

14.0 REFERENCES

CONTENTS

14.0 REFERENCES	14-1
-----------------------	------

This page intentionally left blank.

14.0 REFERENCES

- AFS (American Fisheries Society). 1985. Aquatic Inventory: Glossary and Standard Methods. Western Division American Fisheries Society, Habitat Inventory Committee. 34p.
- Agee, J.K. 1988. Successional dynamics in forest riparian zones. Pages 31-43 in K.J. Raedeke, ed. Streamside management: riparian wildlife and forestry interactions. College of Forest Resources Contrib. No. 59, University of Washington, Seattle.
- Allen, A.W. 1983. Habitat suitability index models: beaver. U.S. Fish and Wildlife Service. FWS/OBS-82/10.30. Washington D.C. 20 pp.
- Allendorf, F.W. and R.F. Leary. 1988. Conservation and distribution of genetic variation in a polytypic species, the cutthroat trout. *Conservation Biol.* 2:170-184.
- Anderson, D.P. and M.V. Ichisaka. 1986. Wintering ecology of bald eagles on the Lewis River, Washington. 1985-1986. Pacific Power & Light Co., Portland, Oregon.
- Bagnold, R.A.. 1980. An Empirical Correlation of Bedload Transport Rates in Flumes and Natural Rivers. *Proceedings of the Royal Society of London, Series A*, 372, pp. 453-473.
- Bailey, N.T.J. 1951. On estimating the size of mobile populations from recapture data. *Biometrika* 38:293-306.
- Bates. 1992. Fishway Design Guidelines for Pacific Salmon. Presented at US Fish and Wildlife Service's Fish Passageways and Diversion Structures course, June, 1996. Ken Bates. Washington Department of Fish and Wildlife. March 1992.
- Beacham, T.D., R.E. Withler, and A.P. Gould. 1985a. Biochemical genetic stock identification of chum salmon (*Oncorhynchus keta*) in southern British Columbia. *Can. J. Fish. Aquat. Sci.* 42, 437-448.
- Beacham, T.D., R.E. Withler, and A.P. Gould. 1985b. Biochemical genetic stock identification of pink salmon (*Oncorhynchus gorbuscha*) in southern British Columbia and Puget Sound. *Can. J. Fish. Aquat. Sci.* 42, 1474-1483.
- Beacham, T.D. S. Pollard, and K.D. Lee. 1999a. Population structure and stock identification of steelhead in southern British Columbia, Washington, and the Columbia River based on microsatellite DNA variation. *Trans. Amer. Fish. Soc.* 128:1068-1084.
- Bisson, P.A. J.L. Nielson, R.A. Palmason, and L.E. Grove. 1981. A System for Mapping Habitat Types in Small Streams, with Examples of Habitat Utilization by Salmonids During Low Stream Flow. In N.B. Armantrout, ed., *Acquisition and Utilization of Aquatic Habitat*. Western Division American Fisheries Society. Portland, OR. PP 62-73.

- Bovee, K.D. 1982. A guide to stream habitat analysis using the Instream Flow Incremental Methodology. Instream Flow Information Paper No. 12. FWS/OBS-82/26.
- Bridges, C., W. Hagenbuck, R. Krapf, S. Leonard, and D. Prichard. 1994 (revised 1998). Process for assessing proper functioning condition for lentic riparian-wetland areas. Technical Reference 1737-11. U.S Department of Interior, BLM, Denver, CO. 46 pp.
- Brown, L. 1978. Opening day creel census models for trout management lakes. Washington State Game Department.
- Bryan, A.L. 1953. An Appraisal of the Archaeological Resources of the Yale Reservoir on the Lewis River, Washington. Reprinted in 1992 in *Archaeology in Washington* 4:61-69.
- Bryan, A.L. 1955. Archaeology of the Yale Reservoir, Lewis River, Washington. *American Antiquity* 20(3):281-283.
- Buchanan, D.V., and S.V. Gregory. 1997. Development of water temperature standards to protect and restore habitat for bull trout and other cold water species in Oregon. Pp. 119-126 in Mackay, W.C., M.K. Brewin, and M. Monita, eds. *Friends of the bull trout conference proceedings*. Bull Trout Task Force (Alberta), Trout Unlimited, Canada, Calgary.
- Cannamela, D.A. 1993. Hatchery steelhead smolt predation of wild and natural juvenile chinook salmon fry in the upper Salmon River, Idaho. Idaho Department of Fish and Game, Boise, ID.
- Cassidy, K.M. 1997. Land cover of Washington State: Description and management. Volume 1 in *Washington State Gap Analysis Project Final Report* (K.M. Cassidy, C.E. Grue, M.R. Smith, and K.M. Dvornich, eds.). Washington Cooperative Fish and Wildlife Research Unit, University of Washington, Seattle, Washington. 260pp.
- CBFWA. 1999. PIT tag marking procedures manual, Version 2.0. Prepared by: Columbia Basin Fish and Wildlife Authority PIT tag Steering Committee.
- Chambers, J.S. 1957. Report on the 1956 survey of the North Fork of the Lewis River above Yale Dam. State of Washington Department of Fisheries. Prepared for Pacific Power & Light.
- Chapman, D.G. 1951. Some properties of the hypergeometric distribution with applications to zoological sample census. *University of California Publications in Statistics* 1:131-160.
- Chilote, M.W., S.A. Leider, J.J. Loch, and R. Leeland. 1982. Merwin, Yale and Swift Reservoir Study, 1978-1982. Washington Department of Game.
- Clark County. 1992. Trails & Bikeway System Plan. Clark County, Parks & Recreation Division, Vancouver, WA, December 1992.

- Clark County. 1994. Clark County Parks, Recreation & Open Space Plan. Clark County, WA, July 1994.
- Conklin, C.L. 1992. Siouxon Project. A baseline evaluation of two third order streams in southwest Washington.
- Corkran, C.C. and C. Thoms. 1996. Amphibians of Oregon, Washington, and British Columbia. Lone Pine Publishing. Redmond, Washington.
- Corn, P.S. and R.B. Bury. 1990. Sampling methods for terrestrial amphibians and reptiles. U.S. Forest Service General Technical Report. PNW-GTR-256.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service Publ. FWS/OBS-79/31.
- Cowlitz County. 1994. Comprehensive Park and Recreation Plan for Cowlitz County. Cowlitz County Park & Recreation Advisory Board, Cowlitz County.
- Crabbe, S.J., F. Whoriskey, and D.L.G. Noakes. 2000. Use of small boreal stream tributaries by Atlantic salmon parr (*Salmo salar*) and resident brown trout (*Salmo trutta*). Presented in January 2000, Canadian Conference for Fisheries Research (CCFFR), Fredericton, New Brunswick.
- Crawford, B. 1979. The origin and history of the trout brood stocks of the Washington Department of Game. Washington State Game Department Fishery Research Report. Olympia, WA, 76pp.
- Daubenmire, R. 1968. Plant communities. A textbook of plant synecology. Harper and Row. New York. 300 pp.
- Diaz, N.M. and T.K. Mellen. 1996. Riparian ecological types. Gifford Pinchot and Mt. Hood National Forests and Columbia River Gorge National Scenic Area. United States Department of Agriculture, Forest Service, Pacific Northwest Region. R6-NR-TP-10-96.
- Dinehart, R.L. 1992. Sediment data for streams near Mount St. Helens, Washington. Volume 3. Water years 1984-87. USFS Open-File Report 91-219.
- DNR (Washington State Department of Natural Resources). 1996. Siouxon landscape plan. Objectives and Summary. Southwest Region. Olympia, Washington. September 1996.
- DNR. 1997a. EIS and Habitat Conservation Plan for state forest lands within the range of the northern spotted owl. Olympia, Washington.
- DNR. 1997b. Standard Methodology for Conducting Watershed Analysis. Washington Forest Practices Board, November 1997.

- Dueker, J.K and A.S. Paz. 1995. Inventory and assessment of, and management alternatives for wetlands at Yale Reservoir. Prepared for PacifiCorp. Portland, Oregon. 104 pp.
- Dunnigan, J.L. 1999. Feasibility and risks of coho reintroduction in mid-Columbia monitoring and evaluation: 1999 annual report, Pp.1, 31, 49. Yakama Nation Dept. of Fisheries, Toppenish, WA.
- Eddy, B., and P. Meyers. 1985. Evaluation of the contribution of coho to the 1984 Merwin Reservoir sport fishery. PacifiCorp, Portland, OR.
- Efron, B., and R. Tibshirani. 1986. Bootstrap methods for standard errors, confidence intervals, and other measures of statistical accuracy. *Statistical Science* 1:54-77.
- Fausch, K.D., and M.K. Young. 1995. Evolutionarily Significant Units (ESU) and movement of resident stream fishes: a cautionary tale. *American Fisheries Society Symposium*. 17:360-370.
- Federal Register. 1999. Determination of threatened status for bull trout in the coterminous United States; Final rule. Vol. 64(210):58910-58933.
- Federal Register. 2000. Designated critical habitat: critical habitat for 19 evolutionarily significant units of salmon and steelhead in Washington, Oregon, Idaho, and California. 65(32):7764-7787.
- Federal Register. 2000. Policy regarding controlled propagation of species listed under the Endangered Species Act. Notice of policy Vol. 65(183):56916-56922.
- Fish Passage Center (FPC). 1999. Fish Passage Center 1998 annual report. Report to the Bonneville Power Administration, Fish Passage Center of the Columbia Basin Fish and Wildlife Authority, Portland, Oregon
- Fraley, J.J., and B.B. Shepard. 1989. Life History, ecology and population status of migratory bull trout (*Salvelinus confluentus*) in the Flathead Lake and River system, Montana. *Northwest Science* 63(4):133-143.
- Franklin J.F. and C.T Dyrness. 1988. Natural vegetation of Oregon and Washington. Oregon State University Press, Corvallis, Oregon. 452pp.
- Goetz, Linda Naoi. 1998. Results of a Cultural Resources Inventory of the Swift Reservoir, Skamania County, Washington. Draft Report Prepared for PacifiCorp by Historical Research Associates, Inc., Seattle, Washington.
- Goetz, F.A. 1994. Distribution and juvenile ecology of bull trout (*Salvelinus confluentus*) in the Cascade Mountains. MS Thesis, Oregon State University, Corvallis.

- Gomez, B. and M. Church. 1989. An Assessment of Bed Load Sediment Transport Formulae for Gravel Bed Rivers. Water Resources Research, Vol25. no. 6, pp. 1161-1186.
- Graves, S.K. 1982. Merwin, Yale, and Swift Reservoir Study: 1978-1982. Washington Department of Game. Unpublished report. 103 pp.
- Graves, S. 1983. Merwin, Yale and Swift Reservoir Study: 1978-1982. Washington Department of Game. Unpublished Report. 103 pgs.
- Hamilton, J.A.R., L.O. Rothfus, M.W. Erho, and J.D. Remington. 1970. Use of a hydroelectric reservoir for rearing of coho salmon (*Oncorhynchus kisutch*). Washington Department of Fisheries. Research Bulletin No. 9. 65 pp.
- Hans, K.M., M.G. Mesa, and A. Maule. 1999. Rate of disappearance of gas bubble trauma signs in juvenile salmonids. Journal of Aquatic Animal Health 11:383-390
- Harza. 1996a. First Stage Consultation Document (FSCD) For the Yale Hydroelectric Project, FERC Project No. 2071. Prepared for PacifiCorp, Portland, OR by Harza Engineering, Bellevue, WA.
- Harza. 1996b. Interim Technical Report (ITR) for Aquatic Resources, Yale Hydroelectric Project, FERC Project No. 2071. Prepared for PacifiCorp, Portland, OR by Harza Engineering, Bellevue, WA.
- Hawkins, S.W., and J.M. Tipping. 1999. Predation by juvenile hatchery salmonids on wild fall Chinook salmon fry in the Lewis River, Washington. California Fish and Game 85(3):124-129.
- Hays, R.L., C. Summer, and W. Seitz. 1981. Estimating wildlife habitat variables. Western Energy and Land Use Team. U.S. Fish and Wildlife Service, Office of Biological Services, U.S. Department of the Interior, Washington, D.C. FWS/OBS-81/47.
- Hildreth, J. 1995. Yale Hydroelectric project inventory report. Forest Resource Management, Inc. Wilsonville, Oregon.
- Hillson, T.D. and J.M. Tipping. 1999. Lewis River hatchery complex fish biologist annual report for 1998. Washington Department of Fish and Wildlife Report No. 99-7, Vancouver, WA.
- Hitchcock, C.L. and A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press. Seattle, Washington.
- HTI. 1997. Hydroacoustic Evaluation of Kokanee Entrainment at Yale Dam in Spring, 1997. Prepared by HTI for PacifiCorp FERC Relicensing of the Yale Hydroelectric Project.

IAC (Interagency Committee for Outdoor Recreation). 1990. Washington Outdoors: Assessment and Policy Plan, 1990-1995 (an Element of Washington's SCORP). Tumwater, WA, April 1990.

IAC. 1995. State of Washington Outdoor Recreation and Habitat, Assessment and Policy Plan, 1995-2001. Tumwater, WA, April 1995 (draft).

Ichisaka, M.V., K. Naylor, and J. Roppe. 1989. Shrubland Management for the Merwin Wildlife Habitat Management Area. PacifiCorp ESD, Portland, Oregon. 104pp.

Keddy, P. 1983. Shoreline vegetation in Axe Lake, Ontario: Effects of exposure on zonation patterns. *Ecology* 64(2). Pp331-344.

Knutson, K.L. and V.L. Naef. 1997. Management recommendations for Washington's priority habitats: riparian. Wash. Dept. Fish and Wildl., Olympia. 181 pp.

Kray, A. 1957. A survey of resident game fish resources on the North Fork of the Lewis River with a post flooding management plan. State of Washington Department of Fisheries. Prepared for Pacific Power & Light.

Kunz, T.H., D.W. Thoms, G.C. Richards, C.R. Tidemann, E.D. Pierson, and P.A. Racey. 1996. Observational techniques for bats. Pp. 105- 114 In: D.E. Wilson, F.R. Cole, J.D. Nichols, R.Rudran, and M.S. Foster, eds., *Measuring and monitoring biological diversity: standard methods for mammals*. Smithsonian Institution Press, Washington D.C. 409pp.

Lawler, D.M. 1993. The measurement of river bank erosion and lateral channel change: a review. *Earth Surface Processes and Landforms*. Vol. 18, pp 777-821.

Leider, S. A., S. R. Phelps, and P. L. Hulett. 1995. Genetic analysis of Washington steelhead: Implications for revision of genetic conservation management units. Wash. Dept. Fish Wildlife Prog. Rep., 21 pp. (Available from Washington Department of Fish and Wildlife, Fish Management Program, 600 Capitol Way N, Olympia, WA 98501-1091.)

Leonard, W., H. Brown, L. Jones, K. McAllister, and R. Storm. 1993. *Amphibians of Washington and Oregon*. Seattle Audubon Society. Seattle, Washington.

Lesko, E. A. 2001. Results of bull trout monitoring activities in the North Fork Lewis River - 2000. PacifiCorp. Portland, OR.

Lewis River Strategic Action Committee. 1995. Lewis River Valley Strategic Action Plan.

Linsley, R.K. Jr., M.A. Kohler, and J.L.H. Paulhus. 1982. *Hydrology for Engineers*. McGraw-Hill:New York.

- Lucas, B. 1998. Evaluation of rainbow trout catch rates in Swift Reservoir: 1984-1998. WDFW.
- Maidment, D.R. 1993. Handbook of Hydrology. McGraw-Hill:New York.
- Martinson, H.A., H.E. Hammond, W.W. Mast, and P.D. Mango, 1986. Channel geometry and hydrologic data for six eruption-affected tributaries of the Lewis River, Mount St. Helens, Washington, Water years 1983-84. USGS Open-File Report 85-631.
- McIsaac, D.O. 1990. Factors Affecting the Abundance of 1977-1979 Brood Wild Fall Chinook Salmon (*Oncorhynchus tshawytscha*) in the Lewis River, Washington. University of Washington, Seattle, Washington, 1990. Pages, 174.
- McPhail, J.D., and C.B. Murray. 1979. The early life history and ecology of Dolly Varden (*Salvelinus malma*) in the upper Arrow Lakes. Report to B.C. Hydro and Power Authority and Kootenay Region Fish and Wildlife. Nelson, B.C. 113 pp.
- Merker C.R. and N. Hale. 1982. Wildlife Habitat Management Plan for Merwin Project and adjacent Pacific Power & Light lands, Lewis River Basin: Phase II – January 1 – December 31, 1980. Washington Dept. Game. Olympia. 64pp.
- Merker, C.R. and P.J. Miller. 1980. Wildlife impacts: Merwin Dam Project. Washington Dept. Game. Olympia. 46pp.
- Meyer-Peter, R. and R. Müller. 1948. Formulas for Bedload Transport. In: Proceedings 2nd Meeting International Association of Hydraulic Research. Stockholm, pp. 39-64.
- Milhous, R. T., Schneider, D, and T. Waddle. 1989. Computer techniques for the Physical Habitat Simulation.
- Milhous, R.T., D.L. Wagner, and T. Waddle. 1984. Users guide to the physical habitat simulation system. USFWS IFIP #11. Cooperative Instream Flow Service Group. Ft. Collins, CO.
- Mitsch, W.J. and J.G. Gosselink. 1986. Wetlands. Van Nostrand Reinhold, New York, New York. 539 pp.
- Mongillo, P.E. 1993. The distribution and status of bull trout / Dolly Varden in Washington State. Washington Department of Wildlife Fisheries Management Division report, Olympia, Washington. 45 pp.
- Murphy, M.L., J.F. Thedinga, and J.J. Pella. 1996. Bootstrap confidence intervals for trap efficiency estimates of migrating fish. National Marine Fisheries Service, Juneau, AK.
- Myers, L.H. 1989. Inventory and monitoring riparian areas. Technical Reference 1737-3. U.S Department of Interior, BLM, Denver, CO. 79 pp.

- National Research Council. 1996. Upstream: salmon and society in the Pacific Northwest. Committee on Protection and Management of Pacific Northwest Anadromous Salmonids. National Academy Press, Washington, D.C. Pp. 226-230.
- Nelson, J.R. 1985. Rare plant surveys: techniques for impact assessment. *Natural Areas Journal* 5:18-29.
- Nietro, W.A., V.W. Binkley, S.P. Cline, R.W. Mannan, B.G. Marcot, D. Taylor, F.F. Wagner. 1985. Snags (wildlife trees). Pp. 129-169 *In*: E.R. Brown, Tech. Ed., U.S. Dept. Agric., Forest Service, Pacific Northwest Region. Publ. No. R6-F&WL-192-1985. 332pp.
- NMFS (National Marine Fisheries Service). 1995. Endangered Species Act- Section 7 Consultation, Biological Opinion. Reinitiation of Consultation on 1994-1998 Operation of the Federal Columbia River Power System and Juvenile Transportation Program in 1995 and Future Years.
- Norman, G. 1984. Memo to Don McIsaac Regarding North Lewis River Wild Stock Fall Chinook Tagging Project and Post Tagging Recapture, 1983. Washington Department of Fisheries, Battle Ground, Washington, April 18, 1984. Pages, 26.
- NWIFC and WDFW. 1998. Revised salmonid disease control policy of the fisheries co-managers of Washington State. Northwest Indian Fisheries Commission and Washington Dept. of Fish and Wildlife, Olympia, WA.
- Olsen, J.B., J.K. Wenburg, and P. Bentzen. 1996. Semiautomated multilocus genotyping of Pacific salmon (*Oncorhynchus* spp.) using microsatellites. *Mol. Mar. Biol. Technol.* 5:259-272.
- O'Neill, B.L. 1991. Archaeological Investigations at Lake Merwin, Cowlitz and Clark Counties, Washington - OSMA Report 91-3. Oregon State Museum of Anthropology, University of Oregon. Eugene, Oregon. 37 pp.
- Oris, J., A.C. Hatch, J.E. Weinstein, R.H. Findlay, P.J. McGinn, S.A. Diamond, R. Garret, W. Jackson, G.A. Burton, B. Allen. 1998. Toxicity of ambient levels of motorized watercraft emissions to fish and zooplankton in Lake Tahoe, California/Nevada, USA. Presented at the 8th Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC-Europe) 14-18 April, 1998. University of Bordeaux, Bordeaux, France.
- Pacific Fisherman. 1930. Can Lewis River salmon be saved? *Pacific Fisherman Magazine*. December 1930.
- PacifiCorp. 1990. Merwin Wildlife Habitat Management Program. Standard Operating Procedures. Portland, Oregon
- PacifiCorp. 1995. Preliminary Water Quality Study. Yale Hydroelectric Project. FERC No. 2071. Portland, OR July 1995.

- PacifiCorp. 1996a. Swift Reservoir creel survey: 1990. Portland, OR.
- PacifiCorp. 1996b. Merwin Wildlife Habitat Management Program: 7-year assessment report, 1989-1995. PacifiCorp, Portland, Oregon.
- PacifiCorp. 1997a. Standard Operating Procedures for the Merwin Wildlife Habitat Management Program, FERC Project No. 935. Portland, Oregon.
- PacifiCorp. 1998. Lewis River Recreation report excerpts. Distributed by PacifiCorp to the Aquatics Resource Group, June 8, 2000.
- PacifiCorp. 1999. License Application for the Yale Hydroelectric Project, FERC Project No. 2071. Includes Final Technical Reports as Technical Appendices. Portland, Oregon.
- PacifiCorp and Cowlitz PUD. 1999. 1998 Lewis River Recreation Survey Results. Lewis River Hydroelectric Projects, FERC Nos. 2111, 2213, 2071, and 935. Portland, Oregon and Longview, Washington.
- PacifiCorp and Cowlitz PUD. 2000a. 1999 Technical Study Status Report for the Lewis River Hydroelectric Projects. PacifiCorp. Portland, OR. March 2000
- PacifiCorp and Cowlitz PUD. 2000b. Final Initial Information Package (IIP) for the Lewis River Hydroelectric Projects. EA Science and Engineering, Sacramento CA, and Harza Engineering Company, Bellevue WA
- PacifiCorp and Cowlitz PUD. December 2000c. Preliminary report of coho tracking efforts. Presented at the Aquatics Resource Group meeting, Longview, WA.
- Phelps, S.R. 1992. Genetic analysis of Siouxon and Canyon creek rainbow trout: characterization and comparison to hatchery strains. unpublished report, Washington Dept. of Fisheries Genetics Unit. Olympia, WA. 17pp + 2 appendixes.
- Phelps, S.R., N. Switzler, and B. Ingram. 1990. Electrophoretic characterization of five rainbow trout collections from the White Salmon River, Washington and determination of their genetic similarities to four hatchery strains. unpublished report, Genetic Stock Identification Unit, Washington Dept. of Fisheries, Olympia, WA.
- Poff, N.L., J.D. Allan, M.B. Bain, J.R. Karr, K.L. Prestegard, B.D. Richter, R.E. Sparks, and J.C. Stromberg. 1997. The natural flow regime. *BioSci.* 47 (11):769-784.
- Power, M.E., W.E. Dietrich, and J.C. Finlay. 1996. Dams and downstream aquatic biodiversity: potential food web consequences of hydrologic and geomorphic change. *Environ. Manag.* 20(6):887-895.

- Powers and Orsborn. 1985. Analysis of barriers to upstream fish migration. U.S. Department of Energy, Bonneville Power Administration, Division of Fish and Wildlife, Portland, OR. (120 pgs.)
- Raymond, M. and F. Rousset. 1995a. GENEPOP (ver. 1.2): A population genetics software for exact test and ecumenicism. *J. Heredity* 86:248-249.
- Raymond, M. and F. Rousset. 1995b. An exact test for population differentiation. *Evolution* 49:1280-1283.
- Reid, L.M. and T. Dunne. 1996. Rapid Evaluation of Sediment Budgets. Catena Verlag GMBH. 164p.
- Richter, B.D., Baumgartner J.V., Powell J. & Braun D.P. 1996. A method for assessing hydrologic alteration within ecosystems. *Conservation Biology*, 10, 1163-1174.
- Riedel, J. 1990. Report on existing conditions of reservoir and streambank erosion. Skagit River Project FERC No. 553. Unpublished report prepared for Seattle City Light by the USDO National Park Service. 96 p.
- Rieman, B.E., and J.D. McIntyre. 1993. Demographic and habitat requirements for conservation of bull trout. USDA Intermountain Research Station Gen. Tech. Rep. #INT-302. 37 pp.
- Rosgen, D.R. 1996. Applied River Morphology. Wildland Hydrology, Pasoga Springs, Colorado.
- Saiki, R.K., D.H. Gelfand, S. Stoffel, S.J. Scharf, R. Higuchi, G.T. Horn, K.B. Mullis, and H.A. Erlich. 1988. Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase. *Science* 239:487-490.
- Schoeneman D.E., T.K Meekin and C.O. Junge Jr. 1955. Dam mortality studies conducted on the Lewis, Big White Salmon, and Chelan Rivers. State of Washington Department of Fisheries.
- Schreck, C. B., H. W. Li, R. C. Hjort, and C. S. Sharpe. 1986. Stock identification of Columbia River chinook salmon and steelhead trout. Final Report to Bonneville Power Administration, Contract DE-A179-83BP13499, Project 83-451, 184 p. (Available from Bonneville Power Administration, P.O. Box 351, Portland, OR 97208.)
- Schroder, Steven. April 24, 2000. Discussion of remote site incubators (RSI) and applications in bull trout conservation measures. WDFW Fisheries Research Scientist.
- Schuett-Hames, D., B. Conrad, M. McHenry, P. Peterson, and A. Pleus. 1994. Salmonid Spawning Gravel Composition Module. In: Timber-Fish-Wildlife Ambient Monitoring Program Manual. Northwest Indian Fisheries Commission. August 1994.

- Schwarz, C.J., and C.G. Taylor. 1998. Use of the stratified-Petersen estimator in fisheries management: estimating the number of pink salmon (*Oncorhynchus gorboscha*) spawners in the Fraser River. *Canadian Journal of Fisheries and Aquatic Sciences* 55:281-296.
- Seber, G.A.F. 1982. *The estimation of animal abundance and related parameters*, 2nd ed. Charles Briffin and Company, London.
- Shaklee, J.B. and S. Phelps. 1990. Operation of a large-scale, multiagency genetic stock identification program. *AFS Symposium* 7:817-830.
- Shaklee, J.B., S.R. Phelps, and J. Salini. 1990. Analysis of fish stock structure & mixed-stock fisheries by the electrophoretic characterization of allelic isozymes. pp. 173-196 In: (D.H. Whitmore, ed.) *Applications of electrophoresis and isoelectric focusing techniques in fisheries management*. CRC Press, Boca Raton, FL.
- Shaklee, J.B., T.D. Beacham, L. Seeb, and B.A. White. 1999. Managing fisheries using genetic data: Case studies from four species of Pacific salmon. *Fish. Res.* 43:45-78.
- Shelby, B. and T. Heberlein. 1986. *Carrying Capacity in Recreation Settings*. Oregon State University Press, Corvallis, OR, 1986.
- Skamania County. 1991. *Skamania County Parks and Recreation Comprehensive Plan, 1991-1997*.
- Smoker, W.A., J.M. Hurley and R.C. Meigs. 1951. *Compilation of observations on the effect of Ariel dam on the production of salmon and trout in the Lewis River*. State of Washington Departments of Fisheries and Game. Olympia, WA.
- Spruell, P., Z. Wilson, and F.W. Allendorf. 1998. *Genetic Analysis of Lewis River Bull Trout*. Wild Trout and Salmon Genetics Lab Division of Biological Sciences, University of Montana, Missoula, Montana, September 1998. Pages, 11.
- Stevenson, J.R., A.E. Giorgi, W.R. Koski, K.K. English, and C.A. Grant. 1997. *Evaluation of juvenile spring chinook and steelhead migratory patterns at Rocky Reach and Rock Island dams using radio telemetry techniques, 1996*. Report prepared for Public Utility District No. 1 of Chelan County. 18 pp. plus appendices.
- Stillwater Sciences. 1998. *Lewis River Gravel Quality Pilot Assessment*. Unpublished report prepared for Lewis River Watershed Analysis Scientific Team. January 6, 1998.
- Stillwater Sciences. 1998a. *Lewis River Cooperative Watershed Studies Scoping Document*. Prepared for PacifiCorp, Portland, OR and Cowlitz PUD, Longview, WA. May 8, 1998.
- Stillwater Sciences. 1998b. *Lewis River Cooperative Watershed Studies Study Plans (Working Draft)*. Prepared for PacifiCorp, Portland, OR and Cowlitz PUD, Longview, WA. May 8, 1998.

- Swanberg, T.R. 1997. Movements of and habitat use by fluvial bull trout in the Blackfoot River, Montana. *Transactions of the American Fisheries Society* 126:735-746.
- Tacoma Power. 1999. The 90% Draft Fish Passage Study. Cowlitz River Hydroelectric Project, (FERC No. 2016). Prepared by Harza Engineering for Tacoma Power. Tacoma, WA.
- Thedinga, J.F., S.W. Johnson, K.V. Koski, J.M. Lorenz, and M.L. Murphy. 1994. Determination of salmonid smolt yield with rotary screw traps in the Situk River, Alaska, to predict effects of glacial flooding. *North American Journal of Fisheries Management* 14:837-851.
- Thompson, K. 1972. Determining streamflow for fish life. *Proc. Instream flow Requirements Workshop. Pacific NW Rivers Basin Comm. Portland, OR.* Pp 31-50.
- Thoms, C., C.C. Corkran, and K.H. Olsen. 1997. Basic amphibian survey for inventory and monitoring in lentic habitats. In: *sampling amphibians in lentic habitats.* D.H. Olson, W.P. Leonard, and R.B. Bury, ed. Northwest Fauna No. 4. Society of Northwestern Vertebrate Biology, Olympia, Washington.
- Tipping, J. 1996. Merwin Reservoir fishery assessment for 1995. Washington Department of Fish and Wildlife.
- Tipping, J. M. 2001. Creel survey of Swift and Merwin reservoirs and Swift No. 2 Power Canal # FPT 01-01. Washington Department of Fish and Wildlife. Olympia, WA.
- Trihey, E. W., Wegner, D. L. 1981 (Draft). Field data collection procedures for use with the Physical Habitat Simulation System of the Instream Flow Group.
- Trotter, P.C., R.N. Williams, and M. Jaworski. 1995. Genetic profile of upper Cowlitz resident trout populations and comparison with currently-used hatchery stocks of rainbow trout, steelhead, and searun cutthroat trout. Report prepared for the Technical Advisory Committee, Cowlitz Falls Project.
- Urich, D.L. and J.P. Graham. 1983. Applying habitat evaluation procedures (HEP) to wildlife area planning in Missouri. *Wildl. Soc. Bull.* 11:215-221.
- U.S. Army Corps of Engineers. 1998. Final Report: Bonneville First Powerhouse Juvenile Fish Surface Bypass High Flow Dewatering Facility and Outfall Alternatives Study. Portland District, Contract DCW57-97-D-0007. October 1998.
- USDA (U.S. Department of Agriculture). 1972. Soil Conservation Service. Soil Survey of Clark County, Washinton
- USDA. 1995. Landscape Aesthetics, A Handbook for Scenery Management, Agriculture Handbook Number 701.

- USDA. 1974. Soil Conservation Service Soil Survey of Cowlitz Area, Washington.
- USDA. 1989. Soil Conservation Service Soil Survey of Skamania County Area, Washington.
- USFS (U.S. Forest Service). 1985. Mount St. Helens National Volcanic Monument – Final Environmental Impact Statement Comprehensive Management Plan. USDA Forest Service – Gifford Pinchot NF, Vancouver, WA, 1985.
- USFS. 1990. Land and Resource Management Plan and appendices. Gifford Pinchot National Forest. U.S. Department of Agriculture, Pacific Northwest Region. Vancouver, Washington.
- USFS. 1995a. 1995 Stream Survey Narrative for Cougar Creek, Swift Creek, Drift Creek, and Range Creek. USDA Forest Service, Gifford Pinchot National Forest.
- USFS. 1995b. Region 6 Stream Survey Methodology.
- USFS. 1995c. Middle Lewis River Watershed Analysis. Gifford Pinchot National Forest and Mount St. Helens National Monument, July, 1995.
- USFS. 1996. Lower Lewis River Watershed Analysis. Gifford Pinchot National Forest and Mount St. Helens National Monument, July, 1996.
- USFS. 1997. Muddy River Watershed Analysis. Gifford Pinchot National Forest and Mount St. Helens National Monument, May, 1997.
- USFS. 1998. Upper Lewis River Watershed Analysis (second iteration). Gifford Pinchot National Forest and Mount St. Helens National Monument, July, 1998.
- USFS and Bureau of Land Management (BLM). 1994. Record of decision for amendments to Forest Service and Bureau of Land Management planning documents within the range of the northern spotted owl, standards and guidelines for management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl. April 13.
- USFWS (U.S. Fish and Wildlife Service). 1980. Ecological services manual – habitat as a basis for environmental assessment. 101 ESM division of Ecological Services, Dept. of Interior. Washington, D.C.
- USFWS. 1981. Standards for the development of habitat suitability index models. 103 ESM. U.S. Dept. Interior, USFWS, Division of Ecological Services.
- U.S. Fish and Wildlife Service. 1989. Regional lists of plant species that occur in wetlands: Database for Northwest (Region 9). USDO, Washington D.C.
- US Water Resources Council. 1981. Guidelines for determining flood flow frequency, Bulletin # 17B of the Hydrology Committee.

- Utter, F., G. Milner, G. Stahl, G., and D. Teel. 1989. Genetic population structure of chinook salmon, *Oncorhynchus tshawytscha*, in the Pacific Northwest. *Fish. Bull. (U.S.)* 87:239-264.
- Vander Haegen, G.E., J.M. Tipping, and S.A. Hammer. 1998. Consumption of juvenile salmonids by adult steelhead in the Cowlitz River, Washington. *California Fish and Game* 84:48-50.
- WDF (Washington Department of Fisheries) and (USFWS) U.S. Fish and Wildlife Service. 1951. Lower Columbia River fisheries development program: Lewis River Area. Washington Department of Fisheries, Olympia, WA.
- WDFW (Washington Department of Fish and Wildlife). 1995. Merwin Wildlife Monitoring Programs Status Report: 1988-1993. Washington Department of Fish and Wildlife. Olympia. 59pp.
- WDFW. 1996. Priority habitats and species list, Habitat Program. WDFW. Olympia, Washington, 28pp.
- WDFW. 1998. Integrated landscape management for fish and wildlife - An integrated plan for managing fish and wildlife. Pilot project in the Lewis-Kalama River Watershed, WRIA#27. Prepared by the ILM Core Team, WDFW, Olympia, Washington. July, 1995.
- WDFW. 1999a. Lower Columbia River Steelhead Conservation Initiative. Washington Dept. of Fish & Wildlife. Olympia, WA.
- WDFW. 1999b. Habitat Evaluation Procedure (HEP) Study Guidelines. April.
- WDFW. 1999c. WDFW Hunting Guide.
- WDFW. Various Years. Lewis River Salmon Hatchery Operations Reports for Various Years. Washington Department of Fish and Wildlife, Hatcheries Program, Olympia, Washington.
- WDFW and Western Washington Treaty Tribes. 1997. Policy of Washington Department of Fish and Wildlife and Western Washington Treaty Tribes concerning wild salmonids. Washington Department of Fish and Wildlife, Olympia, WA.
- WDOE (Washington Department of Ecology). 1992. Limnological survey of Lake Merwin. Draft Report.
- Weaver, T.M., and R.G. White. 1985. Coal Creek fisheries monitoring study No. III. Quarterly progress report. Montana State Cooperative Fisheries Research Unit, Bozeman.
- Weinheimer, J. Oct. 2000. Personal communication regarding previous genetic analysis of local trout populations in the Lewis River Drainage. Washington Dept. of Fish and Wildlife.

- Weiss, Edward. 1974. Concentration of total dissolved gasses in the North Fork of the Lewis River near Swift, Yale, and Merwin Dams. PacifiCorp publication.
- Wesley, R. F. 1966. Limnological study of the Merwin, Upper Baker and Lower Baker reservoirs. Summary Report. Washington Department of Fisheries. Olympia, WA.
- WNHP (Washington Natural Heritage Program). 1994. Endangered, threatened, and sensitive plants of Washington. Washington State Department of Natural Resources. Olympia, Washington.
- Wright, J.M. and P. Bentzen. 1994. Microsatellites: genetic markers for the future. *Rev. Fish Biol.* Fish. 4:384-388.
- Zar, J.H. 1984. *Biostatistical analysis*. Prentice-Hall, Englewood Cliffs, New Jersey. 718 pp.