

Appendix 2-B

Incentive Based Program Recommended Projects

STATEMENT OF PROBLEM

During agricultural development, many isolated wetlands were drained for logging or planting. Historically, this wetland stored more water and maintained a longer hydroperiod.

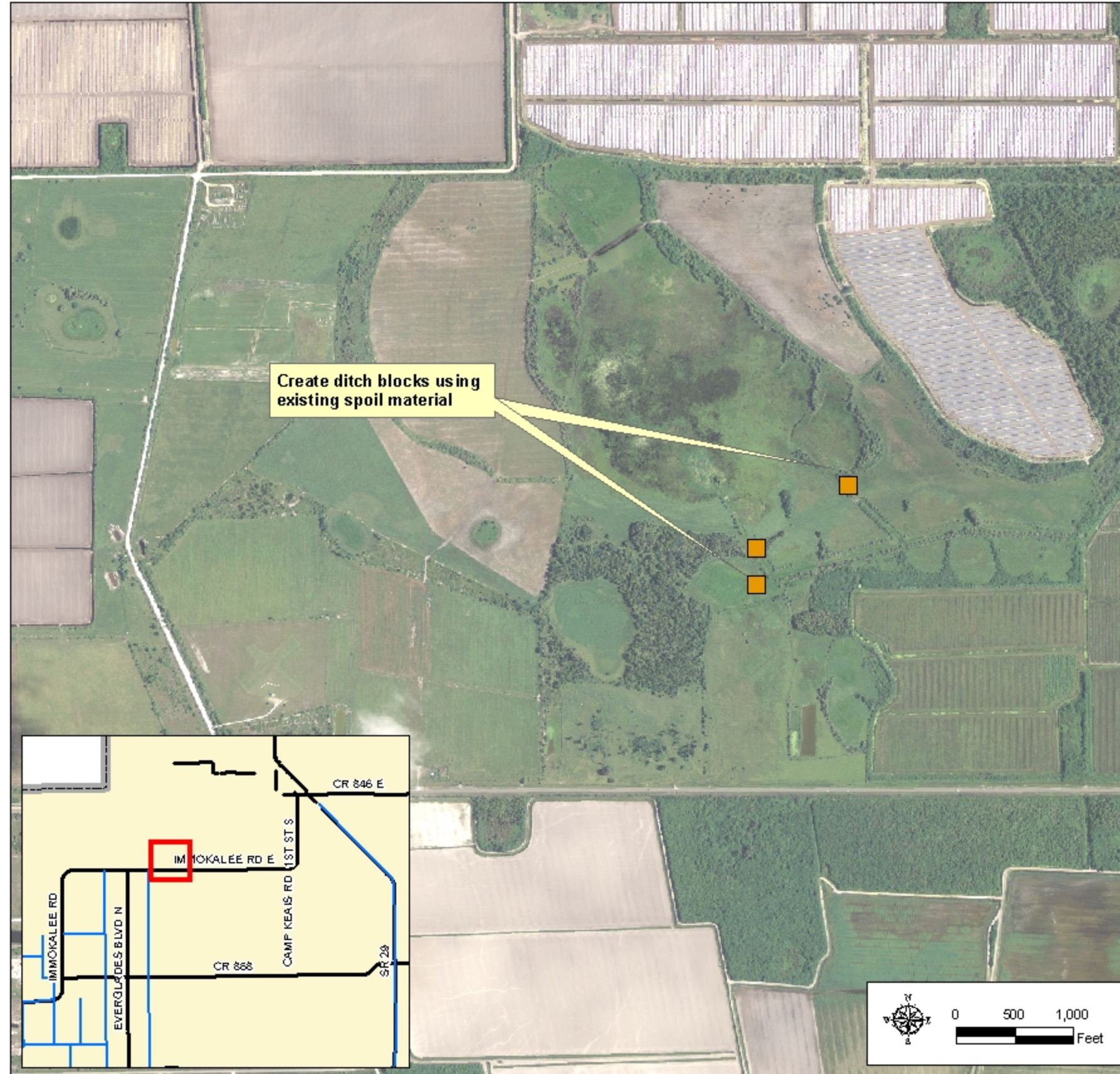
This canal dredging also negatively impacted the ecology of the wetlands by decreasing natural marsh and wetland vegetation. Native species habitat was likely impacted as well.

PROJECT BENEFITS

- (1) The projects is predicted to improved the hydrology of these isolated wetland systems by blocking ditches and reducing artificial drainage.
- (2) The project serves a local area (120 acres) and provides a lift in average wetland hydrology score for the combined watersheds of 0.0001.
- (3) Provides storage and water quality treatment.

PROJECT DISADVANTAGES

- (1) Changes in groundwater and surface water elevations may affect adjacent farming activities



SOLUTION

- Project is located within existing Stewardship Sending Area. Use incentive programs to encourage property owner to implement local wetland restoration activities
- Use existing dredge spoil material on the canal banks to backfill drainage ditches and create ditch blocks at the wetland outfall locations to allow wetlands to discharge via overland flow.

DESIGN CONSIDERATIONS

- Determine if volume of on-site dredge spoil material is adequate to meet backfill requirements.
- Potential presence of exotic species
- Equipment access

STATEMENT OF PROBLEM

During agricultural development, many isolated wetlands were drained for logging or planting. Historically, these wetlands stored more water and had a longer hydroperiod.

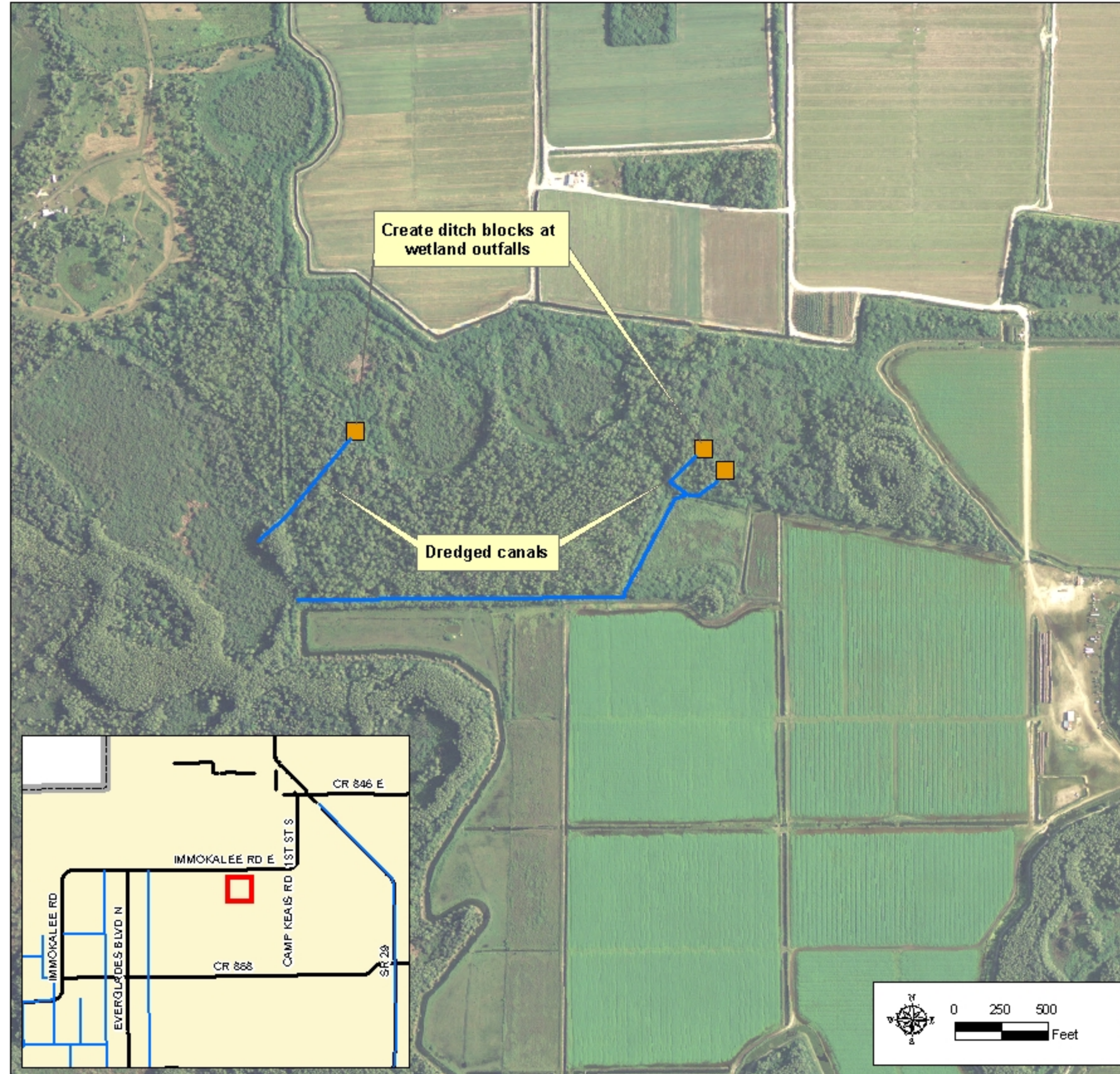
The canal dredging also negatively impacted the ecology of the wetlands by decreasing natural marsh and wetland vegetation. Native species habitat was likely impacted as well.

PROJECT BENEFITS

- (1) The project is predicted to improve the wetland hydrology of these isolated wetland systems by blocking ditches.
- (2) The project serves a local area (37 acres) and provides a lift in average wetland hydrology for the combined watersheds of 0.0001.
- (3) Provides on-site storage and water quality treatment.

PROJECT DISADVANTAGES

- (1) Changes in groundwater and surface water elevations may affect adjacent farming activities



SOLUTION

- Project is located within existing Habitat Stewardship Area. Use incentive programs to encourage property owner to implement local wetland restoration activities
- Use existing dredge spoil material or import material to backfill drainage ditches and create ditch blocks at the wetland outfall locations and allow wetlands to discharge via overland flow.

DESIGN CONSIDERATIONS

- Determine if volume of on-site dredge spoil material is adequate to meet backfill requirements.

STATEMENT OF PROBLEM

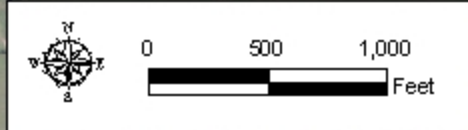
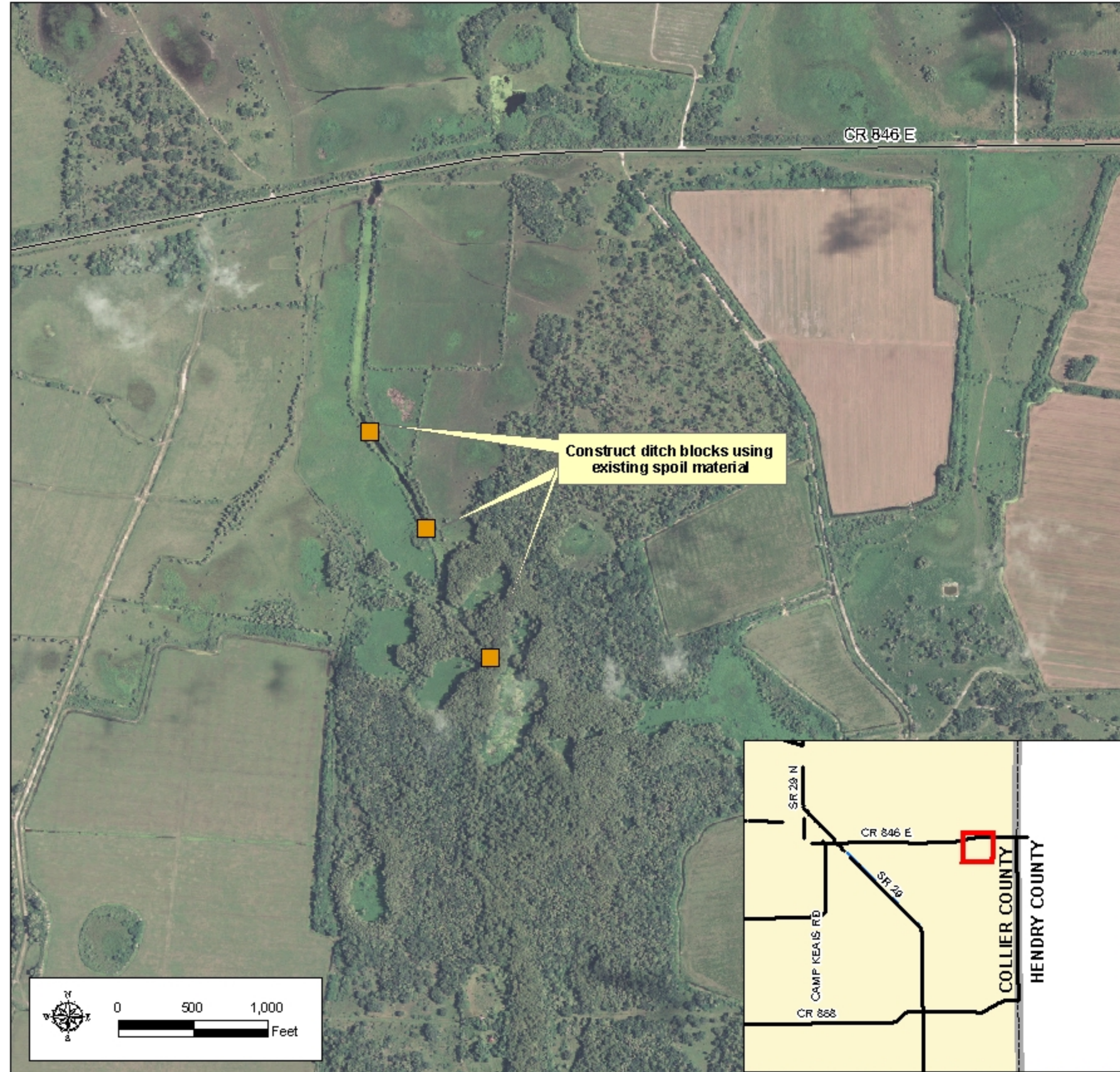
This portion of the Okaloacoochee Slough was dredged to drain the upstream wetland areas for farming activities. This resulted in shorter wetland hydroperiods and less groundwater recharge. The dredged canal also negatively impacted the ecology of the surrounding wetlands by decreasing natural marsh and wetland vegetation. Native species habitat was likely impacted as well.

PROJECT BENEFITS

- (1) Re-establishes wetland hydroperiods by reducing drainage. Lift in annual watershed performance measure is predicted to be 0.0004.
- (2) Provides additional water quality treatment in the wetland area. Lift in annual watershed performance measure is predicted to be 0.002.
- (3) Increases groundwater recharge.

PROJECT DISADVANTAGES

- (1) Reduced drainage capacity could increase flood risk of SR 846 and upstream lands.
- (2) Changes in depth of surface water could affect surrounding agricultural areas.



SOLUTION

- Project is located within an approved Stewardship Sending Area and within the Okaloacoochee Flowway Stewardship Area. Use incentive programs to encourage property owner to implement local wetland restoration activities
- Use existing dredge spoil material on the canal banks to backfill ditches and create ditch blocks at the wetland outfall locations. The ditch blocks created within the slough will re-hydrate wetlands and provide natural sedimentation in the dredged canal to raise the slough profile and promote the natural restoration of the waterway.

DESIGN CONSIDERATIONS

- Determine if volume of on-site dredge spoil material is adequate to meet backfill requirements.
- Verify no flooding impacts are generated at SR 846 and the lands to the north of SR 846.

STATEMENT OF PROBLEM

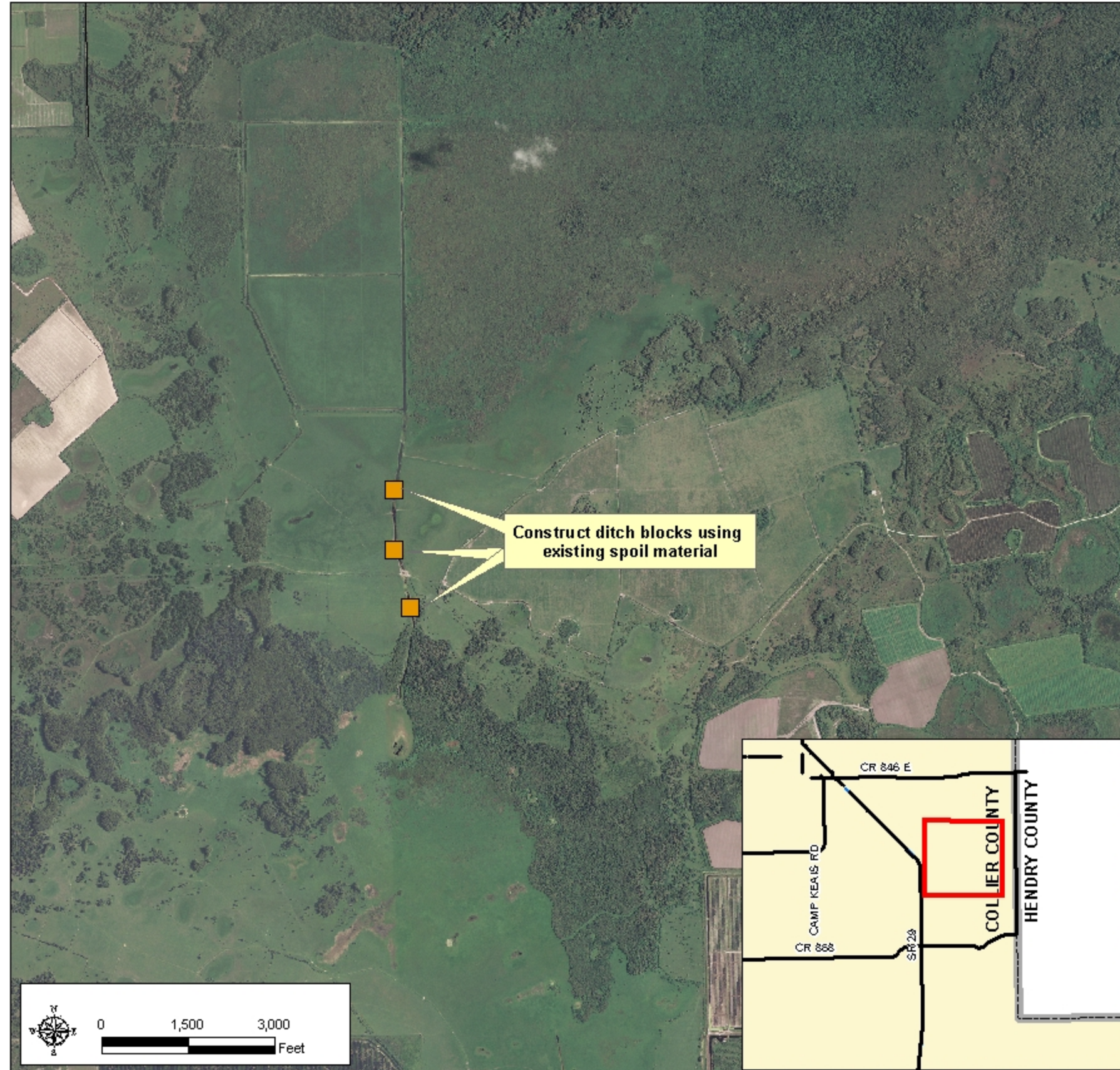
This portion of the Okaloacoochee Slough was dredged to drain the upstream wetland area for farming activities. This resulted in shorter wetland hydroperiods and less groundwater recharge. The dredged canal also negatively impacted the ecology of the upstream wetlands by decreasing natural marsh and wetland vegetation. Native species habitat was likely impacted as well.

PROJECT BENEFITS

- (1) Re-establishes historic wetland hydroperiod by containing inflows which are artificially drained. Predicted to provide an average annual watershed performance measure lift of 0.015.
- (2) Predicted to increase water quality treatment in the wetland area. An annual average watershed performance measure lift of 0.28 is predicted.
- (3) Increases groundwater recharge.

PROJECT DISADVANTAGES

- (1) Change in depth of water could negatively impact surrounding agricultural activities.



SOLUTION

- Project is located within the Okaloacoochee Flowway Stewardship Area. Use incentive programs to encourage property owner to implement local wetland restoration activities
- Use existing dredge spoil material on the canal banks to backfill man-made ditches and create ditch blocks at the wetland outfall locations. The ditch blocks created within the slough will provide natural sedimentation in the canal to raise the slough profile and promote the natural restoration of the waterway.

DESIGN CONSIDERATIONS

- Determine if volume of on-site dredge spoil material is adequate to meet backfill requirements.

STATEMENT OF PROBLEM

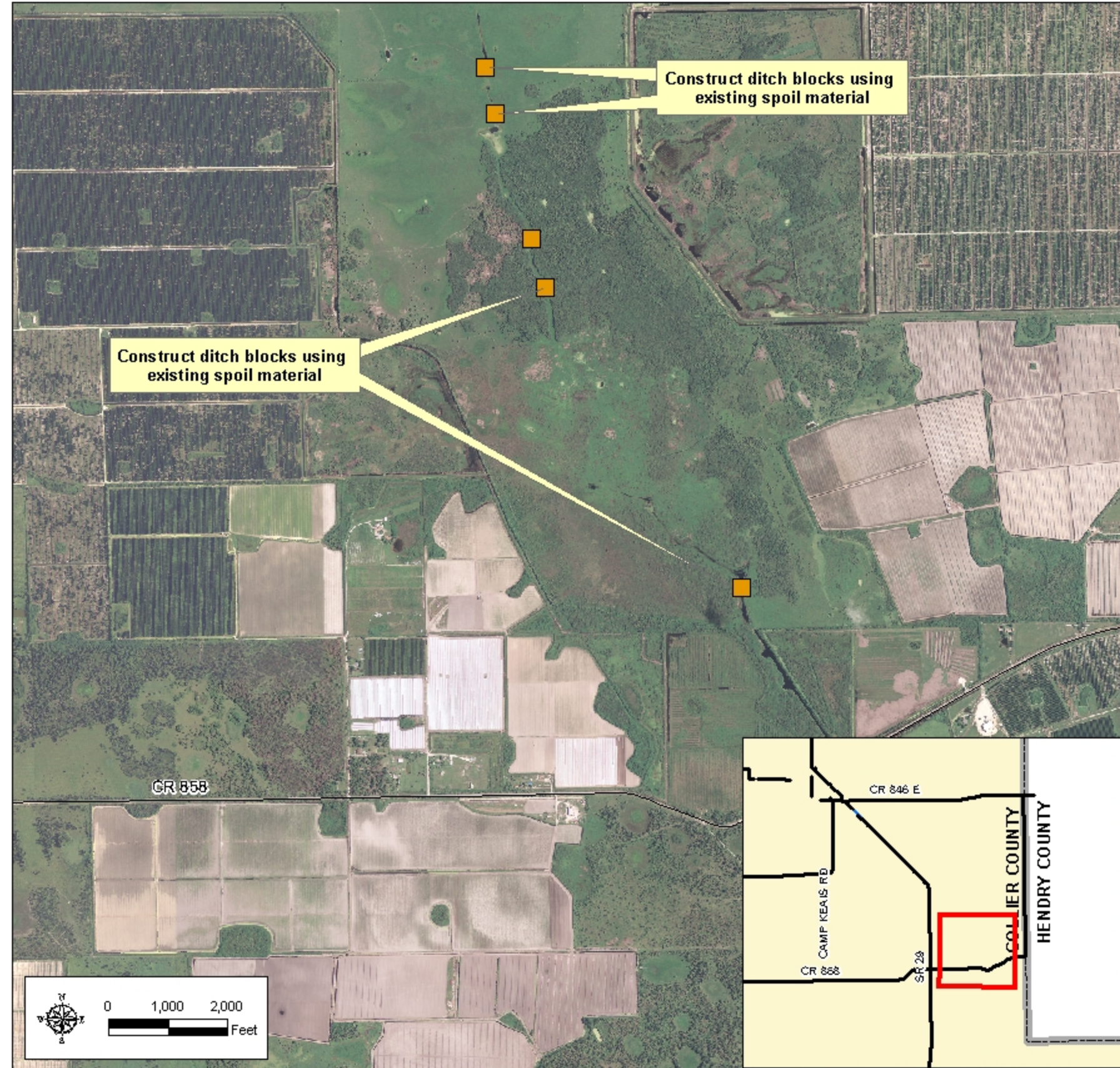
This portion of the Okaloacoochee Slough was dredged to drain the upstream wetland areas for farming activities. This resulted in shorter wetland hydroperiods and less groundwater recharge. The dredged canal also negatively impacted the ecology of the surrounding wetlands by decreasing natural marsh and wetland vegetation. Native species habitat was likely impacted as well.

PROJECT BENEFITS

- (1) Improves wetland hydrology and habitat by reducing drainage. Predicted to provide an average annual watershed performance measure lift of 0.002.
- (2) Provides improved water quality treatment in wetland areas. An average annual performance measure lift of 0.059 is predicted.
- (3) Increases groundwater recharge.

PROJECT DISADVANTAGES

- (1) Changes in depth of surface water could increase flood risk of surrounding agricultural areas



SOLUTION

- Project is located within existing Okaloacoochee Flowway Stewardship Area. Use incentive programs to encourage property owner to implement local wetland restoration activities
- Use existing dredge spoil material on the canal banks to backfill man-made ditches and create ditch blocks. The ditch blocks created within the slough will rehydrate wetlands and provide natural sedimentation to raise the ditch profile and promote the natural restoration of the waterway.

DESIGN CONSIDERATIONS

- Determine if volume of on-site dredge spoil material is adequate to meet backfill requirements.

STATEMENT OF PROBLEM

During agricultural development, many isolated wetlands were drained for logging or planting. Historically, these wetlands discharged at higher stages via a natural slough or overland flow.

These drained wetlands currently have a shorter hydroperiod and provide less groundwater recharge than previously. The wetland dredging also negatively affected the ecology of the wetlands by decreasing natural marsh and wetland vegetation. Native species habitat was likely impacted as well.

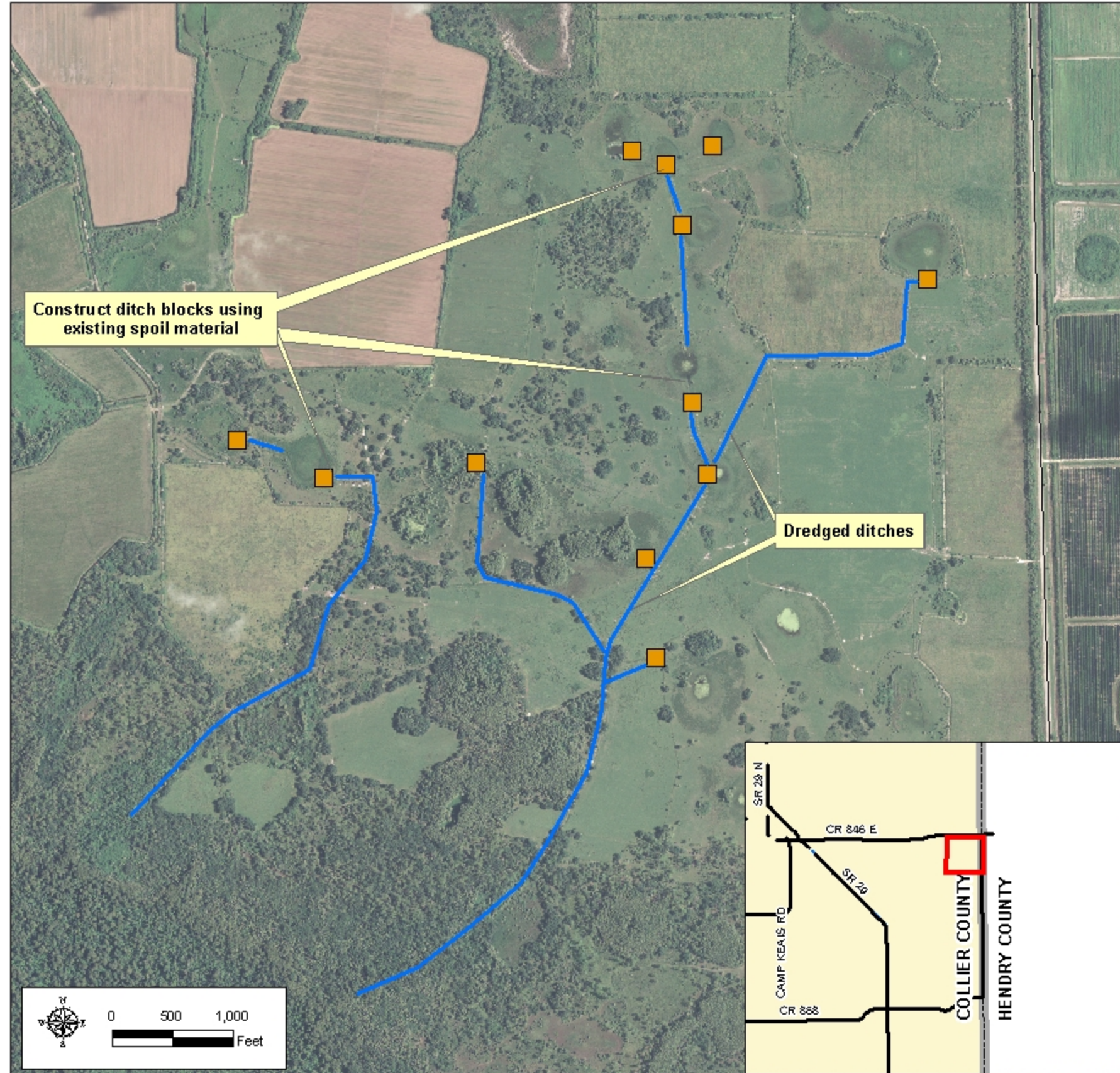
PROJECT BENEFITS

(1) Improves wetland hydrology/habitat in isolated wetland areas. The average annual lift in performance measure for the watershed is predicted to be 0.0002.

(2) Increases groundwater recharge

PROJECT DISADVANTAGES

(1) Changes in groundwater and surface water elevation may affect adjacent agricultural lands.



SOLUTION

- Project is located within approved Stewardship Sending Area and existing Habitat Stewardship Area. Use incentive programs to encourage property owner to implement local wetland restoration activities

- Use existing dredge spoil material on the canal banks to backfill man-made ditches and create ditch blocks at the wetland outfall locations. The ditch blocks created within the canals will contain the wetland inflows which will increase the hydroperiods and groundwater recharge in the area.

DESIGN CONSIDERATIONS

- Determine if volume of on-site dredge spoil material is adequate to meet backfill requirements.

STATEMENT OF PROBLEM

During agricultural development, many isolated wetlands were drained for logging or planting. Historically, these wetlands discharged at higher stages via a natural slough or overland flow.

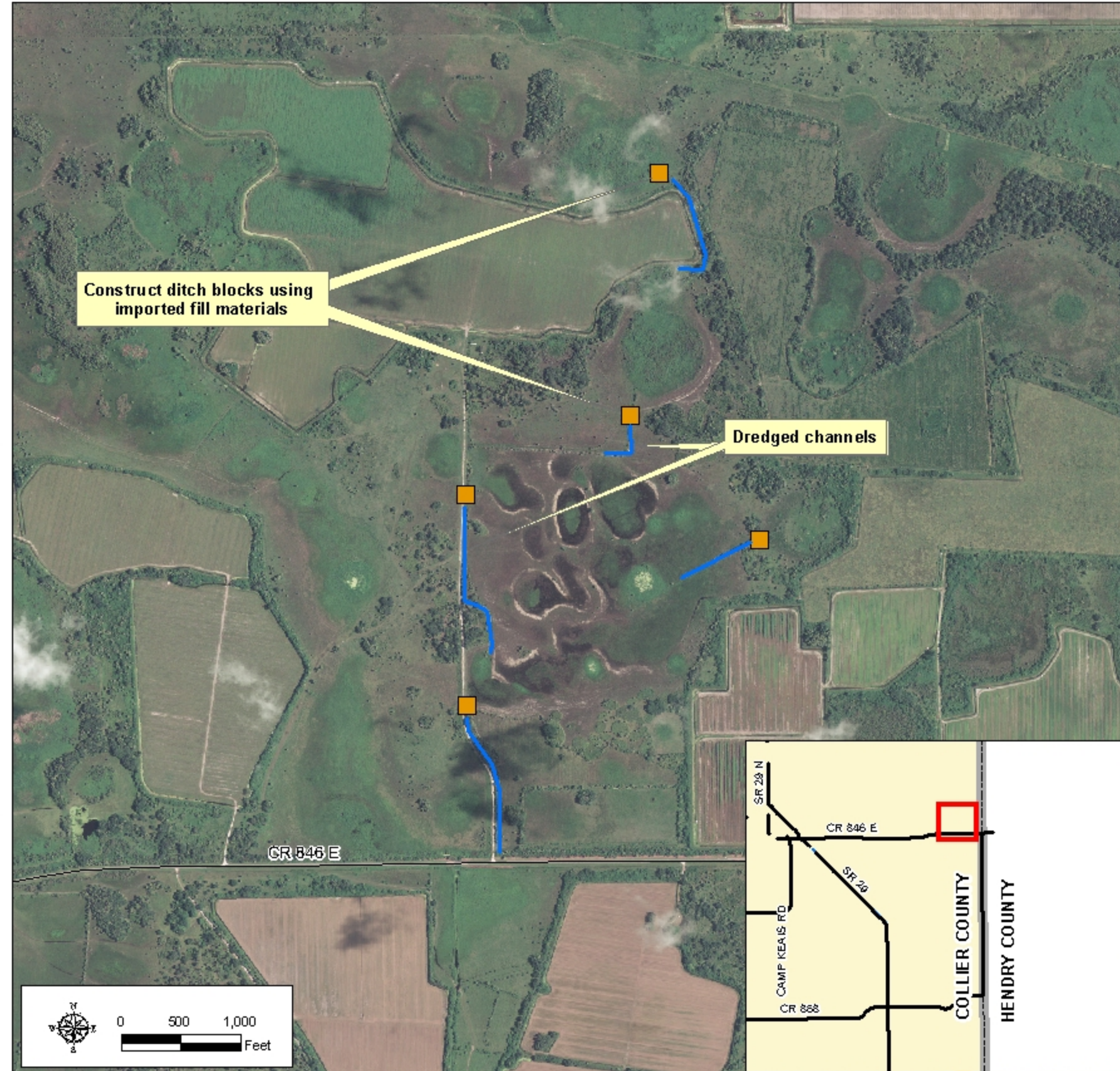
These drained wetlands currently have a shorter hydroperiod and provide less groundwater recharge than previously. The wetland dredging also negatively affected the ecology of the wetlands by decreasing natural marsh and wetland vegetation. Native species habitat was likely impacted as well.

PROJECT BENEFITS

- (1) Improves wetland hydrology and habitat by blocking ditches that artificially drain these isolated wetlands. Predicted to provide an average annual watershed performance measure lift of 0.0002.
- (2) Increases groundwater recharge.

PROJECT DISADVANTAGES

- (1) Changes in groundwater and surface water elevations may affect adjacent agricultural lands



SOLUTION

- Project is located within approved Stewardship Sensitive Area. Use incentive programs to encourage property owner to implement local wetland restoration activities
- Use existing dredge spoil material or import material to backfill drainage ditches and create ditch blocks at the wetland outfall locations to allow wetlands to discharge via overland flow. The ditch blocks created within the canals will contribute to an increase in hydroperiod and groundwater recharge in the area.

DESIGN CONSIDERATIONS

- Determine if any on-site dredge spoil material is available for backfill requirements.

STATEMENT OF PROBLEM

During agricultural development, many isolated wetlands were drained for logging or planting. Historically, these wetlands discharged at higher stages via a natural slough or overland flow.

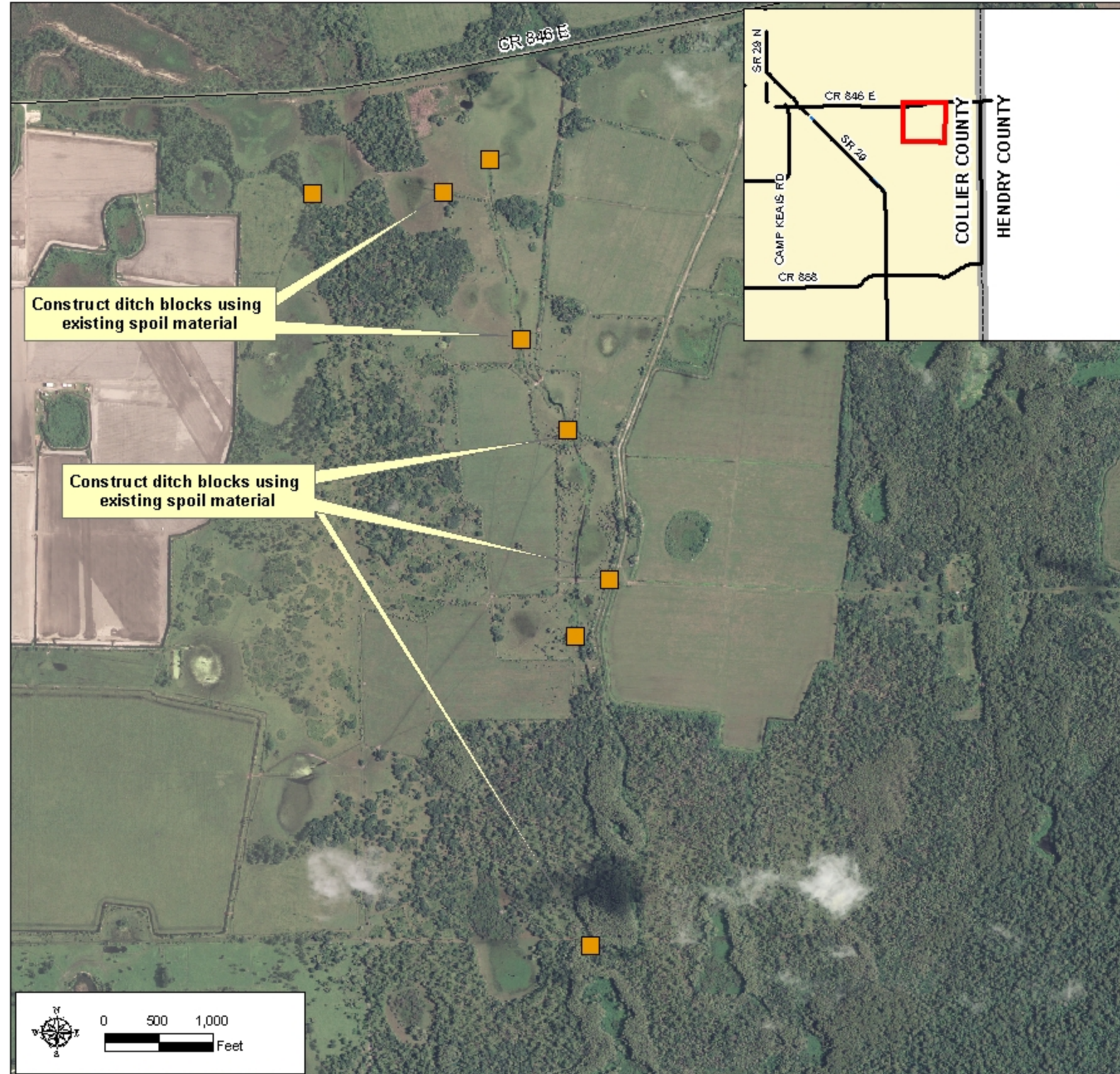
These drained wetlands currently have a shorter hydroperiod and provide less groundwater recharge. The wetland dredging also negatively affected the ecology of the wetlands by decreasing natural marsh and wetland vegetation. Native species habitat was likely impacted as well.

PROJECT BENEFITS

- (1) Improves wetland hydrology and habitat by blocking ditches that artificially drain these isolated wetlands. Predicted to provide an annual average watershed performance measure lift of 0.0002.
- (2) Increases groundwater recharge

PROJECT DISADVANTAGES

- (1) Changes in groundwater and surface water elevation may affect adjacent agricultural lands



SOLUTION

- Project is located within approved Stewardship Sending Area and existing Habitat Stewardship Area. Use incentive programs to encourage property owner to implement local wetland restoration activities
- Use existing dredge spoil material on the canal banks to backfill man-made ditches and create ditch blocks at the wetland outfall locations. The ditch blocks created within the isolated wetlands and slough will provide natural sedimentation in the canal to raise the slough profile and promote the natural restoration of the waterway.

DESIGN CONSIDERATIONS

- Determine if volume of on-site dredge spoil material is adequate to meet backfill requirements.