

Backflow Incident Response: Dana Street Irrigation Cross Connection

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City of Wenatchee



Service Connections – 7,995
Average Daily Demand – 3.77 MGD
Maximum Day – 7.45 MGD

City of Wenatchee CCC Program



- * Combination Program since 2002
- * Backflows Installed = 2,406
- * CCS reviews buildings plans and changes of use
- * On-site surveys and customer-completed surveys

History of Backflow Incidents in Wenatchee

- * Mostly limited to the customer's drinking water system

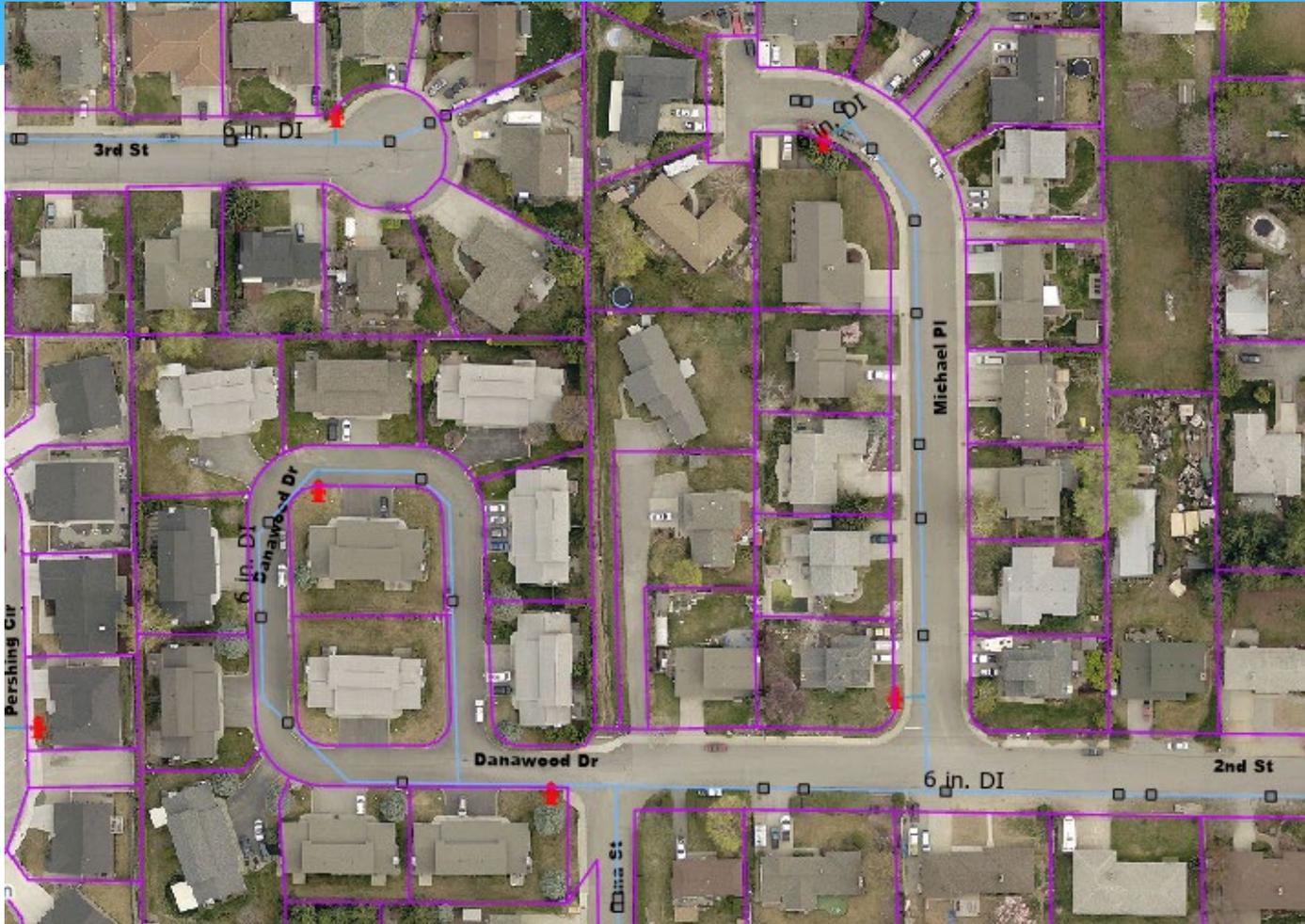
- * Sources of Contamination

- * Irrigation systems
- * Boilers & hot water recycling systems
- * Dental equipment



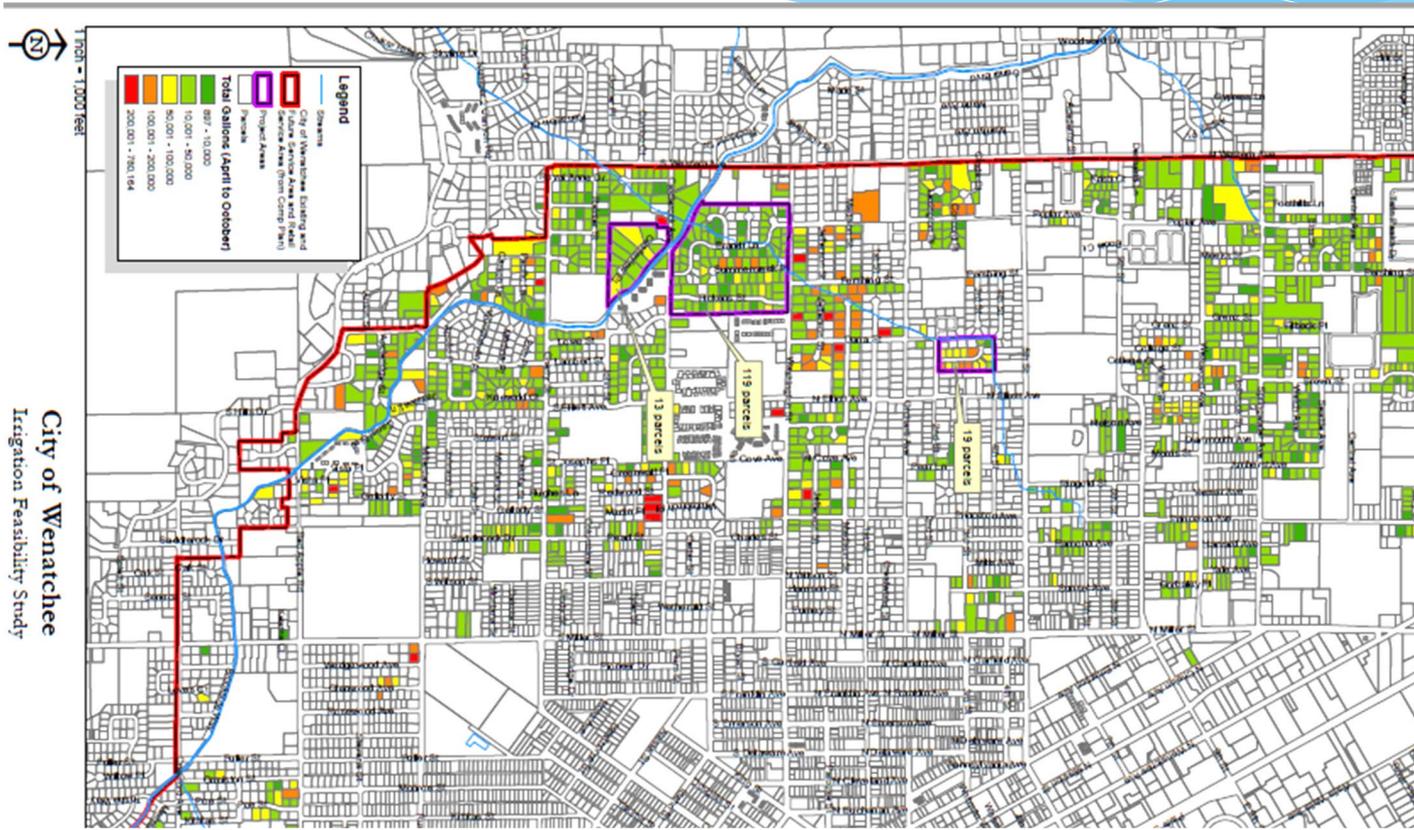
- * Complaints that led to the discovery of a backflow event primarily have been received on a Friday.

Friday, May 4th , 12:58 PM



Musty smelling, yellow water coming from the tap.

Irrigation in Wenatchee



First Site Visit

Friday Afternoon, May 4th



Information from Customer:

- * Other half of the duplex had plumbing issues a month ago.
- * Several units had been vacant the last month.

City Results:

- * No residual chlorine from the kitchen tap after 20 minutes.
- * Flushed hydrant for 5 minutes and the residual chlorine was 0.27 mg/L.

Monday, May 7th , 11:15 AM

- * Same customer called back and said that the water is musty smelling and cloudy again.
- * No residual chlorine. Water was yellow and turbid. Bacteria samples collected.
- * Checked neighbors taps – no residual chlorine.



Monday, May 7th



- * Contacted Property Management Company
- * Former property manager arrived and explained irrigation system.
- * May 7th, 12:30 PM, City staff found a meter running backwards two buildings south of the customer.

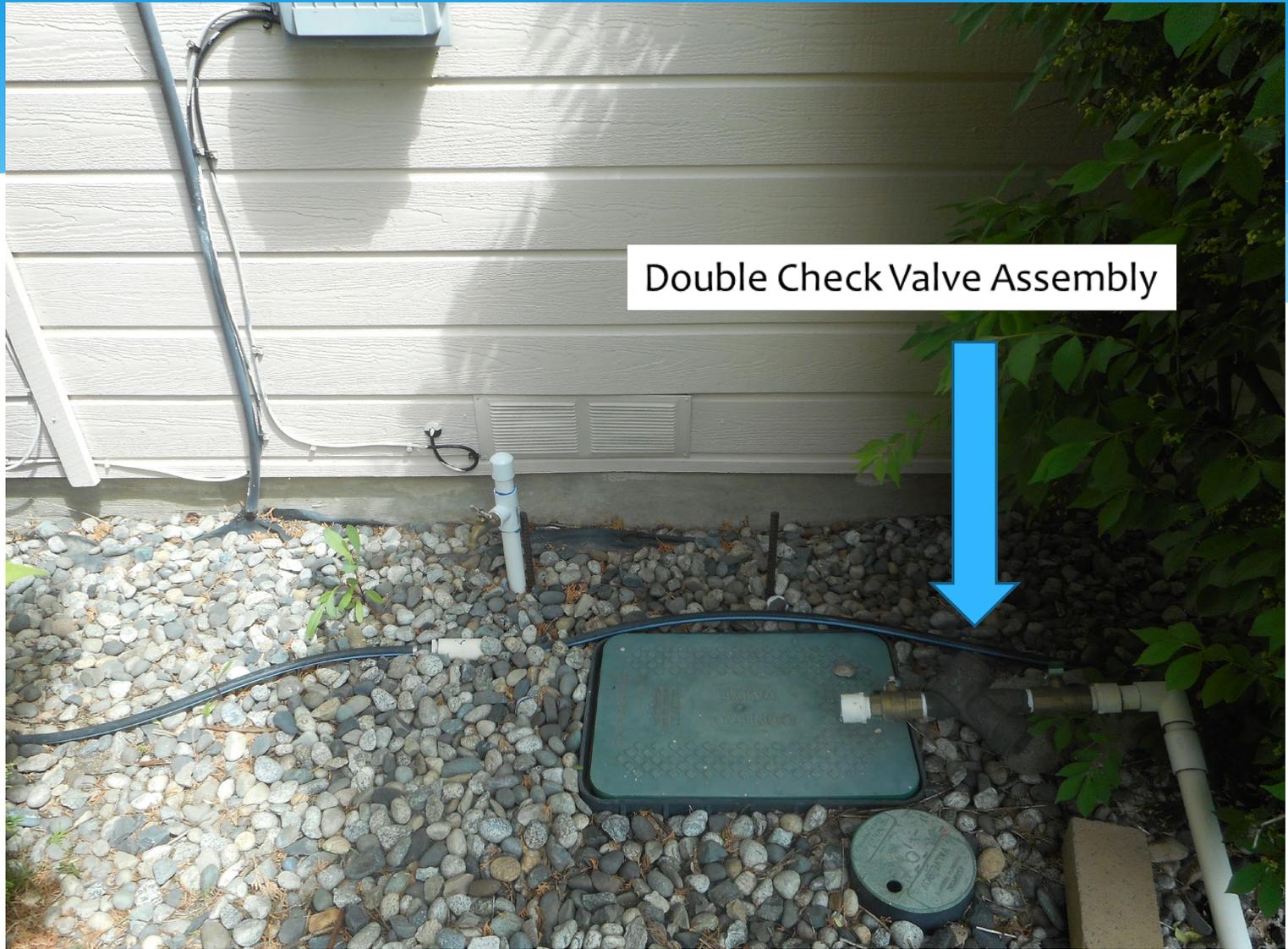
Diagram of Landscape Plumbing



Emergency!

- * Notified Department of Health.
(Should have called the Chelan-Douglas Health District, too.)
- * Began collecting more samples for residual chlorine and bacteria.
- * Verified that no other meters were running backward and then flushed hydrants.
- * Issued a boil water advisory and public notification.

Double Check Valve Assembly



Lessons Learned

- * Train staff to field phone calls and investigate complaints.
- * Encourage customers to call in water complaints and call-back if not resolved
- * Survey, survey, and survey again (preferably on-site).
- * Be prepared for emergencies. They do happen!
- * Don't forget to call the local health district.

Ongoing Utility Goals

- * Train New Staff
- * Tabletop Exercises for Backflow Incidents
- * Keep Emergency Response Manual Updated

