Senator Lisa Murkowski
709 Hart Senate Building
Washington, D.C. 20510

Dear Senator,

I am writing this letter on behalf of the membership of the Glacier Grotto listed below. The Glacier Grotto is a statewide chapter of the National Speleological Society (NSS) dedicated to the discovery, mapping and conservation of the karst and cave resources of the state of Alaska. The Glacier Grotto membership is very concerned about the new land selections that Sealaska Corporation has requested under the Alaska Native Claims Settlement Act as introduced initially as House Bill 3560 by Representative Don Young and reintroduced in Senate Bill (SB) 3651 by Alaskan senator Lisa Murkowski.

First, definition of the type of landscape the Glacier Grotto and NSS are particularly concerned about:

Karst topography is a landscape shaped by the dissolution of a layer or layers of soluble bedrock, usually carbonate rock such as limestone or dolomite. Due to subterranean drainage, there may be very limited surface water, even to the absence of rivers and lakes. Many karst regions display distinctive surface features, with sinkholes or dolines being the most common. However, distinctive karst surface features may be completely absent where the soluble rock is mantled, such as by glacial debris, or confined by superimposed non-soluble rock strata. Some karst regions include thousands of caves, even though evidence of caves that are big enough for human exploration is not a required characteristic of karst.[1]

It should be noted that current land management practices on federal lands underlain by carbonate rock in Alaska, especially on the Tongass National Forest, manage these karst landscapes for the unique hydrological, speleological, archeological and paleontological resources underlying the surface of these landscapes as well as the biological community that covers and protects their surface. These areas contain unique biological microhabitats, for example, freshwater streams sourced or passing through karst bedrock produce significantly more invertebrates which feed a larger number of salmon than do non- karst systems, thus providing greater opportunity for subsistence, commercial and sport fishing harvest.[2] Karst regions in Southeast Alaska contain irreplaceable archeological and paleontological deposits, internationally significant cave and karst geologic features, surprising hydrological interconnectedness and remote recreational opportunities like few other places on the planet.[3] Archeological and paleontological research in Southeast Alaska has not only redefined how indigenous people arrived and colonized the Americas, but has also provided a picture of the plant and animal communities present in this region for the past 40,000 + years. The potential for additional paleontological and archeological discovery in this region is extensive and many of the cave-containing karst lands within the Sealaska selections have not been thoroughly inventoried. Each year, this region attracts researchers and cave explorers from around the country and worldwide. To date, the US Forest Service (USFS) land management practices associated with karst lands in Southeast Alaska have been a model for other agencies in other parts of the world. [4]

Three of the areas suggested for conveyance to Sealaska occur in some of the most highly developed karst landscapes in Alaska (containing features that are unique internationally). These areas are: Northern Prince of Wales Island, Tuxekan Island and Kosciusko Island. Below is some Geographic Information System (GIS) analysis provided by James Baichtal, Forest Geologist of the Tongass National Forest, relating to HB 3560:

"…Kosciusko Island: Total area of Sealaska selection equals 25,882 acres of which 23,839 acres (92%) are underlain by karst. We (USFS, entered by D. Love for clarification) have inventoried some 1090 karst features we consider significant within the proposed land selection, of which there are 145 caves that have been designated significant[5] or most likely would be found to be significant when nominated. The 2008 TLMP included a 7678 acre Geologic Special Area encompassing Mount Francis and karst areas to the south with a boundary change to include the results of tracer dye studies. The Sealaska Corporation proposal includes 5,708 acres of the 7,678 acres or 74% of the Geologic Special Area. We have not

inventoried this area but karst features may exceed a density of thousands per square mile.

NPOW: Total area of Sealaska selection equals 32,482 acres of which 16,435 acres (51%) are underlain by karst. We have inventoried some 161 karst features we consider significant within the proposed land selection, of which there are 23 caves that have been designated significant or most likely would be found to be significant when nominated. The Sealaska proposal includes 1,651 acres of the Geologic Special Areas found in the 2008 TLMP. The Sealaska proposed land selection also includes the Port Protection Watershed identified by through a Village Safe Water Grant and tracer dye studies.

Tuxekan Island: Total area of Sealaska selection equals 15,758 acres of which 11,936 acres (76%) are underlain by karst. We have inventoried some 339 karst features we consider significant within the proposed land selection, of which there are 30 caves that have been designated significant or most likely would be found to be significant when nominated. There are no Geologic Special Areas on Tuxekan Island.

In summary, the Sealaska selection on the Thorne Bay Ranger District where there are karst landscape concerns equals 74,112 acres, 52,210 acres underlain by karst (71%). We have a total of 1,590 karst features inventoried of which there are 198 caves that have been designated significant or most likely would be found to be significant when nominated. Many of these areas have such a high density of features that we have just never inventoried them so the actual number of caves from areas like Mount Francis, Flicker Ridge and the Calder Area would be much higher. The Sealaska proposal includes 7,359 acres of Geologic Special Areas…."[6]

Although the Glacier Grotto agrees that the tribes of Southeast Alaska (i.e- now represented by the Sealaska Corporation) have the right to lands promised under ANCSA, the Glacier Grotto does NOT believe that House Bill 3560 or Senate Bill 3651 should be passed unless changes are made to the bills. This letter is in opposition to this bill asking for additional withdrawals of public US National Forest lands outside of the original ANCSA withdrawal areas if these new withdrawal areas overlie karst terrain and/or caves. Refer to Sec 3 (b) (1), page 19 of the Senate Bill 3651 authorizing Sealaska to select lands categorized as "Economic Development Lands" (see the map entitled "Sealaska ANCSA Land Entitlement Rationalization Pool, dated March 6, 2008 and labeled Attachment A). Karst landscapes and caves underlying lands selected by Sealaska currently receive protection from damage under federal laws. These selected areas include and/or overlie karst landscapes and/or cave systems, and the Glacier Grotto and members of the NSS believe that these lands should not be developed but should be protected as they currently are under the FCRPA. Since no State cave resource protection law exists for State or privately owned lands, these areas should not be allowed to be managed under (non-existant) State law, but should continue to be managed under the FCRPA. In addition, if any of the "Traditional and Customary Trade and Migration Routes", "Native Futures Sites" and "Sacred, Cultural, Traditional and Historic Sites" overlie karst terrain or cave containing bedrock then these areas should also be removed from the selections and continue to be managed under USFS and the FCRPA..

While the membership of the Glacier Grotto signed below would like to believe that Sealaska Corporation would protect the karst landscapes and cave systems underlying the land selections in these bills, this may be an unrealistic expectation given Sealaska's past poor forest management (ex.- clear-cut logging on steep hillsides) on other lands it currently owns. Forests overlying karst in some of the new selections ("economic development area") are oldgrowth stands that were not harvested in USFS timber sales because of concerns about impacting the interconnected "high vulnerability" karst bedrock below. As outlined by James Baichtal's work above, these areas contain a large number of fragile cave systems, undelineated hydrologic systems and fragile soils supporting unique plants and animals. Transfer of these areas to Sealaska would endanger these unique cave resources and karst landscapes.

Further clarification of karst management on federal and state lands provided by James Baichtal, Forest Geologist, Tongass national Forest, is provided below:

"…The authority for management of the karst lands and the associated caves on public lands comes from the Federal Cave Resources Protection Act (FCRPA) of 1988, The Antiquities Act of 1906, the Federal

Land Policy Management Act of 1976 (FLPMA), and in Forest Service Management (FSM) directions 2356, 2361, and 2880, and 36 CFR 261 and 290. Subsequently, in the 2008 Tongass Land Management Plan, standards and guidelines were developed to protect the karst and cave resources found on the Tongass National Forest. For State of Alaska lands currently there is no "Cave Protection Act" in the State of Alaska (http://www.caves.org/committee/conservation/)(Conservation Laws and Policy, Cave laws and Policies) nor does the Forest Practices Code contain any provisions for protection of those resources from timber harvest, road construction and/or quarry development as stated by the Alaska State Division of Forestry (DOF) website at http://forestry.alaska.gov/forestpractices.htm . Neither the Alaska Forest Resources and Practices Act as published in 2000 nor the Alaska Forest Resources and Practices Regulations as published in 2000 contained language addressing karst or cave resources. In a Memorandum from the Department of Natural Resources dated March 6, 2003 which outlines the Coastal Region's Southern Southeast Area Five-year Schedule of Timber Sales for the period of January 1, 2003 through December 31, 2007, the DOF clearly states its position. In the description of the 2005 proposed El Cap Timber Sale, the DOF states, "The ADNR does not recognize karst topography as a significant resource to be managed on the State's limited land base in southeast. The DOF will protect karst formations that effect water quality as per the Alaska Forest Resources and Practices Act and Regulations. If significant recreational activity is found to be dependent on a karst resource, it will be taken into account during the design and FLUP (Forest Land Use Plan) process for a proposed timber sale." This memorandum can be accessed at the following website: http://www.dnr.state.ak.us/forestry/pdfs/fysts2003prelimdoc.pdf

Therefore, it can be assumed that if the ownership of these karst lands were transferred to Sealaska, no measures are in place to ensure their protection. "Section 2(b)(1)." of the FCRPA, Findings, Purpose, and Policy states that, "The purposes of this Act are "to secure, protect, and preserve significant caves on Federal lands for the perpetual use, enjoyment, and benefit of all people". It would be difficult to make a case that disposing of land containing significant caves (or those that may meet the criteria) meets this purpose.

There is also a planning and public participation section of the Act (Sec. 4. (b) (C)(1)(2) The Secretary shall-- "(1) ensure that significant caves are considered in the preparation or implementation of any land management plan if the preparation or revision of the plan began after the enactment of this Act; and (2) foster communication, cooperation, and exchange of information between land managers, those who utilize caves, and the public." These sections require consideration of cave resources and assure a public process is followed.

Further more, the FCRPA Sec 4(a)(B) states " - .....including management measures to assure that caves under consideration for the list [of significant cave designation] are protected during the period of consideration." Therefore, I believe that if a cave is known or is nominated under the provisions of the Act, we have the responsibility to follow up and either designated it as a significant cave or make the decision that it does not meet the provisions of the law, and therefore not significant. Until this decision is made, known caves and nominated caves should receive the same protection as significant caves and we as an agency should not knowingly support an action that could jeopardize that resource.

The karst lands of the Tongass National Forest and the caves and all the resources within them belong to "all people". These karst lands are national treasures containing caves and karst features of international significance. Federal land managers (…and all reasonable people, the Glacier Grotto would argue…) have been charged with the "perpetual" protection of these resources. Knowingly transferring the ownership of these caves to a private entity with no provisions for protection in place, in our opinion, does not meet the purpose of the FCRPA. Based on the past liberal management strategies and practices on Sealaska lands, these resources would be irrevocably damaged and the resources within them and what we may learn from them threatened or lost…"[6]

Glacier Grotto membership believes that there should be no transfer of karst lands without restrictions on development activities above and around these karst areas and with provisions allowing unlimited access for additional exploration and mapping, scientific study, and complete protection as if these areas were administered public lands protected by the Federal Cave Resources Protection Act . We simply do not

believe that the selected "economic development lands" will be managed in any other way than clearcut logging, no matter what Sealaska states is their new land management strategy. As to management of the 200+ Cultural/Sacred/Historic Sites selected, Sealaska currently does not have an archeologist on staff, or a workable management plan for these sites that would protect the sites even for their own Native membership. Also, SB 3651, Section 18 (A-C) removes the "protective covenant" that was in the original ANCSA legislation from past and future 14(h)(1) ANCSA sites that would have required that the sites be managed to federal standards. What are Sealaska's intentions? Sadly, we do not believe that Sealaska would protect the karst landscape, unique cave ecosystems and associated biota, hydrological systems (some assocated with community water supplies), cultural and archeological sites, paleontological sites, and recreational opportunties in the same manner that these resources are currently being protected under federal management. We ask that the sponsoring members of the House and Senate consider our concerns regarding this bill. We will gladly provide more information and testimony, if necessary, to help in modifying or rewriting this bill such that it would protect the nationally and internationally unique karst resources in Southeast Alaska. Thank you for your time.

Sincerely,

David Love, Glacier Grotto President,
Timothy Heaton, Paleontologist and NSS Fellow,
Kevin Allred and Carlene Allred, Glacier Grotto and NSS members,
Steve Lewis, Conservation chair - Glacier Grotto, NSS member,
Rachel Myron, Glacier Grotto and NSS member,

References

[1]Ford, D. and Williams, P. 2007 Karst Hydrology and Geomorphology John Wiley and Sones Ltd. 562 pp.
[2]Bryant, M.D.; D.N. Swanston; R.C. Wissmar; and B. E. Wright. 1998. *Coho Salmon Populations in the Karst Landscape of Northern Prince of Wales Island, Southeast Alaska.* Transactions of the American Fisheries Society 127:425-433, 1998

[3]Griffiths, P.; Aley, T.; Worthington, S.; Jones, W. 2002. Karst Management Standards and Implementation Review, Final Report of the Karst Review Panel, Prepared for USDA Forest Service, Tongass National Forest, Submitted to MWH (Montgomery Watson Harza) under the terms of USDA Contract 53-0116-2-55901, 27 pp. and appendices.

[4]Baichtal, J.F. 1997. *Application of a Karst Management Strategy: Two Cases Studies from theTongass National Forest, Southeastern Alaska; The Challenges of Implementation*. In: Proceedings of the 1997 Karst and Cave Management Symposium 13th National Cave Management Symposium Bellingham, Washington and Chilliwack and Vancouver Island, BC, Canada, October 7-10, 1997, Bellingham, Washington. Edited by Robert R. Stitt, pp. 4-11.

[5]"Significant" caves are defined by the FCRPA as possessing one or more of the following: unique biota, cultural, historical or archeological resources, geologic, mineralogic or paleontologic resources, hydrologic systems or water important to humans, biota or cave development, recreational value, educational or scientific values or are located within special management areas. See Federal Register [16 U.S.C. 4301-4309]

[6] Baichtal, James F., Forest Geologist, Tongass National Forest, Memo to Scott Fitzwilliams, RLMH Staff Officer, dated March 13, 2003 Review of the Proposed Sealaska-Tongass National Forest Land Exchange Concerning Karst and Cave Resources