

Wetlands

From: Todd Penney
Sent: Monday, November 2, 2020 9:16 AM
To: Wetlands
Subject: FW: [EXTERNAL] RE: Wetlands Agency looking for an opinion
Attachments: Beach Sand Replenishment.docx;
WRD_WLSU_Swim_Fills_Beach_Sanding_Handout_April_2018_FINAL_621107_7.pdf;
GreenShorelines.pdf; lp_VTLakescape.pdf; Resource004159_Rep5940.pdf;
shoreland_owners_guide_cass_county.pdf; the_truth_about_beach_sanding.pdf;
Wateredge_340005_7.pdf; wb-18.pdf

Follow Up Flag: Flag for follow up
Flag Status: Flagged

READ!

Todd M. Penney, P.E.
Town Engineer/Wetlands Agent
Town of Coventry
860-742-4078

-----Original Message-----

From: Bob Kortmann <bob@ecosystemconsulting.com>
Sent: Saturday, October 31, 2020 5:58 PM
To: Todd Penney <tpenney@coventryct.org>
Subject: RE: [EXTERNAL] RE: Wetlands Agency looking for an opinion

Todd,

Back in the late 1980s and early 1990s I was the consultant to Suffield Wetlands Agency for about 10 years. During that time they were also dealing with waterfront and beach regulations (Congamond Lake). I did research and developed a set of design criteria, including slopes, minimizing littoral drift, run-up distance, etc. Unfortunately, those were the days of paper, then Easy Writer, Lotus123, and floppy disks. I might have some of it in the dregs of my paper archive library but I don't hold much hope.

Anyway, I think the principles of waterfront landscape design for aesthetic, recreation, and ecological integrity have come a long way since then. I've attached some interesting information I ran across. For Coventry Lake, I wouldn't make regulations for beach replenishment onerous, but much more than just dumping a truck load of sand. Some basic principles I'd consider:

Environmentally Critical Aspects:

. The replenishment project should be one component of an overall waterfront landscape design plan.

It should include

- o management of runoff, shoreline plantings on the sides of a beach, etc.
- o Measured slopes from several feet deep at winter level to several

feet higher elevation on land at summer level. Estimate run-up distance, above which sand alone is fine as long as runoff is diverted around it.

. Grain size- Coarse or medium/coarse sand, in some cases subject to more significant wave action with rounded pea stone mix- especially at winter water level elevations (still pleasant to walk on barefoot into the water but much less erodible). Above run-up distance can be just Coarse or medium/coarse sand (e.g. washed masonry sand).

. Divert upland runoff away from the beach (preferably into a rain garden or other management feature)

Bob Kortmann, Ph.D.

Robert (Bob) Kortmann, Ph.D.

https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fwww.EcosystemConsulting.com&c=E,1,W9_5XyVf5XeuyivTCIbfCAaX8V314a3UpPxgm-aBBLzqLgqIzqfcV4hbW2P2KeEosCHdDhEfDcmzggFmQ-1B3uaWgwB-9NX4_UDEwMEOvEcUwU_fdaHVMQ,,&typo=0

-----Original Message-----

From: Todd Penney [mailto:tpenney@coventryct.org]

Sent: Friday, October 30, 2020 5:01 PM

To: Bob Kortmann

Subject: RE: [EXTERNAL] RE: Wetlands Agency looking for an opinion

Thanks for the email Bob,

Suffice to say, it was a hectic day today; when can I call you on Monday/Tuesday to discuss.

The information below is greatly appreciated.

Todd M. Penney, P.E.

Town Engineer/Wetlands Agent

Town of Coventry

860-742-4078

-----Original Message-----

From: Bob Kortmann <bob@ecosystemconsulting.com>

Sent: Thursday, October 29, 2020 5:02 PM

To: Todd Penney <tpenney@coventryct.org>

Subject: [EXTERNAL] RE: Wetlands Agency looking for an opinion

Hi Todd,

What are the most convenient times for you for a call? - the waterfront properties should have good, reasonable use of the lake. I don't think replenishing beach sand is a major impact- kind of a "necessary evil" (their property assessments are important to the Town also). That said, there are considerations to make sure adverse impacts are minimized:

Clean sand, perhaps with sieve size analysis to reduce littoral drift from the intended beach location.

Design criteria that are somewhat site specific like slope into the lake, location relative to fetch orientation and wave heights.

Anticipated "run-up distance" (from slope and anticipated wave height, including exposure to wakes).

Seasonal lake level fluctuation and stabilization over the full range of surface elevation.

Stabilization methods such as small breakwater structures on the sides of a beach to reduce littoral drift.

Bob

Bob Kortmann, Ph.D.

Robert (Bob) Kortmann, Ph.D.

<https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fwww.EcosystemConsultin>

<https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fg.com&c=E,1,pJOmBr0qqee->

[u5Mcx5WQyT54y0Es7MmYGdL6Fy4BqZB1HrqaXXcUw5TkUcvoBWvFJj9n_Tqee6-](https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fg.com&c=E,1,pJOmBr0qqee-u5Mcx5WQyT54y0Es7MmYGdL6Fy4BqZB1HrqaXXcUw5TkUcvoBWvFJj9n_Tqee6-)

[cGIPXoTOoPkqE8CIC0PcGdVkJvjuu3WV664Q87IApfg,,&typo=0&c=E,1,BjAU0KEJLSK1XfgGoByn3UAJyq5lgyrgnvr2SKZZrK](https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fg.com&c=E,1,pJOmBr0qqee-cGIPXoTOoPkqE8CIC0PcGdVkJvjuu3WV664Q87IApfg,,&typo=0&c=E,1,BjAU0KEJLSK1XfgGoByn3UAJyq5lgyrgnvr2SKZZrK)

[flridH7aalTLCGNFZd2](https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fg.com&c=E,1,pJOmBr0qqee-flridH7aalTLCGNFZd2)

[b6z8r_vivldF1mdSdTDBd4hUNDRmrJQZaOxi8duz5YYvrYl6ZmQDJPljZW&typo=0](https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fg.com&c=E,1,pJOmBr0qqee-b6z8r_vivldF1mdSdTDBd4hUNDRmrJQZaOxi8duz5YYvrYl6ZmQDJPljZW&typo=0)

-----Original Message-----

From: Todd Penney [mailto:tpenney@coventryct.org]

Sent: Thursday, October 29, 2020 3:27 PM

To: Bob Kortmann

Subject: Wetlands Agency looking for an opinion

Bob,

IWA is wondering about getting some consulting services from yourself with regards to beach sand deposition at the shore line of the lake.

Let me know if you want a quick chat as to what they are looking for.

Thanks in advance.

Todd M. Penney, P.E.

Town Engineer/Wetlands Agent

Town of Coventry

1712 Main Street

Coventry, CT 06238

Direct: 860-742-4078

tpenney@coventryct.org

CONFIDENTIALITY NOTICE: This e-mail and any accompanying attachments are confidential. The information is intended solely for the use of the individual to whom it is addressed. Any review, disclosure, copying, distribution, or use of this e-mail communication by others is strictly prohibited. If you are not the intended recipient, please notify me immediately by returning this message to the sender and delete all copies.

Thank you for your cooperation.

CONFIDENTIALITY NOTICE: This e-mail and any accompanying attachments are confidential. The information is intended solely for the use of the individual to whom it is addressed. Any review, disclosure, copying, distribution, or use of this e-mail communication by others is strictly prohibited. If you are not the intended recipient, please notify me immediately by returning this message to the sender and delete all copies.

Thank you for your cooperation.