UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA

CASE NO. 02-80309-CIV-ALTONAGA/Turnoff

FRIENDS OF THE EVERGLADES,
FISHERMEN AGAINST DESTRUCTION
OF THE ENVIRONMENT, INC., and
FLORIDA WILDLIFE FEDERATION

Plaintiffs,

MICCOSUKEE TRIBE OF INDIANS OF FLORIDA,
a federally recognized Indian tribe,

Intervenor-Plaintiff,

vs.

SOUTH FLORIDA WATER MANAGEMENT
DISTRICT, et al.

Defendant.
_____/

PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW OF PLAINTIFF FLORIDA WILDLIFE FEDERATION AND INTERVENOR-PLAINTIFF MICCOSUKEE TRIBE OF INDIANS OF FLORIDA

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FINDINGS OF FACT

I. LAKE OKEECHOBEE IN ITS NATURAL CONDITION

A. Maps, Surveys, Historical Accounts And Photographs Evidence The Fact That Lake Okeechobee And The Everglades Were Separate Water Bodies In Their Natural Condition

First named Laguna del Espiritu Santo by the Spanish [Tr. vol. 16, pp. 58-58, Gibson], Lake Okeechobee appears as a dominant feature on maps of Florida dating back at least 250 years. [Tr. vol. 16, pp. 58-66, Gibson]. It was and still is the second largest lake located completely within the continental United States. [Tr. vol. 5, p. 75, Rice]. Over the course of the

centuries, maps became more accurate and detailed, but they always showed two separate features – a very large lake and a vast wetland to the south named "the Everglades." [P. Ex. 16A, 16B]. While the shape of the Lake on historic maps gradually evolved into progressively improved levels of accuracy, all maps show a distinct boundary between Lake Okeechobee and the Everglades. [Tr. vol. 1, pp. 157-68, Gibson; Tr. vol. 16, pp. 58-66, Gibson; P. Ex. 16A, 16B, 220].

Maps, surveys, and accounts of the natural condition of the southern rim of the Lake describe a sandy-bottomed lake with water grasses growing in the shallows [P. Ex. 60, p. 66; P. Ex. 57], with the bed rising to a muck rim covered with Custard Apple trees,[1] [P. Ex. 60, pp. 66, 69-73; P. Ex. 40], followed by a slow downward gradient to the south through the Everglades. [Tr. vol. 1, 188-89, Gibson; P. Ex. 40].

Short distributary rivers flowed through this forested rim. [P. Ex. 60, pp. 69-73]. Maps from 1892 and 1910 depict about a dozen such rivers, bearing names such as the Ben Hale River, the Democrat River[2] and the Rita River.[3] [P. Ex. 220, 16D]. The 1910 Newman map describes the southeast corner of the Lake as having "a low boggy shore," shows numerous river channels in that area, and describes the "natural course of drainage" as being slightly south of southeast.[4]

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[1] Custard Apple is also known as Pond Apple.

[2] Named after the New Orleans Times-Democrat which sponsored a boat expedition down this river and into the Everglades in 1883. [P. Ex. 60, pp. 33, 61].

[3] The two maps disagree as to which river was named the Rita River.

[4] The notation of the map reads "S40°E" which means "South 40 degrees East" or 40 degrees east of due south.

[P. Ex. 16D]. The Custard Apple forest extended as much as two and a half miles south of the Lake where it transitioned to a grassy marsh that averaged 40 miles across and extended south all the way to Florida Bay. [Tr. vol. 1, pp. 171-72, Gibson; UNDIS. FACT of D. 6].

The historic southern shoreline between the Lake and the Everglades was surveyed by J.M. Kreamer in 1892 [P. Ex. 220], by John W. Newman in 1910 [D. Ex. 16D], and was officially surveyed by the State of Florida in 1914-17 (the F.C. Elliot survey) [D. Ex. 55]. Photographs of a nearly pristine Lake Okeechobee shoreline were taken from the cupola of the Bolles Hotel in April 1912.[5] [P. Ex. 16E1, 16E2, 16E3]. These photographs depict a dry shore, the natural muck levee, the Custard Apple forest, and the Rita River. [Tr. vol. 1, pp. 169-74, Gibson]. The identical features depicted in the photograph (shallow sandy shore, the Custard Apple Forest, the high banks of the Rita River) are vividly and accurately described in an 1883 eyewitness account that predates the photographs by thirty years. [P. Ex. 60; Tr. 16, pp. 68-70, Gibson]. This narrative confirms that the 1912 photos depict the lakeshore in its natural condition.[6] [Tr. vol. 1, pp. 181-82, Gibson; Tr. vol. 16, pp. 67-70, Gibson].

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[5] The Bolles Hotel was located on the south shore of Lake Okeechobee on the western bank of the Rita River. [Tr. vol. 1, pp. 167-69, Gibson]. Its location is shown on the Newman Survey of 1910 [P. Ex. 16D]. It was constructed by Richard Bolles, an early Everglades land speculator. [Tr. vol. 1, p. 169, Gibson].

[6] This account takes place very shortly after Hamilton Disston, a northern industrialist, dredged a navigation canal that connected the Lake to the Caloosahatchee River. [D. Ex. 213, p. 13]. According to the records of the Okeechobee Drainage District, this canal had little or no effect on water levels in Lake Okeechobee. [D. Ex. 213, p. 13].

B. Historical Accounts, Historic Maps, United States Geological Survey Maps Of Historic Flow, And The Design Of Turn Of The Century Navigation Locks on Everglades Canals Evidence The Fact That Lake Okeechobee Water Naturally Flowed South

In its natural condition the general direction of water flow was south from the Lake into the Everglades and then to the south and the east; on the western side of the Lake the water flowed west-southwest into the Caloosahatchee River. [Tr. vol. 1, pp. 186-87, Gibson; Tr. vol. 5, pp. 50-53, Rice; P. Ex. 58]. During high water events, when the Lake topped the elevation of the rim on the south shore of the Lake, Lake Okeechobee water would sheet flow south over areas of the natural muck levee. [Tr. vol. 5, pp. 50-53, Rice]. Joined by rainfall that fell in the Everglades, the water then flowed slowly south down a gradual gradient into Florida Bay and the Lower East Coast. [Tr. vol. 1, pp. 186-87, Gibson; P. Ex. 58]. This historic water flow is depicted on a United States Geological Survey map made using SFWMD data that is titled "Natural Flow Patterns (ca. 1900)." [P. Ex. 58; Tr. vol. 8, pp. 32-36, Sylvester].

When the Miami Canal was first dredged across the Everglades from its entrance at the Rita River to the headwaters of the Miami River, a navigation lock was constructed in the canal just a short distance south of Lake Okeechobee's southern shore. [Tr. vol. 1, 182-84, Gibson; P. Ex. 16F, 16G]. The lock still exists, and is now located a short distance south of the S-3 pumping station in the Hoover Dike. [P. Ex. 16G]. A photograph of this "Rideau" lock shows the doors opening to the north. [Tr. vol. 1, pp. 182-87, Gibson; P. Ex. 16G, 42, 46]. Lock doors are designed to open against the direction of flow [P. Ex. 42, 46 (Corps Design Manual for Locks)], indicating that the direction of flow in the Miami Canal was from the north to the south. [Tr. vol. 1, pp. 182-87, Gibson; P. Ex. 16G, 42, 46].

C. Neither The Fact That Lake Water Would Sheet Flow Over The Natural Rim Of Lake Okeechobee, Nor The Fact That Windstorms, Hurricanes Or Other Unusual Meteorological Events Could Cause The Distributary Rivers To Flow Backwards Into Lake Okeechobee For Short Periods Of Time Negates The Existence Of Two Separate Water Bodies

The fact that the Lake would sheet flow over the Lake rim at times of high water does not change the discrete character of the Lake and the Everglades [Tr. vol. 5, pp. 52-53, Rice], but only serves to illustrate the shifting nature of the interface between separate water bodies when one flows into the other. That zone of fluctuation where one water body flows into another, such as where a river flows into the sea, is known as an "ecotone." [Tr. vol. 1, pp. 82, 121, Crisman]. Virtually all water bodies that flow into another water body have such fluctuating "ecotones." [Tr. vol. 1, pp. 125-28, Crisman].

During severe windstorms, hurricanes or other rare meteorological events, rivers may flow backwards for a short time, and such events probably occurred along the south rim of the Lake. [Tr. vol. 1, pp. 192-93, 220, Gibson; P. Ex. 16C; D. Ex. 302, ¶ 7]. A similar phenomenon exists in rivers that are subject to tidal influence and thus may flow both ways over short distances. [Tr. vol. 13, p. 12 Hendren]. The existence of such rare natural phenomena does not negate the existence of two distinct water bodies. [Tr. vol. 1, pp. 125-28, Crisman; p. 220 Gibson].

II. LAKE OKEECHOBEE AND THE EVERGLADES TODAY

A. A Century Of State And Finally Federal Flood Control Projects Have Fundamentally Altered The Hydrology Of Lake Okeechobee And The Everglades, Making It Possible To Artificially Move Massive Quantities Of Water North Into Lake Okeechobee

A century of state and finally federal efforts at flood control have resulted in construction of the Hoover Dike (which surrounds virtually the entire Lake), and a network of canals, water

control structures and pumping stations to provide flood control and drainage throughout south Florida.[7] [D. Ex. 205; Tr. vol. 5, pp. 59-60, 74, Rice]. This case involves the SFWMD's operation of three of those structures: pumping stations S-2, S-3, and S-4 [UNDIS. FACT of P. 12], which pump excess waters north into Lake Okeechobee from the former northern Everglades (now known as the Everglades Agricultural Area ["EAA"]). [Tr. vol. 8, p. 97, Sylvester]. The SFWMD operates these pumping stations without an NPDES Permit.

The S-2 pumping station, which is located at the northern end of the Hillsboro and North New River Canals, was designed to pump excess water from the 180 square mile S-2 drainage basin transected by those canals. [D. Ex. 218, p. A-S2-1]. The S-2 basin includes agricultural areas and the cities of South Bay and Belle Glade. [D. Ex. 200, p. 29 (S-2 Basin Map showing location of cities)].

The S-3 pumping station is located at the northern end of the Miami Canal and was designed to pump water from the 129 square mile S-3 basin. [D. Ex. 218, p. A-S3-1]. The S-3 basin includes agricultural areas and the city of Lake Harbor. [D. Ex. 200, p. 52 (S-3 Basin Map showing location of city)].

The S-4 pumping station conveys water into the Lake from the 116 square mile S-4 drainage basin (sometimes referred to as the Nine Mile Canal Area). [D. Ex. 218, p. A-S4-1, A-

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[7] Each structure is designated by a letter and number; for example, "L" designates a levee (and occasionally is also used to designate a canal that runs parallel to the levee), "C" designates a canal, and "S" or "G" designates a structure such as a pumping station or a spillway. [D. Ex. 1]. A map showing the canals and water control structures relevant to this case is attached as appendix A. [D. Ex. 118]. The Lake is known only as "Lake Okeechobee."

Ind-iii].[8] The S-4 basin includes the agricultural area to the west of Clewiston and sometimes includes the City of Clewiston.[9] [D. Ex. 200, pp. 67, 69].

The pumping of water from the S-2, S-3, and S-4 pumping stations, in which the flow in the canals is reversed from its natural southerly gradient of flow,[10] has long been described as "backpumping." [D. Ex. 110, p. 1]. Backpumping by the SFWMD has artificially added three basins totaling 425 square miles to the watershed of Lake Okeechobee – all of which drained either to the south or west under natural conditions. [P. Ex. 58].

B. The S-2, S-3, And S-4 Pumping Stations Convey Massive Quantities Of Water Through Pipes Into Lake Okeechobee

Each pump station contains three or four pumps each powered by a diesel engine approximately the size of three tractor-trailer engines [Tr. vol. 4, p. 66, Wise; Tr. vol. 20, p. 83, MacVicar], and each drives a pump with an impellor that is 12 feet in diameter. [Tr. vol. 4, pp. 65-66, Wise]. The pumped water is discharged through a pipe or tube. [UNDIS. FACT of P. 14]. Massive quantities of water can be moved through S-2, S-3, and S-4; the flow rate from just

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[8] The Nine-Mile Canal was constructed in the late 1800s to drain the lands south of Lake Okeechobee. [Tr. vol. 1, p. 192, Gibson; P. Ex. 220]. The natural flow of water in the canal was west from Lake Okeechobee into Lake Hicpochee. [Tr. vol. 1, p. 192, Gibson].

[9] Excess water in Clewiston normally goes into the Industrial Canal, a navigation canal with a lock at the Lake Okeechobee end that allows boat traffic to move through the dike and into the Lake. The lock is left open to boat traffic unless the Lake gets too high. [D. Ex. 65-66]. When the lock is closed, excess water in Clewiston is moved into the S-4 basin and pumped into the Lake by the S-4 pumping station. [D. Ex. 65-66].

[10] Water still flows south out of the Lake but the flow is generally controlled by operation of gated spillways such as S-351 and S-354 located at the head of an EAA canal, or locks such as those at the head of the St. Lucie Canal and the Caloosahatchee Canal. [D. Ex. 1; D. Ex. 200, pp. 24, 47].

one of the pumping stations with all pumps operating is comparable to the flow of a medium sized Florida river. [Tr. vol. 4, pp. 65-67, Wise].

Pumping stations are used to create an artificial slope, forcing the water to flow north toward the direction of the pumping station. [Tr. vol. 4, pp. 131-32, Strowd]. When the pumps are turned on, they immediately lower the water level in the canal at the entrance to the pumping station. [Tr. vol. 4, pp. 131-32, Strowd; Tr. vol. 10, p. 14, Strowd]. This action creates a "low end" to the canal (called an "hydraulic gradient"), and the water is thus artificially induced to flow by gravity toward the pumping station. [Tr. vol. 4, pp. 131-32, Strowd].

C. Pumping Stations At The Southern End Of The EAA Can Discharge Floodwaters South

At the south end of the EAA canals, large pump stations were constructed to speed the flow of water on its natural southward course into the remnant Everglades denominated the Water Conservation Areas ["WCAs"]. [D. Ex. 112B]. The S-6 pumps water from the Hillsboro Canal [D. Ex. 200, p. 31], S-7 pumps water from the North New River Canal [D. Ex. 200, p. 31], and S-8 pumps water from the Miami Canal. [D. Ex. 200, p. 54].

As originally designed, one-third of the floodwaters in the EAA were discharged north into the Lake, while two-thirds would be discharged south. [D. Ex. 109, p. 3]. As a result of a lawsuit brought by environmental groups in 1977 [Tr. vol. 4, pp. 93-101, Zebuth], the SFWMD is supposed to operate its pumps so that more southerly flow is generated. [P. Ex. 113; Tr. vol. 5, pp. 173-81, Zebuth]. However, the watersheds of S-2 and S-3 approximate the size of the original watersheds when both the north and south pumping stations are operating. [Tr. vol. 20, pp. 68-69, MacVicar]. In reality, the SFWMD turns pumping stations on based on water levels

in the canals. [Tr. vol. 20, pp. 68-69, 77-78, MacVicar]. The operational constraints of the IAP, to the extent they exist, do not apply to S-4 backpumping. [P. Ex. 113].

More recent operational changes have resulted from the settlement in the United States' 1988 lawsuit against the SFWMD and the State over the effects of pollutants entering the remnant Everglades. [Tr. vol. 5, pp. 92-93, Rice]. The Consent Decree in that lawsuit resulted in the construction of the stormwater treatment areas ("STAs") in the southernmost part of the EAA [Tr. vol. 5, pp. 92-93, Rice], and the construction of new pumping stations approximately five miles north of S-7 and S-8 for the purpose of pulling canal water into the STAs. [D. Ex. 1; D. Ex. 118; Tr. vol. 20, pp. 13-14, MacVicar]. Pump station G-373 is on the Miami Canal and G-370 is on the North New River Canals [D. Ex. 118]; they are the same size as S-7 and S-8. [Tr. vol. 20, pp. 72-73, MacVicar].

D. The Primary Purpose For Backpumping Is To Dispose Of Floodwaters, Not Water Supply

The primary purpose of the S-2, S-3, and S-4 pumping stations is to provide flood protection [Tr. vol. 7, p. 97, Sylvester], and the "tremendous majority" of backpumping episodes are to dispose of floodwater. [Tr. vol. 5, p. 179, Zebuth]. The trigger for backpumping occurs at S-2 and S-3 whenever the water at any place in the canal reaches a level of 13 feet NGVD because at that point flooding is the SFWMD's only concern. [Tr. vol. 9, 129-30, Strowd]. The trigger for backpumping at S-4 is whenever water in the canal reaches a level of 14 feet NGVD [D. Ex. 200, p. 66].

Flood control backpumping occurs even when the water level in Lake Okeechobee is at 18 feet [Tr. vol. 10, pp. 15, Strowd], a level at which the integrity of the levee is called into doubt [Tr. vol. 10, pp. 15-16], and a level at which the Corps of Engineers is making maximum

"regulatory releases" to tide (i.e., dumping huge quantities Lake water into the Caloosahatchee and St. Lucie River estuaries). [Tr. vol. 8, pp. 43-46, Sylvester; D. Ex. 218, Figures 7-1 & 7-3].

E. Water Supply Backpumping Occurs Rarely And The SFWMD Clearly Distinguishes Water Supply From Flood Control Backpumping Operations

Approximately once every 10 years an extreme drought leads to a SFWMD declaration of a water supply emergency. [Tr. vol. 20, p. 21, MacVicar; P. Ex. 228]. Once an emergency is declared, DEP issues an order authorizing the SFWMD to backpump for water supply purposes. [P. Ex. 228]. Requiring a formal declaration of emergency is consistent with improving water quality of Lake Okeechobee since, as explained by Karl Havens, "water supply backpumping runs contrary to both the short term goal of ecosystem protection and the longer-term goal of ecosystem rehabilitation." [P. Ex. 65B (Havens Memo to Susan Gray)].

Declaration of a water supply emergency and issuance of an order authorizing backpumping occurred during the 2001 drought. [P. Ex. 228]. In its report to DEP after the 2001 drought, the SFWMD separated out backpumping conducted for "water supply augmentation efforts" and backpumping that had occurred during the period of the emergency, but which had been conducted for flood protection. [P. Ex. 29, p. 2]. The SFWMD informed DEP that the flood control backpumping events "were not considered part of the water supply augmentation efforts" and their effects on the Lake were not covered in the report. [P. Ex. 29, p. 2].

F. Water Supply Backpumping Could Be Eliminated or Reduced When The EAA Reservoir Is Constructed

Mr. MacVicar testified that the water supply component of backpumping would be eliminated in the future as a result of the construction of the EAA Reservoir Project. [Tr. vol. 20, p. 24, MacVicar]. Col. Rice agreed that the EAA Reservoir (construction of which is due to start

this Spring), when operated in conjunction with the STAs, presented a potential alternative to backpumping. [Tr. vol. 5, pp. 111-12, Rice; Tr. vol. 9, pp. 152-53, Strowd].

III. THE SFWMD COLLECTS WATER CONTAINING POLLUTANTS IN ITS CANALS AND THEN DISCHARGES THE POLLUTANTS INTO LAKE OKEECHOBEE THROUGH BACKPUMPING

A. The SFWMD Canals Collect Water

The Hillsboro, North New River, and Miami Canals, as well as the C-21 and C-20 Canals which feed S-4, collect water from drainage basins with agricultural, rural and urban areas. [Tr. vol. 5, pp. 113-15, Rice; Tr. vol. 14, pp. 47-48, Wade]. Industrial, municipal, and construction activities are conducted within these areas, and runoff comes from these industrial, municipal and construction sites. [Tr. vol. 5, 113-15, Rice]. Water collected in the SFWMD canals includes stormwater from these agricultural, urban, and rural areas discharged during storms and surface water discharged in anticipation of storms [Tr. vol. 9, pp. 135-36, Strowd; Tr. vol. 10, p. 13, Strowd; Tr. vol. 13, p. 143, Wade; UNDIS. FACT of P. 18]; water pumped out of agricultural areas to lower groundwater levels to facilitate the use of heavy equipment on the fields [Tr. vol. 13, pp. 139, 143, Wade]; water pumped out for frost protection and insect control [Tr. vol. 5, p. 193, Zebuth]; as well as surface water, groundwater and rainfall [UNDIS. Fact of P. 18]. Some of the discharges into the Canals may be exempt and some are clearly not, some are permitted, some are discharged unlawfully without a permit, some discharges have a permit but discharge unlawfully and inconsistent with the permit. [Tr. vol. 17, pp. 92-108, Maske; Tr. vol. 18, pp. 1-17; Tr. vol. 18, p. 48; P. Exs. 183-188, 190]. The S-2, S-3, and S-4 pumping stations are used to discharge this collected water into Lake Okeechobee as part of the SFWMD's flood control operations.

B. The Water Backpumped Into Lake Okeechobee Contains Pollutants Including Phosphorus, Nitrogen, Color, and Ammonia

The water backpumped into Lake Okeechobee contains at least the following pollutants: color, nitrogen, and phosphorus, each of which is listed as a pollutant in the EPA's administrative rules [Tr. vol. 1, pp. 50-51, 88-95, 98-103, Crisman; 40 CFR § 122 App. D]; total suspended solids and high biological demand (listed by EPA as pollutants at 40 CFR § 401.16); dissolved solids (included dissolved organics); low quantities of dissolved oxygen; and un-ionized ammonia [P. Ex. 94, App. F; P. Ex. 9; Tr. vol. 3, pp. 98-104, Zebuth; Tr. vol. 6, pp. 5-6, Zebuth; Tr. vol. 1, pp. 50-51, 88-94, Crisman]. These pollutants also cause harm to the designated use of the Lake as a potable water source, violate water quality standards, harm the lake's ecology, and adversely affect use of the Lake by people, fish, and wildlife. *See* Findings of Fact Sections V and VI *infra*.

C. The Pumping Stations Convey Pollutants Into Lake Okeechobee

Backpumping discharges a highly visible plume of nutrient rich, highly colored reddish to blackish water that is completely different[11] than the Lake water into which it is discharged (including water in the Rim Canal). [Tr. vol. 1, pp. 68-74, 79-81, 98-99, 120, Crisman; P. Ex. 65A (photograph of "typical highly colored nature of water from S-2"); P. Ex. 7 (Mireau Deposition)]. Backpumping directly impacts an area up to the size of a large lake, and can influence the quality of Lake water up to nine miles into the Lake's southern end. [Tr. vol. 2, pp. 42-43, P. Gray; Tr. vol. 3, p. 16, P. Gray; P. Ex. 115, p. 178].

[11] Lake Okeechobee is naturally low in background color. [Tr. vol. 1, p. 40, Crisman].

IV. LAKE OKEECHOBEE AND THE SFWMD CANALS ARE MEANINGFULLY DISTINCT PHYSICALLY, CHEMICALLY, AND BIOLOGICALLY

A. Lake Okeechobee Is The Most Important Lake In Florida, Existing Since Time Immemorial, While The Canals Are Man-Made Drainage Canals Dug In The Past Century

While both Lake Okeechobee and the SFWMD canals are navigable waters of the United States [UNDIS. FACT of P. 5 & 6], they are very different water bodies. The Lake is shown on maps dating back 250 years [Tr. vol. 16, pp. 68-66, Gibson], and is often referred to as the "liquid heart of South Florida." [P. Ex. 109, p. 1]. Lake Okeechobee is the most important lake in Florida because of its vast size and direct influence on surrounding ecosystems. Its health has importance to large local breeding birds, including the endangered snail kite, and to wading bird populations of the entire Southeastern United States. Restoring the Lake's health is an essential component to the successful restoration of the entire Everglades ecosystem. [UNDIS. FACT of P. 8]. In contrast, the SFWMD canals, which were constructed and then deepened and widened as part of a century of flood control and drainage efforts [D. Ex. 205, p. 42], are, in large part, simply constructed conduits for water conveyance. [UNDIS. FACT of P. 15].

B. Lake Okeechobee Is Physically Separated From The Canals By The Hoover Dike And Water From The Canals Would Not Normally Reach The Lake But For The Operation Of The Pumping Stations

As discussed above in section II, virtually the entire Lake is enclosed by the Hoover Dike, a 27 to 42 foot high and up to 300 foot wide barrier that physically separates the Lake from the SFWMD canals and the lands to the south of the Lake. [Tr. vol. 5, p. 75, Rice; Tr. vol. 13, p. 21, Hendren; UNDIS. FACT of P.12]. The elevation of water in the Lake is almost always higher than the elevation of water in the canals – the exception being during extreme droughts. [UNDIS. FACT of P. 17]. Since water flows downhill, water in the Lake flows by gravity to the

south whenever the SFWMD opens the gated spillways and culverts that feed water from the Lake into the canals. [Tr. vol. 4, p. 89-90, Wise; Tr. vol. 5, p. 111, Rice]. Thus, the natural direction of flow is the same today as it was naturally – out of the Lake to the south.

It is only on "very rare" occasions (triggered by extreme drought conditions) that water flows by gravity from the canals into the Lake. [Tr. vol. 8, pp. 75-76, Sylvester; UNDIS. FACT of P. 17]. This is not conceptually different than the rare occasions when the Lake's southerly distributary rivers flowed backward into the Lake during rare meteorological events. [Tr. vol. 1, p. 193, Gibson]. Except for these "very rare" events, but for the operation of the pumping stations, the water in the canals would not flow into Lake Okeechobee.

C. The Lake And The Canals Are Physically, Chemically, Biologically And Hydrologically Distinct Water Bodies

An hydrologist can identify whether one water body is distinct from another by examining its physical setting, the chemistry of the water, the biology, and the effect produced by introducing the waters of one water body into another. [Tr. vol. 4, pp. 85-86, Wise].

1. Lake Okeechobee and the Canals are Physically Distinct, as Evidenced by the Natural Variation of Ecological Zones in the Lake and the Uniformity of the Constructed Canals to the South

As is true for all natural lakes, Lake Okeechobee is not ecologically uniform. [Tr. vol. 1, pp. 82-83, Crisman]. It has a deep open water area (pelagic zone), marsh areas that are inundated only when the lake is high (littoral zone), shallow areas with submerged aquatic vegetation (nearshore zone), as well as a rim canal and navigation cuts. [Tr. vol. 1, pp. 82-83, 120, Crisman; P. Ex. 23, pp. 4-6; P. Ex. 65B, p. 2]. The canals, consistent with their role as water conduits, are uniformly designed and constructed to have vertical sides, a flat bottom and

no vegetated littoral area. [Tr. vol. 4, p. 70, Wise; UNDIS. FACT of P. 20; Tr. vol. 2, p. 91, P. Gray].

2. The Lake and the Canals are Chemically Distinct, as Evidenced by the Fact that Backpumping Degrades the Quality of Water in the Lake

A Corps of Engineers study based on water quality data collected through January 18, 2005 concluded that canal water pumped north into the Lake was of lower quality than Lake water flowing south into the canals. [Tr. vol. 1, pp. 48-49, Crisman; P. Ex. 94, pp. F-86, F-89]. Comparing the normal parameters by which quality of water is judged, this Corps study shows that the SFWMD canals have only one third as much dissolved oxygen as the Lake (low oxygen levels are detrimental to commercially and recreationally important fish) [Tr. vol. 1, pp. 51-52, Crisman], two and a half times more nitrogen, and double the phosphorus (phosphorus and nitrogen are nutrients that stimulate the growth of algae blooms) [Tr. vol. 2, pp. 53-56, P. Gray; Tr. vol. 1, pp. 48-56, Crisman]. Alkalinity is two and half times higher in the canals than the Lake, canal water has a much darker color than Lake water (caused by the presence of fulvic and humic acids) and is much higher in total suspended solids (such as sediment or algae). [Tr. vol. 1, pp. 39, 48-56, Crisman].

SFWMD studies have concluded that backpumping from the S-2, S-3, and S-4 pumping stations adversely affected the water quality in the South Bay area of Lake Okeechobee. [UNDIS. FACT of P. 26; P. Ex. 9]. In 1996, the SFWMD tested thirteen water quality parameters to compare in-Lake[12] water quality during periods of backpumping and no-

[12] The locations of the in-Lake water quality monitoring stations are shown in Figure 3-1 of the Bechtel Report [P. Ex. 9].

backpumping. [P. Ex. 9, p. 46 (Bechtel Report); Tr. vol. 1, p. 86-86]. There was statistically significant worsening in twelve of the thirteen parameters when S-2 was operating, eight of the thirteen when S-3 was operating, and ten of the thirteen when S-4 was operating. [P. Ex. 9, p. 46; Tr. vol. 4, pp. 51-56, Zebuth].

3. Lake Okeechobee and the Canals are Biologically Distinct Water Bodies as Evidenced by Biota Inhabiting Each

Lake Okeechobee and the canals are also biologically and ecologically distinct. [Tr. vol. 1, p. 81, Crisman]. Plants and animals that normally occupy the Lake do not occupy the canals. [Tr. vol. 2, pp. 91-92, P. Gray]. As with any eco-system type, there is a great deal of variability within the Lake. [Tr. vol. 1, pp. 46-47, Crisman]. But the fact that one set of plants and animals may use the shallow Lake marsh while another set uses the deep open water area of the Lake, does not negate the conclusion that the canals and the Lake are biologically distinct. [Tr. vol. 1, pp. 46-47, Crisman].

4. The Natural Flow of the Lake Into the Canal, the Insignificant Amount of Water that Seeps Under the Dike, and the Rare Events When the Canals Gravity Flow Into the Lake do not Make the Lake and the Canals One Water Body

Lake Okeechobee continues to flow south into the canals. [See Section IV B]. Such connections are common in nature, as when a freshwater river flows into the sea, but the connection does not negate the existence of two separate and distinct water bodies. [Tr. vol. 4, pp. 89-90, Wise]. There is also some Lake water in the canals and some canal water in the Lake. However, the chemical and biological differences clearly indicate that the canals and the Lake are distinct. [Tr. vol. 4, p. 89, Wise; Tr. vol. 1, pp. 48-49, Crisman; P. Ex. 94, p. F-89].

Nor does seepage between the Lake and the EAA make the Lake and the canals (or the Lake and the EAA) one water body. Like all lakes, Lake Okeechobee seeps water into its bed

and some water seeps through the Hoover Dike. [Tr. vol. 5, pp. 109-110, Rice]. However, the amount of this seepage through the Dike is "minor" compared to the amount of water moved by the structures [Tr. vol. 13, p. 16, Hendren], and is so small that the Corps does not even consider seepage losses when computing the Lake's monthly water budget (water into and out of the lake). [D. Ex. 211, p. 23]. The existence of this small amount of seepage does not bear on whether the canals and Lake are meaningfully distinct.

V. LAKE OKEECHOBEE IS MEANINGFULLY DISTINCT UNDER THE CLEAN WATER ACT

A. Lake Okeechobee And The SFWMD Canals Are Meaningfully Distinct Because The State Has Classified Them Differently And Provided Different Water Quality Standards For The Two Separate Designations

Pursuant to section 1313(c)(2) of the Clean Water Act, the State has designated Lake Okeechobee as a Class I water (potable water supply). [UNDIS. FACT. of P. 6; Rule 62-302.400]. The SFWMD EAA canals have been classified as Class III waters with designated uses for recreation and propagation and maintenance of a healthy well-balanced population of fish and wildlife. [UNDIS. FACT. of P 19; Rule 62-302.400]. As a Class I water, the Lake has more stringent water quality criteria than the Class III canals. [UNDIS. FACT. of P. 22]. The backpumping that is the subject of this lawsuit conveys Class III water from the District canals into Lake Okeechobee, a Class I drinking water. [UNDIS. FACT of P. 85].

When such backpumping is occurring, the SFWMD's own analysis of 1988 to 2000 water quality data showed that Class I water quality criteria for alkalinity, conductivity, chloride, dissolved oxygen, turbidity, and un-ionized ammonia were exceeded by a significant to a substantial percentage of the instances when the S-2, S-3, and S-4 pump stations were discharging into Lake Okeechobee. [P. Ex. 3, pp. 51-54]. There were also violations of Class I

drinking water standards measured at the cities' water intakes during the 2001 backpumping episode. [Tr. vol. 6, p. 10, Zebuth].[13]

VI. THE LAKE AND CANALS ARE MEANINGFULLY DISTINCT BECAUSE BACKPUMPING PRODUCES A "POLLUTANT SLUG" OF HIGHLY COLORED, NUTRIENT ENRICHED WATER THAT HARMS LAKE OKEECHOBEE AND CREATES PUBLIC HEALTH RISKS

A. The Backpumped "Pollution Slug" Contaminates The Water Taken Into The Water Treatment Plants Of The South Shore Cities Causing Problems With Taste, Odor, And Color

1. The Cities of Belle Glade, South Bay, and Pahokee Obtain Drinking Water from Lake Okeechobee and their Intakes are Located Near the S-2 and S-3 Pumping Stations

The south shore cities of South Bay, Belle Glade, and Pahokee all obtain drinking water from Lake Okeechobee. [Tr. vol. 4, pp. 19-20, Zebuth]. The water intake for South Bay is located between the S-2 and S-3 pumping stations; farther away from S-2 is the Belle Glade intake, now located on the Lake side of Kreamer Island in the open water of the Lake; and the Pahokee intake, still further way from S-2, at a location opposite the town's marina.[14] [Tr. vol. 4, pp. 19-20, Zebuth]. The SFWMD offered surrebuttal testimony that the intake for Belle Glade is in the rim canal adjacent to the S-2 pumping station. [Tr. vol. 20, pp. 85-86, MacVicar]. It is not. The intake identified by Mr. McVicar is an old intake station utilized only when the Lake level is at an extreme drought stage as was the case five years ago during the 2001 drought. [Tr.

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[13] Phosphorus and nitrogen are nutrients which have a "narrative" criteria rather than a "numeric" criteria. [Tr. vol. 3, pp. 98-99, Zebuth (no imbalance of fauna and flora]. That is why there is no analysis of phosphorus or nitrogen violations even though the SWIM Plan makes clear that nutrient loading into the Lake is grossly excessive. [P. Ex. 3, p. ES-ii].

[14] Mr. Zebuth identified the intake locations by reference to numbers on a map identified as Figure 9 of P. Ex. 110.

vol. 4, pp. 19-20, Zebuth; P. Ex. 29, p. 17 (SBIN and BGIN on the map designate the location of the South Bay and Belle Glade water intakes used during the 2001 drought)].

2. Backpumping Causes Color, Taste, and Odor Problems in the Drinking Water of the South Shore Cities

The SFWMD has received complaints from South Bay, Belle Glade, Pahokee and Clewiston that backpumping causes color and an unpleasant odor and taste in the cities' water supplies. [P. Ex. 65C]. The SFWMD admits that "when backpumping is occurring, the City of South Bay's water treatment plant experiences increases in the water's hardness (alkalinity), turbidity, and color" [UNDIS. FACT of P. 25], and sends fax notification of impending backpumping events to all four of the cities. [P. Ex. 65C; P. Ex. 45 (fax notification sheets)].

Dr. Wise visited three water treatment plants eight days after a two-day S-2 backpumping episode that took place during the trial. [D. Ex. 124; Tr. vol. 17, p. 12, Wise]. The intake water at the South Bay plant (which is closest to the S-2 pumping station) was noticeably colored and significantly darker than intake water from either Belle Glade or Pahokee [Tr. vol. 17, pp. 16-17, 54-55, Wise], and Dr. Wise attributed the color at the water intakes to the recent backpumping episode. [Tr. vol. 17, p. 55, Wise]. Mr. Zebuth testified from personal knowledge that pollution in Lake Okeechobee caused the south shore cities' drinking water to taste "like grass." [Tr. vol. 3, pp. 103-04, Zebuth].

3. Backpumping Causes a Public Health Threat Due to the Combination of Organic-Laden Backpumped Water and Chemicals Used During the Disinfection Process

Backpumped water contains dissolved organic compounds that form toxic "disinfection byproducts" when they react with disinfectant chemicals used in the water treatment plants. [Tr. vol. 17, p. 27, Wise; Tr. vol. 3, pp. 103-04, Zebuth]. The cities' treatment plants do not have

carbon filters that would reduce the amount of organics in the water. [Tr. vol. 17, pp. 27-28, Wise]. When the water taken in by the cities' intakes was treated with chlorine, the byproducts were a class of carcinogens called trihalomethanes. [Tr. vol. 17, p. 8, Wise; Tr. vol. 3, pp. 102-05, Zebuth]. An association between high levels of trihalomethanes and backpumping has been documented in reports dating back to 1981. [Tr. vol. 6, p. 11, Zebuth].

While the cities on the south shore recently switched from chlorine to chloramines (a compound made by combining chlorine and ammonia) [Tr. vol. 11, pp. 39-40, Brooks; Tr. vol. 17, p. 8, Wise], the byproducts of chloramine treatment of organic-laden water can cause cancer and mutagenic maladies such as birth defects. [Tr. vol. 17, p. 27, Wise]. The higher the level of organics, the more disinfectant is used, and the more disinfectant byproducts are created. [Tr. vol. 17, pp. 8, 34, Wise]. For these reasons, Dr. Wise was of the opinion that backpumping renders the public drinking water supplies in South Bay, Belle Glade and Pahokee unfit to consume. [Tr. vol. 17, p. 37, Wise].

Because of disinfection byproducts, backpumping violates the state's "free from" water quality standard, which prohibits surface waters from containing "man-induced components of discharges" which combined with other substances are present in concentrations that are carcinogenic or mutagenic to humans. [Tr. vol. 3, pp. 103-04, Zebuth; Rule 602.302.500(1), F.A.C].

There is currently a $49 million proposal to build a regional plant for the south shore cities that would switch the water supply from the Lake to a groundwater source and would treat that water by reverse osmosis. [Tr. vol. 17, pp. 55-61, Wise].

4. Backpumping Stimulates the Growth of Cyanobacteria (Blue-Green Algae) which can Become Toxic and Pose Public Health Risks

Pollution "slugs" from backpumping stimulate the growth of cyanobacteria (commonly known as blue-green algae). [Tr. vol. 1, pp. 102-03; 105-06, Crisman; P. Ex. 52]. Floating blue-green algae blooms can become both massive and toxic [Tr. vol. 1, pp. 102-03 Crisman; UNDIS. FACT of P. 33]. Exposure to algal toxins can cause skin rashes; ingestion of water containing these toxins can cause nausea or even death of livestock and humans. [Tr. vol. 1, pp. 105-07, Crisman].

B. Adding The Pollutants In The Backpumped Water Into Lake Okeechobee Alters The Ecology Of Lake Okeechobee And Adversely Affects Its Use By People, Fish, And Wildlife

As explained in Section III C, the pollution slug produced by backpumping from the S-2, S-3, and S-4 pumping stations can impact an area extending nine miles into the south end of Lake Okeechobee. This area includes the southern nearshore zone (populated by colonies of submerged aquatic vegetation) and the south pelagic zone (an open water portion of the Lake). [P. Ex. 23, pp. 4-6]. Dr. Karl Havens, former Chief Environmental Scientist for the SFWMD's Lake Okeechobee Division, once wrote that effects of backpumping were of particular concern because this southern region:

> [S]upport[s] diverse assemblages of fish and macroinvertebrates which serve as food resources for wading birds. The south pelagic region is also a primary location for recreational fishing, which is estimated to bring in several million dollars per year into local economies.

[P. Ex. 52, p. 35].

Dr. Crisman testified that the pollution slug from backpumping overwhelms the capacity of the nearshore vegetated zones to take up the nutrients in the polluted water [Tr. vol. 1, pp.

102-03, Crisman], and normally has an adverse impact on Lake Okeechobee. [Tr. vol. 1, p. 149, Crisman]. This opinion is consistent with a 2001 SFWMD study on the effects of backpumping that found negative impacts on submerged aquatic vegetation, the growth of a nuisance algal mat, and nutrient impacts on water quality that were of the same order of magnitude as those found by backpumping studies performed in the 1970s. [P. Ex. 18; Tr. vol. 1, pp. 149-50, Crisman].

During the past thirty years, the Lake has undergone a rapid ecological change due to man-induced eutrophication. [P. Ex. 51; Tr. vol. 3, pp. 34-35, P. Gray]. Eutrophication is caused by excessive nutrients; its most noticeable symptom is the increase in frequency and severity of cyanobacteria blooms that Lake Okeechobee has been experiencing. [Tr. vol. 1, pp. 110-11, Crisman; Tr. vol. 2, pp. 53-58, P. Gray; P. Ex. 51; P. Ex. 143; P. Ex. 20, p. 9]. For example, the Lake is now experiencing almost chronic algae blooms during the summer, along with blooms that are now occurring during the winter – something that formerly did not happen. [Tr. vol. 3, p. 21, P. Gray].

Algal blooms have the potential to become massive, and when they die, oxygen is removed from the water column and waste products (e.g., ammonia) accumulate, and can potentially cause fish kills and the death of other aquatic life. [UNDIS. FACT of P. 33; Tr. vol. 3, p. 78, Zebuth]. One bloom that started in the southeast part of the Lake eventually affected 200 square miles of the Lake and made the affected water look like a can of light green paint. [Tr. vol. 3, p. 78, Zebuth]. Water quality measurements of the affected water showed lethal levels of ammonia and no dissolved oxygen. [Tr. vol. 3, p. 78, Zebuth]. Dead snails and other

invertebrates were floating in the water and crawdads were crawling up plants trying to get out of the water. [Tr. vol. 3, p. 78, Zebuth].

While phosphorus is the primary (if not the only) object of current regulatory attention [P. Ex. 3 (2002 SWIM Plan); P. Ex. 20], nitrogen has long been identified as an important eutrophication factor in the south end of the Lake. [Tr. vol. 1, pp. 94-95, Crisman; Tr. vol. 2, pp. 41-42, P. Gray]. The EAA backpumping basins generate much higher nitrogen concentrations than other waters that flow into the Lake [Tr. vol. 4, pp. 12-13, Zebuth], and in-Lake monitoring stations record significant increases in nitrogen when the S-2, S-3 and S-4 pumps are operating. [Tr. vol. 4, pp. 53-55, Zebuth; P. Ex. 9]. All three of the pumping stations continue to violate nitrogen loadings limits set on an interim basis by DEP in the early 1980s. [Tr. vol. 5, pp. 180-81, Zebuth; P. Ex. 45].

The contribution of nitrogen rich EAA water to the eutrophication process is well documented. A Karl Havens study found that when nitrogen-laden EAA canal water was added to Lake water: chlorophyll a increased,[15] phytoplankton productivity (mass) increased, and the phytoplankton became dominated by cyanophyta (blue-green algaes) [P. Ex. 52, pp. 33-34]. Algae blooms were recorded at monitoring stations in the Rim Canal and the boat cuts leading into the open waters of the Lake during the 2001 backpumping. [Tr. vol. 7, p. 48, Zebuth].

Overall, algae blooms "pose a significant threat to many of the uses of the lake including drinking water, habitat, nesting, fishing, and swimming," [P. Ex. 20, p. 30 (TMDL for Lake Okeechobee)], and reduce Lake users' enjoyment of the resource. [UNDIS. FACT of P. 34].

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[15] Chlorophyll a is an indicator that an algal bloom is occurring. [Tr. vol. 7, p. 48, Zebuth].

VII. STATE PROGRAMS TO ABATE POLLUTION OF THE LAKE HAVE FAILED FOR 30 YEARS

Pollution problems in Lake Okeechobee were first recognized 35 years ago. Across the years, massive algae blooms and lawsuits have been the trigger for state pollution abatement efforts, none of which were effective at even stopping the increase in pollution levels in the lake. [P. Ex. 236A (demonstrative exhibit of pollution concentrations in the Lake with state programs written across the bottom)].

A. The 1969 USGS Study: The Lake is Eutrophic

In 1969, a United States Geological Survey report determined: a) that Lake Okeechobee was eutrophic; b) that the EAA was a principal source of nitrogen loadings to the Lake; c) that backpumped waters were very high in nitrogen, had high specific conductance, and low turbidity; and d) that the most impacted parts of the Lake were the rim canal and the South Bay littoral zone. [UNDIS. FACT of P, 35]

B. 1976 Final Report On The Special Project To Prevent Eutrophication Of Lake Okeechobee: The First Plan

A series of scientific studies that were subsequently conducted which confirmed that the Lake was undergoing the process of man-induced eutrophication and that backpumped EAA flood water contributed significantly to the Lake's eutrophication. [P. Ex. 111, pp. 49-52]. In 1976, the Florida Department of Administration, Florida Department of Environmental Regulation [FDER], and the Central and Southern Florida Flood Control SFWMD participated in a report titled "Special Project to Prevent the Eutrophication of Lake Okeechobee." [P. Ex. 111, pp. 1-2]. DER had conducted an analysis of backpumping and concluded that backpumping should stop. [P. Ex. 111, p. 53].

The 1976 report made several recommendations to resolve problems presented by backpumping, including: 1) that "backpumping from S-2, S-3, and S-4 and by private interests should be eliminated or reduced to the maximum degree feasible"; 2) that the EAA canals should be enlarged to "enable the largest feasible amount of water now backpumped to be routed southward for storage"; 3) that "as much of the backpumped water should be stored for recyle [sic] within the EAA as is feasible"; and 4) "a detailed study of alternatives to backpumping by private interests and the S-4 pumping station should be conducted." [P. Ex. 111, pp. 80-84]. These recommendations were not effectively implemented and pollution concentrations in the Lake continued to rise. [P. Ex. 236A].

C. The 1979 Temporary Operating Permit

Around 1977, environmental groups took legal action against DER for failure to require the SFWMD to obtain a pollution permit for its structures that discharged into Lake Okeechobee. [Tr. vol. 4, 97-98, Zebuth]. In response, DEP issued the SFWMD a temporary operating permit ["TOP"] that required the development of interim actions to immediately reduce nutrient impacts and the development of a longer-range analysis of options for reducing pollution levels. [Tr. vol. 4, p. 101, Zebuth; P. Ex. 112]. The "temporary" levels from 23 years ago remain in effect, and in-lake pollution concentrations continued to rise from 1977 onward. [P. Ex. 236A].

D. The 1980 Interim Action Plan

As part of the TOP requirement that the SFWMD immediately take steps to reduce backpumping impacts, the SFWMD developed a modified pumping schedule called the Interim Action Plan ["IAP"] that was imposed as a requirement of the TOP in June 1980. [Tr. vol. 4, pp. 101-06, Zebuth; P. Ex. 113]. The IAP establishes a point system based on a set of conditions that must be used to justify a SFWMD decision to pump the canals north and south. [P. Ex.

113]. Points are attributed to a number of factors, such as high or low canal stage, how fast the canals are rising, predicted and actual rainfall, and notification by farmers that they are pumping. [P. Ex. 113, Tables 3 & 4]. When the conditions table produces a total of at least 12 points, the SFWMD is required to immediately begin pumping south. [P. Ex. 113, Table 5]. Only when the conditions table produces a total of 21 or more points is the SFWMD allowed to backpump into the Lake from S-2 and S-3 pumping stations. [P. Ex. 113, Table 5]. The requirements of the IAP remain in effect, except when a water supply emergency has been declared. [Tr. vol. 4, pp. 105-06, Zebuth]. The SFWMD routinely violates the requirements of the IAP. [Tr. vol. 5, pp. 173-81, Zebuth]. The requirements of the IAP don't apply to S-4. [P. Ex. 113].

E. The 1983 Operating Permit

In 1983, DEP issued an operating permit to the SFWMD that placed loading limits on the amounts of nutrients (phosphorus and nitrogen) that could be discharged from SFWMD structures into Lake Okeechobee and deadlines for meeting those requirements. [P. Ex. 114]. The permit allowed a total annual discharge of 382 tons of phosphorus and 2949 tons of nitrogen and required the discharge limit to be met within five years. [Tr. vol. 4, pp. 107-09, Zebuth]. Discharges from S-2, S-3 and S-4 were of special concern and had their own loading limits and deadlines. [Tr. vol. 4, p. 108, Zebuth]. S-2 was permitted to discharge 18 tons of phosphorus and 156 tons of nitrogen, S-3 was permitted to discharge 7 tons of phosphorus and 95 tons of nitrogen, and S-4 was permitted to discharge 15 tons of phosphorus and 142 tons of nitrogen. [Tr. vol. 4, pp. 107-08 Zebuth]. S-2, S-3 and one other structure were singled out and given a deadline of only three years to meet their loading limits. [Tr. vol. 4, p. 109, Zebuth].

Because DER recognized that each structure would have an effect on the receiving waters in their vicinity, the permit required the load limitations be uniformly achieved – no structure

was allowed to exceed its load limit by more than 10%. [Tr. vol. 4, pp. 108-09, Zebuth]. The permit requirements were viewed by DEP as interim requirements with the expectation that the pollutant loading would be reduced to the point where the discharges were not harmful to the Lake. [Tr. vol. 4, pp. 125-26, Zebuth].

The SFWMD continues to operate under these 23 year-old "interim" requirements even though the state has had to acknowledge as a result of the lawsuit enforced TMDL process that the interim limits allow phosphorus loading four times higher than the level that harms the lake. [P. Ex. 114; Tr. vol. 4, pp. 125-26, Zebuth; P. Ex. 20]. Even with these lax limits, the SFWMD continues to periodically violate the conditions of its 1983 permit. [Tr. vol. 3, pp. 111 & 115-16, Zebuth; Tr. vol. 5, pp. 173-81, Zebuth; P. Ex. 93; P. Ex. 45].

F. The 1986 Surface Water Improvement And Management Plan

In 1985 and 1986, the Lake experienced an algae bloom of massive proportions that attracted widespread public attention. [Tr. vol. 4, p. 40, Zebuth]. Described previously in Section VII B, this was the bloom that started in the southeast part of the Lake and eventually grew to 200 square miles. [Tr. vol. 3, p. 78, Zebuth]. The notoriety of the bloom attracted the attention of the Governor and resulted in the passage of the Surface Water and Improvement ["SWIM"] Act, which required development of a plan of improvement by 1988 and compliance with a numeric phosphorus reduction goal by a date certain. [Tr. vol. 4, pp. 40-41, Zebuth].

Through the SWIM Act, section 373.451 *et sequitur*, Florida Statutes (1988), the Legislature mandated that the SFWMD reduce phosphorus loading into the Lake by 40% by July 1, 1992 with the goal of achieving an in-Lake phosphorus concentration of 40 parts per billion ["ppb"]. [P. Ex. 20, p. 23; Tr. vol. 4, pp. 40-42, Zebuth]. However, the SWIM plan allowed phosphorus concentrations of 160 ppb at S-2, 150 ppb at S-3, and 180 ppb at S-4, in-flow

concentrations that are too high to prevent eutrophication of the Lake. [P. Ex. 3, pp. 26-27; P. Ex. 20].

Annual phosphorus surface water inflow loads to the Lake in 1987-88 averaged around 600 tons per year [P. Ex. 236, p. 4], so that a 40 percent reduction would reduce the load to 360 tons. The SWIM Plan ignores nitrogen pollution which is the primary concern in the south end of the Lake. [Tr. vol. 4, p. 40, Zebuth]. The SWIM targets have yet to be met, and loading in 2005 was more than two and a half times higher than the 360-ton phosphorus limit. [P. Ex. 236A]

G. 1998 FWF Lawsuit To Require Implementation Of The Clean Water Act TMDL Requirement

Since 1972, the Clean Water Act has required states to identify waters that violate water quality standards, identify the sources of the pollutants, and set a level of pollution reduction (known as a total maximum daily load or "TMDL") necessary to achieve restoration. [Tr. vol. 11, pp. 58-59 & 64, Brooks]. In 1998, Florida Wildlife Federation and others sued the United States Environmental Protection Agency in federal court over its failure to require Florida to set the total maximum daily loads required by the Clean Water Act since 1972. [Tr. vol. 11, pp. 58-59, Brooks]. A Consent Decree was entered in that case in 1999, which had as its first priority establishment of a TMDL for Lake Okeechobee. [Tr. vol. 11, p. 60, Brooks].

H. 1999 State Legislation Implementing The Consent Decree

In 1999, Florida passed the Lake Okeechobee Protection Act ["LOPA"] and the Watershed Restoration Act, both of which grew out of and implemented the Consent Decree resulting from the federal Everglades pollution lawsuit. [Tr. vol. 11, p. 60, Brooks]. However, the Moreno Consent Decree imposes *mandatory* best management practices ["BMPs"] on

dischargers of phosphorus into the Everglades which establish legal obligations, baselines, mandatory reductions, and penalties for non-compliance. The Moreno BMPs are completely unlike the BMPs the state DEP uses to reduce discharges of phosphorus into Lake Okeechobee or its tributaries, which are only voluntary in nature. [Tr. vol. 12, pp. 131-32, Brooks; Tr. vol. 11, p. 144, Brooks].

I. 2001 Lake Okeechobee TMDL For Phosphorus

The State has declared the Lake impaired (not meeting its designated uses) "due to phosphorus, dissolved oxygen, iron, un-ionized ammonia, coliforms and chlorides." [P. Ex. 20, p. 8]. Researchers have documented the Lake's increasing eutrophication from 1969 to present [P. Ex. 20, p. 9], and described the Lake's worsening symptoms including increases in algal bloom frequencies, increases in the dominance of blue-green algae over other species, increases in lake water concentrations of total phosphorus, and increases in average chlorophyll a concentrations [P. Ex. 20, p. 9].

As the result of a lawsuit between the FWF and USEPA [P. Ex. 238], the state developed a total maximum daily load ["TMDL"] for phosphorus for the Lake in 2001. [P. Ex. 20]. To reduce phosphorus to a level where the Lake will meet its designated uses, the TMDL sets an in-lake concentration target of 40 ppb of total phosphorus in the pelagic zone of the Lake. [P. Ex. 20, pp. 30-33]. This target is to be met by reducing the annual surface inflow of phosphorus into the Lake to 105 tons, which is approximately one third of the 360-ton goal set by the SWIM Act. [P. Ex. 20, pp. 30-33]. Last year, the total phosphorus load into the lake was 950 tons. [P. Ex. 236, p. 4 (Phosphorus Surface Loads to Lake Okeechobee)].

J. Failure To Implement The Permitting Requirement Of The Lake Okeechobee Protection Act

Under the Lake Okeechobee Protection Act, the Lake's TMDL is implemented through a Lake Okeechobee Protection Plan [D. Ex. 20], through which compliance with the TMDL's 105-ton loading limit is to be achieved by 2015. [D. Ex. 20, p. E-1]. A Lake Okeechobee Operating Permit (to be issued to the SFWMD by the state DEP) is mandated by the CWA as a mechanism to ensure that the SFWMD complies with the TMDL requirement (and all other water quality standards) by 2015. [D. Ex. 20, p. 3]. In 2004-05, discharges from the EAA into Lake Okeechobee amounted to almost one fourth of the TMDL for the entire Lake and were nine times higher than that area's proportionate share of the TMDL based on flow. [Tr. vol. 15, pp. 44-45, MacVicar].

Now, seven years after the permit requirement in the Lake Okeechobee Protection Act took effect, the DEP and the SFWMD are still in the "negotiation" stage in the development of the permit. [Tr. vol. 11, pp. 41-46, Brooks; P. Ex. 105A, 106B]. The current posture is that DEP seeks to require the SFWMD to "meet" the 105-ton phosphorus loading limit by 2015. [P. Ex. 105A; P. Ex. 106B]. The SFWMD, however, wants only to meet those limits to the "maximum extent practicable." [P. Ex. 105A; Tr. vol. 10, pp. 114-16, S. Gray]. DEP's most recent draft permit also lowers the trigger for backpumping from a canal water stage of 13 feet to a 12.5-foot stage, a move that would allow an increase in backpumping. [P. Ex. 105A; Tr. vol. 5, p. 182, Zebuth].

K. 2002 Lake Okeechobee Tributary TMDLs

Lake Okeechobee tributary TMDLs were required to be set pursuant to a 1999 Consent Decree entered as a result of the 1998 FWF lawsuit. [P. Ex. 238, p. 28]. In 2002, DEP proposed

a rule setting the first TMDLs for Lake Okeechobee tributaries (for the nine northern tributaries). [P. Ex. 238]. However, the proposed rule set the permissible level at 159 ppb phosphorus – four times higher than the 40 ppb in-lake phosphorus level of the established Lake Okeechobee TMDL. [P. Ex. 238]. FWF filed a legal challenge to this proposed rule. [P. Ex. 238]. The Final Order in that case invalidated the 159 ppb TMDL set by DEP on the ground that it had been developed through a "flawed process" and that DEP's after-the-fact attempts to scientifically "prop up" its decision were equally unsuccessful, since the process was flawed from inception. [P. Ex. 238, p. 105]. The final order was not appealed and no TMDL has been issued since the original TMDL was invalidated in March 2005. [P. Ex. 238, p. 109]. Under the Consent Decree, the TMDL for the Kissimmee River (the Lake's largest tributary) TMDL is due to be developed by the end of 2006. [Tr. vol. 12, pp. 129-30, Brooks].

L. The 2005 Lake Okeechobee And Estuary Recovery Plan

In the summer of 2005, a massive toxic algae bloom [Tr. vol. 10, pp. 117-18, S. Gray] moved from the Lake down the St. Lucie Canal and into the St. Lucie Estuary. [Tr. vol. 16, p. 43, Perry]. This toxic algae bloom eventually covered 75% of the estuary. [Tr. vol. 16, p. 43, Perry]. Enclosed areas formed thick green algal mats that broke down into a brilliant blue color. [Tr. vol. 16, pp. 45-46, Perry; P. Ex. 240D-F]. When the algal mat was determined to be toxic, the Martin County Health Department issued public health warnings against any human contact with the water in the entire area from Lake Okeechobee to the mouth of the estuary. [Tr. vol. 16, pp. 47-48, Perry; P. Ex. 240G]. Fisheries in the estuary sharply declined, while the estuary's birds and wildlife simply vanished. [Tr. vol. 16, pp. 46-47, Perry].

It appears that the St. Lucie Estuary has never witnessed an algae bloom anywhere near this size and severity. [Tr. vol. 16, p. 43, Perry]. This catastrophe attracted the attention of state

and federal public officials [Tr. vol. 16, pp. 48-49, Perry], including a tour by Senator Bill Nelson and a number of scientists and officials. [Tr. vol. 16, pp. 48-49, Perry]. Subsequently, the Governor announced a new Lake Okeechobee and Estuary Recovery Plan which would "fast-track" certain regulatory and construction projects related to Lake Okeechobee and the estuaries. [D. Ex. 35, 36]. One of the DEP projects was a proposal to accelerate the development of TMDLs for tributaries of Lake Okeechobee so that they would be completed by 2007. [D. Ex. 37, p. 2]. As explained in Section VII K, this is not an accelerated schedule.

VIII. NPDES PERMITS FOR BACKPUMPING WOULD NOT UNDULY BURDEN THE SFWMD

NPDES permits would require the SFWMD to meet water quality standards by reducing or eliminating backpumping or ensuring that any water discharged into the Lake meets water quality standards. The evidence adduced at trial shows that there are a variety of potential measures which the SFWMD could implement in order to comply with an NPDES permit. The precise terms and conditions of an NPDES Permit and the particular method of compliance will be determined in the permitting process.

A. NPDES Permits Would Require the SFWMD To Meet Water Quality Standards By Eliminating Backpumping or Ensuring The Water Discharged Meets Water Quality Standards

1. The SFWMD May be Able to Substantially Reduce Backpumping by Pumping Canal Waters South Into an STA in Anticipation of a Large Rain Event[16]

[16] The Tribe does not join in proposing findings of fact which could encourage sending dirty Lake Okeechobee water to the Everglades in quantities that would be unhealthy for the Everglades and, in fact, opposes such a proposal. *See specifically* Findings of Fact Section VIII A 1. However, the Tribe does encourage consideration of all reasonable alternatives.

The record demonstrates that pumping south earlier is possible. This is demonstrated by the backpumping episode that took place on February 4 and 5, during the trial, wherein the SFWMD backpumped in response to 3-4 inches of rainfall. [D. Ex. 122; Tr. vol. 20, p. 63, MacVicar]. Detailed records of rainfall, canal levels and pumping operations provide a clear insight into how the SFWMD actually operates the pumps. [D. Ex. 122, 124, 125, 126]. A winter weather front creates more drainage problems because it covers the entire EAA with heavy rain; in contrast, summer rains tend to be isolated storms within the EAA. [Tr. vol. 20, p. 48, MacVicar]. During hurricane season, vegetables are not under cultivation and sugar cane is in a phase of its growing cycle when it is not sensitive to high water. [Tr. vol. 20, pp. 77, 83-84, MacVicar]. For that reason, EAA farms do not need to pump extensively during hurricanes, avoiding the need to backpump into the Lake. [Tr. vol. 20, p. 77, MacVicar]. Thus, the rainfall event of early February presented rainfall and growing conditions that together posed the greatest need for extensive disposal of flood waters out of the SFWMD canals. [Tr. vol. 20, p. 77, MacVicar].

Weather forecasts indicated the approach of a large weather front coming from the north toward the EAA, which would carry substantial rain. [Tr. vol. 20, p. 63, MacVicar]. Rain started to fall at 6 PM on February 3. [Tr. vol. 20, p. 64, MacVicar; D. Ex. 122]. Water levels in the canals were at about 10.5 feet NGVD before the storm, but began to rise at about midnight on February 2, reflecting pumping down of urban and rural floodwater canals in anticipation of the storm. [D. Ex. 125 (red and blue wiggly lines represent canal stages adjacent to the S-2 and S-6 pumps; elevations measured against numbers on the right side Y-axis); Tr. vol. 20, p. 81, MacVicar].

By 9:45 AM, almost 3 inches of rain had fallen [Tr. vol. 20, p. 65-67, MacVicar; D. Ex. 122]. Only then – almost a day and half after urban and agricultural dischargers began anticipatory pumping – did the first southerly pumping station begin operating, followed by two of three pumps in another southerly pumping station more than two hours later. [Tr. vol. 20, p. 71-72, MacVicar; D. Ex. 126]. Only two and half hours after that, backpumping began into Lake Okeechobee. [Tr. vol. 20, p. 71-73, MacVicar; D. Ex. 126].

a. Anticipatory pumping south to the STAs is operationally possible

Although one SFWMD witness testified that anticipatory pumping to the south was not possible because the pumps would be damaged if water levels were too low in the canals [Tr. vol. 20, p.79, MacVicar], the SFWMD's former operations director Tommy Strowd – who had been in charge of pumping operations [Tr. vol. 8, p. 158, Strowd] – testified that anticipatory pumping was an occasional practice. [Tr. vol. 10, p. 13, Strowd]. Moreover, the S-6 pump on the southern edge of the EAA was operating at a canal level slightly lower than 9 feet February 8 and 9 [D. E. 125],[17] and the canal at that pumping station was eighteen inches higher than that when the impending storm was apparent. [D. Ex. 125]. Anticipatory pumping south into the STAs for treatment is operationally possible, but STA's would have to be sized appropriately to prevent overload.

[17] The green box at the bottom of the chart indicates S-6 pumps were operating, and the blue line above it indicates the canal stage at the S-6 pump station.

b. Anticipatory pumping is permissible and even desirable under the existing interim action plan

The SFWMD offered evidence that anticipatory pumping was not permissible under the IAP and asserted it was allowed to pump south only when canal stages reached a certain elevation. [Tr. vol. 20, p.68, MacVicar]. In fact, the IAP requires pumping south when 12 points in its point system are reached, and reaching 13 feet is only one of several factors including forecasted rainfall. [P. Ex. 113, Table 3, 4 and 5].

c. The amount of Lake water needed to fill canals as a result of anticipatory pumping south is not significant

The SFWMD asserted that anticipatory backpumping based on weather predictions created a risk that the SFWMD canals might sometimes be needlessly pumped south into the Stormwater Treatment Areas. That would require the canals to be occasionally refilled with Lake Okeechobee water. [Tr. vol. 20, p. 80, MacVicar]. The canals are about fifty feet wide [D. Ex. 117, P. Ex. 16G], and anticipatory pumping would draw them down as far as 9 feet NGVD, which is only 18 inches below the level the canal was at before the storm of February 3 and 4. [D. Ex. 125]. From the map attached as appendix A, it appears that the canal lengths between the Lake and the southerly pumps (G-370, G-373 and S-6) are, respectively, about 15 miles, 15 miles, and 20 miles. Thus, the volume of water needed to refill the canals back up from 9 feet to 10.5 feet would be only 455 acre feet.[18] The Lake covers 467,000 acres [P. Ex. 236, p. 2], so that a withdrawal of 455 acre feet would lower the Lake by about one thousandth of a foot.[19] There

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[18] 50 feet (canal width) X 1.5 feet (depth to refill) X (15 + 15 + 20 = 50) (miles of canal) X 5,280 (feet per mile) = 19,800,000 cubic feet. One acre = 43,560 square feet, so that 19,800,000 cubic feet equals 455 acre feet (19,800,000 divided by 43,560 = 454.5 acre feet).

[19] 455 acre feet divided by 467,000 acre-feet = .00097 feet.

Continued . . .

would be no significant consequence from occasionally refilling the canals because of unnecessary anticipatory backpumping based on weather forecasts of impending storms.

2. The SFWMD Could Potentially Eliminate or Limit Backpumping Through the Impending Bolles Canal Widening Project and the EAA Reservoir Project

The Bolles Canal is an old east-west canal connecting Miami Canal to the North New River Canal [D. Ex. 112B]. The Cross Canal is an eastward extension of the Bolles Canal to the Hillsboro Canal and is sometimes also referred to as the Bolles Canal. These canals are being widened and deepened by way of a $21 million canal enlargement project funded by the State. [Tr. vol. 9, pp. 149-50, 159-60, 162-63, Strowd; P. Ex. 94, ES-14]. When this "Acceler8" (meaning accelerated target completion dates within a few years) project is completed, it will be possible to effectively convey water between the north-south canals and thereby reduce backpumping. [Tr. vol. 9, pp. 159-64, Strowd].

More importantly, the EAA Reservoir project has the potential to limit or eliminate the need for backpumping into Lake Okeechobee, including the need to backpump for water supply purposes. [Tr. vol. 20, p. 24, MacVicar; Tr. vol. 5, pp. 111-12 Rice; Tr. vol. 9, pp. 152-53, Strowd]. The reservoir will encompass 32,000 acres north of STA ¾, between the North New River and Miami Canals [D. Ex. 32, pp. ES-1, ES-2], and will have a storage capacity of 360,000 acre feet. [D. Ex. 32, p. ES-1]. A pump to move water into the reservoir will be constructed, to be designated S-610 [D. Ex. 32, p. ES-84-5]. In addition, the project will widen the Miami and North New River Canals so as to increase their conveyance capacity by 50 percent and 150 percent respectively. [P. Ex. 64, pp. ES-12-13]. Phase I of the EAA Reservoir – the first

190,000 acre feet of storage capacity [D. Ex. 32, p. ES-17] – is an Acceler8 project intended to be commenced in the spring of this year with an expected completion date in 2009. [Tr. vol. 9, pp. 152-53, Strowd; D. Ex. 32, p. ES-17]. The remaining federal section of the reservoir is set to be completed in the following year. [D. Ex. 32, p. ES-17; Tr. vol. 9, p. 153 Strowd].

3. The SFWMD may be able to Substantially Reduce Pollution Loading from the S-2, S-3 and S-4 Pumping Stations and Meet Water Quality Standards by Implementing a Larger Number of Established Best Management Practices

Agriculture is the major land use in the EAA, so that controlling agricultural wastes has a major practical effect on the damage caused by backpumping into Lake Okeechobee. As a consequence of the lawsuit and consent decree known as the Moreno Consent Decree,[20] EAA farms are required to engage in Best Management Practices ["BMPs"]. These are fertilizer and water control practices which reduce nutrient loading in water discharged into the SFWMD canals. [Tr. vol. 13, pp. 72-74, 82-84, Van Horn; P. Ex. 120, table A-6]. The table in the 2004 BMP annual program report identifies the practices. [P. Ex. 120, table A-6]. In short, the program sets out a substantial menu of different BMPs that reduce fertilizer loading into the SFWMD canals, with each BMP having an assigned number of points. [Tr. vol. 13, pp. 83-85, Van Horn; P. Ex. 120, table A-6]. The farmers are required to engage in enough BMPs to add up to 25 points, but must select at least one fertilizer control practice and one water control practice. [Tr. vol. 13, pp. 83-84, Van Horn; P. Ex. 120, table A-6]. For example, five points can be obtained by determining the phosphorus requirements of the soil and following standard recommendations for fertilizer application rates, two and a half points can be earned by adoption

[20] The statute that purports to implement this Consent Decree is the Everglades Forever Act, § 393.4592, Fla. Stat.

of fertilizer spill prevention protocols, and two and a half points can be earned by conducting plant tissue analysis to determine fertilizer needs. [P. Ex. 120, table A-6 (first page, under heading titled "Nutrient Control Practices")]. In water management practices, the menu options provide 5 points for detaining the first half-inch of rainfall, and 10 points for detaining the first inch of rainfall. [P. Ex. 120, table A-6 (first page, under heading titled "Water Management Practices")]. Up to 15 points can be earned from the menu of "Particulate Matter and Sediment Controls." [P. Ex. 120, table A-6 (second page)].

While EAA farmers are only required to earn 25 points from the BMP menu, at least 75 points are available on the menu. [Tr. vol. 13, pp. 83-92, Van Horn; P. Ex. 120, table A-6]. This evidence suggests that requiring a larger number of points from the BMP program could yield substantial reductions in pollutant loading into the SFWMD canals, perhaps leaving SFWMD canal water clean enough to approach water quality standards in backpumped discharges.

In this respect, it is important to note that the S-4 basin is not considered to be part of the EAA by the SFWMD for purposes of the mandatory BMP program related to the Moreno Consent Decree. [Tr. vol. 13, p. 53-56, Van Horn]. Instead, that area is subject to regulation under generic SFWMD rules for lands in Lake Okeechobee tributary basins and is under a basin-wide master permit. [Tr. vol. 13, p. 55-58, Van Horn].

4. Construction of Water Treatment Areas to Treat Backpumped Water is a Potential Solution that Deserves an Engineering Feasibility Analysis

Pollution abatement requires a combined strategy of source reduction, flow diversion, and – if necessary – treatment. [Tr. vol. 13, p.35, Van Horn].[21] A new operational plan calling

[21] Mr. Van Horn testified the three strategies in the BMP context to control the source, divert

Continued . . .

for more anticipatory pumping is plainly needed, as is a larger suite of BMPs. Until the impact of those changes is assessed, it would not be possible to determine the amount of water and pollution load in need of treatment. [Tr. vol. 7, pp. 25-31, Zebuth]. However, water treatment areas have been constructed in the south end of the EAA, and similar wetland treatment areas are in the works for the Kissimmee River Basin. [Tr. vol. 7, pp. 29-31, Zebuth]. Wetlands treatment is a method of increasing use in South Florida and deserves careful analysis as a potential solution.

IX. REQUIRING NPDES PERMITS FOR WATER TRANSFERS WOULD NOT UNDULY BURDEN WESTERN STATES' RECLAMATION PROJECTS

A consortium of Western state water users and related associations appeared as *amici* at the summary judgment hearing to argue that application of NPDES permitting requirements to Western water transfer projects would impose prohibitive costs on western water users. [Summary judgment hearing of November 14, 2005, pp. 78-123]. Although the argument was not accompanied by affidavits or other evidence, and was irrelevant, one of the two examples offered as illustrating the danger of NPDES permitting on water transfer projects was the Colorado – Big Thompson system. [Hearing of November 14, 2005, p. 80].

The United States offered testimony as to the nature and operation of three very large interbasin transfer systems of the Arid West. One of them was the Colorado – Big Thompson system. [Tr. vol. 9, p. 40, Yahnke, D. Ex. 280 (map of the project)]. In that system, water from the western slope of the Rockies flows through tributaries to Grand Lake, where it is diverted through Adam's Tunnel, and under the continental divide into Mary's Lake. [Tr. vol. 9, p. 40,

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flows and then treat water.

Yahnke]. From there the water is directed through a series of small reservoirs and power plants down to Carter Lake, which is a main distribution reservoir. [Tr. vol. 9, p. 41, Yahnke]. From Carter Lake, the water can be conveyed south down to the St. Brain River or north to the Horse Tooth Storage Facility. [Tr. vol. 9, p. 41-42, Yahnke]. Water from the St. Brain is used for irrigation. In the alternative, water from Carter Lake can be sent to Boulder Creek where it used for irrigation and municipal water supply. [Tr. vol. 9, p. 42, Yahnke]. Excess water that is not diverted through Adam's Tunnel is directed to Shadow Mountain Lake, which overflows into Granby Reservoir – the largest reservoir on the Western slope. [Tr. vol. 9, p. 40, Yahnke]. Another source into Granby Lake is small reservoir called the Willow Creek Reservoir. [Tr. vol. 9, p. 40, Yahnke]. A pumping station at the Granby Reservoir is the primary means of diverting water from the West slope to the East slope if the Adam's Tunnel cannot convey the water. [Tr. vol. 9, p. 41, Yahnke]. Water from the Granby Reservoir can be pumped up to the Shadow Mountain Dam, which raises the surface of Grand Lake high enough to allow gravity flow through Adam's Tunnel. [Tr. vol. 9, p. 41, Yahnke]. Water is also ultimately diverted into the South Platte River for water users in that basin. [Tr. vol. 9, pp. 42-43, Yahnke].

This testimony and accompanying map appears to identify twenty or more water diversions within the very large Colorado – Big Thompson system that was one of the two illustrations relied on by the *amici* Western water users to support the claim that application of the NPDES permit requirement would impose prohibitive costs. However, the testimony and stipulation at trial disclosed a complete absence of any pollution problems resulting from the operation of the Colorado - Big Thompson system:

> There are engineered water transfers in the western United States. These next two witnesses will discuss four of them. The United

> States and the Plaintiffs, including the Tribe, agree that there is no record evidence that any of the four trans-basin water transfers cause or contribute to any exceedances of any water quality standard in the receiving water body. With respect to any of the other water transfers discussed by these two witnesses regarding these four projects, no party to this stipulation contends that any such transfer caused or contributed to a water quality standard exceedance in the receiving water body.

[Tr. vol. 9, pp. 9-10; Tr. vol. 9, pp. 52-54, Yahnke]. The water transfer system conveys pure snowmelt coming off a wilderness area and a national park. [Tr. vol. 9, pp. 52-54, Yahnke].

Similarly, testimony was offered on the Frying Pan – Arkansas project and the Central Utah project Bonneville Unit, which encompass at least scores of water transfers. [Tr. vol. 9, pp. 47-49, Yahnke; Tr. vol. 9, pp. 30-33, Albertson; D. Ex. 279, D. Ex. 308, D. Ex. 296]. Like the Colorado – Big Thompson system, the testimony and stipulation at trial failed to reveal any pollution problems resulting from any of the water transfers.

Because NPDES permits simply require dischargers to meet water quality standards, and there is no evidence that any of the Western States' water transfers violate water quality standards, the record undermines any claim that requiring NPDES permitting for western water transfers would impose any costs at all, much less impose prohibitive costs. Indeed, general permits would likely be available for any such projects.

X. THE COMPREHENSIVE EVERGLADES RESTORATION PROJECT DOES NOT RESOLVE PROBLEMS CREATED BY BACKPUMPING

The SFWMD has placed the entirety of the feasibility study for the Comprehensive Everglades Restoration Plan ["CERP"] into the record of this case. [D. Ex. 232]. Col. Rice, while he was District Engineer, was responsible for developing CERP. [Tr. vol. 19, p. 10, Rice]. The laws implementing CERP are "permissive" laws, meaning that they merely authorize CERP, they do not mandate that elements of CERP be completed. [Tr. vol. 19, pp. 12-13, 26 Rice].

Many projects authorized by permissive laws are never completed. [Tr. vol. 19, pp. 13-14, 25, Rice]. For example, the Corps currently has a backlog of $50 billion of authorized projects that never moved forward because there was no mandate to complete them. [Tr. vol. 19, pp. 25-26, Rice]. This is in contrast to "mandatory" laws such as the Clean Water Act. [Tr. vol. 19, pp. 12-13 Rice].

The benefit of an NPDES permit is that, rather than make promises that are not going to be met, the mandates of the permit requirements of the CWA requires commitment. [Tr. vol. 19, pp. 26-27, 54-55, Rice]. NPDES permits require that the intent of the CWA, to restore and maintain the chemical, physical, and biological integrity of the waters of the United States be kept at the forefront. [Tr. vol. 19, p. 15, Rice]. Because of this difference, permissive laws cannot substitute for the requirements of the Clean Water Act. [Tr. vol. 19, p. 27, Rice].

Furthermore, CERP has no direct role in cleaning up the water quality problems of Lake Okeechobee. [Tr. vol. 19, p. 15-16, Rice]. There is nothing explicit in CERP or any other project that will take care of the S-2, S-3, and S-4 backpumping discharges, cleaning up water to the degree which would allow it to flow into Lake Okeechobee and ensure that water quality standards in the Lake are protected. [Tr. vol. 5, pp. 15-16, Rice]. Even if there were any such projects, CERP is not intended to preempt the CWA; to the contrary, CERP expressly requires compliance with any applicable federal law. *See* WRDA 2000 § 601(i)(3) ("Nothing in the agreement established under this subsection shall alter or amend any existing Federal and State law, or the responsibility of any party to the agreement to comply with any Federal or State law . . ."); *see also* WRDA 1996 § 528(b)(4)(B).

XI. JURISDICTION

A. SFWMD Is Not An Arm Of The State

The SFWMD, created under Chapter 373, Florida Statutes is a "special taxing district" with special powers under Florida law including the power to levy ad valorem taxes, to borrow and pay expenses, to issue interest bearing negotiable notes, and to pledge the proceeds of taxes levied. [UNDIS. FACT of P. 4; Tr. vol. 8, p. 152, Basinger].

The SFWMD imposes a number of ad valorem taxes, and funds obtained from this source comprise 40% of its budget (another 25-30% comes from the state and the rest comes from grants, permit revenues, and local sources). [Tr. vol. 8, pp. 130, 142, Basinger]. Last year, approximately $440 million was collected through ad valorem taxation, up from $206 million in 1998. [Tr. vol. 8, p. 146, Basinger]. Funds obtained through ad valorem taxation are placed in a "general fund" within the SFWMD budget. [Tr. vol. 8, p. 153, Basinger]. The District-wide ad valorem tax is placed on the property value of an individual property owner in the SFWMD. [Tr. vol. 8, p. 143, Basinger]. Ad valorem tax rates are set by the governing board of the SFWMD. [Tr. vol. 8, p. 142, Basinger].

The process of collecting SFWMD's ad valorem property tax is strictly between the SFWMD and the County. [Tr. vol. 144-45, Basinger]. The ad valorem taxes appear as a line item on the County property tax bill produced by County Tax Collectors. [Tr. vol. 8, p. 144-45, Basinger]. The County then sends out a bill to property owners. [Tr. vol. 8, p. 145, Basinger]. That bill gets paid by the property owner to the County and the money is then sent directly to SFWMD. [Tr. vol. 8, p. 144-46, Basinger]. The money goes to the SFWMD. [Tr. vol. 8, pp. 144 & 146, Basinger]. The money never goes to the State. [Tr. vol. 8, pp. 144 & 146, Basinger]. Ad valorem taxes cannot be imposed by the State. [Tr. vol. 8, p. 153, Basinger].

The SFWMD also imposes millage rate taxes. [Tr. vol. 8, p. 130, Basinger]. For example, there is an Okeechobee Basin millage rate [Tr. vol. 8, p. 143, Basinger]; an Everglades Construction Project term millage rate [Tr. vol. 8, p. 143, Basinger]; and a big Cypress Basin millage rate for ad valorem property taxes. [Tr. vol. 8, p. 143, Basinger]. A mill is one tenth of one cent. [Tr. vol. 8, p. 143, Basinger]. These millage rates are imposed in addition to the rate paid under the district at-large millage rate. [Tr. vol. 8, p. 143, Basinger].

The SFWMD also collects agricultural privilege taxes. [Tr. vol. 8, p. 147, Basinger]. There is a per acre tax on the Everglades Agricultural Area which is about $25 per acre and about a $4.30 per acre tax on the C-139 Basin. [Tr. vol. 8, p. 147-48, Basinger]. In the case of these, the agricultural privilege tax on the EAA, the County, once again, sends out the bill and collects the tax on behalf of the SFWMD. [Tr. vol. 8, pp. 147-148, Basinger]. All that money goes to the SFWMD. [Tr. vol. 8, p. 148, Basinger]. None of it goes to the State. [Tr. vol. 8, p. 148, Basinger].

The SFWMD also receives funding from the state. [Tr. vol. 8, pp. 130, 142, Basinger]. However, counties also receive funding from the state, but are still separate units from the State. [Tr. vol. 8, p. 142, Basinger]. Counties are also in the State retirement system. [Tr. vol. 8, p. 150, Basinger].

Under the statutory scheme, the SFWMD governing board develops its own budget. [Tr. vol. 8, p. 142-43, Basinger]. The House, Senate and DEP are allowed to comment and to make objections to the SFWMD budget, and they are entitled to a response from the SFWMD. [Tr. vol. 8, pp. 146-147, Basinger]. But they may not actually veto any portion of the budget. [Tr. vol. 8, p. 147, Basinger]. Only the Governor has veto power. [See Tr. vol. 8, p. 147, Basinger].

The SFWMD has a self-insurance program which is accounted for in the SFWMD general funds. [Tr. vol. 8, pp. 148, 152, Basinger]. There is an account block which is designated at the SFWMD's bank, which is a sub-fund in the general fund for the self-insurance fund. [Tr. vol. 8, p. 153, Basinger]. They also have a series of private insurance policies. [Tr. vol. 8, p. 148, Basinger]. For example, the SFWMD carries policy coverage on its buildings of $65 million. [Tr. vol. 8, p. 149, Basinger]. Those policies are layered. [Tr. vol. 8, p. 148, Basinger]. If one of those insurance policies pays off when a claim is made against the SFWMD, that money goes to the SFWMD. [Tr. vol. 8, p. 149, Basinger]. The SFWMD pays the premiums, so the funds would come to the SFWMD, and the funds go to a SFWMD bank account. [Tr. vol. 8, p. 149, Basinger]. The premiums get paid out of a SFWMD bank account. [Tr. vol. 8, p. 149, Basinger]. Sometimes the SFWMD actually has to pay an advance and then get compensation from the insurance company afterwards. [Tr. vol. 8, p. 149, Basinger]. That monetary compensation would also be put in a District bank account. [Tr. vol. 8, p. 149, Basinger]. Payment of money judgments would come from SFWMD funds [Tr. vol. 8, p. 141, Basinger], but SFWMD could ask the State for help if it were subject to a substantial judgment. [Tr. vol. 8, p. 154, Basinger].

The SFWMD can sue and be sued without recourse to State and local government units. [Tr. vol. 8, pp. 150 & 151, Basinger]. The SFWMD has the right to have its own name. [Tr. vol. 8, p. 151, Basinger]. It has the right to issue debt. [Tr. vol. 8, p. 151, Basinger]. It has the right to incur debt. [Tr. vol. 8, p. 151, Basinger]. The SFWMD can buy, lease and mortgage property in its own name. [Tr. vol. 8, p. 106, Basinger]. The SFWMD staff has the authority to enter into contracts. [Tr. vol. 8, pp. 151-52, Basinger].

The SFWMD is separate enough from the State that even its own documents recognize the Federal and State governments as its "partners." [D. Ex. 94 at 64]. One witness for the SFWMD recognized the difference between the SFWMD and the State saying, "I would differentiate State permits and water management permits. These are Water Management District as opposed to State." [Tr. vol. 13, p. 107, Van Horn; D. Ex. 94 at 6]. On another occasion, a defense witness conceded, "when we say that the State is issuing a permit, I usually use that in the context of meaning a permit issued by DEP to the Water Management District, and that's when they do in the case of the stormwater treatment areas. There is a State permit issued to the Water Management District for the operation of those STAs." [Tr. vol. 13, p. 108, Van Horn].

B. The Plaintiff Environmental Organizations Have Shown Facts Establishing Their Right To Bring This Action

The parties stipulated that Florida Wildlife Federation, Friends of the Everglades, and Fishermen Against Destruction of the Environment have standing to bring this action in fact and in law.[22] [D.E. 536, p. 5, attachment 5A]. Additionally, Plaintiff Florida Wildlife Federation, a conservation organization consisting of approximately 14,000 members that has the protection of Lake Okeechobee from pollution as a major organizational focus, produced twenty-five

[22] In the Pre-trial Stipulation, the parties wrote, "As to standing the parties agree that uncontested fact numbers 1, 1A, 2, and 2A in Section 5A of this Stipulation are sufficient to establish standing as to Plaintiffs Florida Wildlife Federation, Friends and FADE, and that no further testimony or other evidence is necessary to establish standing as to those parties. Without waiving any objection to the admissibility of any evidence, to the extent evidence admitted at trial may indicate that backpumping from pump stations S-2, S-3, and S-4 adversely affect the waters of Lake Okeechobee, such evidence shall be considered as additional evidence in this action. Without being a party to the stipulation as stated in this paragraph, the United States is satisfied that Article III standing exists in this case." [D.E. 536, p. 5].

affidavits of its members clearly demonstrating injury to their use and enjoyment of Lake Okeechobee caused by backpumping. [D.E. 386, Ex. 1; UNDIS. FACT of P. 1, 1A]. These members fish, hunt, kayak, canoe, boat and observe wildlife around the Lake, including the southern area of the Lake, and many have curtailed their use of the Lake due to the pollution caused by backpumping. [D.E. 386, Ex. 1; UNDIS. FACT of P. 1, 1A]. Some of these members live close to the Lake and depend on the Lake as a drinking water source. [D.E. 386, Ex. 1; UNDIS. FACT of P. 1, 1A]. Likewise, the affidavit of Manley Fuller, President of Florida Wildlife Federation, illustrates the continued involvement of FWF in legal and administrative challenges to protect Lake Okeechobee and how eliminating the pollution from backpumping is germane to FWF's purpose as an organization. [D.E. 386, Ex. 1].

Testimony presented at trial clearly indicated that several cities that depend on the Lake for drinking water have complained to the SFWMD that backpumping causes color and unpleasant odor and taste in their water supplies. [Tr. vol. 4, pp. 19-20, Zebuth; P. Ex. 65C]. Additionally, it was shown that backpumping discharges a highly visible plume or "slug" of nutrient rich, highly colored reddish to blackish water that is completely different than the Lake water (including water in the Rim Canal). [Tr. vol. 1, pp. 68-74, 79-81, 98-99, 120, Crisman; P. Ex. 65A (photograph of "typical highly colored nature of water from S-2"); P. Ex. 7 (Mireau Deposition)].

Backpumping impacts an area the size of a large lake, and can influence the quality of Lake water up to nine miles into the Lake's southern end. [Tr. vol. 2, pp. 42-43, P. Gray; Tr. vol. 3, p. 16, P. Gray; P. Ex. 115, p. 178]. The southern end is of particular concern because it provides feeding grounds for wading birds and is a primary location for recreational fishing. [P.

Ex. 52, p. 35]. Several of Plaintiffs' members have witnessed this plume and the odor and severe discoloration that accompany it. [D.E. 386, Ex. 1]. Likewise, The S-2, S-3, and S-4 pumping stations continue to violate nitrogen loadings limits set on an interim level by DEP in the early 1980s. [Tr. vol. 5, pp. 180-81, Zebuth; P. Ex. 45]. Nitrogen has long been identified as an important eutrophication factor in the south end of the Lake. [Tr. vol. 1, pp. 94-95, Crisman; Tr. vol. 2, pp. 41-42, P. Gray].

Further, pollutants contained in backpumped water can stimulate the growth of blue-green algae which can be toxic to wildlife and humans, and cause skin rashes and nausea. [Tr. Vol. 1, pp. 102-103; 105-107 Crisman; P. Ex. 52; UNDIS. FACT of P. 33]. Consequently, algae blooms "pose a significant threat to many of the uses of the lake including drinking water, habitat, nesting, fishing, and swimming," [P. Ex. 20, p. 30], and reduce the enjoyment of the Lake by its users. [UNDIS. FACT of P. 34]. Because these harms are so clearly traceable to backpumping, the issuance of an NPDES permit for backpumping would redress the injuries suffered by Plaintiffs and their members.

C. Intervenor, The Miccosukee Tribe, Has Shown Facts Establishing Its Right To Intervene In This Action

Intervenor, the Tribe, is a federally-recognized and federally-protected Indian Tribe, exercising powers of self-government under a tribal constitution approved by the Secretary of the Interior, pursuant to the Indian Reorganization Act of 1934, 25 U.S.C. § 476. [UNDIS. FACT of P. 3].

The Miccosukee Tribe is represented on the South Florida Ecosystem Task Force, the Working Group to the Task Force, the Science Coordination Group under the South Florida Eco-System Restoration Task Force and the RECOVER Leadership Team under the provisions of the

regulations that support the Comprehensive Everglades Restoration Plan. [Tr. vol. 5, pp. 120-21, Rice]. RECOVER stands for restoration, coordination and verification, and it has been formed to guide the entire restoration process from a regional viewpoint. [Tr. vol. 5, p. 120, Rice].

The Tribe is on many project development boards, teams and committees and is a member of an advisory committee which is a committee to determine the regulation schedule for the southern part of the Everglades. [Tr. vol. 5, p. 121, Rice; Tr. vol. 14, p. 58, Wade]. All these committees have a relationship to the Lake Okeechobee issues. [Tr. vol. 5, p. 121, Rice].

The Nation's civil works water programs are enacted by Congress, and the custom is to do it in Water Resources Development Acts ("WRDAs"). [Tr. vol. 5, p. 121, Rice]. The WRDAs, basically, authorize the Corps of Engineers to do certain things in the civil works arena. [Tr. vol. 5, p. 121, Rice]. The WRDAs give the Corps of Engineers all the authorities they need to go out and execute their civil works programs, not including money. [Tr. vol. 5, p. 122, Rice]. There are special considerations given to the Miccosukee Tribe, in WRDA 2000. [Tr. vol. 5, p. 122, Rice].

Water Conservation Area 3A is very important to the Miccosukee Tribe. [Tr. vol. 14, p. 115, MacVicar]. The state owned lands of Water Conservation Area 3A are on perpetual lease to the Miccosukee Tribe to be kept in their natural state as a result of the lands claim settlement back in the '80s. [Tr. vol. 5, pp. 119-23, Rice]. A canal that passes right through Water Conservation 3A at times carries Lake Okeechobee water. [Tr. vol. 14, pp. 58-59, Wade]. Water from Lake Okeechobee gets on to the lands where the perpetual lease is in WCA 3A. [Tr. vol. 5, pp. 119 & 123, Rice]. The water contains phosphorous levels higher than the 10 parts per billion criteria, which is the water quality criteria for phosphorous in the Everglades. [Tr. vol. 5,

p. 120, Rice]. Nutrient concentrations from Lake Okeechobee have contributed to the bloom of algae in parts of the system when that water is coming from Lake Okeechobee. [Tr. Vol. 10, p. 28, Strowd]. And, the SFWMD proposed putting additional water on Water Conservation Area 3 as an alternative to be considered to prevent eutrophication of Lake Okeechobee. [Tr. vol. 7, p. 8, Zebuth; P. Ex. 111 at 58]. The Water Conservation Areas are part of the Everglades, including Water Conservation Area 3A. [Tr. vol. 5, pp. 71-71, Rice; D. Ex. 1].

The Interim Action Plan shifted waters that S-2 and S-3 might have otherwise put into Lake Okeechobee to being discharged down to the water conservation areas. [Tr. Vol. 10, 23, Strowd]. That includes Water Conservation Area 3A, where the Tribe's lease is. [Tr. Vol. 10, 23, Strowd; Tr. vol. 5, p. 123, Rice]. Furthermore, damage to the tree islands down near, the reservation was accelerated by the Interim Action Plan. [Tr. vol. 14, p. 121, Wade].

Defendant's own Exhibit 94 at page 22 states, "[t]he onward march of the white brother into the last hunting ground of the Seminoles," and the picture shows sawgrass marshes staked out for drainage. [D. Ex. 94 at 22]. The Miccosukee have been described as the independent Seminoles. [Tr. Vol. 10, p. 29, Strowd].

CONCLUSIONS OF LAW

XII. THE PLAINTIFFS HAVE ARTICLE III STANDING AND THE MICCOSUKEE TRIBE IS A PROPER INTERVENOR

A. Plaintiffs' Standing Is Conceded And The Evidence Supports Their Article III Standing

The standing of Plaintiffs was conceded by defendants. *See* Pre-Trial Stipulation, [D.E. 536, p. 5], and is supported by the undisputed facts. The standing inquiry in environmental cases must reflect the context in which the suit is brought. An effect on "recreational, aesthetic, and economic interests" is a cognizable injury for purposes of standing. *See Friends of the Earth,*

Inc. v. Laidlaw Envtl. Servs., Inc., 528 U.S. 167 (2000); *see also Lujan v. Defenders of Wildlife*, 504 U.S. 555, 562-63 (1992).

1. Plaintiffs' Standing is Conceded in the Undisputed Facts

Florida Wildlife Federation ("FWF") is a conservation organization consisting of approximately 14,000 members that has the protection of Lake Okeechobee from pollution as a major organizational focus. [D.E. 386, Ex. 1; UNDIS. FACT of P. 1]. FWF's members use and enjoy Lake Okeechobee, including the southern area of the Lake, for fishing, hunting, kayaking, canoeing, boating, and observing wildlife. *Id.* Additionally, some of these members reside near the Lake and some depend on the Lake as a drinking water source. *Id.* Because of the pollution caused by Defendant's backpumping, many of FWF's members have curtailed their use of the Lake. [D.E. 386, Ex. 1; UNDIS. FACT of P. 1A].

The Friends of the Everglades ("FOE") was founded by Marjory Stoneman Douglas for the purpose of protecting and preserving the entire Everglades system, including Lake Okeechobee. [UNDIS. FACT of P. 2]. Many members use the Lake frequently. *Id.* Fisherman Against Destruction of the Environment ("FADE") was formed for similar purposes. *Id.* Five members of Friends of the Everglades and two from FADE have provided deposition testimony regarding the harm they have received from the backpumping from the South Florida Water Management District's ("SFWMD") S-2 and S-3 pumps into Lake Okeechobee. *Id.* Some members of both FOE and FADE have curtailed their use of the Lake due to the harmful effects of backpumping. [UNDIS. FACT of P. 2A].

2. Plaintiffs Have Met Article III as well as Statutory Standing Requirements

An organization has standing to bring suit on behalf of its members when (1) the interests it seeks to protect are germane to the organization's purpose; (2) neither the claim asserted nor the relief requested requires the participation in the suit of each of the individual members; and (3) at least one member would otherwise have standing to sue in his own right. *See Hunt v. Wash. State Apple Adver. Comm'n*, 432 U.S. 333, 343 (1977) (citations omitted); *United Food and Commercial Workers Union Local 751 v. Brown Group*, 517 U.S. 544, 544-45 (1996). Based on the evidence above, FWF, FADE and FOE clearly have satisfied the first two prongs of representational standing.

The third prong, whether at least one member would otherwise have standing to sue in his own right, is also easily met. An individual has standing if: (a) he has been injured; (b) there is a causal connection between the injury and the conduct complained of; and (c) it is likely that the injury will be redressed by a favorable decision. *See Lujan,* 504 U.S. at 560-61 (citations omitted). It is only necessary for Plaintiffs to establish that one of the Plaintiff organizations has standing. *See Military Toxics Project v. EPA*, 146 F.3d 948, 954 (D.C. Cir. 1998) ("[I]f one party has standing in an action, a court need not reach the issue of standing of other parties when it makes no difference to the merits of the case.") (citations omitted). Thus, only one member of one of the Plaintiff organizations is required to establish standing in his own right. Despite this requirement, each of the twenty-five FWF members who have provided affidavits clearly establishes the necessary elements of standing. [D.E. 386, Ex. 1].

As the Supreme Court made clear in *Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc.*, 528 U.S. 167 (2000), the relevant showing for purposes of standing is not injury to

the environment, but injury to the Plaintiff. *Id.* at 181. To insist upon the opposite, would be "to raise the standing hurdle higher than the necessary showing for success on the merits in an action alleging noncompliance with an NPDES permit." *Id.* at 169. Additionally, the Court wrote:

> We have held that environmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons "for whom the aesthetic and recreational values of the area will be lessened" by the challenged activity.

Id. at 183 (citing *Sierra Club v. Morton*, 405 U.S. 727, 735 (1972)).

Finally, Plaintiffs also meet the statutory requirements for standing. The citizen suits provision confers standing on any person or persons having an interest that is or may be adversely affected. 33 U.S.C. § 1365. "The language chosen by Congress confers standing on a 'broad category of potential plaintiffs' who 'can claim some sort of injury,' be it actual or threatened, economic or noneconomic." *Friends of the Earth, Inc. v. Gaston Copper Recycling, Corp.*, 204 F.3d 149, 155 (4th Cir. 2000) (citing *Middlesex County Sewerage Auth. v. Nat'l Sea Clammers Ass'n*, 453 U.S. 1, 16-17 (1981)).

3. Plaintiffs' Standing is Supported by the Testimony at Trial

Testimony presented at trial clearly indicated that several cities that depend on the Lake for drinking water have complained to the SFWMD that backpumping causes color and unpleasant odor and taste in their water supplies. [Tr. vol. 4, pp. 19-20, Zebuth; P. Ex. 65C]. Additionally, it was shown that backpumping discharges a highly visible plume or "slug" of nutrient rich, highly colored reddish to blackish water that is completely different than the Lake Okeechobee's water (including water in the Rim Canal). [Tr. vol. 1, pp. 68-74, 79-81, 98-99, 120, Crisman; P. Ex. 65A (photograph of "typical highly colored nature of water from S-2"); P. Ex. 7 (Mireau Deposition)]. Backpumping impacts an area the size of a large lake, and can

influence the quality of Lake water up to nine miles into the Lake's southern end. [Tr. vol. 2, pp. 42-43, P. Gray; Tr. vol. 3, p. 16, P. Gray; P. Ex. 115, p. 178]. The southern end is of particular concern because it provides feeding grounds for wading birds and is a primary location for recreational fishing. [P. Ex. 52, p. 35].

Several of Plaintiffs' members have witnessed this plume and the odor and severe discoloration that accompany it. [D.E. 386, Ex. 1]. Likewise, the S-2, S-3, and S-4 pumping stations continue to violate nitrogen loadings limits set on an interim level by DEP in the early 1980s. [Tr. vol. 5, pp. 180-81, Zebuth; P. Ex. 45]. Nitrogen has long been identified as an important eutrophication factor in the south end of the Lake. [Tr. vol. 1, pp. 94-95, Crisman; Tr. vol. 2, pp. 41-42, P. Gray]. Further, pollutants contained in backpumped water can stimulate the growth of blue-green algae, which can be toxic to wildlife and humans, often causing skin rashes and nausea. [Tr. vol. 1, pp. 102-103; 105-107, Crisman; P. Ex. 52; UNDIS. FACT of P. 33]. Consequently, algae blooms "pose a significant threat to many of the uses of the lake including drinking water, habitat, nesting, fishing, and swimming," [P. Ex. 20, p. 30], and reduce the enjoyment of the Lake by its users. [UNDIS. FACT of P. 34].

Due to these harmful effects of backpumping, many of Plaintiffs' members have curtailed or ceased their use of the Lake, and their enjoyment of the Lake has been reduced. [D.E. 386, Ex. 1; UNDIS. FACT of P. 1A, 2A]. Moreover, these injuries are directly traceable to the challenged activity, backpumping, and would be redressed by the issuance of an NPDES permit that would halt the backpumping and require the SFWMD to meet water quality standards in Lake Okeechobee. FWF, FOE and FADE have therefore demonstrated the required threshold for standing. Plaintiffs have met, and exceeded the requirements for standing.

B. The Court Has Already Found That The Tribe Meets The Requirements For Intervention Under Fed. R. Civ. P. 24(a), And The Evidence At Trial Supports This Finding

On December 9, 2002, the Honorable Donald M. Middlebrooks found the Miccosukee Tribe of Indians of Florida (the "Tribe") met the four-part test for intervention as a matter of right for this case. [D.E. 40]. On November 23, 2005, this Court denied the SFWMD and U.S. Sugar's renewed motion to vacate the Tribe's intervention. *See* [D.E. 527 at 3-4].

Under the Everglades National Park Enabling Act, 16 U.S.C. § 410(b), Congress ratified the Tribe's aboriginal rights to reside in Everglades National Park. The evidence at trial amply supports the Tribe's intervention under Fed. R. Civ. P. 24(a). The Tribe's landed interests include, but are not limited to: a perpetual lease for the use and occupancy of substantial portions of WCA-3A. [Tr. vol. 5, pp. 122-23, Rice]. Indeed, the SFWMD has recognized the Tribe's interests in WCA 3A. *See* SFWMD's Motion Opposing Intervention [D.E. 36 at 5]. The water in the conservation areas, including WCA-3A, are part of the Everglades. [Tr. vol. 5, p. 71-72, Rice; D. Ex. 1].

The defendants have admitted that the health of the Lake directly affects the Everglades. [UNDIS. FACT of P. 8]. The testimony at trial showed that water from Lake Okeechobee reaches WCA 3A, [Tr. vol. 5, pp. 119, 123, Rice], that the water contains phosphorus at levels higher than 10 parts per billion (ppb) (which is the water quality criteria necessary for the Everglades) [Tr. vol. 5, p. 120, Rice], and that the Interim Action Plan ("IAP") shifted waters that might have otherwise gone into the Lake into the water conservation areas, including WCA 3A. [Tr. vol. 5, p. 123, Rice]. The perpetual lease in WCA 3A requires these lands to be kept in their natural state. [Tr. vol 5, p. 123, Rice]. In addition, the evidence demonstrated that the Tribe's interests are affected by the decisions made on the discharges from the S-2, S-3 and S-4

pump stations. *See* P. Ex. 111, p. 58, (which shows a proposed alternative to prevent eutrophication of Lake Okeechobee that involves diverting the pollutants onto the Tribe's lands in WCA 3A). [Tr. vol. 7, p. 8, Zebuth].

Therefore, even though the Tribe does not have to demonstrate Article III standing because the Plaintiffs' standing is conceded by defendants and supported by the evidence, *Chiles v. Thornburgh*, 865 F.2d 1197, 1213 (11th Cir. 1989) ("a party seeking to intervene need not demonstrate that he has standing in addition to meeting the requirements of Rule 24 as long as there exists a justiciable case and controversy between the parties already in the lawsuit"), the evidence at trial demonstrated that the potential harm to the Tribe from the discharges would be sufficient even for Article III standing, and is certainly more than sufficient for Rule 24 intervention.[23]

XIII. ORDINARY PRINCIPLES OF STATUTORY CONSTRUCTION, THE STATUTORY FRAMEWORK OF THE CWA, AND THE PLAIN LANGUAGE OF THE ACT COMPEL THE CONCLUSION THAT DISCHARGES FROM THE S-2, S-3 AND S-4 STRUCTURES REQUIRE NPDES PERMITS

The plain and unambiguous language of the Clean Water Act ("CWA")[24] prohibits the "discharge of any pollutant" without a National Pollutant Discharge Elimination System ("NPDES") permit and expressly defines such discharges as "any addition of any pollutant to

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[23] Indeed, two other federal judges have found that the Tribe has standing with regard to environmental lawsuits that affect the Everglades, and particularly WCA 3A, where the Tribe has a leasehold interest. *See United States v. SFWMD*, 88-1886-CIV-Hoeveler (S.D. Fla. filed Oct.. 11, 1988) ("In this case, the Tribe has more than a proprietary interest in its property."), [D.E. 519, Ex. 1 at 6], and *United States v. SFWMD*, 88-1886-CIV-Moreno (S.D. Fla. filed Oct. 11, 1988) [D.E. 519, Ex. 2].

[24] The Federal Water Pollution Control Act ("FWPCA") is commonly known as the Clean Water Act ("CWA"), 86 Stat. 816, as amended 33 U.S.C. § 1251 *et seq.*

navigable waters from any point source." 33 U.S.C. §§ 1311, 1342 and 1362(12)(A). As shown more fully below, because defendant SFWMD pumps water containing pollutants into Lake Okeechobee, the plain meaning of the clear text of the CWA requires that the SFWMD obtain NPDES permits for the S-2, S-3 and S-4 structures. The pump stations are obviously point sources, the pumped water clearly contains pollutants, and the Lake constitutes navigable water.

A. Applicable Principles Of Statutory Construction Require That A Statute Be Read In Context; Any Inquiry Ceases If The Language Is Unambiguous

Statutory construction "begin[s] with the language of the statute." *Barnhart v. Sigmon Coal Co.*, 534 U.S. 438, 450 (2002). Statutory language must be read in the proper context and not in isolation. *Koons Buick Pontiac GMC, Inc. v. Nigh*, 543 U.S. 50, 60 (2004). "The plainness or ambiguity of statutory language is determined by reference to the language itself, the specific context in which that language is used, and the broader context of the statute as a whole." *Robinson v. Shell Oil Co.*, 519 U.S. 337, 341 (1997). The inquiry ceases "if the statutory language is unambiguous and 'the statutory scheme is coherent and consistent.'" *Barnhart*, 534 U.S. at 450 (internal citations omitted). The authoritative statement in a statute is the statutory text, not the legislative history or any other extrinsic material. *See Exxon Mobil Corp. v. Allapattah Services, Inc.*, 125 S. Ct. 2611, 2626 (2005). In the CWA, the authoritative statement regarding discharges of pollutants is that the CWA "prohibits 'the discharge of any pollutant by any person' unless done in compliance with some provision of the Act." *SFWMD v. Miccosukee Tribe*, 541 U.S. 95, 102 (2004) (quoting 33 U.S.C. § 1311(a)).

B. The Regulatory Structure And Cooperative Federalism Of The CWA Show That All Point Source Discharges Require NPDES Permits

The CWA is divided into six subchapters. 33 U.S.C. § 1251 [§ 101] *et seq.* Only four of these, Subchapters I, III, IV and V, contain provisions relied upon by a party in this case.

1. The General Policy Provisions of the CWA

The Congressional Declaration of Goals and Policies is set forth in Subchapter I of the CWA. 33 U.S.C. §§ 1251-1274. As the Supreme Court has explained, the CWA "anticipates a partnership between the States and the Federal Government, animated by a shared objective: 'to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.'" *Arkansas v. Oklahoma*, 503 U.S. 91, 101 (1992) (quoting 33 U.S.C. § 1251(a)). The CWA establishes "a comprehensive program for controlling and abating water pollution," *Train v. City of New York*, 420 U.S. 35, 37 (1975), and declares the "national goal that the discharge of pollutants into the navigable waters be eliminated. . . ." *Id.* at 46 n.10 (citing 33 U.S.C. § 1251(a)(1)).

Subchapter I also contains general policy statements that the CWA is not intended to impair the "authority of each State to allocate *quantities* of water within its jurisdiction," 33 U.S.C. § 1251(g) [§ 101(g)] (emphasis added), and that the CWA preserves "the primary responsibilities and rights of the States to prevent, reduce, and eliminate pollution." 33 U.S.C. § 1251(b) [§ 101(b)]. Neither of these provisions purport to exempt States from the express requirements of the CWA.

2. The Water Quality Controls Set Forth in the CWA

Subchapter III is entitled "Standards and Enforcement" and implements the general policy provisions of the CWA by providing two sets of water quality controls. 33 U.S.C. §§ 1311-1346; *see Arkansas*, 503 U.S. at 101. "'Effluent limitations' are promulgated by the EPA and restrict the quantities, rates, and concentrations of specified substances which are discharged from point sources." *Id.* (quoting §§ 1311 & 1314). "Water quality standards" are required to be promulgated by the states with substantial guidance by the EPA, and "establish the desired

condition of a waterway." *Id.*; 33 U.S.C. § 1313 [§ 303]; 40 C.F.R. pt. 131 (2002). States are also required to establish total maximum daily loads (TMDLs) for pollutants discharged into water bodies which are not meeting applicable water quality standards and a continuing planning process for implementing the TMDL, both of which must be approved by the EPA. 33 U.S.C. § 1313(d).

3. The Interdependent Regulation of Point Source and Nonpoint Source Pollution

Section 1311 of Subchapter III makes it illegal to discharge pollutants from any point source, except in compliance with effluent standards, effluent limitations and NPDES permits. *See* 33 U.S.C. § 1342 [§ 402]. A "point source" is defined as "any discernible, confined and discrete conveyance . . . ." 33 U.S.C. § 1362(14). Point sources of pollutants include all "discrete conveyances" because they may be effectively regulated by a permit system. *See United States v. Earth Sciences, Inc.*, 599 F.2d 368, 373 (10th Cir. 1979). Accordingly, "[e]*very* point source discharge is prohibited unless covered by a permit." *City of Milwaukee v. Illinois and Michigan*, 451 U.S. 304, 318 (1981) (emphasis in original).

Nonpoint sources are diffused sources of pollutants, not associated with a discrete conveyance, which are therefore more difficult to regulate through permits. *See, e.g., League of Wilderness Defenders/Blue Mountains Biodiversity Project v. Forsgren*, 309 F.3d 1181, 1184 (9th Cir. 2002) (nonpoint sources are diffused sources not associated with a discrete conveyance); *see also Earth Sciences*, 599 F.2d at 373. Nonpoint sources are therefore generally regulated under state water quality management programs with EPA guidance. *See* 33 U.S.C. §§ 1313, 1329. In particular, states are required to implement management programs for controlling nonpoint sources of pollution, which must be approved by the EPA. 33 U.S.C. § 1329. Section

1314(f) is an information and guidelines section, and provides for identification and evaluation of nonpoint sources of pollution and for processes, procedures and methods to control pollution from certain enumerated activities. 33 U.S.C. § 1314(f) [§ 304(f)]. Nowhere does the CWA state or imply that these nonpoint source programs substitute for NPDES regulation where point sources are involved.

4. The NPDES Permit Program

Subchapter IV, entitled "Permits and Licenses," describes the National Pollutant Discharge Elimination System ("NPDES") and sets forth the procedures, conditions and terms of these permits. 33 U.S.C. §§ 1341-1346. NPDES is the primary means for enforcing the water quality control limitations and standards provided in the CWA. *Arkansas*, 503 U.S. at 101; *California*, 426 U.S. at 205; *see also Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 489 (1987); *Waterkeeper Alliance, Inc. v. U.S. EPA*, 399 F.3d 486, 490-91 (2d Cir. 2005). "An NPDES permit serves to transform generally applicable effluent limitations and other standards including those based on water quality into the obligations (including a timetable for compliance) of the individual discharger . . . ." *California*, 426 U.S. at 205 (citing 33 U.S.C. § 1319). NPDES permits allow dischargers, who obtain a permit, to discharge a specified amount of the pollutant at levels below thresholds incorporated into the permits. *See* 33 U.S.C. § 1342. The NPDES permits are designed to allow the lowest level of discharge technologically feasible. *See* 33 U.S.C. § 1311(b)(1)(A)-(C); *see also* 40 C.F.R.§ 122.4(a), (d) (permits must ensure compliance with water quality requirements).

The EPA has the authority in the first instance to issue NPDES permits. *See* 33 U.S.C. § 1342(a)(1). However, consonant with its policy to recognize, preserve and protect the primary responsibilities and rights of States, to prevent, reduce and eliminate pollution, Congress

provided that each State may establish and administer its own permit program if the program conforms to federal guidelines and is approved by the Administrator of the EPA. *See* 33 U.S.C. § 1342(b); *Arkansas*, 503 U.S. at 102. The EPA retains the authority to review the operation of a State's permit program, and each permit issued by a State is subject to EPA review for conformity with the guidelines and requirements of the CWA. *See California*, 426 U.S. at 208 (citing 33 U.S.C. §§ 1342(d)(1), (2) & (3)).

5. The General Provisions of the CWA and the Citizen Suits Provision

Subchapter V is entitled "General Provisions" and includes 33 U.S.C. §§ 1361-1377. The CWA's definition section is found in this Subchapter V. *See* 33 U.S.C. § 1362. Subchapter V also includes the citizen suits provisions of the CWA, critical to enforcement of the CWA, *see* 33 U.S.C. § 1365 [§ 505] and 33 U.S.C. § 1370 [§ 510(2)], which recognizes the State's jurisdiction over its waters, except as otherwise expressly provided in the CWA.

C. <u>The CWA Clearly And Unambiguously Requires NPDES Permits For The S-2, S-3 And S-4 Structures</u>

The CWA requires an NPDES permit for "the discharge of *any* pollutant by *any person*" and expressly defines such discharges as "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. §§ 1311, 1342 and 1362(12)(A) (emphasis added). The EPA regulation further clarifies that "discharge of a pollutant" includes additions of pollutants into waters of the United States from "surface runoff which is collected or channeled by man; [and] discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works. . . ." 40 C.F.R. § 122.2.

The term "person" means "an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body." 33 U.S.C.

§ 1362(5). The term "municipality" includes "district[s]." 33 U.S.C. § 1362(4). Thus, notwithstanding general policy statements regarding the state's jurisdiction over its waters, *see, e.g.*, 33 U.S.C. § 1251(b) and (g) and 1370(2) [§§101(b) and (g) § 510(2)], the plain language of the CWA expressly requires state and local governments to obtain permits for discharges of pollutants from point sources. 33 U.S.C. § 1342.

As shown below, NPDES permits are required for the S-2, S-3 and S-4 structures because they are undeniably point sources that are discharging pollutants into the Lake. Moreover, based on the Supreme Court's decision involving the S-9 pump station, backpumping water that contains pollutants into Lake Okeechobee is clearly an "addition" of pollutants to navigable waters because the evidence has shown the Lake is "meaningfully distinct" from the Canals. *See S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians of Fla.*, 541 U.S. 95 (2004).

1. The S-2, S-3 and S-4 Structures are Point Sources because they are Discrete Conveyances from Which Pollutants are Discharged

Under the CWA, a point source is: "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." 33 U.S.C. § 1362(14). "Every point source discharge is prohibited unless covered by a permit." *City of Milwaukee*, 451 U.S. at 318.

The undisputed facts and evidence presented at trial demonstrate that the S-2, S-3 and S-4 structures are clearly point sources because they are "pipes" from which pollutants are discharged. [UNDIS. FACT of P. 14; Tr. vol. 10, p. 29, Strowd]. Each pump station contains three or four pumps, each powered by a diesel engine approximately the size of three tractor trailer engines, [Tr. vol. 4, p. 66, Wise; Tr. vol. 20, p. 83, Mac Vicar]. In addition, each pump

station drives a pump with an impellor that is 12 feet in diameter and a pumping station produces a flow rate comparable to the flow of a medium sized Florida river (with all pumps operating). [Tr. vol. 4, pp. 65-67, Wise].

It cannot be disputed that these massive pump stations are point sources. *See, e.g., City of Milwaukee,* 451 U.S. at 320-21 (overflows from discrete discharge points into Lake Michigan from city sewer systems which gathered both sewage and stormwater runoff are point source discharges); *Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York*, 273 F.3d 481, 492 (2d Cir. 2001) (tunnel which conveyed pollutants from reservoir to creek was a point source); *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F.3d 526, 531 (2001) (delivery hose which conveyed pollutants was a point source); *see also Sierra Club v. Abston Constr. Co.*, 620 F.2d 41, 45-46 (5th Cir. 1980) (gravity flow, resulting in a discharge into a navigable body of water, may be a part of a point source discharge if the miner at least initially collected or channeled the water or other materials); *see also* 2 W. Rodgers, Envtl. L., § 4.10 at 148.

2. The Waters Discharged from the S-2, S-3 and S-4 Pump Stations Contain Pollutants which Harm the Lake

"Pollutant" is defined very broadly in the CWA to include "dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water." 33 U.S.C. § 1362(6). "Courts have interpreted the definition of pollutant 'to encompass substances not specifically enumerated but subsumed under the broad generic terms' listed in § 1362(6)." *U.S. Pub. Interest Research Group v. Atl. Salmon Me., LLC.*, 215 F. Supp. 2d 239, 246 (D. Me. 2002). The definition of "pollutant" is meant to "leave out very little." *Id.* at 247.

The EPA regulations also specify, in terms of chemistry, the water quality constituents contemplated as pollutants by the CWA. *See, e.g.,* 33 U.S.C. § 1314(a)(4) and 40 C.F.R. § 401.16 (list of conventional pollutants); 40 C.F.R. pt. 122, App. D (testing requirements for CWA pollutants which are listed). As the D.C. Circuit has explained, under the CWA, a pollutant falls into one of three categories: 1) toxic pollutants; 2) conventional pollutants; and 3) nonconventional pollutants:

> The term "toxic pollutant" means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.
>
> *Id.* § 1362(13). "Conventional pollutants" include, but are not limited to, "pollutants classified [by EPA] as biological oxygen demanding, suspended solids, fecal coliform, and pH." *Id.* § 1314(a)(4). "Nonconventional pollutants" are those which are neither toxic nor conventional.

Nat'l Res. Def. Counsel, Inc. v. EPA, 822 F.2d 104, 110 n.5 (D.C. Cir. 1987). EPA's administrative rule specifically lists "color," "phosphorus," "nitrogen," and a variety of other components and parameters as conventional and nonconventional pollutants. 40 C.F.R. pt. 122, App. D; 40 C.F.R. § 401.16. In the S-9 decision, the SFWMD conceded that "phosphorus is a pollutant . . . within the meaning of the Act." *Miccosukee*, 541 U.S. at 102; *see also Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486, 494 (2d Cir. 2005) (noting that nitrogen and phosphorus are pollutants according to EPA).

The evidence presented at trial demonstrated that the pump stations are discharging water

from the Canals south of the Lake which contain at least the following pollutants: color, nitrogen, and phosphorus, each of which is listed as a pollutant in the EPA's administrative rules [Tr. vol. 1, pp. 50-51, 88-94, Crisman; 40 CFR § 122 App. D]; total suspended solids and high biological demand (listed by EPA as pollutants at 40 CFR § 401.16), dissolved solids (included dissolved organics), low quantities of dissolved oxygen, and un-ionized ammonia [P. Ex. 94, App. F; P. Ex. 9; Tr. vol. 3, pp. 98-101, 103-104, Zebuth; Tr. vol. 6, pp. 5-6, Zebuth; Tr. vol. 1, pp. 50-51, 88-94, Crisman]. These pollutants, considered detrimental to the Lake, are conveyed into the Lake by the pumps, [Tr. vol. 1, pp. 88, 93-95, 98-103, Crisman] and they include municipal, industrial and agricultural waste. [Tr. vol. 5, pp. 76, 114-15, 162, Rice].

Dr. Crisman identified pollutants such as low dissolved oxygen, color and biological oxygen demand, as well as alkalinity, phosphorus and nitrogen that were much higher in the Canals, from which the pumps drew water, than in the Lake into which the structures pumped. [Tr. vol. 1, pp. 49-55, Crisman]. Dr. Crisman testified that color is a pollutant because it takes oxygen out of the system; there are color variations from operation of the S-2, S-3 and S-4 pumps. [*Id.* at 80-81, 98-99]. Biological oxygen demand is a pollutant because "it is the amount of easily decomposable organic matter to be using up the finite amount of oxygen in a system." [*Id.* at 100]. Nitrogen is a pollutant because nitrogen can be the limiting agent if there is an excess of phosphorus. [*Id.* at 101]. In addition, phosphorus within the Lake's water column increased dramatically from 40 parts per billion (ppb) in the early 1970s to 145 ppb in 2000. [UNDIS. FACT of P. 49]. Historically, the phosphorus in the Lake was 20-40 ppb. [Tr. vol. 2, p. 26, Gray]. Enhanced inputs of nitrogen, in the form of agricultural canal water have caused

problems in the Lake, including the presence of toxic algal blooms. [Tr. vol. 1, pp. 105-114, Crisman].

To state a violation of the CWA, a plaintiff need only show that the defendant discharged a pollutant into a water of the United States from a point source without a permit. *Sierra Club v. El Paso Gold Mines, Inc.*, 421 F.3d 1133, 1141-42 (10th Cir. 2005). A plaintiff does not need to show harm to the navigable water. *United States v. Hubenka*, 438 F.3d 1026, 1035 (10th Cir. 2006). Moreover, even if harm had to be demonstrated, it is clear that backpumping from the Canals into the Lake is adding pollutants and has harmed the Lake in the past, is harming the Lake now, and will continue to harm the Lake if not stopped. [Tr. vol. 2, pp. 23, 24-25, Gray; Tr. vol. 3, pp. 8-9, Gray; Tr. vol. 3, pp. 103-04, Zebuth].

3. Lake Okeechobee is a Navigable Body of Water within the Meaning of the CWA

"Navigable waters" is defined as the "waters of the United States." 33 U.S.C. § 1362(7). It is undisputed that Lake Okeechobee "is a navigable water, i.e., a water of the United States." [UNDIS. FACT of P. 5].

4. The S-2, S-3 and S-4 Discharges are "Adding" Pollutants to Lake Okeechobee because the Lake is Meaningfully Distinct from the Canals from which the Pollutants are Withdrawn

As noted above, the term "discharge of a pollutant" is defined as "any *addition* of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12)(A) (emphasis added). Under any reasonable interpretation of the term "addition," which is not defined in the CWA, the SFWMD adds pollutants to the receiving water -- Lake Okeechobee. If not otherwise defined, words in a statute "will be interpreted as taking their ordinary, contemporary, common meaning." *Perrin v. United States*, 444 U.S. 37, 42 (1979). The plain meaning of "addition" is

the "joining or uniting of one thing to another." Webster's Third New International Dictionary Unabridged, at 24 (1993). To "add" means to increase in number or size. *Id.* Under the Supreme Court's decision in *Miccosukee*, 541 U.S. 95 (2004), the discharges from the S-2, S-3 and S-4 pump stations add pollutants to Lake Okeechobee, which is a navigable water because the evidence has shown that the Lake is meaningfully distinct from the Canals.

The question of whether Lake Okeechobee and the Canals are "meaningfully distinct" waters must be considered in the context of the CWA's purpose "to restore the chemical, physical and biological integrity of the Nation's waters" through permit regulation of discharges from discrete conveyances. *See Arkansas*, 503 U.S. at 101. Consistent with this analysis, the First Circuit in *Dubois v. United States Department of Agriculture*, 102 F.3d 1273 (1st Cir 1996), addressed the following considerations in determining that Loon Pond and the Pemigewasset River were distinct waters for purposes of the CWA: 1) water flowed downstream such that pollutants from the river would not reach the Pond but for the backpumping; 2) different state water quality designations for each body of water; 3) differences in pollutants, i.e., chemistry; 4) differences in the biology found in the waters; and 5) differences in water temperatures. *Dubois*, 102 F.3d at 1296-99. The court in *Dubois* rejected the Forest Service's argument that the waters were not meaningfully distinct because they were hydrologically connected in the sense that water flowed downhill from the Pond to the River. *Id.* The court concluded this principle would thwart the purposes of the CWA because it would apply no matter "how polluted the [River] was or how pristine Loon Pond was." *Id.*

Lake Okeechobee is the most important Lake in Florida because of its vast size and direct influence on the surrounding ecosystem. [UNDIS. FACT of P. 8]. The Canals are man-made

drainage channels dug in the last century which are physically separated from the Lake by the Herbert Hoover Dike. [D. Ex. 205, p. 42; Tr. vol. 5, p. 75, Rice]. As Webster's Dictionary states, a lake is "an inland body of water . . . larger than a pool or pond" whereas a canal is "an artificial water course for transportation and irrigation." Webster's New Twentieth Century Dictionary at 262 & 1015 (2d ed. 1983). It would be obvious to any person viewing the Canals and the Lake that they are separate and distinct bodies of water, and it would frustrate the goal of maintaining the integrity of the Nation's waters to allow the discharge of polluted drainage Canal waters into this extraordinary natural Lake, long recognized as the central part of the Everglades ecosystem and long recognized as its "liquid heart." [P. Ex. 109, p. 1.]

As shown below, an analysis of the *Dubois* factors, in light of the evidence presented at trial and the purpose of the CWA, shows that the Canals from which the S-2, S-3 and S-4 draw the water are meaningfully distinct from the Lake. [*See, e.g.,* Tr. vol. 2, pp. 23, 84 Gray] (Lake Okeechobee's ecological properties and processes are quite distinct from those in and around the Canals).

a. Significant factors in the meaningfully distinct analysis are the chemical, biological and habitat distinctions between the Lake and the Canals

The evidence adduced at trial shows that there are significant chemical, biological and habitant differences between the Lake and the Canals. A recent study done for the Corps of Engineers using water quality data through January 2005 concluded that canal water pumped north into the Lake was of lower quality than Lake water flowing south into the canals. [Tr. vol. 1, pp. 48-50, Crisman; P. Ex. 94 at 19 (F-89)]. Looking at the normal parameters by which quality of water is judged, the canals have only one third as much oxygen as the Lake (a level detrimental to commercially and recreationally important game fish), two and a half times more

nitrogen and double the phosphorus (phosphorus and nitrogen are nutrients that stimulate the growth of algae blooms) [Tr. vol. 2, pp. 53-56, Gray], two and half times the alkalinity in the Lake, and also higher color (caused by the presence of fulvic and humic acids) and higher total suspended solids (such as sediment or algae). [Tr. vol. 1, pp. 39, 48-55, Crisman].

These physical and chemical distinctions lead to biological distinctions - plants and animals that normally occupy the Lake are different than those that inhabit the canals. [Tr. vol. 1, pp. 46-47, Crisman; Tr. vol. 2, pp. 90-94, Gray].

Indeed, the defendants do not dispute that there is a difference in water quality on either side of the structures, [Tr. vol. 1, p. 59, Crisman], and the evidence supports this difference. [P. Ex. 23 at 8; Tr. vol. 1, pp. 61-65, Crisman (there are chemical differences between the Canals and the Lake)]; [Tr. vol. 1, pp. 65-68, 82, Crisman (there are physical biological and chemical differences between the Canals and the Lake)]. With regard to the particular structures, the S-2 has the greatest number of significant differences among parameters, alkalinity, conductivity, dissolved oxygen, nitrogen, phosphorus parameter(s); for the S-3, alkalinity, oxygen, nitrogen and phosphorus; for the S-4, alkalinity, conductivity, dissolved oxygen, nitrogen and phosphorus. [P. Ex. 9]. These biological, chemical and habitat differences show the Lake and the Canals are meaningfully distinct.

b. Another important factor in the meaningfully distinct analysis is that the Lake and the Canals have different designations under state law; the Lake is a Class I drinking water source and the Canals are Class III, designated as recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife

The state designates the Lake and the Canal waters differently. The Lake is a Class I water body, the canals are Class III. The Class III waters of the canals have designated uses such

as recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife [P. Ex. 8, FAC Rule]. The State of Florida has designated the Lake as a drinking water source. FAC Rule 62-302. 400(1) and Rule 62-302.400(12)(b) 22, 26, 43, 47 and 50 (P. Ex. 8, FAC Rule) and [UNDIS. FACT of P. 6]. As a Class I water, the Lake has more stringent water quality criteria than the Class III Canals. [UNDIS. FACT. Of P. 22]. The backpumping that is the subject of this lawsuit conveys Class III water from the District Canals in Lake Okeechobee, a Class I drinking water. [UNDIS. FACT of P. 85]. The different designated uses between the Lake (Class I) and the canals (Class III) is another factor which shows that the Lake and the canals are meaningfully distinct.

c. Still another important factor that can be considered in the meaningfully distinct analysis is that the Lake and the Canals are physically distinct

The Lake and the Canals are physically distinct. [Tr. vol. 5, p. 108, Rice]. Lake Okeechobee is a large bowl-shaped natural lake enclosed by a man-made levee. [Tr. vol. 4, p. 70 Wise]. As is true for all lakes, the Lake is not uniform throughout. [Tr. vol. 1, pp. 82-83, Crisman]. There is an open water area, marsh areas that are inundated when the lake is high (littoral zone), areas with submerged aquatic vegetation, and areas that have been deepened for navigation or levee construction. [Tr. vol. 1, pp. 82-84, 120, Crisman; P. Ex. 23, pp. 4-6; P. Ex. 65B, p. 2]. In contrast, the canals are man-made, [Tr. vol. 4, p. 70, Wise] and, unlike the Lake, the Canals are generally uniform throughout and their steep sides and flat bottoms prevent the formation of a vegetated littoral area. [UNDIS. FACT of P. 20; Tr. vol. 2, p. 91, Gray]. Clearly, the Lake and the Canals are physically distinct.

d. Another important factor in analyzing whether the waters are meaningfully distinct is the direction of the flow: the pollutants from the Canals from which the S-2, S-3 and S-4 draw water, would not normally reach the Lake but for the backpumping

One important factor in the "meaningfully distinct" analysis is whether the pollutants from the Canals would reach the Lake but for the backpumping. The pumping of water from the S-2, S-3 and S-4 structures, in which the flow in the Canals is reversed from its natural southerly gradient of flow, has long been described as "backpumping." [P. Ex. 110, p. 1]. The evidence at trial clearly demonstrated that the water from the Canals, from which the S-2, S-3 and S-4 backpump into the Lake, would not naturally flow into the Lake but for the operation of the pumps. [Tr. vol. 2, pp. 24-26, 32, 96, Gray]. The backpumping from the S-2, S-3 and S-4 discharges waters into the Lake that would not normally be there but for the discharges. This makes the Canals, which are discharging, and the Lake, which is receiving the discharges, meaningfully distinct.

e. Evidence that the Lake is harmed by the discharges shows that the Lake and the Canals are meaningfully distinct

Water quality data from sample stations, spanning almost twenty years, showed that the median values of nutrients were higher during backpumping events than when no backpumping occurred; there have been high levels of nitrogen and phosphorous coming into the Lake through backpumping. [Tr. vol. 2, p. 31, Gray; P. Ex. 109, Technical Publication 78-3 – Water Quality in the Everglades Agricultural Area and Its Impact on Okeechobee at 8]. Experts at trial testified that the water quality in the canals is distinct from the Lake. [Tr. vol. 2, pp. 84, Gray]. In 1978, it was determined that nitrogen, phosphorous and conductivity levels were all higher during backpuming periods, while dissolved oxygen concentrations were lower. [Tr. vol. 2, pp. 32-33,

Gray; P. Ex. 109, Technical Publication 78-3 – Water Quality in the Everglades Agricultural Area and Its Impact on Okeechobee at 8].

Backpumped water is a continuous threat to the Lake. [Tr. vol. 2, pp. 23-26, 51, Gray; Tr. vol. 2, pp. 23-26, 51, Gray; Tr. vol. 1, pp. 102-03, Crisman]. Were it not for the backpumping, this area of the Lake would be fairly clean. [Tr. vol. 2, p. 83, Gray]. For example, backpumping from the S-2, S-3, and S-4 pumping stations discharges a "pollution slug" that is visible as a plume of highly colored reddish to blackish water very noticeably different from Lake water (including Lake water in the Rim Canal). [Tr. vol. 1, pp. 68-74, 79-81, 98-99, 120, Crisman; P. Ex. 65A (photograph of "typical highly colored nature of water from S-2"); P. Ex. 7 (Mireau Dep.)]. This pulse of highly colored and nutrient enriched water enters the southern portion of the Lake. [D. Ex. 62 at 35]. The pulse overwhelms the capacity of the vegetated zones to take up the nutrients [Tr. vol. 1, pp. 110-11, Crisman] and stimulates the growth of blue-green algae. [Tr. vol. 1, pp. 102-03, 105-07, Crisman; P. Ex. 52]. Floating blue-green algae blooms can be massive and have the potential to be toxic, can cause skin rashes, nausea or even death if ingested. [Tr. vol. 1, pp. 102-07, Crisman; UNDIS. FACT of P. 33]. Aquatic organisms are also affected. For example, aquatic organism need oxygen, and once the oxygen gets too low, aquatic organisms die. [Tr. vol. 2, p. 32, Gray]. Backpumping has had, and continues to have, an adverse effect on the Lake. [Tr. vol. 1, p. 149, Crisman; Tr. vol. 2, pp. 26, 32-33, Gray]. The evidence showed that these discharges are harmful, and indeed have the potential to be toxic. The evidence therefore conclusively shows that the Lake is clearly meaningfully distinct from the Canals.

f. In conclusion, the record evidence demonstrates the waters are meaningfully distinct because: the pollutants would not normally reach the Lake but for the S-2, S-3 and S-4 structures, the Lake and the canals are chemically, biologically and physically distinct, and the discharges harm the Lake

In the S-9, the district court found that the discharge from the S-9 pump station into WCA 3A was an addition because the transfer of water would not occur naturally. *Miccosukee*, No. 98-6056-CIV, 98-6057-CIV, 1999 WL 33494862 at *6-7 (S.D. Fla. Sept. 30, 1999) *vacated on other grounds*. The district court's analysis, or "but for test," was accepted by the Eleventh Circuit, *Miccosukee*, 280 F.3d at 1368-69, and has been accepted by other courts of appeal that have addressed the issue. *See Catskill*, 273 F.3d at 484, 492-93 (2d Cir. 2001) (holding reservoir and creek are distinct not withstanding both are tributaries of the same river because under natural conditions water from reservoir would not reach the creek); *Dague v. City of Burlington*, 935 F.2d 1343, 1347-48 (2d Cir. 1991), *rev'd in part on other grounds*, 505 U.S. 557 (1992) (holding that the discharge of water from Beaver Pond to adjacent marsh through stone culvert constituted the addition of a pollutant even though the pond "is actually the southeast portion of the marsh"). The United States Supreme Court noted that it was not deciding whether the district court's test was adequate for determining whether C-11 and WCA 3A are distinct, but only that the district court applied its test prematurely. *Miccosukee*, 541 U.S. at 111. The fact that the discharges from the S-2, S-3 and S-4 would not occur naturally, makes the two water bodies distinct and the discharges are additions.

In this case, the record is clear that the Canals and Lake Okeechobee are distinct navigable waters, and unlike in *Miccosukee*, no factual issue remains unresolved. The facts here demonstrate that the water in the Canals generally flow south away from Lake Okeechobee because the Lake level is almost always higher than the Canal level. [D.E. 386 at 23, 29, 30]. In

fact, water goes to the north only under extremely rare circumstances. [Tr. vol. 8, pp. 75-76, Sylvester; UNDIS. FACT of P. 17]. The S-2, S-3 and S-4 draw polluted Canal water and force it back into Lake Okeechobee against the natural flow. [D. Ex. 110, p. 1]. Water in the Canals does not flow north into the Lake without the operation of the pumps except under "very rare" conditions triggered by an extreme drought. [Tr. vol. 8, pp. 75-76; Sylvester; UNDIS. FACT of P. 17]. Moreover, the minimal seepage and ground water generally flows from the Lake to the Canals and not vice versa. [Tr. vol. 13, p. 16, Hendren; D. Ex. 211, p. 23]. Accordingly, because the record is clear that pollutants in the Canals would not normally reach Lake Okeechobee but for the backpumping, the water bodies should be considered meaningfully distinct for purposes of the CWA.

This Court does not need to decide whether backpumping against the flow would, in and of itself, constitute an addition because, in this case, there is overwhelming evidence of other factual distinctions noted above which make the Canals and the Lake meaningfully distinct water bodies. The Lake and the Canals are defined and classified differently by state law. The chemistry and biology of the Lake and the Canals are different. The physical attributes are different. The Lake is vast and oval shaped with characteristic large shallow vegetated littoral zones; the Canals have flat bottoms, steep sides, and no littoral zones. The species of plants and animals that live in the Lake cannot survive in the canals. A canal is quite different than a lake structurally, chemically and biologically. [Tr. vol. 6, pp. 13-14, Zebuth]. The discharges of Canal waters harm the Lake. From a hydrologist's perspective, the Lake and the Canals to the South are meaningfully distinct. [Tr. vol. 4, p. 67 Wise]. Because the Canals, from which the structures pump water, and the Lake into which the water is conveyed by the pump stations, are

meaningfully distinct, the backpumping of water from the canals into the Lake constitutes an addition within the meaning of the CWA.

XIV. DEFENDANTS DID NOT PRESENT ANY LEGITIMATE DEFENSES AT TRIAL WHICH WOULD EXEMPT THE SFWMD FROM THE PERMIT REQUIREMENTS OF THE CLEAN WATER ACT

The defendants contend that the Eleventh Amendment bars plaintiffs' claim because the SFWMD is an instrumentality of the State. As shown below the evidence presented at trial is to the contrary and, in any event, plaintiffs may proceed against the SFWMD under *Ex parte Young*.

The defendants also assert several defenses on the merits. First, they assert as "a primary defense" the theory that the CWA does not require NPDES permits for "the conveyance of navigable waters to navigable waters . . ." because the waters of the United States should be treated as a unitary whole for purposes of the permitting requirements. Defendants contend several general policy provisions of the CWA, such as §§ 101(b), (g), 510(2), 304(f) and 510(2), and a litigation memorandum of EPA, support this theory. [D.E. 536 at 4]. Second, the defendants contend that the discharges are exempt from the permit requirements because the SFWMD did not create and has no control over the pollutants it discharges, and because the upstream dischargers of pollutants into the Canals were either exempt from permitting or had permits for their discharges. [D.E. 536 at 5]. Finally, the defendants argue that the Tenth Amendment requires a clearer statement of Congressional intent before NPDES permits can be imposed on the SFWMD's water management activities. *Id.* at 4. As shown below, none of these arguments excuse the SFWMD from complying with the plain and unambiguous requirements of the CWA.

A. The SFWMD Is Not Entitled To Eleventh Amendment Immunity

1. Factors Considered by the Eleventh Circuit in Determining Whether an Entity is an Arm of the State Conclusively Show that the SFWMD is not an Arm of the State

In *Abusaid v. Hillsborough County Bd. of County Comm'rs*, 405 F.3d 1298, 1303 (11th Cir. 2005) the Eleventh Circuit concluded that the Florida sheriff was not acting as an arm of the state in enforcing a county ordinance. *Id.* The Eleventh Circuit applied a four-part test to determine if an entity is functioning as an arm of the state: 1) how state law defines the entity; 2) what degree of control the state maintains over the entity; 3) the source of the entity's funds; and 4) who bears financial responsibility for judgments entered against the entity. *Id.* at 1303. Although state law is considered, the question of whether an entity is an arm of the state is one of federal law. *Id.* at 1305-1313. The four-part test, applied to the facts of this case, shows that the SFWMD is not an arm of the state.

In its order on pending motions [D.E. 527], Nov. 23, 2005, this Court determined that the sovereign immunity question involved mixed questions of fact and law. [D.E. 527], Order at 10. The Florida Constitution and Florida Statutes, as well as the evidence at trial, clearly show as a matter of federal law, that the SFWMD is not an arm of the state.

a. State law defines the SFWMD as a separate entity from the State

State law defines the SFWMD as separate from the state. Florida state law permits the SFWMD to levy *ad valorem* taxes. *See*, Article VII, § 9, Florida Constitution. The state may not do so. *See* Article VII, § 1, Florida Constitution. In addition, Chapter 373, Florida Statutes, which describes the authority and duties of the SFWMD, clearly demonstrates that it is an entity separate from the state. The evidence at trial also supports this.

(1) The Florida Constitution Defines the Powers of the SFWMD as Separate from those of the State

The fact that the state constitution permits the SFWMD to levy *ad valorem* taxes, while denying such authority to the state, is a clear indication that state law does not define the SFWMD as an arm of the state. Article VII § 9, which authorizes the SFWMD to levy *ad valorem* taxes, is entitled "Local Taxes" with no reference to state, state expenses, or state revenue:

> (a) Counties, school districts, and municipalities shall, and special districts may, be authorized by law to levy ad valorem taxes . . .

Article VII, § 9, Florida Constitution. Such authority to levy *ad valorem* taxes is prohibited to the State. Article VII, § 1 of the Florida Constitution, which prohibits the state from levying *ad valorem* taxes is entitled: "Taxation; appropriations; state expenses; state revenue limitation." This section of the Constitution, which specifically refers to state expenses and state revenue limitations, prohibits the state from levying *ad valorem* taxes:

> (a) No tax shall be levied except in pursuance of law. No state ad valorem taxes shall be levied upon real estate or tangible personal property. All other forms of taxation shall be preempted to the state except as provided by general law.

Article VII, § 1, Florida Constitution. In addition, Aaron Basinger, Director of SFWMD's Finance and Administration Department confirmed that the state does not have *ad valorem* taxing authority. [Tr. vol. 8, p. 153, Basinger].

There is no credible argument that the Florida Constitution allows the SFWMD to levy *ad valorem* taxes as a "state agency." The Constitution can only be read to mean that certain "special districts," the SFWMD being one of them, are allowed *ad valorem* taxing authority, something which is prohibited to state agencies. The SFWMD cannot, on the one hand claim

that it is protected from damage claims by the Eleventh Amendment, which applies only to states and its instrumentalities, while at the same time obtain hundreds of millions of dollars from *ad valorem* taxation prohibited to the State and its instrumentalities. *See Mt. Healthy City School Dist. Bd. of Educ. v. Doyle*, 429 U.S. 274, 280 (1977). As Basinger stated at trial, the *ad valorem* taxes collected by the SFWMD are presently $440 million; in 1998 that figure was $206 million. [Tr. vol. 8, p. 146 Basinger]. If the SFWMD's argument were correct, an arm of the state could procure *ad valorem* taxes even though the State is prohibited from doing so by the Florida Constitution. Indeed, if the SFWMD is found to be a state agency, since state agencies are not entitled to levy *ad valorem* taxes, the SFWMD has been violating the Florida Constitution and illegally collecting hundreds of millions of dollars from Florida taxpayers. As the district court noted in the S-9 case, the fact that the Florida Constitution does not allow state agencies to raise *ad valorem* taxes, but the SFWMD can, is an important consideration in determining how state law treats the SFWMD. *See Miccosukee*, 1999 WL 33494862, at *4.

(2) Florida Does not Treat the SFWMD as an Arm of the State

A decision of the Florida Fourth District Court of Appeal found that state law does not treat the SFWMD as an arm of the state. *See Martinez v. SFWMD*, 705 So. 2d 611, 612 (Fla. 4th DCA 1997) (quoting 96 Op. Att'y Gen. 89 (Nov. 5, 1996)). The court in *Martinez* also noted that the Attorney General opinion cited therein relied on other opinions which also held that the SFWMD was not an agency of the state. *Id.* (citing 90 Op. Att'y Gen. 66 (Aug. 15, 1990)) (water management districts are not state agencies as used in section 253.025(8)(e) and 84 Op. Att'y Gen. 21 (Mar. 16, 1984) (differentiating between state and county offices and the need to legislatively declare the "agency" status)).

Another indication that Florida law sees the water management districts and the state agencies as separate entities is found in Fla. Stat. § 373.026 ("the department may enter into interagency or interlocal agreements with any other state agency, any water management district, or any local government"). Fla. Stat. § 373.026(3); *see also* [D. Ex. 94 at 64 (recognizing state and federal governments as partners with the SFWMD); Tr. vol. 13, pp. 107-08, Van Horn]. The SFWMD does not meet state law definition of an agency of the state for purposes of the Eleventh Amendment. *See Miccosukee*, 1999 WL 33494862, at *4.

b. The SFWMD is not controlled by the State of Florida

The fact that Florida law defines its functions does not mean the SFWMD is controlled by the state. That control is defined by case law. *See Miccosukee,* 1999 WL 33494862, at *5. As the district court found in the S-9 case, the existence of fiscal controls and limitations on authority imposed upon the SFWMD by statute does not mean that the SFWMD is not legally autonomous. *See id.* Basinger testified to some oversight of the SFWMD by the State. For example, the finances of water management districts are reported in the state of Florida's financial statements, and the districts are audited by the State's Auditor General; the Governor has veto over the SFWMD's budget. [Tr. vol. 8, p. 106-07, Basinger]. However, taken as a whole, Basinger's testimony does not support a conclusion that the states control the SFWMD.

In fact, evidence of SFWMD's autonomous powers is found throughout chapter 373. For example, Fla. Stat. § 373.089 authorizes the governing board of the SFWMD to sell lands, or interests or rights in lands, to which the SFWMD has acquired title or to which it may acquire title. Fla. Stat. § 373.056 authorizes the water management districts to convey or to lease to governmental agencies "land or rights in land owned by such district" and in whatever terms are determined by the water management district's board. Fla. Stat. § 373.056(4). Basinger's

conclusory remarks that the SFWMD is a unit of the State of Florida [Tr. vol. 8, p. 106, Basinger] is contradicted by the evidence that demonstrated that the SFWMD can sue and be sued, can buy, sell, mortgage and lease property, [Tr. vol. 8, p. 106, Basinger], can levy *ad valorem* taxes and receives all of those taxes (none of those taxes go to the state), can issue bonds and has insurance to cover judgments. [Tr. vol. 8, pp. 130, 135-36, 142, 146-48, Basinger]. As a result of its self insurance, Basinger testified that, if an insurance company pays out, the money goes to the SFWMD. [*Id.* at 149].

Although the Governor appoints the members of the SFWMD's governing board, *see*, Fla. Stat. § 373.073 and also appoints the governing board of the basins, *see*, Fla. Stat. § 373.0693(4), the water management districts are authorized to designate the basins, Fla. Stat. § 373.0693(1)(a), and to levy *ad valorem* taxes within the basins, Fla. Stat. § 373.0697. The districts can also issue general obligation and revenue bonds. Fla. Stat. §§ 373.563 and 373.584. In addition to having the authority to levy *ad valorem* taxes, procure funds to pay expenses, convey or lease lands, acquire real property, and borrow money or incur obligations, *see, e.g.*, Article VII, § 9, Fla. Const.; Fla. Stat. §§ 373.506, 373.089, and 373.093, the SFWMD's Governing Board also has general powers to contract with public agencies, private corporations or other persons, sue and be sued, and solicit and accept donations and grants. *See* Fla. Stat. § 373.083; *see also* [Tr. vol. 8, pp. 150-51, Basinger (the SFWMD can sue and be sued without recourse to local government, it has the right to issue debt, it can buy, lease and mortgage property in its own name and can enter into contracts)]. Florida law demonstrates that the SFWMD is not controlled by the state. The evidence at trial supports this conclusion.

c. Although the State contributes to the SFWMD, it is not the principal source of the SFWMD's funds

The SFWMD is fiscally independent. The SFWMD's witness testified: "[w]e have grants, revenue from the Federal Government. We have ad valorem taxation we bring in. We can levy mileage (sic) rates, Federal State local funding sources. We have the agricultural privilege tax." [Tr. vol. 8, p. 130, Basinger]. Basinger acknowledged that approximately 40% of the SFWMD's budget comes from *ad valorem* taxes, approximately 25-30% of the SFWMD's funds come from the State, and the rest comes from sources such as grants, permit revenues and local sources. [Tr., vol. 8, p. 130].

Section 373.506, Florida Statutes, states that the water management districts can procure funds with which to pay its expenses, or to meet emergencies, before sufficient funding can be obtained from the collector of tax, by borrowing funds, issuing interest bearing negotiable notes and pledging proceeds of the [*ad valorem*] taxes authorized by the chapter, *e.g.* §§ 373.539, 373.0697, for their repayments. Section 373.584, Florida Statutes, authorizes the SFWMD to issue revenue bonds "to finance the undertaking of any capital or other project for the purposes permitted by the State Constitution, to pay the costs and expenses incurred in carrying out the purposes of this chapter, or the refund revenue bonds of the district issued pursuant to this section." *Id.*

> In anticipation of the sale of such revenue bonds, the district may issue negotiable bond anticipation notes and may renew the same from time to time; but the maximum maturity of any such note, including renewals thereof, shall not exceed 5 years from the date of issue of the original note. Such notes shall be paid from the revenues hereinafter provided or from the proceeds of sale of the revenue bonds of such district in anticipation of which they were issued. The notes shall be issued in the same manner as the revenue bonds.

Fla. Stat. § 373.584. And as stated above, the SFWMD can convey or lease land it owns. *See* Fla. Stat. §§ 373.056 and 373.089. Therefore, the state is not the source of the SFWMD's funds.

In addition, Fla. Stat. § 373.563(1) authorizes the SFWMD to borrow money or procure loans and incur obligations from such terms and at such rates of interest as it may deem proper. The SFMWD board is authorized and empowered under Fla. Stat. § 373.563(1) to issue in the corporate name of said board, "negotiable coupon bonds of said district." *Id.* Fla. Stat. § 373.579 provides:

> It shall be the duty of the treasurer as custodian of the funds belonging to the said board and to the district, out of the proceeds of the taxes levied and imposed by this chapter and out of any other moneys in the treasurer's possession belonging to the district, which moneys so far as necessary shall be set apart and appropriated for the purpose, to apply said moneys and to pay the interest upon the said bonds as the same shall fall due and at the maturity of the said bonds to pay the principal thereof.

Id.

The district court in the S-9 case correctly found that the SFWMD is self-funded with the power to tax, to borrow, to pay expenses, issue interest bearing negotiable notes and pledge the proceeds of taxes levied and the fact that the state may choose to provide discretionary funding does not establish conclusively that the SFWMD is dependant on the state:

> Florida Statutes created SFWMD as a self-funded entity with the power to tax, to borrow to pay expenses, to issue interest bearing negotiable notes and pledge the proceeds of taxes levied. *See* Fla. Stat. §§ 373.503, 373.506. Section 373.501 states that the Department of Environmental Regulation "may allocate to the water management districts from funds appropriated to the department such sums as may be deemed necessary to defray the costs of administrative, regulatory, and other activities of the district." The state's discretionary authority to contribute to SFWMD's operational expenses does not establish conclusively that SFWMD is dependent on the state. Many other entities, for example school districts, are highly funded by the state but are not considered state agencies for Eleventh Amendment purposes. It is

> clear that financial independence was intended when the water management districts were created.

Miccosukee, 1999 WL 33494862, at *5. Florida Statutes also do not treat the SFWMD as an arm of the state. Fla. Stat. § 373.503, which provides the manner of taxation for water management districts, provides that the districts should be financed "by those most directly affected." *Id.* (chapter provides for the establishment of permit application fees and methods of *ad valorem* taxation to finance activities of the SFWMD, for example, §§ 373.539 and 373.0697). Thus, although Section 373.503 recognizes that the general and regulatory functions of the water management districts are of general benefit and should be financed by general appropriations, it authorizes the districts to provide its own funding by levying *ad valorem* taxes.

The SFWMD is fiscally autonomous -- a factor weighing against finding the entity an arm of the state. The SFWMD cannot claim to receive its funding from the State when the facts show that most of its funding comes from its own taxes, bonds, permit remedies, fees or sales. In concluding that the state was the source of the SFWMD's funds, the district court in *Grimshaw v. SFWMD*, 195 F. Supp. 2d 1358, 1367 (S.D. Fla. 2002), found it significant that the SFWMD received 20-30 percent of its funding from the State. However, that percentage should not be significant in the analysis of fiscal independence. The majority of the SFWMD's funding does not come from the State. As the district court pointed out in the S-9 case, other entities that are not arms of the state are funded by the state. *Miccosukee*, 1999 WL 33494862, at *5; *see also* [Tr. vol. 8, pp. 142, Basinger] (stating that counties receive state money but are still separate units from the state). Through its *ad valorem* taxation, borrowing, powers, the SFWMD is capable of an independent existence, even though the state may voluntarily appropriate funds for

its operation. *Id.* It is clear from Basinger's testimony that the SFWMD is fiscally autonomous and that the majority of its funding does not come from the state.

d. The SFWMD is responsible for judgments against it

As the district court pointed out in the S-9 case, *Miccosukee*, 1999 WL 33494862, at *5, as Finance Director, Basinger conceded at trial, and as the district court conceded in *Grimshaw*, 195 F. Supp. 2d at 1368, the SFWMD is self-insured and payment of a judgment against the SFWMD would come from the SFWMD's funds. [Tr. vol. 8, p. 152, Basinger]. In *Williams v. District Board of Trustees of Edison*, 421 F.3d 1190, 1194 (11th Cir. 2005), the court found the community college to be an arm of the state where the college derived funds for self-insurance from the state and where the judgments were regarded as judgments incurred by the state. In contrast, the SFWMD receives funds from *ad valorem* taxes which go straight to the SFWMD, it receives an agricultural privilege tax, it receives interest earnings, it can use prior years' balances, and can issue revenue bonds and general obligation bonds. [Tr. vol. 8, pp. 130, 135, 142-44, Basinger]. The SFWMD is insured through a series of policies. [Tr. vol. 8, pp. 148-53, Basinger].

Neither the Florida Constitution, nor any Florida statute, make the state responsible for paying judgments against the SFWMD. *Miccosukee*, 1999 WL 33494862, at *5. Nor has the SFWMD cited to any statute that makes the state liable for judgments against the SFWMD. The testimony of Basinger, rather than indicating that the state would be responsible for the SFWMD's judgment, shows an independent entity that is responsible for its own judgments. As the Eleventh Circuit has stated, "[w]e have often stressed that the Eleventh Amendment is unlikely to protect an entity with 'fiscal autonomy.'" *Aubasaid*, 405 F.3d at 1313 (citing *Hufford v. Rodgers*, 912 F.2d 1338, 1342 (11th Cir. 1990)).

The district court in *Grimshaw* acknowledged that judgments are enforceable against the SFWMD, but found that the state treasury is implicated both through the budget process and by what the district court referred to as the fact that the state must maintain the financial viability of the district in order to exercise its water management function. *Grimshaw*, 195 F. Supp 2d at 1369-70. The conclusions in *Grimshaw* overlook the actual facts: that the water management districts can borrow to pay debts, can sell or lease property, can issue bonds and, of course, unlike the state, can levy *ad valorem* taxes. The fact that the State may have an interest in the SFWMD does not cloak the SFWMD with Eleventh Amendment immunity. *Grimshaw*'s reasoning is wrong because, as the Eleventh Circuit clearly stated in *Abusaid*, the Eleventh Amendment's historical concern is very precise -- the concern "is with 'judgments that must be paid out of the states treasury'" not with any judgment that may merely affect the state's treasury. *Abusaid*, 405 F.3d at 1312-13 (citing *Hess v. Port Auth. Trans-Hudson Corp.*, 513 U.S. 30, 48 (1994)).

2. The Court has already found that the *Ex-parte Young* exception to Eleventh Amendment Immunity applies here

The SFWMD's Eleventh Amendment claim is barred by *Ex parte Young*, 209 U.S. 123 (1908). This Court has already found that *Ex parte Young* applies here. *See* [D.E. 527], Order of Nov. 23, 2005. The *Ex parte Young* doctrine permits federal courts to entertain suits against state officers seeking prospective equitable relief to end continuing violations of federal law. *See Summit Med. Assocs., P.C. v. Pryor*, 180 F.3d 1326, 1336 (11th Cir. 1999). Under the *Ex parte Young* legal fiction, when an official of a state agency is sued in this official capacity for prospective equitable relief, he is generally not regarded as "the state" for purpose of the Eleventh Amendment and the case may proceed in federal court. *ANR Pipeline Co. v. Lafaver*,

150 F.3d 1178, 1188 (10th Cir. 1998). SFWMD 's Executive Director, Henry Dean was made a defendant in this case, and at trial, Carol Wheely, the new Executive Director, was substituted. [Tr. vol. 8, p. 103].

In the present case, the evidence at trial conclusively established ongoing violations of federal law. *See Verizon Maryland, Inc. v. Public Service Comm'n of Maryland*, 535 U.S. 635, 645 (2002) ("[i]n determining whether the doctrine of *Ex parte Young* avoids an Eleventh Amendment bar to suit, a court need only conduct a 'straightforward inquiry into whether [the] complaint alleges an ongoing violation of federal law and seeks relief properly characterized as prospective'"). The evidence at trial was overwhelming that the SFWMD, in violation of the CWA, continues to illegally discharge pollutants from the S-2, S-3 and S-4 pumping stations into Lake Okeechobee without obtaining NPDES permits. [Tr. vol. 10, p. 29, Strowd; Tr. vol. 3, p. 9, Zebuth]. As the testimony at trial showed, these violations of federal law are continuing to harm the Lake. [Tr. vol. 3, p. 26, Gray]. A federal court, consistent with the Eleventh Amendment, may enjoin state official to conform their future conduct to the requirements of federal law; to fall under *Ex parte Young*, the injunction must provide for prospective relief. *Quern v. Jordan*, 440 U.S 332, 337 (1979). Under *Ex parte Young*, the Executive Director of the SFWMD can be sued to end these continuing violations of federal law and the Eleventh Amendment is not a bar to this suit.

3. Even if the SFWMD had Eleventh Amendment Immunity, it was Waived[25]

Shortly before the pre-trial stipulation was filed, the SFWMD sought to voluntarily dismiss its counterclaims. [D.E. 534]. Plaintiff FWF objected to the dismissal, and one ground for the objection was that the SFWMD had waived its Eleventh Amendment immunity by filing the counterclaim and should not be allowed to possibly escape that waiver by seeking an eleventh hour dismissal. On January 6, 2006 this Court granted the SFWMD's motion, but noted, "[T]he record is clear that the SFWMD has already asserted counterclaims and the Court ascertains no means by which their dismissal would alter the Court's legal analysis, or Plaintiffs' rights." [D.E. 549, p. 4].

The Federal Circuit has ruled that Florida waives its Eleventh Amendment immunity if it files a counterclaim at a time when it has a reasonable expectation that it will prevail on its sovereign immunity claim. *State Contracting & Engineering Corporation v. Florida*, 258 F.3d 1329, 1336-37 (11th Cir. 2001), *petition for cert. denied, Florida v. State Contracting & Engineering Corporation*, 534 U.S. 1131 (Feb. 19, 2002); c.f. *Lapides v. Board of Regents of the University System of Georgia*, 535 U.S. 613, (2002) (rejecting Eleventh Circuit holding that state retained right to assert its immunity after state attorney general removed case to federal court given Eleventh Amendment's recognition of judicial need to avoid inconsistency, anomaly, and unfairness).

On February 7, 2002, *Grimshaw v. South Florida Water Management District*, 195 F. Supp. 2d 1358 (2002) was decided. The SFWMD filed its counterclaim in this case on August 5,

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25 The Miccosukee Tribe does not join in this argument.

2002. [D.E. 11]. If the SFWMD contends that *Grimshaw* is dispositive as to the Eleventh Amendment immunity of the SFWMD, then the SFWMD has waived Eleventh Amendment immunity by filing a subsequent counterclaim in this action.

B. Navigable Waters Cannot Be Viewed As Unitary For Purposes Of The NPDES Permit Requirement

The CWA defines the term "discharge" as "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12)(A). As shown above, the plain language of the CWA requires the SFWMD to obtain permits because the S-2, S-3, and S-3 pump stations are clearly "adding" pollutants to Lake Okeechobee, a navigable water, from a point source.

The defendants contend that no "addition" occurs when pollutants are discharged into Lake Okeechobee because water bodies that fall within the CWA's definition of "navigable waters" should be viewed as a unitary whole for purposes of NPDES permitting requirements. Thus, according to the defendants, no permit is required for the discharge of polluted navigable waters to another navigable body of water.

1. The Unitary Waters Theory is Contrary to the Plain Language, Express Purpose and Structure of the CWA and Applicable Case Law

The most obvious problem with the unitary waters theory is that it is contrary to the plain language of the CWA. Indeed, it would require this Court to rewrite the operative language of the CWA to state a permit must be obtained for "any addition of any pollutant to navigable waters from any point source, *unless the pollutant originates in some already-polluted navigable water.*"

The second problem with this theory is that it is contrary to the CWA's express purpose of "restor[ing] and maintain[ing] the chemical, physical and biological integrity of the Nation's

waters," 33 U.S.C. 1251(a), and would lead to absurd results. As the Supreme Court noted in *Miccosukee*, the unitary waters theory "would lead to the conclusion that [NPDES] permits are *not* be required when water from one navigable water is discharged, unaltered, into another navigable water body . . . even if one water body were polluted and the other pristine, and the two would not otherwise mix." *Miccosukee*, 541 U.S. at 106 (emphasis in original).

In support of its discussion, *Miccosukee*, 541 U.S. at 105-06, the Supreme Court cited to *Catskill* and *Dubois*, both of which reject the unitary waters theory. The First Circuit in *Dubois* addressed the pumping of polluted water from the Pemigewasset River into Loon Pond. The trial court concluded that the transfer should not be considered an addition of pollutants to Loon Pond because the river and the pond are all part of a singular entity, "the waters of the United States." *Dubois*, 102 F.3d. at 1296. The Court of appeals rejected the lower court's "singular entity" theory because it "would reach the same conclusion regardless of how polluted the Pemigewasset was or how pristine Loon Pond was. We do not believe Congress intended such an irrational result." *Id.* at 1297. As the First Circuit concluded, the purpose of the CWA is not served by such a distinction. *Id.*

In *Catskill*, the City of New York used a tunnel to transport water from a reservoir to a creek. *Id.* at 484. The City argued that no permit was required because it was not adding pollutants to the waters of the United States when viewed as a unitary whole. *Id.* at 493. The court rejected that argument because such a theory "would mean that movement of water from one discrete water body to another would not be an addition even if it involved a transfer of water from a water body contaminated with myriad pollutants to a pristine water body containing few or no pollutants." *Id.* at 493. The unitary waters theory has been rightly rejected because it

is absurd and inconsistent with the plain meaning of the word "addition." *See Catskill*, 273 F.3d at 493 (rejecting the "singular entity" or unitary waters theory, as inconsistent with the ordinary meaning of the word "addition").

While not conclusively deciding the merits of unitary waters theory, the Supreme Court clearly treated it with disfavor noting that several provisions "might be read to suggest a view contrary to the unitary waters approach."

> And several NPDES provisions might be read to suggest a view contrary to the unitary waters approach. For example, under the Act, a State may set individualized ambient water quality standards by taking into consideration "the designated uses of the navigable waters involved." 33 U.S.C. § 1313(c)(2)(A). Those water quality standards, in turn, directly affect local NPDES permits; if standard permit conditions fail to achieve the water quality goals for a given water body, the State must determine the total pollutant load that the water body can sustain and then allocate that load among the permit holders who discharge to the water body. § 1313(d). This approach suggests that the Act protects individual water bodies as well as the "waters of the United States" as a whole.

Miccosukee, 541 U.S. at 107.

The Court also noted that the "unitary waters" approach could also conflict with current NPDES regulations:

> [f]or example, 40 CFR § 122.45(g)(4) (2003) allows an industrial water user to obtain "intake credit" for pollutants present in water that it withdraws from navigable waters. When the permit holder discharges the water after use, it does not have to remove pollutants that were in the water before it was withdrawn. There is a caveat, however: EPA extends such credit "only if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made." The NPDES program thus appears to address the movement of pollutants among water bodies, at least at times.

Id. at 107-08. Simply put, the unitary waters theory is mistaken.

2. The General Policy Provisions in § 101 of the CWA do not Exempt the Discharge of Polluted Navigable Waters from § 402's Permitting Requirements; the CWA Provides Goals and Policies to Eliminate the Discharge of Pollutants and to Achieve Water Quality Standards

The defendants contend that the general policy statements in 101(b), 101(g), 304(f)(2) and 510(2) support their unitary waters theory that discharges of polluted navigable waters are exempt from the permit requirements of the CWA. [D.E. 536 at 4]. As shown below, this contention is mistaken.

a. Section 101(b) does not exempt discharges of polluted navigable waters from the CWA's permit requirements

Section 101(b) sets forth a general policy statement recognizing the responsibilities and rights of the States to prevent, reduce and eliminate pollution. 33 U.S.C. § 1251(b). The CWA implements this policy by requiring States to set water quality standards and TMDL's and by authorizing States to implement the NPDES program. 33 U.S.C. §§ 1313 & 1342(b). Indeed, Section 101(b) specifically mentions as a Congressional goal that "the states . . . implement the permit programs under sections, §§ 1342 [FWPCA § 402] and 1344 [FWPCA § 404]." Thus, rather than providing an exemption, the CWA's permit requirements, § 101(b), specifically announces as a policy and goal that the States implement the permit sections of the CWA, including § 402 (NPDES). Section 101(b) does not state and cannot be construed to imply that discharges of polluted navigable waters by a State or local government are exempt from the permit requirements of the CWA. Defendants' reliance on § 101(b) as a basis for exempting the SFWMD from the permit requirements of the CWA must be rejected.

b. Section 101(g) does exempt the discharge of polluted navigable waters from the NPDES permit requirements

Another Congressional goal and policy found in Subchapter I of the CWA provides the policy of Congress to preserve the states' authority to allocate *quantities* of waters within its jurisdiction and encourages federal, state, and local cooperation to reduce pollution. *See* 33 U.S.C. § 1251(g). As shown below, the general policy goals of section 101(g) do not exempt the states from legitimate water *quality* regulation.

(1) Section 101(g) has no Application here because the SFWMD is not Allocating Water Rights within the Meaning of the CWA

The Supreme Court has explained that § 101(g) "gives the States authority to allocate water rights." *Pud No. 1 of Jefferson County v. Washington Department of Ecology*, 511 U.S. 700, 721 (U.S. 1994). As the Court explained, allocating water within the meaning of the CWA involves the establishment of a "proprietary right" to water. *Id.* at 720-21 (quoting *California v. FERC*, 495 U.S. 490, 498 (1990)).

The SFWMD backpumps polluted water from the Canals into the Lake primarily to dispose of unwanted water which accumulates in the Canals south of the Lake. [Tr. vol. 4, pp. 10-11, 179, Zebuth]. Additionally, water supply backpumping takes place only during severe drought conditions, approximately once every ten years. [Tr. vol. 20, p. 21 MacVicar]. Neither activity constitutes the establishment of a proprietary interest in water. Moreover, even assuming water supply backpumping could be considered water allocation, it occurs very infrequently. Accordingly, § 101(g) has no application here.

(2) Even if the SFWMD were Allocating Water, § 101(g) does not Exempt Point Source Discharges from the NPDES Permit Requirements

There is no express exemption in the CWA for state water allocation activities. Instead, in Subchapter I, the CWA's "Congressional declaration of goals and policy" states, among other things, that "[i]t is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter." 33 U.S.C. § 1251(g) (the "Wallop Amendment"). Clearly, incidental effects on water rights are expected and allowed by the CWA. *See Pud. No. 1*, 511 U.S. at 721.

Section 101(g) does not say that if a state is involved in water allocation activities, it is not required to obtain a permit for discharges of pollutants into navigable waters. Moreover, CWA regulation of water *quality* is perfectly consistent with State authority to allocate water *quantities*. For these reasons, it is well-settled that § 101(g) does not create an exemption from the requirements of the CWA but rather "is only a general policy statement," which cannot nullify the clearly expressed will of Congress requiring compliance with the permitting requirements of the CWA. *Riverside Irrigation District v. Andrews*, 758 F.2d 508, 513-14 (10th Cir. 1985); *see also James City County, Virginia v. EPA*, 12 F.3d 1330, 1336 (4th Cir. 1993).[26]

[26] As defendants concede, (Hr'g Tr. 72-73 & 83, Nov. 14, 2005), state and local governments have long been required to obtain section 401 water quality certifications and 404 permits for the construction of dams, hydroelectric facilities and other water management facilities which Plaintiffs contend involve water allocation activities. *See Riverside, supra*; *James County, supra*. If § 101(g) were held to exempt water management activities from the requirements of the CWA, §§ 401 and 404 would no longer apply to these state activities, and a fundamental purpose of the CWA would be eviscerated.

(3) The Legislative History of the Wallop Amendment Makes Clear that § 101(g) does not Prohibit Legitimate Water Quality Regulation Under the CWA

The Wallop Amendment came about as a compromise between the House and the Senate on the jurisdictional reach of section 404 of the CWA. *See Pub. Util. Dist. No. 1 of Pend Oreille County v. State*, 51 P.3d 744, 814-14 (Wash. 2002); *see also Hobbs & Raley, Water Rights Protection in Water Quality Law*, 60 U. Colo. L. Rev. 841 (1989). Prior to the passage of this Amendment, the Water Resource Council suggested that the CWA could be used to effectuate "Federal land use planning" and other federal purposes "not strictly related to water quality." 123 Cong. Rc. 39, 211 (1977) (quoted in *Oreille County*, 51 P.3d at 815). Senator Wallop explained that the purpose of his Amendment was to reassure the states that the CWA could not be used for purposes other than water quality. *Id.* (emphasis in *Oreille County*). The Senator further explained that the Wallop Amendment was not intended to preclude legitimate water quality measures which may incidentally affect water allocation, but rather to ensure that the CWA is not used for other purposes. 123 Cong. Rec. 39,212 (1977) (quoted in *Oreille County*, 51 P.3d at 762); *see also Pud No. 1*, 511 U.S. at 721 (quoting legislative history).

The 1978 EPA interpretation also confirms that § 101(g) is not intended to prohibit regulation under the CWA which might affect water usage:

> Confusion has apparently arisen over the intent and effect of new § 101(g) of the Clean Water Act . . . Many persons have interpreted § 101(g) as prohibiting EPA from taking any action which might affect water usage. You should be aware that such an interpretation is incorrect.

See Jan. 6, 2006 Notice of Filing, "1978 Agency Interp.", [D.E. 548 at 1]. The 1978 agency interpretation notes that the Wallop Amendment was intended to "clarify existing law to assure its effective implementation. It is not intended to change existing law." *Id.* at 2 (quoting H.

Rept. 95-830, Dec. 6, 1977). Lower courts have similarly recognized that § 101(g) was not intended to exempt state water allocation activities from legitimate federal water quality regulation. *See, e.g., Oreille County*, 51 P.3d at 812-18; *see also Water Works & Sewer Bd. of City of Birmingham v. U.S. Dep't of Army, Corps of Eng'rs*, 983 F. Supp. 1052, 1078-79 (N.D. Ala. 1997); *United States v. Akers*, 785 F.2d 814, 821 (9th Cir. 1986).

In this case, there is no question that a § 402 permit is required to protect the water quality of Lake Okeechobee, and that this is a legitimate and necessary water quality purpose for which the CWA was intended. Moreover, requiring NPDES permits for discharges of water containing pollutants into Lake Okeechobee does not subvert the putative water allocation system; instead it enhances it by purifying the water which is classified to be used for drinking water. Even if the burden on the SFWMD of obtaining an NPDES permit were considered an incidental effect on the state's authority to allocate water, § 101(g) would not prohibit these incidental effects. Accordingly, § 101(g) does not exempt the SFWMD from the permitting requirements of the CWA.

c. Section 510(2) does not exempt discharges of polluted navigable waters from the NPDES permit requirements

Defendants have also relied on 33 U.S.C. § 1370(2) [FWPCA § 510(2)] to argue for exemption from the CWA's permit requirements. Section 510(2), Subchapter V, a "General Provisions" section, states that, "except as expressly provided in this chapter," nothing in the chapter shall be construed as . . . (2) impairing or in any manner affecting any rights or jurisdiction of the states with respect to the waters of such states. 33 U.S.C. § 1370(2). Thus, Congress recognized the rights of states with respect to their waters, conditioned, of course, on

the CWA's express requirement of NPDES permit for any point source discharge by any "person" including "districts" like the SFWMD. 33 U.S.C. §§ 1311, 1342 & 1362.

Congress inserted the language "except as expressly provided in this chapter" with the understanding that the requirements of water quality standards, and § 402 and 404 permits, may incidentally affect water rights and usages without running afoul of § 510(2). As the Supreme Court has explained, the language in § 510(2) preserves the authority of the states to allocate water quantity as to users; it "does not limit controls that may be imposed on users who have obtained, pursuant to state law, a water allocation." *Pud No. 1,* 511 U.S. at 720.

The 1978 EPA agency interpretation correctly concludes as follows:

> It is also noteworthy that § 510(2), which Congress expressly declined to change, provides that States' water rights are not to be impaired "except as expressly provided in this Act." Thus, as Senator Wallop noted, the requirements of water quality standards, § 402 and § 404 permits, and § 208 plans may incidentally affect water rights and usages without running afoul of § 101(g) and § 510(2).
>
> * * *

[D.E. 548, 1978 Agency Interp. at 3]. Therefore, defendants' argument that § 510(2) provides an exemption for § 402's permit requirements is inconsistent with a plain reading of the statute and with EPA's own long-standing agency interpretation.

d. Section 304(f)(2)(F) does not exempt discharges of polluted navigable waters from the NPDES permit requirement

The statutory scheme of the CWA does not support the defendants' interpretation that § 304(f)(2)(F) provides an exemption from the CWA's permit requirements. Section 304 is an information and guidelines section found in Subchapter III. 33 U.S.C. § 1314 ("Information and Guidelines"). Section 304(f) simply provides for: (1) the identification and evaluation of nonpoint sources of pollution and (2) processes, procedures and methods to control pollution

resulting from certain enumerated activities. Neither subsection (1) or (2) of § 304(f) state that they are exemptions to, or substitutions for, permit requirements of the CWA.

Although, section 304(f)(1) applies only to nonpoint sources and provides that the Administrator, after consultation with federal and state agencies and other interested persons shall issue guidelines for identifying and evaluating the nature and extent of nonpoint sources of pollutants, § 304(f)(2), does not state that it applies only to nonpoint sources. Indeed, § 304(f)(2) provides that the Administrator shall issue processes, procedures and methods to control pollution resulting from: (A) agricultural and silvicultural activities, including runoff; (B) mining activities, including runoff; (C) all construction activity, including runoff; (D) disposal of pollutants in wells; (E) salt water intrusion resulting from reduction of fresh water flow from any cause; (F) changes in the movement, flow, or circulation of any navigable waters, including changes caused by the construction of dams, levees, channels, causeways, or flow diversion facilitates. *See* 33 U.S.C. § 1314(f)(2). The activities listed in § 304(f)(2) are not limited to nonpoint sources. In fact, the list specifically includes recognized point sources, such as construction activities. *See* 33 U.S.C. § 1342(p)(2)(B) (a discharge associated with industrial activities requires a permit); 40 C.F.R. § 122.26(a)(1)(ii); § 122.26(b)(14), (b)(14)(x) and (b)(15); *see also* [Tr. vol. 17, p. 82 Maske].

Miccosukee supports the conclusion that § 304(f)(2)(F) does not exempt nonpoint pollution sources if they also fall within the point source definition: "§ [304(f)(2)(F)] does not explicitly exempt nonpoint pollution sources from the NPDES program if they *also* fall within the 'point source' definition." *Miccosukee*, 541 U.S. at 106-07 (emphasis in original). Other courts agree that § 304(f)(2)(F) does not exempt point sources from permit requirements. *See*

Earth Sciences, 599 F.2d ay 373 (§ 1314(f)(2) lists activities that "may involve discharges from both point and nonpoint sources, and those from point sources are subject to regulation."); *Trustees for Alaska v. EPA*, 749 F.2d 549, 558 (9th Cir. 1984) (same); *Sierra Club v. Abston Constr. Co., Inc.*, 620 F.2d 41, 44 (5th Cir. 1980) (same); *see also* 40 C.F.R. §§ 122.2, 122.23, 122.24, 122.262, 122.27. Indeed, the EPA has not previously accepted the position that § 304(f)(2)(F) exempts point source discharges from NPDES regulation. *See, e.g., Earth Sciences,* 599 F.2d at 303; *National Wildlife Fed. v. Gorsuch*, 693 F.2d 158, 168 n.36 (D.C. Cir. 1982) (noting that EPA documents show that § 1314(f)(2)(F) "does not preclude a finding that any particular pollution problem involves a point source of pollutants"). Thus, defendants' reliance on § 304(f)(2)(F) as an exemption to the permit requirements is directly contradicted by the plain language of the CWA, as well as by the conclusions of courts that have reviewed this issue and policies of EPA.

3. The EPA's Litigation Memorandum of August 5, 2005 is not Entitled to Deference because it is Contrary to the Plain Meaning of the CWA and it is not Persuasive, Thorough or Logical

On August 5, 2005, EPA issued a Litigation Memorandum which advances the same unitary waters theory which the defendants have asserted in this case and which also relies on the general policy statements contained in 33 U.S.C. §§ 101(b) and (g), 304(f) and 510(2) in support of this theory. [D.E. 369, Ex. 1]. This Litigation Memorandum is not entitled to *Chevron* deference and it should be rejected on the merits for the reasons described above.

a. The CWA is unambiguous and, therefore, the United States' litigation position is not entitled to *Chevron* deference

The Eleventh Circuit has explained that the determination of the amount of deference owed to an agency's statutory interpretation is a two-pronged inquiry. *See Wilderness Watch v.*

Mainella, 375 F.3d 1085 (11th Cir. 2004). If the statute is clear, that ends the matter and no deference is due. *Id.* at 1091 (quoting *Chevron, U.S.A., Inc. v. Natural Resources Defense Counsel, Inc.*, 467 U.S. 837 (1984)); *see also American Bankers Ins. Group v. United States*, 408 F.3d 1328, 1335 (11th Cir. 2005). If the statute is silent or ambiguous, the court must then determine the "precise level of deference due to the agency action. . ." *Id.*

In this case, as the evidence has shown, a permit is required because the backpumping of polluted Canal water into Lake Okeechobee adds pollutants to waters of the United States from a discernible, confined, discrete conveyance, *i.e.*, the pumping stations. Because the statutory language plainly and unambiguously requires an NPDES permit, and the agency interpretation is contrary to Congress's unambiguously expressed intent, the agency interpretation is not entitled to *Chevron* deference. *See Chevron,* 467 U.S. at 842-43; *see also Wilderness Watch,* 375 F.3d at 1091 (declining to defer to an agency interpretation that was contrary to the plain meaning of the statute).

b. Even if the CWA were ambiguous, and it is not, the defendants' litigation memorandum is not entitled to deference under *Skidmore v. Swift*, because it is not persuasive, thorough or logical and it is contrary to a long-standing 1978 EPA interpretation

Moreover, as more fully explained in Plaintiffs' Consolidated Response to Defendants' Summary Judgment Motion [D.E. 415 at 14-27], even if the CWA were ambiguous, because the litigation memorandum is not a formal regulation or adjudication, it would have been entitled to, at best, deference under *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944) "but only to the extent that [it has] . . .the 'power to persuade.'" *Christensen v. Harris County*, 529 U.S. 576, 587 (2000). The agency's power to persuade should be considered in light of "its writer's

thoroughness, logic and expertness, its fit with prior interpretations, and any other sources of weight." *United States v. Mead Corp.*, 533 U.S. 218, 235 (2001).

The EPA's litigation memorandum is totally unpersuasive for the reasons described above. In particular, the Supreme Court in *Miccosukee* criticized the unitary waters theory and cited two cases which expressly rejected it because the unitary waters theory leads to the absurd result that no permit would be required "even if one water body were polluted and the other pristine, and the two would not otherwise mix." *Miccosukee*, 541 U.S. at 106 (citing *Catskill* and *Dubois)*.

The litigation memorandum argues that the CWA does not expressly require permits for point source discharges that involve water transfers. (Aug. 5th Agency Interp. at 5). However, the interpretation overlooks the central provisions of the CWA, which requires a permit for "the discharge of *any* pollutant by *any* person." 33 U.S.C. §§ 1311, 1342, 1362(12)(A). As the Supreme Court has explained "[*e*]*very* point source discharge is prohibited unless covered by a permit." *City of Milwaukee*, 451 U.S. at 318 (emphasis in original). The plain language of the CWA contains no exception for pollutants which originate in some other already polluted navigable water or for polluted waters which are conveyed for flood control purposes.

While ignoring the import of the pertinent statutory language, the agency interpretation contends that "the specific statutory provisions addressing the management of water resources [101(g) and 510(2)] - coupled with the overall statutory structure - support the conclusion that Congress did not intend for water transfers to be regulated under section 402." (Aug. 5th Agency Interp. at 5). However, as explained above, the legislative history and pertinent case law

demonstrate that neither § 101(g) nor § 510(2) are intended to preclude legitimate water quality regulation under the Act.

The memorandum also contends that § 304(f)(2)(F) "reflects an understanding by Congress that water movement could result in pollution, and that such pollution would be managed by states under their nonpoint source program authorities, rather than the NPDES program." (Aug. 5th Agency Interp. at 7). However, the *Miccosukee* court rejected this contention by explaining that "§ [304(f)(2)(F)] does not explicitly exempt non-point pollution sources from the NPDES program if they *also* fall within the 'point source' definition." *Miccosukee*, 541 U.S. at 106-07 (emphasis in original). And, as discussed *supra*, the interpretation also ignores other case authorities which have rejected the position. *See, e.g., Earth Sciences*, 599 F.2d at 373 (§ 1314(f)(2)(F) lists activities that "may involve discharges from both point and nonpoint sources, and those from point sources are subject to regulation.").

Finally, the EPA contends that its August 5th litigation memorandum is consistent with the EPA's longstanding practice of not requiring NPDES permits for water transfers. However, an EPA agency interpretation, issued on November 7, 1978 and not mentioned or referred to in the August 5th memorandum, expressly contradicts the position taken by EPA in its August 5th litigation memorandum. The 1978 agency interpretation states that § 101(g) is not intended to prohibit water quality regulation under the CWA which might affect water usage. *Id.* The 1978 memorandum is the interpretation that is long-standing, not the newly created litigation position of EPA. Moreover, as the Supreme Court stated in *Miccosukee*, several former EPA officials submitted an amicus brief to the Court demonstrating that the agency previously reached the opposite conclusion. *Miccosukee*, 541 U.S. at 106-07 (citing *In re: Riverside Irrigation Dist.*

1975 WL 23864) (Off. Gen Couns., June 27, 1995) (where EPA concluded that irrigation ditches which discharge to navigable waters require NPDES permits even if the ditches themselves qualify as navigable waters).

C. The Defendants' Argument That The SFWMD's Discharges Are Exempt From Regulation Because the SFWMD Does Not Create Or Control The Pollutants It Discharges, And Because The Upstream Discharges Of Pollutants In The Canals Are Exempt Or Permitted, Is Inconsistent With The Supreme Court's Decision In *Miccosukee* And With The Plain Language Of The CWA

The defendants have argued that the SFWMD's discharges from the S-2, S-3 and S-4 pump stations are exempt from the permitting requirements of the Act because the SFWMD does not create or control the pollutants which it discharges into the Lake, but rather these pollutants originated largely from urban, industrial and agricultural runoff in the farm areas. In a variation on the same theme, the SFWMD and U.S. Sugar argue that the SFWMD should not be required to obtain NPDES permits because the upstream discharges into the Canals were either exempt or permitted. Neither of these contentions has any merit.

1. The Supreme Court has Rejected the Origination Theory of Point Source Regulation

The Supreme Court clearly found the defendants' origination argument "untenable" in *Miccosukee* because the definition of point source makes clear that a point source need not be the original source of the pollutant, it need only convey the pollutant to navigable waters. *See Miccosukee*, 541 U.S. at 105. The Supreme Court explained that the examples of point sources in § 1362(14) include pipes, ditches, tunnels and conduits, all objects that do not themselves generate pollutants, but merely transport them. *Miccosukee*, 541 U.S. at 105. In addition, as the Court noted, one of the CWA's primary goals was to impose NPDES permitting requirements on municipal wastewater plants (§ 1311(b)(1)(B) establishing a compliance schedule for publicity

owned treatment works). *Id.* "But under the District's interpretation of the Act, the NPDES program would not cover such plants, because they treat and discharge pollutants added to water by others." *Id.* The Second Circuit in *Catskill*, 273 F.3d at 493, similarly found that the Shandaken tunnel plainly qualified as a point source and that the tunnel itself need not have created the pollution. *Id.* "[I]t is enough that it conveys the pollutants from their original source to the navigable water." *Id.* Additionally, this Court has cautioned the SFWMD that it may not advance the argument "that the NPDES program applies to a point source 'only when a pollutant originates from the point source.'" [D.E. 266 at 3-4].

The notion that point source regulation should not apply when a discharger lacks control over the pollutants it is discharging has also been rejected by the D.C. Court of Appeals in *Natural Resources Defense Council, Inc. v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977). In *Costle*, the EPA had exempted several categories of point sources, including stormwater runoff, from the NPDES permit requirements, because certain characteristics of runoff pollution made it difficult to promulgate effluent limitations and the owner of the discharge point had no control over the quality of the flow or the nature and amounts of the pollutants picked up by the runoff. *Id.* at 1377. In rejecting the argument, the court found that the wording of the statute, legislative history, and precedents are clear that the EPA administrator does not have authority to exempt categories of point sources from the permit requirements of Section 402. *Costle*, 568 F.2d at 1377.

2. SFWMD Cannot Rely on The Exemptions or Permits of Upstream Dischargers

The CWA expressly prohibits without an NPDES permit "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. §§ 1311, 1342 and 1362(12)(A). Section

402(l) is entitled "Limitation on Permit Requirement," and expressly excludes from the NPDES permit requirements: "discharges composed entirely of return flows from irrigated agriculture." 33 U.S.C. § 1342(l). Additionally, section 502(14) provides that the term "point source" "does not include agricultural stormwater discharges and return flows from irrigated agriculture." 33 U.S.C. § 1362(14). Thus, only discharges composed entirely of return flows from irrigated agriculture and agricultural stormwater discharges are exempt from the permit requirements of the Act. *Id.; see also Fishermen Against the Destruction of the Environment, Inc. v. Closter Farms,* 300 F.3d 1294, 1298 (11th Cir. 2002) ("Any pollutants that originated in the non-agricultural properties adjacent to Closter Farms obviously do not fall within the agricultural exemptions.").

The SFWMD and U.S. Sugar (but not the United States) have asserted the SFWMD's discharges do not require NPDES permits because the upstream discharges into the Canals were either exempt agricultural discharges or permitted municipal discharges. This defense is without merit for several reasons. First, the SFWMD may not rely upon the agricultural exemption because it is not a farmer and therefore its discharges do not constitute either irrigation return flows, or agricultural stormwater runoff. Even if they did, the record evidence is that the sources of pollutants in the Canals are not entirely agricultural return flow and agricultural stormwater, but also polluted urban, municipal and industrial runoff, ground water and nonirrigation return flows. [Tr. vol. 17, pp. 92-108, Maske; Tr. vol. 18, pp. 1-17; Tr. vol. 18, p. 48; P. Exs. 183-188, 190; Tr. vol. 17, p. 104 (actually observing construction pollutants entering the canal system); Tr. vol. 5, p. 162-163, Rice]. Finally, the SFWMD's discharges are not exempt just because

upstream municipal and industrial discharges may be permitted and, in any event, the record is that there are unpermitted municipal and industrial discharges in the Canals.

a. The SFWMD is discharging polluted Canal waters, not irrigation return flows or agricultural stormwater runoff

The agricultural exemptions are intended to ensure a level playing field between irrigated and non-irrigated agriculture. As the debate in the House of Representatives noted, "[t]his amendment promotes equity of treatment among farmers who depend on surface irrigation which is returned to a stream in a discrete conveyance." 4 Legislative History of the Clean Water Act, 1978 at 527. Thus, the exemption has been narrowly construed to apply only to farmers engaged in strictly agricultural activities. *See, e.g., United States v. Frezzo Brothers, Inc.*, 546, F. Supp. 713, 722-23 (E.D. Pa. 1982) (agricultural exemptions did not apply to mushroom farmers who were producing compost to sell to others because that did not constitute agricultural activity); *cf. Closter Farms*, 300 F.3d at 1297 n.1 (noting that "Closter Farms' only purpose in operating the water management system is to allow it to grow sugar cane.").

Obviously, the SFWMD is not a farmer nor is it involved in agricultural activities. Instead, it is a water management district which discharges polluted Canal waters into the Lake primarily for flood control purposes. Thus, the Canal water discharged into Lake Okeechobee through the SFWMD's pump stations is neither an agricultural stormwater discharge or an irrigation return flow; it is simply a discharge of polluted Canal water which requires a permit. 33 U.S.C. § 1342; *cf. Closter Farms*, 300 F.3d at 1297 n.1.

The CWA exempts only discharges of agricultural stormwater and irrigation return flows into the waters of the United States. 33 U.S.C. §§ 1342(1) & 1362(14). Thus, it may be that farmers' discharges of irrigation water and stormwater runoff into the Canals are exempt.

However, nowhere does the CWA state that an entity not involved in agriculture may then take those polluted waters of the United States and discharge them into another meaningfully distinct body of water without an NPDES permit.

As noted above, the SFWMD's suggestion that its discharges of polluted Canal waters should be treated as agricultural discharges is simply a variant of its argument that it should not be required to obtain a permit because it did not originate or create the pollutants. However, the Supreme Court squarely rejected this argument in *Miccosukee*, supra. The argument also restates the "unitary waters" concept that the CWA only regulates the first introduction of pollutants into waters of the United States and not their subsequent transfer from one body of water into another. As explained above, this theory is equally flawed and has been criticized by the Supreme Court.

Closter Farms is not to the contrary. *Closter Farms* addressed the question "whether the Clean Water Act requires a permit for a farm to discharge water from its water management system into an adjacent Lake." *Closter Farms*, 300 F.3d at 1295-96. In that case, Closter Farms conveyed stormwater runoff and irrigation return flows through its irrigation canals and pumped them into Lake Okeechobee. *Id.* at 1296. Significantly, the irrigation canals were determined to be a system of conveyance for runoff and "therefore, not navigable waters." *FADE v. Closter Farms, Inc.*, No. 89CV8517, 2001 WL 838437, at *1 (S.D. Fla. March 16, 2001). The Court also noted that "Closter Farms' only purpose in operating the water management system is to allow it to grow sugar cane." *Closter Farms*, 300 F.3d at 1297 n.1. The court found that all of the water Closter Farms discharged into the Lake constituted either irrigation return flows or

agricultural runoff and was therefore exempt from the permit requirements of the CWA. *Id.* at 1298.

In this case, farmers throughout the EAA, as well as municipalities and industry, discharge pollutants into the Miami, North New River and Hillsborough Canals, all of which undisputedly constitute waters of the United States. Some of the discharges into the Canals may be exempt and some are clearly not, some are permitted, some are discharged unlawfully without a permit, some discharges have a permit but discharge unlawfully and inconsistent with the permit. [Tr. vol. 17, pp. 92-108, Maske; Tr. vol. 18, pp. 1-17; Tr. vol. 18, p. 48; P. Exs. 183-188, 190]. The Canals themselves also contain polluted groundwater, surface waters and water from rainfall. The SFWMD later withdraws this polluted Canal water for water management purposes and discharges it into Lake Okeechobee. Obviously, the facts of this case bear little resemblance to *Closter Farms*.

b. Even if the SFWMD's discharges could be considered agricultural, the record evidence is that the sources of pollutants in the Canals are not entirely agricultural return flow and agricultural stormwater, but also polluted urban, municipal and industrial runoff, ground water, water from rainfall and nonirrigation return flows

In *Closter Farms*, the Eleventh Circuit explained that "[a]ny pollutants that originated in the non-agricultural properties adjacent to Closter Farms obviously do not fall within the agricultural exemptions." *Closter Farms,* 300 F.3d at 1298. In this case, the record evidence is that the S-2, S-3 and S-4 pump stations drain basins which contain municipal and industrial areas in addition to agricultural areas. [Tr. vol. 5, p. 81, Rice]. In particular, the cities of Clewiston, South Bay and Belle Glade are located within those regions. [Tr. vol. 5, p. 113:14-16, Rice]. "They all have runoff systems that drain into the canals." [Tr. vol. 5, p. 115:7-9, Rice]. Thus,

the undisputed facts are that the sources of water in the canals include urban stormwater, surface water, rainfall and groundwater in addition to agricultural discharges. [UNDIS. FACT of P. 18].

Municipal stormwater contains phosphorus and nitrogen which come from lawn fertilizers and animal feces. [Tr. vol. 4, p. 73:12-21, Wise]. In addition, as Plaintiff's witness Col. Rice testified:

> Clewiston is in the S-4 basin just over here and Clewiston is a fairly sizable town which has everything you can imagine from filling stations to garages to restaurants to water treatment systems to a sugar mill. It has other smaller industries. It has lots of stormwater runoff. It has lots of construction, which is important also. So, the land use is, you know, a lots of mostly agriculture, but there is a lot of urban and municipal things in that basin also.

[Tr. vol. 15, pp. 113-14, Rice]. In short, the evidence at trial shows that industrial and municipal waters are discharged into the Lake which contain pollutants. [Tr. vol. 15, p. 115:16-22, 162, Rice]. Accordingly, NPDES permits are required for discharges.

In *Closter Farms*, the Eleventh Circuit explained that irrigation return flows include water that is pumped into waters of the United States through the process of "flood irrigation." *Id.* at 1297. During "flood irrigation," canals are used to irrigate crops by forcing water into the sugar cane fields by raising the water levels in the canals. *Id.* *Closter Farms* held that discharging the water back into the waters of the United States is a "return flow." *Id.*

In this case, there is evidence that farmers engage in flood irrigation, but they also raise and lower the water tables for purposes unrelated to irrigation. For example, farmers sometimes raise and lower the water table for frost protection, other times for insect control, [Tr. vol. 5, p. 193:8-12, Zebuth], and other times to facilitate the use of heavy equipment on the fields [Tr. vol. 13, pp, 143, Wade]. None of these practices constitutes irrigation. Similarly, farmers will begin

pumping water into the canals when they anticipate a large rain event. [Tr. vol. 20, p. 81, MacVicar; D. Ex. 125]. This anticipatory pumping constitutes neither irrigation return flows nor storm water runoff. Accordingly, the pollutants generated by these activities are not exempt from the permitting requirements of the CWA even for the farmers.

c. The SFWMD's discharges are not exempt just because upstream municipal discharges are permitted and, in any event, the record shows that there are unpermitted municipal discharges in the Canals

The CWA expressly prohibits without an NPDES permit "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. §§ 1311, 1342 and 1362(12)(A). The CWA contains no exemption for point source discharges just because upstream discharges were permitted. Indeed, the suggestion is a "unitary waters" concept - that the CWA regulates only the first introduction of pollutants into navigable waters, and not their subsequent transfer to another meaningful distinct body of water – which is contrary to the plain language and purposes of the Act, as well as applicable case law.

Moreover, it would be contrary to the CWA's purpose of preserving and maintaining the integrity of the Nation's waters to imply such an exemption. For example, in this case the Canals are Class III waters. Thus, discharges into the Canals need only comply with Class III water quality standards. The Lake is a Class I water body. If downstream polluters could rely upon the permits of upstream discharges, the water quality of the Lake would not be protected. Accordingly, neither the plain language of the Act nor its purposes, support the defendants' contention that it can rely upon the permits of upstream dischargers.

Even if there were any merit to this novel theory, the record in this case is that there are unpermitted municipal discharges in the Canal waters. For example, the City of Clewiston does

not have an NPDES permit for its stormwater discharges. [Tr. vol. 18, p. 72, Maske]. Moreover, there is evidence of unpermitted stormwater discharges in the S-2, S-3 and S-4 basins. [Tr. vol. 17, pp. 94-104, Maske; P. Ex. 183-188]. And, it is common for entities to need more than one NPDES permit to satisfy the requirements of the CWA. [Tr. vol. 17, p. 83-84, Maske; Tr. vol. 18, p. 5, Maske].

D. Requiring The SFWMD To Obtain An NPDES Permit Does Not Violate The Tenth Amendment

The SFWMD has argued that because the CWA is not a clear statement of Congressional intent, Plaintiffs' claims are barred by the Tenth Amendment to the United States Constitution. The defendants' Tenth Amendment claim is as follows:

> SFWMD further asserts a clearer statement of Congressional intent is required by established rules of statutory interpretation predicated upon the 10th Amendment of the U.S. Constitution before federal permitting requirements will be imposed upon SFWMD's water resource management activities, a traditional area of state responsibility. But to the contrary, the express policies of the CWA counsel against the imposition of the NPDES in this case.

[D.E. 536 at 4]. This claim has no basis in the text of the Constitution or the case law interpreting it. The Tenth Amendment states simply that "[t]the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States, respectively, or to the people." U.S. Const. Art. X. The Supreme Court has stated that "[i]f Congress intends to alter the 'usual constitutional balance between the States and the Federal Government,' it must make its intention to do so 'unmistakably clear in the language of the statute.'" *Gregory v. Ashcroft*, 501 U.S. 452, 460 (1991) (citations omitted). "The clear statement doctrine 'counsels that a federal court should not apply a federal statute to an area of traditional state concern unless Congress has articulated its desire in clear and definite language

to alter the delicate balance between state and federal power by application of the statute to that area.'" *H.J., Inc. v. Nw. Bell Tel. Co.*, 954 F. 2d 485, 495 n.6 (8th Cir. 1992) (citing *Taffet v. S. Co.*, 930 F. 2d 847, 851 (11th Cir. 1991)).

In this case, the federal-state balance is not disturbed but rather it is carefully crafted into the CWA. The CWA anticipates a partnership between the States and the Federal Government. *See Arkansas v. Oklahoma*, 503 U.S. at 101. The CWA establishes "a comprehensive program for controlling and abating water pollution," *Train v. City of N.Y.*, 420 U.S. 35, 37 (1975), and declares the "national goal that the discharge of pollutants into the navigable waters be eliminated. . . ." *Id.* at 46 n.10 (citing 33 U.S.C. § 1251(a)(1)). To the extent the CWA's water quality regulation has any effect on traditional state land and water use planning, Congress's intent to apply the CWA to the SFWMD's pump stations is unmistakably clear: "[*e*]*very* point source discharge is prohibited unless covered by a permit," *City of Milwaukee*, 451 U.S. at 318, including discharges by State and local governments. 33 U.S.C. § 1362(5). The clear statement rule is simply a rule of statutory construction used when a statute is ambiguous. *Id.* The CWA is not ambiguous in its requirement that all discharges of pollutants be permitted.

The evidence elicited at trial by defendants generally presented the origin, function, and responsibilities of the SFWMD as threefold: 1) local sponsor of a federal project; 2) water supply allocation; and 3) pollution abatement. Only one of these functions presented by defendants - pollution abatement - can be viewed as a traditional state function. But even if the specific facts of the "water allocation" function, as presented at trial, were to be considered a state function, the CWA provides a clear statement of intent to regulate water quality even if it incidentally affects water quantity.

The SFWMD is the local sponsor of the 1948 Central and South Florida Water Flood Control Project, a project designed and constructed by the Army Corps of Engineers [UNDIS. FACT of D. 15 & 16; Tr. vol. 7, p. 81, Sylvester], and its function is to maintain and operate the project pursuant to the Corps Master Water Control Manual ("the Manual"). [Tr. vol. 7, pp. 80-81, Sylvester]. The Manual sets out the schedule of levels in canals, reservoirs and other surface waters as well as operating criteria for the water control structures, including criteria for when S-2, S-3 and S-4 are turned on. [Tr. vol. 7, p. 83, vol. 8, pp. 57-59, Sylvester, D. Ex. 218, App. A]. Significantly, the Manual is formulated after a public process involving input from affected stakeholders, including the SFWMD, and is adopted as a regulation of the Corps of Engineers. [Tr. vol. 7, p. 88, Sylvester; D. Ex. 218 p. i]. Operation and maintenance of a federal flood control project is not a traditional state function. Moreover, the SFWMD participates in the public process that formulated the Manual for Operation of the Project. No possible Tenth Amendment implication is arguable for this function.

Under the Project and under state law,[27] the SFWMD is also responsible for allocating water supplies and for meeting water quality standards. [Tr. vol. 7, p. 81, vol. 8, p. 59, Sylvester]. With regard to this second function, the evidence at trial demonstrated that the vast majority of backpumping by the SFWMD is for flood control, rather than water supply. [Tr. vol. 5, p. 179, Zebuth]. The fact that backpumping renders the Lake water unfit for its designated use as a potable water source undermines the argument that water supply backpumping should be

[27] Chapter 373, Fla. Stat., part II.

viewed as a traditional state water allocation function because it is not the traditional function of the state to pollute.

Even if allocation of water unfit for its designated use is viewed as a traditional state function, the CWA's clear statement is that permits are required for every point source discharge. As noted above, Sections 101(b) and (g) and 510(2) do not indicate an intent by Congress to exempt the SFWMD from the permit requirements. To the contrary, the plain language of the CWA, as well as all applicable case law make clear that states are subject to legitimate water quality regulation under the CWA.

With regard to the SFWMD's third function - pollution abatement - the SFWMD's argument that the Tenth Amendment requires a clearer statement of intent has no basis in the clear text of the statute. The protection of the Lake from contamination goes to the core purpose of the CWA. It is unmistakably clear that the intent of the CWA is to apply the NPDES permit requirement to entities like SFWMD.

The NPDES permit program is the "primary means" for protecting and improving water quality within the "comprehensive regulatory regime" established by Congress. *Arkansas*, 503 at 91, 99, 101. An NPDES permit under the Act sets forth the conditions for the discharge of pollutants so as to assure that the receiving water body will achieve or continue to achieve applicable "water quality standards." Clean Water Act §§ 301(b)(1)(C), 302(a), 303(a)-(c); 33 U.S.C. §§ 1311(b)(1)(C), 1312(a), 1313(a)-(c); 40 C.F.R. § 122.44(d)(1).

Congressional intent is clear: "the discharge of any pollutant *by any person*" into navigable waters "shall be unlawful," unless it is in accord with an NPDES permit. Clean Water Act § 402(a), (b); 33 U.S.C. § 1342(a), (b) (emphasis supplied). The term "person" is defined to

include states and any political subdivision of a state. Clean Water Act § 502(5); 33 U.S.C. § 1362(5). Citizen suits are authorized to enforce the permit obligation against "any other governmental instrumentality or agency permitted by the eleventh amendment." Clean Water Act § 505(a)(1); 33 U.S.C. § 1365(a)(1).

Defendant's affirmative defense, relying on the Tenth Amendment, must be rejected.

E. This Court Should Order The SFWMD To Promptly Apply For An NPDES Permit And Hold A Remedies Hearing To Consider Penalties And Injunctive Relief

33 U.S.C. § 1365 authorizes citizen suits for alleged violations of the NPDES permitting requirements of the CWA. Section 1365 authorizes the district courts to enforce the permitting requirements and "to apply any appropriate civil penalties under Section 1319(d) of the CWA." *Id.* It is well-settled that the citizen suits provision gives courts the authority "to order that relief it considers necessary to secure prompt compliance with the Act," including an order that the violator promptly apply for a permit. *Weinberger v. Romero-Bacelo*, 456 U.S. 305, 315 & 320 (1982); *see also Miccosukee Tribe of Indians of Florida v. South Florida Water Management District*, 280 F.3d 1364, 1371 (11th Cir. 2002) *rev'd on other grounds* 541 U.S. 95 (2004) ("the district court should order the water district to obtain an NPDES permit within some reasonable period"). Because the SFWMD is clearly in violation of the NPDES permitting requirements of the CWA, this Court should Order the SFWMD to promptly apply for such a permit.[28] This

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[28] Section 402(p) contains specific requirements for "discharges composed entirely of stormwater." "Stormwater" "means storm water runoff, snow melt runoff, and surface runoff and drainage." 40 C.F.R. 122.26(b)(13). Section 1342(p) "assign[s] permitting obligations to a select subset of potential stormwater-discharge sources." *Envtl. Prot. Info. Ctr. v. Pac. Lumber Co.*, 301 F. Supp. 2d 1102, 1111 (N.D. Cal. 2004). But section 402(p) is not the only CWA section imposing duties and obligations on pollution discharges. *Id.* Both section 402(a) and section 301(a) "posit pollution-related mandates on putative polluters, including that these

Continued . . .

Court may then proceed to a remedy phase at which time the Court may determine the appropriate penalty, *see* 33 U.S.C. § 1319(d), and any injunctive relief the Court deems appropriate.

For example, in addition to an order securing compliance with the CWA, the Court could grant injunctive relief and order the SFWMD to implement and enforce a modified IAP in order to minimize the harmful effects of backpumping during the permitting process. Permanent injunctive relief requires three elements: 1) success on the merits; 2) continuing irreparable injury; and 3) no adequate remedy at law. *Keener v. Convergy's Corp.*, 342 F.3d 1264, 1269 (11th Cir. 2003).[29]

The Plaintiffs would be entitled to this injunctive relief because: 1) they were successful on the merits; 2) they are irreparably harmed by continued degradation of the Lake; and 3) they have no adequate remedy at law. Even though some courts do not look to public interest when issuing a permanent injunction, the public interest is nevertheless clearly served here by issuing a permanent injunction. The injunction would serve the public interest because the public would benefit from reduced backpumping during the permitting process. The evidence at trial was substantial that the backpumping causes irreparable harm to the Lake and has serious deleterious effects on plants and animal life as well as public health.

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polluters obtain NPDES permits for 'point source' pollutant discharges," *Id.* at 1111 (citing *Envtl. Def. Ctr., Inc. v. U.S. EPA*, 344 F.3d 832, 840 (9th Cir. 2003)).

[29] A preliminary injunction on the other hand, requires a showing of substantial likelihood of success on the merits rather than actual success and also requires a showing that, if issued, the injunction would not be adverse to the public interest. *Klay v. United Healthgroup, Inc.*, 376 F.3d 1092, 1097 (11th Cir. 2004). Most courts do not consider the public interest element in deciding whether to issue a permanent injunction. *Id.*

In addition, it is clear from the evidence presented at trial that the remedy here must be carefully crafted so that the SFWMD does not attempt to circumvent it. The State and the SFWMD have a history of failed programs. *See* Section VII of Findings of Fact. The State and the SFWMD also have history of agreements they do not live up to, and orders they try to circumvent. *See generally*, Miccosukee Tribe's Resp. to Order dated Jan. 24, 2006, [D.E. 570]. In addition, the SFWMD cannot claim that it would have no ability to comply with an NPDES permit. As the backpumping event of February 2006 shows, the SFWMD has the ability to reduce or eliminate backpumping, and there are other measures which the SFWMD could implement which would ensure that it no longer violates water quality standards; however, the SFWMD must do so without discharging polluted waters into the Everglades and without flooding the Tribe's homeland.

Respectfully submitted,

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