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Hoosier Hills Regional Water District

Statement of Qualifications

To

Indiana Finance Authority

GRW, Inc.

7112 Waldemar Drive • Indianapolis, IN 46268
(317) 347-3650 • www.grwinc.com

Statement of Qualifications for Water Suppliers to Supply Potable Water to Meet Both the Short and Long Term Water Needs of Decatur, Ripley and Jennings Counties

Due to the Indiana Finance Authority
September 28, 2007

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Section 1: HHRWD-GRW Team

The entity responding to this RFQ is the following team:

Elrod Water Company, Inc. D/B/A/ Hoosier Hills Regional Water District

7215 East State Road 350

P.O. Box 395

Milan, Indiana 47031

812-654-3200

812-654-3798 fax

www.hhrwd.com

GRW Engineers, Inc.

7112 Waldemar Drive

Indianapolis, Indiana 46268

317-347-3650

317-347-3556 fax

www.grwinc.com

Section 2: History of HHRWD-GRW Team

HHRWD

Elrod Water Company, Inc. D/B/A/ Hoosier Hills Regional Water District (HHRWD) was founded in 1964 to serve the rural resident of Ripley County. HHRWD is a not-for-profit (501c3) and is operated by a nine member Board of Directors as voted on by the membership. Day to day operations is run by the General Manager.

Since its inception in 1964, HHRWD has been ever expanding into two additional counties: Dearborn and Franklin. Currently, HHRWD serves the Town of Milan and North Dearborn Water Company and has emergency connections to the Town of Osgood, Town of Sunman and the Town of Dillsboro. It has grown through six major expansion projects financed through USDA – Rural Development. Being financed through federal government loans, HHRWD enjoys the protection of its water service territory though the federal law provision 1926(b). In fact, HHRWD does have a well defined territory in the three counties it currently services in Ripley, Franklin and Dearborn Counties. A seventh major expansion project is currently waiting on federal financing. All design is complete and should be ready for bidding later this year.

HHRWD produces all of the water it sells through a wellfield and water treatment plant in Franklin County. The water is pumped and stored through the water distribution system of three pump stations and four elevated water storage tanks. The new project will increase the capacity of the water treatment plant and add an additional pump station and elevated water storage tank.

The capacity of the HHRWD wellfield is 5.7 million gallons per day (MGD). With a recent purchase of an adjacent 20 acres, the capacity could possibly be increased to over 10 MGD. The current usage of HHRWD is approximately 1.2 MGD. The combination of the HHRWD wellfield capacity, its reserve wellfield capacity, its ability to transmit a large portion of that capacity, HHRWD's years of experience and types of projects completed would greatly benefit the Three County Region. HHRWD is in position to serve the entire region or a portion of it. Additional information regarding HHRWD can be found at its website: www.hhrwd.com.

The following is a listing of the HHRWD full time regular employees and their licenses:

Scott Stirn, General Manager, Wastewater Class A-SO #WW017502

Grade DSL #008486

Grade WT3 #022822

Grade WT5 #008485

Experience – 30 years

Charles Baylor, Maintenance Supervisor, Experience - 14 years

Trace Cutter, Maintenance, Grade DSL #026347

Grade WT3 #008380

Experience – 9 years

Michael Siefert, Maintenance, Grade DSL #18165

Grade WT3 #21367

Wastewater Class 11 #14310

Wastewater Class A #14010

Experience – 14 years

GRW

Also, founded in 1964 by Mr. G. Reynolds Watkins to provide water and wastewater engineering planning and design services, GRW is an employee-owned firm currently offering full-service engineering, architectural, planning, GIS and digital mapping capabilities. We have built a reputation as one of the most respected water system planning and design consulting engineering firms in this region, and we have completed hundreds of successful water projects. Specializing in the planning, design, rehabilitation and construction administration of water treatment plants, raw water supply facilities, distribution and transmission, storage tanks, and pumping stations, we have also prepared numerous water system planning studies, hydraulic models and water system GIS/mapping projects.

Today, as a national design firm, GRW has offices in Ohio, Kentucky, Indiana, Tennessee and Texas, and Watkins' insistence on **technical excellence** and **personal service** lives on as the guiding principle at GRW. **This dedication to service has resulted in repeat clients providing 90 percent of GRW's current workload.**

The quality of our work is further demonstrated in the numerous awards our projects have won, both on national and state levels. Our projects have received awards from the American Water Works Association, the Water Environment Association, the American Public Works Association, the American Council of Engineering Companies, and the U.S. Environmental Protection Agency.

Also included in the benchmarks of our firm's history are several prestigious, national rankings.

- Since 1972, GRW has been continually ranked in "Engineering News Record's" Top 500 Design Firms in the U.S.
- As published in the *Engineering News Record*, GRW is among the Top 200 Environmental firms in the U.S.

HHRWD and GRW have enjoyed a long relationship since 1997. GRW has designed two major expansion projects and hundreds of line extensions throughout the HHRWD three county area. These projects are detailed later in this submission.

HHRWD currently has six full time employees including one general manager, two water treatment plant operators, one field service foreman and two office employees that perform a variety of tasks including billing.

GRW currently has 250 full time employees that include 48 full time employees in the Indianapolis office. Employees in Indianapolis include professional engineers, project engineers, engineering designers, CADD technicians, professional surveyors and various support personnel. With the stated qualifications and capacities, the HHRWD-GRW Team certainly has the capacity to complete this project within any reasonable timeframe. HHRWD also possesses significant water source capacity in the reserve of their wellfield that should allow them to serve the three county area.

Section 3: Proposed Project Team

The proposed project team involves several members of both HHRWD and GRW. The following are a list staff members to be assigned to this project:

HHRWD: Scott Stirn, General Manager
Greg Dole, Board President

GRW: Greg Wright, P.E. Vice President
Dan Cutshaw, P.E. Project Manager
Bob Smallwood, P.E. Project Engineer
Joe Henry, P.E., Project Engineer
Alex White, E.I., Project Engineer

For this project we have carefully selected a number of GRW key staff members to work directly with key staff members from HHRWD based on their related experience and expertise in the various services required for this project. Key project management members include Mr. Greg Wright, PE, our proposed Principal-in-Charge, and Project Manager, Mr. Dan Cutshaw, PE. Both Mr. Wright and Mr. Cutshaw have led projects for HHRWD and various similar water districts and companies throughout Indiana.

Mr. Scott Stirn will serve as the "one point of contact" on this project. He can be reached at:

Elrod Water Company, Inc. D/B/A/ Hoosier Hills Regional Water District

7215 East State Road 350

P.O. Box 395

Milan, Indiana 47031

812-654-3200

812-654-3798 fax

Mr. Stirn has thirty years of experience in the water business including management of three different water districts or city departments. His wealth of knowledge will prove to be valuable as the project progresses. Mr. Dole, HHRWD Board President, will serve as the Board liaison for the project. Mr. Dole, an engineer by profession, has been on the HHRWD Board for 10 years and as president since 2001.

Mr. Wright will be in charge of this project, and he has the authority to bind GRW contractually. He has 27 years of experience with utility system studies, design and rehabilitation. In the past year he has completed water studies and/or design improvements in more than 25 cities. This experience includes water hydraulic modeling, water main extensions, water wells and water treatment plants. Most of these projects include prioritization of work to maximize benefits to the towns and cities. Work has included mapping, plans, specifications and construction inspection for water distribution and treatment facility construction, expansion and rehabilitation.

Mr. Cutshaw has 19 years of experience with water system computer hydraulic modeling and the design of water source, treatment, distribution, pumping and storage projects. He has served as the Design Engineer and Project Manager for numerous water projects for HHRWD, the American Water Company, as well as several other communities in Indiana.

Resumes of GRW staff can be found in the following pages:

Gregory A. Wright, PE
Vice President/ Principal-in-Charge

Years of Experience: 27
Years with Firm: 19

Education
B.S., Civil Engineering, University of Kentucky, 1980

Registration
Professional Engineer, OH, IN, KY

Professional Affiliations and Training
American Water Works Association
Water Environment Federation
National Society of Professional Engineers
American Society of Civil Engineers
Society of American Military Engineers

Key Qualifications
Mr. Wright has 27 years of experience with utility system studies, design and rehabilitation. In the past year he has completed water studies and/or design improvements in more than 25 cities. This experience includes water hydraulic modeling, water main extensions, water wells and water treatment plants. Most of these projects include prioritization of work to maximize benefits to the towns and cities. Work has included mapping, plans, specifications and construction inspection for water distribution and treatment facility construction, expansion and rehabilitation. Mr. Wright is familiar with computer hydraulic modeling programs such as WaterCAD and KYPIPE.

Relevant Project Experience
- **Planning, Computer Hydraulic Modeling, Design and Construction of Multi-County Rural Water System, Northern Ohio Rural Water, Norwalk, OH** - Project Manager for planning, engineering design and construction management services for the creation of a new multi-county rural water system to serve portions of Erie, Huron, Sandusky and Lorain counties in northern Ohio. The initial $10 million construction project ultimately served the rural areas as well as several small communities in Erie, Huron and Lorain counties. The new system consisted of the construction of 210 miles of 4" through 18" water mains, as well as a series of water storage tanks, pumping stations and pressure reducing stations. This project initially served approximately 2,700 customers and now, with the engineering assistance of GRW, has grown to over 425 miles with more than 7000 customers. The seven pumping stations range from 0.2 MGD to 3.6 MGD in capacity. This project also included the development and calibration of a computer hydraulic model, using CYBERNET water distribution software, for growth and development analysis of the water distribution system.
- **Water Distribution System Computer Hydraulic Modeling, West Unity, OH** - Project Manager for development and calibration of a CYBERNET hydraulic model that included over 14 miles of transmission mains, tanks and associated pump stations serving the entire village.

- **Water Distribution System Computer Hydraulic Modeling, Jefferson Regional Water Authority, Miamisburg, OH** - Project Manager for the development and calibration of a computer hydraulic model for the existing Jefferson Regional Water Authority's water distribution system. The water system model included over 80 miles of transmission mains, tanks and associated pump stations serving four townships and two cities. The model was developed using CYBERNET water distribution software.
- **Water Distribution System Computer Hydraulic Modeling, Northern Ohio Rural Water, Norwalk, OH** - Project Manager for the development and calibration of a computer hydraulic model for the existing Northern Ohio Rural Water's distribution system. The water system model included three water sources, nine pressure zones, 20 townships and 425 miles of pipe. The model was developed using CYBERNET water distribution software.
- **Water Treatment Plant Improvements, Madison Water District, Mansfield, OH**- Principal-in-Charge for the identification of system improvements necessary for continued service through the year 2023. Preliminary design of wellfield and plant improvements to increase production capacity at the current filtration plant by an additional 1 MGD, including modifications to chemical feeds, high service pumping, source water pumping and electrical and telemetry systems.
- **Water Treatment Plant Upgrade, Ohio American Water, Marion, OH** - Principal-in-Charge for the upgrade of a 9.12 MGD lime soda softening plant. Three of the four existing low-service pumps were replaced with new 3.5 MGD pumps. The chlorine feed system was upgraded and expanded by replacing equipment and a building expansion to provide added cylinder storage capacity. Existing fluoride feed facilities were also upgraded with the replacement of an existing bulk storage tank, day tank and transfer pumps.
- **Olentangy Water Treatment Plant and Water System Improvements, Del-Co Water Company, Delaware, OH** - Construction Manager for a major expansion of the Olentangy Water Treatment Plant; two 1.5 MG elevated storage tanks; and a 0.30 MG elevated tank. The expansion of the treatment plant increased the plant capacity from 2.9 MGD to 7 MGD, and is capable of treating both ground and surface water. The expansion consisted of the construction chemical feed facilities including bulk lime feed silos with slakers; solids contact softening clarifiers; recarbonation basin; new filter building and pipe gallery with four new filters; new high service pumping station; additional below ground clearwell storage; backwash holding/pump basin and new lime sludge lagoons; and SCADA instrumentation system.
- **Water Storage Tanks, Northern Ohio Rural Water, Norwalk, OH** - Project Manager for design of eight elevated, ground storage and standpipe tanks ranging from 100,000 to 1,500,000 gallons of storage for a multi-county rural water system to serve portions of Erie, Huron, Sandusky and Lorain counties in northern Ohio. Design included

hydraulic sizing, site layout, property acquisitions, coatings selection and operational procedures to assure water quality integrity of the supply.

- **10 MGD North Ridgeville Booster Pumping Station, Rural Lorain County Water Authority, La Grange, OH**- Project Engineer for this booster pumping station, which was constructed at North Ridgeville, OH, near the southern end of the 24" line. The 10 MGD booster station is designed to operate in series with R.L.C.W.A.'s main booster station during peak summer/fall usage periods. The installation of the North Ridgeville station allowed the capacity of the main R.L.C.W.A. booster station to increase from 8 MGD to 11 MGD. The 10 MGD North Ridgeville booster station has four, can-type vertical turbine pumps, each equipped with hydraulically operated pump control valves. Station control/monitoring is accomplished via radio controlled telemetry.
- **Water Treatment Plant Study, Northern Ohio Rural Water** – Principal-in-Charge for preliminary engineering and environmental report for new 4.0 MGD (expandable to 10.0 MGD) enhanced surface water treatment plant off Lake Erie for Crypto., TOC, and inorganics removal including raw water intake screen and pump station, evaluation of ballasted flocculation with high rate sedimentation "Actiflo" process vs. conventional treatment, and direct filtration, membrane filtration, clearwell, high service pumping, residuals storage lagoons, and chemical feed facilities.
- **Northern Ohio Rural Water - Water Treatment Membrane Pilot Plant, Port Clinton, OH** – Principal-in-Charge for developing the pilot plant protocol for OEPA approval and the construction and operation of the pre-treatment process as well as the water membrane pilot plants.
- **Indiana Gateway Industrial Park Water Treatment Plant, Whitewater Economic Development Council of Indiana, Cambridge City, IN** - Project Manager for new 1.4 MGD groundwater treatment plant and well fields. Design includes two new deep-well vertical turbine pumps, *Aeralater* technology for iron and manganese removal utilizing forced draft aeration, detention and multi-media filtration, pre-/post-chlorination, fluoridation, high service pumps, and washwater lagoons.
- **Shelbyville Wellfield, Shelbyville, IN, Indiana American Water** - Principal-in-Charge for the researching tax ownership records, contacting area land owners, negotiation of land purchase, preparing option to purchase real estate and preparing exhibit drawings to locate a site for the wellfield which will initially provide a 2 MGD supply, and be upgraded in the future to include two wellfields at 5.0 MGD.
- **Water Main Extensions, Hoosier Hills Water District, Milan, IN** - Principal-in-Charge for the design of water mains to serve the expanding areas of Franklin, Dearborn and Ripley counties. To date, work includes the design of approximately 11 water main extension projects ranging in length from 1,000 feet to 17,000 feet.

Daniel R. Cutshaw, PE
Project Manager
Years of Experience: 19
Years with Firm: 12

Education
B.S., Civil Engineering Technology, Purdue University, 1990

Registration
Professional Engineer, OH
Professional Engineer, Pending, IN
Surveyor-in-Training, IN

Professional Affiliations and Training
Institute of Transportation Engineers
Engineering Ministries International
North American Society for Trenchless Technology
INDOT Certification in All Six Areas of INDOT Construction
IWPCA Construction Inspection Certification
Water Environment Federation
American Water Works Association

Key Qualifications
Mr. Cutshaw has 19 years of experience with water system computer hydraulic modeling and the design of water treatment, distribution, pumping and storage projects. He has served as the Design Engineer for numerous water distribution projects for the Indiana-American Water Company, as well as computer hydraulic modeling projects for communities in Indiana and Ohio. Mr. Cutshaw has received INDOT Certification in all six areas of INDOT Construction.

Relevant Project Experience
- **Planning, Computer Hydraulic Modeling, Design and Construction of Multi-County Rural Water System, Northern Ohio Rural Water, Norwalk, OH** - Project Engineer for the planning, engineering design and construction management services for the creation of a new multi-county rural water system to serve portions of Erie, Huron, Sandusky and Lorain counties in northern Ohio. The initial $10,000,000 construction project ultimately served the rural areas as well as several small communities in Erie, Huron and Lorain counties. The new system consisted of the construction of 210 miles of 4-inch through 18-inch water mains, as well as a series of water storage tanks, pumping stations and pressure reducing stations. This project initially served approximately 2,700 customers and now, with the engineering assistance of GRW, has grown to over 425 miles with more than 7000 customers. The 7 pumping stations range from 0.2MGD to 3.6MGD in capacity. This project also included the development and calibration of a computer hydraulic model, using CYBERNET water distribution software, for growth and development analysis of the water distribution system.
- **Water Treatment Plant Improvements, Madison Water District, Mansfield, OH**- Project Manager for identification of system improvements necessary for continued service through the year 2023.

Preliminary design of wellfield and plant improvements to increase production capacity at the current filtration plant by an additional 1.0 MGD, including modifications to chemical feeds, high service pumping, source water pumping and electrical and telemetry systems.

- **Water Treatment Plant Study, Northern Ohio Rural Water** - Project Manager for preliminary engineering and environmental report for new 4.0 MGD (expandable to 10.0 MGD) enhanced surface water treatment plant off Lake Erie for Crypto., TOC, and inorganics removal including raw water intake screen and pump station, evaluation of ballasted flocculation with high rate sedimentation "Actiflo" process vs. conventional treatment, and direct filtration, membrane filtration, clearwell, high service pumping, residuals storage lagoons, and chemical feed facilities.
- **Northern Ohio Rural Water - Water Treatment Membrane Pilot Plant, Port Clinton, Oho** - Project Manager responsible for developing the pilot plant protocol for OEPA approval and the construction and operation of the pre-treatment process as well as the water membrane pilot plants.
- **Water Distribution System Computer Hydraulic Modeling, Jefferson Regional Water Authority, Miamisburg, OH**- Project Engineer for the development and calibration of a computer hydraulic model for the existing Jefferson Regional Water Authority's water distribution system. The water system model included over 80 miles of transmission mains, tanks and associated pump stations serving four townships and two cities. The model was developed using CYBERNET water distribution software.
- **Water Distribution System Computer Hydraulic Modeling, West Unity, OH** - Project Engineer for the development and calibration of a CYBERNET hydraulic model that included over 14 miles of transmission mains, tanks and associated pump stations serving the entire village.
- **Center Road Pump Station, Avon, OH** - Project Manager for engineering design for design/build replacement of an existing water booster pump station. Managed production of site piping, drainage, electrical and foundation plans for the site.
- **Division G Water System Improvements, Hoosier Hills Regional Water District, Milan, IN** - Project Manager for Preliminary Engineering Report (PER), Environmental Report (ER) and design of 25,000 LF of 12-inch water main, 1MG elevated storage tank, 1500 gpm booster pumping station to create a new pressure zone within the existing water distribution system. Project included capacity improvements to the existing Brookville wellfield and water treatment plant.
- **Water Main Extensions, Hoosier Hills Water District, Milan, IN** - Project Manager for the design of water mains to serve the expanding areas of Franklin, Dearborn and Ripley counties. To date, work includes the design of approximately 11 water main extension projects ranging in length from 1,000 feet to 17,000 feet.
- **Spades Road Water Booster Pump Station, Hoosier Hills Water District, Milan, IN** - Project Manager for the design and construction

administration and observation services for a booster pump station designed for an initial flow rate of 350 gpm with expansion capabilities for an increase of 800 gpm once the distribution system improvements were completed.

- **Fairland Road Transmission Main Extension, Shelbyville, IN, Indiana American Water** - Project Engineer for the design of approximately 17,600 LF of 16-inch ductile iron transmission main to provide expanded water service.
- **Crawfordsville North Tank and Pump Station, Crawfordsville, IN, Indiana American Water** - Project Engineer for the relocation of a 285,000 gallon standpipe to improve fire flow capabilities to a rapidly growing commercial area at Interstate 74 and US 231. Project also included a booster pump station consisting of one 200 gpm pump to recirculate the tank, one 1,300 gpm pump for fire flow and capacity to add one more 1,300 gpm pump for future fire flow.
- **Main Street Transmission Main, Greenwood, IN, Indiana American Water** - Project Engineer for the design of approximately 8,500 LF of 24-inch ductile iron transmission main to provide improved water service.
- **Wabash Main Extension, Wabash, IN, Indiana American Water** - Project Manager for the design of approximately 15,000 LF of 12-inch and 8-inch PVC water main to provide expanded water service to three separate areas of the City of Wabash, IN. One area of expansion included an industrial park.
- **Hale Road Transmission Main Extension, Shelbyville, IN, Indiana American Water** - Project Engineer for the design of approximately 2,650 LF of 16-inch ductile iron transmission main to provide expanded water service to the City of Shelbyville, IN. The water main was installed down residential and industrial streets with numerous utilities to navigate around with the new water main.
- **Amos Road and McKay Road Transmission Main Extension, Shelbyville, IN, Indiana American Water** - Project Engineer for the design of approximately 1,250 LF of 12-inch C900 PVC transmission main on McKay Road and the design of approximately 1,150 LF of 12-inch C900 PVC transmission main on Amos Road. The project closed two loops on the outside of the City's distribution system and connected and existing water storage tank with a new water storage tank. The water main on Amos Road involved a 180 L.F. railroad bore.
- **Selma Main Extension, Muncie, IN, Indiana American Water** - Project Manager for the design of approximately 30,000 LF of 12-inch and 8-inch PVC water main to provide expanded water service to an area on the outside of the City of Muncie and two separate areas east of Muncie in the community of Selma, IN.
- **Cumberland Road Transmission Main, Noblesville, IN, Indiana American Water** - Project Engineer for the design of approximately 7,000 LF of 20-inch ductile iron transmission main to provide improved water service to the City of Noblesville. This project included the design of a

river crossing which traversed the White River. The crossing design utilized 20-inch ductile iron ball and socket piping.

- **State Route 32 Water Transmission Main, Crawfordsville, IN, Indiana American Water** - Project Engineer for the design of approximately 11,000 LF of 20-inch ductile iron transmission main to provide improved water service to the City of Crawfordsville, IN. This water transmission main connected the existing Crawfordsville distribution system with a new well field and water treatment plant for the Crawfordsville community.
- **Indiana Gateway Industrial Park Water Treatment Plant and Well Fields, Whitewater Economic Development Council of Indiana, Cambridge City, IN** - Project Engineer for new 1.4 MGD groundwater treatment plant and well fields. Design includes two new deep-well vertical turbine pumps, *Aeralater* technology for iron & manganese removal utilizing forced draft aeration, detention & multi-media filtration, pre-/post-chlorination, fluoridation, high service pumps, and washwater lagoons.
- **Shelbyville Wellfield, Shelbyville, IN, Indiana American Water** - Project Manager responsible for researching tax ownership records, contacting area land owners, negotiation of land purchase, preparing option to purchase real estate and preparing exhibit drawings to locate a site for the wellfield which will initially provide a 2.0 MGD supply, and be upgraded in the future to include two wellfields at 5.0 MGD.
- **Water Storage Tank for the Indiana Gateway Industrial Park, Whitewater Regional Economic Council, Cambridge City, IN** - Project Engineer for design of 400,000 gallon elevated water storage tank including hydraulic sizing, site layout, property acquisitions, coatings selection and operational procedures concurrent with park growth and development.
- **North Standpipe Tank, Crawfordsville, IN, Indiana American Water** - Project Engineer for relocation of a 285,000 gallon standpipe to improve peak hour demand and fire flow capabilities to a rapidly growing commercial area at Interstate 74 and US 231. Design included hydraulic sizing, site layout, property acquisitions, coatings selection and operational procedures to assure water quality integrity of the supply.

Alex White, EI
Project Engineer-Water Distribution & Storage

Years of Experience: 7
Years with Firm: 7

Education
B.S., Civil Engineering, Purdue University, 2004

Registration
Engineering Intern, IN

Professional Affiliations and Training
IWPCA Certificate For Water & Sewer Construction Inspection
Haestad Methods Certified Water Modeler for Water Distribution Systems

Key Qualifications
Mr. White has seven years of experience in design and inspection of roadway, sanitary, storm water and water facilities. He has completed large and small projects for municipal and private clients in Indiana. His experience includes investigations, construction inspection, field surveying, and CADD design.

Relevant Project Experience

- **Ashtabula Water Distribution System Computer Hydraulic Modeling, Ohio American Water** - Project Engineer for development of a CYBERNET/WaterCAD computer hydraulic model for a portion of the existing water distribution system. The model of this area was developed to analyze the Forrest Ridge booster pumping station low-pressure problem and to evaluate the alternatives of either relocating the pre-engineered booster pumping station or providing suction side water main distribution system improvements.
- **Water System Improvements, Crawford County, OH** - Project Engineer for Preliminary Engineering Report (PER), Environmental Report (ER) and design for approximately 22 miles of new 8" to 4" water mains as well as pump station rehabilitations in order to serve approximately 250 new customers in the two small villages of Sulphur Springs and Tiro and the surrounding areas. Work also included a computer hydraulic model for the region.
- **Phase I Sandusky County Water System Expansion, Northern Ohio Rural Water**- Project Engineer for Preliminary Engineering Report (PER), Environmental Report (ER) and design for the creation of a new water supply source and distribution system upgrade for the existing NORW water system located in Sandusky County. Project involved the design of 30 miles of PVC water mains, ranging from 4" to 20" in size.
- **Indiana American Water, Seymour, IN** - Construction observation for 8,000 feet of 12" and 8" ductile iron water main relocations along U.S. 50 due to an INDOT project.
- **Indiana American Water, Crawfordsville, IN** - Construction observation for 5,000 feet of 12" and 6" water main relocation along U.S. 231 and S.R. 47 due to an INDOT project.

- **Indiana American Water, Summitville, IN** - Construction observation for 2,500 feet of a 12" water main extension in preparation for a new water tower.
- **Indiana American Water, Franklin, IN -** Construction observation for project consisting of 1,500 feet of directionally drilled 12" water main along S.R. 44 due to an INDOT project.
- **Indiana American Water, Shelbyville, IN -** Survey, design, and construction observation for project consisting of 6,500 feet of 20" through 2" water main, along S.R. 44 due to an INDOT project.
- **Hoosier Hills Regional Water District, Milan, IN** - Engineering Intern involved in survey, design and construction observation of 26 miles of transmission water main, several pump stations, and an elevated water storage tank. The project consisted of field surveying the route, drafting the existing conditions, designing the improvements to minimize the cost to the owner, and obtaining permits. The project had pipe ranging from 6 to 12 inches and had several road borings and road cuts, fire hydrants, air release valves, blow off valves, and stream crossings.
- **Division G Water System Improvements, Hoosier Hills Regional Water District, Milan, IN** - Project Engineer for Preliminary Engineering Report (PER), Environmental Report (ER) and design of 25,000 LF of 12" water main, 1MG elevated storage tank, 1500-gpm booster pumping station to create a new pressure zone within the existing water distribution system. Project included capacity improvements to the existing Brookville wellfield and water treatment plant.
- **Water Transmission Main, Floyds Knobs, KY** - Engineering Intern involved with field survey and design of a transmission water main for the local water company. The project consisted of field surveying the route, drafting the existing conditions, designing the improvements to minimize the cost to the owner, and obtaining permits. The project had pipe ranging from 12" to 16" and had several road borings, fire hydrants, air release valves, and stream crossings.
- **Wellhead Protection Plan, Reynolds, IN** - Engineering Intern for development of the Town's Wellhead Protection Plan to meet the requirements of the Indiana Department of Environmental Management. Plan included delineation of the protection area, development of a Potential Contaminant Source Inventory, preparation of a Management Plan and Contingency Plan, and development of a public education and public outreach program.

Robert C. Smallwood, PE, PLS

Vice President/ Project Engineer-Water Pumping & Treatment

Years of Experience: 33
Years with Firm: 33

Education

M.S., Sanitary Engineering & Hydraulics, University of Kentucky, 1976
B.S., Civil Engineering, University of Kentucky, 1974

Registration

Professional Engineer, OH, KY, IN, PA, NC
Professional Land Surveyor, KY

Professional Affiliations and Training

National Society of Professional Engineers
Kentucky Society of Professional Engineers
Water Pollution Control Federation
American Water Works Association

Key Qualifications

Mr. Smallwood has been selected as part of this project team based on his proven record of technical skills and management experience. He is a Vice President of GRW Engineers and has more than 30 years of experience in the planning, design and construction administration of water treatment, distribution, storage and pumping facilities, as well as water system master plans. Mr. Smallwood's experience includes water treatment plants as large as 40 MGD (Kentucky American Water Plant Upgrade); upgrading improvements at Northern Kentucky Water District's 60 MGD Ohio River Intake Pumping Station, and a 60" water transmission main for the Louisville Water Company.

Relevant Project Experience

- **6.0 MGD Water Treatment Plant Expansion, Fairfield, OH** - Project Manager for expansion of existing 1.5 MGD plant to 6.0 MGD. Major features of the new lime softening plant included a new well field and three new 2,000 GPM wells; cascade aeration; all new chemical feed facilities including bulk lime feed silos with slakers; solids contact softening clarifiers; recarbonation basin; new filter building and pipe gallery with four new filters; new high-service pumping station; additional below ground clearwell storage; backwash holding/pump basin and new lime sludge lagoons; and SCADA instrumentation system.
- **Water Treatment Plant Expansion, Shelby, OH** - Principal-in-Charge for expansion of existing plant with rated capacity of approximately 2.5 MGD to 4 MGD. The new facility will consist of chemical mix, two-stage solids contact clarification, recarbonation, filtration, disinfection (liquid bleach), treated storage, and high-service pumping. All new filter controls, valves, and operators will also be installed along with new facility instrumentation, electric, plumbing, and HVAC.
- **Water Treatment Plant Upgrade, Ohio American Water, Marion, OH** - Project Manager for upgrade of a 9.12 MGD lime soda softening plant. Three of the four existing low-service pumps were replaced with new 3.5

MGD pumps. The chlorine feed system was upgraded and expanded by replacing equipment and a building expansion to provide added cylinder storage capacity. Existing fluoride feed facilities were also upgraded with the replacement of an existing bulk storage tank, day tank and transfer pumps.

- **40 MGD Kentucky-American Water Treatment Plant Upgrade, Lexington, KY** - Project Manager for major renovations and upgrading improvements at the Kentucky River Station Plant. Major items of work included expansion/upgrade of existing river intake pumping station to 62.5 MGD (six new 12.5 MGD pumps); a new 22 MGD raw water transfer pumping station; a new chemical feed building to centralize and consolidate eight separate chemical feed systems in one building; and upgrade to existing plant solids handling facilities including four sludge lagoons, two gravity sludge thickeners and two new sludge pumping stations.
- **2.5 MGD Water Treatment Plant, Lawrenceburg, IN** - Principal-in-Charge for design, bidding and construction administration services for a new 2.5 MGD zeolite softening water treatment plant including new chemical feed system, zeolite softening equipment, clearwells, high-service pumping facilities and three new water supply wells.
- **12 MGD Water Treatment Plant Expansion, Henderson, KY** - Project Manager for expansion tha involved the installation superpulsator solids contact clarifier equipment into the existing conventional settling basin tankage. Work also included expansion of existing raw water pumping facility; replacement of existing chemical mix basin equipment and chemical feed equipment; replacement of filter media and replace surface wash equipment in six existing filters; upgrade of plant instrumentation; and expansion of existing high-service pumping facility.
- **10 MGD Water Treatment Plant Expansion, Corbin, KY** - Principal-in-Charge for "high-rate" expansion from 5 MGD to 10 MGD. Work included expansion of existing raw water intake pumping station; new chemical feed building and chemical mix basin; additional flocculation and sedimentation basin capacity; "high-rate" renovation of existing filters; additional clearwell capacity; and new sludge storage lagoons.
- **16 MGD Water Treatment Plant Expansion, Paducah, KY** - Project Manager for treatment plant expansion that included an Ohio River intake structure and 16 MGD raw water pumping station; chemical mix and chemical feed improvements; vertical paddle tapered flocculation basins; rectangular chain and scraper settling basins; filter, control and laboratory included in new filter/administration building; high-service pumping station; distribution system maintenance building; backwash equalization basin; and 3.5 MGD above ground clearwell.
- **Water Treatment Plant Expansion, Carlisle, KY** - Project Manager for "high-rate" expansion from 0.78 MGD to 1.3 MGD. Work included replacement of existing low-service pumps; installation of new chemical mixing equipment and chemical feeders; addition of tube settlers to the

existing settling basin; replacement of filter underdrains and media; construction of additional clearwell capacity; and replacement of high-service pumps. The City of Carlisle water supply reservoir dam was also upgraded as a part of the treatment plant project.

- **Foster Road and Grafton-Eastern Road Water Transmission Main, Rural Lorain County Water Authority, OH** - Principal-in-Charge/Project Engineer for design and construction administration of 53,000 LF of 16" and 5,400 LF of 24" transmission mains and a new water booster pumping station.
- **Two 1.5 MG Elevated Water Storage Tanks, Fairfield, OH** - Project Manager for two 1.5 MG elevated water storage tanks that are "fluted column" welded steel style tanks. Each tank provides the primary storage facility for a separate pressure zone in the City of Fairfield's water distribution system.
- **33 MGD Shire Oaks Pump Station, Pennsylvania American Water, Pittsburgh, PA** - Principal-in-Charge for design of an additional building at the Shire Oaks site to house a new 3600 cubic foot surge tank to alleviate excessive pipe pressure ratings. The new surge tank will be approximately 12 feet in diameter by 34 feet long with a 24" diameter inlet connection. The project also included the review and modification of the KYSURGE hydraulic transient analysis computer files developed by the University of Kentucky to optimize the design of the tank.
- **16 MGD Booster Pump Station, City of Avon Lake, OH** - Project Manager for pump station that consists of four can-type vertical turbine pumps with provisions for future expansion with two additional pumps. All pumps are equipped with hydraulically operated pump control valves, and the station surge protection is provided by two surge anticipator relief valves. Station operation is monitored and controlled by radio controlled telemetering equipment.
- **12 MGD Miller Road Booster Pump Station, Rural Lorain County Water Authority, LaGrange, OH** - This booster station has four, can-type vertical turbine pumps and two, horizontal split case pumps. All pumps have hydraulically-operated pump control valves. Station surge protection is provided by a hydropneumatic surge tank. Station monitoring and control is accomplished via radio controlled telemetry. All station control/monitoring is accomplished from R.L.C.W.A's main office which is located approximately 25 miles south of the 12 MGD booster station. This 12 MGD pump station operates in series with another 10 MGD pump station constructed near the southern end of the 24" discharge main.
- **10 MGD North Ridgeville Booster Pumping Station, Rural Lorain County Water Authority, LaGrange, OH** - Project Manager for booster pumping station constructed at North Ridgeville, Ohio, near the southern end of the 24" line. The 10 MGD booster station is designed to operate in series with R.L.C.W.A.'s main booster station during peak summer/fall usage periods. The installation of the North Ridgeville station allowed the

capacity of the main R.L.C.W.A. booster station to increase from 8 MGD to 11 MGD. The 10 MGD North Ridgeville booster station has can-type vertical turbine pumps, each equipped with hydraulically operated pump control valves. Station control/monitoring is accomplished via radio controlled telemetry.

- **36", 30" and 24" Cross Country Transmission Main (Eastern Transmission Line No. 1), City of Avon Lake, OH** - Project Manager for 94,000 LF (18 miles) transmission main that provides 16 MGD to increase water supply to two of Avon Lake's existing wholesale water customers (Rural Lorain County Water Authority and Medina County Water Authority) and provides service to two new wholesale water customers (Avon and North Ridgeville). The project construction included major crossings of I-90, I-80, (Ohio Turnpike) and several rail lines.
- **24" Western Transmission Main, Rural Lorain County Water Authority, LaGrange, OH** - Project Manager for new western transmission main which included the construction of 116,000 LF of 24" water transmission main. The project construction included major highway crossings (Ohio 58, Ohio 301, Ohio 254 and Ohio 113), major railroad crossings (Conrail and B and O) and a major crossing of the Black River (400 feet of buried ball joint river crossing pipe). Both sides of the Black River crossing were designed with buried restrained joint piping (approximately 5,000 LF) due to the steep slopes of the Black River valley.
- **Kipton-Birmingham Area Water System Improvements, Rural Lorain County Water Authority, LaGrange, OH** - Project Manager for design, bidding, construction administration and resident inspection services for 13,000 LF of 12" water main, a 500-gpm booster pump station and a 500,000-gallon elevated water storage tank.
- **42", 36" and 24" Water Transmission Main (Eastern Transmission Line No. 2), City of Avon Lake, OH** - Project Manager for $22 million project that supplied wholesale water supply to three existing water utilities (Rural Lorain County Water Authority, City of Medina and Medina County). The project includes 131,000 LF (25± miles) of 42", 36" and 24" water mains; 21 MGD and 18 MGD vertical turbine water booster pumping stations; two 5 MG ground water storage tanks; and one 0.5 MG elevated water storage tank. The project was initially designed to deliver up to 21 MGD with possible future expansion to 31 MGD. The project costs were shared by the City of Avon Lake and the three wholesale water customers.
- **Ashland to Nankin Village Water Mains, Rural Lorain County Water Authority, Lorain County, OH** - Principal-in-Charge for design and construction administration of approximately 9,450 LF of 6" and 56,107 LF of 8" PVC and ductile iron water mains . Also required were several state highway crossings, four bore and jacked and two directional drilled.

Joseph L. Henry, PE
Vice President/ Project Engineer-Water Pumping & Treatment

Years of Experience: 27
Years with Firm: 22

Education
B.S., Civil Engineering, University of Kentucky, 1979
M.S., Civil Engineering, University of Kentucky, 1990

Registration
Professional Engineer, OH, KY, TN

Professional Affiliations and Training
American Water Works Association
Water Environment Federation
National Society for Professional Engineers
Construction Specifications Institute
American Society of Civil Engineering
Kentucky Rural Water Association

Key Qualifications
Mr. Henry has 27 years of experience with water system engineering. He has completed numerous computer hydraulic modeling studies, and water treatment, distribution and pumping projects. Mr. Henry's relevant water treatment experience includes the Shelby, Ohio Plant (4 MGD); Kentucky-American KY River Station Plant (40 MGD); Corbin, Kentucky Plant (10 MGD); Nicholasville, Kentucky Plant (9 MGD); and the West Liberty, Kentucky Plant (2 MGD).

Relevant Project Experience
- **Water Treatment Plant Expansion, Shelby, OH** - Project Manager for expansion of existing plant with rated capacity of approximately 2.5 MGD to 4.0 MGD. The new facility will consist of chemical mix, two-stage solids contact clarification, recarbonation, filtration, disinfection (liquid bleach), treated storage, and high service pumping. All new filter controls, valves, and operators will also be installed along with new facility instrumentation, electric, plumbing, and HVAC.
- **New 2.0 MGD Water Treatment Plant, City of West Liberty, KY** - Project Manager for the planning, design and construction of a new 2.0 MGD Water Treatment Plant for the City of West Liberty. The facility was located near the raw water source, at Cave Run Lake, to help provide an expanded water supply to the region between Cave Run Lake. An existing raw water will be converted to a potable water main for 15 miles along KY 519, between Cave Run Lake and the City of West Liberty. The Work consists of renovation of the existing raw water pump station, new administration/filter building, chemical rapid mix chamber, two vertical paddle equipment flocculation basins, two high-rate sedimentation basins, two high-rate dual media filters, clearwell, high service pumping, residual solids lagoons, instrumentation, piping, and chemical feed facilities.
- **Water Treatment Plant Expansion, City Utilities Commission, Corbin, KY** - Project Manager for the planning, design, and construction of a

water treatment plant expansion from 5 MGD to 10 MGD capacity. The work consisted of major renovation of the existing raw water pumping station, new flow division chamber, two new flocculation basins, one new high rate sedimentation basin, renovation of the existing four (4) filters to high rate, new chemical feed facility with lime silo, new clearwell, two large sludge lagoons, new chlorination facility, renovated administration building, and major renovation/replacement of the instrumentation and controls, electrical system, and filter pipe gallery components.

- **WTP Residual Solids Handling, City of Bardstown, KY -** Project Manager for the planning, design, and construction of a residual solids handling facility at the City of Bardstown water treatment plant. A concrete basin constructed above the floodplain sized for six months of sludge at 6 MGD water treatment plant capacity, submersible pumps, 6-inch force main, and three lagoons were constructed for storage of solids. The three lagoons are utilized one at a time, with one in use, one drying, and one ready to be placed in operation.
- **Water Treatment Plant Clearwell Renovation, City of Bardstown, KY -** Project Manager for the planning, design, and construction of the clearwell renovation for the City of Bardstown. Three existing steel, above ground clearwells were in major disrepair and required complete roof replacement, steel plate renovation, and complete painting. Interior baffle walls were constructed from HDPE sheet material, which were supported by a self-supporting steel frame. The baffle walls were required in increase the CT time in the clearwells to meet the recent requirements of the Kentucky Division of Water for disinfection.
- **Water Treatment Plant Expansion, City of Nicholasville, KY -** Project Engineer for the planning, design, and construction for expansion of a 3 MGD water treatment plant to 6 MGD capacity. Work included construction of a 6 MGD raw water pumping station, flow splitting chamber, two high rate sedimentation basins, two new filters, complete new instrumentation and controls, new clearwell, new high service pump station, and a new chemical feed facility, and a lime silo. The water treatment plant is "flow paced" with automation of chemical feed and pumping rates.
- **Hydraulic Analysis, Scioto County Regional Water District, Scioto County, OH** - Project Manager for the analysis of the water distribution system utilizing Cybernet CADD modeling software. The input for the computer model included the line lengths, sizes and elevations of junctions, storage tank locations and elevations, booster pump operating curves and customer demands spread across the distribution system. The analysis gave the existing operating conditions of the system and helped in the design of additions and improvements.
- **Water System Hydraulic Model, Fairfield, OH** - Project Manager for distribution system analysis, fire flow analysis, and future planning. The system consists of three pressure zones with five storage tanks, four

pumping facilities, and approximately 172 miles of pipe. Modeling Software - PIPES2000.

- **Cleaning and Painting of Elevated Storage Tank, City of North Ridgeville, Ohio -** Project Manager for the cleaning and painting of an existing elevated storage tank for the City of North Ridgeville. Complete interior removal and exterior overcoat were conducted.
- **33 MGD Shire Oaks Pump Station, Pennsylvania American Water, Pittsburgh, PA -** Project Engineer for analyses of transient pressures of a distribution system and associated pump station in a mountainous area of Pennsylvania. Existing pressure transients, which had resulted in several main breaks, were analyzed utilizing KYSURGE software. As a result of the analyses, a 3600 CF surge tank in combination with surge relief valves were designed to reduce peak transients within the distribution system.
- **Kentucky American Water Main Replacement**s - Project Manager for design of approximately 900 LF of 6-inch, 7130 LF of 8-inch and 14,970 LF of 12-inch ductile iron water main replacements along several Lexington streets. The majority of these water mains were installed in urban streets with one rural section.
- **Nelson Creek Booster Pump Station, Water System Improvements, Muhlenberg County Water District, Greenville, KY** - Project Manager for planning, design, and construction of a 100-gpm booster pump station. Project included two end suction centrifugal pumps, pump control valves, electrical starters and controls, and telemetry housed in an above ground masonry building. The project provided improved water service and pressure for approximately 300 customers.
- **Beech Creek Elevated Water Storage Tank, Muhlenberg County Water District, Greenville, KY** - Project Manager for planning, design and construction of a 500,000-gallon water storage tank.
- **Enterprise Park Composite Water Storage Tank, City of Nicholasville, KY** - Project Manager for planning, design and construction of a 1.5 MG water storage tank.
- **Cleaning and Painting of Elevated Storage Tank, Nicholasville, KY -** Project Manager for the cleaning and painting of an existing 750,000-gallon elevated water storage tank. The project consisted of a full-containment exterior lead removal operation. Air monitoring and full lead testing exposure of workers was conducted.
- **Cleaning and Painting of Ground Storage Tank, City of Lawrenceburg, KY -** Project Engineer for the cleaning and painting of ground storage tank for the City of Lawrenceburg. Complete removal of the interior coatings and overcoat of the exterior lead-based coating was conducted. Significant study of removal versus overcoat of the exterior coating was conducted. Due to the good adhesion of the existing exterior coating, overcoating was selected.

Section 4: Description of Work

The HHRWD-GRW Team will perform the services requested by the Indiana Finance Authority by the following method:

- Meet with the Indiana Finance Authority to discuss all of the options for water service to the Three County Region as well as the financing required to complete the project within the timeframe desired.
- Meet with all concerned parties and identify both the short term and long term water needs of the Three County Region
- Review of all pertinent information including past studies
- Develop a base map of the entire Three County Region that depicts all water purveyors and their territories.
- Develop options for HHRWD to supply the Three County Area through its existing wellfield or explore the possibility of additional wellfields.
- Develop the proposed project including cost estimates, financing options and timeframes.
- Implement the proposed project
- Close the project and commence operation and maintenance through HHRWD services.

The proposed financing sources are open at this time until a well defined scope and project is developed. Improvements for the region can be financed through numerous combinations of long term loans with state and/or federal grants. Should long term loan financing be secured by HHRWD, the water service rates to each entity served would reflect their proportional debt service share of that loan financing. A long term water service contract would also be implemented to cover the associated term of the HHRWD loan obligation. If given a choice it is preferable by HHRWD to keep the water service rates low by having the long term financing of the project carried by the entities being served.

It should be noted that the HHRWD-GRW Team is already familiar with the possible impacts to provide service to at least a portion of Decatur County. Our team recently developed and presented to the Indiana Finance Authority earlier this year a project to serve the new Honda plant. This project followed the Interstate 74 corridor and utilized the existing HHRWD wellfield source and water treatment plant. Our team has also recently conducted short and long term water system master planning for water service to the currently non-served areas of Ripley and Franklin counties.

HHRWD has completed six major expansion projects throughout its 43 year history. The most recent of these projects include:

Division E improvements: This project included a new wellfield, water treatment plant, new elevated storage tank and approximately 50 miles of water main.

Division F improvements: This project included wellfield upgrades and water treatment plant upgrades to double the capacity of the system. This project also included two pump station, two elevated water storage tanks and approximately 30 miles of water main. This project also eliminated the water source from Osgood and allowed HHRWD to produce nearly 100% of its water to serve their 3,500 water customers. Further details of this project can be found in Section 6.

Division G improvements: This project has been designed and is ready to bid pending USDA-Rural Development release of financing. It includes additional upgrades of the wellfield and water treatment plant to increase capacity, two new pump stations, ground storage tank, an elevated water storage tank and approximately 6 miles of transmission main. **An alternate set of plans have been partially developed to allow adjustment of the Division G project to serve additional areas in the Three County Region including the Honda plant. The existing wellfield and plant can be modified such that production capacity is expected to be over 10 MGD.**

Section 5: References

References for HHRWD include the following:

Gary Gaynor
North Dearborn Water
28208 State Road 1
West Harrison, IN 47060
812-576-2177

John Ingram
Milan Utilities
P.O. Box 86
Milan, IN 47031
812-654-3806

Mike Vonderheide
Batesville Utilities
132 South Main Street
Batesville, IN 47006
812-934-3811

Financial Reference

Jason Hughes
Integra Bank
P.O. Box 206
Milan, IN 47031
812-654-3504

Larry Adams
USDA – Rural Development
2600 Highway 7 North
North Vernon, IN 47265
812-346-3411 Ext. 4

References for GRW include the following:

Dan Haddock, P.E., Engineering Manager
Indiana-American Water Company, Inc.
555 East County Line Road
Suite 201
Greenwood, IN 46142
317-885-2445

John Morgan, Senior Project Manager
Department of Public Works
City of Indianapolis
604 North Sherman
Indianapolis, IN 46201
317-327-4593

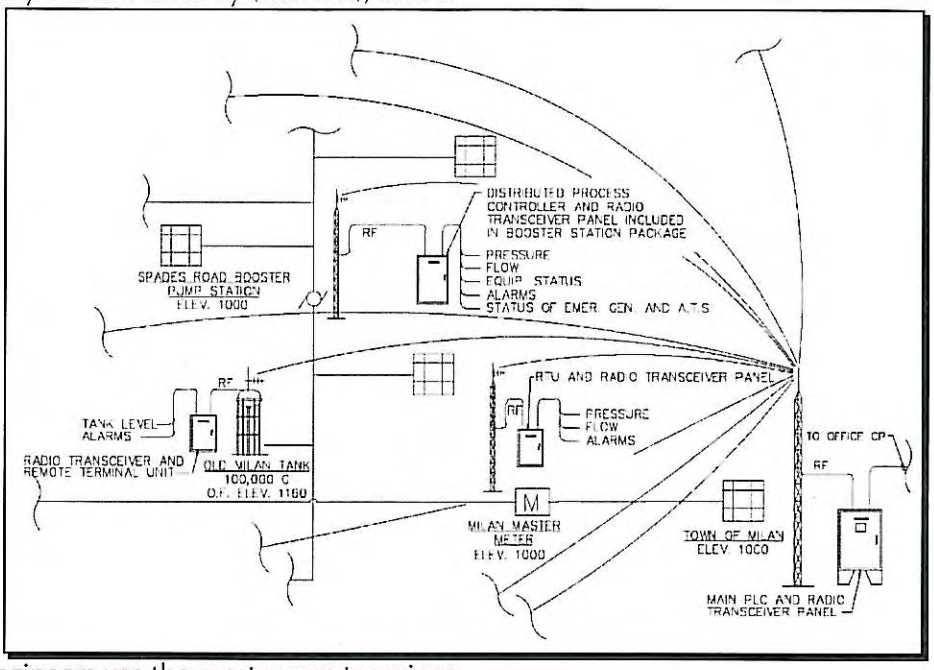
Tim Kelty, Town Manager
Town of Yorktown
9800 West Smith Street
Yorktown, IN 47396
765-759-4016

Tom Reese, General Manager
Northern Ohio Rural Water
2205 U.S. Highway 20 East
Norwalk, OH
419-668-7213

Section 6: Similar Work

Water System Planning

GRW has completed a large number of water system planning studies and source of supply analyses for a variety of entities including municipalities of all sizes, rural water utilities and military bases. For example, GRW completed the planning for the Rural Lorain County Water Authority (RLCWA), one of the largest (1200 miles of water mains constructed in the last 30 years) and most successful regional water systems ever constructed in the U.S. As part of overall military base master plans (also prepared by GRW), we have developed comprehensive, detailed engineering analyses of water systems for more than 40 U.S. military installations.



Because water system master plans often involve regionalization of facilities and/or linking to neighboring systems, GRW understands the importance of soliciting cooperation between many entities.

As part of the planning process, our engineers use the most current versions of PC-based software such as WaterCAD, WaterGEMS and KYPIPE (PIPE2000). With these tools, we can analyze existing water distribution and storage systems and use this information to develop an efficient plan for future system expansions and improvements. Our planning assistance also includes developing financing alternatives, as well as performing revenue and rate analyses that enable project implementation with the least impact on rate payers.

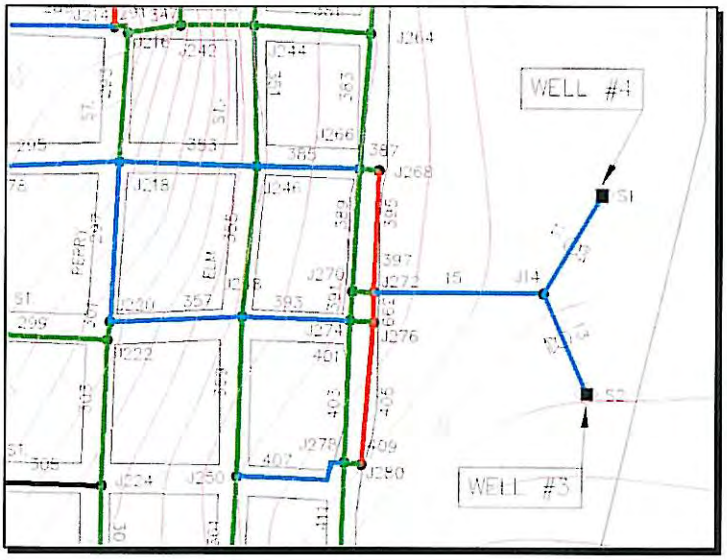
GRW's water system planning projects have involved the following:

- Evaluation of existing and future water system population,
- Evaluation of existing water distribution, storage, pumping and treatment facilities,
- Evaluation of alternatives to upgrade and expand existing facilities and/or to construct new facilities,
- Development of cost estimates,

- Assistance with selection of the best and most cost effective plan, and implementation of the selected plan, and
- Assistance with financial analysis and selection of funding mechanisms.

Partial Experience Summary

- Hoosier Hills Regional Water District – Creation of a master plan for HHRWD and the development of a service area. GRW reviewed area county master plans as it related to water resources and developed a 20 year master plan that detailed improvements for the growth areas. Cost estimates were also developed to serve all growth areas. **Part of the master plan involved preliminary engineering to serve a new Honda plant near Greensburg, Indiana.**
- Hoosier Hills Regional Water District – Preliminary engineering and environmental reports for the Division F waterworks improvements. The project involved wellfield upgrades and water treatment plant upgrades to double the capacity of the system. The project also included two pump stations, two elevated storage tanks and approximately 30 miles of water transmission and distribution main. This project enables HHRWD to eliminate all of its purchased water contracts. This project was funded through a loan from USDA-RD.
- Hoosier Hills Regional Water District – Preliminary engineering and environmental reports for the Division G waterworks improvements. The project involved wellfield upgrades and water treatment plant upgrades to increase the capacity of the system. The project also included two pump stations, one elevated storage tanks and approximately 6 miles of water transmission and distribution main. This project was funded through a loan from USDA-RD.
- Hoosier Hills Water District, Milan, IN - Through the development and use of a computer hydraulic model for the entire system, GRW identified system improvements necessary for continued service through the year 2018. Identified improvements included transmission mains, pumping stations, storage tanks and reallocation and capacity development of source water.
- Indiana-American Water Company – Gary, Indiana – Preparation of a master plan for the future needs of the northwest district of INAWC.
- Indiana-American Water Company – Shelbyville, Indiana – Preparation of a master



plan report to determine the future needs of the City of Shelbyville. This project was developed during the design of the transmission main from the water treatment plant.

- Indiana American Water, Sullivan, IN - Distribution system analysis including one pump station, one storage tank and a bypass system. Analyses of potential surge related issues were also performed through computer modeling. Development of a computer hydraulic model used as a tool to size a booster pump station bypass. The analysis was developed using CYBERNET hydraulic model and SURGE 5 surge model.
- Indiana American Water, Crawfordsville, IN - Hydraulic analysis of a booster pumping station to provide fire flows; included analysis of pump size and storage capacity. Analysis completed using the CYBERNET hydraulic model.
- Northern Ohio Rural Water - Preliminary engineering and environmental reports for the creation of a new water supply source and distribution system upgrade of the existing Northern Ohio Rural Water (NORW) water system located in Sandusky County. The study determined that the best alternative for NORW was to build a new raw water intake and submerged membrane water treatment plant near Lake Erie and extend a 24" transmission main southward through Ottawa County to new distribution system improvements within Sandusky and Seneca counties.
- Rural Lorain County Water Authority, LaGrange, OH - Planning for water service for approximately 150,000 people in a 520 square mile, multi-county area; system now includes 11 pressure zones, 18 storage tanks, 13 pumping stations and nearly 1,200 miles of water mains.
- Regional System Expansion, Avon Lake, OH - Planning and design for construction of over $35,000,000 of water transmission, pumping and storage improvements to regionalize the water supplies for seven separate water utilities in a five county area (Avon Lake, Avon, North Ridgeville, Sheffield Lake, Rural Lorain County Water Authority, City of Medina and Medina County Water Authority). This project included construction of 40 miles of 24", 30", 36" and 42" water transmission mains and related pumping and storage improvements.
- Water System Expansion Master Plan, Louisville Water Company, Louisville, KY - Work included evaluation of potential water usage, analysis of existing system connections, development of a hydraulic model, and construction cost estimates. A ten-year implementation plan, along with information to prioritize over $50 million in system improvements, was developed to provide service to all residents of Jefferson County.
- Muhlenberg County Water District, Greenville, KY - Planning study to provide Muhlenberg County Water District a 5-year master plan of required improvements to provide customers with a reliable and

adequate water supply. The District consists of over 5,500 customers, 600 miles of water main, ten water storage tanks, ten pump stations and ten pressure zones.

- Capital Improvement Plan, Oldham County Water District, LaGrange, KY - Work involved analysis of the existing water distribution system, including the well field, water treatment plant, and distribution lines. Improvements were recommended over a 20-year period and were prioritized into three phases based on importance. A cost analysis was also included for each recommended project. Results were based on information from the hydraulic model, well and groundwater study, and hydraulic calculations.
- Fairfield, OH - Design analysis for engineering design of transmission and system expansion. System improvements included 7 miles of 20-inch transmission mains and 2 new storage tanks, Muskopf Road Pump Station and various fire demand analyses.
- Greenville, IN - Distribution analysis of water system.

Water Distribution and Pumping

GRW has completed a large number of water distribution, transmission and pumping projects for our public and private clients. Our projects include new systems, transmission mains, system improvements, reinforcing mains, fire protection improvements, booster systems and pressure reducing systems. We have designed water mains ranging in size from 3/4" service lines to a 60" transmission main for various clients across the Midwest. One of our rural water system engineering projects included over 1,200 miles of water line including 60 miles of 24", 30", 36" and 42" transmission mains, and 13 pumping stations including 18 MGD and 21 MGD booster pumping stations. We also have extensive experience in the design and construction of river and lake utility crossings. For example, GRW designed a 48" subaqueous force main crossing of the Ohio River.

Our projects also include design of new pumping stations and upgrades to existing pumping stations. GRW has designed over 200 water pump station projects ranging in size from 100 gpm to a 62.5 MGD raw water pumping intake station at the Kentucky River for Kentucky American Water. Our in-house division of electrical and mechanical engineers also allows us to provide complete design services. Our electrical and instrumentation control designs include main services upgrades, replacement of pump controls, installation of PLC controls, switch gear upgrades and design of VFD units.

Partial Experience Summary

- Hoosier Hills Regional Water District – 26 miles of 12″ transmission main to increase flow to the southern portion of the system.
- Hoosier Hills Regional Water District – 6 miles of 12″ and 20″ transmission main to increase more flow from the water treatment plant.
- Indiana-American Water Company – Greenwood – 16 miles of 16″ and 24″ water transmission main to connect a new water treatment plant
- Lawrenceburg, IN - 10,000 LF of 12" water transmission main and 1,500 GPM triplex booster pumping station
- Indiana-American Water Co., Greenwood, IN - 24" water main extension
- Avon Lake, OH - 94,000 LF of 36-, 30- and 24" water transmission mains and a 16 MGD booster pumping station (Eastern Transmission Line No. 1)
- Fairfield, OH - 7 miles of 20" water transmission mains
- Rural Lorain County Water Authority, LaGrange, OH - 1,100 miles of water line, 24" transmission main, 10 pumping stations including 10.0 MGD and 11.0 MGD booster pumping stations, and 14 water storage tanks
- Avon Lake, OH - 131,000 LF of 42-, 36- and 24" water transmission mains and 21 MGD and 18 MGD booster pumping stations (Eastern Transmission Line No. 2)
- Northern Ohio Rural Water, Norwalk, OH - 425 miles of 4" through 20" water lines with 8 booster pumping stations
- Rural Lorain County Water Authority, Lorain County, OH - 53,000 LF of 16" and 5,400 LF of 24" transmission mains and a new water booster pumping
- Nicholasville, KY - Design of 37,000 LF of 20″ and 24″ water transmission main
- Rural Lorain County Water Authority, LaGrange, OH - 13,000 LF of 12" water main and 500 gpm booster pump station
- Oldham County Water District, LaGrange, KY - 14,000 LF of 36" high service transmission main; 3,500 LF of 30" water main; and 18,000 LF of 24" water main
- Indiana-American Water Co., Crawfordsville, IN - 11,000 LF of 16" through 20" water main extension
- Versailles, KY - Design of 30,000 LF of 24" high service transmission main and 10 MGD (reliable capacity) high service pump station
- Louisville Water Company, Louisville, KY - 48" transmission main

- Jefferson Proving Grounds, IN - Raw water line replacement
- Pennsylvania American Water, Pittsburgh, PA - 33 MGD Shire Oaks pump station
- Hoosier National Forest, IN - Replacement of water and sewer system
- Nicholasville, KY - 10 miles of 8" through 12" reinforcing mains
- Indiana-American Water Co., Muncie, IN - 31,000 LF of 8" to 12" water main extension
- Versailles, KY - Huntertown Road high service transmission mains including 21,320 LF of 24" through 8" ductile iron water main
- Indiana-American Water Co., Newburgh, IN - 550 gpm booster pump station and 12" water main
- Paducah Water Works, Paducah, KY - 16.0 MGD high service pump station and 30" transmission main

- Indiana-American Water Co., Shelbyville and New Albany, IN - 22,000 LF of 12" and 16" water main extensions
- Hagerstown, IN - 12" water main service to industrial park and hydraulic model for entire town
- Indiana-American Water Co., Noblesville, IN - 8,000 LF of 20" water main including river crossing pipe
- Indiana-American Water Co., Kokomo, IN - 15,000 LF of 16" water main
- Lawrenceburg, KY - 21,140 LF of 6" water main and 14,850 LF of 4" water main to serve new customers along Tyrone and Lock Roads
- Indiana-American Water Co., Muncie, IN - 1500 gpm booster pump station and 12" water main
- Kentucky American Water, Lexington, KY - 62.5 MGD raw water pumping station and 48", 36", and 20" transmission main
- Kentucky American Water, Lexington, KY - 22.0 MGD raw water transfer (booster) pumping station and 30" transmission main
- Louisville Water Company, Louisville, KY - 5 miles of 60" transmission main which included the crossing of the Watterson Expressway via deep rock tunneling
- Indiana-American Water Co., Crawfordsville, IN - 1500 gpm booster pump station and 16" water main
- Cambridge City, IN - 7,000 LF of 12" water main

- Kentucky American Water, Lexington, KY - 18 MGD booster pumping station and 30" transmission main
- Indiana-American Water Co., Jeffersonville, IN - 16" water main extension at Clark Maritime Center
- Harrodsburg, KY - 6 miles of 20" water main around bypass, and 12" and 8" water mains
- Versailles, KY - Approximately 11,000 LF of 12" water main extending from US 60 to existing Elm Street water storage tank
- Indiana-American Water Co., Wabash, IN - 15,000 LF of 12" and 8" PVC water main to provide expanded service to three separate areas of the city
- Hoosier Hills Water District, Milan, IN - 15 water main extension projects ranging in length from 1000 LF to 17,000 LF
- Indiana-American Water Co., Gary, IN - 18,000 LF of 30" water transmission main

Water Storage

GRW has previously completed planning, design and construction administration services for the initial construction and rehabilitation of over 200 water storage tanks of all types and sizes (up to 5.0 MG). Previous storage tank experience includes elevated tanks (fluted column, composite, pedesphere and multi-leg), standpipes (welded steel and glass-lined bolted steel), and ground storage tanks (welded steel, wire wound prestressed concrete and cast-in-place concrete). These projects have incorporated foundation systems of all types (based on local conditions) including both earth-bearing and rock-bearing foundations (ring walls, column footers, spread footers) as well as bearing pile and caisson foundations.

Preliminary design and planning for previous water storage tank projects have included hydraulic analysis (including computer modeling) to evaluate tank sites, storage requirements, fire flow capabilities, and tank fill/drain cycles. Previous storage tank designs have included appurtenant features such as telemetry, altitude valves, cathodic protection, obstruction lighting, and booster pumping stations.

Partial Experience Summary

Client	Tank Design	Size
Avon Lake, OH	Elevated	.50 MG
	Ground	(2) 5.0 MG
Rural Lorain Co	Standpipe	(2) .75 MG
Water Authority, OH	Elevated	(5) .50 MG

	Elevated	(4) .20 MG
	Elevated	(2) .30 MG
	Elevated	(2) .10 MG
	Ground	(2) .75 MG
Fairfield, OH	Elevated (fluted column)	(2) 1.50 MG
	Elevated (pedesphere)	.75 MG
Delco Water Co., OH	Elevated	(2) 1.50 MG
	Elevated	.30 MG
Northern Ohio Rural	Standpipe	.75 MG
Water, Norwalk, OH	Elevated	(2) .40 MG
	Elevated	(2) .30 MG
	Elevated	(2) .20 MG
	Elevated	.10 MG
	Ground	1.5 MG
Paducah, KY	Ground	3.0 MG
Lawrenceburg, IN	Ground	.75 MG
Nicholasville, KY	Ground	.30 MG
	Elevated (composite)	1.5 MG
Sparta, TN	Ground	.50 MG
	Ground	2.0 MG
Michie, TN	Elevated	.50 MG
Hoosier Hills Water Dist.	Elevated	.75 MG
Milan, IN	Elevated	.40 MG
	Ground	.75 MG
Oldham Co. Water District	Elevated	1.0 MG
LaGrange, KY		
WREC, Cambridge City, IN	Elevated	.40 MG
Jonesborough, TN	Ground	3.0 MG
West Knox U.D., TN	Ground	1.5 MG
TAW, Chattanooga, TN	Ground	1.0 MG
Grissom ARB, IN	Elevated	(2) .40 MG
Harrodsburg, KY	Elevated	1.0 MG
Bowling Green, KY	Elevated	1.0 MG
Radcliff, KY	Elevated	.75 MG
	Elevated	.25 MG
	Standpipe	1.25 MG
	Ground	1.0 MG
Burkesville, KY	Ground	.75 MG
Brodhead, KY	Ground	.50 MG
KAW, Lexington, KY	Ground	(2) 3.0 MG
Cynthiana, KY	Standpipe	1.0 MG
Jacksonville, NC	Elevated	(2) .50 MG
Edmonson Co. W.D., KY	Ground	1.0 MG
Oneida, TN	Ground	1.0 MG
Bardstown, KY	Elevated	1.0 MG
Danville, KY	Elevated	(3) .50 MG
Versailles, KY	Elevated (composite)	.75 MG
	Elevated	1.0 MG
Crossville, TN	Ground	.30 MG
Centertown, KY	Elevated	.10 MG
Murray, KY	Elevated	.50 MG

Scottsville, KY	Ground	.35 MG
	Standpipe	1.0 MG
	Elevated	.50 MG
Lawrenceburg, KY	Standpipe	(2) .50 MG
	Elevated	.50 MG
Carlisle, KY	Elevated	.50 MG
Wilmore, KY	Elevated	.50 MG
IAW, Crawfordsville, IN	Ground	.38 MG

Water Supply Well Experience

GRW Engineers have extensive experience in the utilization of groundwater sources for water supply. Our past projects include the planning, design and construction administration of gravel pack, tubular and rock wells (including fracture trace analysis), and the utilization of vertical turbine and submersible turbine pumping equipment. In addition, this experience includes well installation in floodplain areas where flood protection of well pumping equipment was required.

Our wellfield planning services often include initial wellfield siting efforts utilizing existing hydrogeologic data, and well log data. We routinely negotiate purchase options prior to preliminary drilling efforts in order to protect our clients from future inflated land prices once a satisfactory site is identified.

Our water supply well projects have included subsequent treatment to address one or more of the following:

- Complete turbidity removal treatment for "Groundwater Under the Influence of Surface Water"
- Softening
- Iron and or manganese removal
- Disinfection

The following is a partial list of project experience:

Client	No. & Capacity	Description
Oldham County Water District, LaGrange, KY*	2 @ 2 MGD each	Vertical Turbine, Gravel Pack Wells, Flood Protected
Jacksonville, NC	6 @ 1.5 MGD each	Vertical Turbine, Gravel Pack Wells
Fairfield, OH	7 @ 2 to 2.5 MGD each	Vertical Turbine, Gravel Pack Wells, Flood Protected
Lawrenceburg, IN	4 @ 1.5 MGD each	Vertical Turbine, Tubular Wells
Brandenburg, KY	1 @ 1.0 MGD	Submersible Turbine, Gravel Pack Well

Cumberland, KY	4 @ 0.5 MGD each	Submersible Turbine, Rock Wells
Murray, KY	2 @ 1.5 MGD each	Vertical Turbine, Gravel Pack Wells
Hoosier Hills Water District, Milan, IN	2 @ 1.5 MGD each	Vertical Turbine, Tubular Wells
Indiana Gateway Industrial Park, Wayne County, IN	2 @ 0.7 MGD	Vertical Turbine, Tubular Wells
Henderson, TN	1 @ 1.2 MGD	Vertical Turbine, Gravel Pack Well
Scotts Hill, TN*	2 @ 0.5 MGD each	Vertical Turbine, Gravel Pack Wells, Flood Protected

Water Treatment

GRW has designed over 85 new, expanded or upgraded water treatment plants that utilize various forms of treatment processes. Many of these projects involved unique situations such as adapting existing plants to new water sources or working with very tight land restrictions which limited the available expansion options. Yet these plants were successfully modified to meet current standards.

Each of GRW's designs or modifications is tailored to the specific situation and raw water chemistry to be used in the treatment. Our designs are not the "off the shelf" type as we have found these often do not provide the most efficient treatment needed to meet current EPA standards.

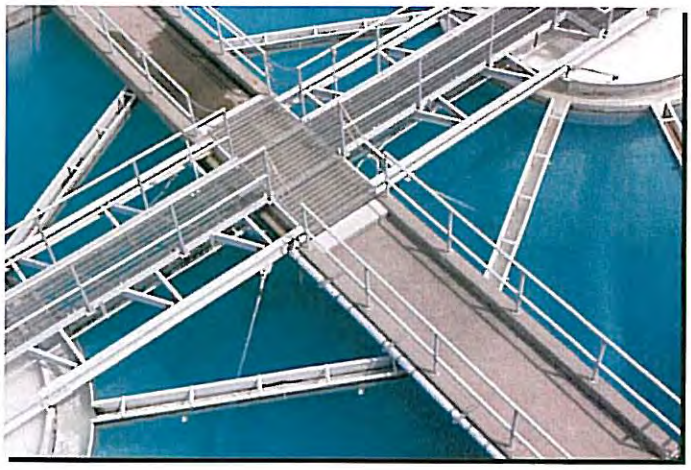
Our staff includes employees who are certified for Risk Assessment Methodology for Water Surety (a sub-license of the AWWA), and these employees are leading GRW's team of professionals in conducting Vulnerability Assessments for our clients. The Public Health Security and Bioterrorism and Response Act mandates that water systems conduct a Vulnerability Assessment to evaluate the security of their water supply, treatment and distribution facilities.

GRW also offers start-up and on-going operational assistance. This service has been one of the major attractions of our firm to our clients, as we are just a phone call away from providing on-site operating assistance when needed.

Our staff includes employees who are certified for Risk Assessment Methodology for Water Surety (a sub-license of the AWWA), and these employees are leading GRW's team of professionals in conducting Vulnerability Assessments for our clients.

Partial Experience Summary

- Hoosier Hills Regional Water District – Expansion from o.7 MGD to 1.4 MGD
- Lawrenceburg, IN - New 2.5 MGD ion exchange softening plant (groundwater source)
- Indiana American Water, Terre Haute, IN - Backwash residuals handling, chloramination, sequestration and yard piping, pumping and storage



improvement for 17.5 MGD plant (groundwater source)

- Indiana American Water, Newburgh, IN - Upgrading improvements for 1.0 MGD plant (groundwater source)
- Indiana American Water, Muncie, IN - Upgrading improvements for 10.0 MGD treatment plant (river and groundwater source)
- Cambridge City, IN (Whitewater Regional Economic Council) - New 0.7 MGD groundwater filtration plant to service new interstate industrial park (groundwater source)
- Fairfield, OH - Expansion from 1.5 MGD to 6.0 MGD (groundwater source), lime softening plant
- Shelby, OH - Expansion from 2.5 MGD to 4.0 MGD, lime softening plant (surface water/reservoir source)
- Marion, OH - Upgrading improvements to 9.0 MGD softening plant (groundwater source)
- Maysville Regional Water District, Zanesville, OH - New 0.75 MGD plant (lake source)
- Del-Co Water Company, Deleware County, OH - Plant expansion from 2.9 MGD to 7.0 MGD capable of treating ground and surface water, designed with softening capability
- Northern Ohio Rural Water, Norwalk, OH - Preparation of pilot study protocol to obtain Ohio EPA approval of membrane filtration technology
- Nicholasville, KY - Expansion from 3.0 MGD to 6.0 MGD with construction of new river intake pumping station
- Nicholasville, KY - Expansion from 6.0 MGD to 9.0 MGD
- West Knox Utility District, TN - Expansion of 6.0 MGD plant to 10.0 MGD (lake source
- Henderson, KY - Upgrade of existing water plant (river source) from 6 MGD to 12 MGD with super pulsator clarifiers
- Corbin, KY - "High rate" expansion from 6.0 MGD to 10.0 MGD (lake source)
- Oldham County Water District, LaGrange, KY - Expansion from 7 MGD to 13 MGD (groundwater source)

- Carlisle, KY - Water treatment plant (groundwater source) expansion to 2.0 MGD
- Paducah, KY - Phase I: New 12 MGD treatment plant. Phase II: Expansion from 12 to 16 MGD (river source)

- Bowling Green Municipal Utilities, Bowling Green, KY - Phase 1: "High Rate" expansion from 10 to 15 MGD. Phase 2: "High Rate" expansion from 15 to 22.5 MGD (river source)
- Kentucky American Water, Lexington, KY - Upgrading improvements to 40.0 MGD KY River Station Plant (river source)
- Kentucky American Water, Lexington, KY - Upgrading improvements to 25.0 MGD Richmond Road Plant (river source)
- Murray, KY - New 7.0 MGD plant (groundwater source)
- Scottsville, KY - New 1.5 MGD plant (lake source)
- Lawrenceburg, KY - "High Rate" expansion from 1.1 MGD to 3.0 MGD (river source); construction of distribution and storage improvements. Phase II: Expansion from 3.0 MGD to 4.5 MGD
- Barkley Lake Water District, Cadiz, KY - Expansion from 1.0 MGD to 2.0 MGD (lake source)
- Versailles, KY - Expansion from 4.0 MGD to 10.0 MGD (river source)
- Danville, KY - Expansion from 3.5 MGD to 5.0 MGD (lake source) with transmission, distribution and storage improvements
- Edmonson Co., KY - Expanded plant from .5 MGD to 1.0 MGD (river source); distribution and storage improvements

Surveying, Mapping and GIS

With over thirty years of aerial mapping, surveying, and GIS experience, we have the knowledge and expertise necessary to ensure the successful completion of your project. GRW is committed to providing personalized service to each of our clients. We have a superior track record, providing services in a timely, efficient manner. Listed below are a few of the reasons why our clients have selected us again and again.

Ability for Quick Mobilization; In-House Aircraft and Crew

With our in-house equipment and personnel, we can ensure the availability and proper calibration of resources, so your project is accomplished accurately, and on schedule. GRW owns and operates a fleet of airplanes equipped with precision aerial mapping cameras and the latest IMU systems:

- Cessna T310-R Twin Engine Turbo-Charged aircraft equipped with a TOP 15 RMK Aerial Camera (AWAR of 104) with Forward Motion Compensation (FMC) and Gyro-Stabilized Mount
- Piper Aztec Twin Engine Turbo-Charged aircraft, with a TOP 15 RMK Aerial Camera System with Forward Motion Compensation.

- Cessna 206 Turbo-Charged aircraft equipped with a Jena LMK 1015 Aerial Camera System with Forward Motion Compensation
- IMU - Applanix POS/AV 510-DG Position and Orientation System Inertial Measuring Unit

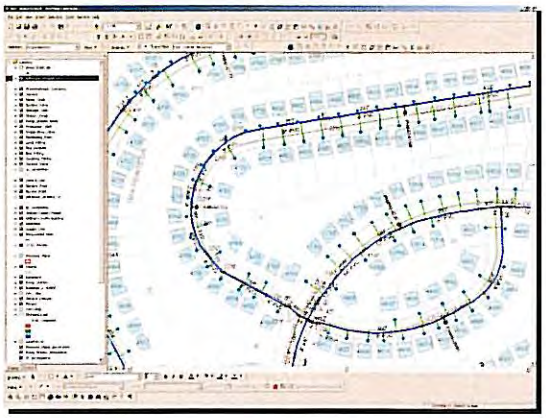
With our on-board GPS flight management system (CCNS-4), we can expose aerial negative imagery at the exact location desired, utilizing longitude and latitude coordinates. Airborne GPS data collection is accomplished using at least two Trimble 4000SSi GPS receivers throughout the flight mission: one receiver located in the aircraft and one or more on the ground within the project area.

Utilization of FMC technology automatically tests the ground speed of the aircraft and advances the film across the camera platen at a compensating speed while the camera shutter is open. The elimination of forward image motion and the automatic exposure control means a more reliable and superior negative-the foundation for a quality mapping project. The gyro-stabilized mount will ensure that the aerial camera is level at all times, thereby reducing tip and tilt to an absolute minimum, helping to ensure accuracy of your end-product.

Expertise in Timing the Acquisition of Aerial Photography

GRW realizes the urgency required in planning the acquisition of aerial photography. Our experienced aerial crew includes well-traveled mapping pilots, award-winning aerial photographers and a quality-control staff of photo lab specialists and certified photogrammetrists. Our professional photographers are knowledgeable about the crucial timing of flights, involving a multitude of factors such as sun angle, cloud condition, and ground coverage. They are well trained in the importance of quality control procedures, ensuring the acquisition of a superior product.

Specialists in GPS Surveying and Data Collection



GRW has over 30 years of surveying experience, and has expertise with innovative, cost-cutting survey procedures.

GRW's survey crews are experienced in performing complex assignments in differing terrains. GRW maintains a staff of highly trained personnel, and in-house equipment, so we can mobilize on short notice. We have accurately located and collected field information on hundreds of miles of utilities, both under ground and above ground. These utilities have included water lines and valves; wastewater collection lines and manholes; gas lines and valves; electrical lines, transformers, switches, manholes; fuel lines and valves; storm water lines, manholes, headwalls; communication lines, manholes; as well as others. GRW is experienced locating map features using line tracing, and excavation. Our survey data is always monitored closely to ensure complete accuracy.

Collection of accurate survey data begins with high quality equipment. GRW owns an extensive array of the latest GPS survey equipment. Our survey crews have accomplished hundreds of GPS projects across the United States, in more than 30 states, utilizing First Order GPS procedures.

Photogrammetric Mapping, Utilizing Cost-Effective Technology

Digital mapping is defined as the art, science, and technology of obtaining reliable topographic information from precisely controlled aerial photography, and storing this information in a computer readable file. GRW owns and operates state-of-the-art digital mapping aircraft and equipment, and is one of the nation's leading providers of comprehensive digital mapping services.

Section 7: State Certification

Please see attached Secretary of State's form for the state certification of HHRWD.

STATE OF INDIANA
OFFICE OF THE SECRETARY OF STATE
CERTIFICATE OF EXISTENCE

To Whom These Presents Come, Greeting:

I, SUE ANNE GILROY, Secretary of State of Indiana, do hereby certify that I am, by virtue of the laws of the State of Indiana, the custodian of the corporate records and the proper official to execute this certificate.

I further certify that records of this office disclose that

ELROD WATER CO INC

duly filed the requisite documents to commence business activities under the laws of the State of Indiana on May 18, 1965, and was in existence or authorized to transact business in the State of Indiana on March 16, 2001.

I further certify this Non-Profit Domestic Corporation has filed its most recent report required by Indiana law with the Secretary of State, or is not yet required to file such report, and that no notice of withdrawal, dissolution or expiration has been filed or taken place.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the State of Indiana, at the City of Indianapolis, this Nineteenth Day of March, 2001.

Sue Anne Gilroy

SUE ANNE GILROY, Secretary of State

194451-110 / 2001031983524

Name Searched On:
ELROD WATER CO INC (Legal)

Current Information

Entity Legal Name:
ELROD WATER CO INC

Entity Address:
7215 E. STATE RD. 350, P.O. BOX 395, MILAN, IN 47031

General Entity Information:

Control Number: **194451-110**
Status: **Active**
Entity Type: **Non-Profit Domestic Corporation**

Entity Creation Date: **5/18/1965**
Entity Date to Expire:
Entity Inactive Date:

This entity is current with Business Entity Report(s).

Other Names for this Entity:

Date	Name (Type)
5/18/1965	HOOSIER HILLS REGIONAL WATER DISTRICT (Assumed / Ripley County)

Additional Services Available:

GO	**View additional information for the entity**, including **transaction history, merger information, registered agent, principals and corporate report information (years paid and years due)**. There is a fee of $1.00 for *accessIndiana* subscribers and a fee of $2.04 for credit card users for this additional information. NOTE: Amendments filed prior to 1987 DO NOT appear in the transaction history.
GO	**Generate an official Certificate of Existence/Authorization.** There is a total fee of $20.00 for *accessIndiana* subscribers and a fee of $21.42 for credit card users. Example Certificate. Please note that when an entity has a past due business entity report, the Certificate of Existence will indicate that the entity is not current. An entity is current if no reports are past due.
GO	**Place orders for copies of Business Entity documents** with the Secretary of State's Business Services Division. There is no fee to place an order; however, you will be billed for any statutory fees associated with your order. View fee schedule View turn around time

Section 8: Proposed Fees

The HHRWD-GRW Team will negotiate the planning and design fees once a detailed scope is developed thru discussions and negotiations with IFA. The fee will depend upon actual locations of water service needed in the Three County Region, and the cost to HHRWD to provide such service to the area meeting the required flow and pressure requested by each entity. This can be discussed at length in an interview with IFA.

Section 9: HHRWD Current Rates

Please find attached the current water rates from HHRWD. These rates can also be found on their website: **www.hhrwd.com** Bulk water service rates are negotiated on a case by case basis with each entity. Factors such as capital costs, debt service, operation, maintenance and replacement will be evaluated when determining the appropriate bulk water service rate for an entity.

Hoosier Hills Regional Water District

*****NOTICE***** EFFECTIVE JULY 26, 2007 - THE FEE FOR A RETURNED CHECK W

Quality On Tap!
Our Commitment Our Profession

Rate Schedule

METERED RATES PER MONTH	PER 1,000 GALLONS
FIRST 3,000 GALLONS	$7.00
NEXT 3,000 GALLONS	$6.26
NEXT 4,000 GALLONS	$5.00
NEXT 10,000 GALLONS	$3.72
NEXT 20,000 GALLONS	$3.22

MINIMUM CHARGE PER MONTH EACH USER SHALL PAY A MINIMUM CHARGE IN ACCORDANCE WITH THE FOLLOWING APPLICABLE SIZE OF METER INSTALLED FOR WHICH THE USER WILL BE ENTITLED TO THE QUANTITY OF WATER SET FORTH BELOW:

METER SIZE	GALLONS	RATE PER MONTH
5/8"	3,000	$21.00
3/4"	4,500	$30.39
1"	7,500	$47.28
1 1/2"	15,000	$78.38
2"	24,000	$109.86
3"	45,000	$177.48
4"	75,000	$274.08

HYDRANTS

THERE ARE NO FIRE HYDRANTS OR PRIVATE PROTECTION DEVICES ON THE WATER SYSTEM. TWO INCH (2") FLUSH HYDRANTS INSTALLED ON THE SYSTEM ARE AVAILABLE TO FIRE COMPANY'S WITHIN THE AREA FOR GRAVITY USE TO FILL WATER TRUCK TANKS ONLY.

MEMBERSHIP

$100.00, WHICH IS REFUNDABLE IF SERVICE IS EVER CANCELLED THE METERS ARE READ THE THIRD FULL WEEK OF EVERY MONTH. THE BILLS GO OUT ON THE 1ST OF EVERY MONTH AND ARE DUE ON THE 17TH OF EVERY MONTH.

RECONNECT FEE

IF THE NEED ARISES TO DISCONNECT ANY USERS SERVICE, THESE CHARGES WILL BE APPLIED TO RECONNECT THEIR SERVICE:

DURING OFFICE HOURS - $30.00

AFTER OFFICE HOURS - $75.00

COLLECTION FEE

$20.00 CHARGE. AT THE TIME OF DISCONNECT IF A USER PAYS THE WATER COMPANY FOR HIS BILL NOT TO DISCONNECT HIS SERVICE, BUT WE HAVE ALREADY MADE THE TRIP TO HIS RESIDENCE FOR DISCONNECT.

INSPECTION RECONNECT/DISCONNECT FEE

A $40.00 FEE WILL BE CHARGED WHEN THIS REQUEST IS MADE FOR INSPECTION PURPOSES. THIS WILL BE FOR A TWENTY-FOUR (24) PERIOD.

7215 E. State Rd P.O. Box 395 Milan, IN 47031 Ph: 812-654-3200 Fx: 812-654-3798 Toll Free: 866-268-3200 Em: H20@hhrwd.com

Section 10: Legal Details

Neither HHRWD nor GRW have any pending legal litigation.