BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for increase in wastewater rates in Monroe County by KW Resort Utilities Corp.

Docket No. 150071-SU

/

K W RESORT UTILITIES CORP.'S REQUEST FOR OFFICIAL RECOGNITION

Applicant, KW Resort Utilities Corp., by and through his undersigned counsel and pursuant to Sections 120.569(2)(1), and 90.202, Florida Statutes, and Rule 28-106-213(6), Florida Administrative Code, requests this Commission to take official recognition of the Final Order of the Department of Environmental Protection in *Last Stand et al v. KW Resort Utilities Corp et al*, OGC Case No 14-0393, dated February 24, 2016.

1. Pursuant to Section 120.569(2)(i), Florida Statutes, and Rule 28-106-213(6), Florida Administrative Code, a party may seek official recognition of matters set forth in Section 90.202, Florida Statutes. The Final Order is an official action of an executive department of the State of Florida and is entitled to official recognition pursuant to subsection (5).

2. The Final Order referenced above is readily available to the parties, and has previously been provided to many of the parties; however, a copy will be provided to any party upon request to the undersigned. Further, a copy will be filed in this Docket along with this Request.

Respectfully submitted this 19th day of May, 2016, by:

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by E-mail to the following parties this 19th day of May, 2016:

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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

LAST STAND (PROTECT KEY WEST AND THE FLORIDA KEYS, d/b/a LAST STAND) and GEORGE HALLORAN,	)	
Petitioners,	)	
vs.	)	**OGC CASE NO. 14-0393**
	)	**DOAH CASE NO. 14-5302**
KW RESORT UTILITIES CORP. and FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION,	)	
Respondents.	)	

FINAL ORDER

An Administrative Law Judge (ALJ) with the Division of Administrative Hearings (DOAH) on January 15, 2016, submitted a Recommended Order (RO) to the Department of Environmental Protection (DEP or Department) in the above captioned administrative proceeding. A copy of the RO is attached hereto as Exhibit A. On January 26, 2016, counsel for the Petitioners, Protect Key West and The Florida Keys d/b/a Last Stand and George Halloran (Petitioners), filed a Motion for Additional Time to File Exceptions and Responses. The Motion was denied by Order dated January 27, 2016, and the Petitioners timely filed their Exceptions on February 1, 2016. The Respondent DEP timely filed its Exception on February 1, 2016. The Respondents, DEP and KW Resort Utilities Corp. (KWRU), filed responses to the Petitioners' Exceptions on February 11, 2016. KWRU also filed a response to the DEP's Exception

on February 11, 2016. This matter is now on administrative review before the Secretary of the Department for final agency action.

BACKGROUND

The Florida Legislature, in 2010, enacted Section 403.086(10), Florida Statutes, which addresses the discharge of domestic wastewater in the Florida Keys. That statute found that the discharge of inadequately treated and managed domestic wastewater from small wastewater facilities and septic tanks and other onsite systems in the Florida Keys compromises the coastal environment, including the nearshore and offshore waters, and threatens the quality of life and local economies that depend on these resources. Section 403.086(10) directs that after December 31, 2015, all new or expanded domestic wastewater discharges must comply with the treatment and disposal requirements of the statute and DEP rules. Specifically, domestic wastewater treatment facilities having design capacities greater than or equal to 100,000 gallons per day must provide basic disinfection of the wastewater pursuant to DEP rule and must treat the wastewater to a level of treatment, which, on a permitted annual average basis, produces an effluent that contains no more than the following concentrations of the specified constituents: Biochemical Oxygen Demand (CBOD5) of 5 milligrams per liter (mg/L); Suspended Solids of 5 mg/L; Total Nitrogen, expressed as N of 3 mg/L; and Total Phosphorus, expressed as P of 1 mg/L. Collectively, these effluent standards constitute the "advanced wastewater treatment" (AWT) standards.

Section 403.086(10)(e) also imposed requirements regarding disposal of treated domestic wastewater effluent through underground injection. Class V injection wells

serving domestic wastewater treatment facilities having design capacities of less than one million gallons per day (MGD) are to be at least 90 feet deep and cased to a minimum depth of 60 feet, or to such greater cased depth and total well depth as may be required by DEP rule. Class V injection wells serving wastewater treatment facilities with design capacities greater than or equal to 1 MGD, excluding backup wells, are to be cased to a minimum depth of 2,000 feet or to such greater depth as may be required by DEP rule.

The Respondent KWRU currently is permitted, pursuant to Permit FLA014591 (the Existing Permit), to operate a domestic wastewater facility (the Existing Wastewater Facility or Facility) located at 6630 Front Street, Stock Island, Florida. Stock Island is located immediately east and slightly north of Key West.

On April 15, 2014, KWRU applied to DEP for a permit modification seeking to expand the capacity of the Existing Wastewater Facility (proposed Project or Project). On June 23, 2014, DEP issued a Notice of Intent to Issue the wastewater facility permit modification and two underground injection control (UIC) permits for two new Class V injection wells (Permit at Issue). The Petitioners timely challenged the Permit at Issue and the case was referred to DOAH for assignment of an ALJ to conduct an administrative hearing. The hearing was conducted in April and May, 2015; the Hearing Transcript was filed on June 18, 2015; and the parties filed proposed recommended orders on July 20, 2015. The ALJ subsequently issued the RO on January 15, 2016.

SUMMARY OF THE RECOMMENDED ORDER

In the RO, the ALJ recommended that the Department enter a final order approving issuance of the Permit at Issue. (RO at page 114). The ALJ concluded that KWRU satisfied its burden to establish prima facie entitlement to the Permit at Issue. (RO ¶¶ 64-67, 76, 77, 125, 132, 138, 148-150, 189, 216, 230, 242, 243, 247, 252-253, 260, 262, 266, 272, 281, 297, 300, 314, 347, 355, 358, 359). The ALJ further concluded that the Petitioners alleged numerous grounds for denial of the Permit at Issue, but did not prove that the proposed Project, as designed, fails to comply with or violates Section 403.086(10) and applicable DEP rules. (RO ¶¶ 80, 86, 91, 92, 102, 105, 133, 139, 151, 190, 217, 218, 231, 238, 245, 248, 251, 254, 257, 265, 280, 287, 298, 345, 357). Thus, the ALJ ultimately concluded that KWRU provided reasonable assurances that the Project met all applicable permitting standards and requirements, including those established in Section 403.086(10). (RO ¶ 359).

Standing

The ALJ found that the individual Petitioner, George Halloran, demonstrated standing to challenge the Permit at Issue in this proceeding. (RO ¶ 305). The Petitioner Halloran presented evidence that he resides in Key West, Florida, that his residence fronts on the water and he owns a boat. He demonstrated that he and his family use and enjoy the waters around Key West for swimming, fishing, kayaking, and other in-water recreational uses. (RO ¶ 288). The Petitioner Halloran challenged the Permit at Issue because he is concerned that the Project will degrade the waters around Key

West, where he and his family recreate; and that nutrients will harm the seagrasses, coral reefs, and benthic communities in the waters around Key West. (RO ¶ 289).

The ALJ concluded that Last Stand did not meet the test for associational standing to participate as a party to this proceeding. (RO ¶¶ 291-296, 306). The ALJ found that Last Stand did not prove that a substantial number of its members' substantial interests potentially could be injured by the Project. (RO ¶ 306). The ALJ concluded that Last Stand failed to present any evidence showing that a substantial number of its members have substantial interests in the resources that could be injured as a result of the Project. (RO ¶ 306).

STANDARDS OF REVIEW OF DOAH RECOMMENDED ORDERS

Section 120.57(1)(l), Florida Statutes, prescribes that an agency reviewing a recommended order may not reject or modify the findings of fact of the ALJ "unless the agency first determines from a review of the entire record, and states with particularity in the order, that the findings of fact were not based on competent substantial evidence." § 120.57(1)(l), Fla. Stat. (2015); *Charlotte Cty. v. IMC Phosphates Co.*, 18 So. 3d 1089 (Fla. 2d DCA 2009); *Wills v. Fla. Elections Comm'n*, 955 So. 2d 61 (Fla. 1st DCA 2007). The term "competent substantial evidence" does not relate to the quality, character, convincing power, probative value or weight of the evidence. Rather, "competent substantial evidence" refers to the existence of some evidence as to each essential element and as to its admissibility under legal rules of evidence. *See e.g., Scholastic Book Fairs, Inc. v. Unemployment Appeals Comm'n*, 671 So. 2d 287, 289 n.3 (Fla. 5th DCA 1996); *Nunez v. Nunez*, 29 So. 3d 1191, 1192 (Fla. 5th DCA 2010).

A reviewing agency may not reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See, e.g., Rogers v. Dep't of Health,* 920 So.2d 27, 30 (Fla. 1st DCA 2005); *Belleau v. Dep't of Envtl. Prot.,* 695 So. 2d 1305, 1307 (Fla. 1st DCA 1997); *Dunham v. Highlands Cty. Sch. Bd.,* 652 So. 2d 894 (Fla. 2d DCA 1995). If there is competent substantial evidence to support an ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co. v. Dyer,* 592 So. 2d 276, 280 (Fla. 1st DCA 1991); *Conshor, Inc. v. Roberts,* 498 So. 2d 622 (Fla. 1st DCA 1986).

The ALJ's decision to accept the testimony of one expert witness over that of another expert is an evidentiary ruling that cannot be altered by a reviewing agency, absent a complete lack of any competent substantial evidence of record supporting this decision. *See, e.g., Peace River/Manasota Regional Water Supply Authority v. IMC Phosphates Co.,* 18 So. 3d 1079, 1088 (Fla. 2d DCA 2009); *Collier Med. Ctr. v. State, Dep't of HRS,* 462 So. 2d 83, 85 (Fla. 1st DCA 1985); *Fla. Chapter of Sierra Club v. Orlando Utils. Comm'n,* 436 So. 2d 383, 389 (Fla. 5th DCA 1983). In addition, an agency has no authority to make independent or supplemental findings of fact. *See, e.g., North Port, Fla. v. Consol. Minerals,* 645 So. 2d 485, 487 (Fla. 2d DCA 1994); *Fla. Power & Light Co. v. Fla. Siting Bd.,* 693 So. 2d 1025, 1026-1027 (Fla. 1st DCA 1997).

Section 120.57(1)(l), Florida Statutes, authorizes an agency to reject or modify an ALJ's conclusions of law and interpretations of administrative rules "over which it has substantive jurisdiction." *See Barfield v. Dep't of Health,* 805 So. 2d 1008 (Fla. 1st DCA

2001); *L.B. Bryan & Co. v. Sch. Bd. of Broward Cty.*, 746 So. 2d 1194 (Fla. 1st DCA 1999); *Deep Lagoon Boat Club, Ltd. v. Sheridan*, 784 So. 2d 1140 (Fla. 2d DCA 2001). Considerable deference should be accorded to these agency interpretations of statutes and rules within their regulatory jurisdiction, and such agency interpretations should not be overturned unless "clearly erroneous." *See, e.g., Falk v. Beard*, 614 So. 2d 1086, 1089 (Fla. 1993); *Dep't of Envtl. Reg. v. Goldring*, 477 So. 2d 532, 534 (Fla. 1985). Furthermore, agency interpretations of statutes and rules within their regulatory jurisdiction do not have to be the only reasonable interpretations. It is enough if such agency interpretations are "permissible" ones. *See, e.g., Suddath Van Lines, Inc. v. Dep't of Envtl. Prot.*, 668 So. 2d 209, 212 (Fla. 1st DCA 1996). If an ALJ improperly labels a conclusion of law as a finding of fact, the label should be disregarded and the item treated as though it were actually a conclusion of law. *See, e.g., Battaglia Properties v. Fla. Land and Water Adjudicatory Comm'n*, 629 So. 2d 161, 168 (Fla. 5th DCA 1994). However, neither should the agency label what is essentially an ultimate factual determination as a "conclusion of law" in order to modify or overturn what it may view as an unfavorable finding of fact. *See, e.g., Stokes v. State, Bd. of Prof'l Eng'rs*, 952 So. 2d 1224 (Fla. 1st DCA 2007).

Agencies do not have jurisdiction, however, to modify or reject rulings on the admissibility of evidence. Evidentiary rulings of the ALJ that deal with "factual issues susceptible to ordinary methods of proof that are not infused with [agency] policy considerations," are not matters over which the agency has "substantive jurisdiction." *See Martuccio v. Dep't of Prof'l Reg.*, 622 So. 2d 607, 609 (Fla. 1st DCA 1993); *Heifetz*

v. Dep't of Bus. Reg., 475 So. 2d 1277, 1281 (Fla. 1st DCA 1985). Evidentiary rulings are matters within the ALJ's sound "prerogative . . . as the finder of fact" and may not be reversed on agency review. *See Martuccio,* 622 So. 2d at 609.

RULINGS ON EXCEPTIONS

A party that files no exceptions to certain findings of fact "has thereby expressed its agreement with, or at least waived any objection to, those findings of fact." *Envtl. Coalition of Fla., Inc. v. Broward Cty.*, 586 So. 2d 1212, 1213 (Fla. 1st DCA 1991); *see also Colonnade Medical Ctr., Inc. v. State of Fla., Agency for Health Care Admin.*, 847 So. 2d 540, 542 (Fla. 4th DCA 2003). However, an agency head reviewing a recommended order is free to modify or reject any erroneous conclusions of law over which the agency has substantive jurisdiction, even when exceptions are not filed. *See* § 120.57(1)(l), Fla. Stat. (2014); *Barfield v. Dep't of Health,* 805 So. 2d 1008 (Fla. 1st DCA 2001); *Fla. Public Employee Council, 79 v. Daniels*, 646 So. 2d 813, 816 (Fla. 1st DCA 1994).

Finally, in reviewing a recommended order and any written exceptions, the agency's final order "shall include an explicit ruling on each exception." *See* § 120.57(1)(k), Fla. Stat. (2015). However, the agency need not rule on an exception that "does not clearly identify the disputed portion of the recommended order by page number or paragraph, that does not identify the legal basis for the exception, or that does not include appropriate and specific citations to the record." *Id.*

RESPONDENT DEP'S EXCEPTION

The DEP takes exception to the proposed finding in the first sentence of paragraph 250 of the RO, where the ALJ observes that "[a]s more fully discussed below, the antidegradation requirements in these rules apply only to a direct discharge to surface waters, which is not present in this case." The DEP argues that this finding should be treated as a legal conclusion, and along with the related conclusion in paragraph 343, should not be adopted in this Final Order. The DEP further argues that, based on the ALJ's findings, resolution of the question regarding application of antidegradation policies to the discharge at issue in this proceeding is not necessary. The ALJ found that "even if the antidegradation rules did apply to the discharge of effluent through the injection wells, Petitioners failed to prove that the discharge would degrade surface waters." *See* RO ¶ 251; *see also* RO ¶¶ 188, 212, 228.

The Department agrees with the ALJ, for all the reasons outlined in the RO and in the ruling on the Petitioners' Exception Two below, that a "direct discharge to surface waters, . . . is not present in this case." Because there is no direct discharge, certain requirements (e.g., the requirement to obtain certain types of discharge permits) do not apply to this Project. However, the Department modifies the ALJ's conclusions in paragraphs 250, 251 and 343, to reflect that Florida's antidegradation policy applies in this case because the express language of the Department rule makes it applicable in Monroe County. *See Cleveland Clinic Fla. Hospital v. Agency for Healthcare Admin.*, 679 So. 2d 1237 (Fla. 1st DCA 1996) (reflecting that agencies are required to follow their own rules). Rule 62-528.630(7), Florida Administrative Code, provides:

> All Class V Group 3 wells designed to inject domestic wastewater in Monroe County shall be required as part of the operation permit application to provide reasonable assurance that operation of the well will not cause or contribute to a violation of surface water standards as defined in Chapter 62-302, F.A.C. (Emphasis added)

The definition of water quality standards in Chapter 62-302 states:

> . . . standards [are] composed of designated present and future most beneficial uses (classification of waters), the numerical and narrative criteria, including Site Specific Alternative Criteria, applied to the specific water uses or classification, the Florida anti-degradation policy, and the moderating provisions, such a variances, mixing zone rule provisions, or exemptions.

Fla. Admin. Code R. 62-302.200(42); *see also In re: Florida Administrative Code Rules 40D-8.041(16 and 40D-8.041(17),* OGC Case No. 13-0914, 2014 WL 7649082 *7 (Fla. DEP Order on Consistency, November 25, 2014) (reflecting that the state's antidegradation policy is a component of Florida's water quality standards).[1] The ALJ's factual findings in paragraphs 188, 212, 228, and 251 still support the conclusions in paragraphs 346 and 347.[2]

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[1] Florida's antidegradation policy, is set forth in Rules 62-302.300(11)–(18), and 62-302.700 (Special Protection, Outstanding Florida Waters, and Outstanding National Resource Waters). The antidegradation policy for OFWs in Rule 62-302.700 specifically provides that the "policy of this section shall be implemented through the permitting process pursuant to Rule 62-4.242, F.A.C." *See* Fla. Admin. Code R. 62-302.700(7); *see also In re: Florida Administrative Code Rules 40D-8.041(16 and 40D-8.041(17),* OGC Case No. 13-0914, 2014 WL 7649082 *8 (Fla. DEP Order on Consistency, November 25, 2014).

[2] The Department's interpretation of Rule 62-528.630(7) regarding application of Florida's antidegradation policy in Monroe County, is more reasonable than that of the ALJ. *See* § 120.57(1)(l), Fla. Stat. (2015).

A rule's language can clearly indicate when the Department is not required to apply all the components of Florida's water quality standards. For example, "designated present and future most beneficial uses" refers to the Classification system for waters set forth in Chapter 62-302.[3] General rules such as: Rule 62-520.310(2) ["discharge to ground water shall not impair the designated use of contiguous surface waters"]; and Rule 62-520.400(1)(f) ["All ground water shall at all places and at all times be free from . . . discharges in concentrations which, . . . [i]mpair the . . . beneficial uses of adjacent waters"], clearly do not apply all the components of Florida's water quality standards.

Based on the plain language of Rule 62-528.630(7), the legal conclusion of the ALJ in paragraph 343 is rejected and not adopted in this Final Order; and paragraphs 250 and 251 are modified based on the above discussion. Therefore, the DEP's Exception is granted.

PETITIONERS' EXCEPTIONS

EXCEPTION ONE

The Petitioners take exception to paragraph 306 of the RO, where the ALJ concludes that Last Stand did not demonstrate standing to challenge the Permit at Issue. The Petitioners assert procedural and legal error on the part of the ALJ. *See* Petitioners' Exceptions at pages 5-8. In paragraph 306, the ALJ determined:

> 306. However, Petitioner Last Stand has not demonstrated its standing to challenge the Permit at Issue. Specifically, Last Stand did not present evidence showing that a

[3] "Designated use" shall mean the present and future most beneficial use of a body of water as designated by the Environmental Regulation Commission by means of the Classification system contained in this chapter. Fla. Admin. Code R. 62-302.200(9).

> substantial number of its members' substantial interests potentially could be injured by the Project. The stipulated facts regarding Last Stand's members dealt with potential impacts to their interests in the use and enjoyment of natural and economic resources in Monroe County and the Florida Keys, but Last Stand did not present any evidence showing, or aimed at showing, that the Project may impact natural or economic resources on such a broad scale. Rather, Last Stand's evidence specifically focused on potential impacts to natural resources in the vicinity of Stock Island. However, it failed to present any evidence showing that a substantial number of its members have substantial interests in those resources that could be injured as a result of the Project. Thus, Last Stand failed to meet the requirement, established in Florida Home Builders Association v. Department of Labor and Employment Security, 412 So. 2d 351 (Fla. 1982), to demonstrate that a substantial number of its members' substantial interests may be affected by the proposed agency action.[] Accordingly, Last Stand has not shown that it has standing to participate as a party to this proceeding.[] (Emphasis added).

The Petitioners' procedural argument is that the ALJ overlooked a "rul[ing] from the bench" made at the hearing during the Petitioners' case (T. Vol. 10, p. 1427, lines 12-15). This argument is without merit because in administrative proceedings under chapter 120, Florida Statutes, such dispositive rulings are required to be in writing as part of an ALJ's recommended order. *See* § 120.57(1)(k), Fla. Stat. (2015) ("The [ALJ] shall complete and submit to the agency . . . a recommended order consisting of findings of fact, conclusions of law, and recommended disposition . . .."). Courts have recognized that a trial judge's oral comments during the hearing are preliminary observations that may change once the judge considers the totality of the evidence and applicable legal standards. *See State v. R.M.,* 696 So.2d 449, 452 (Fla. 4th DCA 1997)

("Trial judges may think out loud and then change their mind in the quiet of their study.").

The Petitioners further argue that paragraph 306 is in error because the stipulated facts includes a reference to the "proposed project" such that the stipulation does reference a geographic point within Monroe County. *See* Petitioners' Exceptions at page 6; *see also* RO ¶ 295. The Petitioners' argument, however, is directed to the first half of paragraph 306. The argument ignores the ALJ's findings in the latter half of paragraph 306 that Last Stand's evidence focused on the natural resources in the vicinity of Stock Island, but did not prove "that a substantial number of its members have substantial interests in those resources that could be injured as a result of the Project." In paragraph 296, to which the Petitioners did not take exception, the ALJ found:

> 296. Last Stand tendered, for admission into evidence, affidavits of some of its members attesting to the substantial interests they contend will be injured by the Project. However, Last Stand had refused to allow Respondents to engage in discovery regarding these members' alleged substantial interests; accordingly, the undersigned did not allow these members to testify at the final hearing.[] The affidavits were excluded from admission into evidence as unsupported hearsay. See § 120.57(1)(c), Fla. Stat.

The findings in paragraphs 291 through 296, to which the Petitioners did not take exception, are the underlying facts for application of the associational standing test articulated in *Fla. Home Builders Assoc. v. Dep't of Labor and Employment Sec.*, 412 So.2d 351 (Fla. 1982). *See also NRA of Am., Inc. v. City of Miami,* 774 So.2d 815, 816 (Fla. 3d DCA 2000) (recognizing that an association whose membership lists are legally protected from discovery still must show standing to sue).

The Petitioners also assert "further evidence of standing that was presented at the hearing," by detailed citations to the record. *See* Petitioners' Exceptions at pages 6-8. However, the Petitioners do not present any analysis of how this evidence proves Last Stand's standing under the applicable legal standard. If, the Petitioners want the Department to reweigh the evidence and the ALJ's evidentiary rulings, that is improper. *See Martuccio v. Dep't of Prof'l Reg.*, 622 So.2d 607, 609 (Fla. 1st DCA 1993); *Heifetz v. Dep't of Bus. Reg.*, 475 So.2d 1277, 1281 (Fla. 1st DCA 1985). If the Petitioners want the Department to modify or reject the ALJ's application of associational standing case law, the Department finds no error and adopts the ALJ's findings and conclusions in paragraph 306.

Therefore, based on the foregoing reasons, the Petitioners' Exception One is denied.

EXCEPTION TWO

The Petitioners take exception to paragraphs 244, 249, 250, 251, 313, 314, 315, 316, 317, 338, 339, 340, 341, 342, and 343 of the RO. The Petitioners contend that the ALJ "misread" Rule 62-620.200(13), and that the Department applied an unadopted rule. *See* Petitioners' Exceptions at pages 10-15.

Rule 62-620.200(13) defines "[d]ischarge of a pollutant" to mean

> any addition of any pollutant or combination of pollutants, as defined in 40 CFR 122.2, to waters from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters from surface runoff which is collected or channeled by man, and discharges through pipes, sewers, or other conveyances which do not lead to a

> treatment works. This term does not include an addition of pollutants by any indirect discharger.

The Petitioners contend that the ALJ, as well as the DEP in *Port Antigua Townhouse Ass'n, Inc. v. Seanic Corp.*, 23 F.A.L.R. 661 (Fla. Dep't of Envtl. Prot. 2000) (cited by the ALJ), are incorrect that discharges of wastewater effluent into Class G-III ground water through underground injection wells do not constitute discharges into surface waters under Chapters 62-302 or 62-620. The Petitioners' rationale is that "indirect discharger" is not defined in Florida Statutes or the Florida Administrative Code, and as such the definition of "indirect discharger" in 40 C.F.R. section 122.2, part of the regulations implementing the National Pollutant Discharge Elimination System, must be utilized. *See* Petitioners' Exceptions at pages 11-12.

However, the ALJ addressed this point in endnote 59 to the RO by noting that Florida has its own regulatory scheme and federal definitions are only applicable where expressly incorporated into Florida regulations. Rule 62-620.200(13) expressly incorporates the federal definition of "pollutant." It does not incorporate the definition of "indirect discharger." Therefore, that federal definition is not applicable to interpreting and applying Rule 62-620.200(13). The DEP's interpretation that the proposed discharge is properly classified as an indirect discharge (Maier, T. Vol. 13, p. 1797, lines 24 -25; p. 1798, lines l - 2, p. 1799, lines 1 – 21) is a permissible interpretation given the plain language of Rule 62-620.200(13). Great deference should be accorded to agency interpretations of statutes and rules that they enforce, and such interpretations should not be overturned unless clearly erroneous. *See, e.g., Dep't of Envtl. Reg. v. Goldring,* 477 So. 2d 532, 534 (Fla. 1985).

Contrary to the Petitioners' argument, an agency cannot be said to be operating on the basis of an unadopted rule, where the interpretation of a term is made with respect to the plain language of the term itself. *See, e.g., St. Francis Hospital, Inc.* v. *Dep't of Health and Rehab. Servs.,* 553 So. 2d 1351, 1354 (Fla. 1st DCA 1989) ("[A]n agency interpretation of a statute which simply reiterates the legislature's statutory mandate and does not place upon the statute an interpretation that is not readily apparent from its literal reading, nor in and of itself purport to create certain rights, or require compliance, or to otherwise have the direct and consistent effect of the law, is not an [unadopted] rule, and actions based upon such an interpretation are permissible without requiring an agency to go through rulemaking ."). Also, the Petitioners did not raise this as an issue for adjudication by the ALJ. *See* § 120.57(1)(e), Fla. Stat. (2015).

Therefore, based on the foregoing reasons, the Petitioners' Exception Two is denied.

EXCEPTION THREE

The Petitioners take exception to paragraphs 169, 171, 185-187, 188, 189, 190, 214, 215, 216, 217, 218, 233, 237, 238, 241, 242, 243, 250, 252, 257, 259, 260, 261, 262, 264, 265, 273, and 334, "to the extent that these paragraphs rely on a finding that ground water and surface water are not connected in a meaningful way in the vicinity of Stock Island, Monroe County, where the KWRU discharge wells and storage ponds holding reclaimed water . . . are located." *See* Petitioners' Exceptions at page 23. The Petitioners essentially argue that the ALJ erred in finding "that there is not a significant hydraulic connection in the vicinity of Stock Island between groundwater and surface

water" because it contradicts the parties' stipulation that groundwater and surface water in this general area are connected. *See* Petitioners' Exceptions at pages 23-24.

Contrary to the Petitioners' argument, the ALJ's finding did not contradict the stipulation. As pointed out by the Respondent KWRU in its response, the ALJ's findings resolved disputed issues related to the extent and specific locations of any groundwater and surface water connection that were the subject of extensive and competing expert testimony. *See* RO ¶¶ 171-172; Fourqurean T. Vol. 2, p. 207; Rhodes T. Vol. 6, p. 676; Paul T. Vol. 8, pp. 1020-1042; Alfieri T. Vol. 11, pp. 1498-1508; *see also* KWRU Response to Petitioners' Exceptions at page 8. The ALJ's findings are supported by competent substantial evidence that confining materials impede the vertical movement of effluent at the KWRU site (Alfieri T. Vol. 11, pp. 1485-1490), and that injected effluent will migrate laterally below the confining layers for a substantial distance offshore before rising to surface waters at some unknown location or locations (Alfieri T. Vol. 11, pp. 1507, 1508). *See* RO ¶¶ 185-190. The ALJ's decision to accept the testimony of one expert witness over that of another expert is an evidentiary ruling that cannot be altered by a reviewing agency, absent a complete lack of any competent substantial evidence of record supporting this decision. *See Peace River/Manasota Regional Water Supply Authority v. IMC Phosphates Co.,* 18 So.3d 1079, 1088 (Fla. 2d DCA 2009).

The Petitioners also assert procedural error in the admission or exclusion of certain testimony and documentary evidence. Agencies do not have jurisdiction, however, to modify or reject rulings on the admissibility of evidence. Evidentiary rulings of the ALJ that deal with "factual issues susceptible to ordinary methods of proof that

are not infused with [agency] policy considerations," are not matters over which the Department has "substantive jurisdiction." *See Martuccio v. Dep't of Prof'l Reg.*, 622 So.2d 607, 609 (Fla. 1st DCA 1993); *Heifetz v. Dep't of Bus. Reg.*, 475 So.2d 1277, 1281 (Fla. 1st DCA 1985).

Therefore, based on the foregoing reasons, the Petitioners' Exception Three is denied.

EXCEPTIONS FOUR AND FIVE

The Petitioners take exception to paragraphs 169, 214, 215, 216, 217, 218, 233, 237, 238, 243, 250, 252, 257, 259, 260, 261, 262, 264, and 265, 322, 323 "to the extent that these paragraphs allege compliance with Surface Water or Ground Water regulations for existing KWRU or proposed expanded project without the DEP review of sampling and analysis of laboratory results for effluent discharged from KWRU compared with water quality standards;" and "without the requirement for groundwater sampling prior to leaving the KWRU property or by an analysis of the effluent if groundwater monitoring wells are not used for compliance purposes." *See* Petitioners' Exceptions at pages 30-36.

Contrary to the Petitioners' argument, the ALJ made extensive findings regarding existing water quality (RO ¶¶ 154-170, 258-260) and future water quality (RO ¶¶ 42, 212, 228, 229, 230, 261), with a focus on the water quality criteria at issue in this proceeding. The ALJ's findings are supported by competent substantial record evidence in the form of testimony and exhibits from Ken Weaver (T. Vol. 6, pp. 752, 757-759, 779-786; Joint Exs. 66, 67, 77); David Rhodes (T. Vol. 5, pp. 629-630); Ed

Castle (T. Vol. 3, pp. 326-328; Joint Ex. 16); and Mike Alfieri (T. Vol. 11, pp. 1513-1517, 1523; KWRU Ex. 28, p. 633).

The Petitioners seek to have the Department reweigh the evidence. However, the Department is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See, e.g., Rogers v. Dep't of Health,* 920 So.2d 27, 30 (Fla. 1st DCA 2005); *Belleau v. Dep't of Envtl. Prot.,* 695 So.2d 1305, 1307 (Fla. 1st DCA 1997). If there is competent substantial evidence to support the ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co. v. Dyer,* 592 So.2d 276, 280 (Fla. 1st DCA 1991); *Conshor, Inc. v. Roberts,* 498 So.2d 622 (Fla. 1st DCA 1986).

Therefore, based on the foregoing reasons, the Petitioners' Exceptions Four and Five are denied.

EXCEPTION SIX

The Petitioners take exception to paragraphs 250, 251, 252, and 254, "to the extent that these provisions find and conclude that Petitioners failed to prove that the discharge would degrade surface waters; surface waters in the Florida Keys, including those in and around Stock Island and Key West currently meet nutrient criteria; and Petitioners failed to prove that KWR failed to provide reasonable assurances that disposal of the effluent through the injections wells would not degrade surface waters in violation of rules 62-4.242, 62-302.300, 62-302.530(47)(a) and 62-302.700(1). [antidegredation and surface water quality for narrative nutrient standards]." *See*

Petitioners' Exceptions at page 36. The Petitioners also take exception to paragraphs 169, 214, 215, 216, 217, 218, 233, 237, 238, 243, 250, 252, 257, 259, 260, 261, 262, 264, 265, "to the extent that these paragraphs allege that KWRU can demonstrate reasonable assurance that the discharge into the UIC injection well will not cause or contribute to surface water quality violations for existing KWRU or proposed expanded project without the needed sampling and analysis of adjacent surface waters and the benthic community." *See* Petitioners' Exceptions at page 37. Finally, the Petitioners also take exception to paragraphs 198, 199-203, 207 and 211, on the basis that the "ALJ's paraphrasing of Dr. Fourqurean's testimony is not correct or misquoted from his testimony, deposition, or in the opinion letter testimony he provided." *See* Petitioners' Exceptions at page 42.

In this lengthy exception, the Petitioners essentially argue that the ALJ should have given more weight to Dr. Fourqurean's testimony. *See* Petitioners' Exceptions at pages 36-43. The ALJ's findings in paragraphs 200, 201, 203, 204, 207, 226, regarding Dr. Fourqurean's testimony cannot be reweighed by the Department to reach a different conclusion than that reached by the ALJ. *See Bill Salter Advertising, Inc. v. Dep't of Transp.*, 974 So.2d 548, 551 (Fla. 1st DCA 2008) ("In reviewing the record, . . . the agency [cannot] re-weigh the evidence presented, judge the credibility of the witnesses, or otherwise interpret the evidence to fit a desired ultimate conclusion."). In addition, the Department cannot make independent or supplemental findings of fact. *See Fla. Power & Light Co. v. Fla. Siting Bd.*, 693 So.2d 1025, 1026-1027 (Fla. 1st DCA 1997).

The ALJ's findings are supported by competent substantial evidence as outlined in the ruling on Exceptions Four and Five above, incorporated herein. Therefore, based on the foregoing reasons, the Petitioners' Exception Six is denied.

EXCEPTION SEVEN

The Petitioners take exception to paragraphs 169, 170, 227, 229, 230, 231, 240, 250, 252, and 254 of the RO. The Petitioners contend that is it a "[f]undamental error of law to use impaired waters designations within Marine Nutrient Regions, referred to as WBIDs, both off-shore and near shore, rather than water quality compliance data to demonstrate that the point source discharges (UIC wells or storage pond) is compliant with groundwater or surface water standards." *See* Petitioners' Exceptions at page 44.

In another exception, the Petitioners essentially argue that the ALJ should not have given weight and credence to Ken Weaver's testimony. *See* Petitioners' Exceptions at pages 44-49. The ALJ's findings regarding Ken Weaver's testimony cannot be reweighed by the Department to reach a different conclusion than that reached by the ALJ. *See Bill Salter Advertising, Inc. v. Dep't of Transp.*, 974 So.2d 548, 551 (Fla. 1st DCA 2008) ("In reviewing the record, . . . the agency [cannot] re-weigh the evidence presented, judge the credibility of the witnesses, or otherwise interpret the evidence to fit a desired ultimate conclusion."). In addition, the Department cannot make independent or supplemental findings of fact. *See Fla. Power & Light Co. v. Fla. Siting Bd.*, 693 So.2d 1025, 1026-1027 (Fla. 1st DCA 1997).

The ALJ's findings are supported by competent substantial evidence as outlined in the ruling on Exceptions Four and Five above, incorporated herein. Therefore, based on the foregoing reasons, the Petitioners' Exception Seven is denied.

EXCEPTION EIGHT

The Petitioners take exception to paragraph 215 of the RO. The Petitioners essentially contend that the ALJ placed undue emphasis on a reasonable assurances document to find that "the Project will meet the narrative nutrient criterion in rule 62-302.530(47)(b)" (RO ¶ 215). However, the context of paragraph 215, namely paragraphs 210-217 of the RO, show that the ALJ's findings regarding reasonable assurance of compliance with narrative nutrient standards are not based solely on compliance with the reasonable assurances document. The ALJ's findings in paragraphs 210-217 are supported by competent substantial record evidence in the form of testimony and exhibits from William Precht (T. Vol. 12, pp. 1721-1722, 1724-1725), Mike Alfieri (T. Vol. 11, pp. 1513-1517), and Ken Weaver (T. Vol. 6, pp. 779-785; Joint Exs. 66, 67). *See, e.g., Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence).

The Petitioners also take exception to paragraph 229 of the RO. However, the expert testimony of Ken Weaver supports the ALJ's findings in paragraphs 227, 228, and 229. (Weaver, T. Vol. 6, pp. 752, 757-759; Joint Ex. 77). *See Id.*

Therefore, based on the foregoing reasons, the Petitioners' Exception Eight is denied.

EXCEPTION NINE

In this exception to paragraph 235 of the RO, the Petitioners argue that the permit should be denied based on the "free-from" standards. *See* Petitioners' Exceptions at page 54. With respect to the "free-from" standards, the ALJ characterized the Petitioners' theory as follows:

> 232. Petitioners allege that the effluent contains iron and copper above detection limits, as well as personal care products and pharmaceuticals, and that these constituents violate rules 62-302.500(1)(a)5. and 62-302.530(61).

The Petitioners do not dispute that characterization. Existing rules provide specific, numeric standards for iron and copper. *See* Fla. Admin. Code R. 62-302.530 (23), (39). Thus, the "free-from" rule does not regulate the concentration of those elements in surface waters. *See* Fla. Admin. Code R. 62-302.500(1)(a)5 (prohibiting discharge of components "present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant, locally occurring, wildlife or aquatic species, unless specific standards are established for such components in subsection 62-302.500(2) or Rule 62-302.530, F.A.C." (Emphasis supplied)). *See also J.T. McCormick v. City of Jacksonville*, 12 F.A.L.R. 960 (Fla. Dep't of Envtl. Reg. 1990). With regard to the remaining categories of personal care products and pharmaceuticals, the ALJ found that the Petitioners failed to support their allegation that effluent will contain those substances (RO ¶ 233). The ALJ further found that the Petitioners failed

to substantiate the allegation that those substances were carcinogenic, mutagenic, teratogenic, toxic, or otherwise prohibited under the "free-from" rule (RO ¶ 234).

The Petitioners did not provide any record citations to dispute the ALJ's findings in paragraph 235 that the Petitioners did not present any evidence that copper and iron are present in the proposed discharge in amounts that would violate the "free-from" standards or any other applicable surface water standards. *See* § 120.57(1)(l), Fla. Stat. (2015).

Therefore, based on the foregoing reasons, the Petitioners' Exception Nine is denied.

EXCEPTION TEN

The Petitioners take exception to paragraphs 230, 231, 243, and 253, to the extent that these findings state that the proposed KWRU AWT [Advanced Waste Treatment] effluent, even if not diluted by groundwater or surface water, would not cause or contribute to a violation of the applicable narrative or numeric nutrient criteria. *See* Petitioners' Exceptions at pages 55-57. The ALJ's findings are supported by competent substantial record evidence in the form of expert testimony from Ken Weaver (T. Vol. 6, pp. pp. 752, 757-760, 782, 785-786; Joint Ex. 77) and Mike Alfieri (T. Vol. 11, pp. 1511-1517, 1556-1557). *See* § 120.57(1)(l), Fla. Stat. (2015); *see also Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence).

Therefore, based on the foregoing reasons, the Petitioners' Exception Ten is denied.

EXCEPTIONS ELEVEN AND SEVENTEEN

The Petitioners take exception to paragraph 228 of the RO, where the ALJ found that "[e]ven with the increased volume of wastewater treated by the Expanded Wastewater Facility, implementation of the AWT standard . . . will substantially reduce the amount of total nitrogen and total phosphorus discharged into ground water through the injection wells." (RO ¶ 228). The Petitioners appear to argue that the comparison of nutrient loadings in paragraph 228 is an incorrect reasonable assurance analysis. *See* Petitioners' Exceptions at pages 58-61.

As KWRU points out in its response, the operative analysis is that surface waters are currently meeting applicable nutrient criteria under the existing discharge's nutrient mass loading. *See* KWRU's Response to Petitioners' Exceptions at pages 22-23. Thus, for purposes of the reasonable assurance analysis, the relevant comparison is between current nutrient mass loading and proposed mass loading under the Permit at Issue (Weaver, T. Vol. 6, p. 794; Castle, T. Vol. 3, pp. 326-328, Joint Ex. 16).

Therefore, based on the foregoing reasons, the Petitioners' Exceptions Eleven and Seventeen are denied.

EXCEPTION TWELVE

The Petitioners take exception to paragraphs 243, 251, 252, 253, and 254, "to the extent that they reach a conclusion that the effluent discharged from KWRU will not cause significant impacts to surface water quality in the vicinity of the discharges." *See*

Petitioners' Exceptions at page 61. As outlined in the rulings on Exceptions Ten and Eleven above, incorporated herein, the ALJ's findings are supported by competent substantial record evidence. *See* § 120.57(1)(l), Fla. Stat. (2015); *see also Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence).

Therefore, based on the foregoing reasons, the Petitioners' Exception Twelve is denied.

EXCEPTION THIRTEEN

The Petitioners take exception to paragraphs 257-266, "to the extent that they conclude groundwater in the vicinity of the discharge wells at KWRU, and groundwater in the vicinity of the golf course storage ponds and irrigation area, will meet groundwater standards with the expanded discharge proposed including maintaining beneficial and reasonable use of adjacent surface waters; and that no enforcement actions indicates that no violations have occurred or will occur under the new expanded discharge." *See* Petitioners' Exceptions at pages 64-66.

The ALJ's findings in paragraphs 257-266 are supported by competent substantial evidence in the form of expert testimony from David Rhodes (T. Vol. 5, pp. 627-631), Christopher Johnson (T. Vol. 1, pp. 78-79), Mike Alfieri (T. Vol. 11, p. 1523; Joint Ex. 73 and 74), and Gary Maier (T. Vol. 13, pp. 1807-1808). *See Id.*

Therefore, based on the foregoing reasons, the Petitioners' Exception Thirteen is denied.

EXCEPTION FOURTEEN

The Petitioners take exception to paragraphs 212, 231, 237, 239, 240, 244, 245, and 253, "to the extent that these findings and conclusions rely upon dilution in groundwater beyond the property boundary or dilution in surface water to meet water quality standards." *See* Petitioners' Exceptions at pages 66-69. The Petitioners do not provide any legal authority or policy justification for the proposition that the effluent must meet surface water criteria at KWRU's property boundary. It is appropriate for the ALJ to consider dilution of constituents in the subsurface when determining compliance with surface water standards. *See, e.g., Port Antigua Townhouse Ass'n , Inc. v. Seanic Corp.*, 23 F.A.L.R. 661, 674 (Fla. Dep't of Envtl. Prot. 2000) ("After undergoing chemical reduction in the groundwater as well as extremely high dilution rates, the levels of nitrogen and phosphorous that would be expected ...will be infinitesimal. ..").

Competent, substantial record evidence supports the ALJ's findings with regard to the substantial dilution that is likely to occur in the subsurface and in surface waters. (Alfieri, T. Vol. 11, pp. 1511-1514; Maier, T. Vol. 5, p. 552; Rhodes, T. Vol. 5, p. 632). The Petitioners are correct that Rule 62-620.620(2)(g)(l)(c) provides that "permit conditions ensure that dilution will not be used as a substitute for treatment." However, the Department interprets this rule to mean that effluent must be treated to the requisite treatment standard (in this case AWT) before injection, and dilution cannot be used to meet the requisite treatment standard. (Maier, T. Vol. 13, pp. 1795-1797). Considerable deference should be accorded to the Department's interpretations of statutes and rules within its regulatory jurisdiction, and such interpretations should not be overturned

unless "clearly erroneous." *See, e.g., Falk v. Beard*, 614 So.2d 1086, 1089 (Fla. 1993); *Dep't of Envtl. Reg. v. Goldring*, 477 So.2d 532, 534 (Fla. 1985).

Therefore, based on the foregoing reasons, the Petitioners' Exception Fourteen is denied.

EXCEPTION FIFTEEN

The Petitioners take exception to paragraph 264, "because the Healthy Beaches Program does not establish microbial compliance for wastewater treatment plant facilities." *See* Petitioners' Exceptions at pages 69-72. The competent substantial evidence shows that KWRU utilizes high level disinfection. (Maier, T. Vol. 13, p. 1789). The ALJ's finding that data from the Healthy Beaches Program shows that no beach closures have been attributed to KWRU is supported by competent substantial evidence. (Maier, T. Vol. 13, pp. 1791-1792). *See, e.g., Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence).

Therefore, based on the foregoing reasons, the Petitioners' Exception Fifteen is denied.

EXCEPTION SIXTEEN

The Petitioners take exception to paragraphs 233 and 234. However, as the ALJ found in those paragraphs, the Petitioners did not present any evidence showing that pharmaceutical or personal care products will be present in the wastewater treatment plant's effluent. The record likewise is devoid of any competent substantial evidence

that such constituents are carcinogenic; mutagenic; or teratogenic to human beings or to significant, locally occurring wildlife or aquatic species; or that they are injurious or chronically toxic to, or produce adverse physiological or behavioral response, in humans, animals, or plants. (RO ¶¶ 233, 234). *See* § 120.57(1)(l), Fla. Stat. (2015).

Therefore, based on the foregoing reasons, the Petitioners' Exception Sixteen is denied.

EXCEPTION EIGHTEEN

The Petitioners take exception to paragraphs 320, 321, and 323, "that are based on the interpretation that subsection (h) of section 403.086(10) does not impose an affirmative permitting obligation on the DEP when determining how deep to require the discharge well to be cased, or whether to permit the discharge, in the case of a treatment plant in Monroe County with permitted capacity of less than 1 MGD." *See* Petitioners' Exceptions at page 75.

As discussed by the ALJ, the plain language of the statute *("[i]f it* is demonstrated that a discharge . . . will cause or contribute to a violation of state water quality standards . . ." (emphasis added)), precludes the Petitioners' interpretation that the statute imposes such an affirmative permitting obligation. The reasonable interpretation set forth by the ALJ conforms to the DEP's interpretation. (Maier, T. Vol. 5, p. 543). Considerable deference should be accorded to the Department's interpretations of statutes and rules within its regulatory jurisdiction, and such interpretations should not be overturned unless "clearly erroneous." *See, e.g., Falk v. Beard*, 614 So.2d 1086, 1089 (Fla. 1993); *Dep't of Envtl. Reg. v. Goldring*, 477 So.2d 532, 534 (Fla. 1985).

Therefore, based on the foregoing reasons, the Petitioners' Exception Eighteen is denied.

EXCEPTION NINETEEN

The Petitioners take exception to paragraphs 70, 85, 86, 88, 89, 91, 92, and 328, to the extent they assert that "without a capacity analysis report, or capacity analysis report equivalent data, that DEP has been provided with or relied upon data that is sufficient to determine that reasonable assurances have been provided as required by Fla. Admin. Code R. 62-4.030, 62-4.070, 62-620.320, and 62- 528.630(7), F.A .C." *See* Petitioners' Exceptions at page 78.

The ALJ's findings and conclusions are supported by competent substantial record evidence in the form of expert testimony from Gary Maier (T. Vol. 5, pp. 523-528). *See* § 120.57(1)(l), Fla. Stat. (2015); *see also Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence); *Dep't of Envtl. Reg. v. Goldring*, 477 So.2d 532, 534 (Fla. 1985) (reflecting that considerable deference should be accorded to the Department's interpretation of rules within its regulatory jurisdiction).

Therefore, based on the foregoing reasons, the Petitioners' Exception Nineteen is denied.

EXCEPTION TWENTY

The Petitioners take exception to paragraphs 64, 110, 319, and 324, "to the extent that these paragraphs state that KWRU was accurate in the design year 2020, flows as being .0849 MGD AADF ." *See* Petitioners' Exceptions at pages 81-83.

Competent substantial evidence was presented by KWRU's expert engineer, Edward Castle, regarding the design year utilized, and the rationale for flow projections developed for the design year. (T. Vol. 3, pp. 308, 353-355, 359-361, 364-365; Joint Ex. 42, Bates 0048-0051). *See* § 120.57(1)(l), Fla. Stat. (2015); *see also Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence).

Therefore, based on the foregoing reasons, the Petitioners' Exception Twenty is denied.

EXCEPTIONS TWENTY-ONE AND TWENTY-THREE

The Petitioners take exception to paragraphs 98, 100, 129, 130, 132, 133, and 324, "to the extent that Fla. Admin. Code R. 62-600.400(3)(a), requirement to consider seasonality of flows is indicated." *See* Petitioners' Exceptions at pages 83 and 91-94. The Petitioners argue that the "design capacity timeframe metric selected by the applicant ('AADF') is not the appropriate metric for design capacity for KWRU's expanded discharge, because AADF does not consider sustained peak flows that occur 'seasonally' at the KWRU wastewater treatment plant." *See* Petitioners' Exceptions at page 83.

Competent substantial evidence was presented by KWRU's expert engineer, Edward Castle, regarding the annual average daily flow (AADF) as the appropriate time frame because historical flow records do not show significant seasonal variations in flow. (T. Vol. 3, pp. 314-315, 366-369; Joint Ex. 79). *See* § 120.57(1)(l), Fla. Stat. (2015); *see also Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence). Further, DEP's expert Gary Maier testified that the variations in flow do not reflect a significant seasonal variation that would require the use of a smaller averaging period than AADF. (T. Vol. 13, p. 1788). *See Dep't of Envtl. Reg. v. Goldring*, 477 So.2d 532, 534 (Fla. 1985) (reflecting that considerable deference should be accorded to the Department's interpretation of rules within its regulatory jurisdiction).

The Petitioners argue that the ALJ should have given more weight to their expert's testimony. *See* Petitioners' Exceptions at pages 91-94. However, the ALJ's decision to accept the testimony of one expert witness over that of another expert is an evidentiary ruling that cannot be altered by a reviewing agency, absent a complete lack of any competent substantial evidence of record supporting the decision. *See, e.g., Peace River/Manasota Regional Water Supply Authority v. IMC Phosphates Co.*, 18 So.3d 1079, 1088 (Fla. 2d DCA 2009).

Therefore, based on the foregoing reasons, the Petitioners' Exceptions Twenty-One and Twenty-Three are denied.

EXCEPTION TWENTY-TWO

The Petitioners take exception to paragraphs 114, 120-125, 130, and 324, on the basis that the ALJ erred in finding Mr. Castle's calculations for future flows were correct. *See* Petitioners' Exceptions at pages 84-91. Competent substantial evidence was presented by KWRU's expert engineer, Edward Castle, regarding the rationale for calculating future flows. (T. Vol. 3, pp. 353-355, 359-361, 364-367; Joint Ex. 89, Bates 2955). *See* § 120.57(1)(l), Fla. Stat. (2015); *see also Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence).

The Petitioners also argue that the ALJ should have given more weight to their expert's testimony. *See* Petitioners' Exceptions at pages 88-89. However, the ALJ's decision to accept the testimony of one expert witness over that of another expert is an evidentiary ruling that cannot be altered by a reviewing agency, absent a complete lack of any competent substantial evidence of record supporting the decision. *See, e.g., Peace River/Manasota Regional Water Supply Authority v. IMC Phosphates Co.*, 18 So.3d 1079, 1088 (Fla. 2d DCA 2009).

Therefore, based on the foregoing reasons, the Petitioners' Exception Twenty-Two is denied.

EXCEPTION TWENTY-FOUR

The Petitioners take exception to paragraphs 55 and 56 of the RO, on the basis of application of the "best evidence rule." The Petitioners essentially argue that the

ALJ's inferences in paragraphs 55 and 56 are not supported by certain documentary evidence. *See* Petitioners' Exceptions at pages 94-96. Contrary to the Petitioners' argument, the competent substantial evidence supporting the ALJ's reasonable inferences also include the expert testimony of Edward Castle (T. Vol. 3, pp. 308-309), and Christopher Johnson (T. Vol. 1, p. 84). *See Heifetz v. Dep't of Bus. Reg.*, 475 So.2d 1277, 1281 (Fla. 1st DCA 1985) (reflecting that it is the ALJ's function to draw permissible inferences from the evidence).

Therefore, based on the foregoing reasons, the Petitioners' Exception Twenty-Four is denied.

EXCEPTION TWENTY-FIVE

The Petitioners take exception to the portion of paragraph 60 of the RO, where the ALJ found the permitted capacity "establishes an absolute limit, on an annual average daily basis, on the quantity of wastewater that can be treated by, and discharged from, the Expanded Wastewater Facility."

The ALJ's finding is supported by competent substantial evidence in the form of expert testimony from Gary Maier (T. Vol. 4, p. 520, lines 4-8). Paragraph 60 is also a correct statement of the nature of permitted capacity as defined in Rule 62-600.200(49). The rule provides that permitted capacity "means the treatment, reuse, or disposal capacity for which a facility is approved by Department permit expressed in units of mgd. The permit shall specify the time frame associated with the permitted capacity (e.g., annual average daily flow, monthly average daily flow, three-month average daily flow)." Fla. Admin. Code R. 62-600.200(49); *see also Southpointe Pharmacy v. Dep't of*

Health and Rehab. Servs., 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence); *Dep't of Envtl. Reg. v. Goldring*, 477 So.2d 532, 534 (Fla. 1985) (reflecting that considerable deference should be accorded to the Department's interpretation of rules within its regulatory jurisdiction).

Therefore, based on the foregoing reasons, the Petitioners' Exception Twenty-Five is denied.

EXCEPTION TWENTY-SIX

The Petitioners take exception to paragraphs 279, 280, 281, 330, 333, 334, 335, and 344. The Petitioners argue that "the increased permitted capacity of the reuse system constitutes a 'new or expanded reuse or land application project,' so that an engineering report and reuse feasibility study were required as part of the applications for the Permit at Issue, . . ." *See* Petitioners' Exceptions at pages 98-100.

The ALJ's findings and conclusions are supported by competent substantial evidence in the form of expert testimony from Edward Castle (T. Vol. 4, p. 466), David Rhodes (T. Vol. 6, p. 698), and Gary Maier (T. Vol. 4, p. 504). *See Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence); *Dep't of Envtl. Reg. v. Goldring*, 477 So.2d 532, 534 (Fla. 1985) (reflecting that considerable deference should be accorded to the Department's interpretation of rules within its regulatory jurisdiction).

Therefore, based on the foregoing reasons, the Petitioners' Exception Twenty-Six is denied.

EXCEPTION TWENTY-SEVEN

The Petitioners take exception to paragraphs 64-67 of the RO, "to the extent that these sections state that .849 MGD AADF is the appropriate design capacity for the expanded wastewater facility , is the appropriate permitting capacity, and that WWTP and UIC wells meet rule requirements." *See* Petitioners' Exceptions at pages 100-101.

Competent substantial evidence supports the ALJ's findings in paragraphs 64-67 in the form of expert testimony from KWRU's engineer, Edward Castle (T. Vol. 3, pp. 308-309, 314-315, 353-354, 361, 364-369; Joint Exs. 21, 79, 89 Bates 2955). *See* § 120.57(1)(l), Fla. Stat. (2015); *see also Southpointe Pharmacy v. Dep't of Health and Rehab. Servs.*, 596 So.2d 106, 109 (Fla. 1st DCA 1992) (reflecting that it is an abuse of discretion to disregard findings of fact that are based on competent substantial evidence). Further, DEP's expert Gary Maier testified that the variations in flow do not reflect a significant seasonal variation that would require the use of a smaller averaging period than AADF. (T. Vol. 13, p. 1788). *See Dep't of Envtl. Reg. v. Goldring*, 477 So.2d 532, 534 (Fla. 1985) (reflecting that considerable deference should be accorded to the Department's interpretation of rules within its regulatory jurisdiction).

The Petitioners appear to argue that the ALJ should have given more weight to their expert's testimony. *See* Petitioners' Exceptions at page 101. However, the ALJ's decision to accept the testimony of one expert witness over that of another expert is an evidentiary ruling that cannot be altered by a reviewing agency, absent a complete lack

of any competent substantial evidence of record supporting the decision. *See, e.g., Peace River/Manasota Regional Water Supply Authority v. IMC Phosphates Co.*, 18 So.3d 1079, 1088 (Fla. 2d DCA 2009).

Therefore, based on the foregoing reasons, the Petitioners' Exception Twenty-Seven is denied.

CONCLUSION

Having reviewed the matters of record, the Exceptions and the Responses, and being otherwise duly advised,

It is therefore ORDERED that:

A. The Recommended Order (Exhibit A) is adopted, except as modified by any of the above rulings on Exceptions, and is incorporated by reference herein.

B. Domestic Wastewater Facility Permit FLA014951-012-DWIP is APPROVED;

C. UIC Permits 18490-020 and 18490-021 are APPROVED.

JUDICIAL REVIEW

Any party to this proceeding has the right to seek judicial review of the Final Order pursuant to Section 120.68, Florida Statutes, by filing a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal.

The Notice of Appeal must be filed within 30 days from the date this Final Order is filed with the clerk of the Department.

DONE AND ORDERED this 24th day of February, 2016, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

JONATHAN P. STEVERSON
Secretary

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

FILED ON THIS DATE PURSUANT TO § 120.52, FLORIDA STATUTES, WITH THE DESIGNATED DEPARTMENT CLERK, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED.

Lea Crandall
CLERK

2-24-16
DATE

CERTIFICATE OF SERVICE

I CERTIFY that a copy of the foregoing Final Order has been sent by electronic mail to:

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and by electronic filing to:

Division of Administrative Hearings
The DeSoto Building
1230 Apalachee Parkway
Tallahassee, FL 32399-1550

this 24th day of February, 2016.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

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STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

LAST STAND (PROTECT KEY WEST AND THE FLORIDA KEYS, d/b/a LAST STAND), AND GEORGE HALLORAN,

Petitioners,

vs.

Case No. 14-5302

KW RESORT UTILITIES CORP. AND STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION,

Respondents.
_____/

RECOMMENDED ORDER

A hearing was conducted in this case pursuant to sections 120.569 and 120.57(1), Florida Statutes (2015),[1/] before Cathy M. Sellers, an Administrative Law Judge ("ALJ") of the Division of Administrative Hearings ("DOAH"), on April 28 through 30, and May 1 and 11 through 15, 2015, in Key West, Florida, and on May 18 and 19, 2015, by telephone conference.

APPEARANCES

For Petitioners Last Stand and George Halloran:

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EXHIBIT "A"

For Respondent KW Resort Utilities Corp.:

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For Respondent Department of Environmental Protection:

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STATEMENT OF THE ISSUE

The issue in this case is whether Respondent KW Resort Utilities Corp. ("KWRU") is entitled to issuance, by Respondent Department of Environmental Protection ("DEP"), of Domestic Wastewater Facility Permit FLA014951-012-DWIP and UIC Permits 18490-020 and 18490-021 (collectively, the "Permit at Issue"), authorizing the major modification of KWRU's existing permit to operate a domestic wastewater facility located at 6630 Front Street, Stock Island, Florida 33040. The Permit at Issue would authorize the expansion of KWRU's existing domestic wastewater facility and the installation of two additional underground injection wells.

PRELIMINARY STATEMENT

On April 15, 2014, KWRU applied to DEP for a permit modification seeking to expand the capacity of its existing domestic wastewater facility, which collects and treats

wastewater from KWRU's service area on Stock Island, Florida. On June 23, 2014, DEP issued a Notice of Intent to Issue the Permit at Issue, authorizing issuance of the Permit. Petitioners, Protect Key West and the Florida Keys, Inc. (d/b/a Last Stand) ("Last Stand"), and George Halloran timely challenged the Permit at Issue. On November 19, 2014, the case was referred to DOAH for assignment of an ALJ to conduct an administrative hearing under sections 120.569 and 120.57(1).

The final hearing initially was scheduled for February 19 through 20, 2015, in Key West, Florida, but pursuant to the parties' request, was continued to April 28 through May 1, 2015, in Key West. The final hearing was held April 28 through May 1, 2015, but did not conclude; so, it was continued to May 11 through 15, 2015, in Key West, and to May 18 and 19, 2015, by telephone. The final hearing concluded on May 19, 2015.

To establish KWRU's prima facie entitlement to the Permit at Issue, Respondents presented the testimony of Christopher Johnson, president of KWRU; Edward Castle, P.E., of Weiler Engineering Corporation; Gary Maier, a professional engineer ("P.E.") and supervisor with DEP's South District Office; David Rhodes, a professional geologist ("P.G.") with DEP's South District Office; and Kenneth Weaver, an environmental administrator with DEP's Standards Development Section.

Petitioners presented the testimony of William Lynch, P.E. of GEI Consultants; Scott Zednek, P.G. of Tierra Consulting; John Paul, Ph.D., distinguished university professor in biological oceanography for the University of South Florida College of Marine Science; James Fourqurean, Ph.D., professor in the Department of Biological Sciences and Southeast Environmental Research Center of Florida International University and director of the Marine Education and Research Initiative for the Florida Keys of Florida International University; Sharon Sawicki, program administrator with DEP's Domestic Wastewater Program, whose deposition testimony was accepted in lieu of live testimony at the final hearing; Barbara Skates, engineering specialist with DEP's South District Office, whose deposition testimony was accepted in lieu of live testimony at the final hearing; George Halloran, a resident of Key West and a member of Last Stand; and Naja Girard D'Albissin, president of Last Stand at the time the action was filed and a member of the Board of Directors of Last Stand at the time of the final hearing.

In rebuttal, KWRU presented the testimony of William Precht, director of Marine and Coastal Programs for Dial Cordy and Associates; and Michael Alfieri, P.G. of WRA Engineering. DEP presented the rebuttal testimony of Maier and Rhodes by telephone.

Joint Exhibits 1 through 130 were admitted without objection. KWRU Exhibit 28 was admitted without objection and KWRU Exhibit 132 was admitted over objection. Petitioners' Exhibits 5, 8, 9, 14, 15, 16(a), 17 through 19, 22, 43, 51, 52, 69, 76 through 78, 86 through 90, 94, 110, 111, 113, 115, 118, 120, 129, 134, 146 through 155, 157, 159, 160, 165 through 168, 170, 177, and 191 were admitted without objection. Petitioners' Exhibits 20, 34, 102, and 104 were admitted in part over objection. Petitioners' Exhibits 10, 23, 30, 32, 81 through 85, 172, 180, 192, 195, and 200 were admitted over objection. Petitioners' Exhibit 6 was proffered but was excluded as uncorroborated hearsay and because the affiants were not made available to Respondents for deposition or other discovery prior to the final hearing.

The 14-volume, 1,990-page Transcript was filed on June 18, 2015, and the parties were given 30 days, until July 20, 2015, to file their proposed recommended orders. The proposed recommended orders were timely filed, and the undersigned duly considered them in preparing this Recommended Order.

FINDINGS OF FACT

I. The Parties

1. Petitioner Last Stand is a not-for-profit corporation incorporated under Florida law. Last Stand has challenged the Permit at Issue in this proceeding.

2. Petitioner George Halloran is a natural person residing in Key West, Florida, and is a member of Last Stand. Halloran has challenged the Permit at Issue in this proceeding.

3. Respondent KWRU is a Florida corporation. KWRU is the wastewater utility service provider that owns and operates the Existing Wastewater Facility[2/] and is responsible for its design, construction, operation, and maintenance. It is the applicant for the Permit at Issue in this proceeding.

4. Respondent DEP is the state agency charged with administering the domestic wastewater program in Florida pursuant to chapter 403, Florida Statutes, implementing, as applicable, rules codified at Florida Administrative Code Chapters 62-4, 62-302, 62-303, 62-520, 62-528, 62-600, and 62-620, and various industry standards and manuals incorporated by reference into DEP rules. DEP's proposed agency action to grant the Permit at Issue is the subject of this proceeding.

II. Background and Overview

A. Domestic Wastewater Regulation in the Florida Keys

5. The State of Florida has recognized the need to protect the Florida Keys' unique, sensitive environmental resources. To that end, portions of the Florida Keys are designated, pursuant to statute and by DEP rule, as an Outstanding Florida Water ("OFW"). § 403.061(27), Fla. Stat.; Fla. Admin. Code R. 62-302.700(9).

6. The Florida Legislature also designated the Florida Keys an Area of Critical State Concern. § 380.0552, Fla. Stat. A stated purpose of this designation is to protect and improve the Florida Keys nearshore water quality through construction and operation of wastewater facilities that meet the requirements of section 403.086(10).

7. Additionally, the Florida Legislature has enacted section 403.086(10), which addresses the discharge of domestic wastewater in the Florida Keys. That statute finds that the discharge of inadequately treated and managed domestic wastewater from small wastewater facilities and septic tanks and other onsite systems in the Florida Keys compromises the coastal environment, including the nearshore and offshore waters, and threatens the quality of life and local economies that depend on these resources.

8. Section 403.086(10) directs that after December 31, 2015, all new or expanded domestic wastewater discharges must comply with the treatment and disposal requirements of the statute and DEP rules. Specifically, domestic wastewater treatment facilities having design capacities greater than or equal to 100,000 gallons per day must provide basic disinfection of the wastewater pursuant to DEP rule and must treat the wastewater to a level of treatment, which, on a permitted annual average basis, produces an effluent that contains no more than the following concentrations of the specified constituents: Biochemical Oxygen Demand ("CBOD5") of

5 milligrams per liter ("mg/L"); Suspended Solids of 5 mg/L; Total Nitrogen, expressed as N of 3 mg/L; and Total Phosphorus, expressed as P of 1 mg/L. Collectively, these effluent standards constitute the "advanced wastewater treatment" ("AWT") standards.

9. Section 403.086(10)(e) also imposes requirements regarding disposal of treated domestic wastewater effluent through underground injection.

10. Section 403.086(10)(e)1. requires Class V injection wells serving domestic wastewater treatment facilities having design capacities of less than one million gallons per day (hereafter "MGD") to be at least 90 feet deep and cased to a minimum depth of 60 feet, or to such greater cased depth and total well depth as may be required by DEP rule.

11. Section 403.086(10)(e)2. requires Class V injection wells serving wastewater treatment facilities with design capacities greater than or equal to 1 MGD, excluding backup wells, to be cased to a minimum depth of 2,000 feet or to such greater depth as may be required by DEP rule.

B. The Existing Wastewater Facility

12. KWRU currently is permitted, pursuant to Permit FLA014591 (the "Existing Permit"), to operate a domestic wastewater facility (the "Existing Wastewater Facility" or "Facility")[3/] located at 6630 Front Street, Stock Island, Florida.

Stock Island is located immediately east and slightly north of Key West.

13. By way of background, KWRU's domestic wastewater system currently consists of three elements: a collection system, which collects wastewater from serviced properties; a transmission system, which transmits wastewater from the collection system to the treatment plant; and the Existing Wastewater Facility, which treats the wastewater and then sends it either as reclaimed water for reuse as irrigation water at the Key West Golf Club, or for toilet flushing or air conditioning makeup water at other facilities specified in the Existing Permit,[4/] or disposes of it as treated effluent through two underground injection wells. No modifications to the collection or transmission systems have been proposed or challenged. Thus, only the proposed modifications to the Existing Wastewater Facility are at issue in this proceeding.

14. The Existing Wastewater Facility serves residential and commercial properties located on Stock Island, Florida, immediately adjacent to Key West in the lower Florida Keys. Specifically, the Facility treats domestic wastewater originating from approximately 1,416 existing residential connections and 216 commercial connections. The commercial connections consist of a convalescent center, a college, restaurants, recreational vehicle parks, an animal clinic, and a hospital. There are no industrial wastewater contributors to the Facility.

15. The Facility includes a Category III, Class C wastewater treatment facility operating under the Existing Permit. It is staffed by a Class C or higher operator for six hours a day, seven days per week, in accordance with the Existing Permit and applicable DEP rules.

16. The Facility has a design capacity and a permitted capacity[5/] of .499 MGD annual average daily flow ("AADF") and consists of two treatment trains having capacities of .249 MGD and .250 MGD AADF. These treatment trains are piped together to allow operation of the Facility as a single plant.

17. The Facility was upgraded in the mid-2000s and is capable of treating influent wastewater to AWT. However, as authorized under the Existing Permit, the Facility currently treats domestic wastewater to secondary standards, which do not impose nitrogen or phosphorous limits. Under the Existing Permit and in accordance with section 403.086(10), the Facility is not required to meet AWT standards until January 1, 2016.

18. Vacuum and gravity collection systems collect the domestic wastewater from the properties that KWRU services. Wastewater influent from the collection systems flows through the transmission system to a splitter box at the KWRU property, where it is sent to the Facility for treatment.

19. The Facility contains two treatment trains, each consisting of a bar screen, an equalization tank, an aeration

tank, an anoxic zone, a post-aeration basin, a clarifier, a silica sand/river rock filter, and a chlorine contact chamber.

20. The bar screens, which constitute the first step in the treatment trains, remove floatables from the wastewater stream.

21. After passing through the bar screens, the wastewater drops into two equalization tanks. As their name indicates, the equalization tanks smooth out the peaks in wastewater flow to the Existing Wastewater Facility. Specifically, wastewater flows to the Facility in large volumes during two periods each day, morning and evening, corresponding with peak water use by the serviced properties. During these large flow volume periods, the equalization tanks fill up with sewage influent, which is meted out during lower-flow periods for treatment by the Facility. In this manner, the Facility treats roughly the same amount of wastewater per hour, which is key to the steady state operation of, and the reliable treatment of the wastewater by, the Facility.

22. From the equalization tanks, the wastewater is directed to the three-stage bioreactor portion of the treatment process. Microorganisms are utilized at each stage to break down the waste.

23. The first stage of the bioreactor process occurs in the aeration basins. Here, wastewater enters the fine-air zone, where it and the microbes used in this stage of the treatment

process come into contact with tiny oxygen bubbles. The microorganisms use the oxygen to oxidize the waste and complete the ammonification of the wastewater.

24. The wastewater then passes through bulkheads to the anoxic zones, where the oxygen level is extremely low. In the anoxic zones, bacteria denitrify, or remove nitrogen from, the wastewater.

25. The wastewater is then sent to the post-aeration basins, where excess carbon is removed through oxidation.

26. Thereafter, the wastewater is sent to the clarifiers, where the microorganisms settle out of the wastewater to form a solid precipitate on the bottom of the tank. The precipitate is plowed into a sump and returned by pump to the bioreactors, where the microorganisms are reused in the activated treatment process.

27. When the microorganisms cease to optimally function in treating the waste, they are culled from the treatment process and sent to a digester, where they oxidize, through the endogenous decay process, to the point that they die and only their endoskeletons remain. Sludge, consisting of the endoskeletons and water, is pumped to a sand filter drying bed. The filtrate water is pumped back through the Wastewater Facility to be reused in the wastewater treatment process, while the dried endoskeletons, which are termed "biosolids," are transported offsite for disposal in a Class I landfill.

28. The treated, clarified wastewater is pumped through sand/rock filters, then to the chlorine contact chambers where it is exposed to a minimum of 15 minutes of chlorine disinfection.

29. As noted above, the Existing Permit authorizes the reuse of reclaimed water for, among other uses, irrigation by land application at the 100.27-acre Key West Golf Club golf course. The golf course irrigation system consists, in part, of two unlined interconnected ponds that do not directly discharge to surface waters[6/] and that have a storage capacity exceeding one million gallons. KWRU sends reclaimed water to the golf course through its reclaimed water reuse system only in the quantity required to meet the course's irrigation needs.

30. The Existing Permit imposes a minimum residual chlorine level of 1 mg/L and a maximum of 5 mg/L turbidity for the treated wastewater to be considered reclaimed water that can be reused as irrigation at the golf course or as otherwise authorized in the Existing Permit. If the treated wastewater does not meet these standards, switchover/interlock equipment at the Facility disables the power to the pumps that send the reclaimed water offsite for reuse.[7/]

31. At that point, the treated wastewater is considered treated effluent.[8/] The effluent fills the effluent wet well and is piped directly to the existing underground injection wells for disposal.

32. Pursuant to the Existing Permit, the effluent is disposed of by gravity flow through two Class V, Group 3, ten-inch underground injection wells bored to a depth of 110 feet and cased to a minimum depth of 60 feet. Collectively, the two injection wells have a maximum permitted capacity of .499 MGD AADF.

33. As authorized by the Existing Permit, the underground injection wells discharge the effluent to Class G-III ground water within the Key Largo Limestone.[9/]

34. The underground injection wells are not the primary means of disposal for the treated wastewater, in the sense that they are used to remove effluent from the Facility only if and when reclaimed water is not needed by the golf course or the other receiving facilities, or when the treated wastewater does not meet the required residual chlorine and turbidity limits discussed above.

35. The Existing Permit and the activities authorized thereunder are not at issue in this proceeding.

III. Activities Authorized by the Permit at Issue

36. The Permit at Issue proposes to authorize the construction of a new .350 MGD treatment train, which will increase the design capacity and permitted capacity of the plant from .499 MGD to .849 MGD AADF. The proposed modification of the Existing Wastewater Facility entails the addition of a 90-foot

diameter tank containing an influent screen, a 105,554-gallon influent equalization tank, a 163,000-gallon aeration chamber, a 154,725-gallon post-anoxic chamber, a 35,525-gallon re-aeration zone, a 112,062-gallon clarifier, and a 317,950-gallon digester. The sand filters and chlorine contact chambers currently in use will be expanded to accommodate flows from the new treatment train, and the chlorine contact chambers will be changed to liquid bleach feed.

37. The Permit at Issue also proposes to authorize the construction and operation of a new .499 MGD AADF underground injection well system consisting of two new Class V, Group 3 ten-inch wells, drilled to a depth of at least 110 feet and cased to a depth of at least 60 feet, which would discharge effluent to Class G-III ground water within Key Largo Limestone. When placed into service along with the two existing injection wells, the total design capacity and permitted capacity of all four underground injection wells would be .998 MGD AADF.[10/]

38. The existing reclaimed water reuse system for the Key West Golf Club or the other receiving facilities currently is authorized for a permitted flow capacity of .499 MGD AADF and a design capacity of 1 MGD AADF. The Permit at Issue would authorize the construction of a new reclaimed water reuse system having a permitted capacity of .849 MGD AADF; however, the design capacity of the system remains 1 MGD AADF, and the amount of

reclaimed water sent to the golf course for reuse as irrigation is not being changed by the Permit at Issue from that currently authorized by the Existing Permit.

39. Hereafter, the proposed modifications to the Existing Wastewater Facility that are the subject of the Permit at Issue are referred to as the "Project." The expanded facility resulting from completion of the Project is referred to as the "Expanded Wastewater Facility."

40. The Existing Wastewater Facility treatment trains will be modified to meet the AWT standards as of January 1, 2016. Specifically, an alkalinity control system, a carbon injection system, and an alum injection will be added and certain aspects of the wastewater treatment process will be modified as necessary to meet the AWT standard.

41. The new treatment train proposed as part of the Project will be designed to meet the AWT standards upon operation, which will not occur sooner than 2016. Accordingly, as required by section 403.086(10(d)1., all effluent from the Expanded Wastewater Treatment Facility will meet the AWT standards as of January 1, 2016.

42. As a result of conversion of the wastewater treatment process to AWT, and even assuming all treated effluent is injected down the wells, total nitrogen loading will be decreased from 58 pounds per day to 15.9 pounds per day and total

phosphorous loading will be decreased from 14.4 pounds per day to 5.3 pounds per day. This is the case even though the volume of effluent disposed of through the wells may as much as double.

43. Only the activities comprising the Project, which are the proposed to be authorized by the Permit at Issue, are the subject of this proceeding.

IV. The Permitting Process

44. The overarching purpose of the wastewater facility permitting process, including permitting of modifications to an existing wastewater facility, is to ensure that the wastewater facility does not discharge wastes to any waters of the state without first being given the degree of treatment necessary to protect the beneficial uses of such waters. This is accomplished by requiring the facility to be designed, constructed, and operated in accordance with applicable DEP rule standards, which incorporate industry standards. Fla. Admin. Code R. 62-600.100(1).

45. Similarly, the overarching purpose of the Underground Injection Well System permitting process is to protect the quality of underground sources of drinking water and prevent degradation of the quality of other aquifers adjacent to the injection zone that may be used for other purposes. This is accomplished by requiring underground injection wells to be designed, constructed, and operated in accordance with applicable

DEP rule requirements and standards. Fla. Admin. Code R. 62-528.100(1).

46. The Wastewater Facility or Activity Permit Application Form 1, General Information, and Application Form 2A, Permit for Domestic Wastewater Treatment and Reuse or Disposal Facility, which are adopted by rule, are the forms that must be completed and submitted to DEP to receive authorization to modify existing wastewater facilities or construct new wastewater facilities. This form includes a list of requirements, some (but not necessarily all) of which apply to proposed modification of an existing wastewater facility. The form requires that a Florida-licensed P.E. certify that the engineering features of the project have been designed by the engineer in conformance with the sound engineering principles applicable to such projects, and that, in his or her professional judgment, the facility, when properly constructed, operated, and maintained, will comply with all applicable statutes and the rules.

47. The Application to Construct/Operate/Abandon Class I, III, or V Injection Well System, which is adopted by rule, is the application form that must be completed and submitted to DEP to receive authorization to construct and operate a Class V Injection Well System. This application form includes a list of requirements, some (but not necessarily all) of which apply to a specific underground injection well construction project. The

form requires that a Florida-licensed P.E. certify that the engineering features of the injection well have been designed and examined by the engineer and found to conform to modern engineering principles applicable to the disposal of pollutants as proposed in the permit application. By signing and sealing the application, the P.E. certifies that, in his or her professional judgment, there is reasonable assurance that the injection well, when properly maintained and operated, will discharge effluent in compliance with all applicable statutes and rules.

48. Once the application forms are submitted, DEP permitting staff reviews the applications and determines whether items on the forms and any materials submitted to support those items are incomplete or need clarification. In that event, staff sends the applicant a Request for Additional Information ("RAI"), requesting the applicant to provide additional information to address incomplete or unclear aspects of the application.

49. Once the applicant has provided information sufficient to enable DEP to review the application for issuance or denial of the permit, DEP determines the applications complete and reviews the project for substantive compliance with all applicable statutory and rule permitting requirements.

50. DEP is authorized to issue the permit, with such conditions as it may direct, if the applicant affirmatively

provides reasonable assurance, based on the information provided in the application, that the construction, expansion, modification, operation, or activity of the installation will not discharge, emit, or cause pollution in contravention of DEP standards or rules proposed in the application. Fla. Admin. Code R. 62-4.070(1). If the applicant fails to provide such reasonable assurance, the permit must be denied. Conversely, if the applicant provides such reasonable assurance, the applicant is legally entitled to issuance of the permit.

V. Engineering Design of the Project

51. KWRU retained Weiler Engineering Corporation to design the proposed modifications to the Existing Wastewater Facility and the new underground injection well (again, collectively referred to as the "Project") and to prepare and submit the applications for the Permit at Issue to DEP.

52. Edward Castle and Christopher Johnson prepared the applications for the Permit at Issue.

53. As the applicant, Johnson signed the application documents as required pursuant to the application form.

54. As the engineer of record, Castle signed and sealed the certifications in the application forms, representing that he was the engineer in responsible charge of preparing the Project's engineering documents.

55. Castle's signature and seal on the application forms for the wastewater treatment facility expansion portion of the Project constitute his representation that he designed and examined the engineering features of the wastewater treatment facility expansion; that these features conform to sound engineering principles applicable to the Project; and that, in his professional judgment, the wastewater treatment facility expansion portion of the Project, when properly constructed, operated, and maintained, will comply with all applicable statutes and rules, including the requirement that the effluent meet the AWT standards as of January 1, 2016.

56. Similarly, Castle's signature and seal on the application to construct the new underground injection wells constitute his representation that he designed the engineering features of these injection wells; that the injection wells conform to modern engineering principles applicable to the disposal of pollutants as proposed in the permit application; and that in his professional judgment, there is reasonable assurance that the wells, when properly maintained and operated, will discharge effluent in compliance with all applicable statutes and rules, including the requirement that the effluent discharged through the injection wells meet AWT standards as of January 1, 2016.

57. As previously noted, the design capacity of wastewater treatment portion of the Expanded Wastewater Facility is proposed to be .849 MGD AADF. Castle selected this design capacity based on historic wastewater flows at the Existing Wastewater Facility and foreseeable projected wastewater treatment capacity demand in the future.[11/] Specifically, to estimate future capacity demand, Castle considered development agreements, requests for utility service, the existence of scarified property and applicable development density, wetslips, recent property sales, and estimated and proposed in-fill development on Stock Island. He projected residential development wastewater treatment demand based on historic actual flow data from the Monroe County Sanitary Wastewater Master Plan ("Master Plan"), in conformance with the Recommended Standards for Wastewater Facilities, the so-called "Ten States Standards," a wastewater systems design and planning guidance document incorporated by reference in rule 62-600.300(4). Additionally, Castle applied the estimated sewage flows codified in Florida Department of Health rule 64E-6.008, Table I, System Design Estimated Sewage Flows ("DOH Table I"), to estimate wastewater treatment demand for projected commercial and hotel development uses. Once Castle had projected wastewater capacity demand for residential and hotel/commercial uses at buildout on Stock Island, he factored in an additional 15 percent

capacity safety factor to derive the .849 MGD AADF design capacity for the Expanded Wastewater Facility.

58. Castle chose AADF, rather than the maximum monthly average daily flow or three-month average daily flow, as the timeframe for the design capacity based on historical flow amounts to the Existing Wastewater Facility and because of insignificant seasonal variations in historical flows to the Facility.[12/] This is because the population on Stock Island contributing flow to the Existing Wastewater Facility is largely comprised of non-seasonal residents and commercial operations.[13/] Nonetheless, to ensure the Expanded Wastewater Facility will have adequate capacity to effectively treat wastewater to the required standards during higher flow periods that may result from non-residential seasonal occupancy in the future, Castle assumed year-round, 100 percent occupancy for the projected hotel and commercial development on Stock Island in determining the design capacity for the Expanded Wastewater Facility.

59. Castle estimated a peak hourly flow of 1.273 MGD for the Expanded Wastewater Facility. This figure estimates the maximum flow through the facility on an hourly basis specifically to take into account the diurnal variability of wastewater flow entering the facility. By definition, the peak hourly flow is a maximum hourly flow rather than the sustained flow or volume into or through the facility. The projected maximum hourly flow of

1.273 MGD, which was determined by multiplying the annual average daily flow by a peaking factor of 1.5, is an estimate of the maximum hourly flow wastewater coming into the Expanded Wastewater Facility's equalization tanks. Importantly, it is not the volume of wastewater flow, on an annual average daily basis, that will leave the facility's equalization tanks and flow through the facility's treatment process. Put another way, the 1.273 MGD peak hourly flow is not the Expanded Wastewater Facility's design capacity.

60. As previously noted, the permitted capacity of the wastewater treatment portion of the Expanded Facility also would be .849 MGD AADF. The permitted capacity is the amount, on an annual average daily flow basis, that the wastewater treatment portion of the Expanded Wastewater Facility is authorized to treat and discharge. This metric establishes an absolute limit, on an annual average daily basis, on the quantity of wastewater that can be treated by, and discharged from, the Expanded Wastewater Facility.

61. Also as discussed above, once the two new underground injection wells are installed, the total design capacity of the four wells at the Expanded Wastewater Facility will be .998 MGD AADF. The two new injection wells are being added to ensure adequate disposal capacity for the .849 MGD permitted capacity and, importantly, to accommodate the peak hourly flow.

62. The reclaimed water reuse system currently has an authorized design capacity of 1 MGD AADF, and this is not being changed by the Project, although the permitted capacity is being increased to .849 MGD AADF. As discussed in greater detail below, neither the design capacity nor the permitted capacity of the reuse system is a function of the irrigation application rate per acre of the golf course, and neither represent the amount of irrigation applied to the golf course per day.

63. In determining the design capacity for the Expanded Wastewater Facility, Castle considered wastewater capacity demand for the facility through the year 2020, rather than over a 20-year period. This is because buildout of the properties on Stock Island that will contribute flow to the facility is reasonably projected to occur between 2018 and 2020. After buildout, there will be no additional properties being developed to contribute additional wastewater flows to the Expanded Wastewater Facility.

64. The credible, persuasive evidence establishes that the proposed design capacity of .849 MGD AADF for the Expanded Wastewater Facility is appropriate under rule 62-600.200(19) and other pertinent provisions in chapter 62-600 and conforms to sound engineering principles applicable to the Expanded Wastewater Facility.

65. The credible, persuasive evidence also establishes that the proposed permitted capacity of .849 MGD AADF for the

Expanded Wastewater Facility is appropriate under rule 62-600.200(62) and other pertinent provisions of chapter 62-600 and conforms to sound engineering principles applicable to the Expanded Wastewater Facility.

66. The credible, persuasive evidence further establishes that the Project, when properly constructed, operated, and maintained, will comply with all applicable statutes and rules, including the requirement that the effluent meet the AWT standards as of January 1, 2016.

67. The credible, persuasive evidence also establishes that the underground injection wells, as designed, conform to modern engineering principles applicable to the disposal of pollutants as proposed in the permit application; and that there is reasonable assurance that the wells, when properly constructed, maintained, and operated, will discharge effluent in compliance with all pertinent statutes and rules, including the requirement that the effluent discharged down the injection wells meet AWT standards as of January 1, 2016.

VI. DEP Review and Proposed Issuance of the Permit at Issue

68. The wastewater treatment facility and underground injection well applications for the Project were submitted to DEP on April 15, 2014.

69. During DEP's review of the applications for the Project, the question arose whether the 1.273 MGD peak hourly

flow stated in the permit application would trigger the so-called "deep well" requirement in section 403.086(10)(e)2. that the underground injection wells be cased to a minimum depth of 2,000 feet.

70. DEP ultimately concluded that the term "design capacity," as used in the statute, referred to an average daily flow rate[14/] over a specified period of time—here, a year—for the Expanded Wastewater Facility, rather than the transient peak hourly flow for the facility. Thus, the Expanded Wastewater Facility does not have a design capacity exceeding 1 MGD, so the deep well requirement in section 403.086(10)(e)2. does not apply to the Expanded Wastewater Facility.

71. DEP permit review staff issued one RAI, and KWRU timely provided the requested information. Upon receipt and review of KWRU's response to the RAI, DEP deemed the application for the Permit at Issue complete.

72. DEP staff reviewed the permit applications for compliance with applicable statutory and rule requirements and standards.

73. DEP's review does not entail re-designing or re-engineering the project or questioning the design engineer's reasonable exercise of judgment on design matters, as long as the project is accurately designed based on sound engineering principles and will operate in accordance with the applicable

permitting requirements and standards. Thus, as a matter of practice, DEP relies, to a large extent, on the design engineer's certification that the system is accurately designed according to sound engineering principles—as is appropriate and authorized pursuant to the certification provisions on the application forms, rule 62-4.050(3), and chapter 471 and Florida Board of Engineering rules.[15/]

74. Gary Maier, P.E., professional engineer supervisor III and supervisor of DEP's domestic wastewater facility permit review staff, also reviewed the applications, the Intent to Issue, and the draft Permit at Issue to ensure that the Project complied with all applicable rules and standards and that KWRU had provided reasonable assurances such that the Project should be approved.

75. Ultimately, DEP determined that KWRU provided reasonable assurances that the relevant permit applications met the applicable statutory and rule requirements and standards. Accordingly, DEP issued a Notice of Intent to issue the Permit at Issue.

VII. Establishment of Prima Facie Entitlement to Permit at Issue

76. The relevant portions of the permit file, including the permit applications, supporting information, and Notice of Intent to Issue for the Permit at Issue, were admitted into evidence at the final hearing.

77. With the admission of these documents into evidence, KWRU established its prima facie case demonstrating entitlement to the Permit at Issue. See § 120.569(2)(p), Fla. Stat.

VIII. Challenge to the Permit at Issue

78. Once KWRU demonstrated prima facie entitlement to the Permit at Issue, the burden shifted to Petitioners to present evidence proving their case in opposition to the Permit at Issue. See id. To prevail in this proceeding, Petitioners bear the ultimate burden of persuasion to prove their case by a preponderance of the competent substantial evidence.

79. Petitioners have raised numerous grounds in the Second Amended Verified Petition for Formal Administrative Hearing[16/] that they contend mandate denial of the Permit at Issue. Each of these grounds is addressed below.

A. Alleged Permit Application Deficiencies

80. Petitioners contend that the Permit at Issue should be denied due to alleged deficiencies in the applications submitted for the Project.

Capacity Analysis Report

81. Petitioners allege that, under rule 62-600.405, KWRU was required to submit a Capacity Analysis Report ("CAR") as part of its application for the Permit at Issue and that its failure to do so renders the applications incomplete, thus requiring denial of the Permit at Issue.

82. The purpose of a CAR is to analyze capacity at an existing wastewater facility and to apprise DEP when it becomes evident that expansion of the wastewater facility may be needed. Specifically, the CAR is performed and submitted on a periodic basis, or when certain contingencies occur, to apprise DEP of the actual flows through the facility. If the actual flows are approaching the facility's permitted capacity, the CAR serves to notify DEP that expansion of the facility may be warranted. Thus, the CAR helps ensure that the permittee recognizes the need for, and properly plans for, future expansion of the facility.

83. In support of their contention, Petitioners presented the testimony of William Lynch, a Florida-licensed P.E., who has experience in the planning and design of wastewater treatment facilities in Florida, including the Florida Keys.

84. Lynch testified that the most recent three-month average daily flows reported to the DEP by KWRU repeatedly exceeded 50 percent of the permitted capacity of the Existing Wastewater Facility, thereby triggering the requirement in rule 62-600.405[17/] that a CAR be submitted.

85. KWRU previously submitted an initial CAR when the Existing Wastewater Facility historically exceeded 50 percent of its permitted capacity. Thereafter, KWRU submitted an updated CAR in April 2012, as part of the renewal application for the Existing Permit that KWRU filed in October 2011. The April 2012

CAR indicated that permitted flows would not be exceeded for ten years. Thus, under rule 62-600.405(5), a subsequent updated CAR would be due at five year intervals or when the applicant applied for an operation permit or renewal of an operation permit, whichever occurred first.[18/]

86. The persuasive evidence establishes that during the period between issuance of the Existing Permit in February 2012 and submittal of the applications for the Permit at Issue in 2014, the three-month average daily flows for the Existing Facility had not exceeded 50 percent of the treatment plant's capacity and the five-year interval CAR submittal interval (which would have expired in 2017) had not yet expired, so an updated CAR was neither required nor submitted.

87. When development on Stock Island resumed in the 2012 through 2014 timeframe following an economic recession, it became apparent from actual flow data that the Existing Wastewater Facility would need to be expanded to accommodate the wastewater flow from new development, as well as to accommodate wastewater flow from existing development being required by law to connect to a central wastewater system.

88. Accordingly, in April 2014, KWRU submitted the applications for the Permit at Issue. As part of KWRU's applications, the design and permitted capacity of the Existing Wastewater Facility were analyzed, and future wastewater flows

for the facility were projected, taking into account all relevant factors, including projected development over an appropriate planning period, new connections from existing development, and the lack of seasonal variation in historic flows. Based on this information, the proposed design and permitted capacities for the Expanded Wastewater Facility were determined. This information is precisely that which would have been required in an updated CAR.

89. Because all pertinent information necessary to determine the design and permitted capacities for the Expanded Wastewater Facility was submitted as part of the applications for the Permit at Issue, a separate CAR was not required and, indeed, would have been redundant and pointless.

90. It should be noted that the Permit at Issue specifically requires submittal of a CAR upon renewal, which is five years from the date of issuance. Further, the Expanded Wastewater Facility is subject to chapter 62-600, including rule 62-600.405, so KWRU would be required to submit a CAR if circumstances specified in the rule were to occur.[19/]

91. Thus, Petitioners failed to demonstrate, by a preponderance of the competent substantial evidence, that a CAR was required to be submitted as part of applications for the Permit at Issue.

92. Accordingly, the absence of a CAR as part of the applications is not a basis for denying the Permit at Issue.

Deep Injection Well Requirement

93. Petitioners contend that the design capacity for KWRU's wells exceeds 1 MGD, so KWRU was required under section 403.086(10)(e)2. to apply for approval to install deep injection wells—i.e., wells that are cased to a minimum depth of 2,000 feet. Petitioners further contend that KWRU's failure to include an application for deep injection wells in its applications thus mandates denial of the Permit at Issue.

94. Under section 403.086(10)(e)1., injection wells serving wastewater facilities that have a design capacity of less than 1 MGD are required to be at least 90 feet deep and cased to a minimum depth of 60 feet.

95. Under section 403.086(1)(e)2., injection wells serving wastewater facilities having a design capacity equal to or greater than 1 MGD must be cased to a minimum depth of 2,000 feet or such greater depth as may be required by DEP rule.

96. As previously discussed, rule 62-600.200(19) defines "design capacity" as "the average daily flow projected for the design year which serves as the basis for the sizing and design of the wastewater facilities." The rule states that the design capacity is established by the permit applicant, and that the timeframe associated with the design capacity—such as annual

average daily flow, maximum monthly average daily flow, or three-month average daily flow—also is specified by the applicant.

97. Additionally, rule 62-600.400(3)(a), which is part of DEP's Design Requirements rule for domestic wastewater facilities, reiterates that the applicant establishes both the design capacity and the timeframe used to define its selected design capacity, with the caveat that the timeframe selected must reflect seasonal variations in flow, if any.

98. As discussed above, the credible, persuasive evidence establishes that KWRU's selected design capacity and timeframe —here, .849 MGD AADF—accurately and appropriately addresses the projected wastewater flows that will be treated by the Expanded Wastewater Facility. As Castle credibly testified, historical flows to the Existing Wastewater Facility do not indicate substantial seasonal residential flow, consistent with the workforce population residing year-round on Stock Island. Moreover, to the extent there may be some seasonal flow variation associated with projected hotel and commercial development, Castle took that into account in determining the design capacity for the Expanded Wastewater Facility. For these reasons, Castle's selection of AADF as the design capacity metric is appropriate, conforms to sound engineering principles, and complies with applicable DEP rules.

99. Further, as previously discussed, the 1.273 MGD peak hourly flow is exactly that—the peak or maximum flow expressed on an hourly basis—that can be processed by the Expanded Wastewater Facility. It does not constitute the design capacity of the Expanded Wastewater Facility, which, by definition, is the average flow over a specified period of time.

100. The persuasive evidence in the record shows that the proposed design capacity of the Expanded Wastewater Facility is .849 MGD AADF, and this design capacity is appropriate and based on sound engineering principles.

101. As such, the design capacity of the facility is less than 1 MGD, so the deep well requirement in section 403.086(10)(e)2. does not apply to the Project.

102. Thus, Petitioners failed to demonstrate, by a preponderance of the evidence, that the deep well requirement in section 403.086(10)(e)2. applies to the Project. Accordingly, they did not establish that the Permit at Issue should be denied on the basis that KWRU did not apply for approval of deep injection wells as part of the applications for the Project.

Identity of Permittee

103. The Permit at Issue is proposed to be issued to Key West Resort Utilities Corporation, which is not an existing entity registered to do business in Florida or in any other state. Petitioners contend, and KWRU and DEP do not dispute,

that a permit issued to an entity that does not legally exist cannot legally authorize any activities. Accordingly, to the extent the Permit at Issue is proposed to be issued to Key West Resort Utilities Corporation, Petitioners contend that this constitutes a basis for denying the Permit at Issue.

104. At the hearing, DEP and KWRU presented credible evidence showing that the correct permittee is KW Resort Utilities Corp., not Key West Resort Utilities Corporation as was stated on the proposed Permit at Issue. Further, the permit applications correctly identify KWRU as the applicant for the Permit at Issue. Thus, identification of Key West Resort Utilities Corporation as the permittee on the proposed Permit at Issue was a typographical error, and the evidence establishes that this error will be corrected when the Permit at Issue is issued.

105. If this typographical error is corrected, then the Permit at Issue should not be denied on this basis.

B. Alleged Project Design and Engineering Deficiencies

106. Petitioners allege that KWRU failed to provide reasonable assurance, based on a preliminary design report, plans, test results, installation of pollution control equipment, or other information, that the construction, modification, or operation of the Expanded Wastewater Facility will not discharge

or cause pollution in contravention of chapter 403 and applicable DEP rules.

107. Petitioners further allege that KWRU has undersized the design capacity of the Expanded Wastewater Facility and that the appropriate design capacity is greater than 1 MGD, thus triggering the deep well requirement in section 403.086(10)(e)2.

Projected Flows to Expanded Wastewater Facility

108. In support of their position, Petitioners presented the testimony of William Lynch, a Florida-licensed P.E., who testified that the future wastewater flows to the Expanded Wastewater Facility projected by KWRU in its applications are incorrect because they do not accurately address planned development in KWRU's service area, as required by the Ten States Standards.

109. Lynch took the position that pursuant to the Ten States Standards, the appropriate planning horizon for the Project is at least ten years, which would require KWRU to project wastewater flow to the Expanded Wastewater Facility through approximately 2025, rather than through 2020, as projected in the applications for the Project.

110. However, the persuasive evidence shows that KWRU utilized an appropriate planning horizon in projecting future wastewater flows to the Expanded Wastewater Facility. KWRU's facility design engineer, Castle testified, persuasively, that

although the graphic submitted in the application shows the projected wastewater flows only through the year 2020, the planning horizon he used actually was infinite. This is because the projected buildout of the service area[20/] to maximum wastewater flow is anticipated to occur between 2018 and 2020, and after that point, wastewater flows to the facility would remain constant. Thus, it was pointless to depict projected flows out to the year 2025—particularly since the narrative in the application describing the Project makes clear that buildout of KWRU's service area is anticipated to occur by 2020. Because the wastewater flows projected for the year 2020 accurately represent the maximum flows that the Expanded Wastewater Facility can process, the projected planning horizon to the year 2020 is appropriate for the facility, complies with the Ten States Standards, and complies with DEP rules.

111. Lynch also asserted that the projected wastewater flows to the Expanded Wastewater Facility from development identified in the application do not accurately apply the standards in DOH Table I and that this inaccuracy further contributed to underestimation of the design capacity of the Expanded Wastewater Facility.

112. Lynch arrived at this position by applying Table I to all identified future development—both residential and nonresidential—and considering an additional development (Key

West Harbor Yacht Club) not listed in the applications. He projected that the future wastewater flow from these developments would be approximately 146,110 gallons per day—approximately 46,000 gallons per day higher than the 100,000 gallons per day that Lynch claimed KWRU projected for the planned developments on Stock Island. Based on the addition of 46,000 gallons to KWRU's proposed design capacity of .849 MGD, Lynch opined that .895 MGD is the design capacity that should have been proposed for the Expanded Wastewater Facility.

113. However, the credible, persuasive evidence establishes that, in determining the design capacity of .849 MGD for the Expanded Wastewater Facility, Castle accurately projected the wastewater flow quantities from future development on Stock Island.

114. Castle described in detail the process he undertook to determine the projected wastewater flows from the various land uses and locations on Stock Island through projected buildout between 2018 and 2020.

115. Specifically, he identified planned nonresidential development on Stock Island expected to begin producing wastewater flows in 2014 and applied the DOH Table I standards to determine the projected flows for each development.

116. To determine projected wastewater flow from future residential development on Stock Island, Castle identified

approximately 40 acres of scarified or under-utilized property in KWRU's service area and applied a density of 12 equivalent dwelling units ("EDU") per acre,[21/] with 167 gallons per day of wastewater flow attributable to each EDU, using actual historic wastewater flow data from the Master Plan. Additionally, for each scarified or under-utilized property having water frontage, he projected one boat slip per 35 feet of frontage and applied a 75-gallon-per-day flow for each boat slip using DOH Table I recreational vehicle flows.

117. For years 2016 through 2019, Castle projected incremental increases in wastewater flows per year[22/] to account for potential development of other currently occupied properties.

118. The aggregate of all projected flows from the identified developments, the 40 acres and boat slips, and the incremental increases per year through buildout yielded a projected wastewater flow of .74 MGD to the Expanded Wastewater Facility by years 2018 through 2020, which represents buildout flow to the facility.

119. Castle then added a "safety factor" of 15 percent to the projected .74 MGD wastewater flow to accommodate currently unknown future redevelopment of existing occupied properties, to reach the .849 MGD design capacity.

120. The 46,000-gallon discrepancy between Lynch's .895 MGD design capacity calculation and Castle's .849 MGD design capacity

calculation is attributable to four basic differences in how they each determined design capacity.

121. First, Lynch used more recent development agreement and development order information that more precisely identified and quantified specific land uses than the information that KWRU had available to it at the time it prepared and submitted its application. However, the evidence did not establish that the flow information on which Lynch relied and that on which Castle relied were so appreciably different as to significantly affect the projected design capacity for the Expanded Wastewater Facility.

122. Second, Lynch applied DOH Table I to project future wastewater flows from all future planned development on Stock Island, both residential and nonresidential, whereas Castle applied DOH Table I only to determine nonresidential development future flows, and used actual historic flow data from the Master Plan to determine residential development future flows. Castle's residential flow calculation using historical actual flow data conforms to the recommendation in section 11.242(a) of the Ten States Standards that actual flow data be used, to the extent possible, to predict future flows; thus, Castle's calculation likely more precisely projects future flow attributable to residential development on Stock Island.[23/]

123. Third, Lynch took into account the Key West Harbor Yacht Club flow into the Expanded Wastewater Facility, whereas KWRU did not consider this flow in projecting future flows to the facility. This omission constituted an oversight on KWRU's part, and the flow from this development should have been included in the wastewater flow projection for the facility. However, the persuasive evidence did not show that this omission constituted a significant error in KWRU's .849 MGD AADF design capacity projection.[24/]

124. Fourth, Lynch apparently misinterpreted a statement in the application referencing "such redevelopment" as referring to the known planned developments on Stock Island, which were specifically identified by name in the application, and, thus, interpreted the reference to 100,000 gallons as being the flow KWRU projected for those known, named developments. However, the persuasive evidence established that the 100,000 gallons that KWRU assigned to "such redevelopment" in its application referred not to the known, named developments identified in the application, but instead to presently unknown future development on Stock Island, which Castle took into account by including the 15 percent "safety factor" in determining design capacity.

125. Pursuant to the foregoing, it is determined that KWRU demonstrated, by credible, persuasive evidence, that it accurately estimated future wastewater flows from projected

development on Stock Island to determine an appropriate design capacity of .849 MGD AADF for the Expanded Wastewater Facility.

Design Capacity Timeframe

126. Petitioners allege that the timeframe associated with the design capacity specified by KWRU—the annual average daily flow, or AADF—is not appropriate for the Expanded Wastewater Facility because it fails to reflect seasonal flows to the facility as required by rules 62-600.200(16) and 62-600.400(3)(a). Petitioners assert that the design capacity for the facility should instead be expressed in maximum monthly average daily flow ("MMADF") to account for seasonal flows.

127. In support, Petitioners presented the testimony of Lynch, who opined that the KWRU service area experiences seasonal flows driven by the influx of tourists to Stock Island during tourist season. Lynch based this opinion on the wastewater flow data for the Existing Wastewater Facility for the year 2014, and his calculations showing that the three-month average daily flow ("ADF") for October through December 2014 was 11 percent higher than the AADF and that the MMADF for that period was 16 percent higher than the AADF. Lynch considered this variation substantial enough to indicate seasonality, so that MMADF is the appropriate design capacity timeframe for the Expanded Wastewater Facility.

128. Using MMADF as the design capacity timeframe, Lynch opined that the design capacity of the Expanded Wastewater Facility should be 1.04 MGD MMADF—which would trigger the deep well requirement in section 403.086(10)(e)2.

129. Castle chose AADF as the timeframe for the Expanded Wastewater Facility design capacity because historical flow records over a period of years do not show significant seasonal variations in flow for Stock Island. Castle testified, credibly and persuasively, that while the historical flow data shows a consistent slight increase in flows from August to December, in his view, the variation is not significant enough to constitute a seasonal flow. This is consistent with the evidence establishing that Stock Island is a "bedroom community" having a mostly year-round workforce population.

130. Lynch formulated his opinion regarding appropriate design capacity using 2014 flow data for the entire year, which was not available at the time KWRU filed its permit applications for the Project in April 2014. Although Lynch relied on more recent data, his opinion was based only on one year of data. By contrast, Castle selected AADF as the design capacity metric based on the previous five years of flow data, which showed variations in flow ranging between two percent and 12 percent on a three-month average daily flow basis. Castle credibly testified that these variations were not significant enough to

indicate seasonal flows and did not closely correlate with tourist season in the Keys. Additionally, in calculating his flow projections for the Expanded Wastewater Facility, Castle assumed 100 percent year-round occupancy for residential units, so that his projected design capacity of .849 MGD necessarily took into account potential seasonal flows. Thus, to the extent there are seasonal flows, the facility simply will receive flows below the design capacity during off-season. The undersigned finds Castle's use of long-term historical flow data more reliable than Lynch's use of only one year of data in assessing whether there is flow seasonality.[25/]

131. DEP's wastewater permitting supervisor, Gary Maier, concurred that the variations in wastewater flow do not reflect a significant seasonal variation that would require the use of a smaller averaging period than AADF. Maier also observed that none of the wastewater facilities in the Florida Keys having a design capacity greater than 100,000 gallons per day has a design capacity based on MMADF. This evidences that Castle's selection of AADF as the timeframe metric conforms to the design capacity standard used for facilities of comparable size in the Florida Keys.

132. Based on the foregoing, it is determined that KWRU's selection of AADF as the design capacity timeframe metric for the

Expanded Wastewater Facility is appropriate and complies with DEP rules.

133. Petitioners failed to demonstrate that KWRU's selection of AADF as the design capacity timeframe metric violates any applicable laws or rules. Accordingly, Petitioners did not demonstrate that the Permit at Issue should be denied on this basis.

Ability of Expanded Wastewater Facility to Reliably Meet AWT

134. Petitioners further allege that KWRU failed to provide a complete application demonstrating that the treatment processes for the Expanded Wastewater Facility will efficiently and reliably meet effluent limitations for design year flow.

135. As discussed above, the evidence establishes that KWRU provided all of the information required for the applications for the Permit at Issue, so DEP correctly determined that the applications were complete before commencing its substantive review of the applications.

136. Also as discussed above, Lynch opined that the proposed design capacity was undersized for the flows he projected for the Expanded Wastewater Facility. However, the persuasive evidence shows that KWRU's proposed design capacity of .849 MGD AADF is appropriate, conforms to sound engineering principles, and meets applicable statutory and rule requirements.

137. In order to ensure that a wastewater facility functions effectively and reliably, it is important that the facility not be substantially oversized for the amount of wastewater flowing into the facility. In an over-sized facility, inconsistent timing of wastewater flow, lack of appropriate chemical environment for waste breakdown, and inadequate food supply for the microorganisms may lead to ineffective performance of the facility. A consequence of these imbalances is that undesirable microbes may populate the facility, causing incomplete solids settlement, overflow of solids downstream to the filters, and operational problems resulting in failure of the facility to treat wastewater to AWT standards.

138. KWRU provided reasonable assurance, based on the proposed .849 MGD AADF design capacity and the other engineering features of the Project, that the Expanded Wastewater Facility is appropriately sized and will effectively and reliably treat the wastewater to AWT standards.

139. Thus, Petitioners failed to prove that the Permit at Issue should be denied on the basis that it is undersized and will not reliably meet AWT standards.

Key West Golf Club Reuse System Issues

140. Petitioners contend that as part of the applications for the Project, KWRU proposes to send 1 MGD of reclaimed water to the golf course. Petitioners claim that, given an irrigated

area of 100.27 acres and an average irrigation rate of .73 inches per acre per day, only 300,000 gallons of reclaimed water per day is accounted for by reuse as irrigation. On that basis, Petitioners allege that KWRU has not demonstrated that the 700,000 gallon-per-day balance of reclaimed water sent to the golf course will be reused for a beneficial purpose rather than being disposed. This contention is based on a misunderstanding of the structure and function of the reuse system.

141. The 1 MGD flow stated in the permit application is the design capacity of the reuse system, which is not being changed by the Permit at Issue. Importantly, this figure does not quantify the amount of water that is or actually will be sent to the golf course or applied as irrigation to the golf course irrigated area in a single day. Rather, it represents the flow capacity to which the reuse system is designed.[26/]

142. The applications for the Permit at Issue do not propose any changes to the quantity of reclaimed water being reused, which is governed by the irrigated acreage at the golf course and the irrigation rate. These parameters are not being changed.

143. As previously discussed, KWRU sends reclaimed water to the golf course only on an as-needed basis, where it is stored in the ponds until needed for irrigation. If the course does not need reclaimed water sent to the ponds, KWRU does not send the

water. Thus, the golf course controls the amount of reclaimed water that is sent to the storage ponds.

144. Although the permitted capacity of the reuse system is being expanded from .499 MGD AADF to .849 MGD AADF, the actual amount of reclaimed water sent to the golf course by KWRU is not anticipated to change because, as discussed above, the amount being reused for irrigation is not being changed. Since the amount of reclaimed water being reused for irrigation is not increasing, the reuse system is not being expanded.

145. Thus, the evidence does not show that 700,000 gallons per day of reclaimed water will be sent to the golf course for disposal, inconsistent with rule 62-610.810(2), rather than being reused for a beneficial purpose.[27/]

146. Petitioners also assert that the increased permitted capacity of the reuse system constitutes a "new or expanded reuse or land application project," so that an engineering report and reuse feasibility study were required as part of the applications for the Permit at Issue, pursuant to rule 62-610.310(1).

147. KWRU previously provided these documents when it originally applied for authorization of the reuse system.

148. The credible, persuasive evidence shows that increasing the permitted capacity of the reuse system does not trigger the requirement to submit another engineering report or reuse feasibility study. This is because no changes to the

structural components or operation of the reuse system facilities are proposed.

149. As Castle credibly explained, and Maier confirmed, the relevant question in determining whether an engineering report is required is whether the land application rate and/or the irrigated acreage is being changed, which would increase the amount of reclaimed water being reused and, thus, would require expansion of the reuse system.

150. As discussed, neither the irrigated area nor the irrigation application rate is proposed to change under the Project. Thus, neither an engineering report nor a reuse feasibility study are required as part of the applications for the Permit at Issue.

151. Therefore, Petitioners failed to demonstrate that the Permit at Issue should be denied on the basis that KWRU did not submit a reuse feasibility or engineering report as part of its applications for the Permit at Issue.

C. Alleged Surface Water Quality Violations by Injection Wells

152. Petitioners allege that disposing of the effluent from the Expanded Wastewater Facility through the injection wells will cause or contribute to violations of surface water quality standards codified in chapter 62-302.

153. Petitioners further allege that, as a consequence, the discharge will violate antidegradation requirements in rules 62-

4.242, 62-302.300, and 62-302.700(1), and that the wells do not comply with the underground injection control rule requirement in rule 62-528.630(7), specific to Monroe County, that the wells not cause or contribute to surface water quality violations.

Regulatory Status of Surface Waters in Stock Island Vicinity

154. A significant portion of the surface waters in the Florida Keys, including those surrounding Stock Island and Key West, are classified as Class III surface waters pursuant to rule 62-302.400. Water quality criteria adopted by rule for Class III surface waters are established to protect fish consumption, recreation, and the propagation of a healthy, well-balanced population of fish and wildlife.

155. As previously noted, certain portions of the Florida Keys, including the surface waters surrounding Stock Island and Key West, are designated an OFW. Fla. Admin. Code R. 62-302.700(9)(i)13. No degradation of surface water quality, other than that allowed under rules 62-4.242(2) and (3), is permitted in an OFW. See Fla. Admin. Code R. 62-302.700(1).

156. The narrative nutrient criterion codified at rule 62-302.530(47)(a) states: "[t]he discharge of nutrients shall be limited as needed to prevent violations of other standards contained in this chapter. Man-induced nutrient enrichment (total nitrogen or total phosphorus) shall be considered degradation in relation to the provisions of Rules 62-302.300,

62-302.700, and 62-4.242, F.A.C." The narrative nutrient criterion codified at rule 62-302.530(47)(b) states: "[i]n no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." These criteria apply in Class III surface waters, including the surface waters in and around the Florida Keys. See Fla. Admin. Code R. 62-302.531(1).

157. Rule 62-302.531(2) requires DEP to numerically interpret the narrative nutrient criterion for nutrients (nitrogen and phosphorus) and for nutrient response (chlorophyll-a). Where a site-specific numeric interpretation of rule 62-302.530(47)(b) has been established, that numeric interpretation constitutes the primary standard applicable to that site. Fla. Admin. Code R. 62-302.531(2)(a). A range of natural factors affect nutrient loading for a given waterbody. Therefore, site-specific numeric interpretations of the narrative nutrient criteria generally are deemed more reliable than broadly applicable, non-site specific criteria.

158. Estuary-specific numeric interpretations of the narrative nutrient criterion in rule 62-302.530(47)(b), consisting of nutrient values for nitrogen and phosphorus and a nutrient response value for chlorophyll-a have been adopted for many areas in the state of Florida, including the Florida Keys. These numeric interpretations—commonly referred to as "numeric

nutrient criteria," or "NNCs"—are open water, area-wide averages. See Fla. Admin. Code R. 62-302.532(1).

159. For the Florida Keys, seven Florida Keys Marine Nutrient Regions ("FKMNRs") have been identified and geographically delineated on a series of maps adopted by rule. For each of these FKMNRs, NNCs have been adopted for nitrogen, phosphorus, and chlorophyll-a. Fla. Admin. Code R. 62-302.532(1)(g). The NNCs for the Lower Keys Region and the Back Bay Region are germane to this proceeding.

160. For the Bay Back Region, the NNCs are .009 mg/L for phosphorus, .25 mg/L for nitrogen, and .3 µg/L for chlorophyll-a. For the Lower Keys Region, the NNCs are .008 mg/L for phosphorus, 0.21 mg/L for nitrogen, and 0.3 µg/L for chlorophyll-a. These NNCs are expressed as annual geometric means that are not to be exceeded more than once in a three-year period.[28/]

161. The area of water extending from the shoreline out to 500 meters offshore in the Florida Keys is referred to as the "Halo Zone." DEP has adopted by rule a map delineating the Halo Zone.

162. The NNCs applicable to surface waters in each of the FKMNRs currently do not apply to the surface waters in the Halo Zone. Thus, only the narrative nutrient criteria codified at rules 62-302.530(47)(a) and (b) apply to surface waters in the Halo Zone at this time.[29/]

163. Additionally, pursuant to chapter 62-303, the Impaired Waters Rule, DEP has identified and delineated spatial assessment areas in waterbodies based on homogeneity for multiple water quality parameters.[30/] These assessment areas, called "Waterbody IDs" or "WBIDs," are delineated for purposes of assessing, through water quality sampling, whether the surface waters within the WBID are impaired—that is, whether they fail to meet one or more of the applicable water quality standards due to pollutants.[31/]

164. DEP has delineated several WBIDs, identified by number, in the Halo Zone surrounding Key West and Stock Island. The Halo Zone surrounding Stock Island comprises WBID 6014B, and the Halo Zone surrounding Key West consists of WBIDs 6014A and 8073A through 8073H.[32/]

165. The Back Bay Region, which is located north of Stock Island and outside of the Halo Zone, is designated as WBID 8074. The Lower Keys Region consists of WBID 8073, which is located northwest of Stock Island and surrounding Key West outside of the Halo Zone, and WBID 8079, which is located south of Stock Island outside of the Halo Zone.

166. Water quality monitoring, consisting of sampling for a range of parameters, is conducted at monitoring stations within each of these WBIDs. At least one monitoring station is located within each WBID. This water quality sampling is conducted

according to DEP's applicable standard operating procedures. The monitoring stations have collected nutrient and nutrient response data spanning a period of years. The data collected in 1995 through 2013 are pertinent to this proceeding.[33/]

167. The Keys RAP, which was prepared in 2008 and updated in 2011, prescribes specific management activities to be implemented to restore surface water quality in the Florida Keys, including eliminating cesspits and onsite septic tank systems and connecting wastewater generators to centralized wastewater systems that treat the wastewater to AWT standards.

168. As authorized under rule 62-303.600, DEP determined that the Keys RAP provides reasonable assurance that the restoration goals for the surface waters in the Florida Keys will be achieved by ensuring that all management activities specified in the Keys RAP would be implemented for specified waterbodies by 2015. Accordingly, in February 2012, DEP approved and adopted the Keys RAP by Secretarial Order.

169. Current and historic water quality data show that all WBIDs in the Keys, including those in the Lower Keys Region, Back Bay Region, and Halo Zone for the surface waters surrounding Key West and Stock Island, are not impaired for nutrients—that is, that the NNCs and narrative nutrient criteria, as applicable, are being met.

170. Pursuant to sections 403.061 and 403.067, Florida Statutes, and rule 62-303.600, DEP has classified the Florida Keys WBIDs as Category 2 under the waterbody use attainment classification scheme[34/] for nutrients and nutrient response. The classification of the Keys WBIDs in this category means that sufficient water quality data are available to determine that at least one designated use is attained. Thus, as authorized by section 403.067 and rule 62-303.600(2), DEP has placed the Keys WBIDs on the "Delist List."[35/] This "de-listing" action recognizes that the Florida Keys WBIDs, including those in the Halo Zone, are not impaired for nutrients and chlorophyll-a.

Subsurface Geology in Vicinity of Stock Island

171. The parties agree that, as a general proposition, the ground water and surface waters are connected to each other in the Florida Keys. However, no evidence was presented showing a specific location or locations where ground water connects to surface waters.

172. Although it generally is undisputed that, at some point, ground water connects to surface waters, the parties disagree regarding whether, where, and how long it may take for the injected effluent to reach surface waters.

173. Petitioners contend that due to the local geology, the injected effluent from the Existing Wastewater Facility rapidly reaches surface waters in the vicinity of Stock Island and that

the increased discharge through the new injection wells will exacerbate and cause or contribute to surface water quality violations in the immediate vicinity of Stock Island and offshore.

174. In support of this position, Petitioners presented the testimony of Scott Zednek, a Florida-licensed P.G. Zednek opined that due to the absence of subsurface sediments that would prevent upward flow to surface waters, the buoyant freshwater effluent injected down the wells will rapidly vertically migrate through the highly transmissive Key Largo Limestone and Miami Limestone to reach surface waters.

175. To develop his opinion, Zednek reviewed a Florida Geological Survey boring log ("FGS Log") approximately one-third mile from the Existing Wastewater Treatment Facility and a Universal Engineering Services geotechnical study boring log ("UES Log") performed on the KWRU site.

176. The FGS Log was prepared specifically to analyze the subsurface geology. The UES Log was performed as part of a geotechnical study to analyze subsurface conditions onsite specifically for the purpose of determining the load-bearing capability of the KWRU site to support a concrete water tank. As such, the FGS Log provides a more precise view of the subsurface geology in the vicinity of the KWRU site.[36/]

177. Based on the UES Log, Zednek opined that there are no confining layers underlying the KWRU site. The UES Log for the site shows N-values, generated using an ASTM-designated process for determining the resistivity or strength of the subsurface, of between two and 43 for the first 60 feet of sediment below the surface. According to Zednek, an N-value of less than 50 indicates lack of a confining layer. Further, his review of the UES Log did not show the presence of Q-layers, which may function as semi-confining layers, or aquitards, that would substantially restrict the movement of fluid, including the injected effluent.[37/] Based on the UES Log, Zednek opined that the limestone underlying the site is fractured, creating vertical pathways for the injected effluent to migrate upward to the surface.

178. Zednek testified that the Key Largo Limestone, into which the effluent is injected, is very porous and highly transmissive, facilitating rapid migration once the effluent is injected.

179. Based on his review of the FGS Log, Zednek testified that a Q-layer first appears at approximately 62 feet below the ground surface—below the depth of the injection wells' casing—so it would not act as a confining layer for the injected effluent. Zednek further observed that this Q-layer is only 1.5 centimeters thick. In his experience, this thickness is not

sufficient to create a confining or semi-confining layer. Zednek thus opined that the subsurface geology at the KWRU site will enable and facilitate vertical migration of the injected effluent to surface waters.

180. Zednek also noted the proximity of the Safe Harbor channel cut. He opined that the injected effluent likely would horizontally migrate through the highly transmissive Key Largo Limestone,[38/] then vertically migrate to surface waters through the "path of least resistance" at the Safe Harbor channel cut.

181. As further support for his opinion, Zednek cited an interim report summarizing results of a subsurface dye tracer study performed for the Florida Keys Aqueduct Authority regional wastewater treatment facility. The study's purpose was to determine whether the subsurface geology at the Cudjoe Key location was sufficiently confining to prevent vertical migration of the injected effluent from shallow injection wells proposed at that facility. According to Zednek, the interim report showed that the subsurface at the injection site was not sufficiently confining to prevent the injected effluent from rapidly vertically migrating to surface waters.

182. Petitioners also presented the testimony of John Paul, Ph.D., in support of their contention that the injected effluent from the Expanded Wastewater Facility would rapidly rise through the subsurface limestone up into surface waters. Dr. Paul

testified regarding viral tracer studies he had conducted at Long Key, approximately 65 miles east-northeast of Stock Island, and at the Saddlebunch Keys, located approximately 20 miles east-northeast of Stock Island. In conducting these studies, Paul injected bacteriophage viruses into Class V wells and tracked their movement into surface waters. In the Long Key study, the injected viruses moved through the subsurface limestone to the south-southeast and appeared in surface waters in deep canals on the ocean side of U.S. 1 approximately 53 hours after injection. In the Saddlebunch Keys study, the viruses also appeared in surface waters some distance south-southeast of the location at which they were injected.[39/]

183. Paul acknowledged that when the viruses appeared in surface waters, they were detected at a concentration of one trillionth (.0000000000001 or 1×10^{-12}) less than the concentration in which they had been injected, indicating significant dilution by ground water and/or surface waters.

184. He also acknowledged that canals dredged to depths shallower than the injected depth may not facilitate rapid migration of the injected effluent to surface waters.

185. In rebuttal, KWRU presented the testimony of Michael Alfieri, a Florida-licensed P.G. who specializes in hydrogeology. Alfieri examined the FGS Log and UES Log, and also reviewed the detailed lithology logs and photographs for the FGS Log. Based

on his review of this information, Alfieri opined that the FGS Log indicates the presence of semi-confining layers that function as aquitards in the first 60 feet of subsurface sediment. Alfieri noted that the existence of an aquitard depends on the nature of the geologic materials present at that location, so that N-values do not perfectly correlate with the presence or absence of confining layers. Thus, a carbonate silt or clay having an N-value of only two may better function as an aquitard than a porous, transmissive limestone having an N-value of 50, and silts or clays having a thickness as little as one centimeter may function as an aquitard to significantly impede fluid flow.[40/]

186. Based on his review of the FGS Log and the detailed lithology log descriptions and photographs for the FGS Log, Alfieri observed four laminated calcrete zones, six Q-zones, and chalky limestone within the first 60 feet—all of which would function as aquitards to impede the vertical movement of the effluent.[41/]

187. Thus, according to Alfieri, the effluent is anticipated to migrate laterally from the injection wells below these confining layers before migrating through a vertical pathway to reach surface waters at an unknown location.

188. To predict the likely migration pathway for the effluent, Alfieri conducted hydrological modeling using a simplistic SEAWAT computer model. He used horizontal and

vertical transmissivity values for the subsurface strata derived from geological studies previously conducted in the Florida Keys. Although these studies indicate greater horizontal than vertical transmissivity, Alfieri assumed equal vertical and horizontal transmissivity for modeling purposes—necessarily yielding more conservative results than would be anticipated to occur in real life. Accordingly, the modeling results showed more rapid vertical migration than would be anticipated in real life when the Q-zones and calcrete layers depicted in the FGS Log are considered. Even with these conservative assumptions, the modeling results showed the injected effluent migrating horizontally at least a mile offshore[42/] before migrating upward to surface waters.

189. The persuasive evidence shows that the injected effluent will be confined to the subsurface and will travel laterally a substantial distance before rising to surface waters at some unknown location or locations offshore.

190. Thus, the credible, persuasive evidence does not support the conclusion that the effluent will rapidly rise to the surface waters in the nearshore area in the vicinity of the KWRU site.[43/]

Narrative Nutrient Criteria

191. Petitioners allege that the effluent injected down the wells into the ground water will reach surface waters, causing or

contributing to a violation of the narrative nutrient criteria for surface waters codified in rules 62-302.530(47)(a) and (b).[44/]

192. In support, Petitioners presented the testimony of James Fourqurean, Ph.D., who has extensive experience in research on Florida Keys aquatic ecosystems in their healthy and imbalanced states. Dr. Fourqurean described these ecosystems in their healthy state and in their nutrient-enriched state.

193. Florida Keys nearshore ecosystems normally are oligotrophic, which means they are nutrient-limited. Thus, they do not normally exhibit high chlorophyll-a levels and microalgae counts. When nutrient levels in the Florida Keys ecosystems increase—whether by increasing the concentration of nutrients in discharges or by increasing the volume of water containing nutrients—primary production, i.e., plant growth, increases.

194. Seagrass communities are phosphorus-limited, so that when these communities are exposed to phosphorus-enriched water, the phosphorus is rapidly absorbed from the water column and is stored in the benthos.[45/] This phosphorus capture initially leads to increased seagrass abundance, but as phosphorus enrichment continues, the community species composition rapidly shifts to favoring seaweed and microscopic algae, ultimately damaging or destroying the seagrass community.

195. Coral reef communities similarly are nitrogen-limited. Thus, when coral reef communities are exposed to nitrogen-

enriched water, they shift to algae-dominated communities—again, damaging or destroying the coral reef communities.

196. Based on historical aerial photographs of the area surrounding Safe Harbor and his experience studying seagrasses in the Florida Keys, Fourqurean concluded that the natural seagrass populations in the entire Florida Keys National Marine Sanctuary area, which includes the Stock Island area, are experiencing ecological imbalance.

197. On the basis of the water quality sampling he conducted in and around Safe Harbor, Fourqurean opined that the imbalance is the result of man-induced nutrient enrichment.

198. However, he did not engage in field studies in and around Safe Harbor, so could not cite specific examples where seagrasses had been replaced by algal-dominated communities in that area.

199. Fourqurean noted that human waste contains high concentrations of phosphorus and nitrogen. In his view, because the effluent from the Existing Wastewater Facility contains phosphorous, it necessarily constitutes a source of phosphorous in the surface waters in Safe Harbor, even though it is injected into ground water. However, he acknowledged the existence of numerous other sources of nitrogen and phosphorus in the Safe Harbor vicinity, including septic tanks, boat cleaning operations and pump outs, and storm water runoff.

200. He further acknowledged that he did not know where or when effluent from the Existing Wastewater Facility (and, by extension, the Expanded Wastewater Facility) may reach surface waters.

201. Fourqurean acknowledged that the Permit at Issue would authorize the injection of effluent treated to AWT standards into ground water, rather than directly to surface waters, and he further acknowledged that the total phosphorus and nitrogen loading from the Expanded Wastewater Facility would substantially decrease as a result of conversion to AWT, even though the volume of effluent discharged down the wells may as much as double. He remained concerned that the Expanded Wastewater Facility may contribute phosphorus—even in very small quantities—to surface waters, causing imbalance to seagrass communities.

202. He also opined that when saline ground water and the fresher effluent mix, the resulting brackish solution would dissolve the calcium carbonate comprising the subsurface limestone, releasing stored phosphorus that would eventually reach surface waters and negatively affect nearshore seagrass communities,

203. However, he acknowledged that depending on subsurface physical conditions and flow paths of the effluent, phosphorous, nitrogen, or both, may be completely removed prior to the effluent reaching surface waters.

204. He further acknowledged that seagrass community health in the Florida Keys National Marine Sanctuary has improved in the last two years and that water quality also has improved, reversing a ten-year decline. This is consistent with replacement of onsite septic tanks by central wastewater treatment systems in the Florida Keys.

205. On rebuttal, KWRU presented the testimony of William Precht, who has extensive experience with Florida Keys geology and aquatic communities.

206. Precht confirmed the existence of numerous sources of significant nutrient enrichment in the Safe Harbor vicinity other than the Existing Wastewater Facility, and noted that these sources must be taken into account when analyzing nutrient enrichment in Safe Harbor. He testified that raw wastewater is particularly deleterious to benthic communities. Thus, connecting wastewater generators that currently use septic tanks to central wastewater treatment systems can significantly improve water quality.

207. Precht observed that Fourqurean's single-day sampling in the Safe Harbor area provided information regarding variability in nutrient concentrations, but characterized Fourqurean's conclusion that the Existing Wastewater Facility was the source of the nutrients as "unscientific" because it was based on supposition rather than on testing. He opined that the

limited data set gathered over a one-day period could not reliably identify the source of nutrient enrichment in Safe Harbor.

208. Precht testified that flushing capability is a key influence on nutrient concentration in surface waters. The further from a natural marine environment that water quality testing is performed, the more likely water quality will be poor due to nutrient enrichment from land-based sources. Given the configuration of Safe Harbor, water quality would be poorest in the interior dead-end canals and would steadily improve as one moved into more open water and flushing increased, with the highest water quality in open waters outside the canal system.

209. Precht opined that the presence of noxious benthic plant life in the Safe Harbor vicinity may be attributable the destruction of seagrass communities in the area by historical dredging, rather than due to nutrient enrichment.

210. Based on the reduction in total nitrogen and total phosphorus loading as a result of implementing AWT, Precht opined that the proposed discharge will not negatively affect the biological communities in the Safe Harbor vicinity. He further opined that due to the rapid uptake of phosphorus in the marine environment and due to denitrification that occurs in ground water and in marine surface waters, there is little chance that

any nutrient loading that may result from the injected effluent would cause damage to the coral reef environment.

211. Also on rebuttal, Alfieri persuasively testified that although phosphate release does occur when freshwater is injected into limestone that formed in a saline environment, this process gradually occurs over "geologic time"—that is, over millions of years. Therefore, he did not anticipate a significant release of phosphate from the subsurface limestone as a result of the effluent discharge. Also, limestone rapidly absorbs phosphorous, so phosphorus in the injected effluent would be absorbed quickly by the subsurface limestone.[46/]

212. Further, in any event, the effluent will be diluted by at least seven orders of magnitude—that is, one hundred millionth (.00000001)—of the injected concentration by the ground water, and/or by surface waters (assuming the effluent eventually reaches surface waters).

213. As discussed above, the Keys RAP was prepared in 2008 and updated in 2011. The Keys RAP prescribes specific management activities to be implemented to restore surface water quality in the Florida Keys, including eliminating cesspits and onsite septic tank systems and connecting wastewater generators to centralized wastewater systems that treat the wastewater to AWT standards.

214. Pursuant to the Impaired Waters Rule and DEP's adoption of the Keys RAP, activities that are consistent with the Keys RAP are considered to provide reasonable assurance that the narrative nutrient criterion in rule 62-302.530(47)(b) will be met.

215. As discussed above, the Project will expand a centralized wastewater treatment plant that will accept, and treat to AWT standards, wastewater generated by development on Stock Island—including development that currently relies on onsite septic tanks for wastewater disposal. The Project is consistent with the Keys RAP, so there is reasonable assurance that the Project will meet the narrative nutrient criterion in rule 62-302.530(47)(b).

216. The persuasive evidence shows that the Project will not cause or contribute to alterations of nutrient concentrations in water bodies so as to cause an imbalance in natural populations of aquatic flora or fauna.

217. Thus, Petitioners failed to show that the Project will cause or contribute to violation of the narrative nutrient criterion in rule 62-302.530(47)(b).

218. Further, for the reasons discussed below, it also is determined that the Project will not violate the narrative nutrient criterion codified at rule 62-302.530(47)(a).

Numeric Nutrient Criteria

219. Petitioners also allege that the effluent will cause or contribute to violation of the estuary-specific numeric interpretations of the narrative nutrient criteria for the Back Bay nutrient region, codified at rule 62-302.532(1)(g)1., and the Lower Keys nutrient region, codified at rule 62-302.532(1)(g)3.

220. In support, Petitioners cite the results of surface water sampling performed by Fourqurean in the Safe Harbor area showing high levels of nitrogen, phosphorus, and chlorophyll-a. Petitioners contend that these high nutrient levels evidence that the existing injection wells already are causing or contributing to surface water quality violations in the waters surrounding Stock Island, and that the increased effluent discharge from the proposed new injection wells will exacerbate this situation, further causing or contributing to violations of surface water quality standards.

221. In preparing his opinion regarding the effect of the proposed injection wells on surface water quality, Fourqurean sampled surface water quality on one day at nine stations located in the vicinity of Stock Island, ranging from shallow waters inside the Safe Harbor basin to deeper waters offshore. Samples were collected at the surface and at a depth of one meter below the surface following the standard operating procedures for water

quality sampling established by the Florida Keys Water Quality Protection Program.

222. Fourqurean testified that the samples collected at the stations inside the Safe Harbor basin and near the shore of Stock Island showed very high levels of chlorophyll-a, evidencing that these areas are dominated by microalgae and, thus, are eutrophic.

223. Additionally, the samples collected inside the Safe Harbor basin exhibited very high phosphorus concentrations—almost three times greater than the estuary-specific numeric nutrient criterion for phosphorus. Phosphorus concentrations correspondingly decreased as samples were collected outside of the basin and offshore.

224. Nitrogen concentrations followed a similar pattern in the sampling that Fourqurean conducted inside and outside of the Safe Harbor basin.

225. According to Fourqurean, the high nutrient concentrations in the samples taken in Safe Harbor, when compared to the lower concentrations in samples taken outside of Safe Harbor, evidence the existence of a large source of phosphorous and nitrogen in Safe Harbor—in his view, the Existing Wastewater Facility. However, Fourqurean acknowledged that there are many potential nutrient enrichment sources on Stock Island, including fishing operations, boat sewage pump-outs, and direct discharges of storm water to surface waters. He further acknowledged that

the specific source of phosphorus and nitrogen in the surface waters surrounding Stock Island cannot be identified. He did not opine as to the relative amounts of nutrients in surface waters that he believes are being contributed by the Existing Wastewater Facility or that will be contributed by the Expanded Wastewater Facility, as compared to other nutrient sources in the Safe Harbor area.

226. He also acknowledged that a scientifically-valid water quality study would require more than a single day of sampling.[47/]

227. Kenneth Weaver, environmental administrator for DEP's Standards Development Section,[48/] credibly and persuasively testified, and the water quality data for nutrients and chlorophyll-a collected in the WBIDs surrounding Key West and Stock Island show, that the surface waters in these WBIDs meet the applicable NNCs.[49/] Historical water quality data also show that since 2008, the surface waters in these WBIDs continuously have met the baseline concentrations on which the NNCs were established and adopted.

228. Even with the increased volume of wastewater treated by the Expanded Wastewater Facility, implementation of the AWT standard by the facility's wastewater treatment trains will substantially reduce the amount of total nitrogen and total phosphorus discharged into ground water through the injection wells. Specifically, for total nitrogen, the concentration will

be reduced from 13.92 mg/L to 2.25 mg/L, and the total amount of nitrogen loading will be reduced from 58 to 15.9 pounds per day, representing a total net reduction of 72.4 percent in the discharge of total nitrogen. For total phosphorus, the concentration will be reduced from 3.47 mg/L to .75 mg/L, and the total amount of phosphorus loading will be reduced from 14.4 to 5.3 pounds per day, representing a total net reduction of 63.3 percent in the discharge of total phosphorus.[50/]

229. Weaver addressed the effects of these projected nutrient discharge concentrations on the surface waters in WBIDs 8074 and 8079, which comprise the portions of the Lower Keys Region and Back Bay Region closest to the KWRU site. He opined that, because these regions are currently meeting the applicable NNCs for nitrogen and phosphorus, and because KWRU's implementation of AWT will result in substantial reduction of total nitrogen and phosphorus loading, the NNCs will continue to be met in these regions—even in a "worst-case" scenario that assumes all of the treated effluent from the Expanded Wastewater Facility is disposed of through the injection wells and reaches the surface.

230. The persuasive evidence shows that the Project will not cause or contribute to violations of the applicable numeric nutrient criteria.

231. Thus, Petitioners failed to show that the Project will cause or contribute to violation of the applicable numeric nutrient criteria in rule 62-302.532(1)(g)1. and 3.

Surface Water "Free-From" Standards

232. Petitioners allege that the effluent contains iron and copper above detection limits, as well as personal care products and pharmaceuticals, and that these constituents violate rules 62-302.500(1)(a)5. and 62-302.530(61). Rule 62-302.500(1)(a)5. requires all surface waters of the state to be free from domestic, industrial, agricultural, or other man-induced non-thermal components of discharges which, alone or in combination with other components of discharges (whether thermal or non-thermal), are present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant, locally occurring wildlife or aquatic species, unless specific standards for such components are established by rule. Rule 62-302.530(61) effectively requires surface waters to be free from substances in concentrations which injure, are chronically toxic to, or produce adverse physiological or behavioral response in humans, animals, or plants. These rules collectively comprise the "free-from" standards for surface waters.

233. Petitioners presented no evidence to substantiate the allegation that the effluent from the Expanded Wastewater Facility will contain pharmaceuticals or personal care products.

234. However, even assuming these constituents were present in the effluent, Petitioners did not present evidence showing that they are carcinogenic; mutagenic; or teratogenic to human beings or to significant, locally occurring wildlife or aquatic species; or that they are injurious or chronically toxic to, or produce adverse physiological or behavioral response, in humans, animals, or plants.

235. Petitioners did not present evidence showing that the effluent contains copper and iron in quantities that violate any applicable surface water quality standards, including the surface water "free-from" standards.

236. Paul testified, based on sampling he conducted at domestic wastewater outfalls discharging directly to surface waters, that effluent treated to AWT standards often contains pathogenic bacteria and viruses that constitute threats to human health. On this basis, he opined that even though the effluent from the Expanded Wastewater Facility is treated to AWT, it may contain pathogenic constituents that are harmful to human health.

237. However, as previously discussed, the evidence shows that the effluent discharged through KWRU's injection wells will be substantially diluted by groundwater, and also by surface

waters to the extent it reaches surface waters at some unknown location. Accordingly, the results of Paul's pathogen studies cannot be extrapolated to conclude that KWRU's effluent also will contain pathogenic bacteria and viruses in such amounts as to constitute a threat to human health.

238. Petitioners failed to show that the effluent disposed of in the injection wells will cause or contribute to violations of the surface water quality standards in rules 62-302.500(1)(a)5. and 62-302.530(61).

Dilution to Meet Surface Water Quality Standards

239. Petitioners allege that KWRU is relying on dilution of the effluent in order to meet surface water quality standards without having been permitted for a mixing zone, in violation of rule 62-302.500(1)(c).[51/] This contention lacks merit.

240. As discussed in detail above, the credible, persuasive evidence establishes that the effluent discharged through the injection wells will not violate water quality standards for and parameters, including for nutrients, and will not cause or contribute to the violation of water quality standards.

241. The credible, persuasive evidence establishes that once injected, the effluent will horizontally migrate a considerable distance before it may migrate vertically to reach surface waters.

242. The parties generally agree that ground water and surface waters are "connected" in the Florida Keys. To that point, although it appears likely that at some point the effluent will reach surface water, the evidence does not establish that is an absolute certainty. Nonetheless, even assuming the effluent would reach surface waters at some unknown location and time, the persuasive evidence shows that it would be so substantially diluted by the ground water that it would neither cause nor contribute to violations of surface water quality standards.

243. Further, the persuasive evidence, consisting of Weaver's "worst case" analysis of nutrient loading from the effluent discharge, which assumed no dilution by ground water, establishes that even if the effluent—which will be treated to AWT standards—were discharged directly into surface waters, it would meet the applicable nutrient criteria.

244. Finally, Petitioners' claim assumes that the effluent will be discharged into surface waters. However, as discussed above and in greater detail below, to the extent the effluent ultimately may be discharged to surface waters, such discharge would be indirect, so would not be subject to statutory and rule provisions requiring establishment of a mixing zone.

245. For these reasons, Petitioners failed to prove that KWRU violated any applicable law or rule by not requesting and

obtaining a mixing zone for the discharge of the effluent through the injection wells.

Class V Injection Wells in Monroe County

246. Petitioners also allege that issuance of the Permit at Issue violates rule 62-528.630(7), which requires all Class V Group 3 domestic wastewater injection wells in Monroe County to provide reasonable assurance that operation of the well will not cause or contribute to a violation of surface waters standards as defined in chapter 62-302.

247. As discussed above, the credible, persuasive evidence establishes that the operation of the wells as authorized under the Permit at Issue will not cause or contribute to violations of surface water quality standards codified in chapter 62-302.

248. Accordingly, Petitioners failed to prove that the Permit at Issue should be denied on the basis that it violates rule 62-528.630(7).

Antidegradation

249. Petitioners contend that the Permit at Issue must be denied because KWRU failed to provide reasonable assurance that the injection of effluent will not violate the antidegradation requirements applicable to surface waters codified at rules 62-4.242, 62-302.300, 62-302.530(47)(a), and 62-302.700(1). This contention lacks merit.

250. As more fully discussed below, the antidegradation requirements in these rules apply only to a direct discharge to surface waters, which is not present in this case. Here, the evidence clearly establishes that the injection wells do not directly discharge effluent into surface waters. It is undisputed that the effluent will be injected from the wells into Class III ground water, where it will migrate through the subsurface strata. Although it is likely that, due to a "connection" between ground water and surface waters, the effluent ultimately will reach surface waters at some unknown location or locations at some unknown time, this constitutes an indirect discharge, which is specifically excluded from the term "discharge of a pollutant." Fla. Admin. Code R. 62-620.200(13).

251. However, even if the antidegradation rules did apply to the discharge of the effluent through the injection wells, Petitioners failed to prove that the discharge would degrade surface waters.

252. As discussed above, the credible, persuasive evidence establishes that the surface waters in the Florida Keys, including those in and around Stock Island and Key West, currently meet the narrative and/or nutrient criteria, as applicable, and that effluent discharged through the injection wells will be treated to AWT standards, substantially reducing the facility's total nutrient loading below current levels.

253. Thus, the credible, persuasive evidence established that, even in a "worst-case" scenario, which assumes no dilution of the effluent by ground or surface waters, the effluent still would not cause or contribute to a violation of the narrative or numeric nutrient criteria. As discussed above, the credible, persuasive evidence showed that, in fact, the effluent will be very substantially diluted by the ground water into which it is injected, and will be further diluted if and when it ultimately reaches surface waters.

254. For these reasons, Petitioners failed to prove that KWRU did not provide reasonable assurance that the disposal of the effluent through the injection wells would not degrade surface waters, in violation of rules 62-4.242, 62-302.300, 62-302.530(47)(a), and 62-302.700(1).

D. Alleged Violation of Ground Water Standards

255. Petitioners allege that KWRU did not provide reasonable assurance that the injection wells would not violate applicable ground water standards.

256. Petitioners further allege that there is an underground drinking water source under Stock Island. In that case, more stringent ground water quality and injection well rule standards would apply to operation of the injection wells.

257. Petitioners did not present any credible, persuasive evidence to support these allegations.

258. The persuasive evidence establishes that although there is a fresh water lens under Stock Island, it is not classified as an underground source of drinking water[52/] due to its substantial variability in horizontal and vertical extent, which renders the salinity levels highly variable. Thus, the ground water at Stock Island is classified as Class G-III ground water which is non-potable ground water having a total dissolved solids content of 10,000 mg/L or greater, or having a total dissolved solids content of 3,000 to 10,000 mg/L and having been determined to have no reasonable potential as a future source of drinking water or designated by rule as an exempted aquifer.

259. Only the minimum criteria for ground water, known as the "free-from" standards, apply to Class G-III ground water. Fla. Admin. Code R. 62-520.430(1). These criteria require that at all times and in all places, ground water be free from discharge components in concentrations that are carcinogenic, teratogenic, mutagenic, or toxic to humans; acutely toxic within surface waters affected by ground water; pose a serious danger to the public health, safety, or welfare; create or constitute a nuisance; or impair the reasonable and beneficial use of adjacent waters. Fla. Admin. Code R. 62-520.400.

260. There is no evidentiary basis on which to infer that the effluent from Expanded Wastewater Facility that is disposed through the injection wells will violate the free-from standards

KWRU's many years of effluent monitoring at the Existing Wastewater Facility show that the effluent does not violate these standards. Further, David Rhodes, a Florida-licensed P.G. employed by DEP, credibly testified that a violation of the free-from standards necessarily would entail the presence of toxic materials in KWRU's effluent and that there would be immediate and dramatic effects on the flora and fauna at the golf course, where reclaimed water is reused for irrigation.

261. Since such effects never have occurred, it is reasonable to infer that the effluent from the Expanded Wastewater Facility will not violate the free-from standards.[53/]

262. Additionally, as previously addressed, the credible, persuasive evidence demonstrates that no surface water quality violations will result from installation and operation of the injection wells as part of the Expanded Wastewater Facility. Accordingly, the reasonable and beneficial use of adjacent waters will not be impaired due as a result of the injection wells.

263. Petitioners also claim that due to inadequate treatment by the Expanded Wastewater Facility, the effluent disposed in the injection wells will contain unacceptably high levels of bacteria and viruses.

264. The persuasive evidence establishes that KWRU provides high-level disinfection prior to injecting the effluent or sending the reclaimed water for reuse at the golf course.

Historical monitoring data shows that KWRU's effluent complies with applicable microbial standards, and unrebutted evidence consisting of quality-related beach closure data for the Florida Keys, gathered as part of the Department of Health's Healthy Beaches monitoring program, indicates that no beach closings in the Florida Keys ever have been attributed to KWRU's Existing Wastewater Facility.

265. Petitioners did not prove that KWRU failed to provide reasonable assurance that operation of the injection wells authorized as part of the Project will not result in violations of applicable ground water standards.

266. To the contrary, KWRU provided reasonable assurance that the effluent from the Expanded Wastewater Facility disposed in the injection wells authorized as part of the Project will not violate any applicable ground water standards.

E. Alleged Water Quality Violations Due to Reuse System

267. Petitioners allege that KWRU did not provide reasonable assurance that the storage of up to 1 MGD of reclaimed water in the reuse system storage ponds on the Key West Golf Club golf course will not cause or contribute to a violation of surface water quality standards and ground water standards.

268. Specifically, Petitioners posit that, because the ponds are unlined, reclaimed water from the Expanded Wastewater Facility will leach from the ponds into the ground water and

reach surface waters, violating surface water quality standards and ground water standards and negatively impacting human health through high levels of microbial pathogens, pharmaceuticals, and personal care products.

269. Petitioners further allege that discharge of reclaimed water from the ponds into the ground water could mobilize constituents of concern from the Key West Landfill and a closed waste-to-energy facility, both of which are near the golf course, ultimately resulting in surface water quality standards and ground water violations.

270. In support of these contentions, Petitioners presented the testimony of Scott Zednek, who testified that the reclaimed water, which is fresher than the surrounding ground water, may leach from the ponds into the ground water, and thereafter potentially may reach surface waters. According to Zednek, this leaching could occur because the ponds are unlined.

271. Additionally, Zednek opined that, because there is a closed landfill near the golf course, the reclaimed water leaching from the reuse system ponds could mobilize and spread contaminants from the landfill.

272. The persuasive evidence demonstrates that storage of the reclaimed water in the reuse system ponds will not result in violations of ground water standards or surface water quality standards.

273. Although the golf course ponds are unlined in the sense that a high-density polyethylene or impermeable clay liner has not been installed on the bottom and sides of the ponds, over the years, marl has formed on the bottom and sides of the ponds, creating an aquitard that substantially confines the reclaimed water to the ponds, rather than allowing it to readily leach into the ground water.

274. Further, the reclaimed water generally is less saline than the ground water underlying the course, so tends to "float" on top of, rather than readily mixing with, the denser, more saline ground water.

275. Additionally, the evidence shows that years of historical ground water monitoring data obtained through monitoring wells on the golf course near the reuse system ponds showed no ground water standards violations as a result of storing reclaimed water from KWRU in the ponds.[54/] Because the amount of reclaimed water being sent to the reuse storage ponds is not being changed by the Project, and the nutrient levels in the reclaimed water are being through AWT, there is no factual basis from which to infer that storage of the reclaimed water in the pond will result in violations of ground water standards or surface water quality standards.

276. The persuasive evidence also does not support Zednek's view that reclaimed water leaching into the ground water from the

storage ponds will mobilize pollutants under the nearby landfill. As discussed above, the persuasive evidence establishes that, due to the aquitard, there will be very little leaching of reclaimed water into the ground water, and even if such leaching did occur, there would be very little mixing of the reclaimed water with the more saline ground water. As such, there is no demonstrated factual basis on which to infer that reclaimed water will flow under, and mobilize and spread pollutants from, the landfill.

277. Further, the evidence establishes that the predominant ground water flow direction under Stock Island is to the south-southeast. Since the landfill is located north of the reuse system ponds, any reclaimed water that did enter ground water would flow south-southeast, away from the landfill.

278. Zednek also opined that if the storage ponds overflowed, the reclaimed water could run off into surface waters, resulting in surface water quality violations.

279. However, the evidence establishes that KWRU will only send as much reclaimed water to the reuse storage ponds as the Key West Golf Club requests, so any assertion that the ponds will overflow is speculative. Further, even if the ponds were to overflow, Petitioners did not show that the reclaimed water would flow into surface waters, or that it would violate surface water quality standards if it were to flow into surface waters.

280. Petitioners did not prove that KWRU failed to provide reasonable assurance that the storage of reclaimed water in the reuse system storage ponds at the Key West Golf Club will not violate any ground water standards.

281. Stated another way, KWRU provided reasonable assurance that the storage of reclaimed water in the reuse system ponds at the Key West Golf Club golf course will not cause or contribute to violations of ground water standards or surface water quality standards.

F. Applicability of AWT to Existing Wastewater Facility

282. Commencing January 1, 2016, the two new treatment trains authorized by the Permit at Issue must meet the AWT standards. These treatment trains are authorized to treat wastewater to specified secondary standards through December 31, 2015.

283. Petitioners assert that the Permit at Issue must be denied because the two new treatment trains should be required to meet AWT standards immediately upon operation, and that allowing the new treatment trains to meet secondary standards through December 31, 2015, violates section 403.806(10) and rule 62-620.620(4).

284. Sections 403.086(10)(c) and (d) expressly impose the AWT standards on all new or expanded domestic wastewater

discharges after December 31, 2015. Accordingly, the Permit at Issue is completely consistent with the statute.

285. Further, the Permit at Issue does not violate rule 62-620.602(4). That rule requires a wastewater facility permit applicant to make certain specified demonstrations when a permit is renewed, revised, or reissued having a less stringent effluent limitation than contained in a previous permit. Although the Existing Permit states that the Existing Wastewater Facility has been modified to meet the AWT standards, it further states: "[t]he extended aeration process will be switched to the AWT nutrient removal system prior to January 1, 2016." The clear import of this statement is that the AWT standards are not required to be met until January 1, 2016, consistent with section 403.806(10). Because the Permit at Issue also requires the new treatment trains to meet the AWT standards commencing on January 1, 2016, the Permit at Issue does not impose a less stringent effluent limitation than that imposed by the Existing Permit; accordingly, KWRU is not required to make the so-called "anti-backsliding" demonstrations set forth in rule 62-620.620(4).

286. Furthermore, it is undisputed that the new treatment trains will not be constructed and operational before January 1, 2016; thus, as a practical matter, the new treatment trains must meet the AWT standards immediately upon going into operation.

287. Thus, Petitioners have not shown that the Permit at Issue should be denied on the basis that it violates section 403.806(10) and rule 62-620.620(4).

VIII. Petitioners' Standing

288. As noted above, Petitioner Halloran, resides in Key West, Florida. His residence fronts on the water and he owns a boat. Halloran and his family use and enjoy the waters around Key West for swimming, fishing, kayaking, and other in-water recreational uses, eat local-caught seafood, and engage in nature photography. Halloran also owns rental properties that front on the water, and he owns and rents out dock space for houseboat mooring. He is a member of Last Stand.

289. Halloran has challenged the Permit at Issue because he is concerned that the increased discharge of effluent from the Project down the injection wells will degrade the waters around Key West where he and his family engage in in-water recreational uses. He also is concerned that the increased effluent discharge, particularly nutrients, will harm the seagrasses, coral reefs, and the benthic communities in the waters around Key West.

290. Halloran read the initial petition prepared and filed in this proceeding, and he skimmed the Amended Petition specifically to determine the changes from the initial Petition.[55/] He acknowledges that he does not completely recall

the entire contents of the initial petition or the Amended Petition.

291. Petitioner Last Stand is a not-for-profit corporation incorporated under Florida law. Naja Girard D'Albissin, a member of the Board of Directors of Last Stand, appeared on behalf of Last Stand.

292. D'Albissin testified that Last Stand currently has approximately 105 members.

293. Last Stand's mission is to promote, preserve, and protect the quality of life in Key West and the Florida Keys, with particular emphasis on protecting the natural environment. Last Stand historically has engaged in environmental advocacy directed toward governmental entities and engaged in litigation opposing activities that its members believe would harm the natural environment.

294. In July 2014, Last Stand's Board of Directors voted to challenge the Permit at Issue.

295. Respondent DEP stipulated that 52 members of Last Stand spend time or reside in Monroe County, 50 members enjoy the waters and natural environment of the Florida Keys, and 50 members believe that their use and enjoyment of the natural environment and economic interests in Monroe County will be adversely affected by the Project.

296. Last Stand tendered, for admission into evidence, affidavits of some of its members attesting to the substantial interests they contend will be injured by the Project. However, Last Stand had refused to allow Respondents to engage in discovery regarding these members' alleged substantial interests; accordingly, the undersigned did not allow these members to testify at the final hearing.[56/] The affidavits were excluded from admission into evidence as unsupported hearsay. See § 120.57(1)(c), Fla. Stat.

IX. Entitlement to Permit at Issue

297. KWRU met its burden under section 120.569(2)(p) to present a prima facie case demonstrating entitlement to the Permit at Issue by entering into evidence the applications and supporting materials for the Permit at Issue for the Project. Additionally, KWRU presented persuasive, competent, and substantial evidence beyond that necessary to meet its burden under section 120.569(2)(p) to demonstrate its entitlement to the Permit at Issue.

298. Petitioners did not meet their burden of persuasion under section 120.569(2)(p) in this proceeding to demonstrate that the Project does not meet all applicable statutory and rule requirements.

299. Furthermore, on rebuttal, KWRU and DEP thoroughly addressed and rebutted the grounds that Petitioners allege justify denial of the Permit at Issue.

300. The persuasive evidence demonstrates that the Project meets all applicable statutory and rule requirements. Accordingly, KWRU is entitled to issuance of the Permit at Issue.

CONCLUSIONS OF LAW

301. The Division of Administrative Hearings has jurisdiction over the parties to, and the subject matter of, this proceeding pursuant to sections 120.569 and 120.57(1).

I. Petitioners' Standing

302. Petitioners bear the burden of demonstrating that they have standing to initiate and maintain this proceeding. Palm Beach Cnty. Envtl. Coal. v. Dep't of Envtl. Prot., 14 So. 3d 1076, 1078 (Fla. 4th DCA 2009); Agrico Chem. Co. v. Dep't of Envtl. Reg., 406 So. 2d 478, 482 (Fla. 1st DCA 1981).

303. In Agrico, the court established a two-prong test for standing in administrative proceedings, holding:

> We believe that before one can be considered to have a substantial interest in the outcome of the proceeding he must show 1) that he will suffer injury in fact which is of sufficient immediacy to entitle him to a section 120.57 hearing, and 2) that his substantial injury is of a type or nature which the proceeding is designed to protect. The first aspect of the

> test deals with the degree of injury. The second deals with the nature of the injury.

Id. at 482.

304. Courts subsequently have refined the Agrico standard, clarifying that standing to initiate an administrative proceeding is not dependent on proving that the proposed agency action would violate the law applicable to the proceeding. Thus, it is not necessary that the person prevail on the merits in an administrative proceeding under section 120.57(1) to have standing as a party to initiate and maintain that proceeding. Peace River/Manasota Reg'l Water Supply Auth. v. IMC Phosphates, 18 So. 3d 1079, 1084 (Fla. 2d DCA 2009). It is sufficient for the person challenging the proposed agency action to present evidence aimed at showing that he or she reasonably could be injured by the proposed activity. Id.; see Angelo's Aggregate Mat., Ltd. v. Dep't of Envt'l. Prot., Case Nos. 09-1543, 09-1544, 09-1545, 09-1546 (Fla. DOAH June 28, 2013; Fla. DEP Sept. 16, 2013).

305. Petitioner Halloran has demonstrated his standing to challenge the Permit at Issue in this proceeding.

306. However, Petitioner Last Stand has not demonstrated its standing to challenge the Permit at Issue. Specifically, Last Stand did not present evidence showing that a substantial number of its members' substantial interests potentially could be injured by the Project. The stipulated facts regarding Last Stand's

members dealt with potential impacts to their interests in the use and enjoyment of natural and economic resources in Monroe County and the Florida Keys, but Last Stand did not present any evidence showing, or aimed at showing, that the Project may impact natural or economic resources on such a broad scale. Rather, Last Stand's evidence specifically focused on potential impacts to natural resources in the vicinity of Stock Island. However, it failed to present any evidence showing that a substantial number of its members have substantial interests in those resources that could be injured as a result of the Project. Thus, Last Stand failed to meet the requirement, established in Florida Home Builders Association v. Department of Labor and Employment Security, 412 So. 2d 351 (Fla. 1982), to demonstrate that a substantial number of its members' substantial interests may be affected by the proposed agency action.[57/] Accordingly, Last Stand has not shown that it has standing to participate as a party to this proceeding.[58/]

II. Burden and Standard of Proof

307. This is a de novo proceeding intended to formulate final agency action, not review action taken earlier and preliminarily. See Young v. Dep't of Cmty. Aff., 625 So. 2d 831, 833 (Fla. 1st DCA 1991); Fla. Dep't of Transp. V. J.W.C. Co., 396 So. 2d 778, 785 (Fla. 1st DCA 1981). Therefore, new information

regarding the Permit at Issue may be admitted into evidence and considered in this proceeding.

308. The Permit at Issue is issued pursuant to chapter 403. Accordingly, section 120.569(2)(p) governs the order of procedure and the parties' respective burdens in this case. Section 120.569(2)(p) provides in pertinent part:

> (p) For any proceeding arising under chapter 373, chapter 378, or chapter 403, if a nonapplicant petitions as a third party to challenge an agency's issuance of a license, permit, or conceptual approval, the order of presentation in the proceeding is for the permit applicant to present a prima facie case demonstrating entitlement to the license, permit, or conceptual approval, followed by the agency. This demonstration may be made by entering into evidence the application and relevant material submitted to the agency in support of the application, and the agency's staff report or notice of intent to approve the permit, license, or conceptual approval. Subsequent to the presentation of the applicant's prima facie case and any direct evidence submitted by the agency, the petitioner initiating the action challenging the issuance of the license, permit, or conceptual approval has the burden of ultimate persuasion and has the burden of going forward to prove the case in opposition to the license, permit, or conceptual approval through the presentation of competent and substantial evidence. The permit applicant and agency may on rebuttal present any evidence relevant to demonstrating that the application meets the conditions for issuance.

309. Pursuant to this provision, KWRU had the initial burden of going forward to demonstrate its prima facie case. KWRU satisfied its burden to establish prima facie entitlement to the

Permit at Issue by the admission into evidence of the applications for the Permit at Issue, information submitted to DEP in support of the applications, and DEP's Notice of Intent. As previously noted, KWRU and DEP presented credible testimony and other persuasive evidence in support of KWRU's case establishing its prima facie entitlement to the Permit at Issue.

310. Pursuant to section 120.569(2)(p), the permit applications and supporting material KWRU submitted to DEP establishing reasonable assurance retained their status as satisfactory to show reasonable assurance when admitted into evidence at the final hearing. They did not lose that status absent Petitioners proving, by a preponderance of the competent substantial evidence, that specific aspects of the Project, as challenged in the petition for hearing, do not meet the reasonable assurance standard, so that KWRU is not entitled to issuance of the Permit at Issue. See Last Stand, Inc. v. Fury Mgmt. & Dep't of Envtl. Prot., Case No. 12-2574 (Fla. DOAH Dec. 21, 2012; Fla. DEP Feb. 7, 2013).

311. Thus, once KWRU demonstrated its prima facie case entitlement to the Permit at Issue, the burden shifted to Petitioners to prove their case in opposition. Under section 120.569(2)(p), the ultimate burden of persuasion rests with Petitioners to prove their case in opposition by a preponderance of the competent substantial evidence. Speculation about what

"might" occur is not sufficient to satisfy Petitioners' burden to show, by a preponderance of the evidence, that KWRU did not provide reasonable assurance regarding the grounds on which the Permit at Issue has been challenged. See Jacobs v. Far Niete II, LLC, Case No. 12-1056 (Fla. DOAH Apr. 26, 2013; SFWMD May 22, 2013); FINR II, Inc. v. CF Indus., Inc., Case No. 11-6495 (Fla. DOAH Apr. 30, 2012; Fla. DEP June 8, 2012); see also Menorah Manor, Inc. v. Ag. for Health Care Admin., 908 So. 2d 1100, 1104 (Fla. 1st DCA 2005). Petitioners' failure to meet this burden would mean that KWRU prevails in this proceeding. See Fury Mgmt.; see Washington Cnty. v. Bay Cnty. & Nw. Water Mgmt. Dist., Case Nos. 10-2983, 10-1984 and 10-10100 (Fla. DOAH July 26, 2012; NWFWMD Sept. 27, 2012).

III. Applicable Statutory and Rule Requirements and Standards

Section 403.086(10), Florida Statutes

312. As discussed above, the Project at issue in this proceeding proposes to expand an existing domestic wastewater treatment facility in Monroe County, Florida, to a design capacity and permitted capacity of .849 MGD AADF. As part of the modification of the Existing Wastewater Facility, two new injection wells will be added, increasing the permitted capacity of the injection well system at the Facility to .998 MGD.

313. Section 403.086(10) provides in pertinent part:

> [T]he requirements of this subsection apply to all domestic wastewater facilities in Monroe County, including privately owned facilities, unless otherwise provided under this subsection.
>
> (a) The discharge of domestic wastewater into surface waters is prohibited.
>
> * * *
>
> (c) After December 31, 2015, all new or expanded domestic wastewater discharges must comply with the treatment and disposal requirements of this subsection and department rules.
>
> (d) Wastewater treatment facilities having design capacities:
>
> 1. Greater than or equal to 100,000 gallons per day must provide basic disinfection as defined by department rule and the level of treatment which, on a permitted annual average basis, produces an effluent that contains no more than the following concentrations:
>
> a. Biochemical Oxygen Demand (CBOD5) of 5 mg/l.
>
> b. Suspended Solids of 5 mg/l.
>
> c. Total Nitrogen, expressed as N, of 3 mg/l.
>
> d. Total Phosphorus, expressed as P, of 1 mg/l.
>
> * * *
>
> (e) Class V injection wells, as defined by department or Department of Health rule, must meet the following requirements and otherwise comply with department or Department of Health rules, as applicable:

1. If the design capacity of the facility is less than 1 million gallons per day, the injection well must be at least 90 feet deep and cased to a minimum depth of 60 feet or to such greater cased depth and total well depth as may be required by department rule.

2. Except as provided in subparagraph 3. for backup wells, if the design capacity of the facility is equal to or greater than 1 million gallons per day, each primary injection well must be cased to a minimum depth of 2,000 feet or to such greater depth as may be required by department rule.

* * *

(h) If it is demonstrated that a discharge, even if the discharge is otherwise in compliance with this subsection, will cause or contribute to a violation of state water quality standards, the department shall:

1. Require more stringent effluent limitations;

2. Order the point or method of discharge changed;

3. Limit the duration or volume of the discharge; or

4. Prohibit the discharge.

314. Based on the foregoing findings of fact, it is concluded that the Project fully complies with the applicable provisions of section 403.086(10).

315. First, as discussed above, to the extent there may be a connection between ground water and surface waters such that the effluent ultimately reaches surface waters, this is not considered

a "discharge" to surface waters under rule 62-620.200(13). That rule states in pertinent part:

> 'Discharge of a pollutant' means any addition of any pollutant or combination of pollutants . . . to waters from any point source . . . . This definition includes additions of pollutants into waters from surface runoff which is collected or channeled by man, and discharges through pipes, sewers, or other conveyances which do not lead to a treatment works. This term does not include an addition of pollutants by any indirect discharger.

Fla. Admin. Code R. 62-620.200(13)(emphasis added).

316. The salient facts in Port Antigua Townhouse Ass'n, Inc. v. Seanic Corp., Case No. 00-0137 (Fla. DOAH Nov. 13, 2000; Fla. DEP Dec. 21, 2000), are similar to those in this proceeding. In that case, challengers to issuance of a Class V injection well permit to inject domestic wastewater into Class G-III groundwater argued that that discharge of this effluent into underground injection wells would result in a rapid discharge to surface waters shortly after the discharge is released into the wells, thus constituting a discharge of effluent into surface waters of the state in violation of various statutes and rules. DEP expressly rejected that argument, recognizing that DEP's wastewater permitting facility rule, chapter 62-620, expressly excludes from the definition of "discharge of a pollutant" the addition of pollutants to waters by any indirect discharger. DEP determined that "discharges of wastewater effluent into Class G-

III ground water through underground injection wells do not constitute 'discharges into surface waters' under chapter 62-302 or 62-600, Florida Administrative Code." Id. at p. 11.

317. Pursuant to this authority, any claim that issuance of the Permit at Issue violates section 403.086(10)(a) is rejected.[59/]

318. Additionally, the evidence clearly establishes that the effluent discharged by the Project will meet the AWT standards, as required by subsubsections (c) and (d) of the statute. Further, the evidence establishes that under the plain terms of the Existing Permit, the Existing Wastewater Facility is not required to meet AWT standards before January 1, 2016.

319. Further, as discussed in detail above, the design capacity of the Expanded Wastewater Facility will not be equal to or 1 MGD, so KWRU is not required to install deep injection wells cased to a minimum depth of 2,000 feet. Rule 62-600.200(19) defines "design capacity" as the "average daily flow for the projected design year which serves as the basis for the sizing and design of the wastewater facilities." Here, the persuasive evidence shows that the proposed .849 MGD AADF design capacity of the Expanded Wastewater Facility was established by KWRU based on historical wastewater flow data, in conformance with the Ten States Standards, and that AADF is the appropriate temporal flow metric for the design capacity, based on projected lack of

seasonal flow to the Expanded Wastewater Facility. Accordingly, the Project fully complies with the requirements of section 403.086(10)(g), and a deep injection well is not required for the Project.

320. Petitioners contend that subsubsection (h) of section 403.086(10) imposes an affirmative obligation on every applicant for a permit for a domestic wastewater facility located in Monroe County to show that its provisions are met, rather than instead being triggered only if and when it is shown that a discharge that is otherwise in compliance with subsection (10) would cause or contribute to a violation of state water quality standards. Petitioners cite no case law or other authority to support their interpretation.

321. Petitioners' interpretation is rejected as contrary to the plain language of the statute. Subsubsection (h) states "[i]f it is demonstrated that a discharge . . . will cause or contribute to a violation of state water quality standards . . . " and then sets forth four alternatives available to DEP regarding the operation of the facility. It is abundantly clear that DEP must consider these alternatives only "if it is demonstrated" that a discharge will violate water quality standards. Accordingly, this provision does not impose an affirmative permitting obligation, but, rather, is triggered if it is shown that a permitted

discharge causes or contributes to water quality standard violations.

322. Furthermore, the credible, persuasive evidence establishes that in any event, the effluent discharged through the injection wells will not cause or contribute to a violation of surface water quality or ground water standards.

323. Accordingly, it is concluded that the Project fully complies with section 403.086(10).

Chapter 62-600

324. Chapter 62-600 establishes the design and operation standards applicable to domestic wastewater treatment facilities in Florida.

325. As discussed above, Petitioners have challenged the proposed design capacity of the Expanded Wastewater Facility as not being correctly determined under rule 62-600.200(19).

326. For the reasons discussed in detail above, it is concluded that the proposed design capacity of .849 MGD AADF for the Expanded Wastewater Facility fully conforms to the terms of rule 62-600.200(19), the Ten States Standards, and all other applicable standards and requirements in chapter 62-600.

327. Petitioners also claim that pursuant to rule 62-600.405, KRWU was required, and failed, to submit a capacity analysis report regarding the proposed capacity of the Expanded Wastewater Facility. This rule states in pertinent part:

(3) When the three-month average daily flow for the most recent three consecutive months exceeds 50 percent of the permitted capacity of the treatment plant or reuse and disposal systems, the permittee shall submit to the Department a capacity analysis report.

(4) The initial capacity analysis report shall be submitted according to the following:

(a) For new or expanded wastewater facilities for which the Department received a complete construction permit application after July 1, 1991, the initial capacity analysis report shall be submitted within 180 days after the last day of the last month in the three-month period referenced in subsection 62-600.405(3), F.A.C.

(b) For wastewater facilities for which the Department received a complete construction permit application on or before July 1, 1991, the initial capacity analysis report shall be submitted when the next application for a permit to construct or operate wastewater facilities is submitted to the Department unless:

1. The three-month average daily flow for any three consecutive months during the period July 1, 1990 to June 30, 1991 exceeds 90 percent of the permitted capacity. In such cases, the initial capacity analysis report shall be submitted to the Department no later than January 1, 1992.

2. The three-month average daily flow for any three consecutive months during the period July 1, 1990 to June 30, 1991 exceeds 75 percent of the permitted capacity. In such cases, the initial capacity analysis report shall be submitted to the Department no later than July 1, 1992.

(c) In no case shall the initial capacity analysis report be required to be submitted before July 1, 1991 or before the three-month

> average daily flow exceeds 50 percent of the permitted capacity of the treatment plant or reuse or disposal systems, as described in subsection 62-600.405(3), F.A.C.
>
> (5) The permittee shall submit updated capacity analysis reports to the Department according to the following:
>
> (a) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will not be equaled or exceeded for at least 10 years, an updated capacity analysis report shall be submitted to the Department at five-year intervals or at each time the permittee applies for an operation permit or renewal of an operation permit, whichever occurs first.
>
> (b) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next 10 years, an updated capacity analysis shall be submitted to the Department annually.

328. For the reasons discussed above, it is concluded that KWRU was not required to submit a capacity analysis report as part of the applications for the Permit at Issue. Accordingly, lack of a capacity analysis report as part of the applications is not a basis on which to deny the Permit at Issue.

Chapter 62-610

329. Petitioners allege that the increased permitted capacity of the reuse system constitutes a "new or expanded reuse or land application project," so that an engineering report and reuse feasibility study were required as part of the applications

for the Permit at Issue, pursuant to rule 62-610.310(1). This rule provides:

> (1) In accordance with the requirements and provisions of Chapters 62-600 and 62-620, F.A.C., an engineering report shall be submitted in support of permit applications for new or expanded reuse or land application projects. The engineering report will serve as the preliminary design report for reuse and land application projects. The requirement for an engineering report for modifications of existing systems and for those existing facilities which have had past violations of permit conditions or water quality standards shall be a case-by-case determination by the Department based on the frequency and severity of past violations, the potential for adverse effects on reclaimed water quality and on surface and ground water quality, and the scope of proposed modifications.

330. As discussed at length above, the reuse system previously was permitted for 1 MGD capacity, and that is not being expanded by the Permit at Issue. Moreover, the amount of reclaimed water reused as irrigation is not being increased. Therefore, an engineering report and reuse feasibility study are not required for the Project.

331. Petitioners also allege that KWRU did not provide reasonable assurance that the provision of reclaimed water from the Expanded Wastewater Facility to the golf course will constitute a beneficial use rather than disposal, inconsistent with rule 62-610.810.

332. Rule 62-610.810 provides in pertinent part:

> (1) This section contains the criteria to be used by the Department in classifying projects or portions of projects as "reuse" or "effluent disposal."
>
> (2) Reuse projects. The following shall be classified as "reuse:"
>
> * * *
>
> (b) Projects permitted under Part III of Chapter 62-610, F.A.C.

333. Part III of chapter 62-610 governs slow-rate land application systems. Rule 62-610.450 expressly includes golf courses as a type of reuse system regulated under Part III. Accordingly, the provision of reclaimed water for golf course irrigation complies with rule 62-610.810.

334. Petitioners' real dispute regarding the reclaimed water reuse system is grounded in the quantity of water—1 MGD—they perceive as being sent to the golf course on a daily basis. As discussed above, Petitioners contend that since the golf course irrigation only accounts for 300,000 gallons per day, 700,000 of the reclaimed water will be disposed of. As discussed in detail above, Petitioners' contention is based on a fundamental misunderstanding of the reuse system capacity—which is already authorized in the Existing Permit and is not being changed in the Permit at Issue—and of the structure and operation of the reuse system.

335. For the reasons discussed above, it is concluded that the reclaimed water reuse system meets all applicable requirements of chapter 62-610.

Rule 62-620.320

336. Petitioners contend that KWRU did not affirmatively provide DEP with reasonable assurance pursuant to rule 62-620.320(1). That rule states:

> (1) A permit shall be issued only if the applicant affirmatively provides the Department with reasonable assurance, based on a preliminary design report, plans, test results, installation of pollution control equipment, or other information, that the construction, modification, or operation of the wastewater facility or activity will not discharge or cause pollution in contravention of Chapter 403, F.S., and applicable Department rules.

337. For the reasons discussed above, it is concluded that KWRU provided all required information in its applications, and that that information provided reasonable assurance that the Project will not discharge or cause pollution in contravention of chapter 403 and applicable DEP rules.

Chapter 62-302 and Rule 62-4.242

338. Petitioners contend that the discharge of effluent through the injection wells authorized by the Permit at Issue will cause or contribute to a violation of surface water quality standards for nutrients in rules 62-302.530(47)(a) and (b) and

rules 62-302.532(1)(g)1. and 3., and the surface water quality "free-from" standards in rules 62-302.500 and 62-302.530(61).

339. Petitioners also allege that the reclaimed water sent to and stored in the golf course ponds for reuse as irrigation will run off into surface waters or seep through the ground water, causing or contributing to violations of surface water quality.

340. Petitioners allege that as a result of these violations, the discharge of the effluent through the injection wells also will violate the antidegradation provisions of rules 62-4.242, 62-302.300, and 62-302.700(1).

341. For the reasons discussed in substantial detail above, it is concluded that KWRU provided reasonable assurance that the discharge of the effluent through the injection wells will not violate applicable surface water quality standards for nutrients in rules 62-302.500(47)(a) and (b) and 62-302.532(1)(g)1. and 3. and will not violate the surface water quality "free-from" standards in rules 62-302.500 and 62-302.530(61).

342. Also as discussed in substantial detail above, it is concluded that under any circumstances, the discharge of effluent through the injection wells does not constitute a discharge to surface waters. See Fla. Admin. Code R. 62-620.200(13); Port Antigua Townhouse Ass'n, Inc.

343. Accordingly, the antidegradation provisions in rules 62-4.242, 62-302.300, and 62-302.700(1), which apply to discharges to surface waters, are not applicable to the discharge of effluent through the injection wells authorized by the Permit at Issue.[60/]

344. Additionally, for the reasons discussed in detail above, it is concluded that the reuse and storage of reclaimed water for irrigation at the Key West Golf Club golf course, as proposed by the Project, will not cause or contribute to violations of surface water quality standards. Thus, it is further concluded that the use of the reclaimed water storage ponds as authorized in the Permit at Issue does not violate rule 62-4.030.[61/]

345. Based on the foregoing, it is concluded that Petitioners did not meet their burden regarding the alleged violations of surface water quality standards as a result of the Project.

Rule 62-528.630(7)

346. Petitioners allege that the discharge of effluent through the injection wells authorized by the Permit at Issue will violate rule 62-528.630(7), which provides:

> All Class V Group 3 wells designed to inject domestic wastewater in Monroe County shall be required as part of the operation permit application to provide reasonable assurance that operation of the well will not cause or

contribute to a violation of surface water standards as defined in Chapter 62-302, F.A.C.

347. For the reasons discussed in substantial detail above, KWRU provided reasonable assurance that operation of the injection wells authorized by the Permit at Issue will not cause or contribute to a violation of surface water quality standards, in compliance with rule 62-528.630(7).

Chapter 62-520

348. Chapter 62-520 establishes the classifications and standards applicable to ground water and discharges to ground water in Florida.

349. As discussed above, the persuasive evidence presented in this proceeding did not establish the existence of a drinking water aquifer to which Class G-II ground water standards would apply.

350. The ground water into which the effluent will be discharged is classified as Class G-III, so the ground water quality "free from" standards in rule 62-520.400 apply. Fla. Admin. Code R. 62-520.430(1).

351. As discussed above, the evidence shows that the discharge of the effluent through the injection wells will not violate the ground water quality "free from" standards codified at rule 62-520.400.

IV. Entitlement to Issuance of Permit at Issue

352. To be entitled to issuance of the Permit at Issue, KWRU was required to provide DEP with reasonable assurance, based on the information submitted in the applications and supporting documentation, that the Project will not discharge, emit, or cause pollution in contravention of DEP rules or standards. See Fla. Admin. Code R. 62-4.070(2).

353. The "reasonable assurance" standard required KWRU to demonstrate the "substantial likelihood" that the project would not discharge, emit, or cause pollution in contravention of DEP rules. Reasonable assurance does not require absolute guarantees that the project will not cause pollution under any circumstances. See Save Anna Maria, Inc. v. Dep't of Transp., 700 So. 2d 113, 117 (Fla. 2d DCA 1997); see also Metropolitan Dade Cnty. v. Coscan Fla., Inc., 609 So. 2d 644, 648 (Fla. 3d DCA 1992); McCormick v. City of Jacksonville, Case No. 88-2283 (Fla. DOAH Oct. 16, 1989; Fla. DER Jan. 22, 1990). KWRU was not, and is not, required to eliminate all contrary possibilities, however remote, or to address impacts that are only theoretical or not reasonably likely. See Crystal Springs Recreational Pres., Inc. v. Sw. Fla. Water Mgmt. Dist., Case No. 99-1415 (Fla. DOAH Jan. 27, 2000; SWFWMD Feb. 29, 2000); Alafia River Basins Stewardship Council, Inc. v. Sw. Fla. Water Mgmt. Dist., Case

Nos. 98-4925, 98-4926, 98-4930, 98-4931 (Fla. DOAH July 2, 1999; SWFWMD Aug. 2, 1999).

354. As discussed above, DEP reasonably and correctly determined, based on the permit applications and supporting information, that KWRU provided reasonable assurance that the Project, as proposed, would meet all applicable statutory and rule requirements. Accordingly, DEP issued the Notice of Intent to Issue the Permit at Issue.

355. Also as previously discussed, at the final hearing, KWRU, with evidentiary support from DEP, satisfied its burden under section 120.569(2)(p) to establish prima facie entitlement to the Permit at Issue.

356. The burden then shifted to Petitioners to prove their case in opposition and to demonstrate, by a preponderance of the competent substantial evidence, that KWRU did not provide reasonable assurance that it is entitled to the Permit at Issue.

357. Petitioners alleged numerous grounds that they alleged require denial of the Permit at Issue. For the reasons discussed above, Petitioners did not prove, on the grounds they raised in the Second Amended Verified Petition for Formal Administrative Hearing, that the Project, as designed, would not comply with or would violate section 403.086(10) and applicable DEP rules. As such, Petitioners failed to meet their burden of ultimate persuasion in this proceeding.

358. KWRU has demonstrated that the Project meets all applicable permitting standards and requirements, including those established in section 403.086(10) and applicable DEP rules.

359. Therefore, KWRU is entitled to issuance of the Permit at Issue.

V. Sanctions

360. Petitioners and KWRU each have moved for an award of attorney's fees and costs associated with litigating this matter. These requests have been denied in a separate Order on Motions for Attorney's Fees and Sanctions ("Sanctions Order").

361. KWRU also moved for an award of sanctions consisting of attorney's fees incurred in filing a Motion to Compel, which was granted. As explained in the Sanctions Order, this motion is granted, and the Division of Administrative Hearings retains jurisdiction solely over this issue, in the event an evidentiary hearing on the amount to be awarded becomes necessary.

RECOMMENDATION

Based on the foregoing Findings of Fact and Conclusions of Law, it is RECOMMENDED that the Department of Environmental Protection enter a final order approving the issuance of Domestic Wastewater Facility Permit FLA014951-012-DWIP and UIC Permits 18490-020 and 18490-021.

DONE AND ENTERED this 15th day of January, 2016, in Tallahassee, Leon County, Florida.

CATHY M. SELLERS
Administrative Law Judge
Division of Administrative Hearings
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Filed with the Clerk of the
Division of Administrative Hearings
this 15th day of January, 2016.

ENDNOTES

[1/] All references are to the 2015 version of the Florida Statutes, unless otherwise stated.

[2/] See the description of the Existing Wastewater Facility in paragraph 13.

[3/] References to the "Existing Wastewater Facility" are collectively to the existing wastewater treatment plant, the existing reclaimed water reuse system, and the existing two-well underground injection well system, all of which are permitted under the Existing Permit. The Existing Permit was issued in 2012 as a renewal of a previously-issued permit authorizing construction and operation of the Existing Wastewater Facility. The Existing Permit did not expand the design or permitted capacities for the Existing Wastewater Facility.

[4/] Under the Existing Permit, reclaimed water is sent on a priority basis to the Key West Golf Club for reuse as irrigation water. If there is no remaining storage capacity in the golf course ponds or the course does not need reclaimed water at a particular time, the reclaimed water is then provided as needed in specified quantities to the Monroe County Detention Facility, the Lower Keys Medical Center, and the Florida Keys Community College.

[5/] Pursuant to DEP rule, the "design capacity" is the average daily flow projected for the design year which serves as the basis for the sizing and design of the wastewater facilities. Fla. Admin. Code R. 62-600.200(19). Also per DEP rule, the "permitted capacity" is the treatment capacity for which a plant is approved by permit and is expressed in MGD units and specifying the associated timeframe. Fla. Admin. Code R. 62-600.200(62). These capacities and their relationship to the facilities at issue in this proceeding are discussed in greater detail below.

[6/] As addressed in greater detail below, it is disputed whether the reuse storage ponds ultimately discharge into surface waters.

[7/] The reclaimed water system, which provides reclaimed water for reuse for golf course irrigation, is the primary means by which the treated wastewater is removed from the Wastewater Facility site.

[8/] "Effluent" is defined in rule 62-600.200(27) as "water that is not reused after flowing out of any wastewater treatment facility or other works used for the purpose of treating, stabilizing, or holding wastes." All references to "effluent" in this Recommended Order referred to treated wastewater that is disposed of down the permitted injection wells.

[9/] The Miami Limestone extends from the ground surface or immediately below the surface to a depth of between 20 and 30 feet, where it is underlain by the Key Largo Limestone.

[10/] Although the expansion to the Facility proposed at this time would result in the plant having a design capacity of .849 MGD AADF, KWRU proposes to expand the underground injection wells' design capacity to .998 MGD AADF in the event it were to begin receiving wastewater flows from the Navy weather station and needed additional injection well disposal capacity. Presumably, if an expansion to the treatment capacity were needed to accommodate and treat this flow, KWRU would be required to apply to expand the capacity of the plant.

[11/] Rule 62-600.200(19) states that the design capacity is established by the permit applicant, and the timeframe to which design capacity is keyed also is specified by the applicant.

[12/] In Castle's professional judgment, a consistent 15 percent variation in flow over a three-month period would be significant; he observed a maximum of 12 percent variation in flow over this timeframe. Additionally, the variations in flow did not

correspond to high use periods in the Florida Keys, causing Castle to conclude that variations in flow were not related to tourist season in the Keys.

[13/] Although DEP staff recognized that the Florida Keys generally do experience seasonal residential occupancy, the persuasive evidence establishes that Stock Island specifically has not experienced such historic seasonal occupancy because it is largely populated by persons who reside there year-round.

[14/] Section 403.086(10)(d) establishes treatment requirements specific to wastewater treatment facilities having design capacities equal to or greater than 100,000 gallons per day on an annual average basis, and to wastewater treatment facilities having a design capacity of less than 100,000 gallons per day on an annual average basis. The plain language of the statute makes clear that the design capacity refers to capacity measured on an annual average basis, rather than on a peak hourly basis.

[15/] Accordingly, to the extent Petitioners allege that DEP's reliance on the certifying engineer's design is per se insufficient or contrary to law, that claim is rejected.

[16/] The Second Amended Verified Petition for Formal Administrative Hearing, Request for Mediation, and Motion to Intervene, filed by Petitioners on December 29, 2014, is the operative document challenging the Permit at Issue in this proceeding.

[17/] Rule 62-600.405(3) states: "[w]hen the three-month average daily flow for the most recent three consecutive months exceeds 50 percent of the capacity of the treatment plant or reuse and disposal systems, the permittee shall submit to the Department a capacity analysis report."

[18/] The April 2012 CAR evaluated projected capacity needs based on historic development and wastewater facility connection trends for the years 2008 through 2010. This period corresponded with a major economic recession, so there was very little, if any, new development occurring and almost no new wastewater facility connections to the facility occurred during that time.

[19/] Rule 62-600.405(5) states in pertinent part:

> (5) The permittee shall submit updated capacity analysis reports to the Department according to the following:

(a) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will not be equaled or exceeded for at least 10 years, an updated capacity analysis report shall be submitted to the Department at five-year intervals or at each time the permittee applies for an operation permit or renewal of an operation permit, whichever occurs first.

(b) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next 10 years, an updated capacity analysis shall be submitted to the Department annually.

[20/] KWRU's service area consists of Stock Island, where undeveloped land is scarce. Given the scarcity of land in KWRU's service area, Castle's estimation that the service out will be built out by 2020 is reasonable.

[21/] Castle testified that the allowable maximum density for these parcels pursuant to the Monroe County Land Development Regulations is two to 18 units per acre, and that 12 units per acre was chosen as an approximation of the level of development that may occur on the parcels. The total acreage, not just the developable acreage, was utilized in Castle's calculations.

[22/] These incremental flow increases were, respectively, ten percent for year 2016, five percent for year 2017, two-and-one-half percent for year 2018, and one-half percent for year 2019.

[23/] Castle testified, persuasively, that in his opinion, actual flow data are more representative of water use in the Florida Keys, where significant water conservation measures are implemented, than are flows estimated using DOH Table I, which estimates worst-case flows applicable to onsite systems. According to Castle, DOH Table I is better suited for estimating flows in areas lacking aggressive water conservation measures.

[24/] The flows from Key West Harbor Yacht Club would constitute an additional 16,775 gallons per day (.016775 MGD) of flow into the facility. Castle built in a 15-percent "safety factor"—which amounts to approximately 100,000 gallons per day additional capacity—on top of the projected flows from the named developments. The additional capacity due to the "safety factor"

more than compensates for the flows from the Key West Harbor Yacht Club.

[25/] The 16-percent variability in 2014 flows may be an aberration. Had Lynch used historical flow data dating back over a few years, in addition to the 2014 data, his opinion may have been given more weight. Petitioners did not present any evidence showing that 2014 flows were representative of historic or future flows to the Expanded Wastewater Facility.

[26/] The permit application lists 1 MGD as the "capacity" of the reuse system. This quantity represents an approximate depth of two feet of water storage capacity in the golf course ponds. The volume of the storage ponds is not being changed by the Permit at Issue.

[27/] Rule 62-610.200(52), in pertinent part, defines "reuse" as the "deliberate application of reclaimed water . . . for a beneficial purpose." Rule 62-610.810(2) provides that "reuse" includes projects permitted under chapter 62-610, Part III. Pursuant to that part, golf course irrigation is considered a beneficial use.

[28/] Nutrient influx to and content of surface waters tends to be skewed, so the numeric interpretations of the narrative nutrient criterion are expressed as annual geometric means calculated across all samples collected for the particular water body for a year. The geometric mean more accurately reflects the central tendencies of the data set generated by the sampling. Rule 62-302.531(6) establishes a sampling method to accurately calculate a geographic mean for purposes of determining compliance with the NNCs. Importantly, this method requires multiple samples to be taken over a period of a year, rather than determining compliance based on a single sample or on multiple samples taken only on one occasion.

[29/] The Florida Keys Reasonable Assurance Plan was prepared in 2008 and updated in 2011 (collectively, "Keys RAP"). DEP anticipates adopting NNCs for the Halo Zone that are consistent with the Keys RAP. Until site-specific NNCs are adopted by rule for the Halo Zone, the narrative nutrient criterion in rule 62-302.530(47)(b) applies in this area.

[30/] The Impaired Waters Rule, chapter 62-303, establishes a formal mechanism for identifying surface waters in Florida that are impaired. Most water bodies that are verified as being impaired by a pollutant will be listed on Florida's 303(d) list, pursuant

to the Florida Watershed Restoration Act ("FWRA") and Section 303(d) of the federal Clean Water Act. Once listed, Total Maximum Daily Loads will be developed for the water body for the particular pollutants causing the impairment. However, before placing a water body on the state's 303(d) list, DEP evaluates whether existing or proposed pollution control measures will effectively address the impairment. If DEP can document that there is reasonable assurance that the impairment will effectively be addressed by the control measures, the water body will not be listed on the final verified list.

[31/] WBIDs are assessed for impairment for individual water quality parameters and are then placed into one of five major assessment categories and subcategories. This enables the state to document attainment of applicable water quality standards, develop monitoring strategies for the specific parameters identified in the assessment, and ensure that the attainment status for each water quality standard applicable to a particular WBID is effectively addressed.

[32/] WBIDs 8073A through 8073H are small beach WBIDs that have been designated specifically for purposes of monitoring compliance with beach water quality criteria.

[33/] As of the date of the final hearing, the data collected in 2014 had not yet been assessed and interpreted.

[34/] On the original list of impaired waters prepared in 1998, the surface waters in the Florida Keys were listed as impaired for nutrients. In 2009, DEP placed the 23 Keys WBIDs in Category 4e, which means that for the WBID, the data show that one or more designated uses are not being attained, but that recently completed or ongoing restoration activities are expected to restore the designated uses such that the WBID meets its designated uses.

[35/] The U.S. Environmental Protection Agency has determined that DEP provided sufficient justification to delist all of the Florida Keys WBIDs from the state's previous section 303(d) impaired waters list.

[36/] Although there is some variability in the subsurface geology between the KWRU site and the FGS site, which is approximately 1,800 feet (slightly over a third of a mile) south of the KWRU site, the evidence established that this variability is mostly related to subsurface elevation of specific features rather than whether or not such features exist at both sites.

[37/] The Q-layers, or Q-zones, were formed during the Quaternary Period, when global glaciation caused sea levels to drop. During these periods, windblown African dust was deposited on the exposed reef and mudflat surfaces. These surfaces became indurated, or hardened, forming confining layers that when buried by sediments during subsequent sea level fluctuations, function as aquitards.

[38/] Zednek acknowledged that under any circumstances, the general consensus is that the effluent would first migrate horizontally before migrating vertically.

[39/] Paul provided conflicting testimony regarding the results of the Saddlebunch Keys. On direct examination, he testified that the viruses appeared in surface waters approximately 1,400 meters from the injection location, and he did specify a timeframe. On cross-examination, he testified that the viruses appeared in surface waters approximately 58 hours after injection and approximately 3,500 meters from the injection site.

[40/] Alfieri testified, persuasively, that in any event, the UES geotechnical report would not have depicted the existence of aquitards at the KWRU site because the purpose of the geotechnical analysis was to evaluate the site for load-bearing capacity—not to precisely identify and describe the specific geologic features, such as aquitards, underlying the site. Accordingly, the UES report has little value in precisely identifying and describing the geology at the KWRU site.

[41/] Alfieri further noted that the crushed rock described in the UES Log likely resulted from the drilling technique used to determine the geotechnical integrity of the site for purposes of supporting a concrete water tank. In Alfieri's experience, there is very little crushed or fractured subsurface rock in the Florida Keys.

[42/] This is well beyond the Halo Zone, which constitutes the first 500 meters (approximately 1,500 feet) offshore, and which is most ecologically sensitive to phosphorus enrichment.

[43/] Of further note is that the interim report on the dye tracer study was performed at Cudjoe Key, which is approximately 15 miles from the KWRU site. Petitioners presented no persuasive evidence showing that the geology at the Cudjoe Key site is comparable to that at the KWRU site. The best specific evidence regarding the subsurface geology on Stock Island, and, specifically, at the KWRU site, is the FGS Log.

[44/] Rule 62-302.530(47)(a) states, in pertinent part that: "[m]an-induced nutrient enrichment (total nitrogen or total phosphorus) shall be considered degradation in relation to the provisions of [r]ules 62-302.300, 62-302.700, and 62-2.242." Rule 62-302.530(47)(b) states: "[i]n no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations in flora and fauna."

[45/] Fourqurean testified that due to rapid uptake, increases in phosphorus levels cannot be detected in the water column even 30 feet from a large point-source discharge due to rapid absorption by benthic communities.

[46/] In support of this opinion, Alfieri cited a study showing that in two or fewer days subsurface limestone absorbs—and, thus, removes from the water column—approximately 95 percent of injected phosphorous within five meters of the injection point. This study also found that approximately 65 percent of injected nitrogen was absorbed over a period of 3.5 days.

[47/] He further acknowledged that an annual geometric mean, on which the numeric interpretations of the narrative nutrient criteria is based, cannot be ascertained from a single sampling event.

[48/] Weaver testified as an expert in surface water quality, statistics, and aquatic ecology. He has been extensively involved in identification and delineation of the FKMNRs, development of the NNCs applicable to the FKMNRs, preparation and implementation of the 2008 SKARAD and the 2011 Update, and determining compliance with the applicable NNCs.

[49/] The NNCs for the FKMNRs were adopted by rule in 2012.

[50/] These estimated net reduction levels are conservative because they assume all treated wastewater will be disposed of as effluent down the injection wells. However, as previously discussed, a substantial portion of the treated wastewater from the Expanded Wastewater Facility will constitute reclaimed water that is reused as irrigation by the Key West Golf Club golf course.

[51/] Petitioners allege that KWRU has violated rule 62-302.500(1)(c) by not having applied and been authorized for use of a mixing zone for discharge of the effluent to meet surface water quality standards. This rule citation appears to be in error. Rule 62-302.500(1)(c) requires that all surface waters must be free from silver in concentrations above 2.3 micrograms

per liter in predominantly marine waters. However, Petitioners did not allege, or provide any evidence showing, that the effluent discharged through the injection wells will contain any silver, much less in concentrations above that stated in the rule.

[52/] Underground drinking water sources are classified in rule 62-520.410(1) as F-I, G-I, or G-II, depending on their total dissolved solids concentration.

[53/] There is no evidence showing that the components of the wastewater inflow to the Expanded Wastewater Facility will be different than those in the wastewater inflow to the Existing Wastewater Facility—except that the effluent discharged from the Expanded Wastewater Facility will be lower in concentration for nitrogen, phosphorus, and other specified components. After decades of testing never showed ground water violations due to the facility, DEP reasonably has allowed KWRU to discontinue ground water monitoring for the facility.

[54/] Because years of ground water monitoring data for the reuse system ponds revealed no violations, DEP authorized discontinuation of this monitoring in 2012. Since the amount of reclaimed water being sent to the reuse storage ponds is not changing and the amount of nutrients in the reclaimed water is being reduced as a result of AWT, there is no basis for requiring KWRU to resume ground water monitoring for the ponds.

[55/] Thus, it is determined that Halloran's review of the documents filed in this proceeding challenging the Permit at Issue were sufficient for purposes of informing him regarding the allegations in those documents.

[56/] An organization is legally entitled to protect its membership lists from discovery in a legal proceeding. NAACP v. Alabama, 357 U.S. 449 (1958). However, that protection does not relieve the entity of the requirement to establish its standing to participate as a party to that proceeding. See NRA of Am., Inc. v. City of Miami, 774 So. 2d 815, 816 (Fla. 3d DCA 2000)(recognizing that an association whose membership lists are legally protected from discovery still must show standing to sue).

[57/] In Florida Home Builders Association, the Florida Supreme Court articulated the associational standing test applicable to administrative proceedings in Florida. That test, which has subsequently has been refined and applied by courts in the context of proceedings under section 120.57 requires an association to

show: that a substantial number (although not necessarily a majority) of its members' substantial interests are or may be injured by the proposed agency action; the subject matter of the proceeding must be within the association's general scope of interest and activity; and the relief requested must be of the type appropriate for the association to receive on behalf of its members. See Friends of the Everglades v. Bd. of Tr., 595 So. 2d 186 (Fla. 1st DCA 1992).

[58/] "Party" is defined, in pertinent part, to mean:

> (b) Any other person who, as a matter of constitutional right, provision of statute, or provision of agency regulation, is entitled to participate in whole or in part in the proceeding, or whose substantial interests will be affected by proposed agency action, and who makes an appearance as a party.

§ 120.52(13)(b), Fla. Stat. (emphasis added).

[59/] Petitioners argue that DEP misinterprets section 403.086(10) and rule 62-620.200. In support, Petitioners cite federal regulations defining "indirect discharger" at 40 C.F.R. section 122.2, part of the regulations implementing the National Pollutant Elimination Discharge System. This reliance is misplaced. Florida has adopted its own rules implementing its own pollution control statutes, including rules specifically governing the approval of domestic wastewater facilities. Accordingly, federal regulations may be applicable to permitting such facilities under Florida rules only to the extent they are specifically incorporated into Florida rules. Here, rule 62-620.200(13) expressly incorporates only the federal definition of "pollutant"; it does not incorporate the definition of "indirect discharger," so that federal definition is not applicable to interpreting and applying rule 62-620.200(13).

[60/] However, as discussed above, the credible, persuasive evidence shows that even if the effluent were discharged to surface waters, it would not cause or contribute to violations of surface water quality standards.

[61/] Petitioners also contend that the golf course storage ponds constitute a "stationary installation," so that the use of the ponds for storage of reclaimed water, as authorized under the Permit at Issue, would violate rule 62-4.030, which provides:

> Any stationary installation which will reasonably be expected to be a source of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate and valid permits issued by the Department, unless the source is exempted by Department rule. The Department may issue a permit only after it receives reasonable assurance that the installation will not cause pollution in violation of any of the provisions of Chapter 403, F.S., or the rules promulgated thereunder. A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit.

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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

All parties have the right to submit written exceptions within 15 days from the date of this Recommended Order. Any exceptions to this Recommended Order should be filed with the agency that will issue the Final Order in this case.