



Reviving
THE river OF grass

Environmental Due Diligence Results

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Environmental Due Diligence Overview

- Due Diligence conducted in accordance with FDEP and USFWS-approved Ecological Risk Assessment (ERA) Protocol
- Phase I ESA
- Phase II ESA
- Ecological Risk Assessment
- Asbestos Survey

Phase II ESA Scope of Services

■ Agricultural Areas

- Composite sampling from a representative fraction of sugar cane fields
- Composite and discrete sampling from a representative fraction of citrus groves
- Representative sediment and surface water samples from canals

■ Point Sources (included)

- 42 pump stations
- 73 equipment/chemical storage and handling areas
- 9 canker wash stations
- 150+ citrus burn piles

Phase II ESA Scope of Services



■ Excluded Assets

- 44 rail sidings
- SCFE Rail Yard
- 120 miles Railroad Track and Right of Way
- Cross tie stockpiles
- Clewiston Sugar Mill and Refinery Complex
- Bryant Sugar Mill
- Southern Gardens Juice Processing Plant
- Executive Office Complex
- Gilchrist County Citrus Nursery



AGRICULTURAL AREA EVALUATION

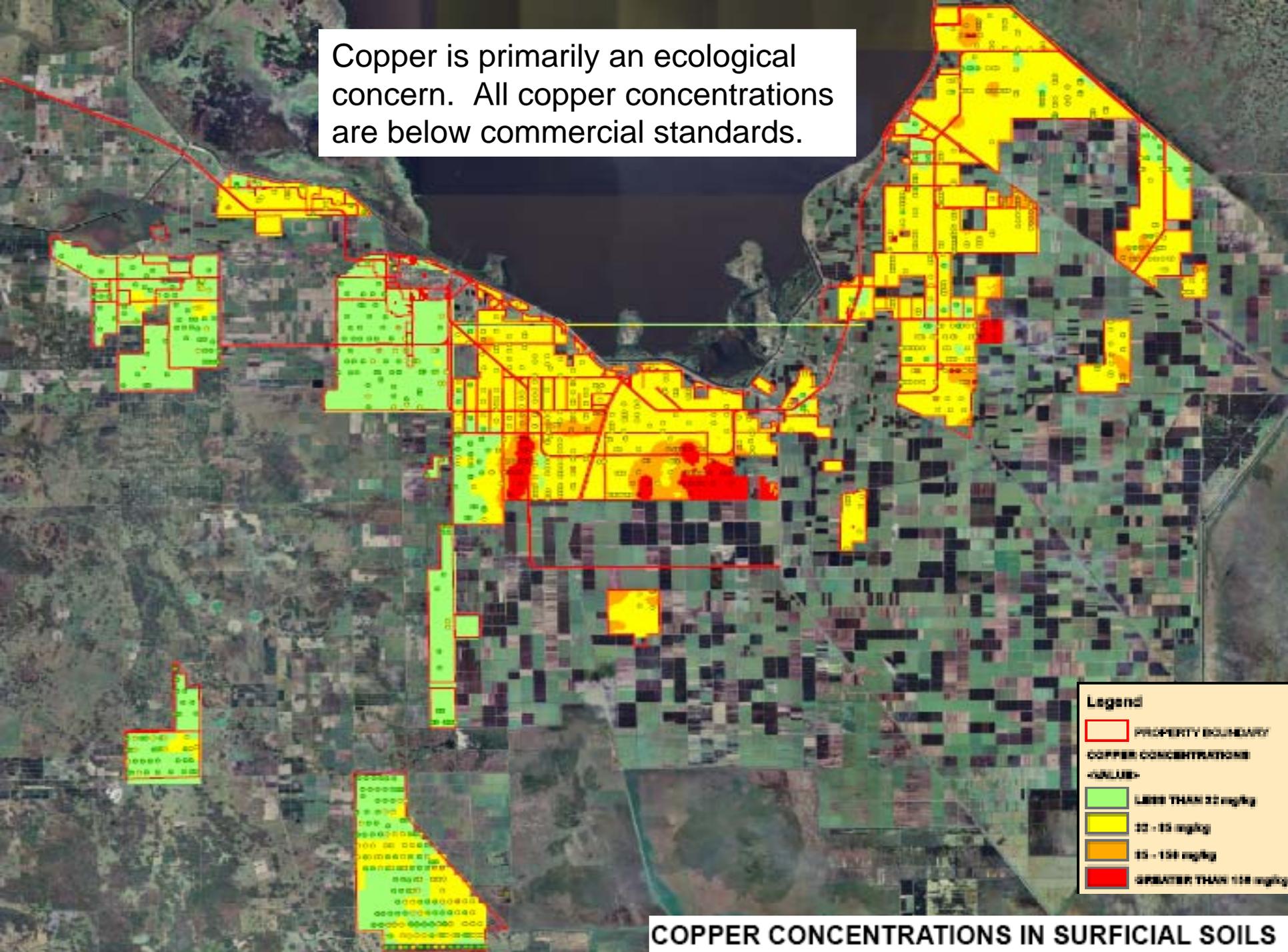
Agricultural Area Results – Ecological Risk

- Ecological risk is primary concern for proposed use of property as a water resources project (WRP)
- Primary agrochemicals of ecological concern include: copper, selenium, DDE, DDD, DDT, dieldrin, and toxaphene
- Detected chemicals are typical for agricultural property

Agricultural Area Results – Ecological Risk

- Highest contaminant concentrations generally track high organic content soils and former vegetable farming areas.
- Very few impacts measured in citrus groves or areas where sand predominates.

Copper is primarily an ecological concern. All copper concentrations are below commercial standards.



Legend

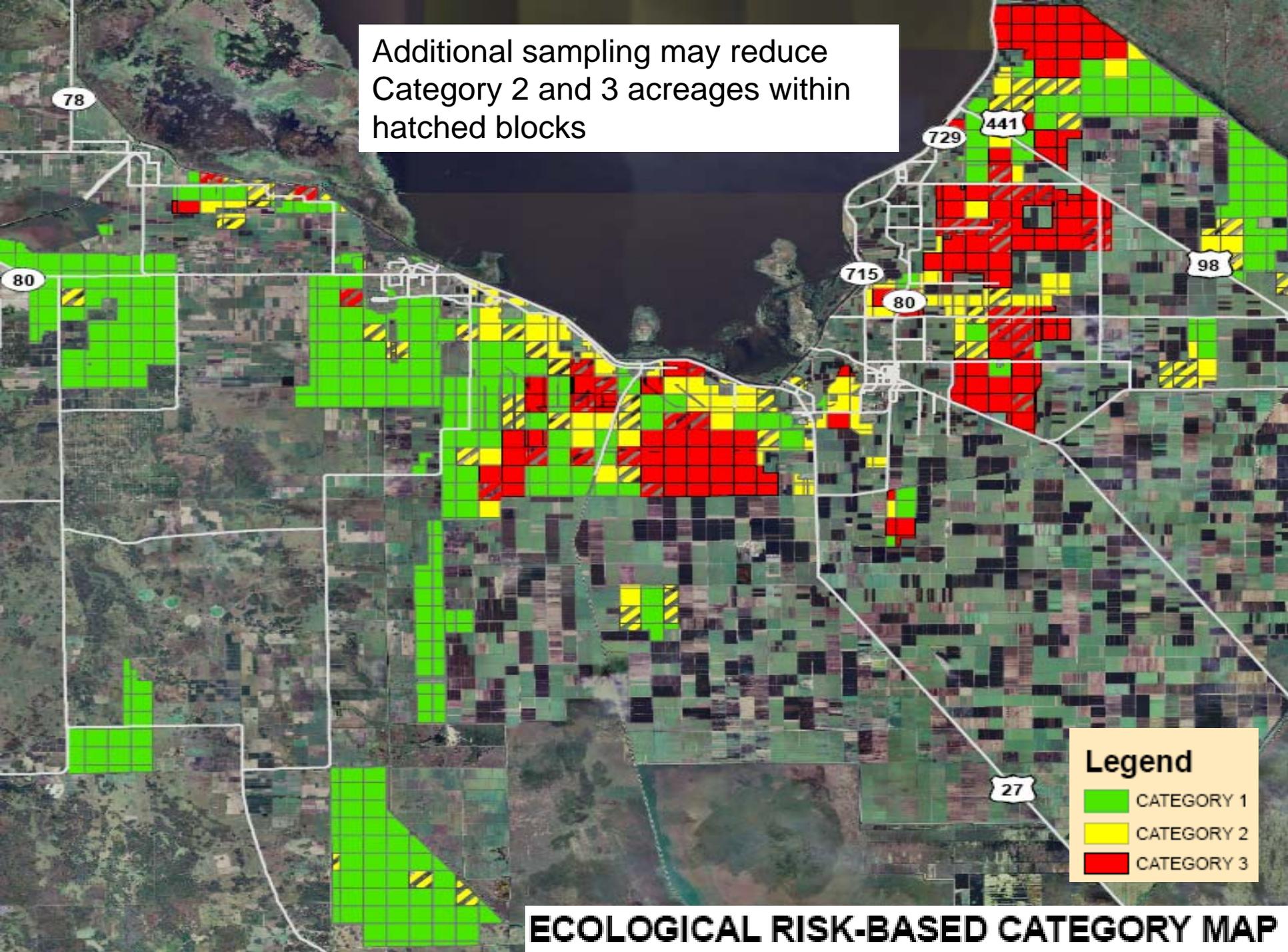
- PROPERTY BOUNDARY
- COPPER CONCENTRATIONS
- <VALUE>
- LESS THAN 10 mg/kg
- 10 - 15 mg/kg
- 15 - 100 mg/kg
- GREATER THAN 100 mg/kg

COPPER CONCENTRATIONS IN SURFICIAL SOILS

Agricultural Area Results – Ecological Risk

- As an enhancement to the Ecological Risk Assessment Protocol, the property was divided into 400-acre blocks and each block was assigned to one of three categories based on ecological risk:
 - **Eco-Risk Category 1:** No significant risks to aquatic community or higher trophic level species, including migratory birds
 - **Eco-Risk Category 2:** Moderate risk to aquatic community and/or higher trophic level species.
 - **Eco-Risk Category 3:** Significantly elevated risk to aquatic community and higher trophic level species

Additional sampling may reduce
Category 2 and 3 acreages within
hatched blocks



- Legend**
- CATEGORY 1
 - CATEGORY 2
 - CATEGORY 3

ECOLOGICAL RISK-BASED CATEGORY MAP

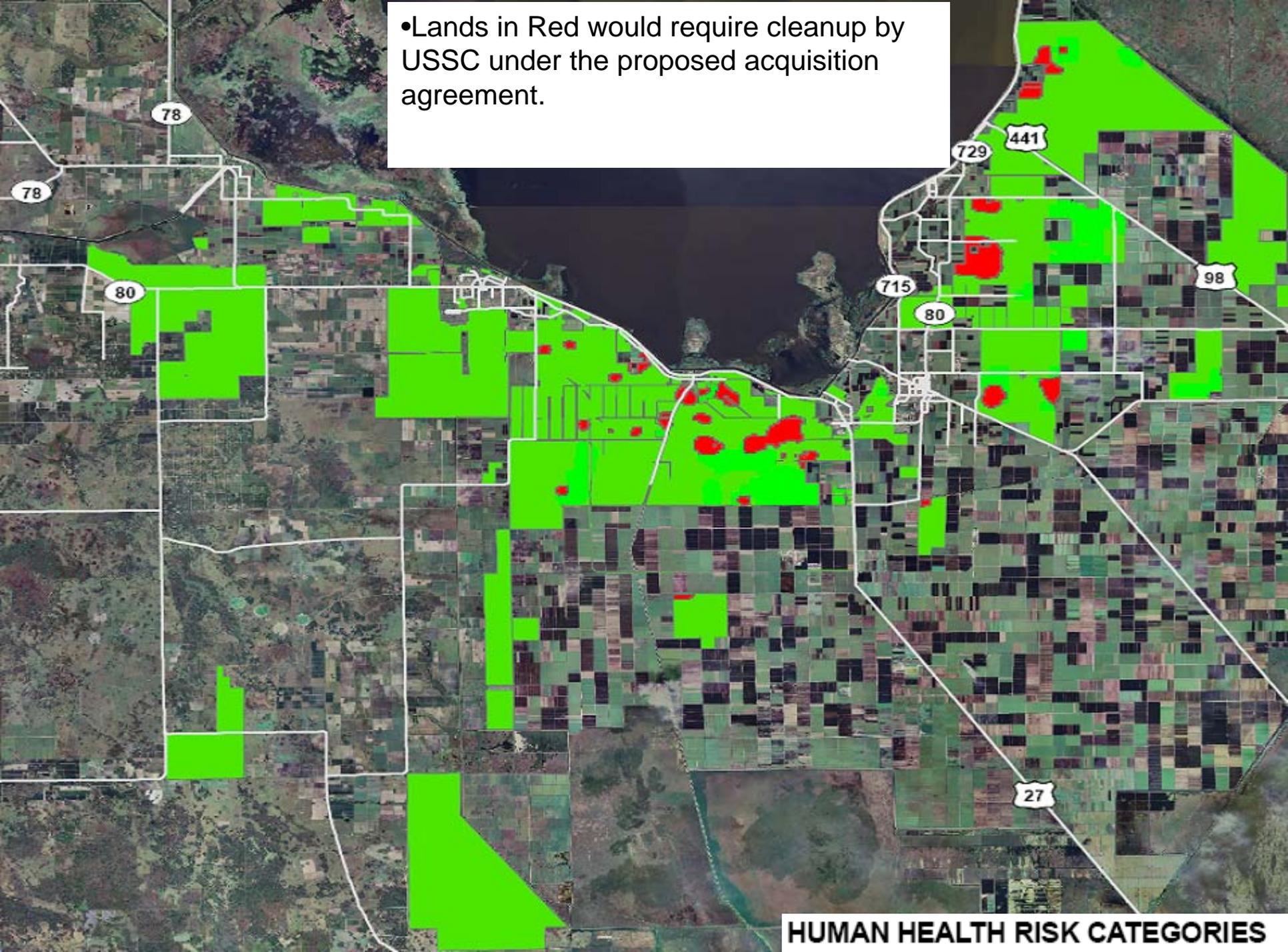
Agricultural Area Results – Ecological Risk

- Approximately 94,500 acres (52%) assigned to Eco-Risk Category 1 – No significant Risk
- Approximately 36,400 acres (20%) assigned to Eco-Risk Category 2 – Moderate Risk
- Approximately 49,000 acres (27.5%) assigned to Eco-Risk Category 3 – Significant Risk
- Acreages in Category 2 and 3 are primarily driven by copper, selenium, and DDX exceedences of ecological benchmarks

Agricultural Area Results – Commercial/Industrial Exposure Evaluation

- Arsenic, DDE, DDT, dieldrin, and toxaphene were the only chemicals detected at concentrations exceeding commercial criteria.
- Arsenic was detected at concentrations exceeding the commercial criteria across 6,000 +/- acres.
- Detection of remaining chemicals above commercial standards was significantly less frequent.

•Lands in Red would require cleanup by USSC under the proposed acquisition agreement.



HUMAN HEALTH RISK CATEGORIES

Agricultural Area Results – Commercial/Industrial Exposure Evaluation

- Contaminant concentrations are below commercial criteria across approximately 178,350 acres (95%) and no corrective action is required by USSC under proposed acquisition agreement for these lands.
- Contaminant concentrations exceed the commercial standards across approximately 7,750 acres (5%). USSC would be required to conduct corrective action on these lands under the proposed acquisition agreement.
- Most of the land exceeding the commercial criteria also exceeds ecological benchmarks. There is approximately 6,680 acres where the commercial and ecological benchmarks are both exceeded.



POINT SOURCE EVALUATION

Point Source Evaluation



- Phase II environmental assessment was performed on 193 remote point source areas that were identified as potential concerns during Phase I ESA
- Both soil cleanup target levels associated with continued use under the existing scenario and ecological benchmarks associated with potential conversion to a water resources project were considered
- Approximately 1,200 soil samples were collected from point source areas.

Point Sources (included)

- **Pump Stations:** Petroleum concentrations exceeding applicable criteria were detected in soil at 41 pump stations. No groundwater impacts identified.
- **Equipment Storage Areas:** Chlorinated pesticides, petroleum, and arsenic exceeded applicable criteria in soil at 47 locations. Impacted groundwater detected at 7 locations.
- **Canker Wash Stations:** Minor copper impacts in soil at one location. No groundwater impacts identified.
- **Citrus Burn Piles:** Copper impacts detected in soil at 5 of 15 sampled burn piles. Approximately 150 burn piles are present across citrus acreage. Assumed impacts at 20 locations.

Point Sources (excluded)



- **Rail Sidings:** Petroleum impacts in soil were identified at 37 rail sidings and groundwater impacts were measured at 2 rail sidings.
- **Railroad ROW:** Arsenic was detected along railroad track exceeding applicable criteria. Creosote detected in soil at crosstie stockpiles. Petroleum stained soil observed at several staging areas.
- **SCFE Rail Yard:** Petroleum and pesticide impacts detected in soil at discrete locations. No groundwater impacts identified.
- **Clewiston Mill:** Petroleum and metals impacts in soil detected at several locations. Petroleum and arsenic impacted groundwater detected at several locations.

Point Sources (excluded)

- **Bryant Mill:** Widespread arsenic impacts detected in both soil and groundwater. Minor petroleum and pesticide impacts detected in soil at discrete areas.
- **S.G. Juice Plant:** Minor petroleum impacts detected in soil. No groundwater impacts identified.
- **Executive Office Complex:** No concerns identified.
- **Gilchrist County Nursery:** Arsenic impacts to soil and groundwater detected at cattle dipping vat.

CLEWISTON SUGAR MILL & REFINERY



BRYANT MILL





ASSIGNMENT OF WORST CASE CORRECTIVE ACTION COSTS

Worst Case Corrective Action Costs

- Corrective action costs were projected for all remote point source and agricultural areas where contaminants exceeded either the commercial exposure criteria or ecological risk benchmarks.
- Costs were bifurcated between SFWMD and USSC:
 - Corrective Action Costs for areas exceeding commercial/industrial standards were assigned to USSC.
 - Corrective Action Costs for areas exceeding ecological risk benchmarks were assigned to SFWMD.

Worst Case Corrective Action Costs

- Total Cost attributed to USSC is \$16,495,077. It is preferable for the District to take control of these corrective actions. Under this scenario, SFWMD would apply a 1.3 multiplier to corrective action costs. Thus, USSC's cost participation would be \$21.45 million under the proposed acquisition agreement.
- The proposed acquisition includes assignment of responsibility to the seller for any undiscovered existing environmental impairment on the property or any future impairment caused by the tenant during the period of 10 years post closing.

Worst Case Corrective Action Costs

- Total costs attributed to SFWMD are highly dependent upon the location of the project footprint.
- Soil inversion is the presumptive remedy for corrective action on agricultural areas. The expected cost for soil inversion is \$1,471 per acre.
- A soil inversion test is planned to evaluate the efficacy of soil inversion for all areas of the project. In the event that specific areas of the project are not amenable to soil inversion, the unit costs for the next feasible alternative corrective action technology are on the order of \$15,000 per acre.



Soil Inversion Pilot Study

Soil Inversion Pilot Study

- Soil inversion has been successfully demonstrated at pilot scale on other SFWMD projects and at full scale application by SJRWMD
- For soil inversion to be successful, contaminants must be confined to the surface interval and a sufficient depth of soil overlying bedrock must be available for inversion
- Vertical contaminant distribution appears suited for soil inversion, with the exception of selenium
- Soil depths are acceptable across most of the project area, but may be marginal immediately south of Lake Okeechobee
- A soil inversion pilot study was recommended to evaluate the effectiveness of several different methods for soil inversion.

Soil Inversion Pilot Study



- Approximately 4-6, 40-acre fields will be selected for the pilot study
- 3-4 different pieces of equipment and plowing techniques will be tested
- Post-inversion confirmation samples will be collected from all plots to evaluate effectiveness.
- Pilot Study Report will be submitted by December 15, 2008.
- Corrective Action costs may need to be adjusted based on pilot study results