

Appendix 4: Summary of Permit Review

This document is a summary of findings from a review of substantial development permits and exemption permits for docks, armoring and residential pre-application permits.

The San Juan Initiative used information gathered through fieldwork and a permit review to determine the effectiveness of county regulations in protecting nearshore habitats. By combining these two data sets, the Initiative was able to ask the following questions:

- ~What information was available to make decisions?
- ~How was information incorporated into the permit review process?
- ~Were the conditions of the permit complied with?
- ~What is the impact of the appeals process on protection effectiveness?
- ~Did the permit result in a structure placed within eelgrass, feeder bluffs, forage fish beaches, rocky intertidal areas, or other sensitive habitats?

Methods

Given the limited time and budget, the San Juan Initiative identified four case study areas on Lopez, Orcas, San Juan and Stuart Islands that represent the habitats and the types of shoreline structures typical on the shoreline of San Juan County. Each of the case study areas had between 100-200 parcels. Through a field characterization performed by Coastal Geologic Services, all physical changes to the shoreline were identified including:

- ~Presence of shoreline armoring or boat ramps and their attributes including length, material, and elevation of toe.
- ~Amount of forest cover and overhanging vegetation including an analysis of forest cover change using aerial photographs since 1977.
- ~Presence of docks and their attributes including: float characteristics (width, length, orientation) and pier characteristics (width, height, orientation, material, length).

In addition, existing information about presence of shore type (rocky, feeder bluff, pocket beach, etc.), eelgrass presence, kelp presence, presence of documented and potential forage fish spawn beaches (sand lance or surf smelt) was compiled. (In this study, forage fish spawning habitat is defined as sand lance or surf smelt spawning

habitat) For a full description of the methods, please refer to the San Juan Initiative Assessment: Nearshore Case Study Area Characterization by CGS, 2008.

Staff, working with the Science Advisory Committee, designed a method for reviewing permits that would provide enough rigor to allow our findings to apply to the whole county. The San Juan Initiative was interested in how docks, armoring and home setbacks were permitted. Our interest in the setback of homes came from an assumption, later disproved, that setbacks would correlate with retention of shoreline vegetation. In addition, there is not a specific shoreline vegetation permit, so we reviewed permits for docks and armoring to see if shoreline vegetation was retained through those processes.

For each of the three shoreline structure types (homes, docks and armoring), we randomly selected 6 parcels in each of our case study areas that had a permit from after 1993. Current codes relating to shoreline structures are largely unchanged since 1993. We are aware, though that even if the codes have not changed, how they are implemented does change based on staff and current science information, so we also reviewed the five most recent permits (either substantial development permits or exemptions) issued for docks, armoring and Residential Pre-Application (RPA) anywhere in the County. Because most bulkheads for residential homes receive exemption permits, we also reviewed the most recent exemption permits for bulkheads.

Unfortunately, due to the lack of permit data, the design of the study had to be adapted. Instead of 6 dock permits in each of case study areas, we had a total of 19 permits, eight from Orcas, four from Stuart, six from San Juan and only one from Lopez. We also reviewed the five most recent substantial development permits for docks issued anywhere in the county. The lower numbers are still within the range of acceptable to summarize for the whole county but they are slightly less robust with a total of 24 reviewed.

The number of armoring permits available for review was quite disappointing and changed substantially our ability to summarize the findings and apply them to the whole county. Of the 207 parcels with armoring, we were only able to find eight permits, either exemptions or substantial development permits, within our case study areas. There are three possible explanations: 1) The other 199 parcels with armoring received permits prior to 1977, 2) The other 199 parcels with armoring are simply misfiled or unable to be found due to bad record keeping or 3) There is an enormous amount of unpermitted activity occurring. Staff believes that the lack of permits is a result of all three to some extent. A follow up study comparing aerial photographs from 1977, 1989 and 1996 and 2007 would provide us additional information about when the bulkheading occurred. We did review the five most recent substantial development and exemption permits for bulkheads in the County resulting in a total of 18 reviewed bulkhead permits.

The Residential Pre-Application permits were less useful than we had predicted due to a data problem. The county measures setbacks from the top of the bank but the Nearshore Case Study Characterization study measured from an earlier science-based definition of the shoreline that includes the height of the bank. The difference between the two lines is greatest on steep bluffs or headlands. Because the measurements were in two different systems, we were not able to determine compliance with setback requirements.

Findings Summary

- ~Substantial development permits identified eelgrass and forage fish (sand lance or surf smelt) spawning habitat more often than did exemption permits.
- ~Joint use permits are more common now than in the past.
- ~Exemption permits, in general, did not identify important habitats nor did they condition the permit to mitigate impacts to habitats.
- ~The prohibition of docks in feeder bluffs was ineffective in our case study area – the permits did not identify them in their review.
- ~There are issues of compliance – half of the docks reviewed did not comply with the conditions of the permit. Length was most often out of compliance with an average length over that stated in the permit by 52 feet.
- ~Bulkhead exemption permits generally do not identify feeder bluffs, eelgrass or forage fish (sand lance or surf smelt) habitats nor do they condition the permit beyond length and elevation of toe.
- ~Bulkheads are being permitted within areas of eelgrass, on documented forage fish (sand lance or surf smelt) beaches and on feeder bluffs.
- ~The most recent substantial development permits have the most detailed information and require the most data from property owners.
- ~The San Juan Initiative has made the assumption that if the potential impact is not listed or a condition is not provided to reduce a potential impact, then the impact was not considered by regulatory staff. This may over state the problem since some pre-consultation may happen prior to submitting the permit resulting in a pre-permit reduction in the potential impact.

Findings Data

A: Docks

Are critical habitats being identified through the permit process?

We reviewed permits to see if different types of permits (exemptions and substantial development permits) and the time period when the permit was issued were factors in the identification of shoreline habitats.

- ~24 permits were reviewed and all 24 permits occurred under county regulations that are largely unchanged since 1993.
- ~Of the 24 permits reviewed, 19 were in the case study areas and five were elsewhere in the county; these five were the most recent permits issued. (See Appendix 1 and 2 for tables of permits reviewed.)
- ~There is a stated preference for joint or multi user docks. In our case study area there were four permits for joint use docks. Of those four, all were issued in the last 3 years.

Eelgrass

- ~Of the total 24 dock permits reviewed, half were issued for docks in areas of identified eelgrass.
- ~Of the 19 dock permits reviewed in our case study area, eight of the docks were in areas of eelgrass
- ~Exemptions
- ~Of the 9 exemptions reviewed, six were in areas of eelgrass and none of them were identified by the permit.
- ~Substantial Development Permits
- ~Of the 10 substantial development permits reviewed for docks, two were in eelgrass and both were identified in the permits.
- ~5 most recent Substantial Development Permits
- ~Of the five most recent dock permits, four were in areas of eelgrass and all identified the presence of eelgrass.

Forage Fish

- ~Exemptions
- ~Of the 9 exemptions reviewed, 2 were in documented forage fish (sand lance or surf smelt) spawning habitat with an additional 5 in areas of potential forage fish spawning habitat. These habitats were not identified in the exemption permit.

~Substantial Development Permits

~Of the 10 substantial development permits reviewed within the case study area, two had documented forage fish (sand lance or surf smelt) spawning habitat and two additional permits had potential forage fish (sand lance or surf smelt) spawning habitat. Both of the documented forage fish areas were identified in the permit.

Feeder Bluffs

~Two permits were issued for docks in areas of feeder bluffs. This is specifically prohibited in county code. The feeder bluffs were not documented in the permit.

Are the permits being conditioned to mitigate the impact to the environment they are in?

In our review of dock permits, we were interested in understanding how docks were conditioned to mitigate any potential significant impact to the environment. Specifically we looked to see if the guidelines recommended by the Science Committee were referred to in some manner. The most important parameters to reduce the impact of docks on the shoreline are: length, width and height of pier, length and width of float, orientation of float, and material used in construction. We also looked for the presence of grating, though the ability of grating to reduce impacts is still being researched. We also wanted to know if fish migration or sediment transport were considered when building docks.

Included in our study were two types of permit: substantial development permits and exemption permits. Exemptions are issued for repair or replacements of old docks. Substantial development permits are issued for new docks. Both substantial development permits and exemption permits may be conditioned to reduce impacts to shoreline resources. All of the docks had a SEPA determination of no significance.

~Salmon migration: no conditions to mitigate effects to salmon migration

~Sediment transport: no conditions to mitigate effects of changed sediment transport from feeder bluffs or along littoral cell.

Eelgrass:

~Exemptions

~Of the 9 exemptions issued, none of them had conditions for pier height, width, length, materials, grating, or orientation.

~5 of the 9 exemptions conditioned the length and width of the float.

- ~Of the 9 exemptions reviewed, six were in areas of eelgrass.
- ~Substantial Development Permits
- ~Of the 10 substantial development permits issued, all conditioned the float width and length.
- ~Of the 10 substantial development permits issued, half specified pier length, material, height.
- ~Only 2 of the 10 substantial development permits specified grating.
- ~None specified orientation.
- ~Five most recent Substantial Development Permits
- ~All conditioned pier height, width, length and float width, length and material. The four with eelgrass were conditioned to be placed at least 25 feet away from eelgrass beds.

Forage Fish:

- ~It wasn't clear how the two permits with identified forage fish (sand lance or surf smelt) spawning habitat had been conditioned to reduce the impact to the spawning habitat other than providing a construction window that would limit construction to non-spawning windows.

Are the conditions of the permit followed?

In order to determine if the conditions of the permit are followed, the data from the field was compared to the conditions listed in the permit. Because not all permits had conditions, we were unable to answer this question for all 19 permits.

- ~The most frequent conditions listed in the permit were length and width of float.
- ~Of the 8 permits with conditions for float width, 5 were wider than specified.
- ~Of the 14 permits with conditions for float lengths, 8 were longer than specified by the permit. The docks were over the specified length by an average of 52 feet.
- ~The majority of these docks were in areas of eelgrass.
- ~When the permit called for grating, it was only found in the field half the time.
- ~County code requires the maximum dimensions of the docks be no greater than 700 square feet including pier, float and ramp for a single use dock and no greater than 1400 square feet for a joint use dock. In our case study areas, there were no docks that complied with those requirements.

~We couldn't determine whether compliance has improved because we did not gather field data for the five most recent dock permits.

What is the effect of the appeals process?

- ~Of the 24 dock permits reviewed, six were recommended for denial by staff.
- ~Three of those were denied by the Hearing Examiner and three were approved.
 - o Approval most often rested upon the inability to acquire alternative moorage.
- ~Of the three that were denied by the Hearing Examiner, two were overturned through the appeals process.
 - o One of those overturned under appeal settled out of court.
- ~There was only one permit for a dock denied in our case study area.

B: Bulkheads and Armoring

Are critical habitats being identified through the permit process?

Of the 8 bulkheads with permits, our field research showed:

- ~Five were near eelgrass.
- ~Two were on documented forage fish (sand lance or surf smelt) spawning habitat and an additional three were on potential forage fish habitat.
- ~Two were on feeder bluffs.
- ~The permit files did not identify these habitats except for one feeder bluff.
- ~The permit files did not identify overhanging or shoreline vegetation.
- ~We were not able to check the presence of habitat for the five most recent bulkheads as we did not collect field data.

- ~Exemptions: of the six exemption permits
- ~Two bulkheads were along feeder bluffs,
- ~Three bulkheads were in areas of eelgrass,
- ~Two bulkheads were in areas of documented forage fish (sand lance or surf smelt) spawning habitat and three were in potential forage fish spawning habitat.
- ~Substantial Development permits:
- ~Of the two, both were in areas of eelgrass
- ~One was in an area of potential forage fish spawning
- ~None were in areas of feeder bluffs

- ~Five most recent Substantial Development permits:
- ~There was no request for information regarding feeder bluffs, eelgrass or forage fish (sand lance or surf smelt) spawning habitat and none was identified by the permit.
- ~We did not gather field data to verify this.
- ~Five most recent exemption permits:
- ~One of the permits had a map of forage fish beaches in the area and showed that their bulkhead was not on a forage fish beach.
- ~There was no request for information regarding eelgrass, forage fish, or feeder bluffs.

Did the permit condition the construction of the armoring to reduce the impact?

- ~Exemptions
- ~Six permits within the case study area were exemptions.
- ~There were no requirements to retain vegetation.
- ~All but one of the permits specified length.
- ~All of the permits specified height relative to elevation of water.
- ~Substantial Development Permits
- ~Two had geo tech reports.
- ~Both specified length and material.
- ~Five most recent permits were all substantial development permits.
- ~All had geo-tech reports.
- ~The most recent permits all had lengths specified and the type of material was always listed.
- ~Five most recent exemption permits:
- ~There were no conditions listed in the exemption permit other than length and elevation of structure.

Are the conditions of the permit followed?

Due to the lack of information within the permits, we were unable to answer this question.

What is the effect of the appeals process?

- ~Four of the eight permits were recommended for denial by staff.
- ~Three were recommended for denial due to lack of demonstrated need, one was denied because the property owner didn't explore soft shore options.
- ~All permits were approved by the Hearing Examiner or the Board of County Commissioners. There were no appeals of the approvals.

C: Shoreline Vegetation and Setbacks

To understand the role of permitting in retaining vegetation, staff reviewed Residential Pre-Approval Applications for homes set closer than 100 feet. Within our case study area, we reviewed a total of 8 parcels and the 11 most recent RPA's County wide.

Why were homes placed closer than 100 feet to bank?

Of the 19 RPA's reviewed, the most common reason was remodeling of an existing structure within 100 feet of the top of the bank. Second most common was placing a new structure at 50 feet from top of bank due to presence of screening. The third most frequent reason was given was that the two adjacent houses were closer than 100 feet.

- ~The average distance that the RPA requested was 37 feet from top of bank.
- ~The closest request was 7 feet from top of bank.
- ~The adjacent home rule led to homes being set back the least.

Has the administration of RPA's improved recently?

- ~Five of the seven most recent RPA's required the retention of vegetation compared to only 2 of the case study area properties.
- ~Every parcel reviewed received a site visit by county staff prior to approval.
- ~Site visits to ensure retention of vegetation during construction are now occurring as part of the stormwater enforcement program.

Conclusions and Recommendations

1. Record Keeping

The County permits are difficult to find and vary significantly in content and level of detail. The current level of record keeping limits the ability to know what was permitted

and to check the actual development to determine consistency with the permit approval.

- ~The permit records do not accurately represent conditions on the ground. There has been much more shoreline modification than is captured in the permit records.
- ~The permit records do not provide information in an easily searchable format.
- ~The permit records do not provide a way to see all permits for any one parcel.

2. Compliance and Permit Conditions

- ~The low level of compliance with dock permit conditions may be the result of the lack of inspections after or during construction.
- ~The lack of specific conditions for both docks and armoring reduces the certainty that impacts to critical habitats were addressed.
- ~In regard to repair and replacement of docks and armoring there is little to no information to assess whether the impacts were increased by the action.

3. Issues with exemptions

- ~There seems to be a large difference in data collected and reviewed for exemptions versus substantial development permits.
- ~There were few conditions placed on dock or armoring exemption permits. This limits the opportunity to reduce harm to shoreline resources like eelgrass, forage fish spawning habitat or feeder bluffs.
- ~Current code requires an exemption permit for repair or replacement of current docks or bulkhead. The limited permit record coupled with the lack of conditions on exemptions raises questions about the ability to protect remaining resources.
- ~Most bulkheads in the county can be permitted through an exemption permit, but the lack of review for shoreline resources again limits certainty that impacts were addressed.
- ~There is no ability through an exemption permit to look at cumulative impacts or at solutions that may be better defined at the landscape level.
- ~The exemption permit does not require public notice; this limits the ability of adjacent property owners to respond to impending shoreline changes.

4. Improving permit review

Appendix 4: Summary of Permit Review

- ~It is clear that the most recent permits for docks, armoring and setbacks show an increased level of sophistication in terms of required conditions and availability of data to make decision.
- ~The increased review and better information has led to less impact. For instance: the requirement that the four most recent docks be sited outside of the eelgrass beds. We did not check to see if the docks were constructed in consistent with this requirement.