

# Bulkhead Removal and Shoreline Restoration Project on Miller Bay

## *A Lesson in Patience, Persistence and Perseverance*

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Miller Bay is an amazing marine estuary ecosystem. Those of us fortunate enough to live on its shores appreciate the birds, fish, sea mammals and ever-changing tides. It's a wonderful place to live and recreate!

We are fairly new to the bay, (we bought our home in late Spring of 2017). By the following Spring, it became apparent that our bulkhead was failing. We have 200 ft of low to medium bank waterfront with 115 ft of concrete bulkhead and 85 ft of natural shore. A crack that was barely noticeable a year before had grown and the wall was beginning to separate. Once we moved in full-time, last summer, we were shocked to see how much the wall had moved. About 30% of our bulkhead was leaning severely and the crack in the main wall, below our deck and boat ramp, was completely separated—about 8 inches.

We immediately contacted ***Shore Friendly Kitsap*** for an on-site consultation last August. We were impressed at how promptly they organized an on-site meeting and a complimentary evaluation with a coastal geologist—To assess our site for erosion risk and determine if it was a good candidate for bulkhead removal and soft shore restoration. They also referred us to other government agencies we'd need to contact for further advice and provided a list of experts and an application for a grant to conduct a full geologic study/report.



*Photo credit: Sheri Flynn*

### Conception

Longtime nature lovers, we were eager to explore the possibility of restoring our shoreline to a more natural state. After talking with a number of local experts, we learned we could make a significant positive impact on Miller Bay and improve the overall health and diversity of the marine life we had quickly come to cherish.

Consultations with the State Department of Fish and Wildlife's Area Habitat Biologist were very positive. His enthusiasm for our eco-system was contagious. The fact that our shoreline was heavily shaded with overhanging trees and already had portions of rock rubble beach, dune grass, and native plants on its banks, meant it would provide excellent protection for forage fish and salmonids making their way into the Puget Sound. It also gave us a good idea on what we could do as far as restoring the rest of our shoreline and what it might look like. He thought our property was an excellent candidate for restoration with a big net gain to the environment. He even suggested we may be a good case study to "fast-track" our permits through the process and all the federal, state, and local departments we'd need to work with. This was sounding very good to us!



Miller Bay 2019. *Photo credit: Christina Kereki*

Our goals:

1. Improve the environment for the Bay's fish and wildlife
2. Create more natural beauty by restoring our shoreline using soft shore techniques
3. Create easier and safer access to our waterfront for recreation

All the consultants we met with were in agreement—Removing the Bulkhead and restoring the shoreline was the right thing to do and would save us money upfront and reduce maintenance long term (we were told concrete Bulkheads have a life expectancy of about 30 - 40 years). Some people estimated it could save us up to half the cost of replacing our failing bulkhead with a new hard-armored solution.

We were sold! Our application and grant process went smoothly and surprisingly quickly. We were awarded a grant from Shore Friendly Kitsap to get us started (September 2018). With the promise of a "streamlined" permit process, we dove in!

### The Real Process Begins

Here's where things begin to get more tedious. We researched and selected a company that had geologic study and design services. We thought it made sense to choose one company that could do both, to reduce hand-offs and ensure consistency. Unfortunately, our study was delayed, but the end result was, we would be able to restore most of our shoreline by removing the bulkhead, re-grading the bank as needed, adding some soft shore protection (anchored logs), and adding beach nourishment to match the rock rubble beach that already exists. We would, however, have to add a small section of rock wall to protect our waterfront deck, stairs and boat ramp (about 35 feet of the 200 feet of shoreline). This wall would also protect an old Fir tree that is the favorite hunting perch for Osprey, Bald Eagle and a roost for Heron. We were excited! We would be able to accomplish all of our goals!



## The Lengthy Design and Preconstruction Phase

As with most building projects, each step can seem to take forever. With much prodding and a lot of follow-up, our design came in 2 months late and over-budget. This was not a great way to start, it was Feb 2019 and we wanted to be ready for construction at the open of Miller Bay’s “fish window” August 1. Given the horror stories we’d heard about the permit process we started to feel the pressure. We pushed forward. Design in hand, we were ready for our multi-department, on-site meeting coordinated by the Shore Friendly staff. Representatives from Shore Friendly Kitsap, Kitsap County Stormwater Management and Environmental Planning, and the State Department of Fish and Wildlife were to come evaluate our site, advise us on how to proceed, and define the documentation we needed. They would decide what permits we would need from each department. Unfortunately, it took 3 times re-scheduling to get all the ‘powers that be’ together. We finally had our on-site consultation March 15<sup>th</sup> and thought we were ready to proceed.

This is where what sounded so simple and streamlined, became one surprise after another. There were several steps necessary that we were not made aware of, nor could we have anticipated! It ended up that we would not be given any waivers (so no short-cut or streamlined options). An incredible amount of paperwork was necessary prior to submitting for permits. This phase became a full-time job for Michael. It took him about 6 weeks to obtain all of the necessary paperwork, answer all the questions and of course, hire the consultants and get all of their reports finalized for submission. We would end up needing:

1. An environmental impact study conducted by a certified environmental biologist (including Flood Plain and Habitat Assessment and Mitigation Strategy).
2. A SEPA (State Environmental Protection Act - Environmental Checklist)
3. A consultation with the Suquamish Tribal Historic Preservation Officer to support our SEPA
4. An SDAP Grading 1 (County Site Development Activity Permit)
5. An HPA (State Hydraulic Project Approval)
6. A JARPA (Joint Aquatic Resource Permit Application) to support the HPA and SDAP
7. A Building Permit (for the rock wall), and
8. 2 notarized and Recorded Covenants/Bonds to allow for Inspections for Erosion Control and Stormwater Drainage throughout the construction process.

Simultaneously, he researched contractors in our area, obtained bids, and picked a contractor. It took from March to May to get all of these steps completed. We submitted our application and uploaded all the documents for the County and State permits (SDAP and HPA) on May 9<sup>th</sup> and received our Acceptance Letter for the SDAP on July 9<sup>th</sup>, followed by the HPA on July 17<sup>th</sup> (record time from what we hear!) Yay! We would have everything ready in time for construction during the “fish window” of August 1<sup>st</sup> - February 15<sup>th</sup>. Too soon to celebrate, we still had to wait for the Building permit (which required the approved SDAP and HPA). We got the engineering drawing done and stamped for the rock wall and submitted the permit application on June 5<sup>th</sup>. With a few extra phone calls to help expedite the process, we received our Building Permit August 1<sup>st</sup>—Just in time! There was a lot of redundancy between the documents required for the HPA, SDAP and Building Permit, because unfortunately, it’s not that easy to link permits from different departments, that support the same project in the county’s computerized system.

## Construction!

Of course, our project did not start on time, by late August or 1<sup>st</sup> of September, as expected. As of this writing, we are in week 2 of a very wet and messy construction phase. And Mother Nature isn’t cooperating with this unseasonably wet September! The construction work will be completed this Fall, but at this point, the re-planting phase probably won’t be completed until Spring 2020.



*Photo credit: Christina Kereki*

## Summary

As with any big project, there are often delays, unexpected costs, extra steps, high expectations and sometimes, some disappointments. We were so committed to making a positive impact on the Bay—we faced each tedious task fueled by the intention to do the right thing for the environment.

While the Shore Friendly Kitsap folks are committed and great to work with on the front-end, it seems that all the departments involved in consultation and approval for shoreline restoration, on the back-end, have a long way to go to make the process more applicable, efficient and cost effective. A “streamlined” permit process doesn’t exist... yet. One must be prepared for a LOT of extraneous paperwork; questions that do not apply, but must be answered; and far too much red tape that seems redundant and frustrating. When talking with Bay neighbors, we often heard, “Why does it take so long and cost so much to do the right thing?” We don’t want to scare people away from improving the Bay’s environment, but we do believe the agencies involved need to make it cheaper and easier if they want more property owners to opt for a more natural shoreline solution.

In the end, we know we are doing the right thing and we hope to be thrilled with our new waterfront. Then, the past year’s efforts will all feel worth it. We still believe soft-shore solutions and shoreline restoration is the best thing to do for the Bay’s ecosystem (and that of the greater Puget Sound), but we must forewarn others that the process is time-consuming and costly. We are willing to answer questions and advise those who may want to consider this kind of project—Just remember, one must have patience, persistence and perseverance to make it happen!



## Photos of Before and After Construction



Before Construction – Segments of the 100-foot concrete wall. *Photo credit: Sheri Flynn*



After Construction, October 2019 – Removed section of bulkhead, large wood installation, slope re-contouring and section of replaced bulkhead around access. *Photo credit: Jim Haskins*



First phase of planting. *Photo credit: Christina Kereki*