

Shoreline Stabilization Response Paper

This document contains proposals presented to the Citizens Advisory Committee (CAC) members, a summary of the views expressed by CAC members, and DPD’s responses to these comments. The original proposals presented by DPD to the CAC can be found in the document entitled “Shoreline Stabilization,” dated November 12, 2008.

Of the various proposals put forward by DPD in the shoreline stabilization policy paper and presentation, CAC comments focused on three topics: requiring green shorelines where feasible, demonstrating the need for armoring, and thresholds for substantial repairs.

1. Requiring “green shorelines” where feasible.

DPD is proposing several policy changes to encourage green shorelines, including ongoing exemptions for beach nourishment. In addition to these incentives, DPD proposes that bulkheads will only be allowed in places where the applicant can demonstrate that soft engineering techniques will not work.

	Pros	Cons	General Comments
	<ul style="list-style-type: none"> • <i>Soft engineering offers substantial ecological benefits, including improved habitat and water quality.</i> • <i>Proposal would be designed to require bulkhead removal only where other options are feasible – this would help eliminate unnecessary armoring, while allowing bulkheads to remain as needed.</i> 	<ul style="list-style-type: none"> • <i>Removing bulkheads may move the waterline further inland – this could translate to a loss of property and an extension of the shoreline jurisdiction.</i> • <i>City does not yet have clear guidelines demonstrating where soft engineering is and isn’t feasible.</i> 	<ul style="list-style-type: none"> • <i>Consider ways to encourage revetments (buried structures that provide armoring while allowing a beach)</i> • <i>Revetments may work in coastal areas but not freshwater</i>

Numerous examples on Seattle’s shorelines demonstrate that beach restoration and other soft engineering practices, where appropriate, generally do not require moving the high water mark or loss of dry land. The new code will clarify that adding appropriate material below the water line will be allowed wherever it is necessary to create a stable slope for restored shorelines. Additionally, DPD’s proposals include provisions to allow beach nourishment to offset erosion; this would serve as an additional safeguard against losing land.

DPD continues to propose requiring green shorelines wherever feasible, and will continue to develop detailed guidance to help determine feasibility for a given site.

2. Requiring demonstrated need for shoreline armoring.

To comply with new state guidelines, DPD proposed to allow new, enlarged, or replacement bulkheads where the need for that armoring can be demonstrated through a geotechnical study. The geotechnical study must establish that either:

- a) A primary structure is threatened within three years and soft engineering isn't sufficient to avert the threat; or
- b) Waiting until the situation described in (a) will require a solution in the future that results in a larger ecological impact.

	Pros	Cons	General Comments
	<ul style="list-style-type: none"> • <i>Meets state guidelines</i> • <i>Provides two paths to demonstrate whether or not a bulkhead is necessary.</i> 	<ul style="list-style-type: none"> • <i>If it must be demonstrated that a primary structure is in peril before a bulkhead is allowed, property owners could lose significant property if buildings are set back from the shoreline.</i> • <i>The City should continue to allow replacement bulkheads, without requiring demonstrated need.</i> • <i>Option (b) above is confusing and difficult to document.</i> 	<ul style="list-style-type: none"> • <i>Proactive policies should be adopted to make sure that single-family residences can't build "fortresses" in the future to fend off rising sea level.</i>

DPD continues to propose that applicants must submit a geotechnical report demonstrating the need for new or enlarged bulkheads. A closer reading of the WAC suggests that replacement bulkheads, as long as they are not larger than the existing structure, only need to have a "demonstrated need to protect principal uses or structures" – a geotechnical report is not necessary. DPD is continuing to evaluate what an acceptable alternate pathway to "demonstrated need" might be.

Ecology's standard of threatened damage within three years is unusual and would be difficult to credibly document. If approved by Ecology, DPD would change criterion (a) of the geotechnical report to require that there is a significant risk to primary structures (eliminating the three year provision).

As described in the initial proposal, the code would provide a list of shoreline stabilization techniques ranging from soft to hard. To justify armoring for non-water-dependent uses, the geotechnical report must demonstrate not only that stabilization is needed, but that it cannot be achieved using less intensive practices.

Note: feeder bluffs will be addressed as a separate issue.

With regard to rising sea level, DPD will continue to analyze the best available data regarding climate change models and plan policies accordingly. This may result in different requirements for saltwater and freshwater shorelines.

3. Bulkhead repair/replacement

Pursuant to WAC guidelines, DPD proposed that replacement bulkheads must demonstrate need (imminent threat, soft engineering won't work). A given project will be considered a replacement if it repairs 49% or more of the existing bulkhead. This requirement would not impact the standards determining when bulkheads are exempted from a substantial development permit.

	Pros	Cons	General Comments
	<ul style="list-style-type: none"> • <i>This would allow smaller repairs for pocket erosion, etc.</i> • <i>A large number of residential bulkheads are used to maximize lawn area, but are not needed to protect structures or property. The proposal would help direct these sites toward more sustainable options.</i> 	<ul style="list-style-type: none"> • Standard practice for bulkhead repairs is to replace the whole bulkhead. If an existing bulkhead needs repair, you should only need to demonstrate whether or not soft engineering will work (not that there is an imminent threat) 	<ul style="list-style-type: none"> •

See discussion in section 2.