

Proposal for Revisions to the National Standards for Physiognomic Levels of Vegetation Classification in the United States:

PROJECT TITLE: Proposed Revisions to the National Standards for the Physiognomic Levels of Vegetation Classification in the United States: Federal Geographic Data Committee Vegetation Classification Standards, FGDC-STD-005, October 1997.

DATE OF PROPOSAL: November 26, 2001

TYPE OF STANDARD: The Proposed Revisions to the National Standards for the Physiognomic Levels of Vegetation Classification in the United States will propose new Classification Methodology Standards and new units and types for the National Vegetation Classification (NVC) Standard.

SUBMITTING ORGANIZATIONS: The Vegetation Subcommittee of the Federal Geographic Data Committee (FGDC) (sponsored by NatureServe [formerly the Association for Biodiversity Information] and the U.S.D.A. Forest Service [USFS]).

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OBJECTIVES: To revise the physiognomic levels for the classification of vegetation in the United States as defined in the FGDC Vegetation Classification Standards (FGDC-STD-005, October 1997). The NVC framework was meant to provide an integrated hierarchy of physiognomic and floristic levels and types. The FGDC-STD-005 standard defined the physiognomic and floristic levels and provided a complete set of physiognomic types for the entire U.S., but a complete set of floristic types (alliances and associations) was not available at the time. Now that a draft set of alliance and association types are available (Grossman et al. 1998, Anderson et al. 1998, NatureServe 2001) we would like to establish procedures for better linking the floristic and physiognomic levels and types together in a coordinated fashion, while revising the draft set of physiognomic types. This project will revise the FGDC-STD-005. Our intent is to ensure that the physiognomic levels and types meet the need of the standard as originally stated, not to revise the basic purpose and scope of the standard.

SCOPE: The physiognomic standards of a national vegetation classification will be FGDC data content standards. The standards will include:

- **Classification methodology standards:** to revise criteria for the definition of the physiognomic levels in order to improve their linkage with developing floristic units.
- **Application standards:** to review how well the current physiognomic levels meet the needs of various applications, including links with remote sensing and links with scale.

- **Data collection standards:** the current data collection standards are, in part, based on the current physiognomic levels. Data collection standards will need to be compatible with any revisions to these levels (i.e. important physiognomic criteria to be recording in the field)

The revisions will be made in order to clarify how best to use physiognomic criteria for defining units in the upper levels of the NVC standard.

JUSTIFICATION/BENEFITS: The vegetation of the United States is being inventoried and monitored at a variety of scales. The physiognomic levels continue to be important for many applications. But frustration with the current ability to apply the physiognomic standards have led to a variety of ‘work-arounds’ that defeat the purpose of having a standard. By re-assessing the current hierarchy in light of these tests and applications (and such tests and validations were indicated in the 1997 FGDC standards), we hope to greatly improve its utility as a standard.

DEVELOPMENT APPROACH: Physiognomic units, on the whole, are more stable than floristic ones. They are also broad-based, indeed potentially world wide, in scope. Thus they are not as amenable to the same kinds of tests that floristic units are. Nor is it expected that they will need to be constantly updated. None-the-less, it remains possible to review their effectiveness by examining how well they serve when used in various applications, and how well they serve in aggregating floristic units into broader, ecological meaningful types. Indeed, some mechanism should be in place to periodically review the upper levels and revise them in light of ongoing research and applications.

We propose initially to convene a small working group that contains key staff from the U.S. USFS and NatureServe), both of which have been actively testing the current set of physiognomic units. We would seek out key staff in other agencies that have also tested or reviewed the current units. We suggest 3 staff each from the USFS and NatureServe, and up to 4 other individuals from other agencies.

The working group would pool their collective experience with the current FGDC standard, suggest potential revisions, send these out for peer review, collate the comments, and return to the FGDC with a proposal for revisions, and a recommendation for an ongoing process for updating these levels.

DEVELOPMENT AND COMPLETION SCHEDULE: Once approved by the FGDC Standards Working Group (SWG), the FGDC Vegetation Subcommittee and the two lead groups (USFS and NatureServe) would begin our work. We expect that it will take approximately 6 to 9 months to draft a proposed revision, 6 weeks for review, and another 2 months to collate the reviews and submit a revision to Vegetation Subcommittee. Once the Vegetation Subcommittee is satisfied with the content of the standards, they will be forwarded to the SWG for consideration for public review.

RESOURCES REQUIRED: At this time we have limited in-kind resources from the two lead groups (USFS and NatureServe) in place to conduct the process, but we expect that additional resources will be required. A Cooperative Assistance Program proposal may be developed and

submitted, if appropriate, to FGDC and other subcommittee members will be asked to provide in-kind support and financial assistance.

POTENTIAL PARTICIPANTS: Participants will include members of the FGDC Vegetation Subcommittee, in particular the USFS and NatureServe. The FGDC Vegetation Subcommittee includes representatives from federal agencies, the non-profit sector, and professional associations.

RELATED STANDARDS: This standard will build on, and be consistent with, the existing FGDC Vegetation Classification Standards (FGDC-STD-005). At this time there are no other standards known that would apply to this project, but we would review other national and international documents that may have a bearing on the revisions proposed here (e.g. “A Classification of North American Biotic Communities” by Brown et al. 1998, and published by EPA). FGDC and the Ecological Society of America (ESA). Vegetation Classification Panel are in the process of proposing standards for the floristic units. We would ensure that our work is fully compatible with that effort. Indeed, we fully expect that our revisions to the FGDC physiognomic levels will enhance that effort by providing a better link to the floristic units and the standards being proposed for them.

OTHER TARGETED AUTHORIZATION BODIES: At this time there are no other appropriate authorization bodies to target in developing these standards. We, therefore, propose pursuing the revisions to the physiognomic-level standards for the classification of vegetation in the United States solely as an FGDC standard. We also have established a Memorandum of Understanding (MOU) among the FGDC, The Nature Conservancy (whose interests in this MOU are now handled by NatureServe), ESA, and United States Geological Service’s National Biological Information Infrastructure regarding future activities relating to the development and maintenance of the classification’s content.

REFERENCES”

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