STATE OF FLORIDA DIVISION OF ADMINISTRATIVE HEARINGS

WASHINGTON COUNTY,)
Petitioner,)
and)
THE NORTHERN TRUST COMPANY, AS THE SOLE TRUSTEE OF THE JAMES L. KNIGHT CHARITABLE TERM TRUST,))))
Intervenor,))
VS.)) Case No. 10-2983
BAY COUNTY AND NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT,)))
Respondents.))
THE NORTHERN TRUST COMPANY,)
Petitioner,))
VS.) Case No. 10-2984
BAY COUNTY AND NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT,)))
Respondents.	,))

JAMES G. MURFEE AND LEE LAPENSOHN,))
Petitioners,)
vs.) Case No. 10-10100
NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT,)))
Respondent,)
and)
BAY COUNTY BOARD OF COUNTY COMMISSIONERS,))
Intervenor.	,))

RECOMMENDED ORDER

These cases were heard by David M. Maloney, Administrative Law Judge on September 19-21, 26-30, October 3-7, 10, and 11, 2011, in Tallahassee, Florida.

Pursuant to section 120.57(1)(b), Florida Statutes (2011),^{1/} it was deemed appropriate to give the public an opportunity to present oral or written communications in the cases. The hearing to take public comment was held in Chipley, Florida, on October 18, 2011. Oral and written communications were presented, and the record was held open for one week for the submission of written communications to be filed at the Division of Administrative Hearings ("DOAH"). Oral public comment was

made by 32 members of the public, and 52 written comments were submitted, six of which were late.

APPEARANCES

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For Petitioners Murfee and Lapensohn

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BACKGROUND

In March 2010,^{2/} Bay County applied to the Northwest Florida Water Management District (the "District") for an individual water use permit for a supply of groundwater as an alternative to its existing surface water supply. The District issued a Notice of Proposed Agency Action (the "Notice") on March 25, 2010. The Notice proposed issuance of a permit to Bay County.

A draft of the permit was attached to the Notice. The draft proposed authorization of withdrawal of groundwater from the Floridan Aquifer in Bay County at a rate of ten million gallons per day ("MGD") as an annual daily average and a maximum

daily withdrawal of 30 MGD with an effective life of 20 years commencing on April 22, 2010.

On October 8, 2010, the District filed a "Notice of Revised Proposed Agency Action" (the "Revised Notice"). The Revised Notice revised the permit to reduce the proposed quantity for the annual daily average from 10 MGD to 5 MGD and made other changes. On July 19, 2011, the District filed a second "Notice of Revised Proposed Agency Action" (the "Second Revised Notice"). The Second Revised Notice added a monitoring plan (the Long Term Environmental Monitoring Plan or the "LTEMP") to the permit. (The Second Revised Individual Water Use Permit will be referred to in this order as the "Permit.")

The Permit proposes that Bay County be allowed to withdraw groundwater from the Floridan Aquifer at the site of its proposed wellfield (the "Wellfield") in northwestern Bay County at a rate of 5 MGD as an annual daily average under two use classifications: Public Supply and Industrial Use. The proposed withdrawal is subject to a maximum amount of 30 million gallons during a single day subject to two limitations: the maximum number of consecutive days of 30 MGD withdrawals is 52; and the maximum monthly amount is 775 million gallons. The result of the 52 consecutive-days limitation and the maximum monthly limitation is that it would be possible for Bay County to withdraw 30 MGD for up to 60 days in any one year and 30 MGD

for 26 days per month over a two-month period for a total of 52 consecutive days.

In addition to the final evidentiary hearing which spanned the period from September 19 to October 11, 2011, and the hearing at which public comment was taken on October 18, 2011, a view was conducted by the administrative law judge on October 19, 2011, of four properties and facilities: the Wellfield in northwestern Bay County, the NTC/Knight Property in Bay and Washington Counties, the Deer Point Lake Dam and Reservoir (Bay County's existing source of water supply), and Bay County's Intake Pump Station and Water Treatment Plant.

STATEMENT OF THE ISSUE

Whether Bay County has demonstrated its entitlement to the Permit?

PRELIMINARY STATEMENT

On May 28, 2010, Washington County and Northern Trust Company, as the sole Trustee of the James L. Knight Charitable Term Trust ("NTC/Knight"), filed petitions with the District challenging the District's Notice of Proposed Action. The District determined the petitions to substantially comply with the statutory and rule requirements governing the initiation of administrative proceedings involving disputed issues of material fact. The District requested that DOAH assign the petitions to an administrative law judge to conduct all necessary proceedings

ending in the submission of a recommended order to the District. The request was honored, the petitions were assigned Case Nos. 10-2983 and 10-2984, and the undersigned was designated to conduct the proceedings.

On October 26, 2010, Messrs. Murfee and Lapensohn, as pro se Petitioners, jointly filed a petition to challenge the District's Revised Notice. The petition was referred by the District to DOAH, assigned Case No. 10-10100, and consolidated with the two cases filed earlier.^{3/}

NTC/Knight intervened in Case No. 10-2983, and Bay County intervened in Case No. 10-10100. The cases were set for hearing and continued without objection until the final hearing that commenced in September 2011.

At the final hearing, Bay County presented the testimony of William Miller and Paul Lackemacher, the assistant director of Bay County's water and wastewater utility. Mr. Lackemacher was accepted as an expert in the operation and maintenance of public water supply systems. Exhibits offered by Bay County and marked as Bay County Exhibits 2, 5, 10, 12, 21, 23A, 24, 25, 28A-F, and 32 were admitted into evidence.

Bay County and the District jointly presented the testimony of Thomas Kwader, Ph.D, P.G., accepted as an expert in geology, hydrogeology, and geophysics; Varut "Dua" Guvanasen, Ph.D., P.E., accepted as an expert in hydrogeology and groundwater

modeling; Mark Maimone, Ph.D., P.E., accepted as an expert in groundwater modeling, groundwater hydrology, and water resource planning; Peter Anderson, P.E., accepted as an expert in groundwater hydrology, and modeling; Richard Cantrell; accepted as an expert in aquatic and wetland ecology, water quality, wetland delineation, and the application of wetland rules; Shirley Denton, Ph.D., accepted as an expert in wetlands ecology, botany, and environmental monitoring in the context of consumptive use permitting; William Michael Dennis, accepted as an expert in wetlands ecology and botany; and Douglas Barr, accepted as an expert in groundwater hydrology, hydrogeology, groundwater modeling, and consumptive use permitting. Bay County and the District jointly offered exhibits marked as NWFWMD-Bay Co. Joint Exhibits 1 (the "Permit File" consisting of four volumes marked as Volumes I, II, III, and IV); 1A; 2; Binder 6, Tabs Q, R, T, and X; Binder 7, Tabs A, B, O, P, and Z; Binder 8, Tab Z; and Binder 9, Tabs C and E. All were admitted into evidence.

The District, on its own, presented the testimony of one expert witness: Wallace Guy Gowens, the District's Division of Resource Regulation Director, accepted as an expert in water use permitting, water use regulation, water well construction regulation, and water well licensing regulation. The District

also presented the testimony of Paul Thorpe, the District's Resource Planning Section Director.

NTC/Knight and Washington County jointly presented the testimony of Richard Doty, accepted as an expert in population projection and water demand forecasting; Anthony Janicki, Ph.D., accepted as an expert in hydrodynamic modeling of water bodies; Philip Waller, P.E., accepted as an expert in the design and construction of potable water systems, including groundwater wells and transmission lines and sanitation of water; Thomas Scott, Ph.D., P.G., accepted as an expert in Florida geology and karst geology; Thomas Dobecki, Ph.D., P.G., accepted as an expert in geology and geophysics; Sam Upchurch, Ph.D., P.G., accepted as an expert in geology, karst science, geochemistry, and hydrogeology; Phillip Davis, accepted as an expert in hydrogeology, hydrology, and groundwater modeling; Bruce Means, Ph.D., accepted as an expert in the ecology of the Florida Panhandle; Edwin Keppner, Ph.D., accepted as an expert in biology, zoology, botany, and plant identification; Bruce Pruitt, Ph.D., P.H., P.W.S., accepted as an expert in hydrology, hillslope and watershed hydrology, soil science, fluvial geomorphology, and wetland science; John Vogel, accepted as an expert in forestry and forest management; Tony Greco, accepted as an expert in aquatic ecology, including water quality sampling, sampling for fish, and sampling for

macroinvertebrates; and Brian Ormiston, Ph.D., accepted as an expert in ecology, wetland and water resource, statistical design and analysis, remote sensing and geographic information systems, and environmental monitoring and assessment of wellfield impacts. NTC/Knight presented the testimony of one fact witness, Augustin Maristany, an engineer and consultant for the District. NTC/Knight's Exhibits 3, 3A, 5-9, 12-18, 21-24, 26-27, 30, 31, 33-36, 41, 46, 48-50, 57, 59-60, 67-72, 74, 75, 78-79, 81-82, 87-89, 91-96, 98, 101-102, 134-135, 166, 171, 176, 179, 184, 186, 195-196, 198, 243, 251A-D, 251G-H, and 256-264 and portions of the deposition transcript of Dr. Denton were admitted into evidence. Petitioners Murfee and Lapensohn testified and offered one exhibit ("ML Ex. 1"), which was admitted into evidence. Washington County presented the testimony of one fact witnesses: Michael J. DeRuntz, the Senior Planner for Washington County. Washington County and NTC/Knight Joint Exhibits 3 and 108-110 were admitted into evidence.

Proposed recommended orders were timely filed by the parties on or before February 6, 2012.

FINDINGS OF FACT

The Ecologically Diverse Florida Panhandle

1. With its high diversity of species and richness in endemic plants, the Florida Panhandle has been identified as one of six continental "biodiversity hot spots" north of Mexico. It

has more species of frogs and snakes, for example, than any other equivalently-sized area in the United States and Canada and has botanical species that do not exist anywhere else in the Coastal Plain, one of the three floristic provinces of the North Atlantic American Region.

2. The biodiversity stems from a number of factors. The Panhandle was not glaciated during the Pleistocene Period. Several major river systems that originate in the southern Appalachian Mountains terminate on the Panhandle's Gulf Coast. Its temperate climate includes relatively high rainfall. These factors promote or produce plentiful sources of surface and groundwater that encourage botanical and zoological life and, in turn, a diverse ecology.

3. When compared to the rest of Florida, the Panhandle is relatively free from man-made impacts to its water resources. Until recently, the population growth rate lagged behind much of the state. Despite a rapid increase in the population in the late 1990s into the early part of the twenty-first century, it remains much less densely populated than areas in the I-4 Corridor and coastal peninsular Florida to the south.

4. The Panhandle can be divided into physiographic areas of geological variation that are highly endemic; a substantial number of plant and animal species found in these areas are found nowhere else in the world.

5. One of these areas is of central concern to this case. Located in southern Washington County and northern Bay County, it is known as the Sand Hill Lakes Area.

The Sand Hill Lakes Area

6. The Sand Hill Lakes Area (the "Area") is characterized by unusual geology that produces extraordinary ecological value.

7. With few exceptions (<u>see</u> findings related to Dr. Keppner's flora and fauna inventories on the NTC/Knight Property below), the Area has not been extensively studied. The data on biological communities and water levels that exist, sparse as it is, has been obtained from historic aerials dating to 1941.

8. The aerials are of some use in analyzing lakes and surface waters whose source is the Surficial Aquifer, but they are of limited value otherwise. They are not of use in determining the level in the Surficial Aquifer. Nor are they of assistance in determining river height when the banks of the river are covered by hardwood forest canopy. The resolution of the aerials is insufficient to show details of the various ecosystems. They do not show pitcher plants, for example, that exist at the site of hillside seepage bogs common in the Area.

9. An aspect of the Area that the aerials do reveal is its many karst features on the surface of the land. Karst lakes and sinkholes dominate the Area and are a component of its highly

unusual geology which is part of a larger system: the Dougherty Karst Plain.

10. The Dougherty Karst Plain is characterized by numerous karst features: springs, caverns, sinkhole lakes, and sinkholes.

Sinkholes

11. In Florida, there are three types of sinkholes: cover subsidence, cover collapse, and "rock" or "cavern" collapse.

12. Of the three, cover subsidence sinkholes are the most common in the state. Cover subsidence sinkholes form as the result of processes that occur on the surface. A cover subsidence sinkhole is usually a shallow pan typically not more than a few feet deep. Found throughout Central and South Florida, they are the most common type of sinkholes in most of peninsular Florida.

13. In contrast, the other two major types of sinkholes (cover collapse and cavern collapse) occur as the result of processes below the surface that cause collapse of surface materials into the substrata. Both types of "collapse" sinkholes are found in the Area, but cover collapse is the more common. Cavern collapse sinkholes are relatively rare.

14. Typical of the Area, cover subsidence sinkholes are not found on the NTC/Knight Property.

The NTC/Knight Property

15. The majority of the NTC/Knight Property is in Washington County, but the property straddles the county line so that a smaller part of it is in northern Bay County. All of the NTC/Knight Property is within the Area. The District recognizes that the NTC/Knight Property contains natural resources of extraordinary quality as does the Area generally.

16. Over the three years that preceded the hearing, Dr. Keppner, an NTC/Knight expert, conducted extensive inventories of the flora and fauna on NTC/Knight Property.

17. Dr. Keppner's inventory showed the NTC/Knight Property supports more than 500 species of vascular plants (flora with a system of tubes within the stem, phloem, and the xylem that exchange materials between the roots and leaves) and 300 species of animals. Among them are at least 28 vascular plants and six animals listed as imperiled (threatened or endangered) by state or federal agencies.

18. At least 22 of the imperiled species of vascular plants and eight of the imperiled species of animals are located within an area expected to be affected by the Wellfield for which Bay County seeks the permit modification. For example, at Big Blue Lake alone where impacts were predicted by NTC/Knight experts to take place, the following imperiled plant species are

found: Smoothbark, St. John's Wort, Kral's Yelloweyed Grass, Quilwort Yelloweyed Grass, Threadleaf Sundew, Panhandle Meadowbeauty, and Crystal Lake Nailwort.

19. In addition to the Keppner inventory, NTC/Knight commissioned other studies to determine the nature of the sinkholes and whether they are connected to the Floridan Aquifer.

20. NTC/Knight's experts determined that the property contains cover collapse and a few cavern collapse sinkholes that connect to the Floridan Aquifer. Despite evidence to the contrary submitted by the District and Bay County, the NTC/Knight determinations are accepted as facts for a number of reasons, including the lineup of the sinkholes and sinkhole lakes along identified photo-lineaments and the distribution of them in patterns that are not random. A District study using a dye test, moreover, confirmed conduit flow exists in the Area just east of the NTC/Knight Property.

21. With regard to the distribution of the sinkholes and sinkhole lakes on the NTC/Knight Property, Dr. Sam Upchurch used the term "String of Pearls" to describe multiple sinkholes that exist along the edges of several lakes on the property. When sinkholes closer to the center of a lake are clogged or plugged with sediment and debris, the lakes continue to leak around the plugs which causes new sinkholes to form along the edge of the

plugs. Examples of the "String of Pearls" formation on the edges of existing lakes are found at White Western and Big Blue Lakes on the NTC/Knight Property and at Crystal Lake nearby in Washington County.

22. The multiple sinkholes bordering the edge of Big Blue Lake are examples of cover collapse sinkholes that, in geological terms, are relatively young as evidenced by their steep sides.

23. In a karst area such as the Area, there is preferential flow in the conduits because of the difference of efficiency of transmission of water flowing through a porous medium of rock compared to that flowing though a conduit. Absent pumping in the Wellfield, the underlying aquifers are relatively stable. If the requested pumping does not take place, it is likely the stability will remain for a substantial period of time.

24. It is not known with precision what will happen in the long term to the karst environment should pumping occur at the Wellfield at the rate the District proposes. When pumping occurs, however, water in the Area affected by the Wellfield will move toward the Wellfield. "[A]s it does[,] you <u>may</u> get some turbulent flow or vorticity in the water." Tr. 1391, (emphasis supplied). At some point, a change in the potentiometric surface and loss of buoyancy will most likely

occur. This leads to concerns for Dr. Upchurch from two perspectives:

One . . . is that if there is a[n affected] sinkhole lake [on the surface,] it may induce downward flow . . . the other . . . is that if it breaks the plug it may either create a new sinkhole or create a substantial drop in the level of water in the lake . . . which drains periodically, not necessarily because of a wellfield, but because that plug breaks.

<u>Id.</u> In the first instance, lake levels could be reduced significantly. In the second, a new sinkhole could be created or the water level could drop dramatically as occurred at Lake Jackson in Tallahassee.

Sand Hill Lakes Wetlands

25. The Area contains a number of wetland communities. These include hillside seepage bogs, steepheads, sphagnum bogs, littoral seepage slopes around certain Sand Hill Lakes, temporary ponds, and creeks and streams in forested wetlands.

26. A number of these wetlands occur on the NTC/Knight Property within the zone of influence in the Surficial Aquifer predicted by NTC/Knight's experts employing a model known as the "HGL Model."

27. The wetland systems on the NTC/Knight Property are diverse, by type, plant species composition, and richness. This remarkable diversity led the District to recognize that the NTC/Knight Property contains lakes of nearly pristine quality,

interconnected karst features, and endemic steephead ravines, all of which are regionally significant resources of extraordinary quality. The Area's wetlands also include many streams, among them Pine Log Creek, the majority of which is located on the NTC/Knight Property.

28. Significant recharge to the Floridan Aquifer occurs on NTC/Knight Property. To the west, north, and east of the NTC/Knight Property are major concentrations of Floridan Aquifer springs that are crucial to the quality and character of regional surface water systems, including the Choctawhatchee River, Holmes Creek, and Econfina Creek systems. All of these surficial systems are dependent on the groundwater resources of the Area.

The Area's Hillside Seepage Bogs

29. Hillside seepage bogs are marsh-like wetland usually located on gentle slopes of the sides of valleys. They form when the Surficial Aquifer intercepts the sloping landscape allowing water to seep onto the sloped surface.

30. The plant communities in the bogs are dominated by a great number and variety of herbaceous plants that prefer full sun. Among them are carnivorous plants. These unusual plants include the Trumpet and White-Topped pitcher plants as well as other varieties of pitcher plants. Inundation or saturation for extended periods of time is necessary for pitcher plants and

most of the rest of the plant communities found in the bogs to thrive and to fend off invasion by undesirable species.

31. Hillside seepage bogs are valued because they are among the most species-rich communities in the world. A reduction in water levels in the bogs below the root zone of associated plants will kill the plant communities that live in them and pose a threat to the continued existence of the bogs.

32. Hillside seepage bogs were once abundant in presettlement Florida, but their expanse has been greatly reduced. They are now estimated to only occupy between one and five percent of their original range. On NTC/Knight Property, they have been spared to a significant degree. Numerous hillside seepage bogs continue to exist on the NTC/Knight Property primarily along the margin of Botheration Creek and its tributaries.

The Area's Steepheads

33. Steepheads are unique wetland systems. Found around the globe, they are usually regarded as a rarity. More than 50 percent of the steepheads that exist in the world are in a narrow latitudinal band that extends from Santa Rosa County in the west to Leon County in the east, a major section of the Florida Panhandle.

34. Steepheads occur in deep sandy soils where water originating in the Surficial Aquifer carries away sand and cuts

into sandy soils. The seepage emerges as a "headwater" to create a stream that conveys the water from the steephead into a river, or in some rare circumstances, into a karst lake. Over time, flow of the seepage waters results in deep, amphitheatershaped ravines with steep valley side walls.

35. Steepheads are important to the ecologies of the areas in which they occur. They provide habitat for a number of Florida endemic animals and plants believed to be relics of once-abundant species.

36. Water that emerges from a steephead is perennial. Because the steep slopes of the steephead have not been disturbed over a long period of time, the water remains at a relatively constant temperature, no matter the season. Sampling of aquatic invertebrates at the Russ Pond and Tiller Mill Steepheads on the NTC/Knight Property found 41 and 33 distinct taxa, respectively, to inhabit the steepheads. Among them were a number of long-lived taxa. Their presence is consistent with the hallmark of a steephead: perennial flow of water at a relatively constant temperature.

37. Most of the known steepheads flow into streams or rivers. Between six and ten within the Area, however, flow into Sand Hill Lakes. They have no direct connection to any surface drainage basin, thereby adding to their uniqueness.

38. The level in the Surficial Aquifer has a direct impact on where and to what extent seepage flows from the sidewalls of a steephead.

The Area's Sphagnum Bogs

39. Sphagnum moss grows in many locations within the landscape and requires moisture. Where there is a large amount of sphagnum moss, it can form a unique community known as a sphagnum bog that is capable of supporting unique plant and animal populations. In the Area, these sphagnum bogs form along the valley sidewalls of steephead ravines and are fed by Surficial Aquifer seepage from the sidewall of the ravine. These sphagnum bogs support unique plant and animal communities, including a salamander discovered by Dr. Means that is new to science and so far only known to exist in sphagnum bogs in the Florida Panhandle.

The Area's Sinkhole Lakes and their Littoral Seepage Slopes

40. Sand Hill Lakes are nutrient poor, or "oligotrophic," receiving most of their nutrient inputs through exchange with the plant and animal communities on the adjacent littoral shelves during periods of high water levels.

41. Fluctuating water levels in the Sand Hill Lakes allow a littoral zone with many different micro-habitats. Areas closest to the lakes are inundated regularly, but higher areas of the littoral zone are generally dry and inundated only every

ten or 20 years -- just often enough to prevent encroachment of trees. In a few instances, portions of the littoral zones are inundated by seepage from the Surficial Aquifer.

42. Above the normal low water of the Sand Hill Lakes, the littoral shelf occurs along a low gradient. As the littoral shelf transitions into the lake bottom and toward the deeper parts of the lake, there is an inflection point, where the gradient of the lake bottom becomes much steeper than the littoral shelf. If lake water levels fall below that natural inflection point, gully erosion will occur. The flow of water will be changed along the littoral shelf from seepage sheet flow over a wide expanse to water flowing down gullies in a concentrated stream. This change in flow will result in a loss of area needed by certain seepage dependent plants and animals as well as increased sedimentation from erosion.

43. Big Blue Lake is unique because it boasts the largest known littoral zone seepage area of any Sand Hill Lake. The seepage zone along Big Blue Lake supports a number of rare plant species, including the Thread-Leaf Sundew, Smoothed Barked St. Johns Wort, and Crystal Lake Nailwort.

The Area's Temporary Ponds

44. Temporary ponds are small isolated water bodies that generally have no surface water inlet or outlet. Typically very shallow, they are sometimes wet and sometimes dry. Temporary

ponds can range from basins that have continuous water for three to five years, to basins that have standing water for a month or two, every two to four years. These conditions limit their occupation by fish and, therefore, provide ideal conditions for amphibian reproduction which only occurs when water levels are maintained long enough to complete a reproductive cycle.

45. In the Area, temporary ponds are a direct expression of the Surficial Aquifer and contain no known restrictive layer that might cause water to be "perched" above the Surficial Aquifer. Temporary ponds are critical to the viability of amphibian populations and support high amphibian biodiversity. A given pond can contain between five and eight species of salamander, and between 12 and 15 species of frogs. There has been a decline recently in the population of frogs and other amphibians that depend upon temporary ponds. The decline is due in part to ditching and other anthropogenic activities that have altered the hydrology of temporary ponds. Temporary ponds have a higher likelihood of being harmed by a drawdown than larger, connected wetlands systems. Lowered Surficial Aquifer water levels would lower water levels in temporary ponds and, thereby, threaten amphibian reproduction.

Creeks/Streams in Forested Wetlands

46. Streams are classified on the basis of the consistency of flowing water, including perennial (always flowing),

intermittent (flowing part of the year), and ephemeral (flowing only occasionally during rain events). The type of stream flow is important because movement of water is essential to support aquatic systems in stream habitats.

47. The NTC/Knight Property includes a number of stream systems, including Botheration Creek and Pine Log Creek. Botheration Creek is fed by groundwater discharge and originates, in large part, on the NTC/Knight Property. Botheration Creek flows from east to west until it intersects Pine Log Creek on the southwest part of the NTC/Knight Property. Botheration Creek provides Pine Log Creek with approximately 89 percent of Pine Log Creek's flow. From the confluence, Pine Log Creek flows south and west into the Pine Log State Forest and eventually joins the Choctawhatchee River.

48. Botheration Creek contains high quality water and a diverse mix of aquatic invertebrates and fish. Sampling at a stage recorder located approximately two miles west of the eastern boundary of the NTC/Knight Property ("BCS-01") identified 46 taxa of macroinvertebrates, including six longlived taxa, and mussels. The water level in Botheration Creek at BCS-01 was measured to be between 0.1 and 0.32 feet by four measurements taken from October 2010 to July 2011. Nonetheless, the presence of long-lived taxa and mussels indicates that, at BCS-01, Botheration Creek is a perennial stream.

49. Carbon export from streams provides nutrients that feed the stream system. Headwater streams like Botheration Creek and its tributaries are essential to carbon export. For carbon export to occur, a stream must have out-of-bank flood events regularly to promote nutrient exchange with the flood plain.

Bay County and its Water Supply

50. Prior to 1961, the County obtained its public water supply from wellfields located near downtown Panama City. The wellfields drew from the Floridan Aquifer. An assessment of the pre-1961 groundwater pumping appears in a District Water Supply Assessment released in June 1998. In summary, it found that near Panama City, the potentiometric surface was substantially depressed by the pumping. Due to the threat of saltwater intrusion, the Deer Point Lake Reservoir (the "Reservoir") was constructed as an alternate water supply. A local paper mill, the city of Panama City, and Tyndall Air Force Base, all began to obtain public supply water from the Reservoir. Six years after the construction of the Reservoir, the Floridan Aquifer's water levels had rebounded to pre-pumping levels. <u>See</u> NTC/Knight Ex. 93 at 69.

51. The authorization for the Reservoir began in the 1950's when the Florida Legislature passed a series of laws that granted Bay County authority to create a saltwater barrier dam

in North Bay, an arm of the St. Andrews Bay saltwater estuary. The laws also allowed Panama City to develop and operate a surface freshwater reservoir to supply water for public use.

52. The Deer Point Lake Dam (the "Dam") was built in 1961 from metal sheet piling installed across a portion of North Bay. The Dam created the Reservoir.

53. The watershed of the Reservoir includes portions of Jackson, Calhoun, Washington, and Bay Counties and covers approximately 438 square miles. The Reservoir receives freshwater inflow from several tributaries, including Econfina Creek, Big Cedar Creek, Bear Creek/Little Bear Creek, and Bayou George Creek, totaling about 900 cubic feet per second ("cfs") or approximately 582 MGD. The volume of inflow would increase substantially, at least two-fold, during a 100-year storm event.

54. The Dam is made of concrete and steel. Above it is a bridge and two-lane county road roughly 11.5 feet above sea level. The bridge is tied to the Dam by pylons. The top of the Dam is 4.5 feet above sea level, leaving a distance between the Dam and the bridge bottom of about seven feet. There is an additional structure above the Dam that contains gates, which swing open from the force of water on the Reservoir's side of the Dam. Capable of releasing approximately 550 MGD of freshwater into the saltwater bay, the gates keep the level of the Reservoir at about five feet above sea level. The height of

the Dam and the gate structure leaves a gap between the bottom of the bridge deck and the top of the structure of "somewhere between 12 and 14 inches, a little better than a foot." Tr. 140. If storm surge from the Gulf of Mexico and St. Andrew's Bay were to top the Dam and the gate structure, the gap would allow saltwater to enter the Reservoir. The gates and the Dam structure are not designed to address storm surge.

55. The Dam is approximately four feet thick and roughly 1,450 feet long. The 12-to-14 inch gap extends across the length of the Dam. With normal reservoir levels, the volume of water it contains is approximately 32,000-acre-feet or roughly 10.4 billion gallons. Bay County needs to drawdown the lake level for fish and wildlife purposes, the control of aquatic growth, and weed control. In winter, FWS prescribes a 45-day period of time to draw down the lake to expose the banks to kill vegetation. The last time the lake was drawn down by the County, the water level dropped approximately three feet, from five feet above sea level to two feet above sea level. This process took approximately six days and 16 hours, or approximately 53 hours/foot.

Repair of the Dam and its Maintenance

56. The Dam has been repaired three times. The last repair was following Hurricane Opal which hit the Florida Panhandle in the fall of 1995. During Hurricane Opal,

"saltwater . . . entered . . . the [R]eservoir . . . [t]hat took 20-some days to flush out . . . " Tr. 135.

57. No evidence was presented regarding the Dam's vulnerability from the perspective of structural integrity during normal or emergency conditions. Other than the inference drawn from Mr. Lackemacher's testimony that Hurricane Opal damaged the Dam in 1995, no evidence was presented to suggest that the Dam's structure is vulnerable to damage caused by a storm surge, wave effect or other conditions caused by a storm of any magnitude.

58. After the last of the three repairs, Bay County implemented a detailed maintenance program. Based upon the latest inspection reports, the Dam is in good condition and structurally sound. No work other than routine inspection and maintenance is currently planned.

The 1991 Agreement and the WTP

59. Bay County's current withdrawal of water from the Reservoir is based on a 1991 agreement between Bay County and the District (the "1991 Agreement"). <u>See</u> Joint Ex. Vol. II, Tab K. The 1991 Agreement allows Bay County after the year 2010 to withdraw 98 MGD (annual average) with a maximum daily withdrawal of 107 MGD. The 1991 Agreement, still in effect, authorizes Bay County to withdraw enough water from the Reservoir to meet its needs through 2040.

60. Water for public supply is withdrawn from the Reservoir by a water utility pump station (the "Pump Station") located a short distance from the Dam in Williams Bayou. The water is piped to the water utility's treatment plant (the "Water Treatment Plant") five miles away. The Water Treatment Plant treats 60 MGD. Following treatment, the water is distributed to Bay County's wholesale and retail customers. The Reservoir water available to Bay County utilities is more than adequate to fulfill the water consumption demands of Bay County's system through a 20-year permit horizon.

61. The transmission line between the Pump Station and the Water Treatment Plant has fittings that were designed to allow transmission of groundwater withdrawn from groundwater wells to be located along the transmission line to the Water Treatment Plant to provide a backup supply for the Reservoir.

Bay County's Current Use of Potable Water

62. The amount of water consumed by Bay County utility customers has declined over the last five years. Bay County's current use of water, based upon the average of the 13 months prior to the hearing, was 24.5 MGD, an amount that is only 25 percent of the water allocation authorized by the 1991 Agreement.

63. There are approximately 560,000 linear feet of main transmission lines in Bay County with small service lines

accounting for another several hundred thousand linear feet. Bay County furnishes water directly to approximately 6,000 retail customers in areas known as North Bay, Bay County, and the former Cedar Grove area, which is now part of Bay County. Wholesale customers include Panama City Beach, Panama City, Mexico Beach, Callaway, Parker, Springfield, and parts of Lynn Haven. The County also furnishes potable water to Tyndall Air Force Base. Lynn Haven does have some water supply wells; however, Bay County still supplements this water supply by approximately 30 percent. No other cities serviced by Bay County produce their own water.

64. Bay County has a population of approximately 165,000-170,000 permanent residents, which includes residents of the cities. The Bay County area experiences seasonal tourism. From spring break to July 4th, the population can grow to more than 300,000.

65. The users of Bay County's drinking water supplies include hospitals, Tyndall Air Force Base, and the Naval Support Activity of Panama City ("NSA"). The County has 178 doctor's offices, 56 dental offices, 29 schools, 21 fire departments, 12 walk-in-clinics, six nursing and rehabilitation homes, six major employers, three colleges and universities, and two major hospitals, all which are provided drinking water by Bay County.

66. Panama City Beach is the community which has the highest water use. Panama City Beach's average daily use is approximately 12 MGD. The peak day of usage for all of Bay County's customers over the 13 months prior to the hearing was 40 MGD.

67. Bay County sells water to community water utility systems referred to as a "consecutive system." They include Panama City Beach, Panama City, and Mexico Beach. Bay County's request for 30 MGD contemplates provision of water for all essential and non-essential water uses occurring within the consecutive system. Bay County and the consecutive systems are subject to the District's regulations regarding emergency water use restrictions which typically restrict the non-essential use of water during water shortage emergencies.

Hurricanes, Train Wrecks, and Post-9/11 America

68. At the District's recommendation, Bay County has been considering a backup potable water source since the mid-1980's.

69. Bay County's main concern is that it has inadequate alternatives to the Reservoir should it be contaminated.

70. Contamination to date has been minimal. In the period of time after the 1961 creation of the Reservoir to the present, the Dam and the Reservoir have suffered no major damage or impacts from a tropical storm. No tropical storm since 1961 has

disrupted Bay County's ability to provide potable water. Even Hurricane Opal in 1995 did not disrupt the water supply.

71. Recent hurricane activity in the Gulf of Mexico, however, has aroused the County's fears. Should a storm of sufficient magnitude make landfall in proximity to the Dam, there is potential for saltwater contamination of the Reservoir from storm surge or loss of impounded freshwater due to damage to the Dam. Mr. Lackemacher, assistant director of the Bay County Utility Department and manager of the water and wastewater divisions of the department, has experience with other hurricanes in Palm Beach, Florida, and Hurricane Hugo in Myrtle Beach, South Carolina, during which water utilities suffered disruption of their distribution systems. The experience bolsters his concern about the damage a storm could cause Bay County's source of public water supply.

72. Bay County's intake structure at Williams Bayou is approximately one mile away from the Dam. The location of the Pump Station puts it at risk for damage from a strong storm or hurricane.

73. There is a rail line near the Reservoir. It runs along Highway 231 and over creeks that flow into the Reservoir, including the Econfina Creek. The rail line is known as "Bayline." Bayline's most frequent customers are the paper mill and the Port of Panama City.

74. Not a passenger line, Bayline is used for the transport of industrial and chemical supplies. In 1978, a train derailment occurred on tracks adjacent to creeks that feed the Reservoir. The derailment led to a chlorine gas leak into the atmosphere. There was no proof offered at hearing of contamination of the Reservoir. There has never been a spill that resulted in a hazardous chemical or pollutant being introduced into the Reservoir. Bay County has not imposed restrictions on the type of vehicles that are allowed to use, or the material that may pass over, the county road on the bridge above the Dam. Nonetheless, in addition to saltwater contamination, Bay County also bases the need for an alternative water source on the possibility of a discharge into the Reservoir of toxic substances from a future train derailment.

75. Bay County is also concerned about contamination of the Reservoir from a terrorist attack. In short, Bay County is concerned about "anything that could affect the water quality and water in Deer Point Lake." Tr. 184.

76. The concerns led Bay County to file its application for the Wellfield on lands currently owned by the St. Joe Company. Consisting of ten wells spaced over an area of approximately ten square miles, the Wellfield would have a capacity of 30 MGD.

77. Bay County's application was preceded by the development of the District's Region III Regional Water Supply Plan and efforts to acquire funding.

<u>Funding for the Wellfield</u> and the Region III Regional Water Supply Plan

78. Shortly after the commencement of the planning for the Wellfield, the District, in May 2007, authorized the use of funds from the State's Water Protection and Sustainability Trust Fund ("WPSTF"). The WPSTF is intended for development of alternative water supplies.

79. In cooperation with the District, Bay County began drilling a test well followed by analyses to evaluate the water for potable suitability.

80. In October of the same year, the District passed a resolution to request the Department of Environmental Protection to release \$500,000 from the WPSTF to the District for local utilities in Bay and Escambia Counties for "Water Resource Development." NTC/Knight Ex. 195, p. 2. The amount was to be used "to provide funding for implementation of alternative water supply development and water resource developments projects pursuant to sections 403.890 and 373.1961, F.S." Id., p. 1.

81. In February 2008, the District began a process to develop a regional water supply plan for Bay County.

82. If the Wellfield were designated in the applicable regional water supply plan as "nontraditional for a water supply planning region," then it would meet the definition of "alternative water supplies" found in section 373.019(1), Florida Statutes.

83. "In evaluating an application for consumptive use of water which proposes the use of an alternative water supply project as described in the regional water supply plan," the District is mandated "to presume that the alternative water supply is consistent with the public interest" § 373.223(5).

84. Whether the Wellfield is to be presumed to be in the public interest depends on whether the application proposes the use of an alternative water supply project as described in the District's Region III Water (Bay County) Water Supply Plan adopted in 2008.

The 2008 RWSP

85. Pursuant to the process commenced in February, the District in August 2008 produced the Region III (Bay County) Regional Water Supply Plan (the "2008 RWSP"). In a section entitled "Identification of Alternative Water Supply Development Projects," the 2008 RWSP provides the following: "All of the water supply development projects identified in Table 4 are

interrelated and considered alternative, nontraditional water supply development projects." NTC/Knight Ex. 187 at 14.

86. Table 4 of the 2008 RWSP does not specifically identify the Wellfield. It identifies three projects in general terms. The first of the three (the only one that arguably covers the Wellfield) shows "Bay County Utilities" as the sole entity under the heading "Responsible Entities." Id. at 13. The project is: "Inland Ground Water Source Development and Water Supply Source Protection." <u>Id.</u> Under the heading, "Purpose/Objective," the Table states for the first project, "Develop inland alternative water supply sources to meet future demands and abate risks of salt water intrusion and extreme drought." Id. The Table shows "Estimated Quantity (MGD)" to be "10.0." Id. (In July 2008, the District's executive director informed Bay County that the Wellfield could produce 10 MGD.) The "Time Frame" is listed as 2008-12, and the "Estimated Funding" is "\$5,200,000 WPSPTF" and "\$7,800,000 Local, NWFWMD." Id.

87. While not specifically identified in the 2008 RWSP, Table 4's project description supports a finding that the Wellfield is, in fact, one of the inland alternative water supply sources. The 2008 RWSP, therefore, designates the Wellfield as a "nontraditional" water supply source for Region III.^{4/} (The Wellfield also, therefore, meets the definition of
"[a]lternative water supplies" in section 373.019(1). The demonstration of a prima facie case by Bay County and the District, however, make the applicability of the presumption a moot point. See Conclusions of Law, below.)

Water Supply Assessments and Re-evaluations

88. Development of a regional water supply plan by the governing board of each water management district is mandated "where [the governing board] determines that existing and reasonably anticipated sources of water are not adequate to supply water for all existing and future reasonable-beneficial uses and to sustain the water resources and related natural systems for the planning period." § 373.709(1), Fla. Stat. (the "Regional Water Supply Planning Statute").

89. The District determined in its 1998 District Water Supply Assessment ("WSA") for Region III (Bay County) that the existing and reasonably anticipated water sources are adequate to meet the requirements of existing legal users and reasonably anticipated future water supply needs of the region through the year 2020, while sustaining the water resource and related natural systems. See NTC/Knight 93 at 79.

90. In 2003, Ron Bartel, the director of the District's Resource Management Division, issued a memorandum to the Governing Board (the "2003 Re-evaluation Memorandum"), the

subject of which is "Regional Water Supply Planning Reevaluation." NTC/Knight 95 (page stamped 42).

91. The 2003 Re-evaluation Memorandum sets out the following with regard to when a "water supply plan" is needed:

The primary test we have used for making a determination that a water supply plan was "not needed" for each region is that projected consumptive use demands for water from major water users do not exceed water available from traditional sources without having adverse impacts on water resources and related natural systems. Similarly, regional water supply planning is initiated "where it is determined that sources of water are not adequate for the planning period (20) years to supply water for all existing and reasonable-beneficial uses and to sustain the water resources and related natural systems."

Id.

92. With regard to the need for a Water Supply Plan for Bay County the 2003 Re-evaluation Memorandum states:

> [I]n Bay County (Region III), sufficient quantities have been allocated for surface water withdrawal from Deer Point Lake Reservoir through the District's consumptive use permitting program extending through the year 2040. In this area, the District is also scheduled to complete a minimum flow and level determination for the lake by the year 2006. This determination will be useful for deciding if additional water supply planning is needed before the permit expires in 2040.

Id. (page stamped 43).

93. The 2008 RWSP's designation of the Wellfield is justified in the minutes of the Governing Board meeting at which the 2008 RWSP's approval took place:

> While the reservoir has largely replaced the use of coastal public supply wells historically impacted by saltwater intrusion, there remain challenges within the region that make development and implementation of a Regional Water Supply Plan (RWSP) appropriate. Development of alternative water supplies would diversify public supply sources and help drought-proof the region through establishment of facility interconnections. Development of alternative supplies would also minimize vulnerability associated with salt water potentially flowing into the reservoir during major hurricane events.

Id., p. 3 of 4.

94. The adoption of the 2008 RWSP was followed in December 2008 by the District's 2008 Water Supply Assessment Update. The update is consistent with the earlier determinations of the adequacy of the Reservoir as a water supply source for the foreseeable future (in the case of the update, through 2030). The update also voices the concern about water quality impacts from storm surge. The update concludes with the following:

> In Region III, the existing and reasonably anticipated surface water resources are adequate to meet the requirements of existing and reasonably anticipated future average demands and demands for a 1-in-10 year drought through 2030, while sustaining water resources and related natural systems.

However, the major concern for potential water quality impacts is that resulting from hurricane storm surge. A Regional Water Supply Plan (NWFWMD 2008) has recently been prepared for Region III to address concerns associated with existing surface water systems.

NTC/Knight Ex. 101, p. 3-41.

The Parties

95. Washington County is a political subdivision of the State of Florida. Washington County is located directly north of Bay County and the Wellfield and within one mile of some of the proposed wells.

96. Washington County includes thousands of wetlands and open water systems. Because of the hydro-geologic system in the area of the Wellfield, if there are wetland, Surficial Aquifer, and surface water impacts from the withdrawal under the Permit, it is likely that impacts will occur in Washington County.

97. Washington County has a substantial interest in protection, preservation, and conservation of its natural resources, including lakes, springs, and wetlands, and the flora and fauna that depend on these water resources, especially endangered flora and fauna.

98. Washington County has a substantial interest in the protection of all water resources in Washington County because of the close relationship between surface waters, groundwater,

and the potable water supply used by Washington County residents.

99. NTC/Knight is the owner of approximately 55,000 acres of land located in northern Bay County and southern Washington County.

100. The NTC/Knight Property includes thousands of acres of wetlands and open waters, including Sand Hill Lakes, steepheads, hillside seepage bogs, sphagnum bogs, littoral seepage slopes around certain Sand Hill Lakes, temporary ponds, and forested wetlands.

101. A large portion of the NTC/Knight Property is directly adjacent to the Wellfield and within the HGL Model projected drawdown contour.

102. Based on the projected amount of drawdown from pumping at the proposed average rate of 5 MGD, the 0.5 projected drawdown contour predicted by the HGL Modeling Report (<u>see</u> Finding of Fact 121, below) extends over thousands of acres of the property.

103. NTC/Knight has a substantial interest in the protection of the surface and groundwater directly on, under, and adjacent to its property. The water supports the numerous ecosystems of extraordinary value located on the property.

104. James Murfee and Lee Lapensohn are individuals, who reside in Bay County on property fronting on and beneath Tank

Pond approximately five miles from the Wellfield. Petitioners Murfee and Lapensohn have a well which extends into the Intermediate Aquifer.

105. The Murfee and Lapensohn properties are within the HGL Model projected drawdown contour.

106. Petitioners Murfee and Lapensohn have a substantial interest in the protection of their drinking water supply well and the surface waters directly on and adjacent to their properties.

107. Bay County, the applicant, is a political subdivision of the State of Florida.

108. The District is a water management district created by section 373.069(1). It has the responsibility to conserve, protect, manage, and control the water resources within its geographic boundaries. See § 373.069(2)(a), Fla. Stat.

Section 120.569(2)(p), Florida Statutes

109. Section 120.569(2)(p), in pertinent part, provides:

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.

Paragraph (p) was added to section 120.569(2) in the 2011 Session of the Florida Legislature. Accordingly, the final hearing commenced with the Bay County and the District's presentation of its prima facie case by submitting the application, supporting documentation, and the District's approval of the application. Respondents also presented the testimony of four witnesses in the hearing's first phase.

Phase I of the Final Hearing: Bay County's Application, Supporting Documents, the District's Approval and Supporting Testimony

a. The Application File

110. At the final hearing, Bay County and the District offered the "application file," marked as Joint Exhibit Binder Volumes I-IV (the "Application File") in the hearing's first phase. It was admitted into evidence.

111. A document entitled "Alternate Water Supply Report -Bay County Water Division" dated May 20, 2008 (the "Hatch Mott MacDonald Report") is contained in the Application File. <u>See</u> Joint Ex. Vol. I, Tab B.

112. The Hatch Mott MacDonald Report is a preliminary evaluation of a wellfield with 22 wells, an "initial phase . . [of] five (5) wells producing 5 MGD and the final phase . . [of] 17 wells, producing 25 MGD." <u>Id.</u> at 1.

113. The evaluation includes the gathering of information, a recommendation for the best method of treatment, an analysis of whether individual well sites or a centralized site would be superior, a hydraulic model and analysis, and the potential construction and operation costs.

114. The report concludes in its Executive Summary:

HMM's preliminary results, based upon water analysis of Well No. 1, indicate that only disinfection will be required for potable water treatment. Additionally, the hydraulic analysis indicated that the wells are capable of providing the initial 5 MGD and future 25 MGD to the proposed connection point along Highway 388 without re-pumping. Adequate storage for fire protection should be considered at current and future service The use of chlorine gas at each well areas. site during the initial phase had the lowest present worth of \$16,770,270; that is, the smallest amount of funds needed today to build, operate, and maintain the system. The use of chlorine gas at each well in the final phase had a present worth of \$41,245,118, only slightly more than the present worth of \$40,834,245 for on-site

generation of disinfectant at three (3) central facilities.

Id.

115. The Application File contains a response to a District request for additional information (the "2009 RAI Response") submitted by the Bay County Services Utility Director and received by the District in September 2009. <u>See</u> Joint Ex. Vol. II, Tab K. The 2009 RAI Response contains the 1991 Agreement and numerous other documents. Among them is a report prepared by HydroGeoLogic, Inc. ("HGL") entitled "Groundwater Model Development for the Assessment of a New Wellfield in Bay County, Florida" dated September 2009 (the "2009 HGL Modeling Report"). The report predicts impacts that would be created to the surrounding aquifers as a result of the Wellfield pumping, but recommends that additional data be obtained.

116. The Application File contains the District's Notice dated March 25, 2010. See Joint Ex. Vol. III, Tab B.

117. Attached to the Notice is a draft of the Permit and a staff report from the District recommending approval with conditions.

118. Condition 11 of the Permit's standard conditions obligates Bay County to mitigate any significant adverse impacts caused by withdrawals and reserves the right to the District to curtail permitted withdrawal rates "if the withdrawal causes

significant adverse impact on the resource and legal uses of water, or adjacent land use, which existed at the time of the permit application." Joint Ex. Vol. III, Tab B, p. 3 of 17.

119. Attachment A to the Permit requires conditions in addition to the standard conditions contained in the body of the Permit. Paragraph 12 of Attachment A, for example, requires that Bay County implement and maintain a water and conservation efficiency program with a number of goals.

120. Attachment B to the Permit requires a monitoring and evaluation program and wetland monitoring of adjacent properties to determine if the pumping causes adverse impacts to wetland areas, including habitat and species utilization.

121. The Application File contains a revised modeling report also entitled "Groundwater Model Development for the Assessment of a New Wellfield in Bay County, Florida" (the "2011 Revised HGL Modeling Report" or the "HGL Model Report"). <u>See</u> Joint Ex. Vol. III, Tab P. The 2011 Revised HGL Modeling Report predicts impacts of the pumping of the Wellfield on the Upper Floridan Aquifer and the Surficial Aquifer.

122. The HGL Model is based on an adaptation of an original model first developed by the U.S. Geological Survey (USGS) and then further adapted by HGL. The adapted model is known as MODFLOW-SURFACT. The MODFLOW-SURFACT Model has been used in excess of 600 applications and is used worldwide.

123. The HGL Model predicted impact from pumping when wellfield pumping achieves a "steady state." Steady state impact is achieved after 10-12 years of constant pumping.

124. The impact and the area of impact is depicted on Figure 5.1b(1) of the 2011 Revised HGL Modeling Report. The predicted drawdown of the Surficial Aquifer is predicted to be six inches (0.5 ft) within the areas indicated.

125. The Application File shows that the permit was revised twice. Ultimately, a Second Revised Notice of Proposed Agency Action dated July 22, 2011, was issued by the District. Attached to the Second Revised NOPAA is the District's Permit. <u>See</u> Joint Ex. Vol. IV, Tab U. A revised Staff Report from the District dated July 18, 2011, is also included in Volume IV of the joint exhibits. See id., Tab Q.

126. The Permit as supported by the staff report allows an average daily withdrawal of 5 MGD, a maximum daily withdrawal of 30 MGD for no more than 60 days per year (with a maximum of 52 consecutive days), and a maximum monthly amount of 775 million gallons. <u>See</u> Joint Ex. Vol. IV, Tab U. The Permit also includes the LTEMP jointly prepared by the Applicant and the District. <u>See id.</u>, Attachment B.

127. The Permit requires Bay County to "mitigate any significant adverse impact caused by withdrawals . . . on the resource and legal water withdrawals and uses, and on adjacent

land use, which existed at the time of the permit application." Joint Ex. Vol. IV, Tab R, p. 3 of 11.

128. If the District receives notice of an impact from the existing legal user, it contacts the utility. "Within 72 hours [the utility has] a well contractor out there and they have determined what the problem is." Tr. 615. There are no time requirements for the resolution of the impact or any other resolution procedures in the Permit.

b. Definitions of Emergency and Maintenance Amounts

129. The Permit does not include a definition of when the Reservoir may be considered to be unavailable as a public water supply. That determination is left to Bay County.

130. The Permit does not set a withdrawal limit lower than the limits detailed above for maintenance of the Wellfield. There is one set of withdrawal limits. They apply irrespective of the purpose of the withdrawals, that is, whether for backup in an emergency, maintenance, or some other purpose that falls under Public Supply or Industrial Use.

c. Conditions and Monitoring Requirements

131. Bay County is required to mitigate any significant adverse impacts on resources and legal water withdrawals and uses caused by the County's withdrawal from the Wellfield. In addition, the District reserves the right to curtail permitted withdrawal rates if Bay County's withdrawal causes adverse

impacts on local resources and legal uses of water in existence at the time of the permit application.

132. In the event of a declared water shortage, the Permit requires Bay County to make water withdrawal reductions ordered by the District. In addition, the District may alter, modify, or deactivate all or parts of the Permit.

133. Attachment A to the Permit, states:

The Permittee shall not exceed total, combined groundwater and surface water (authorized in Individual Water Use Permit No. 19910142) withdrawals of an average daily withdrawal of 98,000,000 gallons, a maximum daily withdrawal of 107,000,000 gallons and a maximum monthly withdrawal of 2,487,750,000 gallons.

Joint Ex. Vol. IV, Tab U, p. 4 of 11. The inclusion of "surface water" in the condition covers withdrawals from the Reservoir. The combination of actual withdrawals from the Wellfield and actual withdrawals from the Reservoir, therefore, means that Bay County may not exceed the limitations of the withdrawals authorized by the 1991 Agreement.

134. Attachment A to the Permit further explains how Bay County must mitigate harm caused by groundwater withdrawals.

> The Permittee, within seven days of determination or notification by the District that the authorized groundwater withdrawal is causing harm to the resources, shall cease or reduce, as directed by the District, its pumping activity. The Permittee shall retain the services of a qualified, licensed professional to

investigate allegations of interference with an existing, legal groundwater use. The Permittee shall ensure their chosen contractor investigates the alleged interference within 72 hours of the allegation being made. If it is determined that the use of a well has been impaired as a result of the Permittee's operation, the Permittee shall undertake the required mitigation or some other arrangement mutually agreeable to the Permittee and the affected party. The Permittee shall be responsible for the payment of services rendered by the licensed water well contractor and/or professional geologist. The Permittee, within 30 days of any allegation of interference, shall submit a report to the District including the date of the allegation, the name and contact information of the party making the allegation, the result of the investigation made and any mitigation action undertaken.

Joint Ex. Vol. IV, Tab U, Attachment A, p. 4 of 11.

135. Bay County is also required, within two years from the Permit's issuance, to submit to the District for review and approval a contingency plan to mitigate potential impacts.

136. The County must wait one full year prior to commencing withdrawal of groundwater for production purposes. During the one-year period, the County must complete groundwater, surface water, and wetland monitoring. The requirements of the mandatory monitoring are found in Attachment B of the Permit, LTEMP. <u>See</u> Joint Ex. Vol. IV, Tab U, Attachment B.

137. The LTEMP "is designed to track trends in ecological and hydrological conditions caused by naturally occurring fluctuations in rainfall, which may affect ground and surface water hydrologic conditions; and to identify potential effects caused by wellfield pumping." Joint Ex. Vol. IV, Tab U, Attachment B at 1.

138. If a substantive deviation occurs from predictions made by the HGL Modeling, or if any other hydrologic or ecologic changes due to the withdrawals are observed at monitoring sites, the District is required to review and, in consultation with Bay County, appropriately revise the LTEMP as necessary with the aim that the monitoring will assure that the conditions for issuance of the Permit are being met.

d. Testimony in Support of the Application

139. In addition to the documentary evidence offered in the first phase of the proceeding, Bay County and the District presented the testimony of several witnesses. These witnesses testified as to background and the 2008 RWSP, the vulnerability of the Reservoir to saltwater contamination from storm surge, and the basis for the District's decision.

e. Vulnerability to Storm Surge

140. There is a one percent chance every year of a 100year storm event. Flood Insurance Rates Maps ("FIRMS") show that the 100-year water level (the level of storm surge in a

100-year storm event) at the Dam will reach 11 feet NAVD, two feet above the top of the gate structure above the Dam.

141. The Federal Emergency Management Agency ("FEMA") and the National Weather Service ("NWS") have developed the Sea, Lake, and Overland Surge from Hurricanes ("SLOSH") model, which estimates storm surge depths resulting from historical, hypothetical, or predicted hurricanes.

142. A Florida Department of Emergency Management's SLOSH model of the Panama City area shows maximum surge levels for Storm Categories 1, 2, 3, 4, and 5, in NAVD feet as 3.3, 5.8, 10.8, 14.1, and 18.1, respectively. The SLOSH model, in all likelihood, is a low estimation. It is reasonable to expect surge levels in a Category 3 hurricane that passes directly over the Dam, for example, to be higher than 10.8 feet NAVD predicted by the SLOSH model at the Dam.

143. According to the National Oceanic and Atmospheric Administration's ("NOAA") database, 43 tropical storms and hurricanes have passed within 200 miles of the Reservoir between 1970 and 2010 and 20 have come within 100 miles. None have made landfall closer than 40 miles away from the Dam.

144. Of the 20 storms passing within 100 miles of the Reservoir, four have reached Category 3 strength or higher: Eloise, Elena, Opal, and Dennis.

145. In 2004, Hurricane Ivan made landfall over 100 miles to the west of the Dam and raised water levels near the Dam to nearly five feet NAVD. The following year, Hurricane Dennis made landfall 76 miles to the west of the Dam. Dennis produced a surge level of nearly four feet NAVD near the Dam.

146. "Hurricane Eloise (1975) made landfall 40 miles west of Panama City and produced water levels 15 ft above normal at Panama City ([citation omitted]). However, the storm passed through the area quickly and does not appear to have significantly affected the dam." Bay County Ex. 1, p. 3 of 9.

147. Hurricane Opal made landfall 86 miles west of Panama City Beach and produced water levels of about 8.3 feet NAVD near the Dam. The storm surge did not overtop the gate structure above the Dam, but the gates were jammed by debris. "[C]hloride levels rose above 50 ppm at the intake pumps and two to three times above normal background levels of 8 to 10 ppm 'almost one mile up-reservoir.'" <u>Id.</u> The levels of chloride were "still well within drinking water limits," tr. 434, of 250 parts-permillion (ppm).

148. Hurricane Katrina made landfall in 2005 more than 200 miles west of the Reservoir with storm surges higher than 20 feet. Katrina produced surge levels of five feet above normal tide levels in Bay County.

149. The rate and amount of saltwater that would enter the Reservoir depends on the height of the storm surge above the Dam. The 100-year surge levels could remain above the top of the Dam for three or more hours. Such an event would introduce approximately 56,200,000 cubic feet or 1,290 acre-feet of saltwater into the Reservoir, even if the Dam were to remain intact (undamaged) and the tide gates remain closed.

150. The salinity levels bay-side of the dam are generally 23,000 to 33,000 ppm. It is reasonable to expect that in the event of a 100-year storm event, much of the storm surge would come directly from the Gulf of Mexico, which has higher salinity levels. With the Dam intact, the introduction of 1,290 acrefeet of saltwater at 33,000 ppm would raise the average chloride concentration in the Reservoir to at least 800 ppm, more than three times the maximum drinking water chloride level of 250 ppm.

151. Assuming the Dam remained intact during a 100-year storm event, freshwater added over time to the lake from the streams and aquifer will dilute the elevated lake chloride level and restore the lake water to a level fit for human consumption. The USGS has measured stream flow at Deer Point Lake and estimated the lake receives an average of 600 million gallons of freshwater per day or 900 cfs. Post-Opal rates were estimated at 1,500 cfs by the District.

152. Given the estimated volume of saltwater introduced to the lake, at an inflow rate equal to the estimated posthurricane freshwater inflow rate, Bay County's expert, Dr. Miller, estimated it would take at least two weeks to reduce salinity in the lake to drinkable levels. The inflow rate, however, is not certain. Dr. Miller estimated it is reasonable to expect that it could take anywhere from two weeks to two months for the lake to recover from the saltwater intrusion depending on the variation in the inflow rate. Nonetheless, Dr. Miller assumed that the saltwater from storm surge entering the Reservoir would mix in a uniform matter. There would be "quite a bit of mixing in a storm," tr. 485, of saltwater topping the Dam and freshwater in the Dam. But there would also be stratification due to the sinking of denser saltwater and the rising in the water column of freshwater.

153. The above estimations assume the bridge and Dam remain intact during a major storm. The Dam and tide gates act as a solid barrier, protecting the lake from saltwater in the bay. If rainfall rises in the lake prior to a surge, the tide gates would open to release water, becoming vulnerable to damage or jamming by debris as occurred during Hurricane Opal.

154. In the event of storm surge bringing saltwater into the Reservoir, the opening of the tide gates will assist the

Reservoir in reaching chloride levels below 250 ppm provided the tide gates operate properly.

155. Dr. Janicki, an NTC/Knight expert, used the Environmental Fluid Dynamics Code hydrodynamic model ("EFDC Model") to simulate the effects of control structures and water withdrawals on the Reservoir. Taking into consideration the factors Dr. Janicki considered relevant, he predicted that chloride levels, in the event of storm surge from a Category 3 hurricane overtopping the Dam, would only exceed 250 ppm, the drinking water standard, for approximately 3.4 days.

156. Dr. Janicki's prediction, however, was flawed. He added too little saltwater to the lake in the event of contamination from storm surge. He assumed that saltwater would be flushed too soon from the Reservoir following contamination. He did not account for the effects of waves in his model. His model was not in accord with data for Hurricane Opal and the chloride levels near the Dam taken by Bay County after Opal.

157. If the bridge and Dam were severely damaged, more saltwater could enter the lake. With severe damage to the Dam, the Reservoir would be exposed to normal tides. Restoration would not begin until the Dam and bridge had been fully repaired. If an event were catastrophic, the Reservoir could be offline for a lengthy period of time.

f. The Basis for the District's Decision

158. Bay County's reliance on the Reservoir for water for the majority of the population led the District in the mid-1980s to encourage the County to obtain a backup supply.

159. After the District turned down several requests for withdrawals of up to 30 MGD for every day of the year, the District ultimately approved what is reflected in the Permit.

160. The justification for the permitted withdrawal is as a backup supply in the event the Reservoir becomes unavailable and for maintenance of the system and recoupment of its cost.

161. With regard to maintenance, the District attempted to obtain information from Bay County as to appropriate withdrawal limitations. The attempts were abandoned. Despite repeated requests by the District, Bay County did not provide the amount of water needed to be withdrawn for maintenance since it did not have "infrastructure specifics," tr. 552, needed to provide the District with a numeric limit.

162. In contrast to the amount needed for maintenance, the District found Bay County to have demonstrated that it needs 30 MGD when the Reservoir is offline and that it is reasonable for the County to need 30 MGD up to 60 days per year.

163. The District determined that the Bay County's application met the requirements for the issuance of a consumptive use permit found in section 373.221(1)(a)-(c).

164. In determining whether approval of the application is in the public interest, the District did not presume that it is in the public interest on the basis of the designation in the 2008 RWSP of an inland groundwater source as an alternative water supply. The District determined that it is in the public's interest for Bay County to have a reliable and safe water supply source as a backup to the Reservoir irrespective of the statutory presumption. Nonetheless, the District maintains in this proceeding that the presumption applies.

165. The District also applied the 18 criteria test for finding a reasonable-beneficial use found in Florida Administrative Code Rule 62-40.410(a)-(r) and determined that the application should be approved.

Petitioners' Case in Opposition

166. Washington County (Petitioner in Case No. 10-2983), NTC/Knight (Petitioner in Case No. 10-2984), and Messrs. Murfee and Lapensohn (Petitioners in Case No. 10-10100) filed individual petitions for formal administrative hearing. Although not identical, the petitions share the similarity that, in essence, each alleges that Bay County failed to establish that the proposed use of water meets the statutory and rule

criteria for obtaining a permit for the consumptive use of water.

167. For example, among the many issues listed under the heading "Disputed Issues of Material Fact and Law" in Washington County's Petition for Formal Administrative Hearing is "[w]hether Bay County has provided reasonable assurance that its proposed use of water is a reasonable-beneficial use as defined in section 373.019, Florida Statutes." <u>See</u> p. 5 of the Washington County petition. In like fashion, the Washington County petition and the other two petitions allege that the issues are whether Bay County provided reasonable assurance that it meets the other statutory criteria in section 373.223, and the applicable rule criteria that must be met by an applicant in order for the District to issue a permit for the consumptive use of water.

168. The Petitioners' cases focused on five topics: 1) the limitations of the HGL Model; 2) the likelihood of impacts to wetlands and the failure of the monitoring plan to provide reasonable assurance that the District's monitoring under the plan will succeed in detecting harm to wetlands caused by the withdrawals; 3) the reasonable-beneficial nature of the proposed use of the permit, including the vulnerability of the Reservoir; 4) interference with presently existing legal users; and 5) the feasibility of alternative sources. Bay County and

the District offered evidence on rebuttal to meet the Petitioners' cases. Surrebuttal was conducted by Petitioners.

Modeling

169. Groundwater models "represent what is happening in very complex physical systems." Tr. 1495.

170. Typically, the data used by models is not sufficient to obtain a completely accurate representation. The models depend on specific data points such as information from boreholes or water level measurements that do not reveal everything that is occurring in the complex system and, therefore, are not enough to support completely accurate model predictions. As explained by Dr. Guvanasen, Bay County and the District's expert, in order to reach a representation of the entire system when the data available from boreholes and measurements is insufficient, which is typically the case, the modeler must "extrapolate a lot of information and use other knowledge of other events." <u>Id.</u>

171. The "knowledge of other events" that the HGL Model used included Dr. Scott's knowledge of the karst environment in the Panhandle of Florida, the mapping of Bay and Washington County geology by the Florida Geological Society, and Dr. Upchurch's knowledge of karst topography.

172. The HGL results of the available data and the extrapolations were placed into a mathematical model (the HGL

Model) that considered the withdrawals at issue to determine the response of the system to the additional stress of the withdrawals.

173. Mathematical models like the HGL Model lead to "nonunique solutions" in which "no model . . . is exactly 100 percent correct" Tr. 1635. Modeling results, therefore, are subject to changes as additional data is collected that demand a better representation than the model provided prior to the data's collection and analysis.

174. HGL Modeling for this case provides examples of nonunique solutions. HGL "built a model twice . . . and got two different sets of answers." Tr. 1633. Besides the recommendation that more data be obtained after the first HGL Model results, the model was not satisfactorily calibrated and the model was recalibrated for the Revised HGL Modeling results.

175. Mr. Davis, NTC/Knight's expert, conducted additional modeling work (the "Davis Modeling"). Using the HGL Model and additional data concerning the NTC/Knight Property, Mr. Davis found drawdowns would occur over a similar but greater area than shown in the 2011 Revised HGL Modeling Report. (<u>Compare</u> NTC/Knight Ex. 31 at 2 to Joint Ex. Vol. III, Tab P, Figure 51b(1).) The Davis Modeling drawdowns, moreover, ranged up to 0.8 feet, 60 percent more than the 0.5 feet determined by the second HGL Modeling results. In the area of Big Blue Lake, for

example, the drawdown contours produced by the Davis Model were either 0.6 feet or 0.7 feet, 20 to 40 percent more than the 0.5 feet produced by the second HGL Modeling results. <u>See</u> NTC/Knight Ex. 31 at 2.

176. Asked to rank the modeling results between the first HGL Model run, the second HGL Model run, and his own results, Mr. Davis was unable to say which was better because of the sparseness of the data. Mr. Davis opined that he could conduct another "dozen more model runs," but without additional data he would be "hard pressed" to be able to say which run was more accurate. Tr. 1633.

177. In Mr. Davis' opinion there remain significant uncertainties that cannot be resolved without more data. Inadequate data "precludes . . . reasonable assurance as to exactly where the impacts will travel and exactly what the magnitude of those impacts will be" Tr. 1637.

Ecological Impacts

178. Bruce A. Pruitt, Ph.D., was accepted as an expert in hydrology, soil science, fluvial geomorphology, and wetland sciences.

179. Dr. Pruitt mapped the soil types on the NTC/Knight Property using the Natural Resource Conservation Service ("NRCS") Web Soil Survey and tested soil types by hand-auguring in wetland areas. He characterized the various soil-types on

the property by drainage class (relative wetness of the soil under natural conditions) and hydraulic conductivity (permeability).

180. Dr. Pruitt ranked the vulnerability of wetlands within the zone of drawdown predicted by the HGL Model as "very high," "high," or "moderate." The categories were based on the presence of threatened and endangered species, Florida Natural Area Inventor ("FNAI") habitat designation, and the hydrology of the wetland. He assumed that if the water level in the Surficial Aquifer were to be drawn down by 0.3 feet or 0.4 feet then the water level in the seepage bogs at Botheration Creek would be drawn down by the same amount.

181. Wetlands with a vulnerability classification of "very high" will suffer an adverse impact at a drawdown level of 0.2 feet; those at "high" at 0.3 feet and those at "moderate" at 0.5 feet in times of drought.

182. Dr. Pruitt calculated wetland acreage by type using the Florida Cover Classification System. He assigned vulnerability rating for the wetlands within the Surficial Aquifer drawdown contours generated by the HGL Model. Based on Dr. Pruitt's calculations, a total of approximately 4,200 acres of wetlands are likely to be harmed by the predicted drawdown. A majority of these wetlands are located in Washington County.

183. Based on Dr. Pruitt's analysis, it is likely that the NTC/Knight Property contains 1,981 acres of "very highly" vulnerable wetlands; 1,895 acres of "highly" vulnerable wetlands; and 390 acres of "moderately" vulnerable wetlands, which are likely to be harmed by the drawdown in times of drought.

184. In reaching his opinion about the quantification of acres of wetlands likely to be harmed, Dr. Pruitt applied the Florida Uniform Mitigation Assessment Method ("UMAM"). UMAM was designed to address compensatory mitigation in dredge and fill cases. It was not designed for consumptive water use cases.

185. In contrast and damaging to its case of reasonable assurance that natural systems will not be significantly affected, the District did not conduct an analysis to determine loss of wetland function resulting from operation under the Permit. Nor did it determine how much drawdown the affected wetlands could tolerate before they were harmed. Rather than conducting such an analysis, the District chose to rely on implementation of the LTEMP to cure any harm that might be down by drawdown to the Surficial Aquifer.

186. The District and Bay County's wetland scientists opined that there might be a less permeable restrictive layer maintaining water levels above the Surficial Aquifer on the NTC/Knight Property.

187. Dr. Pruitt acknowledged that the NTC/Knight Property had scattered clay layers beneath the surface. It is possible, therefore, that some of the wetland areas he identified as subject to harm have restrictive features under them which would hold water and resist dehydration. In his hand-auguring, however, Dr. Pruitt found no evidence of a less permeable layer. The auguring only went to a depth of three feet and would have to go to a depth of two meters to be definitive. Furthermore, Dr. Pruitt found no evidence of a less permeable layer from well drillings. The District and Bay County did not prove that there is, in fact, such a restrictive layer.

188. NTC/Knight collected water-level data from shallow hand-augured wells and stage recorders at the Botheration Creek Hillside Seepage Bog. The data demonstrate that the water level in the shallow, hand-augured wells at the Botheration Creek Bog is a direct reflection of the level of the Surficial Aquifer. The Surficial Aquifer at the Botheration Creek Bog was approximately 95.5 feet NAVD, over 35 feet higher than at Big Blue Lake and the highest measured level south of Big Blue Lake.

189. The Botheration Creek Hillside Seepage Bog is located between the 0.3 and 0.4 foot Surficial Aquifer drawdown contours predicted by the HGL Model. Based on the HGL Model, the District and Bay County's experts estimated the Surficial Aquifer drawdown at this bog would be 0.39 feet.

190. During the approximately one year of NTC/Knight's water-level recording, a drawdown of 0.39 feet would have reduced the frequency and duration of inundation at this bog significantly. For example, an analysis of the approximately one year of data collected by NTC/Knight shows that at the intermediate water-level recorder location in the bog, one 29-day period of inundation would have been reduced to just nine days and that further down gradient in the bog, none of the five instances when the bog was inundated would have occurred. This is consistent with Dr. Pruitt's vulnerability assessment, which finds that the vulnerability of the hillside seepage bogs to drawdown is "very high," that is, these systems are likely to be harmed in times of drought at drawdown levels in the Surficial Aquifer of 0.2 feet or greater.

191. A drawdown of 0.3-0.4 feet in the Surficial Aquifer at the hillside seepage bog along Botheration Creek increases the likelihood that the hillside seepage bogs along Botheration Creek will be lost in times of drought.

192. The littoral shelves of Sand Hill Lakes typically occur along a low gradient above the normal low water level of the lakes. The existence of the shelf promotes seepage sheet flow along a wide expanse. The drawdown will change the flow from seepage sheet flow to concentrated stream flow within gullies. The erosion and increased sedimentation produced by

the greater force of the water in the gullies will cause a loss of area needed by certain seepage dependent plants and animals.

193. If Big Blue Lake were to be drawn down by the 0.71 feet predicted by Mr. Davis, the location of the seepage would move down 0.71 feet vertically and an estimated 24.5 feet horizontally. The result would be a reduction in the littoral shelf conducive to seepage-dependent plant communities by approximately nine acres. The impact would likely be significant since the seepage zone is in an area of "very high" vulnerability according to Dr. Pruitt.

194. Between October 2010 and July 2011, NTC/Knight took four measurements of water level at "BCS-01," a stage recorder in Botheration Creek. The measurements showed the water level in the creek at that point to be 0.1 to 0.32 feet. NTC/Knight also sampled for taxa of macroinvertebrates in the reach of the creek. NTC/Knight identified 46 taxa, including mussels and six long-lived taxa. The presence of the long-lived taxa and mussels indicate that the reach of the creek in the vicinity of the stage recorder should be considered to be a perennial stream.

195. Botheration Creek is high-quality water and, as shown by NTC/Knight's sampling, it contains a diverse mix of aquatic invertebrates and fish. A drop in the level of Botheration Creek of 0.2 feet predicted by the HGL Model would have caused

the creek to go dry at BCA-01 during three of the four dates on which the water level was measured. Such a drop would convert the reach of the creek in the vicinity of the stage recorder from a perennial to an intermittent stream and would eliminate the reach's viability for long-lived taxa. Similarly, upstream reaches that are intermittent would become ephemeral (streams that flow only during periods of high rainfall).

196. If the Wellfield becomes fully operational as allowed by the Permit, there will be a reduction in the Surficial Aquifer at Botheration Creek of between 0.2 and 0.3 feet. The reduction in the aquifer will reduce flow in Botheration Creek, reduce the volume downstream, including in Pine Log Creek, and reduce out-of-bank flood frequency and duration. The result will be a reduction in nutrients delivered downstream and to the floodplain to the detriment of plants and animal life that depend on them. Additionally, other reaches of the creek that have perennial flow will be converted to intermittent streams and reaches that are intermittent will become ephemeral. The result will be the elimination of plant and animal species currently living in these portions of the creek.

197. The impact of the HGL Model predicted drawdown to steepheads depends on the individual steephead and the drawdown contour at its location and the amount of rainfall. Four steepheads on the NTC/Knight Property could suffer impacts

similar to the impact at Russ Steephead to which Dr. Pruitt assigned a high probability of impact.

198. Russ Steephead is located on the NTC/Knight Property above Russ Pond.

199. NTC/Knight installed Surficial Aquifer wells at Russ Steephead between the HGL Model's predicted 0.5 and 0.6 foot Surficial Aquifer drawdown contours. NTC/Knight also installed a stage recorder just downstream from the steephead. During drought, NTC/Knight observed a loss of flow from the sidewall seepage areas and in the Russ Steephead Stream.

200. If the Surficial Aquifer at Russ Pond were to be drawn down by 0.5-0.6 feet, the sidewalls of the Russ Steephead Stream and the stream itself would lose flow in times of drought. The loss of flow would lead to oxidation and loss of organic materials in the stream channel and flood plain, resulting in soil subsidence. If the water level at the terminus of the Russ Steephead Stream were drawn down, headward down cutting in the stream channel would be induced. In such a case, in the words of Dr. Pruitt, "there is a high probability that if drawdown occurs and . . . over a long period of time," the process will make the steephead "look more like a gully" Tr. 2120. The drawdown will also reduce the frequency and duration of inundation of the sphagnum bogs in the

four steepheads likely to be affected by the drawdown. The bogs and the associated animals that depend upon them would be lost.

201. Dr. Means identified a number of temporary ponds within HGL's predicted drawdown of the Surficial Aquifer. Nine were between the 0.3 and 0.6 foot drawdown contour, and two were between the 0.6 and 0.7 foot drawdown contours. These ponds and plant and animal communities dependent upon them would likely be harmed by the drawdowns.

202. Mr. Cantrell offered testimony to rebut the Petitioners' case on wetland impacts. His testimony was based on an evaluation of aerial photography, site visits to the Wellfield, and a one-day trip to the NTC/Knight Property.

203. It is Mr. Cantrell's opinion that if the NTC/Knight Property were to drain, it would be because of a surface water drainage system, such as ditching, not because of drawdown in the Surficial Aquifer caused by operation of the Wellfield. Mr. Cantrell's opinion is that because the Area has been subjected to a wide range of fluctuations in water levels and the wetland systems have survived, operation of the Wellfield will not have significant impacts. Mr. Cantrell's opinion, however, overlooks the effect of constant drawdown during times of severe drought. That wetlands have survived severe drought in the past does not mean they will survive severe drought conditions exacerbated by drawdown caused by operation of the Wellfield.

Monitoring

204. Special condition 19 of the Permit requires Bay County to implement the LTEMP after the Permit is issued. The LTEMP requires Bay County to establish a monitoring network, but does not provide the location of any particular monitoring site. Sites identified in the LTEMP are recommended, but the ability to use a particular site is dependent on field verification of suitability and authorization by the landowner.

205. Over half the area designated in the LTEMP from the HGL Model's projected 0.5 foot drawdown in the Surficial Aquifer is located on the NTC/Knight Property. It will be necessary, therefore, to include sites on the NTC/Knight Property in the ultimate environmental monitoring network.

206. The LTEMP's recommended sites do not include monitoring of some of the most susceptible wetland systems: temporary ponds, the Botheration Creek hillside seepage bogs, and the perennial headwaters of Botheration Creek. Without this monitoring, the LTEMP will be unable to detect whether these systems are harmed by withdrawals.

207. The Permit and LTEMP require no more than one-year of baseline data to be collected prior to initiation of water withdrawals. The proposed monitoring time is inadequate to create a sufficient record for use in determining whether a

reduction in water levels is attributable to water withdrawals or natural phenomena, such as drought. Baseline monitoring should be conducted for a sufficient duration to ensure that a full range of wet and dry years is captured.

208. The LTEMP describes the types of data that are to be collected. A missing component is sampling for frogs, salamanders, and other amphibians that are sensitive to changes in hydrologic regimes and which depend upon infrequent periods of inundation in order to breed. This type of faunal sampling is particularly important in the temporary ponds and seepage environments. Without sampling for the presence of these species, the LTEMP will be unable to determine whether these populations have been harmed by withdrawals.

209. The LTEMP includes a number of "triggers," that if tripped, require the preparation of an auxiliary report. A number of these triggers make reference to changes in water levels at the level of "significant deviation," an undefined term. More importantly, the LTEMP fails to require any statistical analysis. Without it, the LTEMP will be inadequate to establish whether a reduction in water levels is caused by water withdrawals or another cause. Similarly, other triggers lack sufficient detail to determine when they are tripped, such as those that refer to downward movement of plants. Finally, even if one of these triggers is tripped and an auxiliary report
is prepared, nothing in the Permit or LTEMP sets forth the circumstances under which withdrawals would need to be curtailed and by what amount.

210. The purpose of the LTEMP is to determine whether withdrawals are causing harm to the wetlands within the vicinity of the Wellfield. The LTEMP fails to provide reasonable assurance that it will succeed in achieving its purpose.

Reasonable-Beneficial Use

a. Use if the Reservoir is Unavailable

211. In the event of Reservoir unavailability, Bay County is likely to need much less than 30 MGD. The need is likely to fall between 7.42 MGD and 9.71 MGD for the current population. In 2013, the need is likely to fall between 9.40 MGD and 12.29 MGD. See NTC/Knight Ex. 5, p. 4 of 4.

212. The Permit, however, does not limit Bay County to emergency or backup use. While Bay County might voluntarily limit withdrawals to emergency use or backup supply, it has unfettered discretion to determine what constitutes an emergency or the necessity for a backup supply.

213. The Permit is also not restricted to essential uses. Authorization of 30 MGD provides more than Bay County's current average daily demand for potable water. If the Permit restricted the use to essential uses, the authorization would be far less than 30 MDG.

214. The District commissioned King Engineering to assist in development of a "Coastal Water Systems Interconnect Project" (the "Interconnect Project"). On average, the utilities subject to the Interconnect Project estimated that 42 percent of the average daily demand is dedicated to essential uses with the remaining 58 percent going to non-essential uses. Consistent with the estimate, the Project set a target of 50 percent of average daily demand to be allowed for use in an emergency. None of the information from the Interconnect Project, however, was used by the District in setting the limits of withdrawal in the Permit.

b. Daily Use

215. Bay County claims the 5 MGD annual average allocation under the Permit is needed for several reasons, principally the maintenance of pumps. Bay County's justification for 5 MGD is found in testimony from Mr. Lackemacher and a document he authored entitled, "Confidential Draft for Internal Use Only 5 MGD Pumping Rate" (the "Lackemacher Confidential Draft"), admitted as Bay County Ex. 24.

216. Mr. Lackemacher's testimony follows:

A. The fact is that there are no absolute knowns when we're talking about what needs to be.

Q. What do you mean?

A. Well, here we have a document [Bay County Ex. 24] where I talk about rationalization for 5 million gallons a day, why we would need it, mechanical reasons, financial reasons, regulatory reasons. I always felt that it was very difficult to justify a number. I don't know.

We haven't designed the system. We haven't got all of the wells in. We don't know what their specific yields are. There's unknowns here. So do we need 2 million gallons a day or 5 million gallons a day? I don't know. I don't know that. But here is the rationalization for 5 million if that's in fact what we need. We may very well find out that we don't need 5 million gallons a day.

Q. Is that because you don't know the precise locations of the well and how they're going to be piped and distributed?

A. That's absolutely true.

Q. Well, did you in this report, Exhibit 24, did you make some reasonable assumptions?

A. I based it on some of the values as you discussed or as I pointed out earlier from Hatch Mott MacDonald's preliminary design.

* * *

Q. And do you feel confident that your analysis supported that in the area of 5 million gallons a day is what would be needed to operate the wellfield?

A. Yes. And that's why the paper was generated that [is] a justification for 5 million gallons a day, here's what we think we would need.

Tr. 209-10.

217. The Lackemacher Confidential Draft is a one-page, written justification for the 5 MGD. Based on the Hatch Mott McDonald Report, see tr. 210, it considers regulatory, mechanical and financial factors. It is not supported, however, by engineering analysis. Any financial analysis found in the Hatch Mott McDonald Report, moreover, is far from complete. The factors taken into consideration are recited in the most general of terms. For example, of four such factors, the document lists the second as: "All water pumps are designed to run - turning pumps on and off is not the best situation for the overall electrical efficiency or the mechanicals of a pump." Bay County Ex. 24. Consistent with Mr. Lackemacher's testimony, the document concludes that the amount of water needed to run each well is unknown. The financial justification is based on costs shown in the Hatch Mott MacDonald Report for construction and operation of 22 wells, ten more wells than are contained in the Wellfield and without any analysis of revenue to recoup the The financial justification is a bare conclusion on the costs. part of Mr. Lackemacher:

> We cannot afford to operate a well field at a financial loss, based on this fact alone we would have to pump a minimum of 4.49 MGD. Combined with the fact that we don't know what volumes of water have to be turned over to ensure water quality 5 MGD seems quite reasonable.

Bay County Ex. 24.

218. The Lackemacher Confidential Draft is dated May 17, 2011. It was not part of Bay County's Application nor was it submitted to the District prior to the decision to issue the Permit. Although the District attempted to obtain information from Bay County about what was needed for maintenance, Bay County did not provide it. As Mr. Gowans testified, "[t]hen I finally told staff, [s]top asking, we're not going to get the numbers" Tr. 552.

219. The District performed no analysis to determine the minimum amount of water needed to maintain the Wellfield.

220. In contrast, NTC/Knight and Washington County presented the testimony of Phillip Waller, an engineer accepted as an expert in the design and construction of potable water systems, including groundwater wells, surface water, and transmission and distribution of drinking water.

221. Mr. Waller testified that if the wells were connected to a central treatment system, there would not be the need to flush the pipeline for disinfection prior to use of the well in an emergency. Only 2.4 million gallons per year or 6,500 gallons per day would be needed to maintain optimum operating conditions, an amount far less than 5 MGD.

222. Mr. Waller's experience when groundwater is used as a backup, moreover, is that they are operated periodically. While prudent to periodically operate backup wells especially in

advance of hurricane season, vertical pumps in wells, unlike horizontal pumps, do not have a need for frequent operation because of even force distribution. They certainly do not need to be continuously operated. "In fact, wells routinely are idle for months at a time." Tr. 1123.

Interference with Existing Legal Users

223. In its Revised Staff Report dated July 18, 2011, the District wrote:

<u>Nearby Users</u>: Under the most intensive pumping activity, drawdown in the Upper Floridan Aquifer is predicted to be approximately 15 feet in the vicinity of the nearest private wells. Water level declines of this magnitude may cause water levels to fall below the level of the pump intake in some privately-owned wells.

Joint Ex. Vol. IV, Tab Q, p. 4.

224. The District's high estimate of the number of wells used by existing legal users that might suffer impacts approaches 900. The exact number or whether any existing legal users would be likely to suffer impacts was not proven.

Alternatives

225. Groundwater wells, if installed and attached to the fitting in the existing transmission line that delivers water from the Pump Station to the Water Treatment Plant, could serve as backup to the Reservoir. Bay County did not conduct a study of whether groundwater in the area of the transmission line was

adequate to serve as an alternative. Mr. Waller, on behalf of NTC/Knight and Washington County, on the other hand, testified that the transmission line could support ten wells with a capacity of 10 MGD and could be constructed at a cost of \$12 million, far less than the Wellfield.

226. The area of the transmission line is in an area identified by the District as acceptable for the creation of potable water wells. The area does not present a significant risk of saltwater intrusion if not used continuously. The water meets the drinking water requirements for the Department of Environmental Protection and the Department of Health.

227. The existing transmission line alternative is located near the existing raw water supply line which minimizes the need for additional piping. There is sufficient length along the existing raw water pipeline to accommodate ten wells. The existing transmission line alternative, therefore, has significant potential to succeed as a water supply backup to the Reservoir.

228. NTC/Knight and Washington County, through Mr. Waller, also proposed another alternative: an intake at Bayou George. Near Highway 231, the main pipeline from the intake would run along public right-of-way. North of the existing intake in Williams Bayou and three miles north of the Dam, the proposed

intake would be less susceptible to contamination from storm surge.

229. Neither Bay County nor the District presented a thorough analysis of any alternative to the Wellfield. In contrast, NTC/Knight and Washington County presented the testimony of Mr. Waller that there are two alternatives that could be constructed at much less cost than the Wellfield and that have significant potential of providing backup supply.

CONCLUSIONS OF LAW

Jurisdiction

230. The Division of Administrative Hearings has jurisdiction over the parties and the subject matter pursuant to sections 120.569 and 120.57(1), Florida Statutes.

Standing

231. Petitioners in all three cases established that they have standing. This proceeding is designed to protect their substantial interests and they proved that their substantial interests could be affected by the District's action. <u>See</u> <u>Agrico Chem. Co. v. Dep't of Envtl. Reg.</u>, 406 So. 2d 478 (Fla. 4th DCA 1981); and <u>St. Johns Riverkeeper</u>, Inc. v. St. Johns <u>River Water Mgmt. Dist.</u>, 54 So. 3d 1051 (Fla. 5th DCA 2011). In the case of Washington County, <u>see also Osceola Cnty. v. St.</u> Johns River Water Mgmt. Dist., 486 So. 2d 616, 617 (Fla. 5th DCA 1986).

Burdens and the Presumption

232. The burdens of going forward and ultimate persuasion are governed by section 120.569(2)(p).

233. Bay County and the District made a prima facie case for Bay County's entitlement to the Permit. An order to that effect was entered on September 23, 2011.

234. By virtue of the designation of the Wellfield as a nontraditional water supply source in the 2008 RWSP, it meets the definition of an "alternative water supply" as defined in section 373.019(1). The District has indicated its intention to apply the presumption accorded by section 373.223(5) that the Wellfield's use is in the public interest. <u>See</u> the District's response to a motion in limine filed on September 15, 2011. Once a prima facie case was made by Bay County, the issue of whether the Permit is presumed to be in the public interest under section 373.223(5) became moot. With regard to public interest, the prima facie case is the functional equivalent of the presumption accorded by section 373.223(5). Whether by virtue of the prima facie case or the presumption, the burden is on Petitioners to rebut the status that approval of Bay County's application is in the public interest.

235. Petitioners carried their burden of going forward with the presentation of their case during the final hearing. In response to Petitioners' cases, Bay County and the District

presented additional evidence on rebuttal to show that the application meets the conditions for issuance.

236. Petitioners have the burden of ultimate persuasion under the applicable statutory and rule criteria to prove their case in opposition to the Permit.

The Case in Opposition

237. The case in opposition as pled by Petitioners is that Bay County and the District failed to provide reasonable assurances that the proposed use of water meets the conditions for a permit contained in section 373.223, and the criteria in the rules which implement the statute.

Statutory and Rule Criteria

238. Section 373.223(1) states what an applicant for a consumptive use of water permit must do for the District to issue the permit:

(1) To obtain a permit pursuant to the provisions of this chapter, the applicant must establish that the proposed use of water:

(a) Is a reasonable-beneficial use as defined in s. 373.019;

(b) Will not interfere with any presently existing legal use of water; and,

(c) Is consistent with the public interest.

239. Rule 40A-2.301 states:

"Conditions for Issuance of Permits."

In order for the Board to grant a permit for the use of water, the applicant must establish that the intended use:

(1) Is a reasonable-beneficial use;

(2) Is consistent with the public interest;(3) Will not interfere with any legal use of water existing at the time of the application; and(4) Complies with the provisions of

subsections 62-40.410(1)-(2), F.A.C.

240. Rule 62-40.410(1) and (2) states:

(1) No permit shall be granted to authorize the use of water unless the applicant establishes that the proposed use is a reasonable-beneficial use, will not interfere with presently existing legal uses of water, and is consistent with the public interest.

In determining whether a water use is a (2) reasonable-beneficial use, the following factors will be considered: The quantity of water requested for the (a) use; (b) The demonstrated need for the use; (c) The suitability of the use to the source of water; (d) The purpose and value of the use; (e) The extent and amount of harm caused; The practicality of mitigating any harm (f) by adjusting the quantity or method of use; (g) Whether the impact of the withdrawal extends to land not owned or legally controlled by the user; (h) The method and efficiency of use; (i) Water conservation measures taken and available to be taken;

The feasibility of alternative sources (i) such as reclaimed water, stormwater, aquifer storage and recovery, brackish water and salt water; The present and projected demand for (k) the source of water; The long-term yield available from the (1) source of water; (m) The extent of water quality degradation caused; Whether the proposed use would cause or (n) contribute to flood damage; Whether the proposed use would (\circ) significantly induce or increase saltwater intrusion; The amount of water which can be (g) withdrawn without causing harm to the resource; (q) Whether the proposed use would adversely affect public health; and Whether the proposed use would (r) significantly affect natural systems.

241. The statute and rules make it the applicant's responsibility to establish the conditions for the issuance of a consumptive use of water permit. Under section 120.569(2)(p), however, a third-party challenger to a permit has the burden of going forward and of the ultimate burden of persuasion once the applicant has made a prima facie case.

242. If the third-party challenger fails, the applicant prevails by virtue of its prima facie case. If the third party presents evidence that the applicant has not demonstrated the conditions for issuance, the applicant has the opportunity to rebut the challenger's evidence.

243. The meaning of the distinction between the applicant's responsibility and a third-party challenger's burdens of going forward and ultimate persuasion can be understood by examining a matter to which the parties devoted a considerable amount of evidence: the "reasonable-beneficial use" factor found in rule 62-40.410(2)(p): "whether the proposed use would significantly affect natural systems." Following Bay County and the District's prima facie case, Petitioners are not required to show that the Permit would, in fact, significantly harm or affect natural systems. Petitioners' burden is to prove that Bay County and the District did not provide reasonable assurances that natural systems would not be significantly affected.

Application of the Statutory and Rule Criteria

Reasonable-beneficial use

244. "'Reasonable-beneficial use' means the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the public interest." § 373.019(16), Fla. Stat.

245. It is neither reasonable nor beneficial for groundwater produced by the Wellfield to be used for all uses that fall under Public Supply or Industrial Use when the Reservoir is capable of meeting the needs for those uses through

the year 2040. The issue of reasonable-beneficial use would be much different had the Permit restricted the uses to backup supply when needed or essential uses in an emergency that rendered the Reservoir unavailable or uses necessary to ensure availability of the Wellfield, such as maintenance, should backup be needed or an emergency arise. As the Permit stands now, groundwater produced by the Wellfield can be used for any purpose that falls under Public Supply or Industrial Use classifications when there is no need.

246. Application of rule criteria supports the conclusion that "reasonable-beneficial use" has not been established in this proceeding. Rule 62-40.410 lists the factors to be considered when determining reasonable-beneficial use (the "Factors").

Quantity, Need, Purpose and Value, Method and Efficiency, Demand, Factors (a), (b), (d), (h), and (k)

247. The evidence presented by Petitioners establishes that the quantity of water Bay County needs is available under the 1991 Agreement allowance of the use of surface water from the Reservoir. The Reservoir is sufficient to meet Bay County's present and projected demand. The quantity of water Bay County is allowed under the Permit is not needed currently because the quantity is available under the 1991 Agreement.

248. The justification for the application is need when the Reservoir becomes unavailable in an emergency. But, the Permit is a typical public water supply consumptive use permit that could be used for any public supply or industrial purpose at any time. It is not restricted to times when the Reservoir is unavailable or to an amount necessary to ensure that the Wellfield pumps will be operable when needed.

249. Were the Permit restricted to emergency use or purposes necessary to sustain emergency use, the amount of 30 MGD for up to 52 consecutive days and up to 60 days in any one year is excessive. The Permit allows more than Bay County needs at present. It does not take into account non-essential uses. The amount of withdrawal is in excess of the amount Bay County would need to meet essential uses in the event of an emergency.

250. It was also not established that 5 MGD on an annual average basis was needed to maintain the system or for any other purposes advanced by Bay County, including recoupment of the cost of the Wellfield and operating costs.

Extent	of	Harm,	Practi	calit	ty of	Mit	igati	on,
Impacts	to	Other	Lands,	, Alt	ernat	ive	Sour	ces,
Harm to Natural Systems,								
Fac	ctor	cs (e),	(f),	(g),	(j),	and	(r)	

251. Bay County's case that the long-term use of the Wellfield would do no harm to the natural systems and that there

would be no impact to the land of others was refuted by Petitioners' evidence.

252. Petitioners proved that the data available to the modelers is inadequate to determine that the area's natural systems would not be significantly affected or that the land of others would not suffer impacts.

253. Assuming the HGL Model's predicted drawdown is accurate, Petitioners evidence was sufficient to defeat the opinions of the experts of Bay County and the District that any harm would be insignificant.

254. There was insufficient consideration by the District of adjusting the quantity of water allowed to be withdrawn or the method of use of the Wellfield to minimize impacts.

255. Bay County did not consider the feasibility of alternative sources such as developing a wellfield along the transmission line between the Pump Station and the Water Treatment Plant and the Coastal Water Systems Interconnect Project and existing storage.

> Suitability, Long Term Yield, <u>Water Quality Degradation</u>, <u>Flood Damage, Saltwater Intrusion</u>, <u>Harm to the Resource, Public Health</u>, Factors (c), (i), (l), (m), (n), (o), (p), and (q)

256. Petitioners did not present evidence with regard to Factors (c), (l), (m), (n), (o), (p), and (q). Petitioners' evidence did not prevail over the evidence of Bay County and the

District with regard to water conservation under Factor (i). The District's prima facie case that these factors support a finding of reasonable-beneficial use, therefore, stands.

Ultimate Determination of Reasonable-beneficial Use

257. A weighing of the evidence under the Factors leads to the conclusion that Bay County's application should be denied.

258. Petitioners proved by the evidence they presented that the application should not be viewed favorably under Factors that, based on a view of the entire case, are given the greatest weight: Factors (a), (b), (d), (e), (f), (h), (i), (j), (k), and (r).

259. The principal considerations for reaching a conclusion that the application does not propose a reasonablebeneficial use is that the Permit does not restrict use beyond Public Supply and Industrial Use, and Petitioners proved withdrawals are not needed under current or projected demand; that if an emergency arises that renders the Reservoir unavailable, the 30 MGD exceeds an amount necessary to meet essential uses; that if non-emergency withdrawals on an average annual basis are needed to maintain the Wellfield or to otherwise sustain it so that it is available in the event of an emergency, it was not established what that amount should be and it was certainly not established that it should be 5 MGD; that the evidence offered by Petitioners showed that there was

inadequate data for any model to predict drawdowns to the Surficial Aquifer caused by the withdrawals; and that if the drawdowns predicted by the HGL Model are accurate, Bay County and the District failed to proved that natural systems would not be significantly affected.

260. Bay County and the District did not establish that the proposed use under the Permit is a reasonable-beneficial use.

Interference with Existing Legal Use

261. Petitioners' failed to overcome the prima facie case of Bay County and the District that the proposed use of water will not interfere with any presently existing legal use of water.

Consistent with the Public Interest

262. Petitioners proved that the proposed use is inconsistent with the public interest.

263. It is not consistent with the public interest for Bay County to make withdrawals under the Permit when the amount of water available for public water use in the Reservoir under the 1991 Agreement is adequate to meet current demand and demand as projected by the District.

264. It is not in the public interest for Bay County to be able to use the withdrawals under the Permit for any purpose allowed by Public Supply and Industrial Use classifications.

The use should be restricted to: 1) backup supply or emergency use when needed as advanced by Bay County as the justification for the Permit, that is, when the Reservoir is unavailable; and 2) any use, such as maintenance, necessary to ensure availability when the Reservoir is offline. Should the Reservoir be unavailable, it is not in the public interest to allow withdrawal in the amounts allowed by the Permit.

265. If there were no other alternative, it would be in the public interest for Bay County to withdraw from the Wellfield quantities needed because of Reservoir contamination. But that amount was not established in this proceeding, and whether contamination ever occurs is speculative.

266. Should contamination occur that makes the Reservoir unavailable, it is not in the public interest for Bay County to withdraw an amount of 30 MGD for 52 consecutive days or up to 60 days per year when 30 MGD exceeds all water demand, essential and non-essential, in Bay County. Nor is it in the public interest for the Permit to fail to restrict emergency withdrawal under the Permit to an amount necessary for essential use.

267. It is not in the public interest for Bay County to withdraw 5 MGD on an annual average basis when the Reservoir is available unless it is shown that the amount is necessary to ensure the readiness of the Wellfield in the event of an

emergency. When considering all the evidence, that showing was not made by Bay County.

268. It is not in the public interest for Bay County to operate the Wellfield when it is unable to show, due to inadequate data, what the Surficial Aquifer drawdown is reasonably likely to be and what the drawdown's impacts are reasonably likely to be to natural systems in the Sand Hill Lakes Area. The failure to show what the impacts will be to these natural systems of extraordinary ecological and environmental quality is weighty when balanced against a need that does not exist and that may never arise and when the District has not explored the possibility of alternatives the evidence shows to have significant potential.

RECOMMENDATION

Based upon the foregoing Findings of Fact and Conclusions of Law, it is

RECOMMENDED that the Northwest Florida Water Management District enter a final order that denies the application of Bay County for the individual water use permit at issue in this proceeding.

DONE AND ENTERED this 26th day of July, 2012, in

Tallahassee, Leon County, Florida.

pil de diel_

DAVID M. MALONEY Administrative Law Judge Division of Administrative Hearings The DeSoto Building 1230 Apalachee Parkway Tallahassee, Florida 32399-3060 (850) 488-9675 Fax Filing (850) 921-6847 www.doah.state.fl.us

Filed with the Clerk of the Division of Administrative Hearings this 26th day of July, 2012.

ENDNOTES

¹/ References to statutes are to Florida Statutes (2011) unless otherwise noted.

²/The application was preceded by an application for modification to a consumptive use agreement. That application was filed with the District on August 14, 2009. It was assigned Application No. I 07057. <u>See</u> Joint Bay County/NWFWMD Ex. Vol. 1, Tab H. The application number remained the same for Bay County's "Consumptive Use Permit Application for an Alternate Ground Water Supply," filed on March 8, 2010, with the District. <u>See</u> Joint Bay County/NWFWMD Ex. Vol. II, Tabs Y and B.

³/ A fourth petition was filed by Diane Brown. Ms. Brown's petition was withdrawn with the filing of her Notice of Dismissal in August 2011 (before the cases reached the final hearing). See DOAH Case No. 10-3313.

⁴/ In <u>Washington County v. Northwest Florida Water Management</u> <u>District</u>, 85 So. 3d 1127 (Fla. 1st DCA 2012), the court ruled that Washington County and NTC/Knight lacked standing to challenge administratively the 2008 RWSP because it did not name, refer to, or approve Bay County's wellfield project as an alternative water supply development project. The court, however, did not have the benefit of this record. Furthermore, the court recognized the ability in this proceeding of Washington County and NTC/Knight to challenge the Permit. That challenge necessarily includes the ability to challenge the District's intention to apply the presumption found in section 373.223(5), which, in turn, requires a determination of whether the Wellfield was designated as a nontraditional water supply source by the 2008 RWSP.

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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.