

LIVING SHORELINE GUIDANCE



Department of
Environmental
Conservation

Summary of Public Comment

Introduction. The Department of Environmental Conservation (DEC) proposed draft guidance on living shorelines in the marine district. The draft guidance was published for comment in the ENB on January 4, 2017. A total of 16 comment letters were received from both individuals and organizations during a 30-day comment period that ended on February 8, 2017. For this summary, the Department grouped together similar comments and responses. Non-substantive changes were made to the draft guidance to address public comment.

Guidance Applicability

Comment: Broad based support from most commenters on promoting living shorelines in place of more hardened approaches to erosion control.

Response: No response.

Comment: Is it possible to utilize this guidance for all shoreline project applications so that more structural techniques consider Living Shorelines?

Response: Language was added that speaks about preference for living shorelines.

Comment: Can we extend this effort to other areas of the state.

Response: This document is currently applicable to only DEC's regulatory purview over the marine district. DEC and DOS are drafting guidance that recommends consideration of the use of natural resiliency measures, including living shorelines, to reduce risk of flooding and erosion as part of implementation of the Community Risk and Resiliency Act.

Comment: It would be helpful to define or map the low-moderate energy, sheltered areas so it is clear to the user which areas are targets for living shoreline projects.

Response: An example was provided.

Comment: The provisions generally do not advocate restoration of natural features.

Response: Language was added to consider restoration of natural features.

Comment: Living shorelines should have preference over hard structures.

Response: Language included in guidance stating this preference.

Comment: There were general comments that the document should better address the benefits of living shorelines.

Response: Additional information was added to the document on benefits of living shorelines.

Comment: Reinforced dunes were not included in this document.

Response: Reinforced dunes are not defined as a living shoreline as they are not at the land water interface. This guidance is not applicable in Coastal erosion hazard areas where reinforced dunes are prevalent.

Comment: Living shorelines are an evolving science so the document should not bind users to the included list.

Response: Agreed. There are examples.

Comment: There is some concern with stating that living shorelines are appropriate in what is defined as medium energy wave environments. There could be many failed projects in these types of environments unless relatively large protection structures are used.

Response: As discussed in several locations in the document, site specific evaluations are always needed to advise if a living shoreline is appropriate.

Comment: Document talks about assessing site for appropriate types of living shorelines and not all are “temporary,” e.g., sills.

Response: Not all components of living shorelines as per this document are “temporary,” e.g. certain “structure,” associated with a sill.

Comment: Do not encourage beach nourishment due to adverse impacts.

Response: Feeder beaches are included as an example of a potential living shoreline. Standards for permit issuance still need to be addressed. This guidance is not applicable to CEHA areas.

Comment: Further guidance on determining minimum of hard structure needed and avoiding hard structures that are superficially “living” needs to be included.

Response: A definition of living shoreline is provided in the document.

Regulatory considerations

Comment: Change existing tidal wetland law and regulation/ existing statute that governs structural solutions to make it harder to permit structural solutions and easier to permit living shorelines. Add the ability to retrofit existing hard structures.

Response: Tidal wetland law and regulations are not being modified at this time.

Comment: Utilizing available science is foundational in planning for climate change. Need to update tidal wetland maps.

Response: Tidal wetland maps are not being updated at this time.

Comment: Regulatory changes should mimic that of Maryland.

Response: DEC and DOS are drafting state-wide guidance that recommends consideration of sea-level rise, storm surge and flooding in proposed projects as part of implementation of the Community Risk and Resiliency Act.

At this time the Department is working through its Community Risk and Resiliency legislation requirement to develop guidance that considers sea level rise storm surge and flooding.

Comment: How does DEC intend to treat/regulate shorelines that currently have a functional, lawfully existing barrier (as defined under Part 661.4) such as a bulkhead or riprap wall and are converted to a living shoreline?

Response: This would be evaluated on a case by case basis and dependent on site conditions. However, Article 25 Part 661 regulations require the regulation of the adjacent area if the barrier, which had been functional and lawfully in existence as of August 20, 1977, no longer exists.

Comment: DEC should apply the same rules regarding filling of wet areas to “living shorelines” as to other in-water structures in order to conserve existing in-water habitats.

Response: Part 661 Tidal Wetland Land Use regulatory standards apply to both regulated activities.

Comment: The linkage between the need for sediment and the importance of allowing erosion to occur may not be presented forcefully enough to be grasped by all readers, the report points out that the solutions are not permanent, but that may not be presented forcefully enough either, and it is important to have a discussion about what an applicant would intend to do after the useful life of the project

Response: This guidance is intended as a starting point for consideration of a living shoreline as hardened shorelines can have detrimental effects. As discussed, all project still require site-specific evaluation and alternatives analysis to advise the appropriate project including useful life. The applicant is required to evaluate the project with respect to sea level rise.

Evaluation of Standards

Comment: A brief explanation of how sediment process information will be considered would help reviewers and applicants.

Response: Site specific evaluations would need to be conducted. An example is included in siting considerations.

Comment: Require assessment of effects on water quality, sediment transport, habitat type access for fauna.

Response: The assessments are site specific and this information on how the project would affect biological and physical resources is required as per permit standards.

Comment: Consider adding specificity to what it means to interfere with associated and adjacent uses such as navigation.

Response: Examples were provided. See Section IV.

Comment: All non-structural methods should be evaluated, including proper siting of new upland structures, relocation of existing structures, and acceptance that certain parcels may only be able to sustain certain types of development, or for limited amounts of time.

Response: The permit standard requires an alternatives analysis that needs to consider the above in permit evaluations and include consideration of the existing development restrictions outlined in tidal wetland regulation that address the placement of upland structures. See Section IV.

Comment: Specify what permitting requirements apply to specific projects that are sited on shoreline marshes.

Response: All standards for permit issuance apply. They are discussed in the guidance document Section IV. This living shoreline guidance does not apply to tidal marsh restoration concepts other than possible edge erosion control through a living shoreline technique.

Comment: Explain the no action alternative.

Response: The document mentions the No action alternative under IV.B. Evaluation of Standards of Permit Issuance “do nothing,” the “no action alternative”.

Comment: Cost is not a factor in determining reasonable options if proposed measures involve risks to life safety and/or undue impacts to natural resources.

Response: Health, safety or welfare of the people of the State of New York, impact to natural resources and reasonableness (reasonable alternatives) are part of the issuance standards in both Protection of Waters and Tidal Wetland standards. “Reasonable” is not defined in either 608 or 661, but is described in the State Environmental Quality Review (SEQR) regulations which proscribe, in Part 617.9(b)(5)(v) in relation to Environmental Impact Statements, that applicants must consider “reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor”. Cost alone would not determine reasonableness but would be factor of it and would be balanced against both safety and impact to natural resources.

Comment: “When designing a living shoreline or any shoreline project ...” This would be in accordance with eventual CRRA guidance and the proposed Floodplain Guidance.

Response: DEC and DOS are drafting guidance that recommends consideration of the use of natural resiliency measures, including living shorelines, to reduce risk of flooding and erosion as part of implementation of the Community Risk and Resiliency Act.

Comment: We recognize health concerns related to shellfish in contaminated water and respect DEC’s care in this regard. Is there some way to work on this issue so that native species can be restored safely?

Response: All site specific concerns will be evaluated at the time of application as well as those associated with shellfish consumption and human health concerns.

Comment: Add additional resources re LS example NYS DOS Office of Planning and Development has developed a story map on living shorelines through the Geographic Information Gateway.

<http://opdqig.dos.ny.gov/#/storyTemplate/11/1/1>

Response: Information added to the document Appendix E.

Comment: Consideration to climate change in all aspects of its activities, including permit approvals in New York City and NY State.

Response: Climate change considerations are included in the guidance.

Comment: Please note that the future projections for sea level were based on 2013 estimates. It should be encouraged that living shoreline designs should take into account up-to-date projections.

Response: Language was added noting use of municipalities or other scientifically established projections that are more cautionary.

Comment: Add to potential impacts of climate change.

Response: Additional climate change impacts have been included.

Comment: Provide a mechanism for evaluating habitat loss.

Response: Projects are evaluated on a site specific basis. As discussed in this document, standards for permit issuance apply to evaluating impacts of a project.

Comment: It would be a beneficial for DEC to develop guidance on how to handle contaminated sediment along urban shorelines.

Response: Sites will be evaluated on a case by case basis, but the Department's Division of Water Technical & Operational Guidance Series (TOGS) and Division of Fish and Wildlife guidance documents apply:

Division of Water, Technical & Operational Guidance Series (TOGS) 5.1.9, In-Water and Riparian Management of Sediment and Dredged Material http://www.dec.ny.gov/docs/water_pdf/togs519.pdf

Division of Fish, Wildlife and Marine Resources, Bureau of Habitat, June 24, 2014, Guidance on Screening and Assessment of Contaminated Sediment http://www.dec.ny.gov/docs/fish_marine_pdf/screenassessedfin.pdf

Comment: Recommend adding "habitat for state and federally listed species and Species of Greatest Conservation Need (SGCN)" as one of the examples of a critical resource to consider.

Response: Added SGCN as an example of a critical resource.

Comment: Mention bioturbation as a source of erosion.

Response: Included in the document as erosion caused by animals.

Comment: Provide examples of technical analysis would be acceptable to evaluate siting.

Response: General siting guidelines were provided in this document. Site characteristics will determine actual details regarding siting considerations.

Comment: Alternatives analysis in document should not drag out review process.

Response: Sufficient documentations should be provided to show the project as proposed is the appropriate alternative and meets the applicable standards for permit issuance.

Appendices

Comment: Can the permit application checklists and permits be modified to include language on sediment processes.

Response: Permit application checklist will not be modified at this time. Sediment process information request is included in this guidance.

Comment: Add planting plan to the permit application checklist. Planting plan information is in this guidance.

Response: Permit application checklist will not be modified at this time.

Comment: The document could include examples of living shorelines.

Response: Examples are included.

Monitoring

Comment: We recommend that the maintenance and monitoring of living shoreline projects include tracking the response of target species that should benefit from projects (e.g., Saltmarsh Sparrow in a tidal marsh project or Piping Plover in a project with a beach component).

Response: Such monitoring may be included, if appropriate for the objectives of the project proposed.

Comment: Provide information on effectiveness of natural features and provide component to monitor nature based features.

Response: DEC and DOS are drafting guidance that recommends consideration of the use of natural resiliency measures, including living shorelines, to reduce risk of flooding and erosion as part of implementation of the Community Risk and Resiliency Act. It will include information on the effectiveness and co-benefits of natural and nature-based features. This living shoreline guidance provides information on monitoring of living shorelines. Monitoring plans will be specific to the type of project proposed.

Comment: For cases where monitoring shows failures in plant survival or inability to retain sediment for beach nourishment and all you are left with is the hard structures, there needs to be a provision to remove remaining hard structures if they are causing adverse impacts.

Response: Many permits include conditions requiring the replacement of plants that fail to thrive. If there needs to be shoreline protection, options will have to be re-examined.

Siting Considerations

Comment: The potential for erosion as identified through the use of generally accepted principals of coastal science and engineering should be given equal weight to existing site conditions e.g. episodic erosion.

Response: Generally accepted principals of coastal science and engineering are acceptable for determining erosion.

Comment: Include coastal storm return rates as a consideration when determining protective action and then what type of living shoreline is appropriate.

Response: This guidance has not included specific recommendations on techniques that evaluate coastal storm rates.

Comment: Include a manual for homeowners, “how to get started”.

Response: This guidance is to inform the reader about benefits, DEC permit process and other considerations regarding living shorelines. A homeowner, however would not likely design this type of treatment on their own.

Miscellaneous

Comment: Suggest adding coastal geologist the list of professionals.

Response: Coastal geologist was added to the list of professionals.

Comment: Include information on local grant programs/incentives applicable in NY.

Response: Grant Programs and incentives change from year to year, so inclusion of any current ones would not be up to date.

Comment: Local Waterfront Revitalization Plans (LWRP’s) should evaluate daylighting waterfront through living shorelines.

Response: Development and modification of LWRP’s is under the oversight of DOS’s, Office of Planning and Development.

Comment: Provide a better list of GIS resources and other resources to assist citizens interested in promoting a living shoreline.

Response: See NYS GIS Clearinghouse for the most up to date GIS information. <https://gis.ny.gov/>

Comment: Various commenters suggested references.

Response: References were added where appropriate.

Comment: Proactive regional approach to planning for sea level rise, marsh migration, and risk reduction should be considered.

Response: This is beyond the scope of this guidance, however, marsh migration maps and planning documents have been completed for most if not all of the marine district.

Comment: Proactive regional approach to planning for sea level rise, marsh migration, and risk reduction should be considered.

Response: This is beyond the scope of this guidance, however, sea-level rise mapping tools, marsh migration maps and planning documents have been completed for most if not all of the marine district. Materials hyperlinks and or references are below.

Sea-level Rise Visualizations:

Hudson River Estuary: <http://scenichudson.org/slr/mapper>

Hudson River Flood Impact Decision Support System: <http://fidss.ciesin.columbia.edu/>

Long Island: <http://maps.coastalresilience.org/newyork/>

New York State: Sea Level Rise Viewer <https://coast.noaa.gov/digitalcoast/tools/slr>

New York State: Surging Seas: <https://ss2.climatecentral.org>

Marsh Migration Models:

Tabak, Nava, Laba, Magdeline and Spector, Sacha (2016) Simulating the Effects of Sea Level Rise on the Resilience and Migration of Tidal Wetlands along the Hudson River. PLoS ONE 11(4): e0152437

Warren-Pinnacle Consulting, Inc. (2014) Application of Sea-Level Affecting Marshes Model (SLAMM) to Long Island, NY and New York City. Final Report. Prepared for NYSERDA. 2015 – 2016 update: <http://warrenpinnacle.com/prof/SLAMM/NYSERDA/> includes New York Coast and to the Tappan Zee Bridge up the Hudson River.

SLAMM for Long Island Sound: <http://longislandsoundstudy.net/research-monitoring/slammm/>

At a minimum, various estuary managers and NYS Open Space conservation plans are using these tools for planning and preservation opportunities. Marsh migration guidance may be considered in development planning by municipalities and others. In response to CRRA legislation the Department in collaboration with DOS is developing guidance on the consideration of sea level rise, storm surge and flooding.

Comment: Technical and editorial comments and requests for clarity.

Response: These were included where appropriate.

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