

# The Nature of Open Space Programs: Linking Land Protection and Biodiversity Conservation





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The Nature of Open Space Programs: Linking Land Protection and Biodiversity Conservation

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### I. Executive Summary

The conservation of biodiversity supports efforts to ensure the long-term stability of wildlife species and habitats, ecosystems and economies, and public health and welfare. Because the greatest threats to wild-life and biodiversity in the United States are habitat destruction, degradation, and fragmentation, purchasing land outright or protecting it through the acquisition of a conservation easement ensures the protection of lands important for habitat. However, *which* lands are conserved—and in what pattern they are conserved—is equally important for maintaining habitat connectivity and minimizing the corrosive effects of habitat fragmentation. Prioritizing lands for acquisition maximizes the conservation benefit of each dollar spent.

This report examines 28 major state open space protection programs<sup>1</sup> to determine whether or not they have the legal authority to acquire lands in a biologically meaningful manner and proposes strategies to improve the effectiveness of these programs to support biodiversity conservation. These recommendations apply not only to state open space programs but to any land conservation program seeking to enhance its efforts to conserve biodiversity and wildlife habitat.

Open space programs face a multitude of challenges in protecting land of significant ecological value. Programs must balance the pressing need to acquire land as quickly and efficiently as possible with the need to be strategic in acquiring land that maximizes the wildlife and biodiversity "bang" for the acquisition "buck." However, the majority of open space programs have a variety of tools and opportunities available to help meet conservation goals effectively and efficiently.

For example, the State Wildlife Action Plans, a nationwide effort to provide states with a proactive blueprint for conservation, can also give open space programs a roadmap for land conservation that is science-based and allows decision-makers to prioritize acquisition investments. Open space programs, particularly those that have not previously utilized biological data or inventories, can adopt effective prioritization strategies by drawing upon these existing conservation plans and data resources in order to identify and prioritize lands of biological significance.

Open space programs can also bolster their conservation impact by strengthening their authority to prioritize lands based on biological and wildlife habitat values. The momentum surrounding biodiversity and wildlife conservation continues to grow nationwide and planning efforts such as the State Wildlife Action Plans have thrust the concept of prioritization and planning further into the spotlight. Open space programs may capitalize on this increasing awareness by seeking to codify the prioritization of lands for their wildlife and biodiversity value. This report offers many examples of open space programs that have strong mandates to prioritize land acquisition for the purpose of conserving biodiversity and wildlife habitat.

Finally, open space programs can leverage conservation dollars by building partnerships with other programs with similar purposes, as well as those with an indirect focus on wildlife habitat or biodiversity con-

<sup>&</sup>lt;sup>1</sup>Individual summaries of the state programs examined in this study are available on ELI's website at: http://www2.eli.org/research/openspace.htm.

#### **EXECUTIVE SUMMARY**

servation. Even if programs have differing programmatic objectives, such as the maintenance of watershed health, growth management, or other environmental goals, they often target areas for restoration and protection that coincide with biodiversity goals.

The 28 programs included in ELI's study together contribute an annual average of more than \$700 million in 21 states to land protection for the purpose of biodiversity and wildlife conservation. Clearly, states are investing in the conservation of open space to protect wildlife habitat and biodiversity. If they are equipped with sufficient information and resources, they can be well-positioned to make calculated land protection decisions and to maximize the conservation benefits that result from each dollar spent.

#### II. Introduction

#### **Biodiversity: A Fundamental Conservation Concept**

The term "biodiversity" was coined in the mid-1980s to help articulate a complex concept. While it is often used broadly to be synonymous with "wilderness" or "life," the term in a purely scientific context refers to ecological processes, taxonomic classifications, and/or genetic frameworks. As used in this report, biodiversity is, put simply, "the variety of life at all levels." This definition includes "the array of plants and animals, the genetic differences among individuals; the communities, ecosystems, and landscapes in which they occur; and the variety of processes on which they depend."<sup>2</sup>

Biodiversity is globally recognized as a fundamental component of ecosystem health and integrity. It provides numerous, invaluable benefits. Economically, biodiversity is the greatest source of new medicinal resources and ensures the resiliency of resource-based markets, such as agriculture, commercial fisheries, and forestry. Ecologically, biodiversity plays a critical role in the biogeochemical processes necessary to sustain life on Earth. Genetically, biodiversity allows for short- and long-term adaptation to the everchanging global environment. Indeed, threats to biodiversity are truly threats to the stability of our ecosystems and economies, to our food supplies, to public health and welfare, to our general quality of life, and perhaps to our existence. Organizing conservation goals around the protection of biodiversity is the surest way to secure the future of America's precious wildlife and natural heritage.

#### Status and Threats to Biodiversity

Present rates of biodiversity loss in the United States and across the world are staggering. Some estimates project the extinction of one in five species as soon as the year 2020.<sup>5</sup> Although extinction is a natural process, scientists estimate that the current rate of extinction is 100 to 1000 times greater than the natural rate.<sup>6</sup> In the United States, the current rate of biodiversity loss is attributed in large part to habitat destruction, degradation, and fragmentation, as well as

#### Species of Concern...

State natural heritage programs and The Nature Conservancy have spent over two decades collecting and analyzing data on the status of over 30,000 U.S. species and subspecies. In their comprehensive report on biodiversity, Precious Heritage: The Status of Biodiversity in the United States, the organizations report that "one-third of the native U.S. flora and fauna is considered to be of conservation concern."

<sup>4</sup> Master, Lawrence L., Bruce A. Stein, Lynn S. Kutner, and Geoffrey A. Hammerson, "Vanishing Assets: Conservation Status of U.S. Species," Precious Heritage: The Status of Biodiversity in the United States, eds. Bruce A. Stein, Lynn S. Kutner, and Jonathan S. Adams (New York: Oxford University Press, 2000), 100.

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<sup>&</sup>lt;sup>2</sup> LaRoe, Edward T., Gaye S. Farris, Catherine E. Puckett, Peter D. Doran, and Michael J. Mac, eds., Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals, and Ecosystems (Washington, DC: U.S. Department of Interior — National Biological Service, 1995) 6.

<sup>&</sup>lt;sup>3</sup> LaRoe et al. (eds.) 6-7.

<sup>&</sup>lt;sup>5</sup> Wilson, E.O., and Frances M. Peter, eds., Biodiversity (Washington, DC: National Academy Press, 1988) 11-12.

<sup>&</sup>lt;sup>6</sup> Groves, Craig R., Drafting a Conservation Blueprint: A Practitioner's Guide to Planning for Biodiversity (Washington, DC: Island Press, 2003) 5.

the proliferation of invasive species. These factors are directly and indirectly influenced by state and local decisions about how land is used and managed — for example, where all forms of development occur and in what pattern they occur across the landscape.<sup>7</sup>

#### Preserving Biodiversity through Open Space Protection

Because the most pervasive threats to wildlife and biodiversity in the United States are habitat destruction, degradation, and fragmentation, purchasing land outright or protecting it through the acquisition of a conservation easement is the most definitive way to ensure that lands important for habitat are not destroyed, degraded, or fragmented. Indeed, land acquisition—both publicly and privately financed—is viewed as the surest and most effective tool in the biodiversity conservation toolbox.

However, *which* lands are conserved—and in what pattern they are conserved—is equally important for maintaining habitat connectivity and minimizing the corrosive effects of habitat fragmentation.

#### Trends in Open Space Conservation...

Recent trends in public support for open space acquisition demonstrate the importance voters place on land protection. This support has manifested itself in the number of successful ballot initiatives to finance public open space programs. On November 7, 2006, 130 ballot measures dealing with land conservation were put to the voters nationwide and approximately 80 percent passed, providing over \$6.4 billion for conserving lands important to the Nation's rural and agricultural heritage, recreational freedom, and natural resources, including biological diversity.<sup>8</sup>

The support for open space protection is also reflected in the amount of public and private investment into land conservation. A recent study found that federal, state, and private spending to permanently conserve land has averaged approximately \$3 billion per year. State land conservation programs alone spent about \$1 billion per year between 1992 and 2001. In recent years, this contribution has grown steadily and reached about \$1.7 billion.

Indeed, determining which land purchases will lead to the most effective protection of biodiversity, while meeting both the long-term and immediate needs of ecological communities, landscapes, and surrounding human populations, is fundamental to effective conservation decision-making. Protecting small patches across the landscape that are geographically isolated from one another is usually far less beneficial than protecting fewer large blocks of habitat that are linked to other conservation lands. In addition, not all land is of equal conservation benefit in every area. For example, areas that have experienced the loss of a significant

Wilcove, David S., David Rothstein, Jason Dubow, Ali Phillips, and Elizabeth Losos, "Leading Threats to Biodiversity: What's Imperiling U.S. Species," Precious Heritage: The Status of Biodiversity in the United States, eds. Bruce A. Stein, Lynn S. Kutner, and Jonathan S. Adams (New York: Oxford University Press, 2000), 242, 245.

Trust for Public Land, November Election Breaks Two Land Conservation Records, at http://www.tpl.org/tier3 cd.cfm?content item id=20955&folder id=3148 (last updated Nov. 28, 2006).

<sup>&</sup>lt;sup>9</sup> Mackey, Janet. Apr. 28, 2005. "State Spending in the U.S. to Conserve Land." Defenders of Wildlife: Washington, D.C.

<sup>10</sup> ld.

percentage of natural wetlands, riparian habitat, or grasslands may find that investments to conserve these areas translate into the biggest conservation "bang for the buck." Prioritizing lands for acquisition is crucial for ensuring that, as development proceeds at an astonishingly rapid rate, precious funds are targeted in a timely and cost-efficient manner." In fact, a recent study has shown that poorly informed land acquisition decision-making may even be counter-productive to biodiversity preservation efforts. In order to maximize the biological benefit of limited conservation dollars, land conservation programs should be guided by a science-based vision for land conservation that allows decision-makers to prioritize acquisition investments. Fortunately, a new nationwide effort—the State Wildlife Action Plans—may provide such a vision in every state.

#### Analyzing the Biodiversity Conservation Authority of Open Space Programs

This report examines major state open space protection programs across the U.S. to determine whether or not they have the legal authority to acquire lands in a biologically meaningful manner. We also highlight innovative state approaches for programs that would like to maximize the effectiveness of their conservation investments for the long-term sustainability of native plants, animals, and ecosystems.

Almost every state operates at least one program that conserves land. Program purposes vary widely and may include the protection of hunting and fishing resources, water quality and/or quantity, forestry and ranching, historic and cultural resources, parks and recreational opportunities, and/or agricultural preservation, as well as open space and the protection of biodiversity and wildlife. ELl's study focuses on open space protection programs with multiple objectives that include some focus, either direct or indirect, on biodiversity. In states with multiple such programs, we examined those that support the largest land protection purchases. Our recommendations are designed to promote increased efficiency and effectiveness of biodiversity conservation among these types of programs. However, these recommended approaches apply to land conservation programs of any size and type that may seek to enhance their focus on biodiversity preservation.

ELI identified 28 major, stateoperated, open space programs that seek to protect natural resource lands through land acquisition or the acquisition of interests in land. These programs operate in 21 states. *See map, p. 5.* For each of the 28 programs examined, ELI conducted a detailed legal review of the state laws and regulations establishing and directing the programs. Additional

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<sup>&</sup>lt;sup>11</sup> Johnson, Nels C., "The Nature Conservancy's Ecoregional Approach to Setting Priorities and Developing Conservation Strategies," Biodiversity Conservation Handbook: State, Local, and Private Protection of Biological Diversity, eds. Robert B. McKinstry, Jr., Coreen M. Ripp, and Emily Lisy (Washington, DC: Environmental Law Institute, 2006), 101.

<sup>&</sup>lt;sup>12</sup> Armsworth, Paul R., Gretchen C. Daily, Peter Kareiva, and James N. Sanchirico, "Land markets feedbacks can undermine biodiversity conservation," PNAS 103-14 (2006): 5403.

research was conducted using secondary sources and phone interviews with program administrators and other relevant individuals.<sup>13</sup> Detailed state summaries were prepared and reviewed by state agency staff for accuracy. (Individual state summaries are available on ELI's website at: http://www2.eli.org/research/openspace.htm). Table 1 below lists basic information on each of the programs included in this review.

	Table 1. Major, Multi-objective, State Open Space Programs.					
	Name of Program	Type of Program	Funding Source	Year of Inception		
AZ	Game and Fish Heri- tage Fund	Fee title acquisition, conservation ease- ments, leases, grants for open space pro- tection	State lottery	1990		
CA	Coastal Conservancy	Grants for open space protection	State general obligation bonds, state general funds	1976		
CA	Department of Parks and Recreation	Fee title acquisition, grants for open space protection	State general obligation bonds, federal funding, foun- dation and conservation or- ganization contributions	pre-1900's		
CA	Santa Monica Moun- tain Conservancy	Fee title acquisition, conservation easements	State general obligation bonds, county bonds, joint powers entity	1980		
CA	Wildlife Conservation Board	Fee title acquisition, conservation ease- ments, leases, purchase of development rights, grants for open space protection	State general obligation bonds, dedicated state funds	1947		
СО	Greater Outdoor Colo- rado Program	Fee title acquisition, conservation ease- ments, grants for open space protection	State lottery, bonds	1992		
СТ	Recreation and Natural Heritage Trust Pro- gram	Fee title acquisition	State bonds	1986		
СТ	Open Space and Wa- tershed Land Acquisi- tion Grant Program	nd Acquisi-		1998		
DE	Open Space Program	Fee simple purchase, bargain sales, con- servation easements, purchase of devel- opment rights	Water conservation bonds, realty transfer taxes, state appropriations	1990		
FL	Florida Forever Pro- gram	Fee title acquisition, conservation ease- ments, grants for open space protection	Revenue bonds backed by state realty transfer tax	2000		
GA	Land Conservation Program	Fee title acquisition, conservation ease- ments, purchase of development rights, leases	Federal funds, intergovern- mental contract, volunteer contributions	2005		

<sup>&</sup>lt;sup>13</sup> Interviews were conducted between February 2005 and March 2006.

	sition and Development Program	Development		1989
MA	Self-Help Program	Grants for open space protection State bonds		1961
	Conservation Partnership Program			2002
MD	Program Open Space	Fee title acquisition, conservation and/or public access easements	State general obligation bonds, state realty transfer tax	1969
	Rural Legacy Program	Grants for open space protection	Real estate transfer tax, gen- eral obligation bonds	1997
MI	Natural Resources Trust Fund	Grants for open space protection	Revenue from leases of state land for nonrenewable re- source extraction	1976
	Environment and Natural Resources Trust Fund	Fee title acquisition, conservation easements	State lottery, endowment	1988
NC	Natural Heritage Trust Fund	Grants for open space protection	Deed stamp tax, personalized license plate fee	1987
NC	Parks and Recreation Trust Fund			1994
NH	Land and Community Heritage Program			2000
NJ	Green Acres Program	en Acres Program Fee title acquisition, loans and grants State bonds, state tax revenue		1961
NY	Environmental Protection Fund	vironmental Protection reaction ments Fee title acquisition, conservation ease-state realty transfer tax, surplus land sales, conservation license plates		1993
OH	Clean Ohio Conservation Fund	lean Ohio Conservation Grants for open space protection General obligation bonds		2000
	Community Conservation Partnership Program (a part of Growing Greener II)	Grants for open space protection	General obligation bonds, state realty transfer tax, state recy- cling fund, state hazardous sites cleanup fund, Federal Land and Water Conservation Fund	
VT	Housing and Conservation Board / Trust Fund	and Conservation Grants for open space protection State property transfer tax, state appropriations		1987
WA	Wildlife and Recreation Program	Grants for open space protection	General obligation bonds	1990
WI	Knowles-Nelson Steward- ship Program	Fee title acquisition, conservation easements, purchase of development rights, grants	General obligation bonds	1989

#### INTRODUCTION

These 28 programs together contribute an annual average of more than \$700 million in 21 states to the protection of biodiversity through land acquisition or the acquisition of interests in land.<sup>14</sup> Clearly, states are investing in the conservation of open space to protect wildlife habitat and biodiversity. If they are equipped with sufficient information, they can be well-positioned to make calculated land protection decisions and to maximize the conservation benefits that result from each dollar spent.

ELI found that most of the open space programs analyzed in this study gather and synthesize some biological information for the purpose of prioritizing lands for protection. How rigorously they attempt to direct land conservation for the purpose of protecting biodiversity, however, depends on the program's legal authority, programmatic prioritization and decision-making processes, availability of data and technology, and staff and funding resources. For example, some programs rely upon their state natural heritage programs to analyze GIS-based data on biological resources in the acquisition decision-making process. Others rely upon biological information provided by program applicants, nonprofit organizations such as The Nature Conservancy, or other state agencies. Still others utilize a more qualitative scoring process to rate the relative biological value of land parcels under consideration. In this report, ELI profiles the array of state approaches to open space acquisition that accomplish biodiversity protection and highlight potential strategies for states seeking to increase the effectiveness and efficiency of investments targeted at biodiversity conservation.

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<sup>&</sup>lt;sup>14</sup> ELI estimates that these programs contribute an annual average of \$706.6 million to land acquisition or the acquisition of interests in land that protects biodiversity. This estimate does not include the recently established Georgia Land Conservation Program. Monetary data comes from a 2005 report by Defenders of Wildlife, State Spending in the U.S. to Conserve Land, as well as information collected by ELI from state program administrators.

# III. Conserving Biodiversity through State Open Space Protection Efforts

The 28 state open space programs examined together contribute an annual average of more than \$700 million to land conservation. ELI sought to determine the extent to which these programs have the legal authority to target this significant amount of funding to maximize the conservation of wildlife habitat and biodiversity. In doing so, we first sought to assess two critical aspects of the programs:

(1) Biodiversity Mandate: The degree to which programs have the authority to specifically conserve biodiversity in their establishing statutes and regulations.

The 28 programs' **Biodiversity Mandates** were each classified in one of three ways: (i) *Specific or direct authorities* - Programs that are specifically authorized to protect "biodiversity," "ecological diversity," or some direct equivalent thereof; (ii) *Proxy authorities* - Programs that are authorized to protect a proxy for biodiversity, such as "wildlife," "native ecological community," "threatened and endangered species," or "wildlife habitat;" and (iii) *General authorities* - Programs that have a more general mandate, for example, the protection of "unique natural resources," "conservation," or another broad purpose that may implicitly include biodiversity preservation.

(2) Power to Prioritize: Whether and to what extent programs have specified authority to prioritize lands in a biologically meaningful manner.

The 28 programs' **Power to Prioritize** were classified in one of three ways: (i) *Systematic prioritization or ranking* - Programs' authorizing language requires prioritization or ranking of land protection projects for various program purposes, which may include protection of biodiversity; (ii) *Identification or inventory* - Program language authorizes "identification" or "inventory" of significant lands, without specifically requiring prioritization; (iii) *Silence* - Programs' authorizing statutes remain silent on the question, neither specifically requiring prioritization, nor specifically prohibiting it.

Examining these two issues—the Biodiversity Mandate and the Power to Prioritize—gets to the heart of how effectively our major open space programs are structured to prioritize lands for the purpose of biodiversity protection because program funding, goals, and decision-making depend on authorizing statues and regulations. Table 2 below shows how each of the 28 programs were classified according to the two questions.

Table 2. Programs' Biological Mandates and Power to Prioritize.						
Ī	Biological Mandate			Power to Prioritize		
	Specific/ Direct	Proxy	General	Systematic Priori- tization or Rank- ing	Identification or Inventory	Silence
AZ Game and Fish Heritage Fund		•			•	
CA Coastal Conservancy		•				•
CA Department of Parks and Recreation			•			•
CA Santa Monica Mountain Conser-						_
vancy			•		1	•
CA Wildlife Conservation Board		•		•		
CO Greater Outdoor Colorado Program		•			•	
CT Recreation and Natural Heritage Trust Program	•			•		
CT Open Space and Watershed Land						
Acquisition Grant Program		•			•	
DE Open Space Program	•			•		
FL Florida Forever Program	•			•		
GA Land Conservation Program	•			•		
IL Open Space Lands Acquisition and						
Development Program					L	
MA Self-Help Program			•	•		
MA Conservation Partnership Program			•	•		
MD Program Open Space			•	•		
MD Rural Legacy Program			•	•		
MI Natural Resources Trust Fund			•		•	
MN Environment and Natural Resources Trust Fund		•		•		
NC Natural Heritage Trust Fund	•			•		
NC Parks and Recreation Trust Fund		•		•		
NH Land and Community Heritage Program			•	•		
NJ Green Acres Program	•			•		
NY Environmental Protection Fund			•		•	
OH Clean Ohio Conservation Fund		•		•		
PA Community Conservation Partner-				•		
ship Program						
VT Housing and Conservation Board / Trust Fund			•			•
WA Wildlife and Recreation Program		•		•		
WI Knowles-Nelson Stewardship Pro-			•	•		
gram						

#### Power to Prioritize Lands in a Biologically Meaningful Manner

Six of the 28 programs examined have specific statutory authority to protect biological diversity, usually among other program purposes, and to prioritize lands for protection according to programmatic goals and purposes. These programs not only have a clear mandate to protect biodiversity in the state, but must develop prioritization schemes that can be used to rank lands according to program goals and purposes, which include biodiversity. Table 3 on pp. 12-14 illustrates the strength of each program's **Biodiversity Mandate** and **Power to Prioritize**.

	Table 3. Examples of Specified Authority.						
Program	Type of Pro- gram	Funding Source	Biodiversity Mandate	Power to Prioritize			
	Fee title acquisition	State bonds	ecological diversity of Connecticut, including natural features such as riverine, montane, coastal and geologic systems or other natural areas, on behalf of the state, in order to ensure the preservation and conservation of such land for recreational, scientific, educational, cultural and aesthetic purposes, (2) acquire land of unusual natural interest as additions to the system of parks, forests, wild-life and fishery management areas, natural areas and dedicated natural area preserves in the state for the beneficial use and enjoyment of the public, (3) acquire land identified as essential habitat for endangered and threatened species" Conn. Gen. Stat. § 23-74.	"In determining whether sites shall be acquired, the department shall consider whether the site is: (1) Identified as having high priority recreation, forestry, fishery, wildlife or conservation value and as being consistent with the state comprehensive plan for outdoor recreation and the state plan of conservation and development; (2) a prime natural feature of the Connecticut landscape, such as a major river, its tributaries and watershed, mountainous territory, an inland or coastal wetland, a significant littoral or estuarine or aquatic site or any other important geologic feature; (3) habitat for native plant or animal species listed as threatened or endangered or of special concern; (4) a relatively undisturbed outstanding example of a native ecological community which is now uncommon; or (5) threatened with conversion to incompatible uses or contains sacred sites or archaeological sites of state or national importance. In acquiring a site that has been identified as having a high priority recreation value, the department shall give priority to sites near population centers No site shall be acquired which has not been evaluated by the department, through the data base, to determine if threatened or endangered species or species of special concern inhabit or use the site or to determine if the site is of special ecologic quality or has other outstanding natural values as a community of living things." Conn. Gen. Stat. § 23-75.			
DE Open Space Program	purchase, bargain sales, conservation easements,	Water conservation bonds, realty transfer taxes, state appropriations		"The [Open Space] Council shall[r]eview and recommend to the Department for adoption, a ranking system to establish land acquisition or permanent protection priorities" Del. Code Ann. tit. 7 §7506 (4).			

	T (0		I	
Program	Type of Pro- gram	Funding Source	Biodiversity Mandate	Power to Prioritize
FL Forever Program	Fee title acquisition, conservation easements, grants for open space protection	Revenue bonds backed by state realty transfer tax		
GA Land Con- servation Pro- gram	Fee title acquisition, conservation easements, purchase of development rights, leases	Federal funds, Inter- governmental contract, volun- teer contributions	The objectives of the program include preservation of: open space; farmland; greenways; recreational, geologi-	"The department shall review each land conservation project proposal for its strategic investment in land resources with high environmental values or conservation benefits; for consistency with the land conservation goals set forth in this chapter and the land conservation priorities set forth by the Governor; for the merit of a plan for long-term management of the conservation land or conservation easement; and for compliance with all applicable terms and conditions of this chapterThe department shall make a recommendation based on its review of each land conservation project to the council, including any terms and conditions of those funds." O.C.G.A. § 36-22-8 (c)(1).
NC Natural Heritage Trust Fund	Grants for open space protection	Deed stamp tax, personalized license plate fee	Program purpose is "[t]o acquire land that represents the ecological diversity of North Carolina, including natural features such as riverine, montane, coastal, and geologic systems and other natural areas to ensure their preservation and conservation for recreational, scientific, educational, cultural, and aesthetic purposes." N.C. Gen. Stat. Art. 5A § 113-77.9.	"first priority shall be the protection of land with outstanding natural or cultural values." N.C. Gen. Stat. Art. 5A § 113-77.9(b1)

, , ,	e of Pro- gram Funding So	rce Biodiversity Mandate	Power to Prioritize
NJ Green Acres Fee titl Program acquisi Ioans a grants	sition, state tax re and		

#### Strengthening the Power to Prioritize

Numerous factors influence the effectiveness of open space programs in meeting objectives to protect biodiversity. A program with a strong Biodiversity Mandate and Power to Prioritize may choose to take less aggressive advantage of this authority or may lack the funding or staff to fully carry out its mandate. Alternatively, programs without a specific Biodiversity Mandate may have demonstrated—due to internal policies, practices, and leadership—the political will to direct open space conservation dollars in a biologically meaningful manner. These distinctions may be subtle, may fluctuate over time, and may be influenced by the prevailing winds of leadership.

Five of the 28 programs examined have statutory authority to protect some proxy to biodiversity, among other program purposes, and to identify or inventory lands for protection.<sup>15</sup> For example, the law establishing Arizona's Game and Fish Heritage Fund includes "...acquisition of sensitive habitat utilized by endangered, threatened and candidate species..."<sup>16</sup> among its program purposes. Furthermore, the statute allows for funds to be spent on "the identification, inventory, acquisition, protection and management, including maintenance and operations, of sensitive habitat."<sup>17</sup> New York's Environmental Protection Fund seeks to protect lands for the purpose of "conservation, protection, and preservation of open space, natural, historic and cultural resources and the enhancement of recreational opportunities."<sup>18</sup> The program's authorizing legislation mandates the agency administering the program to compile a comprehensive inventory of protected and unprotected resources having statewide or regional environmental, historic, cultural significance, including "lands which possess statewide or regional significance for historic, cultural, ecological, open space, outdoor recreation, resource protection or wildlife management purposes, including the purposes of restoring extirpated species."<sup>19</sup>

These programs do not have a specific mandate to *prioritize* the protection of lands for the purpose of biodiversity preservation. However, they are mandated to protect natural features with a strong connection to biodiversity and are required to identify lands that contain these features. If programs are seeking to maximize biodiversity protection, the opportunity does exist to strategically identify lands for their biological value.

Finally, four of the 28 programs examined have statutory authority to protect some proxy to biodiversity, among other program purposes, but no specified authority to prioritize, identify, or inventory lands for biodiversity protection.<sup>20</sup> Although these programs are not mandated to protect biodiversity, they are not pre-

<sup>&</sup>lt;sup>15</sup> Programs with statutory authority to protect some proxy to biodiversity and to identify or inventory lands for protection include: the Arizona Game and Fish Heritage Fund, Greater Outdoor Colorado Program, Connecticut Open Space and Watershed Land Acquisition Grant Program, Michigan Natural Resources Trust Fund, and New York Environmental Protection Fund.

<sup>&</sup>lt;sup>16</sup> Ariz. Rev. Stat. § 17-298(B).

<sup>&</sup>lt;sup>17</sup> Ariz. Rev. Stat. § 17-298.

<sup>&</sup>lt;sup>18</sup> N.Y. Laws, art. 49, tit. 2 § 49-0203(1).

<sup>&</sup>lt;sup>19</sup> N.Y. Laws, art. 49, tit. 2, § 49-0205(1).

<sup>&</sup>lt;sup>20</sup> Programs with statutory authority to protect some proxy to biodiversity but no specified authority to prioritize, identify, or inventory lands for biodiversity protection include: the California Coastal Conservancy, California Department of Parks and Recreation, California Santa Monica Mountain Conservancy, and Vermont Housing and Conservation Board/Trust Fund.

vented from interpreting their broader mandate to include the strategic land acquisition of land to maximize the protection of biodiversity for the state. For example, the Santa Monica Mountain Conservancy (SMMC) is charged with protecting the Santa Monica Mountain region for its "unique and valuable economic, environmental, agricultural, scientific, educational, and recreational" values. The program's authorizing legislation does not include an explicit requirement to prioritize lands for acquisition according to these purposes, which implicitly include the protection of wildlife, habitat, and biodiversity. However, independent of a legislative mandate, in 2000, SMMC conducted a comprehensive evaluation of all lands under consideration for acquisition and produced a prioritized list of lands to target for protection. The list has served to quide acquisition decision-making since 2000.

<sup>21</sup> Ca. Pub. Res. Code §33001.

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<sup>&</sup>lt;sup>22</sup> Telephone Interview with Paul Edelman, Deputy Director for Natural Resources and Planning, Santa Monica Mountains Conservancy (June 9, 2005).

#### IV. Opportunities for State Open Space Programs

Despite the varying degrees of explicit authority these programs have to conserve biodiversity, all have the opportunity to interpret their mandate to protect land for biodiversity by identifying, prioritizing, and acquiring land with the greatest value to biodiversity. Indeed, the 28 state open space programs examined as part of ELI's study, while operating under a myriad of statutory directives, have authority to protect biodiversity—either explicitly or implicitly. Regardless, even programs without direct or clear authority may be motivated to prioritize land acquisition decision-making in order to maximize the effectiveness of their conservation investments.

#### **Data to Guide Biodiversity Protection**

State open space protection programs can adopt effective prioritization strategies by drawing upon on existing conservation plans and data resources in order to identify and prioritize lands of biological significance.

The most promising roadmap for guiding such decision-making are the ongoing efforts surrounding the State Wildlife Action Plans (See Box A, p. 19). In 2001, Congress created the Wildlife Conservation and Restoration Program and State Wildlife Grants Program to support wildlife conservation before they become endangered and costly to protect. As part of the effort, each state and territory was required to develop a Wildlife Action Plan to proactively conserve wildlife and critical habitat. The 56 plans contain biodiversity data that, for many states, are unmatched by any previous planning effort. Many of these Wildlife Action Plans include spatially explicit maps that clearly depict priority wildlife habitat. The plans have tremendous potential to both inform and support open space acquisition for the purpose of preserving wildlife habitat and biodiversity. The plans will be of particular significance to those open space programs that have not been informed by previous efforts to collect biological data or to inventory lands of significant biodiversity value. State open space program managers may be unaware of the Wildlife Action Plans as a potentially powerful resource.

For example, the State of New York has already made steps to incorporate information from the State Wildlife Action Plan into its land acquisition decision-making process. The state's Environmental Protection Fund prioritizes open space protection projects according to the New York Open

Space Conservation Plan, which is required to be updated every three years. The 2005 draft plan includes specific recommendations to incorporate the Wildlife Action Plan into land acquisition and conservation priorities. The updated plan draws in part on analysis that was conducted as part of the Wildlife Action Plan development.<sup>23</sup>

Open space programs would also benefit by identifying conservation organizations and land trusts, local, state and federal agency programs, universities, and other organizations that may be conducting information gathering and natural resource planning of other types, including watershed planning or land acquisition strategies focused on elements other than biodiversity (e.g., recreation, greenways, or agricultural

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<sup>&</sup>lt;sup>23</sup> New York Department of Environmental Conservation, State Releases 2005 Draft Open Space Conservation Plan, at http://www.dec.state.ny.us/website/press/pressrel/2005/2005132.html (Nov. 10, 2005).

preservation). Although these types of efforts do not have the same programmatic goals, they have often collected data useful to programs that acquire open space for the protection of biodiversity. Indeed, strategies aimed at reducing air and water pollution, controlling solid waste and hazardous waste disposal, controlling urban and suburban sprawl, planning infrastructure (e.g., transportation and utilities), and revitalizing urban areas often have environmental goals that overlap with strategies aiming to protect biodiversity. Data collected for these types of efforts may correspond strongly to data required to prioritize lands for biodiversity.<sup>24</sup>

In Delaware, statewide resource protection programs share biological data and maps through the state's Green Infrastructure efforts. The Green Infrastructure delineates important farmlands, forests, recreational lands, and natural resource areas in Delaware and is used by multiple state planning efforts, including both the Delaware Wildlife Action Plan and the Open Space Program, to achieve programmatic goals and objectives.<sup>25</sup>

#### Leveraging partnerships

Partnerships can also effectively help leverage conservation dollars. Partnering with other programs that have a direct or indirect focus on wildlife habitat or biodiversity conservation may increase the resources available to protect targeted lands. Again, although different programs may not have the same programmatic objectives, they often target areas for restoration and protection that coincide with biodiversity goals.

Open space programs may benefit greatly by identifying and initiating dialogue with staff from state and federal agencies, private conservation organizations, and land trusts with similar goals. This type of coordination must go beyond referencing an organization's website or guiding policies, plans, and documents. Meetings held in-person or by phone that discuss specific programmatic goals and objectives, geographic areas to target, funding, potential and/or ongoing projects, and other areas of potential partnership are an efficient way to quickly identify shared goals and objectives, as well as specific land acquisition opportunities.

These types of partnerships often have ancillary benefits, beyond more effective acquisition decision-making. Organizations with complementary missions may do well to build relationships in order to coordinate education and outreach, restoration, monitoring and assessment, and legislative and fundraising efforts, or may simply remain aware of each others' goals and objectives should future initiatives warrant coordination.

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<sup>&</sup>lt;sup>24</sup> Bean, Michael J., "Strategies for Biodiversity Protection," Precious Heritage: The Status of Biodiversity in the United States, eds. Bruce A. Stein, Lynn S. Kutner, and Jonathan S. Adams (New York: Oxford University Press, 2000), 255.

Delaware Department of Natural Resources and Environmental Control, Delaware Wildlife Action Plan, at http://www.dnrec.state.de.us/NHP/information/DEWAPTOC.shtml (last updated Oct. 18, 2006), p. 2-1.

#### Box A. The State Wildlife Action Plans.

An important resource available in every state is the State Wildlife Action Plan, adopted in all 56 states and territories in 2005-2006. In 2001, Congress created the State Wildlife Grants program to remedy a funding shortage that was hampering state wildlife conservation. In order to receive federal funds through the program, each state developed an action plan to guide wildlife conservation efforts. Although each state's action plan is unique, the plans must include several specific components, as specified by Congress. Each plan contains, at minimum:

- Information on the distribution and abundance of wildlife species;
- Descriptions of locations and relative condition of key habitats and community types;
- Descriptions of problems which may adversely affect identified species or their habitats, as well as priority research and survey efforts that may improve restoration and conservation;
- Descriptions of conservation actions;
- Proposed plans for monitoring identified species and their habitats;
- Ten-year plan review strategies;
- Plans for coordinating the development, implementation, review, and revision of the plan with pertinent federal, state, and local agencies and Indian tribes; and
- Public participation strategies.

The development of the 56 State Wildlife Action Plans is marshalling habitat conservation information to an extent unmatched by any prior planning effort. The plans have tremendous potential to inform and support conservation action in many areas, including open space acquisition. However, state open space program staff may be unaware of the Wildlife Action Plans as a potentially powerful resource, or may be without concrete recommendations and strategies to utilize them in acquisition decision-making.

Open space programs may benefit greatly by identifying and initiating dialogue with staff from state wildlife agencies to obtain biological data and discuss specific goals and objectives, geographic areas to target, funding, potential and/or ongoing projects, and other areas of potential partnership.

For more information about the State Wildlife Grants Program or individual state strategies, go to: http://www.teaming.com/state\_wildlife\_strategies.htm.

#### Increasing available funding

Of course, increasing the availability of funding for the prioritization and acquisition of lands is the most obvious conservation tool available to state open space programs, but certainly not the simplest. In the face of waxing and waning economies, changing administrative priorities, and increased land acquisition costs, open space programs face a multitude of challenges in securing stable sources of funding. However, public support for open space conservation consistently continues to garner the public's support. Trust for Public Lands' recent reports on ballot initiatives to finance public open space programs show that approximately 80 percent of proposed ballot initiatives passed in 2006. These initiatives will provide over \$6.4 billion in new conservation funding.<sup>26</sup>

<sup>&</sup>lt;sup>26</sup> Trust for Public Land, supra note 8.

States commit billions of dollars to protect open space through bonds and general fund appropriations, as well as other approaches such as lottery proceeds and real estate transfer taxes. For example, in California, state open space acquisition programs, including those of the Coastal Conservancy, Department of Parks and Recreation, Santa Monica Mountain Conservancy, and Wildlife Conservation Board, are supported in large part by public bond acts. In 2000, two major bond acts passed. The Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act, or Proposition 12, was approved with 63 percent of the vote. Proposition 12 authorizes \$2.1 billion in bonds for park projects and habitat acquisition. From these funds, the Department of Parks and Recreation receives \$545 million for state park development and improvement and \$820 million for grants to local and nonprofit agencies, with the remaining \$736 million divided among 12 other state departments for land acquisition and parks related projects. The Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection Act, or Proposition 13, was approved with 65 percent of the vote. Proposition 13 authorizes \$1.97 billion in bonds to support safe drinking water, flood control, Bay-Delta restoration, watershed protection, and water quality and supply projects. In 2002, two additional major bond acts passed. The California Clean Air, Clean Water, Safe Neighborhood Parks, and Coastal Protection Act of 2002, or Proposition 40, was approved by 56 percent of the vote. Proposition 40 authorizes \$2.6 billion for the preservation of open space, beaches, coastline and farmland, the protection of water and air from contamination, and the support of safe neighborhood parks. Proposition 50, approved at 55 percent of the vote, authorizes \$3.44 billion for water projects, including coastal land protection and other land and water acquisitions.<sup>27</sup> Most recently, Californians passed Proposition 84, providing an addition \$5 billion for parks and to improve drinking water, flood control, and protection of coastlines.28

Arizonans voted in 1990 to establish the Heritage Fund, which sets aside up to \$20 million in state lottery revenues annually for parks, trails, and natural areas, historic preservation, and various wildlife conservation activities.<sup>29</sup> The allotted \$20 million is divided equally between two state agencies: the Arizona State Parks Department (AZSPD) and the Arizona Game and Fish Commission (AZGFD). AZSPD's funds are allocated for a variety of activities, including land acquisition and development of facilities for outdoor recreation. AZGFD's funds support wildlife habitat acquisition and sensitive species habitat enhancement and inventory.<sup>30</sup> Since the establishment of the Heritage Fund (1990 to 2005), AZGFD has used lottery proceeds to acquire more than 12,000 acres of wildlife habitat across the state.<sup>31</sup>

<sup>&</sup>lt;sup>27</sup> See: Trust for Public Land, Californians Invest in Open Space, at

www.tpl.org/tier3\_cd.cfm?content\_item\_id=7427&folder\_id=186 (Mar. 7, 2002); Trust for Public Land, Funding Profile: California, at www.tpl.org/tier3\_cdl.cfm?content\_item\_id=874&folder\_id=706 (last visited June 20, 2005); Trust for Public Land, Conservation Ballot Measures -- 2002, at

www.tpl.org/tier3 cdl.cfm?content item id=10784&folder id=1666 (2002).

<sup>&</sup>lt;sup>28</sup> Trust for Public Land, supra note 8.

<sup>&</sup>lt;sup>29</sup> Arizona Game and Fish Department, Heritage Fund Program, at

http://www.azgfd.org/w c/heritage program.shtml (last visited April 20, 2005).

<sup>&</sup>lt;sup>30</sup> Trust for Public Land, Funding Profile: Arizona, at

http://www.tpl.org/tier3\_cdl.cfm?content\_item\_id=873&folder\_id=706 (last visited April 20, 2005).

<sup>&</sup>lt;sup>31</sup> Telephone Interview with Gene Sturla, Conservation Section Supervisor, Arizona Game and Fish Department (March 9, 2005).

In addition, as discussed above, partnerships can help leverage conservation dollars and provide another opportunity to add momentum to projects that achieve the goals of multiple organizations. Development of Delaware's Wildlife Action Plan was led by the state's Department of Natural Resources and Environmental Control - Division of Wildlife. The plan outlines several action items for improved institutional capacity in order to better meet state resource protection goals. Recognizing the open space program as a key partner in protecting habitat for identified species of concern, the plan calls for increased funding for the state open space program to meet its land acquisition objectives.<sup>32</sup>

#### Strengthening authority and setting priorities

Spurred by accelerating development and the rapid disappearance of environmentally significant land, open space conservation has gained dramatic momentum in recent decades. Now more than ever, state and local governments are realizing that piecemeal approaches to land conservation are not effective.<sup>33</sup> Furthermore, the momentum of nationwide planning efforts such as the Wildlife Action Plans has thrust the concept of prioritization and planning further into the spotlight. Open space programs seeking to increase the effectiveness and efficiency of conservation investments targeted at biodiversity preservation could capitalize on this new awareness by strengthening their authority to prioritize lands for their biodiversity value.

ELI's investigation of state open space program authorities reveals multiple instances where programs are authorized to make biodiversity conservation a central programmatic goal and to prioritize land acquisition based on biodiversity values. Table 3 on pp. 12 -14 lists examples of specified authority for various types of programs.

State seeking to strengthen their wildlife and biodiversity conservation authorities and their efforts to identify and prioritize land acquisition for these resources would also benefit by codifying program purposes and priorities that reference the State Wildlife Action Plans. Although each of the 56 State Wildlife Action Plans have taken a unique approach, they all were required to identify and prioritize critical wildlife habitat and species of concern. Many of these plans include spatially explicit maps that identify and georeference critical wildlife habitat. Each plan was developed by bringing multiple stakeholders to the table, allowing for broad public participation. And finally, each plan contains a strategy for continued review and update. Indeed, the State Wildlife Action Plans can provide open space programs with a sound, publicly supported, and regularly updated roadmap for biodiversity conservation and site prioritization. In many states, this information is being made available for the first time.

#### Special considerations for grant programs

The vast majority of programs examined in ELI's study, 21 of the 28 programs or 75 percent, administer grant programs for open space acquisition. Fourteen programs, or 50 percent, protect open space *solely* through grants to local government agencies and conservation organizations to acquire land or interests in land. For example, the Clean Ohio Conservation Program funds open space acquisition projects that protect "riparian corridors or watersheds, including the protection and enhancement of streams, rivers, lakes, and other waters of the state," "habitat for rare, threatened, and endangered species," and "high quality, viable

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<sup>&</sup>lt;sup>32</sup> Delaware Department of Natural Resources and Environmental Control, supra note 25, at 6-77.

<sup>&</sup>lt;sup>33</sup> McQueen, Mike and Ed McMahon, Land Conservation Financing (Washington, DC: Island Press, 2003) 20.

#### **OPPORTUNITIES FOR STATE OPEN SPACE PROGRAMS**

habitat for plant and animal species."<sup>34</sup> Regional panels review grant proposals from local governments, park and joint recreation districts, conservancy districts, soil and water conservation districts, and non-profit organizations, make funding decisions, and then forward their decisions to the Ohio Public Works Commission, which oversees the program and gives final approval for the individual projects.<sup>35</sup> Most state open space grant-oriented programs require a match from the grantee.

Grant programs have somewhat less control in targeting lands for acquisition because they rely on proposals submitted by applicants. However, grant programs are not without the ability to encourage or even require the prioritization of acquisition projects or targeting priority wildlife habitat for protection. Such programs may identify priority wildlife habitat and give preference to proposed projects that fall within those areas. The state program can support these efforts by streamlining the availability of data and methods for identifying and prioritizing land. Although the decision-making for carrying out projects under grant programs rests with a great number of dispersed grantees, there is still ample opportunity for the state to aggressively support biodiversity and wildlife conservation program goals and objectives and maximize the effectiveness of conservation investments.

For example, New York's Environmental Protection Fund provides funds to state and local environmental entities for open space land conservation projects and prioritizes projects for funding according to New York's Open Space Conservation Plan, which includes criteria for biodiversity, wildlife, habitat, recreation, and public access. The state's 2005 Draft Open Space Conservation Plan also specifically references the need for the New York Department of Environmental Conservation and its partners to use the State Wildlife Action Plan as the primary roadmap for biodiversity and wildlife conservation in the state.<sup>36</sup>

The majority of the grant programs reviewed use scoring processes to select land acquisition projects for funding. Prioritization of lands may be done by allocating points to projects that fall within priority areas, or that reference existing plans and data that meet specified biodiversity, wildlife, and habitat priorities.

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<sup>&</sup>lt;sup>34</sup> Ohio Rev. Code § 164.27.

<sup>&</sup>lt;sup>35</sup> Ohio Department of Natural Resources, Clean Ohio Fund Overview, at http://www.dnr.state.oh.us/cleanohiofund/default.htm (last visited June 14, 2005).

<sup>&</sup>lt;sup>36</sup> New York Department of Environmental Conservation, Draft New York State Open Space Conservation Plan 2005 (Nov. 2005), available at http://www.dec.state.ny.us/website/dlf/opensp/2005/osp2005.pdf, at 341. See also: New York Department of Environmental Conservation, supra note 23.

#### In Conclusion

State open space programs face a variety of challenges in maximizing land protection efforts with limited dollars. Programs must balance the pressing need to acquire land as quickly and efficiently as possible, before the opportunity or conservation objective is lost, with the need to be strategic in acquiring land that maximizes the wildlife and biodiversity "bang" for the acquisition "buck." ELI found that the majority of the country's major state open space programs have at their disposal a variety of tools and opportunities—which may be tailored to meet the needs of specific states and programs—to maximize the effectiveness of their conservation investments. In Box B below, ELI offers recommendations based on the preceding discussion.

# Box B. Recommendations for State Open Space Programs on Prioritizing Land for Biodiversity.

- If prioritization/identification/inventory already exists, tie efforts to State Wildlife Action Plans
- Where prioritization/identification/inventory does not already exist, utilize State Wildlife Action Plans as a source of data and a quide for more informed land acquisition decision-making
- If not already specified, make biodiversity and wildlife habitat protection an explicit part of program purpose by strengthening existing authorities
- Build partnerships with state wildlife agencies, land trusts, and others with similar missions and goals
- Identify and initiate communication with less usual partners, such as water and wetland regulators or infrastructure planners
- If feasible, seek to establish a stable and predictable source of funding

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