

Special Exception for Beneficial Recycling of Biosolids at Whistling Pines Ranch

December 16, 2010

Gainesville Regional Utilities



Timeline of Special Exception Application Process

- 3/29/07 – Prior to property purchase, GRU requests ULDC regulatory status from AC
- 4/24/07 - GRU received AC determination: Special Exception required
- 7/23/07 – GC Comm approved purchase w/ conditions
- 7/30/07 - Special Exception Application submitted
- 8/27/07 - Presentation to Archer City Comm

Timeline of Special Exception Application Process

- 9/4/07 - Neighborhood workshop in Archer
- 10/10/07 - Quasi-judicial hearing Alachua County Planning Commission: Recommended approval w/ 75 ft setback
- 10/22/07 - Presentation to Archer City Commission
- 5/13/08 - Microconstituent Reports submitted
- 11/18/08 – Groundwater Monitoring Report submitted

Timeline of Special Exception Application Process

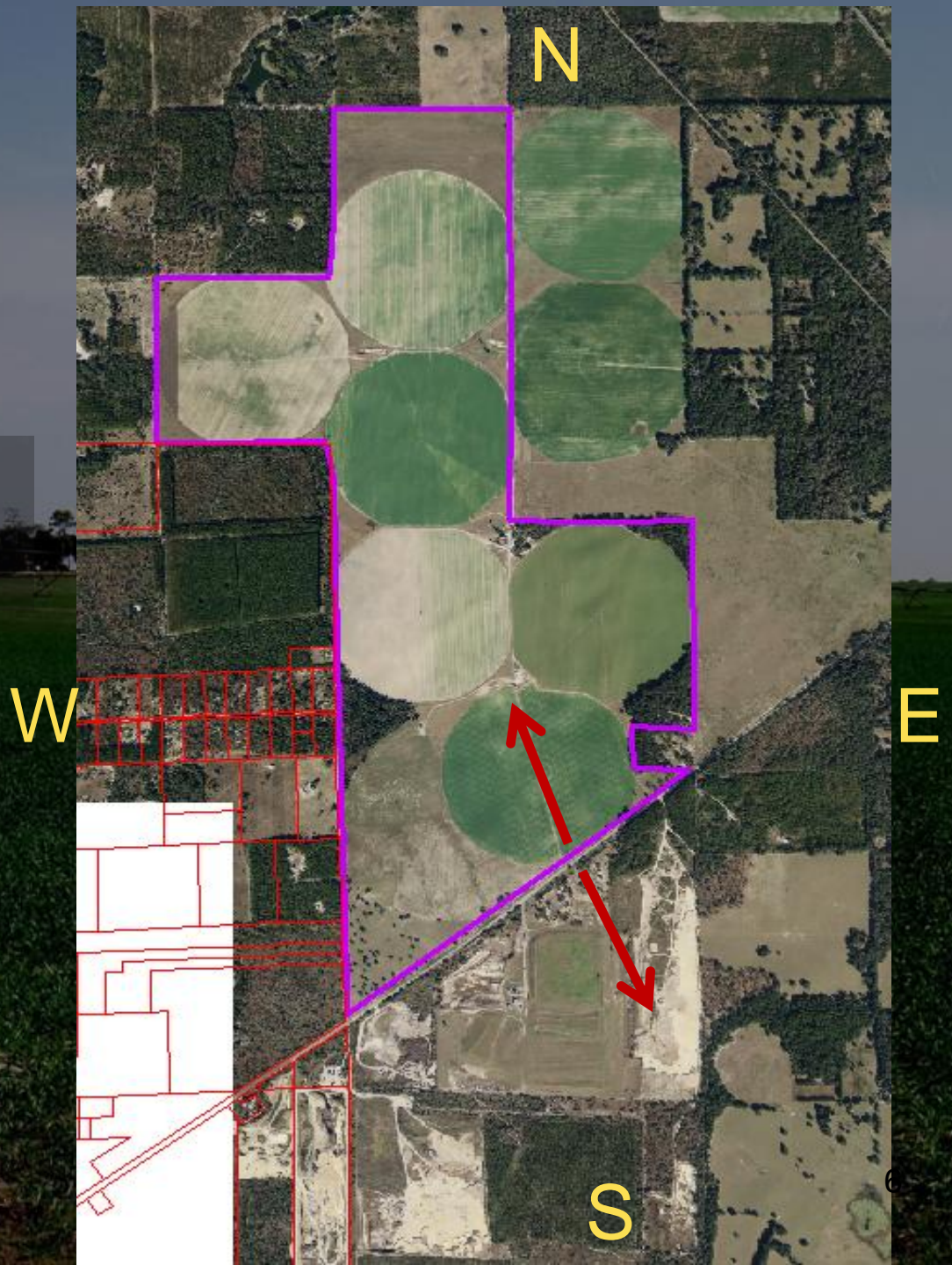
- **4/17/10 – Bio-Aerosol Report submitted**
- **7/26/10 – Updated Groundwater Monitoring Plan submitted**
- **10/18/10 – Dispersion Modeling Report submitted**
- **12/6/10 – Neighborhood meeting in Archer**
- **12/14/10 – Alachua County Commission Granted Continuance to 2/20/11**

The City d/b/a Gainesville Regional Utilities Operates a Regional Water and Wastewater Utility that Serves:

- Portions of the Unincorporated Area of the County**
- University of Florida**
- Cities of Gainesville, Hawthorne, Waldo & High Springs**
- Septage**

Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking North



Looking South



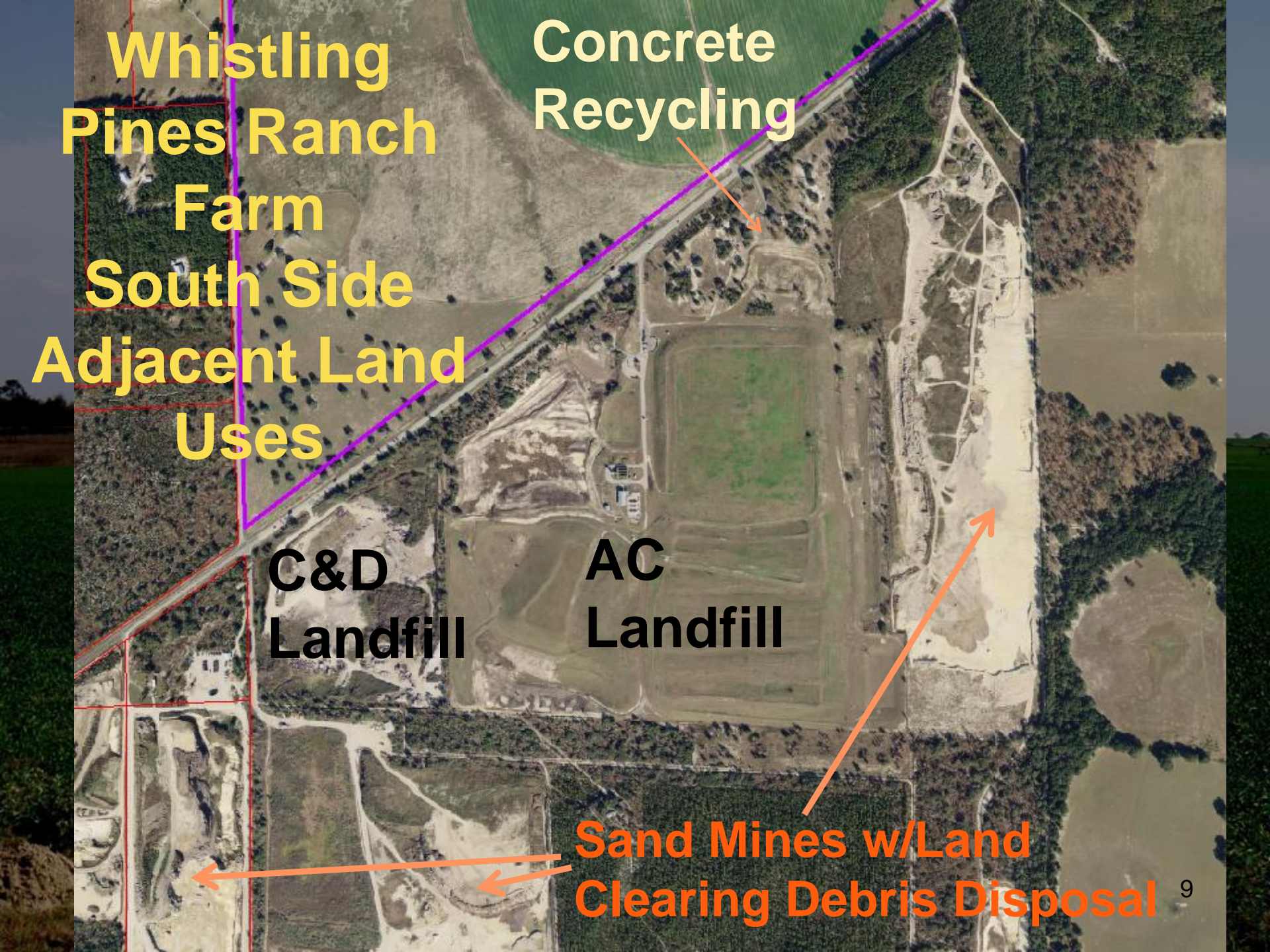
**Whistling
Pines Ranch
Farm
South Side
Adjacent Land
Uses**

**Concrete
Recycling**

**C&D
Landfill**

**AC
Landfill**

**Sand Mines w/Land
Clearing Debris Disposal**



Sand Mine / Clearing Debris Landfill

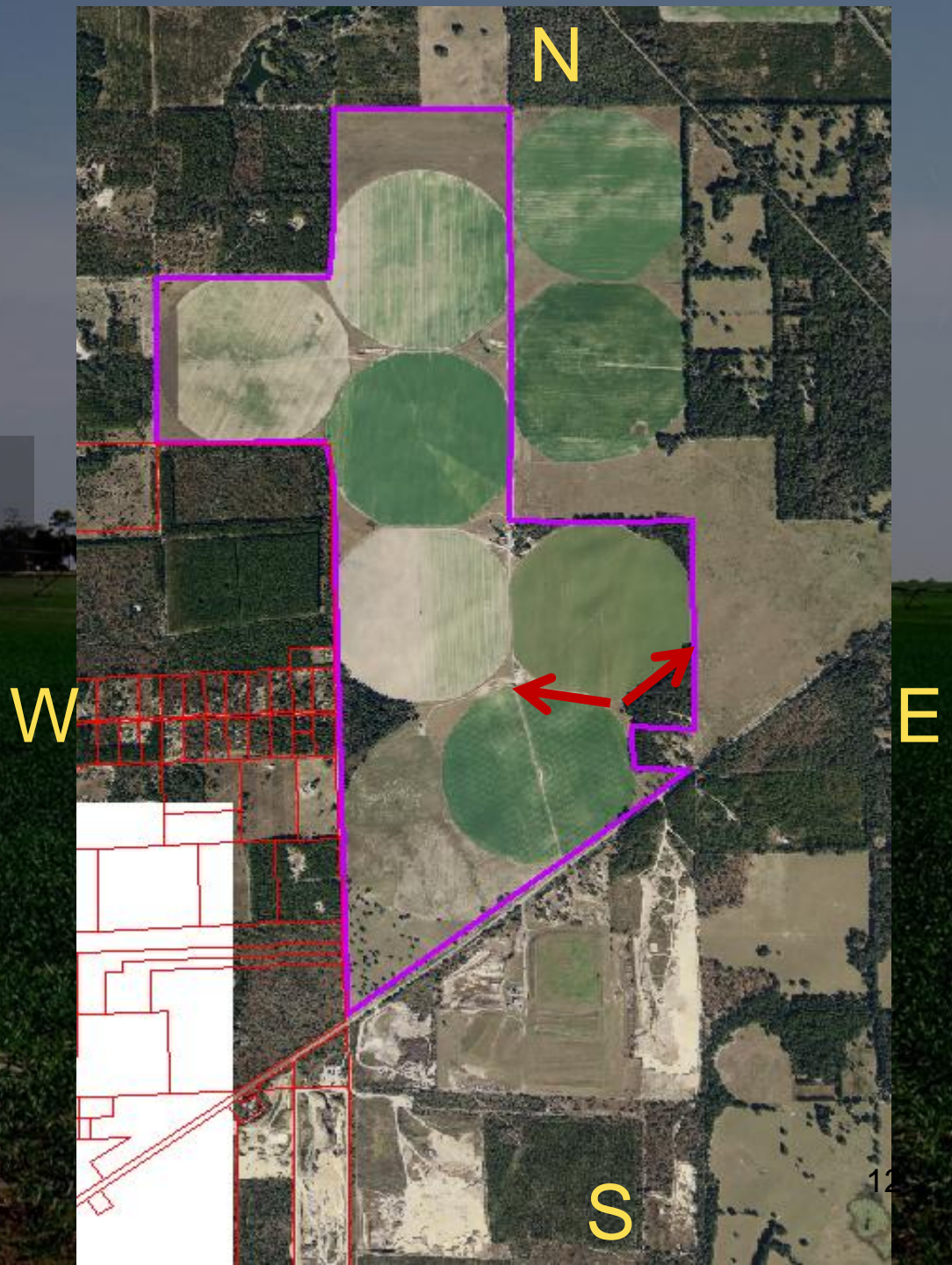


Landfilling & Recycling Activities



Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking West

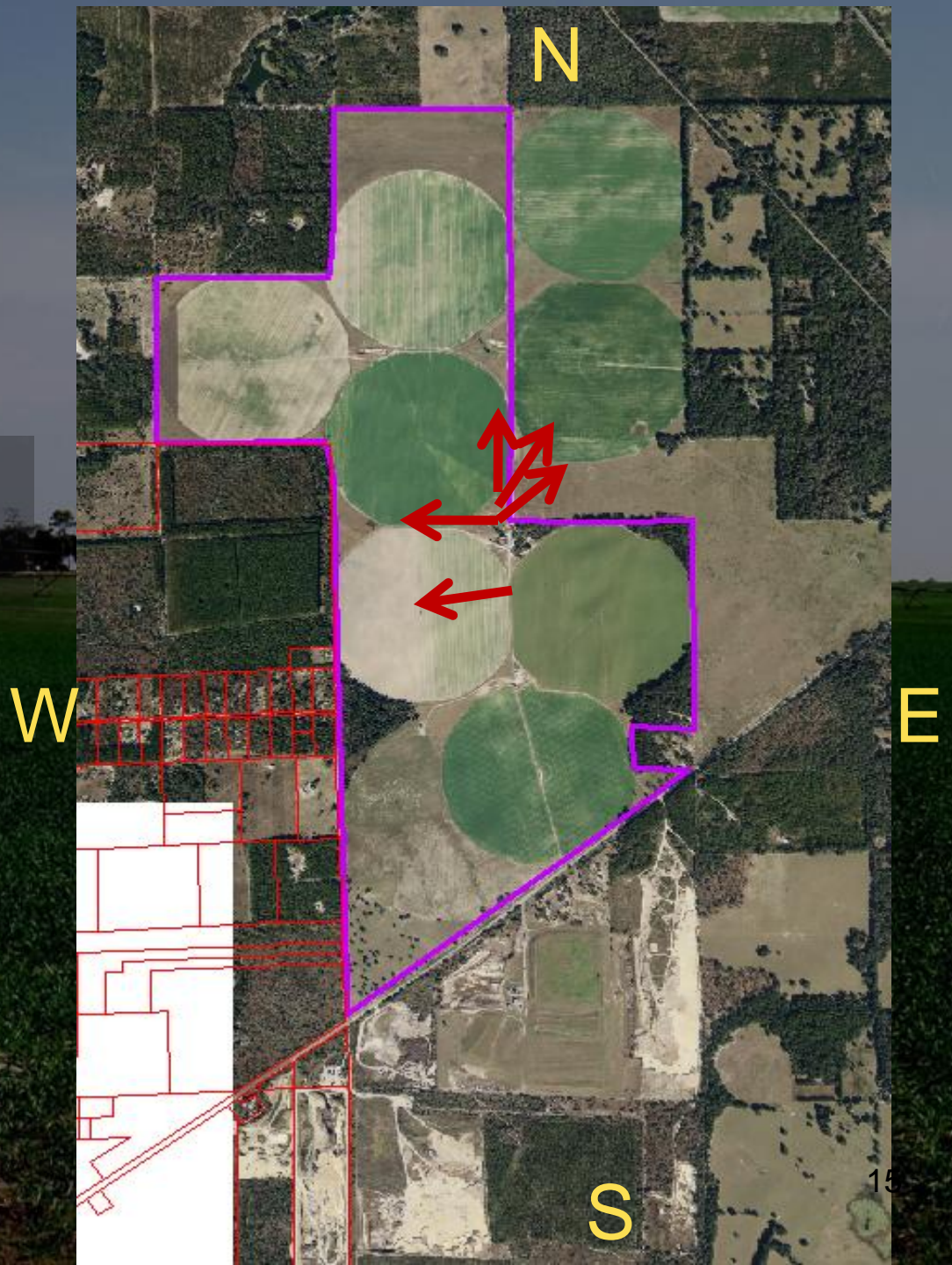


Looking East



Whistling Pines Ranch Farm

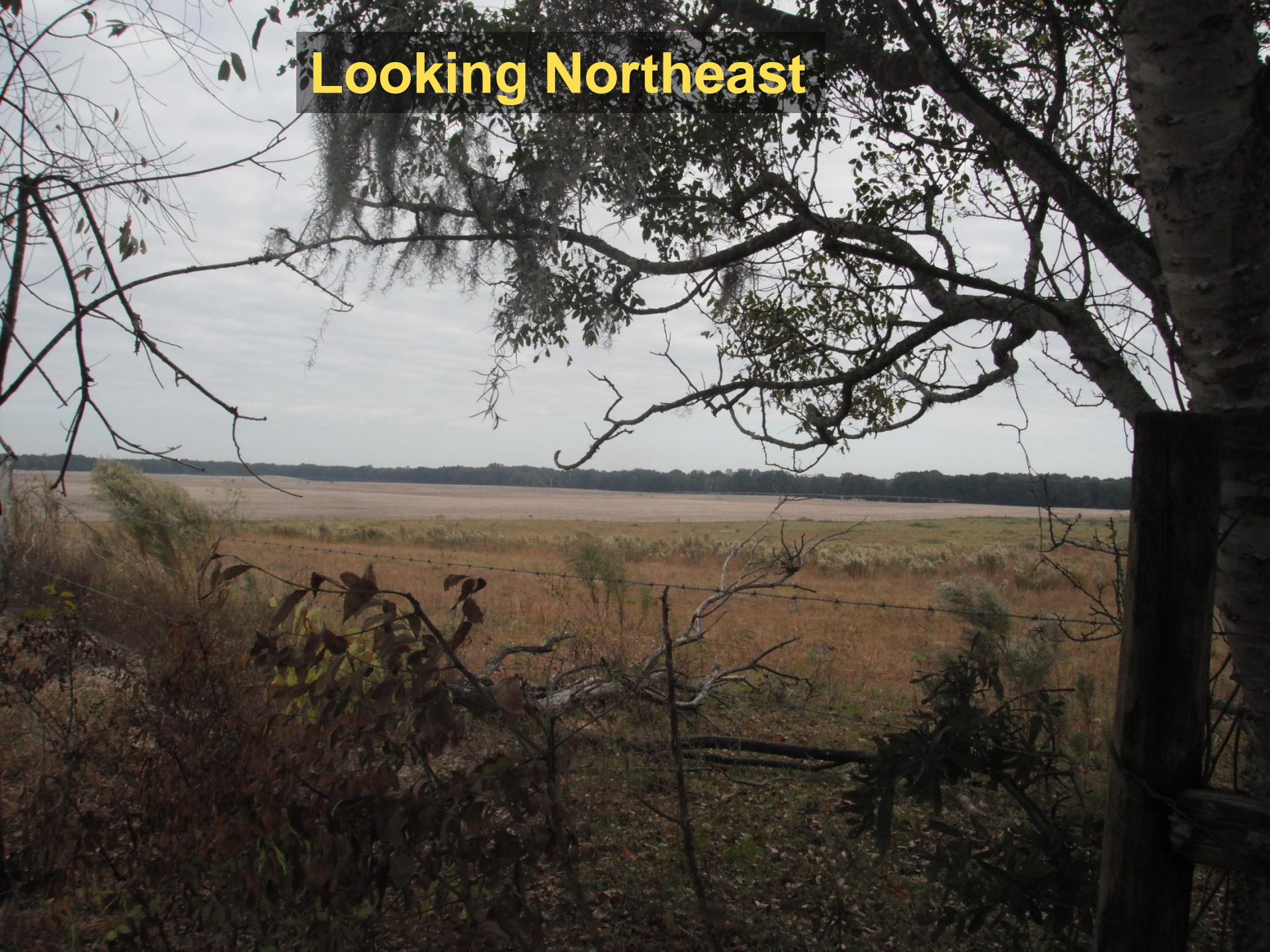
Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking West



Looking Northeast



Looking North-Northeast



Looking North

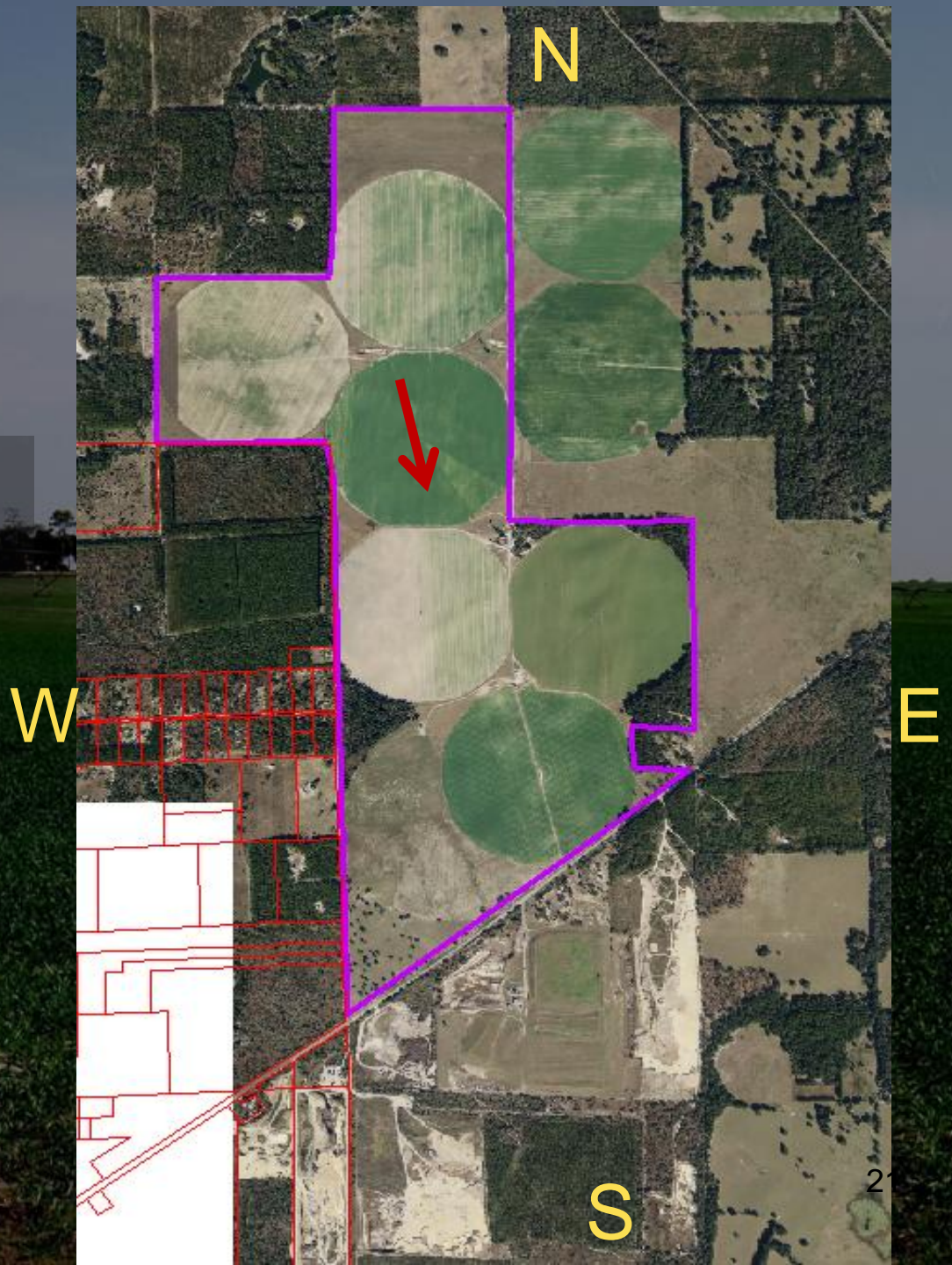


Looking West



Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi

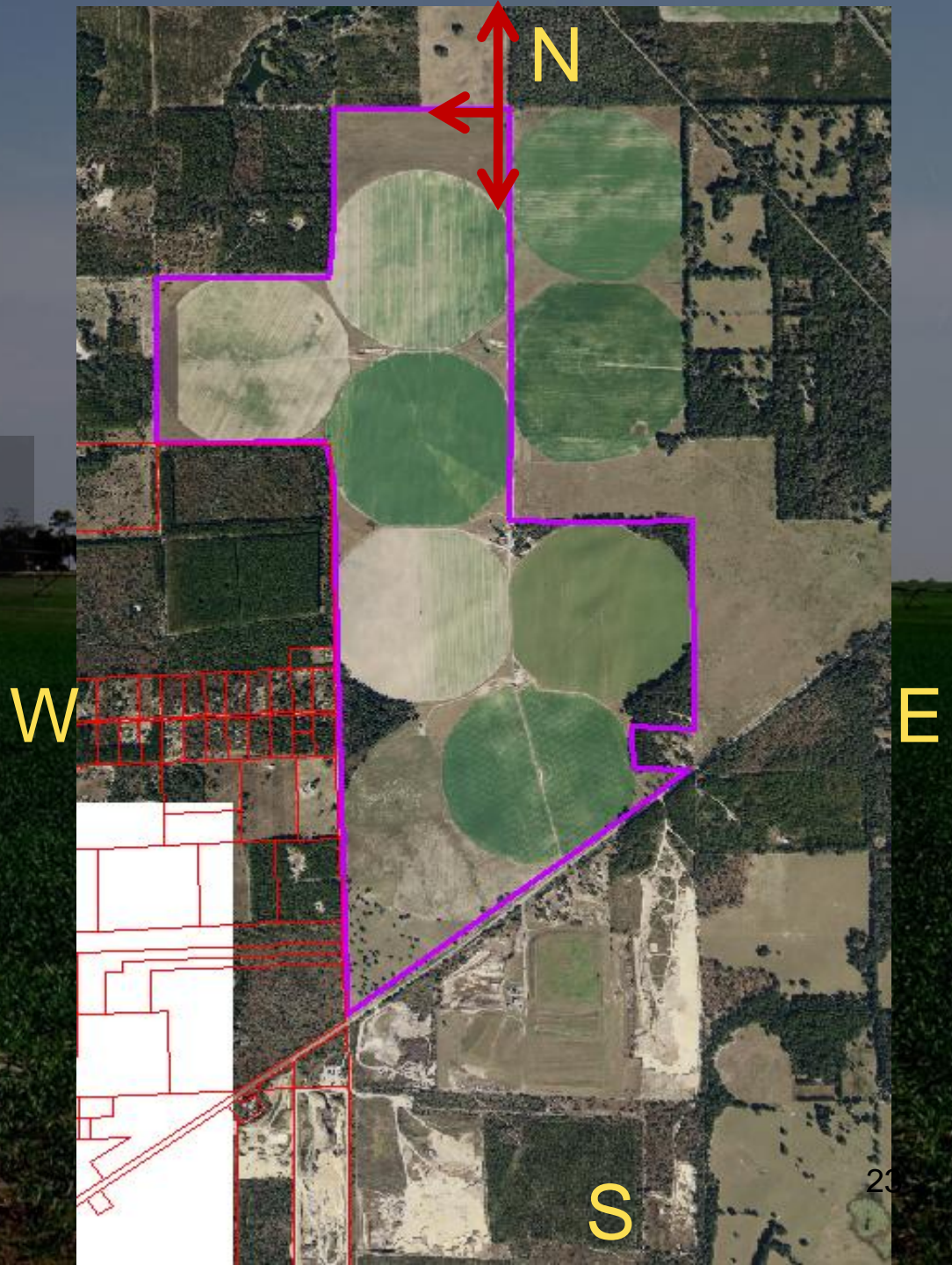


Looking South-Southeast



Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking South



Looking North

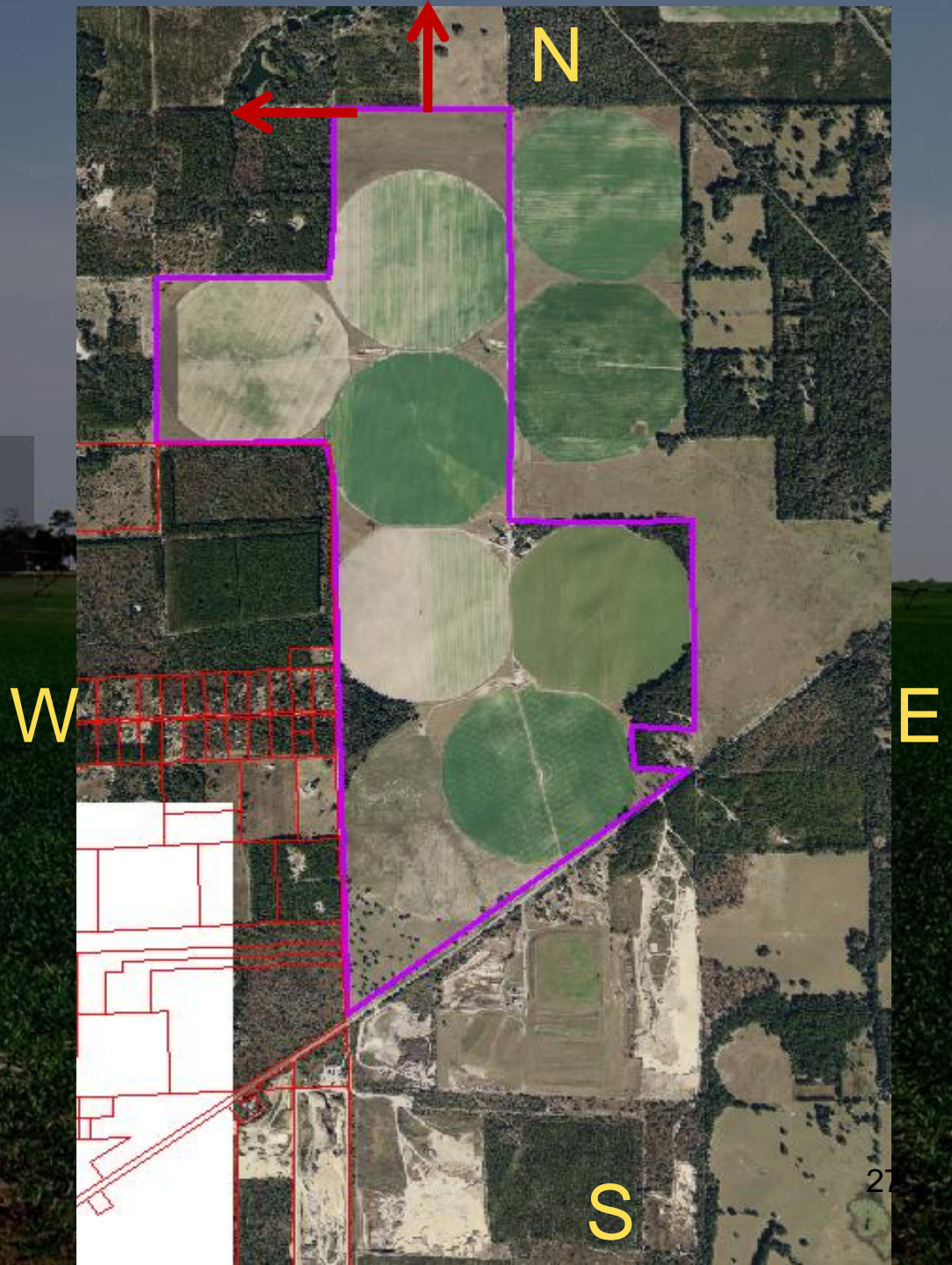


Looking West



Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking North

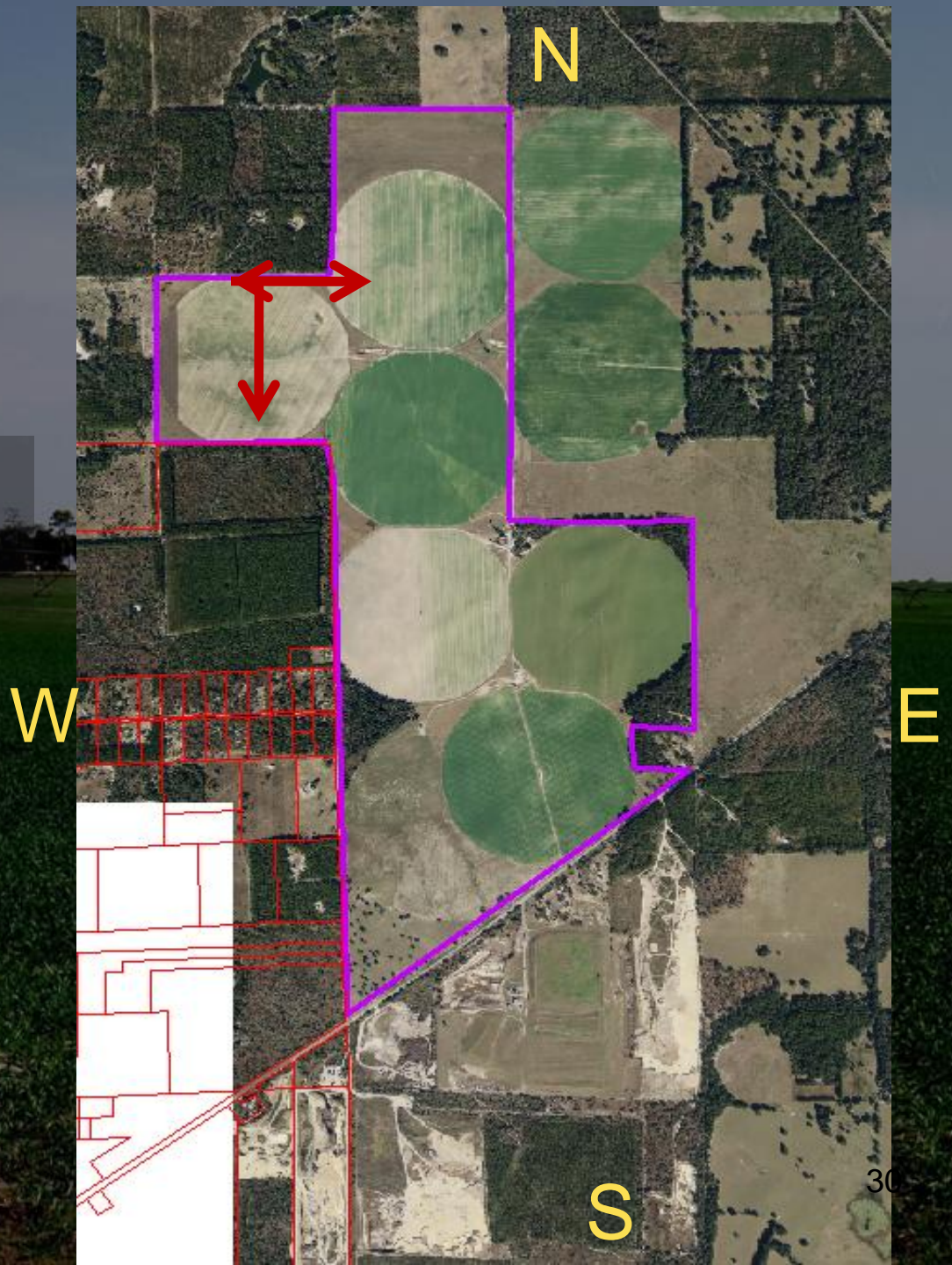


Looking West



Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking West



Looking South



Looking East



Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking Southeast

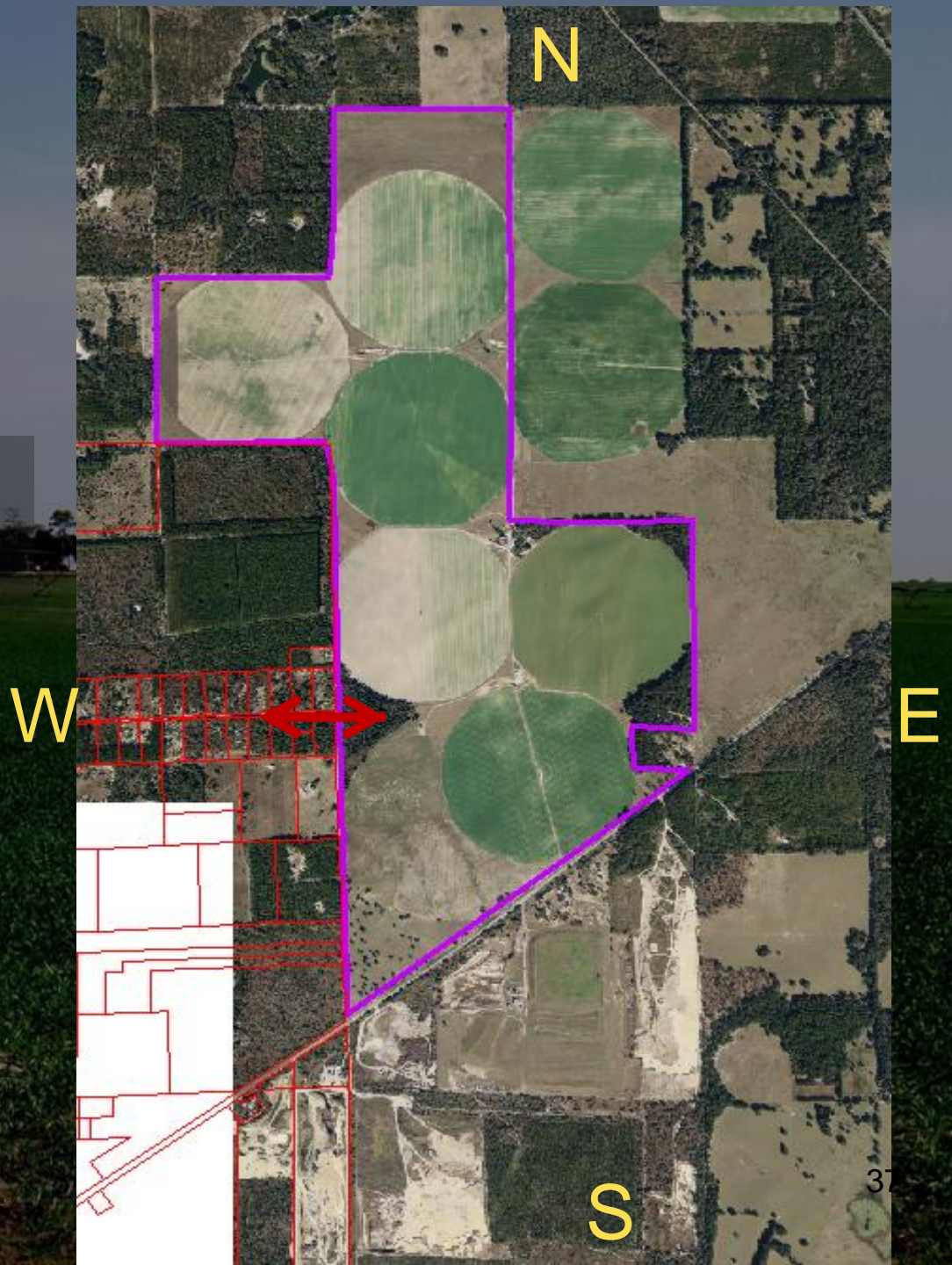


Looking West



Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking West

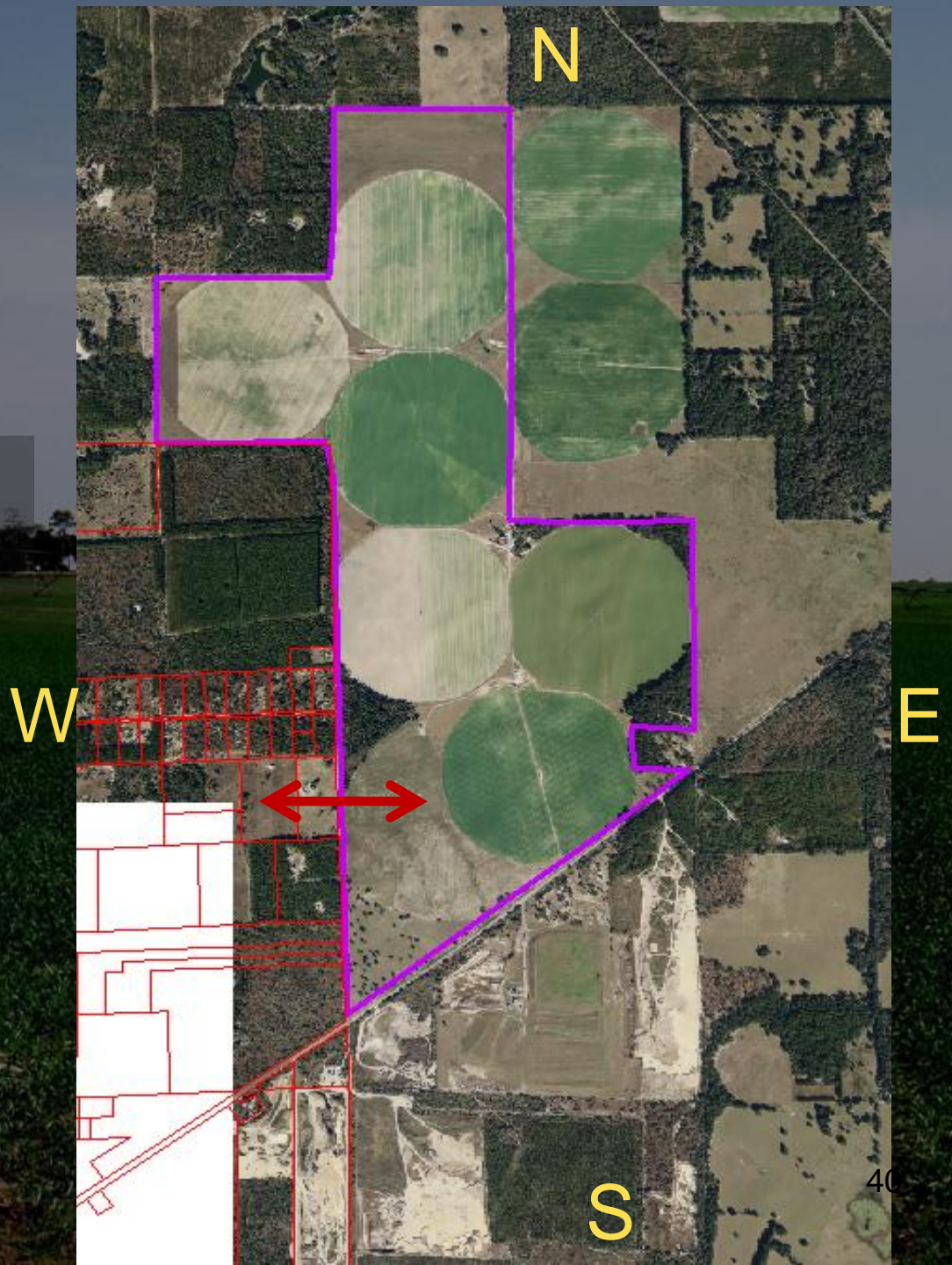
MARLBORO
COUNTRY ESTATES

Looking East



Whistling Pines Ranch Farm

Property ~ 1270 Ac
Perimeter ~ 7 mi



Looking East



NO PUBLIC
ACCESS
No Drive
No Hauling
No

Looking West



**Flying Gators RC
Club Field – SW
Corner of Farm
(Radio Controlled
Model Aircraft)**



Flying Gators RC Club Field

Looking South



Looking Southeast



Looking Southwest



Looking East



Looking South at Archer Road



What are Biosolids?



- **Not Sewage**
- **Biomass harvested from water reclamation process**
- **Further treated through aerobic digestion**

Benefits of GRU Biosolids Program to Farmer & Environment

- **Organic slow release fertilizer**
 - Highly regulated to prevent over-fertilization of Nitrogen
- **Organic soil amendment**
- **Farmer uses less chemical fertilizer**
- **Maintains agricultural land use**
- **60% of Florida Biosolids Land Applied**

GRU Biosolids Program

- **29 year operating history at WPR**
- **Consistent with the Comprehensive Use Plan**
- **Compliance with all environmental regulations**
- **Detailed records of Biosolids quality, quantity & agronomic balance in reports to:**
 - **EPA, FDEP & ACEPD**
- **2004 EPA Exemplary Biosolids Operation Award**

Evaluations Performed

- Endocrine Disruptor Testing
- Pathogen Testing of Soil & Airborne Dust
- Air Dispersion Modeling
- Groundwater Testing
- Hospital and Industrial wastes
- Radiological Materials
- Metals in Soil and Groundwater
- Flies

Endocrine Disruptor Testing

- Endocrine Disruptor Testing
 - Below Detectible levels in soil & groundwater



31 1:45PM



31 2:41PM



31 11:56AM

Bioaerosol Study

- Pathogen Testing of Soil & Airborne Dust
 - Pathogens in soils not significant due to rapid die-off
 - No pathogens detected in airborne dust



Dispersion Modeling

- **Air Dispersion Sampling & Modeling**
 - Within National Ambient Air Quality Standards
 - No significant potential for infectious dose



Evaluations Performed

- **Groundwater Testing**
 - No Pathogens Detected
 - Elevated Nitrates found in some wells
 - **IFAS: Elevated Nitrate common in agricultural areas**
- **Hospital and Industrial wastes**
 - Highly regulated
 - Industrial Pretreatment Program

Evaluations Performed

- **Radiological Materials**
 - Well below background levels
- **Metals in Soils and Groundwater**
 - Well below levels considered safe for residential soils
 - All below PDWS except for
 - Uranium in one well from natural causes (ACHD)
 - Arsenic recently found one well close to landfill under further investigation
- **Flies**
 - Typical of farm and local area land uses

Conclusions

- **GRU Biosolids recycling at WPR is safe**
 - Extensive testing of biosolids, soils, groundwater and air
 - Testing for pathogens, metals, trace organics & other potential contaminants
- **GRU Biosolids Program meets all state and federal standards**
 - Highly regulated & controlled to ensure public safety & environmental protection

Conclusions (cont'd)

- **GRU Biosolids land application at WPR is a safe, cost-effective, and environmentally sustainable method of recycling biosolids and reducing inorganic fertilizer use**

Staff Supports a Resolution to Allow

- Reasonable, Limited Timeframe for GRU to Continue to Land Apply Class B Biosolids at Whistling Pines Ranch, with Date Certain Discontinuance of Such Use**
- Reasonable Conditions, Protective of Public Health and Safety, During Remaining Timeframe**

Criteria for Evaluating Future Options

- **Meet Regulatory Requirements**
- **Protection of Public Health Safety and Environment**
- **Reliability**
- **Risk**
- **Cost Effectiveness**
- **Energy Efficiency/Carbon Footprint**