HB

53

Alaska State Legislature

Legislative Committees:
House Finance Committee

Legislative Budget Subcommittees:
University of Alaska
Department of Natural Resources
Department of Environmental Conservation

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Fairbanks, Alaska 99701
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While in Session
State Capitol
Juneau, Alaska 99801-1182
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Representative John Davies
District 29

SPONSOR STATEMENT

House Bill 53
"An act establishing the Alaska Seismic Hazards Safety Commission"

A Seismic Hazards Safety commission needs to be established to address the pressing need to provide a consistent policy framework and a means for ongoing coordination of programs and public safety practices related to seismic hazards. Currently this need is not being addressed by any continuing state government organization. The seismic Hazard Safety Commission would encourage long-term progress toward mitigating the effects of earthquakes.

Alaska is on the edge of the Pacific Plate, which acts like a relentless conveyor belt, moving about six centimeters a year. It is inevitable that there will be large earthquakes, the only question is when will they occur, not if they will occur. Although the state has made great improvements in disaster preparedness there has been little corresponding improvement in measures to reduce the disaster potential of major earthquakes and, consequently, to reduce dependence on disaster relief. Creating a seismic commission patterned after those in California, Oregon, Washington and other states on major fault lines will help address the issues. If you prepare for a major earthquake ahead of time and prepare appropriately, when the earthquake does occur less damage will result, less lives will be lost and the cost of recovery will be less.

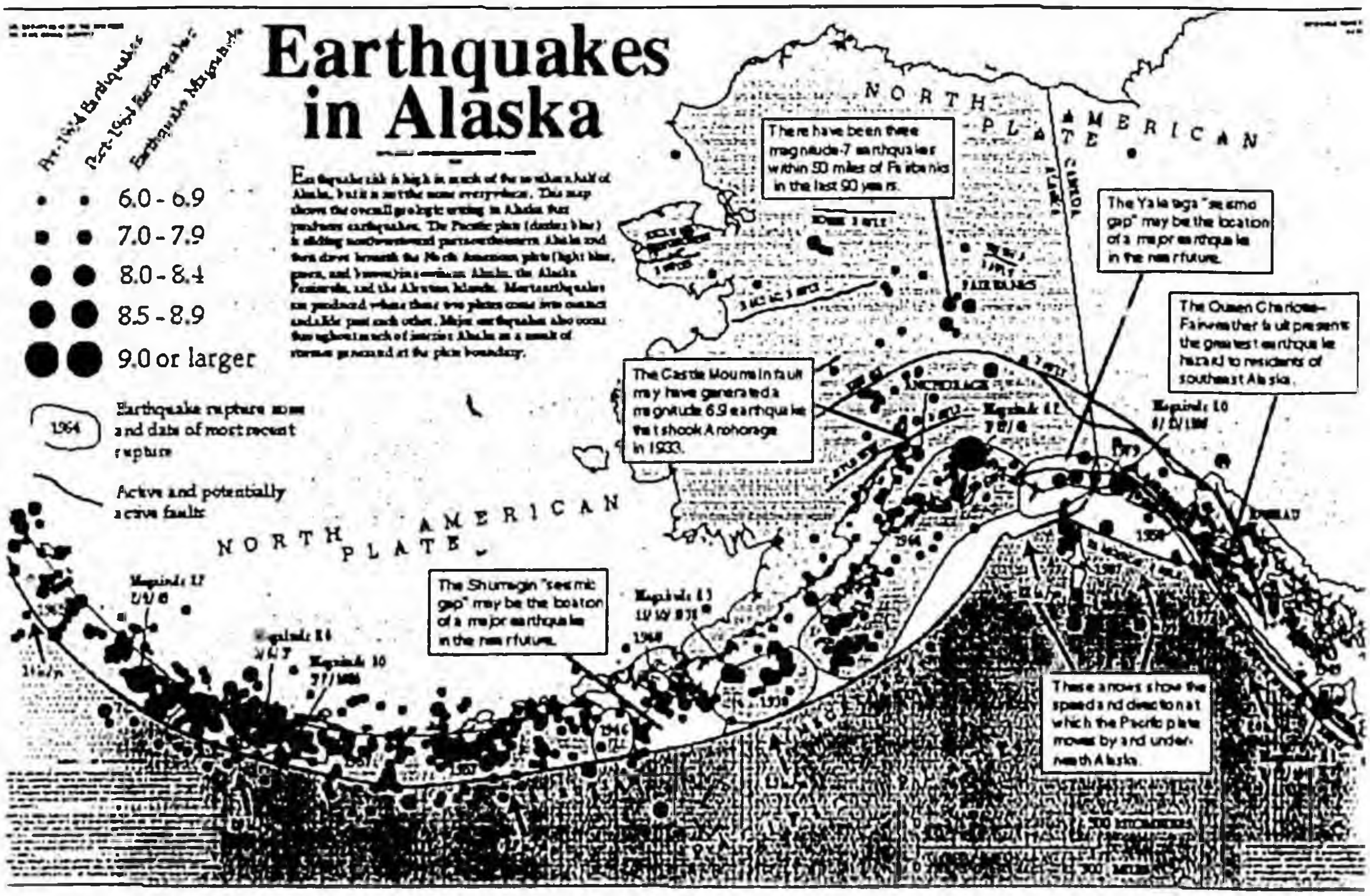
Through ten years of experience as state seismologist I have extensive knowledge in this subject area. I have first hand experience with the difficulty if coordinating earthquake information for the university and state, federal, and municipal governments. Anchorage does have an active geo-

tech advisory commission, but the state needs to strengthen that work while broadening efforts throughout the state. A Seismic Safety Hazards Commission can provide that strength.

The scientific community is working hard on earthquake prediction, but it is not yet a reality, except in the most general sense. We can predict in a probabilistic way where earthquakes are likely to occur so we can focus resources in those areas, but in terms of knowing the date and time of occurrence of earthquakes we will not have that information for some time, if ever.

The state can mitigate possible effects of earthquakes by encouraging appropriate land use and building design so it can reduce loss of life and property, as well as the costs of recovery when earthquakes occur. It costs a lot of money to rebuild after a large earthquake and, of course there is no way to replace lost lives; so it is clearly worth spending some time and money before earthquakes occur to prepare for them. If mitigation efforts are undertaken at the time a building or subdivision is in the planning stages, the costs are relatively minor compared to retrofit or rebuilding. This commission would help our state be better prepared.

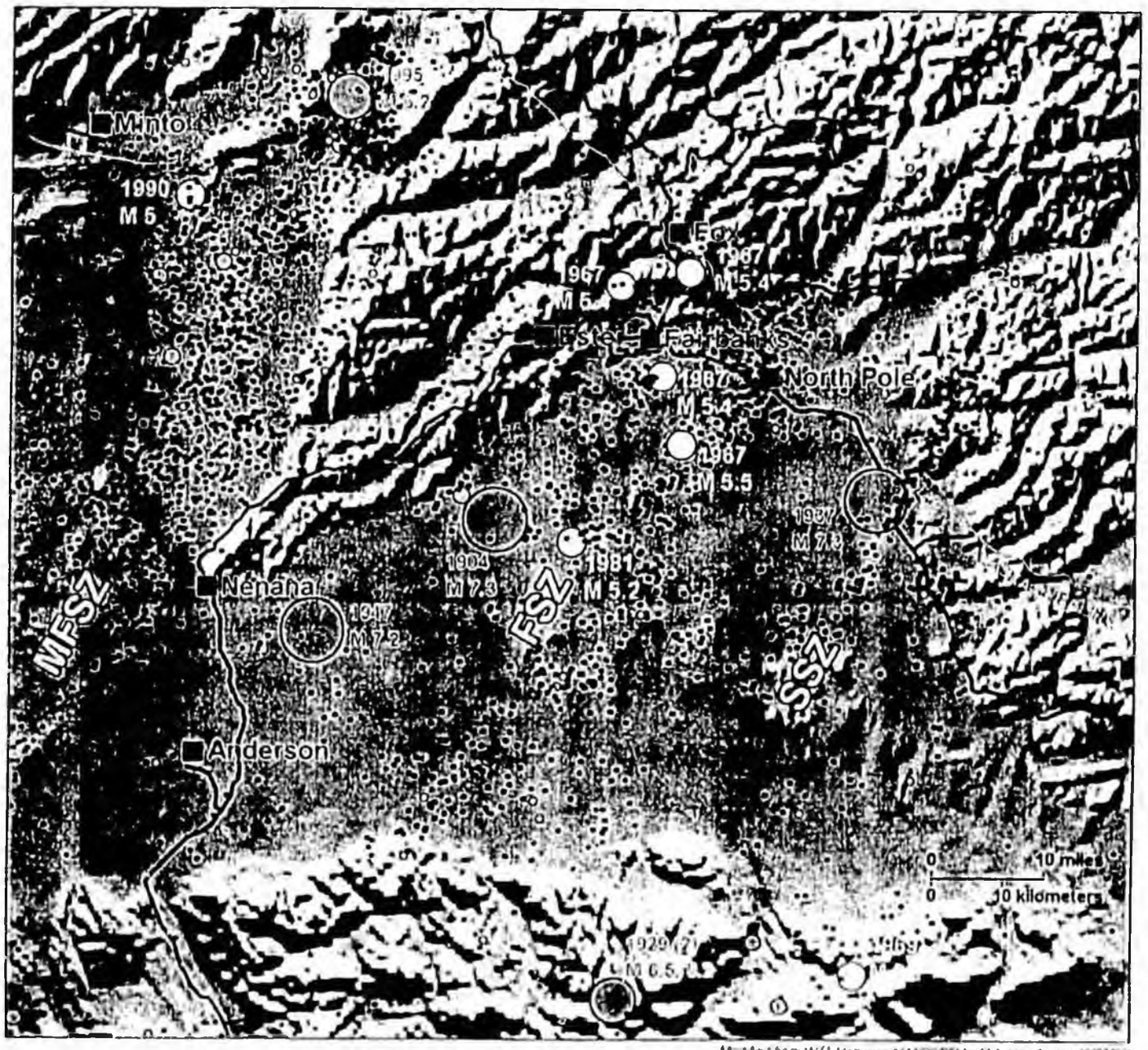
Members of the commission would be appointed by the governor to represent the university and governmental agencies, as well as members of the public who are knowledgeable in earthquake hazard mitigation. The commission would recommend to the public and governmental sector goals and priorities for reducing earthquake effects. The commission may accept grant contributions and appropriations from public agencies, private foundations, and individuals. The authority and responsibilities of other state agencies, boards, councils, commissions or local governments are not intended to transfer to the Alaska Seismic Hazards Safety Commission.



Earthquakes in Alaska
Pre-1964 Earthquakes
Post-1964 Earthquakes
Earthquake Magnitude
6.0 - 6.9
7.0 - 7.9
8.0 - 8.4
8.5 - 8.9
9.0 or larger
1964
Earthquake rupture zone and date of most recent rupture
Active and potentially active faults
NORTH AMERICAN PLATE
There have been three magnitude-7 earthquakes within 50 miles of Fairbanks in the last 90 years.
The Yakataga "seismic gap" may be the location of a major earthquake in the near future.
The Queen Charlotte–Fairweather fault presents the greatest earthquake hazard to residents of southeast Alaska.
The Castle Mountain fault may have generated a magnitude 6.9 earthquake that shook Anchorage in 1933.
FAIRBANKS
ANCHORAGE
The Shumagin "seismic gap" may be the location of a major earthquake in the near future.
These arrows show the speed and direction at which the Pacific plate moves by and underneath Alaska.
1964
1938
1946
1957
1965
1958

FAIRBANKS AREA SEISMICITY

1988 TO 1998 INCLUDING LARGE HISTORIC EARTHQUAKES



MAGNITUDE

7.0 +

6.0 +

5.0 +

4.0 +

3.0 +

2.0 +

1.0 +

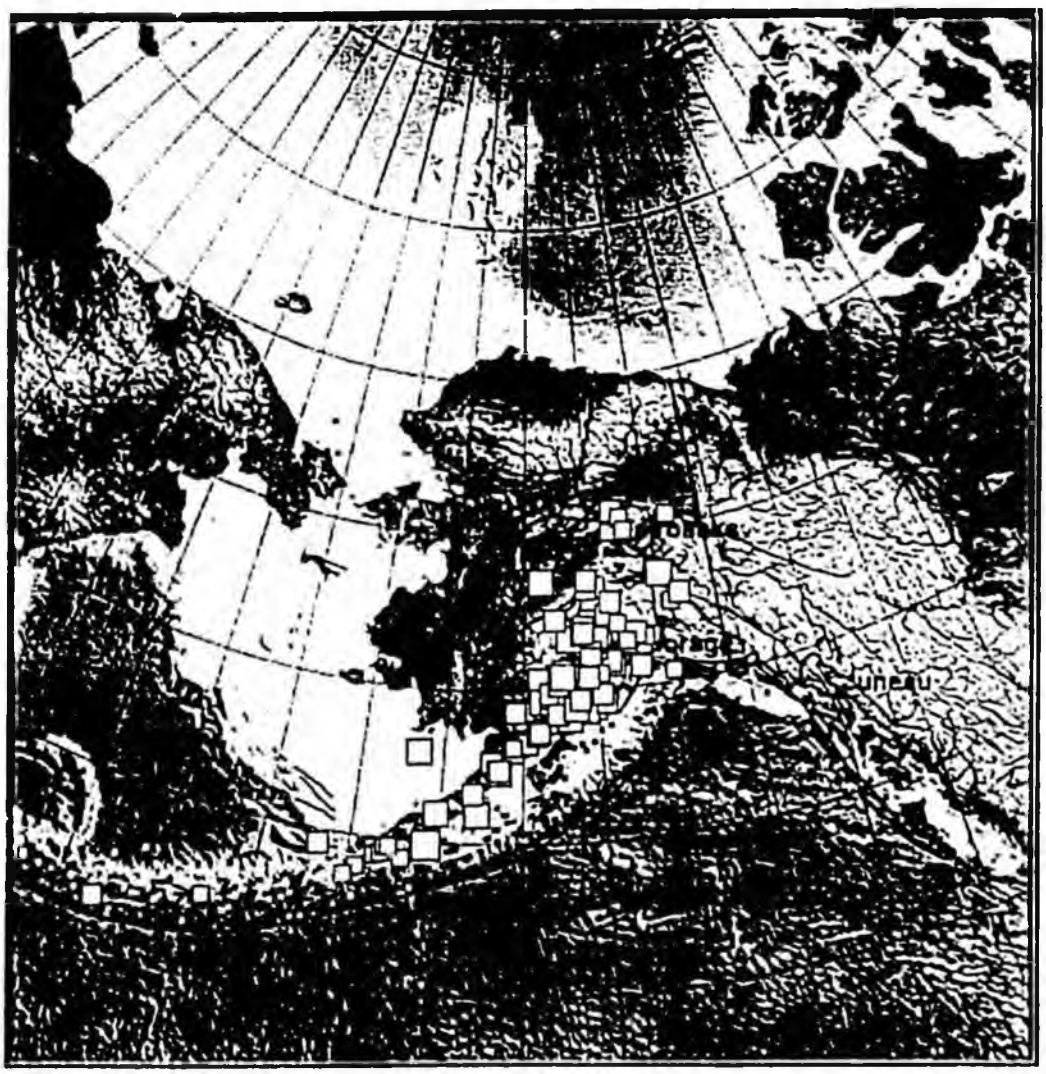
SEISMIC ZONES

SSZ: Salcha
FSZ: Fairbanks
MFSZ: Minto Flats

Division of Geological & Geophysical Surveys
Alaska Department of Natural Resources
and
Alaska Earthquake Information Center
Geophysical Institute
University of Alaska Fairbanks

AEIC Alaska Earthquake Information Center
Geophysical Institute, UAF

Recent Earthquakes in Alaska



Other Maps: Global View

Earthquakes Shown on This Page:

Local Time	Magnitude	Region
03:15 PM AKDT Wednesday April 11th, 2001	1.88 ML	in the Prince William Sound region of Alaska
01:46 PM AKDT Wednesday April 11th, 2001	2.81 ML	in the Kenai Peninsula region of Alaska
11:04 AM AKDT Wednesday April 11th, 2001	2.23 ML	in the Kenai Peninsula region of Alaska

DOWL ENGINEERS
A Division of DOWL LLC

March 14, 2001
W.O. D00001

The Honorable John Davies
House of Representatives
State Capitol Building
Room 422
Juneau, Alaska 99801-1182

Subject: House Bill 53
Alaska Seismic Hazards Safety Commission

Dear John:

As a practicing civil engineering in the State of Alaska, I wholeheartedly support HB 53 pertaining to the establishment of a state Seismic Hazards Safety Commission. I have been practicing my profession in Alaska for over 25 years. My technical specialties are geotechnical engineering and earthquake engineering, so I routinely deal with the problems associated with seismic hazards and their mitigation throughout the state. Moreover, I have been a member of the Municipality of Anchorage Geotechnical Advisory Commission (GAC) for over 20 years (currently Vice-Chairman). In that role, my fellow commissioners and I have routinely advised the Municipality regarding identification and mitigation of seismic hazards in Anchorage.

Although major earthquakes seemingly are "rare" events, their consequences literally can be disastrous, as was demonstrated by the 1964 great Alaska earthquake. Because of the damage and loss of life that occurred in Anchorage in 1964, and due to the concerns of local engineers and earth scientists, Anchorage established the Geotechnical Advisory Commission to advise our local government officials and citizens about earthquake hazards that can affect our community. The GAC generally has been the only real resource in those matters Anchorage has been able to rely upon consistently and effectively through the years. I believe the commission has had a positive effect on how our community has developed, and how it has taken appropriate steps to mitigate the seismic hazards with which we must live. Most of these efforts have been, and continue to be, through identification and mapping of the local hazards, and recommending mitigation measures to preserve life safety and to minimize economic impacts when the next major quake impacts our city.

Recent earthquakes in California and the February 28, 2001, earthquake near Seattle underscore the consequences even moderate earthquakes can have in urban areas. Moreover, the benefits to a community of understanding regional and local seismic issues and taking steps to mitigate the associated hazards were clearly demonstrated again during the Nisqually (Seattle) earthquake.

I believe it is imperative that the State Legislature of one of the most seismically active regions in the world establish a statewide Seismic Hazard Safety Commission to help its citizens and those responsible for their general well being understand the seismic environment in which they live, and how best to deal with the hazards that can affect them.

4040 B STREET • ANCHORAGE • ALASKA • 99503 • 907/562-2000 • FAX 907/563-3993

John, I applaud your sponsorship of this bill and give it my full support. If there is anything else I can do for you in this matter, please feel free to call me.

Sincerely,
DOWL Engineers

David A. Cole, P.E.
Project Manager

D00001.RepDavies.DAC.031401.mas

HOUSE COMMITTEE REPORT

(11)
Date Referred to Committee: April 25, 2001 **FURTHER REFERRALS:**

Date of Committee Action: 4/28/01

The FINANCE Committee considered: **HB 53**

HOUSE BILL NO. 53 **SEISMIC HAZARDS SAFETY COMMISSION**

"An Act establishing the Alaska Seismic Hazards Safety Commission."

Recommends it be replaced with _____CS_____(_____) [ ] Same Title [ ] New Title
For Senate Bills with new title: [ ] Technical Title [ ] New Title: HCR_____

[ ] attach amendments
[ ] add new referral to _____ Committee
[ ] Letter of Intent _____Committee

List of Abbrev. For Depts.:
ADM
CED
COR
CRT
EED
DEC
DFG
GOV
HSS
LAA
LAW
LWF
MVA
DNR
DPS
REV
DOT
UA

NEW FISCAL NOTES
*For Chief Clerk's Office Use Only

FN# *	List by Dept(s):	Fiscal	Indet.	Zero

PREVIOUS FISCAL NOTES

List by Dept(s):	FN #	Fiscal	Indet.	Zero
DNR	1	✓		

Signing with recommendations	Printed Last Name	DP	DNP	NR	AM
	Bunde			✓	
	Whitaker	✓			
	Harris	✓			
	Croft	✓			
	Lancaster	✓			
	Hudson	✓			
	Foster	X			
Chair:	Mulder	✓			
Chair:	William	✓			

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: CSHB 53(MLV)
(H) Publish Date: 3/30/01

Revision Date/Time (Note if correction):
Dept. Affected: Office of the Governor
Title: "An Act establishing the Alaska Seismi
Hazards Safety Commission."
BRU: Commissions and Special Offices
Component: Seismic Hazards Safety Commission
Sponsor: Representatives Davies, Hudson, Kertt
Requester: HSCMVA
Component Number:

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services	18.0	13.4	13.4	13.4	13.8	13.8
Travel	7.0	7.0	7.0	7.0	7.0	7.0
Contractual	8.0	8.0	8.0	8.0	8.0	8.0
Supplies	0.5	0.5	0.5	0.5	0.5	0.5
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	33.5	28.9	28.9	28.9	29.3	29.3
CAPITAL EXPENDITURES						
CHANGE IN REVENUES ( )						

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	33.0	28.4	28.4	28.4	28.8	28.8
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	33.5	28.9	28.9	28.9	29.3	29.3

Estimate of any current year (FY2001) cost: 0.0

POSITIONS

Full-time						
Part-time	1	1	1	1	1	1
Temporary						

ANALYSIS: *(Attach a separate page if necessary)*

Fiscal note assumes 1/4 time clerical staff to support commission activity as technical support needs will be met by existing staff in Department of Natural Resources; quarterly commission meetings -- 2 face-to-face and 2 teleconferenced. Travel costs reflect estimated meeting costs for 9 total commission members and one staff. Contractual reflects estimated postage, communicaton, advertising, and teleconference costs.

Fiscal note assumes existing departmental office space/equipment will be available for use by the part-time clerical staff position.

Prepared by: Michael A Nizich/man
Phone 465-3876
Division Administrative Services
Date/Time 1/30/01 12:30 PM
Approved by: David Ramseur
Date 01/30/2001
Agency Office of the Governor

For distribution information, call the Governor's Legislative Office

(Rev 10/2000 OMB)

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: 2
Bill Version: CSHB 53(MLV)
(H) Publish Date: 3/30/01

Revision Date/Time (Note if correction):
Dept. Affected: Natural Resources
Title: An Act establishing the Alaska Seismic Hazards Safety Commission
BRU: Mineral's, Land & Water
Component: Geological Development
Sponsor: Davies
Requester: (H) MLV
Component Number: 1031

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services						
Travel	1.2	1.2	1.2	1.2	1.2	1.2
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	1.2	1.2	1.2	1.2	1.2	1.2
CAPITAL EXPENDITURES						
CHANGE IN REVENUES ( )						

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	1.2	1.2	1.2	1.2	1.2	1.2
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	1.2	1.2	1.2	1.2	1.2	1.2

Estimate of any current year (FY2001) cost: none

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: *(Attach a separate page if necessary)*

Costs to DGGS resulting from HB53 would be for modest staff time (approximately one-half person-month per year) plus travel associated with meetings. Salary costs would be covered under an existing position in DGGS which has responsibilities in geologic hazards that are consistent with work on this commission. The travel costs indicated above ($1,200 annually) assume two trips per year at an average cost of $600 per trip.

Prepared by: Milton Wilse
Phone 907-451-5001
Division Geological & Geophysical Surveys
Date/Time 01-Feb-01
Approved by: Pat Pourchot
Date 01-Feb-01
Agency Natural Resources

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