

**APPENDIX C**  
**PROCEDURES FOR DETERMINING EFFECTS**  
**TO HISTORIC PROPERTIES FOR WHICH SETTING, FEELING OR ASSOCIATION**  
**ARE ASPECTS OF INTEGRITY**

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## **1.0 INTRODUCTION**

This methodology defines the procedures for identifying and evaluating effects from the TransWest Express Transmission Project (Undertaking) to historic properties within the Area of Potential Effect for Indirect Effects (indirect effects APE) for which the qualities of setting, feeling, or association are aspects of integrity and thereby characteristics that qualify these properties for NRHP eligibility. The BLM, in consultation with the Advisory Council on Historic Preservation; the Wyoming, Colorado, Utah and Nevada State Historic Preservation Officers (SHPOs); and Consulting Parties to the PA, has compiled these procedures, pursuant to Stipulations I.A.2 and I.I.E.6 of the PA.

The Applicant will produce separate reports that identify effects to setting, feeling or association for historic properties in Wyoming, Colorado, Utah and Nevada. The goal will be to include these reports as stand-alone addenda to the Class III inventory reports for each state. Each report will meet the reporting requirements of the BLM and the SHPO from each respective state. SHPOs from each state may stipulate additional reporting requirements for this assessment.

The methodology involves four components. Within the indirect effects APE defined in Stipulation I.A.2 of the PA, (1) identify historic properties from which the Undertaking can be seen and for which setting, feeling or association is an aspect of integrity; (2) complete field evaluations of the integrity of these historic properties; (3) assess effects to setting, feeling or association of these historic properties; 4) resolve adverse effects. Complete Components 1, 2 and 3 and include results in the Class III inventory report for the Undertaking; complete Component 4 and include in the Historic Properties Treatment Plan (HPTP). We address each component of this methodology below. In addition to the following detailed description of each component, Exhibit 1 to this Appendix is a field implementation guide intended to assist field personnel in implementing these procedures.

### **1.1 Definitions and Eligibility Criteria**

For the purposes of this methodology, we define cultural resources as archaeological, historical, or architectural sites, districts, buildings, structures, places, and objects which have been documented on the official site forms used by the SHPOs in the states of Wyoming, Colorado, Utah, and Nevada; or listed on the National Register of Historic Places or state registers of historic places; and additionally those properties identified by Consulting Parties in Stipulation II.D of the PA. Cultural resources include sites known to be important to tribes; for example, some rock art, rock cairns, alignments and stone circles. Cultural resources encompass definite locations (sites or places) of traditional cultural or religious significance to specified social and/or cultural groups (including traditional cultural properties), as in the definition in Appendix

B of the PA, and are most readily identified by Consulting Parties from these groups bringing them forward, per Stipulation II.D of the PA.

Cultural resources eligible for listing on the National Register of Historic Places (NRHP) are referred to as “historic properties.” Historic properties must demonstrate importance in American history, architecture, archaeology, engineering, or culture. A historic property is considered significant in these categories if it possesses integrity of location, design, setting, materials, workmanship, feeling, and association and meets one or more of the following criteria:

- (a) is associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) is associated with the lives of persons significant in our past; or
- (c) embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
- (d) has yielded, or may be likely to yield, information important in prehistory or history. (36 CFR 60.4)

## 1.2 Integrity

Integrity is defined as “the ability of a property to convey its own significance” (National Park Service [NPS] 1995:44). According to NRHP guidelines, the evaluation of integrity must always be grounded “in an understanding of a property’s physical features and how they relate to its significance” (NPS 1995:44). Setting, feeling and association (also defined in NPS 1995:44-45) are particularly sensitive to visual, audible, and atmospheric effects and convey the property’s historic character.

- **Setting** is the physical environment of a historic property. Setting encompasses the physical features of each historic property, in which the property played its historic role. It includes natural features such as topography and vegetation, and manmade features that are part of the property and the surrounding landscape.
- **Feeling** is a property’s expression of the aesthetic or historic sense of a particular period of time. Do the physical features taken together convey the property’s historic character? Does the property “feel” like it did during its historic period? Are the sights and sounds the same? Can you imagine the property during its period of significance? Examine the potential modern intrusions which may distract from the historic features and character of the property.
- **Association** “is the direct link between an important historic event or person and a historic property” (NPS 1995:45). Is there a direct link between the historic person or event and the historic property? Examine whether the place at which the event or activity occurred is sufficiently intact to convey the historic link or relationship to an observer.

All other terms not defined within this document are as defined in the PA.

### **1.3 Area of Potential Effect for Indirect Effects (Indirect Effects APE)**

As described in Stipulation I.A.2 of the PA, the indirect effects APE extends to the visual horizon or for three miles on either side of the transmission line centerline, whichever is closer. Where the indirect effects APE includes traditional cultural properties, properties of traditional religious and cultural importance, National Historic Landmarks (NHLs), National Historic Trails (NHTs), and other classes of historic properties for which setting, feeling or association contributes to eligibility, additional analyses may be required and the indirect APE may be modified accordingly, following procedures described in I.B of the PA. Consulting Parties may identify cultural resources to consider for inclusion in this analysis beyond the 3 mile indirect effects APE.

## **2.0 INVENTORY HISTORIC PROPERTIES FOR WHICH SETTING, FEELING OR ASSOCIATION IS IMPORTANT TO INTEGRITY**

Identifying historic properties within the indirect effects APE for which setting, feeling or association may be important to their integrity involves a two-step approach: (1) conducting a GIS viewshed analysis to identify areas in the indirect effects APE from which the Undertaking may be visible, and (2) compiling a list of historic properties within the potentially visible portion of the indirect effects APE for which setting, feeling or association is anticipated to be an important quality of integrity. This two-step viewshed analysis screening approach effectively screens out historic properties that are located within the indirect effects APE but have no view of the Undertaking or for which setting, feeling or association is not an important quality of integrity. The NRHP eligibility screening eliminates cultural resources that do not meet the criteria for eligibility as set forth in the NRHP. The details of each step are discussed below.

### **2.1 Viewshed Analysis Screening**

The BLM will require the Applicant to conduct a GIS viewshed (seen-unseen) analysis to generate a viewshed that represents the area of the Undertaking (especially transmission line towers) potentially visible within the indirect effects APE. The Undertaking may be visible because of (1) anticipated landform modifications that are necessary to prepare a right-of-way for construction, (2) the removal of vegetation to construct and maintain a facility, and (3) the introduction of new above-ground elements into the landscape. Conduct the GIS viewshed analysis screening using the best and most current information available about these visibility factors at the time work begins on this report. Eliminate from further consideration all portions of the indirect effects APE from which the Undertaking is not visible.

### **2.2 NRHP Eligibility Screening**

Within the visible portion of the indirect effects APE defined in 2.1, identify historic properties for which setting, feeling or association contributes to integrity, based upon NRHP evaluations. Use existing cultural records databases at SHPO and federal land management agencies to identify the pool of historic properties eligible under Criteria A, B and/or C, that fall within the

indirect APE and that may be affected by the Undertaking. If eligibility criteria are not available or are incomplete in electronic databases, site types may be used to search within electronic databases for sites that are likely to be eligible under A, B and/or C. For example, “historic structure” may be a starting place to search for historic properties eligible under A, B and/or C without having to go through every paper site form to find these sites.

Include in this pool certain types of historic properties eligible under Criterion D and known to be important to tribes or other Consulting Parties, such as rock art, rock cairns, alignments or stone circles. The Consulting Parties are encouraged to define these kinds of sites, and also any specific sites that should be included, within 60 days after the ROD is signed, per Stipulation II.D of the PA. The BLM, in consultation with other involved land managing agencies and the applicable SHPO, may include historic properties eligible under Criterion D at its discretion. Along with those sites brought forward by Consulting Parties, which may need to be evaluated for National Register eligibility, the pool of historic properties will include those that are traditional cultural properties, properties of traditional religious and cultural importance, NHLs, NHTs, and sites identified as sacred or respected places during tribal consultation. Tribally sensitive information will not be shared with other Consulting Parties.

The focus of this identification effort is on properties likely to be determined eligible, not on properties that are unlikely to be determined eligible because of lack of significance under A, B or C. Place a high priority on areas of importance identified by Consulting Parties. Conversely, Consulting Parties should take care to identify places of importance to them in the indirect effects APE, per Stipulation III.D of the PA. Examples of properties likely to be determined eligible may include named roads or other named features. Examples of properties unlikely to be determined eligible may include unnamed roads and trails or other unnamed features; historic linear utilities (e.g., transmission or telegraph lines) recorded as historic sites; and industrial sites where setting is unlikely to contribute to integrity.

**Screening for site type:** As a screening measure, the BLM, in consultation with the Consulting Parties, may define site types for which setting, feeling or association are important to integrity, and may likewise define site types for which setting, feeling or association are not important to integrity. In conjunction, site types for which audible or atmospheric effects are not important may be defined. The Applicant may propose definitions of such site types to the BLM at the beginning of the assessment. Describe these definitions in the report, and remove historic properties screened out through this process from the list of historic properties to visit in the field.

**Screening for overall integrity:** In some instances, historic properties have been entirely destroyed or compromised to the extent that the site no longer meets the criteria set forth for eligibility on the NRHP. If lack of integrity can be ascertained during the inventory process, remove historic properties lacking integrity, and thus no longer eligible, from the list of historic properties to visit in the field.

**Screening for setting, feeling or association:** If the identification of the historic property’s integrity of setting, feeling or association has not been included in available documentation,

BLM in consultation with SHPOs, the Consulting Party who brought forward the historic property, and any other applicable land managing agency will determine the importance of these aspects of integrity to the historic property. This determination will also apply to places brought forward by Consulting Parties through Stipulation II.D of the PA, which may not be present in SHPO or Agency site files. When possible, this determination will be made prior to completion of the field inventory. The BLM will share any such determinations with all Consulting Parties as part of the documentation for the Undertaking.

**Consideration of Land Status:** The Applicant will demonstrate a good faith effort to acquire access to visit historic properties on private land beyond the direct effects APE. Historic properties on private land where access cannot be obtained for fieldwork will be assessed remotely.

**Consideration of Audible and Atmospheric Effects:** Identify places at which construction activities will be longer in duration or more extensive in scope, or where they may have more than typical audible and atmospheric effects. These “intensive construction locales” may include construction staging areas, areas prone to excessive noise or dust, or helicopter overflight areas near historic properties of concern for these indirect effects. In addition to the use of reference towers to measure visual effects, include the locations of such places as reference places for assessing audible and atmospheric effects.

**Geodatabase:** Compile a geodatabase of all historic properties identified at the end of the inventory process in 2.1 and 2.2 above (including historic properties identified during Class III inventories conducted for this Undertaking). This database will include the following information in tabular format: site location, Smithsonian site number (if available), source of the information, land ownership, site description, NRHP evaluation and nominating criteria, and additional reasons for inclusion (e.g., NHTs, sacred sites, sites brought forward by Consulting Parties). Tribally sensitive information and site location information for sensitive sites will not be shared with other Consulting Parties.

**GIS Screening in the Office:** To verify that the Undertaking has an effect on the historic properties in the geodatabase prior to fieldwork, employ GIS methods in the office for visualizing features of the Undertaking, such as using simulation analysis as available through Google Earth “street view.” Using GIS in the office, assign a Cultural Key Observation Point (CKOP) to the center of each historic property in the geodatabase, and then do a GIS analysis of the Undertaking’s visibility using those CKOPs, as measured to the nearest reference tower(s) or intensive construction locale. The analysis should result in a simulated view of the landscape from each CKOP with the Undertaking in it. The agency archaeologist(s) and the Applicant will review these simulated views before going to the field so that they can identify historic properties where the effects of the Undertaking are clearly so minor that a field visit is not necessary. In the report and in the geodatabase, list historic properties dropped from further analysis because of no or very minor (no adverse) effects as identified through this process.

**Simulation of Undertaking:** Based on the GIS screening in the office, produce simulated images that show the anticipated Undertaking from each CKOP. Where field inventory is necessary, take these images to the field for reference, to help field crews visualize where the Undertaking will be located in relation to each historic property that will be visited.

### **2.3 List of Historic Properties for Field Inventory and Evaluation**

Historic properties that remain in the pool after the Viewshed Analysis Screening and NRHP Eligibility Screening described in 2.1 and 2.2 above are those for which setting, feeling or association has been identified as important to their integrity. Schedule the tasks involved in inventorying and evaluating these properties with the goal of including the completed report as an addendum to the Class III inventory report. Next, assess potential visual, audible or atmospheric effects from the Undertaking on these historic properties in the field.

## **3.0 FIELD EVALUATIONS**

Complete the following analysis on historic properties identified for field inventory as a result of the screening done during the inventory stage (Beck et al 2012; Bureau of Land Management [BLM] 2006, 2013a and b, 2014; Delaware State Historic Preservation Office 2003). Consult the National Register Bulletin's *How to Apply the National Register Criteria for Evaluation* (NPS 1995) as the primary reference to assess setting, feeling or association as they apply to eligibility and integrity. First, collect photographic data from each potentially affected historic property to document effect recommendations; and secondly, assess the effects on setting, feeling or association using the attributes described below.

### **3.1 Overall Integrity Prior to the Undertaking**

In the field, record and evaluate the National Register eligibility of cultural resources identified by Consulting Parties through Stipulation II.D of the PA if they have not been previously recorded in SHPO site files and if the BLM's review of the screening process under Section 2 above indicates that they need to be recorded. Include in eligibility recommendations an assessment of site integrity with emphasis on setting, feeling and association. Document the rationale for eligibility recommendations in the report and on state site forms for these newly recorded sites, and include the site forms with the report.

If the field visit shows that a historic property has been destroyed or compromised to the extent that the historic property no longer meets the criteria for eligibility, document the site's present condition with a site form addendum or a site update form as required by the applicable SHPO; prepare and submit this documentation with the report. Evaluate whether historic properties that have been compromised but not destroyed since their last recording retain NRHP eligibility, with an emphasis on integrity of setting, feeling and association. If not, eliminate these sites from further consideration, and document the "not eligible" recommendation in the report. No further assessment is required.

## **3.2 Photographic Data Collection**

### **3.2.1 Establish Cultural Key Observation Points and Photograph Undertaking**

At each historic property identified in 3.1 that is visited in the field and that retains integrity, establish at least one CKOP with a representative view of the Undertaking. Take sufficient photographs from the CKOP(s) at each historic property to document the view of the Undertaking from the CKOP. If a historic property is linear or large, or if there are several important features at the property, more than one CKOP may be needed. Position the camera at each CKOP to capture the viewshed from the historic property facing the proposed transmission tower(s) or intensive construction locale. In addition, take photographs in the four opposite or perpendicular directions from each CKOP that best demonstrate the existing setting in relation to the Undertaking. Record the camera height and aspect and the GPS location for each CKOP. Use an appropriate lens and the same model of camera and camera lens, or cameras and lenses with the same resolution and image quality at all CKOPs. Note in the report the camera and lens model used.

### **3.2.2 Visualization Modeling and Simulation**

After fieldwork, superimpose all visible and proposed components of the Undertaking onto a representative image or images from each historic property. If visual simulations are not effective or obtainable, GIS modelling may be used. Simulations will be to scale in proper geographic locations and with appropriate component elevations and heights. The result of these simulations or models will be a graphical illustration of the potential visual impacts of the Undertaking on each potentially affected historic property.

The visual simulations or models document the visibility of the Undertaking from the historic property; include them in the report. Complete the assessment described in 3.3 below in the field, at the historic property and also consider effects from atmospheric or audible elements at historic properties near intensive construction locales in the field.

## **3.3 Analyzing Effects to Setting, Feeling or Association**

Systematically identify and analyze effects to the integrity of setting, feeling and association at each historic property, as assessed in the field and documented with photographs, visual simulations and/or models. Employ the following criteria to describe the effects of the Undertaking on each historic property, and document the results for each historic property. If possible, an agency archaeologist should be in the field with the Applicant's consultant so that effect recommendations can be made jointly.

### ***Integrity of Setting, Feeling or Association***

For the assessment of integrity, the setting, feeling and association of the historic property are the main concerns. Assess the historic property's integrity of setting, feeling and association considering the simulations of the Undertaking, i.e. assuming the Undertaking is in place, as follows:

High – The historic property retains integrity. The introduction of the Undertaking leaves the setting, feeling and association intact and relatively untouched.

Low – The historic property retains few aspects of integrity. The introduction of the Undertaking leaves the setting, feeling and association severely compromised or lacking in the historic property’s ability to convey its significance.

***Distance***

Distance is the actual distance between the historic property and the Undertaking. Because areas that are closer potentially have a greater effect on the observer, they can draw greater attention than areas farther away. Using GIS measurements, record the distance from each CKOP to the closest visible reference tower or intensive construction locale of the Undertaking. In the field, record the number of towers visible from each CKOP.

***Contrast***

Measure contrast by comparing the Undertaking features with the major elements in the existing setting, including topography, vegetation, and man-made features. Use the basic elements of form, line, color, and texture to make this comparison and to describe the visual contrast anticipated to be created by the Undertaking. Follow the guidelines in the BLM’s Visual Resource Contrast Rating Handbook H-8431-1 for making the visual contrast rating, and use the Visual Contrast Rating Worksheet in the current Wyoming protocol Appendix C (BLM 2014a); record the date and time of day of the rating. If possible, complete the Visual Contrast Rating at the time of day and year and under light and vegetation conditions that are representative of when most people are likely to see the Undertaking from the historic property. Append the Visual Contrast Rating Worksheets for each historic property to the site form.

No Contrast – The undertaking cannot be seen at all.

Weak Visual Contrast – The elements of the Undertaking, or portions of the elements, can be seen but will not dominate the setting or attract the attention of the casual observer.

Moderate Contrast – The elements of the Undertaking tend to stand out in the setting.

Strong Contrast – The elements of the Undertaking clearly dominate the setting.

***Cumulative Effects***

For the purposes of this document and paraphrasing the National Environmental Policy Act definition (40 CFR 1508.7), cumulative effects on historic properties are the effects that result from the incremental impact of the Undertaking when added to other past, present and reasonably foreseeable future undertakings regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. Assess cumulative effects as follows in relation to past, present and reasonably foreseeable future undertakings:

Project Compatible - Multiple or large industrial features or developments have appeared in the surrounding landscape. These features dominate the setting, feeling and association; the Undertaking does not create a striking contrast.

Project Moderately Compatible - Single or small industrial features or developments have appeared in the surrounding landscape. These other features are visible on the landscape but the Undertaking dominates the setting, feeling and association.

Project Incompatible - No other industrial or developmental features appear in the surrounding landscape. The Undertaking creates a striking contrast that is incompatible with the setting, feeling and association.

### ***Results of Analysis***

Support recommendations regarding effects on the setting, feeling and association of each historic property in the report with photographs from CKOPs, showing visual simulations of the Undertaking and analysis of the above attributes using forms or other means of record keeping. Submit these records, along with site form updates as required, as an appendix to the report; they will eventually be integrated into SHPO cultural resources site files.

## **4.0 ASSESSMENT OF EFFECTS TO SETTING, FEELING OR ASSOCIATION**

Adverse effects on historic properties may occur from a “change of the character of the property’s use or of physical features within the property’s setting that contribute to its historic significance (36 CFR 800.5(a)2)(iv),” including “visual, atmospheric, or audible intrusions” (Advisory Council on Historic Preservation 2014). The primary question to be addressed is “can the setting, feeling or association of the property continue to effectively convey its historic significance despite the effect of the Undertaking?”

Planning the Undertaking provides the opportunity to avoid and minimize effects on historic properties. Avoidance is the preferred strategy for eliminating effects on historic properties. Avoidance methods may include but are not limited to “screening” the transmission line by moving it behind a hill, moving tower locations, and realigning proposed access routes. Minimizing adverse effects may include camouflaging or reducing the reflective qualities of materials used in construction; feathering, tapering or selective planting of native vegetation along cleared areas; and using existing roads as access roads, as outlined in the Draft Environmental Impact Statement for the Undertaking (BLM 2013b: Appendix C, Table C-2).

### **4.1 Recommendation of Adverse Effect**

Under 36 CFR 800.5(a)(1) an adverse effect is found when an undertaking alters “directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the NRHP in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.”

## **4.2 Recommendation of No Adverse Effect**

An effect to setting, feeling or association, whether direct or indirect or a combination of the two, does not automatically call for an “Adverse Effect” recommendation. Under 36 CFR 800.5(b)(3) if an effect caused by the Undertaking does not meet the criteria for adverse effect in 36 CFR 800.5(a)(1) or the undertaking is modified or conditions are imposed, so the adverse effect criteria are not met, then a recommendation of “no adverse effect” is warranted. In other words, the effect may not compromise the integrity of the historic property to such an extent that it diminishes said integrity or causes an adverse effect.

## **4.3 Recommendation of No Effect**

A recommendation of No Effect means that the undertaking cannot be seen or heard from the historic property or its effects to the integrity of the historic property are so minor as to be negligible.

## **5.0 RESOLUTION OF ADVERSE EFFECTS**

As outlined in the PA at Stipulation V.C, a Historic Properties Treatment Plan (HPTP) will be prepared after the ROD is signed, the Undertaking’s footprint is finalized, and the Class III inventory report is completed. All historic properties that will be adversely affected by the Undertaking will be reviewed and addressed individually within the HPTP. Include recommendations for minimizing adverse effects to setting, feeling and association in the report and in the HPTP.

The avoidance and minimization measures described in 4.0 may not be viable options in all cases of adverse effects to setting, feeling and association. Where on-site mitigation of visual effects cannot be achieved, develop alternative mitigation measures following the process spelled out in the PA, Stipulation V.C and include them in the HPTP.

## **6.0 POST-CONSTRUCTION RE-EVALUATION**

After construction is complete, revisit each historic property evaluated in the field prior to construction, re-photograph it, and re-evaluate its integrity and the effects of the Undertaking. Describe whether construction impacts are likely to be temporary or permanent. Report pre- and post-construction integrity and effect evaluations as a stand-alone report required by the HPTP.

## **7.0 REVISIONS TO PROCEDURES**

Revisions to the above procedures may be proposed and accepted through review by the BLM and the Consulting Parties without amendment of the PA.

## 8.0 REFERENCES

36 CFR Part 800 – Protection of Historic Properties

2004 Available at <http://www.achp.gov/regs-rev04.pdf>

Advisory Council on Historic Preservation

2014 Section 106 Regulations, Flow Chart, Explanatory Material. Available at <http://www.achp.gov/flowexplain.html>

Beck, R. Kelly, Nicci Barger, Lindsey Kester and Tanya Johnson

2012 Assessing the Visual Effects of Wind Generation Facilities on Historic Properties for National Historic Preservation Act Consultation. SWCA, Inc., Salt Lake City, Utah. Poster presented at the American Wind Energy Association's WINDPOWER conference, Atlanta.

Bureau of Land Management

2013a Methodology for Assessing Visual Effects to Historic Properties Along the Proposed Sigurd to Red Butte No. 2 – 345V Transmission Project. On file at the BLM Cedar City Field Office, Cedar City, Utah.

2013b TransWest Express Transmission Project Draft Environmental Impact Statement.

Available at

<http://www.blm.gov/wy/st/en/info/NEPA/documents/hdd/transwest/docs.html>

2014a Appendix C Guidelines for Determination of Visual Effects of an Undertaking on the Integrity of a Historic Setting in *Protocol between the Wyoming BLM State Director and the Wyoming State Historic Preservation Officer*. Available at [http://www.blm.gov/pgdata/etc/medialib/blm/wy/programs/cultural/protocol.Par.9857.File.dat/2006app\\_c.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wy/programs/cultural/protocol.Par.9857.File.dat/2006app_c.pdf).

2014b Handbook H-8431 – Visual Resource Contrast Rating. Available at

[http://www.blm.gov/style/medialib/blm/wo/Information\\_Resources\\_Management/policy/blm\\_handbook.Par.79462.File.dat/8431.pdf](http://www.blm.gov/style/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.79462.File.dat/8431.pdf).

Delaware State Historic Preservation Office

2003 *Assessing Visual Effects on Historic Properties*. Delaware State Historic Preservation Office, Dover, Delaware. Available at <http://history.delaware.gov/pdfs/visualeffects.pdf>.

National Park Service

1995 *How to Apply the National Register Criteria for Evaluation*. National Park Service, Washington, D.C. Available at <http://www.nps.gov/history/nr/publications/bulletins/pdfs/nrb15.pdf>.

**EXHIBIT 1. FIELD IMPLEMENTATION GUIDE**  
**PROCEDURES FOR DETERMINING EFFECTS**  
**TO HISTORIC PROPERTIES FOR WHICH SETTING, FEELING OR ASSOCIATION ARE**  
**ASPECTS OF INTEGRITY**

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**Purpose:** To summarize the procedures for identifying and evaluating effects from the TransWest Express Transmission Project (Undertaking) on historic properties within the Area of Potential Effect for Indirect Effects (indirect effects APE) for which the qualities of setting, feeling, or association are aspects of integrity, as defined in Appendix C of the Programmatic Agreement (PA). This field guide is intended as a quick reference for carrying out the procedures described in Appendix C.

**Step 1: Define Indirect Effects APE and Conduct Viewshed Analysis**

The Undertaking's indirect effects APE extends to the visual horizon or a maximum of 3 miles on either side of the transmission line centerline, whichever is closer. Use a Geographic Information System (GIS) viewshed analysis to model the viewshed surrounding the Undertaking and refine the APE to include only areas where the Undertaking can be seen.

**Step 2: Conduct a File Review: Screen for NRHP Eligibility**

Examine existing records for all sites in the refined APE to identify known sites that may be sensitive to visual effects. Sites that are eligible for the National Register of Historic Places (NRHP) under Criterion A, B, or C are considered potentially sensitive. Sites that are eligible only for their data potential (i.e., Criterion D) may be considered for analysis by the BLM in consultation with other applicable land managing agencies and the State Historic Preservation Officer (SHPO). Place a high priority on areas identified by Consulting Parties, even if outside the indirect effects APE. They have 60 days after the Record of Decision (ROD) is signed to provide this information. Site types may be used to search for sites that are likely to be eligible under A, B and/or C. Screen site types for those for which setting, feeling or association are important.

**Step 3: Verify Site Integrity**

A site must retain integrity of setting, feeling or association to be sensitive to visual effects caused by the Undertaking. Screen out sites that no longer possess integrity, i.e., have been destroyed or damaged to the extent that their integrity is compromised. If integrity of setting, feeling or association has not been included in site documentation, determine the importance of these aspects to the historic property.

Outcomes: Steps 1 through 3 should result in a geodatabase of historic properties sensitive to integrity of setting, feeling, and/or association and visible from the Undertaking. Begin to compile this geodatabase as soon as the ROD is signed and a Right of Way (ROW) for the Undertaking is approved.

#### **Step 4: Check Visual Simulations in the Office Prior to Fieldwork**

Employ GIS (for example, Google Earth “street view”) to visualize the Undertaking from the historic properties. In the office, assign proxy Cultural Key Observation Points (CKOPs) at the center of historic properties in the geodatabase, then do a GIS analysis of the Undertaking’s visibility using those CKOPs. Identify intensive construction locales that may be important for assessing audible and atmospheric effects. View the simulated Undertaking’s nearest reference tower or intensive construction locale from the historic properties to screen out those historic properties where the effects of the Undertaking are clearly so minor that a field visit is not necessary. Compile a list of the historic properties eliminated by this process.

Produce computer-generated simulations that show the Undertaking from each CKOP. Take these images to the field for reference to help visualize where the Undertaking will be located in relation to each historic property that will be visited.

Outcome: Step 4 should result in a list of historic properties to evaluate in the field for effects from the Undertaking.

#### **Step 5: Fieldwork - Visit Historic Properties to Verify Eligibility**

Use the NRHP Bulletin’s *How to Apply the National Register Criteria for Evaluation* (NPS 1995) as the primary reference to assess setting, feeling or association as they apply to eligibility and integrity.

Record and recommend the National Register eligibility of cultural resources identified by Consulting Parties if they have not been previously recorded. Include an assessment of site integrity (setting, feeling and association) with eligibility recommendations.

If a historic property has been destroyed or compromised to the extent that it is no longer eligible, document the site’s present condition with a site update and re-evaluate the historic property’s eligibility.

Outcome: Step 5 should result in a final list of historic properties to be field-evaluated for effects to setting, feeling and association.

#### **Step 6: Fieldwork: Take photographs before construction**

At each historic property visited, establish at least one field CKOP representing a typical view of the Undertaking. If a historic property is large or linear, or if there are several important features at the property, more than one CKOP may be needed. Photograph the proposed Undertaking location from the CKOP. Take photos in the four opposite or perpendicular directions from each CKOP. Record camera height and aspect and GPS location for each CKOP. Use an appropriate lens; use the same camera and the same lens (or model of camera and lens) for all sites; include camera and lens information in report.

After fieldwork, superimpose all components of the Undertaking onto the photographic images to scale in proper geographic locations and with appropriate component elevations.

### **Step 7: Fieldwork – Analyze Effects to Setting, Feeling or Association**

While referring to the simulations created in Step 4, evaluate the effect of the Undertaking using a visual assessment worksheet. Include at a minimum assessments of the following attributes: site integrity (setting, feeling or association), distance, contrast, and cumulative effects.

Follow the guidelines in the BLM’s Visual Resource Contrast Rating Handbook H-8431-1 for making the visual contrast rating, and use the Visual Contrast Rating Worksheet in the current Wyoming protocol Appendix C (BLM 2014), including recording the date and time of day of the rating. Recommend how contrast can be minimized.

Outcome: Steps 6 and 7 should result in recommendations regarding effects on the setting, feeling and association of each historic property documented with photographs from CKOPs showing visual simulations of the Undertaking, and written analysis of the above attributes. Submit these records, along with site form updates, with the report.

### **Step 8: Assess effects to setting, feeling or association**

Address the primary question “can the setting, feeling or association of the property continue to effectively convey its historic significance despite the effect of the Undertaking?”

**Recommend No Effect, No Adverse Effect, or Adverse Effect:** An effect to setting, feeling or association does not automatically call for an “Adverse Effect” recommendation. If an effect caused by the Undertaking does not meet the criteria for adverse effect in 36 CFR 800.5(a)(1) or the undertaking is modified or conditions are imposed so the adverse effect criteria are not met, then recommend “no adverse effect.” In other words, the effect may not compromise the integrity of the historic property to such an extent that it diminishes the integrity or causes an adverse effect.

Outcome: Step 8 should result in recommendations of effect for each historic property visited.

### **Step 9: Recommend ways to resolve adverse effects**

Avoidance is the preferred strategy for eliminating effects on historic properties. Avoidance methods include “screening” the transmission line by moving it behind a hill, moving tower locations, and realigning proposed access routes. Minimizing adverse effects includes camouflaging or reducing the reflective qualities of construction materials; tapering or selective planting of native vegetation in cleared areas; and using existing access roads. Where on-site mitigation of visual effects cannot be achieved, alternative mitigation measures will be developed.

Address each historic property with adverse visual, auditory or atmospheric effects from the Undertaking in the Historic Properties Treatment Plan (HPTP), which will be prepared after the ROD is signed, the Undertaking’s footprint is finalized, and the Class III inventory report is completed. Recognize that it may not be possible to resolve adverse effects on site and alternative mitigation may be required.

Outcome: Step 9 should result in a recommendation for resolving adverse effects for each historic property that will be adversely affected.

**Step 10: After construction is completed**, revisit each historic property visited in Step 7. Re-photograph and re-evaluate integrity and effects. Report pre- and post -construction integrity and effect evaluations with photos as a stand-alone report required by the HPTP.

Outcome: Step 10 should result in a post-construction check on the pre-construction integrity evaluations. This will help to determine whether the process outlined above is working adequately.