



PROPOSAL TEAM RESUMES

## **Charles R. Bristol, P.E., BCEE**

Mr. Bristol has over 35 years of experience in the field of environmental engineering with an emphasis on water resources and technology integration. He has also been active in a variety of technical programs and with relevant engineering societies. This involvement has focused on water resources engineering analyses in conjunction with GIS and data management technologies. Activities have included technical review groups, peer review of technical papers (ASCE), review of a book on utility GIS (WEF), evaluation of hydrology and hydraulic software integration with GIS and mapping (U of Texas, Dodson, BOSS), RF2 / RF3 Review Committee (EPA), and many other related topics.

In addition, Mr. Bristol has been a member of numerous technical review committee for projects throughout the world especially those involving water resources engineering, GIS and data management implementations.

### **(MAY 2003 to PRESENT)**

**Camp Dresser and McKee, Inc.** – Mr. Bristol worked with CDM from June 2007 to December 2007 to prepare a winning technical proposal and develop the work scope, budgets and schedule for a large infrastructure project for the Hampton Roads Sanitation District (HRSD) in Virginia Beach, VA. In addition to a technical scope addressing hydraulic modeling, GIS, database management, integration with SCADA and other monitoring programs, the work effort also encompassed EPA and VaDEQ consent order requirements.

**Macomb County Health Department** – Mr. Bristol is the lead designer for a web based water quality data application that will hold information collected throughout the Huron to Erie corridor in Southeast Michigan. The web site provides for a simple approach to storing partner data and can be accessed by the general public using maps or simple query tools. Charts of the data can be shown online while exports to EXCEL can be requested.

**City of Rochester Hills** – Under contract to the asset management software vendor - gbaMS, Mr. Bristol is assisting in the design and implementation of the Master Series software products for the City of Rochester Hills. His work addressed the category setups, work order management, and integration of business processes.

**City of Rochester Hills** – Mr. Bristol worked with PlanGraphics, Inc. to develop a document management system design for the City. The project included the development of business process for each of the Departments within the city including Engineering, Planning, etc.

**CompuWare Corporation** – In 2005 and 2006, Mr. Bristol was retained by CompuWare Corporation to design and conduct several training sessions for Detroit Water and Sewerage Department personnel. These sessions are focused on using GIS technologies in their business processes.

**Greater Detroit American Heritage River Initiative** – Mr. Bristol provided technical support to the Metropolitan Affairs Coalition's Greater Detroit American Heritage River Initiative. This

support is focused on working with local communities along the Detroit River to assist them in their environmental projects.

**Implementation Plan for City of Pontiac DPW&U – Engineering Division.** For the Department of Public Works and Utilities, Mr. Bristol developed an Implementation Plan for migrating the current engineering division from their current operations to operations utilizing GIS and CMMS technologies.

**Technology Plan for City of Pontiac DPW&U.** Mr. Bristol completed another project with the Department of Public Works and Utilities in the City of Pontiac that developed a long range technology plan. The DPW&U Technology Plan defined a variety of activities that will be implemented over the next three years. These activities are designed to bring the DPW&U divisions the latest technologies along with increased internal staffing support.

**GIS Strategic Plan for City of Rochester Hills.** Mr. Bristol assisted PlanGraphics, a global GIS planning consulting firm in their GIS planning project for the City of Rochester Hills, Michigan.

### **CAMP DRESSER AND MCKEE (1975 to 2003)**

#### **Technical Manager, Rouge River Wet Weather Demonstration Project, Wayne County, MI**

- From 1993 to 1999, Mr. Bristol was responsible for the technical operations of the Rouge Program Office that included over 30 technical and administrative staff all working collectively on over 60 detailed work plans totaling over \$50 million in budgets. The project integrated technical approaches to GIS, database management, hydrologic and hydraulic modeling, nonpoint source controls, instream water quality monitoring, and public involvement.

**Senior Advisor, Wayne County GIS Management Unit, Wayne County, MI.** Provided senior program management guidance to the newly created GIS Management Unit of Wayne County. In this role, Mr. Bristol created tools and procedures for technical staff to use in managing multi-million dollar projects related to parcel conversion, base map development, and hydrography.

**Project Director, Watershed Management Division, City of Austin, TX.** To integrate a variety of watershed evaluation parameters, including flood levels, the state of the art technologies were reviewed. This review provided the City with GIS and mapping alternatives for use with HEC-RAS, the primary tool in the watershed management program.

#### **Project Director, Several Communities and Counties.**

- Several water distribution master plans for communities using an integrated GIS and water distribution modeling platform. These projects also digitized and mapped the water distribution network.
- Storm water master plan that required the hydrologic and hydraulic analysis of an urban storm drainage network and presented recommended improvements to the system to mitigate flooding issues. Information was provided to the USACOE for floodplain profile updates.

- Completed several sanitary sewer facilities plans incorporating database management, modeling and mapping to provide communities plans for system improvements.

**Technical Director, Environmental Planning and Evaluation Department - Metropolitan Council of Environmental Services, St Paul, Minnesota.** Mr. Bristol was technical director for the design of an environmental information management system (EIMS) for the EPED - MCES, St Paul, Minnesota. The EIMS design utilized data warehouse techniques based upon data marts or islands developed by sections throughout the agency.

**Technical GIS Manager, Wayne County Department of Airports, Detroit Metropolitan Airport.** As Technical GIS Manager for a three phase approach being taken at the airport to implement a enterprise GIS / ITS, Mr. Bristol was responsible for all tasks during Phase A which included review of the current computer infrastructure, analysis of existing datasets; analysis of commercial off the shelf software applicability; and the initial development of a GIS prototype application.

**GIS/Data Team Leader, Detroit Water and Sewerage Department, Michigan.** As the GIS/Data Team Leader for two comprehensive master plans – water and wastewater – Mr. Bristol established a data warehouse using GeoMedia to support mapping, modeling and master planning. The data warehouse houses a myriad of data sets from MicroStation DGN files to Excel to Access to Arc/Info and ArcView.

**Technical Director, Drainage Utility Department, City of Austin, Texas.** Mr. Bristol was the technical director for a GIS and data management design, to support a centralized information management approach for the department including on-line FEMA LOMR's. Subsequently, he assisted in developing an overall Master Plan in which the centralized database (ORACLE) and appropriate applications were designed and developed. One active project is the development of a web-based floodplain-parcel management application.

**Technical Director, Department of Public Works in Nashville, Tennessee.** Mr. Bristol was technical director for a stormwater NPDES project where, as part of the technical support to the city in permit reporting, a data conversion pilot project for the stormwater infrastructure was completed. The pilot project is addressing a variety of technical approaches including manual field inventories, GPS technologies and Orthophotography.

**Technical Director, City of Flint, Michigan.** Mr. Bristol was technical director for the mapping of the storm sewer and sanitary sewer network for Flint, Michigan, a city of 140,000 people where over 9,000 plan and profile sewer drawings were converted into a digital map. This project developed a set of 1"-100' scale maps, along with a database of attributes.

**Team Leader, EPE Medellin, Colombia.** As part of an international team, Mr. Bristol served on the design of the sewer and water system components of the citywide infrastructure management system utilizing Intergraph's FRAMME and MGE in Medellin, Colombia, South America. The project required an initial needs assessment and system design. The water and sewer system design included feature definitions, placement criteria and constraints, and an attribute database structure. Subsequent activities included the pilot conversion project to demonstrate the full complement of system functionality.

**Technical Leader, Lower Colorado Water Authority, Austin, TX.** Completed the design and development of a water demand forecasting model using a database management system on a microcomputer (IWR-MAIN).

**Project Manager, Washington Suburban Sanitary System.** Designed and developed a sewer system analysis and planning model, a hydraulic analysis model and a hydrograph decomposition algorithm on an IBM 4341 using FORTRAN and COBOL interfaced with the IDMS data base management system.

**Project engineer, Southeast Michigan Council of Governments (SEMCOG).** Designed and developed a continuous storm runoff model (SEMSTORM) to analyze the quantity and quality of runoff in urban/suburban areas.

**Project Manager, Federal Emergency Management Agency, Washington, D.C.** Calibrated and implemented a coastal hydrodynamic study of tidal surges utilizing a state-of-the-art coastal surge model along the coast of Georgia and Florida. Provided technical support to community presentations and to FIRM mapping contractors.

**Project Manager, USACE Detroit District.** Project Manager for the flood damage assessment and cost benefit analysis study for an 80,000 structure study area using HEC's SID and EAD programs.

**Project engineer, U.S. Army Corps of Engineers, Washington, D.C.**

- Designed, developed, and applied a link-node routing model to the North Branch Potomac River to examine acid mine drainage effect.
- Using water conservation scenarios in conjunction with a water demand model of the area, evaluated implementation costs and the effects of water conservation and impacts of water supply deficits in the metropolitan Washington, D.C. area.

**Task Leader, Federal Highway Administration, Washington, D.C.** Designed and developed a cost estimation program to calculate costs of proposed highway drainage system.

## **EDUCATION**

M.S.—Sanitary Engineering, Michigan State University, 1975

B.S.—Civil Engineering, Michigan State University, 1974

## **REGISTRATION**

Professional Engineer: Virginia (1982), Michigan (1980)

American Academy of Environmental Engineers (1985)

**Robert Burns- Project Coordinator  
Friends of the Detroit River  
Detroit Riverkeeper**

Education: Bachelors of Arts-Kalamazoo College 1977-1981  
Business Administration Masters program- University of Michigan 1985-1987

**Field Work Experience-**

Dunbar and Sullivan Dredging Co. 1981-1990

Started working in the Rouge and Detroit River on a number of large navigation maintenance dredging projects, working as a member of the project survey team.

Advanced to project management and worked on several large construction projects in the Detroit River and Lake Erie. One project involved a large shoreline reconstruction and stabilization project at a power plant outside of Ashtabula, Ohio. This project entailed the stabilization of a section of shoreline bank 2500' in length and 30' in height. Overseeing the completion of the project included coordinating the use of heavy equipment, in water excavation, installation of 1000's of square feet of geofabric and 1000's of tons of aggregate from gravel to 3 ton boulders. A second large project involved the construction of 3 light house structures, one in the upper Detroit River and two in Western Lake Erie. This project entailed the placement of 75' sheet piling, driven in to form 36' diameter circular cells, in which was placed a large steel flat topped cone to support the light tower. This project involved organizing the mobilization and use of tugboats, construction and transport barges, cranes and 100's of tons of concrete and aggregate, that all had to be transported several mile out to each site.

ZAP Marine Construction- 1990-1995

For this marine construction company, operating in the lower Detroit River area, I worked as a project manager overseeing many residential and small commercial dredging and construction jobs. One large restoration project, adjacent to the Pt. Mouillee State Game Area, required overseeing the grading, stabilization and replanting of over 2000' feet of creek bank along the Huron River.

Friends of the Detroit River- 2000- Present

Over the past 9 years with the Friends of the Detroit River, I have overseen the field execution of several grant projects funded by the EPA, MDEQ and private foundations. These projects included observing and mapping all of the accessible discharge outfalls along the Detroit River, overseeing field observations and chemical monitoring of suspected non-point pollution sources. Overseeing a volunteer based marine pollution reporting program. And most recently, managing a 1200', 3 acre creek bank stabilization and habitat restoration site project on the Frank and Poet Creek, in the City of Trenton, Michigan.

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## **EDUCATION**

A.A. Henry Ford Community College (Criminal Justice) 1994 – Summa Cum Laude  
B.G.S. University of Michigan-Dearborn (Environmental Science, Environmental Studies and Anthropology) 1996 – With Distinction  
M.S. University of Michigan-Dearborn (Environmental Science, Rackham College of Arts, Sciences and Letters)

## **POSITIONS**

Sea Grant Extension Educator – Southeast Michigan, Michigan State University, (2006-present);  
Environmental Planner – DTE Energy, (2000-06); Planner – K Mart Resource Center (1997-2000);  
Naturalist – University of Michigan-Dearborn (1993-97)

## **PROFESSIONAL AFFILIATIONS**

MI Statewide Public Advisory Council for Remedial Action Plans, Vice Chair  
MSU Community & Natural Resources Development Association, Vice Chair  
Detroit River RAP Fish & Wildlife Technical Committee, Member  
Detroit River Fish Consumption Advisory Integrated Assessment, Advisor  
Downriver Linked Greenways Initiative, Co-Chair  
International Wildlife Refuge Alliance, Board Member and Co-Founder  
Michigan Recreation & Park Association  
Michigan Trails & Greenways Alliance

## **PUBLICATIONS**

- Co-authored signage and brochures for communicating the benefits and risks of consuming fish in the Detroit River and River Raisin Areas of Concern, 2009
- Bohling, Mary, et al. Byways to Flyways Bird Driving Tour, 2007
- Bohling, Mary et al. Detroit Heritage River Water Trail Vision, 2005
- Downriver Linked Greenways Wayside Companion National Parks Service, 2004
- Bohling, Mary E. Contributing Editor. *Explore Our Natural World: a biodiversity atlas of the Lake Huron to Lake Erie Corridor*, 2002

## **AWARDS**

Michigan Association of Outdoor Educators Certificate of Appreciation, 2009  
Community Foundation For Southeast Michigan Exemplary Partner Award, 2009  
Community & Natural Resources Development Association Innovative Program Award, 2008  
News-Herald Newspaper's Top 20 Under 40 Downriver, 2005  
Michigan Recreation & Park Association's Community Service Award, 2005  
Michigan Recreation & Park Association's Innovative Park Resource Award, 2005

**John A. Covert**  
**Friends of the Detroit River**  
**Secretary**

**Education**

United States Navy, Aviation Antisubmarine Warfare Technician First Class (E-6) 1961-1968

Bachelor of Science—Biology—Secondary Teaching Certificate Michigan State University 1968

Master of Science—Biology The University of Michigan 1972

**Career**

Livonia (Michigan) Public Schools: Instructor of Biology, Advance Placement Biology, Electricity, and Electronics, High School and Junior High School department chairman, and track coach. 1968-1998.

For several years following retirement from Livonia Public Schools, worked as an educational consultant for Braun Consulting in Salem Michigan evaluating curricular materials.

**Volunteer**

Board of the Holliday Nature Preserve Association since 1988,

On the Livonia (MI) Tree City Committee since 1999.

Volunteer pilot for the Experimental Aircraft Association Young Eagles Program at Sanderson Airport in Sault Michigan introducing over thirty youth to aviation.

Board of the Friends of the Detroit River since 1999 serving in various capacities including Vice Chairman, Education Chairman, assistant and pilot for the Riverkeeper, and Secretary since 2005.

Conduct annual educational programs for fifth graders at the Rouge Water Festival (Uof M Dearborn), Rouge Water Festival (Cranbrook), and the Clinton River Water Festival (Oakland U).

**Dean Conrad Tuomari**  
Wayne County Department of Public Services  
Water Quality Management Division  
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**Objective:**

To use my Environmental Science background in an organization in an organization offering a challenge and career advancement potential intellectually and financially.

**Experience:**

**12/1994 - Present      Wayne County Department of      Detroit Michigan  
Environment (Public Services October 2009)**

*Department Manager IV-Water Quality*

Initiated Wayne County's County's Illicit Discharge Elimination Program (IDEP) In 1987, one of the earliest in the nation. Currently Program Manager for the County's IDEP program a requirement of the NPDES stormwater permit. Created an IDEP Training Program, how to find illicit discharges/connections. The Michigan Department of Environmental Quality, City of Duluth, MN and Lake County (IL), Washtenaw County (MI) Drain Commissioner, and Eastern Michigan University contracted with the County to present our IDEP Training Program. The program has trained over 1,800 people nationwide. Part of the County's management team for the Rouge River Wet Weather Demonstration Project. Review work plans submitted by consultants to assure consistency with the Project's and County's goals. Participated in technical meetings with EPA, State' communities and consultants. Additional duties include, perform technical investigation, represent the Department at local, County, regional of State meetings, draft written guidelines for monitoring water resources, train staff involved in monitoring activities including defining the scope and nature of activities assignments, data review and reporting. Write grant applications in response to Request for Proposals. Negotiate manage and report on grants that the County received. Submit technical papers to national conferences, create presentation and present if selected. Team member of Departmental committee that planned, coordinate and present the first In-Service Training session for Department employees. Registered Sanitarian with the State of Michigan,

**5/1987 - 12/1994      Wayne County Department of Public      Detroit Michigan  
Health-Environmental Health Division**

*Department Manager 1&2-Water Quality/ Environmental Specialist*

Provide specialized response to water quality problems through assessment of surface water and groundwater and recommendation of action to be take to improve water quality. Duties included: develop and maintain a water resource knowledge base, propose specific issue response for the department and the

County, perform technical investigations; represent the Department at local, County, regional or State meetings; draft written guidelines for monitoring water resources; coaching staff involved in monitoring activities including defining the scope and nature o activities, staff assignments, data review and reporting, Assisted in developing program budget and supervised a staff of eight. Accomplishments: Member of the Rouge Rive Citizen Advisory Council, Chaired the Pollution Prevention Subcommittee, and the Detroit River Binational Public Advisory Committee.

**10/1985 - 5/1987      Wayne County Department of Public      Detroit Michigan  
Health-Environmental Health Division**

*Public Health Sanitarian*

Initiated the County's State funded Groundwater Protection Program. Enforced selected portions of Michigan's Water Resources Commission Act. This included the review of Pollution Incident Prevention Plans (PIPPs), site inspection and the determination of additional facilities that must be come in compliance with the law

**1/1980 – 10/1985      Wayne County Department of Public      Detroit Michigan  
Health-Environmental Health Division**

*Public Health Sanitarian*

Wayne County Solid Waste Program responsible for enforcing Michigan's Solid Waste Act within Wayne County. This involved the inspection of licensed facilities and the investigation of illegal disposal activities. Other duties included the criminal prosecution of violators, ground water sample collection/data analysis and monitoring construction activities at licensed facilities.

**4/1979 - 11/1979      University of Michigan-      Ann Arbor Michigan  
School of Public Health**

*Student Assistant*

Assisted in a water quality-monitoring project for Ford and Bellville Lakes in southeastern Michigan in dry and wet weather conditions. Duties included: field sampling of water bodies according to project protocols, maintains field equipment, and assist with final report.

**Education:**

University of Michigan Ann Arbor, Michigan US Master's Degree – August 1979 Major: Water Resource Science	University of Michigan-Dearborn Dearborn, Michigan US Bachelor's Degree – May 1976 Major: Environmental Science
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**Affiliations:** Michigan Water Environment Association

Water Environment Federation-Member

Michigan Water Environment Association-Member

**Publications:**

Presentation: "Rouge River Watershed Illicit Sewer Connection Detection Program: A GIS Application", by Dean Tuomari, John Foley and Ellen Taylor, 13 pages, at ESRI Annual Conference, Palm Springs, CA., May 1995.

Water Environment Federation- Technical Conferences:

Paper: "Identification of Illicit Connections in Storm Sewers: An Innovative Approach Using Stable Isotopes", by Suresh K. Sangal, Pradeep K. Aggarwal, and Dean Tuomari. Dallas, TX, October 1996

Paper & Presentation: "U.S. Environmental Protection Agency MS4 Phase II Stormwater Permit Compliance: Effective Field Staff training for Illicit Discharge Elimination Plan Investigation-Workshop", Los Angeles, CA, October 2003.

Paper: "DYE DON'T LIE..." WAYNE COUNTY'S ILLICIT CONNECTION DETECTION PROGRAM WORKS

Authors: Tuomari, Dean C.; Thompson, Susan

Source: Proceedings of the Water Environment Federation, Watershed 2004 , pp. 1833-1852(20)

Publisher: Water Environment Federation

Paper: "SHERLOCKS OF STORMWATER" EFFECTIVE INVESTIGATION TECHNIQUES FOR ILLICIT CONNECTION AND DISCHARGE DETECTION "

Authors: Tuomari, Dean C.; Thompson, Susan

Source: Proceedings of the Water Environment Federation, WEFTEC 2004: Session 1 through Session 10 , pp. 1252-1259(8)

Publisher: Water Environment Federation

Also published in Water Environment Federation Operations Forum, 17(5):49-52.

Water Environment Federation-Speciality Conferences

Collection Systems

Paper and Presentation: "From Theory to Implementation-Finding Illicit Connections" by Barry Johnson and Dean Tuomari, 10 pgs, at WEF Specialty Conference, Denver. May 1998.

Paper and Presentation: "The Do's and Don'ts on Implementing a Successful Illicit Connection Program" by Dean Tuomari, 13 pgs, at WEF Specialty Conference, Salt Lake City, UT, August 1999.

Others:

Paper: "Successes of the Wayne County's IDEP Training Program", by Dean Tuomari and Susan Thompson, 11 pages, at StormCon 2002 - Marco Island

Presentation on stormwater pollution, Sierra Club Town Hall Meeting, Detroit, MI, Spring 2008

# Suzan Campbell

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## Relevant Experience

- 2/05 – present **Conservation Associate, Michigan Natural Features Inventory**
- Conduct field work, literature review on invasive aquatic plants as part of a broader project - “An Early Detection Monitoring Protocol for Wetland Plant Invaders in Saginaw Bay,” for the Michigan Department of Environmental Quality; responsible for the production of a field guide to invasive aquatic plants.
  - Produce instructional materials and participate in a wide variety of training programs on rare species, Michigan’s natural communities and invasive species for a range of audiences including agency personnel, private landowners and adult stewardship volunteers.
  - Provided plant inventories and critical review for the development of a rapid assessment method for wetlands for the Michigan Department of Environmental Quality.
  - Updated the Michigan Department of Transportation’s Redbook Protection Manuals, which provide guidance for protecting rare plants, animals and natural communities in the MDOT right-of-way.
- 2008 – present **Vice-Chair, Detroit River Area of Concern – Public Advisory Council**
- 2006 – present **Co-Chair, Lakeplain Cluster of The Stewardship Network**
- 2006 – present **Co-Chair, Fish & Wildlife Habitat Committee, Detroit River AOC-PAC**
- 2003 – 2/05 **Research Associate, Great Lakes Commission, Ann Arbor, MI**
- Provided support on activities related to the Lake St. Clair Coastal Habitat Restoration and Conservation Project, a binational initiative funded by NOAA. Duties included researching and writing portions of the Habitat Assessment (Major Ecosystems and Habitat Types, System Stressors and Specific Responses), copy-editing and assisting with web page development using Macromedia Contribute.
- 1996 - 2003 **Naturalist, Belle Isle Nature Center, Detroit Recreation Department**
- Supervised propagation of native plants for use in restoration projects, using locally collected seed. Provided technical expertise and plants for schoolyard habitats and public gardens.
  - Wrote and administered grants for plant inventories, habitat restoration and interpretive exhibits.

## Education

- University of Michigan, SNRE – graduate coursework in Landscape Architecture and Natural Resources  
Ford Fellowship – 2001/2002, Departmental Fellowship – 2002/2003.  
Master’s Project: “Conservation Strategies for Walpole Island Landholders.”
- Wayne State University, coursework in Computer Science and Biochemistry, 1992 - 1995.
- Michigan State University, B.Sc., Zoology, 1985, graduate coursework in Zoology, 1985 & 1986.

## Relevant Reports and Publications

Higman, Campbell, Borland and Schillo, 2010. *A Field Identification Guide to Invasive Plants in Michigan’s Natural Communities: a resource for public land managers, land stewards and volunteers engaged in conserving & restoring Michigan’s native plant & animal communities.* Michigan Natural Features Inventory, Michigan State University Extension, Lansing, MI.

Higman and Campbell, 2009. *Meeting the Challenge of Invasive Plants: A Framework for Action.* Produced for Michigan Department of Natural Resources-Wildlife Division. Lansing, MI.

Campbell, Suzan, 2008. *Restoration Criteria Review for the Detroit River Area of Concern.* Prepared for the Friends of the Detroit River.

Contributor: Great Lakes Commission, 2005. *Lake St. Clair Coastal Habitat Assessment: with recommendations for conservation and restoration planning.* Produced as part of a two-year cooperative effort (2002-2004) among the Great Lakes Commission, the U.S. National Oceanic and Atmospheric Administration and the Michigan Natural Features Inventory with support from NOAA’s Coastal Services Center under its Landscape Characterization and Restoration program.

## PAT MCCULLOUGH

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### SUMMARY

Strong leader with experience in the public and private sector. Excellent analytical, problem solving, interpersonal, and communication skills, with management experience.

### EXPERIENCE

UNITED STATES STEEL CORPORATION, Ecorse MI 2007 – Present

Producer of steel products for the domestic and international markets.

#### **Environmental Compliance Manager**

- Served as Compliance Manager for both Steel Production and Utilities Department
- Worked with NPDES, Title V, and DWSD permits as well as Administrative Consent Orders to determine compliance status and actions needed for compliance.
- Scheduled air emissions testing and observations as well as water sampling and observations.
- Worked to comply with MAERS, SARA, PIPP, SWPP, SPCC, NESHAP, and MACT laws and regulations
- Worked closely with State(MDEQ) and Federal(EPA) regulators as well as production unit managers and employees to drive environmental focus.
- Started wildlife habitat program that resulted in US Steel achieving the Wildlife Habitat Council's "Wildlife at Work" certification for the first time in 2008.
- Interacted with local Environmental Groups and Commissions as the company representative.

MIDWEST ANALYTICAL SERVICES, Ferndale MI 2005 – 2007

Environmental consultants responsible for sampling and analysis of air, liquids, and solids.

#### **Customer Service Manager**

- Read permits and determined analyte to be sampled and tested for.
- Scheduled sampling dates and times with clients.
- Scheduled field service personnel to perform sampling and maintain equipment.
- Received and logged in samples assigning the appropriate analyses.
- Coordinated efforts with laboratory managers to make sure analysis would be completed according to customer's requests.
- Oversaw station safety plan and made sure that all OSHA guidelines were followed.
- Responsible for invoicing and accounts receivable.

UNITED STATES FISH AND WILDLIFE SERVICE, Ludington, MI 2004 – 2005

Federal agency responsible for managing country's fish and wildlife.

#### **Biological Science Technician – Fisheries**

- Performed stream discharge measurements.
- Analyzed water samples for pH, dissolved oxygen, and alkalinity.
- Analyzed water samples using HPLC and spectrophotometer.
- Applied various chemical compounds to streams in order to control sea lamprey populations.

HOME APPLIANCE MART, Ann Arbor, MI 2001 – 2005

Large appliance store with 100,000 sq. ft. warehouse and over \$10 million in inventory.

#### **Night Manager – Warehouse**

- Hired in as a member of the warehouse crew and was promoted to night manager after a year and a half of excellent performance reviews.
- Supervised a warehouse crew and delivery crew.
- Managed inventory through shipping and receiving of product in computer system.
- Contacted customers and arranged deliveries.
- Created invoices.

### EDUCATION

**B.S.**, Natural Resources, UNIVERSITY OF MICHIGAN, Ann Arbor, MI

### COMPUTER SKILLS

Proficient in all MS Office Applications, Tyler Business Systems, Oracle Database, Acctvantage, Sample Master, and Internet research.

### OTHER SKILLS

- Hazardous Waste Management (EPA RCRA).
- DOT Transportation of Hazardous Materials.
- OSHA 24-Hour HAZWOPER.
- EPA Method 9 VEO Certified.

**Matthew T. Shackelford**  
**Environmental Management and Resources**  
**Land and Water Management Division**  
**DTE Energy Corporate Service LLC**  
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## Occupation

Currently I work for DTE Energy Corporate Services LLC as a Staff Biologist, working on projects related to the Clean Water Act, invasive species, threatened and endangered species, wildlife habitat management and restoration, and wetland management.

## Education

**Bachelor of Science, 2002**  
University of Michigan-Dearborn, Dearborn, MI  
Major: Environmental Biology/Aquatic Ecology

## Special Course Work

Relevant course work includes Ecology and Freshwater Ecology, Field Biology, Environmental Management, Environmental Science and Environmental Studies as well as Botany, Plant Physiology, and all other biological degree related course work.

## Memberships

Currently serve on the Board of Friends of the Detroit River and Chair the Environment and Conservation Committee. I am a member of The Nature Conservancy, and participate in the Nature Conservancy's Migratory Bird Stopover Site work group. I am a member of the International Wildlife Refuge Alliance Stewardship and Education Committee. I represent DTE Energy on the Detroit River and River Raisin Area of Concern's Remedial Action Plan committees.

## Work Experience

**Environmental Engineering Technician**, Detroit Edison-Monroe Power Plant, Monroe MI, 2001

**Laboratory Technician**, Detroit Edison-Warren Service Center, Detroit MI, 1999-2001

**Laboratory Assistant**, University of Michigan-Dearborn, Dearborn MI 1997-1999  
Conducted and coordinated laboratory and field studies for Environmental Science, Ecology, and Freshwater Ecology classes.

**Research Assistant**, Detroit Edison-Environmental Management and Resources, Detroit MI, 1996  
Completed field sample collections and laboratory processing for Mayfly emergence study.

**Interpretive Naturalist**, University of Michigan-Dearborn, Dearborn MI 1996-1998  
Responsibilities included educating public groups on topics such as natural history, freshwater ecology and forest ecology.

## Research Experience

**Distribution and Abundance of Native Mussels (Bivalvia: Unionidae) in a Thermal Discharge in Western Lake Erie.** Ongoing study to evaluate distribution and abundance of Unionids in a power plant discharge in Western Lake Erie, Monroe County Michigan.

**Distribution and Abundance of Macroinvertebrate Communities in the Sturgeon River, MI**  
Conducted field research fall through winter 1998-1999 to determine winter migration habits of *Ephemerella deficiens*, and macroinvertebrate community structure in the headwaters of the Sturgeon River, Wolverine, MI.

**Emergence Patterns of *Hexagenia rigida*, and *H. limbata* in Western Basin of Lake Erie**  
Conducted field sampling of emerging mayflies and coordinated with other physical and chemical data parameters to determine emergence patterns in burrowing mayflies *H. rigida*, and *H. limbata*.

**Distribution and Abundance of *Fuscinia flava* in the Raisin River, MI**  
Conducted research on distribution and abundance of fresh water mussels, with focus on *Fuscinia flava*, in the Raisin River near Manchester, MI. Summer 1997.  
Presented finding to the Michigan Academy of Sciences Conference, 1999.