February 15, 2022

Jennifer Norris
Deputy Secretary for Biodiversity and Habitat
California Natural Resources Agency
1416 Ninth Street
Sacramento, CA 95814

RE: Comments on CNRA’s Draft “Pathways to 30 by 30”

Dear Deputy Secretary Norris,

On behalf of the more than 500,000 Sierra Club members and supporters throughout California and the Sierra Club’s California 30x30 Task Force, we are pleased to submit the following comments and recommendations on the Draft “Pathways to 30 by 30” document (draft Pathways Strategy) prepared by the California Natural Resources Agency (CNRA). We also refer you to our earlier comment letters to CNRA on 30x30 and the draft Natural and Working Lands Climate Smart Strategy.

We appreciate California’s vision and leadership as the first state in the nation to embark officially on the effort to protect 30 percent of its lands and waters by 2030. We commend the governor for the vision of Executive Order N-82-20 and we thank the CNRA for leading a participatory process to plan and implement this vision. We are proud to live in a state that is taking leadership on 30x30, one of the most powerful movements we have to reverse the climate, biodiversity, and humanitarian crises we face. The Pathways Strategy provides an exemplary model that we hope will be followed elsewhere in the US and the world to guide protection of nature through inclusive, democratic input from a broad range of stakeholders. The use of state-of-the-art tech tools to map and monitor results is fitting for a state that leads in technology innovation.

Thank you for the opportunity to provide comments on the draft document and for your continuing engagement with our organization and other stakeholders. Overall we believe the draft Pathways Strategy is strong in its foundational definition of conservation and in many of its proposed strategies. In this letter, we offer key recommendations to further strengthen the Pathways Strategy and better ensure its success. We look forward to collaborating with the CNRA and others to finalize the draft Pathways Strategy and realize its inspiring vision.

Our comments are organized as follows:
Section 1: Summary of Top Priorities for Strengthening the Final Pathways Strategy

To be successful, we believe the final Pathways Strategy should be strengthened in the following key ways:

1. Further Sharpen the Definition of Conservation for 30x30

We appreciate CNRA’s definition of conservation, which incorporates not only the designation of an area that ensures long term, durable protection, but also centers the importance of stewardship and addressing inappropriate uses that will otherwise undermine 30x30 goals. Clarifying what management outcomes will be achieved, as well as how those outcomes will meaningfully advance long term biodiversity conservation, is important for getting this definition right.

We recommend further strengthening the definition by adding the word “biodiversity” to give greater specificity to the concept of “Support [for] functioning ecosystems.” Our ecosystems must function in ways that ensure our state’s native wildlife and their habitats are healthy and thriving. With these goals in mind, we suggest the following definition of conservation:

“Land and coastal water areas that are durably protected for their biodiversity and managed to support intact and restored ecosystems that function harmoniously to conserve native wildlife and their habitat, ensuring they do more than survive, but thrive.”

We are glad that the definition given does not include all undeveloped “working landscapes” in 30x30. We strongly request that the ambiguity introduced on page 31 be removed so that the standard is clear: only working lands managed primarily for durable biodiversity conservation and climate resilience may be considered as potentially qualifying toward 30x30 goals. If portions of a farm, ranch or working forest are managed for durable biodiversity conservation, that should be encouraged, supported, and counted fully—but only those portions should qualify as conserved.

2. Stop Current Harms

We are concerned about current harmful land and water management activities, practices, and policies in California. Left unaddressed, these ongoing damaging practices and policies will render the draft Pathways Strategy’s key objectives, core commitments, and strategic actions meaningless. If the state is to design and implement an effective and lasting 30x30 conservation plan, then there must also be a concurrent and aggressive strategy for identifying and
addressing the barriers to success that exist in current state and federal policies, planning, and regulatory regimes. Examples include but are not limited to:

- **Grazing** in ostensibly protected areas where cattle degrade water systems, displace native species, and over-utilize available forage (overgrazing).
- **Logging** of large mature trees in state, private, and federal forests, often under the guise of fire prevention. Commercial logging in backcountry forests will not prevent fires that are wind and drought driven; to be effective and ecologically sound, thinnings must focus on the wildland-urban interface and target small diameter biomass.
- **New mining** claims and exploratory **drilling** efforts—especially for surface mining over large areas, must be stopped—as these destroy essential habitats and leave toxic residues harmful to vulnerable communities.
- **Harmful water extraction** such as the mining of Strawberry Creek water by Blue Triton in the San Bernardino Mountains. Such harmful industrial operations rob local ecosystems of vital water resources. Also, the upper Sacramento River Valley is deluged with water development projects that leave vastly inadequate water levels left in the system to support fish and other aquatic biodiversity. In addition, these damaging projects force conservation organizations into near constant battles at the cost of valuable time and resources that could better be spent toward positive conservation projects. If biodiversity is to be truly protected, water development projects with unacceptable environmental consequences such as the Delta Conveyance Project and Sites reservoir must be stopped.
- **Inadequately regulated off-road vehicle recreation** (OHV), especially on public lands, threatens biodiversity and impairs the outdoor experience of the majority of users who are not actively engaged in this activity. Recreational vehicles bring in invasive plants and destroy protective soil crusts; they can directly kill certain species who are slow to escape, such as desert tortoise; and/or affect food sources and even the delicate hearing of some species.
- An exceedingly injurious practice is the continued large-scale **extraction of fossil fuels**, particularly oil, in California. Not only does it lead to further carbon emissions but it piles toxic residues inequitably onto vulnerable, underserved communities—poisoning air, water, and bodies. Fossil fuel companies have a lot of financial power, but our existential climate threat calls for strong action. Allowing for business as usual is obstructive to 30x30.
- **Agricultural toxins** must be dramatically curbed. Industrial agriculture in California is a major contributor to our state’s greenhouse gas emissions, loss of wildlife, depleted water resources, and human health impacts.
- **State efforts to address the climate crisis** must not be allowed to harm ecosystems. Utility scale renewable energy generation and transmission developments should be avoided on undisturbed intact areas such as deserts and grasslands. Instead, the state should incentivize energy conservation, efficiency, and renewable energy facilities on rooftops and in already disturbed areas.
- **Sprawl** and other inappropriate development must be curtailed using legislative and regulatory tools. Regulatory efforts are needed to curtail sprawl and promote infill
development and affordable housing over the urbanization of agricultural areas, wetlands, and wildlands. Coastal and estuarine shoreline areas must be protected from development due to the ongoing impacts of sea level rise and its threats to existing communities and the upland migration of wetlands.

3. Incorporate Strong and Specific Funding Commitments

It is excellent that the draft Pathways Strategy contains the section "Align Investments to Maximize Conservation Benefits" which includes high-level strategies for leveraging opportunities across a range of stakeholders. The final Pathways Strategy should articulate more concrete details of how long-term funding commitments will be secured at the level necessary to achieve 30x30 goals. This must include funding sufficient to ensure that Tribes, government agencies, land trusts, and community organizations have the capacity to move all essential work forward. New funds must be secured that can help scale up the work to the level needed. In addition, we strongly recommend establishing policies to ensure that current funding for nature-based solutions, climate resilience, outdoor access, and more is directed into programs that can help achieve 30x30 goals. By contrast, inadequate funding in essence means wasting funds on plans that will fizzle into hesitant, monetarily weak stabs at small scale change.

4. Integrate 30x30 Across Existing Programs and Agencies

The final 30x30 Plan should include more details on how 30x30 principles will be incorporated into the state’s current programs and regulations affecting lands, water, wildlife, and biodiversity. Existing initiatives are many, which is good, and all should be brought under the 30x30 umbrella to help achieve our goals. This integration should include agencies and departments outside of CNRA's jurisdiction. Examples include: the Water Board regulatory processes, CNRA's Salton Sea restoration work, and the California State Parks' general plan approval processes.

Furthermore, while we are supportive of the draft Pathways Strategy’s emphasis on collaborative partners and a broad array of voluntary actions, we are concerned that this implies that 30x30 can be reached only through partnerships and voluntary actions. The final plan needs to clarify that partnerships and voluntary actions are essential in addition to lead, enforceable actions by CNRA and related state agencies.

It is critically important for the state to fully integrate its commitment to 30x30 with its Natural and Working Lands Climate Smart Strategy and Nature for All initiative. Executive Order N-82-20 calls for both a comprehensive 30x30 strategy with enduring biodiversity protections and better use of California’s lands and waters to address the climate crisis. Yet the draft Climate Smart Strategy document barely mentions 30x30 and is silent on how these two critically important programs will reinforce one another while promoting social equity. We urge the state to give high priority in the Climate Smart Strategy to 30x30 measures such as protecting large core habitats, wildlife corridors, and climate refugia and to revise or eliminate
elements of the Climate Smart Strategy that could undermine climate and biodiversity goals, particularly those related to backcountry forest thinning.

5. Work Collaboratively with Federal Land Managers

The Pathways Strategy must require and lead to close collaboration with federal land managers, as so much of California’s protected lands are federal and thus active and proactive intergovernmental cooperation and close coordination, mostly absent in the past, are now urgently needed. We are glad the draft Pathways Strategy acknowledges the key role of federal land agencies in the conservation of lands in California. Especially valuable is the concept of enhancing conservation “through the formation and leadership of State-Federal working groups.” Specifics are needed to guide how these working groups will be formed, with which agencies, and about who will serve from the four federal land management agencies, all of which have significant roles in California but do not yet have a real tradition of working with the state government. We appreciate the strong statement of intent on this point, and look forward to more details regarding how Tribes and nongovernmental organization (NGO) public lands activists can offer their experience and be directly involved, especially considering that the federal land agencies, particularly the Bureau of Land Management, are understaffed and overworked.

Lastly, in state-federal working groups, care must be taken to assure that high state standards (such as California’s strong conservation definition) will carry over to the federal lands too, and that any effort to set federal standards of conservation that are lower than those being developed by California cannot be allowed to bring down our state’s high standards.

6. System of Wildlife Corridors for Connectivity

We are concerned about the lack of analysis or discussion of habitat connectivity and its importance for enhancing the effectiveness of existing protected areas. Habitat connectivity is crucial in and of itself and immensely more so now due to the climate crisis. But, beyond a few mentions, there is inadequate discussion of what we believe is a significant need: getting a true, statewide strategic system of wildlife corridors codified in legislation. The Pathways Strategy should establish a coordinated statewide system of wildlife corridors, across agency boundaries—involving much more than a few highway crossings. Such a state system (in the absence of a federal system) is the best way to work toward good connectivity of presently protected areas across agency boundaries.

7. Action for Equity and Justice

It is significant that the draft Pathways Strategy makes core commitments to centering equity, tribal partnerships, and the health of local economies, and we are pleased to see these priorities referenced throughout the draft’s nine strategic actions for advancing 30x30. In the final plan, we recommend the addition of a new section of strategic actions specifically devoted to advancing these core commitments. Given the significance of the opportunity to not only stop
harm to but also restore justice to historically marginalized communities, the strategic actions that address these opportunities deserve their own key role in the implementation framework and should have very clear and accountable goals and measures of success to ensure that equity is meaningfully advanced by this program.

Lastly, we urge CNRA to develop a prioritization framework for investing in conservation actions that will benefit the communities most vulnerable to and impacted by climate change, which are also often those with a loss of/lack of access to nature and biodiversity. This should include but not be limited to prioritizing GAP 1 and GAP 2 protections adjacent to these communities, and identifying conservation investments that will maximize long-term benefits that will build towards 30x30 goals and beyond. Refining our understanding of which communities are most in need of investments in conservation, climate resilience, and restoration of nature—from both a current and historic perspective—is an extremely complex task that cannot be taken lightly. We urge the CNRA to work on this with a wide variety of stakeholders from impacted communities throughout the state to develop a transparent framework for prioritization. This framework must be authentically responsive to the lived experiences, knowledge, and needs of Californians who are overcoming generations of under-investment in conservation in their communities.

8. Freshwater Ecosystems and Inland Waters

While we support the CNRA's emphasis on coastal ecosystems, marine resources, and wetlands, the Pathways Strategy must also include a comprehensive emphasis on protecting our state's imperiled freshwater ecosystems. Currently, these critically important ecosystems are only barely mentioned in the draft document, a troubling oversight given that freshwater ecosystems and the species they support are acutely threatened by the climate crisis and their plight will likely worsen as precipitation cycles change. Our freshwater resources are vital to California's water supply, wildlife, and biodiversity as well for equitable access opportunities to nature and should receive their own section in the report. The final Pathways Strategy should articulate a comprehensive strategy to ensure that our state's river and freshwater ecosystems will thrive in the face of hotter and drier conditions with reduced snow packs. The strategy should include specific actions such as restoration of impaired waterways, meadows, riparian areas, floodplains, and wetlands as well as strong protections for headwater springs, outstanding aquatic natural resource areas, stream flows, and critical basins.

San Francisco Bay and the Sacramento/San Joaquin Delta, fall in between coastal and freshwater ecosystems. This ecosystem provides habitat of international importance as the largest stopover on the Western Flyway. The ongoing South Bay salt pond restoration project is the largest restoration project in the US after the Everglades. Looking to the next decades and 30x30, the Bay needs help as land is urgently needed around the Bay for marsh migration as sea levels rise to submerge much of this critical habitat.

9. Need for Strong Regional Strategies and Actions
The final Pathways Strategy must include a more rigorous analysis of the regional lands, freshwater ecosystems, and seascapes being considered for conservation. More specificity is needed on the challenges, opportunities, roles, and priority actions for each region that will need to be identified and addressed in a successful statewide 30x30 strategy. Clear measures of success—as well as investment priorities for regional conservation—should be incorporated and the final plan must accurately delineate each of its named regions and enable regional differences to be addressed. In our Appendix A, we have provided more specific feedback from our regional chapters, and noted that certain ecoregions, such as the California desert, and the San Francisco Bay coastal estuary system are not accorded adequate analysis, and many of their habitats in need of conservation are largely overlooked.

10. Educate the Public on Why 30x30 is a Stepping Stone to Protecting Half of Earth’s Lands and Waters

We appreciate that the draft Pathways Strategy references key scientific sources on the imperative of protecting at least half of the planet’s natural land, freshwater and marine ecosystems to stabilize earth’s climate, curb the extinction crisis, and conserve our planet’s life support systems. We also understand that Executive Order N-82-20 did not address that larger scientific context. Nevertheless, we strongly urge CNRA to add into the text a brief explanation of how 30x30 fits within this urgent global reality: it is a stepping stone, not an end in itself. This is important because the public will then better understand how and why a “spectrum” of conservation actions, as the CNRA proposes, is so important—the goal is not to just “set aside” 30% and then continue harmful practices on the other 70%, but instead to shift our systems and institutions to better exist in harmony with the rest of nature. Within that framework, the CNRA’s Other Effective Area-Based Conservation Measures (OECMs) category is especially valuable and important. Areas not quite reaching GAP 1 or 2 standards for 30x30 should be cataloged and meanwhile conserved for their open space, climate, and other natural benefits. Then, with future potential ecosystem restoration, many such areas can help realize the larger goal of protecting half or more of Earth’s nature.

11. Develop a Comprehensive, Actionable, and Sustained Engagement Strategy

As we previously emphasized in our August 31st letter, we believe meaningful engagement with the public, not just outreach to the public, is key to the success of the 30x30 effort. Such engagement is essential to realizing the state’s commitments to more just and equitable stewardship of our public lands and waters. We applaud the many strong references to engagement in the document, particularly within the “Accelerate Regionally Led Conservation” section. This demonstrates that CNRA recognizes the need to provide resources, support, and coordination, and to amplify leadership by local communities. In particular, we thank CNRA for acknowledging the need to prioritize engagement strategies for Tribes and historically marginalized groups. We encourage CNRA to provide significantly more detail on how the 30x30 effort can vastly broaden general public information and drive active, meaningful engagement statewide.
We strongly recommend a detailed engagement strategy that at minimum includes: 1) dedicated funding and staffing for the engagement of 30x30; 2) goals and measures of success for capacity building and technical assistance; 3) regionally specific assessments and strategies for conducting stakeholder engagement that will drive locally-led conservation; and 4) more detail on how engagement around 30x30 will be transparent, accountable, and beneficial to local communities who are being asked to participate and partner. Specifics should include how CNRA will create the structure for sustained engagement and community leadership through approaches such as community-led advisory committees, public participation in design and administration of projects, regular public meetings that provide feedback loops, and more.

Section 2: Specific Comments on Draft Pathways Strategy

We offer the following specific recommendations to strengthen the Pathways Strategy:

30x30 Framework (pages 9-23)

- **Retain the three-part Objectives Framework.** We support all three of the key objectives that will guide the 30x30 strategy and thank CNRA for this three-part distillation of the essence of our shared effort. We applaud CNRA for listing “Access and equity,” “Achieving justice, diversity, equity and inclusion,” and “Strengthening tribal partnerships” as key objectives.

- **Add detail on balancing nature access and protection.** Expanding Access to Nature is a foundational concept and we are glad to see its emphasis. However, we are concerned that there is minimal recognition of potential conflicts between protection and access, and we worry that the current draft Pathways Strategy does not provide sufficient detail or guidance for how these two important goals will be balanced and accomplished together. In some cases, conservation of sensitive lands may require keeping them off-limits to almost all human interaction. While every human use has some impact, certain recreational uses have distinctly more than others, such as motorized off-road recreation, and all access needs to be stewarded by adequate staff oversight and monitoring. More access to conserved lands requires more funding for staff regulation and user education. This need is especially acute, because sometimes new visitors to our public lands may not be familiar with appropriate behaviors to help limit their impact. The section concerning recreational use under “A Spectrum of Conservation Approaches Within 30x30” as well as the strategic actions listed under “Advance equitable access through meaningful and inclusive local planning processes” provide a good framework for working at this important intersection. We request that the final plan include additional details regarding how the state and all stakeholders will bring these priorities in harmony through implementation.

- **Remedy the glaring omission of California’s deserts.** California’s vast deserts are totally missing in the first priority under “Conservation Priorities to Mitigate and Adapt to...
Climate Change,” which lists forests, wetlands, peatlands, and sea grasses as places to be protected for their high carbon sequestration and storage values. Undisturbed desert landscapes and soils have extremely high carbon storage values as well and should be recognized and conserved as such.

- **Retain the Core Commitments to Native American Tribes.** We strongly support outreach and collaboration including restorative actions with Tribes to redress past and present inequities. Indeed, this is not only a matter of equity; it can be mutually beneficial to all to incorporate into the 30x30 effort the wealth and diversity of ecological knowledge and skills held by Tribes.

- **Avoid harming nature in pursuit of climate goals.** The Sierra Club fundamentally agrees that the future prosperity of our state depends on mitigating climate change and advancing clean energy development to meet our climate goals. As we deploy clean energy, we must protect and restore wild places and build resilient habitats that can help species and ecosystems survive climate change. Areas unsuitable for development of energy projects should be identified, defended and protected.

The state should promote distributed energy resources that can be located on rooftops, parking lots, road and utility rights-of-way, and other areas that have existing infrastructure, near existing loads and utility corridors, reducing the need for transmission infrastructure. The CNRA should encourage renewable energy development on disturbed lands, which are generally superior to “greenfield” sites. The CNRA should discourage renewable energy development in intact ecosystems, habitat important for the recovery of imperiled and sensitive plant and wildlife species, migration corridors, and areas with aquatic values important for species protection and recovery.

- **Incorporate and incentivize proven organic agricultural practices.** We are pleased to see “Support programs that enhance the sustainability of our food systems” listed under “Principles for Safeguarding our Economic Prosperity and Food Supply.” Agricultural pesticides are one of the most significant drivers of diversity losses and insect population declines worldwide. Conversely, numerous comparative studies verify the positive effect organic farming has on the flora and fauna on the field level. With almost 25% of California’s land in agricultural production, it’s critical that the final Pathways Strategy include and incentivize proven organic agricultural practices. Organic is currently the only official certification available in California that guarantees reduced use of hazardous synthetic pesticides. The draft Pathways Strategy fails to mention either “pesticide” or “organic,” although it does generically reference avoiding toxic chemicals on working lands. The Department of Pesticide Regulation (DPRO) should be included among a listing of agencies the CNRA will work with.

- **Avoid aligning with current programs that are detrimental to 30x30 goals.** On page 23, the Pathways Strategy calls for alignment of 30x30 with “existing State efforts to protect biodiversity, expand access, and combat climate change.” However, not all of
these plans are supportive of 30x30 goals—particularly the January 2021 California Wildfire and Forest Resilience Action Plan, which promotes aggressive thinning across state, federal, and private forest lands with little or no mention of the harm to forest health and our climate from decades of logging. We request that CNRA revise the Pathways Strategy and provide clear standards to ensure that all “restoration” projects—especially those on public lands and/or subsidized by taxpayer dollars—do not perpetuate further damaging extraction and ecological harms. Restoration projects should undergo rigorous environmental review and if implemented, be carefully monitored and reported on. Similarly, the term “Climate smart land management actions” (p. 22) needs to be clearly defined to ensure that they are truly supportive of 30x30 goals.

Conservation in California (pages 24-33)

- **Expand the state wilderness system.** While “wilderness areas” are briefly mentioned in the Pathways Strategy, we feel there should be additional detail and discussion of how California’s exemplary system of state wildernesses will be leveraged to propel 30x30 priorities. The 12 state wildernesses are the most highly protected areas the state directly controls. The final Pathways Strategy should discuss expanding existing areas and/or designating additional state wildernesses, as well as incorporating them into a system of connected wildlife corridors.

- **Remove ambiguity on which working lands can qualify as conserved under 30x30.** The discussion of working lands on page 31 introduces ambiguity, essentially opening the door to counting some GAP 3 lands under 30x30. We strongly request that this section be revised to ensure that if working lands and waters of any kind are counted toward 30x30 they must meet proposed standards. GAP 3 lands, and any lands not primarily conserved for biodiversity, must not qualify. However, sustainably managed working lands should still be supported and incentivized as OECMs and climate reserves. The more that these working lands can be managed with biodiversity supporting practices the greater their contributions to conservation and 30x30 will be.

- **Refine the concept of complementary conservation measures to encourage conservation of Half Earth or more.** We support the concept of OECMs, which are conservation measures not meeting, but complementary to, 30x30 standards. This concept applies to urban areas, for example, that are very important for biodiversity, nature-based climate solutions, and efforts for increasing access to nature, but do not add much conservation acreage. Many of our state’s lands and waters need to be stewarded better even if not counted toward 30x30, as some lands and waters initially categorized as having OECMs might eventually ecologically recover and be included under 30x30 or Half Earth. Greater specificity is needed around which OECMs would meet the definition of conservation and which would not, but would still support 30x30 goals.
• **Specifically identify a place for the San Francisco Bay in 30x30 Conservation Areas.** It is, after all, the largest estuary on the west coast of two continents and is identified as a Hemispheric Reserve for shorebirds by the Western Hemispheric Reserve Network (their highest designation recognizing habitats that support over 1 million shorebirds, as well as habitat for over 500,000 migratory waterfowl, enormous numbers of fish and many listed species.) It deserves to either be included in the coastal ecosystem category or given a clear category of its own in the general introduction and classifications.

Strategic Actions to Achieve 30x30 (pages 34-57)

• **Broaden the toolbox for completing strategic land acquisitions.** Strategic land acquisitions are a vital element of 30x30 and the draft Pathways Strategy gives them fairly good emphasis: naming the state agencies that are responsible and enumerating steps such as creating a state-federal interagency team to identify and acquire lands that meet 30x30 priorities. We encourage CNRA to consider additional incentives and tools such as public-private partnerships to create connectivity and particularly to support wetlands and marsh migration as sea levels rise.

• **Prioritize ecosystem representation in conservation easements.** We are glad to note the recognition that “demand for conservation easements outstrips the funding supply.” This is indeed a call to action for the CNRA to zero in on dedicated funding for increasing incentives for voluntary conservation easements. In general, such easements can be valuable tools to expand habitat protections and increase connectivity. The draft Pathways Strategy recognizes these opportunities well and lists responsible agencies and different options for developing and implementing easements. We recommend the development of criteria for balancing geographical distribution and ecosystem representation for future conservation easement purchases. It is also important that these criteria are flexible enough to facilitate responsiveness to appropriate opportunities.

• **Improve California’s suite of marine protections.** California’s importance as a coastal state cannot be overemphasized. The focus in the Pathways Strategy on strengthening marine conservation through federal-state cooperation for National Marine Sanctuaries is very good, and efforts to identify biodiversity hotspots should be followed by commitments to developing targeted conservation actions (as opposed to exploratory efforts). Efforts to designate appropriate waterways as "outstanding natural resource waters" are important, but more details are needed regarding the options and processes for such designations.

• **Prioritize expansion and better stewardship of California’s state park system.** The entire state park system needs to be brought vigorously into 30x30. The state has a great opportunity to increase and support the state park system in general and especially near urban communities. Investments in the creation of new state parks and
the expansion of existing parks are needed for conservation gains and also to increase equitable access to the outdoors.

- **Strengthen requirements for mitigation banking to ensure effectiveness.** We support mitigation banking if it's part of a comprehensive strategy to restore wetlands and if the public has an opportunity to participate in the development of the program, e.g., planning, operation, and education. We recommend that CNRA strengthen requirements for scientific monitoring, adaptive management, criteria for success, and other factors to improve survival of species and ecosystems.

- **Prioritize ecological restoration but safeguard public input and environmental review.** Achieving 30x30 will require broad restoration work in addition to the preservation of presently intact, or nearly intact, lands and waters. We applaud the strong emphasis on restoration. We likewise encourage CNRA to adopt specific science-based metrics to guide high quality restoration and restoration activities, while also seizing opportunities to prioritize restoration efforts in the most climate-vulnerable communities and landscapes in our state. The state’s strategy of “cutting green tape” to accelerate environmental restoration should not, however, exempt projects from appropriate levels of environmental review and public engagement. Too often, well intentioned projects are poorly conceived and designed; the environmental review process is an essential way for the public to learn about and influence such projects and help get them right. Moreover, there are also projects—particularly forestry projects—that are labeled as restoration but are actually damaging. These should not be accelerated under the guise of “cutting green tape.” We caution against sidestepping or tossing out regulatory needs such as those offered by CEQA in the claimed interest of speed, simplicity, streamlining, and cost-effectiveness. Adequate review under CEQA and other environmental laws/regulations can prevent ongoing and future harms.

- **Strengthen emphasis on waterway restoration and protection.** To achieve the goal of significant waterway protections, a number of restoration and conservation action are much needed, including: removal of obsolete dams and a moratorium on new dams; restoration of impaired waterways, meadows, riparian areas, floodplains, and wetlands; and strong protections for headwaters and springs including desert springs.

- **Support inclusive scientific knowledge.** There are gaps that need to be addressed in both the data and science needed to inform sound decision making. The state should incorporate data and knowledge from Tribes and community science—which may not fit exactly within the usual models from CNRA and sister agencies.

**Advancing Strategic Actions (pages 63-65)**

- **Define a robust, effective governance structure to plan and implement 30x30.** While it is an important entity for guiding the state’s 30x30 process, we are concerned that too much responsibility for implementation rests on the California Biodiversity
Collaborative. It is not clear how the Collaborative 1) will be accountable to decision makers for implementing the 30x30 plan, 2) will engage in transparent deliberations with the public or decision makers, 3) will leverage and coordinate with the existing work of state agencies, or what support and capacity it will have from CNRA staff to be effective. There must be a much more robust governance structure for implementation, with clear lines of accountability and coordination with all relevant state and federal agency staff, and clear metrics, goals and timelines for driving implementation.

CA Nature: Tools for Understanding and Shared Action: (pp 65-67)

The state’s concurrent release of data and launch of a website to support the Pathways to 30x30 process is an excellent initiative in and of itself, and well-executed. The CA Nature site reflects a great body of work from CNRA, supported by other agencies, scientists, professionals, and the public. The explorer apps, open data section, and dashboards are easily readable on various devices (as long as the user has access to the internet and an ease with digital technology). The story maps, including user guides, are especially clear and useful and equip the first-time user with relevant information and helpful how-tos. The explanations in these resources provide a solid sense of why this is all being done and how to use CA Nature’s digital resources to better understand and participate in the 30x30 process. We understand that it is difficult at times to simplify access to data and technology and we commend this effort and trust that CA Nature will continue to be a valuable resource and as widely accessible to as many Californians as possible. Going forward, we recommend a number of additions to the CA Nature site, which we have detailed below. We realize this may take time, but feel that the following additions will increase both transparency and the likelihood of achieving 30x30:

- There is no ‘sum total’ of the existing conservation plans listed in Appendix B reflected in the open data. How much does this actually represent? The public will need to see a long-term, concrete plan with at least one and preferably multiple pathways that explain how we are practically going to achieve 30x30. We need to know how many acres are involved, exactly where this will be taking place, and at least an initial estimate of how much it might cost.

- Additional data layers need to be provided that are relevant to 30x30 decision making. The 20 feature layers and feature services are just a start; other existing state data, such as California Essential Habitat Connectivity, would be useful to overlay with these.

- Along with the data outlining a concrete plan, we recommend an additional layer that highlights areas for future ecological restoration.

- We suggest the inclusion of dashboards reflecting 30x30 progress at the ecoregional, major watershed, and county level, not just at the state level. It might also be useful to create a dashboard tracking progress towards 30x30 within a certain distance of vulnerable communities. This could rely on census tract determination or other possible factors near urban areas.
We commend the maps in the working lands and climate smart strategy document. The breakdown into natural land cover types is helpful; going forward we would encourage the display of progress tracked by land cover type as well as by ecoregion. We would also suggest a more nuanced regional breakdown. Instead of CA Nature regions based on county boundaries, we believe that a focus on watersheds and ecoregions—including the Great Basin and High Desert—would be more effective.

Regarding the distinction between lands and waters, there is one key source of ambiguity that requires resolution. Though there is mention of the 3-nautical-mile rule to explain what is entailed by ‘lands and waters,’ a more detailed explanation of what qualifies as ‘inland waters’ is needed. The terrestrial and marine reference feature layer shows how this binary divide is mapped along the coast. The unfortunate complication of including all ocean-facing bays as waters, with the exception of the San Francisco Bay, is that the largest estuary in the Pacific Americas is not counted in ‘waters’ but rather in the ‘lands’ category. This unique and important aquatic ecosystem deserves full and meaningful attention in the 30x30 pathways document. Furthermore, CNRA should clearly explain why this category decision was made and how it will further, not hinder, conservation efforts directed at tidal wetlands in the San Francisco, San Pablo, and Suisun Bays. Likewise, we believe that wetlands and seagrasses/seaweeds—as the smallest land cover types by area—deserve and should be given special focus.

Another spatial question related to inland waters is the lack of coverage of large water bodies in the California Protected Areas Database (CPAD) data. Several major water bodies are mapped fully in CPAD; many are left out. The surface areas of Lake Shasta (Shasta-Trinity National Forest), San Luis Reservoir State Recreation Area, Mono Lake, Isabella Lake, Lake Cachuma (Santa Barbara) and the Salton Sea are generally included in the data, at their respective GAP status levels. (Note that not all of Mono Lake or the Salton Sea are included.) Goose Lake, Honey Lake, Lake Almanor, Clear Lake, and most of Lake Don Pedro and Big Bear Lake are not included. Even Lake Tahoe’s surface is not included at all in the CPAD data. While we recognize that not every square inch of inland water will be fully mapped, and some of these lake surface areas do not necessarily fall under a management mandate, we urge CNRA, through CA Nature, to drive updates to the CPAD data to better support 30x30 goals. We need to know which of our inland waters are open to exploitation or degradation, and which are being conserved.

Finally, four minor things could be considered in order to streamline the user experience on CA Nature:

- The explorer web mapping apps are a great start; however, there needs to be further explanation of how these can be utilized by the public, and how these tools figure in the planning process within CNRA. Specifically, the biodiversity app is slightly confusing. It appears that the visualization in the main data frame is using Areas of Conservation Emphasis (ACE) data, specifically the measure of “Ecoreg Biodiversity Rank." How was this measurement in particular chosen? In the ACE datasets, this field is only one of
many. The app needs to highlight why this particular measurement is considered to be important, and how it is understood and utilized as a ranking tool with CA Nature.

- The method of using hexagon shapes alongside a relatively similarly sized area of interest (AOI) tool seems somewhat dubious. Also, it appears the hexagons visualize an interpolated dataset; for example, high biodiversity scores appear in some places where there are densely developed urban areas, and generally high scores are not present in natural landscape areas. This can be confusing without substantial context and explanation.

- The other web mapping app, climate explorer, does not seem to be directly or applicably useful to biodiversity conservation—at least in the sense of identifying new conservation areas. While climate data is essential for public education, and we know that climate change will directly affect outcomes related to biodiversity conservation, this app should either be updated to apply more narrowly to 30x30, or clearly be linked to the working lands strategy.

- In the open data feature layers, there needs to be consistency in terms of file types. Most feature layers offer five (JSON, KML, SHP, GDB, and CSV), but early on we noticed a few layers that were missing at least one type available. This will make the data more accessible to users and ensure fidelity both on CA Nature and anywhere else it is used.

Conclusion

Getting positive, real action and truly implementing the vision will be incredibly challenging. Opponents will be many, there will be strong profit-making interest in retaining the status quo, and while some opponents will decry the effort openly, loud and clear. Others may pay lip service to the goals but they will work hard to assure that the state’s achievement is limited to a fine policy and that true radical conservation gain is mired in inaction and bureaucracy. Fortunately, positive and transformational action also has many allies, and we look forward to continuing to work with you for a sustainable future for California.

Finally, we again wish to express our gratitude to the CNRA for your enthusiastic and determined work to begin implementing the governor’s Executive Order. The broad vision for a sustainable future with human activities integrated with nature, and with nature more closely intertwined with people’s lives, is an outstanding goal to work toward. This document admirably sets up the framework to do so, and we look forward to helping develop the detailed actionable implementation process that will be required to make this vision a reality. With only 9 fleeting years to achieve 30x30, there is no time to lose. Meaningful actions must begin immediately and we call on the CNRA to include additional specifics in the final Pathways document describing how 30x30’s climate, biodiversity, equity and access goals can be reached and who will be responsible.

Sincerely,
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