



Gary A. Pascoe, Ph.D., DABT
Principal

Dr. Gary Pascoe is a risk assessment specialist, with 30 years of experience in environmental exposure and risk assessments, public health evaluations, multi-media risk analyses, fate and transport studies, marine and freshwater sediment studies, and risk-based cleanups. Dr. Pascoe has managed or contributed to a variety of environmental assessments, remediation projects, and permit applications under the Clean Water Act, CERCLA, RCRA, and various state regulations. He has managed multi-year remedial investigation/feasibility studies and biological monitoring programs for terrestrial, freshwater, and marine sediment sites. He recently managed a remedial investigation/feasibility study for a marine site in Puget Sound, where sediment biological impacts drove remedial action objectives. He has provided technical expertise in risk assessment and risk management strategies at numerous freshwater and estuarine sites, including the lower Duwamish River, Seattle; Portland Harbor, OR; and Commencement Bay, WA. His work in human health and ecological risk assessments of the Clark Fork River and Milltown Reservoir Sediments Superfund sites resulted in numerous peer-reviewed publications, many of which helped inform national risk assessment methodologies.

Dr. Pascoe has provided expert witness testimony and technical support on risks from exposures to dioxins and heavy metals from industrial air emissions and through the marine food chain, and has produced human health risk assessments for hazardous waste sites contaminated with PAHs, dioxins, metals, and chlorinated solvents from a variety of industrial settings. Dr. Pascoe has managed numerous multipathway risk assessments in support of RCRA Part B permits for hazardous waste combustion facilities throughout the Midwest and southeastern US. He has provided technical reviews of draft Toxicity Profiles for the Agency for Toxic Substances and Disease Registry, reviews for the USEPA Hazardous Waste Identification Rule, and was invited as a plenary speaker to a Pellston Conference on risk assessment for contaminated wetlands based on project experience in the Rocky Mountains and at cypress swamps in the southeastern US.

Dr. Pascoe has also provided regulatory support as a member of the ecological risk group of the Science Advisory Board for Washington Department of Ecology, and as the toxicologist on the Washington State Pesticide Incidence Reporting and Tracking (PIRT) panel.

Education and Professional Certifications

Ph.D., Toxicology, University of California, San Francisco, 1983

B.A., Biology, University of California, San Diego, 1975

Diplomate, American Board of Toxicology (DABT)

Registered Environmental Assessor (REA-04198), California EPA.

Continuing Education: Society for Environmental Toxicology and Chemistry, Society of Toxicology, Environmental Law Education Center.

Professional Societies/Activities

Pacific Northwest chapter and national Society of Environmental Toxicology and Chemistry (SETAC); Air & Waste Management Association (AWMA). Previous - Board of Directors, PNWSETAC; Society for Risk Analysis (SRA), Society of Toxicology (SOT); Board of Directors, Sound Experience "Adventuress".

Board of Directors, Port Townsend Marine Science Center (2004-present).

Experience

Environmental Risk Assessments

Hanford Ecological Risk Assessment. As part of a revision of the RI and FS for one of the hazardous waste sites on the Hanford Reservation, ecological risks to terrestrial receptors from exposures to radionuclides and non-radionuclides were evaluated through the Washington Model Toxics Control Act (MTCA) and Department of Energy ecological screening processes.

Abandoned Mine Risk Assessments. Performed screening-level human health and ecological risk assessments for an abandoned lead and zinc mine site in the Cascade Mountains of Oregon. Exposures and risks to terrestrial and aquatic receptors were estimated for streams on and off-site. Macroinvertebrate field collection and data evaluation followed DEQ rapid bioassessment protocol.

Upper Columbia River Data Needs Analysis and Risk Assessment Work Plan. Co-authored a data needs and collection and risk assessment work plan for an Upper Columbia River investigation, for a local tribe. Potential ecological risks included aquatic and terrestrial habitats, with exposures due to both upstream smelter wastewater discharges to the river and stack releases to air.

Ecological Risk Assessment for the Milltown Reservoir/Clark Fork River Sediments Site. Project manager and primary author of a site-specific ecological risk assessment for the Milltown Reservoir Sediments Site, a metals-contaminated wetland in Montana. Coordinated work plans and field sampling and assessment efforts of USEPA, U.S. Fish and Wildlife Service, university researchers, and state and county agency technical personnel. Risk severity ranking supported natural attenuation as the final selected remedial alternative. The first comprehensive fresh water ecological risk assessment in the Superfund program. Collaborative publication efforts with USEPA helped inform guidance on field methodology for ecological risk assessments.

Food Web Analysis for Mining Waste Metals. Manager and technical oversight of a food chain analysis of metals contaminants in a montane wetland at Milltown Reservoir, MT. Receptors of concern consisted of eagles, osprey, deer, muskrat, beaver, and various waterfowl species. Database included tissue residues of aquatic and terrestrial plants and terrestrial small mammals. Results were integrated with habitat and wildlife surveys to support natural attenuation of the metals risks.

Risk Screening at Abandoned Mine Sites. Performed screening-level evaluations of risks associated with terrestrial and aquatic wildlife exposures to metals at abandoned mine sites for the USFS.

Risk-Based Corrective Action Approach for the Naval Arctic Research Laboratory. Technical assistance in developing a white paper on performing a Risk-Based Corrective Action (RBCA) approach to assessing risks to human health and ecological receptors from total petroleum hydrocarbon (TPH) contamination at the Naval Arctic Research Laboratory, Pt. Barrow, AK.

Risk Assessment for the Naval Arctic Research Laboratory. Manager and primary author of the final ecological and human health risk assessments, feasibility studies, management plans, and proposed plans for two sites at the Naval Arctic Research Laboratory, Barrow, AK. Risks were also calculated for Total Petroleum Hydrocarbon measurements, based on the fractionation and surrogate toxicity

approach. Risk-based cleanup levels were developed for human health and ecological receptor exposures to PAHs, metals, chlorinated solvents, and TPH in soil, groundwater, and freshwater and estuarine sediments. Remedial alternatives were developed to achieve the risk-based cleanup levels in an arctic environment. Results of the risk assessments and proposed plans for the sites were presented to regulatory agencies and local citizens groups, including native Alaskan corporations.

Field Testing of Modeling Fish Concentrations in an Arctic Lagoon. Managed a project to collect field data on petroleum hydrocarbons in surface water, sediment, and fish tissue collected from an estuarine lagoon near the Naval Arctic Research Laboratory, Barrow, AK. The measured tissue concentrations were used to calculate health risks in place of estimated concentrations that were modeled from $\log K_{ow}$ values. An extraction methodology was developed with the laboratory to separate petroleum hydrocarbons from naturally occurring fish lipids, and received approval from the regulatory agency prior to field plan implementation.

Risk Assessment at the Bangor Subbase. Technical oversight and revisions to the human health and ecological risk assessments for exposures to groundwater and irrigation water at a naval site contaminated with chlorinated solvents and benzene. U.S. Navy, Engineering Field Activity, NW.

Surface Water and Sediment Quality Risk Assessments

Jackson Park Housing Complex/Naval Hospital Supplemental RI. Developing work plans for collecting sediment chemistry and toxicity data, and for performing an ecological risk assessment under CERCLA guidelines, at a Superfund site marine operable unit in Ostrich Bay, Puget Sound.

Risk Assessments for a Duwamish Waterway site. Developed work plans for performing human health and ecological risk assessments at a previous ship-building sediment site on the lower Duwamish Waterway, Seattle, WA.

Lower Duwamish Waterway Risk Assessment. Providing assistance and technical reviews to the City of Seattle on the risk assessment and related work products on the Lower Duwamish Waterway Superfund site.

Site-Specific Mercury Bioaccumulation. Managed field and laboratory studies and developed site-specific bioaccumulation factors for mercury species in various trophic level fish in a southeast coastal plains wetland. Risks were assessed for consumption of local fish by residents near a cement plant.

Dioxin Exposures at a Pulp and Paper Mill. Provided technical assistance in planning field sampling and chemical analyses, and interpretation of results for dioxins in various environmental media around the pulp and paper mill at Sitka AK.

Southwest Harbor Project, Port of Seattle. Manager and senior author of a regional risk assessment for PCBs and metals in soil and groundwater, across four remediation areas (i.e., sites) consisting of multiple industrial sites. Co-developed risk-based hydrogeologic model to identify groundwater and subsurface soil remedial goals protective of offsite surface water receptors. Model incorporated site-specific measurements of attenuation and dilution of metals, PCBs, and PAHs during ground-water transport; and partitioning of chemicals between soils and infiltrating water.

Review of Oregon DEQ Work Plan and Management Plan for Contaminated Sediments. Provided technical review of numerous versions of a work plan and management plan for performing a Remedial Investigation and Risk Assessment of contaminated sediments of the Willamette River. The plans were reviewed on behalf of the Port of Portland prior to listing the site under Superfund.

White Paper on Marine Studies. Task manager on a white paper to review and evaluate existing data on marine sediment studies at the Jackson Park Housing Complex Marine Sediments Site. Critiqued

bioassay and chemistry results for site and reference area sediments. Recommendations were made for further studies to finalize the RI and proceed with the FS planning.

Jackson Park Housing Complex/Naval Hospital RI/FS and Proposed Plan. Project manager on a focused RI/FS for the marine operable unit of the Jackson Park Housing Complex/Naval Hospital site on Puget Sound. The RI/FS followed regulatory guidance of both Superfund and the Washington Department of Ecology Model Toxics Control Act (MTCA). Designed remedial action objectives for sediments contaminated with mercury and ordnance compounds that focused on mitigating sediment toxicity to benthic organisms and impacts to benthic ecology. Remedial alternatives for various site units of the bay were developed using a combination of natural attenuation, thin layer covers, and full capping. A Treatability Study included field studies on sedimentology to calculate deposition rates, sediment transport using the Sediment Trends Analysis to identify offsite sources of contaminated sediment input, and additional site characterization and sediment bioassays to account for ammonia and sulfide impacts. Managed and authored the feasibility study and proposed plan; developed cleanup levels for no further action. Linked the risk assessment and sediment transport study results to offsite source identification. Modeled natural attenuation to meet cleanup levels with offsite source controls. Manager and primary author of the Proposed Plan and draft Record of Decision.

Keyport Post-ROD Monitoring Program. Project manager of a post-record of decision (ROD) five-year monitoring program for one of two operable units at the Naval Undersea Warfare Division-Keyport site on Puget Sound. Coordinated field and laboratory activities for four remedial areas of the site, and negotiated with state regulators on interpretation of data on volatile and semivolatile compounds, pesticides, and metals in ground water, seeps, intertidal sediments, offshore sediments, and clam tissues.

City of Charleston Sediment Impacts. Evaluated remedial options to contain contaminated sediments during construction of an aquarium at an estuarine National Park Service site.

Sediment Monitoring Program Toxicity Evaluations. Evaluated sediment toxicity results for the Puget Sound Sediment Monitoring Program of the Washington Department of Ecology. Performed quantitative comparisons with reference area sediments, and covariance analyses with benthic assemblages and sediment chemistry.

Clean Water Act Section 301(h) Permit Application Reviews. Performed technical evaluations of applications to alter National Pollution Discharge Elimination System (NPDES) permits under the Clean Water Act Section 301(h); focused on toxicity tests, bioaccumulation of organic compounds, and fish histopathology.

Los Angeles County CWA 301(h) Permit Review. Managed an assessment of ecological risks due to DDT, PCBs and heavy metal contamination in sediments and biota of a Southern California marine ecosystem as part of a review of a Clean Water Act 301(h) permit application. Evaluated effects of major environmental processes on DDT dynamics in marine sediments and tissues of demersal fish. Generated an empirical model of DDT bioaccumulation in demersal fish from contaminated sediments.

Pesticides of Concern in Puget Sound. Managed an evaluation of the potential for over 120 modern pesticides to pollute Puget Sound waters, sediments, and biota. Conducted usage surveys and environmental fate and toxicity data analyses. A level-of-concern approach was used to prioritize pesticides in a sampling strategy program for U.S. EPA Region 10.

Risk-Based Sediment Storage Management Tool. Managed and designed an approach for generating risk-based chemical concentrations for managing storage of marine sediments during

dewatering at the Port of Oakland. Exposures of concern were inhalation and contact with contaminated sediments by workers at the marine terminal.

Reviews of Marine Toxicity Bioassays. Reviewed results of acute and chronic marine toxicity studies of effluent discharges from a number of municipal waste water treatment plants, for U.S. EPA.

Human Health Risk Assessments

Occupational Exposure Level Development. Developed recommended occupational levels for exposures to storage tank nitrosamines and other chemicals at the Hanford Nuclear Reservation.

Risks from PCB Releases at Sunken Marine Vessels. Reviewed and revised the human health risk assessment for fishing exposures to PCB releases from the sinking of a US Naval vessel for the creation of an artificial reef off the coast of Florida.

Risks from Shellfish Collection and Consumption at a Creosote-Contaminated Bay. Assessed human health risks associated with consumption of shellfish and exposure to sediment during shellfish harvesting from a Puget Sound bay containing creosote-impregnated pilings and PAH releases, for a local tribe. Site-specific shellfish BSAFs were developed for predicting tissue PAHs. PAHs cancer risks were below 10^{-6} for tribal consumption of shellfish from the bay

Risk Screening at Abandoned Mine Sites. Performed screening-level evaluations of risks associated with recreational exposures, including dermal contact and consumption of fish, to metals at numerous abandoned mine sites in Oregon and Washington for the USFS.

Human Health Assessment for Milltown Reservoir. Project manager of a multitask human health risk assessment of a metals-contaminated recreational and residential site in Montana for the U.S. EPA Superfund program. The adjacent wetland and uplands were contaminated with mining waste metals. Coordinated workplans and field efforts of federal and state agencies, university researchers, and local regulatory personnel. Exposure media included yard soils, air, drinking water, surface waters, sediments, fish, and wild edible plants. Performed an in-depth review of arsenic carcinogenicity. Assisted with public communication of risk results, presentations to citizens group.

Human Exposure Survey for Milltown, Montana. Manager of a survey of exposure pathways to residents of a small western town at a metals-contaminated wetland site for U.S. EPA. Survey questionnaire focused on types and magnitude of incremental exposures, including ingestion of home-grown produce, game animals, birds, and plants from the local wetland; ingestion of well and surface water; and direct contact with sediments in recreational areas of the wetland.

Reviews of Risk Assessments under TES contracts. Technical reviews of human health and ecological risk assessments at CERCLA and RCRA sites for U.S. EPA Regions 8, 9, and 10. Sites included Rocky Flats, Letterkenny Army Depot, McClellan Air Force Base, the 1990 Bay Road Site, BKK Landfill, Army Defense Depot-Tracy, Teledyne-Wah Chang ore processing facility, Monsanto and Kerr-McGee ore processing facilities, and the Wykoff Wood Treatment facility.

Human Health Risk Assessment for the W.R. Grace Site. Performed the human health risk assessment for the Radioactive Waste Disposal Area of the Curtis Bay facility. Evaluated risks for exposures of construction workers, industrial workers, and visitors to organic chemicals and metals in soils and air. Coordinated exposure scenario development with radiological team.

Ruston Way Site Risk Assessment. Manager and senior author of a human health and ecological risk assessment of an abandoned industrial property to determine soil cleanup levels for PCBs and metals, located along the shoreline of Commencement Bay, WA, for the Washington National Guard.

Risk Assessment for the Big West Oil Refinery. Manager of an assessment of human health risks to residents near an abandoned petroleum refinery in Montana, for the Montana Department of Health and Environmental Sciences. Concerns focused on PAHs and lead in soils, air, and sludge ponds.

Landfill Community Health Investigation. Project manager of a health investigation of a landfill receiving pulp and paper mill wastes, in southwest Washington. Provided a review of a community health survey, and assistance on toxicological issues to the county health department and the primary waste generator.

Hazardous Waste Landfill Risk Assessment. Managed a quantitative health risk assessment at a hazardous waste landfill in California. Over 75 chemicals, including volatile and semivolatile organics, metals, and pesticides, were evaluated in three exposure media; performed ground water and air transport modeling.

Air Studies/MultiPathway Risk Assessments

Human Health Risk Assessment Protocol at a “Clean” Refinery. Developing plans for air dispersion modeling and evaluating risks to consumers of bison using the IRAP model for a “clean” oil refinery in the Great Plains.

Multipathway Risk Assessments for Cement Plants Burning Hazardous Waste. Project manager of multipathway risk assessments at two cement plants in the southern US in support of RCRA Part B permits to burn hazardous waste, for Holcim (US) Inc. Site-specific protocols, air dispersion modeling, acute health risks, ecological risk assessment for water and sediment, mercury bioaccumulation factors, and back-calculated emission rate goals were generated as part of the assessments.

Derivation of a Mercury Bioaccumulation Factor. A site-specific bioaccumulation factor (BAF) for methylmercury was accepted by EPA to substitute for the national value in the Mercury Report to Congress, for use in a multipathway risk assessment.

Dioxin Emission Controls at Cement Plant Burning Hazardous Waste. Provided technical assistance in developing alternative approaches to controlling dioxin emissions from a cement kiln. Evaluated engineering and chemical processes for dioxin emissions and risk reductions.

Air Dispersion Modeling and Risk Assessments for Cement Plants in Region 7. Project manager and technical direction of air dispersion modeling and multipathway risk assessments in support of a RCRA Part B permits for two cement plants burning hazardous waste in US EPA Region 7.

Memorandum of Understanding, Cement Industry and USEPA. Developed an MOU between the cement industry operating a number of facilities in Region 7 under RCRA Part B interim permits and US EPA Region 7 on technical issues around assessing risks from burning hazardous waste, including interpretation of guidance on receptor identification, bioconcentration factors for PAHs and mercury, and fish consumption rates.

Mercury Biomonitoring at a Cement Plant Burning Hazardous Waste. Manager and technical oversight in the sampling plan design, field sampling effort, and compilation of results of an evaluation of mercury contamination of sediments and biota of fresh water ponds in northern Mississippi, as baseline for a long-term monitoring program for mercury.

Multipathway Risk Assessments for Cement Plants Burning Hazardous Waste. Technical direction and oversight on nine screening-level multipathway risk assessments for human health and ecological receptors related to combustion emissions from cement plants.

Corporate Risk Assessment Policy Support. Provided technical consultation in risk assessment to support policy decisions for a national cement manufacturer with combustion facilities burning hazardous waste.

Review of Health Impacts from Asphalt Hot Mix Plants. Reviewed the human health and water resource impacts of asphalt hot mix plants in preparation for a county board hearing for a citizen's group in Washington.

Environmental Health Impact Study of a Municipal Solid Waste Combustor. Program manager of a five year study of multipathway health risks from a state-of-the-art waste-to-energy facility for the Spokane (WA) Solid Waste Disposal Project. The study included a predictive pre-operational risk assessment based on modeling of emissions and air dispersion and two post-startup assessments based on stack emission measurements and soil and air sampling.

Valdez Air Study Review. Provided technical review of the Valdez Air Health Study for the Regional Citizens' Advisory Council (RCAC), Valdez, AK, funded under the Oil Spill Prevention Act. Review focused on the technical approach and methodology for assessing risks to the residents of Valdez from exposures to benzene released from crude petroleum transfer at the Alyeska Pipeline Terminal.

All Fired Up Publication. Performed a comprehensive review of health effects from use of hazardous waste as supplemental fuel in cement kilns. Review covered chemical toxicity, epidemiology studies, risk assessments of current and abandoned facilities, and a comparison of emissions data with and without hazardous waste supplementation. Environmental Toxicology International, Seattle, WA.

Risk Assessment for a Pesticide Formulation Facility. Assisted on the preliminary human health risk assessment for the FMC Fresno, CA, Pesticide Formulation Facility. Performed toxicity reviews and air dispersion modeling.

Toxicology/Regulatory Studies

Technical Reviews of ATSDR and USEPA Toxicology and Risk Assessment Guidelines. Performed reviews of risk assessment methods and guidelines for the USEPA hazardous waste identification rule. Continually performs reviews of draft toxicity profiles and chemical risk assessments on behalf of the Agency for Toxic Substances and Disease Registry and the USEPA.

Consumer Products Materials Certification. Performed evaluations of the toxicities of ingredients in art materials and consumer products under the Labeling of Hazardous Art Materials Act.

Environmental Health Reviews of Biodegradable Plastic Ingredients. Managed a comprehensive review of the environmental impacts of select ingredients in a biodegradable plastic, covering environmental fate and transport, toxicity to humans and wildlife, and potential for degradation in the environment, with descriptions of current waste treatment options. Report written for technically trained readers and laypersons.

Review of Arsenic Carcinogenicity. Authored a comprehensive review of the skin cancer of arsenic for U.S. EPA, with a focus on the potential for a threshold based on mechanisms of carcinogenicity and metabolism.

Toxicity Review of an Ordnance Chemical. Reviewed the toxicology and potential health risks of a U.S. Army chemical (diisopropyl-methyl-phosphonate, DIMP), for the State of Colorado. Evaluated exposure studies in animals for appropriateness for predicting human health effects and for determining dose-response relationships. Derived a reference dose and drinking water guidelines.

Consultation on Regulatory Issues. Provided consultation to U.S. EPA Office of Research and Development, the State of Washington, and citizens' groups on technical and regulatory issues

regarding municipal wastes, air toxics, pesticide exposures, impacts of municipal solid waste management options, and design of solid waste compost guidelines.

Solid Waste Management Plan. Assistance to the State of Delaware in generating a solid waste management plan. Reviewed facility siting criteria and environmental and health issues on incineration and landfilling options.

Technical Support of Litigation

Litigation Support for Mill Discharges. Provided technical support on potential risks to the marine environment from paper mill discharges of dioxins and metals. Assistance on preparation of sampling program for soils, surface water and sediments of lakes and marine waters, and evaluation of program results.

Broderick Site Expert Witness. Served as expert witness in risk assessment to the Department of Justice for a Superfund hazardous waste site contaminated with PAHs, dioxins, metals, and chlorinated solvents from wood treatment activities.

Review of Deep Well Injection Practices and Regulations. Reviewed a permit application for a deep well injection system at a hazardous waste landfill, for the Department of Justice. The review focused on compliance of the permit application with the USEPA Underground Injection Control program under the Safe Water Drinking Act and RCRA, and on concerns within the scientific community and regulators over deep well injection options.

Litigation Support in Dioxin Risks. Reviewed the U.S. EPA and U.S. FWS assessments of dioxin risks to bald eagles in the Columbia River Basin, for a pulp and paper plant.

Smelter Slag Impacts on Aquatic Biota. Provided testimony on the potential for heavy metals in slag to leach to estuarine and marine waters, and for metals in soils runoff to adversely affect marine biota. Issues focused on the factors that govern the bioavailability of metals to aquatic biota, their potential impacts, and the regulatory history of ambient water quality criteria for metals, and the scientific understanding in the history of water quality regulations and the aquatic toxicity of metals found in smelter slag.

Presentations and Publications

Gardiner, W., G. Pascoe, L. Muench, B. Gregg, and D. Shreffler. **2006.** An evaluation of the potential risks associated with creosoted pilings and their removal. Abstract and presentation. Society of Environmental Toxicology and Chemistry Annual Meeting, Baltimore, MD.

Human Health Risk Evaluation and Screening Ecological Risk Assessment, Ruth Mine Site, Opal Creek Scenic and Recreation Area, Willamette National Forest, Oregon. **2006.** Prepared for GeoDesign, Inc., Portland, OR.

Human Health Risk Evaluations. Sediments and Shellfish of Former Log Yard, Sequim Bay, Washington. **2005.** Prepared for MEC-Weston Solutions, Inc., Port Gamble, WA.

Pascoe, G., and Sun, B. **2004.** Site-specific risk assessments: Current status and modeling issues for mercury. *Proceedings of the Air & Waste Management Association, Specialty Conference on Hazardous Waste Combustion.* San Antonio, TX.

Sun, B., and G. Pascoe. **2003.** Health risks associated with multimedia exposure to waste combustion facilities: Perception, Reality, and Beyond. *Proceedings of the International Conference on Incineration and Thermal Treatment Technologies.* University of Maryland. May 13, Orlando, FL.

Pascoe, G.A., P. McLaren, and M. Soldate. **2002.** Impact of offsite sediment transport and toxicity on remediation of a contaminated estuarine bay. *Marine Pollution Bulletin* 44:1184-1193.

Pascoe, G.A., and R. Connelly. **2002.** Site-specific bioaccumulation factors for mercury: Impact on health risks from fish consumption. *Proceedings of the Air & Waste Management Association, Specialty Conference on Hazardous Waste Combustion*. April 17, St. Louis, MO.

Linder, G., D.F. Woodward, and G. Pascoe. **2002.** Baseline Ecological Risk Assessment for Aquatic, Wetland, and Terrestrial Habitats along Clark Fork River, Montana. In: *Handbook of Ecotoxicology, Second Edition*. Eds: David J Hoffman, Barnett A Rattner, G. Allen Burton, Jr., John Cairns, Jr. CRC Press, Boca Raton. FL.

Sun, B., and G. Pascoe. **2001.** A road map to a successful multipathway risk assessment for RCRA Part B permit application. *Proceedings, Hazardous Waste Combustors Specialty Conference, Air & Waste Management Association*. Kansas City, MO.

Pascoe, GA and G. Linder. **2000.** Metals bioavailability as a determining factor in Natural Remediation at Milltown Reservoir Wetlands in Western Montana. In: *Natural Remediation of Environmental Contaminants: Its Role in Ecological Risk Assessment and Risk Management*. (Recipient of the STC Merit Award). M. Swindoll, R.G. Stahl, and S. Ells, eds. Society of Environmental Toxicology and Chemistry, Pensacola, FL.

Linder G., G.A. Pascoe, and J. Dalsoglio. **1999.** Case Study: An ecological risk assessment for the wetlands at Milltown Reservoir, Missoula, Montana. In: *Ecotoxicology and Risk Assessment for Wetlands*. (Recipient of the STC Excellence Award). Lewis, M.A., F.L. Mayer, R.L. Powell, M.K. Nelson, S.J. Klaine, M.G. Henry, and G.W. Dickson, eds. SETAC Pellston Workshop, 1995, Fairmont Hot Springs, Anaconda, MT. SETAC Press, Pensacola Florida.

Kelsch, T., R.L. Powell, K.R. Dixon, A. Fairbrother, J.C. Helgen, S.J. Klaine, F.L. Mayer, G.A. Pascoe, J.L. Shaw, and R.F Theriot. **1999.** Regulatory issues and risk assessment. In: *Ecotoxicology and Risk Assessment for Wetlands*. (Recipient of the STC Excellence Award). Lewis, M.A., F.L. Mayer, R.L. Powell, M.K. Nelson, S.J. Klaine, M.G. Henry, and G.W. Dickson, eds. SETAC Pellston Workshop, 1995, Fairmont Hot Springs, Anaconda, MT. SETAC Press, Pensacola Florida.

Pascoe, G.A., M.J. Riley, T.A. Floyd, and C.L. Gould **1998.** Use of a risk-based hydrogeologic model to set remedial goals for PCBs, PAHs, and TPH in soils during redevelopment of an industrial site. *Environmental Science and Technology* 32:813-820.

Pascoe, G., G. Hayman, and L. Williams. **1997.** Risk-based monitoring of chemical contaminants in an intertidal seep zone. Abstract and presentation. Society of Environmental Toxicology and Chemistry 18th Annual Meeting, San Francisco, CA.

Vedagiri, U., R. Brewer, G. Pascoe, L. Williams, and R. Hummell. **1997.** Development of an ecological risk-based cleanup approach for TPH-contaminated sites in the arctic. Abstract and presentation. Society of Environmental Toxicology and Chemistry 18th Annual Meeting, San Francisco, CA.

Vedagiri, U., R. Brewer, M. Horrigan, and G. Pascoe. **1997.** A review of available and proposed approaches to ecological risk assessment of TPH chemicals. Abstract and presentation. Society of Environmental Toxicology and Chemistry 18th Annual Meeting, San Francisco, CA.

Linder, G., and G. Pascoe. **1997.** Natural remediation of metals in wetlands: An unintended demonstration at Milltown Reservoir Wetlands, Montana. Abstract. Society of Environmental Toxicology and Chemistry 18th Annual Meeting, San Francisco, CA.

- Pascoe, G.A., R. Blanchet, and G. Linder. **1996**. Food chain analysis of exposure and risks to wildlife at a metals-contaminated wetland. *Archives of Environmental Contamination and Toxicology* 30:306-318.
- Erdal, S, R.A. Hummell, G. A. Pascoe, L.G. Williams, and S.H. Youngren. **1996**. An integrated approach for ecological and human health risk assessment for petroleum-contaminated sites. Abstract. Society for Risk Analysis Annual Meeting, Baltimore, MD.
- Pascoe, G.A. **1995**. *Wetlands ecological risk assessment: Issues and observations*. Invited Plenary Lecture, Pellston Workshop on Ecotoxicology and Risk Assessment of Wetlands. Fairmont, MT.
- Pascoe, G.A. **1995**. Use of multimedia environmental monitoring to enhance the accuracy of risk assessment for incineration facilities. In: *Proceedings of the 1995 International Incineration Conference*, Bellevue, WA. Pp. 679-682. University of California, Irvine.
- Pascoe, G.A., R.J. Blanchet, and S. Minter. **1995**. Baseline results of a biomonitoring program for mercury near a cement plant planning to burn hazardous waste. 95-TA30A.06. In: *Proceedings of the 88th Annual Meeting of the Air and Waste Management Association*, San Antonio, TX.
- Cohen, Y., G.E. Anderson, L.R. Chinkin, G.A. Pascoe, C.E. Schmidt, and A. Winer. **1994**. Valdez air health study, letter to the editor. *Risk Analysis* 14:887-889.
- Pascoe, G.A., and J.A. DalSoglio. **1994**. Planning and implementation of a comprehensive ecological risk assessment at the Milltown Reservoir-Clark Fork River Sediments Superfund Site, MT. *Environmental Toxicology and Chemistry* 13:1943-1956 (Annual Review).
- Linder, G., R. Hazelwood, D. Palawski, M. Bollman, D. Wilborn, J. Malloy, K. DuBois, S. Ott, G.A. Pascoe, and J.A. DalSoglio. **1994**. Ecological assessment for the wetlands at Milltown Reservoir, Missoula, Montana: Characterization of emergent and upland habitats. *Environmental Toxicology and Chemistry* 13:1957-1970 (Annual Review).
- Pascoe, G.A., R.J. Blanchet, G. Linder, W. Brumbaugh, N. Kemble, T. Canfield, C. Ingersoll, and A. Farag. **1994**. Characterization of ecological risks at the Milltown Reservoir-Clark Fork River Sediments Superfund Site, MT. *Environmental Toxicology and Chemistry* 13:2043-2058 (Annual Review).
- Pascoe, G.A. **1994**. Role of an ecological risk assessment in reducing uncertainties and remedial costs at a hazardous waste site. In: *Proceedings of the Cost Efficient Acquisition and Utilization of Data in the Management of Hazardous Waste Sites*. Air and Waste Management Association/Waste Policy Institute, Washington, D.C., pp. 242-251.
- Pascoe, G.A., R.J. Blanchet, and G. Linder. **1994**. Bioavailability of metals to small mammals at a mining waste-contaminated wetland. *Archives of Environmental Contamination and Toxicology* 27:44-50.
- Sherman, J.H., and G.A. Pascoe. **1994**. Results of a site-specific survey of potential arsenic exposures from recreational activities for a small community in the western U.S. Abstract. *Toxicologist* 14(1):155.
- Pascoe, G.A. **1993**. *Arsenic cancer potency: The issue of threshold carcinogenicity*. Presented to the Risk Assessment Network, Environmental Resources Management Group, Boston, MA.
- Pleus, R.C. and G.A. Pascoe. **1993**. Assessing health risks from inhalation and oral exposure to chloroform in water. Abstract. *Experimental Biology* 93.
- Blanchet, R.J. and G.A. Pascoe. **1993**. Health risk assessment and VOC pathway analysis. In: *Assessment and Control of VOC Emissions from Waste Treatment and Disposal Facilities*. T.T. Shen, C.E. Schmidt, and T.R. Card, eds.
- Pascoe, G.A., and R.J. Blanchet. **1993**. Ecological risk assessment of a metals-contaminated wetland: Reducing uncertainty. *Science of the Total Environment, Supplement*:1715-1728.

Pascoe, G.A. **1993**. Wetlands risk assessment. *Environmental Toxicology and Chemistry* 12:2293-2307.

Blanchet, R.J., K. Kelly, G.A. Pascoe, and P.H. Williams. **1993**. Comparative assessment of estimated vs. actual emissions and associated health risks from a modern municipal waste combustor. In: *Proceedings of the 1993 Incineration Conference*.

Linder, G., C. Callahan, and G. Pascoe. **1992**. A strategy for ecological risk assessments for Superfund: Biological methods for evaluating soil contamination. In: *Superfund Risk Assessment in Soil Contamination Studies*. ASTM STP 1158. Eds. K.B. Hoddinott and G.D. Knowles. American Society for Testing and Materials, Philadelphia, PA.

Pascoe, G.A. **1991**. *Risk assessment issues of heavy metals emissions - from an environmental consultant perspective*. American Society of Mechanical Engineers/U.S. EPA Workshop: The Control of Metal Emissions from Waste Combustion Devices. U.S. EPA, Cincinnati, OH. Invited participant.

Pascoe, G.A., G.M. Braun, and G. Bilyard. **1991**. Assessment of the potential for re-exposure of DDT in sediments of the Palos Verdes Shelf (CA). Abstract and presentation. Society of Environmental Toxicology and Chemistry, 12th Annual Meeting. p. 167.

Pesticides of concern in the Puget Sound Basin: A review of contemporary pesticide usage. **1988**. Prepared for U.S. EPA, Region 10, OPS/PSEP, Seattle, WA. Pascoe, G. A., Tetra Tech, Inc.

Health risk assessment of chemical contamination in Puget Sound seafood. **1988**. Prepared for U.S. EPA, Region 10, OPS/PSEP, Seattle, WA. Tetra Tech, Inc.

Pascoe, G.A. **1989**. Puget Sound Water Quality Authority, Pesticides in Puget Sound Workshop, Seattle. Invited.