

## **5.6 PUBLIC SERVICES AND UTILITIES**

*Public services include services such as fire protection, police protection, schools, libraries and parks. Utilities include wastewater, water, solid waste, electricity, gas, telephone, and cable. The purpose of this section is to establish existing conditions for each provider, identify potentially significant impacts and recommend mitigation measures to reduce the significance of such impacts. The primary question regarding utilities and services, relative to the CEQA process, is whether or not the project has any direct effect on the physical environment through impacts to existing facilities or the requirement to construct new facilities, particularly where such impacts would have an adverse impact on the environment. Information in this section is based on the City of Huntington Beach General Plan, City of Huntington Beach General Plan EIR, and correspondence from public service and utilities agencies (refer to Appendix J, CORRESPONDENCE).*

### **EXISTING CONDITIONS**

#### **Fire Service**

The City of Huntington Beach Fire Department operates a total of eight fire stations within the City, including:

- ~ Station 1 (Gothard Station), located at 18311 Gothard Street;
- ~ Station 2 (Murdy Station), located at 16221 Gothard Street;
- ~ Station 3 (Bushard Station), located at 19711 Bushard Street;
- ~ Station 4 (Magnolia Station), located at 21441 Magnolia Avenue;
- ~ Station 5 (Lake Station), located at 530 Lake Street;
- ~ Station 6 (Edwards Station), located at 18590 Edwards Street;
- ~ Station 7 (Warner Station), located at 3831 Warner Avenue; and
- ~ Station 8 (Heil Station), located at 5890 Heil Avenue.

The fire stations serving the project vicinity are Stations 3, 4, and 5. The fire station nearest the project site is Station 4 (Paramedic Engine Company, staff of four), located at 21441 Magnolia Street approximately 0.5 miles from the subject site. Fire Station 3 (Paramedic Engine Company, staff of four) is located at 19711 Bushard Street approximately three miles from the site. Station 5, situated approximately 2.5 miles from the project site, is composed of a Paramedic Engine Company (staff of four), 95-foot aerial ladder (staff of four), and one ambulance (staff of two Emergency Medical Technicians). The average response times to the project site are four minutes from Station 4 and six to seven minutes from Stations 3 and 5. The current Insurance Services Office (ISO) rating of the site is ISO Class I.<sup>1</sup>

#### **Police Service**

The proposed project site is served by the City of Huntington Beach Police Department, which operates through one central police station and two smaller substations. Facilities and their locations are as follows:

- ~ Police Headquarters, located at 2000 Main Street;
- ~ Oakview Center Substation, located at 17483 Beach Boulevard, Suite B; and
- ~ Downtown Substation, located at 204 Fifth Street;

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<sup>1</sup> Letter, Fire Marshall Eric Engberg, City of Huntington Beach Fire Department, December 6, 2004.

The Police Headquarters facility, located at 2000 Main Street, serves the entire City population of approximately 200,000 residents spread over 28 square miles. Average emergency response times are approximately four minutes. Approximately two to four officers per shift serve the project site vicinity at any one time.<sup>2</sup> The nearest police facility to the project is the Downtown Substation, situated approximately two miles northwest of the subject site.

### Schools

The proposed project site is within the jurisdiction of the Huntington Beach Union High School District and the Huntington Beach City School District. The Huntington Beach Union High School District currently has a total of nine facilities within the Cities of Huntington Beach, Westminster, and Fountain Valley. The high school nearest the subject site is Edison High School, located approximately 0.8 miles to the northeast at 21400 Magnolia Avenue. Edison High School had an actual enrollment of 2,344 students for the fall of 2004.<sup>3</sup>

The Huntington Beach City School District has a total of 12 facilities within the City of Huntington Beach. Ten facilities are active schools, while two are currently inactive. The elementary schools nearest the proposed desalination project site are William E. Kettler Elementary School, located at 8750 Dorsett Drive, and John H. Eader Elementary School, located at 9291 Banning Avenue. Both schools are situated approximately 1.5 miles from the desalination facility site. Also in the project vicinity is Isaac Sowers Middle School, located approximately two miles from the desalination facility site at 9300 Indianapolis Avenue. William E. Kettler Elementary has an enrollment of 434 students, John H. Eader Elementary has an enrollment of 563 students, and Isaac Sowers Middle has an enrollment of 1,257 students.<sup>4</sup>

### Libraries

The Huntington Beach Library System consists of five facilities, including:

- Huntington Central Library and Cultural Center, located at 7111 Talbert Avenue;
- Graham Branch Library, located at 15882 Graham Street;
- Oakview Branch Library, located at 17251 Oak Lane;
- Banning Branch Library, located at 9281 Banning Avenue; and
- Main Street Branch Library, located at 525 Main Street.

The Banning Branch Library serves the project vicinity and is located approximately two miles northwest of the subject site. The Banning Branch Library is a small facility and is approximately 2,400 square feet in size. This facility has on average 214 visitors per day and holds 24,197 volumes.<sup>5</sup>

### Roadway Maintenance

The City of Huntington Beach Public Works Department provides roadway maintenance to the City of Huntington Beach. The Department performs regular maintenance on City-owned roadways in the form of re-paving, pothole/curb repairs, and striping, as well as roadway widenings, expansions, and improvements. The City of Huntington Beach Public Works Department recently conditioned

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<sup>2</sup> Letter, Lieutenant Tom Donnelly, City of Huntington Beach Police Department, November 18, 2004.

<sup>3</sup> Letter, Ms. Patricia Koch, Huntington Beach Union High School District, November 28, 2004.

<sup>4</sup> Letter, Mr. Richard Masters, Huntington Beach City School District, December 4, 2004.

<sup>5</sup> City of Huntington Beach General Plan, Public Facilities and Public Services Element, May 13, 1996.

the widening of both Newland Street (located west of the subject site) and Edison Avenue (situated north of the subject site). The applicant would be required to complete improvements along the southern side of Edison Avenue as a condition of approval for the project, while the City would be responsible for street improvements along Newland Street with the applicant responsible for paying their fair share and completing the landscaping improvements adjacent to their site. For more information refer to the "IMPACTS" section below.<sup>6</sup>

### Parks and Recreation

The City of Huntington Beach contains 71 parks with a total area of 577.28 acres. The City's park system includes six mini-parks totaling 2.7 acres, 58 neighborhood parks totaling 157.39 acres, seven community parks totaling 143.28 acres, and two regional parks (Huntington Central Park and Blufftop Park) encompassing 376 acres. Other recreational opportunities within the City include two publicly owned golf courses, Huntington Beach City Gym and Pool, Oak View Center, various bikeways, and approximately two miles of equestrian trails. The City's coastal recreational facilities include the Huntington Beach Municipal Pier, various beach parks, recreational vehicle (RV) camping, and Huntington Harbor (a popular boating area).<sup>7</sup> The recreational facilities nearest the project site are Edison Community Center, Huntington State Beach, and Huntington City Beach, all of which are located within a radius of approximately 0.5 miles. It should also be noted that the City of Huntington Beach is planning to coordinate with the County of Orange to examine the feasibility of a landscaped riding/hiking trail along the Huntington Beach Channel, adjacent to the subject site. The proposed location and points of connection for the trail would be refined during the planning process for the trail.

### Wastewater

The Orange County Sanitation District (OCSD) and the City of Huntington Beach Public Works Department, Utilities Division provides sanitation treatment and sewerage services for the City of Huntington Beach. Presently, 98 percent of the City is connected to the sewer system while the remainder uses septic tanks. The two wastewater treatment plants serving the City of Huntington Beach, Plant 1 and Plant 2, perform primary and secondary treatment procedures and are operated by the OCSD. OCSD Plant 2 would likely serve the proposed project. Within the City, the wastewater system is comprised of major trunk lines, smaller feeder lines, and lift stations. The OCSD has developed engineering plans for plant improvements anticipated to meet the needs of the City to the year 2050.<sup>8</sup>

The nearest City sewer line is an eight-inch line located north of the project site running along the southern side of the Huntington Beach Channel operated by OCFCD in an east-west direction.<sup>9</sup> A 48-inch Orange County Sanitation District (OCSD) trunk line exists along Newland Street, an 84-inch line exists within Pacific Coast Highway, and a 78-inch line is situated within Magnolia Street. OCSD lines also traverse and exist adjacent to the various proposed pipeline alignment alternatives associated with the seawater desalination project.<sup>10</sup> An additional private sewage system is located on the HBGS property, which flows by gravity to an on-site sewage ejector station and is conveyed to OCSD for treatment.

<sup>6</sup> Letter, Terri Elliot/Duncan Lee, City of Huntington Beach Public Works Department, December 1, 2004.

<sup>7</sup> City of Huntington Beach General Plan, Recreation and Community Services Element, May 13, 1996.

<sup>8</sup> City of Huntington Beach General Plan, Utilities Element, May 13, 1996.

<sup>9</sup> Letter, Duncan Lee, Principal Civil Engineer, City of Huntington Beach Public Works Department, December 1, 2004.

<sup>10</sup> Map provided by Angie Anderson, Orange County Sanitation District, September 6, 2001.



## Storm Water Drainage

The OCFCD and the City of Huntington Beach Public Works Department operate the storm water drainage system within the City of Huntington Beach. The storm drainage system removes water runoff from streets and transports the runoff to the ocean. The OCFCD owns, operates, maintains, and improves regional flood control facilities. The City of Huntington Beach owns and operates 15 storm drainage channel pumping stations, which pump the runoff water into the channels and to the ocean. No runoff from the project site is currently conveyed to the Pacific Ocean via City storm drainage facilities, as only OCFCD facilities provide service to the subject site. The closest storm channel near the project site is the OCFCD Huntington Beach storm channel (DO1) located to the north and east of the site, which confluences with the Talbert Channel (DO2) downstream and eventually flows into the Pacific Ocean.<sup>11</sup> Presently, the County and City are in the process of improving flood control facilities to accommodate higher levels of storm water.<sup>12</sup> The OCFCD has recently improved the Huntington Beach Channel (adjacent to the subject site) in the vicinity of the project site to obtain 100-year regional flood protection.<sup>13</sup>

## Water

The Huntington Beach Utilities Division currently produces approximately 35,000 acre feet of potable water per year (afy), an average daily production of 48 cubic feet per second (cfs), and a maximum daily peak of 50 million gallons per day (mgd).<sup>14, 15</sup> Currently, 66 percent of the City's water is supplied by groundwater wells located within the City, while 34 percent is imported from the Metropolitan Water District (MWD). Facilities within the City of Huntington Beach consist of 480 miles of water lines (ranging from 2-inch to 42-inch in diameter), water booster pumps, and five reservoirs with a combined capacity of 55 million gallons.<sup>16</sup>

Distribution piping in the area consists of looped 12-inch diameter asbestos cement (AC) pipe within Hamilton Avenue, Magnolia Street, and Newland Street. Pipelines within Pacific Coast Highway consist of 10-inch and 12-inch AC pipe. As part of a service agreement, the HBGS recently completed a major modification, which includes distributing 10- and 12-inch piping around the entire HBGS property and the proposed project as well as relocating their meter service from Pacific Coast Highway to Newland Street.<sup>17</sup> The City is also in the process of siting a new water storage tank within a portion of the AES site (north of the subject site), to improve water service to the local water pressure zone.

## Reclaimed Water

The City of Huntington Beach participated in the Green Acres project (GAP) in association with the OCSD and the Orange County Water District (OCWD). However, the City has only one Green

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<sup>11</sup> Letter, R.S. Bavan, Manager, County of Orange Resources and Department Management Department, December 30, 2004.

<sup>12</sup> City of Huntington Beach General Plan, Utilities Element, May 13, 1996.

<sup>13</sup> Telephone conversation with Albric Ghokasian, OCFCD, November 23, 2004.

<sup>14</sup> Letter, Todd Broussard/Duncan Lee, Principal Civil Engineer, City of Huntington Beach Public Works Department, December 1, 2004.

<sup>15</sup> Note: Maximum daily peak demand was calculated as a worst-case scenario assuming peak water use plus two major fire events within the City.

<sup>16</sup> City of Huntington Beach General Plan, Utilities Element, May 13, 1996.

<sup>17</sup> Letter, Todd Broussard/Duncan Lee, Principal Civil Engineer, City of Huntington Beach Public Works Department, December 1, 2004.

Acres project connection, which has not taken water for years. The OCSD produces secondary treated water for the OCWD, where the water is further treated and is distributed for industrial use and landscape irrigation for the Cities of Fountain Valley, Santa Ana, Costa Mesa, and Newport Beach. In addition, the Ground Water Replenishment System (GWRS) is a major new reclamation project currently being developed by the OCSD and OCWD. At the present time, no reclaimed water conveyance facilities are available at or near the subject site, and it is not anticipated that the proposed desalination project would require the use of reclaimed water.<sup>18</sup>

### **Solid Waste**

The County of Orange owns and operates three active landfills. Of the three active landfills, the Frank R. Bowerman Landfill in Irvine and the Alpha Olinda landfill in Brea are currently used in disposal of solid waste from the project site vicinity. The closest facility to the project is the Frank R. Bowerman landfill, which would likely be the solid waste facility receiving waste from the proposed project site. Rainbow Disposal has been contracted by the City of Huntington Beach to provide solid waste collection services under a long-term contract. The City generates approximately 348,219 tons of solid waste per year, resulting from 52,220 tons of commercial waste, 155,625 tons of residential waste, and 140,374 tons of demolition/industrial waste.<sup>19</sup> The City is responsible for meeting the Assembly Bill 939 (AB 939) mandate of 50% disposal reduction by the start of 2000, and for preparing AB 939 solid waste planning documents. Rainbow Disposal currently transports City solid waste to a transfer station located within the City and then to either Frank R. Bowerman Landfill or Alpha Olinda Landfill.<sup>20</sup>

The California Integrated Waste Management Board requires that all counties have an approved Countywide Integrated Waste Management Plan (CIWMP), which requires sufficient solid waste disposal capacity for at least 15 years. The Orange County landfill system has capacity in excess of 15 years. Consequently, it may be assumed that adequate capacity for the project area is available for the foreseeable future. With regards to daily disposal limitations, the Frank R. Bowerman and Brea Olinda Landfills have been receiving refuse at rates near the maximum limit. As Orange County continues to develop, additional daily disposal demands upon County landfills may necessitate modifications to landfill permits, which would require separate discretionary review undertaken by the County of Orange.

### **Electricity**

The Southern California Edison Company (SCE) currently provides electrical service to the City of Huntington Beach. Major facilities owned by SCE within the City include six substations, various transmission lines and switchyards (AES currently owns and operates a power plant within the City, located along Pacific Coast Highway west of Magnolia Street, adjacent to the project site). Currently, SCE service meets the City's demands for electricity.<sup>21</sup>

### **Gas**

The City of Huntington Beach receives natural gas service from the Southern California Gas Company. The Gas Company receives natural gas from Southern California, Northern California, and out of state suppliers. The Gas Company has no immediate plans to update the existing

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<sup>18</sup> Letter, Duncan Lee, Principal Civil Engineer, City of Huntington Beach Public Works Department, December 1, 2004.

<sup>19</sup> City of Huntington Beach General Plan, Utilities Element, May 13, 1996.

<sup>20</sup> Letter, Ms. Sandra Jacobs, Rainbow Disposal Company, Inc., November 24, 2004.

<sup>21</sup> City of Huntington Beach General Plan, Utilities Element, May 13, 1996.

equipment or to implement new technologies aside from the routine maintenance checks and replacements of deteriorating supply lines. The Gas Company is currently meeting present demands and can supply additional natural gas to the City, if required.<sup>22</sup>

Southern California Gas Company facilities within the project vicinity include pipelines along Newland Street (located west of the project site) and Edison Avenue and Hamilton Avenue (located north of the project site).<sup>23</sup>

### **Telephone and Cable Service**

Verizon provides telephone service to the project vicinity. According to data provided by Verizon, telephone facilities in the project vicinity include lines located along Newland Street (located west of the project site), Edison Avenue (located north of the project site), and within HBGS property (located south of the project site).<sup>24</sup> Cable television service to the City of Huntington Beach is provided by Time Warner Communications. Existing facilities within the project vicinity are located along Newland Street, and are attached to existing SCE utility poles. There are no existing facilities within the proposed project boundaries.<sup>25</sup>

## **IMPACTS**

### ***Significance Criteria***

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, a significant impact to public services would occur if the project would result in:

- ❖ Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire protection;
  - Police protection;
  - Schools;
  - Parks;
  - Other public facilities.
  
- ❖ An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the park would occur or be accelerated;

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<sup>22</sup> City of Huntington Beach General Plan, Utilities Element, May 13, 1996.

<sup>23</sup> Letters, Mr. Robert Warth, Southern California Gas Company, July 2, 2001 and November 19, 2004.

<sup>24</sup> Letter, Mr. Tom Solano, Verizon, December 2, 2004.

<sup>25</sup> Telephone conversation, Mr. Bill Jankowski, Time Warner Communications, December 2, 2004.

- ❖ The inclusion of recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;
- ❖ An exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- ❖ The construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ❖ The construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ❖ Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- ❖ A determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- ❖ Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
- ❖ Comply with federal, state, and local statues and regulations related to solid waste.

### Fire Service

The project would comply with City of Huntington Beach Fire Department requirements, including the installation of fire sprinklers and fire hydrants. It is not anticipated that project implementation would result in the need for additional Fire Department facilities. The proposed project is not of the scope or nature to create a significant increase in demand for services requiring physical additions to the City of Huntington Beach Fire Department.<sup>26</sup> In addition, the City of Huntington Beach Fire Department, through mutual aid and automatic aid agreements with Orange County and the cities of Westminster, Santa Ana, Newport Beach, Fountain Valley, and Costa Mesa can provide additional staff as needed. Adequate emergency access would be provided in accordance with City and County requirements. Impacts are not anticipated to be significant.

### Police Service

The proposed project is not anticipated to create a significant increase in service calls to the project vicinity nor is it expected to create a need for additional police facilities within the City of Huntington Beach. No impacts are anticipated in this regard.<sup>27</sup>

### Schools

The proposed project involves the implementation of a seawater desalination facility within the southeastern portion of the City of Huntington Beach. The project does not propose housing or other student-generating uses. According to the Huntington Beach Union High School District, the project is anticipated to have negligible impacts on school facilities within the City of Huntington Beach, and is anticipated to have a student generation rate of .0000340242 per square foot. However, in consideration of A.B. 2926, the Applicant would be required to pay a commercial fee of \$0.36 per square foot for non-residential development within the Huntington Beach Union High School District, of which the High School District would receive 39 percent or \$0.1404 per square

<sup>26</sup> Telephone conversation, Fire Marshall Eric Engberg, City of Huntington Beach Fire Department, December 6, 2004.

<sup>27</sup> Letter, Lieutenant Tom Donnelly, City of Huntington Beach Police Department, November 18, 2004.

foot of the total fee.<sup>28</sup> The Huntington Beach City School District would receive the remaining 61 percent (\$0.2196 per square foot) of the commercial fee, and does not anticipate that the proposed project would have significant student-generating impacts or require other assessment fees or mitigation measures. The project is not expected to generate the need for additional school facilities.<sup>29</sup>

It should be noted that the Huntington Beach City School District is concerned that the proposed project may impact the health of its students that participate on the Dwyer and Sowers Middle School surf teams.<sup>30</sup> These concerns are addressed in Section 5.10, *OCEAN WATER QUALITY AND MARINE BIOLOGICAL RESOURCES*. No significant impacts are anticipated in this regard.

### Libraries

The proposed desalination project is not anticipated to have significant impacts on the City of Huntington Beach library system. Although the nearest library facility to the project site (the Banning Branch Library) is small in size (approximately 1,200 square feet) the project is anticipated to have a negligible impact on the branch. The applicant would be required to pay standard library enrichment fees concurrent with building permit issuance. The Library Department has two development fees associated with commercial construction, which include: 1) the Library Development Fee, which is \$0.04 per square foot; and 2) the Community Enrichment Library Fee, which is \$0.15 per square foot.<sup>31</sup>

### Roadway Maintenance

As previously stated, both Newland Street and Edison Avenue have been conditioned to be improved. As a condition of approval by the City of Huntington Beach for the proposed project, the applicant would be required to complete improvements along the southern side of Edison Avenue (situated north of the subject site as shown in Exhibit 3-2, *SITE VICINITY MAP*). These improvements would consist of the dedication of 12 feet along the frontage of the existing Edison Avenue (for curb, gutter, paving, and street lighting improvements) for a total of approximately 600 linear feet. It should be noted that AES Huntington Beach, LLC would be responsible for dedication of property to the City for these improvements, as AES owns the entire southern frontage of Edison Avenue and would lease property to the applicant for the proposed project. However, the project applicant would be responsible for completing these roadway and landscaping improvements as a condition of approval for the project subsequent to property dedication. It should also be noted that street widening along Newland Street (west of the proposed project site) would be performed by the City, with separate entitlements and environmental evaluation. AES Huntington Beach, LLC would dedicate 10 feet of right-of-way (to 50 feet east of centerline) along Newland Street and both AES and the project applicant would be required to pay their fair share of the cost. In addition, traffic impact fees as determined by the City of Huntington Beach would be collected upon project implementation in order to offset any costs incurred for roadway widenings and intersection capacity improvements.<sup>32</sup> Impacts in this regard are anticipated to be less than significant.

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<sup>28</sup> Letter, Ms. Patricia Koch, Huntington Beach Union High School District, December 2004.

<sup>29</sup> Letter, Mr. Richard Masters, Huntington Beach City School District, December 4, 2004.

<sup>30</sup> Letter, Mr. Richard Masters, Huntington Beach City School District, December 4, 2004.

<sup>31</sup> Letter, Mr. Ron Hayden, City of Huntington Beach Library Services Department, December 1, 2004.

<sup>32</sup> Letter, Todd Broussard/Duncan Lee, Principal Civil Engineer, City of Huntington Beach Public Works Department, December 1, 2004.

## Parks and Recreation

The recreational facilities nearest the project site are Edison Community Center, Huntington State Beach, and Huntington City Beach, all of which are located within a radius of approximately 0.5 miles. The proposed desalination project would be situated in an industrial area and would employ approximately 18 people, with five to seven people on duty during regular working hours Monday through Friday, and a minimum of two people on duty during swing shifts, graveyard shifts, and weekends. The project is anticipated to have a negligible impact on parks and recreation facilities within the City of Huntington Beach. Impacts in this regard are not expected to be significant.

## Wastewater

It is anticipated that either a new sewer line would need to be constructed to reach the existing 48-inch OCSD trunk line located along Newland Street, or the project would utilize the existing private sewer system on AES property. The proposed project would produce nominal amounts of domestic wastewater, as the facility would employ approximately 18 people, with five to seven on-site during weekdays and a minimum of two employees on-site during swing shifts, graveyard shifts, and weekends. However, desalination facility operation would require that used RO membrane cleaning first rinse solution is discharged into the local sanitary sewer for treatment at the OCSD regional wastewater treatment plant or the existing private sewer system on AES property. Approximately 500,000 gallons of used cleaning solution would be generated per month (90 percent rinse water and 10 percent cleaning solution). The OCSD would impose a commercial/industrial capital facility fee that is collected by the City of Huntington Beach and which the City retains five percent for collection purposes. This capital facility fee would offset any impact to the City and OCSD, and would be used to provide system improvements as necessary.

As stated previously in Section 3.0, *PROJECT DESCRIPTION*, the accumulation of silts or scale on the RO membranes would require periodic cleaning to remove these foulants and extend membrane life. Normally cleaning frequency is twice per year. To clean the membranes, a chemical cleaning solution is circulated through the membranes. The reverse osmosis system trains would be cleaned using a combination of cleaning chemicals such as industrial soaps (e.g. sodium dodecylbenzene, which is frequently used in commercially available soaps and toothpaste) and weak solutions of acids and sodium hydroxide (refer to Table 5.10-11, *REVERSE OSMOSIS MEMBRANE SOLUTION DISCHARGE VOLUMES*).

A portion of the waste cleaning solution from the washwater tank is proposed to be discharged into the local sanitary sewer for further treatment at the Orange County Sanitation District (OCSD) regional wastewater treatment facility. OCSD has indicated that its facilities are of adequate capacity to accommodate this waste cleaning solution.<sup>33</sup> This solution would be transported using a dedicated on-site pump station with a capacity of 150 to 200 gallons per minute (gpm) and a new eight-inch sewer conveyance pipeline leading off-site to the existing 48-inch OCSD sewer pipeline located within Newland Avenue or a 54-inch OCSD line within Pacific Coast Highway. OCSD has also indicated that the pH and flowrate of the washwater tank discharge would be acceptable, contingent upon the acquisition of a Sewer Connection Permit from the City of Huntington Beach and an Industrial Source Control Permit from the OCSD. It should be noted that the OCSD's Water Factory 21 used to discharge cleaning solution into the OCSD system, similar to the process the proposed desalination facility would utilize. Monitoring of waste cleaning solution water quality would be performed per the requirements of the OCSD for wastewater discharges to the sanitary sewer. The cleaning rinse water following the "first rinse" would be mixed with the RO facility

<sup>33</sup> Email between Nikolay Voutchkov, Poseidon Resources Corporation, and OCSD, May 29, 2002.

concentrated seawater, treated waste filter backwash, and the HBGS facility discharge and sent to the ocean. This “second rinse” water stream would contain trace amounts of cleaning compounds and would be below detection limits for hazardous waste. Cleaning of the RO system would be staggered so that on average, two RO trains would be cleaned per month after the first year or so of operation, resulting in approximately 500,000 gallons of used cleaning solution generated per month. Impacts on local wastewater facilities are not anticipated to be significant.

An alternative to discharging the RO membrane cleaning solution into the OCSD system is to discharge the solution into the Pacific Ocean via the HBGS outfall. Should this alternative be approved by the Santa Ana Regional Water Quality Control Board (SARWQCB), impacts to local wastewater facilities would be further minimized.

### Storm Water Drainage

No City of Huntington Beach storm drainage facilities exist within the project vicinity. It is anticipated that the majority of the subject site would be composed of impervious surfaces, thereby increasing the potential amount of surface runoff. However, an on-site local storm water drainage system would be implemented as part of the desalination facility site. The desalination facility area and aboveground product water storage tank area would feature catch basins and storm water pump stations to provide adequate drainage. Storm water flows would first be directed to catch basins by gravity, and would then be directed to a storm water pump via gravity lines. The water would then be pumped to the 48-inch by-product concentrated seawater discharge line that ultimately connects to the HBGS outfall line. As alternative options, the desalination facility’s on-site storm water system could discharge storm water to the HBGS on-site storm water system or the City of Huntington Beach local storm water system. The HBGS on-site storm water system conveys storm water to the Pacific Ocean via the HBGS outfall. The City of Huntington Beach’s storm water system conveys storm water to the Pacific Ocean via existing facilities operated by the City and OCFCD. No storm water would be discharged into the adjacent Huntington Beach Channel. A Water Quality Management Plan (WQMP) would be prepared for the proposed project as required by the SARWQCB.

Storm water would be treated prior to off-site discharge in order to minimize impacts from urban pollutants. One of two sedimentation methods would be utilized for treatment, including:

**Waste Filter Backwash Clarifiers:** The proposed desalination facility would utilize clarifiers for the purpose of settling the waste stream generated during the backwash of the pretreatment filters. During rainy events, storm water would be combined with the waste filter backwash water and settled in the filter backwash clarifiers. This clarified water would then be combined with the desalination facility’s concentrated seawater discharge and sent to the Pacific Ocean via the AES outfall. The waste filter backwash clarifiers would be oversized to accommodate the treatment of storm water.

**Sedimentation in Separate Clarifiers:** As an alternative to combining on-site storm water with the waste filter backwash, storm water directed to on-site storm drains could be treated in separate sedimentation clarifiers for storm water treatment only. Subsequent to clarification, this water would be discharged via the AES outfall with the desalination facility concentrated seawater discharge and AES cooling water.

The most viable storm water treatment alternative would be selected during the design phase of the project, in close coordination with the City of Huntington Beach, RWQCB, and HBGS staff. The storm water facilities would be designed to comply with all applicable requirements of the City of

Huntington Beach and the RWQCB. As a result of the proposed project, impacts are not anticipated to be significant.

### **Water**

Implementation of the proposed project would require new facilities to support operational uses (such as pipeline extensions, drinking fountains and restrooms), although these are not anticipated to create significant impacts. It is anticipated that normal domestic demand created by the proposed project can be provided with desalinated water generated on-site. However, should the project require potable water from the City, adequate backflow protection devices would be installed and maintained to ensure that no mixing of potable and subpotable water would occur. The Huntington Beach Utilities Division expects that impacts associated with the proposed project can be sufficiently mitigated.<sup>34</sup> With project implementation and appropriate mitigation, any potential impacts to water would be reduced to less than significant levels. It should also be noted that the proposed project would enhance drought resistance and provide emergency water supply to service areas on the coastal side to the Newport Inglewood Fault.

Refer to Section 5.11, *PRODUCT WATER QUALITY* for a discussion of impacts in regards to water product quality.

### **Reclaimed Water**

As stated above, the City of Huntington Beach is not currently participating in the GAP. The proposed project is not anticipated to require the use of reclaimed water or installation of reclaimed water facilities, as the project itself would be a new reclamation source. As a result, impacts in this regard are not anticipated to be significant.<sup>35</sup>

### **Solid Waste**

The Frank R. Bowerman and Alpha Olinda Landfills are the two landfills that are presently used in the disposal of municipal solid waste from the project area. The landfills have sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs. Rainbow Disposal Company is available to provide solid waste pick-up for the proposed project.<sup>36</sup> In addition, the applicant would prepare a waste reduction plan for the construction and demolition (C&D) waste generated from this project. Impacts in this regard are anticipated to be less than significant.

### **Electricity**

Based upon power consumption of 15 kilowatt hours per thousand gallons (4,887 kilowatt hours per acre-foot), the proposed 50 mgd (56,000 AF per year) desalination facility would require approximately 30 to 35 megawatts per hour to produce and distribute potable water. As such, the daily energy consumption of the facility is estimated to be between 720 to 840 megawatt hours per day.

In order to take advantage of lower cost power pricing, the facility may utilize off-peak power to the maximum extent practicable by temporarily halting the production of potable water from the facility and instead pumping product water from the product water storage tank. No back-up electrical generators would be incorporated into the proposed project site, as emergency power/back-up power would be drawn from the HBGS auxiliary reserve bank. Back-up power for the off-site

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<sup>34</sup> Letter, Mr. Todd Broussard, City of Huntington Beach Public Works Department, April 5, 2001.

<sup>35</sup> Letter, Duncan Lee, Principal Civil Engineer, City of Huntington Beach Public Works Department, December 1, 2004.

<sup>36</sup> Letter, Ms. Sandra Jacobs, Rainbow Disposal Company, Inc., November 24, 2004.

underground booster pump stations would be provided by underground generator sets using diesel fuel. Maximum emissions from the back-up off-site generators are limited to 500 hours of operation. The proposed desalination facility's electrical power source would be controlled by a power marketing company, which, in consultation with the California Independent System Operator (Cal ISO), would obtain power from the HBGS and/or the California power market at the lowest cost possible. As such, a variety of base-, intermediate- and peak-load power generating facilities may produce power for the desalination facility. Typically, base-loaded power plant's (such as California's two nuclear power plants and out-of-state coal-fired power plant's) as well as several large hydroelectric power dams are the primary source of off-peak power serving Southern California. Intermediate and peak load facilities are typically fossil fuel generating facilities (predominantly natural gas fired).

Electric power generating plant's are distributed throughout the state, and the project's electrical demand would be met by dozens of power plant's connected to a regional power supply source, with many of those plants located outside of Southern California. SCE is prepared to install electrical distribution facilities to the subject site.<sup>37</sup> As stated in Appendix Q, *REPORT ON LOCAL AND REGIONAL POWER REQUIREMENTS AND GENERATION RESOURCES*, the 35 megawatt project load would approximately equate to less than one percent of demand within Orange County or Southern California.<sup>38</sup> Thus, impacts in this regard are anticipated to be less than significant (also refer to Section 5.4, *AIR QUALITY*)

### Gas

The Southern California Gas Company can provide gas service to the proposed project via numerous gas mains surrounding the subject site.<sup>39</sup> Project implementation would not result in any construction related impacts to the service area. No impacts are anticipated in this regard.

### Telephone and Cable

Currently, Verizon has telephone facilities located along Newland Street (located west of the project site), Edison Avenue (located north of the project site), and within HBGS property (located south of the project site). Verizon would be available to provide telephone service to the subject site from existing facilities.<sup>40</sup> Cable television access to the City of Huntington Beach is provided by Time Warner Communications. Time Warner does not anticipate any impacts to its facilities as a result of project implementation. However, short-term impacts to Time Warner facilities may occur if utility poles along Newland Street are relocated.<sup>41</sup> Impacts are anticipated to be less than significant.

It should also be noted that the installation of the 42- to 48-inch product water delivery pipeline within existing street right-of-way (ROW) would consume underground space for utilities along the streets the pipeline is proposed to occupy. However, it is anticipated that the project's water delivery pipeline would be buried deep enough to allow for the installation of smaller utilities (telephone, cable television, electricity, small diameter pipes) crossing above. In addition, preliminary analysis indicates that there is adequate space in Hamilton Avenue for the proposed pipeline and its utilities. Future projects requiring space for underground utilities along the proposed

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<sup>37</sup> Telephone conversation, Ms. Spring Bowles, Southern California Edison, December 2, 2004.

<sup>38</sup> Local and Regional Electric Power Requirements and Generation Resources, Navigant, July 20, 2004.

<sup>39</sup> Letter, Mr. Robert Warth, The Gas Company, November 19, 2004.

<sup>40</sup> Letter, Mr. Tom Solano, Verizon, December 2, 2004.

<sup>41</sup> Telephone conversation, Mr. Bill Jankowski, Time Warner Communications, December 2, 2004.

project's pipeline alignment may be required to use an alternative route where adequate space is available.

## **MITIGATION MEASURES**

### **Fire Service**

None required.

### **Police Service**

None required.

### **Schools**

PSU-1 Prior to the issuance of building permits, the applicant will be required to pay applicable school mitigation fees pursuant to State law.

### **Libraries**

None required.

### **Roadway Maintenance**

PSU-2 The Applicant will be required to pay appropriate traffic impact fees as determined by the City of Huntington Beach Department of Public Works.

### **Parks and Recreation**

None required.

### **Wastewater**

PSU-3 The Applicant will be required to pay five percent of the OCSD connection fee to the City of Huntington Beach.

PSU-4 All work within, over and under the OCFCD and County of Orange right-of-way should not commence until encroachment permits for the proposed work have been obtained from the County.

### **Drainage**

Refer to Section 5.3, *HYDROLOGY AND WATER QUALITY*.

### **Water**

PSU-5 The Applicant will be required to pay appropriate fees for water service connections, installation, and meters. In addition, the City requires payment of a service fee for industrial customers.

### **Reclaimed Water**

None required.

**Solid Waste**

PSU-6 The Applicant will coordinate with the City's recycling representative to ensure that the proposed project is in compliance with the City's waste reduction and recycling program.

PSU-7 Prior to the issuance of a grading permit, the Applicant will prepare a waste reduction plan for the generation of construction and operational waste from the proposed project. This plan will be submitted to the recycling coordinator from the City of Huntington Beach who will ensure that AB 939 requirements are properly addressed.

**Electricity**

None required.

**Gas**

None required.

**Telephone and Cable Service**

None required.

**UNAVOIDABLE SIGNIFICANT IMPACTS**

None have been identified.