



# United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
Great Plains Regional Office  
115 Fourth Avenue S.E. Suite 400  
Aberdeen, South Dakota 57401



IN REPLY REFER TO:  
DESCRM  
MC-208

FEB 06 2012

## MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: <sup>ACTING</sup> Regional Director, Great Plains Region

SUBJECT: Supplemental to Environmental Assessment

A Categorical Exclusion has been completed in compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended. The proposed Supplemental Categorical Exclusion is for information tiering off of an existing Environmental Assessment for Arrow Pipeline, and authorizes installation of SCADA towers on two existing oil and gas well pads. No new surface disturbances will be associated with the proposed action.

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the Categorical Exclusion.

If you have any questions, please call Marilyn Bercier, Regional Environmental Scientist, Division of Environment, Safety and Cultural Resources Management, at (605) 226-7656.

Attachment

cc: Tex Hall, Three Affiliated Tribes (with attachment)  
Elgin Crows Breast, THPO (with attachment)  
Derek Enderud, BLM, Dickinson, ND (with attachment)  
Mike Cook, SWCA (with attachment)  
Jeffrey Hunt, Fort Berthold Agency



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## EXCEPTION CHECKLIST FOR BIA CATEGORICAL EXCLUSIONS

Project: Arrow Pipeline, LLC SCADA Tower Installation Date: 2/2/2012

To authorize land use for the installation of freestanding  
Aluminum SCADA towers on two existing oil and gas well pads.

Nature of Proposed Action: To authorize land use for the construction of a 30-foot-tall and 100-foot-tall tower to house Arrow Pipeline, LLC Supervisory Control and Data Acquisition System. The proposed towers would be constructed on two existing oil and gas well pads. No additional surface disturbance is proposed for areas beyond the existing well pads. This supplement is tiered to Environmental Assessment: Zenergy Operating Company, LLC, Dakota-3 Nathan Hale #4-25H, Dakota-3 TAT (751A) #14-19H, Dakota-3 #2-13H, and Dakota-3 Ethan Hall #2-14H (FONSI January 2009) and Environmental Assessment: Zenergy Operating Company, LLC, Dakota-3 Benson #3-9H, Dakota-3 High Hawk #4-9H, Dakota-3 Joseph Eagle #16-19H, Dakota-3 Fettig (860 A-B) #16-22H, and Dakota-3 Morsette #35-26H (FONSI January 2010)

Exclusion category and number: 516 DM 10.5 F (1) Rights-of-Way

Evaluation of Exceptions to use of Categorical Exclusion:

1. This action would have significant adverse effects on public health or safety. No X Yes \_\_\_\_\_
2. This action would have an adverse effect on unique geographical features, such as wetlands, wild or scenic rivers, refuges, floodplains, rivers placed on nationwide river inventory, or prime or unique farmlands. No X Yes \_\_\_\_\_
3. The action will have highly controversial environmental effects. No X Yes \_\_\_\_\_
4. The action will have highly uncertain environmental effects or involve unique or unknown environmental risks. No X Yes \_\_\_\_\_
5. This action will establish a precedent for future actions. No X Yes \_\_\_\_\_
6. This action is related to other actions with individually insignificant, but cumulatively significant environmental effects. No X Yes \_\_\_\_\_

Fort Berthold

Arrow Pipeline, LLC SCADA Tower Installation

7. This action will affect properties listed or eligible for listing in the National Register of Historic Places.

No X Yes \_\_\_\_\_

8. This action will affect a species listed, or proposed to be listed as endangered or threatened.

No X Yes \_\_\_\_\_

9. This action threatens to violate federal, state, local or tribal law or requirements imposed for protection of the environment.

No X Yes \_\_\_\_\_

10. This action will have a disproportionately high and adverse effect on low income or minority populations.

No X Yes \_\_\_\_\_

11. This action will limit access to, and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners, or significantly adversely affect the physical integrity of such sacred sites.

No X Yes \_\_\_\_\_

12. This action will contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area, or may promote the introduction, growth, or expansion of the range of such species.

No X Yes \_\_\_\_\_

A "yes" to any of the above exceptions will require that an EA be prepared.

NEPA Action - - - CE X EA \_\_\_\_\_

Preparer's Name and Title: Jeffrey Davis, Environmental Protection Specialist

Regional Archeologist Concurrence with Item 7 Carson R. Mendenhall

Concur: Jeffrey Davis  
Regional Office/Agency Environmental Coordinator

Date: 2-2-2012

Concur: Bob [Signature]  
Regional Director/Superintendent

Date: 2/6/12

ACTING

**ENVIRONMENTAL ASSESSMENT  
Addendum**

**United States Bureau of Indian Affairs**

**Great Plains Regional Office  
Aberdeen, South Dakota**



**Arrow Pipeline, LLC**

**Addendum to Authorize Land Use for the Installation of Freestanding Aluminum  
SCADA Towers on Two Existing Oil and Gas Well Pads**

**Fort Berthold Indian Reservation**

**January 2012**

For information contact:  
Bureau of Indian Affairs, Great Plains Regional Office  
Division of Environment, Safety and Cultural Resources Management  
115 4th Avenue SE, Aberdeen, South Dakota 57401  
(605) 226-7656

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- A SCADA Tower Plats and Technical Information

## **1. Purpose and Need for the Proposed Action**

The purpose of the proposed action is to authorize the land use by Arrow Pipeline, LLC (Arrow) for the construction and installation of two freestanding aluminum isometric SCADA towers on the WPX Energy Williston, LLC (WPX) High Hawk #4-9H and Nathan Hale #4-25H well pads. The proposed High Hawk Tower (30-foot) and Nathan Hale Tower (100-foot) SCADA towers, herein referred to collectively as SCADA towers, would provide necessary infrastructure housing for Arrow's Supervisory Control and Data Acquisition System (SCADA). This system would allow Arrow to remotely monitor critical operations information including:

- well name,
- well activity,
- real time and historical oil volume,
- total oil volume transported
- real time and historical natural gas liquids (NGL) volume,
- total NGL volume,
- real time and historical produced water volume,
- total produced water volume,
- lower explosive limit,
- real time operating pressure,
- gas differential pressure, and
- real time NGL temperatures.

Developments have been proposed on land held in trust by the United States in Dunn and McKenzie counties, North Dakota, where the Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected individual allotments. The economic development of available resources and associated BIA actions are consistent with BIA's general mission. Leasing and development of mineral resources offers substantial economic benefits to the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nations and to individual tribal members.

## **2. Authorities**

Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 United States Code [USC] 396a, et seq.), the Indian Mineral Development Act of 1982 (25 USC 2101, et seq.), and the Energy Policy Act of 2005 (42 USC 15801, et seq.).

## **3. Legal Land Description for Proposed Action**

The SCADA towers would be located on the existing WPX High Hawk #4-9H and WPX Nathan Hale #4-25H well pads (well pads). The legal description of each well pad location is provided below.

- **WPX High Hawk #4-9H:** NW¼ NW¼ Section 9, Township (T) 149 North (N), Range (R) 92 West (W), Dunn County, North Dakota (Figure 1)
- **WPX Nathan Hale #4-25H:** NW¼ NW¼ Section 25, T150N, R94W, McKenzie County, North Dakota (Figure 1)

#### **4. Scope of Work for Proposed Action**

Arrow would construct a 30-foot-tall SCADA tower on the High Hawk #4-9H well pad (Figure 2) and a 100-foot-tall SCADA tower on the Nathan Hale #4-25H well pad (Figure 3). During construction, Arrow would disturb approximately 26.4 square feet of previously disturbed well pad area for each proposed tower. All disturbance associated with the proposed project would occur wholly within areas that have undergone NEPA analysis for similar actions.

Each tower would be constructed horizontally along the ground then raised to a vertical position through the use of the joints on each anchor rod. The 30-foot tower would be comprised of 3 10-foot-long aluminum segments while the 100-foot tower would be comprised of 10 10-foot-long aluminum segments.

The orientation of each tower has a two-fold purpose; the first is to ensure no additional temporary impact outside of previously disturbed areas, and the second is to provide sufficient support to maintain the integrity of each tower when in the “down” position. In particular, the 30-foot tower would be oriented so that, when in the “down” position, the tower lays across the existing scoria areas of the well pad. The 100-foot tower would be oriented so that, when in the “down” position, the tower lays along the existing access road. Appendix A provides detailed information regarding the technical specifications of each SCADA tower.

#### **5. Materials Information and Technical Specifications**

##### **5.1 Anchoring**

###### Nathan Hale Tower

The Nathan Hale tower would utilize three jointed anchor rods set in a 6-foot-deep by 5-foot-long by 5-foot-wide (150 cubic feet) concrete block (base footing). Each jointed anchor rod would include a steel tube (2 inches wide by 1.3 inches deep) encased in a 2-inch-wide by 1-foot-long by 0.5-inch-thick plate at the concrete/surface interface. Two 0.5-inch grade 8 bolts would connect the tower footing to each anchor point. In total, the 100-foot tower would be anchored using six 0.5-inch grade 8 bolts.

###### High Hawk Tower

The High Hawk tower would utilize three jointed anchor rods set in a 4-foot-deep by 4-foot-long by 4-foot-wide (64 cubic feet) concrete block (base footing). Each jointed anchor rod would include a steel tube (1.63 inches wide by 1.3 inches deep) encased in a 1.5-inch-wide by 10-inch-long by 0.25-inch-thick plate at the concrete/surface interface. Two 0.375-inch

grade 5 bolts would connect the tower footing to each anchor point. In total, the 50-foot tower would be anchored using six 0.375-inch grade 5 bolts.

## **5.2 Tower Segments**

### Nathan Hale Tower

Each 10-foot-long segment used to construct the 100-foot tower would include three main aluminum tubes (main tubes) which comprise the overall frame of the tower as well as bent aluminum tubes (interstitial tubes), of a smaller diameter, welded in a meandering pattern between each main tube. The main tubes vary in maximum diameter with the greatest (1.709-inch) located at the base of the tower. The main tube diameter decreases with increasing tower elevation where the minimum diameter of the main tubes would not be less than 1 inch. The interstitial tubing diameter also decreases with increasing tower elevation with the greatest diameter (0.625 inch) present at the base and smallest diameter (0.375 inch) present at the top.

### High Hawk Tower

The main tubes used to construct the 30-foot tower vary in maximum diameter with the greatest (1.56-inch) located at the base of the tower. The main tube diameter decreases with increasing tower elevation where the minimum diameter of the main tubes would be approximately 1.25-inch. The interstitial tubing diameter decreases with increasing tower elevation with the greatest diameter (0.5 inch) present at the base and smallest diameter (0.48 inch) present at the top.

## **5.3 Tower Weight and Wind Loading**

Wind loading refers to the overall allowable surface area at the top of each tower in order to maintain structural integrity during windy conditions. Arrow would not exceed the wind loading recommendations provided by the manufacturer of each tower (Appendix A). The 30-foot tower would weigh approximately 99 pounds and is allotted a wind loading area between 12 and 23 square feet, commensurate with overall wind speed (Appendix A). The 100-foot tower would weigh approximately 435 pounds and is allotted a wind loading area of 7.49 square feet.

## **6. Reclamation**

### **6.1 Interim Reclamation**

Reclamation of the SCADA towers would be related to the reclamation of each well pad which would continue over the life of the well pad and would include the return of topsoil, and contouring and seeding of native vegetation. Reclamation would be required before final abandonment of the decommissioned well pad. A successful reclamation would at all times be the responsibility of the operator. Applicable short- and long-term best management practices would be used to minimize and control erosion in disturbed areas.

The disturbed areas would be reclaimed and contoured as soon as possible after construction is complete. Noxious weeds would be controlled by approved chemical or mechanical methods. The entire ROW would be monitored for erosion, subsidence, or noxious weeds. In areas where problems are found to occur, reclamation efforts would continue until the BIA feels the ROW is successfully reclaimed. Reclamation is considered successful when:

- seeded areas are established;
- adjacent vegetative communities spread back into the disturbed areas; and
- noxious weeds are under control.

If after two growing seasons the new seeding is not successful, the BIA may require additional efforts to establish vegetation. For noxious weeds, a survey was conducted on the access road ROW and well pad area, prior to the construction commencing. The BIA has developed a weed management plan to treat known or likely to occur noxious weed species.

## **6.2 Final Reclamation**

Final reclamation would occur when the well pad is decommissioned. All disturbed areas would be reclaimed, reflecting the BIA's view of oil and gas exploration and production as temporary intrusions on the landscape. All facilities would be removed. Access roads and work areas would be leveled or backfilled as necessary, scarified, recontoured, and seeded.

## **7. Surveys**

The proposed location for each SCADA tower is on an existing oil and gas well pad. No additional resource surveys were completed on behalf of the proposed action. Original surveys of the Nathan Hale #4-25H well pad and access road were conducted by SWCA Environmental Consultants (SWCA) in September and November 2008. Further, SWCA conducted surveys of the High Hawk #4-9H well pad and access road in August 2009. No significant impacts to natural or cultural resources are anticipated as a result of the proposed SCADA tower construction.

## **8. Potential Effects**

No direct impacts to natural or cultural resources are anticipated predicated on Arrow locating the proposed SCADA towers on existing well pads where surface, visual, and audio disturbances are present.

Potential indirect impacts include noise and other disturbances to wildlife during construction and the introduction of noxious weeds. Impacts would be mitigated through avoidance of any federally listed threatened or endangered species or wetlands, avoidance of nesting migratory birds, and implementation of best management practices to control the introduction of noxious weeds. These mitigation measures are consistent with the approved National Environmental Policy Act (NEPA) documents, which received a finding of no significant impact (FONSI) (January 2009 and January 2010).

## **9. Notification with Federal Aviation Administration (FAA) and Registration with Federal Communications Commission (FCC)**

The proposed SCADA towers would not require notification of the FAA and subsequently registration with the FCC because, as proposed, they would not individually exceed a height of 100 feet above the level ground surface (47 Cod of Federal Regulations Ch. 1, sub-part B 17.7.). The FAA requires notification for structures that will be greater than 200 feet above ground level at the site. Further, the FAA requires notification if a proposed tower is within approximately 3.79 miles of the nearest point of the nearest runway of each airport with at least one runway more than 3,200 feet long, excluding heliports. No airports are known to occur within 5 miles of the proposed SCADA towers, therefore no notification is required.

## **10. Applicable NEPA Document(s)**

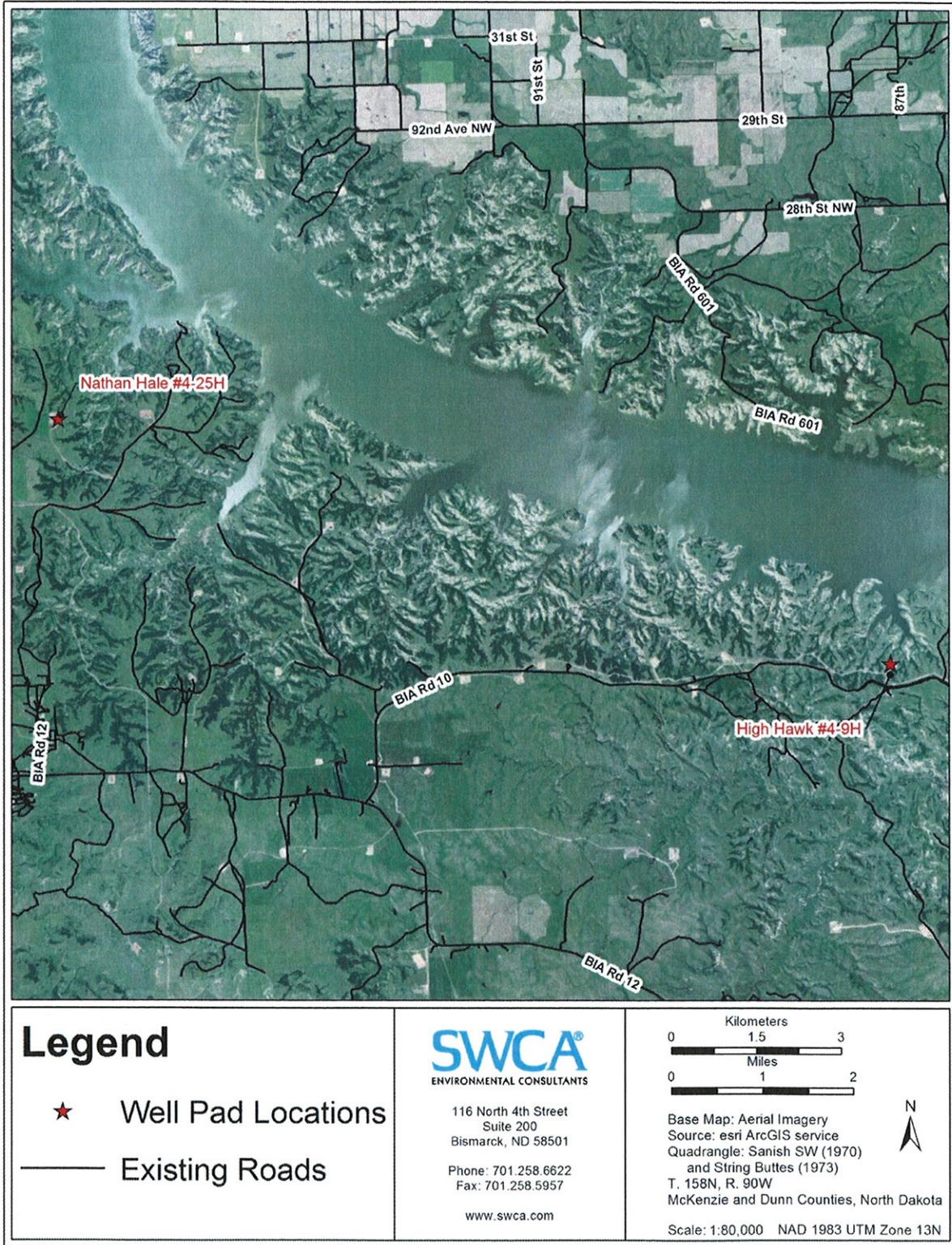
- *Environmental Assessment: Zenergy Operating Company, LLC, Dakota-3 Nathan hale #4-25H, Dakota-3 TAT (751A) #14-19H, Dakota-3 #2-13H, and Dakota-3 Ethan Hall #2-14H (FONSI January 2009)*
- *Environmental Assessment: Zenergy Operating Company, LLC, Dakota-3 Benson #3-9H, Dakota-3 High Hawk #4-9H, Dakota-3 Joseph Eagle #16-19H, Dakota-3 Fettig (860 A-B) #16-22H, and Dakota-3 Morsette #35-26H (FONSI January 2010)*

## **11. NEPA Adequacy Criteria**

This document has identified two previously prepared NEPA documents (Section 9) which adequately describe the environmental consequences of the newly proposed action described herein, and meets the following NEPA Adequacy Criteria.

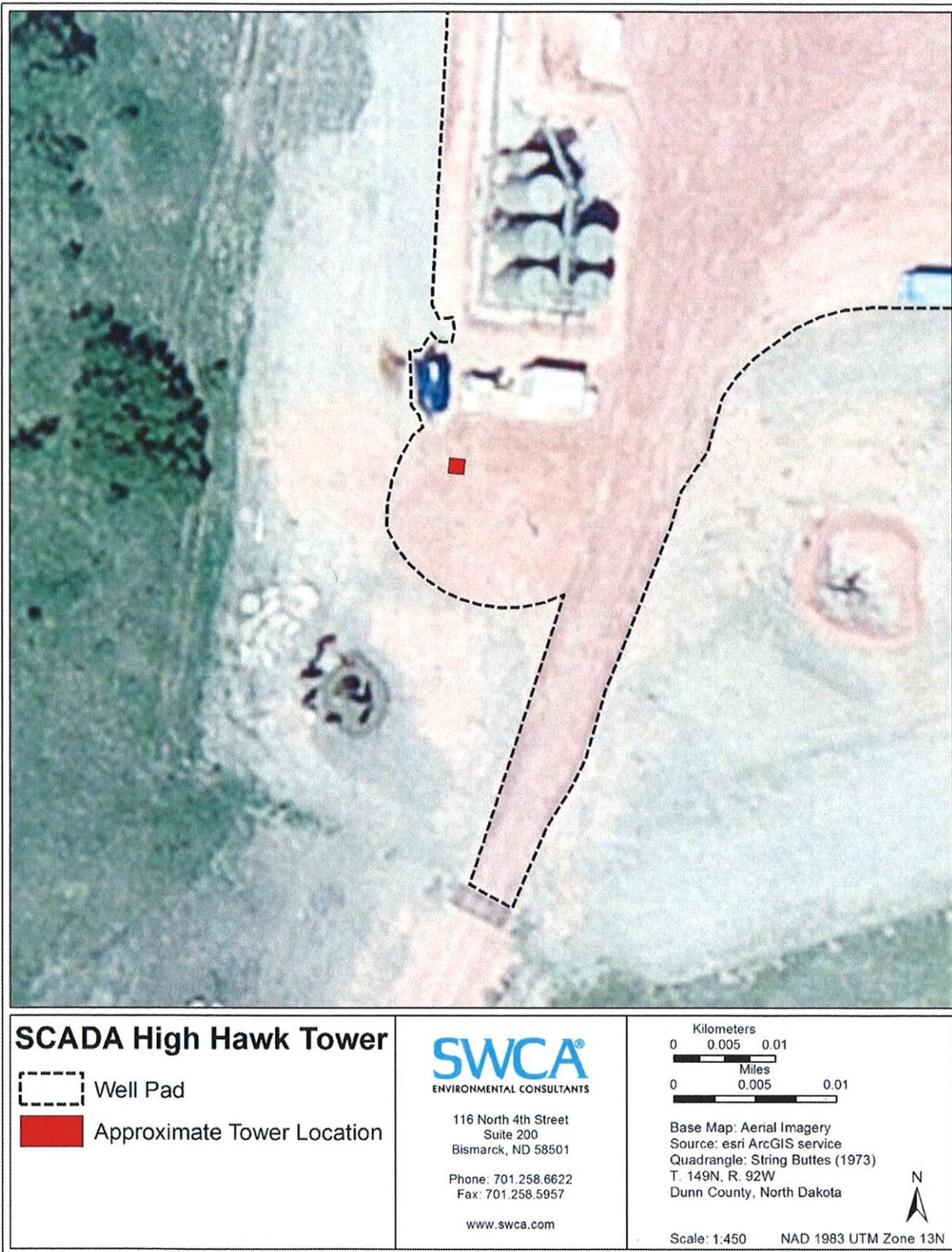
1. The proposed action is substantially the same action and at the site specifically analyzed in the existing NEPA documents.
2. The range of alternatives is reasonable with respect to the current proposed action in the existing NEPA document, which appropriately considers and analyzes current environmental concerns, interests, and resource values.
3. The existing analysis and conclusions are adequate in the existing NEPA document. The analysis is still valid in light of new studies or resource assessment information.
4. The methodology and analytical approach used in the existing NEPA document continues to be appropriate for the proposed action.
5. The direct and indirect impacts of the proposed action are unchanged from those identified in the existing NEPA document.
6. The cumulative impacts that would result from implementation of the proposed action are unchanged from those analyzed in the existing NEPA document.
7. A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA document.

*Addendum to Authorize Land Use for the Installation of Freestanding Aluminum SCADA Towers on  
Two Existing Oil and Gas Well Pads  
(January 2012)*



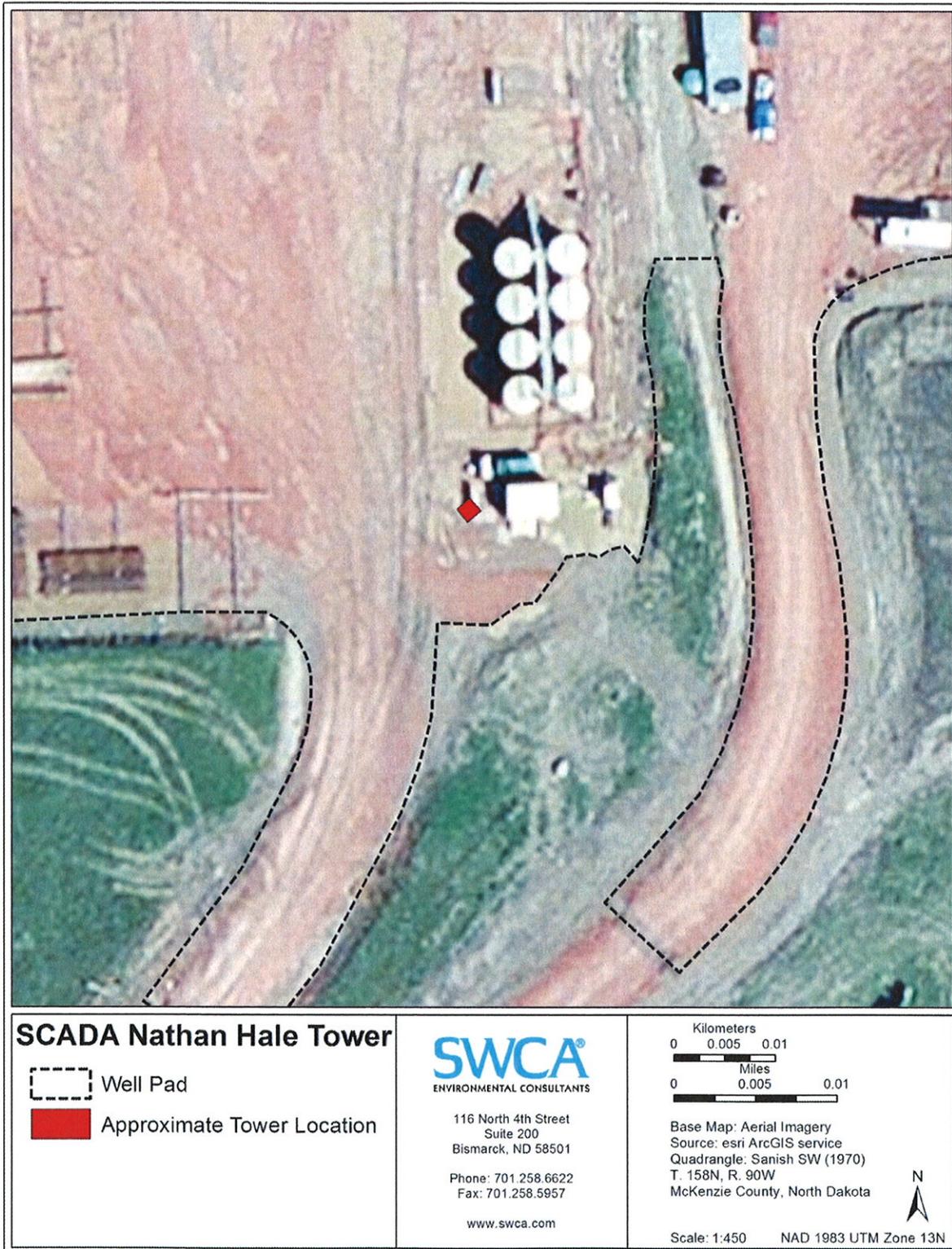
**Figure 1. Proposed SCADA tower locations.**

*Addendum to Authorize Land Use for the Installation of Freestanding Aluminum SCADA Towers on Two Existing Oil and Gas Well Pads (January 2012)*



**Figure 2. Proposed High Hawk Tower Location**

*Addendum to Authorize Land Use for the Installation of Freestanding Aluminum SCADA Towers on Two Existing Oil and Gas Well Pads (January 2012)*



**Figure 3. Proposed Nathan Hale Tower Location**

**APPENDIX A**  
**SCADA Tower Plats and Technical Information**

Required Documentation for the Accompanying Categorical Exclusion Checklist to Authorize One Additional Well, the Sweet Grass Woman #22-15HB, on the Approved KYW #27-34H Well Pad (February 2012)

