South Central Connecticut Regional Water Authority
Environmental, Health & Safety Committee

September 17, 2020
Meeting Transcription

A regular meeting of the Environmental, Health & Safety Committee of the South Central Connecticut Regional Water Authority ("RWA") took place on Thursday, September 17, 2020, via remote access. Chair Curseaden presided.

Present: Committee –Messrs. DiSalvo, Borowy, Curseaden, and Ms. Sack
Management – Mss. Kowalski, Nesteriak, Reckdenwald, Schenkle and Messrs. Bingaman, Norris, Norris and Tracy
RPB – Ms. Campbell and Mr. Ricozzi
Staff – Mrs. Slubowski

The Chair called the meeting to order at 1:30 p.m.

Kevin:

Thanks. Yeah. Trying to do my best with the connectivity. Yeah, I'll turn it over to Ted. I do not have the agenda right in front of me, but I know that we have four presentations today. Ted, if you wanted to start off with the first. Actually can I get a motion on the minutes.

Tony:

So moved.

Kevin:

Second?

Suzanne:

Second.

Kevin:

Any discussion? All in favor.

All:

Aye.

Kevin:

Thanks. Ted, go ahead.

Ted:

Good afternoon. The first presentation is going to be given by Amanda Schenkle, our Manager of Environmental, Health, Safety, and Risk, and will be talking about the new department that was created

as a result of the structural changes and the organization that were effective July 1st. Amanda, the floor is yours.

Amanda:

Thank you, Ted. Jennifer, I'm cleared to share my presentation?

Jennifer:

Yes you are. You're all set.

Amanda:

Thank you. All right, everyone. Good afternoon. As you can see from the presentation, we'll be updating you on environmental health and safety initiatives and our new environmental health safety and risk department.

Amanda:

Quick agenda, a review of the new departments and key focus areas for our fiscal 21, philosophy of safety and then, also our strategic roadmap for the department.

Amanda:

The new department, as you can see, we are under corporate services reporting directly to Jeanine. I myself am the new manager of the department. I've been with the authority for three years with a focus on risk management.

Amanda:

Joe Antinozzi, our safety administrator has been with us for 17 years and one of the main point of contacts for safety. Amy Velasquez is our Environmental Compliance Lead with seven years of experience here with new focuses on sustainability and safety in the last few years.

Amanda:

The reorganization led to the new department allowing us to better align common work practices that were previously held in three different divisions. The environmental health safety and risk team should be able to provide a greater cohesion of safety and compliance practices as we move forward on our safety projects and our property and employees.

Amanda:

As we just discussed in the agenda, here is a list of our key focus areas for the department, starting with the environmental compliance area. Two of the key areas here are the comprehensive general permit for West River. This deals with manganese levels and our drying beds at the water treatment plant. We are working on a project with Tighe and Bond to decrease those levels in our groundwater discharge to meet DEEP compliance. Permitting at the Lake Gaillard water treatment plant is currently covered under the miscellaneous permit for sewer compatible wastewater.

Amanda:

There's some reading issues with the sewer flow meter AWIA. That is a tongue twister in itself. We are working on getting that changed. It's presenting a dual issue for both compliance and the actual plant. That is a focus for environmental compliance, and they will be continuing to assist Jim Hill and his team as we move forward through the year.

Amanda:

As always, safety will continue to work on our zero injury goal. There are quite a bit of items within that, so I gave it a nice grand piece here, as well as updating our code of safety practices. This practice guide deals with all of the safety at RWA and will be a cornerstone to the safety portions of the roadmap I'll present later in this presentation.

Amanda:

From the risk side, you'll see BCP listed. I have been, in my role, a backup to Ted as he has been leading our BCP program. And upon Ted's retirement, I will be taking over as the lead for that program.

Amanda:

In relation to that, we'll be-

Ted:

Ted's going to retire?

Amanda:

For BCP perspective, we're making sure we meet all of our deadlines for the emergency response plans as part of the AWIA assessment. We'll be doing a Lake Gaillard water treatment plant exercise, as well as a few division specific exercises. And within the AWIA assessment, we also have made the decision to seek NIMS compliance. The authority was at one point certified as NIMS compliant, and it should be achievable again. We'll be working with, DEMAHS, Department of Emergency Management And Homeland Security as our key partner for the certification. And we have already engaged Rick Fontana from the New Haven office in this.

Amanda:

Rochelle and I both lead the risk mitigation team. We have an active plan for fiscal 21, which includes assessing all of our current risk perspectives and realigning the perspectives with updated business impact definitions. We'll be taking a look at how we classify the risks, which risks really fit together, and coming up with a plan to reorganize the risk register that you have seen before.

Amanda:

We move on to safety as a philosophy. These are a few items that we've been looking at as a team, truly trying to come up with how do we increase and improve the culture of safety at RWA? There's always been a great safety culture, and I think we can just do better.

Amanda:

Prevention of all workplace injuries and accidents is truly a key cornerstone for environmental health and safety. We feel that the prevention of injuries and accidents is paramount to improving our culture

and living our stars values. Striving to be better than compliance to us means choosing to require a trench box at four feet depth versus five and using redundant containments to avoid spills and utilizing proactive loss control inspections to reduce possible loss at our facilities.

Amanda:

Our employees is the largest and greatest asset to the authority, is probably nothing anybody here would complain about. They're the lifeline of our business, their safety and their ability to practice safe habits in their daily work fully to the best possible outcome for the authority. Training has always been important, but in the new normal, we find ourselves in a need to change. We'll be looking at best maximizing our staff, tools and time, so that way we can move our teams forward in training.

Amanda:

You tend to hear the terms top down, bottom up when you talk about training. We find that those terms tend to miss that middle manager level, which is a focus that we'll be doing this year. We plan to make sure that our mid-level managers and team leads are important pillars of our program and focused on not only our policy, but the performance of what we do. As you can see, there's a couple of great lines in here. Every job done safely or not at all, safety first to safety always.

Tony:

I'd like you to consider dropping that, "or not at all". I think there are a couple of problems that can get created by that. I think every job should be done safely period.

Amanda:

Absolutely. I truly feel that these strong safety commitments will lead to improvements across the board on all of our business practices. I think you'll see an improvement in KPIs when we live our best safety lives. And I truly feel that this philosophy can lead into all of our strategic objectives, guides and guideposts.

Amanda:

This area here is our strategic initiative roadmap for the department. The first item here is what I like to call telling the story, sharing our safety wins and near misses in improving on our near miss reporting.

Amanda:

The main theme here is communication, breaking down silos, providing information across the organization, providing tips and important near misinformation to help prevent incidents that might happen in another area of the company. Communicating effectively to the organization can impact all areas of the team, and from an environmental perspective, safety and risk.

Amanda:

We have seen a direct correlation with the near miss reporting that when we increase the number of near miss reports, we decrease the frequency and severity of injuries. And we have a shared objective with the operations division this year to increase those near miss reporting so that way we can definitely improve upon all of the other areas of safety. We will focus on all areas of RWA. It just happens to be the operation provides the largest amount of the near miss reports.

Amanda:

Our team leads and our employees will be the best resource for this near miss reporting, and we will work with them to help get that improved reporting done. A key area here will be our safety administrator working directly with the field operation team.

Amanda:

The second initiative here is our prioritizing safety. You'll see increasing the employee and supervisor safety dialogue, as well as continually improving our risk mitigation efforts. Opening the dialogue through safety [inaudible 00:11:54], weekly safety topics. Safety leadership skill training will impact our proactive nature with the program. And then using those safety discussions will open opportunities to improve the overall risk mitigation and business continuity plans at the authority.

Amanda:

Here, you'll see hazardous material awareness. It deals with a new renovation policy as well as education opportunities to staff. The tenure of the authority and the region opens us up to older facilities. Within those facilities, hazardous building materials are a common issue, especially throughout the Northeast.

Amanda:

Our staff grows changes and best practices need to be reinforced. The new renovation policy will outline the need to protect the RWA from the environmental impact of the hazardous building materials. Amy is a great resource and understanding our needs and balancing those requirements with the EPA. Educating key staff on the hazardous building materials and the EPA requirements will help us move forward and continue to meet compliance with our stringent EPA standards.

Amanda:

Along the lines of building materials, we also have quite a few hazardous chemicals. We are moving on a new route to train our water treatment staff in our 24 hour HazWOPER training. This will make them a technician level trained respondent. This training will be done in a new way. We have managed to get continuing education credits for the water treatment staff as part of this training. We're going to be doing the training directly with the staff at the treatment plants. We're going to do it in shorter segments over a longer period of time to help create a greater flexibility with critical staff.

Amanda:

Part of the roadblocks to this training in the past have been that it requires three days of training, and that it would remove vital staff from the plant for that amount of time. We're also going to see a reduction in the cost of training as we're going to be using our certified in-house environmental health and safety staff in order to complete the training.

Amanda:

In the vein of training, outside of just HazWOPER, we're also going to be improving how we do our training from all aspects of the department. We're going to be focused on using the right format at the right time with the right people. We've noticed as COVID has come out that in-person training, multiple hour long sessions are just not how we can perform. We're embarking on new goals to use our online

resources, take those larger trainings and streamline them into more manageable modules, and working with the department [inaudible 00:47:39] year, so that way we can really focus on what information they need.

Amanda:

The project management side of our strategic roadmap, really already has a strong safety inclusion in it. We're just trying to make that better. So you'll see here, we're looking at the risk benefit, decision making, environmental practices and sustainability, and a focus on compliance and safety of the contractors.

Amanda:

The first two items are really a two pronged goal together. What is the safest way to complete a project and what are the environmental impacts of that project? If we focus on the conscientious business practices, we can see an improvement for our community and stakeholders. We'll focus on the contractor impacts through the program by making sure [inaudible 00:48:22] expectations with our strategic partners and enforce our best in-class practices.

Amanda:

My team is truly excited to be able to present to you all today. We have a passion for safety and we look forward to implementing the initiatives throughout the organization. And I will open it up to questions.

Kevin:

Any questions? Okay. Thank you.

Amanda:

Thank you.

Kevin:

Ted, do we have the next presentation?

Ted:

I'm sorry, Kevin. I was muted. Yes. We're moving on to the next presentation, which is mine, the FY21 Business Continuity Work Plan.

Kevin:

I just wanted to make sure you hadn't retired yet.

Ted:

Nope. All right, next slide, Jennifer, please. We had activities planned for FY21, as we always do each year, on our business continuity. Four activities, America's Water and Infrastructure Act emergency response plan certification is a significant activity that we're working on now and is the subject of my next presentation.

Ted:

We are planning a table top exercise, Lake Gaillard water treatment plant, which I'll go into more detail in a minute. We're also planning to run up to five division or departmental tabletop exercises. Again, slides on that. And then we have our normal business activities. I should know that Kate Novak will continue as our consultant again in FY21.

Ted:

Next slide, Jennifer. Our table top exercise at Lake Gaillard will simulate an unanticipated shutdown of the Lake Gaillard water treatment plant, and exercise the steps necessary to implement the raw water bypass system.

Ted:

This is a scenario, a very serious scenario where raw water from the Lake would be chlorinated only, and then pumped into the distribution system without filtration. You may understand and realize that this would require us to issue a boil water notice for our entire system. It's a horrible thought, but we have to be ready for this kind of thing to happen.

Ted:

We are going to exercise staff readiness, employing a treatment operator, incident command structure, and reviewing emergency plan documentation. The information that the plant has to be able to do this is located out there, and some of them are trained and are ready. But there'll be another part of this... I feel like I'm starting to echo.

Tony:

We're not getting enough of you Ted. So we want to make sure that we hear you over and over and over again.

Ted:

Let me just check audio settings. All right. All right.

Prem:

I guess it's probably not you. I see Naomi there twice. I don't know if that's causing the echo.

Naomi:

Can you hear me?

Prem:

Yeah, we can hear you.

Naomi:

Yeah. I had to come out of my other system.

Ted:

Let's try this. Thank you.

Prem:

Okay, good. We're now fine.

Ted:

Yep. Anyways, this is not only a table top exercise, but it's actually going to be held in the field at the water treatment plant, where we'll go down to the underground chamber where some of this work will have to happen. We'll have to connect the temporary chlorination system up into the raw water main and begin pumping. We're not going to actually begin pumping. And then open those valves that are necessary to shut the plant down and open the raw water system up.

Ted:

We have done this before. Many years ago, we put the piping in place to make sure we could do this. And we just want to make sure that we are ready to go. This is probably one of the biggest risks that we have, of course, because of Gaillard being our biggest plant. Is that if this one goes down, we still have to be able to get water downtown.

Tony:

What's your estimation of the relative possibility of this risk?

Ted:

I would say it's a very small based on the resilience that we have at the water treatment plant.

Tony:

You're talking about 1%, 2%, 10%?

Ted:

I would say maybe one or 2% max.

Tony:

Okay.

Ted:

And then we're going to run a lessons learned, of course, for continuous improvement after the exercise, as we do with each of the exercises.

Ted:

Next slide, unless there are questions on that. We're going to conduct up to five division or large department business continuity plans, exercises. We're going to exercise the department's response plans. We review the incident command procedures with each department to make sure that they can enact their own incident command protocol and we'll have an evaluation and lessons learned needed.

Ted:

Each department has their own plan and we'll pick out certain departments after talking to the vice presidents, and review the business continuity departmental plan as a table top exercise.

Ted:

And here also that we'll run a self evaluation and lessons learned in order to improve the response time. And remember, that the business continuity plan is a plan that talks about and describes all of the actions we need to take if we're out of 90 Sergeant Drive for any reason. Flood, fire, bomb, terrorist, whatever it might be, the BCP addresses that and what every department will do in order to mitigate their loss.

Ted:

And you might say that we've had that exercise now with COVID because most of us have been working from home or outside of this facility, where a lot of vehicles are parked as well as treatment, but we still need to practice and exercise these plans on a regular basis.

Tony:

What would be your criteria for selection of the vision?

Ted:

I'd probably look at that who has not had that kind of exercise in the past, Tony. Standardized on looking at capital planning delivery, the operational departments' treatment and distribution. So we want to dig more into other parts of the company. Prem, I'll give you a heads up, we're going to come looking for your area probably. The finance area as well. Really don't need to look at other areas that haven’t had this opportunity before.

Tony:

Okay.

Prem:

I think that's a great point. I think we do have real time examples, Tony, right? Even the recent storm, we actually switched over from one data center to the Stanford data center. Once we had an SAP, we had real time situations. We react when doing that. But that is a great point, we just talk to circle then and make sure we cover all the areas of other businesses. I'm looking forward to that.

Tony:

You also have some real life experience based on the COVID. If there are divisions or the larger departments that made you worry a little bit, you might want to check them again.

Ted:

Thank you. We'll consider that. Next slide please. And then we have our normal, I won't say normal, but we have our planning activities that we conduct every year. Business continuity subcommittee meets to

discuss training needs, collaborates on table top exercise plans for the upcoming year and reviews open action items from previous lessons learned, if there are any.

Ted:

This is a large committee actually with the participants from multiple departments. We put these meetings up in late October. And then on a smaller team is more precise team that will design actually the table top exercise, the one that Gaillard will be a design exercise, of course, with commitment from treatment and develop a training schedule for training for such ... Actually, Amanda mentioned some of these, incident command, 90 Sergeant Drive evacuation, active shooter, shelter in place, all the kinds of trainings that we need to have over the course of a couple of years.

Ted:

And that's what we have planned for this year. Any questions? Okay. Then I will move on to the next presentation, which is also mine, which is the AWIA emergency response plan submission. Amanda mentioned this.

Ted:

Next slide, please. You may remember that last September Kate Novak gave a presentation regarding America's Water Infrastructure Act, or AWIA. That 2018 law requires water systems to complete a risk assessment and develop emergency response plans to certify that they have been done to the EPA.

Ted:

Next slide. We completed the risk and a resilient assessment in March and submitted our certification. Some of the more significant things that we looked at are listed on the slide. We looked at the resilience of our infrastructure, meaning its ability to return to or remain a full function when stressed from the outside. Large main failures are an example of these, how we are resilient. We can put them back together. We can reroute water and keep the system running. The Great Hill Tunnel is example of resiliency as well in terms of getting that back up and operating by using a bypass system.

Ted:

We looked at our monitoring practices, SCADA, and financing infrastructure in terms of IT security. In total, we identified more than 250 asset threat pairs and identified the top risks. Now, asset threat pairs analyze the risks to individual assets from either natural hazards or malevolent acts and, in terms of likelihood, estimated fatalities and injuries, days out of service, costs, and all those and then monetizes each one of those assets in terms of the overall risk.

Ted:

The highest risk, and these are actually listed in order here on the less... Well, actually I don't have it. Our top risks included the Sugarloaf and Genesee tunnels as one. Those are the towels that bring water from Hammonasset reservoir and Menunkatuck reservoir into the Gaillard reservoir.

Ted:

Of course our Lake Gaillard water treatment plant at pump station were number two, Lake Gaillard dam was number three. Saltonstall Tunnel was number four and it went down to approximately... We haven't

got all of them listed, but we have the top 30 that are listed in there. Interestingly, the monetized risk for Sugarloaf Genesee tunnel was $330 million. And Gaillard was down at $83 million.

Ted:

So that was completed in March, but now we're onto the next step, which we can go to the next slide, please. We're now working on the second requirement of AWIA, or our emergency response plans, which are required to certify to the EPA that we completed that at the end of this month, September 30th.

Ted:

That means, looking at the plans, we have to respond to natural hazards and malevolent acts, and what will take to mitigate those impacts on all of our infrastructure. We don't have one plan that covers everything, but we have many plans that cover almost all of the situations that we in the end we'll put under one overarching plan. So when the EPA says emergency response plan, like a lot of utilities, I think probably most of the utilities, we will be developing a plan of plans.

Ted:

Next slide please. We have over a hundred plans as we put them together, including business continuity, which we've talked about. If we lose 90 Sargent Drive, the incident management plan discusses how incidents' management structure is created and how they operate. We've used that a lot this summer, based on the number of storms that we have coming up from the south We have many critical component failure plans, discuss how to operate the system, should one component fail or how to mitigate that failure.

Ted:

The Hill Street pump station that recently had flooded out, had a plan, and that was put in place. We also have a cybersecurity plan as well as plans for droughts, floods and dam failures. Some of the plans that we have, continuing on to the next slide.

Ted:

Again, just a few more plans that we have, just listing some of the higher level ones, HazWOPER, means Hazardous Waste and Emergency Response Procedure for spills. We have a sabotage prevention and response plan that is held by the police. Our risk register that Amanda holds, emergency equipment plan, business continuity plan and training and exercise. And there are other ones here listed as well.

Ted:

We are working on those plans and we'll be providing them all underneath one umbrella so that somebody has one point of access to go to. Right now they're disparate, they're kind of scattered around the organization.

Ted:

And then the next slide. We are reviewing and updating numerous plans, some of which I already discussed. Critical component failure plans, that's where we have 40 for our main critical infrastructure

components, are being updated in terms of contact information as our dam EOP. Those are required to be kept up-to-date by state law. And there were other plans listed above that are also under review.

Ted:

The good news is that we are on track to be able to move through the certification to EPA at the end of this month. And then once we do that, we will have a hiatus of about five years because then we get to do it all over again. Every five years utilities require to do this.

Ted:

Are there any questions on the emergency response plans? Okay. Thank you.

Kevin:

Thanks, Ted.

Ted:

Yep. We are going to move to Josh's presentation. It's on the screen.

Josh:

Hi guys. Thank you for inviting me to come and talk to you about invasive species here at Regional Water Authority. I got some quick updates I want to give you on some of the bigger things that I've been working on this past fiscal year.

Josh:

Right here is a map of all of our properties at Regional Water Authority. In FY 2019, shows all of the invasive species that were documented. I'm going to talk more about acreage in a coming slide.

Josh:

This map encompasses 39 species of invasives, five of which are currently being researched to determine if they are in fact invasive. So I keep track of those as well.

Josh:

You can move to the next slide. This map is showing the fiscal year 2020 and fiscal year 2021 documentations. 2020 is in orange and 2021 is in light blue.

Josh:

You can move to the next slide. And this is a map showing all the documented species to the current point in time with in purple, the areas that we've performed some kind of treatment on invasive species.

Suzanne:

Hey Josh. The previous slide that you just had up, was that what you thought was going to grow? Is that mean that 2020 invasive species is growing to all these orange areas?

Josh:

No, it's just a matter of getting out to these areas and discovering what invasives are there.

Suzanne:

That's your investigation area? Okay.

Josh:

Correct. These are just areas where one of us, either myself or someone has told me that they've seen a certain species in a certain area, and I've been able to go out and see for myself and come back and documented it for us to use in the future to determine what point in time we want to do a treatment. And if any research needs to be done into the species, I can point researchers to proper areas where they could perform research on these species.

Suzanne:

Great. Thank you.

Josh:

Yep.

Josh:

So like I was saying, anything in purple here are areas we've done treatments on, and so the next slide, I'm going to talk about some numbers. So in FY 19, we documented 1,175 acres and treated 110 acres of invasives. Fiscal year 2020, we were able to document 1,006 acres, which comes out to 3.6% of the property. So in total, between 2019, 2020, and 2021, it's pretty negligible right now, but we've documented invasives on seven and a half percent of the property.

Josh:

In terms of what we've treated, in 2020 I was able to get to 78 acres to treat and that's between myself going out and treating or us hiring a contractor to do so. And so up to current, we have 212 acres where some treatment is being performed on an invasive species.

Tony:

Josh is this number directly reflected in amount of resources that are available?

Josh:

I wouldn't say it's directly reflected. I would say it's a combination of resources and time. There's only a certain growing window during the year where you can do a treatment. And within that growing window, certain treatments are effective only some of the time. Between being able to document and knowing where those species are, it allows me to quickly do a treatment at the proper time and try to increase the amount of acres treated for the total for the fiscal year.

Tony:

In that time window, if you had unlimited resources, you could go after all of the invasive species?

Josh:

If you're going to use the word unlimited, that opens up us spending money on various contractors, various personnel, it's a numbers game.

Tony:

Does somebody have an idea of what that number looks like?

Josh:

Many of these species require upwards of decades of treatment in order to eradicate it completely. Certain species, you might be able to do treatment for three years and it'll get rid of the seed bank, and you'll be able to say that a species is gone. But if you look at a species like multi flora rose, the seed bank can last 25 years. If you perform any sort of treatment on that plant it could take a quarter of a century before that plant is eradicated. So it's just a matter of right now, we're looking at some of the easier species to eradicate and in the next portions of the presentation, I'll show you some of the experiments we're doing to try to streamline which treatments are most effective and when we should perform them.

Josh:

So you can go on to the next slide. Along with that thought process, removing invasive trees is kind of the biggest bang for our buck. A tree can produce many berries or many seeds, and those seeds can produce many small plants. So getting rid of one tree removes the possibility of thousands of new plants from growing every single year. So this example is an Amur cork tree, it's a species that's being researched right now as an invasive, and I'm treating them as invasives because of it. So whenever I see one, I try to cut it down. You can move to the next slide.

Josh:

In this fiscal year, I've been heavily focusing on the Northern portion of Lake Saltonstall. This is a ridge where a lot of tree of heaven is growing. Tree of heaven seeds, they're wind dispersed. So being at the top of a ridge really makes it so that their seeds can spread far and wide and focusing on this specific area is important so that we don't get an influx of Alantis growing at the base of the ridge and within our Saltonstall recreation area. To date, I've cleared roughly 45 acres of Alantis. And I'll have to go back subsequent years to take care of small saplings and any shoots that come off of the stumps. You can move to the next slide.

Josh:

We're also doing some experiments with Japanese knotweed. This is a method we're experimenting with that does not use any herbicides. Right now, it's believed that herbicides is really the only way to kill Japanese knotweed aside from years and years of mowing it. And there's lots of areas on our property where we have Japanese knotweed, where it's not practical to bring a mower into. One example is the image on the right, which shows a portion of our property on Davis Street and Hamden. It's nearly impossible to get a mower in to clear this knotweed however, the knotweed grows into the sidewalk and stops people from being able to walk on it. So we're using this method where you use a half inch by half inch mesh hardware cloth, and you lay it on the ground after the plant has been cleared away. And if you move to the next slide, the plant will grow through the hardware cloth and as it grows

larger in girth, it girdles itself on the hardware cloth. And once it's girdled to a certain point, the plant will fall over and die.

Josh:

This doesn't kill the root system of the plant, but over time, in theory, the plant will burn itself out because it cannot get enough energy and the plant will die. It will also make it so that after a certain amount of time when the top portion of the plant dies, it won't be growing out into the sidewalk. And it will relieve us from having to bring a mower in to remove the plant. So you can move on to the next slide.

Josh:

We're also managing invasives by renting out some of our fields. On the East side, we pretty much have all of our fields rented out to various people who grow hay, but on the West, we've had some vacancies, until recently; we've been able to fill them. If you are able to move to the next slide. We have a gentleman that plans on using a majority of our Western fields to grow hay for his horses and in doing so, he's going to be mowing invasives, such as mugwort, multi flora rose and bittersweet. If you move to the next slide, we have a young lady who's going to be renting a field where she's going to be growing Christmas trees. And with that sort of management, she'll be taking care of an Autumn olive problem, a multi flora rose problem, and bittersweet growing in that field.

Josh:

Having these fields rented out allows us to not have to bring in facilities multiple times a year to mow these fields. And in return, we get a small payment from these renters and they're managing the invasives for us. So that's a win, win.

Suzanne:

And Josh, just a side question. So if they have their Christmas trees on there, how do we prevent... Do people come on to cut their trees down and how do we make sure and manage what happens on that property?

Josh:

So that would be definitely a question for John Triana. But if memory serves correctly, there's a contract with Miss Urbano. Her trees are going to take upwards of a decade to grow to the point where they can be sold. So there's a contract in place where either she pays now or she waits until she's selling her trees to pay. And I think there are allowments for either, don't quote me on this, where people can come on and cut the trees, or they cut the trees prior and they can sell them once cut, to people who come to look at them. There is a contract in place that the RWA has agreed to with Miss Urbano in terms of the sale of these Christmas trees.

Josh:

All right, you can move on to the next slide. We've also started our second year of experimenting with certain herbicides to take care of Japanese stilt grass. Our first year we tried an herbicide called glyphosate, but we also use other methods such as hand pulling, weed whacking. We did various vinegar

treatments and with the herbicides, we're trying to use the lowest concentration that the manufacturers suggest and then we halve it, and then we quarter it to see if those concentrations are effective as well.

Josh:

This year we've added two new methods. One is an herbicide called Acclaim, which specifically targets Japanese stilt grass, and the other is using a propane flame thrower to burn the grass, to see if that stifles its growth. Each plot is 1/1000th of an acre. And this year we're starting to wrap up data on it and hoping to pair the two year studies together and continue on to next year to see which method is not only the most cost effective, but has the best management of the Japanese stilt grass. You can move on to the next slide.

Josh:

Last year when I gave this presentation, I showed this image of a group of us clearing away black and pale swallow-wort from a critically endangered species of milkweed called green milkweed. We are the only property in New England that has green milkweed on it and it's a very small population of maybe 12 plants. I was excited to get a call from someone from Yukon recently, where they asked if we wanted to host a biological control, which is a moth from the Ukraine that specifically targets black and pale swallow-wort. Pale swallow-wort is incredibly difficult to kill even with herbicides because of its waxy leaf. So having a biological control take care of it really allows us to have a hands-off approach and we'd never have to use herbicides with it. This insect has been tested for upwards of a decade now on various plants growing in the United States, to see if it has any other host plants and to their knowledge, only black and pale swallow-wort will sustain them. So we're confident to be able to have a release on our property and hopefully get the ball rolling on clearing out this invasive.

Tony:

Have we started that?

Josh:

What's that?

Tony:

Have we started that?

Josh:

That will be starting next year. We were contacted this year to do a release and once they started looking into it, they realized they already released all that they could. So next year we will start that.

Josh:

So last year, one of my goals was to become a certified drone pilot, along with two other employees here at the company. And upon getting that certification, we started using our drone for mapping invasives. This is an image of Furnace pond, which for those who don't know is located on 95, just South of Lake Saltonstall. You can move to the next slide.

Josh:

So we contracted a person, a group called Solitude. They use this boat which has a conveyor belt on the front that loads water Chestnut into its hopper, and then is able to bring it from its location to the shore where we had our facilities have a machine ready to bring the material up to a de-watering station for it to decompose. This boat can hold 435 cubic feet of material and took 25 minutes between loads. You can move to the next slide.

Josh:

So using our drone, we were able to create a map prior to the harvest and after the harvest. The first flight was done July 6th, and it captured the entirety of Furnace pond with the full infestation. And on August 20th, we captured Furnace pond after the harvest was completed and it's very noticeable how much was taken. We were kind of limited to how much material could be removed, because as you can remember this year, we went through somewhat of a drought, and the water level in Furnace pond lowered drastically more than we were expecting. So the boat was only able to access certain points of the pond.

Josh:

If you move on to the next slide. Using those two maps, we could overlay polygons and easily determine how much acreage was harvested, which in this case was four and a half acres of water chestnut. Water chestnut can grow very densely, they can stack upon each other in two, three, four plants, so it's difficult to estimate how much time you need for a contractor to get out on the first go, because they don't know how dense this mat is. So with 80 hours of time, our contractor was able to clear about half of the infestation, which gives us a good head start coming into next year when we hire the contractor again, to try to clean up more. There'll be theoretically, less seed and less plants growing as well. You can move to the next slide. And with that, I can take any questions that you guys have.

Tony:

This is good. I have never understood the problem or our approach to it. This is helpful.

Josh:

Very good. Thank you.

Kevin:

Thank you, Josh.

Josh:

Thank you guys. Enjoy the rest of your meeting.

Kevin:

Any other questions for this committee, Tony or anyone else on the board?

Tony:

None for me. Anybody else got questions?

Suzanne:

Yeah. I'm curious about the presentations. Was the timing of them now, just to give us where... It's the first time the committee is meeting for the year and just kind of give us an update on all the different things that are planned for the year, or was there specific things that you wanted us to know that were either new or different or important for our attention?

Kevin:

This is Kevin. Is the question why are you hearing about these things this month? Is that what the question is? You cut out there a little bit.

Tony:

Yes, Kevin. That's the question.

Suzanne:

Essentially.

Kevin:

Yeah. So there was a recommendation from management that we hear about from Amanda Shenkle, and the new risk department that had been formed about five or six months ago, I believe. So that was one suggestion and that's the reason that was on the agenda today. The other things are kind of ongoing updates about business continuity, which you hear usually about once or twice a year from this committee. Maybe twice, if we have a specific event that takes place. And the other one, the AWIA was basically Ted's update about what the compliance is within the past two years.

Kevin:

We go back and forth about what to put on the agenda. How long do we want to make the committee? What's the rest of the agenda look like for all the other committees for the meeting today. So that's what went into selecting these topics. Some of them also come up as a result of inquiries from RPB members or other board members in the past few months about what's going on with things.

Suzanne:

Okay. Thank you, Kevin.

Tony:

Any further questions? Hearing none, I'll entertain a motion to leave the environmental, health and safety meeting and resume as the authority.

Suzanne:

So moved.

David:

Second.

Tony:

All in favor. Aye.

Group:

Aye.

Tony:

Opposed? Motion carries. Thank you, Kevin.

Meeting ended at 2:07 P.M.