



Collier County Regional Water Resource Priority Projects

April 27, 2012

Presented by:
Nick Casalanguida,
Growth Management Division
Administrator
and
Jerry Kurtz, P.E., Stormwater and
Environmental Planning Manager

Common Project Elements

- Redirection/Reduction of Surface Water Flow to Naples Bay
- WQ Improvement Prior to Discharge to Receiving Waters
- Increase Aquifer Recharge /Public Water Supply Protection

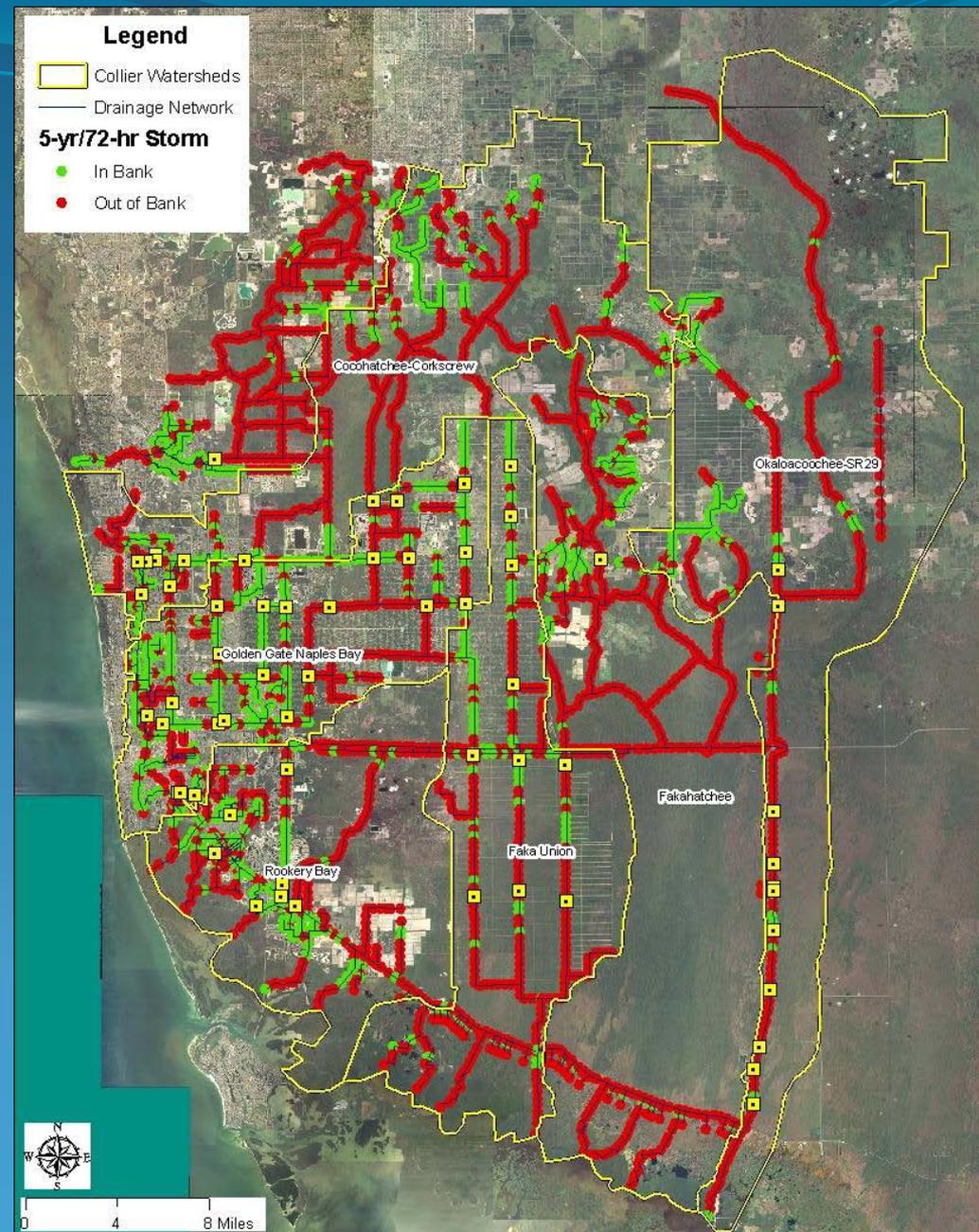
Prioritized Initiatives

1. NPDES MS4 Permit Compliance
2. Maintenance of Existing County Infrastructure
3. Watershed Plan Initiatives Implementation
4. Collaborative Joint Public Infrastructure Projects

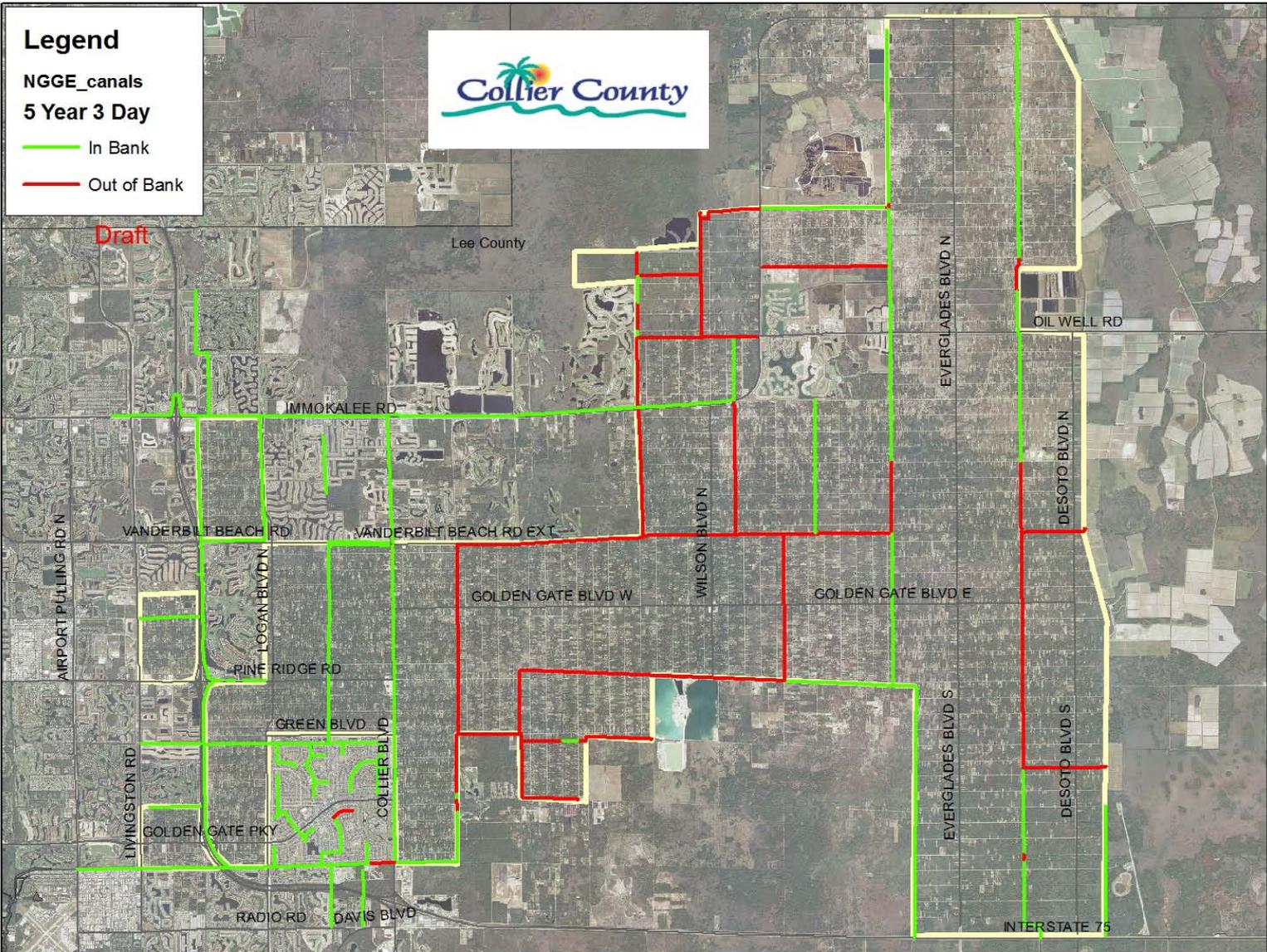


Existing Canal Capacity

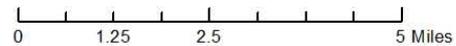
- Saturated Soils and 5 - yr Storm Event
- Canals will flow out of bank in many areas **(Red)** when a 5 yr event is exceeded
- A 5 yr Storm Event is approximately 7.5 inches of rainfall in 3 days



Golden Gate Estates Canals for 5 Year 3 Day Storm Event



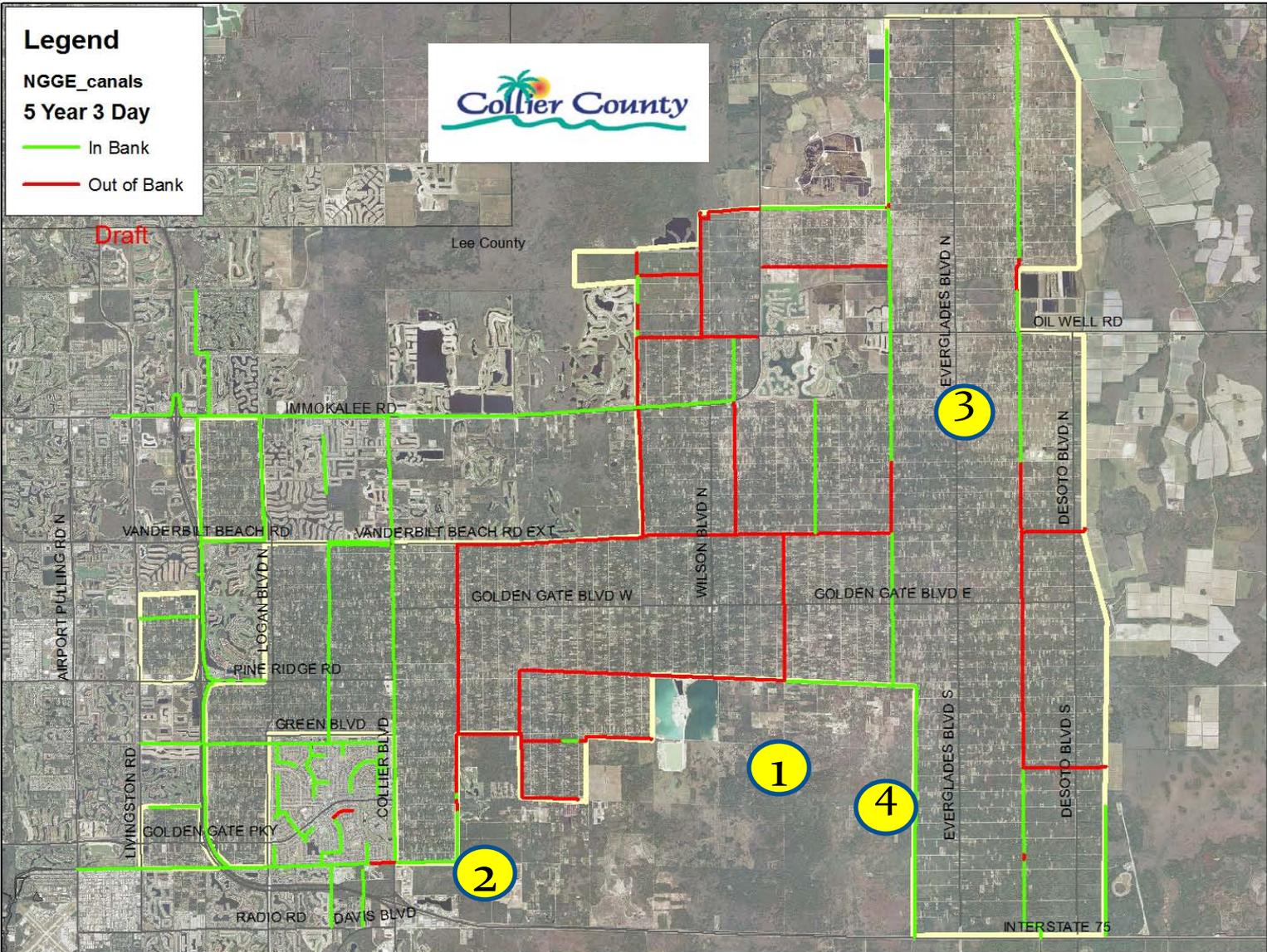
Data Source: Aerials - Collier County Property Appraiser
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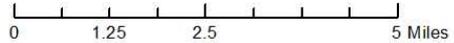
Joint Projects

1. Northern Belle Meade Rehydration
2. Henderson Creek Diversion
3. NGG Estates Flowway Restoration Project
4. 28th Avenue SE Culvert Crossing Over Miller Canal

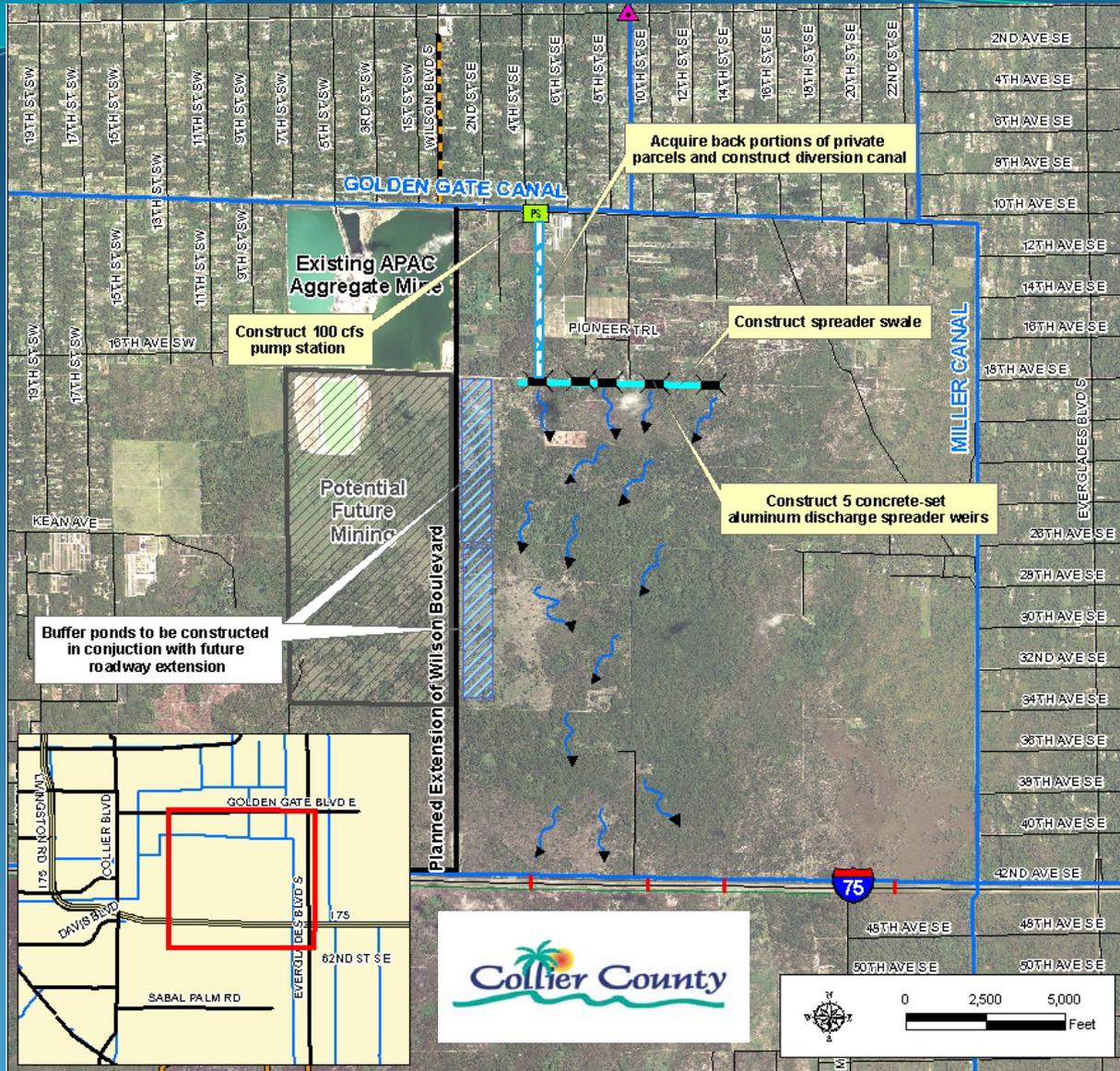
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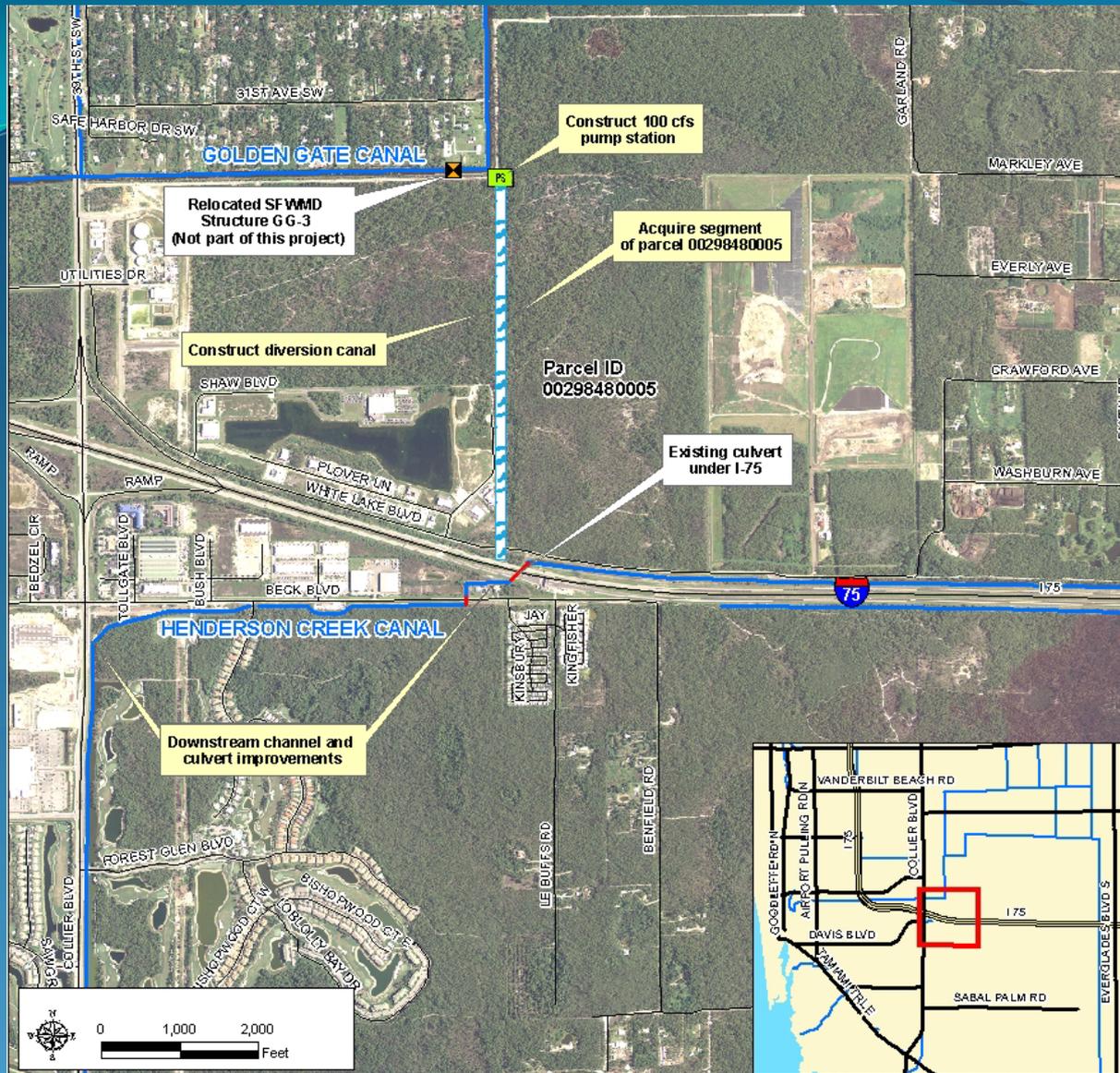
Northern Belle Meade Rehydration



- Potential Golden Gate Canal Flow Diversion
- Up to **1,000 Cubic Feet Per Second (CFS)** Away From Naples Bay
- **One CFS = 449 Gallons per Minute**
- Estimated cost = **\$7,000,000**
- Assumes most land is Donated

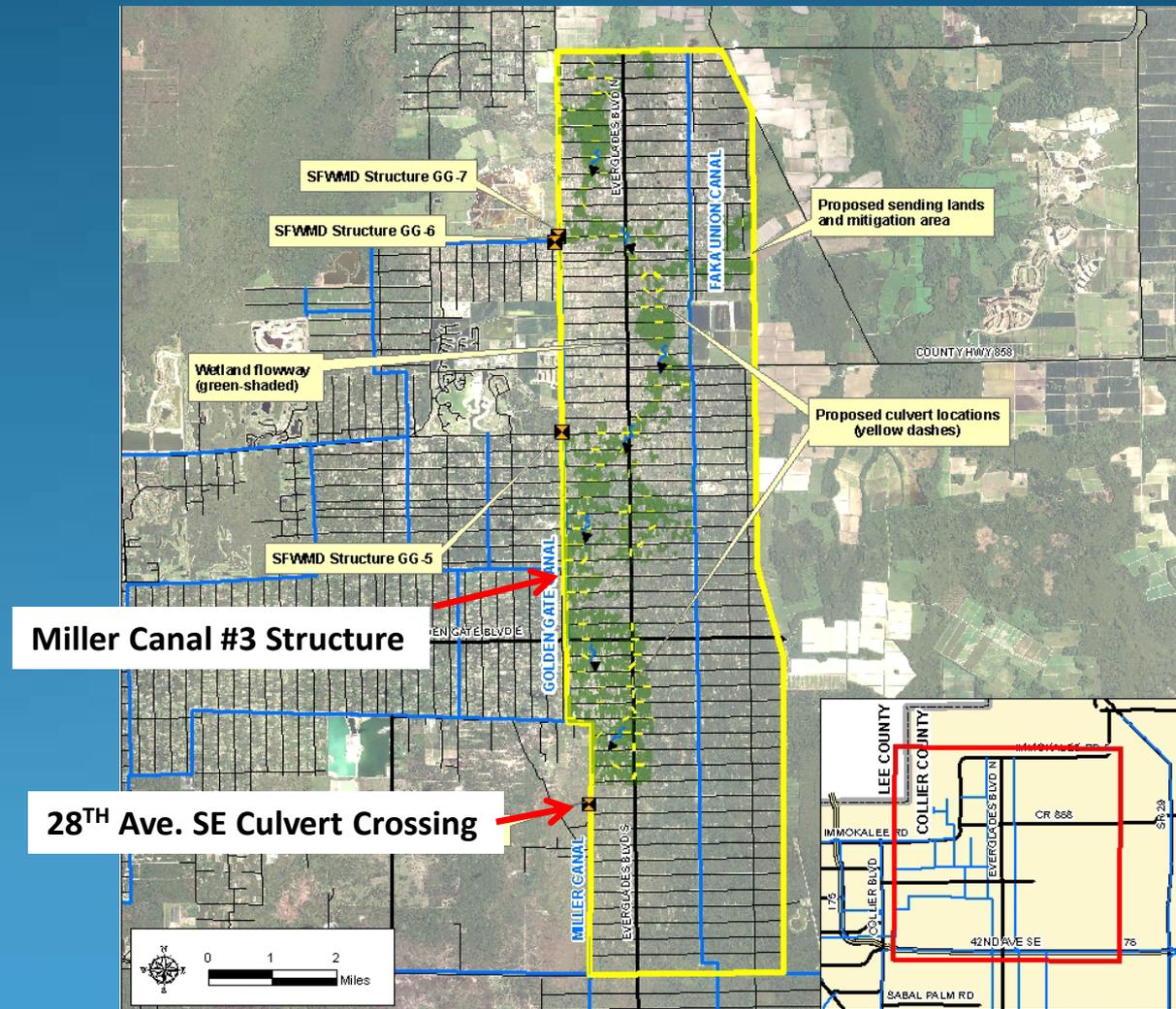
Henderson Creek Diversion

- Diversion of **100 Cubic Feet Per Second** from GG Main Canal
- May augment future supply needs for Marco Island
- Estimated Cost = \$6,000,000

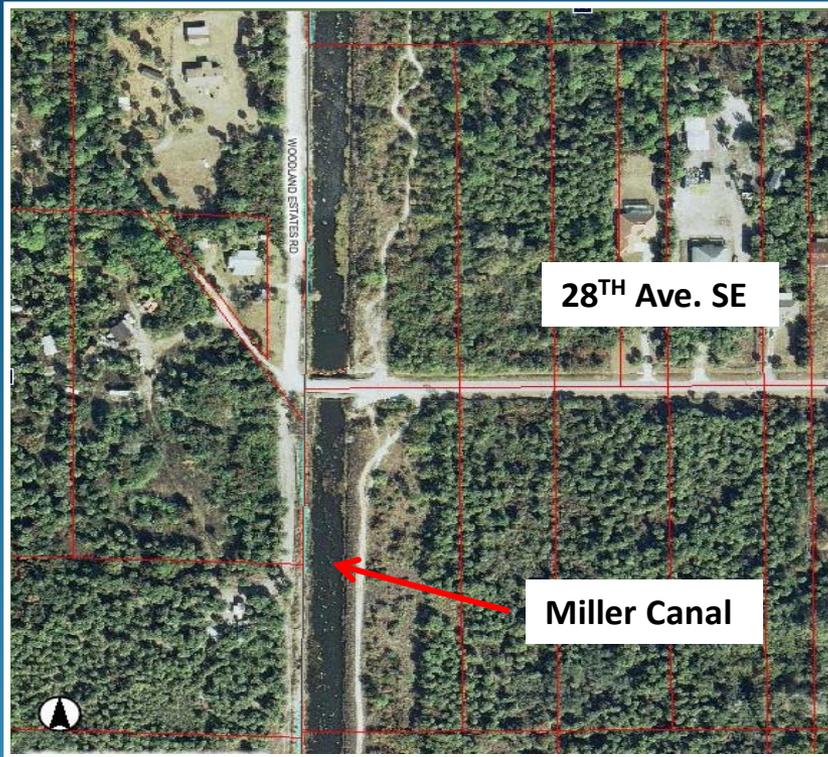


Northern Golden Gate Estates Flowway Restoration

- **Yellow Line** is Study Area
- Redirect Flows Currently Conveyed to Canals and Naples Bay to Wetlands
- Provides Additional water Quality Treatment
- Recharge Aquifers and Protect Public Water Supply
- Estimated Cost = \$2.400,000
- Assumes Land is Donated

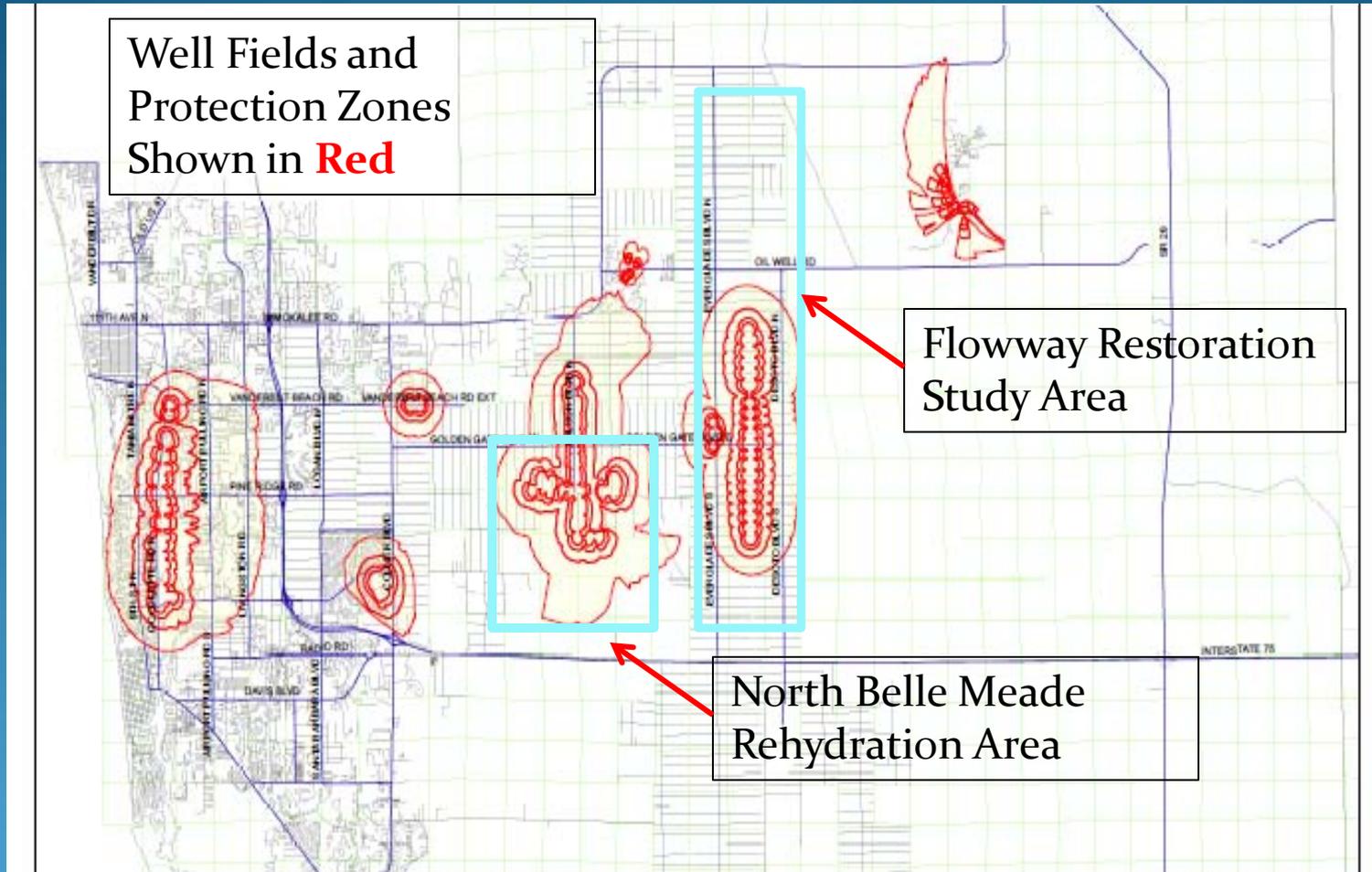


28th Avenue Southeast Miller Canal Culvert Crossing



- Existing Culverts Are Undersized Restricting Flow South During Critical Storm Events
- Contributing to Excessive Canal Levels Upstream
- New Culverts Will Contribute to Flow Diversion Away From Naples Bay

City and County Well Field Locations





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