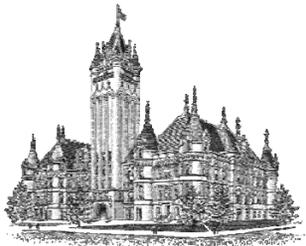


ATTACHMENT I:
PRESENTATION OF WATER AVAILABILITY
STANDARDS FROM OTHER JURISDICTIONS
MARCH 29, 2012 ADVISORY GROUP MEETING



SPOKANE COUNTY
WATER RESOURCES

Review of County Groundwater Availability Programs in the U.S.

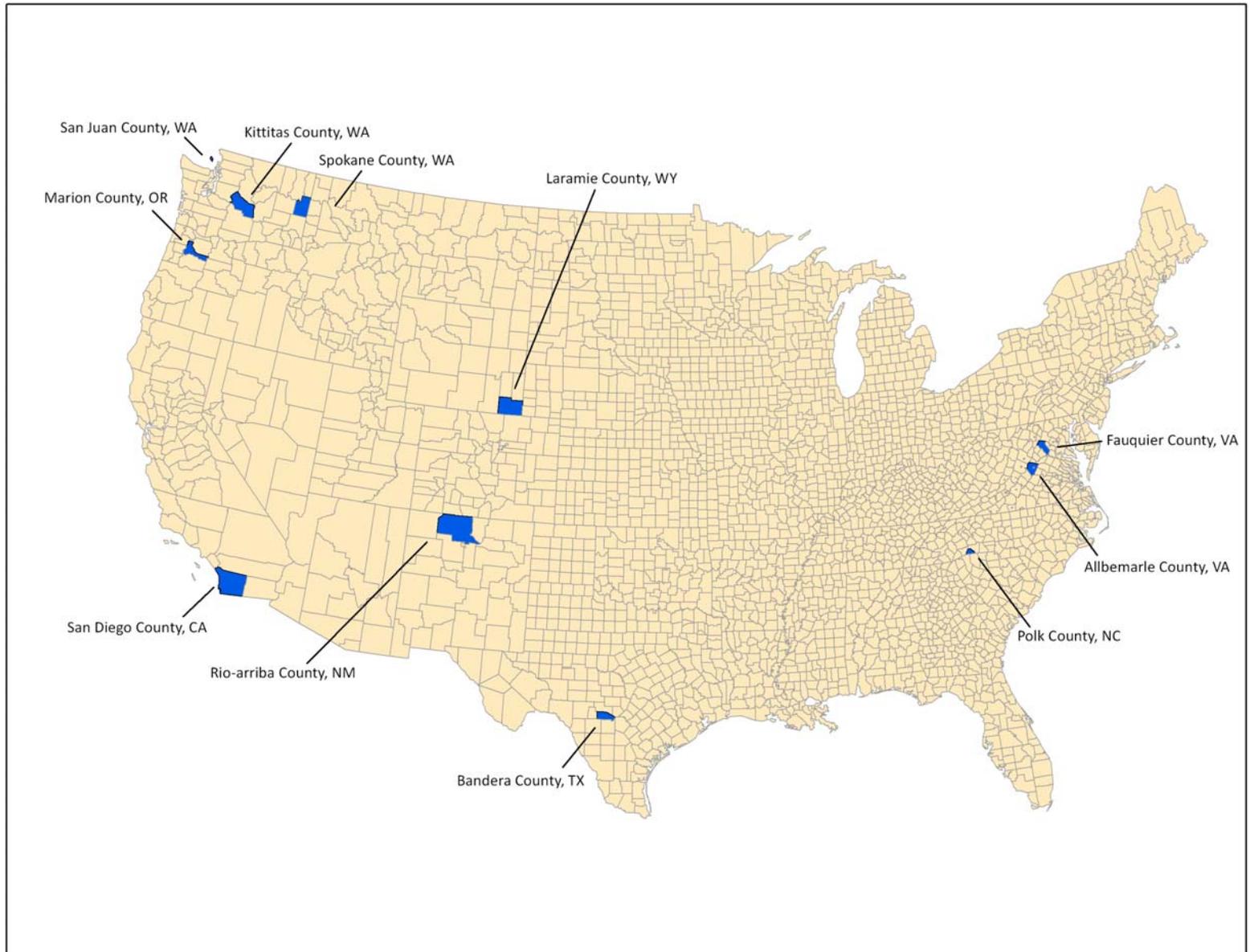
Spokane County Water Availability & Sustainability Advisory Group
March 29, 2012

Programs Reviewed

- Spokane County Regional Health District
- Washington Department of Health & Ecology 1993 Guidelines for Determining Water Availability for New Building
- Kittitas County/Department of Ecology Proposed Rule
- Albermarle County, *Virginia*
- Rio-arriba County, *New Mexico*
- San Juan County, *Washington*
- Bandera County, *Texas*
- Marion County, *Oregon*
- San Diego County, *California*
- Polk County, *North Carolina*
- Fauquier County, *Virginia*
- Cheyenne-Laramie County, *Wyoming*



Programs Reviewed



Programs Reviewed

- Each County has unique water supply concerns, hydrogeologic settings, legal framework, and land use patterns.
- There are common elements throughout the compilation of programs.
- Not one model to use.



Common Elements

- Collection/Interpretation of Existing Information
 - Site/Project
 - Hydrologic
 - Geologic
 - Hydrogeologic
 - Site Vicinity
 - Legal Availability
- Hydrogeologic Analysis/Conclusions
- Pump Test & Analysis
- Water Supply Adequacy Statement by Preparer



Existing Information: Site/Project

- Site plan – lot lines, roads, topography, etc.
- Water Use Projection
 - Demand at full build out
 - Timing of proposed use



Existing Information: Hydrologic

- Surface water features
 - Impoundments
 - Streams
 - Springs



Existing Information: Geologic

- Geologic contacts, features, formations
- Geologic and soil maps
- Review of available geologic studies for the area



Existing Information: Hydrogeologic

- Description of aquifers
- Depth to groundwater
- Recharge to aquifer
- Groundwater flow
- Description of occurrence and movement of groundwater
- Historic well problems in the area
- Surface/groundwater interactions



Existing Information: Site Vicinity

- Well located within pumping influence of proposed development
- Surrounding property lines, wells, septics

Existing Information: Legal Availability

- Proposed use does not cause detrimental interference with existing water rights
- List of all surface and groundwater rights that will be impacted by proposed use
- Permit from state required (New Mexico)



Hydrogeologic Analysis/Conclusions

- Hydraulic properties of aquifer
- Estimated aquifer drawdown at subdivision boundary in 10 and 30 years
- Estimated well yield
- Average recharge and recharge during drought years
- Plan to address well(s) with inadequate yield



Pump Test & Analysis

- Wide range of testing duration and complexity
 - One hour bailer or airlift test
 - 48 hour test with recovery measurements over 5 days
 - 24 hour test using automatic recording device
 - 12 hour test with 3 wells, one pumping and two observation



Adequacy Statement

- Statement by preparer, usually a Professional Engineer or Licensed Geologist/Hydrogeologist that the proposed water supply is sufficient for the development and/or will not cause adverse impact to senior water rights or surface water bodies.

