

# 3PI's Suggestions for Success

- ▶ Communication
- ▶ Qualifications
- ▶ Preparation
- ▶ Sequencing
- ▶ Proactive
- ▶ Receptive and Responsive



# Communication

- ▶ Establish a proper chain of communication and maintain throughout the project.
- ▶ Establish and communicate expectations early (both from the DEP and project/development team).
- ▶ Maintain consistency in expectations throughout the project.
- ▶ Communicate contractor/subcontractor roles and responsibility and ensure there is an adequate contract with strong clear language in place to cover those roles.
- ▶ Provide for contractor's understanding of all the project data, including soil information, resource location maps, flagging protocol, geotech reports, etc.

# Qualification

- ▶ Civil contractor and environmental crews/contractors must be knowledgeable and experienced in Maine.
- ▶ Civil and environmental crews should know and understand the specific project permit requirements and Maine erosion and sedimentation control (ESC) best management practices (BMPs).
- ▶ Qualified contractors will understand that the project plans show the minimum required ESCs and should be proactive to install additional controls as needed.
- ▶ Qualified contractors will understand that ESCs are not “one and done”, but need to be monitored and repaired/replaced/upgraded as needed throughout the project duration and that overwinter stabilization requirements (and timing) are different than standard.
- ▶ Minimize personnel turnover (staff and management). Train “newcomers”.

# Preparation

- ▶ Construction drawings should be complete and detailed, including “marginal soils”, and “upland drainages”; any area that may be important to design around, even if it does not meet the definition of a protected natural resource.
- ▶ It is not the responsibility of the EI or 3PI to properly design ESC and/or stormwater managements systems for projects.
- ▶ Ensure that contracts are in place to allow the project to adequately comply with project permits and BMPs.
- ▶ Have an maintain an adequate number of capable crew members and supply of ESC materials to address situations that may arise.

# Sequencing

- ▶ Plan, sequence, and coordinate work among various crews to allow the site to remain stabilized and limit exposed soils at any given time.
- ▶ Do not have an area graded and stabilized only to have another crew enter the area and destabilize during their work.
- ▶ Don't get too far ahead with exposed soils such that it would not be possible to stabilize the site in one day, particularly prior to predicted storm events.
- ▶ Plan the sequencing of construction activities so the next task doesn't impede future tasks and undo previous tasks.
- ▶ Start at higher elevations, work and stabilize sections, then work downgradient.

# Proactivity

- ▶ It is not the responsibility of the 3PI to identify and correct insufficiencies in ESCs or permit compliance. The EI and 3PIs are not the civil or stormwater engineers for a project. Developers seem to increasingly be looking to the 3PI to fill that role. Many projects' construction notes specify periodic inspections by an engineer, which is not often done. The project PE must be more involved throughout.
- ▶ The project team should proactively identify and correct issues rather than wait for the 3PI to identify issues and request corrective actions.
- ▶ If an issue has been identified, there is no need to wait for the 3PI or others to suggest corrective actions, the project team can take corrective actions of their own accord.
- ▶ Project teams are required to inspect and maintain their own ESCs throughout the project duration.

# Receptiveness and Responsiveness

- ▶ If the 3PI or EI make recommendations or suggestions, please listen.
- ▶ The 3PI and EI are generally some of the most experienced and knowledgeable ESC professionals on any given site. If they determine a suggestion or recommendation is necessary, it benefits the project to be receptive and responsive to these recommendations.
- ▶ Often 3PI or EI recommendations may be seen initially as an added cost. However, these recommendations generally will lead to the site being more workable and stable, and will reduce costs associated with inaccessible project areas, stuck and/or damaged equipment, and fines or shutdowns due to permit compliance issues.

# Solutions

- ▶ DEP could vet or require vetting of contractors for large scale construction jobs. Contractors must be qualified.
- ▶ As condition of permit, include having adequate supply of ESC measures available on-site including stone, ECM, hay/straw mulch, etc.
- ▶ Continue requiring 3PIs, recommend EIs.
- ▶ Projects should focus more on non-PNR areas for engineering. Marginal upland soils, shallow soils, surface water flow, etc. as these have a huge affect on stormwater and site stabilization.
- ▶ Include a second round of backhoe TPs done within areas where there will be a large cut, exposing the more dense, impervious lower subsoils and substrata that will become the new surface layer. (Higher density soil maps)



# Solutions

- ▶ Engineering site visits during design and construction phases to have a “real world” look at what they are working with.
- ▶ Look carefully at contracts with regard to permit compliance and BMP installation/maintenance. Contractors and projects should have the proper contracts in place to allow basic stabilization and permit compliance work to be done throughout the project duration. 3PI and EI recommendations should not have to wait weeks or months for a new contract or change order to be approved before stabilization or remediation work can begin. So much time and money gets spent “after-the-fact”, and the developer’s pocketbook and the environment pay for it.

# Soils

- ▶ Cobbly stony soil profiles
- ▶ Shallow restrictive layer
- ▶ Shallow to bedrock
- ▶ Somewhat poorly drained soils
- ▶ Agriculture fields
- ▶ Marine sediments
- ▶ Sandy soils
- ▶ Higher intensity soil surveys would be useful for project planning

# Hydrology

- ▶ “Non-jurisdictional drainages”, “upland drainages”
- ▶ Seasonal ponding
- ▶ Seasonal surface flow
- ▶ Seasonal water tables, saturation
- ▶ Wet areas that don't meet wetland characteristics
- ▶ Other notable surface flow paths
- ▶ Transitional zones

# Existing Conditions

- ▶ Rock outcrops
- ▶ Surface bedrock
- ▶ Existing roads, skidder trails, logging roads, atv/snowmobile trails
- ▶ Ditches
- ▶ Culverts/drainage tiles
- ▶ Historic land use
- ▶ Microtopography information

# Takeaways

- ▶ Continued discussion regarding what information is collected in the field and presented to developers. How should the information be presented? Clear and usable information for planning and engineering but separate from the jurisdictional resources. Separate data layer, completely separate map?
- ▶ 3PIs and EIs should continue to work to help improve the permitting and education process for developers and contractors to help projects be more successful in permit compliance and resource protection.
- ▶ Note more detailed information about site hydrology; seasonal variations, drainage patterns, saturated, inundated, or flooded.
- ▶ Include info on ground cover (moss vs wooded vs herbaceous)
- ▶ Include microtopography information.











