



October 2021 CAP Meeting Lake Success

Tom Stilley, Corteva Remediation Group Leader

October 12, 2021

October 2021 Agenda

- Welcome and Instructions - Tom Stilley - Remediation Group Leader, Corteva Remediation Group
- Project Updates
 - Site Background Information
 - Wetland and Ecological Evaluation - Sitewide
 - Success Lake Remediation Update
 - Redevelopment Concept Plan
- Wrap Up/Questions

Webinar Instructions

- This meeting is being recorded.
- To reduce background noise, all attendees are muted
- To ask a question, type your question into the Q & A box
 - If your question deals with a covered topic, I will answer it during the presentation
 - If your question deals with anything else, I will answer it at the end of the meeting

Lake Success - Opening Thoughts

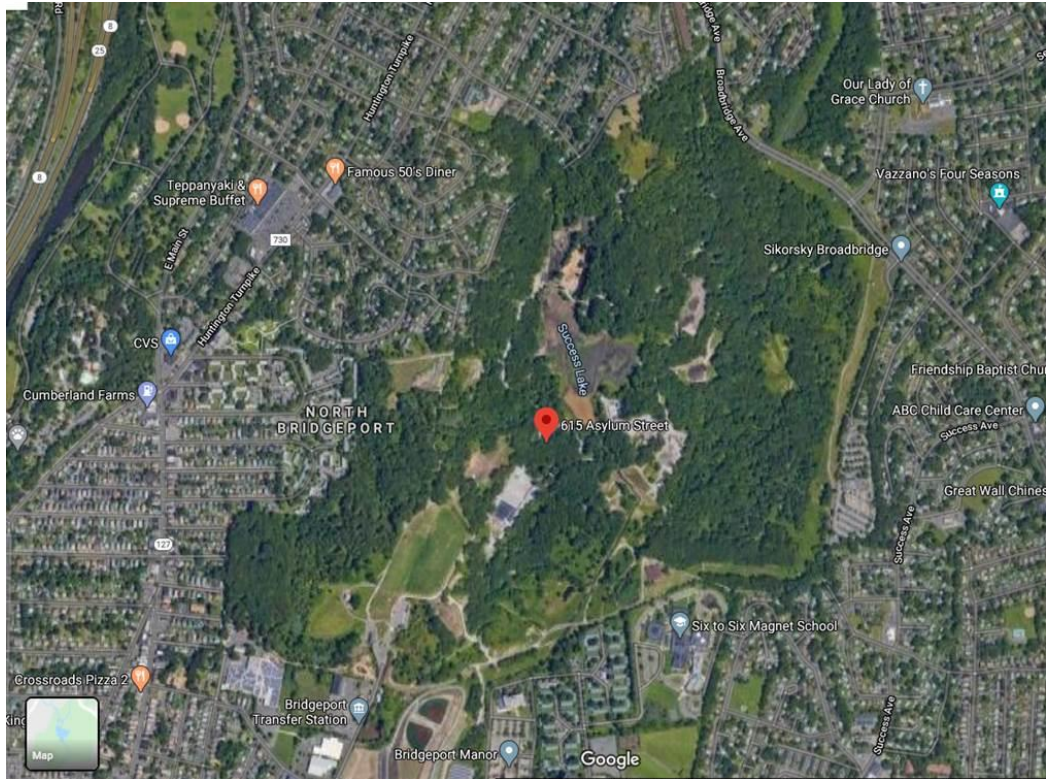
- Our second virtual meeting in 2021
- Even though Covid continues to impact everybody, we are proud to say that we maintained progress on our cleanup program despite the extra challenges and burdens that Covid has caused
- While having a Zoom-based meeting is not always preferred, it has allowed more people to attend and participate, so there has been some benefit to the virtual format

Definition of Terms

- AEC = Area of Environmental Concern, which is an area that is suspected of having impacts from historic site operations
- CAMU = Corrective Action Management Unit, a designated area on the site where we manage/cap our impacted soil
- ACO – Administrative Consent Order, the legal document that forms the basis for our cleanup obligations
- Sporting Goods Properties Inc. – a wholly-owned subsidiary of Corteva Agriscience
- Corteva – formed from the merger of the agricultural businesses of Dow and DuPont
- Stock ticker is CTVA, \$31B Market Cap

Lake Success Business Park (LSBP)

- Bridgeport/Stratford, CT
- 420 Acres
- Former Remington Arms manufacturing and testing site



LSBP Regulatory Program

- Work is governed by two consent orders with USEPA and CT DEEP
- Three primary remedy areas of focus:
 1. Upland soil – most site areas have been addressed, still have some small scattered areas and site interior roads
 2. Lake – remediation almost completed, and restoration work is underway
 3. Wetlands and Groundwater – sampling and investigation underway, with future remediation still to be determined

Wetland and Ecological Evaluation

- Completed AEC 1-1 Monitoring – Required monitoring for 5 years after creation. The wetland met or exceeded all required quality benchmarks for wetlands health and diversity
- 1.78 Acres of wetland created in 2015 after remediation of former open burn area (AEC 1-1)
- Rigorous post-creation maintenance program of vegetation control, deer fence maintenance, invasive species control, and irrigation (when needed)

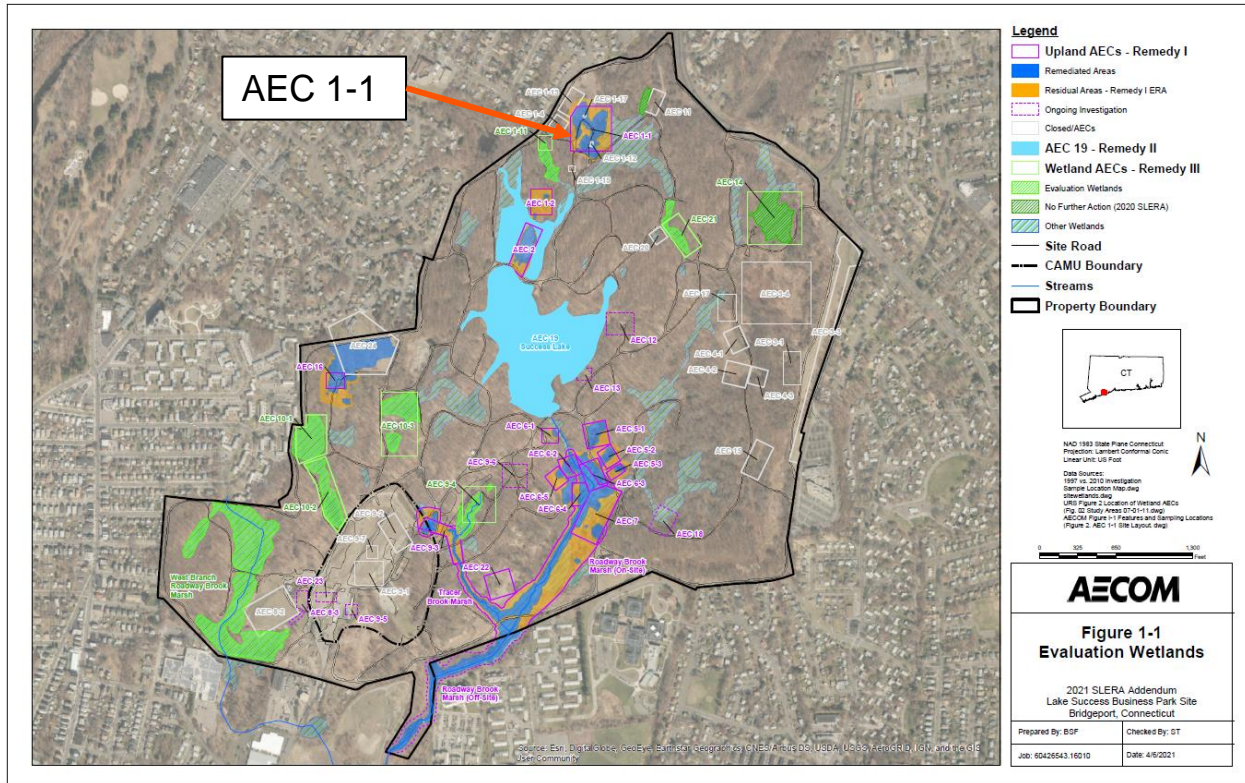
AEC 1-1 Wetland Creation



AEC 1-1 Wetland Creation Monitoring



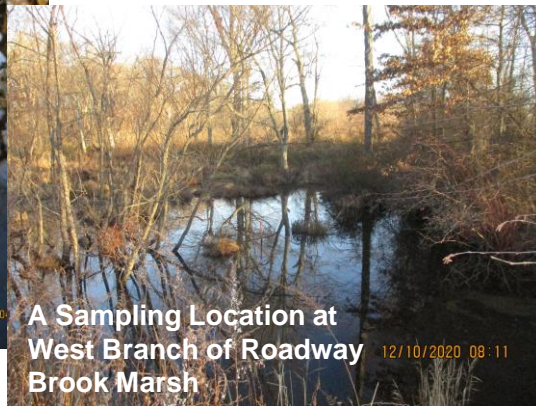
Wetland Study Areas (in green)



Wetland Study Areas

- All wetland areas have been mapped, along with vernal pool areas
- Compare location of wetlands with site operating history and soil sampling data
- Collect sediment and surface water samples at wetlands for evaluation, compare results to ecological benchmarks
- Collect pore water samples to determine if constituents are present in the water entrained in the sediment
- Evaluation could determine:
 1. No further action needed
 2. Additional study needed
 3. Remediation is needed

2020 Pore Water Sampling in Wetlands



Wetlands – Next Steps

- Sporting Goods has submitted a sampling plan to EPA
- The plan's objective is to delineate any areas of concern from past industrial activities, and is based off of previous sampling results
- We are meeting this week with EPA to review the plan and agree on the details
 - how many samples and what locations?
 - what do the results mean?
- Once we finalize the details, we will complete the field sampling (expected to be Q4-2021 to Q1-2022)
- When we have the results, we will develop a plan to remedy any needed areas

Questions?

Success Lake Remediation



Lake Project Timeline

- Site preparation and equipment mobilization – August 2018 to June 2019
- Sediment excavation from lake - 2019
- Munitions separation and management – Started in June 2019 and still ongoing
- Water Treatment – June 2019 through November 2020
- Restoration – Two phases, Spring and Fall 2021

Success Lake Remediation by the Numbers

- 92,000 cubic yards sediment dredged and processed
- Close to 5,000 items of munitions recovered and managed
- 74,000 cubic yards sand and topsoil produced for on-site beneficial re-use (sustainable)
- 24,000 cy tailings to be processed and placed in CAMU (no trucks through city)
- 6,400 ft shoreline restored
- Restoration in 2021
 - 25,000 aquatic plants
 - 1,500 trees and shrubs
 - 3,000 other plantings

Success Lake Remediation Over \$12.8 MM in Local Goods and Services

- 74,000 Hours of Craft Labor
- Professional Services
 - Engineering
 - Laboratory
- Equipment
 - Pumps
 - Yellow Iron
- Materials
 - Stone
 - Plantings
- Taxes and fees



*Morning Safety Briefing
with Social Distancing*

Lake Project Tasks in 2021

- Sediment Processing and Munitions Management
- Restoration and Maintenance

2021 Sediment Processing

Screening plant for lake tailings



Installing armor to protect technicians



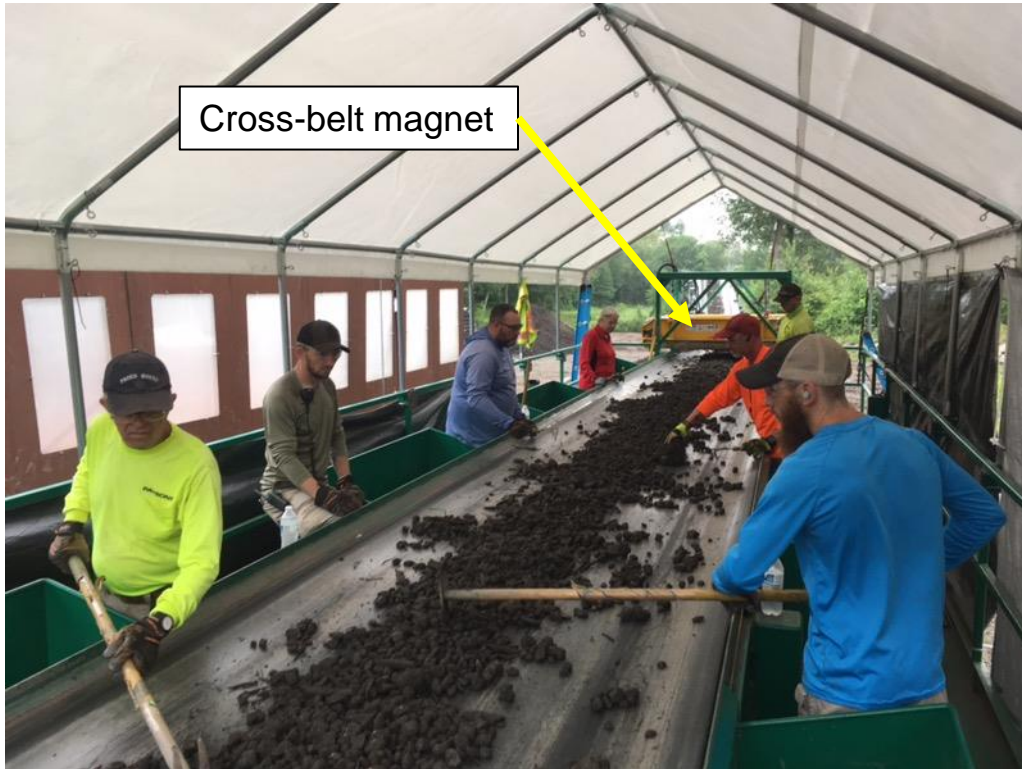
Picking Station manned by UXO technicians



Loading material into screening plant



Technicians removing munitions



Lake material transported to cap area



Munitions Management

August 2018 Munitions Removal (near shoreline after lowering water level)



RECOVERED MUNITIONS IN MAGAZINE



Preparing munitions by attaching explosive charges



**Munitions
placed in
sand bed
and
connected
to
continuous
blasting
chord**



Blast beds covered by plywood prior to being covered with sand



Planned Detonation Video



Detonated Munitions – Dec 2018



Lake - Shoreline Restoration

COMPLETED LAKE HABITAT BENCH



Littoral shelf plantings (plugs)



Installing plugs into gentle slope



Irrigating plantings



Current status showing new growth



Lake - Upland Grass Restoration

Spreading topsoil in work areas



Measuring grass seed before mixing



Hydroseeding operation for upland areas



Current growth



Lake - Forest Restoration

Staging woody shrubs and trees



Restoring former lake access ramp



Plantings after installation



New tree plantings protected by deer fence



Cap Area Management

Cap Area Management

Area that will safely contain soil from other areas on site

- Roadway Brook
- Some lake material
- Some of the interior site roads
- Several remaining upland areas that have soil with lead exceedances

Sustainable approach that is protective while minimizing truck traffic and greenhouse gas generation

Spreading out Roadway Brook soil



Stabilizing soil so that it meets capping requirements



Placing soil in shallow lifts and compacting in place



2022 Planned Activities

2022 Activities

Complete remaining lake work

Continue groundwater monitoring and wetland investigations

Excavate remaining areas with soil impacts

Start excavation of site roads

Prepare cap area for future cap installation

Site Redevelopment Options

Important to Remember

We are at the concept planning stage, with about 3 years of remediation remaining still to complete

Remediation schedule is subject to change based on a number of factors, including future sampling results and agency approvals

Public input will be part of the redevelopment process

Redevelopment Concepts

- Significant Conservation Areas and Open Space
- Preserve sensitive ecological habitats
- The site has limited road access and has a long industrial history
- Concentrate redevelopment at previously-disturbed areas
- Recognize the effect of site constraints on redevelopment

Site Setting



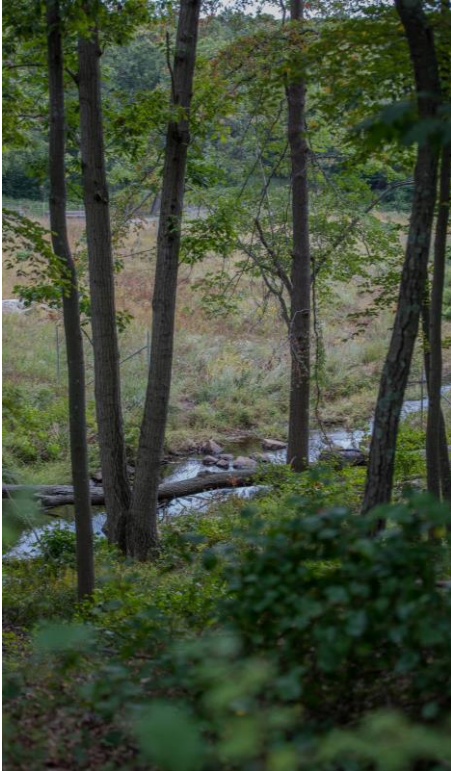
70% +/- Preserved
30% +/- Developed

Active work areas



Disturbed Areas

Watercourses and Wetlands



Forestland and Rock Outcrops



Types of Uses Considered for Redevelopment

- Office/Research and Development
- Hotel and Conference Center
- Green and Low Impact Manufacturing
- Skilled Trades
- Active Recreation
- Nature Center



Pictures are not from site

Conservation Area

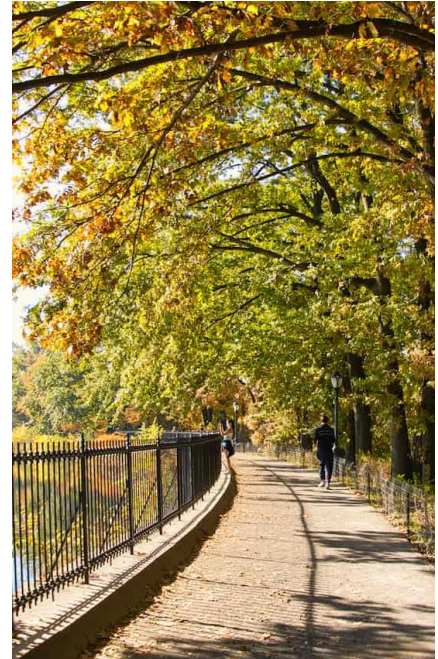
70% +/- of property would be open space

Approximately 300 Acres

Possible walking trails

Possible educational learning areas with signage

Controlled Access Around Lake



Pictures are not from site

Caring for the future of the site

Protecting a valuable but extensive forested area, requires significant financial resources to:

- Support staffing and programming
- Provide 24-hour security (we currently spend about \$200K per year)
- Repairs, maintenance and upkeep

Unlike most urban parks, the site is isolated, therefore some development is critical and necessary to provide eyes on the site to maintain and protect the natural features and habitat

We will work with organizations like land trusts and national/regional trustee groups to identify the best long-term stewardship approach



Pictures are not from site

Questions?

Next CAP Meeting May 10, 2022