WSMP/CWWMG

- Brought key players (water users/consumers) to table
- Ahead of other basins in planning
- Working toward water conservation
- Devoting resources for densely populated basin and a difficult problem
WSMP/CWWMG

• A complicated task
Development, Tax Base
Water Quantity
Water Quantity
Key Distinction

• Water Use (gross)
  • Withdrawn water (includes returned)
  • Available downstream

• Water Consumption (net)
  • Difference between withdrawn and returned water volumes
  • NOT available downstream
  • Primarily evaporation, inter-basin transfers (IBTs)
Water Consumption (Current)

Figure ES.3 - Current Net Outflows for the Catawba-Wateree River Basin (in MGD) and % of Total

- Industrial, 3.7, 2%
- Public Water Supply, 55, 32%
- Power, 80.6, 46%
- Agricultural/Irrigation, 31.2, 18%
Water Consumption (2065)

- Public Water Supply, 198.5, 47%
- Power, 178.3, 43%
- Agriculture / Irrigation, 34.9, 8%
- Industrial, 7.7, 2%

Figure 1-3 Year 2065 Net Withdrawal by Water User Category for the Catawba-Wateree River Basin (in units of mgd and % of total)
Water Consumption

Figure ES.3 - Current Net Outflows for the Catawba-Wateree River Basin (in MGD) and % of Total

Figure 1-3 Year 2065 Net Withdrawal by Water User Category for the Catawba-Wateree River Basin (in units of mgd and % of total)
WSMP

- Goal of WSMP is to show ability to provide water for 50+ years

- Success = keeping water levels above intake structures

- Failure = falling below intakes

- No direct considerations for recreation, ecology, economy
WSMP

- WSMP hinges on 1) moving water around and 2) reducing water use (and consumption) by increasing water rates
  - Targets Public Water Supply category

- Inter-Basin Transfers pure consumptive loss
  - Need to be considered separately from PWS category

- Duke Energy does nothing to reduce evaporative consumption at its nuclear, coal plants
WSMP

Duke DOES hold back more water behind dams (6”)
Passes less through hydro

Flooding issues
(i.e., Wateree and Mountain Island Lake)

Spillover (lost recharge)
WSMP Needs

- Technologies to reduce evaporative transport at coal, nuclear plants
  - NOT cooling towers
  - **Need due diligence for alternative technologies**
  - Combined cycle (natural gas)?
    - Big proposal with nine new plants contingent on approval and natural gas prices
    - Supports fracking, which has considerable water demands and in places to our east already receiving IBTs
- Two new nuclear plants operating in 30 years?
WSMP Needs

• Recreation considerations
  • Intermediate failure points at loss of recreation
    • Boat launches
  • In turn considers economic (property tax base) impact

• Detail financial impacts for each action

• Ecological flow considerations
  • Especially with power plants moved downstream
WSMP Summary Recommendation

• CHEOPS needs to be refined, approved

• Additional considerations should be made
  • Recreational, economic, ecological

• Increase emphasis on thermoelectric consumption (at nuclear/coal), IBTs
  • Major sources of consumptive loss