



CITY OF FORT LAUDERDALE

DRAFT

**CITY OF FORT LAUDERDALE
SPECIAL MEETING MINUTES
INFRASTRUCTURE TASK FORCE ADVISORY COMMITTEE
WEDNESDAY, FEBRUARY 1, 2023 – 10:00 A.M. TO 12:00 P.M.**

| <u>Board Members</u> | <u>Attendance</u> |
|------------------------------|-------------------|
| Marilyn Mammano, Chair | P |
| Peter Partington, Vice Chair | P |
| Gerald Angeli (dep. 11:59) | P |
| Shane Grabski (arr. 10:09) | P |
| James LaBrie | P |
| Michael Lambrechts | P |
| Michael Marshall | P |
| Roosevelt Walters | P |
| Ralph Zeltman | P |

As of this date, there are 9 appointed members to the Committee, which means 5 would constitute a quorum.

Staff

- Alan Dodd, Director of Public Works
- Chris Bennett, Assistant Director of Public Works
- Omar Castellon, Assistant Director of Public Works – Engineering
- Dr. Nancy Gassman, Assistant Director of Public Works – Sustainability
- Vickie Beauvais, Senior Administrative Assistant
- Susan Grant, Assistant City Manager/Finance Director
- Jamie Opperlee, Recording Secretary, Prototype, Inc.

Communication to the City Commission

None.

1. Call to Order

i. Roll Call

Chair Mammano called the special meeting to order at 10:03 a.m. Roll was called, and it was noted a quorum was present.

ii. Approval of Agenda

Motion made by Mr. Walters, seconded by Vice Chair Partington, to approve as written. In a voice vote, the **motion** passed unanimously.

New Committee member Michael Lambrechts introduced himself at this time.

2. Old Business

i. Update on Comprehensive Agreement for Water Treatment Plant

a) Discussion of Joint Workshop

Chair Mammano recalled that the Committee has held two joint workshops with the City Commission to discuss the proposed new water treatment plant and the public-private partnership (P3) to build and operate it. The Commission will meet on Tuesday, February 7, 2023 to address this issue.

Mr. Dodd recommended that the Committee and Staff review the list of questions provided by the Committee members. Representatives of the City's owner's representative, consultant Hazen and Sawyer, and of IDE/Ridgewood, the private partner entity, will also be available to provide additional information.

Mr. Grabski arrived at 10:09 a.m.

Mr. Dodd clarified that the minutes from today's meeting will not be provided in time for the Board's regularly scheduled meeting on February 6. He recommended that a representative of the Infrastructure Task Force Committee (ITFC) attend the February 7 City Commission meeting and be prepared to share any conclusions or recommendations during the public comment portion.

Mr. Dodd next addressed the City's agreement with the South Florida Water Management District, which would allow the use of water from the C-51 to supplement water drawn from Broward wells. The City has purchased an additional three million gallons per day (MGD) from that canal to augment what is provided through the consumptive use permit. This agreement will require no additional infrastructure, as the C-51 canal collects water that is then introduced into the Biscayne Aquifer. This allows the City to draw more water through the aquifer and the existing wells.

Mr. Dodd continued that the Fiveash Water Treatment Plant was neither designed nor constructed to a hurricane-resilient standard. For this reason, the City cannot state that it is built to withstand a hurricane of any category. Staff has identified a number of areas of particular weakness within the plant and is working to address them.

Mr. Dodd advised that the proposed new water treatment plant will be constructed to meet current Building Code requirements for resiliency. It should be able to withstand a Category 5 hurricane. He noted that should the Fiveash plant be disabled, there is no backup plan other than using the Peele-Dixie Water Treatment Plant, which can produce up to 12 MGD. If water cannot be produced at Fiveash for two to three months,

the City would have to make emergency agreements with other water plants to deliver water to Fort Lauderdale residents.

Mr. LaBrie expressed concern that the City does not have a definitive disaster plan to provide water in the event of an emergency, and asked what entity the City would buy water from if that became necessary. Mr. Dodd explained that there are multiple other water treatment plants in the area: the City would need to make a deal with one of them, depending upon the severity of the emergency. It could also be necessary to reach out to a plant farther away, again depending upon the emergency situation.

Mr. Walters asked if there are any arrangements already in place with Broward County or other water treatment plants. Mr. Dodd replied that the City collaborates with these other entities, but there is no contract in place.

Mr. Zeltman pointed out that there are “interconnects” with surrounding communities. George Brown, representing Hazen and Sawyer, further clarified that the City has 10 interconnects, although he was not certain that these could satisfy the demand for Fort Lauderdale.

Mr. Brown stated that for the purposes of the City’s water use permit, five years’ worth of data is required by the South Florida Water Management District. From 2015 through 2020, the five-year average treated per capita use rate was 169 gallons per day, which is a significant decrease from the last water use permit update in 2008. The City works aggressively toward conservation.

Omar Castellon, Assistant Director of Public Works (Engineering), addressed security, stating that the City uses a Supervisory Control and Data Acquisition (SCADA) system, which is not connected to the internet. This means hackers cannot access it without physical access to the plant. Should an emergency occur, and the SCADA system is destroyed, it is duplicated through a backup system. The new plant will be built to the same or higher standards to withstand cybersecurity threats.

Mr. Dodd next addressed the physical location of Fiveash is bounded by I-95, the railroad tracks, a County park, and a water tank. This leaves no room to expand the existing system.

Dr. Bill Becker, representing Hazen and Sawyer, addressed a question regarding alternative treatment processes, such as use of ultraviolet (UV) light. He explained that while this process provides some disinfection, it does not create a residual disinfection effect for the water distribution system. This means if UV light were used for water treatment, chemicals such as chlorine would still be required. The chemicals used for a treatment system are determined by the amount of natural organic matter in the water.

Chair Mammano requested clarification that this meant there was no way to avoid the use of chlorine at the Fiveash plant. Dr. Becker replied that there is a regulatory requirement to use chlorine in the United States in order to achieve a minimum residual level throughout the distribution system.

Chair Mammano also asked if ammonia must be used with chlorine. Dr. Becker reiterated that this depends upon the amount of organic matter in the water, acknowledging that there is a significant amount in the water treated at Fiveash. Ammonia is necessary for this reason.

Chair Mammano asked if it would be possible for the new plant constructed under the P3 to switch to a different water treatment method in the future, such as free chlorine. Dr. Becker replied that nanofiltration and ion exchange technology will remove most of the organic matter from the water, which means the City could switch to free chlorine; however, he pointed out that a study would be necessary first to ensure that the existing system would not be destabilized and negatively affect water quality.

Mr. Dodd moved on to a question regarding the recommendations of the City's 2017 Comprehensive Utility Strategic Master Plan (CUSMP), stating that staff did not have sufficient time to analyze that plan's recommendations and compare them to projects that have been completed since the plan was adopted. He pointed out that projects and priorities have changed over time, and suggested that this be discussed further in the future.

Regarding the P3 arrangement, Mr. Dodd explained that at present, the City is going into the design/build phase of the proposed project and has retained Hazen and Sawyer to act as owner's representative. In that role, Hazen and Sawyer will review design plans, interact with the contractor as the facility is built, and perform quality assurance services on behalf of Fort Lauderdale. City Staff will be involved in this phase as well, although Hazen and Sawyer will act as the primary lead for project management.

Once the plant begins operations, City Staff will oversee the water distribution system to ensure compliance between the new facility and the overall system. No consultant will be involved at this time.

Mr. Walters asked how any new processes would be implemented or adapted over the 30-year life of the agreement. Mr. Dodd confirmed that there are mechanisms within the contract which ensure that either the City or the private entity can recommend the adoption of new technology. The costs associated with that change would be evaluated, and a change order would be made to the comprehensive agreement.

Assistant City Manager/Finance Director Susan Grant advised that these costs would be attached to the project even if the City decided not to proceed with a P3, as the

services provided by Hazen and Sawyer would still be necessary. Mr. Castellon noted that if the City undertook the project itself, there would be additional charges.

Mr. Dodd addressed a comment by City Commissioner John Herbst at the recent joint workshop between the Commission and the ITFC, which alluded to the possibility of a parallel approach using the RFP process. He advised that when the contract was awarded on June 15, 2021, there was a recommendation to fund a contract for Phases 1 and 2 for \$2.5 million. The Commission did not approve this recommendation, instead approving a revised agreement which only funded Phase 1 at \$250,000. No design work was funded at that time, which was why the parallel approach never proceeded.

Vice Chair Partington asked how long preparation of an RFP design package for a large capital project of this nature might have taken Hazen and Sawyer to develop, as well as how long it might take for construction to begin on the project. Mr. Dodd explained that the City would have had to renegotiate the task order with Hazen and Sawyer, prepare a budget amendment, and construct a design criteria package, for which the timeline would need to be negotiated. This would be followed by the solicitation process, which can take six to nine months or longer before a contract is awarded. He estimated that the best-case scenario to achieve all this would be roughly two additional years.

Mr. Dodd continued that the City has not had any discussions with previous IDE/Ridgewood clients or visited their other sites. Ms. Grant added that when Ernst and Young performed a comparative analysis of the four private proposals, they had verified the existence of previous projects by all four companies. Mr. LaBrie expressed concern that there had been neither outreach nor a site visit.

Mr. Dodd moved on to the design of the new plant, including the roles of the two deep injection wells. Mark Janay, representing IDE/Ridgewood, confirmed that both wells will be used intermittently to ensure they are properly maintained; however, they did not anticipate a need to use both injection wells at the same time, with one well acting as backup. Regulatory testing processes will require the use of one well for testing while the other well operates the plant.

Mr. Dodd asked if any of the existing wells at the Prospect Wellfield would be lost in the placement of the two deep injection wells, pointing out that the Florida Department of Environmental Protection (DEP) requires 500 ft. of separation between deep injection wells and existing raw water wells or bodies of water. Mr. Janay replied that it will be ensured that the new deep injection wells do not intrude into the 500 ft. buffer for raw water wells.

Clarification was also requested of the discrepancies in costs between design requirements for equipment and the “allowance” for this equipment. Mr. Janay explained that the chemical and electrical guarantee assumptions are identified in comprehensive agreement Annexes L-1 and L-2; there are also design consumption and guaranteed

maximum consumption costs, which relate to Annex G of the agreement. A number of parameters are listed for nominal/average conditions; however, there may be times in which certain wells are being used and a higher flow rate exists, which would require the use of additional chemicals and/or power to continue to meet finished water quality requirements. This use would define the upper limit of the costs. Should the guaranteed maximum consumption be exceeded, IDE/Ridgewood would pay for it.

Chair Mammano observed that there is a significant difference between the budget and permitted costs for some items, such as chemicals. Mr. Janay replied that this is due to the assumption of a worst-case scenario, such as the possibility that all water treatment parameters are higher than anticipated and it is more costly to produce finished water to the required quality standard. He confirmed that there will be times when a much greater use of chemicals is required, although these may be few and far between.

Ms. Grant addressed the options for the private entity and equity partners to exit the deal, stating that the operator will remain in place for 30 years and cannot be replaced without the City's permission. This could involve either financial control or actual operations. While the operator cannot be changed without the City's consent, the project company is committed for the period of construction plus two years. After this time, the company would be able to transfer its financial interest to another company, which would again require the City's consent.

Vice Chair Partington asked if IDE/Ridgewood would be able to sell its stream of income from the proposed plant to another party after the plant is built. Michael Albrecht, representing IDE/Ridgewood, confirmed that this is a potential outcome two years after the plant has been built. The party would have to be vetted and approved by the City Commission, based upon restrictions in the comprehensive agreement. Ms. Grant advised that this language is typical of City contracts.

Mr. Walters asked who might be responsible for replacing the plant's operator if that entity went bankrupt and/or walked away from the project. Ms. Grant replied that this would be considered a default on the agreement, and the contract includes provisions that address this possibility.

Mr. Albrecht added that in the unlikely event this should occur, there is a process within the comprehensive agreement through which the City and the project team would work together to replace the operator. He reiterated that the City would retain full control over the choice of new operator.

Ms. Grant addressed the 5% surcharge on water bills, which was instituted in October 2021. Another 5% was allocated to be set aside for the new water treatment plant, whether constructed by on its own or through a P3. Fiscal year (FY) 2021-2022 was the first full year of this surcharge, which brought in an estimated amount of \$4 million. By the end of FY 2022-2023 in September, it will bring in another \$8 million.

The new rate structure for water will replace the older structure in year three, incorporating \$20 million as an offset to the expense of debt service. By year 10 under the new rate structure, the rate will increase by 139% and will be all-inclusive of previous increases.

Vice Chair Partington asked if water rates have been approved to increase annually even if the City had not opted for a P3. Ms. Grant explained that prior to the consideration of any water plant project, the rate was programmed to increase each year. An additional 5% increase was added the previous year to begin setting aside funds that could go toward a P3 or City construction of a new plant.

Vice Chair Partington asserted that this would mean if the City had undertaken the new plant on its own, water rates would need to increase by approximately 8.6% in perpetuity, which would constitute an overall increase of more than 100% within 10 years. Ms. Grant advised that in either case, the water rates would need to increase by more than 100% over a 10-year period to fund a new plant. Any marginal savings that might have come from the City constructing the plant itself are likely to be offset by time and inflation.

Mr. Janay advised that the inflationary increase over time is estimated at roughly 50% or higher, assuming only nominal inflation. If supply chain issues continue, this increase would be even higher. He addressed the availability payment, noting that 75% of this amount would go toward the repair/replacement and maintenance budget as well as the cost of consumables. IDE/Ridgewood assumes the risk if the costs of equipment and raw materials increase more than anticipated. The remaining 25% of the availability payment goes toward IDE/Ridgewood's on-site labor force, monitoring and laboratory costs, and insurance and other administrative costs associated with the plant.

Ms. Grant added that the availability payment includes the costs of the subordinate bond as well as the additional costs Mr. Janay had cited, which she clarified were non-capital expenses.

Ms. Grant continued that if IDE/Ridgewood is responsible for a delay of six months, liquidated damages would apply at a rate of \$8000/day. After 18 months' delay, this would represent a default, and liquidated damages would have increased to more than \$2 million.

Patrick Davis, representing Hazen and Sawyer, clarified that the amount of liquidated damages is intended to be reflective of actual costs. He added that it is difficult to translate this amount into a percentage, as a project's impact is not related to its size. Liquidated damages could also include the cost of buying water from another source if the plant is not completed on schedule.

Mr. LaBrie commented that the risk of building a new plant by RFP rather than by P3, resulting in the two-year delay discussed earlier, would also include the risk of potential weather events or other emergencies. He concluded that should the City decide not to move forward with the P3, it would need to reevaluate the timeline of projects designed to improve the Fiveash plant's lifetime before a new plant is constructed.

Vice Chair Partington stated that he had reviewed a number of City Commission Agendas from the past few years and identified approximately \$5 million per year in capital expenditure projects at Fiveash. He felt liquidated damages should be higher, at approximately \$5 million/year, which is closer to the actual cost of not moving forward more quickly with a new plant.

Mr. LaBrie requested clarification for the reason IDE/Ridgewood has not offered a margin of error in the original proposal. Mr. Janay replied that when IDE/Ridgewood submitted its proposal, no margin of error was included because they were submitting a fixed price, with no need to provide for increases at that time. A contingency of roughly 5% to 10% is built into the fixed price.

Mr. Walters asked what would happen to the contingency if nothing goes wrong with the project. Ms. Grant replied that IDE/Ridgewood could keep this money if there are no problems, but must cover the contingency if issues arise.

Mr. LaBrie also requested clarification of the 2.5% increase in the availability payment after year five. Ms. Grant replied that this is part of the cash flow model negotiated between the City and the private entity.

Mr. LaBrie also asked why IDE/Ridgewood had proposed a 1% inflation differential. Ms. Grant noted that this had been their initial proposal: after prices increased, the cash flow model renegotiated this amount at 5% for the first five years of the project and 2.5% thereafter.

Mr. LaBrie also pointed out that the project's delivery time has increased from 36 months on the original proposal to 42 months, and requested that the IDE/Ridgewood representatives explain this change. Mr. Janay replied that this change is a direct result of supply chain pressures, including the time necessary to secure equipment, materials, and labor.

Mr. LaBrie asked when the new plant would be operational if the City Commission signs the comprehensive agreement with IDE/Ridgewood in February 2023. Mr. Janay estimated this would be October 2026.

Vice Chair Partington requested clarification of the difference between wrapped and level debt service. Ms. Grant explained that there is existing debt in the water plant, which would be wrapped into any new debt in order to create level debt service. The

existing debt service has five years remaining, while the new debt may have smaller debt service in its first five years and larger debt service afterward. She added that over time, this will create more interest. It is also possible to capitalize interest over the first few years of a project, which could lower the impact on water rates in the shorter term but increase interest over the longer term.

Ms. Grant continued that if the City proceeds with the P3, she will reach out to financial advisors and rate consultants to determine a new set of numbers and new scenarios, respectively. She recalled that Chair Mammano had requested this information be presented to the Committee at a future meeting.

a) Presentation by City Owner Representative Hazen & Sawyer

Mr. Dodd recalled that during the Committee's joint workshop with the City Commission, there had been continued discussion of inconsistencies between the Carollo and Reiss reports provided to the City by previous consultants. He had requested that Hazen and Sawyer provide a brief presentation on this issue.

Dr. Becker showed a PowerPoint presentation addressing the scientific and engineering material available to the Committee, which include the 2017 Reiss Master Plan, 2019 Carollo report, and 2021 Reiss technical memo. The 2017 Reiss Master Plan notes that many of the Fiveash plant's systems are at the end of their useful life, and most of the electrical power distribution system is out of date and in need of replacement.

The Reiss team recommended a pilot study to determine the most effective and efficient design criteria. While the feasibility of granular activated carbon (GAC) is recommended to be confirmed by pilot testing, another option was the addition of new ozone and softening technology in case GAC processing alone was infeasible due to the raw water's total organic carbon concentration.

The Reiss Master Plan also states that pilot testing of ozone/GAC is the preferred color removal process. Due to the age of the Fiveash plant, it was determined that building a new and innovative water treatment plant may be the best option for the City. A new plant could be expected to produce approved water quality, easier operation, and lower maintenance costs.

Dr. Becker continued that the 2019 Carollo report states that the existing primary water treatment processes have exceeded their predicted useful life, as much of the equipment is old and uses antiquated technology, including electrical equipment. It was determined that continuing the investment in long-term use of existing facilities, while possible, was neither prudent nor recommended. He noted that this is consistent with the findings of the 2017 Reiss Master Plan.

Dr. Becker continued that Carollo conducted a small-scale research trial using water from the Fiveash plant to determine the viability of its GAC technology. The results indicated that GAC was not a viable treatment alternative, as the removal of carbon exhausted this technology to the point at which regeneration or replacement was required every two days.

Dr. Becker advised that Carollo's recommendation reminded the City that a key objective of the utility vision stated in the 2017 Master Plan was for all water treatment facilities to be state-of-the-art by 2035. It was recommended that the City proceed with the construction of a new water treatment facility at the Prospect Wellfield site, using a proposed treatment process consisting of a combination of nanofiltration and ion exchange.

Following the release of the Carollo report, Reiss conducted a pilot study, reiterating that GAC alone was not a viable process due to high organic carbon levels in raw water. The study took place from February to April 2021 at Fiveash to identify the feasibility and operational capital costs associated with implementing an advanced oxidation process in combination with biologically active carbon (BAC), replacing existing filters, and providing short-term color removal. The results of the pilot study showed that a combination of ozone and BAC would not meet color standards.

Dr. Becker continued that Reiss and Carollo have consistently recommended replacement of Fiveash's technology and infrastructure, although the later Reiss pilot study did not test the condition of assets and a definition of the useful life of a refurbished Fiveash plant was not provided. He advised it was probable that the study considered refurbishment in a short-term context only. The pilot study also demonstrated Fiveash's inability to meet color standards using ozone/BAC technologies.

Dr. Becker concluded that these studies could support a decision to construct a new water treatment plant, regardless of implementation method or vendor, and to use significant nanofiltration technology. Should an alternative facility be desirable to the City Commission, they would need to commission a study and document the reasonableness of that approach.

3. Public Works Update

i. Fiveash Options other than a P3 – Mr. Boyd Corbin and Mr. Bob Bowcock

Mr. Dodd stated that since other issues with the proposed P3 have been raised, the City had invited Boyd Corbin and Bob Bowcock to discuss the findings of the Reiss report as well. Mr. Corbin introduced himself as a water activist, stating that the Reiss Master

Plan and later pilot study disagreed with the Carollo report regarding the use of bromides.

Mr. Corbin briefly described the design of the existing Fiveash structure, asserting that it could easily withstand a Category 5 hurricane if minor upgrades are implemented. He advised that the Fiveash plant is in good condition, although one water storage structure would require roughly \$9 million in new motors and generators. He reported a discrepancy between this amount and an amount quoted by a member of City Staff.

Mr. Corbin continued that Hazen and Sawyer's report included older information and photographs, which he felt were intended to convince the City Commission and the public that the facility was in disrepair. He stated that a 1992 pilot study conducted at Fiveash showed only three major upgrades would be necessary for the plant to produce clear water:

- \$50 million ozone system, which could be leased
- Replacement of the existing carbon-based filter system with GAC
- \$10 million modern lime injection system

Mr. Corbin stated that these upgrades would cost a total of \$80 million. He further asserted that both GAC and lime can be regenerated for reuse, and are the most sustainable options available.

Mr. Corbin continued that the unsolicited proposal to build a new water treatment plant was based entirely on the 2019 Carollo report, which includes several mistakes he characterized as intentional. He also described the Carollo report's finding that carbon would cost \$115 million annually as a false statement, and concluded that their cost estimate was not accurate.

Mr. Corbin continued that nanofiltration would not be an appropriate technology for a new plant, noting that it would require significant capital costs and electricity bills. He reiterated that Fiveash and the Peele-Dixie Water Treatment plants provide a combined 41 MGD, which would require over 48 MGD of source water due to the waste he stated was a by-product of nanofiltration.

Mr. Corbin stated that while nanofiltration can remove 90% of PFAs from source water, GAC is capable of removing 100% of these substances. He felt the construction of a new water treatment plant was an unnecessary expense when money could instead be invested in repairing water and sewer pipes. He also addressed the addition of ammonia to water and did not believe that chloramine was a longer-lasting disinfectant than chlorine, nor was it an effective means to kill bacteria such as e.coli. He expressed concern with the effects of chloramine and monochloramine on humans.

Mr. Corbin continued that nanofiltration uses different types of membranes, and asserted that the membranes that would be purchased for a new water treatment plant

were unlikely to be the more expensive options. He felt the City's private partner would be more likely to continue to add ammonia to the water system instead.

Chair Mammano requested clarification of why Mr. Corbin's and Mr. Bowcock's presentations were placed on today's Agenda rather than being listed under Public Comments. Mr. Dodd replied that the City Commission has received a great deal of information from City Staff, Hazen and Sawyer, and IDE/Ridgewood; at the same time, individuals have brought forward other perspectives on how they feel the City should proceed. In order to ensure transparency and share information as the Commission prepared to make a decision, Staff was asked to provide opportunities for Mr. Corbin and Mr. Bowcock to present their recommendations as well. He noted that these presentations are intended for informational purposes only, and the Committee may ask follow-up questions if they wish.

Vice Chair Partington requested additional information about presenter Bob Bowcock. Mr. Dodd advised that Mr. Bowcock will present his information via Zoom. He noted that he was not familiar with Mr. Bowcock's background. Vice Chair Partington requested that in the interest of time, Mr. Bowcock's presentation be limited to three minutes.

Mr. Bowcock stated that a group of citizens invited him to the community five years ago due to concerns with recurring chlorine burns. He has met with prior Public Works directors, City Managers, and Mayor Dean Trantalis, and was familiar with the City's situation. While he was supportive of the efficiency of P3s, he expressed concern that Fort Lauderdale may be investing several hundred million dollars in a new plant without having fully thought through its alternatives.

Mr. Angeli left the meeting at 11:59 a.m.

Motion made by Mr. Walters, seconded by Mr. Zeltman, to extend this meeting by 30 minutes. In a voice vote, the **motion** passed unanimously.

Mr. Bowcock noted that there are multiple aspects of a water treatment system to be considered, including source water, treatment, storage, disinfection, and distribution. He cautioned that replacing the "heart" of this system while the rest of the system remains run-down could result in a similar situation to the one existing in Flint, Michigan.

Mr. Bowcock continued that the total organic carbon (TOC) found in Florida water is the reason for yellow to brown discoloration. The current water distribution system has become used to the existing water quality. The absorption of GAC would address any odors accompanying discoloration. He noted that the pilot project performed for the City had not used ozone or BAC properly, and that TOC would interfere with the equipment used.

Mr. Bowcock stated that the best available technology listed by the federal Environmental Protection Agency (EPA) is lime softening followed by GAC. He noted that unregulated disinfection by-products generated by chloramine in the distribution system are much more toxic than the by-products regulated by quarterly testing.

Mr. Bowcock continued that free chlorine burns are necessary because the water system's bacteriological growth is "out of control." He expressed with the effects this system may have on aging residents in particular, as well as with the results of chlorine burns on the distribution system. Changing the water quality at this time would have a significantly dangerous impact on infrastructure.

Mr. Bowcock continued that treatment plants such as Fiveash were not designed for a useful life of more than 50 years, and recommended that the City replace and repair this plant while a new facility is being built. He reiterated that the pilot study conducted at Fiveash was not done properly and its results adversely manipulated.

Chair Mammano asked Mr. Dodd how the Committee could best use the information being given them. Mr. Bowcock testified that the City's consultants and past studies were manipulated and incorrect. Mr. Dodd replied that the City stands by the reports and information provided by consultants Reiss and Carollo, as well as the opinions and evaluations conducted by Hazen and Sawyer, and does not believe information has been adversely manipulated or was presented with the intent to cheat or lie.

Mr. Bowcock stated that the broad conclusions found in the reports, and in the review by Hazen and Sawyer, repeatedly noted that there was no recommendation to use GAC. He continued that the lime softening technology used by Fiveash, in conjunction with GAC, works very well when operated properly. While the existing plant is old, he felt it could be rebuilt to provide superior water quality. He asserted again that the City needs to replace its failing distribution system, as a change in water quality would significantly affect this system.

Mr. Bowcock concluded that the City needs a comprehensive plan that considers source water, treatment, disinfection, storage, and distribution.

4. General Discussion and Comments

i. Committee Members

Chair Mammano stated that the Committee has recognized the problems inherent in running higher-quality water through an aging distribution system, and are aware the City has been involved in plans to replace the existing water and sewer distribution systems for at least six years. She requested information from Alan Dodd regarding the amount of capital funds expended on the water distribution system in the last five years and proposed for the next five years. Alan Dodd responded that in the last five years

\$34 million dollars had been spent on replacing water distribution pipes and \$55 million was scheduled in the coming five years. She noted that there are ongoing capital projects that would continue to replace these pipes. Chair Mammano requested that accelerating and prioritizing that spending be discussed at the next Committee meeting.

It was determined that the Committee would hold its regular meeting on Monday, February 6, 2023, to continue their discussion.

Vice Chair Partington commended the City on its transparency throughout the discussion of the P3 comprehensive agreement. He suggested that the Committee may wish to discuss issues such as the proposed treatment method, the Fiveash site vs. the Prospect Wellfield site and the P3 as opposed to a design/build process, before making their final recommendation.

Mr. Walters asked if the City Commission would also see the presentations provided by Mr. Corbin and Mr. Bowcock. Mr. Dodd explained that the City Commission would not receive documentation from today's meeting unless they request it, or it is provided to them separately.

Mr. Walters pointed out that there are several contradictions between these presentations and other information provided, and cautioned that including the two final presentations could create an issue. Chair Mammano added that many individuals have expressed alternative opinions, while the Committee has focused on the recommendations presented by the City's consultants and Staff. She did not believe it was the Committee's responsibility to provide the Commission with information that has not been independently evaluated for accuracy.

Chair Mammano read into the record a fact sheet she had prepared including the Committees' November 4 2019 Communication to the City Commission, which listed the recommendations the Committee made if the Commission should pursue a P3 for the new Water Treatment Plant (attached). These three conditions are essentially met in the Comprehensive Agreement.

Vice Chair Partington recommended that at their February 6 meeting, the Committee revisit its communication sent to the City Commission in February 2022, which recommended against proceeding with a P3. He requested clarification of how a new recommendation would be transmitted to the City Commission at their February 7, 2023 meeting. Chair Mammano stated that she would testify at the Commission's February 7 meeting if that was the desire of the Committee.

ii. Public Comments

None.

**5. Adjournment – NEXT SCHEDULED REGULAR MEETING DATE –
Monday, February 6, 2023**

There being no further business to come before the Committee at this time, the meeting was adjourned at 12:25 p.m.

Any written public comments made 48 hours prior to the meeting regarding items discussed during the proceedings have been attached hereto.

[Minutes prepared by K. McGuire, Prototype, Inc.]