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## FISCAL IMPACT REPORT

ORIGINAL DATE 2/15/07

SPONSOR Saavedra LAST UPDATED \_\_\_\_\_ HB 1009

SHORT TITLE NM Tech Geophysical Research Center SB \_\_\_\_\_

ANALYST Guambaña

### APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Non-Rec	Fund Affected
FY07	FY08		
	\$830.0	Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

### SOURCES OF INFORMATION

LFC Files

Responses Received From  
Higher Education Department (HED)

### SUMMARY

#### Synopsis of Bill

House Bill 1009 appropriates \$830,000 from the General Fund to the Board of Regents of New Mexico Institute of Mining and Technology (NMT) for the Geophysical Research Center (GRC).

### FISCAL IMPLICATIONS

The appropriation of \$830,000 contained in this bill is a recurring expense to the General Fund. Any unexpended or unencumbered balance remaining at the end of FY 08 shall not revert to the General Fund.

Per HED, a request for additional funding was submitted by NMT to the Department for review in the amount of \$829,400. HED's funding recommendation for FY 08 is a continuance of FY07 recurring funding in the amount of \$953,000.

### SIGNIFICANT ISSUES

HED states that the GRC represents an internationally recognized group of scientists whose productivity can be measured by the large number of grants and contracts they receive. The GRC

has historically been very successful at bringing in research funding from sources other than state appropriations. Over the last eleven years, GRC employees have received \$8.5 million in state appropriations and have used that money to generate \$85 million in federal funding. For every \$1 in state support, the GRC has converted that into \$10 in research funding at the federal level. In the last eight years, an average of 19 faculty members have submitted an average of 44 proposals annually, totaling approximately \$221 million over the eight year period.

This bill requests funding for additional research in hydrology, geophysics, and atmospheric physics, as well as to restore original funding and erect a warehouse building.

## **OTHER SUBSTANTIVE ISSUES**

HED notes that the goal of the GRC is to understand basic geophysical processes and their applications to state and national issues. The primary mission of the GRC is to carry out research in areas related to and affected by water, placing emphasis on atmospheric, surface, underground water and air quality. This study of water further enables GRC scientists to better understand how basic geophysical processes apply to New Mexico and the nation.

HED states that over the years, the state has not funded increases in GRC's budget. In the past, the GRC was able to reduce its operational budgets in order to accommodate the payroll increases. The GRC budget has now reached the point where its operational budgets are virtually non-existent and the budget can only support payroll expense. This is a two-fold request to return operation funds to the Center for supplies, travel, etc., and fund the anticipated payroll expense for FY06-07. The return of operational budgets would allow the GRC to purchase much needed supplies and allow NMT to fund payroll expense, keeping up with inflationary costs. In addition, funding is requested for one full-time research position to integrate hydrologic and atmospheric research at Langmuir Laboratory in the Magdalena Mountains in central New Mexico. This position would be 50% in the Hydrology program and 50% in Atmospheric Physics. Rain from thunderstorms and winter snowfall on the mountain ranges of New Mexico provide a significant fraction of the State's water supply. The additional position would help GRC understand how the weather, patterns of precipitation, and the mountains work together to supply water for use in the State.

HED notes that this bill's funding would also provide a building for maintaining the group's vehicles and for warehousing spare parts and various equipment for research projects. The building would benefit all the groups encompassed by the GRC.

HED also comments that the funds are also requested for a 9-month, GRC-supported, PhD-level geophysicist to manage this facility and to lead associated geophysical, hydrological, and geological research in New Mexico through a vigorous externally-funded research program. The proposed support will advance information dissemination on natural and man-made seismic events to the public, to the State of New Mexico, to national agencies, and to the media. This support will also enhance educational opportunities for undergraduate and graduate students in geophysics and engineering.

HED reports that the bill would support a half-time tenure-track faculty position in the discipline of remote sensing. This new dimension to the research and teaching program will increase recruitment of graduate students interested in remote sensing, and leads to additional research grants and contracts. Support is also requested to construct a 16 position can sampler,

preconcentrator and micro miniature refrigerator. The equipment will be used for testing soil fluxes of hydrocarbons in the state and can be used to measure hydrocarbons and halocarbons in urban areas around the state. This is the next step in producing a mobile lab which can be used around the state. These compounds are important in air quality and climate and have both natural and manmade sources, and are important in understanding future air quality and climate.

AG/csd