations need to change. As research progresses, especially in the area of the biological and physical components of water quality, it is well recognized that the NPDES program alone cannot achieve the fishable, swimmable benefits intended by the Clean Water Act. This outcome is not well understood by the public, neither is the individual's important role in water quality protection. The IP process offers an educational opportunity to publicize this information. An educational committee is one of the standing committees of the IP process. FOCR is a member of that committee, and we welcome the chance to participate.

The inclusion of green infrastructure provides benefits not only to water quality but also to the quality of life. A city's ability to attract young professionals and their families has become increasing dependent on its "livable" amenities – like parks, trails and green space. Focusing efforts on green infrastructure will aid the city's "livable" aspects; and, therefore, improve its future financial sustainability. These tangible quality of life benefits may increase citizen willingness to pay for the necessary corrections to the CSO problem. Ultimately, willingness to pay can make or break the CSO program, not just in Akron, but also across the country.

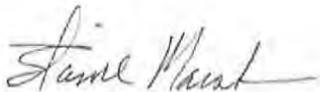
It will not serve the Clean Water Act if there is a citizen revolt against what they view as inordinate cost. All parties must realistically consider this possibility. We believe that the USEPA needs to be sympathetic to the plight of cities if it wishes to maintain support for its very necessary role in our country. FOCR is not suggesting that the EPA soften its resolve or back off from its role. We are suggesting that adding flexibility, focusing on outcomes and offering cost-effectiveness should be a part of the process moving forward.

It will not serve the Cuyahoga River if all of Akron's water quality dollars are forced into underground concrete. We hope USEPA and the Justice Department will give Akron the flexibility to modify the current Consent Degree in ways that will result in the same or greater environmental benefit and offer more cost-effective solutions. The City of Akron believes the IP process is the best option for the city. We believe it is the river's best option, as well.

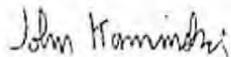
FOCR has always supported a strong EPA. You can be sure that we will continue to advocate for water quality outcomes and to call for the City of Akron to fulfill its responsibilities to a fishable, swimmable Cuyahoga River. We believe a more flexible plan will make us more effective in that role.

This letter was reviewed, amended and approved by the Board of Trustees on June 11, 2015.

Sincerely,



Elaine Marsh,
Cofounder and Conservation Chairman
Friends of the Crooked River
Member of the IP Stakeholder Advisory Group



John Kaminski,
President
Friends of the Crooked River



Canal Town Builders, Ltd.

34 Merz Boulevard, Suite A
Akron, Ohio 44333
(330) 620-0227

June 11, 2015

Susan Hedman, Administrator
US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

re: Akron CSO Program

Dear Ms. Hedman

Participation on the stakeholder committee review process of Akron's CSO Program has been an eye opening experience. The current plan and its inherent costs have been quite concerning both as a resident of the City and as a property owner/developer. The massive initial and ongoing cost burdens have stymied enthusiasm for additional personal investment in the City. This is disheartening as I truly believe our best opportunities for economic and environmental sustainability are improvement and redevelopment in our cities.

The current Consent Decree relies upon huge concrete structures to temporarily contain, then treat, combined sewer flows. The new proposal opens the door for a variety of approaches including separation of storm from sanitary where feasible. This new approach is based upon better data providing better utilization of existing infrastructure and greener improvements at a lower cost.

Your positive response to the revisions will signal constructive improvement as this new plan better serves the City, the Cuyahoga River, and the region.

Respectfully,
Canal Town Builders, Ltd.

Todd W. Ederer, Member



HOME BUILDERS ASSOCIATION
PORTAGE & SUMMIT COUNTIES
 799 White Pond Dr., Akron, Ohio 44320
 330/869-6800 Fax 330/869-5506

Our Mission:
 Leading the Building Industry, creating and strengthening neighborhoods, providing economic growth and advancing the education and professionalism of our members to benefit our community.

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RESOLUTION

The following resolution was unanimously approved at the June 10, 2015 Home Builders Association serving Portage & Summit Counties Board of Trustees meeting. This Board resolution will be sent to the U.S. Environmental Protection Agency to support the City of Akron's Integrated Plan.

Whereas, the mission of the Home Builders Association serving Portage and Summit Counties is to:

- LEAD** the building industry,
- CREATE** and **STRENGTHEN** neighborhoods,
- PROVIDE** economic growth and
- ADVANCE** the education and professionalism of our members to
- BENEFIT** our community.

Whereas, the City of Akron is an intricate part of our region and

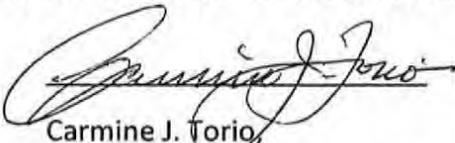
Whereas, cleanliness of our rivers and natural environment are recognized and valued enhancements to our quality of life and

Whereas, solutions to environmental challenges can be addressed in a variety of ways which benefit the community,

Now therefore be it resolved that:

We support revisions to the Integrated Plan for Akron CSO Program balancing environmental benefits and more cost effective solutions.

We also support revisions to the Integrated Plan which bring about activity that can be readily accomplished by local companies providing local jobs.

Signature: 
 Carmine J. Torio,
 HBA Executive Vice President

Attested by: 
 Todd Ederer,
 HBA Past President
 Member of Integrated Plan Stakeholders Group

Date: June 11, 2015

Date: _____

Executive Officers

Julie Oliver, President
 Peter Paino, Vice President
 Scott Strayer, Immediate Past President
 Jeff Tucker, Secretary/Treasurer
 Carmine Torio, Executive Vice President



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CUYAHOGA RIVER RESTORATION

(Cuyahoga River Community Planning)

June 26, 2015

Susan Hedman
Administrator
US EPA Region 5
77 West Jackson Blvd.
Chicago, IL 60604

RE: Akron CSO Integrated Plan

Dear Administrator Hedman,

I write today to express our organization's support for the City of Akron's request to revise their Combined Sewer Overflow consent decree to allow for an Integrated Plan that would expand the ways in which the city can address CSO reductions.

As the nonprofit facilitating organization of the Cuyahoga River Area of Concern, coordinator of actions designed to delist the AOC, and lead partner in the federally designated Cuyahoga American Heritage Initiative, it has been our mission and our work to bring the river back to health.

In order the Area of Concern to reach delisting targets, the issue of restrictions on recreational contact due to bacterial contamination must be addressed. This cannot happen until overflows from the Akron system are dealt with, as they affect not only the stretches of river in Akron but the entire lower fifty miles of the Cuyahoga River mainstem.

A strict reliance on structural remedies that are costly and will take years to implement will not solve the problems in an acceptable time frame, and will create a burden that no city could guarantee to bear over the long term.

Only a plan that is based on results, rather than on specific structures, and that includes a wide range of strategies including green infrastructure and site-specific stormwater measures large and small will provide the solutions we need.

We encourage you to support Akron's Integrated Plan proposals and make it possible for the city to engage a broad range of solutions that would engage whole communities in this effort.

Thank you,



Jane Goodman
Executive Director





Mayor
Jeff Fusco

Service Director
John O. Moore

Deputy Service Director
Phillip J. Montgomery

City of Akron Integrated Plan

July 31, 2015



**City of Akron
Integrated Plan**

July 31, 2015



Service Director
City of Akron
8-7-15

Date



Program Manager
MWH Americas, Inc.
July 30, 2015

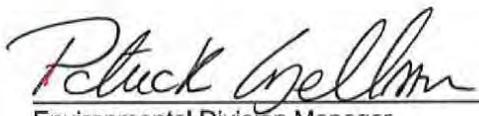
Date





City Engineer
City of Akron
8/6/15

Date



Environmental Division Manager
City of Akron
8/6/15

Date



Construction Division Manager
City of Akron
8/6/15

Date



Water Reclamation Services Manager
City of Akron
8/6/15

Date

Prepared by:
Program Management Team
146 South High Street, Suite 800
Akron, OH 44308

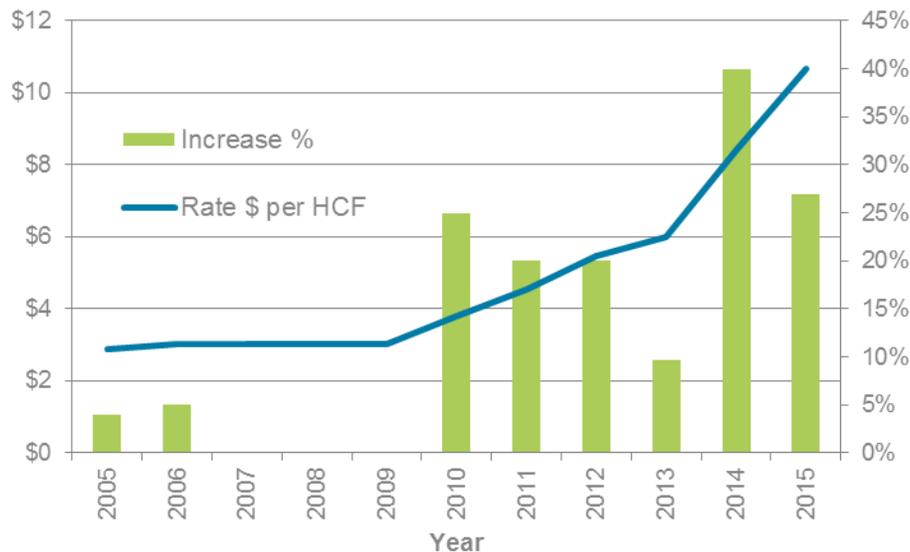
James Andrew Hewitt, PE
City Engineer
Patrick D. Gsellman, PE
Environmental Division Manager
Akron Engineering Bureau

EXECUTIVE SUMMARY

Akron Needs an Integrated Plan to Address Unaffordable Costs

The City of Akron (the “City” or “Akron”) developed this Integrated Plan as a vehicle to prioritize and re-evaluate the extensive capital investments that the City needs to make to its wastewater and stormwater systems over the next several years. The largest costs are associated with a federal Consent Decree and the City’s Combined Sewer Overflow (CSO) Long-Term Control Plan (LTCP) that requires the City to implement substantial upgrades to the City’s combined sewer system and Water Pollution Control Station (WPCS).^{1,2} The cost to implement the LTCP Projects is currently over \$1.14 billion (2014 dollars). In addition to this staggering cost, the City also has ongoing operation and maintenance, capital investment, and debt service costs related to its wastewater and stormwater systems.

The City has taken aggressive steps to fund the LTCP Projects and other costs of the City’s wastewater and stormwater systems. In just the past ten years alone, the City has raised sewer rates over 269%. However, even with such aggressive rate increases, the City will still not be able to pay for the cost of the current LTCP Projects and the additional costs associated with the City’s wastewater and stormwater systems without integrating and prioritizing all of the wastewater and storm costs, and simultaneously developing and implementing sustainable and cost saving solutions, such as green infrastructure controls, in-line storage and increased conveyance.



HCF = hundred cubic feet

Figure ES-1. Annual Sewer Rate Increases

¹ The federal Consent Decree includes the projects in the LTCP along with additional requirements. For ease of review, all of the federal Consent Decree requirements, including the projects in the LTCP are referred to in this Integrated Plan as “LTCP Projects.”

² The name of the WPCS was changed to the Water Reclamation Facility. However, since the LTCP uses the term WPCS, that term is also used in this Integrated Plan for consistency purposes.

USEPA’s Integrated Planning Framework

This Integrated Plan was prepared in accordance with USEPA’s Integrated *Municipal Stormwater and Wastewater Planning Approach Framework*, which was published by USEPA on June 5, 2012 (IPF). As stated by USEPA within the IPF:

Integrated Planning will assist municipalities on their critical paths to achieving the human health and water quality objectives of the Clean Water Act by identifying efficiencies and implementing requirements that arise from district wastewater and stormwater programs, including how to best prioritize capital investments. Integrated planning can also facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage storm waters as a resource, and support other economic benefits and quality of life attributes that enhance the vitality of communities.

Since publishing the IPF in June 2012, USEPA has issued additional IPF guidance. On July 15, 2013 USEPA issued its guidance, *Frequently Asked Questions on Integrated Municipal Stormwater and Wastewater Planning*, which made it clear that a municipality that is already subject to an existing federal Consent Decree, like Akron, may re-examine its remedy and the affordability of the remedy under the IPF. In addition, on November 24, 2014, USEPA issued a guidance on *Financial Capability Assessment Framework for Municipal Clean Water Act Requirements*. In this 2014 guidance, USEPA reaffirmed that under the IPF, the financial capability assessment can include the following costs: stormwater and wastewater ongoing asset management or system rehabilitation programs; CWA related capital improvement programs; collection systems and treatment facilities; and other CWA obligations required by state or other regulators.

The IPF includes the six elements shown to the right. Each element is thoroughly addressed in this Integrated Plan. In addition, the City maintained the following goals as part of the development of this Integrated Plan:

- Reduce the amount of unaffordability.
- Use of an enhanced Triple Bottom Line to measure benefits and evaluate projects.
- Achieve equal or better environmental benefits at a more affordable cost.
- To the extent feasible and when cost effective, use green solutions.

Element 01	Water Quality, Public Health & Regulatory Issues to be addressed in the Plan
Element 02	Existing Systems & Performance
Element 03	Stakeholder Involvement
Element 04	Evaluating & Selecting Alternatives
Element 05	Measuring Success
Element 06	Improving the Plan

General Grouping of All Integrated Plan Projects

As part of prioritizing and evaluating the overall cost of the wastewater and stormwater systems, the Integrated Plan considered three different groups of projects:

- **LTCP Projects** – These are all of the projects required by the current LTCP and the Consent Decree. As discussed in detail within the IP, the City first evaluated all of the Original projects (Original LTCP Projects), and then through the IPF, developed a set of alternative projects (Alt LTCP Projects), including green infrastructure projects, that provide for an equal or better environmental benefit at a more affordable cost.
- **Non-LTCP Projects** – These are projects that are included in the City’s Capital Improvement Plan (CIP) that are needed to meet CWA-related obligations, but not included within the LTCP Projects, such as the WPCS headworks improvements and sanitary sewer lining projects.
- **Annual Projects** – These are the re-occurring projects, such as asset management rehabilitation and replacement projects that are needed to maintain existing, or meet future, wastewater conveyance and treatment infrastructure needs, as well as stormwater infrastructure needs.

FCA and Related Analysis Demonstrate that LTCP Projects Costs are Unaffordable

As part of the development of the Integrated Plan, the City updated its Financial Capability Assessment (FCA) under *USEPA’s 1997 Combined Sewer Overflow Guidance for Financial Capability Assessment and Schedule Development*. The updated FCA demonstrates that the Original LTCP Projects, coupled with the Non-LTCP Projects and Annual Projects under the current deadline of 2027, result in a total residential indicator (RI) of 2.46% of median household income (MHI) for the Akron service area. Importantly, this amount is well above USEPA’s “high financial impact” threshold of 2% of MHI. However, the RI is only part of the total FCA. The remaining analysis under the FCA further demonstrates that the City falls under the High Burden category.

USEPA’s 1997 FCA Guidance also encourages municipalities “to submit any additional documentation that would create a more accurate and complete picture of their financial capability. . .” As a result, the City’s FCA also includes a Weighted Average Residential index (WARi™) analysis. Following the WARi™ analysis, in which census tracts within the City of Akron are analyzed. This analysis determined that households in several sections of the City face an impact of 2.1% to 9.5% of their MHI. Poverty rates in the City have been relatively high in recent years. The U.S. Census Bureau defined the poverty threshold for a family of four at \$23,834 in 2013.³ In 2013, 27.8% of the population in the City was reported below the poverty level, including 41.3% of children under the age of 18 years old.⁴ This is obviously an unacceptable burden under any measure.

Based on the capital availability funding constraints, a software package (the Expert Choice Comparison™) was utilized to develop a financial model of various project scenarios using the 2027 compliance schedule for the LTCP Projects. The financial model indicated that the

³ U.S. Census Bureau. Social Economic and Housing Statistics Division, Poverty Thresholds for 2013.

⁴ U.S. Census Bureau. 2011-2013 ACS 3-Year Estimates, Table S1701, Akron City, OH.

projects could not be funded in this timeframe without significant additional rate increases (48%) over a relatively short period.

The cost for the total wastewater and stormwater systems, with a 2027 deadline for the LTCP projects, is clearly unaffordable. Since the total costs are unaffordable, an extension to the 2027 deadline for the LTCP projects, in addition to the reprioritization and optimization of projects, is necessary.

As a result of the need for a longer schedule, the City evaluated the costs based upon a 13 year extension to the deadline for the LTCP Projects. Expert Choice Comparison model runs were conducted for this extended 2040 planning period. However, the results of these additional model runs demonstrate that the Original LTCP projects with a new deadline of 2040, along with the Non-LTCP projects and Annual projects, still could not be funded without significant rate increases (80%) over this extended period, which would result in an even higher RI of 2.64% (2.91% for Akron only). Thus, even if the LTCP project deadline is extended by an additional 13 years to 2040, the total wastewater and stormwater costs are still unaffordable. The recommended Integrated Plan anticipates a more gradual annual increase over the life of the program which is equivalent to a 49% cumulative increase through 2040.

Integrated Plan Development and Results

As set forth above, simply extending the schedule for the Original LTCP projects will not make the wastewater and stormwater system costs affordable. Therefore, in order to make LTCP costs less unaffordable, the City performed a detailed evaluation of alternatives for each of the projects. This evaluation is based upon a 2040 compliance schedule, and all comparisons to the Original LTCP projects are evaluated on that basis.

It is important to note that the City took the following actions to support the evaluation of project alternatives:

- Before the development of the Integrated Plan, Akron made a significant investment to better understand the surrounding watersheds, flows, and system capacity/performance. Over the course of the last 18 months, the City has installed 95 new flow monitors at a cost of over \$500,000. Additionally, the City has invested over \$2.4 million on the collection system model upgrades and recalibration. With this new information, the City refined its collection system model which has allowed us to better predict flows and system performance for our sewer system. This provided the “science” and engineering basis to allow the City to develop alternative projects (e.g., green infrastructure, in-line storage, real time controls, and flow optimization).
- Re-prioritized projects to meet the City’s CWA requirements, including increased stormwater and long-term infrastructure repair and replacement needs.
- Measured increases in environmental benefits and achievement of improved environmental protection earlier in the program by re-sequencing projects.
- Provided flexibility where the City could find a more affordable way to meet its CWA obligations and to assist where there are conflicting regulatory requirements, including reopening clause for the Consent Decrees and permits.

- Took advantage of the successes that other wastewater utilities are having by implementing new, innovative, and more sustainable "green infrastructure" solutions (e.g., constructed wetlands, bump outs, and green streets) as alternatives to traditional LTCP engineering approaches.

During development of the Integrated Plan, the City developed projects based on LTCP optimization evaluations, hydraulic model refinements, green infrastructure component analyses, CWA stormwater obligations, and asset management focused rehabilitation and repair (R&R) annual allowances for future CIP needs. The LTCP project list is detailed in Section 5, Evaluating and Selecting Alternatives.

The additions to the Original LTCP project list include:

- Non-LTCP projects such as restoration of eroded streambanks, Water Pollution Control Station (WPCS) headworks improvements, specific pump station rehabilitation and replacements, sanitary sewer rehabilitation and reconstruction projects.
- Wastewater R&R annual project allowances to account for future asset management-focused CIP project needs.
- Stormwater project and R&R annual project allowances to address future complaints and needs associated with localized flooding, erosion control, and snow/ice buildup.
- Support of the removal of the Gorge Dam (including in-kind service), resulting in major environmental benefit to the Cuyahoga River system.

Figure ES-2 depicts the projected Integrated Plan implemented through 2040 along with sources and uses of funds.

The City developed triple bottom line (TBL) benefit criteria based on economic, environmental, and social benefit categories to measure benefits and to prioritize projects. Based on the various benefit criterion described in Section 5, Evaluating and Selecting Alternatives, the resulting projected total weighted benefit score for each project was used to priority rank the project list that schedules the highest priority projects that will fit under the City's financial capability constraints. The benefits are further defined later in this Executive Summary.

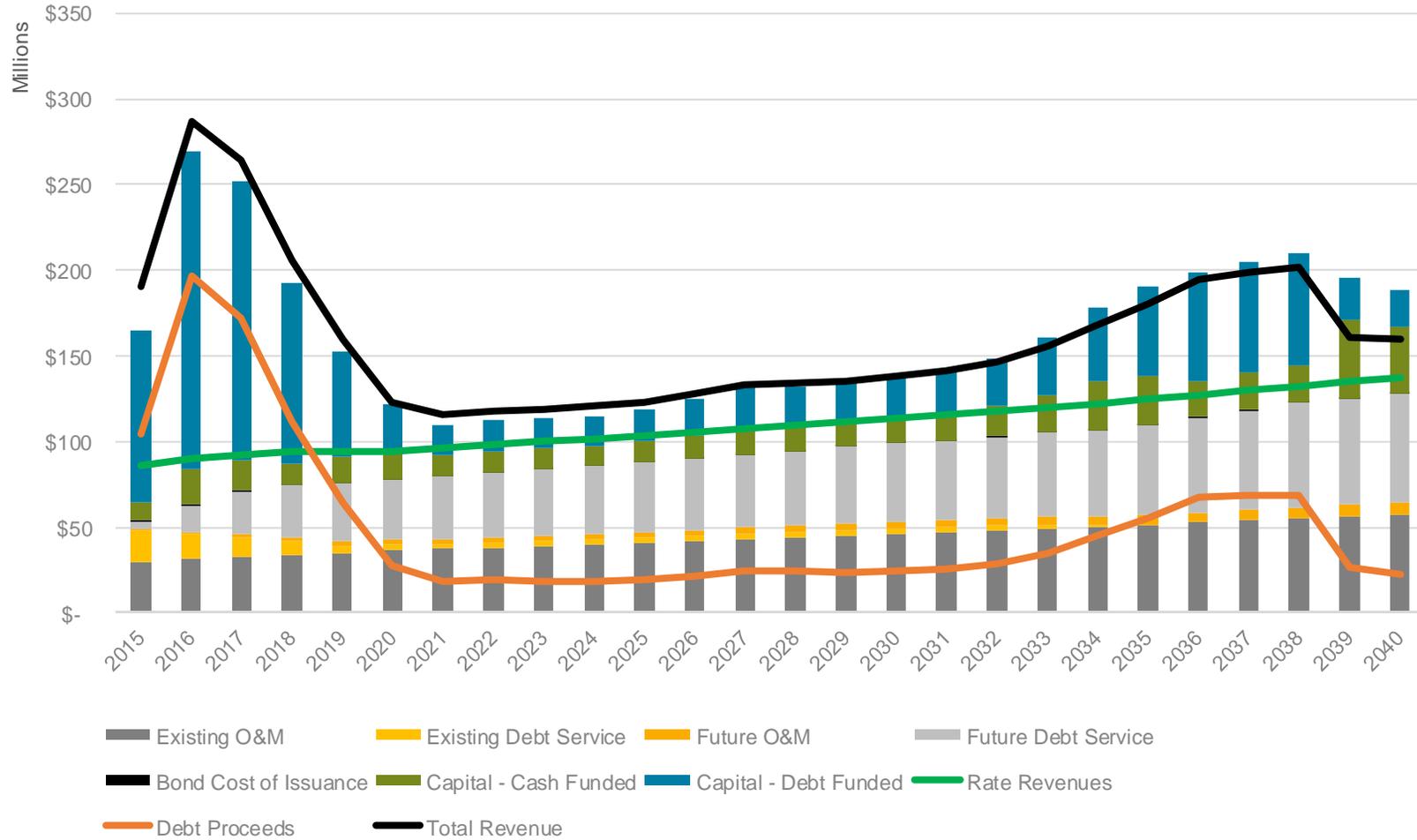


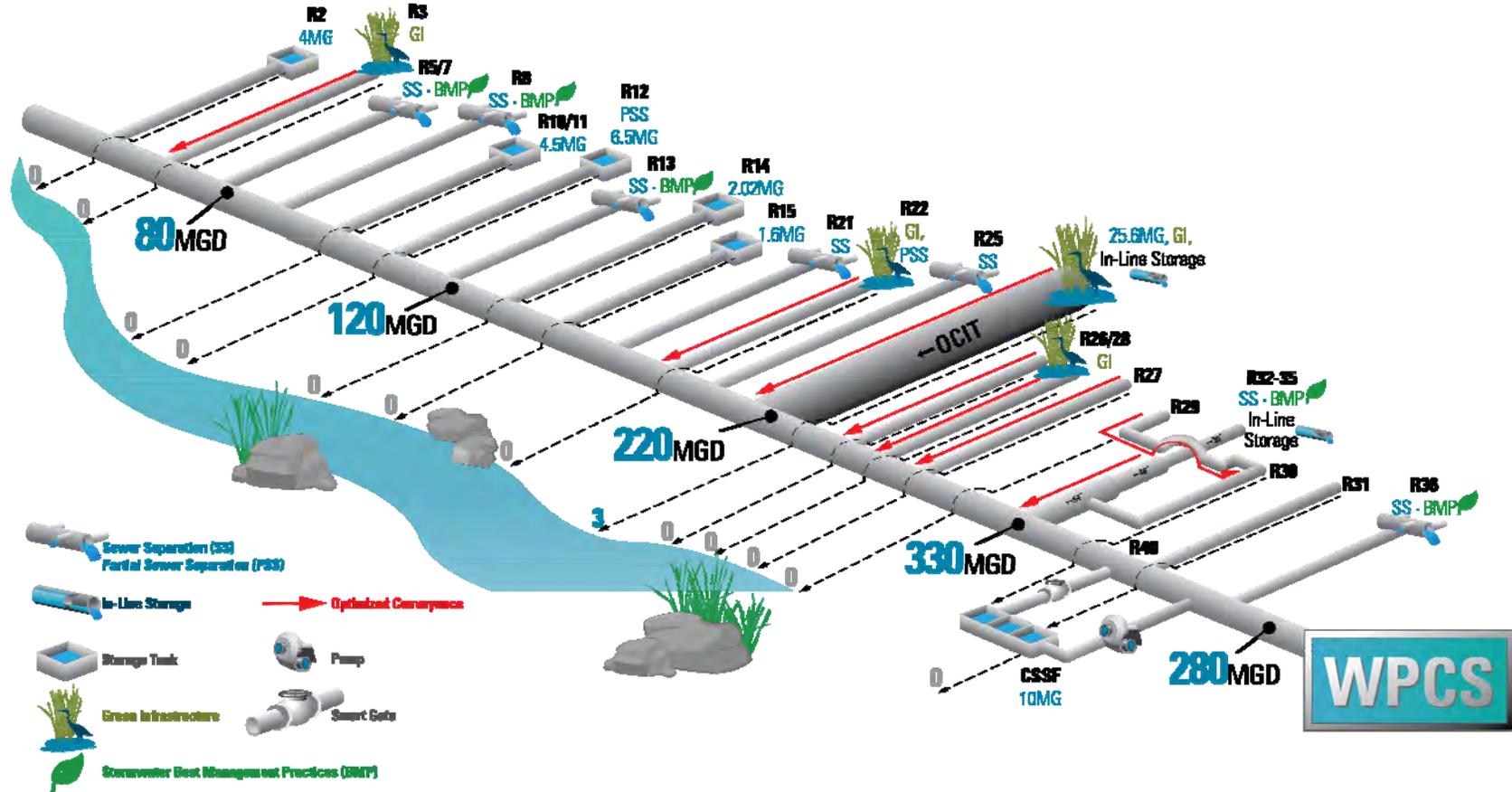
Figure ES-2. Projected Integrated Plan Scenario 2040 Sources and Uses of Funds

As shown in Figure ES-3 and Appendix E, the Original LTCP Projects, or the Alternative LTCP Projects as applicable, will be completed by FY 2040. Figure ES-3 is a schematic illustration of the various CSO Rack and alternative green infrastructure-related projects being recommended in the collection system. As depicted in the legend of Figure ES-3, the CSO Rack project recommendations are illustrated with a less than full pipe for sewer separation, a partially full pipe for in-line storage, a tank for storage, a plant and Great Blue Heron for wetlands, a leaf for stormwater Best Management Practices (BMPs), a smart gate and pump are shown at the CSSF, and projects where optimized conveyance from the existing rack to the interceptor is identified with “Optimized Conveyance” and a red arrow. The full pipe capacity of the interceptor is noted, from 80 million gallons per day (MGD) upstream to 280 MGD in the downstream segments flowing to the WPCS. The performance criteria of each rack is shown in terms of overflows in the typical year.

Akron’s Integrated Plan Scenario eliminates overflows where sewer separation is proposed, achieves zero overflows at each proposed rack project, and proposes a level of control of three overflows at OCIT to eliminate the need for an enhanced high rate treatment (EHRT) facility. With the addition of controls at the Cuyahoga Street Storage Facility (CSSF), the remaining flows are reduced from the current LTCP. Even with this change in level of control, Akron’s study of water quality indicated there would be no negative impact.

Proposed Implementation Plan and Schedule for Integrated Plan Projects

The sequencing and scheduling of the Integrated Plan projects is included in a detailed Gantt chart that shows each of the Integrated Plan project’s start and completion dates. This Gantt chart is in Appendix E. The project start dates in the Gantt charts indicate when the City initiates or finalizes project spending on a particular project, opposed to a construction start date, bidding date, or Achieve Full Operation (AFO) date of a project. The project cash flows are based on a generic “S” spend curve (cost forecast is annualized normal “bell curve” distribution) unless an individualized project spend has been forecasted for a particular project. Capital costs are escalated at a 3% per year rate throughout the 2040 planning period (consistent with industry best practices).



Akron Integrated Plan Benefits

The benefit of extending the LTCP projects compliance dates allows the City to fund needed projects that achieve a greater environmental benefit, some sooner in the program. Benefits under the proposed Integrated Plan Scenario 2040 are measured in terms of the benefit scores assigned to each CIP project. The benefit curves for the Integrated Plan Scenario 2040 start equal to the Baseline Scenario 2040 benefit curves, but quickly exceed the Baseline Scenario 2040 benefit curves and results in greater total and environmental only benefits.

In addition to the TBL measured benefits, there are several important additional benefits for the Integrated Plan Scenario 2040, including:

- Earlier reduction of CSO volume.
- Reduction in secondary treatment bypass volume at the Akron WPCS sooner as compared to the current LTCP.
- Improved water quality, predicted improvements in habitat and fish index scores, and more uniform dissolved oxygen (DO) concentrations associated with the Gorge Dam removal.
- Improved Total Suspended Solids (TSS) and bacteria removal from stormwater flows that discharge to green infrastructure facilities and downstream BMP installation on new green infrastructure facilities.

Extending the LTCP projects compliance dates allows the City to fund needed projects that achieve a greater environmental benefit, some sooner in the program. This is provided for in both the 1997 FCA and the IPF. Benefits were measured both for total TBL benefits and environmental only benefits as shown in Figures ES-4 and ES-6, with benefits accruing to a project the year that project ends and with annual project accruing benefits each year. Both graphs start with the measured benefits approximately the same because few alternative LTCP projects are scheduled in the early years. Both curves gradually begin to diverge with the difference increasing over the planning period.

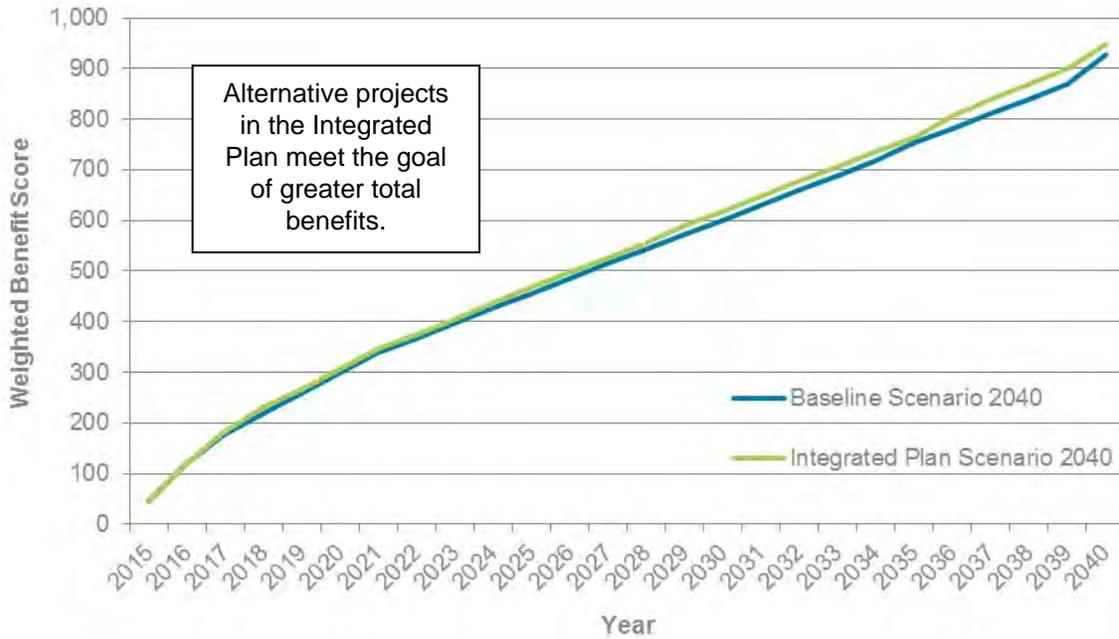


Figure ES-4. Akron Total TBL Benefit Curve Comparison

In the graph above, it is difficult to discern the difference between the two lines due to graphing limitations, so the following graph was produced that shows ONLY the difference between the two lines above. This clearly shows that the Integrated Plan 2040 scenario results in greater TBL benefits in every year during the planning period.

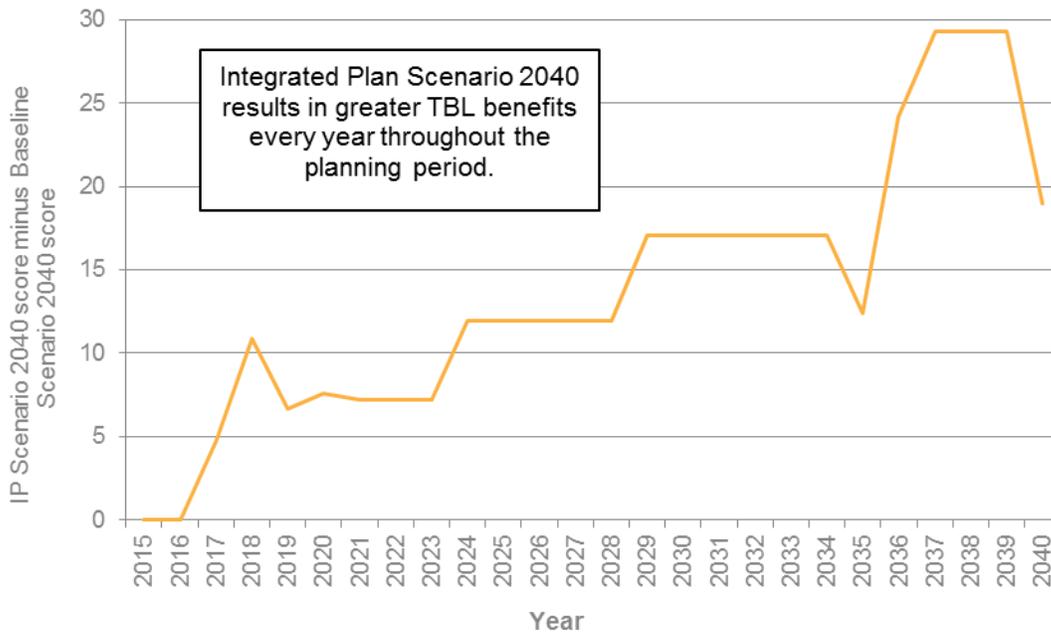


Figure ES-5. Difference in TBL Benefit Scores between Scenarios

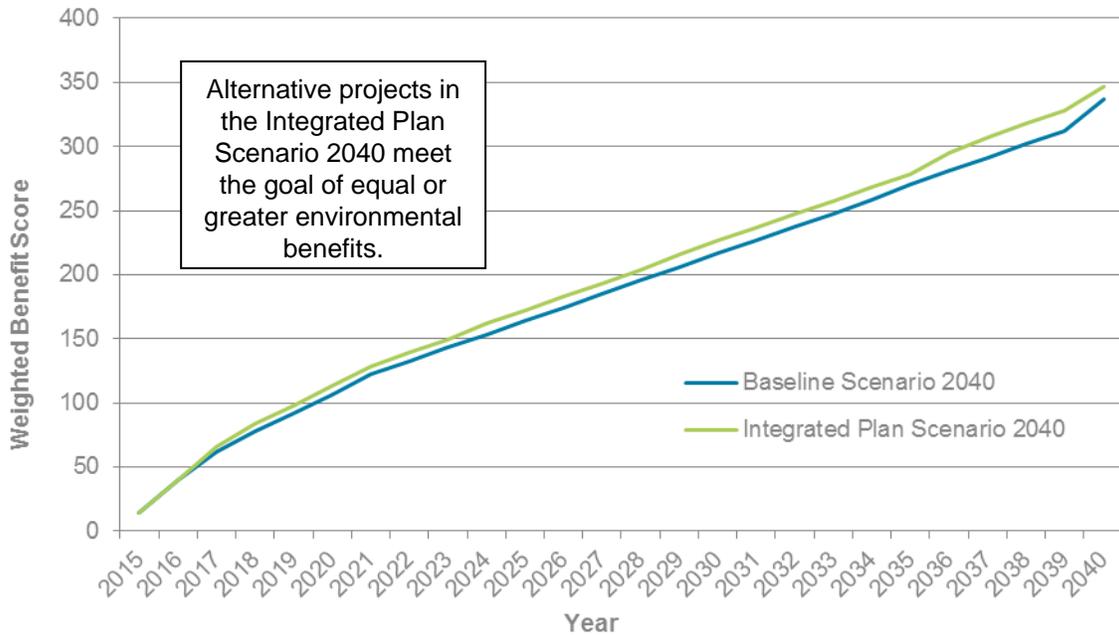


Figure ES-6. Akron Environmental Only TBL Benefit Curve Comparison

Similar to the previous comparison, it is difficult to discern the difference between the two lines due to graphing limitations, so the following graph was produced that shows ONLY the difference between the two lines above. This clearly shows that the Integrated Plan 2040 scenario results in greater environmental benefits in every year during the planning period.

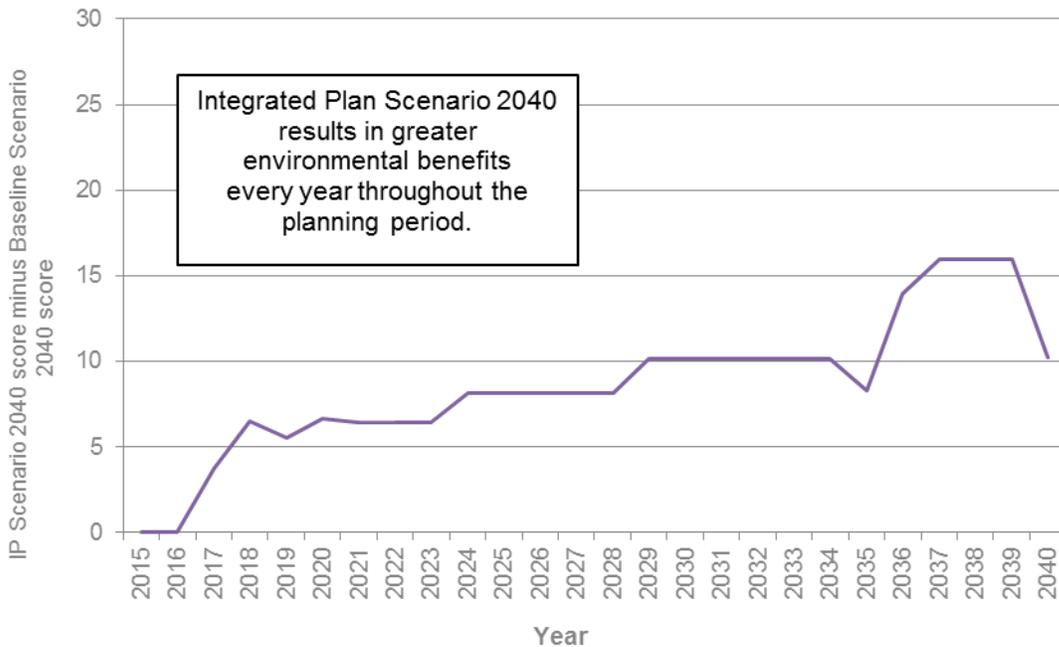


Figure ES-7. Difference in Environmental Benefit Scores between Scenarios

Adaptive Management

The City proposes to implement the Integrated Plan using an adaptive management approach to continuously improve the City's decision-making process. As new or additional data is acquired through such things as expanded flow monitoring, water quality monitoring, asset management analyses, and advanced and/or innovative technology evaluation, this information will be used to refine future project planning, design, and implementation steps. Adaptive management is a key element in implementing better projects, especially for new or innovative green infrastructure projects where program results are needed to refine subsequent project designs. On a system-wide level, adaptive management will allow the City to demonstrate that it is achieving the greatest and earliest project benefits at an affordable cost.

Conclusion

The results of this IPF process, as presented in Section 6, Integrated Planning Results, include a recommended alternative LTCP projects, re-sequencing of other LTCP projects, incorporation of wastewater and stormwater repair and rehabilitation annual projects, and some additional recommendations that result in equal or better environmental benefits at a more affordable cost for Akron ratepayers. The City of Akron Integrated Plan has the following benefits:

1. Achieves equal or better environmental protection compared to the Original LTCP projects based upon the same compliance schedule, and provides a scenario that results in equal compliance with water quality standards in receiving streams.
2. Includes a financial plan that provides funding for completion of the Integrated Plan's projects with gradual sewer rate increases through the year 2040.
3. Includes a repair and replace asset management budget to adequately support the maintenance and operation of Akron's sewer system into the future.

In addition the proposed *City of Akron Integrated Plan* provides a significant opportunity for the City to:

- **Implement a plan that, although still unaffordable, reduces the Residential Indicator for the service area from 2.64% to 2.34% and for Akron only from 2.91% to 2.49%.**
- **Reduce the cost of the LTCP by approximately \$300 million.**
- **Include priority stormwater projects that provide public health protection through the introduction of new environmental benefits.**
- **Include a sustainable rehabilitation and replacement asset management budget to adequately support the maintenance and operation of Akron's sewer system into the future.**
- **Implement the requirements of the City's LTCP over an extended time period while still enabling the City to make needed investments to its wastewater and stormwater systems in a more financially sustainable manner.**
- **Most importantly, implements better environmental benefits that meet the water quality criteria for the receiving streams by removing 11 billion gallons (BG) of CSOs and secondary treatment bypasses earlier, as shown in Figure ES-8.**

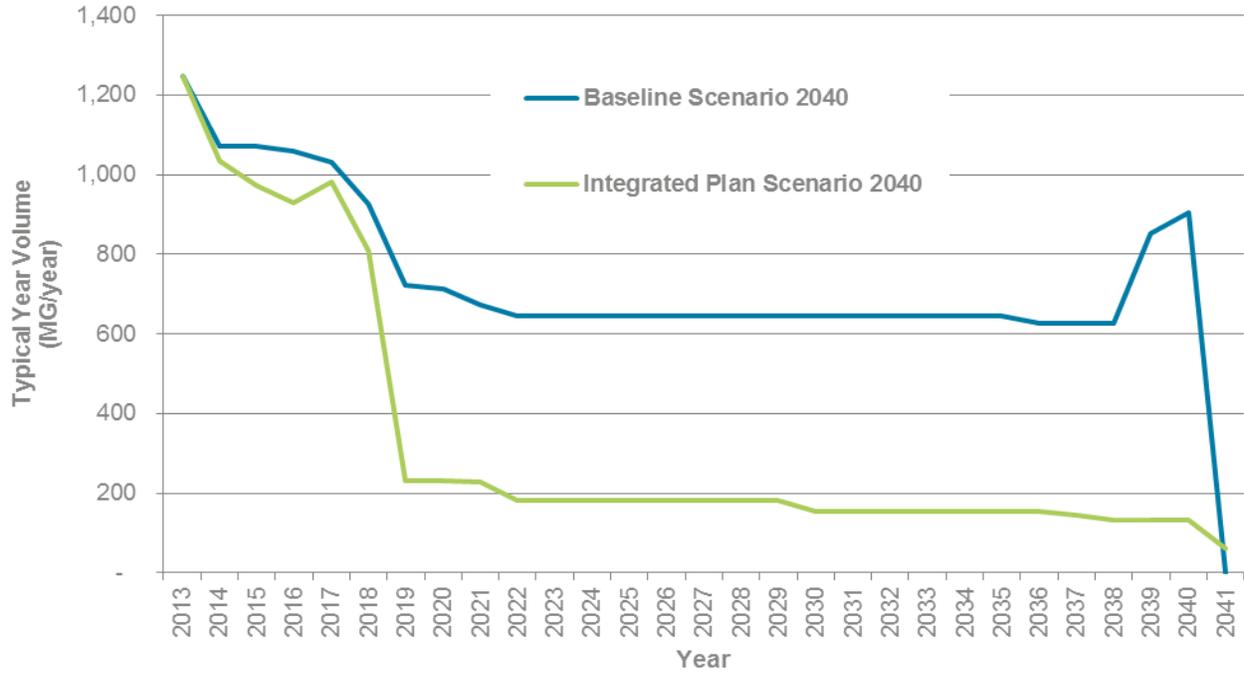


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ACRONYMS AND ABBREVIATIONS

AEB	Akron Engineering Bureau
AFP	Advanced Facility Plan
Akron	City of Akron
AOC	Area of Concern
AWR	Akron Waterways Renewed!
AWR WHMP	Akron Waterways Renewed! Watershed Health Monitoring Program
AWWA	American Water Works Association
BG	billion gallons
BMP	best management practices
CCTV	closed-circuit television
CD	Consent Decree
CEPT	chemically enhanced primary treatment
cfu	colony forming units
CIP	Capital Improvement Program
CIPP	cured-in-place pipe
City	City of Akron
CMOM	Capacity, Management, Operations, and Maintenance
CSO	combined sewer overflow
CSO Policy	USEPA's CSO Policy
CSS	combined sewer system
CSSF	Cuyahoga Street Storage Facility
CVNP	Cuyahoga Valley National Park
CWA	Clean Water Act
DO	dissolved oxygen
DOJ	Department of Justice
DPR/EA	Detailed Project Report and Environmental Assessment
EFDC	Environmental Fluid Dynamics Code
EHRT	Enhanced High Rate Treatment
EPT	Ephemeroptera, Plecoptera, and Trichoptera (Mayfly, Stonefly, and Caddisfly)
<i>E. coli</i>	Escherichia coli
FCA	Financial Capability Assessment
GI	green infrastructure
GIS	geographic information system
HDPE	high density polyethylene
HEC-HMS	Hydrologic Engineering Center Hydrologic Modeling System
HVAC	heating, ventilating, and air-conditioning
IBI	Index of Biotic Integrity
ICI	Invertebrate Community Index
I/I	inflow and infiltration
IPF	Integrated Planning Framework
IRG	Industrial Realty Group
kV	kilovolt
LCI	Little Cuyahoga Interceptor
LF	linear feet
LID	low impact development
LTCP	Long Term Control Plan
MG	million gallon

MGD	million gallons per day
mg/L	milligrams per liter
MHI	Median Household Income
MIwb	Modified Index of Well-Being
mL	milliliter
MM	master meter
MOI	Main Outfall Interceptor
MS4	Municipal Separate Storm Sewer System
NACWA	National Association of Clean Water Agencies
NASSCO	National Association of Sewer Service Companies
NEFCO	Northeast Ohio Four County Regional Planning Organization
NER	National Ecosystem Restoration
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NSI	Northside Interceptor
NSIT	Northside Interceptor Tunnel
O&M	operation and maintenance
OCIT	Ohio Canal Interceptor Tunnel
ODOT	Ohio Department of Transportation
Ohio EPA	Ohio Environmental Protection Agency
PACP	Pipeline Assessment and Certification Program
PCA	Priority Catchment Area
PPM	Program Procedures Manual
PSS	partial sewer separation
PVC	polyvinyl chloride
QHEI	Qualitative Habitat Evaluation Index
R&R	rehabilitation and replacement
RAP	Remedial Action Plan
RI	Residential Indicator
RM	river mile
RWQC	Recreational Water Quality Criteria
SRF	State Revolving Fund
SRT	storage retention tank
SRT	stormwater retention tank
SS	sewer separation
SSO	sanitary sewer overflow
SSR	State Special Revenue
SW	stormwater
SW3Ps	Storm Water Pollution Prevention Plans
SWCD	Soil and Water Conservation District
SWMM	Stormwater Management Model
TBL	triple bottom line
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
Typical Year	Adjusted 1994 Typical Year
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USGS	United States Geological Survey
WARi™	Weighted Average Residential Index

WPCLF	Water Pollution Control Loan Fund
WPCS	Water Pollution Control Station (also known as Water Reclamation Facility)
WRF	Water Reclamation Facility
WW	wastewater
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION TO AKRON'S INTEGRATED PLAN

With municipalities facing financial constraints and multiple regulatory requirements, the U.S. Environmental Protection Agency (USEPA) created an Integrated Planning Framework (IPF) to provide flexibility to communities in their efforts to meet the public health and water quality objectives of the Clean Water Act (CWA). The guidance document for the IPF was issued June 2012.¹

This Integrated Plan was prepared in accordance with USEPA's Integrated *Municipal Stormwater and Wastewater Planning Approach Framework*, which was published by USEPA on June 5, 2012 (IPF). As stated by USEPA within the IPF:

Integrated Planning will assist municipalities on their critical paths to achieving the human health and water quality objectives of the Clean Water Act by identifying efficiencies and implementing requirements that arise from district wastewater and stormwater programs, including how to best prioritize capital investments. Integrated planning can also facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage storm waters as a resource, and support other economic benefits and quality of life attributes that enhance the vitality of communities.

Since publishing the IPF in June 2012, USEPA has issued additional IPF guidance. On July 15, 2013 USEPA issued its guidance, *Frequently Asked Questions on Integrated Municipal Stormwater and Wastewater Planning*, which made it clear that a municipality that is already subject to an existing federal Consent Decree, like Akron, may re-examine its remedy and the affordability of the remedy under the IPF. In addition, on November 24, 2014, USEPA issued a guidance on *Financial Capability Assessment Framework for Municipal Clean Water Act Requirements*. In this 2014 guidance, USEPA reaffirmed that under the IPF, the financial capability assessment can include the following costs: stormwater and wastewater ongoing asset management or system rehabilitation programs; CWA related capital improvement programs; collection systems and treatment facilities; and other CWA obligations required by state or other regulators.

The IPF allows for the identification of efficiencies within the sometimes overlapping and competing requirements that arise from distinct wastewater and stormwater programs. Additionally, USEPA's IPF guidance document encourages the use of sustainable green infrastructure to protect public health, improve water quality, manage stormwater, and support economic and quality of life benefits that enhance community vitality.

¹ USEPA. May 2012 (issued June 5, 2012). *Integrated Municipal Stormwater and Wastewater Planning Approach Framework*.

For the City of Akron (referred to as “City” or “Akron” in this report), Consent Decree (CD) requirements and associated Long Term Control Plan (LTCP) projects became more unaffordable according to the affordability criteria under the National Combined Sewer Overflow (CSO) Policy, which necessitated the development of an Integrated Plan.² This IPF process is an effort to better assess the financial and other impacts of the LTCP in the context of other wastewater and stormwater capital asset and operational requirements the City is facing over the CD planning period. The results of this IPF process, as presented in Section 6, Integrated Planning Results, include a recommended alternative set of LTCP projects, re-sequencing of LTCP projects, incorporation of wastewater and stormwater repair and rehabilitation annual projects, and additional recommendations that result in equal or better environmental benefits at a less unaffordable cost for Akron ratepayers.

1.1 Akron Integrated Plan Need

The City faces a major financial burden to comply with the CWA under the terms of its CD requiring implementation of various LTCP projects to improve wastewater collection and treatment and CSOs.³ The cost to implement the LTCP Projects is currently over \$1.14 billion (2014 dollars). In addition to this staggering cost, the City also has ongoing operation and maintenance, capital investment, and debt service costs related to its wastewater and stormwater systems. The financial impact of implementing CD and LTCP projects creates an unreasonable burden for the City’s ratepayers and limits the City’s ability to fund critical infrastructure renewal, stormwater management and control, and other projects to meet environmental needs.

1.1.1 Economic Situation

By any reasonable measure, the economic setting in the City is financially constrained. This is evidenced by:

- A declining population.^{4, 5}
- An unemployment rate that is higher than the national average.⁶
- A poverty rate that is significantly higher than the Ohio and national levels.^{7, 8}
- A Median Household Income (MHI) that is lower than the Ohio and national levels.⁹
- An income distribution that is unevenly weighted towards lower levels (a higher percentage in lower income groups and a lower percentage in higher income groups) when compared to national statistics.^{10, 11}

² For purposes of this report, “LTCP” or “LTCP Projects” are used to refer to projects required by the CD and the LTCP Update 2011

³ United States of America v. The City of Akron, Ohio, and the State of Ohio. Civil Action No. 5:09-cv-00272-JRA. Filed November 13, 2009, Consent Decree entered January 17, 2014.

⁴ U.S. Census Bureau. 2013 Population Estimates, City and Town Totals: Vintage 2013. Akron City OH.

⁵ L. Ledebur and J. Taylor. 2008 .*A Restoring Prosperity Case Study: Akron, Ohio*. Brookings Institution Press.

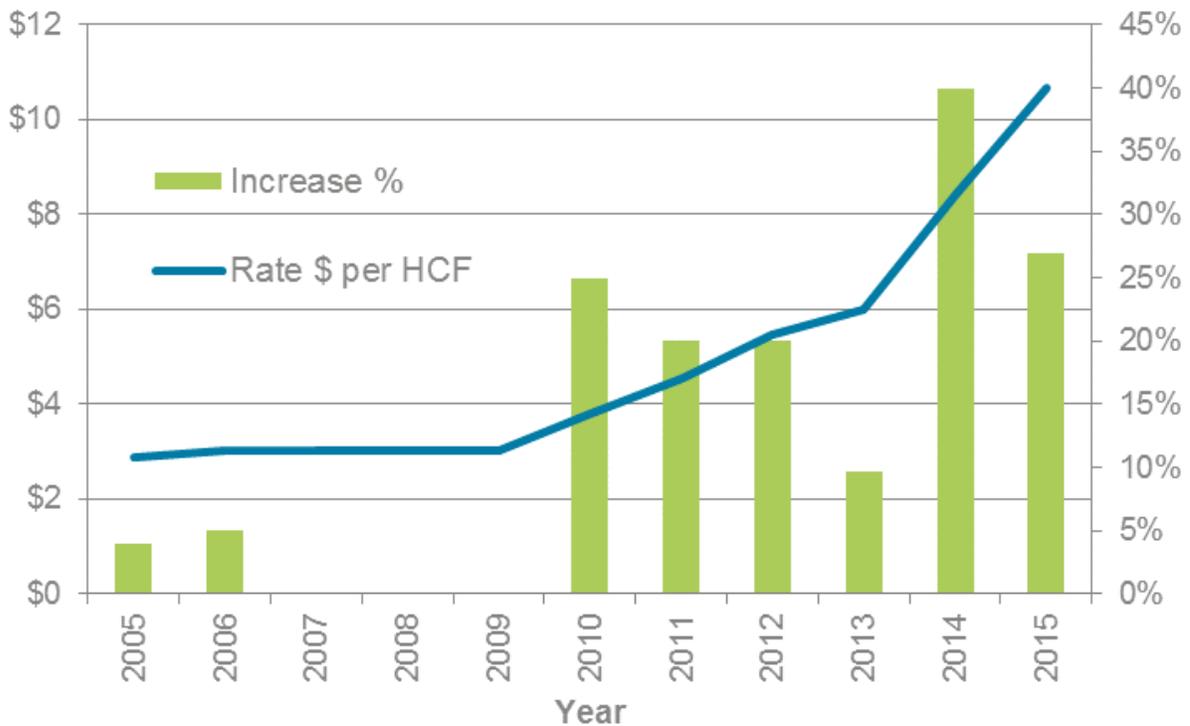
⁶ Bureau of Labor Statistics. 2013. Local Area Unemployment Statistics. Akron City OH.

⁷ U.S. Census Bureau. 2010-2012. ACS 3-Year Estimates, Table S1701, Akron City OH.

⁸ U.S. Census Bureau. 2012. Social Economic and Housing Statistics Division.

⁹ U.S. Census Bureau. 2010-2012. ACS 3-Year Estimates. Table DP03. Akron City OH.

The City has taken aggressive steps to fund the LTCP Projects and other costs of the City’s wastewater and stormwater systems. In just the past ten years alone, the City has raised sewer rates over 269% as shown in Figure 1-1. However, even with such aggressive rate increases, the City will still not be able to pay for the cost of the current LTCP Projects and the additional costs associated with the City’s wastewater and stormwater systems without integrating and prioritizing all of the wastewater and storm costs, and simultaneously developing and implementing sustainable and cost saving solutions, such as green infrastructure controls, in-line storage and increased conveyance.



HCF = hundred cubic feet

Figure 1-1. Annual Sewer Rate Increases

1.1.2 Rate Payer Impacts

Compounding the City’s stressed economic conditions, the projected costs associated with a number of the CD- and LTCP-mandated projects have escalated as documented in the City’s Financial Capability Assessment (FCA).¹² The purpose of the FCA is to document the aggregate and household unit costs, calculate cost per household as a percentage of service area MHI, and evaluate the financial capability of the community in terms of capacity to pay for these required capital improvements. Various interim drafts of the FCA were submitted to USEPA on July 16, 2014 and September 11, 2014. The latest FCA incorporates Master Meter

¹⁰ U.S. Census Bureau. 2010-2012. ACS 3-Year Estimates. Table B19001. Akron City OH.

¹¹ U.S. Census Bureau. 2010-2012. ACS 3-Year Estimates. Table B19080. Akron City OH.

¹² City of Akron. August 2015. *Financial Capability Assessment*.

(MM) customer information in the affordability calculations as requested by USEPA and is being prepared for submittal following this report.

The updated FCA demonstrates that the Original LTCP Projects, coupled with the Non-LTCP Projects and Annual Projects under the current deadline of 2027, result in a total residential indicator (RI) of 2.46% of MHI for the Akron service area. Importantly, this amount is well above USEPA's "high financial impact" threshold of 2% of MHI. However, the RI is only part of the total FCA. The remaining analysis under the FCA further demonstrates that the City falls under the High Burden category.

USEPA's 1997 FCA Guidance also encourages municipalities "to submit any additional documentation that would create a more accurate and complete picture of their financial capability. . ." As a result, the City's FCA also includes a Weighted Average Residential index (WARI™) analysis, in which census tracts within the City of Akron are analyzed. This analysis determined that households in several sections of the City face an impact of 2.1% to 9.5% of their MHI. Poverty rates in the City have been relatively high in recent years. The U.S. Census Bureau defined the poverty threshold for a family of four at \$23,834 in 2013.¹³ In 2013, 27.8% of the population in the City was reported below the poverty level, including 41.3% of children under the age of 18 years old.¹⁴ This is obviously an unacceptable burden under any measure.

This recent analysis shows that the City's CD program is even more unaffordable for Akron ratepayers, which is one key reason that the City is developing this Integrated Plan. Specifically, the Integrated Plan is intended to identify affordable alternatives that achieve the same or better environmental benefits.

1.2 Integrated Plan Development

Through ongoing discussions with USEPA, U.S. Department of Justice (DOJ), and Ohio Environmental Protection Agency (Ohio EPA) representatives regarding the economic conditions, the escalating costs, and the alternative LTCP project identifications, the City determined that development of an Integrated Plan was appropriate to properly prioritize and schedule needed projects in recognition of the City's financial constraints.

It is important to recognize that the original list of LTCP projects was developed prior to the 2012 publication of USEPA's IPF guidelines. As part of Akron's integrated planning efforts, the City reevaluated the LTCP projects by applying the broader flexibility, the improved engineering data, and the green infrastructure solutions that are included in USEPA's IPF guidelines. This report presents the resulting Akron Integrated Plan.

The purpose of this report is to clearly identify and explain the following:

- Additional CWA obligations, such as National Pollutant Discharge Elimination System (NPDES) permit and Municipal Separate Storm Sewer System (MS4) permit-required projects that Akron must meet in addition to the CD- and LTCP-mandated projects and the on-going asset management and renewal and replacement activities of the utility. In short, the additional CWA obligations must be integrated into Akron's overall financial planning.

¹³ U.S. Census Bureau. Social Economic and Housing Statistics Division, Poverty Thresholds for 2013.

¹⁴ U.S. Census Bureau. 2011-2013 ACS 3-Year Estimates, Table S1701, Akron City, OH.

- The methodology used in the development of the Akron Integrated Plan and the resulting prioritized project list and project sequencing recommendations.
- The methodology used to measure projected triple bottom line (TBL) benefits demonstrating greater and/or earlier benefits to the public and the environment.
- A description of the proposed changes to the existing LTCP projects and how they will provide greater and/or earlier benefits to public health and water quality.

In undertaking this integrated planning effort, Akron developed a financial model and various project scenarios using the 2027 compliance schedule for the LTCP Projects. The financial model indicated that the projects could not be funded in this timeframe without significant additional rate increases (48%) over a relatively short period. The cost for the total wastewater and stormwater systems, with a 2027 deadline for the LTCP projects, is clearly unaffordable.

As a result of the need for a longer schedule, the City evaluated the costs based upon a 13 year extension to the deadline for the LTCP Projects. The City's analysis showed that the Original LTCP projects with a new deadline of 2040, along with the Non-LTCP projects and Annual projects, still could not be funded without significant rate increases (80%) over this extended period. Thus, even if the LTCP project deadline is extended by an additional 13 years to 2040, the total wastewater and stormwater costs are still unaffordable.

The updated FCA demonstrates that the Original LTCP Projects, coupled with the Non-LTCP Projects and Annual Projects under the extended deadline of 2040, result in a total RI of 2.64% of the MHI for the Akron service area. In addition to the updated FCA analyses, the City is refining and updating CD and LTCP projects based on the collection system's hydraulic performance after completion of the first cleaning and inspection cycle of the CD-required Capacity, Management, Operations, and Maintenance (CMOM) program. Section 3, Existing Systems & Performance, will show that Akron's system performance in terms of sewer overflows caused by mainline blockages is at top quartile performance levels according to recent QualServe benchmarking results.

The progress on the cleaning and inspection project allowed the City to collect and update critical geographic information system (GIS) data. The City's collection system hydraulic model was correspondingly updated. As part of the hydraulic model update, the City used additional flow monitoring data to refine and recalibrate the model to more accurately represent collection system hydraulics. The refinement of the hydraulic model and 2014 receiving water sampling results allowed the City to conduct water quality modeling of CSO receiving waters. These refinements and water quality modeling provided better engineering data for reviewing and reevaluating alternative scenarios to the LTCP projects that would still comply with the intent and performance requirements of the CD. Results of these efforts are presented later in this report.

The remainder of this document shows the results of Akron's integrated planning efforts, culminating in the recommended projects and project sequencing highlighted in Section 6, Integrated Planning Results. Akron's recommended Integrated Plan results in equal or better environmental benefits, achieved earlier, at a less unaffordable cost for the ratepayers of Akron. For purposes of this report, "LTCP Projects" include all projects required by the CD and the LTCP Update 2011. Throughout the remainder of this document, these projects will be referred to as LTCP.

1.3 Akron's Guiding Principles for Integrated Planning

The City and USEPA have both developed guiding principles for undertaking the integrated planning process. Similarities in these principles further support the City's suitability for integrated planning. USEPA's IPF guidance document includes the following overarching and guiding principles:

- Maintain compliance with existing regulatory standards and requirements that protect public health and safety.
- Maximize the effectiveness of funds through a process of alternatives analysis, selection, and sequencing to address public health and water quality challenges.
- Evaluate and incorporate effective sustainable technologies, approaches, and practices, including green infrastructure.
- Evaluate and address community impacts.
- Ensure the financial strategy can be implemented and an appropriate fee structure is in place.
- Provide appropriate opportunities for meaningful stakeholder input throughout the planning process.

Akron's guiding principles are embedded in the mission and vision statements associated with its CSO program. Akron's overall CSO program is now referred to as **Akron Waterways Renewed!** (AWR). The City reconstituted its Integrated Plan Stakeholder Group and undertook the effort to "re-brand" the CSO program to more effectively communicate its purpose and anticipated benefits. The emphasis for AWR has been about environmental protection and improvement of water quality in the area's receiving waters. The **Akron Waterways Renewed!** name and logo are used consistently for nearly all communications related to the CSO program, from technical documents to stakeholder events to community meetings.

Our Mission: To invest in Akron's environmental future by building infrastructure for the next century that will protect public health and maintain water of the highest quality in the most cost-effective manner while providing local jobs.

Our Vision: Akron, Ohio will be recognized as a community that has used the Integrated Planning approach in re-building its infrastructure to meet all of its needs with less unaffordable benefits that are achieved earlier. Akron can provide effective and efficient wastewater and stormwater management services while protecting the environment for this and future generations.

The City's implementation of USEPA's specific IPF guiding principles is outlined below. It is important to note that while this Integrated Plan is under development, the City is continuing to meet all existing CD project commitments.

1.4 Elements of the Integrated Plan

The process undertaken to develop the Akron Integrated Plan, as detailed in subsequent sections of this report, was designed to be consistent with the AWR Mission and Vision statements, as well as with USEPA’s IPF approach.

The IPF includes the six elements shown to the right. Each element is thoroughly addressed in this Integrated Plan. In addition, the City maintained the following goals as part of the development of this Integrated Plan:

- Reduce the amount of unaffordability.
- Use of an enhanced Triple Bottom Line to measure benefits and evaluate projects.
- Achieve equal or better environmental benefits at a less unaffordable cost.
- To the extent feasible and when cost effective, use green solutions.

Element 01	Water Quality, Public Health & Regulatory Issues to be addressed in the Plan
Element 02	Existing Systems & Performance
Element 03	Stakeholder Involvement
Element 04	Evaluating & Selecting Alternatives
Element 05	Measuring Success
Element 06	Improving the Plan

Each of the six USEPA IPF elements and the sections of the *City of Akron Integrated Plan* in which they are addressed are summarized in Table 1-1.

Table 1-1. USEPA IPF Element and Akron’s Integrated Plan Crosswalk

USEPA IPF Elements	City of Akron Integrated Plan Section	Remarks
	Executive Summary	The Executive Summary provides a synopsis of key findings and recommendations from the overall report.
	1. Introduction	This section provides context as to why Akron undertook an integrated planning effort.
Element 1: Water Quality, Public Health, and Regulatory Issues	2. Water Quality, Public Health, and Regulatory Issues	This section describes local water quality, public health, and regulatory issues (including additional CWA obligations) that are addressed in the plan.
Element 2: Existing Systems and Performance	3. Existing Systems and Performance	This section describes the City’s wastewater and stormwater infrastructure facilities. A brief summary of the performance of each system is also in this section. (Detailed descriptions of existing systems can be found in the Akron Facilities Plan (1998) and Facilities Plan Update (2010).)
Element 3: Stakeholder Involvement	4. Stakeholder Involvement	This section outlines the stakeholder identification and communications plans to incorporate meaningful stakeholder involvement in the integrated planning process.
Element 4: Evaluating and Selecting Alternatives	5. Evaluating and Selecting Alternatives	This section describes the process used to identify, evaluate and select alternatives, and to propose implementation schedules based on optimized groupings of projects into various scenarios.
	6. Integrated Planning Results	This section describes proposed changes to projects identified in the City’s current LTCP based on affordable, prioritized project scenarios, and defines measurable benefits associated with the recommended Integrated Plan Scenario 2040, including benefits to public health and water quality.
Element 5: Measuring Success	7. Measuring Success	This section outlines the process for evaluating the performance of projects identified in the Integrated Plan Scenario 2040.
Element 6: Improving the Plan	8. Improving the Plan	This section outlines the implementation of an adaptive management-based continual program evaluation and improvement cycle.