

**Waterloo Town Council and Redevelopment
Commission Special Meeting
November 21, 2016**

A special meeting of the Waterloo Town Council and the Redevelopment Commission was held on November 21, 2016 at 5:30 pm at the Waterloo/Grant Twp. Public Library.

Council Members present were:

Dorsey Brown	
William Hubartt	David Kruse, Town Attorney
Jess Jessup	Tena Woenker, Town Manager
Alex McConnehey	Renata Ford, Clerk Treasurer

Commission Members present were:

Sallie Pease	Pat Williams
Glen Hartman	Josh Caudill

The following special business was discussed but **no** action taken.

The purpose of this special meeting was to discuss the results of a “Water Treatment and Distribution Study” commissioned by the Town Council and the Redevelopment Commission. Both Council and Commission would like to provide water utility service to the area west of I-69 around US Hwy 6 and to plan for future growth of their current service area. The purpose of the study is to identify deficiencies in the existing water utility infrastructure and determine the additional infrastructure needed to serve future customers including the area west of I-69 & US Hwy 6.

Due to requests by current and possibly future owners west of I-69 & US Hwy 6, providing water service to that area first is the immediate concern. However, there are concerns about the existing distribution system and the plant’s capacity.

The engineering firm commissioned to do the study was Jones and Henry Engineers. Brian Houghton and John Magsum, representatives for the company presented their findings to the Council and the Commission.

Due to the length of the presentation, the following minutes will only provide a short version of the six phase description and estimated costs. Costs of additional water improvements will also be included. The short form of the Proposed Projects is attached. The study in its entirety can be seen at the Waterloo Town Hall.

Phase 1

12-inch Water Main from Industrial Parkway to west under I-69 to CR 27

Estimated Costs \$ 633,000

Phase 2

12-inch Water Main along US Hwy 6 extension from end of existing water main to Industrial Parkway

Estimated Costs \$ 653,000

Phase 3

8-inch Water Main from US Hwy 6 at CR 27 to Industrial Parkway

Estimated Costs \$ 978,000

Phase 3a

8-inch Water Main from Lincoln Street Extension from existing water main west under I-69 to CR 27 then north to US Hwy 6

Estimated Costs \$ 733,000

Phase 4

8-inch Water Main along South Wayne Street to South Center Street to existing Water Main

Estimated Costs \$ 181,000

Phase 5

8-inch Water Main at Best Street from VanVleek Street to under Railroad

Estimated Costs 77,000

Phase 6

8-inch Water Main from North Center Street to Rope Street to existing Water Main

Estimated Costs \$ 1,045,000

Phase 6a

Raise elevated Water Tank #2 and Booster Pump Station

Estimated Costs \$ 517,000

Water Utility Improvements: Water Supply

Estimated Costs \$ 337,000

Water Utility Improvements: Treatment Plant, Aeration, Filters & High Service Pumps

Estimated Costs \$ 1,084,000

Jones and Henry Engineers Representatives Houghton and Magsum, discussed the various funding options that were available for a project with an estimated cost of \$4,988,000.

There are several state grants available for Indiana communities wanting to improve wastewater and drinking water infrastructure, projects for rural infrastructure to enable long-term economic growth. The Office of Community & Rural Affairs has 15 different grant funding opportunities. Indiana State Revolving Funds has low interest loans for water infrastructure. The US Department of Agriculture (USDA) Rural Development (RD) also has Environmental Grant and Loan funding opportunities. Revenue Bonds to support the proposed projects were another recommended funding opportunity. However, this would cause a monthly increase of \$41.47 per customer resulting in the average residential bill approximately \$94.00 per 5000 gallons with a 5/8" water meter.

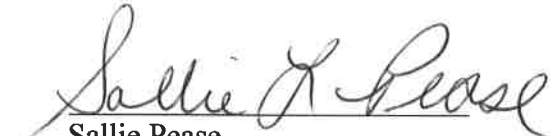
After the presentation, the Council and Commission decided a lot of discussion was needed before proceeding with any part of this project.

I, Renata Ford, the duly qualified Clerk/Treasurer, do hereby certify that the above and foregoing is a true and exact excerpt of minutes of the meeting of the Waterloo Town Council and the Waterloo Redevelopment Commission, Waterloo, Indiana, at which a quorum was in attendance and acting throughout, and held November 21, 2015, as such appears in the official minutes of said Waterloo Town Council and Waterloo Redevelopment Commission in my custody.
Meeting was adjourned at 6:51 pm.

Dorsey Brown
Town Council Vice-President



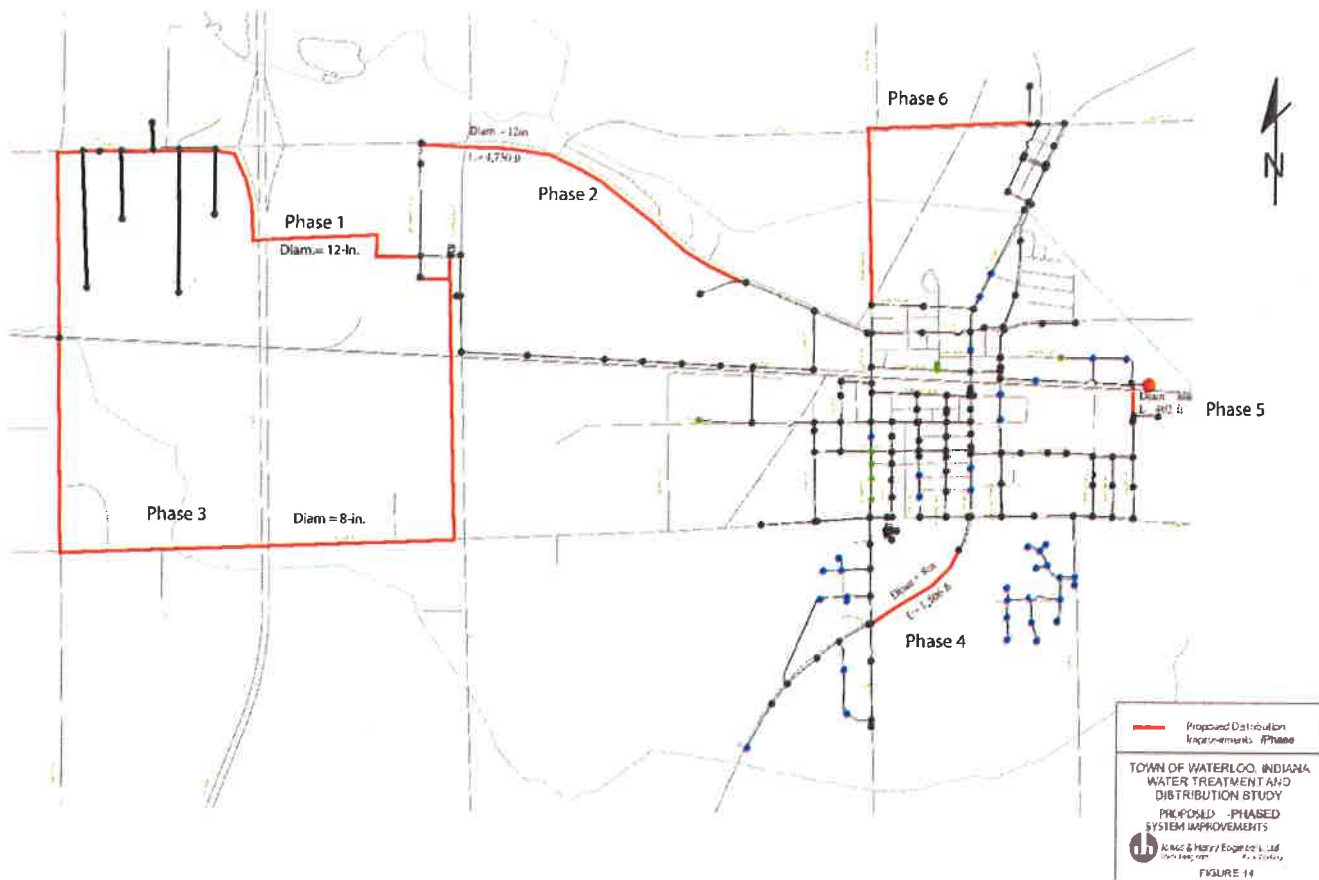
Renata Ford, Secretary



Sallie Pease
Redevelopment Commission
President

PROPOSED PROJECT

The distribution system improvements have been separated into segments for a phased implementation of the improvements. A phased implementation may aid in maximizing grants and other sources of funds thereby reducing the impact to the customers. The phases are shown in the following figure.



Cost of Improvements

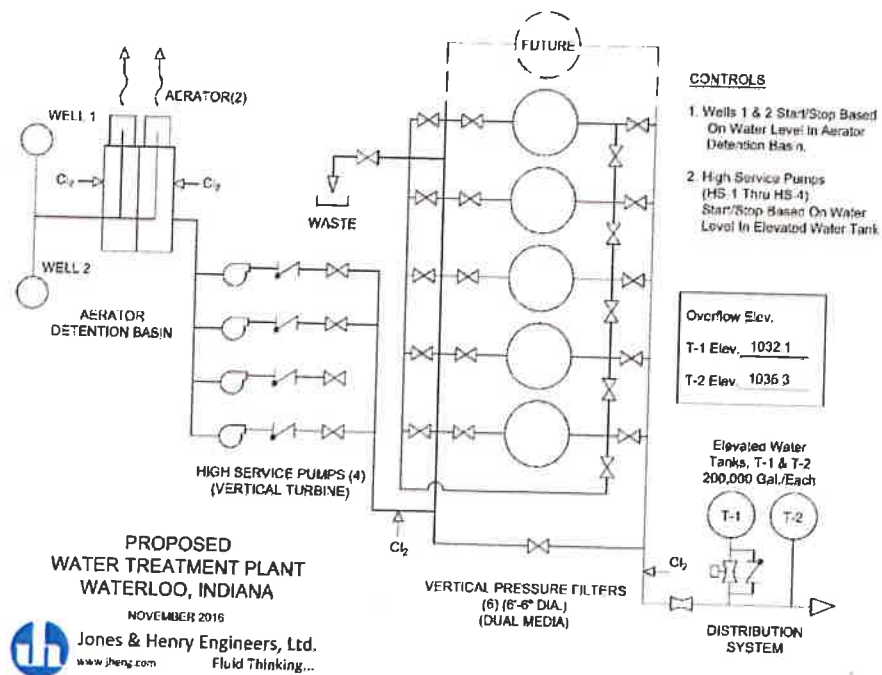
The estimated cost of the distribution system improvements is shown in the following table. The distribution system improvements are separated into phases. A phased implementation of the distribution system improvements will allow the Town to construct the improvements over time thereby buffering the impact to rate payers and increasing the ability to maximize grant funding opportunities. A more detailed cost estimate is presented in the Appendix of this report.

Estimated Cost of Distribution System Improvements		
Phase	Phase Description	Estimated Cost
Phase 1	12-in. Water Main from Industrial Parkway to CR-27	\$633,000
Phase 2	12-in. Water Main along US 6 from end of existing water main to Industrial Parkway	\$653,000
Phase 3	8-in. Water Main from US 6 at CR-27 to Industrial Parkway	\$978,000
Phase 4	8-in. Water Main along S. Wayne Street from S. Center St. to existing Water Main	\$181,000
Phase 5	8-in. Water Main under Railroad @ S. Best Street	\$77,000
Phase 6	8-in. Water Main from North Center St. to Rope St. to existing Water Main	\$1,045,000
Total Estimated Costs		\$3,567,000

The cost of the improvements to the water supply and treatment system is presented below. A more detailed cost estimate is presented in the Appendix of this report.

Estimated Cost of Water Supply & Treatment Improvements		
Phase	Phase Description	Estimated Cost
	Water Supply Improvements	\$337,000
	Water Treatment Plant Improvements	\$1,084,000
Total Estimated Costs		\$1,421,000

The following Figure illustrates the proposed water supply and treatment system.



Anticipated Schedule of Implementation

The following is a discussion on the sequence of improvements needed. The sequence can be modified as needed and as development occurs.

1. Phase 1 of the Distribution System Improvements must be constructed before development west of I-69 is complete. Design, permitting and construction will take approximately 18 months to complete.
2. Raising the elevated water tank and installing the booster pumps should be performed as part of Phase 1.
3. The Water Supply and Water Plant Improvements will need to be completed before significant development occurs west of I-69. The Water Utility has had maximum days approaching 85% capacity of the existing water plant. IDEM requires expansion of existing facilities when the maximum day flow for two consecutive years averages 90% of the plant's rated capacity. The Water Plant could support additional demands but not all of the known demands projected along US 6 west of I-69. Design, permitting and construction of these improvements will take approximately two years.
4. Phase 2 of the Distribution System Improvements is needed to reinforce the Industrial Area (both existing and proposed). Phase 2 will reduce water age, improve water quality, improve fire flows and provide redundancy in water supply to the area. Design, permitting and construction will take approximately 18 months to complete.
5. Phase 3 of the Distribution System Improvements is needed to reinforce the proposed Development west of I-69. Phase 3 will reduce water age, improve water quality, improve fire flows and provide redundancy in water supply to the area. Design, permitting and construction will take approximately 18 months to complete.
6. Phase 4 of the Distribution System Improvements is needed to reinforce the existing service area south of Town. Phase 4 will reduce water age, improve water quality, improve fire flows and provide redundancy in water supply to the area. Design, permitting and construction will take approximately 18 months to complete.
7. Phase 5 of the Distribution System Improvements is needed to reinforce the existing service area east of Town. Phase 5 will reduce water age, improve water quality, improve fire flows and provide redundancy in water supply to the area. Design, permitting and construction will take approximately 18 months to complete.
8. Phase 6 should be constructed as development in this area progresses. Phase 6 will reduce water age, improve water quality, improve fire flows and provide redundancy in water supply to the area. Design, permitting and construction will take approximately 18 months to complete.

Funding Options

Together the projects identified have an estimated cost of \$4,988,000. This amount is more than the annual budget for the Water Utility. There are numerous options for financing these projects. Some of the more common methods include applying for grants, selling revenue bonds, increasing user rates and/or assessing development charges.

Grants will typically require a 10 percent minimum local share of the project costs. It is important to understand that the percentage match by the community is part of the grant scoring process. It is important for the Town to provide the highest match percentage possibly to improve their grant scoring. The minimum match (10%) will not improve the Towns likelihood of receiving grant funds.

State Grant funding opportunities exist through agencies like OCRA, the funding agent for this Planning Grant. In addition to the Office of Community & Rural Affairs, the Indiana State Revolving Fund (SRF) Loan Program provides low interest loans to Indiana communities for projects that improve wastewater and drinking water infrastructure.

OCRA has 15 different program opportunities for Indiana communities. The Wastewater Drinking Water Program has funding to protect health, reduce utility rates, improve rural infrastructure to enable long-term economic growth.

Indiana State Revolving Funds (SRF) has low interest loans for Indiana Communities. SRF loans for water infrastructure include

- Source intake structures and wells;
- Treatment plant facilities;
- Water storage facilities;
- Transmission and distribution mains, including water line extensions to existing unserved properties with water quality issues.
- Green Project Reserve Sustainability Incentive Program can prioritize the town for replacement of water mains with Ductile Iron (DI) piping, automatic meter reading systems, and storm water improvements to reduce the impacts to the sanitary sewer system.

SRF loans are a fixed rate, 20-year loan. Interest rates are reset quarterly and are at or below 90% of the average 20-year AAA-rated, general obligation bond Municipal Market Data. Rates are further discounted based on an applicant's median household income (from current census data) and local user rates.

The United States Department of Agriculture (USDA) Rural Development (RD) program also has Environmental Grant and Loan funding opportunities available. Grants may be combined with a loan if necessary to keep user costs reasonable. Funds may be used to finance the acquisition, construction or improvement of the following:

- Drinking water sourcing, treatment, storage and distribution
- Sewer collection, transmission, treatment and disposal
- Storm water collection, transmission and disposal

Revenue bonds are another funding source for infrastructure improvements. However, the current utility rates do not provide sustainable funding.

Revenue bonds to support the recommended projects at 3.5 percent interest over a 20-year repayment period with 25 percent debt reserve results in a monthly increase for each of the 872 users of \$41.47/customer. This would result in an average residential billing of approximately \$94/month for a typical residential usage of 5,000 gallons with a 5/8" water meter.

Jones & Henry recommends a detailed review and recommendation by a qualified rate consultant in order to put the Water Utility on a sound financial footing. This project(s) will require a blend of grants, developer fees, taxes and rate increases to successfully complete.

Engineers Opinion of Probable Construction Cost - Conceptual

Project	Water Treatment and Distribution Study	Date:	15-Nov-16
Client	Waterloo, Indiana	Estimator:	JPM
Phase	1 Industrial Parkway to west under I-69 to CR 27 (12-inch)		
			Project No.: 810-7209.001

Item	Item Description	Unit	Qty	Unit Cost	Cost
1	Mobilization	LS	1	\$44,216.62	\$44,217
2	Audio-Video Recording	LF	1	\$2,500.00	\$2,500
3	Survey & Staking	LS	1	\$5,000.00	\$5,000
4	Erosion Control	LS	1	\$2,500.00	\$2,500
5	20" Steel Casing	LF	395	\$85.00	\$33,575
6	12-inch Watermain	LF	5,550	\$50.00	\$277,500
7	Hydrant	EA	8	\$6,000.00	\$48,000
8	12-Inch Valve	EA	7	\$3,500.00	\$24,500
9	12x12x12 Tee	EA	2	\$2,500.00	\$5,000
10	12-inch Fittings	EA	11	\$1,500.00	\$16,500
11	Special Backfill	SY	130	\$30.00	\$3,889
12	#8 Aggregate Base 12"	SY	94	\$25.00	\$2,344
13	#53 Aggregate Drive	SY	72	\$25.00	\$1,789
14	4-inch Base Course	TON	18	\$120.00	\$2,182
15	1.5-inch Wearing Course	TON	7	\$130.00	\$887
16	Seed & Mulch	SY	3,667	\$3.00	\$11,000
17	Record Documents	LS	1	\$5,000.00	\$5,000
Subtotal Construction =					\$486,383
Contingencies (10%) =					\$48,638
Engineering, Legal & Admin. (20%) =					\$97,277
Total Estimated Capital Costs =					\$633,000

Engineers Opinion of Probable Construction Cost - Conceptual

Project Water Treatment and Distribution Study Date: 15-Nov-16

Client Waterloo, Indiana Estimator: JPM

Phase 2 US 6 Extension from end of existing water main to Industrial Parkway (12-inch)

Project No.: 810-7209.001

Item	Item Description	Unit	Qty	Unit Cost	Cost
1	Requirements (10%)	LS	1	\$45,652.78	\$45,653
2	Audio-Video Recording	LF	1	\$2,500.00	\$2,500
3	Survey & Staking	LS	1	\$5,000.00	\$5,000
4	Erosion Control	LS	1	\$1,500.00	\$1,500
5	12-inch Watermain	LF	4,800	\$65.00	\$312,000
6	Hydrant	EA	10	\$4,500.00	\$45,000
7	12-Inch Butterfly Valve	EA	8	\$5,500.00	\$44,000
8	12x12x12 Tee	EA	2	\$4,000.00	\$8,000
9	12-inch Fittings	EA	5	\$3,500.00	\$17,500
10	Special Backfill	CY	74	\$30.00	\$2,222
11	#8 Aggregate Base 12"	SY	111	\$25.00	\$2,778
12	4-inch Base Course	TON	49	\$120.00	\$5,867
13	1.5-inch Wearing Course	TON	18	\$130.00	\$2,383
14	Seed & Mulch	SY	1,111	\$2.50	\$2,778
15	Record Documents	LS	1	\$5,000.00	\$5,000
				Subtotal Construction =	\$502,181
				Contingencies (10%) =	\$50,218
				Engineering, Legal & Admin. (20%) =	\$100,436
				Total Estimated Capital Costs =	\$653,000

Engineers Opinion of Probable Construction Cost - Conceptual

Project	Water Treatment and Distribution Study	Date:	15-Nov-16
Client	Waterloo, Indiana	Estimator:	JPM
Phase 3	Lincoln St Extension from existing water main west under I-69 to CR 27 then north to US 6 (8-inch)		
		Project No.:	810-7209.001

Item	Item Description	Unit	Qty	Unit Cost	Cost
1	Requirements (10%)	LS	1	\$60,526.94	\$60,527
2	Audio-Video Recording	LF	1	\$2,500.00	\$2,500
3	Survey & Staking	LS	1	\$5,000.00	\$5,000
4	Erosion Control	LS	1	\$1,500.00	\$1,500
5	16" Steel Casing	LF	395	\$80.00	\$31,600
6	8-inch watermain	LF	8,200	\$40.00	\$328,000
7	Hydrant	EA	11	\$4,500.00	\$49,500
8	8-Inch Butterfly Valve	EA	8	\$4,500.00	\$36,000
9	8x8x12 Tee	EA	3	\$1,800.00	\$5,400
10	8-inch 45	EA	4	\$1,500.00	\$6,000
11	Special Backfill	CY	74	\$30.00	\$2,222
12	#8 Aggregate Base 12"	SY	167	\$25.00	\$4,167
13	#53 Aggregate Drive	SY	111	\$110.00	\$12,222
14	4-inch Base Course	TON	49	\$120.00	\$5,867
15	1.5-inch Wearing Course	TON	18	\$130.00	\$2,383
16	Seed & Mulch	SY	2,333	\$2.50	\$5,833
17	Record Documents	LS	1	\$5,000.00	\$5,000
				Subtotal Construction =	\$563,721
				Contingencies (10%) =	\$56,372
				Engineering, Legal & Admin. (20%) =	\$112,744
				Total Estimated Capital Costs =	\$733,000

Engineers Opinion of Probable Construction Cost - Conceptual

Project	Water Treatment and Distribution Study	Date:	15-Nov-16
Client	Waterloo, Indiana	Estimator:	JPM
Phase 4	South Wayne St from Walnut St to Center St (8-inch)	Project No.:	810-7209.001

Item	Item Description	Unit	Qty	Unit Cost	Cost
1	Requirements (10%)	LS	1	\$12,642.22	\$12,642
2	Audio-Video Recording	LF	1	\$1,000.00	\$1,000
3	Survey & Staking	LS	1	\$2,500.00	\$2,500
4	Erosion Control	LS	1	\$800.00	\$800
5	8-inch Watermain	LF	1,600	\$40.00	\$64,000
6	Hydrant	EA	5	\$4,500.00	\$22,500
7	8-Inch Gate Valve	EA	4	\$4,500.00	\$18,000
8	8x8x8 Tee	EA	1	\$1,500.00	\$1,500
9	8-inch fittings	EA	2	\$800.00	\$1,600
10	Special Backfill	CY	37	\$30.00	\$1,111
11	#8 Aggregate Base 12"	SY	111	\$25.00	\$2,778
12	4-inch Base Course	TON	20	\$120.00	\$2,347
13	1.5-inch Wearing Course	TON	7	\$130.00	\$953
14	Seed & Mulch	SY	1,778	\$3.00	\$5,333
15	Record Documents	LS	1	\$2,000.00	\$2,000
Subtotal Construction =					\$139,064
Contingencies (10%) =					\$13,906
Engineering, Legal & Admin. (20%) =					\$27,813
Total Estimated Capital Costs =					\$181,000

Engineers Opinion of Probable Construction Cost - Conceptual

Project	Water Treatment and Distribution Study	Date:	15-Nov-16
Client	Waterloo, Indiana	Estimator:	JPM
Phase 5	Best St from Van Vleek St to under RR (8-inch)	Project No.:	810-7209.001

Item	Item Description	Unit	Qty	Unit Cost	Cost
1	Requirements (10%)	LS	1	\$5,370.28	\$5,370
2	Audio-Video Recording	LF	1	\$500.00	\$500
3	Survey & Staking	LS	1	\$1,500.00	\$1,500
4	Erosion Control	LS	1	\$250.00	\$250
5	16" Steel Casing	LF	300	\$60.00	\$18,000
6	8-inch Watermain	LF	425	\$50.00	\$21,250
7	8-Inch Gate Valve	EA	1	\$1,600.00	\$1,600
8	Special Backfill	CY	19	\$30.00	\$556
9	#8 Aggregate Base 12"	SY	56	\$25.00	\$1,389
10	4-inch Base Course	TON	5	\$120.00	\$587
11	1.5-inch Wearing Course	TON	2	\$130.00	\$238
12	Seed & Mulch	SY	111	\$3.00	\$333
13	RR Crossing	LS	1	\$5,000.00	\$5,000
14	Record Documents	LS	1	\$2,500.00	\$2,500
				Subtotal Construction =	\$59,073
				Contingencies (10%) =	\$5,907
				Engineering, Legal & Admin. (20%) =	\$11,815
				Total Estimated Capital Costs =	\$77,000

Engineers Opinion of Probable Construction Cost - Conceptual

Project	Water Treatment and Distribution Study	Date:	15-Nov-16
Client	Waterloo, Indiana	Estimator:	JPM
Phase 6	Raise Elevated Water Tank No.2 and Booster Pump Sta.		

Project No.: 810-7209.00

Item	Item Description	Unit	Qty	Unit Cost	Cost
1	Mobilization, Bonding, Insurance & General Requirements	ls	1	\$38,000.00	\$38,000
2	Site Work	ls	1	\$5,000.00	\$5,000
3	Raise Tank	ls	1	\$300,000.00	\$300,000
4	Booster Pumps	ea	2	\$10,000.00	\$20,000
5	Controls	ls	1	\$15,000.00	\$15,000
6	Piping	ls	1	\$20,000.00	\$20,000
				Subtotal Construction =	\$398,000
				Contingencies (10%) =	\$39,800
				Engineering, Legal & Admin. (20%) =	\$79,600
				Total Estimated Capital Costs =	\$517,000

Engineers Opinion of Probable Construction Cost - Conceptual

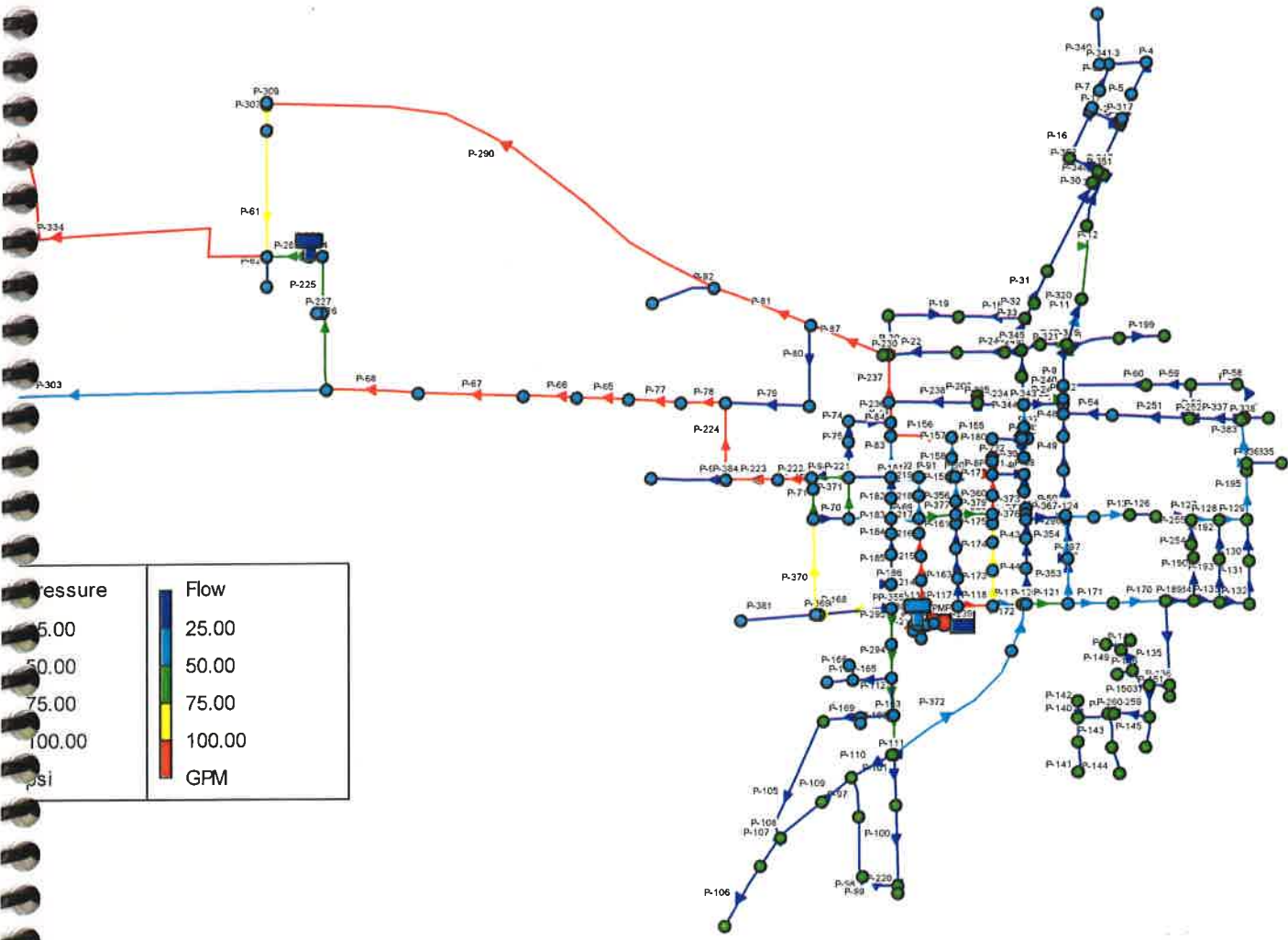
Project	Water Supply	Date:	8-Nov-16
Location	Waterloo, Indiana	Estimator:	BWH
Project	Water Utility Improvements	Project No.:	810-7209.001

Item	Item Description	Unit	Qty	Unit Cost	Cost
1	Mobilization	ls	1	\$7,500	\$7,500
2	Well Drilling	lf	330	\$70	\$23,100
3	12-in. Well Casing	lf	290	\$190	\$55,100
4	Well Screen WWSS	lf	40	\$265	\$10,600
5	Gravel Pack	cy	12	\$325	\$3,900
6	Well Development	ls	2	\$7,500	\$15,000
7	Test Pump Installation/Extraction	ls	2	\$1,500	\$3,000
8	Step Draw Down Test	hr	16	\$225	\$3,600
9	Constant Rate Test	hr	48	\$225	\$10,800
10	Water Quality Analysis	ls	2	\$2,300	\$4,600
11	Supply & Install Well Pump	ls	2	\$12,000	\$24,000
12	Remove Well Pump	ls	2	\$1,500	\$3,000
13	Additional Piping	ls	2	\$10,000	\$20,000
14	Well House Expansion	ls	2	\$20,000	\$40,000
15	Plumbing & Small Piping (3%)				\$6,726
16	Painting (2%)				\$4,619
17	Electrical (10% of estimate)				\$23,554
				Subtotal Construction =	\$259,099
				Contingencies (10%) =	\$25,910
				Engineering, Legal & Admin. (20%) =	\$51,820
				Total Estimated Capital Costs =	\$337,000

Engineers Opinion of Probable Construction Cost - Conceptual

Project	Water Treatment Plant, Aeration, Filters & High Service Pumps	Date:	8-Nov-16
Location	Waterloo, Indiana	Estimator:	BWH
Project	Water Utility Improvements	Project No.:	810-7209.001

Item	Item Description	Unit	Qty	Unit Cost	Cost
1	Mobilization	ls	1	\$20,000	\$20,000
2	Excavation & Backfill	cy	220	\$20	\$4,400
3	Concrete Bottom Slab	cy	45	\$500	\$22,500
4	Concrete Walls	cy	105	\$750	\$78,750
5	Concrete, Top Slab	cy	30	\$1,000	\$30,000
6	St. Stl. Floor Doors	ea	6	\$1,500	\$9,000
7	Aerators	ea	2	\$15,000	\$30,000
8	High Service Pumps	ea	4	\$8,000	\$32,000
9	Underground Piping, 12-in. DIP	lf	150	\$200	\$30,000
10	Interior Piping, 6" & 8" DIP	lf	70	\$400	\$28,000
11	Valves	ea	18	\$1,200	\$21,600
12	Filters	ea	2	\$120,000	\$240,000
13	Replace/Install Filter Media	ea	3	\$7,000	\$21,000
14	Stairs & Handrailing	ls	1	\$12,000	\$12,000
15	Demolition, Aerator & Detention Basin	ls	1	\$11,000	\$11,000
16	8-in. Sanitary Sewer from Detention Basin	lf	150	\$120	\$18,000
17	4-ft. Diameter Manholes	ea	2	\$3,500	\$7,000
18	2-ft. x 2-ft. SS Slide Gates	ea	3	\$1,500	\$4,500
19	Site Restoration	sy	10000	\$2	\$20,000
20	PLC Controls	ls	1	\$50,000	\$50,000
21	Plumbing & Small Piping (3%)				\$19,193
22	Painting (2%)				\$14,179
23	Mobilization, Bonding, Insurance & General Requirements (5%)				\$34,936
24	Electrical (10% of estimate)				\$75,806
				Subtotal Construction =	\$833,863
				Contingencies (10%) =	\$83,386
				Engineering, Legal & Admin. (20%) =	\$166,773
				Total Estimated Capital Costs =	\$1,084,000



**Waterloo Town Council and
Redevelopment Commission
Special Meeting
November 21, 2016
5:30 PM
Waterloo/Grant Township
Public Library**

SIGNATURE SHEET

Dan Hjelm Water Dept.

Shirley Hartman

Brian W. Houghton

John Maga

Cheryl Davis

Krish Sel
