DOT SAND MINING IN THE GREEN SWAMP

Presented to the Lake County Land Planning Agency
November 14, 2008
What Will Be Covered In This Presentation

- What materials are being mined?
- How is the material mined?
- What hydrologic process are involved?
- What areas being currently mined and what is the history of Mining in Green Swamp?
- What legislation has been proposed and why?
WHAT MATERIALS ARE BEING MINED?
Well Sorted Coarse Sand
Coarse and Medium Sand
Fine, Medium and Coarse Grains
HOW IS THE MATERIAL MINED?
Dry Open-Pit Mine. No dewatering is required.
Dewatered Open-Pit Mine. Water is removed from pit and discharged elsewhere.
Closed-Loop Dredge Mine. Water is recycled through pond and plant.
WHAT HYDROLOGIC PROCESS ARE INVOLVED?
Water Use in a Typical Sand Mine

- Make-Up Well
- Tailings Discharge
- Product Stockpile
- Dredge Pool
- Solids (Displacement)
- Swamp Fox
- Dredge
- Control Structure
- Tailings Impoundment
- Washer Plant
- Evaporation
- Entained Moisture in Sand Products
Drawdown is Relative

Wetland

Mine Pit Lake

Wetland

Wetland

Wetland
WHAT AREAS BEING CURRENTLY MINED AND WHAT IS THE HISTORY OF MINING IN GREEN SWAMP?
Florida Department of Transportation Approved Aggregate Sources

Legend
• Sand Mines

Figure 2: Location of Sand Mines

From Strategic Aggregates Review Task Force Final Report, Feb 2008
Sand Mines in Green Swamp

The red shaded areas are permitted mine sites. Only the uplands in each area are allowed to be mined. Areas west of CR-33 will not be mined.

Photo 2008
Sand Mines in Green Swamp

The area outlined in white will be shown in greater detail in next few slides.

Photo 2008
1941
No Mines Or Groves
1972
Citrus Grove
Begin To Be Seen In Uplands
1979 Mining Has Begun
2008 Mines Replace Citrus Groves In Uplands
(Reclaimed peat mine seen in lower right)
WHAT LEGISLATION HAS BEEN PROPOSED AND WHY?
What are the Current Aggregate Problems in Florida?

• Existing mine permits are routinely challenged and seriously delayed.
  • Output from permitted mines continues but quality is declining for many engineering applications
• Temporary Bans on mining at local level.
• Developments, particularly large DRI’s in rural counties, are impinging on mining and future expansions.
  • One can chose where land development occurs but one cannot chose where the resource is found.
  • Aggregate deposits not protected from development
• Infrastructure for increasing imports is not in place

From the Strategic Aggregates Study – FDOT March 2007
Materials Are Strategic And Required For:

• – Transportation
• – Highway safety
• – Construction / Maintenance
• – Continued economic growth
• – Affordable housing/school construction
Legislation Proposed in 2008

- It would preempt local government's ability carry out requirements of their comprehensive plans, such as protecting schools, residential areas, wetlands, water bodies, and lands set aside for preservation from the adverse impacts of mining activities.

- It would prevent local governments from enacting stronger land use restrictions than the state in order to protect natural resources in their jurisdictions.
Questions