

**Meeting Summary**  
**Tar Removal from Spingstead & Hogtown Creeks**  
**Cabot Carbon/Koppers Superfund Site**  
**Gainesville, Florida**  
**5-26-2010**

**Participants:**

John Mousa, Robyn Hallbourg, and Jim Miles Alachua County EPD  
Wayne Reiber, Cabot Corporation  
Stu Pearson, City of Gainesville  
Kelsey Helton, Florida DEP (via phone)  
Brett Thomas US EPA Region IV (via phone)  
Bucky Thompson, Eagle SWS  
Mark Taylor, Weston Solutions

**Meeting Purpose**

The 2 key purposes of the meeting were: to provide US EPA, FDEP, Alachua County and The City of Gainesville updates on the specific means, methods, and techniques that are being considered to implement the tar removal and disposal; and to discuss and reach consensus on a final implementation strategy for the project.

**Meeting Summary**

The meeting began at approximately 10:15 AM and lasted about 2 hours. A hand out was provided that showed the equipment being considered and flow chart of the work sequence (Attachment 1). A preliminary map showing potentially affected parcels was discussed and is attached as Figure 1. A summary of the key items discussed is provided below.

**Timing of the Tar Removal**

As we are now entering the rainy season, the consensus was to implement the tar removal during the next dry period that is expected to occur later this year during October through December.

**General Methodology**

Due to the expected volumes of material (up to 800 cubic yards) and the site conditions, manual removal is not feasible. It was agreed that mechanical methods will be used to remove the sediment. Equipment has been selected to allow for versatility in the methods for removing and staging the sediments. Some of the expected impacts included creating vehicle pathways for equipment access and the need to remove a limited number of trees and vegetation. The plan is to restore and stabilize the affected areas to a reasonable extent and then allow natural forces to aid in the recovery of the affected areas.

## **Water Control**

The recommended water control approach is to use stackable water filled coffer dams (Page 3 of Attachment 1). Impermeable plastic sheeting and sand bags will be used to seal the edges and seams of the modular dam. The coffer dams can be filled with water from the creek. An electric submersible pump and associated piping will be used to pump the water from behind the coffer dam (Page 4 of Attachment 1). In some locations an aqua barrier may be used as the water blockage device (Page 4 of Attachment 1). A second dam will be installed using similar materials downstream of the excavation zone to isolate the work zone. Water will be pumped from the creek bed to reduce the amount of water in the excavation.

The water filled coffer dams and aqua barriers are common and routine water control measures approaches frequently applied in environmental projects in creeks. The water control will be established for an area that can be excavated in 1 day. Additionally, weather forecasts and weather conditions will be monitored daily to avoid conducting the sediment removal during storms.

Weston has invited Eagle-SWS to assist in carrying out the tar removal and disposal. Eagle-SWS is a Gulf Cost environmental remediation company with extensive sediment removal experience and substantial resources in Florida including 12 offices. Weston and Eagle-SWS have teamed together to successfully complete numerous remediation projects. Information on Eagle-SWS' credentials were passed out at the meeting.

## **Turbidity Control**

Representatives of Alachua County and the City of Gainesville expressed concern over turbidity because a past Florida DOT project created significant turbidity in the creek and the desire is to have a well planned and executed effort

Approaches for Turbidity control were discussed at length. Turbidity will be controlled from the pump around discharge pipe with either a turbidity bag or a series of perforated pipes. The turbidity bag will be used in lower flow conditions and the perforated pipe arrangement will be used for higher discharge volumes. Additionally, the downstream isolation coffer dam should significantly reduce the potential for elevated turbidity immediately downstream of the excavation. It was agreed that more detailed information will be provided in a revised Pollution Prevention Plan describing turbidity monitoring, meter calibration, and documentation. The information provided will address the stages of the project execution including establishment of the water control system, excavation of the sediments, and removal of the water control system.

There was discussion regarding concerns over the pump becoming blocked or covered with sediment causing a back-up on the upstream coffer dam. There are variety techniques that can be used to address this concern such as 55-gallon drum to isolate the pump from the surrounding sediment, allowing for more effective and consistent operation of the pump.

### **Sediment Excavation**

The basic excavation tool recommended is a CAT 301 excavator (See Page 2 of Attachment 1). This equipment has been chosen for it's relatively narrow width (3 ft 3 inches) and low ground pressure. It can be lifted into the stream bed, if needed. Sediments will be placed either in a front end loader or into 1 ton capacity Super Sacks Page 6 of Attachment 1). A Lull Telehandler will be used for both lifting and as a front end loader. (See Page 7 of Attachment 1). A CAT 308 track mounted excavator will be used to empty the Super Sacks and to load soils for off-site disposal. It can also be used clear paths to access the stream bank.

Super Sacks will be used as the sediment transport device in areas where access to the creek bank is limited and the roll-off containers cannot be direct loaded (See Page 6 of Attachment 1). The Super Sacks will be fitted with plastic liners and equipped with draw string discharge for ease of emptying. A track mounted articulating dump truck will be used to transport the Super Sacks (See Page 7 of Attachment 1). This vehicle rotates on it's chassis, requiring limited turnaround space and can climb steep grades.

Interlocking plastic mats (See Page 5 of Attachment 1) may be used to move up and down the stream banks at the access points and within the stream bed. Additionally, sectional bridges may be used to traverse the stream in areas where access is difficult and bank conditions are not suitable for moving up and down the stream banks.

### **Sediment Dewatering**

Water tight steel roll-off containers specifically designed for dewater applications will be used. Sediment will be placed in these special purpose roll-off containers equipped with screened bottoms that allow water to gravity drain form the sediments. Air moving trucks may be used to accelerate the dewatering (See page 8 of Attachment 2). The contact water will be collected in tanks for characterization and disposal. The roll-off containers will be transported to the staging areas for stockpiling and further drying.

### **Backfilling**

The City and County personnel explained that local governments are spending substantial sums of money to routinely remove sediments from the creek that accumulates near downstream weirs. With this in mind, replacing the removed sediment with clean backfill is not desirable. The issues of safety related to leaving an open hole in the creek until the next storm was raised as a concern. Additionally, concern over bank erosion from the loss of sediment was also discussed. After some discussion it was decided that excess sediments in nearby un-impacted sand bars will be used to partially fill the excavated areas to reduce the potential for bank erosion and minimize potential hazards associated with leaving a hole in the stream bed.

### **Property & Site Access**

A preliminary map of the area showing the various land owner parcels were reviewed during the meeting (See Figure 1). It was discussed how the site specific conditions at each location present different challenges to successfully removing the tar containing sediments. The general desire and agreed upon plan is to use commercial properties as the access routes as much as possible. In instances where there are multiple removal locations close together (e.g., SA and SD), the sediment removal will be completed from a single access point.

The need for excavation at the S9 and S10 locations was discussed. There are significant access challenges associated with narrow space between the apartment buildings, the limited access points on the adjacent property and the steep banks and narrow access routes from the cross stream residential properties. There was also discussion regarding using the FDOT drainage easement on the east side of parcel 25 (See Figure 1).

Because detected PAH concentrations from the Alachua County EPD Study at the S9 and S10 locations were only slightly above background levels and the previously mentioned access challenges, there are concerns that the observed impact may not justify the potential disruption and disturbance required to complete the removal. Kelsey Helton at FDEP indicated that it was possible leave the sediment in place at the S9 and S10 locations, since the removal action was considered an interim measure. However, given the extensive planning efforts already expended to implement the project, the strong preference is for this removal to be as all inclusive and definitive as reasonably possible. It should also be noted that Weston has been conservative in the soil excavation volume estimates at each location. There is the possibility that the actual volume of tar stained soil at the S9 and S10 locations is substantially less than the planned excavation volume.

It was mutually decided that Weston & Alachua County EPD would return to the S9 and S10 locations and conduct additional probing to provide a more refined estimate of the sediment quantities. If the quantities are significantly less than originally estimated, then some targeted removal using more manual methods could be carried out at the S9 and S10 locations.

There was also discussion regarding access to the HB location. The Gainesville Regional Utility has an easement that crosses parcel 19 (See Figure 1). GRU needs to access this area for routine maintenance and use of this easement may help to access the HB location.

### **Bank Erosion & Restoration**

Due to the relatively steep slopes and thick tree canopy that slows vegetative growth, bank erosion is a concern. It was explained that interlocking mats will be used in some instances to make safer and less intrusive access to the banks (See Page 5 of Attachment 1). These mats have been used successfully in soft/wet soil conditions to provide a stable platform for movement of equipment and materials. If the S9 and S10 locations are machine excavated, then a sectional bridge may be needed to access the creek (See Page 5 of Attachment 1).

The access points will be restored and erosion reducing mating will be placed on the stream banks as needed. The preference is to use biodegradable erosion control matting (e.g., loose weave burlap material) to the extent possible.

### **Staging Area**

A soil staging area will be needed for the project. Cabot inquired with the City of Gainesville if ongoing construction at the City's Public Works facility located on NW 39<sup>th</sup> Ave will be completed. Stu Pearson indicated that the construction activities may be completed by September and that he would inquire with representatives of the City if a staging area could be made

available. Other staging areas being considered are the vacant parcel east of the storm water pond on the former Cabot Carbon site and at the west end of Parcel 13 (See Figure 1).

### **Additional Tar Probing**

Alachua county EPD recently conducted additional tar probing and to date no additional tar deposits have been found. Probing of the “Sump Area” will be done by Weston and Alachua County EPD when creek levels drop enough so this area can be accessed and investigated. Alachua county EPD indicated they are in the process of documenting their recent assessment. This documentation is not yet available for release.

### **Supplemental Documentation**

Supplemental documentation will be prepared and submitted to the regulatory stake holders via a revised Pollution Prevention Plan. This information will include the details regarding project implementation discussed in this meeting.

### **Community Outreach & Public Relations**

Community outreach was discussed. A fact sheet is being contemplated. The fact sheet explaining the project would be distributed to all the properties owners along the entire section of the creeks from SS5 to HA. Cabot plans to meet with the City of Gainesville and Alachua County Public relations officers prior to issuance of the fact sheets. Property access will be sought from the individual owners where excavation activities are expected to result in encroachment on individual properties. Property access will be sought once all the means, methods, and timing of the project have been agreed upon by the stake holders.

### **Action Items**

- Weston will prepare a revised Pollution Prevention Plan with the requested supplemental information by the end of June.
- Weston will contact and coordinate with Alachua County EPD regarding probing in S9 & S10 locations.
- Alachua County EPD will work with Weston to resolve and identify any additional tar containing sediment locations that warrant removal consideration.

# Parcels Within 100-ft of Tar Containing Samples

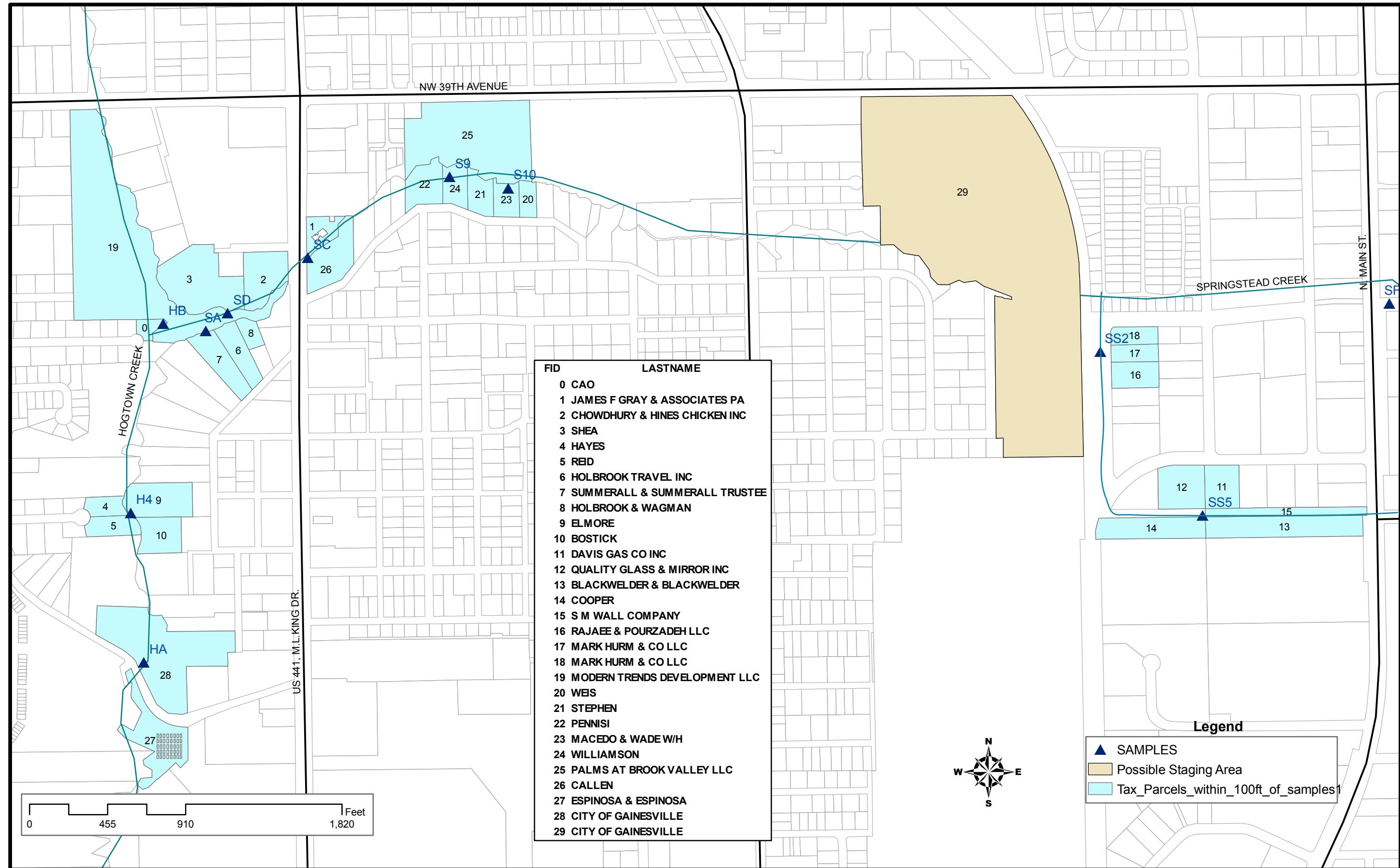
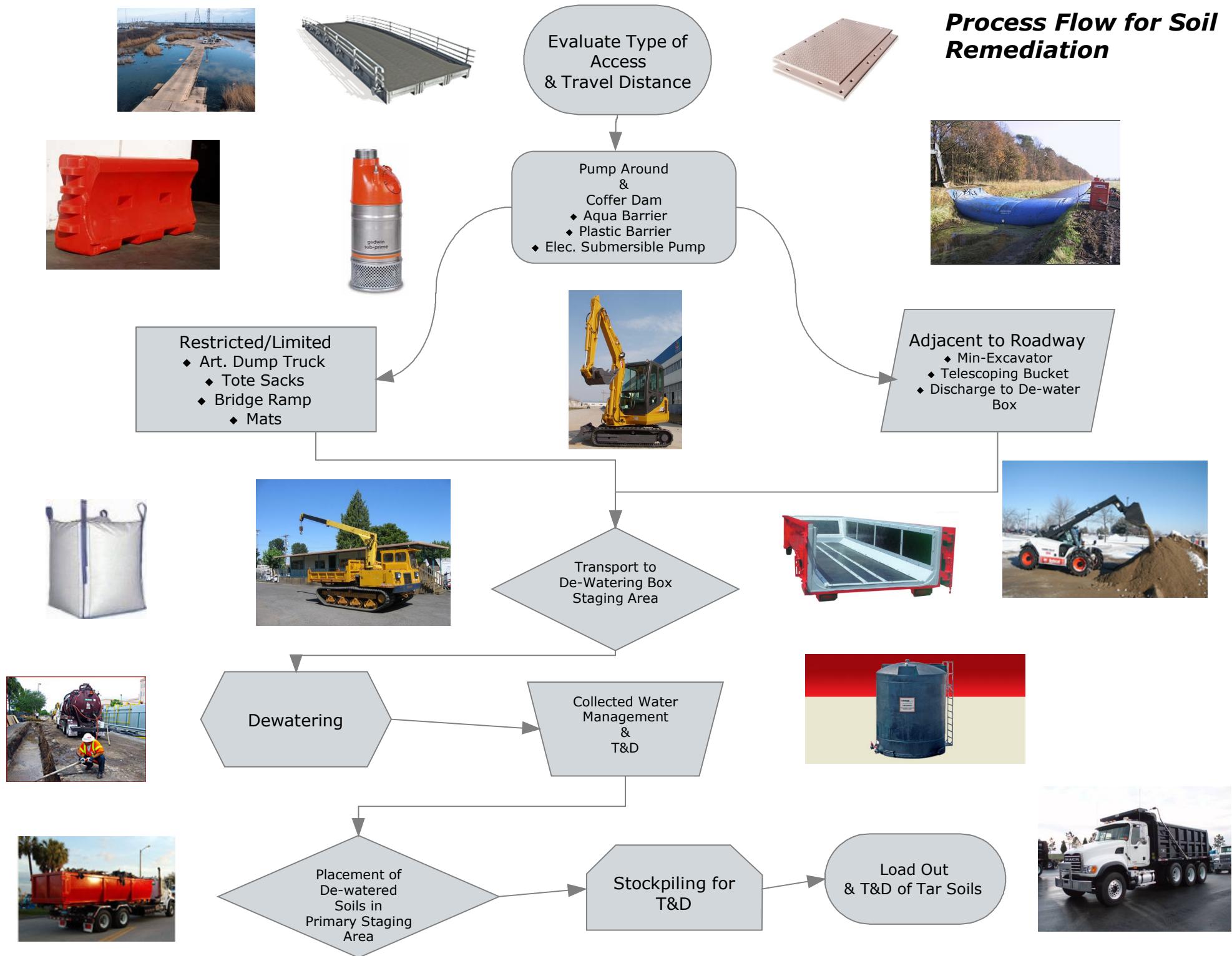


FIGURE 1

# Process Flow for Soil Remediation



## Equipment Selection and Application



### Cat 308:

- Use to Dump Totes into De-watering Box
- Use to excavate directly into Lull Bucket (e.g. SS5)
- Use to Load out Stockpile Soils
- Used to Clear and Grub large Trees
- Longer Reach (dig-13ft; Ground Reach-20ft)
- Greater Lifting Capacity (4,000lbs-8,000lbs)
- Ground Pressure ( 0.41 kg/cm<sup>2</sup>)



### Cat 301:

- Limited Lifting Capacity (1,700lbs Vs 8,000lbs)
- Lower Ground Pressure (~.08 kg/cm<sup>2</sup>)
- Smaller Width than Cat 308 (3'3" Vs 7'7")
- Use in creek where width is narrow.
- Use to excavate Creek Soils
- Can be Lifted into Creek Bed w/Lull

### **Water Filled Stackable-Coffer Dam**



- Can be stacked.
- Can be manually placed
- Can be cabled together
- May be used to isolate a small area

### **Aqua Barrier-Coffer Dam**



- Used to block larger area
- Will conform to bottom
- Requires less liner and sand bags
- Can be carried to a remote area.
- Pre-sized and not adjustable for small widths.

### **GSP30HV 6-Inch Submersible Pump w/Generator**



- Able to handle a varying flow rate
- Can be manually placed (Weighs ~350lbs)
- Capable of 1,500gpm flow rates at 5ft TDH

### **8"x6" Dri Prime**

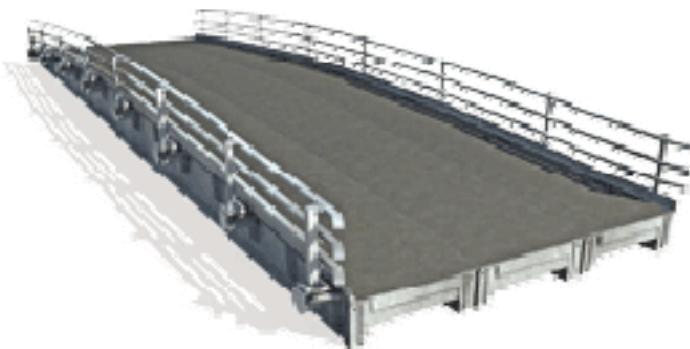


- Can be placed by Mini-Excavator
- Can handle high flow rates (>2,300gpm)
- Must be place w/minи-excavator

### Mabey Bridge & Mats



- HDPE Construction
- Interlocking Key holds mats together on slopes
- Easily placed and relocated by Mini-excavator



- Bridge is sectional and can be assembled w/minimal use of min-excavator
- Can be placed on steep slopes in lieu of road construction.
- Can be used to span Creek as needed.



**Standard  
Discharge Spout  
(Duffel Cover  
Over Spout)**



**Flat Bottom**



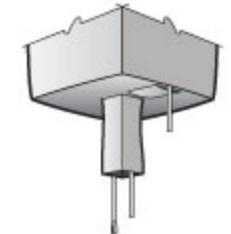
**Full Open Dump**



**Cone Bottom**



**Sling Bottom**



**R.O.D.  
Remote Open  
Discharge**

### Super Sacks

- Options include free standing opening
- Bottom Dump
- Lifting Straps w/Stevadore Grab handles
- Liners
- Reusable
- Holds up to 1-ton

### **Soil Loading and Transport w/Track Art. Dump Truck & Versahandler**



- Unit is track and can climb steep Grades
- Unit rotates on chassis and does not require turnaround space
- Can Carry two Tote Sacks at a time
- Can be lined as double liner for tote leak contingency



- Telescoping boom can access creek bed from above.
- All Wheel Turning System allows for tight space configuration
- Can be used as a crane to place small mini-excavator directly into Creek bed.
- Can be used to direct load soils into bucket for direct discharge into de-watering box.



### Dewatering and Water Handling



- Gravity Dewatering or Vacuum Asssist
- Sealed gate and Top Loaded
- Can be moved by Rail Truck or Mini-Excavator.
- Can add geo-textile for better solids filtration.



### 6,500 gl Baker Tank for Water Storage



- Can be used to transport water to tank storage area,
- Can be used to accelerate de-watering from de-watering box using vacuum assist.
- Can be used to collect sheen from creek, if needed.
- Can be used to vacuum soils from small areas w/access.

### **Stockpile Management and Loadout**

Stockpile Management and Dumping when Cat 308 is in use.



Truck Loadout w/Cat 308



Use of Tandem or Tri-axles for Transport ot Landfill

