

**Subject:** Online Form Submittal: Board and Commission Application  
**Date:** Thursday, November 23, 2023 2:50:58 PM

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## 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 Mr.

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First Name Oliver

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Last Name Grah

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Today's Date 11/23/2023

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Street Address [REDACTED]

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City [REDACTED]

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Zip [REDACTED]

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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 Forest Resilience Task Force

Forest Resilience Task Force	Community member with expertise in watershed management (including Lake Whatcom) and/or land use planning
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?	No
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 occupation (or former occupation if retired), qualifications, professional and/or community activities, and education

Oliver Grah, Retired Project Manager/Administrator, Principal Investigator, Water Resources Program Manager, Nooksack Indian Tribe (11 years). He holds a BS in geology and botany (1977), and an MS in watershed science (1983). Oliver has over 45 years of professional experience in the fields of watershed science, water resources, forestry, fluviogeomorphology, soils, physical habitat, floodplains, wetlands, environmental restoration, environmental project management, IDT leader and coordination on over 600 projects including SEPA, NEPA, CWA, FSA, Shorelines/CAO, and ESA compliance and monitoring. Oliver is a Certified Professional Wetlands Scientist (#000556). Oliver developed a comprehensive climate change project that ranges from glacier monitoring and modeling on Mt. Baker, temperature, sediment, and turbidity monitoring and modeling in the tributaries and streams of the Nooksack River watershed, assessing impacts of climate change on the hydrologic system of the Nooksack River and salmon habitat and forest ecosystems, and developing a comprehensive watershed conservation plan that addresses the cumulative impact of legacy impacts and climate change impacts on watershed function and forest health, vulnerability assessment, and adaptation plan focus on salmon survival and habitat restoration. Oliver served as technical lead for the Nooksack Indian Tribe on the Stewart Mountain Community Forest project and the South Fork Nooksack River Watershed Conservation Planning project.

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

I have a passion for watershed science and how to responsibly manage our important productive forests in Whatcom County with specific focus on facilitating resiliency of our forests in the face of climate change, land use, and commercial forestry. Up to my retirement, I was the Water Resources Program Manager for the Nooksack Indian Tribe responsible for developing a comprehensive climate change project that focused on the resilience of our forests. I was also a founding member of the task force that initially developed the Stewart Mountain Community Forest project that addressed forest resiliency. As such, I have a very qualified set of technical experience that can be specifically focused on resilience in our forests.

References (please include daytime telephone number):

Holly O'Neil 360-303-3217  
Alex Harris 541-324-1343  
Alex Jeffers 330-921-6321  
Ian Smith 360-319-8917  
Robert Mitchell 360-303-7660

Appointment Requirements

I understand and agree

Signature of applicant:

Oliver John Grah

Place Signed /



## Resume/Curriculum Vitae:

**Oliver John Grah**



### Qualifications Brief:

Oliver Grah, Retired Project Manager/Administrator, Principal Investigator, Water Resources Program Manager, Nooksack Indian Tribe (11 years). He holds a BS in geology and botany (1977), and an MS in watershed science (1983). Oliver has over 45 years of professional experience in the fields of watershed science, water resources, forestry, fluviogeomorphology, soils, physical habitat, floodplains, wetlands, environmental restoration, environmental project management, IDT leader and coordination on over 600 projects including SEPA, NEPA, CWA, FSA, Shorelines/CAO, and ESA compliance and monitoring. Oliver is a Certified Professional Wetlands Scientist (#000556). Oliver developed a comprehensive climate change project that ranges from glacier monitoring and modeling on Mt. Baker, temperature, sediment, and turbidity monitoring and modeling in the tributaries and streams of the Nooksack River watershed, assessing impacts of climate change on the hydrologic system of the Nooksack River and salmon habitat and forest ecosystems, and developing a comprehensive watershed conservation plan that addresses the cumulative impact of legacy impacts and climate change impacts on watershed function and forest health, vulnerability assessment, and adaptation plan focus on salmon survival and habitat restoration. Oliver served as technical lead for the Nooksack Indian Tribe on the Stewart Mountain Community Forest project and the South Fork Nooksack River Watershed Conservation Planning project.

### Career Objective:

My career objective is to provide objective principal/senior-level technical and managerial services to public, private, and non-governmental sector organizations in the areas of conservation, climate science (vulnerability assessments and adaptation planning), watershed science, wetland science, surface water and groundwater resources, soils, vegetation, and wildlife. These services are provided in the context of federal, state, and local environmental regulations including federal Clean Water Act, federal Endangered Species Act, National Environmental Policy Act, State Water Pollution Control Act, State Growth Management Act, State Hydraulic Code, State Environmental Policy Act, Shoreline Management Act, and municipal implementation of critical area ordinances pursuant to the State Growth Management Act and related regulations as well as on voluntary non-governmental programs and projects.

### Education:

- **B.A. Botany, minor Geology**, California State University, Chico (1977)
- **M.S. Watershed Science (Hydrology and Soil Physics)**, Utah State University, Logan (1983)
- Three years of post-graduate studies in forest soils (U.C. Berkeley, Univ. Idaho), reclamation science, and watershed science (USU)

### Summary of Professional Experience:

I have been a natural resource specialist, manager, and consultant for over 40 years in the areas of environmental conservation, climate science (vulnerability assessments and adaptation planning), watershed management, wetlands science, riparian zone assessments, surface water and groundwater hydrology, forestry, river basin modeling, reclamation planning, surface water runoff and erosion control planning, soils surveys, vegetation mapping and characterization, threatened and endangered species studies (including Section 7 consultation), NEPA and SEPA compliance, and wildlife habitat assessment. During my 40 years of professional experience, I have worked on over 600 projects and served as project

manager on over 400 projects. Within the Pacific Northwest, I have accomplished over 150 projects for private and public sector clients. Through my 40+ years of professional experience, I worked for the following organizations:

1979-1980      USDA Forest Service, Anchorage, Alaska - Forester  
1980-1983      Utah State University, Logan, Utah - Research Assistant, Watershed Science  
1983-1990      BIO/WEST, Inc., Logan, Utah – Hydrologist, Soils/Vegetation Section Manager,  
Wetland Scientist  
1990-2001      ECOTONE Environmental Consultants, Inc. - Logan, Utah; Friday Harbor, Washington;  
Bellingham, Washington - Principal Scientist for Hydrology, Soils, Vegetation, and  
Wetlands  
2001-2003      Talasaea Consultants, LLC, Woodinville, Washington - Senior Wetland Ecologist  
2003-2005      Shockey/Brent Consultants, Inc., Everett, Washington - Senior Wetland Ecologist  
2005-2009      Whatcom County Planning and Development Services – Senior Planner, Supervisor, and  
Manager, Natural Resources Division, Bellingham, WA  
2010-2011      Institute for Applied Ecology - Habitat Restoration Program Director, Corvallis, Oregon  
2010-2012      Davis County Public Works, Consultant to Public Works Department, wetlands and  
environmental resources, Fruit Heights, UT  
2011-2022      Nooksack Indian Tribe, Water Resources Program Manager, Natural Resources  
Department, climate change (vulnerability assessments and adaptation planning), water  
quality, instream flow, water rights, and resource protection, Deming, WA

### **Specific Areas of Experience:**

**Climate Change** – I am the principal for the Nooksack Indian Tribe’s climate change program. I competitively obtained over \$1,500,000 of grant funding from BIA, EPA, WA-Ecology, NWIFC, ATNI, and NPLCC. The project that I developed and administer comprehensively includes: monitoring glacier behavior for baseline conditions against which climate impacts can be measured, extensive baseline monitoring for water quality, primarily sediment dynamics and stream temperature, overseeing the modeling of climate change using the Distributed Hydrology, Soils, Vegetation Model (DHSVM) that includes the dynamic glacier model that simulates impacts of various climate change scenarios on streamflow, stream temperature, and sediment; conducting vulnerability assessments and adaptation planning for species and communities of concern to the Nooksack Indian Tribe. This project was accomplished through a collaborative team facilitated by myself and funded by the Nooksack Indian Tribe that included: EPA Region 10, EPA-ORD, WA Dept. Ecology, University of Washington, Western Washington University, Washington Water Trust, Whatcom Land Trust, Evergreen Land Trust, and Natural Systems Design. I have presented on this project at over 30 professional symposiums, conferences, workgroups, and networks including the Salish Sea conference, NW climate Science Conference, Salmon Recovery Conference, National Adaptation Forum, Law Seminars International, EPA Tribal Environmental Leaders Summit, EPA CWA 31 conferences, to name a few. Of particular note, I facilitated and managed the collaboration between EPA-ORD and the Nooksack Indian Tribe in performing the “Qualitative Assessment: Evaluating the Impacts of Climate Change on Endangered Species Act Recovery Actions for the South Fork Nooksack River, WA.” This project was novel in that this was the first stream temperature Total Maximum Daily Load project to include climate change as a result of the Tribe’s comment, and the resulting EPA publication was the first to have a recognized tribe as the lead authors.

**Environmental Restoration** – For the last two years, my work has focused on the support of the Nooksack Indian Tribe’s salmon habitat restoration program. This includes facilitating the review of and modification of salmon habitat restoration plans in the face of climate change. This work has been accomplished in collaboration with the USEPA and WA State Department of Ecology. A pilot research project has been accomplished that relates the effect of climate change on river temperature regimes and how to restore watershed processes to reduce the adverse impacts of climate change on salmon survival.

I was the Director of the Habitat Restoration Program for the Institute for Applied Ecology, Corvallis, Oregon, from 2010 to 2011. The mission of the Habitat Restoration Program is to restore Pacific Northwest habitats by conducting on-the ground restoration, developing ecologically appropriate seed mixes, cultivating partnerships that promote regional conservation and advancing innovative and research-based restoration techniques. This program involves restoration of native wet prairie, upland prairie, and upland savannas of the Willamette Valley ecoregion and coastal marshes and upland prairies, including working towards recovery of several federally listed species of plants and insects, and the management of the seed increase program aimed to increase the supply of genetically appropriate native seed used in restoration of these rare communities. This position involved management of over \$800,000 in federal and state grants, grant writing, and partnership servicing. As consultant to Nooksack Indian Tribe Natural Resources Department, I evaluated the effectiveness of engineered log jams in restoration of effective ESA endangered Chinook salmon. Prepared over 300 restoration and mitigation plans for wetlands, riparian communities, and uplands. Of particular note, I served as Senior Scientist on the 300-acre Snohomish Basin Mitigation Bank (WA), 800-acre Wolford Mountain Reservoir mitigation project (CO), Uintah Basin Water Supply Replacement project (UT), and the Twin Lakes Reservoir mitigation project (WY). Throughout my 40 years of professional experience, I have applied sound ecological restoration tools to the restoration of native habitats, including wetlands, riparian zones and creeks, and uplands.

**Wetlands** – I am a **Certified Professional Wetlands Scientist** (#000556, certified by the Society of Wetlands Scientists) and am recognized by the COE to conduct jurisdictional wetland studies in Oregon, Washington, Wyoming, Colorado, Utah, Idaho, Montana, Arizona, California, Nevada, and Ohio. I have specialized in this area for over 28 years. I have conducted over 300 jurisdictional wetland investigations on a cumulative area totaling over 3,000,000 acres. Most of these projects included ensuring compliance with the CWA Section 404(b)(1) guidelines, Individual Permit application preparation, State Growth Management Act and local critical areas regulations compliance, mitigation planning, and construction and performance monitoring. As such, I thoroughly understand the concepts, objectives, methods and techniques, and requirements of processing wetland and riparian resources through the federal, state, and local regulatory programs. Many of these projects involved large and controversial projects on publicly administered lands (e.g., natural gas field development, reservoirs, highways, etc.). As an experienced wetlands scientist, I developed and taught over 10 weeklong wetland training classes pursuant to Army Corps of Engineers requirements. Also of particular note, I was invited by the Wyoming Congressional Delegation to give, and did give, expert testimony on wetlands regulations to the Small Business Committee of the US Senate in May 1991. In Washington, the more noteworthy projects involved the 190-acre Snohomish Basin Mitigation Bank, the first private sector wetlands mitigation bank in Washington (Snohomish Basin Bank), a 300-acre Jewish Summer Camp near Arlington, and a project involving 22 miles of telephone line installation along the Stillaguamish River and Mountain Loop Highway. I have provided expert testimony in court situations on a number of controversial and contentious projects. As Natural Resources Division Manager for Whatcom County, I was the manager for the implementation of the Critical Areas Ordinance, including wetlands regulations.

Example wetland projects (NEPA, delineation, impacts assessment, mitigation, monitoring, permitting):

- **Ski areas:** Lake Catamount (CO), Loon Mountain (NH), Vail (CO), Steamboat Springs (CO), Sun Valley (ID), Snow Basin (UT), Brighton (UT), Iron Mountain (UT), Sal Lake City Winter Olympics bobsled track (UT), Soldier Mountain (ID), and Charleston Mountain (NV).
- **Outdoor Recreation Projects:** Lake Catamount (CO), Camp Kalsman (WA).
- **Reservoirs:** Wolford Mountain (CO), Twin Lakes (WY), and Black Lakes (CO), others (UT).
- **Oil and gas field development:** Moxa Arch (WY), Greater Wamsutter (WY), Sand Dunes (WY), and others.
- **Natural gas and oil pipelines:** Kern River Pipeline (WY, UT, NV, CA), Northwest Pipeline (WA, OR, ID, WY), Mojave Pipeline (TX, NM, AZ, CA), Transwestern Pipeline (TX, NM, AZ, CA), and others (over 7,000 miles).

- **Highways:** Snake River Canyon (WYDOT), Salmon River Road (ID-USDA-FS), Cody-Yellowstone (WYDOT), West Valley Highway (UDOT), Logan Canyon (UDOT), Brigham City-Wellsville (UDOT), Legacy Highway Project (UDOT), West Davis County Transportation Corridor project (Davis County, UT), and numerous additional for the Wyoming Transportation Department (WYDOT).
- **Coal mines:** Caballo and Rawhide mines (WY), and others.
- **Water development projects:** Central Utah Project (UT), Uintah Basin project (Ute Mountain Ute Tribe, UT).
- **Public agencies:** Davis County stormwater management (UT), Kaysville City Business and Industrial Park (UT), Park City wetlands ordinances (UT), Farmington Business Park (UT), Brigham City Airport (UT), Tooele Airport (UT), West Valley City Special Area Management Plan (UT), Steamboat Springs wetlands ordinances (UT), Las Vegas Sheriff Substation (UT), Salt Lake County Natural Areas Revegetation Plan (UT), City of Everett Public Works (WA), Thurston County Regional Justice Center (WA), Lake Stevens Sewer and Water District (WA), City of Marysville (WA), and Whatcom County (WA).
- **Golf courses:** Riverton City (UT), Sun Valley (ID), Logan (UT), Davis County (UT), Lake Catamount (CO), Centerville, OH.
- **School districts:** Davis County School District (UT), Everett School District (WA), Edmonds School District (WA), Northshore School District (WA), Auburn School District (WA), Lake Stevens School District (WA), and Bellingham School District (UT).

**Water Resources and Watershed Science** – I have an M.S. in Watershed Hydrology. I provided this expertise on most of the 350 projects in which I have been involved. I conducted hydrologic studies from 0-order watershed processes to river basin computer simulation modeling. My MS thesis research topic was on the distribution of infiltration rates on small subalpine rainfall activated watersheds. I presented a paper on this topic to the American Society of Civil Engineers. I taught a graduate-level, advanced Watershed Hydrology course at Utah State University, and thus am well acquainted with watershed analyses procedures. I am very well versed and experienced with the concepts of fluviogeomorphology and have received training from Drs. Luna Leopold and Dave Rosgen, who are prominent in this field.

I designed, implemented, and reported on several surface water and groundwater quantity and quality studies. I conducted research on erosion modeling for a proposed ski area in Colorado, and presented a paper on the project to the International Erosion Control Association. I have designed, implemented, and reported on approximately 10 water quality monitoring projects including one that received scrutiny and acceptance by the USEPA on a reservoir project for Vail Ski Area in Colorado. More recently, I conducted a baseline water quality study for the proposed 290-acre Snohomish Basin Mitigation Bank near Duvall, Washington. I have also conducted water quality monitoring for several public school projects for the Everett School District. I prepared water resources technical reports for very large natural gas development projects in Wyoming, up to 400,000 acres. Many of these projects also involved the application of GIS ArcInfo for the analyses. Finally, I have teamed with civil engineers in the planning and design of stormwater management systems, following DOE and County programs. I am very experienced with project compliance with the Federal Clean Water Act Sections 401, 402, and 404, and the State and local implementations of these regulations.

More recently (2005-2009), as Natural Resources Division Manager for Whatcom County Planning and Development Services, I served on the technical and managerial team tasked with the WRIA 1 project, involving the Nooksack River watershed. As such, I am very familiar with the County's and partner's efforts to implement sound watershed planning consistent with federal (EPA) and state (DOE) watershed planning program goals.

I was recently (2010-2012) retained by Davis County, UT, to assess watershed and stream health, develop alternatives, assess impacts, and develop a stream/riparian habitat restoration plan for the Farmington Creek Flood Management and Channel reconfiguration project. The project required integration of all of my professional training and experience to facilitate federal and state permitting of this flood control project. I worked closely with Davis County Public Works and the engineering design consultant on all phases of this project. Also, I served as wetland scientist to Davis County for the Baer Creek Detention

Basin project and the West Davis Highway Project.

As Water Resources Program Manager for the Nooksack Indian Tribe, I serve as the water resources program manager. In this capacity, I manage \$500,000 of federal grants annually, and implement the Tribe's water quality, water quantity, and water rights programs. This work includes evaluating the effect of climate change on glacier ablation, altered watershed runoff timing and magnitudes, and Pacific salmon survival and recovery under ESA and Tribal Treaty rights. In the capacity I was lead author on a recently published article "*The effect of climate change on glacier ablation and baseflow support in the Nooksack River basin and implications on Pacific salmonid species protection and recovery*" (Grah, O, and J. Beaulieu, April 2013, Journal Climate Change DOI 10.1007/s10584-013-0747-y.)

**National Environmental Policy Act and State Environmental Policy Acts** – Over my 28 years of consulting experience, I have played a major administrative and technical role in over 22 environmental impact statement (EIS) and 42 environmental assessment (EA) projects. Of particular note, I was project manager, interdisciplinary IDT team leader, and chief author for a \$400,000 contract with the Salmon National Forest that involved preparation of an EIS and preliminary engineering plans for a 43-mile road reconstruction and recreation site rehabilitation project in the extremely sensitive environmental setting of the Salmon River, Idaho. In addition, I served as the Interdisciplinary Team leader for the controversial Snake River Canyon Highway Improvement Project near Jackson, Wyoming and the Cody to Yellowstone Highway Improvement Project near Cody, Wyoming. NEPA projects include ski areas; highways; petroleum product exploration, production, and transportation; airport expansion; prisons; water resource development projects including reservoirs; and military operations.

**Soil Resources** - I have performed Order II soil inventories and have prepared over 40 erosion and sediment control plans for a wide variety of projects and environments ranging from the Sonoran Desert, coastal settings, to alpine settings. I have assessed soils in the field, prepared maps of soil mapping units, assessed impacts to soils, and prescribed mitigation measures for soils on over 80 projects, aside from wetlands projects. As indicated, most of the NEPA projects in which I have been involved included soils evaluation. I have quantified erosion for baseline, impacted, and mitigated environments in the context of NEPA. I am experienced with the application of the modified soil loss equation (MSLE) contained in the Forest Service's WRENSS watershed model.

**Endangered Species Act** – I have extensive experience in the coordination and integration of T&E issues with the NEPA process as well as field clearance survey experience, impact assessment, mitigation planning, research, species recovery, and USFWS coordination. I have been directly involved with managing and conducting rare plant surveys for over 50 species. I prepared a Biological Assessment on the Mojave Desert Tortoise. I conducted research on habitat and germination requirements for the listed *Sclereocactus glaucus* and *Astragalus osterhoutii*. I have evaluated habitat for various listed anadromous and non-anadromous salmonid species, developed habitat management plans and habitat conservation plans, and prepared biological assessments/biological evaluations for a variety of projects in Utah and Washington. In Oregon, I directed projects involving the recovery of three threatened plant species and two butterfly species.

**Agency Consultation and Coordination** - Throughout my 40+ years of professional experience, I have functioned in the capacity of facilitating coordination and communication between various federal (FS, COE, FWS, EPA, BPA, BIA, FHWA, BLM, NPS, BOR, etc.), state, and local agencies. All 64+ NEPA and SEPA projects and 300+ wetlands projects have involved effective coordination with the various resource and regulatory agencies. I understand the administrative and technical missions these agencies pursue and ensure that technical and administrative work I accomplish on projects fully meet the expectations of such agencies.

**Other** – I am also a Washington State credentialed secondary school teacher (Credential No. 381449H) with endorsements in general science, biology, earth science, physics, and mathematics. I taught physical science (8th grade), biology (HS freshman), geology (HS sophomores and juniors), and physics (HS seniors) during the 2000 to 2001 school year at Spring Street School (private school) in Friday Harbor, Washington. I served on the San Juan County Planning Commission (1998-2002), and was a member of both the Board of Adjustment and Watershed Technical Committee for the County during that time.



*Resume of Oliver John Grah (Revised June 2021)*