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F I S C A L I M P A C T R E P O R T

SPONSOR Leavell **ORIGINAL DATE** 1/26/17
LAST UPDATED 2/15/17 **HB** _____

SHORT TITLE Carlsbad Brine Well Remediation **SB** 3/aSCONC/ec

ANALYST Armstrong/Chabot

APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Nonrecurring	Fund Affected
FY17	FY18		
	\$500.0	Nonrecurring	General Fund

(Parenthesis () Indicate Expenditure Decreases)

Duplicates HB30

Relates to SB4, HB29

SOURCES OF INFORMATION

LFC Files

Responses Received From

Energy, Minerals and Natural Resources Department (EMNRD)

SUMMARY

Synopsis of Senate Conservation Committee Amendment

The SCONC amendment to SB3 strikes the requirement for EMNRD's plan and actions to be pursuant to the advice of the Carlsbad Brine Well Remediation Advisory Authority.

Synopsis of Original Bill

Senate Bill 3 appropriates \$500 thousand from the general fund to EMNRD's Oil Conservation Division (OCD) to develop a design-build request for proposals for services to remediate the Carlsbad brine well.

FISCAL IMPLICATIONS

The appropriation of \$500 thousand contained in this bill is a nonrecurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of FY19 shall revert to the general fund.

SIGNIFICANT ISSUES

EMNRD did not submit a special appropriation or capital outlay request related to the Carlsbad brine well.

A “brine well” is a solution mining operation where fresh water is injected through a well casing and salt water or brine is extracted. Beginning in 1982, EMNRD’s Oil Conservation Division (OCD) permitted 32 brine well operations associated with oil and gas development, all in Eddy and Lea counties. Brine wells result in underground caverns as salt is extracted, with the stability of the resultant caverns depending on their depth, width, and the strength of the materials above the void. New Mexico saw two sudden and catastrophic brine cavern collapses within a four month period in 2008, prompting OCD to form a working group to examine the causes and provide a report, including recommendations for a safe path forward.

After the 2008 collapses, OCD identified the Carlsbad well as having similar features placing it at risk, including depth to the salt formation and the amount of salt extracted. The cavern at this site is approximately 350 feet wide by 700 feet long. The top of the cavern is, on average, about 450 feet below the ground surface and its bottom extends to a depth of about 600 feet. Analysis of the cavern shows the area impacted by a collapse would be much larger, one-thousand feet wide by 1.7 thousand feet long, and would affect a mobile home park, a place of worship, a feed store, two highways (US 285 and US 180/62), a BNSF Railways facility, and Carlsbad Irrigation District’s Southern Main canal. Both potentially impacted highways are designated Waste Isolation Pilot Plant (WIPP) transportation routes. A collapse could also adversely impact groundwater and surface habitat.

When the business operation that was responsible for the cavern entered bankruptcy, OCD and Carlsbad designed and implemented a monitoring system and completed a feasibility study of potential remedies. The automated monitoring system is operational and integrated into the local emergency response infrastructure.

According to the authors of the 2014 feasibility study, statistical evaluations of probability of failure and cavern lifespan indicate a high probability of catastrophic failure within 10 to 25 years. However, EMNRD’s bill analysis states that more recent information indicates a collapse will likely occur no later than five years from now. OCD has spent over \$5 million monitoring the brine well to date.

A limited number of options were determined to be potentially feasible including continued monitoring with institutional controls, controlled collapse, and in-place (or “in situ”) backfilling of the underground cavern. Carlsbad and other stakeholders have tentatively agreed the backfilling option is most desirable along with being the least expensive option to deliver a permanent remedy. Still, the estimated cost for such an operation could approach \$25 million and the source of this funding is unclear although some have suggested the Authority should have the power to issue and sell bonds backed by Oil Reclamation Fund or severance tax revenues. The Oil Reclamation Fund is dedicated to OCD’s ongoing efforts to reclaim abandoned oil and gas wells and severance tax bonding supports capital outlay.

DUPLICATION, RELATIONSHIP

SB3 duplicates House Bill 30. House Bill 29 and Senate Bill 4 create the Carlsbad brine well

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remediation advisory authority and task it with setting policy for and advising EMNRD's Oil Conservation Division (OCD) on remediation of the Carlsbad brine well. Those bills also create a fund for remediation and direct the advisory authority to identify a revenue source dedicated the remediation fund.

JA/GC/jle/al