MONTANA INTENSIVE WETLAND ASSESSMENT

MONTANA Natural Heritage Program

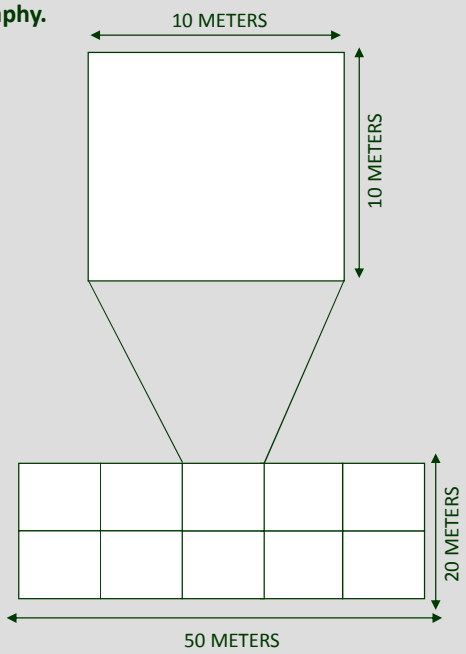
INTENSIVE ASSESSMENTS

Intensive wetland assessments involve the collection of quantitative data and require the highest level of effort. Plants, along with soils and hydrology, are the primary factors that define wetland structure and function. Wetland plants are good indicators of wetland condition because they occur in all wetland systems, have high species richness, and show strong responses to human disturbances.

Indicators such as exotic plant species richness, species sensitivity to disturbance, and native species richness have been shown to be reliable indicators of wetland condition.

VEGETATION SAMPLING PLOTS

Vegetation composition and cover are measured using a 20 meter X 50 meter relevé plot. The plot consists of ten 10 meter X 10 meter modules. Plots are placed within each wetland assessment area to maximize abiotic/biotic heterogeneity, capturing micro-site variations in topography.



FLORISTIC QUALITY ASSESSMENT

Floristic quality assessments (FQAs) can provide an effective means of assessing wetland condition. The FQA incorporates an individual plant species' tolerance of and sensitivity to disturbance.

COEFFICIENTS OF CONSERVATISM

Each plant species is assigned a coefficient of conservatism (C-value) representing its relative tolerance to disturbance. C-values range from 0 – 10, with 0 assigned to species that are highly tolerant to disturbance or exotic and 10 assigned to species exhibiting the highest degree of ecological specificity and sensitivity.

C-Value	Description
0	Species that are highly tolerant to disturbance or exotic.
1 - 3	Widespread native species that occur in a variety of communities and are common in disturbed sites
4 - 6	Native species that have some degree of habitat specificity but can tolerate moderate disturbance
7 - 8	Native species that are typical of well established communities that have undergone minimal disturbance
9 - 10	Native species that exhibit high degrees of ecological specificity and sensitivity to disturbance

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