

# ***Kyle Hathcote - Environmental Scientist***

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## ***Summary***

Mr. Hathcote is an Environmental Scientist with GBM<sup>c</sup> & Associates and has twelve years experience in the environmental field. He has five years experience in a nationally certified environmental laboratory and has seven years experience as an environmental consultant. His experience includes water quality monitoring, aquatic toxicology and biology, microbiology, ecological watershed field studies, environmental compliance/permitting, project planning and coordination, and data quality analysis and validation.

## ***Education***

1994 BS Biology, Henderson State University

## ***Experience***

### **Ecological & Watershed Field Studies**

Mr. Hathcote has been involved in the planning, coordination, and the implementation of numerous field studies. He has a practical and theoretical knowledge of a variety of laboratory methodologies and uses this knowledge in the planning and coordination of field investigations.

Mr. Hathcote has performed numerous aquatic life assessments to evaluate the conditions of benthic and fish communities in lotic environments. These assessments also include habitat evaluations analyzing both existing and potential instream habitat available for community development. He has performed water quality impact studies above and below potential pollution sources looking at both point and non-point source factors. .

Mr. Hathcote has completed numerous water quality evaluations on small and large watersheds. He has applied his understanding of watershed characteristics and impacts in the classifications of streams using natural channel design methodologies (Rosgen, 1996). He is also assessed watershed storm water runoff evaluations using SCS Curve Number methods and applying different rainfall amounts and intensities.

### **Water Quality Monitoring (Surface & Groundwater) / Hydrology**

Mr. Hathcote is proficient in the collection of, use of, and the analysis of, data generated from various types of water quality monitoring and sampling equipment including: flow meters, pH meters, D.O. meters, conductivity meters, temperature meters, fluorometers, groundwater sampling pumps, dredges, core samplers, secchi disk, horizontal water bottles, various Hach kits, and auto samplers. In addition, he has performed various chemical analyses on wastewater including: Alkalinity titrations, Hardness titrations, Residual Chlorine titrations, and various other wet chemistry tests.

Mr. Hathcote is proficient in the collection procedures from a variety of media including process wastewater, groundwater, storm water, surface water, sediments, soils, sludges, and air.

Mr. Hathcote has been involved in numerous flow studies to determine mean flow and 7Q10 low-flow of streams and rivers. He has, according to the velocity area method, performed hydraulic studies using various techniques. He has measured flow in streams and conducted time of travel studies using fluorescent dye tracers. He has conducted losing stream vs. gaining stream analysis using both instream flow measurements and stream gauging stations. He has analyzed multiple storm water runoff events, both characterizing runoff volumes and loading contributions.

### **Toxicology / Microbiology**

Mr. Hathcote was on staff with the biomonitoring laboratory at American Interplex Corporation. There he performed numerous toxicity tests for National Pollutant Discharge Elimination System (NPDES) compliance. Tests included 24 and 48-hour acute toxicity tests and 7-day chronic toxicity tests, evaluating lethal effects as well as sub-lethal effects. This

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position required proficiency in aquatic toxicology and biology, QA/QC processes, data analysis, data interpretation, and report writing.

Mr. Hathcote has been involved in the planning and development of a water effect ratio (WER) study for copper and a dissolved to total copper study on an industrial effluent. As an aquatic toxicologist, Mr. Hathcote was directly responsible for culturing, maintaining, and keeping close records of fish and aquatic macroinvertebrates.

Mr. Hathcote has had extensive use with microscopes making biological assessments on various kinds of algae, fungus, and external parasites.

Mr. Hathcote has performed various kinds of microbiological test including: fecal coliforms, total coliforms, E. coli, heterotrophic plate counts, and fecal coliform test on soils using the MPN method.

### **Environmental Compliance / Permitting**

Mr. Hathcote has been responsible for preparing numerous NPDES permit applications for permit renewal, and the modification of permits adhering to NPDES guidelines. He has worked with different facilities helping them obtain general permits to discharge. He has been involved in the negotiation of permits with regulatory agencies. He has also participated in projects that involved NPDES permitting issues such as use attainability analysis, site specific water quality standards modifications, wasteload allocation studies, and hydrograph controlled release investigations.

Mr. Hathcote has worked extensively with NPDES storm water permitting issues. He has performed storm water site assessments and prepared site drainage maps to meet requirements for NPDES storm water regulations. He has prepared and updated Pollution Prevention Plans for review and certification as required.

### **Project Planning & Coordination**

Mr. Hathcote has been instrumental in design and implementation of multiple studies that had mandatory requirements for submittal of sampling and analysis plans and/or study work plans. He has involved from the conception through completions of multiple studies, which included writing the study plan, coordinating and implementing the most effective and efficient means to complete studies, and finalizing studies with documentation and report writing.

### **Data Quality Analysis and Validation**

Mr. Hathcote has extensive hands on application of QA/QC protocols for the evaluation of collection, handling, and delivery of field samples. As well as, the evaluation of laboratory QA/QC processes for analyzing and validating data. He coordinated and conducted a quality analysis and validation of data collected over his 7-year period as a consultant. This data analysis and validation included the review of field and survey notes for completeness and consistency, as well as validate field control samples for adherence to appropriate protocols. Additionally; he was responsible for data analysis and validation during the 5-year period while working in the environmental laboratory. This data analysis and validation included review of laboratory data and verifying results based on laboratory QA/QC protocols, including surrogate recoveries, spikes, replicates, and blanks

## ***Professional Affiliations and Licenses***

American Fisheries Society