

ALASKA STATE LEGISLATURE

LEGISLATIVE BUDGET AND AUDIT COMMITTEE

Division of Legislative Audit



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SUMMARY OF: A Sunset Review on the Department of Natural Resources, Alaska Seismic Hazards Safety Commission, September 19, 2013

PURPOSE OF THE REPORT

In accordance with Title 24 and Title 44 of the Alaska Statutes (sunset legislation), we have reviewed the activities of the Alaska Seismic Hazards Safety Commission (commission or ASHSC). The purpose of this audit was to determine if there is a demonstrated public need for the commission's continued existence and if the commission has been operating in an effective manner. As required by AS 44.66.050(a), this report shall be considered by the committee of reference during the legislative oversight process in determining whether the commission should be reestablished. Currently, under AS 44.66.010(a)(8), the commission will terminate on June 30, 2014, and will have one year from that date to conclude its administrative operations.

REPORT CONCLUSIONS

Overall, we conclude the commission is operating in the public's interest, but improvements are needed to increase effectiveness. During the audit period, the commission served the public's interest by issuing eight seismic hazards mitigation recommendations. As the State's designated seismic hazard mitigation advisory commission, the ASHSC relies on other organizations to implement recommended actions. Six recommendations were issued to the State and legislature, and two were issued to other entities. The commission also gathered, analyzed, and disseminated information and assisted with seismic hazards safety mitigation training efforts.

The audit identified several areas for operational improvements. (See Recommendation Nos. 1 through 4.) Recommendations include improving strategic planning documents; replacing chronically absent commission members; filling vacant positions in a timely manner; and ensuring commission recommendations identify the required actions and organizations responsible for implementation.

FINDINGS AND RECOMMENDATIONS

1. The commission should improve prioritization and accountability within its strategic planning documents.

2. The commission should recommend replacing habitually absent members in a timely manner.
3. The Office of the Governor and the commission should work together to fill all commission vacancies in a timely manner.
4. The commission should ensure recommendations clearly identify the organization responsible for implementing an action and the action to be performed.

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October 10, 2013

Members of the Legislative Budget
and Audit Committee:

In accordance with the provisions of Title 24 and Title 44 of the Alaska Statutes (sunset legislation), we have reviewed the activities, and the attached report is submitted for your review.

DEPARTMENT OF NATURAL RESOURCES ALASKA SEISMIC HAZARDS SAFETY COMMISSION

September 19, 2013

Audit Control Number
10-20087-13

This audit was conducted as required by AS 44.66.050 and under the authority of AS 24.20.271(1). Alaska Statute 44.66.050(c) lists the criteria to be used to assess the demonstrated public need for a given board, commission, agency, or program subject to the sunset review process. Per AS 44.66.010(a)(8), the Alaska Seismic Hazards Safety Commission (commission) is scheduled to terminate on June 30, 2014.

In our opinion, the termination date for the commission should be extended. The commission is operating in the public's interest, but improvements are needed to increase effectiveness. We recommend the commission's termination date be extended six years to June 30, 2020.

The audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings, recommendations, and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions and recommendations based on our audit objectives. Fieldwork procedures utilized in the course of developing the conclusions and recommendations presented in this report are discussed in the Objectives, Scope, and Methodology.

A handwritten signature in blue ink, appearing to read "Kris Curtis".

Kris Curtis, CPA, CISA
Legislative Auditor

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OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Title 24 and 44 of the Alaska Statutes, we have reviewed the activities of the Alaska Seismic Hazards Safety Commission (commission or ASHSC) to determine if there is a demonstrated public need for its continued existence and if it has been operating in an efficient and effective manner.

As required by AS 44.66.050(a), this report shall be considered by the committee of reference during the legislative oversight process in determining whether the commission should be reestablished. Currently, under AS 44.66.010(a)(8), the commission will terminate on June 30, 2014, and will have one year from that date to conclude its administrative operations.

Objectives

The three, interrelated audit objectives were:

1. Determine if the commission's termination date should be extended.
2. Determine if the commission is operating in the public's interest.
3. Provide a current status of recommendations made in the prior sunset audit.

Scope

The audit examined the commission's operations and activities from June 2011 through July 2013, except where otherwise noted.

Methodology

The assessment of the ASHSC's operations and performance was based on the 11 criteria set out in AS 44.66.050(c). Criteria set out in this statute relate to the determination of a demonstrated public need for the commission.

To gain an understanding of the commission's operations and activities, the following were examined and evaluated:

- Applicable commission statutes and rules of procedure to identify commission functions and responsibilities including member composition and required qualifications.
- Alaska Statutes pertaining to the Department of Natural Resources (DNR), Division of Geological and Geophysical Surveys' state geologist to determine duties related to

collection, evaluation, and distribution of geologic data on seismic events and informing public officials and industry about potential hazards.

- Commission meeting transcripts and annual reports to gain an understanding of the operational proceedings and activities as well as the nature and extent of public input. Additionally, we evaluated the information for compliance with Alaska Statutes and commission rules of procedure.
- Commission policy recommendation documents, the strategic plan and “*action item*” listing for meetings to gain an understanding of commission activities related to meeting its statutory duties, goals, and objectives.
- Department of Education and Early Development capital improvement project instructions to determine how seismic issues are addressed in bidding documents for new school construction.
- Public notice documentation to ascertain whether public notices for commission meetings were published as required by statute.
- State of Alaska accounting system information related to expenditures for commission operations.

Inquiries regarding board-related complaints were made with the following organizations:

- DNR’s Commissioner’s Office;
- Office of the Ombudsman;
- Alaska State Commission for Human Rights;
- Office of Victims’ Rights;
- Department of Administration’s Division of Personnel and Labor Relations; and
- United States Equal Employment Opportunity Commission.

Various state agency staff and commission members were interviewed to identify and evaluate commission activities. Specific areas of inquiry included commission operations, duplication of efforts, public input at meetings, and the commission’s goals and objectives during the audit period.

Alaskan and national organization websites containing seismic hazards safety information were reviewed for potential duplication of commission activities.

Other state government websites were reviewed to gain an understanding of other states’ methods regarding strategic hazard mitigation plans.

ORGANIZATION AND FUNCTION

Alaska Seismic Hazards Safety Commission (commission or ASHSC)

The commission is authorized by AS 44.37.065 to analyze and disseminate information, review predictions and proposed warnings, and provide recommendations for seismic safety mitigation. The ASHSC is an advisory body; other agencies and organizations are responsible for implementing the recommendations. The commission is administered by the Department of Natural Resources' (DNR) Division of Geological and Geophysical Surveys (DGGS) and operates on a \$10,000 annual budget.

The ASHSC is comprised of 11 members appointed by the governor for three-year terms. The commission is designed to include a cross section of government and private sector representatives. Commission members include representatives from: the University of Alaska, local governments in various seismically active regions of the State, DNR, the Department of Military and Veterans' Affairs (DMVA), an appropriate federal agency, and the insurance industry. In accordance with AS 44.37.065(c)(7), the commission also includes three members from the general public who are experts in geology, seismology, hydrology, geotechnical engineering, structural engineering, emergency services, or planning.

Commission members serve without compensation, but are entitled to per diem and travel expenses. The commission receives administrative assistance from DGGS.

The commission maintains six standing sub-committees: earthquake scenarios; education, outreach, and partnership; insurance; hazards identification; response and recovery; and schools.

Alaska Statute 44.37.067(a) requires the commission to:

1. *Recommend goals and priorities for seismic hazard mitigation to the public and private sectors;*
2. *Recommend policies to the governor and the*

Exhibit 1

Commission Members As of July 31, 2013

Robert Scher
Chair, Public Member

John Aho
Public Member

Gary Carver
Public Member

Charles Cassidy, Jr.
Local Government

Mark Delozier
Local Government

Ann Gravier
DMVA Designee

Laura Kelly
Federal Agency

Richard Koehler
DNR Designee

Robin McSharry
Insurance Industry

David Miller
Local Government

Michael West
University of Alaska Designee

legislature, including needed research, mapping, and monitoring programs;

3. *Offer advice on coordinating disaster preparedness and seismic hazard mitigation activities of government at all levels, review the practices for recovery and reconstruction after a major earthquake, and recommend improvements to mitigate losses from similar future events;*
4. *Gather, analyze, and disseminate information of general interest on seismic hazard mitigation;*
5. *Establish and maintain necessary working relationships with other public and private agencies;*
6. *Review predictions and warnings issued by the federal government, research institutions, and other organizations and persons and suggest appropriate responses at the state and local levels; and*
7. *Review proposed seismic hazard notifications and supporting information from state agencies, evaluate possible socioeconomic consequences, recommend that the governor issue formal seismic hazard notifications when appropriate, and advise state and local agencies of appropriate responses.*

The commission is authorized by AS 44.37.067(b) to perform the following.

1. *Advise the governor and the legislature on disaster preparedness and seismic hazard mitigation and on budgets for those activities and to recommend legislation or policies to improve disaster preparedness or seismic hazard mitigation;*
2. *Conduct public hearings;*
3. *Appoint committees from its membership and appoint external advisory committees of ex-officio members; and*
4. *Accept grants, contributions, and appropriations from public agencies, private foundations, and individuals.*

The commission has adopted an organization charter, rules of procedure, and a strategic plan to assist in guiding efforts to achieve statutory objectives.

BACKGROUND INFORMATION

Alaska has more earthquakes than any other region in the United States and is one of the most seismically active areas in the world. The second largest earthquake ever recorded, with a magnitude of 9.2, occurred in March 1964 in the southern coastal region of Alaska. In 2012, the Alaska Earthquake Information Center reported an average of more than 2,300 monthly seismic events.¹ Large magnitude earthquakes have the potential to cause severe or catastrophic damage to buildings; disrupt transportation systems, basic utilities, and critical facilities; and cause loss of life.

In 2001, the Alaska Seismic Hazards Safety Commission (commission) was created to help reduce the disaster potential of major earthquakes and to reduce dependence on disaster relief. *Seismic hazard mitigation* refers to proactive efforts to improve safety and to reduce potential damage resulting from earthquakes by studying, identifying, and prioritizing needed actions. Efforts to mitigate hazards include considering where earthquakes are most likely to strike and how infrastructure can be constructed or modified to reduce damage. Examples of infrastructure critical to public safety include: airports, ports, harbors, hospitals, clinics, water and wastewater treatment facilities, bridges, roads, and schools.

Seismic hazard mitigation efforts for schools are an important commission priority. According to the commission's 2013 annual report, the number of schools, high occupancy rates, and designations as emergency shelters make schools a major commission focus. The Department of Military and Veterans' Affairs, Division of Homeland Security and Emergency Management also considers schools to be critical infrastructure.² Appendix A of this report depicts the locations of Alaskan schools in relation to seismic zones as published by the commission.

¹The Alaska Earthquake Information Center is part of the University of Alaska Fairbanks' Geophysical Institute.

²The 2013 final updated, State of Alaska Emergency Operation Plan 2011.

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REPORT CONCLUSIONS

In developing our conclusion whether the Alaska Seismic Hazards Safety Commission's (commission or ASHSC) termination date should be extended, we evaluated the commission's operations using the 11 factors set out in AS 44.66.050. Under the State's "*sunset*" law, these factors are to be used in assessing whether an agency has demonstrated a public need for continuing operations.

Overall, we conclude the commission is operating in the public's interest, but improvements are needed to increase effectiveness. During the audit period, the commission served the public's interest by issuing eight seismic hazards mitigation recommendations. As the State's designated seismic hazard mitigation advisory commission, the ASHSC relies on other organizations to implement recommended actions. Six recommendations were issued to the State and legislature, and two were issued to other entities. The commission also gathered, analyzed, and disseminated information and assisted with seismic hazards safety mitigation training efforts.

The ASHSC significantly impacted school safety by collaborating with the Department of Education and Early Development (DEED) on seismic issues concerning school construction and renovations. The collaboration resulted in a revised capital funding bidding document for new and rehabilitation construction. The revised bidding document addresses seismic issues and requires professional cost assessments for seismic hazard mitigation of school facilities. This revised form was implemented for all future DEED funding requests starting in FY 12.

Under AS 44.66.010(a)(8), the commission is scheduled to terminate June 30, 2014. We recommend extending the commission's termination date six years until June 30, 2020.

The audit identified several areas for operational improvements. (See Recommendation Nos. 1 through 4.) Recommendations include improving strategic planning documents; replacing chronically absent commission members; filling vacant positions in a timely manner; and ensuring commission recommendations identify the required actions and organizations responsible for implementation.

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FINDINGS AND RECOMMENDATIONS

The 2011 Alaska Seismic Hazards Safety Commission (ASHSC or commission) sunset audit contained four recommendations. The first directed the commission to develop a strategic plan to provide guidance to decision makers and coordinate with the Department of Natural Resources (DNR) to establish annual performance measures. This recommendation was partially resolved and is reiterated in this report as Recommendation No. 1.

The second recommendation directed the ASHSC to provide reasonable public notice prior to all meetings. This recommendation has been materially resolved. During the audit period, the commission held 19 meetings. Adequate advance public notice was issued for all but one meeting.

The third and fourth recommendations directed the commission to replace chronically absent members and directed the Office of the Governor to fill member vacancies in a timely manner. Neither recommendation has been resolved; both are reiterated in this letter as Recommendation Nos. 2 and 3.

One new recommendation is made as part of this sunset audit.

Recommendation No. 1

The commission should improve prioritization and accountability within its strategic planning documents.

Prior Finding

The commission lacked a clear strategy for prioritizing and monitoring its efforts which limited its effectiveness and efficiency in providing guidance over hazard mitigation issues. While the commission met some of its objectives, there were few deliverable or measurable effects of its efforts. The Office of Management and Budget requires departments to develop performance measures that identify end results, outline strategies to achieve the results, and provide an update on progress. The benefits of such planning include a clearer focus and a basis for measuring progress. We recommended the commission develop a strategic plan to guide its efforts to mitigate seismic hazard risks in Alaska.

Legislative Audit's Current Position

The commission made progress toward resolving this finding by developing a strategic plan that identifies objectives and strategies that correlate to the commission's statutorily mandated powers and duties. Each strategy lists a priority, target date, and planned outcome.

The commission also used goals contained in its annual report and action lists during commission meetings to direct and focus its efforts.

Although the ASHSC has made significant progress, the following additions would help the commission more fully focus its efforts:

1. Clearly prioritizing tasks – while each of the tasks in the strategic plan is assigned a priority, 27 of the 29 tasks are listed as “*important.*” The commission goals and action lists do not contain priorities;
2. Consistently identifying the person or subcommittee responsible for task completion; and
3. Associating goals and action lists with the commission’s overarching strategic plan objectives and consistently identifying a specific outcome.

The commission’s operational structure contributed to a lack of uniformity in the strategic planning documents. There are six subcommittees; each has a different strategy. The subcommittee chairs have various approaches and processes to achieve commission-mandated objectives.

Prioritizing projects would improve the commission’s effectiveness by focusing efforts and resources on the most important tasks. Identifying the individuals or subcommittees responsible for tasks adds a degree of accountability that may enhance the commission’s efficiency and effectiveness. Relating all planned activities to one of the commission’s objectives ensures efficient use of limited resources. Incorporating these elements into the planning process could improve the commission’s ability to serve the public.

We recommend the commission improve prioritization and accountability within its strategic planning documents. Improvements should include prioritizing tasks to focus efforts and resources on the most important tasks; promoting accountability by assigning task completion to an individual or subcommittee; and consistently associating commission goals and action lists with the commission’s overarching objectives.

Recommendation No. 2

The commission should recommend replacing habitually absent members in a timely manner.

Prior Finding

During the prior audit period, one commission member missed at least 10 consecutive meetings. The commission’s rules of procedure require a member with three or more consecutive unexcused absences to be immediately recommended for replacement. Rather

than recommend replacement after the third consecutive unexcused absence, the commission elected to delay its recommendation for replacement until the member's term expired.

Legislative Audit's Current Position

This finding was not resolved during the audit period. Between November 2012 and February 2013, one member had four consecutive unexcused absences. The commission did not follow the procedures in Article II-6 which require members with three or more consecutive unexcused absences to be immediately recommended for replacement. The commission elected not to recommend replacement assuming the member would return.

The member's absences contributed, in part, to the lack of a quorum for commission meetings in August and November 2012. Without a quorum, the commission could not conduct official business which decreased effectiveness.

We again recommend the commission propose replacing habitually absent members in a timely manner.

Recommendation No. 3

The Office of the Governor and the commission should work together to fill all commission vacancies in a timely manner.

Prior Finding

During the prior audit period, one local government seat on the commission was vacant for more than nine months. According to staff within the Office of the Governor, the vacancy was due to an insufficient applicant pool. Alaska Statute 44.37.065(c) requires the governor to appoint both private and government commission seats.

Legislative Audit's Current Position

This finding was not resolved during the audit period. During FY 12 and FY 13, the Department of Military and Veterans' Affairs (DMVA) commission designee seat was vacant for 10 months. DMVA's representative left the commission in early March 2012, and the replacement was not appointed until January 2013.

The delayed appointment was due to unclear guidance over new appointment procedures. The delayed appointment contributed, in part, to the lack of a quorum for two commission meetings in 2012. Without a quorum, the commission could not conduct official business which decreased effectiveness.

We again recommend the Office of the Governor and the commission work together to fill all commission vacancies in a timely manner.

Recommendation No. 4

The commission should ensure recommendations clearly identify the organization responsible for implementing an action and the action to be performed.

Recommendations issued by the commission did not consistently specify the organization responsible for implementing the recommendation. Additionally, not all recommendations adequately identified the action to be performed. Of the 10 recommendations issued by the commission since 2005, seven did not clearly indicate the appropriate agency responsible for implementation, and two were vague regarding actions needed.

At times, the commission was uncertain about where to direct its recommendations. The commission would benefit from working with DNR management to identify the most appropriate agency or organization to direct commission recommendations.

Alaska Statute 44.37.067(a) requires the commission to:

- (1) *Recommend goals and priorities for seismic hazard mitigation to the public and private sectors.*
- (2) *Recommend policies to the governor and the legislature, including needed research, mapping, and monitoring programs.*

Unclear assignment of responsibility and vaguely written recommendations diminish the commission's effectiveness.

We recommend the commission ensure recommendations clearly identify the organization responsible for implementing an action and the action to be performed. Additionally, the commission should seek assistance from DNR management in identifying the appropriate organizations responsible for implementing recommendations.

A ANALYSIS OF PUBLIC NEED D

The following analyses of board activities relate to the public need factors defined in AS 44.66.050(c). This analysis was not intended to be comprehensive, but address those areas we were able to cover within the scope of the audit.

Determine the extent to which the board, commission, or program has operated in the public interest.

The Alaska Seismic Hazards Safety Commission (commission or ASHSC) is statutorily designated as an advisory body for seismic hazard safety mitigation. The ASHSC's overarching purpose is to analyze and disseminate information, review predictions and proposed warnings, and to provide recommendations for seismic safety mitigation. Other agencies and organizations are responsible for implementing the recommendations.

During the audit period, the commission held at least six annual meetings as required by the commission's adopted rules of procedure. The meetings were generally teleconferenced although the commission had at least two face-to-face meetings a year.

The ASHSC served the public's interest by making recommendations to the governor and legislature through annual reports. The commission made the following six policy recommendations in its 2011 and 2012 annual reports.

- Fund government agencies in their efforts to characterize active fault locations.
- Require applicants for registration as civil engineers to have completed a university-level or equivalent course addressing earthquake engineering.
- Perform Federal Emergency Management Agency rapid visual screening of existing state-owned buildings to identify and prioritize all seismically vulnerable buildings.
- Provide relief from liability for qualified and trained volunteers who are assigned by a jurisdiction to serve following a damaging earthquake.
- Investigate potential impacts and develop contingency plans to prepare for and mitigate the possible detrimental effects of a great Pacific Northwest earthquake on Alaska.
- Develop an Alaska-specific post-earthquake technical clearinghouse.

Each recommendation in the annual report is supported by a white paper³ which provides details about the underlying research and the importance of the recommendation.

In addition to the annual report recommendations, the commission also issued the following recommendations.

- *The Knik Arm Bridge and Toll Authority [should] establish an independent technical review board to assure that the ultimate design and construction is sound, constructible, and in particular appropriately addresses the seismic hazard (e.g. strong shaking, ground failure, etc.).*
- *[The Port of Anchorage should] establish and maintain a seismic instrumentation program as part of your routine operations systems, including strong motion instruments and geodetic survey monuments strategically positioned around the facility (e.g. behind the new sheet pile bulkheads, near the pile docks, in the backland, etc.).*

The commission further served the public's interest by assisting with seismic hazard safety training efforts. In 2011 and 2012, the ASHSC coordinated with the Department of Military and Veterans' Affairs to facilitate training workshops for volunteer first responders after a severe earthquake. The two-day workshops covered post-disaster facility safety assessments.

The commission also participated in organizations concerned with seismic hazards. Through representation by its members, the commission actively participated in organizations such as the Alaska Partnership for Infrastructure Protection, the Anchorage Geotechnical Advisory Commission, and the Western States Seismic Policy Council. Participation included making presentations and attending meetings. Additionally, the ASHSC periodically acts in an advisory capacity for non-state entities. During the audit period, the commission advised the Matanuska-Susitna Borough on developing a seismic hazard zone map.

Determine the extent to which the operation of the board, commission, or agency program has been impeded or enhanced by existing statutes, procedures, and practices that it has adopted, and any other matter, including budgetary, resource, and personnel matters.

Commission operations were impeded by limited administrative support from the Department of Natural Resources (DNR). The commission depends on DNR staff for assistance with tasks such as disseminating annual reports, recording meeting minutes, and facilitating communications with organizations. During the audit period, the DNR employee assigned to assist the commission was on leave for an extended period. Limited administrative support resulted in the commission recording its own minutes for two meetings and a significant delay in distributing the FY 12 annual report.

³A *white paper* is a brief technical report designed to help the reader better understand a specific issue.

Operations were also hindered by commission member absences and a vacancy. As a result of these combined factors, the commission was unable to conduct business at two meetings due to the lack of a quorum. (See Recommendations Nos. 2. and 3.)

Determine the extent to which the board, commission, or agency has recommended statutory changes that are generally of benefit to the public interest.

The commission made no statutory recommendations during the audit period.

Determine the extent to which the board, commission, or agency has encouraged interested persons to report to it concerning the effect of its regulations and decisions on the effectiveness of service, economy of service, and availability of service that it has provided.

The commission met 19 times during the audit period. Eighteen of those meetings were public noticed at least 10 days prior to the meeting. Due to an oversight within DNR's Division of Geological and Geophysical Surveys (DGGS), one meeting was public noticed only three days in advance of the meeting. Commission meeting agendas were published on the State's On-Line Public Notice System and provided a teleconference number and a telephone number for the commission chair.

Although the public may contact the commission during commission meetings, the ASHSC could do more to encourage public input regarding commission decisions by establishing a public comment process during the development of its annual report and recommendations.

Determine the extent to which the board, commission, or agency has encouraged public participation in the making of its regulations and decisions.

During the audit period, members of the general public rarely attended commission meetings. However, the ASHSC invited guest speakers to address specific topics. Speakers included subject matter experts and those potentially impacted by seismic hazards. Information provided by guest speakers assisted the commission in formulating final recommendations.

Determine the efficiency with which public inquiries or complaints regarding the activities of the board, commission, or agency filed with it, with the department to which a board or commission is administratively assigned, or with the office of victims' rights or the office of the ombudsman have been processed and resolved.

From FY 12 through FY 13, no complaints were filed against the ASHSC with the commission chair, DNR's Commissioner's Office, the Office of Victims' Rights, or the State's Office of the Ombudsman.

Determine the extent to which a board or commission that regulates entry into an occupation or profession has presented qualified applicants to serve the public.

This criterion is not applicable because the commission does not regulate occupations or professions.

Determine the extent to which state personnel practices, including affirmative action requirements, have been complied with by the board, commission, or agency to its own activities and the area of activity or interest.

During FY 12 and FY 13, no complaints were filed against the commission with the Department of Administration's Division of Personnel and Labor Relations, the United States Equal Employment Opportunity Commission, or the Alaska State Commission for Human Rights.

Determine the extent to which statutory, regulatory, budgeting, or other changes are necessary to enable the agency, board, or commission to better serve the interests of the public and to comply with the factors enumerated in this subsection.

Currently, the commission's primary communication with the governor and legislature is through the annual report. The commission rarely receives feedback about the reports, and members are uncertain whether the ASHSC is proceeding as expected by the governor and legislature. The commission would benefit from DNR management's assistance in facilitating communications with the governor, the legislature, and other entities to which the commission issues recommendations.

A few commission recommendations were vague regarding what action should be performed, and several were unclear about which agency or organization was responsible for implementing the recommendation. The commission could increase the impact of its recommendations by specifying the actions to be performed and the agencies or organizations responsible for implementing the actions. (See Recommendation No. 4.)

Although the ASHSC made progress in better defining objectives and measures of success, improving prioritization and accountability within its strategic planning documents could increase the commission's efficiency and effectiveness. (See Recommendation No. 1.)

Determine the extent to which the board, commission, or agency has effectively attained its objectives and purposes and the efficiency with which the board, commission, or agency has operated.

The ASHSC's strategic plan describes seven primary commission objectives.

- Recommend goals and priorities for seismic hazard mitigation to public and private sectors.

- Recommend policies to the governor and legislature including needed research, mapping, and monitoring progress.
- Offer advice on coordinating disaster preparedness and seismic hazard mitigation to all government levels, review the practices for recovery and reconstruction after a major earthquake, and recommend improvements to mitigate losses from future similar events.
- Gather, analyze, and disseminate information about general interest in seismic hazard mitigation.
- Establish and maintain necessary working relationships with other public and private agencies.
- Review predictions and warnings issued by the federal government; research institutions, and other organizations and individuals; and suggest appropriate responses at the state and local levels.
- Review seismic hazard notifications and supporting information from state agencies, evaluate possible socioeconomic consequences, recommend that the governor issue formal seismic hazard notifications when appropriate, and advise state and local agencies of appropriate responses.

During the audit period, the ASHSC actively worked toward meeting its objectives. The commission issued eight recommendations to the public and private sectors and the legislature regarding seismic hazard risk mitigation in Alaska. Also, the commission provided a two-day course on post-disaster facility assessments, and advised the Matanuska-Susitna Borough about seismic hazard maps.

The commission also worked collaboratively with the Department of Education and Early Development (DEED) on seismic issues concerning school construction and renovation. The collaboration resulted in a revised capital funding bidding document for new and rehabilitation construction. The revised bidding document specifically addresses seismic issues and requires a professional cost assessment for seismic hazard mitigation of a school facility. This revised form was implemented for all future DEED funding requests starting in FY 12.

During the audit period, the commission gathered, analyzed, and disseminated information. Significant projects included developing and publishing a paper on Pacific Northwest earthquakes and their effects on Alaska,⁴ developing an earthquake insurance brochure that is posted on the commission's website, facilitating DGGs' compilation of a comprehensive

⁴*"Pacific Northwest Earthquakes and Potential Effects on Alaska,"* Alaska Seismic Hazard Safety Commission, 2012.

inventory and database of active faults in the State, and assisting with the analysis and mapping of earthquakes scenarios for the Kodiak Island Borough.

Additionally, efforts to establish and maintain relationships materialized in a meeting between state seismic commissions and agency individuals at the Western States Seismic Policy Council 2012 annual meeting in Memphis. In response to an ASHSC resolution, the 2014 National Conference on Earthquake Engineering is being hosted in Anchorage, Alaska. Also the commission now co-chairs an annual meeting with the Municipality of Anchorage Geotechnical Advisory Committee.

There have been no seismic hazard predictions, warnings, or notifications issued by the federal government or state agencies during the audit period.

Determine the extent to which the board, commission, or agency duplicates the activities of another governmental agency or the private sector.

The ASHSC's mission is closely related to the missions of other state agencies such as DGGs and DMVA's Division of Homeland Security and Emergency Management (DHS&EM). The commission also interacts with the Municipality of Anchorage Geotechnical Advisory Commission, the Alaska Partnership for Infrastructure Protection, the Alaska Earthquake Information Center, and the United States Coast Guard. The commission is distinct from these agencies in its focus on seismic hazard mitigation and its ability to facilitate collaboration amongst agencies with related missions.

Duplication of activities is avoided through the collaboration between the commission and other governmental and private sector entities. For example, the commission was active in advocating for the mapping of active faults which DGGs now performs. Also, the commission collaborated with DHS&EM on various training activities and was active in reviewing and updating the earthquake section of the 2013 State of Alaska Hazard Mitigation Plan. Commission membership includes representation from each of these agencies.

A**PPENDI****X**

The map on the following page shows the locations of public school facilities throughout the State of Alaska in relation to expected ground-shaking intensities. The ground-shaking intensities include perceived shaking, potential damage, and the resulting effects on personal property and structures. The map was provided by the Department of Natural Resources' Division of Geological and Geophysical Surveys and is unaudited.

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PUBLIC SCHOOLS AND EARTHQUAKE HAZARDS IN ALASKA

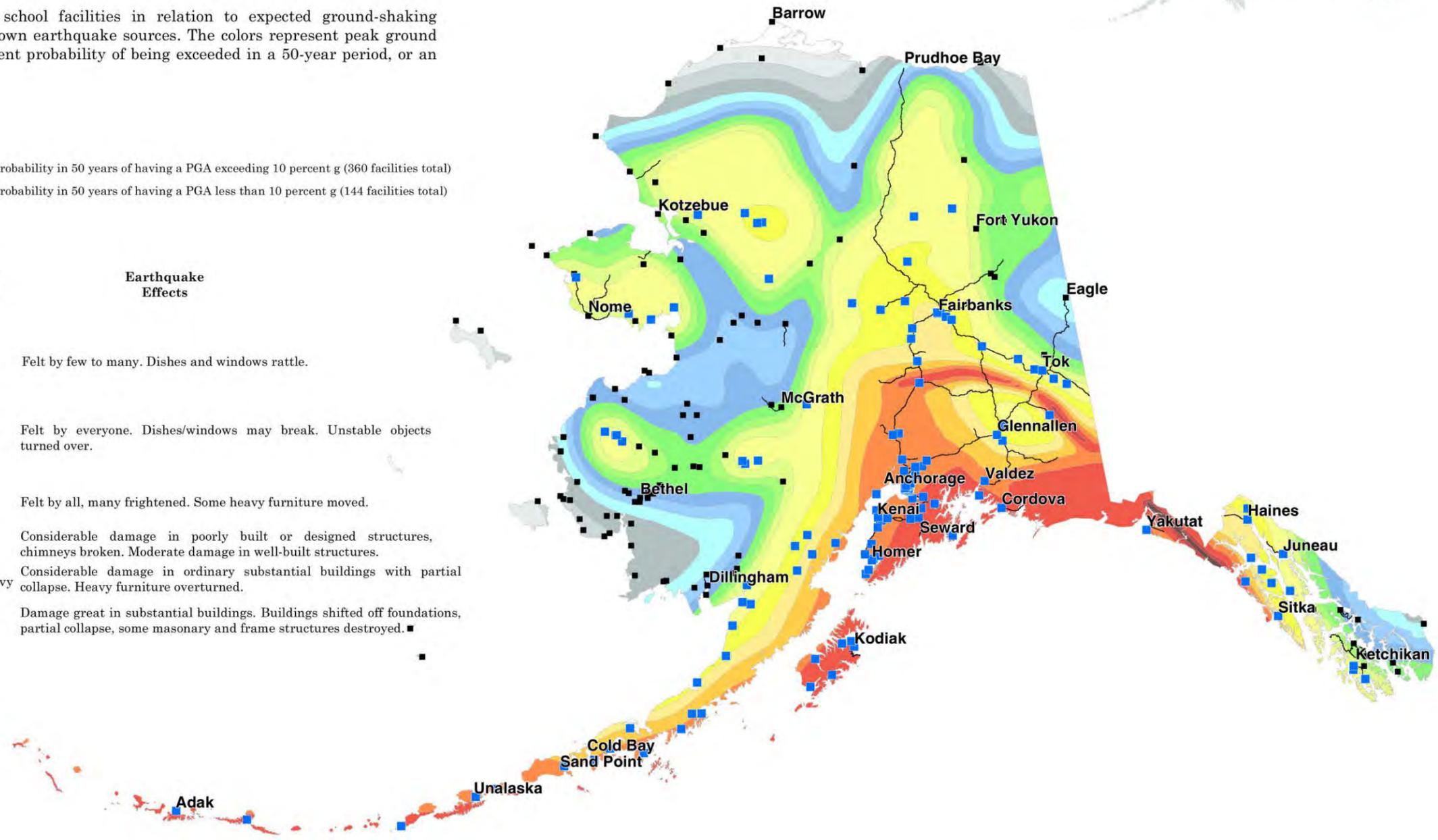


This map shows location of public school facilities in relation to expected ground-shaking intensities, taking into account all known earthquake sources. The colors represent peak ground acceleration (PGA) that has a 10-percent probability of being exceeded in a 50-year period, or an average of once every 475 years.

EXPLANATION

- Main Road
- School facilities in areas with a 10 percent probability in 50 years of having a PGA exceeding 10 percent g (360 facilities total)
- School facilities in areas with a 10 percent probability in 50 years of having a PGA less than 10 percent g (144 facilities total)

Peak Ground Acceleration (% g) 475 year average return	Perceived Shaking	Potential Damage	Earthquake Effects
0 to 1	Not Felt to Light	None	Felt by few to many. Dishes and windows rattle.
1 to 2			
2 to 3			
3 to 4	Moderate	Very Light	Felt by everyone. Dishes/windows may break. Unstable objects turned over.
4 to 5			
5 to 6			
6 to 7	Strong	Light	Felt by all, many frightened. Some heavy furniture moved.
7 to 8			
8 to 9			
9 to 10	Very Strong	Moderate	Considerable damage in poorly built or designed structures, chimneys broken. Moderate damage in well-built structures.
10 to 15			
15 to 20			
20 to 25	Severe	Moderate/Heavy	Considerable damage in ordinary substantial buildings with partial collapse. Heavy furniture overturned.
25 to 30			
30 to 40			
40 to 60	Violent	Heavy	Damage great in substantial buildings. Buildings shifted off foundations, partial collapse, some masonry and frame structures destroyed.
60 to 80			
80 to 100			



DATA SOURCES

Information compiled from the Seismic-Hazard Maps for Alaska and Aleutian Islands," US Geological Survey, 1999, the Probabilistic Seismic Hazard Map of Alaska," US Geological Survey (Open File Report 99-36), the Alaska Department of Education & Early Development, Division of School Finance and Facilities school database, 2007, and the "Alaska School Map", Alaska Department of Education & Early Development, revised 2003.

Peak ground acceleration converted to perceived shaking and potential damage based on: Wald, D.J., Quitoriano, V., Heaton, T.H., and Kanamori, H., 1999b, Relationship between Peak Ground Acceleration, Peak Ground Velocity, and Modified Mercalli Intensity in California: Earthquake Spectra, v. 15, no. 3, p. 557-564.

Additional information, including gridded values and arc/info coverages used to make this map is available at: <http://earthquake.usgs.gov/research/hazmaps/>. Alaska state boundary, main roads and school data were obtained from the Alaska State Geospatial Clearinghouse at <http://www.asgdc.state.ak.us/> on April, 2007.

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Office of Governor Sean Parnell
STATE OF ALASKA

October 25, 2013

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OCT 25 2013

LEGISLATIVE AUDIT

Ms. Kris Curtis, CPA, CISA
Legislative Auditor
Division of Legislative Audit
P.O. Box 113300
Juneau, AK 99811-3300

Dear Ms. Curtis,

This letter is in response to your October 16, 2013 CONFIDENTIAL Preliminary Audit Report of the Department of Natural Resources (DNR), Alaska Seismic Hazard Safety Commission (ASHSC).

Regarding Recommendation No. 3: The Office of the Governor and the commission should work together to fill all commission seat vacancies in a timely manner.

The Commission has no current vacancies and is at full membership. The Office of the Governor consistently works to network, recruit, and appoint qualified candidates to serve in professional and public seats.

Substantively, this recommendation is without basis in law. Appointments are exclusively the constitutional function of the Governor, and the ASHSC statutes do not change this. Functionally, however, the Office of the Governor needs to timely know of vacancies and similar issues. To this end, the Office of Boards and Commissions diligently works to collaborate with and support ASHSC in view of the Commission's upcoming term expirations and vacancies.

We recognize the Commission functions most effectively with full representation and participation. Our office has taken steps to fill vacant seats with qualified candidates in a timely manner to allow the Commission to function productively.

If you need additional information, please contact me at 907-269-7450.

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth Giardina".

Elizabeth Giardina
Acting Director
Boards and Commissions

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THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Natural Resources

Office of the Commissioner
550 West 7th Avenue, Suite 1400
Anchorage, Alaska, 99501-3650
Phone: 907.269.8431
Fax: 907.269.8918

November 5, 2013

Kris Curtis
Legislative Auditor
Legislative Budget and Audit
P.O. Box 113300
Juneau, AK 99811-3300

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NOV 05 2013
LEGISLATIVE AUDIT

RE: Response to preliminary audit, Department of Natural Resources (DNR), Alaska Seismic Hazard Safety Commission, Received October 21, 2013

Thank you for the preliminary audit of October 16, 2013, outlining the findings, conclusions and recommendations that arose from your audit of the Alaska Seismic Hazards Safety Commission (ASHSC), which is administered by DNR's Division of Geological & Geophysical Surveys (DGGS). We have carefully read the letter, and have minimal comments, suggestions, and responses concerning the results of your work. Overall, we believe the audit to be thorough, well researched, and fair, and we concur with the majority of the findings/recommendations. However, we do have some suggestions that we will outline below in the same order as the audit is organized.

Response:

Organization and Function

DNR agrees with the information presented in this section of the preliminary audit.

Background Information

We agree with the information presented for background purposes. However, we suggest that the first sentence of the second paragraph be expanded to clearly inform the reader of the commission's purpose by amending the sentence as follows: "...dependence on disaster relief [...] by identifying and recommending policy actions of the governor and legislature; and recommending goals, priorities, and improvements to seismic hazard mitigation efforts in the public and private sectors."

Report Conclusions

We agree that the ASHSC is operating in the public's interest and that the termination date of ASHSC should be extended to June 30, 2020. However, we also agree that improvements can be made to increase effectiveness of the commission.

Findings and Recommendations

We agree that some of the recommendations from the previous audit conducted in 2011 were resolved and that some improvements could still be made and will work with ASHSC to better address those issues where DNR can. Specific comments are outlined in the following sections below.

Recommendation No. 1

Legislative Audit's Current Position

DNR agrees with the conclusions made in recommendation No. 1. ASHSC has made significant progress in developing and following a strategic plan; however, a concerted effort in prioritization and accountability by identifying the individuals or subcommittees responsible for tasks will improve the effectiveness of the commission and provide added benefit to the public. DNR will continue to work with the commission, where appropriate, to achieve this goal.

We believe that once this recommendation is implemented, DNR/DGGS will be able to better develop performance measures and targets with the ASHSC.

Recommendation No. 2

Legislative Audit's Current Position

DNR concurs with the conclusion made in recommendation No. 2. It is critical that an active commission be maintained and that commissioners contact the chair to excuse legitimate absences, and keep unexcused absences to a minimum. It should be pointed out that one extenuating circumstance during the period of this audit was the untimely retirement of one of the commissioners from the entity they represented. There was a significant amount of confusion whether this person could continue to represent the organization, remain as a member of the commission, or be removed; there were at least 2 meetings where this confusion ensued. That issue has since been completely resolved, and should no longer affect the performance of the commission.

Recommendation No. 3

Legislative Audit's Current Position

We agree with this recommendation and will work with the ASHSC and the Governor's Office to fill appointments in a timely manner. However, we would point out that the DMVA did provide an alternate representative who was serving on the commission prior to being officially appointed by the Governor's Office.

Recommendation No. 4

Legislative Audit's Current Position

DNR concurs with the conclusion made in Recommendation No. 4. Because of the relative importance of many recommendations provided by the commission, as well as the fact that the commission does not have the ability or authority to carry out the recommendations, it is important that the potentially responsible party for ultimate implementation be clearly stated. It is also important that the commission

discuss their recommendations with that responsible party to make certain there is reasonable communication and understanding of the issue by both entities. DNR will work with the commission on that communication effort, as well as help in identifying potentially responsible parties.

Analysis of Public Need

Your detailed Analysis of Public Need as required by Alaska's "sunset" law is informative. We do not take any major issues with any of your observations but would like to comment on a few points.

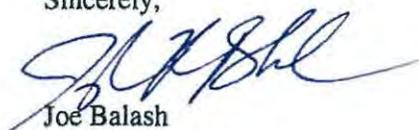
We believe that the first paragraph on page 13, under the section determining the extent to which the commission has operated in the public interest, is well written and the point that the ASHSC is an advisory body and that other agencies are responsible for implementing the recommendations is critical. DNR also suggests clarifying that "Other agencies and organizations are responsible for implementing the recommendations, *where appropriate and sufficient funds are available.*"

The commission has worked to improve and make clear policy recommendations that could be communicated to decision makers; by establishing the entities responsible, follow-up of policy recommendations will be easier. However, it is also important to note that although the commission may advise that an agency or the legislature should implement one of their recommendations, as an advisory body, it does not have the ability to dictate priorities nor the budget within that agency.

We request some clarification with regard to the analysis on page 14 on the impediments by limited administrative support from DNR. While we agree that improvements may be made, DNR would like to clarify that the employee assigned to assist the commission was on maternity leave. Furthermore, DNR would also like to clarify that the commission had to record its own minutes for two of the 19 meetings due to the employee's absence. DGGs chose not to train a new administrative person for the two meetings missed as it did not seem prudent at the time. The technical nature of the commission meetings dictates that the person providing administrative support has sufficient knowledge in geophysics and seismic related terminology to decipher the conversations. If extended absence (the length of which was not predicted in this case) is scheduled, DNR will ensure the continued provision of administrative support. DNR agrees that there was a significant delay in distributing the FY12 annual report and will make efforts to ensure its proper distribution in a timely manner in the future.

DNR has already begun working with the ASHSC to address some of the concerns that have been brought up in this audit with regard to improving support of the commission and looks forward to continuing working with the commission. This concludes the Department of Natural Resources, Commissioner's Office comments on the Management Letter No. 1. We very much appreciate the thorough job the Auditor performed, and the ability to constructively comment on the findings.

Sincerely,



Joe Balash
Acting Commissioner

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THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

**ALASKA SEISMIC HAZARDS
SAFETY COMMISSION**

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4 November 2013

RECEIVED

NOV 05 2013

Sent via email

Kris Curtis, CPA, CISA
Legislative Auditor
Legislative Budget and Audit Committee,
Division of Legislative Audit
P.O. Box 113300
Juneau, Alaska 99811-3300

LEGISLATIVE AUDIT

RE: Preliminary Audit Report, Alaska Seismic Hazards Safety Commission

Dear Ms. Curtis:

The Alaska Seismic Hazards Safety Commission has reviewed and discussed the Alaska Division of Legislative Audit's (DLA) *Preliminary Report* (dated 19 September 2013), received on 20 October 2013. Briefly, all of the commissioners are very pleased and appreciative of the DLA's conclusion that the Commission is operating in the public's interest and should be extended for another six years. Further, the Commission agrees with all four of the DLA's recommendations. While the Commission has made concerted and continued efforts to address the DLA's recommendations from the prior audit review in 2011, we acknowledge there are still aspects of our business to improve. In that regard we have also appreciated the DLA's constructive comments, suggestions, and foremost support during the course of the subject audit.

The following summarize the Commission's specific response to each of the four recommendations presented in the subject report, including the methods or procedures we intend to employ to assure they are implemented.

RECOMMENDATION No. 1 - The Commission should improve prioritization and accountability within its strategic planning documents.

The Commission agrees with Recommendation No. 1. The Commission has begun to re-evaluate the prioritization and accountability of the strategies we have identified to achieve the objectives described in our existing Strategic Plan (dated June 2012). The Commission intends to complete the updated Strategic Plan by early 2014.

Following the DLA's previous audit review in 2011, the Commission worked diligently to develop our first detailed strategic plan, which was approved in June 2012 and then provided to the Office of the Governor, the Legislature and DNR as part of the Commission's 2012 annual report. The Commission believes our existing plan fully addressed and resolved the DLA's first recommendation from the 2011 review. Therefore, we consider the above recommendation No 1 to be new, as it applies to our existing plan, versus a continuation of the 2011 recommendation as implied in the report.

RECOMMENDATION NO. 2 - The Commission should recommend replacing habitually absent members in a timely manner.

The Commission agrees with Recommendation No. 2. The Commission has begun discussions to amend its 'rules of procedure' to clarify the responsibilities of the members and officers in regards to participation on the Commission, which we intend to complete by early 2014.

While the Commission agrees active participation of its members is essential to our performance, the Commission has also never failed to meet a mandated deadline, scheduled vote, or to achieve our goal of conducting at least six meetings per year (defined in our rules of procedure) due to not having a quorum. The two meetings in 2012 referred to in the report where a quorum was not established did not affect any of our goals or otherwise hinder or prevent the commission from acting on any scheduled business.

RECOMMENDATION NO. 3 - The Office of the Governor and the Commission should work together to fill all commission seat vacancies in a timely manner.

The Commission concurs with Recommendation No. 3. While beyond the statutory powers of the Commission, we agree to take a more active role in assuring that the Office of the Governor (i.e. the Boards and Commissions office) fill vacant commission seats in a timely manner. The Commission has begun discussions to amend our 'rules of procedure' to address such involvement, which we intend to complete by early 2014.

RECOMMENDATION NO. 4 - The Commission should ensure recommendations clearly identify the organization responsible for implementing an action and the action to be performed.

The Commission agrees with Recommendation No. 4. The Commission has begun to draft a general policy defining the format, structure, implementation, accountability, over-sight, and periodic post-approval review of our formal recommendations to the Legislature, Governor, State government, and private and public sectors. We intend to complete this general policy and amend it to our 'rules of procedure' by mid-2014.

Since 2010 the Commission has approved nine designated 'policy recommendations' for mitigating seismic hazards in the State (the most recent in October 2013, after the DLA completed their subject review). All of these recommendations were directed to the legislature or a State government entity; and all were provided in our annual reports to the Office of the Governor and legislature, or by direct mailing - the Commission looks forward to their response.

Kris Curtis, Division of Legislative Audit
Preliminary Audit Report
4 November 2013
Page 3



In closing, the Commission agrees with all of four recommendations put forth in the DLA's preliminary report, and we are very pleased and encouraged with your conclusions – we certainly hope that the Legislative Budget and Audit Committee, and both houses of the legislature agree.

Please feel free to contact me at your convenience if you have any questions.

Respectively yours,

A handwritten signature in black ink, appearing to be "R. Scher". The signature is fluid and cursive, with the first letter of each word being capitalized and prominent.

Robert L. Scher, P.E.

Chair, Alaska Seismic Hazards Safety Commission
907.522.1707; bscher@rmconsult.com

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