



Measuring, Quantifying, and Reporting Drought Impacts Workshop Purpose and Goals

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Definitions

- Drought = shortage of water for a specified purpose
- Drought impacts are the impacts of that shortage, not quantification of the hydrology
- Drought impacts can be measured via fallowed acreage, dollar value of agricultural disaster payments, number of new wells drilled, etc (see handout)

Drought Impacts

- Are sector-specific & localized
- Vary with drought duration
- Can be associated with either managed or unmanaged water supplies
- Not all impacts are readily quantifiable
- Historically little impetus to quantify some impacts (no linkage to a resource management decision)
- Attribution can be an issue

Drought Impacts, con't.

- Public health & safety impacts
 - Drinking water (commonly small water systems)
 - Wildfire
- Economic impacts
 - Businesses: agriculture, recreation, green industry
 - Individuals: higher water rates, landscaping

Why Quantify Impacts?

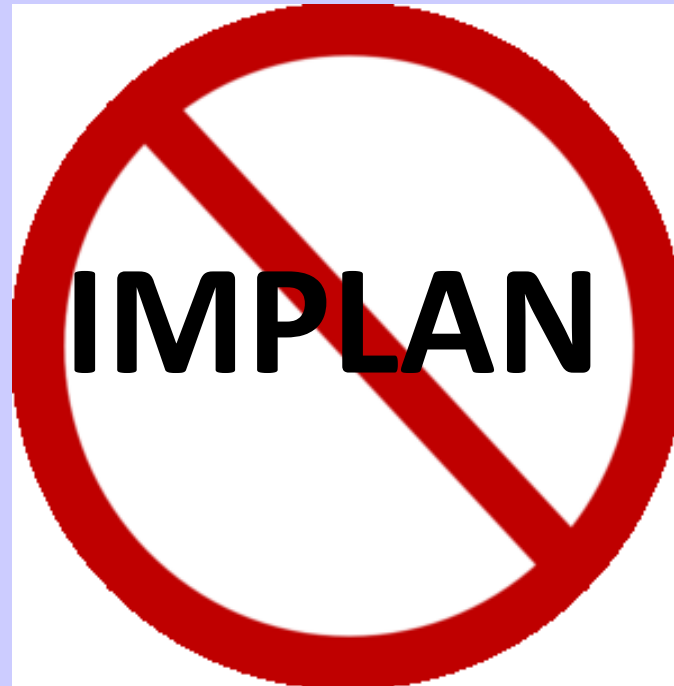
- Inform resource management decisions during drought
- Lessons learned, improve preparedness for future droughts
- Justify needs/costs of remedial actions
- Response to regulatory or other mandate
- Support for litigation or administrative proceedings

Example Data for Quantifying Impacts

- USDA drought disaster program payments by county
- USDA payments in drought-related livestock programs by county (prior farm bill)
- USDA (NASS) fallowed acreage estimates
- USDA net farm incomes (may not correlate w/ drought)
- Federal or state SDWA emergency grants (list of grantees and amounts)
- Annual hydropower generation
- Annual wildfire damages (damage and suppression cost estimates)
- BLM/USFS grazing programs (AUMs)
- Visitor days at state/federal water-based recreation areas
- State unemployment data in targeted farm-dependent communities (may not correlate with drought)

Desired Characteristics of Impact Data

- Objective and quantifiable data, not anecdotal stories
- Primary data, not subjective modeling
- Relevant metrics
- From authoritative sources



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Impact Measurement Considerations

- Importance of measuring impacts at local level
 - California agricultural example
- Data gaps for some sectors
 - Small water system problems
 - Fish & wildlife/ecosystem
 - Drought-related wildfire impacts not well understood/addressed in water sector

Where Do We Go From Here?

- Initial step – identify existing data sets that could be shared
- Possibly work with WESTFAST or NIDIS to identify central location (website) for sharing data (perhaps similar to WSWC's WADE)
- Potentially form state-federal workgroup on drought impact reporting

