



Stewardship of State Lands

Opportunities for Progress in
the Golden State

Advanced Policy Analysis
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Disclaimer

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Cover Image: Del Norte Coast Redwoods State Park, California Department of Parks and Recreation

Executive Summary

The state of California faces significant challenges in managing its land resources. This analysis recommends that the Legislature form a consensus-building group to (1) develop a policy for the stewardship of state-owned lands, (2) continue to inventory its lands and assess the additional need for enhanced stewardship of these lands, and (3) develop a long-term financing plan for meeting this need.

California has a long history of natural resources conservation that is supported by the public, the Administration, and the Legislature. The state's natural and working lands—comprising three-quarters of its land base—provide food, fiber, wildlife habitat, recreation, and a variety of ecosystem services, including opportunities to reduce greenhouse gas (GHG) emissions.¹ The protection and management of the lands not only ensure the stability of economic systems, but also provide regulating services such as carbon sequestration in, above, and below the ground. The state has acted to preserve its land resources through the acquisition and restoration of natural areas and open space, as well as the development of public access and recreational facilities on these lands. In addition to protecting open space, the state has invested in its natural resources infrastructure; funding for the projects traditionally has come from a mix of sources, including General Fund revenues, special funds, federal funds, and general obligation bonds.

As the threats of climate change loom larger, the state has acted to incorporate land management into its overall climate strategy, yet it has no single strategy for the management of state-owned lands. The state of California has committed to an aggressive climate policy, including a series of GHG emissions reductions. In addition, it has adopted a policy to employ the protection and management of natural and working lands as a strategy to meet the state's GHG emissions reduction goals. While the state has multiple planning efforts related to its natural resources, it lacks both a comprehensive inventory of state-owned lands as well as a long-term strategy for managing and funding the maintenance of these lands. Although the state is responsible for slightly less than 3 percent of the statewide land base, its 2.9 million acres are the only lands over which the state has direct control, making the lands the most viable starting point to better align land management with existing state policies.

While the state has spent substantial amounts of funds to protect its land resources, the current funding model for natural resources is lacking. Since 2000, natural resources spending has accounted for less than 2 percent of the General Fund and less than 3.5 percent of total state spending, on average. At the same time, the state has issued more than \$27 billion in general obligation natural resources bonds since 2000, making natural resources the most heavily debt-funded area of state spending. Although bonds allow the state to invest in natural resources while spreading payments over time, additional costs are incurred in repayment. The annual debt service on the funds is consistently one of the largest General Fund expenditures on natural resources. Meanwhile, the state's annual support for natural resources fails to meet existing maintenance needs, with an estimated \$1.2 billion in deferred natural resources maintenance. As a result of underspending during recent economic downturns, certain natural

resources funds also have faced shortfalls, leading to several one-time actions that do not address structural deficits. Such one-time actions are insufficient to sustain natural resources programs or expand them in the future and will require consideration of alternative revenues to meet long-term funding needs. Failing to resolve the ongoing issues may diminish the effectiveness of existing programs, which could harm the integrity of the state's natural resources.

A stewardship policy for state lands could define the state's goals for the ongoing protection, management, and responsible use of its lands while providing state lands with a sustainable source of funding to meet long-term management goals. The state would benefit from a stewardship policy that takes into account the long-term interests of society, the natural world, and future generations, and balances the multiple interests. Given the complexities involved in developing a stewardship policy for state lands, this analysis recommends convening a consensus-building working group to establish a policy that reflects the Legislature's commitment to the state's land resources. Because stewardship must be an ongoing activity, not a one-time event, developing such a policy would require serious discussion about the manner in which stewardship should be planned for and funded. Allocating a dedicated revenue source for stewardship could help insulate the program from the ongoing budget challenges faced by other natural resources programs.

The state should continue to inventory and assess its land base, identifying a long-term financial plan for meeting the stewardship needs of its lands. A stewardship working group could coordinate the information gathering and assessment activities needed to evaluate the benefits of land stewardship and the additional costs of implementing a stewardship program for state lands. This analysis identifies a potential annual cost of \$290 million for stewardship, amounting to \$4.4 billion to sustain these activities over 15 years. However, the actual costs of a stewardship program for state lands is dependent on the methodology used by the working group, as well as the current condition of state lands. After determining the cost of implementing a stewardship program, a working group would be responsible for identifying a revenue source to fund it. This paper considers six potential revenue sources and outlines a series of questions the working group may want to consider as it develops a long-term funding strategy for stewardship.

Continuing to delay the development of a stewardship policy for state-owned lands could have detrimental consequences for their long-term integrity. Addressing the stewardship of the state's 2.9 million acres is the only place the state can immediately start to improve the management of its lands. Failing to maintain the lands could negatively impact the wildlife that live there, the Californians who rely on public access to these resources, and the state's ability to meet its climate goals. By ensuring the state's lands are well managed through the creation of a stewardship policy, the Legislature could leave a lasting legacy for future generations of Californians.

Introduction

California has a long history of natural resources conservation that is supported by the public, the administration, and the Legislature. These actors have worked together to protect, preserve, and improve natural areas, including wilderness and open space, coastal wetlands, forests, and bodies of water and their watersheds. In addition to providing background on the widespread support for California's natural resources, this section presents a definition of stewardship and characterizes the state's land base according to ownership and management.

The Importance of California's Natural Resources

California's natural resources provide many opportunities for outdoor recreation. One study estimated that the average adult Californian participates in some type of outdoor activity at least 96 days per year, while the state parks system averages 78 million visitor days per year.² The economic contribution of statewide outdoor recreation also is significant, with an estimated \$92 billion in consumer spending annually and \$30.4 billion generated in wages and salaries.³ Given Californians' high level of outdoor activity and the economic multiplier effects of recreation, it is unsurprising that voters support legislation and bond measures to preserve the state's resources.

In the last 20 years, the anticipated impacts of anthropogenic climate change on the state's resource base have led state leaders to take an aggressive stance toward mitigating and adapting to these effects. California's climate strategy began with the California Global Warming Solutions Act of 2006 (AB 32), which requires the state to reduce its GHG emissions to 1990 levels by 2020. More recently, the passage of SB 32 requires the state to reduce GHG emissions to 40 percent below 1990 levels by 2030.⁴ Polling from the Public Policy Institute of California has found that since 2006, strong majorities of Californians have favored taking action to limit GHG emissions.⁵ Eight in 10 Californians say global warming is a very serious (58 percent) or somewhat serious (23 percent) threat to California's future economy and quality of life.⁶ Accordingly, seven in 10 (72 percent) of Californians approve of the state's GHG emissions goals, while six in 10 likely voters (66 percent) favor California making its own policies to address climate change. Californians also are supportive of the state leaders making these policy decisions: half of Californians (51 percent) approve of the way the state Legislature is handling environmental issues, which represents an increase of 20 points since 2011.⁷

California voters have consistently approved of additional state spending on natural resources, as evidenced by the passage of propositions to authorize seven general obligation natural resources bonds in the last 20 years. However, support for natural resources bond propositions has diminished over this period. Voters passed Proposition 12 (\$2.1 billion) in 2000 with a 63.2 percent yes vote, Proposition 40 (\$2.6 billion) in 2002 with a 56.9 percent yes vote, and Proposition 84 (\$5.4 billion) in 2006 with a 53.8 percent yes vote.⁸ In June, voters are considering Proposition 68, which authorizes \$4 billion in general obligation bonds for natural resources.

Defining Stewardship

Stewardship is a term that can imply a wide variety of activities and is generally not well defined by natural resources or land management literature.⁹ In his second inaugural address, Governor Jerry Brown introduced five “pillars” to guide the state’s environmental and energy goals, including the stewardship of the state’s natural resources to ensure that they store carbon, are resilient, and enhance other environmental benefits.¹⁰ State reports reference stewardship of state lands as an important state function, yet they do not define what this term means in relation to the state’s responsibilities. For example, the governor’s 2017 Five-Year Infrastructure Plan declares that, “Protected lands provide multiple environmental benefits, making the long-term stewardship and management of these state-owned lands an important priority.”¹¹ The report’s repeated citation of stewardship indicates the administration’s acknowledgment of the need to be a responsible steward. However, failing to define this term assumes various state actors have the same understanding of what stewardship entails.

In establishing the Governor’s Office of Planning and Research and its responsibilities in 1970, the Legislature essentially defined the state’s role as a steward of its land base, stating:

The Legislature finds and declares that California’s land is an exhaustible resource, not just a commodity, and is essential to the economy, environment and general well-being of the people of California. It is the policy of the state and the intent of the Legislature to protect California’s land resource, to insure its preservation and use in ways which are economically and socially desirable in an attempt to improve the quality of life in California. *Government Code Title 7, Division 1, Chapter 1.5, Article 2.*

This statement highlights one of the most important aspects of stewardship: land stewardship means not only meeting environmental quality goals, but also balancing conservation with other public benefits like recreation. The high usage of California’s state parks and the economic impacts generated by recreation illustrate this conflation of goals, as well as the need for proper land management to take precedent so that neither public access nor economic contributions are diminished.

A recent amendment to the Public Resources Code (PRC) encapsulates the concept of stewardship more than any other existing law—SB 1386 (Polk), Chapter 545, Statutes of 2016.¹² The PRC now reads:

The protection and management of natural and working landsⁱ provides multiple public benefits, including, but not limited to, assisting with adaptation to the impacts of climate change, improving water quality and quantity, flood protection, ensuring healthy fish and wildlife populations, and providing recreational and economic benefits. *Public Resources Code Section 9001.5.*

ⁱ Natural lands are defined as lands consisting of forests, grasslands, deserts, freshwater and riparian systems, wetlands, coastal and estuarine areas, watersheds, wildlands, or wildlife habitat, or lands used for recreational purposes such as parks, urban and community forests, trails, greenbelts, and other similar open-space land. Working lands are defined as lands used for farming, grazing, or the production of forest products (PRC Section 9001.5).

In addition, the PRC states it is a policy of the state to employ the protection and management of natural and working lands as a strategy to meet the state’s GHG emissions reductions goals through carbon sequestration. The statements exemplify the recognized importance of land management in meeting the state’s climate goals, as well as providing additional environmental, public, and economic benefits.

Building from these precedents, this analysis aims to further define the state’s role as a steward of its natural and working lands by putting forth a definition of stewardship. Accordingly, stewardship is defined here as: the ongoing protection, management, and responsible use of natural and working lands in a manner that takes a full and balanced account of the long-term interests of society, the natural world, and future generations. Stewardship is similar to the more widely known concept of “sustainability,” as both concepts presume that natural resources are finite and should be used conservatively with a view toward long-term priorities. Because stewardship denotes a greater responsibility to society and future generations, stewardship is more broad than what is traditionally thought of as resources management, where a manager operates in relative isolation, answerable only to a landowner. Rather, stewardship anticipates that present investments in natural resources benefit not only current land users but also future Californians, particularly through improving the capacity of lands to mitigate the impacts of climate change.

Principles of Stewardship

- Entails the ongoing and long-term protection, management, and responsible use of natural and working lands
- Takes into consideration the interests of society, the natural world, and future generations
- More broad than traditional land management because of its future-oriented nature
- Can provide multiple benefits including carbon sequestration, provision of other ecosystem services, and recreational and economic opportunities

While there is an important ethical dimension of stewardship—which implies that other species and the natural world have intrinsic value beyond their value to mankind – the moral implications of stewardship are not a focus of this analysis.¹³ In addition, this definition of stewardship does not include activities that are operational—such as purchasing equipment— or capital outlays—such as water infrastructure or land acquisitions. Operational expenses for natural resources should continue to come from the budget source currently appropriated by the Legislature. Capital outlays historically have been funded through natural resources bonds, which are an appropriate financial mechanism for these purposes.

California’s Land Base

California consists of approximately 104 million acres held by a variety of owners, ranging from private landowners and land trusts to local, state, and federal agencies. Nearly half of the state’s land base—more than 49 million acres—is protected and managed by more than 1,100 public and private agencies and organizations.¹⁴ The federal governmentⁱⁱ is the primary

ⁱⁱ The U.S. Forest Service (20.7 million acres), Bureau of Land Management (15.4 million acres), and National Park Service (7.6 million acres) serve as the largest federal managers of California’s land base.

landowner of the protected areas, managing more than 46 million acres in California.¹⁵ The state itself is the steward to approximately 2.9 million acresⁱⁱⁱ of natural and working lands, including parks, forests, grasslands, preserves, and other wildlands.^{16, 17} While the state's protected acreage may seem relatively small compared with other landowners, it is a significant amount of land—more than twice the size of Delaware. Moreover, as the only lands the state has direct responsibility for and control over, management of the 2.9 million acres represents an opportunity wherein a change in policy could make a considerable difference. Therefore, this analysis is limited to the 2.9 million acres of state-owned natural and working lands.

A number of departments and conservancies within the California Natural Resources Agency (CNRA) manage the state's lands according to their own operational missions. The Department of Parks and Recreation is the steward to approximately 1.65 million acres across 280 properties; the acreage has grown from about 996,000 acres in 1980.¹⁸ Its mission is to help preserve the state's biological diversity, protecting its most valued natural, cultural and historical resources and creating opportunities for outdoor recreation for current and future generations to enjoy. The Department of Fish and Wildlife is the steward to about 1.17 million acres across nearly 750 properties.¹⁹ Because state agencies continue to purchase land for the purpose of habitat or wildlife protection, the amount of land under the Department of Fish and Wildlife's management continues to increase.²⁰ The mission of the Department of Fish and Wildlife is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.²¹ The California Department of Forestry and Fire Protection (CAL FIRE) operates eight Demonstration State Forests and several other parcels totaling about 75,100 acres in its pursuit of safeguarding the people, property, and resources of the state.²²

The remaining state-owned lands are managed primarily by state conservancies such as the Santa Monica Mountains Conservancy (8,149 acres), and California Tahoe Conservancy (6,438 acres), Coachella Valley Mountains Conservancy (2,797 acres), State Coastal Conservancy (2,768 acres), and San Joaquin River Conservancy (2,571 acres). While the State Lands Commission is responsible for monitoring about 4 million acres of sovereign lands granted in trust to local jurisdictions, its role as an oversight agency means it does not actively manage the lands.²³

As previously stated, this analysis is limited to the approximate 2.9 million acres of state-owned lands. Yet given that natural and working lands make up three-quarters of the state's total land base, a comprehensive stewardship strategy might eventually incorporate non-state-owned lands. Such a strategy would require close coordination with local, regional, and federal agencies, as well as private landowners, and is therefore beyond the scope of this report. In addition, this report is not intended to be a critique of the state's current land management activities or the departments carrying out this work. California's land managers have the difficult task of meeting their respective missions while working within financial constraints. Finally, this report does not address state acquisition of additional lands or the practice of granting lands to local and regional agencies and organizations.

ⁱⁱⁱ Note: figures for acreage of state-owned lands vary slightly according to source.

State Planning and Funding for Natural Resources

Existing Planning Efforts

The Legislature has enacted several laws requiring a variety of planning requirements related to infrastructure, natural resources objectives, climate goals, and expenditure of cap-and-trade auction proceeds. Yet despite these efforts, there remains an opportunity for improved planning for stewardship of state lands, as well as financing of these activities. This section provides an overview of the state’s existing planning requirements for California’s natural and working lands.

It is important to note that despite the existing planning efforts detailed below, the state does not have a single, comprehensive strategy for managing its land resources. However, the need for better statewide planning been recognized for many years. A 1996 report from the Legislative Analyst’s Office (LAO) recommended the state develop a resources protection and conservation plan, including an inventory of lands of statewide significance, policies for the conservation of these resources, and a financial plan for achieving these policies.²⁴ Though the spirit of this recommendation has been pursued through the multiple planning requirements discussed in this section, there is no singular, coordinated strategy that defines the state’s long-term goals for its land resources.

Five-Year Infrastructure Plan

The California Infrastructure Planning Act requires the governor to submit a Five-Year Infrastructure Plan for the state to the Legislature in conjunction with the annual budget (AB 1473, Hertzberg, Chapter 606, Statutes of 1999).²⁵ The first plan was adopted by the Legislature and published in 2002, yet it was published irregularly thereafter until 2014. The purpose of the plan is to identify and prioritize state infrastructure needs, estimate the cost of proposed infrastructure projects, and propose funding sources for these projects. As a planning document for asset management, the plan is intended to provide a comprehensive guide for the Legislature to appropriate funds for infrastructure on an annual basis. The act defines infrastructure as “real property, including land and improvements to the land, structures and equipment integral to the operation of structures, easements, rights-of-way and other forms of interest in

Summary of Key Findings

This section provides background on several key findings about the current condition of the state’s planning and funding for natural resources. This report finds that:

- Current natural resources planning requirements do not provide a full inventory of state lands or a comprehensive strategy for funding their ongoing management.
- The annual budget for natural resources has comprised a regularly small proportion of the General Fund and total state spending since 2000.
- Natural resources is the most heavily debt-funded area of state spending.
- Debt service is consistently one of the largest annual General Fund expenditure on natural resources.
- Existing natural resources funding needs are not always met, requiring the repeated use of one-time funding measures and the deferral of regular maintenance of state lands.

property, roadways, and water conveyances” (Section 13101). This has historically translated into physical infrastructure such as education facilities and water and transportation infrastructure. However, with the signing of Executive Order B–30–15, Governor Brown directed state agencies to consider climate change in all planning and investment decisions. The 2018 Five-Year Infrastructure Plan proposes more than \$1 billion in natural resources capital spending on parks, water and flood control, drinking and ground water management, and climate resiliency.²⁶

Environmental Goals and Policy Report

AB 2070 (Chapter 1534, Statutes of 1970) created the Governor’s Office of Planning and Research and directed it to prepare and maintain a comprehensive Environmental Goals and Policy Report (EGPR).²⁷ While statute requires the EGPR to be updated every four years, the 1978 Urban Strategy for California was the last EGPR prepared and adopted before the 2015 EGPR.²⁸ The EGPR is required to include a 20- to 30-year overview of anticipated state growth and development as well as a statement of environmental goals and objectives. The goals and objectives contained in the EGPR must be consistent with state planning priorities, including the protection, preservation and enhancement of the state’s natural and working lands, recreation lands, and other open space.²⁹ The 2015 EGPR is especially relevant to this analysis due to its recommendation to provide financial resources for long-term stewardship of state lands (note: stewardship is not defined in this recommendation).³⁰ In fact, this recommendation recognizes that “for many years, general obligation bonds have funded the acquisition of land, but not its long-term stewardship.” The report goes on to acknowledge that there is a “lack of viable and sustainable funding for ongoing management” of natural resources, and that funding is needed for the “stewardship of key lands across the state . . . to protect them for the benefit of future generations.”³¹ Therefore, the 2015 EGPR is well aligned with this report’s perspective on stewardship of state lands.

Executive Order B-30-15—Safeguarding California Plan

Executive Order B–30–15, signed by Governor Brown in 2015, set out a series of climate adaptation requirements. As described above, the order requires the state’s Five-Year Infrastructure Plan to incorporate current and future climate change impacts in the state’s infrastructure projects and prioritize natural infrastructure solutions in these planning efforts. In addition, the order requires the Natural Resources Agency to update the state’s climate adaptation strategy, Safeguarding California, every three years. The Safeguarding California Plan must identify vulnerabilities to climate change by sector and region; outline primary risks to natural systems to these vulnerabilities and identify priority actions needed to reduce these risks; and identify a lead agency to lead adaptation efforts in each sector.³² The 2018 Update to the Safeguarding California Plan includes a section on Natural and Managed Resource Systems which provides an extensive record of the ongoing actions and recommended steps to improve the resiliency of natural habitats, forests, and the oceans and coasts.³³

Greenhouse Gas Emissions Reductions Planning

Executive Order B–30–15 and subsequent legislation also require the California Air Resources Board (ARB) to update the AB 32 Climate Change Scoping Plan to identify strategies for reaching the state’s 2030 climate targets.³⁴ The emissions reductions goals contained in the 2017

Scoping Plan are being finalized and should be complete by September 2018. Building from SB 1386, the 2017 Scoping Plan identified the state’s natural and working lands as a key factor in the state’s climate change strategy and called for the completion of a Natural and Working Lands Implementation Plan by November 2018.³⁵ Subsequently, ARB has worked with various state agencies and researchers to develop a Natural and Working Lands Inventory to estimate the carbon contained in forests and other natural lands, and has completed its quantification for these lands from 2001–10.³⁶ ARB is updating the inventory to include 2012 GHG emissions estimates and incorporate emissions estimates for soil carbon, urban forestry, and croplands by November. The CNRA and ARB also are working to develop the California Natural and Working Lands Carbon and Greenhouse Gas Model (CALAND), which will support the Natural and Working Lands Implementation Plan.³⁷ CALAND will include a projection of business-as-usual GHG emissions, as well as a quantitative assessment of land management activities the state could pursue to achieve emissions reductions on its natural and working lands.

Cap-and-Trade Auction Proceeds – Three-Year Investment Plan

California’s greenhouse gas cap-and-trade program was established to reduce emissions of GHGs and further the purpose of AB 32.³⁸ Proceeds from cap-and-trade auctions and reserve sales are deposited into the Greenhouse Gas Reduction Fund (GGRF) and are appropriated by the Legislature in the annual budget process. In 2012, the Legislature passed AB 1532 (Pérez), Chapter 807, Statutes of 2012, into law, which provides a framework for how auction proceeds are to be appropriated and expended and requires an annual report describing the status and outcomes of projects funded by auction proceeds.³⁹ The Department of Finance, in consultation with the ARB, must develop and submit a three-year investment plan to the Legislature, identifying opportunities for GHG emission reductions and potential investments to help achieve these reductions. While an investment concept may be included in the plan, there is no guarantee that the concept will receive funding in the annual appropriations process. The state is operating under the second investment plan (FY 2016–17 through FY 2018–19), which proposes several relevant investment concepts including a variety of conservation and management strategies intended to improve long-term carbon sequestration on natural and working lands.⁴⁰

Natural Resources Funding

State spending on natural resources comes from a variety of revenue sources and has remained remarkably consistent in proportion to total state spending over the past two decades. In addition to bond funds and support from the General Fund, the state finances natural resources through special and federal funds. This section discusses the state’s natural resources budget and bond spending since 2000, as well as some of the challenges facing this area of state spending.

Budget and Bond Authority

As of early May 2018, the state anticipates spending \$6.3 billion on natural resources in FY 2018–19, including \$3 billion from the General Fund.⁴¹ This amounts to about 2.3 percent of the General Fund and 3.3 percent of total state spending. The proposed spending for FY 2018–19 is consistent with historical spending since FY 2000–01, as natural resources has received

only between 1.2 to 2.8 percent of the General Fund and 2.5 to 4.6 percent of total spending over this time. The average amount of General Fund support for natural resources since FY 2000–01 is \$1.9 billion (or 1.9 percent of the General Fund), though General Fund support has increased to an average of \$2.8 billion (a 2.3 percent increase) over the last five years, partially due to increased debt service payments from the General Fund. The average amount of total proposed spending on natural resources since FY 2000–01 is \$4.6 billion, which represents about 3.5 percent of total state spending. However, the average amount of proposed natural resources spending as a proportion of total state spending has decreased to 2.9 percent in the last five years.

Figure 1: Natural Resources Budget Areas and Funding Sources, FY 2015–16 to FY 2018–19

Expenditures	2015–16 Actual ⁴²	2016–17 Actual ⁴³	2017–18 Budget ⁴⁴	2018–19 Budget ⁴⁵
Total	\$5,002	\$5,039	\$5,716	\$6,266
By Department				
General Obligation Bond Debt Service	\$970	\$1,025	\$1,011	\$933
Dept. of Forestry & Fire Protection	1,306	1,305	1,636	1,755
Department of Parks & Recreation	466	480	719	1,093
Department of Fish & Wildlife	408	431	468	529
Department of Conservation	87	124	118	126
Department of Water Resources	916	548	572	475
Wildlife Conservation Board	116	94	145	132
California Conservation Corps	95	94	120	125
Energy Commission	436	396	556	604
Coastal Conservancy	44	142	73	51
Other Resources Programs	157	570	298	382
By Funding Source				
General Fund	\$2,600	\$2,726	\$2,857	\$3,034
Special Funds	1,280	1,271	1,774	1,769
Bond Funds	983	885	795	1,171
Federal Funds	139	157	291	292

Note: Dollars in millions

Natural resources funding supports the work of the state’s various departments, commissions, and conservancies within the Natural Resources Agency. As seen in Figure 1, about half of the natural resources budget comes from the General Fund. Special funds are also an important source of funding for resources programs, which are predominantly supported by the assessment of fees on specific activities. Federal funds typically make up less than 5 percent of spending.

The state has a long history of issuing bonds to supply funding for natural resources infrastructure projects and large capital outlays such as land acquisitions. The state has issued over \$32 billion in general obligation bonds for natural resources since 1974, though \$27.3 billion has been issued since 2000.⁴⁶ As with all other general obligation bonds, voters approved the bonds in statewide propositions. Bond funds have provided an average of 23.4 percent of annual natural resources funding since FY 2000–01. The reliance on bonds

highlights an advantage of the state’s present model for funding natural resources: bonds allow the state to make a dedicated, significant investment in natural resources infrastructure, while spreading payments over time.

About 95 percent of the available natural resources bond funding since 2000 has been allocated, which means that the state is making principal and interest payments on these funds (see Figure 2). The annual principal and interest payments, or debt service, are made until a bond is paid off in full, and typically are paid from the General Fund. The LAO estimates that for each \$1 borrowed, the state pays \$1.30 in debt service, when adjusting for inflation.⁴⁷ With more than \$27 billion in natural resources bond issuances since 2000, the related debt service as a proportion of spending from the General Fund is consistently one of the largest General Fund expenditures on natural resources. For example, the FY 2017–18 natural resources budget includes over \$1 billion in debt service—the largest source of General Fund expenditures on natural resources, amounting to 36 percent of total natural resources spending.⁴⁸ Of the more than \$114 billion in total general obligation debt voters have approved since 2000, natural resources comprises the largest proportion, accounting for about 24 percent of total debt.⁴⁹ Therefore, natural resources is the most highly debt-funded area of state spending.

Figure 2: Natural Resources General Obligation Bonds, 2000–Present

Bond	Year	Purpose	Allocation	Remaining Funds Available	% Funds Remaining
Proposition 12	2000	Parks, forests, open space ⁵⁰	\$2.1 billion	(\$16 million)	0%
Proposition 13	2000	Water infrastructure ⁵¹	\$2.1 billion	\$116 million	5.5%
Proposition 40	2002	Parks & conservation ⁵²	\$2.6 billion	(\$16 million)	0%
Proposition 50	2002	Water projects ⁵³	\$3.4 billion	(\$80 million)	0%
Proposition 1E	2006	Flood protection ⁵⁴	\$4.1 billion	\$34 million	8.3%
Proposition 84	2006	Water supply, flood protection, parks ⁵⁵	\$5.4 billion	\$129 million	2.4%
Proposition 1	2014	Water projects ⁵⁶	\$7.5 billion	\$928 million	12.4%
Totals			\$27.3 billion	\$1.2 billion	4.4%

Source: California Natural Resources Agency

As a general principle, bond funds should only be used for projects that provide benefits over many years to the taxpayers who finance the bond. Therefore, only natural resources projects that have a useful life of 20 to 40 years are appropriately funded through bonds, such as land acquisitions and capital improvements to park infrastructure. In contrast to natural resources infrastructure projects with lengthy lifespans, it is inappropriate to pay for maintenance and operational costs through long-term debt. While there are advantages to using bonds, there are also several disadvantages. Perhaps the main disadvantage is that the state has historically failed to fund the maintenance of acquired lands and capital projects beyond the initial bond

infusion. In addition, bond funding is more expensive than other funding sources due to the added costs incurred in repayment. A reliance on bond spending poses problems to resource managers who must attempt to plan around the unknown availability of funding. Finally, bond funding dictates future use of the General Fund, as the state is obligated to pay its annual debt service, thereby limiting the availability of General Fund support for other natural resources programs.

SB 5 (de León), 2017, Chapter 852, Statutes of 2017, placed Proposition 68, a \$4 billion general obligation bond measure, on the June 2018 ballot. Officially called the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018, Proposition 68 contains a variety of funding priorities including expanding and improving parks, protecting watersheds and coastal habitats, and other conservation efforts.⁵⁷ In addition, Proposition 68 contains \$443 million in funding for climate adaptation and resiliency projects. Proposition 68 could cost taxpayers anywhere from \$6.53 billion assuming a 30-year maturity and 3.5 percent interest rate to \$7.81 billion with 5 percent interest.⁵⁸ The annual debt service payment when all bonds are sold could range between \$232 and \$260 million and would be paid from the General Fund.

Ongoing Budget Issues

As a result of underspending during economic downturns, certain natural resources funds have faced ongoing shortfalls, requiring several one-time actions. The recent Great Recession led to baseline natural resources budget reductions to achieve savings; these reductions nearly led the Department of Parks and Recreation to close up to 70 state parks in 2012.⁵⁹ While the Legislature and Administration were able to take measures to avoid these park closures, this area is vulnerable to future reductions if another economic downturn occurs. The Legislature will have to resolve several budget shortfalls in the FY 2018–19 budget, as has been the case in previous fiscal years. For example, the State Parks and Recreation Fund, which provides about 40 percent of the Department of Parks and Recreation funding, has had substantial shortfalls the last four fiscal years, requiring a drawdown of reserves and special fund transfers.⁶⁰ In addition, the Department of Fish and Wildlife has faced a \$20 million ongoing operating shortfall due to an expansion of costs without commensurate new revenues, requiring support from several other sources.⁶¹ Such one-time actions are not sufficient to sustain natural resources programs or expand them in the future, and will require consideration of alternative revenues to meet long-term funding needs. Failing to resolve these issues may reduce the service level of existing programs, which could harm the integrity of the state's natural resources.

Deferred maintenance is the result of routine maintenance being delayed or underfunded on an annual basis, often in anticipation of future bond spending. Just as the state does not have an inventory of its land resources, the state also does not have an inventory of its natural resources infrastructure, so it can only estimate the total cost of deferred maintenance.⁶² The state currently has about \$77 billion in identified deferred maintenance, with about \$1.2 billion in natural resources deferred maintenance.⁶³ In recent years, the governor has consistently proposed spending to reduce the backlog of deferred projects in the Five-Year

Infrastructure Plan. The Department of Parks and Recreation has been the primary natural resources area to have its deferred maintenance needs addressed by the plan. This attention to state parks is promising, yet many park managers have long argued that the state has deferred critical park maintenance to the detriment of the health of these protected lands.⁶⁴ While bond funding can help address some of the state's natural resources spending needs, the very existence of deferred maintenance is evidence of historical underfunding of natural resources maintenance activities.

Recent Developments

An attempt to better meet the existing needs of the state's natural resources has led to several new budget mechanisms aimed at enhancing the sustainability of natural resources spending. The California State Park Stewardship Act of 2012—AB 1589 (Huffman), Chapter 533, Statutes of 2012—was designed to address shortfalls in revenues and prevent the closure of state parks as discussed above. The act established the California State Park Enterprise Fund for taxpayers to voluntarily contribute to via their state income tax return.⁶⁵ Donations collected in excess of covering the costs of issuing state parks day use annual passes are used by the Department of Parks and Recreation for various activities that enhance and preserve state parks.⁶⁶ An average of \$368,000 has been contributed to this fund annually over the last four years.⁶⁷

The Natural Resources and Parks Preservation (NRPP) Fund was established in the FY 2017–18 budget year to provide an alternative to bond funding. Given the disadvantages of bonds described above, some advocates believe the state should use a “pay as you go” system, where a specific amount of funding is transferred to the NRPP Fund in the annual budget process. Using a pay as you go model would give the administration and Legislature the discretion to determine where funds should be directed based on the specific needs of that year. In addition, these funds could be used for non-capital projects and other activities bonds are unable to fund, which could potentially help reduce the amount of deferred natural resources maintenance. While the NRPP Fund has been created, the Legislature did not approve the initial request to transfer \$65 million to the fund in FY 2017–18, and the fund presently has a zero balance.

What is the path forward?

This section has identified multiple issues around planning and funding for natural resources in California. Maintaining the status quo means perpetuating an unsustainable system that fails to meet existing needs and could have negative consequences for the state's lands, the wildlife that live on them, and the Californians who rely on accessing these resources. While failing to complete regular maintenance of park facilities, for example, can go unnoticed for a year, continuing to defer this maintenance on a long-term basis could have adverse impacts on the park's overall condition and the safety of park visitors. The Legislature will continue to need to resolve these structural issues in future years in order to maintain current natural resources spending.

Adopting a long-term stewardship policy for the management of state lands would help resolve many of the issues identified in this analysis. Without such a strategy, the state cannot reasonably expect to capture the climate benefits, or the associated public and economic benefits, of land management. The next section estimates the potential cost of stewardship for state lands, and the following section identifies potential revenue sources to fund meet this cost. Finally, several recommendations are provided for the Legislature to consider were it to pursue a coordinated management strategy for the lands under its stewardship.

Stewardship Cost Estimates

A stewardship program for state-owned lands could allow the state to better capitalize on the multiple benefits of land management. Because stewardship involves more than meeting the management needs of state lands in the present, it would require a financial commitment in addition to what the state currently spends on land management activities. Therefore, this section presents an estimate of the additional cost of stewardship of state lands over a 15-year period. This time period is sought because of the ongoing nature of stewardship—it cannot simply be funded on a one-time basis. To fully maximize the climate benefits of natural and working lands, as well as preserve the recreational and economic opportunities provided by state lands, it is of critical importance that the state commit to funding stewardship over this 15-year period.

Existing research does not widely address the value and associated costs of stewardship, yet the field of natural resources stewardship continues to expand with improvements to methodologies for valuing ecosystem services.⁶⁸ While the Intergovernmental Panel on Climate Change has designed principles for estimating the carbon contained in natural and working lands, there is no one accepted methodology for valuing these carbon stocks, particularly from a governmental perspective. As discussed in the Existing Planning Efforts section above, the CNRA is working on a tool to determine a baseline of statewide natural and working lands carbon emissions and carbon sequestration potential as part of the 2017 Climate Change Scoping Plan Update.⁶⁹ This tool and the Natural and Working Lands Inventory are promising first steps in developing a strategy to better manage the lands as a carbon sink to meet the state’s climate goals. The goal of using state lands in this climate-mitigating manner recognizes one of the primary benefits of stewardship: deliberate land management can have a significant payoff in the form of added climate resiliency.

Quantifying the state’s need for stewardship relies on information about the types and conditions of lands managed by the state, the different management activities required on these lands, the fixed and variable costs of land management, the gap between management and stewardship, and the fixed and variable costs of stewardship activities.^{iv} Because the state’s lands are not inventoried at this level of detail, a rigorous estimate for either the cost of current land management activities or the additional cost of stewardship cannot be provided.^v In addition, the state itself does not identify the total cost of its current land management activities. For the purpose of this analysis, the findings from a cost analysis by the Center for Natural Lands Management (CNLM) are used as a reference point to provide a possible range for stewardship costs. The CNLM assessed the average annual management costs of parcels in California, Arizona, and Oregon and used this information to estimate the stewardship costs for

^{iv} Fixed stewardship costs include staff time to monitor the property (e.g., to guard against dumping) and do basic maintenance (e.g., picking up litter). In contrast, variable stewardship costs are dependent on the services and facilities provided by a property and the size of the property. Variable stewardship costs include construction and rehabilitation of trails, signs, and other features; invasive species control; erosion control; habitat restoration or other wildlife projects; and the implementation of climate-smart practices.

^v See the ARB’s [Natural and Working Lands Update](#) for estimates of forest carbon stocks and natural lands stock-change.

the lands. The assessment found that management costs depend heavily on the size of the land parcel and specific management activities, and that while the cost of stewardship cannot be predicted with certainty, economies of scale are dramatic. The CNLM found stewardship costs ranged from about \$100 an acre per year for larger projects to as much as \$1,000 an acre per year for smaller projects. The tenfold difference indicates that stewardship is highly contingent on the size of the land parcel.

Figure 3: Estimated Annual and 15-Year Stewardship Costs

Activity	State Lands Acreage	Annual Cost Per Acre	Total Annual Cost	Total 15-Year Cost
Stewardship (low)	2.9 million	\$100	\$290 million	\$4.4 billion
Stewardship (mid)	2.9 million	\$500	\$1.5 billion	\$22.5 billion
Stewardship (high)	2.9 million	\$1,000	\$2.9 billion	\$43.5 billion

Using the lower boundary of \$100 per acre, stewardship of the state’s 2.9 million acres could cost about \$290 million per year. This amounts to over 15 percent of average spending on natural resources from the General Fund, making stewardship a relatively significant new area of natural resources spending if it were funded by the General Fund. Using this lower boundary and assuming the state does not substantially alter its portfolio of lands or its annual level of financial support, stewardship would cost the state approximately \$4.4 billion over a 15-year period. This estimate is slightly less than the average amount of total spending on natural resources since FY 2000–01 (\$4.6 billion), meaning that a basic, steady level of funding for stewardship over 15 years could cost as little as the average annual budget for natural resources.

The mid-point of \$500 per acre for stewardship generates a more substantial annual estimate of \$1.5 billion, or \$22.5 billion over 15 years. This annual increase in budget would amount to a 132 percent increase in total natural resources spending. The higher boundary of \$1,000 per acre for stewardship would have a considerable fiscal impact on the state’s budget, as this level of funding would entail an additional \$2.9 billion in annual spending on natural resources. Meeting this level of spending on stewardship would require an increase in average natural resources spending of more than 160 percent. Though this analysis does not intend to imply that this level of investment is necessary or feasible, it is useful for demonstrating the impact of methodological assumptions on the estimated cost of stewardship.

Because there is no sure way to know which of these estimates is closest to the appropriate level of funding for stewardship without a proper assessment of state lands, the low-end estimate of \$290 million per year, or \$4.4 billion over 15 years, will be used as a conservative benchmark for the necessary level of stewardship funding. While the actual amount needed for stewardship could differ dramatically, this estimate provides a reasonable starting point to consider possible revenue sources to meet this need.

Revenue Sources & Analysis

For the state to truly prioritize the stewardship of its lands, it would have to identify a revenue source to meet the added cost of funding their stewardship over the next 15 years. Given the state's many financial obligations, this analysis assumes the Legislature would not wish to shift funding from other state programs to pay for stewardship. Therefore, this section discusses several revenue sources the Legislature and Administration might consider for stewardship that minimize the financial impact on existing programs. The \$4.4 billion estimate identified above will be used as a reference point when assessing whether the revenue source could meet the anticipated cost of stewardship of state lands over a 15-year period.

Cap-and-Trade Auction Proceeds

Background

California's greenhouse gas cap-and-trade program was established to reduce GHG emissions and further the purpose of AB 32.⁷⁰ State proceeds from cap-and-trade auctions and reserve sales are deposited into the GGRF and are appropriated by the Legislature in the annual budget process. As of March 2018, the Legislature has allocated \$6.1 billion of cap-and-trade auction proceeds to various state climate investments in accordance with the three-year Climate Investment Plan.⁷¹ AB 398 (Garcia), Chapter 135, Statutes of 2017, extends the cap-and-trade program to 2030 and provides additional direction for the appropriation of auction proceeds to reflect the expanding role of the state's climate investments in addressing multiple, interconnected problems beyond GHG emissions reductions.⁷² The 2017 Budget Act includes several programs not previously funded by cap-and-trade proceeds. As a result, the ARB is revising its funding guidelines to allow for more flexibility in project types.⁷³ Most relevant to this analysis is AB 398's direction to appropriate funds to priorities including (but not limited to) climate adaptation and resiliency, and to healthy forests and urban greening (HSC Section 38590.1).

Current law continuously appropriates 60 percent of available auction revenues for the state's high-speed rail project (25 percent), affordable housing and sustainable communities grants (20 percent), intercity rail projects (10 percent), and low carbon transit operations (5 percent). The remaining 40 percent is available for annual appropriation by the Legislature. The 2017 Budget Act assumes the state will have approximately \$1.6 billion available for discretionary spending—consisting of \$700 million from FY 2017–18 revenues and \$800 million unallocated from previous years—yet the estimate is subject to uncertainty about future auction revenues.⁷⁴ The GGRF has funded more than \$119.4 million in natural resources investments, including watershed restoration (\$29.9 million), restoration of forests (\$82 million), urban greening (\$80 million), and practices to build soil carbon and reduce GHG emissions on farms (\$7.5 million).⁷⁵ The 2017 Budget Act contains \$1.6 billion for multiple new spending areas; Figure 4 displays the primary natural resources areas to be funded by this discretionary spending.

Figure 4: FY 2017–18 Cap-and-Trade Natural Resources Discretionary Spending

Category	Department/Agency	Amount
Forest health and fire protection	CAL FIRE	\$200 million
Urban forestry	CAL FIRE	\$20 million
Urban greening	Natural Resources	\$26 million
Natural lands climate adaptation	Wildlife Conservation Board	\$20 million
Wetland restoration	Dept. of Fish & Wildlife	\$15 million
Coastal climate adaptation	Various	\$6 million

Source: Legislative Analyst’s Office

It is difficult to forecast revenues from future cap-and-trade auctions due to their volatility. The LAO projects that revenues could fluctuate by billions of dollars annually, ranging from \$2 billion to \$4 billion in 2018 and from \$2 billion to nearly \$7 billion by 2030.⁷⁶ After meeting statutory funding mandates, cap-and-trade could provide approximately \$80 million to nearly \$2.8 billion in discretionary funds by 2030.

Analysis

The recent passage of AB 398 and the 2017 Budget Act are indicative of the evolving types of investments that the GGRF could fund in future years. Various legislation, including SB 1386, has clearly identified effective management of the state’s natural and working lands as an integral part of the state’s climate change strategy. Given the intent of AB 398 and the precedent set by the Legislature in using cap-and-trade for a variety of new climate resiliency activities, funding stewardship activities is well aligned with the expanded uses of the GGRF.

The uncertainty of future cap-and-trade auction revenues complicates an assessment of its effectiveness as a revenue source for stewardship. At the lower end of the range of potential discretionary funding, \$80 million does not meet the estimated \$290 million needed annually for stewardship, nor would it be possible for the Legislature to allocate the total amount of discretionary funds to stewardship. However, the estimated stewardship costs represent around 10 percent of the upper end of the range of potential discretionary funding, making stewardship a more likely activity to be funded by GGRF if revenues near \$2.8 billion are realized. If auction revenues reach only the midpoint of the projected range (\$1.4 million), stewardship would account for about 20 percent of revenues. While uncertainty with cap-and-trade auction revenues is a legitimate concern in making an ongoing commitment to stewardship out of the GGRF, the acceptable uses of this source are already well aligned with stewardship. Moreover, using the GGRF for stewardship would not detract from other spending on natural resources because auction proceeds are an unallocated revenue source. The discretionary nature of cap-and-trade auction proceeds makes them an attractive revenue source for the Legislature to consider for stewardship.

Sales Tax

Background

California's sales and use tax is the second-largest source of revenue for the state's General Fund after the personal income tax.^{vi} The sales tax rate varies across cities and counties, ranging from 7.5 percent to 10 percent, with an average rate of 8.5 percent. Most sales tax revenue is directed to the General Fund, though some revenues are dedicated to specific programs including 1.6 percent for criminal justice, mental health, and social services programs; 0.5 percent for city and county public safety programs; and 0.25 percent for county transportation programs.⁷⁷ The Legislature is limited in its ability to make changes to the sales tax, most notably by Proposition 13, which requires a two-thirds vote threshold to enact state tax increases.

The state has seen sales tax revenues grow over the last several decades, though revenues vary from year to year. Despite the volatility of sales tax revenues, they are generally less volatile than the personal income tax, making the sales tax a more stable revenue source than the personal income tax. Sales tax revenues were \$24.9 billion in FY 2016–17 and are projected to generate \$25.2 billion in FY 2017–18.⁷⁸ While consumers continue to spend about one-third of their income on taxable goods, this share is anticipated to continue decreasing as more non-taxable services and goods are purchased. In addition, potential unrealized revenues from the use tax could be as much as \$1 billion annually, as many Californians are not aware of its existence.⁷⁹ Under the assumption that the economy will continue to grow, sales tax revenues could reach as much as \$27.3 billion by FY 2020–21, assuming 2.5 percent annual growth.⁸⁰ However, a mild economic recession would dampen this growth, limiting annual sales tax revenue growth to approximately 1.4 percent, resulting in \$26.1 billion by FY 2020–21.

Assuming the sales tax continues to provide revenues of at least \$25 billion in the near future, the Legislature could consider directing a specific portion of this revenue to stewardship of lands. An allocation of 0.5 percent of revenues could provide \$125 million annually, 1 percent of revenues could provide \$250 million annually, and 1.5 percent of revenues could provide \$375 million annually; over 15 years, the different percentages could provide \$1.9 billion, \$3.8 billion, or \$5.6 billion respectively.

Analysis

Allocating a continuous portion of sales tax revenues to stewardship would put the state's commitment to natural resources on par with existing commitments to criminal justice, social services, public safety, and transportation programs. While increasing the state's base sales tax would require a two-thirds vote in the Legislature, a simple majority could direct a specific percentage of sales tax revenues toward natural resources. The sales tax is appealing as a potential revenue source for stewardship for several reasons: it has a broad base, it provides a relatively certain amount of revenue to the state, and it would achieve extensive buy-in for the state's natural resources, as everyone pays sales taxes. The ability for this revenue option to

^{vi} A use tax is levied when consumers purchase goods from retailers who do not collect California sales tax in the case of online purchases or when goods are purchased outside of the state. This discussion uses the term "sales" tax to convey both sales and use taxes.

meet the identified cost of stewardship would be dependent on the percentage of sales tax revenues the Legislature allocates to stewardship as well as the amount of sales tax revenues collected. Assuming annual revenues of \$25 billion for the next 15 years, a dedicated allocation between 1 to 1.5 percent could likely fund stewardship over this time.

Motor Vehicle Fuel Tax

Background

The state collects a base excise tax as well as a variable excise tax on gasoline, which is set annually by the Board of Equalization. Effective November 1, 2017, the Road Repair and Accountability Act—SB 1 (Beall), Chapter 5, Statutes of 2017—increases the excise tax rates for Motor Vehicle Fuel (MVF) and diesel fuel, as well as the additional statewide sales and use tax rate imposed on retail sales and purchases of diesel fuel.^{vii} The excise tax rates on MVF and diesel fuel also will be subject to an annual Consumer Price Index adjustment beginning July 1, 2020.⁸¹ The MVF tax increase is anticipated to generate \$5.2 billion annually, primarily for road and bridge repairs and expanded mass transit across the state. However, a portion of this anticipated funding—\$82 million—is to be transferred to the State Parks and Recreation Fund (SPRF) annually for the next 10 years.⁸² The revenues deposited into the SPRF will come from the increased base gasoline excise tax revenues from off-highway vehicles and boats and will be used to fund various parks, off-highway vehicle, and boating programs.⁸³

Accounting for about 40 percent of the Department of Parks and Recreation budget, the SPRF has faced shortfalls, requiring the Legislature to redirect revenues from the Environmental License Plate Fund and Off-Highway Vehicle Trust Fund in addition to MVF taxes to the SPRF.⁸⁴ Analysis from the LAO has indicated that the ongoing SPRF shortfalls may require additional diversions of MVF tax revenues unless the structural deficit is resolved. While \$82 million is anticipated to be transferred to the SPRF on an annual basis over the next 10 years, there is no guarantee the amount will be available for allocation to the SPRF.

Analysis

The Legislature has set a precedent for using MVF tax revenues to fund natural resources by supporting the Department of Parks and Recreation budget. Expanding the use of MVF tax revenues to fund stewardship activities would therefore be consistent with other uses of MVF tax revenues. MVF tax revenues would be a sustainable source of funding for at least the next 10 years under SB 1, though a reallocation of revenues to stewardship may require a two-thirds vote of the Legislature. Current statute allocates only \$82 million annually to the SPRF, which is about 28 percent of the estimated need for stewardship, making MVF tax revenues an insufficient funding source for stewardship. Moreover, MVF tax revenue support of the SPRF is helping to meet a budget shortfall within the Department of Parks and Recreation. A reallocation of MVF tax revenues earmarked for the SPRF would detract from other natural resources spending. Alternatively, the Legislature could reallocate MVF tax revenues from other

^{vii} SB 1 increased the excise tax rate for MVF from \$0.297 to \$0.417 per gallon (an increase of \$0.12 per gallon), the excise tax rate for diesel fuel from \$0.16 to \$0.36 per gallon (an increase of \$0.20 per gallon), and the additional statewide sales and use tax rate imposed on retail sales of diesel fuel from 1.75 percent to 5.75 percent.

purposes to meet stewardship needs. Determining where to reduce support, however, would be a difficult task. Though funding stewardship through MVF tax revenues is aligned with other expenditures on natural resources programs, modifying the revenue allocations made in SB 1 may not receive enough support.

Personalized License Plate Revenues

Background

The issuance and renewal of personalized license plates by the Department of Motor Vehicles (DMV) provides revenues which are deposited into the California Environmental License Plate Fund (ELPF).⁸⁵ The ELPF funds the Environmental Protection Program, which supports a variety of activities across the California Natural Resources Agency.^{viii} The Legislature has complete autonomy in appropriating the balance of money in the fund after reimbursing the costs incurred by the DMV in administering the program. Over the last several fiscal years, the annual revenues from personalized license plates have hovered slightly above \$40 million. As of FY 2016–17, the ELPF contained approximately \$41.8 million and maintained a \$4.9 million reserve after expenditures for economic uncertainties.⁸⁶ The fund is projected to have a fund balance of \$10.8 million at the end FY 2017–18.⁸⁷ No further projections for the ELPF are available beyond the end of the current fiscal year.

The ELPF has been used to backfill shortfalls in the Department of Parks and Recreation budget as well as other natural resources areas. The ELPF is only able to sustain these one-time needs because its ongoing support for the Department of Parks and Recreation was recently eliminated, thereby resolving the ELPF's structural deficit in FY 2015–16. The ELPF's structural deficit was partially caused by lower than estimated revenues and higher ongoing spending. In addition, the fund was overcharged \$2.1 million for administrative costs by the DMV, which were uncovered in a 2013 state audit.⁸⁸

Analysis

Given the ELPF's history of structural issues as well as its recent use in meeting one-time needs, it is unlikely that personalized license plate revenues could fund stewardship on an ongoing basis in any substantial way. The recent year-end ELPF balances are minimal compared to the estimated need for stewardship, and future ELPF availability is uncertain given the need for the ELPF to resolve its ongoing structural issues. Even an appropriation of the full anticipated \$10.8 million balance at the end of the current fiscal year would meet only 3.7 percent of the estimated cost of stewardship. While the Legislature has the discretion to redirect ELPF money to stewardship, this could reduce funding for other natural resources activities currently funded

^{viii} Funded activities include: (1) control and abatement of air pollution; (2) the acquisition, preservation, restoration, or any combination thereof, of natural areas or ecological reserves; (3) environmental education, including formal school programs and informal public education programs; (4) protection of non-game species and threatened and endangered plants and animals; (5) protection, enhancement, and restoration of fish and wildlife habitat and related water quality, including review of the potential impact of development activities and land use changes on that habitat; (6) the purchase, on an opportunity basis, of real property consisting of sensitive natural areas for the state park system and for local and regional parks; (7) reduction or minimization of the effects of soil erosion and the discharge of sediment into the waters of the Lake Tahoe region, including the restoration of disturbed wetlands and stream environment zones. *Public Resources Code Division 13.5.*

by the ELPF. That being said, the ELPF is an established revenue source already being collected for environmental purposes, many of which are aligned with the goals of stewardship.

Marijuana Tax Revenues

Background

As of January 2018, the state collects a series of taxes on the purchase and cultivation of marijuana pursuant to the Control, Regulate, and Tax Adult Use of Marijuana Act (AUMA). The revenues are deposited in the California Marijuana Tax Fund. The LAO estimates that the AUMA could eventually collect net revenues ranging from the high hundreds of millions of dollars to more than \$1 billion annually.⁸⁹ However, revenues are likely to be significantly lower in the first several years following as the legal marijuana market develops. The priority funding disbursement areas of the Marijuana Tax Fund include administration, analysis, research, and community health investments.⁹⁰ These areas would be funded at an annual level of \$65 million once fully phased in, though some initiatives are only funded until FY 2022–23 or FY 2028–29.

Beginning in FY 2018–19, 20 percent of remaining unallocated funds are to be deposited in the Environmental Restoration and Protection Account.⁹¹ Both the Department of Fish and Wildlife and Department of Parks and Recreation will receive funding for the cleanup and prevention of environmental damage resulting from marijuana cultivation. In addition, the stewardship and operation of state-owned wildlife habitat areas and state parks will be funded to discourage and prevent the illegal cultivation of marijuana on public lands.⁹² The secretary of Natural Resources will determine the allocation of available revenue between the departments, giving top consideration over the first five years to projects that reduce the damage made to watersheds from marijuana cultivation. If LAO estimates are correct and marijuana tax revenues eventually reach \$1 billion, as much as \$7 million could be available for environmental remediation and stewardship of state lands on an annual basis (i.e., 20 percent of the \$35 million remaining).

Analysis

Current statute limits the uses of AUMA tax revenues, though the Legislature could reallocate a portion of these revenues to stewardship activities unrelated to environmental remediation needed as a result of marijuana cultivation. Expanding the use of AUMA tax revenues beyond the stewardship of state lands affected by marijuana cultivation would require the Legislature to broaden the allowed uses of the Environmental Restoration and Protection Account. The Legislature has this authority and could allocate AUMA tax revenues to general land stewardship purposes. For instance, a specific percentage of the funds deposited in the Environmental Restoration and Protection Account could be allocated to stewardship activities on any state-owned lands, not only those affected by marijuana cultivation.

The uncertainty around projecting AUMA tax revenues limits the ability to assess whether this option presents a feasible revenue source for stewardship. Regardless of this uncertainty, the magnitude of anticipated AUMA tax revenue is not likely to be sufficient to cover the costs of stewardship. Still, funding stewardship of state lands, at least partially, through AUMA tax revenues is an option worth considering. Of the anticipated AUMA revenue dedicated to environmental purposes, allocating 10 percent to stewardship could provide \$700,000 annually.

A slightly higher allocation of 25 percent to stewardship would provide \$1.75 million annually. While both of these figures are far less than the estimated \$290 million in annual stewardship needs, the novelty of AUMA tax revenues make them an attractive revenue source to consider.

Voluntary Income Tax Contribution

Background

Current law allows taxpayers to voluntarily contribute an amount in excess of their personal tax liability to one or more of 20 special funds via their state income tax return.⁹³ In addition to the California State Park Enterprise Fund discussed previously, taxpayers can contribute to “checkoff” funds that support rare and endangered species, sea otters, and the California coast.⁹⁴ As of the last Legislative session, taxpayers can now contribute to the Native California Wildlife Rehabilitation Voluntary Tax Contribution Fund, which the Department of Fish and Wildlife will use to establish a grant program for the recovery and rehabilitation of wildlife and conservation education (AB 1031 (Waldron), Chapter 504, Statutes of 2017).⁹⁵ The Franchise Tax Board has collected nearly \$100,000 for the fund since the start of 2018.⁹⁶ The Rare and Endangered Species Preservation checkoff has been particularly successful, having generated an average of \$427,000 over the last four years,⁹⁷ while the California Sea Otter checkoff has generated an average of \$302,000 over the last four years.⁹⁸ Building from these natural resources-supporting voluntary checkoff programs, the Legislature could introduce an additional voluntary checkoff for taxpayers to contribute to stewardship of state lands.

Analysis

While there is a precedent for voluntary income tax contributions funding various natural resources programs, there is no way to estimate the revenues a checkoff program for stewardship might generate. Therefore, the potential for this revenue option to meet the identified need for stewardship funding cannot be assessed in this analysis. The purpose and intent of a fund for stewardship may not be readily understood by potential contributors, making contributions to a stewardship fund lower than existing natural resources checkoff funds. Even if a voluntary stewardship checkoff were implemented and the fund received similar revenues as those generated by other natural resources checkoffs, this revenue option would not come close to meeting the estimated cost of stewardship. As with other voluntary contribution funds, the Legislature would have full discretion and authority to determine the specific purposes for which money contributed to a stewardship fund could be used and whether an annual minimum contribution to the fund must be met.

Revenue Sources Summary

This section has introduced six revenue sources the Legislature could consider to fund the stewardship of state lands that would not require substantially shifting spending from other programs. Their potential annual and 15-year revenues according to the possible scenarios presented in this section are summarized in Figure 5 below.

There is a great deal of uncertainty at play when considering which of these revenue sources could provide the estimated \$290 million annually, or \$4.4 billion over 15 years, for stewardship. The preceding discussion has proposed fairly conservative estimates for those

revenue sources which stewardship could be a percentage of total available funding (i.e. cap-and-trade, sales tax, and marijuana tax revenues). From the standpoint of simply meeting the threshold for stewardship funding, cap-and-trade auction proceeds are the only revenue source that is close in magnitude to the 15-year, \$4.4 billion estimate. Because cap-and-trade auction revenues cannot be projected with any certainty and could vary widely from what is currently anticipated, it is possible that the GGRF could provide the state with far more (or less) in annual discretionary funding until 2030. That being said, this is the most promising revenue source analyzed in this report to meet the estimated expenditure on stewardship of state lands. If the GGRF were used to fund stewardship, the Legislature would have to determine an alternative source of funding if no action is taken to extend cap-and-trade beyond 2030.

Figure 5: Stewardship Revenue Sources, Annual and 15-Year Projections

Revenue Source	Potential Annual Revenue	Potential 15-Year Revenue
Cap-and-trade auction proceeds	\$80 million—\$2.8 billion	\$1.2 billion—\$42 billion ^a
Sales tax	\$125 million—\$375 million	\$1.9 billion—\$5.6 billion
Motor Vehicle Fuel tax	\$82 million	\$820 million ^b
Personalized license plates fee	Unknown	Unknown
Marijuana tax	\$700,000 – \$7 million	\$10.5 million—\$105 million
Voluntary income tax contribution	Unknown	Unknown

^a Assumes cap-and-trade program is extended beyond 2030.

^b 10-year estimate due to SB 1 provisions.

Finally, in assessing any proposed revenue source for stewardship, the Legislature would need to consider various tradeoffs not discussed in this report, including treatment of like-taxpayers, progressivity, and administrative efficiency. Making decisions about these tradeoffs is beyond the scope of this analysis and is appropriately left to the Legislature.

Recommendations

Taking on the stewardship of state lands would be a worthwhile task for the Legislature to engage in to preserve California's natural resources for generations to come. The preceding analysis assessed the status of the state's planning for and funding of natural resources and identified a need for a coordinated stewardship strategy for state lands. This analysis also presented a number of potential revenue sources the state might use to fund its stewardship efforts. This section outlines recommendations for the Legislature to consider if it were to pursue the development of a strategy for managing and funding the stewardship of the state's 2.9 million acres.

Establish a Stewardship Working Group

Existing legislation has already laid much of the groundwork for incorporating stewardship of state lands into the state's existing planning efforts, particularly with the codification of the role of natural and working lands in the state's climate strategy. However, these planning mechanisms have not led to the creation of a long-term plan for the management of state lands. The Legislature should consider establishing a consensus-building working group to define the state's goals for managing its land resources. This working group could be convened over an 18- to 24-month period, during which time it would develop a stewardship strategy for state lands. The working group's final product would be a singular stewardship policy for state lands and a plan for implementing this policy. A stewardship policy should be coordinated, based on clear priorities, and directed toward the achievement of long-term goals.

Though the Legislature could adopt supplemental report language directing a state agency to conduct this exercise, this report instead recommends the formation of a stewardship working group. Stewardship is an incredibly complex issue that requires making tradeoffs. The Legislature should be involved in weighing these tradeoffs if it wants to adopt a stewardship policy that reflects its commitment to the state's resources.

Inventory State Lands and Assess Stewardship Needs

In order to develop an effective stewardship policy, the state must inventory its lands so that it can assess its land management needs. Ensuring the successful completion of the Natural and Working Lands Inventory and Implementation Plan should therefore be the first step in crafting a comprehensive stewardship strategy. Without having a clear understanding of the condition of state lands, introducing a strategy to manage these lands—particularly to meet climate goals—is futile. The Legislature may wish to consider requiring an update to this Inventory on a regular basis after the initial completion of the Natural and Working Lands Implementation Plan by November 2018. The Legislature also could consider requiring a regular update to the inventory (i.e., every three to five years) as well as codifying reporting requirements so that subsequent iterations are consistent.

Because the Natural and Working Lands Inventory is aimed at assessing all natural and working lands in the state, a separate, more detailed inventory of state-owned and managed lands should be considered to provide a stewardship working group with the specific information it

needs. A catalogue of state-owned land parcels could be compiled, identifying the parcel's primary land type (i.e., forest, wetland, etc.) as well as the major natural resources infrastructure on the parcel. Additional information this inventory could gather might include: condition of the land parcel, primary land use, existing and needed facilities, annual maintenance cost, existing land management activities, need for enhanced stewardship activities, and need for capital investment. In addition, this catalogue could assess the approximate value of the public benefits derived from these lands, both in terms of their carbon storage potential and recreational and economic benefits. Inventorying state lands in this manner could provide policy makers with insight into where stewardship is most needed, and what land parcels could offer the largest payoff in terms of aiding climate goals.

After completing the state lands-specific inventory, the working group could use this information to assess the financial resources needed to develop and implement a long-term stewardship strategy for state-owned lands. This assessment should begin by estimating the current costs of land management; this estimate would serve as a baseline for the minimum amount needed to maintain the existing conditions of state lands. The working group should then determine a methodology for evaluating the public benefits provided by state lands so it can estimate the additional value of enhanced stewardship of these lands. This exercise should ultimately result in an estimated dollar figure for the cost of implementing an effective stewardship strategy over the next 15 years.

Taking the steps outlined above would put the state in a position to better manage its land base in a manner aligned with its existing policies. This recommendation to improve the state's land management strategy should not be unfamiliar to the Legislature. The 1996 report from the LAO explicitly recommended that the Legislature take action to assess the state's land resources needs and develop a long-term plan for the management and enhancement of these resources.⁹⁹ Given the impacts of climate change, some of which are already observable today, it is all the more important for the Legislature to act on this recommendation.

Identify a Revenue Source for Stewardship

After completing this inventorying and assessment exercise, a stewardship working group would have more information about the level of financial commitment needed to implement a long-term stewardship program. At this point, it could identify a funding source to sustainably fund stewardship on an annual basis in the short- to medium-term. This analysis has presented six revenue options that could be considered to meet the stewardship needs of state lands over the next 15 years. While this analysis assumes a conservative annual estimate of \$290 million, the actual figure could be substantially different depending on the specific activities required to manage the state's lands.

A stewardship working group would want to complete its own analysis of potential revenue sources, taking into account the information gathered by the group's assessment efforts. However, this report suggests the group strongly consider using cap-and-trade auction proceeds to fund the stewardship of state lands. The GGRF is a potential funding source for stewardship due to its evolving uses and discretionary nature. GGRF investments should continue to fund climate change mitigation strategies, and the role of natural and working lands

management in meeting the state's climate goals is undisputed. While the uncertainty of cap-and-trade's future past 2030 may be of concern, the GGRF is well suited to fund stewardship until this time.

Additional Considerations

A stewardship working group would have to weigh multiple considerations, all of which would influence the shape and impact of a stewardship policy for state lands. Having a shared understanding about the group's priorities from the outset would aid in timely decision making. Some of the primary questions a stewardship working group should address include:

- What is the state's role and responsibility as a steward of its lands?
- What are the state's long-term management and stewardship goals for its lands?
- What is an appropriate timeline or schedule for achieving these goals?
- How should the state determine the relative priority of these goals?
- What actions is the Legislature willing to take to achieve its long-term goals?

One key point a working group would want to consider is how an ongoing inventory and assessment of state lands would interact with existing planning requirements. A stewardship working group would want to ensure it has a clear understanding of the state laws, programs, and policies that pertain to the state's land resources. Additional questions for a stewardship working group related to state planning and assessment include:

- Are the state's existing laws, programs, and policies related to state lands sufficient to meet the state's long-term goals? In what ways might they be improved or better coordinated?
- Does the Natural and Working Lands Inventory currently in progress capture enough information about state-owned lands? If not, what additional information is needed?
- Which state agency is the appropriate entity to carry out an inventory and assessment of state lands on a continuous basis? How often should this exercise be completed?
- Should this inventory and assessment be completed as part of existing state planning requirements? If so, which one(s)?
- What valuation methodology should the state use to assess its lands?
- What public benefits should this valuation assess and how should these benefits be valued?

Another issue a working group would want to consider is how a stewardship policy would balance preservation with the responsible use of state lands. Questions for a stewardship working group related to competing land uses include:

- How should the state balance its commitment to preserving its lands for the benefit of future generations with the needs of land users today?
- How should the state balance preservation with demands for recreation?
- How should the state balance the varying economic contributions of land use and management (i.e., carbon storage vs. timber production in forests)?

In addition to identifying a revenue source to fund stewardship, the following financial issues should be considered:

- What revenue source is appropriate for funding stewardship?
- What specific types of activities should be funded by a stewardship program?
- How long is the state willing to fund a stewardship program for its lands?
- What level of resources is the state willing to commit to stewardship in the short- and long-term?
- Does the revenue source involve shifting spending from other programs, or is it a new revenue source?
- Does the revenue source provide a dedicated funding stream to meet the estimated cost of stewardship over the desired time period?
- Can the Legislature allocate the revenue source to stewardship without voter approval?
- Can the Legislature reallocate the revenue source to other uses in the case of budget shortfalls in other areas or an economic downturn?

Once a stewardship working group has identified a revenue source to fund the state's ongoing stewardship needs, the Legislature could consider establishing and capitalizing a fund to create a stewardship investment fund. A properly designed, invested, and managed stewardship investment fund could produce additional income for stewardship over the long-term. This additional income could be used as a reserve for stewardship spending or serve to backfill natural resources budget shortfalls when they occur. Creating an investment fund could also help insulate stewardship from some of the ongoing challenges faced by other natural resources spending areas. Accordingly, other considerations are:

- How much money should be allocated initially, and on an ongoing basis, to a stewardship investment fund?
- What is the policy for allocating funds to a stewardship investment fund?
- What are the allowable uses of a stewardship investment fund?
- Who is qualified to manage a stewardship investment fund for the state?
- What is the appropriate capitalization rate for a stewardship investment fund?
- Under what circumstances could the Legislature use the stewardship investment fund for non-stewardship activities?

Conclusion

For California to strengthen its effort to formulate a comprehensive response to climate change, it is of critical importance that the state improves its land management policy. Policy makers, however, are hampered in making changes to the current funding model because they lack both essential information and sufficient sources of funding. This paper recommends that before the Legislature adopts any change in practice or policy, a stewardship working group should be convened to define the long-term goals for the management of state lands and create an implementation strategy for achieving these goals. To this end, the state should, at a minimum, continue the present inventorying effort of natural and working lands to determine the value of enhanced stewardship of state lands. To address the anticipated funding shortfall for land stewardship, this paper describes six revenue sources as potential options to be used over a 15-year period. While resolving the complexities of implementing a stewardship program for state lands is beyond the scope of this paper, this analysis can serve as a point of departure for the Legislature to develop a multifaceted planning and funding commitment for stewardship. As the Legislature determines its priorities for the upcoming session, it should seriously consider improving the management of state-owned lands and take the steps outlined above to ensure the long-term needs of these lands are met.



Image: Salt Point State Park, California Department of Parks and Recreation

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