# Citizen Advisory Group Application

## Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

| Applicant Name  | Melanie Keenan                                 |
|---|--|
| Email   |  |
| Phone   |  |
| Address   |  |
| City  | BI   |
| State   | WA   |
| Zip   | 98110  |
| Current Employer  | Self-Employed                                  |
| Current Position  | Geologist Hydrogeologist                       |
| I am interested in<br>serving on one of the<br>following advisory<br>groups (select all that<br>apply): | Environmental Technical Advisory Committee     |
| Experience & Qualification  | ons  |
| Have you served on<br>any city advisory<br>groups in the past?  | No   |
| If so, please indicate which groups:  | Field not completed.                           |
| Please share your qualifications for this appointment (skills,  | Licensed Geologist Hydrogeologist, see resume. |

| activities, training,<br>education) if any:  |   |
|--|---|
| Please share your<br>community interests<br>(groups, committees,<br>organizations) if any: | Water Resource Citizen Group on Bainbridge Island, Co-author<br>for Sole Source Aquifer Designation Petitions for Bainbridge<br>Island and Kitsap Peninsula, Kitsap Master Gardener, Wyckoff<br>Superfund Citizen Group, Past Co-Chair Kitsap Food and Farm<br>Policy Committee appointed by the County Commissioners,<br>Code Change and Comp Plan Update volunteer. Various<br>geology hydrogeology groups and events. 4-H Leader Volunteer,<br>Kitsap Water Festival Volunteer. Artist Ceramics Printmaking,<br>School Science Volunteer |
| Feel free to attach your resume (optional):  |   |
| Type the Year  | 2018  |
| How did you hear<br>about the volunteer<br>opportunity?                                    | Other - See below   |
| Other  | Council   |

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## Melanie Keenan, L.G., L.HG.

DUE DILIGENCE/ HYDROGEOLOGIC STUDIES

## **EXPERIENCE SUMMARY**

Ms. Keenan is a professional geologist and hydrogeologist with extensive experience conducting and managing Phase I and II environmental site assessments on behalf of Fortune 500 companies and law firms. Her experience includes providing third party oversight for hydrogeologic investigations and contaminant characterization. She has served as a technical investigator and writer for several municipal ground water management plans in King County in western Washington. Additionally, she is proficient in scientific illustration and computer graphics.

## SELECTED PROJECTS

Project Hydrogeologist, Contamination Assessment Oversight, Seattle, Washington. Conducted oversight of soil and ground water contamination assessment projects on behalf of downtown Seattle property owners for various environmental engineering consulting firms. Oversight required detailed documentation of investigative activities and scrutiny of quality assurance procedures, technical report writing and review.

Project Hydrogeologist, Ground Water Management Plan Preparation and Hydrogeologic Studies, East King County, Washington. Technical contributor to the compilation and state approval of Group A Comprehensive Water System Plans. Plans include system description; water supply and water demand analysis and forecasting; evaluation of system reliability and source water protection; development of operations & maintenance and system improvement programs and operations.

Project Hydrogeologist, Ground Water Management Plan Preparation. Compiled and edited draft reports for input and data from the South King County Ground Water Advisory Committee. Managed the publication of the final South King County Ground Water Management Plan, which was developed to meet this area's ground water protection needs. Plan included: an area characterization report, identification and description of threats to ground water, recommended strategies and implementation process and public involvement.

Project Hydrogeologist, Regulatory Research, Hanford Nuclear Reservation, Richland, Washington. Conducted regulatory research; findings aided DOE in budgeting and re-definition of long-term objectives.

## EDUCATION

Post-graduate studies in Hydrogeology, California State University, Fullerton B.S. Geology, Colorado State University

## **EMPLOYMENT HISTORY**

- Independent Consulting Geologist/Hydrogeologist, 1994 to Present.
- Hydrogeologist, Various Engineering Consulting Firms, 1987 to 1993.
- Geologist, Various Mining Companies, 1983 to 1987.

## REGISTRATION

Washington Professional Geologist and Hydrogeologist #1722, 2002.

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| Applicant Name  | Charles Kratzer                            |
|---|--|
| Email   |  |
| Phone   |  |
| Address   |  |
| City  | Bainbridge Island                          |
| State   | WA   |
| Zip   | 98110                                      |
| Current Employer  | Retired                                    |
| Current Position  | NA   |
| I am interested in<br>serving on one of the<br>following advisory<br>groups (select all that<br>apply): | Environmental Technical Advisory Committee |
| Experience & Qualification  | ons  |
| Have you served on<br>any city advisory<br>groups in the past?  | Yes  |
| If so, please indicate which groups:  | ETAC                                       |
| Please share your qualifications for this appointment (skills,  | see resume                                 |

| activities, training,<br>education) if any:  |                      |
|--|----------------------|
| Please share your<br>community interests<br>(groups, committees,<br>organizations) if any: | Field not completed. |
| Feel free to attach your resume (optional):  |                      |
| Type the Year  | 2018                 |
| How did you hear<br>about the volunteer<br>opportunity?                                    | Other - See below    |
| Other  | currently serving    |
|  |                      |

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## **CHARLES R. KRATZER**

#### EDUCATION

University of California, Los Angeles Environmental Science and Engineering Program Doctor of Environmental Science and Engineering

University of Florida Environmental Engineering Sciences Dept. Master of Engineering

University of California, Davis Civil Engineering Dept. Bachelor of Science

#### EXPERIENCE

MEMBER, ENVIRONMENTAL TECHNICAL ADVISORY COMMITTEE City of Bainbridge Island July 1, 2015 – June 30, 2018

The committee is appointed by the City Council to advise the City Council, City Manager, and City staff on environmental management issues.

PROPOSAL REVIEWER Water Quality, Supply and Infrastructure Improvement Act (CA Proposition 1, Nov. 2014) Delta Water Quality and Ecosystem Restoration Grant Program September, 2015 – November, 2015 (Allen Barnes, UC Davis, 530-754-8408)

Reviewed proposals on water quality and ecosystem restoration for the California Department of Fish and Wildlife. The reviewed proposals totalled about \$5 million in requested funding.

CHAIR, PANEL REVIEW Ecosystem Restoration Program Independent Review Panel San Joaquin River Stockton Ship Channel Dissolved Oxygen TMDL – WARMF and Link-Node Models September, 2013 – March, 2014 (Allen Barnes, UC Davis, 530-754-8408)

Led a panel to evaluate the proposed use of two models by the state regulatory agency to manage a TMDL control program. The issue deals with the effects of the hyper-eutrophic San Joaquin River on the dissolved oxygen levels in the downstream estuary. After reviewing many documents and a two-day meeting with the project team, wrote and assembled a final report from the panel to the state.

SENIOR ENGINEER, WATER RESOURCES Department of Water Resources Division of Integrated Regional Water Management Sacramento, CA 10/09 to 8/12 (Supervisor: Mike Floyd, 916-651-9208) Designed monitoring requirements and protocols for statewide groundwater level reporting program. Led committee on protocols and chaired group that developed guidance document for prospective monitoring entities. Work team lead for regional forums (12 regions statewide) to elicit regional input to the California Water Plan (CWP), a document produced every 5 years to guide management of California's water resources. Chairperson for statewide conference (270 attendees) on integrated regional water management. Member of CWP work teams on climate change, tribal involvement, and groundwater.

SUPERVISORY HYDROLOGIST U.S. Geological Survey Sacramento, CA 10/00 to 10/09 (Supervisor: Neil Dubrovsky, 916-278-3078)

Study unit chief for the San Joaquin-Tulare Basins study unit of the National Water Quality Assessment (NAWQA) program (see http://ca.water.usgs.gov/sanj). Responsible for all aspects of this \$1- to 2-million per year program. Supervised staff of 6 to 10 hydrologists, biologists, field personnel, and a GIS/database manager. Worked closely with the GIS staff person to design the NAWQA website, using ArcGIS and Adobe Illustrator. Principal investigator and contract manager for two multi-year, million-dollar spinoff projects: (1) evaluation of pesticide sources (atmospheric and land-based), occurrence, transport, and fate and bioassessments of selected waterbodies in the San Joaquin Valley; and (2) evaluation of groundwater nitrate inputs to the lower San Joaquin River and the sources of the nitrate. Both projects were conducted to provide technical support to the state regulatory agency for the development of TMDLs. Supervised two graduate students in the Geology Department at California State University, Sacramento and served on their graduate committees.

Served on a technical committee to work with the San Francisco Estuary Partnership on designing a Delta Regional Monitoring Program. This partnership is part of the National Estuary Program as is Puget Sound Partnership. As NAWQA chief, I reviewed products and consulted with USGS personnel in Washington State on Puget Sound NAWQA studies.

## HYDROLOGIST

U.S. Geological Survey Sacramento, CA 10/91 to 9/00 (Supervisor: Neil Dubrovsky, 916-278-3078)

Surface water specialist for San Joaquin-Tulare Basins study unit of the NAWQA program. Designed and supervised several surface-water sampling projects to evaluate transport and fate of pesticides from agricultural and urban sources, during storm and non-storm flows. Coordinated these sampling efforts with time-of-travel dye studies to put resulting data into a lagrangian context for interpretation. Also, designed a monitoring, assessment, and research program for water quality in the San Joaquin River Basin for the CALFED program. Acted as California District TMDL coordinator and representative to USEPA Nutrient Criteria Team (Region 9). Served on a technical committee to develop a TMDL for selenium in the San Joaquin River Basin.

Project chief for several water resources/water quality spinoff projects, including: (1) assessment of water quality in Abbotts Lagoon at Point Reyes National Seashore (funded by National Park Service); (2) determination of selenium transport in Panoche Creek (funded by U.S. Bureau of Reclamation); (3) evaluation of surface water/ground water interactions and transport of water quality constituents in Santa Clara River in LA County (funded by LACSD); (4) determination of storm-driven transport of diazinon and chlorpyrifos in the San Joaquin River Basin (funded by CA Dept. of Pesticide Regulation); (5) evaluation of historical nutrient loads and trends in tributaries to Lake Tahoe (co-project chief; funded by Lahontan RWQCB); and (6) evaluation of nutrients and oxygen-consuming substances in the San Joaquin River Basin that contribute to low dissolved oxygen in the Stockton Deep Water Ship Channel (funded by CALFED and CA Dept. of Water

Resources). Projects 4 and 6 were conducted to provide technical support to the state regulatory agency for the development of TMDLs. As project chief and contract manager, I was responsible for all aspects of the projects from data collection to monitoring the budget to writing the final report.

## EARLIER WORK EXPERIENCE

- o State Water Resources Control Board Technical expert on San Joaquin Valley water resources, modeling of San Joaquin River; technical evaluations, compliance inspections, and sampling related to agricultural and point-source regulations.
- o UCLA Modeling salinity and water levels in Salton Sea, estimating heat dissipation from cooling water, and evaluating physical criteria for wind energy development.
- o South Florida Water Management District Managed Lake Okeechobee water quality studies, including collecting, analyzing, and writing up water chemistry data.
- o University of Florida Used computer models and statistics to analyze existing data on nutrient loading and trophic conditions in Florida lakes.

## **OVERSEAS EXPERIENCE**

VOLUNTEERS IN OVERSEAS COOPERATIVE ASSISTANCE (VOCA) Strezevo Water Quality Project (EM084) Republic of Macedonia May 1-25, 1995

Evaluated water quality of Strezevo Reservoir and recommended a monitoring program, changes in the laboratory, and use of a eutrophication model.

#### **MEMBERSHIPS**

American Water Resources Association American Geophysical Union Professional Engineer, State of California, Reg. No. C038369 Professional Engineer, State of Washington, License No. 51489

#### SELECTED PUBLICATIONS

Zamora, C., Dahlgren, R.A., Kratzer, C.R., Downing, B.D., Russell, A.D., Dileanis, P.D., Bergamaschi, B.A., and Phillips, S.P., 2013, Groundwater contributions of flow, nitrate, and dissolved organic carbon to the lower San Joaquin River, California, 2006—2008: USGS Scientific Investigations Report 2013-5151, 105 p. (available on-line at: http://pubs.er.usgs.gov/publication/sir20135151)

Kratzer, C.R., Kent, R.H., Saleh, D.K., Knifong, D.L., Dileanis, P.D., and Orlando, J.L., 2011, Trends in nutrient concentrations, loads, and yields in streams in the Sacramento, San Joaquin, and Santa Ana Basins, California, 1975—2004: USGS Scientific Investigations Report 2010-5228, 112 p. (report and database available on-line at: <u>http://pubs.usgs.gov/sir/2010/5228/</u>)

Kratzer, C.R., Saleh, D.K., and Zamora, C., 2006, Assessment of hydrologic and water quality data collected in Abbotts Lagoon watershed, Point Reyes National Seashore, California, during water years 1999 and 2000: U.S. Geological Survey Scientific Investigations Report 2005-5261, 35 p. (available on-line at: <u>http://pubs.usgs.gov/sir/2005/5261</u>)

Majewski, M.S., Zamora, C., Foreman, W.T., and Kratzer, C.R., 2006, Contribution of atmospheric deposition to pesticide loads in surface water runoff: USGS Open-File Report 2005-1307 (available on-line at: <u>http://pubs.usgs.gov/of/2005/1307</u>)

Kratzer, C.R., Dileanis, P.D., Zamora, C., Silva, S.R., Kendall, C., Bergamaschi, B.A., and Dahlgren, R.A., 2004, Sources and transport of nutrients, organic carbon, and chlorophyll-a in the San Joaquin River upstream of Vernalis, California, during summer and fall, 2000 and 2001: USGS Water-Resources Investigations Report 03-4127, 113 p. (available on-line at: <a href="http://pubs.usgs.gov/wri/wri034127">http://pubs.usgs.gov/wri/wri034127</a>)

Cox, M.H., Mendez, G.O., Kratzer, C.R., and Reichard, E.G., 2003, Evaluation of tracer tests completed in 1999 and 2000 on the upper Santa Clara River, Los Angeles and Ventura Counties, California: U.S. Geological Survey Water-Resources Investigations Report 03-4277, 92 p. (available on-line at: <u>http://pubs.er.usgs.gov/publication/wri034277</u>)

Kratzer, C.R., Saleh, D.K., and Zamora, C., 2002, Selenium and sediment loads in storm runoff in Panoche Creek, California, February 1998: USGS Water-Resources Investigations Report 02-4286, 38 p. (available on-line at: <u>http://pubs.usgs.gov/wri/wri024286</u>)

Kratzer, C.R., Zamora, C., and Knifong, D.L., 2002, Diazinon and chlorpyrifos loads in the San Joaquin River Basin, California, January and February 2000: U.S. Geological Survey Water-Resources Investigations Report 02-4103, 38 p. (available on-line at: <u>http://pubs.usgs.gov/wri/wri02-4103</u>)

Rowe, T.G., Saleh, D.K., Watkins, S.A., and Kratzer, C.R., 2002, Streamflow and water-quality data for selected watersheds in the Lake Tahoe Basin, California and Nevada, through September 1998: U.S. Geological Survey Water-Resources Investigations Report 02-4030, 118 p. (available on-line at: <u>http://pubs.usgs.gov/wri/wri024030</u>)

Kratzer, C.R., 1999, Transport of sediment-bound organochlorine pesticides to the San Joaquin River, California: Journal of American Water Resources Association, 35:957-981.

Kratzer, C.R., 1999, Transport of diazinon in the San Joaquin River Basin, California: Journal of American Water Resources Association, 35:379-395.

Dubrovsky, N.M., Kratzer, C.R., Brown, L.R., Gronberg, J.M., and Burow, K.R., 1998, Water quality in the San Joaquin-Tulare basins, California, 1992-95: USGS Circular 1159, 38 p. (available online at: <u>http://pubs.er.usgs.gov/publication/cir1159</u>)

Kratzer, C.R. and Shelton, J.L., 1998, Water-quality assessment of the San Joaquin-Tulare Basins, California: analysis of available data on nutrients and suspended sediment in surface water, 1972-90: USGS Professional Paper 1587, 92 p. (available on-line at: <u>http://pubs.er.usgs.gov/publication/pp1587</u>)

Kratzer, C.R., 1998, Pesticides in storm runoff from agricultural and urban areas in the Tuolumne River Basin in the vicinity of Modesto, California: U.S. Geological Survey Water-Resources Investigations Report 98-4017, 17 p. (available on-line at: http://pubs.er.usgs.gov/publication/wri984017)

Kratzer, C.R. and Biagtan, R.N., 1997, Determination of traveltimes in the lower San Joaquin River Basin, California from dye-tracer studies during 1994-95: U.S. Geological Survey Water-Resources Investigations Report 97-4018, 20 p. (available on-line at: <u>http://pubs.er.usgs.gov/publication/wri974018</u>)

Kratzer, C.R. and Grober, L.F., 1991, San Joaquin River salinity: 1991 projections compared to 1977: California Agriculture, vol. 45, no. 6, pp. 24-27.

## SELECTED INVITED PRESENTATIONS

Kratzer, C.R., Dahlgren, R.A., Zamora, C., and Dileanis, P.D., 2009, Salinity inputs to the San Joaquin River from groundwater: 27<sup>th</sup> Biennial Groundwater Conference and 18<sup>th</sup> Annual Meeting of the Groundwater Resources Association of California, October 6-7, 2009, Sacramento, CA.

Kratzer, C.R., and Saleh, D.K., 2007, Trends in nitrate and other nutrients in the San Joaquin River, California: ASA-CSSA-SSSA 2007 International Annual Meetings, November 4-8, 2007, New Orleans, LA.

Kratzer, C.R., and Dahlgren, R.A., 2006, Investigations of nitrate in the lower San Joaquin River, California: California Plant and Soil Conference, CA Ch of Am Society of Agronomy, February 7-8, 2006, Visalia, CA.

Kratzer, C.R., Zamora, C., and Domagalski, J.L., 2004, Monitoring diazinon and chlorpyrifos for TMDL development: Soc of Environ Tox and Chem, 25<sup>th</sup> Annual Meeting, November 14-18, 2004, Portland, OR.

Kratzer, C.R., and Dileanis, P.D., 2004, Water quality monitoring design issues for Central Valley, California streams: Salmonid Restoration Fed, 14<sup>th</sup> Intl Salmon Enhancement Workshop, March 17-18, 2004, Davis, CA.

## SELECTED TRAINING COURSES

**USGS** Training Courses:

"Leadership Intensive"; "SPARROW Surface-Water Quality Modeling"; "Statistical Techniques for Trend and Load Estimation"; USGS Western Region Managers Development Program; USGS Western Region Supervisory Training; "Ground Water/Surface Water Relationships"; "Quality Control Sample Design and Interpretation".

Other Training Courses:

"Facilitation Training", Center for Collaborative Policy, Sacramento, CA.

"Nondetects and Data Analysis" Training course presented by Practical Stats (Dr. Dennis Helsel), Seattle, WA.

USDA Graduate School training courses, "Introduction to Supervision" (SUPV 7001); "Supervision and Group Performance" (SUPV 8001).

ArcGIS Training:

"ArcGIS Desktop I: Introduction to GIS (ArcGIS 10.1)", King County GIS Center, May 5-6, 2014

## **VOLUNTEER ACTIVITIES**

City of Bainbridge Island, Department of Public Works: Flow measurements and water-quality sampling of Bainbridge Island creeks, October 2014 to Present (Cami Apfelbeck, COBI Water Resources Specialist, 206-780-3779, capfelbeck@bainbridgewa.gov)

Sakai Intermediate School: Volunteer for "Read Naturally" and "Math Olympiad" programs.

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| Applicant Name  | William Neff  |
|---|---|
| Email   |   |
| Phone   |   |
| Address   |   |
| City  | Bainbridge Island   |
| State   | WA  |
| Zip   | 98110   |
| Current Employer  | Eduvate, LLC  |
| Current Position  | Operations Manager  |
| I am interested in<br>serving on one of the<br>following advisory<br>groups (select all that<br>apply): | Environmental Technical Advisory Committee  |
| Experience & Qualification  | ons   |
| Have you served on<br>any city advisory<br>groups in the past?  | Yes   |
| If so, please indicate which groups:  | Senior Technical Advisor -for Rocky Flats Coalition of Local Governments, Colorado, 1994-1997   |
| Please share your qualifications for this appointment (skills,  | Twenty five years of professional experience working as an<br>environmental consultant with top global engineering firms, three<br>years of experience in public advocacy leadership, technical |

| activities, training,<br>education) if any:  | environmental project experience in WA state, Master's degree in<br>Environmental Pollution Control (Penn State), B.S. in Geology<br>(Hamilton College), group facilitation training |
|--|--|
| Please share your<br>community interests<br>(groups, committees,<br>organizations) if any: | Protecting the environment   |
| Feel free to attach your resume (optional):  |  |
| Type the Year  | 2018   |
| How did you hear<br>about the volunteer<br>opportunity?                                    | Newspaper  |
| Other  | Field not completed.   |

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## William Neff

## Operations Manager at Eduvate LLC

## Summary

Twenty-five years of professional experience as an environmental scientist. Fifteen years of consulting experience, including eight as consulting firm operations manager. Currently serving as Operations Manager at Eduvate LLC, an educational technology consultancy based in Seattle, Washington.

## Experience

Operations Manager at Eduvate LLC, March 2008 - Present

• Providing consulting and management services in the educational systems and technologies work space.

Senior Environmental Scientist at URS Corporation, April 2003 - December 2014

- Managed environmental clearance and permitting activities for a natural gas utility.
- Provided hazardous waste, hazardous materials, toxic substance reporting, and pollution prevention expertise to defense agencies and installations.
- Performed environmental due diligence studies at a variety of commercial and government facilities and properties.

Project Manager/Environmental Scientist at Los Alamos Technical Associates, April 1999 - April 2003

- Project Manager U.S. Army Chemical Munitions Storage RCRA Part B Permitting
- Project Manager Rocky Mountain Arsenal South Plants Well Decommissioning

Senior Technical Advisor, August 1997 - April 1999

• Advised local government officials of potential environmental and public health impacts of nuclear operations, cleanup, and site reuse plans for the Rocky Flats site.

Staff Scientist at Olympus Environmental, February 1994 - August 1997

 Performed environmental field services including emergency response, LUST decommissioning and cleanup, hazardous waste characterization and disposal, lead abatement, environmental sampling, and planning services.

Hydrologic Researcher at Land and Water Research Institute, November 1991 - December 1993

• Half-time assistantship position developing a Water Resource Management Plan for the National Park Service Hopewell Furnace Historic Park near Philadelphia, PA.

Volunteer Field Mapper at Environmental Research Group, December 1986 - September 1989

 Gathered field data and prepared a site resource map of The Grottos public recreational area along the Roaring Fork River, east of Aspen, CO. The map was used as a key reference in an application prepared by the ERG to obtain USFS special protection status for the Grottos Area (now protected).

## Education

Master of Science, Environmental Pollution Control, Hydrology, Penn State, 1991 - 1993 Associate coursework, Engineering Calculus, Physics & Chemistry, CU-Boulder, 1989 - 1991 Bachelor of Arts, Geology, Writing, Hamilton College, 1982 - 1986

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| Applicant Name  | Juan Rovalo  |  |
|---|--|--|
| Email   |  |  |
| Phone   |  |  |
| Address   |  |  |
| City  | Bainbridge Island  |  |
| State   | WA   |  |
| Zip   | 98110  |  |
| Current Employer  | In Site and Associates   |  |
| Current Position  | Founder and CEO  |  |
| I am interested in<br>serving on one of the<br>following advisory<br>groups (select all that<br>apply): | Environmental Technical Advisory Committee   |  |
| Experience & Qualifications   |  |  |
| Have you served on<br>any city advisory<br>groups in the past?  | No   |  |
| If so, please indicate which groups:  | Field not completed.   |  |
| Please share your qualifications for this appointment (skills,  | Biologist, Ms. Experience in ecological assessments,<br>Restoration, Conservation, Consultant for built environment<br>projects with environmental high-performance goals. |  |

| activities, training,<br>education) if any:  |  |
|--|--|
| Please share your<br>community interests<br>(groups, committees,<br>organizations) if any: | I am interested in environmental activities (Puget Sound<br>Restoration Fund, Bainbridge Island parks, Bainbridge Island<br>Land Trust, BI Wildlife Shelter) preparedness (Bainbridge<br>Prepares and Hub volunteer and WFR), Bainbridge Island<br>Rowing, Diving (Certified by Exotic Aquatics), Security and<br>community participation (Currently in the Citizen Police<br>Academy) |
| Feel free to attach your resume (optional):  |  |
| Type the Year  | 2018   |
| How did you hear<br>about the volunteer<br>opportunity?                                    | Other - See below  |
| Other  | Was mentioned by Ron Peltier and Jason Wilkinson   |

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## JUAN ROVALO

BIOLOGIST | MSc | MBA | CERTIFIED BIOMIMICRY PROFESSIONAL

## PROFILE

Juan Rovalo is a leading expert in restoration and conservation, integrated ecological asset management, and strategic land stewardship. He is a highly skilled biologist with 20 years of experience whose strength lies in his strategic leadership for mission-driven companies and projects. With a portfolio that includes 100+ interdisciplinary ecological projects located in 8 countries on 5 continents over 15+ unique ecoregions, Juan has a strong track record of successful coordination of complex multi-faceted projects, interdisciplinary teams, and stakeholder groups. From the lab to the field, Juan has experience in scientific research design and implementation, including the development and tracking of Key Performance Indicators that align and empower his teams. Through his company ownership experience, Juan brings strong entrepreneurial and business acumen to his work including business development, compelling communications and public relations, partnership engagement, and development of strong brand identity. Through innovative approaches to his personal mission for ecological restoration and conservation, including deep expertise in biomimicry, Juan seeks high impact opportunities and partnerships for amplifying the possibility of creating conditions conducive to life on Earth.

## SKILLS BASE

Conservation and restoration planning & management Research design, implementation & interpretation Ecological site analysis, remote GIS, & field studies Program management and interdisciplinary team coordination Entrepreneurship, business management, and partnership engagement Public speaking and stakeholder engagement International and intercultural dynamics Biomimicry

## EDUCATION

| 2016 | Masters of Science, Biomimicry, Arizona State University                          |
|------|---|
| 2008 | Masters of Business Administration (MBA), Universidad<br>Iberoamericana (Pending) |
| 2002 | BS Biology, Universidad Nacional Autónoma de Mexico (UNAM)                        |

## TRAINING

| 2017 | Health Care Provider CPR & AED  |
|------|---|
| 2017 | Wilderness First Responder Certification  |
| 2017 | Advanced Open Water Diver Certification   |
| 2015 | Pathways to Adaptation to Climate Chance, The Case of Small<br>Island Developing States (SIDS), Prof. Martin Beniston, IPCC,<br>University of Geneva (online) |
| 2015 | Geospatial Intelligence, Prof. Donald R. Shemanksi, Pennsylvania<br>State University (online)   |
| 2015 | Disasters & Ecosystems: Resilience in a Changing Climate,<br>Dr. Rajendra K. Pachauri, UNEP (online)  |
| 2010 | Biomimicry Professional Certificate, The Biomimicry Institute   |
| 2008 | Biomimicry Workshop, Universidad Iberoamericana, Dept of<br>Architecture, Biomimicry Guild  |
| 2008 | Reintroduction of Plants to their Natural Habitat, Prof. Joyce<br>Maschinski, XXI National Meeting of Botanical Gardens                                       |
| 2007 | Biomimicry Workshop, Universidad Iberoamericana, Dept of<br>Architecture, Biomimicry Guild  |
| 2007 | Edible Forestry Design, Planning, and Management, Eric<br>Toensmeyer  |
| 2000 | Agribusiness seminar, ITESM   |
| 1998 | Oak Taxonomy, Ecology and Management, Benemerita<br>Universidad de Puebla   |

## PROFESSIONAL HISTORY

2014 - Current Founder, IN SITE Establishment of world-class ecological site analysis and land stewardship services company. Project examples include: Blackadore Caye | Restorative development and conservation planning, island ecological baselining, natural resource management planning, stakeholder engagement, & biomimetic design "Factory as a Forest," Ecological Performance Standards | Researching local ecosystem functional attributes and development of a performance dashboard to inform design and operational policies of manufacturing facility Gross National Happiness Centre, Bhutan | Site analysis, cultural and ecological integration planning, risk reduction, and resource management planning South Africa Fynbos | Conservation and protected area management plan, including presentation to Eden to Addo committee members Safi, Morocco, Jacobs Engineers | Master planning for net zero waste and ecological integration of new government facility Aromas Mexicanos | Ecological identity research for nationallybased perfumery Dellekamp Arquitectos | Site analysis and natural zoning 2005 - 2014 Founder, Taller Operaciones Ambientales (TOA) Interdisciplinary partnership between biologists, industrial designers, architects, and permaculturists in pursuit of holistic sustainable design. Over 500 projects completed. Project examples include: Reserva Santa Fe | Ecological assessment and baselining, management and strategical planning for conservation and

restoration

|             | Culiacan Botanical Garden   Design and ecological consultancy of botanical garden development  |
|-------------|--|
| 2011        | Masters Degree Curriculum Development, Ecological Program<br>Developer, Universidad Medio Ambiental (UMA)  |
| 2010        | Costa Rica Biomimicry Workshop Co-Instructor<br>Collaboration with Biomimicry 3.8  |
| 2007        | Veracruz Biomimicry Workshop Co-Instructor<br>Collaboration with the Biomimicry Guild and Universidad<br>Iberoamericana                          |
| 2002 - 2005 | Food Product Research & Development, Marcovich Katz Group  |
| 2000        | Lecturer, Latin American Association of the Mycology Ecology<br>Institute A.C., Seminar in edible mushrooms                                      |
| 1999 - 2002 | Researcher, Food & Biotechnology Laboratory at the Universidad<br>Nacional Autónoma de Mexico (UNAM)<br>Edible and medicinal mushroom production |
| 1998        | Researcher, Desarrollo y Ecología S.A de C.V<br>Mycology study and fungal inventory  |
| 1996 - 1999 | Food Production and Administration, Homenaje S.A. de C.V,<br>Michoacan, México   |
| 1996        | Lecturer, Benemérita Universidad Autónoma de Puebla (BUAP)<br>Seminar in Quercus genera, ecology, and restoration                                |
| 1995 - 1996 | Ecological Workshop Developer and Instructor, OIKOS A.C.,<br>Tlaxcala, México  |

# SPEAKING ENGAGEMENTS

| Sep 2017 | Designing with Nature, Living Product Challenge Conference,<br>Pittsburgh PA |
|----------|--|
| Aug 2016 | Climate Change Keynote, Culiacan Botanical Garden, Culiacan<br>Mexico        |

- Oct 2015 Place, Natural Environment and Built Environment, Diploma Course for Design of Sustainable Cities and Communities, Universidad Iberamericana
- Apr 2015 Ecology, Business, & Design, Living Futures un Conference
- Feb 2015 Biomimicry & Ecological Corridors, Eden to Ado, South Africa
- Dec 2014 Biomimicry, Culiacan Botanical Garden
- Oct 2014 Science and Technology Commission of Zacatecas
- Sep 2014Process of Site Analysis, Diploma Course for Design of<br/>Sustainable Cities and Communities, Universidad Iberamericana
- Feb 2014 Conference at Culiacan Botanical Garden
- Feb 2014Systems Thinking: Gaia and Anima Mundi, Diploma Course of<br/>Sustainable Design and Construction, Universidad Iberamericana
- Sep 2013 Biomimicry, Starbucks
- Sep 2013 Arquine Congress, Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)
- Sept 2013 Place, Natural Environment and Built Environment, Diploma Course for Design of Sustainable Cities and Communities, Universidad Iberamericana
- Mar 2013 <u>Biomimicry and Corn</u>: Identity, Social Organization, and Production, Cycasa
- Mar 2013 Biomimicry, Burt's Bees
- Mar 2013 Collaboration & Interdisciplinary Team, Arizona State University
- Feb 2013 Biomimicry & Leadership, Carlos Mota
- Feb 2013Keynote Speech on Biomimicry, Mid-Atlantic Horticultural Society
- Oct 2012 Biomimicry, SXSW Eco
- Sept 2012 Place, Natural Environment and Built Environment, Diploma Course for Design of Sustainable Cities and Communities, Universidad Iberamericana
- Jun 2012 Mexico Architectural Association
- Mar 2012 Biomimicry in the Plains, BNIM

- Jun 2011 Keynote Speech on Ecology & Biomimicry, Technical School of Valle de Bravo (TESVB)
- Oct 2010 Ecological Diploma guest lectures, Universidad Medio Ambiental (UMA)
- Mar 2010 Systems Thinking: Gaia, Universidad Iberamericana
- Sep 2008 Redesign and Renovation of the Botanical Garden of Culiacan, XXI National Meeting of Botanical Gardens
- Apr 2008 Site Analysis, Diploma Course of Sustainable Design and Construction, Universidad Iberamericana
- Mar 2008 Wisdom of Natural Systems, Diploma Course of Sustainable Design and Construction, Universidad Iberamericana
- May 2002 Effect on incubation period over the biological efficiency of Lentinufa edodes, IV Latin American Congress of Ecology
- Jun 2000 The Three Jewels of Qi Gong, Mexican Association of Medical Acupuncturists

## PUBLICATIONS & EXHIBITS

Ecology Pocket Guide, <u>ecologypocketguide.com</u> Developed free web app and quick reference for ecological systems for designers, architects, and planners

<u>Leonardo DiCaprio Builds an Eco-Resort,</u> New York Times, April 2015 IN SITE featured in article covering Blackadore Caye project and its ecological restoration goals

<u>Biomimicry Challenge: TOA Uses Fungus to Reimagine Sustainable Neighborhoods,</u> Fast Company, May 2010

<u>Asteroide B612 Diseño Regenerativo y Balances Ambientales Exhibit</u>, Modern Art Museum in Mexico City

# Citizen Advisory Group Application

## Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

| Applicant Name  | Steve Saepoff   |
|---|---|
| Email   |   |
| Phone   |   |
| Address   |   |
| City  | Bainbridge Island   |
| State   | WA  |
| Zip   | 98110   |
| Current Employer  | Naval Facilities Engineering Command Northwest  |
| Current Position  | Environmental Engineer  |
| I am interested in<br>serving on one of the<br>following advisory<br>groups (select all that<br>apply): | Climate Change Advisory Committee , Environmental Technical<br>Advisory Committee, Multi-Modal Transportation Advisory<br>Committee, Utility Advisory Committee               |
| Experience & Qualification  | ons   |
| Have you served on<br>any city advisory<br>groups in the past?  | No  |
| If so, please indicate which groups:  | Field not completed.  |
| Please share your<br>qualifications for this<br>appointment (skills,                                    | WA State Professional Engineer focus on Environmental<br>Engineering Former Coast Guard Officer Masters Degree in<br>Environmental Engineering and Management Worked at Corps |

| projects Currently work on remediation of<br>ed sites |
|---|
| y Participate with Climate Action Bainbridge          |
|   |
| mpleted.  |
| below   |
| friend  |
|   |

Email not displaying correctly? View it in your browser.

## **KEY QUALIFICATIONS**

- Project / Program Management
- Security Engineering
- Sustainable Design and Construction Management
- Public Administration
- Environmental Remediation
- Environmental Compliance
- Contract Management A&E, Construction and Service

- Federal Acquisition Procedures and Quality Assurance
- Staff Training, Development and Supervision
- Program Analysis, Supervision
- Personnel, Finance and Safety Management
- Regulator & Stakeholder Relations Management
- Environmental Engineering
- Interagency Coordination

## WORK EXPERIENCE

Supervisory Environmental Engineer / Contracting Officer's RepresentativeGS-0819-132/2018 – 6/2018Naval Facilities Engineering Command NorthwestEnvironmental Restoration (ER) TeamSilverdale, WASupervisor: Dina Ginn 360-396-0016Full-time 40 hours/weekSalary: \$115,778Temporary supervisor of 8 exempt Remedial Project Managers that manage ER at Naval Installations in Washington and Oregon.Oversaw the preparation of \$19,000,000 2019 ER budget submit to NAVFAC HQ. Developed Statement of EnvironmentalArchitect-Engineering Services for a \$30,000,000 contract solicitation and the technical solicitation documents and GovernmentCost Estimate for \$40,000,000 Environmental Services Indefinite Quantity Indefinite Delivery Contract. Performed internal quality<br/>review of all task order technical solicitation and cost estimates prepared by staff. Continue to perform other duties as COR.

Environmental Engineer / Contracting Officer's Representative (COR)GS-0819-127/2015 – PresentNaval Facilities Engineering Command Northwest (NAVFAC)Environmental Restoration TeamSilverdale, WASupervisor: Chris Generous 360-396-0014Full-time 40 hours/weekSalary: \$101,307In addition to COR accomplishments listed below, managed the Five Year Review for the former Naval Air Facility Adak AK.Supported RPMs with semi-annual ER,N budget submit preparation to NAVFAC HQ. Served on Technical Evaluation Board forEnvironmental Multiple Award Contract Task Order source selection.Network with NAVFAC CORs nationwide to obtain capacityon multiple IDIQ contracts in support of project execution.Conduct peer bid-ability, operability and constructability QC review of allSOW and GE prior to submission to Acquisition Branch.Provide DOJ with technical support for Navy Potentially Responsible Partysites under CERCLA and RCRA,Manage the Cooperative Agreement between the Navy and WA Department of Ecology.

Supervisory Environmental Engineer / Contracting Officer's Representative GS-0819-13 3/2015 - 7/2015 Naval Facilities Engineering Command Northwest Environmental Restoration Team Silverdale, WA Supervisor: Dina Ginn 360-396-0016 Full-time 40 hours/week Salary: \$115,778 Temporary supervisor of 4 exempt and 2 non-exempt staff. Initiated and completed employee performance evaluations. Conducted and recorded staff monthly safety training. Hired engineer as Remedial Project Manager. Managed and approved employee travel, overtime, payroll and leave. Managed development of the Spring 2015 ER.N budget submission. Networking with BRAC PMO, WA Department of Ecology and Department of Health Managers. Member, NAVFAC Risk Assessment Workgroup (RAW); Lead of the Radiation Risk Assessment Subcommittee, where I sponsored the development of a Navy Technical Report on Radiological Site Characterization and Risk Assessment and coordinated subcommittee review and input. Also as RAW Member, I reviewed and edited content regarding emerging contaminants for the NAVFAC Interim Perfluoroalkyl and Polyfluoroalkyl Substances Site Guidance for Remedial Project Managers. Member of the NAVFAC Naval Installation Restoration Information Solution (NIRIS) Workgroup.

| Environmental Engineer / Contracting Officer's Representative |                                      | GS-0819-12           | 12/2012 – 2/2015         |
|---|--------------------------------------|----------------------|--------------------------|
| Naval Facilities Engineering Command Northwest                | Environmental Restoration Team       |                      | Silverdale, WA           |
| Supervisor: Dina Ginn 360-396-0016                            | Full-time 40 hours/week              |                      | Salary: \$97,370         |
| As COR, administered multiple environmental service           | e and Architect-Engineer (A-E) Indef | inite Delivery Indef | finite Quantity (IDIQ)   |
| contracts and task orders with a cumulative value in          | excess of \$125M. Lead team of 2 Q   | uality Assurance F   | Field Representatives to |
| monitor contractor execution of over 60 active task of        | rders in Washington and Alaska. Im   | plemented NAVFA      | C mandated COR and       |

CPARS procedural changes and trained RPM staff on requirements. Responded to contractor inquiries with technical interpretation and clarification of solicitation, contract and task order requirements. Oversaw development of solicitation technical requirements and chaired the Technical Evaluation Board for a \$30M environmental services IDIQ contract source selection and a \$30M A-E slate. Ensured prompt progress payment processing and timely contractor performance evaluations in CPARS. Conduct peer bid-ability, operability and constructability QC review of all SOW and GE prior to submission to Acquisition branch. Member, NAVFAC Risk Assessment Workgroup; Lead of the Radiation Risk Assessment Subcommittee.

## Environmental Consultant

4/2012 – 12/2012

Environmental Coalition of South Seattle Seattle, WA Conducted a modified Phase 1 Environmental Site Assessment of two Seattle neighborhoods for local non-profit organization.

## Chief, Military / HTRW / Inter-Agency Project Management (PM) Branch

U.S. Army Corps of Engineers, Sacramento District Sacramento, CA Supervisor: Michael J. Rosnack, Chief, LMER, 916-557-5106 Full-time 40 hours/week Salary: \$113,849 Direct supervisor to three (3) first line supervisors, two (2) administrative staff, and manager of 35+ PM staff. Strategic acquisition planning. Developed and executed annual Branch budget. Hired engineers as project managers. Established relationships with client organizations. Tracked status on hundreds of projects monthly and reported metrics to executive leadership.

• Led PM Branch in 2009 and 2010 to manage project teams resulting in award of over \$350M in construction, A-E and environmental service contracts and improved customer satisfaction based on annual customer survey results. Projects supported multiple programs to include Air Force and Army Military Construction (MILCON), Formerly Used Defense Sites, Environmental Restoration, Army and Air Force, Munition Response Program, CERCLA projects for EPA, and BRAC.

## Senior Project / Program Manager

U.S. Army Corps of Engineers, Seattle District

 12/1999 - 12/2008

 Seattle, WA

 Full-time 40 hours/week
 Salary: \$95,878

 GS-0801-13 Step 6

- MILCON Program Manager / Senior Project Manager. GS-0801-13 Step 6 Led project teams consisting of Corps staff or A-E firms that developed solicitation documents and managed construction of sustainable military facilities to include battalion complexes, fitness centers, family housing, aircraft hangar renovations, fire station, office spaces, a community activity center and maintenance facilities with an aggregate value in excess of \$550M, for the Army in Alaska and Washington and Air Force in Montana and Oregon. In response to Hurricane Katrina, deployed to Mississippi coast as a Debris Mission Specialist, worked 78 hours per week - placed 1,200 Quality Assurance Representatives in the field daily.
- Superfund Program Manager / Environmental and Inter-agency Project Manager. GS-0819-12/ Temp 13 Oversaw five PMs execute a \$20M program supporting the EPA. Managed the development of solicitation documents and contract award of the Upgrade, Operation and Maintenance Task Order Contract for the Water Treatment Plant at the Bunker Hill Superfund Site. Developed and negotiated all Task Order requirements. Managed Targeted Brownfield Assessment for EPA and two turnkey design/construction projects for the U. S. Customs and Border Protection that included real estate acquisition, NEPA compliance, and furnishing valued at \$12.5M.
  - Led in-house teams that completed a Vulnerability Assessment of an Acid Mined Drainage Treatment Plant and provided engineering solutions to Seattle Public Utility to protect city waterworks against terrorist threats.
  - To avoid critical performance failure, completed the first major cleanout and renovation of a 27 year old wastewater treatment plant at Bunker Hill on schedule by maintaining 24 hour operations for two weeks. Performed 12-hour night shift Quality Assurance duties.
  - Led the project team that awarded the construction of the first northern Border Protection Sector HQ facility authorized under the Patriot Act.
  - Managed the team that provided one year of contract administrative support to the US DOE Office of River Protection for a \$4B cost+ contract with Bechtel National Inc. for the design and construction of a Waste Treatment and Immobilization Plant using plasma arc incinerator technology for mixed waste.

> Military Project Manager.

## GS-0801-12

Managed 8 MILCON design and construction projects, worth over \$130M for the Air Force in Montana and the Army in Washington. Specific duties include development of project management plans, scopes of work for A-E design, A-E

GS-0340-14 Step 4

#### **12/2008 – 2/2012** Sacramento. CA

negotiations, budget development and management of project funds, and led in-house Request for Proposal preparation teams with an emphasis on sustainable design. Led planning and design charrettes and facilitated value engineering studies. Chaired source selection evaluation boards for Design-Build contracts. Monitored construction progress, coordinated modification approval with clients and managed project closeout.

## Remedial Project Manager / Environmental Services Manager

GS-0819-12

## 7/1996 to 12/1999 Poulsbo, WA

Naval Facilities Engineering Command, Northwest.

Managed post Record of Decision Remedial Actions at Superfund sites on federal facilities, including converting a landfill into an integrated ecologically restored vegetative cover with a shoreline erosion protection component at NBK Bangor. Achieved remedy in-place status at three remedial action sites in one year. Coordinated public and regulatory agency partnering in support of environmental projects. Prepared cost estimates, negotiated, developed task order specifications and administered environmental remediation contracts. Established strategic project budgets in the Cost-To-Complete module of NORM. Evaluated remedial technologies and negotiated cleanup activities with state regulatory agencies. Peer reviewed draft Remedial Investigations/Feasibility Studies, Proposed Plans, Human Health and Ecological Risk Assessments, and draft Records of Decision. Obtained authorization and funding to manage over \$1M worth of hydro-geologic and eco-toxicologic studies and research performed by the US Geologic Survey.

- Co-sponsored the development of a Natural Attenuation Guidance Publication for Navy and Marine Corps sites. •
- Participated in WA Brownfields / Total Petroleum Hydrocarbon Project Oversight Group and the Sediment Management • Standards Implementation Committee, reviewed draft revisions to the Washington State Department of Ecology Model Toxics Control Act and Sediment Management Standard regulations and prepared formal Navy comments.
- Managed a \$4M Environmental Compliance Program and worked with environmental staffs from 6 naval installations to • develop annual requirements, market NAVFAC resources, and coordinate project execution for projects supporting installation compliance with CWA, CAA, SDWA, ESA, RCRA and TSCA.
- Researched and implemented innovative technology to cleanup a PCB contaminated site resulting in a cost avoidance of • over \$275K at SWFPAC.
- Successfully competed for \$250K in federal research & development funding to establish toxicity data on ordnance • chemicals in the benthic environment. Drafted the Sampling and Analysis Plan. Collected marine sediment samples.

## Hazardous Material Compliance Program Manager

89 Civil Engineering Squadron / 89 Environmental Flight

Andrews Air Force Base, MD Oversaw base-wide environmental compliance with federal and state laws concerned with hazardous materials. Conducted environmental compliance audits and pollution prevention site assessments. Chaired contingency planning meetings and provided technical guidance to First Responders for cleanup of hazardous material spills.

- Prepared and submitted to EPA, installation's first Emergency Planning and Community Right-to-Know Act Section 311 and first two 312 reports, also known as Emergency and Hazardous Chemical Inventories.
- Managed contracts that drafted Facility Response Plan, Lead-Based Paint Management Plan, and surveyed 700 • transformers for PCBs and replaced 23 - making the base PCB free.

## U.S. Coast Guard Officer

## EDUCATION / LICENSES / CERTIFICATES

- WA Environmental Professional Engineer, 1999
- DAWIA Level II Facilities Engineering
- MSE, Environmental Engineering and Management, The Catholic University of America, Washington, DC
- BS, Marine Sciences, U.S. Coast Guard Academy, New London, CT

Grants & Cooperative Agreements for Federal Personnel, 2017 Navy Executive Institute II, 2017 Ecological Risk Assessment, 2015 Basic HR Training for Supervisors Course, 2015

Holds Secret Security Clearance •

GS-0819-12

• 40-hour HAZWOPER

CLM 014 IPT Management & Leadership, 2015 CLE 008 Six Sigma: Concepts & Processes, 2015 CLC 108 Strategic Sourcing Overview, 2015 Advanced Risk Communication, 2015 Natural Resource Damage Assessment, 2014

5/1982 - 6/1994

6/1994 - 7/1996

Advanced Munitions Response Site Management, 2014 8-hour HAZWOPER Refresher, 2014 CLC 222 Contracting Officer's Representative, 2014 Navy Executive Institute I, 2014 NAVFAC Source Selection, 2013 NAVFAC AE Contracting, 2013 NAVFAC Contracting Officer's Representative, 2013 ASTM Environmental Site Investigations, Phase 1 & 2, 2012 Landmark Worldwide Communication Course Series, 2012 Project Management - Military Program, 2011 USACE Budget Training, 2010 Managing Project Managers, 2010 LEED Implementation Workshop, 2009 Army Civilian Leader Basic, 2009 DAU Contracting Officers Representative, Dec 2008 Leadership and Emotional Intelligence, 2008 LEED Technical Workshop, 2005 Federal Appropriations Law Refresher, 2005 Design-Build Construction, 2004 Estimating for Construction Modifications, 2003 Construction Contract Administration, 2001 Project Management Fundamentals, 2001 Federal Appropriations Law, 2000 Security Engineering, 2000 Sustainable Design, 2000 Basic & Advanced Groundwater Investigations, 1999 Environmental Risk Assessment, 1999 Managing Environmental Quality Assurance, 1999 Principle Centered Leadership, 1998 Advanced Environmental Restoration, 1998 Environmental Negotiation, 1998 EPA Preliminary Assessments / Site Inspections, 1997 Health and Environmental Risk Communication, 1997 EPA Remedial Process, 1997 EPA Superfund Treatment Technologies, 1996 40 hour HAZWOPER (29 CFR 1910.120), 1995 AHERA Project Designer, 1995 Lead-Based Paint Worker, 1994 Erosion and Sediment Control, 1994

# Citizen Advisory Group Application

## Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

| Applicant Name  | Casey Schmidt   |
|---|---|
| Email   |   |
| Phone   |   |
| Address   |   |
| City  | Bainbridge Island   |
| State   | WA  |
| Zip   | 98110   |
| Current Employer  | Desert Research Institute   |
| Current Position  | Assistant Research Professor  |
| I am interested in<br>serving on one of the<br>following advisory<br>groups (select all that<br>apply): | Environmental Technical Advisory Committee  |
| Experience & Qualification  | ons   |
| Have you served on<br>any city advisory<br>groups in the past?  | No  |
| If so, please indicate which groups:  | Field not completed.  |
| Please share your qualifications for this appointment (skills,  | I have a BS from the University of Washington in Biology and a<br>minor in Fisheries and Aquatic Sciences (2001). I worked for<br>over one year in a UW limnology lab studying the water quality of |

| activities, training,<br>education) if any:  | Lake Washington, Puget sound, and rivers all along King County.<br>I received my MS and PhD from the University of Florida in Soil<br>and Water Sciences. Currently, I work remotely on federal grants<br>where I serve as the principal investigator for environmental<br>science related projects across the United States. In my career I<br>have worked on stream and wetland restoration, agricultural<br>water quality remediation, estuarine ecology, urban stormwater,<br>and urban forestry and I have taught college courses to graduate<br>students and undergraduates in limnology, hydrology, and soil<br>science. Recently I was hired by the Lake Tahoe Science<br>Advisory Council (TSAC) to produce a report guiding their best<br>practices and natural resource evaluation metrics through a<br>systematic assessment of the programs of other agencies across<br>the world. I have published in peer-reviewed journals to technical<br>audiences, and have developed documents for the general<br>public, farmers, and stormwater managers. |
|--|---|
| Please share your<br>community interests<br>(groups, committees,<br>organizations) if any: | I am currently in a 5-week training to be a docent at Islandwood.<br>Given my skillset, I have been asked to develop and lead<br>community programs for the organization. I am a member and<br>donor of the Puget Sound Restoration Fund, and I have<br>volunteered to harvest and sort oysters. Additionally, I have<br>discussed with the founder/director about helping to evaluate the<br>water quality benefits of oysters and other shellfish, as I have<br>done for a funded research project in the past (see resume). I am<br>a member and donor of the Bainbridge Island Land Trust,<br>Bainbridge Island Parks Foundation, and the Bainbridge Island<br>Museum of Modern Art. I am an active member of the Wilkes<br>PTO, science fair judge, and event photographer. In previous<br>residences I have served as a faculty senator, club president,<br>invited speaker, and a member of numerous community and<br>environmental organizations. I am excited to continue service to<br>my community in an expanded capacity.                          |

# Feel free to attach your resume (optional):

| Type the Year   | 2018                                     |  |
|---|--|--|
| How did you hear<br>about the volunteer<br>opportunity? | Other - See below                        |  |
| Other   | A friend noted that there was an opening |  |

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# Casey Adam Schmidt, MS, PhD

#### **EDUCATION**

#### PhD in Soil and Water Science, Univ. of FL, 2011, State of FL Alumni Fellow (4 yrs), 4.0 GPA

**Dissertation Title:** *Denitrification bioremediation: Ameliorating excessive N loading by putting microbes to work* **Structural environmental remediation:** Novel water quality BMP development project to prevent eutrophication of freshwater springs and coastal zones resulting from intensive agriculture within the Suwannee River watershed

Designed, oversaw construction, and monitoring of a successful BMP project that will remove 9 tons of fertilizer-nitrogen over a 24 year lifespan with greater cost efficiencies than comparable approaches *Communication:* Worked with landowner and educated other growers through field days and presentations on effective nutrient management to reduce nutrient discharges and groundwater usage

**Project Management:** Supervised and organized a team to successfully complete deliverables for a \$300K project

#### MS in Soil and Water Science, Univ. of FL, 2004, 4.0 GPA

**Thesis Title**: Floodplain impacts from channelization and urbanization: A characterization of the Tumblin Creek Delta Floodplain

**Environmental Restoration:** Collect, and assess data on soil properties, water quality and hydrology of a heavily urbanized wetland and a watershed with multiple TMDLs that was in the process of undergoing a watershed-scale stormwater planning program per NPDES permit; integrate data in to a riparian wetland restoration plan to provide guidance on watershed stormwater practices, and wetland ecosystem services. Society of Wetland Scientists Annual International Meeting (Seattle) oral presentation award on the project

#### BS in Biology (Ecology, Evolution, Conservation Biology Track), Minor in Fisheries and Aquatic Sciences, 2001

Coursework in biology, marine mammology, fisheries, salmon ecology, and limnology
 Water Quality: Undergraduate Research Assistantship in Limnology lab (Dr. Michael Brett) in Civil & Environmental Engineering

#### **RELATED EXPERIENCE**

# Assistant Research Professor, Division of Hydrology. (2013-Present). Desert Research Institute, University of Nevada System (Salary: \$92,000/yr)

**Grant acquisition & Management:** Principal investigator for \$1,669,239 in grant funded projects acquired over 3 years on; the water quality benefits of oyster restoration in the Indian River Lagoon estuary (FL Legislature), novel urban stormwater BMP development to the lagoon (FL DEP) and Lake Tahoe (NV div. of state lands), urban forestry (USFS), agricultural BMP development (EPA), and watershed BMP targeting (EPA) **Project Management:** Lead and advise teams on these projects, develop and implement project vision and methods, submit reports and other deliverables.

Nevada System of Higher Education Rising Researcher Award

Elected Faculty Senator – Shared governance of the institute, advising chair and chancellor of the board of regents on faculty and research priorities (2016-present)

#### Adjunct Professor, (2014-Present). University of Nevada Reno (Salary: dependent on coursework).

**Public Education:** Principal chair and funder of graduate student research, and instructor of a course in hydrology and a course in limnology

## Postdoctoral Research Associate (2011-2013). University of Florida, Soil and Water Sciences Department. Proposal development, Public outreach and Education: Complete and submit manuscripts, extension factsheets and write proposals on agricultural water quality management research, findings and application.

## Ph.D. Research Assistant (2005 –2011). University of Florida, Soil and Water Sciences Department

- Environmental Remediation: Federally-funded EPA grant for reducing non-point agricultural pollution in the bistate Suwannee River watershed to reduce impacts on coastal estuaries and inland freshwater springs.
- Project management: Lead student researcher, project manager and manager for three employees in charge of
  organizing field, lab work, data analysis, report writing and budgeting.

## Head Teaching Assistant (2006-2008). University of Florida, Soil and Water Sciences Department.

Public Education: Lecturer and head teaching assistant of third and fourth year students for three semesters.

## Environmental Scientist (2007-2008). Environmental Consulting and Technology, Inc. Gainesville, FL

Air quality impacts evaluations from proposed coal plant on wildlife refuges and national parks

## Field Ecologist (2004). Creative Environmental Solutions, Gainesville, FL

Endangered species surveys, wetland delineations, and wetland mitigation monitoring.

## M.S. Research Assistant (2002-2004). University of Florida, Soil and Water Sciences Department

- Environmental Restoration: Managed a team on hydrology, soil, vegetation and water impacts assessment for a
  disturbed urban wetland and developed wetland restoration plan and guidance on watershed structural BMPs
  and practices.
- Communication: Public outreach for basin management action plan working group, and creeks protection summit

## Undergraduate research assistant (2000-2001). Univ. of WA Dept. of Civil and Environmental Engineering

 Water Quality: Paid assistant to graduate research projects evaluating nutrient loading to Lake Washington along an urban to forested gradient, Puget sound and Lake Wa trophic food web evaluations, impacts of pet waste on lake water quality, and treatment wetlands

#### GRANTS

## Desert Research Institute. 2016.

**Title:** *Restored oyster reef ecosystem services. Denitrification and nutrient sequestration --* **\$13,000. PI:** *Casey Schmidt* (Desert Research Institute – University of Nevada System)

- Evaluation of the water quality benefits of 10 years of oyster restoration in the Indian River Lagoon estuary
- Managing a multi-agency team for seasonal sampling from boats, guiding lab analysis and project vision
- Mentoring and guiding a graduate student to complete his thesis on the project

## State of Nevada – Dept. of Conservation and Natural Resources (Lake Tahoe License Plate Fund). 2015-2017

**Title:** *Evaluation of biochar amendment for nutrient and fine sediment retention in stormwater treatment applications --* **\$53,580.** 

PI: Alan Hayvaert, Casey Schmidt (Desert Research Institute – University of Nevada System)

- Stormwater quality remediation methods development using organic media for Lake Tahoe
- Advising a graduate student on thesis work for the project

## Desert Research Institute. 2015-2016

**Title:** A biochar production and carbon sequestration evaluation of the T.P.I. steel kiln. -- **\$12,380. PI:** *Casey Schmidt* 

Air quality impacts of wildland fuels management projects and prescribed burns

## US EPA, 2016-2018

**Title:** Demonstration and technology transfer of denitrification bioreactors to reduce nitrogen loads within the Santa Fe Basin -- **\$515,041.** 

P.I.: Casey Schmidt (Desert Research Institute – University of Nevada System), Mark Clark (Univ. of FL)

- Agricultural BMP development and implementation to reduce coastal and freshwater spring eutrophication
- Public and grower outreach
- Developing a nutrient remediation strategy for the entire watershed
- Advising and funding a graduate student on the project

## State of Florida Legislature/Brevard County Board of Commissioners 2014-2016

**Title:** Indian River Lagoon Oyster Restoration Project – An evaluation of oyster denitrification and oyster reef ecosystem services -- **\$87,235** 

P.I.: Casey Schmidt (Desert Research Institute – University of Nevada System)

- Nutrient sequestration evaluation to quantify the water quality benefits of oyster reef restoration in the Indian River Lagoon estuary
- Principal manager of seasonal soil, water and oyster sampling from boats with staff; subsequent lab analysis, data analysis, and report writing
- Work in collaboration with the Brevard County Zoo, and Brevard County Natural Resources to advise on expanding oyster restoration in the Indian River Lagoon

## US Forest Service, 2014-2017

**Title:** Assessment of Pinyon Juniper-derived biochar as a soil amendment to increase survival of urban trees in Nevada -- **\$366,247** 

**P.I.:** *Casey Schmidt* (Desert Research Institute – University of Nevada System), David Howlett (Nevada Division of Forestry)

- Leader of a project that ties wildland fuels reduction with urban horticulture and urban forestry
- Principal manager of field teams, nursery staff, labwork, data analysis and report writing

## Florida Department of Environmental Protection, 2014-2016

Title: Carpenter Road Pond Denitrification Bioreactor -- \$76,987

P.I.: Casey Schmidt (Desert Research Institute – University of Nevada System)

- Designed, implemented, and oversaw monitoring of a water quality remediation project I designed to reduce nutrient discharges to a coastal estuary (Indian River Lagoon)
- Principal manager of technical staff in Brevard County Natural Resources, and environmental consultants for the project

## Florida Department of Environmental Protection, 2014-2015

**Title:** *Micco Denitrification Bioreactor and Exfiltration Treatment Train --* **\$37,578** 

P.I.: Casey Schmidt (Desert Research Institute – University of Nevada System)

- Principal for the design, monitoring and implementation of an urban stormwater remediation project to reduce eutrophication in Indian River Lagoon estuary
- Manager of Brevard county staff and consultants for the project

## US Forest Service, 2013

**Title:** Optimizing production temperatures and amendment volume for minimizing risk and promoting street tree growth from Pinyon-Juniper derived biochar -- **\$12,191**.

P.I.: Casey Schmidt (Desert Research Institute – University of Nevada System)

 Principal for a pilot project that integrates wildland fuels reduction with urban horticulture and urban forestry

## NIFA National Integrated Water Quality Program, 2011-2014

**Title:** *Efficacy, constraints and uncertainties of constructed wetlands and bioreactors: A place-based, integrated approach to foster N abatement --* **\$495,000**.

Technical Advisor: Casey Schmidt (University of Florida), P.I.: Art Gold (University of Rhode Island)

## EPA Section 319 Grant, 2007-2011.

**Title:** Reducing nonpoint source loss of nitrate within the Santa Fe Basin -- **\$305,000**. Co-P.I.'s: Mark Clark, Jim Jawitz, Thomas Yeager (Univ. of FL), Student P.I.: **Casey Schmidt** (University of FL)

## City of Gainesville, FL, 2003-2004.

**Title:** *Tumblin Creek Wetland Impacts Assessment and Conceptual Restoration* Plan -- **\$25,000**. Co-P.I.'s: Mark Clark, Joseph Prenger (University of FL), Student P.I.: *Casey Schmidt* (University of FL)

#### PUBLICATIONS

**Schmidt, C.A.,** Gallagher, S., Walters, L.J., Sacks, P.E., Chambers, L.G. (*forthcoming*). Ecosystem services evaluation of ten years of oyster bed restoration in the Indian River Lagoon.

Carter, Z.W., Sullivan, B.W., Qualls, R.G, Blank, R.R., **Schmidt, C.A.**, Verburg, P S.J. 2018. Charcoal Increases Microbial Activity in Eastern Sierra Nevada Soils. *Forests*, 9(2). <u>Publication</u>

Heyvaert, A., **Schmidt, C.A.,** Knopp, C., and Parvin, E. (2017) Natural Resource Evaluation Systems: Assessment of Best Practices for the Tahoe Regional Planning Agency. A product of the Tahoe Science Advisory Council.

Watts, A. C., **Schmidt, C. A**., McLaughlin, D. L., & Kaplan, D. A. (2015). Hydrologic implications of smoldering fires in wetland landscapes. *Freshwater Science*, *34*(4), 1394–1405. <u>Project Press</u> <u>Publication</u>

**Schmidt, C.A.,** Clark, M.W. 2013. Deciphering and modeling the physicochemical drivers of denitrification rates in carbon-based bioreactors. *Ecological Engineering*. 60:276-288. <u>Publication</u>

Clark, M.W., **Schmidt, C.A.** 2012. Reducing nonpoint source loss of nitrate within the Santa Fe Basin. Florida Department of Environmental Protection. Tallahassee, FL. <u>Publication</u>

**Schmidt, C.A.,** Clark, M.W. 2012. Evaluation of a denitrification wall to reduce surface water nitrogen loads. *Journal of Environmental Quality*. 41:724-731. <u>Publication</u>

**Schmidt, C.A.,** Clark, M.W. 2012. Efficacy of a denitrification wall to treat continuously high nitrate loads. *Ecological Engineering*. 42:203-211. <u>Publication</u>

Schmidt, C.A. (December 2012). Chapter: What causes an ice age? In The Where, The Why and The How: 75 Artists Illustrate Wondrous Mysteries of the Universe. Chronicle Books, San Francisco, CA.
Chapter on how ice ages form.

Bhadha, J., **Schmidt, C**., Rooney, R., Indeglia, P., Kertesz, R., Bevc, B., Sansalone, J. 2009. Granulometric and Metal Distributions for Post-Katrina Surficial Particulate Matter Recovered From New Orleans. *Journal of the American* 

Water Resources Association. 45:1434-1447. Publication Reference

Clark, M., **Schmidt, C.** 2005. *The Tumblin Creek Assessment and Restoration Report*. City of Gainesville Public Works.

**Schmidt, C.** 2004. *Floodplain impacts from channelization and urbanization: A characterization of the Tumblin Creek Delta Floodplain*, Gainesville, Fl. M.S. Thesis, University of Florida. <u>Publication Reference</u>

#### **INVITED PRESENTATIONS (SELECTED)**

Gallagher, S., Schmidt, C.A., Walters, L. (2016), American Geophysical Union Annual Conference: Denitrification and phosphorus sequestration in restored oyster reefs in the Indian River lagoon, Florida .

Schmidt, C., Bhadha, J. (2015), American Geophysical Union Annual Conference: Co-chair of poster session entitled, *Biochar Research: Advances in Production and Application* 

Schmidt, C., Howlett, D., Nair, V. (2015), International ASA-CSSA-Soil Science Society of America(SSA) annual conference: Nutrient & Water Retention Dynamics of Biochar Produced from Pinyon-Juniper Forest Thinning in Nevada

**Schmidt, C. (2013).** Applications of denitrification bioremediation as a sustainable and effective approach for *nitrogen remediation*. University of Nevada, Reno, Civil and Environmental Engineering Department Seminar

**Schmidt, C., Howlett, D. (2013**). **University of Nevada-Reno Extension:** Green Industry professionals education *Evaluating the utility of Pinyon and Juniper derived biochar as a soil amendment to improve urban tree survival* 

Schmidt, C. (2012). Land Grant and Sea Grant National Water Conference (Portland): Sponsored Presenter for a symposium on: *Constructed wetlands and carbon bioreactors for controlling offsite N losses*. Title: Emerging bioreactor research: Treating high nitrogen loads (In Warm Climates)

Schmidt, C. (2011). ASA-CSSA-Soil Science Society of America (San Antonio) and American Ecological Ecological Engineering Society (Asheville) annual conferences: Evaluation of a Denitrification Wall for Surface Water Nitrate Load Reduction

**Schmidt, C. 2007. University of Florida.** *Why not do what you love?* A presentation on the positive benefits of scientific research to high school students taking a summer environmental education course

Schmidt, C., Clark, M. 2005. Orange Creek Total Maximum Daily Load (TMDL) working group: Phosphorus and sediment transport and retention: The role of riparian wetlands

**Schmidt, C. 2004. Society of Wetland Scientists Annual Conference (Seattle):** *Tumblin Creek wetland impacts assessment and conceptual restoration plan* 

Schmidt, C., Clark, M. Gainesville Water Board (2003) & Gainesville Creek Summit (2004): Tumblin Creek Floodplain: Assessment and Restoration.

| 2017      | Limnology. Graduate and Undergraduate Course. University of Nevada Reno   |
|-----------|---|
| 2015      | Hydrologic Field Methods. Graduate Student Course. University of Nevada Reno  |
| 2015      | Oyster bed restoration and bioremediation: Applications in ecological engineering to reduce nitrogen impacts. University of Central Florida, Department of Biology              |
| 2015      | Black Carbon, Biomass and Bioremediation: Utilizing Forest Resources in Environmental<br>Applications. Forestry Field Day   |
| 2013      | Applications of Denitrification Bioremediation as a Sustainable and Effective Approach for Nitrogen Remediation. University of Nevada Reno, Civil and Environmental Engineering |
| 2012      | Demonstrating Effective Nitrogen and Irrigation Management Approaches. Nursery Growers Field<br>Day   |
| 2006-2008 | Introduction to Soils Laboratory, Head graduate T.A. for two-years  |

#### **EDUCATION & OUTREACH (selected)**

- 2007 Urban Forestry, Dept. of Forest Resources and Conservation (graduate course), Invited guest lecturer
- 2007 Environmental Science (high school course) Seminar, Invited guest lecturer
- 2003 Restoration of Urban Wetlands, Department of Environmental Engineering, Systems Seminar

## AWARDS, AND HONORS

- Nevada System of Higher Education Regents Rising Research Award Nevada Board of Regents (2017)
- Outstanding Student Paper Award Biogeosciences section, American Geophysical Union Annual Conference (2011)
- Jimmy Cheek Graduate Student Medal of Excellence Finalist, Univ. of FL., College of Agricult and Life Sciences (2011)
- Best Oral Presentation Award, Univ. of FL., Department of Soil and Water Sciences, Annual Research Symposium (2010)
- State of Florida Ph.D. Alumni Fellowship recipient, 2005-2009. Four years of full funding to pursue a PhD.
- Oral Presentation Award, 25th Annual International Society of Wetland Scientists conference in Seattle, WA (2004)

#### **PROFESSIONAL AFFILIATIONS**

- American Association for the Advancement of Science, 5 years
- Society of Wetland Scientists, 10 years
- Soil Science Society of America, 7 years
- American Geophysical Union, 6 years
- American Water Resources Association, 7 years
- American Ecological Engineering Society, 8 years

#### LEADERSHIP AND COMMUNITY SERVICE

- Faculty Senator: Elected representative of the Desert Research Institute
- Nevada Division of Forestry Volunteer: Volunteer at Plant Nursery and Fuels Management Projects
- Water Quality Field Day Educator: Taught students from underserved schools about oysters, water quality and Lake Tahoe.
- **Peer Reviewer:** Journal of Environmental Quality, Ecological Engineering and others.
- Managing Denitrification in Agronomic Systems: Invited Advisor and Participant of the community of the soil, agronomic, and crop society of America (SSSA, CSA, ASA)

#### SPECIALIZED TRAINING AND CERTIFICATES

- Wetlands Certificate Interdisciplinary Concentration in Wetland Sciences Certificate (Univ. of FL)
- Advanced Scuba Certification
- Hydric soils certificate (21 hrs; Univ. of FL.)
- Geostatistical analysis of environmental data (30 hrs; Univ. of FL.)