DOCKET NO.: 020745-WS - Application for Certificate to Provide Wastewater Service in Charlotte County by Island Environmental Utility Inc.

WITNESS: Direct Testimony of David A. Tomasko, Ph.D. Appearing on Behalf of the Staff of the Florida Public Service Commission.

DATE FILED: December 15, 2003

## DIRECT TESTIMONY OF DAVID A. TOMASKO, Ph.D.

- Q. Please state your name and business address.
- 3 A. David A. Tomasko, Ph.D., Southwest Florida Water Management District,
- 4 7601 Highway 301 North, Tampa, Florida 33637.
- 5 Q. Please state a brief description of your educational background and 6 experience.
- 7 A. B.S. in Biology from Old Dominion University. M.S. in Biology from 8 Florida Institute of Technology. Ph.D. in Biology from the University of
- 9 South Florida. Post-doctoral fellowship at the University of Texas Marine
- 10 | Science Institute.

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- 11 | Q. By whom are you presently employed?
- 12 A. The Southwest Florida Water Management District (SWFWMD).
- 13 Q. How long have you been employed with the SWFWMD and in what capacity?
- 14 A. I have been employed by the SWFWMD for 13 years. I began employment by
- 15 the Sarasota Bay National Estuary Program (SBNEP), the program was
- administered by the SWFWMD, thus making me an actual employee of the SWFWMD
- 17 since 1990. In 1984, I began working as a biologist. In 1995, I started
- 18 working half time with the SBNEP and half time with the SWFWMD. In 1997, I
- 19 started working full time for the SWFWMD.
- 20 Q. What are your general responsibilities at the SWFWMD?
- 21 A. My responsibilities include coordinating and/or conducting work for
- 22 developing pollutant loading assessments, water quality monitoring projects,
- 23 and the development of pollutant load reduction goals in the Surface Water
- 24 | Improvement Management priority water bodies such as Tampa Bay, Sarasota Bay,
- 25 | Lemon Bay and Charlotte Harbor.

- 1 | Q. Can you summarize the purpose of your testimony?
- 2 A. Island Environmental Utility, Inc. (Island) plans to serve Knight
- 3 | Island, Don Pedro Island and Little Gasparilla Island. My testimony will
- 4 include a discussion of the SWFWMD's 1999 Technical Report and the latest
- 5 study of this area, the classification of Lemon Bay and comments on the Lab
- 6 report from Sanders Laboratories, Inc. (Sanders Lab) listed as Exhibit LBB-2
- 7 of Ms. Bamfield's testimony.
- 8 Q. Are you familiar with application of Island proposed wastewater system
- 9 in Charlotte County?
- 10 A. Only to the extent that they propose to provide central wastewater
- 11 collection service to Knight Island, Don Pedro Island and Little Gasparilla
- 12 Island.
- 13 Q. Are you familiar with the SWFWMD's 1999 Technical Report?
- 14 A. Yes.
- 15 Q. Can you comment on the test results from the SWFWMD's 1999 Technical
- 16 | Report?
- 17 A. The report included two relevant reports that were funded and carried
- 18 out by District staff, with assistance from faculty and staff from the
- 19 University of South Florida. These reports focused on an assessment of
- 20 pathogen abundances in nearshore waters of Charlotte County. The report found
- 21 | several areas where indicator bacteria (i.e., fecal coliform bacteria) were
- 22 elevated above established thresholds for protecting human health.
- 23 potential link between contaminated surficial groundwater in areas of high
- 24 | septic tank densities was investigated. The report also found that indicators
- 25 | that were more specific to humans as a point of origin (enteroviruses,

- 1| enterococci bacteria) were typically elevated in these same locations.
- Q. Has the SWFWMD conducted any recent studies for contaminants, such as fecal coliform bacteria, in the Lemon Bay area?
- 4 A. The District does not sample for indicator bacteria in either Charlotte 5 Harbor or Lemon Bay. Recent work in Lemon Bay (2001 paper in the journal
- 6 "Estuaries") focused on the potential role of stormwater runoff, baseflow,
- 7 | rainfall and septic tank systems on the nitrogen loads coming into Lemon Bay.
- $8 \mid$  Stormwater runoff was the primary source of nitrogen loads to the bay.
- 9 Q. Can you explain how the waters of Lemon Bay are classified in terms of 10 shellfish harvesting?
- 11 A. The waters of Lemon Bay from Forked Creek down to the Charlotte County
- 12 line are classified as Class II waters, meaning they are conditionally
- approved for shellfish harvesting and consumption.
- Q. What are water quality standards for fecal coliform bacteria for
- 15 | harvesting and consumption of shellfish for Class II waters?
- 16 A. The water quality standards for fecal coliform bacteria for Class II
- 17 standards are the median value cannot exceed fourteen (14) colony forming
- 18 units (cfu) per 100 mililiters (ml) of water; not more than 10% of values can
- 19 exceed forty-three (43) cfu/100 ml, and no value can exceed 800 cfu/100 ml.
- 20 Q. Can you describe the test results used by Sanders Lab, which was listed
- 21 as Exhibit LBB-2 of Ms. Bamfield's testimony?
- 22 A. The results from Sanders Lab that were sent to me have a reported
- 23 detection limit of 100 cfu/100 ml for fecal coliform bacteria. A level of 100
- 24 colony forming units (cfu) per 100 ml is above the level considered safe for
- 25 consumption of shellfish. The "never to exceed" value for bodily contact

(Class III waters) for fecal coliform bacteria is 800 cfu/100 ml. It is not known if samples had levels of 1 cfu/100 ml (safe for swimming and shellfish consumption) or 99 cfu/100 ml (safe for swimming, but not for shellfish consumption). Laboratory results with a minimum detection limit of 100 cfu/100 ml (such as those presented from Sanders Lab) would only be able to detect "never to exceed" values for fecal coliform bacteria for Class II waters. To determine if those portions of Lemon Bay classified as Class II waters are meeting their designated uses, laboratory results with a detection limit quite a bit lower than 100 cfu/100 ml would be appropriate. Results with a lower detection limit might be worth pursuing.

- Q. Do you have anything further to add?
- 12 A. No, I do not.

## BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for certificate to provide wastewater service in Charlotte County by Island Environmental Utility, Inc.

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## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Direct Testimony of David A. Tomasko, Ph.D. has been furnished to the following individuals, by U.S. Mail, on this <u>15th</u> day of <u>December</u>, <u>2003</u>.

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