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March 7, 2022

Secretary Deb Haaland  
Department of the Interior  
1849 C Street, N.W.  
Washington, DC 20240

RE: Request for information to inform interagency efforts to develop the American Conservation and Stewardship Atlas (87 FR 235)

Dear Secretary Haaland,

On behalf of the State of Colorado, I thank you and the Interagency Working Group (IWA) for the opportunity to provide input for consideration in developing a framework for assessing land and water conservation in the United States. The American Conservation and Stewardship Atlas (Atlas), if done thoughtfully, will be a crucial tool to assist governments and other stakeholders in future planning and prioritization of conservation initiatives. The IWA's commitment to principles of equity, environmental justice and tribal sovereignty in this process as part of the federal America the Beautiful (ATB) initiative will ensure that the Atlas will reflect diverse environmental, social and economic interests and lead to conservation outcomes that benefit all Americans.

As Vice Chair of the Western Governors Association, I was pleased to recently join you in the signing of a Memorandum of Understanding establishing a Task Force on Collaborative Conservation, an effort that I look forward to further engaging with you on, along with my fellow western governors. This task force will serve as a venue to delve deeper into details and needs critical to the development of this Atlas and the many other components of national and statewide conservation goals, and inform the overall success of the ATB initiative, among many other areas of collaboration and conversation.

Central to Colorado's below comments is the acknowledgment that setting and achieving conservation goals, particularly to achieve critical biodiversity and climate resiliency needs, deserves an approach with great attention to detail, nuance and scientific direction that goes well beyond simple acreage numbers. Furthermore, as states and other localities evaluate their role in setting and achieving conservation targets, the federal-state relationship, and questions at the heart of the development of this Atlas are critical, given the vast federal land estate and states' limited ability to influence conservation of those lands.

Furthermore, as a state with significant federal land acreage, we have limited abilities and tools to influence conservation on federal lands; however can continue to support efforts to improve biodiversity, connectivity and climate resilience. A system simply based on acres and designations vastly limits the abilities of states, local governments, and private landowners to support this larger effort by favoring outcomes on federal lands. I look forward to the task force further evaluating these nuanced questions.

The international community proposed in the “Global Deal for Nature” to protect 30% of the earth’s lands and waters by the year 2030 under the Convention on Biodiversity’s Post-2020 framework aimed at arresting species decline and restoring critical ecological systems and services.<sup>1</sup> The Post-2020 framework, which builds upon the previous 2011-2020 “Strategic Plan for Biodiversity,” revolves around four goals, roughly translated as safeguarding genetic diversity, restoring ecosystem functionality, promoting equitable conservation benefits, and improving capacity among national governments to implement required strategies and actions. The importance of mitigating climate change, while not identified as a goal, is captured as a supportive milestone. In issuing Executive Order 14008 in January 2021, President Biden initiated the United States’ path forward and role within this global biodiversity effort by establishing bold conservation targets for our nation’s lands and waters.<sup>2</sup>

As we move forward as a state, as a nation and globally to make progress on achieving those aforementioned five goals, it is the achievement of those goals and outcomes that we should remain focused on, and ensure that the systems we develop is aimed at achieving meaningful outcomes for those goals. A system that oversimplifies outcomes will not have the desired or needed impacts for safeguarding genetic diversity, restoring ecosystem functionality, promoting equitable conservation benefits, climate mitigation and improving capacity among national governments to implement required strategies and actions that our best science demands.

Lessons from the previous three decades of global conservation efforts highlight the need to improve reporting and evaluation of and across systems.<sup>3</sup> In particular, challenges in evaluating other land-based conservation initiatives have raised similar questions when it comes to assessing progress on the global biodiversity agenda. For example:

1. How to resolve divergent interpretations regarding which conservation tools, designations, and “other effective area-based conservation measures” contribute to the 30% target and associated sub-targets?
2. How to overcome “protected area bias,” or the tendency to protect lower opportunity cost lands and resources, notwithstanding their conservation value?
3. To what degree, and in what scenarios, can land area-based conservation targets (such as 30%) serve as appropriate proxies for climate, biodiversity and ecological system indicators?
4. How should countries interpret the body of scientific evidence supporting a 30% global biodiversity target as relevant to conservation outcomes at the national, state and local scales?

To varying degrees, these questions remain unresolved, however, Colorado appreciates that the IWA is carefully considering similar questions in the development of the ATB strategic framework. Through the development of the Atlas, we have the opportunity to pioneer a comprehensive approach that avoids some of these pitfalls and demonstrates how a range of verifiable, defensible conservation measures undertaken voluntarily by private landowners, as well as government-enacted protections, can contribute meaningfully to biodiversity, ecological and climate resilience objectives.

Colorado acknowledges that it is no easy task to design a framework that reflects the breadth of federal, State, Tribal and local priorities, and accurately assesses the effectiveness of varied conservation tools. I encourage the IWA to continue to engage directly with stakeholder governments to understand how various policies and programs underway at these levels align with federal ATB objectives. To this end, I

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<sup>1</sup> Dinerstein et al., “A Global Deal for Nature: Guiding Principles, Milestones and Targets,” *Science Advances* (5:4), 2019: <https://doi.org/10.1126/sciadv.aaw2869>; OECD, Convention on Biodiversity, First Draft of the Post-2020 Biodiversity Framework, Sept. 2021:

<sup>2</sup> Executive Order 14008, “Tackling the Climate Crisis at Home and Abroad,” January 27, 2021.

<sup>3</sup> OECD, 2019.

am pleased to offer some perspective based on Colorado's experience in evaluating progress toward our own state's climate, wildlife, ecosystem health and water conservation targets and objectives. As such, the attached comments expand upon preliminary feedback we provided to the Administration regarding the ATB initiative in my April 2021 letter to Secretary Haaland.

As always, my administration and I welcome further discussion about how Colorado can be a constructive partner in the development of the Atlas and wider ATB initiative. We look forward to our continued cooperation.

Sincerely,

A handwritten signature in blue ink that reads "Jared Polis". The signature is written in a cursive, flowing style.

Jared Polis  
Governor  
State of Colorado

## Attachment:

### **State of Colorado Technical Comments America Conservation and Stewardship Atlas March 7, 2022**

#### **1. Science and Data**

- **What data sources, standards, and technical approaches should be applied to data included in the Atlas to ensure that it is an authoritative and useful tool for the public?**

#### **Focus on conservation, climate and biodiversity outcomes**

In alignment with recommendations set forth in the “Global Deal for Nature,” Executive Order 14008 directs federal agencies to establish plans for conserving 30% of the earth’s lands and waters by the year 2030.<sup>1</sup> There is ample scientific support for “30x30” targets as globally significant for reversing biodiversity loss and addressing the effects of climate change. Further analysis also demonstrates that, at more localized scales, area-based metrics alone are unreliable indicators of conservation progress -- *where* and *how* protective measures are applied are equally important considerations including habitat connectivity and protected corridors.<sup>2</sup> For this reason, the State of Colorado continues to encourage the America the Beautiful (ATB) initiative, and its associated American Conservation and Stewardship Atlas (“Atlas”), to employ a systematic framework for evaluating verifiable and defensible conservation outcomes that contribute in meaningful ways to the overall 30% terrestrial, marine and inland water area protection goals. Performance indicators relative to biodiversity, climate resilience, and landscape objectives will provide a more comprehensive appraisal of our collective efforts to ensure thriving ecosystems and a healthier planet.

The ATB Year One Report summarized scientific literature on U.S. land cover change and habitat conditions for indicator species. These and other metrics representative of carbon sequestration potential, native plant and animal biodiversity, climate resilience, ecosystem functionality and connectivity in priority ecoregions, alongside spatial data that describes land tenure, management designations, and protective legal mechanisms can help to elucidate future conservation priorities and opportunities.<sup>3</sup>

#### **Avoid an over-emphasis on protected area status designations**

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<sup>1</sup> Executive Order 14008, “Tackling the Climate Crisis at Home and Abroad” January 27, 2021.

<sup>2</sup> Dinerstein et al., “A Global Deal for Nature: Guiding principles, milestones and targets,” *Science Advances*, April, 2019: <https://www.science.org/doi/10.1126/sciadv.aaw2869>; Oldekop et al., “A Global Assessment of the Social and Conservation Outcomes of Protected Areas,” *Conservation Biology*, June 10, 2015, Table 1: <https://doi.org/10.1111/cobi.12568>

<sup>3</sup> Visconti, P. et al., “Protected Area Targets Post-2020,” *Science*, April, 2019: <https://www.science.org/doi/10.1126/science.aav6886>; Also reference Appendix: Datasets Supporting Outcomes-based Conservation Planning and Policy

Protective status classification systems used in conservation reporting, such as the U.S. Geological Survey's Gap Analysis Project (GAP) U.S. Protected Areas Database (PAD-US) and the International Union for the Conservation of Nature (IUCN) World Database on Protected Areas (WDPA) system, have helped to standardize reporting of spatial information based on the strength of protective mechanisms assigned to a given area.<sup>4</sup> Too often, though, these classifications have been misapplied to represent the status of conservation outcomes when, in fact, they have been shown to have somewhat limited utility in this regard. For instance, studies illustrate a lack of alignment between areas classified as highly "protected" and those with the strongest potential to contribute to biodiversity, climate resilience, or other conservation objectives.<sup>5</sup> One recent study in the U.S. suggests that Congressionally-enacted management designations are not necessarily reflective of Key Biodiversity Areas (KBA) priorities.<sup>6</sup> Also, an overemphasis on "quantity" over "quality" in protective status classifications has inadvertently incentivized protective measures for areas that are at lower risk of development or otherwise minimize trade-offs with prospective extractive uses.<sup>7</sup>

Additionally, protected area classifications are not always based on correct assumptions about what a given designation suggests about actual management prescriptions, land and resource characteristics, or ecological value. For example, by default, U.S. National Parks and Monuments are assigned to the highest protective categories (GAP 1 and 2), even though many of these units protect unique geologic features or viewsapes, regardless of biological/ecological contributions.<sup>8</sup> Recreational activity and visitation is also a missing component in most protected area status determinations; many parks experience high levels of visitation and recreation across all or portions of their landscapes. While this activity is often compatible with the purpose for which a park was designated, it may impede ecosystem functionality.

The Administration should be cautious when considering the four-category Gap Analysis Project (GAP) system as a framework for ATB and the Atlas. The GAP system's categories are too general and classification criteria are too restrictive to reflect the diversity of protective mechanisms that will be necessary to accomplish meaningful conservation goals in the U.S. -- an issue that could disincentivize uptake of more flexible or targeted tools. Only those lands with narrowly-defined management prescriptions deemed GAP 1 or GAP 2 are considered "protected", excluding lands managed under a broad range of mechanisms assigned to GAP 3,

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<sup>4</sup> USGS Gap Analysis Project, Protected Areas Database-US: <https://www.usgs.gov/programs/gap-analysis-project>; IUCN World Database on Protected Areas:

<https://www.iucn.org/theme/protected-areas/our-work/world-database-protected-areas>

<sup>5</sup> Visconti et al., 2019; Simmons, B. et al., "Delivering on Bidens 2030 Conservation Commitment," Global Development Policy Center Working Paper, Boston University, 2021: [https://www.bu.edu/gdp/files/2021/01/BAS\\_Biden\\_EO\\_30x30\\_WP.pdf](https://www.bu.edu/gdp/files/2021/01/BAS_Biden_EO_30x30_WP.pdf);

<sup>6</sup> Jenkins, C. et al., "U.S. Protected Lands Mismatch Biodiversity Priorities," *Proceedings of the National Academy of Science (PNAS)* (112:16) April, 2015: <https://doi.org/10.1073/pnas.1418034112>; Betote, T. et al., "Wild, connected, and diverse, building a more resilient network of protected areas," *Ecological Applications*, March, 2017: <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.1527>

<sup>7</sup> Hoffman, S., "Challenges and Opportunities of Area-Based Conservation in Reaching Biodiversity and Sustainability Goals," *Biodiversity and Conservation*, Dec. 2021: <https://link.springer.com/article/10.1007/s10531-021-02340-2>; Geldmann, J. et al., "A global-level assessment of the effectiveness of protected areas at resisting anthropogenic pressures," *PNAS* (114:36) Oct., 2019: <https://doi.org/10.1073/pnas.1908221116>

<sup>8</sup> NPS Geodiversity Atlas <https://www.nps.gov/articles/geodiversity-atlas-map.htm>

some of which yield substantial conservation benefits, but allow for limited resource usage. GAP 4, a catch-all for unassigned lands, also overlooks lands with legitimate protective management provisions. An analysis of the most recent PAD-US dataset for Colorado identified significant inaccuracies in GAP category assignments -- notably, lands designated as State Wildlife Areas, which are managed primarily for biodiversity purposes, most certainly meet GAP 2 criteria, but were inappropriately classified GAP 4.

It is also worth noting that state governments have significantly less opportunity to influence protective designations on federal lands favored by GAP 1 and 2 standards. In putting the onus on states to work to meet conservation goals under ATB, tools like State Wildlife Areas or locally-zoned open space, should carry weight and provide states and localities the opportunity to succeed. Perhaps most importantly, only 11% of Colorado lands would be considered “protected” according to the default GAP methodology.<sup>9</sup> This is not only an inaccurate portrayal of Colorado’s conservation efforts, but adoption of this narrow view of what constitutes conservation would likely result in lackluster engagement in ATB and inhibit utilization of the Atlas by local governments, landowners and other conservation stakeholders.

While all frameworks that rely exclusively on total protected acreage present inherent limitations and inconsistencies, the six categories (Ia, Ib, II-VI) identified in the IUCN’s WDPa system, ranging from wilderness to areas with “sustainable use” protections,<sup>10</sup> are somewhat more descriptive than GAP categories. Adjusting for country-specific particularities and context, the IUCN classification methodology may capture a higher degree of nuance that could more accurately reflect the continuum and diversity of protective mechanisms available in the U.S, or present an example that the administration should consult in developing a more accurately representative and inclusive system. The IUCN system has the added benefit of having been adopted as the global standard, which could streamline and resolve ambiguities in translating GAP status codes for the purposes of international conservation reporting. Again, with states not able to directly enact protective designations for federal lands, consistency amongst systems could allow states more room to adopt and promote creative conservation tools that currently exist or may become available in the future, such as time-bound voluntary conservation and restoration agreements, such as Natural Resource Conservation Service’s 2018 Farm Bill programs and Healthy Forest Reserve Program;<sup>11</sup> other effective conservation measures (OECM);<sup>12</sup> and carbon or ecosystems services markets.

## **2. Conservation as a Continuum**

- ***How can the Atlas reflect the meaningful conservation work already underway in America?***

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<sup>9</sup> Conservation Colorado and Western Resource Advocates, Pathways to 30x30 Report, 2020: <https://conservationco.org/wp-content/uploads/2020/10/Pathways-to-30x30-1.pdf>

<sup>10</sup> IUCN, Guidelines for Applying Protected Area Management Categories: <https://portals.iucn.org/library/sites/library/files/documents/PAG-021.pdf>

<sup>11</sup> National Resource Conservation Service, 2018 Farm Bill Program info: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmbill/>; Healthy Forest Reserve Program info: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/forests/>

<sup>12</sup> Gurney, G. et al., “Biodiversity needs every tool in the box: use OECMs,” Nature, July 2021: <https://doi.org/10.1038/d41586-021-02041-4>



- ***What stewardship actions should be considered, in addition to permanent protections, to capture a more complete picture of conservation and restoration in America?***

### **Focus on conservation benefits in addition to durability**

The Atlas framework should adopt a “weighted” system to account for longer-term conservation benefits of various effective, defensible and verifiable stewardship actions and designations. Protected area status frameworks value the importance of durability over the effectiveness of protective measures in achieving conservation outcomes. To varying degrees, these methodologies blend longevity (permanence) and assurance (legal enforceability) into a “durability” metric that largely determines a given conservation tool’s protective status classification. The highest status is reserved for lands described as “strict nature reserves,” which for U.S. public lands predominantly applies to statutory designations such as national parks and wilderness. When strategically applied and inclusively designed, these and other designations that restrict human activity and preserve in-tact, natural systems are the most important mechanisms available for achieving biodiversity and ecological outcomes, as well as long-term social and economic benefits.<sup>13</sup> To the extent possible, these highly durable protected areas should be expanded on areas prioritized for conservation outcomes.

However, while difficult to undo, statutory designations are equally difficult to enact, and can be influenced by political, cultural and socioeconomic dynamics. The result of an over-focus on durability is devaluation of some federal administrative designations including Roadless Areas, Wilderness Study Areas, Areas of Critical Environmental Concern (ACECs) and some Special Management Areas (SMAs). While these designations may be less durable than statutory designations, they are more responsive to shifting priorities or conditions, and management prescriptions on these lands can be more easily targeted to specific conservation outcomes/objectives. For example, ACECs and SMAs can be focused on protecting sensitive species, and many Roadless Areas maintain habitat, landscape connectivity and forest cover. In addition, some durable statutory protections have been shown to produce uneven conservation and socioeconomic benefits for indigenous and disadvantaged communities.<sup>14</sup>

In terms of private lands, the “strict nature preserve” standard hasn’t been consistently applied. On paper, it is narrowly limited to highly constrained and perpetual conservation easements, but in practice, includes a variety of dissimilar legal arrangements. As with the public land classifications, the narrow scope of this classification may discourage or discount the importance of other promising avenues for private land conservation, such as the state of Colorado’s investments in state income tax credits for donated perpetual conservation easements.

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<sup>13</sup> See Waldron, A. et al., “Protecting 30% of the Planet for Nature: Costs, Benefits and Economic Applications,” Independent report: [https://www.conservation.cam.ac.uk/files/waldron\\_report\\_30\\_by\\_30\\_publish.pdf](https://www.conservation.cam.ac.uk/files/waldron_report_30_by_30_publish.pdf) ; Dinerstein et al., 2019.

<sup>14</sup> Oldekop et al., 2015; Center for American Progress, “The Nature Gap: Confronting Racial and Economic Disparities in the Protection and Destruction of Nature,” July, 2021: <https://www.americanprogress.org/article/the-nature-gap/>

Along related lines, while conservation mechanisms should be legally enforceable and verifiable, evidence suggests that, while the legal strength of such protections (i.e., whether resources are protected by conservation easements vs. stewardship agreements; statutory vs. administrative designations) is important for staving off development pressures, enforceability *per se* has been found to have less predictable bearing on *in situ* resource conditions.<sup>15</sup> For instance, despite an expansion of protective designations, biodiversity -- both within and outside of the protected area network -- has continued to decline at every scale.<sup>16</sup> Additionally, countless examples demonstrate that managed grazing conducted under well-designed and carefully-monitored stewardship arrangements can effectively contribute to soil health and grassland ecosystem integrity.<sup>17</sup> Tools that recognize the conservation benefits of areas managed locally for sustainable productive uses, including the NRCS Conservation Reserve Program, Environmental Quality Incentives Program and OECM designation recognized by the IUCN, hold promise for encouraging protected area network expansion on state and private lands, and may be appropriate to consider in the Atlas framework.<sup>18</sup>

### **Incentivize investments in land, watershed and stream restoration**

The Atlas should also acknowledge Colorado's and other Western states' focus on watershed health, habitat restoration and wildfire risk management by recognizing significant ecosystem restoration initiatives. As IUCN protected area guidance indicates, active management, such as fuels mitigation and invasive species removal, may be required to improve ecological health, climate and biodiversity outcomes on some priority areas, especially those that were historically managed to maximize productive uses, or otherwise significantly altered by anthropogenic activity.<sup>19</sup> Recognizing these "transitional" lands, apart from their protected area status, may encourage investment in large-scale restoration efforts, like the Rocky Mountain Restoration Initiative (RMRI) and Restoration and Stewardship of Outdoor Resources and Environment (RESTORE) Colorado initiative, and accelerate long-term progress toward conservation outcomes in priority landscapes.

As our climate changes, managed lands will continue to provide key benefits, and support ecosystem values that help meet the broader goals of ATB, while also providing climate adaptation benefits for communities and wild areas. Climate-adaptive management is a key tool that states can invest in to accomplish larger conservation goals.

- ***What are the attributes of lands and waters that should be included in the Atlas?***

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<sup>15</sup> Belote et al., 2017; Coad, L. et al., "Measuring Impact of Protected Area, Current and Future Use of the Database of Global Area Protected Area Database Management Effectiveness," *Philosophical Transactions of the Royal Society of London, Series B: Biological Science*, Nov, 2015: <https://doi.org/10.1098/rstb.2014.0281>; Geldmann, 2019; Simmons, 2021.

<sup>16</sup> Visconti et al., 2019.

<sup>17</sup> Teague, R. and Kreuter, U., "Managing grazing to restore soil health, ecosystem function, and ecosystem services," *Frontiers in Sustainable Food Systems*, Sept., 2020: <https://doi.org/10.3389/fsufs.2020.534187>; Haufler, J. and Ganguli, A., "Benefits of Farm Bill Grassland Conservation Practices to Wildlife," Wildlife Society Technical Report, 2007: [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs143\\_013148.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_013148.pdf)

<sup>18</sup> Gurney et al., 2018;; Dudley et al., "The essential role of other effective conservation measures in achieving big, bold conservation targets," *Global Ecology and Conservation*, 2018: <https://doi.org/10.1016/j.gecco.2018.e00424>

<sup>19</sup> See IUCN, Ecological Restoration for Protected Areas, 2010: <https://portals.iucn.org/library/efiles/documents/PAG-018.pdf>



## **Consider recreation impacts on conserved lands**

The impacts of recreation and visitation have largely been overlooked when evaluating conservation status. While recreation plays a significant role in providing local Western economies with diversified and more sustainable economies and, in many cases, motivation for conservation, high levels of recreational usage and infrastructure can have impacts on biodiversity and ecosystem functionality objectives, even in areas with durable protections like national parks and wilderness. Land cover datasets can capture significant areas of surface disturbance and infrastructure, but Atlas developers should work with states and federal land managers to incorporate recreational usage data and management restrictions into its analysis.

## **Pay special mind to freshwater and riparian ecosystems**

The Biden Administration's commitment to conserve 30% of the nation's inland water is especially timely in the arid Southwest, where a growing population has increased demand for water and an unprecedented drought exacerbated by climate change and human development has decreased supply and influenced aquatic species' lifecycles and habitat conditions. However, measuring successful conservation of freshwater systems is not straightforward.<sup>20</sup> For instance, the watershed or basin level is widely touted as appropriate for evaluating ecosystem function, but conservation at this scale usually requires cooperation across jurisdictions, including with private water rights holders. Moreover, assessing the success of a water-related project may depend on whether the focus is on ecosystem health objectives or ecosystem service objectives.

Because of these complexities, the question of which metrics and methods are most appropriate for evaluating progress toward freshwater conservation goals remains unsettled. As such, it would benefit future efforts for the Atlas to present and track a range of metrics as this space continues to evolve. Meanwhile, there is ample evidence to suggest that terrestrial conservation measures can be correlated with indicators of freshwater system health. The Atlas should account for protections designed to directly protect priority watersheds, riparian corridors and aquatic ecosystems, such as lakes, springs, rivers and streams, and should assign "weight" to terrestrial area conservation mechanisms that are projected to lead to freshwater ecosystem, native species and biodiversity outcomes. Additionally, measures, such as Colorado's in-stream flow program, which offer protections for hydrological conditions like streamflow and aquifer recharge, should also be evaluated.<sup>21</sup> Finally, water quality inventories, such as the EPA's inventory of Outstanding National Resource Waters, can be used to verify the effectiveness of conservation tools and elucidate future restoration and conservation opportunities.

- ***How can the Atlas best reflect the contributions of State, local, Tribal, territorial and private lands?***

## **Recognize State, Tribal and local conservation initiatives and policies**

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<sup>20</sup> Discussion and comparison of composite freshwater indices is provided in Voller et al., "Assessing Sustainability of Freshwater Ecosystems: A Critical Review of Composite Indicators," *Ambio* (45), 2016: <https://link.springer.com/article/10.1007/s13280-016-0792-7>

<sup>21</sup> Colorado Water Conservation Board, In-Stream Flow Program: <https://bit.ly/3ITpTvX>

States, including Colorado, as well as Tribes and local governments, are engaged in a range of planning initiatives and programs to address their conservation, wildlife and climate objectives. States are also presented with unique circumstances when it comes to existing protected lands in their jurisdictions, which is evident when comparing the 11% of Colorado classified as protected under GAP with the 26% of California<sup>22</sup> as protected under GAP. Given the diversity of these efforts and landscapes, there can be no one-size-fits all approach to representing state, tribal and local conservation efforts in the Atlas. As a result, it is essential that federal agencies continue to consult directly with experts and leaders in these jurisdictions to ensure alignment as the Atlas is developed. Evaluation tools should also be developed so that state, tribal and local conservation stakeholders can use the Atlas to track their own unique contributions to the ATB initiative, including conservation targets and other objectives.

Specifically, a number of initiatives underway in Colorado should be considered as Atlas tools are developed, including for example the:

*Climate Action Plan:* In 2019, the Colorado legislature passed House Bill 19-1261, which directed state agencies to create a statewide Climate Action Plan to meet greenhouse gas reduction targets for 2025, 2030 and 2050 (respectively, 26%, 50% and 90% below 2005 levels).<sup>23</sup> Actions and strategies identified in the resulting 2020 *Greenhouse Gas Pollution Reduction Roadmap* are now being implemented, such as air quality regulatory reforms and the forthcoming publication of a statewide Natural and Working Lands strategy.

*Regional Partnership Initiative:* In 2020, Governor Polis launched a new initiative to further the state's objectives to connect people to nature, sustain wildlife and protect Colorado's natural heritage. Executive Order 2020 008 created a framework for regional and state coordination for accommodating sustainable recreation while advancing wildlife, habitat and other natural resource objectives.<sup>24</sup> The directive tasks Colorado Parks and Wildlife (CPW), with support from the Colorado Department of Natural Resources (DNR), with driving multi-stakeholder processes culminating in regional recreation and conservation plans that will roll up into an overarching, statewide conservation and recreation plan. In partnership with Great Outdoors Colorado (GOCO), CPW granted over \$600,000 to support seven new and existing regional partnerships in 2021.

*Statewide Habitat Conservation and Connectivity Plan:* In September 2021, in response to Governor Polis' Executive Order D 2019 011,<sup>25</sup> the state released the Opportunities to Improve Sensitive Habitat and Movement Routes Connectivity for Colorado's Big Game

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<sup>22</sup> *Pathways to 30x30 California December 2021 Draft Report*, California Natural Resources Agency, 2021: <https://www.californianature.ca.gov/pages/30x30>

<sup>23</sup> HB19-1261: Climate Action Plan to Reduce Pollution, Colorado General Assembly reg sess., 2019: <https://leg.colorado.gov/bills/hb19-1261>

<sup>24</sup> Colorado Gov. Executive Order B 2020 008, Creating the Outdoor Regional Partnerships Initiative, 2020: <https://www.colorado.gov/governor/sites/default/files/inline-files/Fishers%20Peak%20EO%2010.30.20.pdf>

<sup>25</sup> Colorado Gov. Executive Order D 2019 011, Conserving Colorado's Big Game Winter Range and Migration Corridors, 2019: <https://www.trcp.org/wp-content/uploads/2020/04/D-2019-011.pdf>

Species Report.<sup>26</sup> As recommended in that report, CPW is working to develop a Statewide Habitat Conservation and Connectivity Plan that will serve as a foundation for conservation efforts on high-priority landscapes, such as winter ranges and migration corridors. The plan will identify conservation actions to include voluntary land protection, habitat enhancement, water developments, highway crossing structures, and conservation strategies that lead to more climate-resilient wildlife populations, and will be used as a communication tool to guide conservation partners' efforts.

*Creation of Additional State Parks:* In September 2019, Governor Polis signed Executive Order B 2022 008 directing DNR in coordination with CPW to identify landscapes that met criteria of a state park property, including outstanding nature-based recreation and community value combined with the conservation of natural resources.<sup>27</sup> Since that time, Fishers Peak State Park has been designated as Colorado's 42nd state park and a partnership is underway with the U.S. Forest Service and local partners to develop Sweetwater Lake into Colorado's 43rd state park.

*Colorado Water Plan Update:* Multi-stakeholder Basin Roundtables recently submitted Basin Implementation Plans that will inform priorities and approaches for meeting the state's water conservation and supply goals which will be reviewed later this year in the 2022 Colorado Water Plan Update.<sup>28</sup>

*Oil and Gas rulemakings:* In response to reforms required under Senate Bill 19-181, passed by the legislature in 2019, the Colorado Oil and Gas Conservation Commission adopted new regulations to protect wildlife resources and High Priority Habitat.<sup>29</sup>

*Statewide Private Land Conservation Plan:* Keep It Colorado, a non-profit association of conservation organizations, is developing a collaborative plan with the support of the state that rallies land trusts and partners around a unified vision for the future of private lands conservation in Colorado, which represent 60% of the state's land area.<sup>30</sup> Providing a set of concrete objectives, strategy and vision, the plan will identify urgent areas for protection and create a roadmap for on-the-ground conservation which the private lands conservation community wants to achieve in the next 10 years.

*Colorado Forest Action Plan:* The 2020 Colorado Forest Action Plan is the road map to improving forest health across Colorado.<sup>31</sup> Created by the Colorado State Forest Service and its many partners, this in-depth analysis of forest trends offers solutions and

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<sup>26</sup> Policy Report: "Opportunities to Improve Sensitive Habitat and Movement Route Connectivity for Colorado's Big Game Species," Colorado Department of Natural Resources, 2021:

[https://drive.google.com/file/d/1nKR7fdQpcLHsU\\_z7XoJz5s7jXdvLwUqs/view](https://drive.google.com/file/d/1nKR7fdQpcLHsU_z7XoJz5s7jXdvLwUqs/view)

<sup>27</sup> Colorado Gov. Executive Order B 2020 008, Creation of Additional State Parks, 2020:

<https://drive.google.com/file/d/1YbNjusco7xseTYL4UXNLg-rK1BOgrlH/view>

<sup>28</sup> Colorado Water Conservation Board, Colorado Water Plan: <https://cwcb.colorado.gov/colorado-water-plan>

<sup>29</sup> Colorado Oil and Gas Conservation Commission, 1200 Series Rules, 2021:

<https://cogcc.state.co.us/documents/reg/Rules/LATEST/1200%20Series%20-%20Protection%20of%20Wildlife%20Resources.pdf>

<sup>30</sup> Keep It Colorado, Statewide Private Lands Conservation Plan, 2022:

<https://www.keepitco.org/private-lands-plan#:~:text=Keep%20it%20Colorado%20is%20developing,private%20lands%20conservation%20in%20Colorado>

<sup>31</sup> Colorado Forest Action Plan, Colorado State Forest Service, 2020:

<https://csfs.colostate.edu/media/sites/22/2020/10/2020-ForestActionPlan.pdf>

guidance for improving forest health and ensuring our forests — and the resources they provide — persevere for future generations.

*Colorado Outdoor Equity Fund:* In 2021, the Colorado General Assembly passed House Bill 21-1318, which establishes a grant program for outdoor organizations focused on creating opportunities for underserved youth and their families to get involved in recreational activities and experiencing Colorado’s open spaces, state parks, public lands and other outdoor areas.<sup>32</sup> The bill funds what will grow to a \$3 million annual grant program through a redistribution of lottery revenue.

*Great Outdoors Colorado:* GOCO invests a portion of Colorado Lottery proceeds to help preserve and enhance the state’s parks, trails, wildlife, rivers and open spaces. GOCO’s independent board awards competitive grants to local governments and land trusts and makes investments through CPW. Since it was created by Colorado voters in 1992, GOCO has committed more than \$1.3 billion in Lottery proceeds to more than 5,500 projects, including land acquisition and conservation projects, in all 64 counties.

*City and County Open Space Initiatives:* Voters in numerous municipalities and counties across Colorado have approved property or sales tax measures allowing local governments to raise funds to purchase or lease priority properties and development rights from willing private landowners to expand open space, conserve native wildlife habitat and promote climate resiliency within their jurisdictions. The City of Boulder, for instance, has preserved more than 50,000 acres of sustainably-managed agricultural lands, open space and natural areas since passing the first such “smart-growth” law in Colorado in 1967. An additional 100,000+ acres have been preserved through similar efforts adopted by county residents in 1973.<sup>33</sup> In addition to the local benefits they generate, these programs are also central strategies for implementing 30x30 directives adopted by many local governments.<sup>34</sup>

Atlas developers should develop clear guidance for State, Tribal and local governments on standards and procedures for integrating data into the Atlas, and lead agencies should be designated to verify this data. The federal government should also invest in state and local government capacity to meet data collection standards. This is necessary, as inaccuracies and inconsistencies in geospatial data impact the ability of government agencies to analyze and make informed decisions on conservation priorities. Additional resources will also help ensure that state and local partners can assist in updating the Atlas regularly. For the Atlas to be more than just a baseline or snapshot, it must be adaptive, providing an accurate portrayal of conservation actions and their impact in the future.

## **Collaborate with Data Centers and Invest in Capacity**

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<sup>32</sup> Outdoor Equity Grant Program, Colorado Parks and Wildlife, 2022: <https://cpw.state.co.us/outdoor-equity-fund>

<sup>33</sup> City of Boulder, Open Space and Mountain Parks (OSMP), 2017 Agricultural Resources Management Plan: <https://bouldercolorado.gov/media/658/download?inline>; OSMP 2019 Master Plan: <https://bouldercolorado.gov/media/2666/download?inline>; Boulder County Parks and Open Space protected lands summary: <https://www.bouldercounty.org/open-space/management/acres/>

<sup>34</sup> See, e.g., The Mountain Pact, “Conserving and Restoring America the Beautiful: Now is the Time, Western Communities Working to Achieve the 30x30 Goal,” July, 2021: <http://www.themountainpact.org>

The Colorado Natural Heritage Program (CNHP) and other conservation data centers in the Natural Heritage Program (NHP) Network can add value by helping to verify and contextualize national biodiversity information in terms of state and local conservation priorities, regulations and policies. In partnership with state wildlife management and environment agencies, local governments and research institutions, NHPs compile and standardize data from authoritative sources on at-risk plant and animal species, priority aquatic and terrestrial ecosystems, land cover and other information relevant to natural resource conservation decision-making.

For instance, the Colorado Ownership, Management and Protection (COMaP) data layer, produced by CNHP in collaboration with state agencies and other partners, parses land use mechanisms into more than 350+ management classifications relevant to state priorities. CNHP is also working with the Colorado Division of Conservation to collect detailed information regarding the location and management of conservation easements on private lands. The Atlas should take into account COMaP and conservation data from other state NHPs to ensure accuracy and promote integration with state systems.

### **3. Outcomes**

- ***How can the Atlas best reflect land and water contributions to biodiversity, climate change mitigation and resilience, and equitable access to nature and its benefits?***

#### **Make these values core to how conservation goals are assessed and achieved**

As these comments have expressed throughout, the foundational aim of the 30x30 initiative is to achieve a level of conservation that ensures healthy ecosystems and a healthy and biodiverse planet. The 30% benchmark, while correlated, is distinct from assessing conservation purely based on total protected acreage. Developing a system for which those values are at the foundation of the ATB initiative, and central to the way the system sets goals, accounts for and incentivises entities in achieving progress, is critical.

#### **Identify unique data/metrics for evaluating socio-economic objectives**

The May 2021 report, *Conserving and Restoring America the Beautiful*, identified increased access to outdoor recreation and parks in underserved communities as ATB focus areas, identifying six “opportunity areas” that, taken together, point toward a more inclusive and collaborative conservation approach. These include aims to: create more parks in underserved communities; support Tribally-led conservation and restoration priorities; expand collaborative conservation of fish and wildlife habitats and corridors; increase access for outdoor recreation; reward voluntary conservation efforts of fishers, ranchers, farmers and forest owners; and create jobs by investing in restoration and resilience. It is essential that the ATB annual reports continue to describe how this shift is being implemented through concrete actions, programs and investments. To the extent practicable, it would also be valuable for the Atlas to illustrate how progress toward these focus areas correlates with ecological outcomes.<sup>35</sup>

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<sup>35</sup> See, e.g., EPA Social Indicators: <https://www.epa.gov/rps/social-indicators>; Corrigan, C. et al., “Global Review of Social Indicators Used in Protected Area Management Evaluation,” *Conservation Letters*, August, 2017: <https://doi.org/10.1111/conl.12397>

## Appendix:

### Selection of Recommended Analytical Tools and Datasets to support Outcomes-based Conservation Planning and Policy

#### **Terrestrial**

##### *Colorado*

- Colorado Ownership, Management and Protection (CoMAP) spatial data layer\*
- Colorado Terrestrial Ecological System Patches (TESP) spatial data layer\*
- Colorado Potential Conservation Areas (PCA) spatial data layer\*
- Colorado Species and Natural Communities spatial data layer (Statewide Elements by quad)\*
- 2020 Colorado Forest Action Plan, Forest Conditions thematic spatial analysis overlay\*\*

##### *National*

- EPA Ecoregions (Level III, IV): <https://www.epa.gov/eco-research/ecoregions-north-america>
- TNC Resilient and Connected Lands (RCL) spatial analysis\*\*
- TNC Climate and Connectivity Flow (CCF) spatial analysis\*\*
- USGS LANDFIRE 2019L (vegetation, surface disturbance, fuels) (2020 forthcoming):  
[https://landfire.gov/data\\_overviews.php](https://landfire.gov/data_overviews.php)
- NatureServe Network - Biodiversity Location data:
- [https://www.natureserve.org/sites/default/files/products/files/ods\\_wg\\_final\\_report.pdf](https://www.natureserve.org/sites/default/files/products/files/ods_wg_final_report.pdf)
  - Note Protected Weighted Range-Size Rarity (PWSSR) Standard, described in Hamilton, H. et al., “Increasing taxonomic diversity and spatial resolution clarifies opportunities for protecting U.S. imperiled species,” Ecological Applications, Jan 19, 2022: <https://doi.org/10.1002/eap.2534>
- NETL Carbon Capture and Storage Database:  
<https://netl.doe.gov/coal/carbon-storage/worldwide-ccs-database>

##### *International*

- IUCN Red List of Threatened Species: <https://www.iucnredlist.org/resources/spatial-data-download>
- IUCN World Database on Protected Areas:  
<https://www.iucn.org/theme/protected-areas/our-work/world-database-protected-areas>

#### **Freshwater**

##### *Colorado*

- 2020 Colorado Wetland and Riparian Plot Database\*
  - See Colorado Wetland Information Center, Colorado 2020-2024 Colorado Wetland Program Plan: <https://cnhp.colostate.edu/download/documents/2020/Colorado-Wetland-Program-Plan-2020-2024.pdf>
- 2020 Colorado Forest Action Plan Priority Watersheds Overlay\*\*

##### *National*

- USFWS National Wetlands Inventory (NWI):  
<https://www.fws.gov/program/national-wetlands-inventory/wetlands-data>
- National Water Quality Portal, Riverwatch (USGS, EPA, local, state and tribal watershed partners) -  
(<https://www.waterqualitydata.us/>)



- Interagency National Wild & Scenic Rivers Inventory (designated, and eligible and suitable stream segment layers): <https://www.rivers.gov/mapping-gis.php>
- EPA Clean Water Act Tier III Antidegradation Waters (Outstanding National Resource Waters) (state inventory)

\* *Colorado State University, Colorado Natural Heritage Program:* <https://cnhp.colostate.edu/maps/cnhp-spatial-layers/#>

\*\* *Colorado State Forest Service, 2020 Colorado Forest Action Plan Atlas:*  
<https://csfs.colostate.edu/media/sites/22/2020/10/2020-ForestActionPlan.pdf>

\*\*\* *The Nature Conservancy, Resilient and Connected Lands conservation gateway:*  
<http://www.conservationgateway.org/ConservationPractices/ClimateChange/Pages/RCN-Downloads.aspx>