

Appendix Q:

Regional Habitat

Conservation Vision

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Regional Habitat Conservation Vision

Introduction

The purpose of the Regional Habitat Conservation Vision is to inform the 2025 Regional Plan. This appendix provides a brief history of habitat conservation in the San Diego region; describes how SANDAG through the Environmental Mitigation Program (EMP), has contributed to habitat conservation; and describes how the region is working together to further the goals and objectives of the Regional Habitat Conservation Vision to protect sensitive habitats and resources in San Diego for future generations.

By law, the 2025 Regional Plan must include several elements, one of which is the Sustainable Communities Strategy (SCS). Required by Senate Bill 375 (Steinberg, 2008), the primary purpose of the SCS is to show how development patterns and the transportation system will work together to reduce greenhouse gas (GHG) emissions from cars and light-duty trucks, providing a more sustainable future for our region. One of the primary strategies of the SCS is a land use pattern that accommodates our region's future employment and housing needs and protects sensitive habitats and resource areas.

In addition, the Regional Plan must address how San Diego's conservation strategies align with the State of California's strategic vision, the [2015 State Wildlife Action Plan](#) (SWAP). The SWAP establishes a strategic vision of the integrated conservation efforts needed to sustain the tremendous diversity of fish and wildlife resources found in the state. Much of the SWAP discusses SANDAG planning efforts within our region; the strategies identified in the 2025 Regional Plan to implement the SCS continue to promote the protection of sensitive habitats and resource areas consistent with the overall goal of the SWAP. The California Department of Fish and Wildlife is currently conducting a comprehensive review of the SWAP, as part of its 2025 update process.

Due to its diverse topography, geological conditions, and moderate climate, the San Diego region contains several rare and unique ecological and biological resources. The region encompasses a variety of habitats such as coastal sage scrub, chaparral, grassland, riparian, woodlands, forest, and desert. Several habitats and species in the region are considered sensitive by state and federal agencies, local jurisdictions, and conservation organizations. In fact, the San Diego region is considered a biodiversity hotspot, meaning that it is home to the highest diversity of endemic plants and animals found nowhere else in the world. However, human development has created tremendous habitat loss; thus, San Diego County has the largest number of imperiled species of any county in the continental United States.

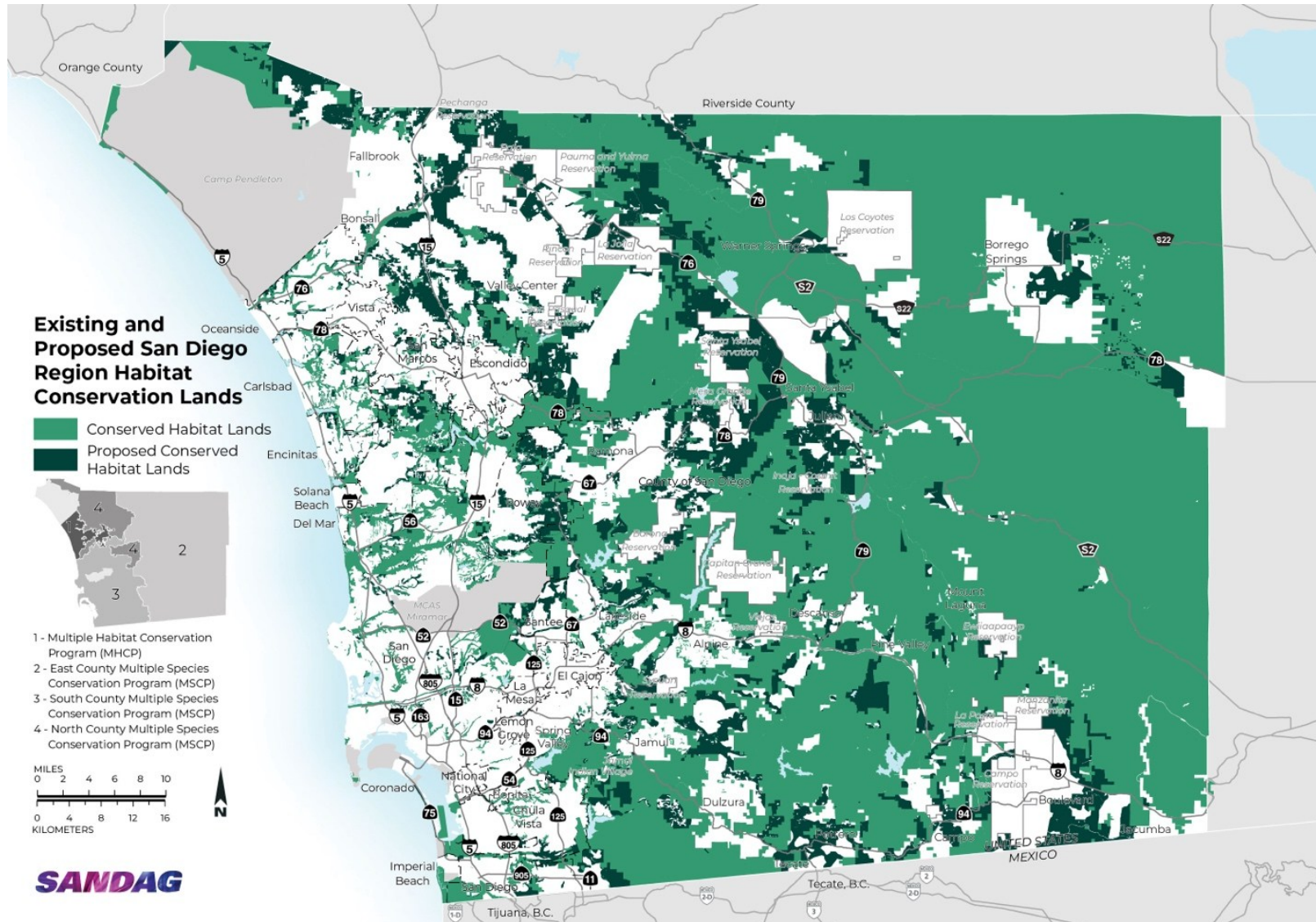
A regional habitat preserve system is important to this region's overall capability to adapt to natural hazards. A functional system of interconnected open space allows species to move across as ecological conditions change. These preserve systems also act as a carbon sink, and restoration of degraded lands contributes to the reduction of GHG.

History of Habitat Conservation in the San Diego Region

The San Diego region has conserved natural habitats for the last three decades. In 1991, the State of California enacted the [Natural Community Conservation Planning](#) (NCCP) Act. The purpose of the NCCP was “to reconcile conflict between urbanization and rare, threatened, and endangered species.” An identifiable regional preservation system based on the characteristics of habitat areas rather than individual species was created and facilitated by the NCCP. In the San Diego region, most remaining natural habitats are included in subregional habitat conservation plans. This means that the plan covers more than one jurisdiction, providing the overall policy framework for the subregion. Stemming from the creation and establishment of the NCCP, planners have focused considerable efforts on four habitat conservation plans. Two subregional plans were approved for the San Diego region: The Multiple Species Conservation Program (MSCP) was finalized in 1988, and the Multiple Habitat Conservation Program (MHCP) was finalized in 2003. The North County MSCP is under development and review, and the East County MSCP is expected to begin after the North County MSCP is adopted. These regional habitat conservation plans in the San Diego region are designed to provide an umbrella of protection for multiple species by conserving their habitats and the linkages that allow them to travel between habitats.

The MSCP covers 11 cities and portions of unincorporated San Diego County in southwestern San Diego. The MSCP is the largest subregional plan designed to conserve more than 172,000 acres and protect 85 sensitive plants and animal species throughout San Diego County. To date, SANDAG utilizes the MSCP guidelines and protections when evaluating land for mitigation, conservation, and restoration within its jurisdictional frame. The MHCP provides guidelines for the preservation of 19,000 acres of habitat. Of that, roughly 8,800 acres are already in ownership and contribute toward the habitat preserve system for the protection of more than 80 plant and animal species within seven incorporated cities in northern San Diego County. Figure Q.1 shows the conserved and proposed conserved habitat lands in the San Diego region and displays the areas covered by the four subregional habitat conservation plans.

Figure Q.1: Existing and Proposed San Diego Region Habitat Conservation Lands



Source: SANDAG 2024

TransNet Environmental Mitigation Program

In 1987, San Diego County voters approved TransNet, a half-cent sales tax to fund a variety of transportation improvements throughout the region. The TransNet EMP was created as part of the TransNet Extension Ordinance to provide advanced mitigation for transportation infrastructure improvement projects and programs identified in the Regional Transportation Plan. The intent is to satisfy the mitigation requirements for these projects comprehensively rather than on a project-by-project basis to maximize opportunities for acquiring land early and restoring habitats. In turn, this funding enables SANDAG to help implement regional habitat conservation plans by targeting key acquisition areas for conservation, management, and monitoring. Recognized nationally as a major success, the TransNet EMP is unique to the San Diego region, and it provides a critical source of funding to protect open space and preserve natural habitats. To date, the program has helped acquire and/or restore more than 9,215 acres of native habitats within the region with a total value of about \$164 million, in part by leveraging \$33.2 million from conservation partners.

To implement the EMP, the Board of Directors entered into a memorandum of agreement (MOA) with the California Department of Transportation (Caltrans), state, and federal resource agencies on the implementation of the EMP (2008 and 2019).¹ A provision of the MOA set aside \$40 million for the regional management and monitoring of natural habitats and sensitive plant and animal species over a ten-year period. To assure the biological health and success of lands conserved as open space throughout the region, land management, and biological monitoring are required as part of the existing conservation plan agreements. Managing and monitoring natural habitats and sensitive species reduces the likelihood that the preservation system will degrade and prevents the need for state or federal listing of new species as threatened or endangered. An allocation of \$4 million is approved annually by the Board pursuant to a two-year work plan. A portion of this funding is allocated and distributed through a competitive [TransNet EMP Land Management Grant Program](#) to maintain the integrity of existing regional habitat preserves through enhanced land management. To date, 136 Land Management Grant awards have been provided to land management entities in the region, totaling approximately \$18.1 million in TransNet funding.

The EMP also established the [San Diego Management and Monitoring Program](#) (SDMMP) to provide a coordinated, scientific approach to management and biological monitoring of conserved lands in San Diego County.

The SDMMP's mission is to coordinate science-based biological management and monitoring of lands in San Diego that have been conserved through various conservation planning and mitigation efforts. To achieve this, the SDMMP facilitates and assists SANDAG, local jurisdictions, wildlife agencies, and other regional partners and land managers in the implementation of conservation management and monitoring within San Diego County. The SDMMP comprises core staff embedded within the U.S. Geological Survey. More than 570 partners from 136 different entities collaborate with the SDMMP.

¹ [2008 EMP MOA with Caltrans, state and federal resource agencies: 2013 Amended and Restated EMP MOA with Caltrans, state and federal resource agencies](#)
[2019 EMP MOA with Caltrans, state and federal resource agencies.](#)

SDMMP is responsible for updating and implementing the Management and Monitoring Strategic Plan for Conserved Lands in Western San Diego County: A Strategic Habitat Conservation Roadmap ([MSP Roadmap](#)), finalized in 2017, it was developed in conjunction with federal and state wildlife agencies, local jurisdictions, land managers, nonprofits, and key partners. It identifies the goals, objectives, and key tasks necessary to successfully manage lands conserved as part of the regional habitat preserve system. The MSP Roadmap prioritizes management activities for species, habitat, and vegetation communities as a way to inform management decisions in the region and to link available funding from the TransNet EMP to other federal, state, and local funding. In addition, the SDMMP facilitates discussions among SANDAG, local jurisdictions, wildlife agencies, land managers, and other partners; coordinates and provides science support to land managers to facilitate best land management practices; manages and promotes uniformity in data gathering, analysis, and archiving; and prioritizes specific monitoring activities based on available budget and specific needs of individual species and habitats.

In 2022 SANDAG worked with the SDMMP, the Regional Habitat Conservation Taskforce⁴(a SANDAG Taskforce made up of local jurisdictions, federal and state agencies, tribal governments, non-profits and academia) and land managers to develop and calculate metrics that measure the overall health of our regional preserve system ([State of the Preserve Report](#)) integrating this information into an online [dashboard](#). This dashboard communicates the health of San Diego's preserve with partners and the public. Nineteen indicators were identified including species, vegetation communities, and landscape-scale threats. Metrics for these indicators focus on levels of conservation, status of species populations, ecological integrity of vegetation communities and level of threats. Most of the indicators (12 of 19) fall within an overall condition of Concern or Significant Concern. This is due largely to high levels of landscape threats emerging over the last 20 years (e.g., fire, invasive species and drought). Preserve metrics will be updated annually via the dashboard and additional indicator species will be added on a five-year cycle.

Regional Funding

The EMP is an advanced mitigation program for regional transportation projects and local streets and roads. While the EMP has allowed land acquisition and regional management and monitoring to be accomplished in a collaborative and coordinated manner, it was not intended to cover the ongoing regional needs for habitat conservation. The regional habitat conservation plans all envisioned that funding would be provided by multiple sources: a third from new development, a third from state and federal sources, and a third from local jurisdictions. A regional funding source was proposed to help offset the costs to local jurisdictions. Without a regional funding source, the implementation—and ultimately, the success—of these plans to protect species and their habitats from extinction falls into question.

The TransNet Extension Ordinance and Expenditure plan include a provision that SANDAG would act on a regional funding measure to meet the long-term requirements for implementing habitat conservation plans in the San Diego region to be considered by the voters no later than four years after passage of the TransNet Extension. Along with transit operations and stormwater management, regional funding for habitat conservation was included in a 2016 ballot measure to assist the region in meeting its underfunded infrastructure needs. The 2016 bond measure, referred to as Measure A, failed to achieve the 2/3 voter approval needed for its adoption leaving the long-term funding for habitat conservation in question.

Habitat Conservation Vision

Beginning in 2020, SANDAG worked with the Regional Habitat Conservation Taskforce and other regional partners to develop a vision for the future of habitat conservation in the San Diego region. The Regional Habitat Conservation Vision addresses challenges posed by natural hazards and the San Diego region as a biodiversity hotspot. Degradation and loss of habitat, invasive species, and changes in the climate are driving many species to the precipice of extinction at an increasing rate. The Vision sets out goals and objectives in order to complete our regional habitat conservation plans to protect sensitive habitats and species in San Diego for future generations.

In order to address these challenges, a future vision for the San Diego region was developed with specific goals. The vision for regional habitat conservation is to **Protect, Connect, and Respect** species and their natural habitats to prevent extinction in San Diego County.

- **Protect** existing native species through strategic acquisition, management, and monitoring of critical habitat areas identified in the regional habitat conservation plans.
- **Connect** habitat areas through wildlife corridors and linkages and enhance peoples' access, where appropriate, to natural areas.
- **Respect** local, native species and habitat. We can balance the demands for recreation opportunities with the desire for intact, natural landscapes, together creating a higher quality of life in San Diego. We can encourage community respect for natural lands through increased public outreach and education of San Diego's unique biodiversity. This understanding will help the public connect to and deepen their respect for nature, furthering conservation efforts in the region.

Habitat Conservation Needs Assessment

SANDAG has been focusing its efforts to work with conservation partners within the region to implement the Regional Habitat Conservation Vision and thus help implement the larger State Wildlife Action Plan. The first step has been to identify the gaps, needs, and priorities in conservation efforts throughout the region and assess the opportunities to close those gaps.

In September 2023, SANDAG partnered with the San Diego Natural History Museum (the NAT) to develop a regional partner workshop to look at the state of biodiversity in the region and help identify those strengths, needs, gaps and opportunities. This is a unique collaboration as the NAT has over 150 years of conservation experience in the region. The San Diego Biodiversity Conservation Summit was held in early 2024 with over 200 participants from the conservation sector including local jurisdictions, government, tribal and international communities, academia, military and non-profits represented. Preliminary results of the data collected from the Summit were presented at the [NAT's State of Biodiversity Symposium](#) held on April 18, 2024.

Barriers

When reviewing the input collected at the Summit, many barriers were identified that have slowed efforts to fully address regional habitat conservation within the region, including a lack of ongoing secure regional funding, a lack of institutional knowledge and public awareness, equitable access that supports biodiversity, and waning political focus on habitat conservation.

Throughout the 1990s, the region came together to develop a roadmap that would result in an interconnected system of natural lands to address the potential extinction of San Diego's unique native plant and animal species. These habitat conservation plans were a collaboration of multiple jurisdictions, state and federal agencies, and a variety of partners reflecting a wide range of interests. Hailed as a national model, these San Diego habitat conservation plans have been in place for almost 25 years, achieving many successes while identifying ongoing challenges.

During the plans' earlier years, the focus was on the acquisition of critical habitat areas and the key linkages connecting them. There have been many successes, the region has successfully acquired over 90,000 acres of land for conservation, including the creation of the San Diego National Wildlife Refuge, which the SANDAG EMP has helped expand to over 12,300 acres. While the loss of habitat is still a concern, the region equally faces the degradation of habitat already conserved due to the rise in invasive species and increase in catastrophic wildfires, both of which will be exacerbated by future changes in the climate. We now know that active, ongoing land management is critical for maintaining the ecological integrity of natural lands.

A steady, secure regional funding source, as envisioned by the regional habitat conservation plans, is needed to complete the land acquisitions as proposed and to provide for ongoing monitoring and land management. Acquisition of land has primarily been through state and federal funding leveraging offset from land development. As the land use patterns shift in the region toward more compact, urban development focused on transit and other activity centers, less greenfield development will occur, resulting in less development offsets. Similar state and federal funding are diminishing as more areas in California and the nation follow San Diego and adopt these habitat conservation plans. This will place increasing pressure on the region to complete the acquisition and management of natural lands without a dedicated funding source.

Another barrier is the lack of institutional knowledge, education, equitable access, and public awareness about the region's biodiversity, its benefits to society, and the threats it faces. As the leadership and institutional structures that helped create the habitat conservation plans retire and shift to more current issues, the knowledge of the purpose of these plans has eroded.

A recent study by the University of San Diego Caster Family Center identified San Diegans' knowledge about the problems facing native plants and animals as low, while the proportion of respondents identifying as sharing strong environmental values was high once informed about the issue.² This lack of public awareness is a barrier to success, in addition to the lack of equitable access to the outdoors in a way in which biodiversity is protected.

Similarly, the focus on habitat conservation as a major public policy issue has waned since the 1990s. Public policy focuses on imminent issues. Over the years, environmental public policy has shifted towards the lack of affordable housing and climate adaptation as the top-of-mind issues. In some respects, regional habitat conservation is a victim of its own success; being perceived as an issue that has been resolved by the region without an understanding of the current gaps. A public policy champion is needed to bring focus back on this issue if the region wishes to implement conservation for San Diego's native species.

While major accomplishments have been made over the last 25 years, the challenge to protect and manage a system of interconnected natural land still has not been accomplished. SANDAG, through its innovative EMP, has provided a successful stopgap measure to partially fill the regional funding needs over the last 20 years. However, the larger acquisitions under the EMP have been completed, and the EMP does not have the capacity to assist the region with all the necessary funding for management. SANDAG will need mitigation for impacts from future transportation projects outlined in the 2025 Regional Plan. This mitigation will allow those projects to move forward and will also help the region preserve wildlife species and their habitats; however, it does not replace the need for regional funding of the acquisition, management, and monitoring of lands as identified in the regional habitat conservation programs.

² Tessa Tinkler, Michelle Ahearne, and Mary Jo Schumann, "2019 Collaborative Species and Habitat Conservation Efforts in San Diego County: A Systematic Needs Assessment to Guide the San Diego End Extinction Initiative," University of San Diego Caster Family Center for Nonprofit and Philanthropic Research, April 2019, digital.sandiego.edu/cgi/viewcontent.cgi?article=1000&context=npi-environment.SANDAG, 2011

Going Forward

The region has come together in the past to address regional habitat conservation. SANDAG was a critical partner in those prior discussions that advanced consensus on the development of a regional solution. While public focus on habitat conservation has diminished over the years, the challenges to implement the vision established in the 1990s still exist. To maintain a resilient future, the goals of the habitat conservation plans need to be implemented.

Proactive efforts, such as the advanced mitigation and early acquisition of land completed through the EMP, along with regional collaboration of land management and monitoring through the SDMMMP, have shown that together we can leverage our funding and collective knowledge to benefit the region as a whole. Conservation of endangered species and their habitats expands beyond one jurisdiction or agency. Collaborative regional efforts like the partnership with the NAT to identify the gaps in conservation within our region are powerful ways to collaboratively address the challenges of habitat conservation.

In fall of 2024, the final report resulting from the Summit conducted in February of 2024 - [**San Diego Collaboration for Conservation: Sustaining the Region's Legacy of Biodiversity Conservation**](#) was completed. The report outlines the research methodology used to collect data from partners at the Summit on the needs, gaps, and opportunities in biodiversity conservation in the region. It identifies the challenges and opportunities related to habitat management and monitoring, ecosystem benefits and economic resilience, education and public awareness, equitable access to natural spaces and research and policy. This is the first step in identifying priorities, finding areas of alignment across diverse partner groups and uncovering actions that will support San Diego's long legacy of biodiversity conservation.

SANDAG has started work with the EMP's Regional Habitat Conservation Taskforce and partners around the region to update the habitat conservation assessment previously completed in 2011. The updated assessment will further identify the gaps in funding specifically for regional acquisition, management and monitoring in order to implement our Regional Habitat Conservation Vision and fulfill the commitments made in our habitat conservation plans. SANDAG, as the regional planning agency, will continue to work with its member agencies and partners to promote regional habitat conservation and to assess how the EMP, and any possible new measures, can assist in these efforts.

The 2025 Regional Plan has a list of regional transportation projects to promote the movement of people and goods in an equitable and environmentally sustainable manner. Some of these transportation projects will require mitigation for impacts to the native habitat. This mitigation has been estimated by SANDAG to range from \$300 - \$500 million (2024 dollars). SANDAG would continue to work with the local jurisdictions and state and federal agencies, to direct its mitigation efforts to maximize the build out of the regional habitat conservation preserve while meeting all the necessary regulatory permitting requirements. Beyond SANDAG's direct contribution through the mitigation of transportation projects, SANDAG will continue to coordinate the discussion around how the region can obtain the funding necessary to provide the local jurisdictions share of the regional habitat conservation plans.