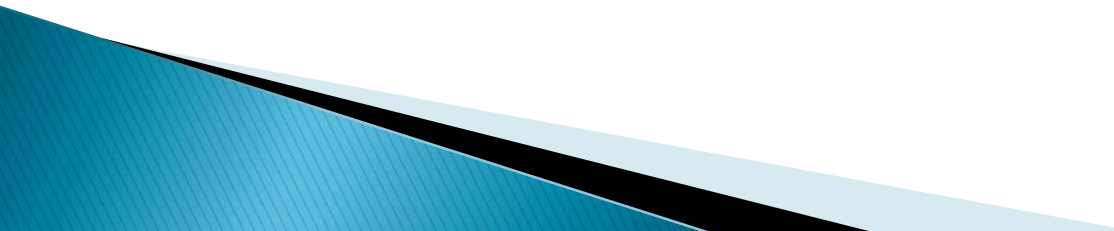


DPW Operations – Forestry 2018 Capital Improvements

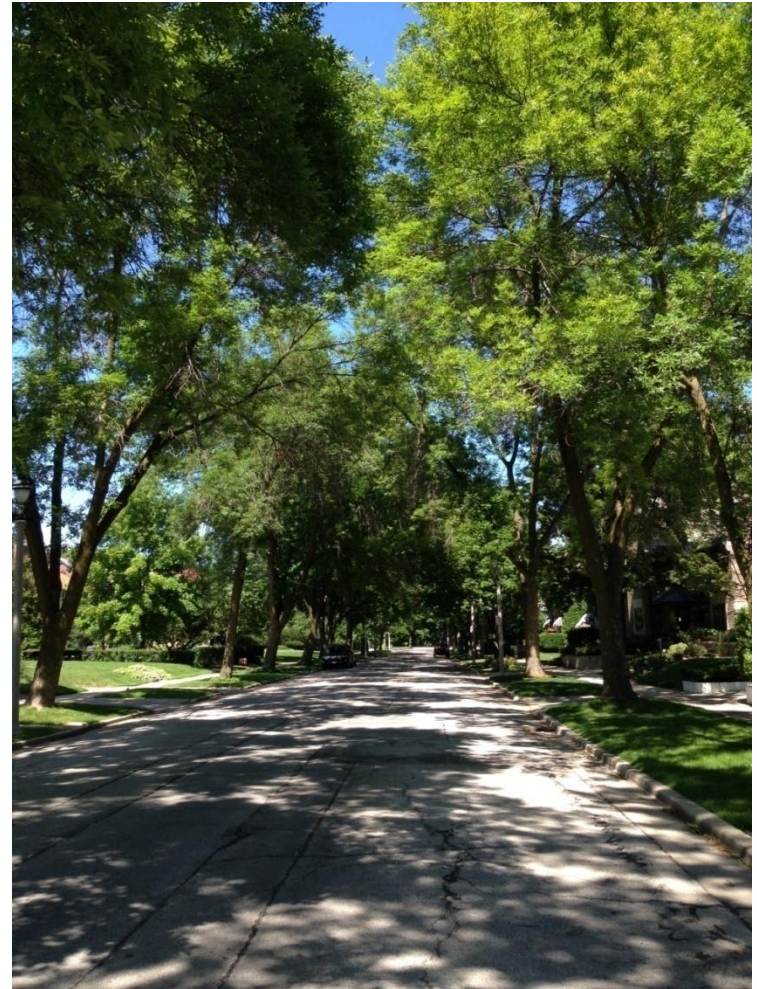


2018 Capital Budget Requests

- ▶ Tree Planting & Production
 - ▶ Stump Removal
 - ▶ Concealed Irrigation
 - ▶ Emerald Ash Borer Response
 - ▶ Dead & Hazard Tree Abatement
- 

Milwaukee Street Trees

- ▶ 193,948 street trees
- ▶ 309 distinct species or cultivars
- ▶ 89% rated as fair or better condition
- ▶ 30,450 ash street trees (15.4%)
- ▶ 60 year recovery timeframe from Dutch Elm Disease (1956–2016)

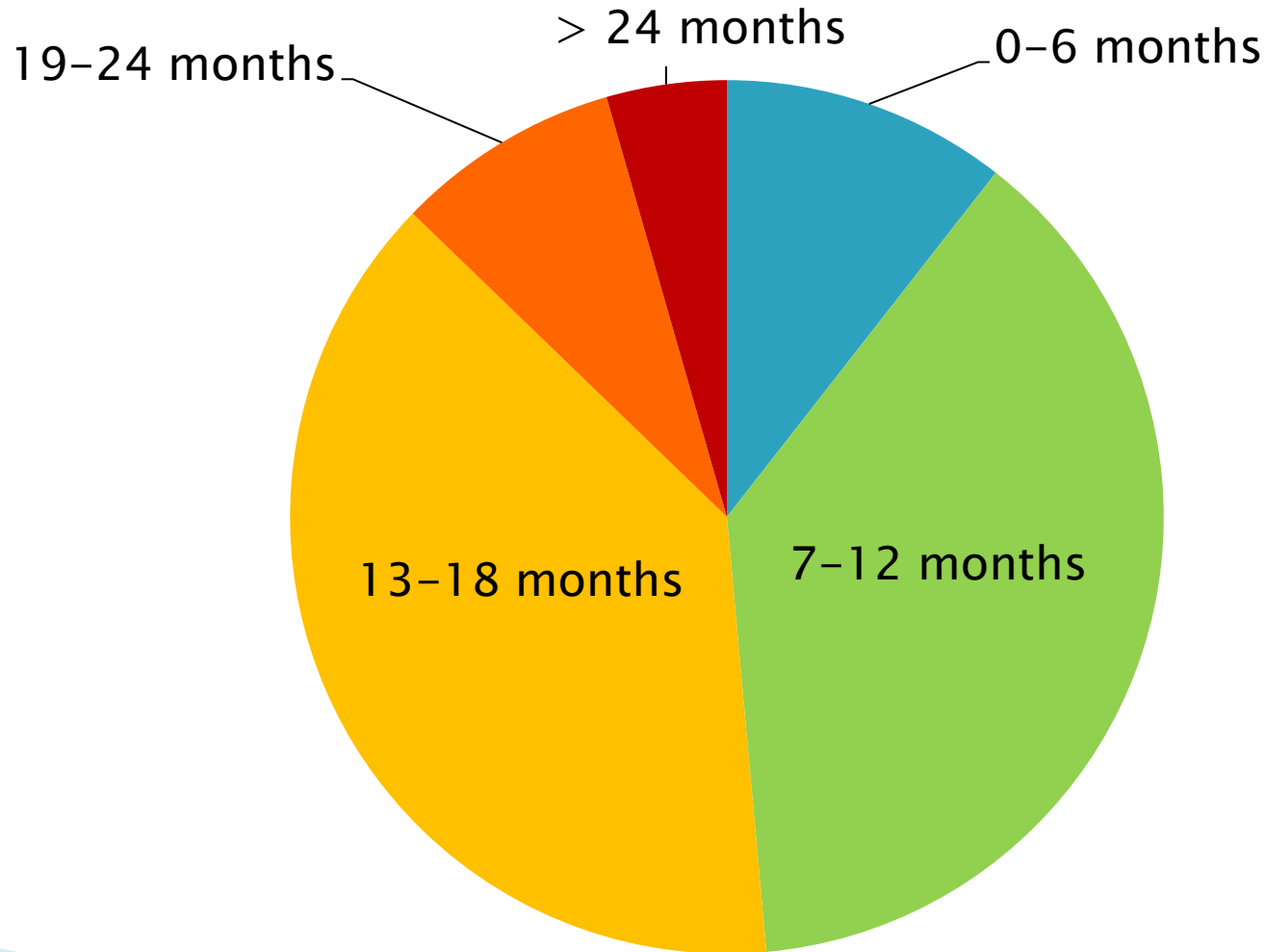


Tree Planting & Production

- ▶ \$1,590,000 Request
- ▶ Replaces 4,284 trees
 - 3,794 street trees lost to mortality
 - 490 trees impacted by paving/sidewalk projects
 - Maintains 98% stocking goal

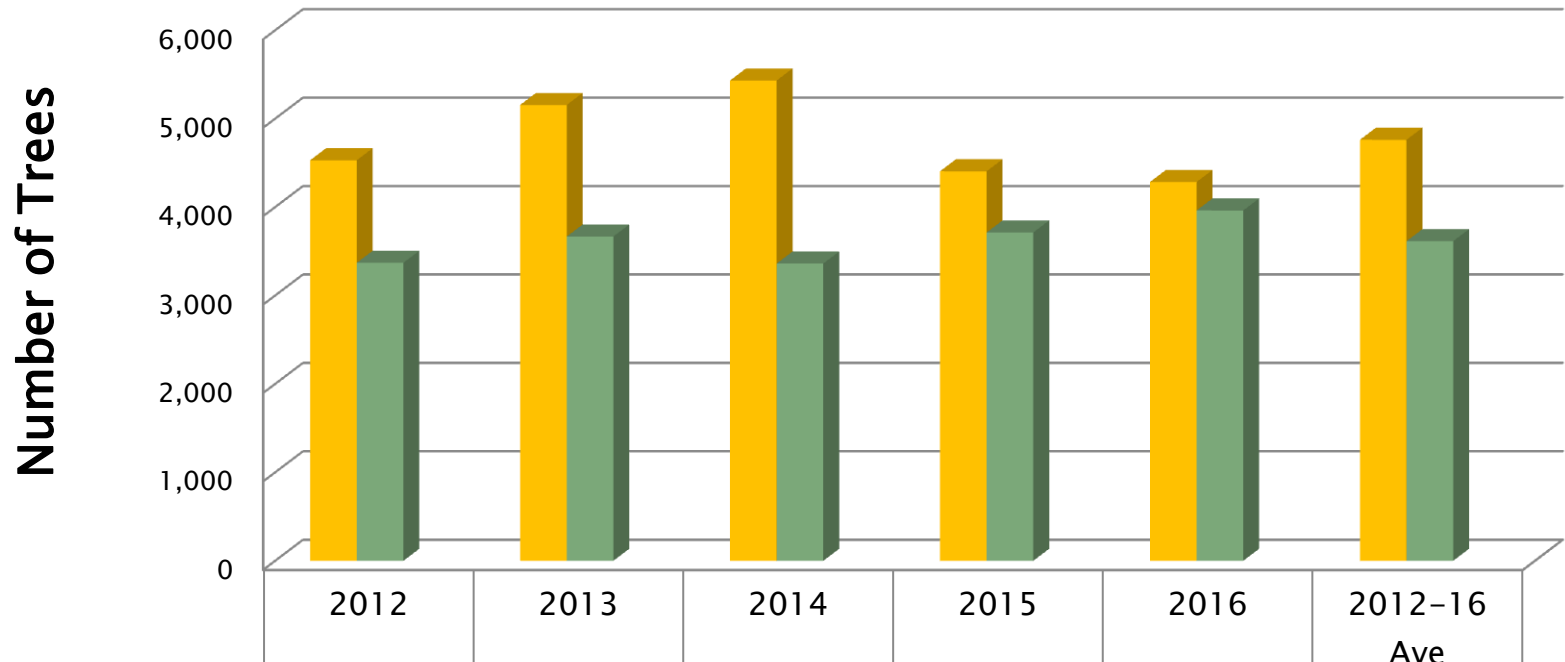


Tree Replacement Timeframe



Tree Removal & Replacement 2012-2016

Tree Removal & Replacement (2012-2016)



■ Trees Removed	4,530	5,155	5,432	4,405	4,284	4,761
■ Trees Planted	3,370	3,667	3,362	3,713	3,962	3,615
Replacement Ratio	74%	71%	62%	84%	92%	76%

Concealed Irrigation

- ▶ \$500,000 Request
- ▶ Maintains Boulevard Irrigation System
 - 287 Signature Beds
- ▶ Updates 100 Deep Water Taps
 - 25 Year Service Life



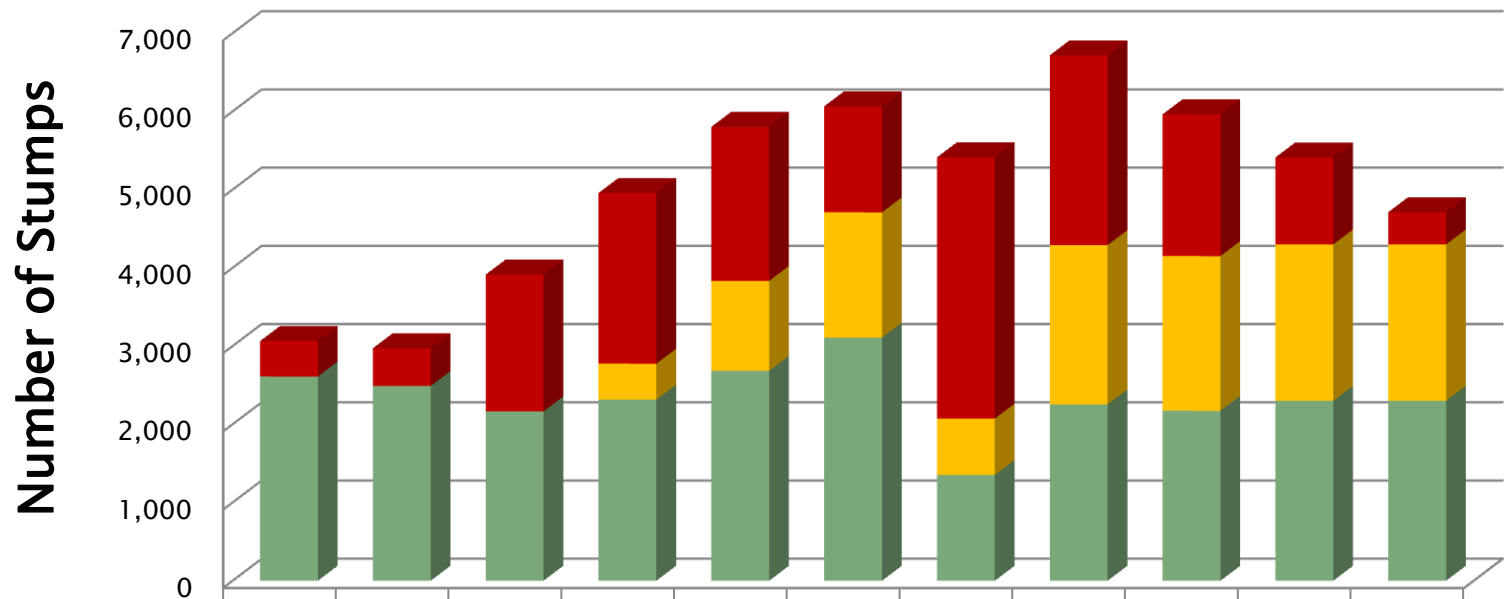
Stump Removal

- ▶ \$500,000 Request
- ▶ Contract Removal of 2,000 Stumps
- ▶ Reduces Backlog to 400 Stumps



Stump Removal

Stump Removal 2008–2018



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
■ Stumps Not Ground (Projected 2017–18)	452	482	1,749	2,182	1,969	1,355	3,340	2,427	1,812	1,112	412
■ Stumps Ground Contract	0	0	0	460	1,150	1,602	721	2,037	1,978	2,000	2,000
■ Stumps Ground City	2,612	2,490	2,165	2,315	2,684	3,108	1,352	2,254	2,173	2,300	2,300

Custom Self Unloading Trailer Stump Hole Backfill

SELF UNLOADING TRAILER

Patented, amazing new trailer allows you to dispense your materials with pinpoint accuracy!



Emerald Ash Borer Response

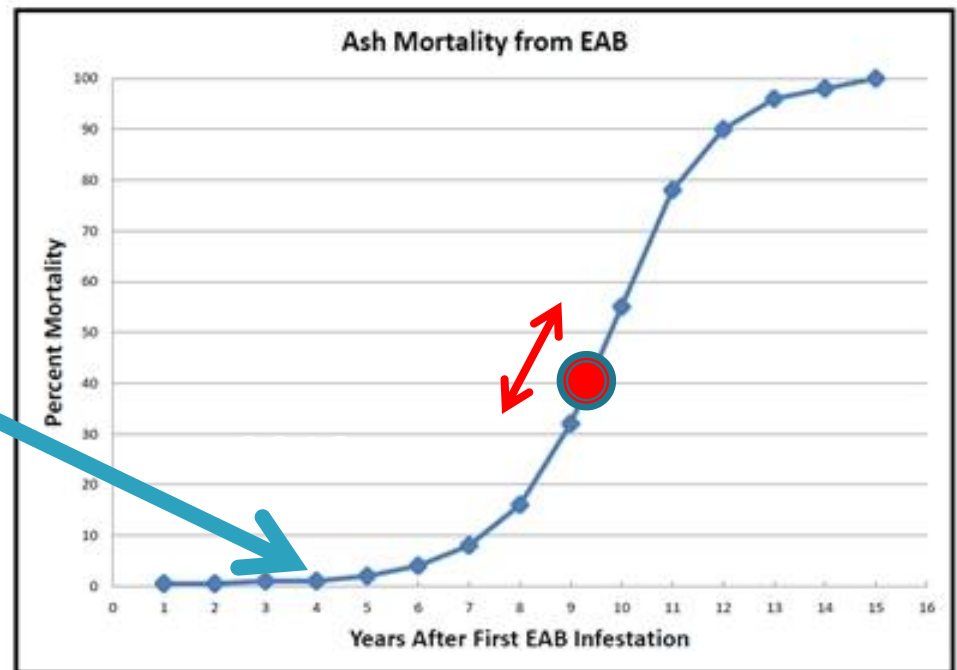
- ▶ \$1,000,000 Request
- ▶ Treatment of 1 / 2 of Ash Street Trees
- ▶ 100% Control
- ▶ 300% return on investment
- ▶ Transitioning to 3-Year Treatment Cycle



Treated Ash Street Trees

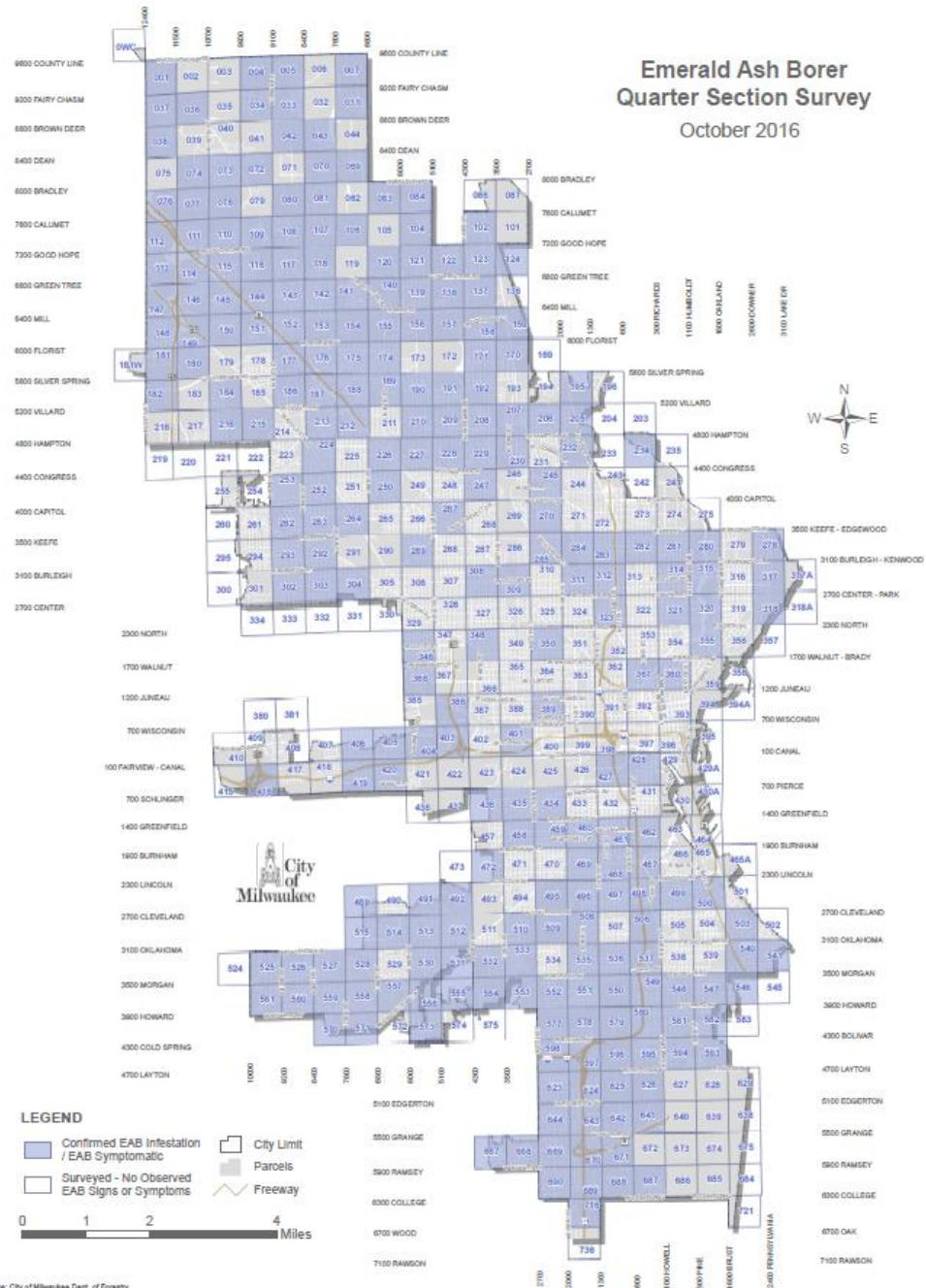


Emerald Ash Borer – Mortality



**Emerald Ash Borer
Quarter Section Survey**
October 2016

- ▶ Emerald Ash Borer Survey (Oct 2016)
- ▶ 248 QS confirmed/symptomatic for EAB



Source: City of Milwaukee Dept. of Forestry
Prepared by: TMG-S&G - 10/20/16

EAB Mortality – Milwaukee



Wahl Park– 2014



6th & Walnut – 2017

Hazard Tree Assessment

- ▶ \$186,000 Request
 - \$96,000 contract removals
 - \$96,000 (1 additional Urban Forestry Technician)
- ▶ Projecting 430% increase in dead & hazard trees in 2018
- ▶ Cost recovered with interest over 10 year period



Bradley Estates – 2015