

Missouri Glade Community WHAG Model Instructions

Glade:

This model is intended to evaluate the quality of wildlife habitat on existing or degraded glade communities. Planners are strongly encouraged to consult with the Area Biologist when evaluating a glade community. Refer to the glade information sheet for a technical description of this unique natural community.

Planned conditions should be based on when the contract expires or what you expect the site to look like 10 years from the initial evaluation.

1. Native Herbaceous Ground Cover (summer conditions (June-July))

- Calculate the percent of the ground covered by native herbaceous plants (grasses, forbs, native legumes, sedges, etc...). Do not include non-native plants.
- WHAG automatically scores below a 0.50 if the site has greater than 50% non-native herbaceous ground cover.

2. Woody Canopy Coverage

- Consider all trees within the glade area being evaluated. Well-managed glades usually have less than 20% canopy coverage, but even this will vary depending on topography and the abundance of surface rock.

3. Boulder, Flatrock and Ledge Habitat

- Evaluate the percent of the glade covered by boulder, flatrock and ledge habitat.
- Common – rock covers greater than 25% of area, Occasional – rock covers 5 to 25%, and Rare – rock covers less than 5% of evaluated area.
- **Score zero if the glade is to be cleared with heavy machinery (clipper, dozer, etc...), which will damage surface rock, native plants and cause soil erosion. When completing the WHAG, consider the impact of heavy machinery on plant diversity, native plant ground cover, grassland composition and flat and bedrock.**

4. Grazing or Haying Pressure

- To receive 10 points no grazing **or haying** is allowed. The glade must also be maintained by periodic prescribed burns to score 10 points.
- Light to moderate grazing is defined as meeting the NRCS 528 standard, table 1, column 5 and would include grazing for only a few days during the growing season or grazing one year (**still following 528**) and resting the next. Grazing should be avoided between May 1st and July 15th unless grazing is necessary during this time of the year to restore native vegetation. Periodic prescribed burning is also required to score 5 points.
- Grazing a glade should only be done to benefit habitat, not for forage production. For example grazing in the spring to control scattered patches of non-native cool-season grasses. Grazing should be avoided during the primary nesting season. Consult with the Area Biologist when this may occur. **Grazing is not feasible for many glades because of their degraded condition.**

- Heavy grazing and all other uses would score zero points (not meeting the 528 minimum grazing heights). If no burning has occurred then score zero points. Does not apply for planned conditions.
- NRCS standard 528 has a minimum grazing height for native grasses of 8-10 inches.

5. Grassland Composition (summer conditions (June-July))

- A native grass specie must comprise at least 5% of the grassland composition to count as a specie in the mix. Native forbs and/or native legumes shall comprise 10 to 75% of the canopy coverage to receive the 10 points.
- Native grassland with less than 10% or greater than 75% forb canopy coverage or a native grassland with 25 to 50% nonnative vegetation would score only 4 points.
- Grassland with greater than 50% nonnative vegetation or a native grass monotype would score 0 points and does not apply for planned conditions.
- Consider the impact of management on grassland composition. Management practices should improve the grassland compositions.

6. Native Forb/Legume Diversity (summer conditions (June-July))

- Estimate the number of native herbaceous species on the evaluated site. Count a species if a single plant is found. Consider past uses and current conditions (grazing, logging, closed canopy glade, etc...) when estimating native forb diversity.
- A degraded, closed canopy glade with no management will have very few species persisting under the current conditions.
- Determine the planned conditions based on the planned management activities and presence of remnant plants in the evaluated area. Remnant plants, which may give some insight into the sites potential, are often found along trails, roads, open areas, blow downs, and clearings.
- A well-managed glade will have as many as 200 different vascular plants. Depending on the site's history (grazing, logging, etc...) it may take 20 or more years of active management to restore a diverse plant community. Native plant diversity can be improved with active management such as thinning, use exclusion, invasive specie control, interseeding native forbs, and/or reintroducing prescribed burning.
- Noxious weeds, sericea lespedeza, non-native legumes and non-native forbs should not be included in the evaluation.

7. Managed Glade Size

- Large, contiguous glades complexes that are being managed will provide better habitat for glade wildlife species.
- Only consider glades under the applicant's control. Do not count glades on adjacent landowners.
- Calculate the total glade acreage within 640 acres being properly managed. Do not count glades not being managed (i.e. prescribed burning and/or woody cover control).

8. Associated Savanna/Woodland Community

- Calculate the acres of woodland or savanna surrounding the glade or glade complex that are being managed. Management would include prescribed burning, woody cover control or timber stand improvement. Only consider habitats under the applicant's control.

9. Problem Introduced Species

- If any one, or combination, of these species represents 10% or more of the field, score zero points. Does not apply for planned conditions.
- Consider all non-native species that present a management problem to be invasive. This could include other species not listed on the WHAG.
- If specie is common or abundant it will be difficult to completely eradicate the specie from the site. Score accordingly.