

CORPS

July 2013

ashington

Conservation Corps



Hicklin Lake: Floating Islands

By: Adrienne McColl

In July, our crew completed a project for the King County Department of Natural Resources and Parks installing two man-made islands at Hicklin Lake. Hicklin Lake is the lowest point in Seattle's White Center drainage. This means that all run-off in the surrounding area accumulates in the lake, which has no outlet. Hicklin Lake has water quality issues that make the lake unsuitable for recreation. Excessive phosphates have been the biggest offender, causing toxic algae blooms that are harmful to wildlife and humans. In an effort to improve water quality, King County contracted a company called BioMatrix Water to build floating islands designed to absorb and use up toxins in the water.

A semi-truck delivered the islands in sections from across the country. Galen Fulford, founder of BioMatrix and designer of this project, led the assembly of the islands. Each island was 600 square feet and made of many layers of netting and coir fabric, surrounded by rigid, buoyant frames. After assembling the above-water portion, we hung columns of media (resembling sea jelly tentacles) from the bottom of each island. The media columns provide habitat for biofilm that will use large amounts of the toxins in the water. These will be responsible for the majority of the water quality improvement.

After we assembled the islands, we planted each with about 550 native shrubs and emergent grasses with the help of volunteers and students from Youth Source. We cut holes in the coir fabric to plant, using a substance called Coco-Tek planting medium as soil

Corpsmembers planting native species. Appearing from Left to Right: King County Employee, Daniel Vladu, Kerry Julvezan, Emily Chilton, and Adrienne **McColl**

Photo by: Alex Heye

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Experiences That Last A Lifetime

Knotweed Warriors

By: Alysa Adams

Tromping through the woods (and often along railroad tracks) one after another in a single-file fashion, pushing aside spindly tree branches and hopping over fallen moss-laden logs; we fight our way through the off-beaten path created by the forest critters who call these surroundings their home. In fact, these woods located in the small town of Mineral, located in Lewis County, will now be our home away from home for the remainder of the summer. We battle past incessant mosquitoes, devil's club, and stinging nettle in glove-covered hands, and the occasional and all too unwelcoming hornets' nest. We all have one goal in mind: search and destroy... the bohemian knotweed that is.

Yes, the invasive class B noxious weed I'm sure many of you have heard of, and probably even encountered yourselves, has been our summer arch nemesis. We began the season by bending the surprisingly tall (up to 15 feet) large leafed, bamboo-like hollow stems that generate a sensation of stepping straight into the prehistoric period. With each pinch and twist of the wrist, the cane emits a satisfying pop and burst of tepid water. With dozens of hands working in unison, nature's harmonious symphony is in full swing. The purpose of the bending process is to shorten the knotweed to a more reasonable length. That way when we return with a fully loaded 3-gallon backpack sprayer, our work is a bit more manageable.



When the spraying begins, it is quite an adventure navigating the uneven terrain. This can often include logjams, unexpected and sudden holes, slimy river rocks, and surprisingly deep river sections at times. All the while, we are equipped with a pack that does not help one's balancing act. With a team full of great attitudes, we end each day sweaty and often covered head to toe in blue indicator dye, but feeling accomplished. And though we may be hard working knotweed warriors, we do have fun moments and often make jokes Such as, having a bad case of the "morning benders" and "no officer, I promise it's knotweed".

According to PCD Knotweed Control Program Manager Renee Mitchell, we comprise the largest number of Knotweed project members in a targeted area! This includes the combined efforts of three WCC Puyallup In-stream aquatic invasive species removal teams and several technicians from Pierce Conservation District. Just recently, we revisited a site that we had sprayed weeks previously and it was exciting to see that our hard work had actually paid off. The knotweed was turning brown and drying as the chemicals set in. We may fall off logs, stumble often, get lost here and there, sing loudly and offtune in the woods but the knotweed will cower at our rubber boots and we will win the fight... and have a great time doing it!

All 3 WCC crews and the PCD crew. From top left to bottom right: Renee Mitchell, Naomi K., Kayla McCay, Will Whiskes, Jake Coe, Alysa Adams, April Burleson, Hattie Palmer, Ethan Greer, Conan Moore, Sarah Baum, Ashlie Arthur, Aaron Williams, Melissa Jackson, Trish Van Trojan, Alison Smith, Scott Milton, Isaac Olson, Jake Asplund, Zack, Royal Macias, Matt Sabey, Peter Armitage

Photo courtesy of: Ethan Greer

Strangers Turned Brothers: Appreciation for WCC

By: Jasmine Davis

Across the state on October 1, 2012 crews and IPs began their yearlong service with WCC. Feelings of excitement and nervousness all combined into one. Most of us had no idea what the year had in store, especially one Urban Forestry crew from Issaquah. The very first day these two young men, JC Shafer and Dan Humphries, hit it off from the jump. Meanwhile the rest of the crew was still in the process of getting to know each other. As carpool buddies, they found themselves in a confined space with one another for an extra 3 to 4 hours a day. Monday through Thursday, they travel from Snohomish County to Issaquah, through the wonderful I-405 traffic. Not including the 10 hours spent with one another during the regular 10-hour workday. With that amount of time spent with each other, they were bound to become like family-like brothers. They have created a lasting friendship with stories that will last a lifetime.



With a dedicated crew, working side by side we all grew close enjoying each other's company. It was around mid October

Above: Crew members Daniel Humphries (left) with JC Shafer (right) weed eating blackberries Photo courtesy of: Daniel Humphries

and our supervisor left for vacation. The weather was horrible almost the whole time he was gone. Yet there is something special about working in a team in the poorest conditions. We will all never forget this day. It began pouring rain at 7 am and did not end until after work was over. We were working right next to a wetland pulling blackberries roots the whole day. With full rain gear on, covered in mud, we were at our wit's end and surprisingly having a great but horrible time. Tensions were high, people were irritated, it was almost the end of the day, and then Dan started talking (the comedian of our bunch). He began telling his ideas on the "theory of relativity." To this day, I have no idea what he was talking about but he had us all on the ground in the mud laughing and crying in joy. In the freezing cold, pouring rain, filthy dirty and drenched in sweat we united. This is when the Urban Forestry Issaquah crew became a family, learned to respect one another and appreciate the differences. These are the memories that WCC fosters, creating atmospheres where the feelings of perseverance and accomplishment bring pride. WCC brought this



crew and these two young men together. This is only one of the many reasons I appreciate WCC. This program cultivates an atmosphere where friendships, personal and business related, are formed.

Why do you appreciate WCC? Fill in the blank, I appreciate WCC because.....

Share your stories and photos for the last newsletter of the 2012-2013 service year. Now is your last chance, do not let the opportunity pass you by. **Send them to wccupdate@ecy.wa.gov by Friday, Sep. 13, 2013.**

Right: Planting street trees, Issaquah Crew Corpsmembers from left to right: Stefan Gauthier, Daniel Humphries, JC Shafer, Michaela Lovelady

Photo by: Jasmine Davis



Maury Island Marine Park: A Grassroots Effort to Protect our Sound

Written by: Craig Addison Houston



Upper Right: Maury Island Marine Park Shoreline

Photo by: Alina Crum

A short ferry ride yet worlds away from the bustling traffic of the Seattle-Tacoma metro area, the Maury Island Marine Park offers an escape from the daily congestion of city living. It is an ecological oasis for many of the key species that define the beauty of the Pacific Northwest. From migrating orca to nesting eagles, the park provides one of the most diverse marine habitats in King county and is home to the State's largest stand of Madrones. However, despite the park's ecological splendor, the Maury Island Marine Park was only a hairline away from a very different fate which would have drastically altered the already fragile environment of the Puget Sound.

In 1998, Glacier Northwest, the region's largest supplier of ready mixed concrete, cement, sand, gravel and rock, announced to the Vashon Maury Island Community Council its plans to expand their mining operation by three fold. This expansion would extend the area of their Maury Island mine by an additional 277 acres of land. Immediately the community responded in opposition against Glacier, spearheaded by Senator Sharon Nelson and Protect Our Islands, a local coalition of dedicated community volunteers, educators, and politicians. Their main concern being that the expansion of the mine would damage the vulnerable marine ecosystem of the island.



These damages could result in destabilization and runoff of contaminated soil with high concentrations of lead and arsenic deposited in the area by the historic emissions of Tacoma's smelter plume.

For ten years, the Maury Island mining site was the center of conflict. Nevertheless, the people of Vashon and Maury Island stood in solidarity against the proposed Glacier expansion. A stand that came close to defeat in July 2008, the United States Army Corps of Engineers approved and permitted the development and construction of a new dock. Located along the Maury Island site, it would allow Glacier to further its expansion. However, unwilling to accept defeat, Protect Our Islands held strong in

Lower Right: Amanda Smith planting vine maple

> Photo by: Shelby McGuire

their opposition. One year later in July of 2009, the court ordered Glacier Northwest to halt dock construction and further expansion of the mine until after a federal court hearing.

The federal court voted in favor of the protection of the island's marine ecosystem and the subsequent denial of an appeal on the ruling, made by Glacier. The people of Vashon and Maury Island celebrated a huge victory after more than a decade of struggles to protect the island's marine habitat. The following year on December 30, 2010 King County purchased the Maury Island Marine Park after adopting County Executive Director Dow Constantine's \$36 million purchase proposal. Since then, the Department of Natural Resources (DNR) in King County, has taken on the responsibility for the restoration efforts in the park. In September 2012, DNR collaborated with the Department of Ecology's Washington Conservation Corps (WCC) program to begin cleaning up the site.

With four WCC crews, the occasional spike crew, and DNR site supervisor Bryan Massey, restoration efforts began. First was the removal of invasive species that had overtaken the site and then the replanting of the area with native species such as Garry Oak, Shore Pine, Sitka Spruce, Vine Maple, Douglas fir, Red Flowering Currant, and Thimble Berry. Next began the construction of new trails that would make the park easily accessible for all to enjoy this remote marine oasis. "It is amazing to be able to take something left to the elements, overrun by invasive species and turn it into something that restores the natural beauty of the Pacific Northwest" says WCC crew supervisor Alina Crum, "knowing that what we are doing will attract more people to the park to be enjoyed in the future."

Since restoration began in September 2012, the park has undergone an immense transformation. Invasive species removed and over thirty thousand native plants introduced to the park. "It is pretty awesome overtime to see all the work we have accomplished as a time lapse." explains WCC crew member Sophie Wilhoit, "coming everyday and seeing all the changes we have made, even when removing invasive species can be difficult. And the Vashon community is really



Blackberry removal using safety ropes on steep slope, Tony Cable, Josh Williams (left to right) Photo by: Alina Crum

thankful and encouraging as they cheer us on, sometimes holding signs saying "thank you WCC!" as we get off the ferry in the mornings."

Reestablishing a presence of native species is a huge undertaking of the project and one of the key objectives at this time. Crew member Parker Davis explains, "Getting native plants back in the area and on the site will hopefully aid in reestablishing a presence of native plant species in the greater area of Vashon and Maury Island. It's like the way invasive species get around by being tracked along by people walking in the area, but in this case hopefully people will spread the native species."

The Maury Island Marine Park restoration project is currently set to continue for the next WCC service year with three crews. Sara Grossie, editor of the WCC Maury Island Blog and fellow crew member, hopes that the project will leave behind a Park that people can enjoy forever. It is the long term maintenance of the park that is the only slight concern. However, with a community as dedicated to a cause as the people of Vashon and Maury Island, we can feel reassured that the people will rise to the occasion when they are needed, In order to maintain and preserve what is now the largest area of undeveloped marine coastline in King County.

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Excerpt of A Job Well Done

Written by: Kyle Myers

Upper Right: Nisqually Crew photo Left to Right. Kyle Myers, Meagan Acdal, Johanna Knoche, Sean McGrath, Russell Greer Missing : Stephan Smith and Joshua Coulter

> Photo courtesy of: Russell Greer

It was Thursday, July 11; the mighty Nisqually Crew, led by Admiral Russell, set out to do the unthinkable. Our task was to build both a deck for the refuge enforcement officer, as well as clean his roof and gutters. Pumped and ready, the crew wasted no time loading up the truck with our various tools of construction. Once we were at the site, we tactfully split into teams that could handle the rigors of our tasks. With the ever so cheerful Josh handling the roof solo, the rest of the crew set about tackling the deck. It was approaching lunchtime, and because of our numerous setbacks, the foundation blocks were not even close to being ready. Unsure of if we would finish the deck in one day; the crew went into a raged frenzy. We threw boards around as if their weight did not matter, and a flurry of screws trailed behind them. During all of this chaos, the rain of hundreds of thousands of pine needles and moss fell upon us, as Josh was above us in the hot heat working into overload. The pine needles stuck to our sweat, but it did not matter because our task was not yet finished. Our crew worked in unison, like a pack of wolves hunting an elk. Except instead of the sweet taste of meat, we worked for gratitude. With everyone into a deep animalistic state, time flew by. In what seemed like a matter of minutes, the deck was laid out and screwed down. Once we realized we had finished so quickly, we decided to mock the decking by adding several final additions, such as



stairs and a fascia. After a group victory dance, we loaded up our truck with our trusted tools and proceeded back to base, proud of all the hard work that we had accomplished.

Photo Lower Left: Corpsmember Daniel Vladu and volunteers planting on islands

Photo by: Alex Heye



Floating Islands Continued from Cover page I

amendment. Theoretically, the root systems will grow down into the water column where they too can absorb toxins to be used for food. Additionally, they can provide habitat and beautification to the lake.

Finally, we moved the islands into the lake by canoe to be anchored at their permanent locations. Though they won't completely restore Hicklin Lake, the islands are expected to have a noticeable, positive impact. These islands are very innovative and currently very few are installed in Washington. If water quality improves at Hicklin Lake, we may see more installations of a similar nature in the future.

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Alumni: Where Are They Now?

Written by: Jasmine Davis

Stephen Bean

Stephen Bean served on the Nooksack Salmon Enhancement Association (NSEA) crew in Bellingham, supervised by Justin Lamb, from 2007-2008.

Experience as A WCC member

As a member, Stephen enjoyed the water management tasks of the NSEA crew. Some memorable projects included removing culverts, bridge replacements and reengineering Nooksack riverbanks after a flood. Because of his time served with NSEA Stephen says, "I continued looking for ways I could apply my skills and knowledge which led me to look for jobs in water quality". Stephen's WCC trainings in Hazwoper and GPS/GIS have come in handy for work he has done since leaving the program.

Jobs Following WCC

His first job after WCC involved using Trimble GPS units to mark patches of Japanese Knotweed for spraying. Later, while working as an intern at Joint Base Lewis McChord (JBLM), Stephen took water quality samples from wells associated with a superfund site.

The groundwater in that area was contaminated by dumping of trichloryl ethylene (used as an automotive degreaser) back in the 1950s. This internship led to his current project.

Where is he now?

Stephen currently works as a lab technician for the Des Moines Creek Wastewater Treatment Plant. This plant processes up to 8 million gallons per day. Stephen's role is to analyze samples and run tests, ensuring compliance with a permit issued by the Department of Ecology. Skills necessary for this job include a strong background in chemistry. As it is a wastewater plant, knowledge in hydrology, biology, and, environmental technology is useful as well.

Advice to Current Members

As far as advice for current WCC members, Stephen says "don't let the time just pass you by; anytime something comes up—a training or special project—volunteer for it." He also wishes he had served for a second year. For those entering the work field this fall, Stephen gave guidance on what qualities employers are looking for in a candidate. Stephen believes that being able to handle office politics helped him land his job. Meaning clearly communicating, not gossiping, being open to others' ideas and not taking anything personal. Stephen says, "One thing that has helped me is to leave home at home and work at work. If you have to deal with office politics, don't become Facebook friends with your fellow employees."

Lastly, Stephen says for those who are interested in his line of work, in order to be more noticeable, take the OIT (operator in training) test. You can prepare for this using the *Operation of Wastewater Treatment Plants* book as a study guide. Also taking tours of the plants and asking about job openings or other plants that may be hiring. "Once you're in, your job is fairly secure because everyone poops, even if it is a 'crappy' job".

Photo Left: WCC Alum Stephen Bean at work with his dog, Nala.

Photo courtesy of: Stephen Bean



Fidalgo Bay Beach Cleanup – Sunday, August 18

Would you like to spend a day on the beach helping to protect the unique and ecologically important beaches and tidelands in Fidalgo Bay? Join the community and your fellow WCC Puget Sound Corps crew members as we work to clean up this beautiful area!

- **Who:** Come one, come all! A public event, bring your crew, your friends and family.
- Hosted by the WCC/ Puget SoundCorps, WA DNR, Friends of Skagit Beaches, Skagit Land Trust, Skagit County Marine Resources Committee
- What: Community beach cleanup Fidalgo Bay Aquatic Reserve, near Anacortes, WA
- When: Sunday, August 18 10 a.m. to 2 p.m.

Where: Park at Fidalgo Bay Resort, 4701 Fidalgo Bay Rd., Anacortes <u>Directions</u>

Bring: Work gloves, water, snacks and/or lunch, sunscreen, sunglasses, hat, sturdy work shoes. (DNR will provide garbage bags and forms to track how much and what type of garbage is picked up.)

The **Fidalgo Bay Aquatic Reserve**, which is managed by the WA DNR, spans 780acres and encompasses a distinct set of habitats and species, including tidal flats, salt marshes, sand and gravel beaches, and expansive native eelgrass beds. It also functions as an important setting for public recreation and environmental education. You may be familiar with the nearby Padilla Bay, which has been designated as a National Estuarine Research Reserve, for many of the same reasons.

This event, hosted by a number of community partners, is being organized by the WCC IPs at DNR Aquatic Reserves Program in Olympia. These (6) IP positions are responsible for environmental monitoring and community outreach in seven Aquatic Reserves located throughout the Puget Sound. For more information on these positions, see the job description at IP- Olympia/ DNR Aquatics.

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In addition to the community event, we will be having an informal campout on Saturday Aug 17 at Whistle Lake in Anacortes. For more info about either event, contact WCC members Rose Whitson or Meg Harris, at 360-688-0311 or rose.whitson@dnr.wa.gov.

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