

## Board and Commission Application

### Step 1

Application for Appointment to Whatcom County Boards and Commissions

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#### Public Statement

*THIS IS A PUBLIC DOCUMENT: As a candidate for a public board or commission, the information provided will be available to the County Council, County Executive, and the public. All board and commission members are expected to be fair, impartial, and respectful of the public, County staff, and each other. Failure to abide by these expectations may result in revocation of appointment and removal from the appointive position.*

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Title *Field not completed.*

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First Name Julie

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Last Name Hirsch

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Today's Date 11/19/2022

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Street Address [REDACTED]

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City [REDACTED]

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Zip [REDACTED]

---

Do you live in & are you registered to vote in Whatcom County? Yes

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Do you have a different mailing address? *Field not completed.*

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Primary Telephone [REDACTED]

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Secondary Telephone *Field not completed.*

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Email Address [REDACTED]

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### Step 2

1. Name of Board or Committee Drayton Harbor Shellfish Protection District Advisory Committee

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|---|--|
| 2. Do you meet the residency, employment, and/or affiliation requirements of the position for which you're applying?                                      | Yes  |
| 3. Which Council district do you live in?   | District 3   |
| 4. Are you a US citizen?  | Yes  |
| 5. Are you registered to vote in Whatcom County?  | Yes  |
| 6. Have you declared candidacy (as defined by RCW 42.17A.055) for a paid elected office in any jurisdiction within the county?                            | No   |
| 7. Have you ever been a member of this Board/Commission?  | Yes  |
| If yes, please list dates:  | 2019-2022  |
| 8. Do you or your spouse have a financial interest in or are you an employee or officer of any business or agency that does business with Whatcom County? | No   |
| You may attach a resume or detailed summary of experience, qualifications, & interest in response to the following questions                              | Attached   |
| 9. Please describe your   | Current: Program Manager; Garden of the Salish Sea |

occupation (or former occupation if retired), qualifications, professional and/or community activities, and education

Curriculum, affiliate of the Pacific Shellfish Institute.

## EDUCATION

- M.S. Applied Microbiology, Northern Arizona University, Flagstaff Arizona  
Protection District Advisory Committee
- B.A. Biology, Western Washington University, Bellingham Washington

## PROFESSIONAL EXPERIENCE

- Appointments:
- Drayton Harbor Shellfish Protection Advisory Committee (Whatcom County) – current.
- Blaine High School Continuing Technical Education Advisory Committee (Agriculture/Aquaculture) - current.
- Western Washington University Community Engagement Fellows, (2017)
- Whatcom Coalition for Environmental Education

Highlights: GSSC submitted a Puget Sound Partnership Near Term Action Item that is now included in the 2018-2022 Puget Sound Action Agenda: Puget Sound 2018-0795 Whatcom County Focused - Community Based K-12 Shellfish Education, and Stewardship: Meeting Washington Shellfish Initiative Goal 7: Educate the next generation about shellfish resources, ecosystem services and water quality.

1996-2022

Garden of the Salish Sea Curriculum (GSSC) ([gardensalishsea.org](http://gardensalishsea.org)) founder of a novel K-12 environmental science program, created in 2012 that uses shellfish as a vehicle to teach pollution prevention and climate science centered upon hands-on learning through field experience and an action-oriented Salish Sea Challenge. Mission: Inspire practice of stewardship by educating the next generation about shellfish resources, ecosystem services and water quality. Students empowered to pursue conservation and science careers engage their families and communities.

GSSC was piloted under fiscal sponsorship of the Puget Sound Restoration Fund for public schools in Whatcom County Washington in partnership with their Drayton Harbor Community Oyster Farm. GSSC transitioned to fiscal sponsorship from the Pacific Shellfish Institute in 2016. (2012-present).

Water Quality Consultant, founding owner of Hirsch Consulting Services, LLC a firm providing environmental consulting services to local and state governments, non-profit organizations, Indian

Tribes and water purveyors.

#### Consulting Projects

- Cain Creek Restoration and Park Planning. Coordination, publicity and implementation of restoration(mitigation) project to design and install interpretive signage, conduct Nature's Path & community work parties, work parties to restore riparian habitat along this urban creek that is across the street from Blaine Schools. Public awareness and outreach are coordinated and partnered with Garden of the Salish Sea Curriculum schools' program, Blaine Washington (Nature's Path Foods partnered with City of Blaine (2017-present.)
- Climate Science Teacher's Summit. Participated in collaborative partnership with 4 other local non-profit community-based education organizations to provide professional development training for teachers incorporating climate science with Next Generation Science Standards (NGSS). (Office of the Superintendent of Public Instruction, 2018-2019 through sub-contract with Nooksack Salmon Enhancement Association)
- Climate Science Teachers' Workshops. Provided GSSC supplemental field training to Climate Science Teacher's Summit and presentations at 3 teachers' workshops. (Northwest Educational Service District 189, 2019)
- Drayton Harbor/Semiahmoo Bay Water Quality Enhancement, managing comprehensive Centennial Grant project with water quality monitoring, restoration and corrective action planning and public awareness and education components. Public awareness and outreach is coordinated and partnered with Garden of the Salish Sea Curriculum schools program, Blaine Washington (Blaine Public Works Department, 2014 -2017).
- Drayton Harbor TMDL support and microbial source tracking (MST) phase 3, Drayton Harbor and Semiahmoo Bay, including preparation of QAPP, coordination of partners, sampling, reporting, presentation and technical work group facilitation for freshwater and marine water quality, microbial source tracking (MST) and circulation studies. (Nooksack Indian Tribe, 2009-2010).
- Drayton Harbor MST pilot study Phase 1 & 2 used ribotyping and polymerase chain reaction methods, Drayton Harbor, Whatcom County, Washington. Preparation of monitoring plan, coordination/training of partners, sampling, reporting and presentation. (Puget Sound Restoration Fund, Whatcom County, 2006-2009).
- Drayton Harbor bacteria TMDL assessment, Whatcom County Washington including; water quality sampling and data review as

part of Ecology/Whatcom County TMDL team. (Whatcom County Public Works, Natural Resources, 2008).

- California Creek tributary monitoring, Drayton Harbor watershed, Whatcom County Washington including; preparation of quality assurance project plan, performance of water quality sampling, data assessment, and reporting. (Whatcom County Public Works, Stormwater, 2006-2007)
- Whatcom County MRC Volunteer Monitoring Program in Drayton Harbor, Birch Bay, and Chuckanut drainages of Whatcom County Washington. Included QAPP development, volunteer training, data assessment, and reporting. (Whatcom County Public Works, Stormwater, 2006-2007)
- Optical brightener MST study, California Creek. Assisted in planning, conducted sampling. (Herrera Environmental Consultants, Seattle, WA under contract to Whatcom County Public Works, Stormwater, 2006-2007.)
- Feasibility study for microbial source tracking projects in the Drayton Harbor watershed, Whatcom County WA, 2005 (Puget Sound Restoration Fund, 2005).
- Groundwater monitoring and reporting for a State Model Toxics Control Act designated site, 1997- 2007 (Port of Bellingham, WA).
- Water quality monitoring in Blaine Harbor, Drayton Harbor, and Semiahmoo Bay including performance of water quality sampling, data assessment, reporting, and report presentation (Port of Bellingham 2001-2009).
- Public drinking water system monitoring in Whatcom and San Juan Counties, 1997-2007.
- Stormwater treatment pilot project monitoring and evaluation, Blaine Harbor including; preparation of quality assurance project plan, performance of water quality sampling, data assessment, and reporting. (Port of Bellingham, 2004).
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- Water quality monitoring in the Drayton Harbor watershed for a Clean Water Act Centennial grant including preparation of quality assurance project plan and performance of water quality sampling, stormwater sampling, and reporting Whatcom County, 2002-2004. (ReSources for Sustainable Communities and Port of Bellingham).
- Preparation of citizen's water quality training manual and quality assurance project plan, and presentation of training session in Whatcom County Washington, 2002 (ReSources for Sustainable Communities).
- Whatcom County Shellfish Protection Implementation – data management, and design of district water quality database, coordinating stakeholder agencies in water quality monitoring programs, 1999-2001. (Whatcom County Health and Human Services, Water Resources Division, and Whatcom Conservation

District)

- Preparation of stormwater pollution prevention plans for industrial activities, 1998- 2000 (Port of Bellingham WA).
- Industrial stormwater inspections under Washington State's Stormwater General Baseline Permit, 1997-ongoing. (Port of Bellingham WA).
- Lake Whatcom and Whatcom Creek water quality and sediment sampling including; preparation of quality assurance project plans, stormwater sampling and reporting. (Washington State Department of Ecology 1997-1998, Bellingham, WA).
- Surface water sampling, fresh and marine waters, 1998 (Lummi Indian Business Council, Bellingham, WA)
- Water resource inventory and assessment including wetlands identification, fish habitat inventory, water quality monitoring, and review of existing records for rural property, and housing developments with evaluation of drinking water and wastewater systems, 1997 (Nooksack Indian Tribe, Deming WA)..
- Development of moderate risk waste facility concept design at Squalicum Harbor Marina, 1997 (Port of Bellingham, Bellingham)
- Design and presentation of water quality workshops for schools and community steward groups, 1990-1996 (Bellingham, WA).

1990-1996

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Watershed Workshop Educator for community watershed stewardship groups and schools in Whatcom County Washington. Developed and presented water quality and bioassessment workshops for audiences of all ages.

US-Asia Environmental Fellow for US-AID program in Kathmandu Nepal. Designed and executed bench scale wastewater treatment experiments for Nepal Environmental and Scientific Services Ltd. Trained staff in preparation for a pilot plant study.

Microbiology QA/QC Consultant for Department of Health (DOH)

laboratory certification for the microbiological analysis of drinking water in Washington State. Services performed for the City of Everett Washington.

1987-1990

Field and Laboratory Water Quality Technician for consultant Dr. H.K. Speidel, Northern Arizona University, Flagstaff, Arizona. Performed sampling, and water quality testing in rural and urban settings. Instructed biology courses.

1980-1985

Forestry Technician (seasonal) for the U.S Forest Service. Performed water quality sampling as part of western U.S. wilderness lakes survey, performed wildlife surveys, trail maintenance and crew supervision.

#### PROFESSIONAL MEMBERSHIPS

Certified Women's Business Enterprise, State of Washington certified Women's Business Enterprise.  
Water Treatment Plant Operator certified Group II, Washington State Department of Health, certificate #6347, expired.  
Waste Water Treatment Plant Operator certified Group I, Washington State Department of Ecology, certificate,#5965, expired.

#### PUBLICATIONS, REPORTS AND PRESENTATIONS

Hirsch Consulting Services, Llyn Doremus and Geoff Menzies, 2010. Addendum to Drayton Harbor Watershed Fecal Coliform TMDL and Phase 3 Microbial Source Tracking; Semiahmoo Bay. July 2010. Prepared for the Nooksack Indian Tribe, Deming Washington.

Hirsch Consulting Services, 2009. Drayton Harbor Watershed Microbial Source Tracking Pilot Study Phase 2: California Creek, Dakota Creek and Cain Creek Sub-watersheds. September 2009. Prepared for the Whatcom County Public Works Department - Stormwater, Bellingham Washington.

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Hirsch Consulting Services, 2008. California Creek and Drayton Harbor Microbial Source Tracking Pilot Study. December, 2008. Prepared for the Whatcom County Public Works Department Natural Resources Division, Bellingham Washington.

Hirsch Consulting Services, 2007. California Creek Tributary Monitoring. September, 2007  
Prepared for Whatcom County Public Works Stormwater, Bellingham, Washington.

Hirsch Consulting Services, 2007. California Creek Tributary Monitoring. September, 2007. Prepared for Whatcom County Public Works Stormwater, Bellingham, Washington.

Hirsch Consulting Services, 2006. Whatcom County Volunteer Monitoring Program for Drayton Harbor, Birch Bay, and Chuckanut Bay Watersheds. July, 2007. Prepared for Whatcom County Public Works Stormwater, Bellingham, Washington.

Hirsch Consulting Services, 2006. Whatcom County Volunteer Monitoring Program for Drayton Harbor, Birch Bay, and Chuckanut Bay Watersheds Quality Assurance Project Plan . December, 2006. Prepared for Whatcom County Public Works Stormwater, Bellingham, Washington.

Hirsch Consulting Services, 2006. California Creek and Drayton Harbor Microbial Source Tracking Pilot Study Monitoring Plan. December 2006. Prepared for the Puget Sound Restoration Fund, Bainbridge Island, Washington.

Hirsch Consulting Services, 2006. California Creek tributary Monitoring Quality Assurance Project Plan. April 2006. Prepared Whatcom County Public Works Stormwater Division, Bellingham, Washington.

Hirsch Consulting Services and TEC Inc., 2006. 2005 Blaine Harbor Water Quality Monitoring Summary and Recommendations. April 2006. Prepared for the Port of Bellingham, Bellingham, Washington.

Hirsch Consulting Services, 2005. Technical Memorandum, RE: Microbial Source Tracking Techniques Review for Fecal Source Identification in the Drayton Harbor Watershed. Prepared for the Puget Sound Restoration Fund, Bainbridge Island, Washington.

Hirsch Consulting Services and TEC Inc., 2005. Drayton Harbor Water Quality Monitoring Summary for 2004 and Recommendations. April 2005. Prepared for the Port of Bellingham, Bellingham, Washington.

Hirsch Consulting Services, 2004. Blaine Harbor Stormwater Treatment Pilot Monitoring. August 2004. Prepared for the Port of Bellingham, Bellingham, Washington

Hirsch Consulting Services, 2004. Stormwater Fecal Coliform Bacteria Sampling at Blaine Harbor. June 2004. Prepared for the Puget Sound Restoration Fund and Whatcom County Water Resources Division, Bellingham, Washington.

The Environmental Company Inc., and Hirsch Consulting Services, 2004. Technical Memorandum, RE: 2003 Drayton Harbor Water Quality Monitoring Summary and Recommendations. April 2004. Prepared for the Port of Bellingham, Bellingham, Washington.

Hirsch Consulting Services and Puget Sound Restoration Fund, 2004. Non Point Pollution Solutions Water Quality Monitoring. May 2004. Prepared for ReSources for Sustainable Communities for Department of Ecology Grant #G0200269, Bellingham Washington.

The Environmental Company Inc., and Hirsch Consulting Services, 2004. Technical Memorandum, RE: Drayton Harbor Water Quality Monitoring Summary for 2002 and Recommendations for Monitoring in 2003. February 2003. Prepared for the Port of Bellingham, Bellingham, Washington.

The Environmental Company Inc., and Hirsch Consulting Services, 2003. Technical Memorandum, RE: Drayton Harbor Water Quality Monitoring Summary for 2002 and Recommendations for Monitoring in 2003. February 2003. Prepared for the Port of Bellingham, Bellingham, Washington.

Hirsch Consulting Services, 2002. Puget Sound BayKeeper Environmental Monitoring Program Training Manual. September 2002. Prepared for ReSources for Sustainable Communities, Bellingham, Washington.

Hirsch Consulting Services, 2002. Puget Sound BayKeeper Environmental Monitoring Program Quality Assurance Project Plan. August 2002. Prepared for ReSources for Sustainable Communities, Bellingham, Washington.

Hirsch Consulting Services, 2002. Quality Assurance Project Plan for Non-Point Pollution Solutions Water Quality Sampling. July 2002. Prepared for ReSources for Sustainable Communities, Bellingham, Washington.

Hirsch Consulting Services, 2001. Preliminary Narrative Description and Quality Assurance Project Plan for Whatcom

Watersheds Pledge; Drayton Harbor Monitoring Component, Comprehensive Drayton Harbor & Lower Nooksack River Project. June 2001. Prepared for the Whatcom County Council of Governments.

The Environmental Company Inc., and Hirsch Consulting Services, 2001. Technical Memorandum, RE: Drayton Harbor Water Quality Monitoring Summary for 2000 and 2001 and Recommendation for Future Monitoring. March 2001. Prepared for the Port of Bellingham.

Hirsch Consulting Services, 2000. Drayton Harbor Shellfish Protection District Water Quality Summary. Prepared for Whatcom County, Health and Human Services, Bellingham Washington, October 2000.

Hirsch Consulting Services, 2000. Portage Bay Shellfish Protection District Water Quality Summary. Prepared for Whatcom County, Health and Human Services, Bellingham Washington, October 2000.

Hirsch Consulting Services, 2000. Coordinated Water Quality Monitoring Framework for Drayton Harbor Shellfish Protection District. Prepared for Whatcom County, Health and Human Services, Bellingham WA, January 2000.

Hirsch Consulting Services, 2000. Coordinated Water Quality Monitoring Framework for Portage Bay Shellfish Protection District. Prepared for Whatcom County, Health and Human Services, Bellingham Washington, January 2000.

Serdar, D., D,Davis, and J. Hirsch, 1999. Lake Whatcom Cooperative Drinking Water Protection Project. Publication # 99-337, Washington State Department of Ecology, Olympia WA. Prepared for the Department of Ecology, Bellingham Field Office, September 1999.

Hirsch, J.L. 1998. Narrative Description and Quality Assurance Plan Lake Whatcom Watershed - Cooperative Drinking Water Protection/Sampling. Prepared for the Washington State Department of Ecology.

Hirsch, J.L. 1997. (DRAFT) Resource Inventory and Assessment of Nooksack Indian Tribal Properties: Tenaska, Five Cedars, and Rutsatz . Prepared for the Nooksack Indian Tribe.

Hirsch, J.L. 1996. City of Bellingham Streams Monitoring: Data Summary and Program Review. An assessment of urban impacts to stream water quality based on five years of data collection addressing program objectives and public involvement.

Prepared for the City of Bellingham.

Hirsch, J.L. 1996. Lakes Comparison Summary: Lake Whatcom, Lake Sammamish, Lake Washington. An assessment of potential impacts on a municipal drinking water source . Prepared for the City of Bellingham.

Hirsch, J.L. and Ann Sandvig (1996) Impacts of Corrosion Control Optimization on Distribution System Water Quality. Presented for the City of Bellingham and Economic and Engineering Services Incorporated at the AWWA Pacific Northwest Section annual meeting, 1996.

Hirsch, J.L. (1995). Corrosion Control Optimization; The Bellingham Experience. Presented for the City of Bellingham at the AWWA Pacific Northwest Section annual meeting, 1995.

Hirsch, J.L., H.K. Speidel and G. Bell (1990). Light Induced Factors Influencing Bacterial Survival in Oxidation Lagoons. American Society for Microbiology Annual Meeting Proceedings, 1990.

Hirsch, J.L., M. Stevens and L. Villalobos (1989). Pathogen Die-off in Oxidation Lagoon Water and in Unialgal Culture. American Society for Microbiology Annual Meeting Proceedings, 1989.

Hirsch, J.L. and H.K. Speidel (1988). The Significance of Algae in Waste Water Lagoon Systems. Presented at the American Society for Microbiology, Arizona Branch annual meeting, 1988.

References provided upon request.

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10. Please describe why you're interested in serving on this board or commission

I have worked professionally in the the Drayton Harbor watershed and in Whatcom County shellfish education since 1990. Shellfish education in Blaine.

GSSC is a K-12 environmental science program that uses shellfish as a vehicle to teach marine science with hands-on learning through field experience.

We empower stewardship to support a thriving Salish Sea and healthy oceans globally that can feed us. Our education and outreach are inspired by the wonders of shellfish, science & community!

GSSC works to empower students to lead the way by nurturing the seeds of curiosity, knowledge, and science into action!. Students lead their families and communities in practicing watershed healthy and climate friendly habits by taking the Salish Sea Community Challenge to practice watershed healthy habit and climate friendly practices.

We want to stay connected with the Whatcom County SPDAC to forward our vision of maintaining approved shellfish harvest at Drayton Harbor and Whatcom County Shellfish Districts through outreach and education.

Thank you for the opportunity to serve on the Whatcom County Shellfish Protection District(s).

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References (please include daytime telephone number):

George Kaas, Drayton Harbor Shellfish Protection District Advisory Committee (360)739-8914  
Richard Beauregard, Drayton Harbor Shellfish Protection District Advisory Committee (714) 981-2871

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Signature of applicant:

Julie Hirsch

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Place Signed / Submitted



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(Section Break)

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# HIRSCH CONSULTING SERVICES, LLC

*Environmental Services  
Specializing in Water Quality*

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## JULIE HIRSCH - Owner/Principal



### EDUCATION

- M.S. Applied Microbiology, Northern Arizona University, Flagstaff Arizona

Protection District Advisory Committee

- B.A. Biology, Western Washington University, Bellingham Washington

### PROFESSIONAL EXPERIENCE

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- **California Creek tributary monitoring**, Drayton Harbor watershed, Whatcom County Washington including; preparation of quality assurance project plan, performance of water quality sampling, data assessment, and reporting. (**Whatcom County Public Works, Stormwater, 2006-2007**)
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- **Design and presentation of water quality workshops** for schools and community steward groups, 1990-1996 (Bellingham, WA).

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### **PROFESSIONAL MEMBERSHIPS**

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**Water Treatment Plant Operator** certified Group II, Washington State Department of Health, certificate #6347, expired.

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