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FISCAL IMPACT REPORT

SPONSOR Nunez DATE TYPED 2/3/04 HB 53/aHAGC

SHORT TITLE Phreatophyte Eradication & Control Program SB _____

ANALYST Maloy/Williams

APPROPRIATION

Appropriation Contained		Estimated Additional Impact		Recurring or Non-Rec	Fund Affected
FY04	FY05	FY04	FY05		
\$5,000.0				Recurring	General Fund

(Parenthesis () Indicate Expenditure Decreases)

SOURCES OF INFORMATION

LFC Files

Responses Received From

Office of the State Engineer
 Energy, Minerals and Natural Resources
 The New Mexico Environment Department
 Environment Department
 New Mexico Department of Agriculture
 Commission on Higher Education

SUMMARY

Synopsis of HAGC Amendment

The House Agriculture and Water Resources Committee amendments expand the program to the Canadian river and eliminate the provisions requiring NMDA to conduct a project assessment and requiring NMDA to report the amount of water conserved.

Synopsis of Original Bill

House Bill 53 appropriates \$5 million from the general fund to the board of regents of New Mexico State University for expenditure in FY04 – FY06, with \$2.5 million being expended for non-native phreatophyte eradication and control and \$2.5 million being expended for re-vegetation with native species on the Pecos and Rio Grande rivers.

The bill's appropriation is contingent on soil and water conservation districts:

- developing management and vegetation plans;
- conducting hearings within the local districts to receive public input;
- carrying out aerial spraying only by helicopter or ground application with prior public notice;
- monitoring effects of the control on wildlife, quality and soil health; and
- if control affects threaten or endanger species, complying with applicable federal law and enacting a recovery plan.

The bill also charges the Department of Agriculture with conducting an assessment and publishing a report detailing the amount of water conserved in comparison to the amount of revenue expended.

The bill contains an emergency clause.

Significant Issues

The House Agriculture and Water Resources Committee amendments weaken the accountability provisions included in the original bill.

FISCAL IMPLICATIONS

The appropriation of \$5 million contained in this bill is a recurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of FY06 shall revert to the general fund.

OTHER SUBSTANTIVE ISSUES

Other agencies, such as the Office of the State Engineer and those listed below, likely should be involved in the removal process and quantification assessments. The LFC budget narrative notes revenue for phreatophyte removal and control is directed to the university. However, the appropriate Interstate Stream Commission river manager(s) have not been involved in planning or implementation. Further, the Office of the State Engineer reports it has not been informed of any quantification of water savings, or any future plan for quantification by the university.

The LFC recommended a quantification evaluation be undertaken by the university, and a report be made to the LFC and other appropriate committees during the FY05 interim.

According to the New Mexico Department of Agriculture:

- These projects require NMDA to expend significant resources for administering funds, ensuring legislative requirements are met, and coordinating a broad spectrum of stakeholders.
- Quantifying amounts of water in complex hydrologic systems is an expensive and long-term task. NMDA is not currently staffed or equipped to carry out the hydrologic assessment called for in this bill.

- Phreatophyte control efforts already underway have reached approximately 15,000 acres. Water conserved within these river systems will help meet water delivery requirements of interstate compacts, reducing the need for the state to purchase water rights.

According to the Energy, Minerals and Natural Resources Department:

- Significant issues relate to the importance of restoring native vegetation and enhancing water supplies. Stands of non-native salt cedar trees are vulnerable to wildfire, but regeneration increases when burned. Bosque fires often damage native riparian vegetation. Streamside stands of salt cedar and Russian olive are believed to move significant amounts of water through the leaves and release the moisture into the atmosphere (transpiration). It may be possible to improve stream flows by removing these species.
- The Forestry Division is aware of some issues regarding the implementation of last year's appropriation. In particular, there may be some problems with herbicide impacts to non-target vegetation and drought impacting natural vegetation recovery. This year's program would benefit from the increased project design and evaluation.
- This bill will indirectly benefit the Forestry Division's efforts to restore the health of riparian ecosystems. Removing stands of salt cedar and replacing them with native vegetation will reduce the risk of wildfires and make suppression less costly. The Forestry Division's Inmate Work Camp program may be contracted with to conduct some of the projects along the public property stretches of the Rio Grande between Albuquerque and Socorro.

According to the Office of the State Engineer:

- Removal of non-native phreatophytes may or may not result in any water salvage or gain. The potential savings, reduction in evapo-transpired water from plants, is exceedingly difficult to measure and compare between non-native phreatophytes and re-introduced native vegetation. The bill should require planning for what vegetation will be reintroduced before any spraying takes place.
- The impacts of the applied herbicides on endangered species will likewise be difficult to assess. The bill should require careful study of ESA issues prior to application. Salt cedar currently serves as an effective bank stabilization agent and helps to prevent erosion. Large-scale eradication may have deleterious effects in some areas and the bill should require thorough consideration.
- As part of the funding provided, New Mexico State University should contract with another entity such as Jornada Experimental Range to evaluate and report on the results of the program it is tasked with executing. This would provide oversight by an agency other than that implementing the project.

According to the Environment Department:

- Removal of phreatophytes, including salt cedar and Russian olive, is purported to reduce evapo-transpirative water losses from New Mexico's ground and surface water resources

and enhance the State's ability to meet interstate compact delivery requirements. If not properly implemented, phreatophyte removal could induce bank destabilization that in turn would increase the risk of erosion leading to water quality impacts, sedimentation and diminished capacity of the state's reservoirs. Effective re-vegetation with native species is necessary to minimize this possibility, and should be a funded, mandatory component of every phreatophyte eradication project, as required by HB53. Previous legislation required native species re-vegetation plans to be developed, but funding for implementation of those plans was reportedly not provided.

- Phreatophyte eradication projects that utilize herbicides must ensure that the herbicide is not sprayed into a surface water course (perennial or ephemeral).
- The Environment Department is responsible for ensuring that surface water quality is protected and water quality standards complied with. Effective post-removal native species re-vegetation implementation is critical to ensuring that the quality of the state's limited water resources is protected.
- The Environment Department is leading a salt cedar task force that includes a number of state agencies. Knowledge and understanding gained through that process will help the state to more holistically address salt cedar eradication issues.

AMENDMENTS

The Office of the State Engineer proposes the following:

As part of the funding requirements, the bill should additionally require:

- A rigorous scientific evaluation of long-term water uses before and after phreatophyte eradication.
- A study and plan to prevent deleterious erosion or bank de-stabilization.
- Require NMSU to contract with an outside entity such as USDA's ARS Jornada Experimental Range evaluate and report on the results of the program.
- Require that a long-term management plan be developed by the property owner prior to treatment.

POSSIBLE QUESTIONS

How can the state improve communication and teamwork among the various agencies (Environment, Energy, Minerals and Natural Resources, Agriculture, universities, and the State Engineer) to address the drought?

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