San Diego Watershed Basin Study Agenda

• Introductions-Leslie Cleveland and Goldy Herbon
• Opening Remarks-Bill Steele
• Memorandum of Agreement-Leslie Cleveland
• Study Organization/Milestones-Leslie Cleveland
• Plan of Study Purpose/Tasks -Leslie Cleveland
  Climate Change Task-Subhrendu Gangopadhyay
• Questions
• Adjourn
**BASIN STUDY PURPOSE**

- Help bridge current and future water supply gaps
- Complement existing planning efforts
- Develop partnerships

**BASIN STUDY OBJECTIVES**

- Evaluate water supply and demand conditions under future climate change conditions
- Recommend potential changes to existing structural operations or development of new facilities that could optimize reservoir systems
BASIN STUDY TASKS

- Task 1 - Project Administration
- Task 2 - Planning/Design/Engineering
  - Task 2.1 - Water Supply and Demand Projections
  - Task 2.2 - Downscaled Climate Change and Hydrologic Modeling
  - Task 2.3 - Existing Structural Response and Operations Guidelines Analysis
  - Task 2.4 – Structural and Operations Concepts
  - Task 2.5 – Trade-Off Analysis and Recommendations
- Task 2.6 – Final Report
Task 1 Project Administration
- SDPUD/Reclamation
  - General Oversight and Project Guidance
  - Study Task Facilitation/Coordination
  - Study Outreach

Task 2.1 Water Supply and Demand Projections
- Reclamation
  - Literature Review
  - Supply Gap Analysis
  - Assess future supply of
  - Prepare Interim Report
- SDPUD/Reclamation/STAC/Study Technical Teams
  - Document Review

Task 2.2 Downscaled Climate Change and Hydrologic Modeling
- Reclamation
  - DS & CC Modeling
  - Hydrologic Modeling
  - Draft Interim Downscaled Climate Change Hydrologic Modeling Report
- SDPUD/Reclamation/STAC
  - Document Review

Completion Date
- September 2016
- March 2015
- January 2016
Task 2.3: Existing Structural Response and Operations Guidelines Analysis
- SDPUD/Reclamation/STAC
  - Develop Concepts
- Reclamation
  - Evaluate and Refine Concepts
  - Appraisal-Level Concept Planning
  - Interim Structural and Operations Concepts Report

Task 2.4: Structural and Operations Concepts
- SDPUD/Reclamation/STAC
  - Review of existing data
  - Develop Concepts
  - Draft and Final document Review
- Reclamation
  - Refine and integrate concepts
  - Concept Planning
  - Prepare Draft Interim Report

Task 2.5: Trade-Off Analysis and Recommendations
- Reclamation
  - Conduct Trade-Off Analysis
- SDPUD/STAC/Study Technical Teams
  - Develop Recommendations
- SDPUD/Reclamation/STAC
  - Document Review
  - Peer Reviewers
  - Document Review

Task 2.6: Final Report
- SDPUD/Reclamation
  - Prepare Final Report
  - Publish and Distribute Final Report
- Reclamation
  - Peer Review
- SDPUD/Reclamation/STAC
  - Internal Review
- STAC/General Public
  - Public Review

Completion Date
- January 2016
- January 2016
- February 2016
- April 2016
Climate Change Impacts Assessment Questions

• How will watershed(s) in San Diego County be impacted by climate change?
  – surface water
  – groundwater
  – other (e.g., water quality)

• How will climate change impact water demands in the region?

• How might climate change impact the reliability and volumes of imported water supplies to the region?

• How will climate change impact the ability to capture and use local surface and groundwater supplies?

• How can local water supply infrastructure be used or optimized to support adaptations that are needed to ensure water supply reliability under climate change?
CLIMATE DATA

Downscaled CMIP3 and CMIP5 Climate and Hydrology Projections

This site is best viewed with Chrome (recommended) or Firefox. Some features are unavailable when using Internet Explorer. Requires JavaScript to be enabled.

Welcome  About  Tutorials  Projections: Subset Request  Projections: Complete Archives  Feedback  Links

Downscaled CMIP5 climate and hydrology projections' documentation and release notes available here.

Summary

This archive contains fine spatial resolution translations of climate projections over the contiguous United States (U.S.) developed using two downscaling techniques (monthly BCSD Figure 1, and daily BCCA Figure 2). CMIP3 hydrologic projections over the western U.S. (roughly the western U.S. Figure 2), and CMIP5 hydrology projections over the contiguous U.S. corresponding to monthly BCSD climate projections.

Archive content is based on global climate projections from the World Climate Research Programme’s (WCRP’s) Coupled Model Intercomparison Project phase 3 (CMIP3) multi-model dataset referenced in the Intergovernmental Panel on Climate Change Fourth Assessment Report, and the phase 5 (CMIP5) multi-model dataset that is informing the IPCC Fifth Assessment.

For information about downscaled climate and hydrology projections development, please see the About page.

Purpose

The archive is meant to provide access to climate and hydrologic projections at spatial and temporal scales relevant to some of the watershed and basin-scale decisions facing water and natural resource managers and planners dealing with climate change. Such access permits several types of analyses, including:

- assessment of potential climate change impacts on natural and social systems (e.g., watershed hydrology, ecosystems, water and energy demands);
- assessment of local to regional climate projection uncertainty;
- risk-based exploration of planning and policy responses framed by potential climate changes exemplified by these projections.

Archive History

- December 2010: Archive expanded to include (1) gridded meteorological observations that guided BCSD CMIP3 application and (2) the intermediate dataset developed during BCSD application, namely the 2-degree “regrid” global climate projections (i.e. over spatially interpolated global climate model results from native model resolution to a common 2-degree grid over the contiguous U.S.) and 2-degree bias-corrected versions of the regrid projections.
- August 2011: Archive expanded to include (1) 53 projections of daily BCCA CMIP3 projections of minimum temperature, maximum temperature and precipitation for three periods (1901-2000, 2041-2060, 2081-2100), with results being of potential interest to ecological studies requiring information on projected diurnal temperature range and/or flood-related studies requiring information about projected daily precipitation patterns; and, (2) 112 projections of monthly and daily hydrologic projections in the western U.S. associated with the monthly BCSD CMIP3 projections.
- May 2013: Archive expanded to include (1) 234 projections of monthly BCSD CMIP5 projections of precipitation and monthly means of daily-average, daily maximum and daily minimum temperature; and, (2) 184 projections of daily BCCA CMIP5 projections of precipitation and daily maximum and daily minimum temperature, all covering the period 1969-2099.
- July 2014: Archive expanded to include 97 projections of monthly and daily hydrologic projections over the contiguous U.S. associated with monthly BCSD CMIP6 projections.

Through June 2014, this website has served projections to roughly 1766 users, collectively issued through approximately 34000 requests. Geographically, the requests have covered the contiguous U.S. and parts of Canada, China, and Russia.

http://gdo-dcp.ucrlnil.org/downscaled_cmip_projections/dcpInterface.html
Questions?
San Diego Watershed Basin Study

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