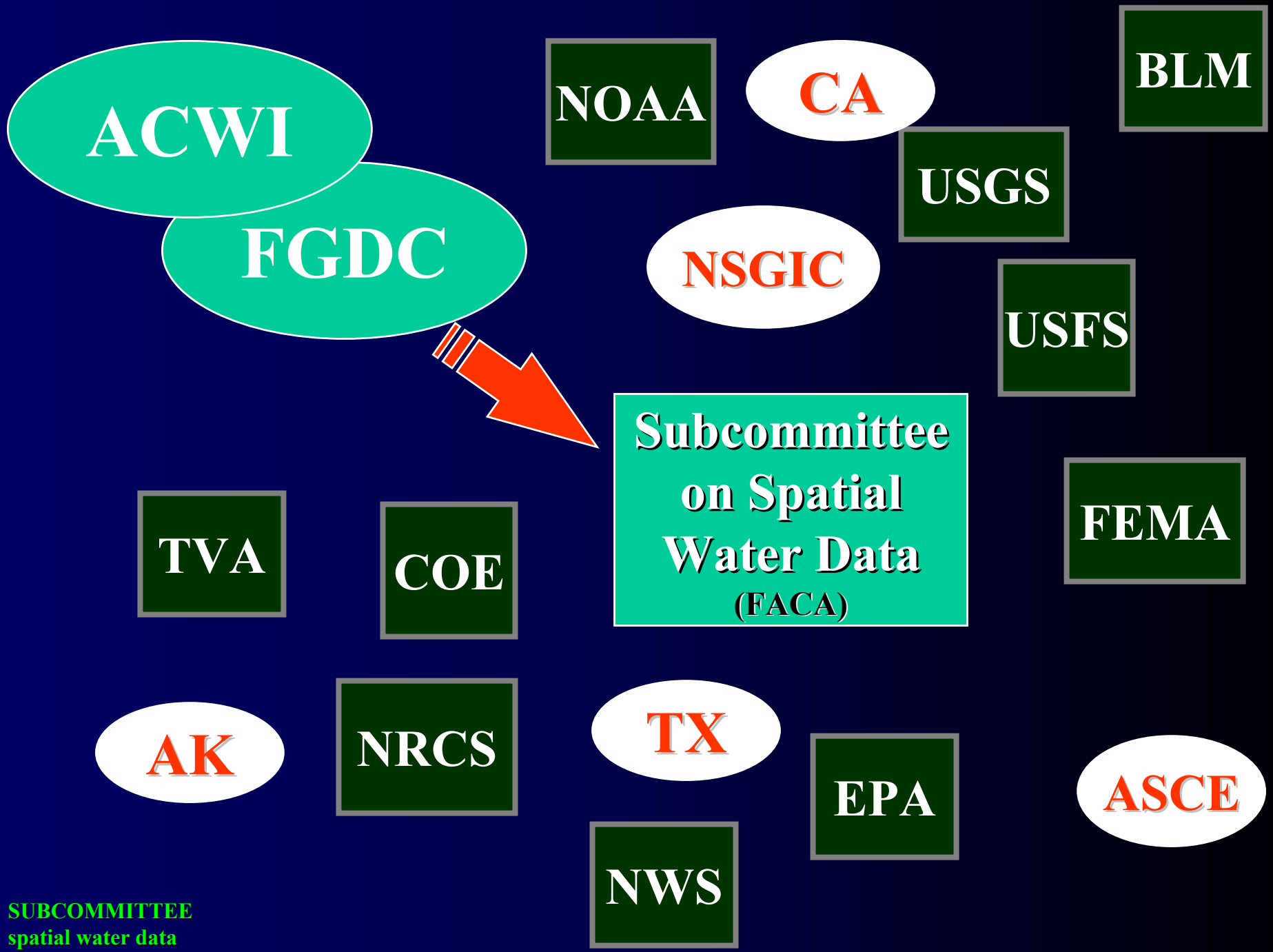
US EPA ARCHIVE DOCUMENT

EMAP Symposium 2002

Interagency Development of the National Watershed Database (WBD)

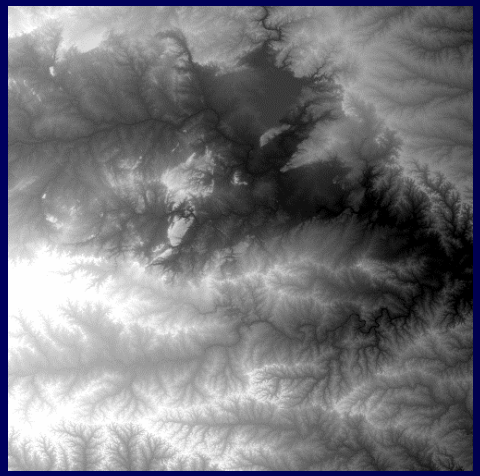
SUBCOMMITTEE
spatial water data

Kansas City
May 9, 2002

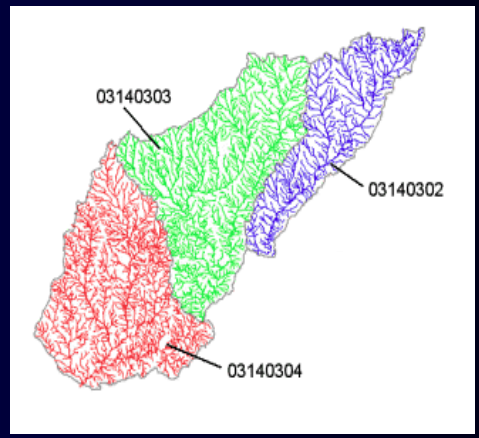

ACWI
FGDC
NOAA
CA
BLM
USGS
NSGIC
USFS
Subcommittee on Spatial Water Data
(FACA)
FEMA
TVA
COE
AK
NRCS
TX
EPA
ASCE
NWS
SUBCOMMITTEE
spatial water data

Integration of key Spatial Water Datasets

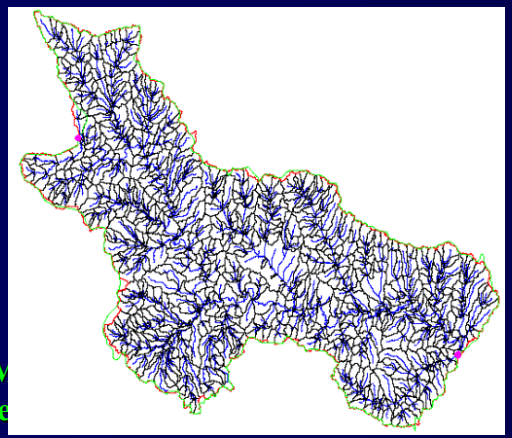
NED



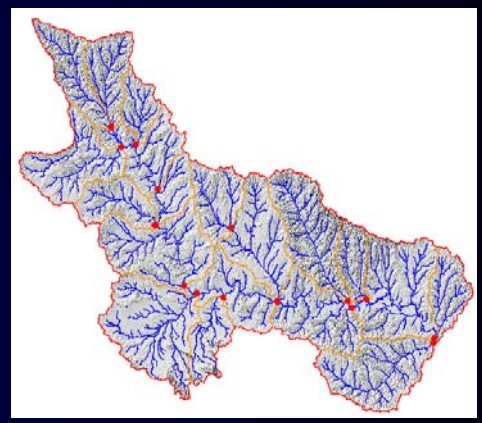
NHD



EDNA



WBD



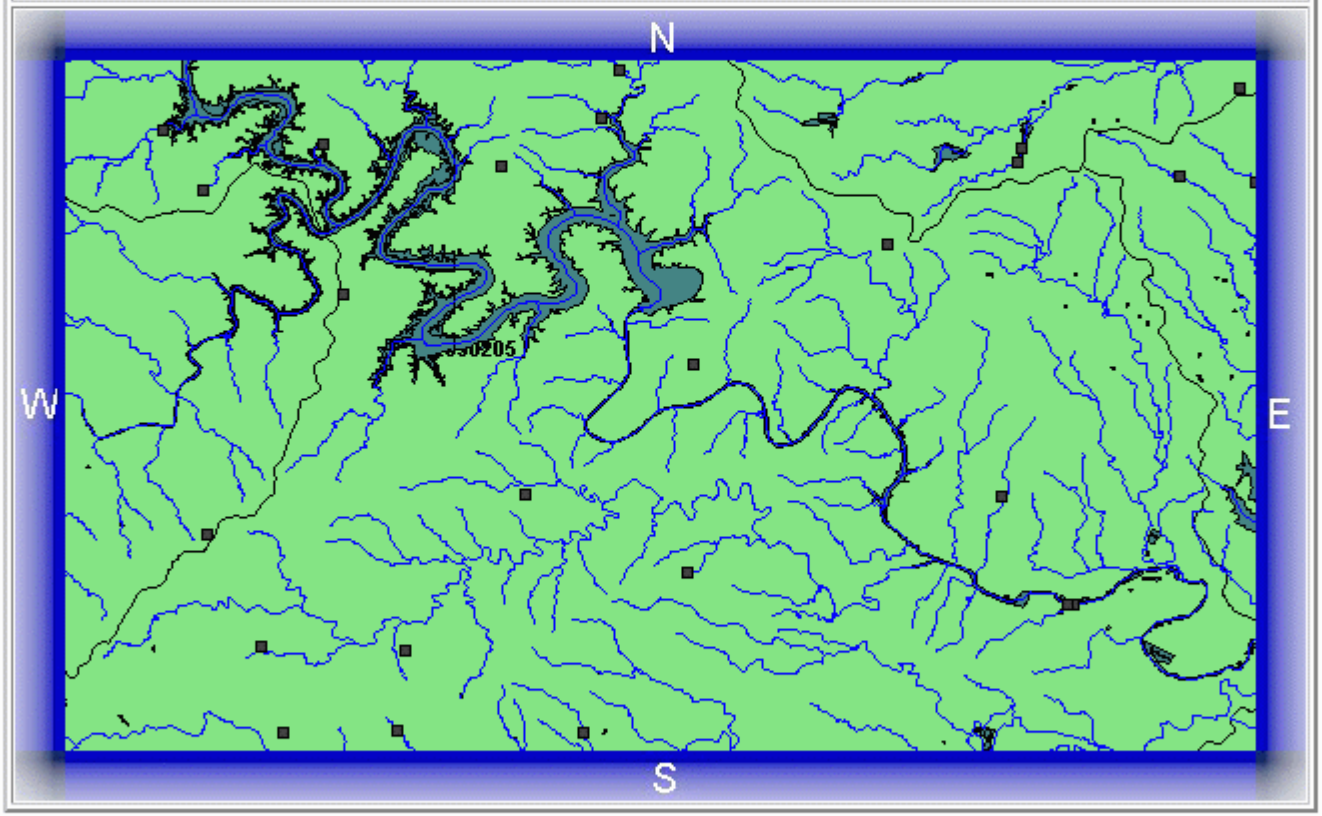
USGS EPA

National Hydrography Dataset

Obtaining NHD Data

Zoom In Zoom Out 2x Recenter CU Identify CU Download

Return to Full Extent



	CU Distributable	626
	CU Distributable * Initial Release	1356
	CU in Progress	128

NED

National Elevation Dataset

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spatial water data

EDNA [alias NED-H]

2002

INITIAL PHASE COMPLETE FOR CONTIGUOUS U.S.!!

STAGE 1

SUBCOMMITTEE
spatial water data

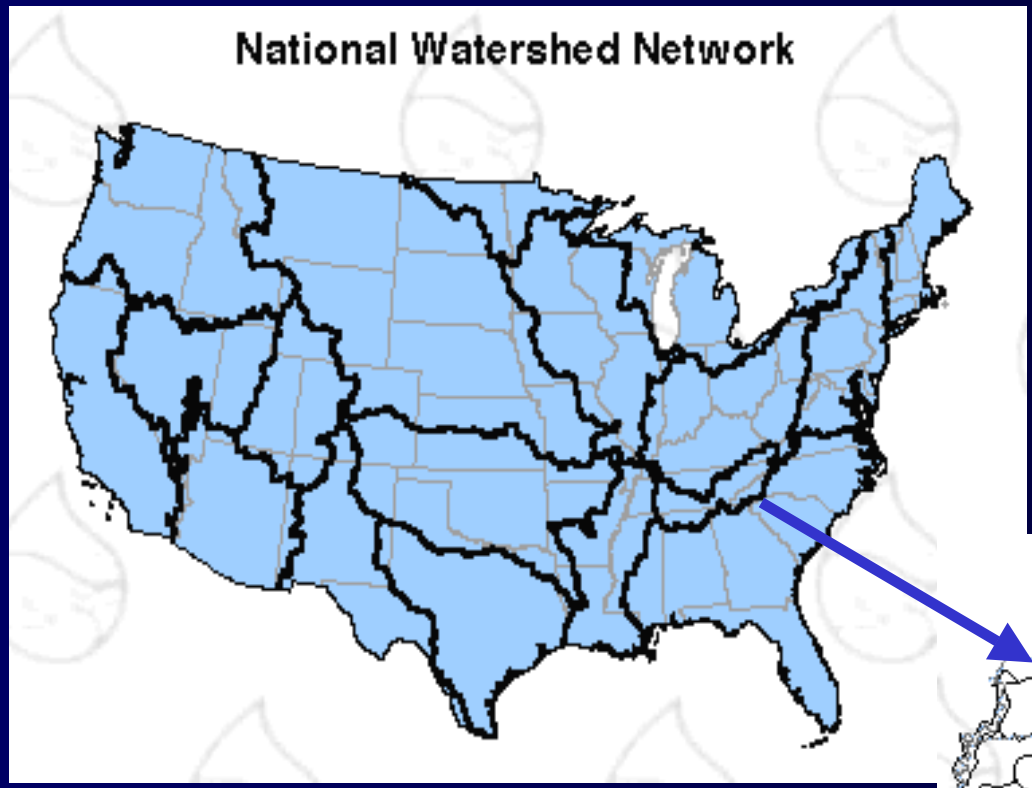
Hydrologic Units, 1973

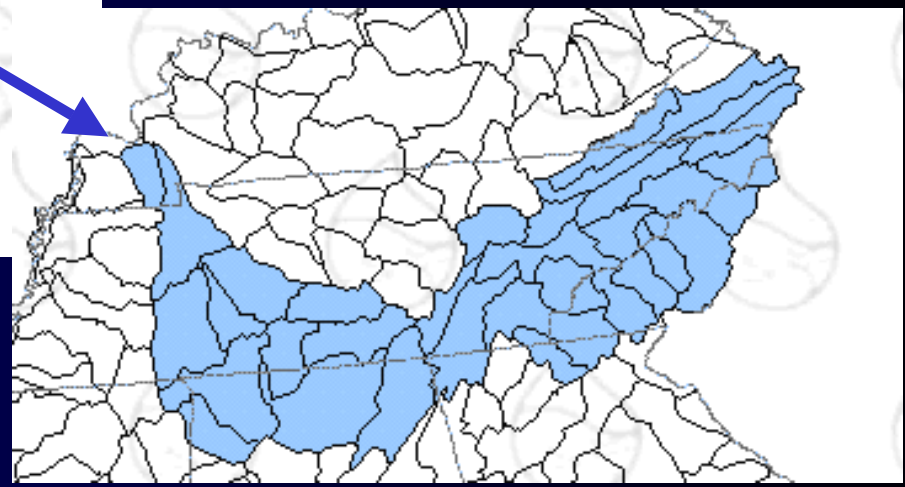
2-digit= 1st level = 22 regions

4-digit= 2nd level = 222 subregions

6-digit= 3rd level = 789 accounting

8-digit= 4th level = 2223 cataloging





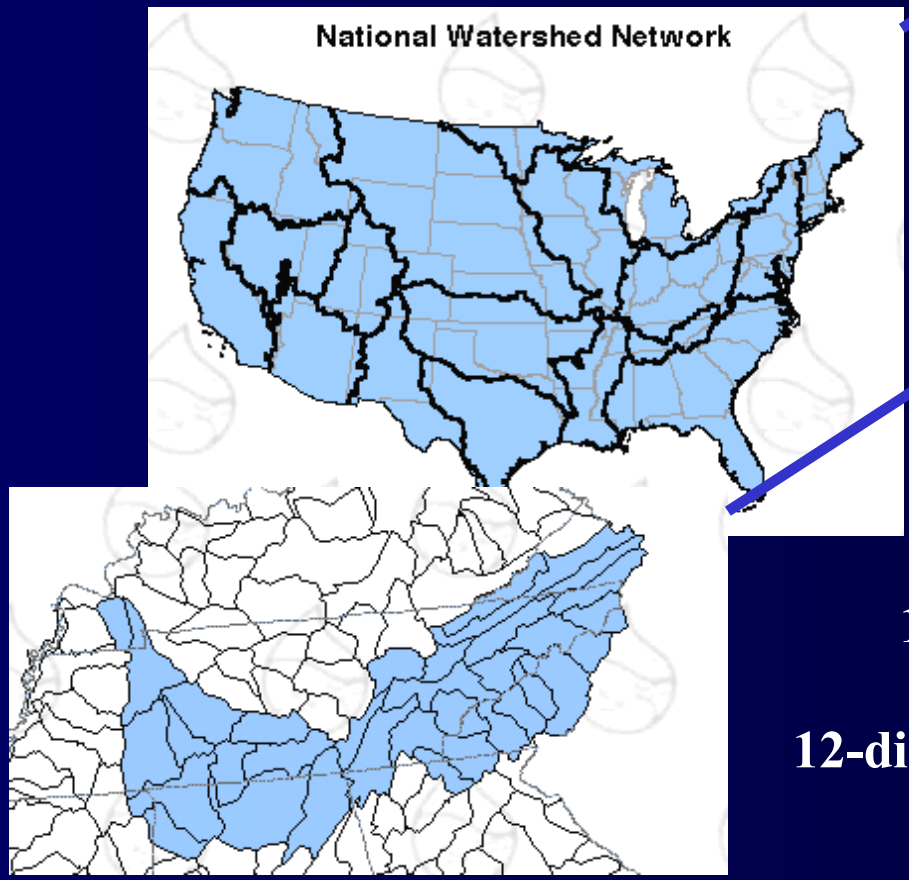
SUBCOMMITTEE
spatial water data

Watershed Boundaries Dataset (WBD): Why is it needed?

- **8-digit Cataloging Units too large**
- **uniform, widely accepted boundaries**
- **Need a standard nomenclature, ID's, names**
- **Speed up basin/drainage area delineation**

NRCS, early 1990's

Hydrologic Units



2-digit= 1st level = 22 regions

4-digit= 2nd level = 222 subregions

6-digit= 3rd level = 789 accounting

8-digit= 4th level = 2223 cataloging

new!

10-digit= 5th level = ~22,000 watersheds

12-digit= 6th level = ~160,000 subwatersheds

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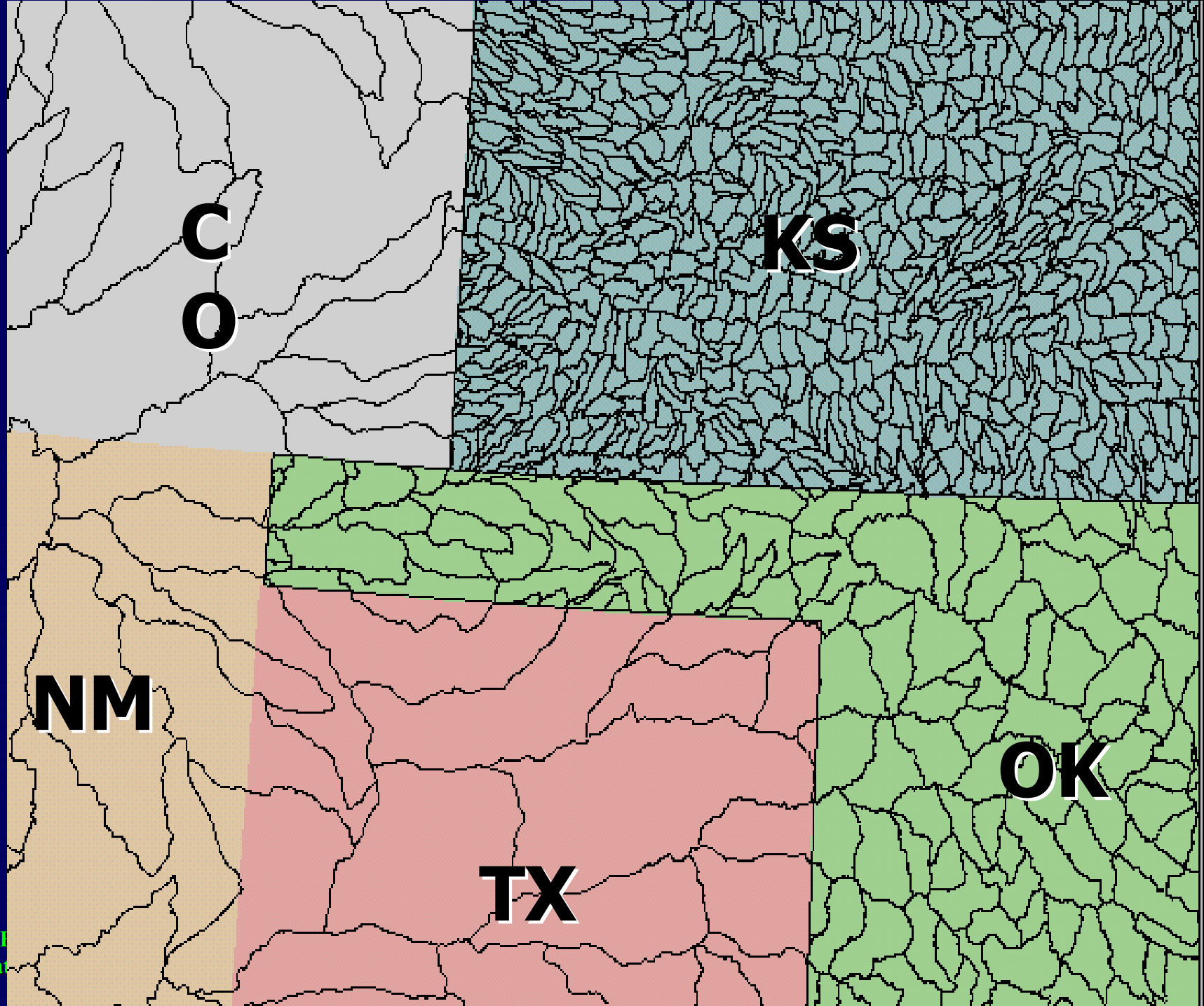
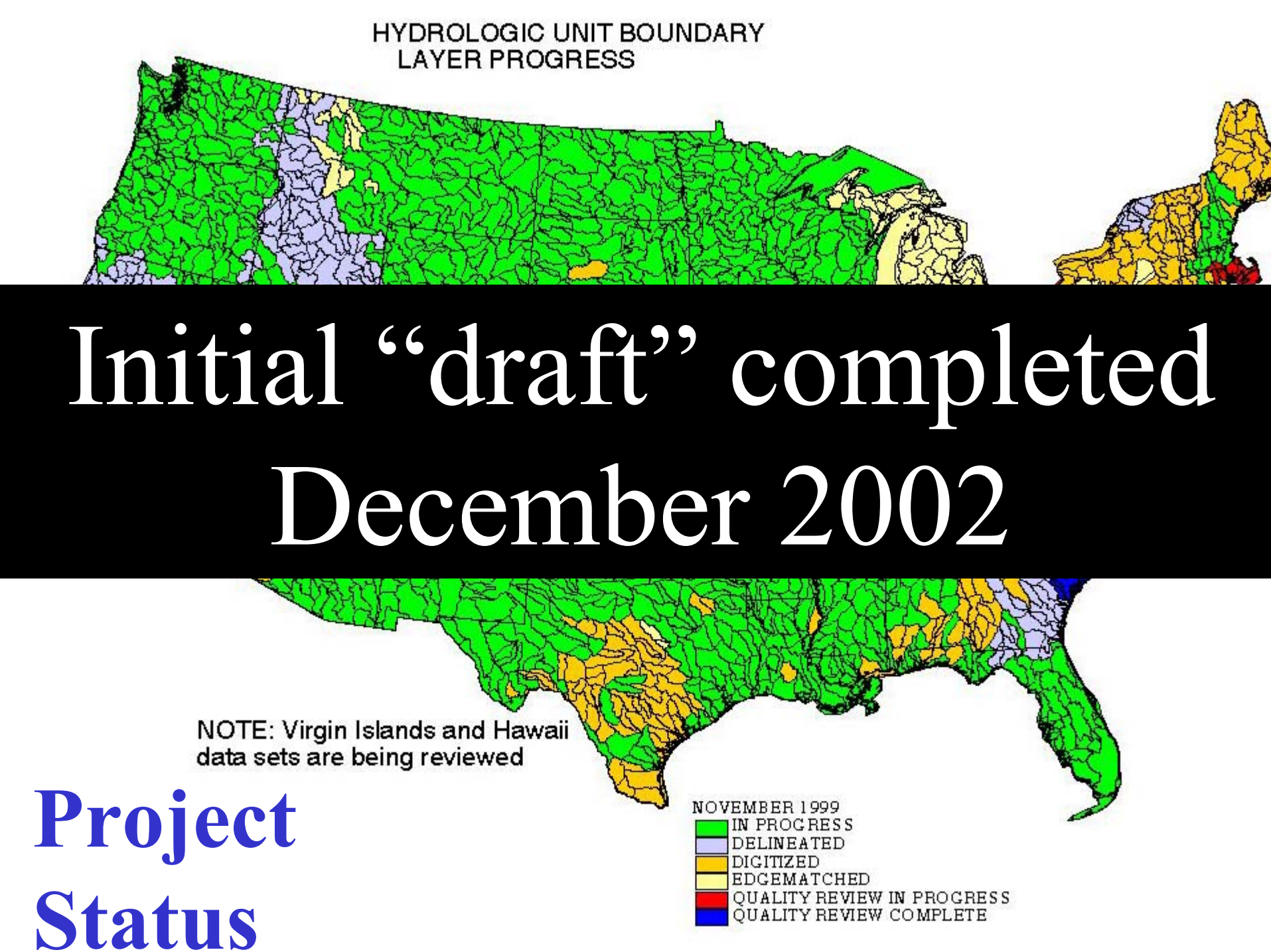
spatial water data


CO
KS
NM
OK
TX



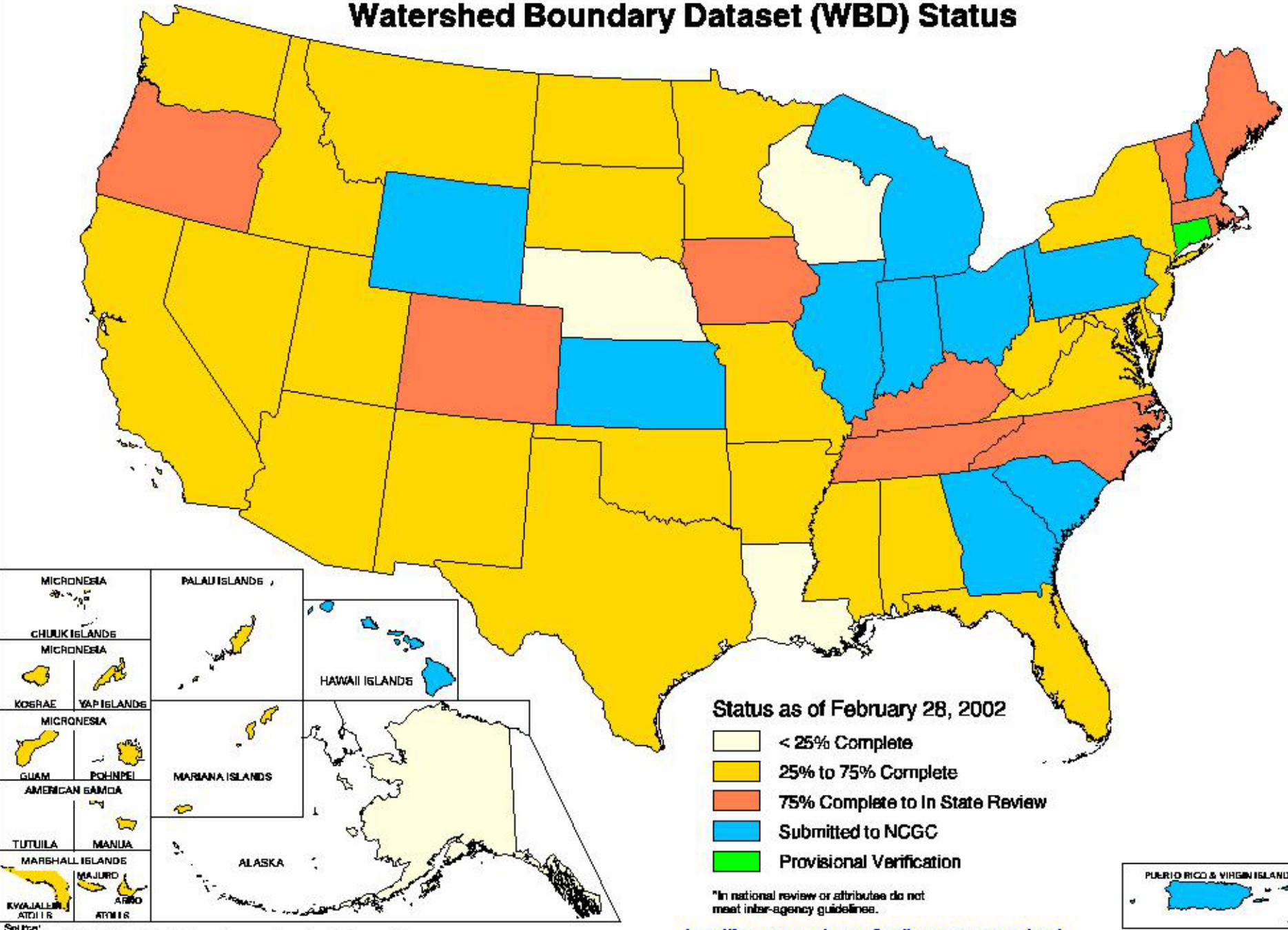
Initial "draft" completed December 2002

Project Status

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

Watershed Boundary Dataset (WBD) Status

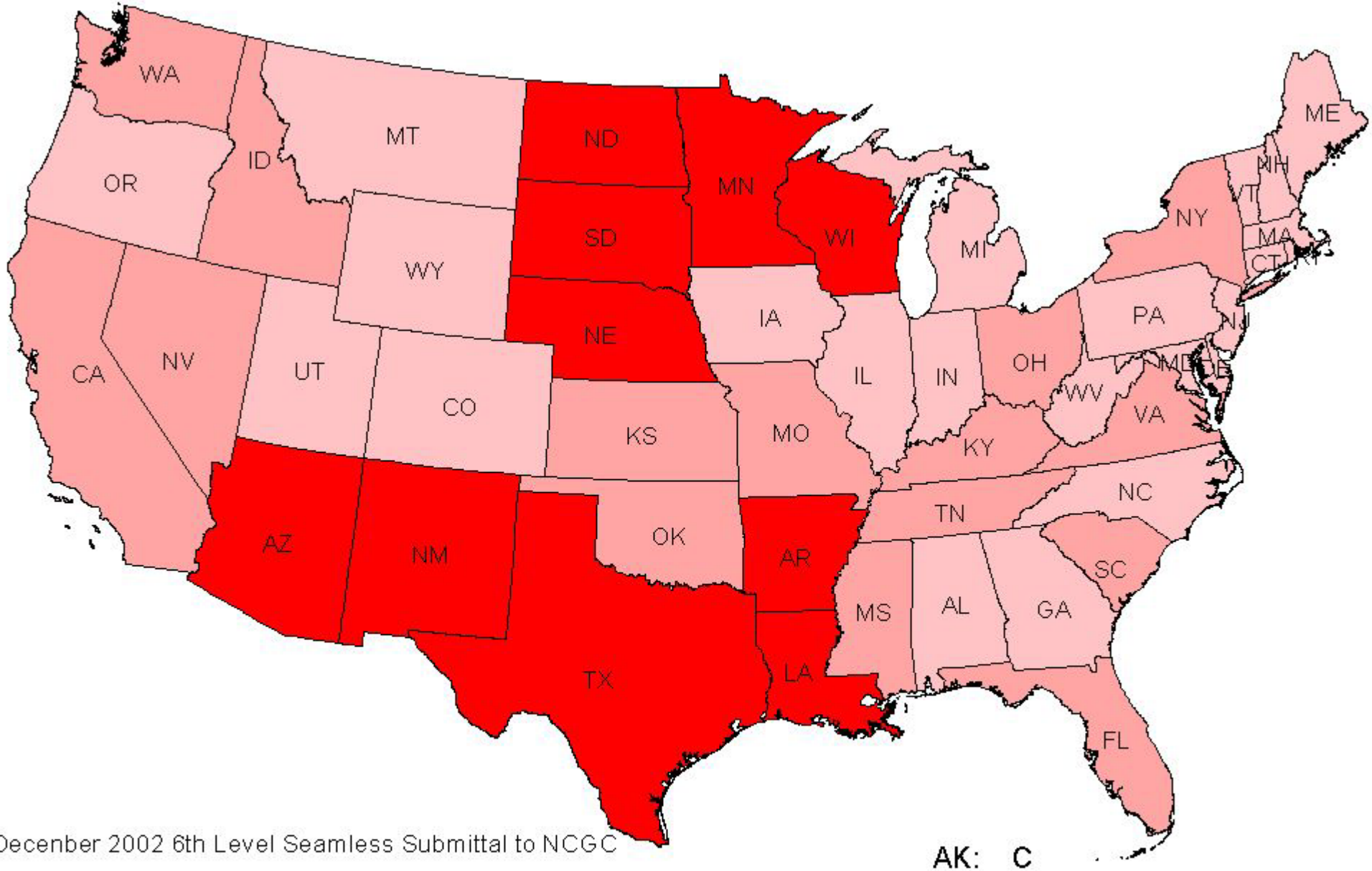


Source:
Status from USDA NRCS web site http://www.nhq.nrcs.usda.gov/loesl-bin/hu_us_status
DMA Operational Navigation Chart (ONC) 1:1,000,000 series & Bureau of Census 1992 TIGER 1:100,000 series.

http://ftw.nrcs.usda.gov/jpg/hucstatusstate.html

Revised February 2002

December 2002, 6th Level Seamless Submittal to NCGC



December 2002 6th Level Seamless Submittal to NCGC

A	Anticipated Completion to Current Standards
B	Draft Submittal; May or May Not be to Current Standards
C	No Seamless Draft Will be Available

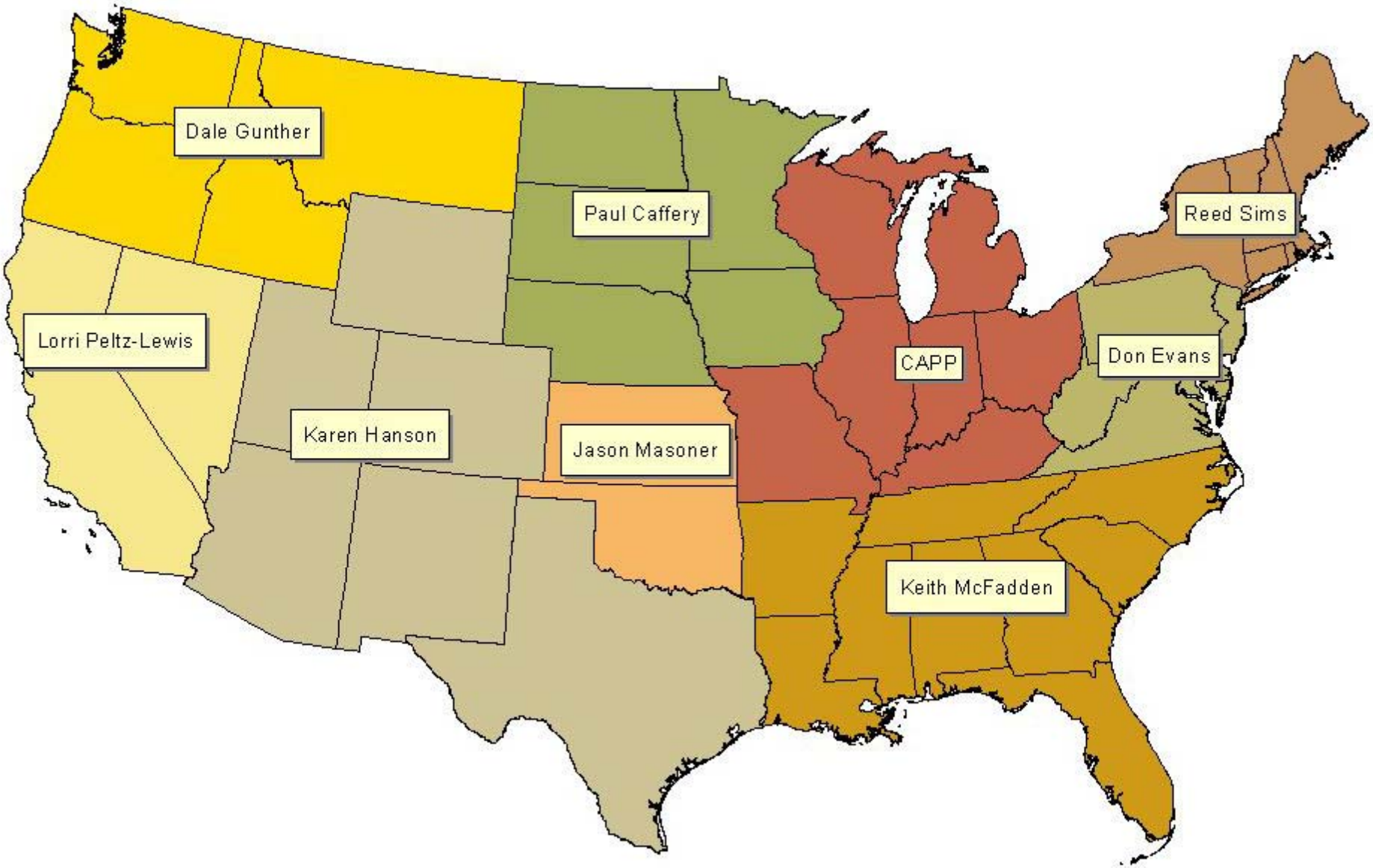
AK: C

PR: A

PB: C

USVI: A

Preliminary State Coordination Regions
(as of April 30,2002)



Review . . . .

historically:

NRCS certification

currently:

Subcommittee review

Guidelines . . . .

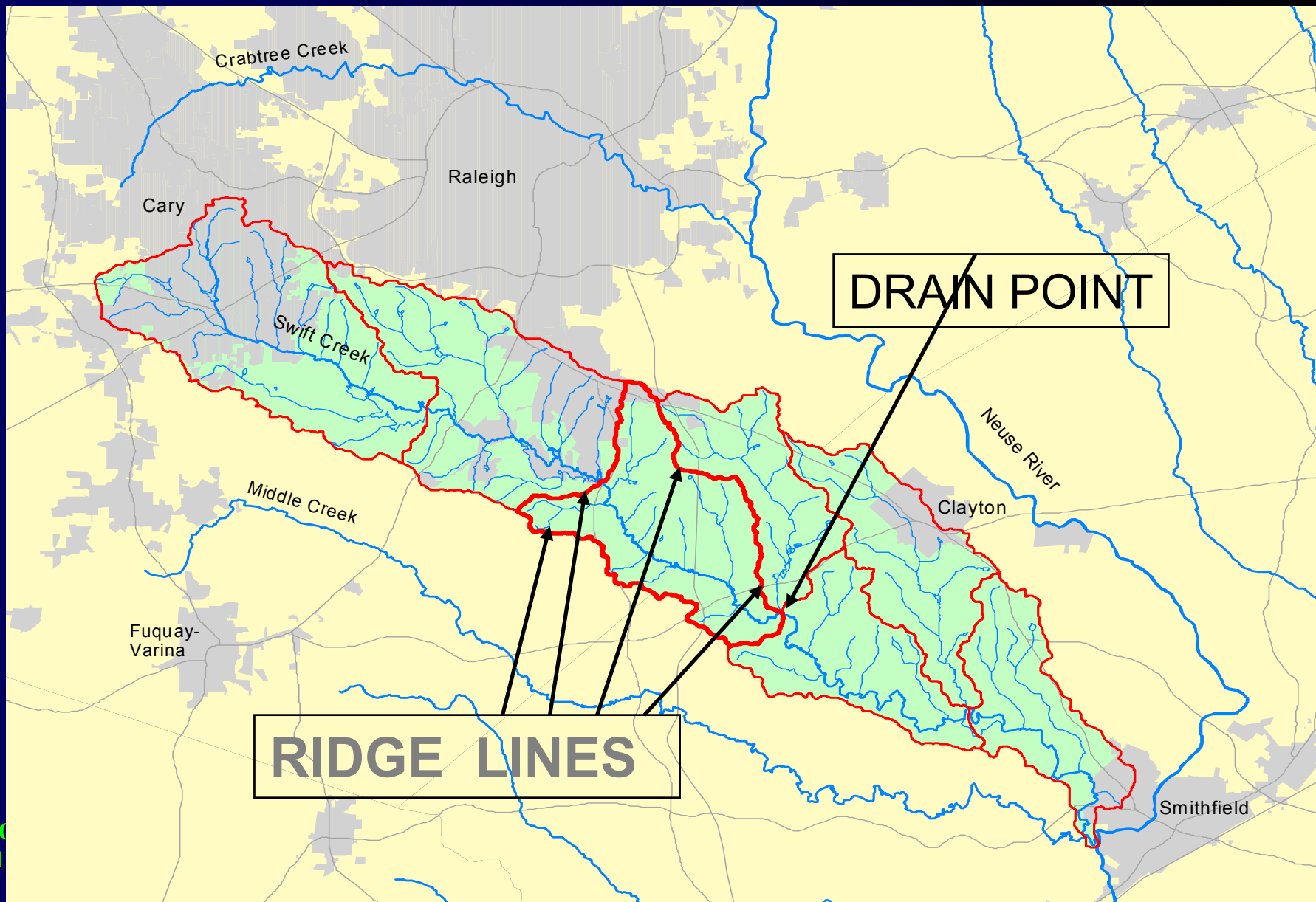
[Things to think about in delineating the next logical level down:]

- one unified federal "guideline", accepted by all agencies
- Water flows to/through a single point
- Acreage
  - 5th level, 40,000-250,000 acres
  - 6th level, 10,000-40,000 acres
- Relatively equal in size.
- ~5-8 subdivisions of previous level (nested levels)
- Persistent, modification of existing FIPS/ANSI standard to encompass "watersheds" & "subwatersheds"

Unified guidelines:

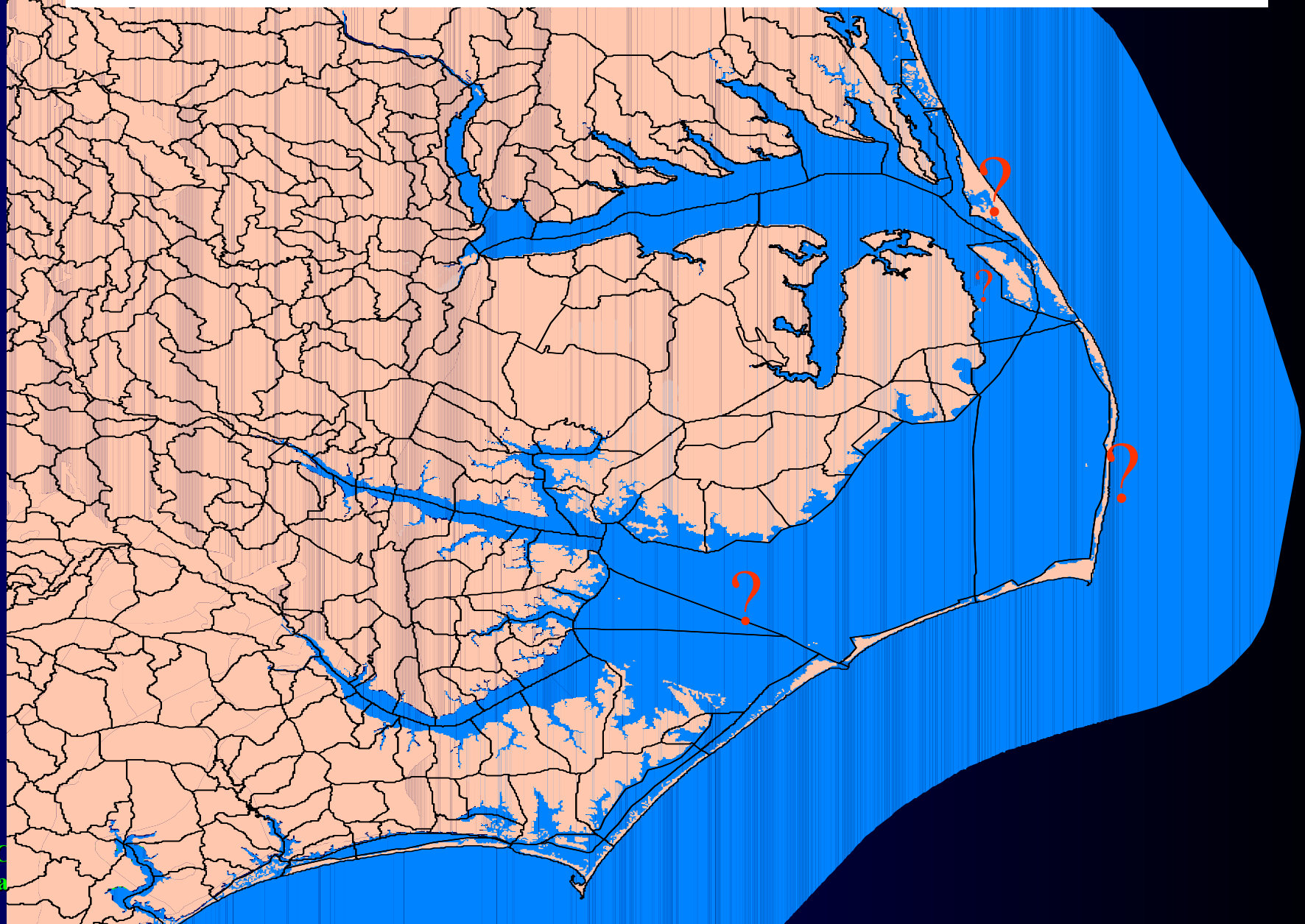
- names
  - region,subregion,basin,subbasin,watershed,subwatershed
  - naming convention for watersheds/subwatersheds
- numbering
  - headwaters to mouth increasing by one
- topographic flow
  - natural flow vs man's pertubations (ditches, canals)
- enhanced hydrologic attribution
  - ability to move upstream /downstream, karst

Example of Mapping Criteria

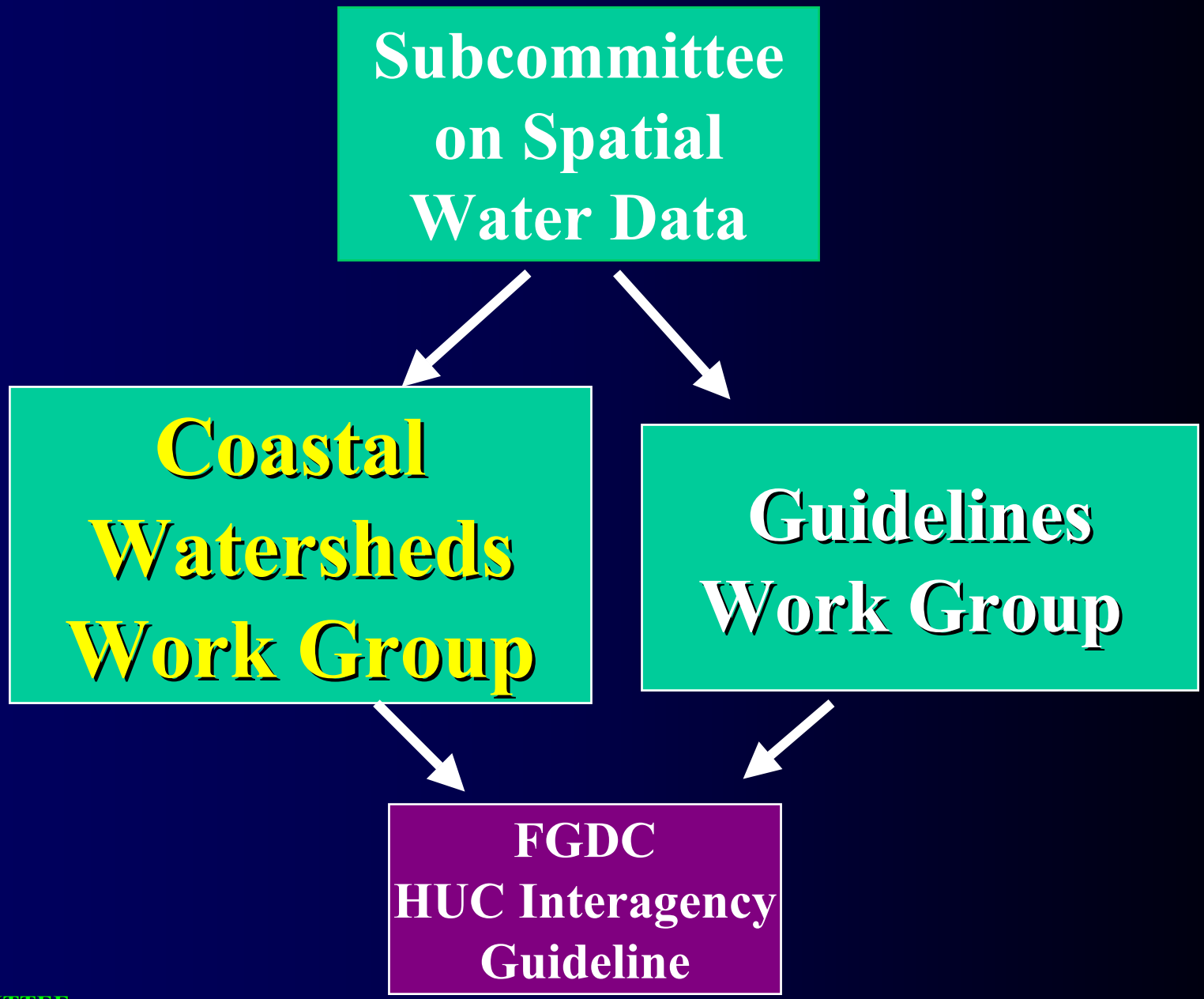


SUBCO
spatial

PROBLEMS IN COASTAL AREAS



SUBC
spatia



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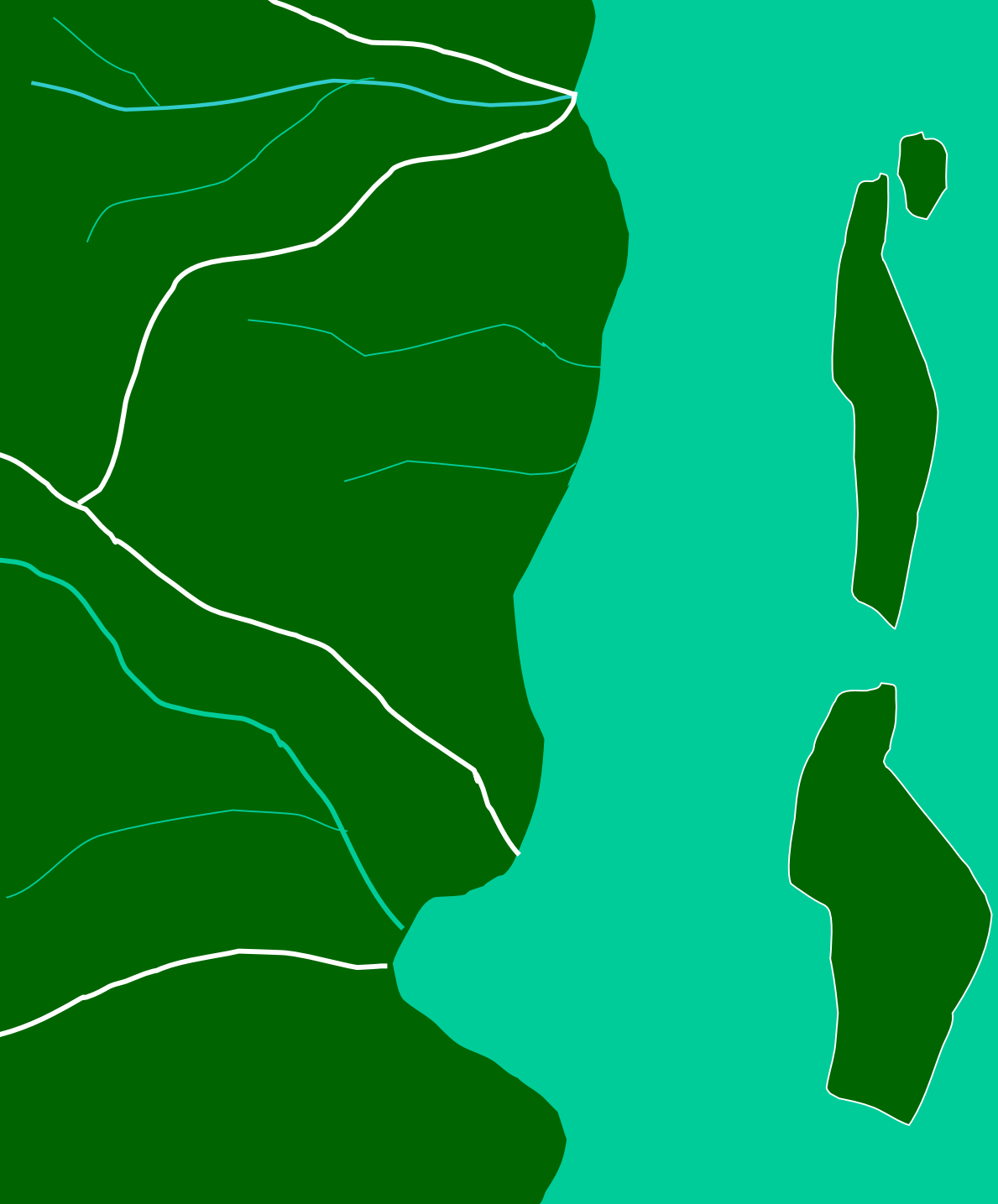
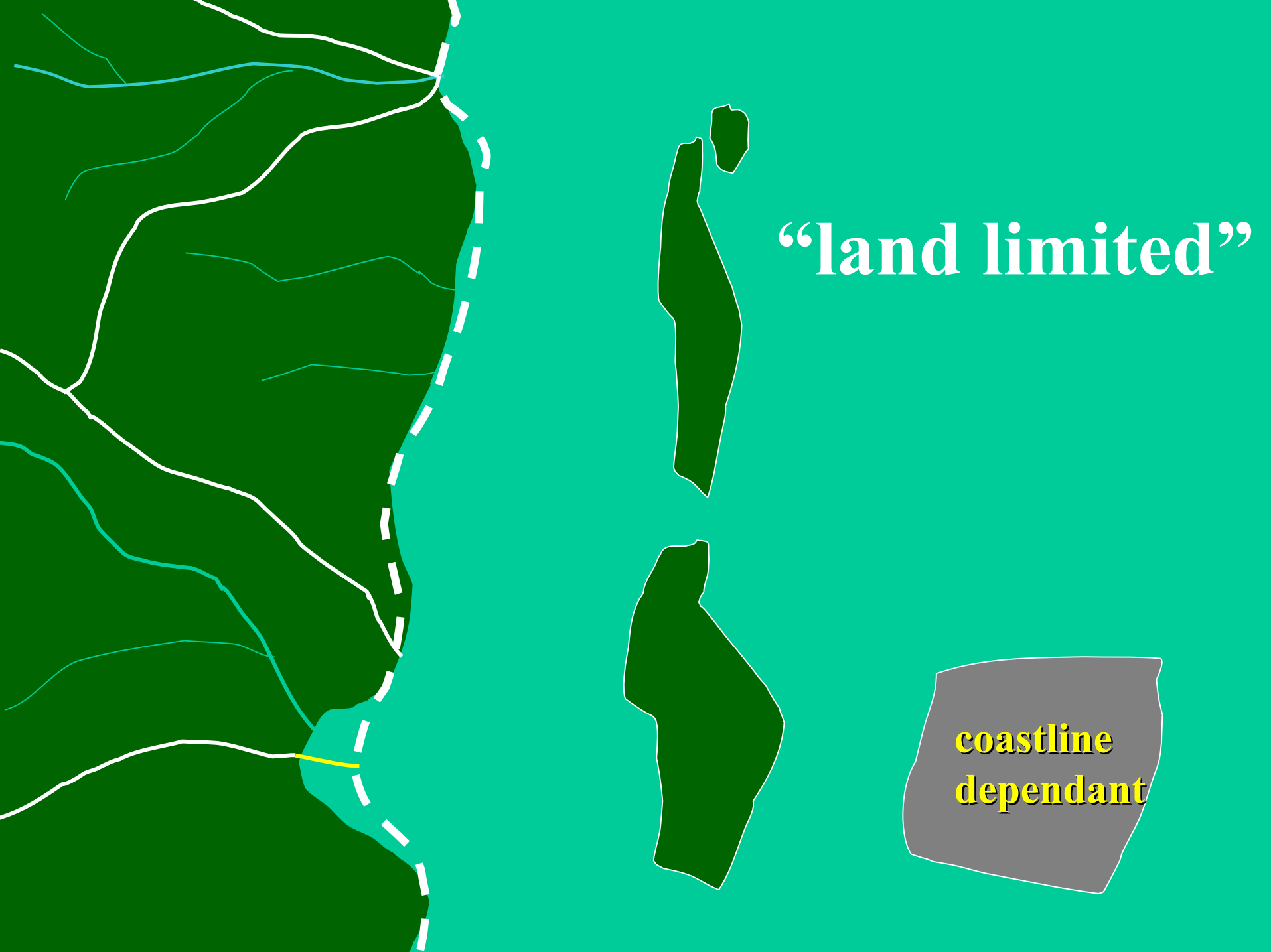
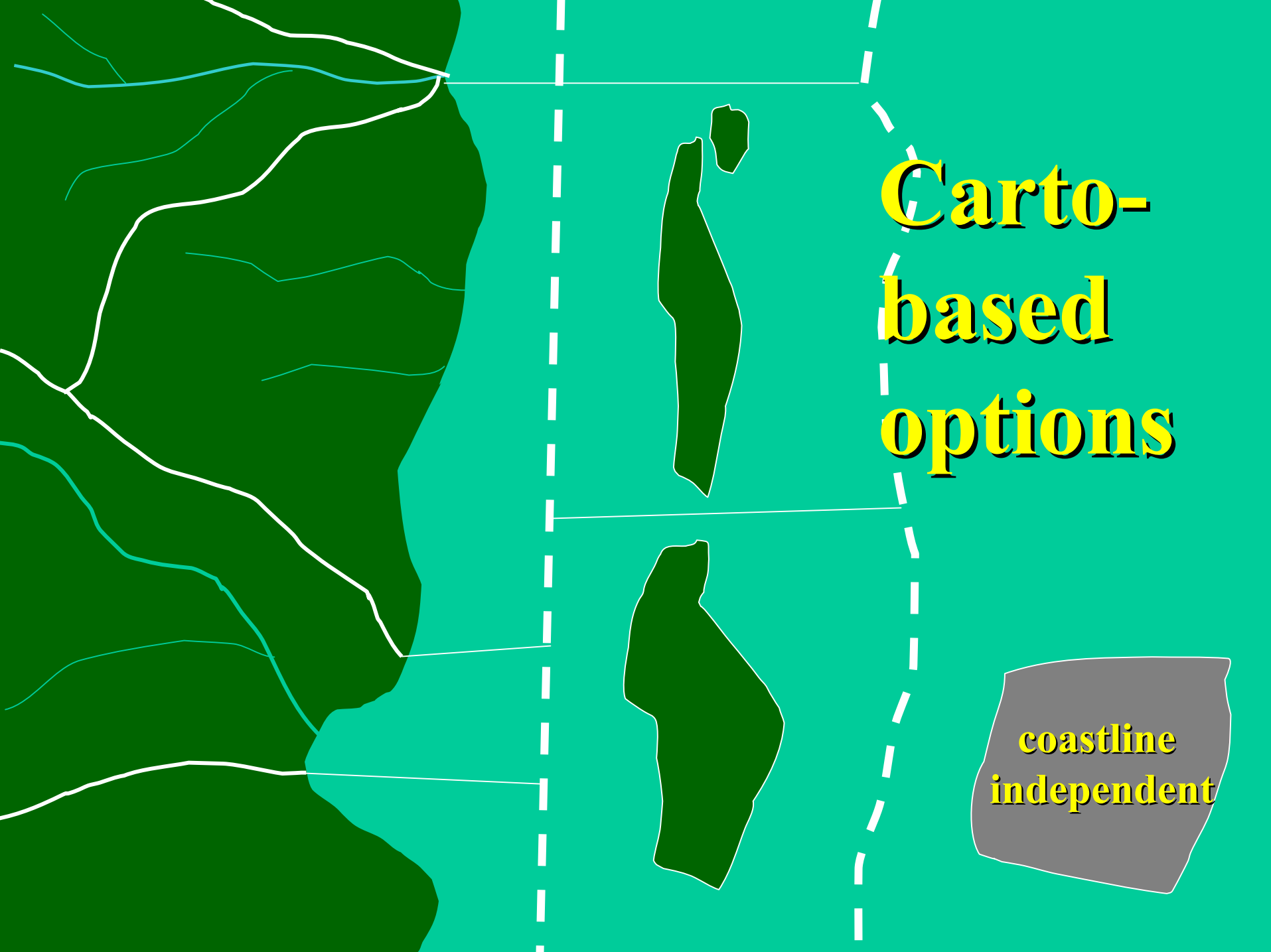
NOAA/NOS Implementation

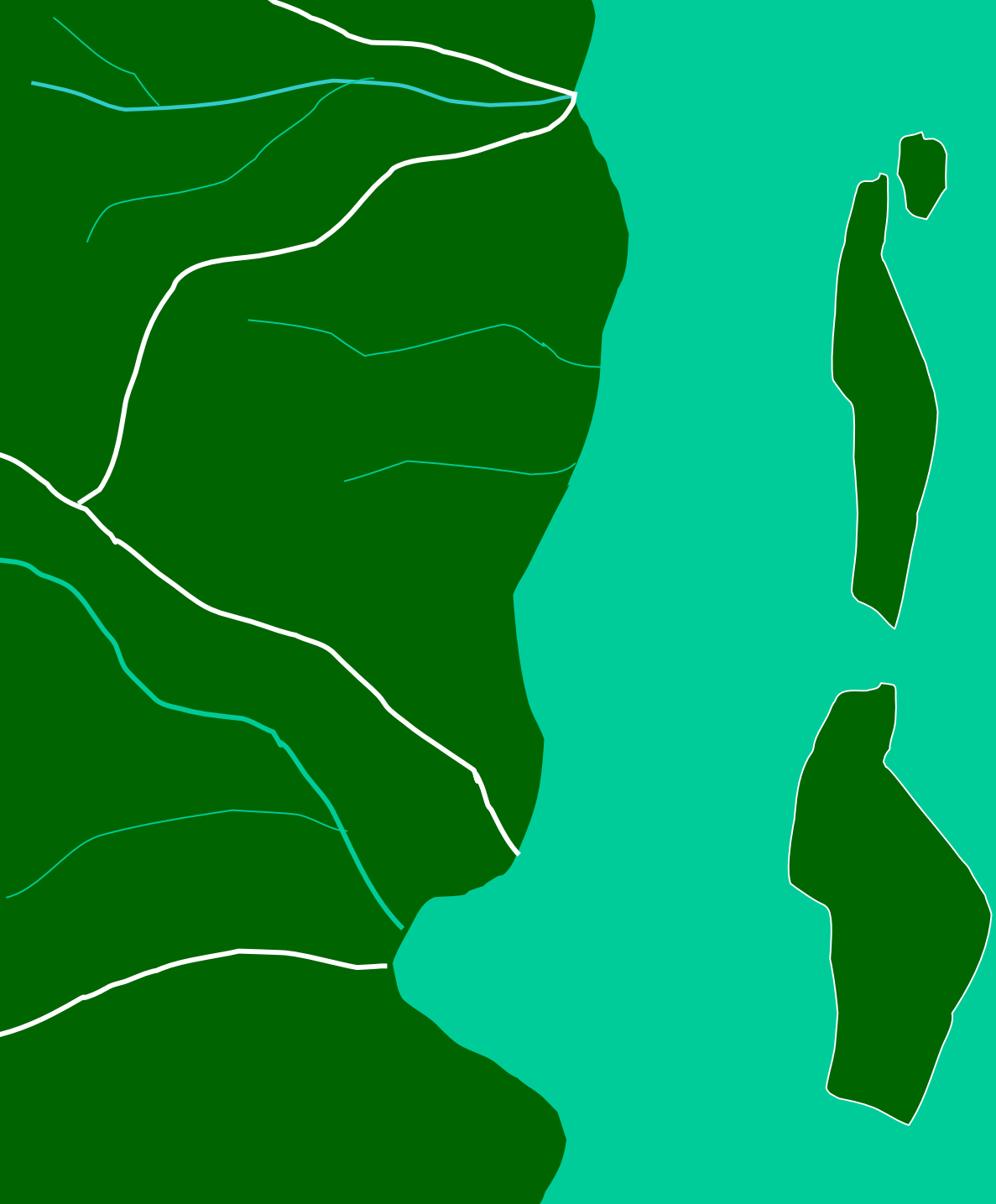
- Pilots
- Coastal delineation guidance
- state/coast implementation
  - Assisting state groups
    - Workshops
    - Data and data manipulation
    - One-on-one with States



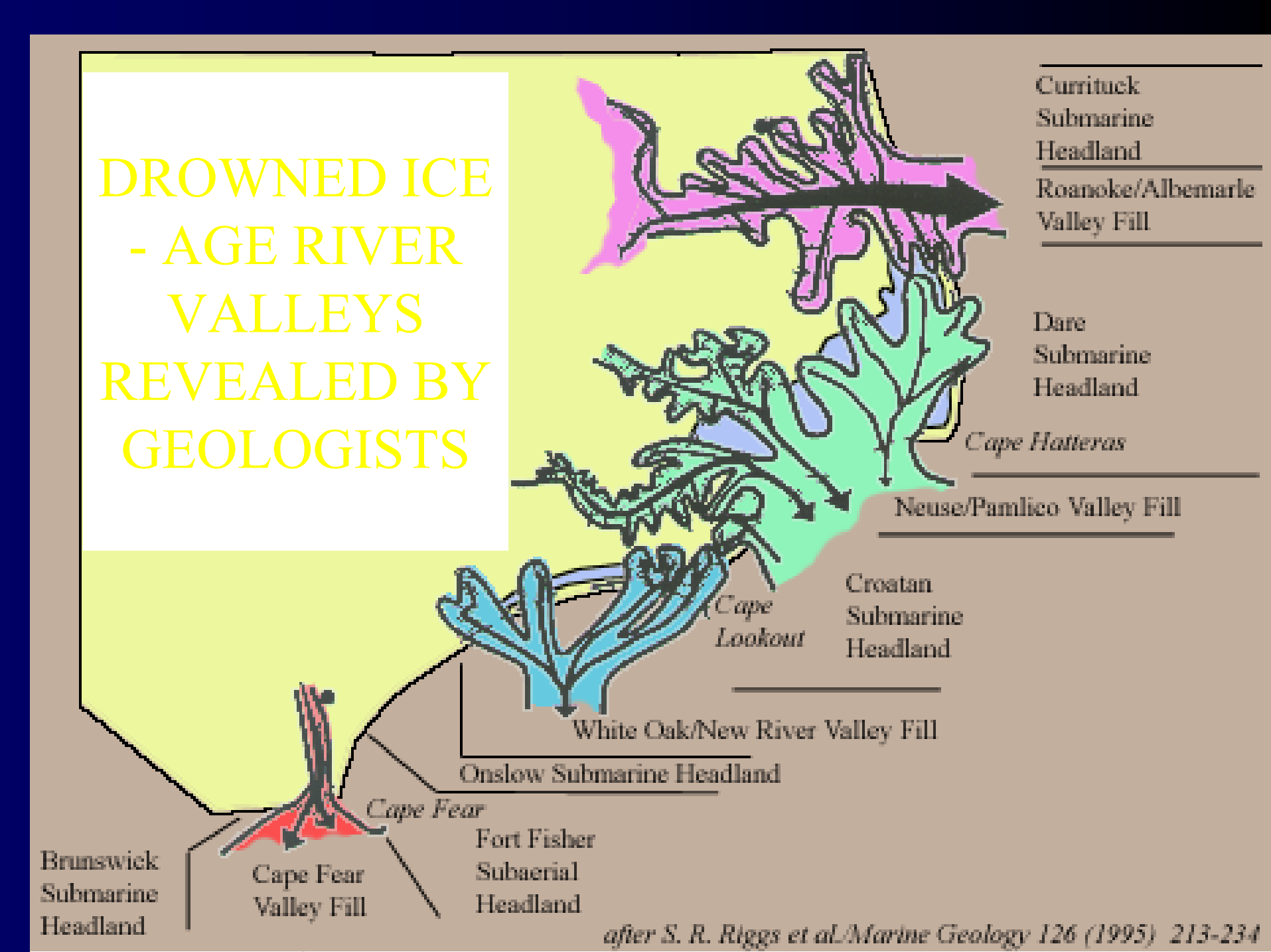
coastal delineation options


“land limited”
coastline
dependant

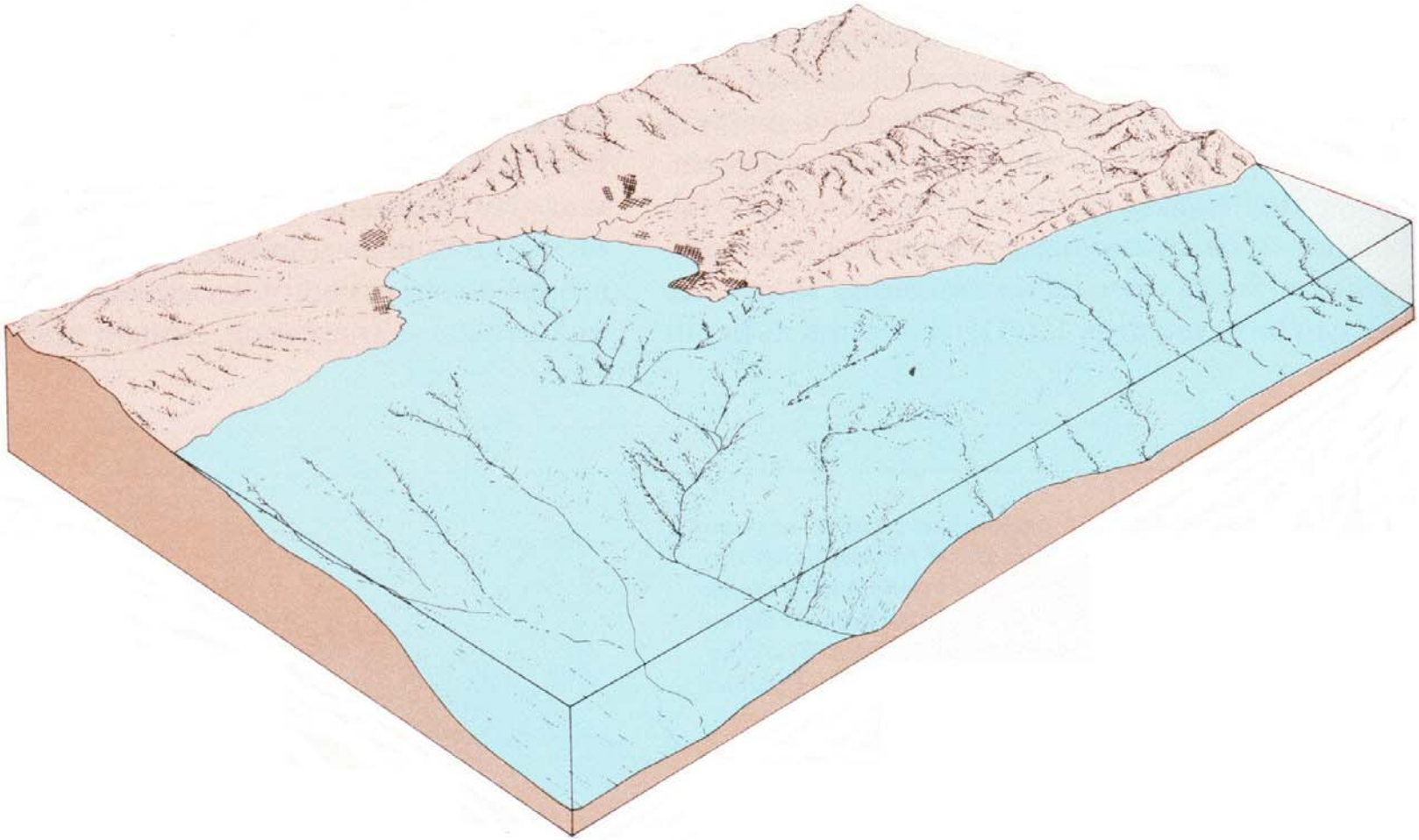

Carto-based options
coastline independent



Geologic Process-Based options


DROWNED ICE - AGE RIVER VALLEYS REVEALED BY GEOLOGISTS
Currituck Submarine Headland
Roanoke/Albemarle Valley Fill
Dare Submarine Headland
Cape Hatteras
Neuse/Pamlico Valley Fill
Croatan Submarine Headland
Cape Lookout
White Oak/New River Valley Fill
Onslow Submarine Headland
Cape Fear
Fort Fisher Subaerial Headland
Brunswick Submarine Headland
Cape Fear Valley Fill
after S. R. Riggs et al/Marine Geology 126 (1995) 213-234

Geomorphology



Selected test areas:

- Louisiana delta
- Great Lakes
- California/Oregon hard coast
- Florida coast
- Narragansett “New England” coast

For additional information visit...

water.usgs.gov/wicp

www.fgdc.gov

Current "guidelines"

www.ftw.nrcs.usda.gov

rrpierce@usgs.gov

the end