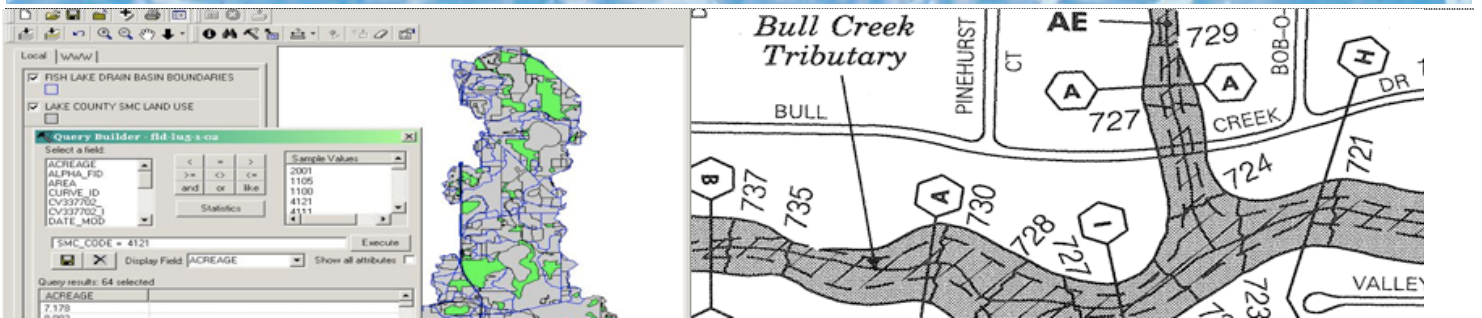
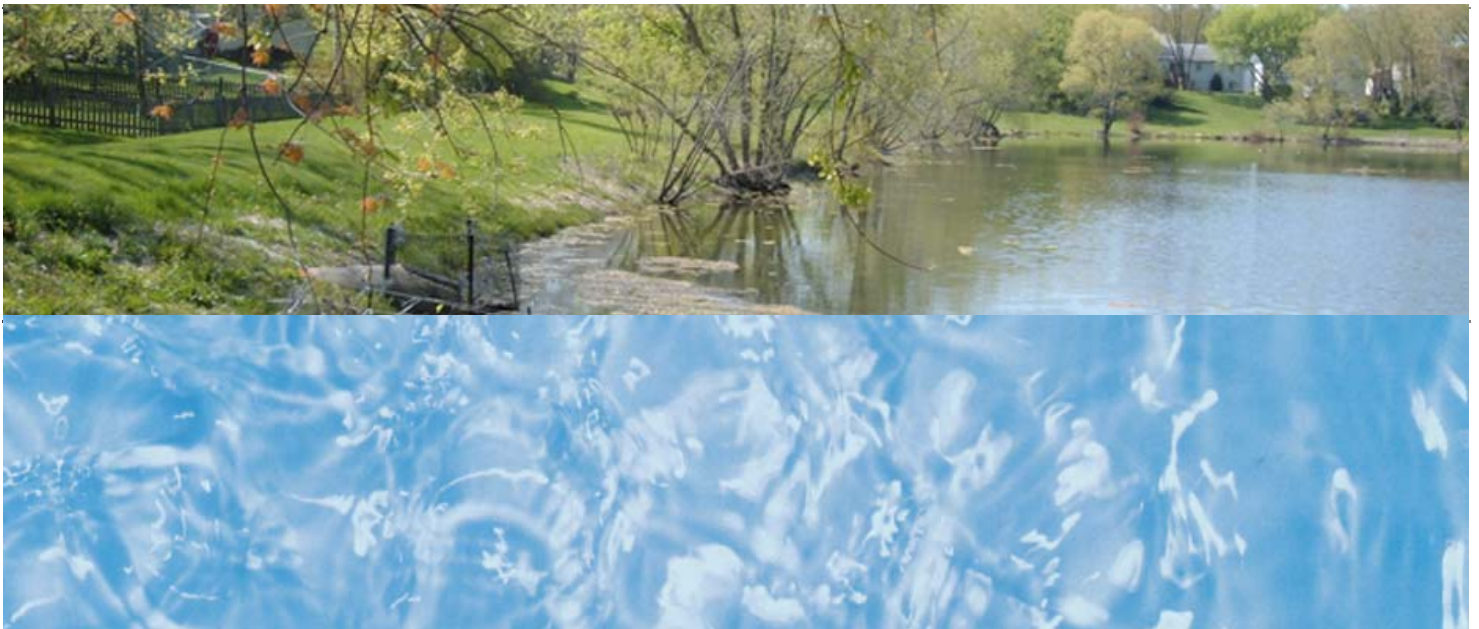


FluidClarity

Statement of Qualifications March 2009



FluidClarity Ltd.
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Please note: This Statement of Qualifications is a general overview document. If you are in need of specific information, case studies, resumes, or other information, please contact Marion Kessy.



Statement of Qualifications

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Statement of Qualifications

Company Overview

We are all about water.

Fresh water is a diminishing resource that is managed by governmental agencies but resides and is used by communities within a watershed. FluidClarity uses its skills and ideals to balance seemingly complex and contradictory priorities with the goal of a sustainable watershed.

FluidClarity focuses on technical, governmental and community issues around watershed rehabilitation with water resources engineering, and related disciplines. FluidClarity personnel examine client issues on the ground, solve problems locally and are available for quick-response and fast-turnaround support.

We bring Specific Value

FluidClarity's goal is to help our clients develop innovative and environmentally sound solutions. Our technical consulting services help our clients to articulate and bridge business and community problems, leading to greater organizational effectiveness and improved bottom-line results.

We have Clear Expertise

FluidClarity maintains state-of-the-art expertise to address key water resources issues facing our clients today, particularly urbanization and its impact on the ecosystem. Clear expertise facilitates accurate diagnosis of problems, which results in greater efficiency and cost-effectiveness.

FluidClarity was founded in 2003 on a philosophy that emphasizes high quality technical services at reasonable fees, solving water resources problems in a multidisciplinary way and being a balanced intermediary between concerned parties to achieve solutions that make a difference.

The Illinois Department of Transportation (IDOT) has pre-qualified FluidClarity in all drainage engineering categories. In addition, FluidClarity is certified by the Small Business Administration (SBA) as an 8(a) DB firm.



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Statement of Qualifications

About the Principal

Dr. Marion Kessy has 25 years of local and international experience in water resources engineering that includes comprehensive watershed planning, flood control studies, water quality modeling, design of stormwater management systems, and permitting.

He has modeled a very broad range of water resources problems in Illinois for private, local, state, and federal agencies – in relation to local community issues and facilitated public forums on water resources concerns.

Dr. Kessy received a Civil Engineering degree in Tanzania, a Masters degree in Hydraulics and Hydrology from the University of Newcastle Upon Tyne in England, and a Doctorate in Water Resources Engineering from the University of Iowa, in Iowa City. He is a licensed professional engineer in Illinois and Wisconsin, a member of the American Society of Civil Engineers (ASCE), and the Illinois Association of Floodplain and Stormwater Managers (IAFSM).



Statement of Qualifications

Approach

FluidClarity's approach emphasizes working closely with governmental and community leaders to create improved watershed integrity and water quality. We organize, implement, and facilitate an accessible process through the following phases:

Goal Setting

We balance the technical assessments of ecosystem health with the desired objectives of governments and communities by defining performance measures and information to guide a reasonable decision process.

Planning

We work with community and governmental decision makers to define the degree of restoration, protection, or preservation of local watersheds. This linkage identifies options for management controls and specifies clear actions, responsible parties, and schedules.

Economic and Cost/Benefit Analysis

We assist communities and non-profit organizations in gathering information on local resource value, funding sources, and socioeconomic conditions to create realistic options to support watershed management

Public Outreach and Consultation

We identify key watershed stakeholders and facilitate their participation in watershed planning. We believe that communication and outreach through educational materials and training volunteers to assist in management and monitoring activities is critical to sustaining healthy watersheds.



Statement of Qualifications

Services & Capabilities

FluidClarity's services and capabilities cover drainage studies; watershed floodplain studies, modeling, permitting; TMDL development, watershed planning, environmental engineering, and land development support.

Drainage Studies

FluidClarity analyses drainage problems and solutions to identify appropriate, project-specific drainage systems that do not result in adverse impacts. FluidClarity staff has evaluated drainage problems in both old and newer urbanized settings. Typical drainage study projects include the following:

- Highway stormwater drainage
- Subdivision drainage
- Localized flood problem areas

FluidClarity identifies the causes of each problem, whether natural or manmade, and recommends solution techniques. Typical drainage problems include depression and overbank flooding, inadequately designed drainage systems and inadequate system capacity. Also evaluated are highway drainage, prepares location drainage studies (LDS) and hydraulic reports for simple and complex waterways and pumping stations according to IDOT's Bureau of Design and Environment (BDE) requirements.



Statement of Qualifications

Floodplain Studies

FluidClarity performs detailed studies to establish floodplain limits and base flood elevations (BFE) that can be used to support regulatory and floodplain management efforts. FluidClarity provides assistance during all phases of floodplain studies, including scoping, data collection, hydrologic and hydraulic modeling, and mapping. FluidClarity's floodplain studies experience ranges from BFE determination for single parcels, preparation of letters of map revision (LOMR) applications, and mapping of single-river reaches to entire watersheds. FluidClarity is familiar with local and state requirements and floodplain ordinances in northeastern Illinois and Wisconsin.

Modeling

FluidClarity assists clients with modeling needs during planning, design, and permitting phases of projects. FluidClarity analyzes both surface water and groundwater problems, including situations involving interactions between groundwater and surface water through modeling. Surface water modeling includes hydrologic, hydraulic, and water quality. Typical modeling projects involve stormwater management system design, water budgets, BFE determinations, wetland hydrology, reservoir design analysis, and detailed flood insurance studies (FIS). FluidClarity has the in-house capability required to model sophisticated problems using both public domain and proprietary programs. Examples of modeling software the company has used to serve a variety of clients' needs are presented in the following modeling capability-experience matrix.

Permitting

FluidClarity assists clients early in the planning process to identify permitting issues and requirements that could impact project development. FluidClarity identifies jurisdictions involved in the permitting process, evaluates the implications of regulations, evaluates project scheduling, and develops final permit application documents that meet applicable local, state, and federal regulations. Typical applications include local stormwater permits, floodway construction permits, and LOMR applications.

Total Maximum Daily Load (TMDL) Development

FluidClarity develops TMDLs to address water quality impairments for water bodies on –303(d) lists. The Clean Water Act requires states to prepare TMDLs for all water bodies identified as impaired. FluidClarity staff has prepared TMDLs in various states including Illinois, Minnesota, Ohio, and Hawaii

FluidClarity understands and implements the protocols needed to produce defensible TMDLs. To accomplish this task, FluidClarity performs watershed characterization, identifies impairments, links impairments to pollutants of concern through modeling, allocates loads, and prepares implementation plans for public review and comment.



Statement of Qualifications

Watershed Planning

FluidClarity works with coalitions of stakeholders, watershed interest groups, and local governments to develop comprehensive watershed plans. FluidClarity assists stakeholders in all phases of plan development, including grant application, goal setting, plan development, and plan implementation.

Environmental Engineering

FluidClarity performs Environmental Assessments (EAs), conducts due diligence, and assists with NPDES permitting and compliance. In addition, FluidClarity staff has experience collecting water-quality samples to support water quality assessment studies. FluidClarity has developed monitoring plans and collected data for small watersheds to determine the overall quality of the storm-water runoff, as well as the effectiveness of various BMPs designed to remove certain constituents from the storm water.

Land Development

Land development support is a portion of FluidClarity's activities focusing on pre-application planning through design and permitting of stormwater management systems for new developments, including highway stormwater drainage projects. FluidClarity can assist land developers by providing the following services:

- Design of optimal layout that meets permitting constraints
- Modeling of detention facilities and other drainage structures
- Sizing and design of stormwater management systems
- Evaluation of permitting needs
- Preparation of permit applications
- Letter of Map Revisions Applications (LOMRs)
- Resolving floodplain and FEMA map revision issues



Statement of Qualifications

Capabilities

Modeling Capability-Experience Matrix

Model	Supporting Agency	Hydrologic Modeling	Hydraulic Modeling	Groundwater Modeling	Water Quality Modeling	Risk Assessment	Watershed Characterization
SMS (2-D, Surge)	USACE		○				
TR-55	USDA	○					
HEC-HMS	USACE	○					
HEC-RAS	USEPA		○				
HSPF	USEPA	○			○		
BASINS	USEPA	○			○		○
SWMM	USEPA	○	○		○		
RIVERCAD	BOSS		○				
FEQ	USGS		○				
HEC-6	USACE		○				
MODFLOW	USGS			○			
HAZUS-MH	FEMA					○	○
QUAL2E&K	USEPA				○		
GWLF	USEPA						
HYDRAIN	FHWA	○	○				
BATHTUB	USACE				○		
AVGWLF	EPA/Pen State U	○			○		○
HEC-IHF	USACE	○					
WASP	USEPA		○		○		



Statement of Qualifications

Clients

FluidClarity is proud to serve individuals, groups (non-profit NGO's, Developers, Businesses) and Agencies (local municipalities, State and Government agencies) – all have a stake in better watersheds, or to develop land in a responsible manner. This diverse client base allows FluidClarity to be balanced in its approach and well versed in key issues, to the benefit of all clients.

Federal Agencies

- Department of Homeland Security (Federal Emergency Management Agency)
- U.S. Army Corps of Engineers

State Agencies

- Illinois Department of Natural Resources
- Illinois Department of Transportation
- Illinois Environmental Protection Agency
- Iowa Department of Transportation

Municipalities

- City of Evanston, Illinois
- DuPage County Stormwater
- Lake County Stormwater Management Commission
- Metropolitan Water Reclamation District of Greater Chicago
- Randolph County, Illinois
- Shields Township Highway Department, Lake County
- Village of Lake Zurich
- Village of Gurnee

Private Companies

- Waukegan Tire Company Inc.
- Precision Surveyors Inc.
- T&M Surveying Inc.
- Volo Ventures, LLC
- Exceed Development Corporation

Non-profit NGOs

- Fox River Ecosystem Partnership
- Fox River Study Group Inc.
- The Conservation Foundation
- Turtle Lake Improvement and Protective Association

Statement of Qualifications

Project Examples



Illinois Department of Transportation, IDOT District One, Illinois, Program Management, Hydraulics Section

Services Provided : Drainage Engineering

Status : Ongoing

Activities & Deliverables : Program management of all aspects of the drainage division including LDS, modeling, Hydraulic Reports, scheduling and local coordination

FluidClarity is currently IDOT's Hydraulic Section program management consultant. FluidClarity staff manages drainage studies prepared in-house by IDOT staff and IDOT's consultants. FluidClarity supports coordination activities with municipalities; reviews access permits, location drainage studies, and conducts drainage investigations. In addition to program management duties, FluidClarity staff is on call to provide day to day services on on-going Phases I, II and III projects.



U.S. Environmental Protection Agency, Office of Wetlands, Oceans, Watersheds (OWOW)

Services Provided : Environmental Engineering Services, TMDL Development

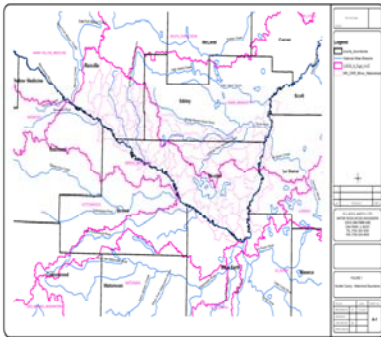
Status : Contract Signed, Task Orders Pending

Activities & Deliverables : Watershed Characterization, Pollutant loading analyses, Waste Load Allocation, Water Quality Modeling

FluidClarity has been selected to provide support to the EPA Clean Water Act (CWA) and Safe Drinking Water Act (SDWA) programs in a five-year contract, worth up to \$75 million through the primary contract, The Cadmus Group. The contract tasks include the development of Total Maximum Daily Loads (TMDLs), monitoring water quality, managing and displaying water quality information, assessing and reporting on water quality conditions, and advancing the protection and restoration of watersheds and waterbodies in a number of ways.

Statement of Qualifications

Project Examples



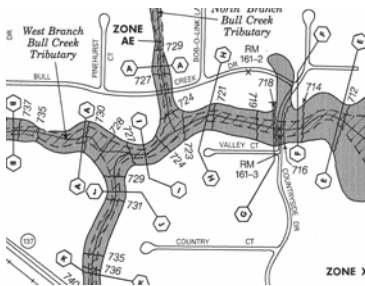
FEMA Map Modernization Program, Flood Insurance Study - Nicollet County (PBS&J)

Services Provided : FEMA GIS Mapping using Approximate Methods

Status : Completed, July 2005

Activities & Deliverables : GIS Database, Survey Data, GIS Shape Files, Hydrology, Hydraulics

In 2005, FluidClarity subcontracted with PBS&J to complete GIS mapping of Nicollet County in Minnesota. The scope of work involved topographic data collection, hydrologic and hydraulic studies, geographic information system (GIS)-driven watershed analysis, preparation of digital DFIRMs, and community outreach in support of the National Flood Insurance Program (NFIP). As part of the Task Order, FluidClarity performed survey and modeling services to update the Nicollet County Flood Insurance Maps along the Minnesota River by Approximate Methods.



FEMA Map Modernization Program, Flood Insurance Studies (FIS), FEMA Region 5, Chicago, Illinois

Services Provided : Review MT-1 Applications

Status : Ongoing

Activities & Deliverables: Coordination with applicants, Administer FEMA regulations relating to LOMA and LOMR-F forms.

FluidClarity performs extensive MT-1 reviews with three full time staff working from the Michael Baker Chicago Office. The scope of work involves working with FEMA regulations to process complete reviews of MT-1 submittals (LOMA and LOMR-F applications). Each FluidClarity staff employee reviews about 40 applications per month. Staff also participates in FEMA training sessions and is updated with policy changes as needed.

Statement of Qualifications

Project Examples



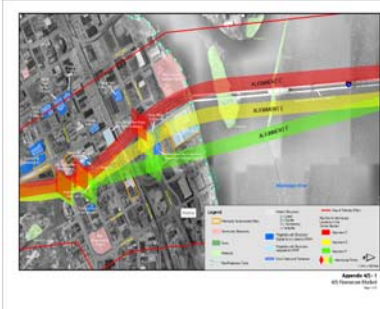
City of Evanston, Sheridan Road Improvement/ Stormwater Project, Evanston, Illinois

Services Provided : Location Drainage Studies, Sanitary Engineering

Status: Contract Pending

Activities & Deliverables : Drainage Engineering, Utility Plans, Permitting

FluidClarity will prepare Location Drainage Studies for the segment of Sheridan Road within the corporate limits of the City of Evanston. The project involves utility improvements, relocation, and drainage improvements. Because of the roads proximity to Lake Michigan, careful design of the stormwater drainage will be required. Innovative techniques involving porous pavements, urban BMP, and sewer separation will be undertaken. Upon completion of the LDS, Phase II plans and specifications will be prepared. FluidClarity is a subconsultant to TransSystems, the prime consultant.



Interstate 74, Bridge over the Mississippi River, Iowa DOT, District 6, Iowa

Services Provided : Drainage Studies, Modeling

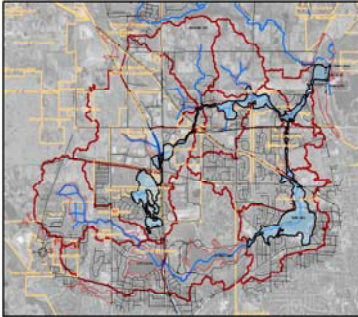
Status: Contract Pending

Activities & Deliverables : QA/AC

The project involves Phase I corridor-wide activities, and Phase II design services. Phase I corridor-wide scope activities include interchanges on Avenue of the Cities, Lincoln Road, Middle Road, US 6, and 53rd Street. The Phase II design services are for Central Section 2 of the I-74 Corridor and involve two interchanges and the main bridge structure. Work includes final structural design for true arch bridges, load rating, ship impact study, maintenance waterline, minor hydraulic and scour analysis, and wind tunnel testing. Final roadway drainage analysis and design. Coordination with USCG, USACE, FHWA, IL DOT, IA DOT. Obtain Coast Guard permits. FluidClarity is a subconsultant to Alfred Benesch, the prime consultant.

Statement of Qualifications

Project Examples



Bull Creek Watershed Flood Insurance Study, Lake County Stormwater Management Commission, Lake County, Illinois

Services Provided : Floodplain studies

Status : Completed, 2006

Activities & Deliverables : GIS Analysis, hydrologic and hydraulic modeling, and floodplain mapping

FluidClarity performed a detailed study to update the existing effective FIS for the 11-square-mile Bull Creek Watershed in Lake County, Illinois. The scope of work involved topographic data collection, hydrologic and hydraulic studies using HECRAS and HEC-HMS, GIS-driven watershed analysis, preparation of floodplain and floodway maps, preparation of digital FIRMS, and community outreach.

Sauer Creek Modeling, Department of Environmental Concerns, DuPage County, Illinois

Services Provided : Hydrologic and Hydraulic Studies

Status : Completed, 2006

Activities & Deliverables : Land use development, GIS analyses, HSPF Modeling

FluidClarity developed an HSPF model of the Sauer Creek in DuPage County in 2005 to generate design data for the design of a wetland restoration project.

Spring Brook FEQ Modeling, Department of Environmental Concerns, DuPage County, Illinois

Services Provided : Hydrologic and Hydraulic Studies

Status: Completed, 2005

Activities & Deliverables : Data collection, FEQ hydraulic modeling

FluidClarity updated an existing FEQ model and developed a with-project model of the Spring Brook in DuPage County. This model was prepared to support the design of the stream/channel restoration of an eroding reach of the stream and for permitting purposes.

Statement of Qualifications

Project Examples

Hydraulic Study of Unnamed Tributary to Des Plaines River, Village of Gurnee, Illinois

Status : Completed 2002

Services Provided : Hydrologic and Hydraulic Studies

Activities & Deliverables : Hydrologic & Hydraulic modeling, permitting, floodplain mapping



FluidClarity performed a detailed hydrologic and hydraulic study to determine flood hazard areas associated with an unnamed tributary to the DesPlaines River. In areas of rapid urbanization such as Lake County, such studies constitute an important tool for developing flood damage mitigation programs. The unnamed tributary passes through a mostly developed watershed in Gurnee, Illinois.

Water Resources Feasibility Study, Bike Path Underpass, The Shields Township, Lake County, Illinois

Status : Completed 2003

Services Provided : Modeling-Hydrologic and Hydraulic

Activities & Deliverables : Hydrologic & Hydraulic analysis, drainage, alternative cost analysis

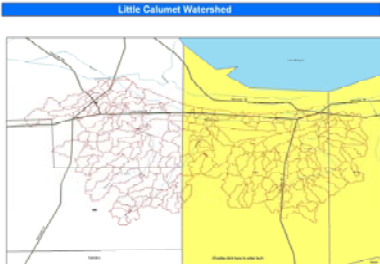


FluidClarity completed feasibility study of water resources issues related to the proposed bike path underpass where the Northern Avenue right-of-way crosses the Elgin, Joliet & E Railway tracks in unincorporated Shields Township, Illinois. The underpass is a below-grade crossing of a railroad right-of-way. To provide sufficient head room in the underpass, a segment of the bike path had to be lowered by as much as 5 feet below grade. The key challenge of the project was to find a way to evacuate stormwater that will accumulated in the depressed segment of the bike path.

FluidClarity performed a site investigation and a hydrologic and hydraulic study of the watershed tributary to the site in order to quantify the amount of stormwater likely to impact the site, and to determine alternatives for draining this water from the site. FluidClarity considered both gravity and pumping options.

Statement of Qualifications

Project Examples



Detailed Little Calumet River Watershed Plan, Metropolitan Water Reclamation District of Greater Chicago, Chicago, Illinois

Services Provided : Watershed Planning

Status : Ongoing

Activities & Deliverables: Needs assessment, land use analysis, natural resource inventory, water quality issues, hydrologic and hydraulic modeling, GIS driven analysis, structural solutions, and capital improvement costs.

The Little Calumet watershed has an area of 213 square miles that includes 45 municipalities. FluidClarity is assisting the MWRDGC in preparing a watershed plan for this highly urbanized watershed. The scope of work includes data collection and analysis, hydrologic and hydraulic modeling, identification of flooding areas their causes, evaluation of existing flood control facilities, identifying flood control and stormwater management alternatives, program costs and implementation issues. FluidClarity will assist in preparing a detailed watershed plan that prioritizes critical areas in the watershed from the point of view of flood damage mitigation, stormwater management and natural resources preservation., Finally, Fluid will prepare a list of solutions to mitigate the water quality problems, protect natural resources, identify best management practices ("BMP") and recommendations for rehabilitating existing problem areas.



Detailed Cal-Sag Channel Watershed Plan, Metropolitan Water Reclamation District of Greater Chicago, Chicago, Illinois

Services Provided : Watershed Planning

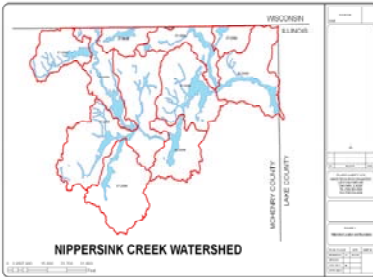
Status : Ongoing

Activities & Deliverables: Needs assessment, land use analysis, natural resource inventory, water quality issues, hydrologic and hydraulic modeling, GIS driven analysis, structural solutions, and capital improvement costs.

The Cal-Sag Channel watershed is a highly urbanized area of 117 square miles that includes 35 municipalities. FluidClarity is assisting the MWRDGC in preparing a detailed watershed plan that will address existing flooding problems and stormwater management in this highly urbanized watershed. The scope of work includes data collection and analysis, assessment of existing flood control facilities and identification of flood control mitigation alternatives, evaluation of ongoing development activities and land-use analysis. A detailed watershed plan will prioritize structural and non-structures measures to reduce chronic flooding in the watershed. Also, the watershed plan will list solutions for mitigating the water quality problems, protecting natural resources and provide BMP for rehabilitating existing flood control facilities.

Statement of Qualifications

Project Examples



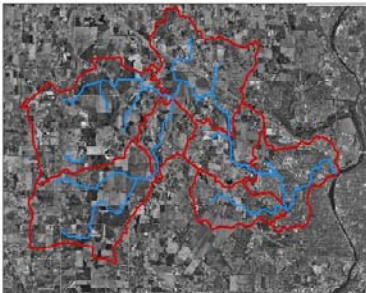
Nippersink Creek Watershed Plan, The Conservation Foundation, Illinois

Services Provided : Watershed Planning

Status : Ongoing

Activities & Deliverables: Watershed planning, pollutant loading analysis, natural resource inventory and assessment, water quality assessment.

FluidClarity is assisting the Conservation Foundation in preparing a watershed plan for the Nippersink Creek Watershed. The Fox River Watershed accommodates about 11 percent of the population of Illinois. The scope of work includes data collection and analysis, identification of impairments and their causes, evaluation of ongoing development activities, preparation of a natural resources inventory, stream surveys, and land-use analysis. FluidClarity will perform a pollutant loading analysis to identify critical areas in the watershed, prepare a list of solutions to mitigate the water quality problems and protect natural resources, identify best management practices (BMP) for rehabilitating existing problem areas.



TYLER CREEK WATERSHED

Tyler Creek Watershed Plan, The Conservation Foundation, Illinois

Services Provided : Watershed Planning

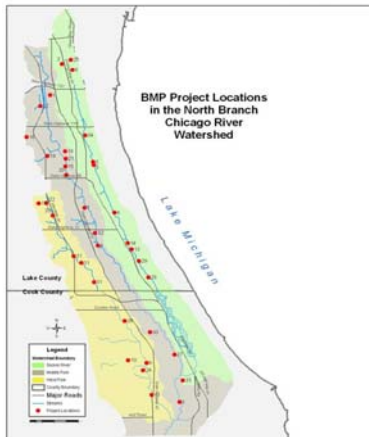
Status : Ongoing

Activities & Deliverables: Watershed planning, pollutant loading analysis, natural resource inventory and assessment, water quality assessment.

FluidClarity is assisting the Conservation Foundation in preparing a watershed plan for the Tyler Creek Watershed. The scope of work includes data collection, identification of impairments and their causes, evaluation of ongoing development activities, performance of a natural resources inventory, stream surveys, and land-use analysis. FluidClarity will perform a pollutant loading analysis to identify critical areas in the watershed, prepare a list of solutions to mitigate the water quality problems and protect natural resources, identify BMPs, to rehabilitate existing problem areas.

Statement of Qualifications

Project Examples



North Branch Chicago River Detailed Watershed Plan, HDR Engineering, Inc. (through the Metropolitan Water Reclamation District of Greater Chicago), Chicago, Illinois

Services Provided : Floodplain studies

Status : Ongoing, 2008

Activities & Deliverables : GIS Analysis, hydrologic and hydraulic modeling, and floodplain mapping

FluidClarity is involved with the technical review and assessment of existing hydrologic and hydraulic models for the watercourses within the North Branch of the Chicago River watershed including using modeling programs approved by FEMA and the Illinois Department of Natural Resources/ Office of Water Resources (IDNR/OWR).

Exceed Development Retail Development, Village of Zion, Illinois

Services Provided : Permitting

Status : Completed in 2004

Activities & Deliverables : Site development, drainage engineering, stormwater management, hydrologic and hydraulic analysis, permitting

FluidClarity prepared stormwater management and permitting plans for an 8-acre site that included mixed retail and commercial sites in the Village of Zion, Illinois. Because the proposed site is bounded by IL 173 and Greenbay Road, IDOT access and drainage permitting were required. FluidClarity prepared the stormwater management permits for SMC, the Village of Zion and IDOT.

Statement of Qualifications

Project Examples

Bike Path Bridge across Butterfield Creek, Illinois Department of Natural Resources

Services Provided : Watershed Planning

Status : Completed in July 2006

Activities & Deliverables : Feasibility analysis, bridge hydraulics, floodplain analysis and permitting

FluidClarity analyzed the feasibility of constructing a bike path bridge across Butterfield Creek and prepared supporting documentation for an IDNR Office of Water Resources floodway construction permit. Analytical tasks included determination of design flood frequency, structure elevation, and hydraulic conditions with and without the project (including floodway encroachments) using the effective FEMA FIS models. FluidClarity also ensured that the proposed bike bridge is permissible under Section 708 Floodway Construction Rules.



Fox River Watershed Water Quality Database Development, Fox River, Illinois

Services Provided : Environmental Engineering Services

Status : Completed in March 2006

Activities & Deliverables : Database development, NPDES water quality analysis, data collection and pollutant loading analysis

FluidClarity assisted with the development of a database that included facilities regulated under the National Pollutant Discharge Elimination System (NPDES) in the Fox River Watershed. The project was part of an ongoing, multi-year effort sponsored by the FRSG, a non-profit organization devoted to promoting watershed restoration. FluidClarity compiled water quality data from as many as 120 industrial discharges, including wastewater treatment plans, major industries, and stormwater outfalls. Facilities were geo-referenced in the database to aid future watershed planning efforts.

Statement of Qualifications

Project Examples



Best Management Practice (BMP) Monitoring Study, Village of Lake Zurich, Lake County, Illinois

Services Provided : Environmental Services Engineering

Status : Completed January 2007

Activities & Deliverables: BMP evaluation, water quality monitoring, sampling and analysis.

FluidClarity has installed equipment to measure influent and effluent water quality at a wet detention basin facility that had been enhanced with native plant species. FluidClarity monitored the performance of the facility by monitoring storm volumes, total suspended sediment and total phosphorus using continuous (ISCO) samplers. Procedures and protocols recommended by the ASCE were used so that the results of the study could be reported to the national BMP database.



O'Hare Airport Water Quality Sampling, City of Chicago, Illinois

Services Provided : Drainage Engineering

Status : Ongoing; Completion date set for April 2008

Activities & Deliverables : Field Reconnaissance, Water quality sampling and analysis

FluidClarity installed ISCO automatic samplers at two outfalls at the O'Hare Airport to measure effluent water quality. FluidClarity will perform daily composite sampling and analysis for biochemical oxygen demand (BOD) and total suspended solids (TSS). Deliverables include User Charge Certified Sampling Analysis Reporting Statement (RD-920) for the MWRDGC.

Statement of Qualifications

Project Examples

TMDL Studies

Services Provided : Environmental Engineering Services

Activities & Deliverables : Watershed Characterization, pollutant loading analyses, Waste Load Allocation, Water Quality Modeling using QUAL2E, HSPF, GWLF, SWMM

FluidClarity staff played principal roles in conducting the following TMDL studies

- * Fox River Watershed TMDL study, IEPA
 - * Cedar Creek TMDL Study, IEPA
 - * Pearl Harbor Watershed and Bay TMDL study, Hawaii Department of Health
 - * Chippewa Watershed TMDL study, Minnesota Pollution Control Board (MPCA)
 - * Nawiliwili Estuary and Watershed TMDL study, Hawaii Department of Health
-



Volo Ventures Subdivision, Lake County, Illinois

Services Provided : Permitting

Status : Ongoing

Activities & Deliverables : Land use planning, site planning, stormwater BMP's, permitting, and hydrologic modeling

FluidClarity is preparing stormwater management plans and permitting documents for an 80-plus-acre development in the Village of Volo, Lake County. FluidClarity is assisting the developer and site design engineers integrate low-impact development concepts into the layout and final engineering design of the development.



Statement of Qualifications

Project Examples

Waukegan Tire Inc. Industrial Site Expansion, Waukegan, Illinois

Services Provided : Permitting

Status : Ongoing

Activities & Deliverables : Land use planning, site development, stormwater BMP's, permitting, and hydrologic modeling and municipal engineering

FluidClarity is preparing site plans and permit documents for a proposed 6-acre expansion of the existing Waukegan Tire Company facility. The proposed site contains floodplains, depressional areas, and wetlands. FluidClarity will prepare site plans, a stormwater management plan and permitting documents for this expansion project.



Feasibility Study for City of Mattoon Reservoir/Dam, Illinois Department of Natural Resources

Services Provided : Drainage Engineering, Modeling

Status : Completed, 2005

Activities & Deliverables : Hydrologic Modeling, GIS analysis

IDNR's Office of Water Resources retained FluidClarity to prepare conceptual alternatives to alleviate chronic flooding caused by Kickapoo Creek and its tributaries in the City of Mattoon, Illinois. FluidClarity conducted a field study to identify problem areas, determine the morphological condition of the creek, and verify survey data, including observed flood problem areas. FluidClarity then prepared hydrologic and hydraulic analyses and identified four alternatives for addressing the flooding. FluidClarity prepared conceptual alternatives for improving the stream channel and conceptual plans for three reservoirs. In addition, FluidClarity prepared planning-level cost estimates for all four alternatives. The cost of the alternatives ranged from \$600,000 to \$2 million.



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Statement of Qualifications

Project Examples

I90/Route 45 (Mannheim Road)

Services Provided : Drainage Studies, Modeling

Status : Completed, 2005

Activities & Deliverables : Hydraulic & Hydrologic analyses

Involved hydraulic and hydrologic analysis of watershed tributary to the I45/90 Interchange. Analysis included pumping station discharges alternative evaluation of drainage options including major culverts, pumping station capacity, and preparation of hydraulic reports for two crossing across the Higgins/ Willow Creek.



FluidClarity Ltd
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Oak Park, IL 60301

Phone 708-383-3500 Fax 708-383-3549
admin@fluidclarity.com
www.fluidclarity.com

Statement of Qualifications

Qualifications and Accreditations

FluidClarity's services are based on tested credentials and experiences in the fields of engineering and natural resources and are Registered Professional Engineers. In order to facilitate change, we are well versed where technical competency meets societal values. One staff is trained in FEMA HAZUS-MH as an instructor and advanced user.

American Council of Engineering Companies (ACEC)

Certified Floodplain Managers Associations

Certified as an 8(a) Small Business by the Small Business Administration

Illinois Association of Floodplain and Stormwater Management (IAFSM)

Prequalified by the Illinois Department of Transportation (IDOT)



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Statement of Qualifications

Resumes

- Marion Kessy, Ph.D., P.E.
- Michelle Lewis, P.E., C.F.M.
- James P. Jackson, P.E.
- Mark Hoskins, P.E., C.F.M.
- Zhengzhong Zhang, Ph.D., E.I.
- Christopher Ide, E.I., C.F.M.
- Steven Vassos, E.I., C.F.M.
- Linnea E. Hruska
- Christopher J. Paller
- Tamara Broadnax
- Andi Dunn, Ph.D.
- Teresa Melcher