

# **Solid Waste Management Annual Report Environmental Review Commission**

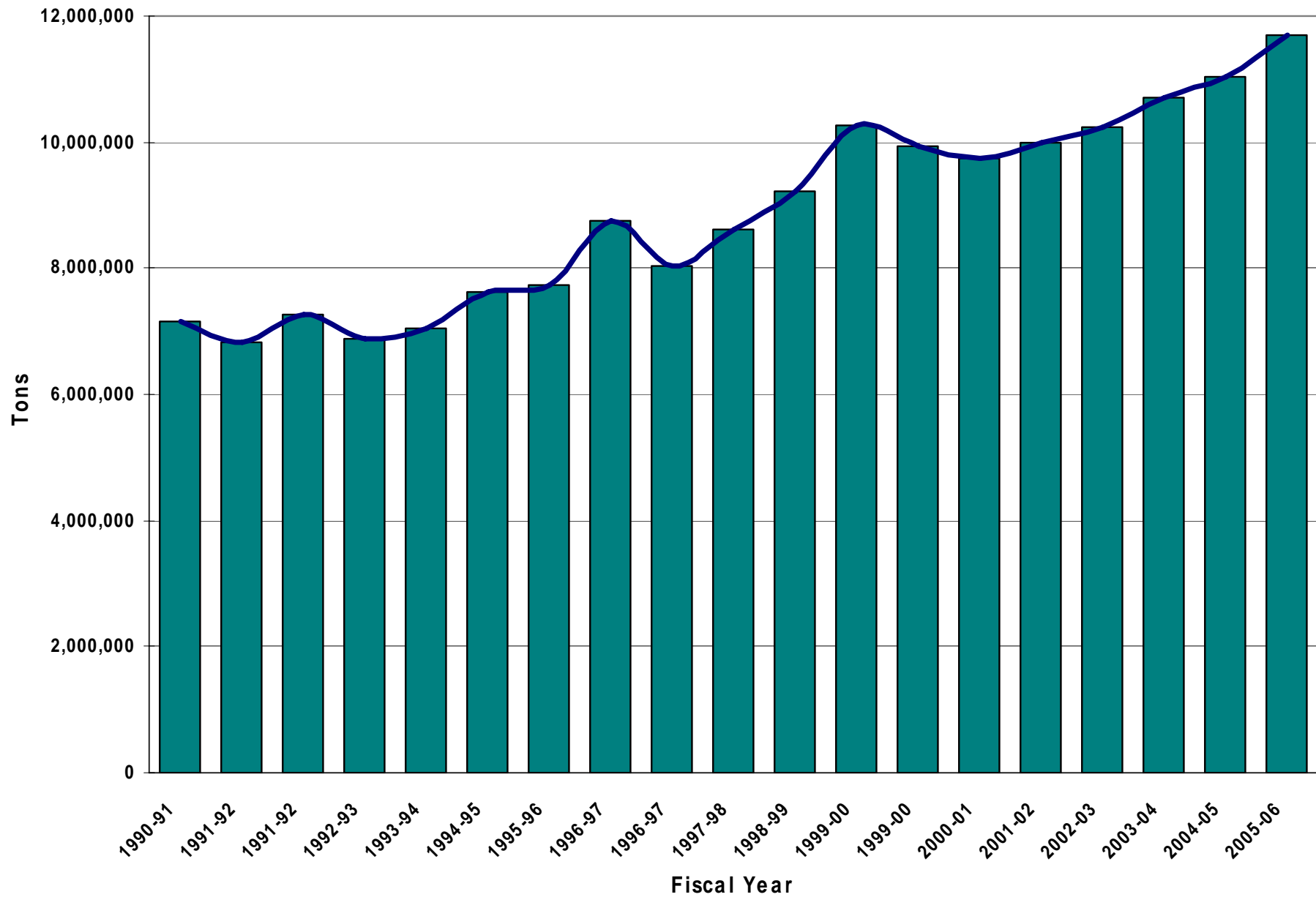
June 11, 2007

Paul Crissman, Chief  
Solid Waste Section  
Division of Waste Management  
Department of Environment and Natural Resources



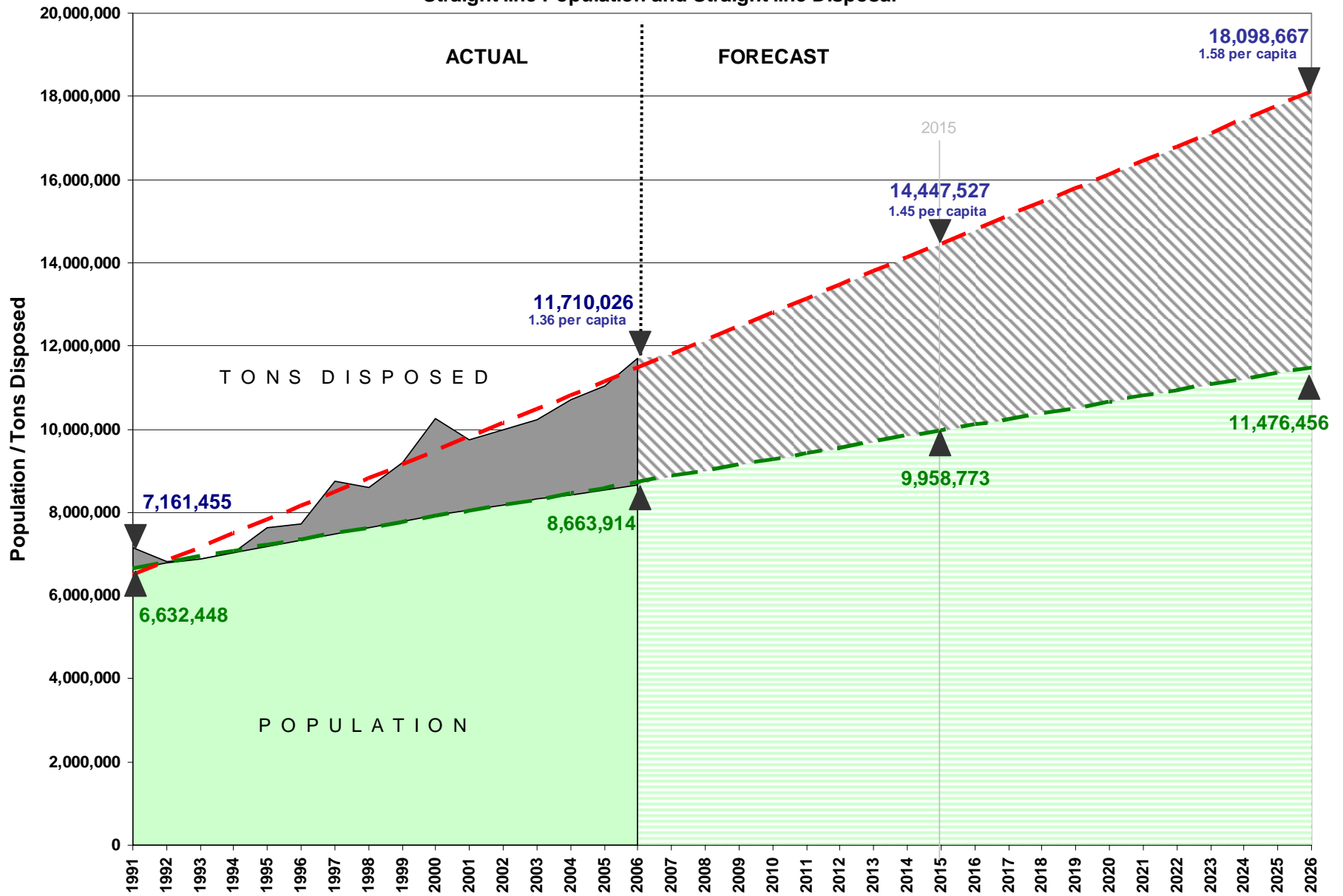


## Tons of Solid Waste Disposed of by North Carolina



# North Carolina Solid Waste Disposal 20-Year Forecast

## Straight line Population and Straight line Disposal





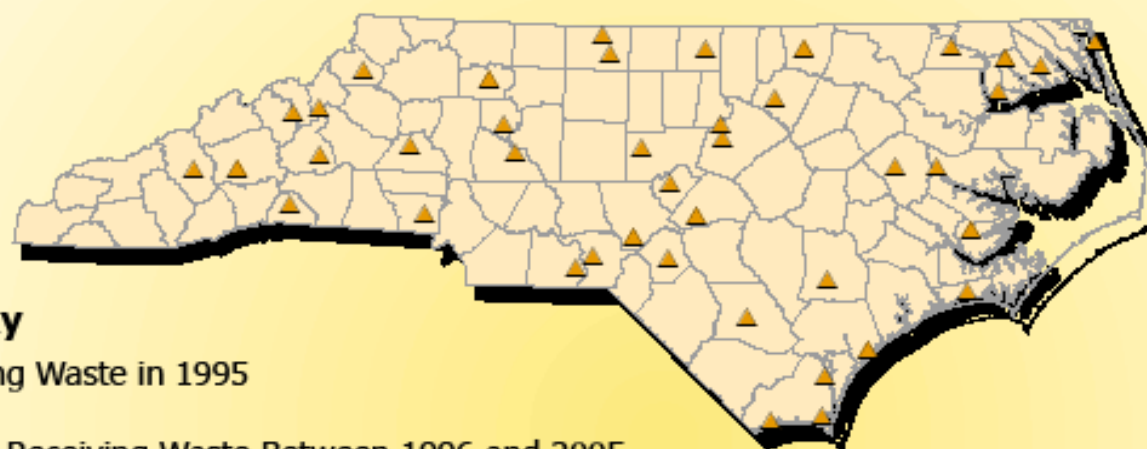








# Transfer Station/Treatment and Mixed Waste Processing Facility Growth in North Carolina 1995 and 2005



1995...

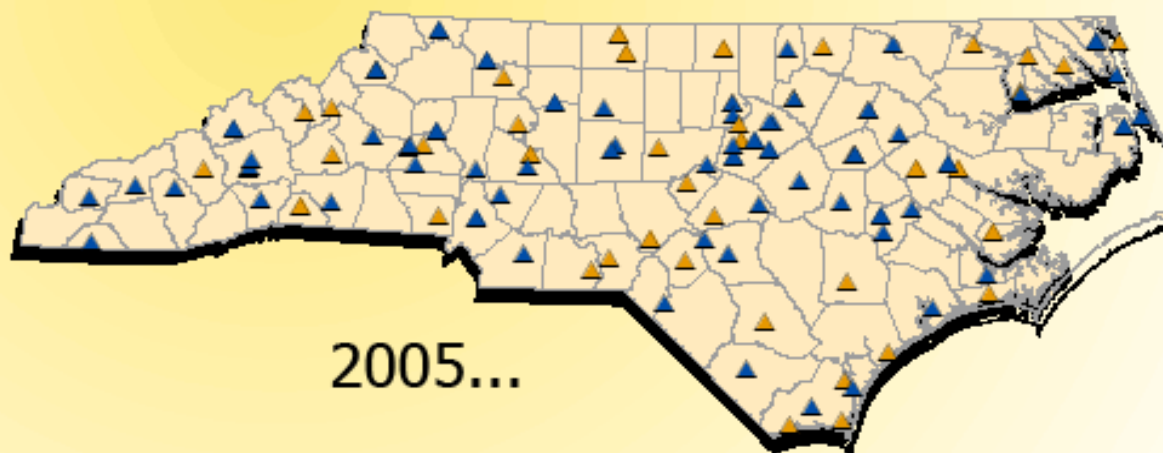
## Facility



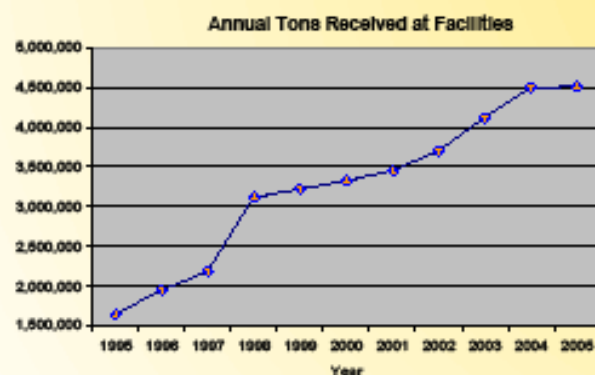
Receiving Waste in 1995



Started Receiving Waste Between 1996 and 2005



2005...



Created - 1-08-07

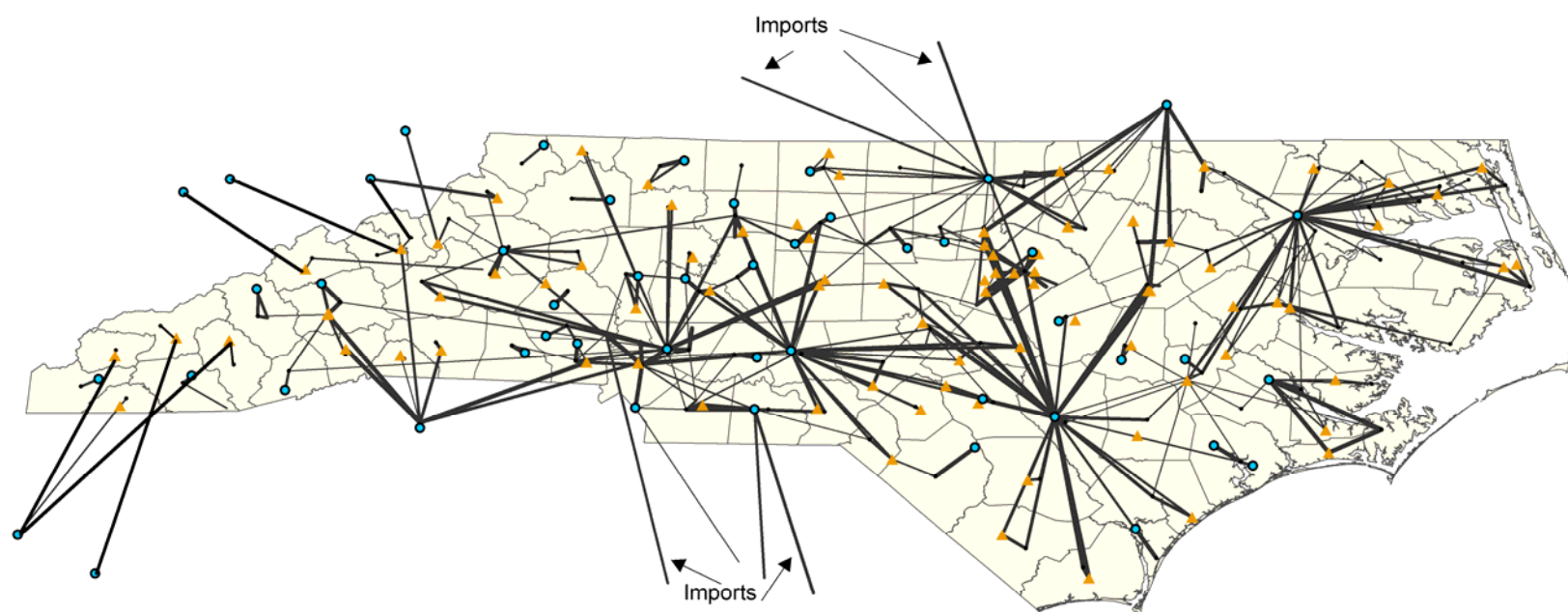
Data - North Carolina Division of Solid Waste Database

Map by - Garrett Davis and Environmental Finance Center - UNC Chapel Hill

Funding by - NCDENR

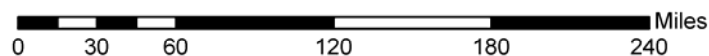


# Wasteflows in North Carolina > 500 Tons FY 2005 - 2006



## Tons

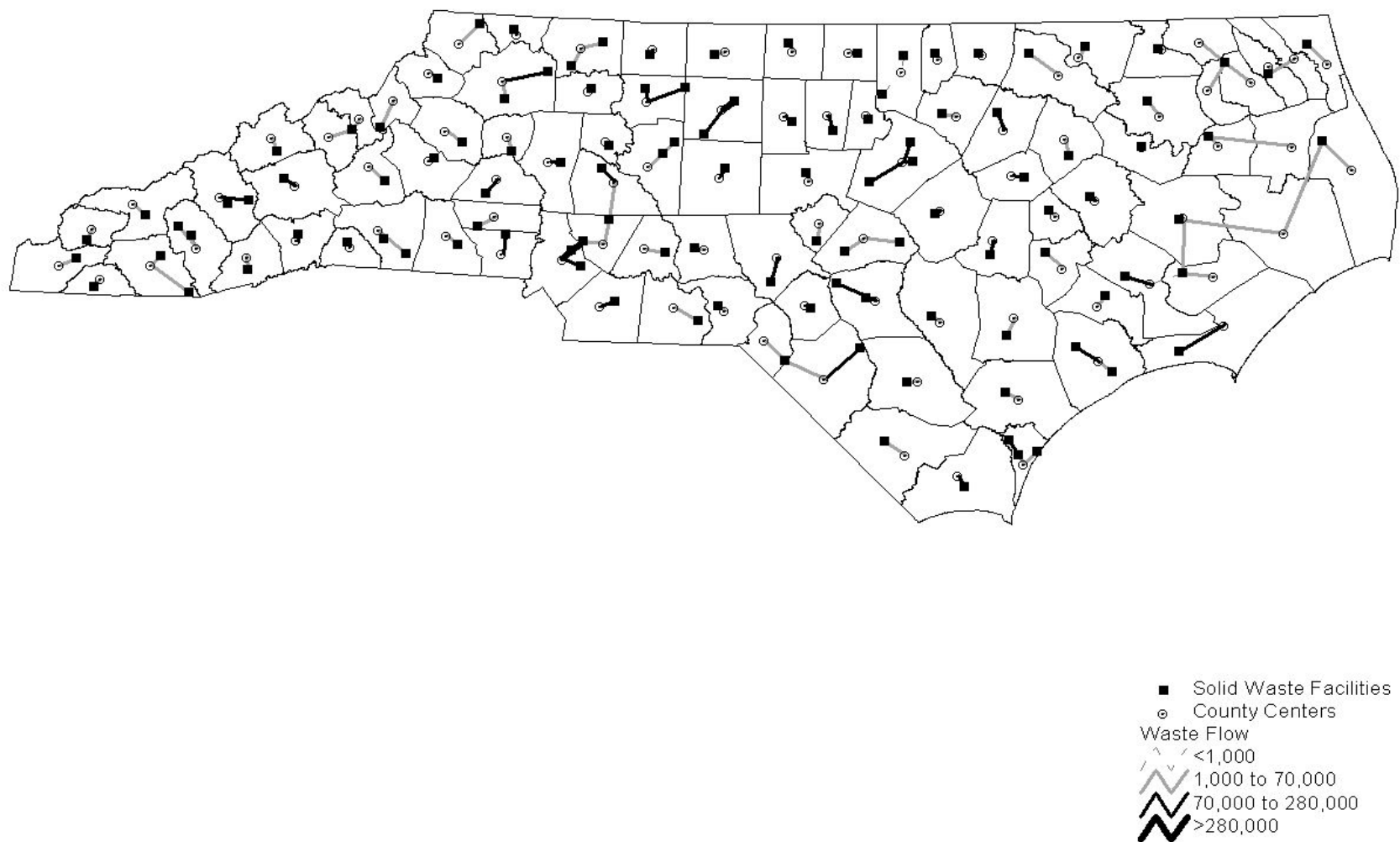
- 502 - 3127
- 3128 - 12795
- 12796 - 29598
- 29599 - 62731
- 62732 - 859588
- ▲ Open Transfer Stations
- Open MSW Landfills



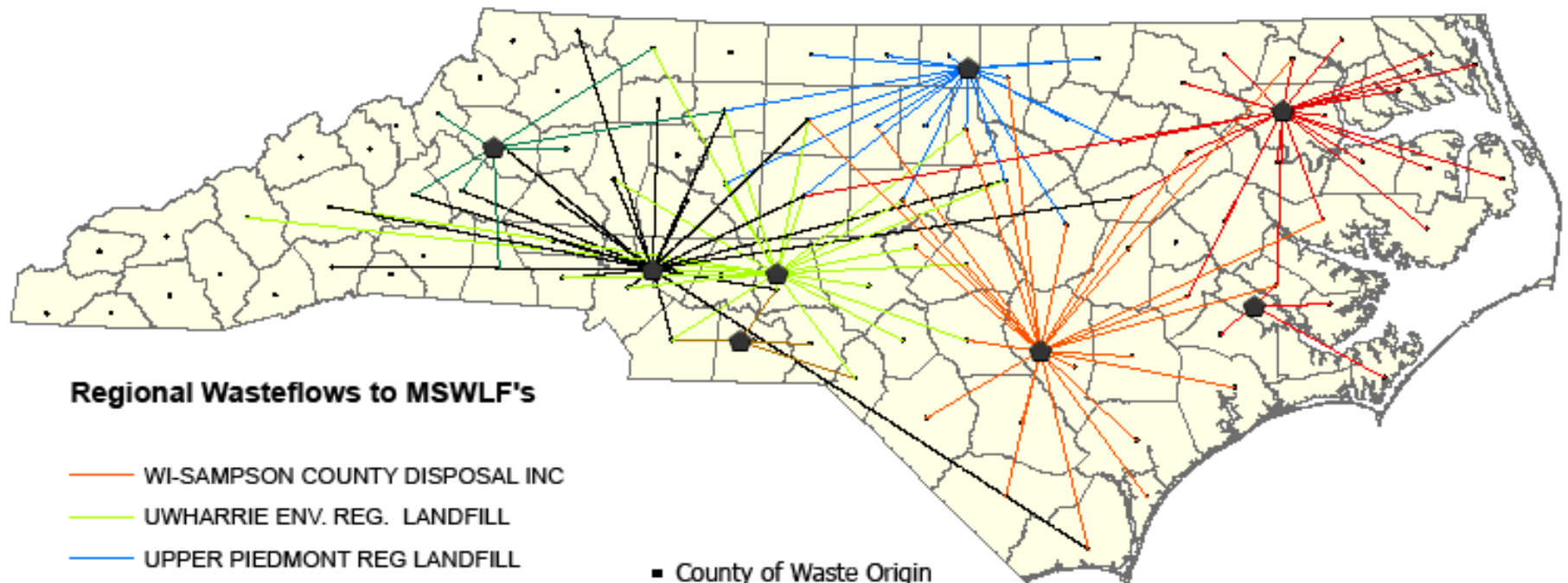
Map Produced March 1st, 2007 by Garrett Davis



## Municipal Solid Waste Flow FY 1990-1991



# Wasteflows to Regional Landfills in North Carolina For FY 2005-2006



## Regional Wasteflows to MSWLF's

- WI-SAMPSON COUNTY DISPOSAL INC
- UWHARRIE ENV. REG. LANDFILL
- UPPER PIEDMONT REG LANDFILL
- FOOTHILLS ENVIRONMENTAL LANDFILL
- EAST CAROLINA REG LANDFILL
- CRSWMA - LONG TERM REGIONAL LANDFILL
- CHAMBERS DEVELOPMENT MSWLF
- BFI-CHARLOTTE MTR SPEEDWAY LANDFILL V

Created - 1-08-07

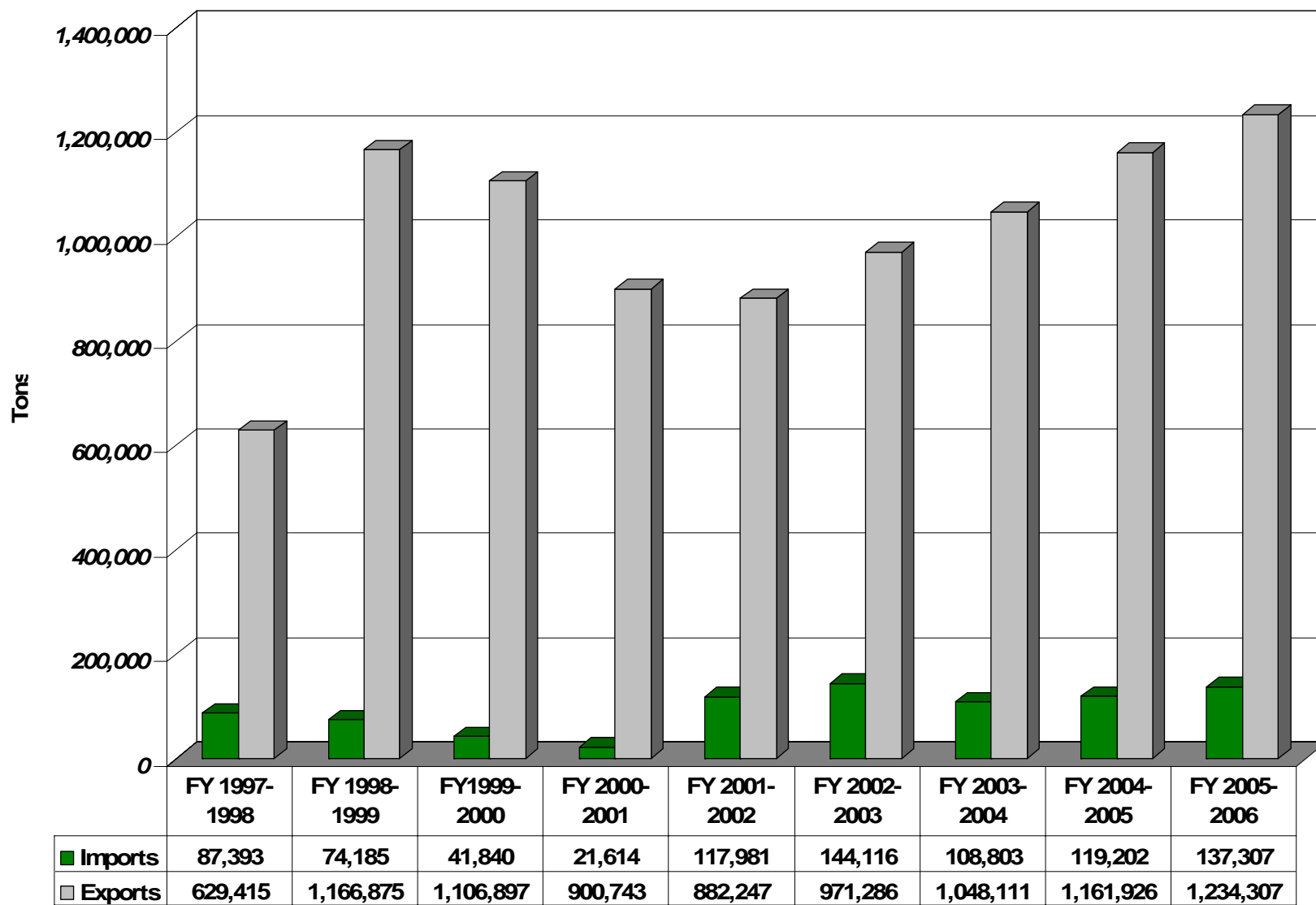
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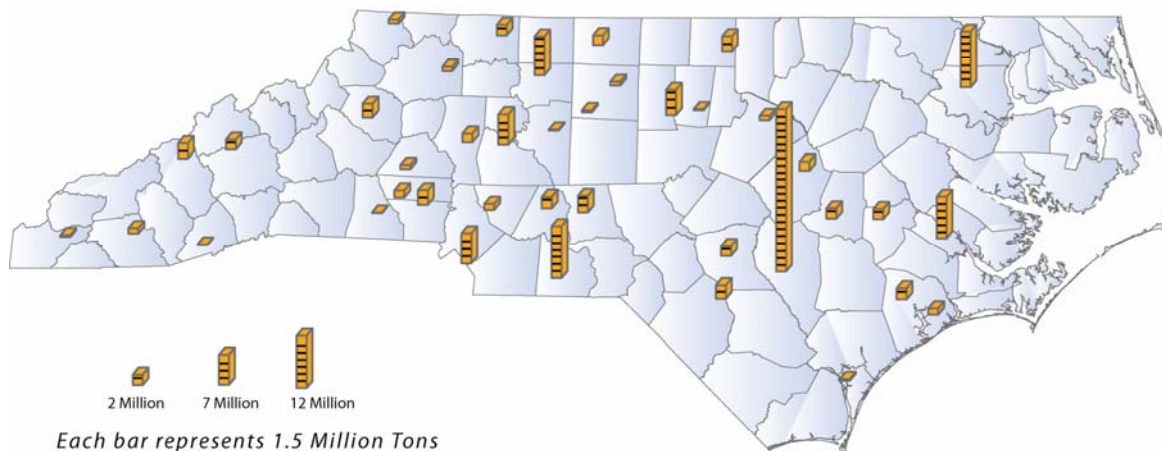
### Actual Imports / Exports



Fiscal Year

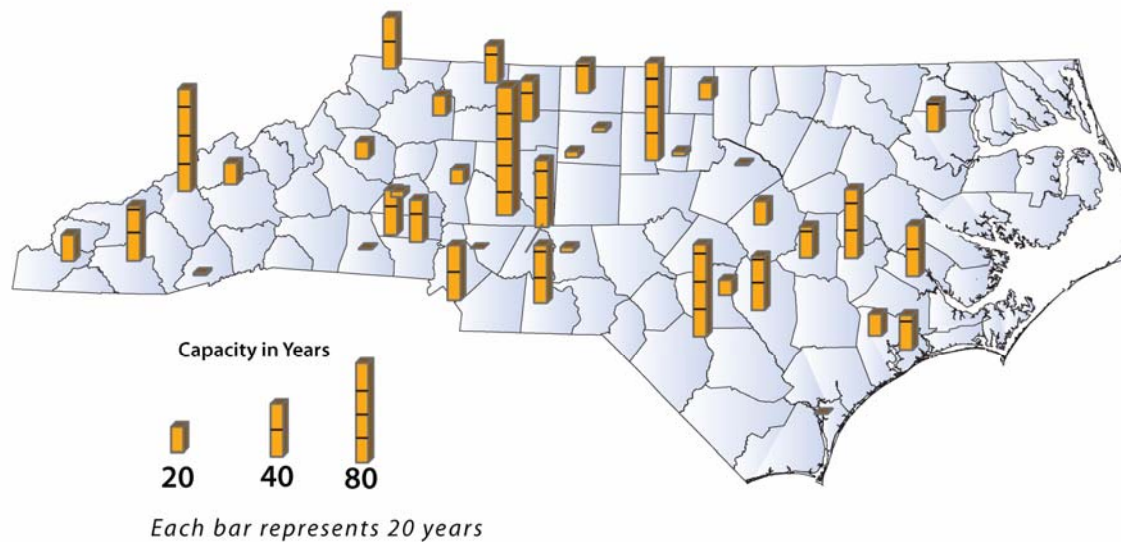
## Capacity in North Carolina Landfills as of FY 2005-2006

*Total Capacity in Tons*



## Capacity in North Carolina Landfills as of FY 2005-2006

*Total Capacity in Years*



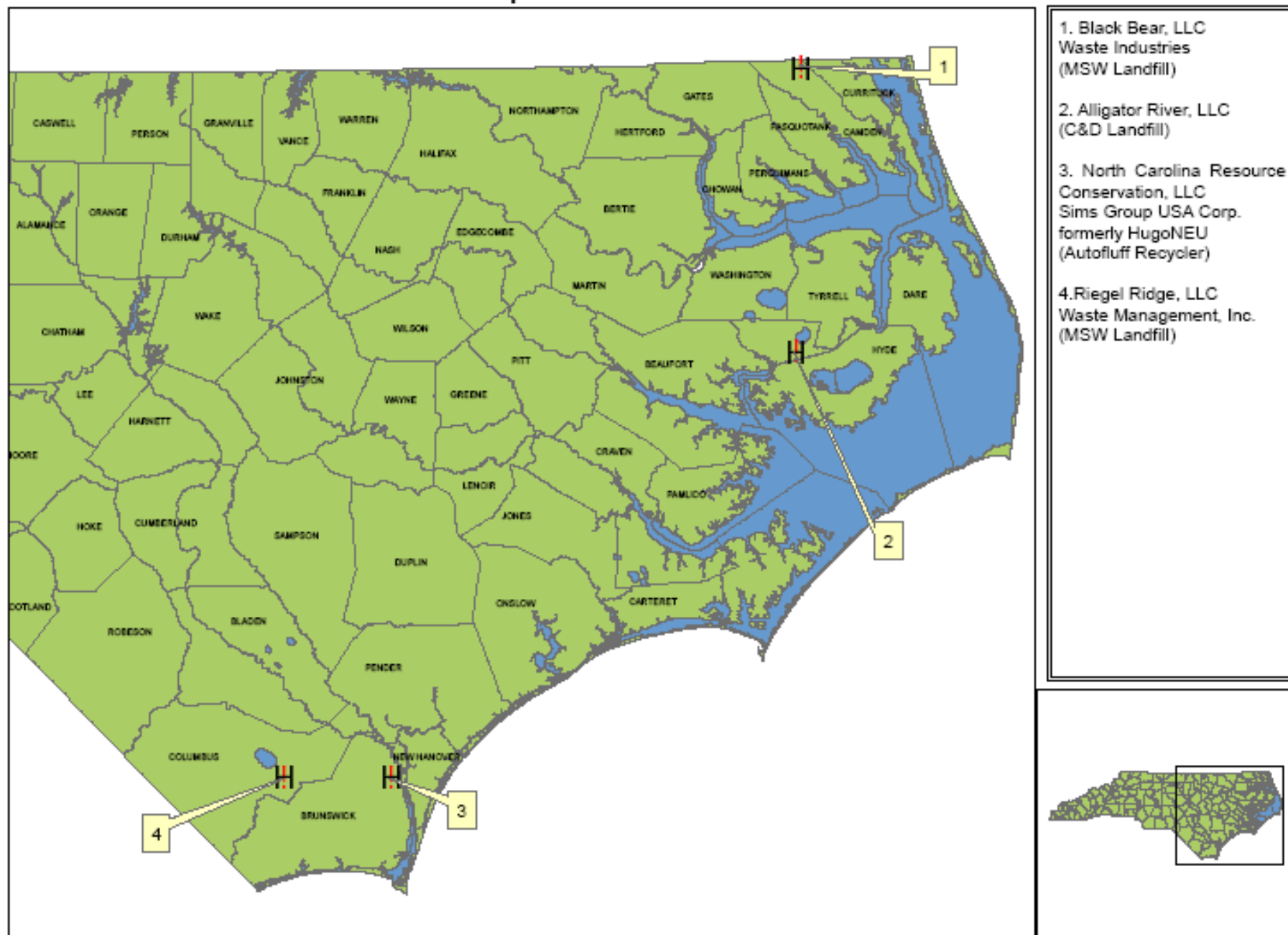


## State-wide Municipal Solid Waste Landfills (MSWLF)

40 MSW Landfills currently operating  
 Average facility size: 316.92 acres  
 Average waste footprint: 76.48 acres  
 Average "tip" fee: \$33.89  
 Average utilization factor: 0.58 tons/cubic yard  
 Average years in operation: 10.15 years

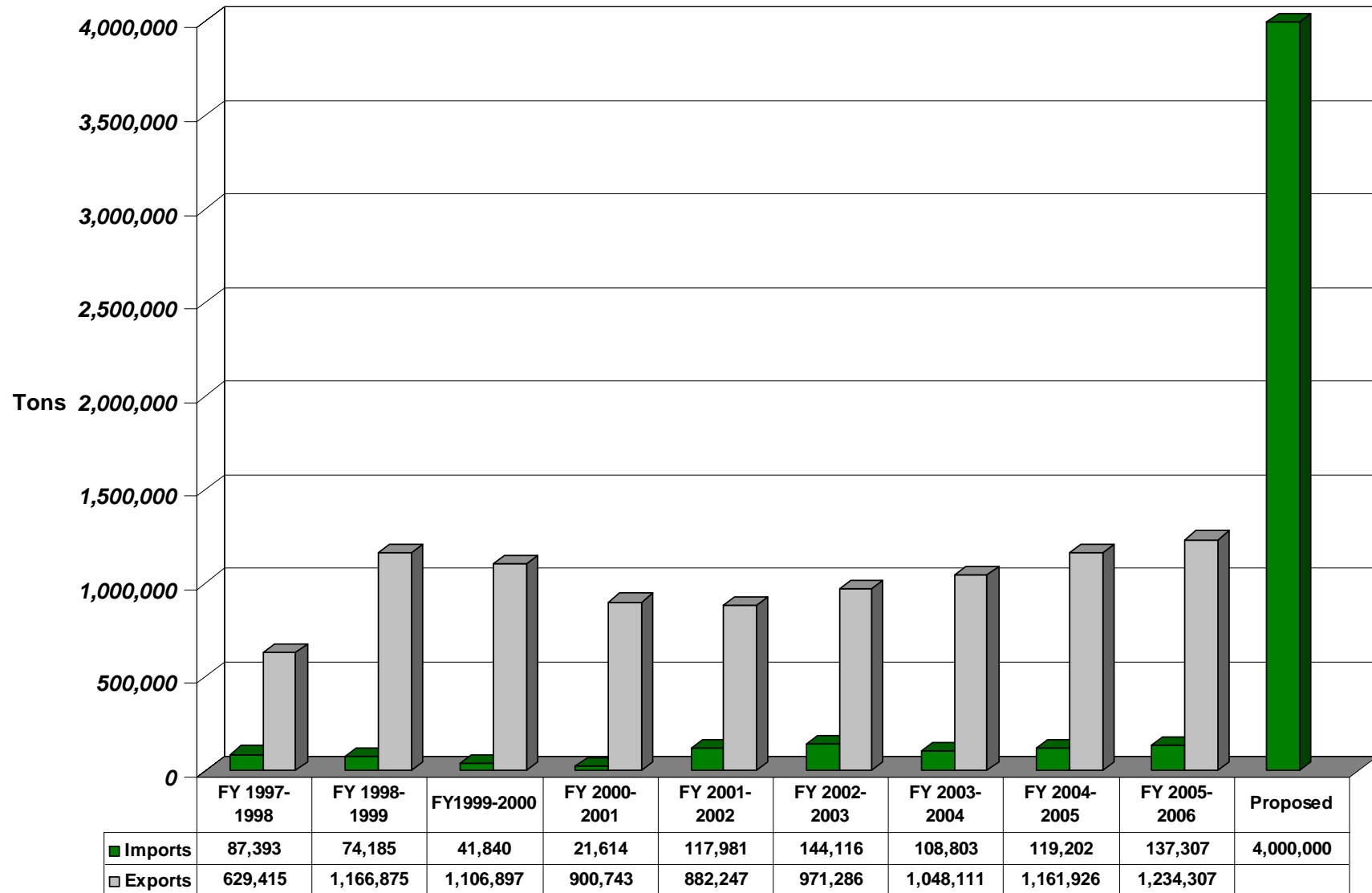
	<u>Average</u>	<u>FY2005-2006</u>	<u>Total</u>
<u>MSW Disposed (tons)</u>	6,608,556.96	7,910,640.27	67,076,853.11
	<u>Used</u>	<u>Permitted</u>	<u>Planned</u>
<u>Volume (yd<sup>3</sup>)</u>	110,647,868.6	143,447,772	372,022,542
Remaining Volume		32,799,903.4	261,374,673.4
<u>Remaining Capacity</u>			
Tons of Waste		19,023,943.97	151,597,310.6
Years (average)		2.89	22.94
Years (FY05-06)		2.40	19.16

### Proposed Landfills in Eastern North Carolina





## Forecast Imports / Exports



Fiscal Year

# North Wake MSW Landfill

Borrow pit

Leachate lagoon

Working face

Closed cell

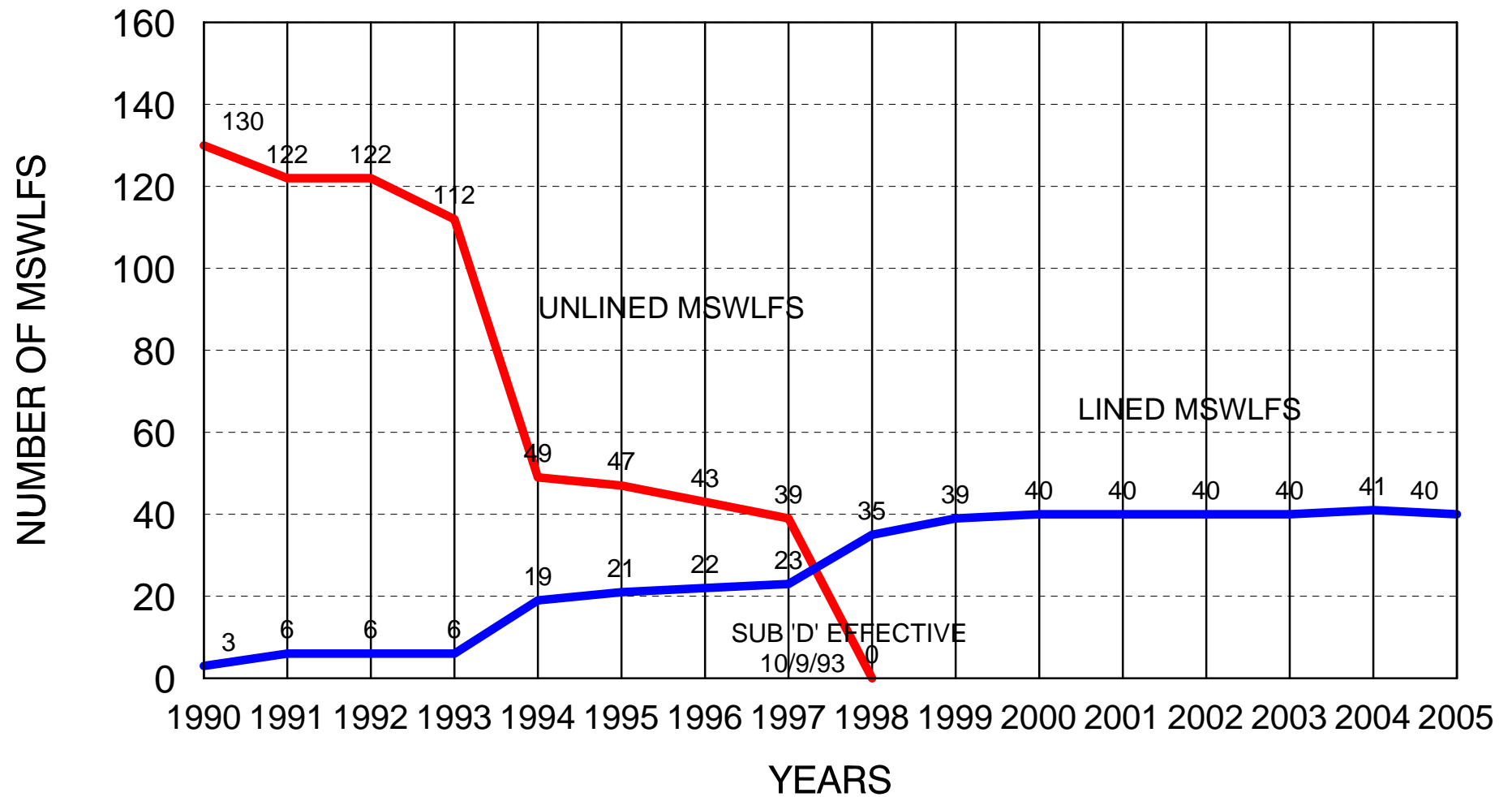


# Clay County, 1988





# STATUS OF MSWLFS IN NORTH CAROLINA



State lined landfill requirements (the 98 rule)

Federal Sub-title D Landfill requirements (RCRA)



# Solid Waste Management Act of 1989

Established:

Reporting requirements

Planning requirements

Landfill bans

New programs

Set goals and policies

garbage barge from New York City






Clay County, 2005







# Summary

## Issue Identification


- Increasing amount of waste
- Use of new/different facilities
- State regulatory staffing reductions
- Mobility of waste/inter-state movement
- Large in-state regional facilities
- Landfill ownership transfer
- Capacity (distribution & lack of acceptance)
- New landfills proposed for primarily out-of state waste
- Landfills proposed in areas not previously anticipated
- Legacy of old landfills

## Proposed legislation for 2007

1. Strengthen **financial/environmental qualifications** review
2. Strengthen **financial assurance** associated with landfill ownership
3. Clarify landfill **owner definition** and **ownership transfer** notification
4. Strengthen **state enforcement** measures
5. Improve/strengthen landfill requirements for the ***next generation*** of landfills
6. Improve/strengthen performance of **current landfills**
7. Require **environmental studies** for large facilities
8. Fund state regulatory **staff expansion** through permit fee
9. Fund **clean up of orphan landfills** through fee on solid waste disposal

\*Landfill requirements based on: experience in North Carolina, new technologies, need to provide improved protections to the public





# **Solid Waste in North Carolina**

## **The Future:**

### **More of the Same**

*(Probably continue to have more and more waste)*

### **Yet Very Different**

*(Probably become one of the nation's leading importers of waste)*



**Paul Crissman**

Solid Waste Section

Division of Waste Management

Department of Environment and Natural Resources

919.508.8497

[Paul.Crissman@ncmail.net](mailto:Paul.Crissman@ncmail.net)

[www.wastenotnc.org](http://www.wastenotnc.org)

