

The Cost of ESA Compliance in the Platte River Basin



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George Oamek, EDO

Cost of ESA Compliance, With and Without the PRRIP

- Net impact = \$(Adaptive Management for the Platte River)
- Without PRRIP scenario continues pre-PRRIP conditions
- With PRRIP assumes expenditures to date and future estimates
- Net present value 2007 through 2032, extended First Increment
- Many critical assumptions are highly uncertain



Cost of ESA Compliance, With and Without the PRRIP

- Results are draft and presented at a Program-wide level
- Net benefits are also allocated to States and Federal component but too preliminary to include here
- References include:
 - “*PRRIP: Economic Impacts to the State of Nebraska*”, prepared for the CPNRD by HDR Engineering, et al., October 2006
 - Platte River Final Programmatic EIS, January, 2006, Agricultural Economics and Hydropower Appendices, USBR



Without PRRIP Economic Components

- ❑ Long, expensive B.O and Section 7 Consultation process
- ❑ Extensive land and water mitigation requirements = \$\$\$
- ❑ Likely reduction in irrigated acreage for USBR North Platte Project lands (NE, WY)
- ❑ Potential modification of FERC licenses and mitigation requirements for CNPPID and NPPD facilities
- ❑ Change in hydro-power produced from North Platte Basin USBR facilities in WY
- ❑ Reduction in NE groundwater irrigation due to LB 962, regardless of PRRIP



With PRRIP, Economic Components

- Use of a Tiered B.O. and Section 7 Consultation process
- PRRIP expenditures to date and estimated future costs
- Tamarack Project, Pathfinder Enlargement, Environmental Account
- Other state contributions
- Change in hydro-power produced from North Platte Basin USBR facilities in WY
- Reduction in NE groundwater irrigation due to LB 962, implemented at a faster rate than under a No PRRIP scenario



Critical Assumptions

- Irrigated land impacts
 - Approximately 56,000 acres of surface water irrigated land at risk with No PRRIP
 - LB 962 impacts as many as 72,000 acres within proximity of the River, in Nebraska
 - Total impacts are estimated: farm income, regional economy, and property tax revenues
 - 10-year average crop prices used in the analysis – about 40% higher than current levels



Consultation Assumptions with No PRRIP

- B.O. and Section 7 Consultations
 - Over 150 tiered Consultations since 2007
 - Consultations were wide-ranging
- For most projects, consultation time is assumed 50% longer without the PRRIP than with it; same price on a \$/month basis
- For projects with major depletions, consultation time is assumed 3 times longer and 4 times more expensive without the PRRIP
- A range of values were considered



Mitigation Requirements, No PRRIP

- For analysis purposes, mitigation costs are not yet allocated to States
- A range of habitat land requirements were considered
 - High = 29,000 acres, Low = 10,000, Mid = 20,000
- A range of water needs for mitigation were also considered
 - High = 417,000 acre-feet, Low = 130,000, Mid = 270,000
- Land and water costs as per current estimates for Nebraska
- Higher levels of water acquisition may require time past the First Increment to implement



Hydro-power impacts, No PRRIP

- For CNPPID and NPPD, updated impacts from 2006 HDR analysis
 - Collective impact of \$35 million is initially assumed, consisting of the NEPA process, mitigation, and present value of production impacts. Total costs ranging from \$13 million to \$90 million were also considered.
 - Annual O&M for mitigation is assumed to be \$2 million
- For USBR facilities in the North Platte system
 - As per the “Full Water Leasing” Alternative in the EIS Hydropower Economics Appendix



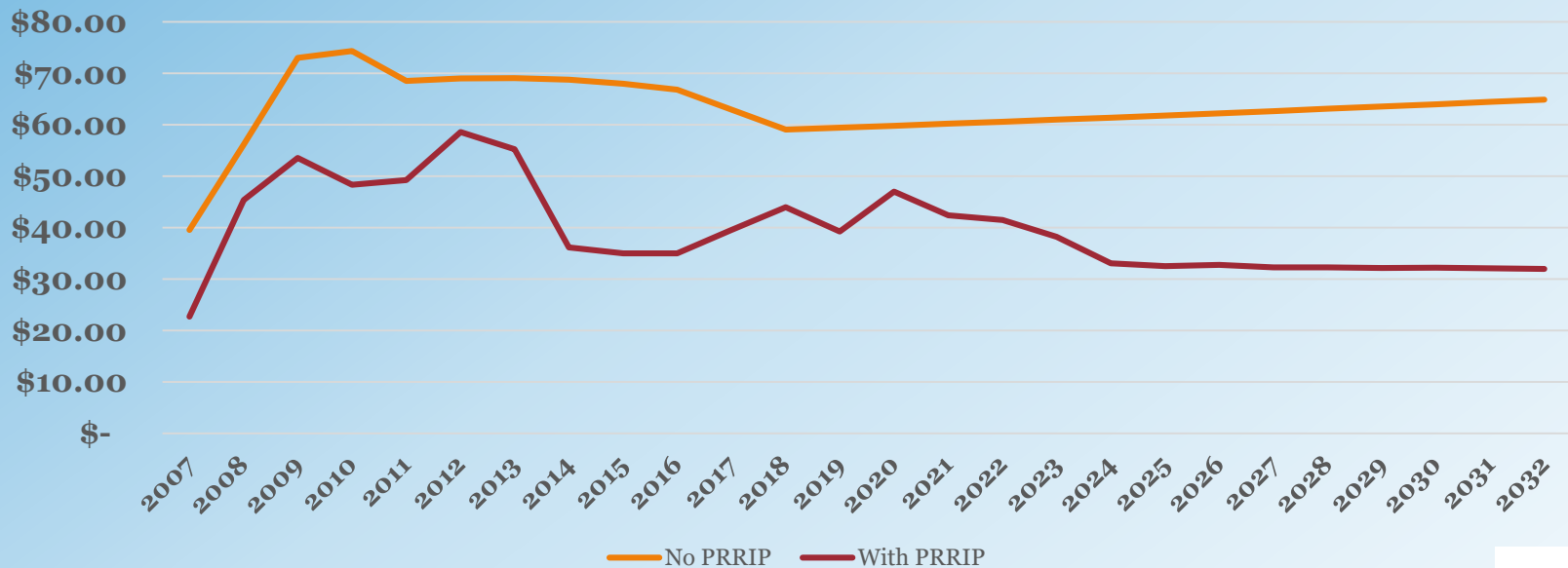
Critical Assumptions, with PRRIP

- ❑ Tiered Section 7 process reduces time and cost
- ❑ Actual and estimated PRRIP expenditures replace mitigation costs
- ❑ Costs of Tamarack and Pathfinder modification are included as per actual cost
- ❑ Other State expenditures per actual cost
- ❑ USBR Hydro-power impact as per updated EIS estimate, “Governance Committee Alternative”



Draft Results

Annual Impact of Complying with ESA



Draft Results, continued

Net present value, 2007-2032, 3% discount, in millions	Without PRRIP	With PRRIP
Biological Opinion and Section 7 Consultation Cost	\$10.96	\$5.96
Mitigation costs, water and land	\$325.73	
Impacts to North Platte irrigators and region	\$385.61	
Potential mitigation costs and operational changes for CNPPID and NPPD hydro-electric production	\$60.84	
Impact to Nebraska groundwater irrigators	\$338.74	\$455.46
Hydro-power production at Federal facilities in the North Platte basin	(\$11.99)	(\$15.62)
Tamarack and Pathfinder expenditures, inc, other State contributions		\$22.03
Expenditures for Platte River Recovery Implementation Program		\$221.32
Additional benefits		<i>tbd</i>
Totals	\$1,109.90	\$689.15

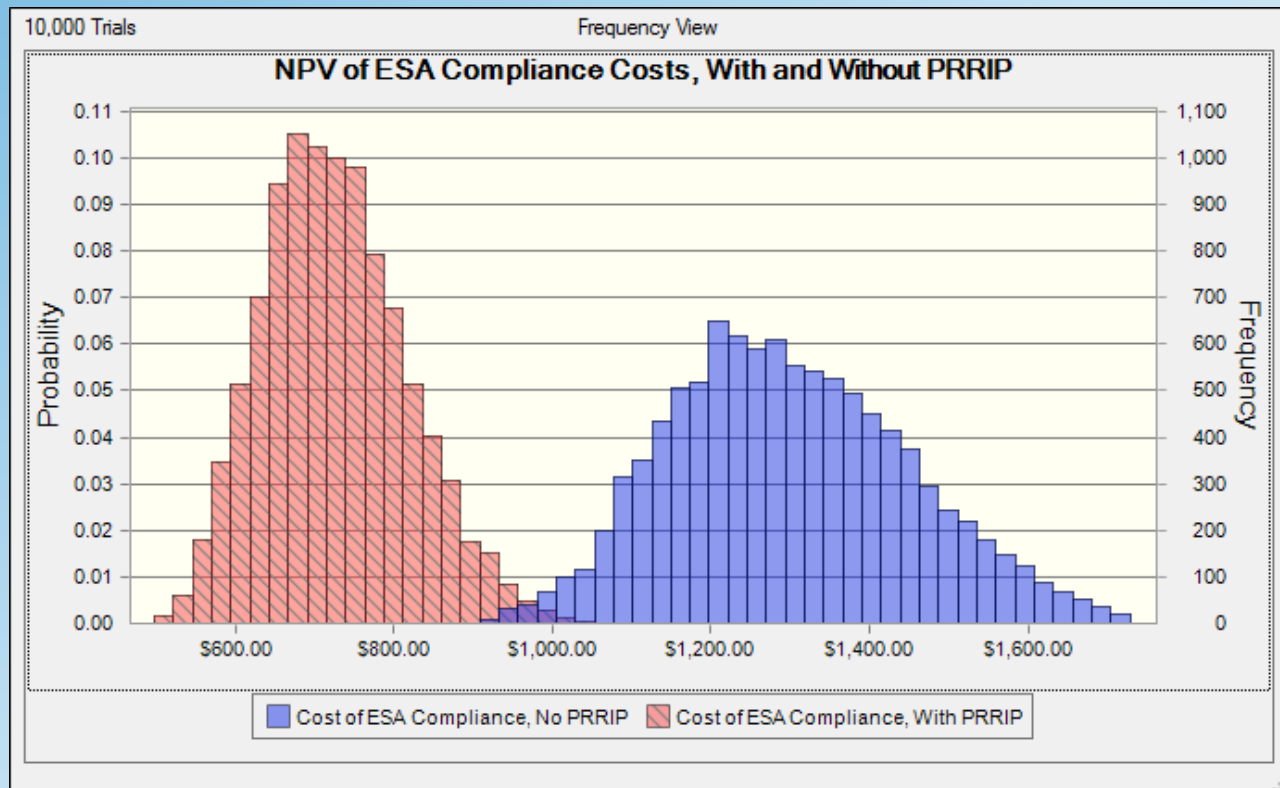


Draft Results, continued

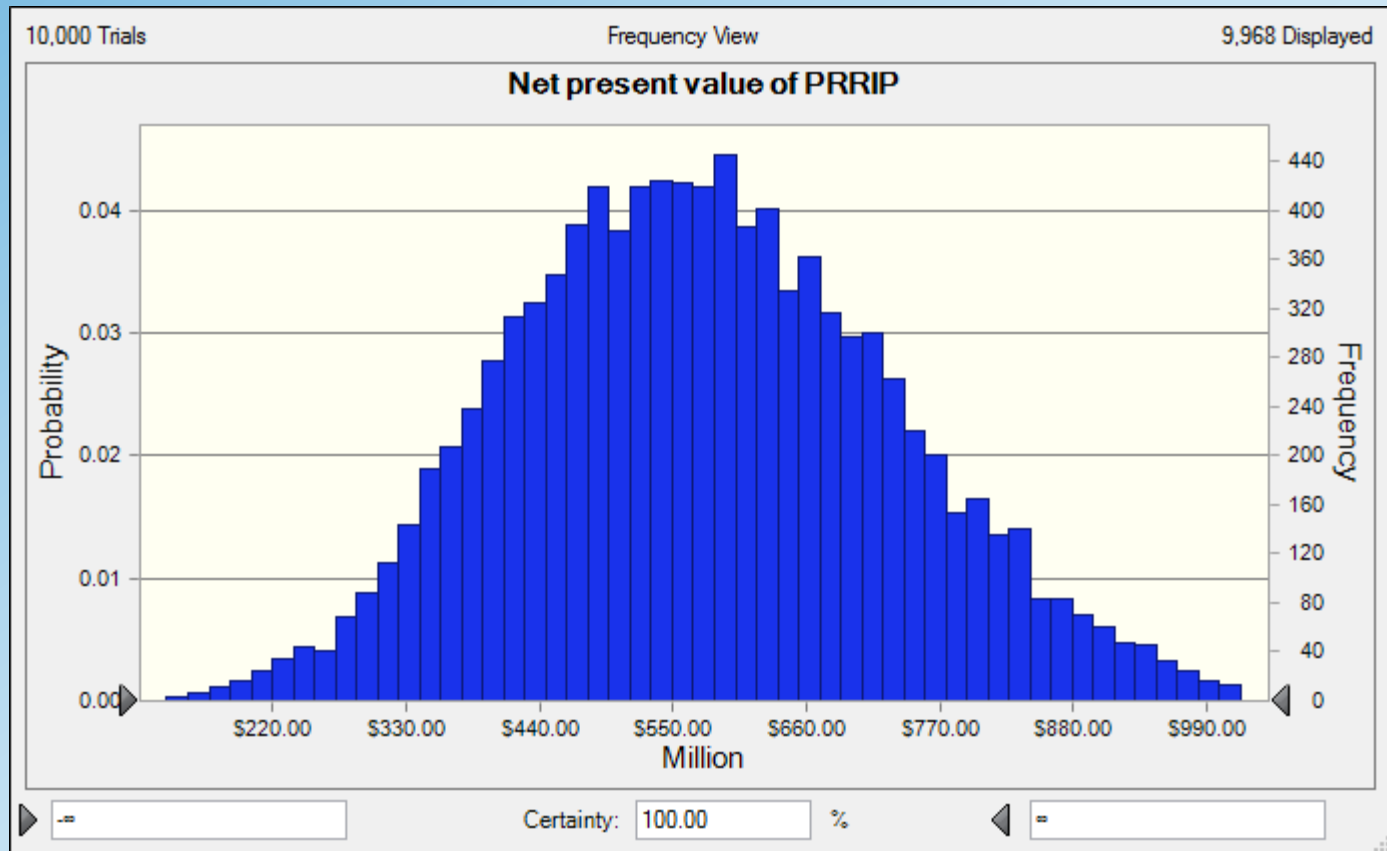
- Estimated net present value of the PRRIP = ***\$421 million through 3032***
- Above figure is the “expected” value of the benefit, maybe be smaller or larger
- Incorporated the uncertainties of the assumptions into the analysis with Monte Carlo simulation



Draft Results, continued



Draft Results, continued



Conclusions

- There are additional benefits
 - ▣ Recreation and tourism are significant
 - ▣ Channel restoration and maintenance
 - ▣ Source of continued funding for River maintenance in light of diminishing State budgets
 - ▣ Contribution to the Scientific Community



Questions?

