



Technical Consultation, Data Analysis and
Litigation Support for the Environment

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November 8, 2011

Patrick J. Alford, Planning Manager
City of Newport Beach,
Community Development Department
3300 Newport Boulevard

Subject: Comments on the Banning Ranch Draft Environmental Impact Report

Dear Mr. Alford:

We have reviewed the September 9, 2011 Draft Environmental Impact Report (DEIR) for the Newport Beach Banning Ranch Project ("Project") on the behalf of the Banning Ranch Conservancy. The Project is to be located on a total of 401 acres in Newport Beach, California and unincorporated Orange County. The Project will construct 1,375 residential units, 75,000 square feet of commercial space, a 75-room resort hotel, a 51-acre park, and provide 252 acres of open space.

Our review focused on Section 4.5, Hazards and Hazardous Materials (Thresholds 4.5-1 and 4.5-2) which were found to have less than significant impact after mitigation. We have concluded that the DEIR has made this finding on the basis of soil, soil vapor and groundwater data that have yet to undergo regulatory agency review. Therefore, in our opinion, the DEIR defers assessment of environmental conditions and fails to disclose baseline conditions which may pose health hazards, unless mitigated, to: (1) workers during construction; (2) adjacent residents during construction; and (3) future residents and the public.

The Project site has a long history of use for oil exploration and production, beginning in the early 1940s. Approximately 489 producing and abandoned wells are located at the

Project site along with related pipelines, sumps, storage tanks, roads, above-ground crude oil storage tanks, processing equipment, service buildings, and other facilities.

A private oilfield operator, West Newport Oil Company, and the City of Newport Beach operate oil wells on the Project site. The City also operates an oil processing facility at the West Coast Highway entrance area to the Project site. Some historical uses of the Site include agriculture, a military coast watch station, equipment storage and maintenance, and areas leased to welders, pipe storage, and equipment operators.

The most current assessments of the environmental conditions at the Project site are included in the following documents, prepared by the developer's consultant, which we reviewed in the preparation of these comments:

- Phase I Environmental Site Assessment Update (Phase I ESAU), Newport Banning Ranch, Orange County, California prepared by Geosyntec Consultants (April 2008).
- Draft Remedial Action Plan (DRAP), Newport Banning Ranch, Orange County, California prepared by Geosyntec Consultants (August 2009).

We also reviewed what was identified as a "limited and preliminary" vapor intrusion investigation which was attached to the Phase I ESA Update.

After review of these documents, we have concluded that baseline soil, soil vapor and groundwater conditions are uncertain over large areas of the site because of the lack of regulatory agency review of the documents that have been prepared by the developer's consultants. Because of what we believe to be uncertain baseline soil and soil vapor conditions, construction workers and future residents may face risks without further assessment under agency oversight and implementation of any required mitigation and remediation.

Until additional investigations are conducted under agency oversight, the baseline soil conditions will remain uncertain. It is my professional opinion that a revised DEIR needs to be prepared to include agency-approved soil and soil vapor investigations, and an assessment of human health risks.

A map, included as Figure 4.5-1 in the DEIR (Attachment A), shows 27 Potential Environmental Conditions (PECs) that were used for the production of oil, including gasoline storage tanks, and petroleum and diesel tanks and transformers. Below is a summary of all the PECs and the contaminants found in soil and/or groundwater.

- PEC 1: Maintenance Shop/Warehouse; polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs);
- PEC 2: Drill Site Tank Farm -- petroleum hydrocarbons, free product;
- PEC 3: Air Compression Plant -- petroleum hydrocarbons;
- PEC 4: Steam Generation Plant -- petroleum hydrocarbons;
- PEC 5: Water Softening Plant -- petroleum hydrocarbons;
- PEC 6: Secondary Tank Farm -- petroleum hydrocarbons;
- PEC 7: Pilot Scale Biotreatment Cell -- petroleum hydrocarbons;
- PEC 8: Former Sumps and Clarifiers -- petroleum hydrocarbons;
- PEC 9: Electrical Transformer Storage Area -- metals (Ba, Be, Cd, Cr, Co, Cu), petroleum hydrocarbons, polychlorinated biphenyls (PCBs);
- PEC 10: Transformer Mounts -- petroleum hydrocarbons, PCBs;
- PEC 11: Offices/Changing Rooms -- septic wastes;
- PEC 12: City of Newport Beach Tank Farm -- petroleum hydrocarbons;
- PEC 13: (consolidated with other PECs)
- PEC 14: (consolidated with other PECs)
- PEC 15: Underground Storage Tank and Fuel Pump -- petroleum hydrocarbons;
- PEC 16: Coast Watch Station -- municipal solid waste;
- PEC 17: Oil and Gas Production Equipment Storage;
- PEC 18: Debris Stockpile;
- PEC 19: Abandoned Shack -- possible chemical spills;
- PEC 20: Debris and Soil Stockpile -- petroleum hydrocarbons;
- PEC 21: Debris Stockpile -- petroleum hydrocarbons;
- PEC 22: Soil Stockpiles;

- PEC 23: Equipment Storage -- potential oil leaks;
- PEC 24: Main Office -- septic wastes;
- PEC 25: Oil Well Pads and Linear Features -- petroleum hydrocarbons;
- PEC 26: Drilling Mud Sumps/Oil Well Sumps -- petroleum hydrocarbons;
- PEC 27: Sublease areas -- petroleum hydrocarbons;

The PECs were identified on the basis of samples collected in 2001 during a Phase II ESA.

Section 4.5 of the DEIR fails to mention that the Project site is under a Regional Water Quality Control Board Cleanup and Abatement Order (No. 01-77, issued to West Newport Oil, Armstrong Petroleum Corporation, Aera Energy LLC, and Rancho Santiago Partnership). To date, under this Order, a Remedial Action Plan (RAP) was approved to govern efforts to recover “an isolated pocket of crude oil located on top of the shallow brackish groundwater in the Main Drill Site Tank Farm” (DEIR, p. 4.5-1). The remainder of the Project site, including the 27 PECs, has apparently not undergone regulatory review and the Phase I ESA and the DRAP have not been reviewed.¹

According to the DEIR “prior to the issuance of the first City-issued permit,” the RWQCB will receive a final Remedial Action Plan (final RAP) to “allow for site disturbance unrelated to oil remediation activities” (DEIR, p. 4.5-28). Therefore, under what is outlined in the DEIR, no agency review of the contaminants and plans for cleanup will occur until after EIR certification.

In summary, our review shows that except for an area of limited soil excavation, the RWQCB has not reviewed environmental data nor has the RWQCB reviewed and commented on the Phase I Update and the Draft Remedial Action Plan. The conclusions about the extent of contaminants made by the Project developer have not been validated by an objective third party review. Therefore, we have concluded that the DEIR defers assessment of environmental conditions at the site and therefore fails to disclose baseline conditions which may pose health hazards, unless mitigated, to: (1) workers during construction; (2) adjacent residents during construction; and (3) future residents and the public. A revised DEIR needs to be prepared to include agency review of the documents that have been prepared and agency comments on the adequacy of the mitigation that is proposed in the DRAP.

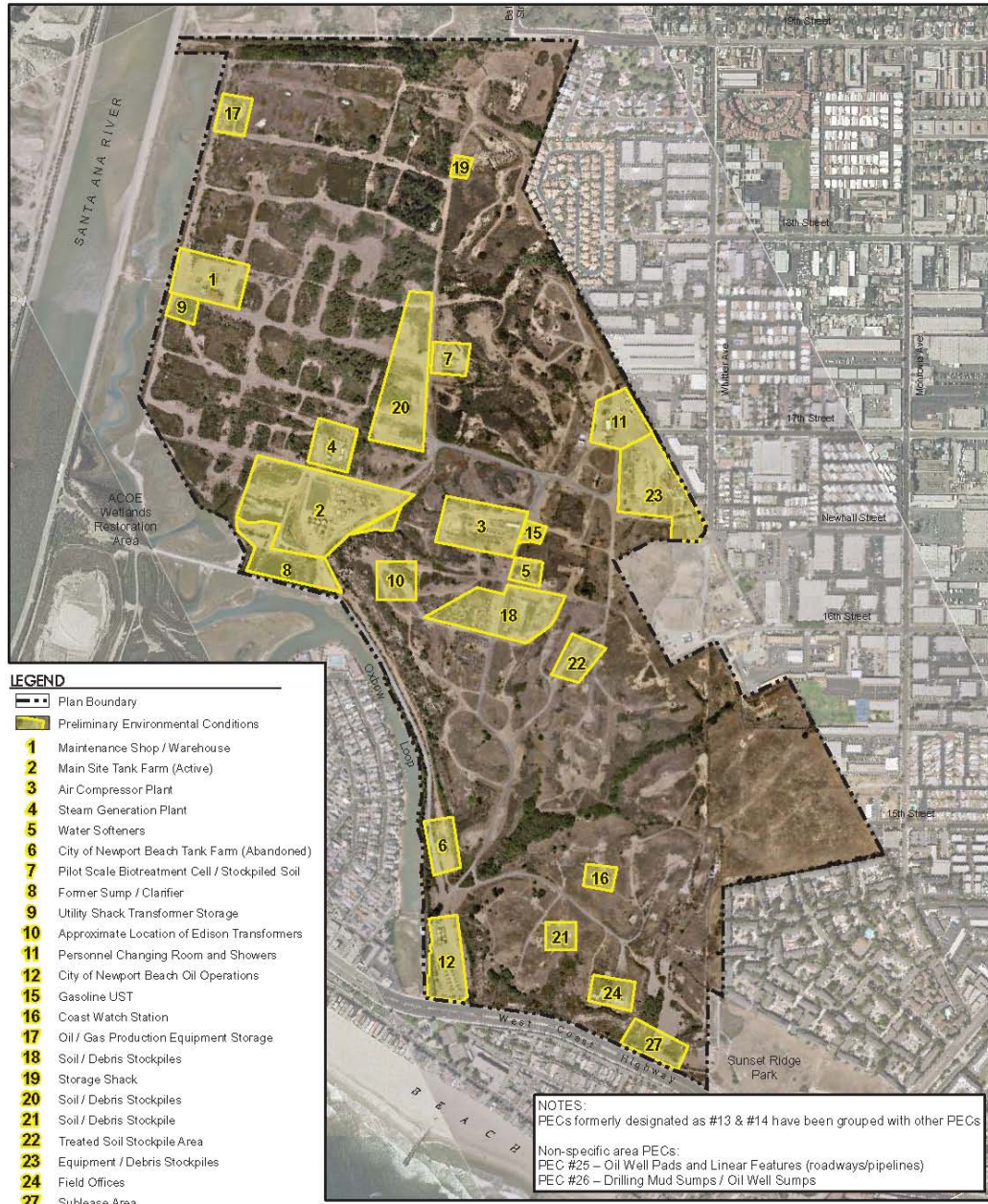
¹ Personal communication, Kamron Saremi, Regional Water Quality Control Board, November 2, 2011

Sincerely,

A handwritten signature in blue ink, appearing to read "Matt Hagemann". The signature is fluid and cursive, with a long horizontal stroke at the end.

Matt Hagemann, P.G., C.Hg.

Attachment
A



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Source: Geosyntec 2009

Potential Environmental Concern Location Map

Exhibit 4.5-1

Newport Banning Ranch EIR



(082410 KFD) R: Projects\Newport\U015\Graphics\EIRE\4.5-1_PotEnvConc.pdf

Attachment

B



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Matthew F. Hagemann, P.G., C.Hg.

**Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
CEQA Review
Litigation Support and Testifying Expert**

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certification:

California Professional Geologist

California Certified Hydrogeologist

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – present;
- Senior Environmental Analyst, Komex H2O Science, Inc (2000 -- 2003);
- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);

- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of numerous environmental impact reports under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions and geologic hazards.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.
- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.
- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nationwide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

In Fall 2010, Matt taught Physical Geology (lecture and lab) to students at Golden West College in Huntington Beach, California.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells.

Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Geologist licensing examination, 2009-2010.