



# ***Update on the NC Nutrient Criteria Development Plan***

Dianne Reed, Environmental Sciences Section Chief  
NC Division of Water Resources

Protect/Restore Track  
Ballroom B  
3:45 - 4:15 pm

# Agenda

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- Background
- Recent Activities
- The Plan
- Comments
- Next Steps



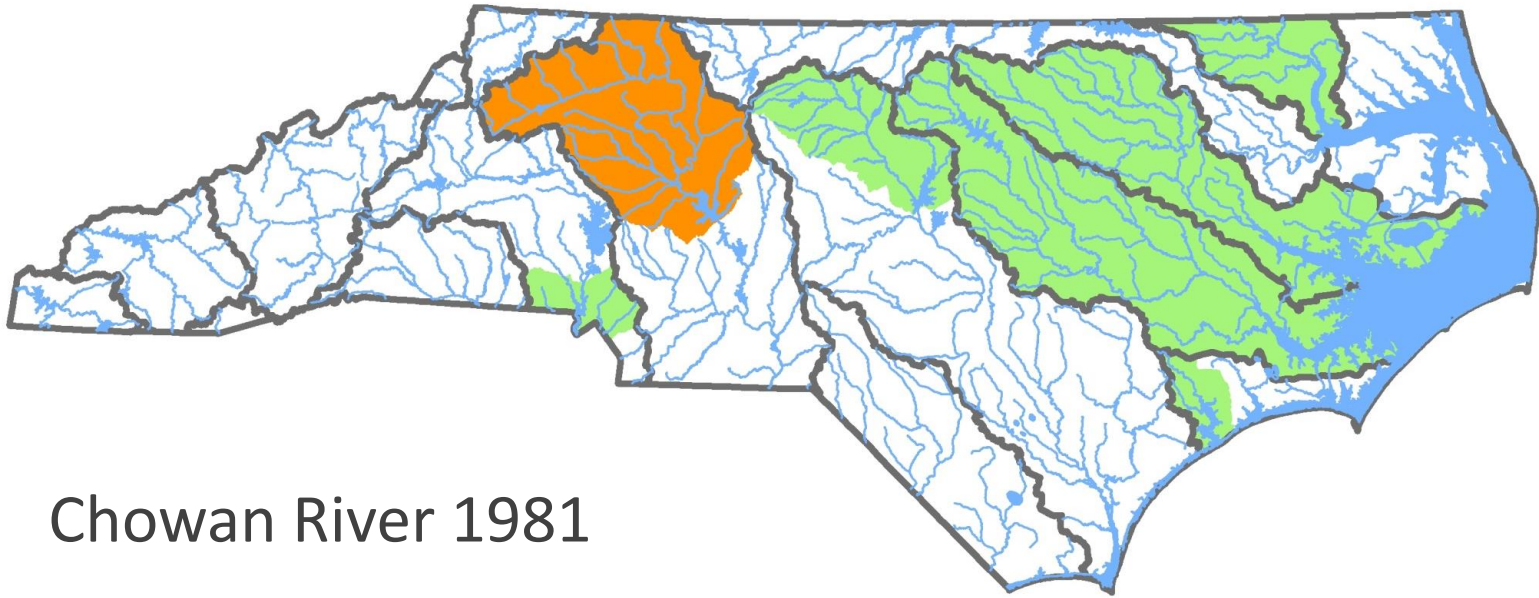


# Nutrients = Nitrogen + Phosphorus

Over-enrichment can lead to algae blooms, fish kills

# NC Nutrient Management History

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Chowan River 1981

Tar Pamlico 1991

Lake Wylie 1996

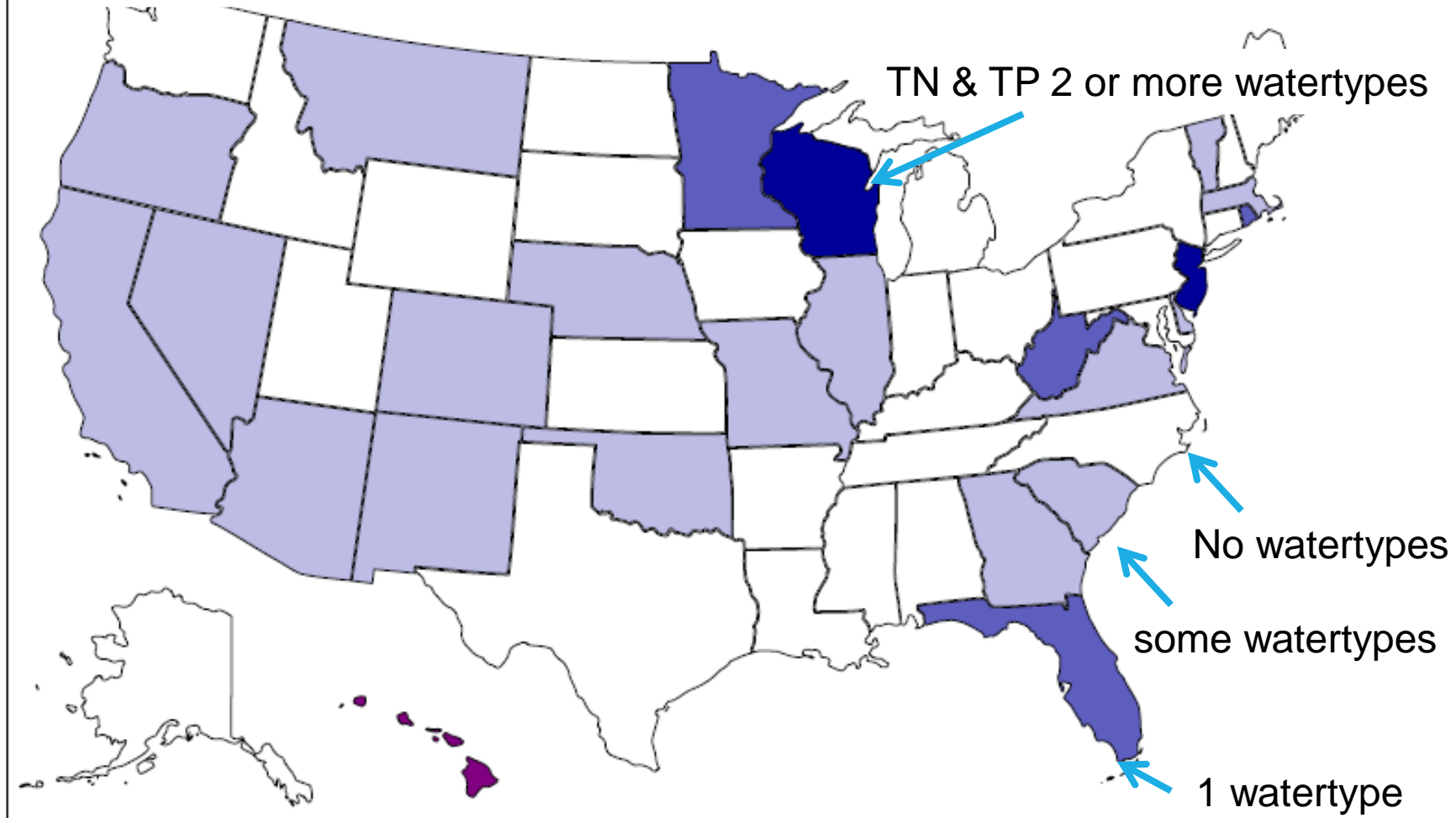
Neuse River 1997

Jordan Lake 2009

Falls Lake 2010

High Rock Lake ?

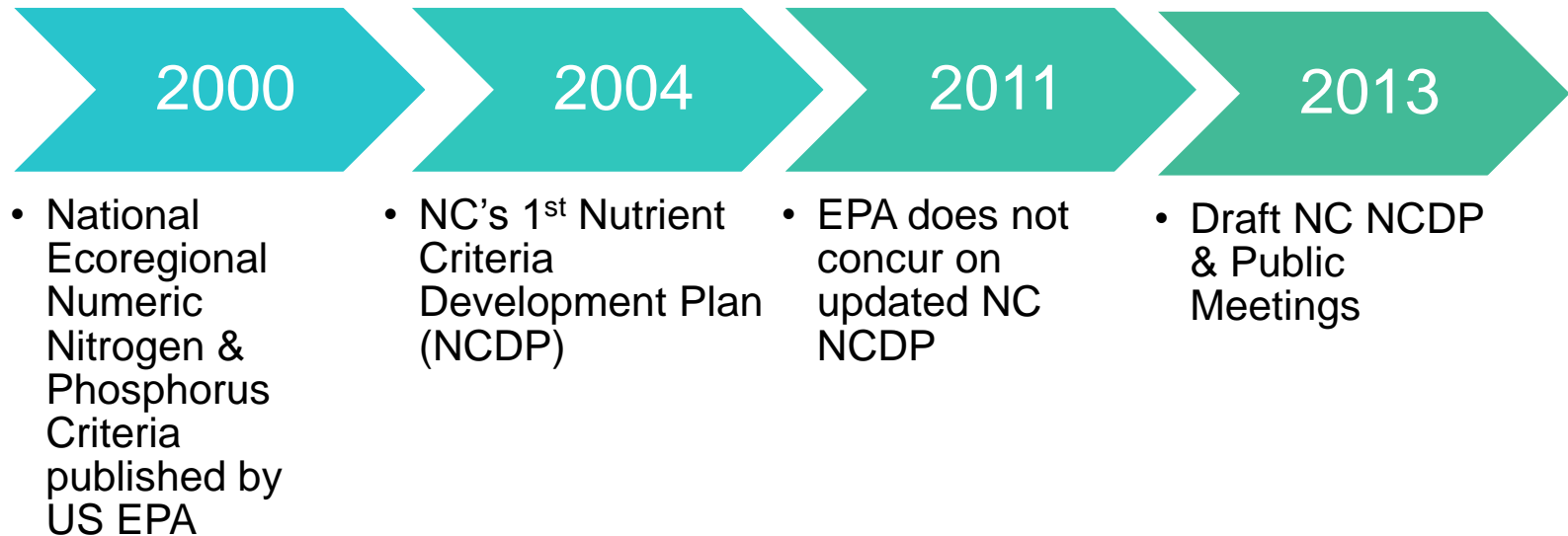
# States with Total Nitrogen or Total Phosphorus Criteria Current as of 2012



Source: <http://cfpub.epa.gov/wqsits/nnc-development/index.html>

# Nutrients, EPA & NC

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# Recent EMC Activities

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January 2009 – January 2011

- ✓ Proposed modified chlorophyll *a* criteria

May 2012

- NC Forum on Nutrient Over-Enrichment

# Nutrient Over-Enrichment Forum

## May 2012

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- Alternatives to numeric N & P criteria
- Clearer understanding of science
- Consider other criteria
- Other “trending” or “change” indicators
- Review of costs and savings



# Forum Panelists' Highlights

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- Site-specific & waterbody type- specific approaches
- Scientific, balanced, & fair
- Stakeholders
- Goals & targets
- Proactive & integrative
- Improve NC's current approach

# NCDP: The Backbone

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- Evaluation of Response & Causal variables
- Waterbody Approaches
- EPA – Nitrogen & Phosphorus

# NCDP Development

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- Public Meetings – December 2012
- New Draft – April 2013
- End Comment Period - May 24, 2013
- **New Draft – August 2013**
- Commenter Meeting – September 25, 2013
- Update Draft - now

# Comments on Drafts

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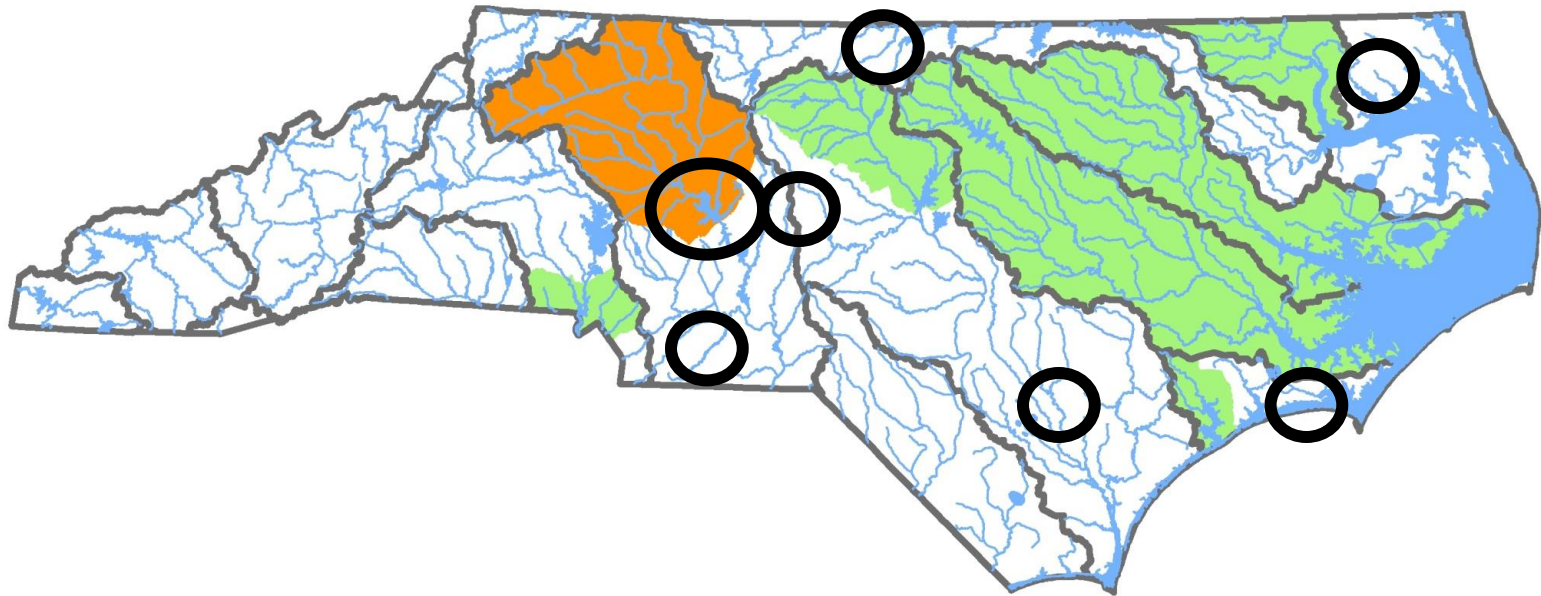
- Emphasize NC's strong nutrient management history
- Exempt waters with existing TMDLS & nutrient management plans
- Clarify priorities and regions/waters
- Develop management strategies along with standards

# Comments on Drafts

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- Support Technical Workgroup & regular stakeholder updates
- Develop clear process for site-specific criteria
- Evaluate appropriate location for implementation
- Tie to designated use attainment

# Potential Areas for Prioritization Based on Chlorophyll a Impairments



# NCDP Implementation

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- EPA agreement
- Implement plan
  - Stakeholder participation
  - Draft criteria
  - Implementation discussions to refine criteria
- EMC determines what moves forward (rule-making)

# Questions?

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