City of Plainwell

Nick Larabel
Paul Rizzo
EJ Hart
David O'Bryant
Adam Hopkins
Jim Turley
Angela Ridgway
Erik Wilson
Randy Wisnaski

"The Island City"

Department of Administration Services
211 N. Main Street
Plainwell, Michigan 49080
Phone: 269-685-6821
www.plainwell.org

AGENDA
DDA/TIFA/BRA
City Hall Council Chambers
July 12, 2022, 7:30 AM

1. **Call to Order**
2. **Pledge of Allegiance**
3. **Roll Call**
4. **Approval of Minutes/Summary –** 06/14/2022 Meeting Minutes
5. **General Public**
6. **Chairman's Report**
7. **BRA Action Items**
   A. Update on Mill Property
   B. Dam #2 Removal update
   C. Accounts Payable for June of $139,225.97

8. **DDA Action Items**
   A. Review Revolving Loan Quarterly Report
   B. Accounts Payable for June of $1,690.37

9. **TIFA Action Items**
   A. Update on property
   B. Accounts Payable for June of $792.54

10. **Communications:** 06/13/22 Council Minutes 6/16/22 Special Meeting. Also, the Financial Report/ Summary as of 06/30/2022
11. **Public Comments**
12. **Staff Comments:**
    Events: Farmers' Market Thursdays 3 pm; Concerts Wednesday's 7 pm; Lighthouse Baptist Church "Public Servant Day" at 11 am
    Businesses: River Road Foods is operating at 615 E. Bridge St. (open to public in Sept.); Calico Rabbit Sold
13. **Member Comments**
14. **Adjournment**

Note: All public comment limited to two minutes, when recognized please rise and give your name and address.

Minutes
Plainwell DDA, BRA and TIFA:
June 14, 2022

1. Call to Order - Meeting called to order at 7:33 a.m. by Hart
2. Pledge of Allegiance
3. Roll Call
   Members Present: Jim Turley, Randy Wisnaski, Adam Hopkins, Erik Wilson, EJ Hart
   Excused: David O'Bryant, Nick Larabel, Paul Rizzo, Angela Ridgway
4. Approval of Minutes of 05/10/22: Minutes were approved to place on file.
5. Chairman's Report: None
6. BRA Action Items
   A. Approval of the 2022-2023 Budget**. A Motion by Turley to modify professional services line item and approve the BRA Budget seconded by Hart. All in favor vote. Motion carried.**
   B. **Motion to accept accounts payable for May of $90,078.45 was made by Hart and seconded by Wisnaksi. All in favor vote. Motion carried**.
7. DDA Action Items

A. Approve the 2022-2023 Budget**. A motion by Hart to approve the DDA budget was seconded by Hopkins. All in favor vote. Motion carried.**

B. **Motion to accept accounts payable for May of $478. 41 was made by Wilson and seconded by Hart. All in favor vote. Motion carried**.

8. TIFA Action Items

A. Approve the 2022-2023 Budget for TIFA. **A motion by Hart to approve the TIFA budget and seconded by Wisnaski. All in favor vote. Motion carried**.

B. Motion to accept accounts payable for May of $1,359.72 was made Wilson and seconded by Wisnaski. All in favor vote. Motion carried.

9. Communications: 05/09/22 Council Minutes. Also, the Financial Report/ Summary as of 5/31/2022 were approved and placed on file.
10. Public Comments: None
11. Staff Comments: Community Development Manager, Siegel reported:
    Events: Farmers' Market; Concerts at the bandshell; Plainwell Days Festival; parade June 24/ event June 25
    Businesses: 127 S. Main St. for sale 131 S. Main Suite #5 for lease; expansion of Barbed wire on track; auction of Perceptive Industries, June 23.
    Grants: EDA Grant Submitted; Rental Rehab on track for July 21, 2021
    Masterplan/Community Recreation Plan updates: Engagement reports have been compiled, waiting on updates to the 2020 Census information.
12. Member Comments:
    Hart commented on the Christmas Tree in the park. Holiday Light ideas/swags etc.

DRAFT

Turley commented about the fiber optic lines that were laid in the back of the buildings from Companion to Commonwealth Financial building.

13. Adjournment: **A Motion to adjourn the meeting at 8:24 a.m. was made by Wilson and seconded by Hopkins.**

Submitted by Denise Siegel, Community Development Manager

DRAFT

Proposal for:

Plainwell #2 Dam and Raceway Structure Removal and Restoration Project

City of Plainwell, Michigan

June 10, 2022

→ The Power of Commitment

Contents

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211 North Main Street, Suite 300
Plainwell, Michigan
49080-1397
www.ghd.com

June 10, 2022

Brian Kelley, City Clerk
City of Plainwell
211 N. Main Street
Plainwell, Michigan 49080

RE: City of Plainwell - Plainwell #2 Dam and Raceway Structure Removal and Restoration Project

Dear Mr. Kelley:

GHD Services, Inc. (GHD) appreciates the opportunity to provide our proposal for the above referenced project. Thank you for considering our project team for this important project associated with the Island City, Plainwell, Michigan. GHD has assembled a strong team of technical professionals with the experience and knowledge to successfully execute this project. We believe that GHD's experience, combined with our subcontractor's expertise, will benefit the City of Plainwell (City).

We understand this project. GHD and our subcontractors have successfully completed multiple dam removal and engineering projects with very similar complexity and sensitivities as your project. GHD brings decades of experience, innovation, and creativity to our projects, and we look forward to the mutual success our select team, as well as all of the support staff within the GHD family, will provide to the community of Plainwell.

GHD is committed to the City. We have provided extensive professional services to the City in the past, as well as general support on day-to-day matters related to the Mill property. GHD has local staff available to work on the project and support the community with a firsthand understanding of the area. Furthermore, we are a land owner/taxpayer within the City with property running adjacent to the Mill Race itself. As you can see, GHD has a vested interest in the successful completion of the project and creating a reinvigorated Mill Race to preserve the Island City status. We are dedicated to your success, as your success is our success. As part of this commitment, the City will see throughout our qualifications that the highest levels of knowledge and management have been engaged.

Safety is our core value. Providing a culture that promotes the safety of people and the protection of the environment is a priority for GHD. We know that our employees are the most valuable resource, and they deserve to practice their profession in a safe working environment. We will enforce our safety measures and practices throughout the duration of this important project.

We are excited about the opportunity to once again support the City on this important project. If you have any questions, please contact us. We look forward to further discussions with you.

Regards,

Daniel Schechter, PE
Project Manager
313 999 2333
daniel.schechter@ghd.com

Jodie Dembowske
Community Contact / Implementation Manager
269-685-2733
jodie.dembowske@ghd.com

1. Qualifications and References

→ 1. Qualifications and References

Project Team Qualifications

GHD Services, Inc. (GHD) understands the City of Plainwell's (City) requirement to select a firm that offers the right mix of technical expertise and project experience to ensure that the engineering services for the decommissioning of the Plainwell #2 Diversion dams and the Mill Race Dam, is founded on proven technologies, can be implemented in a manner that is protective of the environment and human health, improves fish passage, and provides the best value to the City. GHD has been providing comprehensive engineering services for dam owners across North America for more than 40 years and is committed to the successful completion of this project. GHD is recognized as industry leaders in the dam rehabilitation, design and restoration space and have recently been selected to present our decommissioning services at a national industry conference, held by the Association of State Dam Safety Officials (ASDSO), for our recent project experience.

GHD has been an advocate for the City at the former Plainwell, Inc. Mill property almost from the onset of your acquisition of the property in 2006. Our local staff, as well as experts from within the GHD family have supported the City during the last 12 plus years of projects conducted at or near the former Plainwell, Inc. Mill site. We initiated our relationship with the City in 2010 when GHD (Conestoga-Rovers & Associates at the time) was contracted by the City to manage the renovations to the Fannie Pell parking lot including the installation of the pedestrian bridge that spans the Mill Race outside of City Hall. GHD solidified our commitment to Plainwell in the summer of 2011, by purchasing, renovating and moving our west Michigan operations from Kalamazoo to Plainwell into the former mill building connected to City Hall via a common entry. GHD has also worked with the City in various capacities on three phases of demolition completed on the former Plainwell, Inc. site in preparation for redevelopment of the Mill site. GHD has conducted building decommissioning assessments, bid specification preparation, assisted with contractor selection and managed the demolition of select buildings associated with the mill complex, as well as the former waste water treatment buildings. GHD has also provided support to the City for restoration efforts including the redevelopment of the former sludge dewatering building into the current Public Safety building.

In addition to working directly for the City, GHD has also been involved/supported the relationship between the City and Weyerhaeuser NR Company during the ongoing remedial action related to soil and groundwater at the Mill property. GHD's involvement with the Superfund work on the Mill property has created good relationships with the

GHD's Plainwell MI office

agencies [United Stated Environmental Protection Agency (USEPA), Michigan Department of Environment, Great Lakes and Energy (EGLE) and Michigan Department of Natural Resources (MDNR)]. The agencies trust GHD to perform at a high level with competent staff conducting our work safely and efficiently, GHD has a long history of coordinating with MDNR on state regulated impoundments and the successful development of technical plans and specifications to meet the State of Michigan Natural Resources and Environmental Protection Act, 1994 PA 451.

The City can expect another well-managed project from GHD. Led by Mr. Dan Schechter, PE , GHD has assembled a dedicated and enthusiastic team of professionals to undertake this assignment. Supporting Mr. Schechter at the project management level, will be Mr. Damian Nott and Mr. Brian Webster. Mr. Nott, who recently relocated to North America, was our Australian dams service line leader with 22 years of experience in design and oversight of large scale partial dam removals. With his intimate knowledge of these types of projects, Mr. Nott will offer his services as the quality assurance and quality control manager of the project. As a senior manager with over 30 years of experience with GHD, Mr. Webster will provide senior project support to the team to ensure all appropriate resources are dedicated to the project.

Engaging the community in the project is high priority. Connecting with the community early in the project and communicating progress throughout the varies steps throughout the project will be managed through local and experienced stakeholder engagement support staff.

As the project evolves, many different components will be involved to achieve the final goal of enhancing the Mill Race for improved fish and recreational passage. One major component of the project that will affect all aspects of the project, that the project area is located within Operable Unit 05 of the Allied Paper/Portage Creek/Kalamazoo River Superfund Site. The potential to encounter contaminants of concern, especially

polychlorinated biphenyls (PCBs), during the course of data collection and implementation of the project will be taken into consideration during all phases of the project. GHD's team includes personnel with the necessary knowledge and experience to perform ecological and human health risk assessments that will likely be necessary to determine feasible options during the dam removal restoration process.

GHD has over 30 years of experience in all aspects of the natural resource damage assessment (NRDA) process. Our experience includes injury assessment, development of enhanced primary restoration and compensatory restoration plans, and negotiating settlements with federal and state resource Trustees. GHD has been active member of the Ad Hoc Industry Natural Resources Group for over 20 years. GHD representatives recently served on a working committee that developed a conceptual model for integrating NRDA throughout the CERCLA process. GHD has incorporated post remedial restoration features that enhanced the services provided by the restored resources for a number of sites including at the Love Canal, 102nd Street Landfill and Star Lake Superfund Sites.

Our team has a wealth of local (Michigan) and North American experience specific to dam decommissioning and river restoration projects. The City can feel confident that we understand this project and have the staff to complete each and every task that makes up a part of this important project. GHD will be partnering with select subcontractors to provide additional synergy for this project. However, GHD will be managing all phases of the project bringing decades of experience, innovation, and creativity to your project and the community of Plainwell.

GHD has strategically retained the services of Environmental Consulting and Technology (ECT) to enhance our project team. ECT has a strong resume

Star Lake

pertaining to dam removals including river restoration and fish passage design and will provide their expertise to ensure the project is executed successfully. ECT is a specialty-engineering firm dedicated to restoring rivers, wetlands, and estuaries. More specifically, ECT has experience working with the United States (US) Army Corps of Engineers and recent dam decommissioning experience in the state of Michigan as a key subcontractor on the Watervliet Dams removal project on the Paw Paw River.

GHD will utilize additional subcontractors to support the project as necessary. Trusted subcontractors such as HopkinsBurns Design Studio (State Historic Preservation Office support/Section 106 support), Prein and Newhof (survey), Spicer Group (bathymetric survey work) and Eurofins (sediment sample analysis), are ready and able to perform their tasks for the project.

We've included a table of client references for similar projects, as well as GHD's and ECT's dam experience at the end of this section.

Devil's Swamp Lake

Client Reference Information

Client	Project Name / Location	Reference Information
Star Lake Canal Cooperating Parties (Clark Hill Strasburger)	*Star Lake Canal Superfund Site, Jefferson County, TX*	Tobias Smith Common Counsel for Cooperating Parties T: 214 651 4611 E: tsmith@clarkhillcom
Potentially Responsible Party (PRP) Group	*Human Health and Ecological Risk Assessment, Devil's Swamp Lake Superfund Site, Baton Rouge, LA*	John Arbuthnot Director of Facility Closures T: 225 778 3596 E: arbuthnot.john@cleanharbors.com
Westchester County Department of Public Works, Westchester County Department of Parks, Recreation and Conservation, and the Village of Irvington, NY	*Woodlands Lake Dam Decommissioning, Irvington, NY*	David DeLucia Director of Department of Parks Recreation and Conservation (DPRC) for Westchester County T: 914 760 4915: E: djd2@westchestergov.com
Berrien County Brownfield Redevelopment Authority	*Watervlliet Dams Removal Monitoring, Berrien County, MI*	Dan Fette Director T: 269 983 7111 ext. 8617 E: dfette@berriencounty.org

Representative Dam Project Experience for GHD

Client	Dam
Country Club of Darien, CT	Goodwives River Spillway Replacement and Pond Enlargement
South Central Connecticut Regional Water Authority, New Haven, CT	Program audit for capital expenditure forecast of Water Authority including Natural Resources (dams, tunnels and conduits)
City of Fulton, NY	Sharps Pond Dam Decommissioning
City of Little Falls, NY	Spruce Lake Dam Inspection & Maintenance Plan, Emergency Action Plan, Engineering Assessment and Safety Inspection
City of Norwich, NY	Canasawacta Creek Dam Decommissioning
City of Norwich, NY	Reservoir #1 Dam Emergency Action Plan, Inspection & Maintenance Plan, Engineering Assessment & Safety Inspection
City of Rome, NY	Boyd Dam Emergency Action Plan, Engineering Assessment and Safety Inspection; 2 year Safety Inspection
City of Sherrill, NY	Oneida Ltd . Dam No. 2 Feasibility Report for Repair for Decommissioned Dam
City of Syracuse, NY	Upgrades to Skaneateles Lake Dam
Orchard Park, NY	Green Lake Dam Emergency Action Plan & Inspection and Maintenance Plan Update
Port Jervis, NY	Reservoir #1 Dam Emergency Action Plan, Engineering Assessment and Safety Inspection
Town of Peru, NY	Water Supply Reservoir Dam Restoration and Bypass Pumping Structure Design and Construction
Van Hornesville, NY	Van Hornesville Dam Feasibility Report for Repair and/or Decommissioning of Dam
Village of Mamaroneck, NY	Mamaroneck Dam at Westchester Joint Water Works Emergency Action Plan, Inspection and Maintenance Plan, and Decommissioning Plan
Westchester, NY	Pocantico Lake Dam Emergency Action Plan and Inspection Maintenance Plans and Remediation Project to meet State Standards for Design and Construction
City of Westminster, MD	Modification of Medford Quarry Dam for a Raw Water Intake Structure
Palmyra, NY	Industrial Client - Dam Evaluation for classification purposes and potential regrading of area adjacent to Dam
Cambridge, NY	New York American Water - various water supply dams' evaluations for repairs
Borough of Tyrone PA	Design of Repair to Spillway

Representative Dam Project Experience for ECT	
Client	Dam
Washtenaw County Water Resources Commission	Johnson Creek Inter County Drain Habitat Restoration
Alliance of Rouge Communities/Wayne County	Rouge River AOC NOAA: Wayne Road Dam Removal
Alliance of Rouge Communities/City of Farmington Hills	Rouge River AOC Danvers Pond Dam Removal Implementation
Alliance of Rouge Communities/Wayne County	Rouge River AOC Oxbow Restoration Phase 3
Berrien County Brownfield Redevelopment Authority	Watervliet Dam Removal and Stream Restoration
Alliance of Rouge Communities/ Northville Township	Rouge River AOC- Johnson Creek Fish Hatchery Park
Alliance of Rouge Communities/ City of Southfield	Rouge River AOC Tamarack Creek Restoration
Alliance of Rouge Communities/ Wayne County Parks	Rouge River AOC Wetland and Habitat Restoration at Riverview, Sherwood, Bell Creek, Lola Valley, and Lower Rouge
Alliance of Rouge Communities/ Wayne County Parks	Rouge River AOC Habitat Restoration at Colonial and Venoy Parks
Alliance of Rouge Communities/ City of Farmington Hills	Rouge River AOC Seeley Creek Restoration "
Wayne County	Rouge River AOC Nankin Lake Restoration"
Alliance of Rouge Communities/Wayne County	Rouge River AOC Henry Ford Estate Fishway"
Alliance of Rouge Communities/City of Southfield	Rouge River AOC Transforming the Rouge: Valley Woods wetland restoration; grow zones
Henry Ford CC	Kingfisher Bluff Restoration
City of Southfield	Carpenter Lake Restoration
Wayne County	Newburgh Lake
Wayne County	Oxbow Restoration Phase I
Friends of Detroit River	Stony Island Restoration Implementation
Friends of Detroit River	Celeron Island Restoration Implementation
Friends of Detroit River	Stony and Celeron Islands Restoration Design
Friends of Detroit River	U.S. Steel Shoreline Habitat Restoration
Friends of Detroit River	Blue Heron Lagoon Restoration
Friends of Detroit River	South Fishing Pier Restoration

Representative Dam Project Experience for ECT	
Client	Dam
City of Monroe	Sterling Island Restoration
EQM/U.S. EPA	St. Clair River AOC - Port Huron and Cottrellville Restoration Implementation
Faust Corp/St. Clair County Drain Commissioner	St. Clair River AOC - Marine City Drain Restoration Implementation
Inland Lakes/City of Marysville	St. Clair River AOC - Cuttle Creek Restoration Implementation
Michigan Department of Environmental Quality	Portage Creek Restoration
Alliance of Rouge Communities	U.S. Forest Service: Reforestation Grants
Alliance of Rouge Communities/RRAC	Rouge River Remedial Action (RRAC) PAC Support
Confidential Client	North Maumee Bay Habitat Restoration
EPA/GLNPO	Ecosystem Based Habitat Bluepints Great Lakes AOCs
Boardman River Dams Committee	Dams Feasibility Study on Boardman River
City of Ann Arbor	Miller Creek Streambank Stabilization
City of Ann Arbor	Millers Creek Sedimentation Study
City of Southfield	Streamwood Streambank Stabilization
City of Southfield	Beechwoods Streambank Stabilization
Thurston Nature Center/ Ann Arbor Public Schools	Thurston Pond Restoration
University of Michigan	Restoration Nicholas Arboretum-Huron River
Cranbrook Institute of Science	Kingswood Lake Restoration
Huron River Watershed Council	Mill Creek

→ Firm Overview

GHD has 130+ dam professionals to meet the City's project needs

→ We are a global professional services company that leads through engineering, construction and architectural expertise. Our forward-looking, innovative approaches connect and sustain communities around the world. Delivering extraordinary social and economic outcomes, we are focused on building lasting relationships with our partners and clients.

Established in 1928, we remain wholly owned by our people. We are 10,000+ diverse and skilled individuals connected by over 200 offices, across five continents – Asia, Australia, Europe, North and South America, and the Pacific region.

90+ years in operation
135+ countries served
200+ offices worldwide
1.6B USD revenue 2021
5 global markets
10K people
50+ service lines

↳ **Providing engineering, environmental, advisory, architecture, digital and construction services**

Communication

Clear, unambiguous lines of communication and reporting are essential to effective project team leadership and management, and ultimately, to project success. Our project management approach is built on trust, a clear definition of shared goals, and a mutual understanding of the steps needed to achieve those goals.

We have assembled a team custom-fit to your program, with directly relevant Engineering and Architectural experience for a variety of building and facilities for various State agencies. GHD recognizes that beyond establishing the vision and organizational structure, to operate as a high performing team, it is essential for all stakeholders to be fully aligned and working on the same assumptions.

Quality Assurance / Quality Control

A strong quality program is a core element of the GHD approach to project management.

GHD's quality assurance program is governed by GHD's North American Quality System which is certified to the ISO 9001 International standard and is audited regularly by external auditors and our internal quality teams.

GHD has developed the quality system in a streamlined approach, using standardized forms and checklists to make compliance simple and allow for easy internal and external system auditing. In order to maintain the ISO 9001 accreditation, compliance with the quality system must be documented for each project.

The quality assurance portion of the overall quality system establishes processes for project execution that contribute to high-quality projects. These quality assurance practices can be of a technical or administrative nature. For instance, experience has shown that maintaining continuity of key project members throughout the entirety of a project helps contribute to overall project quality.

As such, the GHD quality assurance program requires documentation of key project team personnel at the beginning of a project and requires that changes in key personnel are both documented and approved with justifications for the changes.

The goal of the quality control portion of the system is to provide for detailed technical reviews of work products by senior professionals independent of the project team to ensure clarity, accuracy, completeness, constructability, and consistency. The quality assurance procedures require mandatory quality control reviews at each phase of the project and prior to submitting any deliverable to a client. GHD's senior management team reviews the client satisfaction results on a regular basis to identify any areas where performance has dropped below satisfactory levels and to identify any emerging trends to allow appropriate corrective actions to be put in place.

→ Commitment to DBE Participation

As a firm, GHD is committed to meaningful participation of DBE firms on all of our projects, and to satisfying or exceeding the City's MBE, WBE, and / or SVDOB participation goals.

GHD's has long established relationships with local DBE partners, having collaborated previously on similar projects. As our scope of services for this work is refined, these roles will be refined as well.

Subconsultants

(Fish Habitat | Permitting) – **Environmental Consulting & Technology, Inc. (ECT)**, serves private and public sector clients by integrating science, engineering, technology, planning and management systems to provide practical solutions to complex challenges. Founded in 1988, ECT has more than 28 successful years of experience working to restore water resources in Michigan. Restoration projects, particularly those within a river system, often present challenging environmental problems. They require an approach that thoroughly considers the unique project-specific funding, regulations, ecology, engineering, setting, stakeholders, goals, and social issues. ECT understands that this thorough approach is essential to achieving sustainable solutions and, therefore, uses natural design principles that restore and stabilize aquatic environments, while creating lasting landscapes where people connect with and experience these vital ecosystems.

ECT builds strong relationships with clients and facilitates beneficial relationships with local, state, and federal agencies. These relationships enable staff to provide practical and sound solutions to difficult challenges, resulting in proactive, effective management of aquatic biological resources. The ECT staff members develop cost-effective scopes of study, based on best management practices, to achieve the project goals. With expertise in fisheries, aquatic ecology, and water quality, ECT, offers clients tailored solutions for complex environmental projects ranging from regulatory compliance and industrial permitting to habitat restoration and sustainable practices. ECT has nationwide experience working for and with the regulated community. Their unparalleled Project Experience includes:

- Extensive experience working in impacted streams and designing restoration projects meeting their particular challenges.
- Overseen construction of numerous miles of toewood in Michigan rivers.
- Extensive experience with community outreach and education efforts to engage the public.
- A vast amount of experience working on NOAA and Great Lakes Restoration Initiative grant-funded projects.

(Survey) – **Prein&Newhof** has grown from a venture of two engineers working from rented space in Grand Rapids in 1969, to an established business that employs more than 150 people across Michigan. When it comes to surveying, small details make a big difference. Of course, detailed information is only useful if you can understand it, so Prien&Newhoff strive to present surveys clearly and their plans are always clean and easy to read—designed with you in mind.

Accuracy and thoroughness is their focus—researching and reviewing each survey carefully to meet your specific needs. Their state-of-the-art equipment allows them to accurately and efficiently transfer information from field to plan and back again. History is also important; Prein&Newhof has records of surveys in the State of Michigan that date back to the early 1900s. Their capabilities include: Addressing; ALTA/ACSM; As Constructed; Boundary Surveys; Cemetery Surveys; Construction Staking; Deed Mapping; Drain Surveys; Legal Descriptions; Mortgage Inspections; Quantity Surveys; Topographic Surveys (With Unmanned Aerial Photography).

(Riverine Substrate Contractor) – **Spicer Group**'s focus is on the Earth's surface waters including lakes, creeks, streams, rivers and storm water runoff—and how they affect the world we live in. Their Water Resources Group is a collection of highly-educated engineers and designers who specialize in finding a balance between the Earth's surface, water, natural environment, and society. This is accomplished by way of innovative storm water drainage and flood control designs, dam design and inspection, development of storm water management plans, unique in-stream and stream bank restoration efforts, and quality-engineered lake level control structure designs and plans. They have years of experience using the natural environment and green-engineering practices in managing storm and surface water issues and pride themselves on being able to accomplish this while implementing design parameters that produce equal benefits to the public, natural environment and their clients' budgets.

(Cultural Resources/SHPO/Archeology) – **HopkinsBurns Design Studio** has had extensive experience working with the Michigan State Historic Preservation Office (SHPO). Individual team members for this project have SHPO project experience ranging from 10 to 40+ years. Our projects with SHPO involvement include Historic Tax

Credit projects, National Register nominations, Section 106 reviews, projects funded by SHPO-administered grants, and Michigan Lighthouse Assistance Program grants. We are familiar with SHPO procedures and staff and have a working knowledge of their expectations. At the Plainwell Mill, we authored the site's National Register Nomination, have been involved in the rehabilitation of Buildings 17 and 18, demolition of non-historic buildings in 2010 (including Section 106 review), and additional demolition work between 2019 and 2022 – all of which involved SHPO oversight or approvals.

Examples of Pollutant and Toxin Analysis and Ecological Risk Assessments

Devil's Swamp Lake Superfund Site

GHD conducted both a Human Health Risk Assessment (HHRA) and an Ecological Risk Assessment (ERA) as part of the Remedial Investigation/Feasibility Study for the Devil's Swamp Lake Site. The Site consists of a man-made lake and associated wetlands located on the Mississippi River floodplain. PCBs were identified by the USEPA as the primary constituents of concern (COCs). The objectives of the HHRA and ERA were to determine whether exposure to PCBs via surface water, sediment, and biological tissue pose potential health risk/hazards to human and ecological receptors. To evaluate potential health risks to ecological receptors, GHD conducted a Screening-Level Ecological RiskAssessment (SLERA), Step 3 Problem Formulation report, and Baseline Ecological Risk Assessment (BERA). The SLERA and Step 3 identified a potential for risk to fish due to bioaccumulation of PCBs and to avian and mammalian wildlife due to consumption of benthic invertebrates and fish from the Lake. GHD successfully negotiated no further assessment of risk to the benthic invertebrate community for the BERA using scientifically based arguments regarding the ecotoxicology of PCBs. The BERA considered Site- specific exposure for fish and wildlife by analyzing whole body crawfish and fish (bass, catfish, and sunfish) collected from the Lake for 209 PCB congeners and developing Site- specific biota-sediment bioaccumulation factors (BSAFs).

The BERA concluded that body burden concentrations of PCBs in fish tissue and consumption of crawfish and fish from the Lake do not pose unacceptable to fish and wildlife, including bald eagle. Based on the strength of the BERA, the Agencies concluded that remedial measures are not required for protection of ecological receptors.

Star Lake Canal Superfund Site

The Star Lake Canal Superfund Site is a 400-acre complex of water courses and tidal marsh adjacent to the Neches River in Jefferson County, Texas. GHD performed multiple phases of soil, sediment, surface water and biological tissue sample collection as part of the RI. Both human health and ecological risk assessments were performed. The ecological risk assessment identified potential risk to ecological receptors based on several COCs, including PCBs.

The remedial action for the Site was driven by protection of benthic invertebrate communities exposed to PCBs, PAHs, pesticides, and metals in sediment. The Record of Decision (ROD) identified approximately six acres of water course and 21 acres of tidal wetlands requiring remediation. GHD worked with natural resource Trustees representing the state of Texas, United States Fish and Wildlife Service (USFWS), and National Oceanic and Atmospheric Administration (NOAA) on a cooperative Natural Resource Damage Assessment (NRDA) for the Site. GHD incorporated habitat enhancements into the remedial design (RD) to replace loss of ecological services and to provide credits for compensatory restoration. In particular, the RD included measures to ensure that the RA would not adversely affect water levels and tidal flow in the marsh.

The Record of Decision (ROD) identified placement of a cap over existing elevations in a sizable portion of the marsh, which would convert tidal marsh to uplands. In order to preserve marsh habitat, the RD provided details for physical removal of Phragmites, an aggressively invasive nonnative plant species, and grading the area of Phragmites removal to create an interspersion of open water habitats with restoration of native tidal marsh plant species. The cooperative NRDA will focused on the injury assessment and identification of opportunities for enhancing areas of the tidal marsh outside the limits of the Remedial Action.

2. Scope of Work

Project Understanding

The Island City has a great opportunity to remove outdated infrastructure and restore a reach of the Kalamazoo River for improved habitat value and recreational boating. The design of this multi-benefit project is being funded by the Kalamazoo River Natural Resource Trustees through a partnership grant with the National Oceanic and Atmospheric Administration (NOAA) and the National Fish and Wildlife Foundation (NFWF).

On August 30, 1990, the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site was officially included on the National Priorities List (NPL) pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, 1980 PA 96-510. GHD understands that the site was placed on the NPL because the sediments, soils, water column, groundwater and biota within this site were contaminated with PCBs. The PCB contamination was the result of area paper mills discharging the waste from their recycling of carbonless copy paper. The Kalamazoo River, including the Mill Race in Plainwell, Michigan are part of Operable Unit No, 05 (OU-05) of the larger Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site. The Plainwell, Inc. Mill property is identified as OU-07. OU-07 extends to the top of the bank of the Kalamazoo River/Mill Race and does not include sediments.

This project will remove the Plainwell #2 Diversion Dam, the Mill Race Dam and associated infrastructure and will implement natural channel restoration work and in-stream grade control riffle structures as needed to facilitate fish and recreational passage. By utilizing natural structures in-stream to accommodate variable flow conditions while maintaining a desired baseflow through the Mill Race, infrastructure maintenance costs to the city are expected to be reduced over time. Furthermore, GHD understands that the MDNR, as primary owner of the Plainwell #2 Diversion Dams, is in agreement with the removal of those structures.

During the design and scoping phase of the project GHD will be sure to keep options available to the City to allow future plans to be carried out as easily as possible. Communication is key and GHD will work with the City to ensure the project progression and plans are understood and agreed upon.

Mill Race Upstream

Mill Race Downstream

→ 2. Scope of Work Outline

The scope of services for the dam decommissioning project will include the tasks to fully execute the project through Design and Bidding Phase Services. The following outline is described in more detail in Section 3.

Task 1 - Investigation / Schematic Design

Task 2 - 30%, 60%, 90% Design Development

Task 3 - Permitting

Task 4 - 100% Design Development

Task 5 - Bidding Services

There will be several physical deliverables for the dam removal services required to bring the project to successful completion. Design will be data driven and we will be sharing information with the City along the way for review and input as the design progresses.

The following are deemed necessary:

- Schematic Plan – Figures and Technical Memorandum
- 30%,60%, 90%, and 100% Contract Drawings and Technical Specifications
- Opinion of Probable Cost Estimate
- Permit Applications
- Letter of Bid Recommendation

GHD is prepared to begin work immediately after receiving Notice-To-Proceed (NTP). It is anticipated the design assignment (including securing permits) will take approximately 17 calendar months pending review times by the City and Regulators. The following project milestones are proposed to meet the project deadlines.

Task	Deliverable
Notice-to- Proceed	Week of 7/11/22
Site Inspection	Week of 8/1/22
Bathymetric / Topographic Survey	Week of 9/5/22
Sediment / Water Quality Sampling	Week of 9/19/22
Hydrologic and Hydraulic Analysis	Week of 10/3/22
Schematic Design Deliverable	Week of 10/10/22
City Review	until 10/27/22
MDNR Engagement Meeting	Week of 11/24/22
30% Design Deliverable	Week of 12/19/22
60% Design Deliverable	Week of 2/13/23
90% Design Deliverable	Week of 4/10/23
Procure Permits	Week of 11/6/23
100% Design Deliverable	Week of 11/20/23
Bid Letting	Week of 11/27/23

Assumptions

- Regarding FEMA, no Conditional Letters of Map Revision / Letter of Map Revision (CLOMR/LOMR) are included or expected to be necessary, as we understand the preliminary FIS has not been finalized and we assume it will not be finalized during this project. A no net rise certification may be required to be completed. Once FEMA requirements are confirmed, GHD could prepare an appropriate scope of work and fee to execute the work.
- The Mill Race Dam and the Plainwell #2 Dam are both located within Area 1 of Operable Unit 05 of the Kalamazoo River Superfund Site at River Miles 56.6 and 58.3, respectively. A Time-Critical Removal Action (TCRA) was performed from 2007 to 2009 at the Former Plainwell Dam which is located downstream of the Mill Race Dam. Approximately 127,000 cubic yards of sediment and soil were removed and disposed off-site. From 2009 to 2010 another TCRA was performed at the Plainwell Dam #2. This TCRA removed approximately 16,000 cubic yards of sediment and soil which were also disposed off-site. The sediment performance standard goal was the same for both TCRAs (i.e., 1 mg/kg PCBs) and PCB concentrations in sediment is expected to naturally attenuate. A review of pre- and post-2018 PCB data for the Mill Race area showed sediment concentrations were less than 1 mg/kg. Based on the foregoing, it appears unlikely that elevated concentrations of PCBs would be encountered in sediment associated with removal of the dam remnants. We are therefore assuming that any off-site disposal of sediment would not include TSCA-regulated material.
- GHD has provided submittal dates along with turn-around times to accommodate the regulatory review process for the purpose of this proposal. Assumptions were made based on our prior experience with these offices:
  - For SHPO - allow for 90 working days
  - For USACE – allow for 150 working days
  - For EGLE, individual permits – allow for 120 working days
  - For MDNR and local permitting– allow for 30-90 working days
  - No known endangered species or threatened species are identified within the project areas
  - Our assumption is that a mitigation plan will not be needed as an outcome of the Section 106 review. If it is determined that one is necessary, we will provide this as an additional service.
- Proposal assumes nominal costs required to gain access to private property at the Plainwell #2 Dams location
- Based on available data, an Environmental Assessment (EA) will not be required at this stage; therefore, no costs are included herein
- Permit Application fees are not included in design fee
- GHD would utilize the Terms and Conditions similar to those currently in place with the City of Plainwell

3. Narrative

→ 3. Narrative

The following narrative details specific considerations important to the successful design, permitting, and issuance for bid of this project.

Project Familiarization

GHD will review existing plans and information provided by the City. GHD already has copies of some of the materials in our office. We also will use the information provided in the RFP including (in no particular order):

1. Kalamazoo River NRDA Administrative Record: https://www.diver.orr.noaa.gov/web/guest/diver-admin-record?diverWorkspaceSiteId=6723.
2. Kalamazoo River Trustees, 2021 – Kalamazoo River NRDA Trustee Council Resolution 2021-02; https://pub-data.diver.orr.noaa.gov/admin-record/6723/Kz%20TC_Resolution%202021_02%20SRP_EA%20and%20project%20funds%20sign ed%2009_16.pdf.
3. Kalamazoo River Trustees, 2021 – Kalamazoo River Supplemental Restoration Plan and Environmental Assessment – Final; https://pub-data.diver.orr.noaa.gov/admin-record/6723/Final%20Kz%20SRP_EA%202021%20final.pdf.
4. USGS, 2006 – Fluvial Geomorphology – Study of the Kalamazoo River. http://mi.water.usgs.gov/splan5/sp11100/kfluvial.php.
5. USGS, 2005 – Historical and Simulated Changes in Channel Characteristics of the Kalamazoo River, Plainwell to Otsego, Michigan; https://pubs.usgs.gov/sir/2005/5044/pdf/SIR2005-5044.pdf.
6. USGS, 2003 – Annotated Bibliography of Selected References on PCB and the Kalamazoo River Superfund Site, Michigan, 1982-2002; https://pubs.usgs.gov/of/2003/ofr03-338/pdf/OFR2003-338.pdf.
7. Water-Resources Investigations Report 02-4098 (Sediment Distribution and Character Related to Select Dams on the Kalamazoo River) .
8. USGS Scientific Investigations Report 2005-5044 (Historical and Simulated Changes in Channel Characteristics of the Kalamazoo River, Plainwell to Otsego, Michigan.

GHD will review and summarize what is known from this existing information in a brief memorandum with highlights specific to applicable design criteria (e.g., natural channel dimensions, plan, profile; habitat criteria; and fish passage criteria for target fish species). Within the draft memo, which will become part of the Basis of Design Report, GHD will summarize the current understanding of the fluvial geomorphology of the system, historic and current conditions, and potential future stable conditions following dam removal. The memo will be shared with the City and other stakeholders as appropriate for discussion and establishment of consensus on a conceptual approach for stream restoration following dam removal.

Utility Coordination

GHD will contact utility companies that may have facilities adjacent to the impoundment and obtain their utility plates. GHD will work with the utility companies to coordinate any utility upgrades that may be required under this project. The surveyor will add utility locations to the survey to be completed.

Project Planning

GHD will identify inputs and information and measurements that need to be obtained, e.g., analyses of specific contaminants, toxicity test results, biological assessments, bioaccumulation data, survey data for channel cross-sections and long profile, habitat assessments, hydrology, hydraulics, and water quality characterizations.

GHD will coordinate with the City and MDNR to define the study boundaries, establishment of consensus on a conceptual approach for stream restoration following dam removal , identify potential sources of contamination; determine the location of sediment deposition zones; determine the frequency of sampling and needs. GHD understands MDNR's intent is to focus the majority of the sampling program along the primary stream corridor which is most likely to be impacted during the proposed dam decommissioning. GHD will coordinate all sample locations with the MDNR.

Based on GHD experience with dam removal/modification, special consideration will be made to the topography and natural riverine features within the backwater area, hydraulic patterns, flow event frequency, and/or sedimentation accumulation for determining sampling frequency and locations. Correspondingly, good topographic surveys are needed in order to accurately assess the backwater area. As part of the planning process GHD will prepare a project specific health and safety plan (SSHP) for the project.

Assessment (River Morphology)

An assessment of river morphology will be conducted to determine the geomorphic grade line and level of stream instability. GHD will complete a desktop analysis of drainage area, local USGS gauge station flows, and bankfull hydrology. Field indicators will be flagged in the field using pin flags prior to the survey and the location and ground surface elevation recorded during project surveying.

Survey and Base Plan Preparation

GHD will create base plans for the project using Light Detection and Ranging (LiDAR) data, if available and can be provided by the City. The base plan coverage will be sufficient to cover the entire impoundment area as well as areas downstream of the dams. The base plan will also show potential construction staging and access areas.

The surveyor will utilize the current Site datums and establish additional survey control points as necessary for the future construction. Any existing plans provided by the City may be used to help develop the base map.

At a minimum, the following features will be included in the survey:

- Dam, associated retaining walls, and adjacent slopes
- Thalweg profile (lowest points along the length of the Mill Race) from the dam to at least 200 feet downstream of the dam and 200 feet upstream of the impoundment (the remaining profile through the impoundment will be generated from the bathymetric survey)

Channel cross sections through the project reach:

- All possible areas of work
- Potential areas of access for construction equipment
- Underground utilities, if any, in the active project area identified via a Michigan One Call

GHD will perform a bathymetric and sediment survey by surveying the backwater area by a licensed surveyor using conventional topographic and hydrographic methods to provide mapping and a digital terrain model of the backwater area, sediment surface, dam, and pool area below the dam. The sediment sampling locations will also be surveyed to provide horizontal coordinates and vertical elevations will be coordinated with existing water or ground levels at the time of surveying and sampling. Horizontal and vertical control will be based upon the Michigan State Plane Coordinate System, North Zone on the North American Datum of 1983 and the National Geodetic Vertical Datum of 1929.

Conventional Bathymetric Survey: With the water levels at close to normal pool elevation, GHD will facilitate a hydrographic survey of the impoundment. The bathymetric data will be gathered in a 10' transverse x 50' longitudinal grid over the extents of the backwater utilizing sonar sounder techniques. Additional data will be gathered in locations where uncharacteristic stream bed features were identified during previous studies. The bathymetric survey will identify the top of impounded sediment. Sediment depth probes will be completed to identify depth of refusal (DOR). Probes will be completed approximately every 200' along the impoundment profile and include at least three locations across the impoundment perpendicular to the profile.

Survey data will be provided in hard copy format and digital format. Digital topographic maps are to be provided in AutoCAD format (2019 or newer). All hard copy plans are to be signed and sealed by a Michigan licensed land surveyor.

To complete the work described above, GHD and its subcontractors will need to work on the water behind the dam. For health and safety purposes, the dam spillway cannot be active while boats or barges are on the water. Since the spillway is uncontrollable, the health and safety plan will accommodate for boats, barges, equipment, and personnel on the water during overflow.

If available, the LiDAR data will be blended with the bathymetry field topographic survey (channel thalweg survey upstream of impoundment and downstream of dam). Cross sections and profiles can then be generated where needed for project design. The profile will show channel conditions entering the lake, water surface, top of sediment, depth of refusal dam crest and channel conditions downstream of the dam. Likewise, cross sections across the impoundment will show water surface, top of sediment and depth of refusal. This information will be used to estimate impounded sediment volumes.

GHD will conduct a cross-section survey to provide the geometric data to be used for the hydraulic and sediment transport modeling. The survey will cover the approximately 2-mile river reach from the dam along the Kalamazoo River.

Channel Survey Data

Channel survey data will be entered into RiverMorph for design and to share with the technical team. RiverMorph will be used to calculate bankfull hydraulics and sediment competence. Once the RiverMorph database is built, RiverMorph can be used during design development to evaluate project design alternatives. The preliminary geomorphic assessment will include quantitative measurements of dozens of key parameters based on the WARSSS framework (Rosgen, 2007) including, but not limited to:

- Time-trend analysis of historical aerials
- Existing and proposed river gradient, historical geomorphic grade line, pool spacing
- Bankfull discharge, velocity, shear stress, sediment competence
- Bankfull width-to-depth ratio, entrenchment ratio, bank height ratio, pool depth ratio

- Planform measurements from aerials such as: sinuosity, radius of curvature-to-width ratio, belt width, channel migration zone
- Channel bed and bank materials
- Determination of bankfull discharge and dimensions at upstream reference reach(es)
- Qualitative assessment of the class of vegetative community and invasive species

Following the collection of data, a Geomorphic Assessment Report will be prepared to document existing morphological conditions. This document will be shared with the technical team to build consensus and used to support permitting.

Wetland and Floodplain Delineation

A wetland and floodplain delineation will be conducted to identify and delineate features subject to EGLE and local jurisdiction. The wetland delineation will follow the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual, and appropriate Regional Supplement(s) and the statutory criteria of Part 301, Inland Lakes and Streams, Part 303, Wetlands Protection, and Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994, PA 451, as amended. Delineated wetland boundaries will be flagged for later surveying. Delineation of the floodplain will rely upon existing 100-year base flood mapping conducted by the Federal Emergency Management Agency (FEMA). Applicable Flood Insurance Rate Maps, Flood Insurance Study, and spatial data will be obtained from the FEMA website and used to develop mapping in support of project design and permitting. A Wetland and Floodplain Delineation Report will be developed to document the methods and results and support permitting. The wetland delineation report will include text, maps, aerial photographs, site photos, and USACE wetland data forms.

Assessment (T&E)

An assessment of Threatened and Endangered (T&E) plant and animal species will be conducted by querying the Michigan Natural Features Database and the U.S. Fish & Wildlife Service Information for Planning and Consultation System (iPaC). A list of threatened and endangered species will be developed using spatial queries centered on the affected project area. In addition, existing available information for the Kalamazoo River Superfund Site will be obtained and reviewed for pertinent information regarding T&E plant and animal species. Species on the list generated by our spatial queries and information review will be evaluated to determine those that have the potential of existing within the affected project area and affected by the project based on habitat and life history. The query will be condensed into a list of T&E species of interest for further consideration. Habitat and life history information for those species of interest will be obtained from available public sources for further evaluation. A final list of T&E species that could reasonably be impacted by the project if present will be presented to the project technical team for consideration. Species-specific surveys are not included in this scope of work and may or may not be necessary. Consultations with the technical team and applicable state/federal agencies will be used to determine if any species-specific surveys are necessary. Any surveys deemed necessary will be developed into a scope of work and costs estimates developed as needed.

Sediment and Water Quality Sampling Plan

From preliminary investigations, GHD understands that the improvement at the dam will consist of a dam removal. Of concern with any dam lowering or removal project is the potential release of accumulated sediments to the downstream river channel and aquatic environment, and the subsequent geomorphological change in the downstream river. To evaluate the sediment flushing potential of lowering the subject dam in this project, it is important that the sediment deposit in the reservoir be accurately sampled, tested and characterized. This would include selected physical sediment properties including the determination of grain size distribution, Atterberg limits (for cohesive sediment), porosity, density, water content, and possibly the cohesive strength of the deposited sediment. Organic matter content and pollutants in the deposited sediment must also be determined to be used in evaluating the environmental impacts of any sediment flushing to the downstream channel. If possible, sediment sampling of the reservoir inflow (concentration, particle size, and turbidity) should be performed since they play important role in the sediment transport analysis to be followed.

GHD has recommended the following sediment testing protocols to be used for project: A maximum total of 45 borings will be advanced in the backwater area using a barge mounted Geoprobe. Each of the proposed borings will be advanced through the sediment until refusal. The drilling firm will set casing through the water column into the sediment and dewater the sampling location. The Geoprobe borings will be advanced through the casing utilizing a four-foot-long discrete sampler, which will be pushed using the hydraulic rams of the Geoprobe rig. A maximum of 45 sediment samples will be collected using a four-foot MacroCore open sampler. The sample tube will be retrieved from the subsurface, cut along its length, and visually inspected. Sediment samples will be collected until refusal to confirm the sediment thickness.

Each of the sediment samples submitted to the laboratory will be analyzed for Grain Size, Organic Content, Porosity including Specific Gravity, Density, Water Content, Turbidity of the samples using a hydrometer over a six-day period, and the Compressive Strength. Shear testing of selected samples (at least 8 samples) of the top layer of sediment deposit, which might show strong cohesion strength, will be conducted to provide the critical shear stress for cohesive sediment to be used in the sediment transport modeling.

GHD will provide field oversight and facilitate laboratory analysis of the samples collected. GHD has made assumptions for testing durations and required field time for the purpose of this proposal. GHD will facilitate a turbidity control program during the course of the backwater sediment sampling program.

Steps to be taken to limit turbidity and sediment movement during the course of the backwater sediment sampling program may include: 1) establish compliance level at a level established by MDNR Central Office above ambient background levels; 2) daily water quality sampling during sampling operations within 50 feet of the barge to determine the ambient water quality at locations where sampling will take place; and 3) turbidity monitoring on a regular basis at established mixing zone locations downstream of the dam (approximately 500' downstream).

GHD proposes a total of five borings will be advanced in the primary stream corridor area at locations coordinated with the MDNR and near spillway locations to evaluate the chemistry of the sediment. Each of the proposed borings will be advanced four feet into the sediment or until refusal, whichever occurs first. The sample tube will be retrieved, cut along its length, and screened for visual/olfactory evidence of contamination. It will also be screened with a photoionization detector (PID) for the presence of contamination.

A sediment sample will be collected from the interval that exhibits the highest PID reading. If no PID readings are measured, a sediment sample will be collected from the bottom of the borehole.

Each of the sediment samples submitted to the laboratory will be analyzed for full Toxicity Characteristic Leachate Procedure (TCLP) parameters. TCLP parameters include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, herbicides, metals, corrosivity, ignitability, and cyanide.

Hazardous Materials Testing

GHD proposes testing protocols for hazardous materials for the demolition of the Mill Race and Diversion structures. The protocols which have been included in the scope are PCBs, Lead Paint, and Asbestos. The laboratory will provide ASP Category B QA/QC deliverables. A QA/QC review of the data will be completed for quality control purposes.

Engineering Analysis

Based on the sediment sampling results and the river hydrology, GHD will conduct a sediment transport analysis/modeling to estimate the reservoir sediment deposit to be flushed out of the reservoir as a result of the dam lowering. Due to the relatively shallow water depth and the general uni-directional flow in the reservoir, the U.S. Army Corps of Engineers (USACE) Hydrologic Engineering Center (HEC) river analysis system HEC-RAS will be used in this design, based on our preliminary evaluation of the existing site conditions. A more complicated modeling study utilizing Delft-3D (including sediment modelling) and also with CFD (Flow-3D and OpenFOAM) may be conducted after further assessment of the flow conditions in the reservoir with the updated survey data during the design phase of this project. For the purpose of this proposal, a fee has been included for the 3D modeling approach, GHD will re-evaluate the modeling recommendation and consider the 1D model approach after evaluation of the bathymetric and sediment survey has been completed. If it is determined that the one dimensional model will suffice, a cost savings to the City could be realized.

Based on the survey results, GHD will also conduct a sediment calculation to determine the total sediment deposit in the reservoir and annual sediment loading to the reservoir. This would then be used as the sediment loading conditions at the upstream boundary of the sediment transport model for the reservoir.

GHD will also conduct a hydraulic and sediment transport analysis/modeling for the downstream river between the dam and attenuation to determine any potential deposition of the sediment being flushed out of the reservoir. Again, for this design, the USACE HEC-RAS program will be used for this purpose.

GHD will prepare two copies of a draft technical memorandum for submittal to the City and the MDNR for review and comment. The report will include a summary of the background information and investigative procedures. The report will include a discussion of the analytical data collected during our site investigation. The technical memorandum report will include topographic maps and cross-sections that show the approximate extent of sediment within the backwater area.

Schematic Design

The schematic design effort is described below and will be happening by different teams in parallel. The proposed timeline is GHD's effort to deliver a cost effective and efficient approach.

Stream restoration design: Throughout design development, and in concert with dam removal design, the plan, dimensions, and profile of the Kalamazoo River and Mill Race will be developed. The profile of the affected channels will be designed, based on bankfull hydrology, to create stable bankfull channel dimensions post dam removal. This will include the number, spacing, and dimensions of natural riffles as necessary to create a stable channel profile, develop habitat, and promote fish passage.

Using an iterative design approach, the computer modeling program, RiverMorph, will be used to rapidly evaluate multiple design alternatives until stable conditions are achieved based on sediment transport potential under bankfull discharge and fish passage hydraulics are optimized. Hydraulic modeling using HEC-RAS will be used to further evaluate and refine channel restoration design, optimize flow splits (to maintain adequate flow in all affected channels), and optimize fish passage hydraulics. In addition, changes in sediment transport potential resulting from dam removal will be evaluated in an attempt to design the project such that sediment transport is minimized following dam removal.

GHD will minimize changes to the design channel bed profile by maintaining as close to the existing channel profile as practicable. Adding new grade control structures as necessary based on the design to maintain a new stable channel grade. Furthermore, changes in channel dimensions and bankfull height ratios will be evaluated to assess potential streambank stability. Potential instability, especially along the Mill Race and near structures (e.g., bridges and boardwalks), will be addressed using grading, bioengineering, scour protection, and structural means as necessary, while still maintaining a natural look to the Mill Race.

Fish passage design: GHD will collaborate with MDNR Fisheries Division staff, NOAA, and the project technical team to develop a list of target fish species and life stages for the development of fish passage criteria. Once the list is developed, use existing available research and biological data on swimming capabilities of the target fish species and life stages.

Our team will use that available research and data to develop fish passage criteria such as water depths and flow velocity. The profile and dimensions of the affected river channels and Mill Race near the two diversion structures and Mill Race dam will be specifically designed, in concert with dam removal and channel restoration design, to optimize fish passage hydraulics under as wide a range of flow conditions as possible. An iterative approach will be used first by applying RiverMorph to rapidly evaluate alternatives and then using HEC-RAS to model hydraulics. In particular, dam removal and channel restoration will be designed to create a water surface profile through those structures (with upstream and downstream transitions) to optimize fish passage hydraulics based on the target fish species passage criteria developed for design. Design will include structural components required to stabilize the bed, adjust channel dimensions, and create habitat as necessary but will rely primarily on natural channel design and bed forms such as riffles, vanes, etc. as opposed to hard armoring streambanks.

Civil and structural design: Cross sections will be developed across the impoundment and extend from the upper stream bank along both shorelines. GHD anticipates between 8 cross sections per reach. One section will be prepared across the dam and will serve as the phased breach detail. At least one cross section will be prepared downstream of the dam to show the proposed channel conditions after the dam is breached. Each cross section will show the shoreline grades, water surface, top of sediment and bottom of sediment. Using the impoundment bathymetry, a channel profile will be prepared along the thalweg using AutoCAD. The profile will show the water surface, top of sediment and depth of sediment. The profile will extend from the upper limits of the impoundment to a point approximately 200' downstream of the dam. The dam will be shown (thickness and height) and include any downstream scour pool. This information will also be used to plan access to the dam for breaching. The bathymetric survey and sediment depth probing data will be used to estimate impounded sediment volumes and develop sediment management plans.

GHD considers natural channel design principles on our dam removal and stream restoration projects and will consider these principles for the dam removal. The design will consider the creation of a bankfull channel using these dimensions. Using all the survey data collected, this design channel will be shown on all the cross sections. The bathymetric data will provide guidance on where the channel will form through the impounded sediment and this information will be added to the design plan sheets. Based on the information collected thus far, it appears that the dam breach and removal would be accomplished by accessing the dam from downstream.

A sediment management plan will be developed during the design task. Due to the very limited construction access upstream of the dam, one option for sediment

management is to complete a phased breach and as the sediment mobilizes, trap and remove sediment in the vicinity of the dam.

Design Development and Construction Documents

Following approval of the Schematic Design, GHD will prepare the Contract Drawings and Specifications required for bidding and construction of this project. The Design Development and Construction Documents Phases will include the development of the Contract Drawings and Technical Specifications. The design development phase will consist of the following tasks

1) Project Kick-off meeting to be held within 14 calendar days of the Contract Award.
2) Project Schedule will be submitted within 30 days of contract award.
3) Regular participation in project management team meetings with the City, MDNR, and other stakeholders to provide updates and solicit feedback on design progress (may be performed virtually – anticipate at least one 1-hour meeting per month for the duration of the project).
4) Perform a Section 106 review by subcontractor (HopkinsBurns) to assess if the dam removal adversely affects the historic Plainwell Mill, and provide recommendations on ways to avoid, minimize, or mitigate those impacts during the course of the project.
5) Prepare a QAPP and SSHP for any proposed engineering and design-related data collection activities.
6) Conduct a desktop review of existing data and collection of additional data from the site.
7) Perform hydrologic modeling and provide appropriate documentation of modeling results in a technical memorandum.
8) Prepare 30%, 60%, 90%, and final design sets, including technical specifications and a Basis of Design Report (alternative review timelines may be considered).
9) Host two public outreach events to present design components and solicit feedback from the community.
10) Prepare and coordinate necessary permit applications (State of Michigan, U.S. Army Corps of Engineers, Allegan County, etc.) and incorporate feedback from regulatory agencies into the design.
11) Prepare a bid packet and provide technical support for the solicitation of construction/implementation proposals.

GHD will prepare an opinion of probable project costs, including consulting cost and construction cost for the recommended modifications and repairs.

It is GHD's understanding that the City would procure a Consultant for the design that will include drawings to provide the finished river cross-section at the location of the impoundment and the upstream grade of the river necessary to obtain permits and complete the project. In addition, there will be multiple erosion and sediment control features necessary to maintain the water quality from sediment disturbance that may occur during construction processes. In general, the design concept is that the stone masonry and concrete structures will be removed; the river will be channelized within the old location to maintain the general grade that exists within the river; and the remainder of the backwater will be graded and need to be maintained as the floodplain.

The necessity of an Environmental Impact Statement is neither anticipated nor included in this scope. A NPDES General Permit for Stormwater Discharges from Construction Activity is anticipated based on the potential disturbance limits resulting in over one acre of disturbance. Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the construction services.

Based our experience, this project will require environmental permitting at both the federal and state level including filing a Joint Application Form for the following permits:

- MDNR Fisheries for approval
- MDNR Dam Safety
- Army Corps of Engineers Section 404 Nationwide Permit for approval
- NPDES General Permit for Stormwater Discharges from Construction Activity
- Providing documentation for local permits, if necessary

GHD understands that the project will be subject to EGLE regulations and policies . A Draft and Final Environmental Impact Assessment (EIS) are not included in the current scope of work. To support the City with a Negative Declaration, GHD will support the following tasks as a technical advisor:

1. Pre-application meeting with City and the City's counsel to discuss your procedures and timeline for EGLE. Key milestones and dates will be discussed and GHD will prepare and distribute Meeting Highlights to attendees by email.

2. GHD will answer questions / support technical input for the City's to make an informed decision.

3. GHD will prepare typical Michigan Natural Heritage and Michigan Historic Preservation letters, including a one-page project description.

GHD will prepare a permit application on behalf of the City including design report, engineering plans, Stormwater Pollution Prevention Plan (SWPPP) and specifications for the MDNR's Bureau of Flood Protection and Dam Safety. The permit will outline how the dam will be modified so that the minimal level of flood protection to the downstream area is maintained. The ultimate goal of the permit application will be to provide a plan of action to the MDNR's Bureau of Flood Protection and Dam Safety for the recommended modifications. The permit application will identify the immediate maintenance items that may be addressed by this project and the remedial actions to be addressed by a contractor. Related documentation, as required in connection with the City's responsibility for filing documents, includes, but is not limited to, permits, signoffs and coordination with utilities required for the approval of governmental authorities having jurisdiction over the project. This will include the completion of the Michigan Department of Natural Resources NPDES General Permit for Stormwater Discharges from Construction Activity and preparation of all related documentation, as required. The SWPPP will be prepared with specific erosion and sediment control management for the site and anticipated construction activities. The construction activities may include bypass pumping or siphoning, and GHD has the experience to tailor the SWPPP to that type of activity.

The scope of work includes preparing the forms and submittals for the before referenced permits and up to two personnel attending regulatory meetings with these agencies, including a public meeting, if necessary. Any further permits or additional tasks requested by regulatory agencies are not included in our scope of services and will be considered as additional services.

GHD will prepare and furnish Bidding Documents for review and approval by the City, its legal counsel, and other advisors, as appropriate, and assist the City in the preparation of other related documents. One set of bidding documents will be prepared for the project. GHD will assist the City in the preparation of the necessary bidding information, bidding forms, the Conditions of the Contract, and the form of Agreement between the City and the Contractor. No variation or modification will be made to the City's standard form of Agreement without prior written approval.

A proposed schedule and timeline for the project are presented on the following pages.

→ Proposed Project Schedule

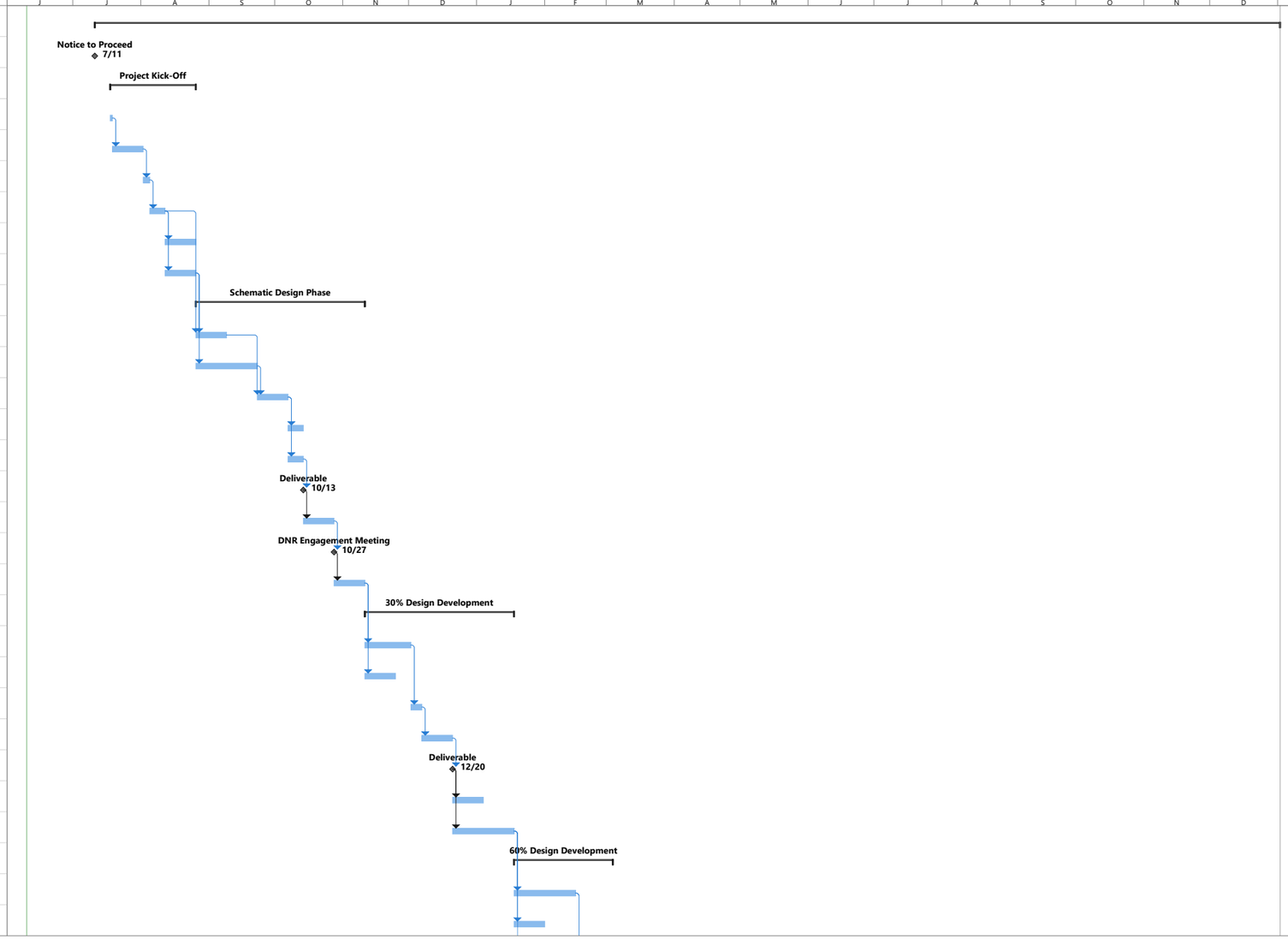
CITY OF PLAINWELL

RFP – Plainwell #2 Dam and Raceway

Structure Removal and Restoration

GHD

Task Name	Duration	Start	Finish	Predecessors
Overall Project	**386 days**	**Mon 7/11/22**	**Mon 1/1/24**	
Notice to Proceed	0 days	Mon 7/11/22	Mon 7/11/22	
Project Kick-Off	**29 days**	**Mon 7/18/22**	**Thu 8/25/22**	
Kick-off Meeting	1 day	Mon 7/18/22	Mon 7/18/22	
Review Historical Data / Records	10 days	Tue 7/19/22	Mon 8/1/22	4
Site Visits / Verify Conditions	3 days	Tue 8/2/22	Thu 8/4/22	5
Develop Design Criteria	5 days	Fri 8/5/22	Thu 8/11/22	6
Community Outreach	10 days	Fri 8/12/22	Thu 8/25/22	7
Permit Notifications	10 days	Fri 8/12/22	Thu 8/25/22	7
Schematic Design Phase	**55 days**	**Fri 8/26/22**	**Thu 11/10/22**	
Bathymetric / Topographic Survey	10 days	Fri 8/26/22	Thu 9/8/22	7,9
Sediment and Water Quality Sampling	20 days	Fri 8/26/22	Thu 9/22/22	9
Hydrologic and Hydraulic Analysis	10 days	Fri 9/23/22	Thu 10/6/22	12,11
Schematic Design Figures	5 days	Fri 10/7/22	Thu 10/13/22	13
Technical Memorandum	5 days	Fri 10/7/22	Thu 10/13/22	13
Deliverable	0 days	Thu 10/13/22	Thu 10/13/22	15
City Review	10 days	Fri 10/14/22	Thu 10/27/22	16
DNR Engagement Meeting	0 days	Thu 10/27/22	Thu 10/27/22	17
DNR Comments and Revisions	10 days	Fri 10/28/22	Thu 11/10/22	18
30% Design Development	**48 days**	**Fri 11/11/22**	**Tue 1/17/23**	
Design Drawings	15 days	Fri 11/11/22	Thu 12/1/22	19
Technical Specifications	10 days	Fri 11/11/22	Thu 11/24/22	19
Opinion of Probable Construction Cost	3 days	Fri 12/2/22	Tue 12/6/22	21
Community Outreach	10 days	Wed 12/7/22	Tue 12/20/22	23
Deliverable	0 days	Tue 12/20/22	Tue 12/20/22	24
City Review	10 days	Wed 12/21/22	Tue 1/3/23	25
DNR Comments and Revisions	20 days	Wed 12/21/22	Tue 1/17/23	25
60% Design Development	**33 days**	**Wed 1/18/23**	**Fri 3/3/23**	
Design Drawings	20 days	Wed 1/18/23	Tue 2/14/23	27
Technical Specifications	10 days	Wed 1/18/23	Tue 1/31/23	27



Project: Master_Schedule
Date: Fri 6/10/22

Task | Milestone | Summary | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Deadline | Progress | Manual Progress

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→ Proposed Project Schedule

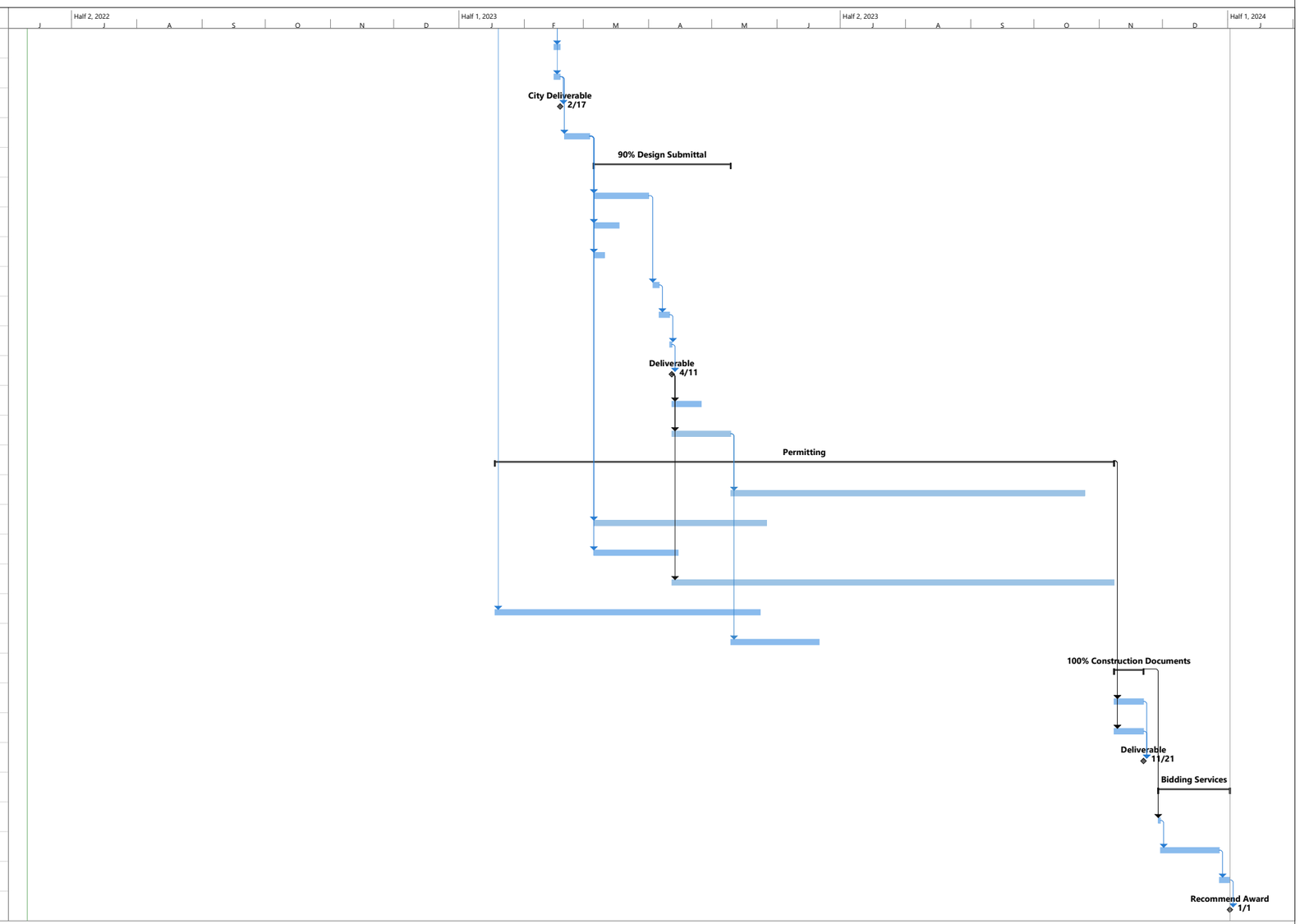
CITY OF PLAINWELL

RFP – Plainwell #2 Dam and Raceway

Structure Removal and Restoration

GHD

Task Name	Duration	Start	Finish	Predecessors
Opinion of Probable Construction Cost	3 days	Wed 2/15/23	Fri 2/17/23	29
Preliminary Constructability Review	3 days	Wed 2/15/23	Fri 2/17/23	29
City Deliverable	0 days	Fri 2/17/23	Fri 2/17/23	32
City Review	10 days	Mon 2/20/23	Fri 3/3/23	32
90% Design Submittal	**47 days**	**Mon 3/6/23**	**Tue 5/9/23**	
Design Drawings	20 days	Mon 3/6/23	Fri 3/31/23	34
Technical Specifications	10 days	Mon 3/6/23	Fri 3/17/23	34
Hazardous Materials Drawings and Specifications	5 days	Mon 3/6/23	Fri 3/10/23	34
Opinion of Probable Construction Cost	3 days	Mon 4/3/23	Wed 4/5/23	36
Final Constructability Review	3 days	Thu 4/6/23	Mon 4/10/23	39
Development of Construction Schedule	1 day	Tue 4/11/23	Tue 4/11/23	40
Deliverable	0 days	Tue 4/11/23	Tue 4/11/23	41
City Review	10 days	Wed 4/12/23	Tue 4/25/23	42
DNR Comments and Revisions	20 days	Wed 4/12/23	Tue 5/9/23	42
Permitting	**210 days**	**Wed 1/18/23**	**Tue 11/7/23**	
EGLE	120 days	Wed 5/10/23	Tue 10/24/23	44
DNR Dam Safety	60 days	Mon 3/6/23	Fri 5/26/23	34
DNR Fisheries	30 days	Mon 3/6/23	Fri 4/14/23	34
USACE Nationwide 404	150 days	Wed 4/12/23	Tue 11/7/23	42
SHPO	90 days	Wed 1/18/23	Tue 5/23/23	27
NPDES	30 days	Wed 5/10/23	Tue 6/20/23	44
100% Construction Documents	**10 days**	**Wed 11/8/23**	**Tue 11/21/23**	
Issued for Bid Drawings	10 days	Wed 11/8/23	Tue 11/21/23	45
Technical Specifications	10 days	Wed 11/8/23	Tue 11/21/23	45
Deliverable	0 days	Tue 11/21/23	Tue 11/21/23	53,54
Bidding Services	**24 days**	**Wed 11/29/23**	**Mon 1/1/24**	
PreBid Conference	1 day	Wed 11/29/23	Wed 11/29/23	52FS+5 days
Issue Addenda and Conformed Drawings and Specs	20 days	Thu 11/30/23	Wed 12/27/23	57
Evaluate Bids	3 days	Thu 12/28/23	Mon 1/1/24	58
Recommend Award	0 days	Mon 1/1/24	Mon 1/1/24	59



Project: Master_Schedule
Date: Fri 6/10/22

Task | Milestone | Summary | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Deadline | Progress | Manual Progress

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4. Cost Estimate

→ 4. Cost Estimate

GHD proposes to perform the outlined scope of work on a time and materials basis in accordance with the estimated project cost breakdown and fee schedule (below). Considering our relationship and long history with the City, GHD is offering a twenty percent (20%) discount from our standard rates. The City will be invoiced monthly for the worked performed during that given month. If selected, GHD proposes to use terms and conditions for this project which are consistent with current and past agreements between the City and GHD.

Estimated Task Budget and Total Cost Estimate

Task No.	Description	Estimated GHD Labor Rates	Estimated Subcontractor / Disbursement Costs	Estimated Project Total
1	Investigation / Schematic Design	$104,439	$121,500	$225,939
2	30%/60%/90% Design Development	$148,832	$35,200	$184,032
3	Permitting	$0	$27,500	$27,500
4	100% Design Development	$11,948	$19,250	$31,198
5	Bidding Services	$7,331	$2,000	$9,331
	Estimated Project Total	**$272,550**	**$205,450**	**$478,000**

Schedule of Rates

For services by GHD Services Inc.

Role	Hourly Rates
Project Director	$250
Project Manager	$192
QA/QC	$250
Technical Lead	$208
Risk Manager	$229
Local Coordinator	$172
Technical Director 1	$192
Technical Director 2	$172
CADD Designer	$158
Construction Manager	$194
Geologist	$142
Project Engineer	$142
Administrative	$59

Notes:

1. Rates are for employees of GHD companies.
2. Support services are included in rates above, except for administrative position as shown.
3. All travel will be invoiced at economy class rates. Lodging and meal expenses will be at cost.
4. All other project related disbursements, expenses and subcontractor costs will be invoiced with a markup of 10%.
5. Leased and personnel vehicles, field equipment, and disposable field supplies will be invoiced at established rates. Personal vehicle mileage will be charged in accordance with government regulated standard rates.

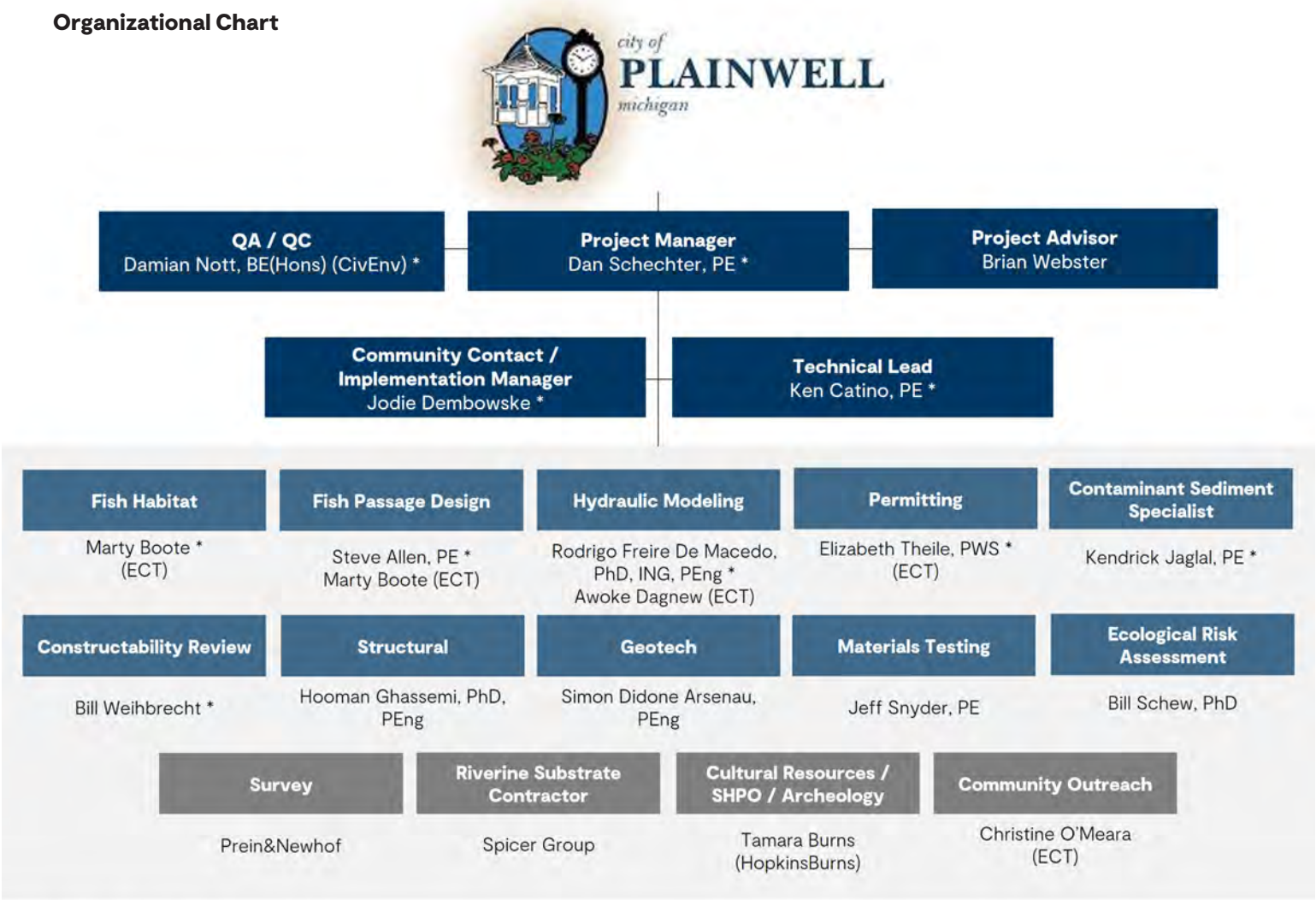
5. Staff Experience

→ 5. Staff Experience

The team outlined in the organization chart is committed to delivery of this project. Resumes for the key team members are presented hereinafter. Additional resumes for personnel beyond the key team members on the dam removal team can be provided as requested. Further, GHD has a long history of helping dam owners maintain regulatory compliance and this team is committed to working with the City in a collaborative environment to achieve project success. Two selected dam project descriptions completed by GHD and ECT are presented at the end of this section.

Key team members are indicated by an asterisk below in our organizational chart.

Organizational Chart



* Key team members

Our team is your team. Our people have a reputation for working collaboratively with our clients, taking pride in their work, and finding innovative and flexible ways to add operational value. Your targeted outcome will be delivered by people who invest passion and technical excellence to get the job done well and on time. We have assembled a core team of experts with specialized and general support resources to address the required steps, processes, and requirements of this project. We also have tremendous global resources available to assist local staff, as requested, to meet your needs. Our team is uniquely qualified to delivery this project for you.

Daniel Schechter, PE - GHD
Project Manager

Daniel heads the Detroit, Michigan office. He is an environmental engineer with 27 years of experience in water and wastewater treatment, wet weather issues, and environmental compliance. He has worked with public and private clients, and negotiated with government agencies at the local, state, and federal levels. Dan managed the combined sewer overflow (CSO), green infrastructure, and stormwater programs for the City of Detroit and assisted other communities with CSO and sanitary sewer overflow (SSO) control plans.

Dan has managed a wide variety of engineering projects, from modeling studies to design and construction of reservoirs, biosolids processing units, and pumping stations.

Damian Nott, BE - GHD
QA / QC

Damian is a Dams Engineer with 22 years' experience in dams engineering design and construction. Damian has been involved in design and construction of several new dams, dam raisings and dam safety upgrades and has experience in all aspects of dam safety management. Damian has significant international experience, including in Australia and Malaysia, where he had key roles in design and construction of two new roller compacted concrete gravity dams over 85m in height. Damian recently transferred from Australia to Canada and before his transfer was the Dams Service Line Leader in Australia for GHD. Damian has transferred from Australia to Vancouver to help develop GHD's dams and hydropower business in North America.

Ken Catino, PE - GHD
Technical Lead

Ken has more than 17 years of dam safety and levee experience from inspections of small private impoundments to managing nationwide risk assessment programs. Ken has a comprehensive understanding of current industry standards, practices, and drivers to provide effective engineering and consulting services throughout the project development process. He has a proven record of successful large-value management and execution for federal contracting agencies such as DHS/FEMA. Additionally, Ken is an active member of ASDSO and is familiar with many local and state design criteria, dam safety regulations, construction/material specifications, and building codes.

Ken has provided services throughout the entire life cycle of a dam including benefit-cost analysis, risk assessments, planning, stakeholder-involvement, design and construction phases, emergency action planning, operation and maintenance, and demolitions/ de-commissioning. Ken has extensive experience performing subsurface and geotechnical investigations, safety inspections, structural and gate works assessments, hazard (re)classifications, stability analysis, along with design and construction oversight for state safety programs. Ken has in-depth knowledge and application of national industry standards such as NRCS, USBR, FERC, USACE, FEMA, ASDSO, ICODS, USCOLD.

Jodie Dembowske - GHD
Community Contact | Implementation Manager

Jodie is a Project Manager with over 26 years of environmental experience. Her consulting proficiency includes soil and groundwater remedial investigations, surface water sampling, residential well sampling and landfill gas monitoring. Jodie's construction related experience includes hazardous and non-hazardous excavation projects, in situ soil and groundwater treatment, dewatering with treatment, landfill closure, land farming, facility decommissioning assessments and demolition oversight.

Jodie's responsibilities include project scheduling, budget, labor, equipment and materials management.

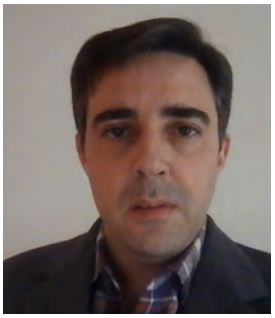
Marty Boote - ECT
Fish Habitat

Marty has 28 years of environmental consulting experience specializing in ecological restoration, stream restoration, aquatic habitat assessment, biological surveys, and ecological assessments and environmental impact statements. He has contributed to the design of more than 30 stream restoration, ecological restoration, and habitat improvement projects, including projects with total costs exceeding $2 million.

Marty has secured state and federal permits for ecological restoration, dam removal, power plant, mine, marina, and general industry projects. As an ecological restoration specialist, he prepares accurate and detailed design support documents and construction drawings and specifications. Marty also has expertise in construction observation and administration.

Steve Allen, PE - GHD
Fish Passage Design

Steven Allen brings over 26 years of experience to our team, overseeing projects involving a mix of municipal, ,civil infrastructure, fish passage, and stream restoration, including, hydrology, hydraulics, fluvial geomorphology, floodplain design, channel restoration, wetland mitigation, stream bank protection, bioengineering techniques, stormwater management and flood control, open channel water conveyance, grading plans, erosion and sediment control, preliminary to final designs, bid documents, construction services, and regulatory compliance in sensitive environments. Steve has led habitat restorations, stream corridor enhancements, and aquatic passage improvements for many regulatory agencies, counties, cities, and tribal entities.



Rodrigo Freire de Macedo, PhD, ING, PEng - GHD
Hydraulic Modeling

Rodrigo is a hydraulics engineer with over 20 years of professional experience dedicated to various water resources projects including stormwater drainage/management, flood management, mine water management, coastal modeling and various environmental applications/projects. Rodrigo is experienced in the hydraulic design of various free-surface and pressurized flow hydraulic structures and has an expertise in numerical hydraulic modeling and computational fluid dynamics platforms such as Flow-3D as well as 1D and 2D hydrodynamics. Rodrigo is also experienced in hydrological studies and modeling, watershed and river sediment yield and transport and dam safety studies.

Elizabeth Theile, PWS - ECT
Permitting

Elizabeth is one of ECT's lead permitting and regulatory experts. She has extensive experience as a project manager, focusing on natural resources consultation, threatened and endangered species, and permitting in the Midwest. Her responsibilities include client management, management of deliverables and deadlines, coordination with regulators, leader of field investigations, and compliance assurance. She is experienced in wetland delineation and stream assessments, aerial interpretation, regulatory compliance, wetland mitigation/ monitoring, federal and state permitting, and threatened and endangered species surveys. She specializes in renewable resources, transmission projects, and industrial/commercial/ residential development. She is a Professional Wetland Scientist, a Certified Wildlife Biologist, and a certified endangered resources reviewer.

Kendrick Jaglal, PE - GHD Contaminated Sediment Specialist

Kendrick has more than 32 years' experience at several contaminated sediment sites working under the major US federal (e.g., CERCLA, RCRA, WRDA and CWA), states and Canadian environmental programs. Performed tasks include agency negotiations, strategic planning, remedial investigations, treatability studies, feasibility studies, remedial design, permitting, peer review, value engineering, natural resource damage (NRD) and litigation support, public relations and project management. Chemicals addressed include PCBs, PAHs, SVOCs, VOCs, metals, glycols and oil with a recent focus on PFAS.

Bill Weihbrecht - GHD Constructability Review

Bill has extensive experience in dam removals including feasibility analyses, sediment assessment, staged dam breach sequencing, stream restoration design and construction oversight. He has completed the design and/or construction management of 48 dam removal and fish passage projects throughout the Mid-Atlantic, New England and Upper Midwest regions. He has experience in coordinating with state and federal government agencies related to design and permitting issues. His regulatory and construction experience compliments the permitting and design tasks. This hands-on experience results in practical, cost effective designs while minimizing environmental impacts. The majority of his experience includes using a natural channel design approach to restore natural stream functions and quality habitat. Bill is experienced at making field adjustments during construction to minimize impacts, reduce construction costs and enhance habitat.

Daniel Schechter, PE

Project Manager

Location

Detroit, MI

Experience

27 years

Qualifications/Accreditations

– MS, Water Resources Engineering	1993
– BS, Civil Engineering	1989
- Registered Professional Engineer	MI, VA

Key technical skills

- Construction Stormwater Operator: MI
- Soil Erosion Plan Review and Design Certification: MI

Relevance to the project:

Daniel heads the Detroit, Michigan office. He is an environmental engineer with 27 years of experience in water and wastewater treatment, wet weather issues, and environmental compliance. He has worked with public and private clients, and negotiated with government agencies at the local, state, and federal levels. Dan managed the combined sewer overflow (CSO), green infrastructure, and stormwater programs for the City of Detroit and assisted other communities with CSO and sanitary sewer overflow (SSO) control plans. He has managed a wide variety of engineering projects, from modeling studies to design and construction of reservoirs, biosolids processing units, and pumping stations.

Project experience

Southwest WTP Raw Water Screen and Chlorine Scrubber Replacement

Role: Project Manager
Client: Great Lakes Water Authority
Location: Allen Park, MI

As part of a Design-Build Team, GHD is helping to replace the original raw water screens and chlorine scrubbers at a 240 MGD water treatment plant located in southeast Michigan built in 1964. The plant draws raw water from the Detroit River. The team, which includes Kokosing and Jones & Henry Engineers is maintaining flow at the plant while completing the improvements. GHD's efforts include state and local permitting, HVAC, fire sprinkler systems, instrumentation and controls, and local coordination.

Capital Projects

Role: Superintendent of Engineering
Client: Detroit Water and Sewerage Department
Location: Detroit, MI

Managed team of engineers, chemists, process specialists, construction managers and inspectors to plan, design, and construct facilities for a wastewater system serving nearly four million people in southeast Michigan. Developed processes for in-house design and procurement of small dollar capital projects under $1 million each and outside design for large capital projects. Capital spending totals over $100 million/year for the 11 wastewater pumping stations, nine combined sewer overflow (CSO) treatment facilities, and one of the largest wastewater facilities in the country. Managed the wet weather programs for DWSD, including CSO, green infrastructure, and stormwater. Negotiate with Michigan Department of Environmental Quality (MDEQ) and U.S. Environmental Protection Agency (EPA) on permits, compliance, CSO long-term control plan, and expanding green infrastructure in the city of Detroit. Through a combination of capital replacement, an intense focus on compliance, and changes in wet weather operations, the Detroit wastewater treatment plant returned to compliance with the Clean Water Act in 2012 and ended 36 years of federal court oversight.

Drainage Charge Assessment

Role: Project Manager
Client: Kean's Marina
Location: Detroit, MI

Provided engineering support to demonstrate that stormwater for this riverside marina is handled independently of the city

T 240 893 3400 | **M** 313 999 2333 | **E** daniel.schechter@ghd.com **www.ghd.com**

combined sewer system. Prepared appeal forms, negotiated with the city, and was able to eliminate all City of Detroit drainage charges to Kean's Marina, saving client approximately $75,000 annually.

Stormwater Design and Drainage Charge Reduction

Role: Project Manager
Client: Steelpro
Location: Detroit, MI

Analyzed green infrastructure and other stormwater methods to reduce drainage charges for this industrial property abutting the Rouge River. Designed and permitted a direct discharge at this property, which will reduce drainage charges by over $100,000 annually. Prepared design drawings, state and county permits and construction oversight.

GLWA DB-303 Design-Build Contract

Role: Project Coordinator
Client: Great Lakes Water Authority
Location: Southeast MI

Designed and installed new unleaded and diesel fuel tanks and dispensers at the five drinking water plants and the wastewater plant for the Great Lakes Water Authority (GLWA) in Southeast Michigan under a design build contract. This $4M project brought the GLWA into compliance with the new Oct 2018 Underground Storage Tank (UST) ules. GHD remediated contamination found at the sites and obtained regulatory closure for the UST tanks.

Rehabilitation of Ash Handling Systems @ GLWA WRRF

Role: Project Engineer
Client: GLWA WRRF" Great Lakes Water Authority
Location: Detroit, MI

Completed an engineering study for potential alternatives for the rehabilitation of the wet and dry ash handling system for the existing sewage sludge incinerators at the Water Resource Recovery Facility. GHD is also evaluating options and costs for the demolition and/or reuse of the Complex 1 Incineration building which houses 60+ year old incinerators that are no longer in use.

Technical and Analytical Support for Wholesale Water Customers

Role: Project Engineer
Client: Detroit Water and Sewerage Department
Location: Detroit, MI

Provided technical support to the Detroit Water and Sewerage Department (DWSD) as part of successful 3-year process to sign 30-year water contracts with flow and pressure commitments with the 71 wholesale water customers in suburban Detroit. Provided flow and pressure analyses, engineering drawings and assistance in negotiations as a member of the DWSD negotiation team. Analyzed water networks, metering methods, and addressed issues with customer-owned water reservoirs. Provided technical support for the Customer Outreach Analytical Workgroup for a two-year period.

WWTP and Lift Station Asset Management Program

Role: Project Manager
Client: City of Ann Arbor
Location: Ann Arbor, MI

Improving Existing WWTP Asset Management Program to meet MI EGLE Requirements. GHD is adding specific expertise in Condition Assessment, determining Level of Service, and Criticality of Assets to help inform future capital planning. Also reviewing existing Cityworks computerized maintenance management system (CMMS) database and recommending improvements to the structure and functionality. Work is being done for the City of Ann Arbor as a subconsultant to HRC.

Asset Management Decision Support

Role: Project Manager
Client: Oakland County Water Resources
Location: Commissioner's Office, Oakland County

Developing data dashboards and analytical tools to help provide internal and external users with information on wastewater and stormwater assets, both linear and vertical. Using web-based tools, GHD is utilizing existing databases and CMMS systems to consolidate information, identify data gaps, and highlight priorities for the major wastewater and stormwater funds in the Oakland County Water Resources Commissioner's Office (WRC). Work is being done for the Oakland County WRC as a subconsultant to HRC.

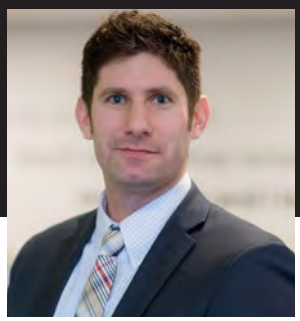
Distribution System Materials Inventory

Role: Project Engineer
Client: Charter Township
Location: Plymouth, MI

Identifying drinking water distribution system materials using as-built drawings, GIS information, and knowledge of local building and plumbing practices. The inventory is required by the new Michigan Lead and Copper Rules and requires water providers to identify potential lead and galvanized service lines by 2020, along with developing a strategy to remove these materials beginning in 2025.

Ken Catino, PE

Technical Lead



Location

White Plains, NY

Experience

17 years

Qualifications/Accreditations

– BS, Civil Engineering	2005
- Registered Professional Engineer	NY, CT, NJ, PA, OH, VT, NH

Key technical skills

- Certified Project Manager
- Structural Design Certificate

Memberships

- New York State Society of Professional Engineers
- American Society of Dam Safety Officials

Relevance to the project:

Ken has an extensive resume of dam safety and levee experience from inspections of small private impoundments to managing nationwide risk assessment programs. Ken has a comprehensive understanding of current industry standards, practices, and drivers to provide effective engineering and consulting services throughout the project development process. He has a proven record of successful large-value management and execution for federal contracting agencies such as DHS/FEMA. Additionally, Ken is an active member of ASDSO and is familiar with many local and state design criteria, dam safety regulations, construction/material specifications, and building codes.

Ken has provided services throughout the entire life cycle of a dam including benefit-cost analysis, risk assessments, planning, stakeholder-involvement, design and construction phases, emergency action planning, operation and maintenance, and demolitions/ de-commissioning. Ken has extensive experience performing subsurface and geotechnical investigations, safety inspections, structural and gate works assessments, hazard (re)classifications, stability analysis, along with design and construction oversight for state safety programs. Ken has in-depth knowledge and application of national industry standards such as NRCS, USBR, FERC, USACE, FEMA, ASDSO, and ICODS.

Project experience

Main Mill Dam Decommission

Role: Dam Safety Engineer |
Client: New York State Department of Environmental Conservation
Location: Plattsburgh, NY

Ken was responsible for construction documents for a decommissioning and spillway lowering of a 220-foot-wide broad crested weir stone buttress dam located along the tributary of Lake Champlain. Acting as a consultant to DEC Region 5, Ken also procured, managed, and facilitated an extensive backwater sediment sampling and geotechnical investigation program to support the development of a fishway improvement. The dam currently impounds waters of the Saranac River and the proposed fish bypass will improve the spawing habitats of the target species (landlocked salmon). As part of the project's scope a bathymetric survey and sediment transport analysis was performed to evaluate feasible remediation techniques.

Dam Safety and Engineering Services

Role: Dam Safety Engineer |
Client: City of Newport
Location: Newport, RI

Ken led an inspection team of engineers to evaluate six (6) high hazard reservoirs dams owned and operated by the City of Newport Department of Water Utilities. Ken was responsible for a periodic engineering inspection compliant with the Rhode Island Department of Environmental Management RIDEM regulations. The work also included development of the City's

Inspection, Operation, and Maintenance (IO&M) Plans. Ken led desktop exercises for the City's laborers to facilitate compliant inspections and maintenance issues for repetitive violations.

Leakage Assessment and Geotechnical Investigation

Role: Engineer of Record
Client: Army Corps of Engineers (USACE)
Location: Westpoint, NY

Ken was responsible for extensive geotechnical and geophysical investigation for United State Military Academy impoundment named Delafield Pond Dam. Acting as a consultant to USACE – New York District, Ken also procured, managed, and facilitated a piezometric and thermal monitoring program to understand leakage pathways and their associated risks. The geotechnical analysis and probable failure mode analysis was performed to evaluate feasible remediation techniques or interim risk reduction measures. Rough Order of Magnitude Cost Estimates were developed for master planning and land re-use considerations.

Emergency Action Plan Dam Safety Support Services

Role: Dam Safety Engineer
Client: City of Dallas
Location: Dallas, TX

Ken worked with a team of engineers to evaluate twenty-four (24) City of Dallas owned dams and reservoirs located throughout the greater Dallas watersheds. Ken was responsible for a periodic engineering inspection compliant with the Texas Commission on Environmental Quality TCEQ regulations. The dam portfolio consisted of eleven (11) high hazard facilities and included major revisions to the City's Operation and Maintenance (O&M) Plans. Dallas Water Utilities (DWU) was the leading department aiming to bring the facilities into compliance with TAC §299.1 Dams and Reservoirs.

Nationwide Dam Risk Screenings

Role: Dam Safety Engineer
Client: USDA Natural Resources Conservation Service (NRCS
Location: Various Locations | MA

Ken managed a small task force of subject matter experts to evaluate nine (9) USDA – NRCS high hazard earthen embankment impoundments located throughout western Massachusetts. Ken was responsible for a risk assessment and Phase I/II studies compliant with the NRCS risk index methodology. The task order was part of a nationwide contract to prioritize funding of the federal portfolio and deficient dams owned and tended to by local sponsorship. MA DCR was a critical stakeholder and the ultimate regulatory of the facilities and all remedial measure were in accordance with 302 CMR §10 Dam Safety of the Department of Conservation and Recreation regulations.

Potential Failure Mode Analysis (PFMA)

Role: Dam Safety Engineer
Client: US National Park Service
Location: VT, NH, CT

Ken was part of a team of specialists that developed risk screening reports and performed potential failure mode analysis (PFMA) workshops for three (3) high hazard National Park Service impoundments. The dams varied from concrete buttress, concrete gravity, and embankment type dams located throughout the northeast US. Ken was the engineer of record for the risk assessment studies and PFMA deliverable per the NPS / USBR guidance criteria. The regional work order was part of a nationwide program to evaluate deficient facilities owned/ operated by NPS.

Dam Safety On-Call Services

Role: Engineer of Record
Client: New York State Department of Environmental Conservation
Location: Various Locations, NY

Ken was responsible for inspections of over 100 impoundments in DEC Region 5 (North County) including the bi-annual "Class C - high hazard" inspections of sixteen (16) NYSDEC owned facilities, in order to bring the dam into compliance with the new New York's Dam Safety Regulations 6 NYCRR Part 673.

Value Engineering Lake Whitney Dam

Role: Value Engineering Facilitator
Client: South Central Regional Water Authority
Location: Hamden, CT

Ken managed a value engineering assignment in accordance with the regulations set forth section 22a-482-3 of the Connecticut Administrative Code requires projects receiving state revolving funds and having capital costs more than $10 million shall include a value engineering (VE) analysis and implementation. The subject project is Lake Whitney Dam which is receiving a major capital investment ($35M) to address concerns related to the age, condition, and the unknown original construction methods. The Dam, which was initially built in 1860 and has received a series of structural improvements over the last 30 years is a key component of the RWA's water supply infrastructure. The RWA's current capital improvement plan includes the design, bid, and construction of major improvements at the Lake Whitney Dam and spillway over the next several years. The completion of these improvements will increase dam stability, enhance the safety of life and property downstream of the dam, and decrease the risk of a potential breach during high flow situations.

A GHD Principal

Damian Nott, BE (HONS) (CIVNEV)

QA / QC

Location

Vancouver, BC

Experience

22 years

Qualifications/Accreditations

– Bachelor of Engineering, Civil	1999
- Post Graduate Course in Geotechnical Engineering of Dams	UNSW 2003

Key technical skills

- Dams Engineering
- Design Management

Memberships

- Fellow Institute of Engineers, Australia

Relevance to the project:

Damian is a Dams Engineer with 22-years' experience in dams engineering design and construction. Damian has been involved in design and construction of several new dams, dam raisings and dam safety upgrades and has experience in all aspects of dam safety management. Damian has significant international experience, including in Australia and Malaysia, where he had key roles in design and construction of two new roller compacted concrete gravity dams over 85 m in height. Damian is currently the Design Manger on the Wyangala Dam Raising project, in NSW, Australia. After raising the dam, it will be a 100m high earth and rockfill dam, the fourth largest dam by volume in the state.

Damian recently transferred from Australia to Canada and before his transfer was the Dams Service Line Leader in Australia for GHD. Damian has transferred from Australia to Vancouver to help develop GHD's dams and hydropower business in North America.

Project experience

Wyangala Dam Raising

Role: Design Manager
Client: WaterNSW
Location: Lachlan Valley, NSW, Australia

Wyangala Dam was originally constructed as a concrete arch dam in the 1930's. The dam was raised in the 1960's by constructing a central core earth and rockfill dam downstream, which used the arch dam to support the toe of the embankment on the upstream side. The current project involves a downstream raise of the full supply level by approximately 10 m, with the final height to be optimised through the design process. The current scope is to provide a concept design for the dam raising for input to a business case, although subsequent phases of the project including more detailed design are expected to follow. Raising this active storage presents several challenges including the interaction with the original dam, staging of the works to allow safe passage of floods during construction and balancing water security and flood mitigation objectives alongside environmental outcomes.

Warragamba Dam Raising

Role: Concrete Lead and Dams Engineering
Client: WaterNSW
Location: Sydney, NSW, Australia

Detailed concept design of the raising of the 145 m high Warragamba Dam which constitutes approximately 80% of Sydney's water supply. The project required the optimisation of the raising of the dam by up to 17 m to provide flood mitigation to the downstream communities, for the purpose of informing the business case. The project included site investigations of the foundation and the existing concrete gravity dam, detailed assessment of potential concrete mixes, analysis and design of the concrete buttress raise (including 3D FEA), optimisation of the dual spillway arrangement and the operational flood mitigation zone, including CFD modelling and physical model and preliminary planning of the construction sequencing. The project was undertaken in a design joint venture.

T 604 214 0510 | **M** 236 334 1901 | **E** damian.nott@ghd.com

Kinta Dam RCC

Role: RCC Resident Engineer
Client: Metropolitan Utilities Corp
Location: Malaysia

Kinta Dam RCC Resident Engineer. The dam, designed by GHD, is a 90 m high RCC gravity dam, it is 980 m long and involves 900,000 m3 of RCC. It is Malaysia's first RCC dam and it now serves as the water supply to Ipoh. Damian was on site during construction in 2005.

Enlarged Cotter Dam

Role: Designer (including Lead Design Engineer on Site During Construction)
Client: ACETW
Location: Canberra, ACT, Australia

Enlarged Cotter Dam is a new 87 m high RCC dam used to augment Canberra's water supply. It was constructed immediately downstream of an existing dam. The new dam provides an increase in the storage capacity from 4GL to 78GL. It is Australia's highest RCC dam and approximately 390,000 m3 of RCC was used in its construction. In addition to the main dam, two saddle dams were constructed which are approximately 20 m high central earth core rockfill embankments. The project was delivered under an alliance contract and the scope involved all aspects from concept design through to completion of construction. This included geotechnical investigations, detailed options studies, all elements of the detailed design as well as construction supervision and design support services during the construction phase.

Warragamba Dam – Comprehensive Risk Assessment

Role: Project Director
Client: WaterNSW
Location: Sydney, NSW, Australia

GHD undertook a comprehensive risk assessment of Warragamba Dam one of Australia's largest concrete gravity dams and a major urban water supply for Sydney.

The CRA was a comprehensive piece of work which involved significant review and analysis of available information, including investigations and analysis undertaken for the Warragamba Dam Raising project. A systematic type of sensitivity analysis using the Monte Carlo approach was developed to provide a quantitative means of estimating the conditional probability of sliding failure of the dam. Further, the dam is situated in a highly incised gorge, the geometry of which may lead to 3D behaviour, or load sharing (particularly between the central monoliths) of this straight gravity dam. This and other technical challenges were addressed in the risk assessment. Technical papers on the assessment methodology are being prepared to share at industry conferences.

Waimea Dam

Role: Diversion Design Lead
Client: Fulton Hogan
Location: Nelson, New Zealand

Waimea Dam is a new 53 m high Concrete Faced Rockfill Dam (CFRD) constructed in New Zealand in 2020/21. GHD produced the design of the diversion including a twin culvert diversion (each 2.5 m x 4 m) and the reinforced rockfill on the downstream side of the of the dam. The design was tested multiple times during construction, including significant embankment overtopping during flooding and the design performed well.

Vaturu Dam – Feasibility Study for Raising

Role: Designer and GHD Project Manager
Client: Water Authority of Fiji
Location: Fiji

Feasibility study to raise the full supply level of the existing 55 m high central clay core, earth and rockfill dam. The engineering feasibility of raising the dam was evaluated including yield assessment and stability analysis. Key risks and issues to be resolved were identified to assist with planning of the subsequent phases of design.

Bowraville Off River Storage Dam

Role: Design Lead During Construction
Client: Nambucca Shire Council
Location: Bowraville, NSW, Australia

Detailed design of the new 26 m high zoned earthfill off-river storage reservoir including technical guidance and support during construction. The dam provides improved water security to the local area. The dam is founded on phyllite which was weathered and contained areas of high permeability to significant depth. An innovative non-positive cut-off solution was adopted in the design, following significant investigation modelling analysis, which satisfied both technical and cost drivers in a challenging environment.

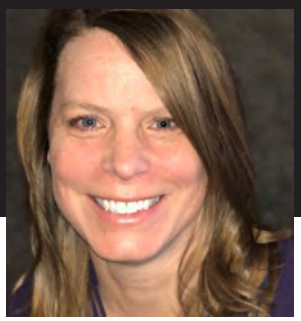
Lachlan Valley Water Security Project (Wyangala Dam Raising Business Case)

Role: Dam Design Lead
Client: WaterNSW
Location: Lachlan Valley, NSW, Australia |

As a strategic partner with WaterNSW, GHD prepared the Preliminary Business Case for Treasury for the Lachlan Valley Water Security project with a positive outcome at this gateway. The Scheme's considered included raising of Wyangala Dam, construction of a new dam up to 100 m high, networking of existing dams and other schemes targeting improved system efficiencies. Shortlisting and evaluation of options from a broad range of possibilities, with a range of environmental, technical and other constraints required a nimble and responsive design team to deliver the required outcome within the tight project timeframe.

Jodie Dembowske

Community Contact / Implementation Manager



Location

Plainwell, MI

Experience

26 years

Qualifications/Accreditations

– MS, Hydrogeology	1994
- BS, Geology	1991

Key technical skills

- Storm Water Management Operator – Construction Sites (A 1j): Michigan
- OSHA 40 Hour Hazardous Waste Worker, Refresher
- OSHA 8 Hour Hazardous Waste Supervisor
- RCRA DOT Training
- Emergency First Aid and CPR

Relevance to the project:

Jodie is a Project Manager with over 26 years of environmental experience. Her consulting proficiency includes soil and groundwater remedial investigations, surface water sampling, residential well sampling and landfill gas monitoring. Jodie's construction related experience includes hazardous and non-hazardous excavation projects, in situ soil and groundwater treatment, dewatering with treatment, landfill closure, land farming, facility decommissioning assessments and demolition oversight. Her responsibilities include project scheduling, budget, labor, equipment and materials management.

Project experience

Former Plainwell, Inc. Mill Property Superfund Site

Role: Construction Project Manager/Project Coordinator
Client: Paper Product Manufacturer
Location: Plainwell, MI

The Former Plainwell, Inc. Superfund Site remedial action includes multiple excavations across the 35 acre site, including inside the historical structure, to remove soil impacted with heavy metals and PCBs. The Site is divided into eleven different assessment areas based on planned land use. Clean-up objectives vary based on planned land use. Additional considerations associated with the remedial action include the relationship of the Site to a second adjacent Superfund Site. As the Construction Project Manager, Jodie is responsible for the overall project schedule and coordination of the remediation activities. Jodie acted as the liaison between the property owner and the PRP. As the Project Coordinator, ahead of the remedial action, Jodie was responsible for report preparation, data review and evaluation, preparation of project specifications and cost estimate preparations. Jodie's historical knowledge of the Site and relationships with stakeholders provides significant benefits to the project.

Former Rockwell International Corporation Site

Role: Construction Project Manager
Client: Automotive
Location: Allegan, MI

Remediation efforts at the Former Rockwell International Corporation Superfund Site included building decommissioning and demolition, dewatering, pond sediment stabilization, excavation of PCB and heavy metal impacted soils, and LNAPL remediation. An onsite temporary water treatment system was set up to handle the surface water and groundwater from the excavations. The water was treated via an oil water separator, bag filters and dual carbon vessels prior to batch sampling to obtain approval for direct discharge to the City sanitary system. Onsite water treatment saved the waste transportation fees. As the Construction Project Manager, Jodie was responsible for the overall project schedule and coordination of the remediation activities. Jodie currently manages the operations, maintenance and monitoring activities associated with the Site.

T 269 685 2733 | **E** jodie.dembowske@ghd.com

12th Street Landfill Superfund Site

Role: Construction Project Manager
Client: Paper Product Manufacturer
Location: Otsego Township, MI

The 12th Street Landfill project involved the closure of a historical landfill containing PCB impacted paper residuals. Jodie managed the project from the initial stages (pre remedial action) to final restoration. Management included scheduling all aspects of the project, material sourcing, subcontractor procurement, securing a discharge agreement for treated groundwater, cost tracking and weekly meetings with the project team including the client, USEPA and the EGLE. Site access limited due to steep slopes, a road (12th Street), wetlands and a major river on three of the four sides of the project area. The project involved significant off site excavation efforts including temporarily relocating a business, including its office structures and utilities. Onsite consolidation efforts included excavation in a wetland, which required significant dewatering. An onsite groundwater treatment system was set up to treat the water prior to discharge to the City sanitary. Jodie currently manages the operations, maintenance and monitoring activities related to the Site.

Land Farming

Role: Construction Project Manager
Client: Non-Profit Group
Location: Lewistown, IL

Excavation was required adjacent to/into a levee along the Illinois River as part of LNAPL remediation at a nature preserve. Project involved removing impacted soils, collection of LNAPL, onsite groundwater treatment and landfarming impacted soils to achieve clean-up goals set by the IEPA.

Former Plainwell, Inc. Superfund Site

Role: Project Manager
Client: Local Unit of Government
Location: Plainwell, MI

Project Manager for two phases of building decommissioning assessment investigation followed up by the decommissioning and select demolition of portions of a former paper mill complex located on a Superfund site. The projects were funded by various grants obtained by the City. The former mill consists of numerous interconnected additions some of which are included on the federal historic building register and were to remain after the select demolition. Building materials and waste on site included TSCA regulated PCB materials, universal waste, asbestos and historical chemicals utilized at the Mill. The project required coordination with the PRP as well as the USEPA and EGLE regarding soil and groundwater concerns at the site. Utilization of the grant funds were strictly governed by each specific grant which required significant coordination and communication with all involved.

Former Carbide Metal Processing Plant

Role: Project Manager
Client: Fortune 500 Company
Location: Kalamazoo, MI

Project Manager for the decommissioning, remediation and demolition of a former carbide metal processing plant. Project involved removal of universal waste; asbestos abatement; delineation of TSCA and non-TSCA PCB impacted concrete throughout the building; industrial cleaning of pits and trenches; removal of Methyl Ethyl Ketone contaminated floor coating (requiring negative air containment); and demolition of the building to the slab. The project had a tight schedule of less than 5 weeks to complete all aspects of the project.

Former Rockwell International Corporation Site

Role: Project Manager
Client: Automotive Manufacturer
Location: Allegan, MI

As the Project Manager, Jodie is responsible for scheduling and completion of monitoring activities including biannual groundwater monitoring, general operations and maintenance, institutional controls and redevelopment inspections, as well as reports submitted to the USEPA as well as the EGLE. She has completed historical data review to support requests to reduce monitoring requirements. Jodie maintains good communication with the property owners to maintain site access, monitor redevelopment plans and property use within the restrictions required for the Site as set forth in the Record of Decision.

12th Street Landfill Superfund Site

Role: Project Manager
Client: Paper Product Manufacturer
Location: Otsego Township, MI

Operations and maintenance includes annual groundwater sampling as well as quarterly monitoring of the landfill gas quality. Quarterly inspections of the landfill cover, perimeter fence and adjacent areas are conducted. Ms. Dembowske prepares an annual report that is submitted to the USEPA as well as EGLE.

Cork Street Landfill Superfund Site

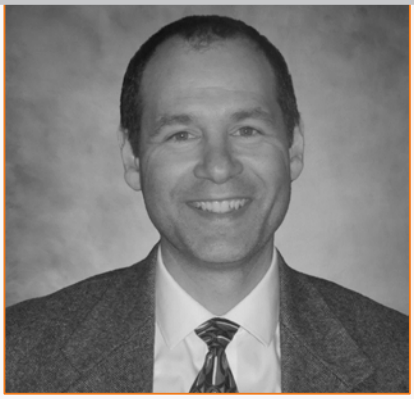
Role: Project Coordinator
Client: PRP Group
Location: Kalamazoo, MI

Operations and maintenance includes biannual groundwater sampling, surface water sampling as well as quarterly monitoring of landfill gas. Quarterly inspections of the landfill cover and adjacent areas are conducted. Maintenance activities are conducted on an as needed basis. Reporting to the USEPA, as well as EGLE.

Martin J. Boote

Senior Scientist I

Mr. Boote has 28 years of environmental consulting experience specializing in ecological restoration, stream restoration, aquatic habitat assessment, biological surveys, and ecological assessments and environmental impact statements. He has contributed to the design of more than 30 stream restoration, ecological restoration, and habitat improvement projects, including projects with total costs exceeding $2 million. Mr. Boote has secured state and federal permits for ecological restoration, dam removal, power plant, mine, marina, and general industry projects. As an ecological restoration specialist, he prepares accurate and detailed design support documents and construction drawings and specifications. Mr. Boote also has expertise in construction observation and administration.



EXPERIENCE

Bloomfield Swamp Wetland Restoration | Western Reserve Land Conservancy | Orwell, OH
Managing and leading the design of a wetland restoration project near Orwell, Ohio, in Ashtabula and Trumbull counties. The project goal is restoration of 270 acres of hydrologically-altered wetlands in the headwaters of the Grand River. Project involves surveying, hydrological modeling using U.S. Environmental Protection Agency (EPA) Stormwater Management Model, wetland mapping and assessments, threatened and endangered (T/E) species evaluations, design and construction documents, and permitting.

Bloomfield Swamp Conceptual Restoration Plan
Western Reserve Land Conservancy | Ohio
Prepared a conceptual restoration plan for the former Bloomfield Swamp – a prior converted and drained swamp in the headwaters of Rock Creek, a major tributary of the Grand River in northeastern Ohio, based on existing watershed management plans, topographic data, hydrological mapping, and other environmental data. Provided potential methods and steps to implement the desired restoration goals, which could help restore of more than 200 acres of wetland and preserve more than 300 acres of land. Western Reserve Land Conservancy is using the restoration to raise funding through donations and grants.

Johnson Creek Intercounty Drain Restoration | Johnson Creek Intercounty Drain Board | Washtenaw & Wayne County, MI
Providing design and engineering services to design in-stream and riparian habitat restoration within Johnson Creek along the 3.1-mile designated Intercounty Drain. As Project Manager, directing and coordinating survey, data collection, design, hydraulic modeling, permitting, stakeholder engagement, and outreach and engagement activities. Managing multiple subcontracts to acquire the necessary services to complete the project. Design is focused on improving morphology and ecosystem functions while maintaining the required drain function.

Fish Hatchery Park Stream Restoration | Alliance of Rouge Communities | Wayne County, MI
Designed the restoration of Johnson Creek through a public park. Fish Hatchery Park was the site of a former state fish hatchery. Johnson Creek was relocated and straightened by state in the early 1900s to construct the hatchery. The project was designed to remove the concrete walls along the north bank of Johnson Creek, create flood shelves behind the former concrete walls, and establish a native riparian vegetation buffer on the new benches and side slopes.

EDUCATION

B.S., Biology/Fisheries
Central Michigan University, 1992

A.S., Architectural Drafting and Design
Washtenaw Community College

AREAS OF EXPERTISE

Stream & Wetland Restoration
Streambank Stabilization
Aquatic Habitat Enhancements
Aquatic Habitat Assessment
Watershed Management
Permitting, Environmental Assessments & Impact Statements
Aquatic Biology
Fish Ecology
Fisheries Management
Macroinvertebrate Surveys, Fish Surveys
Mussel Surveys

>Martin J. Boote

Senior Scientist I

Nankin Lake Habitat Restoration | Wayne County Parks and Recreation
Wayne County, Michigan
Designed sediment dredging plan and improvements to fish habitat in an impoundment of the Rouge River. Nankin Lake had filled in with sediment over the preceding decades of its life, which reduced fish and wildlife habitat. The dredging plan was designed to specifically target fish habitat, including near-shore spawning, nursery, and winter refuge habitats. Aquatic vegetation, large woody debris, boulders, spawning habitat were designed to provide diverse aquatic habitat for fish and wildlife. The project is currently under construction.

Seeley Creek | Alliance of Rouge Communities | Oakland County, MI
Designed habitat improvements to Seeley Creek, a designated county drain. The design focused on morphological, substrate, and cover improvements to create more diverse and stable habitats. Riparian habitat and wetland enhancements were also design by managing invasive species, improving hydrology, and planting native species. Gully erosion from storm water outfalls were stabilized to reduce sedimentation and prevent riparian wetland drainage.

Wetland Mitigation Planning | GD3 Ventures | Willoughby, OH
Conducted field assessments and hydrological assessments to evaluate site suitability for constructing mitigation wetlands. Coordinate with client to acquire necessary soil test pits and infiltration rate studies. Estimated potential wetland acreage and prepared concept drawings. Coordinate with other project consultants and stakeholders.

Wetland and Riparian Habitat Restoration | Alliance of Rouge Communities | Wayne County, MI
Designed hydrological and plant community improvements to existing wetlands and riparian habitat along the Rouge River by correcting drainage, managing invasive species, and planting native species. Also designed expansion of existing wetlands and creation of new wetlands. Coordinated with Parks and Recreation staff to design habitat improvements within surplus park lands.

Tamarack Creek Restoration | Alliance of Rouge Communities | Oakland County, MI
Designed the restoration of Tamarack Creek, a tributary of the Rouge River located in the City of Southfield, Oakland County, Michigan. Tamarack Creek had been channelized and heavily impacted by storm water. The design was based on development of a 2-stage channel with flood benches cut at the bankfull elevation and a new meandering stream channel. Flood discharge dissipation on the new floodplains will stabilize habitat and reduce instream energy. Furthermore, the new meandering stream channel results in decreased slope and instream energy while creating more diverse habitat. The new floodplain was planted with native species to establish a southern Michigan floodplain forest with vernal pools on the floodplain.

Hennepin Marsh Restoration | Friends of the Detroit River Detroit, MI
Designed habitat shoals along the shoreline of the Detroit River to restore Hennepin Marsh. The habitat shoals were designed to deflect river current and wave energy landward of the shoals, creating shallow backwater habitat capable of supporting wetland vegetation. Incorporated fish habitat into the design of the shoals and backwater habitat.

National Resources Conservation Service (NRCS) Watershed Project Plan | Grand Valley Metropolitan Council | City of Grand Rapids, MI
Assisting in the development of a Watershed Project Plan to support federal funding for restoration of the rapids on the Grand River in the City of Grand Rapids, including removal of three low-head beautification dams.

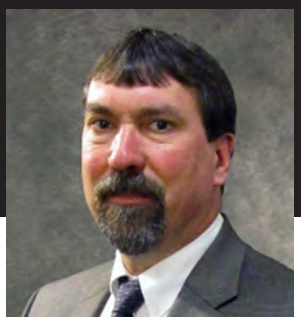
Kids Creek Restoration | The Watershed Center Traverse City, MI
Led the design of habitat improvements using large woody debris, cover structures, riparian restoration, and bioengineering techniques to improve fish habitat in Kids Creek.

Kids Creek 14th Street Storm Sewer Outfall Treatment Wetland |The Watershed Center | Traverse City, MI
Applied ecological restoration concepts to the design of a natural wetland and wetland enhancements to treat stormwater. Evaluated alternatives for using gravity flow.

Erosion Control | Spalding DeDecker | Rochester Hills, MI
Led the preparation of construction drawings, specifications, and application for permit for erosion control at road crossing culverts and stormwater swales in the Thornridge subdivision, Rochester Hills, Michigan.

Mill Creek Restoration | Prein & Newhof | Kent County, MI
Conducted a geomorphic assessment in support of restoration design to improve Mill Creek in Dwight Lydell Park, Comstock Park, Kent County, Michigan. Delivered a report with recommendations for project design to address concrete channel linings, floodplain connectivity, channel stability, streambank stabilization and naturalization, and user impacts.

A GHD Principal



Steve Allen, PE

Fish Passage Design

Location

Eureka, CA

Experience

26 years

Qualifications/Accreditations

– BS, Environmental Resources Engineering	1996
- Civil Engineer	CA

Key technical skills

- Hydrology, Hydraulics, Fluvial Geomorphology, Floodplain Design, Channel Restoration, Wetland Mitigation Construction, Stream Bank Protection, Bioengineering Techniques, Stormwater Management and Flood Control
- Open Channel Water Conveyance, Grading Plans, Erosion and Sediment Control Design and Plans, Construction Services, and Regulatory Compliance In Sensitive Environments

Memberships

- American Society of Civil Engineers (ASCE), North Coast Branch, Past President and Director
- International Erosion Control Society
- Salmonid Restoration Federation
- Floodplain Management Association

Relevance to the project:

Steven brings over 26 years of experience to our team, overseeing projects involving a mix of municipal and civil infrastructure including fish passage, stream restoration, stormwater, water supply, , hydrology, hydraulics, fluvial geomorphology, floodplain design, channel restoration, wetland mitigation construction, stream bank protection, bioengineering techniques, stormwater management and flood control, open channel water conveyance, grading plans, erosion and sediment control design and plans, construction services, and regulatory compliance in sensitive environments. Steven has served in a high-level leadership capacity for many high profile restoration and fish passage projects (notably leading our West Coast Water Restoration Group) and has led habitat restorations, enhancements, and passage improvements for regulatory agencies, counties, cities, and tribal entities.

Project experience

Flood Control Channel Fish Passage and Fish Screening Projects

Role: Project Manager
Client: Alameda County Water District
Location: Alameda County, CA

Responsible for this fish passage projects within a USACE built flood control channel with two large inflatable rubber dams (RD1 and RD3) on Alameda Creek to help groundwater recharge for water supply. Project included hydrologic and hydraulic modeling, geotechnical investigations, civil, structural, and electrical engineering for the development and design for two fish passage facilities and new fish screens at the Shinn Diversion to allow for passage of juvenile and adult migrating salmonids. Work included the assessment of inflatable dam replacement options, development of alternatives to improve fish passage, meeting with various regulatory agencies including CDFW, NOAA, USACE, and RWQCB, the participation and preparation of permit supporting documents including USACE Jurisdictional Determination and hydraulic technical memo in support of the USACE 408 permitting process.

Stillaguamish Weir Permanent Fishway

Role: Senior Design Engineer
Client: Northbank Civil & Marine
Location: Silvana, WA

GHD provided the design of a pool and chute style fishway to provide fish passage at an existing weir on the Stillaguamish River at the Cook Slough near Silvana, WA. The project was a design-build venture for the USACE Seattle District. Led the design team to conduct a hydraulic analysis of the fishway using one-dimensional (1D) analysis, as well as the development of a three-dimensional (3D) Computational Fluid Dynamics (CFD)

model. The CFD model was used to optimize the design for hydraulic performance as well as cost savings considerations. The design effort included consultation with the USACE and National Marine Fisheries Service (NMFS).

Lower San Luis Creek Fish Passage Design

Role: Senior Design Engineer
Client: Water Systems Consulting, Inc.
Location: Avila, CA

Served as the senior design engineer on a CDFW grant-funded project to improve fish passage at Marre Weir, the most downstream barrier to passage on the San Luis Obispo Creek. The project included development of an alternatives analysis and Preliminary Design Report for three alternatives for improving fish passage at the weir and three alternatives for structural improvements to the sheet pile weir to a 30% design level, including design calculations and drawings. The project also included the development of the preferred fish passage and weir structural concepts to a 65% design level to be included in a grant application for future project funding. Tasks included consultation with stakeholders and permitting agencies.

Upper Penitencia Creek / Alum Rock Park Fish Passage Improvements

Role: Project Manager, Designer
Client: Santa Clara Valley Transportation Agency
Location: Santa Clara, CA

Responsible for this project for the Santa Clara Valley Transportation Agency and the City of San Jose to design streambed and structural improvements within the park. The project addressed three goals identified in a 2001 riparian management plan: 1) Enhance biological diversity; 2) Restore hydrology, and 3) Reduce sediment input and protect cultural and historical resources. The completion of this project not only improved fish passage and enhanced habitat conditions within the creek, it also improved the enjoyment and education of Alum Rock Park's 100,000 yearly visitors - many of whom are students. The successful project was the recipient of the ASCE Region 9 Environmental ""Project of the Year" Award" in 2013.

Rohner Creek Flood Control, Habitat, and Seismic Improvements

Role: Principal-in-Charge
Client: City of Fortuna
Location: Fortuna, CA

Responsible for this ongoing project which includes a 2D hydrologic and hydraulic analysis of Rohner Creek and the adjoining floodplain within the City of Fortuna and the subsequent design of flood reduction alternatives. The objective of the initial study was to analyze the Rohner Creek watershed and identify potential flood reduction improvements to reduce the frequency of flooding events along the Rohner Creek channel within the Federal Emergency Management Agency (FEMA) flood hazard zone. Involvement included the hydrologic (HEC-HMS) and 2-Dimensional hydraulic modeling (MIKE) of Rohner Creek, a "creek survey", calibration of the hydrologic model to gaged storm events, and development of potential flood reduction alternatives. Flood reduction improvements analyzed included channel widening and terracing with habitat improvements, diversion pipelines, and detention basins. Project funding included a $3.5 million prop 1E grant stormwater and $400,000 Prop 84 urban streams grant from DWR.

5 Stonybrook Creek Fish Passage Barrier Removal

Role: Project Manager, Designer
Client: Alameda County RCD
Location: Alameda County, CA

Responsible for this design project to remove two fish passage barrier culverts on Polomares Road. The project needed to comply with current fish passage design criteria. The project required coordination with various individuals and agencies including NOAA Fisheries, and the Department of Fish & Game) to define the project's physical limits and design constraints. The project included conducting a topographic survey, soils engineering report, geomorphic evaluation, hydrologic and hydraulic modeling, preparing conceptual plans, conducting site review meetings, and preparation of final construction drawings for replacement of the two culvert barriers to improve fish passage at those locations.

Young's Dam Fish Passage Improvement Assessment on the Scott River

Role: Project Manager
Client: Pacific States Marine Fisheries
Location: Etna, CA

Responsible for this fish passage assessment project which included analyzing, modifications to Young's Dam, a low-head flashboard dam used for an irrigation diversion. The project included developing fish passage flows for the site and evaluating performances of alternatives such boulder weirs, roughened channels, and modifications to the existing pool-and-weir fish ladder. Flow depth, velocity, and energy dissipation factor (EDF) thresholds were used in evaluating fish passage performance of the various alternatives.

Rodrigo Freire De Macedo, PhD, ING, PEng

Hydraulic Modeling

Location

Waterloo, ONT

Experience

20 years

Qualifications/Accreditations

– PhD, Civil Engineering	2021
–M.A.Sc., Civil Engineering. Concordia University	2016
–M.A.Sc., Hydraulic Engineering. University of Sao Paulo, Brazil	2005
–B.Eng., Civil Engineering. Federal University of RN, Brazil	2017
- Professional Engineers	Ontario

Key technical skills

- Hydrotechnical Engineering
- Programming and Computing
- Computer Aided Design and Drafting (CADD)/GIS

Memberships

- Ordre des Ingénieures du Québec

Relevance to the project:

Rodrigo is a hydraulics engineer with over 20 years of professional experience dedicated to various water resources projects including stormwater drainage/management, flood management, mine water management, coastal modeling and various environmental applications/projects. Rodrigo is experienced in the hydraulic design of various free-surface and pressurized flow hydraulic structures and has an expertise in numerical hydraulic modeling and computational fluid dynamics platforms such as Flow-3D as well as 1D and 2D hydrodynamics. Rodrigo is also experienced in hydrological studies and modeling, watershed and river sediment yield and transport and dam safety studies.

Project experience

Boat Harbour Remediation Project

Role: Lead Hydrotechnical Engineer
Client: Nova Scotia Lands Inc.
Location: Nova Scotia

Hydraulic studies and 2D/3D numerical modeling using Delft-3D software of estuary and coastal environments for the design of mitigation measures and assessment of impacts (increase in erosion and sedimentation; changes in salinity levels) on the Boat Harbour due to the reintroduction of tidal action.

Star Lake Canal Superfund Site

Role: Lead Hydrotechnical Engineer
Client: Star Lake Canal Cooperating Parties

Hydraulic studies for the design/rehabilitation of a spillway equipped with stop logs and vertical gates and with a discharge capacity of 700 m3/s, including analytical studies and Flow-3D simulations.

Besy Hydroelectric Development Spillway Rehabilitation

Role: Lead Hydrotechnical Engineer
Client: Resolute Forest Products

Hydraulic studies for the design/rehabilitation of a spillway equipped with stoplogs and vertical gates and with a discharge capacity of 700 m3/s, including analytical studies and Flow-3D simulations.

Flow-3D simulations of steep-mountainous river reach downstream of spillway and mostly under supercritical regime. Design of downstream protection works for the hydropower plant including steeped stilling basin/ plunge pool, concrete walls and riprap erosion protection.

Rehabilitation of Small Hydropower Developments (8.67 MW)

Role: Project Manager/Design Engineer
Client: Ministry of Energy of Azerbaijan
Location: Azerbaijan

Due diligence, rehabilitation studies & design and energy generation optimization for 5 existing small hydropower developments, namely: Goychay-1 (3.09 MW), Ismayilli 1 and 2 (3.18 MW), Balaken-1 (1.44 MW), Qusar-1 (0.96 MW).

Assessment of changes in hydrological regime, water and sediment yield in mountainous rivers affecting hydropower generation. Conceptual design solutions to manage sediment loads and improve water intake for hydropower generation on unregulated rivers. CAPEX/ OPEX estimates of proposed solutions. Assessment of water-resources operations in irrigation schemes affecting hydropower generation. Assessment of Operations & Maintenance procedures.

Calabogie Hydropower Generating Station Redevelopment (11 MW)

Role: Hydrotechnical Engineer
Client: Ontario Power Generation
Location: Ontario, Canada

The development comprises a 10 m high concrete dam equipped with 3 gated sluiceways and 5 stoplog sluiceways with a combined discharge capacity of 700 m3/s. Scope of work: decommissioning of existing 4 MW powerhouse and redevelopment for a 11-MW installed capacity; excavation of forebay and tailrace, construction of a new two-unit powerhouse Work performed: Hydrotechnical and civil studies including:

- Hydraulic analysis and simulations (HECRAS-2D and Flow-3D) to support the reconfiguration of headrace canal and intake
- Optimization of installed capacity of new powerhouse
- Transient analysis and evaluation of turbine overspeed
- Reservoir system operations studies (completed with HEC-ResSIM software) for the cascade of reservoirs of 7 Generating Stations located in Madawaska River system, including: Bark Lake, Kamaniskeg, Mounatin Chute, Barret Chute, Calabogie, Stewartville and Arnprior. This study was intended to support the upgraded installed capacity at Calabogie. Hydraulic analysis/design of water intake, tailrace; and conceptual design of new powerhouse layout.

Snare River Hydropower Development (26 MW)

Role: Design Engineer
Client: Seabridge Gold
Location: Northwest Territories, CanadA

Pre-feasibility studies and conceptual design of two run-of-river hydropower sites (13 MW each) operating in cascade. Conceptual design components: rockfill embankments; flood diversion dykes and canals, concrete overflow dams, headrace/forebay/intake, low-head small-hydro powerhouse/ turbines settings.

Liz Theile, PWS, CWB®

Project Manager – Midwest

Ms. Theile is one of ECT's lead permitting and regulatory experts. She has extensive experience as a project manager, focusing on natural resources consultation, threatened and endangered species, and permitting in the Midwest. Her responsibilities include client management, management of deliverables and deadlines, coordination with regulators, leader of field investigations, and compliance assurance. She is experienced in wetland delineation and stream assessments, aerial interpretation, regulatory compliance, wetland mitigation/ monitoring, federal and state permitting, and threatened and endangered species surveys. She specializes in renewable resources, transmission projects, and industrial/commercial/residential development. She is a Professional Wetland Scientist, a Certified Wildlife Biologist, and a certified endangered resources reviewer.

EXPERIENCE

Manage First Network Optical Ground Wire Projects
ITC Holdings Corporation ITC Transmission & METC Transmission
Supporting permitting efforts for drain crossings, wetland impacts, county road right-of-way work, and Michigan Department of Transportation permitting and coordination. Prescribe best land management practices for utility line corridors throughout Michigan. The practices are designed to avoid harmful impacts upon threatened and endangered (T/E) plants, birds, mammals, mussels, reptiles, amphibians, insects, and water resources.

Wick Road Stream Relocation Project | NorthPoint Development, LLC
Romulus, MI
Managed and supported wetland delineation, stream function assessment, state, and local permitting for 4,000 feet of stream/county drain relocation and industrial development project. Coordinated with federal, state, and local agencies on behalf of the client to obtain input and minimize environmental impacts.

WayneLux Estates | AdvranceCorp Development | Romulus, MI
Managed and supported wetland delineation, stream function assessment, state, for 4,000 feet of stream enclosure/county drain relocation and residential complex development project. Coordinated with federal, state, and local agencies on behalf of the client to obtain input and minimize environmental impacts. Managed client, project, and deliverables.

Coldwater Solar | Coldwater River Solar, LLC | Coldwater, MI
Managed water resources, permitting, and threatened/endangered species desktop review and permit matrix for a solar facility proposed on 2,185 acres of land.

Isabella Wind Project | Isabella Wind, LLC | Isabella County, MI
Managed and secured federal and state permits through USACE and EGLE Joint Permit Applications (JPA) for a 375 MW wind energy project. Supported project planning, resource minimization, meetings, and coordination with client and regulatory agencies. Collaborated with the development team in layout optimization for permitting, impact mitigation, and construction planning. Supported fieldwork and wetland delineation efforts and reporting.

EDUCATION

B.S., Fisheries, and Wildlife Management
Michigan State University

CREDENTIALS

Professional Wetland Scientist

Certified Wildlife Biologist

Michigan EGLE Certified Storm Water Management Operator

Wisconsin Department of Natural Resources Certified Endangered Resources Reviewer

Minnesota Natural Heritage Information System Reviewer

MSHA New Miner Training, Part 46/48, 24-hour training

HAZWOPER 40-hour training

HAZWOPER 8-hour refresher

Hazard Recognition Training for the Construction Industry 10-hour

CPR/First Aid/AED Certified

AREAS OF EXPERTISE

State of Michigan Water Resources Permitting and Compliance

Renewable Energy Resources

Transmission Projects and Permitting

Wetland Delineation and Stream Assessment

Threatened & Endangered Species

Liz Theile, PWS, CWB®

Project Manager – Midwest

Azalia Solar | Azalia Solar, LLC | Azalia, MI
Managed water resources, permitting, and threatened/ endangered species desktop review and permit matrix for a solar facility proposed on 5,809 acres of land.

Beecher Solar Project| Confidential Client | Adrian, MI
Project Manager. Responsible for completing wetland delineations and supporting biological habitat assessment and reporting. Managed and applied for state permit through EGLE Joint Permit Application (JPA).

Kalamink Wind Project | Kalamink Wind, LLC | Michigan
Managed water resources and permitting desktop review and permit matrix for a wind energy farm proposed on 54,044-acres of land.

Montcalm Wind Project | Montcalm Wind, LLC Montcalm County, MI
Managed water resources and permitting desktop review and permit matrix for a wind farm proposed on 171,119 acres of land.

Michigan Electric Transmission Company | Midland & Saginaw counties, MI
Conducted annual flora and fauna surveys at Chippewa Nature Center and Crow Island State Game Area for stewardship outreach and certification from the Wildlife Habitat Council.

Four Solar Development Projects| Sustainable Power Group | Various Counties, MI
Assisted with wetland delineation and stream assessments. Reviewed Projects for threatened and endangered species and habitat suitability. Supported local and State permitting efforts.

Ecorse Road 72-Acre Site | Ecorse Commons, LLC | Romulus, MI
Managed state water resources permitting effort and compensatory mitigation requirements. Conducted wetland delineation and stream assessment and reporting.

Multiple Utility-Scale Solar Projects | Confidential Client | Michigan
Supported environmental and permitting tasks for 3 utility-scale solar projects in Michigan.

Calhoun County Solar | Savion Energy | Calhoun County, MI
Conducted wetland delineation, steam assessment, and reporting. Coordinated with regulatory agencies. Assisted in alternative design and layout. Supported and secured State water resources permit and mitigation requirements.

Five Wind Projects | Confidential Client | Michigan & Illinois
Prepared a Tier 2 Site Characterization Study, following U.S. Fish and Wildlife Service's (FWS) Wind Energy Guidance, including descriptions and a summary of threatened and endangered (T/E) species with emphasis on avian and bat species habitat and potential presence. Developed avian survey protocol and field data collection documents. Developed health and safety plans for fieldwork. Analyzed the applicability of federal and state regulations and reviewed the project site, assisting the project developer with implementing impact avoidance and suitable permitting strategies.

Gratiot County Wind | Tradewind Energy, Inc. Gratiot County, MI
Supported special land use permit (SLUP) application efforts. Assisted with wetland delineation and field coordination.

PREVIOUS CAREER EXPERIENCE

Golder Associates, Inc. | Midwest
Conducted desktop evaluations and field investigations for natural resources. Prepared to support environmental assessments, environmental evaluations, and technical reports. Prepared applications to support environmental compliance and permitting requirements for soil erosion and sedimentation control, wetlands, inland lakes and streams, Great Lakes submerged lands, and the National Pollutant Discharge Elimination System program. Conducted endangered species/endangered resource reviews. Organized and supported wetland delineations, monitoring, and mitigation. Assisted in the permitting of six wetland mitigation banks. Assisted with the evaluation and design of waste storage facilities for livestock farming operations, the collection of field samples from monitoring wells for landfills and wastewater. Supported compliance, reporting, and environmental due diligence services for clients including Canadian National, Consumers Energy, Barton Malow, Ford Motor Company, Wisconsin Public Services.

Water Resources Division| Michigan Department of Environmental Quality | Michigan
Provided administration, compliance, and enforcement of statutes regulating the development of wetlands, inland lakes, and streams, Great Lakes shoreline, and high-risk erosion areas. Conducted field investigations. Prepared reports, permits, denials, and correspondence relative to land and water use programs, as well as T/E species. Identified natural resources, conducted wetland determinations, and evaluated the proposed impact(s) on resources, public trust, and riparian interest.

Kendrick Jaglal, PE

Contaminated Sediment Specialist

Location

Syracuse, NY

Experience

32 years

Qualifications/Accreditations

- MS, Forest Engineering
- BS, Water Resources Engineering
- Registered Professional Engineer NY, IN

Key technical skills

- Investigation and remediation of contaminated sediment.
- Hydraulic and hydrologic assessment of waterways.
- Fate and transport of PCBs in aquatic environments.

Memberships

- American Society of Civil Engineers (Member)
- Western Dredging Association
- New York Water Environment Association
- Water Environment Federation (Literature Review Committee)
- ASTM International (Standards development)
- Air and Waste Management Association
- Sediment Management Work Group (Sponsor representative)
- Interstate Technology and Regulatory Council (Industry Affiliate Program)

Relevance to the project:

Kendrick has more than 32 years' experience at several contaminated sediment sites working under the major US federal (e.g., CERCLA, RCRA, WRDA and CWA), states and Canadian environmental programs. Performed tasks include agency negotiations, strategic planning, remedial investigations, treatability studies, feasibility studies, remedial design, permitting, peer review, value engineering, natural resource damage (NRD) and litigation support, public relations and project management. Chemicals addressed include PCBs, PAHs, SVOCs, VOCs, metals, glycols and oil with a recent focus on PFAS.

Project experience

Investigation and Alternatives Evaluation, Morris Dam

Client: US Navy
Location: Azusa, CA

Provided oversight for a sediment related investigation and possible remediation at a military facility. Technical Support included an evaluation of potential remedial alternatives. The target sediment contains a number of chemicals including PCBs.

Remedial Investigation/Feasibility Study Activities, Kalamazoo River

Client: Georgia Pacific
Location: Western Michigan, MI

Coordinated the preparation of a CERCLA RI/FS work plan and developed a field sampling plan for the Kalamazoo River Superfund site in the Great Lakes area. Evaluated PCB mass balances for the lake in question by assessing atmospheric, tributary, and industrial contributions. Also performed a FS for sediment and bank soils along 35 miles of the river and associated impoundments.

Pipeline Spill Oil Recovery Efforts, Kalamazoo River and Talmadge Creek

Role: Technical Support
Client: Enbridge
Location: Marshall, MI

Provided technical support to assist with environmental compliance issues in response to the 2010 release of over 800,000 gallons of heavy crude oil from an oil transport line in

Marshall, Michigan. Work included the development, oversight, and reporting related to pilot studies to assess various submerged oil recovery techniques from the Talmadge Creek and the Kalamazoo River. Also developed a study to assess the impact of temperature on submerged oil recovery.

Dredge Support Area Design, Hudson River

Client: Confidential Client
Location: Northern NY

Served as a member of the team that designed the access area to support the dredging of approximately 250,000 cubic yards of PCB containing sediment from the Hudson River. Areas dredged were those that were logistically challenging, including shallow areas behind islands, areas near dams, and the "land locked" section of river located between the Thompson Island Dam and Fort Miller Dam.

Sediment/Soil Removal Engineering Support Hamilton Pond Restoration

Client: Mercury Marine
Location: Cedarburg, WI

Provided engineering support for a design build program to remove floodplain soils and previously inundated sediment from a former impoundment when the dam failed. Initial efforts included a phased sampling and analytical program to cost effectively delineate the extent of PCB impacts. Overall work also involved remedial design, permitting, wetland delineation, and HEC 2 modeling. Work efforts also included coordination with the Wisconsin Department of Natural Resources (WDNR) during the permitting and construction phases of the project.

Saginaw River

Role: Technical Support
Client: Confidential Client
Location: Saginaw, MI

Reviewed existing site PCB data and developed a series of arguments for no further sediment sampling in the river in response to an agency request. Following review of the letter, the agency concurred that no additional sampling was necessary.

Removal Action Support, Ruck Pond

Client: Mercury Marine
Location: Cedarburg, WI

Served as task manager for a sediment (containing PCBs) removal action investigation at Ruck Pond in Wisconsin. Prepared a work plan and project operation plans, coordinated analytical laboratory selection, and reviewed pertinent documents including the removal action design. Provided technical support during the removal including negotiations to acquire landfill disposal space, obtaining a discharge permit, and process control to reduce in stream pH levels.

Remedial Design, Wilson Ditch

Client: Confidential Client
Location: Noblesville, IN

Managed an engineering design project for a RCRA corrective measures program at an urban stream located in Indiana. Approximately two miles of stream sediment and bank soils containing PCBs were targeted for remediation. Work efforts included preparing a corrective measures implementation work plan and associated planning documents, sampling, remedial design, permitting, hydraulic modeling, and restoration design. The proposed remediation included sediment removal, on site consolidation, off site disposal, stream rerouting, and stream bank enhancement.

Remedial Investigation/Feasibility Study Sludge Lagoons Site

Client: MMSD
Location: Madison, WI

Co authored the RI Report for the MMSD Superfund (CERCLA) Site, a 140 acre lagoon site located in a wetland area, adjacent to lakes and streams. Site constituents included metals, VOCs, SVOCs, and PCBs. Assessed treatment alternatives and made recommendations for treatability studies. Evaluated results of the treatability studies and served as principal author and Task Manager for the Site FS.

Remedial Investigation/Feasibility Study Sheboygan River and Harbor

Client: Tecumseh Engines
Location: Sheboygan Fall, WI

Participated in various phases of a CERCLA RI/FS for sediments and floodplain soils associated with the Sheboygan River and Harbor Superfund Site. After identifying a preliminary set of potential remedial alternatives for metals and PCBs, performed an alternative specific RI. Using the information from this and several other investigations, prepared an FS to evaluate remediation of site sediment, floodplain soils, and groundwater.

Remedial Investigation/Feasibility Study, Fox River

Client: PH Glatfelter
Location: Neenah/Menasha, WI

Served as task manager for a sediment investigation at Little Lake Butte des Morts in Wisconsin. The sediment contained PCBs, allegedly came from recycled copy paper. Prepared a work plan and project operation plans, coordinated analytical laboratory selection, and reviewed pertinent historical data. Provided oversight of the field investigation and prepared a report to document the findings.

Bill Weihbrecht

Constructability Review

Location

Harrisburg, PA

Experience

45 years

Qualifications/Accreditations

– BS, Environmental Technology 1979

Key technical skills

- Applied River Morphology
- Freshwater Wetland Construction
- State of Maryland Erosion and Sediment Control Certification

Memberships

- New York State Society of Professional Engineers
- Virginia Fish Barrier Task Force

Relevance to the project:

Bill has extensive experience in dam removals including feasibility analyses, sediment assessment, staged dam breach sequencing, stream restoration design and construction oversight. He has completed the design and/or construction management of 48 dam removal and fish passage projects throughout the Mid-Atlantic, New England and Upper Midwest regions. He has experience in coordinating with state and federal government agencies related to design and permitting issues. His regulatory and construction experience compliments the permitting and design tasks. This hands-on experience results in practical, cost effective designs while minimizing environmental impacts. The majority of his experience includes using a natural channel design approach to restore natural stream functions and quality habitat. Bill is experienced at making field adjustments during construction to minimize impacts, reduce construction costs and enhance habitat.

Project experience

Flock Process Dam Removal and Fish Passage

Role: Senior Stream Restoration Specialist
Client: City of Norwalk
Location: Norwalk, CT

Completed the design of a dam removal and 1,200 feet of river restoration to restore anadromous runs of alewives, herring and sea run brown trout to the Norwalk River. Project involved close coordination with the Connecticut State Fish Passage Coordinator and full time construction oversight.

Atlas Dam Removal

Role: Senior Stream Restoration Specialist
Client: Hockendaqua Trout Unlimited
Location: Northampton, PA

Completed the design, permitting and construction oversight of the Atlas Dam on Hokendaqua Creek, a tributary to the Lehigh River. Project involved the removal of 17,000 CY of impounded sediment, restoration of 2,000 feet of stream channel and creation of 1.7 acres of wetland.

Mill Creek Dam Removal

Role: Senior Stream Restoration Specialist
Client: Village of Dexter
Location: Dexter, MI

Completed the design and construction oversight. Project involved the removal of an eight foot high dam associated with a bridge replacement. Design included installation of 5 in-stream grade control structures which minimized sediment mobilization, provided upstream floodplain connectivity and enhanced fish passage and recreational boating.

Sabin and Boardman Dam Removal

Role: Senior Stream Restoration Specialist
Client: Conservation Resource Alliance
Location: Traverse City, MI

Largest dam removal project in the state of Michigan. Involved in data collection, preparing phased dam breaching plans,

T 717 585 6391 | **M** 717 645 1526 | **E** bill.weihbrecht@ghd.com

risk assessment, stream restoration design and construction management.

Saucon Creek and Historic Bethlehem Dam Removals

Role: Senior Stream Restoration Specialist
Client: City of Bethlehem
Location: Bethlehem, PA

Completed the dam removal designs, permitting and construction oversight for both dams. Project included several hundred feet of stream restoration. Both streams are high quality, naturally reproducing brown trout fisheries.

Cumberland Marsh Dam Removal

Role: Senior Stream Restoration Specialist
Client: The Nature Conservancy
Location: New Kent, VA

Completed design, permitting and construction oversight of a large earthen dam removal across an unnamed tributary to Holts Creek. Located in a tidally influenced area of Holts Creek, the construction sequencing needed to consider tide changes during the final breach. A breach was sized as well as a low flow channel which would allow fish passage at low tide. Design changes in the field resulted in enhanced populations of a federally protected plant species within the fluctuating tide zone. Project resulted in the creation of 6 acres of wetland.

Lake Charles Dam Removal

Role: Senior Stream Restoration Specialist
Client: The Nature Conservancy
Location: Charles City, VA

Completed the design, permitting and construction oversight of an earthen dam removal on Kimages Creek, a tributary to James River. Project involved breaching the dam in a fluctuating tide area of James River. A low flow channel was constructed for low tide to allow for fish passage into the newly created marsh.

Stroud Preserve Dam Removal

Role: Senior Stream Restoration Specialist
Client: Natural Lands Trust
Location: West Chester, PA

Completed the design, permitting and construction oversight of an earthen dam removal on an unnamed tributary to East Branch Brandywine Creek. Project involved restoring the stream channel back to its historic location. In-stream rock grade control structures were utilized to minimize sediment mobilization, enhance wetland creation and restore a natural meandering channel through the former impoundment.

Spanglers Mill, Witlinger and Green lane Farm Dam Removals

Role: Senior Stream Restoration Specialist
Client: Cumberland Valley Trout Unlimited
Location: Camp Hill, PA

Completed the design permitting and construction oversight of three dams on the Yellow Breeches Creek. Project involved stream restoration and trout habitat improvements.

Woodland Lakes Dam Decommissioning

Mission

Woodlands Lake Dam Decommissioning (Partial Breaching)

Client

Westchester County Department of Public Works & Westchester County Department of Parks, Recreation, and Conservation

Village of Irvington, Westchester County, NY

Date

Construction Summer 2022

Value

Approximate Construction Value: $5 Million

The challenge

Woodlands Lake Dam is located in the Village Irvington, New York and is owned and operated by Westchester County Department of Parks, Recreation, and Conservation (WCDPRC). The dam is a stone and masonry dam and is believed to have been erected circa 1840. The Dam has a single spillway that is partitioned into three overflow sections by two piers that support a vehicular bridge. The dam is considered to be a Class C, high hazard dam. The existing structure has insufficient spillway capacity and major rehabilitation was required to bring the dam into compliance with New York State Department of Environmental Conservation regulations for a Class C dam.

Our response

GHD has provided professional engineering services for the Woodlands Lake Dam since 2013. The Woodlands Lake Dam Engineering Assessment Report and Engineering Recommendation Report were published by GHD in 2015. The Engineering Recommendation Report outlined two mitigation options including the decommissioning of the dam and converting the structure to a Class D, No Hazard Dam.

The project to decommission the dam included partially breaching the structure at the middle spillway section. A low flow channel was routed through this breach, upstream of the dam. Under normal flow conditions the impoundment was eliminated and the Saw Mill River was reverted to its original condition as a flowing river through this reach. As part of the modifications, the eastern section of the spillway was partially demolished and lowered to an intermediate elevation, while the western section of the spillway remained at the existing elevation. These sections act as an overflow during high flow conditions.

Additional modifications to the dam, included the replacement of the existing vehicular bridge with a pre-engineered vehicular bridge. The new bridge spans the length of the spillway, and the existing piers were used to partially support the new bridge. There were existing utilities hanging from the existing bridge that were relocated and rehung from the new bridge.

Under this project the impoundment was eliminated and the Saw Mill River was diverted through a stone lined low flow channel with a series of armored stone weirs. The armored stone weirs within the channel create natural pools that allow for fish passage through this reach of river. The existing lake bed was regraded to accommodate the new low flow channel and was converted into a flood plain. The proposed plans included the planting of native trees, shrubbery, and seed.

In order to construct the project a temporary cofferdam was installed upstream and downstream of the work area. Multiple temporary pipes were installed to bypass the river flow and also to bypass multiple storm pipe outlets.

The project required the involvement of regulators such as New York State Department of Environmental Conservation and US Army Corps of Engineers. Prior to obtaining the required permits for construction, the project went through a public comment period, in which no comments were received.

Additionally, Westchester County is a regulated entity under the U.S. Environmental Protection Agency's NPDES MS4 Phase II program. As such, a Stormwater Pollution Prevention Plan (SWPPP) was developed for the County's review and acceptance. The SWPPP outlined the measures required by the Contractor to manage the discharge of stormwater from the worksite.

The impact

The partial breach of the Woodlands Lake Dam mitigated the risk of dam failure and potential loss of life and property. Decommissioning the dam provided the Owner with cost savings as maintenance and inspections were no longer required. The project also, provided enhanced environmental features including fish passage through this river reach, where the barrier of the dam once stood. Lastly the breaching of dam did not result in increased flooding downstream of the work site.

Watervliet Dams Removal Monitoring

Berrien County, Michigan

DESCRIPTION

The Berrien County Brownfield Redevelopment Authority was the owner of two concrete dams formerly located on the Paw Paw River. The County removed the dams in 2011 using funding provided by the National Oceanic and Atmospheric Administration (NOAA), U.S. Fish and Wildlife Service, and Michigan Department of Natural Resources Fisheries Division (MDNR). ECT prepared the project designs, obtained the Michigan Department of Environmental Quality (MDEQ) permit, performed construction administration, and conducted monitoring to evaluate project success.

ECT worked with NOAA and MDNR to develop a project monitoring protocol shortly after project kick-off and prior to starting the baseline monitoring. The monitoring protocol specified the methods for collecting biological and environmental data, and methods for analyzing the data.

ECT conducted the baseline monitoring in the fall of 2010 and spring of 2011 prior to dam removal and site restoration. A boom shocker was used to collect fish from the Paw Paw River during the 2011 spring spawning migrations downstream of the former dams. Target fish species (walleye and suckers) were fin-clipped for later identification during subsequent recapture efforts following dam removal. Following dam removal, fish were collected from the Paw Paw River upstream of the dams in an effort to recapture target fish that had been fin-clipped downstream of the dams prior to their removal. ECT was able to successfully capture fin-clipped fish upstream of the dams and demonstrate successful target fish passage.

Macroinvertebrate sampling data were used to compare macroinvertebrate community composition in constructed riffles to the community of a natural reference riffle. Various community composition indices are being used to evaluate macroinvertebrate colonization within the constructed riffles when compared to the reference riffle.

CLIENT

Berrien County Brownfield Redevelopment Authority

PROJECT TIMELINE

May 2010–December 2013

PROJECT HIGHLIGHTS

Remediation/demolition design, preparation, & oversight

Brownfield master planning, reuse planning, & strategies

Community outreach

Preparation/review of plans, drawings, specifications, proposals, & technical reports

Funding & agency negotiations

Ecosystem restoration & management

Federal & state grant/loan applications

Preparation/evaluation of engineering design specifications

Project & bid cost preparation/ evaluation

Site grading/erosion control/restoration

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INVOICE GL DISTRIBUTION REPORT FOR CITY OF PLAINWELL
POST DATES 06/01/2022 - 06/30/2022
BOTH JOURNALIZED AND UNJOURNALIZED
BOTH OPEN AND PAID

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #
Fund 243 BROWNFIELD REDEVELOPMENT AUTHORITY FUND					
Dept 443 PUBLIC WORKS					
243-443-718.001	Health Insurance Premiums - Curr	COPS HEALTH TRUST	JUNE 2022 DENTAL & VISION COVERAGE	35.05	18745
243-443-718.001	Health Insurance Premiums - Curr	PRIORITY HEALTH	JUNE 2022 HEALTH INSURANCE PREMIUM	704.61	18747
243-443-725.001	Fringe Benefit - Life Insurance	MADISON NATIONAL LIFE INSU	JUNE 2022 LIFE INSURANCE COVERAGE	3.86	18746
243-443-767.000	DPW UNIFORM SPREAD	CONTINENTAL LINEN SERVICES	DPW - UNIFORMS/RUGS MAY 2022	5.03	18818
243-443-767.000	DPW UNIFORM SPREAD	CONTINENTAL LINEN SERVICES	DPW - UNIFORMS/RUGS 06/07/2022	0.28	18851
243-443-767.000	DPW UNIFORM SPREAD	CONTINENTAL LINEN SERVICES	DPW - UNIFORMS/RUGS 06/14/2022	0.28	18851
243-443-767.000	DPW UNIFORM SPREAD	CONTINENTAL LINEN SERVICES	DPW - UNIFORMS/RUGS 06/21/2022	0.28	18851
243-443-767.000	DPW UNIFORM SPREAD	CONTINENTAL LINEN SERVICES	DPW - UNIFORMS/RUGS 06/28/2022	0.28	18876
243-443-775.000	Supplies - Repairs and Maintenan	PLAINWELL AUTO SUPPLY INC	PARTS & SUPPLIES MAY 2022	379.48	18758
243-443-801.013	Professional Services - Attorney	BLOOM SLUGGETT PC	GENERAL LEGAL SERVICES MAY 2022	231.25	18830
243-443-830.000	Contractual Reimbursement CRA Ac	CRA 200 ALLEGAN STREET LLC	2013 REIMBURSEMENT AGREEMENT - 2021 WIN	12,321.14	18752
243-443-851.000	Postage for grant documents	POSTMASTER	Postage for grant documents	8.95	664
243-443-931.000	Outside Services (RMLB)	STATE OF MICHIGAN	HAZARDOUS WASTE USER CHARGE - SQG MAR 2	105.00	18844
		Total For Dept 443 PUBLIC WORKS		13,795.49	
Dept 900 CAPITAL OUTLAY					
243-900-972.000-2020-00001	SECONDARY AGREEMENT AS APPROVED	MELCHING, INC.	PHASE III MILL PROJECT THROUGH 04/15/20	125,430.48	18753
		Total For Dept 900 CAPITAL OUTLAY		125,430.48	
		Total For Fund 243 BROWNFIELD REDEVELOPMENT AUTHORITY F		139,225.97	

INVOICE GL DISTRIBUTION REPORT FOR CITY OF PLAINWELL
POST DATES 06/01/2022 - 06/30/2022
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BOTH OPEN AND PAID

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #

Fund Totals:

Fund 243 BROWNFIELD REDI	139,225.97
Total For All Funds:	139,225.97

CITY OF PLAINWELL
OUTSTANDING REVOLVING LOANS
AS OF June 30, 2022

RECIPIENT	ORIGINAL LOAN	ORIGINAL LOAN DATE	STATUS	LAST PAYMENT DATE	PRINCIPAL PAID TO DATE	INTEREST PAID TO DATE	DELQ AMOUNT	DELQ DAYS	LOAN BALANCE	PAYOFF DATE	
Elliott's Remodeling	9,000.00	25-Sep-2008	Paid in Full	5/20/2016	9,000.00	389.75	-	-	-	5/20/2016	- Property sold - paid by Title Company at closing
Joe's Pizza	10,000.00	14-Jan-2009	Paid in Full	9/30/2013	10,000.00	250.18	-	-	-	9/30/2013	
CPR Properties 2009	2,916.00	3-Feb-2009	Paid in Full	3/18/2013	2,916.00	70.93	-	-	-	3/18/2013	
Fran Bradshaw	3,084.00	6-Feb-2009	Paid in Full	10/25/2010	3,084.00	36.04	-	-	-	10/25/2010	
Island City Tea & Spice	5,000.00	9-Jul-2009	Paid in Full	5/1/2012	5,000.00	83.45	-	-	-	5/1/2012	
Heaven's Petals	2,294.00	1-Apr-2010	Paid in Full	1/3/2011	2,294.00	15.76	-	-	-	1/3/2011	
Island City Computers	5,000.00	3-Jun-2012	Written Off	9/11/2019	2,306.95	142.98	2,693.05	1,753	-	9/11/2019	- Business folded - small assets retained sold 09/11/2019 - wrote off remaining balance
CPR Properties 2013	10,000.00	30-May-2013	Paid in Full	9/13/2017	10,000.00	238.14	-	-	-	9/13/2017	
H&H Auto Body LLC	3,500.00	22-Oct-2014	Paid in Full	7/30/2015	3,500.00	14.09	-	-	-	7/30/2015	
Hart's Jewelry	2,550.00	27-Sep-2013	Paid in Full	7/27/2015	2,550.00	25.56	-	-	-	7/27/2015	
London Grill-Plainwell, Inc.	10,000.00	2-Aug-2013	Paid in Full	2/4/2016	10,000.00	188.66	-	-	-	2/4/2016	
Plainwell Flowers	8,000.00	22-Sep-2014	Paid in Full	10/5/2016	8,000.00	109.62	-	-	-	10/5/2016	
Thomas Holmes	7,000.00	23-Jun-2014	Paid in Full	12/5/2018	7,000.00	177.90	-	-	-	12/5/2018	
Total Property Management	10,000.00	7-Jun-2013	Paid in Full	6/4/2018	10,000.00	254.73	-	-	-	6/4/2018	
101 S. Main St.	10,000.00	1-Oct-2013	Paid in Full	3/24/2021	10,000.00	308.06	-		-	3/24/2021	
Onalee Boettcher	8,452.37	14-Oct-2015	Paid in Full	1/7/2019	8,452.37	185.02	-	-	-	1/7/2019	
H&H Auto Body 2015	4,350.00	23-Nov-2015	Paid in Full	10/24/2016	4,350.00	21.54	-	-	-	10/24/2016	
Turley Properties LLC	8,000.00	23-Nov-2015	Paid in Full	4/13/2018	8,000.00	147.18	-	-	-	4/13/2018	
RWEats Healthy Living LLC	10,000.00	19-May-2016	Paid in Full	4/13/2018	10,000.00	153.15	-	-	-	4/13/2018	
Barbara Taylor Bechtel	10,000.00	12-Jan-2017	Paid in Full	7/27/2020	10,000.00	232.53	-	-	-	7/27/2020	
John Roggow	10,000.00	12-Dec-2017	Ahead	6/2/2022	9,132.25	249.37	-	-	867.75		
James Turley	10,000.00	1-Jun-2018	Paid in Full	7/8/2020	10,000.00	170.55	-	-	-	7/8/2020	
Plainwell Bridge & Main LLC	10,000.00	23-Aug-2019	Late	5/31/2022	5,674.25	203.79	-	7	4,325.75		
Adam & Rachel Hopkins	10,000.00	10-Sep-2020	Ahead	6/13/2022	3,444.86	146.14	-	-	6,555.14		
Eric & Susan Luthy	15,000.00	28-Apr-2022	Current	6/29/2022	487.54	25.28	-	-	14,512.46		
Barbed Wire Café	10,000.00	13-May-2022	Ahead	6/14/2022	491.23	8.77	-	-	9,508.77		
Jennifer DeYoung	14,000.00	7-Jun-2022	New		-	-	-	-	14,000.00		
									49,769.87		
Loans from G01 Grant									11,562.68		= Cash on hand at 06/30/2022
All others in G03 Grant									61,332.55		

NEW LOAN INFORMATION

RECIPIENT NAME	APPLICANT TYPE	ADDRESS	ZIP	FUNDED BY	LOAN AMOUNT	NAICS CODE	PURPOSE	JOBS CREATED	JOBS SAVED	APPLICATION DATE	CLOSING DATE	TERM (MONTHS)	MATURITY DATE	PAYMENT AMOUNT	INTEREST	RACE	GENDER	ETHNICITY	SOURCE
Eric & Susan Luthy	Individual	124 E Bridge	49080	Revolving Funds	15,000.00	722513	Gaming Café	8	0	1/26/2021	4/28/2022	60	4/28/2027	256.41	1%	White	Male	Non	Provided
Barbed Wire Café	Properietor	140 S Main	49080	Revolving Funds	10,000.00	722511	Restaurant	1	6	4/18/2022	5/13/2022	60	5/13/2027	170.94	1%	White	Male	Non	Provided
Jennifer DeYoung	Individual	107 S Main	49080	Revolving Funds	14,000.00	722410	Pub	0	6	4/19/2022	6/7/2022	60	6/7/2027	239.31	1%	White	Female	Non	Provided

INVOICE GL DISTRIBUTION REPORT FOR CITY OF PLAINWELL
POST DATES 06/01/2022 - 06/30/2022
BOTH JOURNALIZED AND UNJOURNALIZED
BOTH OPEN AND PAID

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #
Fund 248 DOWNTOWN DEVELOPMENT AUTHORITY FUND					
Dept 000 OPERATIONS					
248-000-339.102	Unavailable Revenue - DDA Farmer	CATHY MATTHIS	REFUND FARMERS MARKET FEE 2022	110.00	18835
		Total For Dept 000 OPERATIONS		110.00	
Dept 443 PUBLIC WORKS					
248-443-718.001	Health Insurance Premiums - Curr	COPS HEALTH TRUST	JUNE 2022 DENTAL & VISION COVERAGE	27.95	18745
248-443-718.001	Health Insurance Premiums - Curr	PRIORITY HEALTH	JUNE 2022 HEALTH INSURANCE PREMIUM	291.29	18747
248-443-725.001	Fringe Benefit - Life Insurance	MADISON NATIONAL LIFE INSU	JUNE 2022 LIFE INSURANCE COVERAGE	0.21	18746
248-443-900.000	Printing and Publishing	SHOPPERS GUIDE INC	MAY 2022 ADS - ARBOR DAY/FARMERS MARKET	85.92	18798
248-443-931.000	FOUR CORNERS TO BRIDGES	RIGHT WAY CONTROL	DPW - WEED CONTROLS 2022	1,105.00	18829
		Total For Dept 443 PUBLIC WORKS		1,510.37	
Dept 775 SPECIAL EVENTS					
248-775-881.022	Farmers Market Costs - DDA	GOOD NEWS PAPER	JUNE 2022 FABULOUS FINDS AD - FARMERS M	70.00	18787
		Total For Dept 775 SPECIAL EVENTS		70.00	
		Total For Fund 248 DOWNTOWN DEVELOPMENT AUTHORITY FUND		1,690.37	

INVOICE GL DISTRIBUTION REPORT FOR CITY OF PLAINWELL
POST DATES 06/01/2022 - 06/30/2022
BOTH JOURNALIZED AND UNJOURNALIZED
BOTH OPEN AND PAID

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #

Fund Totals:

Fund 248 DOWNTOWN DEVELO	1,690.37
Total For All Funds:	1,690.37

INVOICE GL DISTRIBUTION REPORT FOR CITY OF PLAINWELL
POST DATES 06/01/2022 - 06/30/2022
BOTH JOURNALIZED AND UNJOURNALIZED
BOTH OPEN AND PAID

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #
Fund 247 TAX INCREMENT FINANCE AUTHORITY FUND					
Dept 443 PUBLIC WORKS					
247-443-718.001	Health Insurance Premiums - Curr	COPS HEALTH TRUST	JUNE 2022 DENTAL & VISION COVERAGE	49.59	18745
247-443-718.001	Health Insurance Premiums - Curr	PRIORITY HEALTH	JUNE 2022 HEALTH INSURANCE PREMIUM	666.24	18747
247-443-725.001	Fringe Benefit - Life Insurance	MADISON NATIONAL LIFE INSU	JUNE 2022 LIFE INSURANCE COVERAGE	1.71	18746
247-443-931.000	Outside Services (RMLB)	SIGNWRITER	SIGN INSTALLATION TIFA DISTRICT	75.00	18811
		Total For Dept 443 PUBLIC WORKS		792.54	
		Total For Fund 247 TAX INCREMENT FINANCE AUTHORITY FUNI		792.54	

INVOICE GL DISTRIBUTION REPORT FOR CITY OF PLAINWELL
POST DATES 06/01/2022 - 06/30/2022
BOTH JOURNALIZED AND UNJOURNALIZED
BOTH OPEN AND PAID

GL Number	Invoice Line Desc	Vendor	Invoice Description	Amount	Check #
Fund Totals:					
			Fund 247 TAX INCREMENT I	792.54	
			Total For All Funds:	792.54	

MINUTES
Plainwell City Council
June 13, 2022

1. Mayor Keeler called the regular meeting to order at 7:00 PM in City Hall Council Chambers.

2. The invocation was given by Sean Fowler of Lighthouse Baptist Church.

3. Pledge of Allegiance was given by all present.

4. Roll Call: Present: Mayor Keeler, Mayor Pro Tem Steele, Councilmember Keeney, Councilmember Overhuel, and Councilmember Wisnaski. Absent: None.

5. Approval of Minutes:
A motion by Steele, seconded by Wisnaski, to accept and place on file the Council Minutes of the 05/23/2022 regular meeting. On a voice vote, all voted in favor. Motion passed.

6. Public Comment: None.

7. County Commissioner Report: None.

8. Agenda Amendments: None.

9. Mayor's Report:
Mayor Keeler reported that Bill Harrington had donated the original lock from the historic Plainwell jail. He passed the lock around to everyone present for viewing.

10. Recommendations and Reports:

A. **A motion by Overhuel, seconded by Steele, to open a Public Hearing at 7:05pm to hear comments regarding the use of CDBG funds. On a voice vote, all in favor. Motion passed.**

Community Development Manager Denise Siegel reported on the rental rehabilitation project at 112 North Main Street. Floor plans and estimated rent prices for the units were discussed.

No public comment.

A motion by Steele, seconded by Overhuel, to close the Public Hearing at 7:08pm. On a voice vote, all voted in favor. Motion passed.

A motion by Steele, seconded by Overhuel, to approve the application for the rental rehabilitation project at 112 North Main Street. On a roll call vote, all voted in favor. Motion passed.

B. Treasurer Kelley reported on the draft 2022-2023 DDA/BRA/TIFA budget. He detailed the changes and projected balances for each fund.
A motion by Overhuel, seconded by Keeney, to approve the draft 2022-2023 DDA/BRA/TIFA budget. On a roll call vote, all voted in favor. Motion passed.

C. Treasurer Kelley reported on the budget process. He noted that a public hearing was required as part of the process.
A motion by Steele, seconded by Keeney, to set a public hearing for June 27, 2022 at 7pm for the adoption of the 2022-2023 Plainwell City Budget. On a roll call vote, all voted in favor. Motion passed.

D. Manager Wilson reported on the excessive force policy amendment established by Resolution 2022-10. He noted that this policy was required as part of the CDBG application process due to the use of federal funds in the project. DPS Director Callahan had also reviewed the policy and recommended approval of the policy as presented.
A motion by Steele, seconded by Wisnaski, to adopt Resolution 2022-10 Excessive Force as presented. On a roll call vote, all voted in favor. Motion passed.

E. Community Development Manager Siegel reported on Ordinance 391 An Ordinance to Amend the City of Plainwell Code to Add a New Chapter 59 entitled "Fair Housing". She noted that this ordinance addresses a required amendment to the housing code to remain compliant with state guidelines for communities that use CDBG funds.
A motion by Overhuel, seconded by Wisnaski, to adopt Ordinance 391 An Ordinance to Amend the City of Plainwell Code to Add a New Chapter 59 entitled "Fair Housing". On a roll call vote, all voted in favor. Motion passed.

F. Clerk Fenger reported on new information received from Republic Services regarding the City of Plainwell contract. Republic Services shows a current recycling usage rate of 72%, based on the number of recycling carts they empty each month in the city. Republic also provided the rates the company charges for an average citizen who doesn't live in a city with a recycling contract. No action was taken.

G. Superintendent Pond reported on the need for safety railings and a work platform above the chlorine contact tanks pumps. The department had previously used a hoist for any work above the pumps but determined a platform with railings would be safer. He noted that he was satisfied with previous work done by OIK and their bid came in much lower than the next lowest bid.
A motion by Keeney, seconded by Wisnaski, to approve a contract with OIK to fabricate and install the railing and work platform above the pumps for a cost of $10,635.00. On a roll call vote, all voted in favor. Motion passed.

H. Superintendent Pond reported on the need to rebuild the east and west final clarifier pumps. He noted the presence of pitting on parts of the pumps which needed to be repaired or replaced. He also noted the cost to purchase new pumps to replace the old ones was more than the cost to rebuild the pumps. Replacing the pumps would also incur additional costs to install new lines and connections that would be avoided by rebuilding the current pumps.
A motion by Wisnaski, seconded by Keeney, to approve a contract with Richland Machine & Pump to rebuild the east and west final clarifier pumps for a cost of $11,400.00. On a roll call vote, all voted in favor. Motion passed.

I. Superintendent Nieuwenhuis reported that the street sweeping contract with Walters Sweeping was due to expire soon. Walters Sweeping currently provides four (4) street sweeping services per year. He noted that prices have increased this year, however the final price usually comes in under budget due to the not-to-exceed amount used by the vendor for price estimates.

A motion by Wisnaski, seconded by Keeney, to approve a three-year contract with Walters Sweeping for annual street sweeping services in an amount not to exceed $19,500.00. On a roll call vote, all voted in favor. Motion passed.

J. Manager Wilson reported that during a traffic study done in 2021, the engineer identified the intersection of Sherwood Ave and Oak St as a good location for a cross walk based on the neighborhood use patterns. The cross walk would include two posts with buttons for pedestrians to press when waiting to cross the street, which would illuminate the crosswalk.
A motion by Steele, seconded by Wisnaski, to approve the purchase of crosswalk signs and equipment from Carrier & Gable Inc in an amount not to exceed $5,596.80. On a roll call vote, all voted in favor. Motion passed.

11. Communications:
    A. **A motion by Steele, seconded by Overhuel, to accept and place on file the May Investment and Fund Balance reports, the May DPS Report, the May WR Report and the DRAFT 6/1/2022 Planning meeting minutes. On a voice vote, all in favor. Motion passed.**

12. Accounts Payable:
    A motion by Keeney, seconded by Wisnaski, that the bills be allowed and orders drawn in the amount of $82,590.35 for payment of same. On a roll call vote, all in favor. Motion passed.

13. Public Comments: None.

14. Staff Comments:
    Treasurer Kelley reported continuing work on the budget, as well as collective bargaining negotiations and property taxes.

    Community Development Manager Siegel reported that the compliance paperwork for the rental rehab CDBG application was nearly complete. She also noted that the farmers' market was going well, and they were having to turn away vendors due to a lack of space. She also reported on updates to the Department of Public Safety website pages. She noted that 3 revolving loans totaling $39,000 had been issued to local businesses: Around the Board Game Café, Mayor's Joint and Barbed Wire Café.

    Director Callahan reported working with Manager Siegel on the Department of Public Safety website page updates, and went over the changes made to allow residents to report concerns, complaints and commendations through the website.

    Director Callahan reported that Deputy Director John Varley will have been with the Department of Public Safety for 35 years as of Saturday, June 18, 2022. He commended Deputy Director Varley for the accomplishment and noted that it was amazing to have an office stay with one department for their entire career. He invited everyone to the celebration for Deputy Director Varley on Friday, June 17 at the Department of Public Safety building.

    Superintendent Pond noted that the balloon cover at Water Renewal was due to be replaced and he had gotten pricing for the project. He stated that the price originally started at $180,000 but increased to $400,000 this year due to the multitude of factors increasing pricing across the board. He noted that he had worked with the vendors to attempt to lower the cost, but the lowest bid anyone provided was $318,000 which still exceeded the

budgeted amount. He stated the piece of equipment was 17 years old, which was the suggested lifespan of the equipment, however there were no current issues that required attention.

Manager Wilson reported continued work on the Capital Improvement Plan, SEIU negotiations and liquidated damages related to the mill demolition project. He stated that this year's budget has been challenging, and rising gas prices are affecting many aspects of the budget.

15. Council Comments:
Councilmember Overhuel commended Officer Rantz and 2 firefighters that showed up for a limb down blocking the road near his house. He stated that they all did a great job handling the situation.

Councilmember Steele asked if the Department of Public Safety would have to reduce responses to residents based on gas prices, as the news had just reported Allegan County taking that step for their Sheriff's Department.

Director Callahan stated that he did not believe that would be necessary at this time, however the rising gas prices were affecting the budget.

Councilmember Steele noted continued issues with speeding on Sherwood Ave, and that the trees needed to be trimmed along Sherwood Ave at the intersections to allow for better visibility.

Councilmember Wisnaski asked for updates on the ordinance violations that had previously been reported.

Director Callahan provided an update on the ordinance violations and noted that going forward there would be a section of the DPS monthly report that provided ordinance violation information.

16. Adjournment:
A motion by Steele, seconded by Overhuel, to adjourn the meeting at 8:04 PM. On a voice vote, all voted in favor. Motion passed.

Minutes respectfully
Submitted by,
Margaret Fenger
City Clerk

MINUTES APPROVED BY CITY COUNCIL
June 27, 2022
Margaret Fenger
Margaret Fenger, City Clerk

MINUTES
Plainwell City Council
June 16, 2022

1. Mayor Keeler called the special meeting to order at 3:01 PM in Plainwell City Hall Council Chambers.

2. Pledge of Allegiance was recited.

3. Roll Call: Present: Mayor Keeler, Mayor Pro Tem Steele, Councilmember Overhuel and Councilmember Wisnaski. Absent: Councilmember Keeney.

4. New Business:

   A. City Manager Wilson reported a newer state mandate to sample water asset hardware to compare with recorded inventory. The City has been awarded a grant for the bulk of this work. Fleis & Vandenbrink solicited bids for the water distribution system materials inventory, which will also update the city's GIS information. Underground Infrastructure Services is the recommended firm as the low bidder.
   A motion by Overhuel, seconded by Steele, to approve a project for water distribution system materials inventory to Underground Infrastructure Services in the amount of $212,050.00. On a roll call vote, all in favor. Motion passed.

   B. City Manager Wilson presented the 2022-2027 Capital Improvement Plan (CIP). The CIP lists all identified projects in excess of $10,000 and includes a needs assessment, an estimated time line and a proposed funding source. While there are projects listed for several years in the future, the focus in on the current year capital projects. The projects in the future are listed to make Council and the community aware of their need. The projects are prioritized and updated annually. Manager Wilson reported that the Planning Commission has reviewed and approved the document, which will be formally presented to Council on June 27. Council thanked the staff for assembling the document and had no edits at this time.

   C. City Manager Wilson gave a report on the draft 2022/2023 city budget. He noted that the Solid Waste and Motor Pool (Equipment) Funds were of the biggest concern from a financial standpoint. The Motor Pool Fund provides the gas and diesel for the Public Works and Public Safety departments and with the uncertain cost of fuel into the budget year, the budget reflects a large increase in operational costs. Council had questions about the Airport Fund and work distributions in City Hall. City Manager Wilson also reviewed provisions tentatively agreed to with the SEIU collective bargaining unit, to which Council had questions. Council thanked the staff for assembling the information and had no other comments.

5. Public Comments: None.

6. Council Comments: None.

7. Adjournment:
   A motion by Wisnaski, seconded by Steele, to adjourn the meeting at 4:35 PM. On voice vote, all voted in favor. Motion passed.

Minutes respectfully
Submitted by,
Brian Kelley
City Treasurer/Deputy City Clerk

MINUTES APPRVOVED BY CITY COUNCIL
June 27, 2022
Brian Kelley
Brian Kelley, Deputy City Clerk

REVENUE AND EXPENDITURE REPORT FOR CITY OF PLAINWELL
PERIOD ENDING 06/30/2022
% Fiscal Year Completed: 100.00
*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

GL NUMBER	DESCRIPTION	2021-22 AMENDED BUDGET	YTD BALANCE 06/30/2022 NORMAL (ABNORMAL)	ACTIVITY FOR MONTH 06/30/2022 INCREASE (DECREASE)	AVAILABLE BALANCE NORMAL (ABNORMAL)	% BDGT USED
Fund 243 - BROWNFIELD REDEVELOPMENT AUTHORITY FUND						
Revenues						
243-000-404.040	Captured Tax Real - BR - City Tax	6,074.00	6,074.14	0.00	(0.14)	100.00
243-000-404.041	Captured Tax Real - BR - Library	1,105.00	1,102.69	0.00	2.31	99.79
243-000-404.042	Captured Tax Real - BR - Capital Impr	488.00	488.17	0.00	(0.17)	100.03
243-000-404.043	Captured Tax Real - BR - Fire Reserve	488.00	488.17	0.00	(0.17)	100.03
243-000-404.044	Captured Tax Real - BR - Solid Waste	635.00	634.63	0.00	0.37	99.94
243-000-404.047	Captured Tax Real - DDA - School	20,670.00	20,669.82	0.00	0.18	100.00
243-000-404.048	Captured Tax Real - BR - County Taxes	3,043.00	3,084.37	0.00	(41.37)	101.36
243-000-413.060	Captured Tax Pers - City Tax	9,283.00	9,283.05	0.00	(0.05)	100.00
243-000-413.061	Captured Tax Pers - Library	1,688.00	1,685.28	0.00	2.72	99.84
243-000-413.062	Captured Tax Pers - Capital Improvement	746.00	746.10	0.00	(0.10)	100.01
243-000-413.063	Captured Tax Pers - Fire Reserve	746.00	746.10	0.00	(0.10)	100.01
243-000-413.064	Captured Tax Pers - Solid Waste	970.00	969.93	0.00	0.07	99.99
243-000-413.065	Captured Tax Pers - County Taxes	4,651.00	4,711.41	0.00	(60.41)	101.30
243-000-504.000	Federal Grant	0.00	1,021,296.00	174,128.00	(1,021,296.00)	100.00
243-000-665.000	Interest Earnings - Investments	0.00	221.85	17.48	(221.85)	100.00
243-000-684.000	Miscellaneous Revenue	0.00	9,598.80	0.00	(9,598.80)	100.00
243-000-696.010	Loan Proceeds	490,000.00	559,236.00	0.00	(69,236.00)	114.13
243-000-699.401	Interfund Transfer In - Cap Improvement	80,000.00	80,000.00	6,666.63	0.00	100.00
TOTAL REVENUES		620,587.00	1,721,036.51	180,812.11	(1,100,449.51)	277.32
Expenditures						
243-443-703.000	Salaries/Wages - Full Time Employees	38,984.00	36,712.37	4,734.08	2,271.63	94.17
243-443-704.001	Wages - Part Time Employees	579.00	1,308.11	631.15	(729.11)	225.93
243-443-709.000	Payroll Taxes - FICA - Soc Sec/Medicare	2,841.00	2,716.70	393.05	124.30	95.62
243-443-712.001	Cash in Lieu of Benefits - Insurance Buy	122.00	153.27	14.64	(31.27)	125.63
243-443-716.000	Retirement - Defined Contribution 401a	3,729.00	2,981.74	211.51	747.26	79.96
243-443-718.001	Health Insurance Premiums - Current EE	6,956.00	6,627.82	545.73	328.18	95.28
243-443-718.013	Health Insurance - HSA - Employer Paid	3,237.00	1,908.00	0.00	1,329.00	58.94
243-443-723.001	Retiree Health Care - OPEB	283.00	283.46	23.64	(0.46)	100.16
243-443-725.001	Fringe Benefit - Life Insurance	43.00	43.92	3.86	(0.92)	102.14
243-443-725.010	Workers Comp Insurance	305.00	229.62	0.00	75.38	75.29
243-443-767.000	Clothing - Uniforms	65.00	22.50	6.15	42.50	34.62
243-443-775.000	Supplies - Repairs and Maintenance	500.00	379.48	379.48	120.52	75.90
243-443-801.000	Professional Services - Engineering	1,000.00	0.00	0.00	1,000.00	0.00
243-443-801.013	Professional Services - Attorney	2,000.00	3,821.75	231.25	(1,821.75)	191.09
243-443-801.030	Professional Services - Auditor	353.00	338.86	0.00	14.14	95.99
243-443-830.000	Contractual Reimbursement CRA Activities	37,940.00	38,012.90	12,321.14	(72.90)	100.19
243-443-851.000	Postage	100.00	16.33	8.95	83.67	16.33
243-443-900.000	Printing and Publishing	250.00	0.00	0.00	250.00	0.00
243-443-931.000	Outside Services (RMLB)	6,000.00	667.77	105.00	5,332.23	11.13
243-443-935.001	Property Liability Insurance	5,700.00	5,624.46	0.00	75.54	98.67
243-443-940.000	Rentals - Equipment	2,000.00	2,565.39	1,177.80	(565.39)	128.27
243-443-948.000	Computer Services	500.00	10.22	0.00	489.78	2.04
243-443-955.000	Miscellaneous Expense	100.00	0.00	0.00	100.00	0.00
243-900-972.000	Contracted Services	1,429,513.18	1,028,711.07	125,430.48	400,802.11	71.96
243-905-991.001	Debt Service - Principal -Interfund Loan	15,230.00	15,230.00	1,269.13	0.00	100.00
243-905-993.001	Debt Service - Interest - Interfund Loan	1,395.00	1,395.00	116.25	0.00	100.00
243-965-995.101	Interfund Transfer Out - General Fund	150,000.00	150,000.00	150,000.00	0.00	100.00
TOTAL EXPENDITURES		1,709,725.18	1,299,760.74	297,603.29	409,964.44	76.02

REVENUE AND EXPENDITURE REPORT FOR CITY OF PLAINWELL
PERIOD ENDING 06/30/2022
% Fiscal Year Completed: 100.00
*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

GL NUMBER	DESCRIPTION	2021-22 AMENDED BUDGET	YTD BALANCE 06/30/2022 NORMAL (ABNORMAL)	ACTIVITY FOR MONTH 06/30/2022 INCREASE (DECREASE)	AVAILABLE BALANCE NORMAL (ABNORMAL)	% BDGT USED
Fund 243 - BROWNFIELD REDEVELOPMENT AUTHORITY FUND						
Fund 243 - BROWNFIELD REDEVELOPMENT AUTHORITY FUND:						
TOTAL REVENUES		620,587.00	1,721,036.51	180,812.11	(1,100,449.51)	277.32
TOTAL EXPENDITURES		1,709,725.18	1,299,760.74	297,603.29	409,964.44	76.02
NET OF REVENUES & EXPENDITURES		(1,089,138.18)	421,275.77	(116,791.18)	(1,510,413.95)	38.68

REVENUE AND EXPENDITURE REPORT FOR CITY OF PLAINWELL
PERIOD ENDING 06/30/2022
% Fiscal Year Completed: 100.00
*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

GL NUMBER	DESCRIPTION	2021-22 AMENDED BUDGET	YTD BALANCE 06/30/2022 NORMAL (ABNORMAL)	ACTIVITY FOR MONTH 06/30/2022 INCREASE (DECREASE)	AVAILABLE BALANCE NORMAL (ABNORMAL)	% BDGT USED
Fund 247 - TAX INCREMENT FINANCE AUTHORITY FUND						
Revenues						
247-000-583.000	Local Grants	81,334.00	85,614.96	0.00	(4,280.96)	105.26
247-000-665.000	Interest Earnings - Investments	180.00	198.35	17.13	(18.35)	110.19
TOTAL REVENUES		81,514.00	85,813.31	17.13	(4,299.31)	105.27
Expenditures						
247-443-703.000	Salaries/Wages - Full Time Employees	46,108.00	45,257.45	4,410.54	850.55	98.16
247-443-704.001	Wages - Part Time Employees	0.00	354.07	10.55	(354.07)	100.00
247-443-709.000	Payroll Taxes - FICA - Soc Sec/Medicare	3,357.00	3,224.71	314.57	132.29	96.06
247-443-712.001	Cash in Lieu of Benefits - Insurance Buy	311.00	359.41	32.02	(48.41)	115.57
247-443-716.000	Retirement - Defined Contribution 401a	2,360.00	2,199.37	165.56	160.63	93.19
247-443-718.001	Health Insurance Premiums - Current EE	6,828.00	6,374.73	527.28	453.27	93.36
247-443-718.013	Health Insurance - HSA - Employer Paid	3,290.00	1,916.00	0.00	1,374.00	58.24
247-443-723.001	Retiree Health Care - OPEB	30.00	29.97	2.47	0.03	99.90
247-443-725.001	Fringe Benefit - Life Insurance	22.00	19.60	1.71	2.40	89.09
247-443-725.010	Workers Comp Insurance	249.00	187.46	0.00	61.54	75.29
247-443-801.013	Professional Services - Attorney	2,500.00	0.00	0.00	2,500.00	0.00
247-443-801.030	Professional Services - Auditor	67.00	64.19	0.00	2.81	95.81
247-443-931.000	Outside Services (RMLB)	200.00	715.00	75.00	(515.00)	357.50
247-443-935.001	Property Liability Insurance	400.00	394.70	0.00	5.30	98.68
247-443-940.000	Rentals - Equipment	2,200.00	841.91	52.62	1,358.09	38.27
247-443-948.000	Computer Services	0.00	10.22	0.00	(10.22)	100.00
247-443-955.000	Miscellaneous Expense	500.00	0.00	0.00	500.00	0.00
247-443-962.000	Memberships & Dues	300.00	0.00	0.00	300.00	0.00
TOTAL EXPENDITURES		68,722.00	61,948.79	5,592.32	6,773.21	90.14
Fund 247 - TAX INCREMENT FINANCE AUTHORITY FUND:						
TOTAL REVENUES		81,514.00	85,813.31	17.13	(4,299.31)	105.27
TOTAL EXPENDITURES		68,722.00	61,948.79	5,592.32	6,773.21	90.14
NET OF REVENUES & EXPENDITURES		12,792.00	23,864.52	(5,575.19)	(11,072.52)	186.56

REVENUE AND EXPENDITURE REPORT FOR CITY OF PLAINWELL
PERIOD ENDING 06/30/2022
% Fiscal Year Completed: 100.00
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GL NUMBER	DESCRIPTION	2021-22 AMENDED BUDGET	YTD BALANCE 06/30/2022 NORMAL (ABNORMAL)	ACTIVITY FOR MONTH 06/30/2022 INCREASE (DECREASE)	AVAILABLE BALANCE NORMAL (ABNORMAL)	% BDGT USED
Fund 248 - DOWNTOWN DEVELOPMENT AUTHORITY FUND						
Revenues						
248-000-404.030	Captured Tax Real - DDA - City Tax	26,174.00	26,635.52	0.00	(461.52)	101.76
248-000-404.031	Captured Tax Real - DDA - Library	4,740.00	4,834.69	0.00	(94.69)	102.00
248-000-404.032	Captured Tax Real - DDA - Capital Impr	2,091.00	2,140.49	0.00	(49.49)	102.37
248-000-404.033	Captured Tax Real - DDA - Fire Reserve	2,091.00	2,140.49	0.00	(49.49)	102.37
248-000-404.034	Captured Tax Real - DDA - Solid Waste	12,591.00	2,782.72	0.00	9,808.28	22.10
248-000-404.045	Captured Tax Real - DDA - County Taxes	2,718.00	13,519.15	0.00	(10,801.15)	497.39
248-000-413.060	Captured Tax Pers - City Tax	2,044.00	1,830.79	0.00	213.21	89.57
248-000-413.061	Captured Tax Pers - Library	370.00	332.28	0.00	37.72	89.81
248-000-413.062	Captured Tax Pers - Capital Improvement	163.00	147.15	0.00	15.85	90.28
248-000-413.063	Captured Tax Pers - Fire Reserve	163.00	147.15	0.00	15.85	90.28
248-000-413.064	Captured Tax Pers - Solid Waste	212.00	191.29	0.00	20.71	90.23
248-000-413.065	Captured Tax Pers - County Taxes	983.00	929.10	0.00	53.90	94.52
248-000-583.000	Local Grants	6,874.00	7,236.32	0.00	(362.32)	105.27
248-000-642.001	Sales of Merchandise - DDA	0.00	1,339.94	0.00	(1,339.94)	100.00
248-000-654.001	Charges for Service - Farmers Market Fee	2,200.00	4,811.18	3,986.18	(2,611.18)	218.69
248-000-654.102	Special Event Revenues - DDA	300.00	3,140.00	0.00	(2,840.00)	1,046.67
248-000-654.103	Donations - Movies In the Park - DDA	800.00	0.00	0.00	800.00	0.00
248-000-665.000	Interest Earnings - Investments	135.00	165.92	12.39	(30.92)	122.90
248-000-684.000	Miscellaneous Revenue	0.00	12.00	0.00	(12.00)	100.00
TOTAL REVENUES		64,649.00	72,336.18	3,998.57	(7,687.18)	111.89
Expenditures						
248-443-703.000	Salaries/Wages - Full Time Employees	18,449.00	16,969.89	1,334.82	1,479.11	91.98
248-443-709.000	Payroll Taxes - FICA - Soc Sec/Medicare	1,334.00	1,142.32	88.63	191.68	85.63
248-443-712.001	Cash in Lieu of Benefits - Insurance Buy	13.00	20.16	2.28	(7.16)	155.08
248-443-716.000	Retirement - Defined Contribution 401a	132.00	34.63	(7.88)	97.37	26.23
248-443-718.001	Health Insurance Premiums - Current EE	2,848.00	2,901.95	233.46	(53.95)	101.89
248-443-718.013	Health Insurance - HSA - Employer Paid	1,260.00	852.00	0.00	408.00	67.62
248-443-723.001	Retiree Health Care - OPEB	0.00	9.38	0.80	(9.38)	100.00
248-443-725.001	Fringe Benefit - Life Insurance	1.00	1.71	0.21	(0.71)	171.00
248-443-725.010	Workers Comp Insurance	75.00	56.47	0.00	18.53	75.29
248-443-775.000	Supplies - Repairs and Maintenance	100.00	16.17	0.00	83.83	16.17
248-443-801.013	Professional Services - Attorney	0.00	55.50	0.00	(55.50)	100.00
248-443-801.030	Professional Services - Auditor	67.00	64.19	0.00	2.81	95.81
248-443-851.000	Postage	100.00	1.46	0.00	98.54	1.46
248-443-900.000	Printing and Publishing	1,800.00	1,495.74	17.92	304.26	83.10
248-443-931.000	Outside Services (RMLB)	200.00	1,215.00	1,105.00	(1,015.00)	607.50
248-443-935.001	Property Liability Insurance	616.00	607.84	0.00	8.16	98.68
248-443-940.000	Rentals - Equipment	200.00	0.00	0.00	200.00	0.00
248-443-948.000	Computer Services	50.00	10.22	0.00	39.78	20.44
248-443-955.000	Miscellaneous Expense	400.00	451.44	0.00	(51.44)	112.86
248-443-960.000	Education & Training - Professional	100.00	175.00	0.00	(75.00)	175.00
248-443-962.000	Memberships & Dues	1,430.00	690.00	150.00	740.00	48.25
248-775-880.021	Community Promotion - Special Events	2,000.00	1,042.01	0.00	957.99	52.10
248-775-881.022	Farmers Market Costs - DDA	425.00	774.24	70.00	(349.24)	182.17
248-775-881.025	Christmas Ornament Costs - DDA	800.00	797.27	0.00	2.73	99.66
248-775-881.036	Movies in the Park Costs - DDA	1,500.00	1,770.00	0.00	(270.00)	118.00
248-900-723.001	Retiree Health Care - OPEB	9.00	0.00	0.00	9.00	0.00
248-900-971.000	Capital Purchase	18,000.00	8,793.12	0.00	9,206.88	48.85
248-905-991.001	Debt Service - Principal -Interfund Loan	11,900.00	11,900.00	991.63	0.00	100.00
248-905-993.001	Debt Service - Interest - Interfund Loan	361.00	361.00	30.12	0.00	100.00

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Fund 248 - DOWNTOWN DEVELOPMENT AUTHORITY FUND						
Expenditures						
TOTAL EXPENDITURES		64,170.00	52,208.71	4,016.99	11,961.29	81.36
Fund 248 - DOWNTOWN DEVELOPMENT AUTHORITY FUND:						
TOTAL REVENUES		64,649.00	72,336.18	3,998.57	(7,687.18)	111.89
TOTAL EXPENDITURES		64,170.00	52,208.71	4,016.99	11,961.29	81.36
NET OF REVENUES & EXPENDITURES		479.00	20,127.47	(18.42)	(19,648.47)	4,201.98
TOTAL REVENUES - ALL FUNDS		766,750.00	1,879,186.00	184,827.81	(1,112,436.00)	245.08
TOTAL EXPENDITURES - ALL FUNDS		1,842,617.18	1,413,918.24	307,212.60	428,698.94	76.73
NET OF REVENUES & EXPENDITURES		(1,075,867.18)	465,267.76	(122,384.79)	(1,541,134.94)	43.25

REVENUE AND EXPENDITURE REPORT FOR CITY OF PLAINWELL
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Fund 243 - BROWNFIELD REDEVELOPMENT AUTHORITY FUND						
Revenues						
UNCLASSIFIED	Unclassified	620,587.00	1,721,036.51	180,812.11	(1,100,449.51)	277.32
TOTAL REVENUES		620,587.00	1,721,036.51	180,812.11	(1,100,449.51)	277.32
Expenditures						
443	PUBLIC WORKS	113,587.00	104,424.67	20,787.43	9,162.33	91.93
900	CAPITAL OUTLAY	1,429,513.18	1,028,711.07	125,430.48	400,802.11	71.96
905	DEBT SERVICE	16,625.00	16,625.00	1,385.38	0.00	100.00
965	TRANSFERS TO OTHER FUNDS	150,000.00	150,000.00	150,000.00	0.00	100.00
TOTAL EXPENDITURES		1,709,725.18	1,299,760.74	297,603.29	409,964.44	76.02
Fund 243 - BROWNFIELD REDEVELOPMENT AUTHORITY FUND:						
TOTAL REVENUES		620,587.00	1,721,036.51	180,812.11	(1,100,449.51)	277.32
TOTAL EXPENDITURES		1,709,725.18	1,299,760.74	297,603.29	409,964.44	76.02
NET OF REVENUES & EXPENDITURES		(1,089,138.18)	421,275.77	(116,791.18)	(1,510,413.95)	38.68

REVENUE AND EXPENDITURE REPORT FOR CITY OF PLAINWELL
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Fund 247 - TAX INCREMENT FINANCE AUTHORITY FUND						
Revenues						
UNCLASSIFIED	Unclassified	81,514.00	85,813.31	17.13	(4,299.31)	105.27
TOTAL REVENUES		81,514.00	85,813.31	17.13	(4,299.31)	105.27
Expenditures						
443	PUBLIC WORKS	68,722.00	61,948.79	5,592.32	6,773.21	90.14
TOTAL EXPENDITURES		68,722.00	61,948.79	5,592.32	6,773.21	90.14
Fund 247 - TAX INCREMENT FINANCE AUTHORITY FUND:						
TOTAL REVENUES		81,514.00	85,813.31	17.13	(4,299.31)	105.27
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REVENUE AND EXPENDITURE REPORT FOR CITY OF PLAINWELL
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Fund 248 - DOWNTOWN DEVELOPMENT AUTHORITY FUND						
Revenues						
UNCLASSIFIED	Unclassified	64,649.00	72,336.18	3,998.57	(7,687.18)	111.89
TOTAL REVENUES		64,649.00	72,336.18	3,998.57	(7,687.18)	111.89
Expenditures						
443	PUBLIC WORKS	29,175.00	26,771.07	2,925.24	2,403.93	91.76
775	SPECIAL EVENTS	4,725.00	4,383.52	70.00	341.48	92.77
900	CAPITAL OUTLAY	18,009.00	8,793.12	0.00	9,215.88	48.83
905	DEBT SERVICE	12,261.00	12,261.00	1,021.75	0.00	100.00
TOTAL EXPENDITURES		64,170.00	52,208.71	4,016.99	11,961.29	81.36
Fund 248 - DOWNTOWN DEVELOPMENT AUTHORITY FUND:						
TOTAL REVENUES		64,649.00	72,336.18	3,998.57	(7,687.18)	111.89
TOTAL EXPENDITURES		64,170.00	52,208.71	4,016.99	11,961.29	81.36
NET OF REVENUES & EXPENDITURES		479.00	20,127.47	(18.42)	(19,648.47)	4,201.98
TOTAL REVENUES - ALL FUNDS		766,750.00	1,879,186.00	184,827.81	(1,112,436.00)	245.08
TOTAL EXPENDITURES - ALL FUNDS		1,842,617.18	1,413,918.24	307,212.60	428,698.94	76.73
NET OF REVENUES & EXPENDITURES		(1,075,867.18)	465,267.76	(122,384.79)	(1,541,134.94)	43.25

PUBLIC SERVANTS DAY

Lighthouse Baptist Church

of Plainwell

Welcomes you to

"Public Servants Day"

Sunday, July 17th @ 11:00 a.m.

Dear Public Servant,

First we would like to say "THANK YOU" for your service to our community. We at Lighthouse Baptist Church appreciate very much the sacrifice made by you and your family to make this part of the world a great place to live. That is why we have scheduled July 17th to be "Public Servants Day". In our 11:00 a.m. Service. We will have a time in the service to recognize each public servant present and present them with a token of appreciation. If you are able to attend please RSVP as soon as possible to either phone – (269)-664-3229 or email –lighthousebaptistchurch12220@gmail.com

Sincerely,

Pastor Steve Smail

Pastor Steve Smail

12220 CRESSEY ROAD
PLAINWELL, MICHIGAN 49080
(269) 664-3229 ~ lbcplainwell.com

AGENDA ITEMS

7. BRA Action Items:

A. Recommended Action: Informational updates on Mill Site
B. Dam #2 Removal Update Informational
C. Accounts Payable:
Recommended Action: Consider confirming the BRA payables for June in the amount of $139,225.97

8. DDA Action Items:

A. Recommended Action: Informational quarterly review of Revoling Loan
B. Accounts Payable:
Recommended Action: Consider confirming the DDA payables for June in the amount of $1,690.37

9. TIFA Action Items:

A. Recommended Action: Informational regarding updates on property
B. Accounts Payable:
Recommended Action: Consider confirming the TIFA payables for June in the amount of $792.54

Reminder of Upcoming Meetings

- July 14 – Parks and Trees Meeting at 5:00 pm
- July 17 – Lighthouse Baptist Church "Public Servant Day" at 11 a.m.
- July 20 – Planning Commission Meeting at 7:00pm
- July 25– City Council Meeting at 7:00pm
- July 30 – City Clerk's Office Open 8am-4pm

Next Meeting is scheduled for August 09, 2022 will be held at City Hall Council Chambers