

**DUPAGE
COUNTY**

PUBLIC WORKS DEPARTMENT

630-407-6800
Fax: 630-407-6701
publicworks@ec.dupageco.org

www.dupageco.org/publicworks

June 21, 2016

RE: White Pines Water Improvement Project
DuPage County Service Options

Wastewater

Water

Drainage

Permitting

Dear White Pines Resident:

The White Pines Civic Association (WPCA) recently requested that DuPage County provide updated and amended county water service options originally provided to the residents of the White Pines Subdivision. Specifically, the Civic Association requested that the County incorporate any new information resulting from the Christopher B. Burke Engineering Study being prepared for the Village of Bensenville. A copy of our updated option analysis has also been included with this letter.

It should be noted that both options being presented are maximum project expense numbers. As stated within the letter to the White Pines Civic Association, both of the DuPage County service options are more expensive than the Village of Bensenville service alternative. This is due primarily to the fact that if the residents select DuPage County as the service provider, the project will be delayed several years as the financing, permits and required intergovernmental agreements are secured.

Should the residents of White Pines wish to pursue one of the listed DuPage County options, a petition will be required to be signed from a clear majority of the homeowners within the subdivision requesting that the County move forward with a specific option. If residents are interested in pursuing a petition, the county would request that we assist in the development of the wording for the petition. It will be necessary that the petition include the costs and conditions of a specific option. Once the petition is submitted, it will then be presented to the Public Works Committee and County Board for consideration of project approval.

Please contact this office at (630) 407-6800 if you have any questions.

Respectfully,

Nicholas W. Kottmeyer, P.E.
Director of Public Works and Operations



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Wastewater

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May 20, 2016

White Pines Civic Association
4N150 Pine Grove
Bensenville, IL 60106

RE: DuPage County Water Service Option
White Pines Subdivision

Dear Board of Directors:

I am in receipt of your April 22, 2016 letter requesting that DuPage County update/amend our original options as submitted in September, 2015 for DuPage County to provide water to the White Pines Subdivision. In this request you have asked DuPage County to change, review, amend, and/or edit such proposals with any and all information resulting from but not limited to the completed Burke study that was shared with the WPCA in March of 2016.

DuPage County has reviewed their initial proposal from September of 2015 and has now developed two distinct options for the consideration of the White Pines residents. These are as follows:

Option 1 – This option follows the recommendations of the Christopher B. Burke (CBBEL) study that was presented in March of 2016 with respect to pipe replacement throughout the White Pines Subdivision. The pipes that are being replaced, relined or will remain in place in this option are identical to the CBBEL recommendations shown in their Exhibit B-1 (included). This option includes the replacement of all existing services within the subdivision. DuPage County would own and operate the system but would purchase water directly from the Village of Bensenville.

Option 2 – This option follows the recommendations of the Christopher B. Burke (CBBEL) study that was presented in March of 2016 with respect to pipe replacement throughout the White Pines Subdivision. The pipes that are being replaced, relined or to remain in place in this option are identical to the CBBEL recommendations shown in their Exhibit B-1 (included). This option includes the replacement of all existing services within the subdivision. DuPage County would own and operate the system, build a new water storage tank and construct a metering station required for a direct connection to the DuPage Water Commission. The County would then purchase the water directly from the Water Commission.

It should be noted that the two options being presented are identical except for the source of the water being provided to the White Pines Association and the specific construction requirements associated with the differing sources of the water.

The following summarizes our preliminary findings and cost estimates for each of the requested options.

Option 1

This option follows the recommendation of the Christopher B. Burke (CBBEL) study that was presented in March of 2016 with respect to pipe replacement throughout the White Pines Subdivision with DuPage County purchasing the water from the Village of Bensenville. A detailed preliminary cost estimate has been attached that shows the breakdown of expenses as well as the water mains that will be replaced as part of this project. The following summarizes our estimates and key considerations for the residents of White Pines.

- Pipes will be replaced within the White Pines Subdivision as shown on CBBEL Exhibit B-1 (included).
- The total DuPage County cost estimate for this option was determined to be \$7,016,223. After factoring in the \$1,000,000 contribution from the Bensenville Unincorporated Utility Fund, the total cost to the residents of White Pines would be approximately \$6.02 Million.
- It should be noted that approximately \$400,000 of this estimate is related to the estimated 3-year delay in construction that would be required for implementation of this option. This delay is due mainly to the fact that the County would have to initiate the loan process from the beginning with the EPA.
- Assuming that the County can be approved for the low-interest loan from the Illinois Environmental Protection Agency, a 3.00% interest rate will be incorporated into the cost estimates due to the three year delay in the project. This is higher than the currently projected 2.00% interest rate quoted by the Village of Bensenville. The interest rate fluctuates on a yearly basis and has been on an upward trend over the past several years.
- A total project loan amount of \$6,016,223, with a 3.00% interest rate for a 20-year loan, would result in a total loan payment (principal plus interest) of \$8,087,694. Considering the 230 homes currently connected to the water service (as supplied by Bensenville), this would result in a yearly total obligation for the 230 homes of \$404,385. Each home would be responsible for a payment of \$1,758 for the next 20 years, or \$146.50 per month for the loan repayment (\$293 bi-monthly).
- The estimate being provided includes the replacement of all current water services within the subdivision due to the concern over the possible presence of lead joints in the services. During the final design process it will be determined which services do not contain lead and will remain in place.
- Residents of White Pines should be aware that this option requires that the County purchase water from a local provider. The County anticipates that Bensenville would likely be the only feasible local provider of the Lake Michigan Water. Obtaining water from other providers would likely add considerable expense to the total project cost, as infrastructure would need to be extended into the subdivision to supply the water. This issue will be further examined during final design.
- If an agreement can be negotiated between Bensenville and DuPage County for the supply of water, it would be anticipated that Bensenville would charge a mark-up for the Lake Michigan water delivered through their system to the new DuPage County water system. At this time, a mark-up of \$2.50 per 1,000 gallons was assumed to be charged by the Village of Bensenville. This constitutes approximately a 50% mark-up from the raw Lake Michigan water rates now being charged by the DuPage Water Commission.

- The estimated DuPage County water bill incorporating the completion of Option #1 has been prepared and shown below. It should be understood that the value shown represents a bi-monthly water charge amount as the County bills customers every two months. All rates shown are current DuPage County rates and are subject to change. The Village of Bensenville will still own, operate and bill for sanitary sewer service within the White Pines Subdivision. The sanitary sewer charge is not included in the chart below.

OPTION #1 - Anticipated DuPage Water Bill (utilizing current rates)	
NOTE: DuPage County Bills Bi-Monthly	
Usage calculated at 4,500 gallons per month (9,000 gallons bi-monthly)	
Water Consumption (2-month period)	9,000 gallons
Base Charge Per Bill (flat charge per bill)	\$ 5.78
Water Usage Charge (\$9.40 per 1,000 gallons)	\$ 84.60
Capital Buy-In Fee Charge (\$0.73 per 1,000 gallons)	\$ 6.57
Village of Bensenville Provider Mark-Up (assumed to be \$2.50 per 1,000 gallons of water)	\$ 22.50
White Pines Water System Improvements (\$1,758 per year divided equally over 6 billing cycles)	\$ 293.00
TOTAL ESTIMATED BI-MONTHLY WATER BILL	\$ 412.45

Option 2

This option follows the recommendation of the Christopher B. Burke (CBBEL) study that was presented in March of 2016 with respect to pipe replacement throughout the White Pines Subdivision with DuPage County purchasing the water directly from the DuPage Water Commission. A detailed preliminary cost estimate has been attached that shows the breakdown of expenses as well as the watermains that will be replaced as part of this project. The following summarizes our estimates and key considerations for the residents of White Pines.

- Pipes will be replaced within the White Pines Subdivision as shown on CBBEL Exhibit B-1 (included).
- A ground level tank was requested for this alternative by the White Pines Civic Association. Until very detailed system modeling, site selection, topographic survey and system demands are determined during final design, a standard elevated storage tank was assumed.
- The total DuPage County cost estimate for this option was determined to be \$10,462,244. After factoring in the \$1,000,000 contribution from the Bensenville Unincorporated Utility Fund, the total cost to the residents of White Pines would be approximately \$9.5 Million.
- It should be noted that approximately \$575,000 of this estimate is related to the estimated 3-year delay in construction that would be required for implementation of this option. This delay is due mainly to the fact that the County would have to initiate the loan process from the beginning with the EPA. In addition, this option requires a lengthy process from the Illinois Department of Natural Resources to receive Lake Michigan allocation rights.

- Assuming that the County can be approved for the low-interest loan from the Illinois Environmental Protection Agency, a 3.00% interest rate will be incorporated into the cost estimates due to the three year delay in the project. This is higher than the currently projected 2.00% interest rate quoted by the Village of Bensenville. The interest rate fluctuates on a yearly basis and has been on an upward trend over the past several years.
- A total project loan amount of \$9,462,244, with a 3.00% interest rate for a 20-year loan, would result in a total loan payment (principal plus interest) of \$12,720,000. Considering the 230 homes currently connected to the water service (as supplied by Bensenville), this would result in a yearly total obligation for the 230 homes of \$636,011. Each home would be responsible for a payment of \$2,765 for the next 20 years, or \$230.42 per month for the loan repayment (\$461 bi-monthly).
- The estimate being provided includes the replacement of all current water services within the subdivision due to the concern over the possible presence of lead joints in the services. During the final design process it will be determined which services do not contain lead and will remain in place.
- This option allows the County to purchase water directly from the DuPage Water Commission through a metering station connection that will be required to be constructed as part of this option.
- The estimated DuPage County water bill incorporating the completion of Option #2 has been prepared and shown below. It should be understood that the value shown represents a bi-monthly water charge amount as the County bills customers every two months. All rates shown are current DuPage County rates and are subject to change. The Village of Bensenville will still own, operate and bill for sanitary sewer service within the White Pines Subdivision. The sanitary sewer charge is not included in the chart below.

OPTION #2 - Anticipated DuPage Water Bill (utilizing current rates)	
NOTE: DuPage County Bills Bi-Monthly	
Usage calculated at 4,500 gallons per month (9,000 gallons bi-monthly)	
Water Consumption (2-month period)	9,000 gallons
Base Charge Per Bill (flat charge per bill)	\$ 5.78
Water Usage Charge (\$9.40 per 1,000 gallons)	\$ 84.60
Capital Buy-In Fee Charge (\$0.73 per 1,000 gallons)	\$ 6.57
White Pines Water System Improvements (\$2,765 per year divided equally over 6 billing cycles)	\$ 461.00
TOTAL ESTIMATED BI-MONTHLY WATER BILL	\$ 557.95

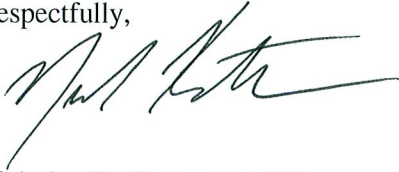
Summary

This letter has detailed two possible water service alternatives that include the participation by DuPage County. Each option follows the pipe replacement plan as presented by Christopher B. Burke Engineering, Ltd. in their presentation to the White Pines Civic Association in March of 2016. Option #1 allows DuPage County to receive their water from Bensenville, while Option #2 allows DuPage County to receive their water from the DuPage Water Commission. Residents should fully understand that both of these options appear to be more expensive than the option being presented by the Village of Bensenville. In addition, the process of watermain replacement within the White Pines Subdivision would be significantly delayed while the County pursues financing from the Illinois Environmental Protection Agency. This delay in project completion will likely result in higher interest rates and overall project cost escalation.

Should the residents of White Pines wish to pursue one of the listed DuPage County options, a petition will be required to be signed from a clear majority of the homeowners within the subdivision requesting that the County move forward with a specific option. Typically, this percentage has been required to be at least 60 to 70% of the residents before DuPage County will consider progression of the project. If the Civic Association is interested in pursuing a petition, the County would request that we assist in the development of the wording for the petition. It will be necessary that the petition include the costs and conditions outlined in this letter. Once the petition is submitted to the County, it will then be presented to the Public Works Committee and County Board for consideration of project approval.

If you have any questions regarding the information contained in this letter, please do not hesitate to contact me.

Respectfully,

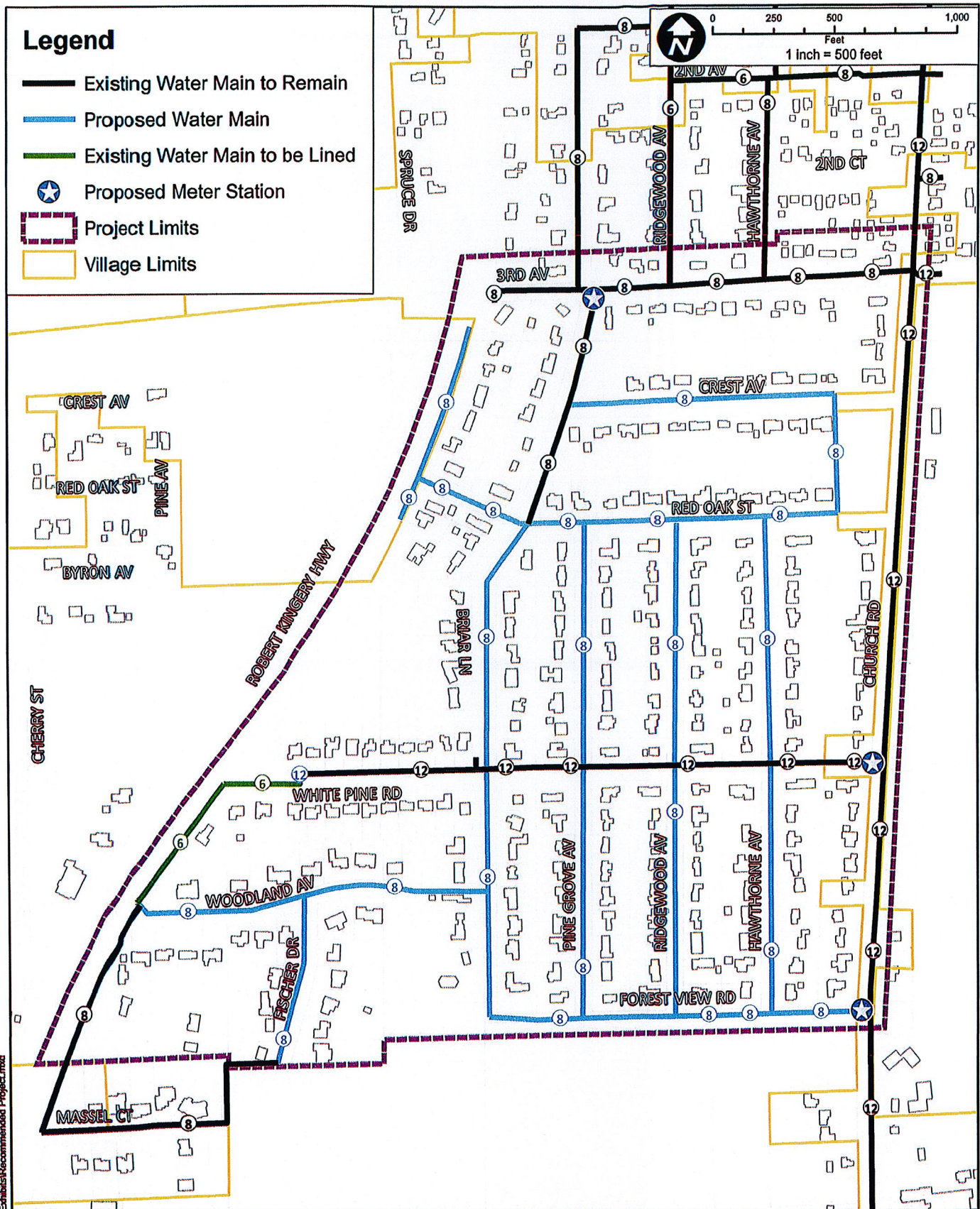
A handwritten signature in black ink, appearing to read 'Nick Kottmeyer', written over a horizontal line.

Nicholas W. Kottmeyer, P.E.
Director of Public Works and Operations

Cc: District 1 County Board Members
Joseph Caracci, P.E. – Director of Public Works, Village of Bensenville

Legend

- Existing Water Main to Remain
- Proposed Water Main
- Existing Water Main to be Lined
- Proposed Meter Station
- Project Limits
- Village Limits



CLIENT:



TITLE:

WHITE PINES AREA RECOMMENDED PROJECT

PROJ. NO. 120433

DATE: 02-17-18

SHEET 1 OF 1

DRAWING NO.

EXH D-1



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 • Rosemont, Illinois 60018 • (847) 823-0500

DSGN.		SCALE:	1:6000
DWN.		AUTHOR:	DWALTERS
CHKD.		PLOT DATE:	2/18/2018
FILE:	Recommended Project		

OPTION 1 - Replacement/Rehabilitation of Identified Pipes & Services, Water Service By DuPage County & Water Purchased From Bensenville

Assumptions:

- 1) Watermains to be replaced/relined are based upon most current data. During final design phase of project value engineering will be completed to determine final design plans or biddin options for rehabilitation.
- 2) Village of Bensenville assumed to be the water supplier to DuPage County due to existing boundary agreements and proximity to systems.
- 3) Storage requirements for public water systems assumed to be supplied by Village of Bensenville.
- 4) CPI Index changes based upon average from 2010 to 2014 for Chicago area as computed by US Department of Labor
- 5) It is anticipated that construction would be initiated in 2019 (following loan approval, design, permitting, intergovernmental agreements)
- 6) Contribution from utility fund provided by Village of Bensenville

OPTION 1 - Replacement/Rehabilitation of Identified Pipes & Services, Water Service By DuPage County & Water Purchased From Bensenville

Project Item	Planned Action/Description	Unit	Quantity	Unit Price	Price Extension
Watermain					
Crest Avenue - 8"	complete replacement	ft	1200	\$ 175	\$ 210,000
Red Oak Street (includes Crest connect) - 8"	complete replacement	ft	2250	\$ 175	\$ 393,750
Hawthorne Avenue - 8"	complete replacement	ft	1950	\$ 175	\$ 341,250
Ridgewood Avenue - 8"	complete replacement	ft	1950	\$ 175	\$ 341,250
Pine Grove Avenue - 8"	complete replacement	ft	1950	\$ 175	\$ 341,250
3rd Avenue - 8"	main sufficient, new services only	ft	0	\$ 175	\$ -
Briar Lane (Red Oak to 3rd Avenue) - 8"	main sufficient, new services only	ft	0	\$ 175	\$ -
Briar Lane (Red Oak to Forestview) - 8"	complete replacement	ft	2025	\$ 175	\$ 354,375
Route 83 Right-Of-Way - 8"	complete replacement	ft	1050	\$ 175	\$ 183,750
Woodland Avenue - 8"	complete replacement	ft	1500	\$ 175	\$ 262,500
Fischer Drive - 8"	complete replacement	ft	725	\$ 175	\$ 126,875
Forest View - 8"	complete replacement	ft	1525	\$ 175	\$ 266,875
Route 83 Frontage Road - 8"	relining of existing pipe, new services	ft	925	\$ 220	\$ 203,500
White Pines Road - 12"	main sufficient, new services only	ft	0	\$ 175	\$ -
Church Road - 12"	main sufficient, new services only	ft	0	\$ 175	\$ -
Water Service Replacements					
Main To B-Box	quantity determined from 290 total parcels minus recent new services	each	235	\$ 2,500	\$ 587,500
B-Box To Back Of House	quantity determined from number of homes that currently receive service from rear yard mains	each	159	\$ 5,500	\$ 874,500
B-Box To Front of House	quantity determined from total water customers (230) minus number of new services to rear of house	each	71	\$ 2,500	\$ 177,500
Metering Facilities (Bensenville Water)					
Briar Lane @ 3rd Avenue	Allows separate of WP system from Bensenville	each	1	\$ 120,000	\$ 120,000
White Pines @ Church Road	Allows separate of WP system from Bensenville	each	1	\$ 140,000	\$ 140,000
Forest View Drive @ Church Road	Allows separate of WP system from Bensenville	each	1	\$ 140,000	\$ 140,000
SUB-TOTAL CONSTRUCTION EXPENSES				\$	5,064,875
Construction Contingency	10% of Total Construction Cost			\$	506,488
Preparation & Submission of IEPA Loan App.	Required for approval of low interest loan program			\$	30,000
Final Design Engineering & Permitting	7% of Total Construction Cost (including contingency)			\$	389,995
Construction Management/Resident Eng.	9% of Total Construction Cost (including contingency)			\$	445,709
Administration/Legal/Easements/Permitting	3.5% of Total Construction Cost (including contingency)			\$	194,998
TOTAL CONSTRUCTION EXPENSES				\$	6,632,065
CPI Price Index Adjustment	Assumes construction beginning in 2016			\$	384,158
	Assumed project delay until 2019 (1.88% per year for 3 years)			\$	7,016,223
TOTAL ESTIMATED PROJECT EXPENSES				\$	7,016,223
Contribution From Bensenville	Prior To Contribution from Utility Fund			\$	(1,000,000)
TOTAL REQUIRED FUNDING FOR COMPLETION OF PROJECT (DUPAGE COUNTY OPTION #1)				\$	6,016,223

OPTION 2 - Replacement/Rehabilitation of Identified Pipes & Services, Water Service By DuPage County & Water Purchased From DuPage Water Commission

Assumptions:

- 1) Watermains to be replaced/relined are based upon most current data. During final design phase of project value engineering will be completed to determine final design plans or biddin options for rehabilitation.
- 2) Water Commission assumed to be the water supplier to DuPage County (water tower storage and metering station required).
- 3) Project dependent upon Lake Michigan allocation approval from the Illinois Department of Natural Resources and design approval by the DuPage Water Commission.
- 4) CPI Index changes based upon average from 2010 to 2014 for Chicago area as computed by US Department of Labor
- 5) It is anticipated that construction would be initiated in 2019 (following loan approval, design, permitting, intergovernmental agreements)
- 6) Contribution from utility fund provided by Village of Bensenville

Project Item	Planned Action/Description	Unit	Quantity	Unit Price	Price Extension
Watermain					
Crest Avenue - 8"	complete replacement	ft	1200	\$ 175	\$ 210,000
Red Oak Street (includes Crest connect) - 8"	complete replacement	ft	2250	\$ 175	\$ 393,750
Hawthorne Avenue - 8"	complete replacement	ft	1950	\$ 175	\$ 341,250
Ridgewood Avenue - 8"	complete replacement	ft	1950	\$ 175	\$ 341,250
Pine Grove Avenue - 8"	complete replacement	ft	1950	\$ 175	\$ 341,250
3rd Avenue - 8"	main sufficient, new services only	ft	0	\$ 175	\$ -
Briar Lane (Red Oak to 3rd Avenue) - 8"	main sufficient, new services only	ft	0	\$ 175	\$ -
Briar Lane (Red Oak to Forestview) - 8"	complete replacement	ft	2025	\$ 175	\$ 354,375
Route 83 Right-Of-Way - 8"	complete replacement	ft	1050	\$ 175	\$ 183,750
Woodland Avenue - 8"	complete replacement	ft	1500	\$ 175	\$ 262,500
Fischer Drive - 8"	complete replacement	ft	725	\$ 175	\$ 126,875
Forest View - 8"	complete replacement	ft	1525	\$ 175	\$ 266,875
Route 83 Frontage Road - 8"	relining of existing pipe, new services	ft	925	\$ 220	\$ 203,500
White Pines Road - 12"	main sufficient, new services only	ft	0	\$ 175	\$ -
Church Road - 12"	main sufficient, new services only	ft	0	\$ 175	\$ -
Water Service Replacements					
Main To B-Box	quantity determined from 290 total parcels minus recent new services	each	235	\$ 2,500	\$ 587,500
B-Box To Back Of House	quantity determined from number of homes that currently receive service from rear yard mains	each	159	\$ 5,500	\$ 874,500
B-Box To Front of House	quantity determined from total water customers (230) minus number of new services to rear of house	each	71	\$ 2,500	\$ 177,500
Metering Station & Water Storage Tank					
DuPage Water Commission Metering Station	required for connection to DuPage Water Commission	each	1	\$ 1,100,000	\$ 1,100,000
350,000 Gallon Storage Tank	includes land acquisition	each	1	\$ 1,800,000	\$ 1,800,000
SUB-TOTAL CONSTRUCTION EXPENSES					
Construction Contingency	10% of Total Construction Cost			\$	\$ 7,564,875
Lake Michigan Allocation Request	obtain required Lake Michigan allocation approval from IEPA			\$	\$ 756,488
System Modeling For Stand Alone System	system modeling required for metering station and storage tank design			\$	\$ 75,000
Preparation & Submission of IEPA Loan App.	Required for approval of low interest loan program			\$	\$ 30,000
Final Design Engineering & Permitting	7% of Total Construction Cost (including contingency)			\$	\$ 582,495
Construction Management/Resident Eng.	9% of Total Construction Cost (including contingency)			\$	\$ 665,709
Administration/Legal/Easements/Permitting	3.5% of Total Construction Cost (including contingency)			\$	\$ 291,248
TOTAL CONSTRUCTION EXPENSES					
CPI Price Index Adjustment	Assumes construction beginning in 2016			\$	\$ 9,890,815
	Assumed project delay until 2019 (1.88% per year for 3 years)			\$	\$ 571,429
TOTAL ESTIMATED PROJECT EXPENSES					
Contribution From Bensenville	Prior To Contribution from Utility Fund			\$	\$ 10,462,244
	Funds To Be Contributed From Unincorporated Utility Fund				(1,000,000)
TOTAL REQUIRED FUNDING FOR COMPLETION OF PROJECT (DUPAGE COUNTY OPTION #1)					
				\$	\$ 9,462,244