Procedure to Establish Priorities in Landscape Architecture

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Introduction

SCS leadership position in natural resource conservation depends on our ability to provide high quality technical assistance. We must apply the very best conservation technology on the ground. The engineering quality of SCS work now being installed must be high. One engineering factor, landscape architecture, must be given increased emphasis. For several years accepted professional standards for engineering excellence have included landscape architectural practices. Recent project experience tells us that our engineering competence is and will be judged in part by our landscape architectural plans and designs.

SCS landscape architects are developing an overall system and the backup technology to handle landscape architectural considerations from the initial planning phase to the operation and maintenance phase. An outline of the proposed landscape architectural system may be found on page 2. The system being developed is based on experience in many states, but especially technical developments in Arkansas, Mississippi, and Wisconsin.

General Description

Consideration of landscape architecture should begin at the earliest possible time in the planning process. The planning objectives in the early phase are to identify the general landscape quality and to establish landscape architectural priorities. These objectives can be met by applying the procedure to establish priorities in landscape architecture. This procedure was designed to be used in the initial planning phase as described in SCS *Guide for Environmental Assessment,* March 1977. However, the procedure will be used in later planning phases for work which currently has progressed beyond the initial phase. Although many of the examples that follow are projects, the procedure is intended for application in the full spectrum of SCS work. Field staffs using this procedure should note that it is only a screening system—only a guide to sort out opportunities and problems. It is *not* a procedure for making detailed investigations or environmental assessments. Other technical procedures and checklists will be forthcoming to provide further guidance; see the following outline.

Outline of the SCS Landscape Architecture System

Initial Planning	Procedure to establish priorities in landscape architecture
Detail Planning	Procedure for landscape architectural investigations
Supplemental Planning	Checklist for landscape architectural investigations
Design	Landscape architectural material incorporated into existing engineering technology (Ex. TR-25)
Construction	Checklist of landscape architectural considerations for construction engineers and inspectors
Operations and Maintenance	Sample operations and maintenance agreement considerations.

Outline of Procedure

The following steps should be followed to establish landscape architecture priorities.

1. Identify, rate, and map the visual resource to indicate quality.
2. Identify, rate, and map the landscape to indicate importance.
3. Identify, rate, and map visibility to indicate importance.
4. Overlay visual resource quality, land use and visibility data in order to assign priorities.

Step 1
Evaluate the Visual Resource Quality (VRQ)

The visual resource and visual resource quality are two different terms that should not be confused and *should not be used interchangeably.* The visual resource (VR) means the definable appearance of a landscape unit as described by its visual elements: landform, water, vegetation and structures. All we see in any landscape can be defined as a combination of these four visual elements. The four elements or a combination of elements can be described and measured without reference to quality. For example, a given landform could have a measurable slope, height, and shape. The slope and shape can be discussed without reference to beauty.

Visual resource quality (VRQ) is a rating of the uniqueness or desirability of a visual resource. Such judgment must be made within a frame of reference. For example, the same landform or visual resource could appear in different geographic areas and have a different visual resource quality in each. A low small hill with a 20% slope may have high VRQ in a flat landscape and minimal VRQ in a mountain landscape.

Figure 1 is a matrix in which the visual resource has been classified into elements or a combination of elements, and the resource rated as to quality. The landscape within any planning unit should be inventoried as to the VR and mapped as to VRQ.* This matrix is only a guide and is not all-inclusive. Additionally, this VRQ matrix must be used within the local frame of reference. As a general rule, the VRQ of natural landscapes increases as the diversity of elements (size, form, color, and texture) increases. Diversity cannot be used in urban areas to rate VRQ of structures and combinations of VR elements. Uniqueness and apparent concern for appearance are factors to be noted when evaluating VRQ of urban areas.

*See page 16 for mapping alterations.

Figure 1 **Visual Resource Quality**

rating / visual resource element	Distinctive VRQ³	Average VRQ²	Minimal VRQ¹
Landform	· Visually dominant geomorphology. · Topography patterns that provide visual diversity to an otherwise homogeneous landscape.	· Visible but not dominant geomorphology.	· Unapparent geomorphology. · Homogeneous topography patterns providing no visual diversity.
Vegetation	· Vegetative patterns that provide visual diversity to an otherwise homogeneous landscape. · Unique plant specimens or communities.	· Vegetative patterns providing limited diversity to an otherwise homogeneous landscape.	· Homogeneous topography patterns providing no visual diversity.
Water	· Shores of estuaries, oceans, and great lakes. · Waterbodies and streams with high clarity and diverse bottom material and/or side slopes.	· Waterbodies and streams with limited visual interest and clarity.	· Waterbodies and streams with visible pollution and unapparent visual interest.
Structures (man-made development)	· Unique visual identity (i.e. barns, fence). · Development where high concern for the landscape appearance is obvious.	· Typical structural element/pattern. · Development where an average concern for appearance is obvious.	· Visual structure identity "blighted." · Development where no concern for appearance is obvious.
Combinations	· Unique combinations of any visual elements. · Proposed or designated scenic areas and locally recognized scenic or special areas.	· Typical combinations of any visual elements.	· Combinations which are visually incongruous; visual intrusions. · Designated visual eyesores.

Vegetation provides the only visual diversity (color and form) in an otherwise visually homogeneous landscape.

PHOTO 1 VRQ³

Although it is green in color, this stream has high clarity within the local reference area. Diversity in side slope and diversity in vegetation color and texture are also present. There is unique visual identity in the low falls that are part of the remains of an old mill.

PHOTO 2 VRQ[3]

This site has little diversity (side slope, color, vegetation), but within local context (Arizona, land resource area 35), it has a high VRQ rating because water is visible.

PHOTO 3 VRQ[3]

This schoolhouse has been rehabilitated by the community, and within the local frame of reference has a special visual identity.

PHOTO 4 VRQ[2] or VRQ[3]

A commercial area with no apparent concern for appearance. Note: All commercial areas should not necessarily be rated as VRQ[1].

PHOTO 5 VRQ[1]

A neglected site with visible water pollution and a "blighted" structure.

PHOTO 6 VRQ[1]

Neglected site with a blighted structure where erosion dominates visually because of color changes in soil.

PHOTO 7 VRQ[1]

PHOTO 8 VRQ[3]

PHOTO 9 VRQ[2]

Photos 8, 9, and 10 were taken on the same day in the same land resource area (75-mile radius). These photos show a decrease in diversity (color, form, texture, size) of landform and vegetation, decreasing the VRQ rating. Note that water is present in photo 8.

PHOTO 10 VRQ[1]

PHOTO 11 VRQ²

PHOTO 12 VRQ³

Photos 11, 12 and 13 were taken on the same day in the same land resource area. Note the decreasing diversity of landform and vegetation and the decrease in dominant geomorphology. While photo 12 is a more pleasing photograph, more diversity exists in photo 11. VRQ rating cannot be chosen by the best photographic composition.

PHOTO 13 VRQ¹

Step 2
Evaluate the Landscape Use (LU)

Landscape use is closely aligned with, but is separate from, visual resource quality. Simply stated, how people use the landscape affects their perception and evaluation of it. Use of the landscape can be either direct (benefits by moving through or being on) or indirect (benefits without actually occupying). Parking lots are landscape of direct use; people must occupy these landscapes in order to use them. Shelterbelts are indirect use landscapes, people can benefit or use the wind control without occupying the immediate shelterbelt area. In some cases, a community's indirect use of the landscape affects their perception of it more than a direct use. For example, indirect use of an open space sometimes makes it more valuable than the amount of direct use it may receive as a picnic area. It is impossible to list all the uses for landscapes. The following list includes some of the uses that have affected the public's perception of SCS work.

Direct Uses

Paths and trails
Ad hoc recreation areas (hunting, fishing, informal play areas)
Bikeways
Neighborhood play areas
Horse trails
Parking lots

Indirect Uses

Landform and/or vegetation areas providing environmental and energy conservation controls (erosion, noise, wind, sun, and temperature)
Visual screens between incompatible land uses
Privacy screens between similar land uses
Landform and/or vegetation areas providing pedestrian traffic control and a safety barrier.

Combinations of Direct and Indirect Uses

Community open space
Cultural, scientific, or educational use (geologic features such as glacial grooves and fossils)
Agricultural activity

Figure 2 is a matrix in which landscape uses have been rated according to importance. The landscape within any planning unit should be inventoried to determine use areas that could affect project planning and should be mapped to indicate their relative importance.

Figure 2 **Landscape Use**

rating / type of use	Most Important LU³	Important LU²	Minimal Importance LU¹
Direct	· One of a kind · Intensive use (volume, frequency)	· Ordinary availability. · Normal use.	· One of many available. · Occasional use (infrequent)
Indirect	· Highly valuable environmental controls. (size, shape, location, seasonal factors.)	· Valuable environmental controls	· Limited environmental controls.
Combinations	· High cultural, scientific, or educational value. · One of a kind	· Ordinary cultural, scientific or educational value · Ordinary.	· Limited cultural, scientific or educational value. · One of many.

A row of trees provides a crucial privacy screen between homes. One owner has stables, and the other does not.

PHOTO 14 LU³

Every inch adjacent to this irrigation canal is used for intense crop cultivation. High value.

PHOTO 15 LU^3

All shelterbelts in this photo do not have the same LU value. Each must be evaluated according to prevailing winds, crop pattern, and location of residential area.

PHOTO 16 LU^3 or LU^2 or LU^1

This could be a one-of-a-kind, important neighborhood play area.

PHOTO 17 LU^3 or LU^2

Step 3
Evaluate Visibility (V)

Visibility evaluation is an estimate of the number of viewers, their probable expectations and their relative ability to see from their location. High visibility ratings should be given to areas where the viewers are numerous, have the greatest opportunity to see, and can logically be expected to have high visual expectations. Low visibility ratings should be given to non-urban areas where viewers are few, if any. Figure 3 is a matrix in which viewer factors have been rated as to visibility. The landscape within the planning unit should be rated according to viewer factors and mapped to indicate visibility.

Figure 3 **Visibility**

rating / viewer factor	High Visibility V^3	Average Visibility V^2	Low Visibility V^1
Number, Frequency and Duration	· Large number of viewers. · Very frequently (daily) · Long viewing time, i.e. canoeing, pedestrian.	· Frequent (occasionally) · Intermediate viewing time (normal traffic)	· Few viewers. · Infrequent viewing (rarely) · Very short viewing time.
Expectations	· Homeowner or tourist.	· General public.	· Transient, nontourist.
Location and Viewers Position	· Elevated in landscape >20 feet. · View from home, school, hospital, recreation area, major highways, and scenic areas.	· Elevated < 20 feet. · View from general community areas and roads.	· Ground level. · View from cropland, industrial areas, minor roads or from within dense forests.

View of planning unit from State scenic bike trail.

PHOTO 18 V³

Planning unit is visible from homes and from view points elevated 20′ (highrise in photo).

PHOTO 19 V³

Step 4
Assign Landscape Architecture Priorities

The numerical ratings given to VRQ, LU and V should be added to determine a combined rating for each area. For example, $VRQ^2 + LU^2 + V^3 = M,^7$ a planning area of medium priority that may need professional landscape architectural input in later planning or design phases. Figure 4 is a matrix illustrating all possible combinations. The combined rating is a screening system to determine the need for further professional landscape architectural input.

Generally:

High Priority Areas (8-9)—require professional landscape architectural planning and design.

Medium Priority Areas (5-7)—may need professional landscape architectural input for planning and/or design. Special planning attention will be given to medium priority areas that include a VRQ.[3]

Low Priority Areas (3-4)—generally do not need professional landscape architectural input.

Figure 4 Landscape Architecture Priority Matrix

	V^3			V^2			V^1		
VRQ^3	H^9	H^8	M^7	H^8	M^7	M^6	M^7	M^6	M^5
VRQ^2	H^8	M^7	M^6	M^7	M^6	M^5	M^6	M^5	L^4
VRQ^1	M^7	M^6	M^5	M^6	M^5	L^4	M^5	L^4	L^3
	LU^3	LU^2	LU^1	LU^3	LU^2	LU^1	LU^3	LU^2	LU^1

This photograph illustrates an area that is a high priority area because it is a coastline (VRQ^3), an often used recreation area (LU^3) and is seen from a designated State scenic highway (V^3).

PHOTO 20
$VRQ^3 + LU^3 + V^3 = 9$ (high priority)

The planning unit in this photograph is of high priority because it has average visual resource (VRQ^2), provides an effective privacy screen (LU^3), and has frequent, intense viewing from homes (V^3).

PHOTO 21
$VR^2 + LU^3 + V^3 = 8$ (high priority)

Mapping Alternatives

The type of maps needed for this procedure will vary considerably according to the scale and complexity of the planning area. In rare instances no maps will be necessary because the entire planning area will fall into one priority. The maps can range from USGS quads, with colored or toned areas, to computer-generated graphics. It is important to remember that this procedure is designed both to sort out priorities and *document* existing conditions. The report and maps should be dependable, accurate assessments that will be useful to the planning staff and the public in the decisionmaking process. Figures 5-9 illustrate one type of overlay mapping and Figure 10 illustrates a composite map of the overlay data.

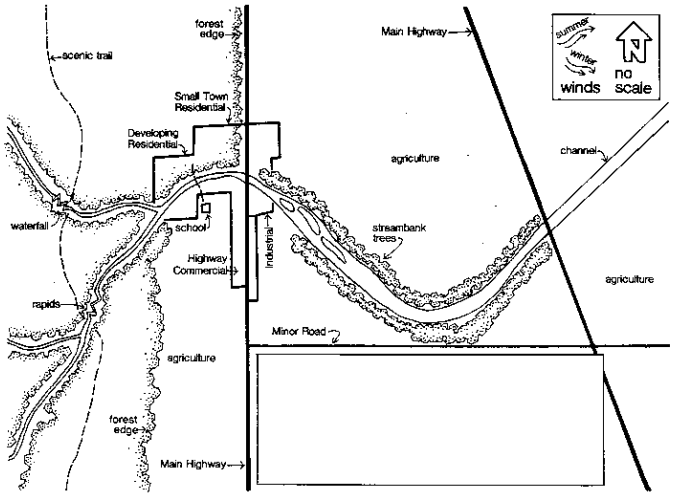


FIGURE 5 Record on the base map features that affect the landscape architectural factors.

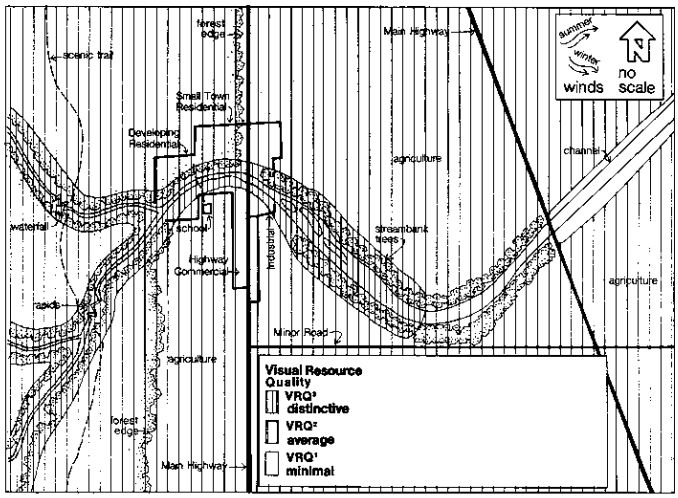


FIGURE 6 Record visual resource quality values on the base map or on a transparency over the base map. It is best to map the three values in varying tones or colors so that the composite map may be made later.

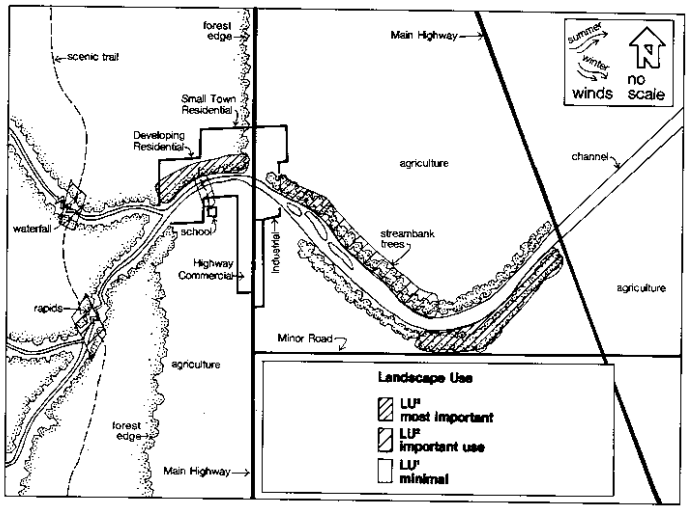


FIGURE 7 Record landscape use values on the base map or on a transparency.

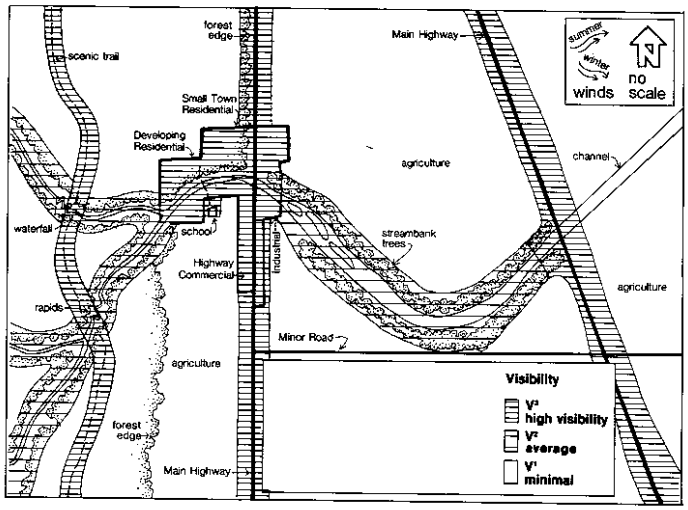


FIGURE 8 Record visibility values on the base map or on a transparency.

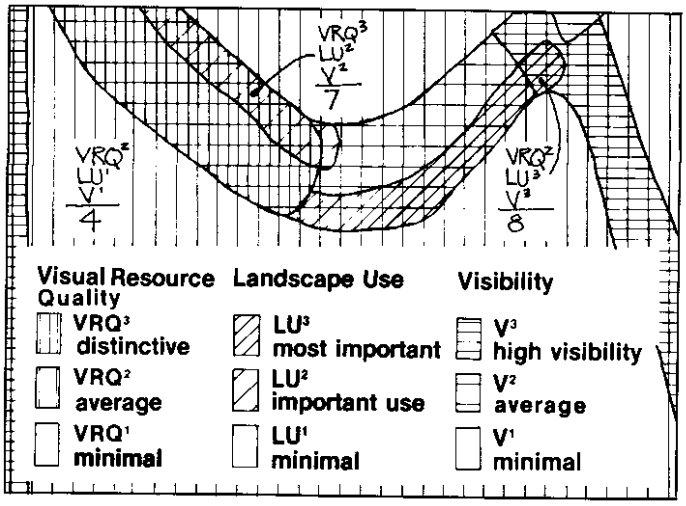
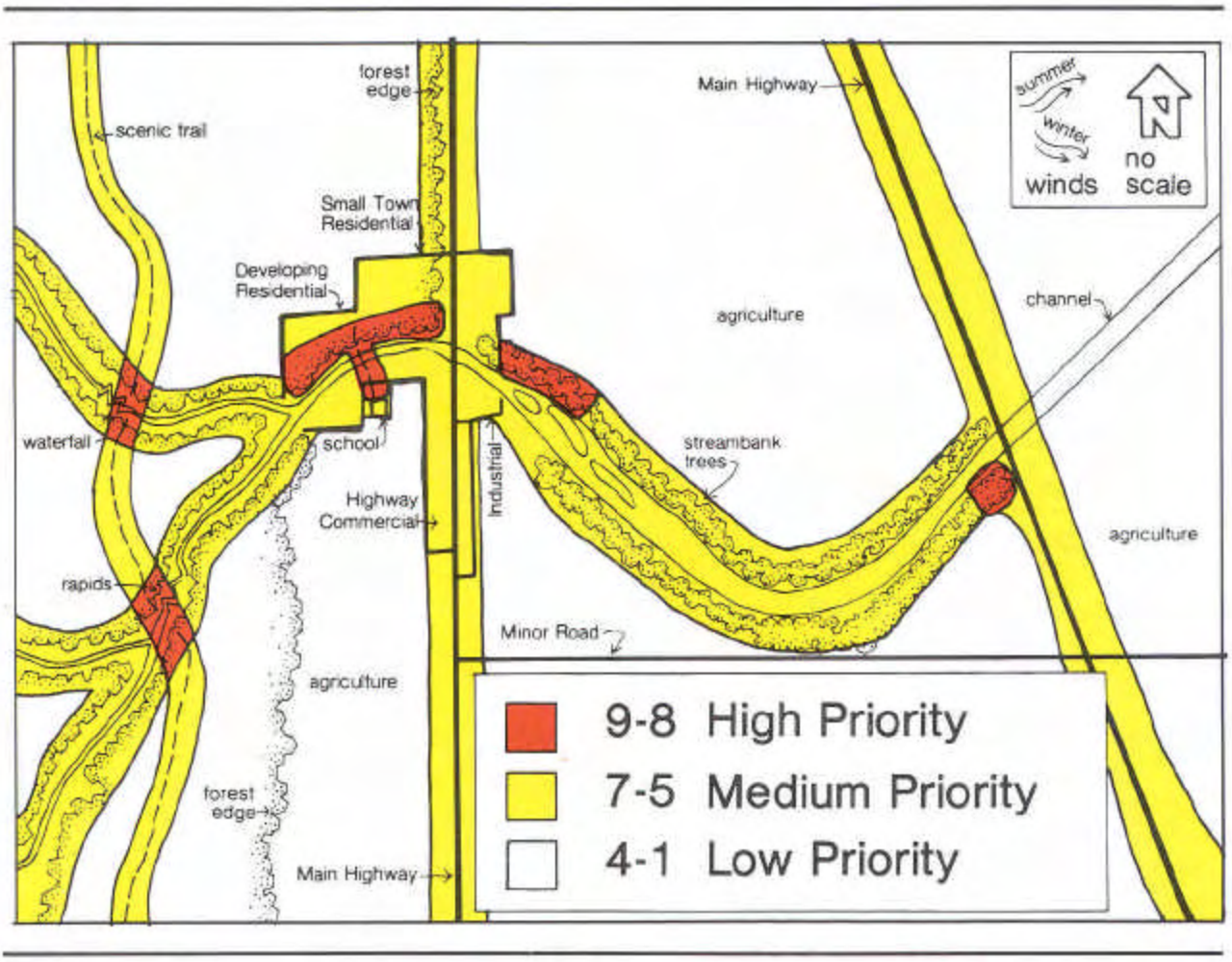


FIGURE 9 The composite map shows priority areas. Each factor has been mapped by a different line direction; therefore, both the type of factor and its ranking is illustrated on the composite map. The total weighted value for each area is shown.


forest edge
scenic trail
Main Highway
summer
winter
winds
no scale
Small Town Residential
Developing Residential
agriculture
channel
waterfall
school
Industrial
streambank trees
Highway Commercial
agriculture
rapids
Minor Road
agriculture
9-8 High Priority
7-5 Medium Priority
4-1 Low Priority
forest edge
Main Highway

The final composite map is superimposed on the base data to document priority areas. In the example, the red areas are high priority and the yellow areas indicate medium priority.

9-8 High Landscape Architecture Priorities

Features whose various combinations contribute to the high priority in this planning unit are:

VRQ^3 Unique stream clarity with diverse bottom material and side slopes with vegetative patterns that provide visual diversity

VRQ^2 Typical combination of visual elements
Stream with limited diversity

LU^3 Highly valuable environmental controls
- privacy screen between residential areas
- screen between industrial and residential areas
- winter windbreak for cropland

Direct Use
- path to school from residential area

LU^2 Ordinary scientific and educational value
- waterfall and rapids in stream

V^3 Frequent viewing from major highway
High visual expectation by homeowners
Important viewer location on scenic area

V^2 View from general community area

7-5 Medium Landscape Architecture Priority

Features whose various combinations contribute to the medium priority in this planning unit are:

VRQ^3 Unique stream clarity with diversity

VRQ^2 Stream with limited visual interest
Vegetative patterns providing limited diversity
Typical development patterns

LU^3 Highly valuable environmental controls
- windbreaks

LU^2 Valuable environmental controls

LU^1 Common landscape use of limited value

V^3 Viewed by homeowners
Views from designated scenic areas
Frequent viewing from major highways

V^2 View from general community area

3-4 Low Landscape Architecture Priorities

Features whose various combinations contribute to the low priority in this planning unit are:

VRQ^2 Vegetative patterns providing limited diversity
Stream with limited visual interest
Typical combinations of visual elements

VRQ^1 Stream with unapparent visual interest

LU^1 Common landscape use of limited value

V^1 Infrequent viewing, short viewing time, few viewers
Views from cropland

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