

EPCOR Water Services

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EPCOR Performance Measures

| Description | Benchmark | Wt. | Standard | Points | Bonus |
|---------------------------------|-------------------|------------|--------------|-------------|------------|
| System Reliability Index | | 25% | | 25.0 | 3.5 |
| Water Main Breaks | # of breaks | | 574 | 5.0 | |
| Repair Duration | % fixed < 24 hour | | 93.7% | 5.0 | |
| Planned Construction | % compliance | | 95.0% | 5.0 | |
| Water Pressure | # times < 20 psi | | 5 | 5.0 | |
| Water Loss (ILI) | leakage index | | 3.0 | 5.0 | |
| Water Quality Index | | 25% | 99.6% | 25.0 | 0.5 |
| Customer Service Index | | 20% | | 20.0 | 3.0 |
| Post Service Audit | % satisfied | | 74% | 6.66 | |
| Response Time | min to confirm | | 25 | 6.67 | |
| Home Sniffing Factor | % satisfaction | | 93.8% | 6.67 | |

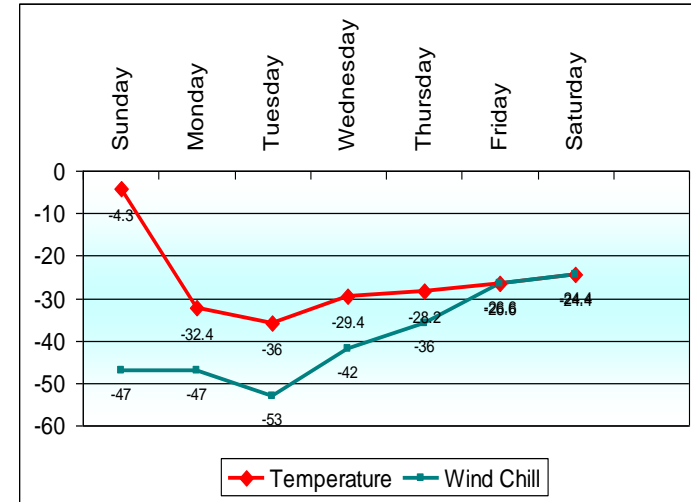
Fire Rescue Services Performance Targets

| | | |
|---|-----|--|
| Max Number of Hydrants out of Service for more than 30 days | 75 | |
| Number of Hydrants out of service for more than 90 days | 0 | |
| Maximum number of Hydrants out of service on any day | 120 | |

Cold Weather Emergencies

2008 February Edmonton Event

- High volume of Main Breaks during 7-day span
- Most main breaks in one day in last 5 years
- 12 breaks on January 30th
- Some residents without water for 48 hours
- Over 400 Frozen Services\Meters
- Too cold for hose hook-ups and water tanks
- Media and Corporate attention
- City Council and Mayor inquiries
- Hand Delivered 400 – 4L water bottles



| | Breaks | Homes | Apartments | Town Homes | Businesses | Schools |
|------------------|---------------|--------------|-------------------|-------------------|-------------------|----------------|
| Monday | 6 | 105 | | | | |
| Tuesday | 7 | 83 | 12 (158 units) | | 2 | 1 |
| Wednesday | 12 | 124 | 10 (110 units) | 296 | 18 | 2 |
| Thursday | 5 | 41 | | | 10 | |
| Friday | 4 | 30 | | | 16 | |
| Saturday | 2 | 34 | | | | |

EPCOR Manager's Report

Last Refresh Date & Time: Tuesday, April 26, 2016 14:02:33

Current Distribution System Response Condition: **Green**

Filters

Select Year: 2015

Recent Main Breaks (As of Last Refresh Date)

| Time | # Of Calls |
|----------|------------|
| 06 Hours | 0 |
| 12 Hours | 0 |
| 24 Hours | 0 |
| 72 Hours | 1 |

Days Since Recent Main Break (As Of Last Refresh Date)

1.3

Water Main Breaks - Actual to Expected

| Year | Month | Total Breaks By Month | Expected Breaks By Month | Cumulative Expected | % Of MTD Expected Breaks | % Of YTD Expected Breaks |
|---------------|-----------|-----------------------|--------------------------|---------------------|--------------------------|--------------------------|
| 2015 | January | 28 | 42 | 42 | 66.67% | 66.67% |
| 2015 | February | 16 | 37 | 79 | 43.24% | 55.7% |
| 2015 | March | 23 | 54 | 133 | 42.59% | 50.38% |
| 2015 | April | 19 | 28 | 161 | 67.86% | 53.42% |
| 2015 | May | 11 | 21 | 182 | 52.38% | 53.3% |
| 2015 | June | 30 | 16 | 198 | 187.5% | 64.14% |
| 2015 | July | 19 | 28 | 226 | 67.86% | 64.6% |
| 2015 | August | 27 | 22 | 248 | 122.73% | 69.76% |
| 2015 | September | 15 | 21 | 269 | 71.43% | 69.89% |
| 2015 | October | 25 | 20 | 289 | 125% | 73.7% |
| 2015 | November | 40 | 33 | 322 | 121.21% | 78.57% |
| 2015 | December | 23 | 27 | 349 | 85.19% | 79.08% |
| Totals | | 276 | 349 | | | |

Water Main Break Projections

| Measure | Value |
|----------------------------------|-------|
| Y.E. Projection (YTD + Expected) | 275 |

| Measure | Value |
|-----------------------------------|-------|
| Y.E. Projection (YTD + %Expected) | 182 |

Performance to PBR Targets

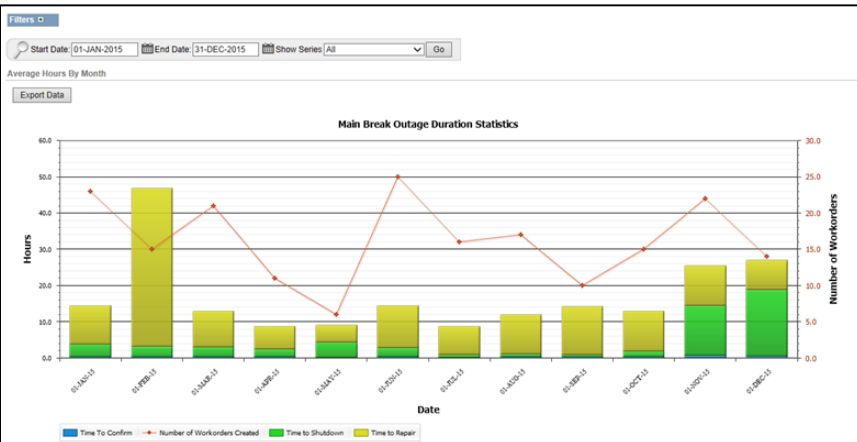
| Measure | Target | Actuals |
|--|--------|---------|
| (PBR) Percentage of Main Breaks Repaired within 24 Hours | 93.7 | 97.44 |
| (PBR) Main Breaks Repairs requiring more than 24 hours | 0 | 5.00 |
| (PBR) Average Response Time From Call to Water Main Break Confirmation | 25 | 21.30 |

Main Breaks by Pipe Material

| Year | Pipe Material | # Of Breaks |
|------|---------------|-------------|
| 2015 | Cast Iron | 234 |
| 2015 | A.C | 14 |
| 2015 | Steel | 14 |
| 2015 | PVC | 8 |
| 2015 | Other | 6 |

Triggers

- Crew to Main break Ratio
- Water Demand Forecasts
- Changing Pressure Zones/Transmission Mains
- Temperature Swings
- Droughts
- Performance Targets (response time)
- Temporary Water Supply
- Equipment Failures
- Fire Protection

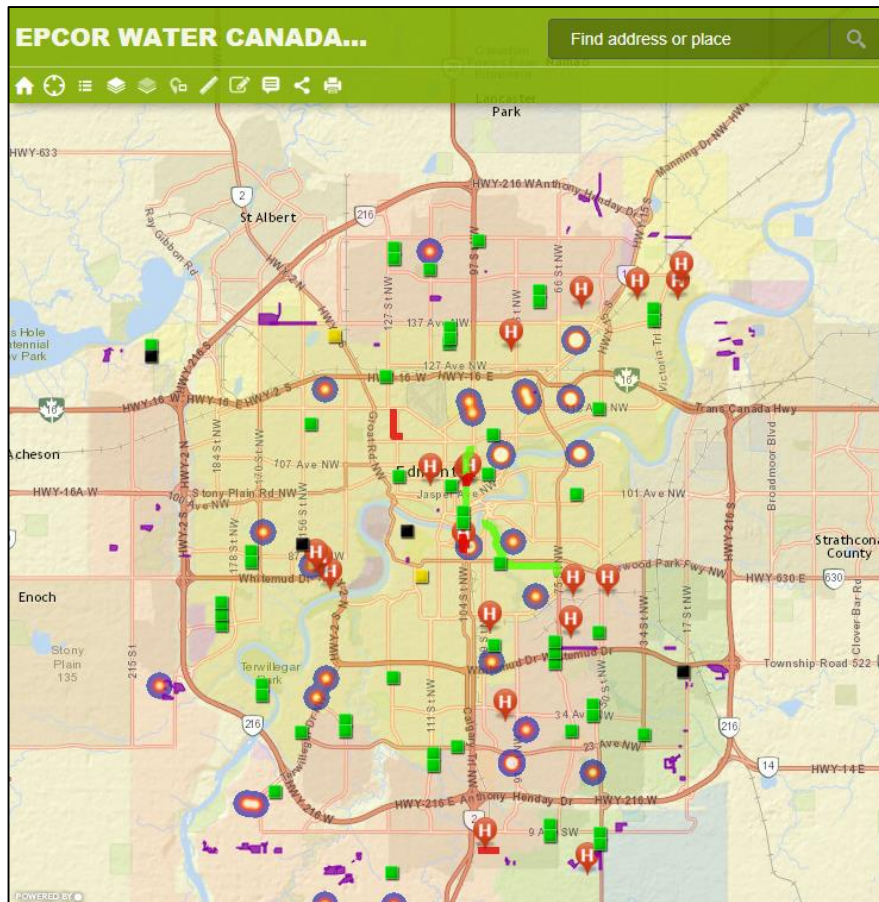


Normal Operations

Warning – Event Probable

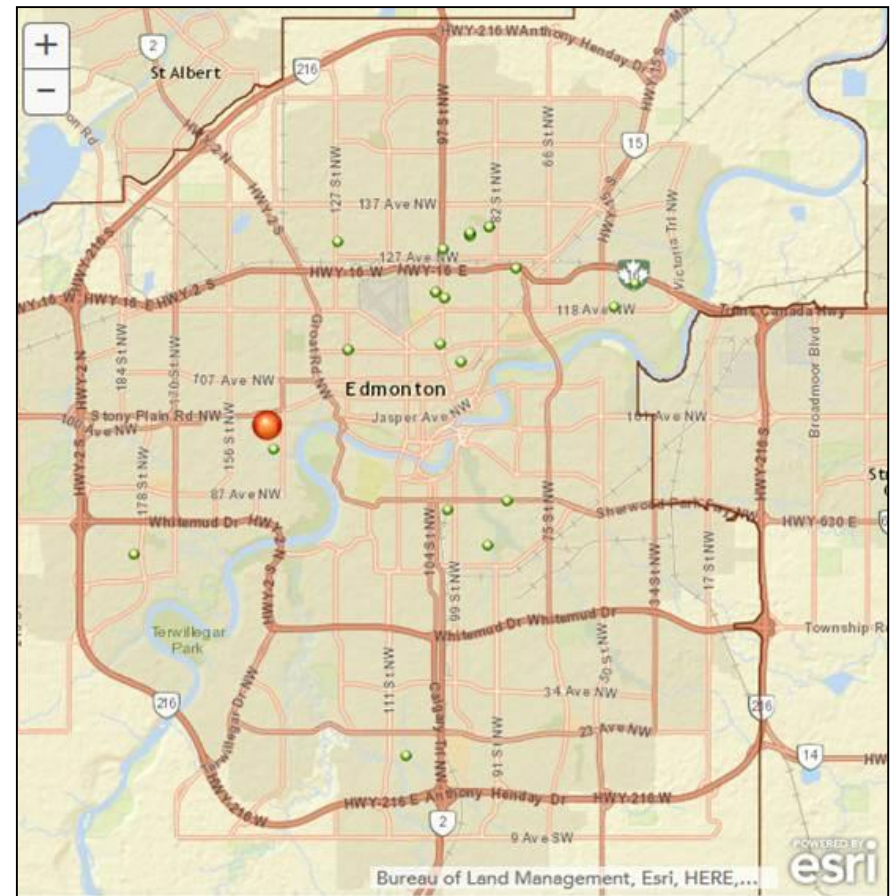
Full Scale Event in Progress

EPCOR Situational Awareness Maps



Internal Audience

Includes – main breaks, hydrant outages, active construction, water quality complaints, transmission shutdowns, current pressures



External Audience

Main Breaks only – includes estimated water restoration times and whether customers are impacted and information on site restoration. Adding Planned maintenance and third party utility strikes by year end