Richard Martin Groundwater LLC

Richard J. Martin, LHG

EDUCATION

Graduate Studies, Hydrogeology, Wright State University
BS, Geology, Wright State University, 1989

REGISTRATION

Licensed Hydrogeologist: WA, 337, 2002

PROFESSIONAL SUMMARY

With over 23 years of experience as a hydrogeologist, Richard has been involved with all aspects of hydrogeologic studies, including evaluation of groundwater resources, design and implementation of aquifer testing, delineation of wellhead protection zones, assessment of groundwater/surface water interactions, evaluation of soil and groundwater remedial systems, and determination of historical contaminant plume movement. He also provides hydrogeologic support for geotechnical projects including development of construction dewatering plans, evaluation of groundwater seepage for slope stability problems, evaluation of soil infiltration capacity for stormwater control design, and estimation of groundwater inflows to tunnels and excavations.

PROJECT EXPERIENCE

***Widener vs. King County*.** Richard testified in Federal Court as an expert witness for King County. In this case, the plaintiff claimed that road work performed by King County near the plaintiff's property caused a change in groundwater flow conditions resulting in damage to the property including ground settlement and degradation of a water supply well. Richard demonstrated to the jury, using basic hydrogeologic principles and soil and groundwater data from the site, that is was impossible for the road work to have influenced groundwater flow as claimed and the most likely cause of the property damage was ongoing bank erosion and bank instability on the river side of the property. The claim was quickly dismissed by the jury.

***MacHugh/Jackass vs. South Columbia Basin Irrigation District (SCBID)*.** Richard was an expert witness on this case involving a landslide that swept through an orchard near Richland, Washington. The plaintiff claimed that improper irrigation practices and lack of maintenance by the SCBID led to the slide. Richard reviewed existing information, evaluated soil and groundwater conditions in the vicinity of the landslide, and authored an opinion paper on groundwater in the area, water movement in the subsurface, and sources of water that may have led to the landslide. His work demonstrated that the SCBID was not the cause of the landslide and was key in defending the SCBID, resulting in a successful defense in both the trial court and the court of appeals.

***Washington State Department of Ecology, Review of Groundwater Modeling for Hanford Tank Closure and Waste Management EIS, Richland, WA*.** Richard was Project Manager and Principal Hydrogeologist working with Ecology providing oversight and technical review of groundwater flow and contaminant transport computer models that are being completed by the U.S. Department of Energy (DOE) for the Hanford reservation. The modeling was being performed to support the EIS that is being completed as part of the consent decree between Ecology, DOE, and EPA. Richard reviewed the site-wide conceptual model for contaminant migration from ground surface downward through the

unsaturated zone, and lateral movement of contaminants in the water table aquifer to the Columbia River. He participated in stakeholder meetings to respond to technical questions regarding the modeling work and technical review group meetings to provide recommendations to DOE's contractors for modeling improvement. His review included evaluation of hydrologic and hydrogeologic inputs to the computer models, including recharge, aquifer parameters, historical groundwater fluctuations in response to discharge of liquid waste at the site, and fate and transport mechanisms in the vadose zone.

City of Issaquah, Issaquah Highlands Peer Review, Issaquah, WA. Richard was Project Hydrogeologist on the peer review team that is working with the City of Issaquah to review the operation of stormwater infiltration systems as part of the stormwater management program for the Issaquah Highlands development. The City requested the review following the January 30, 2004, Camp Creek Landslide. Richard reviewed soil and groundwater conditions associated with infiltration structures at Issaquah Highlands, provided comments regarding the "White Paper" and other documents prepared by the City and their consultants, responded to public comments regarding the landslide and infiltration operations, and presented his review to City Council. He concluded the primary cause of the landslide was excessive infiltration above Camp Creek, and provided recommendations for future infiltration operations for the Issaquah Highlands development. Richard continues to work with the City of Issaquah reviewing and commenting on additional stormwater management issues associated with the development.

The Nature Conservancy and Dike District 3, Fisher Slough Restoration Project, Skagit County, Washington. Richard was the Principal Hydrogeolgist for the hydrogeologic review of plans, reports, and memorandums for the Fisher Slough restoration project. The focus of his review was on the proposed setback levee design and construction with emphasis on seepage and ponding behind the new setback levee. During his review, Richard identified several inconsistencies in the seepage analyses performed for the design and proposed construction of the setback levee. He provided specific recommendations for further review and/or design.

California Department of Water Resources, Peer Review for Jones Tract Levee, Stockton, CA. Richard was Project Hydrogeologist to review a repair project and to evaluate seepage conditions for the Jones Tract Levee on the Middle River. In June of 2004, a 250-foot wide levee breach flooded the 12,000-acre Jones Tract. An emergency repair closed the breach, however ongoing seepage near the toe of the levee caused concern about future stability of the repaired section. Richard developed a three-dimensional computer seepage model to evaluate hydraulic gradients through the repair to determine if there is piping of native soil underneath the levee. The results of his analysis were used to decide if additional work is necessary to control seepage through the repaired portion of the levee and may provide a basis for design of future levee repair projects in the area.

Washington State Department of Ecology, Embankment Fill Monitoring Plan Review, Seattle-Tacoma International Airport Third Runway Project, Seattle, WA. Richard was Project Hydrogeologist for review of a proposed Embankment Fill Monitoring Plan, which was completed as part of the 402 Water Quality Certification for the Sea-Tac Third Runway project. Construction of the third runway included building a large embankment with imported fill adjacent to the existing runways and local wetlands. The Port of Seattle developed a seep and groundwater monitoring to evaluate the impact of the embankment on water quality in adjacent wetlands, local groundwater, and nearby Miller Creek. Richard assisted Ecology in reviewing the monitoring plan, consultant reports prepared for the airport, a groundwater flow model prepared for the project, and existing water quality data. He provided Ecology with an opinion on the technical basis for the plan and recommendations for modifications to the plan. Richard met with both Ecology and the airport's consultants on multiple occasions to finalize a plan that would support Ecology's position on the project during public review.