

WESTCAS – Section 7 Consultation and NPDES

Presented by:

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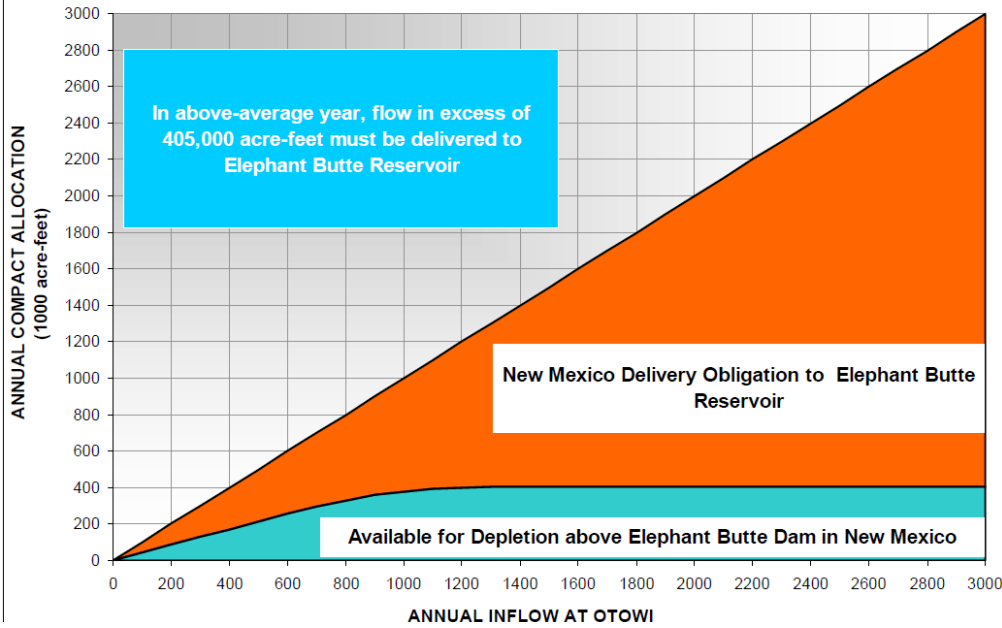
February 2010

Outline

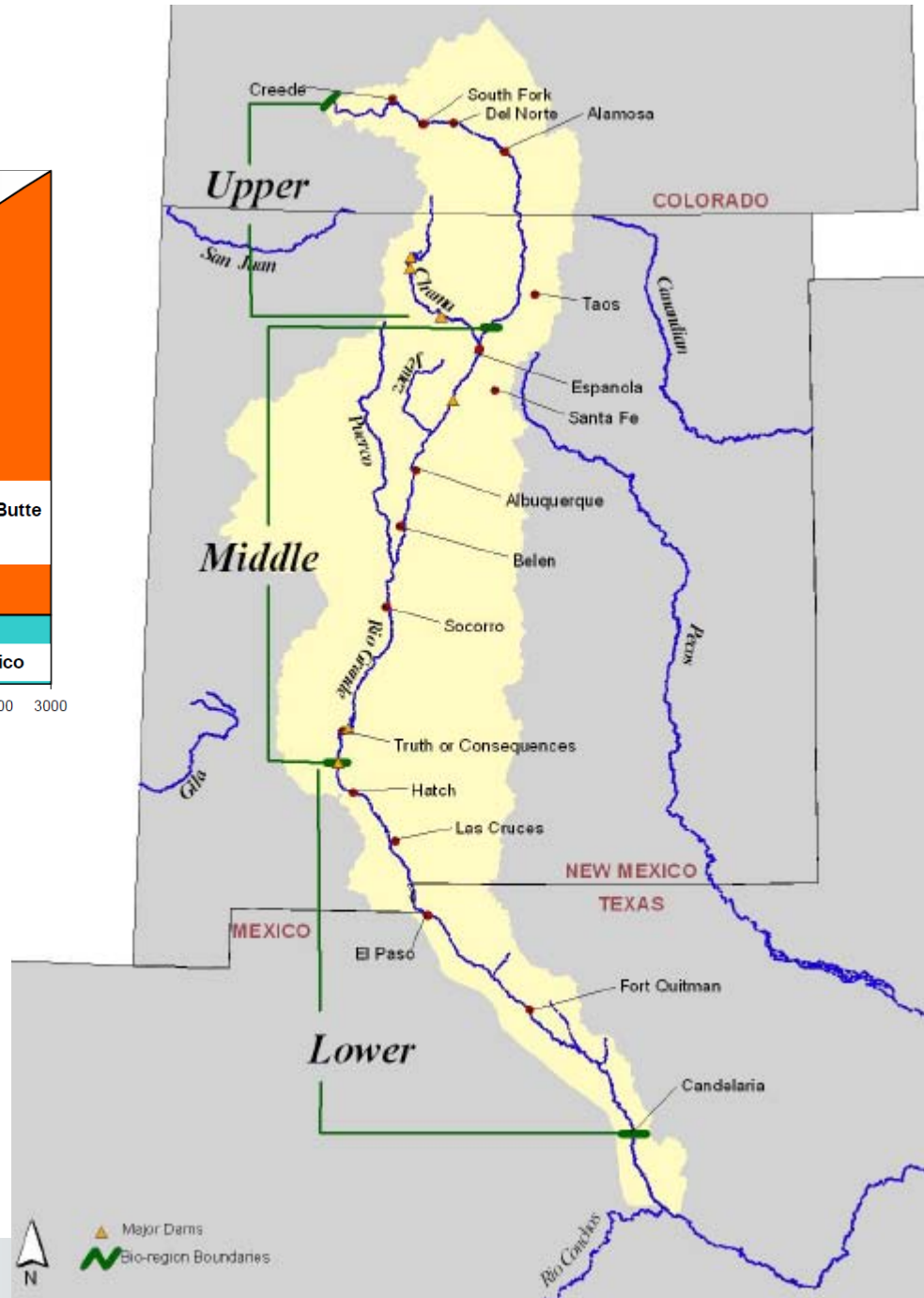
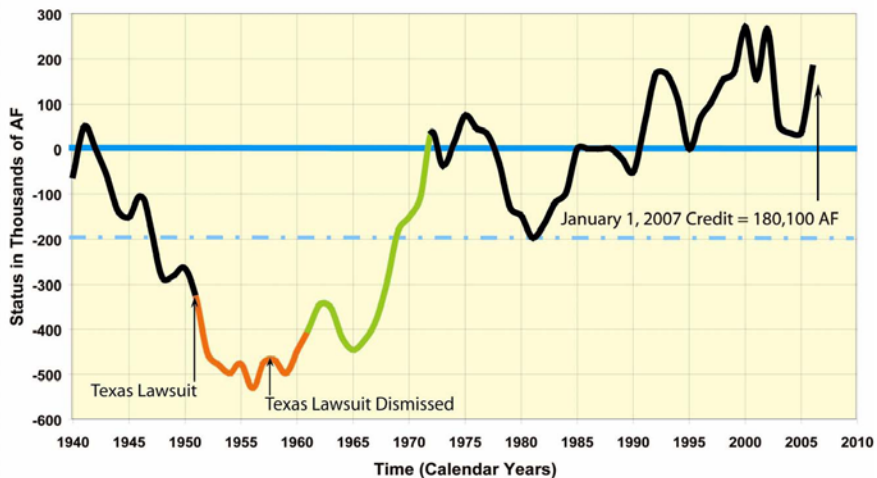
- Rio Grande Hydrology
 - *The Rio Grande System and rules*
 - *River Demands*
 - *ABCWUA Water supply*
 - *San Juan-Chama Project*
 - *Demand and Return Flow*
- Section 7 Consultation Process
 - *General provisions*
 - *ABCWUA NPDES Consultation*
- Rio Grande Silvery Minnow Recovery and Mitigation

Rio Grande

ANNUAL COMPACT ALLOCATION

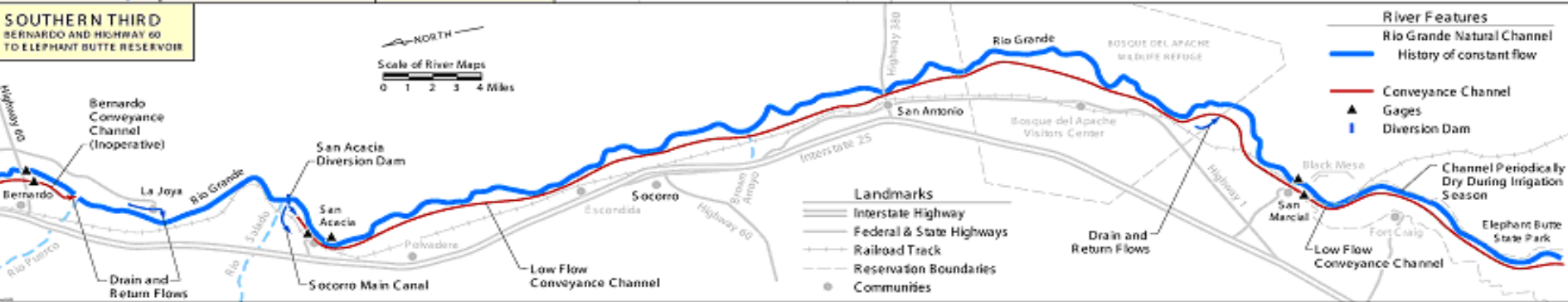
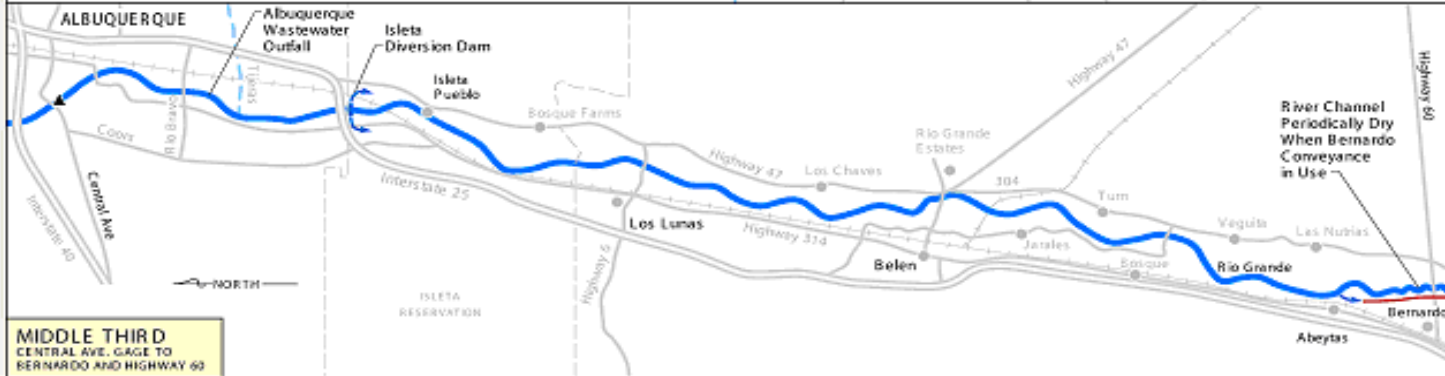


Rio Grande Compact Compliance 1940 - 2006

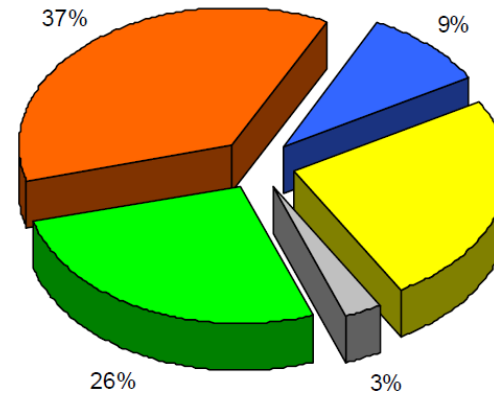


Middle Rio Grande

Figure 1-1. Overview of the Middle Rio Grande System

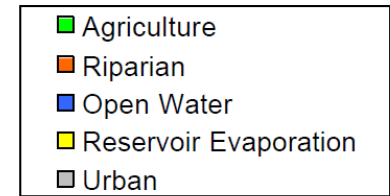


Surface Water Use in the Middle Rio Grande

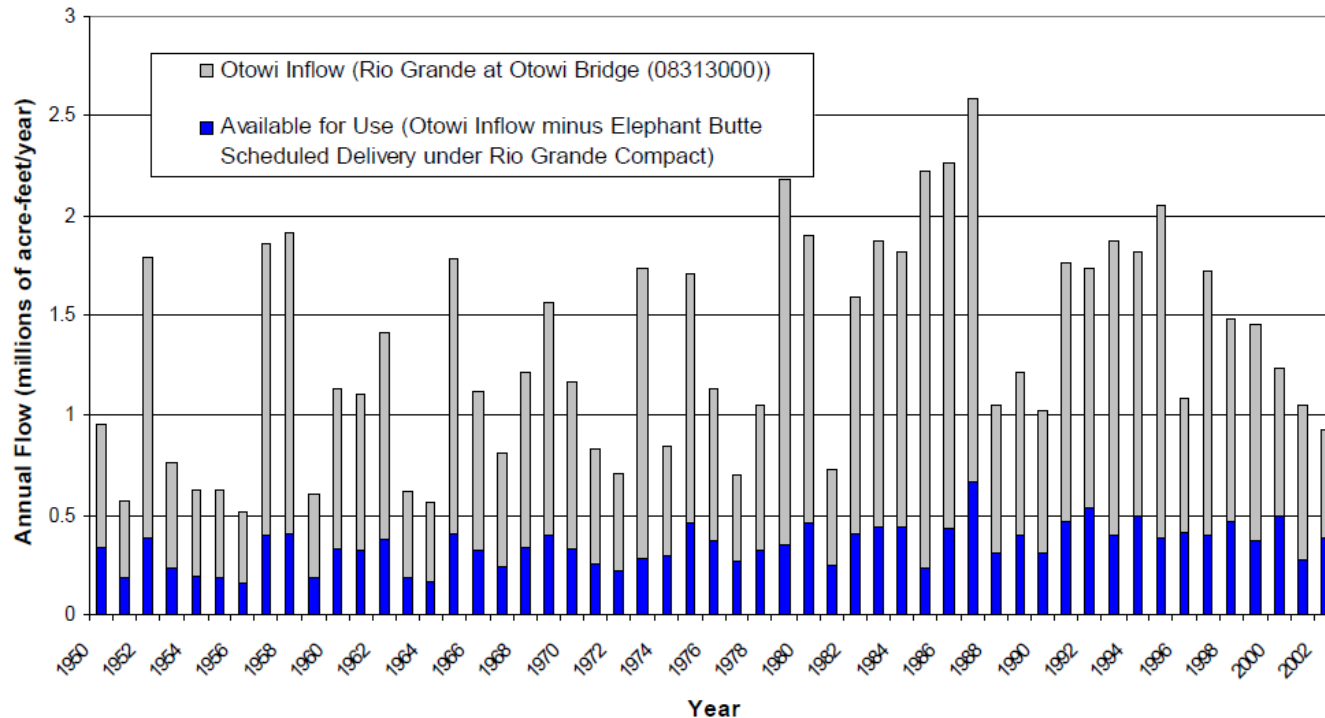


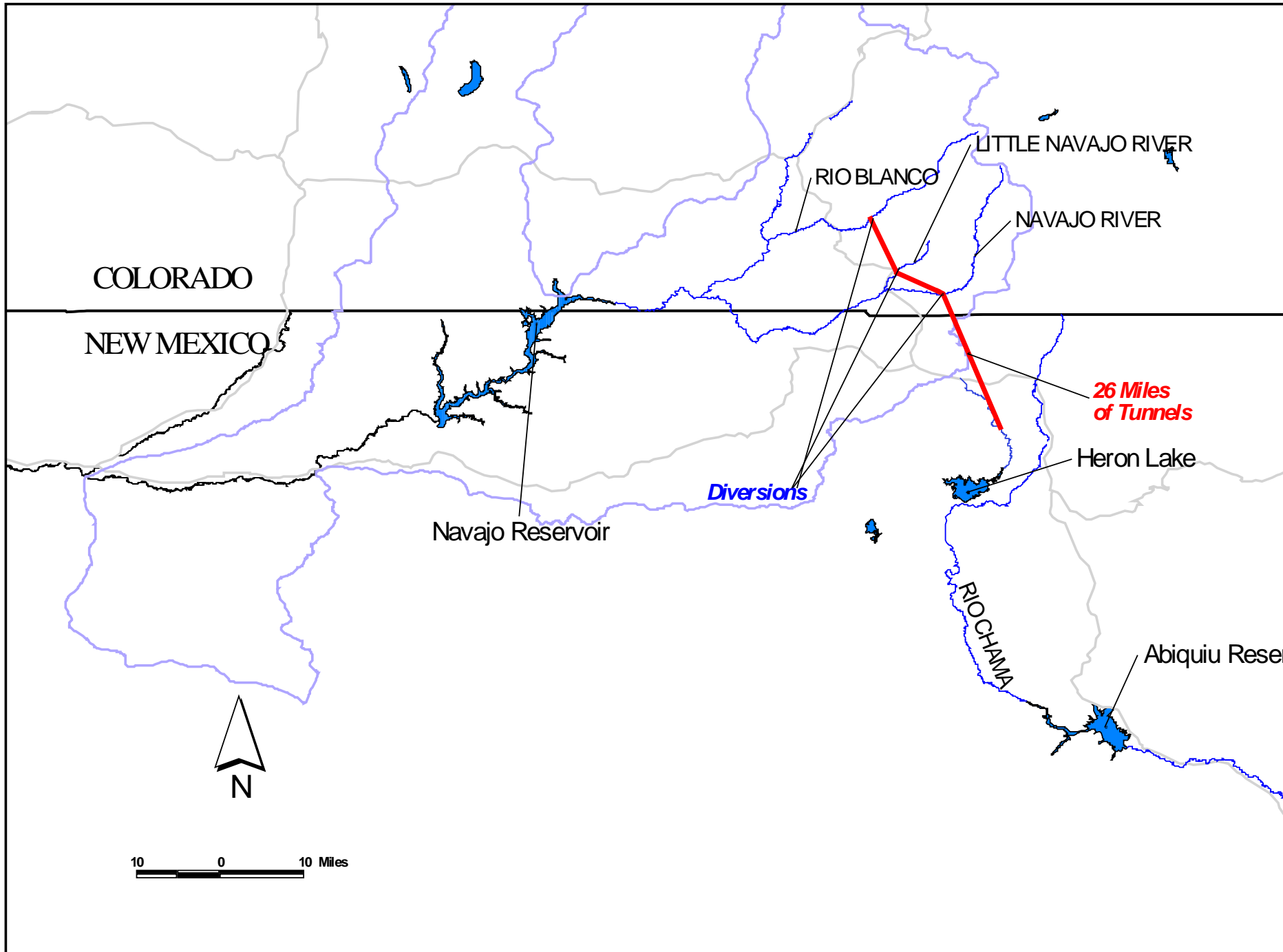
Note: Shown are percentages of total mean river depletions of approximately 680,000 acre-feet per year

Additional depletions of 71,000 acre-feet per year are presently occurring to aquifer



Limitation: Base Supply to the Middle Rio Grande Region (Rio Grande at Otowi Bridge minus Elephant Butte Scheduled Delivery)





COLORADO

NEW MEXICO

RIO BLANCO

LITTLE NAVAJO RIVER

NAVAJO RIVER

**26 Miles
of Tunnels**

Heron Lake

Diversions

Navajo Reservoir

RIO CHAMA

Abiquiu Reservoir



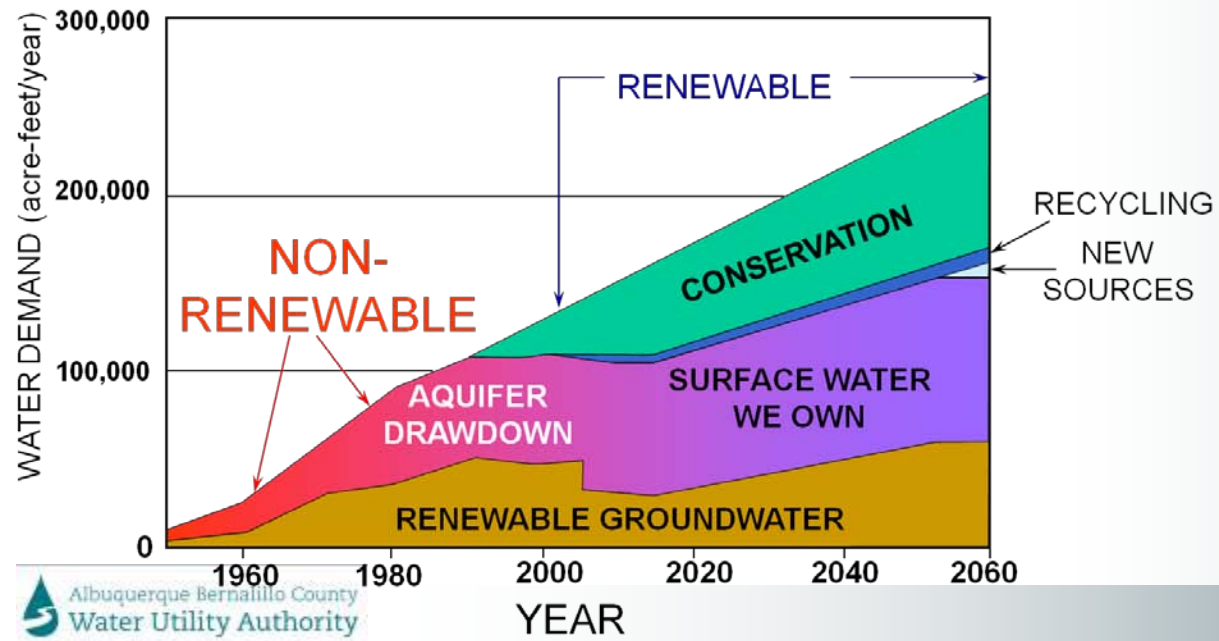
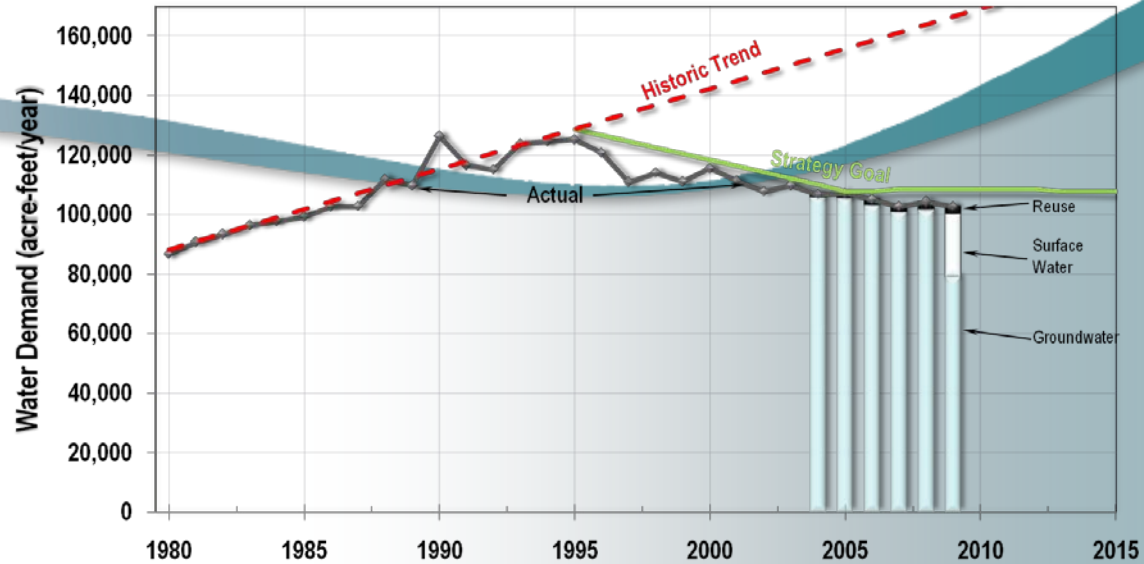
10 0 10 Miles

Surface Diversion

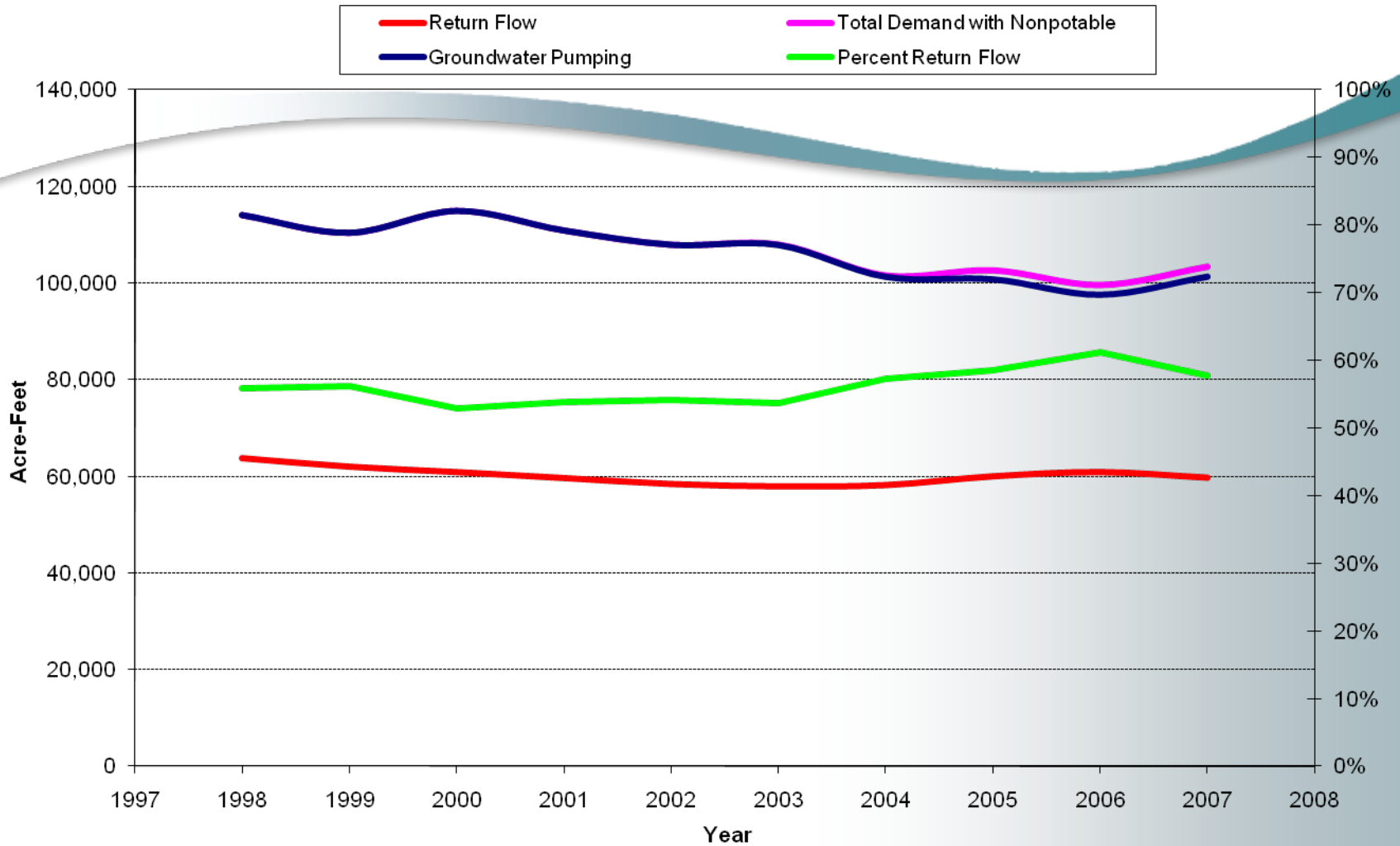


Water Supply Balance

CONSERVATION PROGRAM STATUS



ABCWUA Water Production and Return Flow



Notes: North I-25 Recycle & Nonpotable Plant on line 7/2003.

Effective September 1, 2005 no reported return flow credited to NMUI Permit No. RG-4462; begin reporting net return flow.

Southside Water Reclamation Plant



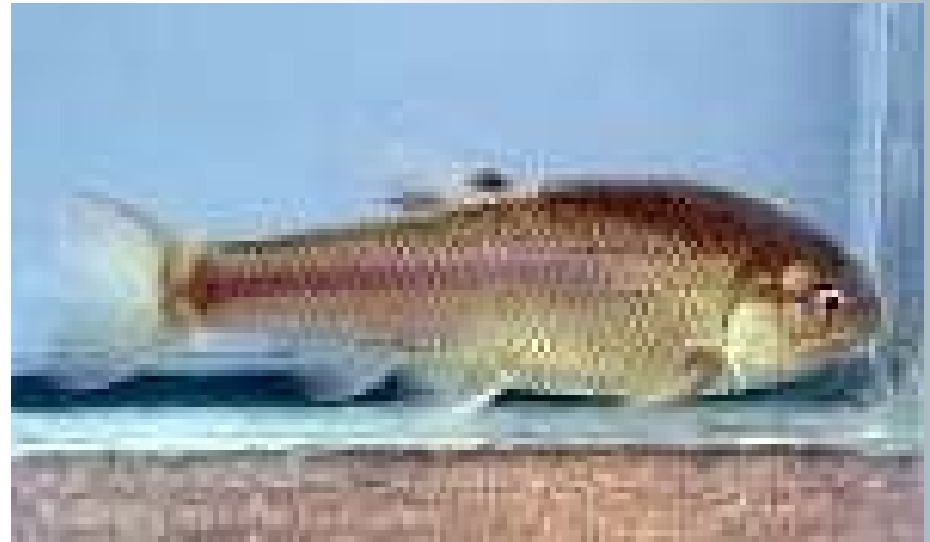
Wastewater: Influent and Effluent



NPDES Permit Limits Summary:

Contaminant	30 Day Average	Daily Maximum
Fecal Coliform	100 Colonies/100 ml	200 Colonies/100 ml
Total Residual Chlorine	No Measurable	No Measurable
Ammonia	1 mg/L as N	1.5 mg/L as N
Total Inorganic Nitrogen	9.71 mg/L	14.56 mg/L
Dissolved Oxygen	4 mg/L	NA
Total Suspended Solids	30 mg/L	NA
Carbonaceous BOD5	15	NA

Whole Effluent Toxicity (WET) Test



- Survival of organisms at 100%, 69% and 29% dilution
- Minnows susceptible to ammonia
- Water Fleas susceptible to pesticides

ABCWUA Water Supply

● Historically

- Pump groundwater
 - offset effects with *return flow* and water rights
- Participate in the ESA Collaborative Program
- Provide water and storage for Rio Grande Silvery Minnow

● Today and the Future

- Preferentially use imported SJC Water, pump less groundwater, reuse wastewater, and store water through ASR
 - Offset effects with *return flow*, water rights, and storage
- Continue to balance supply and demand and *keep the river whole*
- Participate in ESA Collaborative Program
- Provide water and storage for minnow recovery

Section 7 Consultation

● Process

- *Section 7 of the Endangered Species Act is triggered by Federal Action*
- *If listed species are present then a determination of effect is required*
- *If potential for an adverse effect exists then a formal consultation begins and a biological opinion is prepared by the Fish and Wildlife Service (FWS) with input (biological assessment) from the consulting agency*

● How does consultation work?

- *Meetings with FWS*
- *Biological Assessment – what is the impact to endangered species*
- *Baseline – monitoring and assessment (how do you know if there is an effect)*

Section 7 Consultation

- What is a Biological Opinion?
 - *FWS determination of impacts on endangered species*
 - *Derived from analysis of biological assessment*
 - *Data collection and understanding of baseline data and ecosystem is critical*
 - *Hydrology*
 - » *Base stream conditions, typical seasonal changes*
 - *Fish studies*
 - » *Toxicity, swim studies,*
 - *Plant data*
 - *Etc.*



Section 7 Consultation

- Jeopardy or no Jeopardy – that’s the question
 - *FWS determines jeopardy from the weight of the information*
 - *No jeopardy – action results in few issues*
 - *May still be recommendations to minimize impacts*
 - *Jeopardy – RPA/RPM*
 - *Will require issues are addressed*
 - *May require mitigation*

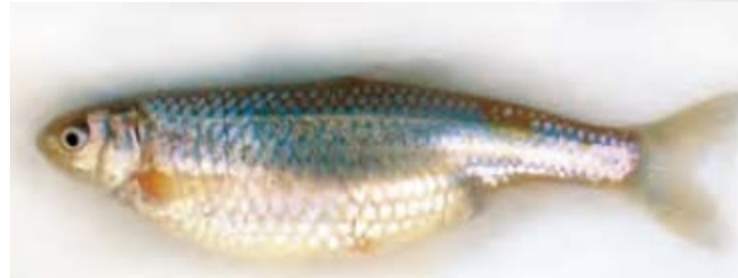
ABCWUA

NPDES Section 7 Consultation

- Primary Species?
 - *Rio Grande Silvery Minnow*
- Lead Federal Agency?
 - EPA - NPDES discharge to critical habitat
- BA – BO
 - Data collection
- Conclusion?
 - No jeopardy
- How did we get here?



The Rio Grande Silvery Minnow



Albuquerque Biopark Refugium



ABCWUA NPDES Section 7 Consultation

● Problem

- *How will ABCWUA NPDES permit affect the Rio Grande Silvery Minnow?*

● People

- *Early meetings with regulators helped shape issues*
- *Data collection and testing program was developed from these meetings*

● Data

- *How do you know you won't affect the species?*
- *Direct testing...*

ABCWUA NPDES Section 7 Consultation

● USGS Studies

- *Three on-site toxicity studies were conducted with Rio Grande Silvery Minnows (RGSM)*
- *The tests were designed to assess suitability of water for RGSM sanctuary*
- *Results*
 - *No adverse affect on survival growth in three different life stages.*
 - *Minnow appears to prefer 100% effluent to 100% river*
- *Implications*
 - *Used by USBR to assess use of water in RGSM recovery efforts*
 - *Used by Fish and Wildlife to assess wastewater discharges to the Rio Grande during upset events*

ABCWUA NPDES Section 7 Consultation

- Parsons Study

- *Core Mix Study of NH₃, CL₂, etc.*
- *Study showed that changes could mitigate potential effects*
 - *dechlorinate – removes potential Cl effects*
 - *Change discharge line – increase mixing, reducing concentrations and potential effects*

NPDES Lessons and Issues

- Understand the ESA process and how it works
 - *ESA resolution can take significant time. Plan!*
- Know your regulators
 - *Meet them face to face*
- Support your arguments
 - *Do the studies and have the data to make good decisions*
- Negotiate fairly
 - *Admit when your wrong and find a solution*

What's Next for NPDES

- Water Authority NPDES permit renewal sent Fall 2009
- Region VI – Consultation Request to FWS
- Data needs for next consultation/permit?
- UV Project coming on-line Fall 2010 – no more Chlorine

Questions?

For more information contact:

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