

MINUTES
NORTHEAST OHIO REGIONAL SEWER DISTRICT
BOARD OF TRUSTEES MEETING
July 18, 2019

A Regular Meeting of the Board of Trustees of the Northeast Ohio Regional Sewer District was called to order at 12:35 p.m. by Darnell Brown.

I. Roll Call

PRESENT: D. Brown
R. Sulik
R. Stefanik
T. DeGeeter
J. Ciaccia
J. Bacci
S. Dumas

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

II. Approval of Minutes

MOTION – Mayor Bacci moved and Mr. Sulik seconded to approve the Minutes of the June 20, 2019, Board Meeting. Without objection, the motion carried unanimously.

III. Election and Installation of Officers

Mr. Brown asked for the report on the election of officers for the 2019/2020 term.

MOTION - Mayor Bacci moved and Ms. Dumas seconded to appoint Mr. Brown as Board President, Mr. Sulik as Vice-President, and Mayor DeGeeter as Secretary of the Board of Trustees. Without objection, the motion carried unanimously.

Eric Luckage, Chief Legal Officer & General Counsel, administered the Oath of Office to Mr. Brown, Mr. Sulik and Mayor DeGeeter.

IV. Public Session

There were no items.

V. Chief Executive Officer's Report

CEO Kyle Dreyfuss-Wells provided a recap of the River Reborn events celebrating the 50 years since the Cuyahoga River last caught fire that occurred throughout the month of June. On June 22nd a joint press conference and Towpath Trail groundbreaking was held. In attendance at this

BOARD OF TRUSTEES

Regular Meeting

July 18, 2019

Page 2 of 21

event were local, state and national officials crediting not only the District, but all of the partnerships in northeast Ohio that have led to the success that we have today. The anniversary made local and national news. Also, the District's River Reborn logo won the American Inhouse Graphic Design award. The logo went up against 6,000 entries and only 15% were recognized. Ms. Dreyfuss-Wells thanked the Board and District staff for their participation in the many anniversary events, with a special thanks to the SSMO team who did an outstanding job at the Pump Station.

Next, Ms. Dreyfuss-Wells noted that on June 28th, Frank Greenland, Director of Watershed Programs, participated in a Water Research Foundation (WRF) briefing for over 70 congressional staff in DC on harmful algal blooms. The event was sponsored by WRF with support from the offices of Congresswoman Kaptur and Congressman Joyce. The agenda focused on communities dealing with HAB events and working on predicting, monitoring and controlling those events. Mr. Greenland's presentation focused on these issues in regional water bodies. Other speakers included Alex Margevicius, Commissioner of the Cleveland Division of Water, Peter Fernandez, Public Works Director for the City of Salem, Oregon, and Dr. Lauren Weinrich, Senior Scientist at American Water.

Mr. Greenland said the event was well-attended. He said he talked about the Cleveland situation and the measures the District has taken, and continues to take, in order to reduce phosphorus. Mr. Greenland said they highlighted CSO control, enhancements at wastewater treatment plants and the regional stormwater management program (RSMP). He said he also touched on episodic local HAB issues even though Maumee was primarily the focus with the big algal bloom issue. He pointed out there was an issue about a week ago, but the toxin levels were below public health standards and it was gone in one day. With the hot weather predicted for the upcoming weekend, conditions are ripe for a potential algal bloom, but the District will continue to sample, analyze and inform where appropriate.

Ms. Dreyfuss-Wells noted that this month the District began an introduction to construction course in collaboration with the Urban League of Greater Cleveland. The course is a joint effort across District Departments focusing on working with the Urban League to promote construction careers as part of the District's continued effort to diversify projects and its workforce. The Work Now program is a series of 20 modules from July 8th to August 2nd. There was a tour of Southerly as well as a tour of the Nine-mile site. Constance Haqq, Director of Administration and External Affairs, talked to participants about the District's work and the keys to job success. The District is also working in partnership with the Construction Employers Association. In addition to Ms. Haqq's participation, Ms. Dreyfuss-Wells highlighted Doug Gabriel, Deputy Director of Engineering and Construction, and Tracy Phelps, Deputy Director of Operation and Maintenance, for their work with the construction people on this great program and partnership with the Urban League.

Ms. Dreyfuss-Wells stated that the District was recognized by the Greater Cleveland Community Shares for Campaign of the Year. District staff have participated and donated to various charities through this organization for many years and that is a great ongoing effort.

VI. Action Items

Authorization to Advertise

Resolution No. 171-19

Authorization to publish notice calling for bids, in accordance with Ohio Revised Code Chapter 6119, for the purchase of four utility trucks for use at District facilities with an anticipated expenditure of \$300,000.00.

Resolution No. 172-19

Authorization to publish notice calling for bids, in accordance with Ohio Revised Code Chapter 6119, for the Southerly WWTC Fire Safety, Code and Building Improvements project with an anticipated expenditure of \$900,000.00.

MOTION – Mr. Ciaccia moved and Mayor Stefanik seconded to adopt Resolution Nos. 171-19 and 172-19. Without objection, the motion carried unanimously.

Authorization to Issue Request for Proposals (RFP)

Resolution No. 173-19

Authorization to issue an RFP, either jointly with the City of Cleveland or for the District only, for the procurement of electricity for a one, two or three year period, in accordance with Ohio Revised Code Chapter 6119, for the Southerly Wastewater Treatment Plant, GJM and outlying facilities and City accounts, if any, as determined necessary by the City, with the option to purchase electricity cooperatively with the City, and authorization for the Chief Executive Officer to enter into a contract with the highest-ranked supplier and execute any documents necessary to secure electricity pricing favorable to the District without additional Board approval.

Resolution No. 174-19

Authorization to issue an RFP, in accordance with Ohio Revised Code Chapter 153, for the services of a Curtailment Services Provider and equipment installation under the Curtailment Service Provider and Demand Response Services project.

Resolution No. 175-19

Authorization to Issue an RFP, in accordance with Ohio Revised Code Chapter 6119, for assessment, documentation, testing and implementation of new incident response and disaster recovery processes under the IT Response and Recovery project.

Resolution No. 176-19

Authorization to issue an RFP, in accordance with Ohio Revised Code Chapter 153, for Specialty Tunnel Testing and Construction Inspection Services.

MOTION – Mr. Sulik moved and Ms. Dumas seconded to adopt Resolution Nos. 173-19 through 176-19. After the following discussion, without objection, the motion carried unanimously.

Referencing Resolution No. 176-19, Mr. Brown asked for a brief explanation on the specialty tunnel testing services referenced in the resolution and the status of the current contract. Devona Marshall, Director of Engineering and Construction, stated there is currently a five (5)-year contract with a \$5 million budget scheduled to end its term at the end of this year. The funding associated with that contract is also near the end of spending all the money. This is a request to go out for an additional testing contract to continue these types of services for the upcoming micro-tunneling and tunneling projects that are going on over the next five (5) years as part of Project Clean Lake. The services are specifically to support the construction of the Westerly Storage Tunnel and the Shoreline Tunnel. There are similar testing-type contracts for more general construction projects, but these contracts contain a lot of underground work and therefore are a specialty in terms of the geo-technical component that the normal testing firms do not have. Not as many firms will be qualified to do this type of work. The last time a bid went out there were two or three firms that did bid on the project. Ms. Marshall is hopeful there will be at least one or two firms to choose from, but it is more of a specialty than the typical inspection work.

Mr. Brown asked if there was some analysis review of the performance of the contractors that are currently under contract so that there is an indication of how well they perform at the District's goal/timeline, etc. Ms. Marshall indicated that she is not aware of any ongoing official documented performance of the contractors currently under contract, but as part of the evaluation process, past performance is one of the criteria used to evaluate potential contractors. Performance of consultants is continually evaluated and taken into consideration when the next project is evaluated.

Mr. Brown added that at the City of Cleveland there are similar issues, but he is always interested in making sure contractors who come to do business with the City understand that not only is the lowest and best a concern, but what a contractor does during the life of a contract is also a concern.

Ms. Marshall added that to amend her previous statement about evaluations, performance evaluations are done on the professional services contracts. She is just not sure if the evaluations

are done on the testing and inspection ones.

Authorization to Purchase

Resolution No. 177-19

Authorization to purchase spare parts, as needed, to repair and maintain Sierra Monitor Corporation gas detection and monitoring equipment for use at all Wastewater Treatment Plants and the EMSC facility from sole source vendor Sierra Monitor Corporation in a total amount not-to-exceed \$150,000.00.

Resolution No. 178-19

Authorization to purchase Allen Bradley Plant Automation replacement parts, as needed, for use in plant automation process repair at all Wastewater Treatment Plants and the EMSC facility from sole source vendor, Rexel, Inc. in a total amount not-to-exceed \$300,000.00.

Resolution No. 179-19

Authorization to purchase the annual hardware procurement of desktops, laptops, and peripheral hardware from Dell Marketing, L.P. under the State of Ohio Cooperative Purchasing Program in a total amount not-to-exceed \$288,463.30.

MOTION – Mayor Stefanik moved and Mr. Ciaccia seconded to adopt Resolution Nos. 177-19 through 179-19. Without objection, the motion carried unanimously.

Authorization to Enter into Agreement

Resolution No. 180-19

Authorization to enter into a one-year agreement with Diversified Infrastructure Services, Inc. for grit disposal at the Southerly Wastewater Treatment Plant in an amount not-to-exceed \$100,000.00 to be paid to the District.

Resolution No. 181-19

Authorization to enter into agreement with Kurtz Bros., Inc. to perform the Beneficial Reuse of Grit Pilot project in an amount not-to-exceed \$73,870.00.

BOARD OF TRUSTEES

Regular Meeting

July 18, 2019

Page 6 of 21

Resolution No. 182-19

Authorization to enter into agreement with Access Sciences for a District-wide requirements analysis under the Enterprise Content Management Requirements Analysis project in an amount not-to-exceed \$98,630.00.

Resolution No. 183-19

Authorization to enter into agreement with Black & Veatch for the District-Wide Solids Handling Study in an amount not-to-exceed \$582,540.00.

MOTION – Mr. Sulik moved and Mayor Stefanik seconded to adopt Resolution Nos. 180-19 through 183-19. After the following discussion, without objection, the motion carried unanimously.

Mr. Ciaccia asked if Resolution No. 180-19 is revenue to the District. Ms. Dreyfuss-Wells indicated that it is. Mr. Ciaccia also asked about Resolution No. 181-19. He inquired as to how the strong odor of grit will be addressed as part of this project.

Mr. Greenland stated that odor was part of the discussion. Mr. Greenland stated that this pilot study is very similar to the incinerator ash study. It is looking at the beneficial re-use of grit. He then introduced Robin Halperin, Regulatory Compliance Manager of Watershed Programs, to discuss the details of the pilot study.

Ms. Halperin stated that the purpose of the pilot project is to figure out: if grit can be cleaned, where it would be cleaned, and what it takes to get rid of the odors so that the material can be reused. The idea is that Kurtz would take some of the material from District facilities to its site and test it. The methods of testing the grit include baking it, heating it and doing a thermal treatment to get rid of the odors, bacteria and viruses; washing it; or another form of biological cleaning. Kurtz is going to experiment with the material for a viable solution and report on what problems there might be associated with that solution. The material has some great uses because it is mostly sand and gravel and fine particles that can be used near topsoil for structural fill or even concrete. The big issue is what will it take to clean it and what are the problems that need to be managed.

Mayor Bacci asked if there is estimated yardage on the amount of grit and what amount Kurtz is going to take. Ms. Halperin indicated that the District generates about 7,000 tons of grit per year from all three plants. Mayor Bacci asked what amount Kurtz is going to take to try and de-odor. Ms. Halperin was not sure of the exact amount of grit they will test but Kurtz will take the grit from our property to their property to analyze it.

Authorization of Contract Modification

Resolution No. 184-19

Authorizing final adjusting change order for Contract No. 16005281 with Shook Construction for the Southerly First Stage Aeration Tank and Return Sludge Pump Station Improvements project by decreasing the contract amount by \$2,021,249.23, thereby bringing the total contract amount to \$13,026,750.79.

Resolution No. 185-19

Authorizing final adjusting change order for Contract No. 16003296 with Independence Excavating, Inc. for the Superior Stones Canal CSO Improvements project by decreasing the contract amount by \$657,219.17, thereby bringing the total contract amount to \$17,525,080.83.

MOTION – Mayor Bacci moved and Mayor Stefanik seconded to adopt Resolution Nos. 184-19 and 185-19. After the following discussion, without objection, the motion carried unanimously.

Mr. Brown asked for an explanation on Resolution 184-19. Ms. Marshall stated with the return of the \$2 million the majority of that amount is the general allowance at about \$1.2 million as well as a lot of the specific allowances that were not used on the project. Only \$55,000 of the \$1.3 million general allowance was used. She stated that there was some minor return on the base scope of work. There was some planned electrical wire replacement that once the District got in the field and tested it, it was discovered that it did not need to be replaced.

Authorization to Amend Agreement

Resolution No. 186-19

Authorization to Amend Contract No. 18004622 with Kurtz Bros., Inc. for the Biosolids Incinerator Ash Management Program by increasing the negotiated revenue sharing rate to the District from \$1.00 to \$1.60 per ton of beneficially used ash for year two of the agreement.

MOTION – Mr. Ciaccia moved and Mayor Bacci seconded to adopt Resolution No. 186-19. Without objection, the motion carried unanimously.

Authorization to Grant Credit

Resolution No. 187-19

Authorizing the District to issue a credit adjustment in the amount of \$31,921.24 against outstanding sewer charges on NEORSD account number ending in 0003 for Khaled Saleh at 4501 Lee Road, Cleveland.

Resolution No. 188-19

Authorizing the District to issue a credit adjustment in the amount of \$44,531.20 against outstanding sewer charges on NEORSD account number ending in 0000 for Anthony J. Lombardo at 5820 Mayfield Road, Mayfield Heights.

MOTION – Mayor Stefanik moved and Ms. Dumas seconded to adopt Resolution Nos. 187-19 and 188-19. Without objection, the motion carried unanimously.

Property Related Transaction

Resolution No. 189-19

Authorizing the District to acquire two parcels in fee simple located at 12508 Erwin Avenue in the City of Cleveland, and known as PPNs 020-10-150 and 020-10-151, owned by the Cuyahoga County Land Reutilization Corporation, necessary for the implementation of the Big Creek Chevy Branch Stream Stabilization in the City of Cleveland project with total consideration of \$1.00.

Resolution No. 190-19

Authorization to acquire one parcel in fee simple, located at 9186 North Bedford Road in the City of Macedonia, and known as Summit County PPN 33-02530, owned by Thomas and Catherine Loya, necessary for the construction and maintenance of the Indian Creek SWMP Project Area 2-Bedford/Ledge Flooding project and to enter into a lease agreement with the Loyas with total consideration of \$168,000.00 plus closing costs.

MOTION – Mayor Bacci moved and Mr. Sulik seconded to adopt Resolution Nos. 189-19 and 190-19. After the following discussion, without objection, the motion carried unanimously.

Mr. Brown requested further explanation on Resolution No. 190-19. Mr. Greenland stated that Indian Creek was studied in the Cuyahoga South master plan which was recently wrapped up. Indian Creek has a number of major flooding and erosion issues particularly in the Bedford/Ledge project area. The District has recommendations to alleviate the situation. The property which is the subject of this Resolution is right in the heart of the most acute flooding along Bedford and Ledge.

Similar issues are the Erwin Avenue purchase. This is the Chevy Creek basin area where there are major flooding issues. The District has big projects forthcoming to alleviate those issues.

VII. Information Items

1. Program Management Status Report and Update – June 2019

Ms. Marshall provided the mid-year update on the Capital Improvement Program for 2019. Engineering and Construction has 97 active contracts covering 79 different projects with a value of just over \$1.16 billion. That figure includes \$871 million of the \$1.16 billion in construction and \$854 million of the \$1.16 billion focused in the collection system most of which is associated with implementation of CSO control plan as required under the consent decree.

During 2019, six request for proposals were issued and four professional services contracts were awarded in the total amount of \$4.6 million. Of note, three of the four professional services contracts were actually design/build contracts. However, the previously mentioned request for proposals and the resulting requests for contract awards that will be coming to the Board in the near future are the more traditional design/bid/build.

Ms. Marshall advised that Engineering and Construction has five awarded construction contracts totaling \$11.8 million through mid-year 2019. The biggest item is the Easterly and Westerly Low-Voltage Project which is a progressive design-build for a guaranteed maximum price of \$9.6 million. Eight construction contracts were closed out.

Looking ahead to the remainder of 2019, there are seven planned requests for proposals and seven professional service awards with a dollar amount of \$45.2 million. Two projects are associated with the Automation Program Management efforts. The District will be awarding the design of the Easterly and Southerly PLC replacement job as well as the collection system PLC replacement job. Between those two projects the total is about \$30 million in design services.

Engineering and Construction has eight planned construction awards in the estimated amount of \$27.7 million. There are nine construction close-outs planned, including the Dugway Storage Tunnel which is scheduled to achieve substantial completion in late summer/early fall and close out by the end of the year.

Cash flow ended the month of June at 81 percent, which was below the goal of 85 percent; staff is optimistic that the ultimate goal of 85 percent will be met by year's end.

The goal around the Business Opportunity Program (BOP) is on any construction contract that closes in the given year and, to date, eight construction contracts have closed with the final costs of \$47.25 million and the associated BOP participation was \$15.95 million with final BOP participation at 33.76 percent, which well exceeded the goal of 16.44 percent.

Looking at planning level KPIs, the first is around the CIP annual validation and prioritization process that is scheduled to kick off later this month or next. Ms. Marshall advised that in 2019, there are six consent decree compliance reporting and performance milestones that are required to be met. The District has met two of the six consent decree requirements and of the remaining four, three are scheduled to be met by the end of the month.

Looking at design level KPIs, all of the KPIs are being met. Of note, is the second KPI around value engineering. The goal was set at \$15 million this year in identifying savings on the Capital Improvement Program. To date, \$57.5 million in savings is projected. All of this is around the Shoreline Consolidation Sewer Project. The District is procuring design services for this project; however, under the Shoreline Tunnel Design, the District does have updated flow monitoring and model evaluation that did identify the ability to reduce the size of this consolidation sewer, shortening the overall length as well as the diameter using capacity within the existing system. This also resulted in the reduction of the number of structures and that is why there is such a large cost savings estimated on this project.

Construction level KPIs are being met. On the eight construction projects that did close, the District is at about 3.79 percent in use on the general allowance. That equates to about \$1.8 million dollars in actual spend. The majority fell under the category of differing or unforeseen site conditions at 2.52 percent, followed by owner requested changes at 0.64 percent, and there was one claim on one of the projects where the contractor was delayed due to a relocation of a water line that the District did not properly plan for during the design.

Next, Ms. Marshall provided an update on Project Clean Lake. The District has 62 projects overall related to Project Clean Lake. In addition, there are 17 remaining projects to perform. On July 7th, the District hit the nine-year mark of the consent decree and since then the District has spent or awarded \$1.42 billion in actual dollars on these projects. That is equivalent to \$1,22 billion is 2009 dollars for comparison back to the estimated \$3 billion price tag when entered into the consent decree. The District has also realized approximately \$475 million in value engineering savings towards that price tag, which is all good news. From a CSO control standpoint, the District currently stands at approximately one billion gallons of reductions - just after nine years - and by the end of next year that number should almost double with the projects that are currently in construction.

Some additional highlights from 2019 related to Project Clean Lake include achievement of full operation of Control Measures 9, 10 and 11. This is associated with the Superior Avenue Pump Station and the Stones Levy Pump Station which were talked about in Ms. Dreyfuss-Wells' CEO briefing. With this project came 13 million gallons of CSO reduction to the Cuyahoga River. There were four CSOs controlled with this project. Three of those CSOs were actually turned into stormwater-only outlets. There is no CSO, no matter what the storm event, going out to the

Cuyahoga River from these outfalls. The one remaining CSO is controlled to zero activations in a typical year.

The design of the second Site Restoration Services project has been completed. That project will do some site restoration at four locations. Three of those are along our Dugway Storage Tunnel alignment, and then the last one is a site on our East 140th project. The mining and pipe install is completed on the Woodhill Conveyance Tunnel which is part of the Doan Valley Tunnel alignment that was in construction when we had the major flood at Ambler Park in April of 2018. On the Doan Valley Project, mining of the mainline tunnel has commenced.

Looking ahead in 2019, substantial completion is scheduled on the Dugway Storage Tunnel and with that project coming online, the District will be capturing about 376 million gallons of annual CSO control. Construction is scheduled to be completed on the remaining Appendix-3 Green Infrastructure projects. Some of those projects will be featured in an upcoming meeting, specifically the Woodland Central project. With those nine projects came 15 million gallons of CSO control. The mining of the Westerly tunnel is also scheduled to commence later this year.

Mr. Brown stated that the pump station is pretty amazing to see and the fact that that is going to limit the CSOs to three per year is also remarkable. He stated that it appeared we were pumping to the river and asked if that was accurate. Ms. Marshall referred Mr. Brown's inquiry to Mr. Greenland.

Mr. Greenland stated that he has become aware that there are a couple locations where this is occurring. He stated that there was a situation many years ago where tie-flex was installed. There are a couple locations of back flow where the river level is high due to the lake level. Weirs have been raised in certain locations and/or will be raised to prevent that situation and the District will continue to watch that.

Ms. Dreyfuss-Wells stated that this is an issue that the District is dealing with right now on other CSOs and that will be talked about in a future update from the Operation and Maintenance Department. Next, Ms. Dreyfuss-Wells introduced Tom Madej, Deputy Director of Operation and Maintenance to discuss this issue.

Mr. Madej stated that as far as the lake level, and the river level, they are higher. Temporary weirs have been put in place at some locations within the collection system in order to keep the higher water levels out of our system and E&C staff has been asked to evaluate other locations. The erosion along the lake is becoming a problem as well.

Next, Bill Fussner, Project Manager, provided the quarterly update on the local sewer system evaluation studies (LSSSES). The studies are currently underway. The Southwest Interceptor and Cuyahoga Valley Interceptor sewer areas are in heavy field and data collection mode. In regard to the Heights Hilltop interceptor area, in coordination with the watershed team leaders, 10 of the 12 community meetings have been completed where the District meets with communities to show the findings of the studies. The meetings have been well-received and final reports should be completed and provided to the communities this fall.

The Mill Creek combined sewer area evaluation is complete, and the reports have been received and are currently in internal review at the District. When the District prioritized the combined area there were over 2,400 model sub-catchments. The District was able to look at about 30 percent of those and provide 54 detailed problem assessment area evaluations, 24 of those have pretty detailed rehabilitation including capacity enhancement, parallel relief, stormwater off-loading as well as cost associated with those projects. Fifteen of these problem areas were found to have been solved by either Cleveland Division of Water Pollution Control (WPC) or District projects. There are 15 other areas that were determined to not really be a problem due to a couple of different factors such as the fact that the model was not completely up to date in that area, in which case the model has since been updated. It also might just be a local O & M issue that was found and confirmed. The idea is to meet with WPC in August and provide the final reports this fall.

One of the things that was developed with the MCI team was a GIS-based tool and this was in coordination with our GIS group. This tool can be shared with the communities. When communities are doing a water main job or a road widening or some other sort of rehabilitation they could come to the map tool and click on one of the map areas and ultimately it pulls up a fact sheet associated with one of those problem assessment areas described earlier. This is a quick way to see where the project is, why it was prioritized, what field work was performed, what alternatives were evaluated and what planning level costs associated with that as well as what is missing. The tool is a help for next steps for a community to take these projects to the next level. These projects can obviously come back to the District for funding through our Member Community Infrastructure Program (MCIP).

Mr. Fussner next described the Mill Creek combined sewer area. He said it is 70 percent through the calibration and 40 percent through the alternatives development. He went on to state that of the 2020 MCIP applications, eight of the applications received were supported through data collected under the LSSSES, so this would be anything from modeling, flow monitoring, manual inspections, CCTV, smoke and dye texting. Applications are greatly enhanced by this information. Mr. Fussner stated one thing to highlight from the planning group, is the Water Environment Federation National Collection System Conference that he attended where he took place in a monitoring and modeling workshop. It was an all-day workshop where he was able to share the District's monitoring efforts and how the District developed a standard to help standardize deliverables and manage all the different monitoring contracts, which was well-received.

One of the things highlighted was the common trench systems in the District. He received many condolences from the group about these systems as this is a very unique issue that not many people nationally have seen. Another thing that was shared in a separate presentation was an integrated tool for sewer planning that the Heights Hilltop Interceptor Team developed. It is a very sophisticated tool that integrates the GIS and the hydraulic model. It can predict basement backups using the model and it can run various alternatives to solve those basement issues and associated cost with those all in one place. Ultimately this tool is going to be shared with all of the LSSSES teams which provides a great cost savings to the other projects. It also maintains consistency in the data and the deliverables that come out of the projects.

Mr. Ciaccia stated that when the District first put the program together there were some pretty large numbers related to costs for carrying these out. He said over the last year, numbers are well below. He asked if these are actually being performed at less than anticipated, dollar-wise?

Ms. Marshall responded that in regards to the Heights Hilltop, which is the one wrapping up, most if not all the budget is going to be used. In some cases, where the projection on the cash flow might have been behind, the District may have decided to hold those up due to other reasons such as staff availability for field work and data collection. For the most part, they are tracking this year in regards to what was estimated for the spend for 2019, but consultants tend to conservatively budget because of fear that they are going to go over what is allowed to be spent in a given year.

Mr. Ciaccia stated that the communities are very responsive and happy with the results that they are seeing and feel this is going to be useful.

Ms. Dreyfuss-Wells added that there has been a lot of conversation about how to present this information to communities because obviously there are Title III implications. There are regulatory implications to this and long-term funding questions. The District has a long history of providing the best technical information and then helping folks get to a solution.

Mr. Brown stated that as an example, more specifically to him, Deforest has a history of just being a problem. There is one home in particular there, that gets three or four feet of water in the front yard on the large storm events so that is a local sewer issue as well as capacity and the relief sewer which ultimately ends up in the basin. He is hopeful based on the conversations here that between the City of Cleveland and the District some outcome will result in projects to eliminate those issues.

Mr. Fussner stated that the Lee/Deforest location is low area and the District is going through alternatives for that area that we will share with WPC.

Mr. Greenland stated that wherever regional streams are traversing, these areas are being looked at by the District to keep that flow off the streets.

Mr. Brown raised concerns with lake level and river level and whether, as a result of doing this due diligence and then spending all this money on these projects, there is a situation down the road where there are still huge capacity and/or erosion issues that the District is looking at. There is a project on the North Coast Harbor where, if built two years ago, the entrance of the bridge would be three inches under water right now and it would need to be redesigned. Toronto also built a bridge that is now under water.

Ms. Marshall responded that, from the wastewater side, the focus on level of service is the five year, six-hour storm. She added that the District is also looking for solutions that get the wet weather out of the system as opposed to transport and treat or upsize. The District is first and foremost trying to get the wet weather flow out of the sanitary system. Another thing that plays a big role in this is not only potentially the changing rain patterns, but also aging infrastructure being

leaky. Reinvestment in the local infrastructure from the MCIP program is very critical to helping with all of that.

Mr. Greenland added that on the regional stormwater side the District is looking at recent storm events. Lucky or unlucky, a lot of them have occurred during the monitoring period of these master plans, so the District is getting a real-world view. Recent storm events are being compared to historical records. The most recent scientifically basis that people use is a 2004 long-term precipitation projection for different regions, including Cleveland, so the District is using that and comparing it. What the District is trying to do is push level of protection, flooding, and erosion, up to 100-year storm, where it can. It is not going to get there everywhere so the District is trying to push as high as it can, but a 100-year level of protection on stormwater flooding comes at a very significant cost. The District is going to understand those costs and realities and try and push the envelope as high as it can to keep stormwater off the streets, out of the neighborhoods - keep it in the streams.

At this point, Ms. Marshall's presentation concluded, and Mr. Greenland discussed the half-year update for the RSMP. He began with the expansion of the District's stormwater program. North Royalton was first and now the District serves on a regional level the entire community. The District does not serve that entire community on the sanitary side. Recently the northern half of Olmsted Township came into the District, so the District is starting to get more of an envelope around the Rocky River tributaries and hopefully this effort can continue going forward. Mr. Greenland referred to slides showing the holes on the periphery and stated he is hopeful this program will expand to those areas. Mr. Greenland added that when the District started the program, the goals or estimates were 85 to 90 percent collection of the new fee. Since 2017 there was a jump and now the District is at over 95 percent collection. The District's billing services team under Mike McGing, Manager of Billing Services, is involved, the GIS services team is doing a great job in making sure all of the parcels are digitized and the District is collecting revenue.

Mr. Ciaccia asked for the collection rates on the stormwater-only accounts. Mr. Greenland responded that they would get that information for him.

Mr. Greenland went on to discuss Stormwater Inspection and Maintenance (SWIM) activities. He stated that he believes SWIM to be caught up with woody debris removal. He referred to a slide showing a chart of the annual large woody debris removed indicating the total cubic yards of primarily woody material removed from the streams. In 2016, the program had just started back up so the contractors were "re-procured" out in the field. Mr. Greenland said that the numbers on the chart show the number of projects where woody debris removal occurred. In 2017, there was removal of a lot of cubic yardage of debris and a lot of projects. In 2018, the number started to come down. The recent storm events brought on some pretty good timber in certain locations but for 2019, it is not expected that the 2017 total will be exceeded. The District cleaned up the system and will continue efforts to keep it cleaned.

Next, Mr. Greenland showed slides of before and after pictures of various sites. On the maintenance side, the District assisted the City of East Cleveland along Dugway Brook. There is a long-forgotten dam and there are trees on the emergency spillway. Ohio Department of Natural

Resources (ODNR) cited East Cleveland because they were in non-compliance. The District worked with East Cleveland and ODNR to clear that emergency spillway and it is in great condition today. Next, he showed a slid of a large-scale woody debris removal at the shipping channel on the Cuyahoga River. It is very near the site of the fire 50 years ago. Collection of timber started behind the bridge and then due to all of the rain around the time of the event it continued to pile up. The District successfully removed this material, estimated to be 800 to 1,000 cubic yards of timber. This site is now clean.

Bear Creek is another example where there is a lot of woody debris and material blocking culverts. When this occurs and there is a big rain, there are going to be problems of flooding and erosion, and the District took care of this as well.

In the area of watershed technical support, the Cuyahoga River South master plan is complete so the community reports and meetings are going out and the District will begin prioritizing project recommendations from this master planning study. Not all of them are the highest of priority. Projected cost is \$223 million in Cuyahoga River South SWMP. In the Cuyahoga North master planning area the District is at about 84 percent complete and towards the end of this year this study should be completed. This study is in the urban core, Big Creek and other tribs in the Cuyahoga North area. The culverted stream issue is one the District is going to continue to talk about. That technical memo is in and it is being reviewed as to cost.

The Crossings Technical Memo is separate from culverted streams. The Crossings are those bridge crossings that really are the responsibility of the community, the county responsibility, or ODOT. The District is analyzing all the culverts and will be meeting with communities to talk about those results. The reports are coming in and by the fourth quarter expect to start the discussion with communities. An interesting partnership between Brooklyn and the District was the installation of a gauge upstream of the Wal-Mart/Sam's Club area as an advanced warning system for them. That's an area with very acute flooding where cars get trapped and people get trapped. So a gauge went in and then there was a big storm and they had 27 minutes to warn people and the Fire Department could try to get people of those buildings. The warning system worked and they are fine-tuning the response.

In the Rocky River area this master plan will be complete next year. It is about 65 percent complete now. This is an area that got a significant amount of rain in those most recent rain events so in this area Olmsted Township is being studied and Abram, Baldwin, Baker, and Blodgett Creeks are being studied. Baldwin is a classic example of a stream that has experienced a lot of flooding. Bonnie Banks is in that watershed area. The District, under the RSMP, has implemented initial measures primarily to arrest the most severe and acute erosion issues. Examples are the art museum and Nagy Boulevard.

In other areas we have brought existing facilities and restored their existing capabilities. Bonnie Banks is a good example. Bonnie Banks had a lot of sediment in it. The District dug that out to its original capacity and in that storm it filled that basin and worked as it was intended. Now Bonnie Banks is being studied. There are additional recommendations to handle those larger storm events so additional storage is probably part of the mix. Additional culvert conveyance is part of

the mix and the District is in the process now of evaluating those alternatives to determine the next steps at Bonnie Banks. Across the District's service area these master plans are developing those longer-term recommendations to alleviate the flooding issues that are occurring, and these projects will tend to be much bigger than the ones implemented to date.

Mr. Ciaccia asked if what was done in that project was remedial in nature. It was not complete of what was planned because the way it came off in the news was as if the District did something that did not work. Obviously, this storm just was much larger than what had been done from a remedial standpoint.

Mr. Greenland agreed and responded that capacity was restored. The rest is coming and the master plan and Rocky River will identify those solutions and then the District will get them into the mix for implementation.

Mayor DeGeeter expressed his thanks and appreciation and said that one of the things he has not told the residents that live on Stormers Drive that got hit but elsewhere was had the District not performed that dredging, he is not sure what that neighborhood would have looked like with that torrential downpour. The problem is corrective action was taken a couple of years ago before the stormwater came in internally. Then we got capacity back. He went on to say that there was a flooding meeting and just two wards were hit on that July 5th and that he wanted to recognize Matt Scharver, Deputy Director of Watershed Programs, and Donna Friedman, Watershed Team Leader, for doing a tremendous job and presentation.

Mr. Greenland added that the District is trying to push the envelope up to the 100-year storm. He said he does not know where they will get with storms and the Bonnie Banks area. He said there is anecdotal information about that storm and in some places five- to ten-year and he has heard approaching 200-year of some isolated cells. That is a very high storm level. So from a stormwater management or a sewer management perspective, that is a very difficult storm to handle but the District is still going to try and push that envelope up higher.

Mayor Stefanik said he wanted to recognize the District staff that came out to North Royalton for the Council meeting on Tuesday night. He said Matt and his team did a great job. He said thankfully only a couple of elected officials were yelling and screaming. It was educational for residents to hear when there is five inches of rain an hour and the storm sewers just fill up and there is nowhere for their footer drains to empty out into except for an inch or two in basements, and most of the people understand that but that the District has recommendations in the area up at Oak Ridge -- the northeastern part of the City. He said that he is looking forward to working with staff to implement those measures, hopefully sometime later this year or next year. He said everyone did a great job explaining it. They were out there Saturday and Sunday right after the storm evaluating the stormwater system and it meant a lot to the City and a lot to the residents, too and he wanted to thank everyone.

Mr. Greenland stated that Chagrin River and Lake Erie direct tributaries is the last of the four master planning studies. It is about 25 percent complete. This is in a big combined sewer area, primarily Euclid Creek, Doan, Dugway, Nine-Mile, and those types of streams. Projected

completion is into 2021. There are a lot of culverted streams in the combined sewer portions and other open stream segments, so the District has pushed the TV inspections of the closed culverts and geomorphic inspections of the open streams so that is where the bulk of the work has occurred to date. They are going to now move to additional data collection but then it is the model and problems and alternative solutions in trying to identify what is best to solve problems in this area.

Mr. Greenland said he wanted to discuss more about culverted streams across the regional stormwater system. He showed slides depicting Dugway Culvert and the Brookside Drive culvert which was a temporary repair in the Big Creek watershed. The District is trying to identify the length in miles of culverted stream, to characterize their location. He wants to find out if they are within a purely stormwater area or are they in the combined sewer area, because you have combined sewer overflows discharging to these streams. The District has a little bit to go on the Chagrin and Lake Erie tribs. The District looks at who owns these things or who potentially owns these things. And it is a mixed bag depending on whether you are in the stormwater area or the combined sewer area. Then we are developing costs and to date, the costs are \$50-plus million. There is no cost information on the Lake Erie tribs, but the District does have a lot of miles of culverted streams. We're going to compile all this information and bring this to the Board towards the end of this year and have a good discussion about culvert ownership responsibilities and how we are going to execute the work necessary to protect these culverts going forward.

Mr. Greenland moved discussion to property acquisition and stated that area is going very well and that is a tribute to the Legal Department as well as a new hire in the watershed program area looking at the long-term property acquisition situation. There are big projects that are going to involve property either through acquisition or easements going forward. The not-so-good news is that budget has been spent – a total of \$4 million for the year. This is just slightly exceeding the budget so there will be discussions at some point later in the year transferring potential operating funds into the capital fund, but these investments are necessary to drive the big projects going forward.

Mr. Brown asked that, because a lot of notices are going out for people to recertify their floodplain areas, does the District work with our member communities to make sure that things that the District is procuring, get articulated correctly in the state's map?

Mr. Greenland said the District had discussions with the city engineers. The models are starting to generate some of the information necessary for map revision purposes. It has not been an initial focus of the District's program, but he said that he sees this as a future focus going forward.

In terms of goals and the improvements, the District has a pretty good handle now on tracking from acquisition through maintenance to make sure the District is taking care of all the properties. Water quality is a big deal in the RSMP. It is one of the three tenants of the program: erosion, flooding, and water quality. Phosphorus and algal bloom issues on Lake Erie are largely driven by sediment discharge from rivers to the lake that carries phosphorus. The District is addressing water quality in all of its projects, looking for opportunities to have water quality gains.

BOARD OF TRUSTEES

Regular Meeting

July 18, 2019

Page 18 of 21

The nomination process has been revised for projects to incorporate more water quality provisions because they were not there and they were not scoring well. The District coordinates with our Water Quality Industrial Surveillance group to collect the types of data needed to understand the water quality gains the District is achieving going forward.

In the design and construction area, KPIs are tracking well. The only one missing right now is the average of the bids plus or minus 10 percent and the bid came in very low on a project. The rest are tracking or hitting the KPIs which is good news. The spend as well as the capital is doing pretty well on the operating budget particularly in the area of design construction on the master plan spend, tracking at 96 percent right now. The department is pushing the program which pushes the budget so discussions about controlling the budget are upcoming. The District is making a difference and starting to build projects that really make a difference in the community. He showed a slide of before and after in Beecher's Brook in Mayfield Village. There is a much better situation for those homes. Next, he showed slides of the art museum area of Doan Brook before and after. Vegetation will emerge. That project is complete and it is a major success. He showed a picture of where the project is at now - no vegetation but that spillway is gone, the erosion is gone.

Mr. Greenland stated that the District recreated a stream that actually facilitates fish passage. John Rhodes from WQIS is going to fish for steelhead up in Big Creek because the fish will pass this area and it would be a good story for the District to have steelhead trout in the urban corridor.

Mr. Greenland added that the Towpath is one of the earlier projects, and this is on the Cuyahoga River which was eroding into the Towpath Trail and the canal, so it was a bad situation. He showed a slide of what it looks like today showing it is held together really well. Next, he introduced Matt Scharver, Deputy Director of Water Program to talk about programmatic delivery along Mill Creek and how all these pieces come together.

Mr. Scharver displayed slides depicting the Mill Creek Watershed. He indicated that the yellow polygons are the problem areas, and essentially Mill Creek is covered in 16 problem areas, with multiple projects and multiple phases. There is a lot of work to be done. What is not shown on the map are the feeder streams, the headwater streams that once existed before the area was urbanized. Compare that to our circulatory system, so you have the capillaries that feed your arteries and veins and ultimately get to your heart which is the most important, so, for the District from a watershed perspective, those capillaries, the feeder streams, are gone. All that remains is the skeleton of Mill Creek so that is what the District is working with. There are eight member communities within the Mill Creek Watershed and within the watershed boundary are a series of projects. Impervious area covers nearly 40 percent of the Mill Creek watershed which is a bad news story for Mill Creek. Next, Mr. Scharver displayed a graphic in red, showing the culverted streams. He said of that regional stream system, the District has at least six miles of culverted streams in Mill Creek's watershed, which is very problematic in terms of trying to get Mill Creek to function properly.

This Mill Creek Stabilization at Warner Road project was actually one of the District's first projects executed under the RSMP back in 2013. This was an emergency project on the border of Garfield Heights and Cuyahoga Heights where Mill Creek was slowly marching towards Warner

BOARD OF TRUSTEES

Regular Meeting

July 18, 2019

Page 19 of 21

Road. A significant Dominion East Ohio gas line was located there so Mill Creek was stabilized temporarily. That temporary stabilization in 2013 has held through 2019. Of note on the picture is the annual sediment, phosphorus and nitrogen capture for the project and these estimates will be on the following examples as well, tracking our ability to pull soil from the system through erosion protection and what that means in terms of nitrogen and phosphorus reduction under the program.

Mr. Ciaccia asked if the picture is some sort of extrapolation or is there a monitor there actually performing monitoring.

Mr. Scharver stated that the District looks at how many linear feet of restoration is being done and using the US EPA STEPL Program to model that analysis. That is how those numbers are estimated and tracked. At the bottom of the watershed is Garfield Heights and Cuyahoga Heights. Flipping up to the upper end of the watershed is Highland Hills. The project is the Highland Hills -- Highland Park Golf Course - 4,300 linear feet of restoration. Six acres of floodplain was captured. The District removed an online basin, removed all the gabion baskets from the streambanks and basically freed Mill Creek to flow freely again with access to its floodplain. He pointed out the picture on the right, depicting exactly what the District needs to achieve in terms of rehabilitating the riparian corridor to allow these major streams to flood where they should flood and not in people's homes.

Next Mr. Scharver showed a slide illustrating a partner project, Mill Creek restoration in Highland Hills involving 1,100 linear feet of additional restoration. This is a Section 319 Project that the Mill Creek Watershed Partnership is implementing, so the District helped stand up that nonprofit organization through our Watershed Service Agreement Program and now this is the first major project that they are implementing. The District is supplying \$175,000-worth of funding to this project in addition to our technical service, expanding our ability to implement projects through our partners, which is a good example.

Along the lines of our ambitious property acquisition, the Mill Creek Stabilization Project in Warrensville Heights is a good example of where stormwater master planning plays a significant strategic role in defining what should be done first.

Next, he stated that the District is working with the City of Warrensville Heights to acquire up to 16 parcels. The District has captured four so far and a few more are in the appraisal process so there is incremental progress towards getting these parcels captured so the District can do a holistic restoration along Mill Creek. Next, is the Kerruish stormwater basin. This is a key flood control facility in the Mill Creek Watershed located in the City of Cleveland and in Warrensville Heights. This is where SWIM plays a significant role for us.

In addition to their debris removal projects, SWIM was able to orchestrate compliance with ODNR, Division of Water - Dam Safety Program, in terms of removing the collected sediment within the basin and addressing all the deficiencies with that Class I dam. In addition to this flood control facility which protects Maple Heights, Garfield Heights, and other communities downstream, the District will have additional restoration upstream of this project most notably to protect a local sanitary sewer that is fully exposed right now on Mill Creek and is very vulnerable.

There are many more things to fix but this was very strategic in terms of getting the City of Cleveland back into compliance particularly with helping them get the emergency action plan and their operation and maintenance plan to ODNR for full compliance.

Mr. Scharver discussed the Ohio Environmental Protection Agency (Ohio EPA) water quality standards for Mill Creek and all of the streams and rivers in the District's service area. The lower Mill Creek is in full attainment, but on the table shown on the slides in the upper reaches of Mill Creek the District is either in partial or non-attainment, so there is much more work to be done. All this programmatic delivery long term will bring the District to hopefully full attainment throughout the watershed.

Switching gears to the watershed programs itself, he wanted to highlight the Community Cost-Share Program. An example is in Oakwood Village where the Village took their cost-share dollars and implemented a local project in terms of removing a collapsed culvert on Little Bear Creek.

Another example, in Middleburg Heights, relining culverts that have structural issues. At this point, the District has eclipsed the \$10 million mark in terms of Community Cost-Share funds being executed at the local level, 160 projects completed so far. The District is closer to that magic number of 55 out of 55 communities participating. There are a few communities that have not committed to what they plan to use those dollars for, so they are holding it in reserve for particular projects. Beyond this \$10 million investment that is already in the ground and that has been made in terms of equipment purchase, stream restoration, catch basin cleaning and things of that nature, the District has another \$9 million worth of agreements either executed or in process and then another \$9 million on top of that in terms of allocation agreements. These are local investments coming to the region that complement the regional investment that the District is making.

VIII. Open Session

There were no items.

IX. Public Session (any subject matter)

There were no items.

X. Executive Session

There were no items.

XI. Approval of Items from Executive Session (if necessary)

N/A

XII. Adjournment

MOTION – Mr. Brown stated business having been concluded, he would entertain a motion to adjourn. Mayor Bacci moved and Ms. Dumas seconded the motion to adjourn at 1:55 p.m. Without objection, the motion carried unanimously.



Timothy J. DeGreeter, Secretary
Board of Trustees
Northeast Ohio Regional Sewer District



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