



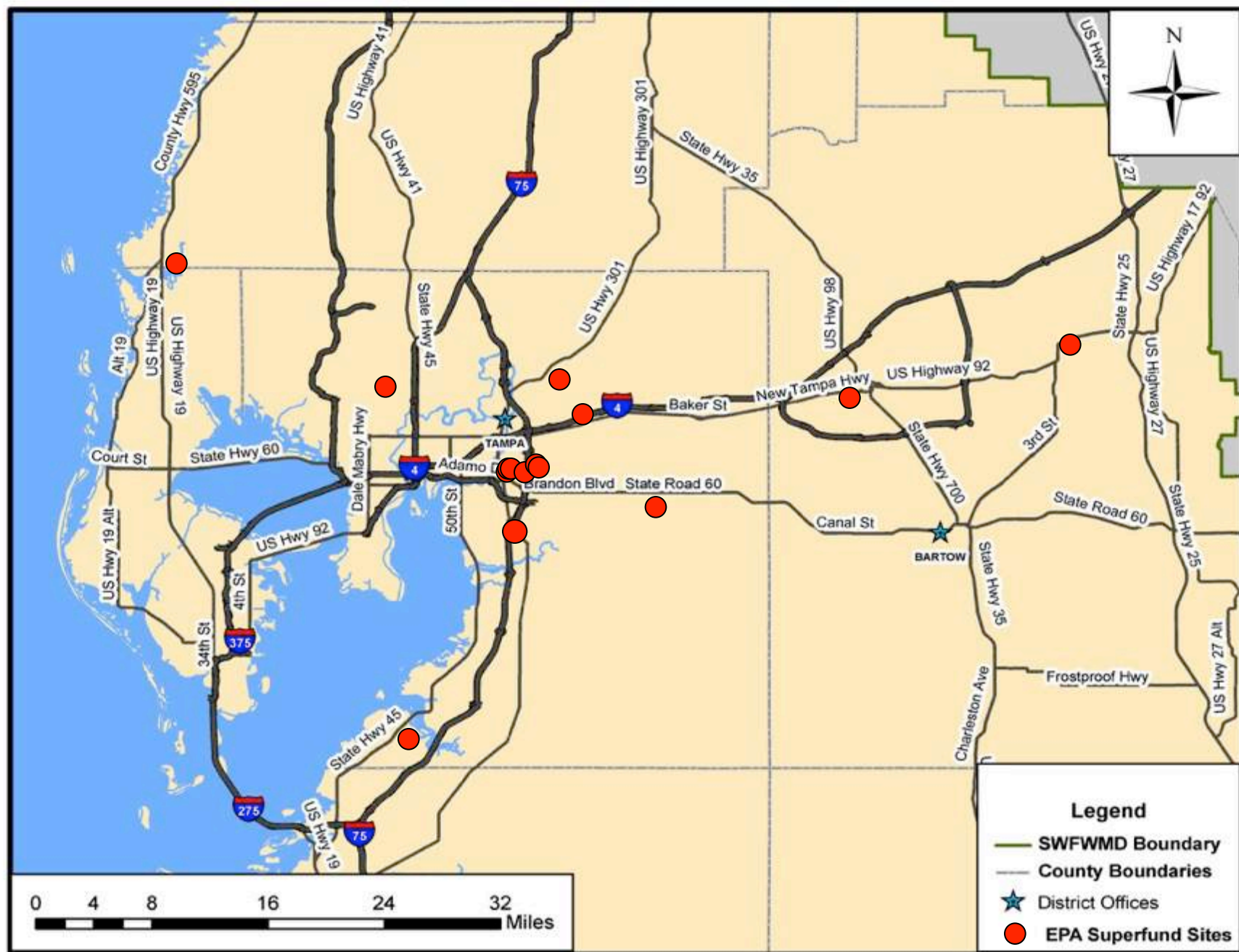
Memorandum of Agreements:

What Role do they Play?

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100





MOA – What Was the Need?

- ▶ Develop a practical method to provide institutional controls which would restrict groundwater usage underneath multiple non-labile properties impacted by contamination from Superfund sites until cleanup goals are attained.



Why an MOA?

- ▶ Establishes a framework for cooperative efforts to minimize groundwater contamination and water resource impacts using existing rules and authorities.
- ▶ Minimize risks associated with selected sites.
- ▶ Increase public awareness of groundwater-contaminated areas.
- ▶ Satisfies Institutional Control requirement for Groundwater.



What Are EPA's Responsibilities Under the MOA?

- ▶ Notify the Water Management Districts of groundwater impacts at Superfund sites within their district boundaries.
- ▶ Provide site-specific GIS data showing the extent of groundwater contamination for selected sites.
- ▶ Provide ongoing monitoring and site assessment documentation; include well surveys as part of 5-year reviews of selected sites.



What Was Already Happening?



- ▶ In Florida, Water Management Districts (WMDs) have been established across Florida to manage the State's water resources.
- ▶ WMDs have been delegated authority by DEP to implement the State's water well construction regulation program.



Southwest Florida Water Management District (SWFWMD)

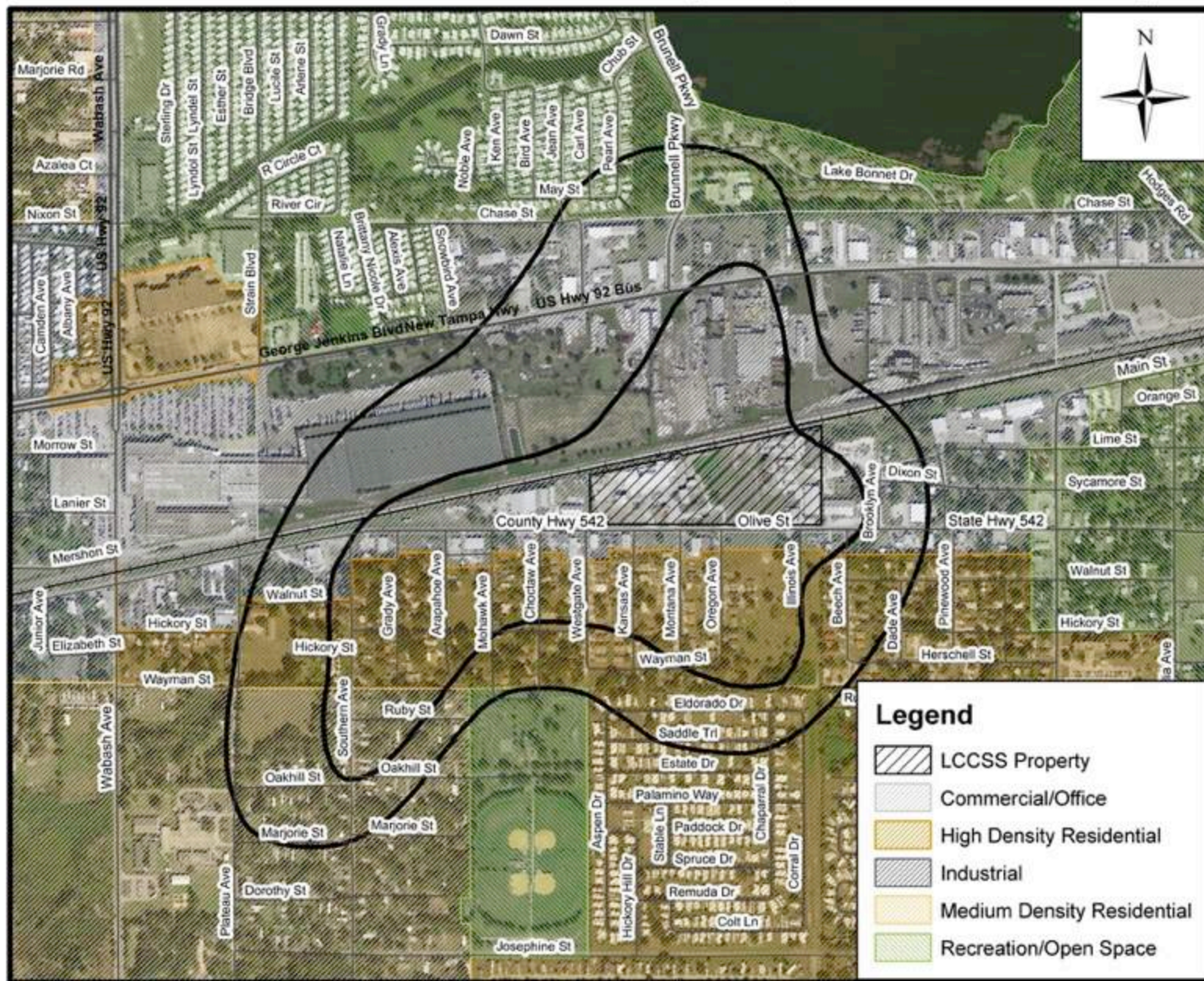
- ▶ The first MOA was developed in the SWFWMD (near Tampa).
- ▶ Presently there are fifteen (15) active Superfund sites designated by the U.S. Environmental Protection Agency (EPA) within the SWFWMD.

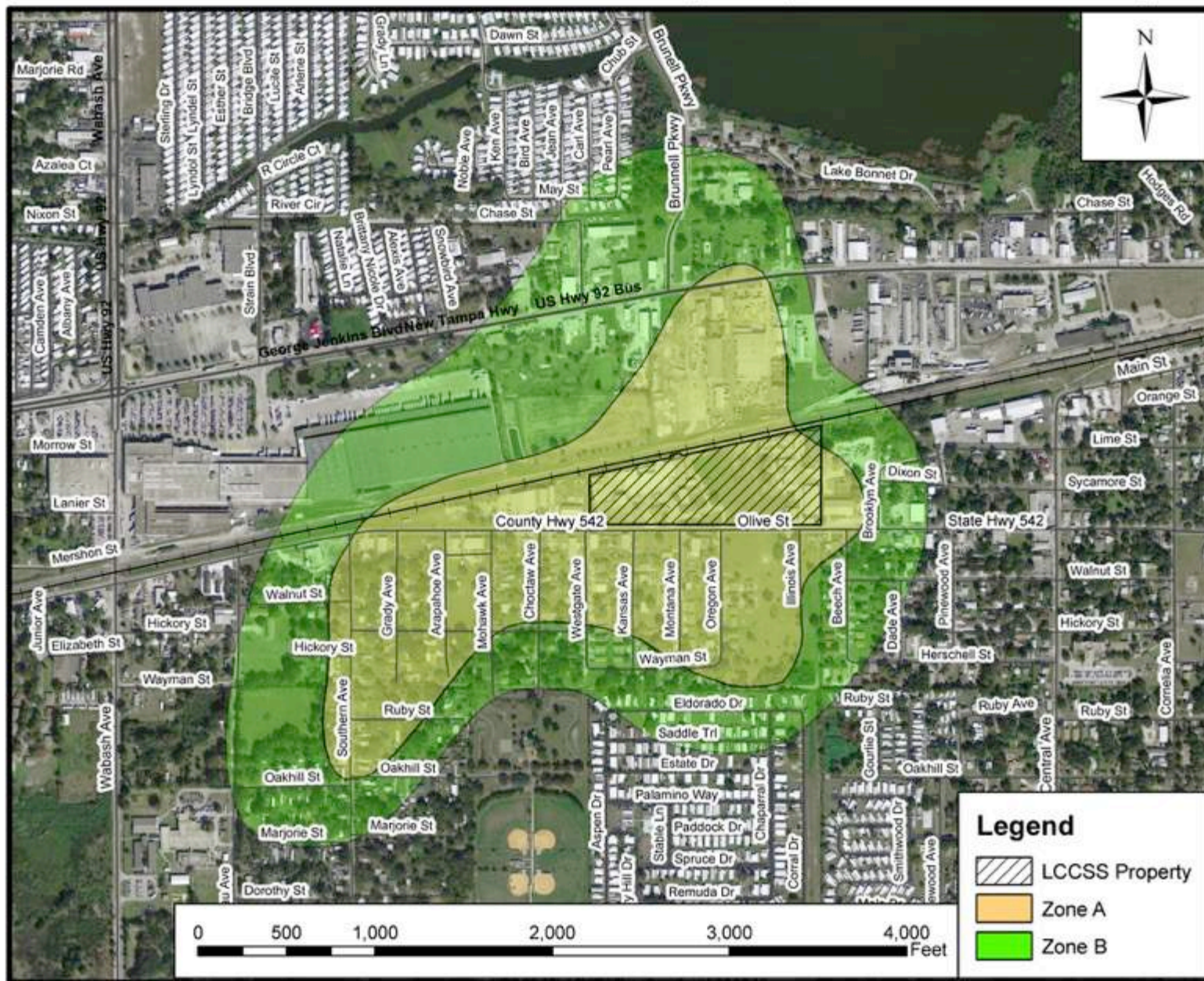


Landia Chemical Company Superfund Site

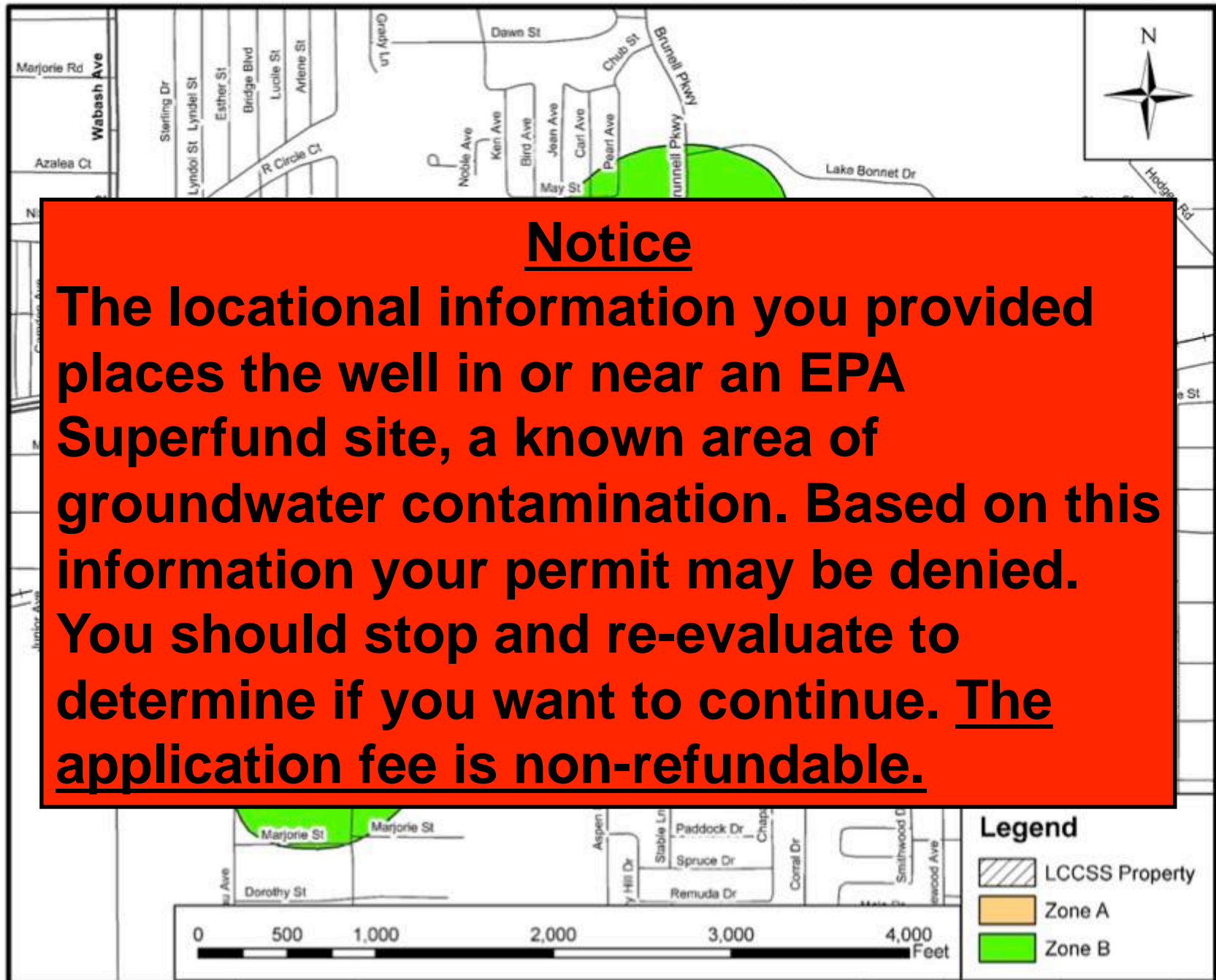


- ▶ Landia Chemical Company was a pesticide formulator facility (1940's – 1980's).
- ▶ Located in Lakeland, Florida between Tampa and Orlando.
- ▶ ICs were required by the ROD to restrict the usage of groundwater in a large area impacted by the Site.





Zones A and B of the LCCSS (EPA, November 2007)





Well Construction Restrictions "Zone A"



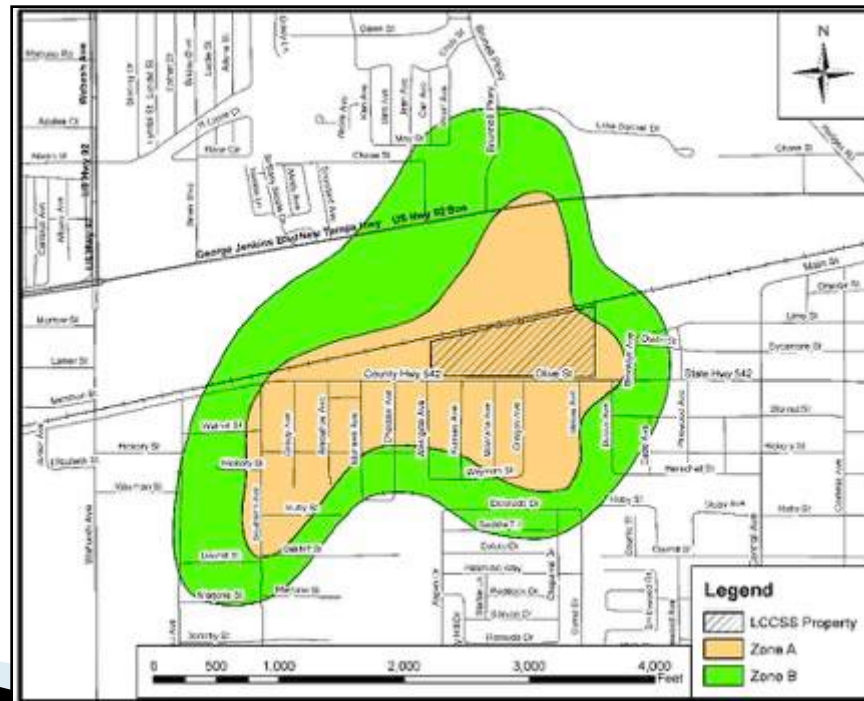
- ▶ Within "Zone A," WCP applications will be denied pursuant to subsection 40D-3.505(3), F.A.C., if construction or use of the well would increase the potential for harm to public health, safety and welfare, or if the proposed well would degrade water quality of the aquifer by causing pollutants to spread.



Well Construction Permit (WCP) Zones



- ▶ “Zone B” is established in the event groundwater contamination migrates beyond the current defined “Zone A” area.





Well Construction Stipulations

"Zone B"



- ▶ Wells shall be cased to a minimum specified depth and have a nominal two-inch thickness of neat cement grout.
- ▶ A District representative will be onsite to witness the grout placement.

(continued)






Well Construction Stipulations “Zone B”

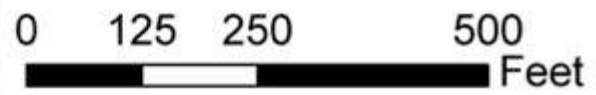


- ▶ A raw water tap shall be provided to allow sampling of the well (it will be suggested that water quality sampling and analysis be made prior to use of the well).
- ▶ District staff will validate the well completion report for accuracy.



Legend

-  Southernn Solvents Property
-  Zone A
-  Zone B





Legend

- Zone A
- Zone B

0 375 750 1,500 Feet





South Florida WMD MOA



- ▶ Worked with the SFWMD to develop a similar MOA.
- ▶ Restricts the issuance of well construction and water use permits around Superfund sites.
- ▶ Approved by the SFWMD Governing Board on March 11, 2010.



Other MOAs

- ▶ Northwest Florida Water Management District (under development)
- ▶ St. John's River Water Management District (under development)



MOA Conclusions

- ▶ Example of smart Government process where two agencies used existing rules and authorities for desired outcome.
- ▶ Incorporation of MOA at Landia Chemical Company Superfund site immediately saved taxpayers \$250,000.00.
- ▶ Other active NPL sites may likely be incorporated into EPA–SWFWMD MOA in the future.



QUESTIONS?