Saddle Creek Retention Treatment Basin

Aksarben-Elmwood
Neighborhood Association Meeting
May 15, 2014

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Meeting Agenda

Welcome	**Ann Pedersen**
CSO Overview	**Jim Theiler**
Neighborhood Update	**Roger Coffey**
Project Summary	**David White**
Project Schedule	**David White**
Q & A	**All**

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Challenges Facing Omaha

- Meeting the increased requirements of the federal Clean Water Act
- Balancing the following needs
  - Regulatory compliance
  - Economic affordability
  - Community acceptance

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Opportunities

- Reduce overflows of raw sewage to our streams; improve water quality
- Continue our efforts to eliminate sewer backups into basements
- Replace aging sewer, gas, water and street infrastructure
- Integrate infrastructure upgrades with continued redevelopment
- Improve drainage and reduce flooding

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772+ CSO Communities Nationwide

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Metro Service Area

- Two regional treatment plants
- 10 wholesale users
- 275 sq mi drainage area
- 600,000 service population

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Omaha Sewer System

- 1,950 miles of sewers
  - Eastern half combined
  - Western half separate
- 43 sq mi combined sewer area
  - 28,000 acres
  - 6,200 sq blocks
- 29 CSO outfalls
  - 10 to Papio Creek
  - 19 to Missouri River
  - 3 eliminated

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Six Major Elements of Final Long Term Control Plan (2009)

Targeted Sewer Separation Projects

Two High-Rate Treatment Facilities

One Deep Conveyance Tunnel

Improvements to the MRWWTP Delivery and Treatment system

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Six Major Elements of Final Long Term Control Plan

Two Underground Storage Tanks

One Large Stormwater Sewer

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Program Costs (2009 Dollars)

Project Category	Program Cost
Deep Tunnel Project	$ 442,000,000
Minne Lusa Stormwater Collector Projects	$ 113,000,000
High Rate Treatment Projects	$ 126,000,000
South Interceptor Force Main Project	$ 77,000,000
MRWWTP Improvements	$ 91,000,000
Lift Station Projects	$ 131,000,000
Storage Structure Projects	$ 31,000,000
Sewer Separation Projects	$ 614,000,000
Miscellaneous Projects	$ 36,000,000
TOTAL	$ 1,661,000,000

Estimated 2014 Dollars:
$2 Billion

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Program Status as of March, 2014

- **$31M** - construction complete, contracts closed
- **$208M** - construction work ongoing contracts open
- **$379M** - estimated value of work in design
- **$105M** - currently paid out for construction

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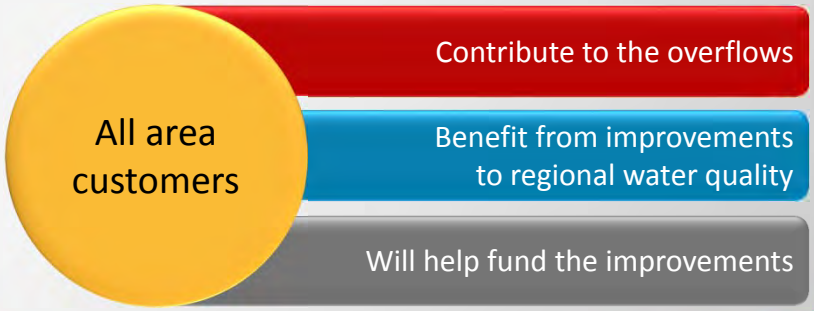
Funding the Program

The federal mandate for the Omaha system is to increase wet weather capacity to reduce sewage overflows.



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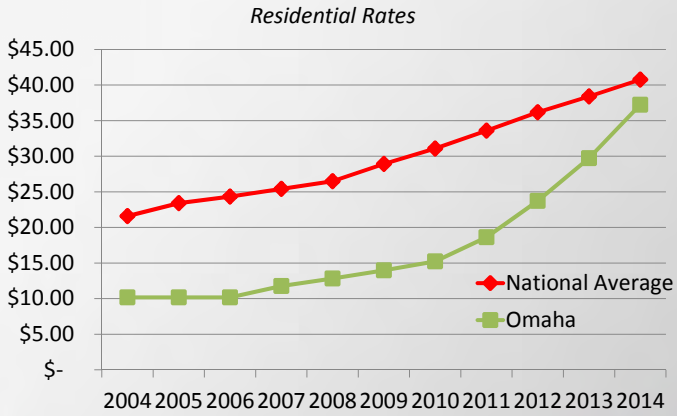
Paying for the Program

Financed with Bonds
Funded by Sewer Fees



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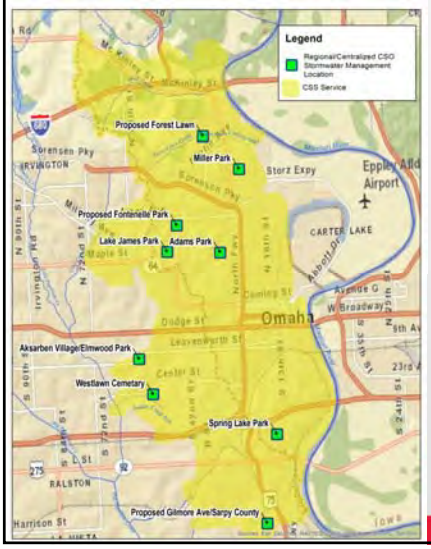
City of Omaha CSO Program Regional System of Centralized Stormwater Management



- Large scale 'centralized' stormwater management practices
- Use in parks and other open spaces
- Controlling stormwater to save over $30 million by using less 'grey infrastructure'

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Neighborhood Update

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Neighborhood Project Status
Aksarben Village/Elmwood Park

- Project Completed
- Project awarded the Green Leaf Award from Omaha By Design
- City Overlay Program – July to October 2014

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Neighborhood Project Status
Saddle Creek – 55th to 64th

- Anticipated Completion July 2014

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Neighborhood Project Status
CSO 211 – 66th & Pacific Street

- Project Completed
- City Overlay Program – Currently Underway

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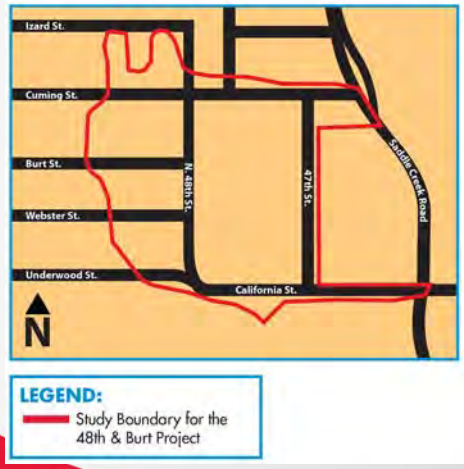
Neighborhood Project Status
48th and Burt Sewer Separation Project Area



- Sewer Separation to address localized basement back-ups and street flooding
- Study on-going; extent and timing of construction TBD

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Neighborhood Project Status
49th and Caldwell
Sewer Separation Drainage Area

- Sewer Separation Project to address localized basement back-ups and street flooding
- April 22nd, 2014 - 60% Design Public Meeting
- Anticipated design complete this year
- Construction in 2015 - 2016

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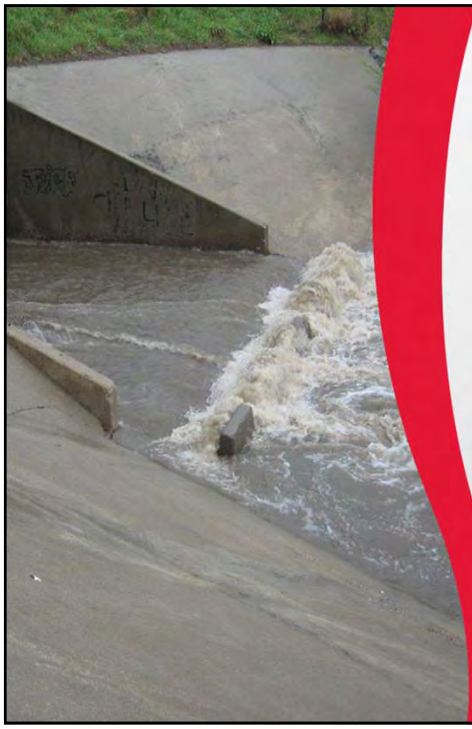

Saddle Creek Retention Treatment Basin

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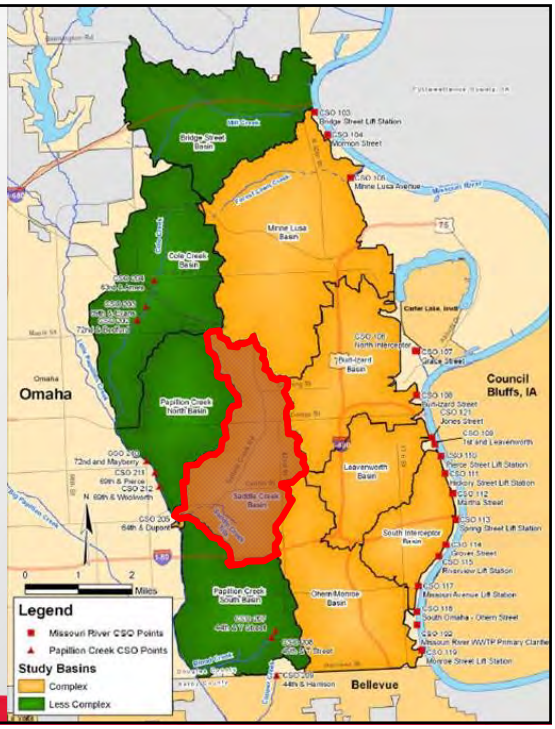
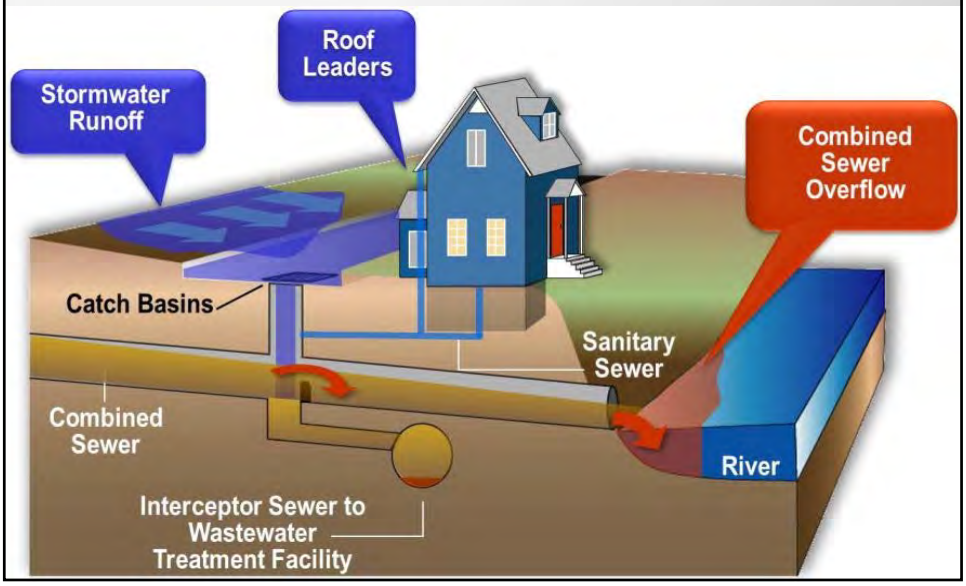
Saddle Creek Basin



Sewage and rainwater are currently mixed together



Existing Site

Combined Sewer Overflows

- Overflows occur on average between 50 and 60 days in most years
- As little as 0.10th inch of rain can cause on overflow

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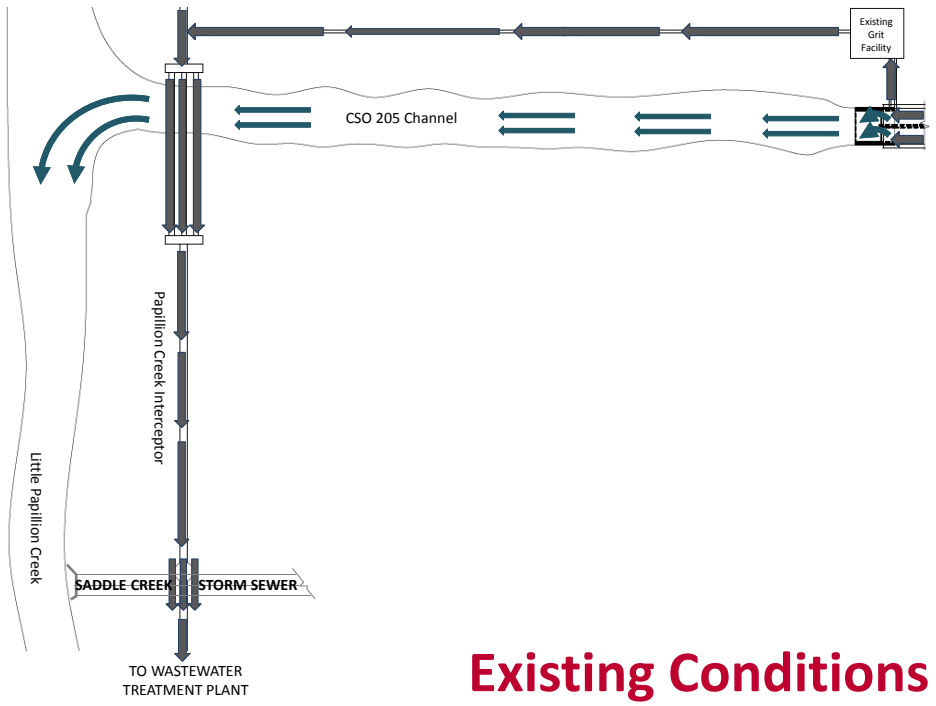
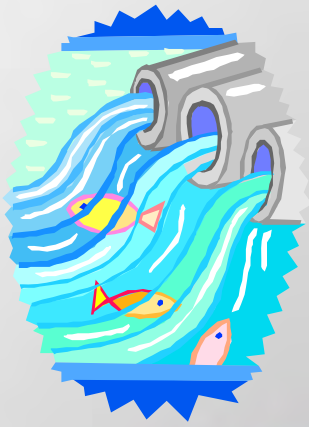


Existing Conditions

Purpose of the Project

Capture, treat and reduce the volume of combined stormwater and sewage entering the Little Papillion Creek



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Project Goals

- Improve water quality and meet EPA requirements
- Reduce odors
- Minimize disruption to businesses and residents
- Integrate green and sustainable solutions

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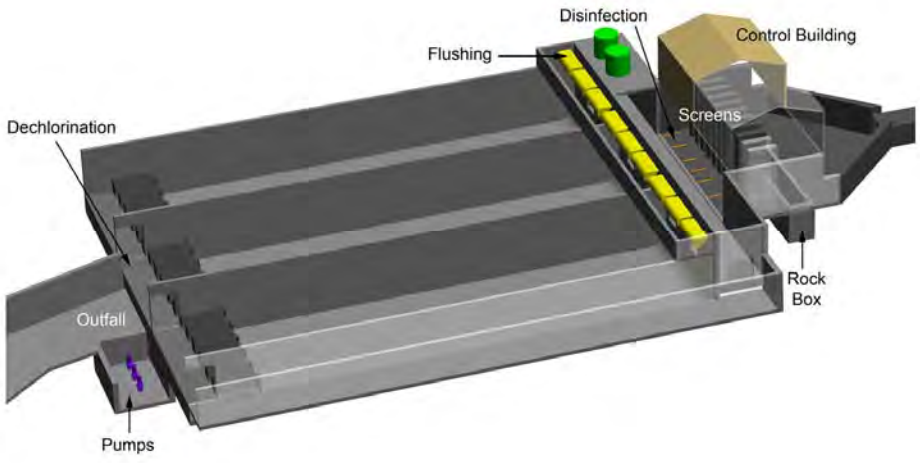
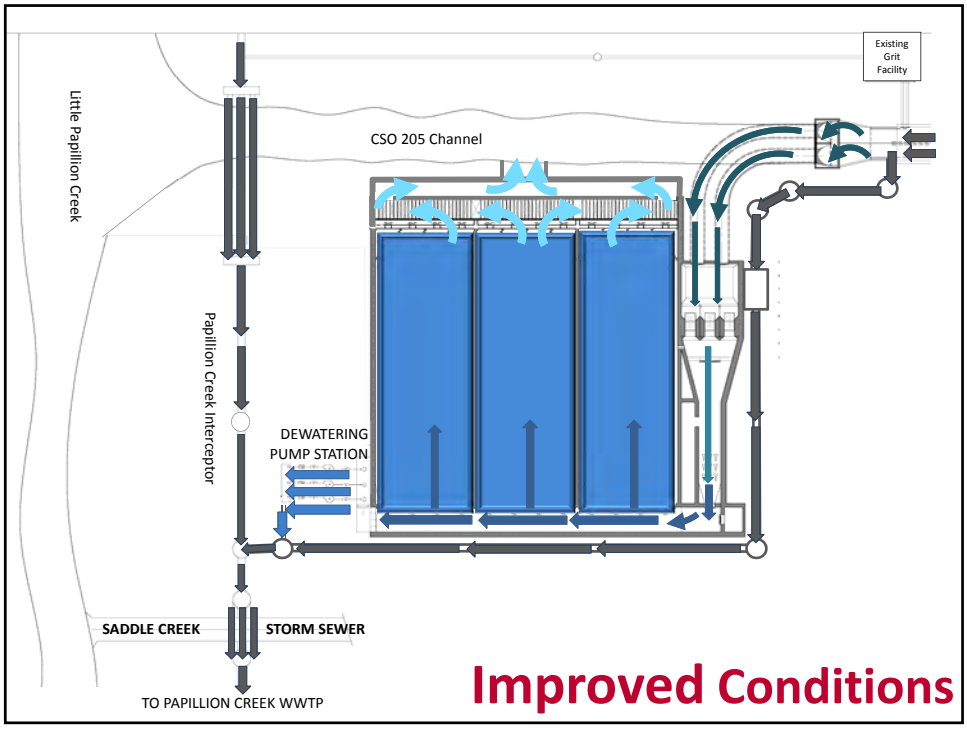
What is an RTB?




Existing Grit Facility
Little Papillion Creek
CSO 205 Channel
Papillion Creek Interceptor
DEWATERING PUMP STATION
SADDLE CREEK
STORM SEWER
TO PAPILLION CREEK WWTP
Improved Conditions


Preliminary Site Plan
Future UNO Hockey Arena and Parking
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Conceptual Facility

View of Building From the North

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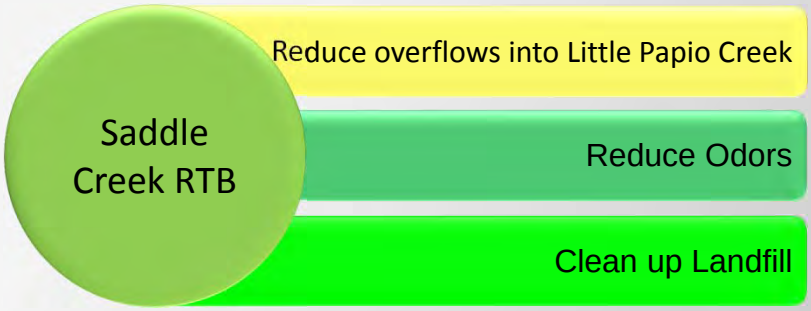
Community Enhancements



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Utility Coordination

- Partnership with OPPD&UNO Arena on power supply
- Partnership with MUD&UNO Arena on water lines

OPPD Omaha Public Power District

METROPOLITAN UTILITIES DISTRICT

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Sustainable Solutions

- Gravity Flow Through Facility Eliminates Need for Expensive Pumping Equipment
- Removal of Construction & Demolition Landfill Debris and Reuse of Site
- Geothermal Heating/Cooling Partnership with OPPD
- White Roof

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Green Solutions

- Rainwater Harvesting
- Bioretention Pond
- Native Grasses

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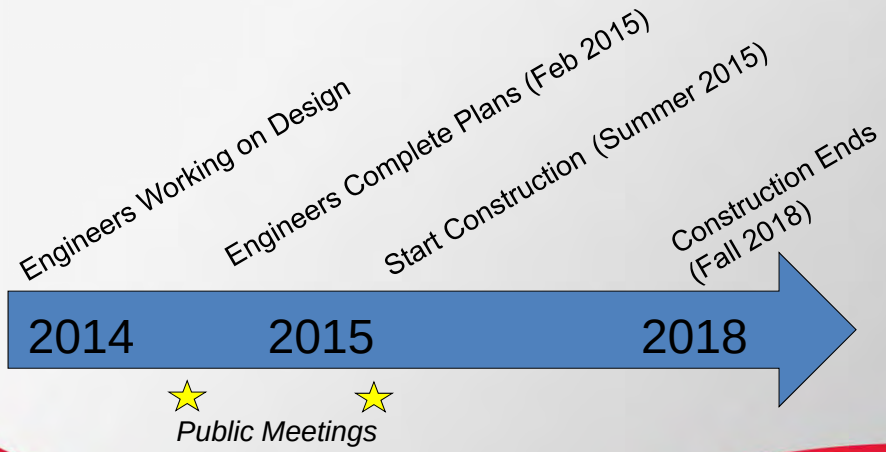
Schedule



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For More Information

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Questions?

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