Honeywell

# DREDGE AND DEWATERING SYSTEM DECOMMISSIONING
## Onondaga Lake Bottom Sub-site – Onondaga County, NY
## Honeywell – Syracuse, NY
## October 2014

This document presents an overview of dredge and dewatering system decommissioning, specifically in regards to anticipated sequencing of work, decontamination procedures, disposition of dewatering equipment and materials, and restoration. Work will commence once dredging is completed.

## GENERAL DECONTAMINATION PROCEEDURES

Decontamination procedures will be as follows, with acceptance criteria based on visually clean:

- Flush lines and slurry pumps with lake water (approximately 8-12 hours).
- Pressure wash interior and exterior of thickeners and surrounding ground surfaces.
- Pressure wash exterior of equipment and apparatus removed from the SPA/SCA.
- Pressure wash booster pump containment (after removal of stone).

## PRE-DREDGE COMPLETION

Slurry and water treatment plant chemicals will be monitored closely as dredging winds down to minimize excess inventory. This will include reduction in polymer mixing and use of storage tanks with the number of tanks in use reduced accordingly. Excess inventory will be returned to vendors as appropriate or disposed as per manufacturer instructions. Misting system additive inventory will be maintained for the balance of the construction season and for part of next year until the geotubes are adequately covered, or it is determined that odor generation has diminished.

## COMPLETION OF DREDGING

Once dredging is completed (including final sweeps), anticipated progression of work is as follows:

<u>Pending Final DMU Approvals</u>

- Flush slurry line and SPA systems. Anticipate up to 8 - 12 hours of flushing as needed to complete removal of residuals in the thickeners, header systems, pumps, bypass pipes, etc.
- Continue coating of geotubes as conditions permit, based on dewatering and weather.
- Start dismantling of SCA piping.
    - Lay flat hose and stingers to be disposed in the SCA. Metal fittings and pinch valves to be recycled/reused.

After Final DMU Approvals

- SCA
    - Continue dismantling of SCA piping, including hard pipe, header lines, and valves. Hard pipe and header lines will be visually cleaned and sent offsite for recycling.
    - Pressure wash and remove supplemental (portable) Godwin pumps within the SCA and winterize inline Godwin pumps.
    - Continue coating of geotubes as tube and weather conditions permit.
    - Cover debris pile.
    - Sumps to be handled same as last year; winterize, including remove three of four pumps from each sump and store.
    - The SCA settlement monitoring system (i.e., inclinometers, piezometers, and settlement cells and associated lines/cables and controls) will not be decommissioned without prior approval from NYSDEC. It is expected SCA settlement monitoring will continue through the winter in accordance with the monitoring and reporting frequencies in SCA Field Change Form #012, with monitoring system operation during cap construction in accordance with the Final SCA Cover Design.
- SPA
    - Pressure wash interior and exteriors of thickeners; drain wash water to the storm water vault and pump to the east basin. Valves to be recycled or sold.
    - Pressure wash, as needed, exterior of piping, pumps and valves, as well as paved surfaces within restricted area. Visually inspect pumps and valves for accumulated debris; clean as necessary.
    - Dismantle piping for recycling.
    - Pressure wash interior and exterior for T-14 for return to vendor.
    - Pressure wash conveyor system for re-use or resale.
    - Pressure wash and dismantle VGAC system. Remove carbon and ship offsite for regeneration. Pressure wash interior of vessels. Prepare system for resale.
    - Disconnect polymer system, flush piping and prep system for resale.
    - Remove instrumentation and scrap or prep for resale.
    - Demobilize storage trailers and decontamination trailer.

**SPA**

**Thickener VGAC System**

- East Basin
    - Prepare for winter operations same as last year.
    - If conditions permit, may do bulk removal of sediment (pump to geotubes prior to flushing and dismantling of the SCA piping) prior to winter. The floating cover will be removed as necessary for cleaning access and reinstalled once complete.

**East Basin**

- Pipeline
    - Cut and load/transport for recycling.

- Pull bollards along slopes, fill holes, and restore (seed as weather conditions permit) in accordance with permit requirements.
- Remove concrete blocks used to control pipe alignment.
- Restore access roads and laydown areas per the permit requirements (as weather conditions permit).
- Remove or fill leak detection manholes as appropriate based on permit requirements as weather conditions permit.
- Remove pressure transmitters and leak detection equipment: recycle or prep for resale/re-use.
- Subgrade crossings will likely be deferred. Crossings will be removed in accordance with permits (as weather conditions permit).
- In addition to restoring access roads and laydown areas as per the permit requirements, the areas within the Ninemile Creek (NMC) remedial site limits (primarily the banks of Reach BC including wetland bench and floodplain areas) will be restored to satisfy the requirements of the NMC remedial design, as noted in Onondaga Lake Dredging Field Change Form #012. This should include, as necessary, repairs to any cap areas within NMC damaged during pipe removal and surveying of repaired areas for documentation of final grade for inclusion in the NMC Reaches AB/BC Construction Completion Report.


**Slurry Pipeline Along 690**

- Booster Pumps – may defer removal of pumps to facilitate resale.
    - Pressure wash within containment and disconnect piping and gear boxes. Pumps will remain connected to power to run heaters over the winter and allow demonstration for resale. BP 1 will be transported adjacent to BP 4 or 5 for power connection.
    - Remove accessible stone from containment area and transport to SCA for leveling material. Flush remaining stone (under pumps).
    - Clean out sumps (vac truck) and remove liner for disposal at SCA.
    - Remove sumps.
    - Remove containment berms and bin blocks used for containment.
    - Restore area per the permit requirements.

**Booster Pump 2**

- Dredge Operations
    - Pressure flush slurry line to remove residual slurry.
    - Disconnect dredges and start dismantling for demobilization.
    - Disconnect on water booster pump and demobilize.
    - Disconnect slurry line from landside booster pumps, stage along the shore for recycle as required.
    - Remove for reuse or dispose of unnecessary turbidity curtains to the SCA.

- Other
    - Winterize odor mitigation systems (phased as weather conditions warrant and as coordinated and approved by onsite DEC representative).
    - Some modifications to SCA perimeter misting systems and wind screen may be required to facilitate access to the SCA for decommissioning and cap preparation. Changes will be coordinated with the DEC.
    - Odor/emissions mitigation measures (e.g., misting lines, wind machines, floating covers, VGAC system) will remain in place and operational (weather permitting – fans and misting systems will need to be taken offline and winterized) until such time as sources of significant odors/emissions specifically related to the mitigation measures no longer exist onsite (e.g., once the thickeners have been cleaned the VGAC system can be removed). The decision to suspend/end the use of any odor/emissions mitigation measures should be made in consultation with NYSDEC and not implemented until approved by NYSDEC.

## DECOMMISSIONING SCHEDULE

Unless noted otherwise above, the anticipated initial progression of work will be as outlined below. The decommissioning process is very much weather dependent and may vary depending on when dredging is complete, weather conditions, and equipment sale opportunities.

1. Extensive flushing of the dredges, booster pumps, slurry pipeline, SPA equipment and piping, and SCA header systems.
2. Dredge demobilization.
3. Complete temperature-dependent activities – pressure washing decontamination, to include materials and equipment in SCA, SPA, and booster pumps.
4. Winterization.
5. Slurry pipe removal, with initial effort focused along public right-of-ways and in NMC.
6. Booster pump and polymer system prep.