

Solid Waste Management Study Update

June 19, 2001

Prepared for the
City of Greensboro

Prepared by
HDR Engineering, Inc., of the
Carolinas

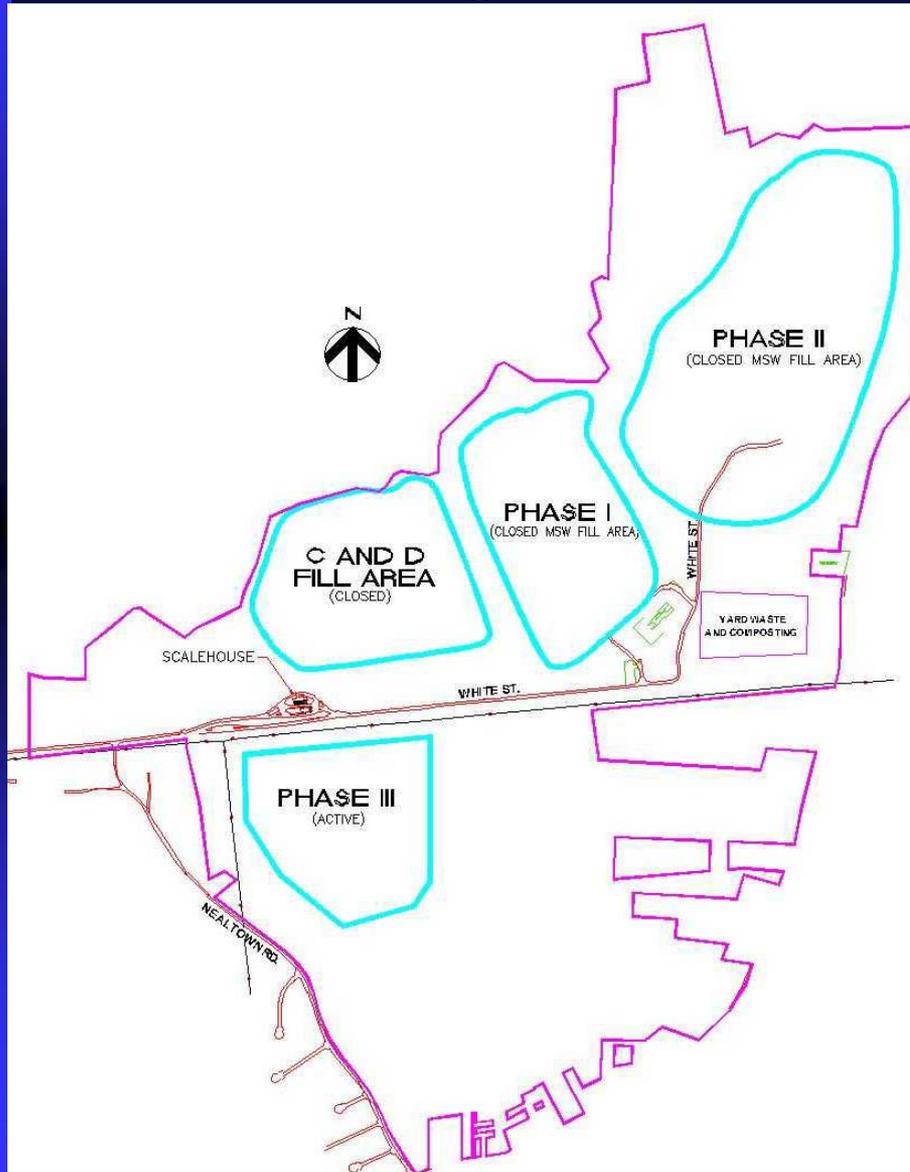
Purpose of this Report

- To evaluate long range disposal options available to the City of Greensboro
 - ◆ Partial update of the 1996 Solid Waste Study and 1997 Solid Waste Management Plan (SWMP)
 - ◆ Focuses on Municipal Solid Waste (MSW) disposed at White Street

Findings - 1996 Solid Waste Study and 1997 Plan

- Continue use of White Street and Kersey Valley Landfills (least cost)
- Consider formation of a Solid Waste Authority to develop new, in-County Landfill
- Monitor changes in Resource Recovery technology (highest cost)
- Expand Construction and Demolition (C&D) disposal capacity within the County

Planning Period



- This Update (and cost model) is based on a 20 year planning period, from 2007 to 2026

Disposal Options Overview

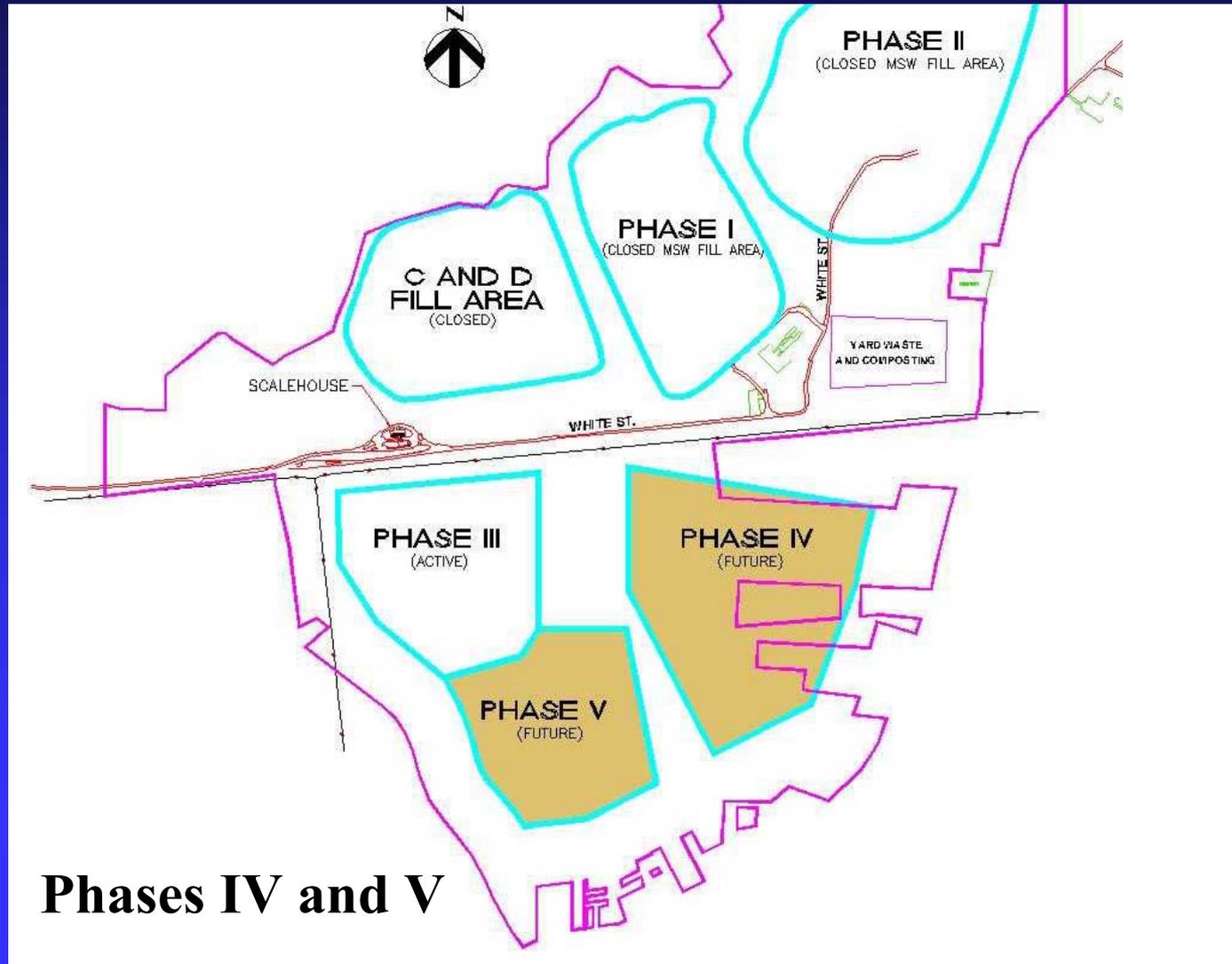
- Four disposal methods studied
 - ◆ Resource Recovery options
 - ◆ Continue at White Street (beyond Phase III)
 - ◆ New, in-County Landfill
 - ◆ Out-of-County disposal

Resource Recovery

- Options reviewed
 - ◆ Mass-Burn
 - ◆ Refuse Derived Fuel (RDF)
 - ◆ Waste Gasification
 - ◆ MSW Composting

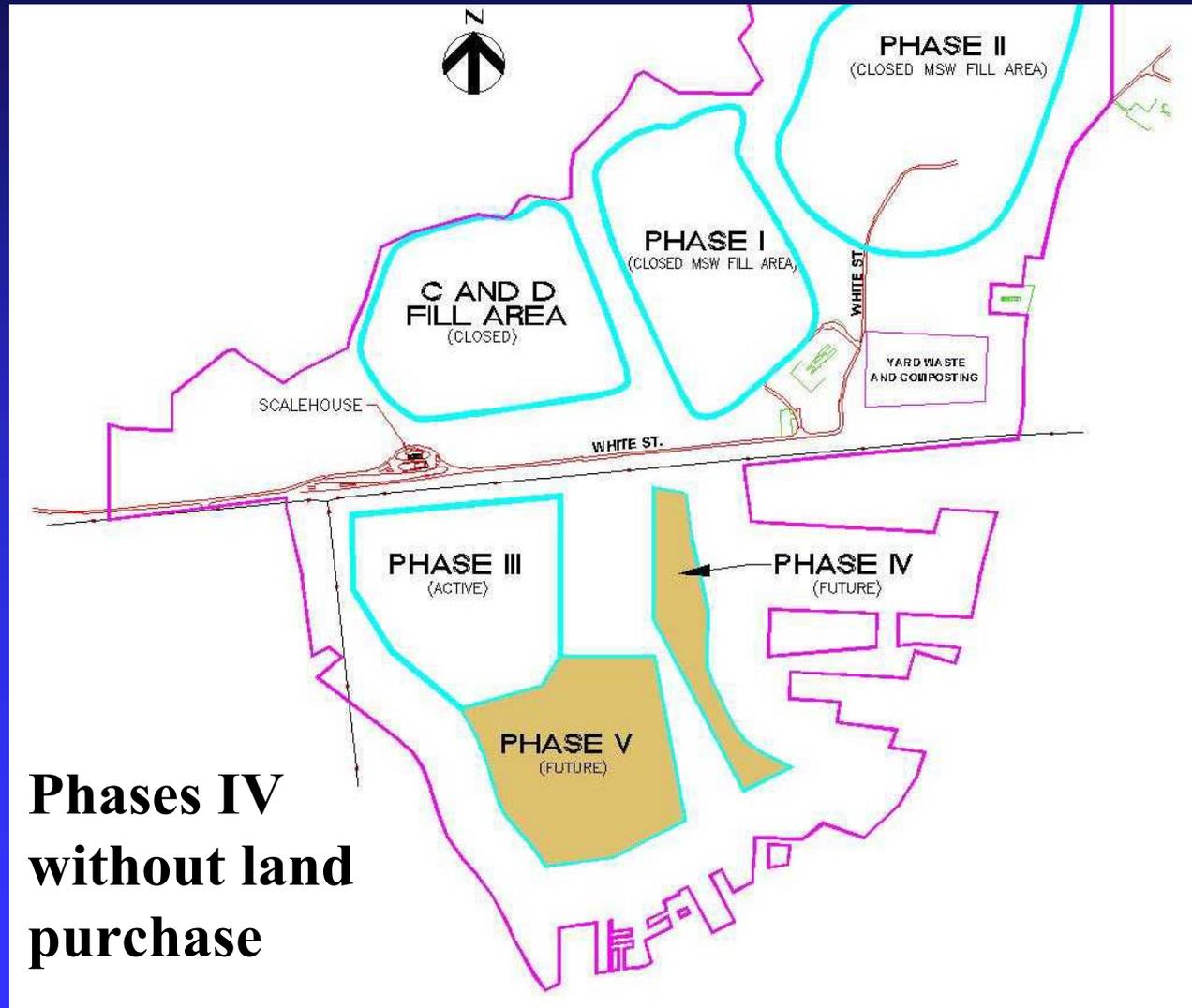
- Implementation issues
 - ◆ Regulatory criteria (emissions)
 - ◆ Flow Control important due to high capital cost

Disposal Option Continue at White Street



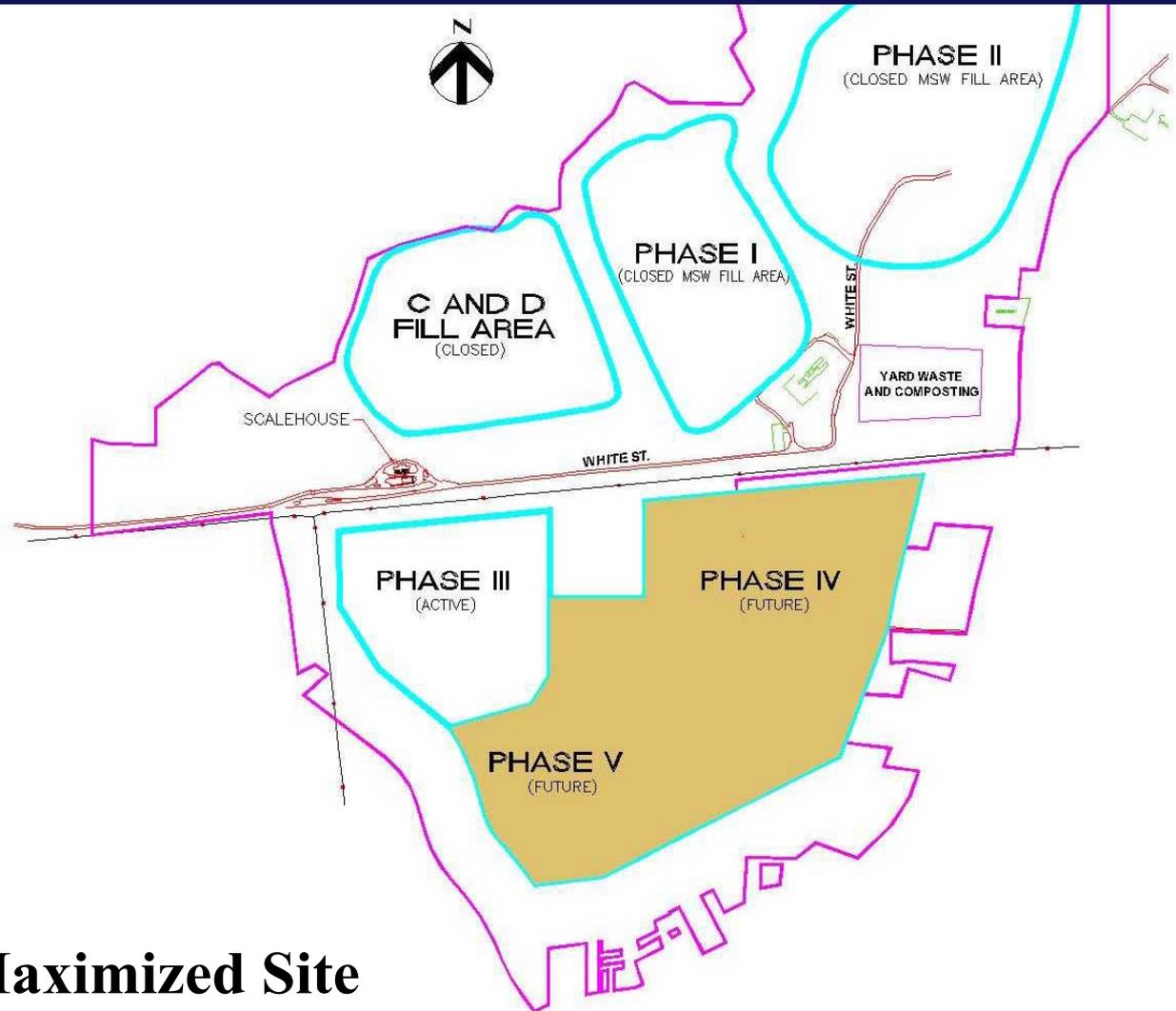
Phases IV and V

Disposal Option Continue at White Street



**Phases IV
without land
purchase**

Disposal Option Continue at White Street



Maximized Site

Disposal Option

New In-County Landfill

- 400 acre site (MSW only)
- 4 landfill units
- 120 acres lined for disposal

Out-of-County Disposal

- Option assumes waste goes to a landfill out of the County (public or private)
- Transfer stations needed to make long haul
- Public facilities
 - ◆ Cities of High Point and Winston-Salem, Rockingham, Davidson, and Alamance Counties
- Private facilities
 - ◆ Charlotte Motor Speedway (Concord), Uwharrie (Montgomery Co.), Upper Piedmont (Person Co.)

Disposal Cost Evaluation

- Focuses on MSW received at White Street
- C&D and Land Clearing and Inert Debris (LCID) not considered
- Annualized costs estimated, considering capital costs and operations and maintenance costs
- Report considers cost per ton to dispose of waste
- Collection costs not included
- Today's dollars (present value costs) used for comparison between options

Disposal Options- Financial Impact on Current Revenue Stream

DISPOSAL OPTION	ADDITIONAL ANNUAL REVENUE REQUIRED	COST PER HOUSEHOLD PER MONTH
Resource Recovery		
Continue at White Street		
New, In-County Landfill		
Out-of-County Disposal		

Disposal Options- Financial Impact on Current Revenue Stream

DISPOSAL OPTION	ADDITIONAL ANNUAL REVENUE REQUIRED	COST PER HOUSEHOLD PER MONTH
Resource Recovery	\$18.2 - \$21.4 M	\$26.00 - \$31.00
Continue at White Street		
New, In-County Landfill		
Out-of-County Disposal		

Disposal Options- Financial Impact on Current Revenue Stream

DISPOSAL OPTION	ADDITIONAL ANNUAL REVENUE REQUIRED	COST PER HOUSEHOLD PER MONTH
Resource Recovery	\$18.2 - \$21.4 M	\$26.00 - \$31.00
Continue at White Street	\$2.5 - \$3.0 M	\$3.60 - \$4.30
New, In-County Landfill		
Out-of-County Disposal		

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New, In-County Landfill	\$4.3 - \$5.7 M	\$6.20 - \$8.10
Out-of-County Disposal		

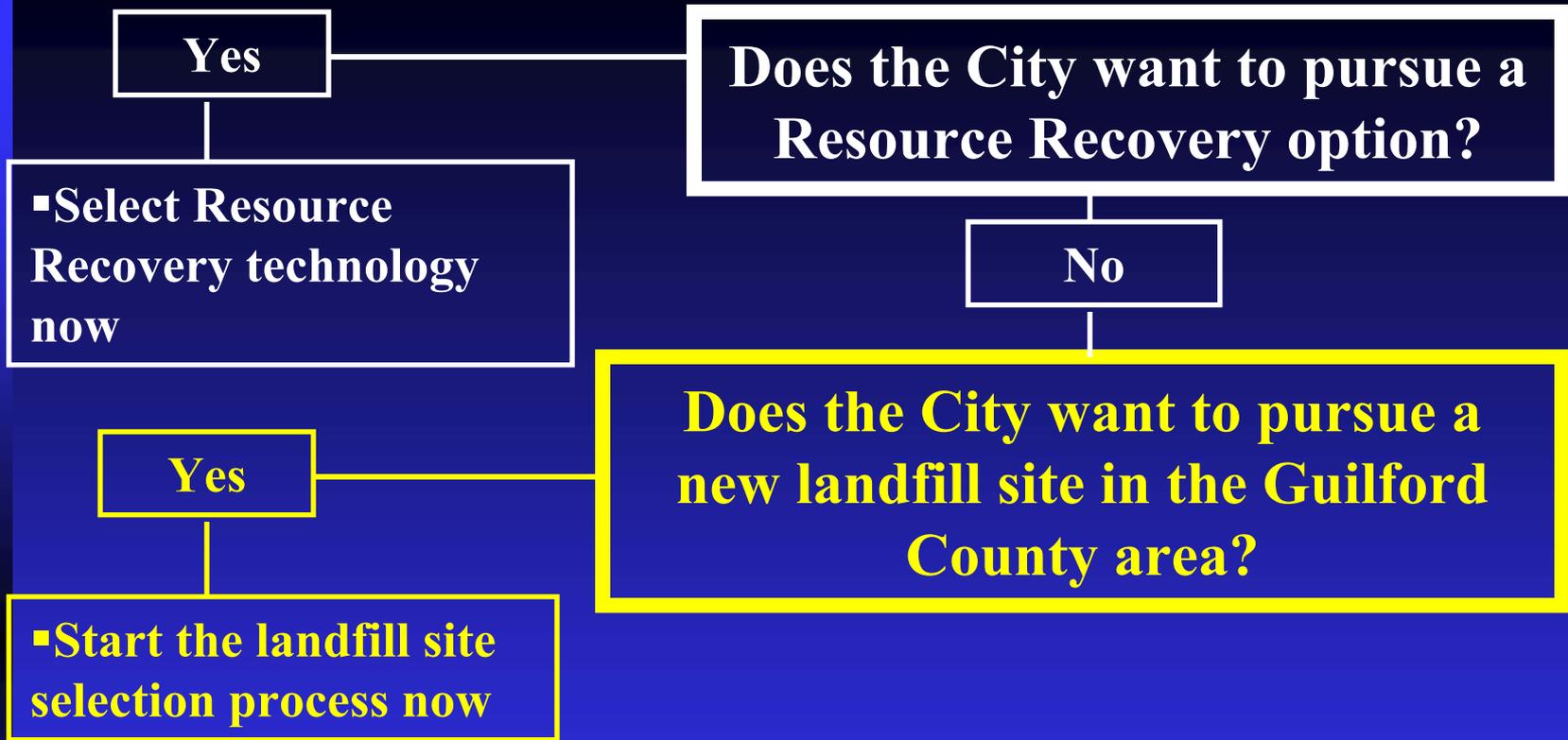
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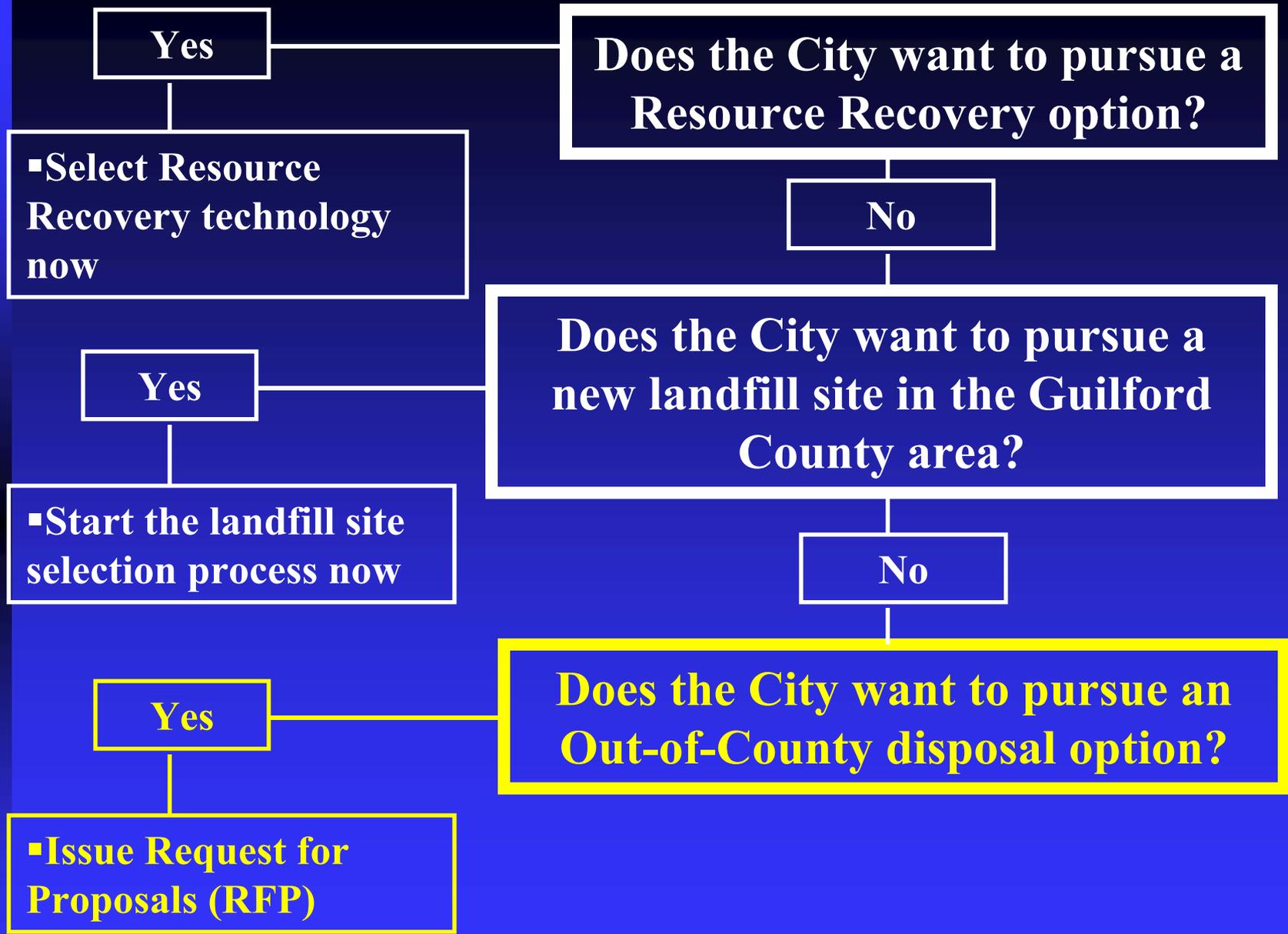
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Out-of-County Disposal	\$6.5 - \$9.3 M	\$9.40 - \$13.30

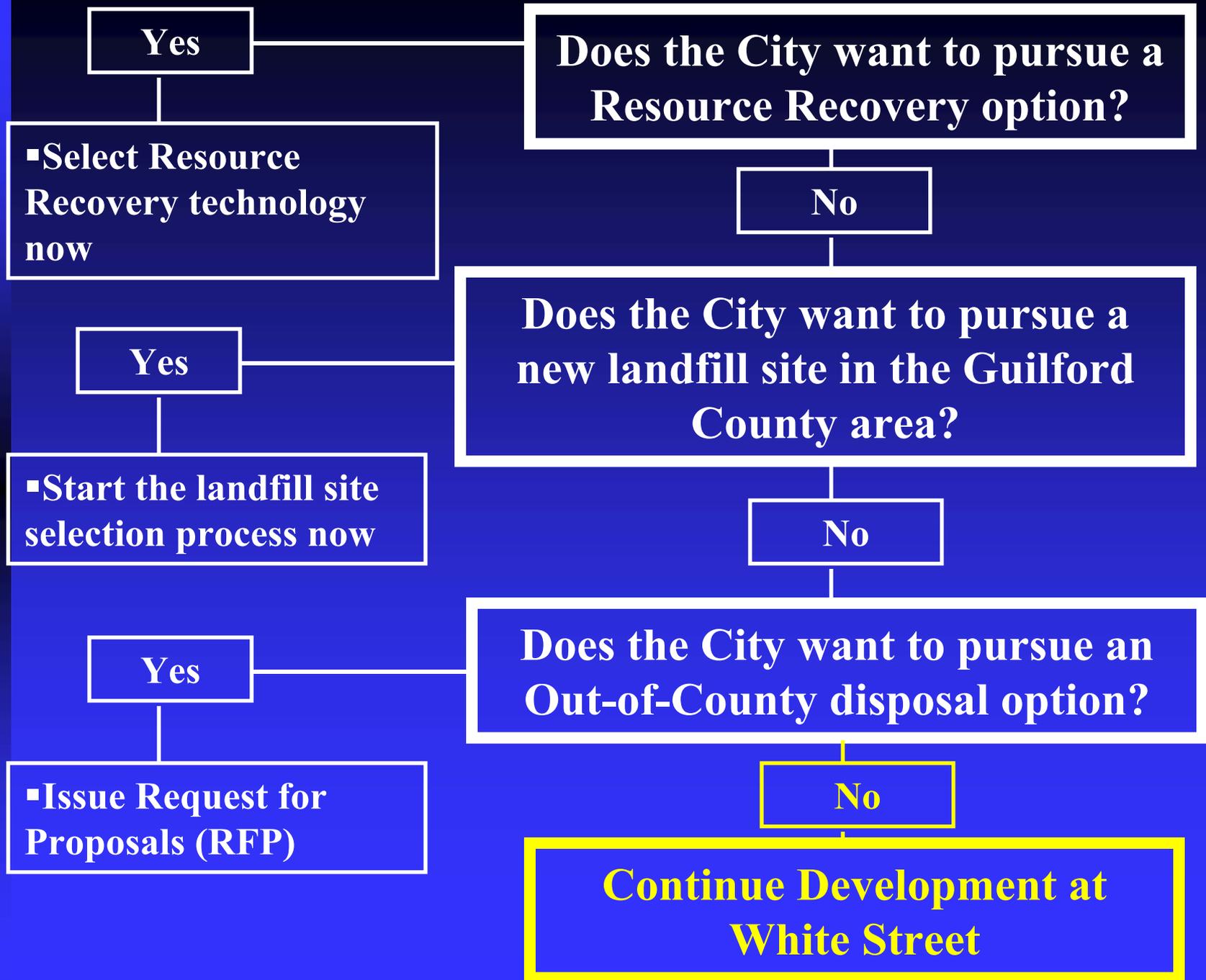
Yes

**Does the City want to pursue a
Resource Recovery option?**

**▪Select Resource
Recovery technology
now**







Summary of Costs

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Disposal Option Timelines

- ◆ Resource Recovery 6-10 years
- ◆ Continue at White Street 4-8 years
- ◆ New, in-County Landfill 5-11 years
- ◆ Out-of-County disposal 3-5 years

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 - ◆ New, in-County Landfill 5-11 years
 - ◆ Out-of-County disposal 3-5 years
- ◆ *2007 is 6 years from now*

Questions?