Objective-based Vegetation Management Workshop
(Cedar Key, Florida – April 3-4, 2003)

The purpose of this workshop is to more clearly define the process and technical guidelines that the FWC will use to implement the Objective-based Vegetation Management (OBVM) program. As such, the emphasis will be on the identification and prioritization of criteria of key program elements, rather than technical detail for any specific wildlife management area (WMA), although one or more WMA may be used as examples. The focus will also be at the "broad stroke" level, such that we will seek to elicit ideas and discussion for each of the major topics, even if it involves a tradeoff of more detailed exploration of specific topics that might be warranted. The latter will be identified in our synthesis of the workshop and additional input will be solicited from appropriate sources should it be warranted.

Workshop Objectives

The purpose of this workshop is to (1) identify criteria by which manager's can evaluate or re-evaluate sub-division of a managed area into vegetation management units; (2) identify considerations for setting vegetation management unit objectives based on quantified structural parameters for Florida Natural Area Inventory (FNAI) plant community types and natural resource management goals for the area; (3) identify considerations for monitoring understory attributes associated with vegetation management objectives; and (4) Elicit ideas and opinions about how the process becomes adaptive (i.e., how new information from monitoring is incorporated into the decision process).

Background

FWC is initiating an objective-based approach to habitat management on Trustees-owned lands where the FWC is designated lead manager. This approach will include plant community inventory and mapping, delineation of vegetation management units, determination of management objectives for those units, and regular plant community monitoring. Quantification of desired habitat conditions coupled with monitoring data provides natural area managers with enhanced decision support and accountability for habitat management treatments. Objective-based vegetation management (OBVM) constitutes a fundamental change from contemporary output-oriented habitat management where vegetation treatment intervals are pre-determined (e.g., prescribe burn every 3-5 years) to an outcome-oriented approach where desired habitat condition dictates treatment schedules.

Determining vegetation management units will most often require area managers to re-evaluate the way their area is currently subdivided (i.e., burn units). In addition to the plant community inventory data that is being compiled, a list of criteria for vegetation management unit delineation would facilitate a consistent approach to this step of the OBVM process.

Preliminary discussions with FWC natural area managers indicate concern over quantifying vegetation management objectives, specifically having guidelines to follow concerning relevant

attributes and plant community structure parameters. The FNAI plant community classification system currently provides only limited qualitative descriptions of plant communities. An update to the *Guide to The Natural Communities of Florida,* incorporating quantified structural parameters for each plant community, possibly regionalized, could provide the guidelines necessary for rational, science-based area-specific vegetation management objectives.

Implementing the monitoring associated with OBVM appears daunting when considering application on over a million acres of natural resource lands. Although the FWC intends to initially limit vegetation management objectives (desired condition) to three or fewer attributes and associated value ranges, the FWC must determine a cost and time efficient method for accessing understory attribute values.

Tentative Agenda

Thursday 3 April

1:00 - 1:20 Welcome, Introductions, and Overview of Workshop Objectives

1:20 - 1:45 Overview of the OBVM Process

1:45 - 3:00 Discussion of Item I (detailed below).

3:00 - 3:20 Break

3:20 - 4:00 Continued discussion and wrap up of Item I.

4:00 - 5:30 Discussion of Item II (detailed below)

Evening: Dinner and informal discussions

Friday 4 April

8:00 - 8:10 Synthesis of Day 1.

8:10 - 9:30 Continued discussion and wrap up of Item II.

9:30 - 10:30 Discussion of Item III (detailed below).

10:30 - 10:50 Break

10:50 - 11:45 Discussion of Item IV (detailed below).

11:45 - 12:00 Workshop wrap up

Agenda Items

I. Identify criteria by which manager's can evaluate or re-evaluate sub-division of a managed area into vegetation management units.

The present vision is that vegetation management unit delineation will involve a three-step process:

1. Differentiate actively managed plant communities from those not actively managed (e.g., sand hill vs. hardwood swamp).
2. Differentiate actively managed vegetation management cover types (e.g., scrub vs. flatwoods association)
3. Subdivide actively managed vegetation management cover types into manageable units.

Vegetation management unit configuration should:

1. Reflect the management goals for the WMA (e.g., focal species or community types).

2. Be based, at least in part, on plant community types and/or associations of plant community types.

3. Take into consideration the existing infrastructure (roads, other barriers, ownership boundaries, etc).

Some potential discussion items include:

- How should ecotones be treated and what should be the criteria which determines this?
    - ✓ Should they be sharply defined and/or protected?
    - ✓ Should they be dynamic and responsive to shaping processes (e.g., fire)
- How should disturbed sites be considered when determining vegetation management units.

II, Identify considerations for setting objectives for vegetation management units based on quantified structural parameters of FNAI plant community types and the natural resource management goal(s) for the area.

The present vision is that the current approved (by ARC) Management Plan will provide the sideboards within which more specific vegetation management objectives can be developed. Applicable research (e.g., scrub jay habitat use data, red-cockaded woodpecker management guidelines) should be used if available to support vegetation management objectives. In some cases, mangers will seek to achieve and maintain specific successional stages of the plant communities comprising their area. In these cases, identify examples of the desired conditions and quantify them.
Attributes selected to describe the desired condition should be management-dependant variables that are easily measured (e.g., basal area, mid-story height, relative groundcover composition), and

in most cases, a vegetation management unit objective should include a groundcover attribute, a mid-story attribute (if applicable) and an over-story attribute (if applicable). (e.g., flatwoods vs. dry prairie).

Some potential discussion items include:

- What scales need to be considered?
    - ✓ How do the objectives of individual units fit within the broader goals of the WMA?
    - ✓ How do the cumulative units fit within broader regional scales?
- To what extent do threats (e.g., exotic flora/fauna) need to be considered in setting the objectives?
- How are competing or conflicting goals resolved (prioritization, spatial segregation, etc).
- To what extent are plant community-type "sideboards" needed to frame the specific objectives (i.e., attributes and associated value ranges that define a plant community type)?
- What kind of process should be used to set objectives.
    - ✓ To what extent and how should "topical experts" be incorporated in to the process
    - ✓ To what extent and how should "stakeholders" be incorporated in to the process.

III. Identify considerations for monitoring understory attributes associated with vegetation management objectives.

At this point, the intention will not be to decide on specific monitoring approaches; rather, it will be to solicit ideas and opinions about alternative approaches and their relative merits.

Some potential discussion items include:

- To what extent are attributes other than the structural characteristics considered?
    - ✓ Goals (e.g., focal species)
    - ✓ Threats
- How do we prioritize monitoring efforts in light of limited resources?
- How do we determine the correct intensity, frequency, and spatial extent of monitoring?

IV. Elicit ideas and opinions about how the process becomes adaptive (i.e., how new information from monitoring is incorporated into the decision process)

At this point, the intention will not be to determine a formal decision process; rather, it will be to solicit ideas and opinions about alternative approaches and their relative merits. For example, three hypothetical alternative approaches that might represent some extremes might be:

1. An annual review by the WMA manager, who is responsible for any adjustments after reviewing a synthesis of the available data.

2. An annual review by the WMA manager for specific objectives, in combination with an advisory panel that reviews the information periodically and makes recommendations regarding whether the objectives are effectively contributing toward the WMA goals.

3. A decision-theoretic approach using optimization models based on the discrepancy between desired and realized outcomes under different management treatments.

Some potential discussion items include:

- ✓ What role, if any, should predictive ecological models play in the decision process?
- ✓ What role, if any, should decision theory models play in the decision process?
- ✓ To what extent, if any, should there be a distinction between decisions regarding the achievement of specific vegetation management-unit objectives and WMA goals?
- ✓ To what extent, if any, should some sort of advisory group work in conjunction with WMA managers.