

# CITIZENS' WATER ADVISORY COMMITTEE (CWAC)



Wednesday, June 3, 2015, 7:00 a.m.  
Director's Conference Room  
Tucson Water, 3<sup>rd</sup> Floor  
310 W. Alameda Street, Tucson, Arizona

## Legal Action Report

### 1. Roll Call:

The meeting was called to order by CWAC Chair, Brian Wong at 7:02 a.m. Those present and absent were:

#### Present:

Brian Wong	Chairperson, Representative, City Manager
Placido dos Santos	Representative, City Manager
Jean McLain	Representative, City Manager
Catlow Shipek	Representative, City Manager
Mark Taylor	Representative, City Manager
Mitch Basefsky	Representative, City Manager
Chuck Freitas	Representative, City Manager
Alan Tonelson	Representative, Ward 1
Amy McCoy	Representative, Ward 2 (arrived at 7:07 a.m.)
Mark Lewis	Vice Chair, Representative, Ward 5
Kelly Lee	Representative, Ward 6 (arrived at 7:02 a.m.)
Alan Forrest	Tucson Water, Director, Ex-Officio Member
Jackson Jenkins	Pima County Regional Wastewater Reclamation Department Director, Ex-Officio Member

#### Absent:

Mark Murphy	Representative, Mayor
Bruce Billings	Representative, Ward 3
George White	Representative, Ward 4

#### Tucson Water Staff Present:

Sandy Elder	Deputy Director
Jeff Biggs	Interim Deputy Director
Andrew Greenhill	Intergovernmental Affairs Manager
Chris Rodriguez	Water Administrator
Melodee Loyer	Water Administrator
Pat Eisenberg	Water Administrator
Fernando Molina	Water Program Supervisor
Candace Rupprecht	Public Information Specialist
Johanna Hernandez	Staff Assistant
Kris LaFleur	Staff Assistant

#### Others Present:

Chris Avery	City of Tucson, Attorney's Office
Amy Stabler	City of Tucson, Ward 6
Tony Wong	City of Tucson, Budget
Michael Block	Metro Water
Murielle Coeurdray	University of Arizona

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2. **Announcements** – Member Basefsky announced that June 4<sup>th</sup> marks 30 years of CAP delivery, amounting to 32 billion gallons of water. There will be a celebration open to the public in Phoenix on June 4<sup>th</sup>. Chair Wong announced that Member Tonelson is retiring from CWAC after today's meeting.
3. **Call to Audience** – No action taken.
4. **Review of May 6, 2015 Legal Action Report and Meeting Minutes** – Committee Member Tonelson motioned to approve the Meeting Minutes of May 6, 2015. Member Freitas seconded. Motion passed unanimously by a voice vote of 10-0.
5. **Director's Report** –
  - a. **Mayor and Council Items** – On May 19, the Mayor and Council approved City Code amendments related to customer deposits and the timing of CWAC elections. A brief review was provided on the changes to the deposit policy. On this date, the Mayor and Council also held a public hearing and adopted the Tucson Water proposed rate structure, Option A.

On June 9, Mayor and Council will consider the acquisition of a water easement for existing infrastructure on private property. Additionally, the Mayor and Council will consider administrative amendments to the Water Service Area Policy and the Water Service Area Review Board (WSARB).

On June 23, Mayor and Council will hold a Public Hearing regarding a WSARB Service Recommendation to grant water service outside of Tucson Water's Water Service Area.
  - b. **Department Updates** – Tucson Water currently has 57 vacancies, 20 active recruitments and 10 pending new hires.
  - c. **Informational Items** – Water production is currently below peak, but is expected to increase with rising temperatures. There was a ceremony for the dedication of the Vail Transfer Station that was well attended, and marks the completion of a project that has been in the works for some time. Tucson Water's Advanced Oxidation Process (AOP) treatment facility has been awarded the 2015 Grand Prize in Design from the American Academy of Environmental Engineers and Scientists, the facility continues to meet and exceed expectations. Director Forrest thanked the Committee for their hard work, and expressed his appreciation for the opportunity to have worked with each of the members; this will be Director Forrest's final CWAC meeting.
6. **Subcommittee Reports** –
  - Technical, Policy, and Planning Subcommittee** – Acting Subcommittee Chair Wong reported on the Water Security and CAP Joint Recovery Plan presentations provided to TPP at the May meeting.
  - Finance Subcommittee** – On behalf of Subcommittee Chair Billings, Member Wong reported that the Subcommittee has not met and has nothing to report at this time.
  - Conservation and Education Subcommittee** – Subcommittee Chair Amy McCoy reported there is a meeting Monday, June 15<sup>th</sup> at 10am. The Subcommittee has been discussing, and will continue to discuss, the work plan and upcoming budget.
  - Bill Redesign Ad-Hoc** – Subcommittee Chair Tonelson reported that the Subcommittee, having heard from County representatives and Tucson Water, is in the process of formulating recommendations for the Committee related to the calculation of the winter-quarter average, and review of mock-up redesigned statements.
  - RWRAC Update** – Ex-Officio Member Jackson Jenkins reported that consideration of wastewater's two rate increases and one connection increase have been continued until August 17<sup>th</sup>. Biogas contract negotiations are still in process.
7. **Subcommittee Member/Officer Election** – Discussion was held regarding which current member of the Subcommittee would be willing to Chair, or the addition of a new member to Chair. After clarification that

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the Chair is limited only in their ability to make motions, Member Freitas volunteered. Member Tonelson motioned for the election of Member Freitas as Chair of the Bill Redesign Ad-Hoc Subcommittee. Member Taylor seconded. Motion passed by a roll-call of Subcommittee members, 3-0-1, with Member Freitas abstaining.

8. **Effect of Reduced Flows to the Sewer** – Deputy Director of Pima County Regional Wastewater Reclamation Department John Warner provided a PowerPoint presentation on the effects of reduced flows on gravity sewer systems. Gravity sewer systems are designed for 100 year life spans, to transport waste through gravity, with multiple points of influent into the system during transportation. The County is regulated by a state permitting process. The Capacity, Management, Operations and Maintenance (CMOM) permit is required by ADEQ, and related to the aquifer protection permit. Depositing of solids in the system, due in part to low flows, is a threat to capacity. Other threats to capacity include inflows through non-standard influent. The system is regulated by ADEQ sloping standards and is designed to run at 70-80% of full capacity. The County operates and maintains 3,478 miles of pipe. Just under 2,500 miles of the pipe is televised through CCTV. CCTV is currently a voluntary aspect of the CMOM permit, and must be complete by December 2016. The CCTV is looking for structural integrity, debris, dirt and other obstructions causing surcharges (backed up water), that may require flushing. Flushing is done with potable and some reclaimed water. Reclaimed water is not available in all areas, and requires water trucks that have additional risks. Sanitary sewer overflow, or water trickling out of manhole, is one of the worst case scenarios for sewer management, and should be reported immediately. The results of low flow and lack of maintenance are detrimental and far reaching. Approximately 2.65 million gallons, or 8 acre feet, of potable water is used for flushing; 65k gallons of reclaimed has been used for flushing over the last 12 months. Flushing water is metered and paid at the construction rate, and related costs are built into the sewer rates. Discussion was held regarding ADEQ permitting requirements, the causes of permeating odors, the effect of the temperature of inflow water, and sewer pipe materials that may mitigate low flow issues.

Member McCoy departed at 7:43 a.m. and returned at 7:46 a.m.

Member McLain departed at 7:56 a.m. and returned at 7:58 a.m.

Member Lewis departed at 7:59 a.m. and returned at 8:01 a.m.

9. **Mayor Rothschild on Water Perspectives** – Mayor Rothschild spoke as to his water perspectives. Water is the most important issue in this region, “no water, no nothing.” This has implications for development and growth. It is both good and bad that water concerns are becoming a larger part of the public conversation. There will be CAP shortages within a year or two, and while “shortage” is just a legal term for CAP, the public will panic, and that public panic will need to be managed. Tucson is probably in the best position in the west in terms of preparation of our water resources. Aspects of that preparation include: wheeling agreements (Oro Valley and Vail); Speedway Recycling Plant improvements; passage of green streets ordinance; completion of the AOP treatment facility; creation of the Tucson Utility Management System (city wide measures to provide an example in conservation and efficient use of resources); recharge in CAVSARP/SAVSARP; IBM Smarter Cities Challenge grant; improvements to SCADA; beginning processes for conversion to AMR/AMI (digital metering); prevailed in legislation to protect our Water Service Policy and Painted Hills; investments in water conservation education (27 different programs last year); won or placed 2nd Mayor’s Conservation Challenge the last three years; creation of Water Cluster program; Inter-AMA Firming (Phoenix-Tucson CAP agreement); and working with other jurisdictions, such as agriculture, to achieve alignment despite differing priorities. These measures are not about being “safe” from shortage, but about being prepared for shortage. Running a water utility is no cheap or easy feat. There will be a lot of changes coming with a new Director and a new City Manager bringing new perspectives. The costs of CAP will go up, while supplies go down. Tucson Water’s rates should continue to be structured to encourage conservation. Mayor Rothschild would like to see further development of the conservation effluent project (CEP) and restoration. Additionally, the City and Tucson Water will need to invest in the build out of infrastructure for development around airport and other similar areas to bring big businesses and transformational employers into the City. The Mayor thanked the Committee for being such good stewards, understanding the difficulties involved in shaping water policy.

In response to questions regarding the approximately 30% of customers that are not in the city, the Mayor discussed annexations. Annexations provide an opportunity to participate in discussions and weigh in on

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decisions on equal footing. While the Mayor, and other City representatives, make every effort to communicate with non-City customers, the most effective way to be heard is to be annexed.

Discussion was held regarding the extension of the reclaimed system with other infrastructure development plans. While expansion of the reclaimed system isn't expressly included in other infrastructure development plans, it is something that will be considered when appropriate.

The Committee expressed its appreciation for support of rate increases and the continued purchase of Tucson's full CAP supply. While it may seem counterintuitive to conserve water, only to pay more through increased rates, the costs associated to the delivery of water aren't necessarily directly related to usage. Public Outreach 'navigators' may be helpful in spreading the word on the great low income assistance and rebate programs the City offers. These programs will require even further development as the rates will have to reflect the need to respond to emerging issues such as climate change mitigation and adaptation. The City needs to get ahead of these issues, and be transparent in their effect on the City and Utility. Discussion was held on future programs and funding sources.

Member Tonelson departed at 8:48 a.m. and returned at 8:49 a.m.

10. **PR Strategy and Public Engagement** – Item postponed to a future agenda due to time constraints.
11. **Consideration of Formation of By-Laws** – Item postponed to a future agenda due to time constraints, and in consideration of possible new appointees to the Committee.
12. **Future Meetings/Agenda Items** – See projected agenda.
13. **Adjournment** – Meeting was adjourned at 8:55 a.m.

# 'Effects of Reduced Flows on Gravity Sewer Systems'

COT Water Advisory Committee  
June 03, 2015

John Warner, Deputy Director  
Pima County Regional Wastewater Reclamation Department



# Safety Share

“Pick your parking space wisely”



# CMOM

## Capacity:

- Assurance of system wide capacity, growth, augmentation, etc.

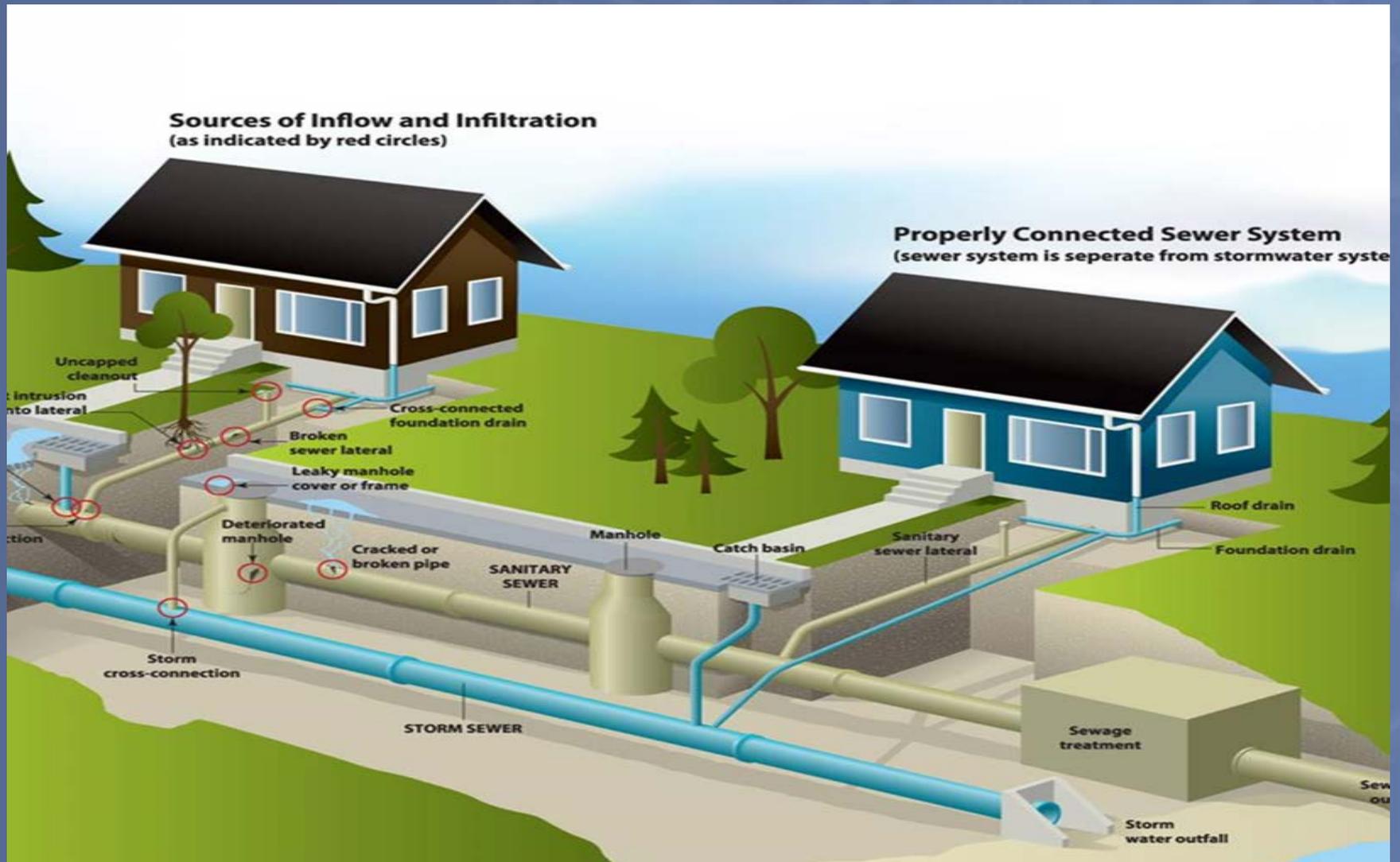
## Management:

- Assure adequate funding, budget development, user rates and administration.

## Operations & Maintenance:

- Adequate resources, i.e.: staffing, equipment, O&M program, optimization and tracking as required.

# Typical Laterals & HCS's



# Minimum Sanitary Sewer Slopes

MINIMUM SANITARY SEWER SLOPE TABLE 1 (Standard Arizona Practice)	
Pipe Diameter (inches)	Minimum Slope $S = \{V/[1.486/n*(D/4)^{(2/3)}]\}^2$
4	0.0084
6	0.0049
8	0.0034
10	0.0025
12	0.0019
15	0.0014
18	0.0011
21	0.00092
24	0.00077
30	0.00057
36	0.00045
42	0.00037
48	0.00031
54	0.00026
60	0.00023
66	0.00020
72	0.00018
84	0.00015
96	0.00012

# CCTV Program 2006-2016

**RWRD is responsible for operating and maintaining over 3,478 mi of pipe**

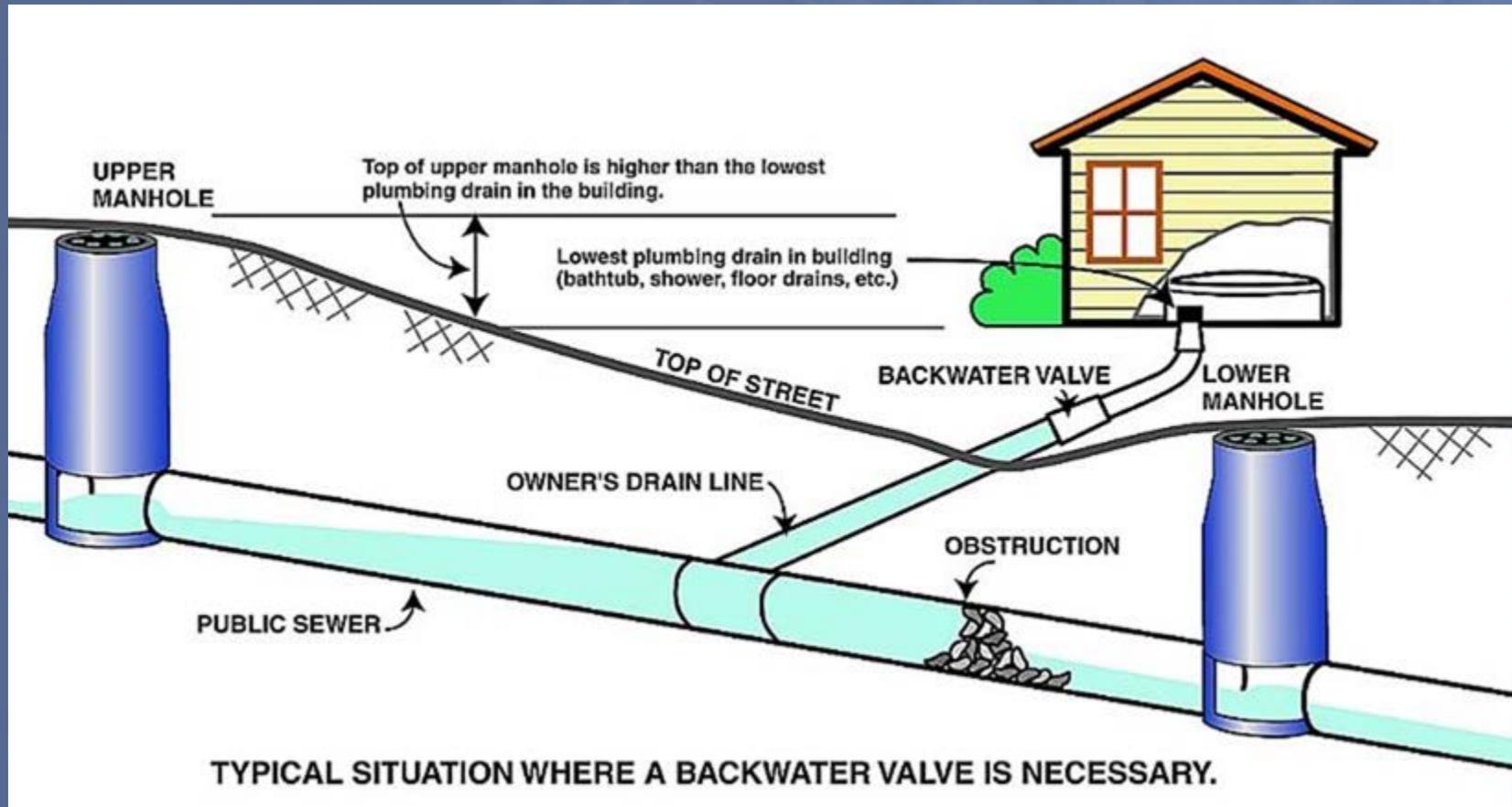
<b>3,225 miles</b>	<b><math>\leq</math> 15 inch Diameter</b>	<b>92.74%</b>
<b>253 miles</b>	<b><math>&gt;</math> 15 inch Diameter</b>	<b>7.26%</b>

**Of the 3,478 miles of pipe, a total of 2,567 miles has been televised as of Dec 31<sup>st</sup>, 2015**

<b>2,467 miles</b>	<b><math>\leq</math> 15 inch Diameter</b>	<b>758 miles TBC by Dec 2016</b>
<b>100 miles</b>	<b><math>&gt;</math> 15 inch Diameter</b>	<b>153 miles TBC by Dec 2016</b>

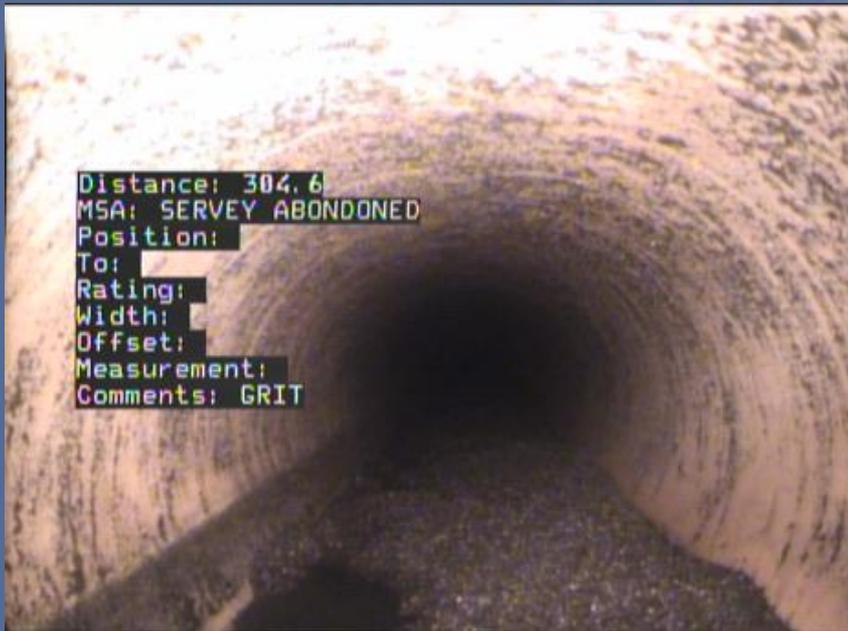


# Typical Obstruction Scenario

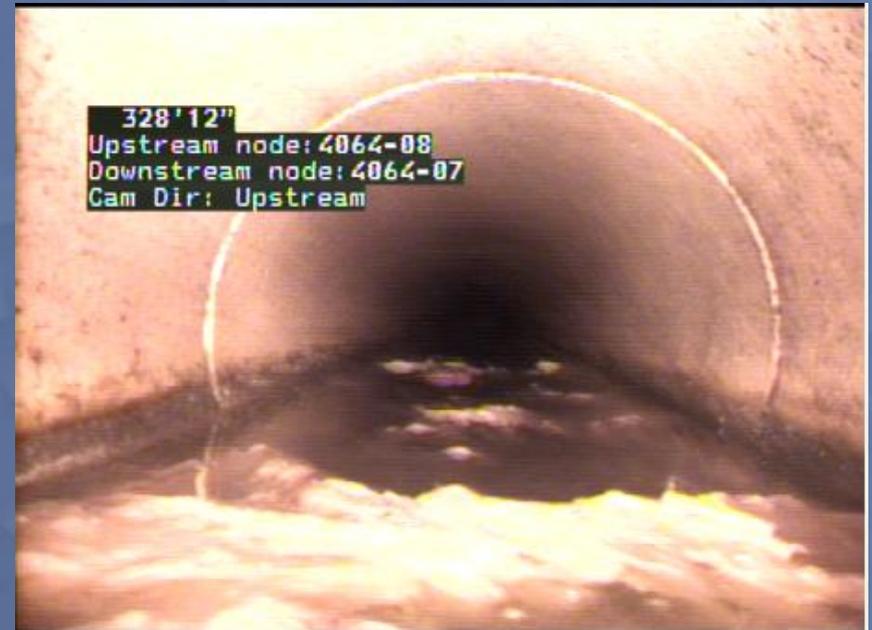




# Grit, Solids & Low Flow



# Grit, Solids & Low Flow



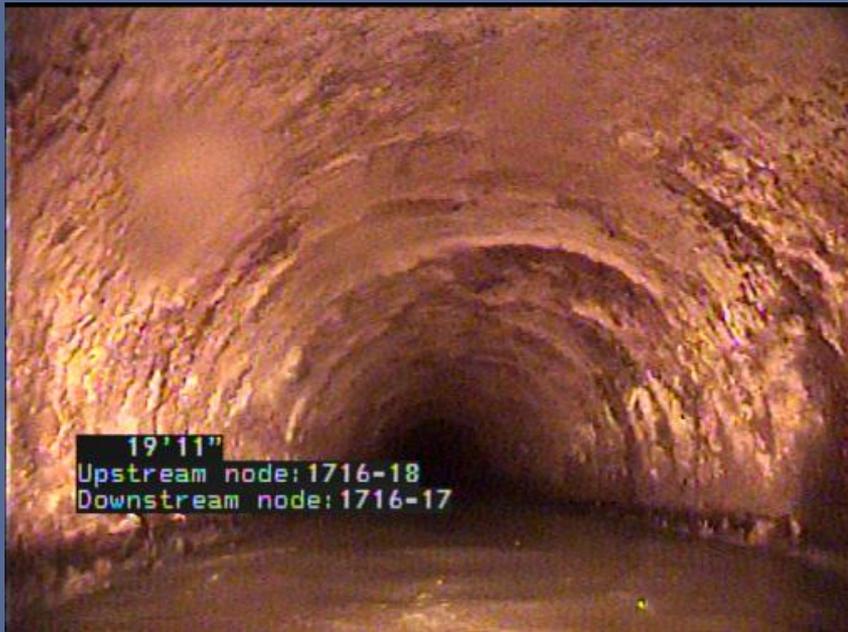


# Grit, Solids & Low Flow



# Interceptor Condition Assessment

(54" Diameter)



# Detrimental Results



# Questions

