

# Dashboards to Decisions

## Managers Report / Safety Dashboard

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# EPCOR Approach

Open Data Strategy

Operations Focus

End User Focus

Daily use of Data

Improved Data  
Quality

Improved  
Decisions

## Two Examples

- Managers Report
- Safety Dashboard

# Performance Measures (Subset)

Measure	PBR1 2001-2006	PBR2 2006-2011	PBR3 2011-2016	PBR4 2016-2021
Main Breaks	640	630	574	419
Main Break Repair Duration	92.8%	93.6%	93.7%	93.7%
Hydrants out of Service >30 days	75	75	75	75
Hydrants out of Service > 90 days	0	0	0	0

System Size	2001	2006	2011	2016
Number of Services	194,216	214,835	238,831	271,271
Number of Hydrants (nearest 500)	14,000	16,000	18,000	20,000

# Managers Report

## Summary / Excavations / Hydrants / Valves

- CMMS Driven
- Multiple Years
- Performance Flags
- Updated from Field in real time

Highlights Excavation

**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%
<b>Totals</b>		<b>276</b>	<b>349</b>			

**Water Main Break Projections**

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

**Measure**

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

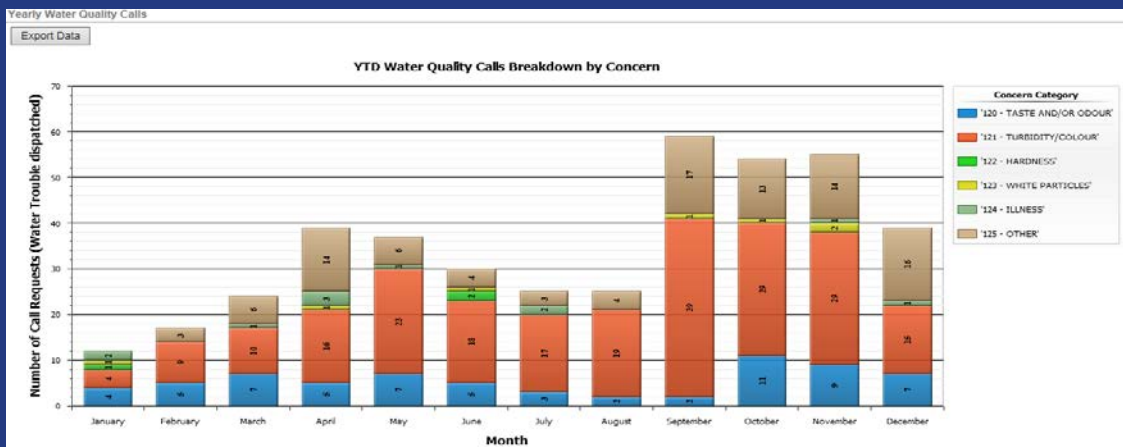
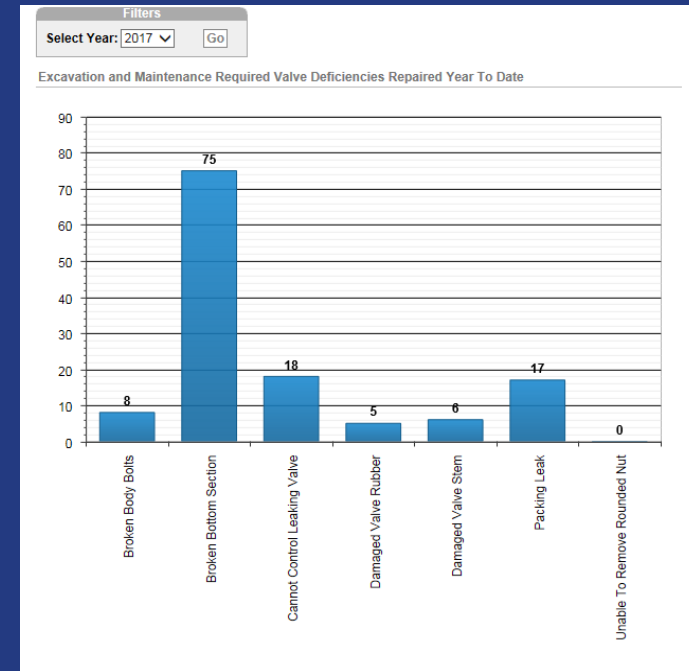
**Main Breaks by Pipe Material**

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

Year Reported	WO Number	WO Title	Title
2017	138812	DCM DISTRIBUTION MAIN BREAK	91 AV W 153 ST
2017	138813	DCM DISTRIBUTION MAIN BREAK	104 ST N 73 AV
2017	138887	DCM DISTRIBUTION MAIN BREAK	ALLARD WAY - 51 AVE
2017	138937	DCM DISTRIBUTION MAIN BREAK	HAS ANOTHER BREAK
2017	139036	DCM DISTRIBUTION MAIN BREAK	119 ST - 111 AVE
2017	139213	DCM DISTRIBUTION MAIN BREAK	W 44 ST - 116 AVE
2017	139235	DCM DISTRIBUTION MAIN BREAK	LW 133 ST - N 104 AVE
2017	139246	DCM DISTRIBUTION MAIN BREAK	172 ST - N 106A AVE
2017	139262	DCM DISTRIBUTION MAIN BREAK	W 119 ST - 136 AVE
2017	139276	DCM DISTRIBUTION MAIN BREAK	W 75 ST ON 82 AVE
2017	139289	DCM DISTRIBUTION MAIN BREAK	101 ST - 113 AVE
2017	139293	DCM DISTRIBUTION MAIN BREAK	LW 126 ST N 107 AV
2017	139306	DCM DISTRIBUTION MAIN BREAK	41 ST - 121 AVE
2017	139360	DCM DISTRIBUTION MAIN BREAK	67 ST - 128 AVE
2017	139384	DCM DISTRIBUTION MAIN BREAK	120 ST S 109A AVE

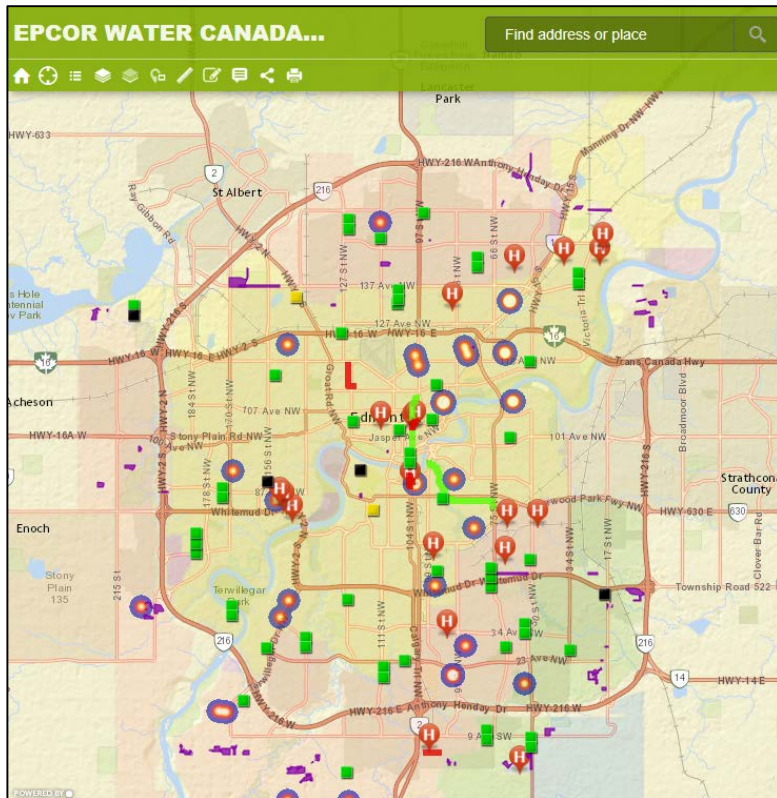
Dynamic Hyperlinks Between Lists and Dashboard

# Managers Report – Charts



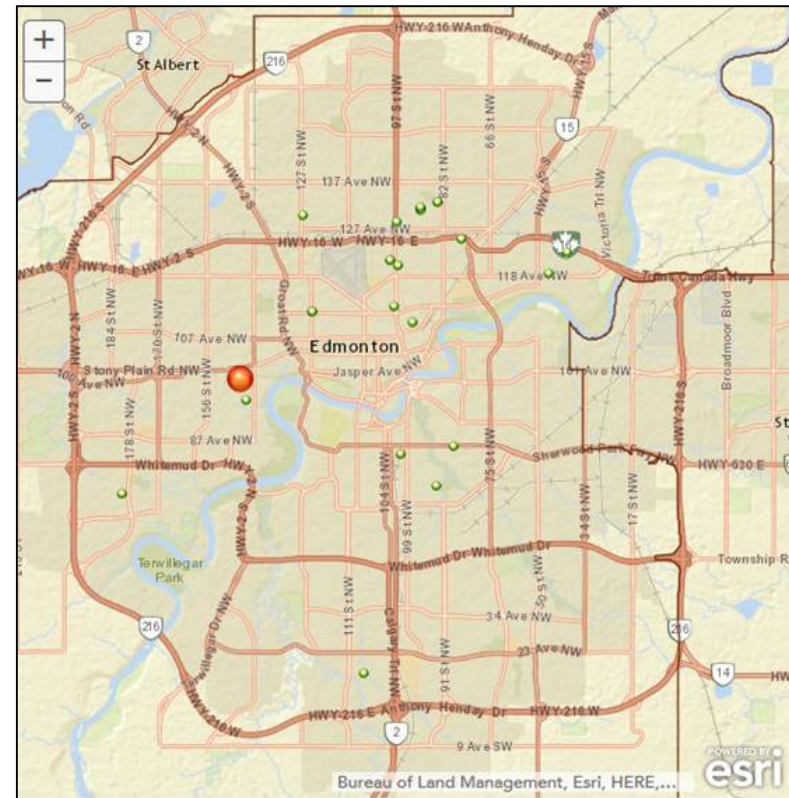
- All Charts link to List View
- Year over Year comparisons
- Export to Excel

# Situational Awareness Maps



## Internal Audience

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

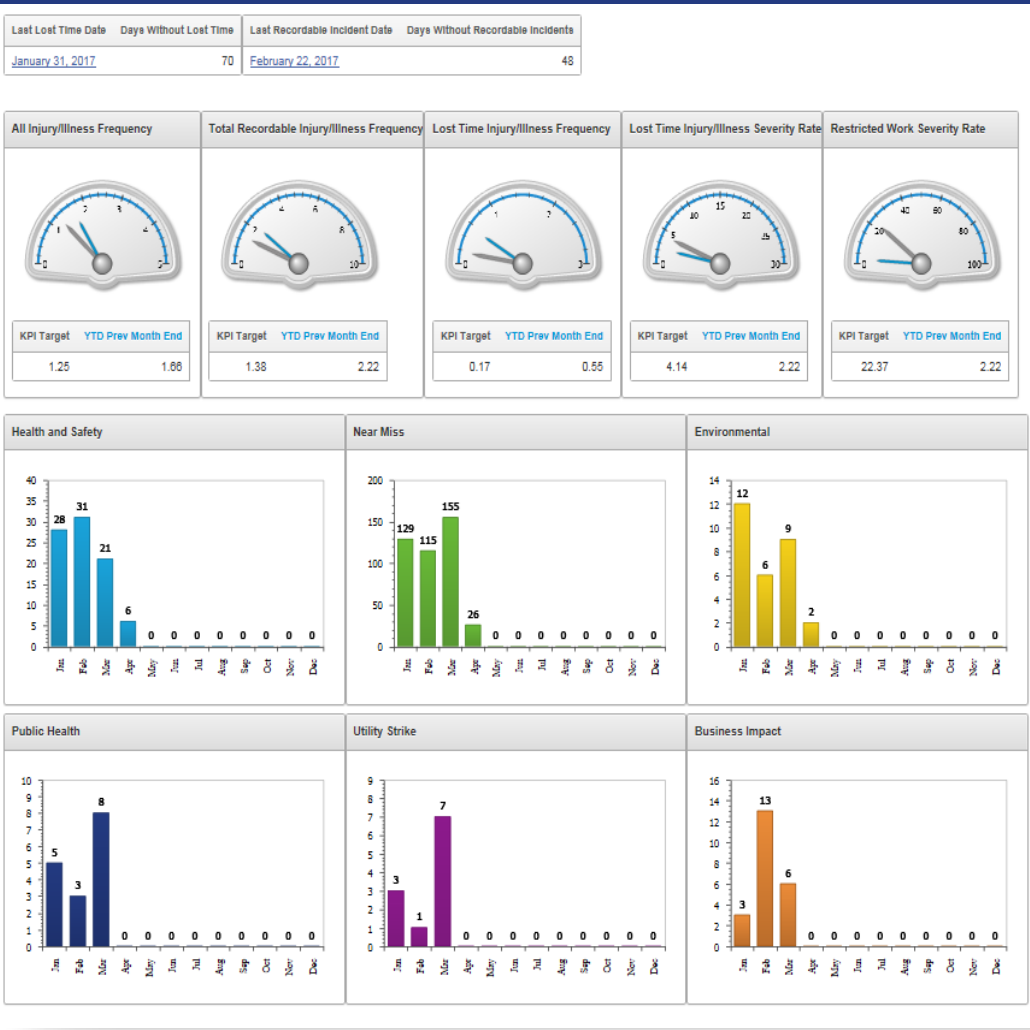


## External Audience

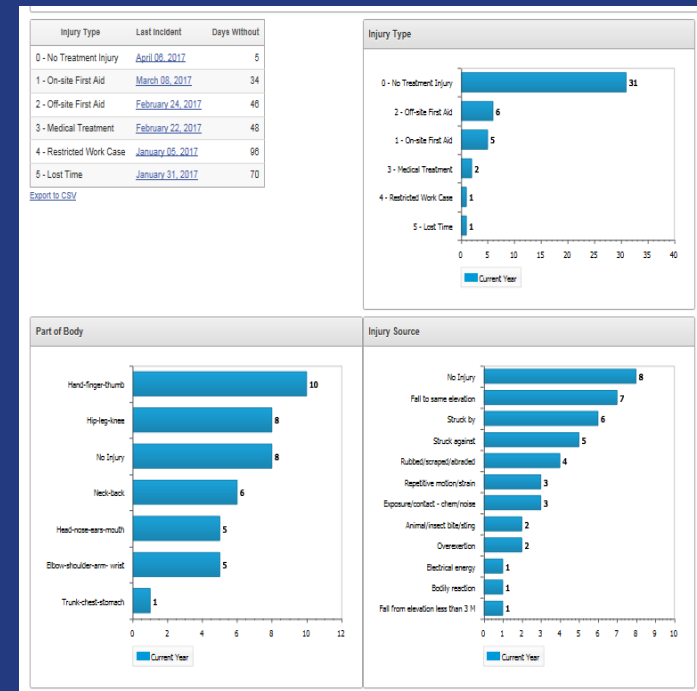
Main Breaks and Utility Strikes only – includes estimated water restoration times and whether customers are impacted and information on site restoration.



# Safety Dashboard

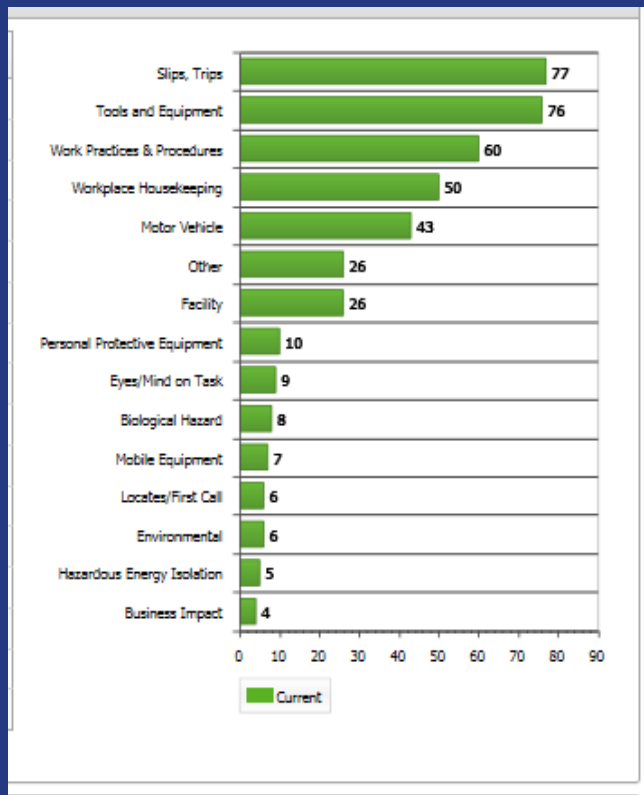


- Dynamic list view links
- Able to drill down to functional work groups
- Employee and Contractor incident analysis

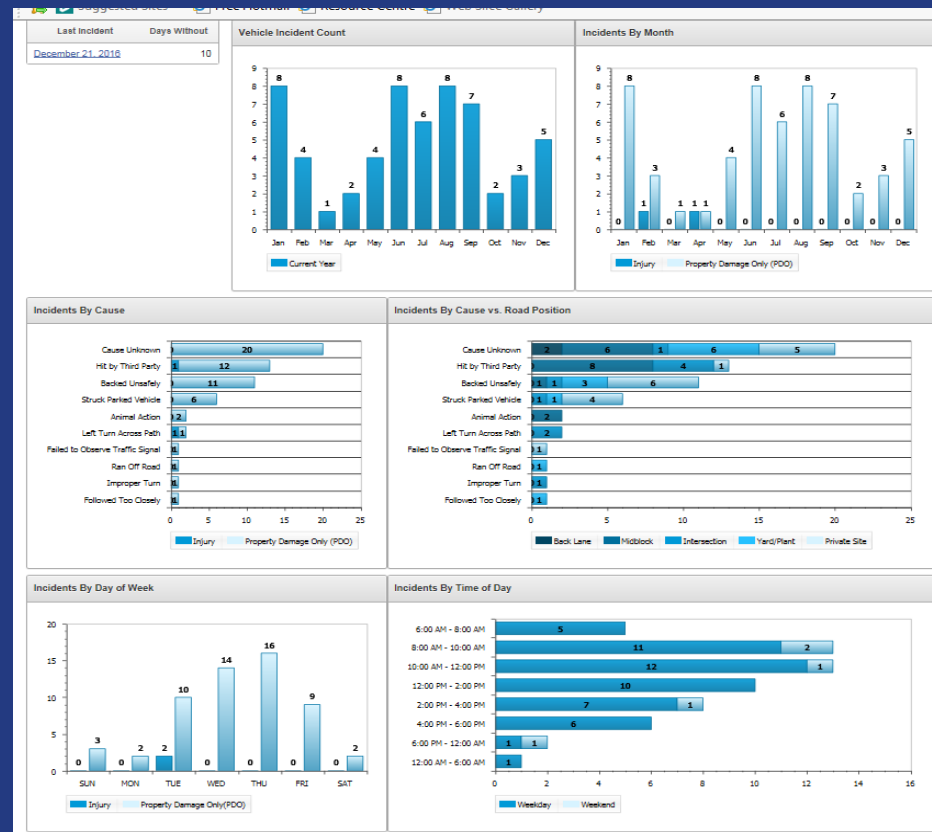


# Dashboard Charts

## Near Miss by Risk Event



## Vehicle Incident tracking to match Office of Traffic Safety Metrics





# Dashboard Data

## Categories

- Health and Safety – People, Vehicles, Property Damage
- Near Miss
- Environment
- Public Health
- Utility Strikes – aligned with DIRT reporting methodology
- Business Impact – missed KPI, Financial impact

## Specific Data Collected

- Initial Incident Details – demographics, location, incident characteristics
- Detailed Investigations – root cause analysis, witness statements
- Corrective Actions – set dates to complete

## Performance Management and Reporting

- Time to Complete Investigation
- Timeline for Corrective Actions
- Annual Verification of Corrective Action Effectiveness
- Year over Year Comparisons

# Safety Performance Results

