



Water Treatment Plant Project Update

Select Board Update
August 22, 2023





Three Project Elements are ongoing:

Rt 3A Utilities
Manganese Contactor Pilot
Treatment Plant Design



Rt 3A Utilities – Progress

- **Started Installation July 17 – today is day 25**
- **Installing raw water main and finished water main in one trench**
- **Have installed over 2000 LF – 30% installed**
- **Construction will continue until November**
- **Final Paving next spring**
- **Work is on Schedule and within Budget**



Manganese Contactor Pilot - Status

- **Located at Old Oaken Bucket – reusing existing pressure filters**
- **Retrofitted to function as Manganese Contactor**
- **Capacity is roughly ½ of finished water flow of OOB.**
- **Water treated in Contactor removing 80%-90% of Manganese**
- **Evaluating potential pre-purchase of contactor vessels for the new plant and installing one of them temporarily at OOB to increase capacity to match OOB plant.**
- **Anticipate ongoing operation through 2024 and 2025.**



Stearns Meadow Water Treatment Plant

- ▶ Detailed Design Status
- ▶ Permitting Status
- ▶ Construction Cost Estimate
- ▶ Bidding and Construction Schedule
- ▶ Site Layout and Renderings



Detailed Design Status

- ▶ Overall detailed design is 60% complete – on schedule
- ▶ Building space needs completed
- ▶ Process sizing completed
- ▶ Piping layout completed
- ▶ Architectural concepts incorporated
- ▶ Site layout and grading developed - ready for planning board review.
- ▶ Ongoing work focused on electrical/instrumentation design, HVAC and plumbing design, structural design, architectural detailing.



Permitting Status – ongoing on schedule

- ▶ Completed MEPA submission and project approved.
- ▶ Have had working discussions with Planning Board, Fire Department, Conservation Staff, Board of Health.
- ▶ Planning Board Major Site Plan Approval
 - Hearing Scheduled: September 14th
- ▶ Conservation Commission Wetlands Permitting
 - Anticipated October 2023
- ▶ Board of Health – Septic System Hearing to be scheduled.
- ▶ MassDOT – curb cut approval to be prepared and submitted.
- ▶ DEP – Design Approval



Construction Cost Estimate

- ▶ November 2022 the estimated construction cost, escalated to mid point of construction with contingency was \$46,485,000.
- ▶ Construction cost is exclusive of engineering, permitting, financial etc.
- ▶ Since November 2022
 - Marketplace has seen an increase in Construction Costs tempered by recent stabilization of costs and improved supply chain.
 - Detailed design advance with a reduction in building footprint, more efficient backwash lagoon design, improved flexibility in the process design to accommodate potential future conditions.
- Updated Construction Cost Estimate at 50% design remains at \$46,485,000

BIDDING AND CONSTRUCTION SCHEDULE



- ▶ Project will have filed sub bids and general bid
- ▶ Contractor pre-qualification – December 2023
- ▶ Advertise and Bidding – January/February/March 2024
- ▶ Award April 2024
- ▶ Commence Construction May 2024
- ▶ Anticipate 24 Month construction duration
- ▶ Goal is to have plant on line by July 2026.



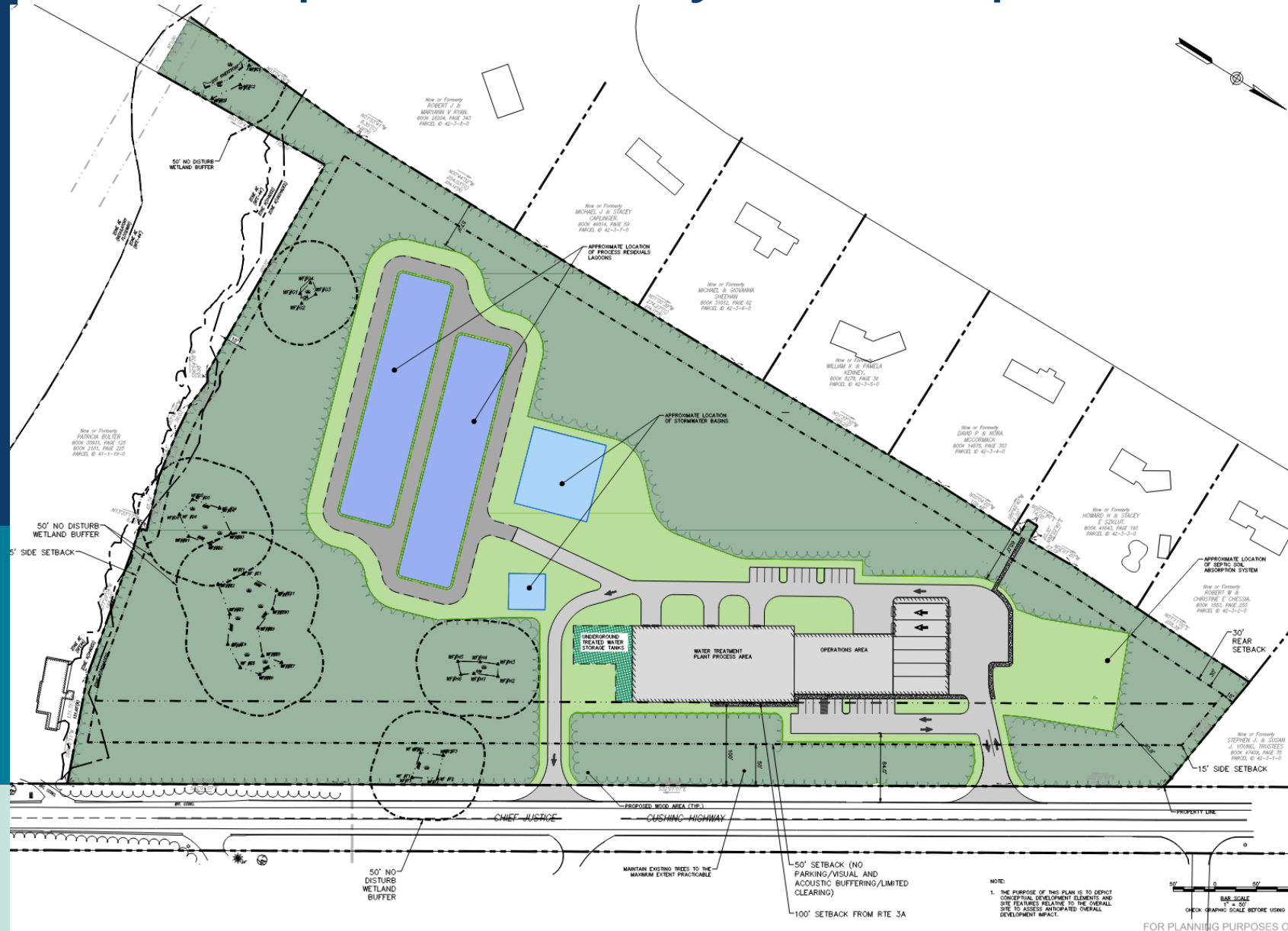
Site Plan and Renderings

Conceptual Site Layout – September 2022



Design considerations incorporated since initial concept:

- ▶ Reduced the building footprint
- ▶ Increased setbacks to Route 3A and abutting properties
- ▶ Refine the process area size based on pilot test data

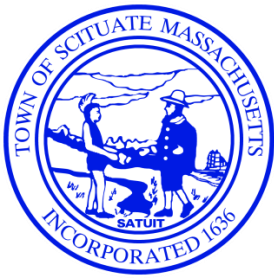


15% Design

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LINCOLN BROWN ILLUSTRATION







Comments - Questions



Thank you!

