

MINUTES
NORTHEAST OHIO REGIONAL SEWER DISTRICT
BOARD OF TRUSTEES SPECIAL MEETING
DECEMBER 18, 2014

Meeting of the Board of Trustees of the Northeast Ohio Regional Sewer District was called to order at 10:38 a.m. by Darnell Brown.

I. Roll Call

PRESENT: D. Brown
R. Sulik
W. O'Malley
J. Bacci
T. DeGeeter
S. Dumas
R. Stefanik

The Secretary informed the President that a quorum was in attendance.

II. Public Session Presentation on Integrated Planning

Chief Executive Officer (CEO) Ciaccia began by informing the Board that, as requested, staff would present what they have been doing as it relates to integrated planning. Attorney Lou McMahon [McMahon DeGulis law firm] previously gave a presentation to the Board on the basic concepts of integrated planning from the U.S. Environmental Protection Agency's (EPA) perspective. This presentation will focus on the specifics of the District's approach to integrated planning.

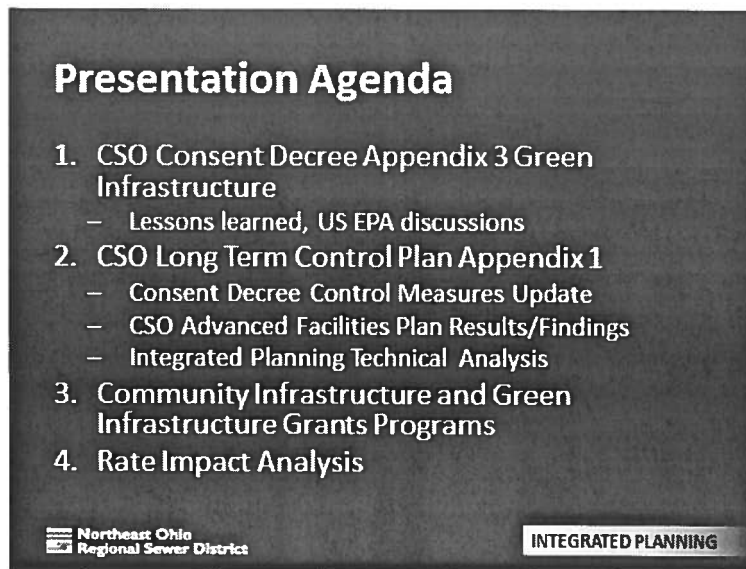
Mr. Ciaccia further stated that the District has a consent order with the federal government approved in 2011, and it has been implementing it for the last three years. However, staff has identified items in the consent order that are now under consideration for modification.

Subsequent to the approval of the District's consent order, EPA began allowing communities who were negotiating consent orders for combined sewer overflows (CSO) to consider all Clean Water Act (CWA) obligations they have, or could foresee coming in the future, and wrap all CWA issues into consent order negotiations. The District did not have that opportunity; therefore, given that the District is now considering modifications to its consent order, staff thought an integrated planning framework may work well in this situation. Mr. Ciaccia stated

that integrated planning may be more difficult for the District as it is a regional entity, not a municipality, but it is something on which we are willing to focus our efforts.

Mr. Ciaccia advised that the region has CWA issues beyond just CSOs. There is basement flooding throughout the region, inflow and infiltration (I&I), and sanitary sewer overflows (SSOs) all of which are local CWA obligations. The District wants to add these other CWA issues to the District's discussions with the EPA. Mr. Ciaccia stated that while consent order modifications based on integrated planning may provide the District with more flexibility by stretching out the program over a longer time period in order to deal with some of these other issues, he emphasized that integrated planning will not result in any modification of the District's mandated level of CSO control. Under the terms of the consent order, the District must achieve 98% capture. Mr. Ciaccia did not envision re-negotiating that aspect because that was a non-negotiable point with the federal government; however, the District may be able to get more time to achieve it.

In addition, Mr. Ciaccia advised that staff wants to examine the financial capabilities of the entire region -- including the communities the District serves. CEO Ciaccia stated that the presentation will outline the path forward, and the Board will not be asked to take action at this point. Instead, staff wanted to make sure the Board is informed and agrees with the path. Otherwise, the District will shift back to just dealing with CSO issues and any kind of consent order modifications would be germane only to that. Lastly, the District needs to start talking about how to get community partners on board with integrated planning.



Presentation Agenda

1. CSO Consent Decree Appendix 3 Green Infrastructure
 - Lessons learned, US EPA discussions
2. CSO Long Term Control Plan Appendix 1
 - Consent Decree Control Measures Update
 - CSO Advanced Facilities Plan Results/Findings
 - Integrated Planning Technical Analysis
3. Community Infrastructure and Green Infrastructure Grants Programs
4. Rate Impact Analysis

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CEO Ciaccia reviewed the presentation agenda. He advised that Chief Operating Officer (COO), Kellie Rotunno, will talk about Appendix 3, one of two green infrastructure appendices in the consent order. The District wants to make some modifications to Appendix 3, and Ms. Rottuno will be covering lessons learned so far in her presentation.

Mr. Ciaccia stated that Deputy Director of Engineering and Construction, Devona Marshall, will be talking about Appendix 1 of the consent order which is the core of the District's gray infrastructure program. The District has done significant advanced facilities planning, recalibrating all the models that went into creating the long-term control plan, and as a result, the District sees some substantial opportunities to lessen the financial burden of that program.

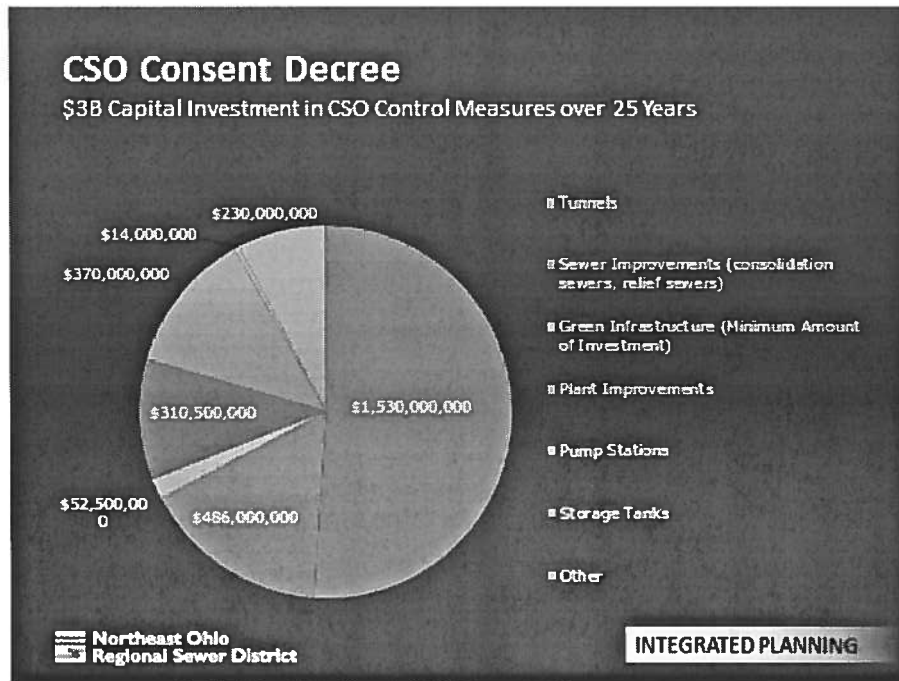
Mr. Ciaccia stated that Kyle Dreyfuss-Wells, Deputy Director of Watersheds Programs, will talk about the community infrastructure and green infrastructure grants programs and whether the District should rethink how it views green infrastructure in contrast to the rigid approach mandated in Appendix 3. The District is recommending a more distributive approach to green infrastructure, and Ms. Dreyfuss-Wells will get into the details of this approach.

What ties everything together is how integrated planning works financially. CEO Ciaccia stated that the District's rates set for 2015 and 2016 would not be changed as a result of integrated planning. He stated that the District is going to stay on target with the revenues that those rates are meant to bring in through 2016. A rate study will commence in 2015 to examine the next rate period of 2017 through 2021. The Board will act on rates during 2016 to make sure they have the appropriate revenues for the next 5-year period. Staff's goal is to not to have double-digit rate increases. Chief Financial Officer (CFO), Jennifer Demmerle, will present the Board with a preliminary analysis of the impact various components of integrated planning will have on rates. This analysis is simply based on plugging some preliminary numbers into our financial model. A more in-depth rate study will be conducted to determine rates for the next rate schedule.

Green Infrastructure for CSO Control: Lessons Learned from Appendix 3

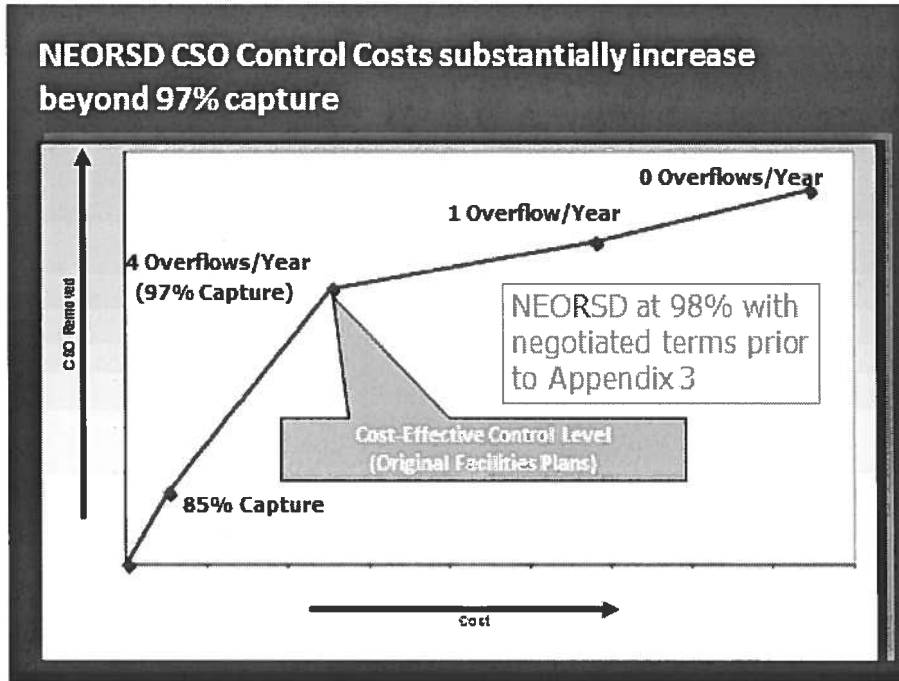
The presentation moved to the first agenda topic on green infrastructure. COO Kellie Rotunno began with an historical review. In the 1970s, the annual CSO discharge in the region was about 9 billion gallons. Through the work of many people at the District they were able to reduce it to the present day level of 4.5 billion gallons. The consent decree requires further reduction to 494 million gallons of remaining CSO per year and to have no more than four overflows from any CSO point.

The 25-year CSO consent order program is \$3 billion, half of which will go into underground storage tunnels to control CSO volume. The pie chart below shows the distribution of other types of facilities that are included such as plant improvements, pump stations, storage tanks and \$42 million in mandatory green infrastructure.



Slide 2

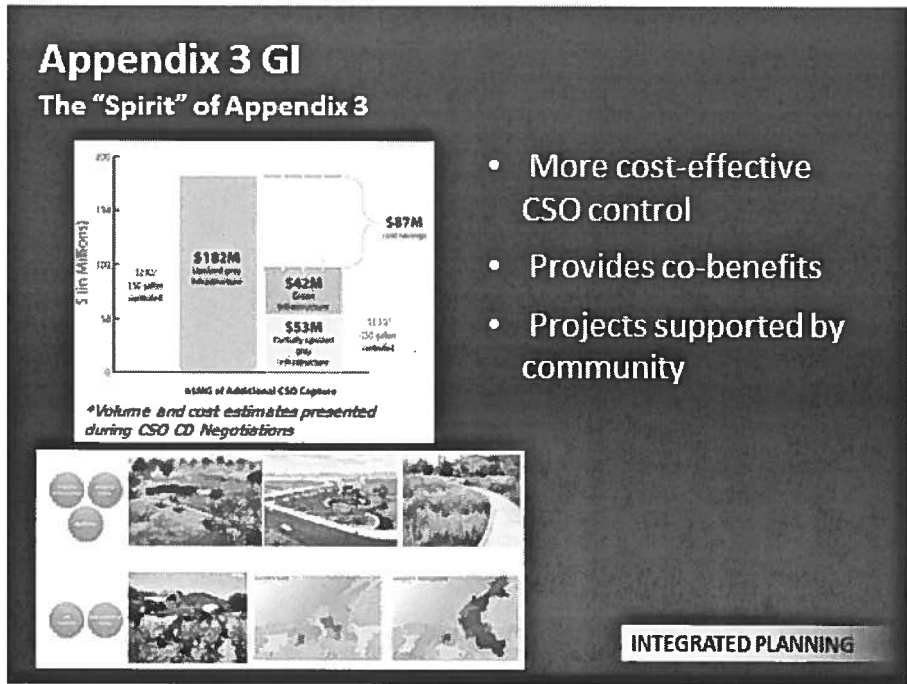
COO Rotunno referred to the pie chart in Slide 2 and stated that it was important to the District to have the most cost-effective CSO reduction program. The consent order says the District must achieve 98% level of control. The most cost-effective level of control, as determined through District facilities planning effort is at 97% which put us at the knee of the curve indicated by the blue box in Slide 3 below. Once you go beyond 97% level of control, it all gets more expensive, whether you are talking gray or green infrastructure. Ms. Rotunno said it gets more expensive because you are down to the last 2% capture. That is an important point to understand. The District went into consent order negotiations at 97% level of control, but that number got eked up to 98% for purposes of settlement.



Slide 3

Ms. Rotunno then moved on to set the context for the hydrologic typical year. She explained that the performance criteria for the District's CSO system, storage and volume, as well as what is treated, is based on a hydrologic typical year. It is a synthetic concept that was negotiated with EPA. It is comprised of 121 storm events using precipitation data from 1991 and 1993, with an additional high-intensity storm thrown in. The biggest storm event in our typical year is nearly 2.5 inches of rainfall. During our synthetic typical year, there are overflows at 126 locations in the CSO system that create 4.5 billion gallons over the 121 storm events. A 2.5 inch storm produces 800 million gallons of CSO overflow.

COO Rotunno advised that the District's CSO Long-Term Control Plan (LTCP) and Project Clean Lake will control that volume except for the three largest CSO overflow events. The bulk of the CSO will be controlled by year 2036. It was those three remaining overflow events that became the subject for negotiating Appendix 3.

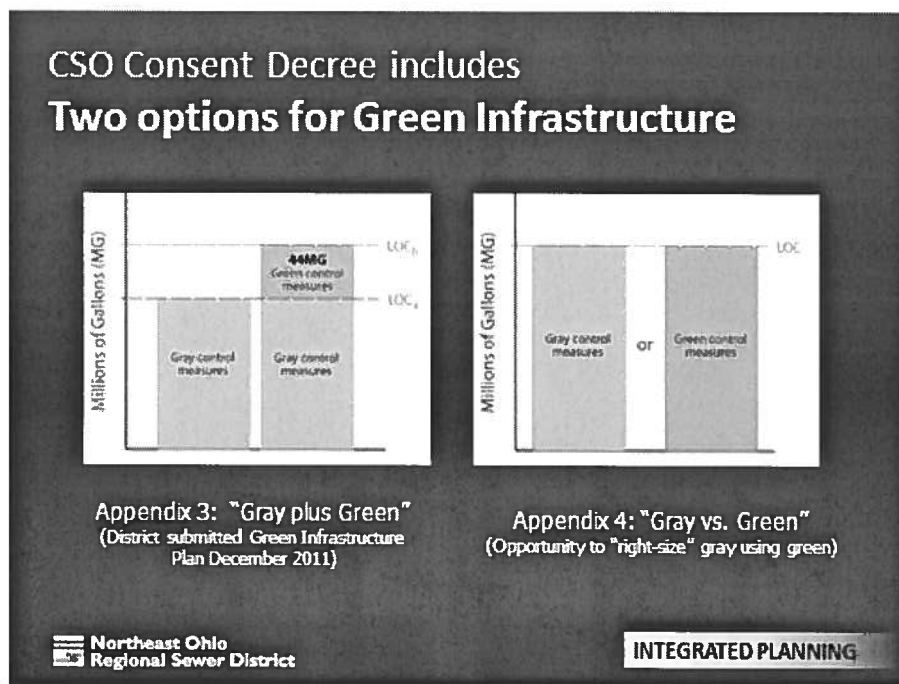


Slide 4

The gray program was controlling everything except the last three events. Staff thought additional control would be more cost-effective through green infrastructure projects that also provide co-benefits to the community. Appendix 3 requires the District to capture 44 million gallons of additional CSO with green infrastructure above the baseline control of the gray infrastructure. We must also spend a minimum of \$42 million and implement the projects in an 8-year timeframe.

COO Rotunno explained that Appendix 3 control had to be effective in those last three storm events that were uncontrolled. This is a very heavy lift to expect from green infrastructure. Depending on location in the service area, it requires capturing 12 gallons of stormwater to effectively remove one gallon of CSO.

COO Rotunno gave the Board an example of one green infrastructure project at the Urban Agriculture site which has bioretention features along Kinsman Avenue adjacent to Otter Park along East 83rd Street. There is an additional retention basin in the East 79th Street area. Ms. Rotunno advised that staff was doing sewer separations to remove stormwater and convey it to aboveground features where it would be detained, have nutrients taken out by the plant material, and the solids knocked out before going back into the receiving stream. The project cost is \$7.2 million and the volume of stormwater it will capture is 7 million gallons.



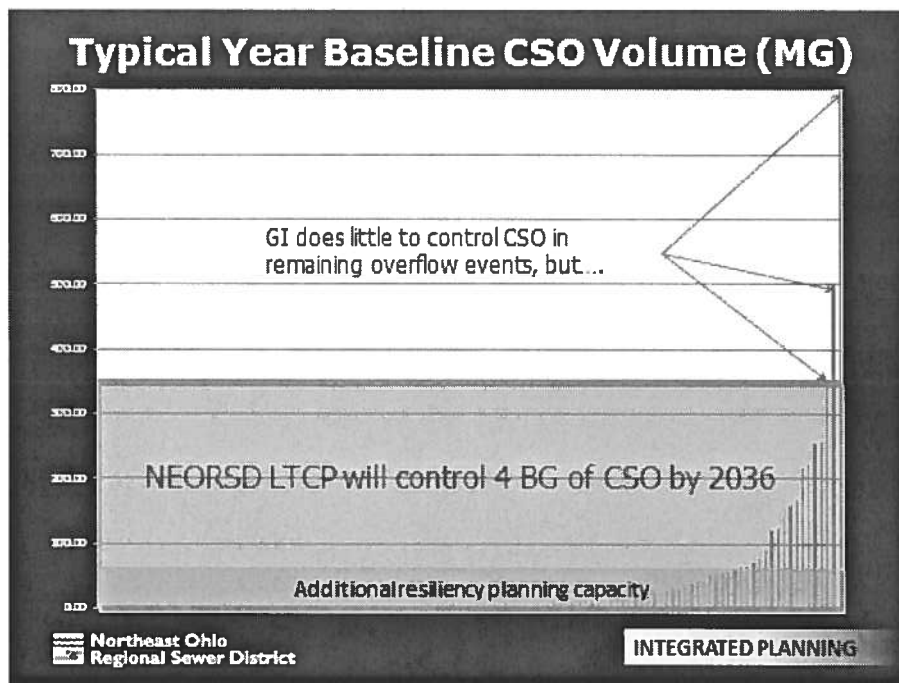
Slide 5

Ms. Rotunno advised the Board of the issue regarding the current Appendix 3 performance criteria metric. She stated that when we measure the volume captured by modeling it at the completion of the project, the ratio of volume of CSO reduction to stormwater capture is one-to-one. We will get 7 million gallons of CSO reduction through 7 million gallons of stormwater capture. However, when we measure the CSO capture for the remaining three storm events after all the gray infrastructure is built in the year 2036, the way Appendix 3 was negotiated, we are given credit for only 1.2 million gallons of CSO reduction from 7 million gallons of stormwater capture.

CEO Ciaccia interjected that this is a peculiarity of Appendix 3 that the District hopes to modify. Neither the District nor EPA really understood the math at the time of negotiations.

COO Rotunno advised that if we look at Appendix 3 for controlling the remaining three events over the entire CSO typical year when the projects are completed, Appendix 3 projects can provide 61.6 million gallons of CSO reduction in a typical year. We have to complete all projects within 8 years, so that is more than the required 44 million gallons. However, if we look at the performance of the green infrastructure in the remaining three events after all gray infrastructure has been built those same projects will only control 18.4 million gallons of CSO from a credit standpoint under the current modeling metrics.

Ms. Rotunno reiterated that green infrastructure cannot handle the big storm events, so it is not effective at the 98% level of control for CSO. In summary, green infrastructure functions best in the smaller storms by preserving capacity in the sewer system at the baseline of the smaller storm events. This resiliency in the use of green infrastructure was not contemplated in Appendix 3.



Slide 6

Staff has met with the EPA and shared their thoughts in terms of the modeling and the prospect for getting full credit for these projects as they go into the ground. Ms. Rotunno reiterated that the District should not be forced to model the effectiveness of the green through a futuristic lens at a point after all gray is built.

Ms. Rotunno further stated that staff has originally identified 20 green infrastructure projects and advance-planned 14 of them. As projects proceed from advanced planning to design, that is where details of green infrastructure become clear and opportunities present themselves in a more realistic fashion. COO Rotunno stated the full list of projects was going to cost \$131 million. The \$131 million cost is well above the spirit of Appendix 3, which requires an expenditure of only \$42 million.

Staff sought to reduce the number of projects by eliminating some that were not as embraced by the community and would be difficult to implement. A reduced \$61 million list of projects modeled through the present baseline would be controlling 67.8 million gallons of CSO after construction. According to the current Appendix 3 modeling, it would only be controlling 18.5 million gallons.

Staff plans to present EPA with a reduced project list, substantially less than \$131 million in cost, but substantially more than the \$42 million minimum, which will control 68 million gallons of CSO, measured at the time the project is completed.

COO Rotunno summarized lessons learned so far with the implementation of Appendix 3:

1. Measuring CSO volume controlled by green infrastructure in a baseline real world environment versus a future build-out of the full LTCP makes a difference. It is sensible to count CSO gallons as green infrastructure projects are going in the ground -- the same way with any tunnel project.
2. The cost of CSO control, whether you are talking about green or gray infrastructure, when you get above 98% level of control, is more costly than when you are below the knee of the curve.
3. Opportunities to increase CSO system performance are identified as each project is advanced, and our LTCP planning process is helping to optimize our system, both gray and green, as we move forward.
4. Green infrastructure, while it cannot help us from an Appendix 3 perspective to control the three bigger storms, has done a lot for us in smaller storms, and it can add system volume capacity to our collection system that we think is a value as storm events are becoming more intense.
5. The real sweet spot for green infrastructure is distributed and incentivized through a stormwater management program, which is where it can be the most effective for managing stormwater volume and provide community benefits.
6. The District also has many partnerships that are interested in implementing green projects and we are seeking opportunities for using green infrastructure outside of Appendix 3.

At the conclusion of Ms. Rotunno's presentation, CEO Ciaccia stated that the Appendix 3 CSO credit issue was the first issue the District wants to address with the EPA.

Mr. Brown questioned how 1991 and 1993 were selected as the baseline years for the typical year. COO Rotunno explained those years were utilized because they had the highest number of

recurring storm events over the 4-year period and it blended into the typical year. The additional 2.5-inch rainfall storm was added as a high-volume storm.

Mr. Brown stated that his concern was making sure the continuing change in rainfall patterns is reflected. COO Rotunno advised that the consent decree acknowledges a typical year as it was conceived at the time the models were developed. The typical year is not dynamic in the consent decree.

Frank Greenland, Director of Watershed Programs, explained that some conservatism is built into the CSO program in terms of design. Adjustments were made to the typical year, including that rainfall does not fall uniformly across the entire service area. The consolidation conduits that bring flow to the tunnel were upsized to handle peak storms and convey flow to the tunnel. That is where green infrastructure can play a role in keeping stormwater out of the sewer system.

Appendix 1 Update

The next presenter, Devona Marshall, Deputy Director of Engineering & Construction, stated that Appendix 1 is the bulk of the consent decree requirements and where most of the \$3 billion over 25 years will be spent.

Appendix 1 is a list of 25 control measures (CMs) the District is required to implement over the next 25 years to control CSO. In most cases, the performance criteria is the number of CSOs that are to be controlled and the level of control to be achieved, along with the time frame in which those CSOs are to be controlled. Also, included are design and performance criteria.

There are upwards of 60 projects comprising the 25 control measures in Appendix 1 that are the bulk of the \$3 billion that we will be spending over the next 25 years. There are currently 15 active projects under Project Clean Lake. This does not include the Appendix 3 green infrastructure projects. The first control measure (CM 24) is scheduled to achieve full operation this month. Following completion, there will be two years of performance compliance and flow monitoring of the control measure. A report will be submitted to the EPA in December 2016.

Ms. Marshall advised that ongoing chemically enhanced high rate treatment pilot projects (CM 2 and 4) are under way for wet-weather treatment facilities (Easterly and Southerly) and the Southerly primary effluent bypass. Staff is scheduled to submit the reports for CM2 and CM4 for Easterly and Southerly in the beginning of 2015. The results have been successful and staff is hopeful that the EPA will allow the District to move forward with implementing less costly technology.

The remaining projects are all within the collection system controlling CSO in the system, including 6 large tunnel systems.

CSO Advanced Facilities Plan Results/Findings

Moving on to the Advanced Facilities Project (AFP) project, Ms. Marshall informed the Board that it is a 4-year contract that costs \$18 million and includes a \$2 million specific allowance to study integrated planning. The project commenced in April 2013 and is scheduled to conclude in April 2017. The lead consultant is Wade Trim. It has a 20% MBE/WBE participation goal.

CSO Advanced Facilities Plan
Scope of Work

1. Evaluate all yet-to-be executed non-plant CSO LTCP projects in the Easterly, Southerly, and Westerly Districts:
 - Validate and optimize projects (~43 identified projects)
 - Identify potential green for gray opportunities
 - Advance tunnels to preliminary (20%) design
2. Program Support Services
3. Integrated Planning Technical Analysis

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The current facilities plans are outdated because the level of control negotiated with the EPA in the consent order was higher than reflected in the plans developed in the late 1990s and into the early 2000s. Staff must update the plans to reflect this higher level of control. Another key driver is optimization. As projects advance, staff is able to manage risks and cut costs. They also want to look for green-for-gray infrastructure opportunities.

Ms. Marshall advised that another driver is the high cost of property acquisition for the projects. It is important to identify key properties early on in the design phase and acquire them before the project is ready to go out for bids. Other key drivers are controlling costs associated with extensive performance compliance requirements and a full evaluation and optimization of costs for the remaining projects that have not yet commenced under the LTCP. There are about 43 projects within the collection system which we want to look at, validate and optimize.

CSO Advanced Facilities Plan
Scope of Work

1. Evaluate all yet-to-be executed non-plant CSO LTCP projects in the Easterly, Southerly, and Westerly Districts:
 - Validate and optimize projects (\approx 43 identified projects)
 - Identify potential green for gray opportunities
 - Advance tunnels to preliminary (20%) design
2. Program Support Services
3. Integrated Planning Technical Analysis

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Ms. Marshall stated that a program support task is included in the contract scope that addresses performance compliance concerns. This is an area in which staff is managing hydraulic models which is the main tool used for showing compliance with the consent order and other support services to review the designs as they come in. Finally, there is a specific allowance to conduct a technical analysis of regional CWA issues in the framework of integrated planning.

Ms. Marshall summarized the projected cost savings realized to date from advanced facilities planning for projects in the Southerly, Westerly and Easterly districts.

In the Westerly tunnel system, through optimization, staff has been able to shorten the length of the tunnel by almost 2,000 feet and decrease the diameter, going to one tunnel diameter overall, which nets a huge savings. The number of shafts was reduced from 8 to 5, and there are smaller control measures in the system. Three storage tanks have been eliminated as well through optimization of the existing system. Overall, potential cost savings are \$99 million through advanced planning in the Westerly District.

In the Southerly district, there will be two tunnels built to return to the Southerly plant. Construction is scheduled to start in 2024. Through optimization exercises, the length of one tunnel was increased, but the diameter stayed the same, and the number of shafts was reduced.

The big savings was through the elimination of consolidation sewers. Originally we had 10 miles under the plan and now it's down to 2 miles.

Another big change is retaining use of the most downstream end of the Southerly interceptor. The decision was made to retain the Southerly interceptor, and the tunnel would be an offline wet-weather facility to save money and reduce the pumping capacity for the pump station. The estimated savings is \$146 million in the Southerly system, in addition to O&M savings, resulting from only having to pump during wet weather.

Ms. Marshall explained that Big Creek is the last tunnel system and control measure that will be implemented under the LTCP. Staff shortened the length and diameter of the tunnel and reduced consolidation sewers through optimization, saving \$73 million.

The scorecard below shows where we started out and where we stand today.

December 2014

Projected Cost Savings Summary to Date

	2009 Dollars	2014 Dollars
Est. Consent Decree CSO LTCP Capital Cost	\$3 B	\$3.69 B
Easterly District: Value Engineering Cost Savings	\$268.4 M	\$330 M
Easterly District: CSO AFP Projected CIP Savings	\$31.7 M	\$39 M
Westerly District: CSO AFP Projected CIP Savings	\$80.5 M	\$99 M
Southerly District: CSO AFP Projected CIP Savings	\$178.1 M	\$219 M
Total Projected Savings	\$559 M	\$687 M
Est. Consent Decree CSO LTCP Capital Cost (updated)	<u>\$2.441 B</u>	<u>\$3.03 B</u>

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In summary, Ms. Marshall advised that the \$3 billion consent decree was negotiated in 2009 dollars; that LTCP in 2014 dollars is \$3.69 billion. Through optimization and advance planning staff identified potential cost savings in today's dollars that now makes the \$3 billion program \$2.44 billion.

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CEO Ciaccia explained that staff knew the 2009 numbers would be subject to escalation. Optimization has basically removed that aspect. More is to come with design and value engineering. The EPA put the LTCP established in 2002 into Appendix 1. Staff will have to make adjustments based on the revised project scopes.

Mr. Brown stated that the rate structure for the next two years should remain unchanged because of the projects already in progress. The ability in the future to achieve less than double-digit rate increase percentages is possible. It is a matter of smoothing the methodology and getting the Board and community to understand how this is different and meets the removal rate required by EPA.

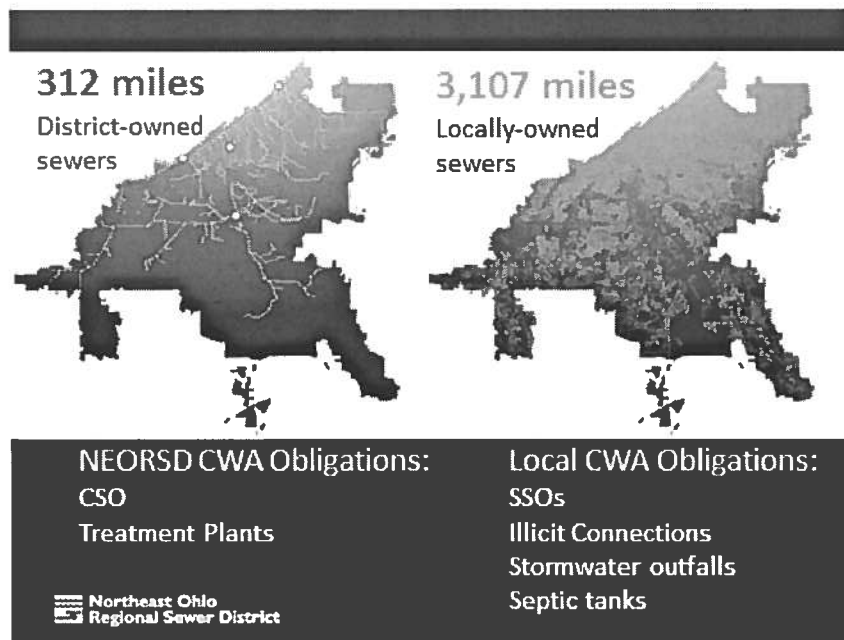
CEO Ciaccia advised that the community should care about the removal rate. The District's 10-year financial plan incorporates old numbers and staff has since revised them. There are other needs in the region to be addressed, and how the District plays a role is a discussion yet to come in the presentation.

Ms. Marshall stated that because the design parameters of the optimized systems differ from the design criteria listed in Appendix 1 there is potential for modification.

The Region's Clean Water Act Obligations (Technical Analysis)

The last topic Ms. Marshall addressed was other CWA obligations of the region, including sanitary sewer overflows, surcharged sewers, basement flooding, and common trench sewers. There are illicit connections in the system, and the total number of stormwater only outfalls is currently unknown. The potential exists for communities to spend a lot of money depending on future EPA policy regarding water quality treatment. There are a significant number of septic tanks in the region. Many of these CWA issues are not the responsibility of the District; however, they are the direct responsibility of our ratepayers.

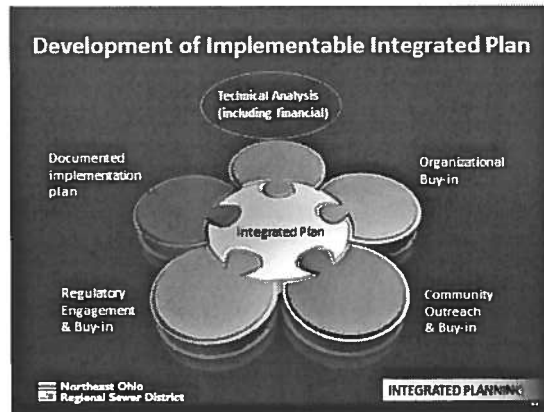
To put the problem in perspective, the District owns 312 miles of sewers in addition to three plants. The District's Clean Water Act obligations are CSOs and the treatment plants. By comparison, there are over 3,000 miles of local sanitary sewers. This number does not include the storm sewer systems. The local communities are directly responsible for these other CWA problems including SSOs, illicit connections, stormwater outflows and septic tanks.



Slide 10

Integrated planning is intended to help regions comply with CWA mandates and offers a sensible and holistic approach to managing and meeting these objectives. Ms. Marshall advised that the decree was negotiated focusing solely on CSOs – there were no discussions about other CWA mandates facing the region. We were in a black box. No consideration was given of other CWA mandates, not from a priority or affordability perspective. If the integrated plan includes the CSO program, the District can only expect a delay in completion of consent decree projects. Integrated planning does not allow communities that have already entered into a decree to renegotiate or lessen the mandated level of control.

Ms. Marshall referred to Slide 11 to demonstrate the various components of the District's integrated planning approach. The technical analysis is one piece of the puzzle. The second piece is organizational buy-in – the reason we are here today presenting to the Board. Another key piece is community outreach and buy-in. This will be vital because the plan will not work without their participation and willingness to take on some of the burden of CWA obligations. Regulatory engagement is also a key factor, especially if integrated planning leads to any delay of our CSO program. Finally, we need to document these various components into an implementation plan. The people, processes, procedures, and resources to do all these activities have to be determined and funded. Kyle Dreyfuss-Wells will touch on this in her presentation on the grants program.



Slide 11

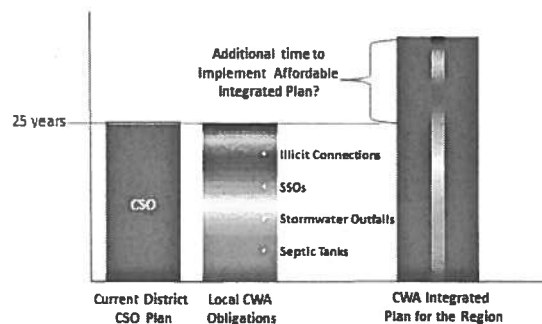
Ms. Marshall summarized the technical component of the integrated planning. She advised there are three main tasks under the technical analysis, the first of which is to define and quantify the region's non-CSO CWA obligations, including the extent of the obligations and the cost to fix the problems. The next step is to prioritize the problems along with The District's CSO program to come up with a prioritized list the justification of which is based on water quality or human health impacts. Ms. Marshall stressed that if the District's integrated plan includes delay of the CSO program, EPA requires a demonstration that the correction of non-CSO CWA obligations takes priority over some of the scheduled CSO projects, from a water quality or human health impact perspective, as justification for delaying the CSO program. Lastly, the third task is to relook at affordability. EPA has a new framework around the affordability analysis, and we want to see what that means to our CSO schedule going forward.

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- District's Integrated Planning
Technical Analysis – Objectives**
1. Define Region's non-CSO Clean Water Act (CWA) obligations
 2. Prioritize projects to address CWA obligations of the District and its member communities based on water quality/public health impacts
 3. Reevaluate Affordability over 25 years considering EPA's Affordability/Financial Capability Framework
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Ms. Marshall moved on to the potential outcome of the technical analysis. One possible outcome could be bringing the two sets of CWA obligations (CSO and non-CSO) together in an integrated plan with an extended schedule to deliver the District's CSO program.

District's Integrated Planning Technical Analysis – Potential Outcome




Slide 13

In order to define non-CSO CWA issues, the District selected a pilot area for each CWA issue and identified sources and extent of sewer system defects. Basement flooding and surcharge sewers have been identified as a major problem for many member communities. There are illicit connections (sanitary sewers tied directly to the storm sewer system) that discharge directly to the environment -- the full extent of which is currently unknown. We have identified 30 to 40 illicit connections. There are 14,000 septic systems in the District's service area and the issue is a hot button issue for the EPA from a water quality perspective. There are 6,000 stormwater outfalls in the service area. Ms. Marshall explained that the cost of improvements could be a big burden on communities in terms of future regulations.

From the data gathered, estimated costs of improvements were extrapolated for each issue as shown in the chart below. Even without the full picture on stormwater outfalls, we are looking at potential cost exposure to our member communities of \$2.8 billion.

Non-CSO CWA Issue	Cost of Complete I/I Removal, Elimination, Relief, or Treatment (\$M)
(Known) SSO Structures	\$550+
(Known) I/I Idt Connections	\$4+
Common Trench Sewers	\$1,740*
Local Capacity Issues (separate areas)	\$670*
Local Capacity Issues (combined areas)	\$100
Septic Tanks	\$300
Stormwater Outfalls	TBD
Total Cost	\$2,854+


*includes costs for stormwater management/treatment

Slide 14

As to the re-prioritization of CSO projects that are potentially deferrable, we came up with the following categories and associated price tags. We think there is justification for deferring them from a water quality/human health impact perspective. The total price tag is \$525 million compared to the total estimated cost for the non-CSO improvements at \$2.8 billion.

Project	Costs (\$M)
1. Consent Decree Negotiated Additions	203.7 (not updated)
2. Surcharge Relief (District Sewers)	26.1
3. CSO Control less than 5 MG/Year	46.5
4. Big Creek Tunnel Project	248.9
Total	\$525M

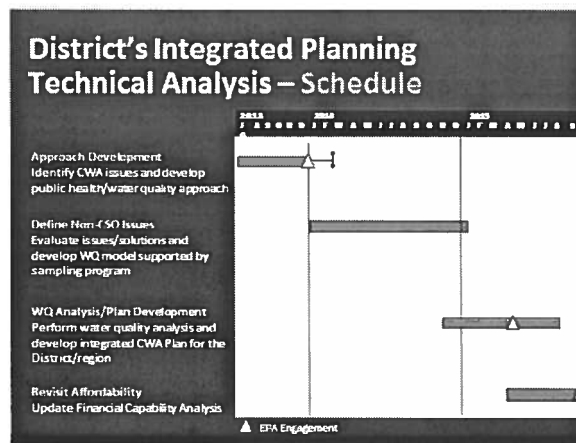

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CEO Ciaccia advised that some of the District's projects could be potentially moved past 25 years if there is a time extension granted to move forward with addressing our member

communities' CWA issues. Staff was looking for more room to deal with issues in the communities should they choose to partner in the effort.

Ms. Marshall explained the overall schedule for the completion of the technical analysis. Staff is moving into the water quality analysis and the reprioritization of the issues over the coming year. The issue of affordability will commence in the spring.



Slide 16

CEO Ciaccia advised that staff hopes to modify Appendix 3 to spend more wisely on green infrastructure and in the case of Appendix 1 to capture the reduction in cost by updating the plan.

The District can continue its modification effort on its own or engage the EPA on a holistic integrated planning effort, inclusive of the issues facing the communities. The District has sent letters to all the service-area mayors to gauge interest in participating in the District's integrated planning approach. The District also has its own Sewer Use Code that allows it to exert some authority over the communities. The mayors are strapped for resources to take on their CWA problems. The District is trying to find a means of addressing those problems without being punitive.

Community Infrastructure and Green Infrastructure Grants Programs

1. Community Discharge Permit Program – Titles III & IV

Kyle Dreyfuss-Wells, Deputy Director of Watershed Programs, advised that the community discharge permit program under Titles III and IV of the District's Code of Regulations are regulations that give the District limited authority over local systems to deal with problems such as I&I, SSOs, illicit connections and discharges. These programs were established because the

problems are real and widespread, and communities lack resources to fix the problems themselves. Staff suggests proposing the community infrastructure grants program to complement the community discharge permit program to begin dealing with these issues. Grants make sense because they incentivize long-term maintenance, cost-sharing, dedicated local partners, community involvement and ongoing education and visibility.

2. Community Infrastructure Grants Program

Proposed Community Infrastructure Grants

Funding to Solve Human Health & Environmental Impacts from:

- SSOs
- Basement Flooding
- Septic Systems
- Common trench sewers
- Illicit Discharges

Northeast Ohio
Regional Sewer District

INTEGRATED PLANNING

The slide features a dark background with white text. On the right side, there is a black and white photograph of a flooded basement with water reflecting the overhead lights and stacks of boxes. The slide is titled 'Proposed Community Infrastructure Grants' and lists five categories of funding impacts. The Northeast Ohio Regional Sewer District logo is in the bottom left, and 'INTEGRATED PLANNING' is in a white box in the bottom right.

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The proposed community infrastructure grants program would provide funding from the District to qualified member communities to help solve the human health and environmental problems. Projects would minimize known water quality and quantity problems and emphasize a holistic upstream/downstream look at the problems with the emphasis on solving the problem as opposed to moving the problem from one community to the next.

Should the program move forward, staff would finalize the policy and application process currently under development. Next, the program would be reviewed with the Board, and if approved, it would be distributed to the member communities for a 30-day comment and review period.

The District would initially offer up to \$5 million in grants in 2015, review those applications, bring them back to the Board for approval, and then move forward with solving some of these issues next year.

Next Steps Community Infrastructure Grants

- Finalize *Policy & Application*
- Distribute for 30-day review and comment
- Issue grant program with up to \$5 million available
- Review applications and present recommended projects to the Board

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3. Green Infrastructure Grants Program

Ms. Dreyfuss-Wells stated that the last piece is an expansion of the Green Infrastructure Grants Program. Green infrastructure makes sense for the District because it is important to take advantage of every opportunity to remove stormwater from the combined sewer system to add resiliency and ensure capacity.

Expanded Green Infrastructure Grants
Why We Green...

- **Control combined sewer overflows**
 - Consent decree compliance
- **Build resilient systems**
 - Remove stormwater from combined system
 - I&I control, basement flooding, etc.

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The Green Infrastructure Grants Program would be available across the combined sewer area –in the City of Cleveland and 10 other communities in the combined area. Eligible projects must remove stormwater from the combined system, and community participation is a mandated part of these programs going forward. Ms. Dreyfuss-Wells cited the example of the District’s partnership with the City of Cleveland on the West Side Market parking lot project. The District provided a \$500,000 grant to the City with the goal of pulling 3.4 million gallons a year from the combined system and letting it soak into the sand under the parking lot.

Ms. Dreyfuss-Wells indicated the next step would be coming back to the Board with a list of proposed projects for 2015, including the \$650,000 ODOT money that the District received for a variance to Title IV requirements for Phase 1 in the Opportunity Corridor area.

Ms. Dreyfuss-Wells summed up by stating that the District is proposing to expand its grants programs to address some of the ongoing CWA issues in local systems under the Community Infrastructure Grants Program in partnership with member communities. The Green Infrastructure Grants Program captures that resiliency concept mentioned earlier in the presentation and is being more attuned to what the community wants from green infrastructure. The potential is for a significant grants program in the coming years with up to \$30 million annually across both programs.

Summary of Proposed Grants
Expanded Grants Programs

- **Community Infrastructure Grants**
\$5 million available across service area in 2015
- **Green Infrastructure Grants**
\$2 million awarded January 2015
- **Going forward**
Ramp up to \$30 million annually across both grants

 **INTEGRATED PLANNING**

Slide 20

Mr. Sulik asked, if there are \$3 billion in projects in the local communities, what is \$5 million going to do? CEO Ciaccia explained that the reason staff is sticking with \$5 million is because the 2015-2016 rates are locked; they intend to increase the program to \$30 million per year for the 2017-2021 rate period.

The \$300 million in over 10 years should not be all of the District's money. We want to get communities to obtain state loans and grants to supplement it. Dealing with the \$3 billion burden would require communities raising taxes or creating fees, and the District can play a role in incentivizing it.

Mr. Sulik stated that the details of the grants program will be vital. CEO Ciaccia advised there are a multitude of opinions of what should be done. The District would have to run a campaign for community input. He explained that this is an opportunity for communities to come to the table with us to pass rate increases so they can share in some of the results of living with the consent decree. This is what integrated planning allows us to do now that the EPA is open to this approach. He knew it would not be easy but deemed it best to try to unite the communities in the region around clean water.

Mr. Brown stated that although the taxpayers are also District ratepayers, some of the taxpayers are already ratepayers in other systems. The rules of engagement are going to require due diligence. The concept suggests planning so projects do not transfer a problem from one community to another. Providing the mayors with a clearer idea of the concept in the broader community becomes an important step to garnering community support.

CEO Ciaccia stated that there needs to be agreement; integrated planning does not have to be the course forward. However, staff thinks it is an opportunity.

Mr. Brown stated that the advanced facilities planning process puts the District in a position for major potential cost savings in the CSO program and benefits to the ratepayers. However, some projects might be deferred for these local grants programs. There is a question of whether the public would want rate relief, want these programs, or a balance of the two.

CEO Ciaccia stated that everyone wants rate relief, but there are further regional burdens to be funded.

Mr. Brown stated that the point he's trying to make is that we are insiders. We understand these issues. Most of these problems are buried. They're hidden. People don't see them, and they don't notice them. They don't even know they exist in many respects. And so, for people to understand, or say this is something I understand, that I'm willing to have some skin in the game, this is a large part of the dialogue that needs to be had.

Financial & Rate Impact Analysis

Jennifer Demmerle, Chief Financial Officer, presented the impact of the Community Infrastructure Grants Program on future rates. She stated that they ran two different rate model scenarios on the rate impacts of the grants program. Some assumptions applied to the scenarios were that the rate models must follow the District's 10-year long term financial plan (LTFP) and meet all financial metrics to maintain an excellent bond rating. For purposes of running these models, we reduced capital program cash flow to 90%. Ms. Demmerle explained that historically, we do not spend 100% of planned cash flow due to bids coming in lower and closing out contracts lower than the award amounts. Because our rates are set for 2015 & 2016, we will use \$5 million per year which will be transferred from the equipment reserve fund. The grant program will not be bond funded; it will be a cash-financed program to avoid more debt. We have \$2 billion in debt for our CSO programs, so we do not want to add more debt with this program.

We want to show the impact on the average quarterly customer bill using an average consumption of 1.875 mcf per quarter and with a fixed recovery charge. As we stand today, in the 10-year LTFP, with CIP at 100%, the average annual rate increase is 9.75% . That's the number we budgeted earlier this year. If we reduce our cash flow to 90%, the average annual

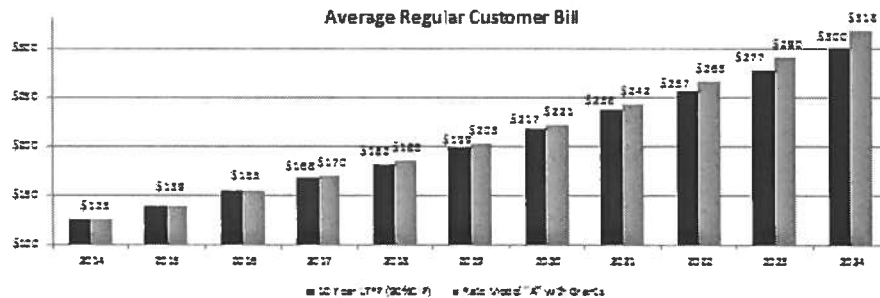
rate increase is projected at 8.94% over the next 10 years. If we don't move forward with the grants program, that is the projected average rate increase.

Mr. Ciaccia reiterated that the District would do a rate study to confirm; that these numbers were a rough internal estimate at this point.

Moving on to the two model scenarios, Ms. Demmerle explained that in the first scenario, Model A, they reduced cash flow to 90% and incorporated \$687 million in savings from advanced facilities planning. We intend to ramp up the program to have the least impact on our rates, starting with \$5 million annually starting in year 2017. There will be \$5 million for grants the first two years, and then go up to \$7.5 million, \$10 million, and gradually increase to \$30 million per year by year 2023. The average annual rate increase in this scenario will be 9.75%, which put us back to the level that we were at originally with 100% of CIP. The average customer quarterly bill gradually increases an additional \$18 per quarter by 2024.

2. Model "A" AFP CIP at 90%

- **Grant Program is ramped starting \$5m in 2017 (\$5m 2018, \$7.5m 2019, \$10m 2020, \$15m 2021, \$20m 2022)**
- **Annual Grant reaches \$30m in 2023**
- **2017-2024 Average Annual Rate Increase is 9.75%**

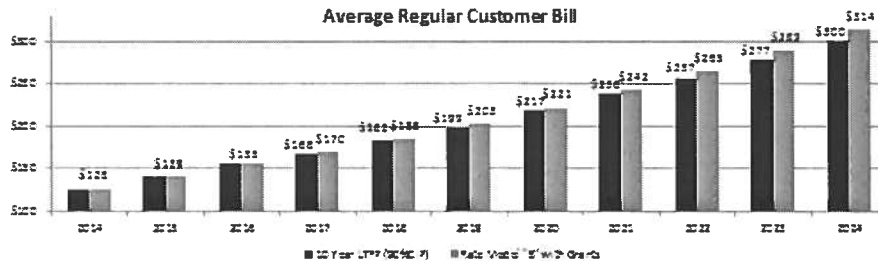


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The other scenario, Model B, included potentially deferrable CSO projects. In this instance, \$266 million of projects are deferred, while ramping the grants program up to \$30 million per year in 2022. Deferring the projects reduced the average annual rate increase to 9.56%, so by 2024, we would see a \$14 per quarter increase per bill instead of \$18 per quarter.

3. Model "B" AFP CIP at 90% with Deferred CSO Projects

- Grant Program is ramped starting **\$5m** in 2017 with **\$5m additional per year** (\$10m 2018, \$15m 2019...)
- **\$266m CSO Projects Deferred 2015-2024**
- Annual Grant reaches **\$30m** in **2022**
- 2017-2024 Average Annual Rate Increase is **9.56%**



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In the summary table, the first two columns show our original 10-year LTFP with no grants program. We are looking at 8.94% rate increase with the average bill around \$230 per quarter. Model A depicts the 90% CIP ramping up to a \$30 million grants program, including that \$687 million in AFP savings, with an average increase of 9.75%, which is slightly under 1% increase to incorporate the program. It adds \$7 per quarter to the average bill. The last column indicates deferring some CSO projects and the impact on rates, with an average rate increase of 9.56%.

Rate Impact Summary

Summary of Rate Models 2017-2024

	10 Year Plan 100% CIP	10 Year Plan 90% CIP	Model "A" 90% CIP + \$30m grants \$687m AFP savings	Model "B" 90% CIP + \$30m grants + deferred \$266m CSO \$687m AFP savings
Period CIP Total	\$ 1,762,146,827	\$ 1,585,932,145	\$ 1,675,948,895	\$ 1,444,316,046
Period Average Rates (%)	9.75%	8.94%	9.75%	9.56%
Period Average Bill	\$ 236.80	\$ 229.67	\$ 236.80	\$ 236.12
Period Total Grants \$30m Maximum	N/A	N/A	\$ 122,500,000	\$ 165,000,000
Grant Achieved Year	N/A	N/A	2023	2022

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CEO Ciaccia interjected that staff will be doing a rate study next year as our rate schedule ends in 2016. Our original plan was to issue an RFP in the summer, but if we do move forward with this type of integrated planning and community infrastructure grants program, we will move the RFP up to April incorporating the scope of this type of program into the rate study. We will come to the Board in mid-2016 for approval of the next rate increases. Based on these numbers, one can see there isn't a dramatic effect on the rates with just the CSO issues. The District has a consent order with big obligations and staff's goal is to keep rate increases below the double digits they had been the last five years.

Mr. Brown stated that there is potential for a decrease in terms of dollars, and the question becomes what happens with those dollars. So, that is the discussion we need to have.

Ms. Dumas stated that people sitting on the Board should give due consideration to rate increases, particularly those who run communities. On the issue of whether or not the increase is dramatic and people wanting a 0% increase, the Board needs to take into consideration who is paying them and their ability to pay given the local economy and what's happening in the job market. It is understood that there is a consent decree, and that something has to happen is clear; however, 9.75% is essentially double digits.

CEO Ciaccia advised that affordability programs have become more of a factor. They were incorporated into the last rate study and will be a big part of the next one.

BOARD OF TRUSTEES

Special Meeting

December 18, 2014

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Mayor Stefanik inquired whether the Cuyahoga County Board of Health has some jurisdiction over septic tanks in the County. CEO Ciaccia replied that the issue will be discussed with the new County Executive. He was heartened by the fact that Cuyahoga County Executive-elect Budish said that taking care of Lake Erie was specifically a priority.

Mayor Stefanik questioned whether there would be a dialogue with the Cuyahoga County Mayors & Managers Association. CEO Ciaccia advised that he had some discussions with Mayor Renda and Mayor Welo, who are the officers of the Suburban Council of Governments (SCOG) and they were both very supportive. He also had some discussions with Mayor Kurtz. All the mayors wanted more details, but staff was not in a position to give them that at that point.

A SCOG meeting is scheduled in January and CEO Ciaccia plans to introduce the concept for discussion purposes. He hopes that the SCOG would put together a small group of mayors that would interact with the District, to have discussions with the decision-makers in the communities, and develop an outreach program.

Ms. Dreyfuss-Wells stated that staff talks regularly to the Board of Health and the County. The issue is that many entities have some regulatory authority, but there is no money available to fix the issues. That is why we are trying to forward with a program that addresses infrastructure issues.

Mayor DeGeeter stated that the prior administration in his community initiated a maintenance fee with Cuyahoga County engineer, and it has been good for sewer work with our Department of Public Works. Since there is already a fee out there, how would it work with the grants program? He stated that such questions are important as the issue is taken to the community.

Mayor Stefanik stated that some cities have been aggressive with addressing I&I issues. He hoped that there would be some kind of equitable consideration for cities that have done their due diligence, as well as for those cities that haven't, in the proposal.

Mr. Brown stated that the concepts are great, but it comes down to who pays and whether there is an appetite to solve long-standing problems that communities own. Some cities have done a good job taking action while others have been sitting on their hands. It is an issue because the District has regulatory authority with the communities. However, they have to strike a balance to get an outcome that is beneficial to the environment without being overly burdensome with a rate structure that is already burdensome.

Mayor Bacci, adding to Mayor Stefanik's comment, stated that the District must recognize before going to the mayors and managers that the communities that have taken action feel there is no equity. They were being good custodians and taking care of infrastructure issues. Those mayors and communities that are being "salty" do not always feel they are appreciated for what they were already doing prior to being told what had to be done.

CEO Ciaccia stated that he appreciated the Board's input on whether the idea is worthy of continued pursuit. Mr. Ciaccia concluded by saying that District staff is not asking the Board to take action today. The only action in the near term is a 30-day comment period for the plan we might put out there. We need to find out if there's community support first.

III. Adjournment

Mr. Brown adjourned the meeting at 12:12 p.m.



Walter O'Malley, Secretary
Board of Trustees
Northeast Ohio Regional Sewer District



Darnell Brown, President
Board of Trustees
Northeast Ohio Regional Sewer District