

DRAFT—not approved by participants. Names next to comments do not indicate direct quotes.

Newington Fox Point Shoreline Stabilization Options Little Bay Rd. Private Property Breakout Group Notes

Monday, March 26, 2018

- Jim— our site is so steep, can we undermine the hill?
- Seth- if we cut the slope back to the 45 degree, it will impact Jeff's property. But can certainly make the slope less steep. Jeff, have you considered the option of moving your house back away from the edge of the bank? That's probably what my firm would recommend considering as an alternative.
 - Jeff: There is septic behind the house and we end up on the driveway pretty quickly. I don't think it's feasible, but I'm not completely sure.
- Kirsten- Jeff's property project is permitted. They're thinking about extending the project to Jim's property. Doing it together minimizes impacts to neighbors. Tackling all at once might also be cost effective.
- Ken- The designs before us show 2 revisions of plan. In salt water situations, gabion baskets have to be stainless steel which is cost prohibitive. Manufacturer's recommendation is what makes it expensive.
 - Seth- vinyl coated galvanized used to be standard. Not many people use stainless, but vinyl coated galvanized are a fraction of the cost.
Each (gabion) basket is 100\$, not cheaper than regular rock.
 - Jeff- we were looking at a double basket
- Seth- your site is probably better for the rock approach.
- Dave Price- What about rock at the toe and then regrading?
- Ken- DES recommended that the trees be removed in the regrading process. Can't regrade slope if we don't take trees out. Erosion factor in front of the guest house was not severe. Original home is the area that's been historically disturbed.
- Dave Price- removing trees seems to be where MA is going. NH historically says don't cut trees because we want to use the roots to hold the bank in. I'm hearing that might not be the best way to go.
- Ken- it is going to take an aggressive replanting scenario. Needs to be timed during the growing season so that the disturbed area is rebuilt, stabilized, taken care of, to allow the initial growth. Sill fence acts like a dam but sill sock filters the water and allows the run-off to go through. Jeff has a gabion basket permitted, the permit can be extended for 5 years. But it looks like the gabion basket is not the best solution. Jon's property (north): application has been submitted: they applied for a stone reinforced toe with boulders and rock. John and Jeff had letters that said their measures can go up to each other's' lines.
- Jim is considering the rock suggestion that DES came up with.
 - Dave Price- can request a waiver for permit to incorporate stabilization measures up to abutters' line. Abutter can issue an appeal if he doesn't agree with it. Can get messy so we prefer for neighbors to agree from the beginning.

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- James- Thinking about limbing & tree removal: do these activities affect any species habitats (from a regulatory standpoint)?
 - Ans: no.
- Chip- is there satellite imagery of this phase over the last 10-12 years? So that we can better understand erosion rates?
 - Ken- Land laws in NH says once it's gone its gone.
 - Seth- Ken and Jeff have survey plans going back a decade. Even better than aerial imagery
- Ken- what is the life span of the coir material in the slope?
 - Seth- can hydro-seed without any hydro mulch. Best thing to do is don't put hydro mulch. That lasts for 2 years and during that time, you'll get really good colonization. Seed is less expensive than plug. TRM was developed for high velocity channels. Doesn't always stop the erosion. Get the right species, get the roots growing. Doesn't matter if the blanket breaks up in two years. 1000g coir can last 3 years.
 - Seth- How much toe protection do you have to do and to what elevation? That's an important question to think of. Consider rock to 6 feet and then fiber rolls above it for a couple feet.
 - Seth- Another question to think of is what happens if toe is stable but bank is unstable?
- Dave Price- We would prefer rock rip rap to a wall.
 - Seth- toe at the lowest point might need hardest protection, above that can get softer.
- Jim- why aren't walls built in angles?
 - Seth- concrete zig zag walls didn't prove to be effective.
 - Dave Knight- had one, failed. Forgot to back fill wall after every storm.
 - Seth- wave attenuation devices (WAD): designed to have lots of surface area for offshore areas and intertidal areas. But it's a mistake to combine them with a wall.
- Jim: Thinking about fabric and materials behind a wall, is natural fibers working out for you?
 - Seth: TRM is developed for high velocity channels. It's made of woven plastic. More appropriate for highways. If you get the right plants growing, doesn't matter what the material is.
- Cheryl- What about front of the toe protection?
 - Seth- that relates to the beach & use of the beach, depends on the perspective of the property owners.
- Chip- What about cost effectiveness of this (coir/fiber rolls) vs rock wall?
 - Seth- not more cost effective. In MA, its use is driven by regulations.
- Dave Knight- what is the best plant for stabilizing?

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- Dave Burdick- usually some combination of trees, shrubs, Seth's choices of shrubs, grasses in between. Having different types of strengths increases resilience.
- Kirsten (summarizing for Dave Burdick who just joined the group)- two alternatives we talked about is the combo of rock, riprap (3 ft rock), with coir rolls elevating to 8 ft. Seems like options for the bank include either not impacting it as much and removing problematic trees, or cutting down all the trees and doing some regrading and planting with matting.
- Chip- sounds like state hasn't evolved to this problem yet. If rock rip rap saves Jeff's house, that's the best option.
 - Dave Price- It's not necessarily us that's driving these project designs, it's you guys. If we hear from professionals like you about approaches that are more effective, we consider it. We look for the best alternative.
 - Dave Burdick- so if we justify it correctly, then you'd permit it?
 - Dave Price- If it's law, we can't change it, if it's rules we can discuss options/alternatives.
- Dave Burdick- if we want to regrade the 500 ft of shoreline, would that be permissible?
 - Ken- Not sure if we can point to a demonstrated need.
 - Dave Price- if there's proper documentation by professionals, maybe. It depends.
- Jeff- Do I first get a permit for disturbance for Jim's gully?
 - Jim- I need to know what I can get in place in order for Jeff to get his rocks in.
 - Jeff- is there an expedited permit available for us to do this together?
 - Dave P- Depends on what Jim has planned. We can talk about that.
- Jeff- I want to protect my property—keep my house from falling in the water. I'm all for doing coir logs above the rip rap if that is the best option. Ice took away a big piece of wood from our property. Losing pilings rapidly.
- Ken- what's the next step? Meet and talk about specifics at Dave Price's office?
 - Dave Price- yes. Good next step.
 - Ken- Jon couldn't make it today but wanted to come. We like the idea of an expendable protection at the front before the primary protection.
 - Jeff- big sheets of ice could rip out some of the fibers.
 - Cheryl- be careful if rock sizes are too small because ice could pull it out.
- Chip- I have a question about a logistical issue: do you fill the gabion in place? May be difficult.
 - Ken- we showed plants in the gabion baskets. It's like riprap swale, will vegetate itself naturally although maybe not near the toe.