



IV. Environmental Resources and Conservation



Introduction and Purpose

Huntington Beach benefits tremendously from surrounding natural resources, which include City parks, wetlands, mineral resources, biological diversity, clean air and water, and the community's world-famous beach and shoreline. These resources contribute substantially to the local economy, provide rest and recreational opportunities, and help support public health. In order to continue to benefit from these resources, Huntington Beach must protect and enhance them when possible while still allowing for economic growth.

Scope and Content

The Environmental Resources and Conservation Element establishes goals and policies to protect and conserve Huntington Beach's environmental resources, including open space and beaches, and addresses air quality and greenhouse gas (GHG) emissions, water quality, biological diversity, and mineral resources.





California Government Code Sections 65302(d), 65302(e), and 65560 direct local governments to include a conservation element and an open space element in their general plans. The conservation element must provide for the conservation, development, and utilization of natural resources, including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources to the extent that they are present in the planning area. The open space element protects open space intended for the preservation of natural resources, managed resource production, outdoor recreation, and public health and safety. This Environmental Resources and Conservation Element meets state requirements for both a conservation element and an open space element. It addresses all required content for each element, in addition to locally important issues.

The Environmental Resources and Conservation Element consists of this *Introduction and Purpose* identifying the intent of the element and how it relates to other documents; an *Open Space Plan* identifying local open spaces, including the beach and other coastal areas, and the issues facing open spaces in the community; a *Conservation Plan* discussing the quality of natural resources in Huntington Beach and how they are used; and *Issues, Goals, and Policies*, for both open space and conservation, providing tools to protect and improve the environmental resources present in Huntington Beach. The proposed tools to put policies that address environmental resources and conservation issues into practice are included in the Implementation Programs chapter of this General Plan.

Relationship to Other Elements

The Environmental Resources and Conservation Element most closely relates to the Land Use, Circulation, Housing, Natural and Environmental Hazards, and Historic and Cultural Resources Elements.

The Land Use Element identifies desired future uses for all lands in the planning area. Such uses relevant to the Environmental Resources and Conservation Element include parks, recreational facilities, and public and privately owned open spaces to meet the needs of existing and future generations. Circulation Element goals and policies identify, and ensure access to, open spaces and recreational areas requiring access. The Circulation Element also assigns the location of streets and trail systems for pedestrians, bicyclists, and equestrians in open spaces.

The Natural and Environmental Hazards Element provides goals and policies addressing public health and safety, including open space lands such as parks, trails, lakes, and the beach. The Historic and Cultural Resources Element is a companion element to the Environmental Resources and Conservation Element, and provides policies and programs related to conservation of historic and cultural resources within the planning area.





Open Space Plan

Open Space land use designations comprise approximately 3,274 acres (17 percent) of the planning area, exclusive of open space located within specific plan areas. Open space in Huntington Beach ranges from small mini parks to the Bolsa Chica Wetlands. Residents and visitors use these sites for active and passive recreation, including organized sports, running, walking, picnics, and as children's play areas. They often serve as buffers between different land uses, and can provide habitat for a number of species. Open spaces provide numerous benefits to the community and contribute substantially to a high quality of life.



Open Space Diagram

Open space in the planning area consists of habitat conservation areas, parks, shoreline, and recreation areas. **Figure ERC-1** designates each existing open space use in the planning area. **Table ERC-1** identifies the acreage of each open space use type and identifies how each is categorized under state open space law.



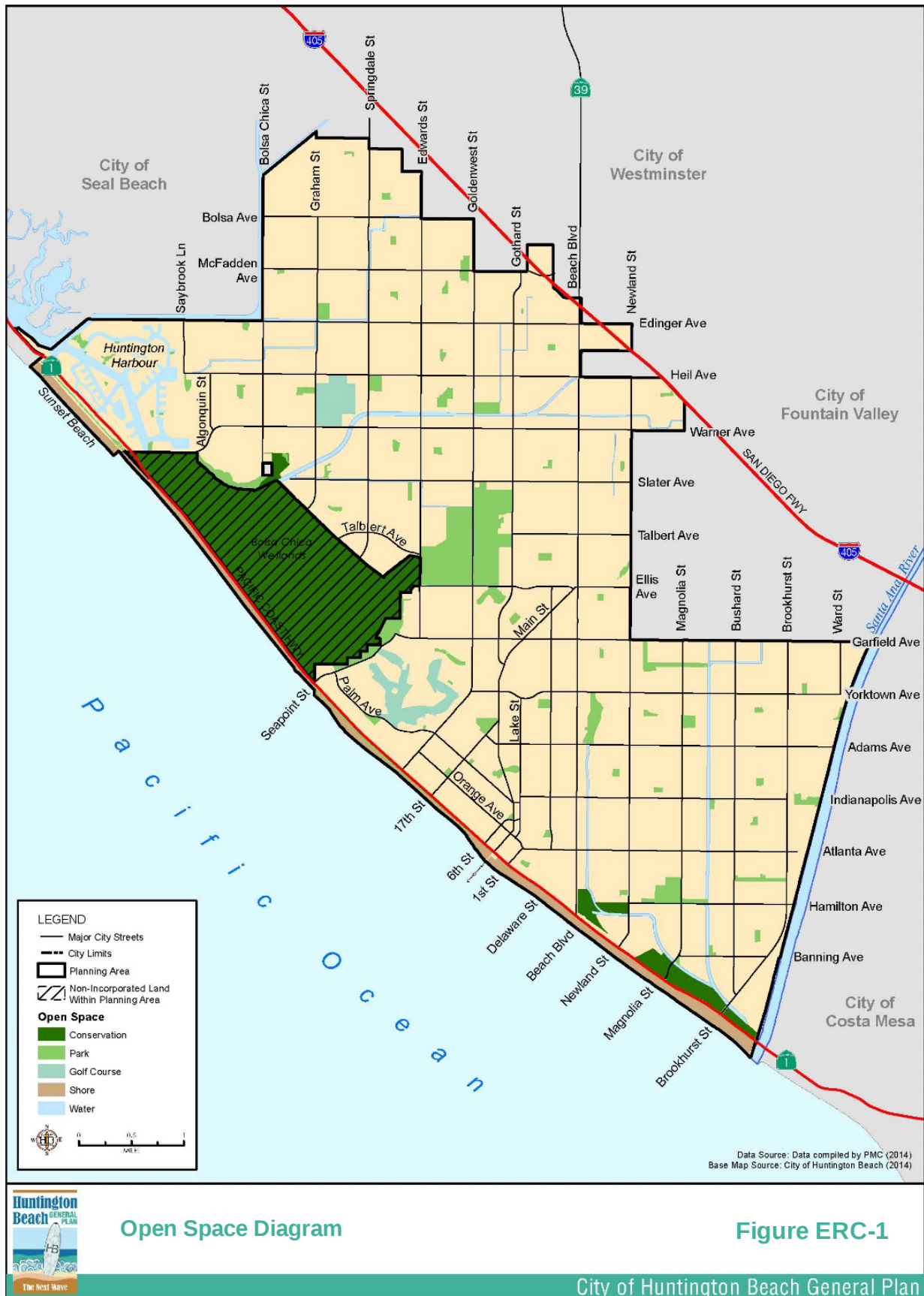




Table ERC-1
Open Space Land Uses

Use Type	California Government Code Category	Acreage	Percentage of Open Space
Conservation (OS-C)	Preservation of Natural Resources	1,662	51%
Parks (OS-P)	Outdoor Recreation/Public Health and Safety	701	21%
Recreation (OS-R)	Outdoor Recreation/Public Health and Safety/Preservation of Natural Resources	238	7%
Water Recreation (OS-WR)	Outdoor Recreation/Public Health and Safety/Preservation of Natural Resources	239	7%
Shore (OS-S)	Outdoor Recreation/Public Health and Safety	434	13%
Total		3,274	100%*

Note: Open space categories correspond to those identified in California Government Code Section 65560(b).

** Totals may not add up due to rounding*

Conservation (OS-C) areas constitute the largest open space use category at 1,662 acres. Much of this area is located in the Bolsa Chica Wetlands, which is considered part of the planning area, but is not currently incorporated as part of the city. The other major concentration of conservation land is located in the Huntington Beach wetlands near the southeast edge of the city. The Conservation designation provides for environmental resource conservation and management (e.g., wetland protection) and supporting ancillary uses (e.g., maintenance equipment storage). Habitat conservation lands are exposed to environmental degradation due to upstream water quality issues, ecological connectivity problems, and increasing tidal variability. This element includes goals, policies, and programs to protect these resources such as restoring and enhancing habitat resources, enhancing habitat connectivity, and naturalizing flood channels.





Parks (OS-P) make up the second largest land area among open space uses, accounting for 701 acres. The Parks designation provides for public parks and recreational facilities and supporting ancillary uses (e.g., maintenance equipment storage) and consists of uses ranging from mini parks to larger regional parks. Central Park accounts for about half of the parkland. The Parks and Recreation discussion below addresses challenges, opportunities, and the City's desired future for parks.



Recreation (OS-R) areas are the third largest Open Space land use designation, covering 238 acres. The Recreation designation provides for publicly or privately operated recreation facilities, such as golf courses. This designation also provides for supporting ancillary uses (e.g., food stands, recreational equipment rentals, maintenance equipment storage). Recreation uses in the planning area face numerous challenges including competing user needs, surrounding land use compatibility issues, and environmental quality challenges. Goals, policies, and programs in this element seek to mitigate these challenges by providing for diverse recreation facilities and evaluating potential incompatibilities.

Water Recreation (OS-W) accounts for 239 acres of the planning area. The Water Recreation designation provides for water bodies used for recreational purposes, such as boating, fishing, swimming, and water sports. Currently the OS-W designation is used in the Huntington Harbour waterways.

Shore (OS-S) accounts for 434 acres of the planning area. The Shore designation provides for coastal beaches operated by the City and the State, and publicly or privately operated ancillary uses (e.g., food stands, recreational equipment rentals, maintenance equipment storage). Lands located in the Shore designation face many challenges including conflicting user needs, and erosion and physical impacts associated with coastal storms and increasing tidal variability. The City seeks to protect and enhance these economic and ecologically important land resources through goals, policies, and programs that maintain the recreational and cultural identity of the beach while improving and enhancing the overall habitat value of coastal areas.



Parks and Recreation

The City of Huntington Beach maintains and operates public park grounds and landscaped areas. In total, 79 parks consisting of 1,073 acres are located in Huntington Beach, ranging in size from mini parks (smaller than 2.5 acres) up to Central Park, a 343-acre regional park (**Figure ERC-2**), and including City-operated beaches and a public golf course. Along with park facilities, recreation programming is an important part of creating and maintaining a healthy community with a high quality of life. Huntington Beach residents enjoy many recreation opportunities, provided by a City government committed to ensuring a well-rounded, healthy community. Recreation programming includes volunteering opportunities, human services programs, classes, sports, cultural arts, school programs, nature programs, and special events for residents from every walk of life. The City is committed to ensuring that residents of all ages, backgrounds, and interests have abundant available recreation opportunities.

Parks Inventory and Acreage Standards

Huntington Beach contains a number of different types of parks. **Figure ERC-3** includes a list and the location of the city's 79 parks as well as the City Gym and Pool.

Mini parks are generally smaller than 2.5 acres and typically do not have enough room for organized recreation facilities, but support passive recreational activities such as walking (e.g., Booster Park, French Park, Tarbox Park).

Neighborhood parks are between 2.5 and 10 acres in size and often provide recreational opportunities to families with young children. They typically have children's play areas and structures, and many are located near a school (e.g., Burke Park, Conrad Park, Drew Park, Wieder Park).



Community parks are 10 to 40 acres in size and are often centrally located to serve multiple neighborhoods. These facilities provide a wide range of recreational opportunities for children and adults, and offer a more diverse range of activities than neighborhood parks (e.g., Chris Carr Park, Gisler Park, Langenbeck Park, Marina Park).

Regional parks, which exceed 40 acres in size, provide specialized recreational facilities such as equestrian areas and campsites. In addition to serving Huntington Beach community members, regional parks often attract visitors from a wider region (e.g., Huntington Central Park).





Most cities establish parkland acreage standards, which ensure that the community has enough parks to serve the population. In Huntington Beach, based on the existing population of 193,189 in 2014, there are approximately 5.4 acres of parkland for every 1,000 Huntington Beach residents including parks, City-operated beaches, a public golf course, and the City Gym and Pool.

Site Selection Standards for New Parks

The Environmental Resources and Conservation Element maintains an established citywide parkland level of service goal of 5 or more acres of parkland per 1,000 residents. This General Plan has an anticipated year 2040 buildout population of 211,051 residents. Under this population scenario, assuming no net loss of parkland acreage, the City would have a parkland level of service of 5.1 acres per 1,000 residents, which would degrade the existing level of service, but still meets the established standard without the addition of new parkland.

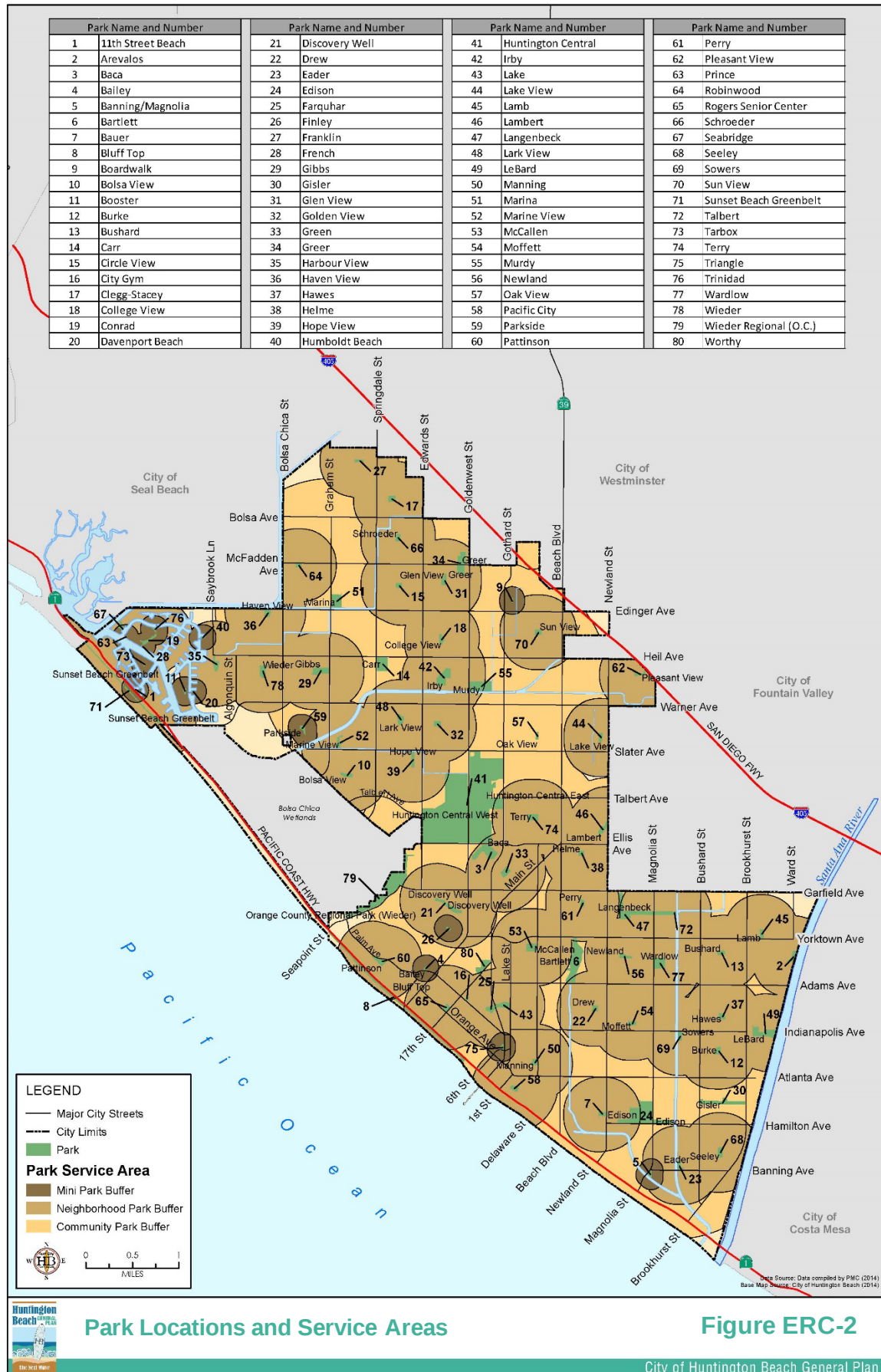
Because Huntington Beach is largely a built-out city, locating new parks will be difficult. The City will prioritize developing new park facilities in underserved areas in a way that equitably serves neighborhood and community needs while balancing budget constraints. The City will continue to locate future neighborhood parks adjacent to elementary schools with independent street frontage when possible. Additionally, the City will seek to retain existing open spaces in the event that schools close or are decommissioned.

A park that is inaccessible, lacks usable open space, or is otherwise constrained has limited utility to the residents it is designed to serve. Therefore, the City will also prioritize accessibility as a factor in the selection of future park sites, with an emphasis on pedestrian and bicycle accessibility.

Recreation Facilities and Services

Huntington Beach is home to a wide range of public recreation facilities and services including indoor activities, baseball/softball diamonds, tennis courts, swimming pools, handball courts, volleyball courts, horseshoe pits, basketball courts, disk golf courses, a skate park, lakes in parks, and other sports fields. These facilities are faced with the challenge of constantly changing public demands, and many facilities are not readily adaptable to changing community preferences and needs. The City addresses this challenge through policies and programs that seek to diversify recreation facilities and services.







Coastal Recreation and Beach Management

The entire Huntington Beach coastline supports a contiguous sandy beach totaling 9.5 miles and 434 acres. This includes both state and City beach areas, the pier, the multi-use trail running the length of the beach, recreational amenities, parking, and a range of private retail, food, and personal service activities associated with the beach. The



beaches, from north to south, are Sunset Beach, Bolsa Chica State Beach, Huntington Beach City Beach, and Huntington State Beach.

The beach is used for a variety of recreational activities, from swimming, surfing, fishing, and sunbathing to jogging and volleyball, to major sporting and cultural events. Beach access and recreational activities are important to the city's economic vitality and cultural identity. The beaches and adjacent marine habitats also provide habitat for numerous species, including federally protected birds that use the beach for nesting. It is important that beach management practices maintain a careful balance between recreational uses and providing functional habitat for native species.

Beaches in the planning area face numerous challenges ranging from conflicting user needs, ecological sensitivity, erosion, and increasing tidal variability. The policies in this Environmental Resources and Conservation Element work to ensure the beach maintains and improves its recreational, economic, and ecological value.

State Beaches

Bolsa Chica State Beach extends approximately 3 miles from Seapoint Street to Warner Avenue. This beach is a popular destination for surfing, fishing, and other recreation. The beach is also a popular grunion run during the summer months. Shorebirds forage in the intertidal zone. Special-status western snowy plover may forage along the beach as well.

Huntington State Beach extends approximately 2 miles from the mouth of the Santa Ana River north to Beach Boulevard. The beach features a multi-use trail and fire rings for bonfires. Huntington State Beach includes the Least Tern Natural Preserve, which also provides sanctuary for other birds, including the western snowy plover.





City Beaches

The City operates two public beaches, consisting of 3.5 miles of shoreline, extending from Beach Boulevard to Seapoint Street. 2.5 miles of this area is owned by the State of California and operated by the City. Sunset Beach consists of a 1.1-mile stretch of shoreline extending from Warner Avenue to Anderson Street. Both beaches are popular destinations for recreation such as volleyball, fishing, surfing, and swimming. The beaches receive millions of visitors each year and require routine maintenance. Shorebirds forage in the intertidal zone. Special-status western snowy plover may forage along the beaches as well.



Conservation Plan

Natural resources in Huntington Beach are critical for the safety and well-being of the community. Clean air and a reliable water supply help ensure the health of Huntington Beach residents, while the community's mineral resources and biological diversity support the local economy by attracting jobs and visitors. Although often overlooked, modern life in Huntington Beach would be very difficult without abundant local and regional energy resources. This section discusses where these key resources are located in the planning area and outlines a conservation strategy for each resource. Please refer to the Historic and Cultural Resources Element for discussion of cultural resources, and the Public





Services and Infrastructure Element for discussion concerning solid waste-related resources.

Air Resources

Huntington Beach is located within the South Coast Air Basin. Of the various pollutants monitored for human health, the key pollutants of concern in the air basin are ozone, small particulate matter (PM_{10} and $PM_{2.5}$), and nitrogen dioxide (NO_2), which are collectively part of a group called criteria air pollutants. Other criteria air pollutants include carbon monoxide (CO), sulfur dioxide (SO_2), and lead (Pb). These air pollutants can come from a number of sources, including major facilities (manufacturing centers, power plants, and large commercial and institutional buildings), construction and landscaping activities, and moving vehicles.

While ozone plays an important role high in the atmosphere to protect the earth from excess ultraviolet light, it creates health risks near the surface. Exposure to excessive levels of ozone can lead to breathing problems, headaches, and nausea. It is also the primary component in smog, in which ozone mixes with other pollutants, and can create additional health hazards. Ozone is created when fossil fuels (e.g., petroleum and natural gas) are burned, and when various chemicals evaporate creating certain chemical compounds. These compounds react in the presence of sunlight to create ozone. Low wind speeds or stagnant air, warm temperatures, and clear skies help prevent ozone from dissipating, keeping ozone levels elevated. The South Coast Air Basin is not currently in compliance with state and federal air quality standards for ozone, but localized ozone levels in and around Huntington Beach do comply with these standards.

Particulate matter consists of dust, soot, and smoke. Larger particles are known as PM_{10} , while smaller particles are known as $PM_{2.5}$. They are formed from the burning of fossil fuels, wood burning, and construction activities. Particulate matter can cause breathing problems when inhaled, and can make existing respiratory and cardiovascular conditions more severe. $PM_{2.5}$ is particularly dangerous, as it can settle deep in the lungs and create long-term health impacts. The air basin exceeds federal and state standards for both PM_{10} and $PM_{2.5}$. Huntington Beach and surrounding areas currently exceed state (but not federal) standards for PM_{10} , and are below federal annual standards for $PM_{2.5}$ (although the community exceeds federal daily standards).

Nitrogen dioxide is a brown-colored gas formed by the burning of fossil fuels. When inhaled, it can cause breathing difficulties, chest pains, and a rapid heartbeat. In severe cases, exposure to NO_2 can lead to bronchitis and reduced lung capacity. The air basin is currently below state and federal standards for NO_2 .

In addition to criteria air pollutants, a second category, toxic air contaminants (TACs), consists of air pollutants that can create a risk of illness or death, even in relatively low concentrations. Particulate matter from diesel engines (diesel PM) is the TAC that poses



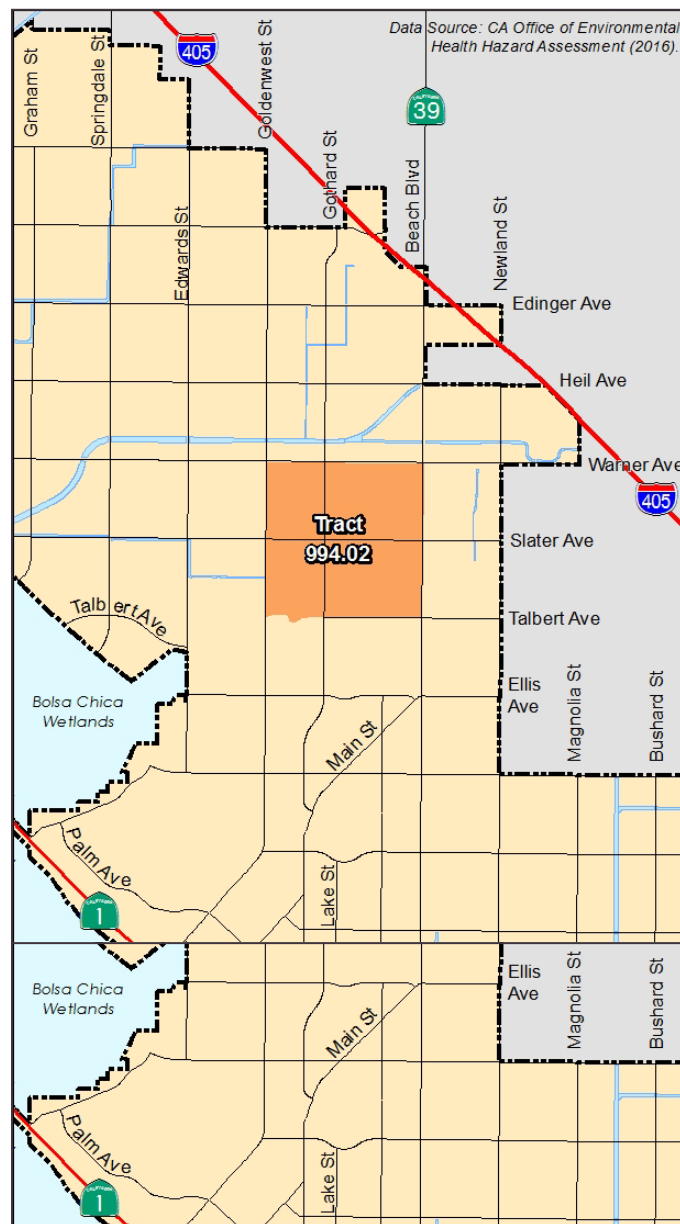
the greatest health risk in California. Diesel PM is generated by diesel engines, including diesel passenger and freight vehicles, rail engines, and diesel generators and other equipment. The state has also identified close to 200 other TACs.

Environmental Justice Considerations

Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The South Coast Air Quality Management District (SCAQMD) has an environmental justice program to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air in their communities.

Both criteria air pollutants and TACs can have greater health impacts on children, the elderly, and people with existing respiratory or cardiovascular conditions. Places with a larger number of these vulnerable people are called sensitive land uses (or sensitive receptors). For purposes of the General Plan, sensitive land uses include schools, hospitals, nursing homes and senior care centers, and residential areas. Recreational land uses, such as parks, can also be sensitive land uses, as exercise places a higher demand on people's respiratory systems, which can be stressed by air pollution.

Air quality in the South Coast Air Basin has significantly improved since the 1990s, and it is likely that this trend will continue. However, this trend may be challenged by increases in population, and air quality may become worse in future years as a result of climate





change. Poor air quality tends to be more prevalent in areas with higher numbers of lower-income individuals and minorities, which can create a lack of public health equity across the community. Some sensitive land uses, such as schools and residential areas located near heavy industrial uses, may expose individuals to higher levels of TACs. The State of California has prepared a database called CalEnviroScreen, which helps identify communities with environmental justice considerations at the census block level by looking at pollution levels, health data, and demographics. Huntington Beach has one census block (tract 994.02), bordered by Warner Avenue, Beach Boulevard, Talbert Avenue, and Goldenwest Street, which ranks in the top 25 percent for environmental justice considerations of all census blocks in the state.

To maintain high standards of health and aesthetics in the community and to improve public health equity for all community members, the City will work to improve air quality conditions for all criteria air pollutants and minimize exposure of sensitive uses to TACs. This includes identifying opportunities to locate new air pollutant sources away from sensitive uses and disproportionately affected communities, and to work with existing air pollutant sources to help reduce air pollutant emissions.

Greenhouse Gas Emissions

GHGs trap heat radiated out by the earth and reflect it back to the surface rather than allowing it to escape into space, similar to the glass roof and walls of a greenhouse. Some level of GHGs in the atmosphere is necessary to keep the planet at a comfortable temperature. However, since the Industrial Revolution, the concentration of these gases has increased significantly in the atmosphere. These higher concentrations of GHGs are increasing temperatures worldwide and resulting in global climate change. The direct risks posed by climate change include more extreme heat events, rising sea levels, changes in precipitation levels, and more intense storms. California law (the Global Warming Solutions Act) declares that climate change is a serious risk, specifically saying that it threatens to cause “the exacerbation of air quality problems, a reduction in the quality and supply of water to the state...a rise in sea levels resulting in the displacement of thousands of coastal businesses and residents, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human-related health problems.” In order to address this risk, the law requires the state to significantly reduce its emissions of the GHGs, which contribute to climate change.

The state has identified seven key GHGs, the most common of which is carbon dioxide (CO₂). Other GHGs include methane (CH₄) and nitrous oxide (N₂O, not to be confused with NO₂, a criteria air pollutant). Unlike criteria air pollutants and TACs, which do not stay in the atmosphere long, some GHGs can persist in the atmosphere for hundreds or thousands of years. Although CO₂ is the most common GHG, other rarer gases can trap thousands of times as much heat as an identical amount of CO₂. GHGs are measured in a unit called carbon dioxide equivalent (CO₂e), which accounts for their varying potency.





Sources of GHG emissions in Huntington Beach include cars and trucks, electricity and natural gas use in buildings, decomposition of solid waste, landscaping and construction equipment, oil drilling, and water and wastewater distribution, treatment, and use. GHG emissions in 2005 in Huntington Beach totaled 1,452,070 metric tons of carbon dioxide equivalent (MTCO₂e). On-road vehicle use represented the largest source of GHGs, followed by energy use in residential and nonresidential buildings. Collectively, these sources comprised 91 percent of Huntington Beach's 2005 GHG emissions, with all other sources comprising the remaining 9 percent.

In 2012 Huntington Beach's GHG emissions fell to 1,432,540 MTCO₂e, a decline of approximately 1 percent. Emissions from on-road vehicle use were largely unchanged, while emissions from energy use in residential and nonresidential buildings increased slightly. These three sources comprised 95 percent of Huntington Beach's GHG emissions in 2012.

Table ERC-2 summarizes Huntington Beach's GHG emissions in 2005 and 2012 by sector.

Table ERC-2
Huntington Beach 2005 and 2012 GHG Emissions

GHG Source	2005 Emissions (MTCO ₂ e)	2012 Emissions (MTCO ₂ e)	Percentage Change, 2005–2012
Residential built environment	313,310	327,340	4%
Nonresidential built environment	286,260	301,840	5%
Transportation	723,440	726,190	<1%
Off-road equipment	35,240	11,580	-67%
Solid waste	67,210	38,620	-43%
Water and wastewater	10,000	10,410	4%
Oil drilling	16,610	16,560	<-1%
Total	1,452,070	1,432,540	-1%

Huntington Beach's GHG emissions will continue to change going forward due to new policies, technological improvements, and population growth and new development. For example, as more houses are built in Huntington Beach, emissions from the residential built environment may increase. However, as energy becomes cleaner and as new construction becomes more energy efficient, these improvements may offset some of the increased GHG emissions from a growing population. An estimate of Huntington Beach's 2020 and 2040 GHG emissions, without any additional actions to reduce emissions, is shown below in **Table ERC-3**.





Table ERC-3
Huntington Beach 2020 and 2040 GHG Emissions

GHG Source	2020 Emissions (MTCO ₂ e)	2040 Emissions (MTCO ₂ e)	Percentage Change, 2012–2040
Residential built environment	332,010	355,380	9%
Nonresidential built environment	321,680	355,170	18%
Transportation	755,700	840,750	16%
Off-road equipment	22,040	37,510	224%
Solid waste	40,120	43,540	13%
Water and wastewater	10,800	11,730	13%
Oil drilling	16,560	16,560	0%
Total	1,498,910	1,660,640	16%

Transportation activities are expected to remain the source of approximately half of Huntington Beach's GHG emissions in future years, with the residential and nonresidential built environment sectors continuing to account for much of the community's remaining GHG emissions. As the population and economic activity of Huntington Beach increases, GHG emissions are expected to increase unless actions are taken to reduce emissions. Without any GHG reduction activities, Huntington Beach's GHG emissions are expected to rise to 16 percent above 2012 levels by 2040. The most significant increase, in the off-road equipment sector, is expected to result from substantially increased construction activity relative to the 2012 baseline.

Greenhouse Gas Reduction Program

This element contains goals and policies that direct the City's approach to reducing GHGs below the levels shown in **Table ERC-3**, including emissions reduction targets and general emissions reduction strategies. An accompanying Greenhouse Gas Reduction Program provides specific GHG emissions reduction measures applicable to various sectors of the community and the City's municipal operations. The Greenhouse Gas Reduction Program as a whole is considered an implementation measure for the policies described in this element. The Greenhouse Gas Reduction Program will meet the six specific requirements for these programs that are spelled out in the State California Environmental Quality Act (CEQA) Guidelines, allowing the Greenhouse Gas Reduction Program to be used to streamline environmental review of new development. These six requirements are as follows:





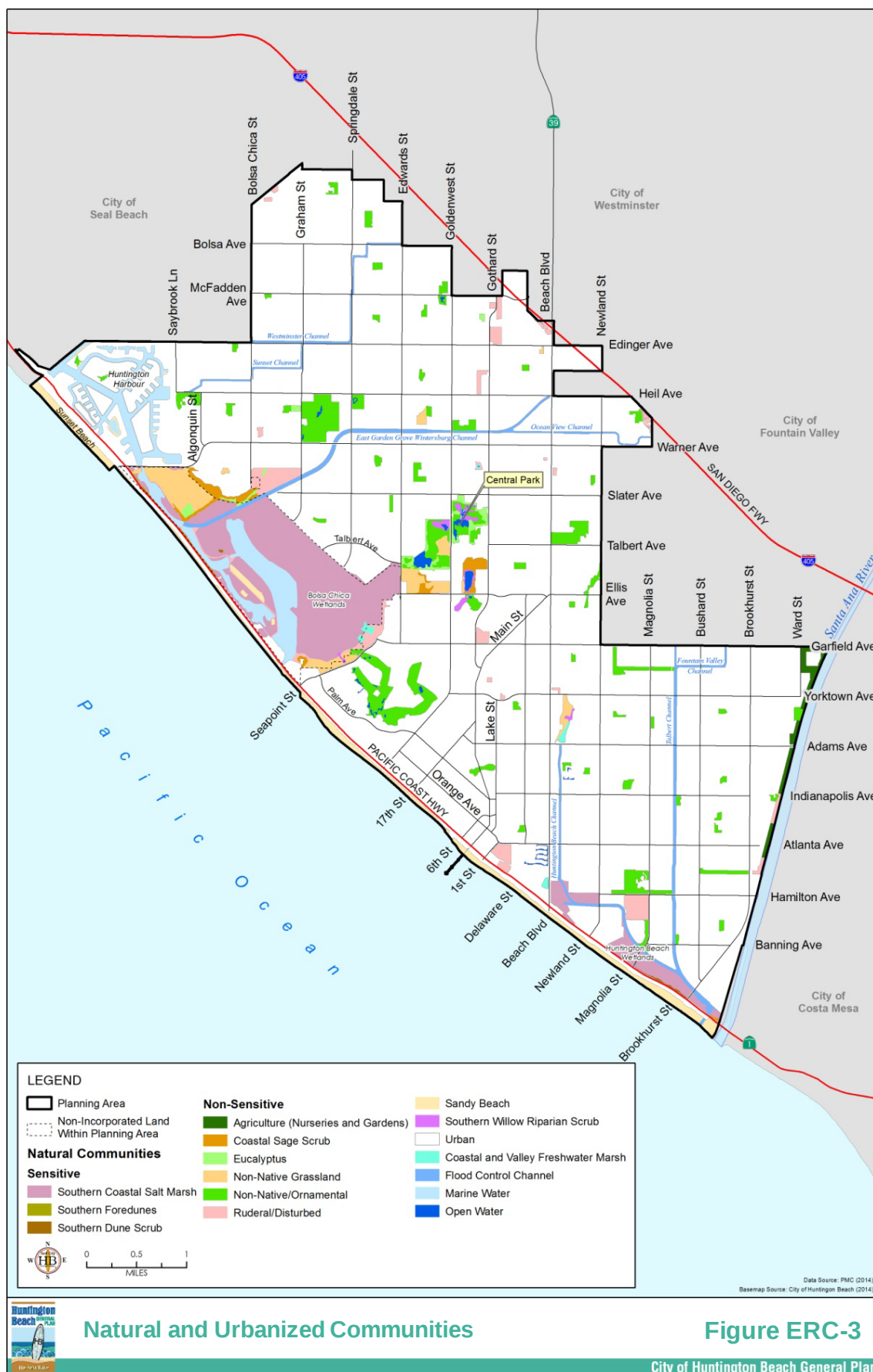
- Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable.
- Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels.
- Be adopted in a public process following environmental review.

Biological Resources

Huntington Beach is located within the Southern California Coast ecological section of California. The city is characterized by broad, sandy beaches backed by low bluffs and mesas, and lowland areas that historically supported extensive wetlands. Despite being part of a dense urban landscape, the beaches, lowlands, bluffs, and mesas of Huntington Beach today support a variety of natural communities that provide habitat for numerous plant and wildlife species.

Table ERC-4 summarizes the types and acreages of natural and urbanized communities present in the planning area. **Figure ERC-3** identifies the location of these communities. Natural communities occurring in undeveloped areas include coastal salt and freshwater marshes, dune communities, riparian scrub, grassland, and coastal sage scrub. In addition to terrestrial communities, aquatic features such as the Santa Ana River, flood control channels, and marine waters and associated beaches provide important habitat for local and migratory species. Although several natural communities occur in the planning area, urbanized communities make up the majority of the area. Urbanized communities include nonnative/ornamental plants, ruderal/disturbed areas, eucalyptus groves, and a limited amount of agriculture consisting mostly of nurseries located under power lines and adjacent to the Santa Ana River. Although subject to high levels of human disturbance, these areas still provide habitat for numerous species.





Natural and Urbanized Communities

Figure ERC-3



Table ERC-4
Natural and Urbanized Communities Occurring
Within the Huntington Beach Planning Area

Community Types	Area (acres)
Southern Coastal Salt Marsh*	1,068
Southern Foredunes*	6
Southern Dune Scrub*	4
Marine Water	546
Sandy Beach	291
Southern Willow Riparian Scrub	32
Nonnative Grassland	225
Coastal Sage Scrub	77
Coastal and Valley Freshwater Marsh	18
Urban	15,477
Nonnative/Ornamental	614
Eucalyptus	61
Ruderal/Disturbed	231
Agricultural (Nurseries and Gardens)	58
Flood Control Channels	263
Santa Ana River	N/A
Total Planning Area	18,971

* Identified as a sensitive natural community by the California Department of Fish and Wildlife.

Several of these natural communities are considered sensitive by resource agencies such as the California Department of Fish and Wildlife, US Fish and Wildlife Service, and National Marine Fisheries Service. In addition, several Environmentally Sensitive Habitat Areas (ESHAs) designated by the California Coastal Commission are located in the planning area. Sensitive communities include southern coastal salt marsh, dune habitats, freshwater marsh, and riparian areas. In addition, eelgrass beds occur in the coastal wetlands, bays and flood control channels and are considered a sensitive marine resource.

Several state- and federally listed species are known to occur in Huntington Beach, including western snowy plover, California least tern, Belding's savannah sparrow, coastal California gnatcatcher, light-footed clapper rail, and tricolored blackbird. Other special-status species known to utilize habitats in and adjacent to the city include southern tarplant, monarch butterfly, white-tailed kite, silvery legless lizard, burrowing owl, northern harrier, peregrine falcon, loggerhead shrike, California brown pelican, black skimmer, and special-status bats.





Habitat Areas

Though most of Huntington Beach is urbanized, several open space areas remain that are capable of supporting habitat for special-status species. These areas are managed by a variety of agencies and organizations that have different levels of jurisdiction and authority over the resources present. Several established habitat areas also support other uses requiring routine maintenance (e.g., beaches, parks). **Table ERC-5** and **Figure ERC-4** identify these areas and the organization(s) responsible for managing them.

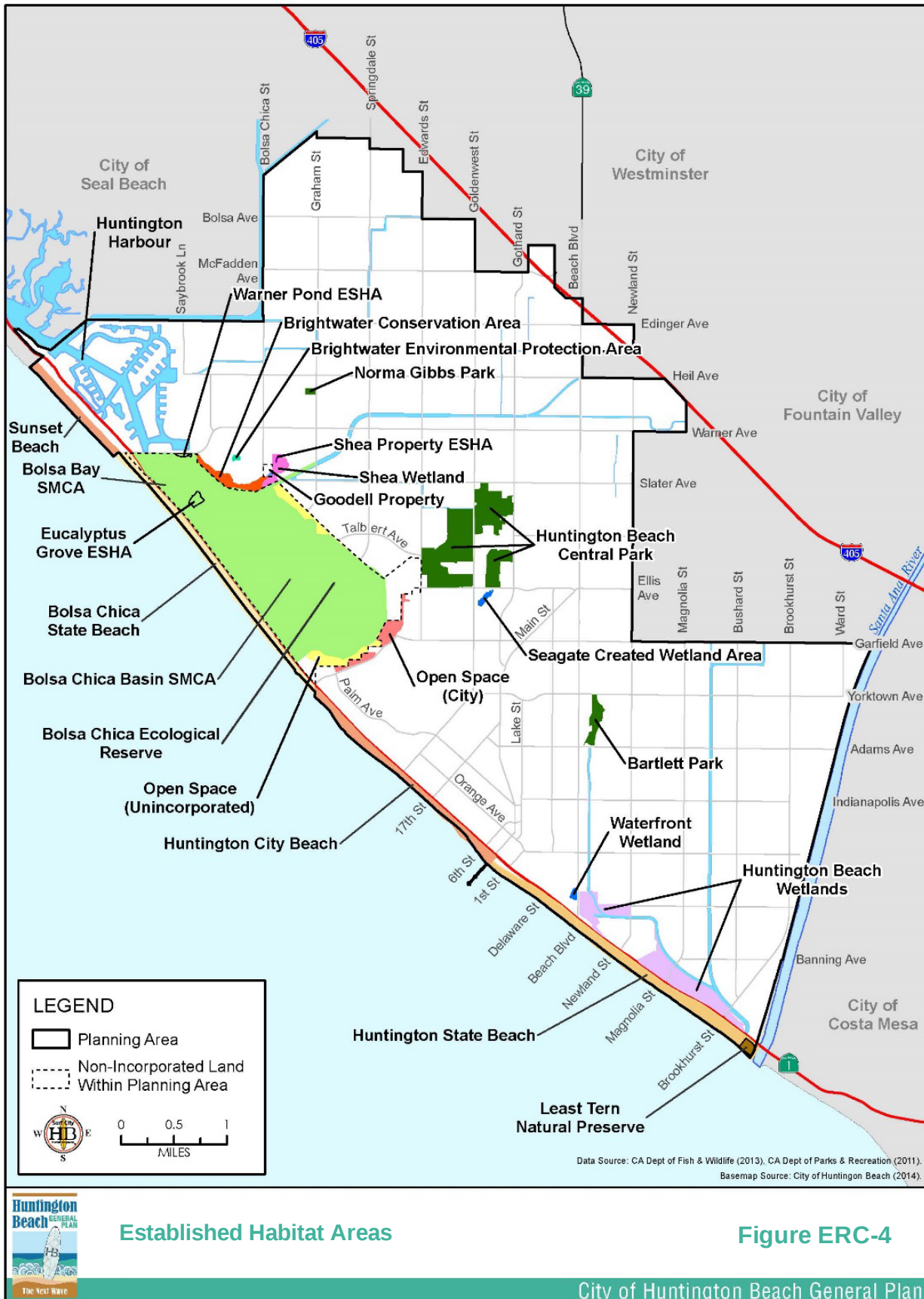
Table ERC-5
Habitat Areas

Area	Acres	Management Organization
Within City Limits		
Bolsa Chica State Beach	130	California Department of Parks and Recreation
Brightwater Conservation Area (includes 5-acre eucalyptus ESHA)	34	Brightwater Homeowners Association
Brightwater Environmental Protection Area	2	Brightwater Homeowners Association**
Flood Control Channels	368	Orange County Flood
Huntington Beach Wetlands	172*	Huntington Beach Wetlands Conservancy
Huntington City Beach (City Beach and Sunset Beach)	122	City of Huntington Beach
Huntington Harbour and associated shorelines	253	City of Huntington Beach and Orange County
Huntington State Beach (includes Least Tern Natural Preserve)	144	California Department of Parks and Recreation
Waterfront Wetland	3	City of Huntington Beach
City parks and open spaces (includes open space areas, and parts of Central, Bartlett, and Norma Gibbs Parks)	256	City of Huntington Beach
Seagate-created Wetland Area	5	Seagate Homeowners Association
Shea Parkside Property ESHA	3	Future Homeowners Association
Shea Parkside Property Wetlands/Buffer	16	Future Homeowners Association
Outside City Limits		
Bolsa Chica Ecological Reserve (includes eucalyptus grove and Warner Pond ESHAs)	1,334	California Department of Fish and Wildlife
Bolsa Chica Basin State Marine Conservation Area	450	California Fish and Game Commission
Bolsa Bay State Marine Conservation Area	45	California Fish and Game Commission
Goodell Property	1	Property owner
Unincorporated Open Space Areas	57	Various agencies and organizations

* Huntington Beach Wetlands acreage includes Newland Marsh, which was owned by Caltrans at the time this plan was prepared.

** Presently the developer manages the Brightwater Conservation Area and Environmental Protection Area; the Brightwater HOA will ultimately take over this responsibility.

Note: Acreages cannot be totaled, as several established habitat areas overlap.





The City faces numerous key challenges to maintaining and protecting habitat including a complicated regulatory environment, numerous overlapping stakeholder groups, ecological degradation through water and air pollution, invasive pest plants, and changing climate conditions. This element establishes policies to collaboratively maintain, manage, and expand, when possible, important habitat lands, including the coast, wetlands, bay, and inland areas.

Energy Resources

Energy comes in numerous forms, including chemical fuels such as coal and oil, heat energy, and nuclear energy. This element focuses on electricity and natural gas (a form of chemical energy), which are two of the most common kinds of energy used in Huntington Beach. Electrical energy is used to run innumerable appliances, devices, and pieces of technology, including lights,



computers, and air conditioners. It can also be used as a transportation fuel for electric vehicles. Natural gas can be used to generate electricity and to heat water and indoor spaces. Electricity in the planning area is supplied by Southern California Edison, while natural gas is supplied by the Southern California Gas Company. **Table ERC-6** shows current and forecasted electricity and natural gas use in Huntington Beach.

Table ERC-6
Current and Forecasted Energy Use

	2005	2012	2020*	2040*
Residential electricity use (kWh)	485,753,410	487,243,550	490,786,730	494,662,470
Nonresidential electricity use (kWh)	726,213,200	703,114,370	743,073,060	791,265,320
Total electricity use (kWh)	1,211,966,610	1,190,357,920	1,233,859,780	1,285,927,790
Residential natural gas use (therms)	31,156,530	30,363,590	30,735,350	31,796,430
Nonresidential natural gas use (therms)	9,328,020	10,210,450	10,857,240	11,811,700
Total natural gas use (therms)	40,484,550	40,574,040	41,592,590	43,608,120

Source: Southern California Edison; Southern California Gas Company

* 2020 and 2040 values are projections without locally driven efforts to reduce energy use.



Huntington Beach has the option of establishing an alternative to Southern California Edison by participating in a Community Choice Aggregation (CCA, sometimes called Community Choice Energy or CCE) program. CCA is a mechanism that allows local governments to control the electricity supply and rates for their communities. Under a CCA, local governments procure electricity from their desired sources, but rely on existing infrastructure owned by private utilities to distribute the energy and conduct billing. Residents and businesses in CCA communities can choose to receive electricity from the CCA, or they can continue to receive service from a private utility. CCAs are government agencies, formed by a single community or by multiple communities working jointly.

Energy use in homes and nonresidential buildings is determined by the design and construction of the building, the types of devices and appliances in the building, the presence of any on-site renewable energy systems such as rooftop solar panels, and the behavior of the people who use it. In general, new buildings are being designed and constructed to use less energy, and many newer appliances use less energy than older models. The California Building Standards Code (BSC, also called Title 24) specifies minimum energy efficiency standards for new buildings. These standards are updated to require increased energy efficiency standards for new construction approximately every three years, moving toward a goal of zero net energy (ZNE) for all new buildings. A ZNE building is one that generates as much energy as it uses, as measured over the course of one year. ZNE buildings combine extensive energy efficiency features with on-site renewable energy systems. The state plans for new houses to be ZNE by 2020, and for new nonresidential buildings to be ZNE by 2030.

In future years, state and federal policies are likely to continue to require increased and greater energy efficiency for buildings and appliances. At the same time, the cost of energy for Huntington Beach's homes and businesses is expected to continue to increase. Huntington Beach will work to keep energy bills low, foster increased energy independence, and promote a healthy environment by supporting energy efficiency, energy conservation, and renewable energy throughout the community. These strategies will also help move the community in the direction supported by California's ZNE policies.

Mineral Extraction Potential

Oil and Natural Gas

Huntington Beach is home to numerous land-based resources including oil and natural gas. Huntington Beach has been the site of oil extraction since the 1920s, and large-scale oil and gas production continues today. Most oil and gas production to date in California and in Huntington Beach has been from vertical wells into traditional oil and natural gas reservoirs. Oil wells in Huntington Beach are scattered throughout much of the planning area. Most are concentrated along the coastal areas and mesas. According to the US Geological Survey (USGS), oil reserves in the Huntington Beach oil field are estimated to be between 117 and 866 million barrels of recoverable oil.





Natural gas extraction exists onshore and offshore in and around Huntington Beach. According to the California Department of Conservation, roughly 745,000 million cubic feet of natural gas was withdrawn from Huntington Beach in 2012. When it is extracted, natural gas is composed of approximately 80 percent methane and 20 percent other substances. Large amounts of the other components of natural gas are removed during processing.

All oil and gas wells drilled and constructed in California must adhere to strict requirements, including general laws and regulations regarding the protection of underground and surface water, and specific regulations regarding the integrity of well casings, the cement used to secure well casings inside bore holes, and the cement and equipment used to seal off wells from underground zones bearing fresh water and other hydrocarbon resources. Given the city's history of oil extraction activities and the presence of natural gas fields under the city, there is a high potential for methane to be present in subsurface soils. High concentrations of methane can pose a health or safety risk. Methane hazards have resulted in City regulations and procedures to ensure proper mitigation and abatement.

In future years, oil and natural gas extraction in the planning area is expected to continue. While these activities will provide economic benefits to the community, they may also pose health, safety, and environmental hazards. Huntington Beach will work to continue oil and natural gas extraction and receive the benefits these actions provide, while continuing to ensure that the impacts to the community from oil and natural gas extraction are minimized.

Mining Resources

Soils in Huntington Beach are known to contain peat. Peat production occurred in the area from 1941 to 1954. No further mining of peat or other soil conditioners has been known to occur since that time. However, peat is present in various parts of the planning area. Soils containing peat have poor engineering properties, as they are prone to liquefaction, collapse, and settlement and are not suitable for building purposes. Soils containing peat also have a high potential for methane gas. Methane hazards have resulted in City regulations and procedures to ensure proper mitigation.

The State Mining and Geology Board (SMGB) identifies Mineral Resource Zone (MRZ) classifications for land located in the planning area. Based on this mapping, a majority of the planning area is designated as MRZ-1 or MRZ-3, which indicates information is unavailable or historic mining has not occurred, and therefore the significance of mineral resources is unknown. Additionally, the urbanized character of Huntington Beach generally precludes mining activities.





A small area of land is designated as MRZ-2, which indicates that adequate information is available to indicate that significant construction aggregate deposits are present. This area is generally located along the uplifted mesa north of Talbert Avenue, west of Beach Boulevard, and east of Huntington Harbour. Active mining no longer occurs at these sites, and new uses have been introduced, which deter future mining activities. **Figure ERC-5** shows MRZ classifications within the Huntington Beach planning area.

Water Resources

Water Supply

The City provides water to over 50,000 service connections. The Metropolitan Water District of Southern California (Metropolitan) and the Municipal Water District of Orange County (MWDOC) provide water to Huntington Beach. The City's water comes from a combination of groundwater (approximately three-fourths) and imported water resources (approximately one-fourth) purchased from Metropolitan through the MWDOC. Metropolitan's principal sources of water are the Colorado River and the Lake Oroville watershed in Northern California, and this water is treated at the Robert B. Diemer Filtration Plant located north of Yorba Linda. The Orange County Water District (OCWD) manages the groundwater in the Orange County Basin and allocates a proportion of that groundwater for Huntington Beach.

According to the City's 2015 Urban Water Management Plan, total water demand in Huntington Beach is forecasted to increase by roughly 8 percent from 2020 to 2040, with the increase being met using a combination of groundwater sources and imported water based on the OCWD-established Basin Pumping Percentage. **Table ERC-7** identifies expected planning area retail demands (i.e., the amount of water used by residential and nonresidential water customers, and unaccounted water loss) through 2040.

Table ERC-7
City of Huntington Beach Planned Water Retail Demand (2020–2040)

Water Sources	2020	2025	2030	2035	2040
Total (AFY)	28,090	30,153	30,360	30,352	30,396

Note: AFY = acre-feet per year

As a result of recent drought conditions since 2012, water conservation efforts significantly reduced the city's water consumption from 2011 to 2015 by over 17 percent, from around 30,000 acre-feet to around 25,000 acre-feet.

Orange County Water District's Groundwater Replenishment System Facility takes highly treated wastewater that would otherwise be discharged into the Pacific Ocean, further purifies it, and pumps it into seawater barriers and groundwater recharge basins.





Additional water resources could be provided by coastal desalination plants and recycled water for irrigation and other nonpotable uses.



Mineral Resource Zones

Figure ERC-5





Water Quality

Huntington Beach is associated with the Santa Ana Watershed. The Santa Ana River borders the planning area to the southeast; Anaheim-Barber City channels border the planning area to the north. Several other flood control channels traverse the planning area, including the Bolsa Chica, Sunset, Westminster, Ocean View, East Garden Grove-Wintersburg (EGGWC), Slater, Murdy, Huntington Beach, Talbert, and East Valley-Fountain Valley channels. All water in the planning area ultimately drains into the Pacific Ocean via storm drains, flood control channels, the Santa Ana River, the Bolsa Chica Basin/Wetlands, and Huntington Harbour.

Urban debris, litter, and pollution can enter coastal and marine environments either from direct dumping or through the storm drain system. This can adversely affect water quality in the coast, Huntington Harbour, bays, wetland waters, and flood control channels. Debris and litter can be deadly for wildlife which may ingest or become tangled in it. Bacteria or other pollutants that enter surface water bodies may be harmful to human health. In addition to detrimental effects on human and wildlife health, debris, litter, and pollution also greatly reduce the aesthetic appeal of open space areas. Several local organizations and open space parks host public cleanup days multiple times a year.

Under Section 303(d) of the Clean Water Act, states, territories and authorized tribes are required to develop a list of water quality limited segments. The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The Clean Water Act requires that these jurisdictions establish priority rankings for waters on their lists and develop action plans, called Total Maximum Daily Loads (TMDL), to improve water quality. **Table ERC-8** shows the quality limited segments by pollutants in the planning area.





Table ERC-8
2010 California 303(d) and TMDL Priority

EGGWC	Water Body				Pollutants/ Stressors	Source	Priority ²
	Bolsa Chica Channel	Anaheim Bay	Huntington Harbour	Huntington State Beach			
					Enterococci	Unknown	Low
	X				Indicator Bacteria	Unknown	Low
			X		Chlordane	Unknown	Low
			X		Copper	Unknown	Low
			X ¹		Lead	Unknown	Low
		X	X ¹		Nickel	Unknown	Low
			X ¹		Pathogens	Urban Runoff/Storm Sewers	Low
		X			Dieldrin	Unknown	Low
		X	X ¹	X	PCBs	Unknown	Low
X	X				Ammonia	Unknown	Low
	X				pH	Unknown	Low
		X	X		Sediment Toxicity	Unknown	Low

X = Listed on the 2006 Clean Water Act Section 303(d) List of Water Quality Limited

1 = Listing made by US Environmental Protection Agency.

2 = Priority determined by "estimated TMDL completion data" listed in the State Water Resources Control Board's 2010 Integrated Report on Water Quality. All pollutants and water bodies on this list have an estimated completion date of 2019 or later, indicating "low" priority.

The City faces numerous water supply and water quality problems. Water supply concerns include continued groundwater overdraft conditions, future imported water costs and allocations, continuing drought conditions, State Water Resources Control Board water use reductions, and the financial and ecological costs associated with developing alternative supplies. Water quality issues include pollution associated with local and upstream urban runoff and sensitive ecological conditions. In this Environmental Resources and Conservation Element, the City addresses these issues with goals, policies, and programs that require water conservation, pursue recycled and alternative water resources, and reduce local water pollution in new and existing development.





Issues, Goals, and Policies

The open space issues addressed in this element include:

- Meeting parks and facilities needs
- Providing recreation programs and services to meet community needs
- Managing the beach, parks, and recreation to accommodate diverse recreational needs

The conservation issues addressed in this element include:

- Reducing air pollution
- Meeting greenhouse gas reduction goals
- Identifying and protecting habitat areas and connections
- Protecting habitat resources in wetlands
- Protecting coastal habitat resources
- Protecting trees
- Protecting habitats in parks
- Conserving energy in homes and businesses
- Expanding renewable energy sources
- Preserving mineral extraction potential
- Protecting and conserving water resources
- Maintaining water quality

Meeting Parks and Facilities Needs

The City currently meets established standards for providing park and recreation facilities. However, anticipated growth will increase demand for increasingly diverse and ever-changing recreation programs, park facilities, and community youth and senior center services. Recreation programs, available park acreage, and potential sites for new or expanded parks should be periodically assessed. Demand is strong for parks that feature active recreational facilities and support team sports as well as those that provide access to natural environments. Since much of Huntington Beach has been developed, park space must be used efficiently and strategically added as part of new developments or reuse of existing facilities, such as closed schools. The adequacy of Quimby Act in-lieu fees and parkland open space development impact fees to meet community needs and alternative funding methods for park development, renovation, and repurposing should be periodically evaluated.





Goal ERC-1. Adequately sized and located parks meet the changing recreational and leisure needs of existing and future residents.

Policies

- A. Maintain or exceed the current park per capita ratio of 5.0 acres per 1,000 persons, including the beach in the calculations.
- B. Seek opportunities to develop and acquire additional parks and open space in underserved areas where needed, including pocket (mini) parks, dog parks, athletic fields, amphitheaters, gardens, and shared facilities.
- C. Distribute future developed park and recreational sites to equitably serve neighborhood and community needs while balancing budget constraints.
- D. Require all park improvement projects to consider ways to improve access to park facilities by foot and bicycle.
- E. Continue to locate future neighborhood parks adjacent to elementary schools with independent street frontage when possible.
- F. Continue to balance and maintain a mix of recreational focused and passive and natural environment areas that preserve and protect special-status species within open spaces.
- G. Develop a comprehensive trails network linking hiking, biking, and equestrian trails to parks, beaches, recreation facilities, and open spaces both within and outside the planning area.
- H. Administer the City's open space program in a manner that supports lands, resources, and services provided in regional parks, open spaces, and conservation plans.

Providing Recreation Programs and Services to Meet Community Needs

The aging of the general population and resulting increases in the senior population will increase demand for senior services. The city's senior and elderly population would greatly benefit from additional and accessible social services to serve their needs. Meanwhile, demand for programs for families, children, and other components of the community remain high.

Goal ERC-2. Diverse recreational and sports facilities provide active and educational opportunities that meet the changing needs of residents and visitors of all ages.

Policies

- A. Enhance and expand accessible and affordable recreation programs and sports facilities, providing new programs and adaptive facilities that respond to changing community demographics and needs.





- B. Ensure that buildings, equipment, fields, and other recreation amenities are in full use and capable of accommodating changing program demands.
- C. Partner with neighboring cities and the County to provide access to a wider range of recreational services.
- D. Encourage and coordinate with private commercial recreational businesses to provide recreational services and facilities that may not otherwise be offered by the City.
- E. Partner with school districts to offer after-hours recreational activities at both open and closed school sites.
- F. Work with the school districts to encourage after school hours access to playgrounds and playing fields on school properties.

Managing the Beach, Parks, and Recreation to Accommodate Diverse Recreational Needs

The beaches and adjacent marine environments provide habitat for numerous species, including federally listed birds that use the beach for nesting. While important biologically, coastal dunes, beach, the surf zone, and the off-shore areas are also recognized as important cultural amenities. Beach management practices should improve the sustainability of extensive recreational beach use while protecting sensitive natural resources.

Goal ERC-3. Maintain the recreational and cultural identity of the beach while improving and enhancing the overall habitat value of coastal areas.

Policies

- A. Maintain the beach and ocean as natural recreational resources, not only for the city but also for the Southern California region.
- B. Maintain the current high level of recreational access to the coast and its recreational facilities and continue to provide resources that improve accessibility to the beach for all users.
- C. Consider devoting certain portions of the beach to different preferred recreational uses while maintaining access for all users and meeting the recreation needs of both visitors and residents.
- D. In areas known to be utilized by special-status species, encourage low-intensity uses that provide public access and passive recreational resources such as picnic/observation areas, nature trails, peripheral bike paths, and informational signs/displays.





Reducing Air Pollution

Air quality in the South Coast Air Basin has generally been improving for a long period of time due to cleaner vehicles, technological advances, and increased regulatory oversight. Continued improvements in air quality will help improve public health and increase the overall quality of life in Huntington Beach. The community should work to support cleaner air while addressing challenges posed by population growth and climate change, which could stall or reverse these hard-fought gains in air quality.

Goal ERC-4. Air quality in Huntington Beach continues to improve through local actions and interagency cooperation.

Policies

- A. Continue to cooperate with the South Coast Air Quality Management District and other regional, state, and national agencies to enforce air quality standards and improve air quality.
- B. Continue to require construction projects to carry out best available air quality mitigation practices, including use of alternative fuel vehicles and equipment as feasible.
- C. Enforce maximum idling time regulations for off-road equipment.
- D. Require grading, landscaping, and construction activities to minimize dust while using as little water as possible.
- E. Continue to explore and implement strategies to minimize vehicle idling, including traffic signal synchronization and roundabouts.
- F. Minimize exposure of sensitive land uses to toxic air contaminants by locating new pollutant sources away from sensitive uses and disproportionately affected communities and by encouraging existing pollutant sources to reduce emissions when changes to existing operations or permits are proposed.

Meeting Greenhouse Gas Reduction Goals

As there are numerous sources of GHG emissions, a variety of strategies are available to help local communities reduce these emissions. Establishing and meeting GHG emissions reduction goals will help to decrease the threat posed by climate change, while providing multiple benefits to Huntington Beach community members. Efforts to reduce GHG emissions can help save money for residents and businesses, enhance the local economy, improve public health, support improved air quality, and conserve water and other natural resources.

The goals and policies below establish emissions reductions goals and create a high-level framework for GHG reduction efforts. Policies that support GHG emission reductions are located elsewhere in this element, as well as in the Circulation and Public Services and Infrastructure Elements. Specific strategies, anticipated reductions, and associated action items are addressed in the Greenhouse Gas Reduction Program.





Goal ERC-5. Greenhouse gas emissions from activities occurring in Huntington Beach are reduced to levels consistent with state goals.

Policies

- A. By 2020, reduce community-wide greenhouse gas emissions to 15 percent below 2005 levels. By 2040, reduce greenhouse gas emissions by 53.33 percent below the 2020 target, placing the community on a path to meet the state's 2050 greenhouse gas emissions reduction goals.
- B. Encourage oil drilling operators to implement cost-effective best practices to reduce greenhouse gas emissions associated with oil extraction.
- C. Explore strategies to reduce greenhouse gas emissions from off-road construction and landscaping equipment.
- D. Support efforts by the South Coast Air Quality Management District and the California Air Resources Board to decrease greenhouse gas emissions from large industrial facilities and other stationary sources.
- E. Pursue funding sources to develop and implement programs and projects identified in the Greenhouse Gas Reduction Program.

Identifying and Protecting Habitat Areas and Connections

Protecting areas in Huntington Beach that have potential habitat area, such as wetlands, coastal areas, parks, and water bodies, can be challenging as they are managed by a variety of agencies and organizations which have different levels of jurisdiction and authority over the resources present. Several areas that provide potential habitat value also support other uses requiring routine maintenance (e.g., beaches, parks).

Connectivity between open space areas is an essential element of species conservation. Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link areas of suitable wildlife habitat that are otherwise separated by changes in vegetation, rugged terrain, or human disturbance. Fragmentation of open space areas by urbanization creates isolated islands of wildlife habitat. Maintaining the continuity of established wildlife corridors is important to (a) sustain species with specific foraging requirements, (b) preserve a species' distribution potential, and (c) retain diversity among many wildlife populations. The majority of Huntington Beach, including its surroundings, has been built out; however, the undisturbed portions around the perimeter and off-site could facilitate regional wildlife movement. Specifically, Huntington Harbour connects the Bolsa Chica Wetlands to the off-site Seal Beach National Wildlife Refuge.





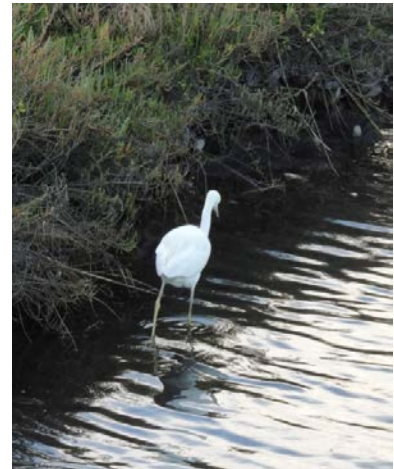
Goal ERC-6. Various agencies that oversee habitat areas and wildlife corridors, including but not limited to parks, beaches, coastal dunes, marine waters, and wetlands, coordinate decision-making and management to ensure ongoing protection of resources.

Policies

- A. Create, improve, and/or acquire areas that enhance habitat resources and identify, prioritize, and restore as habitat key areas of land that link fragmented wildlife habitat, as funding and land are available.
- B. Support land acquisition, conservation easements, or other activities undertaken by landowners to create and preserve habitat linkages that support the integrity of ecosystems.
- C. Preserve and enhance the connection between the Huntington Beach Wetlands and the wetland/riparian area in Bartlett Park via the Huntington Beach Channel.
- D. Use future specific and area plans as a means to complete wildlife corridors.
- E. Establish aquatic and terrestrial connections between the Bolsa Chica Wetlands and Central Park by restoring areas in the oil fields to a more natural environment.

Protecting Habitat Resources in Wetlands

Huntington Harbour, the Bolsa Chica Wetlands, the Huntington Beach Wetlands, the Talbert and Huntington Channels, and Anaheim Bay are used as spawning and nursery areas for a number of marine fishes, including important commercial fishes, and are utilized by threatened and endangered birds. Past development and the ongoing modifications to the Santa Ana River mouth and Huntington Beach Wetlands outlet have directly impacted areas through filling, dredging, and channelization. Urban runoff has also affected these areas. Stormwater runoff from streets with oil, grease, and trash is known to adversely impact marine biological resources and wetlands. Possible sea level rise also threatens to affect the stability of the wetlands.



Goal ERC-7. Wetland areas that serve as important biological resources for threatened and endangered birds, fish, and other species are protected and restored.





Policies

- A. Protect important wetland areas in the planning area through land use regulation or through nonprofit land trust or public ownership and management.
- B. Maintain and enhance existing natural vegetation buffer areas surrounding riparian habitats and protect these areas from new development.
- C. Support County efforts to designate and manage environmentally sensitive lands—such as the Bolsa Chica Wetlands, the Huntington Beach Wetlands, and lands near the mouth of the Santa Ana River and north of Newland Street—for inclusion into a coastal wetlands preserve.
- D. Minimize filling, dredging, and channelization of river and wetland areas other than necessary dredging to keep the tidal channel open.
- E. Reduce pollutant runoff from new development and urban runoff to the maximum extent practicable.
- F. Continue to evaluate and mitigate the effects of domestic and industrial wastes on living marine resources.
- G. Seek opportunities to naturalize flood channels while also enhancing flood protection capacity.

Protecting Coastal Habitat Resources

Coastal dunes, the beach, the surf zone, and offshore areas serve both important biological functions and as important recreational amenities. Coastal dunes have been reduced by urban development erosion and degradation and the intensification of beach uses.

Goal ERC-8. Coastal dunes and habitat resources remain resilient to potential impacts of encroaching development, urban runoff, and possible sea level rise.

Policies

- A. Sustain the biological productivity of coastal waters and maintain healthy populations of species of marine organisms adequate to support long-term commercial, recreational, scientific, and educational purposes.
- B. Promote the improvement of tidal circulation in the Bolsa Chica Wetlands, Huntington Harbour, Huntington Beach Wetlands, and Anaheim Bay and minimize impacts to sand migration, aesthetics, and usability of the beach area.
- C. Prohibit development that jeopardizes or diminishes the integrity of sensitive or protected coastal plant and animal communities, accounting for expected changes from sea level rise.





Protecting Trees

The city has many established trees, some of which form groves, such as those in Central and Norma Gibbs Parks. These trees provide nesting and roosting areas for both birds and butterflies, as well as perches for raptor species. The City has not developed a system to identify and protect trees and groves of biological value. Tree maintenance and utilities within the public right-of-way are often in conflict, leading to some trees not being replaced.

Goal ERC-9. Huntington Beach's trees and groves serves important biological functions, including but not limited to nesting and roosting areas for both birds and butterflies, and perches for raptor species.

Policies

- A. Identify, track, and protect trees and groves on public property that provide valuable habitat.
- B. Maximize and maintain tree coverage on public lands and in open spaces.

Protecting Habitats in Parks

While City parks are designed primarily to support recreational use, portions of parks that have remained undeveloped or have been “naturalized” (e.g., the Shipley Nature Center in Central Park) provide habitat resources. The three freshwater lakes in Central Park are used by a number of waterfowl and other birds. Other lakes located throughout the planning area can provide habitat for a variety of resident and migratory bird species. These areas should be protected from impacts that may occur from recreation or nearby uses, such as trash or urban runoff.

Goal ERC-10. An enhanced network of parks, open spaces, and recreation facilities contributes to habitat preservation.

Policies

- A. Continue to preserve portions of parks as natural habitat for a variety of species.
- B. Continue to naturalize disturbed areas within parks and prevent the invasion of exotic plants. Design nature parks and natural areas so that habitat value for wildlife is emphasized on par with recreational value for people.
- C. Evaluate incompatible recreation activities which may damage open spaces and sensitive habitat areas.
- D. Support the use of native vegetation and green infrastructure in parks to manage water use, reduce urban runoff impacts, and provide natural habitat.



Conserving Energy in Homes and Businesses

Despite high electricity prices, Huntington Beach community members and other residents and businesses in California enjoy some of the lowest electricity bills in the country due in part to widespread energy efficiency and conservation efforts. Continuing and enhancing energy efficiency and conservation strategies help residents and businesses save money, and conserve valuable resources needed to generate energy. Energy efficiency programs also help support the local economy and can make Huntington Beach more resilient to future disasters by decreasing stress on existing energy distribution networks.

Goal ERC-11. Energy use in existing buildings declines due to energy efficiency upgrades and energy-conscious behavior.

Policies

- A. Publicize rebates and other financial incentives available to community members to improve energy efficiency in their homes and businesses, and market these rebates and incentives to all community members through a variety of outreach strategies.
- B. Promote low-cost or free weatherization programs for disadvantaged residents, including low-income families and elderly individuals.
- C. Identify ways to increase energy efficiency retrofits in multifamily buildings, renter-occupied homes, low-income homes, and leased nonresidential space through retrofits and educational programs.
- D. Retrofit existing City facilities to be more energy efficient as opportunities arise.

Goal ERC-12. New buildings are increasingly energy efficient and ultimately equipped to support zero net energy performance.

Policies

- A. Create incentives for proposed development and reuse projects to exceed the minimum energy efficiency standards established in the California Building Standards Code when constructing new or significantly renovated residential and nonresidential buildings, including achieving zero net energy performance in advance of state-level targets.
- B. Promote the use of passive solar design techniques and technologies in new buildings to reduce energy use for heating and cooling.
- C. Construct all new City facilities to be more energy efficient than the minimum energy efficiency standards in the California Building Standards Code, and achieve zero net energy performance for new City facilities when possible.

Expanding Renewable Energy Sources

Current energy resources are generally viewed as limited and unsustainable. Consequently, the City should prepare for and encourage conservation and pursue





alternative energy sources. Community education regarding energy efficiency continues to be important, and the City could take additional steps to encourage both municipal and distributed solar photovoltaic development and new technologies and energy sources.

Goal ERC-13. Increase both distributed generation and utility renewable energy sources within municipal and community-wide practices.

Policies

- A. Encourage the use of solar energy systems in homes and commercial businesses as a form of renewable energy, including in support of zero net energy goals.
- B. Encourage renewable energy options that are affordable and benefit all community members.
- C. Create incentives that promote renewable energy systems as a component of new development or reuse projects.
- D. Maximize renewable energy capacity on municipal property and renewable energy use in City-sponsored projects and activities.
- E. Support opportunities to increase energy storage capacity in the community.
- F. Support Community Choice Aggregation (CCA) feasibility studies.
- G. Support public-private partnerships on energy efficiency, energy storage, and microgrid development to achieve cost savings, reduce energy use, and improve energy reliability.

Preserving Mineral Extraction Potential

Oil, gas, sand, gravel, and peat extraction has occurred in the past in Huntington Beach; large-scale oil and gas production continues to the present time. Mineral extraction provides economic benefits, but also exposes the community to hazards such as subsidence, methane exposure, and potential environmental contamination. The City intends to balance these considerations and safely preserve mineral extraction potential.

Goal ERC-14. Mineral resource extraction continues to provide economic benefits, while threats to health, safety, and environmental resources are minimized.

Policies

- A. Identify appropriate access areas, and permit extraction of significant oil and other mineral resources in designated resource areas.
- B. Ensure that mineral/oil resource production activities avoid or minimize potential environmental impacts and are compatible with adjacent uses.
- C. Ensure mineral/oil resource extraction areas are properly reclaimed and/or remediated after resource extraction has been terminated.



Protecting and Conserving Water Resources

Although Huntington Beach has relatively good access to available groundwater, additional steps should be taken to protect water resources and conserve water in home, business, and public settings to prepare the city to sustain the future population. Drought-tolerant landscaping, recycled water infrastructure, saltwater reclamation, and groundwater replenishment represent opportunities to conserve water, develop new water supplies, and sustain valuable groundwater resources for long-term use.

Goal ERC-15. Adequate water supply is available to the community through facilities, infrastructure, and appropriate allocation.

Policies

- A. Maintain a system of water supply and distribution facilities capable of meeting existing and future daily and peak demands, including fire flow requirements, in a timely and cost-efficient manner.
- B. Monitor demands on the water system, manage new development and reuse projects and existing land uses to mitigate impacts and/or facilitate improvements to the system, and maintain and expand water supply and distribution facilities.
- C. Evaluate participation in Orange County Water District's recycled water program, and explore opportunities for the City to produce its own recycled water for use within the community.
- D. Continue to explore innovative alternative water infrastructure improvements, including but not limited to groundwater injection, maximizing groundwater recharge/percolation, and desalination.

Goal ERC-16. Water conservation efforts are maximized in every aspect of use.

Policies

- A. Continue to require incorporation of feasible and innovative water conservation features in the design of new development and reuse projects.
- B. Encourage maximum water conservation in existing land uses, and provide incentives that encourage building owners and homeowner associations to complete water efficiency retrofits.
- C. Require the use of recycled water for landscaping irrigation, grading, and other non-contact uses in new development or substantial retrofit projects where recycled water is available or expected to be available.
- D. Partner with and provide information to community organizations, residents, and businesses regarding methods to reduce water use.





Maintaining Water Quality

Urban stormwater runoff occurs when rainfall is collected by storm drains instead of being absorbed by groundcover or soil (commonly seen in a nonurban environment). When it rains, trash, silt, automotive chemicals, fertilizers, animal wastes, and other contaminants are washed into the storm drain system. Since storm drains are designed only to carry stormwater, they are typically not equipped with filters or cleaning systems. Consequently, they can carry contaminants found in urban runoff directly into flood control channels, creeks, rivers, and the ocean. Many of the contaminants found in runoff affect water quality, and can, at elevated levels, be toxic to aquatic and marine life. Increased surface water runoff will likely result from new development and reuse projects and existing land uses in Huntington Beach, potentially degrading already polluted waters.

Goal ERC-17. Enhance and protect water quality of all natural water bodies including rivers, creeks, harbors, wetlands, and the ocean.

Policies

- A. Require redevelopment to comply with the City's National Pollutant Discharge Elimination System permit and other regional permits issued by the State Water Resources Control Board and the Santa Ana Regional Water Quality Control Board.
- B. Require that new development and significant redevelopment projects employ innovative and efficient drainage technologies that comply with federal and state water quality requirements and reduce runoff and water quality impacts to downstream environments.
- C. Continue to require new development and significant redevelopment projects to propose protective safeguards and implement best management practices that minimize non-point source pollution and runoff associated with construction activities and ongoing operations.
- D. Continue to require that new development and significant redevelopment projects incorporate low-impact development best management practices, which may include infiltration, harvest and reuse, evapotranspiration, and bio-treatment.
- E. Prioritize investment in green stormwater infrastructure that restores natural landscapes before employing other management solutions.
- F. Reduce pollutant runoff from new development to marine biological resources and wetlands by requiring the use of the most effective best management practices currently available.
- G. Partner with and provide information to community organizations, community members, and businesses regarding best practices to minimize runoff and improve groundwater recharge.
- H. Reduce impacts of new development and significant redevelopment project sites' hydrologic regime (hydromodification).
- I. Continue working with the County and the Regional Water Quality Control Board (RWQCB) on the Integrated Regional Water Quality Management Plan to explore and expand more regional treatment of stormwater runoff.