

# Clearing the Path to 30x30

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*On October 7, 2020, Governor Newsom signed an executive order declaring that “it is the goal of the State to conserve at least 30 percent of California’s land and coastal waters by 2030.”<sup>1</sup> The executive order reflects a strategy that has long been encouraged by conservationists and is increasingly utilized by lawmakers on the state, national, and international level.<sup>2</sup>*

*The purpose of this article is twofold. In addition to providing background information on the goal to conserve 30% of the State’s lands and waters by 2030 (“30x30”), the article will (1) highlight the need to incorporate wildlife connectivity analyses into 30x30’s implementation and (2) identify existing barriers to conservation and how changes in policy can “clear the path” to 30x30 by enabling various agencies, local governments, and landowners to make the large-scale conservation investments necessary to reach the goal.*

I.BACKGROUND ..... 3

A.	Why conserve 30% of California’s lands and waters by 2030? .....	3
B.	What land is considered “protected” and contributes towards 30x30? .....	6
II.	THE STATE SHOULD UTILIZE ITS EXISTING DATA AND ANALYSES TO PRIORITIZE ENHANCING STATEWIDE CONSERVATION OF CORE HABITAT AND MIGRATION CORRIDORS FOR WILDLIFE TO MAXIMIZE ECOLOGICAL BENEFITS AND ACHIEVE CALIFORNIA’S STATED 30X30 GOALS. ....	7
A.	Existing State Data and Proposed Interactive Maps Can Inform 30x30’s Priority Conservation Investments .....	8
B.	Protects and Restores Biodiversity .....	10
C.	Builds Climate Resilience, Reduces Risk from Extreme Climate Events and Contributes to the State’s Effort to Combat Climate Change .....	11
D.	Enables Enduring Conservation Measures on a Broad Range of Landscapes, Including Natural Areas and Working Lands, In Partnership with Land Managers and Natural Resource User Groups .....	12
E.	Safeguards our State’s Economic Sustainability and Food Security .....	13
F.	Expands Equitable Outdoor Access and Recreation for All Californians .....	14
III.	WHAT EXISTING AND PROPOSED STRATEGIES AND LEGAL MECHANISMS ARE AVAILABLE ON STATE, PRIVATE, FEDERAL, AND TRIBAL LANDS THAT CAN BE UTILIZED TO ACHIEVE 30X30? .....	14
A.	State Lands .....	14
1.	Sovereign/Trust Lands .....	14
2.	School Lands .....	17
B.	State Parks .....	19
C.	State Forests .....	21
D.	State Wilderness Areas and Ecological Reserves.....	23
1.	Wildlife Areas .....	24
2.	Ecological Reserves .....	24
3.	Policy Recommendations to Expand Ecological Reserves and Wildlife Areas .....	25
E.	Private Lands.....	26
F.	Municipal and County Planning.....	30
F.	Federal Lands.....	32
	CONCLUSION .....	33
	APENDIX .....	33

## I. BACKGROUND

### A. *Why conserve 30% of California's lands and waters by 2030?*

North America in the midst of two major crises: (1) natural spaces and biodiversity are disappearing at an alarming rate and (2) a rapidly changing climate is exacerbating weather patterns and compounding existing threats to native wildlife, fish, and plant species.<sup>1</sup> On average, across the globe, populations of mammals, birds, fish, reptiles, and amphibians have declined in size by 60% in just over forty years.<sup>2</sup> Of the vast array of California species, 30% are threatened with extinction due to the massive habitat modification, overexploitation of resources, pollution, and introduction of invasive species that has occurred over the last two centuries.<sup>3</sup>

The loss of biodiversity is especially problematic for California, which is considered both one of the richest biodiversity hotspots on the planet and the most populous state in the nation.<sup>4</sup> California's growing population, sprawl, and development constitutes the leading threat to species imperilment.<sup>5</sup> The loss of biodiversity has consequences far beyond the inherent value of the species and plants—it results in a decrease of the ecosystem's productivity, nutrient retention, resiliency, and reliability, resulting in a downward spiral in species' ability to survive and recover from irreversible physical changes in the landscape.<sup>6</sup>

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<sup>1</sup> EXEC. DEPT. STATE OF CAL., EXEC. ORDER N-82-20 (Oct. 7, 2020), <https://www.gov.ca.gov/wp-content/uploads/2020/10/10.07.2020-EO-N-82-20-signed.pdf>.

<sup>2</sup> *More Than 80 Nations Have Now Committed to 30x30 Target for MPAs*, MPA NEWS (Mar. 11, 2021, 12:16 PM), <https://mpanews.openchannels.org/news/mpa-news/notes-news-83-nations-commit-30x30-blue-action-fund-call-proposals-tripling-mpas-size>; Tackling the Climate Crisis at Home, 86 Fed. Reg. 7619, 7627 (Jan. 27, 2021), (directing various agencies to submit a report to the Task Force with strategic recommendations for achieving the goal of conserving at least 30 percent of U.S. lands and waters by 2030).

<sup>1</sup> See Tackling the Climate Crisis at Home, *supra* note 2, at 7619.

<sup>2</sup> WORLD WILDLIFE FOUNDATION & INSTITUTE OF ZOOLOGY (ZOOLOGICAL SOCIETY OF LONDON), LIVING PLANET REPORT – 2018: AIMING HIGHER 6–7 (Monique Grooten & Rosamunde Almond eds., WWF 2018).

<sup>3</sup> HAROLD MOONEY & ERIKA ZAVALA, ECOSYSTEMS OF CALIFORNIA: THREATS & RESPONSES 10 (Supp., Univ. of Cal. Press 2016).

<sup>4</sup> California Natural Resources Agency et al., *California Biodiversity Initiative: A Roadmap for Protecting the State's Natural Heritage*, CALIFORNIA BIODIVERSITY INITIATIVE (Sept. 2018), <https://www.californiabiodiversityinitiative.org/pdf/california-biodiversity-action-plan.pdf>.

<sup>5</sup> REID EWING & JOHN KOSTYACK ET AL., ENDANGERED BY SPRAWL: HOW RUNAWAY DEVELOPMENT THREATENS AMERICA'S WILDLIFE 2 (Nat'l. Wildlife Fed'n., Smart Growth Am., NatureServe, 2005).

<sup>6</sup> See JOY B. ZEDLER ET AL., *Declining Biodiversity: Why Species Matter and How Their Functions Might be Restored in California Tidal Marshes*, 51 BIOSCIENCE 1005, 1006 (2001); see also CHRISTIAN MARCHESE, *Biodiversity Hotspots: A Shortcut for a More Complicated Concept*, 3 GLOBAL ECOLOGY & CONSERVATION 297, 298 (2015).

Climate change compounds existing threats to California's biodiversity.<sup>7</sup> California has warmed by approximately 0.9°C, resulting in a wide range of documented direct and indirect effects on California's ecosystems.<sup>8</sup> The impacts of climate change will only exacerbate the threats to California's biodiversity as the planet warms by 2°C by 2100 if ambitious mitigation measures are implemented.<sup>9</sup> If proper mitigation measures are not implemented and high emissions continue, California is projected to be 4°C warmer by the end of the century.<sup>10</sup> Critically, climate modeling indicates that if modern habitat conversion and emission trends are not drastically changed, it will become impossible to remain below 1.5°C—the “tipping point” where the planet's biology becomes gravely threatened and ecosystems begin to unravel.<sup>11</sup> Though the specific consequences of a warmer climate can be difficult to predict, based on the vast changes that have already occurred, impacts stemming from the projected increase in temperature will undoubtedly be severe and pervasive.<sup>12</sup>

To effectively address climate change impacts and threats to biodiversity, recent international efforts and research recommends strategically conserving a percentage of lands and waters in a network of protected spaces. The concept of protecting a certain percentage of the planet gained real traction with the U.N. Convention on Biological Diversity Aichi Biodiversity Targets.<sup>13</sup> Target 11 established that nations should strive to conserve at least seventeen percent of terrestrial and inland water and ten percent of coastal and marine areas to improve biodiversity and safeguard ecosystems.<sup>14</sup> However, the target is recognized as an interim measure and is inadequate to avoid extinctions or halt the erosion of biodiversity.<sup>15</sup> In fact, scientific studies and review suggests that 25-75% of a typical region “must be managed with conservation of nature as a primary objective to meet goals for conserving biodiversity.”<sup>16</sup>

In the last decade, numerous conservationists and ecologists have researched the extent land conservation necessary to address climate change and maintain ecosystems. E.O. Wilson's *Half Earth* in 2016 estimates that 50% of the planet must be protected to effectively address climate change and save ecosystems and

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<sup>7</sup> See MARCHESI *supra* note 8, at 305 (“The combined impacts of climate change and land use are expected to drive unprecedented rates of environmental change and biodiversity loss”).

<sup>8</sup> See ECOSYSTEMS OF CALIFORNIA: THREATS & RESPONSES *supra* note 5, at 16.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

<sup>11</sup> E. DINERSTEIN, ET AL., *A Global Deal for Nature: Guiding Principles, Milestones, and Targets*, 5 SCIENCE ADVANCES 1, 1 (2019).

<sup>12</sup> See ECOSYSTEMS OF CALIFORNIA: THREATS & RESPONSES *supra* note 5, at 16.

<sup>13</sup> See *Aichi Biodiversity Targets*, CONVENTION ON BIOLOGICAL DIVERSITY (last visited Apr. 1, 2021), <https://www.cbd.int/sp/targets/>.

<sup>14</sup> *Id.*

<sup>15</sup> See E. DINERSTEIN, ET AL., *supra* note 13.

<sup>16</sup> REED F. NOSS, ET AL., *Bolder Thinking for Conservation*, 26 CONSERVATION BIOLOGY 1, 1–2 (Society for Conservation Biology 2011).

species around the planet.<sup>17</sup> Some research indicates that approximately 44% of the planet's area can safeguard biodiversity if strategically conserved.<sup>18</sup> However, almost all scientific reports recognize that areas important to climate sequestration and biodiversity will need 90-100% of the area protected while areas that offer less conservation value may need less protection.<sup>19</sup>

Regardless of some variance within the scientific community, nearly all conservationists agree that efforts to stabilize the climate and avoid permanent loss of biodiversity will require a rapid reduction of land conversion, which both provides habitat for native species and sequesters carbon.<sup>20</sup> To that end, conserving at least 30% of lands and coastal waters by 2030, more commonly referred to as "30x30," has been broadly adopted as a tangible goal that can help halt and reverse the current alarming rate of biodiversity loss by strategically conserving lands to provide necessary habitat for species.<sup>21</sup> Thus, seeking to preserve 30% of lands by 2030 is a stepping stone to protecting California's prized biodiversity as well as the ecosystem goods and services they provide, such as food, water, energy, medicines, and quality of life.

30x30 is a useful target because it is easy to comprehend and simplifies policy and communication strategies. However, the task of implementing the initiative in a way that effectively "support[s] the effort to combat the biodiversity and climate crisis,"<sup>22</sup> requires an evidence-based, strategic approach to conserving lands, increased data and information on current baselines, and coordination between a wide range of stakeholders.

This report discusses policy options for the State of California to amend its legislative and regulatory frameworks to accommodate 30x30 goals. Additionally, it provides an approach for determining (1) the necessary management for an area to be considered "protected," (2) which lands should be prioritized to meet the goal, and (3) how state, private, and tribal lands can contribute to the goal with existing and proposed legal mechanisms.

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<sup>17</sup> See *Discover Half-Earth*, HALF-EARTH PROJECT (last visited Mar. 22, 2021), <https://www.half-earthproject.org/discover-half-earth/>.

<sup>18</sup> See JAMES ALLEN ET AL., *Conservation Attention Necessary Across at Least 44% of Earth's Terrestrial Area to Safeguard Biodiversity*, RESEARCHGATE 7 (Working Paper, Nov. 2019), [https://www.researchgate.net/publication/337219206\\_Conservation\\_attention\\_necessary\\_across\\_at\\_least\\_44\\_of\\_Earth%27s\\_terrestrial\\_area\\_to\\_safeguard\\_biodiversity](https://www.researchgate.net/publication/337219206_Conservation_attention_necessary_across_at_least_44_of_Earth%27s_terrestrial_area_to_safeguard_biodiversity).

<sup>19</sup> See E. DINERSTEIN, ET AL., *supra* note 13, at 7; see also MARTIN JUNG, ET AL., *Areas of Global Importance for Terrestrial Biodiversity, Carbon, and Water*, NATURE ECOLOGY & EVOLUTION (Aug. 23, 2021), <https://www.nature.com/articles/s41559-021-01528-7>, ("We ranked priority areas in order of importance for conservation management; but we note that specific forms of management are highly contextual and will depend on local anthropogenic pressures, governance and opportunity costs. Areas of biodiversity importance that require strict protection and active management, e.g. where narrow-ranging and threatened species occur might be suitable for protected area expansion.").

<sup>20</sup> See E. DINERSTEIN, ET AL., *supra* note 13.

<sup>21</sup> See WHY THE WORLD MUST COMMIT TO PROTECTING 30 PERCENT OF THE PLANET BY 2030 (30X30) 3, (Nat. Res. Def. Council, Inc., 2020).

<sup>22</sup> EXEC. DEPT. STATE OF CAL., EXEC. ORDER N-82-20 (Oct. 7, 2020), <https://www.gov.ca.gov/wp-content/uploads/2020/10/10.07.2020-EO-N-82-20-signed.pdf>.

*B. What land is considered “protected” and contributes towards 30x30?*

Perhaps the most complicated task underlying the 30x30 initiative is determining what land is considered “protected” and therefore contributes towards the 30x30 goal. The definition and associated criteria must be flexible so that various landscapes and the ecological services they provide can be highlighted and protected. However, the definition of “protected” must not be so malleable to the extent it is abused and fails to deliver anticipated conservation benefits and serve the underlying purpose of 30x30—to adapt to climate change and curb the biodiversity crisis.

To balance these two considerations, the definition of “protected” should focus on the conserved area’s management priorities, more so than physical landscape features and prescribed restrictions (e.g., no OHV use, no camping, etc.). In some cases, extractive uses, such as hunting fishing, gathering, and other recreational activities may be permitted to an extent appropriate and compatible maintaining healthy ecosystems.<sup>23</sup> However, lands that are converted from their natural state or not managed for the principal purpose of ecosystem health should not be considered “protected” and contribute towards the 30x30 initiative.<sup>24</sup> For example, agricultural land would likely not be considered “protected” for purposes of 30x30 merely because fences are modified to accommodate wildlife even though such efforts deliver meaningful conservation benefits.

To determine what constitutes “protected,” decision-makers should refer to the International Union for Conservation of Nature’s (“IUCN”) guidelines. The IUCN provides seven classifications of “protected” based on the primary management objective applied to at least 75% of the protected area.<sup>25</sup> It classifies its protected areas based on the important conservation values of the landscape and the primary objective for placing protections on the landscape. Thus, the seven classifications are not ranked hierarchically,<sup>26</sup> rather, it includes a range of conservation priorities:

Protected areas are by no means uniform entities however; they have a wide range of management aims and are governed by many different stakeholders. At one extreme a few sites are so important and so fragile that no-one is allowed inside, whereas other protected areas encompass traditional, inhabited landscapes

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<sup>23</sup> INTERNATIONAL UNION FOR CONSERVATION OF NATURE, GUIDELINES FOR APPLYING PROTECTED AREA MANAGEMENT CATEGORIES 21 (Nigel Dudley ed., 21st ed. 2008).

<sup>24</sup> *Id.* at 12.

<sup>25</sup> *Id.* at 7-24.

<sup>26</sup> *Id.* at 44, (“When reviewing the categories of existing protected areas to determine the type of protection that will best conserve the biodiversity within that protected area, there is no hierarchy that suggests, for instance, that a category I protected area is invariably better than a category II or III or IV. On the other hand, categories are not simply interchangeable. The only principle that should apply in assigning categories is the appropriateness of a protected area’s assigned management purpose within the system relative to the ecological needs of, and threats to, the species or ecosystem in the context of the entire landscape or seascape where that biodiversity occurs.”).

and seascapes where human actions have shaped cultural landscapes with high biodiversity.<sup>27</sup>

The IUCN provides a common set of objectives for protected areas while allowing for differences in management approaches.<sup>28</sup> These objectives include (1) conserving the composition, function, and evolutionary protection of biodiversity; (2) contributing to regional conservation strategies; (3) maintaining diversity of landscape or habitat; (4) being of sufficient size to ensure integrity and long-term maintenance of conservation target; (5) operating under a management and monitoring plan; and (6) possessing a clear and equitable governance system.<sup>29</sup> Thus, in satisfying a common objective, protected areas should permit other uses, such as recreation, hunting, or agriculture production, allowed only to the extent it is compatible with the conservation objective of the protected area.<sup>30</sup>

II. THE STATE SHOULD UTILIZE ITS EXISTING DATA AND ANALYSES TO PRIORITIZE ENHANCING STATEWIDE CONSERVATION OF CORE HABITAT AND MIGRATION CORRIDORS FOR WILDLIFE TO MAXIMIZE ECOLOGICAL BENEFITS AND ACHIEVE CALIFORNIA'S STATED 30X30 GOALS.

Decision makers must utilize the best available science in determining the location and applied management of conserved areas. Scientists supporting increasing the amount of conserved lands to alleviate biodiversity loss and climate change impacts advocate for the protection of critical linkages and connection of core habitats that facilitates wildlife movement.<sup>31</sup> Implementing 30x30 to promote wildlife connectivity will result in greater conservation benefits while contributing to EO N-82-20's goals in implementation by protecting and restoring biodiversity, increasing climate resilient landscapes, and increasing equitable access to the outdoors. California is uniquely positioned to implement these measures due to the substantial analyses, databases, and state resources available that identify priority conservation initiatives that will effectively connect core habitats and wildlife corridors.

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<sup>27</sup> *Id.* at vii.

<sup>28</sup> *Id.* at 12-13.

<sup>29</sup> *Id.* at 12.

<sup>30</sup> *Id.* at 22.

<sup>31</sup> *See, e.g.,* E. DINERSTEIN ET AL., *supra* note 13, at 1,9. (“A key target of the GDN would be to reconnect protected areas via corridors along environmental gradients, in riparian networks, and between megafaunal reserves.”); ELINA A. VIRTANEN ET AL., *Evaluation, Gap Analysis, and Potential Expansion of the Finnish Marine Protected Area Network*, FRONTIERS (Nov. 08, 2018), <https://www.frontiersin.org/articles/10.3389/fmars.2018.00402/full>, (“The areas under protection need to fulfill four criteria: adequacy, representativity, replication and connectivity, in order to be ecologically efficient.”).

A. *Existing State Data and Proposed Interactive Maps Can Inform 30x30's Priority Conservation Investments*

California's 30x30 executive order explicitly directs the California Natural Resources Agency, in consultation with other state agencies to "[e]stablish a baseline assessment of California's biodiversity that builds upon existing data and information, utilizes best available science, and traditional ecological knowledge, and can be updated over time."<sup>32</sup> This assessment provides ample opportunity to build off existing efforts by academics, non-government organizations, and the State to map habitat connectivity and climate connectivity to improve conservation planning.

For example, the California Essential Habitat Connectivity Project,<sup>33</sup> Data Basin,<sup>34</sup> and California Department of Wildlife's Areas of Conservation Emphasis Program ("ACE")<sup>35</sup> create maps and provide useful baselines to help planners consider regional needs and prioritize essential connectivity areas. However, the ACE program is coarse-scale and therefore should "not replace the need for site-specific evaluation of biological resources and should not be used for regulatory purposes."<sup>36</sup> Similarly, the California Essential Habitat Connectivity Project articulates that more local-scale analysis is needed to delineate which lands should be conserved and to develop a design action plan.<sup>37</sup>

In contrast to California Essential Habitat Connectivity Project and ACE, the Regional Conservation Investment Strategy pilot program ("RCIS"),<sup>38</sup> Natural Community Conservation Plans,<sup>39</sup> and Habitat Conservation Plans,<sup>40</sup> do conduct baseline assessments of an area on the necessary regional scale to identify priority

<sup>32</sup> EXEC. ORDER N-82-20, *supra* note 24.

<sup>33</sup> See CAL. DEP'T. OF TRANSP. & CAL. DEP'T. OF FISH & WILDLIFE, CALIFORNIA ESSENTIAL HABITAT CONNECTIVITY PROJECT: A STRATEGY FOR CONSERVING A CONNECTED CALIFORNIA (Feb. 2010), <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18366&inline>.

<sup>34</sup> See DATA BASIN, <https://databasin.org/> (last visited Jun. 4, 2021).

<sup>35</sup> See *Interactive Biodiversity Application*, CAL. DEP'T. OF FISH & WILDLIFE, <https://apps.wildlife.ca.gov/ace> (last visited Jun. 4, 2021).

<sup>36</sup> *Areas of Conservation Emphasis*, CAL. DEP'T. OF FISH & WILDLIFE, <https://wildlife.ca.gov/Data/Analysis/ACE> (last visited Jul. 10, 2019); *ACE Frequently Asked Questions 3*, CAL. DEP'T. OF FISH & WILDLIFE, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=24397&inline> (last visited Jun. 28, 2018).

<sup>37</sup> See CAL. DEP'T. OF TRANSP. & CAL. DEP'T. OF FISH & WILDLIFE, *supra* note 35, at 2, 101 ("[F]iner-scale analyses should be performed to identify and delineate these more local connectivity areas, as well as to refine the broad-brush Essential Connectivity Areas and Natural Landscape Blocks identified by this project using additional analytical tools, such as focal-species analyses.").

<sup>38</sup> CAL. FISH & GAME CODE § 1852(c)-(d) (West 2017).

<sup>39</sup> See CAL. FISH & GAME CODE § 2820 (a)(4)(E); (a)(6) (West 2003).

<sup>40</sup> U.S. FISH & WILDLIFE SERV. & NAT'L OCEANIC & ATMOSPHERIC ADMIN., HABITAT CONSERVATION PLANNING AND INCIDENTAL TAKE PERMIT PROCESSING HANDBOOK 1-2 (Dec. 21, 2016) ("Congress intended the HCP program to function not only to authorize incidental take, but also as a process to integrate non-Federal development and land-use activities with conservation goals, resolve conflicts between protection of listed species and economic activities on non-Federal lands, and create a climate of partnership and cooperation.").

areas for conserving climate connectivity. However, the programs do not span the entire State.<sup>41</sup> Accordingly, these programs should be bolstered, funded, and/or revised to be implemented statewide, integrated in California's baseline assessment, and work conjunctively to avoid duplicating efforts already undertaken in existing programs.

In addition to utilizing existing programs, the California Natural Resources Agency's interactive mapping and baseline assessments should integrate climate connectivity mapping that Wildlands Network is developing in partnership with the University of Washington,<sup>42</sup> California Department of Fish and Wildlife's Identified Wildlife Movement Barrier Priorities,<sup>43</sup> and data on wildlife-vehicle collisions to accurately pinpoint critical linkages and develop climate resilient landscapes. The State currently has no centralized and funded wildlife-vehicle data collection program and relies on piecemeal reports by the California Highway Patrol to assess hotspot areas where vehicle collisions with wildlife are particularly problematic.<sup>44</sup> UC Davis' Road Ecology Center currently coordinates the most comprehensive data on wildlife-vehicle collisions in the State by utilizing both California Highway Patrol data and the Center's California Roadkill Observation System ("CROS").<sup>45</sup> The State should support and fund efforts to collect data on wildlife-vehicle collisions, utilize mapping data to identify critical linkages and climate connectivity, and undertake substantial efforts to address CDFW's identified barriers to movement.

Though gaps in statewide climate connectivity data may impede conservation and climate planning, significant resources and tools exist to inform conservation decisions. Moreover, the rate of implementing conservation measures on prioritized areas has been too slow to effectively address the rapid habitat loss and fragmentation due to "the research-implementation" or "planning-implementation gap."<sup>46</sup> However, "[t]his gap can potentially be bridged by scientists engaging with conservation practitioners throughout an entire project, from initial study

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<sup>41</sup> *California Natural Community Conservation Plans*, CAL. DEP'T. OF FISH & WILDLIFE (Apr. 2019), <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>.

<sup>42</sup> See *Projects*, LANDSCAPE ECOLOGY CONSERVATION NETWORK (last visited Nov. 19, 2021), <https://www.landecol.org/projects>.

<sup>43</sup> See *Wildlife Movement Barrier Priorities* (2020), CAL. DEP'T. OF FISH & WILDLIFE, <https://apps.wildlife.ca.gov/bios/?al=ds2867> (last visited Jun. 4, 2021).

<sup>44</sup> E-mail from Cal. Fish & Game Comm'n to Kathleen Krause, Clerk of the Bd. of Supervisors (Dec. 27, 2019, 13:03 PST) <https://itsapps.kerncounty.com/clerk/minutes/granicus/2415044/2415087/2415092/2415466/2415495/Notice%20from%20State%20Fish%20and%20Game%20Commission%20re%20Wildlife2415495.pdf>.

<sup>45</sup> See *Real-Time Deer Incidents & Wildlife-Vehicle Conflict (WVC) Hotspots*, ROAD ECOLOGY CTR., <https://roadecology.ucdavis.edu/hotspots/map> (last visited Jun. 4, 2021).

<sup>46</sup> ANNIKA T.H. KEELEY, DAVID D. ACKERLY, GALLI BASSON, D. RICHARD CAMERON, LEE HANNAH, NICOLE E. HELLER, PATRICK R. HUBER, PATRICK R. ROEHRDANZ, CARRIE A. SCHLOSS, JAMES H. THORNE, SAMUEL VELOZ & ADINA M. MERENLENDER, *CLIMATE-WISE LANDSCAPE CONNECTIVITY: WHY, HOW, AND WHAT NEXT*, at 45 (CAL. NAT. RES. AGENCY 2018), [https://www.energy.ca.gov/sites/default/files/2019-12/Biodiversity\\_CCCA4-CNRA-2018-001\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2019-12/Biodiversity_CCCA4-CNRA-2018-001_ada.pdf).

questions through project implementation and monitoring.”<sup>47</sup> That being the case, the novelty of implementing conservation initiatives to enhance climate connectivity provides additional opportunities to partner with land managers and natural resource user groups with varying knowledge and expertise.

### B. *Protects and Restores Biodiversity*

The destruction and degradation of natural habitats on which California’s species rely not only changes the size of available habitat but the configuration of suitable habitat, resulting in fragmentation that threatens species persistence.<sup>48</sup> Habitat fragmentation is problematic because wildlife must be able to move—sometimes over great distance—to maintain robust populations through increased reproduction and survival.<sup>49</sup> To facilitate wildlife movement, conservation efforts should strive to enhance connectivity throughout the landscape.

Connectivity is a landscape-level ecological characteristic that allows various wildlife species to maintain their natural dispersal and migration patterns throughout their range and is often hampered by human development and fragmentation caused by linear features, such as roads, fences, and railroads, and impediments to aquatic species through the construction of dams, irrigation canals, grazing, mining and other riparian alterations.<sup>50</sup> Many of California’s historically iconic terrestrial species, including bears, wolves, mountain lions, wolverines, tule elk, bighorn sheep and various species of ungulates, need more room to roam than traditional parks and wildlife areas can provide to maintain viable populations and are often unable to sufficiently move throughout their natural range.<sup>51</sup>

Impediments to movement have significant consequences to California wildlife’s ability to survive and translate to increased costs and vehicle wildlife collision deaths.<sup>52</sup> The University of California estimates that wildlife-vehicle collisions caused over \$1 billion in economic and social costs to Californians from 2015 to 2018.<sup>53</sup> More than sixty species of California reptiles and amphibians, many of which are special-status species (e.g., Mohave desert tortoise, arroyo toad, blunt-nosed leopard lizard), have been identified as having high and very

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<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> ANDREW F. BENNETT, LINKAGES IN THE LANDSCAPE: THE ROLE OF CORRIDORS AND CONNECTIVITY IN WILDLIFE CONSERVATION, IUCN 8, (1999), <https://portals.iucn.org/library/efiles/documents/fr-021.pdf>.

<sup>50</sup> *Id.*

<sup>51</sup> *Id.* at 79.

<sup>52</sup> CHERYL S. BREHME, ET AL., *An objective road risk assessment method for multiple species: ranking 166 reptiles and amphibians in California*, 33 LANDSCAPE ECOLOGY (May 2018), <https://link.springer.com/article/10.1007/s10980-018-0640-1>.

<sup>53</sup> FRASER SHILLING et al., *Impact of Wildlife-Vehicle Conflict on California Drivers and Animals*, at 9 (Aug. 1, 2019), [https://roadecology.ucdavis.edu/sites/g/files/dgvnsk8611/files/files/s/WVC\\_Report\\_2019.pdf](https://roadecology.ucdavis.edu/sites/g/files/dgvnsk8611/files/files/s/WVC_Report_2019.pdf).

high risk of extirpation from road-related impacts.<sup>54</sup> California's urbanization is impeding mountain lion and mule deer populations' ability to disperse through their range, resulting in genetic inbreeding depression, which reduces population fitness and increases extinction risk.<sup>55</sup> In fact, signs of mountain lion inbreeding depression from lack of genetic diversity in the Santa Ana and Santa Monica Mountain populations indicate those genetically distinct populations have a >99% chance of vanishing in the next fifty years due to roads and development blocking their ability to move.<sup>56</sup>

To overcome impediments to wildlife connectivity, wildlife movement and habitat data are utilized to identify corridors (i.e. large-scale connectivity) and barriers to movement.<sup>57</sup> Thereafter, management efforts and incentives, such as designated protections and conservation easements can be utilized to increase protected areas while improving connectivity and promoting biodiversity health.<sup>58</sup> Critically, as we invest in protecting land and water, we also have to make much-needed investments in wildlife road crossings, such as wildlife bridges, underpasses, and directional fencing, that allow animals to safely cross even the busiest of motorways, in addition to the restoration of waterways critical for fish species to spawn and thrive.

*C. Builds Climate Resilience, Reduces Risk from Extreme Climate Events and Contributes to the State's Effort to Combat Climate Change*

To successfully utilize 30x30 to adapt to climate change, enhancing connectivity will allow species to move on their own to migrate from where their preferred environmental conditions are now to where those conditions will exist in the future. For example, areas spanning from protected high-elevation mountain ranges, such as Yosemite, Sequoia, and Kings Canyon National Park, to lower elevation foothills and the San Joaquin Valley, are logical places to start protecting fundamental pathways for climate migration. By identifying corridors and conserving lands that protect, improve, or restore connections between large blocks of existing protected habitat and reducing impediments to wildlife movement, 30x30's implementation can maximize benefits to California's biodiversity and save species currently on the brink of extinction.

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<sup>54</sup> BREHME, ET AL., *supra* note 54, at 925.

<sup>55</sup> KYLE D. GUSTAFSON ET AL., *A Single Migrant Enhances the Genetic Diversity of an Inbred Puma Population*, 4 ROYAL SOCIETY OPEN SCIENCE 1 (2017); ANDREW J. BOHONAK & ANNA MITELBERG, SOCIAL STRUCTURE AND GENETIC CONNECTIVITY IN THE SOUTHERN MULE: IMPLICATIONS FOR MANAGEMENT 1 (CA DEP'T OF FISH AND WILDLIFE, 2014), <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=84250&inline>.

<sup>56</sup> HOLLY B. ERNEST, ET AL., *Fractured Genetic Connectivity Threatens a Southern California Puma (Puma concolor) Population*, 9(10) PLOS ONE 10-11 (2014); Nat'l Park Serv. *NPS Biologist Report First Abnormalities Linked to Inbreeding Depression in Mountain Lions* (Sept. 8, 2020), <https://www.nps.gov/samo/learn/news/first-abnormalities-linked-to-inbreeding-depression.htm>.

<sup>57</sup> See CAL. DEP'T. OF TRANSP. & CAL. DEP'T. OF FISH & WILDLIFE *supra* note 35, at 101.

<sup>58</sup> See *id.* at 136-37.

Incorporating data modeling connectivity under predicted climate scenarios can aid strategizing conservation efforts to reduce the impacts of climate change. Specifically, measuring the extent a linkage is threatened by climate change can inform the priority conservation actions for that linkage.<sup>59</sup> Indeed, existing data sets in California attempt to map and model climate connectivity.<sup>60</sup> To utilize this research and advance climate planning, Wildlands Network is partnering with University of Washington to compile relevant data sets and develop mapping that identifies critical linkages that should be conserved to allow wildlife to access suitable habitat while adapting to a changing climate.<sup>61</sup> The State should utilize existing efforts to identify critical linkages and climate connectivity to maximize climate resilience across the landscape.

Conserving lands in accordance with research and data that identifies and prioritizes areas that allow species to disperse throughout their range contributes to a climate-resilient landscape in a myriad of ways. These include supporting large, genetically-diverse populations, which enhances the overall capacity of species to adapt to climate change, and increasing opportunities for species to disperse and track suitable habitat in a changing climate. Thus, incorporating climate connectivity in prioritizing conservation actions in 30x30's implementation will increase climate resilience and aid the State's efforts in combating climate change.

*D. Enables Enduring Conservation Measures on a Broad Range of Landscapes, Including Natural Areas and Working Lands, In Partnership with Land Managers and Natural Resource User Groups*

Implementing 30x30 in a statewide network necessitates conservation measures on a broad range of landscapes in order to facilitate wildlife movement across California. Moreover, challenges and opportunities to secure corridors promote partnerships with land managers and natural resource user groups. Because efforts to effectively enhance habitat connectivity are varied and context-specific due to the area's land ownership patterns, intensity of development and fragmentation, socio-economic factors, institutional capacity, and the relevant regulatory framework, protecting corridors requires engagement of various stakeholders and land managers. Thus, establishing a statewide network demands the formation of partnerships with private landowners, NGOs, Tribes, and state and local governments. These partnerships allow participants to develop a common vision, share empirical data, tailor unique solutions that create multiple

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<sup>59</sup> *Id.*

<sup>60</sup> *See, e.g.*, CRYSTAL M. KRAUSE ET AL., WILDLIFE CONNECTIVITY ACROSS THE NORTHERN SIERRA NEVADA FOOTHILLS 2 (CA Dep't of Fish & Wildlife, Jan. 2015), <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=85358&inline>; *See* CA DEP'T. OF TRANSP. & CA DEP'T OF FISH & WILDLIFE, *supra* note 35, at 101.

<sup>61</sup> *See* LANDSCAPE ECOLOGY CONSERVATION NETWORK, *supra* note 44.

benefits, diversify funding opportunities, and incentivize regional and local engagement with conservation efforts.

*E. Safeguards our State's Economic Sustainability and Food Security*

Enhancing species resilience to habitat fragmentation, loss, and degradation not only supports biodiversity targets and climate change resiliency, it can also safeguard food security to hunters and anglers, promote businesses dependent on hunting, fishing, wildlife-watching and outdoor recreation opportunities, and protect agricultural lands threatened by development and/or enhanced through conservation best practices.

Maintaining habitat connectivity and wildlife corridors supports healthy wildlife populations to allow for the sustainable harvest of a wild, healthy food source for all Californians. Sustainable hunting practices that provide sustenance to hunting and angling families fosters enduring ties and vested interests in the land, water, and wildlife while decreasing dependency on industrial livestock cultivation and concentrated animal feed operations (CAFOs)—practices that directly exacerbate climate change and degrade habitats on a massive scale.<sup>62</sup> Additionally, enhancing biodiversity and connected habitats creates and enhances recreation, hunting, and angling opportunities, which promotes the businesses that rely on them. California's outdoor recreational industry economy is presumed to contribute \$92 billion in economic spending and 691,000 direct jobs.<sup>63</sup> Similarly, California hunting and angling is presumed to contribute \$3.6 billion in economic spending, 53,000 jobs, and generate \$452 million in state tax revenue.<sup>64</sup> However, the businesses and economy that depend on these activities will not be supported unless healthy ecosystems and wildlife populations are available.

In addition, agriculture and industrial food production can support wildlife habitat and connectivity through conservation easements incentives. Targeting conservation easements and incentives to protect and conserve agricultural land threatened by development, biodiversity hotspots, and wildlife movement corridors, such as the Regional Conservation Partnership Program<sup>65</sup> and California Waterfowl Delayed Wheat Harvest Incentive Program, can contribute to 30x30 goals while safeguarding agricultural industries and food security. Even though incorporation of conservation measures is beneficial to the State's natural

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<sup>62</sup> SABRINA BRAKKE, *Raising Animals to Die for Profit: How Corporate America is Changing Human Animal Relationships in Rural America*, 6(1) SMU J. Undergraduate Rsch. 1 (2021), <https://scholar.smu.edu/cgi/viewcontent.cgi?article=1092&context=jour>.

<sup>63</sup> *Why We Exist*, THE CALIFORNIA OUTDOOR RECREATION PARTNERSHIP, [www.californiaoutdoor.org/](http://www.californiaoutdoor.org/) (last visited Jun. 4, 2021).

<sup>64</sup> HUNTING AND FISHING: BRIGHT STARS OF THE AMERICAN ECONOMY 15 (Cong. Sportsmen Found'n. 2006), [https://congressionalsportsmen.org/uploads/page/Bright\\_Stars\\_of\\_the\\_Economy.pdf](https://congressionalsportsmen.org/uploads/page/Bright_Stars_of_the_Economy.pdf).

<sup>65</sup> *Regional Conservation Partnership Program*, U.S. DEP'T AGRIC. NAT. RES. CONSERVATION SERV., <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/rcpp/> (last visited Jun 4, 2021).

resources, farm, ranch, and timberlands, they should not contribute to 30x30 unless they are principally managed for biodiversity.

*F. Expands Equitable Outdoor Access and Recreation for All Californians*

Protecting areas in a statewide network expands equitable outdoor access and recreation for all Californians in several ways. First, implementing 30x30 in a statewide network necessitates conservation measures on a broad range of landscapes throughout California, promoting access to the outdoors and recreation in every region of the State. Second, prioritizing linkages threatened by development is an effective strategy to both protect critically important areas for biodiversity and enhance equitable recreation opportunities. Studies show that the most practical and effective measures to maintain wildlife in urban settings is through the establishment of linkages that permit dispersal across roadways and developments.<sup>66</sup> It follows that preserving connections between urban and rural landscapes will enhance outdoor access and lead to more equitable recreation opportunities. Finally, connected landscapes and waterways enhance recreation for all Californians by providing more opportunities for extensive biking and hiking through trails as well as waters to paddle and fish. Essentially, protecting corridors creates potential to facilitate movement and dispersal over long distances for recreationists in addition to wildlife.

III. WHAT EXISTING AND PROPOSED STRATEGIES AND LEGAL MECHANISMS ARE AVAILABLE ON STATE, PRIVATE, FEDERAL, AND TRIBAL LANDS THAT CAN BE UTILIZED TO ACHIEVE 30X30?

Before the State can make conservation investments and decisions to implement 30x30, decision makers must make significant reforms and modifications to existing law and policy. The following sections discuss the variety of management directives that regulate California lands and recommendations on how they can be modified to realistically enable the large-scale conservation required to achieve the 30x30 goal.

A. *State Lands*

1. *Sovereign/Trust Lands*

The California's State Land Commission ("CSLC") manages over four million acres of sovereign lands that could contribute to 30x30 goals.<sup>67</sup> Sovereign lands

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<sup>66</sup> DEVAUGHN L. FRASER, ET AL., *Connectivity of Mule Deer (Odocoileus hemionus) Populations in a Highly Fragmented Urban Landscape*, 34 LANDSCAPE ECOLOGY 1097, 1097 (2019).

<sup>67</sup> CA STATE LANDS COMM'N, CALIFORNIA STATE LANDS COMMISSION 2021-2025 STRATEGIC PLAN (2021), <https://slcprdwordpressstorage.blob.core.windows.net/wordpressdata/2021/02/2021-2025-Strategic-Plan.pdf>.

are lands underlying navigable and tidal waterways, with the landward boundary lying at the ordinary high water mark (for tidal waterways) and ordinary low water mark (for navigable non-tidal waterways.)<sup>68</sup> However, the area between navigable non-tidal waterways' low water mark and ordinary high water mark are subject to the Public Trust Easement, which allows the public to access waterways even if the area may be privately owned.<sup>69</sup>

CSLC monitors sovereign lands that the California Legislature granted in trust to various local jurisdictions by issuing leases for use or development, public access, or resolving boundaries between public and private actions to secure and safeguard the lands for trust purposes.<sup>70</sup> Sovereign lands cannot be granted or sold to private persons, partnerships, or corporations, but they can be leased for a term of several months to forty-nine years.<sup>71</sup> These lands include over 120 river and sloughs, 40 lakes, and tidelands and submerged lands along more than 1,130 miles of coastline.<sup>72</sup> The CSLC holds sovereign lands in trust for purposes consistent with the Public trust doctrine, including “fishing, water dependent commerce, navigation, recreational purposes, ecological preservation, and scientific study.”<sup>73</sup>

As a land trust manager, the CSLC possesses the authority and responsibility to manage and protect both the important natural and cultural resources on certain public lands within the State, and the public's right to access these lands through two principles: (1) “the Public Trust Doctrine, by which the State holds public lands in trust for commerce, navigation, fisheries, recreation, and ecological preservation and study; and (2) the California Environmental Quality Act (CEQA), which requires the Commission to ensure that potential negative environmental impacts from the use of state lands are prevented or reduced to insignificance.”<sup>74</sup>

CSLC's current policies and planning contribute to enhanced conservation that can work towards 30x30. The CSLC's 2021-2025 Strategic Plan demonstrates the Commission's dedication to meeting the challenges of climate change and equity through facilitating just transitions to a carbon-neutral economy.<sup>75</sup> In addition to discussing CSLC's intention to seek and facilitate carbon neutral, renewable energy revenue-generation activities, the plan intends to identify and evaluate

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<sup>68</sup> CA CIV. CODE § 670; *Land Types*, CA STATE LANDS COMM'N, <https://www.slc.ca.gov/land-types/> (2021).

<sup>69</sup> CA STATE LANDS COMM'N, *supra* note 70.

<sup>70</sup> *About the California State Lands Commission*, CA STATE LANDS COMM'N, <https://www.slc.ca.gov/about/> (last visited Mar. 22, 2021).

<sup>71</sup> CA CONST. art. 10 § 3; *Leases & Permits*, CA STATE LANDS COMM'N, <https://www.slc.ca.gov/leases-permits/> (last visited Mar. 22, 2021).

<sup>72</sup> CA STATE LANDS COMM'N, *supra* note 72.

<sup>73</sup> CA STATE LANDS COMM'N, *supra* note 70.

<sup>74</sup> *Inventory of the California State Lands Commission Records*, ONLINE ARCHIVE OF CA, <https://oac.cdlib.org/findaid/ark:/13030/kt4s2037vz/admin/> (last visited Mar. 22, 2021).

<sup>75</sup> CA STATE LANDS COMM'N, *supra* note 69, at 2-3.

benefits and impacts for carbon sequestration and coastal restoration and protection.<sup>76</sup>

In addition, the California Coastal Sanctuary Act of September 28, 1994 could contribute to increased conserved lands and waters.<sup>77</sup> The Act established a California Coastal Sanctuary, which includes all state waters subject to tidal influence except for state waters subject to existing leases in effect on January 1, 1995 and state waters situated east of the Carquinez Bridges on Interstate 80.<sup>78</sup> Critically, it prohibits the CSLC from entering into a new lease for the extraction of oil and gas from the California Sanctuary, unless the President of the United States finds a severe energy supply interruption and the Sanctuary's energy resources will significantly contribute to the alleviating that disruption.<sup>79</sup> The Act has already significantly contributed to protecting offshore lands and resources by resulting in the dedication of >16,000 acres to the Sanctuary as leases expired between 2016-2020.<sup>80</sup> As leases continue to expire and the industry itself intends to discontinue California operations as they become unprofitable, more of the State's waters and marine resources will be available for conservation and contribution to 30x30 goals.<sup>81</sup>

To encourage expanding protected waters and oceans in the State, the CSLC should develop long-term conservation and recreation leases for State Trust Lands. Conservation and recreation leases are designed to limit activities that impact the State's marine resources and allows lands to be managed for wildlife and natural resource conservation.<sup>82</sup> According to a report by the Lincoln Institute of Land Policy, "the most direct means of securing state trust lands with high ecological values for conservation use is to purchase or lease such parcels at auction when a state trust land agency includes them in disposition plans that identify which parcels to develop, sell or lease."<sup>83</sup> Alternatively, an applicant may purchase or lease a conservation easement on state trust lands, which allows the state to continue revenue-generating uses that are compatible with conservation.<sup>84</sup>

Some states provide mechanisms and strategies that incentivize communities to purchase or lease state trust lands for open space, conservation, or recreation.<sup>85</sup> For example, Arizona implemented the Arizona Preserve Initiative (API) in 1996 to provide a conservation mechanism for state trust lands with high ecological or

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<sup>76</sup> *Id.* at 4.

<sup>77</sup> CA PUB. RES. CODE § 6242.

<sup>78</sup> *Id.*

<sup>79</sup> CA PUB. RES. CODE § 6243.

<sup>80</sup> CA STATE LANDS COMM'N, *supra* note 69, at 10.

<sup>81</sup> CA STATE LANDS COMM'N, *supra* note 69, at 17.

<sup>82</sup> SUSAN CULP & JOE MARLOW, LINCOLN INST. OF LAND POL'Y, CONSERVING STATE TRUST LANDS 15-21 (2015), <https://www.lincolninst.edu/sites/default/files/pubfiles/conserving-state-trust-lands-full.pdf>.

<sup>83</sup> *Id.* at 15.

<sup>84</sup> *See infra* pp. 22-25.

<sup>85</sup> CULP & MARLOW, *supra* note 84, at 16.

open space values.<sup>86</sup> API allows local government, businesses, state land lessees, or citizen groups to petition the state land commission to classify certain state trust lands as “suitable for conservation purposes,” which avail the lands for purchase at fair market value while existing leases continue to the end of their term.<sup>87</sup> To incentivize purchases from conservation buyers, the API provides matching funds, approved by voters, to supplement trust land acquisition for natural preservation.<sup>88</sup> This program has allowed Arizona to have the highest conservation sale rate of public lands in the United States.<sup>89</sup>

Accordingly, a program that requires the CSLC to identify and classify state trust lands as suitable for conservation sale, match funds for purchase or lease of sovereign lands for conservation purposes, and encourage the CSLC to consider conservation leasing arrangements may be an effective means to conserving more lands and waters and reaching 30x30 goals. Specifically, including a legislative provision authorizing CSLC to issue conservation and recreation leases and classify areas for conservation purposes and passing a bond to initiate a matching fund program could provide a similar program in California.

## 2. School Lands

In addition to Sovereign lands, the CSLC manages approximately 458,843 acres of school lands in fee ownership and reserved mineral interests on approximately 790,000 acres of school lands.<sup>90</sup> School lands were granted to the State by the federal government upon statehood to support schools and consist of the sixteenth and thirty-sixth township.<sup>91</sup> Though most of school lands were sold by 1938, the CSLC still manages significant acreage of school lands.

CSLC must proactively manage school lands in trust for the public schools, which requires the Commission to take all actions necessary to “fully develop school lands, indemnity interests, and mineral interests into a permanent and productive resource base.”<sup>92</sup> Further, California law holds “it is in the best interest of the state that school lands be managed as a revenue source[.]”<sup>93</sup> Essentially, any revenue derived from the sale of school lands credits the School Land Bank

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<sup>86</sup> *Id.* at 17.

<sup>87</sup> *Id.*

<sup>88</sup> *Id.*

<sup>89</sup> *Id.* at 16.

<sup>90</sup> ANNUAL STAFF REPORT ON THE MANAGEMENT OF STATE SCHOOL LANDS, CAL. STATE LANDS COMM’N (2020), [https://slcprdwordpressstorage.blob.core.windows.net/wordpressdata/2020/12/SL\\_2019-20.pdf](https://slcprdwordpressstorage.blob.core.windows.net/wordpressdata/2020/12/SL_2019-20.pdf).

<sup>91</sup> PAUL DONAHUE, S. COMM. ON GOV’T ORG., *AB 982 Bill Analysis* (2011), [http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab\\_0951-1000/ab\\_982\\_cfa\\_20110627\\_111427\\_sen\\_comm.html](http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab_0951-1000/ab_982_cfa_20110627_111427_sen_comm.html).

<sup>92</sup> CAL. PUB RES. CODE § 8701.

<sup>93</sup> *Id.*

Fund, and any revenue from royalties, rent, and interest generated from promissory notes credits the Teachers' Retirement Fund, with one exception.<sup>94</sup>

Due to the systemized allocation of school lands, the parcels were allocated to the States with complete disregard of surrounding natural features. Accordingly, school land parcels are scattered throughout wilderness areas, national parks, monuments, forests, and other areas containing significantly important environmental values.<sup>95</sup> This is problematic for two reasons: First, the State's mandate that School lands be developed to produce revenue for California schools compromises and is often inconsistent with surrounding land management. For example, CSLC is pressured to accept mining applications located adjacent to Bodie Hills Wilderness Study Areas to satisfy its mandate to develop revenue for schools despite the region containing high-value connectivity habitat and resources.<sup>96</sup> Second, the individual parcel's size and location is generally insufficient to develop renewable energy projects because each 640 acre school land parcel is fragmented and isolated.<sup>97</sup>

To address these shortfalls, the CSLC may exchange school parcels for consolidated, contiguous holdings to facilitate renewable energy-related projects, provide public facilities, or other uses that can both produce more revenue for schools and be properly planned to avoid environmentally sensitive areas.<sup>98</sup> For example, in 2011, California law required CSLC to work with the Department of Interior to facilitate land exchanges that trade school parcels surrounded by Bureau of Land Management lands subject to the California Desert Protection Act of 1994 (Pub. L. 103-433) for larger, consolidated parcels to facilitate renewable energy development.<sup>99</sup>

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<sup>94</sup> CAL PUB. RES. CODE § 6217.7, 6217.5. However, the one exception in section 6217.5 is as follows: "For all lands of the United States which are received by the State Lands Commission as indemnity lands pursuant to Section 851 of Title 43 of the United States Code after July 1, 1980, the revenue received by the state from the leasing of these lands for geothermal development shall be distributed as follows: (a) Fifty percent of all revenues shall be deposited in the Geothermal Resources Development Account and disbursed pursuant to this chapter. (b) Fifty percent of all revenues shall be deposited in the Teachers' Retirement Fund and shall be expended pursuant to Section 24702 of the Education Code."

<sup>95</sup> See *School Lands Viewer*, STATE LANDS COMM'N, <https://www.arcgis.com/apps/webappviewer/index.html?id=db9c36df53594b0fa6b86472048fc640&extent=-15739106.8853%2C3310428.6944%2C-10604984.5694%2C5590086.6259%2C102100>, (last visited Jun. 4, 2021).

<sup>96</sup> See *Bald Peak Exploration Project Preapplication Review Request*, MONO CNTY. CMTY. DEV. DEP'T (Jul. 20, 2019), [https://monocounty.ca.gov/sites/default/files/fileattachments/land\\_development\\_technical\\_advisory\\_committee\\_ldtac/meeting/30133/3a\\_preapplication\\_form\\_radius\\_g\\_old\\_bald\\_peak\\_project.pdf](https://monocounty.ca.gov/sites/default/files/fileattachments/land_development_technical_advisory_committee_ldtac/meeting/30133/3a_preapplication_form_radius_g_old_bald_peak_project.pdf) (2019).

<sup>97</sup> CAL. STATE LANDS COMM'N (2020), *supra* note 92.

<sup>98</sup> *Id.* at 11.

<sup>99</sup> PAUL DONAHUE, S. COMM. ON GOV'T ORG., *AB 982 Bill Analysis* (2011), [http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab\\_0951-1000/ab\\_982\\_cfa\\_20110627\\_111427\\_sen\\_comm.html](http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab_0951-1000/ab_982_cfa_20110627_111427_sen_comm.html). However, though five successful exchanges resulted from the legislation, the process has not made progress since.

Thus, by strategically entering into agreements to cede school land parcels to areas managed for environmental protections in exchange for lands with lower-value habitat that can provide revenue for renewable energy generation, the State can increase its protected areas contributing to 30x30 and facilitate better environmental planning.

### B. State Parks

The California Department of Parks and Recreation (“CDPR”) currently manages 1.4 million acres of park land with over 280 miles of coastline, 625 miles of lake and river frontage, nearly 15,000 campsites, and 3000 miles of hiking, biking, and equestrian trails.<sup>100</sup> The Department of Parks and Recreation can manage their state parks in a way that contributes to the 30x30 goal in two ways: (1) amending its current management policy to prioritize ecological integrity and health over recreation, and (2) increasing state funding in the annual budget to add additional parks in the system to increase acreage and continue necessary maintenance and restoration.

The legislation establishing the State Park system should be amended to clarify CDPR’s priorities in its state park management. According to California law, parks must “promote and regulate the use of the state park system in a manner that conserves the scenery, natural and historic resources, and wildlife in the individual units of the system for the enjoyment of future generations.”<sup>101</sup> Further, California law states “no person shall engage in games or recreational activities that endanger . . . resources.”<sup>102</sup> On the surface, the mandate seemingly falls in line with what this report considers a “protected” area. However, rather than prioritizing the conservation of “the scenery, natural and historic resources, and wildlife,” the California Department of Parks and Recreation management documents claim its mission is

[t]o provide for the health, inspiration, and education of the people of California by helping to preserve the state’s extraordinary biological diversity, protecting its most valued natural and cultural resources and creating opportunities for high-quality outdoor resources. Balancing the need to protect California’s natural resources, while providing recreational access to the parks requires the development of sound management strategies that are based on the best available scientific, demographic, and economic information.<sup>103</sup>

Though state law authorizes the promotion of recreation in park lands, the mandate for park management does not require the Department to balance

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<sup>100</sup> *A Park System is Born*, CAL. DEP’T OF PARKS AND RECREATION, [https://www.parks.ca.gov/?page\\_id=940](https://www.parks.ca.gov/?page_id=940), (last visited Mar. 22, 2021).

<sup>101</sup> CAL. PUB. RES. CODE § 5001.2.

<sup>102</sup> 14 CCR § 4319.

<sup>103</sup> *Draft Habitat Conservation Plan for the Oceano Dunes District*, CAL. DEP’T OF PARKS AND RECREATION 1-1 (last visited Nov. 19, 2021) <https://www.fws.gov/ventura/docs/OceanoDunesHCP/OceanoDunesHCPFinal.pdf>.

recreation with natural, historic, scenic, and wildlife resources. Nevertheless, CDPDR has authorized activities, namely motorized recreation, in areas that were acknowledged to harm native wildlife by impeding listed species recovery and degrading scenic and natural resources.<sup>104</sup> Accordingly, the state park system's legislative mandate should be amended to clarify that certain recreation will be permitted only to the extent it is consistent with conserving scenic, natural, historic, and wildlife resources, and wildlife—not “balancing” recreational interests to the detriment of conservation interests and resources contained in the legislative mandate.<sup>105</sup>

In addition to amending management priorities so state parks can be classified as “protected,” enabling legislation should be expanded to increase the amount of protected area that contributes to the 30x30 initiative. The addition of new parks, as well as the maintenance of existing parks, will require a significant influx of funding. Currently, the state park system has approximately \$1.1 billion in backlogged maintenance projects, deferred due to lack of funding.<sup>106</sup> Thus, the State would need to allocate significant state funds to address current maintenance needs in addition to increase lands in the park system.

Though the required funding to add capacity to the state park system may seem excessive, the increasing demand for parks render such funding appropriate. State parks' annual visitation rates report a steady increase from 2010 through the latest 2017 CDPDR statistical report by approximately 20 million visitors.<sup>107</sup> 2017 visitor attendance had a reported increase of 9.03% from the previous fiscal year report.<sup>108</sup> Thus, trends in park visitation implies that more people have interest in visiting parks and increasingly value state parks. Moreover, total park visits are

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<sup>104</sup> See, e.g., U.S. FISH & WILDLIFE SERV., DRAFT ENVIRONMENTAL ASSESSMENT FOR THE OCEANO DUNES DISTRICT HABITAT CONSERVATION PLAN ACTIVITIES ASSOCIATED WITH ISSUANCE OF ENDANGERED SPECIES ACT SECTION 10(A)(1)(B) PERMIT IN SAN LUIS OBISPO COUNTY, CALIFORNIA 73 (September 2020), <https://www.fws.gov/ventura/docs/OceanoDunesHCP/OceanoDunesDraftEA.pdf>, (“This loss of shoreline access conflicts with project objectives to balance conservation and recreation demands, particularly to preserve, manage, and expand recreational opportunities and to manage, maintain, and maximize unique coastal camping and recreational amenities.”) (“SNPL have been found during the breeding season dead or injured outside the seasonal enclosure and these mortalities/injuries have been attributed to vehicle strike from motorized activities...”).

<sup>105</sup> For example, CAL. PUB. RES. CODE § 5001.2 can be modified as follows: The director shall promote and regulate the use of the state park system in a manner that conserves the scenery, natural and historic resources, and wildlife in the individual units of the system for the enjoyment of future generations. Recreational access to the parks should also be promoted to the extent it does not significantly degrade or impede ecosystem health or the recovery of listed species (underlined portions reflecting additional language).

<sup>106</sup> Julie Cart, *Is California Ready for A New State Park?* CALMATTERS (Feb. 3, 2020), <https://calmatters.org/environment/2020/02/is-california-ready-for-a-new-state-park/>. Note: Governor Newsom allocated \$20 million of the state budget to create California's first new state park in a decade.

<sup>107</sup> *Id.*

<sup>108</sup> STATISTICAL REPORT, CAL. STATE PARKS (2017), <https://www.parks.ca.gov/pages/795/files/16-17%20Statistical%20Report%20FINAL%20for%20web.pdf>.

habitually underestimated, suggesting state parks draw even more attendees than reported.<sup>109</sup>

### C. State Forests

The Department of Forestry and Fire Protection (“CalFire”) manages 71,000 acres of eight Demonstration State Forests (“DSF”).<sup>110</sup> Aside from Jackson DSF, which spans 48,652 acres, all other state forests are under 10,000 acres.<sup>111</sup> These forests often contain high-value habitat, important native species, and carbon sequestration potential as they hold large old-growth redwoods, providing ample opportunity to conserve and contribute towards 30x30.<sup>112</sup> These forests are utilized to test and disseminate sustainable forest practices.<sup>113</sup> Despite the emphasis to provide ecologically-sound forestry practices, none of these forests should currently qualify as “protected” because they are primarily managed for timber production rather than biodiversity.

Indeed, California law requires that regulations be “in conformity with forest management practices designed to *achieve maximum sustained production of high-quality forest products* while giving consideration to values relating to recreation, watershed, wildlife, range and forage, fisheries, and aesthetic enjoyment.”<sup>114</sup> The suitability and desirability of state forests lands is predicated on several factors, all relating to timber production: (1) the lands must be suited primarily to timber growing; (2) the lands represent growing capacities not below the average for the timber region; and (3) the lands are favorable situated for multiple use and economical administration, management and utilization.<sup>115</sup> The sale of forest products and recreation user fees of state forests are deposited with the State Treasurer in the Forest Resources Improvement Fund, which is the primary source of funding to cover the costs of these forests’ land management and operation.<sup>116</sup>

CalFire’s enabling statute ties state forest management with timber production, which is problematic for several reasons. First, revenues generated from the sale of forest products is an unstable and uncertain source of funding. Timber revenues are impacted by economic recessions, timber prices, litigation, and increasing

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<sup>109</sup> *Id.*

<sup>110</sup> *Cal Fire Demonstration State Forests*, CALFIRE (Dec. 2014), [https://www.fire.ca.gov/media/10273/cal\\_fire\\_stateforests-ada.pdf](https://www.fire.ca.gov/media/10273/cal_fire_stateforests-ada.pdf) (the eight Demonstration State Forests include Jackson, LaTour, Mountain Home, Boggs Mountain, Soquel, Las Posadas, Mount Zion, Ellen Pickett).

<sup>111</sup> *Id.*

<sup>112</sup> CAL. DEP’T OF FORESTRY AND FIRE PROT., JACKSON DEMONSTRATION STATE FOREST PLAN FOR ACHIEVEMENT OF MAXIMUM SUSTAINED PRODUCTION OF HIGH QUALITY TIMBER PRODUCTS 1-14-122 MEN, 161, 166-67 (2014).

<sup>113</sup> CAL. PUB. RES. CODE § 4631.

<sup>114</sup> *Id.* § 4651 (emphasis added).

<sup>115</sup> *Id.* at § 4648.

<sup>116</sup> *Id.* at § 4652(b).

costs to prepare, review, and implement timber harvest plans.<sup>117</sup> Second, available revenues are decreasing as the quantity of timber harvest in California on private and public lands have declined by two-thirds since the late 1950s—when most of California state forest policies were enacted.<sup>118</sup> In fact, timber only generated \$9.6 to \$10.7 million in revenue from 2018 to 2020 that were deposited in the Forest Resources Improvement Fund to manage. Moreover, the 2020-21 budget summary indicates \$2.8 million of the Forest Resources Improvement Fund—nearly one-third of its revenue—will be issued to the General Fund through a loan.<sup>119</sup> Finally, the growing public demand for recreation drives increased costs of facility maintenance, public safety management, public educational opportunities, and staffing and personnel during weekend hours.<sup>120</sup> Thus, the already decreasing timber harvest revenue is increasingly strained by the additional demands and costs CalFire is expected meet.

In addition to the insufficient funds produced through timber revenue, the societal and economic changes since the last revision of the state forest code indicate states forests are not being utilized to meet the modern needs and interests of California’s residents. Increasing use of state forests for recreational purposes demonstrates the public’s growing interest in utilizing forests for biking, hiking, and connecting with nature. Further, state forests have potential to provide valuable information through research and demonstration that are not necessarily associated with practices that produce timber revenue. These include quantitative assessments of the effectiveness of upland and riparian corridors in providing habitat and expanding forest occupancy, carbon sequestration as a management option, research on forest ecology, biological processes, and measurement of ecosystem health, wildlife habitat relationship studies that study relationships between forest cover, wildlife connectivity corridors, wildlife population trends, and many others.<sup>121</sup> However, many of these values are not realized because CalFire must instead log its forests to support their management and operation

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<sup>117</sup> CAL. DEP’T OF FORESTRY AND FIRE PROT., BUDGET CHANGE PROPOSAL (2020), [https://esd.dof.ca.gov/Documents/bcp/2021/FY2021\\_ORG3540\\_BCP3770.pdf](https://esd.dof.ca.gov/Documents/bcp/2021/FY2021_ORG3540_BCP3770.pdf) (“Through applied research, the State Forests contribute to scientific understanding to inform policy discussions of issues such as climate change, carbon sequestration, fire hazard reduction, watershed functioning, and fish and wildlife habitat. These issues, combined with the steadily increasing demand for recreational opportunities, especially mountain biking that is generally not available on other public lands, are not only changing the direction of management on the Demonstration State Forests, but also placing a greater demand on existing personnel to successfully implement the Program and meet the statutory program objectives of timber production, research and demonstration, and recreation.”).

<sup>118</sup> MAC TAYLOR, LEGISLATIVE ANALYST’S OFFICE, IMPROVING CALIFORNIA’S FOREST AND WATERSHED MANAGEMENT 7 (2018), <https://lao.ca.gov/reports/2018/3798/forest-watershed-management-040418.pdf>.

<sup>119</sup> *The 2020-21 Spending Plan: Resources and Environmental Protection*, LEGISLATIVE ANALYST’S OFFICE RES-13 (Oct. 2020), <https://www.ebudget.ca.gov/2020-21/pdf/Enacted/GovernorsBudget/3000/3540.pdf>.

<sup>120</sup> CALIFORNIA DEP’T OF FORESTRY AND FIRE PROT., *supra* note 119.

<sup>121</sup> CAL. DEP’T OF FORESTRY AND FIRE PROT. NAT. RES. AGENCY, JACKSON DEMONSTRATION STATE FOREST MANAGEMENT PLAN 4-5 (2016).

despite timber revenues routinely falling short of the funding needed to cover expenses for state forest operations and despite such mandates impeding the agency from managing forests for its ecological value.<sup>122</sup> Accordingly, the State should provide CalFire a sustainable source of funding and undertake legislative changes to modify the use and management of state forests to meet modern demands.

Modifying CalFire's enabling statute to change the purpose of state forests and find alternative funding mechanisms to fund the costs of forest management is a novel change to the mission and purpose of State Forests and CalFire. Indeed, most of the statutes guiding CalFire's management have not been modified in 50 to 100 years.<sup>123</sup> However, changes to the agency's powers and authorization are necessary to meet modern demands. CalFire's spending on fire response has nearly quadrupled in the last two decades while resource management and fire prevention has stayed largely the same with a modest increase in 2017,<sup>124</sup> leaving CalFire's operations desperate for increased funding and coordination.<sup>125</sup>

State forest management should be modified to require studies on demonstration forests to emphasize research increasing forest resilience, wildfire avoidance, and study carbon sequestration and forest ecology. In addition, the funding source must be changed so that state forests are not dependent on timber harvest and sales to fund forest operations, management, and research. Efforts to increase funding for CalFire's increased demands in responding to fires and resource management should include a modest \$10 million appropriation to manage state forests for ecological health and study. Thus, the State should modify CalFire's mission and increase allocations to CalFire from the general fund to attain the 30x30 goal and better serve California resident's needs and interests.

#### D. State Wilderness Areas and Ecological Reserves

California Department of Fish and Wildlife ("CDFW") has jurisdiction and management authority over 735 properties throughout the State, encompassing approximately 1.18 million acres.<sup>126</sup> The CDFW has trustee responsibility for the conservation and management of wildlife for the benefit and enjoyment of the public. These lands are striated into different classifications based on management restrictions, including Wildlife Areas, Ecological Reserves, and Undesignated

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<sup>122</sup> *Id.*

<sup>123</sup> CAL. PUB. RES. CODE § 4631 (last amended February 1982), §§ 4645-58 (last amended 1994).

<sup>124</sup> TAYLOR, *supra* note 120, at 17.

<sup>125</sup> *See generally Id.* at 26.

<sup>126</sup> *Lands Inventory Fact Sheet*, THE NAT. RES. AGENCY & DEP'T OF FISH & WILDLIFE (Dec. 29, 2020), <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=160405&inline>.

Lands (Public Access, Fish Hatcheries, and Miscellaneous Lands.)<sup>127</sup> However, only Wildlife Areas and Ecological Reserves will be considered in this report because those lands have the potential to contribute to 30x30.

### 1. Wildlife Areas

There are currently 710,944 acres of wildlife areas in California.<sup>128</sup> Section 551 of the California Fish and Game Code provides that wildlife areas are maintained for the “primary purpose of developing a statewide program of ecological conservation, restoration, preservation, development, and management of wildlife and wildlife habitat hunting.”<sup>129</sup> Thus, recreation is permitted only to the extent it is compatible with the conservation of wildlife and their associated habitats.<sup>130</sup> U.S. Forest Service (“USFS”) PAD-US system classifies Wildlife Areas as a “Gap 2,” which qualifies as “protected,” under the proposed 30x30 status because the lands are primarily managed for biodiversity.<sup>131</sup> Wildlife areas would also likely fall within IUCN’s Category VI “protected area with sustainable use of natural resources” because, similar to the state established purpose of wildlife areas, its primary objective is to protect natural ecosystems and use natural resources sustainably, when conservation and sustainable use can be mutually beneficial. Hunting is generally allowed in Wildlife Areas, but property-specific regulations significantly restrict what equipment may be used, the species that can be hunted, and when hunting is permitted.<sup>132</sup>

### 2. Ecological Reserves

California currently has 237,085 acres of ecological reserves.<sup>133</sup> Section 630 of California Fish and Game Code provides that ecological reserves’ primary purpose is for “protection of rare, threatened, or endangered native plants, wildlife, aquatic organisms, and specialized terrestrial or aquatic habitat types.”<sup>134</sup> Thus, recreation is only permitted to the extent it will not impede threatened or

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<sup>127</sup> *CDFW Owned and Operated Lands and Conservation Easements*, CAL. STATE GEOPORTAL, [https://gis.data.ca.gov/datasets/002ffba071c84786af9e9ff78d381790\\_510/explore?showTable=true](https://gis.data.ca.gov/datasets/002ffba071c84786af9e9ff78d381790_510/explore?showTable=true) (Jan. 26, 2021).

<sup>128</sup> THE NATURAL RESOURCES AGENCY & DEP’T OF FISH AND WILDLIFE, *supra* note 129.

<sup>129</sup> CAL. FISH & GAME CODE § 551.

<sup>130</sup> JON SNELLSTROM & CAL. DEP’T OF FISH & WILDLIFE, *Staff Summary Report for April 15-16, 2020*, CAL. DEPT. OF FISH & WILDLIFE DATA PORTAL, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=178380&inline> (last visited Mar. 22, 2021).

<sup>131</sup> See LINDSAY ROSA, *California 30x30 Viewer*, DEFENDERS OF WILDLIFE, <https://defenders.maps.arcgis.com/apps/webappviewer/index.html?id=8fa934ebbee54431bdcbc53d0873ab14> (last visited Mar. 22, 2021).

<sup>132</sup> See *Property-Specific Regulations for the Use of CDFW Lands*, CAL. DEP’T OF FISH & WILDLIFE, <https://wildlife.ca.gov/Lands/Regulations> (last visited Mar. 22, 2021).

<sup>133</sup> THE NATURAL RESOURCES AGENCY & DEP’T OF FISH AND WILDLIFE, *supra* note 129.

<sup>134</sup> CAL. FISH & GAME § 630.

endangered plants and wildlife or specialized habitat.<sup>135</sup> SFS PAD-US system classifies Ecological Reserves as a “Gap 2,” which qualifies as “protected,” under the proposed 30x30 status because the lands are primarily managed for biodiversity.<sup>136</sup> Ecological reserves would likely correspond with the IUCN Category IV’s “Habitat and Species Management Area” because, similar to the state established purpose of ecological reserves, their primary objective is to maintain, conserve, and restore species and habitats. Restricted and permitted activities vary with each reserve. For example, Apricum Hill Ecological Reserve is closed to all visitor use and access while Baldwin Lake Ecological Reserve allows hiking and waterfowl hunting by boat.<sup>137</sup> Though ecological reserves vary in the degree of protections and restrictions, all ecological reserves would likely be considered “protected” because they are primarily managed for biodiversity.

### 3. Policy Recommendations to Expand Ecological Reserves and Wildlife Areas

Though CDFW’s classifications of land holdings have varying degrees of protections on the landscape, all of the Wildlife Areas and Ecological Reserves would contribute towards the 30x30 goal because they are managed for biodiversity over other uses and interests. Accordingly, strategically expanding networks of Ecological Reserves and Wildlife Areas provides an opportunity to not only contribute to the 30x30 goal but also protect core habitats in a connected network of conserved areas that allow wildlife to disperse and adapt to climate change. Legislative mandates directing state funding to the Wildlife Conservation Board (“CWB”) would be necessary to expand these networks of protected areas.

On behalf of CDFW, the WCB acquires real property or rights in real property that can successfully sustain or be restored to support wildlife and, when practicable, provide suitable wildlife-oriented recreation opportunities, under the Wildlife Conservation Law of 1947.<sup>138</sup> WCB receives funding to make these investments through a combination of general funds, license plate sales,<sup>139</sup> fees

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<sup>135</sup> SNELLSTROM, *supra* note 133.

<sup>136</sup> See *CDFW Lands*, CAL. DEP’T OF FISH AND WILDLIFE, <https://apps.wildlife.ca.gov/lands> (Mar. 22, 2021).

<sup>137</sup> *Places to Visit*, CAL. DEP’T OF FISH & WILDLIFE, <https://wildlife.ca.gov/Lands/Places-to-Visit> (last visited Mar. 22, 2021).

<sup>138</sup> CAL. FISH & GAME CODE §§ 1300-1301 (“[I]t is the policy of the State to acquire and restore to the highest possible level, and maintain in a state of high productivity, those areas that can be most successfully used to sustain wildlife and which will provide adequate and suitable recreation. To carry out these purposes, a single and coordinated program for the acquisition of lands and facilities suitable for recreational purposes, and adaptable for conservation, propagation, and utilization of the fish and game resources of the State, is established.”).

<sup>139</sup> CAL. DEP’T OF FIN., STATE BUDGET 2018-19: NATURAL RESOURCES AGENCY (2018), <https://ebudget.ca.gov/2018-19/pdf/Enacted/GovernorsBudget/3000.pdf>; CAL. DEP’T OF FIN., MANUAL OF STATE FUNDS: CALIFORNIA ENVIRONMENTAL LICENSE PLATE FUND (2012), [https://www.dof.ca.gov/budget/manual\\_state\\_funds/Find\\_a\\_Fund/documents/0140.pdf](https://www.dof.ca.gov/budget/manual_state_funds/Find_a_Fund/documents/0140.pdf).

(Wildlife Restoration Fund),<sup>140</sup> and bonds that directly fund WCB or authorize the legislature to appropriate funds to the WCB.<sup>141</sup> Funds appropriated to WCB through bonds condition expenditures on specific projects or initiatives.

Thus, legislative initiatives should generate additional funding opportunities through bonds, approved in a proposition by voters, and condition such funding on strategically acquiring land and waters or issuing conservation easements to contribute to 30x30. These conditions should prioritize protecting biodiversity by requiring that the acquired lands and waters be consistent with a statewide framework designed to protect wildlife corridors to allow wildlife to disperse throughout their natural range and adapt to climate change

### E. Private Lands

Without question, private lands must be part of the conservation effort to realistically and effectively meet the 30x30 goal. By 2050, more than 80% of Americans are projected to live in metropolitan areas.<sup>142</sup> However, with COVID-induced economic collapse, economists already documented a 25% increase in farm bankruptcies in 2019.<sup>143</sup> With private landowners being forced to sell off their lands and operations, these working lands are in danger of subdivision and increased suburban sprawl or sold off for industrial agriculture or sacrificed drilling and mining.<sup>144</sup> Not only do private lands comprise the majority of California's landmass, but they also contains high-value habitat and endangered species.<sup>145</sup>

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<sup>140</sup> See CAL. DEP'T OF FIN., MANUAL OF STATE FUNDS: WILDLIFE RESTORATION FUND (2012), [https://dof.ca.gov/budget/Manual\\_State\\_Funds/Find\\_a\\_Fund/documents/0447.pdf](https://dof.ca.gov/budget/Manual_State_Funds/Find_a_Fund/documents/0447.pdf).

<sup>141</sup> See, e.g., CAL. DEP'T OF FIN., MANUAL OF STATE FUNDS: SAFE NEIGHBORHOOD PARKS, CLEAN WATER, CLEAN AIR AND COASTAL PROTECTION BOND FUND (2012), [https://dof.ca.gov/budget/Manual\\_State\\_Funds/Find\\_a\\_Fund/documents/0005.pdf](https://dof.ca.gov/budget/Manual_State_Funds/Find_a_Fund/documents/0005.pdf); CAL. DEP'T OF FIN., MANUAL OF STATE FUNDS: CAL. CLEAN WATER, CLEAN AIR, SAFE NEIGHBORHOOD PARKS, AND COASTAL PROTECTION FUND (2018), [https://dof.ca.gov/budget/Manual\\_State\\_Funds/Find\\_a\\_Fund/documents/6029.pdf](https://dof.ca.gov/budget/Manual_State_Funds/Find_a_Fund/documents/6029.pdf); CAL. DEP'T OF FIN., MANUAL OF STATE FUNDS: WATER SECURITY, CLEAN DRINKING WATER, COASTAL AND BEACH PROTECTION FUND OF 2002 (2018), [https://dof.ca.gov/budget/Manual\\_State\\_Funds/Find\\_a\\_Fund/documents/6031.pdf](https://dof.ca.gov/budget/Manual_State_Funds/Find_a_Fund/documents/6031.pdf).

<sup>142</sup> Tyler McIntosh & Hannah Rider, *The Road to 30: Private Land Conservation*, CTR. FOR W. PRIORITIES (Nov. 11, 2020), <https://storymaps.arcgis.com/stories/cffed38894b64a84a5f897ba23e31454>.

<sup>143</sup> Ryan Richards & Matt Lee-Ashley, *The Race for Nature*, CTR. FOR AM. PROGRESS (Jun. 23, 2020, 5:00 AM), <https://www.americanprogress.org/issues/green/reports/2020/06/23/486660/the-race-for-nature/>.

<sup>144</sup> *Id.*

<sup>145</sup> Sarah Hines & Amy Daniels, *Private Forestland Stewardship*, U.S. DEP'T OF AGRIC., FOREST SERV. CLIMATE CHANGE RES. CTR. (Oct. 10, 2011), <https://www.fs.usda.gov/ccrc/topics/forest-stewardship>.

Increased conservation incentives can benefit private landowners as well as push conservation efforts.<sup>146</sup> In Colorado, research found that state private conservation programs created a \$4-12 return in economic benefits—including carbon sequestration, water quality, erosion control, pollination services, and biodiversity habitat—to state residents for every dollar invested in them.<sup>147</sup> These programs tend to be implemented through the establishment of a conservation easement on private land.

A conservation easement is a “voluntary, legal agreement between a landowner and certified land trust, conservation organization, tribe, or government agency related to the future use of and environmental protection of private property.”<sup>148</sup> California contains several forms of “conservation easements,” which include open-space easements,<sup>149</sup> agricultural conservation easements,<sup>150</sup> and donated conservation easements.<sup>151</sup>

Agricultural conservation easements limit land use to agricultural production and restrict any development or improvement to the land.<sup>152</sup> These easements are granted to the California Farmland Conservancy Program by the owner of a fee simple interest in land and must be granted in perpetuity.<sup>153</sup> Lands eligible for enrollment in this program must be farmland that meets specific classifications.<sup>154</sup> Without more emphasis on conservation and protections for biodiversity, agricultural conservation easements are likely insufficient to be considered “protected” and therefore would not contribute to the 30x30 goal. Similar to agricultural conservation easements, open space lands tend to prevent development rather than impose any meaningful conservation benefits.<sup>155</sup> Unlike both agricultural and conservation easements, open-space easements may be issued for a term of years rather than in perpetuity.<sup>156</sup>

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<sup>146</sup> ANDREW SEIDL, ET AL., COLO. STATE UNI., INVESTING IN COLORADO 3 (2007), [https://warnercnr.colostate.edu/wp-content/uploads/sites/2/2017/07/ColoradoStateU\\_CE-ROI-study\\_web.pdf](https://warnercnr.colostate.edu/wp-content/uploads/sites/2/2017/07/ColoradoStateU_CE-ROI-study_web.pdf).

<sup>147</sup> *Id.*

<sup>148</sup> *What is a Conservation Easement?*, NAT’L CONSERVATION EASEMENT DATABASE, <https://www.conservationeasement.us/what-is-a-conservation-easement/> (last visited Mar. 22, 2021).

<sup>149</sup> CAL. GOV’T CODE § 51075.

<sup>150</sup> CAL. PUB. RES. CODE § 10211.

<sup>151</sup> CAL. CIV. CODE § 815.1.

<sup>152</sup> § 10211, *supra* note 153.

<sup>153</sup> *Id.*

<sup>154</sup> CAL. GOV’T CODE § 51201; PUB. RES. § 10213(a) (“‘Agricultural land’ means prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and commercial grazing land as defined in the Guidelines for the Farmland Mapping and Monitoring Program, pursuant to Section 65570 of the Government Code.”).

<sup>155</sup> *See* GOV’T § 51075(a), *supra* note 152 (“‘Open-space land’ means any parcel or area of land or water which is essentially unimproved and devoted to an open-space use as defined in Section 65560 of the Government Code.”)

<sup>156</sup> *See Id.* § 51075(d) (“‘Open-space easement’ means any right or interest in perpetuity or for a term of years in open-space land acquired by a county, city, or nonprofit organization[.]”)

A mitigation agreement is a written agreement between a qualified entity holding property and a developer or other project proponent for the purpose of offsetting expected adverse impacts of development on loss of farmland, habitat, or riparian areas.<sup>157</sup> Any conservation easement or open-space easement that is created via satisfying a local or state mitigation requirement must be perpetual and satisfy respective legislative requirements.<sup>158</sup> These easements are typically paid for by the developer or mitigation group.<sup>159</sup>

Conservation easements are issued by various entities, with varying degrees of protections and management responsibilities.<sup>160</sup> Some conservation easements are implemented directly through federal or state easement purchases while others provide landowners tax incentives or other financial benefits for donating a conservation easement to a land trust.<sup>161</sup> Each easement is specifically designed to protect the conservation values of each property and strives to meet the goals of both landowner and easement holder.<sup>162</sup>

Federal and state governments incentivize entities to donate lands or an interest in lands for conservation purposes by offering tax incentives. The IRS allows donors to claim a deduction of up to 50% of their adjusted gross income (AGI) and allows qualifying farmers and ranchers to deduct up to 100% of their AGI per year.<sup>163</sup> The IRS allows a fifteen-year carryforward period, which allows a tax loss to be claimed to reduce any future tax payments for a period of fifteen years.<sup>164</sup>

California incentives for conservation easements were previously established under California's Natural Heritage Preservation Tax Credit Act of 2000.<sup>165</sup> However, the incentive program expired on June 30, 2020, and unless AB 1219 passes, will not be renewed until at least the next session.<sup>166</sup> Under this Act, California provided a tax credit equal to 55% of the appraised fair market value of the donation.<sup>167</sup>

When compared to other easements,<sup>168</sup> California's conservation easements have strict requirements to qualify for tax incentives. Conservation easements

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<sup>157</sup> *Id.* § 65965.

<sup>158</sup> *Id.* § 65966.

<sup>159</sup> *What is a Conservation Easement?*, CAL. RANGELAND TRUST, <https://rangelandtrust.org/what-is-a-conservation-easement/> (last visited Mar. 22, 2021).

<sup>160</sup> *Conservation Easement*, CAL. COUNCIL OF LAND TRUSTS, <https://www.calandtrusts.org/conservation-basics/conservation-tools/conservation-easement/> (last visited Mar. 22, 2021).

<sup>161</sup> CULP & MARLOW, *supra* note 84, at 1.

<sup>162</sup> CAL. COUNCIL OF LAND TRUSTS, *supra* note 163.

<sup>163</sup> CULP & MARLOW, *supra* note 84, at 3.

<sup>164</sup> Jeffrey O. Sundberg, *State Income Tax Credits for Conservation Easements: Do Additional Credits Create Additional Value?*, LINCOLN INSTITUTE OF LAND POLICY, 3 (last visited Nov. 19, 2021) [https://www.lincolinst.edu/sites/default/files/1961\\_1282\\_Sundberg\\_FinalWP11JS1.pdf](https://www.lincolinst.edu/sites/default/files/1961_1282_Sundberg_FinalWP11JS1.pdf).

<sup>165</sup> *Id.*

<sup>166</sup> *Id.* at 9.

<sup>167</sup> CAL. REV. & TAX. CODE § 17053.30(a) (2019).

<sup>168</sup> *See* CULP & MARLOW, *supra* note 84, at 9-11.

must meet specific IRS “conservation purposes” to qualify, which include the following:

- preservation of land areas for outdoor recreation, by, or the education of, the general public;

- the protection of relatively natural habitat of fish, wildlife, or plants, or similar ecosystem;

- the preservation of open space (including farmland and forest land) where such preservation is for the scenic enjoyment of the general public or pursuant to a clearly delineated federal, state, or local government conservation policy and will yield a significant public benefit; or

- the preservation of a historically important land area or a certified historic structure.<sup>169</sup>

In addition, the property for which a conservation easement would be applied must also satisfy one of more of the following California-specific criteria:

- help meet the goals of a habitat conservation plan or other similar plan authorized by statute that is designed to benefit native species of plants;

- provide corridors or reserves for native plants and wildlife that will help improve the recovery possibilities of listed species;

- be agricultural land, threatened by development, and is located in an unincorporated area certified by the secretary to be zoned for agricultural use;

- be a water right, or land associated water right, and will help improve chances of listed species recovery, reduce likelihood of species, fish, or aquatic organism from being listed under State of Federal Endangered Species Acts.

- used as a park or open space or will augment public access to or enjoyment of existing regional or local park, beach, or open-space facilities, or will preserve archaeological resources.<sup>170</sup>

Importantly, unlike other state incentive programs, California requires a donor to encumber eligible funds to reimburse the General Fund for the loss in revenue that result from the incentivized tax credit, to undergo a public hearing, and obtain approval from the Wildlife Conservation Board.<sup>171</sup> Though California offers a generous tax credit with no credit limits, the benefit is offset with the cost of the public approval process and the requirement to reimburse the tax credits to the general fund, which deters smaller easements.<sup>172</sup>

30x30 will be a nonstarter if the state does not include additional incentives for private landowners. For conservation easements to contribute to 30x30, California law should reinstate its tax credit incentives and enhance incentives in counties that amend their plan (see below).<sup>173</sup> Further, the State should provide more funding opportunities for property owners looking to donate their easements so

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<sup>169</sup> 26 U.S.C. § 170(h)(4).

<sup>170</sup> CAL. PUB. RES. CODE § 37015 (2019).

<sup>171</sup> CAL. PUB. RES. CODE §§ 37012(d), 37016, 37022.

<sup>172</sup> CAL. PUB. RES. CODE § 37022 (2020).

<sup>173</sup> See *infra* pp. 22-25.

they do not have to undertake substantial efforts to fundraise their own tax incentive. The various incentives, including carryover periods, caps, grants for tax credits, and tax deductions, could be enhanced or reduced depending on the level of conservation a particular landowner agrees to undertake. For example, increased credits could be available to a private landowner that installs wildlife-friendly fencing, reduces outdoor lighting, engages in no-till farming practices, erosion control, implements measures enumerated in a habitat conservation plan,<sup>174</sup> or other practice that will yield conservation benefits to the region in which the land is situated.

#### F. Municipal and County Planning

Integrating 30x30 principals and goals into county general plans provides an opportunity to strategize 30x30's statewide implementation on a regional level and utilize existing stakeholder processes. Under California Law, all counties and cities must prepare, adopt, and amend a long-term general plan for the physical development for their respective jurisdictions.<sup>175</sup> The preparation or amendment of a general plan requires the planning agency to "provide opportunities for the involvement of citizens, California Native American Indian tribes, public agencies, public utility companies, and civic, education, and other community groups through public hearings and any other means the planning agency deems appropriate."<sup>176</sup> Moreover, a city or county must hold at least one public hearing before approving a planning commission's recommendation on the adoption or amendment of a general plan.<sup>177</sup> Thus, county planning provides an existing process that integrates stakeholder input, which provides for better regional planning and an opportunity to develop specific elements of a general plan that can work towards 30x30.

Several specific elements must be considered and included in a general plan, including land-use, resource conservation, noise, and open-space elements.<sup>178</sup> Counties may consider resource conservation elements and open-space elements together and integrate the elements into one planning document.<sup>179</sup> The conservation element requires counties and cities to consider development's effects on the utilization of natural resources and to identify rivers, creeks,

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<sup>174</sup> See *Habitat Conservation Plans Under the Endangered Species Act*, U.S. FISH & WILDLIFE SERV. (Apr. 2011), <https://www.fws.gov/endangered/esa-library/pdf/hcp.pdf>.

<sup>175</sup> CAL. GOV'T CODE § 65300 (1984).

<sup>176</sup> CAL. GOV'T CODE § 65351 (2006).

<sup>177</sup> CAL. GOV'T CODE § 65353 (2012).

<sup>178</sup> CAL. GOV'T CODE §§ 65350, 65302.

<sup>179</sup> See e.g., County of San Diego, Conservation and Open Space Element, SAN DIEGO COUNTY GEN. PLAN (2011). [https://www.sandiegocounty.gov/pds/gpupdate/docs/BOS\\_Aug2011/C.1-4\\_Conservation\\_and\\_Open\\_Space.pdf](https://www.sandiegocounty.gov/pds/gpupdate/docs/BOS_Aug2011/C.1-4_Conservation_and_Open_Space.pdf).

streams, flood corridors, riparian habitats, and floodplains.<sup>180</sup> Counties may also undertake other planning initiatives voluntarily, such as Climate Action Plans.

Cities and counties are not required to create Climate Action Plans.<sup>181</sup> However, CEQA requires lead agencies to analyze and mitigate the significant effects of greenhouse gas emissions.<sup>182</sup> Rather than analyzing GHG emissions for each specific project, state law allows lead agencies to consider GHG emission impacts at a programmatic level, such as in a general plan or separate county-level climate action plan to streamline CEQA environmental review of future projects, which otherwise require individual assessments of climate impacts.<sup>183</sup> The requirement likely disproportionately incentivizes urban areas, which tend to have more projects subject to CEQA and more support for addressing climate change impacts.<sup>184</sup> This incentive should not be replicated for 30x30, which must have participation from rural counties with open spaces to be effective.

Similar to Climate Action Plans, the State may provide guidance on strategies to achieve 30x30 and encourage counties to identify and prioritize lands within their jurisdiction through Natural Community Conservation Plans (“NCCP”), Habitat Conservation Plans (“HCP”), RCIS, or other means that should be conserved. However, rather than incentivizing plan preparation through streamlining CEQA requirements, the State can incentivize county and landowner participation by availing specific conservation easement incentives and funding only to counties that adopt a 30x30 conservation plan that identifies prime private property for conservation.

The 30x30 conservation plan should incorporate any previously conducted mapping and planning efforts through ACE, RCIS, NCCP, HCP, or 30x30-specific guidance from the State. The plan should identify priority lands for conservation in a strategic, connected network to the extent feasible to provide maximum benefits for biodiversity and climate resilience and adaptation. In fact, some California counties are proactively trying to incorporate connectivity planning to protect their native wildlife and ecosystems. For example, Ventura County passed ordinances that mapped key linkages and wildlife corridors,<sup>185</sup> which overlaid “connectivity zoning” that restricts certain lighting, vegetation,

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<sup>180</sup> CA GOV'T CODE § 65302(d)(1), (3) (2021).

<sup>181</sup> *Climate Action Plans: An Overview*, LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, <https://static1.squarespace.com/static/525dcdce4b03a9509e033ab/t/54c044a5e4b056c8040ec38c/1421886629045/CAPS+overview.pdf> (last visited Oct. 27, 2021).

<sup>182</sup> GOVERNOR'S OFFICE OF PLANNING AND RESEARCH, GENERAL PLAN GUIDELINES 224-25 (2017), [https://opr.ca.gov/docs/OPR\\_C8\\_final.pdf](https://opr.ca.gov/docs/OPR_C8_final.pdf).

<sup>183</sup> 14 CCR § 15183.5 (2010).

<sup>184</sup> See CA Air Resources Board, *California Climate Action Portal (CAP-Map)*, <https://webmaps.arb.ca.gov/capmap/> (last visited Mar. 22, 2021).

<sup>185</sup> Ord. No. 4539, Ventura County (Mar. 19, 2019) [https://docs.vcrma.org/images/pdf/planning/HWC/Ordinance\\_4539.pdf](https://docs.vcrma.org/images/pdf/planning/HWC/Ordinance_4539.pdf); *Habitat Connectivity & Wildlife Corridors Map*, Ventura County, [https://docs.vcrma.org/images/pdf/planning/HWC/HWC\\_map.pdf](https://docs.vcrma.org/images/pdf/planning/HWC/HWC_map.pdf) (last visited Oct. 27, 2021).

and imposes fencing requirements and buffer zones around wildlife crossings.<sup>186</sup> However, for more of these county planning initiatives to succeed, the State must support and advocate for these efforts. Ventura County is facing litigation for its connectivity planning, which could discourage subsequent efforts unless the State empowers counties to promote these initiatives.<sup>187</sup>

In addition to supporting the counties undertaking these efforts, the State should also encourage private landowners to implement necessary conservation measures. To encourage private landowners to participate in the plan through conservation easements, the State should provide incentives to counties that prepare such plans that remove barriers to participating donors. For example, the State should pass a \$1 billion bond that is limited to reimbursing tax credits for conservation easements that are consistent with a county conservation plan and allow for transferrable credits. The enhanced tax credits would incentivize rural counties to participate in 30x30 by providing valuable incentives to private landowners to contribute to the 30x30 goal.

#### F. Federal Lands

Though the State can undertake significant efforts to reach 30x30, federal land management not only has potential to increase opportunities to conserve lands, it can provide valuable ecological benefits by enabling a statewide connected network of conserved lands. Though states lack legal authority over the management of federal public lands, the State can still have a significant influence on management decisions by actively promoting conservation and sustainable stewardship.

For example, the State should urge Congress to direct funding toward federal and state natural resource agencies and implement protective designations in under-represented habitat types and critical linkages that provide strong, durable protections. To that end, the State should work with federal land managers, tribes, and decision-makers to protect, improve, or restore connections between and adjacent to large blocks of habitat that are already protected and reduce or eliminate barriers to movement for wildlife both now and under future conditions when natural communities may shift due to climate change impacts.

The State should also be proactive in its engagement with federal land management planning processes and public comments, including USFS Forest Plan Revisions, Bureau of Land Management Land Use Plan Amendments, and U.S. Fish and Wildlife Habitat Conservation Plans. In its engagement, the State should advocate for the application of management practices that are consistent

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<sup>186</sup> See Ord. No. 4537, Ventura County (Mar. 12, 2019), [https://docs.vcrma.org/images/pdf/planning/HCWC/Ordinance\\_4537.pdf](https://docs.vcrma.org/images/pdf/planning/HCWC/Ordinance_4537.pdf).

<sup>187</sup> See Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Case No. 56-2019-00527815-CU-WM-VTA, Ventura County Coalition of Labor, Agriculture, and Business vs. Ventura County (Apr. 25, 2019), <http://colabvc.org/wp-content/uploads/2019/05/2019-04-25-Verified-Petition-for-Writ-of-Mandate-and-Complaint-CONFORMED.pdf>.

with biodiversity health in key corridors and areas promoting climate connectivity. Additionally, the State should oppose proposed permits for public land use and development that may destroy key habitat and otherwise hinder 30x30 efforts.

#### CONCLUSION

30x30 provides a science-based solution to avert severe climate change impacts and massive biodiversity loss. In order for the benefits of 30x30 to be realized, 30% of the State’s lands and waters must be conserved utilizing the best available science, including incorporation of indigenous knowledge, to manage for biodiversity health. Moreover, areas must be strategically conserved to allow wildlife to disperse and find suitable habitats in a changing climate.

As the Article illustrates, obstacles to conservation, including funding deficiencies and outdated agency mandates, must be overcome to halt the biodiversity and climate crisis. This Article provides recommendations and policy options that can and should be implemented to “clear the path” to achieving 30x30.

#### APPENDIX

Classification	Description
Ia. Strict Nature Reserve	<b>Protection:</b> Strictly protected areas set aside to protect biodiversity and geological and geomorphic features, where human visitation is strictly controlled and limited. <b>Primary objective</b> To conserve regionally, nationally or globally outstanding ecosystems, species (occurrences or aggregations) and/or geodiversity features: these attributes will have been formed mostly or entirely by non-human forces and will be degraded or destroyed when subjected to all but very light human impact.
Ib. Wilderness area	<b>Protection:</b> Usually large unmodified or slightly modified areas, retaining natural character and influence without permanent or significant human habitation, which are protected and managed to preserve their natural condition. <b>Primary objective:</b> To protect the long-term ecological integrity of natural areas that are undisturbed by significant human activity, free of modern infrastructure and where natural forces and processes predominate, so that current and future generations have the opportunity to experience such areas.
II. National Park	<b>Protection:</b> Large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible, spiritual, scientific, educational, recreational, and visitor opportunities. <b>Primary objective:</b> To protect natural biodiversity along with its underlying ecological structure and supporting environmental processes and promote education and recreation.
III. National Monument or Feature	<b>Protection:</b> Set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological features (usually small area with high visitor value). <b>Primary objective:</b> To protect specific outstanding natural features and their associated biodiversity and habitats.
IV. Habitat and Species Management	<b>Protection:</b> Aim to protect particular species or habitats and management reflects this priority. Will need regular, active interventions to address the requirements of particular species or to maintain habitats. <b>Primary objective</b> To maintain, conserve, and restore species and habitats.
V. Protected Landscape/Seascape	<b>Protection:</b> Interaction of people and nature over time has produced an area of distinct character with significant, ecological, biological, cultural, and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values. <b>Primary objective</b> To protect and sustain important landscapes/seascapes and the associated nature conservation and other values created by interactions with humans through traditional management practices.
VI. Protected area with sustainable use of NR	<b>Protection:</b> Conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems. Proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with natural conservation is seen. <b>Primary objective</b> To protect natural ecosystems and use natural resources