Adaptive Wolf Management: The Regulated Public Harvest Component

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Montana's wolf (*Canis lupus*) conservation and management plan is based on adaptive management principles and includes regulated public harvest as a population management tool. The need and opportunity to implement public harvest in 2008, 2009, and 2010 required Montana Fish, Wildlife and Parks (FWP) to develop a stepped down adaptive management framework specific to harvest. For 2008 and 2009, FWP set modest objectives: implement a harvest, maintain a recovered population, and begin the learning process to inform development of future hunting regulations and quotas. In 2010, FWP used a formal Structured Decision Making Process to more clearly define priorities and challenges of setting a wolf season, outline objectives of a successful season, and evaluate consequences and trade-offs between alternative management actions. For all years, FWP used a modeling process to simulate a wide range of harvest rates across three harvest units and to predict harvest effects on the minimum number of wolves, packs and breeding pairs. Model inputs were derived from minimum wolf numbers observed in the field. Modeling allowed consideration of a range of harvest quotas, predicted outcomes, and risk that harvest could drive the population below federally-required minimums. It also facilitated explicit consideration of how well a particular quota achieved objectives and how to adapt future regulations and quotas. Legal challenges to federal delisting restricted implementation of the first fair chase hunting season to 2009. Montana's wolf population is securely recovered, despite the dynamic political and legal environments. Regardless, FWP remains committed to a scientific, data-driven approach to adaptive management.