



SIERRA CLUB

MARYLAND CHAPTER

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Transmitted by email to josh.kurtz@maryland.gov and molly.pickel@maryland.gov

Josh Kurtz, Secretary
Maryland Department of Natural Resources
580 Taylor Avenue
Annapolis, MD 21401

RE: Maryland Sierra Club Comments on the Draft 2027-2037 Land Preservation and Recreation Plan

Dear Secretary Kurtz,

Thank you for this opportunity to comment on the draft 2027-2037 Land Preservation and Recreation Plan (LPRP). We have reviewed the [draft](#), and, first and foremost, we strongly urge the MDNR to adopt the United States Geological Survey (USGS) definitions of management styles and distinguish between a) lands in conservation “working lands” -and- b) protected lands for biodiversity recovery and earth systems processes rebalancing (Turner, 2019). Only by following the USGS definitions can we track and achieve the goal of 30 x 30, allowing natural processes to unfold, and permanent protection of unmanaged and connected natural spaces and corridors for wildlife. We also ask that MDNR establish a program to create incentives for permanent protections for privately owned lands and waters; halt the use of legislative exceptions that reverse protections; and adhere to a strict no-extraction policy for lands and waters transitioned to GAP 1 and GAP 2 management styles.

Maryland is the fifth most densely populated state in the country (Wikipedia), and multiple threats – including population pressures, developmental sprawl, energy generation, and energy transmission impacts – are encroaching on the natural spaces we have left. The State Wildlife Action Plan (“SWAP” 5.27) also states that “conservation opportunity areas are vulnerable to future development or constrained by current development.” This underlines the need of this LPRP to adequately zone land and waters for permanent protection before we run out of natural ecosystems and habitats to protect.

Discussion

The Land Preservation and Recreation Plan (LPRP) is a decadal commitment to obtain funding from the Land and Water Conservation Fund Act (LWCF) which was established by “Congress in 1964 to fulfill a bipartisan commitment to *safeguard natural areas, water resources* and cultural heritage, and to provide recreation opportunities to all Americans” (<https://www.doi.gov/lwcf>) (emphasis added). We applaud the Maryland DNR for ensuring wonderful recreation opportunities for Marylanders and visitors, but our state does not safeguard or preserve nearly enough land and water resources. Given the current rate of

development in Maryland, we cannot wait another ten years to start truly protecting lands and waters – we must act now. The LPRP sets forth additional land and waters management, focuses on “working landscapes” and despite its name, largely ignores true land preservation and the Plan’s own ecology principles of restoration and protection.

Maryland has done a very good job at putting lands into conservation: agricultural reserves, fisheries, tree farms, parks, etc. These are working lands that provide benefits for food and extractive industries, in addition to options for leisure. Despite their benefits, these working lands do little to address the biodiversity crisis or the rebalancing of vital earth systems processes as is intended by the 30 x 30 goals.

Over the last fifty years, we have globally lost over 73 percent of all monitored wildlife species and are currently only two percentage points away from meeting the definition of a mass extinction, caused by human destruction and fragmentation of habitats and overexploitation of wildlife, including plants (WWF, 2024). In fact, only five percent of Earth’s surface today is untouched (Kennedy et al., 2019). This biodiversity collapse will significantly impact food security, biogeochemical cycling, the carbon cycle, and the water cycles on which all life depends. Maintaining biodiversity is vital for us and requires true protections for natural habitats – that is protection that excludes active human intervention. Retaining existing ecosystems and restoring converted land up to 30 percent would mitigate 71 percent (+/-4%) of current extinctions and 49 percent of all the CO2 increase since the industrial revolution (Strassburg, et al., 2020.) Lands and waters protection is the silver bullet out of the combined climate, biodiversity, and pollution crises.

Knowing this, 196 countries signed the Kunming–Montreal Global Biodiversity Framework in 2022, committing to the preservation and permanent protection of 30 percent of all lands and waters by 2030 (“30 x 30”). The implementation of the Framework is coordinated globally by the International Union for the Conservation of Nature (IUCN), the U.N. Environmental Program (UNEP), and the World Conservation Monitoring Center. The official tally of protected lands in the US is provided by the United States Geological Survey (USGS).

The Sierra Club fundamentally agrees with the 30 x 30 goals as stated in its own land conservation policy: “We must protect 30 percent of lands by 2030 to fight the climate and extinction crisis. Protecting wild places will keep drilling and logging from dumping pollution into the air, sequester emissions, provide protection from extreme weather, homes for wildlife, and opportunities for people to enjoy the outdoors together” (sierraclub.org/land-conservation). 30 x 30 is also supported by Sierra Club’s Generational Equity Policy which states that “future generations have a fundamental right to enjoy the benefits of natural resources, including clean air, water, and land, to have an uncontaminated food chain, and to receive a heritage of wilderness and a functioning global ecosystem with all species naturally present.” Both Sierra Club policies require the preservation of lands and waters in their natural states.

Also in support of land preservation is the 2021 Presidential Executive Order #14008 “Tackling the Climate Crisis at Home and Abroad,” which calls for the protection of 30 percent of U.S. land and waters by 2030. In its register, it highlights that: “The U.S. Geological Survey reports that only 12 percent of U.S. lands are permanently protected. Studies show that roughly 23 percent of America’s ocean is currently strongly protected,

with the vast majority of ocean protections found in the western Pacific Ocean” (DOI, 2021). While the current administration has rescinded this order, the permanent protection of at least 30 percent of land and water is the only way out of the biodiversity and climate crises. The current administration’s attack on public lands and biodiversity has created public pushback in Maryland, which presents an opportunity to permanently protect 30 percent of Maryland’s public and private resources.

Executive Order #14008 highlighted the USGS’ tracking of lands and waters that are protected across the U.S. The USGS has four levels in its Gap Analysis Project (“GAP Codes”) which define the management styles applied across U.S. lands and waters and only lands and waters that receive GAP 1 or GAP 2 management count as protected.

Following is the description of the land management styles for each code.

GAP 1: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, intensity, and legacy) are allowed to proceed without interference or are mimicked through management.

- Gap 1 coincides with what the MDNR classifies as Wildlands Type 1 – no extraction, no chemicals or manipulation, and no on- or off-road vehicles. This should be “untrammelled wilderness.”

GAP 2: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive uses or management practices that degrade the quality of existing natural communities, including suppression of natural disturbance.

- Maryland doesn’t have a clear GAP 2 definition. For instance, the eastern-shore forests are receiving nature-based climate solutions such as tree planting, invasive species removal, coastal wetlands restoration and afforestation – activities which would qualify as GAP 2. However, the MDNR also includes “sustainable forest management” in these forests which implies extraction and vehicles. For this reason, eastern-shore forests may not be sufficiently protected.

GAP 3: An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low intensity type (for example, logging, Off-Highway Vehicle recreation) or localized intense type (for example, mining). It also confers protection to federally listed endangered and threatened species throughout the area.

- GAP 3 covers all the lands listed in the LPRP since they all are subject to extractive uses and traffic. Unfortunately, they are all called either preserved or conserved without distinction, which creates confusion about the true levels of protection in Maryland. These lands, however, are subject to extraction, hence, they are “working lands” and not protected habitats.

GAP 4: There are no known public or private institutional mandates, or legally recognized easements or deed restrictions held by the managing entity to prevent conversion of

natural habitat types to anthropogenic habitat types. The area generally allows conversion to unnatural land cover throughout or management intent is unknown.

- Gap 4 would qualify as “other” under the Maryland Department of Planning 2018 Statewide Land Use Classification Definitions (2024 Edition), including private lands.

According to the USGS’s official tally for 30 x 30, Maryland only has 2.67 percent of lands and waters in GAP 1 and GAP 2 management; in other words, less than three percent of our lands and waters are currently highly protected. Harkening back to the Land and Water Conservation Fund (LWCF), we must safeguard these natural areas and water resources now. This is the single most important action the MDNR can take: We need to protect the ecosystems that still exist, restore degraded land, expand and connect habitats to support biodiversity recovery, and allow natural processes to unfold.

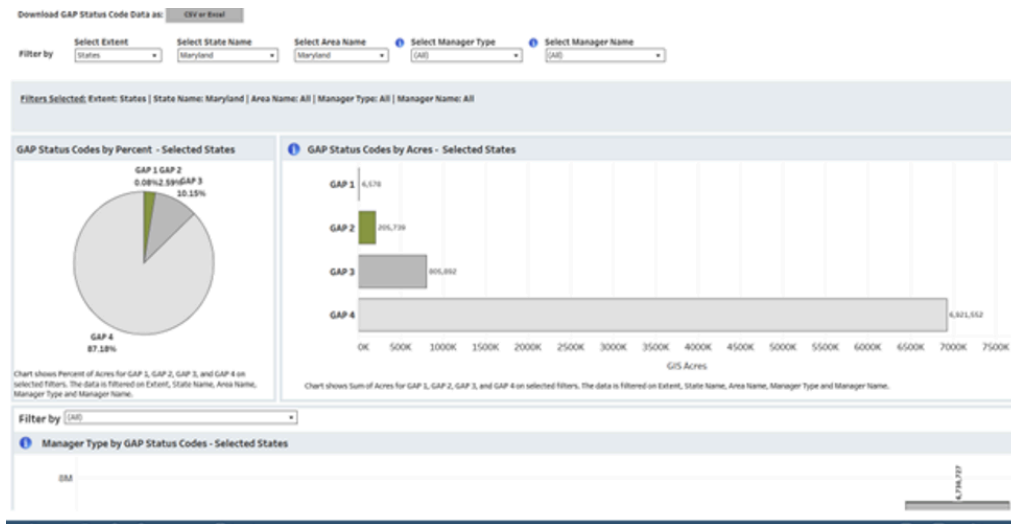


Figure 1. The Protected Area Database of the US (PAD-US) shows that only 0.08% of Maryland is in GAP 1 style management (6,578 acres) and 2.59% of Maryland is in a GAP 2 management style (205,739 acres) for a total of only 2.67% of protected lands and waters in Maryland. Unfortunately, the federal government has just removed all state-wide data from the website, but we have this recent screenshot and all data downloaded.

We understand that 33.3 percent of lands in GAP 3 (working lands or “land in conservation”) will not be developed. However, these areas can be mined, logged, sprayed, burned, farmed, fished, or trafficked by vehicles – all activities that harm biodiversity and habitats and dramatically reduce species diversity and abundance. Active management and extraction frequently impede the unfolding of natural processes and reduce Maryland’s climate resiliency rather than increasing it.

Because of the lack of distinction between conservation and protection, Maryland in 2024 announced having reached 30 x 30 and moving on to 40 x 40, despite the official USGS tally showing only 2.67 percent as protected.

Recommendations

To address this fundamental discrepancy, we propose that the following systems be put into place to remediate the lack of genuinely protected lands and waters. Specifically,

- 1) **To avoid confusing what is protected, we urge Maryland to adopt the official USGS definition of GAP Codes.** In addition, Maryland is well positioned to correct the lack of protected natural areas (terrestrial and aquatic) by removing active management plans from select natural places and allowing natural processes to unfold without human intervention. The permanent protection through GAP 1 and GAP 2 management plans of our impressive State owned forests and incentivizing private forest owners to protect their lands would help Maryland move closer to protection in our 30 x 30 goals. Timber should be sourced from industrial and privately owned tree farms only, not from public lands that belong to all Marylanders. In addition, crucial portions of streams, rivers and the Chesapeake Bay (30%) should be better protected.

Simple administrative procedures can transition much of GAP 3 and GAP 4 state-owned lands into GAP 1 and GAP 2 style management. We suggest examining the Habitat Connectivity Network (HCN) which provides an optimal outline for biodiversity recovery and dispersal but is currently permitting active management; the 362 irreplaceable natural areas (INAs) and Maryland's 32 Natural Areas (NAs), can also be moved into GAP 2 (which still allows for invasive species removals and reforestation, but no extraction or traffic) or into GAP 1, if there is no restoration needed. It is worth looking at UNESCO's Man and Biosphere approach on how to generate a protected network of lands and waters through "zonation" (UNESCO, 2022). If restoration is required before permanently protecting specific natural areas, Maryland should follow the directions provided by the International Union for the Conservation of Nature (IUCN) in its guidelines for rewilding. These include letting nature lead; promoting large scale restoration for the creation of wildlife corridors; continued monitoring; working within natural systems; and, placed-based and participatory rewilding. The IUCN requires halting all management in areas that have been rewilded and restored (Carver et al., 2025).

- 2) **We must protect and restore all types of ecosystems, including grasslands, barrens, savannahs, wetlands, streams, riparian areas, and mature forest ecosystems.** Seasonal pool depressions, specifically vernal pools, must be protected including 1000' buffers so that herpetofauna such as salamanders can breed and live (Brown & Jung, 2005). In addition to aquatic ecosystems, forests should be prioritized since they support 80 percent of all terrestrial biodiversity. Continued or repeated active management, excluding nonnative invasive management and deer culling, may compromise a forest's structure and function to the point where it cannot recover, generating "landscape traps" (Lindenmayer et al., 2011). Our mature forest ecosystems must be allowed to grow old, and then ancient. As of now, we barely have any traces of old-growth forest left in our state. This has dramatic impacts on biodiversity health and ecosystem services provision. Adding to this vital protection need, global climate models (GCM) predict eastern forests to survive past

the end of this century, while boreal, western and tropical forests are expected to suffer stand replacing events (Anderegg et al, 2022).

This adds to the importance of maintaining existing eastern forest ecosystems intact so they can take over ecosystem services provision from forests that were lost. In fact, our forests are undergoing mesophication (Nowacki & Abrams, 2008), which is a desirable outcome for ecosystem services provision and shows natural climate adaptation. Mature forests are the most resilient in the face of a changing climate and provide the most ecosystem services. Natural, unmanaged forest ecosystems sequester and store the most carbon (Nunery & Keeton, 2010) in biomass, soils, and mycorrhizal networks, and continue to do so throughout their entire lifespan (Stephenson et al, 2014); they provide shelter and nutrition for the broadest range of biodiversity (Moomaw et al, 2019); generate the most oxygen (Johnson, 2016); filter the most water (OSI, 2024); generate soils faster (Hernandez & Junod, 2019) and anchor these in the rhizosphere; maintain humidity reducing Vapor Pressure Deficit (VPD), move precipitation inland (Makarieva & Gorshkov, 2010); and so much more. Maryland should also explore regional collaboration and support the development of an Appalachian Ecological Protection Act.

Eastern forests are a CO₂ sequestration powerhouse: In 2014, the USGS issued a report stating that the “eastern U.S., with just under 40 percent of the land in the lower 48 states, stores more carbon than the rest of the conterminous United States. Forests, which occupy about half the land in the East, accounted for more than 80 percent of the region’s estimated carbon sequestered annually.” Any reduction in this sequestration potential is reported only from harvesting and land conversions. Most forests in Maryland are reaching “middle age” around age 100 which optimally positions them for significant carbon sequestration for centuries to come - if left unlogged (Birdsey et al., 2023). Birdsey also calculated that if we were to halt harvests over the temperate continental forests he studied in the eastern US, we could increase sequestration by 20 Teragrams of Carbon per year (TgC yr⁻¹) by 2050. Maryland can and must contribute to vital ecosystem services provision.

- 3) **We ask that a program for the permanent protection of private lands and waters for willing owners be developed, one that does not attach the requirement of active management or stewardship plans, beyond nonnative invasive removal and deer culling, and where any type of extraction and traffic is prohibited.** Seventy-three percent of forested land in Maryland is currently privately owned but there is not a single program which incentivizes private landowners for true permanent preservation of their lands and waters. Any conservation of land in Maryland must adhere to active management or stewardship plans which imply extraction. However, most landowners want to keep their forests for wildlife, beauty, and recreation (MFEAS, 2021). This means that a considerable amount of Maryland’s 73 percent privately owned forests is probably considered GAP 4 right now and could become part of protected lands and waters (GAP 1 or GAP 2).
- 4) **Permanent protection must be strictly enforced for natural processes to unfold and for biodiversity to be protected for current and future generations.** Once land has been designated as permanently protected, these protections should not be allowed to be reversed, encroached upon, or ignored. Even the *Natural*

Resources–Forest Preservation and Retention Act offers caveats which undermine protection goals and needs. This needs to be addressed.

In sum, we strongly request that MDNR (1) adopt USGS GAP Codes definitions of protected lands and waters which follow internationally agreed upon standards including pertaining to extraction and traffic; (2) protect natural corridors for wildlife and natural processes including mature forests, grasslands, barrens, savannahs, streams, wetlands, and vernal pools, in addition to sections of the Chesapeake Bay; (3) establish a program for permanent protections for privately owned lands and waters; and (4) halt the use of legislative or other exceptions that, in effect, reverse protections.

There are fiscal advantages to adopting the course of action recommended above. Significantly less management requirements on public lands can reduce MDNR's expenses. Data also suggests that logging on public lands generates more cost than profit and impacts the value of the surrounding land negatively (Garrity, 2025) and reduces the enjoyment of our public lands for Marylanders. Funding for land protection and acquisition can come from LWCF's Habitat Conservation Plan Land Acquisition Grants and Recovery Land Acquisition Grants. In addition, there are local funding programs such as Program Open Space, philanthropy, and donations to acquire high priority land for preservation. Some willing landowners may also want to restore parcels of their farmland to its original state.

It is imperative that we add more lands and waters into permanent protections in Maryland and that we move quickly. Conservation of working lands (GAP 3) is important, but we are lagging behind on protected lands (GAP 1 and GAP 2) for the recovery of biodiversity and earth systems processes. The Maryland Sierra Club and its 70,000 members and supporters ask that the LPRP, in addition to "Connecting People and Places," seek to place into permanent protection more preserved natural spaces and connect these through wildlife corridors as is the goal of 30 x 30. As stated in the very name of the Land Preservation and Recreation Plan, we need to start preserving and protecting our landscapes: "Through partnership and persistence, Maryland will safeguard its rich agricultural, cultural, and *ecological heritage* as the foundation of a sustainable, resilient, and inclusive future" (emphasis added) (LPRP Draft, 2026, p. 27).

Thank you for your and your staff's consideration of our comments.

Sincerely,

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