

## Briefing:

# Forest Practices Compliance Monitoring

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DEPARTMENT OF NATURAL RESOURCES

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DIVISION OF FORESTRY

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**Summary.** Systematic compliance monitoring and extensive road conditions surveys demonstrate that forest operations have an excellent record of FRPA implementation. Monitoring has identified few problems, and where compliance is insufficient, the agencies and landowners have responded with training and remediation to fix the problems.

**Background.** The Alaska Forest Resources and Practices Act (FRPA) is designed to protect fish habitat and water quality during forestry operations. FRPA (AS 41.17) and the best management practices (BMPs) in its regulations (11 AAC 95) govern timber harvesting, reforestation, and road design, construction, maintenance, and closure. The Act requires compliance monitoring and effectiveness monitoring to ensure that the resource protection goals are met. Compliance monitoring assesses whether timber operations are properly implementing FRPA and its regulations. Effectiveness monitoring evaluates whether the BMPs successfully protect water quality and fish habitat if they are implemented properly.

**Compliance monitoring program.** The Division of Forestry (DOF) conducts compliance monitoring as part of its field inspections of forest operations on state, municipal, private, and trust land. The Division has compiled fourteen years of data for Region I (coastal Alaska from Kodiak Island through Southeast) and Region II (the rest of southcentral Alaska), and twelve for Region III (interior Alaska).

DOF foresters complete compliance monitoring score sheets for applicable best management practices during field inspections. Each BMP is rated on a scale from 1 (rarely and ineffectively implemented) to 5 (consistently and effectively implemented). Any scores less than 4 are highlighted for follow-up with training and, if necessary, enforcement actions.

**Results.** Since 2003, the Division has compiled more than 28,000 individual field ratings of best management practices. In 2018, the agencies conducted 78 field inspections on forest operations statewide and compliance monitoring score sheets were part of every inspection.<sup>1</sup> The data shows solid implementation rates in all regions. Overall, Regions I averaged 4.53 out of 5.0 on the ratings, Region II scored 4.31, and Region III scored 4.26. Figures 1 and 2 show the mean scores for each region and the percentage of BMP scores that are equal to or higher than 4.0.<sup>2</sup>

The ratings for each of the three regions were down from the previous year. Region I compliance was very good, although there were individual BMPs which required corrective action. In Southeast, those BMPs were related to yarding near surface waters, classification of surface waters and adequate number of

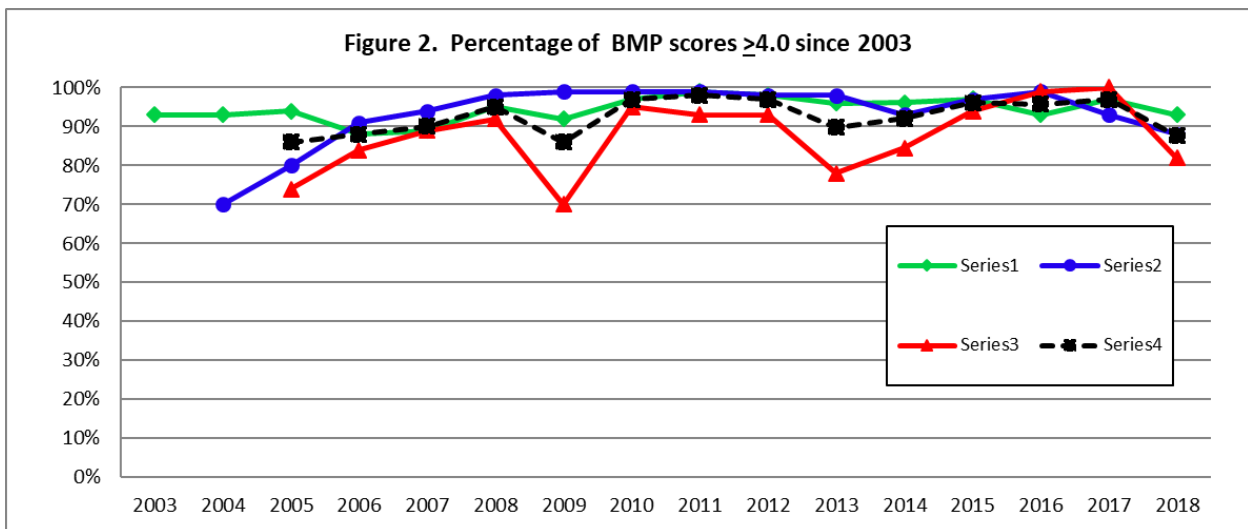
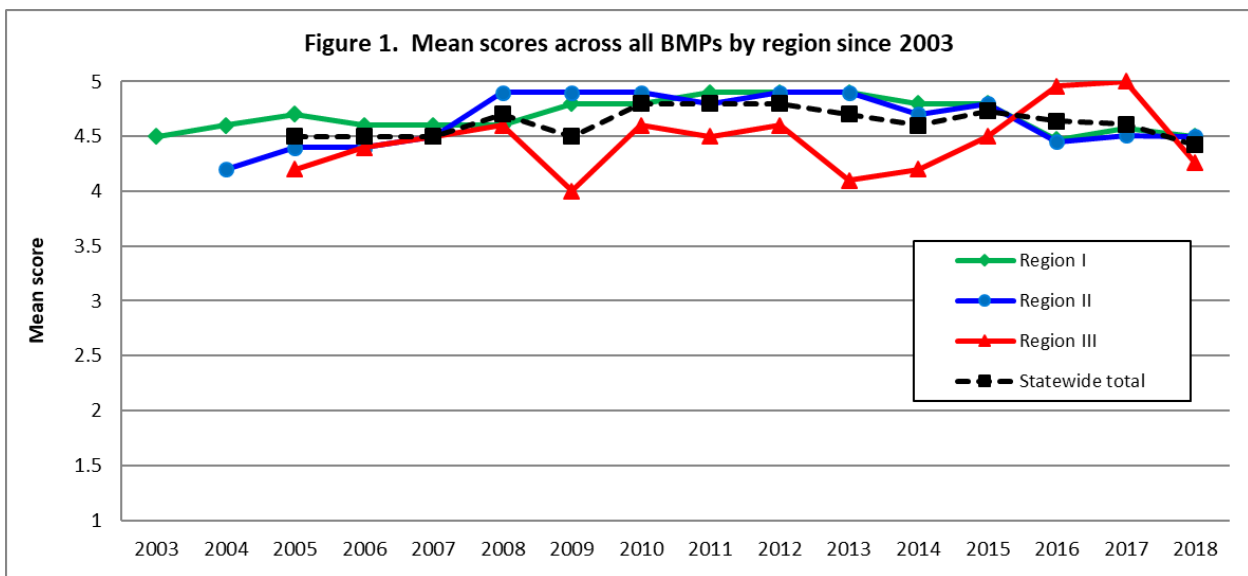
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<sup>1</sup> Compliance monitoring inspections are not conducted on variance inspections.

<sup>2</sup> The sample size for the first year of monitoring in Region II was too small to calculate meaningful averages and percentages, therefore the graphs do not include the first year of Region II data.

draining structures. Active road maintenance and road closures were excellent. Operators were quick to rectify all deficiencies as they were discovered. Three training sessions were held in Southeast. Operations at Afognak and Kodiak were excellent regarding all BMPs. Region II had very little activity with only three inspections and adequate compliance. Region III had 100% compliance in 2017 for the first time ever but it dropped to 82% for 2018. A wet summer contributed to lower scores in the road drainage and road maintenance categories.

These scores allow the Division of Forestry to evaluate deficiencies and understand where corrections are needed. It also identifies areas where training could be beneficial and what measures could be taken for improved results. Ratings below 4.0 on an individual BMP or on an annual BMP average are nearly always followed up with higher scores, demonstrating the importance of the compliance monitoring program.



**Road condition surveys.** The Division of Forestry and the Department of Fish and Game (ADF&G) Habitat Division have also conducted joint road condition surveys in Southeast and Southcentral Alaska. The surveys determine whether the roads, bridges, and culverts are properly maintained or closed and whether the stream crossing structures are passing fish. Many of the older roads were built and closed out prior to the 1993 adoption of the BMPs. Where surveys identify fish passage problems, the agencies measure the extent of upstream fish habitat to help prioritize remediation work. Anadromous waters identified by the surveys are added to the ADF&G Catalog of Anadromous Waters. The surveys also assess reforestation in harvest units along the roads.

Southeast surveys. From 2004 through 2010, the agencies surveyed 829 (out of 3220 total) miles of inactive and closed roads in Southeast including evaluations of all the stream crossings on these roads. The surveys found significant fish passage problems on only 20 of the 109 fish culverts evaluated. One was replaced by a bridge and four were replaced by more sufficient culverts. Overall results showed no other fish passage problems, as all crossings occupied by bridges were fully functional and many road systems were closed with culverts removed and natural drainage reestablished.

In 2015, the agencies surveyed roads in the Haines State Forest. The road system was in good condition as were most of the crossing structures. There were two low-rated culverts -- one due to a rusted, but functioning pipe, and another with 200' of low priority upstream habitat.

In 2017, DOF and ADF&G surveyed 2.5 miles of forest road in the Southeast State Forest on Wrangell Island. This is a former USFS road with non-compliance issues under FRPA. As a result of the survey, this road will be closed in 2018, with crossing structures removed and natural drainage re-established.

In 2018, the 2.5 miles of road surveyed in 2017 were closed by pulling all crossing structures and reestablishing natural drainage courses. A follow up road condition survey showed full compliance with FRPA road closure BMPs.

Southcentral surveys. Between 2011 and 2014, DOF and ADF&G surveyed 432 miles of active, inactive, and closed roads on the Kenai Peninsula and around Tyonek. Results show that on the Kenai, most roads are in good shape with a high percentage of crossing structures adequately providing for fish passage. Full results of the Kenai Peninsula Borough forest road inventory are available at: <http://forestry.alaska.gov/forestpractices>. Upstream habitat surveys on the low-rated fish culverts determined how much fish habitat would be extended by repair or replacement of the structure.

In the Tyonek area, most forest roads were in excellent shape and many are now being utilized for oil and gas exploration. Routine maintenance is actively taking place. Where individual culverts and log stringer bridges received low ratings, land owners have replaced some of the culverts and are seeking funds to remediate the others. On one section of forest road, four of six culverts were rated low for their ability to pass fish. DOF applied and received funding through the Alaska Sustainable Salmon Fund to remove all structures and close this road segment.

Work is also underway to replace an undersized culvert impeding fish passage for an outlet stream to a

lake listed in the ADF&G Anadromous Waters Catalog. Much of the forest road system in Tyonek was built prior to the enactment of FRPA in 1990. In 2017, two miles of forest road were closed, with culverts removed and natural stream courses with assistance from the Sustainable Salmon Fund (SSF). This restored four miles of salmon habitat. Design work was also completed for a culvert replacement that will be completed in 2018 with SSF assistance.

In 2015, the agencies conducted road condition surveys in the Mat-Su Borough on forest roads owned by the State and Knikatu Corporation. All roads and crossing structures were in good shape.