

UNIQUE CONFERENCE IDENTIFIES RISK REDUCTION STRATEGIES FOR ENVIRONMENTAL PROJECTS

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In October of 2009 a unique conference for environmental professionals was held on Cape Cod. OCEAN Newsletter sponsored this event entitled, "The Good, the Bad, and the Ugly," which focused on failed environmental projects. The concept behind the conference was to provide learning-based review of the causes of project failures, with the goal of developing risk-reducing strategies. Seth Wilkinson, president of Wilkinson Ecological Design, hosted the event at his Big Hill Farm in Orleans, Massachusetts.

A Town Thumbs its Nose at \$50,000 Grant

Why would residents of a Cape Cod town thumb their noses at \$50,000 in grant money? Jeff Rogers invented a "Bi-directional Control Gate." This device allows salt marshes to be restored using existing culverts. The system can be monitored and controlled remotely by laptop computer. Mr. Rogers paired this invention with a \$50,000 installation grant. He then offered the package to a town on Cape Cod. The local Conservation Commission reviewed his Request for Determination of Applicability ("RDA") to install the system in a small, diked marsh on a trial basis. Abutters, who suspected an "end-run," were fearful of changes in the nearby marsh abutting their property. Abutters didn't require notification under a RDA. Their lack of understanding and fears stalled the project. Once the abutters had their minds made up, no amount of education could change it. With grant deadlines looming, Mr. Rogers approached another town, which gratefully accepted his system.

All the Plants Died

Safe Harbor Environmental uses an excavation technique developed by Gordon Peabody and Emily Beebe to conserve native vegetation. The equipment digs under selected bushes, plants, and small trees for immediate replanting or heeling in on the site. This process conserves the indigenous compost-mulch system as well as native pH, nutrients, and the microorganism community. This technique contributes to exceptional survival success rates.

This does not work in one type of substrate: sand. When 250 square feet of coastal vegetation was removed from sandy substrate and replanted on another section of the coast, the survival rate was zero. Plants live and die by their roots. The disturbance of the roots in the sandy soil stressed the root system microrhizomes beyond recovery. Careful, individual replanting may have had better results in this case.

Critical Habitat Restoration

Habitat restoration for threatened Diamond Back Terrapins on conservation trust land seemed like sure thing. Wilkinson Ecological Design had the support of NHESP, MassDEP, and the unanimous support of the Conservation Commission. Why was the project stopped dead in its tracks by appeals? Abutters who were fearful of changes in habitat they were familiar with didn't understand how the turtles could benefit and why changes were necessary. The project has since been completed under a Superseding Order of Conditions. The abutters now understand the process and have become supporters of the project.

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Pro Bono Work

Pro bono work for local towns is something that many of us do. I offered to assist a Conservation Commission with a stalled Notice of Intent for a town beach project. They needed specific, detailed mitigation to satisfy abutter concerns. Two weeks after Commission (and abutter) approval of the NOI, I learned that the project had been “red flagged” by both MassDEP and the NHESP. It seems a letter notifying the town of NHESP jurisdiction had “gone astray in town hall.” The project should have been reviewed with the thoroughness of any other project, with a full review of jurisdictional overlays.

Vista Pruning

Vista pruning often gets out of hand. On Cape Cod’s fragile bluffs, Conservation Commissions are never pleased when a clear-cutting incident occurs. Seth Wilkinson, of Wilkinson Ecological Design, was contacted by a property owner who was cited for clear cutting about 0.1 acre. The violation was exacerbated because some of the cutting was performed on someone else’s property. The property owner also suffered social embarrassment in the community. Wilkinson was able to restore the site, but trees are expensive and replanting trees is a critical skill. Restoration costs for clear-cutting violations are expensive. Wilkinson estimated costs for one acre of restoration could approach \$850,000. This provides a good incentive for developing a wetlands education or certification program for landscapers and tree cutting companies.

24” Silt Fencing

No presentation on environmental problems would be complete without examining erosion control. Three-foot-high silt fencing has offered itself as a willing target. Examples abound of silt fence blowouts resulting from installation of the fencing using only the stakes supplied with the fence, which is one stake for every ten feet of fabric. If there actually are sites with no wind, this is a fine system. Without extra stakes and proper entrenchment of the fabric, the fence can actually become airborne. Twenty-four-inch-high silt fencing with extra stakes is recommended. In high wind areas, canvas strips can be double stapled over the fabric on each stake to prevent the fabric from being torn off of the posts.

Conclusions

We’ve all witnessed environmental projects that went “off the rails.” They were not pretty, but they provide necessary lessons. Abutters played a critical role in many of the presentations at the conference. Involving the abutters in the process through notification and education may help to avoid problems and appeals. The concept of wetland education or certification for various trade people working in jurisdictional areas was discussed. This could potentially save thousands of dollars and a lot of time, as well as avoiding conflicts. Native replanting techniques are a great idea but techniques may not be transferable and need to be specific for the site. Lastly, 24-inch-high silt fencing, with extra stakes, out-performs 36-inch-high fencing on exposed sites.

OCEAN Newsletter has already invited several engineers and conservation agents to be presenters at next year’s “The Good, the Bad, and the Ugly” conference. We all have stories and next year we will hear them. Risk reduction strategies have value beyond Cape Cod. This type of conference could be relevant anywhere in Massachusetts. Everyone has the ability to learn from such situations.

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