#### South Central Connecticut Regional Water Authority

#### **Representative Policy Board**

Application to the RPB for the approval of the Lake Gaillard Water Treatment Plant Clarifiers, Recycle Pump Station, and Concrete Restoration Project and the HVAC and Electrical Improvements located in North Branford, CT

#### Public Hearing Transcription

February 24, 2022

Jamie:

Okay. I'll call this meeting to order. I'm Jamie Mowat Young, I'm presiding over this hearing tonight. I'd like to remind everyone that's attending that this is being recorded. I'll interrupt with a few procedural comments as we move through. When it's time for questions and answers, we won't set a limit on the questions and answers, but I will ask you to please identify yourself, if you're a member of the RPB, please identify yourself by name, that you're member of the RPB and what town you're from.

Jamie:

Members of the public, when the time for question and answers is open for you we'll ask you to identify yourself by name. If there are any callers present at this point, if there are any people that have called in that are not identified, can you speak up, please give your name and town if you can. At this point, just for purposes for Jennifer.

Mario:

Do not see anyone.

Jamie:

All right. Hearing none we'll move forward. Any attendees that wish to offer testimony must identify yourself with your home address and organization that you represent, any of the testimony that'll be given will be given under oath. I want to back up and read the notice of the public hearing, the representatives of the policy board, RPB of the South Central Connecticut Regional Water District will hold a public hearing to consider the South Central Connecticut Regional Water authorities application for approval of the Lake Gaillard Water Treatment Plant clarifiers, recycle pump station, and concrete restoration project, and the heating ventilation and air conditioning or HVAC and electrical improvements project.

Jamie:

The public hearing will take place on Thursday, February 24th, 2022 at 7:00 PM via remote access. Members of the public may attend the meeting via conference call, for information on attending the meeting and to review the application and accompanying information please go to HTTPS/://www.rwater.com/about-us/our-boards/board-meetingsminutes?year=2022&category=1435&meattype=4260&page=.

Jamie:

Did you get all that? The public hearing is being held pursuant to sections 10 and 19 of special act 77-98 is amended, all users of the public water supply system, residents of the regional water district, owners of property served or to be served and other interested persons shall have an opportunity to be heard concerning the matter under consideration. Questions may be submitted in writing to the board office by emailing Jslubowski@rwater.com or by calling 203-401-2515. By Mario Ricozzi, Chairperson Representative Policy Board, South Central Connecticut Regional Water District, 90 Sargent drive, New Haven, Connecticut 06511.

# Jamie:

That being said, I'd like to ask those individuals who will be testifying or giving information tonight to please unmute yourselves, raise your right hand and prepare to give an oath. If you're all ready, do you solemnly and sincerely swear or affirm and declare the evidence you shall give concerning the case now in question shall be truth, the whole truth and nothing but the truth upon the pains and penalties of perjury or false statement?

Jeff:

Yes, I do.

Sunny:

Yes.

Orville:

Yes I do.

Jim:

I do.

Jamie:

Can you each provide your names please?

Sunny:

Sunny Lakshminarayanan with Regional Water Authority.

Jamie:

Thank you.

Orville:

Orville Kelly for the Regional Water Authority.

Jamie:

Thank you.

Jim:

James Hill, Regional Water Authority.

Jamie:

Thank you.

Jeff:

Jeffrey Donofrio, Office of Consumer Affairs, Regional Water Authority.

Jamie:

Thank you, Jeff.

**Christopher Valentine:** 

Christopher Valentine, Tighe & Bond Engineering.

Jamie:

Thank you.

Joe:

Joe Popielarczyk, Tighe & Bond Engineering.

Jamie:

Thank you. Any others? Okay. Hearing none. I will move to the presentation.

Sunny:

Jenny, if we can just introduce the team before we move on to the presentation?

Jamie:

Excuse me.

Sunny:

I'll just introduce the team before we move on to the presentation.

Jamie:

Thank you. Thank you, Sunny. The presentation will be provided by Orville Kelly and James Hill, you're talking about this presentation, I'm assuming?

Sunny:

Correct.

Jamie:

I'm assuming the folks from Tighe & Bond will present afterward, is that correct?

#### Sunny:

The presentation will be done by Orville Kelly and Jim Hill. Chris Bone and Joe Popielarcyzk of Tighe & Bond will be there to answer questions as well because they're the designers.

#### Jamie:

Thank you Sunny very much. I think we are ready to begin. I turn the floor over to the folks presenting.

#### Orville:

All right. Thank you. Thank you, Jennifer. Good evening again, everyone and thanks for the opportunity to present the Lake Gaillard clarifiers recycled pump station and concrete restoration project and the HVAC and electrical improvement application to you this evening.

#### Orville:

Presenting with me is Jim Hill, the director of operations, and of course I am Orville Kelly, manager of design and construction in the engineering apartment. Thank you.

#### Orville:

The project background, the Lake Gaillard Water Treatment Plant located in Mount Branford is a direct filtration plant that was originally constructed and went online in 1986 as a 60 MGD plant, what was further expanded in 1991 to an 80 MGD plant. It provides potable water and fire protection directly to the New Haven and Branford service areas and indirectly to other service areas through multiple pump stations and pressure reducing station.

# Orville:

This is the largest treatment plant operated by the RWA, which treats water from the Lake Gaillard surface supply resource reservoir, sorry. Slide three, please. Next slide. The project approach, this multi project application consisting of two distinct projects that will be bid separately. The Lake Gaillard clarifiers recycle pump station and concrete restoration project, and the HVAC electrical improvement projects with a combined total cost of \$14.79 million.

#### Orville:

The multi-project application may include projects that are at conceptual stage, as well as those projects that are further along in design. The reason for this approach is that it provides multiple benefits, including it provides management with efficiency and flexibility to complete more projects on the one RPB application. With an increased number of plan projects expected to exceed the \$2 million RPB application threshold, this multi project concept will also increase efficiency of conducting RWA's capital program and reduce time, expense and facility impacts.

Orville:

Next slide, please.

# Orville:

The project scope for the clarifiers, the recycle pump station and the concrete restoration. The wash water clarifiers is used to remove solids from the back wash water and is then pumped or recycled back to the beginning of the treatment process, it also helps with thickening the residuals, thus reducing pumping and disposal costs. The primary equipments to be replaced are the incline place settlers, the sludge scrapers and rate drive, as well as the frames for wash water two of the four units.

# Orville:

Also, installation of the new walk on fiberglass [inaudible 00:09:25] plastic covers, new railing, walkways and electrical work. The recycled pump station includes it is an important facility that is used to treat and the water, the plants filter back wash water, and pump the recycled water back to the head of the plant, making our plant operation more sustainable. Therefore, the scoping close new vertical turbine pumps, motors with variable frequency to drive VFD's, includes new progressive cavity mono sludge pumps, piping and apprentices and concrete equipment pad and associated electrical work.

# Orville:

The concrete restoration includes chemical growth injection in cracks to restore the structural integrity to the concrete as well as small concrete repairs in the main filter building pipe gallery and recycle pump station building.

#### Orville:

Next slide, please.

# Orville:

The project score for the electrical HVAC portion of this project. This project is in its conceptual stage, approximated 30% design, the HVAC includes complete replacement of air handling units, the unification units, as well as exhaust fans, condensers and hot water boil plant. It also includes the replacement of the control system known as the building management system, which is the BMS to the RWA standardized Johnson control system utilized at other RWA facilities.

#### Orville:

The electrical and lighting includes replacement and upgrades to the lighting fixtures and fluorescent bulbs to LED's, along with motion sensors, conduits, and wiring as necessary. The Trombe wall is a passive solar system originally installed to provide art here to the unification unit. This system is approximately 200 feet long by 10 feet high and has been nonfunctioning for over 25 years.

#### Orville:

These panels will be demolished, remove vegetation from inside wall cavity, seal duct opening, and install new insulated metal panels with architectural facade. I will now turn over to Mr. Jim Hill, who will be discussing the project needs alternatives, and I will return to close up on the budget schedule and conclusion. Jim Hill.

#### Jim:

Thanks Orville. Next slide please. I'll talk about the project need and as Orville mentioned, the project will include replacement of the back wash water clarifiers, recycled pumps and sludge pumps. This section of the treatment process is designed to remove solids from the back wash water and recycle clean water for reuse. Alum residuals are pumped from the bottom of the clarifiers to onsite drying beds and then wastewater from the drying beds is collected and directed to the sanitary sewer.

#### Jim:

Meter flow to the sanitary sewer is at a cost to RWA up to \$120,000 per year. The recycle pump station and clarifiers process millions of gallons of water per day, up to 10% of the filter effluent flow, or up to 8 million gallons. Replacing the clarifiers, which are beyond their useful life will increase the reliability and resiliency of the Lake Gaillard Water Treatment Plant by lowering the turbidity and suspended solids of recycled water, which will in turn incrementally improve filter effluent turbidity, and reduce disinfect byproducts.

#### Jim:

The project will also reduce the manual cleaning required for each of the clarifiers. The design of the new clarifiers will remove solids more effectively and increase the concentration of Alum residuals directed to drying beds, reducing the overall volume of water pumped to the drying beds. Less frequent clarifier cleaning and higher solids concentrations directed to the drying beds will reduce staff time required for maintenance and lower sewer use fees.

#### Jim:

The increased deficiency of the clarifiers will increase system capacity and allow higher recycled flow rates without turbidity excursions and maintain consistent recycled water quality. While clarifiers are offline for maintenance, less water can be recycled and filter back washes are delayed, which temporarily reduces the Gaillard water treatment plant capacity. Degraded water quality from clarifiers also impacts the plant's capacity and degrades water quality to our consumers due to incrementally higher filter effluent turbidity, and disinfect byproducts.

#### Jim:

This project will also be a safety improvement, treatment staff will have to perform up to 25 less confined space entries per year, reducing the risk of one of our employees. The current recycle pumps are more than 30 years old, have been rebuilt several time and are less efficient than when they were originally installed and require replacement.

#### Jim:

Replacing these pumps with more efficient pumps will reduce energy costs and reduce the risk of pump failure. Failure of one or more of the recycled pumps during periods of high demand from the Gaillard water treatment plan could lead to overflow of the supernate and wet well and a discharge the environment, resulting in an environmental permit violation and potential flooding in North Branford, downgrading of the recycled pump station. Replacing the pumps, not only improves pump efficiency and reduces energy costs, it will also increase system reliability and reduce risk of future downstream environmental impacts.

Jim:

Next slide please.

#### Jim:

The sludge pumps will be replaced with positive displacement pumps, which have a better turndown, essentially they can operate over a wide wider range of flows and are capable of pumping higher solids content than the current pumps. This will allow our water treatment plant operators to more efficiently and effectively manage the Alum residuals withdrawn from the clarifiers. By pumping higher solids concentrations RWA will be able to reduce the water discharge to the drying beds and therefore the volume of water discharged to the sanitary sewer, reducing RWA's sewer use costs by approximately \$30,000 a year.

#### Jim:

We have experience with the proposed pumps, which are used in similar applications, both at the Whitney water treatment plant and the Salt and Cell water treatment plant and we have determined they're more reliable and require less frequent maintenance. The concrete restoration will increase structural integrity through grout injection and cracks in the masonry in the Gaillard recycled pump station and in the Gaillard water treatment plant pipe gallery.

#### Jim:

The project will also repair a spall concrete in these areas, cracks in the concrete are not only detrimental to the structural integrity of the facilities, they generally lead to weeps and leaks and concrete, which can damage the structural integrity of the concrete and create slip trip and fall hazards for employees. This project will reduce safety hazards in those two areas.

#### Jim:

Next slide please. Next I'll talk about the project need for the HVAC and electrical improvements. The HVAC equipment and associated electrical wiring at the Lake Gaillard Water Treatment Plant is needed to maintain a temperature control and dry environment for electrical equipment, including computer equipment, motor control senators, valve actuators, lab equipment and chemical feed systems. Much of the equipment is near or past its expected service life.

#### Jim:

Also, the current HVAC building management system is obsolete and can no longer be updated. New equipment will increase efficiency, reliability, and maintainability, and reduce safety hazards through adequate dehumidification. The lighting will also be updated with LED bulbs and motion sensors, the lighting will use less energy and require less frequent maintenance because LED bulbs last longer than traditional bulbs. Also, where light fixtures have corroded in the human environments the fixtures will be replaced with fixtures more suitable for a human environment.

#### Jim:

The Trombe wall, which is a passive solar technology, no longer functions due to degradation of the once clear polycarbonate panels that allowed solar energy in. The Trombe wall will be demolished,

opening sealed, and it will be replaced with an architectural facade. The energy savings compared to capital costs and continued maintenance costs of replacing and operating the Trombe wall does not justify replacement. Next slide please.

# Jim:

Next, I'll talk about the summary of alternatives for the clarifiers recycled pump station and concrete restoration. The first alternative, the status quo, is not an acceptable alternative based on the condition of the current equipment and was dismissed. The second alternative, rebuilding the recycle pumps is also not a viable alternative, the recycled pumps have been rebuilt twice, have 20% less pumping capacity than the original pump station and parts for the existing pumps have a long lead time and may not be available in the near future. Newer, more efficient pumps motors are available and will have a lower life cycle cost, rebuilding the pumps is not viable.

#### Jim:

The third alternative converting to an alternative thickening technology while is technically feasible, alternate thickening technologies are too cost prohibitive to be practical. Centrifuges and other de watering technology would require new construction and would not be able to take advantage of the piping and concrete infrastructure that's currently in place.

#### Jim:

The fourth alternative, which is the current project proposal is replacement with upgraded equipment. Installing new, more efficient, clarifier assemblies, more efficient recycle pumps and positive displacement sludge pumps is the most cost effective alternative to improving the reliability, operations and maintenance of this section of the treatment process while incrementally improving water quality. This alternative also addresses safety, aging infrastructure and the current labor intensive maintenance requirements by replacing old equipment with updated, more efficient and reliable models.

# Jim:

The new equipment will be more energy efficient, RWA will incur lower sewer use fees and water quality will be incrementally improved. Next slide please.

#### Jim:

Next I'll talk about the alternatives of the HVAC electrical improvements. The first alternative, the status quo is unacceptable and it was dismissed as an alternative due to the age of the equipment, the maintenance required and safety considerations. The second alternative, replacing the equipment in kind was also dismissed because the system efficiency would remain the same, the original HVAC load calculations do not meet current requirements, additional electrical equipment, including servers for Lake Gaillard Water Treatment Plant as a backup site for the control room and for business continuity have changed the load requirements for the HVAC system. The current HVAC system is not sized appropriately to meet those loads and in addition, the Trombe wall is an expensive alternative that would not provide enough benefit to justify the cost.

Jim:

The third alternative, which is the current project proposal is to replace with upgraded solutions, installing efficient equipment is appropriately sized for current building loads. The temporary air conditioning unit in the control room at the Lake Gaillard Water Treatment Plant would be replaced with equipment that is appropriately designed. Replacing existing air handlers, boilers, fans, controls, and other HVAC equipment would reduce maintenance costs, create a more reliable HVAC system, and reduce the risk of potential failure of the HVAC system and the associated electrical equipment.

# Jim:

The project will also improve safety by improving lighting and with the installation of energy efficient LED bulbs, improved dehumidification will reduce slip trip and fall hazards as well as damage to equipment due to corrosion. The Trombe wall will be updated with insulated metal panels and an architectural facade. Next, I'll turn it back over to Orville to talk about the budget. Next slide, please.

# Orville:

Thank you, Jim. As mentioned earlier about the multi project application including project at conceptual stage, for this application the HVAC and electrical improvement project is in its conceptual stage. Therefore, the cost estimate would be not as accurate. Conceptual stage project contingencies are relatively high at approximately 30%, which is consistent with the American Association of Cost Engineering, AAEC international standard practice. The inclusion of conceptual stage projects in multi project application will result in total project cost estimate that are in terms of a not to exceed dollar amount.

# Orville:

The total combined project budget request here is a not to exceed of \$14.79 million. On the clarifiers, we're using a class one and the calculated cost, as you would see is \$7.5 million and with the 15%, which is standard AAEC practice of \$8.6 mil on the HVAC, and electrical because it is at 30% design we're using, a class three type, which is typical with a calculated value of \$4.7, but will be requesting a \$6.13, which totals the \$14.79 million requested.

# Orville:

The clarifier projects previous spend of approximately \$118,000, this is a multiyear project with \$3 million budgeted in FY23, the HVAC and electrical improvement project previously spent approximately \$73,000 with a \$1.1 million budgeted in FY23 and the budget in FY24 for that project will be further defined once bids are received.

# Orville:

Next slide, please. The schedule, the project schedule for the clarifiers recycled pump station and restoration is proposed that RPB action in March, 2022, with an anticipated bid of June, July of 2022, construction to start in August and a startup in November of 2023. The proposed project schedule for the HVAC and electrical with RPB action anticipated in March, 2022. Final design and bid will take place April through October of 2022, construction starting in December of 2022, and startup for the unit in 2024. Next slide please.

# Orville:

In summary, the Lake Gaillard Water Treatment Plant is out of the largest water treatment plant with a rated capacity of 8 mg/d. It is a critical facility that supplies on average approximately 61% of the total water to the RWA distribution system. The proposed project will replace agent equipment that has reached the end of its useful life, increases operational flexibility and clarify uptime by reducing amount of solid recycle to the beginning of the treatment process, reduces maintenance and labor efforts throughout the facility with less confined space entry and 25% higher capacity to recycle. Improves overall facility, efficiency, safety, and reliability by replacing agent pumps, HVAC and electrical systems. New, more efficient HVAC and electrical equipment will be appropriately sized, requiring less maintenance. Thank you very much for your time and we'll open up now for questions.

# Jamie:

Jim and Orville, thank you so much for your presentation, it was very informative. We'll ask first that members of the Representative Policy Board, if they have questions to ask Orville and Jim or members from Tighe & Bone, Chris and Joe to respond. We'll ask before the Representative Policy Board members, again, ask their questions if they identify themselves and the town they're from. If you're calling in, remember to unmute yourself, you hit star asterisk six, and to raise your hand to get in line would be asterisk nine. I think probably to make it smooth over this, we'll ask folks to raise their hand to be called on and Jennifer, would it be appropriate for you to call on them or should I?

# Jennifer:

I'll keep my eye open and if I see anybody that you don't see, I'll let you know.

Jamie:

Okay. Thank you. There's two pages. Greg Malloy, I see you, if you'd like to go first?

Greg:

Greg Malloy, RPB from [inaudible 00:30:06]. One question, during the improvements in your renovations, will the plant be shut down at all?

Jim:

No.

Greg:

No.

Jim:

That is a critical facility, we have to run it continuously. Part of the project will be maintaining equipment in stages, we'll be able to continue to run the recycle pump station while equipment's out of service.

Greg:

Thank you.

# Jamie:

Before we continue, let me just remind the public, you will have an opportunity to speak and ask questions after the Representative Policy Board is finished, after we've had a representative of from our Office of Consumer Affairs, attorney Donofrio speak, I just will invite members of the public to comment or ask questions at that point. Next, I think I saw Steven Mongillo.

# Stephen:

Yes, Steve Mongillo from Hamden representative. I have several questions for Jim. First, there's two separate projects here. Am I correct in assuming that they would be done by different contractors or different types of contractors?

# Orville:

If I may take that Jim. The project will be bid two separate bits, the HVAC is separate and that takes on a different GC type of work, as well as the clarifiers. The clarifiers are far along in its design, that is specialty work, as well as the HVAC, which is specialty, that is why it's separated or broken up into two separate contracts.

# Stephen:

Okay. The reason I ask is that I'm trying to understand the whole thing and it appears from the timeframe that they're happening at the same time. Are they interrelated and interconnected and is one dependent on the other? Would those contractors have to work together?

Orville:

No, not necessarily.

Stephen:

They really are two separate projects?

Orville:

They are two separate projects. One is starting immediately, should the action to approve how the project move forward, which is the clarifiers. The HVAC per the schedule is going to be started later on in the year and a big part of the HVAC will have material delivery and that work is being done in the main building, while the clarifiers work is going to be done in the building, which is outside of the main building.

# Stephen:

Okay, thank you. Also, the efficiency that you will get from the upgrade, is it mainly due from new parts or are there technical improvements over this time that are incorporated into the new parts? Any significant new technology?

Jim:

No significant new technology, the efficiency will come in terms of the clarifier project will come from a number of different areas. One is we'll be able to pump higher solids' concentration to the drying beds, that's going to minimize our sewer use fees. The other is because the clarifiers are going to be more efficient, as indicated in the presentation we're going to be pumping less suspended solids back to the head of the plant. Typically, when we do that, there's more organic loading on the filters, because there's going to be less solids in the raw water, because the recycles cleaner, we're using less chemicals, less organic loading on the filters, that kind of thing.

Stephen:

Thanks. Would you say this is significant savings in raw water to produce the same amount of water?

Jim:

We're going to be recycling essentially the same amount of recycled water, it's just going to be cleaner.

#### Stephen:

Okay. One last question, the Trombe wall, I wasn't familiar with that before. That's a passive system or was a passive system?

#### Jim:

Yeah, it was a passive system.

Stephen:

Have you considered an active system with solar panels of any kind?

Jim:

Yeah, we're actually looking at solar panels right now for the Gaillard campus.

Stephen:

That could be added in the future?

Jim:

It could be. The Trombe wall is on essentially the wrong side of the plant to be effective for solar panels and it's a vertical wall, the roof would be a better spot.

Stephen:

We require another spot. Okay. Thank you. Appreciate it.

Jim:

You're welcome.

Jamie: Are there others with questions? Mark?

Mark Levine:

Yes. I have a question-

Jamie:

Please identify yourself.

Mark:

Mark Levine, Woodbridge. I'm sorry. The bid specification, you just said, it's going to start immediately. Does that mean this has been bid ready?

Orville:

No, it's not. It's 90% design on the clarifiers.

# Mark:

Okay. In the bid specification, is there going to be a line item for salvage?

# Orville:

Typically, we'll look at the salvage that is available and we'll look at the cost, if there's a cost out there and if that's the case then-

# Mark:

Why don't we have a bid line and going to let the contracts decide what he's going to give back to you for salvage? Those air handlers and the other things you're talking about, especially the pumps are going to be worth money, a lot of money. I don't care how old they are.

# Mark:

I would not be in favor of this project if you did not have a line item for salvage in it, I might be in the minority. If we don't start going to put replace equipment and find out what the old equipment is worth and what they're going to give you back for that kind of equipment, then we're really missing the boat.

Orville:

Take it under advisement, certainly.

# Mark:

I'd like to know before I vote in March, whether there is going to be a line item for salvage, before I vote in March. How are you going to handle that salvage? I don't think you have to handle it. These guys are taking this stuff out, it's for them to tell you what they're going to give you back for it. I think there's a substantial amount of money there and I think we should look into it. We're really, like I said, missing the boat, I don't know how other members of this committee feel, but if we don't start doing stuff like that then we're really doing a disservice store rate payers.

Orville:

Okay.

Jamie:

Are there other questions? Do I see any other hands, Mario?

# Mario:

Thank you very much Jamie, Mario Ricozzi from Branford. Orville and Jim excellent presentation. Thank you very much, you made it nice and clear as to what you're doing and I'm fully in favor of upgrades to the plant. It really fulfills our mission, our primary mission of we can't get water out, then what the heck are we doing here?

# Mario:

I had several questions that are more in detail perhaps and I think one of them is there was a 2015 capital improvement plan, and I'm going to keep these general so that we don't have to go into executive session, if you keep your answers general, then we don't have to worry about that. There was a 2015 capital improvement plan, identified several role items to be rehabilitated, does this close out all the projects that are identified in that capital improvement plan?

# Orville:

This should close out the project that's included in the plan in the recycle pump station building, and also with the clarifiers. It identifies, whether it be equipment that is nearing its use of life, equipment or other functioning to the entire Lake Gaillard plant. We've been attacking different projects at different locations on an annual basis or on a yearly basis, which is part of the capital improvement program we have.

# Mario:

Okay. The plan I'm talking about is the one that was in the application for Lake Gaillard and there were several large categories of treatment. One was the recycle pump station, one was the filters, does this tick off the six, seven projects? Or do we have others that we're going to be seeing coming towards us?

# Orville:

There are others. I could speak to the valve replacement of the influent valve on the filter, there are some electrical upgrade that is upcoming also at the Gaillard, there are probably two or three more that is upcoming.

# Mario:

Okay. The clarifiers were identified as being in pretty bad shape back then and the amount of labor that was involved in keeping them going, was it just the matter of prioritizing the projects and this one finally came up? There was quite a bit of labor involved, I think it was every other day, perhaps that you had to clean the clarifiers?

# Jim:

Yeah, the maintenance on the clarifiers has been increasing since 2015.

Mario:

Okay. It's just been a steady increase?

Jim:

Yeah.

Mario:

Okay.

Orville:

Also, to note that is chances are we probably would've gotten to this a little earlier, but 2020 happened and COVID caused us to restrict some of the stuff that we were doing, we had to really refine our task in terms of what were we going to get to?

Mario:

I certainly respect that.

Orville:

It would've been up at least a year ago, we would be here.

Mario:

Yes, Orville. Thank you very much for that because it was a critical time and a lot of decisions had to be made. Has a funding source been identified beyond our own bonding? Is it drinking water state revolving funds applied for, and have they been approved or do we know yet?

Orville:

Rochelle?

Rochelle:

Rochelle Kowalski, RWA. It is envisioned that a portion is going to be funded for through DWSRF and the rest will be a combination of internal funds and our financing. HVAC we're planning on funding it through the green bonds, at least partially funding it through the green bonds.

Mario:

Good. Thank you. I want to go back Orville to your discussion and I'm really focusing on Jim, because I know what Jim's trying to juggle there. Why would you want to do these as separate projects? Your timing in your presentation says you start one in August, a couple of months later, you have another contractor and although I like Chris Bone, I don't think we want to pay him to manage two different projects and to design two different projects because the first three or four sheets of each project are almost identical. Hi Chris.

Mario:

You're really causing two contractors for Jim to have to coordinate his activities with rather than one general contractor who can provide a certain amount of savings, not only on the construction administration part, but all also on your own staff part and the coordination of what processes get shut down. I know they were envisioned originally as separate projects, but when we first discussed doing these larger projects at that facility, part of the reason was to combine them into one project.

#### Mario:

Yes, you will get larger contractors, but a larger contractor should have more experience, more bonding capabilities to do this. You could end up with one great contractor, one lousy contractor and if both their schedules conflict, it just makes it a headache or the operators as opposed to dealing with one. I would ask you to seriously consider accelerating the HVAC because I think there are cost savings as bidding it as one project.

#### Mario:

If you have this other project, you mentioned the influence valve, you should consider bringing that application quickly, especially if there's electrical improvements, since you're going to have electricians there and then doing that all at the same time. I don't need an answer to that, but I definitely think you want to look at that in a different light. It may make your lives a whole lot easier and then you only have to come to see us once Orville, we love having you, but let's do that.

#### Mario:

I had a question about costs and I recognize the timing and prices are in fluctuation, but there were costs that were put together in October, November of '21 and the costs that you requesting are significant increases to the tune of 40%. The original costs had a contingency and they had an escalation clause and they had the construct administration and inspection in there. I'm just not sure whether they didn't reflect perhaps RWA costs that are not shown in there, if you're familiar with the ones I'm talking about, they were in detail in the application. The clarifiers were identified as about \$5.9 million and you're asking about \$8.7 and I can't get from one to the other.

#### Orville:

Oh, okay. The original numbers that were sent out, we had sent out to get some numbers from the supplier of the wash water system and in their numbers they had neglected to put in the install of two full frames unit, they only sent the cost of one half of what they would be providing. When we started going through the design, we realized and we were reaching back out to get updated numbers.

#### Orville:

Some of the numbers you're seeing with the increase here is based on some of the increase that they were seeing with raw materials and pricing has ridiculously gone up. We have revised our numbers to reflect some of those costs, which are still somewhat of an unknown, the ones that we do have exact numbers on that they have told us that they will hold. I think those numbers are good from that sense with the contingencies that have been put in place. The big increase came on that the [inaudible 00:46:44] system and there was numbers originally with RWA cost included and with full time inspection on that project, those were some of the increase that we've seen.

Mario:

Okay. Okay. I will agree that the salvage costs today are really volatile and that may be a line item that you definitely want to consider adding. Thank you very much. I do support the project, you guys did a great job in your presentation, just trying to make life easier for Jim.

Jim:

Thank you.

Orville:

That's my intent.

Mario:

I understand.

Jamie:

Thank you, Mario. Are there any other questions from the group?

Peter:

Yeah, Jamie. Peter Betkoski, [inaudible 00:47:43], just to reiterate on Mark Levine, I also agree there should be a line item for the salvage, especially after Mario's interpretation on the increase in the last few years. I understand everything's going up, but every bit we could save for the people would be in their best interests. It was a great presentation, I'm in favor of the project also. Of course, upgrades are a necessity, Jamie, you're doing a great job also. Orville and Jim, thank you so much, money's crucial, that's it.

# Jamie:

Thank you, Peter. Are there any other questions? I'm going to flip to the second page, any other raised hands from the group? I will ask a third time.

# Jamie:

I'd like to make a comment about the application that was submitted. I thought it was very thorough, I appreciated the detailed explanations for a novice. For me learning about Trombe walls and what had happened here was very interesting and I also found the recommendations, if there's a suggestion for solar power going forward, informative and helpful. I do recall, and I was quickly trying to flip through, I recall reading something about the 50% increase or that two of the four weren't listed in the original, but I couldn't find it quickly when I was going through my printout. I'd like to thank you for the application. At this point, I'll turn over to attorney Donofrio to present the OCA comments. Thank you.

# Jeff:

Thank you. Good evening, everyone. Jeffrey Donofrio, Office of Consumer Affairs. You all should have my memorandum dated February 17th, in which I discussed the application and explained the basis of

the OCA's finding that the application is in the public's interest, that it's necessary and appropriate, and that the OCA recommends approval of the application.

# Jeff:

What I'd like to talk to you about tonight are a couple issues that have already been touched on by several of the RPB members. The first one, which I also touched on in my memorandum is the potential impact of price escalation. The middle of each month the U.S. Department of Labor's, bureau of labor statistics releases supplier price information. The report that was issued last week, which compared January of '21 to January of '22, showed a 13% increase year over year in the cost of government construction projects.

# Jeff:

The cost of non-government, non-residential construction projects year over year increased almost 20%. If you dig deeper and you look at the producer price index, you see steel mill prices up 113% from January of '21 to January of '22 and plastic construction products up around 35%. On the one hand, in planning a construction project of any magnitude it's prudent to build in escalation to the midpoint of construction, which is what these cost estimates do.

#### Jeff:

As I commented on in my memo, traditionally, at least in Connecticut, over the last five plus years, 4% to the midpoint of construction has been the traditional escalator, but with what we're seeing now, quite frankly, we've got a shortage of skilled labor in the construction industry, which is driving wages in the construction industry up. I think the number in the BLS report was 5% year over year and with material costs at 4%, doesn't really cut it. The large contingencies based on the level of maturity of design for each project are justified and I think it's prudent to adopt those conservative contingencies, but I also think it's necessary for any entity, including the Regional Water Authority, that is actively procuring materials and services in the construction industry to have a strategy to navigate market volatility.

# Jeff:

One of the publications that is easy to read and somewhat useful is the monthly Construction Inflation Alert that's published by the Associated General Contractors of America. When you look at the publication that came out this week from AAGC, it really is kind is stunning because it's not just focusing on price increases, but it's also beginning to focus on how contractors who bid work before price escalation really kicked in and therefore are incurring costs and losing money potentially on jobs can alter their bid strategy going forward. I think we have to be aware that we're in a very unique environment right now and we need to understand that contractors will be looking to recoup unanticipated costs, not because they're opportunistic, but because to keep their businesses viable, they need to adapt. I think as an owner and as a procuring entity, we need to adapt as well.

# Jeff:

Then you have to look at the other side of the challenging environment that we're looking in and that's what Mark Levine and Mario Ricozzi touched on, which is the equipment being replaced and whether it has value to the contractors doing the work or in the salvage markets. We've got four clarifiers, four recycled pumps, two sludge pumps, six AHU's, air handling units, chilled water pumps, a condenser, VAV

boxes and a new boiler plant and pulling system for the control room. I do think it is relatively easy to include those items as bid alternates, give us a proposed credit on the bid form for these items, if you are interested in retaining them. If you don't like the price, then you don't accept the bid alternate and you direct the contractor to store the equipment and you make other plans for salvaging it, perhaps. I do think as a bid alternate, it's easy enough to do, I know Tighe & Bond has experience with bid alternates in this capacity, and I'm sure it won't be a big lift for them at all.

# Jeff:

Another concern, as Chair Ricozzi touched on that I had, when I looked at it was the schedule because as we see the scopes of work do overlap and there is concurrency for about a year as planned. In other words, in the construction phase, both projects will be concurrent and that creates a bit of a coordination issue. I haven't seen a CPM schedule that shows me sequence of tasks or anything, but I think given the size of the facility and given the scopes, there could be a little bit of a coordination challenge. Again, that's not something that would cause me to say, "Hey, don't do the project," It's something that I think you deal with in your project approach. It's something you deal with in the front end bid documents to put the obligation for coordination upon the contractors. It's something you talk about in a pre-bid meeting and it's something you manage proactively in order to avoid any impact on the project.

# Jeff:

Look, it's a very, very challenging environment, whether you're building a school, whether you're doing upgrades to a water treatment plant, I haven't in 32 years ever seen anything like it. We're just going to all have to recognize that we need to adapt a little bit and really take a hard look, even on the cost estimating side, I saw that attached to the application as appendix one, is the AACE recommended practices. Now this is I think from 2005, I think there's a 2020 version and I bet you there's going to be a 2022 version by the middle of the year.

# Jeff:

I think we really need to try trying to keep an eye on it, I'm comfortable because of the contingency levels, even though I hate 30% contingency, it bothers me at my core, but I think you do the best you can. Nobody really has a very clear crystal ball right now and as we bid these things, it's really kind of hit or miss, some of the estimates that I've been involved in for some of my municipal clients, we've been pleasantly surprised on pricing, but others we've been shocked.

# Jeff:

I think this is two scopes of work, that there should be enough interest in the contract or community, they're not huge projects, they're not small, they're in the maybe a little bit lower than a sweet spot, but they should draw significant interest and hopefully that results in attractive pricing. Like I said, I recommended approval and recommend approval of the project, I have no issue with the need, I have no issue with the scopes and I think the projects are appropriate. I just wanted to elaborate a little bit upon what I think are market driven challenges that we need to be sensitive to in our procurement approach. Thank you.

# Jamie:

Thank you, Attorney Donofrio. Excellent memorandum by the way, in summary of the entire project and insights for the team, really appreciate it. Thank you. Are there any questions from the RPB members? Mark Levine. You need to unmute yourself.

# Mark:

Yes, yes, yes. Thank you. Attorney Donofrio, I appreciate that. I really like the way you picked the items that you thought had value to them I would just add that you put ETC after that because there's probably other things that could be worth money and it also should include metal salvage.

# Mark:

I like that you said if the RWA did not like the price of the equipment, that they take it out and store it in a place, there's somebody in our company that can handle listing those items or finding the place to list those items for sale. Those pumps are huge pumps, you guys don't realize, I don't know, these are huge magnificent pumps that move a lot of water or a lot of affluent, whatever. I think that they should, like you said, I agree everything with you, just that ETC at the end and is there any metal salvage involved? Thank you.

Jamie:

Thank you.

Mark:

Excellent report.

Jamie:

Thanks. Thank you, Mark. I think there may be liability issues as well to consider in that, but are there any other folks?

Mark:

No, there isn't.

Jamie:

Are there any other folks who have questions, Stephen? Go ahead.

# Stephen:

Yes. Steve Mongillo from Hamden representative. I just wanted to comment on what both Mario and Jeff were talking about, obvious consideration should be to do this work, these particular projects are critical, I understand the need. I understand they need to be done, but in any of these projects anything that could be delayed in an environment where the costs are just, you don't even know how they're escalating over the time period that it requires to get them done is a very challenging environment. Anything that could be postponed or rearranged in the schedule should be done.

Stephen:

Also, this is the first time we've had sort of two projects in the same meeting. It is the responsibility of the RPB to approve projects over \$2 million and that's a pretty high threshold, by that thinking of efficiency, why not combine all the projects and just vote once? We don't do that because I think each of these projects deserves consideration on their own. I do see a potential for conflicts also and as Jeff hinted at, with two different contractors on the same site at the same time. Just some thoughts on this, I don't think any of this is simple, I understand the challenges that they face, why they may want to do it the way they do, but just to myself, looking at it some things just don't appear to be quite right.

# Jamie:

Thank you, Steve. Are there other questions from the RPB? I'm looking for raised hands, I'm seeing none. Are there any questions from the RPB? Third request, are there any questions from the RPB? No. Okay. Seeing none, I'll invite members of the public to comment or ask questions at this point.

#### Jamie:

Are there any members of the public that would like to ask questions or raise issues at this point? I see four or five people that are on by phone or that aren't showing a picture, I can't see your hands. Are there any members? Speak up it's your last chance. You can submit... Okay. Oh, there is someone. Okay. Hello?

#### Jennifer:

I don't think so.

# Jamie:

Okay. All right, Jennifer, then I think at this point, I would like to invite Charles Havrda to provide admission of the exhibits received in the public hearing.

# Charles:

Thank you. We have four exhibits. The first exhibit A is the application submitted to the RPB on December 16th, 2021 for approval of the Lake Gaillard Water Treatment Plant clarifiers, recycle pump station and concrete restoration project. The HVAC and electrical improvements located in North Branford, Connecticut, LGWTP project application it's labeled.

# Charles:

The second one is exhibit B, notice of public hearing published on Wednesday, February 2nd, 2022 in the Connecticut Post and in the New Haven Register.

# Charles:

Third one is exhibit C, Office of Consumer Affairs memorandum dated February 17th, 2022, recommending approval of the project, the LGWTP project application.

# Charles:

The fourth, one exhibit D, LGWTP project application.

Charles:

[crosstalk 01:04:13].

Charles:

February 24, 2022. That's all I have Jamie. Thank you.

# Jamie:

Thank you, Charles. At this point, before we close, I'd like to ask, there was a couple of questions raised by Mario or comments raised by Mario, attorney Donofrio and Mark Levine regarding salvage and some other items. Do any of those require an answer in writing before we move this to a vote at the next meeting?

# Jamie:

Mark, there was questions about the salvage line item for the bid and I think attorney Donofrio gave us a good outline of how that could be done. Do we need to phrase that as a question that needs to be responded to in writing?

# Mark:

Yeah, I'm not going to vote for if I don't have assurances that's not going to be a line item. I know I'm a small cog in the wheel here, but if they don't put that in, I'm not going to vote for it. I would like to see that it's going to be in there with how they're going to do it.

Jamie:

Thank you, Mark. Charles, did you have a-

# Charles:

Yes. On that same point you're making Jamie regarding changing the application or adding another line, maybe Jeff or one of the other attorneys on the board could comment of whether or not that changes the process. Do we have the ability to change this application? It's been published, et cetera, I'm just talking about the mechanics of it.

# Mark:

All I wanted is in the bid. Mark Levine, Woodbridge, all I wanted is to be on the bid line item, nothing to change-

Charles: I understand that Mark, but it is-

Mark:

Shouldn't change.

Jamie:

Okay. I appreciate both of your comments. What I will do is ask that on behalf of the RWA that Jim and Orville work with whomever they need to work with to respond to this question in whatever format they see fit. If you could respond to the RPB or whatever the process is by Friday, March 4th in a letter format. I'm going to assume you can rely on some of the information that attorney Donofrio provided that was quite helpful and then that should hopefully provide the information sought by the RPB before we close this public hearing tonight and move to the-

Charles:

Mario's got a question Jamie.

Jamie: Mario? Okay, go ahead.

Mario:

Jamie, just a comment. I don't need anything written in response to mine, but I believe that Mark's question and correct me, Mark, if I'm wrong. Your question was will be a line item or not? That's the question you want answered?

Mark Levine:

That's right. Thank you.

Mario:

You may wish to close the public hearing and just leave the record open for that one question to be answered.

Charles:

Would it be appropriate to ask for a consensus of the members?

Mark:

No, not now.

Jamie:

I don't think so. It's a yes, no question. I think it's a yes, no question right? They can provide the answer and then we can make a decision.

Mark:

We're in the public hearing. We're not in our board meeting.

Jamie:

Right. Thank you.

Jennifer:

Jamie?

Jamie:

Yes.

Jennifer:

Sunny has a question, he had his hand raised.

Jamie:

Go ahead, Sunny.

Sunny:

No, I was just going to say that some even look at the options of providing a line item, or certainly taking ownership of the salvage and finding a way to dispose it. I think these are issues that we did discuss internally and the points that all of the panel mentioned, it was something that we looked at and it is certainly part of the considerations. Either it'll be part of the contract language as a line item for the contractor to provide a credit or RWA will take ownership of it and dispose it off, either one of those two options will suddenly be done.

Mark:

Thank you.

Jamie:

Thank you. Thank you.

Charles:

Thank you, Sunny.

Jamie:

Based on that information, do we still need to receive something in writing or does that seem to answer the question?

Mario:

Mark?

Jamie:

Mark you're muted.

Mark Levine:

Sorry. How I feel about it is if they say that it's going to be a line item in the bid process, that's good enough for me. If you want to give me a letter saying it is from the board, fine.

Mario:

I believe that's what Sunny indicated. Okay.

Jamie:

Okay.

Sunny:

Absolutely.

Jamie:

That being said, I think all questions were answered.

# Stephen:

Jamie, this is Steve Mongillo, I just have a question of Sunny just to understand the process. Does a contractor, when he bids in include what he might get for salvage?

# Sunny:

Yeah. At this point of time, we'll have to see how to do the line item, but the contractor might price it per pound, or is he going to dispose it off as an equipment or used equipment? It is something we haven't figured out as to how we can price it, but certainly there'll be a line item for him to give us credit for any of the salvage equipment plus steel plus whatever I would say he's going to take out.

# Sunny:

I think that will be part of the process. For all, I would say we run into issues where the contractor doesn't really want to do that. We will certainly take ownership of it and we will have him, I would say, give us the ownership of it, remove it and then we will take ownership and we will dispose it off. There is certainly value in it, for sure, it'll be tough to ascertain at this point of time what the value will be. We are completely in agreement that there is value in that salvage, there is no two ways about it.

# Sunny:

How we are going to take the credit back, apply it towards the contract, or we are going to take ownership and dispose it off as the authority itself, that will be something we can decide going forward. But certainly the point is considered very valid and we are also thinking along the same lines. So it is certainly falls very much in line with how we would like to execute the contract.

# Mark:

Mark Levine, again, Woodbridge, you're 100% right, the line item, the bidder may say, "Listen, this has no value to me. If you want, I'll give it back to you." The other item will be, "This is what I'm going to give you for the stuff," and on and on. He might say, "It has no value. I don't want it. I'm not going to include it." Then another bidder will say, "Listen, I'm going to give you this much for it."

Sunny:

Absolutely. Absolutely, Mark. Yep.

Mark:

If they deal in this kind of stuff, they know what it's worth.

Jeff:

I think we've covered it guys.

# Jamie:

Yep. Thank you. Okay. I think the question's been answered. Are there any additional questions before we prepare to close the hearing? I see no hands.

# Jamie:

I'd like to, again, thank Jim and Orville for the presentation and pulling in the members of the RWA who provided support in putting together this application and to the members of Tighe & Bond who put a lot of effort into this as well. To attorney Donofrio, who clearly spent a lot of time reading through all this and looking at extra materials to make sure that he advised us well.

# Jamie:

With that said, hearing there's no documents necessary to be filed, moving forward I'm going to close this public hearing/ we'll schedule a vote on this, I believe for the next RPB meeting at March 24th at 7:00 PM. If the vote is extended for some reason or delayed, we have until May 15th to make a final decision on this application. Seeing no questions, I'd ask for motion, I guess I'm closing the meeting we don't need a motion. Right?

Jeff:

correct.

Jamie:

Thank you for attending, we appreciate your patience and information and support.