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August 12, 2016

San Diego Regional Water Quality Control Board  
Attention: Xueyuan Yu  
2375 Northside Dr., Suite 100  
San Diego, CA 92108

Subject: Comment – CWA Section 305(b)/303(d) Integrated Report, Attn: Xueyuan Yu

Ms. Yu,

Cabrillo Power I LLC (Cabrillo) has reviewed the San Diego Regional Water Quality Control Board's (SD RWQCB) draft Clean Water Act Sections 305(b) and 303(d) Integrated Report for the San Diego Region (Integrated Report) dated July 2016. Cabrillo also attended the public workshop that provided an overview of the procedures used to develop the Integrated Report on July 19, 2016. Cabrillo is the owner of the Agua Hedionda Lagoon (AHL) and discharges stormwater in accordance with its Industrial General Permit to the outer and middle basins of the AHL. Cabrillo discharges associated with the operation of the Encina Power Station, in accordance to its individual Industrial National Pollutant Discharge Elimination Permit (NPDES) NO. CA0001350, are directed to a discharge basin connected to the ocean (i.e., direct ocean discharge).

Cabrillo understands that the SD RWQCB has recommended listing the AHL on the 303(d) list for Toxicity based on sediment results from studies conducted in 2003, 2004, 2005 and 2008. Cabrillo understands the procedures followed in developing the Toxicity recommendation; however, we disagree with the recommendation and provide the following comments.

*Comment #1: Toxicity results 2003, 2004, 2005, and 2008*

The AHL has been recommended to be added to the 303(d) list for "toxicity," and this is assumed to be sediment toxicity based on the results of the County of San Diego Ambient Bay and Lagoon Monitoring (ABLM) Project 2003-2005 – Chemistry, Pathogens, Toxicity and Benthic Infauna, and the San Diego County Municipal Copermittees Bight 2008 Sediment Chemistry, Toxicity and Benthic Infauna Data (08 Bight) studies. The two studies yielded eight unique results for sediment toxicity for four years of testing over a six year period. Of the eight results, three tests reported survival endpoints below 80 percent and five results reported greater than 80 percent. The Draft 303(d) Fact Sheet provides the AHL summary of the Line of Evidence (LOE) for toxicity as record 47577, and LOE's 72909 for the 08 Bight study and 72914 for the ABLM study. LOE 72909 reports five samples with one toxicity exceedance. LOE 72914 reports three samples with three exceedances. The data were reviewed in the referenced reports and is summarized in the following tables. As mentioned above, the exceedance criteria is considered survival endpoints of less than 80 percent (State Water Resource Control Board, June 2012); however, the ABLM report has only two results below 80

percent and one result above 80 percent. Cabrillo recommends revising the LOE records 47577 to reflect three of eight samples reporting exceedances, and LOE 72914 to reflect two of three samples reporting exceedances.

County of San Diego Ambient Bay and Lagoon Monitoring (ABLM) Project 2003-2005 – Chemistry, Pathogens, Toxicity and Benthic Infauna				
Lagoon Station Code	Latitude	Longitude	Portion of the AHL	Sample Composite Identification
904_AHL2M_2003	33.14337	-117.33153	Inner lagoon	904AHL_2003
904_AHL3L_2003	33.13972	-117.32448	Inner lagoon	904AHL_2003
904_AHL3M_2003	33.14092	-117.32435	Inner lagoon	904AHL_2003
904_AHL2L2_2004	33.14169	-117.33084	Inner lagoon	904AHL_2004
904_AHL3L1_2004	33.13990	-117.32367	Inner lagoon	904AHL_2004
904_AHL3R1_2004	33.13968	-117.31826	Inner lagoon	904AHL_2004
904_AHL3L1_2005	33.14028	-117.32638	Inner lagoon	904AHL_2005
904_AHL3M1_2005	33.14228	-117.32652	Inner lagoon	904AHL_2005
904_AHL3R1_2005	33.14230	-117.32293	Inner lagoon	904AHL_2005

ABLM Toxicity Results		
Lagoon Station Code	Toxicity Results	Portion of the AHL
904AHL_2003	45%	Inner lagoon
904AHL_2004	85%	Inner lagoon
904AHL_2005	62%	Inner lagoon

San Diego County Municipal Copermittees Bight 2008 Sediment Chemistry, Toxicity and Benthic Infauna Data (08 Bight)				
Lagoon Station Code	Latitude	Longitude	Toxicity Results	Portion of the AHL
904_6269	33.13925	-117.33775	83%	Outer Lagoon
904_6270	33.13962	-117.31861	92%	Inner lagoon
904_6271	33.14016	-117.3251	61%	Inner lagoon
904_6280	33.14456	-117.32811	81%	Inner lagoon
904_6282	33.1451	-117.33565	87%	Middle Lagoon

#### *Comment #2: Toxicity Evaluation*

The State Water Quality Control Policy for Developing California's Clean Water Act 303(d) List (Policy) (State Water Resources Control Board, September 2004), section 6.1.1 states that the RWQCBs should consider all readily available data when making a determination. The Policy section 6.1.5.3 also states that, "If the implementation of a management practice(s) has resulted in a change in the water body segment, only recently collected data [since the implementation of the management measure(s)] should be considered." The most recent sediment toxicity testing of the AHL was performed in 2013 and reported in December 2015 (SCCWRP Technical Report 899, December 2015). The results of the testing reported three results for AHL. One sample was collected from the outer lagoon and two samples from the inner lagoon. All samples reported greater than 80 percent survival. In addition, the 2015 evaluation methodology meets the requirements of California's sediment quality objectives (SQO) policy for bays and estuaries (Draft Proposed Amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries Plan, Part I: Sediment Quality, SWRCB, January 2011) for having both short term survival and sublethal toxicity evaluation methods. The 2015 study used both *Eohaustorius*

*estuaries* and *Mytilus galloprovincialis* species to test each sample. The previous studies only used *Eohaustorius estuaries* to determine toxicity. Considering that the ABLM and 08 Bight studies were performed over a six year period, and when combined with the most recent 2013 results (decade temporal range), the cumulative data set may indicate improving sediment quality (Policy section 3.10).

It is also Cabrillo's understanding that ideally, sediment toxicity be associated with a specific pollutant (Policy section 3.6); however, we acknowledge that a water body can be listed for toxicity alone. Based solely on the results of the ABLM and 08 Bight studies, there does not seem to be any association or correlation with a specific pollutant that would explain the toxicity observed in both studies.

In addition, recent changes in State policies for banning the use of certain pesticides, improved storm water runoff programs (new General Permits for industrial and construction storm water runoff), and the recent local management plan aimed at improving water quality and habitat in the Agua Hedionda watershed (City of Vista, 2008), Cabrillo requests that the SD RWQCB consider postponing the addition of AHL to the 303(d) list for sediment toxicity.

#### *Comment #3 AHL Water Body Description and Beneficial Uses*

The AHL is described in the Water Quality Control Plan for the San Diego Basin (Basin Plan) Region describes as, "Agua Hedionda Lagoon, at the mouth of Agua Hedionda Creek, is within the city of Carlsbad. The lagoon is routinely dredged to keep it open to the ocean. The lagoon serves as an integral part of a utility's power plant cooling water intake system and also provides a reserve cooling water supply. The easterly portion of the lagoon is used for water oriented recreation." The AHL is listed as having the following uses: industrial (IND), contact and non-contact recreation<sup>1</sup> and 2 (REC1 and REC2), commercial and sport fishing (COMM), biological habitats of special significance (BIOL), estuary (EST), wildlife habitat (WILD), rare species habitat (RARE), marine (MAR), aquaculture (AQUA), migration of aquatic organisms habitat (MIGR), spawning and reproduction habitats (SPWN), and shellfish harvesting area (SHELL).

The AHL comprises approximately 247 acres consisting of three distinct lagoon areas. The outer lagoon is approximately 52 acres, the middle lagoon is approximately 19 acres, and the inner lagoon is approximately 176 acres. The lagoon areas are connected by narrow channels that run under major transportation corridors. All three basins of the AHL experience tidal influence, and to a lesser extent drainage from the Agua Hedionda Creek. Each of these portions of the AHL has different physical characteristics (tidal flushing and receiving waters) and uses.

- The outer lagoon currently supports the industrial uses for power plant intake of once-through cooling water, and desalination plant intake; and shellfish harvesting; and commercial fishery; and public access is restricted. Dredging of the outer lagoon is expected to continue to occur periodically, as needed, to maintain the power plant cooling and desalination plant intake systems. The dredging occurs in the most outer lagoon. The outer lagoon receives storm water runoff from the Encina Power Station western facilities, and runoff from the various City of Carlsbad streets and open areas, surrounding businesses.
- The middle lagoon is used for recreational contact and non-contact recreational activities (sporty fishing, YMCA Camp, etc.) with public access. The middle lagoon receives

storm water runoff from the Carlsbad Energy Center Project site (eastern portion of the EPS), the City of Carlsbad sewer lift station, Caltrans I-5 freeway, and the North County Transit District (NCTD) rail facility.

- The inner lagoon is utilized for contact and non-contact recreation and sport fishing with several public access points. The inner lagoon receives surface water from the Agua Hedionda Creek at the eastern end of the lagoon, and storm water runoff from various City of Carlsbad storm drains and the Caltrans I-5 freeway.

The Policy Section 6.1.5.4 recommends the RWQCB consider water body differences in land use, tributary inflow, or discharge input. The chemical and toxicity results from the ABLM and 08 Bight studies support the different water quality characteristics. The ABLM and 08 Bight studies also are consistent in that the reported failing toxicity results are all in the inner lagoon area. The outer and middle lagoon sections experience greater tidal flushing and the outer lagoon has significant sediment influx which requires periodic dredging events. In addition, if the AHL basins were treated as separate segments then the middle and outer lagoon would pass the toxicity evaluation criteria having no failing results reported.

Cabrillo respectfully requests SD RWQCB consider the different attributes and uses of AHL as described above, consider the respective toxicity data summarized above, and remove the recommendation to place AHL on the 303(d) list. If the SD RWQCB determines that the recommendation stands, Cabrillo requests the SD RWQCB consider breaking up the AHL into separate segments and only recommend listing the AHL inner lagoon for toxicity in the final report.

Cabrillo appreciates the opportunity to participate in the SD RWQCB's evaluation and 303(d) listing process. Should you have any questions regarding the enclosed you may contact Ms. Sheila Henika, P.E. at (760) 268-4018 or [sheila.henika@nrg.com](mailto:sheila.henika@nrg.com).

Regards,  
Cabrillo Power I LLC  
By: Its Authorized Agent,



By: NRG Cabrillo Operations Inc.  
Jerry Carter  
Plant Manager

cc: Ellan Lukey, City of Carlsbad  
Peter. MacLaggan, Poseidon Water  
Don Kent, Hubbs Seaworld