

City of Windcrest

Leak Detection Pilot

Performed By:



Scope of Work

The survey consisted of the following:

- A leakage investigation for two days was performed for the City's water distribution system. This included listening with acoustic leak surveyor equipment on all hydrants and strategic main line valves and performing visual and audible inspection of each individual service meter box and service valve using sensitive sound intensifying instruments.
- The submission of this report showing the results of the investigation. The results include a list of leak locations and estimated quantities of water being wasted by the leakage.

The following is a tabulation of the leaks located during the survey with an estimate of the quantity of leakage. Individual maps of service, main or hydrant leaks location, which were created in the field. The maps contain the type of leak, leak location and the estimated quantity of leakage.

Leak Type	Location	Leak Class	Estimated Leakage (gpd)
Meter	634 Richfield Drive	1	1,440
Meter	602 Candlewood	1	1,440
Meter	610 Candlewood	1	1,440
Meter	502 Balfour Drive	1	1,440
Meter	513 Waxing Circle	1	1,440

Maps and Leakage Information



Leak Report Windcrest TX 2014

Date: 4/24/2014
Grid Map: 0
Address: 513
Street: WAXWING CIRCLE
Access: PUBLIC
Leak Class: 1
Est. Water Loss: GPM 1
Leak on asset (type): METER LEAK - CITY
Surface: GRASS
Pipe Material: UNKNOWN
Leak Technician: Kris Henley
Cross Street: WAXWING DRIVE
Main Size (Inches) UNKNOWN
Detection Method
Sonic: YES
Visible Leak: YES
Other:

GPS Cordinance: Easting: 2165750.19 Northing: 13737023.307
(US State Plane 1983, Texas South Central 4204, WGS 1984, US Survey Feet)



(Drawing to scale)

Comments: _____

Leak Report Windcrest TX 2014

Date: 4/24/2014

Leak Technician: Kris Henley

Grid Map: 0

Address: 502

Street: BALFOUR DRIVE

Cross Street: MIDCROWN DRIVE

Access: EASEMENT

Leak Class: 1

Est. Water Loss: GPM 1

Main Size (Inches) UNKNOWN

Leak on asset (type):

METER LEAK - CITY

Surface:

GRASS

Detection Method

Sonic: YES

Visible Leak: NO

Other:

Pipe Material:

UNKNOWN

GPS Cordinance: Easting: 2165624.419

Northing: 13734703.961

(US State Plane 1983, Texas South Central 4204, WGS 1984, US Survey Feet)



(Drawing to scale)

Comments:

NONE

Leak Report Windcrest TX 2014

Date: 4/23/2014

Leak Technician: Kris Henley

Grid Map: 0

Address: 602

Street: CANDLEWOOD

Cross Street: BLUEGRASS ST

Access: EASEMENT

Leak Class: 1

Est. Water Loss: GPM 1

Main Size (Inches) UNKNOWN

Leak on asset (type):

METER LEAK - CITY

Surface:

GRASS

Detection Method

Sonic: YES

Visible Leak: YES

Other:

Pipe Material:

UNKNOWN

GPS Cordinance: Easting: 2166715.409

Northing: 13735265.829

(US State Plane 1983, Texas South Central 4204, WGS 1984, US Survey Feet)



(Drawing to scale)

Comments:

NONE

Leak Report Windcrest TX 2014

Date: 4/23/2014

Leak Technician: Kris Henley

Grid Map: 0

Address: 610

Street: CANDLEWOOD

Cross Street: BLUEGRASS ST

Access: EASEMENT

Leak Class: 1

Est. Water Loss: GPM 1

Main Size (Inches) UNKNOWN

Leak on asset (type):

METER LEAK - CITY

Surface:

GRASS

Detection Method

Sonic: YES

Visible Leak: YES

Other:

Pipe Material:

UNKNOWN

GPS Cordinance: Easting: 2166858.728

Northing: 13735355.809

(US State Plane 1983, Texas South Central 4204, WGS 1984, US Survey Feet)



(Drawing to scale)

Comments:

NONE

Leak Report Windcrest TX 2014

Date: 4/24/2014

Leak Technician: Kris Henley

Grid Map: 0

Address: 634

Street: RICHFIELD DRIVE

Cross Street: RICHFIELD LANE

Access: PUBLIC

Leak Class: 1

Est. Water Loss: GPM 1

Main Size (Inches) UNKNOWN

Leak on asset (type):

METER LEAK - CITY

Surface:

GRASS

Detection Method

Sonic: YES

Visible Leak: YES

Other:

Pipe Material:

UNKNOWN

GPS Cordinance: Easting: 2166269.016

Northing: 13737673.685

(US State Plane 1983, Texas South Central 4204, WGS 1984, US Survey Feet)

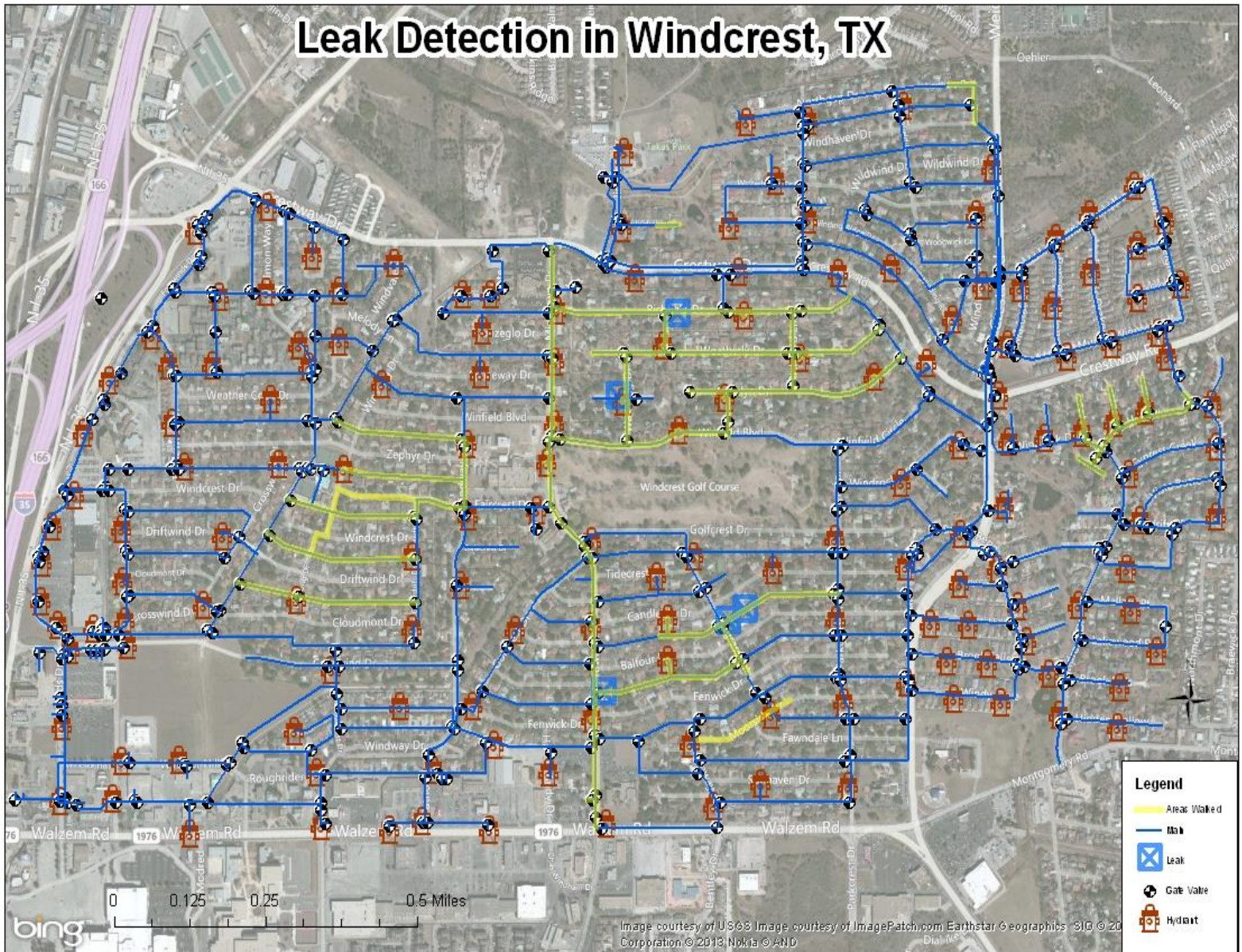


(Drawing to scale)

Comments:

NONE

Leak Detection in Windcrest, TX



Conclusions & Recommendations

- The Wachs Water Services Leak Detection Survey conducted on the City of Wincrest distribution system, resulted in the location of approximately 7,200 gallons of water per day in leakage. Also during the survey, it became aware that the city still has many outdated meters that may be inaccurate and not registering low flowing water. The city may also want to insure all meters are being read accurately. Master meters on wells need to be tested for accuracy and all check valves need to be checked to insure proper operation to prevent double counting of water, since storage tanks look to be bottom fed. It is recommended that a proactive leak detection survey needs to be conducted on a yearly basis to help reduce underground water loss and improve the infrastructure of the water distribution system.
- During the survey Wachs Water Services came across three valve casings that were ran over by the milling machine, completely destroying the casing and burying the op nuts. In case of an emergency these valves would have been rendered inaccessible. It is recommended that the City of Windcrest inspect all water distribution valves in construction areas to insure access and operability.