

**CENTER FOR URBAN WATER RESOURCES MANAGEMENT**  
**UNIVERSITY OF WASHINGTON**  
**206-543-7923 (Center); 206-543-5539 (orders)**  
**List of Publications**  
**March 2001**

**E. MONITORING OF AQUATIC SYSTEMS**

- E3 Reinelt, L.E., R.R. Horner, and B.W. Mar. Nonpoint Source Pollution Monitoring Program Design. Journal of Water Resources Planning and Management 114(3):335-352, 1988.
- E5 Mar, B.W., R.R. Horner, J.S. Richey, D.P Lettenmaier, and R.N. Palmer. Data Acquisition, Cost-Effective Methods for Obtaining Data on Water Quality. Environmental Science and Technology 20(6):545-551, 1986.
- E6 Richey, J.S., B.W. Mar, and R.R. Horner. The Delphi Technique in Environmental Assessment, Part 1: Implementation and Effectiveness. Journal of Environmental Management 21:135-146, 1985.
- E7 Richey, J.S., R.R. Horner, and B.W. Mar. The Delphi Technique in Environmental Assessment, Part 2: Consensus on Critical Issues in Environmental Monitoring Program Design. Journal of Environmental Management 21:147-159, 1985.
- E8 Horner, R.R., M.V. Brenner, and C.A. Jones. Design of Monitoring Programs for Determining Sources of Shellfish Bed Bacterial Contamination Problems. Report to Washington Department of Ecology, 1989.
- E9 Horner, R.R., B.W. Mar, L.E. Reinelt, J.S. Richey, and J.M. Lee. Design of Monitoring Programs for Determination of Ecological Change Resulting from Nonpoint Source Water Pollution in Washington State. Report to Washington State Department of Ecology, 1986.
- E10 Tetra Tech, Inc., University of Washington, and Batelle Pacific Northwest Laboratories. Recommended Protocols for Measuring Conventional Water Quality Variables and Metals in Fresh Waters of the Puget Sound Region. Report for U.S. Environmental Protection Agency Region X - Office of Puget Sound, Seattle, WA, 1988.
- E11 L. S. Fore, J. R. Karr, and R. W. Wisseman. Assessing invertebrate responses to human activities: Evaluating alternative approaches. *In* Journal of North American Benthological Society, 1996.
- E12 J. R. Karr. 1995. Clean water is not enough. *Illahee* 11:1, 51-59.
- E13 Stephen J. Dowling and Brian W. Mar, 1996, Culvert Composite Sampler: A Cost-Effective Storm-water Monitoring Device: *Journal of Water Resources Planning and Management*, v. 122, p. 280-286.
- E14 James R. Karr and E. W. Chu, 1997, Biological Monitoring and Assessment: Using Multimetric Indexes Effectively: EPA 235-R97-001, University of Washington, 149 p.
- E15 Craig P. Doberstein, 1998, The Effects of Subsampling on the Performance of Macroinvertebrate Biomonitoring: M.S. Thesis, Department of Civil Engineering, University of Washington, 57 p.
- E16 Erik Botsford and Kristina Hill, 1999, A Rapid Land Cover Classification Method for Use in Urban Watershed Analysis: Progress Report and Preliminary Results: Department of Landscape Architecture, 14 p.
- E17 Jenna G. Scholz and D. B. Booth, 1999, Monitoring small urban streams: Strategies and protocols for humid-region lowland systems, 23 p.

## F. PUGET SOUND WETLANDS AND STORMWATER MANAGEMENT RESEARCH PROGRAM

- AK7 Reinelt, L.E., and R.R. Horner. 1991. Urban stormwater impacts on the hydrology and water quality of palustrine wetlands in the Puget Sound region. Proc. Puget Sound Water Quality Authority Research Meeting, Seattle, WA, January, 1991.
- AK9 Reinelt, L.E., J. Velikanje, and E.J. Bell. 1991. Development and application of a Geographic Information System for wetland/watershed analysis. *Computers, Environment and Urban Systems*, 15(4):239-251.
- AK10 Richter, K.O., and A.L. Azous. September 1995. Amphibian occurrence and wetland characteristics in the Puget Sound basin: *Wetlands* 15(3):305-312.
- AK11 Azous, A.L. 1993. Hydrology, water quality and aquatic invertebrates in Puget lowland palustrine wetlands. Puget Sound Wetlands and Stormwater Research Program, King County Environmental Division, Bellevue, WA.
- AK13 Reinelt, L.E., and R.R. Horner. 1995. Pollutant removal from stormwater runoff by palustrine wetlands based on comprehensive budgets. *Ecological Engineering*, 4:77-97.
- AK15 Ewing, K. 1993. Tolerance of four wetland plant species to flooding and sediment deposition. Center for Urban Horticulture, University of Washington. Seattle. (Manuscript submitted to *Restoration Ecology*.)
- AK19 Richter, K.O. 1995. A simple aquatic funnel trap and its application to wetland amphibian monitoring. *In Herpetological Review*, 26:91-92.
- AK24 Taylor, B., K. Ludwa, and R.R. Horner. 1995. Urbanization effects on wetland hydrology and water quality. Entranco Engineers, Bellevue, WA; King County Surface Water Management Division; and Cooperative Fish and Wildlife Research Unit, University of Washington, Seattle, WA. (8 pp.). *In Proc. Puget Sound Research '95 Conference on Puget Sound and the Strait of Georgia*, Meydenbauer Center, Bellevue, WA, January 1995.
- AK25 Horner, R. R., and Reinelt, L. E.. Guidelines for Managing Urban Wetlands (12 pages)
- BK1 Stockdale, E.C. 1991. Freshwater wetlands, urban stormwater, and nonpoint pollution control: A literature review and annotated bibliography. Washington State Department of Ecology, Olympia, WA.
- BK2 King County Environmental Division. 1991. Development of Guidance for Managing Urban Wetlands and Stormwater. Report to Washington Department of Ecology by King County Resource Planning Section, Bellevue, WA. 205(J) Final Grant Report. (Includes proceedings of October 20, 1990 Public Workshop). 116 pages.
- BK11 Reinelt, L.E., and R.R. Horner. 1990. Characterization of the hydrology and water quality of palustrine wetlands affected by urban stormwater. King County Regional Planning Section, Bellevue, WA.
- BK19 Cooke, S.S., and A. Azous. 1993. Characterizations of soils found in Puget Lowland wetlands. Puget Sound Wetlands and Stormwater Management Research Program. Center for Urban Water Resources Management, University of Washington, Seattle, WA.
- BK20 Cooke, S.S., and A. Azous. 1993. Effects of Urban Stormwater Runoff and Urbanization on Palustrine Wetland Vegetation. Report to U.S. Environmental Protection Agency, Region 10 by Center for Urban Water Resources Management, University of Washington, Seattle, WA.
- BK31 Azous, A. L., and Horner, R. R. 1997. Wetlands and urbanization—implications for the future: Final report to the Washington Department of Ecology by the Puget Sound Wetlands and Stormwater Management Research Program, 227 p.
- CK7 Ludwa, K.A. 1994. Urbanization effects on palustrine wetlands: Empirical water quality models and development of a macroinvertebrate community-based biological index. M.S. Thesis. Department of Civil Engineering, University of Washington, Seattle, WA.

- CK8 Valentine, M. June 1994. Assessing trace metal enrichment in Puget lowland wetlands. A Non-thesis Master Paper, Department of Civil Engineering, University of Washington, Seattle, WA.
- CK9 Nancy T. Chin, 1996. Watershed Urbanization Effects on Palustrine Wetlands: A Study of the Hydrologic, Vegetative, and Amphibian Community Response Over Eight Years. M.S. Thesis, Department of Civil Engineering, University of Washington, Seattle, WA., 141 p.

## **G. STORM RUNOFF WATER QUALITY CONTROL**

- G1 Horner, R.R. Biofiltration Systems for Storm Runoff Water Quality Control, Report for Washington State Department of Ecology, Municipality of Metropolitan Seattle, King County, City of Bellevue, City of Mountlake Terrace, and City of Redmond, December, 1988.
- G3 Ward, Robert C., Water Quality Monitoring: Where's the Beef? Water Resources Bulletin 32(4). p. 673-680, 1996.
- G4 Brennan, Matthew, Storm Water Sampling from Storm Drains Influenced by Tides. M.S. thesis, University of Washington, 90 p., 1996.
- G6 Municipality of Metropolitan Seattle (METRO), Biofiltration Swale Performance, Recommendations, and Design Considerations. METRO, Seattle, 1992
- G7 Jacobson, M.A., Summary and Conclusions from Applied Research on Infiltration Basins, Center for Urban Water Resources Management, Seattle, 1993
- G8 Jacobson, M.A., Data Summary of Catch Basin and Vactor Waste Contramination in Washington State, Center to Urban Water Resources Management, Seattle, 1993
- G9 Horner, R.R. Toward Ecologically Based Urban Runoff Management. In Urban Runoff and Receiving Systems, E.E. Herricks (ed.), American Society of Civil Engineers, New York, (in press).
- G10 J. Bryant. The Effects of Urbanization on Water Quality in Puget Sound Lowland: M.S. Thesis, Department of Civil Engineering, 1995, 138 p.
- G11 Schultz, Daniel. Current Status of Vegetation Management in Roadside Ditches and Stormwater Management Facilities: Implications for Stormwater Quality. Report of the Center for Urban Water Resources Management, February 1998, 15 p.
- G12 Mazer, Greg. Environmental Limitations to Vegetation Establishment and Growth in Vegetated Stormwater Biofilters. Report of the Center for Urban Water Resources Management, July 1998, 138 p.
- G13 Karen Comings, Evaluation of Wet Ponds for Phosphorus Reduction, Department of Civil Engineering, University of Washington, 1998, 100 p.
- G14 Christopher C. Brueske, Technology Review: Ultra-Urban Stormwater Treatment Technologies, Department of Civil and Environmental Engineering, University of Washington, 2000, 54 p.
- G15 Shanti Colwell, Richard R. Horner, Derek B. Booth, and Dalius Gilvydis, A Survey of Ditches Along County Roads for Their Potential to Affect Storm Runoff Water Quality, 2000, Center for Urban Water Resources Management, 2000, 34 p.

## **J. HYDOLOGIC AND WATER-QUALITY MODELING**

- J1 Liang, X., S.J. Burges and R.R. Horner, Analysis of Precipitation Data and Regional Parameters for Use in HSPF-Based Runoff files, Center for Urban Water Resources Management, Seattle, 1993
- J2 Snell, M., Summary of Finding for Extending The HSPF Runoff Files to Other Counties in the Puget Sound Basin., Center for Urban Water Resources Management, Seattle, 1993.

- J3 R. D. Chandler. Estimating Annual Urban Nonpoint Pollutant Loads: *Journal of Management in Engineering*, 1994, 10 p.
- J4 Wigmosta, M. S., Burges, S. J., and Meena, J. M., Modeling and monitoring to predict spatial and temporal hydrologic characteristics in small catchments: University of Washington, Department of Civil Engineering, Water Resources Series Technical Report No. 137, 1994, 223 p.

## **K. MANAGEMENT OF DEVELOPMENT EFFECTS**

- K1 Conrad, C. P., B. W. Jensen, S.J. Burges and L. E. Reinelt, On-Site Residential Stormwater Management Alternatives, November 1995 (119 pages).
- K2 Johnson, A. W. and D. M. Ryba, A Literature Review of Recommended Buffer Widths to Maintain Various Functions of Stream Riparian Areas, February 1992 (33 pages).
- K3 Makepeace, D. K., D.W. Smith and S. J. Stanley, Urban Stormwater Quality: Summary of Contaminant Data, 1995 (47 pages).
- K4 Booth, D.B. Urbanization and the natural drainage system--Impacts, solutions and prognoses. *The Northwest Environmental Journal*, 1991, 7:93-118.
- K5 Booth, D.B., and L.E. Reinelt. Consequences of urbanization on aquatic systems--Measured effects, degradation thresholds, and corrective strategies. p. 545-550. In *Proc. Watershed '93*, March 21-23, 1993 Alexandria, VA.
- K6 G. Mathias Kondolf and Elisabeth R. Micheli. Evaluating Stream Restoration Projects: In *Environmental Management*, 1995, 15 p.
- K7 Kolsti, K. F., Burges, S. J., and Jensen, B. W. Hydrologic response of residential-scale lawns on till containing various amounts of compost amendment: University of Washington, Department of Civil Engineering, Water Resources Series Technical Report No. 147, 1995, 144 p.
- K8 Konrad, C. P., Burges, S. J., and Jensen, B. W. An examination of stormwater detention and infiltration at the scale of an individual residence in the Sammamish Plateau of King County, Washington: University of Washington, Department of Civil Engineering, Water Resources Series Technical Report No. 148, 1995, 105 p.
- K9 City of Olympia. Annotated Bibliography: Impervious Surface Reduction: 1996, 18 p.
- K10 Christopher P. Konrad, Kyle F. Kolsti, Sandra Streibe, Bruce W. Jensen, and Stephen J. Burges, Alternatives for Limiting Stormwater Production and Runoff in Residential Catchments: University of Washington, Department of Civil Engineering, Water Resources Series Technical Report No. 149, 1995, 86 p.
- K11 Publications List of the Center for Watershed Protection, 1996, 2 p.
- K12 R. R. Horner, D. B. Booth, A. Azous, and C. W. May, 1996, Watershed determinants of ecosystem functioning: in Roesner, L. A., ed., *Effects of watershed development and management on aquatic ecosystems: Engineering Foundation Conference, Proceedings*, Snowbird, Utah, August 4-9, 1996.
- K13 Karen Billica and Derek Booth, Evaluation of Filter Berms in Double-Cell Dry Detention Ponds, King County, Washington. Center for Urban Water Resources Management, University of Washington, report to King County Surface Water Management Division, October 1996, 25 p.
- K14 Matthias St. John, 1997, Effect of road shoulder treatments on highway runoff quality and quantity: M.S. thesis, University of Washington, Department of Civil Engineering, 173 p.
- K15 Christopher W. May, 1996, Assessment of Cumulative Effects of Urbanization on Small Streams in the Puget Sound Lowland Ecoregion: Implications for Salmonid Resource Management: Ph.D. thesis, University of Washington, Department of Civil Engineering 383 p.

- K16 Alexandra M. Wyzdga, 1997, The Effects of Urbanization and Fine Sediment Deposition in Puget Sound Lowland Streams: M.S. thesis, University of Washington, Department of Civil Engineering, 80 p.
- K17 Catherine Cooper, 1996, Hydrologic Effects of Urbanization on Puget Sound Lowland Streams: M.S. thesis, University of Washington, Department of Civil Engineering, 83 p.
- K18 Derek B. Booth and C. Rhett Jackson, 1997, Urbanization of Aquatic Systems—Degradation Thresholds, Stormwater Detention, and the Limits of Mitigation: Journal of the American Water Resources Association, 33(5), p. 1077-1090.
- K19 Derek B. Booth, Jennifer Leavitt, Kim Peterson, 1997, The University of Washington Permeable Pavement Demonstration Project—Background and First-Year Field Results: Center for Urban Water Resources Management, University of Washington, 27 p.
- K20 Chris W. May, E. B. Welch, R. R. Horner, J. R. Karr, and B. W. Mar, 1997, Quality Indices for Urbanization Effects in Puget Sound Lowland Streams: Water Resources Series Technical Report No. 154, 229 p.
- K21 Tracy Chollak and Paul Rosenfeld, 1998, Guidelines for Landscaping with Compost-Amended Soils: report prepared for the City of Redmond.
- K22 Derek Booth and Patricia Henshaw, 1999, Rates of Channel Erosion in Small Urban Streams: Center for Urban Water Resources Management, 30 p.
- K23 Erin Nelson, 1999, Sediment Budget of a Mixed-Use Urbanizing Watershed: Center for Urban Water Resources Management, 182 p.
- K24 Patricia C. Henshaw, 1999, Restabilization of Stream Channels in Urban Watersheds: Center for Urban Water Resources Management, 100 p.
- K25 Marit G. Larson, 1999, Effectiveness of Large Woody Debris in Stream Rehabilitation Projects in Urban Basins: Center for Urban Water Resources Management, 156 p.
- K26 Sarah A. Morley, 2000, Effects of urbanization on the biological integrity of Puget Sound lowland streams: restoration with a biological focus: Department of Fisheries, University of Washington, 9 p.

## **L. INTEGRATED WATER RESOURCES MANAGEMENT**

- L1 Ruth Douzinas, 2000, Literature Review on Substances of Potential Concern in Reclaimed water: Center for Urban Water Resources Management, University of Washington, 53 p.
- L2 Derek Stuart, 2001, On-Site Runoff Mitigation with Rooftop Rainwater Collection and Use: King County Water and Land Resources Division, 35 p.