

Washington State Stock of Northern Sea Otter
Stock Assessment Review
Date 09/27/2010

The Service has determined that revision of the stock assessment report for the Washington State stock of northern sea otters is not required at this time. This statement is based on the following factors:

1. We have one year (2008) of new population information since the previous revision which lowers the value of the minimum population (N_{min}) by 52 (from 1,125 to 1,073);
2. Because the maximum annual growth rate (R_{max}) is based on population growth rates of the Washington stock, it is unlikely that the value of R_{max} will change. In addition, we have no new demographic information, so the value of R_{max} is unchanged;
3. The minimum population size remains less than 1,500 and the population continues to be restricted in its geographical range making it vulnerable to a natural or human-caused catastrophe. Therefore, the recovery factor (F_r) has not changed;
4. The status of the stock is unchanged: not depleted and not strategic; and,
5. Based on 1 through 4 above, the potential biological removal (PBR) for the stock has not changed.

For sources of mortality and serious injury, our previous 5-year window was from 2003-2007. The following provides our state of knowledge since 2007.

1. We have two additional years of fishing effort/observer coverage/mortality data from the Northern Washington Marine Set Gillnet fishery. The 5-year window would then be 2005-2009 and the reported mortalities would be zero. However, fishing effort is only observed in Fishing Area 4A (Makah Bay); other areas fished in this fishery are self-reporting. In addition, the known mortalities in 2010 in the observed fishery is two. The fishing effort is not yet completed and more mortalities may occur, but our due diligence requires us to include the 2010 mortalities. Therefore, the observed/reported mortalities from the period 2005-partial 2010 does not change the annual mortality estimated in the 2008 stock assessment report, which was estimated to be a minimum of two mortalities annually when there is fishing effort.
2. There have been no mortalities or serious injuries reported in any other fisheries (treaty or non-treaty) within the range of the Washington stock. These fisheries continue to either require self-reporting or are not required to report. There have been no additional fishery bycatch observer programs; therefore, we cannot provide an updated or more accurate estimate of the annual mortality and serious injuries associated with these fisheries.
3. We know of no new or changes in other sources of human-caused mortality and serious injury since our last review.

The population estimate (1,125) from the 2008 Stock Assessment Report was above the lower end of the Optimum Sustainable Population estimate (OSP; 60 percent of 1,836 or 1,102). The current population estimate of 1,073 is below the lower end of OSP. Due to the continued growth of the stock in the southern half of the Washington range, the accuracy of the total carrying capacity for the Washington stock calculated by Laidre et al. (2002) may

need to be revised. However, at this time, regardless of an OSP analysis, the known human-caused mortality does not exceed the PBR and the status of the stock remains non-strategic.

Based on this review, the status of the stock has not changed nor can it be more accurately determined. Therefore, revision under section 117(c)(2) of the MMPA is not warranted at this time.

SUMMARY TABLE

Section	Status
STOCK DEFINITION AND GEOGRAPHIC RANGE	Unchanged
POPULATION SIZE	
Minimum Population Estimate	Reduce from 1,125 to 1,073
Current Population Trend	Unchanged
MAXIMUM NET PRODUCTIVITY RATE	Unchanged
POTENTIAL BIOLOGICAL REMOVAL	Unchanged
ANNUAL HUMAN CAUSED MORTALITY	
Fisheries information	No change in estimated mortality
Other	No new information
STATUS OF STOCK	Unchanged

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