

## CURRICULUM VITAE

**GARY L. BEACH**  
Principal Consultant  
Beach Environmental, LLC

### **PROFESSIONAL CREDENTIALS:**

Since 1979, professional background and expertise concentrated in the areas of environmental studies, environmental assessments, hydrologic studies, wetland determinations, delineations and permitting, wetland and aquatic restorations, wetland construction and impact mitigation, water supply, water rights and plans for augmentation, water resource management, wastewater, forensic hydrologic studies, western water law, economic and fiscal impact analyses, water and sewer facility construction and maintenance, and total system evaluations and modifications.

Expert testimony on water quality, water supply, environmental and economic impacts provided before both federal and state district courts, Tenth Circuit Court of Appeals, government agencies including U.S. Army Corps of Engineers, U.S. Forest Service, U.S. Environmental Protection Agency, Bureau of Land Management, the U.S. Fish & Wildlife Service, Colorado Water Quality Control Commission, Colorado Division of Parks, Colorado Division of Wildlife, county and local government agencies.

Academic credentials include graduate degrees in engineering and business and post-graduate work in engineering, wetland science and hydrology.

### **CURRENT:**

Scientific analysis of environmental site conditions, wetlands identification, delineation, monitoring, rehabilitation, restoration, construction and banking. Stream and aquatic preservation, stabilization and restoration. Phase I, II and III Environmental Site Assessments, design of Phase III mitigation, remediation, reclamation and restoration plans, environmental improvements and enhancement planning, water resource and water quality evaluations, ground and surface water supply and treatment, natural resource management, economic impact and feasibility studies, water, sewer and shallow utility planning, construction, financing, operation, management, and administration. Pond, reservoir and hydro-power studies. Scientific research, analyses and examinations of water right historic use, transferability, exchange potential, and yield. Work directly with attorneys to analyze water quality, water supply delivery and augmentation requirements. Field investigations, forensic analyses and documentation of historic practices for use in water court proceedings. Certified Environmental Inspector No. 13592, Registered Wetlands Specialist No. 1580.

### **COMMUNITY:**

Past Director and Executive Committee member - Metropolitan Denver Water Authority, Chairman of Water Resources Committee and member of the Legislative Review Committee. Past Director and Executive Committee member - Metropolitan Water Providers. Steering Committee member for Platte and Colorado Rivers Storage Project. Secretary of Budget & Treasury Committee for 12th World Congress of the International Commission on Irrigation & Drainage. Past member Board or Trustees, Colorado Mountain College. Lecturer on water rights and water resources for the University of Colorado and Colorado Mountain College, and water programs sponsored by the American Soil Conservation Service, Natural Resources Conservation Service, League of Women Voters, Northwest Colorado Council of Governments, various professional organizations, local bar associations, contractor groups, Board of Realtors, civic

groups and fellowships.

## **EDUCATION:**

Mr. Beach holds advanced degrees in both business and engineering. He graduated Magna Cum Laude with a Master of Business Administration, and Summa Cum Laude with Master of Science in Environmental Engineering. He has authored more than 300 technical reports and papers, including:

Changing Hydrology of the Kettle-Morain Area of Southern Wisconsin, Undergraduate Project, University of Wisconsin – Madison.

The Value of American Indian Water Resources as an Economic Development Tool, Master Degree Thesis, Master of Business Administration, University of Phoenix.

Water Resource Scarcity & Sustainability, Master Degree Thesis, Master of Environmental Engineering, Madison.

## **PROFESSIONAL SOCIETIES:**

State Association of Wetland Managers, Environmental Assessment Association, Institute for Wetland Science and Public Policy, member, American Water Works Association, American Water Foundation, Rocky Mountain Pollution Control Federation, National Association of Environmental Professionals.

## **REPRESENTATIVE CLIENTS & PROJECTS:**

Beach Environmental has completed more than 500 projects throughout Colorado and southwestern United States. Following are some of the projects undertaken and completed.

**Rocky Mountain Institute.** Completion of comprehensive banking instrument related to the creation of 60 acres of constructed wetlands. Design, plan and supervise construction of grass, willow and forested wetlands to establish wetland mitigation bank. Assist in creating erosion and sedimentation plans to reduce soil transport. Aquatic studies related to the establishment of a cutthroat trout fishery and spawning beds.

**Kipper Adult Fishery Rehabilitation.** Design and construction of improvements to adult trout habitat along banks of Roaring Fork River. Modification of sediment loading, creation of stabilized bank undercuts, modification of pool and riffle sequences, installation of energy dissipaters, and self-cleansing pool syphons.

**Puma Paw Ranch.** Design and construction of venturi sand separator for intake structure to fish rearing ponds. Eliminate short-circuiting of pond circulation to improve nutrient and oxygen content.

**Aspen Music School.** Environmental studies, design and implementation of plan to clean up site contaminated with BTEX. System design included biologic, organic and naturally implemented solutions to reduce and relocate contaminated soils. Determination of wetland impacts and develop mitigation strategy.

**Wetland Restoration.** Identification and restoration of damaged or impacted wetland sites in Aspen, Basalt, Woody Creek, Emma, Carbondale, Glenwood Springs, Marble, Redstone, Snowmass Village, Gypsum, Eagle, Vail, Steamboat, New Castle, Silt, Rifle, Parachute, DeBeque, and numerous remote areas of Colorado.

**Riparian Corridor Studies.** Identification, mapping and protection strategies developed for riparian corridors and riparian areas throughout Pitkin, Eagle and Garfield Counties.

**Aspen Center for Environmental Studies.** Undertake and complete pro bono environmental

studies to preserve and improve lands owned or operated by ACES. Studies include aquatics, wetlands, vegetation, and hydrologic.

**Sportsmen's Wildlife Defense Fund.** Water quality studies and testimony in support of mandamus litigation against the State of Colorado and the United States for violations of Clean Water Act, Pittman-Robertson Act, Dingle-Johnson Act and Colorado environmental laws. Served as lead consultant on all environmental issues and court proceedings.

**Colorado Ski Country USA.** Scientific analysis of the consumptive use and return flow characteristics of artificial snowmaking in Colorado. Fourteen sites across Colorado participated in this study during a three year study period.

**Hydrologic Studies.** Scientific and hydrologic analyses of water rights and water resources associated with more than 300 water supply and water quality projects throughout the western United States have been undertaken and successfully completed. A partial listing of clients is included below:

- .. Bear River Reservoir, Yampa, Colorado
- .. Devil's Thumb Ranch, Frasier, Colorado
- .. Cimarron Ranch, Casa Grande, Arizona
- .. Cibola Valley Irrigation District, Arizona
- .. The Navajo Nation, Window Rock, Arizona
- .. Harquahala Valley Ranch, Arizona
- .. Northern Cheyenne Tribe, Wyoming
- .. Arapahoe & Shoshone Tribes, Wyoming
- .. Tri-County Water Conservancy District, Montrose, Colorado
- .. Rangeview Metropolitan District, Aurora, Colorado
- .. New Jersey Zinc Mine Clean Up, Eagle, Colorado
- .. Placer Enterprises Corp., California
- .. The Colorado Gas - Arkansas River Project, Pueblo, Colorado
- .. Oxidation Systems, Inc., Arcadia, California
- .. Colorado Department of Transportation
- .. Buttermilk Metropolitan District, Colorado

**Environmental Studies.** Numerous environmental site assessments, site audits, environmental baseline studies, wetlands evaluations and delineations, restorations and environmental clean-ups have been completed. A partial listing of clients includes:

- .. DBS Air Charters
- .. Eubank Limestone Plant
- .. Municipal Capital Markets
- .. Norwest Banks
- .. Pitkin County Open Space & Trails
- .. Rocky Mountain Institute
- .. Colorado Department of Transportation
- .. Farnsworth Mining, Inc.
- .. Pitkin County, Colorado
- .. Resolution Trust Corporation
- .. Pitkin County, Colorado
- .. Town of Basalt, Colorado
- .. St. Benedicts Monastery

- .. Tagert Lake Family Trust
- .. Redstone Water & Sanitation District
- .. Snowmass Land Company
- .. Aspen Skiing Company
- .. Crown Mountain Ranch
- .. Harley Davidson
- .. WestStar Bank
- .. Black Diamond Minerals Corporation
- .. ING Financial
- .. Snowmass Monastery
- .. Salvation Ditch Company

**Genesis Water Group.** Provide impact assessments and strategies for completing intrastate transfers of water to meet changing demands for physical water supplies. Over 200 assessments completed for Colorado, New Mexico, Utah, Arizona, Nevada, and California water users and providers.

**Telluride Regional Airport Authority.** Provide hydrologic consultant services for public water supply to support the expansion of the Telluride Regional Airport.

**Town of Telluride.** Evaluation of hydroelectric, mining, irrigation and municipal sources of supply.

**Williams Technology.** Environmental consulting services for pipeline and exploration projects in Southeast Colorado including water resource evaluations, and environmental studies.

**Resolution Trust Corp.** Full range of environmental studies to determine environmental condition of properties taken into receivership by RTC. Assist attorneys in identifying risks and exposure.

**Silver Placer Mining Corp.** Ground and surface water supply and water quality evaluations.

**ARCO Coal Company.** Provide hydrologic analysis for coal mine permitting. Analyze impacts due to ground subsidence on tributaries to the North Fork Gunnison River.

**Black Diamond Minerals.** Wetland delineation and permitting for gas exploration sites in Garfield County.

**TOSCO.** Provide environmental consulting for Colony Oil Shale Project in Battlement Mesa and Parachute, Colorado. Water rights analysis, water supply for man camp, dam and reservoir, water treatment, and site reclamation. Work completed for EXXON, ARCO, and Mobile Oil.

**Town of Basalt.** Completion of consolidation study to determine the costs and benefits associated with consolidating waste water services in the Roaring Fork Valley.

**Parsons Engineering.** Completion of environmental assessment for State Highway 82 Corridor Expansion.

**Private Clients.** Successfully completed more than 500 consulting assignments and projects for

private and public clients related to environmental permitting, consulting, construction, restoration, aquatic studies, et cetera.

**Buttermilk Metro District.** Oversee design and construction of well field and wells, pumping plants, treatment and storage for three subdivisions near Aspen, Colorado.

**Financial/Feasibility/Economic Studies.** Numerous financial, feasibility and economic studies have been completed for private developments, governments and special districts and non profit organizations. A partial listing of clients is available upon request.