

The background is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The main title is centered in the upper half of the image.

# **SANITARY SEWER OVERFLOW RESPONSE**

2019 CODE MULTI-FAMILY WORKSHOP

APRIL 26<sup>TH</sup> AND MAY 31<sup>ST</sup>

# SANITARY SEWER SYSTEM VS STORMWATER DRAINAGE SYSTEM

CITY HAS 3 SEPARATE PIPE SYSTEMS – WATER SUPPLY, SANITARY SEWER AND THE MUNICIPAL SEPARATE STORM SEWER SYSTEM OR MS4 ( STORMWATER DRAINAGE SYSTEM).

- THE MS4 IS DESIGNED TO CARRY STORMWATER (RAINWATER) AWAY FROM STREETS, PARKING LOTS AND OTHER IMPERVIOUS SURFACE AREAS IN ORDER TO PREVENT FLOODING.
- THE STORM DRAIN DISCHARGES DIRECTLY TO LOCAL WATERWAYS
- CONTAMINATES ON THESE IMPERVIOUS SURFACES ARE THEN TRANSPORTED TO OUR LOCAL STREAMS, CREEKS, RIVERS AND LAKES.



# WATER QUALITY EFFECTS

## PATHOGENS, NUTRIENTS, METALS

### **HUMAN HEALTH**

- DISEASE-CAUSING PATHOGENS- VIRUSES, BACTERIA, PARASITES(WORMS) AND PROTOZOA
- STOMACH FLU, UPPER-RESPIRATORY INFECTIONS TO THE MORE SERIOUS CHOLERA, DYSENTERY, HEPATITIS A, AND CRYPTOSPORIDIOSIS.

### **RECREATION/ECONOMIC IMPACTS**

- CLOSING OF BEACHES, INLAND STREAMS, LAKES AND RESERVOIRS CAUSES ECONOMIC IMPACTS TO LOCAL COMMUNITIES.
- SPORT FISHING AND COMMERCIAL FISHING/SHELLFISH INDUSTRIES ARE LESS PRODUCTIVE DUE TO POOR WATER QUALITY

### **NATURAL RESOURCE IMPACTS**

- HYPOXIA, ALGAL BLOOMS, FLOATING DEBRIS
- HABITAT DEGRADATION AND THREATS TO THREATENED OR ENDANGERED SPECIES

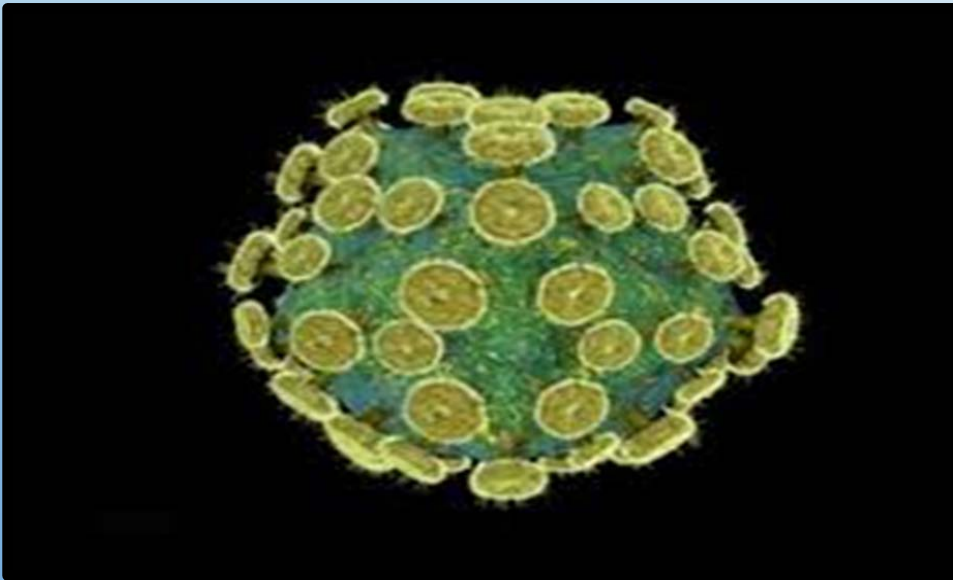
### **PUBLIC AND PRIVATE PROPERTY DAMAGE**

- DAMAGE TO PROPERTY OWNER YARDS OR LANDSCAPING, DRIVEWAYS AND INSIDE/OUTSIDE POSSESSIONS
- MUNICIPAL PROPERTY DAMAGE- INCLUDES SEWER INFRASTRUCTURE, ROADS, PARKS AND RECREATION AREAS, WATER SUPPLIES AND TREATMENT FACILITIES

Giardia sp. – Intestinal parasites



Salmonella enterica – Typhoid Fever



Hepatitis A Virus



Vibrio cholerae - Cholera

Enterococcus spp.

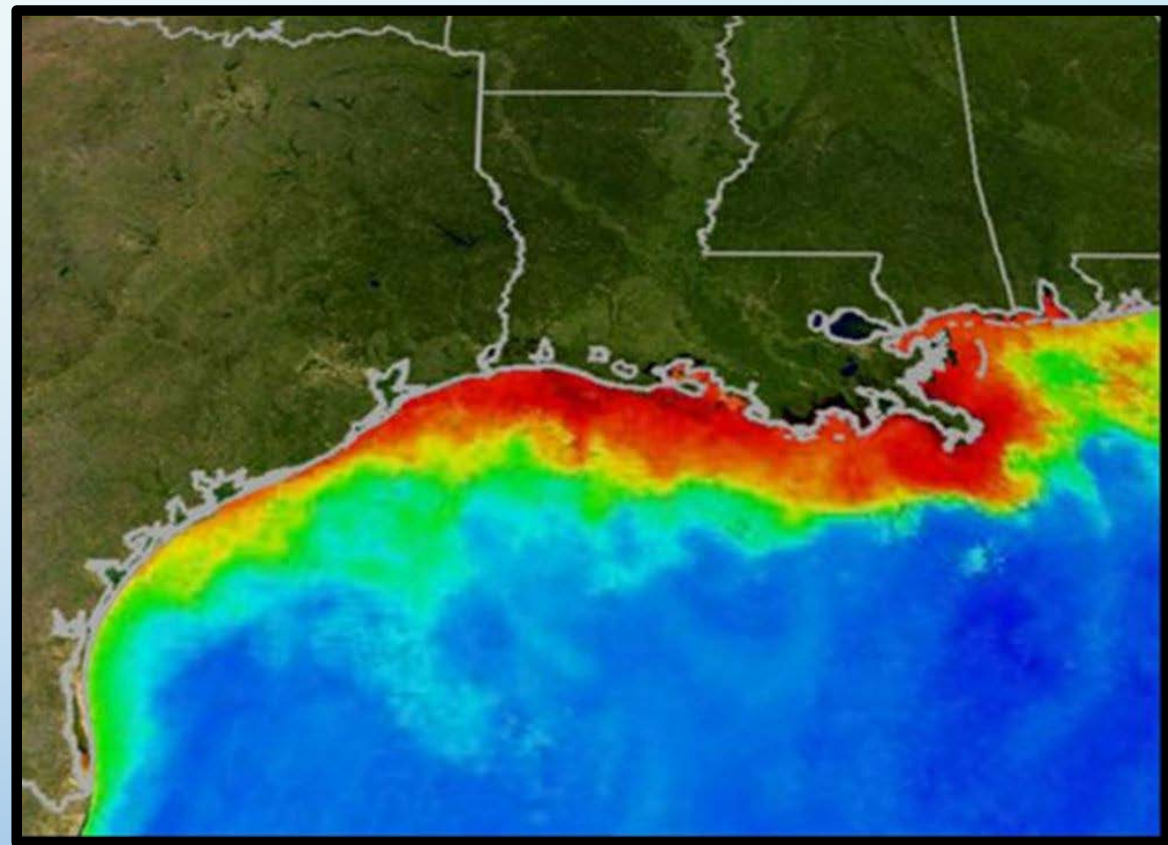


Escherichia coli





Algal blooms



Hypoxic Zones



Streambank Erosion



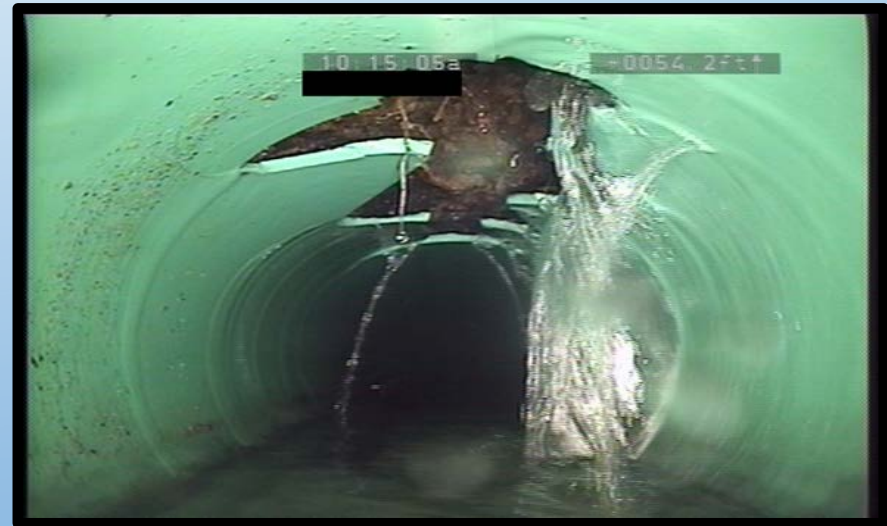
Fish Kills



# COMMON CAUSES

- BLOCKAGES DUE TO TREE ROOTS, FATS, OILS AND GREASE, “FLUSHABLE WIPES” AND OTHER TYPES OF NON-FLUSHABLES
- STORMWATER INFLOW AND INFILTRATION
- BROKEN PIPES (AGED SYSTEM, DAMAGED SYSTEM, LACK OF MAINTENANCE)
- VANDALISM
- IMPROPER DESIGNS
- POWER FAILURES





# HOW TO REDUCE SSO'S

- EDUCATION OF RESIDENTS AND STAFF
- KNOW YOUR SYSTEM/ CREATE MAP OF YOUR SYSTEM
- WHERE ARE THE ACCESS POINTS TO CLEAR YOUR LINES?
- WHERE DOES YOUR SYSTEM CONNECT TO THE CITY SYSTEM?
- HAVE UPDATED AFTER HOURS EMERGENCY CONTACT #'S
- QUICK RESPONSE TO SMALL PROBLEMS
- REGULAR MAINTENANCE OF THE SYSTEM

# EDUCATION OF RESIDENTS AND STAFF



**You can stop sewer clogs.**

**No fats, oil, grease or food scraps down the drain.**

**Only toilet paper in the toilet.**

**A backup at home can back up the city sewer system.**

WATER UTILITIES  
ARLINGTON  
THE AMERICAN DREAM CITY

[www.defendyourdrains.com](http://www.defendyourdrains.com) [www.savearlingtonwater.com](http://www.savearlingtonwater.com)

The advertisement features a yellow background with a blue and green illustration of a kitchen sink and a toilet. The sink is overflowing with green liquid, and the toilet is overflowing with blue liquid. The text is in bold, black and green fonts. At the bottom, there is a logo for Arlington Water Utilities and two website URLs.

## Sanitary Sewer Overflow Response

Sanitary sewer overflows impact local water quality by discharging bacteria and other dangerous waste into the City's storm drain system. The following are steps that commercial property managers and maintenance staff can follow to prevent these pollutants from entering our local waterways.

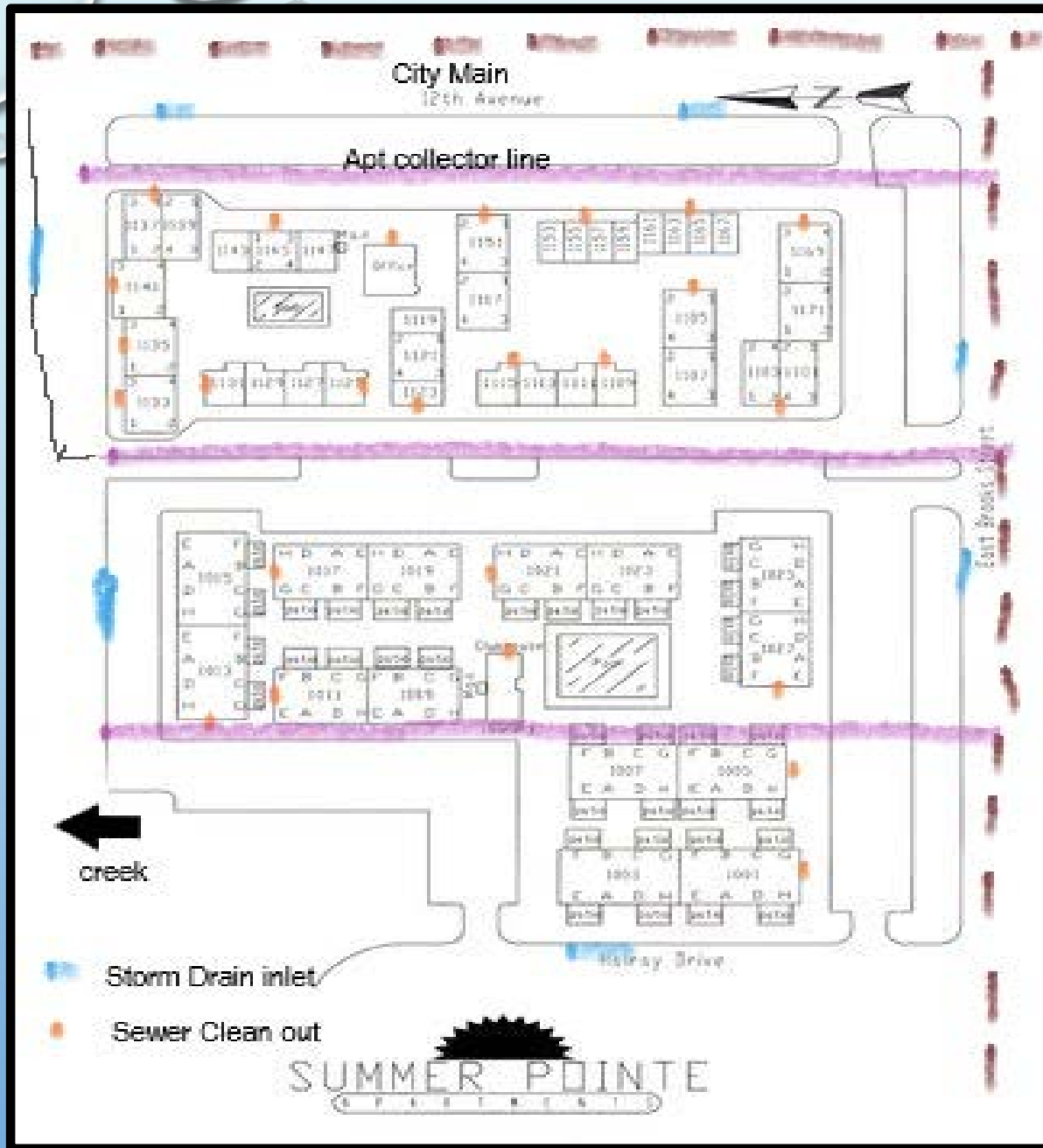


- **Contain and Control spill.** Keep sewage on private property by shutting off water until repairs are made.
- **Use sandbags, dirt, plastic sheeting or other means** to prevent sewage from leaving your property and entering the storm drain system.
- **Clear sewer blockage.** It is recommended to contact a professional plumber for clearing blockages and making necessary repairs.
- **Remove and dispose of sewage,** paper products and solid waste to prevent contamination of the storm drain system or natural waterways.
- **Disinfect contaminated areas** with a 10% bleach solution. Any rinse water used must not enter the storm drain system and contaminated soil must be treated and turned over to allow for natural filtration.
- Maintenance staff should always **wear gloves and wash their hands,** clothes and any supplies to prevent exposure to raw sewage and the health hazards associated with it.
- **If the City's sewer service is clogged or if the sewage enters the City's storm drain system,** notify the City of Arlington's Water Utilities department at 817-459-5900.

For more information or to request on site training for your maintenance staff, contact Stormwaterreduction@arlingtontx.gov or call 817-459-6572



Sanitary Sewer Overflow Response Quick Reference Guide  
(image place holder)



**EDEN COVE**  
 APARTMENTS AND TOWNHOMES

**LEASING CENTER HOURS**

Monday-Friday 9:00am to 6:00pm  
 Saturday 10:00am to 5:00pm  
 Sunday Closed

For After Hours Emergency  
 Maintenance Call: 405-733-1735

# GENERAL SAFETY PROCEDURES

- CONTAIN AND CONTROL
- RESTRICT ACCESS TO AREA CONTAMINATED BY SEWAGE. PREVENT PUBLIC FROM DRIVING OR WALKING THROUGH SEWAGE. ESPECIALLY CHILDREN!
- REMOVE AND DISPOSE
- DISINFECT CONTAMINATED AREAS WITH 10% BLEACH SOLUTION.
- WEAR DISPOSABLE GLOVES, WASH HANDS AND CLOTHING (INCLUDING BOOTS)
- IF A SSO OCCURS AFTER HOURS, NOTIFY THE CITY'S ACTION CENTER AT 817-459-6777.









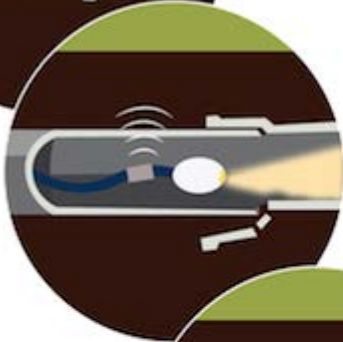


# PREVENTATIVE MAINTENANCE

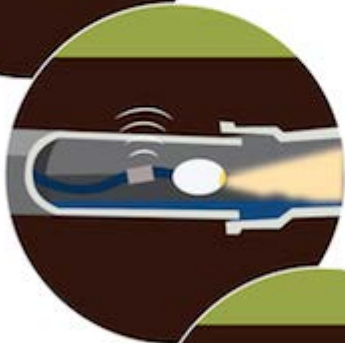
- HAVE AN OPERATIONS AND MAINTENANCE PLAN THAT INCLUDES A RESPONSE PLAN
- INSPECT CLEANOUTS AND INTERNAL COLLECTION LINE MANHOLES MONTHLY. ENSURE CAPS ARE IN PLACE ON CLEANOUTS TO PREVENT DEBRIS BLOCKAGES
- QUARTERLY LINE FLUSHES/CLEANINGS
- CAMERA LINES ANNUALLY
- MAKE REPAIRS QUICKLY AND DON'T FORGET YOUR PLUMBING PERMITS



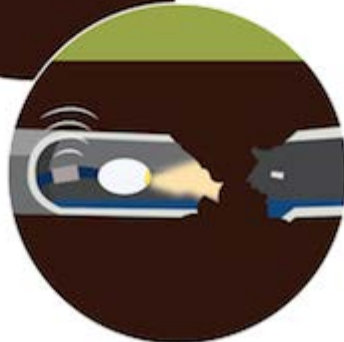
◀ Pipe with **ROOT INTRUSION** being cleaned with a cable fitted with a root-cutting blade.



◀ **CRACKED OR MISALIGNED** pipe with a camera showing its location through a signal.



◀ A **PIPE WITH BELLY** with a camera showing its location through a signal.



◀ A **CRUSHED PIPE** with a camera showing its location through a signal.





# QUESTIONS?

MELISSA WALKER- STORMWATER EDUCATION SPECIALIST

[MELISSA.WALKER@ARLINGTONTX.GOV](mailto:MELISSA.WALKER@ARLINGTONTX.GOV)

817-459-6572