



**NatureServe**

A Network Connecting Science With Conservation

# **Biotics Upgrade Status**

*Northeast Natural Heritage Conference*

*April 20, 2009*

*Gettysburg, Pennsylvania*

# Review - Major Objectives

- Replace the ArcView 3.x platform and shape file data storage with a modern GIS platform and data storage in SDE
- Improve performance of GIS functions
- Improve compatibility with host organizations technology environments
- Improve customizability of the system
- Seek compatibility with a long-term Biotics vision (NatureServe's emerging Technology Strategy)
- Contain the cost of development, maintenance and ownership



# Business Drivers

- **Waning support for ArcView 3.x by the host organizations**
- **Compatibility with a standard technology environment** – strong pressure from host agency
- **Limitations on data sharing and access** – shapefile vrs. SDE storage
- **Technical credibility** - “out-of-date technology”
- **Performance** – complexity and size of database
- **Customizability** – Move away from structured Biotics 4 environment (migrating to environment that better supports creation of user extensions)



# Defining Scope

- The focus is upgrading Biotics **Mapper** by replacing ArcView 3.x and Shape file-based data storage.
- The emphasis will be to provide the core functionality that replaces existing functionality - allow users to add functionality

## **Not originally in Scope**

- Tracker modifications other than those needed to support new Mapper
- Support for alternative database platforms
- Converting Biotics Mapper to a web application
- Support for disconnected editing
- Full multi-language support



# Biotics 4.5 Vision Statement

(everybody's got to have one!)

*Biotics 4.5 will provide a rapid, smooth and cost effective migration to a proven, modern GIS platform, thereby improving usability, performance, and spatial data accessibility. Where possible, it will move the product towards our long-term vision for Biotics.*



# Recommendation: ArcMap as the GIS Platform for Biotics 4.5

Criteria	Weight	ArcMap	ArcEngine	ArcServer	Open Source	
<b>Func &amp; Arch</b>						<b>Weights</b>
Usability	2	4	3	2	1	1 Important
Scalability	2	2	2	3	3	2 Very Important
Architecture	1	2	2	3	3	3 Critical
Functionality	2	4	3	2	1	
Customizability	1	4	1	1	1	<b>Scores</b>
<b>Costs</b>						1 Worst
Licensing	1	1	3	2	4	4 Best
Dev Costs	2	4	3	2	1	
<b>Sustainability</b>						
Support	1	4	3	2	1	
Standards	1	4	2	2	1	
Leveraging Skills	1	4	3	2	1	
Maintainability	3	4	3	2	1	
Product Future	1	3	2	4	1	
<b>Biotics 5 Compat</b>	<b>1</b>	2	2	4	3	
<b>Unweighted Score</b>		<b>42</b>	<b>32</b>	<b>31</b>	<b>22</b>	
<b>Weighted Score</b>		<b>64</b>	<b>49</b>	<b>44</b>	<b>30</b>	



# Organizational Commitment

***Goal 3: Modernize Biotics and related systems to improve biodiversity data management for the NatureServe network.***

## **FY10 Goal 3 Milestones (Strategic Plan Reference II.4)**

- 1. Upgrade the existing Biotics platform** (with a priority on the GIS platform). Identify and secure adequate funding to perform needed upgrades.
- 2. Develop a plan and technical vision** to modernize Biotics that leverages current technology for more streamlined, state-of-the-art data management.
- 3. Expand existing observation management methods and system for broader utility of observation data.**

*FY10 Annual Goals with Milestones-IT.doc*

*FY10 Annual Goals with Milestones-Approved by Board March 2009.doc*



# Funding

- Outside Funding
  - Foundation and Technology Grants
  - Stimulus funding
    - Conservation Works: Green Jobs Initiative - 21 proposals submitted
    - National Biodiversity Database – 24 month (2009-2011) multi-million dollar investment in data methodology and technology.
- Network contribution
  - Development investments
  - New Licensing fee
  - Staff support
  - Fundraising support
- ?

