

CITY OF NEWTON
IN BOARD OF ALDERMEN
PUBLIC FACILITIES COMMITTEE AGENDA

WEDNESDAY, FEBRUARY 5, 2014

**The Meeting will begin following the Committee of the Whole meeting that is scheduled for 7 PM
Room 209**

Chairman's Note: Please bring the 01/31/14 memo from Chief Operating Officer Bob Rooney related to the water/sewer/stormwater discussion that took place on December 4, 2013 that was included in the 01/31/14 Friday packet.

ITEMS SCHEDULED FOR DISCUSSION:

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#38-14 HIS HONOR THE MAYOR requesting authorization to transfer the sum of two hundred seventy-five thousand dollars (\$275,000) from Budget Reserve for Snow and Ice Removal to the Public Works Department. [01/27/14 @ 12:53 PM]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#39-14 HIS HONOR THE MAYOR requesting authorization to appropriate the sum of one hundred thousand dollars (\$100,000) from the Stormwater Surplus Fund to conduct an assessment of the City's stormwater system and to develop a stormwater Infrastructure Improvement Plan. [01/27/14 @ 12:53 PM]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#40-14 HIS HONOR THE MAYOR requesting authorization to transfer the sum of one million three hundred eight thousand four hundred ninety-three dollars from the Operating Sewer Reserve Fund to the following projects:

Project Area 2 Design for the Auburndale, Lower Falls, and \$181,500
West Newton areas, and

Project Areas 3 & 4 inspection and assessment for the Lower \$1,126,993
Falls, Newton Centre, Newtonville, and Chestnut Hill areas.

[01/27/14 @ 12:53 PM]

#153-13 PUBLIC FACILITIES COMMITTEE requesting periodic updates on the progress of the citywide storm water system assessment needed to define the scope of repairs to the system, as well as methods of financing the assessment and an accounting of the storm water enterprise fund. [04/02/13 @ 11:02 AM]

The location of this meeting is handicap accessible and reasonable accommodations will be provided to persons requiring assistance. If you need a special accommodation, please contact the Newton ADA Coordinator, Joel Reider, at least two days in advance of the meeting: jreider@newtonma.gov . or 617-796-1145. For Telecommunications Relay Service dial 711.

- #131-13 ALD. CROSSLEY, FULLER, SALVUCCI, JOHNSON, CICCONE requesting periodic updates and discussion, at the discretion of the members of the Public Facilities Committee or the Commissioner of Public Works, on the condition functioning, operations and management of all elements of the City sewer water and storm water systems including the following:
- Water meters
 - Implementation of the ten project area strategic plan to remove infiltration in the City sewer system
 - Implementation of the long range strategic plan to repair and replace City water mains, especially to correct for fire flow
 - Status of the City's Private Inflow Removal Program to resolve and disconnect illegal storm water connections to the City sewer system
 - Current billing practices
 - Rates analyses needed to facilitate an informed comparison of billing options to include the following options either alone or in combination: seasonal rates, second meters, tiered rates, frequency of billing, low income credits. [03/23/13 @ 11:13 AM]

REFERRED TO PROG. & SERV AND PUBLIC FACILITIES COMMITTEES

- #36-12 ALD. CROSSLEY & FULLER requesting Home Rule legislation or an ordinance to require inspections of private sewer lines and storm water drainage connections prior to settling a change in property ownership, to assure that private sewer lines are functioning properly and that there are no illegal storm water connections to the city sewer mains.
- A) Sewer lines found to be compromised or of inferior construction would have to be repaired or replaced as a condition of sale;
- B) Illegal connections would have to be removed, corrected, and re-inspected in accordance with current city ordinances and codes, as a condition of sale.
[01/24/12 @ 8:07 AM]

ITEMS NOT SCHEDULED FOR DISCUSSION:

Public hearing to be assigned for February 19, 2014:

- #31-14 NSTAR ELECTRIC petitioning for a grant of location to install and maintain 587' ± of conduit in VARICK HILL ROAD from Manhole #20340 at the intersection of Varick Road and Varick Hill Road in a southwesterly direction to new Manhole # 29800 continuing to new Manhole # 29801 at 44 Varick Hill Road. (Ward 5) [12/26/13 @ 10:35 AM]
- #14-14 ALD. ALBRIGHT, JOHNSON & NORTON requesting a discussion of the snow removal operations during the last storm including information on the use of brine and how it worked, the effectiveness of the new snow melter, snow dumping, and what can be done to make city sidewalks safe in the event of an ice storm.
12/20/13 @ 4:21 PM]

#417-13 PUBLIC FACILITIES COMMITTEE requesting that the Administration provide updates on the progress of the Angier Elementary School project. [11/21/13 @ 9:16 AM]

REFERRED TO FINANCE AND APPROPRIATE COMMITTEES

#403-13 HIS HONOR THE MAYOR submitting the FY15-FY19 Capital Improvement Plan and Long Range Projection pursuant to section 5-3 of the Newton City Charter. [10/21/13 @ 9:59 AM]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#288-13 PUBLIC FACILITIES & FINANCE COMMITTEES requesting that the Administration update the Board of Aldermen when a funding source is determined for the Zervas Elementary School Feasibility Study. [07-11-13 @ 10:10 AM]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#41-13 ALD. CROSSLEY, FULLER AND SALVUCCI requesting a discussion with the administration to review how the city inventories, plans for, budgets and accounts for needed smaller capital expenditures (currently set at under \$75,000), which are excluded from the Capital Improvement Plan (CIP); how to make these non-CIP capital maintenance items visible, and how to integrate them with the overall planning, CIP, and budgeting processes. [01/14/13 @ 5:02 PM]

#301-12(2) PUBLIC FACILITIES COMMITTEE requesting updates on the progress of the Carr School Renovation Project.

REFERRED TO PROG & SERV, PUB. FAC., ZAP, AND FINANCE COMMITTEES

#256-12 ALD. HESS-MAHAN, SANGIOLO & SWISTON proposing and ordinance promoting economic development and the mobile food truck industry in the City of Newton. [08/06/12 @4:46 PM]

#246-12 RECODIFICATION COMMITTEE recommending Sec. 25-1, which requires a permit to create a trench, be reviewed to determine if a new section relative to excavation should be established to regulate unsafe excavation beyond the regulation of trenches, as the City Engineer has advised that all trenches are excavations, but not all excavations are trenches, which amendment would replace **Sec. 20-53. Excavations; protection; erection of barriers.**, which was deleted as part of recodification because it conflicted with Sec. 25-1.

#245-12 RECODIFICATION COMMITTEE recommending that Chapter 11, RECYCLING AND TRASH as most recently amended by Ordinance Z-68 and Z-87, dated 6/21/10 and 5/16/11, respectively, be reviewed and be amended as necessary.

REFERRED TO PS&T AND PUBLIC FACILITIES COMMITTEES

#413-11 ALD. CICCONE, SALVUCCI, GENTILE & LENNON updating the Public Facilities and Public Safety & Transportation Committees on the progress of renovations to the city's fire stations. [11-17-11 @11:07 AM]

#367-09 PUBLIC FACILITIES COMMITTEE requesting discussion with the Law Department on how to resolve the dispute with NStar regarding whose responsibility it is to repair the streetlight connection between the manhole and the base of the streetlight. [10/21/09 @ 9:00 PM]

#253-07 ALD. LINSKY ALBRIGHT, JOHNSON, HARNEY, SANGIOLO, SALVUCCI, MANSFIELD, BURG, SCHNIPPER requesting (1) a review as to how provisions of applicable ordinances, specifically 5-58, were implemented during the course of the Newton North project, and (2) consider proposed revisions of 5-58 including, but not limited to:

- (a) timely provision of documentation by the public building department to the Board of Aldermen and Design Review Committee;
- (b) establishment of liaison committees to facilitate communications and input from neighborhoods affected by projects subject to this ordinance;
- (c) approval of final design plans by the Board of Aldermen of projects subject to this ordinance;
- (d) oversight during the construction phase of projects subject to this ordinance by appropriate Board committee(s) both in respect to approval of change orders as well as design changes; and
- (e) generation of a required record detailing the entire construction process by the public building department to guide present and future oversight of projects subject to this ordinance. [08/07/07 @ 3:12 PM]
- (f) establishment of a committee to provide oversight for public building construction and renovation during all phases of planning, design and construction.

Respectfully submitted,

Deborah Crossley, Chairman



SETTI D. WARREN
MAYOR

City of Newton, Massachusetts
Office of the Mayor

#38-14

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January 27, 2014

Honorable Board of Aldermen
Newton City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459

RECEIVED
Newton City Clerk
2014 JAN 27 PM 12:53
David A. Oison, CMC
Newton, MA 02459

Ladies and Gentlemen:

I write to request that your Honorable Board docket for consideration a request to transfer the sum of \$275,000 from the Acct # 0110400- Reserve for Snow and Ice Removal. As of today's date the City has spent approximately \$2,500,000.

Following this action of the Board, the City will still have \$2,000,000 which has been reserved in Free Cash, as well as more than \$500,000 in the City's Inclement Weather Reserve should additional funds be necessary for snow removal.

Thank you for your consideration of this matter.

Sincerely,

Setti D. Warren
Mayor



DPW SNOW & ICE

ACCT	DESCRIPTION	BUDGET	TFERS IN	NET BUDGET	PREP/WATCH STANDBY	NON-PLOW STORMS	12/14 - 12/15 STORM	12/17 - 12/18 STORM	01/02 - 01/03 STORM	01/21 - 01/22 STORM	YTD EST COSTS	AVAIL BALANCE
	Inches per storm...						8.00	6.40	7.50	4.00	28.30	
0140110 511101	PART TIME & 20 HRS/MK	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0140110 513001	REGULAR OVERTIME	\$ 200,000	-	\$ 200,000	\$ 20,739	\$ -	\$ 133,020	\$ 54,092	\$ 149,776	\$ 79,093	\$ 436,720	\$ (236,720)
0140110 513001A	REG OVERTIME-BLDG/SCHLS	\$ 33,300	-	\$ 33,300	\$ -	\$ -	\$ 14,677	\$ 26,804	\$ 13,688	\$ 10,000	\$ 65,169	\$ (31,869)
0140110 513004	WORK BY OTHER DEPTS.	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ 1,354	\$ 3,088	\$ 1,500	\$ 5,942	\$ (5,942)
0140110 514311	SNOW STAND-BY PAY	\$ 30,000	-	\$ 30,000	\$ 4,929	\$ -	\$ 16,677	\$ 7,965	\$ 26,266	\$ 9,347	\$ 65,184	\$ (35,184)
0140110 514318	SNOW WATCH PAY	\$ 20,000	-	\$ 20,000	\$ 8,940	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,940	\$ -
0140110 514321	PROMPTNESS PAY STIPEND	\$ -	-	\$ -	\$ 307	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 307	\$ (307)
	TOTAL PERSONNEL	\$ 283,300	\$ -	\$ 283,300	\$ 34,915	\$ -	\$ 164,374	\$ 90,215	\$ 192,818	\$ 99,940	\$ 582,262	\$ (298,962)
0140110 5273	RENTAL - VEHICLES (inch)	\$ 98,375	-	\$ 98,375	\$ -	\$ -	\$ 273,325	\$ 179,905	\$ 273,325	\$ 136,225	\$ 862,780	\$ (764,405)
0140110 5273	RENTAL - VEHICLES (Hourly)	\$ -	-	\$ -	\$ 24,000	\$ -	\$ 20,130	\$ 12,500	\$ 22,500	\$ 12,500	\$ 91,630	\$ (91,630)
0140110 5273A	RENTAL-VEH BLDG/SCHLS	\$ 100,000	-	\$ 100,000	\$ -	\$ 53,700	\$ 64,800	\$ 64,800	\$ 64,800	\$ 45,000	\$ 281,925	\$ (181,925)
	TOTAL CONTRACTORS	\$ 198,375	\$ -	\$ 198,375	\$ 24,000	\$ 53,700	\$ 358,255	\$ 246,030	\$ 360,625	\$ 193,725	\$ 1,236,335	\$ (1,037,960)
0140110 52403	MOTOR VEHICLE R-M	\$ 10,212	-	\$ 10,212	\$ 3,081	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,081	\$ 7,131
0140110 52409	PUBLIC PROPERTY R-M	\$ 2,992	-	\$ 2,992	\$ 2,875	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,875	\$ 117
0140110 52410	SOFTWARE MAINTENANCE	\$ 98,750	-	\$ 98,750	\$ 161,133	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 161,133	\$ (62,383)
0140110 5386	WEATHER FORECAST SVS	\$ 1,700	-	\$ 1,700	\$ 1,690	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,690	\$ 10
0140110 5460	GROUND MAINT SUPPLIES	\$ -	-	\$ -	\$ 1,084	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,084	\$ (1,084)
0140110 5480	GASOLINE	\$ -	-	\$ -	\$ -	\$ -	\$ 2,513	\$ 2,480	\$ 4,225	\$ 3,117	\$ 12,336	\$ (12,336)
0140110 5481	DIESEL FUEL	\$ -	-	\$ -	\$ 667	\$ -	\$ 8,053	\$ 4,701	\$ 11,413	\$ 6,176	\$ 31,010	\$ (31,010)
0140110 5484	VEHICLE REPAIR PARTS	\$ 64,788	-	\$ 64,788	\$ 87,480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 87,480	\$ (22,692)
0140110 5532	SAND & SALT	\$ 335,000	-	\$ 335,000	\$ -	\$ 112,584	\$ 112,584	\$ 56,292	\$ 112,584	\$ 56,292	\$ 450,336	\$ (115,336)
0140110 5712	REFRESHMENTS/MEALS	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,490	\$ (1,490)
0140110 5783	PRIVATE PROPERTY DAMAGE	\$ 5,000	-	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000
	TOTAL NONPERSONNEL	\$ 518,442	\$ -	\$ 518,442	\$ 258,010	\$ 112,584	\$ 124,641	\$ 63,474	\$ 128,222	\$ 65,585	\$ 752,515	\$ (234,073)
	GRAND TOTAL	\$ 1,000,117	\$ -	\$ 1,000,117	\$ 316,925	\$ 166,284	\$ 647,270	\$ 399,719	\$ 681,665	\$ 359,250	\$ 2,571,112	\$ (1,570,995)

* Personnel Costs for 1/21 - 1/22 storm are est.
 ** All Salt Costs est.



SETTI D. WARREN
MAYOR

City of Newton, Massachusetts
Office of the Mayor

#39-14

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David A. Olson, CMC
Newton, MA 02459

2014 JAN 27 PM 12:53

RECEIVED
NEWTON CITY CLERK

January 27, 2014

Honorable Board of Aldermen
Newton City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459

Ladies and Gentlemen:

I write to request that your Honorable Board docket for consideration a request to appropriate the sum of \$100,000 from the Stormwater Surplus Fund to conduct an Assessment of the City's Stormwater System and to develop a Stormwater Infrastructure Improvement Plan (SIIP). A copy of the Scope of Services is attached.

Thank you for your consideration of this matter.

Sincerely,

Setti D. Warren
Mayor

1000 Commonwealth Avenue Newton, Massachusetts 02459

www.newtonma.gov



DEDICATED TO COMMUNITY EXCELLENCE

City of Newton



DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER
1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Setti D. Warren
Mayor

January 9, 2014

To: Mayor Setti D. Warren

From: David F. Turocy, Commissioner

Via: Robert R. Rooney, Chief Operating Officer
Maureen Lemieux, Chief Financial Officer

Re: Docket Item Request
Stormwater Infrastructure Improvement Plan

Public Works requests an appropriation of \$100,000 from stormwater surplus funds to conduct an Assessment of the City's Stormwater System and to develop a Stormwater Infrastructure Improvement Plan (SIIP).

Weston & Sampson Engineers, Inc. (W&S) was selected to perform this work. Their Scope of Services is attached. The initial assessment will consist of both data/records review as well as physical inspection of stormwater infrastructure. The information gleaned from this assessment will be used to develop a multi-year improvement plan, including a project list with priorities and cost estimates, as well as financial analysis and support for the development of a funding plan.

Please forward this request to the Board of Aldermen for their consideration.

Thank you.

A handwritten signature in black ink, appearing to read "DTurocy".

David F. Turocy
Commissioner Public Works

cc: Lou Taverna, City Engineer
Ted Jerdee, Acting Utilities Director
Ron Mendes, DPW Business Manager

Stormwater Assessment and Stormwater Infrastructure Improvement Plan (SIIP)

Scope of Services

Compile and Review Available Data:

W&S will compile and review information related to the city's stormwater system.

Perform Stream Maintenance Assessment:

W&S will perform a walking stream survey of up to seven (7) miles of stream prioritized by the city for stream maintenance assessment. Photos will be taken to document the condition of the stream at the time of inspection. Each site visit shall include assessment of the following:

- The extent of cleaning and maintenance required, including estimated linear footage as well as a visual estimate of stream sediment to be removed. Types of debris will be noted along with trees and bushes that should be cut back or removed.
- Potential access points for stream maintenance. Preference will be given to access routes that utilize existing roadways and public lands.
- Seasonal conditions best suited for maintenance and cleaning.
- The condition of culverts within inspected stream segments.

Evaluate Flooding Areas:

W&S will meet with the city to develop a list of specific flooding areas. They will evaluate as many as twenty (20) separate locations. Record drawings for these areas will be reviewed and planning level costs will be developed for each location.

Develop Project Maps:

W&S will review and compile information collected and display the results on a series of GIS Maps. A visual representation of this wide ranging data will be used to create a list of potential projects; develop rating criteria to prioritize the projects; identify gaps in the available data; and ultimately, to present the SIIP. The maps will also help members of the stormwater committee and the public understand the nature and scope of the city's stormwater issues.

Develop Project List:

W&S will develop a list of potential projects to be included in the SIIP. General projects types will likely include:

- Compliance with the six minimum control measures of the NPDES Phase II Permit
- Compliance with Charles River Total Maximum Daily Loads (TMDLS) for phosphorous and pathogens
- Inspection and rehabilitation of stormwater infrastructure (culverts, pipes, stream channels)
- Design improvements to eliminate local flooding issues

Develop Project Pricing and Data Gap Analysis:

W&S will develop planning level cost estimates for each proposed project, including all components of the NPDES Phase II Permit. Where insufficient data is available to develop a reasonable cost estimate, W&S will identify the tasks, and the associated cost, required to obtain an estimate. This data gap analysis will identify projects that may not be ready to proceed during the early stages of the Program. It will also identify data gathering tasks that could be added to early phases of the Program to facilitate future projects.

Develop Project Rating Criteria:

W&S will develop rating criteria and consider project grouping alternatives for the data collected. This process will include detailed discussions with committee members and appropriate staff regarding the city's relative priorities. Using the rating system, W&S will prioritize projects within the Program.

Develop Multi-Year Program

W&S will create a preliminary multi-year SIIP using the project list and pricing from the above. Several factors may be evaluated to determine the appropriate number of years for the program, for example: a fixed annual expenditure; a fixed program length; or limitations on the amount of work that can reasonably be completed per year. The program will be displayed on a series of GIS Maps. The preliminary SIIP will be reviewed by the city. W&S will incorporate any comments and create a Final SIIP for presentation to the city's Public Facilities Committee and the Board of Alderman.

Financial Analysis and Cash Flow

W&S will support the city's Chief Financial Officer and Department of Public Works Staff to analyze the financial impacts of the proposed SIIP, create a cash flow diagram, and assess the program's compatibility with the city's Stormwater Fee. W&S will also evaluate potential sources of grant funding for the SIIP.

Meetings and Presentations

W&S will attend as many as 15 meetings with the city throughout the duration of the project.

#40-14



SETTI D. WARREN
MAYOR

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Office of the Mayor

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swarren@newtonma.gov

January 27, 2014

Honorable Board of Aldermen
Newton City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459

Ladies and Gentlemen:

I write to request that your Honorable Board docket for consideration a request to transfer the sum of \$1,308,493 from the City's Operating Sewer Reserve Fund to the following projects:

- \$181,500 - Project Area 2 Design for the Auburndale, Lower Falls, and West Newton areas, and
- \$1,126,993 – Project Areas 3 & 4 Inspection and Assessment for the Lower Falls, Newton Centre, Newtonville, and Chestnut Hill areas.

Both projects are intended to reduce sewer infiltration and inflow sources and provide improvements to the City's sewer infrastructure. The current balance in the operating reserve is \$2,952,519.

Thank you for your consideration of this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Setti D. Warren".

Setti D. Warren
Mayor

RECEIVED
Newton City Clerk
2014 JAN 27 PM 12:53
David A. Olson, CMC
Newton, MA 02459



City of Newton



DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER

1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Setti D. Warren
Mayor

January 9, 2014

To: Mayor Setti D. Warren

From: David F. Turocy, Commissioner

Via: Robert R. Rooney, Chief Operating Officer
Maureen Lemieux, Chief Financial Officer

Re: Docket Item Request
Sewer CIP Project Area 2 Design, Auburndale, Lower Falls, and West Newton

Public Works requests an appropriation of \$181,500 from sewer reserve funds to complete the Sewer CIP Project Area 2 Design, for the Auburndale, Lower Falls and West Newton areas. We currently have \$938,048 in the capital reserve and \$2,952,519 in the operating reserve.

Weston & Sampson Engineers, Inc. (W&S) was selected to perform this work. This project consists of construction design work intended to ultimately reduce sewer infiltration and inflow sources and provide improvements to sewer structures in the Project 2 area. The Weston & Sampson scope of services is as follows:

- Design of under-drain access point repairs
- Design of sewer manhole and pipeline rehabilitations
- Utility location investigations
- Development of construction documents (contract plans and specifications)
- Development of construction cost estimates
- Provide bid evaluations and recommendation for bid award

Please forward this request to the Board of Aldermen for their consideration.

Thank you.

David F. Turocy
Commissioner Public Works

cc: Lou Taverna, City Engineer
Ted Jerdee, Acting Utilities Director
Ron Mendes, DPW Business Manager

City of Newton



DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER

1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Setti D. Warren
Mayor

January 9, 2014

To: Mayor Setti D. Warren

From: David F. Turocy, Commissioner

Via: Robert R. Rooney, Chief Operating Officer
Maureen Lemieux, Chief Financial Officer

Re: Docket Item Request
Sewer CIP Project 3 & 4 Inspection and Assessment,
Lower Falls, Newton Centre, Newtonville and Chestnut Hill Area

Public Works requests an appropriation of \$1,126,993 from sewer reserve funds to complete the Sewer CIP Project Areas 3 & 4 Inspection and Assessment, for the Lower Falls, Newton Centre, Newtonville, and Chestnut Hill areas. We currently have \$938,048 in the capital reserve and \$2,952,519 in the operating reserve.

Weston & Sampson Engineers, Inc. (W&S) was selected to perform this work. This project consists of inspection and assessment work intended to ultimately reduce sewer infiltration and inflow sources and provide improvements to sewer structures in the Project 3 & 4 areas. The Weston & Sampson scope of services is as follows:

- Inventory of existing sewer conditions and data collection
- Sewer location map development
- Physical survey of sewer manholes for detection of infiltration and inflow
- Sewer flow isolation
- Sewer television inspection, including light and heavy cleaning of sewer pipes
- Preparation of access database
- Preparation of cost effectiveness analysis and transportation and treatment cost
- Preparation of draft and final reports

Please forward this request to the Board of Aldermen for their consideration.

Thank you.

David F. Turocy
Commissioner Public Works

cc: Lou Taverna, City Engineer
Ted Jerdee, Acting Utilities Director
Ron Mendes, DPW Business Manager

Telephone: 617-796-1011 • Fax: 617-796-1050 • dturocy@newtonma.gov

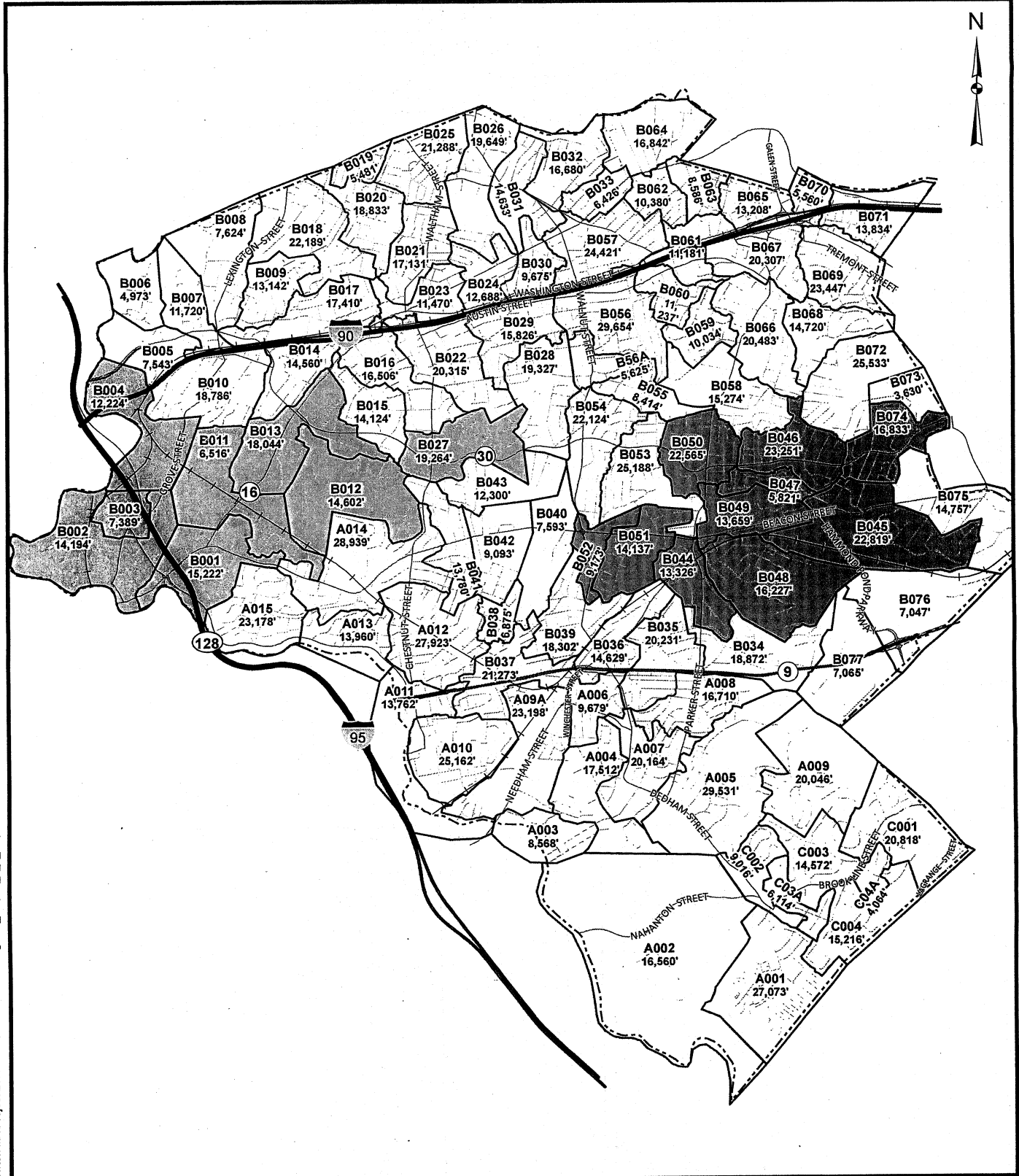
Water & Sewer Strategic Plan for Infrastructure Improvements

The Project 2 Design includes the following work:

- Design of cost effective rehabilitations identified in West Newton/Auburndale areas (subareas B005, B006, B008, B009, B018, B019, B020, B025, B026, and B031 on attached Locus Map)
- The defects were identified during the recently completed CIP Project 2 Investigation and Evaluation Project
- Rehabilitation will include both trenchless and excavate/replace repairs to fix damaged sewer infrastructure and reduce infiltration and inflow to the sewer system
- The Project will produce plans and specifications suitable for public bid
- Design will begin immediately following execution of the Agreement
- Construction is anticipated to begin in July 2014 following completion of CIP Project 1 Rehabilitations



The Project 3 & 4 Investigation and Evaluation includes the following work:

- Investigation of sewer infrastructure in Auburndale/Newton Lower Falls area and Newton Centre area (subareas B001, B002, B003, B004, B011, B012, B013, B027, B044, B045, B046, B047, B048, B049, B050, B051, B052, and B074 on attached Locus Map)
- GIS Map Development
- 1,641 manhole inspections
- 259,869' of flow isolation
- 259,869' of light cleaning and television inspection
- 120 hours of heavy cleaning and television inspection
- 3,728 hours of police details
- Database development
- Hansen data processing
- Transportation and treatment cost development
- Cost-effectiveness analysis
- Data evaluation and analysis
- Draft and Final Reports

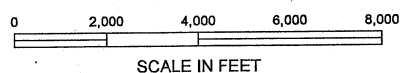


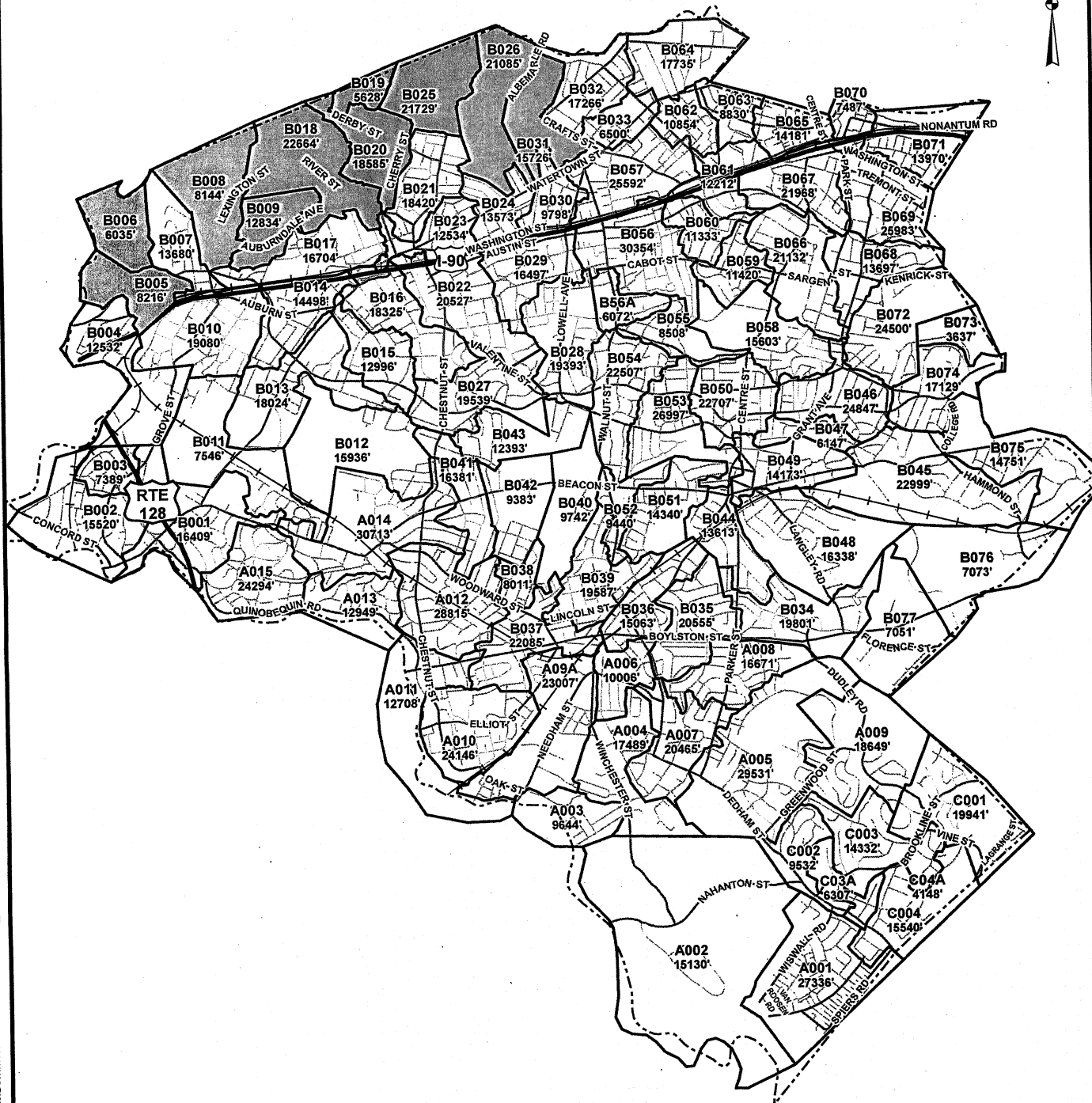
Path: \gisdatsrv\gis\workspace\client\Newton MA\Project2130365 CIP 2 Smoke Testing\CIP_Project_3_4_Inspection and Assessment_85x11.mxd User: carj Saved: 11/6/2013

Legend

-  Project 3
-  Project 4

NEWTON, MA
SANITARY SEWER SYSTEM
CIP - PROJECTS 3 & 4
INSPECTION & ASSESSMENT





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NEWTON, MA
SANITARY SEWER SYSTEM

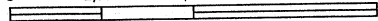
CIP - PROJECT 2
INSPECTION AND ASSESSMENT

Legend



Project 2 Areas

0 2,000 4,000 6,000 8,000



SCALE IN FEET

Weston & Sampson.

#153-13

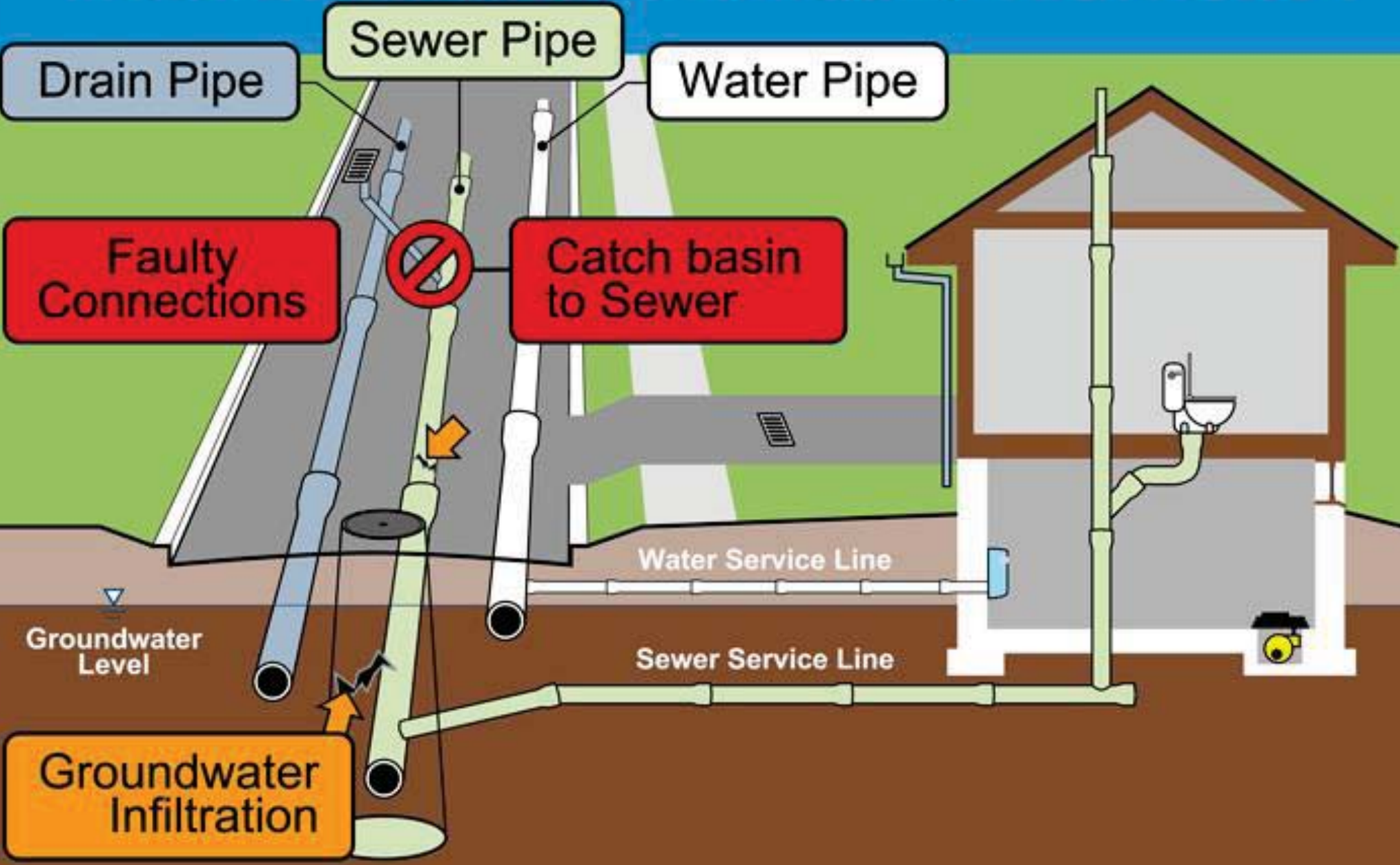
#131-13

Water, Sewer and Stormwater Infrastructure

Overview

December 4, 2013

Public Infiltration/Inflow Sources



#153-13

#131-13

66



Goals of Sewer Work

- **Remove superfluous water sources: which increase costs by MWRA**
- **Improve Sewer System Performance**
- **Update Aging Infrastructure: reduce costly emergency repairs**
- **Reduce Energy Consumption**

#153-13

#131-13



Joint Infiltration

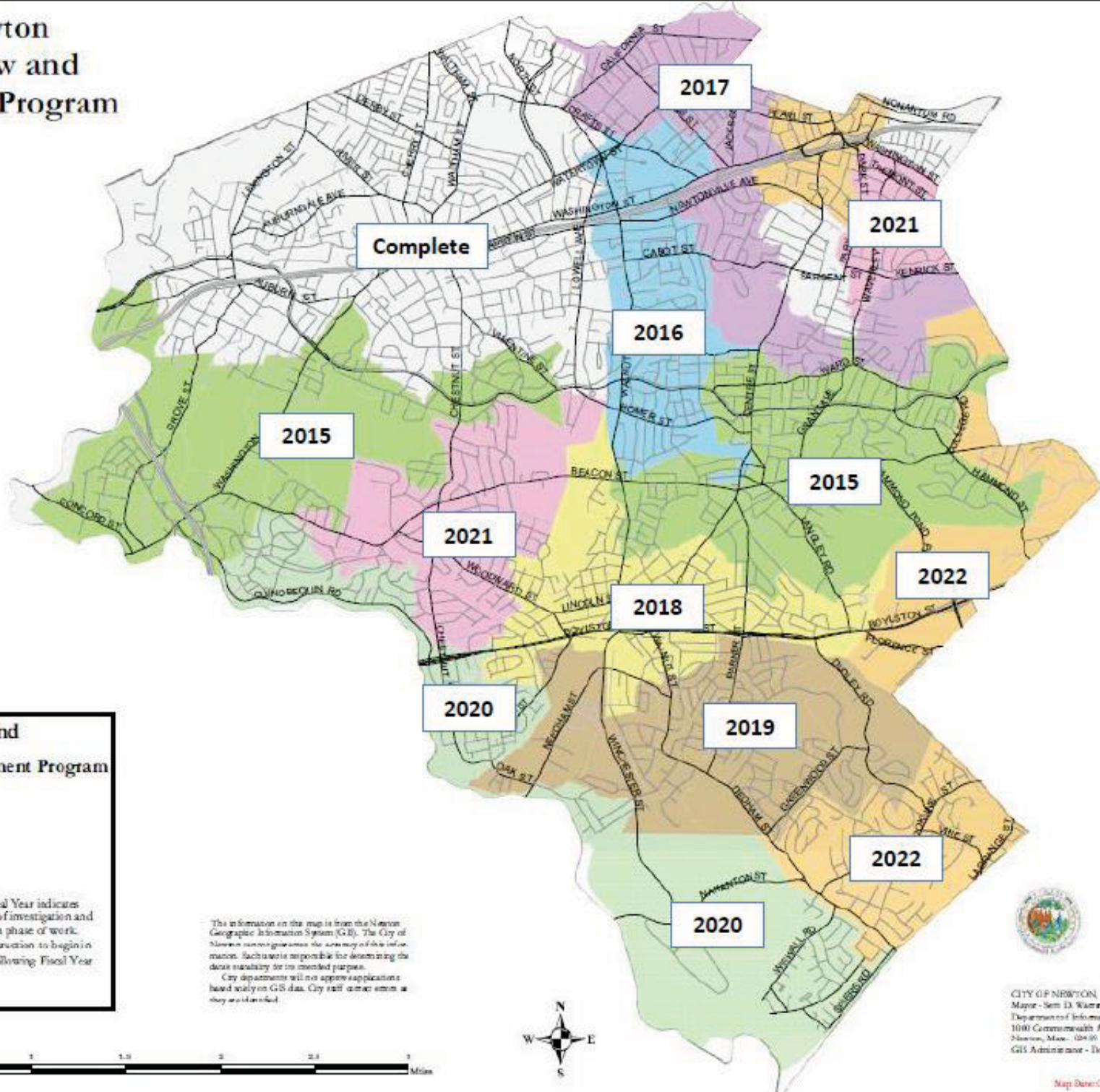
BEFORE MAINTENANCE

#153-13
#131-13

AFTER MAINTENANCE

City of Newton Sewer Inflow and Infiltration Program 2015-2022

#153-13
#131-13



Legend

Capital Improvement Program

Fiscal Year*

- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022

* Fiscal Year indicates start of investigation and design phase of work. Construction to begin in the following Fiscal Year.

This information on the map is from the Newton Geographic Information System (GIS). The City of Newton cannot guarantee the accuracy of this information. Each user is responsible for determining the data suitability for its intended purpose. City departments will not approve applications based solely on GIS data. City staff cannot enter a story on this website.



CITY OF NEWTON, MASSACHUSETTS
Mayor - Sam D. Warner
Department of Information Technology
100 Commonwealth Avenue
Newton, Mass. 02459
GIS Administrator - Douglas Greenfield

Map Date: October 16, 2015

Goals of Water Work

- **Fire Flow: affects public safety and insurance rates**
- **Lining of unlined cast iron pipe to improve water quality**
- **Water storage tank analysis**
- **Coordination with roadwork**

Water Quality degradation



Fire Flow Restriction

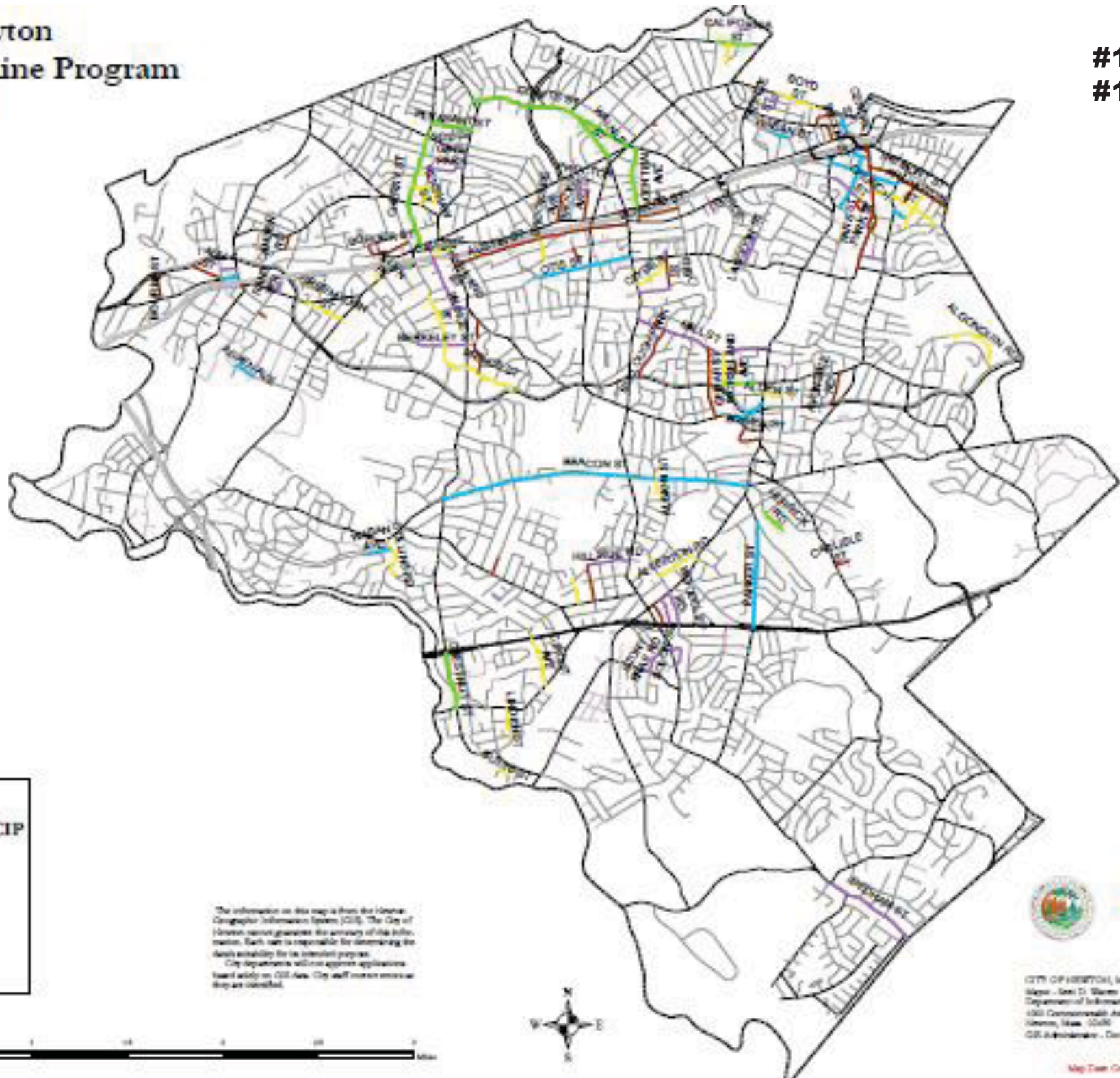
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City of Newton
Water Pipeline Program
2015 - 2019

#153-13
#131-13



Legend

Water Pipelines CIP

Fiscal Year

- 2015
- 2016
- 2017
- 2018
- 2019

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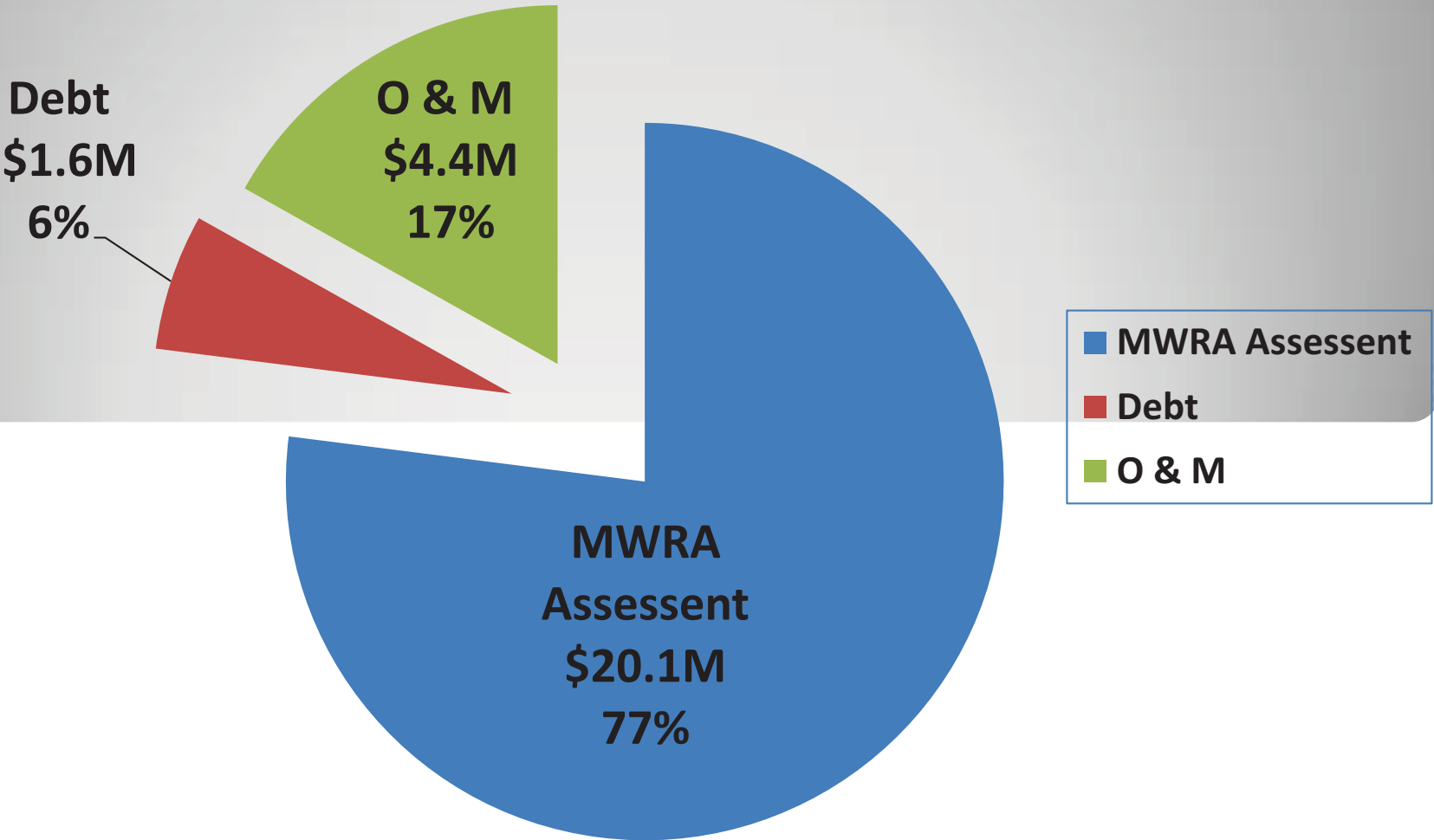
CITY OF NEWTON, MASSACHUSETTS
 Mayor - Scott D. Warren
 Department of Information Technology
 100 Commonwealth Avenue
 Newton, Mass. 02459
 GIS Administrator - Douglas Greenfield

Map Date: October 14, 2014

Goals of Stormwater Work

- **Conduct an assessment to develop a Capital Program to maintain drain system**
- **Development of Stormwater Pollution Prevention Plan**
- **Update Stormwater Management Plan**
- **Reevaluate Stormwater Fee**

Sewer Enterprise Budget





Utilities – Water/Sewer/Stormwater

FY 15 Rate Structure

Proposed Revisions

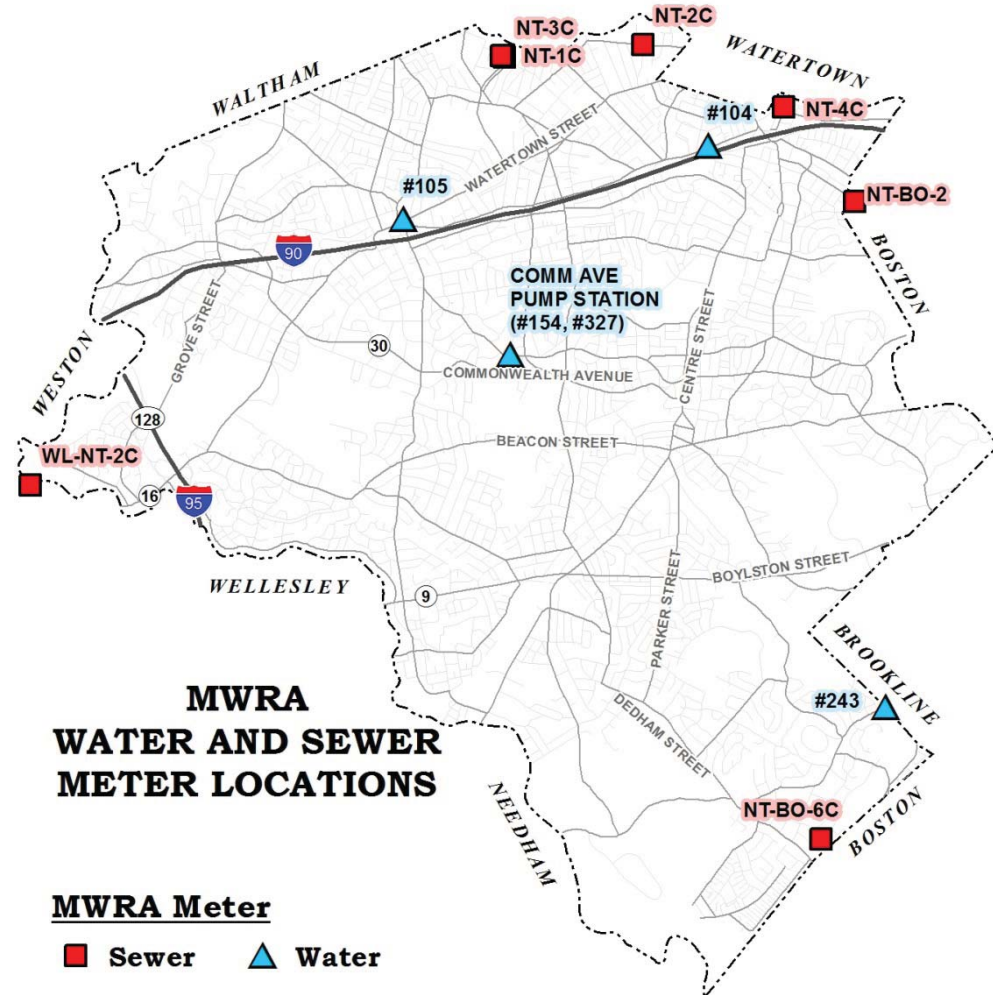
Revised Water/Sewer Rates



- Administration committed to reviewing Water/Sewer billing practices to develop **accurate**, **fair** and **equitable** system
- Subject to completion of water meter replacement program
 - Water meter change-out completed
 - Water meter transmission completed
- Water/Sewer Infrastructure Team
 - Executive Office, DPW, BOA representatives, Outside Consultant
 - Reviewed program over past year

Water/Sewer Measurement

- **MWRA – Meters Water at 5 locations entering the City**
- **MWRA – Meters Sewer at 7 locations leaving the City**
- **City – Meters Water only at residence/business**



Current Rate System



- 3 Tier Rate Blocks
 - 0-20 hcf's
 - 21-70 hcf's
 - >70 hcf's
- 20% Difference between Tiers
- Sewer Rate 1.48 x Water Rate
- Affordability programs for at-risk population

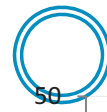
Primary “Fairness” Issue



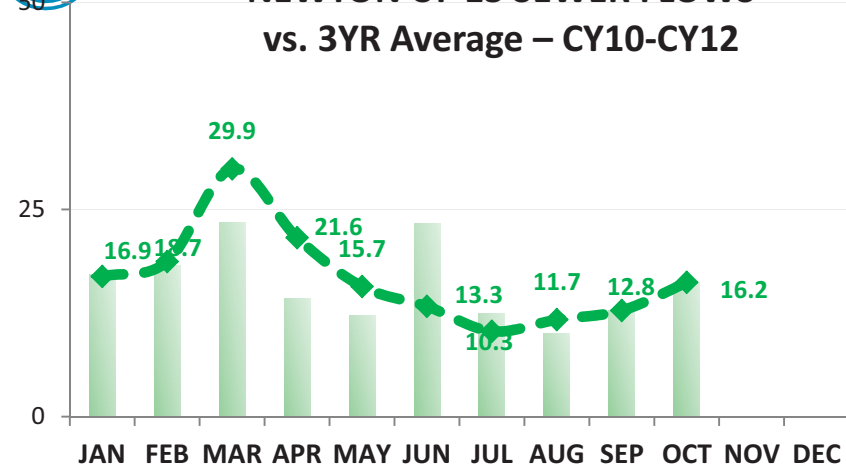
- Sewer charges are applied based on water usage, not sewerage volumes.
- All water usage is applied to sewer charges, including irrigation usage.
- Second (irrigation) meters are not allowed (unless grandfathered in, and even then charged sewer).
- Irrigation rates are typically at higher tiers, for both water and sewer.

Primary “Fairness” Issue

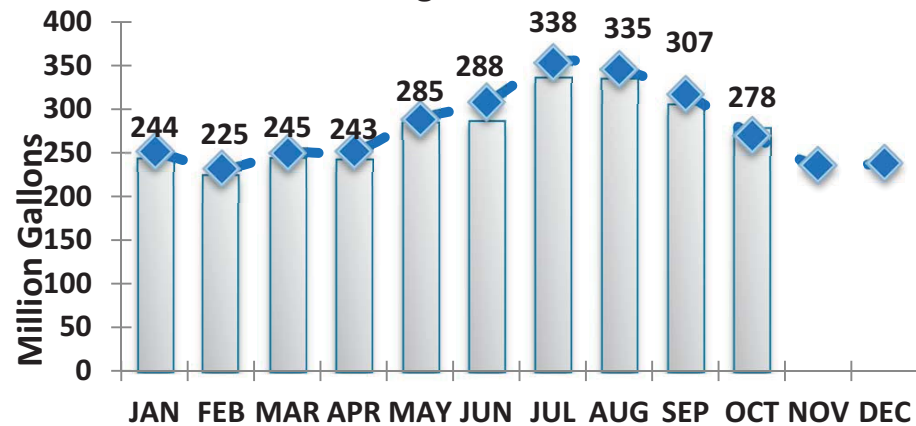
- Sewer Flow peaks in Spring and Fall
- Water Flow (and Sewer Billing) peaks in Summer



NEWTON CY-13 SEWER FLOWS
vs. 3YR Average – CY10-CY12



NEWTON CY-13 Water Demand
vs. 10Yr Average -- CY02-CY12





Options explored by Infrastructure Team

Fixed Charges



- **Service/Billing Charge**
 - Account for “fixed costs” for meter reading, billing, collection, metering, line repairs
- **Fire Service Charge**
 - Account for constant, on-demand water supply for fire suppression systems

Metered Rate Charges



- **Seasonal Rates**
 - Higher rates during higher usage seasons
 - Similar to “demand” charge on other utilities

- **Meter Size Rates**
 - Apply higher rates to larger meters

- **Alternative Rate Blocks**
 - Add/Reduce # of Tiers (3)
 - Change differential between Tiers (20%)

Sewer Only Rate Structure



- **Second (Irrigation) Meters**
 - Minimize fairness issue on water/sewer billing
 - Incur additional costs for supply, installation, maintenance and billing

- **Winter Usage Billing Rate Structure**
 - Use winter usage pattern as format for annual billing of sewer usage

Affordability Programs



- **Elderly Discount**
 - Age (65)
 - Ownership
 - Income Requirements

- **Condo Discount**
 - Multi-Family, Condominiums, Apartments

- **Low Income Discount**

Billing Frequency



- Current – Quarterly Billing
- More Frequent - Monthly Billing
- Less Frequent - Annual, Semi-Annual Billing

Recommendation



- Winter Usage Sewer Billing Structure

- Add fourth & fifth tiers

- Keep other Existing Processes
 - Affordability
 - Elderly, Condo Discounts
 - Quarterly Billing Frequency

Winter Usage Sewer Rate



- New Water Meter AMR system allows us to take daily snapshot of all accounts, versus “rolling” billing cycle information
- Use months of November-February to determine monthly sewer usage baseline
- Apply monthly sewer usage to develop a **fixed annual** sewer charge at time of annual Water Sewer rate approvals

Winter Usage Sewer Rate



- Eliminate sewer charge to “irrigation” water
 - Resolves “fairness” issue for applying sewer charges to water that does not go into sewer

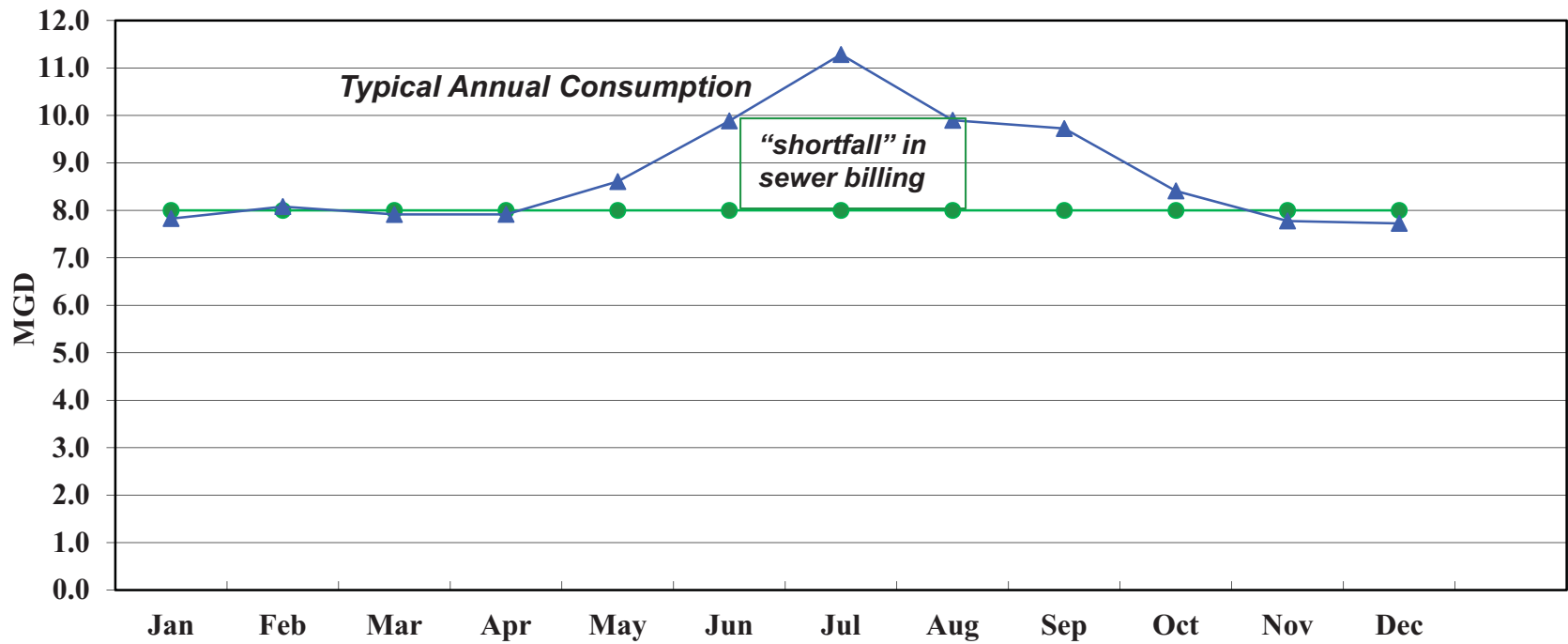
- Eliminate need for second meters
 - Maintains current inventory of meters in system
 - Reduces need for additional billing
 - Eliminates homeowners cost to install
 - Implemented immediately across the board

- Challenge is to minimize impacts of revised rates to at-risk population

Winter Usage Sewer Rate



Newton Water Consumption



Stormwater Fee



- City established a Stormwater Fee in 2006

- Fixed Fee
 - \$25/Year – residential
 - \$150/Year – commercial
 - Annual Income - \$750,000

- Program Support
 - 6-person crew
 - Stormwater operations
 - \$150,000 Capital Funds

Stormwater Fee



- Program Support
 - 6-person crew – Routinely augmented by Sewer Division personnel
 - Stormwater Operations –
 - ✦ Costs have increased to extent of using all capital funds
 - ✦ New EPA Permit will increase Operational costs
 - Capital Funds - \$150,000 Originally - \$0 Available Now
 - ✦ Stormwater Assessment underway
 - ✦ Capital Equipment needs

Stormwater Revised Fee



- Based on Impervious Surface
 - Residential (single family)
 - ✦ ERU – Equivalent Residential Unit
 - Commercial, multi-family
 - ✦ Ratio to ERU's



Questions?



#153-13

#131-13

ENTERPRISE FUNDS FINANCIAL OVERVIEW

City of Newton, Massachusetts

Setti D. Warren, Mayor

December 4, 2013

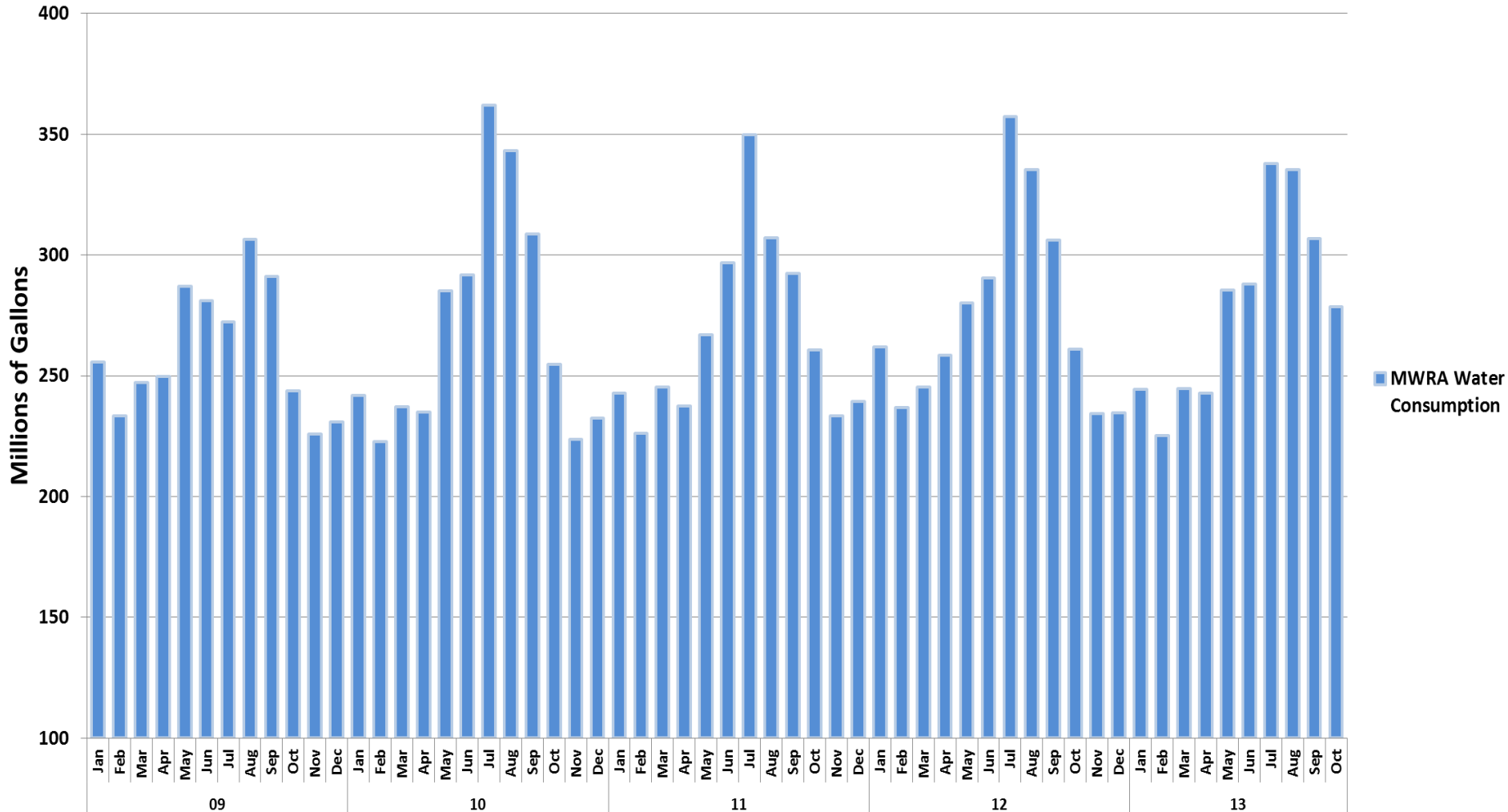


WATER AND SEWER FUNDS

NEWTON, MA - 5 YEAR WATER HISTORICAL CONSUMPTION

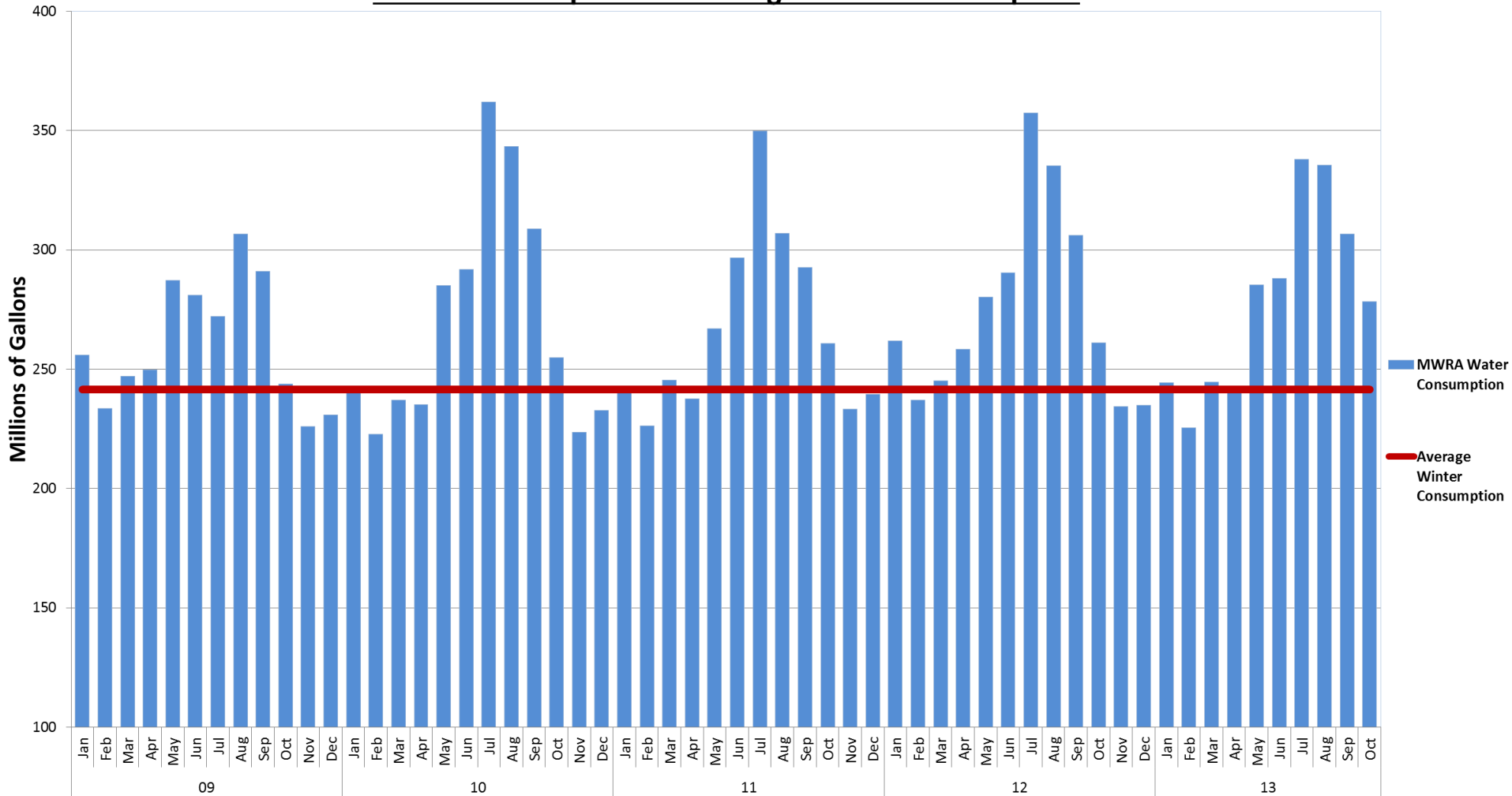
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MWRA Water Consumption



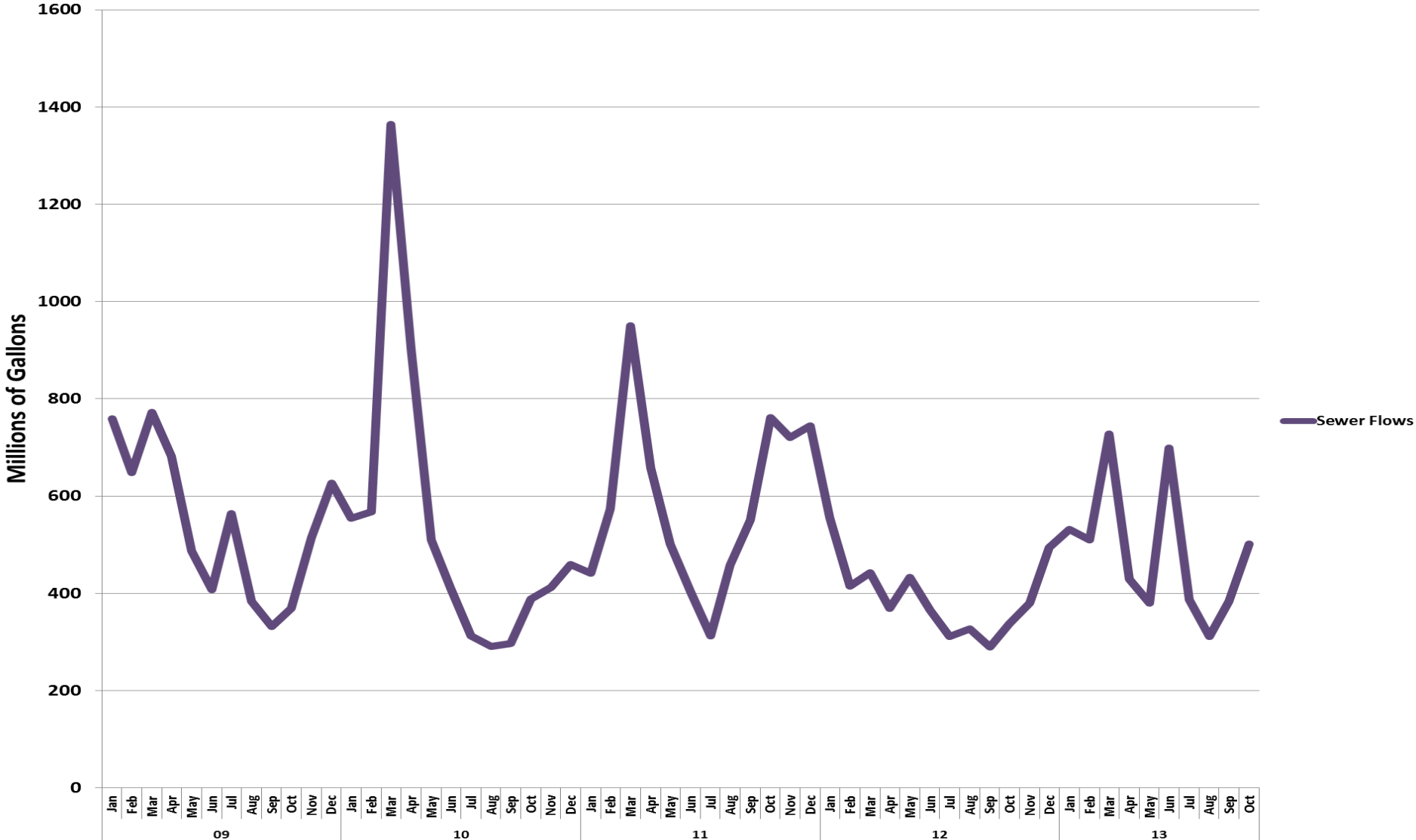
WINTER USAGE

Water Consumption vs. Average Winter Consumption



SEWER FLOW- 5 YEAR TREND

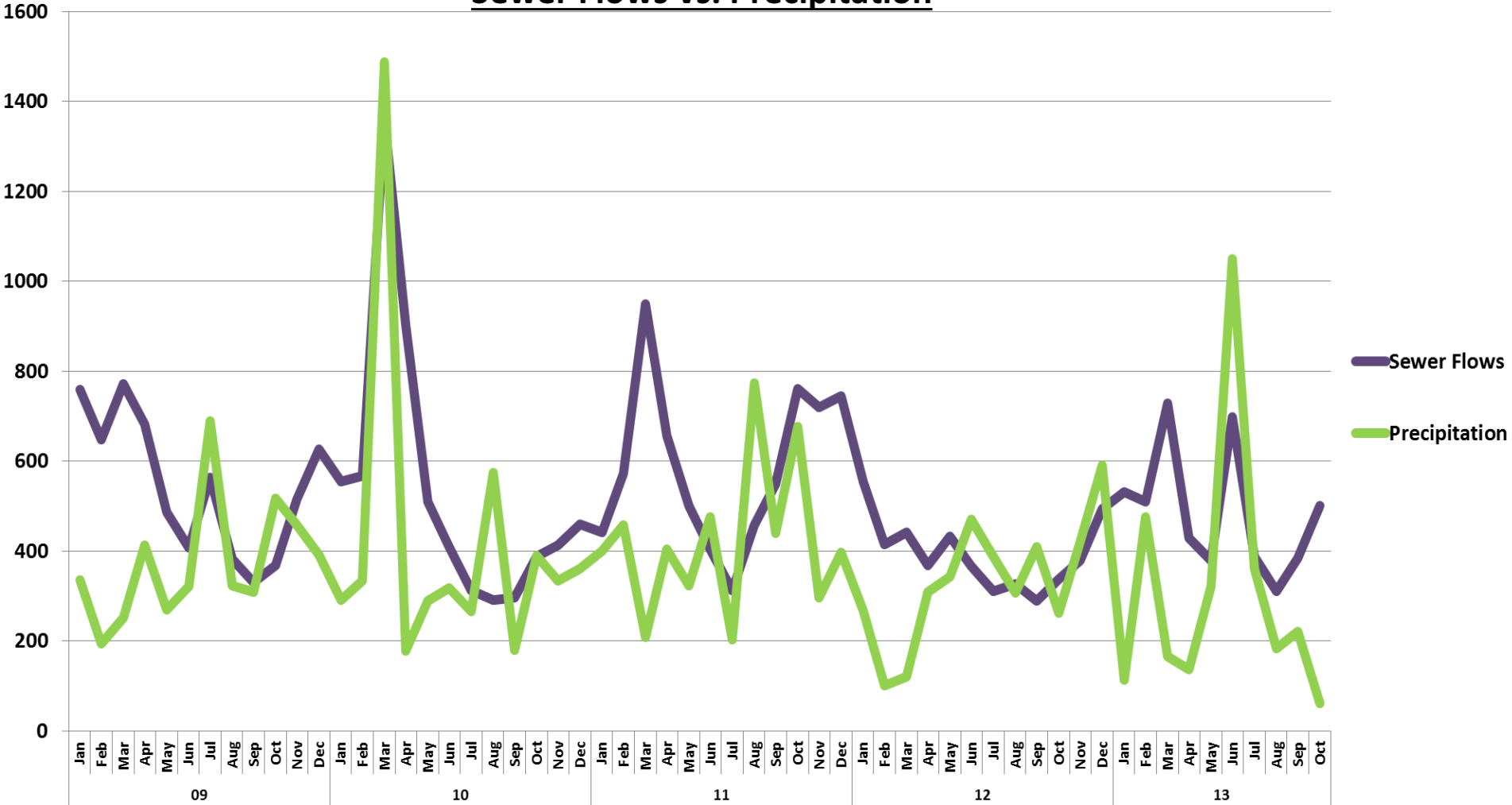
5 Year Sewer Flow Trend



SEWER FLOWS ACTUALS VS. PRECIPITATION TREND

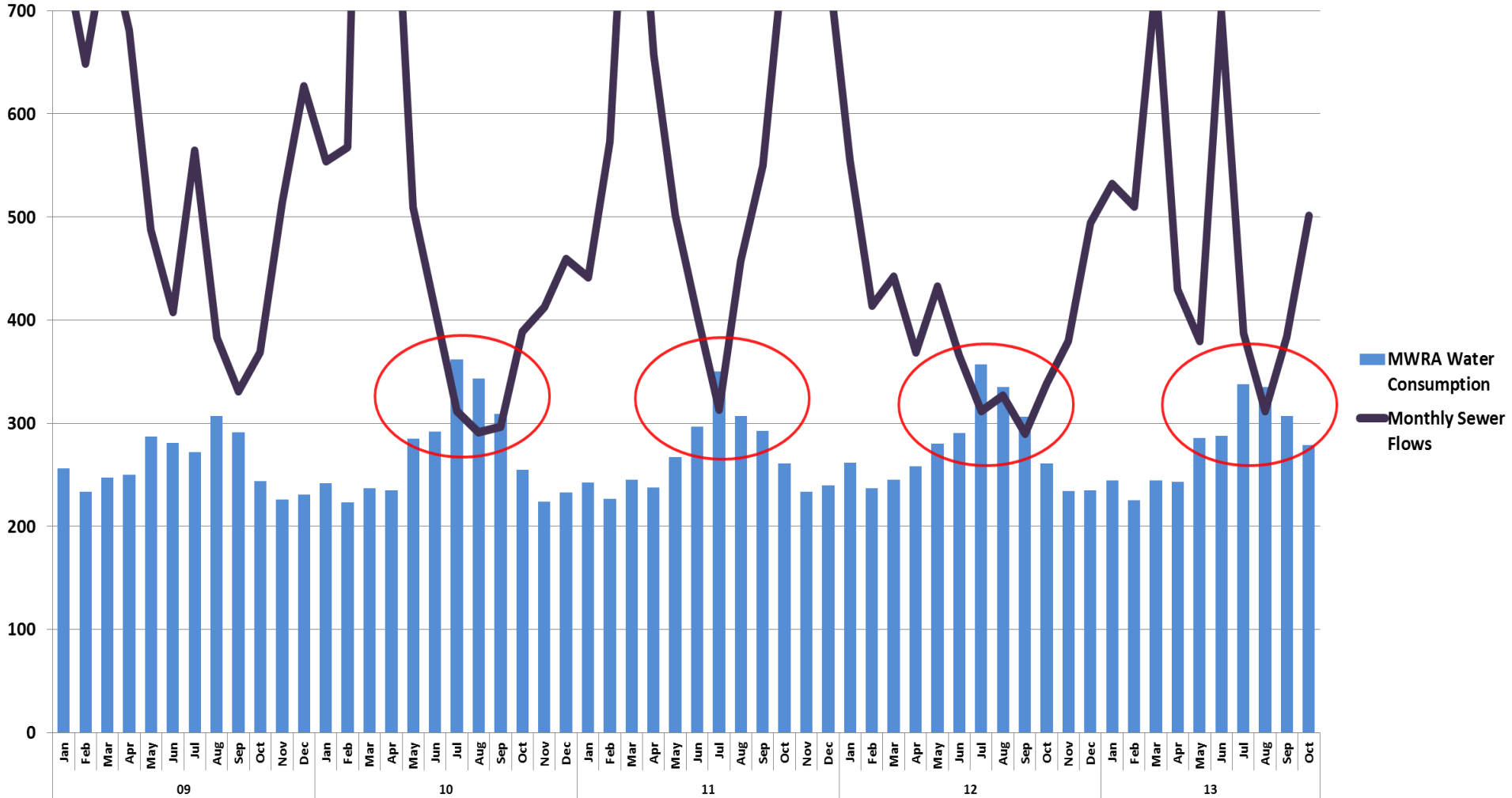
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Sewer Flows vs. Precipitation

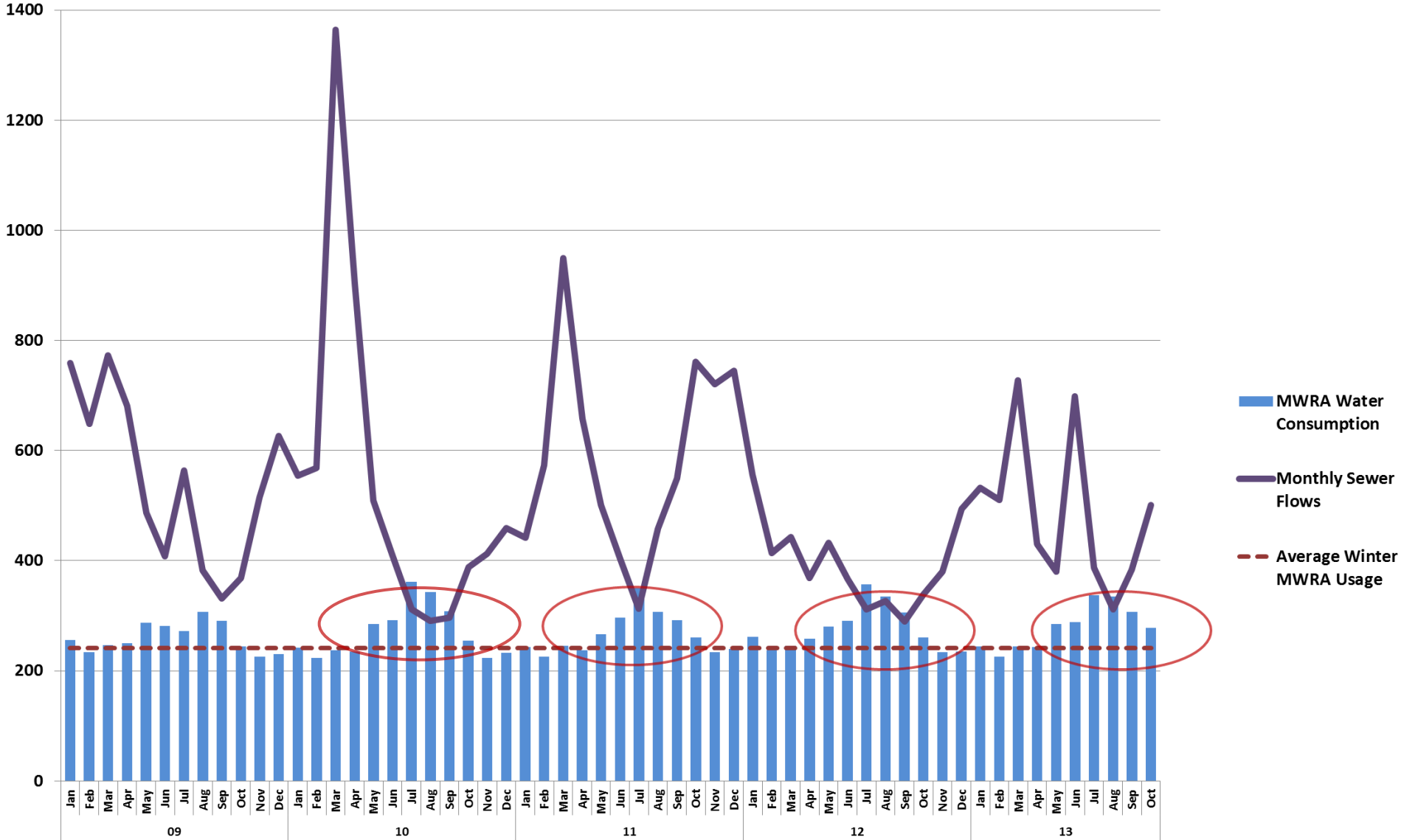


WATER CONSUMPTION VS. SEWER FLOWS

MWRA Water Consumption vs. Sewer Flows



SUMMARY



STORMWATER OVERVIEW

REVENUE SUMMARY/COST IMPACT

Current Stormwater Revenue (Fixed fee)

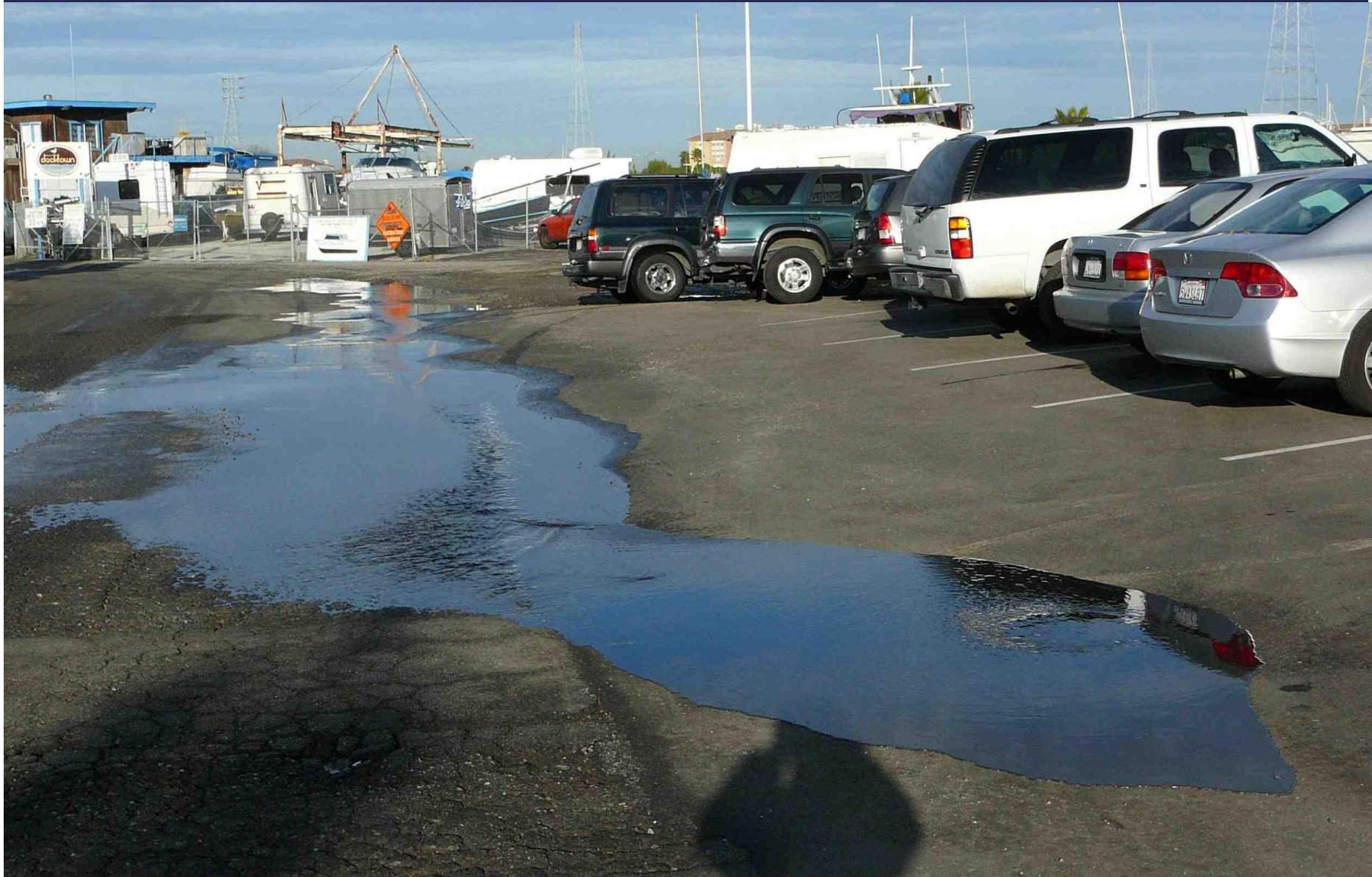
- **RESIDENTIAL: \$25 COMMERCIAL: \$150**

Current	Revenue	Percentage
Residential	\$ 571,770	75%
Non Residential	\$ 195,625	25%
Total-	\$ 767,395	

Stormwater Overview

#153-13

#131-13



Stormwater Overview

#153-13
#131-13



STORMWATER OVERVIEW

Impervious Area Breakout:

Customer Class	Approximate Impervious Area	Cost	%
Residential	73,000,000	\$25	65%
Commercial	20,000,000	\$150	18%
<u>Tax Exempt</u>	<u>19,000,000</u>	<u>\$150</u>	<u>17%</u>
Total	112,000,000		100%

IMPERVIOUS SURFACE ERU

RESIDENTIAL ERU = 2,600 SQ FT

COMMERCIAL PROPERTIES

ERU'S * 2600 SQ FT

Committee members asked if the City could use the same people who did the design for the other schools since they are now have a familiar working relationship. Commissioner Morse said that they have to go through the MSBA process and they select the designer that will be used. The City has some input but the MSBA has the majority vote and will have to look at the workload of each firm. The MSBA will look at the feasibility study to determine whether renovation and addition model makes more sense or reconstruction. There was a question relative to asbestos in the building. Commissioner Morse stated that study will also identify and quantify the City's exposure when it comes to any hazardous materials, including asbestos. They would have an environmentalist following the process and documenting cost and necessary action. Committee members asked about the park next to the building and the impact on it. Commissioner Morse stated that outcome remains to be seen and will also be part of the study.

There was a question of where to put the students while three schools were being worked on. Commissioner Morse said that Angier students will be going into the Carr School and the feasibility study of Zervas and Cabot will help determine what the options might be for swing space. After Angier students are gone, one of the other two schools will use the Carr School and the other will need to be determined. There was a question about whether students from one school might be put into more than one space and Commissioner Morse said that would be unlikely but he wasn't sure at this point.

Clerk's Note: A joint meeting was to take place with the Public Facilities Committee on this item, but the timing did not allow for that. Please refer to the Public Facilities Report as well for more details on this item.

Ald. Linsky moved approval of this item and the Committee voted in favor.

REFERRED TO PROG. & SERV AND PUBLIC FACILITIES COMMITTEES

#36-12 **ALD. CROSSLEY & FULLER** requesting Home Rule legislation or an ordinance to require inspections of private sewer lines and storm water drainage connections prior to settling a change in property ownership, to assure that private sewer lines are functioning properly and that there are no illegal storm water connections to the city sewer mains.

- A) Sewer lines found to be compromised or of inferior construction would have to be repaired or replaced as a condition of sale;
- B) Illegal connections would have to be removed, corrected, and re-inspected in accordance with current city ordinances and codes, as a condition of sale.

[01/24/12 @ 8:07 AM]

ACTION: **REFER TO 2014-2015 BOARD OF ALDERMEN 5-2-1 (Ald. Sangiolo and Rice opposed; Ald. Leary abstaining)**

NOTE: Ald. Crossley joined the Committee. She explained that the Public Facilities Committee has referred this item to next year's board. The Law Department's opinion was that Home Rule Legislation (HRL) was not necessary for this item. The opinion also stated that although the City could not assess fees and impose liens on properties for noncompliance without a home rule petition, that would not be an advisable path to take anyway. Since HRL is

not necessary, Ald. Crossley and Ald. Fuller felt comfortable recommending No Action Necessary on this item.

Some Committee members felt that there may be some solution that includes a mix of public investment of private property instead of relying on the private owners making repairs as sales of homes are made. It was felt that perhaps keeping this in Committee made more sense. Ald. Crossley explained that expanding the work in the City sewer restoration program is possible in that the pipe liner could continue to capture the connection to the property line, and perhaps further, as part of the process. That was priced at one point and it was prohibitively expensive for the City. Ald. Fuller said as the City was working on the sewer pipes and noticed a problem in a private section of the pipe, they could alert the homeowner and be paid to do the corrective work. This would be less expensive for the homeowner in the long run. This is something they are still exploring as a possibility. Some Committee members felt it was best to refer this to the next board and see what comes of the continued work that will be done on the issue, as there may be some legislative authority needed for a financing mechanism.

The Committee voted to refer this item to the 2015-2015 Board of Aldermen.

REFERRED TO FINANCE AND PROGRAMS & SERVICES COMMITTEE

#402-13 ALD. FULLER, GENTILE, RICE and LINSKY requesting a Home Rule Petition to amend Article 9 of the Charter to clarify that Neighborhood Area Councils shall maintain and control their own financial accounts and records, independent of City finances; and to further clarify that such independent financial accounts and records shall remain subject to City audit. [10/28/13 @ 10:18 AM]

ACTION: **REFER TO 2014-2015 BOARD OF ALDERMEN 8-0**

NOTE: This item was referred to 2014-2015 Board of Aldermen without discussion.

.REFERRED TO PROG. & SERV. AND PUBLIC SAFETY & TRANS COMMITTEES

#410-13 ALD. JOHNSON, ALBRIGHT AND LINSKY requesting discussion with the Parks & Recreation, Police, Fire and Law Departments regarding options to decrease vandalism at the Albemarle Park (Halloran Recreation Complex) before April, 2014 [11/12/13 @ 4:15 PM]

ACTION: **REFER TO 2014-2015 BOARD OF ALDERMEN 8-0**

NOTE: This item was referred to 2014-2015 Board of Aldermen without discussion.

Respectfully Submitted,

Amy Mah Sangiolo