Seasonal Climate Forecasts for Colorado
Project Duration: March - June 2011
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Scope of Work
In response to the need of CWCB to provide for a long-lead outlook of weather/ climate conditions at its Water Availability Task Force IWATF) meetings, the following describes the work proposed that builds on a decade of forecast experience:

(1) Compute seasonal precipitation forecasts for Southwestern U.S., including Colorado, for the cardinal seasons April-June and July-September at appropriate lead-times [up to four months out). This task consists of:

(1a) The timely update of input (predictor) information from a variety of sources, including in-house computations, their transfer into a statistical package that is used to manage this data, and the calculation of actual forecast values in spreadsheets that use the existing statistical regression schemes for up to ten output (predict and) regions and six separate base periods in a given forecast season;

Labor: 1.0 days per forecast times FOUR for forecasts made in Spring of 2011 (Total Cost: $2565 for 4 days)

(1b) The post-processing (transformation) of all forecast values (from Task 1a) into forecast tilts towards wet (dry, near-normal) conditions, the creation of forecast display maps, and an ongoing assessment of skill (based on verification seasons since 2000).

Labor: 0.5 days per forecast times FOUR for forecasts made in Spring of 2011 (Total Cost: $1282 for 2 days)

(2) Prepare and present talks at WATF meetings (plus one talk at CWCB board meeting in March). This task consists of:

(2a) The preparation of all relevant information on the current and expected El Nino/Southern Oscillation (ENSO) situation, appropriate Climate Prediction Center (CPC) and own seasonal and shorter-range forecasts, verification of recent seasonal precipitation anomalies against seasonal forecast(s) and typical ENSO impacts into powerpoint presentations;

Labor: 1.25 days per forecast times FOUR for presentations in Spring of 2011Total Cost: $3206 for 5 days)

(2b) Presentation of powerpoint [Task 2a) and participation in WATF and one CWCB board) meetings, including the creation and handout of 'Executive Summary' one-pagers, and availability for follow-up questions.

Labor: 0.33 days per forecast times FIVE for presentations in February March (twice), April, and June (Total Cost: $1071 for 1.67 day)

(3) Prepare and present talk to Flood Task Force meeting in March. This task consists of:

(3a) Ingest of pertinent information on dust loads and preparation of medium-to long-range forecast information to weight medium- to long-range risk of flooding in association with snow melt;

Labor: 0.5 days per forecast for presentation in March (Total Cost: $321for 0.5 days)

(3b) Presentation of flooding risk info integrated into WATF powerpoint,

Labor; 0.13 days per forecast for presentation in March (Total Cost: $83 for 0.13 days)

Total Labor: 13.3 days during March-June 2O11, (Total Cost: $8,528, assuming a 20% over head, including costs for IT support, transportation, and materials).