

South Central Connecticut Regional Water Authority
90 Sargent Drive
New Haven, CT 06511
or via Remote Access**

AGENDA

Regular Meeting of Thursday, March 23, 2023 at 12:30 p.m.

- A. Safety Moment
- B. Public Comment: The time limit granted to each speaker shall be three (3) minutes. Residents and customers may address the Board.
- C. Claire C. Bennett Watershed Fund: K. Powell
 - 1. Consider and act on Board of Director appointments:
 - a. Brian Kelahan
 - b. Amanda Schenkle
- D. Meet as Environmental, Health & Safety Committee: K. Curseaden
 - 1. Approve Minutes – November 17, 2022 meeting
 - 2. Health & Safety Initiatives Update: E. Calo
 - 3. Invasive Species Update: J. Tracy and S. Vitko
 - 4. Review Committee Work Plan – FY 2024
- E. Consent Agenda
 - 1. Approve Minutes – February 23, 2023 meeting
 - 2. Capital Budget Authorization – April 2023
 - 3. Capital Budget Transfer Notifications (no action required) – April 2023
 - 4. Accounts Receivable Update – February 2023
 - 5. Key Performance Indicators
 - 6. RPB Quarterly Dashboard Report
- F. Finance: R. Kowalski
 - 1. Quarterly Financial Update
 - 2. Type B3 Amendment
- G. Business Updates: L. Bingaman
 - 1. Monthly Business Highlights
- H. RPB committee assignments and reports on RPB committee meetings
- I. Meet as Commercial Business Committee: K. Curseaden
 - 1. Approve Minutes – December 15, 2022 meeting
 - 2. Review Committee Work Plan – FY 2024
 - 3. *Commercial Business Update Memorandum – *This disclosure of materials herein having commercial and financial information are protected under C.G.S. Section 1-210 subsection b #5B*
 - 4. Presentation of Asset Purchase Application (Application): D. Donovan & R. Kowalski - *Upon 2/3 vote, convene in executive session pursuant to C.G.S. Section 1-200(6)(E) to discuss matters covered by Section 1-210 subsection b #'s 5 B, pertaining to commercial and financial information.*
 - a. Review and discuss Application
 - b. Affidavit regarding confidential information within said Application
 - c. Motion for Protective Order for confidential information within said Application
 - d. Protective Order concerning confidential information within said Application for submission to the Representative Policy Board (RPB)
 - e. Possible recommendation to submit to the RPB
- J. Consider and act on Commercial Business Committee's recommendation and resolutions for approval to authorize management to forward to the RPB the Asset Purchase Application, associated confidentiality documentation, and to authorize management to take any and all actions necessary to effectuate the transactions

** Members of the public may attend the meeting in person or via conference call. For information on attending the meeting and to view meeting documents, please visit <https://tinyurl.com/ysu5fy3e>. For questions, contact the board office at jslubowski@rwater.com or by calling 203-401-2515.

**RPB Member (T. Clifford) is excused at Item 1.3.*

SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY

(Including Environmental, Health & Safety Committee and Commercial Business Committee meetings)

MARCH 23, 2023 AT 12:30 P.M.

Remote meeting access information:

Call in (audio only)

[+1 469-965-2517,,487177813#](tel:+14699652517487177813) United States, Dallas

Phone Conference ID: 487 177 813#

For questions, contact the board office at 203-401-2515 or by email at jslubowski@rwater.com

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

Minutes of the November 17, 2022 Meeting

A regular meeting of the Environmental, Health & Safety Committee of the South Central Connecticut Regional Water Authority took place on Thursday, November 17, 2022, via remote access. Chairman Curseaden presided.

Present: Committee – Messrs. Curseaden, Borowy, DiSalvo, LaMarr and Ms. Sack
 Management – Mss. Kowalski, Calo, Vitagliano, and Augur, and Messrs. Bingaman,
 Donovan, Lakshminarayanan, Singh, and Vitko
 RPB – Mr. Oslander
 Staff – Mrs. Slubowski

The Chair called the meeting to order at 12:31 p.m.

On motion made by Ms. LaMarr, seconded by Mr. DiSalvo, and unanimously carried, the Committee approved the minutes of its August 25, 2022 meeting.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

Chair Curseaden stated that memorandums were provided to committee members for topics related to the Department of Energy and Environmental Protection (DEEP) Stream Flow Regulations Implementation, the RWA Reservoir Safe Yield Model, and the 2023 Legislative Session Outlook. The memorandums were intended to initiate discussions and get initial thoughts and input.

Mr. Vitko, the RWA’s Environmental Planning Manager, provided an overview of the DEEP Stream Flow Regulations and Implementation and RWA’s Reservoir Safe Yield Model, which included:

- Standards, goals, and reporting requirements that will be effective as of September 2026
- Future impact on storage and drought triggers

Mr. Lakshminarayanan, the RWA’s Vice President of Engineering and Environmental Services, also provided information regarding the 2019 study done by Tighe & Bond related to RWA’s Reservoir Safe Yield Model. He stated that the study found the RWA has a high margin of safety as defined by the Connecticut Department of Health and an adequate water supply to meet current and future stream flow regulation release requirements.

Committee members discussed drought triggers, restrictions, enforcement, climate change, and supply to support growth, including through interconnections. After discussion, the Committee recommended that management work with legislators to advance drought related enforcement legislation, obtain information on climate change as related to drought triggers, and explore opportunities for future growth and expansion.

Ms. Vitagliano, the RWA’s Government and Public Relations Specialist, provided an update of the 2023 Legislative Session, which included key topic areas and upcoming activities. She also discussed drought advisory and enforcement issues with committee members.

At 1:19 p.m., on motion made by Ms. Sack, seconded by Ms. LaMarr, and unanimously carried, the meeting adjourned.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

Kevin Curseaden, Chairman

Regional Water Authority Board Environmental, Health & Safety Committee

Health & Safety Update
March 23, 2023



Liz Calo
Sr. Director, Employee Relations & HR Operations

AGENDA

- FY2023 Goals & Objectives Update
- Near Miss Reporting Program
- Safety Ambassador Program
- Zero Injury Goal & Injury Statistics
- Next Phase
- Q & A

Goals & Objectives Update- FY23



Near Miss Reporting Program

Near Miss Defined- *an unplanned event that did not result in injury, illness, or damage –but had the potential to do so.*

The Main Objectives of the Program:

- Identify Hazards
- Rectify/Mitigate Unsafe Conditions
- Communicate Safety Concerns
- Create Empowering and Positive Experiences for Employees
- Prevent Injuries

16 Near Misses
Reported To Date
for FY 23

New Technology- Mobile App Eliminating Roadblocks to Reporting



Safety Ambassador Program

The Program includes Frontline Employees to help improve the Safety Culture at the RWA.

- Representatives From Every Division Participating
- Meet the First Tuesday of Every Month
- Reps take back the information to their teams



Total Safety Improvements	Total Improvements Addressed	Total Improvements In-Progress	Total Improvements Not Started Yet
21	8	10	3

Zero Injury Goal

4 out of 6 Preventable/Recordable Injuries FY2023

Cause of Preventable Injuries:

- Burn (1)
- Laceration (1)
- Strain/Sprain (2)

Cause of Non-Preventable Injuries:

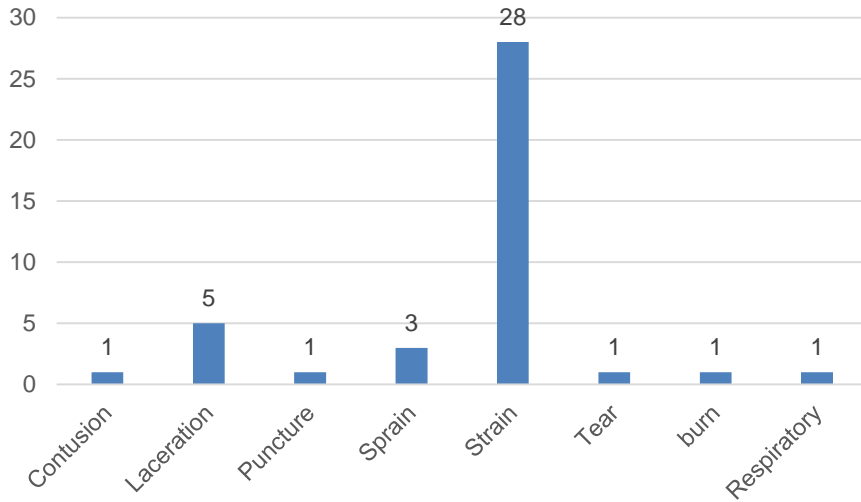
- Strain (MVA)- (1)
- Respiratory Conditions (1)

Corrective Actions:

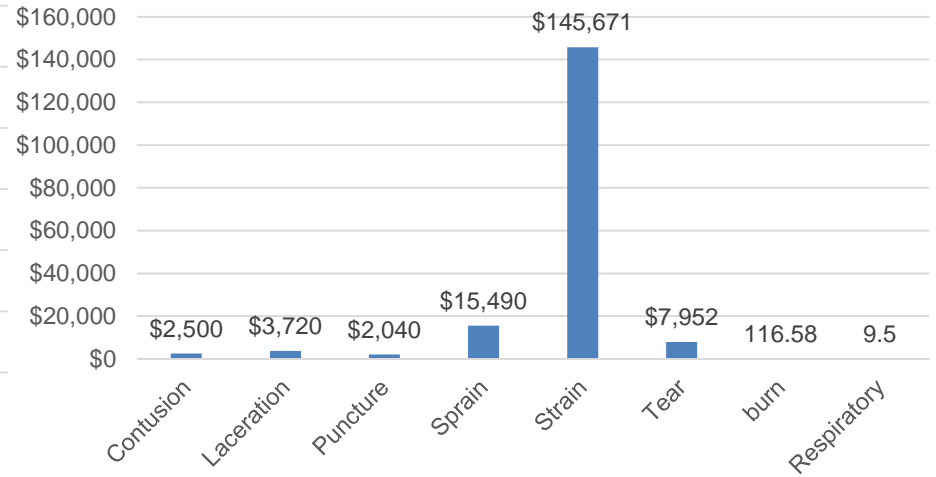
- New Practice Guidelines related to abandoned pipes in the ground
- New and improved gloves for fine manipulation job tasks
- Ergonomic review of job tasks related to sprain/strain avoidance
- Tips and techniques (i.e., stretching) for avoiding on-the-job injuries

Injury Statistics FY 2019 – 2023

Number of Injuries By Type FY19-23

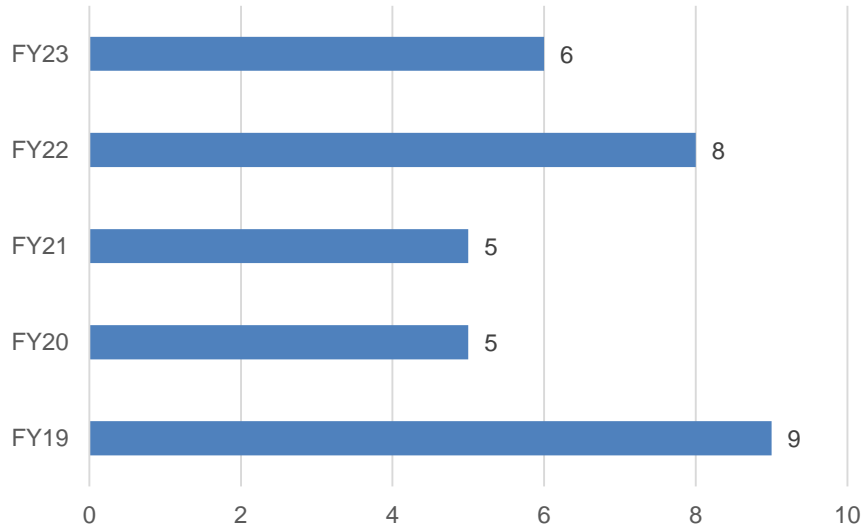


Costs Incurred By Injury Type FY19-23

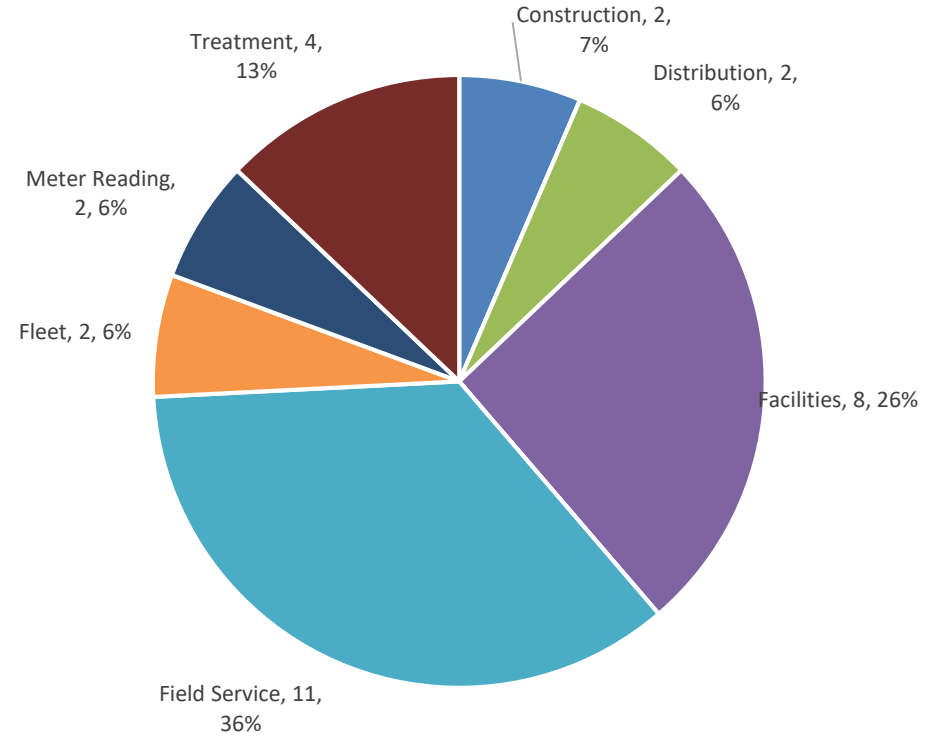


Injury Statistics FY 2019 - 2023

Number of Injuries by Fiscal Year FY19-23



Number of Injuries By Department FY19-23



Next Phase:

Safety Manager Hired – *Ronnie Burton, 15+ years of Safety!*

- Increase # of On-Site Visits
- Regularly Scheduled Audits and **Re-Evaluation**
- Morning Safety Huddles
- Injury and Incident Investigations and Reports
- Researching/Identifying Safety Programs (DuPont and Exxon Mobil)
- Increase Safety Communications
- New Safety Training- (updated/enhanced)

= Reduce Preventable Injuries

Q & A?



South Central Connecticut Regional Water Authority
90 Sargent Drive, New Haven, Connecticut 06511-5966
<http://www.rwater.com>

To: Authority Environmental, Health & Safety Committee
David J. Borowy
Kevin J. Curseaden
Catherine E. LaMarr
Suzanne C. Sack

Cc: Larry Bingaman, CEO
Sunny Lakshminarayanan, VP -EES

From: Amanda Schenkle, Manager of Environmental, Health, Safety & Risk

Date: March 23, 2023

Subject: Health and Safety Initiatives Update

The Regional Water Authority's **Health and Safety Initiatives** are a part of our Strategic Goals for FY23 to aid in our mission of zero injuries at the RWA. For FY23, the Environmental, Health, Safety and Risk team focused on two objectives, Developing a Near Miss Reporting Program and Implementing a Safety Ambassador Program.

Near Miss Reporting Program

The Near Miss Reporting objective in FY23 was to identify potential causes of injuries or accidents with the goal of further reducing our overall preventable injuries at the RWA. A near miss is defined as an unplanned event that did not result in injury, illness, or damage - but had the potential to do so. They are considered leading safety indicators and, as such, can provide valuable information to prevent injuries. The main objectives of the near-miss reporting program are to: Identify Hazards, Rectify/Mitigate unsafe conditions, Communicate safety concerns, Create empowering and positive experiences for employees related to safety, and prevent injuries. As part of the overall program, the EHS&R team on-boarded a new technology for mobile reporting of near misses in the field, eliminating roadblocks to reporting and tracking near misses and their corrective actions. To date, 15 Near Misses have been reported for FY23.

Types of Near Misses:

- Slip, Trip, and Fall Hazards
- Emergency Action Plans- Off-site events
- Chemical spill
- Trench hazards
- Environmental hazards
- Vehicle and Parking lot safety

Safety Ambassador Program

Prior to the onset of COVID-19, RWA used a safety ambassador program to complement the Union/Management Safety Committee. During our strategic planning sessions, overall, the Safety Ambassador program was discussed as an opportunity to include more frontline employees in improving the safety culture at the RWA. We kicked off the program on November 1, 2022, with representatives from every division participating. The Safety Ambassadors meet

the first Tuesday of every month to review safety concerns they are seeing in their areas, reviewing important safety trainings and providing input on new safety initiatives to provide a greater impact to our Health and Safety program. The Corporate Services team works to track and address ideas being brought forth by the ambassadors each month and provide feedback back to the ambassador team.

<i>Total Safety Improvements</i>	<i>Total Improvements Addressed</i>	<i>Total Improvements In-Progress</i>	<i>Total Improvements Not Started Yet</i>
21	8	10	3

Safety Ambassadors:

Operations Division:

Bart Amendola
 Antonio Arroyo
 Omar Barrett
 Mike Bova
 Art Briggs
 Kevin Shea
 PJ LeFrancois
 John Kronkaitis
 Mike Garguilo
 Jared Johnson
 Robert Reder
 Jeff Nagy
 Tony Troiano

Financial Services:

Brent Domkowski

Corporate Services:

Ed Masse
 Barbara Sheard
 Amanda Schenkle

Customer Care/IT:

Linda Jackson
 Kevin Schnaitmann

Engineering and Environmental Services:

Cody Savoy
 Brenden Fimian
 Doug Kablik
 Evan Moore
 Joshua Tracy

Safety Statistics FY23

RWA has experienced 4 Preventable injuries in FY23. This fiscal year’s preventable injuries involve a burn, a laceration, and two sprain/strain injuries. Meetings were held with Leadership and department stakeholders for each preventable injury to review what steps RWA can take to avoid these incidents from happening in the future. At the end of each meeting, corrective actions were implemented for each incident. Actions included:

- New Effective Practice Guidelines related to abandoned pipes in the ground
- New and improved gloves for fine manipulation job tasks
- Ergonomic review of job tasks related to sprain/strain avoidance
- Tips and techniques (i.e., stretching) for avoiding on-the-job injuries

FORWARD PLANNING

For FY2024, the team is focusing on continuing to advance workplace safety:

1. Reducing Preventable Injuries to reach and sustain the zero injury goal.
 - a. Work with internal and external experts to reduce the frequency and severity
2. Revitalizing the Safety Inspection Program of RWA:
 - a. Updating inspection cadence for job sites and facilities by type

- b. Increasing overall number of inspections
 - c. Provide training for personal job site inspections, including workstation and remote workstation safety checklists
3. Researching best-in-class safety programs for the improvement of RWA Health and Safety program
- a. Look for process implementations from programs like Dupont STOP and Exxon Mobil

In Summary, the RWA continues to enact new programs and initiatives to aid in our goal of reaching and sustaining zero injuries. Programs like our Near Miss Reporting Program and Safety Ambassador Program are assisting RWA with being proactive in our approach to safety. Our proactivity in Health and Safety is a key characteristic of a first-in-class safety program.

RWA Slash Wall Forest Regeneration Study

Presented by:

Josh Tracy, Invasive Species Technician

Steve Vitko, Environmental Planning Manager

Presentation to the Authority Environmental
Health & Safety Committee
March 23, 2023



What is A Slash Wall?

- Concept developed by researchers at Cornell
- Less cost than deer exclusion fencing
- Surrounds harvested area
- 10 feet tall and 20 feet wide
- Ultimate goal – to exclude harvested area from deer predation
- Allows native species to out-compete invasive species



RWA Slash Walls

Madison, 48 mapped acres

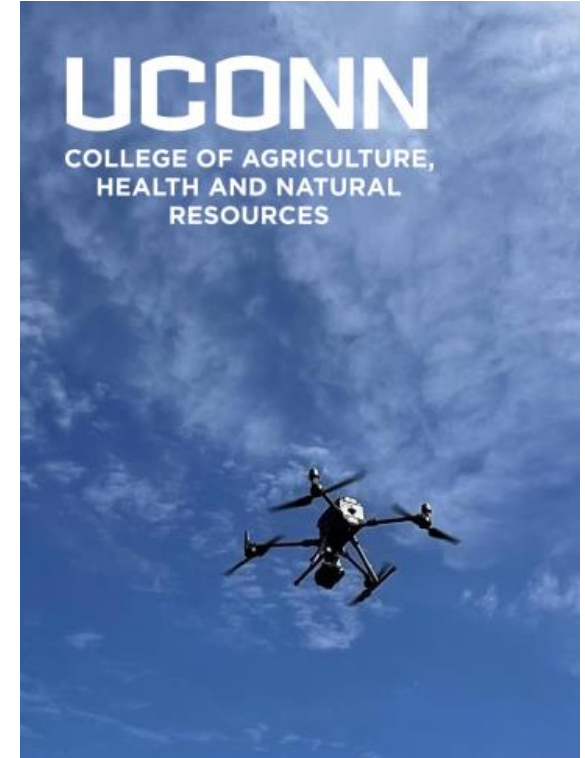
Seymour, 36 mapped acres



UConn Drone Study

- Drone owned and operated by UConn College of Agriculture, Health, and Natural Resources
- UConn responsible for data collection and analysis
- Research funded by RWA

- Types of Data Collected
 - Multispectral
 - Flown at 70 meters for 50 minutes per site
 - LiDAR (Light Detection and Ranging)
 - Flown at 70 meters for 60 minutes per site



Supplemental Research

- Connecticut Agricultural Experiment Station
- Monitoring harvests to assess forest regeneration
- Comparing native versus invasive species population growth
- State funded research



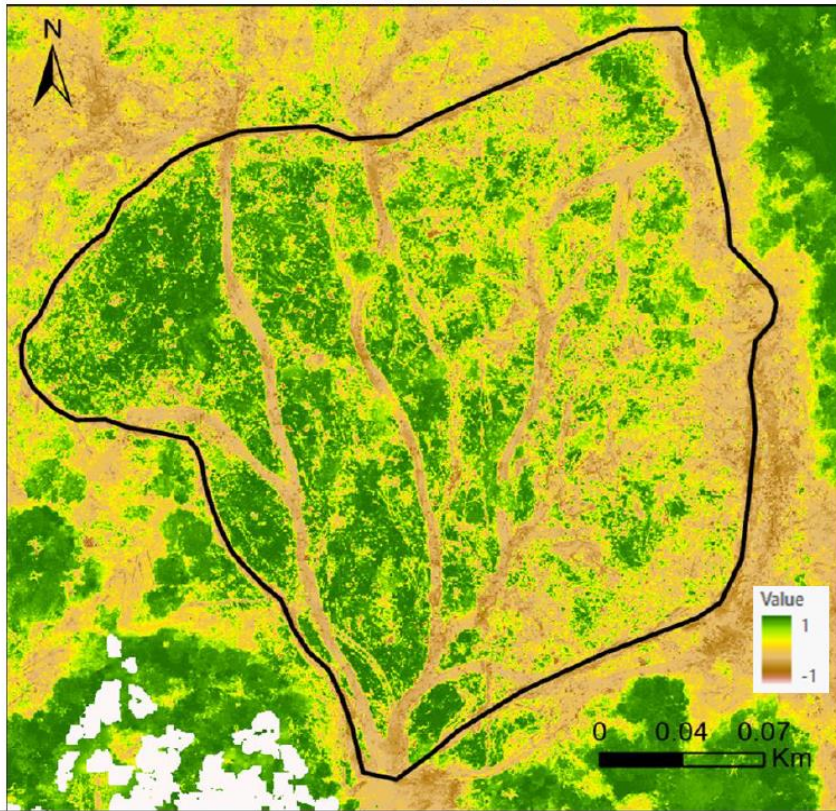
CAES

The Connecticut Agricultural Experiment Station

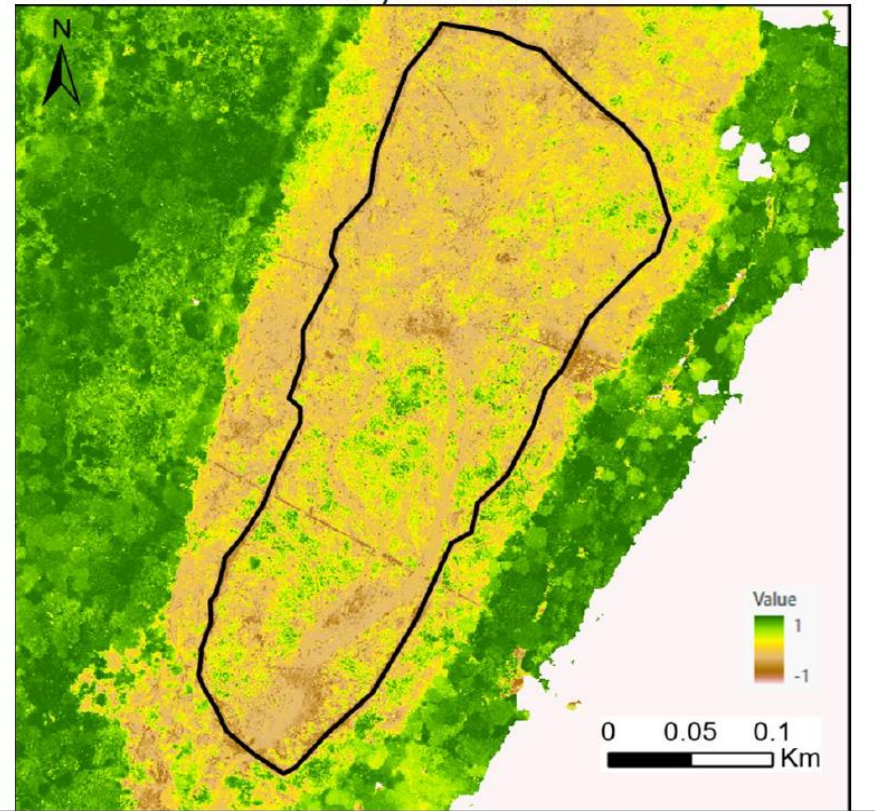
Putting Science to Work for Society since 1875

Normalized Difference Vegetation Index (NDVI)

Madison Site

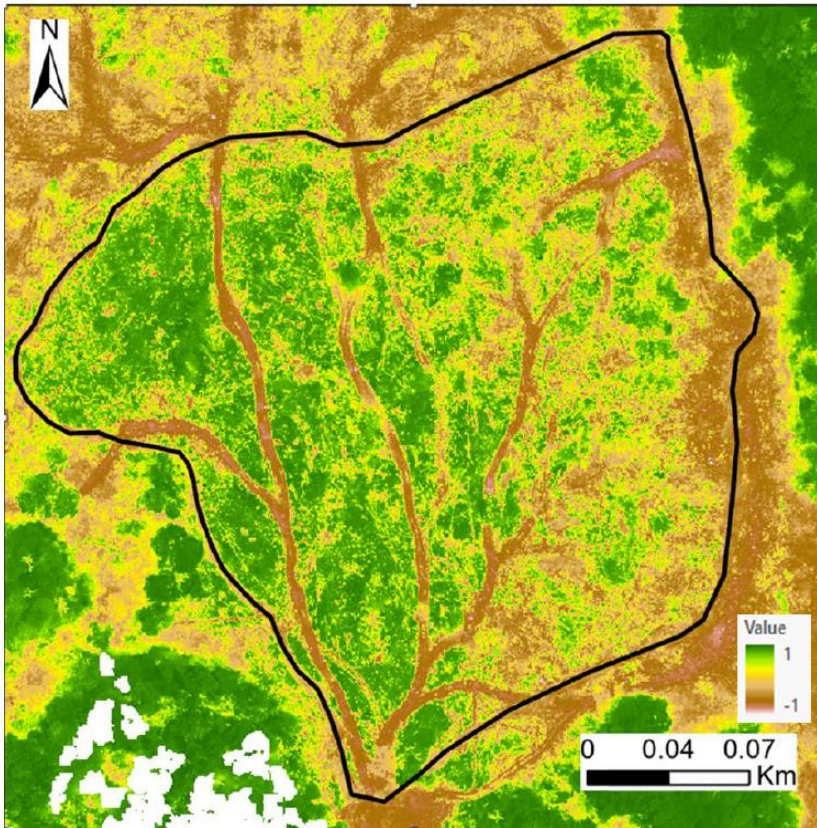


Seymour Site

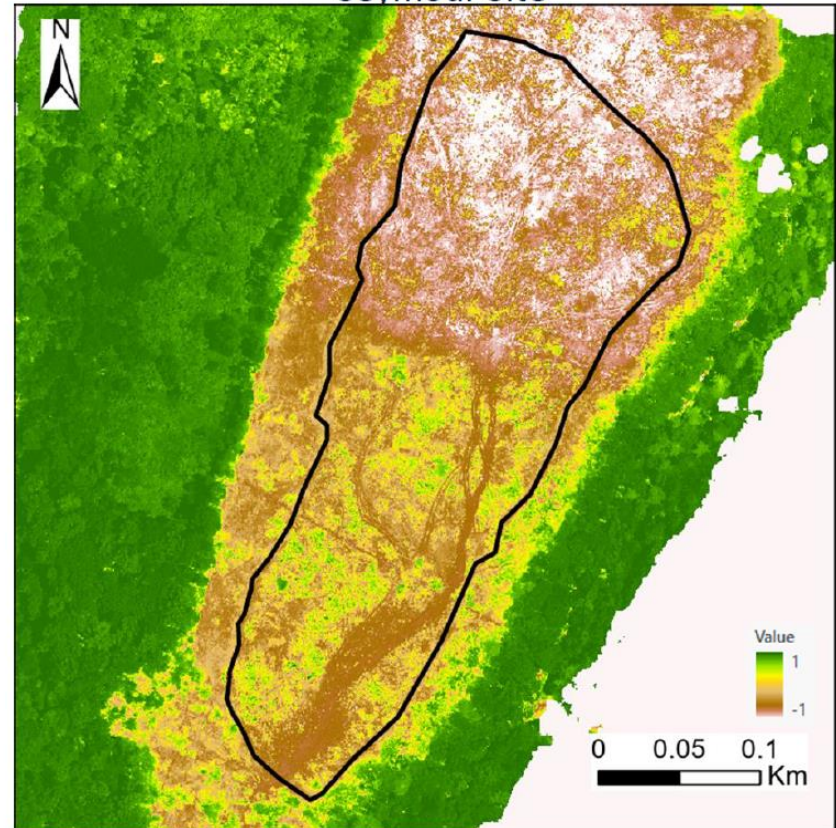


Normalized Difference Red Edge Index (NDRE)

Madison Site

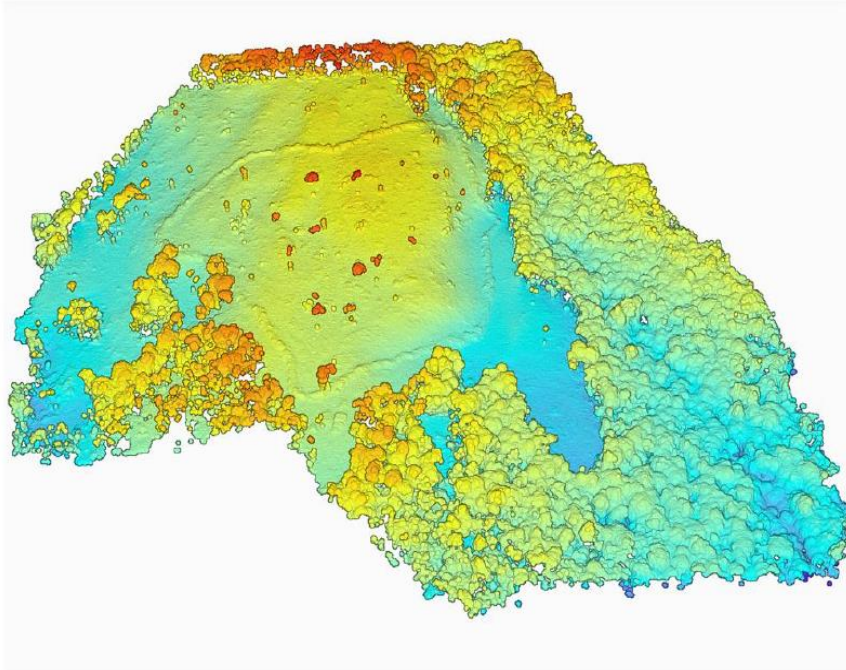


Seymour Site

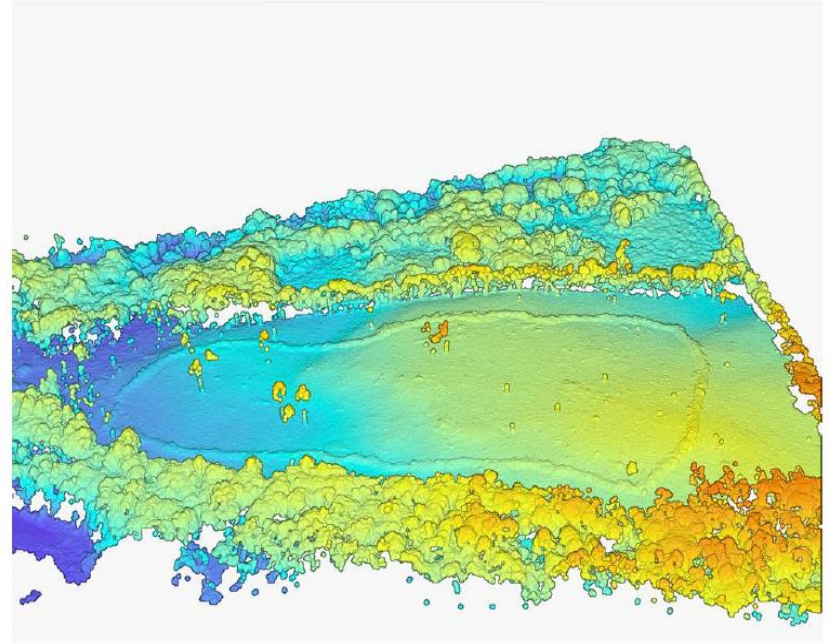


Photogrammetric Point Clouds

Madison Site



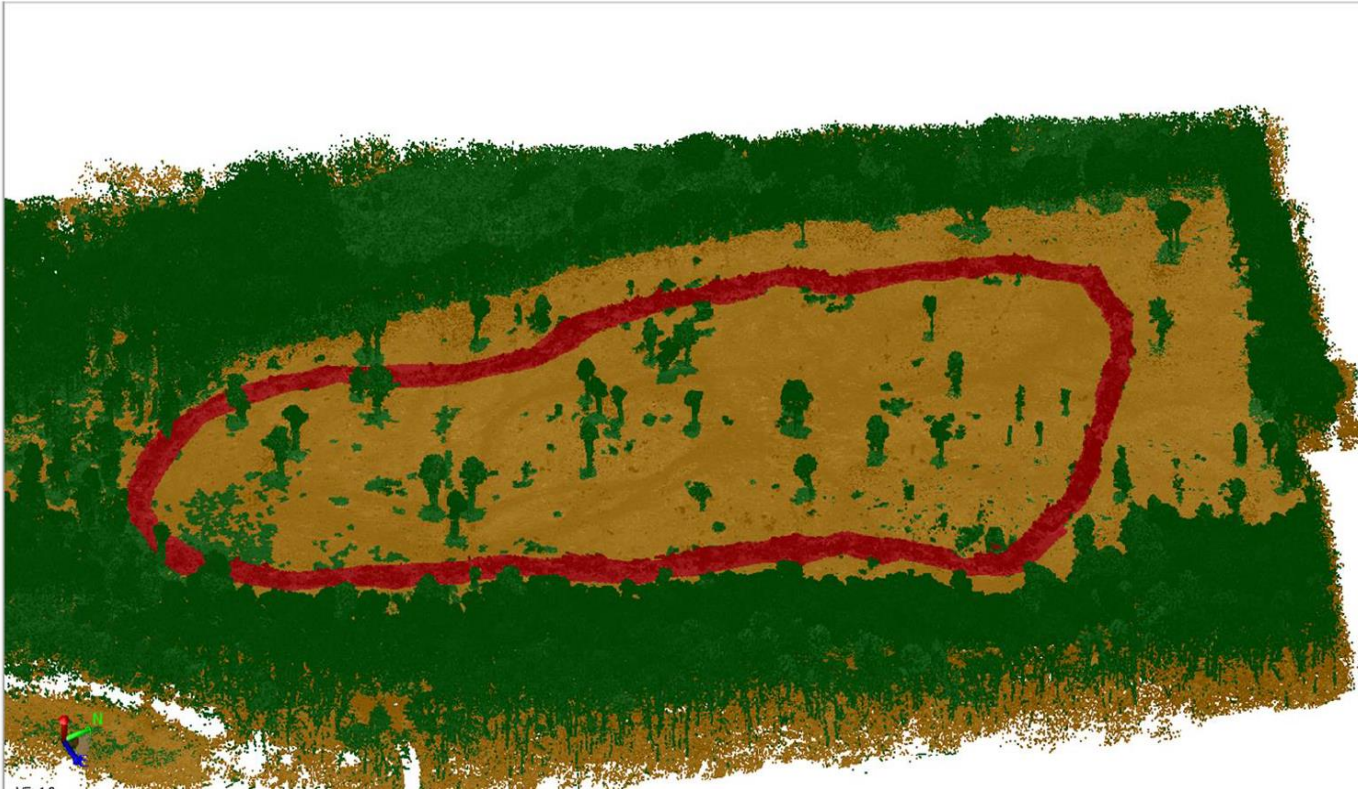
Seymour Site



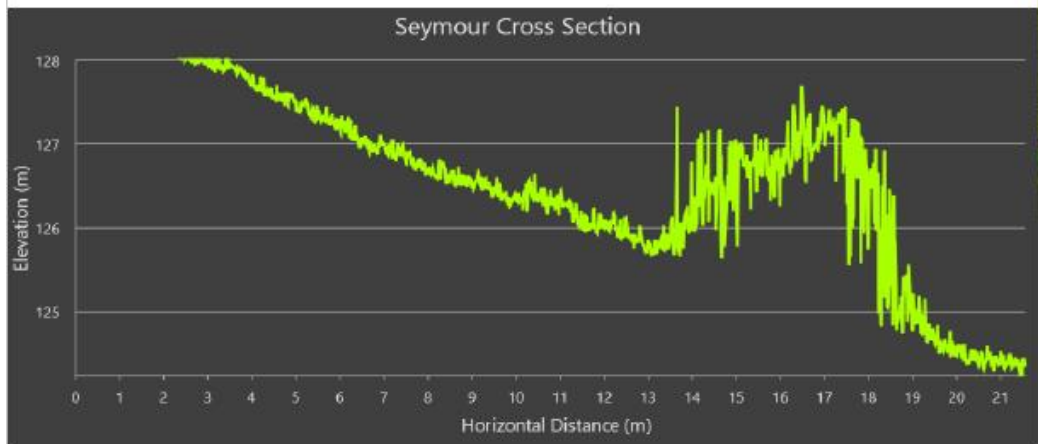
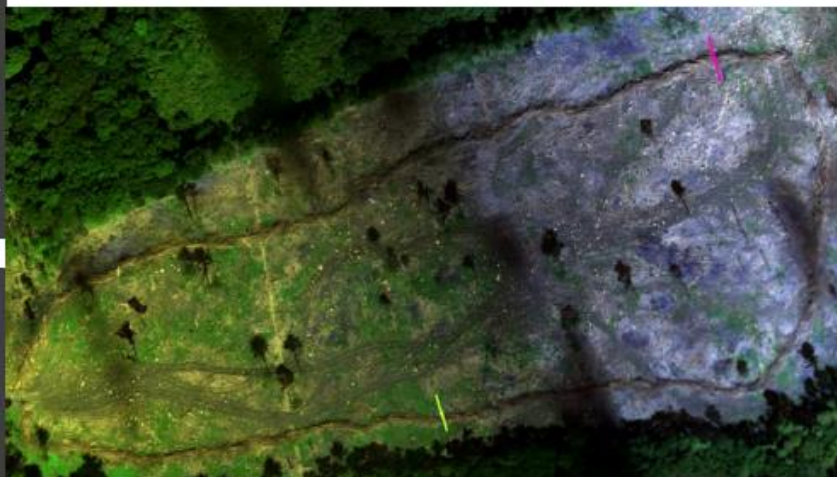
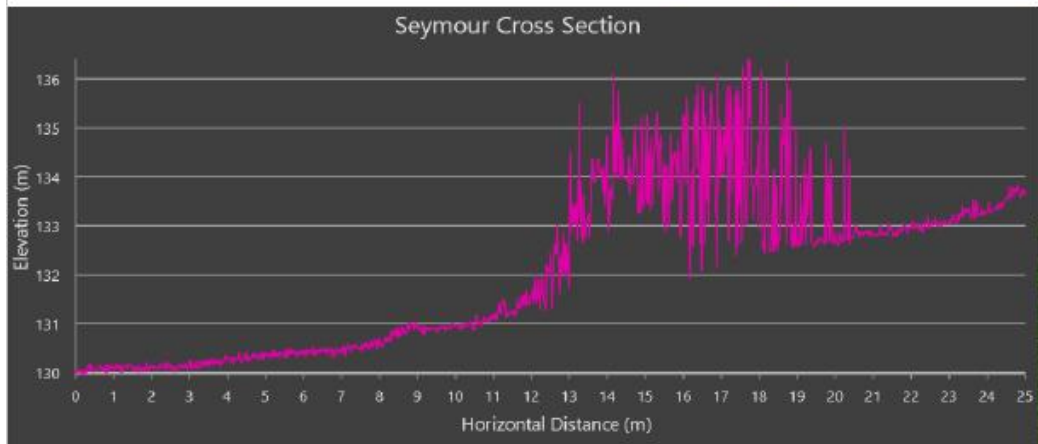
LiDAR - Madison



LiDAR – Seymour



LiDAR Evaluation (Seymour) cont.



Conclusion



- UConn, RWA, CT Ag. Station data collection
- Determine proper slash wall management strategies
- Assess forest regeneration impacts over time
- Invasive vs native species comparison
- Multi-year data set needed for full analysis

An aerial photograph of a wide, dark river winding through a vast, dense green forest. The river flows from the top center towards the bottom left, then curves back towards the bottom right. The forest is thick and lush, with varying shades of green. The sky is a pale, clear blue.

Thank You!

Questions?

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90 Sargent Drive, New Haven, Connecticut 06511-5966
<http://www.rwater.com>

To: Authority Environmental, Health & Safety Committee
David J. Borowy
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Catherine E. LaMarr
Suzanne C. Sack

Cc: Larry Bingaman, President & CEO
Sunny Lakshminarayanan, VP, EES

From: Steve Vitko, Environmental Planning Manager
Josh Tracy, Invasive Species Management Technician

Date: March 2023

Subject: Slash Wall Forest Regeneration Study

The concept of a slash wall was developed by researchers at Cornell University as a way to protect a recently managed forest from the predation of deer, in lieu of installing a costly deer exclusion fence. A slash wall consists of leftover material from a timber harvest stacked into a wall approximately 10 feet tall and 20 feet wide, which surrounds the harvested area. The wall allows for regeneration of early successional forest without the negative influence of deer browse. Deer prefer native plants as a food source, and typically do not favor invasive species because they did not co-evolve with them. Research has shown native species can out-compete invasive species with the exclusion of deer predation, resulting in a healthier forest.

In 2022, the RWA concluded two timber harvests, followed by slash wall construction on RWA land in Madison and Seymour to demonstrate and monitor the effectiveness of this concept. While the price of the slash wall's construction is included in the overall bid price from the contractor performing the harvest, the alternative method of using deer exclusion fencing needs to be paid for out-of-pocket and requires significantly higher costs and maintenance. Both sites have populations of invasive species, including tree of heaven, Japanese barberry, and multiflora rose, which will allow key research on deer absence and its influence on native species regeneration. In addition, the CT Agricultural Experiment Station (CAES) is monitoring RWA's two harvests alongside another large-scale slash wall project on MDC watershed land to assess forest regeneration and compare native versus invasive species population growth inside and outside the slash walls.

To take our research to the next level, the RWA executed an agreement with the University of Connecticut (UConn) in February 2022 to partially fund graduate student research to use a drone equipped with LiDAR and multispectral sensors to monitor and compare regeneration inside and outside timber harvest deer exclusion slash walls at the Madison and Seymour sites. To accomplish this, the UConn team utilized their drone to fly over the slash wall sites in Madison and Seymour at 70 meters altitude to collect valuable data at the 48 and 36-acre sites, respectively.

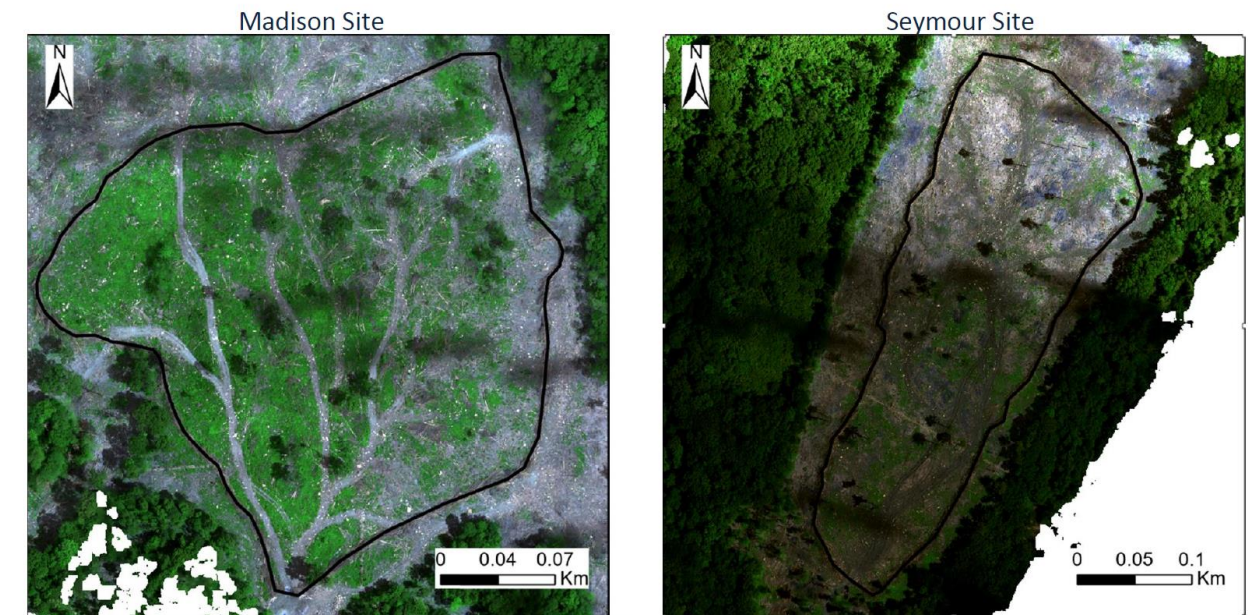
Data gathered during the drone flyover events allowed the UConn team to generate Orthophoto Mosaics, Normalized Difference Vegetation Indices (NDVI), Normalized Difference Red Edge Indices (NDRE), Digital Elevation Models, Photogrammetric Point Clouds, and Light Detecting and Ranging (LiDAR) imagery (see labeled examples below).

NDVI is a measurement of how much green occupies an image, used to quantify vegetation density to assess changes in forest health over time. NDRE is a measure of chlorophyll levels in leaves, which provides insight on the health of plants within the study area. These technologies will allow the team to track forest regrowth rates over time within the deer exclusion slash walls compared to outside the slash walls where deer are able to consume early successional vegetation.

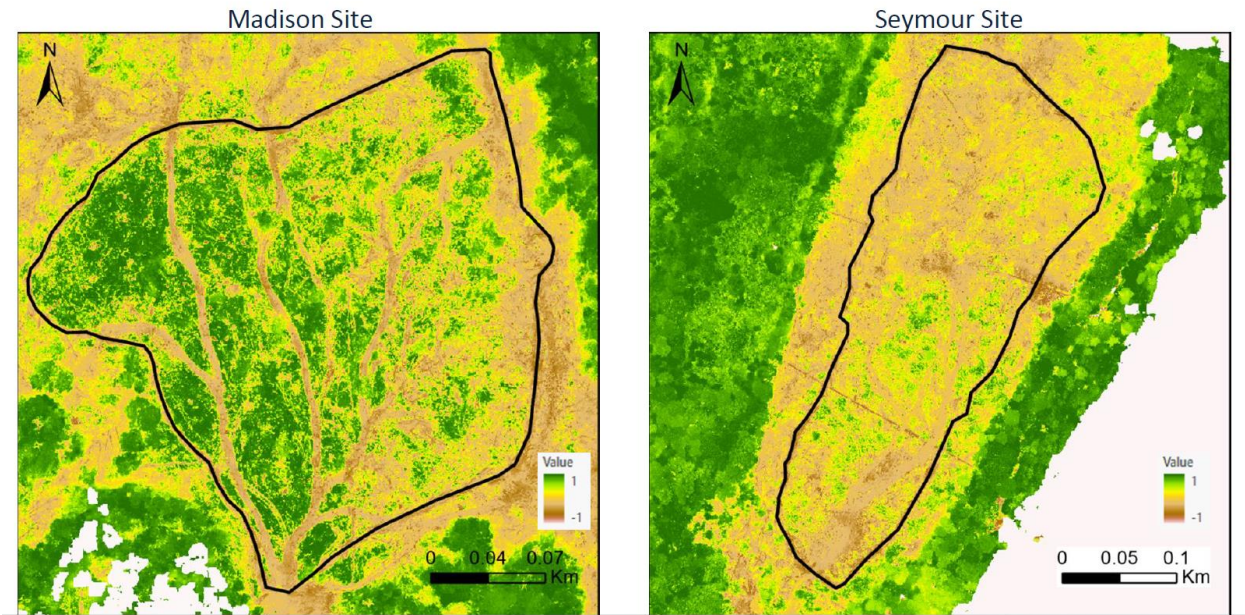
Another benefit of LiDAR data is the ability to track slash wall deterioration over time. Through generated data, the UConn team is able to determine slash wall locations that may need fortification over time due to natural deterioration of the organic matter. This data will help determine proper slash wall height at project initiation to avoid future maintenance needs.

This RWA funded effort has provided informative data about slash wall management and effectiveness over time; however, a multi-year dataset will be critical to understanding full-scale slash wall effectiveness on forest regrowth, which has not been evaluated for plots of this size in our state.

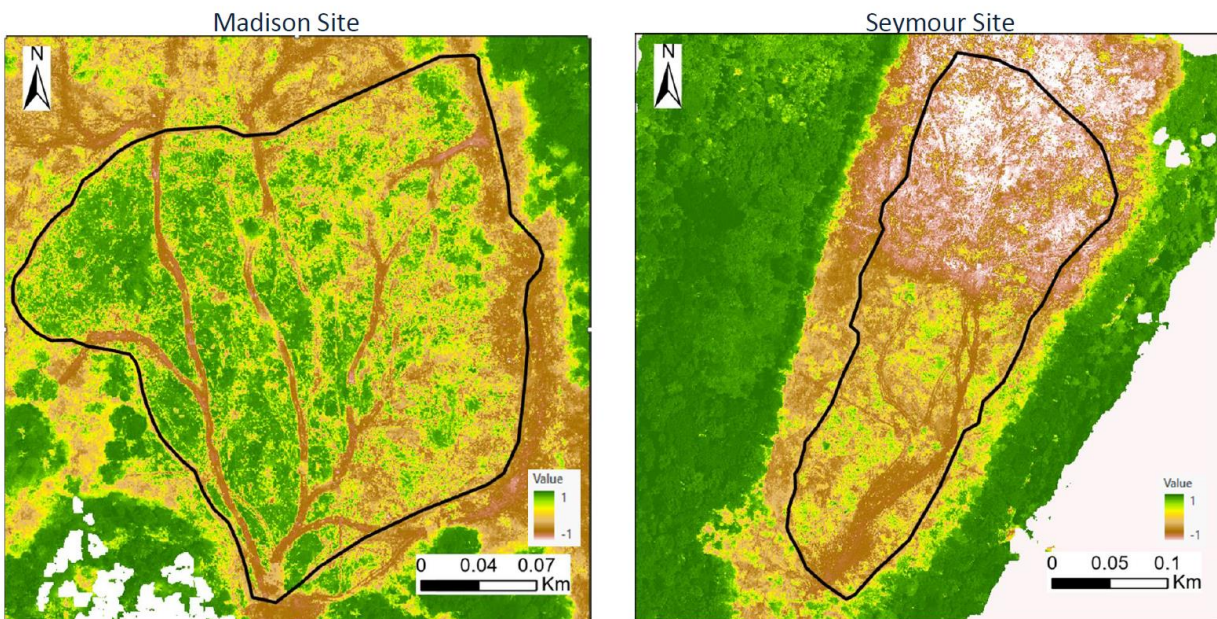
Orthophoto Mosaics



Normalized Difference Vegetation Index (NDVI)

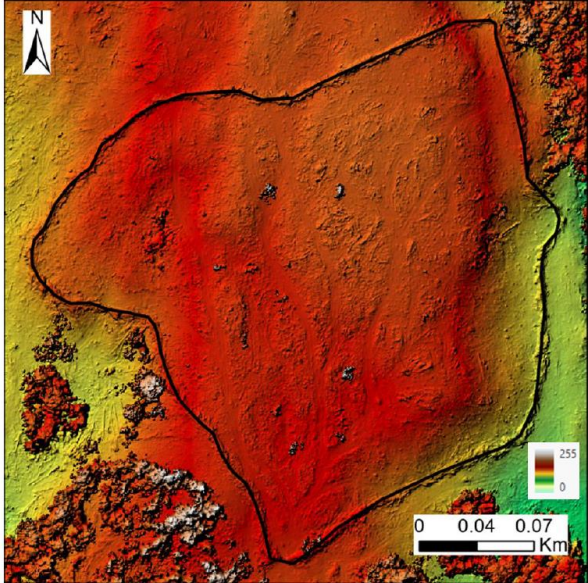


Normalized Difference Red Edge Index (NDRE)

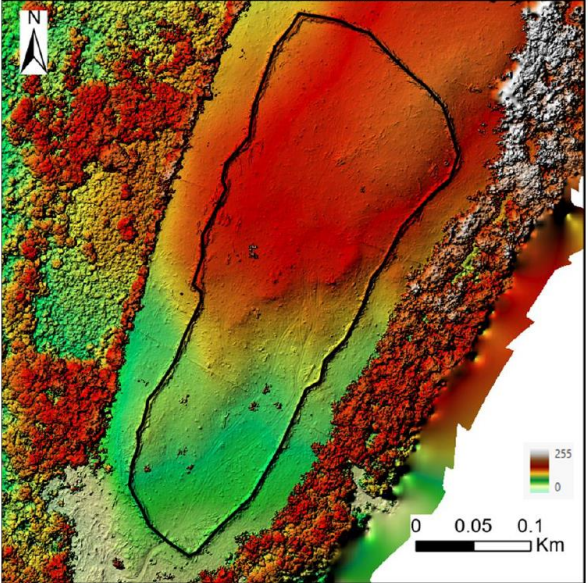


Digital Elevation Models (DEM)

Madison Site

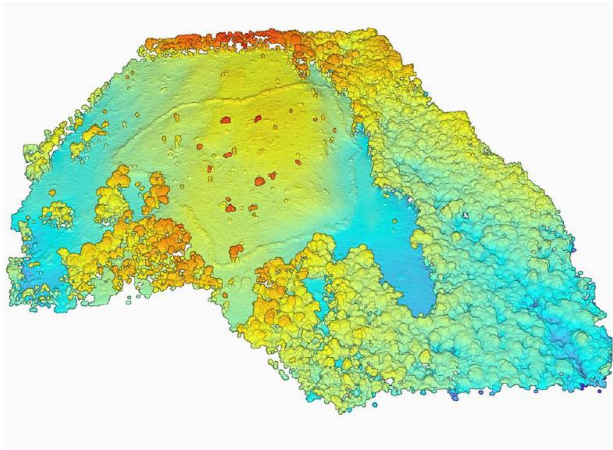


Seymour Site

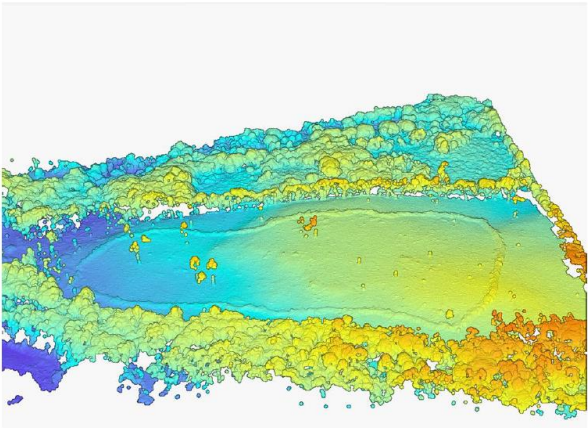


Photogrammetric Point Clouds

Madison Site



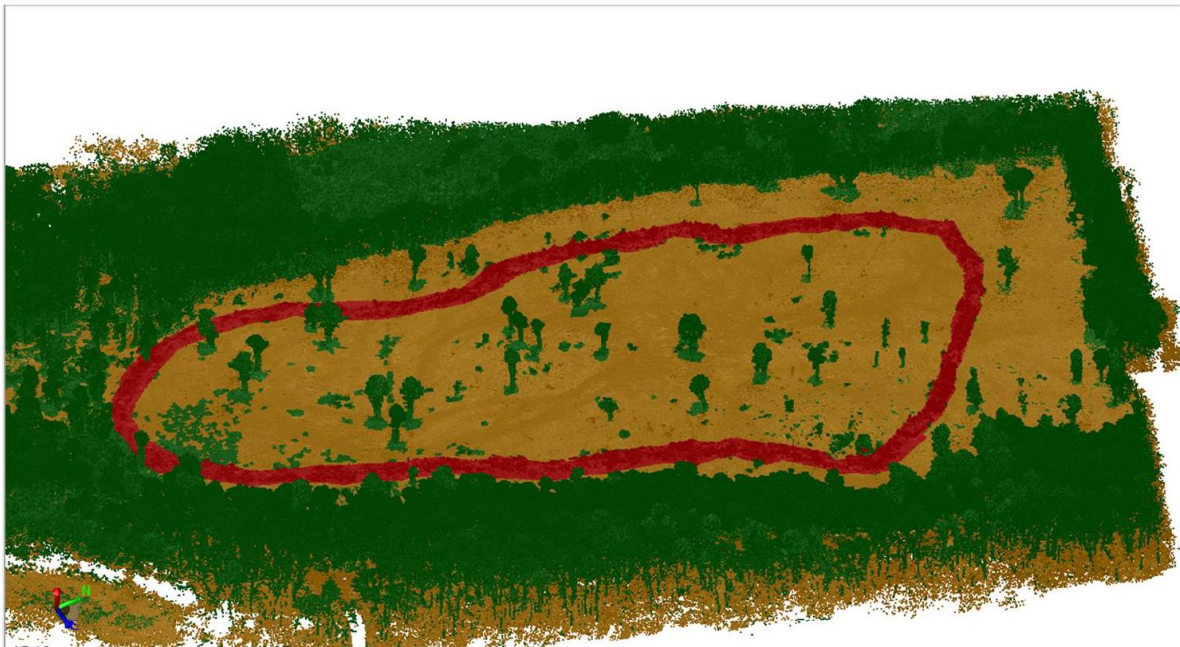
Seymour Site



LiDAR - Madison



LiDAR – Seymour



RWA Environmental, Health, and Safety Committee
FY2024 Work Plan

The Committee shall review, provide oversight of and monitor (a) the RWA’s environmental, health and safety policies, practices and actions; (b) trends and emerging issues at the legislative, regulatory and judicial levels concerning environmental, health and safety issues that affect the RWA, along with its positions and responses with respect thereto; and (c) Maintain an explicit, visible and communicated commitment to Business Continuity/Emergency Preparedness.

May 2023

Water Supply Plan Update
2023 Legislative Session Update
Environmental Compliance Update

November 2023

PFAS Legislative Updates
PFAS – RWA Initiatives
2024 Legislative Session Outlook

August 2023

Lead and Copper rule update
FY24 Business Continuity Work Plan
HazWaste Central Update

March 2024

Raw Water Quality Study
Health and Safety Initiatives Update
Invasive Species Update

Additional topics:
Recreation Program Update
Water Quality Regulations Update
Deer Management Update
Health and Safety Initiatives