

## Appendix C: SCIENCE EXPERTS

This appendix has two sections. Section 1 provides the resumes for the King County staff who are the principle authors of the Best Available Science reports. Section 2 provides the names, affiliation, and education of the science experts that provided peer review of the February 14, 2003 draft of the earlier version of this report and the summer 2003 review of Chapter 6, Critical Aquifer Recharge Areas.

### C.1 KING COUNTY BEST AVAILABLE SCIENCE AUTHORS:

Water, Land and Parks Resources Division (WLRD), Department of Natural Resources and Parks (DNRP) Staff:

Stephanie Brown	Critical Aquifer Recharge Areas
Terry Butler	Channel Migration Zones
Robert Fuerstenberg	Agricultural Practices Standards (contributor to Aquatic Areas)
Priscilla Kaufmann	Flood Hazard Areas
Gino Lucchetti	Aquatic Areas
Klaus Richter	Wetland; Wildlife Areas
Jeanne Stypula	Flood Hazard Areas
Jennifer Vanderhoof	Wildlife Areas

Environmental Unit, Roads Services Division, Department of Transportation

James Hatch	Geologic Hazard Areas
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### Terry L Butler

King County Department of Natural Resources and Parks  
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Seattle, WA 98104-3855  
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#### Education

M.S.E. 1992 Hydrology and Water Resources, Civil Engineering, University of Washington.  
1988 - 1989 One year of study in Geology, University of California, Santa Cruz  
B.A. 1978 Biology/ Environmental Studies, University of California, Santa Cruz

## **Employment History**

### ***Earth Scientist (Geologist) (1997–Present)***

King County Department of Natural Resources and Parks, Seattle, Washington.

Participated in preparing the 1999 King County channel migration public rule. Provide ongoing advice to the Dept. of Development and Environmental Services on regulating channel migration zones (CMZs). Provide public information presentations on channel migration hazard and King County CMZ studies and mapping.

Scope and prepare CMZ studies and maps of selected King County mainstem rivers, in progress.

Conduct study to characterize sediment deposition and evaluate the effectiveness of gravel removal for flood reduction in parts of the Snoqualmie River, in progress.

Provide geomorphic information for feasibility study, design, and construction of environmentally compatible streambank stabilization, levee setback, or flood repair projects.

Monitor and characterize sedimentation in selected areas of King County river channels.

### ***Engineer (1992–1996)***

King County Public Works Department, Seattle, Washington.

Acted as lead staff to prepare an interagency draft flood reduction plan for a tributary to the Green River, including characterization of basin flooding conditions, contract management of hydraulic modeling by others, and analysis of potential flood reduction alternatives.

Wrote a flood response manual for the lower Green River. Acted as technical liaison between local cities, County, and US Army Corps in real-time response to flooding along the Green River, integrating an understanding of hydrology, hydraulics, and flood routing to do so.

Designed and constructed flood damage repair projects using biostabilization techniques.

Conducted hydraulic modeling analyses of selected river segments.

### ***Research/Teaching Assistant (1991–1992)***

University of Washington, Seattle, Washington.

Sampled urban runoff. Acted as Teaching Assistant for “Urbanizing Watersheds” class.

### ***Research Assistant (1988–1989)***

University of California, Santa Cruz.

Analyzed geologic hazard policies for areas subject to coastal erosion. Monitored streamflow.

### ***Senior Resource Planner (1986–1988)***

Santa Cruz County Planning Department, Santa Cruz, California.

Project Manager for hydrologic and water supply studies throughout Santa Cruz County.

Worked as senior staff in providing technical information on water resource issues in preparation of a county comprehensive land use plan and various surface- and groundwater management plans. Served as technical staff to county commissions and county Board of Supervisors. Was county technical representative on cooperative interagency water resource studies and projects.

***Watershed Analyst (I and II) (1979–1986)***

Santa Cruz County Planning Dept, Santa Cruz, CA

Sampled sediment in transport and estimated erosion rates to characterize basin-scale erosion problems, toward developing a countywide erosion control program.

Planned and constructed streambank and hillside erosion control projects.

Participated in preparing an erosion control ordinance. Implemented and enforced county erosion control and riparian corridor protection ordinances.

Conducted field studies of aquatic habitat and hydrology in preparation of a comprehensive watershed management plan.

**Professional Certification**

2002 Washington State Professional Geologist, License No. 1878

1997 Washington State Professional Engineer, Civil, License No. 34372

1995 Watershed Analysis Certification, Washington State Department of Natural Resources

**Professional Societies and Associations**

American Geophysical Union

American Water Resources Association

Northwest Geological Society

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**James L. Hatch**

King County Department of Transportation

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Renton, Washington 98055

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**Education**

B.A. 1996. Environmental Public Policy, University of Washington, Seattle.

B.S. 1984. Geology, University of Washington

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## **Employment**

### ***Senior Environmental Engineer (2001–present)***

King County Department of Transportation, Renton, Washington

### ***Principal Geologist (1999–present)***

Hatch Geosciences, Inc., Seattle, Washington

### ***Site Development Specialist (1992–2001)***

King County Department of Development and Environmental Services, Renton, Washington

### ***Principal Geologist (1989–1992)***

Moran/Hatch Geotechnical Engineering, Inc., Bellevue, Washington

### ***Staff Geologist/Operations Manager (1985–1989)***

Earth Consultants, Inc., Bellevue, Washington.

### ***Staff Geologist (1982–1984, Summers)***

James A. Woods & Associates, Spokane, Washington

## **Professional Licenses/Certification**

2001. Professional Geologist, Washington State Geologist Licensing Board, License No. 228

2001. Professional Engineering Geologist, Washington State Geologist Licensing Board, License No. 228

## **Professional Societies**

Member, Association of Engineering Geologists (AEG)

Member, Santa Fe Institute for Study of Complex Adaptive Systems (SFI)

## **Honors**

1979. National Merit Scholar

## **Publications**

*Hatch JL. High VW. 2001.* Map of Washington State Soil Erodibility and KF Factor, National Marine Fisheries Service 4(d) Rule Report

*Hatch JL. 1998.* The Internet as a Complex Adaptive System, Microsoft Network (MSN) Technical Journal

*Hatch JL. 1999.* Path Dependence in the Complex Adaptive Systems Analysis of the Internet, Santa Fe Institute.

## **Gino Lucchetti**

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### **Education**

M.S. Fisheries and Wildlife Science, 1983, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061

B.S. Fisheries Science, 1980, University of Washington, Seattle WA 98195

A.S. Pre-Fisheries, 1977, Peninsula College, Port Angeles, WA 98362

High School: Smethport Area High School, 1975, Smethport, PA 16749

### **Areas of Expertise**

- Endangered Species Analysis & Recovery Planning
- Fish Ecology & Behavior
- Freshwater & Estuarine Ecology
- Fish Habitat Assessment & Restoration.
- Study Design & Data Analysis
- Water Quality and Habitat Monitoring
- Urban, Agricultural, & Forestry Impacts to Fish, Habitat & Water Quality
- Water Quality & Fisheries Laboratory Construction & Operation
- Public Information & Education
- Fish Kill Assessment Procedures
- SEPA & NEPA Requirements
- Environmental Review & Public Testimony
- Popular & Scientific Publication & Presentations
- Native American Treaty Rights & Issues.

### **Management Skills**

- Project Development & Management
- Contract Negotiations & Management
- Supervision & Training of Professional & Technical Staff
- Volunteer & Public Interactions

- Proposal & Technical Report Writing
- Budget Development & Monitoring
- Interagency & Technical Team Coordination.

## **Employment History**

### ***Senior Ecologist (June, 1990-Present)***

King County Dept. of Natural Resources, Seattle, WA

Serve as a senior fish and aquatic ecology expert on diverse range of projects and programs related to the protection and restoration of aquatic resources in King County and, more recently, the "Tri-County" (King, Pierce and Snohomish counties) areas. Work in technical, policy and public arenas.

### ***Fisheries Biologist (1984-1990)***

Tulalip Tribes Fisheries Department, Marysville, WA

Develop, design, find funding for, and manage projects to study fish populations, assess habitat and environmental water quality, and fish habitat restoration projects in the Snohomish and Stillaguamish river basins and associated marine waters. Also provide technical representation for the tribe on local and regional environmental and fish management issues, train tribal members in fisheries management skills and train local volunteers in habitat and environmental water quality monitoring.

### ***Fisheries Research Biologist (1982-1984)***

U.S. Fish & Wildlife Service, National Fisheries Research Center, Cook, WA

Staff research biologist for a major study to assess the impact of large predatory fishes on juvenile salmonids in the Columbia River Basin. Designed and conducted experiments on digestion rates of northern pikeminnow; designed, constructed and operated a unique water reuse system and wet laboratory for conducting live fish experiments; designed and constructed the research station's dry lab facilities; assisted in all aspects of field collection of fishes for food habits studies and digestion experiments; operated large (20') boat electrofishers, gill nets, bottom trawls, beach seines, minnow traps, and a wide array of water quality sampling devices; budgeted and administered updating of buildings and lab facilities; and developed and presented oral presentations and written reports summarizing research.

### ***Research and Teaching Assistant (1980-1982)***

Virginia Tech Cooperative Fishery Research Unit, Blacksburg, VA 24061

Designed and conducted a study to describe the production ecology of brook trout in headwater streams of the James River Basin. Also participated in research projects on brook and brown trout competition; evaluation of strains of hatchery rainbow trout; enzyme activity in wild trout; food habits of brook and rainbow trout and radiotelemetry of channel catfish. As a teaching assistant, assisted in three graduate and undergraduate level courses: Ichthyology, Fish and Wildlife

Planning and Aquaculture. Responsible for writing and presenting Ichthyology Lab lectures and exams and instructing 15 to 20 students from both graduate and undergraduate programs, in fish taxonomy, anatomy and physiology.

***Fisheries Technician (1978-1979)***

University of Washington Cooperative Fishery Research Unit, Seattle, WA 98195

Assisted in a study of the effects of lake drawdown on largemouth bass and associated fishes. Collected, marked and resampled fish for population estimations; collected and analyzed fish stomach contents; tracked and maintained data; operated boat electrofishers, fyke nets and beach seines and was responsible for interviews with the public.

***Fisheries Contractor (1979)***

U.S.D.I. National Park Service, North Cascades N.P., Sedro Wooley, WA

Prepared and read scale samples from salmonid and non-game fishes collected by the NPS in the North Cascades.

***Undergraduate Researcher (1979–1980)***

University of Washington College of Fisheries, Seattle WA 98195

Assisted in a study of the orientation and migration behavior of sockeye fry in the Weaver Creek/Harrison Lake system of British Columbia. Collected and tested sockeye fry in remote conditions and during the day and night with minimal supervision. Co-authored a final report and journal publication.

***Fisheries Student helper (1979–1980)***

University of Washington Cooperative Fishery Research Unit, Seattle, WA

Assisted in a study of estuarine habits of chinook and chum salmon. Duties included beach seining, gill netting, operating plankton sampling gear and using fluorescent pigment marking.

***Independent Studies Student (1979–1980)***

University of Washington, College of Fisheries, Aquaculture Unit, Seattle, WA School Year 1979, '80

Aided in the operation of the college's trout and salmon hatchery and assisted in research on hatchery management, fish nutrition and disease problems.

***Undergraduate Researcher (1979–1980)***

University of Washington Cooperative Fishery Research Unit, Seattle, WA

Assisted in a study on the effects of canopy removal on distribution and movement of cutthroat trout in Bear Creek (a tributary to the Boachiel River near Forks, WA). Conducted stream habitat mapping, fish sampling and marking, substrate sampling and water chemistry analysis. Compiled and analyzed trout movement data collected as part of this study.

***Fisheries Technician (1977–1979)***

U.S.F. S., Olympic National Forest, Soleduck Ranger District, Forks, WA

Conducted stream surveys and assessed the distribution and relative abundance of salmonid populations on the Soleduck Ranger District. Supervised six technicians and instructed crew in survey techniques, reviewed crew's work for consistency and quality, and organized work schedules. Wrote Environmental Analysis reports and fish habitat Enhancement Plans.

***Research Aide (1978–1979)***

University of Washington, Dept. of Botany, Seattle, WA 98195

Prepared chemicals for laboratory experiments and organized and maintained laboratory equipment

***Fisheries technician (1978–1979)***

University of Washington Cooperative Fishery Research Unit, Seattle, WA

Sorted and identified benthic invertebrates and zooplankton from water and sediment samples.

**Major Activities and Achievements**

- Update of King County's Critical Areas Ordinance (Lead ecologist for aquatic areas)
- Puget Sound Bull Trout Recovery Unit Team
- Develop Salmonid Core Areas concept
- Watershed Planning and Assessment
- Tri-County Model Proposal (Lead Ecologist for King County)
- Tri-County Environmental Database
- King County Biological Review Panel (3 years)
- Comprehensive assessment of habitat restoration opportunities in Lower Cedar River
- Lower Cedar River and Hylebos Basin Plans
- Management of Nine Major Programs in Fisheries & Water Quality over Six Year Period
- Successful Application for State, Federal & Tribal Grants (up to 200 thousand dollar programs)
- Supervision of up to 21 Technical Staff & Four Programs at one time
- Numerous Technical Publications, Bulletins & Reports, and Scientific and Public Presentations



- Past President of the North Pacific International and VA Tech Chapter, American Fisheries Society
- Member of numerous local, statewide, regional and technical symposia steering committees
- Board Member (5yr) for Natural Resources Youth Camp of Western Washington
- Walt Simonsen Memorial Scholarship (Univ. of WA, 1979)
- Named Outstanding Male Graduating Student, Peninsula College

### Technical Publications and Reports

(\* denotes Lead Ecologist/author of ecological sections)

Lucchetti, G. L., K. O. Richter and R. Schaeffer. (In revision). Monitoring of acquisitions and conservation easements. In P. Roni, ed. *Monitoring stream and watershed restoration*, American Fisheries Society, Bethesda, MD

Timm, R.K., R. C. Wissmar, J. W. Small, T. M. Leschine and G. L. Lucchetti. (In review). Multi-scale prioritization of riparian habitats for restoration and preservation. Submitted to *Environmental Management*.

Beechie, T, G. Pess, and G.L. Lucchetti. (2002). The role of watershed assessment in salmon recovery. In Montgomery et al, eds. *Restoration of Puget Sound Rivers*, the Society for Ecological Restoration.

David M. Hartley, C. Rhett Jackson, and G. Lucchetti. 2001. Discussion of “Stream Health after Urbanization,” by J.K. Finkbine, J.W. Atwater, and D.S. Mavinic. *J. Am. Water Res.* 37(3): 751-753.

Fresh, K.L., and G. Lucchetti. 2000. Protecting and restoring the habitats of anadromous salmonids in the Lake Washington Watershed, an urbanizing ecosystem. Pages 525-544 In E.E. Knudsen, C. R. Steward, D.D. Macdonald, J.E. Williams, and D.W. Reiser (editors). *Sustainable Fisheries Management: Pacific Salmon*. CRC Press LLC, Boca Raton.

Hartley, D. and G. Lucchetti. 2000. Forest Retention, Runoff Response, and Implications for Salmonids. Forest Retention, Runoff Response, and Implications for Salmonids. Technical Memorandum prepared for the Tri-County ESA Stormwater Group, May, 2000, 6 p.

\*King County. 1997. Cedar River Basin and Non-Point Action Plan. King County Dept. of Natural Resources. Seattle, WA

Ludwa, K, G. Lucchetti, K. Fresh, and K. Walter. 1997. Assessing stream-dwelling fishes in basins of the Lake Washington Watershed, Summer 1996. King County Dept. Nat. Res. Tech. Rep., June 1997. 25 p.

\*King County. 1993. Cedar River Current and Future Conditions Report. King County Dept. of Natural Resources. Seattle, WA

Lucchetti, G. L., and R. J. White. 1997. Estimation of salmonid production potential and costs of fish habitat restoration opportunities in the lower Cedar River. Appendix E in Cedar River Basin and Non-Point Action Plan. King County Dept. of Natural Resources. Seattle, WA.

Lucchetti, G.L., and C. Steward. 1998. *The Lake Washington Watershed. Salmon in the City*. Mount Vernon, WA

- \*King County. 1993. The Hylebos Creek - Lower Puget Sound Basin Plan. King County Dept. of Public Works, Surface Water Management Division, Seattle, WA
- Lucchetti, G., and R. Fuerstenberg, Robert. 1993. Management of coho salmon habitat in urbanizing landscapes of King County, Washington, USA. Pages 308 - 317 in L. Berg and P. Delaney, editors. Proceedings of a workshop on coho salmon. Canadian Dept. of Fisheries and Oceans, Vancouver, British Columbia.
- Smith, K.A., and G. L. Lucchetti. 1991. A historical survey of oil pollution in Puget Sound and surrounding areas. Proc. Puget Sound Research Conference, Seattle, WA
- Lucchetti, G. 1989. Case Study of the Snohomish Basin Water Study. *In* MacDonald, L., and R. Wissmar. 1990. Monitoring Guidelines to Evaluate the Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska. USEPA Technical Manual.
- Beyer, J.M., G. Lucchetti, and G. Gray. 1988. Digestive tract evacuation in northern squawfish (*Ptychocheilus oregonensis*). *Can. J. Fish. Aquat. Sci.* 45:548 -553.
- Beauchamp, D.A., D.E. Pflug, and G. Lucchetti. 1987. Snohomish River juvenile salmon outmigration study 1987. Tech. Rep under USDN Contract No. N62474-86-C-0991. Tulalip Tribes, Marysville, WA. 43 pp.
- Nelson, K, A. Loch, and G. Lucchetti. 1997. Wild coho salmon indicator stock study for the Stillaguamish River. Tulalip Tribes Tech. Rep. 97-2. 53 p.
- Thornburgh, K., K. Nelson, K. Rawson, and G. Lucchetti. 1991. Snohomish System Water Quality Study 1987-90. May 1991. Tulalip Fisheries Dept. Progress Report No. 91-2.
- Beauchamp, D.A., J. Tracy, R. Ladley, and G. Lucchetti. 1987. Stillaguamish River juvenile salmon outmigration study 1987. Tech. Rep under USDN Contract No. N62474-86-C-0991. Tulalip Tribes, Marysville, WA. 20 pp.
- Lucchetti, G.L. 1985. Executive Summary: Interagency environmental monitoring Program and preliminary rehabilitation Plan for the Deer Creek Basin. Report to Deer Creek CRMP. 11 pp.
- Lucchetti, G.L., and G. Gray. 1984. Water reuse systems: review of principal components and example of an effective small-scale unit.
- Lucchetti, G.L. 1984. Ingredients for a quality trout stream. *Virginia Wildlife.* 45(4):24-29.
- Lucchetti, G.L. 1984. Design criteria for a small scale water reuse system. *U.S. Fish and Wildlife, Res. Inform. Bull.* 84(35):2pp.
- Lucchetti, G.L., G. Gray, and D. Rondorf. 1983. Considerations for biologists in designing small water reuse systems. American Fisheries Soc., 113<sup>th</sup> Annual Meeting, August 16-20, Milwaukee, WI. (Presentation)
- Lucchetti, G.L. 1983. The production of brook trout (*Salvelinus fontinalis*) in four headwater streams in the James River Basin of Virginia and West Virginia. M.S. Thesis, Virginia Polytechnic Inst. and St. Univ. 90pp.
- Dean, J.C. and G.L. Lucchetti. 1982. Liver enzyme activity as a growth index in wild rainbow trout. Proc. 36 Annu. Conf. South East Fish and Wildlife Agencies. 10pp.

- Lucchetti, G.L. 1982. Book Review “Trout Biology: An Anglers Guide. By E.B. Willers. The University of Wisconsin Press, Madison, USA 1981. 206 pages.” Fisheries. 7(3):64.
- Dean, J.C., and G. L. Lucchetti. 1982. The relationship between hepatic enzyme activity and growth in rainbow trout (Salmo gairdneri). Virginia Academy of Science, 63<sup>rd</sup> Annual Meeting, April 22-23, Blacksburg, VA. (Presentation)
- Lucchetti, G.L. and G.B. Pardue. 1982. The production ecology of brook trout (Salvelinus fontinalis) in Virginia headwater streams. Virginia Academy of Science, 63<sup>rd</sup> Annual Meeting, April 22-23, Blacksburg, VA. (Presentation)
- Martin, D.F. E.O. Salo, S.T. White, J.A. June, W.J. Forris, and G.L. Lucchetti. 1981. The impact of managed streamside timber removal on cutthroat trout and the stream ecosystem: PART 1-A Summary. Fisheries Res. Inst., Univ. of WA, Rep. No. FRI-UW8107:65pp.
- Lucchetti, G.L. 1981. Everything you wanted to know about newsletters and then some. Newsletter, Ed. Sect., Amer. Fish. Soc. 3(2): 4-6.
- Brannon, E.L., T.P. Quinn, G.L. Lucchetti, B.D. Ross. 1981. Compass orientation of sockeye salmon fry from a complex river system. Can. J. Zool. 59(8):1548-1553.
- Ross, B.D., T.P. Quinn, G.L. Lucchetti, E.L. Brannon. 1981. Genetic and environmental factors in the compass orientation of sockeye salmon. American Zoologist 20(4):762. (abstract)
- Lucchetti, G.L. and B.D. Ross. 1980. Orientation and behavior of sockeye salmon fry in the Weaver Creek-Harrison Lake System. Final Report To the International Pacific Salmon Fisheries Commission. 10pp.

## **Presentations, Training and Technical Workshops**

(\* Presenter)

\*Ecological effects of roads on aquatic habitats of King County. (2002) National Research Council's

Committee of Road Density, Seattle workshop

\*Salmon Conservation planning in the Tri-County region of Puget Sound (2001). Workshop on planning

for salmon in urban areas, Corvallis, OR

\*The scientific basis for the Tri-County Model proposal (2002) State of Oregon Interdisciplinary Science Team, Corvallis, OR

\*ESA Section 7 Training (2001), King County ESA Policy Office, Seattle, WA

Computer Training: Access v2.0, Level 1 (1996), ON-TRACK Consultants, Seattle, WA

Master Class: Physical Factors Affecting Riverine Habitat (1993), Dr. Jack Orsborne, Seattle, WA

Ecology of Freshwater Mussels (1993), Dr. Terrence Frest, Seattle, WA

\*Monitoring Guidelines to Evaluate the Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska (1992), USEPA, Fort Collins, CO & Las Vegas, NV

Sedimentation and Erosion: Physical Processes, Management, and Control (1992), WEST Consultants, Bellevue, WA

Jurisdictional Delineation of Wetlands in the Pacific Northwest (1990), The National Wetlands Training Cooperative, Seattle, WA

Statistical Design Workshop for Field Assessment (1990), Univ. of WA, Center for Streamside Studies, Pack Forest Center, Eatonville, WA

Forest Hydrology (1988), sponsored by Univ. of WA, Center for Streamside Studies, Seattle, WA

Habitat Evaluation Procedures (HEP) (1987), USFWS, Everett, WA

Spatial Information Systems (Sept. 1984), USFWS, Portland, OR

FWS/MANAGE - River Reach Technologies (Aug. 1984), USFWS, Seattle, WA

Fisheries Harvest Management (March, 1984), taught by Dr. Ray Hilborn, sponsored by NW Tribal and WA State Dept. of Fisheries, Lacey, WA

### **Technical and Related Professional Committees**

Bull Trout Recovery Unit Team (RUT) (2000 - Present), US Fish and Wildlife Service, Lacey WA

WRIA 07 (Snohomish River) Salmon Recovery Planning Technical Team

Tri-County ESA Response (King County Lead Ecologist ) (1998 -Present), Tri-County Policy Committee

King County Biological Review Panel, a federally-recognized panel of senior ecologists responsible for reviewing technical adequacy of county programs and projects for meeting ESA Section 7 and salmon conservation goals.

Technical Steering Committee (1990 - Present), Center for Streamside Studies, University of Washington, Seattle, WA

Session Chair (1998), Urban Restoration, WDAFS and Lowell Wakefield Fisheries Symposium, Anchorage, AK

Conference Committee (and presenter) (1998), Salmon in the City, Mt Vernon, WA

Symposium Steering Committee (and presenter) (1996), Sustainable Fisheries Management: Pacific Salmon, Victoria, BC

Session Chair (1995), Local Community Involvement, AFS-NPIC Annual Mtg., Vancouver, BC

Symposium Steering Committee (and technical reviewer) (1993-1994), Pacific Salmon and Their Ecosystems: Status and Future Options, Seattle, WA

Fish Steering Committee (1988 - 1993), Coordinated Monitoring and Research Committee (CMER), Timber-Fish-Wildlife Agreement

Session Chair (1989), Native Issues and Their Impact on Resource Husbandry, AFS-NPIC Annual Mtg., New Westminster, BC

Co-Organizer (and presenter) (1989), Stillaguamish Summit, Univ. of WA, Center for Streamside Studies, Seattle, WA

Technical Steering Committee (1985 - 1987), Deer Creek Coordinated Resource Management Planning, WADNR, USFS, Tulalip Tribes

Board Member (and instructor), Natural Resources Youth Camp of Western Washington

### **Honors and Offices Held**

President (1997-1998), North Pacific International Chapter, American Fisheries Society

President (1981-1982), Virginia Tech Chapter, American Fisheries Society

Representative (1981 - 1982), Graduate Seminar Steering Committee, Department of Fisheries and Wildlife Sciences, VPI&SU

Editor (1981), Fisheries Section, School of Forestry and Wildlife Resources Annual, VPI&SU, Blacksburg, VA

Simonsen Memorial Scholarship (1980), College of Fisheries, University of Washington, 1980.

Outstanding Graduating Student (1977), Peninsula College, Port Angeles, WA

Representative (1975 – 1976), Student Government, Peninsula College

Member (1973 – 1975), National Honor Society

Captain (1973 – 1975), Smethport High School Wrestling Squad, Smethport, PA,

Member (1975), All-Star Team, Pennsylvania-New York Border Conference Football League

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## **Priscilla Kaufmann**

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### **Education**

M.A. 1987. Geography. University of Nebraska, Omaha, Nebraska.

B.A. 1985. Geography and Environmental Studies, *cum laude*. University of Colorado, Colorado Springs, Colorado

## Employment History

2002 - Present. Project/Program Manager III, King County Department of Natural Resource & Parks, Seattle, Washington.

- Drafted emergency and final public rule titled “Sensitive Areas: Flood Hazard Areas” and facilitated all steps in adoption of the rule.
- Served as lead on proposed amendments to King County flood hazard regulations for public review draft critical areas ordinance.
- Participated in preparing King County’s annual certification under the National Flood Insurance Program, Community Rating System.

1994 – 2002. Code Development Planner, King County Department of Development and Environmental Services, Renton, Washington.

- Worked collaboratively with a wide range of stakeholders in developing amendments to King County Code.
- Wrote amendments to King County Code in ordinance format.
- Represented the Executive at meetings of the King County Council on Executive-proposed ordinances.
- Reviewed Council-proposed ordinances and provided Executive position on ordinance at meetings of the King County Council.
- Assessed environmental impacts of proposed code amendments and prepared environmental review documents.
- Assessed fiscal impact and regulatory impacts of proposed code amendments.
- Participated in inter-departmental team to write policy and code amendments implementing King County’s Comprehensive Plan to comply with the Washington State Growth Management Act during initial adoption and annual updates.
- Participated in department’s formal code interpretation committee.
- Represented department on the Transfer of Development Rights inter-departmental review team.

1990 – 1994. Land Use Planner, King County Department of Development and Environmental Services, Renton, Washington.

- Reviewed applications for new subdivisions, wrote Executive recommendations and conditions of approval and represented department at public hearings.
- Reviewed and prepared director approval of administrative land use permits.
- Participated in pre-application meetings with land owners and explained applicable land use regulations.

1988 – 1990. Permit Technician, King County Department of Development and Environmental Services, Bellevue, Washington.

- Reviewed building permit applications to determine if application is complete.
- Checked legal descriptions, zoning and development conditions on building permits.
- Provided information to property owners on permit application requirements.

- Provided estimated costs of building permits.

1988. Inventory Assistant, Design and Development Department, City of Bellevue, Bellevue, Washington.

- Conducted comprehensive survey of signs in Bellevue.
- Developed methodology for assessing sign standard compliance.
- Wrote final report with recommendations on bringing signs into compliance.

1985 – 1987. Graduate Teaching Assistant, Department of Geography, University of Nebraska, Omaha, Nebraska.

- Taught physical geography laboratories to undergraduate students.

1984 – 1985. Research Assistant, Department of Development, City of Colorado Springs, Colorado Springs, Colorado.

- Lead research team to evaluate success of redevelopment project sponsored jointly by city and university in historic residential neighborhood that removed properties from floodplain of Shooks Run creek.
- Assisted in research and drafting of land use maps for historic mining town of Victor, Colorado.

1982 – 1985. Inventory Assistance, City of Colorado Springs, Colorado.

- Participated in comprehensive survey and documentation of historic structures and districts in Colorado Springs, Colorado.
- Prepared nominations of buildings and districts to the National Register of Historic Places. Submitted nominations to U.S. Department of the Interior for review and approval.

## Honors

1985. Cum Laude with Highest Distinction in Geography and Environmental Studies (University of Colorado)

1985. The Award for Excellence of Scholarship (National Council for Geographic Education)

## Technical Writing

1994 – Present. King County Comprehensive Plan Updates, King County, Washington.

1994 – Present. King County Code Updates, King County, Washington.

*Kaufmann, P.* 1999. Alternative Fire Apparatus Access Turnarounds. Department of Development and Environmental Services Public Rule. Online at:

[http://www.metrokc.gov/ddes/pub\\_rule/acrobat/17-04Rule.pdf](http://www.metrokc.gov/ddes/pub_rule/acrobat/17-04Rule.pdf).

*Kaufmann, P.* Amended 1999. Sensitive Areas: Maintenance of Agricultural Ditches and Streams Used by Salmonids. Department of Development and Environmental Services Public Rule. Online at:

[http://www.metrokc.gov/ddes/pub\\_rule/acrobat/21a-24AgDitch01.pdf](http://www.metrokc.gov/ddes/pub_rule/acrobat/21a-24AgDitch01.pdf).

*Kaufmann, P.* 2003. Sensitive Areas: Flood Hazard Areas. Department of Development and Environmental Services Public Rule. Online at:

[http://www.metrokc.gov/ddes/pub\\_rule/acrobat/21A-24FloodHaz.pdf](http://www.metrokc.gov/ddes/pub_rule/acrobat/21A-24FloodHaz.pdf)

## Reports

*Kaufmann, P. (editor), O'Neil, C., Phelan, C., Quigley, n., Trujillo, S., Weissler, C., Woldruff, D.*  
1985. Neighborhood Conservation: An Evaluation of Redevelopment in Shooks Run. Center  
For Community Development and Design, University of Colorado,  
Colorado Springs, Colorado.

*Kaufmann, P.* 1988. City of Bellevue Sign Survey: A Comprehensive Inventory and Evaluation  
of Sign Conditions in the City of Bellevue. Design and Development Department, City of  
Bellevue, Washington.

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## Klaus O. Richter

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## Education

***Post-graduate Studies. 1977. Environmental Law, Seattle University, Seattle, Washington***

Ph.D. 1976. Forest Zoology University of Washington, Seattle, Washington

M.S. 1971. Science Education/Ecology State University of New York, (SUNY), Oswego, New York.

B.S. 1967. Forestry/Wildlife Biology SUNY College of Environmental Sciences & Forestry, Syracuse, New York.

## Employment History

***Senior Ecologist (1988–present)***

King County Department of Natural Resource & Parks. Seattle, WA.

***Instructor (1995–present)***

Wetland Science, University of Washington

***Wetland Restoration Instructor (2000–present)***

Natural Resources Conservation Service

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***Wetland Ecology Consultant (1995–present)***

Select Consulting Firms

***Terrestrial Ecologist (1975–1988)***

John Graham & Co., Biosystems Analysis, Parametrix Inc., Entranco Engineers and Raedeke & Associates. Seattle, Washington.

***Acting Assistant Professor (1980–1981)***

Department of Forest Zoology, University of Washington, Seattle, Washington

***College Instructor (1976–1977)***

Biology Department Highline Community College, Midway, Washington

***Forest Entomologist (1966, Summer)***

U.S. Forest Service, Pacific Northwest Regional Office, Portland, Oregon

**Professional Certification**

- 1995 Professional Wetland Scientist, Society of Wetland Scientists
- 1981 Senior Ecologist, Ecological Society of America
- 1980 Wildlife Biologist, The Wildlife Society

**Professional Societies/Groups:**

- Society of Wetland Scientists (SWS)
- Society of Ecological Restoration (SER)
- Society of Northwest Vertebrate Biology (SNVB)
- Partners in Amphibian and Reptile Conservation (PARC)
- Biological Assessment of Wetlands Working Group (USEPA, Washington, DC)

**Honors**

- 1996. National Wetlands Award for Science Research (Environmental Law Institute/USEPA)
- 1979. Member, The New York Academy of Sciences (New York)
- 1975. XI Sigma Pi Honorary Forestry Fraternity (University of Washington)
- 1974. Hugo Winkenwerder Memorial Fellowship (University of Washington)
- 1971. J.H. Bloedel Memorial Fellowship (University of Washington)

## Visiting Lecturer

Ongoing. Lecturer, University of Washington, Seattle, Washington

Ongoing. Information Transfer Team, USEPA, ERL, Corvallis, OR. Presentations. 2001 (Aurora, IL), 2000 (Providence, RI), 1998 (Raleigh, NC), 1995 (Washington, DC), 1994 (Boston, MA, St. Paul, MN); 1992 (New York, NY).

1982. Invited Lecturer, Department of Biology, Humboldt State College, Arcadia, CA.

1978. Invited Lecturer, Department of Soil Science, Univ. British Columbia, Canada.

## Grants

1999–2001. USEPA-Wetland Grants. Office of Water, Washington, DC & Region 10.

1992–1995. Special Studies of Wetlands with Emphasis on Amphibians. USEPA, ERL Corvallis OR, Duluth, MN, and Region X, Seattle, WA.

1989 – 1995. Washington State Department of Ecology, Centennial Clean Water Grant.

## Publications

### *Refereed Journals and Peer Reviewed Works*

*Sparling DW, Richter KO, Calhoun A. and M Micacchion.* 2001. Methods for Evaluating Wetland Condition: Using Amphibians in Bioassessments of Wetlands. EPA 822-R-01-0071. U.S. Environmental Protection Agency, Office of Water, Washington, DC. Online at <http://www.epa.gov/owow/wetlands/bawwg>.

*Thom RM, Borde AB, Richter KO and LF Hibler.* 2001. Influence of Urbanization on Ecological Processes in Wetlands Pp. 5-16 *In Land Use and Watersheds: Human Influence on Hydrology and Geomorphology in Urban and Forest Areas.* MS. Wigmosta and SJ Burges (eds.). American Geophysical Union, Washington, DC.

*Adams MJ, Richter KO and WP Leonard.* 1997. Surveying and Monitoring Amphibians Using Aquatic Funnel Traps. Pp. 47-54 *In Sampling Amphibians in Lentic Habitats: Methods and Approaches for the Pacific Northwest.* DH Olson, WP Leonard and RB Bury (eds.). Northwest Fauna 4. Society for Northwestern Vertebrate Biology, Olympia, WA.

*Richter KO.* 1997. A simple gauge for water-level maxima and minima. *Restoration and Management Notes* 15:60-63.

*Richter KO and AL Azous.* 1995. Amphibian occurrence and wetland characteristics in the Puget Sound Basin. *Wetlands* 15:305-312.

*Richter KO.* 1995. A simple aquatic funnel trap and its application to wetland amphibian monitoring. *Herpetological Review* 26:90-91.

*Bacchus ST, Richter KO and P Moler.* 1993. *Xenopus laevis* (African clawed frog): USA, Colorado. *Herpetological Review* 24:65.

*Richter KO. 1980. Movement, reproduction, defense and nutrition as functions of the caudal mucus in *Ariolimax columbianus*. Veliger 23:43-47.*

*Manuwal DA, Mattocks PW and KO Richter. 1979. First arctic tern colony in the contiguous western United States. American Birds 33:144-145.*

*Richter KO. 1979. Aspects of nutrient cycling by *Ariolimax columbianus* G. (Mollusca: Arionidae) in Pacific Northwest coniferous forests. Pedobiologia 19:60-74.*

*Richter KO. 1976. A method for individually marking slugs. J. Moll. Stud. 42:146-151.*

*Richter KO. 1973. Freeze-branding for individually marking the Banana Slug, *Ariolimax columbianus* G. Northwest Science 47:109-113.*

### ***Amici Curiae***

Zedler J, Likens G, Jones R, Sharitz R, Larson J, Bedford B, Meyer J, Fredrickson L, Loucks O, Semlitsch R, Woltemade C, Callway J, Richter K, Findlay S, and F. Short. 2002. Borden Ranch Partnerships, Angelo L. Psakopolos v. United States Army Corps of Engineers et al., In the Supreme Court of the United States. Environmental Defense, Washington, DC. No. 01-1243.

Likens G, Zedler J, Mitsch B, Sharitz R, Larson J, Fredrickson L, Brinson M, Loucks O, Pimm S, Semlitsch R, Bohlen C, Woltemade C, Hirschfeld, M Callway J, Huffman T, Bancroft T, Richter K, and J. Teal. 2000. Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers et al., In the Supreme Court of the United States. Environmental Defense, Washington, DC. No. 99-1178.

### ***Book Chapters***

*Lucchetti, G, Richter, KO and R Schaefer in press. Monitoring Acquisitions and Easements in Stream and Watershed Restoration.*

*In Wetlands and Urbanization: Implications for the Future. 2001. AL Azous and. RR Horner (eds.). Lewis Publishers, Boca Raton, FL.*

*Richter KO. Macroinvertebrate Distribution, Abundance and Habitat Use. Pp. 97-141.*

*Richter KO and AL Azous. Amphibian Distribution, Abundance, and Habitat Use. Pp.143-165.*

*Richter KO and AL Azous. Bird Distribution, Abundance, and Habitat Use. Pp. 167-200.*

*Richter KO and AL Azous. Terrestrial Small Mammal Distribution, Abundance, and Habitat Use. Pp. 201-220.*

*Richter KO and AL Azous. Bird Communities in Relation to Watershed Development. Pp. 275-284.*

*Ludwa KA and KO Richter. Emergent Macroinvertebrate Communities in Relation to Watershed Development. Pp. 265-274 284.*

*Richter KO and AL Azous. Bird Communities in Relation to Watershed Development. Pp. 275-286.*

Horner RR, Azous AL, Richter KO, Cooke SS, Reinelt LE and K Ewing. 2001. Wetlands and Stormwater Management Guidelines. Pp. 299-323.

Stenberg KJ, Richter KO, McNamara D and L Vicknair. 1997. A wildlife habitat network for community planning using GIS technology. Pp.241-254 In Miller, D. and G. D. Roo (eds.) Urban Environmental Planning. Avebury, Brookfield, VT.

### **Conference Publications**

Richter KO and EC Ostergaard. 2001. King county's Wetland-Breeding Amphibian Monitoring Program. Pp. 18-22 In Proceedings of the 6<sup>th</sup> National Volunteer Monitoring Conference: Moving into the Mainstream, April 26-29, 2000 Austin, TX. USEPA. Office of Water, EPA 841-R-01-0001.

Richter KO 1997. Criteria for the restoration and creation of wetland habitats of lentic-breeding amphibians of the Pacific Northwest. Pp. 72-94 In Wetland and Riparian Restoration: Taking a Broader View, KB Macdonald and F Weinmann (eds.). Publication EPA 910-R-97-007. USEPA, Region 10, Seattle, WA, USA.

Richter KO and MJ Adams. 1996. The power to detect trends in amphibian populations using aquatic funnel traps. NAAMP III Online at <http://www.im.nbs.gov/naamp3/papers/32t.html>

Azous, A and KO Richter. 1995. Amphibian and plant community responses to changing hydrology in urban wetlands. Pp. 156-162 In E. Robichaud (ed.) Puget Sound Research '95 Proceedings Vol. 1, Puget Sound Water Quality Authority, Olympia, WA, USA.

Platin TJ and KO Richter. 1995. Amphibians as bioindicators of stress associated with watershed urbanization. Pp. 163-170 In E Robichaud (ed.) Puget Sound Research '95 Proceedings Vol. 1, Puget Sound Water Quality Authority, Olympia, WA, USA.

Leonard WP and KO Richter. 1994. Western long-toed salamander (*Ambystoma macrodactylum*) demographics and oviposition in a small vernal wetland of the Puget Sound Lowlands. Northwest Science 68:135.

Richter KO. 1980. Evolutionary aspects of mycophagy in *Ariolimax columbianus* G. and other slugs. Pp. 616-636 In Soil Biology as Related to Land Use Practices. DL Dindal (ed.) Proceedings of the VII International Soil Zoology Colloquium of the International Society of Soil Science (ISSS), Syracuse, NY (1979). Office of Pesticide and Toxic Substances USEPA, Washington DC.

### **Reports**

Azous AL, Bowles MB and KO Richter. 2001. Reference Standards and Project Performance Standards for the Establishment of Depressional Flow-Through Wetlands in the Puget Lowlands of Western Washington. Washington State Department of Ecology, Olympia, WA. Online at [http://pnw.sws.org/forum/reference\\_stan.pdf](http://pnw.sws.org/forum/reference_stan.pdf)

Hruby T, Granger T, Brunner K, Cooke S, Dublonica K, Gersib R, Reinelt L, Richter K, Sheldon D, Teachout E, Wald A, and F. Weinmann. 1999. Methods for Assessing Wetland Functions Volume 1: Riverine and Depressional Wetlands in the Lowlands of Western Washington. Washington State Department of Ecology, Olympia, WA. No. 99-115.

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*Peters CF, Richter KO, Manuwal DA and SG Herman. 1978. Colonial Nesting Sea and Wading Bird Use of Estuarine Islands in the Pacific Northwest. Tech. Rep. D-78-17. USACE Washington, DC.*

### ***Popular Publications***

*Richter KO. 1993. Defense mechanisms in amphibians. Reptile and Amphibian Magazine. May/June*

*Richter KO. 1994. Exotic weeds: Biological pollutants. Northwest Parks and Wildlife 4:77-82.*

*Richter KO. 1991. Amphibians: Biomonitoring of environmental health. Washington Coastal Currents 15:1-2.*

*Richter KO and TC Boyden. 1988. Changing tides in the Everglades. Animals. May/June.*

### ***Manuscripts in Preparation***

*Richter, KO. Northwestern Salamander. Pp. In The Amphibians of the Pacific Northwest, LC Jones and PL Leonard (eds.)*

*Richter, KO. Wetlands. Pp. In The Amphibians of the Pacific Northwest, LC Jones and WP Leonard (eds.)*

*Richter KO. Some thoughts on wildlife in landscape wetland assessments.*

*Richter KO and HA Roughgarden. Wetland and oviposition site selection by the Northwestern Salamander, *Ambystoma gracile**

### **Papers, Presentations & Abstracts**

*Richter KO and DW Kerr. 2001d. Amphibian communities as integrators of wetland and surrounding land cover conditions. Northwest Biological Assessment Working Group, Canon Beach, OR.*

*Richter KO and DW Kerr. 2001c. Landscape analysis of wetlands and their surrounding patches relative to amphibian declines and habitat support. Society Wetland Scientists, Annual Meeting, Pacific Chapter Hood River, OR.*

*Richter KO and DW Kerr. 2001b. Oviposition biology of a sympatric population of transformed and gilled *Ambystoma gracile* (Northwestern Salamander). Northwest Naturalist 62:79.*

*Richter KO. 2001. Wetland Bioassessment, Playing a role in County Government: USEPA/Izaak Walton League Assessing the Health of Wetlands Life: Policy, Science and Practice. Orlando, FL.*

- Richter KO and DW Kerr. 2000a.* Oviposition biology of a sympatric population of transformed and gilled *Ambystoma gracile* (Northwestern Salamander) Society For Northwestern Vertebrate Biology, Annual Meeting, Victoria, BC, Canada.
- Azous AL, Bowles, MB and KO Richter. 2001.* Reference Standards and Project Performance Standards for the Establishment of Depressional Flow-Through Wetlands in the Puget Lowlands of Western Washington. Society of Wetland Scientists, Hood River, OR.
- Richter KO. 2000.* King County's wetland-breeding amphibian monitoring program. Conference Abstract. Sixth National Volunteer Monitoring Conference: Moving into the Mainstream, Austin, TX.
- Richter KO. 1999a.* Declining amphibian populations. USEPA 14th Annual Risk Assessment Conference, Seattle, WA, May 3-7.
- Richter KO. 1998.* Amphibians as Indicators of Wetland Condition. Society of Wetland Scientists, 19<sup>th</sup> Annual Meeting June 8-12, Anchorage, AK.
- Richter KO. 1998.* Some thoughts on wildlife in landscape wetland assessments. Pp. 1-8. Unpublished manuscript in *Proceedings* Association of State Wetlands Managers, J. Kusler and M. Brinson (eds.). Berne, NY.
- Svendsen CR and KO Richter. 1996.* Small mammals in a restored urban wetland in response to biotic and landscape characteristics. Ecological Summit 96, Abstract Book, Copenhagen, Denmark.
- Richter KO. 1995.* Criteria in the restoration and creation of wetland breeding amphibian habitat. Society for Ecological Restoration, International Conference, Seattle, WA, USA.
- Richter KO, Leonard, WP and AL. Azous. 1994.* Protecting biological values of wetlands: It's not happening for amphibians. p. 96. *In* Abstracts, 15th Annual Meeting of Society of Wetland Scientists, Portland, OR
- Leonard WP and KO Richter. 1994.* Western long-toed salamander demographics and oviposition in a small vernal wetland of the Puget Sound Lowlands. *Northwest Science* 68:135.
- Leonard WP and KO Richter. 1994.* Long -toed salamander (*Ambystoma macrodactylum*) breeding at a small vernal wetland in the Puget Sound lowlands. p. 96. *In* Abstracts, 15th Annual Meeting of Society of Wetland Scientists, Portland, OR.
- Richter KO and TJ Platin 1993.* *Ambystoma gracile* (Urodela) and *Rana aurora* (Anura) as bioindicators of wetland stress. p. 61. *In* Abstracts, 14th Annual Meeting Society of Environmental Toxicology and Chemistry, Houston, TX.
- Richter KO and AL Azous. 1993.* Amphibian distribution and habitat characteristics in lower Puget Sound Wetlands. The Wildlife Society British Columbia/Washington.
- Leonard, WO and KO Richter. 1993.* Long-toed salamander breeding habitat in a small vernal wetland in the Puget Sound Lowlands. Annual Meeting of Society of Wetland Scientists Northwest Chapter, Olympia, WA.

*Richter KO. 1991. Pacific Northwest Amphibian Workshop. Regional Losses of Amphibians: Distribution and abundance of wetland amphibians in Urbanizing King County, WA. Roseburg, OR.*

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## **Jeanne M. Stypula**

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### **Education**

M.S. 1986. Civil Engineering. Washington State University (WSU), Pullman, WA.  
B.S. 1980. Civil Engineering Technology. University of Pittsburgh, (UPJ), Johnstown, PA

### **Employment**

#### ***Senior Engineer (1989–present)***

King County Department of Natural Resources and Parks, Seattle, Washington.

#### ***Engineer (1987–1989)***

King County Department of Public Works, Seattle, Washington

#### ***Change Management Engineer (1986–1987)***

Boeing Military Airplane Company, Seattle, Washington.

#### ***Graduate Research and Teaching Assistant (1983–1986)***

Albrook Hydraulic Laboratory, Washington State University, Pullman, Washington.

#### ***River Engineering Consultant (1985)***

Pullman, Washington.

#### ***Structural Design Engineer (1982–1983)***

Boeing Aerospace Company, Seattle, Washington

#### ***757 Flight Test Engineer (1981–1982)***

Boeing Commercial Airplane Company, Renton, Washington

#### ***Facilities Design Engineer (1980–1981)***

Boeing Aerospace Company, Seattle

***Washington Civil Engineering Aide***

***H.F. Lenz Consulting Engineers, Johnstown, Pennsylvania***

**Professional Certification**

1990. Washington State Professional Civil Engineer, License No. 26602

1996. Idaho State Professional Civil Engineer, License No. 8227

**Professional Societies And Associations**

American Society of Civil Engineers

Association of State Floodplain Managers

Northwest Association of Floodplain Managers

**Continuing Education**

1996. River Analysis System, HEC-RAS, American Society of Civil Engineers, Seattle, Washington.

1995. Stream Stability and Scour at Highway Bridges, Washington Department of Transportation and the Federal Highway Administration, Auburn, Washington.

Applied Fluvial Geomorphology, Wildland Hydrology Consultants, Pagosa Springs, Colorado.

1991. Scour and Deposition in Rivers and Reservoirs, HEC-6, University of Arizona, Tucson, Arizona.

1988. Water Surface Profiles Computation, HEC-2, Federal Emergency Management Agency and Otak, Inc., Kirkland, Washington.

**PUBLICATIONS**

***Conference Publications***

*Stypula, JM. 1993. Guidelines for bank stabilization projects in the riverine environments of King County. In Cross Training: Light the Torch. Proceedings of the 17<sup>th</sup> Annual Conference of the Association of State Floodplain Managers, March, Atlanta, Georgia.*

*Thomas, RE and JM Stypula. 1991. A comparison of basin stormwater management alternatives. Puget Sound Research '91, Committee on Research in Puget Sound, Seattle, Washington*

*Carlton, DK, Barker, B, Nelson, R and JM Stypula. 1989. Effect of lost floodplain storage on flood peaks. In Partnerships: Effective Flood Hazard Management. Proceedings of the 13<sup>th</sup>*



Annual Conference of the Association of State Floodplain Managers, May 22<sup>nd</sup> – 27<sup>th</sup>, Scottsdale, Arizona.

*Orsborn, JF and JM Stypula. 1987.* New models of hydrological and stream channel relationships. In *Erosion and Sedimentation in the Pacific Rim, Proceedings of the Corvallis Symposium*. August. International Association of Hydrological Sciences, Publication No. 165, Corvallis, Oregon.

### ***Thesis***

*Stypula, JM. 1986.* An investigation of several stream flow and channel form relationships. Washington State University, Pullman, WA

### ***Reports***

*King County Department of Natural Resources and Parks. 2002.* Land acquisition evaluation report for the White River corridor.

*Stypula, JM, Johnson, AW, Schaefer, R and KS Zweig. 1995.* Stream Report for the Hamakami Levee Repair Report Project. King County Department of Natural Resources, Seattle, Washington.

*Johnson, AW, Stypula, JM and KS Zweig. 1994.* Stream Report for the Hamakami Levee Repair Project. King County Department of Public Works, Seattle, Washington

*Johnson, AW and JM Stypula. 1993.* Guidelines for Bank Stabilization Projects. In the *Riverine Environments of King County*. King County Department of Public Works, Seattle, Washington. Online at <http://dnr.metrokc.gov/wlr/biostabl>

*King County Surface Water Management. 1993.* King County Flood Hazard Reduction Plan.

*King County Surface Water Management. 1991.* Executive Proposed Basin Plan, Hylebos Creek and Lower Puget Sound.

*King County Surface Water Management. 1990.* Current and Future Conditions Report, Hylebos Creek and Lower Puget Sound Basins.

*King County Surface Water Management. 1990.* Bear Creek Basin Plan.

*King County Surface Water Management. 1989.* Bear Creek Basin Current and Future Conditions Analysis.

*King County Surface Water Management. 1987.* Basin Plan Review Project Summary: Improving the implementation and effectiveness of basin plans.

*Orsborn, JF, Bumstead, TW, Coulton, KG and JM Stypula. 1985.* Currant Creek Habitat Improvement Pilot Study. US Forest Service, Uinta National Forest and Bureau of Land Management, Central Utah Project Strawberry System, Provo, Utah.

*Orsborn, JF, Amerman, K, Coulton, K, Naik, B and JM Stypula. 1985.* Planning for the Restoration of Meanders on a Trial Basis, Crooked River Habitat Improvement Project, Final Report, US Forest Service, Nez Perce National Forest, Elk City, Idaho.

## Papers, Presentations & Abstracts

Orsborn, JF and JM Stypula. 2000. Solving for streamflow without using Manning's equation. StreamNotes. October issue. Stream Systems Technology Center, US Forest Service, Rocky Mountain Research Station, Fort Collins, Colorado. Online at <http://www.stream.fs.fed.us/streamnt/sntoc.htm>

Stypula, JM. 1995. Using large woody debris in large scale rivers. In: Taking a Broader View, *Society of Ecological Restoration*, International Conference, September 14th – 16th, Seattle, Washington.

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## Jennifer Vanderhoof

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### Education

B.S. 1992. Wildlife Biology, *cum laude*, Kansas State University, Manhattan, Kansas  
Technical Writing and Editing, Certificate. 1999. University of Washington, Seattle, Washington

### Employment/Professional Experience

1999 – Present **Ecologist**, King County Department of Natural Resources and Parks, Seattle, Washington

- Co-coordinate Green/Duwamish Watershed Open Space Preservation Prioritization Project, including assessing wildlife habitat quality, recommending habitat acquisition, compiling report, and mapping
- Train Salmon Watcher volunteers and coordinate with local agencies
- Manage database for Salmon Watcher Program
- Help design and implement breeding bird survey, conduct benthic macroinvertebrate sampling, perform fish habitat surveys and trap fish, conduct amphibian surveys, collect water quality samples, and collect biological samples from chinook salmon

1997 – 1999 **Watershed Biologist**, Seattle Public Utilities, Cedar River, Washington

- Performed technical editing for the City of Seattle's Habitat Conservation Plan

- Conducted a watershed-wide habitat classification survey to update non-forested remotely sensed habitat unit data in Geographic Information System database
- Conducted population surveys for fish abundance and distribution using methods including spawning surveys, electrofishing, fry trapping, snorkeling, visual identification, and netting

1997-1998 **Wildlife Biologist**, J.S. Jones and Associates, Inc., Seattle, Washington

- - Conducted wildlife habitat assessments independently in the field
- - Analyzed data and prepared written reports for King County Resource Planning Environmental Division

1995 – 1997 **Biological Observer**, Anchorage, Alaska; Seattle, Washington (Winters 1995, 1996, and 1997)

- Collected data for National Marine Fisheries Service (NMFS) on species composition of groundfish and prohibited species caught in the Gulf of Alaska and the Bering Sea
- Submitted data to NMFS and Alaska Department of Fish and Game on daily and weekly bases

**Research Assistant**, Oregon State University, Medford, Oregon

- - Implemented radio telemetry and night calling for a northern spotted owl demographics study in Siskiyou and Southern Cascade mountain ranges
- - Prepared and analyzed data on spotted owl habitat use and availability

**The Nature Conservancy of Georgia Field Assistant**, Ft. Benning & Ft. Stewart, Oregon

- - Wrote, filmed, and produced a video highlighting research on and life history of the red-cockaded woodpecker at Ft. Benning
- - Captured and banded adult birds and monitored cavity tree clusters for population structure study
- - Surveyed pine habitat for red-cockaded woodpecker cavity trees, collected cavity tree and cluster data, and mapped and entered data into Biological Conservation Database
- - Monitored controlled burn and military impacts on birds' behavior

**Kansas State University Undergraduate Researcher**, Manhattan, Kansas

- - Located prairie dog towns with aerial imagery of western Kansas to assess distribution and abundance
- - Published results in *Numbers and Extent of Black-tailed Prairie Dog Towns in Western Kansas*, Transactions of the Kansas Academy of Science, 97(1-2), 1994, pp. 36-43

**Reports:**

Kahan, J., and J. Vanderhoof. 2001. Draft: Green/Duwamish Watershed open space preservation priorities. King County Water and Land Resources Division, Seattle, WA.

King County. 2002. Draft Ecological Lands Handbook. King County Water and Land Resources Division, Seattle, WA.

- Vanderhoof, J. 2002. 2001 volunteer salmon watcher program in the Lake Washington watershed and central Puget Sound drainages. King County Department of Natural Resources and Parks, Seattle, WA.
- Vanderhoof, J. 2001. 1998 and 1999 Volunteer Salmon Watcher Program in the Lake Washington Watershed. King County Department of Natural Resources, Seattle, WA.
- Vanderhoof, J. 2001. 2000 Volunteer Salmon Watcher Program in the Lake Washington Watershed. King County Department of Natural Resources, Seattle, WA.
- Vanderhoof, J., E. Ostergaard, and D. Gleisner. 2000. 1997 volunteer salmon watcher program in the Lake Washington Watershed. King County Department of Natural Resources, Seattle, WA.
- 

## **C.2 PEER REVIEWERS**

### **Paul Adamus, Ph.D.**

Private Consultant

Adamus Resource Assessment, Inc.

Corvallis, Oregon

**Reviewed: Wetlands Section**

#### **Education:**

- Ph.D. Oregon State University, Wildlife Science
- M.S. University of Utah, Aquatic Biology
- B.S. University of Maine, Wildlife Science

### **Lee Benda Ph.D.**

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Mt. Shasta, California

**Reviewed: Geologic Hazard Areas Section**

#### **Education:**

- Ph.D. University of Washington, Geomorphology 1994
- M.S. University of Washington, Geomorphology 1988
- B.S. University of Washington, Forest Hydrology 1982

**Robert P. Brooks, Ph.D.**

Professor, Penn State University, Forest Resource Laboratory  
School of Forest Resource, College of Agricultural Science, University Park, PA

**Reviewed: Wildlife Section**

**Education:**

- Ph.D. University of Massachusetts Amherst, Wildlife Biology 1980
- M.S. University of Massachusetts Amherst, Wildlife Biology 1977
- B.S. Muhlenberg College, 1974

**Mark Carey**

Branch Chief, Federal Insurance and Mitigation Division  
FEMA, Mitigation Division, Federal Regional Center, Bothell, Washington

**Reviewed: Flood Hazard Areas/CMZ Section**

**Education:**

- B.A. Eastern Washington University, Urban and Regional Planning

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Federal Emergency Management Act, Federal Insurance and Mitigation Division, Bothell, WA  
Reviewed: Flood Hazard Areas/CMZ Section

**Education:**

- M.S. Washington State University, Civil Engineering
- B.S. Washington State University, Civil Engineering

**Stephen Conroy, Ph.D.**

Environmental Scientist III  
King County Department of Transportation, Seattle, WA

**Reviewed: Aquatic Areas Section**

**Education:**

- Ph.D. University of Aberdeen Scotland, Enzymology/Protein Structure and Function
- B.S. University of Aberdeen Scotland, Biochemistry

**Charles T. Ellingson, RPG, CGWP**

Principal Hydrogeologist, Pacific Groundwater Group, Seattle, WA.

**Reviewed: Critical Aquifer Recharge Areas (CARA)**

**Education:**

M.S. Hydrology, 1980, University of Arizona

B.S. Geology/Geophysics, 1978, University of Hawaii

Registered Professional Geologist, States of Oregon, Idaho, and Washington.

Certified Groundwater Professional, Association of Groundwater Scientists and Engineers

**Correigh Greene, Ph.D.**

NRC Postdoctoral Research Associate

Watershed Program, Northwest Fisheries Science Center, Seattle, WA

**Reviewed: Aquatic Areas Section**

**Education:**

- Ph.D. University of California Davis, Animal Behavior
- M.S. University of Michigan, Wildlife Ecology
- B.S. Tufts University, Environmental Studies
- B.S. Tufts University, Biopsychology

**Douglas J. Kelly, PG, P.HG**

Hydrogeologist, Island County Environmental Health, Coupeville, WA

**Reviewed: Critical Aquifer Recharge Areas (CARA)**

**Education:**

MS Geology (Hydrogeology), 1991, University of Illinois, Champaign, Illinois

BS Geology, Eastern Illinois University, 1985, Charleston, Illinois

**Charles Lie, LEG, LHG**

Terra Associates, Inc., Goldbar, Washington

**Reviewed: Geologic Hazard Areas Section**

**Education:** B.S. University of Washington, Geologic Sciences 1976

**Keith Macdonald, Ph.D.**

Private Consultant, Bellevue, Washington

**Reviewed: Aquatic Areas Section**

**Education:** Ph.D. Scripps Institution of Oceanography, Marine Biology

**John Marzluff, Ph.D.**

Associate Professor, Division of Ecosystem Sciences, College of Forest Resources  
University of Washington, Seattle, Washington

**Reviewed: Wildlife Section**

**Education:**

- Postdoctoral studies: University of Vermont, 1987-1990
- Ph.D. Northern Arizona University, Zoology, 1987
- M.S. Northern Arizona University, Biology, 1983
- B.S. University of Montana, Wildlife Biology, 1980

**Chris May, Ph.D.**

Private Consultant, Watershed Ecology LLC, Poulsbo, WA

**Reviewed: Aquatic Areas Section**

**Education:**

- Ph.D. University of Washington, Environmental Science and Engineering, 1997
- B.S. United States Naval Academy, Marine Engineering, 1978

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Wetlands Specialist, Ecological Services Section, Shorelands and Environmental Assistance  
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**Reviewed: Wetlands Section**

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