

STATE OF FLORIDA  
DIVISION OF ADMINISTRATIVE HEARINGS

JACQUELINE LANE, )  
 )  
 Petitioner, )  
 )  
 vs. ) Case Nos. 08-3922  
 ) 08-3923  
 INTERNATIONAL PAPER COMPANY and )  
 DEPARTMENT OF ENVIRONMENTAL )  
 PROTECTION, )  
 )  
 Respondents. )  
 \_\_\_\_\_ )

RECOMMENDED ORDER

The final hearing in this case was held on June 22, 23, 24, and 30, and July 1, 20 and 21, 2009, in Pensacola, Florida, before Bram D. E. Canter, Administrative Law Judge of the Division of Administrative Hearings (DOAH).

APPEARANCES

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STATEMENT OF THE ISSUES

The issues in this case are whether International Paper Company (IP) is entitled to National Pollutant Discharge Elimination System (NPDES) Permit No. FL0002526 issued by Department of Environmental Protection (Department) and whether the Department should approve Consent Order No. 08-0358, for the operation of IP's paper mill in Cantonment, Escambia County, Florida.

PRELIMINARY STATEMENT

On April 12, 2005, the Department published notice of its intent to issue an NPDES permit, a Consent Order, an exception for the experimental use of wetlands, and a variance, which would authorize IP to construct, modify, and operate industrial wastewater facilities for IP's paper mill in Cantonment and discharge its wastewater into state waters. Jacqueline Lane and her four adult children each filed petitions to challenge the

four Department authorizations. Friends of Perdido Bay, Inc. (FOPB), and James Lane filed a similar petition. The Department referred the six petitions to DOAH and the cases were consolidated for hearing. See DOAH Case No. 05-1609.

On May 11, 2007, a Recommended Order was issued, which recommended that the four authorizations be denied by the Department. The Department issued a Final Order on August 8, 2007, which adopted the Recommended Order with some modifications, and denied the four authorizations.

Thereafter, IP conducted additional studies, modified its project, and re-applied for the four authorizations. On July 18, 2008, the Department again published notice of its intent to issue an NPDES permit, a Consent Order, an exception for the experimental use of wetlands, and a variance for IP's paper mill in Cantonment. Jacqueline Lane filed a petition challenging the four authorizations. FOPB and James Lane filed a similar petition. The Department referred the petitions to DOAH and they were consolidated for hearing.

Before the final hearing, FOPB and James Lane filed a petition challenging the validity of Florida Administrative Code Rule 62-302.800(2), the rule which provides for exceptions from state water quality criteria for the experimental use of wetlands. Jacqueline Lane and IP intervened in the rule challenge proceeding. IP subsequently withdrew its applications

for the exception and the associated variance, and a Final Order of Dismissal was issued, determining that Petitioners lacked standing to challenge the rule. See DOAH Case No. 09-2446RX. FOPB and James Lane filed a second petition to challenge Rule 62-302.800(2), but voluntarily dismissed the petition.

Before the final hearing, FOPB and James Lane also filed a petition with DOAH to challenge the validity of three other Department rules that were applied by the Department in its determination to issue the authorizations to IP: Florida Administrative Code Rules 62-660.300(1), 62-4.242(1)(d), and 62-302.300(6). This rule challenge was consolidated for hearing with the permit cases. At the commencement of the final hearing, FOPB and James Lane stated on the record that they were withdrawing their challenge to the validity of Rules 62-660.300(1) and 62-4.242(1)(d), which left only Rule 62-302.300(6) at issue. On October 1, 2009, a Final Order was issued, determining that Petitioners had failed to demonstrate that Rule 62-302.300(6) was an invalid exercise of delegated legislative authority. See DOAH Case No. 08-6033RX.

At the final hearing, IP presented the testimony of Dr. Mike Steltenkamp, who was accepted as an expert in the fields of chemistry and environmental management, with a specialty in pulp and paper bleaching technologies; Dr. Thomas Simpson, who was accepted as an expert in the fields of wetland

and stream ecology; Dr. Robert J. Livingston, who was accepted as an expert in the field of aquatic ecology with specialties in pollution biology, ecosystem ecology, and anthropogenic effects; Dr. Wade Nutter, who was accepted as an expert in the fields of hydrology and soil science, with a specialty in land treatment and application of wastewater; Dr. Bruce Pruitt, who was accepted as an expert in the field of ecology, with specialties in wetland ecology, water quality, oxygen dynamics, soil science, and geomorphology; and Jim Bays, who was accepted as an expert in the field of wetland ecology, with a specialty in treatment wetlands. The Department presented the testimony of Eric Hickman, who was accepted as an expert in the field of wetland evaluation and delineation; and Russ Frydenborg, who was accepted as an expert in the fields of aquatic biology and aquatic ecology. Petitioners presented the testimony of William Evans, a supervisor for the domestic wastewater permitting section for the Department's Northwest District; Dr. Mark Rains, who was accepted as an expert in the fields of ecohydrology and wetland ecology; Dr. Wayne Ispording, who was accepted as an expert in the fields of geochemistry, mineralogy, and engineering geology; Dr. Kevin White, who was accepted as an expert in the fields of civil engineering, environmental engineering, and the design, construction, and operation of treatment wetlands; Donald Ray, a Department stream ecologist;

and Petitioner Dr. Jacqueline Lane, who was accepted as an expert in the fields of biology and stream ecology.

Joint Exhibits 1 through 9 were admitted into evidence. IP Exhibits 13 through 24, 30, 33 through 50, and 79 were admitted into evidence. Department Exhibits 6 and 15 were admitted into evidence. Petitioners Exhibits 1, 4, 8, 27, 28, and 35 were admitted into evidence. Official recognition was taken of the Department's Final Order in DOAH Case No. 05-1609.

The twelve-volume Transcript of the final hearing was filed with DOAH. The parties filed proposed recommended orders that were carefully considered in the preparation of this Recommended Order.

#### FINDINGS OF FACT

##### A. Background<sup>1</sup>

1. The Department is the state agency authorized under Chapter 403, Florida Statutes (2008), to regulate discharges of industrial wastewater to waters of the state. Under a delegation from the United States Environmental Protection Agency, the Department administers the NPDES permitting program in Florida.

2. IP owns and operates the integrated bleached kraft paper mill in Cantonment.

3. FOPB is a non-profit Alabama corporation established in 1988 whose members are interested in protecting the water

quality and natural resources of Perdido Bay. FOPB has approximately 450 members. About 90 percent of the members own property adjacent to Perdido Bay. James Lane is the president of FOPB.

4. Jacqueline Lane and James Lane live on property adjacent to Perdido Bay.

5. The mill's wastewater effluent is discharged into Elevenmile Creek, which is a tributary of Perdido Bay. Perdido Bay is approximately 28 square miles in area. U.S. Highway 90 crosses the Bay, going east and west, and forms the boundary between what is often referred to as the "Upper Bay" and "Lower Bay." The Bay is relatively shallow, especially in the Upper Bay, ranging in depth between five and ten feet.

6. At the north end of Perdido Bay is a large tract of land owned by IP, known as the Rainwater Tract. The northern part of the tract is primarily fresh water wetlands. The southern part is a tidally-affected marsh. The natural features and hydrology of the fresh water wetlands have been substantially altered by agriculture, silviculture, clearing, ditching, and draining.

7. Tee Lake and Wicker Lake are small lakes (approximately 50 acres in total surface area) within the tidal marsh of the Rainwater Tract. Depending on the tides, the lakes can be as shallow as one foot, or several feet deep. A channel through

the marsh allows boaters to gain access to the lakes from Perdido Bay.

8. Florida Pulp and Paper Company first began operating the Cantonment paper mill in 1941. St. Regis Paper Company acquired the mill in 1946. In 1984, Champion International Corporation (Champion) acquired the mill. Champion changed the product mix in 1986 from unbleached packaging paper to bleached products such as printing and writing grades of paper.

9. The mill is integrated, meaning that it brings in logs and wood chips, makes pulp, and produces paper. The wood is chemically treated in cookers called digesters to separate the cellulose from the lignin in the wood because only the cellulose is used to make paper. Then the "brown stock" from the digesters goes through the oxygen delignification process, is mixed with water, and is pumped to paper machines that make the paper products.

10. In 1989, the Department and Champion signed a Consent Order to address water quality violations in Elevenmile Creek. Pursuant to the Consent Order, Champion commissioned a comprehensive study of the Perdido Bay system that was undertaken by a team of scientists led by Dr. Robert Livingston, an aquatic ecologist and professor at Florida State University. The initial three-year study by Dr. Livingston's team of



scientists was followed by a series of related scientific studies ("the Livingston studies").

11. Champion was granted variances from the water quality standards in Elevenmile Creek for iron, specific conductance, zinc, biological integrity, un-ionized ammonia, and dissolved oxygen (DO).

12. In 2001, IP and Champion merged and Champion's industrial wastewater permit and related authorizations were transferred to IP.

13. In 2002, IP submitted a permit application to upgrade its wastewater treatment plant (WWTP) and relocate its discharge. The WWTP upgrades consist of converting to a modified activated sludge treatment process, increasing aeration, constructing storm surge ponds, and adding a process for pH adjustment. The new WWTP would have an average daily effluent discharge of 23.8 million gallons per day (mgd). IP proposes to convey the treated effluent by pipeline 10.7 miles to the Rainwater Tract, where the effluent would be distributed over the wetlands as it flows to lower Elevenmile Creek and upper Perdido Bay.

14. IP's primary objective in upgrading the WWTP was to reduce the nitrogen and phosphorus in the mill's effluent discharge. The upgrades are designed to reduce un-ionized ammonia, total soluble nitrogen, and phosphorus. They are also

expected to achieve a reduction of biological oxygen demand (BOD) and TSS.

15. IP plans to obtain up to 5 mgd of treated municipal wastewater from a new treatment facility planned by the Emerald Coast Utility Authority (ECUA), which would be used in the paper production process and would reduce the need for groundwater withdrawals by IP for this purpose. The treated wastewater would enter the WWTP, along with other process wastewater and become part of the effluent conveyed through the pipeline to the wetland tract.

16. The effluent limits required by the proposed permit include technology-based effluent limits (TBELs) that apply to the entire pulp and paper industry. TBELs are predominantly production-based, limiting the amount of pollutants that may be discharged for each ton of product that is produced.

17. The proposed permit also imposes water quality-based effluent limits (WQBELs) that are specific to the Cantonment mill and the waters affected by its effluent discharge. The WQBELs for the mill are necessary for certain constituents of the mill's effluent because the TBELs, alone, would not be sufficient to prevent water quality criteria in the receiving waters from being violated.

18. The Livingston studies represent perhaps the most complete scientific evaluation ever made of a coastal ecosystem.

Dr. Livingston developed an extensive biological and chemical history of Perdido Bay and then evaluated the nutrient loadings from Elevenmile Creek over a 12-year period to correlate mill loadings with the biological health of the Bay. The Livingston studies confirmed that when nutrient loadings from the mill were high, they caused toxic algae blooms and reduced biological productivity in Perdido Bay. Some of the adverse effects attributable to the mill effluent were most acute in the area of the Bay near the Lanes' home on the northeastern shore of the Bay because the flow from the Perdido River tends to push the flow from Elevenmile Creek toward the northeastern shore.

19. Because Dr. Livingston determined that the nutrient loadings from the mill that occurred in 1988 and 1989 did not adversely impact the food web of Perdido Bay, he recommended effluent limits for ammonia nitrogen, orthophosphate, and total phosphorous that were correlated with mill loadings of these nutrients in those years. The Department used Dr. Livingston's data, and did its own analyses, to establish WQBELs for orthophosphate for drought conditions and for nitrate-nitrite. WQBELs were ultimately developed for total ammonia, orthophosphate, nitrate-nitrite, total phosphorus, BOD, color, and soluble inorganic nitrogen.

20. The WQBELs in the proposed permit were developed to assure compliance with water quality standards under conditions

of pollutant loadings at the daily limit (based on a monthly average) during low flow in the receiving waters.

21. Petitioners did not dispute that the proposed WWTP is capable of achieving the TBELs and WQBELs. Their main complaint is that the WQBELs are not adequate to protect the receiving waters.

22. A wetland pilot project was constructed in 1990 at the Cantonment mill into which effluent from the mill has been discharged. The flora and fauna of the pilot wetland project have been monitored to evaluate how they are affected by IP's effluent.

23. An effluent distribution system is proposed for the wetland tract to spread the effluent out over the full width of the wetlands. This would be accomplished by a system of berms running perpendicular to the flow of water through the wetlands, and gates and other structures in and along the berms to gather and redistribute the flow as it moves in a southerly direction toward Perdido Bay. The design incorporates four existing tram roads that were constructed on the wetland tract to serve the past and present silvicultural activities there. The tram roads, with modifications, would serve as the berms in the wetland distribution system.

24. As the effluent is discharged from the pipeline, it would be re-aerated and distributed across Berm 1 through a

series of adjustable, gated openings. Mixing with naturally occurring waters, the effluent would move by gravity to the next lower berm. The water will re-collect behind each of the vegetated berms and be distributed again through each berm. The distance between the berms varies from a quarter to a half mile.

25. Approximately 70 percent of the effluent discharged into the wetland would flow a distance of approximately 2.3 miles to Perdido Bay. The remaining 30 percent of the effluent would flow a somewhat shorter distance to lower Elevenmile Creek.

26. A computer simulation performed by Dr. Wade Nutter indicated that the effluent would move through the wetland tract at a velocity of approximately a quarter-of-a-foot per second and the depth of flow across the wetland tract will be 0.6 inches. It would take four or five days for the effluent to reach lower Elevenmile Creek and Perdido Bay. As the treated effluent flows through the wetland tract, there will be some removal of nutrients by plants and soil. Nitrogen and phosphorous are expected to be reduced approximately ten percent. BOD in the effluent is expected to be reduced approximately 90 percent.

27. Construction activities associated with the effluent pipeline, berm, and control structures in the wetland tract, as originally proposed, were permitted by the Department through

issuance of a Wetland Resource Permit to IP. The United States Army Corps of Engineers has also permitted this work.

Petitioners did not challenge those permits.

28. A wetland monitoring program is required by the proposed permit. The stated purpose of the monitoring program is to assure that there are no significant adverse impacts to the wetland tract, including Tee and Wicker Lakes. After the discharge to the wetland tract commences, the proposed permit requires IP to submit wetland monitoring reports annually to the Department.

29. A monitoring program was also developed by Dr. Livingston and other IP consultants to monitor the impacts of the proposed discharge on Elevenmile Creek and Perdido Bay. It was made a part of the proposed permit.

30. The proposed Consent Order establishes a schedule for the construction activities associated with the proposed WWTP upgrades and the effluent pipeline and for incremental relocation of the mill's discharge from Elevenmile Creek to the wetland tract. IP is given two years to complete construction activities and begin operation of the new facilities. At the end of the construction phase, least 25 percent of the effluent is to be diverted to the wetland tract. The volume of effluent diverted to the wetlands is to be increased another 25 percent every three months thereafter. Three years after issuance of

the permit, 100 percent of the effluent would be discharged into the wetland tract and there would no longer be a discharge into Elevenmile Creek.

31. The proposed Consent Order establishes interim effluent limits that would apply immediately upon the effective date of the Consent Order and continue during the two-year construction phase when the mill would continue to discharge into Elevenmile Creek. Other interim effluent limits would apply during the 12-month period following construction when the upgraded WWTP would be operating and the effluent would be incrementally diverted from Elevenmile Creek to the wetland tract. A third set of interim effluent limits would apply when 100 percent of the effluent is discharged into the wetland tract.

32. IP is required by the Consent Order to submit quarterly reports of its progress toward compliance with the required corrective actions and deadlines.

#### B. Project Changes

33. After the issuance of the Final Order in 05-1609, IP modified its manufacturing process to eliminate the production of white paper. IP now produces brown paper for packaging material and "fluff" pulp used in such products as filters and diapers. IP's new manufacturing processes uses substantially smaller amounts of bleach and other chemicals that must be treated and discharged.

34. IP reduced its discharge of BOD components, salts that increase the specific conductance of the effluent, adsorbable organic halides, and ammonia. IP also reduced the odor associated with its discharge.

35. In the findings that follow, the portion of the Rainwater Tract into which IP proposes to discharge and distribute its effluent will be referred to as the "effluent distribution system," which is the term used by Dr. Nutter in his 2008 "White Paper" (IP Exhibit 23). The effluent distribution system includes the berms and other water control structures as well as all of the natural areas over which IP's effluent will flow to Perdido Bay.

36. Most of the existing ditches, sloughs, and depressions in the effluent distribution system are ephemeral, holding water only after heavy rainfall or during the wet season. Even the more frequently wetted features, other than Tee and Wicker Lakes, intermittently dry out. There is currently little connectivity among the small water bodies that would allow fish and other organisms to move across the site.

37. Fish and other organisms within these water bodies are exposed to wide fluctuations in specific conductivity, pH, and DO. When the water bodies dry out, the minnows and other small fish die. New populations of fish enter these water bodies from



Elevenmile Creek during high water conditions, or on the feet of water birds.

38. IP's consultants conducted an extensive investigation and evaluation of animal and plant communities in the Rainwater Tract in coordination with scientists from the Department and the Florida Fish and Wildlife Conservation Commission. Among the habitats that were identified and mapped were some wet prairies, which are designated "S-2," or imperiled, in the Florida Natural Area Inventory. In these wet prairies are rare and endangered pitcher plants.

39. IP modified the design of the proposed effluent distribution system to shorten the upper berms and remove 72.3 acres of S-2 habitat. The total area of the system was reduced from 1,484 acres to 1,381 acres.

40. The proposed land management activities within the effluent distribution system are intended to achieve restoration of historic ecosystems, including the establishment and maintenance of tree species appropriate to the various water depths in the system, and the removal of exotic and invasive plant species.

41. A functional assessment of the existing and projected habitats in the effluent distribution system was performed. The Department concluded that IP's project would result in a six percent increase in overall wetland functional value within the

system. That estimate accounts for the loss of some S-2 habitat, but does not include the benefits associated with IP's conservation of S-2 habitat and other land forms outside of the effluent distribution system.

42. IP proposes to place in protected conservation status 147 acres of wet prairie, 115 acres of seepage slope, and 72 acres of sand hill lands outside the effluent distribution system. The total area outside of the wetland distribution system that the Consent Order requires IP to perpetually protect and manage as conservation area is 1,188 acres.

43. The Consent Order was modified to incorporate many of the wetland monitoring provisions that had previously been a part of the former experimental use of wetlands authorization.

44. IP proposes to achieve compliance with all proposed water quality standards and permit limits by the end of the schedule established in the Consent Order, including the water quality standards for specific conductance, pH, turbidity, and DO, which IP had previously sought exceptions for pursuant to Florida Administrative Code Rule 62-660.300(1).

#### C. Limitation of Factual Issues

45. As explained in the Conclusions of Law, the doctrine of collateral estoppel bars the parties in these consolidated cases from re-litigating factual issues that were previously litigated by them in DOAH Case No. 05-1609. The Department's

Final Order of August 8, 2007, determined that IP had provided reasonable assurance that the NPDES permit, Consent Order, exception for the experimental use of wetlands, and variance were in compliance with all applicable statutes and rules, except for the following area: the evidence presented by IP was insufficient to demonstrate that IP's wastewater effluent would not cause significant adverse impact to the biological community of the wetland tract, including Tee and Wicker Lakes.

46. Following a number of motions and extensive argument on the subject of what factual issues raised by Petitioners are proper for litigation in this new proceeding, an Order was issued on June 2, 2009, that limited the case to two general factual issues:

1. Whether the revised Consent Order and proposed permit are valid with respect to the effects of the proposed discharge on the wetland system, including Tee and Wicker Lakes, and with respect to any modifications to the effluent distribution and treatment functions of the wetland system following the Final Order issued in DOAH Case No. 05-1609; and
2. Whether the December 2007 report of the Livingston team demonstrates that the WQBELS are inadequate to prevent water quality violations in Perdido Bay.

#### D. Petitioners' Disputes

47. Petitioners' proposed recommended orders include arguments that are barred by collateral estoppel. For example,

Jacqueline Lane restates her opinions about physical and chemical processes that would occur if IP's effluent is discharged into the wetlands, despite the fact that some of these opinions were rejected in DOAH Case No. 05-1609.

48. Dr. Lane believes that IP's effluent would cause adverse impacts from high water temperatures resulting from color in IP's effluent. There is already color in the waters of the effluent distribution system under background conditions. The increased amount of shading from the trees that IP is planting in the effluent distribution system would tend to lower water temperatures. Peak summer water temperatures would probably be lowered by the effluent. Petitioners evidence was insufficient to show that the organisms that comprise the biological community of the effluent distribution system cannot tolerate the expected range of temperatures.

49. Dr. Lane also contends that the BOD in IP's effluent would deplete DO in the wetlands and Tee and Wicker Lakes. Her contention, however, is not based on new data about the effluent or changes in the design of the effluent distribution system.

50. There is a natural, wide fluctuation in DO in the wetlands of the effluent distribution system because DO is affected by numerous factors, including temperature, salinity, atmospheric pressure, turbulence, and surface water aeration. There are seasonal changes in DO levels, with higher levels in

colder temperatures. There is also a daily cycle of DO, with higher levels occurring during the day and lower levels at night.

51. It is typical for DO levels in wetlands to fall below the Class III water quality standard for DO, which is five milligrams per liter (mg/l). An anaerobic zone in the water column is beneficial for wetland functions. DO levels in the water bodies of the effluent distribution system currently range from a high of 11 to 12 mg/l to a low approaching zero.

52. The principal factor that determines DO concentrations within a wetland is sediment oxygen demand (SOD). SOD refers to the depletion of oxygen from biological responses (respiration) as well as oxidation-reduction reactions within the sediment. The naturally occurring BOD in a wetland is large because of the amount of organic material. The BOD associated with IP's effluent would be a tiny fraction of the naturally occurring BOD in the effluent distribution system and would be masked by the effect of the SOD. It was estimated that the BOD associated with IP's effluent would represent only about .0000000001 percent of the background BOD, and would have an immeasurable effect.

53. Dr. Pruitt's testimony about oxygen dynamics in a wetland showed that IP's effluent should not cause a measurable

decrease in DO levels within the effluent distribution system, including Tee and Wicker Lakes.

54. FOPB and James Lane assert that only 200 acres of the effluent distribution system would be inundated by IP's effluent, so that the alleged assimilation or buffering of the chemical constituents of the effluent would not occur. That assertion misconstrues the record evidence. About 200 acres of the effluent distribution system would be permanently inundated behind the four berms. However, IP proposes to use the entire 1,381-acre system for effluent distribution.

55. The modifications to the berms and the 72-acre reduction in the size of the effluent distribution system would not have a material effect on the assimilative capacity of system. The residence time and travel time of the effluent in the system, for example, would not be materially affected.

56. Variability in topography within the effluent distribution system and in rainfall would affect water depths in the system. The variability in topography, including the creation of some deeper pools, would contribute to plant and animal diversity and overall biological productivity within the system.

57. The pH of the effluent is not expected to change the pH in the effluent distribution system because of natural buffering in the soils.

58. The specific conductance (saltiness) of IP's effluent is not high enough to adversely affect the biological community in the fresh water wetlands of the effluent distribution system. IP is already close to maintaining compliance with the water quality standard for specific conductance and would be in full compliance by the end of the compliance schedule established in the proposed Consent Order.

59. After the 2007 conversion to brown paper manufacturing, IP's effluent has shown no toxicity. The effluent has passed the chronic toxicity test, which analyzes the potential for toxicity from the whole effluent, including any toxicity arising from additive or synergistic effects, on sensitive test organisms.

60. Dr. Lane points out that the limits for BOD and TSS in the proposed NPDES permit exceed the limits established by Department rule for discharges of municipal wastewater into wetlands. However, paper mill BOD is more recalcitrant in the environment than municipal wastewater BOD and less "bio-available" in the processes that can lower DO. In addition, the regulatory limits for municipal wastewater are technology-based, representing "secondary treatment." The secondary treatment technology is not applicable to IP's wastewater.

61. Sampling in the pilot wetland at the paper mill revealed a diversity of macroinvertebrates, including predator

species, and other aquatic organisms. Macroinvertebrates are a good measure of the health of a water body because of their fundamental role in the food web and because they are generally sensitive to pollutants.

62. Petitioners contend that the pilot wetland at the paper mill is not a good model for the effect of the IP's effluent in the wetland distribution system, primarily because of the small amount of effluent that has been applied to the pilot wetland. Although the utility of the pilot wetland data is diminished in this respect, it is not eliminated. The health of the biological community in the pilot wetland contributes to IP's demonstration of reasonable assurance that the biological community in the effluent distribution system would not be adversely affected.

63. The effluent would not have a significant effect on the salinity of Tee and Wicker Lakes. Under current conditions, the lakes have a salinity of less than one part per thousand 25 percent of the time, less than 10 parts per thousand 53 percent of the time, and greater than 10 parts per thousand 22 percent of the time. In comparison, marine waters have a salinity of 2.7 parts per thousand.

64. IP's effluent would not affect the lower end of the salinity range for Tee and Wicker Lakes, and would cause only a minor decrease in the higher range. That minor decrease should



not adversely affect the biota in Tee and Wicker Lakes or interfere with their nursery functions.

65. The proposed hydrologic loading rate of the effluent amounts to an average of six-tenths of an inch over the area of effluent distribution system. The addition of IP's effluent to the wetlands of the effluent distribution system and the creation of permanent pools would allow for permanent fish populations and would increase the opportunity for fish and other organisms to move across the effluent distribution system.

66. Biological diversity and productivity is likely to be increased in the effluent distribution system.

67. By improving fish habitat, the site would attract wading birds and other predatory birds.

68. Although the site would not be open to public use (with the exception of Tee and Wicker Lakes), recreational opportunities could be provided by special permission for guided tours, educational programs, and university research. Even if public access were confined to Tee and Wicker Lakes, that would not be a reduction in public use as compared to the existing situation.

69. IP's discharge, including its discharges subject to the interim limits established in the Consent Order, would not interfere with the designated uses of the Class III receiving

waters, which are the propagation and maintenance of a healthy, well-balanced population of fish and wildlife.

70. The wetlands of the effluent distribution system are the "receiving waters" for IP's discharge. The proposed project would not be unreasonably destructive to the receiving waters, which would involve a substantial alteration in community structure and function, including the loss of sensitive taxa and their replacement with pollution-tolerant taxa.

71. The proposed WQBELs would maintain the productivity in Tee and Wicker Lakes. There would be no loss of the habitat values or nursery functions of the lakes which are important to recreational and commercial fish species.

72. IP has no reasonable, alternative means of disposing of its wastewater other than by discharging it into waters of the state.

73. IP has demonstrated a need to meet interim limits for a period of time necessary to complete the construction of its alternative waste disposal system. The interim limits and schedule for coming into full compliance with all water quality standards, established in the proposed Consent Order, are reasonable.

74. The proposed project is important and beneficial to the public health, safety, and welfare because (1) economic benefits would accrue to the local and regional economy from the

operation of IP's paper mill, (2) Elevenmile Creek would be set on a course of recovery, (3) the wetlands of the effluent distribution system would become a site of greater biological diversity and productivity, (4) the environmental health of Perdido Bay would be improved, (5) the Department's decades-long enforcement action against IP would be concluded, (6) substantial areas of important habitat would be set aside for permanent protection, and (7) the effluent distribution system would yield important information on a multitude of scientific topics that were debated by these parties.

75. The proposed project would not adversely affect the conservation of fish or wildlife or their habitats.

76. The proposed project would not adversely affect fishing or water-based recreational values or marine productivity in the vicinity of the proposed discharge.

77. There is no Surface Water Improvement and Management Plan applicable to IP's proposed discharge.

78. The preponderance of the record evidence establishes reasonable assurance that IP's proposed project would comply with all applicable laws and that the Consent Order establishes reasonable terms and conditions to resolve the Department's enforcement action against IP for past violations.

CONCLUSIONS OF LAW

79. The standing of Petitioners to challenge the proposed Department authorizations was established in DOAH Case No. 05-1609.

80. As the permit applicant, IP has the burden to prove by a preponderance of the evidence that it is entitled to the permit. Dep't of Transp. v. J.W.C. Co., Inc., 396 So. 2d 778, 787 (Fla. 1st DCA 1981).

81. A permit applicant need not prove all items in the application down to the last detail. A petitioner must identify the specific areas of controversy. J.W.C. at 789. Once the applicant has made a preliminary showing of entitlement, the burden of presenting contrary evidence shifts to the petitioner to present evidence of equivalent quality to prove the facts alleged in the petition. Id.

82. Florida Administrative Rule 62-4.070(1) states that a permit shall be issued only if the applicant affirmatively provides the Department with reasonable assurance based on plans, test results, installation of pollution control equipment, or other information, that the construction, expansion, modification, operation, or activity of the installation will not discharge, emit, or cause pollution in contravention of Department standards or rules.

83. "Reasonable assurance" in this context means a demonstration that there is a substantial likelihood of compliance with standards, or "a substantial likelihood that the project will be successfully implemented." See Metropolitan Dade County, v. Coscan Florida, Inc., 609 So. 2d 644, 648 (Fla. 3d DCA 1992). It does not mean absolute guarantees.

84. If a discharge will not cause a measurable change in a water quality parameter, the effect on that parameter is insignificant. See Pacetti v. Fla. Dep't of Env'tl. Regulation, DOAH Case Nos. 84-3810 and 84-3811 (DER 1986).

85. When receiving waters currently fall below one or more water quality standards under existing conditions, a permit may be issued if the applicant will not cause or contribute to a violation. See Friends of the Everglades v. Dep't of Env'tl. Regulation, 496 So. 2d 181, 183 (Fla. 1st DCA 1986); Metro Dade County v. Coscan, Inc., 609 So. 2d 644, 646 (Fla. 3d DCA 1992).

86. The disputed issues in this case were narrowed by the doctrine of collateral estoppel because these same parties previously litigated factual issues associated with IP's proposed project in DOAH Case No. 05-1609. The essential elements of the doctrine are that the parties are identical and that the particular matter was fully litigated and determined in a contest that results in a final decision. See Dep't of Health and Rehab. Servs. v. B.J.M., 656 So. 2d 906 (Fla. 1995).

87. The factual issues in the current consolidated cases were limited to whether IP's effluent would adversely affect the biological community of the effluent distribution system, including Tee and Wicker Lakes, and whether the December 2007 report of the Livingston team demonstrates that the WQBELS are inadequate to prevent water quality violations in Perdido Bay.

88. Petitioners were barred by collateral estoppel from re-litigating their opinions about physical and chemical processes affecting, for example, toxicity and oxygen dynamics, that were rejected in DOAH Case No. 05-1609.

89. IP presented new evidence on the biological community of the wetlands in the effluent distribution system and provided reasonable assurance that IP's effluent would not adversely affect the biological community.

90. Petitioners failed to prove that any new data in the December 2007 report of the Livingston team demonstrate that the proposed WQBELS are inadequate to prevent water quality violations in Perdido Bay.

91. The Department may issue an operation permit for a discharge that will not comply with all applicable statutes and rules if the applicant is able to meet one of the special conditions of Section 403.088(2)(e), Florida Statutes:

1. The applicant is constructing, installing, or placing into operation, or has submitted plans and a reasonable

schedule for constructing, installing, or placing into operation, an approved pollution abatement facility or alternative waste disposal system;

2. The applicant needs permission to pollute the waters within the state for a period of time necessary to complete research, planning, construction, installation, or operation of an approved and acceptable pollution abatement facility or alternative waste disposal system;

3. There is no present, reasonable, alternative means of disposing of the waste other than by discharging it into the waters of the state;

4. The granting of an operation permit will be in the public interest;

5. The discharge will not be unreasonably destructive to the quality of the receiving waters; or

6. A water quality credit trade that meets the requirements of s. 403.067.

92. Now that IP has demonstrated that its effluent would not be harmful to the wetlands of the effluent distribution system, but would enhance the biological diversity and productivity of the wetlands, the granting of the permit will be in the public interest for that reason and the other reasons stated in paragraph 74. IP demonstrated that it qualifies for an operation permit under Section 403.088(2)(e)1. through 5., Florida Statutes.

93. A permit issued pursuant to Section 403.088(2)(e), Florida Statutes, must be accompanied by an order which

establishes a schedule for achieving compliance with all permit conditions. See § 403.088(2)(f), Fla. Stat. That requirement would be achieved by the proposed Consent Order.

94. FOPB and James Lane argue that, because Section 373.414(4), Florida Statutes, specifically addresses the use of wetlands to treat municipal wastewater, and no statute or rule specifically addresses the use of wetlands to treat industrial wastewater, it necessarily follows that the latter is prohibited. However, there is no statute or rule that prohibits the discharge of industrial wastewater to wetlands. There are numerous statutes and rules that address any discharge of pollutants into "receiving waters" or "waters of the state," and these laws are sufficient authority for the proposed NPDES permit and Consent Order.

95. FOPB and James Lane also contend that IP's effluent would permanently change the hydroperiod of the wetlands within the effluent distribution system, but they cite no law that prohibits such a change. Pollutant discharges made in compliance with all applicable regulations usually change the receiving waters. The relevant permitting question, therefore, is not whether the receiving waters are changed, but whether the changes are permissible under the law. Based on the Findings of Fact and Conclusions of Law stated herein, the changes to the



receiving waters that would result from IP's proposed project are permissible.

96. FOPB and James Lane argue that the Department's functional assessment of the "before" and "after" conditions of the plant communities of the effluent distribution system failed to comply with the "mandate of Section 373.414(18)," which directs the Department to establish a uniform mitigation assessment method (UMAM) for wetlands. However, that statute makes UMAM mandatory only in the environmental resource permitting program. This proceeding involves a Chapter 403 industrial wastewater discharge, which IP showed would meet all state water quality standards at the end of the compliance period and qualifies to temporarily exceed some standards under the special conditions established in Section 403.088(2)(e), Florida Statutes, including the condition that the discharge not be unreasonably destructive to the quality of the receiving waters. The Department's functional assessment demonstrated that the discharge would not be unreasonably destructive to the quality of the receiving waters.

97. Section 403.088(2)(b), Florida Statutes, establishes Florida's "antidegradation" policy and requires the Department to determine whether a discharge will "reduce the quality of the receiving waters below the classification established for them," and, if not, whether the degradation is "necessary or desirable

under federal standards and under circumstances which are clearly in the public interest."

98. IP and the Department disagreed about the applicability of the antidegradation policy. IP contends that the antidegradation policy is not applicable to IP's project because IP's effluent would not cause any degradation to the receiving waters, but would actually improve their quality. However, because IP's effluent would introduce pollutants into the receiving waters, and the Consent Order provides for a period of time when interim limits would be in effect, application of the antidegradation policy to IP's discharge is appropriate.

99. Florida Administrative Code Rule 62-4.242(1)(b) establishes four factors that the Department is to consider and balance in determining whether any degradation is "necessary or desirable" and "clearly in the public interest":

1. Whether the proposed project is important to and is beneficial to the public health, safety, or welfare (taking into account the policies set forth in Rule 62-302.300, F.A.C., and, if applicable, Rule 62-302.700, F.A.C.); and
2. Whether the proposed discharge will adversely affect conservation of fish and wildlife, including endangered or threatened species, or their habitats; and
3. Whether the proposed discharge will adversely affect the fishing or water-based recreational values or marine productivity

in the vicinity of the proposed discharge;  
and

4. Whether the proposed discharge is consistent with any applicable Surface Water Improvement and Management Plan that has been adopted by a Water Management District and approved by the Department.

100. IP's project rates favorably under the four factors in Florida Administrative Code Rule 62-4.242(1)(b) and shows compliance with the Department's antidegradation policy.

RECOMMENDATION

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

RECOMMENDED that the Department enter a final order granting NPDES Permit No. FL0002526 and approving Consent Order No. 08-0358.

DONE AND ENTERED this 27th day of January, 2010, in Tallahassee, Leon County, Florida.



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Filed with the Clerk of the  
Division of Administrative Hearings  
this 27th day of January, 2010.

ENDNOTES

<sup>1/</sup> The findings set forth in paragraphs 1 through 32 are derived from findings made previously in the Recommended Order issued in DOAH Case No. 05-1609, which were subsequently adopted in the Department's Final Order issued on August 8, 2007. These are not the only findings from DOAH Case No. 05-1609 that are relevant in this proceeding, but they were selected for the purpose of providing background information.

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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

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