Welcome to the Colorado Basin RFC

Logistics & Introductions

Office layout Breaks Lunch (please fill out lunch order early) Tuesday evening at Squatters

NOAA's National Weather Service

Welcome to the Colorado Basin RFC

Introductions

Name Agency <u>What you hope to get out</u> of this meeting

NOAA's National Weather Service

Overview of Meeting and Goals

Address responses to the questionnaire Improve our understanding of your needs and operations Improve your understanding of our abilities and services Asking the proper questions to help the CBRFC:

> Identify where to focus future development activities Identify the best products and delivery method Identify where we can best improve our services

Opportunities:

Meet with staff members View our operational procedures & model interaction

Overview of Meeting and Goals Agenda

Overview of Meeting and Goals

- Summary: recent changes and roadmap
- CBRFC Model Review
- CBRFC Product Review
- Forecast Product Dissemination/Accessibility
- Verification
- Customer Survey Results
- Stakeholder Presentations
- New Technologies / Wrap-Up

Overview of Meeting and Goals Shaping the Agenda

Summary of comments from questionnaire:

Discuss the methods used to generate forecasts Soil moisture, precipitation impacts in the model Discuss new products (Daily ESP, etc.) Verification statistics availability Website changes, simplification, consistency How are others using forecasts (stakeholder presentations) Update on new technologies / forecast tools

Clovis

Roswell

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Carlsbad

New

Mexico

Alamodore

Las Cruce:

Summary of product and web page changes



o Riverside

Tijuana

Escondid

v Delta del Río Colorad

anside G

ESP Daily Updates

Summary of product and web page changes

COLORADO BASIN RIVER FORECAST CENTER номя WEATHER CLIMATE HELP OFFICE LINKS SEARCH RIVERS WATER SUPPLY RESERVOIRS Registration open for Stakeholder Forum Feb 25-26. Read More News Next CBRFC Webinar February 6 Read More ... **River Conditions** Help, Double Click Map to Zoom, Data Queried: Fri, 31 Jan 2014 15:30:01 -0700, Lat: 37.6 Lng: -110.5, Zoom: 6 River Map Terrain Satellite No Data Search Points Normal Significant Rise Forecast Group Near Bankfull Above Bankfull CBRFC \$ Above Flood Stage Outlook (> 3 days) Overlays Rivers Snow RFC Boundary Percentiles Fort Collins Forecast Groups Percent Average Basins Percent Median No Data **River Points** < 25% 🗆 All 25-50% Data 50-75% Forecast 75-90% 90-110% Reservoir 110-125% Official Flood 125-150% Active 150-175% >175% Snow Sites No Data No Average < 7000 ft</p> 7000-8000 ft Santa F 8000-9000 ft 9000-10000 ft Albuquerque > 10000 ft Clovi New Los Angeles Mexico Mexi Diego Carlsbac Las Cruce Tijuana 5005 psehada Map data 2014 Google, INEGI - Terms of Use

Web Page Changes: Google map Search Easy zoom Reorganized header Still lots to do....

Roadmap: Incorporating New Science and Improving Services

Development work done through:

- Collaborations
- National Resources
- Local resources

Main goals are to meet stakeholder needs and improve our forecasts and services.

Roadmap: Incorporating New Science and Improving Services

Collaborations - Goals:

1. Improve CBRFC forecast skill for water supply and snow melt through focused work on areas of our forecast process that have been shown to be deficient (e.g. Werner and Yeager, 2013). These include:

- Snow modeling
- Incorporating ensemble weather and climate forecasts

2. Improve decision support including connectivity with reservoir decision support systems

Incorporating New Science - Collaborations

NASA JPL Remote sensed snow information (MODIS)

Investigate how remote sensed gridded snow covered area and snow contamination can be used to improve our forecasts



Incorporating New Science - Collaborations

Western Water Assessment (WWA) –

- Impacts of dust on snow and beetle kill on forecast water supply
- Analysis of Information Use by Stakeholders of the CBRFC

Incorporating New Science - Collaborations

Utah State University – Dr Tarboton

Evaluate Utah Energy Balance Snow Model within CHPS to improve streamflow prediction

Incorporating New Science - Collaborations

University of Massachusetts – SARP funded

Integrating Climate Forecasts and Reforecasts into Decision Making – Demonstrate potential usefulness of climate forecasts for Public utility planning and create an appropriate framework for their applications.

Incorporating New Science – NWS Efforts

Hydrologic Ensemble Forecast System, HEFS Provides short to long term probabilistic forecasts by incorporating climate and weather forecast information.

CBRFC is one of 5 test sites nationwide.

An ESP Upgrade: The NWS Hydrologic Ensemble Forecast Service (HEFS)



Incorporating New Science and Improving Services – CBRFC local efforts

Web page improvements

New products, new ways to display information and forecasts

Based on your feedback

Questions To Consider

What are 2-3 key products and services you wish you had but don't from the CBRFC ?

Where would you like to see CBRFC invest its development and operational energies ?

What key upcoming decisions points do you have that you would like the CBRFC to be aware of ?