17. Wildlife Terrestrial Habitat: Special Status Species

Goal: Maintain the abundance and distribution of habitats, especially old-growth forests, to sustain viable populations. Also maintain habitat capability sufficient to produce wildlife populations that support the use of wildlife resources for sport, subsistence, and recreational activities.

Objectives: Provide sufficient habitat to preclude the need for listing species under the Endangered Species Act, or from becoming listed as sensitive due to national forest habitat conditions.

Background

The National Forest Management Act requires that the Forest Service provide for the diversity of plants and animals, based upon the suitability and capability of each National Forest, as a part of meeting overall multiple use objectives (16 USC 1604(g)(3)(B)).

Further direction requires that fish and wildlife habitat be managed to maintain viable populations of existing native and desired non-native vertebrate species. In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well-distributed so that those individuals can interact with others (36 CFR 219.3 [September 30, 1982]).

Sensitive Species

In 2009, the sensitive species list for the Alaska Region of the Forest Service was revised in response to extensive coordination and consultation with other agencies and organizations, review and synthesis of the latest scientific information, and participation by staff of the Chugach and Tongass National Forests and the regional office. Forest Service sensitive species are defined as: "Those plant and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by:

1. Significant current or predicted downward trends in population numbers or density
2. Significant current or predicted downward trends in habitat capability that would reduce a species existing distribution" (Forest Service Manual [FSM] 2670.5.19)

Per FSM 2672.11 (May 31, 1991), the following sources were examined for candidates for listing as sensitive species:

- State lists of endangered, threatened, rare, endemic, unique, or vanishing species, especially those listed as threatened under state law.
- Other sources as appropriate in order to focus conservation management strategies and to avert the need for Federal or state listing as a result of national forest management activities.

In addition, per USDA Alaska Region of the Forest Service manual supplement (2670-2672.11), the identification of sensitive species was based on the following:

- The species identified as candidates by the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) will be automatically designated as sensitive species in the Alaska Region. Candidate species are those species for which the USFWS has sufficient information on biological vulnerability and threat(s) to support a proposal to list, but working on a proposed rule is precluded by higher priority listing actions.
- The species (or subspecies, variety, or stock) must be recognized by taxonomic experts and must be known or likely to occur on national forest system lands within the Alaska Region. Sensitive species status applies throughout the range of the species on national forest system lands within the Alaska Region.

- The species warrants sensitive status (FSM 2670.5) based on eight evaluation factors in the Forest Service manual supplement:

    1. Geographic distribution within the Alaska Region
    2. Geographic distribution outside the Alaska Region
    3. Capability of the species to disperse
    4. Abundance in Alaska Region
    5. Population trend in Alaska Region
    6. Habitat trend in Alaska Region
    7. Vulnerability of habitats in the Alaska Region (recent and potential effects of habitat modification based on the historical range of variation [HRV])
    8. Life history and demographic characteristics

The following animal species were identified as Alaska Region of the Forest Service Sensitive Species:

- Kittlitz's murrelet (*Brachyramphus brevirostris*),
- Queen Charlotte goshawk (*Accipiter gentilis laingi*),
- Black oystercatcher (*Haematopus bachmani*),
- Aleutian tern (*Sterna aleutica*), and
- Dusky Canada goose (*Branta canadensis occidentalis*).

The USFWS released a "not warranted" finding for the Kittlitz's murrelet October 3, 2013. It is no longer being evaluated for that reason.

Although not on the 2009 Alaska Region Sensitive Species list, the yellow-billed loon (*Gavia adamsii*) was listed by the USFWS as a candidate species. The Tongass National Forest was therefore including this species when evaluating project effects. The USFWS released a "not warranted" finding October 1, 2014, after the period covered by this report (October 1, 2013 through September 30, 2014). The yellow-billed loon is included in this report but will no longer be evaluated in the future.

All species occur on the Tongass except the dusky Canada goose (although it may occur during migration).

Yellow-billed Loon. This species was designated a candidate species by the USFWS shortly after (March 2009) the Alaska Region Sensitive Species list was revised. According to the Forest Service Manual (Alaska Region Supplement R-10 2600-2005-1) all USFWS candidate species are automatically designated as Alaska Region sensitive.

The breeding range of the yellow-billed loon includes coastal the Arctic Coastal Plain, northwestern Alaska, and St. Lawrence Island. They nest in the Mackenzie Delta and west of Hudson Bay in Canada and along two relatively narrow strips of coastal tundra in Russia. They nest exclusively in coastal and inland low-lying tundra, in association with permanent, fish-bearing lakes. Their wintering range includes coastal waters of southern Alaska to Puget Sound; the Pacific coast of Asia from the Sea of Okhotsk south to the Yellow Sea, the Rants Sea and the coast of the Kola Peninsula; coastal waters of Norway; and possibly Great Britain.

The global breeding population for yellow-billed loons is estimated to be 16,000 to 32,000 individuals. The Alaska population is estimated at 3,000 to 4,000. Based on summer marine boat-based surveys, Earnst (2004) estimated the yellow-billed loon population in Southeast Alaska, Lower Cook Inlet, and Prince William Sound was 339 birds. However, this includes birds not identified to species. During boat-based surveys in 2002-2004 for murrelets from Icy Bay to LeConte Bay in Southeast Alaska, Kissling et al. (2007) counted 20 yellow-billed loons.

In their species assessment and listing priority assignment form for the yellow-billed loon, the U.S. Fish and Wildlife Service (Department of Interior 2012 species profile for yellow-billed loon contained within the USFWS online ECOS database (USFWS 2014: http://go.usa.gov/3Su3j) reviewed the present or potential threats to yellow-billed loons throughout their range and concluded the collective impact of several stressors (such as oil and gas exploration and development, collisions, marine pollution, the effects of climate change, inadequacy of existing regulations, and fishing by-catch), when taken collectively could rise to the level of population-level effects. Aspects of the species ecology and demography including low and variable productivity, adult survival, and low population numbers are likely also relevant to its status. Populations of K-selected species such as the yellow-billed loon are stable when annual productivity rates are low, but annual survival rates are high. Thus, individuals must live a long time to replace themselves with offspring that survive to be recruited into the breeding population. If enough adults are removed from the population prior to replacing themselves, then the population will decline. If population size declines then recover and re-colonization would likely occur slowly, despite the fact that the species continues to be widely distributed across its range.

Northern Goshawk (including the Queen Charlotte subspecies). The northern goshawk favors dense stands of productive old-growth forest for nesting habitat. The USFWS was petitioned to list the Queen Charlotte goshawk subspecies of the northern goshawk as endangered in May 1994. Listing was found to not be warranted in 1997 due to the Tongass conservation strategy contributing substantially to goshawk habitat through the old-growth reserved system (and other non-development land-use designations) and through standards and guidelines protecting goshawk habitat in portions of the Forest open to timber harvest. In 2004 the finding that listing is not warranted was remanded back to the USFWS for further review to determine whether the Vancouver Island, British Columbia population is a significant portion of the subspecies' range and if so is listing warranted. In 2007 the USFWS published their finding that the Alaska and British Columbia populations of the Queen Charlotte goshawk constitute distinct population segments under the ESA, thus qualify for individual consideration as threatened or endangered. In addition, they concluded that again, they did not support listing the Alaska segment as threatened or endangered under the ESA because of protections provided by the Tongass conservation strategy. In 2012 the USFWS listed the British Columbia distinct population segment of the Queen Charlotte goshawk as threatened under the ESA.

Still, the Queen Charlotte goshawk is an Alaska Region sensitive species because (a) there is continued uncertainty about goshawks in some geographic areas with concentrated past timber harvest (e.g., Prince of Wales Island) which has resulted in a vulnerability of habitat conditions in those areas, (b) the goshawk population trend is unknown, and (c) management of the Tongass continues to play a large role in the conservation of this species (USDA Forest Service 2009).

The legacy standard and guideline of the 2008 Tongass Forest Plan replaces standards in the 1997 Forest Plan (USDA Forest Service 1997) related to northern goshawk foraging habitat. The legacy standard requires that old-growth forest structure (i.e., live trees, dead trees, and clumps of trees) be retained after timber harvest in Value Comparison Units (VCUs) that have had considerable past harvest (USDA Forest Service 2008b). The benefits of leaving clumps of forest structure within timber harvest units, compared to single trees, is well documented in the scientific literature, including studies on goshawk and their primary prey species. Clumps receive more use by wildlife and are more wind-firm than scattered residual trees. Applying the legacy standard and guideline in required VCUs is expected to contribute to the effectiveness of the matrix as part of the overall Forest conservation strategy (USDA Forest Service 2008a).

The TES wildlife species standard and guideline for northern goshawk (including the Queen Charlotte goshawk subspecies) provides further protections in the matrix: Maintain an area of no less than 100 acres of productive old-growth forest (if it exists) generally centered over the next tree or probable nest site (WILD4 II.A.1.C; USDA 2008b). Some management flexibility is allowed in stands where goshawks have been observed but no direct or indirect evidence of a confirmed nest is documented after 2 years of monitoring (WILD4 II.A.1; USDA 2008b).

Black Oystercatcher. The black oystercatcher is an intertidal obligate that favors rocky shorelines and forages in sheltered low-sloping gravel or rock beaches with abundant prey. It is listed by the U.S., Canada, Alaska, British Columbia, Washington, Oregon, and California shorebird plans as a species of high concern by Audubon as a watch list species, by USFWS as a focal species, and is a Chugach National Forest management indicator species. The greatest threats to this species are thought to be development of their habitat, oil spills, and sea level rise associated with climate change. Black oystercatchers have a small global population (estimates of 8,500 to 11,000 individuals) with distribution from the Aleutian Islands down the Pacific Coast to Baja California. The majority (65 percent) of the population breeds in Alaska. Populations were affected by the 1989 Exxon Valdez oil spill in Prince William Sound, recovery has been slow, and oil still lingers in nesting areas. Extensive data collection has occurred the past 5 years from Kodiak Island to British Columbia showing these long-lived birds have high site fidelity, but low reproductive rates and high inter-annual variability in nest success. Chick survival is low due to several natural and human-induced factors, including snow conditions, timing, prey availability, nest predation, and human use. Because viability of this species remains a concern and populations in some areas have dramatically declined due to unknown causes (from 48 pairs to 2 pairs in Sitka Sound), and there is high overlap between nest sites and areas permitted for recreational use (e.g., Prince William Sound), the black oystercatcher is an Alaska Region sensitive species (USDA Forest Service 2009).

Aleutian Tern. The Aleutian tern relies on islands, shrub-tundra, grass or sedge meadows, and freshwater and coastal marshes for nesting. Aleutian terns breed in Alaska and Siberia. Viability concerns for this species stem from the loss or size reduction of colonies in Kodiak, Prince William Sound, Yakutat, and Icy Bay. The largest colonies on record exist or existed on the Cordova (Chugach National Forest) and Yakutat Ranger Districts. Some colonies are in remote sites, whereas others are in areas where the Forest Service can manage perturbations of sites (e.g., Black Sand Spit in Yakutat). The Aleutian Tern Working Group recently reviewed the species status, natural history, uses, and threats; the data suggest to the Working Group a range-wide population decline. Suspected causes are both natural and human-induced (e.g., isostatic rebound, structural changes in vegetation, shifts in forage prey populations, disturbances from human activities, access allowed through special use permits). Little is known about migratory routes, wintering range, diet, and chick provisioning. Possible migration routes include coastal south China, Taiwan, Korea, Philippines and other parts of Southeast Asia. Based on steep declines in the population of the large breeding areas on Forest Service lands, and the potential for overlap of management activities with those breeding sites, the Aleutian tern is an Alaska Region sensitive species.

Threatened and Endangered

Steller Sea Lion. Based on demographic and genetic dissimilarities, the NMFS divides the Steller sea lion population into eastern and western distinct population segments (DPSs) with the dividing line at 144° W. The western DPS (WDPS) is listed as endangered and consists of Steller sea lions from breeding colonies west of the line. Breeding colonies in Southeast Alaska are within the eastern DPS (EDPS) and during a portion of this reporting period were listed as threatened. The eastern DPS was delisted by the NMFS effective December 4, 2013. The Tongass National Forest will continue to evaluate for five years after the delisting. This report shows sea lion eastern DPS as threatened if analyzed prior to the delisting and as sensitive if analyzed post-delisting.

Wildlife Terr. Hab. photo 1. Stellar sea lion, (Eumetopias jubatus), aerial surveys on Yakutat Ranger District in 2007

There is evidence that the EDPS and WDPS travel across the DPS boundary to varying degrees based on sex and the location of their natal rookery (Jemison et al. 2013). In their study of the sightings of over 4,000 sea lions that had been branded as pups from year 2000-2010 Jemison et al. (2013) found that male sea lions regularly traveled across the DPS boundary. The probability of females from the WDPS being in the east at age 5 was 0.67, but EDPS females were rarely in the west. In addition, there is strong evidence of WDPS females permanently emigrating to the east and reproduced at two mixing zone rookeries in northern Southeast Alaska. WDPS animals began moving east in the 1990s, following steep population declines in the central Gulf of Alaska (Jemison et al. 2013). However, the cause for the movement east is unknown. The WDPS remains listed as endangered.

The estimated growth rate for the total EDPS is about 3 percent using non-pup counts or more when pup counts are used. This data was based on the most recent survey data available to NMFS at the time of delisting (NMFS 2013). Regulatory mechanisms under the Marine Mammal Protection Act (MMPA) and other laws will continue to reduce or minimize possible adverse effects of disturbance from human activity. The NMFS review of listing factors and associated criteria did not find any threats significant enough to prevent the EDPS delisting.

The increasing population trend and robust reproduction indicate that global warming and ocean acidification are not impeding recovery. There is no indication that commercial, recreational, and subsistence fisheries are threatening survival or recovery. Incidental take by commercial fisheries is relatively small as well as entanglement wand illegal take. There are currently no commercial harvest or predator control programs in the US that authorize the take of Steller sea lions. Noise and disturbance from coastal development, tourism, and industry will still be regulated under the MMPA which will minimize adverse effects from human activity. Toxic substances that bio-accumulate may pose a threat but current evidence suggests that at this time, they are not placing sea lions in danger of extinction.

Pollution from the petroleum industry, particularly spills near a large rookery, could affect portions of the population but are unlikely to threaten a significant portion of the species range. The risk of disease is a growing concern and likely higher than was known when the Recovery Plan was written. However, available information does not indicate population level effects at this time.

Most of the factors associated with threats to sea lions are not within the jurisdiction of the Forest Service. Threatened, endangered, and sensitive species standards and guidelines for the Tongass National Forest are designed to prevent and/or reduce potential harassment due to activities carried out by or under the jurisdiction of the Tongass.

Humpback Whale. NMFS recently released a proposed revision of the species-wide listing for humpback whales (Federal Register, Vol. 80, Number 76, April 21, 2015). A comprehensive status review was completed and NMFS is proposing to divide the global population into 14 distinct DPSs, remove the species-wide listing and in its place list 2 DPSs as threatened and 2 DPSs as endangered. In October 2014, the Committee on Taxonomy of the Society for Marine Mammalogy (SMM) updated its species and subspecies list to recognize a North Atlantic, North Pacific, and Southern Hemisphere humpback whale populations as subspecies.

There is strong evidence that the humpbacks in Southeast Alaska belong to the Hawaii DPS, which is part of the newly recognized North Pacific subspecies (*Megaptera novaeangliae kuzira*). About half of the North Pacific humpback whales breed and calve in the waters off Hawaii. Summer feeding areas include northern British Columbia, Southeast Alaska, and the Gulf of Alaska. There is strong fidelity to both feeding and breeding sites. The estimated population of humpback whales frequenting Hawaii is about 10,000 to 12,000 individuals with the most recent growth rate estimates between 5.5 percent and 6 percent (moderately increasing).

Fishing gear entangled is a medium threat to humpback whales in this DPS. The highest rates of interaction with fishing gear are in Southeast Alaska and northern British Columbia. Fatal entanglements have been recorded in all areas and may be underestimated due to the isolated nature of their range. However, with the overall DPS abundance and increasing population trend, this threat does not appear to pose a significant risk of extinction to the DPS now or in the foreseeable future (approximately 60 years).

All other threats are considered likely to have no or minor impacts on population size and/or growth rate, or are unknown but assumed to be minor because of the abundance and increasing population trend. Other potential threats analyzed include: continued coastal development activities since the Hawaii DPS inhabits some of the least populated areas along the Alaska and Canada coasts; pollutants and toxins, both human-caused and naturally occurring; commercial whaling, aboriginal hunting, and take for research purposes; disturbance from increased whale-watching; disease and predation; impacts from commercial fishing and aquaculture; underwater noise from human activities such as vessel traffic, coastal construction, and Naval testing; ship strikes; and climate change.

Tongass management activities that may have an effect on whale habitats or populations generally fall in the acoustic disturbance and habitat degradation categories. These management activities include: the development of log transfer facilities (LTF) and associated camps, the movement of log rafts from LTFs to mills, and the development of docks associated with mining, recreation, and other forest uses and activities (USDA Forest Service 2008c). Potential effects of LTFs and other docks on humpback habitat are the reduction of prey through disturbance of their habitat and disturbance to whales by boat traffic associated with the LTFs and docks (USDA Forest Service 2008c). The final EIS for the 2008 Forest Plan estimated less than 2 acres of benthic habitat would be disturbed per LTF because many sales require that logs be loaded on barges rather than placed in the water.

Fin Whale. The fin whale is rare in offshore waters of Southeast Alaska. Once common in inshore areas of Southeast Alaska, they have not been seen there after they were removed by commercial whaling (Dahlheim et al. 2009; Allen and Angliss 2012). Between 1991 and 2007, researchers from the Alaska

Fisheries Science Center's National Marine Mammal Laboratory conducted cetacean surveys throughout the inland waters of Southeast Alaska (Dahlheim et al. 2009). Fin whales were first observed during this study off the southern tip of Prince of Wales Island in 2004 and again in 2005 in lower Clarence Strait (near Gravina Island). Fin whale observations occurred in areas exposed to the open ocean or in channels in proximity to the open ocean areas exposed to the open ocean or in channels in close proximity to open ocean.

Like the humpback whale, they have baleen plates that they use to prey upon a wide variety of small schooling fish and invertebrates. In fact, fin, humpback, and minke whales along with Atlantic white-sided dolphins are often seen feeding in large groups in the North Atlantic (Jefferson et al. 2008 [available on the NOAA Fisheries Website "Fin Whale (*Balaenoptera physalus*)" page] NMFS 2013: NOAA Fisheries Website: http://go.usa.gov/3SuMV). Prey (particularly krill and herring) distribution, density, and seasonality in Southeast Alaska appear to be correlated with the local distribution of humpbacks.

The fin whales in U.S. waters are split into four stocks for management purposes: Hawaii, California/Oregon/Washington, Alaska (Northeast Pacific), and Western North Atlantic. Although portions of the Alaska area have been surveyed, reliable estimates of current and historical abundance of fin whales throughout their Alaska range do not exist (NMFS 2013 and NOAA Fisheries Website: http://go.usa.gov/3SuMV). Current threats to fins whales include vessel strikes, entanglement in fishing gear, reduced prey abundance due to overfishing, habitat degradation, and disturbance from low frequency noise. Changes to prey distribution from climate change, oil and gas activities in the Chukchi and Beaufort Seas, and increased shipping in higher latitudes with sea ice changes are also potential impacts to habitat.

Wildlife Question: *Is current management providing for sufficient habitat of federally listed threatened and endangered species and Alaska Region sensitive species?*

Evaluation Criteria

We summarize the effects determinations made in fiscal year 2014 to fulfill the section 7 (a)(c) of the Endangered Species Act mandate. In the case of the Queen Charlotte goshawk, we also report the implementation of goshawk nest surveys. See the Biodiversity Ecosystem Question for a report of the implementation of the legacy standard and guideline.

Monitoring Results

ESA Section 7 Consultation

Tables 1 and 2 summarize the number of effects determinations by species made for Tongass proposed projects in FY2014. Direction for the determination language is provided by the Endangered Species Consultation Handbook for threatened and endangered species (USFWS and NMFS 1998) and by FSM 2670 for Forest Service Sensitive species. ESA threatened and endangered species and Forest Service sensitive species are summarized separately. Only effects determination for species, or their habitats, that may occur in the project area are listed.

No projects proposed in FY2014 on the Tongass are likely to have an adverse effect to threatened or endangered species. Most of the projects proposed in FY2014 are expected to have no effect on threatened and endangered wildlife or their habitat. Projects include special use permit renewals, trail maintenance, boat launch improvements, two small timber sales, precommercial thinning, fishpass maintenance, and communication site maintenance.

Only one proposed project may affect listed species or their habitat but the effects are expected to be insignificant or discountable. Vessel traffic and related Marine Access Facility activity associated with the

action alternatives of the Saddle Lakes Timber Sale EIS, located near Ketchikan on Revillagigedo (Revilla) Island, could have short-term minor effects to humpback whales. Forest Service operations, including those of permit holders and contractors, are required to follow the Marine Mammal Protection Act, further reducing anticipated effects. Saddle Lakes Timber Sale is the largest project analyzed in FY2014 on the Tongass.

Wildlife Terr. Hab. Table 1. The number of proposed projects on the Tongass National Forest in FY2014 for which the biological assessment made a "no effect", "may affect but not likely to adversely affect", and "likely to adversely affect" determination for federally listed threatened and endangered wildlife species or their habitat

	Threatened and Endangered Wildlife Species				
			Steller Sea Lion		
Determination	Humpback Whale	Listed Salmon Species	East DPS	West DPS	Fin Whale
# No effect	10	2	1	8	5
# May affect, but not likely to adversely affect – beneficial	0	0	0	0	0
# May affect, but not likely to adversely affect – insignificant or discountable	1	0	0	0	0
# Likely to adversely affect	0	0	0	0	0

Note: The number of determinations of "may affect but not likely to adversely affect" are further split by whether the likely response would be "insignificant" or discountable" versus "beneficial".

No proposed projects are likely to cause a loss of viability of Alaska Region sensitive species (Table 2). The majority of "may adversely impact individuals, but not likely to result in a loss of viability in the planning area, nor cause a trend toward Federal listing" determinations were for the Queen Charlotte goshawk. These projects included the Saddle Lakes Timber Sale, fishpass maintenance, precommercial thinning, trail work, and tree removal at a communication site. An additional seven projects are expected to have no impact on goshawks.

Wildlife Terr. Hab. Table 2. The number of proposed projects on the Tongass National Forest in FY2014 for which the biological evaluation made a "no impact", "beneficial impact", "may adversely affect individuals but not populations" and "likely to result in loss of viability" determination for Alaska Region sensitive wildlife species or their habitat

	Alaska Region Sensitive Wildlife Species					
Determination	Northern Goshawk	Black Oyster-catcher	Steller Sea Lion eastern DPS	Aleutian Tern	Yellow-billed Loon	Dusky Canada Goose
# No impact	7	8	7	8	11	8
# Beneficial impact	0	0	0	0	0	0
# May adversely affect individuals, but not likely to result in loss of viability in the planning area, nor cause a trend toward Federal listing	5	0	1	0	0	0
# Likely to result in a loss of viability in the planning area or in a trend toward Federal listing	0	0	0	0	0	0

Northern Goshawk Nest Surveys

A total of 25 goshawk call station surveys were conducted across three districts in FY2014 (Table 3). No responses to calls were detected. No new active goshawk nests were found. One historic nest location was surveyed on the Juneau Ranger District and found the nest in usable condition. In addition, an area about 0.6 acres surrounding a potential drill site at the Hecla/Greens Creek Mine had a tree-by-tree inspection for nests and nesting activity using binoculars; no nests or nesting activity was observed.

Wildlife Terr. Hab. Table 3. Goshawk call station surveys were conducted across two districts including two projects in FY2014

Ranger District	Project / Location	Number of Broadcast Call Station Surveys	Number of Active Nests N = New H = Historic
Juneau	MGRA	10	0
Thorne Bay	Kosiusko IRMP	12	0
Sitka	Kruzof Island	3	0
Total		25	0

Evaluation

Forest Plan standards and guidelines were developed to minimize or eliminate adverse impacts to the humpback whale, Steller sea lion, and northern goshawk (including the Queen Charlotte goshawk) and maintain island, beach, and estuary habitat important to the Aleutian tern and black oystercatcher. Standards and guidelines for the humpback whale minimize or eliminate adverse impacts to fin whales as well.

The current 2008 Forest Plan standards and guidelines for northern goshawk were based on knowledge that goshawks preferentially nest in productive old-growth. Goshawks are also known to nest in young-growth where they will generally choose the largest diameter tree of stands with canopy cover greater than 50 percent (McClaren 2004). Recommendations by the British Columbia Ministry of Water, Land, and Air Protection (BC Ministry) for harvesting and silviculture related to managing the Queen Charlotte goshawk are for “no commercial thinning within the core area” (McClaren 2004). Core areas are defined by the BC Ministry as areas that are “protected from habitat alteration” and for goshawk they equate the core area to the post fledgling area [PFA]). The BC Ministry guidance does allow for commercial thinning “within the management zone provided the activities promote the structural characteristics of forest for goshawk foraging (e.g., low density thinning of young seral stages to promote older structural attributes).” Management zones are defined by the BC Ministry as areas where disturbances during critical times, or disturbances to the core area, is to be minimized (McClaren 2004).

Based on the above, the FY2012 Monitoring and Evaluation Report indicated that a review of the 2008 Forest Plan standards and guidelines in relation to young-growth management and goshawk ecology and conservation that includes a review of BC Ministry guidance is warranted. This information was submitted as part of the 5-year review of the Forest Plan and captured in the Public Outreach and Comment Analysis Report (USDA Forest Service 2013). Based on conditions on the land and demands of the public, the Tongass has determined that it will modify the Forest Plan. Among other things, the modification is expected to focus on identifying the timber base suitable to support a transition to young-growth management, in a way that supports the continued viability of the forest industry in Southeast Alaska, per the direction of Secretary of Agriculture Tom Vilsack.

Since implementation of the 2008 Forest Plan, the legacy standards and guidelines or the 1997 Forest Plan goshawk and marten standards and guidelines have been implemented where applicable and have

contributed towards the overall conservation strategy for goshawk. The category 1 timber sales, which were exempted in the 2008 Forest Plan ROD from application of the legacy standards and guidelines, have largely been completed. Category 2 timber projects, for which application of the legacy standards and guidelines is encouraged, but not required, will continue to adopt the standards and guidelines where it will not disrupt their implementation. The 2008 Forest Plan legacy standards and guidelines and northern goshawk standards and guidelines, as well as the 1997 Forest Plan goshawk and marten standards and guidelines, along with the old-growth-reserve network of the conservation strategy coupled with the 1,000-foot-wide beach buffers and other features that provide habitat connectivity, provide a strong foundation for maintaining goshawk populations across the Tongass. Overall, at least 91 percent of the existing productive old-growth (83 percent of all old-growth that ever existed on the Tongass) would remain on the Tongass, even if timber were harvested at the maximum level allowed by the Forest Plan for 100 consecutive years.

The Forest Service activities that result in "may affect" determinations are related either to potential disturbance associated with the connected actions of marine traffic (acoustic disturbance and increased potential for vessel strikes) and LTF reconstruction activities (possibility of acoustic disturbance and pollution). Forest Plan standards and guidelines direct the Tongass to prevent and/or reduce potential harassment of Steller sea lions and humpback whales due to activities carried out by or under the jurisdiction of the Forest Service (USDA Forest Service 2008b). Construction and operation of all LTFs and similar facilities require U.S. Army Corps of Engineers and U.S. Environmental Protection Agency permits and State of Alaska Tidelands permits. The permitting process provides that construction and operations maintain water quality in the specific facility locations, and that marine circulation and flushing are maintained. All facilities must conform to permit standards. In addition, the section 7 of the ESA directs each Federal agency to, in consultation with and with the assistance of the Secretary of the Interior, insure that any action authorized, funded, or carried out by such agency (the "agency action") is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. No effects to the marine environment which would adversely affect whale prey species are expected (USDA Forest Service 2008c). In addition, the amount of human activity in the marine environment associated with Forest management activities is only a fraction of the total amount of overall human activity occurring in Southeast Alaska. The Forest Service does not regulate many of these activities (e.g., commercial fishing, sport fishing, hunting, and mariculture). However, it will be important to continue to monitor our section 7 effects determination for these species so that we are aware should this change.

Action Plan

- The Forest Plan amendment team has reviewed the 2008 Forest Plan northern goshawk standards and guidelines in light of goshawk nesting in young-growth stands and recommendations will be incorporated into standards and guidelines in the amendment. The Forest Plan amendment team also incorporates recommendations to include VCUs 5770 and 6220 in the legacy standards and guidelines.
- Review biological evaluations and assessments annually to determine effects of agency actions that may affect TES species.
- Review new research, inventories, and monitoring related to TES wildlife species habitat every 5 years.

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