

*Planning & Zoning Commission  
Public Workshop on  
Compatibility and Notice Issues  
for Mining Operations*

**July 14, 2008**

# Mining Workshops

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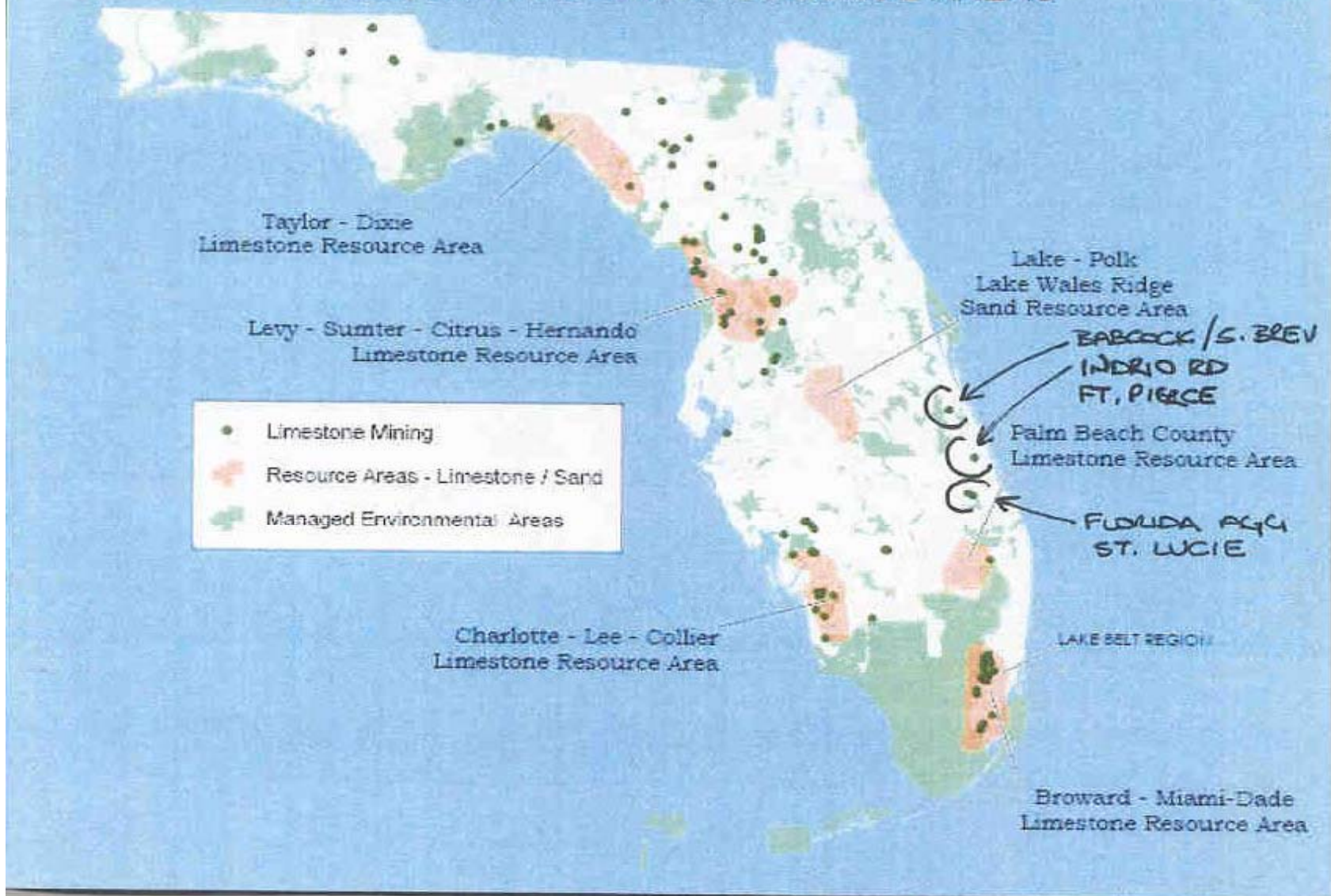
1. **Groundwater and surface water/discharge impacts** (held April 9, 2008)
2. **Traffic and nuisance** (held May 22, 2008)
3. **Compatibility and notice**
4. **Compliance and enforcement** (scheduled for August 13, 2008)

Land use characteristics of mining in Indian River County differ from “major mining counties”

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- Citrus
- Dixie
- Hernando
- Lee
- Miami-Dade
- Palm Beach
- Polk
- Taylor

# LIMESTONE AND SAND RESOURCE AREAS



## “Major mining counties”

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- Large deposits of exportable material (e.g. hard aggregates, limerock, phosphate)
- Mines several thousands of acres, large exposed areas
- Mine life 70 – 100 years
- Scale and certain impacts different from Indian River County

## Indian River County Mining:

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- Primarily sand and fill
  - Local development dependent on local supply
- Scattered deposits of coquina
- Mostly local use (not exported)
- Smaller scale
- No blasting
- No special contamination or clean-up issues

## Land Use Characteristics of Local Mining Operations

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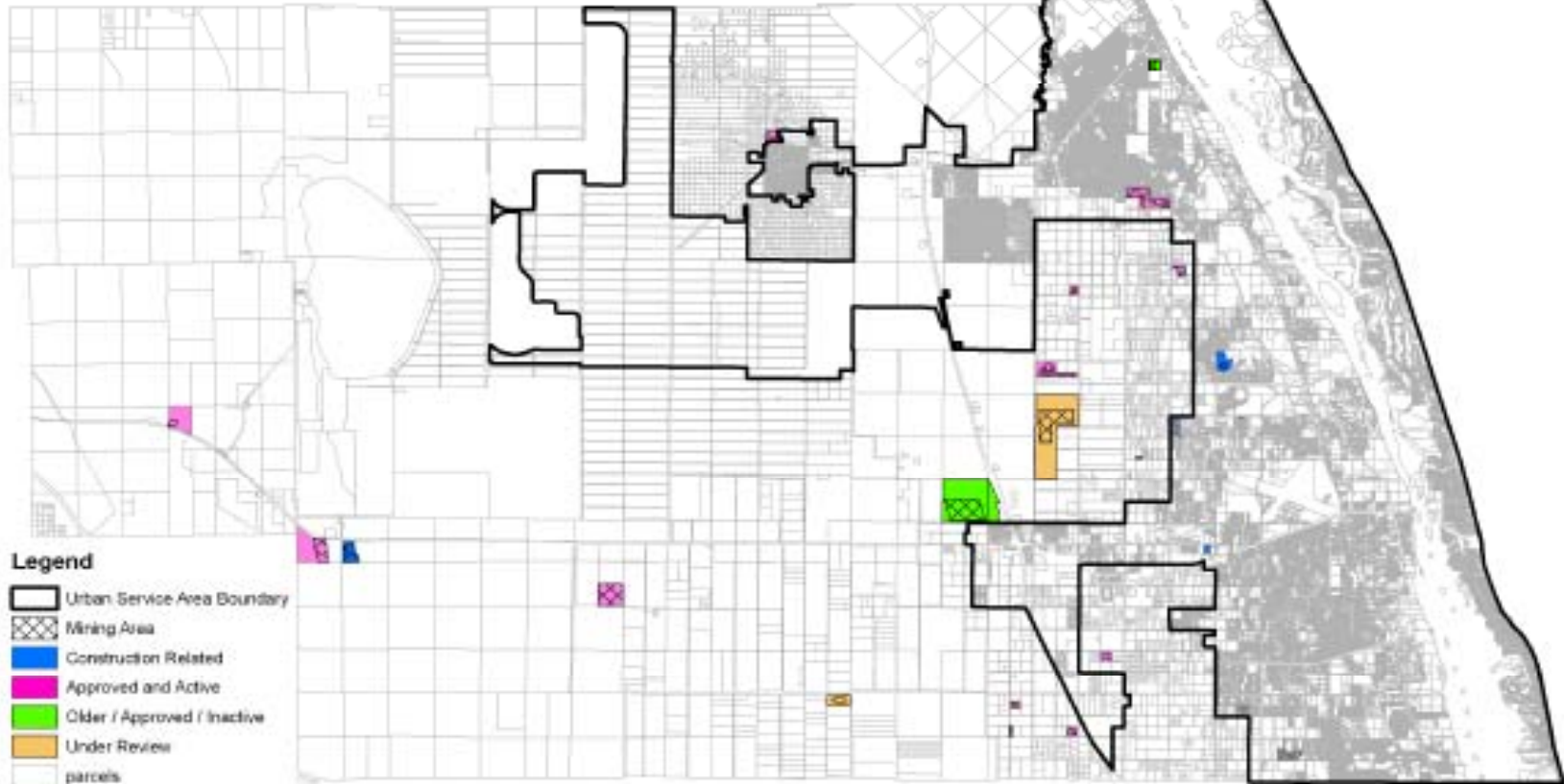
- Site size: 40 – 300+ acres
- Active phases limited to 20 acres
- On-site excavation, stockpiling, and hauling activities set-back 150' – 400' from property lines
- Material mined: sand, fill, coquina
- Mine life: 10 years maximum

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- Access: collector or arterial road
  - Days and hours of operation: weekdays  
7:00 am to 6:00 pm, off-site hauling ends  
at 5:00 pm
  - Site condition at end of mine life  
("reclaimed" state): non-rectilinear ponds  
with littoral zone plantings
  - Multiple sites, cumulative impact

# Mine Locations and Status



0 1.5 3 6 9 12 Miles



## Legend

- Urban Service Area Boundary
- Mining Area
- Construction Related
- Approved and Active
- Older / Approved / Inactive
- Under Review
- parcels

Mining allowed in agriculturally  
designated areas: AG-1, AG-2, AG-3

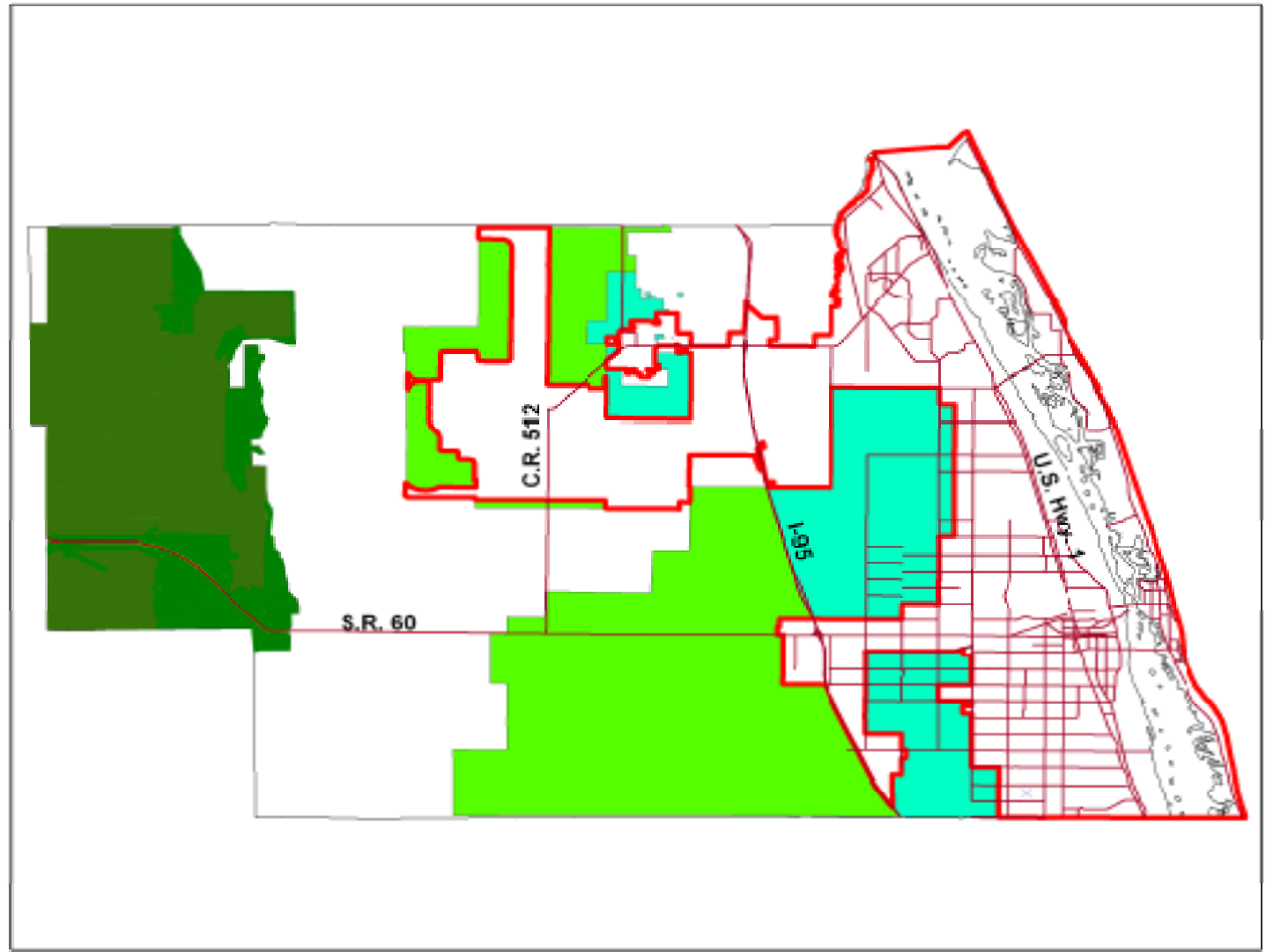
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In Indian River County, mining has been an  
allowed use in agricultural areas for 40  
years or more

# Agricultural Land Use Designations

## Legend

- Major Roads
- ▭ USA Boundary
- Land Use
  - AG-1
  - AG-2
  - AG-3



# Reasons for allowing mines in "AG" areas

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- Necessary size of mining sites
- Coquina deposits in AG-1 and AG-2 areas
- Proximity (especially mines in AG-1) to "demand" areas
- Efficient delivery distance
  - Local economic factor

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- Long-term use (ponds, green space) appropriate with agriculture and residential
  - “AG” areas have larger sites and fewer people
  - Past experience with well-run mines: not incompatible

# PROSPECTS FOR SOUTHEAST LEE COUNTY

PLANNING FOR THE DENSITY REDUCTION / GROUNDWATER RESOURCE AREA (DR/GR)



DOVER, KOHL & PARTNERS  
town planning

Lee County, Florida  
Submitted July 2008

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“Although fill dirt can be extracted from almost any site throughout the region, there is a natural tendency to push mines to remote locations because residents of more urbanized areas do not want mining near them. This practice drives up transportation costs, adds wear and tear to the road system, and actually subjects even more neighborhoods to heavy truck traffic, especially when fill dirt is transported to distant parts of the region.

This method of locating fill dirt mines should be re-thought.”

- Later recommendation: locate fill dirt mines near I-75, demand areas”, existing industrial corridor

Other counties with primarily sand and fill mining allow mining as a conditional use in agricultural areas

- Results of survey by Lee County staff
- AAC recommendation

## Compatibility:

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Location, arrangement, and control of differing land uses in a manner that results in harmony among the uses or coexistence with no significant conflicts between the uses.

## Existing Approach to Mining Compatibility in Indian River County

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- Reclaimed sites: complement agricultural and residential uses
- During 10 year mine life avoid significant conflicts by addressing adverse impacts

## First two workshops addressed potential adverse impacts of greatest concern

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- Environmental
- Nuisances
- Traffic
  - Potential regulation improvements identified

# ADVERSE IMPACTS AND CORRESPONDING REGULATIONS

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- Degraded roads and traffic conditions
  - Specify haul route criteria
  - Require evaluation of infrastructure adequacy
  - Specify standards for road improvements, maintenance, and operating conditions
  - Specify penalties/bond forfeiture for driver violations
  - Control/enforce truck speed, regulate overall volume of truck traffic

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- Noise and vibration
  - Require noise modeling, justified project design
  - Require noise abatement (mufflers, buffers, berms)
  - Prohibit blasting
  - Address vibration through road surface standards and speed control
  - Retain days/hours limits on activity

(continued)

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- Degraded air quality
- Require comprehensive dust control plan
  - On-site
  - Off-site haul route
- Retain phasing limits on activity areas

(continued)

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- Degraded surface waters
- Require pollution prevention plan upfront (bmps)
- Require baseline data and monitoring at out-fall points
- Prohibit increases in turbidity/constituents above baseline

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- Lowered groundwater levels
- Require baseline data “seismic profile” extensive hydrology report with design recommendations
- Require hydrology report to be sent to SJRWMD, DEP
- Establish monitoring report criteria, including comparisons to baseline data

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- Groundwater contamination
- Test for and handle any contaminated soil
- Identify, plug, set-back from deep wells
- Prohibit penetration of confining layer
- Prohibit use of explosives, active chemicals for extraction
- Require fuel spill contingency plans

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- Degraded wetlands and vegetation
- Prohibit destruction of wetlands and native uplands (set-aside 100%)
- Require baseline data on wetlands and vegetation
- Require demonstration of how hydro-period will be maintained for on-site and adjacent wetlands
- Require monitoring and assessment against baseline data

# REVIEW PROCESS

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- Currently: AP (Administrative Permit) use
  - No formal notice (interested parties contacted)
  - Specific land use criteria: 971.22
  - Planning & Zoning Commission approval

# REVIEW PROCESS

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- Possible Change: S (Special Exception) use
  - Formal notice and advertisement
  - Specific land use criteria: 971.22
  - Broader discretion to attach compatibility conditions
  - Planning & Zoning Commission public hearing
  - Board of County Commissioner public hearing and final approval

# NOTICE

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- Currently:
  - S (special exception)  
300 feet of project
- Possible Change:
  - Expand notice area to ½ mile of site
    - Expanded notice appropriate in large lot areas
    - ½ mile precedent for towers

# CONCLUSION

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- Continue to allow mines in “AG” areas
- Address impacts through improved regulations
  - Compliance and Enforcement
- Re-classify to special exception use
- Expand notice to ½ mile of project site

## Next: Presentation by Public Works

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- Local needs for fill
- Impacts of distance from mines to “demand areas”