

Freshman Valley
Study - Notes
Dupl. copies
Marginal

13 = Baseline Scenario
Overall Scenario
Quick Response Scenario

March 15 or 16
NEXT TECH Mtg

1988-1991 - moderate drought scenario
2005 Drought Levels

Baseline - General Allocation
15/25

50 35 Blanket

50 35 QR

No Pumping

Pump with no allocation

~~overall 50~~
~~max 15~~

Paul has already developed weather scenarios

Moderate Drought

Normal Conditions

Severe Drought

Wet Conditions

~~40 mile~~ Riverside Diversion Dam to Gage (Frenchman Creek at Culbertson)

upstream of Diversion Dam on Republican

Gage Ends NE of Imperial

Gage - Palisade 44 miles Down str

Ca 30 mile

Culbertson Gage 4 mile upstream

10/90 for Dry to WET

90/50/10

Make Pico on need for further study / Legislation

Felker - Getting water where they need it under pumping scenarios 50-55 cfs to make it thru canal system - we get 25 to 30

JACK - Key ~~states~~ Diversion Pocos

Palmdale

Riverside

Republican Compact Gage

Above Reservoir

Once we get initial results Tech people develop list of scenarios they think appropriate then take to stakeholders

NEPA - only identify show stoppers

Kube - major TASK Incorporating SW model & GW model Ann - Not major

Ann - During 1st negotiations we put together operations model for basin

Down to gage at Riverside

Whole basin in terms of if adversely affect compact

STEVE R - when Kansas bought out District bought 1 time value of 40 year contract ^{color Bluffs?} - Also Bonny in Colorado Colo paid 23% of annual O&M

Larry - Summarize discussion in memo?

Vandal - Thanks Kansas paid ~~400~~ about \$400,000 - actual paper said \$365,000

Ann - may have to get law changed to allow for charging for recharge on existing projects

1st Cut - Compact Dehydrated SW
Subbase For Cutting off wells

Frenchman Valley Appraisal Study
Cambridge Community Center
Feb. 15, 2007 – 9:30

1. Introductions
2. Review of Updated Plan of Study
 - a. Purpose
 - b. Problems
 - c. Objectives
 - d. Constraints
3. Modeling Update
4. Scope of Work
 - a. Phase I – led by NDNR
Modeling services
Data gathering
Initial modeling
 - b. Phase II – led by Reclamation & NDNR
Development of scenarios
Future without alternative
 - c. Phase III
Economic analysis of scenarios - Reclamation
Evaluation of alternatives – all agencies
5. Schedule

INTERRELATED WATER MANAGEMENT ACTIVITIES BUDGET / COMMITMENTS/ COMPLETION DATES
Draft 2/14/07

WORK ITEMS	FY 06 and 07 Combined Budget	FY 06 and 07 Committed	FY 06 and 07 Uncommitted	Contracted	Contracted Amt	Due Date	Completed?	Paid to Date	Other
WB									
Task Order #1 Specific Yield & Transmissivity Study FY 05 (Task Order #2 Prairie Land Use) (Non 962 Funds) (\$214,666)	\$41,361	\$33,005	\$7,655	Yes	\$41,361	Done	Yes	\$33,005	Cost Less Than Contract Amt
Task Order #3 CALMIT Land Use - Rest of State	\$282,652	\$282,652	\$0	Yes	\$282,652	8/25/2007	Yes	\$0	\$214,665 Contract Non 962
Task Order #4 Hydraulic Conductivity	\$144,827	\$69,921	\$75,000	Yes	\$69,921	7/1/2006	No	\$60,000	
Task Order #5 Aquifer-Stream Interact - Upper Midrange	\$86,189	\$86,189	\$0	Yes	\$86,189	12/31/2006	No	\$0	
Task Order #6 Aquifer-Stream Interact - Lower Midrange	\$18,393	\$18,393	\$0	Yes	\$18,393	12/31/2006	No	\$0	
Task Order #8 Consumptive Use Research	\$8,000	\$8,000	\$0	Yes	\$8,000	10/30/2007	No	\$1,280	
Task Order #9 North Plains Weather Stations (Non 962 Funds) (\$1,400)	\$180,000	\$205,632	(\$25,632)	Yes	\$205,632	Done	Yes	\$7,828	
Task Order #10 Evapotranspiration Work	\$40,000	\$40,000	\$0	Yes	\$40,000	Done	Yes	\$0	
Science & Airline Geophysics Objectives/Elkhorn	\$1,000	\$1,000	\$0	Yes	\$1,000	Done	Yes	\$0	
COHYSST	\$745,112	\$807,091	(\$61,779)		\$776,046				\$24,190 cash in 06 - 07 is est
Future COHYSST Model Maintenance	\$65,676	\$65,676	\$0	Partial	\$65,676				
Future DNR COHYSST Study	\$75,000	\$116,000	(\$41,000)	No	\$116,000				
USGS	\$160,678	\$181,678	(\$21,000)		\$181,678				
Upper Midrange Wellbore Survey	\$251,000	\$251,000	\$0	Yes	\$251,000	9/30/2007	No	\$0	
Lower Elkhorn Groundwater Model*	\$245,000	\$245,000	\$0	Yes	\$245,000	10/31/2007	No	\$0	\$50,000 of \$295,000 contract was repaid by NRDA
Subtotal USGS	\$496,000	\$546,000	(\$50,000)		\$546,000				
BLR/BC	\$1,000,000	\$1,000,000	\$0		\$1,000,000				
Blairsville Wellbore Survey	\$1,000,000	\$1,000,000	\$0	No	\$0				
Blairsville Groundwater Model*	\$1,000,000	\$1,000,000	\$0	No	\$0				
CTA/EE	\$5,335	\$5,335	\$0		\$5,335				
Conjunctive Use Contract - CNP/DNPPD	4,000	2395	\$1,415	Yes	\$15,000	Done	Yes	\$15,000	
Hydraulic Conductivity Mapping - Larry Cast Contract	100,000	\$50,000	\$50,000	No	\$4,000	Done	Yes	\$2,585	(\$15,000 total but Expenditures of \$8465 in FY 05)
Contract for Senior Modeler	\$170,325	\$91,200	\$79,125	No	\$95,300	6/30/2007	No	\$0	Cost Less Than Contract Amt
Internal Projects									
Internal Staff	\$120,000	\$96,462	\$23,538	Partial	\$98,462	Done	Yes	\$0	
Stream Gauging	\$53,578	\$32,000	\$21,578	No	\$98,482	Done	Yes	\$0	
Subtotal Internal Projects	\$173,578	\$128,462	\$45,116		\$98,482				
INTERRELATED WATER MGMT - STAFF & SUPPLIES									
Flat Three DNR Staff	\$400,000	\$400,000	\$0	NA	\$0				
Second Three DNR Staff	\$200,000	\$200,000	\$0	Partial	\$200,000				
Equipment and Supplies	\$200,000	\$200,000	\$0	Partial	\$200,000				
Water Sampling Contracts	\$265,000	\$265,000	\$0	Partial	\$265,000				
Subtotal Staff and Supplies	\$1,165,000	\$922,000	\$243,000		\$665,000				
TOTAL - Non Incentive	3,058,701	2,847,349	499,352		1,688,184				
Incentives and Water Leasing									
REP	\$5,000,000	\$5,000,000	\$0		\$0			\$1,077,000	
Republican Pilot/EDIP	1,000,000	\$0	\$1,000,000		\$0			\$800,000	
Cooperative Agreement Pass Through to NRDA	2,700,000	\$3,014,500	(\$314,500)		\$0			\$3,014,500	
Public Land Credit Incentives	187,500	\$669,000	(\$481,500)		\$0			\$815,595	
Republican New Permanent EDIP	0	\$669,000	(\$669,000)		\$0			\$895,000	
Other Incentives	\$207,399	\$0	\$207,399		\$0			\$0	
Tri-Basin EDIP	\$0	\$75,000	(\$75,000)		\$0			\$0	
S-Plate & N-Plate EDIP	\$0	\$0	\$0		\$0			\$0	
TOTAL - Incentives and Water Leasing	\$8,494,899	\$9,348,000	(\$853,101)		\$148,899				
TOTAL - OVERALL	\$12,551,800	\$11,993,349	\$558,451						

** The Upper Elkhorn Groundwater Modeling Study includes a \$295,000 DNR/USGS Agreement. However there is also a subcontract which provided for the Upper and Lower Loop NRDA to repay \$50,000 of that amount. That payment has already been received. However, because it is in a cash fund we are not currently allowed to spend. I have included the budgetary amount as the full \$295,000 because that is the amount committed out of LB 962 Funds.

Good Option to Leave in River

% of Frenchman on what allocated to NE

76% allocated to NE

much better % Boost to allocation mitigate

consumptive use elsewhere

Keep alluvial zone recharged more

Evap & Inflow Same Last Year

Accrued 1000 AF

SPC - IF they want water on Lake they need
to RETIRE ELSEWHERE

Culbertson Canal Delivered 6% of Diversions

Increase Allocation

or

Decrease Consumptive Use

3 to 3 1/2 CFS at gage above Enders - don't do

Anyone any good

Do more good to halt evap

Board - IF can't restore irrig Dist

IF NRDs want RETIRE Acres upstream

Restore Owl leads to 90s 30 cfs on 90

Good Hydro Anal

Baseline - Pass Inflow to Don't Divert. IF NO TR or REC
activities what happens to Frenchman to match
to what would happen to French Inflows.

Enhance flows to assist to Enhance Harbor

Also study Enhance Enders.

61c
Offset consumptive use & decrease in water storage

What Level of GW Pumping Restores Flows to Endless

States focus is doing what needed to comply with Compact &
Will alt make more or less viable to comply with water short years

dry drought conditions

Get In Touch with Modelers For Settlement and
Getting all Flip Chart Items (Interests) Covered
Getting benefits & costs allocations acceptable w/ w/ w/ w/
legal Institutional Constraints - DNR Helps
BU REC - will massage flip chart into Objectives

Don-Leroy mtg -
Baseline

Generating Data - SW model & GW model
Everything Else Collecting existing data

* Send JACK Don Adelman's Water
Administration Analysis - SPOT Gaging also

* Get List of Bibliography to JACK
Have Rich Do From our Library Also know CSP to USGS
Just for Frenchman
LWL etc.

Plan of Study
Baseline

* Thursday 21
~~Monday~~ July 20 10 am McCook
Alternative 22 July 22

Public Announcement by July

Look into Matt London Modeling ???

Matt London
US
GS modeling