

Report of Water Policy Task Force

(2) The Task Force also recommends the Legislature consider funding current DNR programs through the Water Resources Trust Fund as well. Presently these programs are funded through general fund appropriations and amounted to roughly \$6.3 million in FY03. If current programs are included:

- (a) Dedicated funding needed would total \$11.1 million, or 1/20 of one cent of sales tax collected;
- (b) At least 40% of annual receipts to the fund should be dedicated to funding interrelated water management activities identified above and up to 60% of the annual receipts be dedicated to fund existing programs like the Nebraska Resources Development Fund, Soil and Water Conservation Fund, and Small Watershed Fund.
- (c) After 10 years, the percentages of annual receipts to the funds dedicated above should be at the discretion of the Natural Resources Commission.
- (d) Local matching fund requirement for existing DNR programs should continue.

Annual Budget Detail of New Funding Package

	State Contributions to Nebraska <u>Water Trust Fund</u>	Local Match Local <u>Expenditures</u>
1. Interrelated Research/Data/ Planning/Implementation Data Gathering/Organizing COHYST Type Studies Local Specialized Studies Planning and Implementation	1,193,000	707,000
2. Tools in Integrated Management Plans Alternative Supplies Incentives/Payments Water Transfer Mechanisms	3,500,000	700,000
3. Discretionary/Other GW Mgmt. Funding⁽¹⁾	83,000	(1)
TOTAL	4,776,000	1,407,000⁽¹⁾

(1) No attempt was made to identify individual NRD expenditures already occurring in this category, but they are substantial. The budget amounts in the "Discretionary/Other GW Mgmt. Funding" category should be viewed as only a small portion of the total funding already going into these activities.

5/28/04

LB 962 IMPLEMENTATION – SELECTED ITEMS WHERE UNIVERSITY ASSISTANCE MAY BE USEFUL

1. Immediate research on how other states make a decision that no more water is available for appropriation (Short term effort to be done this summer) \$ 5000
2. Information to better relate stream aquifer relationships and water conservation / use efficiency to the layman. Derrel Martin and Dean Eisenhauer are excellent in explaining these type of water balance issues and having a video with them and a fact sheet / standard powerpoint seems worthwhile. The powerpoint could include an animation of how the system works. The need for better education on these points is very important. \$20000 year 2
30000 year 1
3. Provide economic information to assist NDNR in fully appropriated determinations \$40,000
4. Inventory/catalog available UNL/CSD datasets \$ 50 000
 - Well logs
 - Pump tests
 - Other
5. Place selected UNL datasets into digital format \$ 25,000 year 1
25,000 year 2
6. Information on depth to water, groundwater flow, and *anything* that might help determine the point at which streams and tributaries become live \$ 20,000 year 1
\$ 50,000 year 2
\$ 30,000 year 3
7. Potentially assist in developing irrigated acres data and analysis on a systematic basis??? This would involve getting images and developing methods to annually analyze irrigated acreage. ??? ?

\$ 140,000 year 1
\$ 125,000 year 2

2/6/04

Potential Initial University Role In Data Portion of Water Policy Task Force Recommendation Implementation

1. Work with DNR to develop a description of the kinds of data needed to implement task force recommendations.
2. Assess the breadth, depth, and accuracy of hydrology and water related economic and social studies for each of the state's river basins. The assessment of existing data should include:
 - a) a characterization of what the data includes
 - b) location of the data collected
 - c) how the data was collected – when, who, methods
 - d) current form of data
 - e) methods used to QA/QC the data
3. What would be required to put the data into an electronic format?
4. Work with DNR to do a gap analysis to identify additional data needs.

Questions

1. Would the University be interested in doing this? This particular effort would not involve new research studies.
2. What will it take to get an estimate of funding requirements? Any thoughts on schedule?

WATER TASK FORCE
DATA NEEDS SUB-COMMITTEE

10-Feb-03

The Data Needs sub-committee met on February 5 in Grand Island. Paul Currier and John Turnbull, Water Task Force members, Duane Woodward - Central Platte Engineering Hydrologist, and Rich Kern - Department of Natural Resources Engineer were present. The following table lists the information, data, maps necessary to conduct two levels of study and then the management of an integrated water management area. **The list is not intended to be all inclusive.**

As amended by the Water Task Force Executive Committee on Feb 10, 2003

DATA	RECONNAISSANCE LEVEL STUDY	DETAILED GROUNDWATER AND SURFACE WATER STUDIES	MANAGEMENT AND REGULATION
EXISTING RECORDS, DATA, AND MAPS			
Stream flow historic records	X	X	
Stream base flow historic records	X	X	
Surface water use			
Surface water use by individual appropriators	X	X	
Reservoir storage historic records	X	X	
Surface water delivery to farms (Irrigation districts)	X	X	X
Canal historic and current diversions and return flows	X	X	X
Canal seepage losses		X	X
Ground water data			
Ground water levels historic records	X	X	X
Well hydrographs	X	X	X
Ground water table historic maps	X	X	X
Ground water pumpage records			
Municipal water use	X	X	X
Industrial water use	X	X	X
Agriculture use	X	X	X
Climate records	X	X	X
Land Use			
Crops		X	X
Pasture and range		X	X
Conservation practices	X		
Irrigated acres - historic and current	X		
Surface water irrigated acres - detailed inventory - air photos, etc.		X	
Ground water irrigated acres - detailed inventory - air photos, etc.		X	
Surface water rights by tract of land - DNR approved rights			X
Ground water irrigated acres by tract of land - certified by NRD			X
Well locations		X	X
Population		X	
Physiographic region maps		X	

Topographic maps - land elevation and contours		X	
Soils		X	

DATA	RECONNAISSANCE LEVEL STUDY	DETAILED GROUNDWATER AND SURFACE WATER STUDIES	MANAGEMENT AND REGULATION
Geology			
Test hole records (Conservation and Survey Division)		X	
Test hole records (Well drillers)		X	
Irrigation well drilling logs		X	
Thickness of aquifer		X	
Horizontal extent of aquifer		X	
Top of aquifer		X	
Base of aquifer		X	
Transmissivity		X	
Storage coefficient		X	
Pump test data		X	
Wetland and wetland hydrology inventory	X	X	
Instream flow rights	X	X	X
Habitat flow needs	X	X	
COMPUTER MODELING, PROJECTIONS, AND INFORMATION FOR POLICY DECISIONS			
Develop Ground water and precipitation historic changes graphs	X		
Develop Surface water and precipitation historic change graphs	X		
Conduct research to fill in data gaps		X	
Computed Recharge data		X	
Compile low stream flow data		X	
Develop Ground water and surface water computer model		X	
Develop water supply projections		X	
Social - Economic issues		X	X
IF INTEGRATED MANAGEMENT PLAN IS IMPLEMENTED			
Monitor trends			
Precipitation			X
Ground water levels			X
Stream flows			X
Reservoir storage			X
Irrigation water use			X
Municipal water use			X
Industrial water use			X
Land use changes			X
Population			X
Wetlands that are connected to ground water table			X

**POTENTIAL WATER POLICY LEGISLATION STATE LEVEL
IMPLEMENTATION BUDGET – FY 05* (Preliminary Draft 1/30/04)**

POTENTIAL USES OF STATE APPROPRIATION OF \$2,500,000

Interrelated Research/Data/Planning/Implementation

• 3 NDNR Staff Positions and Office Overhead (Hydrologist, Lawyer, Water Administrator)	\$ 215,000
• Additional DNR Equipment/Supplies for Modeling, etc.	\$ 100,000
• Additional Equipment/Supplies for NRD work	\$ 100,000
• Contract/Consultant for Improved DNR Recordkeeping, Updating, Capability Enhancement	\$ 200,000
• Data Gathering/Organizing Consultant/UNL Contract	\$ 200,000
• Supplemental Funds for COHYST	\$ 300,000
• Contracts for Modeling/COHYST Type Effort in Other Parts of State	\$ 380,000
• Local Specialized Study Funds	\$ 200,000
• Planning and Implementation Funds	
- For NRD Staff*	\$ **
- For Consultants/NRDs	\$ 175,000
- For Water Policy Task Force Expenses	\$ 20,000

Tools for Integrated Management Plans

• Alternative Supplies	\$ 100,000
• Incentives/Payments	\$ 500,000
• Water Transfer Mechanisms	\$ 10,000

TOTAL **\$2,500,000**

* Additional funds should be available from local sources. At anticipated long term local share rates on water policy legislation related work the local amount for FY05 would come to about \$736,500. In addition leftover lawsuit funds should be available to offset some water policy legislation related costs.

**In FY 05 it is anticipated that NRD staff costs will be paid through a combination of local funds and separate sources of state funding not included in this budget.