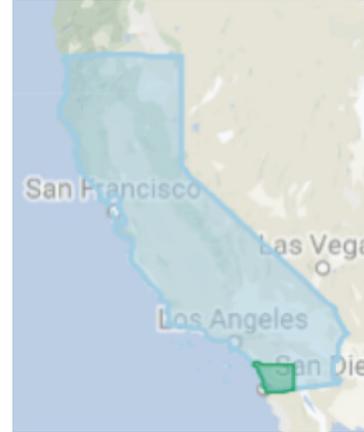
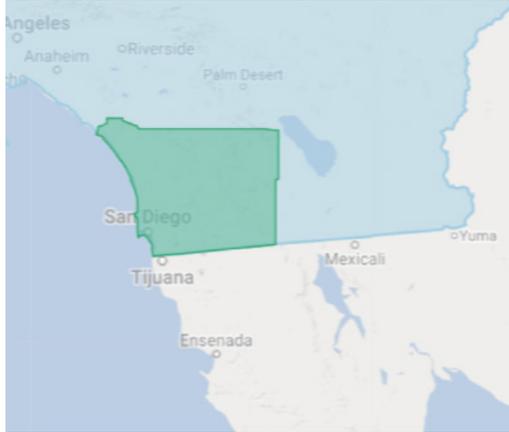


Equitable Integration of Water and Land Use

SAN DIEGO REGION



DEFINING THE REGION

For the purpose of this project, the San Diego region is defined as the more than 4,000 square-mile geographic boundary of **San Diego County**. The region includes 18 incorporated cities and stretches to the southwestern most portion of the United States.

Demographics

The San Diego region is home to **3.3 million people**, with a population density of about 785 people per square mile. The region is on par with the rest of the state for income demographics, with a slightly lower poverty rate.

WATER MANAGEMENT



The San Diego region's arid climate and limited local water supply necessitate innovation and efficiency. Despite a 33% increase in population in recent decades, the region successfully reduced their total water use by

roughly the same percent. Water management within the region is centralized in a comparably smaller handful of agencies, enabling innovation and efficiency across the region.

Watersheds

The San Diego region encompasses portions of seven different watersheds: originate or traverse through the County of San Diego. They are the Santa Margarita, San Luis Rey, San Dieguito, San Diego, Sweetwater, Otay, and Tijuana River Watersheds.

Integrated Regional Water Management

Two Integrated Regional Water Management groups — voluntary planning collaboratives — operate in the region: The San Diego IRWMP and Anza Borrego Desert IRWMP. The San Diego IRWMP is administered and implemented by a Regional Water Management Group comprises the San Diego County Water Authority, City of San Diego, and County of San Diego. The region relies heavily on imported water and infrastructure outside their jurisdictional boundaries. This

requires careful coordination between multiple agencies and jurisdictions for water supply reliability. The Anza Borrego Desert IRWM falls in the eastern portion of the county and is entirely reliant on local groundwater supply.

Water Supply

The San Diego region used to rely almost entirely on imported water from the Colorado River and State Water Project, delivered by the Metropolitan Water District of Southern California. Recent water shortages prompted the San Diego County Water Authority to diversify the region's water supply portfolio. The region's water supply now includes groundwater, recycled water, seawater desalination, and conservation.

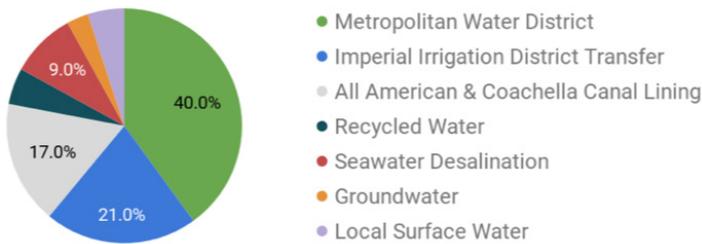


Image from UCLA Luskin Atlas and Policy Guide

Water Providers

The San Diego County Water Authority (SDCWA) is the primary water provider for the region, supplying water to 24 retail water agencies. These include cities, special districts and the Camp Pendleton military base. San Diego County Water Authority's recent investments greatly improve the region's water supply reliability.

Groundwater

Groundwater demand in the San Diego region often exceeds recharge, especially in drought years when surface water deliveries are curtailed. The San Diego region sits atop five

groundwater basins designated as medium priority by the state. The 2014 Sustainable Groundwater Management Act (SGMA) requires all groundwater basins identified as medium priority to form new Groundwater Sustainability Agencies (GSAs) and develop Groundwater Sustainability Plans (GSPs) by 2022, and achieve sustainability by 2042. Four new GSAs formed to manage the region's groundwater – adding additional layers of governance to the region's already complex water management system.

Water Affordability

Water rates in the San Diego region are higher than other parts of the state, as water agencies must cover the cost of importing water great distances and treating poor quality water to drinking water standards. Recent investments in supply reliability must also be borne by the customer, as in the case of San Diego's new Poseidon desalination plant. The high infrastructure price tag coupled with the increased cost of desalted water add pressure to community members already burdened by some of the highest water bills in the state, if not the nation. San Diego's residential water bills are expected to increase as a result of the desalination plant, when other more affordable methods of increasing water supply reliability are yet available.

LAND USE PLANNING



Most of the San Diego region's population is centered near the coast or around the City of San Diego. The region must carefully plan how to accommodate anticipated population growth without overextending its natural resources and physical infrastructure, or overburdening its already vulnerable communities.

Landscape Features

The San Diego region is known for its beautiful beaches along the 70 miles of coastline, as well as its southern border with Tijuana, Mexico. The region also boasts mountain ranges reaching 6,500 ft in elevation. Due to its topography and geography, San Diego is prone to severe wildfires, further complicating land use planning.

Flooding

Low-lying portions of the San Diego region are prone to flooding, and have suffered several large floods from storm events causing millions of dollars in damage. Anticipated climate change impacts, with more variable precipitation patterns and sea level rise, will exacerbate flood risks. Flood-impacted areas are often also communities facing other disadvantages. These communities have fewer resources to prepare for or rebound after a flood.

Development Patterns

As with the rest of the state, the San Diego region is currently experiencing a housing crisis. To meet the current housing demand, the pace of development is quickening. Rapid development pressure, especially in the rural eastern portion of the region, inhibits integrated planning and threatens open space. Current planning efforts seeking to combat climate change prove to encourage sprawl. Future integrated water and land use planning that concentrates new development within the current urban footprint is necessary to ensure the region is resilient to future climate impacts.

Transportation

Public transportation throughout San Diego county is managed by the Metropolitan Transit System, which has several subsidiaries that include bus and trolley services. Continued investment in public transportation infrastructure near housing and employment

centers ensures equitable development. Roadways serve a dual purpose as flood management infrastructure and stormwater conveyance. They also contribute significantly to surface water pollution. Integrated solutions such as green infrastructure to capture and treat stormwater can maximize a region's transportation investments.

EQUITY



Access to affordable housing is one of the San Diego region's greatest equity challenges. The region's median home price is one of the highest in the state. High demand and limited availability of housing – especially multi-family units – results in steep competition and rising costs for both renters and homeowners. Residents facing disadvantages – especially low wage earners – are priced out of the local housing market. Displacement and homelessness are major threats to individuals and families within the San Diego region.

Water affordability is another equity issue in the San Diego region. The ability to pay for water service varies widely; a water rate that is affordable for a family near the median income level is unbearable for a family living at or near the poverty line.

INTEGRATION



The San Diego region is a prime locale for integrating water management and land use planning. If communities across the region coordinate efforts to identify inter-connected priority development areas within already developed areas they will reduce costs for both public agencies and residents. Communities should also map priority groundwater recharge and water treatment areas, preserving those lands for agriculture and multi-benefit open space.

CASE STUDY

Kellogg Park Green Lot Infiltration Project City of San Diego

Green infrastructure and other low impact development techniques help manage stormwater runoff and provide important co-benefits to communities that can align with climate action planning priorities.

The California State Water Resources Control Board created Areas of Special Biological Significance (ASBS) to protect our oceans and prevent pollution within some of the most pristine and biologically diverse sections of California's coast. La Jolla is home to two ASBS, which encompass a large portion of the La Jolla Shores marine environment.

To protect the water environment off the coast, pollution and other waste discharges into the ASBS are prohibited by the California Ocean Plan.

Kellogg Park in La Jolla Shores was identified by the city of San Diego as an opportunity to develop a project to address the issue of runoff in the ASBS. The Kellogg Park Green Lot project was designed to remove 18,000 square feet of asphalt concrete - replacing it with pavement that will allow the city to capture large amounts of surface water. They also included elements that allowed them to capture runoff from the parking lot and nearby public right-of-way. The captured water was then filtered to minimize pollutants. Additionally, a "vegetated bioswale" and filter bed were added in order to further capture and infiltrate runoff.

CASE STUDY

Innovative Partnerships and Initiatives San Diego Regional Climate Collaborative

The San Diego Regional Climate Collaborative (SDRCC) was launched in 2012 as a network designed to support public agencies with preparing for the impacts of climate change and mitigate greenhouse gas emissions. The San Diego region faces a number of threats exacerbated by climate change, including diminishing water supplies, increasing wildfire risks, rising temperatures, and increasing coastal flooding and erosion due to sea-level rise.

SDRCC supports local governments and regional agencies across San Diego County to respond to these impacts, reduce emissions, and foster a clean energy and vibrant economy and community. SDRCC was initially formed by five public agencies (the Cities of Chula Vista and San Diego, the County of San Diego, the Port of San Diego, and the San Diego Association of Governments, or SANDAG); the University of San Diego (USD); the region's energy utility, San Diego Gas & Electric (SDG&E); and The San Diego Foundation (TSDF).

The collaborative's mission is to create regional partnerships between the region's residents, local businesses, public service agencies, and private companies. The collaborative also works to create a network for public agencies to learn from each other and to plan for the impacts of climate change.

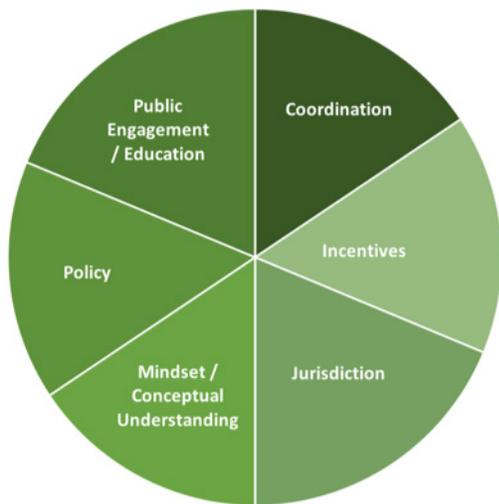
SDRCC provides a venue for cross-jurisdictional and cross-sectoral dialogue. The collaborative organizes regular workshops

and trainings for local decision-makers on climate-related topics of interest, as well as provides direct technical assistance to jurisdictions in the region. In addition to coordinating stakeholders and providing networking opportunities, SDRCC has also helped build new innovative partnerships in furtherance of specific climate-related goals and initiatives, such as the Climate Science Alliance.

Expert Perspectives

Water and land use experts from the San Diego Region elevated 6 themes for improving integration, the greatest of which are Public Engagement/Education and Jurisdiction. Although land use planning within the region is fairly well aligned, public education and engagement at the regional and local levels is still a barrier. Further, individual jurisdictions are not integrating water and land use planning at the local level, despite their regional land use planning alignment. The region has so many layers of governance and planning, it is extremely difficult to coordinate efforts. Often different water departments within a single agency are not even coordinating. Streamlining or consolidating planning processes and coordinating efforts would significantly improve water management and land use planning in the San Diego Region.

San Diego Region Top Themes



Challenges

- **Fragmented governance and overlapping jurisdictions** with disparate planning processes inhibits integrated planning and management. San Diego County comprises 24 retail water agencies serving

19 jurisdictions. To achieve regional-scale resilience, all jurisdictions' plans must be aligned.

- **Political pressure to develop and apathy toward smart growth** priorities threaten the region's long-term resilience and affordability. The San Diego Region is already facing a housing and affordability crisis. Despite a laudable general plan update with urban growth boundaries and water efficiency targets, some local jurisdictions continue to allow (or even promote) sprawl through general plan amendments or variances.
- **Limited funding availability and misalignment between funding programs** for all services – but especially water infrastructure and affordable housing – creates tension between public agencies and the community. Some agencies (both water and land use) try to “build their way out of the problem” and pass costs on to their already overburdened constituents. For example, the new desalination plant is costing every San Diego family \$50/year.

Strategies & Opportunities

- The San Diego Region has some excellent planning documents, especially the City of San Diego general plan update, the Regional Sustainable Community Strategy, the IRWM Plan, and habitat conservation plans. These plans present a significant opportunity to ensure regional resilience by holding local jurisdictions accountable to implementing these plans. A local bill on the November ballot that will require all land use decisions to go to public vote is one strong mechanism for the community to hold its leaders accountable.
- The SANDAG (San Diego Association of Governments) technical working group is an ideal venue for the region's planners to convene, share ideas, and potentially

converge around a more resilient shared vision for the region's water and land use. Similarly, San Diego Coastkeeper is convening the heads of each of the city's water and planning departments to align decision-making.

- Many San Diego residents share an interest in and/or value for open space and natural habitat. Leveraging this shared interest provides an opportunity to engage the community and educate them on the value and importance of integrating water management and land use planning.

RECOMMENDATIONS

\$ Advocate for strong, local legislation that promotes affordable, efficient, & anti-sprawl development and integrated water management. This includes the November ballot measure that would require all land use decisions go to public vote, and ensuring equitable local implementation of the new Water Use Efficiency Standards (AB 1668). Facilitating equitable local water agency consolidation via SB 778 will also support long-term integration and alignment. The San Diego Region can ensure a sustainable water future through its land use decision-making.

\$\$ Build local political will and understanding around water and land use integration by convening and educating local leaders. Currently, robust planning documents are easily ignored and policies to ensure resilience are easily bypassed in favor of inequitable sprawl development and big infrastructure projects. Developing a coalition of informed and passionate local decision-makers will combat this short-sightedness. LGC's Capital Region Dinner Forums, Water Education for Latino Leaders UnTapped Fellowship, and Water Solutions Network are effective leadership development and coalition-building models.

\$\$\$ Invest in existing integrated planning efforts (such as SANDAG's regional planning technical working group, San Diego County IRWM, and San Diego Climate Action Plan); and **ensure plans are implemented.** The Sonoran Institute "Growing Water Smart" program is an excellent model for bringing multiple jurisdictions through the integrated planning and implementation process. Additionally, if an unbiased third-party (non-advocacy) organization tracks plan implementation via metrics and communicates key findings to community stakeholders, jurisdictions will be held more accountable for their decisions.