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TO:

Community Advisory Panel Members

FROM:

Thomas E. Stilley, Corteva Remediation Group Leader

DATE:

October 21, 2024

RE:

CAP Meeting Minutes - October 9, 2024

Tom Stilley, Corteva Remediation Group Leader, opened the meeting at 5:06 p.m., welcoming those in attendance and outlining the meeting agenda. The meeting was held at Lake Success Business Park in Bridgeport, CT, under a tent. Four bus tours of the site were conducted prior to the start of the meeting.

# Opening Thoughts

- Thank you everyone for your interest in the Lake Success Business Park site and we plan to show you the significant progress we have made on our site clean-up program.
- As we approach the end of "active" remediation, we continue to ensure that the site is protective of people and the environment.

#### Who is Corteva Agriscience

- Corteva is a combination of agricultural businesses of DuPont and Dow.
- June 1, 2019 was the first official day of operation as a publicly-traded independent company. The stock ticker is CTVA, and we have a \$40B Market Capitalization.
- Sporting Goods Properties, Inc. is a wholly-owned subsidiary of Corteva, and has managed the remediation program since its inception.

#### Definition of Terms - Review

- AEC Area of Environmental Concern is an area that may have had impacts from historic site operations.
- CAMU Corrective Action Management Unit is a designated area on the site where we manage and cap our impacted soil.
- ACO Administrative Consent Order is the legal document that forms the basis for our cleanup obligations. We have compatible ACOs with EPA and CTDEEP.

#### Lake Success Business Park (LSBP)

- Located in Bridgeport and Stratford, CT.
- Total of 420 acres, 78 of which are located in Stratford.
- Former Remington Arms Company manufacturing site.
- Work is governed by two Consent orders with USEPA and CTDEEP.

- Three primary areas of focus:
  - 1. Upland soil most site areas have been addressed and site interior roads have been remediated.
  - 2. Lake remediation is completed, restoration work is being monitored and maintained.
  - 3. Wetlands and groundwater sampling and investigation has been completed, and remediation plans and permit applications have been developed and are being reviewed by government agencies.

## Wetland Study Areas

- All wetland areas have been mapped, along with vernal pool areas.
- Collected sediment and surface water samples at 8 different wetland locations for evaluation and compared results to ecological benchmarks.
- Collected pore water samples to determine if constituents are present in the water entrained in the sediment.
- Used data to conduct an environmental risk assessment.

# Wetlands - Next Steps

- The sampling has delineated areas of concern from past site activities and built off previous sampling results.
- After evaluating the data, we have developed and submitted a Corrective Measures Implementation Plan to remediate and restore impacted wetland areas.
- We submitted the required wetlands permit applications to the U.S. Army Corps of Engineers and will be submitting permit applications to CTDEEP and the City of Bridgeport in the near future.
- Once the permits are received, sediment will be excavated and placed in the on-site future cap area.
- Remediation will occur after permits are received, possibly in the Summer or Fall of 2025.

# Success Lake Remediation - Timeline

- Site preparation and equipment mobilization August 2018 to June 2019.
- Sediment excavation from the lake 2019.
- Munitions separation and management June 2019 to September 2022
- Restoration Multiple phases starting in Spring 2021 and completed in October 2022.
- Maintenance and restored areas for the next 5 years:
  - 1. Normal attrition after the first planting cycle.
  - 2. Beaver damage during the winter of 2021-2022.

## Success Lake Remediation – by the Numbers

- More than 92,000 cubic yards of sediment was dredged and processed.
- Over 5,000 items of munitions were recovered and managed safely.

- 74,000 cubic yards of sand and topsoil was produced for on-site beneficial re-use (sustainable).
- 24,000 cubic yards of tailing were processed and placed in the CAMU (no trucks driving through the neighborhoods).
- 6,400 ft. of shoreline was restored.
- Restoration plantings in 2021-2022:
  - 1. 25,000 aquatic plants
  - 2. 1,500 trees and shrubs
  - 3. 3,000 other plantings
- Over 80,000 hours of union craft labor.

## Shoreline Restoration (Lake)

- Completed lake habitat bench.
- Littoral shelf plantings (plugs) into a gentle slope.
- Restored areas showing new growth.

# **Upland Grass Restoration (Lake)**

• Grass seed was measured and mixed and applied through hydroseeding process.

# Forest Restoration (Lake)

- Woody shrubs and trees were staged appropriately before planting.
- Former lake access ramp was restored.
- New tree plantings are protected by a deer fence.

#### Site Roads Remediation - Summary

- Work began in October 2022 and continued through August 2024.
- Over 4 miles of interior site roads were remediated between 2022-2024.
- Over 2,000 post-excavation samples were collected to verify the remaining soils meet regulatory standards.
- Over 6,750 dump truck loads of soil were transported on site to our cap area.
- At the completion of the project in 2024, we handled over 50,000 cubic yards of soil excavated from site roads.
- Once all excavation projects are completed, we will install a protective cap over the soil.
- We use an XRF (X-ray Fluorescence) unit to measure the amount of lead in the soil. We participate in a quality control program that measures the accuracy of our XRF machine.

#### Cap Area Management

- This is an area that will safely contain soil from remediated areas including:
  - 1. Roadway Brook
  - 2. Some lake material (debris and tailings)
  - 3. Site roads

- 4. Several upland areas with soil that had lead and arsenic exceedances.
- This is a sustainable approach that is protective while greatly reducing truck traffic and greenhouse gas generation.

#### South Yard Remediation

- 1.5-acre area along the southern property boundary historically used as an employee parking lot while the facility was in operation (c.1941-1989).
- Historical filling occurred in this area prior to facility operations
- Remediation will include targeted excavation with soil cap to provide 4 ft. of clean cover.

## Site Groundwater

- Two areas are being studied:
  - 1. Southwest Area near the office building and parking area.
  - 2. AEC-2 small peninsula near the northern lake section.
- Testing in-place remedies with pilot tests at both areas.

#### 2023 & 2024 Activities

- Enhanced In-Site Bioremediation (EISB) pilot test in October 2023 and evaluation of Monitored Natural Attenuation (MNA).
  - 1. Additional groundwater monitoring to evaluate the success will continue through the first quarter of 2025.
  - 2. MNA evaluation is currently in progress to evaluate remedy and ongoing monitoring.
- EISB Pilot Test Area:
  - 1. Treatment reduction observed following injections.
  - 2. Tetrachloroethene (PCE) concentrations have decreased 96% from October 2023 through August 2024.
  - 3. Trichloroethene (TCE) concentrations have decreased 84% from October 2023 through August 2024.
- Generation of Degradation Products
  - 1. Detections of cis-1,2 dichloroethane (cDCE), vinyl chloride (VC), ethene and ethane indicate success of pilot test.
  - 2. Concentrations of non-toxic end products (ethene and ethane) have increased 1500% from October 2023 through August 2024.
  - 3. Additional geochemical data shows that the conditions and growth media for continued biodegradation are present.

## 2025 Activities

- Remediation and restore wetlands.
- Cap South Yard area.
- Continue monitoring of restored areas (Roadway Brook, Lake and Wetlands).
- Continue pilot tests on groundwater study areas.

Complete design and permitting for future cap installation.

# Site Development Options

- We are at the concept planning stage, with one to two years of remediation remaining.
- Remediation schedule is subject to change based on a number of factors, including future sampling results and agency approvals.
- Public input will continue to be part of the redevelopment process.

# Redevelopment Factors

- Significant conservation areas and open space.
- Preserve sensitive ecological habitats.
- The site has limited road access and has a long industrial history with munitions.
- Recognize the effect of site constraints and local real estate market on development.

## Conservation Plans

- We are pursuing a plan to conserve most of the site.
- We are meeting with land trust groups and resource stewards to get input and determine their level of interest and commitment to our plan.
- We are meeting with state, local and federal officials to gain input on our plan.
- By starting conversations now, we will be ready to move forward once the active remediation is completed in late 2025 or mid-2026.
- Land use plan -
  - 1. Conservation Area 358 acres
  - 2. Renewable Energy Area 61 acres or less
  - 3. 70% of the property would be open space (about 300 acres)
  - 4. Possible walking trails, educational learning areas with signage and controlled access around the lake.
- Renewable energy
  - 1. Battery storage facility
  - 2. Solar panels on capped areas
  - 3. Requires limited acreage and generates sufficient revenue to cover future site management costs.

## Site Disposition Goals

- Corteva's disposition objective is to transfer fee title of the property.
- Expected completion date for remediation is early 2026. Groundwater monitoring and restoration monitoring will continue into the future.
- Steward to be responsible for property management and maintenance.
- State of Connecticut possible ownership/management with conservation steward.
- Continue to explore limited-acreage lease opportunity with renewable energy developer to fund property management and maintenance.

Please visit our new website: LakeSuccess.net for more information and updates.