Dianne Simodynes

Project Manager/Senior Environmental Scientist

Education
Master of Science, Aquatic Resource Management, King's College, London, England, 2001

Bachelor of Science, Biological Sciences, University of Notre Dame, Notre Dame, Indiana, 1993

HDR|SWRI Tenure
5 Years

Industry Tenure
14 Years

Professional Experience

Ms. Simodynes has 14 years of combined research and consulting experience in the fields of freshwater science and natural resources management. Her primary expertise is in watershed analysis, environmental impact assessment and cumulative effects analysis, and the physical, chemical and biological components of aquatic ecology. Ms. Simodynes has a comprehensive background that includes field experience, resource assessment, knowledge of regulatory compliance, and strategic planning. She has a broad understanding of the Clean Water Act, the Endangered Species Act, the National Environmental Policy Act, and the California Environmental Quality Act. Her work has focused on the interdisciplinary components (e.g., physical, biological, ecological) of watershed analysis, state and federal agency coordination pertaining to regulatory compliance activities for fisheries, flood control, and water quality issues. Ms. Simodynes also has experience in assessing hydrological and ecological watershed characteristics, addressing anadromous and resident fisheries issues, and providing recommendations for future watershed management activities.

HDR|SWRI Project Experience

Environmental Compliance and Consultations

Yuba County Water Agency, Proposed Lower Yuba River Accord Environmental Impact Report/Environmental Impact Statement. The proposed Lower Yuba River Accord (Yuba Accord) is a collaborative settlement initiative, which will resolve nearly 17 years of controversy and litigation over instream flow requirements for the lower Yuba River, California. The science-based, consensus-orientated Yuba Accord proposes new instream flow requirements for the lower Yuba River that will increase protection for the river's fisheries resources and improve habitat conditions for lower Yuba River Chinook salmon and steelhead – among the last remaining wild populations in California's Central Valley. The Yuba Accord also will represent the first major long-term water acquisition by the State of California for the CALFED Bay-Delta Program Environmental Water Account, and will improve water supply reliability for the major resource agencies. Ms. Simodynes serves as project manager, and was involved in leading the preparation of the environmental documentation necessary to comply with the regulatory requirements of the California Environmental Quality Act, the National Environmental Policy Act, and the federal Endangered Species Act. She directed the development of the Proposed Yuba Accord Environmental Impact Report/Environmental Impact Statement and also guided the development of the U.S. Fish and Wildlife Service/National Marine Fisheries Service Biological Evaluation for the project.

Bureau of Reclamation/MWH, Sacramento River Water Reliability Study. Ms. Simodynes is HDR|SWRI's project manager for this study. The Placer County Water Agency, Sacramento Suburban Water District, and the cities of Roseville and Sacramento have the goal of identifying additional water supplies that will meet their growing water supply demands as well as reliability objectives in their respective service areas. The water reliability study identifies a package of water supply infrastructure components, including new or expanded diversion(s) from the Sacramento or American rivers, and new

or expanded water treatment and pumping facilities, storage tanks, and major transmission and distribution pipelines. Additional work efforts have involved use of Regional Water Quality Control Board monitoring data to address fisheries and tributary return flow issues associated with the effects of wastewater treatment plant effluent discharge on instream aquatic habitat. HDR|SWRI assisted in the preparation of a feasibility study, and Ms. Simodynes is preparing the fisheries and water quality sections of the Environmental Impact Statement/Environmental Impact Report, as well as the National Marine Fisheries Service Biological Assessment.

Bureau of Reclamation/MWH, Folsom Dam Redundant Urban Water Intake Structure Project. Ms. Simodynes served as the project manager and was responsible for preparing the Draft Environmental Assessment/Initial Study for a proposed Redundant Urban Water Intake Structure at Folsom Dam. She also prepared the U.S. Fish and Wildlife Service and the National Marine Fisheries Service Biological Assessments for the project, and was involved in the state and federal ESA compliance activities. She led resource agency coordination and consultation efforts with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game. Key environmental resource issues for the project included lower American River fisheries resources, removal of habitat for the federally threatened Valley Elderberry Longhorn Beetle at the project site, and water purveyor treatment plant operations.

U.S. Bureau of Reclamation/CDM, Environmental Water Account Environmental Impact Statement/Environmental Impact Report/Action Specific Implementation Plan. Ms. Simodynes assisted in the development of environmental documentation required to implement the Environmental Water Account. The Environmental Water Account is one component of the long-term comprehensive plan adopted in the CALFED Bay-Delta Program Record of Decision. The overall purpose of the Environmental Water Account is to increase water supply reliability and to provide sufficient protections, combined with the Ecosystem Restoration Program and the regulatory baseline, to address CALFED's ecosystem quality needs in the areas of fishery protection, restoration, and recovery. HDR|SWRI, as the technical lead, developed a refined project description, identified the effects and interrelationships between related water acquisition and management programs, and developed alternatives that will be analyzed and compared in the Environmental Impact Statement/Environmental Impact Report. The Action-Specific Implementation Plan is a document established by the CALFED Bay-Delta Program that fulfills the requirements of, and initiates project-level compliance with, the federal and California ESAs and the Natural Community Conservation Planning Act.

Tiering off the CALFED Multi-Species Conservation Strategy, HDR|SWRI focused the Action-Specific Implementation Plan on evaluating the Environmental Water Account Proposed Action's effects on evaluated species and habitats. This work included consulting with U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game to: (1) identify endangered, threatened, and proposed or candidate species that may occur in the Area of Analysis; (2) develop an appropriate approach for assessing species listed and proposed for listing as part of the Section 7 consultations required by FESA; and (3) determine to what extent the action may affect any of the identified species, including effects on Essential Fish Habitat. Ms. Simodynes assisted with the preparation of the fisheries and aquatic biology sections of the EIS/EIR and ASIP, and the water quality section of the EIS/EIR.

Proposed Temporary Transfer of Water from Placer County Water Agency to Metropolitan Water District of Southern California, Year 2003. Ms. Simodynes assisted in the preparation of the environmental analysis for the temporary transfer of 20,000 acre-feet of water from Place County Water Agency's Middle Fork Project on the American River to Metropolitan Water District. To comply with Water Code provisions

relating to temporary transfers of water, this environmental analysis was conducted to determine whether the transfer would result in any unreasonable impacts on fish, wildlife, or other instream beneficial uses. The analysis included an evaluation of changes in the American River flow schedule and resultant impacts to French Meadows, Hell Hole and Folsom reservoir storage, and to south of Delta water conveyance and storage facilities. Ms. Simodynes prepared the fisheries impact assessment for the project.

Placer County Water Agency/U.S. Bureau of Reclamation, American River Pump Station Project. Pursuant to the National Environmental Policy Act and California Environmental Quality Act, HDR|SWRI prepared an Environmental Impact Statement/ Environmental Impact Report for the project, which evaluated and addressed potential hydrologic and natural resources issues related to replacement of seasonally installed pumps and intake structure with a new permanent intake/diversion structure and enclosed pump station, and restoring the American River channel at the Auburn Dam construction site. Over 600 comment letters were received on the Draft Environmental Impact Statement/Environmental Impact Report, and Ms. Simodynes assisted in the preparation of the responses to comments and the preparation of the Final Environmental Impact Statement/Environmental Impact Report. She also worked on the Mitigation Monitoring and Reporting Program/Environmental Commitments Plan for the project.

Sacramento Area Flood Control Agency, Folsom Dam and Reservoir Long-Term Reoperation Agreement Supporting Projects. Ms. Simodynes served as the project manager and was responsible for preparing the Final Environmental Assessment (National Environmental Policy Act compliance), and the U.S. Fish and Wildlife Service and National Marine Fisheries Service Biological Assessments in support of the Folsom Dam and Reservoir Long-term Reoperation Agreement between the Sacramento Area Flood Control Agency and the U.S. Bureau of Reclamation. She coordinated the ESA consultation activities with U.S. Fish and Wildlife Service and National Marine Fisheries Service. The Biological Assessments also were relied on to support the development of the operational terms and conditions in Biological Opinions for the project. To evaluate shutter configuration alternatives for the proposed water temperature control device at Folsom Dam, Ms. Simodynes also developed a new assessment methodology and used it to conduct risk assessments for anadromous salmonids (fall-run Chinook salmon and steelhead) in the lower American River. This work involved using hydrologic modeling to conduct separate, species- and lifestage-specific daily flow assessments to determine potential effects on Sacramento splittail, steelhead and fall-run Chinook salmon.

Fish Screen and Passage Projects

California Department of Water Resources, Oroville Facilities Federal Energy Regulatory Commission Relicensing Project. Ms. Simodynes assisted in the development of fisheries resources and aquatic ecology study plans to provide technical, analytical and agency consultation support services for the Federal Energy Regulatory Commission relicensing process for the hydroelectric facilities at Oroville Dam. She authored fisheries study plans to evaluate the feasibility of providing passage for targeted species of migratory and anadromous fish past Oroville Dam. In addition, she contributed to the development and technical review of additional study plans related to the evaluation of project effects on fisheries and aquatic habitat in Oroville Reservoir and its upstream tributaries.

Bureau of Reclamation/MWH, Sacramento River Water Reliability Study. As HDR|SWRI's project manager for the Sacramento River Water Reliability Study, Ms. Simodynes was responsible for providing technical assistance to project engineers regarding fisheries-related considerations associated with the construction footprint and fish screen design for the proposed diversion intake structure on the Sacramento River.

These efforts required a working knowledge of National Marine Fisheries Service and California Department of Fish and Game fish screening criteria and evaluation of aquatic resource impacts including impingement, entrainment, fish passage, predation risk, turbidity and sedimentation, and loss of shaded riverine aquatic habitat.

Non-HDR|SWRI Project Experience

Fisheries, Riparian and Aquatic Resource Interactions

Anglian Water Services Ltd./W.S. Atkins Groundwater Abstraction License Renewal Project. In support of a groundwater abstraction licensing renewal application, Ms. Simodynes conducted an environmental appraisal of the eco-hydrological relationships and effects of groundwater abstraction on aquatic resources in the Upper Colne Valley, located in the Essex Region of the United Kingdom. Project objectives were threefold: (1) to assess the functional relationships between the hydrologic processes (e.g. flow regimes, discharges and groundwater levels) associated with the river and underlying groundwater aquifer, possibly requiring river flow augmentation in response to abstraction; (2) to examine the biological relationships between the hydrologic regime, local water demands and the ecology of the dominant floral and faunal communities present in the river and adjacent County Wildlife Sites; and (3) to develop a compendium of available data, extending over a 10-year period, for use in guiding future resource management decisions and additional ecological study, as required. The project also involved a review of the Lotic-Invertebrate Index for Flow Evaluation (LIFE) metric, and its potential application as a tool for assessing linkages between aquatic macroinvertebrate community assemblages and hydrologic flow regimes.

U.S. Department of the Interior, Bureau of Land Management. Ms. Simodynes conducted on-site field inspections and provided technical input during project planning activities to ensure that Bureau of Land Management projects in southern Oregon integrated the aquatic ecosystem management objectives of the Aquatic Conservation Strategy identified in the Northwest Forest Plan. Project activities included: (1) delineation of project-specific riparian reserves; (2) implementation of protective measures during prescribed burn and other silviculture activities (e.g., timber harvest); (3) identification of engineering techniques and other protective measures (e.g., road decommissioning) to minimize sediment delivery to fish-bearing and non-fish-bearing streams; and (4) evaluation of in-channel hydraulic and geomorphic processes to determine presence and functionality of ephemeral, intermittent and perennial streams; and (6) evaluation of potentially unstable geologic areas prone to mass wasting and other effects of surface erosion within proposed project boundaries.

U.S. Department of the Interior, Bureau of Land Management. As part of resource agency efforts under PACFISH (1995), Ms. Simodynes directed annual anadromous salmonid and water quality monitoring programs to further data collection efforts necessary to improve Bureau of Land Management biologists' understanding of aquatic habitat baseline conditions for newly designated salmon and steelhead critical habitat in the Pacific Northwest. These efforts involved extensive stream habitat inventories utilizing the U.S. Forest Service-based R1/R4 (Hankin and Reeves) and Rosgen Applied River Morphology techniques, as well as seasonal water quality and macroinvertebrate sampling. Pursuant to PACFISH objectives, the data collected was used to support development of long-term strategies for grazing allotment management, reducing habitat degradation and initiating restoration efforts for aquatic and riparian ecosystems utilized by anadromous fish.

U.S. Department of the Interior, Bureau of Land Management. Ms. Simodynes collaboratively worked with other Bureau of Land Management staff to develop Bureau of

Land Management Technical Bulletin #99-01, *Photographic Guide to Median Stubble Heights* (1999), which serves as a guide for using stubble height measurements as a tool to monitor the effects of livestock grazing on riparian and aquatic habitats.

U.S. Department of the Interior, Bureau of Land Management. Ms. Simodynes provided technical assistance regarding assessment of fish passage barriers and proper functioning stream and riparian conditions associated with several planned culvert replacement projects in the Glendale Resource Area near Grants Pass, Oregon. Activities included on-site assessment and data inventory of existing passage conditions, bank stability, channel morphology, bankfull and floodplain characteristics, as well as hydraulic connectivity and upstream fish habitat utilization.

Water Quality and TMDL Development

U.S. Department of the Interior, Bureau of Land Management. Ms. Simodynes was a member of the interdisciplinary team that authored a new long-term watershed analysis planning document for the Glendale Resource Area in southern Oregon. She also conducted annual water quality monitoring for 303d listed streams in support of Total Maximum Daily Load and Water Quality Management Plan development, conducted analysis and interpretation of fisheries and stage/discharge relationships associated with the Bobby Creek Paired Watershed Study and developed a monthly maintenance program for hydrologic gauging stations. Additional activities included conducting annual Coho salmon and steelhead spawning surveys, and managing the Bureau of Land Management's hydrologic, fisheries, and riparian habitat databases.

U.S. Department of the Interior, Bureau of Land Management. Ms. Simodynes directed the agency's annual fisheries and water quality monitoring programs in the Challis Resource Area. Activities included conducting aquatic and riparian habitat surveys, macroinvertebrate sampling, and water quality monitoring (e.g., dissolved oxygen, turbidity, water temperature). Water quality monitoring efforts supported Total Maximum Daily Load development for 303d listed streams within the Challis Resource Area (e.g., 2001 Pahsimeroi River Subbasin Assessment and Total Maximum Daily Load). Ms. Simodynes' other responsibilities included integrating the findings of aquatic and riparian monitoring data, preparing documentation for submittal to the U. S. Department of Justice in support of the Bureau of Land Management's water rights adjudication process, and authoring the agency's 1997 annual monitoring report for submittal to National Marine Fisheries Service.