

**GENERAL GUIDELINES
FOR
IDENTIFYING AND EVALUATING
HISTORIC LANDSCAPES**

**ENVIRONMENTAL PROGRAM
CALIFORNIA DEPARTMENT OF TRANSPORTATION
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ACKNOWLEDGMENTS

These guidelines have been prepared to assist cultural resources professionals who may encounter potential historic landscapes in the course of conducting surveys under Section 106 of the National Historic Preservation Act. They are based on the “Caltrans Guidelines for Identifying and Evaluating Historic Landscapes,” prepared in November 1996 for the use of California Department of Transportation (Caltrans) cultural resources staff and consultants. The Caltrans guidelines were distributed on request and also made available through the Internet. It soon became apparent that, despite the constraints of the guidelines’ agency- and state-specific approach, the document was meeting a broader need beyond that of California’s transportation agency, as other agencies in other states reported using the guidelines as well.

Because of the favorable response, the Alliance for Historic Landscape Preservation approached Caltrans on the possibility of publishing the guidelines for a wider audience. Subsequent discussions led to an agreement to prepare a more general version of the guidelines that could be adopted for use in other states. The revised guidelines would, however, continue to meet the specialized needs of transportation agencies and similar authorities which have responsibilities for corridor-type activities that could involve potential historic landscapes.

Caltrans staff accordingly drafted a revised version and submitted it to a review committee established by the Alliance for Historic Landscape Preservation under the direction of Alliance President Barbara Wyatt. Thanks are due to the Alliance review committee—Cheryl Miller (and Hugh C. Miller), Tim Keller, and Chris Capella Peters—and other reviewers, including Denise Bradley and Amy Squitieri, who provided helpful suggestions. Joan Bollman and Jerry Barkdoll of the Federal Highway Administration also offered valuable guidance. Their assistance was greatly appreciated.

This guidance is based on documents prepared by the National Park Service (NPS), particularly the National Register bulletins which provide technical information on identifying and evaluating landscapes for the National Register of Historic Places; Preservation Brief No. 36, “Protecting Cultural Landscapes”; the journal *CRM*’s “Thematic Issue on the Preservation of Cultural Landscapes”; and the Secretary of the Interior’s “Guidelines for the Treatment of Historic Landscapes.” The National Park Service’s August 1994 San Francisco conference on “Preserving Historic and Cultural Landscapes in the West,” and the National Trust for Historic Preservation’s *Historic Preservation Forum* issue “Focus on Landscape Preservation” helped shape the original document. The Alliance for Historic Landscape Preservation also provided additional useful information in workshops and publications and in the contributions of individual members.

Information presented in these guidelines is intended to supplement, not replace, NPS guidance. It is largely a compilation and distillation of existing documentation, directed at the particular needs of cultural resources staff conducting surveys for transportation projects. The basic information, definitions, and approaches to identifying and evaluating historic landscapes are taken, often verbatim, from National Register bulletins and NPS publications. Where appropriate, relevant NPS guidance is cited for further information.

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I. INTRODUCTION

This guidance is designed to help cultural resources professionals identify and evaluate historic landscapes, particularly those encountered in the course of conducting environmental studies to comply with the requirements of Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800. The guidelines focus on recognizing, describing, and recording historic landscapes; evaluating them for eligibility for the National Register of Historic Places; assessing project effects; and treating eligible historic landscapes that may be wholly or partially included within a project's designated Area of Potential Effects (APE). *[For definitions of APE and other terms used in Section 106 compliance, please refer to 36 CFR 800.2.]*

Historic landscapes can possess historical values coming from the full range of human history, including ethnography and traditional cultural values. This breadth of possibilities, differences in terms used among disciplines, and evolving guidance usage contribute to the potential for confusion over terminology. For example, while NPS usage now tends to prefer the word "cultural" over "historic" in referring to landscapes, published guidance documents generally use "historic landscapes." Also in guidance documents, the term "historic landscapes" is not restricted to the regulatory definition of historic as eligible for the National Register, but instead denotes any identifiable cultural landscape.

For consistency with existing published guidance, this document therefore follows the convention of using the term "historic landscapes" for the full range of cultural landscapes, including archeological resources, regardless of eligibility status. Also, the term "rural landscapes" is generally considered to embrace all vernacular landscapes, specifically as opposed to designed landscapes. Other terms may have context-specific meanings that can be confusing, so an effort has been made to avoid jargon where possible and to provide definitions as needed.

Historic landscapes are not a new property type but rather a method of organizing information about resources. They come under the existing National Register categories of either **sites** or **districts**. Landscape studies can be presented in existing report formats, accompanied by appropriate inventory forms for individual features such as buildings, structures, or sites that are present within the landscape.

Because the definition of historic landscape is broad and not always well understood, identification and evaluation of such properties must be made carefully, based on an appropriate level of research and analysis. A professional eye open to the possibility that historic landscapes might be present within a project area should suffice to identify the need for a landscape study. Then staff qualified in the appropriate discipline(s) should include a landscape study as part of the project survey work. Generally, historians, architectural historians, and archeologists should be competent to study landscapes within their fields of expertise. Other professionals, such as geographers, landscape architects, or landscape historians, should be consulted when needed.

The following guidance provides information on recognizing historic landscapes and on how to incorporate landscape studies into existing interdisciplinary cultural resources surveys.

II. IDENTIFICATION OF HISTORIC LANDSCAPES

A geographic area which has undergone past modification by human design or use in an identifiable pattern, or is the relatively unaltered site of a significant event, or is a natural landscape with important traditional cultural values could be a historic landscape. If the modifications, event, or values are over 50 years old, and the landscape possesses both significance and integrity in accordance with National Register criteria, the landscape may be eligible for the National Register. Not all possible landscapes will be found eligible or even require a full landscape study, however. Any geographic area which possesses a notable human

relationship with the land and tangible physical features might be considered a cultural landscape of some sort, but many lack qualities which could possess the potential for historical significance. Landscapes with virtually no potential for eligibility because of age, lack of any significant associations, or substantial loss of integrity can usually be dismissed from consideration in a brief statement without conducting a formal evaluation. Generally, only identifiable landscapes over 50 years old which possess some level of significance and integrity will require a full formal evaluation to determine eligibility.

Robert Z. Melnick's study, *Cultural Landscapes: Rural Historic Districts in the National Park System* (1984), was the first formal introduction of historic landscapes to the National Park Service. Melnick (page 8) provided a useful definition and identification guide that would apply to many landscapes:

A historic rural landscape district is a geographically definable area, possessing a significant concentration, linkage, or continuity of landscape components which are united by human use and past events or aesthetically by plan or physical development. Usually, a rural historic district will be distinguishable from its immediate surroundings by visual changes, such as landscape spatial organization, density, scale, or age; and by historical documentation of different associations or patterns of development.

In the early 1980s, the National Park Service identified four types of historic landscapes: sites, vernacular landscapes, ethnographic landscapes, and designed landscapes. For the purposes of cultural resources survey identification, landscapes can now be divided more simply into two basic types: **designed** (consciously created to reflect a design theory or aesthetic style) or **vernacular** (developed or evolved through function or use), by answering the question of *why* a landscape looks as it does. Sites and ethnographic landscapes can be identified as a subset of either a vernacular or a designed landscape.

The definitions of the four original NPS types can be useful in the process of identifying and analyzing a resource.

- **Historic designed landscapes** present a conscious work of creation. They were designed or laid out according to design principles or in a recognized style or tradition and may be important in the field of landscape architecture. Aesthetic values play a significant role in assessing designed landscapes. Designed landscapes are typically recognizable and fairly straightforward to evaluate. They may come with written documentation, even original plans and date of construction, or they may have been created on-site, by a nonprofessional, without drawn plans. In either case, a designed landscape should represent an important principle, theory, or style of landscape design. Integrity can be judged by reference to original design, noting intrusions and missing elements, keeping in mind the dynamic nature of living vegetation. National Register Bulletin 18 provides specific guidance on designed landscapes. Examples include formal gardens, cemeteries, parkways, and planned communities.
- **Historic vernacular landscapes** have evolved through use. They have been shaped by human activities or occupancy and reflect the physical circumstances and cultural character of daily lives. They generally contain large acreage and a proportionately small number of buildings and structures. Agricultural landscapes tend to dominate discussions of vernacular landscapes, but mining districts, industrial complexes, and transportation networks can also be historic vernacular landscapes. In general, vernacular landscapes have often proven challenging to recognize and evaluate. Without an original design plan for comparison, often lacking distinct boundaries or a defined local identity, they may blur into the surrounding background. These properties tend to occur relatively often and can present the most difficulties in survey work; consequently, much of the following material focuses on identification and evaluation of vernacular landscapes. Essential additional guidance on rural historic landscapes can be found in National Register Bulletin 30. Examples include agricultural areas, industrial complexes, transportation networks, and mining landscapes.
- **Ethnographic landscapes** contain natural and cultural resources that people associated with these features define as heritage resources. Although they must consist of tangible properties, these

landscapes may possess significant intangible qualities more likely to emerge in the course of conducting research and interviews and less easily recognized on the ground. National Register Bulletin 38 provides guidance on traditional cultural properties which may qualify as ethnographic landscapes, such as contemporary settlements, sacred sites, and important topographic features. These landscapes can also include individual components, such as small plant communities or ceremonial grounds.

- **Historic sites** are significant for association with a historic event, person, or activity, where the location itself possesses historic, cultural, or archeological value. They are usually small-scale, relatively simple landscapes, although substantial archeological resources or extensive areas where historic events occurred may cover larger areas. They can be either designed or vernacular in origin, either individual landscapes or components of larger landscapes. In addition to archeological sites, they include places associated with important events or individuals, such as a battlefield, birthplace, or ceremonial site.

A historic landscape may include a grouping of resources such as topographic features, vegetation, water features, buildings, structures, objects, and sites. Designed landscapes and historic sites can be small, while rural vernacular landscapes are usually larger. In contrast to historic districts composed of concentrated built resources, historic landscapes typically extend over a wider area, contain substantial areas of vegetation or open space, and may also contain natural features that embody significant historical values.

To determine whether to view a property as a potential historic landscape or as a historic district, consider the role of open space and vegetation, arrangement of resources, property types, and visual character. A historic landscape will generally contain substantial areas of open space and vegetation, and often a variety of property types, combined in significant patterns or linkages. In contrast, a potential historic district is likely to have properties that are located closer together, without large areas of open space or vegetation, and may consist of relatively few or closely connected property types. Thus, a housing tract composed primarily of residential properties and minimal open space or an early freeway encompassing only highway-related resources within the right of way would be more likely to be considered as potential historic districts, while a large military base, public park, or broad transportation corridor might be looked at as possible historic landscapes. An estate or village with a compact core of structures surrounded by associated fields or pastures and parkland might be classed as a historic district with a landscape component within the district. It must be remembered that there is no clear-cut dividing line between historic landscapes and historic districts, and professional judgment should determine which category best recognizes the resource's values.

A. RECOGNIZING LANDSCAPES

As with other cultural resources survey work, reading a landscape requires a knowledge of the resource and the subject area. On-site surveys, documentary research, oral histories, and archeological investigations can reveal character-defining features, and provide evidence of a historic landscape's visual, spatial, and contextual relationships. Preservation Brief No. 36 ("Preserving Cultural Landscapes," by Charles A. Birnbaum, US Department of the Interior, National Park Service, 1994) describes the process of reading a landscape.

A project's Area of Potential Effects should be established to encompass the entire area that could be affected by the project, as reasonably envisioned. However, resources that extend beyond the designated APE might emerge during the survey, and in that case, survey responsibilities do not necessarily end at the original APE line. If any part of a historic landscape is located within a project APE, it has the potential to trigger a study of the entire resource, essentially expanding the APE to incorporate the whole property, just as when an APE encompasses part of an archeological site or some elements of a possible historic district.

1. IDENTIFICATION IN FIELD SURVEYS

The possibility of a historic landscape should be considered on some level on every survey, even when the possibility can be quickly dismissed, to see whether properties within the APE may constitute or be part of a

historic landscape or district. Seek clues in patterns or groupings of resources or linkage to natural features. Remember that not all features need to be intact and that ruins or other physical remains can possess significance. **Patterns of land use** may be evident in **multiples of features**, such as rows, groupings, series, or clusters of the same or similar resources. They could include rows of trees used as windbreaks, a series of ponds and ditches, or groupings of farmsteads. Clues to survival of past landscapes can also be found in **combinations of features** that together create the sense of an earlier time, or in **linkages** among resources or with natural features. Knowledge of past building styles, technologies, and culture is essential for recognition of clues to historic landscapes. A landscape may be revealed by patterns and linkages among features, such as in the following examples:

- An agricultural area may feature tree-lined roads adjacent to fenced pastures and farmhouses, with each farmstead possessing features such as ponds, irrigation ditches, windmills, windrows, stone walls, barns, tankhouses, or silos, as well as less-obvious features such as woodlots or leased grazing lands.
- A mining landscape may display an above-ground concentration of stamp mills, headframes, building ruins, and scattered machinery, surrounded by large areas of pits and tailings; below-ground features such as tunnels, shafts, chambers, framing, and pumps, while not part of the visible landscape, would be included in the historic property.
- Logging properties may include scattered remains of logging activities, forests in various stages of reforestation, stumps with springboard holes, narrow-gauge railroad beds, rusted equipment, and logging camp sites.
- A series of buildings constructed in a style or organized in a pattern typical to an ethnic tradition may mark a landscape important for its association with a particular group.
- Traditional cultural practices centered on a topographic feature such as a sacred mountain could include surrounding ceremonial sites or related gathering areas.
- Industrial or agricultural activities are typically linked to roads, railroads, or bodies of water which were used to bring in supplies and take out products.
- Hydroelectric power generation systems generally include a series of interconnected features such as dams, penstocks, pumps, canals, power plants, and transmission lines.
- An irrigated agricultural colony is likely to be platted by its developer and organized for efficient delivery of water. It may include individual farmsteads; irrigation canals, pumps, and gates; field patterns; a road system; bridges over the canals; and irrigation-dependent crops.

2. IDENTIFICATION IN PRELIMINARY RESEARCH

Preliminary research conducted as the normal part of any cultural resources study may reveal the possibility of a previously unsuspected historic landscape. Traditional land use, historical associations, and ethnic associations can often be found in documentary research and oral histories, along with leads to further sources. Studies should be pursued as far as needed to reach a conclusion, but exhaustive speculative research is inappropriate. Preliminary research should generally include a review of both secondary sources and site-specific primary sources. If a visual survey and preliminary research fail to produce evidence of a potential historic landscape, no further effort in that direction is needed.

Evidence of potential landscapes might be found among sources such as those listed below. If a landscape is identified, further research among such sources should be conducted to develop historic context and evaluate the resource.

Written documents: Public records and published sources can reveal patterns of land use and historical associations. Property ownership and individuals can be traced in sources such as county assessor's records, deeds, plat maps, historical atlases, city directories, court documents, voter registers, probate records, census

records, military records, mining claims, local and county histories, cemetery records, published diaries, church records, tax records, water or mineral rights, and patent rights (homestead claims). Period publications like agricultural handbooks and periodicals can be sources for past field patterns and crop selection, while government agencies or universities may have comparative modern data that could help reveal agricultural land use patterns and changes. Libraries, museums, archives, historical or archeological societies, and universities may have local history files, early ethnographic records, academic research papers, newspapers, and manuscript collections. Librarians and archivists may be able to suggest additional local sources. The Internet offers growing access to published records and a key to unpublished documents in distant collections.

Graphic records: Aerial photos can reveal land-use patterns that are not obvious at ground level. Graphic evidence of historic land use can appear in topographic maps, assessors' parcel maps, diseños, General Land Office maps, government reports, atlases, paintings, photographs, subdivision maps, as-built drawings, irrigation or reclamation district maps, Sanborn fire insurance maps, and other graphic records. Comparison of information in these records with existing land use may confirm whether current activities or traditions are a continuation of historic uses.

Oral history: Residents, cultural leaders, local historians, or traditional users returning for ceremonial, cultural, or gathering activities may be able to identify potential ethnographic landscapes that possess few visual or documentary clues.

3. RESULTS OF IDENTIFICATION EFFORTS

The field survey and preliminary research should identify any resources requiring study within the APE, and determine whether or not they could constitute a potential historic landscape. If there is any landscape potential, or the reasonable appearance of such potential, a landscape study is likely to be needed. On the other hand, a finding that there is no potential for a historic landscape would conclude this aspect of the identification process.

No potential historic landscape present: If the survey and research have not disclosed any potential for a historic landscape within the project area, no further study will be necessary (although resources may still require evaluation as individual properties or a district). The finding of no potential landscape may be appropriate when there are no landscape elements present at all or when any elements are fragmentary, altered, or recent features lacking both significance and coherence. This finding should be used only when no landscape is present. It should **not** be used to find a landscape ineligible.

Include the following language or similar phrasing in summary statements and transmittal documents, giving reasons when appropriate:

- *There appears to be no potential for a historic landscape within the APE [or Study Area] for this project.* [For use when no potential landscape components are present.] Or,
- *Intrusions [or alterations or loss of contributing elements] constitute a loss of integrity that eliminates any potential for a historic landscape.* [For use when any landscape components are irretrievably and unmistakably compromised.] Or,
- *The features within the APE possess no discernible potential for significance [or are substantially less than 50 years old] and have no potential to be contributing elements of a historic landscape.* [For use when any possible landscape components demonstrably possess no potential for significance or coherence.]

Potential historic landscape present: If it appears that a potential historic landscape may be present within the APE, a landscape study should be undertaken when this approach best serves the resource's values. Landscape studies should be developed to the extent needed to determine eligibility and justify conclusions, following the process outlined below. If a large or complex

landscape is found, the project manager should be informed promptly so that alternative project designs to avoid the resource may be considered before an extensive evaluation is undertaken.

Before embarking on a major study, give due attention to a project's potential for effect and a landscape's likely boundary. Where a transportation facility is confined to a narrow corridor within a large unrelated landscape, a minor project within the right of way normally has little potential for effect. However, when the transportation facility is itself a historic property, when features within the right of way could be components of the potential landscape, or when important landscape components are immediately adjacent, even a relatively minor project might have potential to affect the landscape.

B. CLASSIFYING LANDSCAPES

1. PROPERTY TYPES

There is no single right way to classify a historic landscape, and some resources fit more than one classification. The important issue is that a property's historical qualities are adequately and fully assessed. Use the historic landscape designation when it is logical to do so, and when that designation provides the best recognition of a property's historical values.

National Register bulletins have been developed on designed and vernacular landscapes specifically, and on several kinds of resources which may qualify as landscapes, such as cemeteries, mining properties, traditional cultural properties, and battlefields. More than one classification may apply, as landscapes can contain other, smaller landscapes or individually eligible properties, or may have evolved from one type to another, such as a battlefield now maintained as a park. The primary classification should reflect the property type that gives the property its historical significance.

2. NATIONAL REGISTER CATEGORIES

Historic landscapes as a whole are categorized as either **sites** or **districts** for the National Register.

Small landscapes without buildings or structures, such as an experimental orchard, trail, or archeological resource, are categorized as **sites**. They might be landscapes in and of themselves, or they could be individual components of a landscape.

Larger landscapes having substantial acreage and a number of buildings, structures, sites, or objects are **districts**. Districts may contain individual sites, districts, buildings, structures, and objects within their boundaries, including smaller landscapes, some of which could be individually eligible. Districts often contain substantial areas of vegetation or open space and may contain natural features that embody significant historical values through past use or physical character. A landscape containing multiple resources is generally classified as a district by the National Register.

Within the categories of sites or districts can be found vernacular, including ethnographic, and designed landscapes. **Vernacular landscapes** are the result of past human activities, land uses, and choices. They may display a particular arrangement of resources reflecting a significant land use, rather than a conscious design. These landscapes are often rural. Ethnographic landscapes are typically vernacular landscapes that contain natural and cultural resources that associated people define as heritage resources. **Designed landscapes** are conscious works in a recognized style or tradition. They may be associated with significant developments, persons, or events in landscape architecture. Aesthetic values often play an important role.

The following examples indicate some of the types of properties which might be found to be historic landscapes under the NPS categories of sites or districts.

Sites:

Vernacular landscapes:

- Campsites
- Ruins of buildings or structures
- Small industrial sites
- Food processing areas
- Rock shelters
- Road traces
- Refuse sites
- Small battlefields
- Birthplaces
- Treaty-signing locations

Ethnographic landscapes:

- Ceremonial sites
- Small-scale culturally significant topographic features

Districts:

Vernacular landscapes:

- Farms or ranches
- Industrial areas:
 - Railroad yards
 - Logging camps
 - Mines, quarries
 - Factory complexes
- Recreation sites
- Battlefields
- Rural communities
- Transportation systems:
 - Roads, trails
 - Railroads
 - Navigation canals

Ethnographic landscapes:

- Ethnic neighborhoods
- Traditional cultural properties
- Culturally significant topographic features
- Culturally significant plant communities
- Large ceremonial sites

Designed Landscapes:

- Parks, park systems
- Estates, residential grounds
- Parkways, designed scenic highways
- Botanical gardens, arboreta
- Zoos, zoological parks
- Commercial or industrial parks or tracts
- Planned communities, civic design plans
- Commemorative and memorial parks
- Cemeteries, churchyards
- Institutional grounds:
 - Campuses

- Hospitals or convalescent facilities
- Correctional facilities
- Military bases
- Water conveyance systems:
 - Dams, reservoirs, and canals
 - Decorative or recreational water features
- Outdoor recreation and sports:
 - Golf courses, sports stadiums, racetracks
 - Campgrounds
 - Playgrounds
 - Fairgrounds, theme parks

C. DESCRIBING LANDSCAPES

The Secretary of the Interior's "Guidelines for the Treatment of Cultural Landscapes" describes landscapes in terms of larger organizational elements (spatial organization and land patterns), followed by individual features (topography, vegetation, circulation, water features, structures, buildings, furnishings, and objects) that may contribute to a landscape's historic character. The arrangement and interrelationship of these character-defining features should be described as they existed during the period of significance. Situations vary, and some features will be more important than others in a particular landscape, but landscape features should always be assessed as they relate to the property as a whole. Visual character, intangible qualities, and a landscape's feeling and association should also be conveyed, along with the physical description.

Organizational Elements of the Landscape

Spatial organization and land patterns: Spatial organization is the three-dimensional arrangement and patterns of natural and cultural features in a landscape. It includes visual links or barriers, such as fences and hedgerows; open spaces or visual connections, such as topography and bodies of water; and groupings or clusters, such as farmsteads. Both the functional and the visual relationships between spaces are integral to the historic character of a property.

Character-defining Features of the Landscape

Topography: The shape of the ground and its height or depth are character-defining features, whether naturally or artificially created. Topographic features may contribute to the creation of outdoor spaces, serve a functional purpose, or provide visual interest.

Vegetation: Vegetation may derive significance from historical associations, horticultural or genetic value, or aesthetic or functional qualities. It is a dynamic component of the landscape and subject to the continual process of plant germination, growth, seasonal change, aging, decay, and death. Vegetation may include individual plants, groups of plants, and naturally occurring plant communities or habitats.

Circulation: Circulation features may include roads, parkways, drives, trails, paths, parking areas, and canals, either individually or linked into networks or systems. Their character is defined by alignment, width, surface and edge treatments, grade, materials, and infrastructure.

Water features: Fountains, pools, cascades, irrigation systems, ponds, lakes, streams, and aqueducts can be aesthetic as well as functional components of the landscape. The characteristics of water features include shape, sound, edges and bottom condition and material, level or depth, movement or flow, reflective qualities, and associated plant and animal life. Water supply, drainage, and mechanical systems are important elements of water features.

Buildings and structures: Buildings are roofed and walled constructions that shelter human activity, from houses, barns, and sheds, to office buildings, schools, and warehouses, to greenhouses and public restroom buildings. Structures are nonhabitable constructed features, as opposed to buildings. Structures include highways, dams, bridges, arbors, terraces, tennis courts, walls, windmills, and earthworks. Buildings and structures may be individually significant or contributing elements only of a landscape. Their placement and arrangement are important to the character of a landscape.

Site furnishings and objects: Small-scale elements of a landscape may be decorative or functional or both. They include items such as benches, lights, signs, drinking fountains, flagpoles, urns, planters, trash receptacles, watering troughs, sculptures, and monuments. They may be movable, seasonally installed, or permanent. They can be single items, part of a group of the same or similar items, or part of a coordinated system, such as signage.

Visual Character and Intangible Qualities

Visual character and intangible qualities can be the most compelling evidence of a landscape's historic qualities. Experiencing the landscape can provide a vivid sense of time and place, conveying the essential elements of feeling and association that link an area to its past. The landscape's visual character should be described in detail, especially those sensory qualities that are not well conveyed in photographs. Intangible qualities such as cultural values also require careful interpretation, including the perceptions of both the surveyor and local people regarding the landscape's feeling and association. Consideration of these qualities is essential in landscape studies, but findings must be accurately and precisely documented for credibility. Both visual and intangible landscape components must be fully described, linked to existing physical features, and placed within their historic context.

D. DEVELOPING HISTORIC CONTEXT

When a landscape's historic context has not been previously established, an adequate level of research must be undertaken to develop the appropriate context for the evaluation of the resource. A research plan should be constructed for the work needed, but it should not exceed that which is necessary to understand the context within which the landscape is to be evaluated. This historic context will place the property's theme within a time period and geographic area and provide the perspective from which to evaluate the property's significance. Because a landscape may reflect multiple land uses and physical evolution over many years, it may relate to more than one historic theme or period.

A knowledge of historic contexts provides direction and focus for a survey. It helps surveyors recognize landscape characteristics as integral parts of economic or social systems rather than as isolated features. For example, a drainage ditch may be part of an extensive reclamation system that allowed thousands of acres of valley land to be farmed and settled. A written statement of historic context developed at the beginning of the study can help focus research efforts, and it can be rewritten if necessary as work proceeds. The statement should describe the landscape characteristics that a property must possess to be eligible, such as features reflecting the spatial patterns, land use activities, and water conveyance systems of a historic reclamation district.

E. LEVEL OF DOCUMENTATION

Documentation should be as detailed and thorough as needed to provide adequate information and justification to obtain concurrence in the study's conclusions. Comprehensive studies are not needed if ineligibility is easily determined or when a small landscape is evaluated within an established historic context. However, a study of a large, complex landscape which appears to be eligible could require in-depth historical documentation, multiple inventory forms, and a substantial number of maps and photographs. Where eligibility status is unclear, or where there are multiple resources or periods of significance, a substantial amount of work is often required. (See Section VI, below, for approaches to documenting large

landscapes.) Before beginning a major effort, consult project managers to consider possible avoidance alternatives.

With certain publicly owned properties, it can be useful to develop documentation to the full level specified in National Register bulletins. These bulletins typically focus on documenting, recording, and listing eligible properties, providing a level of information that is particularly beneficial for long-term management of publicly owned eligible resources. For other project studies conducted in compliance with federal and state laws, the level of documentation should be that which is needed to demonstrate eligibility status and gain SHPO concurrence. It must be appropriate for the resource, adequate to convey necessary information and justify findings, but not excessive. On the other hand, skimping on documentation to rush completion is counter-productive when lack of critical information creates delays in the review process. It is especially important to develop a clear argument for eligibility or ineligibility and to determine boundaries and identify contributors and noncontributors for eligible historic landscapes. On large or difficult projects, or when unusual circumstances apply, early consultation with the SHPO is recommended.

In addition to preparing standard documentation, it may be appropriate to consider large-format maps with overlays, aerial photographs, scale models, or videotapes. Computers also offer ever-greater opportunities for conveying information, and multimedia presentations can be invaluable to understanding a large or complex historic landscape. Before committing substantial amounts of time or resources to such efforts, it would be well to consult review agencies and ensure that reviewers will be able to take advantage of the results. For example, first check to see if the review agency has the equipment to view videotapes, compatible computer capabilities for electronic submittals, or the space for large graphics or scale models. Sophisticated documentation is useful only if it will be available and convenient for reviewers. Meanwhile, the standard written report, complete in itself with maps and photographs, remains the basic documentation; it should not be dependent on other media that may not always be available.

III. EVALUATION OF HISTORIC LANDSCAPES

A. SIGNIFICANCE

Landscapes must be evaluated as carefully as other property types and subjected to equally rigorous examination. They must be significant in American history, architecture, landscape history, engineering, archeology, or culture, and must possess sufficient integrity in order to be eligible for listing in the National Register of Historic Places. A surveyor might feel certain that a landscape is eligible, but careful documentation and a clearly articulated statement of significance based on the historic context will be necessary to justify that conclusion. While more than one property can be eligible within the same historic context, the evaluation should include a comparison with any other properties that may exist within that context. Be aware of any state or local surveys or preservation plans that could include the landscape and that might guide an evaluation. Remember to consult project managers to discuss possible avoidance measures before undertaking lengthy evaluative studies.

1. NATIONAL REGISTER CRITERIA

An eligible historic landscape must meet one or more of the National Register criteria:

- A. Be associated with events that have made a significant contribution to the broad patterns of our history**
- B. Be associated with the lives of persons significant in our past**
- C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction**

D. Have yielded, or may be likely to yield, information important in prehistory or history

Any of the National Register criteria may apply to historic landscapes, and more than one may apply, such as when a landscape eligible under Criterion C also contains archeological sites that may be eligible under D or buildings important under Criterion A or B. Properties must be over 50 years old, or if under 50, must meet criteria for exceptional significance. Note the integrity considerations in Section B below which must apply to historic landscapes.

2. ELIGIBILITY DETAILS

If a landscape appears to meet the National Register criteria, then the following details of boundaries, period of significance, level of significance, and contributing and noncontributing features must be specifically identified and listed. Some of these details will have been developed during the identification stage, while others will emerge during the application of National Register criteria.

a. Boundaries

Historic landscape boundaries should be selected to encompass but not exceed the full extent of contributing elements, including contributing natural features. The boundaries must encompass a concentration or continuity of historic landscape characteristics which should predominate and occur throughout the landscape. Spatial organization, concentration of historic characteristics, and evidence of the historic period of development distinguish a historic landscape from its immediate surroundings. Exclude areas containing a concentration of nonhistoric features. If concentrations of nonhistoric features seriously fragment the property's overall historic integrity, perhaps the landscape could be divided into smaller individual properties. The setting, a compatible or similar area outside the property's boundaries, can add greatly to a landscape's sense of place, but setting is by definition outside the boundaries. If "setting" elements are an essential component of the property, expand the landscape's boundaries to include them, but do not include buffer zones within the boundaries.

Establishing boundaries can be particularly difficult with vernacular landscapes. A resource's important qualities may not present distinct edges, or several different boundary determinations may be possible. For mining landscapes or archeological sites, boundaries may need to extend beyond visible surface features to include areas of underground workings or subsurface deposits. Property lines, roads, fences, changes in land use, or natural features such as streams or ridgelines can serve as boundary markers, but they must be logically defensible by use, historical association, or visual characteristics. National Register bulletins provide guidance on establishing boundaries, and Bulletin 30 offers specific direction on defining the edges of a rural landscape.

b. Period of significance

In most cases, a single period of significance should be established for the entire historic landscape. It should encompass the span of time when the property was associated with its important events, activities, persons, groups, or land uses, or when it attained its important physical qualities or characteristics. On occasion, more than one period of significance may be appropriate when a landscape contains resources dating from substantially different periods, such as when resources from an earlier and a later occupation both contribute to a property's importance.

The period of significance begins with the date of the earliest important land use or activity of which tangible historic characteristics remain today. It ends with the date when the important events, activities, or construction ended. Continuous use or association does not justify extending a period of significance beyond the time when the property made its historically important contributions. If a specific closing date cannot be identified, 50 years ago can be used as the end date for the period of significance. Care should be taken in assigning a period of significance because it becomes the benchmark for measuring whether changes are part of the property's history or whether they constitute loss of integrity.

c. Level of significance

Indicate whether the landscape is significant at the local, state, or national level of significance. The level of significance can reflect the landscape's association with local, state, or national history, or it can apply to the geographic area within which the historic context was developed. For example, a landscape associated with the development of the state highway system could be significant at the state level, but if that landscape's primary significance is its effect on the growth of a local community, the property should be found significant at the local level.

d. Contributing and noncontributing features

Contributing and noncontributing features must be identified and named, but this is not always so easy to do. Since there is more than one right way to look at landscape components, there will often be more than one way to organize, identify, and name contributing and noncontributing features. Whatever approach is used, it is important to select a logical system supported by evidence presented in the evaluation. Refer back to Section II C, above, for an organizational approach to describing landscapes.

Contributing landscape features are associated with a period and area of significance, and they possess an adequate level of integrity. Noncontributing elements were either not present during the historic period, or they were not part of the property's documented significance, or they have lost integrity and no longer reflect historic character. As with any historic district, a historic landscape must normally contain a high proportion of contributing features, but it is possible that a landscape with a greater number of noncontributing features could be eligible. Not all features in a landscape necessarily carry the same weight. Large-scale elements frequently exert a dominant physical presence, although small-scale elements, such as individual plants, benches, signs, and planters, can have a strong cumulative effect.

B. INTEGRITY

Landscapes which appear to meet the National Register criteria must also retain integrity. Assessing a landscape's integrity can be difficult when it involves a dynamic and complex interrelationship of cultural and natural resources. The elements of integrity must still apply, as with all historic properties, but special considerations have been identified to address the nature of changes to landscapes.

1. ESSENTIAL ELEMENTS FOR INTEGRITY

Integrity is the ability of a property to convey its significance. The seven aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property will always possess several, and usually most, of these aspects, and essential physical features must be present. Examine integrity against essential physical features that were present during the historic period, and estimate the percentage of the historic landscape that is intact. Document any intrusions or missing elements. Note the relative importance of elements that have changed, keeping in mind that landscapes are necessarily dynamic in character.

The strength of historic landscape characteristics and the nature, extent, and impact of changes since the period of significance are important factors to consider in making the final decision about integrity. The landscape's setting—the environment or surroundings outside the property boundaries—must also be assessed as an element of integrity. Note the presence of any large-scale natural features, such as mountains, desert, woodlands, and bodies of water, which can be important components of setting in a rural area. For rural landscapes, the relationship of landscape characteristics and integrity is complex, particularly in regard to design and materials. The dominant role of topography and natural features in rural landscapes requires some adjustment in applying the aspects of integrity to these resources. Changing land use or new vegetation may affect integrity of design or materials. While crop rotation or the introduction of contour plowing might have little effect, visible changes from field crops to orchards or from rangeland to irrigated fields could affect a rural landscape's design integrity.

2. SPECIAL CONSIDERATIONS

In evaluating the integrity of historic landscapes, certain aspects may be more difficult to assess or they may present particular issues that should be considered.

a. Vegetation

Vegetation is generally very important to landscapes. Vegetation and the inherent characteristics of growth and evolution in plant materials present different issues related to change and integrity from those of buildings and structures. Plants grow and die, and the relationships among species vary over time due to differing growth patterns and land use. The integrity of a landscape's vegetation may be considered reasonably intact if the original vegetation is present regardless of appearance or if substitute plantings essentially convey the landscape's historic appearance. Original plants which have changed by natural processes do not normally cause loss of vegetative integrity, even if changes have resulted in visual alteration, such as the growth of trees originally planted in the nineteenth century around a state capitol. However, normal plant succession may destroy the most important qualities of a landscape, such as the natural regrowth of vegetation that obscures the raw scar of a hydraulic mining pit. Competing resource values in such cases can also lead to integrity loss for landscapes, if restoration of native vegetation in a park or removal of human traces in a wilderness area are valued over historic landscape preservation.

If original plant material is lost, a landscape can often maintain integrity if similar species convey the visual effect of original plantings, unless the property is significant for specific cultivars, such as an arboretum noted for hybridizing experiments. Otherwise, integrity can be preserved by comparable plantings of similar size, massing, color, and appearance as those present during the historic period. In other instances, if planting have value as examples of a design philosophy, or as physical markers, delineating boundaries or spaces, or as expressions of technology, such as spacing between plants, preserving the qualities that exhibit those values can maintain a landscape's integrity.

Agricultural crops that were rotated historically or plantings that evolved during the historic period may offer more than one option for appropriate replacement plantings. Any replacements should preferably be the same or similar species, perhaps grown from seeds collected from the original plants if important genetically.

b. Continuing use

Change is often an inescapable part of a landscape. Natural processes may bring changes from plant growth, death, or succession; weathering; erosion; or soil deposits from flooding. The functioning and maintenance of properties in a landscape can also bring changes: new technologies, painting, road work, fence repair, and basic activities of a working property can have cumulative effects on a landscape's appearance. The effect of continuing use on integrity depends to a substantial degree on the historic context, which should indicate the extent of integrity that can reasonably be expected.

A working landscape in which significant characteristics survive may maintain relative integrity despite some losses, when comparative properties in the same context are more altered. For example, a mining landscape still being worked may retain integrity if modern extraction methods and character are similar to those practiced historically, important physical elements remain, and comparable properties are less intact. Similarly, working transportation facilities can retain integrity if physical features essential to the property remain. A resurfaced road that has been slightly widened may retain integrity if its original guard rails, retaining walls, bridges, and alignment remain. An operating railroad can be expected to have had its rails and ties replaced periodically, and an abandoned railroad to have had both ties and rails removed, but a railroad line might retain relative integrity if the roadbed, associated features, alignment, and setting are intact.

c. Intrusions

Loss of integrity can come from new construction or incompatible land uses, such as modern mining or quarrying, the growth of residential subdivisions, new freeway construction, or other activities that reshape the land, disturb subsurface remains, introduce major visual intrusions, or interrupt the continuity of the historic scene. Changes outside the landscape's boundaries can constitute intrusions when such changes introduce incompatible visible, audible, or atmospheric elements to the historic property, regardless of whether the setting itself is a contributing element. The effect of intrusions on a landscape's integrity depends on the qualities that make the landscape eligible and must be assessed on a case-by-case basis. In some instances, large rural districts may be able to absorb changes that occur in relatively few or small isolated pockets within the landscape, but the cumulative effect of such changes must be considered.

d. Integrity vs. condition

Both integrity and condition must be addressed. Integrity is lost when a landscape's important features are removed or altered, or when intrusions disrupt the landscape. Integrity can be maintained despite weathering or deterioration as long as essential physical features remain, although the condition could be poor.

For example, fences, watering troughs, and spatial arrangements may be intact in an abandoned overgrown pasture. Haul roads, camp sites, and stumps with springboard holes may identify a logged property despite a vigorous second growth of trees. A neglected garden could have both high integrity and poor condition. Similarly, landscapes containing ruins, rundown buildings, or abandoned roads that have deteriorated in place could possess integrity, while better-maintained areas still in use may have undergone substantial changes that destroy integrity.

Although not relevant to an evaluation, condition can be a consideration in determining treatment options, such as finding relocation and adaptive reuse more feasible for a building in good condition than for a ruin. National Register Bulletin 30 provides a detailed discussion of applying integrity standards to rural landscapes.

C. COMPARISON WITH OTHER PROPERTIES

In developing the historic context for the landscape, a geographic area, theme, and period of significance should be established. Comparison with other properties will generally take place within that area, theme, and period. In other words, if an agricultural landscape is evaluated in the context of citrus growing in Riverside County from 1880 to 1920, it should be compared to other citrus growing areas in that geographic area from the same period.

The data base of historic landscapes is still fairly small, but an effort should be made to develop a comparative context for evaluation. Historical research or a windshield survey of similar areas can be adequate to establish a basis for comparison in some cases, or the National Park Service may have related case studies that could be useful. Some sense of the historic context must be found; no property can be adequately evaluated in a vacuum.

When other resources have been identified within the same context, consider how this resource compares with them. Compare significance, integrity, and essential physical features of properties related by common historic contexts. For example, a landscape that is the most significant, most intact, only remaining, earliest, best example, or a good example of the property type is more likely to be eligible than one that is altered, less significant, commonplace, or a poor example. Documentation should include a statement describing the qualities of the resource in comparison with any others against which it has been measured. Comparison statements need not be detailed, but they must be accurate and defensible, supportable by evidence if challenged.

D. CONCLUSIONS

If landscape study concludes that the landscape appears **ineligible** for the National Register, a clear statement should be made listing the reasons for that conclusion. The reasons should be expressed in terms of failure to meet the National Register criteria, lack of significance, or loss of integrity, as appropriate. SHPO concurrence in the finding will conclude the landscape study. Ineligible properties require no further study or consideration for the purpose of this project under Section 106.

If the landscape appears to be **eligible**, the finding must be well justified in terms of National Register criteria, significance, and integrity. The statement must identify the appropriate criteria, reasons for eligibility, contributors and noncontributors, boundaries, level of significance, and period of significance. For a landscape which appears eligible, provide a complete justification for the finding, explaining why this landscape **similarly to or as opposed to others within the same context** should be found eligible. For example, more than one citrus landscape might be found eligible in the same context, but it is unlikely that all citrus-growing areas would equally meet the National Register criteria for significance and integrity.

Document findings with photos and maps, preferably showing both current and historic appearance, and assess visual qualities. Careful documentation of contributing and noncontributing features and description of essential physical features are critical to assessing project effects. Remember that the landscape as a whole is the historic property, but the component parts must be understood and described. SHPO concurrence in the finding ends the eligibility study. The next step is to assess project effects on the eligible property.

IV. FINDING OF EFFECT

A. ASSESSING EFFECTS

Under Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, federal agencies, or their delegates, must assess the potential effects of their undertakings on historic properties. When a federal undertaking could affect an eligible historic landscape, a finding of effect must be prepared. It should be based on an understanding of the resource's values, the range of essential physical features, and its contributing and noncontributing elements.

Possible effect findings are **No Effect**, **No Adverse Effect**, and **Adverse Effect**, all describing the proposed undertaking's potential effect on the qualities that make the historic landscape eligible for the National Register of Historic Places. The finding of effect should assess the project's effects on the landscape as a whole, and also on any individually eligible properties within it.

- A finding of **No Effect** means that a proposed project will not affect the qualities that make the historic landscape eligible for the National Register. Affecting only noncontributing elements will generally be found to constitute no effect on the landscape as a whole.
- **No Adverse Effect** means that the project could have an effect on the qualities that make the landscape eligible, but the effect will not be adverse; i.e., the undertaking will not diminish the landscape's integrity. Project effects that would otherwise be adverse can be found to be not adverse when they meet one of the listed exceptions to the Criteria of Adverse Effect (36 CFR 800.9[c]).
- **Adverse Effect** includes but is not limited to physical destruction, damage, or alteration of the landscape; isolation from or alteration of the setting; introduction of intrusive elements; neglect leading to deterioration or destruction; and transfer, sale, or lease of the property.

For landscapes, the percentage of the whole property which is subject to effect and the importance of the elements being affected can be assessed to help determine the level of potential effects. Specify clearly whether contributing or noncontributing elements will be affected. Note the scale of the landscape, the

prominence of the affected elements, the magnitude of the proposed action, and any change which will be apparent following project implementation. Changes involving only noncontributing elements are likely to have no effect, although the possibility of indirect effects such as visual intrusions on other elements must be considered. Minor takings of open land also have limited potential to create a discernible effect on large landscapes. Generally, large landscapes may have a greater ability than small properties to absorb change, but the possibility of effect through even minor changes must be considered. For example, a project's taking of multiple small roadside features might have a cumulative effect on the historic landscape's significant character-defining qualities .

A project affecting a landscape may be proposed as being necessary for safety reasons or in order to continue the property's historic use, but such arguments must be carefully examined. Safety or continuing use are not automatic justifications for undertaking projects that may have environmental consequences. The potential effects must be taken into account and weighed against the project's benefits. Continuing the historic use of a property may even destroy it, such as modern mining which obliterates all traces of earlier mining activity, or construction of a new freeway on the route of an older road. Adversely affecting a property in order to continue its historic use may, on occasion, justify undertaking a project when the project is in the best public interest. In that case, the finding must clearly explain the effects on historic properties, how those effects have been taken into account, and why the project would be in the best public interest despite those effects.

SHPO concurrence in a finding of No Effect completes the process when the undertaking will not affect any historic properties. Findings of either No Adverse Effect or Adverse Effect require both SHPO and ACHP concurrence and subsequent fulfillment of any agreed-upon conditions. If the project has been found to have an Adverse Effect, proposed mitigation treatments will be included in the Finding of Effect and draft agreement document.

B. AGREEMENT DOCUMENTS

When a project may have adverse effects on a historic landscape, an agreement document, usually a Memorandum of Agreement (MOA), will be developed among the consulting parties. Agreement documents for historic landscapes may be complex if they can cover multiple resources and various property types, but standard procedures apply. A Programmatic Agreement (PA) may be appropriate for recurring activities within large landscapes or for complex or phased projects. For example, ongoing maintenance activities on a historic highway or freeway construction on new alignment across a historic reclamation district may warrant a Programmatic Agreement to take the effects of recurring or phased activities into account.

C. SECTION 4(F) CONSIDERATIONS

When a transportation project involves land that is part of an eligible historic landscape, Section 4(f) of the 1966 Department of Transportation Act may apply. As application of Section 4(f) is the responsibility of a federal transportation agency, typically the Federal Highway Administration (FHWA), consult the appropriate division of that agency for guidance in Section 4(f) determinations.

In eligibility documentation for historic landscapes, careful delineation of boundaries and contributing features and a clear statement of the characteristics which convey eligibility are essential for assisting the federal agency in determining whether Section 4(f) will apply.

V. TREATMENT OF HISTORIC LANDSCAPES

A. TREATMENT POLICIES

Any work carried out to achieve historic preservation goals is called “treatment” in Secretary of the Interior guidance documents, and the term is used here in that broad sense. Treatment may refer to ongoing management of historic properties, or it can be activities conducted as mitigation of a project’s adverse effects, such as in an archeological treatment plan.

While treatment can encompass various activities, decisions on the specific treatment of historic landscapes should be based on the Secretary of the Interior’s *Standards for the Treatment of Historic Properties* and the recommended procedures in *Guidelines for the Treatment of Historic Landscapes*. These Standards and Guidelines base treatment on an understanding of historic properties’ significance and integrity.

Every effort should be made to retain a landscape’s key characteristics; to repair damaged features with in-kind materials; to be authentic and avoid speculative reconstructions; to respect past changes which may have acquired their own significance; and to avoid destroying historic materials. In some instances, more than one treatment method may apply. Refer to the *Guidelines for the Treatment of Historic Landscapes* for specific treatment situations.

B. MITIGATION

When adverse effects cannot be avoided, it is necessary to seek ways to minimize or mitigate the effects. For historic properties, the best mitigation lies in designing projects to avoid affecting these properties in the first place or to reduce potential effects to an insignificant or acceptable level. When avoidance is not possible, project mitigation can be proposed to record or move affected features, monitor construction, conduct data recovery, install noise barriers, or plant new or replacement vegetation. Modern intrusions could be removed, alterations reversed, or historic vistas restored to enhance the landscape if accurate evidence exists to document the historic appearance. Booklets, brochures, videos, or exhibits can be produced to interpret the landscape to the public. Be creative in exploring mitigation possibilities, and consult other professionals such as landscape architects who may have innovative solutions.

A landscape’s significant characteristics should be a major determining factor in selecting mitigation options and must be taken into account in developing mitigation plans. For example, noise barriers may be most important for a resource important for its quiet setting, while replanting appropriate native vegetation may be essential for an ethnographic landscape.

Mitigation measures are chosen in consultation with the responsible federal agency, the SHPO, ACHP, and other involved parties, and through the public participation process, which may include local government, Native American groups, property owners, and concerned citizens. Proposed mitigation measures are included in the project’s Finding of Effect and draft agreement document.

VI. SPECIAL CONSIDERATIONS FOR LARGE LANDSCAPES

On occasion, transportation projects encounter potential historic landscapes of unusual size. Very large landscapes, thousands of acres or more, present special challenges to both cultural staff and management. The identification and formal evaluation of a large historic landscape can be time consuming and costly, often controversial, but may be necessary. For example, a reclamation district landscape is likely to encompass the entire district, no matter how large. No useful purpose is served, however, by identifying an entire region, such as the Great Basin or Southern California, even if a logical argument can be constructed. As a general rule, it is preferable to identify a reasonably defensible smaller landscape rather than stretching boundaries to distant horizons, and perhaps threatening the credibility of the process.

When a very large landscape has been found, the responsible federal agency and the SHPO may be consulted, either informally or through an agreement document, on options that would allow compliance without unreasonable expenditure of effort. It may be possible, if the agency and the SHPO agree, to conduct an abbreviated survey focused on the identification and evaluation of involved individual landscape components, with summary documentation of the landscape as a whole. When a project involves only a narrow corridor or individual components that can be clearly documented as either contributing or noncontributing, a landscape could be treated as eligible **for the purpose of the project** without undertaking a full study. However, it is often worthwhile to undertake a full formal evaluation in order to establish landscape boundaries and contributors, especially when the landscape can be expected to be encountered in future projects. In all cases, decisions should reflect an understanding of the property's historic values and character-defining qualities, as well as responsible concern for appropriate balance in determining level of effort.

It may also be possible to define **management zones** within a landscape for project purposes and to limit assessment of project effects to resources within these zones. Such management zones should be historically defined areas or physically or functionally separate units, such as a scenic corridor or botanical garden located within a recreation area, or a historic water conveyance system in a rural community. When the responsible federal agency and the SHPO agree that activities within particular zones have little potential for involving other parts of a large landscape, project effects could be assessed on these zones alone, without conducting effect studies on other parts of the landscape. Management zones could be appropriate where an agency has continuing maintenance or project activities on a relatively small or discrete element of a large landscape, such as a narrow transportation corridor that bisects a vast agricultural landscape. See Preservation Brief 36 for further discussion of management zones.

VII. PROFESSIONAL QUALIFICATIONS

Landscape studies should be conducted by or under the direction of staff meeting the Secretary of the Interior's Standards for Professional Qualifications. In many agencies, qualified staff historians, architectural historians, prehistoric archeologists, and historical archeologists work together on interdisciplinary teams as needed. Landscape architects and cultural geographers can bring specific experience to landscape studies. Other professional staff, outside experts, and published works can be consulted for additional expertise. Whether work is done in-house or by consultants working under contract, it must be accomplished or overseen by professionals meeting the Secretary of the Interior's standards in one or more of the appropriate disciplines.

VIII. FORMAT

Standard report formats can accommodate historic landscape studies by adding discussions of specific landscape characteristics in the historical overview and resource description sections, tailoring the discussion to the resources present. For example, the following outline could serve as an appropriate format for many landscape studies:

- I. SUMMARY OF FINDINGS
- II. PROJECT DESCRIPTION
- III. RESEARCH METHODS
- IV. HISTORICAL OVERVIEW

(As appropriate for the resource, discuss the historic processes that influenced historic development of an area. These processes will generally come under one or more of the following categories.)

- A. Design
- B. Land use activities
- C. Spatial patterns
- D. Response to the natural environment
- E. Cultural traditions
- F. Historic events or individuals

- V. DESCRIPTION OF RESOURCES

(As appropriate, discuss the physical components of the landscape, both natural and built features, which will generally include many or all of the following categories.)

- A. Spatial organization and land patterns
- B. Topography
- C. Vegetation
- D. Circulation
- E. Water features
- F. Buildings and structures
- G. Site furnishings and objects
- H. Visual character and intangible qualities

- VI. STATEMENT OF SIGNIFICANCE

(Include statements specifically addressing the National Register criteria and the elements of integrity. For landscapes which appear to be eligible, describe the boundaries, define the period of significance, and list contributing and noncontributing elements.)

- VII. CONCLUSIONS

- VIII. ENDNOTES

- IX. BIBLIOGRAPHY

- X. APPENDICES:

- A. Photographs
- B. Maps
- C. Inventory forms, if appropriate
- D. Other attachments

(Include any additional pertinent documentation, such as copies of historic documents or correspondence.)

IX. REFERENCES

The following sources contain useful information for the study of possible historic landscapes encountered in the course of conducting surveys for transportation projects. National Park Service guidance documents should be considered the authoritative sources, particularly the National Register Bulletins which provide technical information on identifying and evaluating landscapes for the National Register of Historic Places. For copies of publications, call the appropriate State Office of Historic Preservation or the National Park Service. NPS guidance on historic landscapes is available through the National Park Service's Heritage Preservation Services (formerly Preservation Assistance Division), (202) 343-9597, [www2.cr.nps.gov/], the Historic Landscape Initiative, [www2.cr.nps.gov/hli/], and the Sales Publications Catalog at [www2.cr.nps.gov/hli/hlicat].

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