

RECLAMATION

Managing Water in the West

Bureau of Reclamation SECURE Water Act Report 2011

**Presentation to USACE / USGS
Headquarters Meeting 2/3/2011**

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Bureau of Reclamation

SECURE Water Act

March 30, 2009

- The SECURE Water Act 2-year first reporting:
 - Section 9503 – Reclamation Water
 - Section 9505 – Hydropower (DOE / PMA)
 - Section 9506 – Intragovernmental Panel (Administrator / Secretary -> Subcommittee on Water Availability and Quality)

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Strong Interagency Collaboration

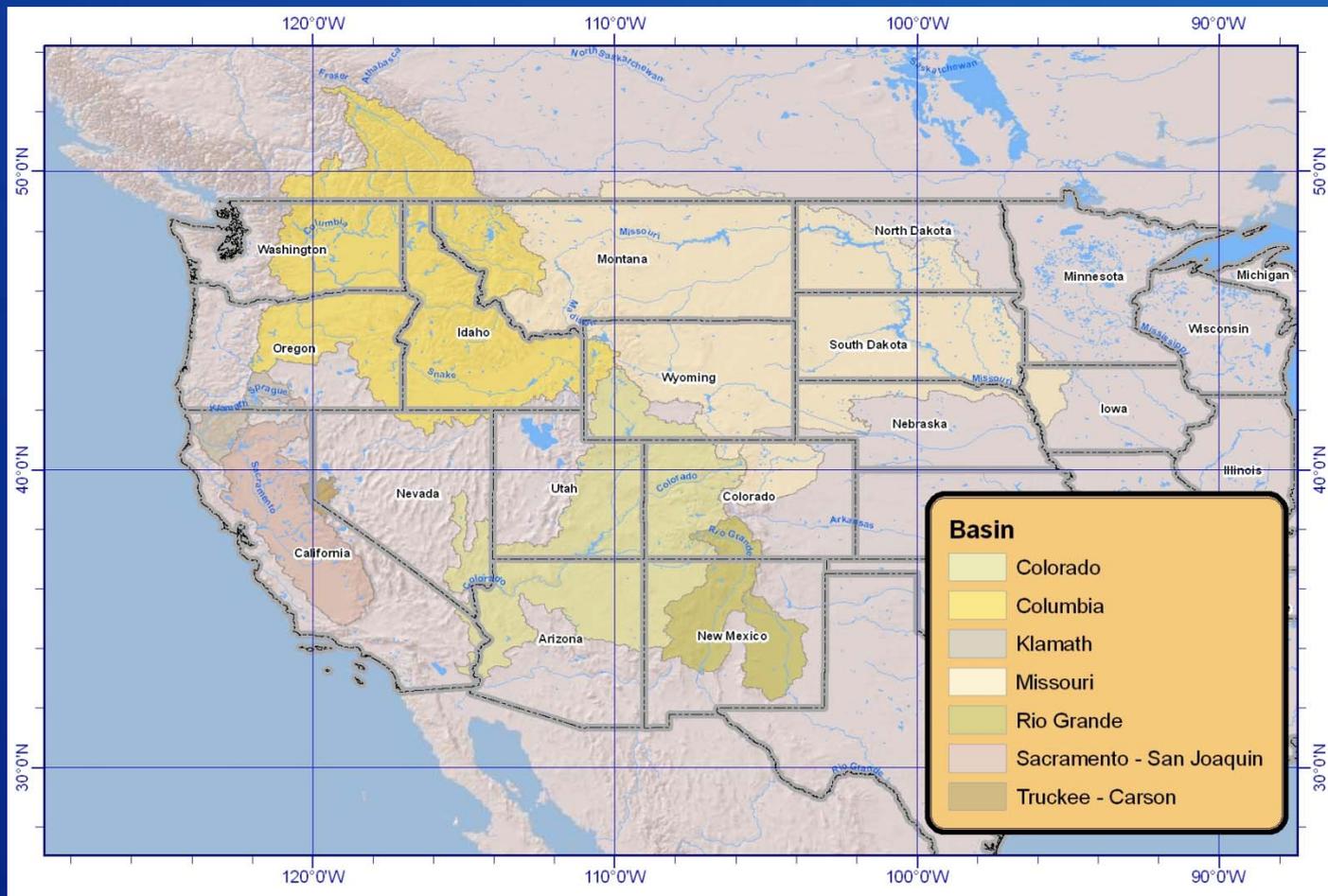
- **The SECURE Water Act had many sections with a 2-year first report:**
 - **Section 9503 – Reclamation Water**
 - USGS
 - NOAA
 - USACE
 - **Section 9505 – Hydropower (DOE / PMA)**
 - USGS
 - USACE
 - Reclamation
 - **Section 9506 – Intragovernmental Panel (Administrator / Secretary -> Subcommittee on Water Availability and Quality)**
 - USGS
 - NOAA
 - USACE
 - Reclamation

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Reclamation SECURE Water Act Report Content

- **Introduction**
- **Basin Specific Chapters**
 - **Historical Climate and Hydrology**
 - **Projected Climate and Hydrology**
 - **Associated Impacts (Environmental, Operations including floods, Hydropower, Demands)**
- **West-wide View**
- **Acknowledgement of Uncertainties**
- **Collaboration Activities (CCAWWG / LCCs)**

Reclamation SECURE Water Act Report Extent



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Risks to Water Supplies

Columbia River Example

Warmer – Wetter – Reduced Snowpack

Baseline

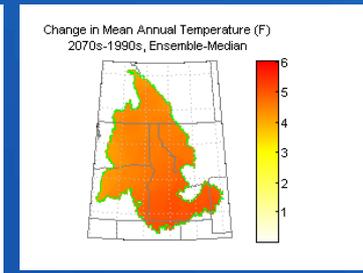
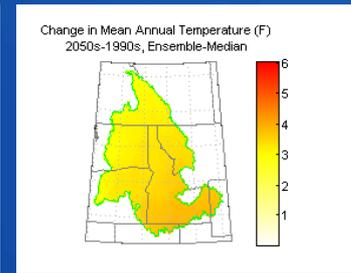
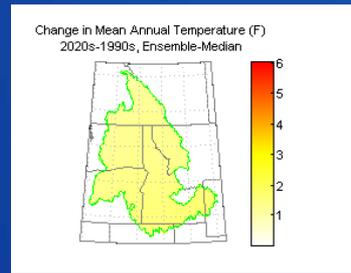
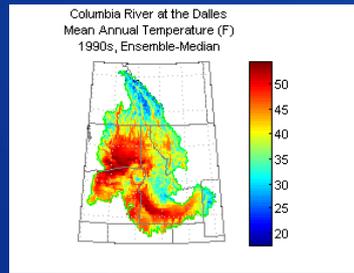
Change Through Time

2020s

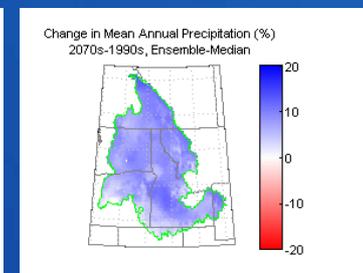
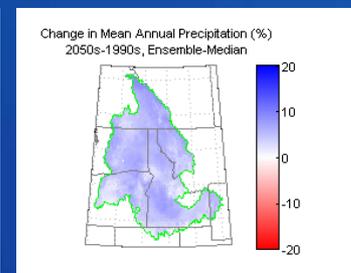
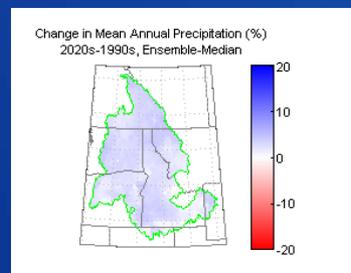
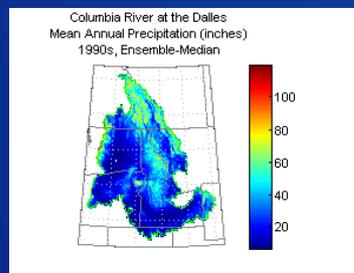
2050s

2070s

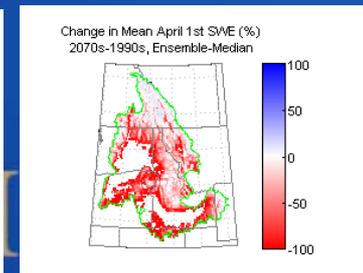
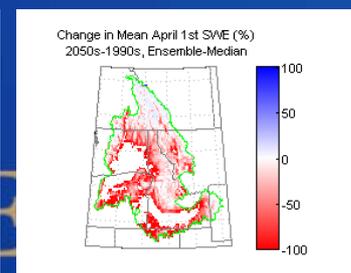
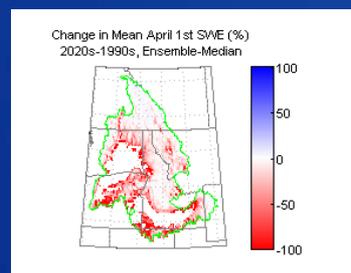
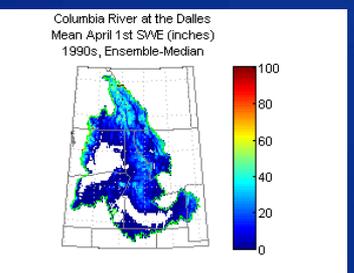
Temp



Precip



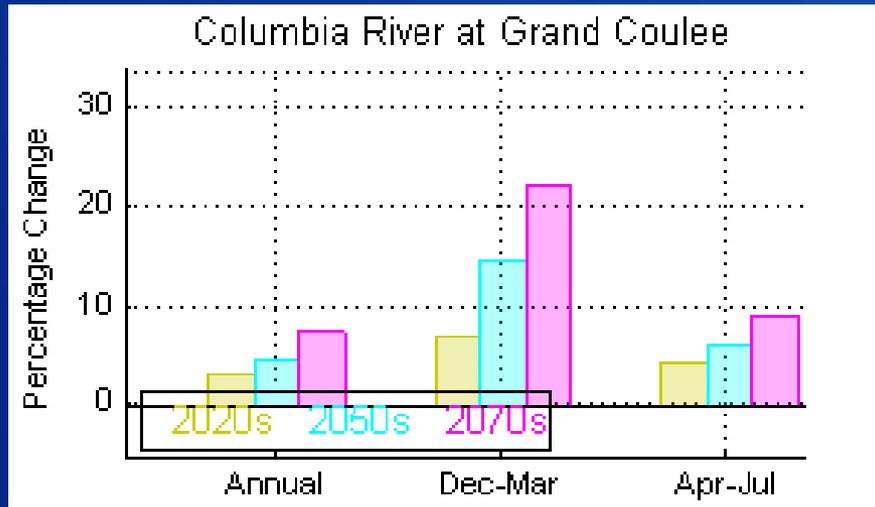
Snow



Tying to Impacts

Columbia River Example

Flow Timing - Competing Operations



- Flow timing shifts towards additional cool season runoff.
- Additional warm season runoff (unique to Columbia)

Competing Questions

Increased drawdown

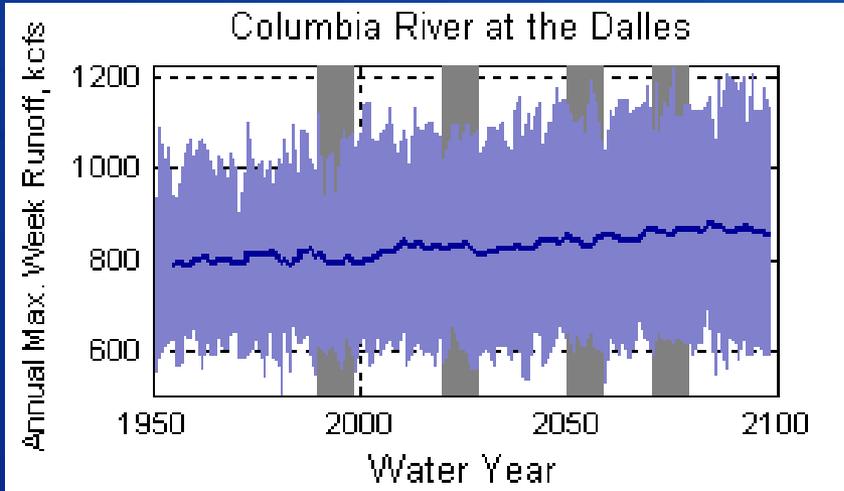
requirements to maintain risk objectives

Able to refill to supply objectives

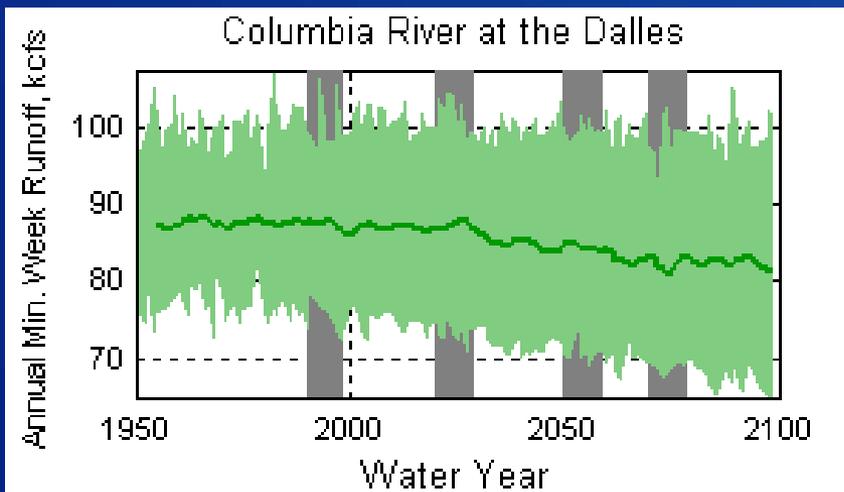
Tying to Impacts

Columbia River Example

Environmental and Flood Control



Implications for
Flood Control
Objectives



Implications for
Environmental
Flow
Objectives

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Peer Review

- **February 4th – February 28th**
- **USACE**
 - Chief H&H - Jerry Webb
 - IWR - Jeff Arnold
- **USGS**
 - WaterSMART Coordinator – Eric Evenson
- **NOAA**
 - Chief Climate Analysis ESRL – Robin Webb
- **Western States Water Council**
 - Tony Williardson

Thank you

- **Report Scheduled for March 30, 2011**
- **Represents Effort from all Reclamation Directorates**
- **Represents strong Interagency Collaboration and Coordination**

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