

MINUTES
NORTHEAST OHIO REGIONAL SEWER DISTRICT
BOARD OF TRUSTEES MEETING
SEPTEMBER 3, 2009

Meeting of the Board of Trustees of the Northeast Ohio Regional Sewer District was called to order at 12:34 p.m. by Darnell Brown.

I. Roll Call

PRESENT: D. Brown
G. Starr
D. DePiero
S. Kelly
T. Longo
W. O'Malley
R. Sulik

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

II. Approval of Minutes

MOTION – Mr. Sulik moved and Mr. O'Malley seconded that the minutes of the August 20, 2009 Board meeting be approved. Without objection, the motion carried unanimously.

III. Public Session

Executive Director Ciaccia advised that no members from the public registered to speak at Public Session.

IV. Executive Director's Report

There was no report from Executive Director Ciaccia.

V. Action Items

There were no Action Items.

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VI. Information Items

1. Combined Sewer Overflow Long Term Control Plan.

Executive Director Ciaccia advised that the content of the meeting will be solely dedicated to the District's Combined Sewer Overflow Long Term Control Plan (hereinafter "CSO LTCP") regarding the ongoing negotiations with the federal and state governments. Staff will provide the Board and public with an historical context of the CSO LTCP. The District has been involved with reducing the amount of its CSOs. Executive Director Ciaccia stated that when the District initially began its program to reduce the amount of CSOs, it was determined that the District was discharging around 9 billion gallons of CSOs, at that time. Executive Director Ciaccia stated that the amount of CSO discharges has been significantly reduced and will be reduced further through the negotiations.

There are occasional wet weather events resulting in bypasses at the wastewater treatment plants (hereinafter "WWTPs") due to the amount of flow. Executive Director Ciaccia advised that the second component of the negotiations is a no feasible alternative as it relates to bypasses at the WWTPs.

Executive Director Ciaccia advised that the third issue being negotiated is the region's affordability or ability to pay for the CSO LTCP. A Financial Capability Assessment (hereinafter "FCA") was completed, and Executive Director Ciaccia informed the Board of the outcome of the FCA at a prior Board meeting.

Executive Director Ciaccia indicated that the fourth item being negotiated is the schedule of the Consent Decree or time allowed for completion of the CSO LTCP.

Executive Director Ciaccia informed the Board that Frank Greenland, Director of Watershed Programs, will present an historical context of the District's involvement with CSOs and District's current status as it pertains to reducing CSOs. The Board will then adjourn into Executive Session with the negotiating team to discuss the District's proposals, the government's proposal, a proposed response to the government, financial impacts of the proposals, legal framework and status, and the strategies for advancing to a resolution. Executive Director Ciaccia advised that the District is scheduled to meet with the government on September 24th. Given the pending litigation and sensitive nature of the issues to be discussed, Executive Director Ciaccia recommended that these matters be discussed in an Executive Session.

Executive Director Ciaccia turned discussion over to Mr. Greenland.

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Mr. Greenland advised that the presentation will include discussion regarding the District's CSO responsibilities, the CSO LTCP, the CSO LTCP permitting and approval process as well as a timeline for the program. Discussions will also include some of the history of the District's past management of CSOs since 1972.

At the District's inception in 1972, the District took on three key responsibilities including the operations and maintenance of the Easterly, Southerly and Westerly WWTPs, combined and separate interceptors, and CSOs across the service area. Mr. Greenland stated that each of the WWTPs have substantial combined tributaries, and during wet weather periods, significant flows come into those WWTPs. When the WWTPs have reached full treatment capacity, excess flow is bypassed into Lake Erie or the Cuyahoga River.

Mr. Greenland referred to graphic depicting the District's service area. The areas shown in yellow indicated the combined sewer area having only one pipe that collects both stormwater and wastewater. The areas shown in brown are served by separate storm and sanitary systems. The storm sewer collects street runoff which travels to the nearest stream or lake. The sanitary sewer routes wastewater to the District for treatment.

Mr. Greenland referred to a visual image depicting the prior CSO located at the top of the Mill Creek Falls, and the water spilling over the waterfall was actually CSOs, and this CSO was eliminated through construction of the Mill Creek Interceptor (hereinafter "MCI"). Mr. Greenland advised that the District took a large step forward with CSO elimination in the Mill Creek basin.

Mr. Greenland referred to slide showing a combined storm and sanitary sewer structure which was constructed of brick and resembled an egg shape. This particular photo image was taken during dry weather conditions. The flow was indicated by a green arrow and was in route to the WWTP for treatment. During wet weather conditions, street and roof runoff gets into the system and runoff flow was depicted by a red arrow. The combined sewer flow is still being sent to the WWTP for treatment, but as flow rises to the level of the weir or elevation of the overflow pipe, excess flow is discharged into the environment.

Mayor Starr inquired if there are overflows during dry weather conditions. Mr. Greenland replied that overflows during dry weather conditions are prohibited, and that the District's sewer system operation crew work daily to clean and inspect those interceptors and infrastructures. However, dry weather CSOs could potentially occur if litter or debris is blocking the systems.

Mayor Starr inquired if there are CSOs in tributaries other than Cuyahoga River. Mr. Greenland presented the Board with slide depicting the District's CSO area. The red dots

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represented the locations where CSO discharges occur, and all of the urban streams within the urban service area receive at least one discharge. Mill Creek, Doan Brook, Big Creek, Cuyahoga River and the lakefront get multiple discharges. The 126 CSOs are spread uniformly across the combined sewer service area.

Mr. Greenland advised that the District has CSO regulatory requirements through the Ohio Environmental Protection Agency (hereinafter "OEPA") which is similar to a WWTP permit, and that the District must follow those regulatory guidelines. A federal policy enacted in 1994 established nine minimum control requirements including cleaning and inspecting sewer systems, proper operation and maintenance programs, proper staffing of maintenance programs, and prevention of wet- and dry-weather CSO discharges. According to Mr. Greenland, the District is in compliance with those requirements. The District is also required to develop and implement a CSO LTCP, and the MCT is an example of a CSO LTCP project. Mr. Greenland advised that the District is required to look into its bypasses and develop alternative methods in order to reduce or treat those bypasses.

Prior to implementation of the 1994 CSO policy, the District utilized methods of controlling and reducing CSOs. For example, the automated regulators were installed, which Mr. Greenland described as inflatable dams or hydraulically operated gates used to store combined sewage in some of the larger pipes. Automated regulators use excess capacity in existing sewers and are used for storage similar to the Mill Creek Tunnel (hereinafter "MCT"). According to Mr. Greenland, the automated regulators constructed in the 1970s and 1980s dramatically reduced CSO discharges and there were 29 locations within the service area. Mr. Greenland explained that the District was one of the leading agencies in implementing this technology nationwide.

Mr. Greenland referred to a slide depicting the Westerly CSO Treatment Facility (hereinafter "CSOTF"), which is adjacent to the Westerly WWTP and became operational in 1985. The District built a Northwest Interceptor and used automated regulators to control CSOs in the Westerly region. The overflows located at Edgewater State Park and West 117th Street flowed frequently prior to the construction of the Westerly CSOTF and Northwest automated regulators. Mr. Greenland stated that those overflows do not typically overflow in a year and that it would take a dramatic rainstorm event to activate those CSOs.

Mr. Greenland explained that the Northwest Inceptor was constructed in the 1970s and 1980s along the lakefront to reduce CSOs in the Westerly district. The Southwest interceptor, and the Heights Hilltop interceptor, located in the east, was constructed at the boundary of the combined and separate sewer areas. Prior to construction of those interceptors, all of the separate sanitary sewage from the suburban communities traveled into Cleveland's combined sewer system for treatment. Mr. Greenland stated that the

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District built those interceptor systems in an effort to alleviate capacity problems in and around those separate sewer systems, and that the region dually benefitted due to the reduction of CSO discharges.

Mayor Starr commented that "some of us operated our own sewage treatment plants" including the cities of Strongsville, Berea, Brook Park and Middleburg Heights, and that not all of the suburban flow traveled to Cleveland. Mr. Greenland replied that some smaller sewage treatment plants within the service area are owned, operated and maintained by local communities.

In the late 1990s and early 2000s, the District constructed 10 Floatable Control Facilities (hereinafter "FCF"). Anything flushed down the toilet or sent through sink drains including trash, litter, paper and plastics can enter into wastewater streams, overflow streams and waterways. These are screen or netting facilities used to capture the floatable debris into the nets and preventing it from being discharged into the waterways. The FCFs were constructed in highly visible areas or large CSOs. Mr. Greenland referred to slide depicting the FCF at Kingsbury Run and East 55th Street. Mr. Greenland stated that those 10 facilities "do a great job."

Mr. Greenland stated that at least 9 billion gallons of CSOs were discharged annually during the 1970s, and subsequent to investing \$600 million in infrastructure, the District decreased its CSO discharge by almost 3 billion gallons. Mr. Greenland stated that this is significant for the reason that most of this work was completed before a CSO policy or the proposed CSO LTCP, which demonstrates the District's commitment to reducing CSOs.

In addition to the 9 minimum controls, the OEPA is requiring implementation of a CSO LTCP. Mr. Greenland referred to slide depicting the timeframe wherein the District conducted its facilities planning studies which resulted in the recommended CSO LTCP for the Southerly, Westerly, Easterly and Mill Creek basins. The District began its study at Mill Creek in 1995 and ended at the Easterly and Southerly districts in 2002. Following the submittal of the last facilities' plan, the District provided the OEPA with its recommended CSO LTCP in 2002.

The District took a hard look at the cost benefits of controlling its CSOs since there are enormous costs associated with controlling CSOs. Controlling CSOs provides certain benefits to the receiving water including a reduction of bacteria in the waterways. Through the District's studies, the proposed a level of control was to have no more than 4 overflows per year, at each CSO point. Mr. Greenland stated that beyond that level of control, the District observed little to no environmental benefits of the water quality and even though the costs were still significant. Mr. Greenland advised that the District's proposed LTCP provides a high level of control, with only zero, one or two overflows per

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year at many locations. Mr. Greenland stated that the District's proposed LTCP captures and treats 97% of the wet-weather combined sewer area flows when it rains.

Mayor Starr inquired if under the District's proposed CSO LTCP, each of the 126 CSO areas are allowed up to 4 overflows per year. Mr. Greenland replied that at each of the 126 CSO points in the waterways, there will be no more than 4 overflows in a typical year. Mayor Starr inquired if it was 4 times the 126 CSO sites and whether it could be less than 4 overflows per year. Mr. Greenland clarified that the District proposed no more than 4 overflows at any given CSO location per year. Executive Director Ciaccia added that the District assumed many of those CSO sites would discharge either zero or one time per year. Mr. Greenland indicated that proposing up to 4 overflows per year will dramatically reduce the amount of CSOs being discharged into the waterways since some of the existing CSO locations currently discharge 40, 50, 60 and 80 times each year.

Mayor DePiero inquired if no more than 4 overflows is the District's goal. Mr. Greenland affirmed. Executive Director Ciaccia clarified that the District proposed no more than 4 overflows per year in the CSO LTCP initially presented to the government.

Mayor DePiero inquired if currently the District experiences 40 to 50 overflows per year. Mr. Greenland affirmed and stated that "the worst are in the 70 to 80 range" and that the amount of overflows depends upon the sewer capacity in any given area. It is not uncommon to experience 30, 40 or 50 overflows per year, and some areas have less CSO discharges. The District has proposed having no more than 4 overflows per year at each CSO site.

Mr. Greenland referred to a graphic outlining the recommended CSO LTCP projects, which are largely tunnel storage projects similar to the MCT project. In the Easterly district this includes Euclid Beach down Dugway and Doan Brooks along the shoreline and into the downtown Cleveland area. The Southerly district includes the MCT, which is under construction. Tunnels along the east side of the Cuyahoga River and Big Creek will capture the CSOs in that vicinity. One tunnel in the Westerly district will capture CSO discharges into the Cuyahoga River and bring the flow to the Westerly WWTP. Mr. Greenland stated that storage tunnel projects will be the "guts of the program" and there will be some sewer systems or pump station modification projects, enlargement of a pump station project, and small surface storage projects incorporated into the CSO LTCP.

The District intends updating the CSOTF adjacent to the Westerly WWTP. In 2007, the recommended CSO LTCP was estimated to cost \$2.3 billion, and that the District recommended WWTPs bypass controls at the Southerly and Easterly WWTPs to cost approximately \$17 million.

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Mr. Greenland advised that the OEPA approved the Mill Creek plan in 1997, and the Westerly plan, a few years later. The District has been actively constructing the MCT project. Mr. Greenland referred to a slide depicting a 20-foot finished diameter tunnel. The Euclid Creek Tunnel (hereinafter "ECT") and Dugway Storage Tunnel (hereinafter "DST") are anticipated to be massive projects each proposed to be a 24-foot diameter tunnel.

Mr. Greenland advised that MCT-1 and MCT-2 are completed and taking flow and that MCT-3 is expected to be completed in 2011. An ancillary project that will feed some flow into the MCT will be completed in 2012; therefore, the MCT project is anticipated to be completed in 2012. Of the 500 million gallons of CSO that the District intends to control, an estimated 300 to 400 million gallons of flow are presently being controlled.

Mr. Greenland advised that the CSO LTCP was submitted to the EPA and that the District completed the first two legs of the MCT project. Early action projects at Easterly, Westerly and Southerly have been completed and those were relatively modest projects that provided good significant CSO reductions. The ECT and Easterly Tunnel Dewatering Pump Station (hereinafter "ETDPS") are in the design phase, and the District is getting ready to recommend a design award to the Board. The DST will be the next major element of the CSO LTCP.

Mr. Greenland stated that efforts over the past few years have provided significant gains for the District. He referred to graph depicting the investments with a red bar against the pre-CSO initial investments. The District implemented about \$850 million worth of projects and investments which nearly halved the 9 billion gallons of CSO discharge per year, however, the District still must to address the remaining 4.7 billion gallons of CSOs. Mr. Greenland reiterated that the District proposes a high level of control and intends capturing 97% of its combined sewer wet-weather flows while dramatically reducing existing volumes across the service areas.

Mr. Greenland moved discussion to the CSO LTCP approval process including alternatives for CSO control, level of CSO control, WWTP bypass alternatives, program implementation schedule and the Consent Decree. Mr. Greenland referred to a graph depicting a chart of the history of the approval process. The first three bars represented the District's submittals of its facilities plans to the OEPA including Mill Creek in 1997, Westerly in 1999, and Southerly and Easterly in 2002.

Mr. Greenland advised that USEPA Region 5 (hereinafter "Region 5") entered the process in 2003. Region 5 conducted 9 minimum controls inspections, interviewed District staff and toured District facilities. Region 5 was primarily interested in the District's maintenance program and methods used in order to remain in compliance with

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the 9 minimum control activities. In 2003, the District presented its CSO LTCP for the first time to Region 5 staff.

District staff met with OEPA on numerous occasions in 2004 in an effort to move forward with the approval process for its CSO LTCP. The District was desirous of moving forward with its ECT project and starting the CSO LTCP program, however, this was unsuccessful and the District's proposed schedule heavily impacted this outcome.

Under Section 308 of the *Clean Water Act*, the USEPA is authorized to request reasonable amounts of information for compliance purposes. In 2004, the District received §308 requests from USEPA requesting bacteria sampling results, additional CSO sampling and more information as it pertains to the CSO LTCP. The District then held its first meeting with Region 5 and the United States Department of Justice (hereinafter "USDOJ") regarding the CSO LTCP.

In 2005, the USEPA requested that the District to include as an early action project, the upgrade of the Westerly CSOTF. The District agreed and began designing that project, however, it did not receive a Permit to Install (hereinafter "PTI") from the OEPA which led to numerous discussions, legal activities, and ultimately stalling the project.

In 2005, the District began meeting regularly with the USEPA, OEPA, USDOJ and the State of Ohio Attorney General's Office (hereinafter "OAG") to discuss the CSO LTCP approval elements. Meanwhile, the District received more §308 requests from the USEPA requesting additional CSO sampling and questions pertaining to economic issues and affordability of the region.

Negotiations with the government continued through 2006, and the District submitted additional information which was examined by the government leading to follow-up discussions and additional requests for information.

Negotiations with the government continued through 2007 and there was litigation over one of the §308 orders related to bacteriological sampling, which was eventually settled. The District conducted limited CSO sampling and purchased a QPCR, an instrument related to rapid testing methods for bacteria, which is being utilized to obtain quicker test results at the beaches.

In 2008, many discussions were held regarding the level of control, affordability, economics and bypasses, and Mr. Greenland advised that these discussions were not unique to the District. He also indicated that significant progress was made by allowing the ECT, ETDPS and DST projects to move forward. Mr. Greenland referred to a graphic showing the future cost benefit curve for the District's upcoming investments, and he advised that the ECT, ETDPS and DST will be an additional \$800 million

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investment. Mr. Greenland advised that the District's top priority is to significantly reduce CSOs since there is public swimming at Euclid Beach and the Easterly district has the most annual CSOs volume.

Mr. Greenland advised that the key remaining issues include the potential for higher levels of CSO control, costs associated with higher levels of control, bypasses, affordability and the schedule to complete the CSO LTCP. The negotiations will conclude with a Consent Decree which is an agreement between all of the parties.

Mr. Greenland concluded his presentation and advised the Board that he would be happy to entertain any of their questions.

Mayor Starr inquired if the 97% capture goal was required by the EPA. Mr. Greenland stated "no" and that there are different targets established by the CSO policy, and one of those targets is 85% capture. Mr. Brown requested clarification. Mr. Greenland advised that there is a presumption approach that communities can take, and targets include 85% capture of wet weather flow, or no more than 4 to 6 overflows per year. There is also a demonstration approach which focuses on water quality, and if an agency can presume compliance with water quality standards under those presumptive level targets, then the USEPA can approve their plan. Mr. Greenland stated that the District's CSO LTCP primarily focused on water quality, cost benefit, levels of control and 97% capture, or no more than 4 overflows in a particular year. The District went beyond the minimum target of 85% capture.

Mayor Starr inquired why the District chose 97% capture over the USEPA's target goal of 85%. If the District is "costing this out over a 20-30 year period, why not drop back to 85% and spread those costs over as reduction of rates to our consumers?" Mr. Greenland advised that from a water quality perspective, this was not prudent. The District was initially at 70% to 80% levels of control and having 50, 60, and sometimes 80 overflows. The District researched 85% capture and it was obviously a lesser level of control at a reduced cost, but having 40 to 50 overflows per year, from water quality standpoint was not appropriate particularly near a beach.

Mr. Brown requested clarification as to whether it is 4 to 6 overflows per year or 85% capture. Mr. Greenland placed emphasis on the word "or" and explained that there are presumption level targets and that 85% is one of those targets while 4 to 6 overflows is another. The District examined various targets when formulating its facilities plan including 85%, 4, 1, and zero overflows per year. And after comparing the costs associated with 4 overflows per year with the water quality benefits, the District determined that this level of control will provide the maximum water quality benefits at a reasonable cost.

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Executive Director Ciaccia suggested that these types of discussions be held in Executive Session given the sensitive nature of the discussion.

Ms. Kelly inquired about the District's current amount of capture, and she questioned if the District can still have potentially 504 overflows at 97% capture. Mr. Greenland advised that the District "is in the 80s approaching the 90s" and has made some significant improvements including the MCT. Mr. Greenland stressed that there are some very significant rain events that can occur in a typical year and the District will capture significant portions of those events. Many of the overflows are predicted to have zero, 1 or 2 overflows per year, but the District cannot exceed 4 overflows. Executive Director Ciaccia added that all of the overflows are not the same volume.

Ms. Kelly inquired how many overflows the District had in 2008. Mr. Greenland indicated that it depends on the location, but the District experiences anywhere from zero to 80 overflows. The District has tracked 2009 to be drier than most years and the worst CSO locations may have experienced less overflows. Executive Director Ciaccia advised that staff will provide the Board with the 2008 data since this information was not readily available at the meeting.

Mr. Brown commented that the changing rainfall patterns are a significant contributor and must be taken into consideration since this region is experiencing more 100-year storms than 10 or 15 years prior. Mr. Brown inquired about the District's expectations versus what is actually going to be needed as it pertains to the necessary infrastructure. Mr. Greenland cited the example of the ECT project. He stated that the District agreed to upsize the consolidation conduits. There are two components to CSOs including rate and volume. Tunnels store the volume and have a certain sized diameter, length and set volume. Consolidation conduits take CSOs to the tunnel. The District agreed to upsize the consolidation conduits on the ECT project in an effort to capture the largest storms that occur in a typical year, which provides flexibility to transfer flow to the tunnel during frequent storm events. According to Mr. Greenland, we have flexibility at a reasonable cost to deal with the volume issues. Mr. Greenland speculated that things will change over time as communities rebuild and redevelop, there may be opportunities to employ green infrastructure across the service area to manage more frequent storm events.

Mayor Longo commented that suburban sprawl and build up of the outer ring suburbs has impacted the separate sewer systems. He inquired whether the EPA has gotten involved with the flooding due to outward migration since the water is being funneled quicker, captured and causing flooding and overflows. Mr. Greenland advised that attention is being given to that situation. Mayor Longo commented that this issue is not being discussed by the USEPA, and Mr. Greenland advised that those discussions are starting to take place. Mr. Greenland advised that water quality and stormwater permitting outreach measures were introduced to the communities through Phase II, and most of the

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member communities have obtained their Phase II permit. Furthermore, staff attended a meeting on the Capacity Management Operation and Maintenance (hereinafter "CMOM") initiative, which focused primarily on sanitary overflows and effective sanitary sewer maintenance programs, as a result there is additional outreach in that area.

Mr. Brown commented that Phase II addresses disturbing the land acreage and pre- and post-construction minimum controls that have to be in place. Mr. Brown stated that "you can't impact it, so you add more to it, and if anything, you take away." Mr. Greenland stated that the District is examining construction site controls and conducting pre- and post-development analyses to ensure that we are not aggravating problems. Furthermore, the illicit discharge requirements under Phase II are water quality driven.

Executive Director Ciaccia stated that there are separate discussions being held with the Cuyahoga County Engineer, Region 5 of the USEPA. This region's ability to afford the CSO LTCP is a significant issue being discussed during the District's negotiations with the government, and those local costs have to be factored into that discussion. Executive Director Ciaccia advised the Board that staff intends to discuss these issues in greater detail during Executive Session.

There were no further questions from the Board for Mr. Greenland.

VII. Open Session

There were no items for discussion.

VIII. Public Session (any subject matter)

No members from the public registered to speak at Public Session.

IX. Executive Session

MOTION - Mayor Longo moved to enter into Executive Session to discuss the CSO LTCP Consent Order negotiations and related litigation matters, and to specifically designate all matters discussed in Executive Session to be protected from public disclosure in accordance with Ohio Revised Code §121.22(g)(3) and attorney-client privilege. A roll call vote was taken and without objection, the motion carried unanimously. Mayor Starr was not present for the roll call.

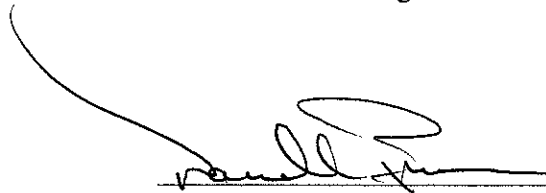
The Board met in Executive Session from 1:27 p.m. to 2:53 p.m.

X. Adjournment

MOTION – Mr. Brown stated business having been concluded, he would entertain a motion to adjourn. Mr. Sulik moved and Mayor DePiero seconded the motion to adjourn at 2:55 p.m. Without objection, the motion carried unanimously.



Dean E. DePiero, Secretary
Board of Trustees
Northeast Ohio Regional Sewer District



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