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MEMORANDUM

To: Warren Hutmacher, City Manager
From: Michael Smith, Public Works Director
Date: January 17, 2014
Subject: **Stormwater Utility Funding Discussion**

This memo provides Public Works' analysis of funding for infrastructure replacement projects within the stormwater utility.

Background

Since creating a stormwater utility in 2009, the City has inventoried and assessed the condition of the entire public and private stormwater system and has replaced over 100 failing pipes. As more information has been gathered on the system and four full years of historical spending has been established, the future needs and costs for infrastructure replacement are becoming clearer.

Discussion

The City owns and maintains approximately 70 miles of stormwater pipe and 5,700 stormwater structures. About 70% or close to 50 miles of this pipe is corrugated metal pipe which after a period of time (typically 30 to 40 years) rusts and has to be replaced. Considering when much of the City was developed, it is reasonable to assume that the City has 30 to 40 miles of metal pipe near or beyond its useful life (see attached chart). Based on the failure rate experienced over the last 4 years, the projected annual cost to replace these pipes as they fail is estimated to be \$1,500,000.

Following is a snapshot of the current funding status of the stormwater utility:

- Backlog of pipes and structures in need of repair or replacement: \$4,000,000
- Cost to replace pipes rated 'Poor' (129 Pipes): \$4,500,000
- Cost to replace aging 'Fair' rated pipes as they fail over the next 5 years \$7,500,000
- Total estimated 5-year replacement cost \$16,000,000

With an annual replacement budget of \$1,000,000 to \$1,100,000, a 4 to 5 year real backlog of projects exists. Anticipating that pipes will continue to fail at a rate faster than they can be replaced this backlog could grow to 5 to 10 years over the next 5 years. So far the City has been able to prioritize repairs to stay within funding constraints without significant negative impacts. This will become more difficult as the backlog grows.

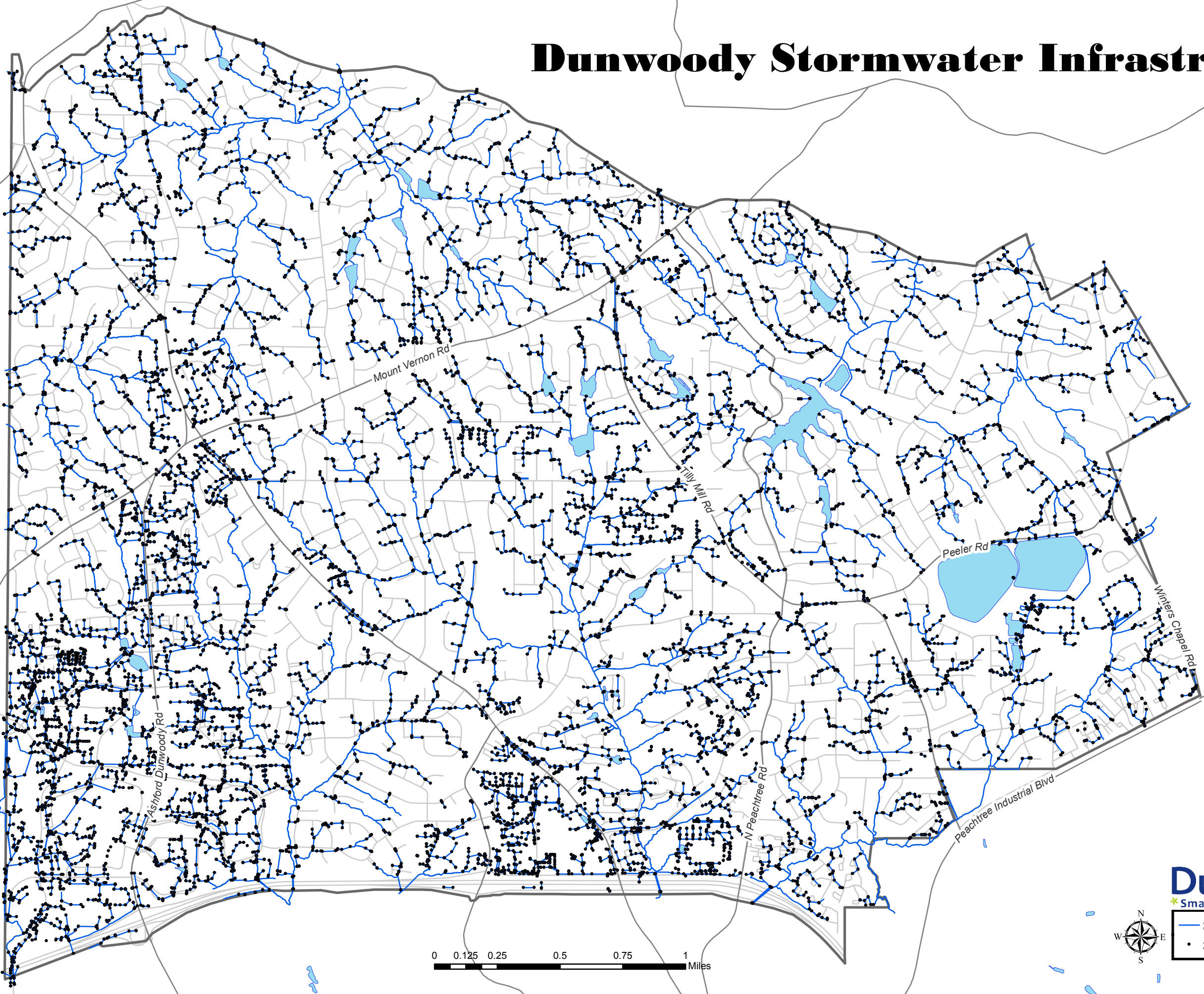


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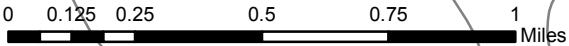
Alternatives

1. The City could continue under the current funding and hope that most pipes last longer than expected so that the backlog does not grow. If in the future the backlog does grow, action could be taken at that time. The risk in this approach is that some of the deferred projects continue to deteriorate to the point that they cost more to repair and are more disruptive by the time the City is able to fund the repair.
2. The City could issue revenue bonds that would be paid back over time using the stormwater utility fee. This would provide an infusion of revenue in the short term that would allow the expected pipe replacements to be completed more aggressively.
3. The City could consider tying the annual stormwater fee to a standard inflation index. As construction costs rise it will become more difficult to keep up with the cost of repairs without adjusting the fee for inflation.

Dunwoody Stormwater Infrastructure



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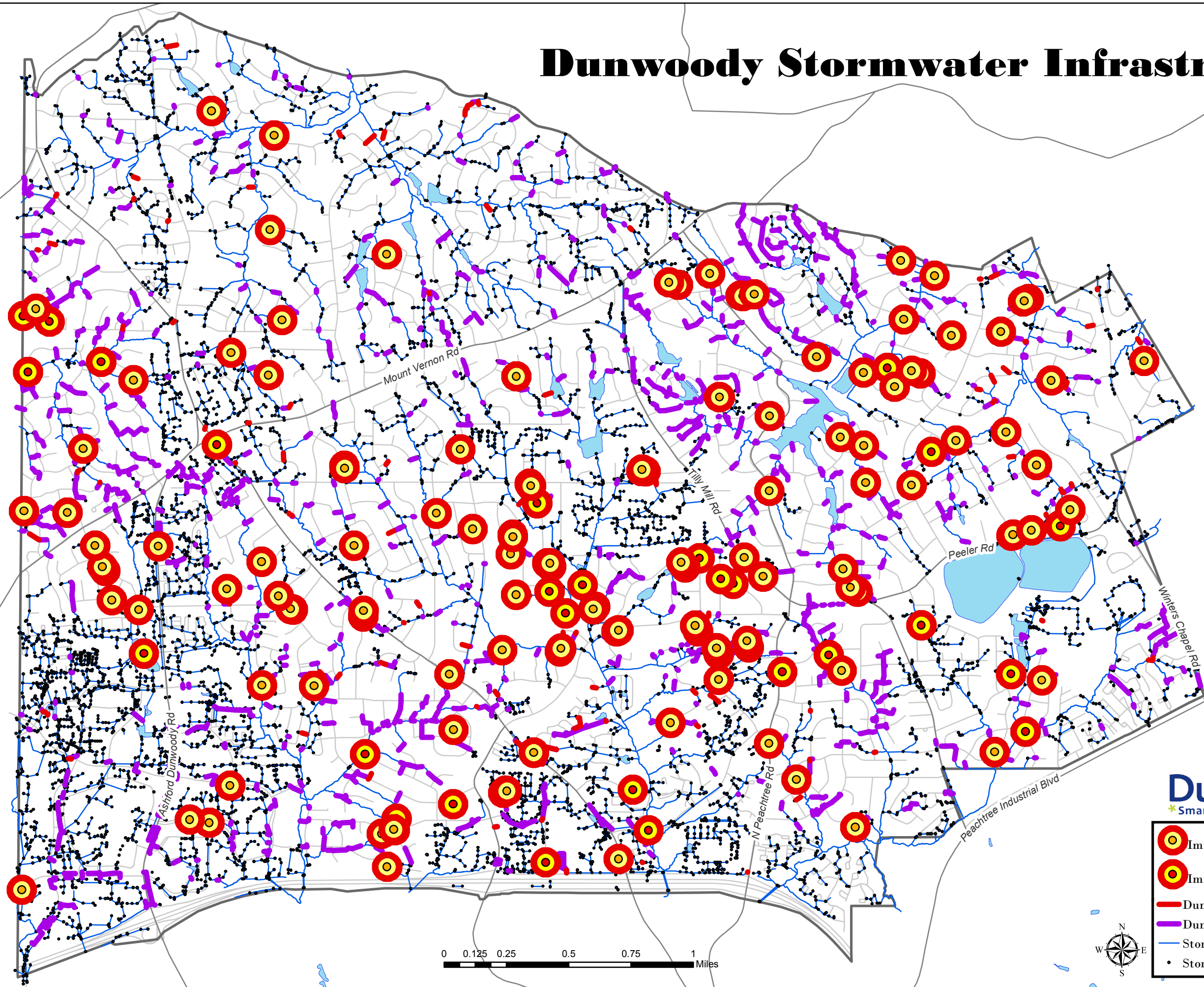
Dunwoody
Smart people - Smart city

- Stormwater Conveyances
- Stormwater Structures

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Dunwoody Stormwater Infrastructure

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Dunwoody
*Smart people - Smart city

- Immediate Repair Structures
- Immediate Repair Conveyances
- Dunwoody 'Poor' Conveyances
- Dunwoody 'Fair' Conveyances
- Stormwater Conveyances
- Stormwater Structures

0 0.125 0.25 0.5 0.75 1 Miles



2014-2016 Budgeted Stormwater Projects

Location	Type	Year	Tot. Costs Est.
Replacement Projects			and Final
5628 Bend Creek	Replace	2014	\$20,000.00
Manor Oaks Lot 10	Replace	2015	\$10,000.00
5007 Oak Trail Part B	Replacement	2015	\$20,000.00
4871 Coldstream Drive	Replace	2014	\$45,000.00
1611 Mt Vernon Forest Court	Replace	2014	\$45,000.00
4600 Dunover Circle	Replace	2014	\$17,000.00
			\$0.00
Replacement Totals			\$157,000.00
Location	Type	Year	Total Est. Cost
Lining Projects			
1862 Stapleton Court	Lining	2015	\$25,000.00
Lakesprings Court	Lining	2014	\$95,000.00
Vermack Road	Lining	2014	\$140,000.00
Perimeter Center East Extension	Lining	2015	\$125,000.00
5368 Redfield Cir to Redfield Drive	Lining	2015	\$55,000.00
5610 Trowbridge	Lining	2015	\$25,000.00
1764 Tamworth	Lining	2015	\$10,000.00
Rivergleen Circle	Lining	2015	\$60,000.00
4325 Huntington Circle	Lining	2014	\$60,000.00
115 Perimeter Center Place	Lining	2015	\$50,000.00
Perimeter Center West	Lining	2015	\$25,000.00
Redfield Drive	Lining	2015	\$70,000.00
1603 / 1595 North Springs Drive	Lining	2015	\$45,000.00
3046 Four Oaks	Lining	2015	\$40,000.00
3070 Four Oaks	Lining	2015	\$40,000.00
Dunwoody Park	Lining	2014	\$85,000.00
1587 North Springs Drive	Lining	2015	\$26,000.00
5495 Mill Trace Drive	Lining	2015	\$35,000.00
4600 Dunover Circle	Lining	2014	\$19,000.00
2487 Dunkerrin Lane	Lining	2014	\$20,000.00
4677 Sharon Valley Court	Lining	2014	\$20,000.00
2777 Fleur De Lis Way	Lining	2014	\$17,000.00
2501 Maclaren Circle	Lining	2016	\$45,663.70
			\$0.00
Lining Totals			\$1,132,663.70

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Location	Type	Year	Total Est. Cost
Detention Pond Cleaning/Repairs			
2704 Laurelwood RD	Det. Pd. Cl.	2014	\$20,000.00
Dunwoody Library Pond	Det. Pd. Cl.	2014	\$25,000.00
			\$0.00
2014 Detention ponds		2014	\$100,000.00
2015 Detention Ponds		2015	\$150,000.00
2016 Detention Ponds		2016	\$150,000.00
			\$0.00
Det. Pond Cleaning Totals			\$445,000.00

Location	Type	Year	Total Est. Cost
Jet/Cleaning/TV			
Peachford Road	Jet/ CI/ TV	2016	\$8,000.00
	Jet/ CI/ TV		\$0.00
Estimate for 2014	Jet/ CI/ TV	2014	\$100,000.00
Estimate for 2015	Jet/ CI/ TV	2015	\$100,000.00
Estimate for 2016	Jet/ CI/ TV	2016	\$100,000.00
	Jet/ CI/ TV		\$0.00
Jet/ Cleaning/TV Totals			\$308,000.00

Location	Type	Year	Total Est. Cost
Special Projects			
1368 Martina	Streambank R	2014	\$80,000.00
			\$0.00
Estimate for 2014		2014	\$100,000.00
Estimate for 2015		2015	\$100,000.00
Estimate for 2016		2016	\$100,000.00
Special Projects Totals			\$380,000.00

Capital Stormwater Projects	2012	2013	2014	2015	2016	5-Yr Total
Replacement Projects	\$373,576.03	\$633,915.52	\$377,000.00	\$30,000.00	\$0.00	\$1,414,491.55
Lining Projects	\$167,190.05	\$402,981.41	\$456,000.00	\$631,000.00	\$45,663.70	\$1,702,835.16
Detention Pond Cleaning/Repairs	\$145,508.91	\$121,890.25	\$85,000.00	\$150,000.00	\$150,000.00	\$652,399.16
Jet/Cleaning/TV	\$69,530.00	\$203,333.95	\$100,000.00	\$100,000.00	\$108,000.00	\$580,863.95
Special Projects	\$162,816.26	\$23,225.00	\$80,000.00	\$100,000.00	\$100,000.00	\$466,041.26
Total	\$918,621.25	\$1,385,346.13	\$1,098,000.00	\$1,011,000.00	\$403,663.70	\$4,816,631.08
Capital Stormwater Budget	\$1,018,500.00	\$1,330,000.00	\$1,100,000.00	\$1,100,000.00	\$1,100,000.00	\$5,648,500.00
Variance	\$99,878.75	(\$55,346.13)	\$2,000.00	\$89,000.00	\$696,336.30	\$831,868.92

Stormwater Unbudgeted Immediate Repairs Conveyances

AssetID	Conveyance Material	Conveyance Physical Location	Installation Date	Final Status	Estimate
SWC 4316-88-4878	CMP (GALVANIZED)	STREET (RESIDENTIAL)	08/16/1968	5) for Pipes. Road works sent to repair cracks	\$8,804.95
SWC 4327-39-0501	CMP (GALVANIZED)	EASEMENT (FRONT)	07/13/1978	Needs Assignment 2015	\$9,485.76
SWC 4371-48-6551	CMP (GALVANIZED)	EASEMENT (SIDE)	<Null>	Needs Assignment (Lining 2014)	\$21,606.70
SWC 4384-58-4979	CMP (GALVANIZED)	EASEMENT (SIDE)	09/18/1964	Needs Assignment 2014	\$24,634.83
SWC 5207-87-5237	CMP (GALVANIZED)	EASEMENT (SIDE)	<Null>	(Needs Assignment (Lining 2014)	\$17,567.20
SWC 5226-84-1945	CMP (GALVANIZED)	STREET (COLLECTOR)	<Null>	Needs Assignment (Lining 2016)	\$7,656.20
SWC 5247-91-9793	CMP (GALVANIZED)	STREET (COLLECTOR)	<Null>	Needs Assignment (Lining 2016)	\$8,368.52
SWC 5248-60-6269	CMP (GALVANIZED)	STREET (RESIDENTIAL)	<Null>	Needs Assignment 2015	\$22,694.70
SWC 5322-82-9392	CMP (GALVANIZED)	EASEMENT (SIDE)	09/15/1968	Needs Assignment 2014	\$37,952.32
SWC 5322-97-2687	CMP (GALVANIZED)	EASEMENT (REAR)	09/15/1968	Needs Assignment 2017	\$48,843.95
SWC 5323-14-1376	CMP (GALVANIZED)	EASEMENT (REAR)	09/15/1968	Needs Assignment 2015	\$50,381.95
SWC 5324-45-7230	CMP (GALVANIZED)	STREET (COLLECTOR)	01/28/1967	Needs Assignment 2016	\$22,733.20
SWC 5324-61-3083	CMP (GALVANIZED)	EASEMENT (SIDE)	10/14/1971	Needs Assignment 2015	\$37,000.45
SWC 5330-19-1673	CMP (GALVANIZED)	EASEMENT (SIDE)	03/20/1968	Needs assignment 2014	\$22,357.95
SWC 5331-27-3775	CMP (GALVANIZED)	EASEMENT (SIDE)	09/15/1968	Needs assignment 2015	\$33,329.57
SWC 5331-89-6121	CMP (GALVANIZED)	EASEMENT (SIDE)	05/25/1973	Needs assignment 2014	\$86,263.70
SWC 5332-53-9762	CMP (GALVANIZED)	EASEMENT (SIDE)	<Null>	Needs assignment 2015	\$24,043.95
SWC 5344-88-6191	CMP (GALVANIZED)	EASEMENT (REAR)	04/11/1979	lining project	\$10,421.20
SWC 5362-09-7337	CMP (GALVANIZED)	STREET (RESIDENTIAL)	11/21/1967	Needs Assignment (Lining 2016)	\$20,663.70
SWC 5362-55-3012	CMP (ALUMINIZED)	STREET (RESIDENTIAL)	07/20/1962	Needs Assignment 2016	\$8,450.36
SWC 5362-73-8978	RCP	STREET (RESIDENTIAL)	06/03/1964	Needs Assignment early 2014	\$11,959.68
SWC 5368-95-4034	CMP (GALVANIZED)	EASEMENT (SIDE)	<Null>	Needs Assignment in 2015 or 2016	\$22,168.45
SWC 5370-85-2289	CMP (GALVANIZED)	EASEMENT (SIDE)	05/10/1967	Needs Assignment 2018	\$28,842.45
SWC 6229-92-8643	CMP (GALVANIZED)	STREET (RESIDENTIAL)	05/30/1968	Needs Assignment (Lining 2015)	\$15,252.95
SWC 6305-91-9910	CMP (GALVANIZED)	EASEMENT (REAR)	08/24/1965	Needs Assignment (Lining 2015)	\$16,269.45
SWC 6306-09-5762	CMP (GALVANIZED)	EASEMENT (SIDE)	<Null>	Needs Assignment (Lining 2015)	\$19,546.70
SWC 6320-64-7846	CMP (GALVANIZED)	EASEMENT (SIDE)	12/04/1973	Needs Assignment (Lining 2017)	\$25,560.95
SWC 6323-74-2336	CMP (GALVANIZED)	STREET (RESIDENTIAL)	<Null>	Needs Assignment 2014	\$24,403.08

SWC 6333-76-2147	CMP (GALVANIZED)	STREET (RESIDENTIAL)	07/13/1981	Needs Assignment in 2014	\$29,897.70
SWC 6334-29-2139	CMP (GALVANIZED)	STREET (RESIDENTIAL)	<Null>	Needs Assignment (Lining 2015)	\$8,885.70
SWC 6338-04-5320	CMP (GALVANIZED)	EASEMENT (SIDE)	<Null>	Needs Assignment (Lining 2015)	\$33,984.37

Total

\$760,032.64

Stormwater Unbudgeted Immediate Repairs Structures

AssetID	Structure Type	Structure Material	Structure Physical Location	Structure Installation Date	Final Status	Estimate
SWS 4257-23-7966	HW (45° WINGS)	OTHER	STREET (COLLECTOR)	<Null>	Needs Assignment	\$17,899.87
SWS 4296-43-5976	HW (STRAIGHT)	PRECAST CONCRETE	EASEMENT (SIDE)	07/28/1961	Maintenance WO	
SWS 4297-30-4906	CB (UNCLASSIFIED)	OTHER	STREET (RESIDENTIAL)	05/10/1962	Maintenance WO	
SWS 4297-51-9952	HW (STRAIGHT)	OTHER	EASEMENT (SIDE)	07/28/1961	Maintenance WO	
SWS 4313-79-6317	CB (DOUBLE WING)	BRICK AND CONCRETE	STREET (RESIDENTIAL)	06/21/1966	Maintenance WO	
SWS 4323-69-8035	OCS	PRECAST CONCRETE	EASEMENT (REAR)	09/20/1977	Needs Assignment, detention pond, based on SEI estimate	\$22,785.18
SWS 4328-02-1247	HW (45° WINGS)	CMP (GALVANIZED)	EASEMENT (SIDE)	07/13/1978	Maintenance WO	
SWS 4332-46-8703	HW (45° WINGS)	CMP (GALVANIZED)	EASEMENT (REAR)	08/28/1978	Needs assignment in 2014 to prevent damage to property above	\$39,823.70
SWS 4332-47-2651	HW (45° WINGS)	NOT APPLICABLE	EASEMENT (REAR)	08/28/1978	Maintenance WO	
SWS 4332-60-2553	HW (UNCLASSIFIED)	OTHER	EASEMENT (REAR)	08/28/1978	Needs Assignment 2016	\$8,187.20
SWS 4333-22-7024	HW (45° WINGS)	CMP (GALVANIZED)	EASEMENT (REAR)	08/28/1978	Maintenance WO	
SWS 4335-02-1589	YI (GRATE)	BRICK AND CONCRETE	STREET (RESIDENTIAL)	09/30/1969	Maintenance WO	
SWS 4341-18-9445	HW (45° WINGS)	CMP (GALVANIZED)	EASEMENT (REAR)	11/17/1978		
SWS 4343-61-0995	CB (SINGLE WING-LH)	OTHER	STREET (FOUR LANE)	<Null>	Maintenance WO	
SWS 4346-07-8141	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (FRONT)	<Null>	Maintenance WO	
SWS 4360-82-0458	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	<Null>	Maintenance WO	
SWS 4362-02-6847	VIRTUAL STRUCTURE	NOT APPLICABLE	EASEMENT (SIDE)	01/09/1965	Maintenance WO	
SWS 4362-78-9682	PLAIN END PIPE	CMP (GALVANIZED)	UNKNOWN	03/22/1954	Needs Assignment	\$6,658.40
SWS 4366-98-4166					Maintenance WO	
SWS 4367-12-5900	HW (45° WINGS)	PRECAST CONCRETE		<Null>	Needs Assignment	\$7,583.61
SWS 4369-99-7052	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	09/30/1977		
SWS 4370-92-1301	YI (GRATE)	POURED CONCRETE	EASEMENT (SIDE)	01/05/1963	Maintenance WO	
SWS 4371-48-0684	HW (UNCLASSIFIED)	BRICK AND CONCRETE	EASEMENT (SIDE)	<Null>	Needs Assignment (Lining)	\$17,238.00
SWS 4372-11-5378	PLAIN END PIPE	RCP	STREET (RESIDENTIAL)	07/12/1954	Maintenance WO	
SWS 4377-29-2887	HW (UNCLASSIFIED)	PRECAST CONCRETE	EASEMENT (REAR)	<Null>	Maintenance WO	
SWS 4381-97-4097	HW (UNCLASSIFIED)	PRECAST CONCRETE	STREET (COLLECTOR)	<Null>	WO to further investigate	
SWS 4381-98-5246	PLAIN END PIPE	CMP (GALVANIZED)		<Null>		
SWS 4383-72-5053	HEADWALL (45° WINGS)	BRICK AND CONCRETE	STREAMWAY	10/26/1966		

SWS 4384-58-5464	PLAIN END PIPE	CMP (GALVANIZED)	EASEMENT (SIDE)	09/18/1964	Needs Assignment	\$16,577.87
SWS 4399-43-4768	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	05/24/1981	Maintenance WO	
SWS 4452-74-3250	PLAIN END PIPE	CMP (GALVANIZED)	EASEMENT (SIDE)	02/28/1966	Needs Assignment	\$22,666.38
SWS 4471-08-6959	YI (PEDESTAL)	PRECAST CONCRETE	EASEMENT (REAR)	04/22/1975		
SWS 5209-83-6053	HW (TAPERED)	BRICK AND CONCRETE	EASEMENT (REAR)	10/18/1965	Maintenance WO	
SWS 5218-90-9032	PLAIN END PIPE	CMP (GALVANIZED)	PRIVATE	<Null>	Needs Assignment 2015	\$41,693.95
SWS 5228-58-6231	CATCH BASIN (UNCLASSIF	BRICK AND CONCRETE	STREET (FOUR LANE)	<Null>	WO to Road Works	
SWS 5228-58-6231					Maintenance WO	
SWS 5246-35-6605	TRENCH DRAIN INLET	POURED CONCRETE	RIGHT-OF-WAY	<Null>	Maintenance WO	
SWS 5259-44-6541	CATCH BASIN (UNCLASSIF	BRICK AND CONCRETE	PUBLIC PARK	<Null>	Maintenance WO	
SWS 5279-50-4185	CB (UNCLASSIFIED)	OTHER	STREET (RESIDENTIAL)	<Null>	Maintenance WO	
					(Needs Assignment - lining	
SWS 5288-12-2497	PLAIN END PIPE	CMP (GALVANIZED)	EASEMENT (SIDE)	11/18/1963	2016)	\$28,242.16
SWS 5297-32-7388	HW (UNCLASSIFIED)	OTHER	EASEMENT (SIDE)	05/15/1963	Maintenance WO	
SWS 5300-74-7756	CB (UNCLASSIFIED)	BRICK AND CONCRETE	STREET (COLLECTOR)	<Null>		
SWS 5303-58-0942	HEADWALL (UNCLASSIFIEI	OTHER	RIGHT-OF-WAY	02/24/1965	Needs Assingment (Lining)	\$64,984.69
SWS 5310-89-9993	HEADWALL (45° WINGS)	PRECAST CONCRETE	EASEMENT (REAR)	02/15/1974	Maintenance WO	
SWS 5313-25-6661	HEADWALL (UNCLASSIFIEI	BRICK AND CONCRETE	EASEMENT (SIDE)	06/07/1967		
					In Planning Phases, Included	
SWS 5315-02-1413	YARD INLET (GRATE)	PRECAST CONCRETE	EASEMENT (FRONT)	12/10/1972	on Master Spreasheet	
SWS 5323-13-2962	HEADWALL (UNCLASSIFIEI	OTHER	EASEMENT (SIDE)	09/15/1968	Maintenance WO	
SWS 5324-54-0705	HEADWALL (45° WINGS)	PRECAST CONCRETE	PRIVATE	01/28/1967	Needs Assingment (Lining)	\$15,258.00
SWS 5326-17-9945	HEADWALL (UNCLASSIFIEI	NOT APPLICABLE	EASEMENT (FRONT)	05/15/1970		
SWS 5331-10-4225	HEADWALL (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	03/20/1968	Needs Assignment (2014)	\$15,857.02
					(Needs Assignment - lining	
SWS 5331-88-2662	HEADWALL (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	05/25/1973	2016)	\$44,599.20
SWS 5341-33-1962	PLAIN END PIPE	CMP (GALVANIZED)	STREET (COLLECTOR)	<Null>	Needs Assingment 2015	\$14,481.34
					Included in estiamte SWS 5341-	
SWS 5341-34-6101	PLAIN END PIPE	CMP (GALVANIZED)	STREET (COLLECTOR)	<Null>	33-1962 (above)	
					Added to GIS as OCS and	
SWS 5344-88-5241	HEADWALL (45° WINGS)	CMP (GALVANIZED)	EASEMENT (REAR)	04/11/1979	detention pond list.	\$30,000.00
SWS 5344-88-8050	HEADWALL (45° WINGS)	CMP (GALVANIZED)	EASEMENT (REAR)	04/11/1979	Needs Assignment (Lining)	\$15,466.87
SWS 5344-97-3758	HEADWALL (45° WINGS)	PRECAST CONCRETE	EASEMENT (REAR)	04/11/1979		
SWS 5351-95-8100	CATCH BASIN (UNCLASSIF	BRICK AND CONCRETE	PUBLIC PARK	<Null>	Maintenance WO	

SWS 5352-68-9525	HEADWALL (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	11/11/1967	(Needs Assignment - lining 2015)	\$19,243.95
SWS 5352-77-7437	HEADWALL (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	11/11/1967	(Needs Assignment - lining 2015)	\$20,372.70
SWS 5354-15-5251	CATCH BASIN (SINGLE WING)	BRICK AND CONCRETE	RIGHT-OF-WAY	<Null>	Maintenance WO	
SWS 5358-47-2877	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	09/23/1975		
SWS 5358-67-2362	HW (STRAIGHT)	PRECAST CONCRETE	EASEMENT (SIDE)	08/12/1969	Maintenance WO	
SWS 5360-43-8633	PLAIN END PIPE	CMP (GALVANIZED)	STREAMWAY	<Null>	Maintenance WO	
SWS 5360-49-8017	FLUME	UNKNOWN	PUBLIC PARK	<Null>		
SWS 5361-03-4961	UNKNOWN	UNKNOWN	PUBLIC PARK	<Null>	Maintenance WO	
SWS 5361-40-3350	CATCH BASIN (UNCLASSIFIED)	BRICK AND CONCRETE	PUBLIC PARK	<Null>	Maintenance WO	
SWS 5366-43-8581	CB (SINGLE WING-LH)	PRECAST CONCRETE	STREET (RESIDENTIAL)	01/24/1968	Maintenance WO	
SWS 5366-53-0565	HW (45° WINGS)	PRECAST CONCRETE	STREET (RESIDENTIAL)	01/24/1968	Maintenance WO	
SWS 5368-29-9732	HW (UNCLASSIFIED)	OTHER	EASEMENT (SIDE)	12/20/1965	Needs Assignment (Lining)	\$13,475.83
SWS 5368-94-9951	HW (45° WINGS)	OTHER	EASEMENT (SIDE)	12/20/1965	Needs Assignment (Lining)	\$13,233.95
SWS 5371-01-8822	CATCH BASIN (UNCLASSIFIED)	BRICK AND CONCRETE	PUBLIC PARK	<Null>		
SWS 5371-10-1574	CATCH BASIN (UNCLASSIFIED)	BRICK AND CONCRETE	PUBLIC PARK	<Null>		
SWS 5372-09-2534	PLAIN END PIPE	RCP	STREET (RESIDENTIAL)	<Null>	Maintenance WO	
SWS 5372-45-2512	CB (SINGLE WING-RH)	POURED CONCRETE	STREET (COLLECTOR)	<Null>	Maintenance WO	
SWS 5374-53-5647	HW (45° WINGS)	PRECAST CONCRETE	STREAMWAY	09/12/2007	Maintenance WO	
SWS 5375-59-6511	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	01/24/1968	Maintenance WO	
SWS 5378-25-3370	HW (UNCLASSIFIED)	POURED CONCRETE	EASEMENT (SIDE)	12/20/1965	Maintenance WO	
SWS 5387-52-5075	HW (UNCLASSIFIED)	OTHER	UNKNOWN	03/18/1968	Maintenance WO	
SWS 5390-05-9620	CB (UNCLASSIFIED)	PRECAST CONCRETE	STREET (RESIDENTIAL)	05/10/1967	Maintenance WO	
SWS 5392-17-1165	YI (PEDESTAL)	BRICK AND CONCRETE	EASEMENT (SIDE)	04/01/1974	Maintenance WO	
SWS 5392-23-7179	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	04/01/1974	Needs Assignment (Lining 2015)	\$19,549.20
SWS 5392-42-2313	HW (UNCLASSIFIED)	BRICK AND CONCRETE	EASEMENT (SIDE)	09/30/1965	Needs Assignment 2017	\$22,366.95
SWS 5394-55-9358	HW (STRAIGHT)	OTHER	UNKNOWN	08/12/1968	Needs Assignment	\$13,583.00
SWS 5395-05-6013	CB (DOUBLE WING)	PRECAST CONCRETE	STREET (RESIDENTIAL)	01/21/1969	Needs Assignment 2015 (pipe under road leading to structure is rusted out)	\$7,808.32
SWS 5395-53-5254	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	09/28/1971	Maintenance WO	
SWS 5396-58-5703	HW (STRAIGHT)	BRICK AND CONCRETE	EASEMENT (SIDE)	05/13/1966	Maintenance WO	
SWS 6228-38-3301	HW (UNCLASSIFIED)	OTHER	EASEMENT (REAR)	07/30/1965	Needs Assignment (Lining 2016)	

SWS 6304-54-7825	HW (STRAIGHT)	PRECAST CONCRETE	STREET (RESIDENTIAL)	<Null>	Needs Assignment	\$3,896.76
SWS 6306-25-0689	HW (STRAIGHT)	BRICK AND CONCRETE	EASEMENT (SIDE)	05/13/1966	Maintenance WO	
SWS 6306-78-4640	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (REAR)	03/29/1989	Maintenance WO	
SWS 6306-78-5580	PLAIN END PIPE	PRECAST CONCRETE	EASEMENT (REAR)	03/29/1989	Maintenance WO	
SWS 6307-49-0969	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	02/23/1973	Needs Assignment (Lining)	\$18,368.87
SWS 6309-32-4463	HW (STRAIGHT)	PRECAST CONCRETE	EASEMENT (SIDE)	03/10/1972		
SWS 6315-54-1311	HW (STRAIGHT)	PRECAST CONCRETE	EASEMENT (SIDE)	08/24/1965	Needs Assignment	\$11,772.32
SWS 6317-46-1568	CB (SINGLE WING-RH)	PRECAST CONCRETE	STREET (RESIDENTIAL)	<Null>	Maintenance WO	
SWS 6318-09-5292	YI (PEDESTAL)	PRECAST CONCRETE	EASEMENT (REAR)	05/16/1988	Maintenance WO	
SWS 6323-64-8139	CB (DOUBLE WING)	PRECAST CONCRETE	STREET (RESIDENTIAL)	<Null>	Included in estiamte for SWC 6323-74-2336	
SWS 6323-74-1357	CB (DOUBLE WING)	PRECAST CONCRETE	STREET (RESIDENTIAL)	<Null>	Included in estiamte for SWC 6323-74-2336	
SWS 6323-74-3315	HW (UNCLASSIFIED)	PRECAST CONCRETE	STREET (RESIDENTIAL)	<Null>	Included in estiamte for SWC 6323-74-2336	
SWS 6325-56-7104	HW (45° WINGS)	OTHER	EASEMENT (SIDE)	<Null>	Needs Assignment	\$4,323.00
SWS 6327-47-6369	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	<Null>	Needs to be Assigned (lining)	\$20,289.00
SV 1 328-93-3719	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	<Null>	Needs Assignment	\$18,841.91
SV 3 328-93-5965	PLAIN END PIPE	CMP (GALVANIZED)	EASEMENT (REAR)	<Null>	Needs Assignment	\$22,037.08
SWS 6330-33-3524	HW (UNCLASSIFIED)	OTHER	EASEMENT (SIDE)	05/30/1968		
SWS 6333-15-1314	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (REAR)	07/13/1981	Maintenance WO	
SWS 6333-99-2694	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (REAR)	07/13/1981	Needs Assingment 2016	\$29,390.95
SWS 6334-29-1195	HW (45° WINGS)	PRECAST CONCRETE	STREET (RESIDENTIAL)	<Null>	Maintenance WO	
SWS 6336-57-3005	PLAIN END PIPE	CMP (GALVANIZED)	UNKNOWN	02/12/1969	Maintenance WO	
SWS 6357-41-9177	HW (45° WINGS)	PRECAST CONCRETE	EASEMENT (SIDE)	<Null>	Maintenance WO	
Total						\$688,557.23

Estimated Age of Metal Pipe in Fair Condition

