

# KINSTON'S DISASTER RECOVERY: SMART/SAFE GROWTH

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# Smart/Safe Growth

- **Safe growth actions**

- Identify vulnerability
- Plan ahead
- Avoid hazard areas
- Conserve natural areas
- Mitigate hazards
- Relocate people, facilities

- **Smart growth goals**

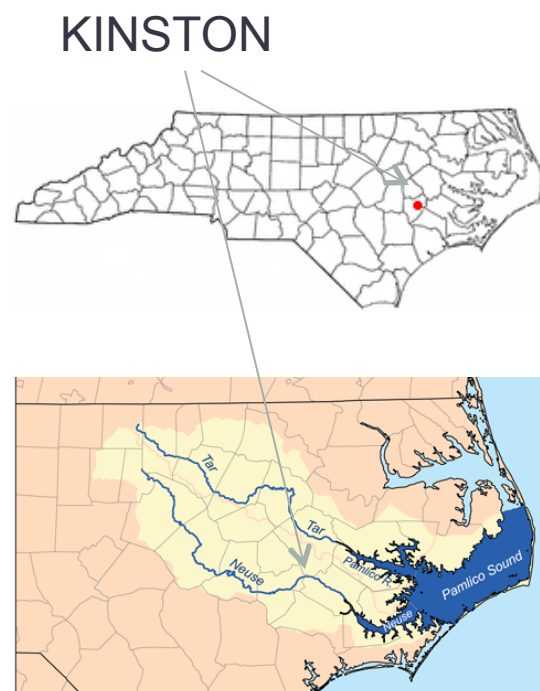
- Compact urban areas
- Preserve open space
- Livable communities
- Walkable neighborhoods
- Affordable housing
- Resiliency
- Sustainable development

# Disasters as Smart/Safe Growth Opportunities

- Kinston, NC--struck by two hurricanes: Fran 1996 & Floyd 1999
- Kinston used disasters as *windows of opportunity* to increase community safety, sustainability, & resilience
  - Relocated households from floodplain to safe locations with FEMA flood buy-out funds
  - Changed floodplain to conservation area with NC Clean Water Management Trust Fund grant
  - Created regional park and greenway along Neuse River

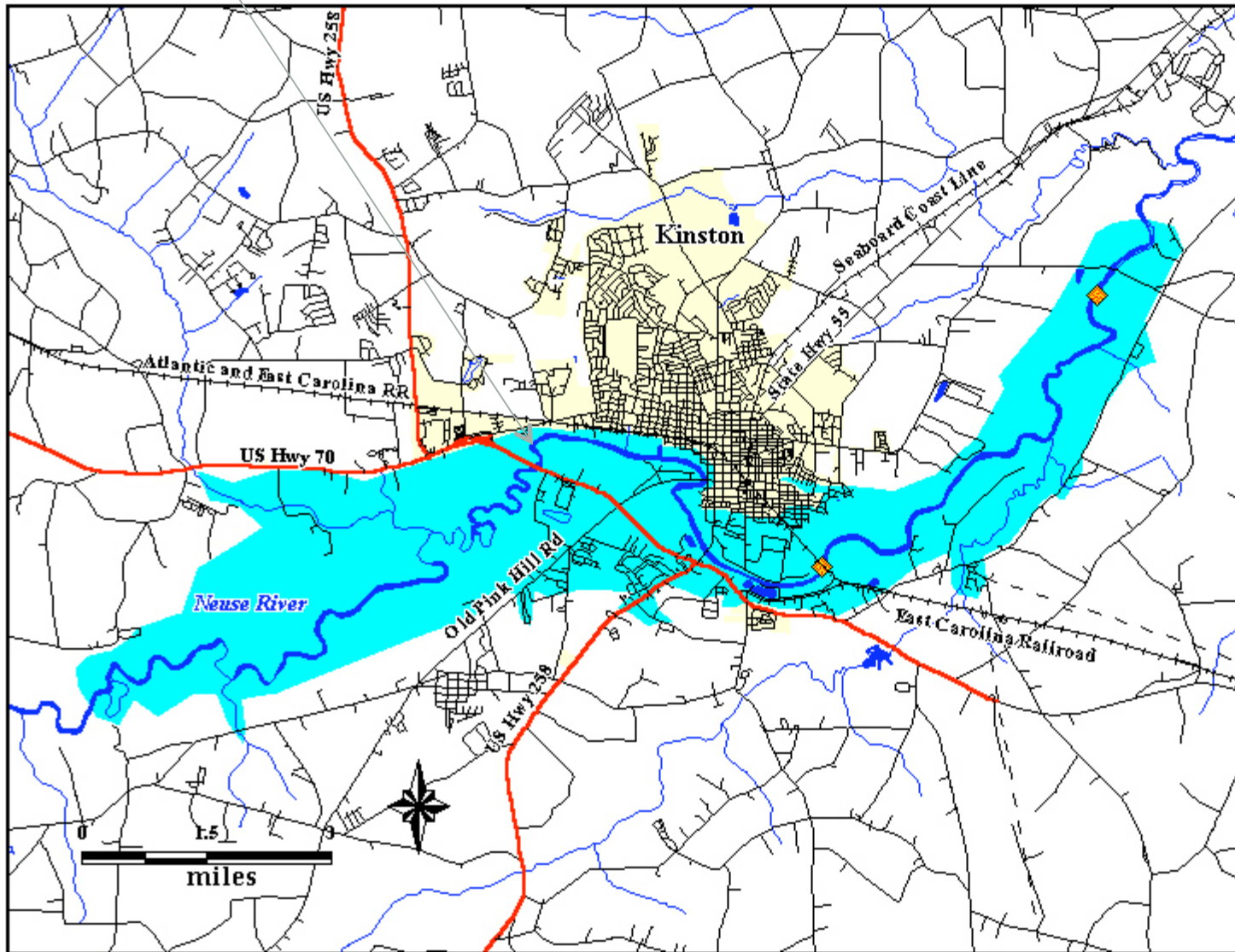
# Kinston Smart Growth Hazard Mitigation Plan

- City of 23,688 located on Neuse River in eastern NC
- Recovery Strategy
  - Build back inside city
  - Maximize use of infrastructure
  - Provide safe housing
  - Relocate and elevate
  - Redevelop neighborhoods
  - Create green space in flood hazard areas
- Losses avoided in Floyd alone = **\$6.4 million**

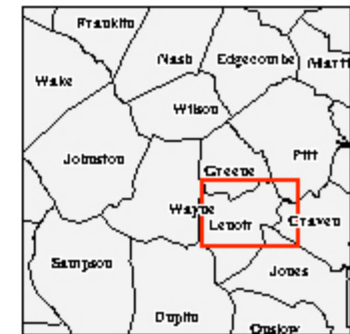


# Flooding from Hurricane Floyd

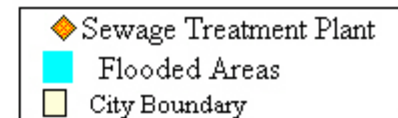
## FEMA-1292-DR, North Carolina Remote Sensing - City of Kinston as of 9/26/99



Location Map



Legend



ITS Mapping and Analysis Center  
Washington, DC  
9/27/99 -- 1100EDT

Estimated Number in Flooded Area:  
Population: 3268    Housing Units: 1411

# Forrest Street in Kinston Before Hurricane Floyd

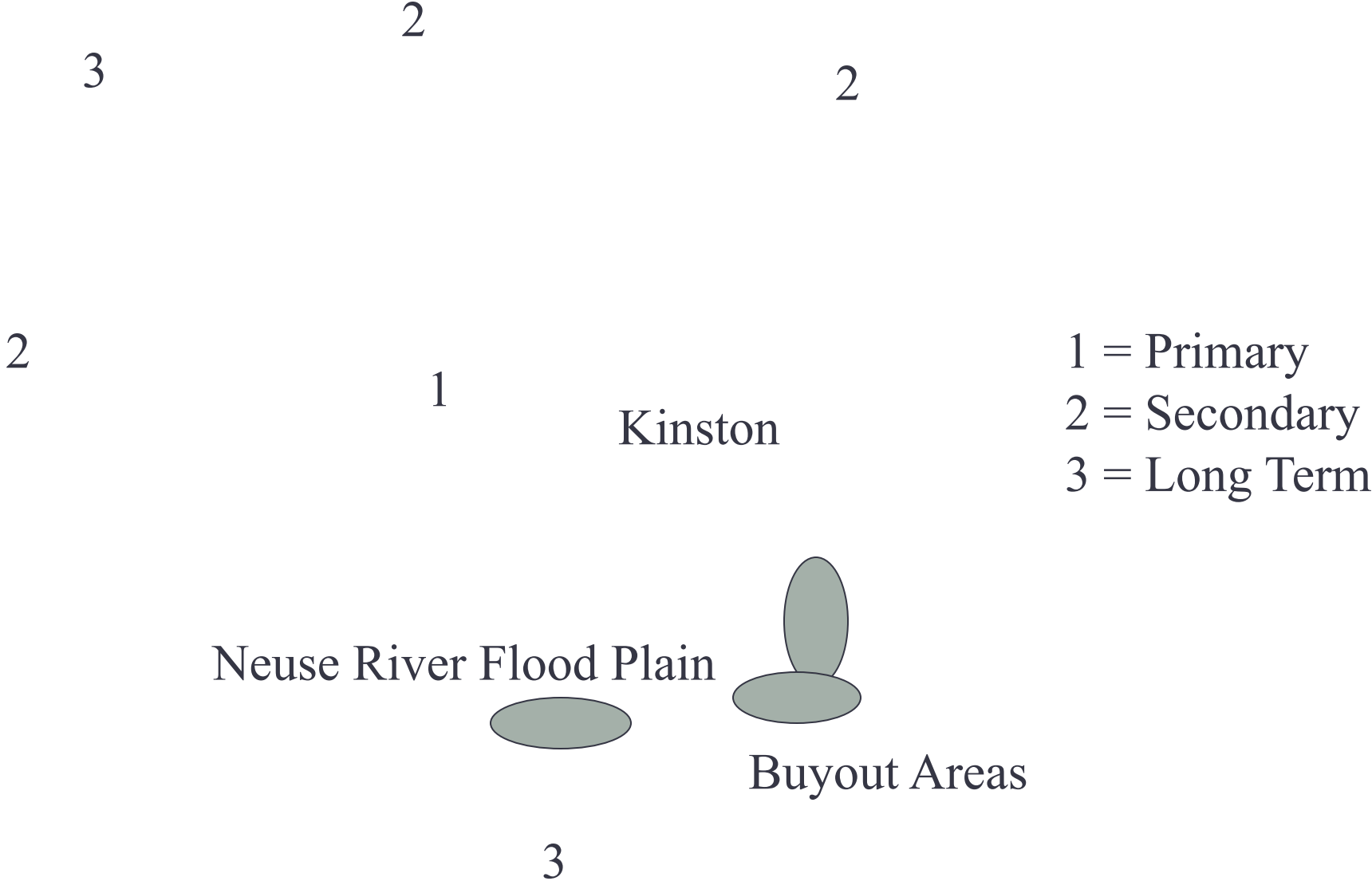


# Forrest Street in Kinston After Hurricane Floyd



# Kinston Smart Growth Plan

Greater Kinston Smart Growth Plan 2000-2010





City of Kinston  
Clean Water Management Trust Fund  
Grant Application Project Area

**Total Project Area  
855.71 acres**

- City Properties w/o Easement - 268.11 ac.
- Kinston Easements - 277.67 ac.
- Kinston/FEMA Easements - 127.78 ac.
- CWMTF Acquisitions/Easements - 182.15 ac.
- 1000' Neuse Buffer
- Adkin Branch
- Project Boundary
- 300' Adkin Buffer
- Lenoir County Property

Central Business District

Neuse River

Church

Adkin Branch

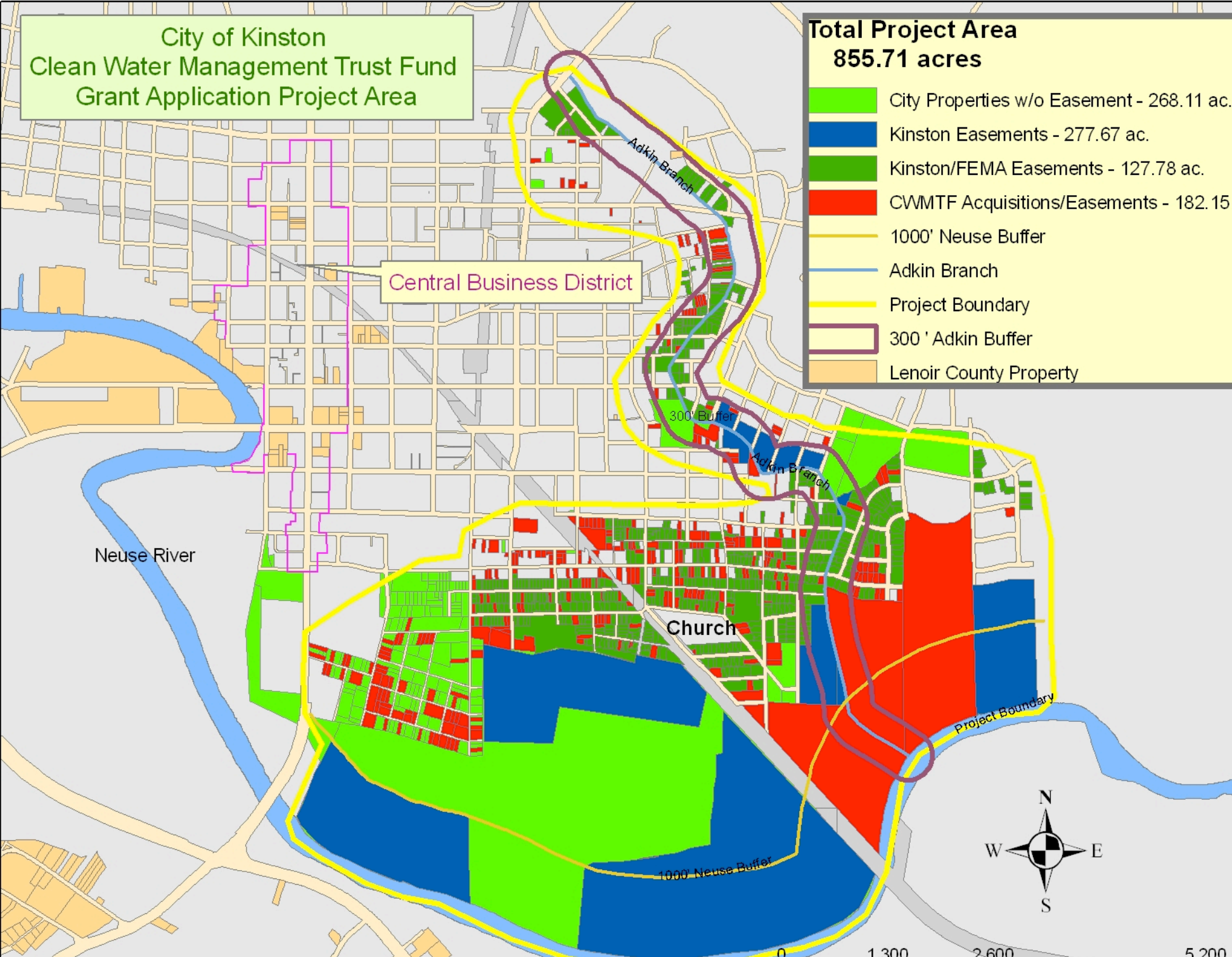
300' Buffer  
Adkin Branch

Project Boundary

1000' Neuse Buffer



0 1,300 2,600 5,200 Feet



# Retrofitting Green

## City of Kinston, NC Flood Plain Preservation & Conservation Plan

### Official Map

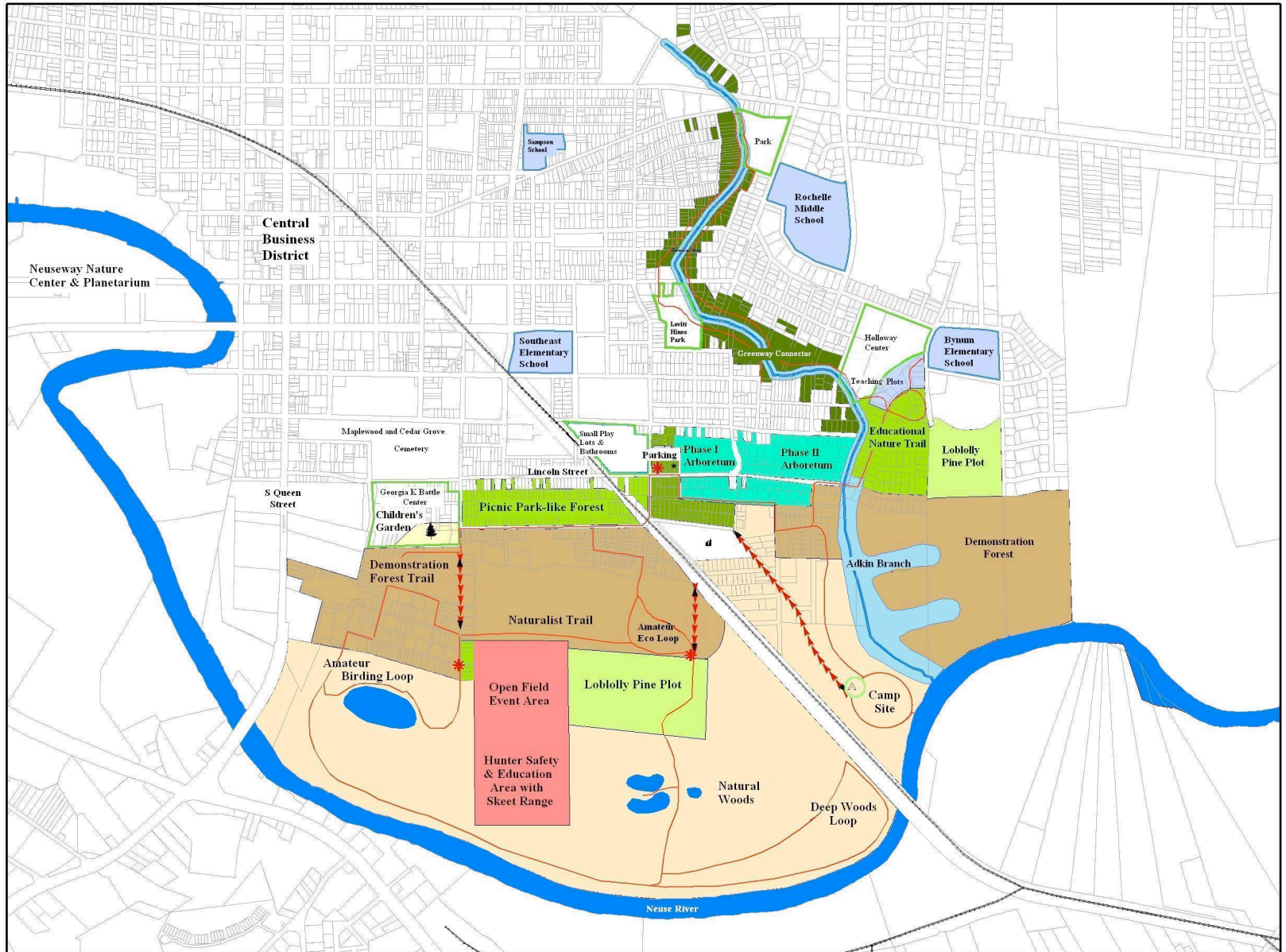
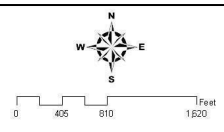
Adopted \_\_\_\_\_, 2005

**Legend**

- Parking and Trailhead
- Trailhead-Parking
- Amphitheater
- Access Route
- Greenway Trail
- Camp Site
- Group Camp
- Athletic Park
- Teaching Plot
- Loblolly Pine Plot
- Skeet Range
- Educational Garden
- Greenway Area
- Natural Woods
- Phase I Arboretum
- Phase II Arboretum
- Picnic Parking
- Picnic/ Park Like Forest
- Natural Woods
- Demonstration Forest

**Legend**

- Tabernacle
- Schools
- Railroad
- Hydrology
- Buffers (50')



# Implementing the Recovery Vision

- Kinston Vision:
  - Moving people & property out of harm's way
  - Reclaiming river as community amenity
- Kinston Plan-making:
  - City and NC Forestry staff & citizens group
  - Plan adopted by City Council
- Turning Vision into Reality:
  - Acquired floodplain houses with FEMA buyout funds: Fran—420, Floyd—1210
  - Buying 174 additional parcels of vacated floodplain land for new regional park & greenway with NBC Clean Water Management Trust Fund grant

# References

- D. R. Godschalk. "Natural Hazards, Smart Growth, and Creating Resilient and Sustainable Communities in Eastern North Carolina," in *Facing Our Future: Hurricane Floyd and Recovery in the Coastal Plain*, John Mailo et al., eds., pp. 271-282. (Wilmington, NC: Coastal Carolina Press, 2001).
- NC Emergency Management Division, 1999. Hazard Mitigation Successes in the State of North Carolina. Raleigh: Department of Crime Control and Public Safety.
- Personal communication. Scotty Hill, Assistant Town Manager, City of Kinston, Jan. 24, 2011.