Alaska Wildlife Alliance opposes opening the Kenai National Wildlife Refuge to Brown Bear Baiting

1. **Permitting Brown Bear baiting puts the Kenai Peninsula brown bears at risk**

* Brown bears have one of the lowest reproductive potential of any North American mammal, and at current population numbers, the **Kenai brown bear population remains a relatively small population that is highly sensitive to high adult female and high overall human-caused mortality levels.** Genetics studies have determined that Kenai brown bears are an isolated population (Jackson *et al.* 2008), meaning that immigration from mainland Alaska will not assist in sustaining the population.
* The Refuge does not know whether, or to what extent, the proposed change would **impact the overall Kenai Peninsula brown bear population**. Such information should be assessed before liberalizing methods for human-caused brown bear mortality.
* Based on population modeling conducted by Refuge biologists in 2014, overall levels of human-caused brown bear mortalities on the Kenai Peninsula were at an upper threshold, above which mortality may result in a population decline (USFWS presentation to the Alaska BOG, 2015). The EA must account for this possibility before such a rule can be passed.
* A recent review of baiting and supplemental feeding of wildlife (Inslerman *et al.* 2006) found that black **bear baiting** **impacts bear behavior (including shifts in home range sizes, movements and densities), and physiological responses (including reproductive success, growth and body mass)**. In general, this review concluded that “when bait or supplemental food is available (ad libitum), or when natural foods are plentiful, bears generally reduce their home range size, overlap home ranges in the area where bait or feed is provided, and concentrate at higher than normal densities.” There are no data available to assess behavioral or physiological responses of black or brown bears utilizing bait stations on the Refuge.
* Increased baiting opportunities will **likely increase the number of Refuge baiting permits issued annually**. In 2014, when brown bear baiting was first allowed under State regulations, the number of registered bear baiting stations on the Kenai Peninsula **rose by 41%** in one year, compared to the average of the four years prior (ADFG, unpublished data). Over the course of the four years following the opening to harvest of brown bears over bait, the average number of registered bait stations on the Kenai Peninsula (369) was **25% higher than the previous four-year average**. It is likely that annual hunter harvest of brown bears in GMU 15A, which includes the Refuge baiting area, would increase over current levels.
* **Trends in the sex and age composition** of the brown bears killed over bait on the Refuge would likely be primarily male brown bears and would shift over time from primarily adult to primarily subadult bears. Population modeling (using Vortex 10.0) conducted by Refuge biologists in 2015 indicates that overall human-caused mortality levels exceeding recent levels (approximately 40 brown bears annually) could **result in a brown bear population decline** (USFWS presentation to Alaska BOG, 2015).
* Any increase in brown bear hunter participation is expected to have a **small overall impact (less than 0.1 percent increase) on the local economic contributions of the Refuge** since current brown bear hunting comprises less than 0.1 percent of refuge visitor days.
* The brown bear population will **continue to be influenced by habitat loss and fragmentation and multiple potential sources of human-caused mortality** as the human population continues to grow on the Kenai Peninsula and recreational use of public lands increases. Increased sedimentation and turbidity in anadromous streams as a result of the 2019 Swan Lake fire may decrease salmon
* productivity which in turn may decrease a food resource for brown bears.

1. **Brown bear baiting is a continuation of BOG/ADFG efforts in recent years to liberalize bear and wolf harvests lieu of invoking formal predator control** (Intensive Management) as the latter has several policy and public perception hurdles. Three former ADF&G bear biologists published a scathing analysis of recent regulatory actions by ADF&G and the Board of Game in 2017 (<https://doi.org/10.2192/URSU-D-17-00002.1>):

“From Regulatory Years 1995–1996 to 2017–2018, the State of Alaska general hunting regulations for resident brown bear hunters in [Southeast and Southcentral Alaska] were made more liberal 222 times in a Game Management Unit subunit and made more conservative [only] 4 times. There was a shift in the types of regulations that were liberalized prior to RY2010–2011 and the types that have been liberalized subsequently. Since 2010–2011 changes have focused on increasing bag limits to 2 bears/year, allowing commercial sale of bear hides with claws attached and skulls, and **allowing shooting of brown bears at bear bait stations**.”

Furthermore, “the most abrupt shift from conservative to very liberal management regulations for brown bear hunting by Alaskan resident hunters occurred on the Kenai Peninsula starting in RY 2012–2013 and increasing in 2013–2014. Subsequent to the [25-fold] spike in harvest numbers following the 2013–2014 liberalizations, we speculate that the subsequent decline in harvest numbers resulted from depletion in bear abundance on the Kenai Peninsula. Achieving such a reduction along with reducing non-sport mortalities were the State of Alaska’s objectives for the liberalizations.”

1. **Brown bear baiting is bad for bears, business, and human safety**

* Experts contend that **conditioning bears to unnatural, human-derived food items can increase risk to public safety** (food conditioned bears are more likely to become a public safety risk than non-food conditioned bears)(Herrero, 1970, 1976, 2002), and **increases the likelihood that they become “nuisance” bears and killed by people outside of legal harvest** (Herrero 2002). Both natural and unnatural, human-derived food items (such as popcorn, pastries, old fruit, dog food soaked with bacon grease, processed grains, honey, molasses, or a variety of other food items) are commonly used as an attractant at bait stations. Bears coming to bait stations that are not harvested could become conditioned to human foods and may **pose increased threats to visitors and campgrounds proximal to the Refuge baiting area**. This could result in risks to public safety and to any bears that become food conditioned (Herrero, 1970, 1976, 2002).
* Increased hunting from baiting will likely decrease opportunities to view black and brown bears in access corridors and adjacent areas, primarily the Swanson River/Swan Lake road area.
* Non-consumptive activities average about 85 percent of all recreational visitation annually at the Refuge. As noted in the “Visitor Use and Experience” section of the Draft Environmental Assessment, the Refuge predicts that **wildlife watching activities will likely decrease if there are decreased opportunities to view brown bears or if visitors have safety concerns regarding food conditioned bears.** If populations decline, wildlife watchers may choose to not view bears or visit a substitute site to view brown bears. As a result, a **decrease in wildlife watching at the Refuge would have a negative impact on the local economy.**
* The Refuge now hosts more than 1 million annual visitor use days, and as one of only two refuges in Alaska on the highway system is a highly popular destination for outdoor recreation. For Refuge visitors, the Refuge now maintains 29 trailheads and over 250 miles of trails, 13 campgrounds, 16 public use cabins, several access roads, boat ramps and parking areas, a Visitor Center and other administrative buildings. While varying annually, visitation to the Refuge is trending upward concurrent with an increasing human population regionally and expanding tourism to Alaska.
* Of the recreational activities occurring on the Refuge involved in this proposed rulemaking, bear baiting is the only activity that has potential for **impacts to wilderness character within the Kenai Wilderness**. Localized negative impacts to wilderness character in the wilderness unit adjacent to the Refuge bear baiting area may occur due to the presence of nearby artificial food sources that could affect bear distribution, movements, densities, and behavior. Degradation of wilderness character would occur more broadly across the Kenai Wilderness should levels of human-caused mortality increase and result in a decline in the overall Kenai Peninsula brown bear population under this proposed action.

1. **Bear baiting endangers other wildlife and habitat**

* Non-target wildlife species also are attracted to bear bait stations. Anecdotal information provided by hunters using bait and observations by Refuge staff suggests that a variety of species including moose, red squirrel, black-billed magpie, common raven, and red-backed vole use foods at black bear bait stations on the Refuge.
* Localized impacts to vegetation and soil disturbance typically occurs at bear bait stations from bears’ digging and rooting behavior to obtain spilled or otherwise scattered bait food items.

1. **Wildlife are already feeling increased pressures, they don’t need more. Broader habitat and development conditions must be assessed before anything is approved.**

* According to U.S. Census Bureau data, the Kenai Peninsula Borough’s population grew from 6,097 in 1960 to 58,617 people in 2017.
* The continuing urbanization in the Kenai-Soldotna-Sterling area and in Cooper Landing has bottlenecked corridors for landscape-level wildlife movement. The total linear distance from the mouth of the Kenai River to the Seward Highway (along the eastern most edge of Kenai Lake) is 65 miles. After eliminating Kenai Lake and Skilak Lake as natural barriers to wildlife movement, the remaining potential segment for north-south movement is 38.5 miles.
* Recently approved highway improvement projects (Mileposts 58-79, Mileposts 45-60) have potential to restrict connectivity even more despite designed mitigation measures, reducing the available area for north-south movement by wildlife to less than 20 percent of the historical landscape. Development and transportation improvements such as the Kenai Spur Highway extension north of Captain Cook State Park along the Refuge’s northwestern boundary, and extensive cabin and trails development in the Caribou Hills adjacent to the southwestern boundary of the Refuge Andrew Simon Wilderness Unit have also affected the Refuge’s natural resources.
* A developing urban interface along the 175-mile western refuge boundary from Point Possession to the Fox River (including 37 miles of Congressionally-designated Wilderness) increases the potential for habitat damage from motorized trespass, wildlife loss through illegal hunting, increased human-caused mortality of brown bears from defense of life or property takings, litter, moose-vehicle collisions, noise and air pollution, wildlife disturbance, introduction and spread of exotic and invasive species, and wildland fire ignitions.
* The Swan Lake fire has burned nearly 170,000 acres since May 2019 and is expected to continue to burn until snowfall. While fire is natural in the boreal forest and provide long term ecological benefits, this fire has burned alpine and subalpine habitats in areas with no known fire history. Although the fire did not occur in the area where take of brown bears over bait is being proposed, the fire did consume habitat in close proximity. Where the fire burned steep terrain erosion is likely, causing an increase in sedimentation and temporary turbidity in anadromous streams that could affect future salmon productivity. **It is unclear what the overall short and long term effect of this change in habitat would mean for the Refuge’s brown bear population.** Adding pressure to brown bears in these unknown circumstances is premature and in violation of the Refuge’s conservation mandates.

1. **Opening baiting could increase competition for subsistence**

* Hunting brown bears on the Refuge is currently open to Federally-qualified rural residents of Ninilchik under federal subsistence regulations in GMU 15C. Under the proposed action, the hunting of brown bears over bait on the Refuge would be open to all users under applicable State regulations and terms and conditions of the Refuge permit.
* Any decline in the Kenai Peninsula brown bear population in response to increased levels of human-caused mortalities could affect harvest opportunities for all users.