

## RECORD OF DECISION

### *Environmental Impact Statement Sentinel (Ground Based Strategic Deterrent (GBSD)) Program Deployment and Minuteman III Decommissioning and Disposal*

#### INTRODUCTION

The Department of the Air Force (DAF) is issuing this Record of Decision (ROD) to document its decision to implement actions to deploy the Sentinel (formerly known as the Ground Based Strategic Deterrent [GBSD]) intercontinental ballistic missile (ICBM) system and to decommission and dispose of the Minuteman III (MMIII) ICBM system.

The DAF bases this decision in part on the analysis and findings of the *Environmental Impact Statement for Sentinel Deployment and MMIII Decommissioning and Disposal* (“Sentinel EIS”) (Vol. 88, Federal Register 19302, March 31, 2023). Considered in the decision to deploy the Sentinel system and decommission and dispose of the MMIII system were the potential environmental consequences of the project’s actions; comments and concerns from the public, regulatory and other agencies, Native American Tribes, and other key stakeholders; and other factors related to national defense, current military operational needs, and other issues addressed in the Sentinel EIS.

This ROD is issued in accordance with the Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act of 1969 (NEPA) in Title 40 of the *Code of Federal Regulations* (CFR) § 1505.2 (Record of Decision in cases requiring environmental impact statements) and regulations implementing the DAF Environmental Impact Analysis Process (EIAP) in 32 CFR Part 989.

The DAF was the lead agency in the EIS effort and the Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM), Bureau of Reclamation (BOR), U.S. Army Corps of Engineers (USACE), U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), and Wyoming Army National Guard (WYARNG) were cooperating agencies.

Specifically, this ROD documents the following:

- The DAF’s decisions.
- The alternatives considered by the DAF in reaching the decision and the alternative considered to be environmentally preferable.
- Relevant factors considered among the alternatives and how those factors entered the decision.

- Whether all practicable means to avoid or minimize environmental impacts resulting from the selected alternative (in this case, the Preferred Alternative) have been adopted and, if they have not been adopted, why not; and
- Adoption and summary of a Mitigation Plan and a summary of applicable mitigations.

## **DECISION SYNOPSIS**

Based on DAF strategic basing methodologies, the Secretary of the Air Force (SecAF) approved the three GBSD locations and their subsequent sequencing (June 2020). Based on this decision, the DAF will sequentially replace all land based MMIII ICBMs in the United States with the Sentinel system, including the motors, interstages, propulsion system rocket engine (PSRE), and missile guidance set (MGS). All missile alert facilities (MAFs), launch facilities (LFs), communication systems, infrastructure, and technologies, including interconnecting utility corridors, will be modernized, replaced, or reused as necessary to support the Sentinel system.

None of the deployment locations are alternatives to each other (40 CFR § 1502.14). All locations would receive the Sentinel system, which would generally replace the existing MMIII. Sentinel design and construction planning is being conducted in phases out of necessity for a project of this immense scale and as determined by the SecAF using the DAF's Strategic Basing Process with the sequencing of deployment with F.E. Warren AFB first, Malmstrom AFB second, and Minot AFB third. Through this process, the DAF determined that initiating the action at F.E. Warren AFB would provide access to the most reliable operational stability, available facilities, and local industrial capacity as well as to the lowest construction costs of the three main operating bases.

Specifically, F.E. Warren AFB has the best local industrial capacity because of its proximity to Denver, the ICBM Program Office and depot at Hill AFB, two major interstate highways, a railway hub, and a major airport that would be used for movement of supplies, equipment, and personnel. Applying the same assessment to Malmstrom and Minot AFBs, the DAF determined Malmstrom AFB would be best suited to be the second location, whereas operational stability during the transition would be enhanced by the upgrades at F.E. Warren AFB. Malmstrom AFB is the next closest to Hill AFB, is serviced by both an interstate highway and an airport, and, because of the large size of its missile field, would result in the most significant saving in operational and maintenance costs.

Comparatively, Minot AFB has less available local supporting industry than the other two bases and is the furthest from Hill AFB with the fewest existing facilities available in the near-term for Sentinel mission support of the three bases because of other ongoing DAF missions. Selecting Minot AFB as the first or second location would increase the construction costs compared to the other bases; therefore, the DAF determined it would be sequenced third to reduce the potential cost as lessons are learned and efficiencies are realized during construction at F.E. Warren and Malmstrom AFBs.

As commencement of the proposed construction and mitigation and permitting process tracking and implementation becomes available from this initial phase of the preferred alternative at F.E. Warren AFB it is understood that adjustments and lessons learned from this initial application of activities will be applied in an advantageous manner to processes and activities as the focus of construction planning shifts to later phases of the Sentinel program recapitalization.

The DAF has selected the Reduced Utility Corridors Alternative, which is preferred as it would replace all land based MMIII ICBMs deployed in the continental United States with Sentinel ICBMs, as would the Proposed Action, and further proposes establishing appreciably fewer miles of new utility corridors and reutilizing marginally fewer miles of existing utility corridors. (Sentinel EIS, Vol 1, Section 2.0 Description of the Proposed Action and Alternative, Pgs. 2-1 – 2-56). The DAF, by making this decision, will implement all Sentinel deployment-related and MMIII decommissioning and disposal activities primarily on-base and in the missile fields at F.E. Warren Air Force Base (AFB), WY; Malmstrom AFB, MT; Minot AFB, ND; Hill AFB, UT; the Utah Test and Training Range (UTTR), UT; Camp Guernsey, WY; and Camp Navajo, AZ, under the Reduced Utility Corridors Alternative, as described in the Final EIS. The Reduced Utility Corridors Alternative does not include the generation or disposal of nuclear material. No nuclear material would be generated or disposed of by the Sentinel program.

The DAF will decommission and dispose of all MMIII missiles and associated equipment, including removing each missile from its LF, transporting it to the main operating base for temporary storage, and preparing it for transport to Hill AFB, UTTR, Camp Navajo, or a contractor facility. The DAF will remove MMIII-related technology and support equipment from the MAFs, LFs, and on-base support facilities and transport, sort, declassify, and dispose of the materials based on standardized protocols.

The Sentinel deployment program and MMIII decommissioning, and disposal process are both geographically and temporally extensive, reaching into seven states and more than 15 years into the future. The Sentinel system deployment activities are scheduled to begin in late 2023, with the intent to implement a phased deployment, first at F.E. Warren AFB, then at Malmstrom AFB, and finally at Minot AFB (Sentinel EIS, Vol 1, Section 1.6 Scope of the Environmental Impact Statement, Pg 1-8 – 1.9).

## **BACKGROUND**

DAF Strategic Basing personnel determined the three GBSD locations and sequencing minimized the cost and reduced the required changes in supporting infrastructure. When presented with the Strategic Basing Decisioning Matrix in June 2020, the SecAF approved the preferred and reasonable alternative locations for three GBSD bases and the subsequent sequencing for the three locations (F.E. Warren AFB first, Malmstrom AFB second, and Minot AFB third). Each was determined to be the preferred alternative for its respective order in the sequence. Congressional notification was completed on 14 August 2020 for these decisions. The Sentinel weapon system addressed in this EIS supports the Secretary of the DAF's decision

and represents the continual modernization of the United States' land-based nuclear arsenal with replacement of the aging MMIII.

The MMIII ICBM system became operational in the early 1970s and is facing substantial operational and sustainment challenges. The missile's architecture has become increasingly difficult to sustain as the industrial base has advanced beyond the technologies it currently employs. MMIII support facilities were built approximately 60 years ago and most of the fundamental infrastructure they use today is the original equipment.

While the United States' nuclear weapons program remains robust, flexible, resilient, and ready, it must be modernized to maintain a credible deterrent against existing and emerging threats. The Sentinel Program will deliver a low-risk, total system replacement to address ICBM capability gaps and provide more efficient operations, maintenance, and security. The Sentinel ICBM system offers increased accuracy, extended range, enhanced security, and improved reliability. The modular, open system architecture design allows for a single component or part to be replaced or upgraded as necessary.

Ultimately, reducing the DAF's overall missile maintenance activity at the installation and to be adaptable and responsive to the challenges posed by the pace of technological change and will extend the capabilities of the land-based leg of the U.S. nuclear weapons program through 2075.

The DAF considered extending the service life of the MMIII ICBM and determined that a life extension program for the MMIII over fiscal years 2016–2075 would be similar in cost to deploying the replacement ICBM system, but without the capability to meet future requirements.

The Nuclear Posture Review (NPR) is a legislatively mandated, comprehensive review of the United States' nuclear deterrence policy, strategy, and force posture that results in the Department of Defense's (DoD's) primary statement of nuclear policy (DoD 2022). On October 27, 2022, the DoD published a new NPR, noting the need to ensure a safe, secure, and effective nuclear deterrent that protects the homeland, reassures allies, and, above all, deters adversaries.

The NPR references the long-term goal of eliminating nuclear weapons, while reiterating the requirement that the United States have modern, flexible, and resilient nuclear capabilities that are safe and secure until nuclear weapons can prudently be eliminated from the world.

With respect to the Proposed Action, the 2022 NPR expressly states that the United States will pursue initiatives to ensure the necessary capability, capacity, and responsiveness of the nuclear weapons infrastructure and the needed skills of the workforce, including replacement of the MMIII ICBM with the Sentinel ICBM.

Based on the NPR and as outlined in the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115-232 § 1663), the DAF must implement a strategy *"to accelerate*

*the development, procurement, and fielding of the ground based strategic deterrent program".*  
The law directs:

...that the GBSD program includes the recapitalization of the full intercontinental ballistic missile weapon system for 400 deployed missiles and associated spares and 450 launch facilities, without phasing or splitting the program, including with respect to the missile flight system, ground based infrastructure and equipment, appropriate command and control elements.

The DAF must comply with Public Law 115-232, as outlined above. Implementing the action ensures the United States continues to have effective, responsive, and resilient ICBMs and associated infrastructure for the land-based leg of its nuclear weapons program and the capacity and adaptability to manage and respond to shifting global requirements. The proposed ICBMs and supporting upgrades will allow the United States to continue to offer long-term tangible evidence to both allies and potential adversaries of our nuclear weapons capabilities, thus contributing to nuclear deterrence and assurance and providing a hedge against arms competition.

## **ALTERNATIVES CONSIDERED**

**Proposed Action (Sentinel EIS, Vol 1, Section 2.1 Proposed Action, Pg 2-1 – 2-54).** The Proposed Action includes replacing all land based MMIII ICBMs deployed in the continental United States with Sentinel ICBMs. All components of the MMIII missile would be replaced, including the three motors, two interstages, PSRE, and MGS. All MAFs, LFs, communication systems, infrastructure, and technologies would be modernized or replaced as necessary to support the Sentinel weapon system.

The Proposed Action includes establishing approximately 3,126 miles of new utility corridors throughout the F.E. Warren AFB, Malmstrom AFB, and Minot AFB missile fields in Colorado, Nebraska, North Dakota, Montana, and Wyoming, for which the government would acquire the necessary property easements (Figure 2.1-8, 2.1-11, and 2.1-14). The new corridors would supplement the existing utility connections to the proposed LCs and the LFs. The utility corridors would be cleared and grubbed to provide access to the area for installing and maintaining erosion control devices and installing the utility lines. Upon completion of the corridors, disturbed areas would be reseeded and restored, as appropriate. The Proposed Action would require the Air Force to acquire up to 100-ft temporary construction easements in addition to 16.5-ft permanent easements to facilitate the installation, operation, and maintenance of the proposed utility corridors. The Proposed Action includes a suite of utility installation, topsoil preservation, and wetland and waterbody preparation techniques to account for land use, terrain, streamflow conditions, subsurface conditions, and sensitive resources that might need to be traversed or avoided (Sentinel EIS, Vol 1, Section 2.1 Proposed Action, Table 2.1-4).

The existing MAFs and LFs would be updated extensively to completely refurbished condition to meet the requirements of the Sentinel system. Sentinel system deployment and MMIII disposal

activities are scheduled to sequentially begin in late 2023, starting at Main Operating Base (MOB)-1, F.E. Warren AFB, then at MOB-2, Malmstrom AFB, and finally at MOB-3, Minot AFB.

Deployment would primarily occur at F.E. Warren, Malmstrom, and Minot AFBs. Maintenance, training, storage, and support actions would occur at these three MOBs as well as at Hill AFB, UTTR, Camp Guernsey, and Camp Navajo. Elements of the Proposed Action would include the following:

On-base elements of the Sentinel deployment, including construction, modification, operation, and maintenance of on-base facilities and infrastructure.

Off-base elements of the Sentinel deployment, including updating MAFs and LFs to completely refurbished condition, establishing new utility corridors, utility work within existing utility corridors and easements, constructing new communication towers, and deploying and maintaining the Sentinel weapon system; and decommissioning and disposing of the MMIII weapon system.

The proposed Sentinel missiles would support Department of Energy components, which include variations of currently fielded warheads, as well as delivery of the currently fielded and future reentry vehicles (Sentinel EIS, Vol 1, Section 1.0 Purpose of and Need for The Action, Pg 1-1). Sentinel deployment activities would not include generating or disposing of nuclear material, and the number of land-based nuclear missiles in the continental United States would not change.

***Reduced Utility Corridors Alternative (Sentinel EIS, Vol 1, Section 2.2, Reduced Utility Corridors Alternative, Pgs. 2-55 - 56).*** The Reduced Utility Corridors Alternative would replace all land based MMIII ICBMs deployed in the continental United States with Sentinel ICBMs, as would the Proposed Action. And, while it includes most of the elements of the Proposed Action, it also proposes establishing appreciably fewer miles (approximately 626 total miles) of new utility corridors and reutilizing marginally fewer miles of existing utility corridors. All other off-base elements, all on-base elements, and all MMIII decommissioning and disposal activities at all installations would be identical to those outlined under the Proposed Action. Under the Reduced Utility Corridors Alternative, it is anticipated that:

- The actual number of miles of new utility corridors established would be up to 80 percent less than under the Proposed Action;
- The actual number of miles of existing utility corridors reutilized would be up to 20 percent less than under the Proposed Action;
- The number of affected landowners and parcels would be up to 90 percent lower than under the Proposed Action; and
- The number of overall off-base construction workers would be slightly lower than under the Proposed Action.

Based on the directive, (Public Law 115-232 § 1663), to replace all land-based MMIII ICBMs deployed in the continental United States with Sentinel ICBMs sequentially scheduled to begin in late 2023, MOB-1, F.E. Warren AFB, MOB-2, Malmstrom AFB, and finally MOB-3, Minot AFB, as well as the need for the reduction of the utility corridor construction, the Reduced Utility Corridors Alternative, have been determined to be the environmentally preferable alternative.

***No Action Alternative (Sentinel EIS, Vol 1, Section 2.3, No Action Alternative, Pgs. 2-56 – 2-58).***

Under the No Action Alternative, the DAF would continue to rely on the aging MMIII weapon system, missiles, facilities, and infrastructure to provide for the nation's security. No changes would be made in operations or maintenance activities associated with the MMIII system, which would continue as they are at F.E. Warren, Malmstrom, and Minot AFBs and in their missile fields as well as at Camp Guernsey, Hill AFB, and UTTR.

The level of maintenance activities for the MMIII weapon system at F.E. Warren, Malmstrom, and Minot AFBs and in their missile fields would remain the same. Over time, however, the level of these activities would incrementally increase at the MAFs and LFs, including minor maintenance procedures, refurbishment, and repair of existing facilities. In addition, maintenance teams would find it necessary to increase the frequency of periodic inspections, refurbishment, and repair of missile components, such as replacing minor seals and servicing batteries. Minor servicing of missiles would continue to be done in place or at the installation, whereas extensive refurbishing and repairs of facility components, missiles, and transports would continue to be completed at Hill AFB.

The DAF would continue to employ modernization programs to lengthen the service life of the MMIII weapon system at F.E. Warren, Malmstrom, and Minot AFBs, including design, testing, assembly, and installation of upgraded missile components.

The No Action Alternative would involve ongoing and normal construction, renovation, and demolition activities at all the bases outlined under the Proposed Action, and, as the structures that house MMIII-related support activities on-base age, they would eventually need to be rehabilitated or replaced to continue to serve the MMIII weapon system's administrative and maintenance needs.

**PREFERRED ALTERNATIVE**

In addition to the analysis and conclusions, the DAF considered comments on the Draft EIS from the public, Tribes, agencies, and other stakeholders to support the Secretary of the DAF's decision for the continued modernization of the United States' land-based nuclear arsenal with replacement of the aging MMIII sequentially scheduled to begin in late 2023, starting at MOB-1, F.E. Warren AFB, at MOB-2, Malmstrom AFB, and finally at MOB-3, Minot AFB to select the Reduced Utility Corridors Alternative as its preferred alternative.

## PUBLIC INVOLVEMENT

Public involvement was integral to the DAF's development of the Final EIS. The DAF received and considered approximately 400 comments, including those received during the scoping period, at public hearings, during the public comment period, and during the 30-day waiting period. The DAF summarized the substantive comments received during scoping in the Final EIS. A summary of the substantive comments received on the Draft EIS and DAF responses to them are provided in the Final EIS (Appendix B.1, Substantive Public Comments on Draft Environmental Impact Statement and Responses). The DAF provided the following public notices, public review periods, and meetings during the EIS process:

- **Notice of Intent (NOI):** Published September 25, 2020 (85 FR 60446, September 25, 2020).
- **Scoping Period:** Initiated the scoping period on September 25, 2020, with the NOI publication in the *Federal Register*, which ended upon publication of the Draft EIS in July 2022
- **Website:** The DAF provided a website (<https://www.gbsdeis.com>), which was designed to simulate, to the maximum extent possible, a public scoping meeting with an open-house format. Materials on the website included information on the Proposed Action, the NEPA process, and how to submit comments.
- **Draft EIS Notice of Availability (NOA):** Published on July 1, 2022 (84 FR 58713, July 1, 2022) with associated media announcements.
- **Public Review and Comment Period:** Initiated a public review and comment period for the Draft EIS on July 1, 2022, with the NOA publication in the *Federal Register*, which ended on August 15, 2022.
- **Public Hearings:** During the public review and comment period, held a total of seven face-to-face hearings at the Fort Berthold Indian Reservation, ND, and in the cities of Minot, ND; Great Falls and Lewistown, MT; Kimball, NE; Raymer, CO; and Cheyenne, WY. Additionally, held two virtual public hearings via the internet.
- **Final EIS NOA:** Published a NOA in the *Federal Register* on March 31, 2023 (Vol. 88 FR EIS No. 62, page 19302, March 31, 2023), which initiated the mandatory 30-day waiting period prior to ROD signature.

## COORDINATION AND CONSULTATION

Sentinel EIS, Vol 1, Section 1.93, Interagency and Intergovernmental Coordination and Consultations, Pgs. 1-14 – 1-16 describes the interagency and intergovernmental involvement the DAF facilitated in developing the EIS, including consultation in accordance with Section 7 of the Endangered Species Act (ESA) and sections 106 and 110 of the National Historic

Preservation Act (NHPA). Notably, while the Reduced Utility Corridors Alternative is a subset of the project elements included in the Proposed Action; it includes no additional project elements. Therefore, all consultation that was done on the Proposed Action also applies to and fully covers the Reduced Utility Corridors Alternative.

**ESA Section 7 Consultation.** The DAF prepared the EIS in conjunction with the ESA Section 7 consultation process under the Fish and Wildlife Coordination Act (Title 16 of the *United States Code* § 661 *et seq.*) and in accordance with the CEQ NEPA regulations (40 CFR § 1502.24(a)).

Early coordination and informal consultation with USFWS (in accordance with Section 7 of the ESA) was initiated on April 23, 2020, in the states in which Sentinel deployment-related actions would occur (i.e., Colorado, Montana, Nebraska, North Dakota, Utah, and Wyoming). The DAF prepared a Biological Assessment (BA) and addendums describing the effects of the Proposed Action based on which the EIS Co-Operating Agencies determined the Proposed Action may affect, but is not likely to adversely affect, eight ESA-listed species (Canada lynx, grizzly bear, northern long-eared bat, Preble's meadow jumping mouse, red knot, whooping crane, bull trout, and Ute ladies'-tresses) and is likely to adversely affect three ESA-listed species (Dakota skipper, piping plover, and whitebark pine).

The DAF determined that the Proposed Action may affect, but is not likely to adversely affect, critical habitat for three ESA-listed species (bull trout, Canada lynx, and piping plover) and the Proposed Action would not jeopardize the continued existence of three non-listed species (i.e., federally proposed and candidate species wolverine, monarch butterfly, and tri-colored bat). The USFWS issued their Biological Opinion (BO), an amendment, and informal consultation concurrence concluding that the Proposed Action would not jeopardize the continued existence of the Dakota skipper, piping plover, or whitebark pine.

An incidental take statement was provided for Dakota skipper and piping plover expressing the USFWS's determination that the level of anticipated take is not likely to jeopardize the continued existence of either species. Although some incidental take is anticipated, implementing the conservation measures outlined in the BO should ultimately result in avoidance and minimization of most adverse effects. Conservation measures outlined in the BO have been included in the Final EIS.

**NHPA Section 106 Consultation.** The DAF prepared the EIS in conjunction with the Section 106 consultation process under the NHPA. The DAF conducted consultations in compliance with Section 106 with the Advisory Council on Historic Preservation; the State Historic Preservation Officers for Arizona, Colorado, Montana, Nebraska, North Dakota, Utah, and Wyoming; the Tribal Historic Preservation Officer for the Three Affiliated Tribes of Fort Berthold Indian Reservation, ND; federal and state agencies responsible for managing lands included in the Proposed Action project region and for regulatory permitting; Tribes with traditional cultural affiliation to lands included in the Proposed Action; county and city governments within or adjacent to lands included in the Proposed Action; and advocacy groups concerned about potential impacts on important cultural resources.

A Programmatic Agreement (PA) was developed in consultation with these parties, pursuant to 36 CFR Part 800, and signed on December 16, 2022. An executed PA confirms that the DAF has met its obligations under Section 106. The cultural resources portion of the Final EIS (Final EIS § 3.4) provides additional information on the consultations and PA.

***Tribal Consultation.*** The DAF conducted extensive government-to-government consultation with Tribes in compliance with sections 106 and 110 of the NHPA. As the designated representative in accordance with Department of Defense Instruction 4710.02, *Department of Defense Interactions with Federally Recognized Tribes*, and Department of the DAF Instruction (DAFI) 90-2002, *Interactions with Federally Recognized Tribes*, the DAF Global Strike Command, Site Activation Task Force Lead contacted the Tribes individually by letter to formally initiate NHPA Section 106 and government-to-government consultation. Consultation with the Tribes is continuing as the PA is executed and additional efforts are being implemented to identify and assess effects on cultural resources of importance to them.

All communication with Tribes was conducted in accordance with Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*; DAFI 90-2002; and 36 CFR Part 800. Additional explanation of the Section 106 consultation process conducted in support of EIS development is provided in the cultural resources discussion in Sentinel EIS, Vol 1, Section 3.4, Cultural Resources, Pgs. 3-258 – 3-304. Consultations with the Tribes will continue as the signed PA is executed and additional efforts are being implemented to identify and assess effects on cultural resources of importance to them.

***Additional Interagency Coordination.*** The DAF conducted extensive additional coordination in conjunction with the EIS process to obtain information and assistance in developing and analyzing the Sentinel proposal. Additional coordination to review and obtain input on key facets of Sentinel Program planning and design included ongoing consultations and discussions with:

- Each of the cooperating agencies, including BIA, BLM, BOR, USACE, USFS, USFWS, and WYARNG, on actions related to impacts on the lands they manage.
- Federal Highway Administration and State Departments of Transportation (DOTs) regarding the transportation plans and proposed utility corridors in or near DOT rights-of-way.
- The Federal Aviation Administration regarding effects of the proposed communication towers on the national airspace system.
- USACE in preapplication meetings on the Clean Water Act Section 404 permitting process.
- The U.S. Environmental Protection Agency (EPA) and state departments of environmental protection on compliance and permitting concerns.

## ENVIRONMENTAL CONSEQUENCES

All practicable means to mitigate known and identified impacts, especially associated with near term actions, have been adopted; however, some impacts cannot be eliminated or avoided. Short-term effects would result from construction and MMIII decommissioning and disposal activities at installations as well as at the MAFs, LFs, proposed and existing utility corridors, and communication tower sites in the missile fields. Long-term effects would result from changes in operations and maintenance activities at the installations and at the MAFs, LFs, proposed and existing utility corridors, and communication tower sites in the missile fields. These effects would occur at F.E. Warren, Malmstrom, and Minot AFBs and throughout their missile fields as well as at Hill AFB, UTTR, Camp Guernsey, and Camp Navajo. These effects include the following:

- Short- and long-term significant adverse effects on cultural resources from the proposed construction activities in the missile fields, MMIII decommissioning and disposal activities, and conversion of on-base LF trainers from Peacekeeper and MMIII systems to the Sentinel system.
- Short-term significant adverse effects on public health and safety from potential increases in crime related to the temporary workforce hubs and associated construction workers in Kimball, NE, and Lewistown, MT.
- Short-term significant adverse effects on socioeconomics from increased populations and demands on public schools resulting from the proposed on- and off-base construction and operations.
- Short-term significant adverse effects on utilities and infrastructure from insufficient utility capacity at the proposed locations for workforce hubs and laydown areas.
- Less-than-significant adverse effects on all other resource areas, including air quality, airspace use and management, biological resources, environmental justice, geology and soils, hazardous materials and waste, land use, noise, transportation and traffic, visual resources, and water resources.

After the above referenced Final EIS NOA publication in the Federal Register and prior to the end of the 30-day wait period, DAF received non-substantive comments from the Environmental Protection Agency (EPA) acknowledging satisfactory resolution of comments the EPA provided on the Draft EIS in all areas except air quality, generally addressed below. The DAF clarified the Final EIS and administrative record via a written errata sheet.

- it was not clear how the emissions for off-base construction were included in emissions totals for each AFB in Tables 3.1-3, 3.1-7, and 3.1-9 of the Final EIS. Based on EPA's comments, the DAF reformatted Tables 3.1-3, 3.1-7, and 3.1-9 for clarity to show the complete analyzed air emission data for all construction at each MW.

- the Denver Metro North Front Range (DMNFR) ozone nonattainment area has again been reclassified from Serious to Severe, effective November 7, 2022 (see 40 C.F.R. § 81.306 for the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS); see also Federal Register Vol. 87, No. 196, page 60926 published October 7, 2022), and further reduces the General Conformity de minimis thresholds for ozone precursors from 50 tpy to 25 tpy. The DAF estimated NOx emissions for construction in the area to be 22.8 tpy which is below the de minimis thresholds for both the serious and the severe designations. This estimate conservatively assumes that all the MAFs, LFs, and communication towers in the area would be completely constructed within a given year, which is not anticipated at this time. Accordingly, no conformity determination is required.

The overall effects are based on the combination of effects from all project elements across the Preferred Alternative's entire scope, area, and timeframe. The specific description of effects for individual elements and at specific locations are in Sentinel EIS, Vol 1, Section 3.0, Affected Environment and Environmental Consequences, Pgs. 3-1 – 3-709.

#### **POTENTIAL FUTURE WETLAND AND FLOODPLAIN IMPACTS**

While the incomplete system design and uncertainty of the final route prevents a determination of all potential wetland or floodplain impacts, it is possible that some wetlands or floodplains will need to be crossed given the extent of cabling required and the amount of land involved (Sentinel EIS, Vol 1, Section 3.15, Water Resources, Pgs. 3-659 – 3-707).

As the design matures and potential impacts become apparent, a need for further NEPA analysis and a Finding of No Practicable Alternative (FONPA) to make a route through wetlands or floodplains may arise.

#### **MITIGATION**

While the AFGSC is DAF's acquisition agent, or proponent, and has operational control of the Undertaking, the Air Force Materiel Command (AFMC), as a supporting command, is the executing agent for the Sentinel weapon system deployment and has administrative control of the Undertaking. Commander, AFMC, has assigned responsibility for implementing and meeting the commitments as described in this Record of Decision to the Air Force Nuclear Weapons Center (AFNWC) and the Commander, AFNWC has assigned oversight and execution authority to its Sentinel Systems Directorate (AFNWC/NX).

The DAF considers mitigation of potential impacts to be a priority in developing the proposed Sentinel deployment and MMIII decommissioning and disposal action. Specific measures to avoid, reduce, or minimize impacts were built into the Reduced Utility Corridors Alternative (Sentinel EIS, Vol 1, Section 2.2, Reduced Utility Corridors Alternative, Pgs. 2-55 – 2-56) and will apply to construction, operation, and maintenance involved in the action; or will be implemented as compensatory measures.

The Final EIS identified other management actions to facilitate implementation of the decision. Management actions are different from mitigation measures because regulations or DAF guidance and instructions require such actions. Compliance with applicable laws and regulations administered by EPA and other regulatory and/or state environmental quality agencies, some of which have mitigating effects, are mandated, but these laws and regulations are not considered discretionary with respect to DAF decision-making and will be implemented.

To track mitigations, the Sentinel Systems Directorate (AFNWC/NX), will develop a Mitigation Plan following the signing of this ROD that identifies principal and subordinate organizations with responsibility for oversight and execution of specific mitigations. The DAF will not implement an impact-inducing action related to the Preferred Alternative, the Reduced Utility Corridor Alternative, before the applicable mitigation measures described in this ROD are funded and put in place. The Mitigation Plan will identify specific mitigations, identify the organization responsible for each mitigation, and present the timing of each mitigation.

In coordination with the cooperating agencies, regulatory agencies, and other stakeholders for the EIS, the DAF has developed more than 380 mitigation measures for the Reduced Utility Corridors Alternative, including those outlined in the BO and PA. These mitigations are presented in Sentinel EIS, Vol 1, Section 6.0, Mitigation Measures, Pgs. 6-1 – 69; Sentinel EIS, Vol II – Appendices, Appendix E: Biological Resource Supporting Information, E.4 Sentinel Biological Opinion, 22 December 2022, Pgs 1 – 127 and E.5 Sentinel Biological Opinion Amendment, 19 January 2023, Pgs 1 – 33; Sentinel EIS, Vol II – Appendices, Appendix C: Cultural Resources, C.5 Programmatic Agreement, Pgs 1 - 39.

Consistent with EPA's comment letter referred to above and in reference to the Denver Metro North Front Range (DMNFR) ozone nonattainment that was reclassified from Serious to Severe, the DAF will ensure monitoring of identified proposed current and or future actions occurring in the DMNFR to ensure they do not exceed limitations in the area. If limitations may be exceeded, appropriate actions and consultations will be applied prior to taking related proposed actions.

All mitigations identified in the Final EIS, BO, and PA will be implemented and included in the post-ROD Mitigation Plan.

#### LIFE-CYCLE MANAGEMENT AND MONITORING

The life cycle for the Sentinel program covers deployment of the three MOB's and their support infrastructure from FY2023 through FY2038. The Sentinel program proponent, the Commander of Air Force Global Strike Command (AFGSC/CC), will ensure it meets its commitments to the American public by enforcing all mitigations, monitoring of required permits, as well as reclamation activities that can occur after the construction is complete, to include compensatory mitigations, revegetation, reporting, and others as required. These activities can range from 1 to 3 years after construction completion over.

The DAF will plan, manage, track, consult, and assess permitting and compliance using a comprehensive, multi-echeloned geographic information system (GIS) that will allow for the creation of common operational picture (COP) accessible for leadership at all echelons that will demonstrate DAF compliance with all permitting and mitigation measures. It also is a system that allows all organizations, agencies, and contractors involved in environmental aspects of the project to collaborate in a near real-time environment. This system is called the Sentinel Common Operational Picture Environment (SCOPE).

The SCOPE system has modules that replicate the media managers in an Environmental Flight. Each module is designed to monitor and track permitting and mitigation actions within the respective media area that are derived from the EIS, PA, and BO and other applicable laws. Using digital reports that feed directly into SCOPE, the construction contractor(s), Deployment Branch (NXD) monitors, and DAF personnel will report on compliance measures at established intervals. These digital compliance reports are derived directly from the regulatory documents. By using the digital reports, the Sentinel System Program Office (SPO) will create a comprehensive record that demonstrates compliance, documents the resolution of any non-compliance issues, and provides a database that can be analyzed to generate data-driven lessons learned at key intervals such as the transition between MOB/missile fields to ensure process are refined and repeatable over the life of the program.

SCOPE is also a planning tool where staff can ensure, on a tract-by-tract (parcel by parcel / land acquisition easement by land acquisition easement) basis, that all needed compliance and mitigation actions have been completed prior to authorizing construction to proceed on specific tracts. Through creation of dashboards, leadership can continually monitor DAF compliance and identify potential issues prior to their impacting scheduling and construction timelines. As SCOPE is a multi-echeloned COP, it will allow for more accurate, more efficient, and more timely tracking of the environmental aspects of the program.

Another essential aspect of SCOPE, it is designed to allow collaboration and consultation with all partners on the project. This is essential to allow for the DAF to meet its obligations for Government-to-Government consultation with the 57 American Indian Tribal governments who are consulting on the project. The culture resource module within SCOPE, the Cultural Resource – Common Operational Picture (CR-COP) is mandated in the Sentinel PA. It creates an environment where Tribal Historic Preservation Officers (THPO) can coordinate directly with the DAF, State Historic Preservation Officers, and other federal and state agencies to ensure cultural and natural resources are properly addressed in DAF planning and execution. The CR-COP is also being designed to specifically address information gaps identified during consultation to facilitate THPOs having access to all data needed to properly analyze and advise the DAF on identifying and avoiding Tribal resources of concern. This is essential as the original construction of the missile fields was completed prior to the establishment of the National Historic Preservation Act.

To ensure the Sentinel deployment and MMIII decommissioning, and disposal action remains in compliance with applicable environmental laws and regulations for permitting and abides by

and completes all mitigation measures outlined in the Sentinel EIS, PA, and BO, the Sentinel System Directorate, Deployment Branch (NXD) with the assistance when requested of AFCEC, will augment the AFNWC/NXD NEPA Branch with additional government personnel to assist in monitoring permitting and mitigation compliance throughout the duration of the project.

This augmentation will consist of archaeologists, natural resource, and environmental compliance subject matter experts. This diverse team will be directed by the Sentinel System Directorate, Deployment Branch (NXD) and supported by Cooperative Ecosystems Studies Unit (CESU) cooperators, and traditional environmental contractors. This integrated staffing organization mirrors long-standing environmental media-manager specific lines of effort, found within Environmental Flight Installation's Civil Engineer Squadron.

Systems Directorate, Deployment Branch (NXD) as the program proponent will ensure that the Plan of Development (POD), will be used and followed to ensure requirements for the a Mitigation and Monitoring Plan are met and follow the POD framework documenting how all construction activities will be implemented per the prescribed mitigation measures identified in this ROD and as be entered into the online version in SCOPE that will serve as the guiding document for additional monitoring modules aligned with the traditional environmental media manager areas within each MOB's Civil Engineer Squadron. This alignment ensures processes are created and aligned with common practice in the engineering community, data is gathered in a way that will support eventual base permit updates and provides transparency for those who will eventually inherit Sentinel in the out years, once fielded, and through deployment is completion.

## **DECISION**

The DAF considered all of the alternatives, known potential environmental consequences, all comments and concerns from the public, regulatory and other agencies, Native American Tribes, and other key stakeholders, relevant factors including economic and technical considerations and agency statutory missions, as well as essential considerations of national security (Sentinel EIS, Vol 1, Section 1.5, National Security Considerations, Pgs. 1-5 – 1.7) that the agency balanced in making its decision, the DAF has decided to select the Reduced Utility Corridor Alternative, as the Preferred Alternative.

This decision adopts all known practicable means to avoid, minimize, or mitigate the environmental impacts of the Sentinel deployment decision. The Proponent will establish a life cycle management program to ensure implementation and tracking of the mitigations and other issues as discussed previously, over the life of the Sentinel deployment from MOB 1 through MOB 3. DAF intent is for the proponent to ensure that lessons learned from MOB 1 are carried over to subsequent MOBs and to consider and ensure that all issues are fully and adequately addressed prior to acting.

This includes but is not limited to potential future NEPA analyses, regulatory compliance, and similarly situated issues and use of planning tools such as AF Forms 813, Request for Environmental Impact Analysis and DD Forms 1391, Certificate of Compliance.

Proponent (AFGSC/CC) will ensure compliance with the Sentinel program life-cycle mitigation and management per AFI 63-101/20-101, "Integrated Life-cycle Management," and actions discussed in the Sentinel EIS and this ROD, develop a draft mitigation plan within 90-days of this decision, and will ensure all mitigations are implemented in a timely fashion and prior to taking actions having any related effects.

The Proponent will execute all other portions of the Preferred Alternative associated with facility construction and personnel increases as defined in the FEIS and as may be defined in the future pursuant to follow-on NEPA, consultations, permitting and other required and or regulatory actions.

I certify that the DAF has considered all the reasonably know alternatives, information, analyses, and comments submitted by State, Tribal, and local governments, and public commenters for consideration by the lead and cooperating agencies in developing the Sentinel EIS. Given the nature and length of the life of the Sentinel deployment, potential future unknown actions will be fully considered prior to further certification and execution.

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ROBERT E. MORIARTY, P.E., SES,  
Deputy Assistant Secretary  
(Installations)

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Date