Emergency Order No. 01-22-21  
Issued at Juneau, Alaska

Effective Date: 10 November, 2021  
Expiration Date: 30 June 2022  
(unless superseded by a subsequent emergency order)

EXPLANATION:

This emergency order closes the state resident and nonresident wolf trapping and hunting seasons in Game Management Unit 2. This order is effective at 11:59 PM, 15 December, 2021.

REGULATORY TEXT:

Therefore, the provisions of 5 AAC 84.270 (13), TRAPPING SEASONS AND BAG LIMITS FOR WOLF and of 5 AAC 85.045, HUNTING SEASONS AND BAG LIMITS FOR WOLF; are superseded by this emergency order, and the following provisions are effective for trapping and hunting wolves in Unit 2:

<table>
<thead>
<tr>
<th>Unit and Bag Limit</th>
<th>Resident</th>
<th>Nonresident</th>
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<tbody>
<tr>
<td>Open Season</td>
<td>Open Season</td>
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<tr>
<td>Unit 2</td>
<td>Nov. 15-Dec. 15</td>
<td>Nov. 15-Dec. 15</td>
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<tr>
<td>No limit wolves per regulatory year by trapping only:</td>
<td>Dec. 1-15</td>
<td>Dec. 1-15</td>
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<tr>
<td>5 wolves per regulatory year by hunting only;</td>
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All other hunting and trapping regulations in Unit 2 remain unchanged and are not affected by this emergency order.

Doug Vincent-Lang  
Commissioner

By delegation to:  
Tom Schumacher  
Regional Supervisor

Emergency Order No.  01-22-21   10 November 2021
Background
Beginning in 2019, the wolf harvest management strategy on Prince of Wales and associated islands, collectively known as GMU 2, changed from a harvest quota calculated as a percentage of the most recent population estimate to one where season length is annually adjusted to achieve a level of harvest that will maintain the wolf population within a sustainable fall population objective range of 150–200 wolves as established by the Alaska Board of Game. ADF&G worked with the USFS, Fish and Game Advisory Committees, the Alaska Board of Game, the Federal Subsistence Regional Advisory Council, and trappers to develop this new strategy that provides trappers with the flexibility and responsibility they desired while sustainably managing harvest of this wolf population.

The current harvest management strategy is based on annual estimates of the abundance of GMU 2 wolves. Dense forest cover makes aerial surveys impractical, so ADF&G, with support from the USFS and Hydaburg Cooperative Association (HCA), estimates wolf abundance in GMU 2 using a DNA-based mark-recapture technique. In fall 2020, ADF&G collected wolf DNA samples within the same large, northern and central Prince of Wales Island study area used in 2014-2019. ADF&G again collaborated with HCA to monitor an additional study area adjacent to the southern boundary of ADF&G’s study area. This collaboration effectively expands the area sampled to nearly 80% of Prince of Wales Island and over 60% of the land area of GMU 2.

Interpreting Estimates and Harvest
ADF&G estimates the fall population of wolves in GMU 2 by analyzing the number, movements, and recaptures of individual wolves identified through DNA from samples collected from hair traps and harvested wolves. For fall 2020 ADF&G estimated the GMU 2 population at 386 wolves (point estimate) with high confidence that the actual number of wolves in GMU 2 prior to the fall 2020 hunting and trapping seasons was within the 95% confidence interval range, 320 to 472 wolves. This is the most current population estimate. All estimates involve uncertainty. Therefore, we present each GMU 2 wolf population estimate as a point estimate within a range of plausible values (95% confidence interval) which describe that uncertainty. Within that range of plausible values, the point estimate is the value most likely to be correct given the data collected that year.

The fall 2020 population estimate of 386 wolves was higher than expected considering it followed a reported harvest of 164 wolves from a fall 2019 population estimated at 316 (95% CI: 250, 398) wolves. However, other information also indicates that the GMU 2 wolf population remains robust. Numbers of hair samples collected at ADF&G’s hair traps and numbers of unique individual wolves identified through DNA were similar in 2019 and 2020. Rate of trapper catch (wolves harvested per week) in both years was also similar. With only 68 wolves reported harvested in 2020, ADF&G concludes that the fall 2020 population estimate is plausible and in fall 2021 the GMU 2 wolf population remains productive and resilient.

Fall 2021 Harvest Management
Setting harvest season length involves considering a variety of biological factors and regulatory guidance. Although ADF&G’s GMU 2 wolf population estimates have always been reasonable and consistent with the DNA collected, analysis of data from 2019 and 2020 suggests earlier estimates may have been biased low. Along with incremental improvements in capturing DNA from hair samples, in 2019 and 2020 ADF&G first had access to DNA from relatively large numbers of wolves harvested within the study area during the October-December study period. That DNA collected at sealing contributed to larger datasets available for the 2019 and 2020 population estimates and in part, appears responsible for higher estimates in those years. Fewer samples from harvested wolves available for earlier estimates may have biased those estimates low.

When setting the current fall population objective (150–200 wolves) the Alaska Board of Game referenced estimates from 2014 and 2015. If those estimates were biased low, the population objective in regulation may be set too low. Investigating potential bias in GMU 2 wolf population estimates is a top priority for ADF&G, but until we know more, managers will take a conservative approach to harvest management. Therefore, the fall 2021 GMU 2 trapping season is one month (31 days) with the GMU 2 wolf hunting and trapping seasons closing on Dec. 15, 2021. We believe a one-month trapping season
offers substantial harvest opportunity while also ensuring that harvest will remain sustainable. We understand that GMU 2 hunters and trappers would prefer greater opportunity but considering the recent uncertainty about early population estimates and their influence on the current population objective, we believe a conservative approach is warranted.

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