

# Control of *Ludwigia hexapetala* at Delta Ponds



Lauri Holts  
City of Eugene  
Parks and Open Space

*(c) 2013 fotabug fotos*

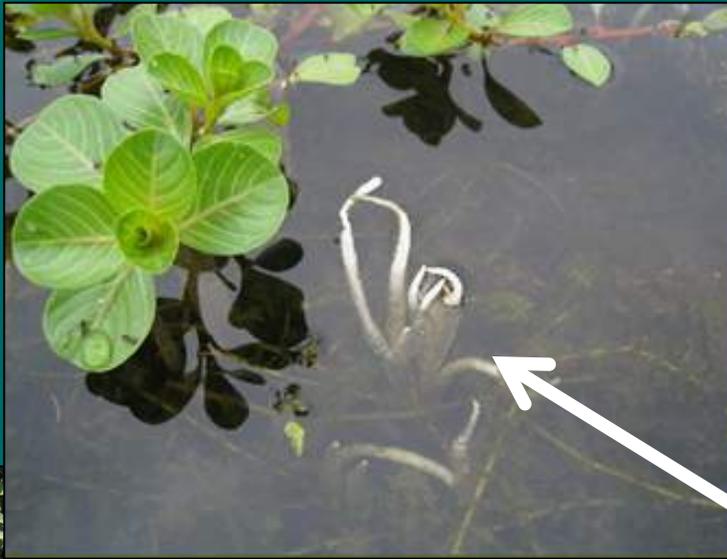


*Ludwigia hexapetala*  
Uruguayan primrose-willow

- Native to South America
- Introduced to U.S. via ornamental trade
- One of several invasive *Ludwigia* in the Pacific Northwest



# Ludwigia is extremely well adapted to spread and persist



Leaf & stem fragments have the ability to sprout roots



Aerenchymous roots absorb nutrients from air

Ludwigia will persist and grow along shorelines



...and we now know that it produces highly viable seed

# Impacts of *Ludwigia hexapetala*

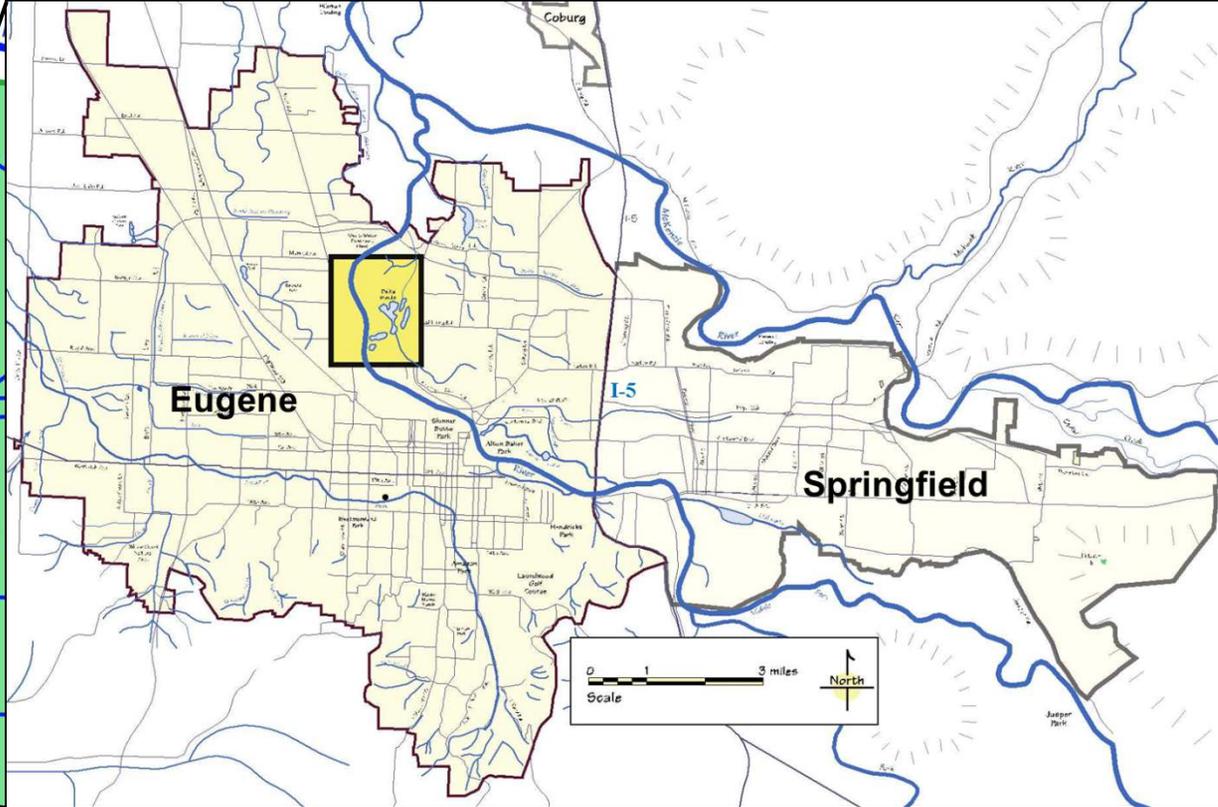
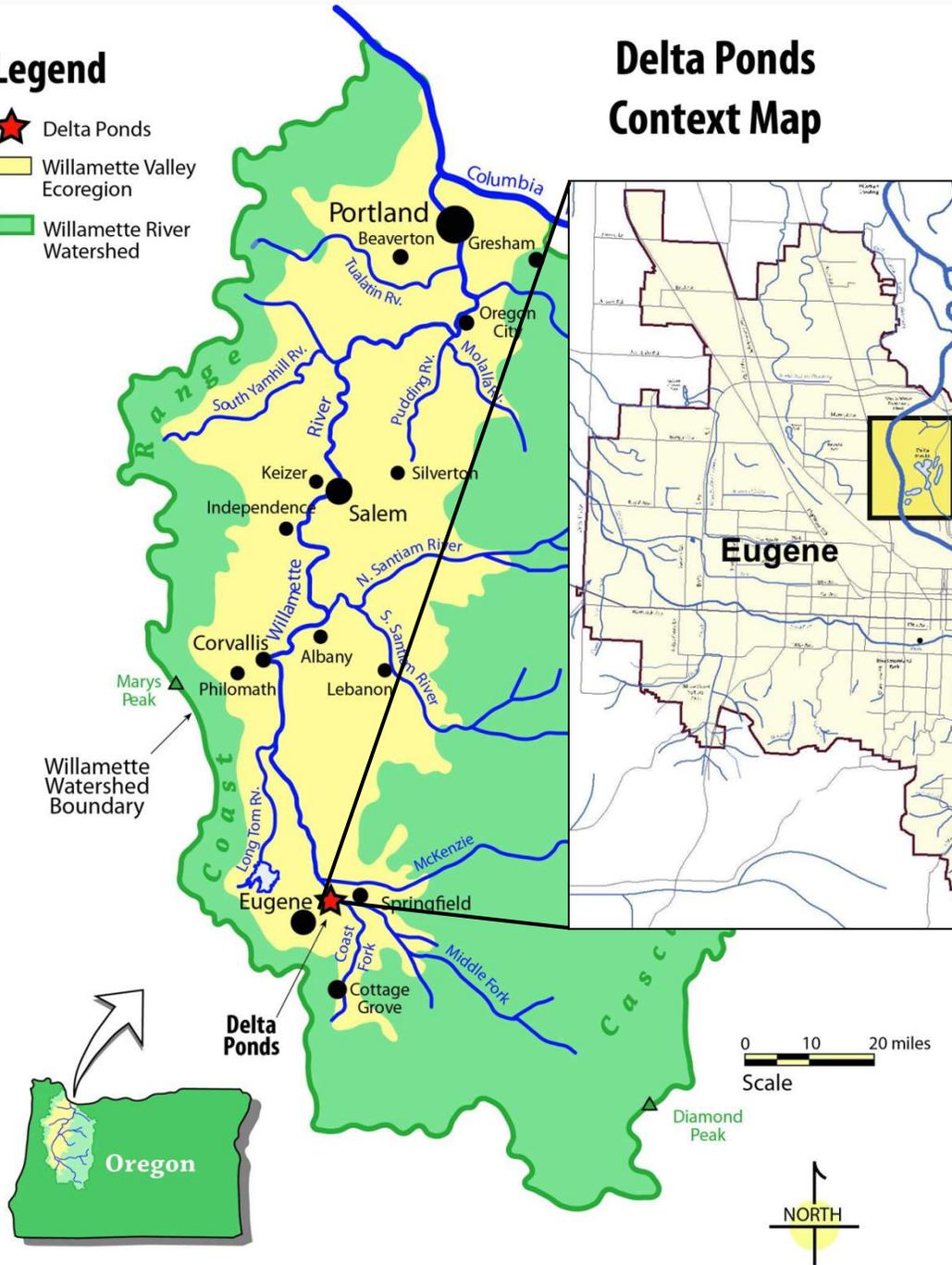


- Clogs waterways
- Decreases flood retention
- Degrades water quality
- Decreases open water habitat
- Displaces native vegetation
- Facilitates secondary invasion
- Impacts threatened species

# Legend

- ★ Delta Ponds
- Willamette Valley Ecoregion
- Willamette River Watershed

# Delta Ponds Context Map



**Delta Ponds is right at the heart of the Eugene-Springfield Metro Area**

# *Ludwigia hexapetala* at Delta Ponds



Ludwigia showed up in  
2007 at an old boat  
ramp ...

and within just a few  
years it had  
overtaken some of  
the ponds



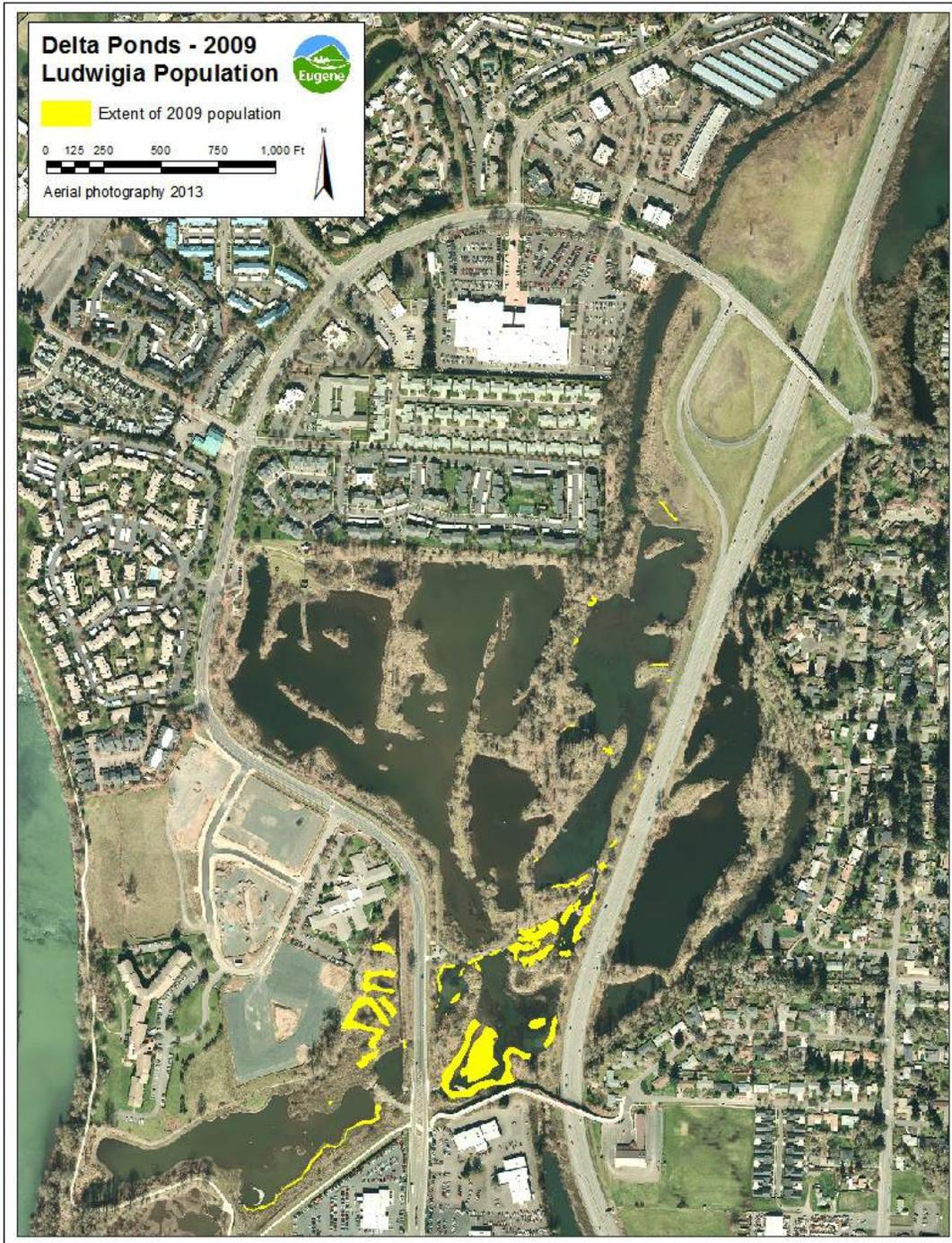
*Photopoint photos from long-term Delta Ponds  
project monitoring*



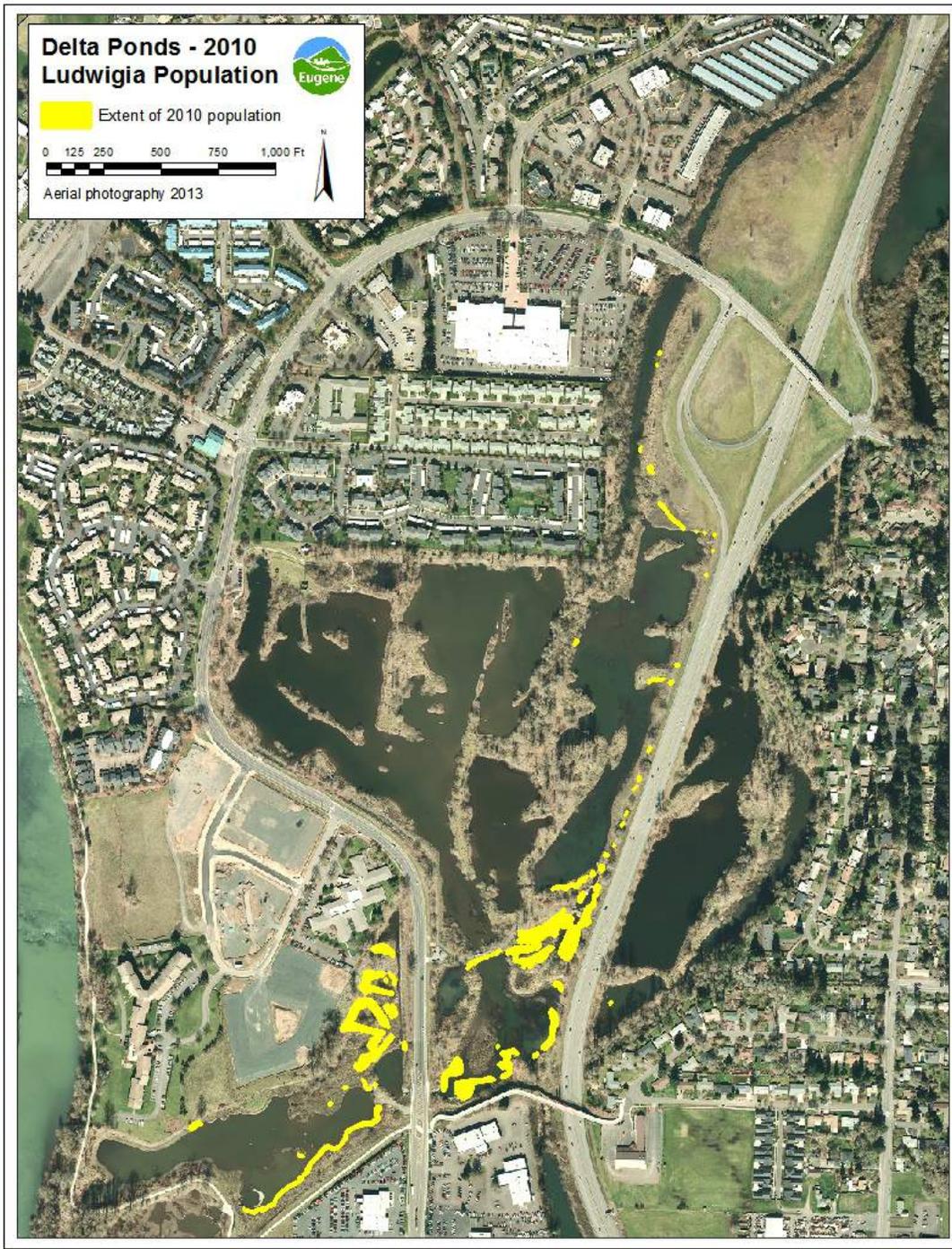
2007



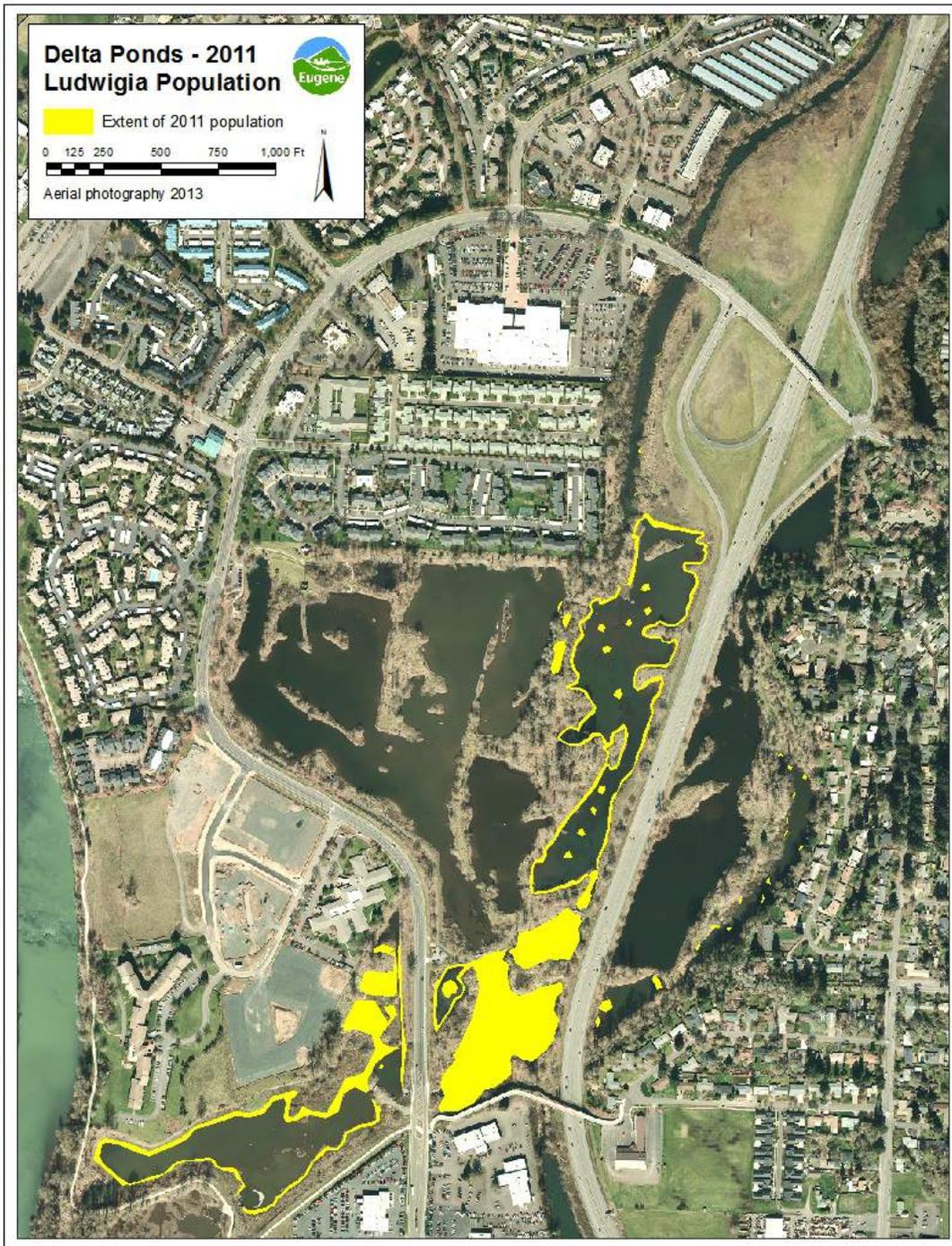
2008



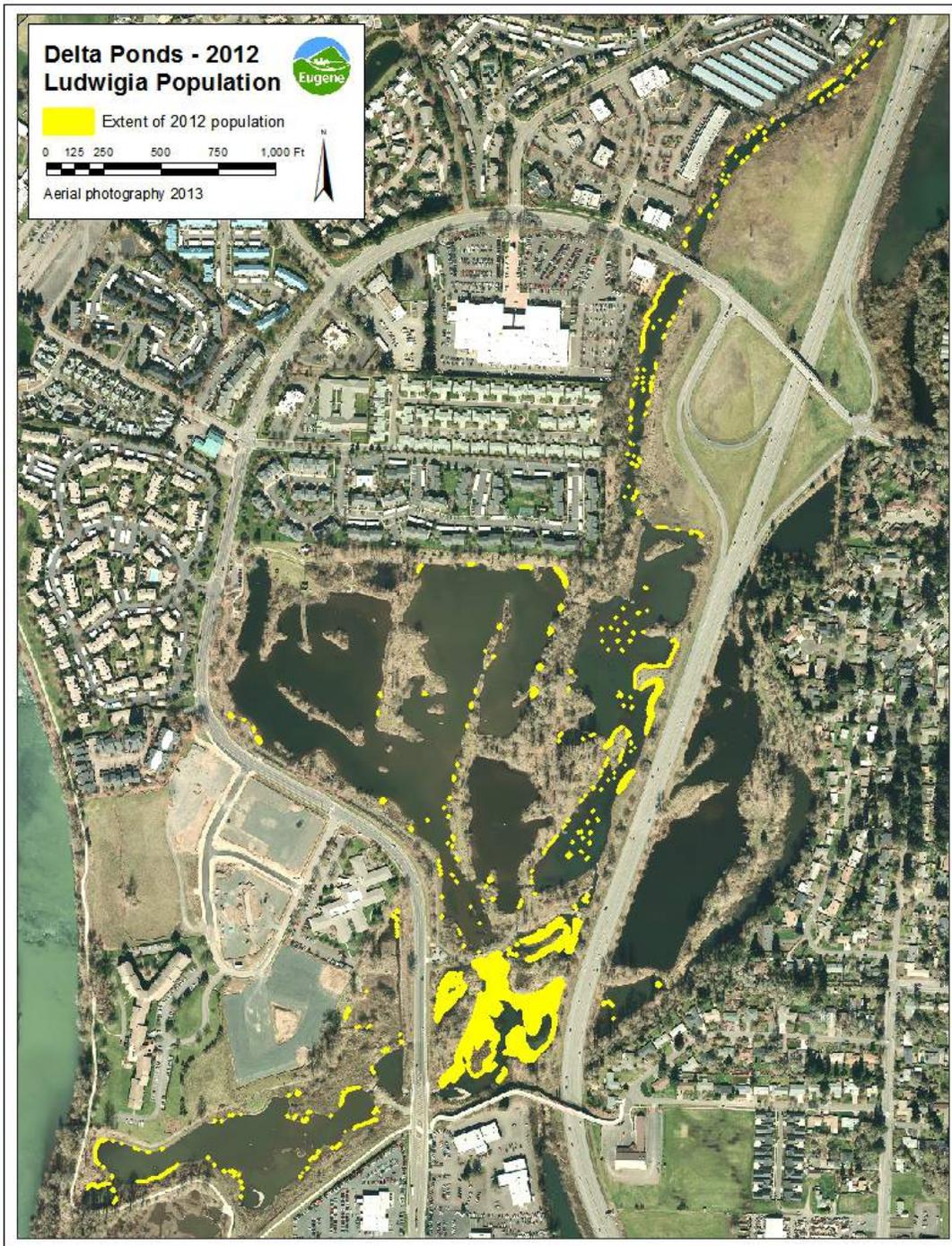
2009



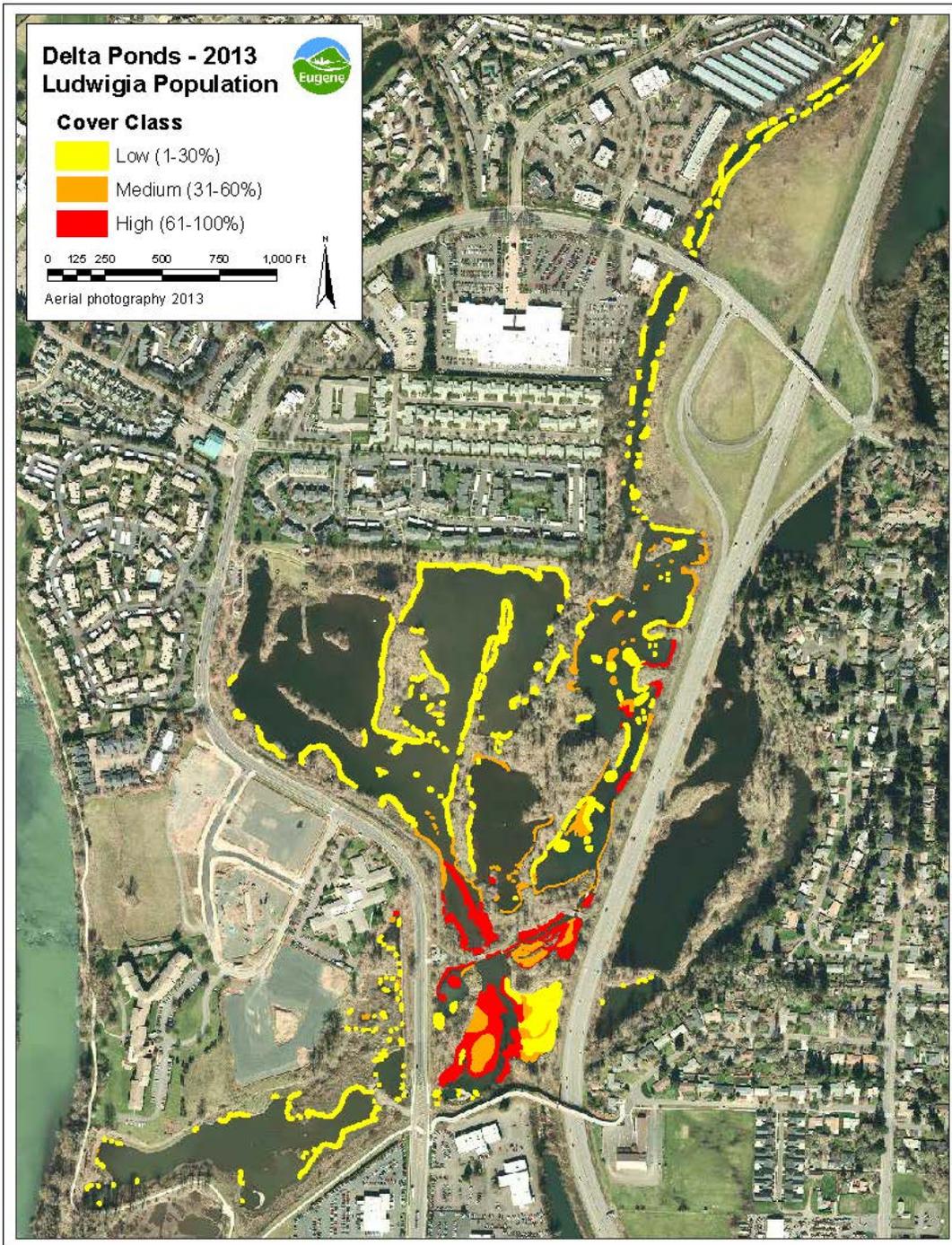
2010



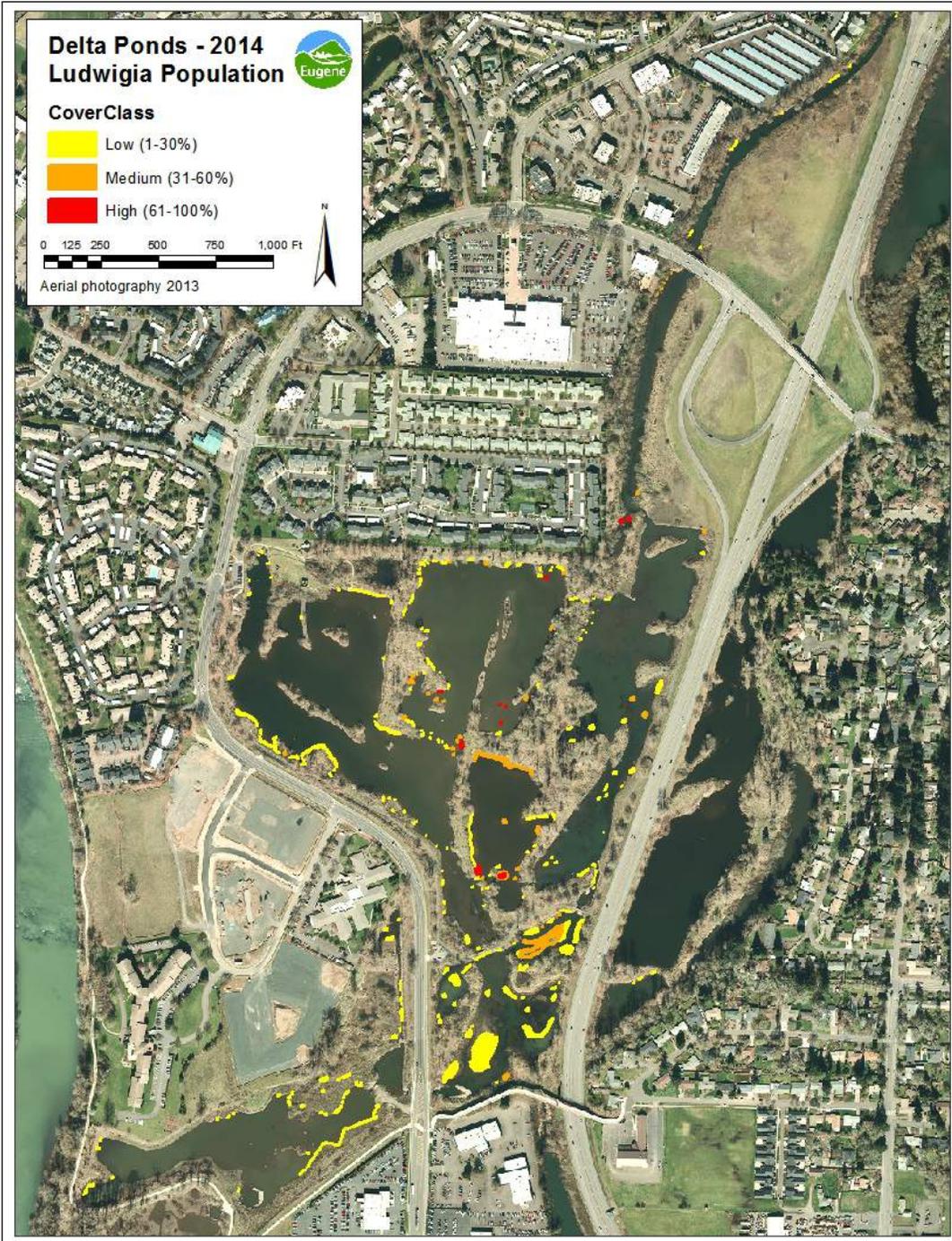
2011



2012



2013



2014



# Manual control

(June/July and Sept/Oct)

Hand pulled:

- sparse plants
- plants intermixed with natives



# Chemical control

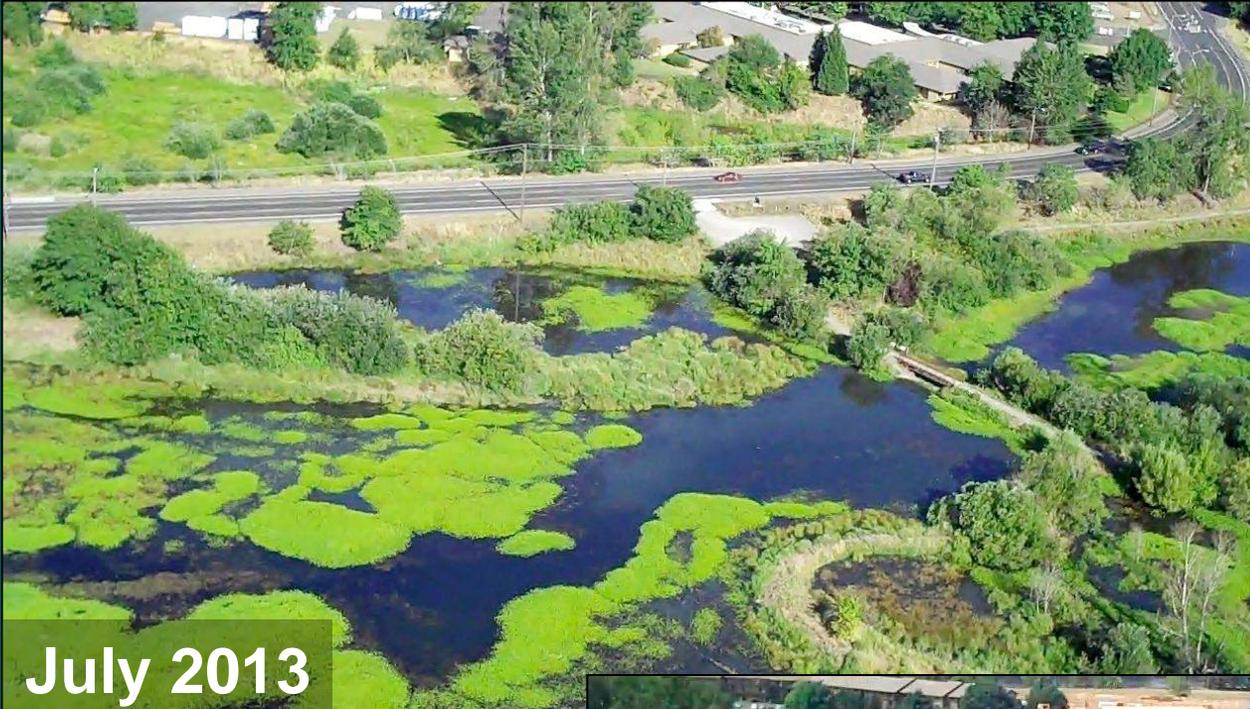
(late July/August)

Treated:

- plants growing on land
- dense aquatic patches



*Chemical mixture:  
3% glyphosate  
0.5% Agridex surfactant  
blue dye*



**July 2013**

**Before  
chemical  
treatment**

**...and shortly  
after**



**August 2013**

*Images by Philip Bayles  
[psb@efn.org](mailto:psb@efn.org)  
[www.raptorviews.com](http://www.raptorviews.com)*



**June 2013**

**Photopoint monitoring  
just before Phase I  
chemical treatment**

**...and one year  
later before  
Phase II control**



**June 2014**

# Recommendations

- EDRR
- Consult with others
- Develop a Plan
- Commit to long-term vegetation management
- Adaptive Management



INVASIVE *LUDWIGIA HEXAPETALA* MANAGEMENT PLAN

FOR

THE DELTA PONDS NATURAL AREA  
(Eugene, Oregon)

(2013-2018)



PREPARED BY THE CITY OF EUGENE, PARKS AND OPEN SPACE DIVISION



A photograph of a pond with a log and a frog. The pond is filled with water and surrounded by green vegetation. A log is floating in the water, and a frog is perched on it. The text "Questions?" is overlaid on the image.

Questions?

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