

CHAPTER 4 Environmental Analysis

4.0 INTRODUCTION TO THE ANALYSIS

This Chapter contains a discussion of the possible environmental effects of the proposed Huntington Beach Senior Center project (proposed project) for the specific issue areas that were identified through the Initial Study process as having the potential to experience significant impacts. This Chapter is the primary component of the EIR, as it provides information on the project site's existing conditions, the type and magnitude of the project's potential individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid such impacts. The existing conditions component of the analysis defines the environmental conditions as they exist on and near the project site at the time the Notice of Preparation (NOP) was published, while project impacts are defined as the project's effect on the existing environment. Mitigation measures are designed to reduce a project's potential impact to less-than-significant levels. The purpose of this section is to inform readers of the type and magnitude of the project's environmental impacts and how such impacts would affect the existing environment.

A "significant effect" is defined by section 15382 of the CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, or ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

The assessment of each issue area begins with a discussion of the existing conditions (or setting), as well as a discussion of the regulatory framework relevant to that issue area. As required by the CEQA Guidelines, this document discusses any inconsistencies between the proposed project and applicable City of Huntington Beach General Plan policies and regional plans. However, consistent with the scope and purpose of this document, the discussion primarily focuses on those requirements adopted for the purpose of avoiding or mitigating an environmental effect and an assessment of whether any inconsistency with these standards creates a significant physical impact on the environment. The ultimate determination of whether this project is consistent with the City's General Plan is a decision that resides exclusively with the decision-making body (i.e., the Planning Commission or City Council), not with this environmental document.

Following the setting is a discussion of the project's impacts relative to the issue area. Within the impact analysis, the first subsection identifies the methodologies used and the "Thresholds of Significance," which are those criteria used to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, code requirements and mitigation measures for significant impacts, and the level of significance after mitigation.

The City of Huntington Beach imposes standard code requirements (CRs) for the purpose of controlling or reducing potential environmental and/or safety issues associated with a proposed project. These CRs may include, but are not necessarily limited to, development standards, infrastructure improvements,

and/or operational requirements. In this EIR, standard CRs that are relevant to the environmental analysis are identified along with the discussion of mitigation measures in each resource-specific discussion provided in Chapter 3 of this document. CRs often have the effect of reducing an environmental impact, and as such, take the place of mitigation measures that would otherwise be required to address impacts. CRs identified in this document are not inclusive of all code requirements that would be imposed on the proposed project; only those CRs relevant to the environmental analysis are included.

The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other past, present, and probable future development in the area causing related impacts.

4.0.1 Central Park Master Plan Mitigation Measures

In compliance with the Mitigation Monitoring Program (MMP) for the Master Plan of Recreation Uses for Central Park EIR (Central Park Master Plan EIR), the City of Huntington Beach is required to mitigate or avoid significant impacts anticipated in association with construction, operation, and maintenance of project and program level elements. Although implementation of the proposed project represents a departure from the land use identified for the site in the Central Park Master Plan, mitigation measures contained in the MMP that are applicable to the proposed project have been identified in Table 4-1 (Mitigation Measures Incorporated from Master Plan of Recreation Uses MMP) and incorporated as mitigation for the proposed project. Some mitigation measures have been modified from the original language identified in the MMP to reflect project-specific components of the proposed senior center where necessary; however, the overall intent remains the same.

Table 4-1 Mitigation Measures Incorporated from Master Plan of Recreation Uses MMP

<i>Mitigation Measure</i>	<i>Incorporated into EIR Section(s)</i>	<i>Notes</i>
AIR QUALITY ISSUES		
Measure Air-1: Moisten soil each day prior to commencing grading to depth of soil cut.	4.2 (Air Quality)	<i>Incorporated as CR 4.2-2(f)</i>
Measure Air-2: Water exposed surfaces at least twice a day under calm conditions and as often as needed on windy days when winds are more than 25 miles per hour or during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction site.	4.2 (Air Quality)	<i>Incorporated as CR 4.2-2(f)</i>
Measure Air-3: Treat any area that will be exposed for extended periods with a soil conditioner to stabilize soil or temporarily plant with vegetation.	4.2 (Air Quality)	<i>Incorporated as CR 4.2-2(f)</i>
Measure Air-4: Wash mud-covered tires and under-carriages of trucks leaving construction sites.	4.2 (Air Quality)	<i>Incorporated as CR 4.2-2(f)</i>
Measure Air-5: Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud which would otherwise be carried off by trucks departing project sites.	4.2 (Air Quality)	<i>Incorporated as CR 4.2-2(f)</i>
Measure Air-6: Securely cover all loads of fill coming to the site with the tight fitting tarp.	4.2 (Air Quality)	<i>Incorporated as CR 4.2-2(f)</i>
Measure Air-7: Cease grading during periods when winds exceed 25 miles per hour.	4.2 (Air Quality)	<i>Incorporated as CR 4.2-2(f)</i>
Measure Air-8: Provide for permanent sealing of all graded areas, as applicable, at the earliest practicable time after soil disturbance.	4.2 (Air Quality)	<i>Incorporated as CR 4.2-2(f)</i>
Measure Air-9: Maintain construction equipment in peak operating condition so as to reduce operation emissions.	4.2 (Air Quality)	<i>Incorporated as MM-4.2-2(a)</i>
Measure Air-10: Use low-sulfur diesel fuel in all equipment.	4.2 (Air Quality)	<i>Incorporated as MM-4.2-2(c)</i>

Table 4-1 Mitigation Measures Incorporated from Master Plan of Recreation Uses MMP

<i>Mitigation Measure</i>	<i>Incorporated into EIR Section(s)</i>	<i>Notes</i>
Measure Air-11: Use electric equipment whenever practicable.	4.2 (Air Quality)	<i>Incorporated as MM-4.2-2(c)</i>
Measure Air-12: Shut off engines when not in use.	4.2 (Air Quality)	<i>Incorporated as MM-4.2-2(b)</i>
BIOLOGICAL RESOURCES		
Measure Biological Resources-3: Directed surveys for six sensitive plant species that have the potential to be present in non-native grassland, southern tarplant (<i>Hemizonia parryi</i> ssp. <i>australis</i>), Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>), Coulter's saltbush (<i>Atriplex coulteri</i>), south coast saltscale (<i>Atriplex pacifica</i>), many-stemmed dudleya (<i>Dudleya multicaulis</i>), and intermediate Mariposa lily (<i>Calochortus weedii</i> var. <i>intermdeius</i>) will be conducted prior to moving forward with program level elements which will impact non-native grasslands within the Park. Directed surveys for the six sensitive plants will be conducted in accordance with the U.S. Fish and Wildlife Service and California Department of Fish and Game published protocols for such surveys at the time that such surveys are undertaken. In the absence of a published protocol, such surveys will be undertaken in accordance with guidelines for assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities Prepared by the California Department of Fish and Game.	4.3 (Biological Resources)	<i>These plant surveys were performed as part of the Biological Resources Technical Report.</i>
Measure Biological Resources-4: Potential impacts to foraging habitat for raptors resulting from development of non-native grasslands in the Park could be mitigated by enhancing conserved areas of non-native grassland at a ratio of 1:1 for acres of impact on non-native grasslands to provide suitable habitat values and functions for raptors. Mitigation for impacts on non-native grasslands will be accomplished within conserved non-native grasslands in association with the Sully Miller Lake Group Facility, Low Intensity Recreation Area, Semi-Active Recreation Area, and Midden Area/Urban Forest/Trailhead. Enhancement of non-native grassland would include, but not be limited to, the planting of native trees within and adjacent to conserved areas of non-native grassland.	4.3 (Biological Resources)	<i>Incorporated as MM 4.3-2</i>

Table 4-1 Mitigation Measures Incorporated from Master Plan of Recreation Uses MMP

Mitigation Measure	Incorporated into EIR Section(s)	Notes
CULTURAL ISSUES		
Archaeological Resources		
<p>Measure Archaeology-1: Prior to final design of the Low Intensity Recreation Area, Midden Area/Urban Forest/Trailhead and Semi-Active Recreation Area elements of the proposed Master Plan, Sufficient cultural resources investigations shall be undertaken to identify the location and extent of CA-ORA-82, CA-ORA-1317, CA-ORA-142, CA-ORA-1275, and CA-ORA-1318. Measures to avoid impacts on cultural resources shall be incorporated to the maximum extent practicable with the guidelines provided in Parts A and B of Section II of the CEQA Statutes and Guidelines.</p>	4.4 (Cultural Resources)	<i>These investigations were performed as part of the Cultural Resources Technical Report</i>
<p>Measure Archaeology-2: If avoidance of CA-ORA-142 is determined to be infeasible, then a test level program shall be developed. Infotech's (1989) prehistoric Sites Management Planning section states:</p> <p style="padding-left: 40px;">If appropriate data were collected from the extensive, unreported excavations east of Edwards Street, analysis of that information might suffice for the delineation of productive research there.</p> <p>If data are insufficient, additional testing is recommended. The testing should characterize the site structure, contents, integrity, age and nature of the occupation(s). Testing activities should include, but are not limited to, auguring, surface collection units, surface transect units, and the examination of cut banks to determine the site's horizontal and vertical boundaries. Controlled manual excavation, with control columns, would follow preliminary testing, to provide a detailed delineation of the site's characteristics and importance under the criteria outlined in Appendix K, Section III.</p>	4.4 (Cultural Resources)	<i>Additional testing was performed for CA-ORA-142 and no intact primary deposits were identified. However, as a precautionary measure, the boundary of CA-ORA-142 was extended south to include the hillside, as it was preliminarily identified in the EIR process to need recompaction. Subsequent grading plans have identified that this hillside will likely not need to be recompacted. No further testing is recommended.</i>
<p>Measure Archaeology-3: The City of Huntington Beach shall engage a qualified archaeologist to attend the pre-grade meeting for Low Intensity Recreation Area, Midden Area/Urban Forest/Trailhead, and Semi-Active Recreation Area Elements.</p>	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(a)</i>

Table 4-1 Mitigation Measures Incorporated from Master Plan of Recreation Uses MMP

Mitigation Measure	Incorporated into EIR Section(s)	Notes
<p>Measure Archaeology-4: The City of Huntington Beach shall engage a qualified archaeologist to monitor during grading activities within soil layers above bedrock material for Low Intensity Recreation, Midden Area/Urban Forest/Trailhead, and Semi-Active Recreation Area elements. During initial removal of vegetation, the archaeologist shall monitor daily to observe and retrieve any buried artifacts that may be uncovered. If important prehistoric or historic resources or deposits are encountered, then evaluative testing and/or other appropriate archaeological investigations shall be conducted.</p>	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(a)</i>
<p>Measure Archaeology-5: The City of Huntington Beach shall coordinate with the Native American Heritage Commission to identify an appropriate Native American monitor to be included in any testing, data recovery, and monitoring activities related to the Low Intensity Recreation, Midden Area/Urban Forest/Trailhead, and Semi-Active Recreation Area elements. A Memorandum of Agreement shall be prepared to deal with possible buried human remains. If a burial, burials, or a cemetery are encountered, reburial of the remains on other City properties may be requested by the Native Americans. A cemetery is defined as, in excess of six burials.</p>	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(c)</i>
<p>Measure Archaeology-6: The archaeological monitor shall have the authority to temporarily divert or redirect grading to allow time to evaluate any exposed prehistoric or historic material.</p>	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(b)</i>
<p>Measure Archaeology-7: Any scientifically significant artifacts shall be properly recovered after evaluation by, and under the supervision of, a qualified archaeologist. A data recovery plan that includes an excavation plan, laboratory analysis and report preparation, shall be developed prior to the recovery of the remains.</p>	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(b)</i>
<p>Measure Archaeology-8: Any recovered prehistoric and historic artifacts shall be offered, on a first right-of-refusal basis, to a repository with a retrievable collection system and an education and/or research interest in the materials. Copies of the report shall be submitted to the South Central Coast Information Center, Fowler Museum, University of California, Los Angeles. An additional copy shall accompany any recovered artifacts to the repository.</p>	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(b)</i>

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<i>Mitigation Measure</i>	<i>Incorporated into EIR Section(s)</i>	<i>Notes</i>
Historic Resources		
Measure Historical-1: Prior to the initiation of grading activities in support of the Low Intensity Recreation Area, Midden Area/Urban Forest/Trailhead, and Semi-Active Recreation Area, the City of Huntington Beach shall engage a qualified archaeologist to periodically monitor grading activities for historic archaeological resources.	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(a)</i>
Measure Historical-2: The archaeological monitor shall have the authority to halt grading until exposed historic archaeological resources can be evaluated for their importance.	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(b)</i>
Measure Historical-3: If the historic archaeological resources are deemed to be important, then a testing or data recovery program shall be developed and implemented.	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(b)</i>
Paleontological Resources		
Measure Paleontology-1: The Plans and Specifications for construction of the Low Intensity Recreation Area, Midden Area/Urban Forest/Trailhead, Semi-Active Recreation Area, and the Sully Miller Lake Group Picnic Facility shall identify the need to engage a qualified vertebrate paleontologic monitor to monitor excavation in native substrates. During excavation, the monitor should be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments which are likely to contain the remains of small fossil vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens.	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(a)</i>
Measure Paleontology-2: If located during excavation, recovered specimens shall be prepared by a qualified paleontologist to a point of identification, including washing of sediments to recover small fossil vertebrates.	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(b)</i>

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<i>Mitigation Measure</i>	<i>Incorporated into EIR Section(s)</i>	<i>Notes</i>
<p>Measure Paleontology-3: If located during excavation, specimens will be identified by a qualified paleontologist and curated into a museum repository with retrievable storage.</p>	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(b)</i>
<p>Measure Paleontology-4: A report of findings will be prepared with an appended, itemized inventory of specimens. The report and inventory, when submitted to the Public Facilities and Resources Department of the Orange County Harbors, Beaches and Parks Division, will signify the completion of the program to mitigate impacts to paleontologic resources.</p>	4.4 (Cultural Resources)	<i>Incorporated as MM 4.4-1(b)</i>
GEOLOGY ISSUES		
<p>Measure Geology-1: The City of Huntington Beach shall incorporate the following recommendations into Plans and Specifications for the Sports Complex element of the proposed Master Plan for the proposed project as a means of reducing the effects of expected ground surface settlements on the proposed improvements:</p> <ul style="list-style-type: none"> ■ For environmental compliance, maintaining at least a 6-foot thick layer of cover soils over the refuse; this would require special permitting from Regional Water Quality Control Board (RWQCB) as a monolithic cover system ■ Pre-loading areas where structures are planned to reduce the elastic component of the refuse settlement ■ In-situ improvement of the upper portions of the refuse through the use of dynamic compaction ■ Including a synthetic reinforcement material in the 6-foot thick cover soil layer to create a stiff layer of soil capable of supporting structures and tending to distribute the effects of differential settlement <p><i>It is anticipated that all project and program level elements (Park, Tree, and Landscape Maintenance Area; Consolidated Camping Area; Low Intensity Recreation Area; and Sully Miller Lake Group Facility) requiring development over landfill materials, potentially expansive soils, areas with peat organic soils, and areas underlain by liquefaction prone soils will require mitigation similar to that outlined in Measure Geology-1</i></p>	4.5 (Geology and Soils)	<i>MM 4.5-1 satisfies this requirement since designs shall conform to guidelines and recommendations contained in the Geotechnical Evaluation prepared for the project.</i>

Table 4-1 Mitigation Measures Incorporated from Master Plan of Recreation Uses MMP

Mitigation Measure	Incorporated into EIR Section(s)	Notes
<p>Measure Geology-2</p> <p>Prior circulation of plans and specifications for construction of the Sports Complex element of the proposed Master Plan, the City of Huntington Beach shall undertake sufficient engineering analysis to specify earthwork techniques to mitigate for the presence of peat, alluvial, and colluvial soils. The potential to design structures to accommodate the potential settlement resulting from compression of those materials may be considered. Alternatively, compressible soils may be removed and replaced with engineered fill that is less compressible or is reworked during grading to reduce compressibility. Other construction techniques such as dynamic compaction, compaction grouting, or vibro flotation/replacement can be used to improve the materials in-situ (i.e., in place) so that they are not as susceptible to compression.</p> <p><i>It is anticipated that all project and program level elements (Park, Tree, and Landscape Maintenance Area; Consolidated Camping Area; Low Intensity Recreation Area; and Sully Miller Lake Group Facility) requiring development over landfill materials, potentially expansive soils, areas with peat organic soils, and areas underlain by liquefaction prone soils will require mitigation similar to that outlined in Measure Geology-2.</i></p>	4.5 (Geology and Soils)	<i>Incorporated as MM 4.5-4(b)</i>
<p>Measure Geology-3:</p> <p>During construction of the Sports Complex element of the proposed Master Plan, the Construction Contractor shall ensure that all soils on the site impacted by proposed foundation loads and pavements will be improved as required. Typically, improvement consists of removing the materials to a predetermined depth below the proposed foundations and pavement sections, adjusting the moisture content of materials so that they can be optimally compacted, and replacing and compacting the materials back into the zone below the foundations and pavement sections.</p> <p><i>It is anticipated that all projects and program level elements (Park, Tree, and Landscape Maintenance Area; Consolidated Camping Area; Low Intensity Recreation Area; and Sully Miller Lake Group Facility) requiring development over landfill materials, potentially expansive soils, areas with peat organic soils, and areas underlain by liquefaction prone soils will require mitigation similar to that outlined in Measure Geology-3.</i></p>	4.5 (Geology and Soils)	<i>MM 4.5-1 satisfies this requirement since designs shall conform to guidelines and recommendations contained in the Geotechnical Evaluation prepared for the project.</i>

Table 4-1 Mitigation Measures Incorporated from Master Plan of Recreation Uses MMP

Mitigation Measure	Incorporated into EIR Section(s)	Notes
<p>Measure Geology-4:</p> <p>Prior to issuance of building permits and development of the Sports Complex element improvements located in the construction debris portion of the landfill, a minimum 4-foot thick soil cover layer must be maintained to serve as a monolithic cover system. Because the inert debris disposal pit was permitted by the RWQCB, it is anticipated that a properly designed monolithic cover system will be accepted and would allow for irrigated land uses.</p> <p><i>It is anticipated that all projects and program level elements (Park, Tree, and Landscape Maintenance Area; Consolidated Camping Area; Low Intensity Recreation Area; and Sully Miller Lake Group Facility) requiring development over landfill materials, potentially expansive soils, areas with peat organic soils, and areas underlain by liquefaction prone soils will require mitigation similar to that outlined in Measure Geology-4</i></p>	4.5 (Geology and Soils)	<i>MM 4.5-1 satisfies this requirement since designs shall conform to guidelines and recommendations contained in the Geotechnical Evaluation prepared for the project.</i>
<p>Measure Geology-5</p> <p>The City of Huntington Beach will include in the plans and specifications for the Sports Complex element of the proposal Master Plan the need to remove collapsible materials prior to construction of any structures or pavement.</p> <p>The City of Huntington Beach will also include in the plans and specifications for the Sports Complex element of the proposed Master Plan the need to reduce the potential for damage from expansive soils through incorporation of appropriate engineering, design, and construction methods. These methods typically include either reworking the materials so that they are placed at a moisture content and density that is less susceptible to expansion or treatment of the expansive soils with lime to stabilize them.</p> <p><i>It is anticipated that all projects and program level elements (Park, Tree, and Landscape Maintenance Area; Consolidated Camping Area; Low Intensity Recreation Area; and Sully Miller Lake Group Facility) requiring development over landfill materials, potentially expansive soils, areas with peat organic soils, and areas underlain by liquefaction prone soils will require mitigation similar to that outlined in Measure Geology-5</i></p>	4.5 (Geology and Soils)	<i>Incorporated MM 4.5-1 satisfies this requirement since designs shall conform to guidelines and recommendations contained in the Geotechnical Evaluation prepared for the project's MM 4.5-5</i>

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<i>Mitigation Measure</i>	<i>Incorporated into EIR Section(s)</i>	<i>Notes</i>
<p>Measure Geology-6: The City of Huntington Beach shall include in the plans and specifications for the Sports Complex element of the proposed Master Plan the need to incorporate appropriate design and construction measures related to correction of corrosive soils' potential to corrode ferrous materials through:</p> <ul style="list-style-type: none"> ■ Proper selection of construction materials ■ Cathodic protection, including sacrificial rods or materials ■ Removal of the corrosive materials adjacent to the ferrous materials and replacement with non-corrosive soils ■ Concrete elements that will be in contact with potentially corrosive materials can be designed using special cement that is more resistant to corrosion <p>It is anticipated that all project and program level elements (Park, Tree, and Landscape Maintenance Area; Consolidated Camping Area; Low Intensity Recreation Area; and Sully Miller Lake Group Facility) requiring development over landfill materials, potentially expansive soils, areas with peat organic soils, and areas underlain by liquefaction prone soils will require mitigation similar to that outlined in Measure Geology-1</p>	4.5 (Geology and Soils)	<i>Incorporated as MM 4.5-4(c)</i>
HAZARDS ISSUES		
<p>Measure Hazards-8: Appropriate methane mitigation features such as gas detectors, gas migration barriers, venting systems, and classified electrical installation shall be incorporated into plans and specifications for all proposed structures overlaying the former landfill and within 1,000 feet of the perimeter of the landfill. Design consideration for potential LFG migration through pipes, trenches, or other conduits shall be incorporated into Plans and Specifications. Methane migration features will be consistent with the requirements of the City of Huntington Beach Specification Number 429 and other applicable State and Federation regulations. The methane migration features shall be submitted for review and approval to the Orange County Health Care Agency, Environmental Health Division, which is the LEA for all cities and unincorporated areas of Orange County.</p>	4.6 (Hazards and Hazardous Materials)	<i>Incorporated as MM 4.6-1(d)</i>

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<i>Mitigation Measure</i>	<i>Incorporated into EIR Section(s)</i>	<i>Notes</i>
<p>Measure Hazards-9: Any unrecorded or unknown wells uncovered during the excavation or grading process shall be immediately reported to and coordinated with the City and DOGGR. In addition, should any unknown and unexpected landfills be excavated and discovered during the construction phase of the proposed project, construction work will be immediately halted and LEA will be notified. Further construction operations will resume at the discretion of LEA and upon work approval by LEA.</p>	<p>4.6 (Hazards and Hazardous Materials)</p>	<p><i>Incorporated as MM 4.6-1(c)</i></p>
<p>Measure Hazards-15: Prior to construction of the Sports Complex, Park, Tree and Landscape Maintenance yard Expansion, Consolidated Camping Area, and Low-Intensity Recreation elements of the Master Plan, the City of Huntington Beach Fire Department and Public Works Department shall review all construction plans and specifications to ensure that the specifications require that each contractor involved in grading activities develop a site- and action-specific comprehensive Health and Safety Plan. The plans and specifications will require that the Health and Safety Plan be developed using the information available about past uses of those sites and the possibility that solid waste, PCH-contaminated soils, and/or potentially hazardous waste materials could be encountered.</p>	<p>4.6 (Hazards and Hazardous Materials)</p>	<p><i>Incorporated as MM 4.6-1(a)</i></p>
HYDROLOGY ISSUES		
<p>Measure Water-2 The construction contractor will be required to incorporate Best Management Practices (BMPs) consistent with the guidelines provided in the California Storm Water Best Management Practice Handbooks for Construction and Industrial/Commercial Activities, and Appendices F and G of the DAMP. Revegetation of cut and fill slopes resulting from project development will be undertaken with native vegetation or compatible non-invasive drought tolerant species wherever feasible. Compliance with this mitigation measure shall be demonstrated prior to issuance of grading permits or building permits, whichever comes first.</p>	<p>4.7 (Hydrology and Water Quality)</p>	<p><i>Incorporated as MM 4.7-1</i></p>

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<i>Mitigation Measure</i>	<i>Incorporated into EIR Section(s)</i>	<i>Notes</i>
<p>Measure Water-3</p> <p>The construction manager will be required to incorporate City Ordinance No. 3364 entitled "Storm Water Urban Runoff Management:" and Best Management Practices (BMPs) consistent with the guidelines provided in the California Storm Water Best Management Practice Handbooks: Municipal to ensure control of flood hazards and water quality prior to issuance of grading permits or building permits, whichever comes first.</p>	4.7 (Hydrology and Water Quality)	<i>Incorporated as MM 4.7-1</i>
<p>Measure Utilites-8</p> <p>The City of Huntington Beach will require that design of program level elements will be undertaken such that there are no substantial increases in the rate and amount of surface runoff. Incidental drainage will be routed off of the site to existing storm drains. It is assumed that any necessary improvements to existing storm drain systems will be completed before the completion of program level elements.</p>	4.7 (Hydrology and Water Quality)	<i>Incorporated as MM 4.7-2.</i>
NOISE ISSUES		
<p>Measure Noise-3</p> <p>The City of Huntington Beach shall limit grading and construction activities to daily operation hours between 7:00 A.M. and 7:00 P.M. (Monday through Friday) and 8:00 A.M. to 5:00 P.M. on Saturdays. Construction shall not take place on Sundays or Federal holidays.</p>	4.9 (Noise)	<i>Incorporated as MM 4.9-1(a)</i> <i>This measure was originally intended for the project level elements that included near-term construction. Since the project site is now proposed as such, this measure is considered applicable to the proposed project.</i>
<p>Measure Noise-4</p> <p>The construction manager shall ensure that all construction and grading equipment is properly maintained and turned off when not in use.</p>	4.2 (Air Quality)	<i>Incorporated as MM-4.2-2(b)</i> <i>This measure was originally intended for the project level elements that included near-term construction. Since the project site is now proposed as such, this measure is considered applicable to the proposed project.</i>
<p>Measure Noise-5</p> <p>The U.S. Environmental Protection Agency has estimated that noise levels from construction equipment can be lowered as much as 13 dBA by implementing noise control features that require no major redesign or extreme cost. The City of Huntington Beach shall require that all construction equipment incorporate noise reduction control features. All vehicles and compressors should utilize exhaust mufflers, and engine enclosures as designed by the manufacturer should be in place at all times.</p>	4.9 (Noise)	<i>Incorporated as MM 4.9-1(b)</i>

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Mitigation Measure	Incorporated into EIR Section(s)	Notes
PUBLIC SERVICES		
Measure Public Services-3: The City of Huntington Beach will design the proposed tot lot areas in the Park to allow visibility in those areas. This will discourage loitering and crime, as well as provide a greater sense of safety to the users of these areas.	N/A	<i>This measure is no longer applicable to the project.</i>
RECREATION ISSUES		
Measure Recreation-1: At least thirty days prior to construction, the City of Huntington Beach shall post signs in the vicinity of the Low Intensity Recreation Area indicating the proposed construction schedule and alternate recreation facilities (including location and hours of operation) located in the service area for passive recreation use that can be used during the construction period.	4.11 (Recreation)	<i>Incorporated as MM 4.11-1</i>
UTILITIES ISSUES		
Measure Utilities-3 Prior to final design of the Sports Complex, the City of Huntington Beach will conduct a sewer flow monitoring test to determine the capacity of the existing 15-inch diameter pipeline in Golden West Street. If the existing capacity is determined to be inadequate to accommodate the proposed project's sewage flow, replacement of a determined portion of the sewer line shall be undertaken at that time. An 8-inch diameter collector sewer line will be required for carrying waste discharges from the project.	4.13 (Utilities and Service Systems)	<i>This measure was originally intended for the Sports Complex. Since the proposed project site includes structural development at the Low Intensity Recreation Area, this measure is considered applicable to the proposed project. The analysis provided in Section 4.13 determined that the existing infrastructure has adequate capacity for the proposed project. No further mitigation was required.</i>

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<i>Mitigation Measure</i>	<i>Incorporated into EIR Section(s)</i>	<i>Notes</i>
<p>Measure Utilities-7</p> <p>If the Green Acres Project is not yet operational and able to supply water to the program level elements of the Master Plan prior to the development of final plans and specifications, additional studies will be undertaken to determine the extent to which one or a combination of the following measures will be necessary to reduce impacts to water supply systems for program level elements during the interim until water from the Green Acres Project is available:</p> <ul style="list-style-type: none"> ■ Reduce the required irrigable areas by 10 percent; ■ Enhance the utilization of existing groundwater systems (i.e., subpotable wells); or ■ Supplement the irrigation supply with water from the domestic water system. 	4.13 (Utilities and Service Systems)	<i>Incorporated as MM 4.13-2(c)</i>
<p>Measure Utilities-9</p> <p>Prior to construction of program level elements, additional electrical load analyses shall be undertaken to determine the need for additional electrical transformers.</p>	4.13 (Utilities and Service Systems)	<i>Incorporated as MM 4.13-8(b)</i>

