

**Representative Policy Board
Land Use Committee
South Central Connecticut Regional Water District**

**December 9, 2020
Meeting Transcription**

The regular meeting of the Land Use Committee of the Representative Policy Board of the South Central Connecticut Regional Water District (“RWA”) took place on Wednesday, December 9, 2020 via remote access. Chair Betkoski presided.

Present: Committee Members: P. Betkoski, P. DeSantis, B. Eitzer, R. Harvey, M. Horbal, M. Levine, G. Malloy, J. Oslander and J. Mowat Young
Authority: K. Curseaden
Management: W. Henley, T. Norris, J. Tracy, and J. Triana
RPB Staff: J. Slubowski

Peter:

Are we ready, Jenn?

Jennifer:

I think we are all set. Let me share my screen.

Peter:

Okay.

Jennifer:

Everybody can see that?

Peter:

Yep. Yeah. There you go, our safety moment. I just had mine right in front of me. There we go. You know it's the holiday season. It's supposed to be joyous. We all know we're going through some challenging times. Try to take care of yourself. You all can read the safety moment on your own but stay healthy and happy. Is that okay, gang? Everyone got that?

John:

Yep.

Peter:

Any question on the safety moment? How do I alleviate the job related stress? I'm self-employed. I need some help there.

Bob:

Talk to your boss.

Peter:

There you go. All right. How about approval in the minutes of the November 18th meeting?

Mike:

Move.

Peter:

Second?

Bob:

Yep.

Peter:

Okay, all in favor?

Bob:

Aye.

Peter:

Oppose? Carry on. All right now we have the honor of the water chestnut follow up. Where are our gentlemen here?

Will:

How are we today, gentleman, folks?

Ted:

Good.

Peter:

Who do we have, Mr. Henley first?

Will:

Yes, I'll start and Josh has the more interesting part about the drone photography at the end.

Peter:

Okay, all right very good.

Jennifer:

Can you see the slide show that I just put on?

Peter:

Yep, very good. Yep.

Mike:

It looks like it's not playing the actual slide show right now. It's just when you first start it up. Go down to the bottom right next to the minus. There you go.

Jennifer:

Okay that's what I did. It's showing up on my other screen for some reason. It's not showing up on this one. Okay hold on a minute.

Mike:

What is that a picture of?

Greg:

Furnace Pond.

Bob:

That's just a picture of Furnace Pond.

Jennifer:

Actually, I can't bring it up on this screen.

Josh:

If you'd like me to-

Jennifer:

It's coming up on my [inaudible 00:02:57].

Josh:

If you'd like me to share my screen, I can bring up the presentation for you.

Jennifer:

Okay. Sorry about that. For some reason it's opening up on my other screen.

Peter:

There we go.

Josh:

All right. Take it away, Will.

Will:

Awesome, thanks Josh. All right. So this is an update on the water chestnut harvest and infestation. I think we had one or two previous presentations on this before the harvest. We're going to bring you up

to speed. For those of you who have not been informed, water chestnut, it's an invasive species. It's an aquatic plant. It grows along the surface of a water body. On the left is a picture of what the leafy part of the plant looks like and on the right is a picture of what the seeds look like. It can produce between 10 to a dozen of these seeds to each plant. The plants cover the surface of a water body. It has a negative impact on water quality, and it's an aggressive spreading plant. All right, next slide, Josh. Thank you.

Will:

So just so you guys know what we're talking about, Furnace Pond is a small part of Lake Saltonstall that's impounded by I-95. The water chestnut infestation is this large green mass on the bottom right end of the pond. So this is a picture of the water chestnut from some of the drone photography that Josh collected. You can see that it's pretty expansive. It shades out all the native vegetation and it covers a large portion of the pond.

Mike:

And what exactly does the water chestnut do to interfere with water quality?

Will:

It's like clouds over the surface of the earth. It keeps heat in. It warms the surface water temperatures. It also kills off the native vegetation. To have a healthy ecosystem, you want to have a variety of different plants. Underneath this water chestnut you have nothing but water chestnut. In addition, you can see that it's a lot of biomass. These plants die back and they end up in the reservoir adding a lot of nutrients to the reservoir.

Will:

Additionally, it's quite invasive in terms of fishing. It would cause a problem at Lake Saltonstall in that regard. Josh, if you want to hit the next slide. So we first noticed this infestation in 2018. From reviewing some of the historic aerial photography, we were able to trace the infestation back to some time in 2006, 2008, somewhere around then. You can see that these are either existing vegetation or the first signs of an infestation in the top two pictures in 2006, 2008.

Will:

And then over the next four to six years it spread pretty rapidly throughout the pond and now it covers about 30% of the pond, or which I think is about nine acres. In 2016, that's about what it looks like now. The real problem with the infestation is at Lake Saltonstall because we don't want this invasive plant to get into the primary water supply. The map here on the left shows the areas that it could possibly inhabit. The plant can only grow in up to two to three meters worth of water, which is fairly shallow, but it's a large acreage of Lake Saltonstall, and that's an important habitat in Lake Saltonstall because Saltonstall has a steep bank to it.

Will:

So it doesn't have a lot of this shallow zone. Somewhere between 25 to 35 acres of Lake Saltonstall could possibly be covered with this plant if we let it grow unaccounted for. So far there is only a small number of plants in Lake Saltonstall and we have removed them. I guess we can hit that later. Next slide,

Josh. In 2020, to address the primary infestation in Furnace Pond, we conducted a water chestnut harvest. We harvested the plants out of the pond before they could produce their seeds. This prevents it from proliferating the seed bank.

Will:

The harvest was conducted during the summer. There was a two week break because they had some mechanical issues, but in the end we actually ended up getting a free day worth of work and we harvested 4.5 acres worth of material. So this is the equipment that they used for the harvest. It's a big paddle boat that has a cutter head on the front and a conveyor belt. They go out there, they cut the plants out of the water. The idea is that you get out there before the plants can drop their seeds and then we offload the material onto the shore and we let it dry out and die basically.

Mike:

Now you said you harvested 4.5 acres of the plant. How many acres of the plant are there left?

Will:

There was about 3.5 acres, but there was a couple of logistic issues with that. One, this was a really dry year so the harvester can only harvest in a certain depth of water. There were some limitations in that regard. I think that we may have been able to harvest another acre or two based on the amount of time that we had paid for but the limiting factor was the depth of the lake. However, that may be beneficial to us. The fact that the lake was drawn down while we were conducting this harvest means that there was exposed shore line and those areas may end up not producing plants next year. So it's here and there as to whether it's good or bad. We'll see next year.

Peter:

Where is this company out of?

Will:

Massachusetts.

Peter:

Massachusetts.

Will:

Yep. The company is called Solitude Lake Management. I don't know if they're international, but they're across the nation.

Peter:

Okay. Thank you.

Will:

So our guys assisted with this project as well, the union guys here at Regional Watery Authority. They helped us to basically maintain the road that we use to access the road, to maintain the boat launch. They helped us moving the material up. We moved it uphill so that way the material wouldn't be getting back into the lake in the next slide here. You can see that we collected a significant amount of material. I think it was Josh, I think your estimate was what, three school buses worth, two school buses worth?

Josh:

Yeah, about three school bus loads worth.

Will:

But that's when it's wet. This stuff lives in the water. It is mostly water. So once it dries out there's not much mass to it.

Peter:

So it doesn't pollinate and make its way back to the water?

Will:

No, no. The seeds are pretty large. They're about the size of a chestnut. If we catch it before they drop off the plant into the water and we bring them up to shore, then we're preventing it from spreading.

Peter:

They just die off.

Will:

Yep.

Peter:

Thanks.

Will:

No problem. There was some good news and some bad news in 2020. One was that we found it in two new locations in 2020. One location was above Lake Saltonstall on the Farm River. This was in a small pond called Pages Mill Pond. They just created a fish way there. You may have seen it in the news. It's a pretty good sized pond there. I think it's either between five and 10 acres, the pond, land there was maybe an acre of water chestnut found there during a community stream walk project. It's about somewhere between one and two miles from our diversion to Farm River, so it's not a major concern. But it's something that we want to continue monitoring.

Will:

Then we also found the plant in [Bayuso's 00:11:26] farm in some of their wetlands that they have there. Our environmental analyst did an inspection there and he found some of the water chestnut growing in

their wetland areas. So it's possible that that's where the water chestnut came from originally but basically we detected two new sources upstream, the Saltonstall system. Next slide, please, Josh.

Will:

So we also monitored Lake Saltonstall in 2020 and this is the good news. This map is a little hard to read but basically if you look at the map you see yellow dots, you see blue dots and you see red dots. The yellow dots are three years ago where we found the water chestnut in Saltonstall. We removed it all. The blue dots are last year where we found the water chestnut in Saltonstall. We removed that as well. Then the red dots, which are now primarily concentrated only at the furthest south part of the lake are where we found it this year.

Will:

The infestation in Furnace Pond is huge. It's a big thing to tackle. It's going to take a number of years but with three years of monitoring Saltonstall, we almost have the population in control there. So we caught it before it could spread throughout the primary body of water. We also monitored-

Peter:

It's being hand removed there?

Will:

Yeah, the quantities here in Saltonstall, each of these points is one plant. It's easy to get in there, Josh and I, and Steve Vitko and I, I think, went out there one year and just removed these. It's a pretty easy task. We also monitor below Furnace Pond. There's a small area of freshwater stream there and we found it there in 2018, I think. I think 2019 we found one plant. This year we didn't find any plants. So that's another area that we're monitoring and that we had shown progress.

Mike:

Is this a plant that is affecting all of the water supply companies in Connecticut?

Will:

I believe Aquarion has this as a problem. I don't know of any other water companies that do. I know Aquarion had I think a nine acre pond that was completely covered. I think they're having a lot of success harvesting it. I know that from in terms of state-owned bodies of water and publicly-owned bodies of water, this is one of the newer invasive species that's spreading throughout the state. It's becoming more and more prevalent. They found it in the Connecticut River. It's in a number of lakes throughout the state, and like I said, Aquarion did have an infestation.

Will:

This infestation at Furnace Pond is one of the largest that we have in the state, from talking with some of my colleagues in DEEP and the Connecticut Ag Station. Can you go back one slide, Josh, or no? No, sorry.

Joe:

Question from Joe Oslander. The problem that you have now coming from Farm River, where is this originally coming from? Is it out of the country? Where is it?

Will:

Yes, it's from Eurasia. It was first found in the Potomac River I think in the late 1800s, 1860 or something like that. It's relatively new in Connecticut. It hasn't been a huge problem in Connecticut until the last decade. So future initiatives, we're going to budget for another two weeks worth of harvesting in 2021. We're going to continue to monitor Saltonstall and hand pulling any stands that we find. We monitor the whole lake and finding that population upstream of the Farm River diversion, that's just more evidence that we need to continue to monitor the whole lake once a year. We're going to continue to monitor Furnace Pond using both drone photography and on the ground monitoring to see some of those smaller stands.

Will:

We're also going to monitor now Farm River East Haven to make sure that we don't have any stands growing in the stagnant water there. Those are our plans moving forward.

Mike:

Is some of this growth of this due to climate change? And if the climate change, which I expect will continue, are we going to have a larger problem with these invasive plants in the future or can you even tell right now?

Will:

I don't think we can tell right now. I'm not sure that this plant is necessarily associated so much with climate change because it's found all the way up into Lake Champlain. I do know that it has to do with globalization and people moving around. Now that it's present in Connecticut, we have a large population like the one at Furnace Pond, it can spread to other reservoirs. So it's a good thing to manage and keep in check. Having it here in our distribution, in our service area, and having a large population like Furnace Pond, it's a really big vector. Because it's not a public lake, there's not a lot of motor boating or public use of Furnace Pond. There's a lot of birds that land there and they fly to other ponds that aren't used, which tend to be our water sources. This is something that we want to get a handle on.

Mike:

Thank you.

Will:

No problem.

Ted:

Will, this is Ted. Is it purely freshwater or can it be found in estuary environments that are a mix of salt and fresh?

Will:

No, it cannot be found in saltwater. So for example, below Furnace Pond there is only maybe 200 foot stretch of freshwater before it becomes brackish. It will not grow in that brackish water. And in the Connecticut River where it's been found, it only grows above the salt triangle.

Ted:

All right. Thank you.

Will:

No problem, Ted. And then Josh was going to talk a little bit about our drone mapping initiative and some of the photography and imagery that we collected this year.

Josh:

Yeah, so we were pretty excited that everything worked out well. The weather cooperated and due to some issues on our contractor's end, it prevented them from completing the job in a timely manner, which was good news for us flying the drone because it gave us more opportunity to get good weather to fly the drone in. So we were able to collect some photography before the harvest, during the harvest, and after the harvest. This is going to allow us to map the progress of how these harvests are going to do upwards of a decade from now depending on how the seeds in the seed bank react.

Josh:

So the program we use for mapping is called Pix4D. So basically what this allows us to do is take the drone and create a polygon around the area that we want to fly. You get a start and an end point. Each camera on the screen is an area where the drone is going to take an image. You can dial in how high the drone is flying and that will dictate the kind of resolution you're going to get on your final image. But the beauty of this is once you draw the polygon, you can save that polygon and we can do the same exact flight at the same exact elevation every single year to come up with the same exact picture and it's going to give us a really good reference point to see how the population's doing.

Josh:

This is our drone flight prior to the harvest. The resolution is super good, even from zoomed out this far you can almost pick out individual plants. But you can see the plant doesn't like growing in deeper water. So you can see the spot in the middle there is on the deeper side where the plant hasn't been able to take hold. As you're starting to get out into the main body of Furnace Pond, the plant doesn't seem to do well out there either.

Joe:

Josh, what's the height of the drone as its taken these pictures?

Josh:

I think we flew this at about 200 feet. The legal limit for a drone operator is 400 feet without special permission from the FAA. Considering this location is really close to Tweed Airport, they won't let you fly above 400 feet anyways just due to the fact that it could be in the path of an airplane. While we were flying here, we did get permission from the FAA but we also had to be cognizant of the fact that there

could be helicopters or small planes flying. We have to be cognizant of birds as well, make sure no hawks attack the drone.

Josh:

That Pix4D program allows us to autonomously fly the drone. However, we still have to be monitoring where the drone is at all times on the off chance that it does something we don't want it to do or wildlife interferes or something of that nature.

Joe:

Thank you. It's very impressive.

Josh:

Joe, this is a photo of Furnace Pond during the after maybe a week of the harvest going on. So you can see where the operator drove through the main pack. In a lot of these areas, the water chestnut can be double or triple the plant thick. So we were getting the vessel ... this is what it looks like while it's moving around. This is it returning back to the boat launch to deposit the water chestnut. In some cases it only took 15, 20 minutes for it to load up its hopper. When we first bid out the job, they were saying it could take 45 minutes to an hour. So the fact that this population was so thick meant that the operator was harvesting at a very quick rate.

Josh:

You can see the boat has a conveyor belt on the front with the teeth that Will had mentioned. Those teeth allow the boat to cut the water chestnut away from the main pack while the conveyor belt brings it up into its hopper, and the hopper also has a conveyor belt, which feeds everything towards the rear of the boat. Once that hopper is full, the boat can back up to the boat launch and eject everything onto shore. So this is our imagery after the harvest was complete. You can see a large majority of the population was taken care of in the center of Furnace Pond. Those edges are what Will was referring to when we said that the water level had dropped significantly.

Josh:

The boat just wasn't able to get into those areas to be able to harvest that. If the water level is higher next year then we'll be in good shape for the boat to be able to harvest. But it basically topped out at 80 hours anyways by the time the operator had gotten to this point. This is a before and after, just to give you a sense of how much was harvested.

Mike:

While this looks good to me, is there any other chemical method that's safe for water that would reduce all this water chestnut to zero? Because obviously your ship can't get everything and this is going to reoccur annually. [crosstalk 00:23:23]. Are there other methods of removing water chestnut?

Josh:

Will, would you like to speak to the chemical, if there is one?

Will:

I believe that the chemicals that can be used to treat water chestnut are on the more aggressive side of chemicals that you would not want in a drinking water supply. Water chestnut, it's a very robust plant and it doesn't respond very ... the response to chemicals, it's not worth our effort, beyond the fact that we're not going to use an herbicide directly in a water body. We don't allow herbicide use on terrestrial vegetation and putting chemicals directly into the water supply I think is something that we want to try to avoid.

Will:

Your concerns regarding some of these edge areas, once we can get the population to a manageable size, we can actually go in with hand pulling methods and remove some of these areas from the side. They can also use the machine to harvest some of these shore areas but it just requires them to back out and come back in, so it's something that's more time consuming, but it's something that we can do once we get the population under control.

Jamie:

Thank you, Will and Josh. Your presentation, it's exciting to see the impact, how horrifically fast this grows, but how it's able to be removed. I'm curious looking at where it's now at after this operation, how that compares to the series of photographs that you showed earlier for the prior year so we can see where it brings us back to. How many years worth of growth did we eradicate, I guess is what I'm getting at.

Will:

So the way that water chestnut grows, like I mentioned, it produces up to 10 seeds a year. Some of the studies that they've done on Long Island have shown with harvest year each year, it's taken somewhere between five to six years before they see any reduction in the surface area coverage. Now that doesn't mean that there's a reduction in biomass, as Josh mentioned. This year, harvesting, this is the first year that it's ever been harvested. There are plants that are growing on top of plants and it's very dense and there's a lot of material.

Will:

However, because the seed bank, we've been at that maximum extent that it can grow for probably two to three years, there's a lot of seeds that are down in the seed bank and they're viable up to six years, or up to 10 years in some studies. But we're really hoping it's not going to take that long. But in terms of where this brings us back to, it's probably somewhere in 2010 I think. It grows exponentially so it can go from ... if this was a new population, it could go from that image on the right to the image on the left in one year easily.

Josh:

Yeah and the good news is the whole point of doing this operation at the time frame we did, right around July/August is a twofold where we're removing viable seeds before they drop, but we're allowing anymore viable seeds in the water body to then grow and presumably they'll get to a point where

they're ready to seed but the water gets to cold and they freeze and they die. So we're hoping to get a double flush every year to help burn out that seed bank. But again, upwards of 10 years-

Brian:

I'd be curious to see what it looks like in early July of next year.

Josh:

Yeah, for sure.

Will:

Yeah, as I mentioned, having the lake down, because of the dry conditions this year, the lake was down, I think, almost four to five feet at its maximum. Having some of that shoreline exposed could actually help us in the long run. It only takes a few days of these seeds being exposed to the sunlight to make them nonviable. We're excited to see what it's going to look like at the beginning of next year.

Greg:

This company that did the job, they were here for how many weeks?

Will:

Well, they ended up being here for almost a month but we paid for two weeks. They gave us two weeks and then they gave us an extra day because of the delay. At the end of the day, we got the harvest done at the time frame that we wanted it to be completed.

Brian:

Are you ever going to be able to get into that area that is the upper right portion that looks like it's a separated little piece?

Will:

No. I don't know. Not with the machine. There is a small breach in that causeway that separates those two areas and it is deep enough to drive a boat in there. So it is something that could be hand pulled. Also, I think it's worth noting that some of that vegetation that's back there is duckweed. It's not water chestnut so maybe only 60% of it is water chestnut. But no, I don't think they'll be able to get the machine back there, if that's what you're asking.

Mike:

From my observation and from what you've said, I don't think we're ever going to be able to totally eliminate this as an invasive species in the water system. Do you think I'm correct?

Will:

Normally, when it comes to aquatic invasive species I would agree with you. With this plant, it's a little different. A lot of the aquatic invasive plants, they're under the water. You can't see them. The only way to manage them is with chemicals. This plant, once we get it to a manageable population, it's very easy

to see and it's something that we can definitely contain eventually. There is an end in sight here. I can't give you a timeline for it. A lot of the studies show that it takes five to six to seven years, but this is something that we can contain.

Peter:

Will, Peter Betkoski. What would happen if we never touched this? Does that dilute the reservoirs?

Will:

Yes. Well, there's maybe two or three main concerns with that. One, this is a lot of plant material growing in the lake. Water quality at Furnace Pond is very bad as it is because there's a lot of [inaudible 00:29:55] runoff. Bayuso's farm nutrients go into this pond. You're filling in the reservoir and you're adding in a lot of nutrients. But beyond that, if this spreads into Lake Saltonstall, it could have significant impacts on the lake there. It's a really big gamble to not manage it at all. I think too, it's a small cost to pay each year to harvest it at this point. I think it's worth it.

Brian:

So do we.

Will:

As I mentioned, you have a huge population like this right next to your other bodies of water. This is not that far from Lake [inaudible 00:30:38]. This is not far from the multi lakes. This is not far from Saltonstall obviously. This can spread very easily.

Peter:

Thanks, Will.

Greg:

Would it affect the taste of the drinking water?

Will:

I don't really know. I'm sure that it does add a unpleasant flavor to the water when it is decomposing. We try to manage, right now, the Saltonstall systems, so that way Furnace Pond water, which is unfavorable, does not enter Saltonstall unless the conditions are ... it's a heavy rain. I think yes, it would impact the taste of the water. I don't know if after treatment it would, but I know that they do have taste [inaudible 00:31:26] issues occasionally at Saltonstall from algae and that is the same process when the algae die. It creates a taste and odor issue. To answer your question, yes. Does it impact taste and odor right now? Probably not but it may.

Josh:

I'll also add that having this plant in this body of water can contribute to the disinfection byproducts. Just as Will was saying, the amount of organic matter that's growing every year and decomposing and getting into Lake Saltonstall, that is an active reservoir, so it is concerning to deal with those disinfection byproducts if we're using Saltonstall water in the treatment process.

Jamie:

Does this water chestnut work like algae where it's blocking sunlight and affecting the oxygenation and then killing off fish, if it was left unchecked, would it react the same way too much algae impacts?

Will:

Yes. There has not been any major fish kills in Furnace Pond yet. It does block off sunlight and there is very low oxygen in the water that's directly underneath it. Furnace Pond does have a lot of nutrient inflow and it does have a lot of blue/green algae as well. So there is the possibility for fish kill. Fortunately fish do have some intelligence and if you talk to any of the guys that work at the Saltonstall treatment plant, they'll tell you that a lot of the large fish move in between Lake Saltonstall and Furnace Pond. I don't think it's a major concern, but it is possible, yes. It does impact the oxygenation of the water.

Josh:

So this slide here is just a really basic, just to show you how we could utilize that imagery to go into our GIS program, it allows us to really easily estimate how much was harvested versus how much was there. We're very lucky at the company to have Will here and if we didn't have drones, he has in the past, and would still have to, go out with his boat and do this evaluation boots on the ground. To a lot of people, whether it's a land trust, it takes time and it takes money to have those people mobilized. This shows we're able to get this imagery. The flight might have took 20 minutes for each flight to get this map. Then you got some small fees for the mapping program to develop the map that can go into the GIS program.

Josh:

It's very easy to then say, "Okay, we can estimate that we harvested four and a half acres of the eight and a half to nine acre population without ever having to put a boat in Furnace Pond and worry about cross contamination between reservoirs, which is a huge perk.

Ted:

Josh or Will, what was the cost of the contractor, and what do you think the cost of the whole operation was?

Will:

So the cost of the contractor was about \$20,000. I think it was \$21,000 at the end of the day. I think it ended up actually being a little bit less than we were quoted. The total cost of the operation, we would have to talk to someone in facilities because we did use a piece of our equipment and one of our guys during those two weeks to maintain the launch and bring material up, but that was the extent of the cost to us.

Ted:

So probably somewhere around the range of \$25,000. That's a pretty good return on investment.

Peter:

That's still a fair cost. You said roughly 80 hours a month?

Josh:

That's right, 80 hours.

Jamie:

Josh, the important question, did you wear your aviator glasses when you were flying that drone?

Josh:

Unfortunately, I don't have a pair of prescription aviators so I did have a drone pilot vest and a drone pilot hat I did wear. We at least tried to play the part as much as possible.

Jamie:

No photos for our presentation?

Josh:

No. We have pictures. I will say from this photo, we flew from the upper right hand side of the photo. You might be able to pick out the trucks, but that's the area we chose to fly from because that gave us the best vantage point to see the drone throughout the entirety of the flight. So like the slide says, taking all these images, recording all these maps will help us in the long run. It'll be great to look back five years from now and see the progress that we've made from the beginning and really be able to show everyone we'll have actual data, actual numbers to tell people we harvested four and a half acres and this is what came back next year, and be able to really estimate how much money we'll need in the budget for future years and give us an estimate of when we can cut ties with the contractor and get out in smaller boats and hand pull and figure that out.

Josh:

So with that, this was a very beautiful image we took of the water chestnut and thanks for letting us present to you.

Greg:

Thank you.

Male:

Very nice.

Peter:

Will and Josh, I can't thank you enough. That was a great presentation. I don't know if anyone else has any questions for these two gentlemen.

John:

I'll just make two extra points on top of Josh and Will's presentation is that number one, these two guys did the yeoman's work of coordinating the whole thing, but as you were just talking about, it was really operations that did a whole lot more work also. We were just talking about how much work they did over the summer to help us move the material out of the lake and get it up to that upland area so it can dry out. But they did even more work prepping the area before that many days, many hours put in because the road that we used to access that back part of Furnace Pond was in really bad shape. It was super soft. All the guys in operations from top to bottom really did a fantastic job because if they didn't improve that road, there would be no way that we could have gotten this done.

Peter:

Thank you so much for that, John, because there's been questions, of course, of operation, what did they do besides their daily work but that's a huge comment and we should all note that in our mental index there.

Will:

Back to what John said, they built a really awesome road for us back there. The road had been essentially abandoned and they were able to bring in a really huge tow truck with a huge piece of machinery, that huge harvester and launch it there no problem, and get in and out. They did a really great job there.

Peter:

Great.

Jamie:

That's that area up higher than the railroad tracks that we looked at last year I think?

Will:

I think the road was completed at the time that a few of you may have been there, that we visited that site.

Joe:

John and Ted, is this program that we just saw tonight something that should be made public so that the community realizes just how much work goes into keeping our water the best water in Connecticut?

Ted:

John, you can also answer too, but it's gotten a lot of play on our social media sites already. It's been on LinkedIn. I don't know about Facebook. I don't do Facebook but I've seen it on that and I've also seen it on Twitter. It's getting some airtime. John, I don't know if you know more than that.

Brian:

It was also presented at the CACIWC meeting, which is the conservation commission, inland wetland commission meeting on Saturday. Josh gave a great presentation on it there.

Mike:

I think it would be good if the water company put an article in the New Haven register so that all those people without iPads and stuff can see or read about the efforts in the South Central Regional Water Authority to keep their water clean.

Peter:

Good point.

Ted:

I'll that up with communications. Thanks, Mike.

Mike:

Thank you.

Peter:

Thanks, Ted. Anything else? Again, Will and Josh, thank you so much. You can stay and listen to the rest of our meeting if you'd like.

Josh:

I'm going to go make some pizza for dinner so I think I will pass.

Brian:

Coming over right now.

Jamie:

What time are you serving?

Josh:

Oh probably 45 minutes.

Jamie:

All right. [crosstalk 00:40:34].

Peter:

What's your address?

Josh:

Thanks, guys.

Jamie:

Thank you.

Peter:

Okay that was great. All right everyone's ready to rock and roll here with I believe John Triana. You want to step up?

John:

Yeah, sorry about that. My VPN just dropped out and I had to re-establish so hopefully there will be no more problems. Can everyone hear me?

Peter:

Yes.

John:

Okay so for the update for this month, at the end of November we were at 67% for our reservoir levels. In total the long term average is 66 or just above where we would be at a normal year, which is pretty incredible given the lack of rain that we had over the summer and fall. Last year we were at 79. November was a wet month for us this year where it was not last year, and we had a little bit more than an inch of rain above the normal. We caught up a little bit on the long term average for rain for the fiscal year, so we're about in 21 inches or so compared to where we should be at about 23.

John:

Land we need for the water we use program, in Killingworth would correspond with a property owner of 25 acres. The DePodesta and Hendrickson properties, we had a conference call with our attorneys in DEEP to talk about the DePodesta survey and the title work there. The original easements for Hendrickson I sent back to DEEP after they got recorded by us. We signed the agreement easement for DePodesta and for that up to DEEP as well.

John:

For Olin Powder Ponds, the five member authority approved discussions with the Hamden Land trust to sign the option to buy the property. That would only be in effect if and when Olin ever went to sell it. It does have an expiration date on it, which if memory serves, it was from 2031. Rental house information. So Seymour [inaudible 00:42:44] Road, Amon in [Alleulia 00:42:47], the house and lot was sold and the property boundaries were marked. We're working with the new owners to transfer the street light there. I don't know if you recall or if you don't recall, there was a street light that we were responsible for, we were paying for, that's actually in the yard area. So we need to transfer over that responsibility and that cost to them. They said they still wanted it, so they can take care of that.

John:

Ives Street and Skiff Street in Hamden, the engineer won't sign off on our lot split application and map, even though we meet all the criteria. This is for Skiff Street, actually. Ives Street is all set. He contends that there was a taking for the bridge, but that never occurred. It occurs on our map but the map is incorrect and he won't believe us. He only believes the map. We're still trying to work out the wrinkles there, get it all ironed so that we can get it in through the disposition process and get it sold. We emailed Murtha about questions about the process here as we try to move the ball down the field.

John:

In 1029 Johnson Road, we corresponded with parties. Did someone say something? Sorry I thought I heard a question. We corresponded with parties who contacted the Turlowski's. Yes, Jamie?

Greg:

What do you mean by a taking for the bridge?

John:

Okay, so when they were redoing the bridge at Skiff Street, initially, this is a much longer story, I'll try to abridge it. Initially DOT came to us in the town and said they wanted to do a taking for the bridge. That is employee eminent domain and start the condemnation process to take the land that they needed to work on the bridge. We talked to DPH at the time and DPH's opinion at that moment, which I believe was 2015, was that they didn't want to have any water utilities, giving up any land, and this would be class I land, to any other entity at all. We can do license agreements with other entities like DOT or towns, but they didn't want any takings to happen. So no condemnations.

John:

So what we did there is that we signed the license agreement with the town and we allowed them to use whatever part of our property that they needed to put in the bridge. They used the property around the house as a storage area for Rotha who was their contractor and all was well. We never went into the condemnation process with them, but there was a map that said that this was the taking area, because that initially was what the idea was going to be.

John:

Well the engineer keeps saying, and coming to our surveyor and saying, "Hey, your map is wrong. Hey your map is wrong." We said, "No, no, no, there was no condemnation." It's like we can't prove a negative but we can prove a negative because we have the licensed agreement, which we signed with the town. It's been a long struggle and the struggle is not over yet but we're going to keep at it and hopefully give both of these houses into the disposition process so that we can be divested of them. Does that answer your question?

Jamie:

A follow up question-

Peter:

Thanks, John.

John:

Sorry. Yes, Jamie?

Jamie:

A follow up question to that then, and I guess is a general question about the DPH. It sounds like it was stronger than a recommendation. It was a requirement that the utility companies couldn't give up the land. What tool did they use to convey that information? Was it just a statement? Was there a regulation put in place? How did they convey that we weren't permitted to convey our property or to have it taken?

John:

It's their policy, and their policy has changed over time. In 2015, we actually got two condemnation letters from DOT. One was for Skiff Street. The other one was for Brushy Plain Road in Branford where they changed the Snake Hill Road part and they smoothed it out. We met with DOT reps and DPH reps at DPH's offices. That's what they told all of us. So we were in agreement. I was like, "We're the water utility. We're the ones who are being regulated. We don't have too much to say in this. We're just going to go with what they say. DPH was taking the lead in this and taking the higher order of the two state agencies.

John:

At Skiff Street, we signed the license agreement with Hamden and that was where that went. As a matter of fact, the project at Brushy Plain Road in Branford stalled. It did not get restarted again for another two or three years. By that time DPH had changed their opinion and they were okay with us giving away easements or fee simple property going through condemnation with DOT. So for that one, in the end, because it waited two years and the policy, the idea, the opinion of DPH changed, it actually went through condemnation and we gave away ... well it was taken from us, drainage easements for that road. Did I answer your question? Thank you. Any other questions before I move on?

John:

Okay hearing none. Forestry update. We finally got a little bit more movement in forestry. The North Branford job over on Beech Street had a little bit more activity. We're also doing a little bit more up at Bethany Hill. That was just in this month, December, not in November. So it's not reflected in this update. Excuse me. Other notes from Alex in forestry. He showed and awarded the timbers sale in Madison Peter Marlowe. He's been managing hazardous tree issues on our property both for the public and for facilities department. One thing I neglected to put in last month's update is that Trevor Grant has left us. He left in October. I didn't put it in there because it's in the personnel part of my monthly update to Ted and I don't usually transfer that stuff over to you guys because it's not really land-related, but here it does come up. So we're down a man right now. Alex is picking up the part of the hazardous trees at the moment.

John:

Other stuff for Alex is in conjunction with the Connecticut Agricultural Experiment Station in RCS he led a master's student's tour over at the sale that's off of route 79. I think last month actually Joe said that he saw a bunch of those vehicles over at that place, and that's exactly what that was. And then he's worked with a landscaping contractor to aid facilities and engineering over at the farm at East Haven. They're going to be doing work over there shortly about dredging that. He ordered several species of trees for reforestation and pollinator garden purposes on various parcels that we own.

John:

For recreation, we have requested to change the look of this, so the numbers are at the end. They're not on this first page. The fishing season ended in November at the end of the month. Operation staff cleared down trees for us at the Hammonasset recreation area. They also repaired a fence at the [Maltby 00:50:29] entrance because their car plowed into the stock fence right next to the gate. I led a bird walk over at Lake Hammonasset. That was in conjunction with the New Haven Bird Club. We had about 25 people. It went very well. One anecdotal note of that is that we started ... it was one of those warm Saturdays in November. We started the walk, it was 41 degrees, and when we ended it was 70 degrees. That was over a three hour period.

John:

We did a scavenger hunt this fall to try to get people out on the properties. We put up signs one per recreation area and then we told people you had to take pictures of six of them and email them to Jeff where he would then give you a patch if you completed that and then put your name into a drawing for a \$25 gift certificate. So we had seven entries, which was pretty good. We allowed them, I don't think it was quite three months to get it all done. It was good and had some response. I was hoping for five, so seven is pretty good by what I was expecting.

John:

Connecticut Forest and Park Association provided a map for the newly opened part of the [Piac 00:51:39] Trail that crosses our property in Prospect. For the permit holders, here's where the new formatting is. For the month of November we are at 5800 whereas last month we were at 5700. So we saw another increase for November, which is atypical. The typical, what we normally see in November, is that the number of permits decline. COVID is still having a positive effect on the number of permit holders we see.

John:

Special activity permits, no surprise here. Very little activity, which is typical for us as we go into the wintertime. Less people out there doing stuff on the land. Other items including encroachments and agreements. I talked to three more potential farmers for agricultural fields. 229 Forest Road we hand-delivered a letter to the abutter who has got an extensive encroachment over there. And then at the beginning of this month, Alex and I actually met with him, so we're going to be looking at that more closely and resetting the pins and then figuring out what we are going to allow and what we are not going to allow.

John:

We were notified by Gilford Land trust members of potential encroachment over by Taylor Lane. It looks like that's going to be actually all addressed by the land trust because it's an encroachment on both our property and the land trust property. Invasive plants, you learned a lot about that from Will and Josh. In the last month, Josh treated invasives in Woodridge and Bethany and documented populations in Bethany and Killingworth. He did 2.42 acres of mapping in the last month and treated just under two acres.

John:

Our deer hunt concluded at the end of November. In total, we harvested 45 deer, which is about right on par with what we've done for the last several years. You see the breakdown here by location. So seven from Prospect, three from Bethany, one from Seymour and 34 from North Branford. Cell phone antennas. We agreed to an increase in revenue from T-Mobile for the Rabbit Rock antennae replacements. There's nine antennas up there. They're going to be swapping out three of them. They're Comcast-leased. We received a counter proposal from Comcast for the second amendment for the ground lease there, and our first counter proposal, so we're still in a negotiation process in that matter.

John:

Regional Conservation Partnership. We held a Zoom meeting, had a special guest talking about pollinator pathways and had 30 attendees. That went very well. Myself and Ron Walters met with Cheshire staff to discuss the improvement at the South Cheshire well field. There's a storm sewer that comes from Whitney Avenue. It's not Whitney Avenue in Cheshire. From Route 10 and then goes down towards the [inaudible 00:54:32] River. They're looking to make some improvements on that, so we're working with the town there. I researched the easement and sent information that we had back to the town staff about that. I also corresponded with a surveyor who's doing mapping work for the New Haven Country Club. And over in Madison at Old Toll Road, we corresponded with a neighbor about the condition of the road into Cedar Swamp.

Joe:

John, what's the length of that road?

John:

Which road?

Joe:

The road that the neighbor was concerned about. Did you say Cedar Swamp?

John:

Oh well they're complaining about the ... it's across from what was it called, Walnut Lane, Walnut Tree Lane, something like that? It's the road, I don't even know if it has a name per se, but it's almost across from Walnut and goes north to the Cedar Swamp. There's about, I'm going to guess, a couple hundred feet from Route 80 to our gate and there's one lady who's off to the left, off on the west side of that access road. We had a timber sale in there. We cleaned it up when we were done and now she's concerned about the potholes that have come back. But when you look at our road beyond her driveway, it's fine. If there was any problem with our people or our contractors, you would have seen it on our road just as well as you see it on their access way, and it doesn't exist. We're still conversing with hem to try to discuss the matter. Did I answer your question?

Joe:

Very good.

John:

Historical thing over on Spruce Bank Road. We investigated a report of a possible vandalism on an old sluice gate that was related to the old mill over there. I went out myself. I did not find any evidence of vandalism or any accident. I mean this thing is right next to the road. But it seems to have just deteriorated over time. It's in a wooden frame with heavy metal gears in it, and was in a concrete base. It just fell out of the concrete base. So I don't know if part of the concrete deteriorated and fell or the timber actually degraded and decomposed and then fell out of its mooring in there but we did note that. And then over at Lake Whitney, CP&D is planning the big project of working on our dam that's over 100 years old and I am helping them come up with plans to access the east side of the dam through East Rock Park and getting permission and the access rights that we need through East Rock Park coming off of [Farm 00:57:23] Drive.

John:

There are five different articles here for your reading pleasure tonight. I'll be more than happy to answer any questions you have.

Peter:

John, how did our Christmas tree sales go?

John:

It went well. Are you talking about in terms of weather or in terms of trees that we sold?

Peter:

Both.

John:

The first day was horrible. It was Saturday because it rained all morning [crosstalk 00:57:56] cold and then it turned to snow. So we had a total of I think we sold eight trees on Saturday. But then we sold I think it was 81 trees on Sunday. I got mine on Sunday morning and there were more people there at 9:30 than the guys had seen all day the previous day. In total, I think we sold 93 or 94, something like that, and the previous year we sold 75. So we did a little better this year and part of that is because of COVID too because remember what I was talking about with recreation permits. We are now almost 2000 more people today than we had at this time last year. Jeff was mentioning to me that there was many people who showed up there who hadn't been there before. So he had to tell them the deal and let them know where to cut, what to cut and all, and give them the rules of the road.

John:

One other anecdotal note from that, not good news, but I'll mention it, was that during Sunday in the middle of the sale with many people around there, there was a youngster with a dirt bike who roared through everyone flipping the finger to everyone and basically baiting Ed Massey, who is our police officer, who was up there at the time, baiting him to try to chase him. He came up through the Gray Hill Road side and then went all the way down to the North Street side where our recreation staff is with the money and all. Then he turned around and went back and was still trying to egg Ed on to try to chase

him, flipping him the bird and everything. Ed's not going to chase him. Just to note some of these people are incredibly brazen.

Mark:

Did anybody take pictures to see if they could identify them?

John:

I don't know of that. I don't think so.

Mark:

It would seem somebody would have a phone camera there to take a picture as the guy's coming through so at least they can identify the bike.

Bob:

There's nothing to worry about, Mark.

Mark:

What, it was you?

Bob:

Was it you?

Mark:

No, I think it was you. They could have had an orange hat.

Peter:

Be nice, you two.

Mark:

I'm sorry I'm late. I'm just getting home. I don't know why I thought the meeting was 6:30.

Peter:

I feel better. I asked about you, Mark. I was going to make a phone call and make sure you're okay.

Mark:

No, I'm doing well. I read the report from the guys about the invasive species. Is it possible we can do that? I'm sorry I missed it. I can't believe I missed it.

Peter:

It was awesome, Mark.

Mark:

Yeah, maybe, Mr. Chairman, we should ask that it be given to the RPB so they can see what they're spending money on to stop invasive species.

Peter:

Well, that's not a problem with me. How about the whole committee? How do you people feel?

Jamie:

They did indicate that it's also available on several social media. I forget which ones they mentioned. Ted, do you remember? Didn't they say that they put some of it out there?

Ted:

Jamie, they didn't put the presentation out there. It was made mention of, like in a social media mention. That was about it.

Mark:

I think they should give the presentation to the board.

Peter:

Well that's a good point, Mark. I don't know if we'd be able to squeeze it in our next meeting or how would we do that, Ted?

Mark:

I don't have to find out. John, could you see if they'll get it in, or Jennifer?

Male:

Not the next meeting, the meeting after.

Ted:

Yeah. I think probably a discussion with Mario and if he's agreeable, that's fine. It's more up to you guys than it is up to John and I.

Mark:

I don't think you've got to get it into this meeting. I don't know what's on the agenda.

Ted:

No. No, you won't.

Peter:

I'll reach out to Mario for the January meeting.

Mark:

I think it's very important that the board sees that.

Peter:

Good point, Mark. I'll reach out to Mario for the January meeting.

Mark:

No problem.

Peter:

Any other questions for John?

Brian:

One other thing, Mark, at a minimum, even if they don't see it with talk, certainly the PowerPoint can be sent to all of the members of the RPB.

Mark:

It's not as good as them being able to answer your questions. I don't think it's such a big deal, but anyway whatever you think.

Peter:

Thanks, Mark. Any other questions for John? Thanks so much, John.

John:

Thank you.

Peter:

Other items? Oh you know what? Before we move forward, this meeting is being recorded. I forgot, Jennifer, at the beginning to state that. I'm sure that-

Jennifer:

That's okay. That's fine.

Peter:

I don't want to get fired here. Anyways, any other items that I'm missing? My thing was the Christmas trees and I was excited until I heard about the dirt bike gentleman.

John:

It went very well, Peter. Don't let the one bad part of it ruin it. I think it went very well.

Peter:

Okay, great. You know what, with life the way it is, I try not to let too much bother me. It's tough. But there's always one you know what.

John:

Yep, exactly.

Peter:

All right.

Bob:

Excuse me, John?

John:

Yes.

Bob:

John? Bob Harvey here. With Trevor gone, who's managing the deer hunt?

John:

Jeff Yale is the one who took possession of the deer hunt, more or less, all the responsibility for it. So Trevor actually left in I think it was the second week of October. So after that, Jeff was coordinating the entirety of the deer hunt.

Bob:

Okay.

Greg:

Where did Trevor go, John?

John:

He's working for Eversource now.

Greg:

John, I just noticed, be careful. Those dinosaurs are getting closer to you.

John:

I know. Right over my shoulder and they're very quiet too.

Bob:

Watch out for the alpha.

Peter:

Yeah. All right moving forward, we're going to have a review date for the joint committee special budget review meetings with the consumer affairs. Correct me if I'm wrong, Jennifer, this is April 19th?

Jennifer:

April 19th. It'll be the regular meeting of consumer affairs and then a special meeting of the land use committee.

Peter:

Mark your calendars. Thanks for being so punctual on that. We'll all be in attendance. Mark Levine, you're going to be at December 17th meeting?

Mark:

Live and be well, I'll be there. Jennifer will send me all the stuff.

Peter:

She always does. She's great.

Jennifer:

I will.

Peter:

Our next meeting, our land use meeting, is January 13th, 2021. Let's pray to God it's a better year.

Male:

Let's hope so.

Peter:

Anything else before I make a motion to adjourn? How about a motion to adjourn?

Greg:

So move.

Male:

Second.

Peter:

All in favor, all right. Great, thank you, everyone. Great meeting.