MINUTES NORTHEAST OHIO REGIONAL SEWER DISTRICT BOARD OF TRUSTEES MEETING JULY 18, 2013

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

R. Sulik

T. DeGeeter W. O'Malley

S. Kelly

ABSENT:

J. Bacci

G. Starr

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

II. Approval of Minutes

MOTION – Mr. O'Malley moved and Mr. Sulik seconded that the minutes of the June 20, 2013 Board meeting be approved. Without objection, the motion carried unanimously.

III. Election and Installation of Officers

Mr. Brown asked Mr. Sulik, Chairman of the Nominating Committee, to report on the nominees for Board officers. Mr. Sulik advised that the committee nominated Darnell Brown as President, Ronald Sulik as Vice President, and Sheila Kelly as Secretary of the Board of Trustees for a one year term beginning July 2013 through June 2014.

MOTION – Mr. Sulik moved and Mr. O'Malley seconded to appoint Darnell Brown as President of the Board of Trustees; Ronald Sulik as Vice President of the Board of Trustees; and Sheila Kelly as Secretary of the Board of Trustees for a one year term beginning July 2013 through June 2014. Without objection, the motion carried unanimously.

Marlene Sundheimer, Director of Law, administered the Oath of Office to Mr. Brown, Mr. Sulik and Ms. Kelly.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 2 of 27

Board of Trustees Elected Officers 2013 – 2014

Mr. Darnell Brown, President Mr. Ronald Sulik, Vice President Ms. Sheila Kelly, Secretary

Mr. Brown thanked Mr. Sulik and he advised that he looks forward to the Board's continued service. A lot of good work has been accomplished including policies and oversight by this Board. Mr. Brown thanked the District for their continued support and confidence in the Board's ability to continue providing leadership of this organization. Mr. Brown looks forward to continued work with the Board and District staff as well as positioning this organization for greater things going forward. Mr. Brown indicated that he wanted to take this moment to reflect on the important work being accomplished by this organization. Mr. Brown again thanked the Board and staff for their support, teamwork and moving this organization forward.

IV. Public Session

Executive Director Ciaccia advised that Paul Edmiston, PhD registered to address the Board during Public Session regarding Agenda Item #1 the Easterly Secondary System Improvements (ESSI) project, which is a consent order project.

Mr. Edmiston read aloud from a written statement which he provided to the Board (attached hereto and incorporated herein as Exhibit "A").

Mr. Brown commented that the District underwent many years of engagement with the United States Environmental Protection Agency (hereinafter "US EPA") discussing the issues presented by Mr. Edmiston. Although there are some "green for gray" components incorporated into the consent decree, this was not easily accomplished. The District had to convince the US EPA that it could reduce combined sewer overflows (hereinafter "CSOs") into the environment by using green infrastructure. The increased opportunity for green infrastructure does exist so long as the District is able to demonstrate to the governments that it can successfully capture CSOs.

Mr. Brown advised that he met with representatives from the US EPA while attending the Water Environment Federation (hereinafter "WEF") seminar. Those discussions included the great promises of green infrastructure and the District was commended for being "pioneers" in moving this initiative forward. Mr. Brown indicated that the work completed by the District has boded well for this organization.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 3 of 27

Mr. Brown advised that District representatives met with the Executive Director of the Metropolitan Sewer District of Greater Cincinnati. Mr. Brown was aware of this agency's green for gray infrastructure proposals; however, its consent decree has not yet been finalized. Mr. Brown agrees that there is a lot of merit in their plans. He noted that the District must complete its green for gray infrastructure within the first eight years of its 25 year consent decree.

Mr. Brown advised that the District shared in Mr. Edmiston's concerns. The District has a plan to demonstrate green infrastructure, and if successful, the District can plan to incorporate more green for gray going forward.

Mr. Brown suggested that the District will formally provide Mr. Edmiston with an informed response to the issues he raised today. Mr. Brown indicated that he would like to review the District's response.

Executive Director Ciaccia advised that the District is in receipt of copy of Mr. Edmiston's correspondence and that the District is preparing a formal response and that the District will copy the Board members on its response.

Executive Director Ciaccia met with the Executive Director of the Milwaukee Metropolitan Sewerage District at a recent NACWA (National Association of Clean Water Agencies) meeting and he indicated that Milwaukee does not plan abandoning its underground tunnels and will provide the District with a letter confirming that position. Executive Director Ciaccia advised him that there was no need to provide said documentation at this time.

Mr. Brown concluded by stating that he will await the formal response and the Board will govern itself accordingly.

V. Executive Director's Report

Executive Director Ciaccia moved to the first report item and he advised that after settling the KMM&K lawsuit on the Mill Creek Tunnel 3 (hereinafter "MCT-3) project, a party previously with Mole Contractors Incorporated (hereinafter "Mole"), a joint venture partner on the KMM&K team, filed a claim in federal court alleging that the District submitted to the Ohio Water Development Authority (hereinafter "OWDA") and the Water Pollution Control Loan Fund (hereinafter "WPCLF") program improper reimbursement requests for work KMM&K performed on MCT-3 contract in violation of the False Claims Act (hereinafter "FCA"). The FCA permits private individuals who possess certain non-public information with a right to sue on behalf of the United States Government for alleged violations of the FCA and to receive monetary bounty from any

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 4 of 27

recovery. In essence, they can file a lawsuit and if there is any money to be recovered, they get a portion of that money.

The former partner of Mole asserted that "NEORSD, on several occasions, sought reimbursement of costs incurred and paid to KMM&K on the MCT-3 contract which were otherwise not eligible costs under the applicable Ohio Water Development Authority loan." The District rejected those assertions and Executive Director Ciaccia advised that the District conducted a detailed analysis of the loan applications and did not find anything that would be considered improper.

Executive Director Ciaccia advised that the FCA requires the United States Government to review the allegations that were asserted in the action and permits it to directly intervene and assume the prosecution of the complaint when it is the best interest of the United States Government. Executive Director Ciaccia was happy to report that the United States Government reviewed the claim and has decided not to intervene and has agreed that there were no improper applications filed by the District.

Executive Director Ciaccia explained that this means the individual formerly from Mole can prosecute his claim through the federal courts without assistance from the United States Government. No determination has been made at this point and the individual has 120 days from the time of this determination to file his claim. Executive Director Ciaccia advised that staff will keep the Board apprised of the outcome of this situation.

Executive Director Ciaccia moved to the next report item and he advised that the Audit Committee meeting scheduled for today was canceled due to the lack of a quorum. The committee planned to discuss its proposed Charter, which was listed as an information item for discussion at today's meeting.

Executive Director Ciaccia moved to the next report item and he advised that District representatives attended the NACWA meeting in Cincinnati. NACWA's primary focus is on federal advocacy for the entire industry. They brief us on regulation, litigation and legislation matters. Executive Director Ciaccia was honored to be elected as President of NACWA for a one year term and the District Board congratulated Executive Director Ciaccia on his appointment.

Executive Director Ciaccia stated that it was a good meeting and he had the opportunity to speak with NACWA's Executive Director, Ken Kirk, wherein he advised that NACWA representatives are planning to come to Cleveland in August or September to address the Board. Mr. Kirk has been with NACWA for over 35 years and he announced his retirement in July 2015. This gives the NACWA Board time to deliberate on his replacement.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 5 of 27

Executive Director Ciaccia noted that organizations such as NACWA, which focuses on federal advocacy and WEF, which concentrates on education, are very important to this organization.

Executive Director Ciaccia, Constance Haqq, Darnella Robertson and Kyle Dreyfuss-Wells attended a meeting in Columbus with a Small Business Advisory Council, which is a component of Governor Kasich's "Common Sense" initiative. Executive Director Ciaccia noted that said advisory council was comprised of nine individuals most of which attended. Initially, the District was unsure as to the purpose of said meeting. Executive Director Ciaccia speculated that maybe the advisory council wanted to discuss the Stormwater Management Program (hereinafter "SMP") since one of the council members is a local business owner who is not pleased with the District's SMP.

Also in attendance at this meeting were members of the Citizen Reform Association of Cuyahoga County (hereinafter "CRACC"). CRACC's Executive Director, Thomas Kelly, was first on the agenda and he discussed an array of issues as it relates to the District including corruption at the District, that the District is never audited, the governance is not representative, and that the CSO Consent Order was a bad deal. Executive Director Ciaccia then had an opportunity to address Mr. Kelly's comments to the committee and respond to all the points raised by Mr. Kelly, some of which were very inaccurate.

The focus of the Council was on entities formed under Ohio Revised Code (hereinafter "ORC") §6119 and oversight of those districts especially as it relates to rate setting. One Council member related to Mr. Kelly and CRACC that they need to take those grievances related to environmental regulations to the EPA and not place them on the District.

One member was interested in the District's authority as it pertains to rate setting and they believe there should be further oversight other than the Board such as the Public Utilities Commission of Ohio (hereinafter "PUCO"). Executive Director Ciaccia did not argue this point.

Executive Director Ciaccia advised that another issue discussed was the composition of ORC §6119 boards. There was concern that since Board members are not elected to their positions, they are not directly accountable to the public. Executive Director Ciaccia explained the relationship of the District Board and their respective appointing authorizes all of which are elected officials.

Executive Director Ciaccia noted that the committee was very respectful to the District and that he looks forward to working with them in the future. The committee can be helpful to the District with respect to some of the regulatory issues. The District has its

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 6 of 27

own regulatory issues and Executive Director Ciaccia stated that the businesses and District have this in common. The District is not opposed to all regulatory issues but they are piling up and there is common cause that can be reached other than just this rate setting issue as it relates to ORC §6119 and ORC §6117.

Executive Director Ciaccia moved to the next report item and he advised that the District did not bring the resolutions regarding rental space to the Board for consideration. The District is re-evaluating its proposal. The District is considering alternative options such as renovating the old incineration facility that will be decommissioned at the Southerly Wastewater Treatment Plant (hereinafter "WWTP") once the Renewable Energy Facility (hereinafter "REF") goes online.

Executive Director Ciaccia concluded his report by advising the Board that student assistants attended today's meeting. The Board applauded the students.

Executive Director Ciaccia advised that one student was prepared to address the Board.

Alexandra Arlesic advised that she recently graduated from John Carroll University with a Bachelor's of Science in Business Administration. She majored in Business Management with a concentration in Human Resources. She began working for the District in April as a co-op student to revamp the current orientation and on-boarding programs. Ms. Arlesic indicated that her time thus far has been very beneficial.

Ms. Arlesic provided the Board with her personal background. She graduated from John Carroll University one year earlier than most students her age. She stated that the average four years of college for most students is for "padding up their resume and have more time to take advantage of internships and co-ops to load up on experience." Ms. Arlesic indicated that she personally has had "countless customer service jobs and one HR internship at the Rock and Roll Hall of Fame and Museum.

Ms. Arlesic stated that as graduation drew near, she "knew that she would never find a position in human resources without more experience." When offered the position at the District, Ms. Arlesic was elated not only because of the valuable experience she was gaining but also because she was going to work for "the Northeast Ohio Regional Sewer District."

In her efforts to take hold of the orientation and on-boarding programs, Ms. Arlesic interviewed employees throughout the District, Regional Transit Authority, Cleveland Metroparks and Cuyahoga County Public Library. This opportunity opened many doors for networking, relationships and leadership building.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 7 of 27

Ms. Arlesic stated that, "once my assignment ends in December, the possibilities where HR will take me are endless and no matter where I go I will be able to take all of the tools the District has equipped me with."

Ms. Arlesic stated that she developed her hard skills such as conducting interviews, delegate and how to be a project manager.

Ms. Arlesic indicated that she also improved upon her soft skills. She learned more about herself; the types of environments she would prefer to work in; people who she works best with; and what motivates her as well as others to come to work every day and truly enjoy the work they do.

Ms. Arlesic participated in a student project on Friday. All students were bused to Ohio City and helped other organizations beautify the surrounding areas. Ms. Arlesic and her group worked along Lorain Avenue weeding and picking up trash. Many people walking by thanked the students on their duties. Ms. Arlesic stated that Lolly the Trolley was stopped at the corner by St. Ignatius High School and the woman giving the tour reached out and asked the students where they were from. The students proudly stated "the District." The Trolley spectators admired the selfless acts of the students for taking care of the community.

Ms. Arlesic concluded by thanking the Board for allowing the students the opportunity to gain valuable experience towards their career goals.

VI. Action Items

Authorization to Advertise

Resolution No. 143-13

Easterly Secondary System Improvements (ESSI) project. Engineer's opinion of probable construction cost: \$82,500,000.00.

Resolution No. 167-13

One (1) year requirement contract for the purchase of final clarifier polymer for use at the Southerly Wastewater Treatment Plant. Anticipated expenditure: \$185,000.00.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 8 of 27

Resolution No. 168-13

Two (2) year requirement contract for the purchase of wholesale natural gas for use at all Wastewater Treatment Plants, the George J. McMonagle Building and the Environmental and Maintenance Services Center. Anticipated expenditure: \$7,070,000.00.

MOTION – Mr. O'Malley moved and Mayor DeGeeter seconded to adopt Resolution Nos. 143-13, 167-13 and 168-13. After discussion and without objection, the motion carried unanimously.

Mr. Sulik requested further explanation on Resolution No. 143-13.

Executive Director Ciaccia reminded the Board that Resolution No. 143-13 for the Easterly Secondary System Improvements (ESSI) project was held at the last Board meeting. There was much discussion regarding the business opportunity program and the goals set for Minority Business Enterprise (hereinafter "MBE") and Women's Business Enterprise (hereinafter "WBE") subcontracting. The ESSI is a consent order project and therefore the District must proceed accordingly.

Executive Director Ciaccia moved discussion to the disparity study conducted by the District. This study is legally important in that its findings support the District's small business program. The disparity study had to define what the availability was in each category and in this instance, construction.

In an effort to capture as many companies as possible, the District widened its markets for the disparity study to include the areas reached for goods and services. Executive Director Ciaccia explained that in the District's type of work the availability in the area of construction for MBEs was 5.54% and WBEs was 16.77% with a combined maximum of 22.31%.

Executive Director Ciaccia advised that there was much discussion at the previous Board meeting as it relates to the floor and ceiling for goal setting and he advised that these percentages from the Disparity Study would be the ceiling from a goal setting standpoint. Executive Director Ciaccia advised that when the District establishes its project goals, it is the "floor" and the contractor is expected to reach or exceed that goal on a particular project. Executive Director Ciaccia noted that the District is doing fairly well by reaching the "floor" or better.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 9 of 27

These are maximum defensible goals that the District can set on construction projects. Executive Director Ciaccia stated that unlike most entities in our region, the District does not arbitrarily establish 15% goals on every project. The District recognizes each project as unique with varying opportunites. The Individual projects are broken down to determine what subcontracting opportunities can be accomplished by each trade. Executive Director Ciaccia explained that it is an elaborate process and the design consultants are charged to assist the District with this analysis.

Executive Director Ciaccia referred to a slide listing subcontracting opportunities. For the purpose of today's discussion he concentrated on the electrical components of the project. For the ESSI project, there is an estimated \$5 million for electrical work, which makes up 6.49% of the contract. The District identified the number of MBE firms that are registered with the District for electrical work. Executive Director Ciaccia noted that there are more contractors on the registry; however, the six contractors listed have shown up on District jobs. The District can therefore comfortably assume that six contractors will be available. Some certified companies are very small and some may only be suppliers. From a goal setting perspective, the District takes into consideration those companies which have previously performed work on District projects.

With respect to the ESSI project, the District estimated that \$2 million of the \$5 million in electrical work can be subcontracted out. However, this goal for this line item is contingent upon the prime bidder. For example, if the prime bidder has electrical capabilities, they are more likely to perform the electrical work from a profitability standpoint. Executive Director Ciaccia indicated that the District exercises a reasonable approach and breaks down contract for goal setting purposes. He noted that for the ESSI project, the engineers and consultants identified that \$2 million of the electrical work could potentially be subcontracted out, which is 2.6% of the total contract.

Executive Director Ciaccia explained that the District wanted to include small business enterprises (hereinafter "SBEs") for this particular job. Three SBEs were identified and the amount identified was about \$1 million, which is 1.3% of the contract. The total subcontracting goals for the electrical component of the ESSI project was 3.9%.

Executive Director Ciaccia advised that the District currently has \$475 million of work in progress which is dollars yet to be spent on a cash basis; \$39 million will be paid out to MBEs and \$26 million will be paid out to WBEs. Additionally, there are future projects that will bring more opportunity for MBEs and WBEs. Executive Director Ciaccia advised that the District is desirous of adding local SBEs into its program as well. He noted that \$25.2 million is yet to be paid to SBEs.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 10 of 27

Executive Director Ciaccia moved discussion to the steps the District has taken to produce a more competitive for MBEs, WBEs and SBEs: personal net worth was removed; the addition of joint venture benefits to local firms; bonding on goods and services was removed; and the District waived insurance requirements.

Executive Director Ciaccia moved discussion to the issues related to capacity and capacity building. The District has undergone major outreach efforts through task force meetings including the Dugway Contractor Connection, breakfast exchanges, Empowered Program, and work with the Commission on Economic Inclusion (hereinafter "Commission").

Executive Director Ciaccia noted that representatives from the Commission were present at today's meeting to address the Board. The Commission's area of expertise is helping MBE firms build capacity. The District's mission is to provide opportunity for MBE, WBE and SBE firms through its goal setting and modifying the program by removing impediments to make way for greater opportunities.

Executive Director Ciaccia turned discussion over to the Commission representatives.

Deborah Green stated that she is the Program Manager for the District's Empowered Program, which began on June 4th and will last eight weeks. The program's desired outcomes are to strengthen the region's MBEs certified to conduct business with the District as well as to increase MBEs ability to win contracts in our region.

Ms. Green indicated that there are three program components: 1) conducting business assessments for each of the participating MBEs; 2) developing training services that have been customized based on the results of the assessments in the areas of infrastructure, leadership, financing and bonding preparation; and 3) the individual follow-up sessions with the Minority Business Development Agency Business Advisors to help prepare and connect MBEs with opportunities.

Ms. Green advised that the District conducted the program's outreach. Several different forms of communication were used to conduct outreach with 50 MBEs having revenues of at least \$500,000.00 and are certified to conduct business with the District.

Ms. Green advised that the Commission's plans for the next session of this program will include stronger outreach and to serve 7 to 10 more MBEs between late 2013 and early 2014. These types of programs as well as training opportunities are important to the District and this community.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 11 of 27

Ms. Green stated that the District is the only organization committed to conducting this level of outreach which sets the Empowered Program apart from the others. Ms. Green turned discussion over to Dr. Martha Davidson of Rype Training and Consulting, LLC. who helped design the curriculum and led the first five weeks of the program as a trainer.

Dr. Davidson described the portion of the training that began on June 4th and ended July 11th as an "excellent investment" which covered five specific areas. It was completed by using overview depth and application format. A SWAT analysis was done on seven construction companies in different fields with a focus on improving performance and sustainability in those areas. One objective was to raise the level of business accountability. Dr. Davidson noted that subcontractors are not often exposed to certain things such as quality standards or codes of conduct, which must be met before an MBE can register to become a supplier.

Dr. Davidson provided an overview of the change management workbook wherein five areas of focus were examined to determine the participants' current and desired statuses.

Week one focused on the structure process function and quality which utilized business and process management systems to transform short-term supplier/customer relationships into strategic alliances.

Week two focused on quality infrastructure which included the rule of information, process and product technology. A presentation was given on FTQ 360 software which can be used to conduct infield inspections, obtain quality records, safety records and reporting.

Week three focused on marketing research. Speaker, Alexandria Boon, from Gap Communications made a presentation. This week's discussion focused on increasing market share and assessing the participants' roles and competitiveness in their prospective markets. Each participant registered with Survey Monkey and will now start receiving customer feedback.

Week four focused on sustainability including bottom line performance and competitive advantage in the marketplace. This week's focus was on increasing sustainability. An assessment of the participants' carbon footprint was conducted and the group discussed ways in which those impacts could be decreased. Suggestions were provided on becoming more green, HAZMAT, lead-free certified and increasing recycling.

Week five focused on leadership. The participants were asked questions such as what drives the need for a certain type of leadership. The leadership components were focused on the five areas covered. An assessment was conducted on their strengths and weaknesses and discussion on how those can be improved ensued.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 12 of 27

Dr. Davidson advised that this training was different because a SWAT analysis of the trainees was conducted. This focused on areas that the participants needed to excel in as well as increase their level of accountability in order to move from a subcontractor to a prime contractor.

Dr. Davidson advised that the follow-up will entail her further working with the three participants as a volunteer to ensure that they meet the objectives established. Objectives and measurements were established through a balance scorecard. Each participant was scored throughout the training. They ranked themselves in quality and leadership. The participants were given market relationship analysis forms wherein they had to designate three companies they wanted to conduct business with. The participants must research those companies and assess the current gap against what they actually need in order to become suppliers of those companies.

Dr. Davidson highlighted that the most important training component is post-training support. The participants were exposed to a great deal information and enlightened to many new concepts. Dr. Davidson noted that development going forward will include quality plans, handbook and operational plans based on the Department of Labor standards.

Dr. Davidson concluded by stating that the participants will need support from all of us going forward. She introduced Darrell Green and Mija Ballard who were present at the meeting to discuss their training experiences. She inquired if the Board members had any questions in which they had none.

Ms. Ballard thanked the Board and wanted to express her appreciation to the District for the opportunity to participate in the Empowered Program. She indicated that it was beneficial personally as well professionally.

Ms. Ballard advised that her company is certified as an MBE with the District as an electrical contractor. She stated that last year her company contracted with the District and completed \$500,000.00 worth of work. This year her company has over \$500,000.00 in contracts since working with the District.

Ms. Ballard advised that her company has taken advantage of various programs offered by the District. She stated that the District has been working with her company and the programs helped move her company to the next level. BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 13 of 27

Ms. Ballard stated that Dr. Davidson and Mrs. Green have been instrumental in helping her business identify what they are missing and what is needed in order to move her company from a subcontractor to a prime contractor and how to successfully conduct business with other companies.

Ms. Ballard concluded by thanking the District and Commission for the opportunity.

Mr. Green stated that his company, Jubilee Excavation, has been in business for 15 years and registered as an MBE with the District for many years. Although there have not been many contracting opportunities with the District, participating in the Empowerment workshop has helped his company increase its capacity to do work.

Mr. Green stated that when there are District bid opportunities, there is a little trepidation in that his company may not be able to compete and actually perform the work at the level and capacity needed. Consequently, his company does not bid on every opportunity available at the District.

Mr. Green stated that through the Empowered program, his company has taken strides to becoming better by increasing its quality and awareness of what is necessary in order to compete in a bigger market.

Mr. Green was appreciative that the District allocated resources for this type of program and that the Commission selected a smaller business like Jubilee Excavation to participate. Mr. Green indicated that Jubilee Excavation wants to grow its business and increase its participation on District projects in an effort to help the District "continue to do great sustainable things to help the community grow."

Mr. Green concluded by thanking the District and Commission for the opportunity. He was hopeful that the District will see his company's name, Jubilee Excavation, on many future District projects.

Mr. Brown thanked Ms. Ballard and Mr. Green for sharing their comments with the Board. He indicated that the comments and presentation provided the Board with a greater perspective of the internal components of this organization. Today's discussion addressed many of the issues raised at the previous meeting.

Mr. Brown stated the program continues to grow and that many tools are used to improve the outcomes of engagement and contracting opportunities. These were good examples of business and people who, with the proper outreach and motivation, would be willing to take a leap of faith even if they feel like "the small fish in a big pond." You find your niche and grow from experience. Relationships are developed that may potentially lead to greater opportunities and this is the desired outcome.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 14 of 27

Mr. Brown explained that the Board is aware that there are limitations in terms of what capacities seem to be in various skills and trades. The Board's concern was that there were few opportunities for MBEs and WBEs due to their limited capacities and limitations. Mr. Brown stated that the system must be challenged. Although the District is willing to play a role in facilitating this process, "it begs a broader community discussion about the will of this community in terms of taking advantage of the opportunities in our region."

According to Darnell Brown, Mayor Jackson often says that "the best thing in this program that we can have is right here at home in terms of how we take the dollars that are here locally and find ways to invest them in local businesses to make sure that they're sustainable first." Mr. Brown stated that the District's goal is to ensure that opportunities are available and taken advantage of and creating more opportunities will involve "knocking on doors that maybe traditionally we do not get a chance to knock on."

Mr. Brown noted that as previously mentioned by Executive Director Ciaccia this is a consent decree project and the Board is required to make sure the District is in compliance with the federal government. It is the pleasure of this Board to move forward with its committed projects.

There were no further questions or comments from the Board.

Authorization to Issue Request for Proposals (RFPs)

Resolution No. 169-13 RFPs for Audio Visual System Upgrades

for the Environmental and Maintenance Services Center and the George J.

McMonagle Building.

Resolution No. 170-13 RFPs for Upgrade of Business Network

Operating System Software.

MOTION – Ms. Kelly moved and Mr. Sulik seconded to adopt Resolution Nos. 169-13 and 170-13. Without objection, the motion carried unanimously.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 15 of 27

Authorization to Purchase

Resolution No. 171-13

Resolution No. 173-13

Resolution No. 174-13

Resolution No. 175-13

Purchase through the Ohio State Term Contract STS033-5333740-4 an annual software support and maintenance contract with Attachmate/Novell. Cost: not-to-exceed \$56,424.40.

MOTION – Mr. Sulik moved and Mayor DeGeeter seconded to adopt Resolution No. 171-13. Without objection, the motion carried unanimously.

Authorization to Enter Into Contract

Resolution No. 172-13	Contract with Mark Haynes Construction,
	Inc. for the East Branch Euclid Creek
	Stream Restoration Repairs project.
	Contract amount: \$724,261.00.

Rati	fication	and	final	adjustn	nent	of
eme	rgency	contra	ct v	vith (Chieft	ain
Truc	cking & E	xcavat	ing for	the Mi	ll Cre	ek
at	Warner	Road	Em	ergency	Ba	ınk
Stab	ilization 1	project	. A c	ost dec	rease	in
	amount o					
	l contract i		•	,		

Two (2)	year rec	quirement	contra
Inland V	Vaters of	f Ohio,	Inc. fo
Removal	at the	Wester	ly Was
Treatmen			•

Contract with DLZ Ohio, Inc. for professional design services for the East 140th Street Consolidation and Relief Sewer (E140CRS) project. Contract amount: \$9,486,769.00.

MOTION – Mr. O'Malley moved and Mayor DeGeeter seconded to adopt Resolution Nos. 172-13 through 175-13. After discussion and without objection, the motion carried unanimously.

Ms. Kelly requested an explanation on Resolution No. 175-15.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 16 of 27

Executive Director Ciaccia turned discussion over to Director of Engineering and Construction, Kellie Rotunno.

Ms. Rotunno advised that the East 140th Street Consolidation and Relief Sewer (hereinafter "E140CRS") is a Project Clean Lake project that will be designed by DLZ. This will be a very involved underground project associated with control measure number six in the District's consent decree and will provide some flooding relief for the five year, six hour storm relief in the Hayden and East 140th area for the interceptor sewer system, which is currently overtaxed now.

The E140CRS also includes green infrastructure components for the District under Appendix 3 of the consent decree. The District will conduct strategic sewer separation and divert the storm sewer downstream where the water can be treated prior to discharge. Ms. Rotunno noted that the E140CRS project and contract with DLZ includes the design and construction administration/resident engineering (CA/RE) services.

Ms. Kelly inquired if the cost of the project will be available after the design is complete wherein Ms. Rotunno advised that the estimated capital cost is \$46 million.

Executive Director Ciaccia advised that this cost is prior to the value and engineering and any other project components that may surface during the design phase.

Ms. Kelly inquired if the cost is anticipated to escalate wherein Executive Director Ciaccia advised that the District is hopeful value engineering will result in a decrease to the overall project cost.

Ms. Kelly was pleased with the potential decrease in the overall construction costs. Executive Director Ciaccia explained the purpose of value engineering is to determine cost saving opportunities identified during the design phase of the project.

Mr. Brown noted that the ratio of design and engineering to the estimated construction cost is usually 10% to 15% and he inquired as to why the design on this project was much higher than average.

Ms. Rotunno explained that the District significantly invested in the advanced facilities planning efforts for many of the CSO projects particularly in the Easterly area. Those projects were carried to a very high level of design detail before the design was even procured. The facilities were laid out and the locations were established. There was some geotechnical information available and the designers were prepared on those projects.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 17 of 27

Conversely, the E140CRS does not have an advanced facilities plan and the designers are starting from the beginning. There is no geotechnical data available and preliminary routing for the facilities has yet to be established. The designers are conducting much of the preliminary design in addition to the design and CA/RE on this particular project. Ms. Rotunno explained that this is the reason the ratio seems higher.

Mr. Brown questioned if the design for the E140CRS project will establish alignment. At this point, Ms. Rotunno turned discussion over to Doug Lopata to address the Board's technical questions.

Mr. Lopata explained that the E140CRS project will be the largest input to the Dugway Storage Tunnel (hereinafter "DST") and Euclid Creek Tunnel (hereinafter "ECT"). It is not a deep tunnel like the DST and ECT and will be eight to nine feet in diameter and approximately 35 feet in depth. The tunnel will cut through a community similar to Dugway West.

Mr. Brown inquired about the construction schedule wherein Mr. Lopata stated that design is approximately 28 months due to the preliminary engineering phase which includes extra geotechnical and hydraulic components upfront prior to the project being bid. Construction is estimated to be about 24 months as well.

Ms. Kelly inquired if the District has conducted this type of design work in the past wherein Mr. Lopata affirmed.

Ms. Kelly questioned if design information from past projects could be incorporated into the E140CRS project reducing the amount of design services needed.

Ms. Rotunno stated that a "cookie cutter approach on design never works and you always pay the price on design construction. A dollar spent during the design phase will save you \$100 during the construction phase." Although the design is around 17% of the proposed construction budget, that is within the typical threshold. Ms. Rotunno advised that fees are negotiated on all design projects and that the District has an internal tool used to benchmark the fees against the fees of similar projects. The District takes into consideration the design sheets and number of CAD hours and compares those with prior projects. Ms. Rotunno reiterated that although the design for the E140CRS project may seem high, it is well within range. This project requires more preliminary design work estimated at \$3 million.

Mr. Brown inquired whether site conditions or some other construction expectation contributes to the spending level for the pre-design.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 18 of 27

Mr. Lopata explained that as mentioned previously by Executive Director Ciaccia there may be value engineering opportunities. Hydraulic modeling in one location may eliminate the need for a large diameter of sewer from one regulator to the tunnel. Four to six million dollars could be saved by simply conducting hydraulic and geotechnical investigations upfront. Executive Director Ciaccia added that it would also save money on the design if those facilities do not have to be designed.

There were no further questions from the Board.

Authorization of Contract Modification

Resolution No. 176-13

Modify Contract No. 3292/3292A with Malcolm Pirnie for the Renewable Energy Facility (REF) project. Cost: An increase in the amount of \$982,000.00, bringing the total contract price to \$22,925,159.55.

MOTION – Mr. Sulik moved and Mayor DeGeeter seconded to adopt Resolution No. 176-13. After discussion and without objection, the motion carried unanimously.

Mr. Sulik inquired if the Renewable Energy Facility (hereinafter "REF") was nearing completion.

Executive Director Ciaccia advised that staff was prepared to present the Board with an update on the REF.

Mr. Brown was hopeful that discussion would include the nearly \$1 million increase, which according to the resolution request was due to staff cost. Ms. Rotunno clarified that the request is for additional for professional services during construction for the engineering crew.

Mr. Brown pointed out that the resolution request specified that two positions resulted in this large cost. Ms. Rotunno stated that the increase results form two roles; construction administration and resident project administration, which are served by multiple people including instrumentation specialists.

Mr. Brown requested if staff could break down those roles and responsibilities in future resolution requests. Executive Director Ciaccia affirmed.

Executive Director Ciaccia then turned discussion over to Deputy Director of Engineering, Jim Bunsey, to provide the Board with an overview of the REF.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 19 of 27

Mr. Bunsey stated that the REF program is a culmination and combination of 10 different projects; four design agreements and six construction contracts. His intent was to provide the Board with an overview of those projects in addition to having discussion of the \$982,000.00 increase in the contract value with Malcolm Pirnie.

The professional services component began with Malcolm Pirnie in April 2006. There are four professional services agreements in support of the REF with a total contract value of \$40 million.

Mr. Bunsey stated that there are six separate construction contracts "substantially separated so we could accelerate the schedule and have a design out earlier and construction happening earlier. The six contracts total about \$153 million."

Mr. Bunsey advised that the District broke ground in 2009. He referred to a slide and he pointed out that the digester demolition is underway and that the domes have already been removed. This is a separate contract.

The next contract was for the site work including the excavation and temporary support of the earth around the perimeter.

The steel procurement was another contract. Mr. Bunsey referred to an image of the contractor driving the steel piles, which is the foundation for the REF.

In 2011, the steel superstructure was erected. Mr. Bunsey explained that this is where it became complicated because the steel and surrounding facility is under one contract and the equipment to be installed is under a separate contract. The District is the party responsible for both contractors and therefore cooperation between the contractors is important.

In February 2013, the REF was substantially complete. Commissioning to the start up of the facility will last from March 2013 through this fall. Mr. Bunsey advised that the incineration of the biosolids scheduled to commence today will likely take place tomorrow. He noted that the primary component of the commissioning is incineration of the biosolids.

Mr. Bunsey explained that of the six construction contracts totaling \$152 million, four closed at or below contract value. The two remaining open contracts are for equipment procurement under Contract 28 with Infilco Degremont, Inc. (hereinafter "IDI") and the construction contract with Walsh Construction Company (hereinafter "Walsh").

Mr. Bunsey moved discussion to the contract modification for the equipment supplier. The District initially came to the Board for the consideration of a \$50,600,000.00 contract

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 20 of 27

of which \$3 million was for general allowance. Mr. Bunsey noted that there was a contract modification early on in the project. Through value engineering the District, without hindering the scope or usability of the facility, substituted materials which reduced the contract value to \$49,753,000.00. Recently, under Executive Director Ciaccia's purview and in accordance with the Bylaws, the District agreed to a non-compensable 48 day schedule extension.

Mr. Bunsey referenced the completion date of April 16, 2013 and he advised that the District is working with the contractor to obtain a non-compensable schedule extension and there are some issues which he indicated he will discuss later in his presentation.

Mr. Bunsey explained that the District is assessing and accruing liquidated damages on a daily basis and putting those into a bank account.

Mr. Bunsey moved discussion to the percentage of completion for the equipment contract wherein he advised that 88% has been invoiced to date. The District is currently in the start up mode and all major equipment is delivered. He indicated that the large variance between 88% and 100% is related to training. The contractor has commission obligations to the District as well as some spare parts.

Mr. Bunsey advised that of the \$3 million general allowance \$1.23 million has been authorized to date. General allowance work orders totaling \$1.5 million are being negotiated and the unencumbered funding at this point is \$270,000.00.

Mr. Bunsey identified the remaining issues to include start up, emissions testing once biosolids are burned, the production of enough steam to get two turbines up to speed, the contract completion date which has passed, and liquidated damages. The District's position is that the contractor through design and some construction issues delayed the contract. Conversely, IDI is of the position that Walsh delayed them. Mr. Bunsey noted that the District is working through those issues with both contractors.

Mr. Bunsey reiterated that the District has passed the contract completion date and he suspected that it will eventually be more than 180 days past, which will require Board authorization for a time extension contract modification. The financial and commercial issues will likely be resolved at that point. The District anticipates closing the contract within the current contract amount.

Mr. Bunsey moved discussion to the construction contract with Walsh. The original contract amount authorized by the Board was in the amount of \$92,329,000.00 of which \$6 million was for general allowance. Contract Modification No. 1 authorized by the Board added \$3 million to the general allowance, bringing the total contract value just over \$95 million. Contract Modification No. 1 authorized by the Board also allowed the

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 21 of 27

District to transfer some deducts and value engineering monies from the base scope into the general allowance. This did not change the contract value.

Contract Modification No. 2 allowed for an additional 122 days of non-compensable time. Mr. Bunsey noted that Executive Director Ciaccia approved this modification in accordance with the Bylaws. The contract value remained unchanged and the completion date was extended August 15, 2013.

Contract Modification No. 3 was authorized by the Board to transfer \$451,000.00, which was obtained from deducts within the base scope that were non-performed through value engineering, into the general allowance. The contract value remained unchanged.

Contract Modification No. 4 was authorized by Executive Director Ciaccia in accordance with the Bylaws for another non-compensable extension of 57 days. Mr. Bunsey noted that the current construction contract completion date is October 10, 2013. The contract value remains the same.

The construction contract is 97% invoiced to date. Additional support services are needed during start up but the majority is for equipment training. The total general allowance is \$9.8 million of which \$8.3 million has been authorized to date. The pending general allowance under negotiation and review is about \$900,000.00. The unencumbered general allowance is \$600,000.00.

Mr. Bunsey moved discussion to the issues remaining under the construction contract with Walsh. The start up wherein much of the responsibility of the turbine falls onto the contractor. The District's position is that some delays were caused by Walsh which delayed IDI. Walsh's position is that the delay was caused by IDI. Mr. Bunsey explained that there is some legitimacy to both points and those issues are currently being negotiated.

The contract has been extended 180 days and the District anticipates coming back to the Board for a contract extension. The contract is expected to close within the current contract amount.

Mr. Bunsey moved discussion to today's resolution request to extend the value of the Malcolm Pirnie contract by \$982,000.00. The initial contract was awarded in 2006. The contract amount was \$10.2 million with a general allowance of \$600,000.00.

Contract Modification No. 1 added additional base design scope of services which included the waste heat boiler, turbine, electrical generation aspect of the project, CA/RE services for the base work and the l new design scope.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 22 of 27

Today's Resolution No. 176-13 requests authorization from the Board to increase the contract amount by \$982,000.00, bringing the total contract amount to \$22,925,160.00 and also extending the contract completion date by 180 days.

Mr. Bunsey explained that Malcolm Pirnie provided a tremendous amount of support through the six different REF construction projects which included the review of shop drawing, RFIs and work orders. As of last month the total number of documents reviewed was about 4,400 pieces. The analysis of any of these documents can last anywhere from 10, 15, to 20 man hours depending on the complexity.

For the REF construction and equipment contracts it was estimated that the amount of work would be about 50% of what it currently is. Mr. Bunsey explained that there are many people working behind the scenes with respect to the construction administration. The submittals were about 210% more than the base work which amounted to an increase of about 4,500 man hours. Resident engineering was up 22% over the anticipated contract amount. Malcolm Pirnie also supplied two individuals for almost four months during the commissioning. All of this totaled about 7,400 man hours, which supports the request for the \$982,000 increase.

Executive Director Ciaccia added that the District learned a lesson about coordination with respect to the separation of these contracts. As a result of contract separation, this project resulted in a lot of additional work. There were multiple contractors and touch points and accusations as to which contractor was causing different delays. We typically like to bundle District projects into one general contract.

Executive Director Ciaccia noted that the District is not running into any significant start up issues and that any problems being encountered were anticipated given a facility of this magnitude.

Mr. Brown requested follow-up from staff regarding tomorrow's biosolids event.

Authorization of Property Related Transaction

Resolution No. 177-13

Accept Ten (10) Rights of Entry in the City of Cleveland necessary for construction of the Woodland Avenue Storm Sewer project. Consideration: \$0.00.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 23 of 27

Resolution No. 178-13 Acquire two (2) easements necessary for

construction of the Dugway West Interceptor Relief Sewer (DWIRS) project.

Total Consideration: \$12,900.00.

Resolution No. 179-13 Authorize two relocation payments

necessary for construction of the Dugway West Interceptor Relief Sewer (DWIRS) project. Total consideration: \$33,081.78.

Resolution No. 180-13 Authorize relocation payment for Michael

& Richee Cunningham necessary for construction of the Dugway Storage Tunnel (DST) Project. Consideration:

\$4,788.00.

Resolution No. 181-13 Authorize Fee Simple Acquisition from

Ramon Manuel and Fawzia Samiallah Necessary for Construction of the Dugway Storage Tunnel (DST) project.

Consideration: \$6,000.00.

MOTION – Mr. Sulik moved and Mr. O'Malley seconded to adopt Resolution Nos. 177-13 through 181-13. Without objection, the motion carried unanimously.

Sewer Use Code Matters

Resolution No. 182-13 Adopting the findings of the hearing

examiner with regard to the Sewer Account of Elaine Woods, Sewer District Case No.

13-019.

MOTION – Mayor DeGeeter moved and Mr. O'Malley seconded to adopt Resolution No. 182-13. Without objection, the motion carried unanimously.

Authorization to Enter Into Agreement

Resolution No. 183-13 Water Pollution Control Loan Fund

Agreement to finance the construction costs of the Dugway West Interceptor

Relief Sewer (DWIRS) project.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 24 of 27

Resolution No. 184-13 Settlement agreement with the Ohio

Department of Natural Resources.

Settlement amount: \$33,820.70.

Resolution No. 185-13 Cooperative agreement with the City of

Cleveland for the reimbursement of construction escalation costs associated with the City of Cleveland's Lakeshore Boulevard Resurfacing project as a result of the Euclid Creek Tunnel (ECT) project.

Cost not-to-exceed \$300,000.00.

MOTION – Mr. Sulik moved and Mr. O'Malley seconded to adopt Resolution Nos. 183-13 through 185-13. Without objection, the motion carried unanimously.

VII. Information Items

1. Draft Audit Committee Charter.

Deputy Executive Director, F. Michael Bucci, advised that the Audit Committee drafted a Charter. One of the Committee's objectives was to examine the existing Charter. The Committee held a working session and made changes, which were forwarded to the staff including Executive Director Ciaccia, Ms. Sundheimer and Director of Finance, Jennifer Demmerle for review and comment. Those comments were given to the Committee. Changes were incorporated into the working draft which was provided to the Board members in their packets for review and comment. The Committee desires bringing the Charter back to the Board for consideration at its August 1st meeting. Mr. Bucci advised that minor changes were made and staff made sure that the Charter conforms to the Board's Bylaws.

Ms. Kelly pointed out the changes made were not visible in the document presented to the Board and therefore cannot easily be identified.

Mr. Bucci explained that the existing Charter uses a bullet point formatting and the revised Charter is more written language.

Executive Director Ciaccia advised that staff will provide the Board with the existing Charter so they can compare it to the proposed Charter. He commented that the revised Charter is more inclusive and comprehensive.

Mr. Brown requested if changes can be highlighted wherein Executive Director Ciaccia affirmed.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 25 of 27

Mr. Bucci stated that staff will provide the Board with the existing Charter as well as highlighting the substantive changes in the proposed Charter.

2. Program Management Status Report and Update – June 2013.

Ms. Rotunno moved to the first report item and advised that the ECT is moving along. She had an opportunity to tour the tunnel last week with Mr. O'Malley and representatives from the "Tunnel Business Magazine." The group observed the Tunnel Boring Machine (hereinafter "TBM") in action. The segments are going in nicely, the ring builds are uniform and the tunnel is being built to a very high tolerance. She was pleased with the quality of the tunnel in addition to the production. The TBM is anticipated to surface around Labor Day.

Shaft excavations continue without incident at Shaft 2 by the Easterly plant and Shaft 3 by Beulah Park. Concrete lining is continuing at Shaft 5.

Ms. Rotunno stated that Walsh Atkinson Joint Venture has been doing a stellar job installing the 60-foot anchor bolts that were prescribed by the engineer as an ultimate safeguard to ensure the rock in the ceiling does not come down lower than necessary. Work is expected to be completed by the end of July and excavation of the benches will resume. Four more sequences of excavation must occur before the cavern will be fully mined and installation of the Easterly Tunnel Dewatering Pump Station (hereinafter "ETDPS") and ancillary equipment will begin.

Ms. Rotunno moved discussion to the key performance indicators (hereinafter "KPIs") wherein she advised that there was an increase in cash flow this month, which is now tracking at 72% of the planned Capital Improvement Program (hereinafter "CIP") cash flow. That figure is still below the KPI goal. Ms. Rotunno did not anticipate that gap to close due to the lost production.

Ms. Rotunno moved discussion to the KPI for the Business Opportunity Program cash flow, which is following very closely in parallel with the overall program cash flow. As of the end of June, 75% of cash flow has been delivered.

Ms. Rotunno reported that of the three projects that had closed out, the contractors met or exceeded the Business Opportunity Program goal on two of those projects. The one project that did not meet goal was the Combined Sewer Overflow Rehabilitation Project No. 10, which was attributable to the nonperformance of a subcontractor and the elimination of scope elements. Overall there is 31% cumulative participation.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 26 of 27

Ms. Rotunno advised that two bids were opened this year and that the average variance is minus 0.1% below the engineer's estimate.

Ms. Rotunno advised that the cumulative average for delivering on design is within four days of the plan.

Ms. Rotunno advised that \$20.4 million in savings have been identified through value engineering.

All three of the closed projects were completed within the 95% KPI goal. Overall 90% of the contract value is delivered at close out.

Ms. Rotunno advised that construction contracts have been awarded within 12 days of the planned date of award. Construction completion is an area staff has been tracking this year and reporting to the Board in an effort to make improvements. Cumulatively jobs have been completed about 224 days beyond expectation. She stated that this area needs improvement and will continue to be tracked. A KPI will be established for this metric in 2014.

Ms. Rotunno concluded her report with an unidentified quote, "The difference between the impossible and the possible lies in a person's determination.

Mr. Sulik inquired if there was an estimate on whether there would be additional costs due to using the longer rods on the ETDPS project. Ms. Rotunno advised that the extra costs will be around \$2 million and will be absorbed within the general allowance.

VIII. Public Session

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

IX. Open Session

There were no items for discussion.

X. Executive Session

There were no matters for discussion.

BOARD OF TRUSTEES Regular Meeting July 18, 2013 Page 27 of 27

XI. Adjournment

MOTION – Mr. Brown stated business having been concluded, he would entertain a motion to adjourn. Mr. O'Malley moved and Ms. Kelly seconded the motion to adjourn at 2:14 p.m. Without objection, the motion carried unanimously.

Sheila Kelly, Secretary

Board of Trustees

Northeast Ohio Regional Sewer District

Darnell Brown, President

Board of Trustees

Northeast Ohio Regional Sewer District

WRITTEN STATEMENT

Paul L. Edmiston, PhD
Northeast Ohio Regional Sewer District
Board of Trustees Meeting
July 18, 2013

My name is Dr. Paul Edmiston and I am a Chemistry Professor at the College of Wooster with expertise in chemical analysis and water purification. I have come as a concerned citizen with a passion to see Northeast Ohio maintain its place as a worldwide center of culture and technology. The Northeast Ohio region has a tremendous opportunity to be recognized as a leader in environmental stewardship. Sadly, it is my opinion, that the Northeast Ohio Regional Sewer District is selecting stormwater infrastructure systems that are so outdated and ineffective that it takes the entire metropolitan region backwards and will serve to waste millions, if not billions, of dollars. The tunnel approach is giving the region a black eye in terms of modern best practice adoption and raises questions about how decisions are made.

Underground tunnels have been proven not to prevent combined stormwater sewer overflows and in a word are "obsolete". Operation of deep large tunnels is expensive, especially in terms of energy requirements. I calculated, conservatively, that to empty the 220 ft deep Euclid Tunnel one time requires electricity equivalent to that used by 790 homes over a period of 1 month. Operation of Cleveland's proposed tunnel system I conservatively estimate would lead to over 30,000 TONS of carbon emissions from power plants per year. Imagine carrying a 5 gallon bucket of water up 22 flights of stairs. Now do that 10 million times – that is what it takes to empty the Euclid Tunnel.

Not only are stormwater tunnels dirty energy hogs, they are ineffective. Plagued by escalating operational and maintenance costs and the inability to prevent overflows, the city of Milwaukee has decided to abandon plans for new tunnels and invest in green infrastructure. Cincinnati, Seattle, and New York City are following suit by investing almost exclusively in green infrastructure practices. Why? Low impact designs are less expensive, work better, and have secondary benefits of increasing property values, cleaning the air, and providing pocket green spaces in a urban landscapes. Finally, on the face of it, creating overflow tunnels does not pass the common sense test. A tunnel mixes large volumes of moderately clean stormwater that could have been treated fairly easily and mixes it with a smaller volume of sewer water thus contaminating the whole. The entire volume must now be pumped up 220 ft –lots of energy- to a treatment plant –lots of energy and chemicals. If the treatment plant disinfects with chlorine a new waste problem is created – toxic disinfection by products. Discharge of disinfection by products will limited by the EPA in the future. The solution: build a bigger and more sophisticated treatment plants and go back to the public with higher rates.

Thinking about possibilities, here are some logical questions: What happens if power rates go up? What happens if the power is disrupted for an extended time due to storm or grid failure? What happens if a rare, but certain to happen, earthquake severs the tunnel? What happens when you have to raise rates again after spending \$3 billion and you still can't swim in Lake Erie and is the water is bright green due to massive algae blooms.

Imagine a revitalized Cleveland with thousands of green spaces that clean stormwater. Many new jobs would be created that would be accessible to a wide demographic to build and maintain systems. Many bioswales and raingardens would be maintained by individual property owners who keep up with the Jones to make their stormwater systems beautiful flower gardens.

I have a simple request. I request that the Board of Trustees allow qualified companies to bid green infrastructure projects side-by-side with tunnel projects. In this way the Board will be able to accurately and thoughtfully see the comparison and make decisions. Thank you for considering my request.