



Responding to a System Contamination

Introduction

- Loren Searl
 - City of Spokane, Water Superintendent



Water Quality Reports

- Friday, 7/26
- 8:00am received reports of green water.
- By 9:00am additional reports of no water.

**DO NOT START FLUSHING,
INVESTIGATE THE PROBLEM**

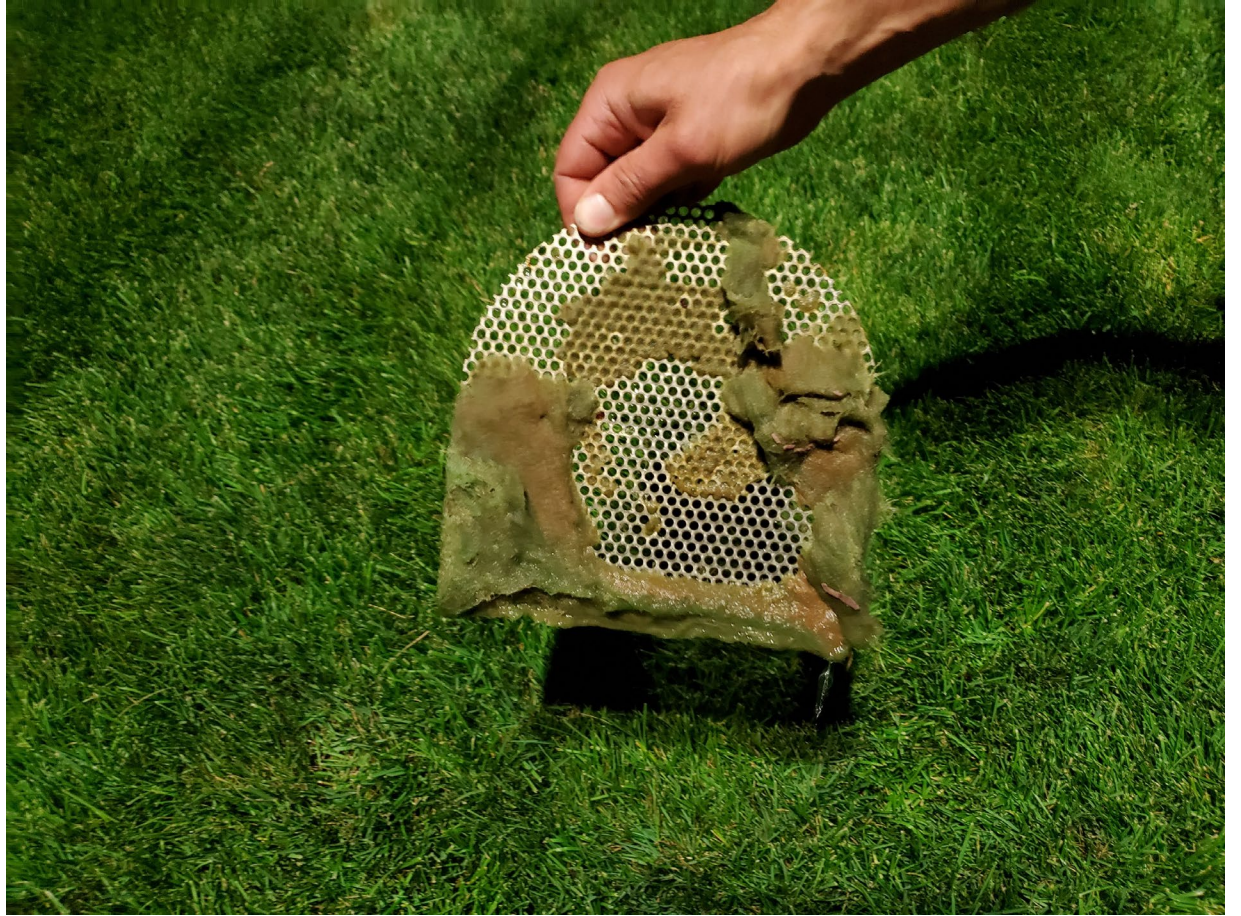
Investigation

- Site investigation showed green fiber material in the water.



- Additional Addresses found to have plugged meters.







A hydrant was
found with
signs of
hydroseed use.

*Happened to be across the street
from a landscaping company.*





CONTAMINATION NOTICE

Affecting Water Customers who live or own property in the area bound by Wellesley Avenue, Freya Street, Crown Avenue and Havana Street

The City of Spokane is advising City water customers who live or own property in the area bound by Wellesley Avenue, Freya Street, Crown Avenue and Havana Street to avoid using tap water for drinking until the City is able to flush the system with clean water. The required work is expected to take up to seven days.

Water customers in the affected area should NOT use their tap water for drinking.

Citizens may continue to use the water for bathing, washing, and irrigation purposes. Citizens outside of the affected area in Northeast Spokane can continue to use tap water without restriction. No illnesses related to the possible contamination have been reported. The City has reported the issue to the Washington State Department of Health.

The City will be providing free drinking water for those who live in the affected area. Water bottles will be distributed starting today at the Post Office, 4401 N Freya Street, until 10 p.m. Water distribution will continue until the problem is resolved, distribution hours will be from 8 a.m. to 5 p.m.

A commercial hydroseed vehicle that used water from City fire hydrants appears to have allowed some contamination to backflow into the City's system when filling with water on Friday, July 26th.

The area affected is small, mostly containing commercial properties. The City is going door to door to notify these residents and businesses. The map shows the affected area. The City will follow up with additional information once the situation has been resolved. If you have any questions, please call the City at 3 1 1 or 755 CITY.

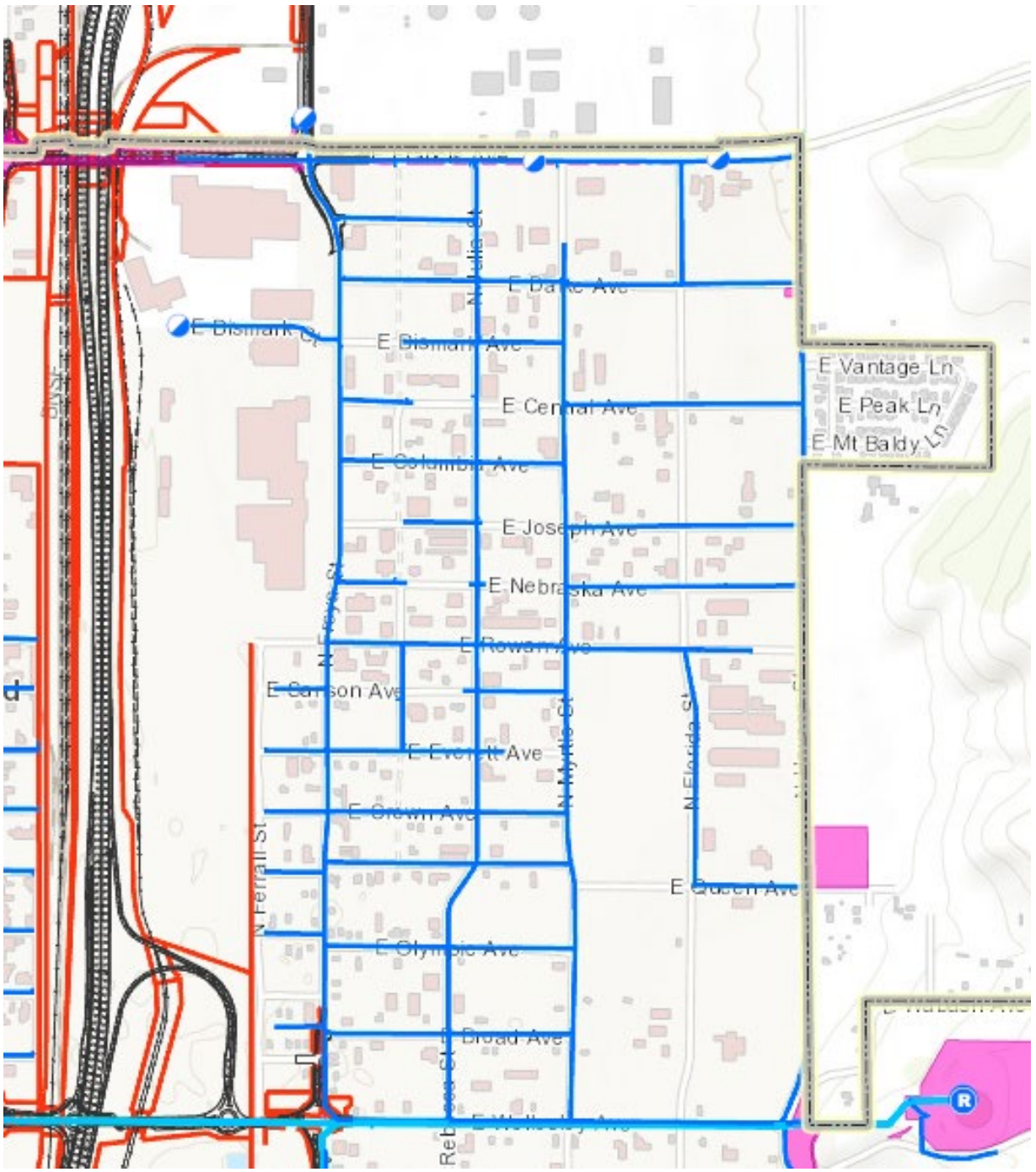


Notification

Isolate the
contaminate.

Sample

Flush







Rainier Fiber™

Premium Wood Fiber Mulch For
Hydroseeding And Erosion Control

Net Wt. 50 lbs / 22.7 kg

Natures Own Organic

the effective
hydro-seeding system



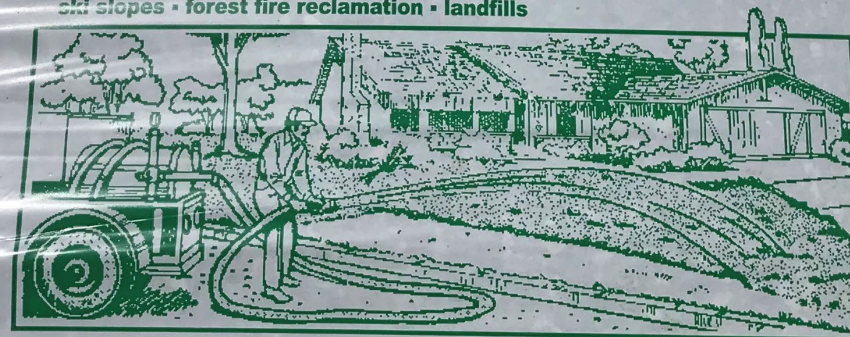
The fastest most economical method of
SEED PLANTING

Natures Own is suitable for all
brands of hydro mulching equip-
ment, dispersing easily in the tank.
It has excellent pumping movement.

ONE
SPRAY
APPLICATION

INGREDIENTS:
Recycled paper 88% +/-
Environmentally safe dye and water 12% +/-

For roadways • steep slopes • aerial applications • strip mine reclamation •
soil erosion reduction • nursery applications • parks • home lawns • golf &
old slopes • forest fire reclamation • landfills



SUPERIOR
EROSION CONTROL

EXCELLENT
ADHERENCE

QUICK & EASY
APPLICATION

THE PROFESSIONAL'S CHOICE



Natures Own

Net Weight 40 Lbs

Made in the U.S.A.
HAMILTON MANUFACTURING INC.
901 RUSSET STREET
TWIN FALLS, IDAHO 83301
(208) 733-9689

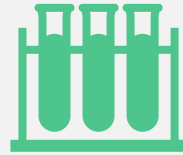


We've Got You Covered

Outcome



Initial samples showed no CL2 residual.



Samples from first day were Coliform positive, 3 samples were Ecoli positive.



Repeat samples were still Coliform positive.

Directional Flushing



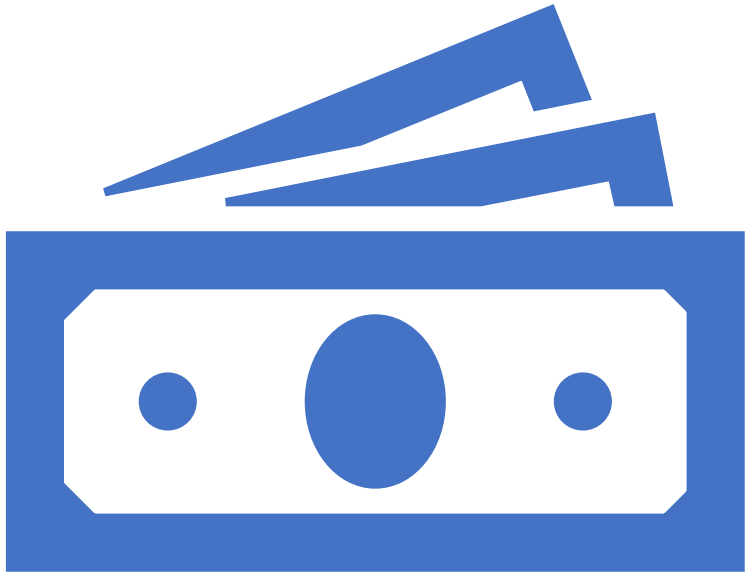
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graph TD; A[Directional Flushing] --> B[Chlorinate / Flush]; B --> C[Resample]; C --> D[Repeat];
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The diagram illustrates a four-step process for Directional Flushing. It consists of four horizontal rectangular boxes arranged in a descending staircase pattern from top-left to bottom-right. The first box is orange and contains the text 'Directional Flushing'. The second box is a lighter shade of orange and contains 'Chlorinate / Flush'. The third box is a brownish-orange and contains 'Resample'. The fourth box is gray and contains 'Repeat'. Three downward-pointing arrows connect the boxes: a light orange arrow from the first to the second, a brownish-orange arrow from the second to the third, and a gray arrow from the third to the fourth.

Chlorinate / Flush

Resample

Repeat



Costs to department.

- 10 million gallons used for flushing.
- 150 meters changed out.
- 5 services dug.
- 96 accounts credited.
- 3 Tractor Trailer loads of bottled water.
- \$146,000 in labor costs.

Increased System Protections

- Changes to hydrant use policy

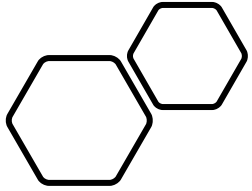
All city use is inspected

Flusher Truck air gaps. Most trucks found to have inadequate air gaps, including new trucks.

Street sweepers found to be built with no air gap.

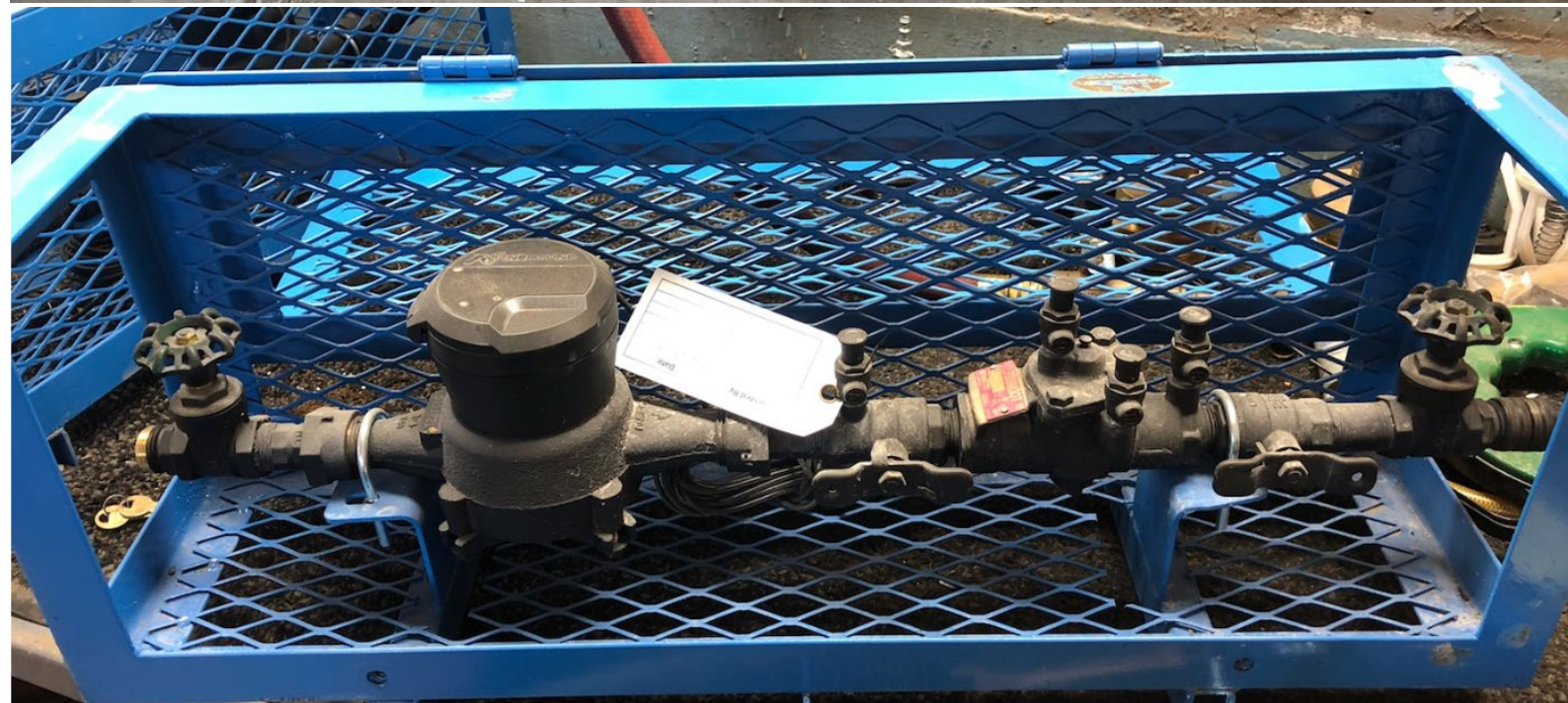
Any vehicle with reversible pumps must also have RPBA

No department (Public Pools) can use a hose without an RPBA.



Public use of Hydrants

- Must have Hydrant meter cage.
- Administrative fine created if found not using the cage.



Fill Station





Options







Hydrant Locks



Don't wait for a problem to increase system protections.

- Questions?