Minutes of a Meeting of

PUBLIC IMPROVEMENTS, STREETS, SEWERS AND DRAINAGE COMMITTEE

held January 25, 2016
6:00 p.m.

Members Present:	Councilman Tom Henderson, Chairman Councilman Paul Vincent Councilman Dwight Clark
Also Present:	President of Council Koomar, Councilman Marty Mace, Director of Public Safety/Service Thomas, Consulting Engineer Bob Greytak
Audience:	Richard Fink, Lydia DeGeorge

Mr. Henderson welcomed everyone to this first meeting of the Public Improvements, Streets, Sewers and Drainage Committee of 2016. Mr. Henderson expressed appreciation to Director of Public Safety/Service Thomas for putting together three options of a Five-year Sewer System Plan (copies attached hereto) which will be reviewed this evening. He noted that these options will be looked through focusing on the quality aspect of each, the cost to the City and the residents, and the different ways of splitting up those expenses. That is the value-based mindset that Mr. Henderson is trying to instill as these options are considered.

Mr. Henderson stated that there is a connection between this committee and the Finance Committee insofar as the City's financial budget, upon which he also serves. The work done this evening will address the technical side of this topic. Mr. Clark stated that this is the closest the Public Improvements Committee and Finance Committee are interlocking in some time. The discussion today covers a number of projects that have been discussed for years, but have not had the time, metrics, volume, price and different components on paper. This is a good start.

Mr. Henderson stated that there are three sets of options and Five-Year Plans to go with each of the options. Time will be spent this evening going through the options, one by one, and comparing each of the options.

Option No. 1

In the Engineering section of the Project section of Option 1, the Lake Road Pump Station Improvements are listed as $196,000. Also, the Bruce, Douglas, Russell engineering is listed as $204,000. In the Construction section, the Lake Road Pump Station Reconstruction is listed under the column "2018" for $980,000.

Director of Public Safety/Service Thomas stated that Option 1 is for the replacement of a sanitary sewer line. With that option, it includes all public side work on the sanitary line itself. A lift station is also included in the option, because there will not be any work done on the

private property side for inflow and infiltration of clear water coming into the sanitary line. This option will just be for water going into the Rocky River Wastewater Treatment Plant (RRWTP) for treatment.

Consulting Engineer Bob Greytak stated that they were looking for an option that did not require any homeowner improvements other than the minimum which would be downspout disconnection. Rather than having foundation drains disconnection, they would accept whatever is coming through the foundation drains into the sanitary sewer. To transport it to a pump station they would have to enlarge the sanitary sewer and build a pump station that would be large enough to treat that water. The downside is that they are still taking a lot of clean water into the sanitary sewer, transporting it to the RRWTP, and still paying Rocky River to treat our clean water, which on an annual basis, is 70% of the water sent to the plant. It is not the least expensive option. It is spending money essentially on the status quo.

Mr. Thomas noted that the possibility exists that the City would have to purchase more property to put in a larger lift station. The cost of purchasing property is not included in the schedule of Option 1.

The pipe size of the new sanitary sewer will be 15 inches at the upper end, and the lower end would be 24 inches. As you go down stream, the size gets larger. Construction costs are put out to bid.

Mr. Greytak explained the three phases of engineering costs as follows:

Phase 1. Modeling. Modeling is a computer model of the simulation of a sewer system or a drainage course. When the model is run, rainfall is run through the model based on either a synthetic or realistic storm. During a rainfall event, blue color represents the depth of water expected to be seen in the sewer. The model is a tool to be used for analysis.

Phase 2. Design. Once the size has been decided, preparing the design is a set of instructions to a contractor on how to build the sewer, where to build the sewer and the conditions that may be encountered in the field. It sets out the contract book with specifications, specifying materials, quantities, etc. The bidding process is based on this book so that when the bids come in they are good bids, and, in accordance with Ohio Revised Code, are no more than ten percent over the engineer's estimate, which would require rebidding.

Phase 3. Construction Engineering. This takes place throughout the project and costs cannot be determined until the project is completed. At times, the City will provide inspectors and a representative in the field.

Mr. Henderson asked if the $204,000 shown on Option 1 for the Bruce/Douglas/Russell project includes inspection engineering. Mr. Greytak stated he believes it has been left open depending on the degree of City inspection involvement. Mr. Thomas stated that some of the inspection work could be done by the City, and some may be contracted with CT Consultants.

Modeling of the Bruce/Douglas/Russell project has been completed last year at a cost of $20,000. In that model there were 186 homes in the area. It is estimated during a rainfall event that water flows at 8 gallons per minute, per home, on top of the normal sanitary flow which peaks during the day.

The present worth of treating clean water for 20 years for these 186 homes is shown as $658,600. This is based on the current pro-rated costs that is apportioned to Bay Village from the RRWTP and adding 3% interest. This may vary over time. Bay Village's share of the cost of running the treatment plant is 24%.

Mr. Henderson discussed the storm splits that were done in the 1960's, confirming that Option 1 is not addressing the problem created then when deciding to connect some of the home's storm lines to the sanitary sewer. Mayor Sutherland noted that this pre-dated the Environmental Protection Agency (EPA) mandates which did not come into play until the 1970's with the Clean Water Act. A lot of these were done to eliminate basement flooding without any thought of the environmental impact. Option No. 1 which will increase the size of the pump station and the sanitary sewer will solve the EPA mandated requirement. Mayor Sutherland stated that it will solve the mandated requirement, but is something that we have to be very sensitive about because whatever the City decides may not satisfy what the EPA wants. Whatever is decided will have to be taken back to the EPA for approval.

Mr. Greytak stated that during wet weather the RRWTP is overwhelmed with clean water to the point where they have to bypass their secondary treatment to make sure they don't damage the plant. This is a violation of the Clean Water Act and they must report these occurrences to the EPA. The EPA at some point will say that has to stop. The two ways for it to stop are building a larger treatment plant, or eliminating the source of the clean water.

The new sanitary pump station would need to be expanded to a capacity of between 2.3 MGD (5 Year storm) to a 4.3 MGD (100 year storm). The 2.3 MGD would be the dry weather flow, and the 4.3 MGD would be the storm flow. Current capacity is 0.06 MGD.

There remains potential for basement flooding from the sanitary sewer when the design storm is exceeded. When designing the sewer, it is necessary to select to what level protection the sewer is being designed. There was a 150 year storm in Bay Village this past June. With a 100 year storm sewer design, the potential would be there for flooding. The proposed design for Option 1 is a 100 year storm design. There is a one percent chance, based on statistics, that a 100 year storm event could occur in any given year. Mayor Sutherland stated that the probability of eliminating any chance of flooding is nil. Project costs to reduce the size of the sewer are insignificant. Increasing the size of the sewer from a 100-year storm sewer to a 150-year storm sewer is adding another 10 to 20% in cost. Mayor Sutherland noted the importance of determining the size of the trench to accommodate a 100-year storm sewer without displacing the sanitary sewer. This information would be included in the earliest component of the engineering phase.

Total engineering and construction costs for the Option 1 project are estimated at $3.42 million. This does not include the cost to taxpayers of $658,600 for continuing to treat clean water, bringing the total cost to $4,078,000.

Option No. 2

The Lake Road Pump Station Improvements are listed at an approximate cost of $38,000 rather than $196,000 in Option 1. The Bruce/Russell/Douglas Engineering is $300,000 in this option compared to $204,000 in Option 1. The Lake Road Pump Station construction is $190,000 versus the $980,000 in Option 1. The Bruce/Russell/Douglas construction is $3.42 million compared to $2.04 million in Option 1.

Mr. Thomas stated that Option 2 is increasing the size of the storm sewer and the connections that go with it, and separating the clean water on the private property side also by disconnecting the footer problems in homes that are draining incorrectly into the sanitary line.

Mr. Greytak stated that Option 2 requires work on private property. Any water going to the sanitary sewer would be redirected to a new and larger storm sewer. There would have to be assurance that whatever is being connected to the storm sewer does not include any sanitary sewage. The piping on the private side needs to be certified as properly separated. Option 1 is building a bigger sanitary line; Option 2 is building a bigger storm line, and working with the private property side which eliminates the need for a new sanitary line. The existing sanitary line would be sufficient if taking the clean water out. The sanitary line was relined in 1996 to 1998. The laterals were not relined at that time; only the pipes in the public right-of-way were relined. The relining is compared to a new PVC pipe which has a very long useful life. There is no sanitary flooding during dry weather.

In the 1960's when the storm lines were split, the newer sewer is the sanitary sewer. The storm sewer is the sewer that was installed prior to 1960.

Option 2 includes the homeowner option to connect foundation drains using a sump pump. Downspouts are to be daylighted or connected to the storm sewer. This refers back to the discussions in September at the Dwyer Center meeting of property owners. Mr. Thomas noted that the construction costs are based on a 25-year storm event storm sewer. The cost of a 100-year storm sewer is $545,000 more than the 25-year storm event sewer. Mr. Greytak explained that the reason they looked at a 25-year storm event sewer initially is that there is more tolerance in a storm sewer than a sanitary sewer because it is flowing clean water. Mr. Henderson noted that from a quality view point it would be good value to install the 100-year sewer with a 1% chance of someone flooding out, as compared to a 4% chance with a 25-year storm sewer. Mr. Greytak noted that there must be included the thought of what happens downstream. He needs to make sure if we change from a 25-year to a 100-year storm that the receiving stream, Wischmeyer Creek, doesn't have more erosion problems and potential damage to property. They would have to look at exactly where the discharge point is and look at the terrain and the quality of banks in the area. They look at the velocity going down the stream which could create higher rates of erosion. They have to determine the change of velocity and whether there needs

to be stream bank protection. Stream bank protection has to be designed for the velocity encountered. Mr. Henderson asked if stream bank protection is an expensive project and Mr. Greytak responded that it is an expensive project.

The lateral connections for 186 homes are estimated at $420,000. This is approximately $2,200 per homes. Mr. Clark asked if there is potential for the residents in the City to share that cost. Existing connections going to the old pipe will not be salvaged because of the need to remake the connections to the new pipe. If there is one pipe coming out of a property and it is connected to the sanitary line, another pipe will be necessary to be out to the storm sewer, making sure that it is just water from foundation drains and downspouts. Nothing else can go into that pipe. The cost may vary for each homeowner since the connections may be different in each case. Mr. Koomar stated that the Bay Village Code states that residents are responsible for connecting out into the street right-of-way. If they are reconnecting, it is the responsibility of the homeowner. That may be a project cost to be absorbed.

Mr. Henderson verified with Mr. Greytak that the estimate of $420,000 is for both connections, at the foundation and at the public right-of-way.

Mr. Henderson stated that after walking the neighborhood, it looks as though it may be difficult for some homeowners to daylight their downspouts, based on where the downspouts come down. Mr. Greytak stated that depending on the home it may be more effective to look at resloping the gutters in a different direction to put the downspout in a location where it would be better received for daylighting. Those costs would be borne by the homeowner. Mr. Greytak stated that the remedy should not become a nuisance.

Regarding sump pumps, Mr. Thomas stated that after disconnecting the downspouts the water would go into the storm line. When you put the water into the storm line, you can gravity connect. There is always the potential of water backing up. The recommendation would be for sump pumps for the best protection. Some of the properties do have sump pumps currently. The Sewer Department also knows the ones that are connected into the sanitary system. They would want those to be disconnected to stop the clean water coming in to the sanitary line.

In the outside sump pump, two are installed in a 24 inch area, so if one goes out the other will take care of it. There are now 16 of these in the City. Mr. Greytak stated that it doesn't matter if the sump pump is in the basement or the yard. Many times the foundation goes around the exterior of the basement and joins in the front of the house. The easiest way to connect those is to get it in front of the house where they connect to the lateral. When a homeowner decides to have waterproofing done, such as a BDry system, they will put the sump pump in the basement because they don't have to do any serious excavation around the foundation on the exterior. If installed in the front of the house, a planting can be done around the equipment to screen it from view. Sump pumps are optional as a redundancy effort in the event of flooding. Back-up generators are also a consideration in the event of power-outages.

The average cost to a homeowner for an entire project, including sump pumps is approximately $3,000. Property connections must be completed before the pump station is designed and

connected. Mr. Vincent asked if the connection requirement would have to be established by ordinance and we would have to be comfortable with the estimate of the cost. Mr. Koomar stated that there could be 186 variations of cost. Mr. Greytak stated that the cost of $420,000 is estimated for the lateral gravity connections, but doesn't necessarily include sump pumps. Mr. Koomar asked for a copy of the lateral of the existing sanitary and storm lines and the water lines. Mayor Sutherland stated that information is still posted on the web site.

Option 2 includes expanding the pump station on Lake Road. Mr. Greytak stated the pump station was initially designed to handle only the sewers on the north side of Lake Road from Wischmeyer Creek west to Dover Center Road. That still left an overflow in the intersection that needs to be addressed. The overflow is coming from the Bruce/Russell/Douglas area. Those sewers need to be disconnected from the interceptor and connected to the pump station to isolate the overflows in the interceptor. Also, the original pump station did not account for a swimming pool.

Street flooding is the result of the capacity of the storm sewers. The storm sewer is being designed to take more street run off, and the efficiency of the inlets to deliver the water to the storm sewer. Mayor Sutherland stated that street flooding may be inconvenient but it almost acts like its own mini retention basin.

Option No. 3

The Lake Road Pump Station engineering costs are the same at $38,000, but the Bruce/Russell/Douglas engineering costs drop down to $20,000. In the construction section, the same $190,000 is quoted for the Lake Road Pump Station reconstruction, but instead of the previous $3.4 million in Option 2 for Bradley/Russell/Douglas the cost is approximated at $558,000.

Mr. Thomas stated that there would be no new sewer construction with Option 3; it includes only corrections on private property and two sump pumps for all 186 homes. Footer tiles are disconnected and put into the storm line using the sump pump system. The sump pumps will be sized correctly to overcome the back pressure from the storm sewer. Mr. Vincent asked if inspections will be included to be sure that the connections are correct and the pumps properly sized. Mr. Thomas stated that the inspections will be included. All downspouts will be daylighted or connected to the storm sewer. Assistance will be given for unusual circumstances.

Mr. Vincent asked Mr. Thomas for information concerning the cost of a back-up generator. Mr. Thomas will seek further information from homeowners who have the generators installed.

Option 3 has a faster timeline than Options 1 and 2. Property connections will occur in a 9 month period in 2016. Construction costs are $150,000 for the Lake Road Pump Station, $40,000 for the Force Main, and $558,000 for sump pumps for 186 homes. A line item conceptually but not shown would be the cost of daylighting the downspouts, which may be more for certain homes. The estimated total cost is $806,000.

An additional committee meeting will be scheduled to go through the recommendation process.

Mayor Sutherland stated that the thing that worries her the most is satisfying the EPA to avoid being fined. While doing all the work on private property looks like it would be the least expensive it would probably be the most difficult option because of dealing with 186 homeowners and each property is so individual. From the administration standpoint, they would recommend the option that includes a new storm sewer, or Option No. 2.

Mr. Greytak commented that the EPA threshold is that you cannot pollute the waters in the United States of America. Whatever you need to do upstream to prevent that from happening is acceptable, as long as it is acceptable to the community.

The meeting adjourned at 7:30 p.m.

Joan Kemper, Secretary

Tom Henderson, Chairman

Option 1 – Construct larger sanitary sewers – no work on private property

- Perform no corrections on private property.
- Leave existing laterals connected to sanitary sewer.
- Replace the sanitary sewer with a larger diameter pipe to alleviate flooding potential (sewer size to be based on transporting I/I from private property).
- Reconstruct the Lake Road Pump Station to pump the peak wet weather flow (design storm to be determined).

Advantages:

- All sewer work is confined to the existing street Right of Way.
- No disturbance to private property.
- Potential greater public acceptance than Option 2 and Option 3.

Disadvantages:

- Residents continue to pay for treatment of clean water at the Rocky River WWTP through higher sewer rates.
- The City will need to construct a new larger sanitary pump station to replace the current Lake Road Pump Station. Current capacity is 0.06 MGD. The station would need to be expanded to a capacity of between 2.3 MGD (5 yr. storm) to 4.3 MGD (100 yr. storm).
- There remains potential for basement flooding from the sanitary sewer when design storm is exceeded.

Schedule:

- Design of sanitary sewers and Lake Road Pump Station – 12 months (2016)
- Permitting – 3 months (2017)
- Bidding – 3 months (2017)
- Construction – 18 months (2017-2019)

Construction Cost:

Assuming 100 yr. event:

Sanitary Sewers (15"-24" diameter):	$2,040,000
Lake Road Pump Station (4.3 MGD):	$830,000
Force Main (14" diameter):	$150,000
Present worth of treating clean water (20 yr):	$658,600
Total	$3,678,600

Five Year Plan - Sewer System OPTION 1

Category	Project	Budget	2016	2017	2018	2019	2020
Engineering	Computer model of Lake-Bradley sewer system including field investigation and recommendations	$20,000	$20,000				
	Computer model of Clague-Lake sewer system including field investigation and recommendations	$20,000		$20,000			
	Huntington/Longbeach Pump Station Electrical/Communication Improvements	$30,000	$30,000				
	Pump Station Communication Improvements	$30,000		$30,000			
	Sunset Area Improvements Construction Administration (Water mains, sanitary sewers, city obligation) (See Note 1)	$243,669	$121,835	$121,835			
	Lake Road Pump Station Improvements	$196,000		$196,000			
	Comprehensive Calibrated Sewer System Model (Sanitary)	$250,000		$250,000	$250,000		
	Comprehensive Calibrated Drainage Model (annual)	$375,000	$75,000	$75,000	$75,000	$75,000	$75,000
	Source Control Program	$200,000		$50,000	$50,000	$50,000	$50,000
	Bruce Douglas Russell - Option 1 (Sanitary Sewer Replacement)	$204,000	$204,000				
	Subtotal	$1,568,669	$450,835	$742,835	$375,000	$125,000	$125,000
Construction	Sewer System Cleaning	$40,000		$40,000			
	Saddler Sanitary Sewer	$0					
	Sunset Area Improvements (Water mains, sanitary sewers, city obligation) (See Note 2)	$1,292,335	$646,167	$646,167			
	Lake-Bradley Improvements Sanitary Sewer Improvements	$300,000		$300,000			
	Lake Road Pump Station Reconstruction	$980,000			$980,000		
	Bruce Douglas Russell - Option 1 (Sanitary Sewer Replacement)	$2,040,000		$2,040,000			
	Subtotal	$4,652,335	$646,167	$3,026,167	$980,000	$0	$0
	TOTAL	$6,221,004	$1,097,002	$3,769,002	$1,355,000	$125,000	$125,000

Note 1	Construction Administration and Inspection of the sanitary sewers, water mains, and city's portion of roadway and drainage costs.
Note 2	City's portion of roadway and drainage costs varies between $291,520 and $478,450 depending on assessment method selected. For the budget, the highest obligation was used.

Option 2 – Construct storm sewers and correct connections on private property

- Construct larger storm sewer (design storm to be determined).
- Separate storm connection from sanitary connection on private property.
- Connect storm laterals to the new storm sewer (gravity connection) with homeowner option to connect foundation drains using a sump pump. Downspouts to be daylight or connected to storm sewer.
- Sanitary lateral to remain connected to existing sanitary sewer.
- Lake Road Pump Station to be reconstructed to pump peak sanitary sewage flow.

Advantages:

- Sump pumps are not *required* but are an option at the homeowner's expense.
- The City's cost for treating clean water at the Rocky River WWTP is eliminated for this neighborhood.
- The cost to reconstruct the Lake Road Pump Station is less than Option 1. Current capacity is 0.06 MGD. The station would need to be expanded to a capacity of 0.17 MGD.

Disadvantages:

- Private property corrections are required.
- Basement flooding potential from the storm sewer when design storm is exceeded.
- Potential less public acceptance than Option 1.

Schedule:

- Design of storm sewers – 9 months (2016)
- Bidding - 3 months (2016-2017)
- Construction of storm sewers – 9 months (2017)
- Property corrections – 6 months (2017-2018)
- Flow Monitoring – 3 months (2018)
- Analysis of flow data – 3 months (2018)
- Design of Pump Station – 9 months (2018-2019)
- Permitting – 3 months (2019)
- Bidding – 3 months (2019)
- Construction of pump station – 12 months (2019-2020)

Construction Cost:

Assuming 25 yr. event:

Storm Sewers (12"-36" diameter):	$3,000,000
Lake Road Pump Station (0.17 MGD):	$150,000
Force Main (4" diameter):	$40,000
Lateral Corrections for 186 homes:	$420,000
Total	$3,610,000

Five Year Plan - Sewer System OPTION 2

Category	Project	Budget	2016	2017	2018	2019	2020
Engineering	Computer model of Lake-Bradley sewer system including field investigation and recommendations	$20,000	$20,000				
	Computer model of Clague-Lake sewer system including field investigation and recommendations	$20,000		$20,000			
	Huntington/Longbeach Pump Station Electrical/Communication Improvements	$30,000	$30,000				
	Pump Station Communication Improvements	$30,000		$30,000			
	Sunset Area Improvements Construction Administration (Water mains, sanitary sewers, city obligation) (See Note 1)	$243,669	$121,835	$121,835			
	Lake Road Pump Station Improvements	$38,000		$38,000			
	Comprehensive Calibrated Sewer System Model (Sanitary)	$250,000		$250,000	$250,000		
	Comprehensive Calibrated Drainage Model (annual)	$375,000	$75,000	$75,000	$75,000	$75,000	$75,000
	Source Control Program	$200,000		$50,000	$50,000	$50,000	$50,000
	Bruce Douglas Russell - Option 2 (Storm Sewer Replacement) with lateral correction for 186 homes	$300,000	$300,000				
	Subtotal	$1,506,669	$546,835	$584,835	$375,000	$125,000	$125,000
Construction	Sewer System Cleaning	$40,000		$40,000			
	Saddler Sanitary Sewer	$0					
	Sunset Area Improvements (Water mains, sanitary sewers, city obligation) (See Note 2)	$1,292,335	$646,167	$646,167			
	Lake-Bradley Improvements Sanitary Sewer Improvements	$300,000		$300,000			
	Lake Road Pump Station Reconstruction	$190,000			$190,000		
	Bruce Douglas Russell - Option 2 (Storm Sewer Replacement) with lateral correction for 186 homes	$3,420,000		$3,420,000			
	Subtotal	$5,242,335	$646,167	$4,406,167	$190,000	$0	$0
	TOTAL	$6,749,004	$1,193,002	$4,991,002	$565,000	$125,000	$125,000

Note 1	Construction Administration and inspection of the sanitary sewers, water mains, and city's portion of roadway and drainage costs.
Note 2	City's portion of roadway and drainage costs varies between $291,520 and $478,450 depending on assessment method selected. For the budget, the highest obligation was used.

Option 3 – Perform corrections on private property

- No new sewer construction.
- Separate storm connection from sanitary connection on private property.
- Connect foundation drains to storm using a sump pump. Downspouts to be daylighted or connected to storm sewer.
- Sanitary lateral to remain connected to existing sanitary sewer.
- Lake Road Pump Station to be reconstructed to pump peak sanitary sewage flow.

Advantages:

- The City's cost for treating clean water at the Rocky River WWTP is eliminated for this neighborhood.
- The cost to reconstruct the Lake Road Pump Station is less than Option 1 (and the same as Option 2).
- Basement flooding threat from sanitary and storm sewers is eliminated.

Disadvantages:

- Private property corrections are required.
- Sump pumps are required for foundation drains.
- Street flooding potential from storm sewer when design storm is exceeded.

Schedule:

- Property corrections – 9 months (2016)
- Flow Monitoring – 3 months (2017)
- Analysis of flow data – 3 months (2017)
- Design of Pump Station – 9 months (2017-2018)
- Permitting – 3 months (2018)
- Bidding – 3 months (2018)
- Construction of pump station – 12 months (2018-2019)

Construction Cost:

Lake Road Pump Station (0.17 MGD):	$150,000
Force Main (4" diameter):	$40,000
Sump pumps for 186 homes:	$558,000
Total	$748,000

Five Year Plan - Sewer System OPTION 3

Category	Project	Budget	2016	2017	2018	2019	2020
Engineering	Computer model of Lake-Bradley sewer system including field investigation and recommendations	$20,000	$20,000				
	Computer model of Clague-Lake sewer system including field investigation and recommendations	$20,000		$20,000			
	Huntington/Longbeach Pump Station Electrical/Communication Improvements	$30,000	$30,000				
	Pump Station Communication Improvements	$30,000		$30,000			
	Sunset Area Improvements Construction Administration (Water mains, sanitary sewers, city obligation) (See Note 1)	$243,669	$121,835	$121,835			
	Lake Road Pump Station Improvements	$38,000		$38,000			
	Comprehensive Calibrated Sewer System Model (Sanitary)	$250,000		$250,000	$250,000		
	Comprehensive Calibrated Drainage Model (annual)	$375,000	$75,000	$75,000	$75,000	$75,000	$75,000
	Source Control Program	$200,000		$50,000	$50,000	$50,000	$50,000
	Bruce Douglas Russell - Option 3 (Corrections on private property)	$20,000	$20,000				
	Subtotal	$1,226,669	$266,835	$584,835	$375,000	$125,000	$125,000
Construction	Sewer System Cleaning	$40,000		$40,000			
	Saddler Sanitary Sewer	$0					
	Sunset Area Improvements (Water mains, sanitary sewers, city obligation) (See Note 2)	$1,292,335	$646,167	$646,167			
	Lake-Bradley Improvements Sanitary Sewer Improvements	$300,000		$300,000			
	Lake Road Pump Station Reconstruction	$190,000			$190,000		
	Bruce Douglas Russell - Option 3 (Corrections on private property)	$558,000	$558,000				
	Subtotal	$2,380,335	$1,204,167	$986,167	$190,000	$0	$0
	TOTAL	$3,607,004	$1,471,002	$1,571,002	$565,000	$125,000	$125,000

Note 1	Construction Administration and Inspection of the sanitary sewers, water mains, and city's portion of roadway and drainage costs.
Note 2	City's portion of roadway and drainage costs varies between $291,520 and $478,450 depending on assessment method selected. For the budget, the highest obligation was used.