

**CULMINATING PROJECT MENTOR LIST
PROVIDED BY THE ENVIRONMENTAL SCIENCE CENTER FOR STUDENT PROJECTS
2009-2010**

Guidelines-

- ESC is linking the students to the scientists/mentors; they should not attempt to contact the mentors themselves.
- ESC and/or the mentor will interview the students to determine if it is a good match, it is not guaranteed.
- Availability is limited, so all students may not be accommodated, but we will do our best to link as many students to mentors as possible.
- Students must commit to follow through on the project they design with the mentor and ESC will be evaluating the success of the program.

**For additional information, please contact Nicole Killebrew, ESC School Programs
Coordinator at kilnic17@aol.com**

**CULMINATING PROJECTS IN THE FIELDS OF ENVIRONMENTAL EDUCATION, NATURAL
SCIENCES, SUSTAINABILITY, AND GREEN CAREER DEVELOPMENT**

- 1) **Biology, Life Sciences, & Animal Husbandry-** Joy Neubauer, Barb Williams, and Darrell Williams, Seattle Aquarium

Project Description-

- Animal husbandry and care at the Seattle Aquarium
- Biology of marine organisms including fish, invertebrates, marine mammals, and birds
- Life science aquarist and exhibit maintenance

Joy, Barb, and Darrell are Life Science and Interpretation volunteers at the Seattle Aquarium. They are also naturalists in Burien with the Environmental Science Center.

Spend three half days (8:00 AM – 12:00 PM) “job-shadowing” at the Seattle Aquarium during the period from Jan-2010 to the end of school Jun-2010. This is an opportunity to learn about the husbandry and care of marine organisms in captivity.

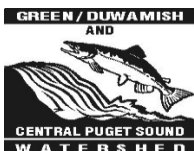
Each day will consist of 4 hours with a different Seattle Aquarium volunteer observing and assisting in three different marine habitats at the Seattle Aquarium- Pacific Coral Reef, Marine Birds, and Marine Mammals.

- 2) **Environmental Engineering-** Chris Jansen, Tetra Tech EC, Inc.

Potential Project Descriptions-

- Geographic Information Systems (GIS) mapping

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- Creating Web tools on transportation issues,
- Environmental justice activism
- Transportation Issues

Chris Jansen has over 25 years experience in Geographic Information System (GIS) management and cartography. He holds a B.S. degree in Geography from Western Michigan University and is on the Green River Community College GIS program Advisory Committee.

His experience includes printed maps for local organizations, environmental sampling work on Super Fund sites, and internet map application development. Currently he is back in environmental engineering with Tetra Tech EC, Inc. after 10 years at King County as part of the GIS Center.

He has a fairly broad background that covers many topics from local history and politics to environmental justice and transportation issues. He is also a Precinct Committee Officer for the 34th District Democrats and involved with Sustainable Burien.

Websites detailing projects that Chris has been involved with-

<http://www.kingcounty.gov/operations/GIS/Maps/VMC/Recreation.aspx#D41D3ABC06334A51ACC2635189FCAB1E>

<http://www.kingcounty.gov/operations/gis/Maps/CensusViewer.aspx>

<http://www.kingcounty.gov/operations/GIS/Maps/iMAP.aspx>

3) **Conservation, Ecology, Sustainability, Environmental Stewardship & Education-** Brook Alford, Duwamish Riverbend Hill Park, Tukwila, WA & Cascade Land Conservancy

The Duwamish Riverbend Hill (DRH) Park trail system, viewpoints, outdoor classroom, trailheads and interpretation signs are currently in development. Vegetation restoration is ongoing. From the top of DRH, you can see the land from Mt Rainier to Elliott bay, and the entire river valley in between. There are many issues to examine including watershed health, shoreline restoration projects, and historical impacts to the area that have created current conditions.

Potential Project Descriptions-

- **Habitat Restoration-** Invasive plant removal, Planting native species, Erosion control, Minor trail grade renovation for site safety
Habitat Restoration- Design and implement an experiment to compare two or more restoration methods for removing invasive grasses and other weeds from specific areas of the Hill. At least 2 plots could be created to compare different methods. Results would be used in restoration planning for future work on the site. Supplies and guidance would be provided from the mentor, as well as Cascade Land Conservancy stewardship staff.
- **Environmental Education-** Invasive vs. Native plant species, Cultural heritage ethnobotany, Cultural interpretation materials development, Salmon habitat/watershed science

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Environmental Education- Create a body of information about the importance of the Duwamish Riverbend Hill Park and how it is connected to the health of the Duwamish River and the watershed. This information would be an introduction to the watershed and watershed conservation and would be used for teaching other students and the general public. Students would select an issue to focus on concerning hydrology, development patterns, low impact development, water usage and runoff, or salmon habitat and life cycle.

Community Outreach- Interview professionals and community members involved in the park project to document the process that has taken place to create the park preserve. This could include documenting the following elements of the process- partnership formation, fundraising, outreach, working with elected officials, creating a master plan, restoration efforts, volunteerism and development. This project has emerged as one of significance due not only to the rich natural and cultural history of the site, but also to the partnerships that have formed around it, including community and tribal interest, and non-profit and City participation. Interviews could include staff of the Cascade Land Conservancy and the City of Tukwila, community members, tribal members and others identified as linked to the site and/or project. The documentation could be written, video, or multi-media.

Brooke is involved with many environmental and conservation organizations in the area including the Cascade Land Conservancy, Parks Commission, and the Duwamish River Clean-up Coalition. She is a King County Watershed Steward, Cascade Land Conservancy King County Community Trustee, and President of the Board for the Green/Duwamish Watershed Alliance. She is the liaison to the Tukwila School District, project coordinator of the 2008 watershed conservation program, and stewardship leader for the Friends of the Hill.

Websites describing the Project and Partners-

<http://www.duwammishhill.org>

<http://www.cascadeland.org/about-clc/trustees/king-county-trustees/king-trustee-bios-1>

4) Sustainable Forest Management, Habitat Restoration, & Environmental Education- Kent Horton, Camp Waskowitz (*)

Camp Waskowitz has 350 acres of forest land. It could host a project surrounding land use studies or sustainable forest management practices. Camp Waskowitz is owned by the Highline School District.

Potential Project Descriptions-

- Native plant species identification and data collection.
- Organizing work groups to clear invasive plants from the forest and replant with native vegetation.
- Create an informational presentation about why planting native plants and removing invasive plants is important.
- Do a reforestation follow-up study of an area at camp where an alder forest was cut a few years ago.

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- Develop a classroom lesson or forest walk with an environmental teaching or educational component.

Kent is a Retired science teacher from HSD (Cascade Middle School), was the Director at Camp Waskowitz, is a grant writer for People for Puget Sound, and is a furniture maker. He will work with Roberta McFarland, the Director at Camp Waskowitz to help design the culminating project based on specific student interests.

5) Ecology, Economy, & Community Service- Paul Andersson, Sustainable Seattle (*)

Potential Project Descriptions-

- Sustainability program development for schools or businesses. Students would be able to pursue the work of making schools or businesses more aware and accountable for the environmental impact of their systems (transportation, food, curriculum, etc).
- Develop and deliver a presentation to teachers, principals, or business stakeholders about more sustainable alternative procedures (e.g. a new recycling program), measuring and documenting waste and pollution, or creating a healthier environment.

6) Volunteerism, Habitat Restoration, & Forest Ecology- Stacy Cachules, Cascade Land Conservancy (CLC) (*)

Potential Project Descriptions-

- Coordinate and promote a volunteer event for Cascade Land Conservancy.
- Create a poster to promote the volunteer program and distribute to local schools.
- Start an environmental restoration club in your school and coordinating fellow students to volunteer in a local park.

Stacy is the Manager of Volunteer Programs for the Cascade Land Conservancy and works with students across the region on projects ranging everywhere from website design and management to on the ground restoration planning. The CLC's mission is to preserve great lands and create great communities.

For additional information on Cascade Land Conservancy visit: www.cascadeland.org

7) Sustainability Practices, Water Quality, City Government, & Local Television- Kathy Keene, Burien City Council Member, Public Works Trust Fund and Water District Board

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- Design and implement a study to examine the water quality, storm water run-off, or garbage/waste management in your neighborhood and deliver a presentation to a community group or school.
- Visit the Cedar River and create a poster about drinking water, watershed health, and water conservation to be displayed at a community center or school.
- Conduct a study about renewable energy and develop a plan to implement alternative power supplies in the community (e.g. solar lights for city streets).
- Create a project surrounding sustainability practices and develop a presentation for the Burien City Council.
- Examine the storm water and sewer systems (infrastructure) in your neighborhood and create a poster or presentation to teach others about these systems and their impact on water quality.

8) Parks and Recreation Management & Community Outreach- Lisa Aumann, Burien Parks and Recreation

Potential Project Descriptions-

- Come to a Parks Dept restoration event; learn about invasive plants and the purpose of restoration events. Then design, organize, and implement a restoration event.
- Learn about the history of your local neighborhood, research a specific topic of choice, and create a presentation about the project.
- Design and conduct a research experiment about a neighborhood or community event or issue. Create and deliver a presentation outlining the project and the results of the experiment.

(*These mentors could assist more than one student with their culminating projects

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