



**\*\*AMENDED\*\***  
**AGENDA**  
**CITY OF HARRISONVILLE**  
**PUBLIC WORKS COMMITTEE**  
**REGULAR MEETING**  
**CITY HALL**  
**JUNE 5, 2014**  
**6:00 PM**

- I. Call to Order**
  - A. Present**
- II. Approval of Minutes**
  - A. Public Works Committee - Regular Meeting - May 1, 2014 6:00 PM**
- III. Agenda Items**
  - A. WATER TREATMENT PLANT CAPITAL FACILITIES PLAN**
  - B. GO Bond Funding**
  - C. \*\*HARRISONVILLE AUTO LUBE WATER LEAK \*\***
- IV. Stormwater Issues**
- V. Public Works Project Updates**
  - A. PUBLIC WORKS UPDATE JUNE 2014**
- VI. Airport Reports**
  - A. May Airport Report**
- VII. General Discussion**
- VIII. Adjourn**

**This meeting will be open to the public.**

**Posted on City Hall Bulletin Board this 4th day of June**

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**Kim Hubbard, City Clerk**



**DRAFT**  
**MINUTES**  
**CITY OF HARRISONVILLE**  
**PUBLIC WORKS COMMITTEE**  
**REGULAR MEETING**  
**CITY HALL**  
**MAY 1, 2014**  
**6:00 PM**

**I. Call to Order**

The meeting was called to order at 6:00 PM by Chair Ivan Stull

**A. Attendance**

Present: Chair/Alderman Ivan Stull, Aldermen David Dickerson and Morris Coburn and Mayor Wood

Others Present: Public Works Director Jerry Gibbs, Assistant Public Works Director Eric Patterson, Airport Manager James Green, Street Supervisor Rodney Jacobs, Public Information Officer Sheryl Stanley and City Clerk Kim Hubbard

**II. Approval of Minutes**

**A. Public Works Committee - Regular Meeting - Mar 6, 2014 6:00 PM** Accepted  
*Minutes accepted.*

**III. Agenda Items**

**A. 2014 SIDEWALK & CURB PROGRAM** Recommended as a Resolution

*Mr. Patterson reviewed staff's recommendation for the sidewalk and curb replacement for the 2014 program. Mr. Patterson stated staff was requesting approval for a change order to last year's contract with Young's Waterproofing to take advantage of the 2013 pricing. Mr. Patterson explained this would allow for a significant cost savings due to the price increase of concrete. Mr. Patterson reported that Young's Waterproofing has agreed in writing to these terms.*

*The committee made the recommendation for Board approval.*

**B. 2014 ASPHALT PROGRAM** Approved

*Mr. Patterson reviewed the annual program for 2014 and explained due to budget constraints and increasing costs, staff would be adding more micro-paving to the program.*

*There was discussion regarding the amount of work that had been completed on the streets in ward 1 and that many of those streets had a PCI (performance condition index) of 60.*

Minutes Acceptance: Minutes of May 1, 2014 6:00 PM (Approval of Minutes)

*Discussion took place on the City's practice of "piggybacking" onto other municipality contracts. Mr. Patterson explained that the City does this when it is beneficial but for the most part we get about the same pricing on our own that the larger cities get.*

*Mr. Patterson stated staff was asking for committee approval to go out for bid.*

**C. Sales Tax - Re-prioritize of Street Maintenance Dollars** Approved

*Mr. Gibbs shared with the committee the need for flexibility when preparing the asphalt, sidewalk/curb and storm water programs. Mr. Gibbs reported at the present time there is a budgeted amount for each program and explained by combining these three (3) accounts we could meet the needs of each program more adequately. Mr. Gibbs stated the Committee and Board would be kept updated if the flexibility was allowed and that a budget amendment would not be required. It was also noted that the flexibility may allow the City to acquire better pricing.*

*There was discussion regarding the number of storm water pipes that are beyond their useful life, the difficulty in trying to patch them and how it could turn into a liability issue for the City if they are not addressed.*

*It was noted that if the flexibility was allowed in the street maintenance but this would go into effect for the 2015 budget.*

*The committee approved allowing the staff to have the flexibility in street maintenance fund and that the dollar amounts would not be locked in to each program.*

**IV. Stormwater Issues**

Mr. Patterson reported on a phone call he had received from a resident who lived at King and Mechanic and was inquiring as to when her storm water would be fixed. Mr. Patterson reported to her that it was on the list.

There was also discussion of drainage issues between Halsey and Charles caused by due to the south storm pipe which goes west, didn't have bands used on it, and goes under big trees.

Mr Patterson reminded the Committee the Stormwater Issue portion of the agenda is meeting requirements of the MS4 permit.

**V. Public Works Project Updates**

**A. PUBLIC WORKS UPATE MARCH 2014**

*Mr. Gibbs reviewed the Public Works Update.*

**VI. Airport Reports**

**A. APRIL AIRPORT REPORT**

*Mr. Green reviewed the Airport Report. It was the consensus of the committee that the draft leases presented in the packet did not need to come back before the Public Works Committee after being reviewed by City Attorney Mauer, they could go directly to the Board.*

*There was discussion regarding the length of land lease terms and it was explained that once the lease expires the land reverts back to the City. It was noted that MoDOT does not like land lease terms of less than thirty (30) or more than fifty (50) years and it was staff's recommendation to use the term of forty-five (45) years.*

*Mr. Green told the Committee that Life Flight is looking at getting out of storing their own jet fuel which could be option for the City to purchase their tanks. Mr. Green stated he is working on getting more information.*

## VII. General Discussion

Alderman Dickerson complimented Mr. Gibbs on the good job he did on explaining the water plant situation at the Board meeting on Monday.

Mr. Patterson gave an update regarding the sewer line that had collapsed, affecting the building next to the Optimist Building and that the City had sent a bill to the occupant (makes dentures) to patch the road. Mr. Patterson reported the City had to access power from the same occupant for work that was being done to the new police facility and staff felt it was fair to waive the bill to patch the road since the City will need to shut off his power for a day to install the police department mono pole. The Committee agreed.

Discussion took place regarding damage that was caused during the demolition on the corner lot of Pearl Street and Wirt. When foundation was being removed, the back hoe yanked out the service line. A bill was sent to Cass County Historical Society and that they did not have the funds to pay as the work that was being done on that corner lot was being done by donated equipment and time. Alderman Coburn made the motion to waive the bill. Alderman Stull seconded the motion and it was approved unanimously by a voice vote of those present.

There was discussion regarding the 25 impact fee waivers and if they had all been used. It was noted they had not been all used and there are no spec homes for sale right now.

## VIII. Adjourn

Alderman Coburn made a motion to adjourn. Alderman Dickerson seconded the motion and it was approved by a voice vote.

Meeting adjourned 6:55 p.m.

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Kevin Wood, Mayor & Ex-Officio  
Chairman of the Board of Aldermen

ATTEST:

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Kim Hubbard, City Clerk



## STAFF REPORT

**TO:** Public Works Committee  
**FROM:** Jerry Gibbs, Director  
**DATE:** May 14, 2014  
**SUBJECT:** WATER TREATMENT PLANT CAPITAL FACILITIES PLAN

**Type of Item:** *Approval*

**Background:** The purpose of this Capital Facilities Plan (CFP) is to detail the process and related water treatment plant (WTP) improvements needed to accomplish the following goals:

1. Reduce T&O causing compounds to below detection limits;
2. Expand plant capacity from 2.4 to 3.0 MGD;
3. Meet existing and future regulatory requirements; and
4. Extend WTP life.

The following scope of work was completed:

1. Determine requirements for the WTP filters improvements;
2. Complete a feasibility analysis and conceptual design for reuse of existing Chemical Feed/Electrical Building;
3. Prepare a conceptual design for a new Chemical Feed/Electrical Building if reuse of the existing building is not feasible or of limited feasibility;
4. Prepare a conceptual design for the following:
  - a. New Ozone Building and associated ozone equipment;
  - b. New rapid mix system;
  - c. Replacement of equipment in the Primary Basin and concrete repairs in the Secondary Basin;
  - d. Yard piping;
  - e. Prepare a site layout figure and electrical one-line for the proposed improvements;
5. Complete an “order of magnitude” opinion of probable cost for the Capital Facilities Plan based on different scenarios.

**Discussion:** The CFP represents the implementation of the summary of the finding from each task and/or subtask. Other considerations were multiple smaller projects compared to a single larger project. The CFP is recommending the “Baseline Approach” as a single project

as the most cost effective and optimizes the benefits of the new treatment process. The current PAC System would stay in operation. Provisions to add ozone would be included in the design and construction to allow adding the equipment at a later date. Eliminating the remaining taste and odor concerns by ozone would be a priority after the sale of our capacity in the Kansas City Water Agreement. Harrisonville could delay the installation of redundant ozone generation capacity until disinfection rule changes are being proposed to minimize disinfection by products. The Executive Summary and Conclusion section is attached to the staff report.

MDNR requires an approved CFP before allowing a utility to move forward with the construction of any improvement. If the utility is seeking SRF, they must also be “ready to proceed”. The criterion is defined as any project that, at a minimum, has submitted a complete facility plan and has secured voter-approved bond. SRF funding is not a sure thing. Each application is evaluated based on a point criteria. Higher the points, your priority level is higher. This year’s funding round ended in February. Applications are taken year around. Our position in the queue is not fixed. Congress just passed the Water infrastructure Finance and Innovation Act (WIFIA) in May. The details are limited. Based on the information released so far, our project would be eligible. Programming would not start until the next fiscal year. It is estimated a 20% increase in the rates would be necessary to support a \$7 M bond issue. This would be equivalent to about \$2/1000 gallons per month.

Staff is requesting

1. A positive recommendation from the Public Works Committee be forwarded to the Board of Alderman for a single project approach in the amount of \$6.9 M. This Baseline Approach will not eliminate taste and odor issues.
2. Recommendation to proceed with the preparation necessary to place a revenue bond issue before the voters.
3. Recommendation to proceed with developing a scope of service to replace the filter media and backwash.

**A. Action Item (ID # 1404)**

**WATER TREATMENT PLANT CAPITAL FACILITIES PLAN**

Attachments:

Harrisonville Commission 060514 (3) (PDF)

Draft CFP ES 051914 (PDF)

READINESS TO PROCEED AND DISTRIBUTION OF FUNDS CRITERIA (PDF)

# Commission Workshop Water Facility Plan Harrisonville, MO

JUNE 5, 2014



# Agenda

- WFP Goals
- Implementation
  - Plan / Improvements
  - Cost
  - Schedule
  - SRF
- Q/A

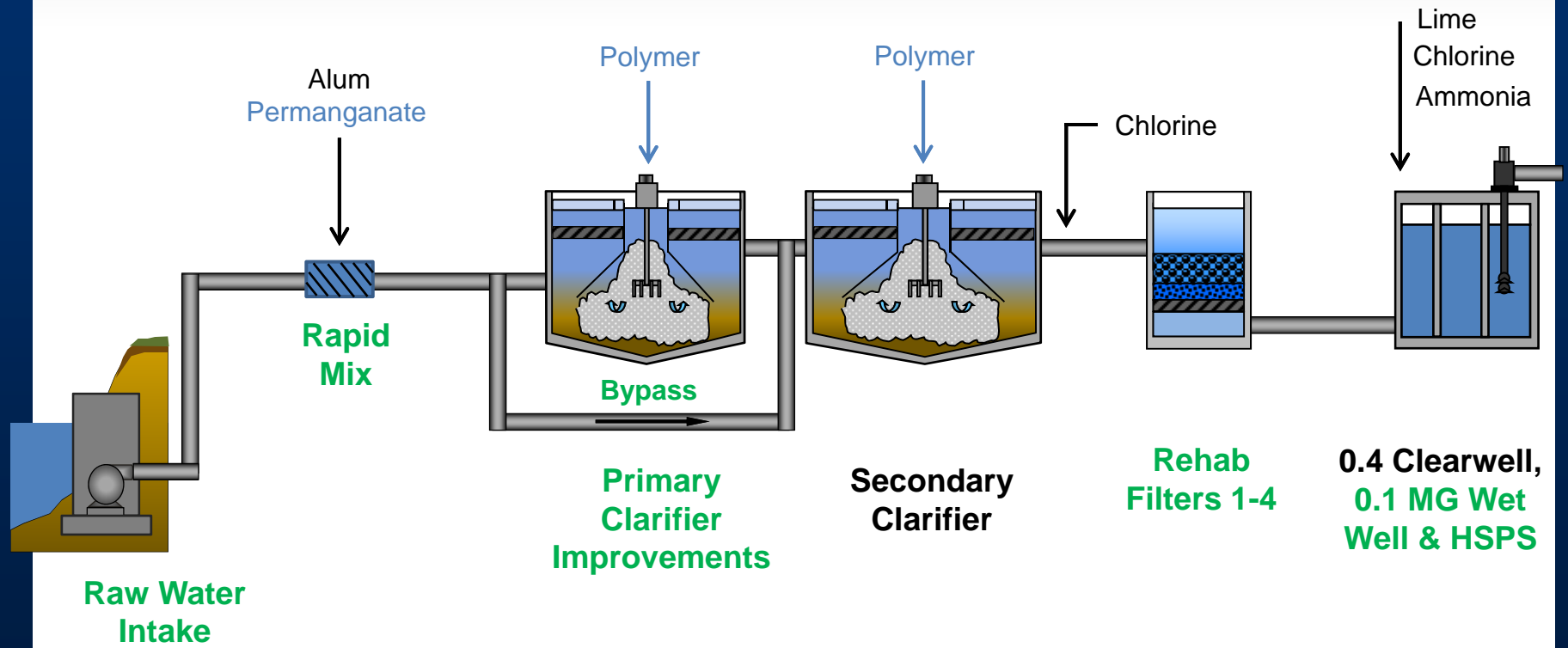


# Water Facility Plan

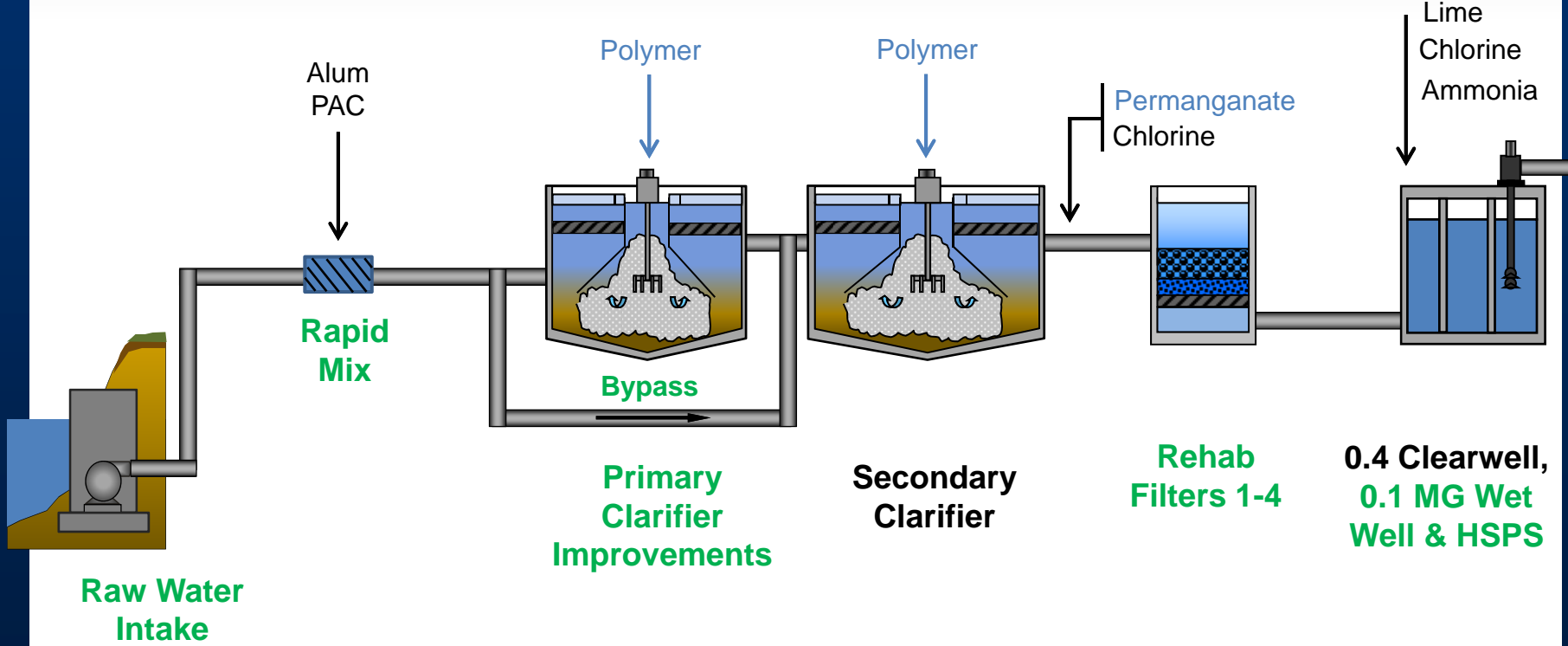
## Primary Goals

1. Protect Public Health
2. Avoid Critical Failure of the WTP
3. Improve Treatment Process & Assure Future Regulatory Compliance
4. Increase Capacity to 3 MGD
5. Extend WTP Life 20+ years
6. Eliminate Taste & Odor Complaints

# Baseline WTP Improvements

















# Baseline with PAC WTP Improvements



### WTP Alternative Cost Opinion Summary

	Baseline (Optimize Process)
<b>WTP Improvements:</b>	
Site Improvement	225,000
Chemical Building	1,170,000
Filter Building	140,000
Basins	860,000
Filters	670,000
High Service Pump Station	770,000
Electrical, Instrumentation and Controls (EIC) / SCADA	770,000
<b>Subtotal</b>	<b>4,605,000</b>
Contingency	1,150,000
Other Costs	1,150,000
<b>WTP Alternate Total</b>	<b>6,905,000</b>
Ozone for T&O	2,570,000
<b>Total</b>	<b>9,475,000</b>
<b>Debt Service + Annual Cost (2015)</b>	
Baseline WTP Alternative	700,000
Baseline + Ozone	850,000

# Schedule

	2014		2015				2016
	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Notice to Proceed	7/1/2014						
Survey/Geotech							
Design							
MDNR Approval							
Bid Phase							
Award							
Construction Phase							
Filter Upgrade							
Start-up							

**Schedule is Funding Dependent**

# SRF Funding – Time is Critical

## Revenue Bond Funding

- SRF (2.09%):
  - Were Due in February
  - Must be ready to proceed before submittal
  - Engineering grants may not be available next year
  - \$430,000/year on \$6.9M
- Municipal Bond
- Bond Issue - Voter Approval Required

## Schedule

- Dictates Path Forward on Critical issues
- Filter Replacement \$1.5M

# Questions





**Executive Summary & Conclusions  
Technical Memorandum No.1  
Harrisonville Water Treatment Plant**

# Capital Facilities Plan

**City of Harrisonville, Missouri**

**Project No. 76450**

**May 2014**

Attachment: Draft CFP ES 051914 (1404 : WATER TREATMENT PLANT CAPITAL FACILITIES PLAN)

**Executive Summary & Conclusions**  
**Capital Facilities Plan**

prepared for

**City of Harrisonville, Missouri**  
**Harrisonville, Missouri**

**May 2014**

**Project No. 76450**

prepared by

**Burns & McDonnell Engineering Company, Inc.**  
**Kansas City, Missouri**

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Attachment: Draft CFP ES 051914 (1404 : WATER TREATMENT PLANT CAPITAL FACILITIES PLAN)

## EXECUTIVE SUMMARY

The existing Harrisonville Water Treatment Plant (WTP) was commissioned in 1971 and has a capacity of 2.4 MGD if run for 24 hours. Plant processes include rapid mix, coagulation, flocculation, sedimentation, filtration, and disinfection. Raw water is conveyed from Lake Harrisonville and treating the water can often be difficult with the existing WTP processes; process challenges include moderately low alkalinity, low turbidity and variable atrazine and manganese concentrations. Additionally, there are multiple aesthetical issues in the finished water that trigger complaints throughout the year. Customers often complain of poor water quality with a wide range of taste and odor (T&O) issues that lead residents and commuters to perceive that the water is not safe to drink.

This Capital Facilities Plan is a follow-up to the Water System Facilities Plan that was submitted to the City of Harrisonville in November 2013. The purpose of this Capital Facilities Plan is to detail the WTP improvements required to accomplish the following goals:

- Reduce T&O causing compounds to below detection limits;
- Expand plant capacity from 2.4 to 3.0 million gallons per day (MGD);
- Meet existing and future regulatory requirements; and
- Increase WTP life.

Evaluation of the existing facilities and potential T&O treatment alternatives identified a number of improvements required to meet the project goals listed above. These improvements are discussed briefly in the following paragraphs and in detail in the following chapters of this report. A number of improvements are recommended to be installed as quickly as possible to address the immediate WTP concerns of related to poor pre-treatment performance and the condition of the filters. These improvements will not only improve plant performance and operations but will also increase WTP life and future regulatory compliance as well as enhance protection of public health.

### WTP Improvements

In order to meet the treatment challenges associated with the water supplied from Lake Harrisonville, modifications to the WTP's existing basins, chemicals, and filters are required, as well as addition of new facilities. These improvements will not only improve the WTP's treatment abilities but will also expand treatment capacity to 3.0 MGD of finished water. To distribute this additional water, a new high service pump station is also required. One additional benefit of new facilities are the opportunity to utilize

“green” and/or new high efficiency equipment including electrical gear, pumps, motors, and lighting to enhance the WTP project.

### *Chemicals and Chemical/Electrical Building*

As part of the proposed improvements, modifications will be made to some of the types of chemicals used at the WTP, as well as the dosing amounts and locations of several existing chemicals. Additionally, the existing electrical equipment the WTP is aging and outdated (some systems have been in place for more than 40 years). This equipment is vital to WTP operation and is in need of replacement. In order to facilitate these changes and meet current building codes, modifications must be made to the existing chemical/electrical building. Several options were considered – including rehabilitation of the existing building, construction of an entirely new building, and combination of rehabilitation and new construction. Cost analysis indicated that construction of an entirely new building to house chemical and electrical equipment will be the most economical and functional option for the City. The existing building could be re-purposed as a storage facility.

### *Filters*

A filter evaluation was conducted as part of this Capital Facilities Plan to determine the current condition of the filters and their ability to handle increased WTP flows. The tests conducted in the filter evaluation revealed the filters to be in extremely poor condition and in need of new media, underdrains, and backwash pumps. Filter media thickness was well below the MDNR standards and the media was dirty illustrating that the backwash pump and underdrain system are too small to clean the media. Completion of these improvements is vital to sustaining WTP operation at current capacities and will be required for expanding plant capacity.

### *Ozone*

Treatment of T&O causing compounds to undetectable levels will require additional treatment above that provided by the existing treatment processes. Comparison of a number of technologies indicated that ozone would be highly effective and the most economical T&O treatment technology in terms of life-cycle costs. Ozone will provide additional process benefits that further reduce chemical costs and may be used as an alternate disinfectant in the future to meet more stringent regulatory requirements.

### *High Service Pump Station (HSPS)*

The current high service pump station is poorly configured and access for maintenance of pipes and valves is highly limited. Working on the station requires the WTP to be completely taken out of service; therefore, no water will be produced for about a one day period. The pump capacities are limited, so in

order to distribute the additional flows that will be produced when the WTP capacity is expanded, larger pumps are required. A new HSPS will be constructed at the WTP and will also include two new backwash pumps.

### Supply Improvements

While the WTP must be able to treat the expanded daily flows, the infrastructure for the WTP water supply must also be able to produce and convey higher water flows. A number of improvements to the supply system were identified in the Water System Facilities Plan, including the following:

- Lake Spillway Improvements;
- Intake Pumps and Power Supply Improvements;
- New Raw Water Main Booster Pump Station; and
- New PWSD#9 Emergency Connection.

### Prioritization of Improvements

The proposed system improvements, as discussed above, are summarized in Table ES-1 and split into components to aid City officials in planning the phasing of these improvements. Each item is categorized either as Priority 1, Priority 2, or Other depending on urgency. Most of the improvements identified are classified as Priority 1. These improvements are high priority and should be implemented together as soon as possible. Priority 2 items include basin modifications and ozone; the operational order of the existing basins can be switched as a temporary solution and ozone can be added at a later date for T&O mitigation. Improvements to the filter building, construction of a new intake booster pump station, and a new raw water main are categorized as Other and can be completed later in the future.

Table ES-1: Priority Categorization of Recommended Improvements

Projects	Cost (\$MM)	Priority 1 (\$MM)	Priority 2 (\$MM)	Other (\$MM)
<b>Previous Priorities:</b>				
Intake Power Supply	0.4	0.4		
Spillway Improvement	0.5	0.5		
PWSD#9 Emergency Connection(s)	0.3	0.3		
<b>Baseline WTP - Optimization:</b>				
Site Work	0.4	0.4		
Chemical Building	2.1	2.1		
Filter Building Improvements (optional)	0.3			0.3
Basins	1.5		1.5	
WTP - HSPS	1.4	1.4		
<b>Filter Improvements - Condition Issue</b>	1.2	1.2		
<b>Ozone - Minimize/Eliminate T&amp;O</b>	2.6		2.6	
<b>Intake Pump &amp; Raw WM BPS</b>	1.3			1.3
<b>Total</b>	<b>11.9</b>	<b>6.3</b>	<b>4.1</b>	<b>1.5</b>

## CONCLUSION

This report section details the conclusions of the Capital Facilities Plan. The Harrisonville WTP faces several process challenges to treating water from Lake Harrisonville, primarily due to influent water quality parameters, manganese concentrations, and the presence of T&O causing compounds as well as filters that are in critical condition and need of immediate upgrades.

The purpose of this Capital Facilities Plan is to detail the WTP improvements required to accomplish the following goals:

1. Reduce taste and odor (T&O) causing compounds to below detection limits;
2. Expand plant capacity from 2.4 to 3.0 million gallons per day (MGD);
3. Meet existing and future regulatory requirements; and
4. Increase WTP life.
5. While not part of the original goals, it was discovered during the filter evaluation that the condition of the filters are critical due to a lack of media, condition of the media, and inability to clean the filters; therefore, immediate replacement of the filtration system is required for current and future WTP operation and the enhancement of public health.

Evaluation of the existing facilities and potential T&O treatment alternatives identified a number of improvements required to meet the project goals listed above. Recommended improvements have been discussed throughout this report and include Baseline improvements to the WTP and addition of ozone for T&O mitigation. Other improvements were also identified during the previous studies conducted in 2013, including modifications to the raw water intake, development of emergency connections to PWSD #9, spillway improvements and filter improvements. These improvements are summarized in Table 8-1 and split into components to aid City officials in planning the phasing of these improvements. Each item is categorized either as Priority 1, Priority 2, or Other depending on urgency. Most of the improvements identified are classified as Priority 1. These improvements are high priority and should be implemented together as soon as possible. Priority 2 items include basin modifications and ozone, due to the fact that the operational order of the existing basins can be switched as a temporary solution and ozone can be added at a later date for T&O mitigation. Improvements to the filter building, construction of a new intake booster pump station, and a new raw water main are categorized as Other and can be completed later in the future.

**Table 0-1: Priority Categorization of Recommended Improvements**

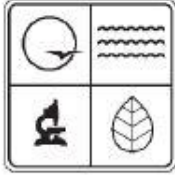
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<b>Baseline WTP - Optimization:</b>				
Site Work	0.4	0.4		
Chemical Building	2.1	2.1		
Filter Building Improvements (optional)	0.3			0.3
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WTP - HSPS	1.4	1.4		
<b>Filter Improvements - Condition Issue</b>	1.2	1.2		
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<b>Total</b>	<b>11.9</b>	<b>6.3</b>	<b>4.1</b>	<b>1.5</b>



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Attachment: Draft CFP ES 051914 (1404 : WATER TREATMENT PLANT CAPITAL FACILITIES PLAN)



# Missouri Department of Natural Resources

## MISSOURI DRINKING WATER STATE REVOLVING FUND READINESS TO PROCEED AND DISTRIBUTION OF FUNDS CRITERIA

Water Protection Program fact sheet

03/2014

Division of Environmental Quality Director: Leanne Tippett Mosby

PUB2361

Approved by the Safe Drinking Water Commission - May 19, 2011

### General Information

In order to ensure best use of the drinking water loan funds in a reasonably expeditious manner, the Missouri Department of Natural Resources will begin recognizing the effort of Drinking Water State Revolving Fund, or DWSRF, applicants to complete their proposed project. Also, to ensure availability of DWSRF loan funds to more water systems, the department is including an annual funding limitation. Readiness to proceed criteria will be used to determine fundable status and the distribution of available and anticipated DWSRF funds.

### Readiness to Proceed

Readiness to proceed criterion is defined as any project that, at a minimum, has submitted a complete facility plan and has secured voter-approved bond authorization or received an acceptable debt instrument. For the purpose of determination of readiness to proceed, a complete facility plan must adequately address the information required by sections 1-4 of the Facilities Plan Submittal Checklist attached to the DWSRF application. See the Distribution of DWSRF Funds section below for details as to how the department proposes to list new and carry-over projects in the Drinking Water Intended Use Plan.

### Maximum Loan Limit

The maximum amount for a DWSRF loan from any single plan shall not exceed 30 percent of the total available and anticipated loan and grant funds or \$10 million, whichever is less, unless the department receives approval from the Missouri Safe Drinking Water Commission to exceed such limits.

### **Distribution of DWSRF Funds**

Based on priority points and readiness to proceed, the following describes how the department intends to list the projects for the purpose of committing DWSRF loan and grant funds. The department will designate DWSRF projects in the Intended Use Plan, as either fundable, fundable contingency or planning. Projects designated as fundable are those projects the department has committed to finance with available or anticipated state revolving funds under the plan. The department's commitment to fundable projects is to reserve loan funds in the amount requested until the applicant secures the DWSRF loan or until the application period expires. Fundable contingency projects are those projects meeting readiness to proceed but not receiving funding commitments due to the lack of funds.

Projects designated as planning are those projects that have not yet met the definition of readiness to proceed criteria. The department will initially reserve 20 percent of the available or anticipated uncommitted funds for very small water systems (systems serving 3,300 or fewer people) that submit a loan application meeting the readiness to proceed criteria by the application receipt deadline. The department will reserve 15 percent for small water systems (systems serving from 3,301 to 9,999 people) that submit a loan application meeting the readiness to proceed criteria by the application deadline. Any initially reserved funds for small or very small water systems not committed will be transferred to the general reserves and made available for projects that meet readiness to proceed criteria and committed according to priority ranking of the projects. Any uncommitted funds available after the application deadline will be committed to projects in the order the projects meet readiness to proceed. In the case where funds reserved for small or very small systems are not fully used, the department can give preference to such projects in the future.

#### **I. Fundable List**

All eligible carry-over applications from last year's fundable list will retain their same funding commitment from the prior Intended Use Plan, unless bypassed. All carry-over applications from last year's fundable contingency list and new DWSRF applications that meet the criterion for readiness to proceed will be placed on the fundable list in order of priority ranking. Those projects below the funding cutoff will be placed on the fundable contingency List. Carry-over projects will retain the points they received in the last year's Intended Use Plan unless they reapplied for consideration under the latest criteria (such projects are then deemed new applications).

#### **II. Fundable Contingency List**

These are eligible projects that meet readiness to proceed but due to priority ranking, timing, or funding limitations will not receive funding commitments. These projects will be ranked on the list in accordance with their priority points. If uncommitted funds become available, the department, with the Safe Drinking Water Commission's approval, will move the highest ranking project from the contingency list to the fundable list.

### III. Planning List

These are the eligible carry-over or new projects that do not meet the readiness to proceed criterion to make the fundable or fundable contingency list. These projects will be ranked according to their priority points. Any application(s) that meets the readiness to proceed criteria, subject to the availability of funding, may be moved to the fundable or fundable contingency list and shall be incorporated into the appropriate list in priority point order.

#### Bypass Procedures

With the commission's approval, the department may bypass any project on the fundable list that does not make satisfactory progress toward meeting requirements. Procedures for bypassing projects are contained in 10 CSR 60-13.020(3)(A).

#### Refinancing and Refunding Criteria for Readiness to Proceed

Applications that involve both new project financing plus the refinancing or refunding of existing debt will only retain the new project priority points if:

- The refinancing or refunding is necessary to meet affordability criteria after the current project financing is factored into the application's total debt service.
- It is a current refinancing or refunding, OR in an advance refinancing/refunding, interest portion of the defeasance escrow attached to the SRF program shall include no more than two years of interest on the bonds to be refunded.
- The current debt is not that of another state or federal agency.
- Refinanced or refunded debt will only incorporate level or net level debt amortization structures.

Projects that only involve the refinancing of existing debt will only receive priority points for affordability.

If it is determined a refinancing or refunding project has not followed the DWSRF environmental and procurement requirements, then commitment to fund such projects will be considered on a case-by-case basis depending on availability of funds and the merits of the project as determined by the department and the Safe Drinking Water Commission.

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**Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.**

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**For more information**

Missouri Department of Natural Resources

Water Protection Program

P.O. Box 176

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-1300

<http://www.dnr.mo.gov/env/wpp>

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## STAFF REPORT

**TO:** Public Works Committee  
**FROM:** Keith Moody, City Administrator  
**DATE:** May 15, 2014  
**SUBJECT:** GO Bond Funding Analysis for Streets/Sidewalks/Storm Water

**Type of Item:** Report

**Background:** Attached is an analysis of General Obligation Bond issuance structured such that bonds could be issued in a perpetual fashion without exceeding the city's GO debt limit and reaching a point where the property tax levy remains at level as future bond issues occur, a sustainable funding approach for street, sidewalk, and storm water improvements.

**Review:** The analysis reflects issuing \$5 million in GO Bonds every five years with a very conservative 1% growth in assessed value projected and a 20 year repayment term on each bond issue. The property tax rate needed to retire the debt would start at \$.35 with the first bond issue and would increase to \$.65, then \$.94, and level off at \$1.13 16 years into the program (after the 4th bond issue). The 5th bond issue would not cause an increase in the tax levy as the 1st bond issue would be retired and the 5th bond issue takes its place.

On page 4 of the analysis you can see the "Voteable Debt Capacity" in the final column. The 20% debt limitation for general obligation bonds is a Missouri constitutional limitation and is actually comprised of two 10% limits. One of the 10% limits is only for the purpose of acquiring rights-of-way, construction, extending and improving streets and avenues, and sanitary or storm sewer systems. The second 10% is available for all municipal purposes. This proposal would commit all statutory go debt capacity to streets/sidewalks/storm sewers.

Harrisonville could only ask for approval to issue \$23 million in 2014/2015. After bonds have been issued the principal amount of the issuance is deducted from the voter authorized amount and when that authorized amount has been issued then a city is required to attain voter approval for additional GO Debt issuance authority. In this analysis a ballot question asking for approval to issue \$23 million in GO Bonds would occur in 2014 and then a second GO Bond ballot question asking for approval to issue \$17 million in GO Bonds in 2034 (20 years later). Similar ballot questions would occur every 20 years. The program is sustainable in that the City does not exceed its authorized GO Debt capacity and the debt service tax levy remains constant at \$1.13 so long as the bond issues remain at \$5 million every 5 years.

**Budget Impact:** The bond proceeds would allow the city to complete on average \$1 million per year in street, sidewalk and storm water improvements. A prioritized list of these improvements

has already been developed. I would not recommend using these funds to complete maintenance as the investment should last as long as the financing (20 years).

A single family with a home having a market value of \$175,000 and personal property with a market value of \$25,000 would pay \$145 of additional property tax in year one of the program and would pay \$470 of additional property tax in year 16 and beyond. Our total cost of living for a single family would be 14th out of 50 when the tax rate hits its peak, still among the lowest third of metro communities and well below average.

**Planning:** For all general obligation bonds, the voter approval requirements are either 4/7ths or 2/3rds depending on the election date. For even numbered years, 4/7ths is required in April, August and November. For odd numbered years, April is the only available election for 4/7ths.

**B. Discussion Item (ID # 1405)**

GO Bond Funding

Attachments:

GO Debt Analysis 2014 (PDF)

# City of Harrisonville, Missouri

## Debt Service Fund

### Summary of Projected Cash Flows

\$5 Million Issued per year 2015, 2020, 2025, 2030 and 2035

(Assuming June 1st closing date)

Calendar Year	Assessed Valuation	Assessed Valuation Growth	Tax Levy	Total Revenue (1)	Total Debt Service (2)	Annual Excess/ (Deficit)	Fund Balance
12/31/2013	\$ 117,235,056						
2014	117,235,056	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -
2015	118,407,407	1.00%		-	-	-	-
2016	119,591,481	1.00%	0.3500	410,199	340,850	69,349	69,349
2017	120,787,395	1.00%	0.3500	414,301	344,863	69,438	138,787
2018	121,995,269	1.00%	0.3500	418,444	343,606	74,838	213,625
2019	123,215,222	1.00%	0.3500	422,628	342,188	80,441	294,065
2020	124,447,374	1.00%	0.3500	426,854	340,606	86,248	380,314
2021	125,691,848	1.00%	0.6500	800,657	744,031	56,626	436,939
2022	126,948,767	1.00%	0.6500	808,664	743,213	65,451	502,390
2023	128,218,254	1.00%	0.6500	816,750	742,775	73,975	576,366
2024	129,500,437	1.00%	0.6500	824,918	741,719	83,199	659,565
2025	130,795,441	1.00%	0.6500	833,167	744,919	88,248	747,813
2026	132,103,396	1.00%	0.9400	1,216,936	1,142,625	74,311	822,124
2027	133,424,429	1.00%	0.9400	1,229,106	1,145,588	83,518	905,643
2028	134,758,674	1.00%	0.9400	1,241,397	1,143,350	98,047	1,003,690
2029	136,106,260	1.00%	0.9400	1,253,811	1,144,913	108,898	1,112,588
2030	137,467,323	1.00%	0.9400	1,266,349	1,140,231	126,118	1,238,706
2031	138,841,996	1.00%	1.1300	1,537,536	1,544,431	(6,895)	1,231,811
2032	140,230,416	1.00%	1.1300	1,552,912	1,543,181	9,730	1,241,541
2033	141,632,720	1.00%	1.1300	1,568,441	1,541,106	27,334	1,268,876
2034	143,049,048	1.00%	1.1300	1,584,125	1,542,081	42,044	1,310,920
2035	144,479,538	1.00%	1.1300	1,599,966	1,545,900	54,066	1,364,986
2036	145,924,334	1.00%	1.1300	1,615,966	1,603,375	12,591	1,377,577
2037	147,383,577	1.00%	1.1300	1,632,126	1,600,500	31,626	1,409,203
2038	148,857,413	1.00%	1.1300	1,648,447	1,601,250	47,197	1,456,400
2039	150,345,987	1.00%	1.1300	1,664,931	1,599,500	65,431	1,521,831
2040	151,849,447	1.00%	1.1300	1,681,581	1,600,125	81,456	1,603,287
2041	153,367,941	1.00%	1.1300	1,698,397	1,203,125	495,272	2,098,559
2042	154,901,620	1.00%	1.1300	1,715,381	1,199,000	516,381	2,614,939
2043	156,450,637	1.00%	1.1300	1,732,534	1,202,875	529,659	3,144,599
2044	158,015,143	1.00%	1.1300	1,749,860	1,199,625	550,235	3,694,833
2045	159,595,294	1.00%	1.1300	1,767,358	1,199,250	568,108	4,262,942
2046	161,191,247	1.00%	1.1300	1,785,032	801,750	983,282	5,246,223
2047	162,803,160	1.00%	1.1300	1,802,882	797,625	1,005,257	6,251,481
2048	164,431,192	1.00%	1.1300	1,820,911	802,000	1,018,911	7,270,392
2049	166,075,503	1.00%	1.1300	1,839,120	799,750	1,039,370	8,309,762
2050	167,736,258	1.00%	1.1300	1,857,511	800,875	1,056,636	9,366,398
2051	169,413,621	1.00%	1.1300	1,876,086	400,500	1,475,586	10,841,984
2052	171,107,757	1.00%	1.1300	1,894,847	399,125	1,495,722	12,337,707
2053	172,818,835	1.00%	1.1300	1,913,796	401,875	1,511,921	13,849,628
2054	174,547,023	1.00%	1.1300	1,932,934	398,750	1,534,184	15,383,811
2055	176,292,493	1.00%	1.1300	1,952,263	399,750	1,552,513	16,936,324
<b>Totals</b>				<b>\$ 55,809,124</b>	<b>\$ 38,872,800</b>		

(1) See detailed schedule on page 2.

(2) See detailed schedule on page 3.

# City of Harrisonville, Missouri

Debt Service Fund

Projected Revenue

\$5 Million Issued per year 2015, 2020, 2025, 2030 and 2035

(Assuming June 1st closing date)

Calendar Year	Assessed Valuation	Assessed Valuation Growth	Tax Levy	Taxes Assessed	Taxes Collected @ 98%	Interest Income @ 0%	Total Revenue
12/31/2013	\$ 117,235,056						
2014	117,235,056	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -
2015	118,407,407	1.00%	-	-	-	-	-
2016	119,591,481	1.00%	0.3500	418,570	410,199	-	410,199
2017	120,787,395	1.00%	0.3500	422,756	414,301	-	414,301
2018	121,995,269	1.00%	0.3500	426,983	418,444	-	418,444
2019	123,215,222	1.00%	0.3500	431,253	422,628	-	422,628
2020	124,447,374	1.00%	0.3500	435,566	426,854	-	426,854
2021	125,691,848	1.00%	0.6500	816,997	800,657	-	800,657
2022	126,948,767	1.00%	0.6500	825,167	808,664	-	808,664
2023	128,218,254	1.00%	0.6500	833,419	816,750	-	816,750
2024	129,500,437	1.00%	0.6500	841,753	824,918	-	824,918
2025	130,795,441	1.00%	0.6500	850,170	833,167	-	833,167
2026	132,103,396	1.00%	0.9400	1,241,772	1,216,936	-	1,216,936
2027	133,424,429	1.00%	0.9400	1,254,190	1,229,106	-	1,229,106
2028	134,758,674	1.00%	0.9400	1,266,732	1,241,397	-	1,241,397
2029	136,106,260	1.00%	0.9400	1,279,399	1,253,811	-	1,253,811
2030	137,467,323	1.00%	0.9400	1,292,193	1,266,349	-	1,266,349
2031	138,841,996	1.00%	1.1300	1,568,915	1,537,536	-	1,537,536
2032	140,230,416	1.00%	1.1300	1,584,604	1,552,912	-	1,552,912
2033	141,632,720	1.00%	1.1300	1,600,450	1,568,441	-	1,568,441
2034	143,049,048	1.00%	1.1300	1,616,454	1,584,125	-	1,584,125
2035	144,479,538	1.00%	1.1300	1,632,619	1,599,966	-	1,599,966
2036	145,924,334	1.00%	1.1300	1,648,945	1,615,966	-	1,615,966
2037	147,383,577	1.00%	1.1300	1,665,434	1,632,126	-	1,632,126
2038	148,857,413	1.00%	1.1300	1,682,089	1,648,447	-	1,648,447
2039	150,345,987	1.00%	1.1300	1,698,910	1,664,931	-	1,664,931
2040	151,849,447	1.00%	1.1300	1,715,899	1,681,581	-	1,681,581
2041	153,367,941	1.00%	1.1300	1,733,058	1,698,397	-	1,698,397
2042	154,901,620	1.00%	1.1300	1,750,388	1,715,381	-	1,715,381
2043	156,450,637	1.00%	1.1300	1,767,892	1,732,534	-	1,732,534
2044	158,015,143	1.00%	1.1300	1,785,571	1,749,860	-	1,749,860
2045	159,595,294	1.00%	1.1300	1,803,427	1,767,358	-	1,767,358
2046	161,191,247	1.00%	1.1300	1,821,461	1,785,032	-	1,785,032
2047	162,803,160	1.00%	1.1300	1,839,676	1,802,882	-	1,802,882
2048	164,431,192	1.00%	1.1300	1,858,072	1,820,911	-	1,820,911
2049	166,075,503	1.00%	1.1300	1,876,653	1,839,120	-	1,839,120
2050	167,736,258	1.00%	1.1300	1,895,420	1,857,511	-	1,857,511
2051	169,413,621	1.00%	1.1300	1,914,374	1,876,086	-	1,876,086
2052	171,107,757	1.00%	1.1300	1,933,518	1,894,847	-	1,894,847
2053	172,818,835	1.00%	1.1300	1,952,853	1,913,796	-	1,913,796
2054	174,547,023	1.00%	1.1300	1,972,381	1,932,934	-	1,932,934
2055	176,292,493	1.00%	1.1300	1,992,105	1,952,263	-	1,952,263
<b>Totals</b>				<b>\$ 56,948,086</b>	<b>\$ 55,809,124</b>	<b>\$ -</b>	<b>\$ 55,809,124</b>

Attachment: GO Debt Analysis 2014 (1405 : GO Bond Funding Analysis for Streets/Sidewalks/Storm Water)

# City of Harrisonville, Missouri

Debt Service Fund

Aggregate Debt Service

\$5 Million Issued per year 2015, 2020, 2025, 2030 and 2035

(Assuming June 1st closing date)

Calendar Year	Projected Series 2015 Debt Service	Projected Series 2020 Debt Service	Projected Series 2025 Debt Service	Projected Series 2030 Debt Service	Projected Series 2035 Debt Service	Total Debt Service
12/31/2013						
2014						\$ -
2015						-
2016	340,850					340,850
2017	344,863					344,863
2018	343,606					343,606
2019	342,188					342,188
2020	340,606					340,606
2021	343,781	400,250				744,031
2022	341,713	401,500				743,213
2023	344,400	398,375				742,775
2024	341,844	399,875				741,719
2025	344,044	400,875				744,919
2026	341,000	401,375	400,250			1,142,625
2027	342,713	401,375	401,500			1,145,588
2028	344,100	400,875	398,375			1,143,350
2029	345,163	399,875	399,875			1,144,913
2030	340,981	398,375	400,875			1,140,231
2031	341,556	401,250	401,375	400,250		1,544,431
2032	341,806	398,500	401,375	401,500		1,543,181
2033	341,731	400,125	400,875	398,375		1,541,106
2034	341,331	401,000	399,875	399,875		1,542,081
2035	345,525	401,125	398,375	400,875		1,545,900
2036		400,500	401,250	401,375	400,250	1,603,375
2037		399,125	398,500	401,375	401,500	1,600,500
2038		401,875	400,125	400,875	398,375	1,601,250
2039		398,750	401,000	399,875	399,875	1,599,500
2040		399,750	401,125	398,375	400,875	1,600,125
2041			400,500	401,250	401,375	1,203,125
2042			399,125	398,500	401,375	1,199,000
2043			401,875	400,125	400,875	1,202,875
2044			398,750	401,000	399,875	1,199,625
2045			399,750	401,125	398,375	1,199,250
2046				400,500	401,250	801,750
2047				399,125	398,500	797,625
2048				401,875	400,125	802,000
2049				398,750	401,000	799,750
2050				399,750	401,125	800,875
2051					400,500	400,500
2052					399,125	399,125
2053					401,875	401,875
2054					398,750	398,750
2055					399,750	399,750
<b>Totals</b>	<b>\$ 6,853,800</b>	<b>\$ 8,004,750</b>	<b>\$ 8,004,750</b>	<b>\$ 8,004,750</b>	<b>\$ 8,004,750</b>	<b>\$ 38,872,800</b>

<b>Yield</b>	3.25%	5.00%	5.00%	5.00%	5.00%
<b>Original Par</b>	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
<b>Refunding Status</b>	TBD	TBD	TBD	TBD	TBD

# City of Harrisonville, Missouri

Debt Service Fund

Debt Capacity Calculation

\$5 Million Issued per year 2015, 2020, 2025, 2030 and 2035

(Assuming June 1st closing date)

Calendar Year	Assessed Valuation	20% of Assessed Valuation	Debt Service Fund Balance	Maximum Debt Capacity	Outstanding Principal (1)	Voteable Debt Capacity
12/31/2013						
2014	\$ 117,235,056	\$ 23,447,011	\$ -	\$ 23,447,011	\$ -	\$ 23,447,011
2015	118,407,407	23,681,481	-	23,681,481	-	23,681,481
2016	119,591,481	23,918,296	69,349	23,987,645	4,860,000	19,127,645
2017	120,787,395	24,157,479	138,787	24,296,266	4,670,000	19,626,266
2018	121,995,269	24,399,054	213,625	24,612,678	4,475,000	20,137,678
2019	123,215,222	24,643,044	294,065	24,937,110	4,275,000	20,662,110
2020	124,447,374	24,889,475	380,314	25,269,788	4,070,000	21,199,788
2021	125,691,848	25,138,370	436,939	25,575,309	8,765,000	16,810,309
2022	126,948,767	25,389,753	502,390	25,892,144	8,385,000	17,507,144
2023	128,218,254	25,643,651	576,366	26,220,017	7,990,000	18,230,017
2024	129,500,437	25,900,087	659,565	26,559,652	7,580,000	18,979,652
2025	130,795,441	26,159,088	747,813	26,906,901	7,150,000	19,756,901
2026	132,103,396	26,420,679	822,124	27,242,804	11,615,000	15,627,804
2027	133,424,429	26,684,886	905,643	27,590,529	10,990,000	16,600,529
2028	134,758,674	26,951,735	1,003,690	27,955,424	10,340,000	17,615,424
2029	136,106,260	27,221,252	1,112,588	28,333,840	9,660,000	18,673,840
2030	137,467,323	27,493,465	1,238,706	28,732,170	8,955,000	19,777,170
2031	138,841,996	27,768,399	1,231,811	29,000,210	13,125,000	15,875,210
2032	140,230,416	28,046,083	1,241,541	29,287,624	12,195,000	17,092,624
2033	141,632,720	28,326,544	1,268,876	29,595,420	11,225,000	18,370,420
2034	143,049,048	28,609,810	1,310,920	29,920,729	10,210,000	19,710,729
2035	144,479,538	28,895,908	1,364,986	30,260,894	9,145,000	21,115,894
2036	145,924,334	29,184,867	1,377,577	30,562,444	13,290,000	17,272,444
2037	147,383,577	29,476,715	1,409,203	30,885,918	12,330,000	18,555,918
2038	148,857,413	29,771,483	1,456,400	31,227,882	11,320,000	19,907,882
2039	150,345,987	30,069,197	1,521,831	31,591,029	10,260,000	21,331,029
2040	151,849,447	30,369,889	1,603,287	31,973,176	9,145,000	22,828,176
2041	153,367,941	30,673,588	2,098,559	32,772,147	8,380,000	24,392,147
2042	154,901,620	30,980,324	2,614,939	33,595,263	7,580,000	26,015,263
2043	156,450,637	31,290,127	3,144,599	34,434,726	6,735,000	27,699,726
2044	158,015,143	31,603,029	3,694,833	35,297,862	5,850,000	29,447,862
2045	159,595,294	31,919,059	4,262,942	36,182,000	4,920,000	31,262,000
2046	161,191,247	32,238,249	5,246,223	37,484,473	4,350,000	33,134,473
2047	162,803,160	32,560,632	6,251,481	38,812,113	3,755,000	35,057,113
2048	164,431,192	32,886,238	7,270,392	40,156,630	3,125,000	37,031,630
2049	166,075,503	33,215,101	8,309,762	41,524,862	2,465,000	39,059,862
2050	167,736,258	33,547,252	9,366,398	42,913,650	1,770,000	41,143,650
2051	169,413,621	33,882,724	10,841,984	44,724,709	1,450,000	43,274,709
2052	171,107,757	34,221,551	12,337,707	46,559,258	1,115,000	45,444,258
2053	172,818,835	34,563,767	13,849,628	48,413,395	760,000	47,653,395
2054	174,547,023	34,909,405	15,383,811	50,293,216	390,000	49,903,216
2055	176,292,493	35,258,499	16,936,324	52,194,823	-	52,194,823

(1) See detailed schedule on page 5

# City of Harrisonville, Missouri

Debt Service Fund

Detailed Outstanding Principal

\$5 Million Issued per year 2015, 2020, 2025, 2030 and 2035

(Assuming June 1st closing date)

Calendar Year	Projected Series 2015 Principal	Projected Series 2020 Principal	Projected Series 2025 Principal	Projected Series 2030 Principal	Projected Series 2035 Principal	Total Principal	Principal Outstanding
12/31/2013							
2014						\$ -	\$ -
2015						-	-
2016	140,000					140,000	4,860,000
2017	190,000					190,000	4,670,000
2018	195,000					195,000	4,475,000
2019	200,000					200,000	4,275,000
2020	205,000					205,000	4,070,000
2021	215,000	90,000				305,000	8,765,000
2022	220,000	160,000				380,000	8,385,000
2023	230,000	165,000				395,000	7,990,000
2024	235,000	175,000				410,000	7,580,000
2025	245,000	185,000				430,000	7,150,000
2026	250,000	195,000	90,000			535,000	11,615,000
2027	260,000	205,000	160,000			625,000	10,990,000
2028	270,000	215,000	165,000			650,000	10,340,000
2029	280,000	225,000	175,000			680,000	9,660,000
2030	285,000	235,000	185,000			705,000	8,955,000
2031	295,000	250,000	195,000	90,000		830,000	13,125,000
2032	305,000	260,000	205,000	160,000		930,000	12,195,000
2033	315,000	275,000	215,000	165,000		970,000	11,225,000
2034	325,000	290,000	225,000	175,000		1,015,000	10,210,000
2035	340,000	305,000	235,000	185,000		1,065,000	9,145,000
2036		320,000	250,000	195,000	90,000	855,000	13,290,000
2037		335,000	260,000	205,000	160,000	960,000	12,330,000
2038		355,000	275,000	215,000	165,000	1,010,000	11,320,000
2039		370,000	290,000	225,000	175,000	1,060,000	10,260,000
2040		390,000	305,000	235,000	185,000	1,115,000	9,145,000
2041			320,000	250,000	195,000	765,000	8,380,000
2042			335,000	260,000	205,000	800,000	7,580,000
2043			355,000	275,000	215,000	845,000	6,735,000
2044			370,000	290,000	225,000	885,000	5,850,000
2045			390,000	305,000	235,000	930,000	4,920,000
2046				320,000	250,000	570,000	4,350,000
2047				335,000	260,000	595,000	3,755,000
2048				355,000	275,000	630,000	3,125,000
2049				370,000	290,000	660,000	2,465,000
2050				390,000	305,000	695,000	1,770,000
2051					320,000	320,000	1,450,000
2052					335,000	335,000	1,115,000
2053					355,000	355,000	760,000
2054					370,000	370,000	390,000
2055					390,000	390,000	-
<b>Totals</b>	<b>\$ 5,000,000</b>	<b>\$ 5,000,000</b>	<b>\$ 5,000,000</b>	<b>\$ 5,000,000</b>	<b>\$ 5,000,000</b>	<b>\$ 25,000,000</b>	

Attachment: GO Debt Analysis 2014 (1405 : GO Bond Funding Analysis for Streets/Sidewalks/Storm Water)

April 30, 2014

Page 5

PiperJaffray®



## STAFF REPORT

**TO:** Public Works Committee  
**FROM:** Jerry Gibbs, Director  
**DATE:** June 3, 2014  
**SUBJECT:** HARRISONVILLE AUTO LUBE WATER LEAK

**Type of Item:** Report

On 2-10-14 a water leak occurred at the Harrisonville Auto Lube at 1301 S Commercial. The leak was in an 8" Cast Iron Main w/ a 2" to 3" hole in the pipe. Water Department responded immediately when call was received and immediately shut the water main off. The estimated leak time was 30 minutes. Using the Rural Water Leak Estimator, the leak is estimated to have a volume of 50,460 gallons of water. The leak was located under the most easterly (second) approach into the property (see exhibit). Water was observed coming up at different locations within the parking lot. The most notable areas were those with alligator cracking. The cracking allowed the water to escape and there was no visible signs of raised paving due to pressure from the water in the parking lot. Rodney Jacobs and I walked around the parking area after the water had been shut off about 2 hours later.

I was contacted on 5-9 and 5-21. Concerning the status of the repairs. Robert Edwards, Matt Carver and I met Nate, the son of the owner on-site. I inquired as to what the owner was anticipating. Nate suggested the entire parking lot was damaged. We disagreed on the area damaged and agreed the city would have responsibility to replace a smaller portion of the parking lot. Staff measured out an area they thought would be reasonable. The area was described as 70' (east edge of the second driveway to the west edge of the first driveway) by 17' on the east by 56' on the south widening to 40' on the west. The area is approximately 1827 sq ft.

**C. Action Item (ID # 1424)**

HARRISONVILLE AUTO LUBE WATER LEAK

## Attachments:

2014-02-10 14.20.45 (JPG)  
 2014-02-10 14.22.10 (JPG)  
 2014-02-10 14.24.45 (JPG)  
 2014-02-10 14.25.02 (JPG)

2014-02-10 14.25.25 (JPG)

2014-02-10 14.26.06 (JPG)



3.C.a

Attachment: 2014-02-10 14.20.45 (1424 : HARRISONVILLE AUTO LUBE WATER LEAK)



Attachment: 2014-02-10 14.22.10 (1424 : HARRISONVILLE AUTO LUBE WATER LEAK)



BRAKES SHOCKS  
TUNE-UPS BELT & HOSES  
816-884-4868 TRUCK SERVICES

Harrisonville  
AUTO-LUBE

PEPSI

The  
Tire Center  
816-380-8087

DW AUTO  
SALES  
COMPLETE  
CAR/WALK-IN

Attachment: 2014-02-10 14.24.45 (1424 : HARRISONVILLE AUTO LUBE WATER LEAK)



3.C.d

Attachment: 2014-02-10 14.25.02 (1424 : HARRISONVILLE AUTO LUBE WATER LEAK)



3.C.e

Attachment: 2014-02-10 14.25.25 (1424 : HARRISONVILLE AUTO LUBE WATER LEAK)



Attachment: 2014-02-10 14.26.06 (1424 : HARRISONVILLE AUTO LUBE WATER LEAK)



## STAFF REPORT

**TO: Public Works Committee**  
**FROM: Eric Patterson, Asst. Director**  
**DATE: May 28, 2014**  
**SUBJECT: PUBLIC WORKS UPDATE JUNE 2014**

**Type of Item: Report****WATER SYSTEMS**

- KC Water Transmission Main:**
  - Hydraulic model report should be received by the end of the week. Lee's Summit has a copy of the report.
- Water Treatment Plant Upgrades Phase 1**
  - Capital Facilities Plan Draft under review
- East Washington/South Lexington Waterline Improvements-**
  - Closeout of project in progress to verify final quantities.

**SANITARY SEWERS**

- Ann Street Sanitary Sewer:** Lining completed. Only the invert construction remains
- CCTV - GPS of Manholes** is almost complete, Televising of incomplete runs from last year to start any day
- Eastwood Sanitary Sewer Reroute:** work is complete and being finalized
- Clark Sewer** - work is complete. Requested Clark sign a letter stating the work was done to his satisfaction
- WWTP sludge removal** - Invitation to bid is being prepared and will include the water plant backwash pond sludge removal.

**STORMWATER**

- Morningview Storm Drainage Improvement Project:** Four easements acquisitions are required before the project can be bid.
- Chateau** - engineering to start this month

**GENERAL/TRANSPORTATION**

- Mechanic Street-**
  - MoDOT is completing the project EIS  
Tentative bid date spring 2015
- 291Partners in Progress-**

- Low bid was \$13.6M. Approximately \$200,000 above the estimate
- Electrical Relocation is underway
- North Independence Bridge -**
  - project is 98% complete waiting on fence and seeding
- 2014 Sidewalk Program:**
  - Construction to start in June or July

**A. Discussion Item (ID # 1420)**

PUBLIC WORKS UPDATE JUNE 2014



## STAFF REPORT

**TO:** Public Works Committee  
**FROM:** Jerry Gibbs, Director  
**DATE:** May 29, 2014  
**SUBJECT:** May Airport Report

**Type of Item:** Report

**Hangar and Tie Down Space:**

- All Hangars are full, 15 confirmed people on the waiting list
- 6 Tie down spots available

**Fuel:**

- Potential jet fuel sales - approx. 300 gallons
- 100LL - our current price is \$5.70 per gallon
- Fuel prices in our service area:

Lee's Summit	\$5.31 per gal.
Ottawa	\$5.55 per gal.
Gardner	\$5.65 per gal.
Johnson County	\$6.30 per gal.
Butler	\$5.50 per gal

**AVGAS Sales:** (April 24 to May 28)

- Price \$5.70 per gallon
- Gallons Sold 677.22
- Revenue \$3,860.15
- Profit \$474.05

**Airport Projects and Grant Funding:**

An appraisal of the private land located to the east of the runway has begun. Hopefully this land will be valued at a favorable rate and a land donation can be arranged to cover the construction match of the South Hangar Area Pavement Rehabilitation Project, the design of this project has been approved but not started because we do not have enough land as match to cover our 5% of the construction portion of the project. As last year, we have grant money set to expire at the end of September unless the money can be put under contract, if we do not have the land as match available to cover the construction portion of the project then we will have to identify another

source for those funds or abandon the design project and choose smaller projects to utilize the remainder of our land as match.

**Land Lease:**

The land lease is under review by the city attorney, MoDOT's comments are being addressed. Standard agreements will be available at the next Committee meeting.

**Life Flight Jet Fuel Tank:**

Life Flight has decided to keep their jet fuel tank for 2015. They may be interested in selling it the city in 2016 but they have not made that decision yet.

**A. Action Item (ID # 1422)**

May Airport Report

Attachments:

Potential Jet Fuel Sales April 14 (XLS)

<b>POTENTIAL JET FUEL SALES</b>													
(in gallons)													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	<b>ANNUAL</b>
													<b><u>TOTAL</u></b>
<b>2003</b>	?	?	1,700	2,300	2,300	2,500	2,000	2,500	1,800	1,500	1,200	1,400	<b>19,200</b>
<b>2004</b>	1,800	2,500	3,500	2,500	1,500	1,500	3,000	2,800	2,000	2,000	3,200	3,400	<b>29,700</b>
<b>2005</b>	2,100	1,400	1,200	2,200	2,400	2,000	1,500	1,000	2,000	1,500	1,000	1,300	<b>19,600</b>
<b>2006</b>	1,000	1,500	1,800	1,800	1,000	1,300	1,000	1,200	1,500	1,000	1,100	800	<b>15,000</b>
<b>2007</b>	500	1,000	1,000	1,200	1,000	1,200	1,000	500	600	500	300	200	<b>9,000</b>
<b>2008</b>	200	200	200	100	100	200	300	400	200	250	150	100	<b>2,400</b>
<b>2009</b>	150	100	100	150	200	250	150	250	150	150	100	100	<b>1,850</b>
<b>2010</b>	250	350	250	150	150	100	100	150	100	0	200	250	<b>2,050</b>
<b>2011</b>	350	300	250	200	250	200	250	350	200	200	250	200	<b>3,000</b>
<b>2012</b>	150	250	150	200	400	300	200	200	300	200	350	100	<b>2,800</b>
<b>2013</b>	350	250	150	200	250	300	450	250	200	350	550	350	3,650
<b>2014</b>	1,800	500	200	200	300								3,000

Attachment: Potential Jet Fuel Sales April 14 (1422 : May Airport Report)