REPRESENTATIVE POLICY BOARD

LAND USE COMMITTEE

APRIL 9, 2025

MEETING TRANSCRIPTION

Mark:

I'd like to call the meeting to order. We are going to go with the safety moment. It's about how you wait before you mow. The most important thing I saw here was refueling your mower. Make sure the engine's off and it's cool. Don't spill it on the hot engine. Don't smoke while pouring gasoline. Never leave your mower unattended. Don't use electric mowers on wet grass. I didn't know that one.

Jamie:

[inaudible 00:02:58] use any mowers on wet grass.

Mark:

At least 55,000 people each year sustain injuries from trimmers, lawn edgers, pruners, and power saws. So I don't think I have to read this to everybody, but I wish everybody would read it for themselves. It was very interesting. So can we move on to the next thing? Does anybody have a problem with that?

Josh:

No.

Jennifer:

Do you have the agenda in front of you?

Mark:

I do. I got the agenda.

Mark:

Next is approval of the minutes.

Greg:

So moved.

Jamie:

Seconded.

Mark:

All right. Any additions, changes to the minutes? Okay. All those in favor of approving the minutes from the last meeting say aye.

Committee members:

Aye.

Mark:

Anybody opposed? Okay, that took care of that. Now we're going to hear from the drone flight updates from the RWA properties by J. Tracy. Where is he? Where is he, that guy?

Josh:

Right here? Can you see my hand back [inaudible 00:04:22]? The video's frozen so I don't know if you can see-

Mark:

Yeah, I see him. I see him. Yeah. How are you?

Josh:

I'm well. I'm well. Wish you were here. All right. So, tonight, we have a pretty good presentation coming from Dr. Chandi Witharana. He's the assistant professor in the Department of Natural Resources and the Environment at UConn, focusing on remote sensing. I'm not sure if Evan's here, but we've worked closely with his grad students, Evan Zocco, who recently defended his master's thesis looking at beaver disturbance assessment and mapping, and another gentleman named Durga Joshi.

So they've been on the property, they've been using LiDAR to monitor our two slash walls. And so, they wanted to come and give an overview of how that project's been going and the kind of data they've collected. So, Chandi, if you're ready, you can take it over.

Chandi:

Well, thank you, Josh. Yeah, so Evan is here. And so, we are sharing the same PC. That's easy. So, again, thank you for inviting us to present our project. It has been supported by RWA for the last three years by continuously collecting data.

So Evan put together a presentation because Evan was the lead pilot collecting data, flying drones and doing all the analytics about these slash walls. So I can go ahead and share the screen. Let me share this one.

I think [inaudible 00:06:14]. Yeah? All right, good.

Josh:

We can see it, Chandi. It looks good.

Chandi:

Good?

Josh:

Yup.

Chandi:

Yeah? All right. So the idea is that to monitor, collect data multiple years using drones and putting different sensors to them and measure the vegetation growth in these clear-cut areas and slash wall using drones. [inaudible 00:08:15].

So the type of data we collected, we use two different sensors. One is LiDAR sensor that's shooting lasers downward and collecting 3D structure of the Earth's surface. It could be slash wall or any objects sitting on the ground. So it measures the distance between the object and the sensor, and recording X, Y, Z coordinates so that we can create a 3D model.

So slides are coming up, so we can characterize it in 3D vegetation growth and height changes, as well as lateral expansions. And so, we have the LiDAR laser scanning system as well as ...

Evan Zocco:

Yeah, that works.

Chandi:

Yeah.

Evan Zocco:

Click on it. Click on the screen itself.

Chandi:

Yeah, so thank you. So using that, we can produce 3D elevation models and canopy surface models. The other sensor we deployed is that this multispectral sensor, which means it can collect data in multiple wavelengths, more than what we see naked eye.

And so, it goes into standard visible range, blue, green, red, and beyond the infrared range, capturing vegetation condition that we don't get from RGB, standard blue, green, red, channels. So we can probe into vegetation characteristics using this multispectral sensors. So by combining this 3D laser scanning, LiDAR, and multispectral imaging, we can get a holistic picture of the site and how site changes across multiple years.

So if I dig into, okay, how sophisticated these sensors are, these are expensive pieces. This LiDAR sensor is close to, at that time, $30,000, $40,000. This one is around, at that time when we were purchasing, 15,000 or so, and the drone itself, another 15 or 20. So whole system closing to $100,000.

So, anyways, when you shoot lasers, so you can shoot lasers at different altitudes. When you fly low, you can collect more points and very high-point density. So point density is a measure of how dense the point cloud is, how many lasers we shoot per square meter.

So typically this thing can shoot 500, 300, 700 points per square meter, which means we can get really fine details of the ground and elevated objects. Similarly, this camera system, like I said, it expands in different regions in the electromagnetic spectrum, from standard blue, green, red through NIR region, explaining most of the vegetation characteristics.

Anyhow, we collected data, springtime and summertime as well to capture the understalk. I mean we can shoot LiDAR and get a better understanding when the leaves are out. At the same time, growing season as well. Then we can get the vegetation height information.

From there, I'm going to hand over this to Evan, because Evan flew the drone, collected the data, and did all the analytics. So you will see really cool figures and how these two sites change over time. So Evan.

Evan Zocco:

Thank you very much, Chandi.

Chandi:

All right. [inaudible 00:12:34].

Evan Zocco:

All right. So there we go. All right. So first going over the data collected from each of these sites. I just got a quick workup of the dates each data type is collected.

We were able to get out there once for multispectral and once for LiDAR for every site once a year. Like Chandi was saying, we did a lot of the LiDAR analysis trying to get that leaf off region. So in the springtime, when the leaf cover is not going to block the results as much and there's not as much occlusion. Then multispectral, trying to hit that peak summer season and get some good results when the leaves are out, so we can check that vegetational response.

The total flight time was almost eight hours throughout the three-year period. And so, each flight doesn't take too much time, but we set up, of course, the recaptures. It all adds into that, but I just wanted to give the overall data collected and, in this analysis, flight time.

These are the trajectory lines. So the teal-ish color lines, the greenish-teal-colored lines is the actual flight the drone passed through for the Madison and Seymour study sites. The red beneath that is the actual wall.

So what we're doing here is we're not being as precise as possible to only capture the wall. We capture some data outside of it because we want to test, for one, the vegetation outside of the wall and within to see how well the slash wall is doing at protecting the vegetation inside, but also to gain some extra overlap to make sure that the data is properly collected.

These sensors are not as accurate and not as precise when you get farther away from the main density of the cloud. So you create as much overlap as you can for the sake of the flight time available and batteries included.

So this is a quick introduction into the analysis. I'm just going to go over the very simplistic RGB imagery first, just to give you a taste until we start getting into the more advanced imagery.

So this is the overall viewing of the site over time. We can start seeing that vegetation in Madison growing in, especially in the middle of the wall. Then in 2024, we're starting to see vegetation outside and inside are starting to fill in quite well. The slash wall itself signified by that red arrow there is a bit harder to see. Over time, that vegetation is filling in, blocking the soil, but the walking paths and all the routes within the site are still slightly visible.

Then same for the Seymour site. We start to see the site fill in really well. Vegetation is starting to flourish from this very bare site. The 2023 imagery had an issue with the data collection. One of the sensors failed within, and sadly it was only noticed after the growing season has passed. So we were missing a slight chunk there.

In future analysis, we could use 2023 aerial imagery as possibly a bit of a substitute, because we were lucky enough to get NAIP, National Agricultural Imaging Program, took some images of all of the region. So we can substitute with that during the same similar period.

Now I want to start taking a look at the LiDAR results here, start with the slash wall. So we're going to start looking at some cross-sections. So this is the elevation of the site looking at the elevation change because of what is physically on the land surface, and then seeing that change over the 2022 to 2024 period.

So in the first cross-section, the top left, we're looking at A to A'. This is all intersecting the wall here. So that green arrow is exactly where the wall is. We're starting to see some possible vegetation increase in these areas on the wall, which we were surprised to see that vegetation were able to grow through and build up. So we see a little bit of an increase in this region.

Same with the B to B'. So that is the bottom left. We see a bit of an increase there as well. Expected to be vegetation, because obviously the wall is not just building up in these areas. It must be some kind of growth that is happening there, and that was later confirmed with imagery.

Then in the top right, though, in C to C', we're starting to see the wall possibly degrade a little bit. We're having a lower response from the LiDAR. We're starting to see these ... It looks like a bit of the wall that's degrading in that green arrow region. So we're guessing the wall is either toppling a little bit or possibly the wood is beginning to degrade in these areas.

We start to see the same thing in D to D' as well. We have a nice cone shape in '22 where that wall is. But in '24, we started to see a depression forming because of either the wood degrading or the wall collapsing a bit and an increase in the width.

Now looking at the overall change of the wall. So what I did for this analysis is I have this white line that's present in the top right figure. I have that line on the midsection of the slash wall for Madison going the entire way around. LiDAR points were graphed on the bottom graph there all the way across this site in a counterclockwise fashion.

So we're able to look at changes in the wall, vegetation presence. I plotted this for our 2022 to 2024. So we also have 2023 in there. This figure that I ... The three lines that I zoomed in on, magnified there is just showing less noise being apparent in the 2024 image, 2024 transect. We're starting to see possibly a little bit lower values even though it's a very slow process, as you see. It's wood degrading, so it's going to take a little bit of time. These are large trees and wood as a part of the slash wall.

Also, if you look at the boxes that I have highlighted within that profile, we see there are some different types of occlusions that will also become present in the LiDAR cross-sections. Tree limbs possibly making their way in from the outer forest in the top right corner of the Madison image, kind of from the outside forest just breaching in, causing some confusion or occlusion in the analysis. Then we have some trees that are present within the middle of that wall that are creating some occlusion and showing up in this analysis.

Then same thing for Seymour, same exact analysis. We see a very large occlusion in A to A'. In 2023, there is a very, very high elevation source, and that is due to some interference from fog actually one early morning we went out there. I'll be showing you a full-scale image of that in a second. But most of all we're not seeing too much change in the wall itself.

In this cross-section, maybe this area is just not receiving the same amount of change as the rest. But then we look to B to B' in the bottom left corner, we start to see a decrease. 2022 shown in blue is about

a half meter higher than 2023 and 2024. So we're starting to see some of the wall possibly degrading there.

Then C to C', again starting to basically smooth out slightly. The wall is at a pretty steep slope here. Same with D to D'. So, overall, seeing that the wall is changing in most areas studied.

Then we have again the overall change of the slash wall. Same exact formula for the Madison site, that counterclockwise fashion. Looking at the LiDAR profile for the entire wall and, again, we're starting to see these branches and other materials present in 2022, it's creating a lot of those elevated points, are starting to slope down a little bit and starting to decrease a little bit in height as compared to the green 2024 line.

I exampled out the interference that was present in the point cloud there. I'll be showing you, like I said, a full-scale image of that to show you what it actually looks like on the point cloud. But that is what we're seeing is those really high orange points from 2023.

So now I just want to take a look really quick at ... Now switching over to multispectral to take a look at the vegetational response within these sites. So we're looking at 2022 in the far left image. We see a lot of red, which is signifying a very low vegetational response. This is likely going to be soil or dirt as those really dark reds, basically getting no reflection of those red and no real absorption of red light, so no photosynthesis happening. We see some green patches in there, but this was very recently after the wall was assembled, so were to be expected.

Then 2023 starting to show some higher vegetational response within the wall for sure. Exterior of the wall is starting to look a little bit more red and speckled in comparison. Then in 2024, this becomes a little bit more evident within the wall, getting a lot greener, a lot stronger presence, especially in the top left corner, but still a reasonable difference between the two. I'll be taking in some close-up images right now.

So, again, looking at the vegetation surrounding the slash wall, I wanted to give you one side of the slash wall and one side post the slash wall. So in that top left corner, we're looking at the red box that's exemplified in the center image. Again, same color coordination, with green high vegetation response, red low vegetation.

2022, we see a lot of red, a lot of low vegetation on either side of the wall. In 2023 and 2024, we started to see this vegetation increase. Most likely more vegetation is growing and healthier vegetation is in these areas.

Still some more red on the right side of that image in 2024, signifying that likely there is a lower vegetation response outside of the wall rather than to the left side of the image where we have some more green, higher vegetation.

Now looking at the Seymour site, very, very dramatic 2022 response, low vegetation. So right when the wall was originally constructed, we see a lot of low vegetation in the area. Then we have the 2023 data slightly corrupted as well. Sadly not realized until outside of the season, like I mentioned before.

But for the patch that we do see, the wall is shown in red there. It's the only low vegetation response. But in comparison, the wall comparison to the ... Or the outside of the wall compared to the interior, we see a large difference in vegetation.

Then same with 2024, we have a whole image to work with. We see a lot more of these speckled, low vegetation responses areas outside of the wall to the far ends of the image.

Then we have just close-up examples for Seymour as well, taking in same exact method as Madison. We have this red square showing the study, this example square. Left side of the image is exterior of the

wall, right side is interior. 2022 very similar left and right. No presence of the wall really doing anything quite yet. But then in 2023, we see that vegetation on the right side within the wall really starting to prosper. It has enough time to grow.

Then in 2024, still exemplifying a very similar response. The exterior of the wall is starting to catch up a bit, but the interior is far surpassing, a lot stronger greens within the wall than outside of it.

Now we're going to start looking at a canopy height model. This is using the LiDAR data, so that elevation data with the 3D modeling. We're just looking at the height of vegetation in the imagery. So we are not looking at elevation. This is just grabbing the actual height of vegetation.

In 2022 and 2024, I threw in some example images there. We have a zoom in of a section of trees in the 2022 image to the left, and comparatively to the 2024 image, we're starting to see a lot of the lighter blue colors starting to be exemplified, showing the understory is starting to grow back quite a bit, and definitely some changes to the trees as well. It's either growing in more full or just more trees join them, so creating more of a canopy response.

Then we're seeing similar results in the Seymour imagery. Again, took a study piece within the wall to take a look at the vegetation, how it's growing in. In the Seymour site, we see some larger trees possibly disappearing or that were possibly removed to do work. But if you look beyond that and look at the lighter blue within the image compared to the background, what it looks like, those two inside images, we start to see this lighter blue color starting to come up more. This is indicating a higher vegetational response, higher height vegetation. So the understory is starting to grow in very well. It looks like much more full than and comparatively to 2022.

2023 shows that interference I was talking about. So those red cloud-like structures are exactly what it looks like. They are actually clouds. So those are the trajectory lines that we flew that day. What it is, our sensor is a little too advanced. It was foggy that morning and it actually picked up on the dust molecules inside of the fog. So it gives a return.

I've had it happen once before and it leads to some inaccuracies that need to be removed, but it's really difficult because we are not flying too much higher and the level of the fog was not too different from the trees. So it creates a bit of a difficulty removing this. But it's a good lesson to learn when flying LiDAR imagery, just to be wary of the weather in all cases.

Now I just want to give this bar graph to show the canopy height, how it's changing over time. We just see an average increase from 2022 to 2024 for both of these sites. So we're just starting to see higher vegetation within the wall ... This is just showing off within the study area within the wall itself, and we're just starting to see vegetation grow in basically is what's happening over time.

Now I just wanted to take a look at the different pieces of the slash wall here and showing in some vegetation that we were surprised to see because of how dense and thick the wall was, but we do start to see some vegetation either very close to the slack wall or actually within the slack wall growing through. I know we talked about this a little bit before when we were on site, just seeing these different examples, but I wanted to highlight some in the imagery itself that we're starting to see some vegetation be able to poke through, giving it a strong chance to be able to ... Once the wall begins to deteriorate, this growth will actually help it deteriorate a bit more.

This is not just prevalent in Madison, this is also prevalent in the Seymour site as well. So this is the most recent imagery for both, and just taking a look at this vegetation that's breaking into the wall itself and hopefully going to start with the decomposed ... The breakdown of the wall over time.

So just a brief recap going into [inaudible 00:28:41] of the discussion, taking a look at the slash wall change over time, the LiDAR sensor has a great ability to capture this change. There are processes to do it with other methods, but LiDAR is by far the most efficient and most accurate to be able to capture this data that we've seen that we've used for this assessment. It's extremely accurate.

So we can see these branch differences highlighted in the Seymour slash wall image to the right. So you're able to see this very minute change over time so we can track it and be able to potentially look at change and what's happening over these three-year period.

Interference due to weather conditions are very possible. Of course with drone imagery, we have to be worried about weather in general, whether it'd be wind or rainy conditions. But with this type of imagery, especially if we're worried about fog as well, which we didn't even think to worry about at the time, but now, no, luckily it did not interfere with the imagery too much. It just was this extra step in the analysis.

Then, of course, there are always an issue with the occlusions from the surrounding vegetation and the wall itself, with the vegetation appearing through the wall. It makes it a bit more difficult to take a look at the slash wall height in some areas, but the vegetation hasn't filled in too much to make this more of an issue. We just have some occlusion from also overhanging trees from the outside forest. So something that we had to take into consideration at least when processing and may interfere in the future more so when looking at wall height.

Then we have the vegetation presence within the wall, interior versus exterior, as shown by the Madison NDVI that I've shown from 2022 to 2024 in the bottom right of the slide there. We have a major change in vegetation response. We're starting to see some more vegetation grow definitely within the wall and some exterior of the wall as well, but we're definitely starting to see what seems like a increase of vegetation response within the wall itself, meaning the slash wall is likely doing its job compared to the data at least.

Vegetation growing within the wall structure, definitely a surprise to see, I think a happy surprise, I would say, to help with the future deterioration of the wall. But some vegetation is able to make it through, peer through, and actually grow through the wall itself and help with that process.

So I would say overall the results are showing, the data is showing that we are in favor of the slash wall and it actually is contributing to a bit of difference. Of course this would have to be followed up with a multi-year study to continue on to measure these effects. Yeah, that's what we have so far for this level of analysis.

Mark:

Thank you. Does anybody have any questions? I'm not quite sure I understand the whole project, to tell you the truth. But anybody have any questions for them?

Mark:

I do have a question. Thank you so much for this. It seems like you're putting this technology to good use. So thank you for doing this work. I don't know if you're able to see to this much detail, but are you finding invasives within the slash wall in the area? I wonder if we're going to see a reduction ... Or what your expectation might be if you haven't seen it, and maybe this is a question for Josh, to see ... I would expect to see a reduced amount of invasives because there's less traffic in there. But I'm just curious.

Evan Zocco:

Yeah, it's difficult to say with the analysis that we did to differentiate the different types of vegetation actually within the wall. We are dealing with really high-resolution multispectral imagery, so it may be possible to do a more manual and timely assessment within the wall. But I would ... The multispectral imagery comes at a difficult time window.

Chandi:

Yeah. So one way to address that ... It's a really good question. So I think Josh wrote this up multiple times in different discussions that ... So these invasives might have different phenologies. They might leaf out earlier than natives, or shed after the natives. So if the imaging time somehow captures the invasives' phenology, that's one easy way to differentiate invasives from natives either in early spring or late fall.

But we haven't done any kind of invasive species analysis. That's something we could do in future years, if this project get continued to multiple years in the future. So there might be a possibility of differentiating. The only thing is that we do repeated imaging in short time slices to capture this sweet spot in phenology. Yeah.

Josh:

Yeah, they've done some work where if you can wait for the right window or the overstory trees don't have any leaves on them, and invasive species will tend to leaf out sooner than our native species, they can map that with a multispectral camera and pick out which plants are leafing out and identify those as invasives most likely.

To your other question about the slash wall, we do expect to see less invasive species within the wall, and that's a product of no deer being in there to eat the plants that have the berries or the seeds on them and continuing to move those seeds around. But also we have an understanding that our native species can outcompete and outgrow the invasive species as long as deer aren't consistently eating them.

So if we were to go to this site and walk within the wall and outside the wall, you will see more invasive species outside the wall predominantly because of deer eating all of the native species outside the wall. So it is very interesting to get to see the combination of the inside and outside via the multispectral and the LiDAR.

Mark:

Thank you. [inaudible 00:34:52] for that presentation. Very interesting. Any other questions?

Jamie:

For the speakers, seeing what you've seen, is there additional work you'd like to do in this area that you think would benefit us from learning with the tools that you have?

Evan Zocco:

Yeah.

Chandi:

Yeah.

Evan Zocco:

Yeah, definitely. Definitely given more time, I think increasing the timeframe on this, we'll be able to see a very big difference in the change in the slash wall over time. There are so many possibilities with the imagery we captured so far [inaudible 00:35:32].

Chandi:

Right, right. I mean going back to this invasive question, that now in the field, as I heard, Josh observes that there's a drastic difference in and out. So we can support with data and we can prove, analyze and prove, yes, this is the percentage of invasives inside and outside. And so, with the data we can support what Josh mentioned.

Additionally, there might be different directions we can get into, doing invasive species surveys outside the wall when the canopy is open, because, for instance, we have this new drone. It's a fixed wing. It can stay in flight longer hours and cover larger areas. It's very precise and it can carry very sophisticated sensors that could capture some of the vegetational characteristics, which is unable to capture with the copter because copter is just spatially confined, small areas.

So, likewise, plus since you manage a large area, as far as I remember, close to 25,000 acres or something. So 2023 LIDAR mission, aerial mission is out. Statewide data is out. So by somehow bringing that into the context, could benefit your management and planning practices. Yeah.

Josh:

Any other questions for them?

Mark:

No, thank you.

Josh:

No? All right. Evan, Chandi, thank you so much.

Chandi:

Thank you.

Josh:

We really appreciate it. Thank you.

Chandi:

Yeah, thank you. [inaudible 00:37:32].

Jamie:

Congrats on finishing your [inaudible 00:37:33] master's.

Evan Zocco:

Oh, thank you. Thank you very much. All right, thank you.

Jamie:

Thank you for your achievement.

Evan Zocco:

Yeah, [inaudible 00:37:46].

Josh:

All right, we'll talk to you. Bye, guys.

Mark:

I had ... Sorry about that. I had my agenda with me. Oh, the agenda's back up. Okay. Update on land and RWA properties, including invasive species update. Thank you, John.

John:

[inaudible 00:38:06]. All right. So Starting at the top, the surface water supplies at the end of March at 90%. Last year we're at 100. Long-term average is 91, so we're right about where we should be. In the month of March, we had four and a half inches of rain, and the average is 4.34. So, again, I was right about where we should be. For the fiscal year, we're at 34.06 inches of rain. 38.4 is the long-term average, showing that we're still having ... You see the effects of the dry period we had in the fall.

Land we need for the Water We Use Program, Madison, we corresponded with the property owner of 24 acres. This property in Cheshire, which we bought in August, we checked and marked all the boundaries. Juliano, the surveyor, updated the survey and property description. We forwarded that DEEP for OSWLA grant.

In Cheshire, the Moran/Ricci property on Fenrow, we received a copy of the letter from Audubon to the town saying they would not give them the expected funds for the management since management plan was not developed. If you remember, this was a three-party deal between us, the land trust, and the town, and the land trust got 200,000 from Audubon with the promise of giving some money to the town for coming up with the management plan. Well, the town has not followed through on their part of that, so they don't get the benefits there.

56 Squantuck Road, this is the disposition in Seymour. Jen sent out the notice of decision published in the newspaper. So we are still within the 45-day appeal period. I think that'd end next week if memory serves.

New Haven, Route 80 PRV, the city conveyed an easement for the PRV on the school grounds. So we can move it out of Route 80 into a much more safer location.

Rental houses at 1029 Johnson Road in Woodbridge, we corresponded with the potential buyer of the property. It looks encouraging, but nothing definite yet. At 233 Skiff Street, we tried to file maps on-

Mark:

Excuse me, John. Excuse me. Is that the new buyer to buy it from the guy that owned it now or do we own it again?

John:

No, the people that we sold it to still own it, and they are builders. They have contacted a husband and wife who are interested in the property, and they're still very interested in the property. They just have to work out a deal with the Tarvowskis. Those are the people who currently own it, to do all the work for them basically. So my understanding is that's where the negotiations are, but everything looks promising at this point.

Mark:

How long has it been since they've owned that property and haven't done anything to it? That'd be four years, five years?

John:

Oh, more than that.

Mark:

More than that, yeah.

John:

It was pre-pandemic. Yeah. This is off the top of my head, and I could look it up later. I think it's 2017.

Mark:

That's a long time. We don't have any recourse with that. I mean the property is like in disrepair, terrible disrepair.

John:

Yeah, the recourse is foreclosure, which means that we have to spend money, legal fees and all to try to get it back, and we don't want it back.

Mark:

Yeah, I know we don't want it back, but [inaudible 00:41:26].

John:

But we want them to fulfill their end of the bargain, and the only thing that we really have now is just pushing them, poking them, prodding them.

Mark:

Yeah.

John:

So that's what we've been doing ever since. I mean, as you probably know, the other two houses in Woodbridge are success stories.

Mark:

Oh yes. Yeah, big [inaudible 00:41:47].

John:

But, unfortunately, 1029 Johnson Road is not yet. But fingers still crossed.

Mark:

Okay.

John:

At 233 Skiff Street in Hamden, we tried to file maps on the land records, was told the engineer and the planner needed to review and sign. They then did that. So we need to update the property owners. I know Juliano has updated that and given it back to the office. I have not heard from the office yet that they have signed up for me to then file it on the land records. So a forestry update. Josh was here, was endorsed as an Audubon Forester. Congratulations.

Committee members:

Congratulations.

John:

We met with the Landscape Scale Restoration grant manager to discuss his departure, continued funding, and reimbursement strategies for that grant. We submitted a letter of support for a grant proposal developed by Susanna. Is this Kerio? Yeah, Kerio, to work on the biocontrol of chestnut blight. We met with the former maple taper at Gaillard to discuss possible Audubon certification of the RWA sugar bushes with the taper who took over their place.

Recreation. We had two events in March. First one was the stargazing event with the New Haven Astronomical Society. Had about 80 attendees, very well-attended. Normally that gets about one-quarter of that, and that was even on a night that was extremely cold and windy. So it was great to see all those people turn out. It had been a few years since we've done an astronomy event, so I think that was part of the pent-up interest.

Jamie:

Where was this, John?

John:

At Lake Gaillard, [inaudible 00:43:18].

Jamie:

Yeah.

John:

Casey held two maple sugaring events with about 25 attendees. An application was sent to DEEP for a bass tournament in June. The trout were stocked at Lake Saltonstall by DEEP, and we continued to review applications for new applicants on the recreation staff. Two people were hired by the end of the month. At the end of March, we had 4,842 permitees compared to 4,730 at the end of February.

On the special permits, Linda issued six in the last month. Other items, encroachments and agreements that ... Actually the first two are me doing ... Actually the first three are me doing boundaries.

752 Summer Hill Road, we found encroachments of equipment and material over the property line. We've emailed the property owner. I've since met with him. He's going to move everything back.

702 Summer Hill Road, we discovered multiple encroachments, including vehicles, boat with a trailer, antique farm equipment, firewood, storage container, all the stuff over the property line. This is a recurring problem there.

So I dropped the letter. It's going out. We've met with the property owner. We're going to have a surveyor mark the corners again, and then we're going to put up a fence so we don't want to have this problem anymore.

At 795 Mountain Road, this is the best property that we bought in August of last year. Found several trees girdled by the abutter, with brush in large piles. We've since sent a letter to them noting that we are not liable for anything that happens with the trees that they killed. Watermain easement encroachments, I discussed this matter further with Murtha staff and authorized title search to clarify the situation. Branford was just going to be our first test case.

Invasive plants. In the last month, Josh treated and documented evasive plant populations in North Branford. He attended CIPWG Invasive Plant Review Subcommittee to discuss the language about sterile cultivars of Japanese barberry and winged euonymus to be allowed for sale at nurseries. We issued POs to land clearing vendor in All Habitat to treat invasives in the Great Hill Road field in North Branford. It's one the-

Mark:

John-

John:

Yes?

Mark:

Excuse me. Just to ... How are we doing? I went to the budget presentation the other day, and the capital budget, and I was talking about doing the invasive species in the pond there. What's it called? [inaudible 00:45:50].

John:

Yeah, the water chestnut?

Mark:

Yeah, the water chestnut problem. They said it was in the OEM. Do we have enough money to do it? That's the question.

John:

Yes. So that money, it used to be in my budget, but I think, last year, we moved it to Steve's budget. As far as I know, it's still-

Greg:

It's still there.

John:

We're still using it.

Greg:

[inaudible 00:46:08] the operations.

John:

Yeah, it's in O&M.

Mark:

All right. Yeah, I know. That's what I heard, because I had to leave. I didn't get to the O&M part. Just as long as there's enough money to make sure we continue that project because it's very important.

John:

Yes, definitely. Definitely.

Mark:

Okay.

Mark:

Before you get on a roll again, you talked about the watermain easement encroachments, and you said this ... As a test case or first test case of what?

John:

Yeah, of how to deal with the watermain easement encroachments. So we know that in ... So in any ... Not in any place, but in some places where we have a watermain that goes over private property, we go there and we could see that there's things over it or in ... Over the pipe or in the easement, which should not be.

Mark:

So maybe like a shed or-

John:

In this case, it's just shed and part of a yoga studio. In this case, it's not-

Mark:

Clearly a violation.

John:

Clearly, yes. Fortunately, the shed, which is maybe half the size of these tables here, is over the line. So it's not that huge or big of a problem. The yoga studio is not over the line, but it's clearly within the easement, and it's probably within a couple feet of where the line is. We've talked to her, met with her on site, we've talked to her over the phone, said that, "Listen, if anything happens to the pipe and we need to get at it, all this stuff is going ... Bulldozed." So she's aware of that to some degree, but I don't think she's really processed it all yet.

But this is only one example. We don't look at the watermain easement ... Like we go and we check about 10% of our boundaries every year, of the few simple properties that we own. We do not regularly check the easements that we hold over private property, and there are many.

I want to give a kudos now to Chris Maloon in our GIS department who has, through the last several years, been going systematically through our vault, researching all the easements that we have for watermains over private properties and putting it into GIS. He's almost done. He's been going like one town after another in sequence.

That has helped because now it helps us focus our attention and say, "Whoa, there's a big building here. That can't be," and over here we got driveways, over here we got fences. So there's a lot that's out there. Because we don't normally go there, these people are going to be shaking their heads about what is going on. This is what that-

Mark:

Has that stuff been erected since we put the mains in? In other words-

John:

Oh yes. Yeah.

Mark:

All right. So we have the main in and then they built on top of it.

John:

Correct.

Mark:

Do they know that when they built on top of it that there was a main there?

John:

No.

Mark:

Okay.

Jamie:

How did she get that approved by Branford?

John:

Well, because when you go and get a building permit, they don't look for easements. They look for encumbrances on your property. They're just looking for setbacks to lines and so forth, how big the building is, how tall the building. They're not looking to say, "Oh, is there an easement here that the water authority owns or UI owns?" or so on and so forth.

So it's really more focused on the details of the construction, less on any encumbrances that are on the land. It's up to the landowner to know what the encumbrances are.

Now in this case for this Branford one, the main was put in ... Don't hold me on this, but my recollection is 1913. I'm sorry, it's 1920, '21, or '23. It was around that time. At that time, her house was there, but all these outbuildings weren't. Now that was a hundred years ago that that was put in.

I don't know how many different transfers of the property have been since 1921, '23 until the present day, but there had been many. She had some inkling of it from our discussions with her, but she couldn't tell you what was where.

When we first talked, she thought it was way in the back of her yard and it isn't ... Like cuts through the middle. But she's also aware of that because there's ... It gets crazier. Her service comes off of this line. So it goes ... The meter is there. The neighbor who's closer to the water, their meter is in her yard. So to make things even crazier is that her neighbor should have an easement for their service that runs through her yard, but they don't.

But that's not my problem. My problem is the yoga studio and the shed. So to answer Jamie's question, there's a lot of these. Once you get into the details and now you start zooming in, you start to see more and more. Some there's no problems. You look out there, it's still open. But in this case, this is on the shore of Branford. There's a lot of backyards. I mean you stand at the edge of her property, there's a fence. You look over the line where our main keeps going, you see fence, fence, fence, fence, fence.

Mark:

Can they-

John:

Well, technically all those fences are in the way. But can you tell the owner of the property not to fence their yard? I think you can because that's our easement. We're supposed to have unfettered access to our thing. But we're going to have arguments with people.

What we did here is that we had a similar incident at East Haven. I can't remember if it was the late '80s or early '90s, where a shed was discovered over the main line that comes out of Saltonstall Treatment Plant.

And so, we had an amendment to the easement at that time. We used that as our template for this. Now ... Well, I'll tell you because you like to send everybody else [inaudible 00:51:52] for a little while, is that in this case, when the easement was given to us, all these people on this line were lessees.

Jamie:

Oh, okay.

John:

Their lease went from apparently 1920 until 1967, a weird date, like in May of 1967. How could this happen that our easement were given by the lessees and not the fee simple owner? What was going on? It's such a weird date. That is 60 years later that-

Jamie:

Did you find out why?

John:

Well, we have a title search going on that will hopefully illuminate some of that stuff. So did I answer your question or did I ramble off?

Jamie:

No, I could keep asking questions, but I don't want [inaudible 00:52:39].

Greg:

I was going to ask, John-

Mark:

John-

Greg:

... if the property was sold, title search should come up.

John:

Well, you only have to go back 40 years. If someone pays with cash, then ... If you get a mortgage, your bank is going to require you get it [inaudible 00:52:54].

Greg:

Yeah, you're just buying it outright.

John:

But if you just pay with cash, you don't have to do any title search, right? Yeah, you just walk buy and walk in. "Here's the key, here we go." I don't recommend that-

Jennifer:

At your own risk.

John:

Then again it only goes to 40 years. Now, in most instances, if things are done right, then one deed that has the encumbrance ... It'll list the encumbrances, and then the deed gets passed on. We'll list them again and list them again and list them again. So a title search will find that. But that's not always the case with these deeds that are a hundred years old. I've seen that in many places where-

Jennifer:

It was never added.

John:

Right, yeah.

Mark:

No, but-

Greg:

Do we have to send this lady a registered letter, a certified letter?

John:

We will eventually. I mean we're trying to get to that point so that we know all the landmines that are out there, including this lease thing. How could a lessee have given the right to an easement?

Mark:

John, maybe we should get together with the other utilities and try to get some kind of a law that says when you go to sell the house or you want to go get a building permit, you have to see what encumbrances are on the property. I just thought.

John:

Yeah-

Jamie:

Well, that wouldn't have shown up here. So it wouldn't have shown up here because these properties are probably still in family hands. It probably went through land. It went through planning and zoning [inaudible 00:54:19].

John:

Yeah, he's saying there should be a law that requires.

Jamie:

You're talking about, though, at point of sale, because that doesn't help you with planning and zoning.

John:

[inaudible 00:54:28].

Mark:

No, no. I'm not talking point of sale. I'm talking about when they go for a building permit-

Jamie:

Okay, okay.

Mark:

... when encumbrances are on the property.

Jamie:

Yeah. So-

Mark:

Yeah.

Speaker X:

Yeah.

John:

So then [inaudible 00:54:39]-

Mark:

Okay, John. Sorry to get off on this tangent here.

John:

It's okay. I mean we're open for questions. That's what the meeting's all about.

Jamie:

Thank you.

John:

You're welcome. Okay. So invasive plants, we got through that. Beach Street watermain, we replied to the notice of insufficiency from DEEP. Waiting to hear back from that.

In Branford, the Vaiuso ditch, this is off of Hosley Avenue there. We saw that they were digging the ditch, clearing the ditch, and we assisted ... My staff assisted the environmental planning staff with addressing the work by Vaiuso in the ditch, a drain from his property north of the highway.

Hammonasset Fishing Association, we discussed beaver management with the HFA staff in the area around Nathan's Pond. Deer hunt, Nicole sent out applications for this year's hunt.

UI watermain easement in North Branford is along the trial line. We got to work the details from operations and forward to Murtha, which then they're going to forward to UI. The land use plan staff, interior staff reviewed the North Branford, Saltonstall, and Mill River sections.

Finally, Josh, here you could add any more than a couple sentences that are here. He performed a drone flight for engineering, looking for a pipe bridge that spans underneath the Quinnipiac River, and performed the drone flight over the witch hazel harvest.

There are six articles for you to read here. One that is most notable for me or most interesting to me is the fourth one. If you've been paying attention to a case in Southbury where a fairly wealthy neighbor

had went and cleared 140-something trees so that they got a better view out of their house to I think it was Lake Lillinonah.

Jamie:

Yes.

John:

And so, the-

Jamie:

That wasn't the governor, was it?

Greg:

No.

John:

No, no.

Greg:

Very similar case.

John:

Similar, yeah. So the town owns it as open space, and they are suing the landowners. In case you don't know, the penalty for buttress encroaching and taking down trees on protected open space land is some of the strongest that we have where it's not just the value of the trees, there's like firewood or anything, but it's that, and it could be five times that.

So all of a sudden when you look at one tree, one tree could be worth $20,000 if it's a large tree. Think about all the effort to grow it over 60, 80, 100 years. So when you take 20,000 and then multiply it by 140, and then multiply it by five, it gets their attention and their insurance company's attention and their lawyer's attention.

So a lot of these things go to settlement. But this was an especially egregious instance up in Southbury. With that, I'm done and I can answer any other questions that you have.

Mark:

Could you tell me what an Audubon-designated forester means?

Josh:

Sure. So the National Audubon has a forestry program where they train you to understand how to manage the forest responsibly for songbirds. So all they're asking is that you ... They're not requiring you to follow their rules and regulations, but they're giving you thoughts and ideas that when you're planning a management activity, you implement if you can into the management strategy that will benefit ground-nesting songbirds, birds that use late succession and early succession.

So I had to submit two management plans to an Audubon forester to get approved. It circled back to the item that was mentioned about an Audubon certification for sugar bushes. Audubon has a few certifications that you can get. One is to be an Audubon bird-friendly maple forest-

Mark:

Gotcha.

Josh:

... which you need an Audubon-certified forester to make the determination on. So I will be able to make those determinations in our maple stands for our maple tapers, and they can have the opportunity of saying that they have harvested from a bird-friendly maple stand.

Mark:

[inaudible 00:59:04]. Well, congratulations.

Josh:

Thank you.

Mark:

Okay. John, thank you. [inaudible 00:59:11] Chester could use you. They lost a grant for not having their management plan done, and you're just doing it for certification. They lost a hundred grand. Well, that's from one of the articles or one of the things you said.

Josh:

What was that?

Mark:

That Cheshire lost 200,000-

Josh:

Oh no. It wasn't 200,000. I think Audubon promised them like 5,000, but the 200,000 was the grant that the land trust got from Audubon, and as part of that, Audubon said, "Well, once the town ... " The town is the fee simple owner. "Once the town does the management plan, we'll give them $5,000 for coming up with the management plan."

Mark:

Oh, got it.

Josh:

Well, now it's been so many years. They're saying, "Well, you failed. You're not going to get in the five grand."

Mark:

Oh, so I thought it was the 200 [inaudible 00:59:59].

Josh:

No, no, no. The 200 was part of the acquisition. That's all done.

Mark:

Thank you.

Mark:

Okay.

John:

Brian, you have questions?

Brian:

Yeah. John, just a quick-

Mark:

Oh, I'm sorry. Brian.

John:

Brian, go ahead.

Brian:

Quick question, John. You said you're updating the Bethany Horsemen on the schedule for the dam in Lake Chamberlain. What is the ... Or the schedule for the causeway. What is the schedule for the causeway?

John:

I can't remember off the top of my head. I believe it's this year. Do you remember from the Capitol?

Speaker 20:

I don't remember exactly, but I think there Chamberlain is there actually.

John:

I'll ask Cody again because I was just taking Linda Francois's question and giving it to Cody. Then once he gave me the question, I threw it back to her and I didn't remember, I didn't commit it to memory. So I'll find out and I'll get you the answer.

Brian:

Okay, thanks.

Mark:

Okay. So the next thing is our upcoming meeting. Don't forget, we have a joint meeting of the consumer affairs and land use on Thursday, April 17th, 2025, 5:30 PM. All RPB members are invited. It's the budget review.

Very interested. I listened in on the capital budget. Very good presentation by management, I thought, and we all should go here. It's very important that we listen to stuff like that. I will be at that one, too. Our next regular land use committee meeting will be Wednesday, May 14th, at 4:30. John, where are we going?

John:

I thought last month we said that we would go to Skiff Street.

Mark:

Okay.

Greg:

Yeah, [inaudible 01:01:45]. It's right down the bottom.

John:

Is it there?

Greg:

Yeah, it's right there.

John:

Oh yes, there it is. Yeah, so we'll go to Skiff Street in Hamden.

Mark:

Okay.

John:

So you can see the house.

Mark:

Good. Okay, guys. Can I have any other business that come before us? Can I entertain a motion?

Greg:

I move.

Mark:

To adjourn? Any second?

Brian:

Second.

Mark:

Okay, got a second and I got a motion. All those in favor of us adjourning-

Committee Members:

Aye.