Introduction

This document provides the results of environmental monitoring studies done in support of the 24 April 2002 launch of the second U.S. Air Force (USAF) Quick Reaction Launch Vehicle (QRLV-2) from the Kodiak Launch Complex (KLC). The rocket was the sixth to be launched from KLC and was a single stage M-56 motor taken from a decommissioned USAF Minute II launch vehicle. KLC is located on the Narrow Cape peninsula of Kodiak Island, Alaska, and is owned and operated by the Alaska Aerospace Development Corporation (AADC). The University of Alaska Anchorage's Environment and Natural Resources Institute (ENRI) conducted the QRLV-2 environmental studies under contract to AADC, which is a state-owned entity. ENRI also conducted the environmental baseline studies (ENRI 1995–98) for the initial National Environmental Policy Act process for KLC, as well as the 1998–2001 monitoring studies (ENRI 1999, 2000, 2001, 2002a,b) for the first five missions as required by the KLC Environmental Monitoring Plan (EMP) (AADC 1998).

The EMP was developed by ENRI in cooperation with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and Alaska Department of Environmental Conservation (ADEC). It includes work plans, sampling protocols, objectives, and criteria that trigger mandatory agency consultation for five environmental monitoring tasks: Steller sea lion surveys, rocket motor noise measurements, bald eagle nest monitoring, Steller's eider surveys, and environmental quality monitoring. The EMP had a design life of five launches provided at least one was of the largest rocket that could be flown from KLC. That requirement was met in September 2001 with the launch of a Lockheed/Martin Athena, and the fifth launch occurred in November of that year. In March 2002, AADC requested that ENRI invite the resource agencies involved in developing the EMP to meet and review the findings of the 1998–2001 environmental studies and help determine future courses of action. NMFS, ADEC, and the Alaska Division of Governmental Coordination attended the 12 March 2002 meeting; all expressed an interest in continuing with the overarching intent of the EMP.

AADC subsequently requested that ENRI develop an integrated series of environmental monitoring studies for KLC launches in 2002 and specifically the QRLV-2, which was the first mission scheduled that would not fall under the EMP. Given the late April to early May QRLV-2 launch window, ENRI recommended that studies relating to the Steller's eider and environmental quality be conducted. ENRI patterned the QRLV-2 studies on the EMP, the findings and recommendations of the first five KLC environmental monitoring (ENRI 1999, 2000, 2001, 2002a,b) and summary findings (ENRI 2002c) reports, and resource agency input from the March 2002 meeting. ENRI focused on the same primary study area as defined in the EMP; it encompasses the lands and waters within a circular area having a 6-mile radius extending out from the KLC launch pad (Figure 1). Descriptions of the QRLV-2 environmental monitoring studies and results follow.

