

Overland Park, KS Stream Riparian Corridor Quality Evaluation

General

The Overland Park Stream Riparian Corridor Quality Rating (QR) is a standardized assessment of the quality of vegetation along stream corridors within the City of Overland Park. The Kansas Department of Wildlife and Parks, Subjective Evaluation of Terrestrial Wildlife Habitats, was used as a basis for the Quality Rating.

The QR is to be completed as an assessment tool to determine stream corridor quality in areas determined to be within the Overland Park Stream Corridor Ordinance (18.365). The evaluation process is described on the following pages and includes a field key. The QR results in a score of 0 to 11 and can be categorized to determine stream corridor quality as poor, fair or excellent and utilized as a basis for stream restoration and enhancement activities to gain stream corridor buffer credits (See results section below).

In general, the information provided serves as a standardized checklist for determining stream corridor quality. The QR should be completed by an individual with a demonstrated ability to complete habitat assessments and vegetation identification of Kansas flora. If professional judgment determines that habitat characteristics are different than those indicated by the key, or there exists a unique habitat or wildlife resource not adequately covered by the given criteria, a narrative description can be developed in the field and a quality rating made. Such field developed evaluations must be documented through a narrative description of the criteria used and attaching it to the field report.

Stream corridors dominated by invasive exotic or naturalized species should be rated lower than sites having native species historically indigenous to that landscape. Sites that have woody colonization due to the suppression of fire or other management effects should be rated lower. Subjectivity to account for these instances should be applied by selecting an appropriate value from the range of points in the "Species Groups" ratings. Although trees often dominate stream corridors, other vegetative cover such as shrubs, vines, grasses, and forbs often are often found intermixed constituting the understory. The habitat value of the overall woodland is enhanced by the presence and abundance of these other vegetation types, as well as habitat provided by dead timber (standing/fallen) and other woody debris and leaf litter. Den trees are also included as a component in the evaluation because of the refuge and nesting habitat they provide to a variety of fauna.

Procedure

1. Review the species group and plant form components of the key. Traverse the tract sufficiently to obtain a reliable indication of vegetative composition and distribution. Circle tree species groups identified. A subjective measure of species abundance and species diversity should dictate the final rating within the range of scores provided.
2. Determine the presence of plant forms and record as abundant, common, sparse or absent. The rating selected should be determined by a combination of percent cover and species diversity throughout the entire stand.
3. Using the key, tabulate the applicable component points (40 points maximum). Determine the initial quality rating by dividing total component points by four (4).
4. Record an estimated corridor width and circle appropriate width value (WV).
5. Add the (WV) value to the Initial Quality Rating.
6. Determine other valuable habitats within the corridor and add to total points.
7. Provide a narrative description of any potential restoration and enhancement activities to the stream corridor.

Notes

- Identification of Threatened and Endangered species habitat as a valuable habitat must be accompanied by documentation from Kansas Department of Wildlife and Parks and/or U.S. Fish and Wildlife Service.
- Identification of wetlands as a valuable habitat should be accompanied by field mapping of wetlands.
- A valuable habitat rating of 1.0 may only be appropriate when critical habitat for threatened and endangered species is present and/or greater than 10% of the corridor is wetlands.
- The Quality Rating Form must be accompanied by an aerial photograph of the site. The location of data points and site photographs should be indicated on the aerial as a matter of reference. Final quality rating scores should also be noted in parenthesis below the data location point. The aerial photograph may also be utilized to depict restoration and enhancement opportunities identified during the field survey.
- When the stream corridor being reviewed is not continuous and fragmented, a separate Quality Rating Form should be completed for each segmented habitat. Figure 1 provides an example of data collection points along a segmented stream corridor.
- Isolated areas with the potential for restoration and enhancement opportunities in an otherwise excellent quality corridor should be noted on the field sheets and depicted on the aerial photograph.

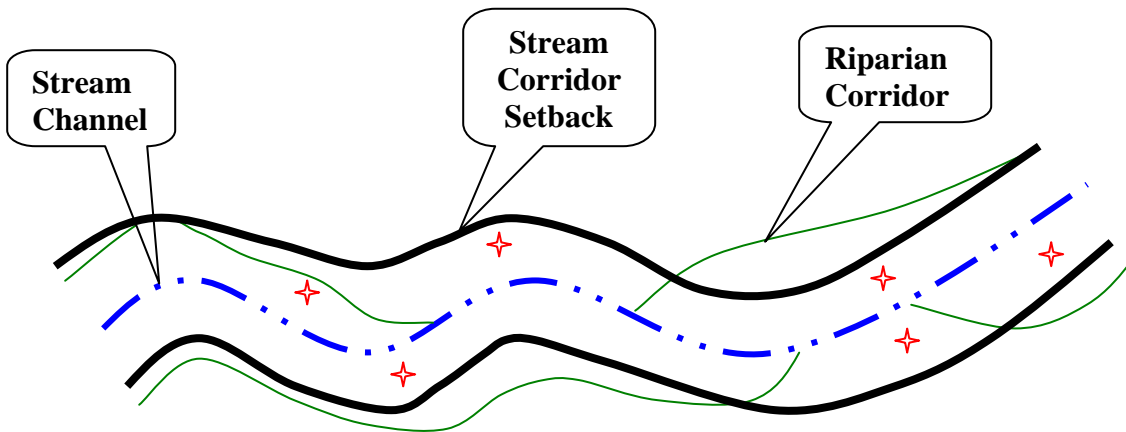


Figure 1: Example of Data Point Locations

★ = Data Location Points

Rating Results

The Quality Rating can be used to further categorize the quality of vegetation and wildlife within a given stream corridor. The following categories are described as follows:

Category 1 (Quality Rating of 0-2.9) – A stream corridor with a Quality Rating of 0 - 2.9 can be considered a poor quality corridor. Approved stormwater BMP's may be implemented in these areas as well as restoration and enhancement activities.

Category 2 (Quality Rating of 3.0 – 5.9) - A stream corridor with a Quality Rating of 3.0 – 5.9 should be considered a fair quality corridor. Activities should be limited to restoration and enhancement activities.

Category 3 (Quality Rating of 6.0 – 11) – A stream corridor with a Quality Rating of 6.0 – 11 should be considered an excellent quality corridor. Minimal activity should be allowed in these areas with emphasis on preservation. Enhancement activities may be appropriate on a case-by-case basis.

Definitions

Riparian Corridor – Forested areas along streams.

Restoration – The process of restoring site conditions as they were before land disturbance.

Enhancement - Improvement on existing biological conditions.

Dbh – The outside bark diameter at breast height. Breast height is defined as 4.5 feet (1.37m) above the forest floor on the uphill side of the tree.

Abundant – A combination of percent cover and species diversity when the species are equally distributed throughout the stand and dominant.

Common – A combination of percent cover and species diversity when the species are equally distributed throughout the stand but not dominant.

Sparse – A combination of percent cover and species diversity when species occurrence is sporadic throughout the stand.

Den Trees - Den trees are live trees that contain holes or hollows large enough to shelter wildlife.

Submittal Requirements

The following information is required as a component to Overland Park’s Stream Corridor Quality Rating.

- Investigators qualifications
- Completed Stream Riparian Corridor Quality Rating Form
- Aerial graphic depicting the location of data points and photo locations
- Photo log
- Supplemental data as needed to support findings (agency coordination, previous wetland delineation reports or resource studies, etc.)

OVERLAND PARK STREAM RIPARIAN CORRIDOR QUALITY RATING FORM

Adapted from Kansas Department of Wildlife & Parks "Subjective Evaluation of Terrestrial Wildlife Habitats" (2004)

Site Name and Location: _____ **Date:** _____

1. Species Groups

STEP 1: Circle each that apply to surveyed corridor:

- | <u>Group</u> | <u>Species Varieties</u> |
|--------------------|--|
| Nut Trees: | hickories, pecan, black walnut |
| Mast Trees: | oaks - all varieties |
| Fruit Trees | hackberry, mulberry, Osage-orange, paw paw, wild crab, hawthorn, red haw, black cherry, choke-cherry, western soapberry, flowering dogwood, wooly buckthorn, persimmon, smooth black haw |
| Seed Trees: | all other deciduous varieties |

STEP 2: Based on number of species groups identified above, subjectively score the corridor within the following ranges based on diversity and abundance of wooded vegetation:

Condition	Score
4 species groups (No invasives)	6 - 10
4 species groups (With invasives)	3 - 6
2-3 species groups	1 - 3
1 species groups	1

→ **Score:** _____
(10 max)

2. Plant Forms

Score each plant form below from 0 to 3 on the following scale:

Abundant = 3 points Common = 2 points Sparse = 1 point Absent = 0 points

- | | | |
|-------------------------|---------------|--|
| _____ Trees > 12" dbh | _____ Shrubs | _____ Forbs |
| _____ Trees > 25' tall | _____ Vines | _____ Debris and/or Standing Dead, Snags |
| _____ Trees 3'-25' tall | _____ Grasses | _____ Den Trees |
| _____ Trees < 3' tall | | |

Sum all plant form points above (30 max): **Score:** _____

Add scores from sections 1 & 2 above: **Subtotal:** _____

Divide "Subtotal" by 5: **BASE SCORE:** _____

3. Wooded Riparian Corridor Width

Circle one and enter score:

Wooded Corridor Width:	0 to 1/3 total buffer width	1/3 to 2/3 total buffer width	greater than 2/3 total buffer width
Width Value Points:	0.0	1.0	2.0

Score: _____

4. Other Valuable Habitats

Score 1 additional point if any of the following habitats are present (1 point max). Provide description below or attach separately.

Wetlands (when 10% of total stream buffer area; attach wetland mapping)

Threatened or Endangered Species Habitat (attach agency coordination documentation)

Score: _____

TOTAL SCORE

Sum the "Base Score" and scores for items 3 and 4 (bold boxed scores)

**TOTAL
SCORE:** _____

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Potential Restoration and Enhancement Activities

Tree Plantings *(include a list of preferred species, including shrubs):*

Native Grass Plantings *(include a list of preferred species):*

Invasive Species Managements *(include species and activities):*

Wildlife Amenities *(explain the preferred amenity and suggested actions for implementation):*

Examples: Bird boxes:
Wildflower plantings:
Raptor post:

Threatened and Endangered Species Habitats *(explain results of habitat inventory and identify opportunity for protection or creation of habitat. Consult KDWP for current County listing).*