

IN THE SUPREME COURT OF MISSISSIPPI

NO. 1999-SA-02035-SCT

**MISSISSIPPI SIERRA CLUB, INC. AND GREEN BAGGETT**

v.

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY AND THE MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY; BOARD OF MISSISSIPPI LEVEE COMMISSIONERS; BOARD OF LEVEE COMMISSIONERS FOR THE YAZOO MISSISSIPPI DELTA; BOARD OF SUPERVISORS OF WASHINGTON, YAZOO, BOLIVAR, ISSAQUENA, COAHOMA, TALLAHATCHIE, SUNFLOWER, HUMPHREYS AND SHARKEY COUNTIES; CITIES OF LELAND, CLEVELAND, HOLLANDALE, ROLLING FORK AND PACE; TOWNS OF SUNFLOWER, ALLIGATOR, ANGUILLA, LYON, BOYLE, TUTWILER, SUMNER, ARCOLA AND GUNNISON; CITY COUNCILS OF GREENVILLE AND ROSEDALE; DRAINAGE DISTRICTS OF OTTER BAYOU, DEER CREEK NO. 1, NUMBER SEVEN, NUMBER ELEVEN, BOGUE HASTY, BEAR PEN, NORTHERN, NUMBER TWELVE, CLEAR CREEK, LABAN BAYOU, SHAW, NEW PORTER BAYOU, HUSHPUCKENA, NUMBER TEN AND NUMBER EIGHT; SOIL CONSERVATION DISTRICTS OF BOLIVAR, COAHOMA, YAZOO, LEFLORE, HUMPHREYS, ISSAQUENA, SUNFLOWER, TUNICA, WASHINGTON AND SHARKEY COUNTIES; CENTRAL DRAINAGE COMMISSION AND DEER CREEK COMMISSION**

**ON MOTION FOR REHEARING**

DATE OF JUDGMENT:	11/8/1999
TRIAL JUDGE:	HON. PATRICIA WISE
COURT FROM WHICH APPEALED:	HINDS COUNTY CHANCERY COURT
ATTORNEYS FOR APPELLANTS:	REILLY MORSE GEORGE H. PENN
ATTORNEYS FOR APPELLEES:	BETTY RUTH FOX CHUCK D. BARLOW CHARLES S. TINDALL, III
NATURE OF THE CASE:	CIVIL - STATE BOARDS AND AGENCIES
DISPOSITION:	VACATED AND REMANDED- 05/09/2002
MOTION FOR REHEARING FILED:	05/03/2001
MANDATE ISSUED:	5/30/2002

**EN BANC.**

**McRAE, PRESIDING JUSTICE, FOR THE COURT:**

¶1. The motions for rehearing are granted. The original opinion is withdrawn, and this opinion is substituted therefor.

¶2. The Big Sunflower River Project was originally authorized by Congress in the Flood Control Act of 1944 with channel improvements being completed in the 1960s. After significant flooding occurred several years later, local interests sought reevaluation of the original project. The United States Army Corps of Engineers ("Corps") conducted a survey, determined that the project was in need of major maintenance work, and proposed the Big Sunflower River Maintenance Project ("Project") to return the initial project to maintainable flood levels by alleviating seasonal flooding in the Yazoo-Mississippi Delta. The Mississippi Commission on Environmental Quality ("Commission") certified that the Project complied with the Mississippi Air and Water Pollution Control Law and affirmed the certification in its order of November 19, 1998. On appeal the Hinds County Chancery Court affirmed the Commission's order. Because the Commission's order failed to make adequate findings and did not explain its reasoning with respect to numerous issues, we vacate the orders of the Hinds County Chancery Court and the Commission and remand this case to the chancery court with instruction to forward it to the Commission pursuant to *State ex rel. Pittman v. Ladner*, 512 So.2d 1271 (Miss. 1987), for findings and analysis consistent with this opinion.

### **PROCEDURAL HISTORY**

¶3. Mississippi Sierra Club, Inc. and Green Baggett (collectively "Sierra Club") appeal the judgment of the Hinds County Chancery Court upholding an order of the Commission. The order of the Commission certified the Project, proposed by the Corp to alleviate annual flooding, to be in compliance with Mississippi water quality standards and regulations.

¶4. The Corps filed its application for Water Quality Certification for the Project with the Mississippi Department of Environmental Quality ("MDEQ") on August 6, 1996. The application is titled "Final Project Report and Supplemental Number 2 to the Final Environmental Impact Statement, Flood Control, Mississippi River and Tributaries, Yazoo Basin, Mississippi," and will be referred to as the "Project Application."

¶5. The Project Application and public comments were reviewed by Chief of Water Quality Management for MDEQ, Robert Seyfarth. On March 26, 1998, Seyfarth recommended that the Commission issue a certification for the project. The Commission voted seven to one to certify that the project would comply with Miss. Code Ann. § 49-17-29 (1999), which is the Air and Water Permits provision of the Mississippi Air and Water Pollution Control Law, if the Corps complied with the conditions listed in the certification.

¶6. The Mississippi Sierra Club and Green Baggett, a local landowner, requested an evidentiary hearing pursuant to Miss. Code Ann. § 49-17-35, which was conducted on August 5-7, 1998. Prior to the hearing, the Commission granted a motion to intervene filed by the Board of Mississippi Levee Commissioners and the Board of Levee Commissioners of the Yazoo Mississippi Delta on behalf of numerous public bodies and governmental entities.

¶7. On October 8, 1998, Seyfarth recommended that the Commission affirm the certification with the addition of one condition requiring a comprehensive monitoring plan on sediments, and the amendment of another condition regarding mitigation. The Commission unanimously accepted the recommendations. On October 12, 1998, MDEQ amended the certification to conform with the Commission's decision, and on November 19, 1998, the Commission issued its Order, No. 3738-98.

¶8. The Sierra Club appealed the certification to the Hinds County Chancery Court, First Judicial District, which affirmed the Commission's Order on November 8, 1999. The Sierra Club appealed the judgment of the chancery court to this Court.

¶9. While the appeal of this case was pending, the Mississippi Legislature amended Miss. Code Ann. § 49-17-28 to place exclusive jurisdiction with the Permit Board for the issuance of water quality certifications. Prior to the amendment, water quality certifications fell within the general jurisdiction of the Commission. See Miss. Code. Ann. § 49-17-28(1)(d), (3) (1999); 1999 Miss. Laws ch. 573, § 1. We have held that "[a]n amended act is ordinarily construed as if the original statute had been repealed, and as far as any action after the adoption of the amendment is concerned, as if the statute had been originally enacted in its amended form." *USPCI of Mississippi, Inc. v. State ex rel. McGowan*, 688 So.2d 783, 787-88 (Miss. 1997) (citations omitted). However, we have duly noted the need for an exception to the general rule:

In litigation between the state and an individual, where the operative statute has been repealed or amended and the litigation arises out of a pre-repeal, pre-amendment transaction or occurrence, the individual may claim and be given the benefit of the prior law in effect at the operative time where he regards it more favorable to him. But the converse is not necessarily so. Unless the state holds a contract or otherwise has a vested right, a repealed or amended statute will ordinarily not be enforced against an individual where he regards it as less favorable to him.

*State ex rel. Pittman v. Ladner*, 512 So. 2d 1271, 1277 (Miss. 1987). Here, since we vacate the Commission's order and remand this matter for reconsideration and further findings and analysis, it is only logical that the Commission, not the Permit Board, correct its deficient order and provide the explanations demanded. Therefore, recognizing *Ladner* and in the name of judicial and administrative economy, we remand this action to the chancery court with instruction to forward it to the Commission.

### FACTS

¶10. The Big Sunflower River Maintenance Project was developed to improve the river channel capacity to reduce extensive headwater flooding that occurs approximately every one to five years in the Big Sunflower River Basin of the Yazoo-Mississippi Delta. The initial project was completed by the Corps in the 1960s. The proposed "maintenance" would cost approximately \$62,485,000, and would take between seven and eighteen years to complete. It includes the dredging of approximately 104.8 miles of stream, deepening it by about three feet, as well as the clearing and snagging of an additional 28.3 miles of the Big Sunflower River, the Little Sunflower River, and several tributaries and bayous. Ninety-two percent (92%) of the channel maintenance would be performed by hydraulic dredge. Some areas not reachable by dredge would be cleared using a dragline. Other hard to reach areas would simply be cleared and snagged or, particularly sensitive areas, such as the dense mussel colonies, would not be touched at all. A total of approximately 8.42 million cubic yards of material would be removed from the rivers.

¶11. The Corps predicts that the project will result in an estimated six-inch reduction in water levels and will benefit an average of 56,000 acres annually. The flood heights are expected to be reduced by two to three feet. The water and sediment that would be dredged from the rivers are to be primarily deposited in confined disposal facilities, to be located approximately every two miles along the maintenance area. Much of the water collected will filter through the disposal facility to return to the rivers. Material excavated by dragline will be deposited parallel to the river and set back from the bank. Vegetation, logs, etc. that are collected from clearing and snagging are to be placed along the river bank, and burned, hauled away, or buried.

¶12. Approximately 443 acres of forested wetlands would be directly impacted, as well as 476 acres of frequently-flooded agricultural lands. "Directly impacted" means that the land will be rendered completely unfit for its current uses. In addition, approximately 552 acres of forested wetlands would be hydrologically impacted, which results from altering flood patterns and essentially draining the wetland. The project is expected to cause significant, unavoidable negative impacts on waterfowl, terrestrial, wetland, and aquatic resources, including loss of flood plane, riverbank, and fisheries habitat as well as loss of benthic organisms that live in the sediment and form the foundation of the aquatic food chain. To compensate, 1,912 acres of frequently-flooded agricultural land would be reforested.

¶13. The project would also have unavoidable adverse impacts on freshwater mussel communities. The Commission addressed this by providing for a 10-year monitoring plan and a habitat improvement plan. Also, the plan will incorporate two no-work areas and two avoidance areas to attempt to mitigate adverse effects on the densest mussel colonies in the Big Sunflower River.

¶14. In October 1998, the Commission approved the project as proposed, adding one condition and expanding another in order to address concerns voiced at the public hearings. The additional condition required a comprehensive monitoring plan on sediments, including taking sediment core samples before work could begin. The other amendment required greater mitigation of adverse effects on wetlands and aquatic and mussel resources with the mitigation to occur concurrently.

### **STANDARD OF REVIEW**

¶15. When this Court reviews a decision by a chancery or circuit court concerning an agency action, it applies the same standard of review that the lower courts are bound to follow. *Mississippi Comm'n on Env'tl. Quality v. Chickasaw County Bd. of Supervisors*, 621 So.2d 1211, 1216 (Miss. 1993) (collecting citations). We will entertain the appeal to determine whether the order of the administrative agency 1) was unsupported by substantial evidence, 2) was arbitrary or capricious, 3) was beyond the power of the administrative agency to make, or 4) violated some statutory or constitutional right of the complaining party. *Id.* at 1215.

### **DISCUSSION**

¶16. A more accurate statement of the issues addressed by the Sierra Club is as follows:

**I. Whether the Commission correctly applied the factors of Mississippi's Water Quality Regulations.**

**II. Whether the Commission certified a project that is violative of the anti-degradation policy without being assured that adequate measures will be taken to eliminate**

**unreasonable degradation and irreparable harms to the waters of Mississippi.**

### **III. Whether the Project would violate the Water Quality Criteria.**

¶17. When considering an application for water quality certification, the Commission must consider the factors listed in the Wastewater Regulations for National Pollutant Discharge Elimination System Permits, Underground Injection Control Permits, State Permits, Water Quality Based Effluent Limitations, and Water Quality Certification, ("WPC-1"), Ch. III, § IV (A) and (B). These sections provide as follows:

#### **IV. SCOPE OF REVIEW FOR APPLICATION DECISIONS**

A. The factors related to the construction and operation of the activity which must be addressed by the applicant and will be considered in determining certification action are as follows:

1. Feasible alternatives to the activity;
2. Mitigation;
3. Initial and secondary impacts on all existing and all classified uses of the waters of the State;
4. Degree of compliance of the proposed activity with the State of Mississippi Water Quality Criteria for Intrastate, Interstate, and Coastal Waters;
5. Degree of physical, chemical, and biological impacts on waters of the State;
6. The effect on circulation patterns and water movement on waters of the State;
7. Degree of alteration of the aquatic ecosystem;
8. Degree of consistency with approved water quality management plans adopted by the Commission;
9. Storm water management;
10. Compliance history of the applicant;
11. Any other factors deemed to be necessary by the Department to protect water quality.

B. After consideration of the factors in Section IV(A), a decision to issue or deny certification shall be made. However, it is the policy of the Department to deny certification when any of the following determinations are made unless the Department is assured that appropriate measure will be taken to eliminate unreasonable degradation and irreparable harm to waters of the State.

1. The proposed activity permanently alters the aquatic ecosystem such that water quality criteria are violated and/or it no longer supports its existing or classified uses. An example is the channelization of streams.
2. There is a feasible alternative to the activity which reduces adverse consequences on water quality and classified or existing uses of waters of the State.
3. The proposed activity adversely impacts waters containing State of federally recognized threatened or endangered species.

4. The proposed activity adversely impacts a special or unique aquatic habitat, such as National or State Wild and Scenic Rivers and/or State Outstanding Resource Waters.
5. The proposed activity in conjunction with other activities may result in adverse cumulative impacts.
6. Nonpoint source/storm water management practices necessary to protect water quality have not been proposed.
7. Denial of wastewater permits and/or approvals by the State with regard to the proposed activities.
8. The proposed activity results in significant environmental impacts which may adversely impact water quality.

### **I. Whether the Commission correctly applied the factors of Mississippi's Water Quality Regulations.**

¶18. The Sierra Club first argues that the Commission's certification that the project adequately addressed the 11 factors of WPC-1, ch. III, § IV(A), was not supported by substantial evidence and was arbitrary and capricious. Specifically, it challenges the sufficiency of the evidence in regard to factors 1, 2, 4, 5, and 10 of § IV (A).

#### **Feasible alternatives to the activity**

¶19. The Sierra Club argues that the Commission "disregarded" a non-structural alternative to the project, which "includes the acquisition of flowage easements in combination with traditional excavation of critical reaches." This alternative, it argues, was:

recommended by the United States Environmental Protection Agency, the United States Fish and Wildlife Service in a study prepared by Industrial Economics, Inc., the Virginia Polytechnic Institute in a study on re-forestation in the Delta, the president of the Delta Land Trust Logan Russell, the Earth Justice Legal Defense Fund, and by members of the public.

¶20. The Commission analyzed this factor in its order as follows: "The Corps evaluated the . . . purchase of flowage easements and determined that not only was this alternative cost prohibitive, but also the option would not accomplish the purpose of the project." The record shows that the Corps estimated that this alternative would cost approximately \$120 million in contrast to about \$64 million for the Project. However, at the March 26, 1998, presentation of the project, Seyfarth conceded that the Corps's cost estimate of flowage easements was based on protection for a twenty-five year flood, despite the fact that the Project is only intended to protect for a one to five-year flood.

We don't get a whole lot into cost-benefit ratios, that sort of thing in our regulations. I do know there was some concern that the cost that the Corps determined were based on a 25-year event where this project is a five-year event.

¶21. The Corps's cost estimate for the purchase of flowage easements to alleviate floods occurring at one to five year frequencies involve almost 20,000 acres of Class I and II land, and approximately 115,000 acres of Class II and IV land.<sup>(1)</sup> This is 50,000 acres less than the Corps's estimate based on a twenty-five year flood. The Sierra Club further contends that the Corps used erroneous land values, and that evidence

was presented to the Commission that the true cost of purchasing flowage easements to protect against one to five year events would be approximately \$52.5 million.<sup>(2)</sup>

¶22. The Project is estimated to cost \$64 million to complete, and is expected to have a life expectancy of 25 years. Seyfarth stated to the Commission that, after the Project is completed, further dredging will be required in the future to maintain it. He could not estimate when this future dredging will be required, nor how much it will cost. Therefore, the long-term cost of the Project is indeterminate. These are serious discrepancies in the estimated costs of each alternative. It is unclear to us how any genuine decision about the merits of each alternative can be reasoned without reconciling or at least analyzing the vastly contradictory information before the Commission.

¶23. The Corps also argues that the purchase of flowage easements would not be effective due to continued aggradation of the riverbed. In other words, as the river continues to silt in, it becomes shallower and will require the purchase of additional easements. This was contradicted by a study from the University of Alabama, which stated as follows:

This is not correct. Channels are currently aggrading because of past construction and erosion from agricultural land. If there is no new construction and channels are protected from siltation by non-structural buffer zones [riparian vegetation], aggradation will cease and the stream will regain its natural equilibrium. In contrast, aggradation will continue and possibly increase if the structural alternative is constructed . . . as full flood protection would only occur immediately after construction, gradually decreasing over project life.

¶24. This opinion is consistent with a report prepared by the U.S. Fish and Wildlife Service. It found that "flood damages in the drainage basin are the result of agricultural encroachment onto the lowest and poorest drained lands in the project area. Without this encroachment into the base floodplain, there would be few if any damages from seasonal floods." Final Fish and Wildlife Coordination Act Report at 24 (1996). The Sierra Club argues that initial benefits from the Project will encourage increased use of the benefitted lands, resulting in further erosion, aggradation, and dredging.

¶25. The Corps acknowledges in its Environmental Impact Statement that much of this land should have never been cleared in the first place. Evidence was presented (cross sections of the river beds from then and now) that the depth of the channels, bank width, bank height, etc. are substantially the same as they were in the 1940's. Also, the proliferation of the mussel colonies indicate an absence of suspended sediments in the water because mussels are particularly sensitive to them.

¶26. In its order, the Commission neglected to explain its reasons for adopting the conclusions of the Corps that Project would perform as designed and that the non-structural alternative would be prohibitively expensive and would not work. Though the information presented on these issues was conflicting, the Commission's order set forth neither the reasons nor the facts on which its decision to adopt the Corp's findings was based. The only reasoning or facts that appear in the order of the Commission in evaluating the non-structural alternative were the conclusory statements that the Corps "evaluated" the alternative, and that "the Commission found that the selected alternative will avoid and minimize, within feasible limits considering the project purpose, and will mitigate the impact of this project on water quality."

¶27. The Corps says that the non-structural alternative is too expensive and will not work. The Sierra Club and other agencies and organizations contend that the alternative will work and is not more expensive than

the Project. In its order, the Commission failed to address the competing contentions of the parties and resolve their factual disputes. We were faced with a similarly deficient order in *McGowan v. Mississippi State Oil & Gas Bd.*, 604 So.2d 312 (Miss. 1992). "Our concern of the moment is that the Board has given us nothing suggesting it ever thought of these points, much less decided them." *Id.* at 324.

Of course, the policies compete, and unreasoned preference of one by definition is arbitrary . . . We need to know something of the costs and risks associated with each of these conflicting interests before we can on judicial review intelligently consider whether the Board acted arbitrarily or capriciously or whether its decision was supported by substantial evidence.

*Id.* at 323.

¶28. In *McGowan*, we vacated the orders of the State Oil and Gas Board for failing to make adequate findings of fact and for failing to explain how it evaluated the competing interests before it. *Id.* We clearly explained the law of this state as follows:

If an agency does not disclose the reason upon which its decision is based, the courts will be usurped of their power of review over questions of law . . . Among those questions of law are whether board action is arbitrary and capricious and whether it is supported by substantial evidence. *Illinois Central Railroad Co v. Jackson Ready-Mix Concrete*, 137 So.2d 542, 545-46 (Miss. 1962).

604 So.2d at 324. We further stated that "[i]t is a logical and legal prerequisite to intelligent judicial review . . . that the Board favor us with more than mere conclusory findings on each of these issues, together with a summary of the grounds for these findings." *Id.*

¶29. As in *McGowan*, the order before us is inadequate for review because the Mississippi Commission on Environmental Quality has not articulated the reasoning upon which its decision is based. Under the factor "feasible alternatives to the activity", the Commission's only rationale was the following: "The Corps evaluated the . . . purchase of flowage easements and determined that not only was this alternative cost prohibitive, but also the option would not accomplish the purpose of the project." This sort of conclusory statement is exactly what we set out to avoid in *McGowan*. This Court has no way to understand the specifics and reasoning for the Commission to find the alternative cost prohibitive.

¶30. Due to the lack of findings and explanation in the order, we are unable to determine whether the Commission's decision was supported by substantial evidence or was arbitrary or capricious.

### **Mitigation**

¶31. The Commission recognized that the project will have "significant, unavoidable impacts to waterfowl, terrestrial, wetland, aquatic resources, and freshwater mussel communities." The Commission then recited the avoidance and mitigation measures provided for in the project before declaring that "[i]n the aggregate, the Commission finds that the Corps proposal will adequately avoid, minimize, and mitigate for **any** adverse impacts from the project such that no unreasonable degradation or irreparable harm to the water of the State is reasonably likely to occur." (emphasis added).

¶32. The Commission should have specified exactly what "significant and unavoidable impacts" were expected, how they would affect particular species, and how the environment and ecosystem would be affected. Furthermore, the Commission does not explain how the enumerated mitigation measures would



ameliorate the adverse effects. The order contains neither findings nor reasoning on this issue. In fact, the Commission has done nothing to analyze this factor in its order other than to make the conclusory statement that the Corps's proposal is adequate.

¶33. Under the previously-stated rule of *McGowan*, we are unable to review the Commission's order on this issue. The only factual finding made on this issue was that the Project will have "significant, unavoidable" consequences for the surrounding lands, water, and wildlife. Without factual findings and articulated analysis of the mitigation of these consequences, we are unable to determine if the order of the Commission was arbitrary and capricious or whether it was supported by substantial evidence. This case should therefore be placed once again before the Commission for further findings and analysis on this factor.

#### **Degree of compliance of the proposed activity with the State of Mississippi Water Quality Criteria**

¶34. The Sierra Club contends that the rivers have been designated by the Commission as "fish and wildlife" rivers. It argues that the project will violate WPC-1, ch. III, § IV(B)(1), because the waters will no longer support its designated and existing use as fish and wildlife rivers. This argument is addressed in Issue II.

#### **Degree of physical, chemical, and biological impacts on waters of the State**

¶35. The order addressed this factor as follows: "As discussed throughout this order Staff considered the degree of physical, chemical, and biological impacts on waters of the State. Staff recommends and the Commission finds that these impacts have been adequately addressed." That it "finds that these impacts have been adequately addressed" is not a finding. It is a mere conclusory statement. The Commission must provide reviewing courts with more than mere conclusory findings of fact and conclusions of law; it must set forth the reasons for its decision. *McGowan*, 604 So. 2d at 324. This is exactly the type of conclusory statement that *McGowan* seeks to prevent.

¶36. The Commission notes "significant unavoidable impacts." However, in the order the Commission does not delineate the environmental toll of this project. It does not discuss what changes in chemical levels may be expected in the water or in the soil, or in aquatic and terrestrial life that depend on them, what species of plant and animal life may be affected, and to what extent, long-term effects on wildlife populations, etc.

¶37. As previously discussed, the Commission has given us nothing in its order on which we may review the Commission's consideration of this factor. We cannot determine if this factor was even considered by the Commission. The order itself states that the "Staff considered the degree of physical, chemical, and biological impacts on the waters of the State." This issue must therefore be once again placed before the Commission for further findings and analysis pursuant to *McGowan*.

#### **Compliance history of the applicant**

¶38. With respect to this factor, the Commission made no findings on the Corps's record of compliance with mitigation requirements other than to say that it reviewed it. No information was included in the order as to what the Corps's mitigation compliance record actually is. As we said in *McGowan*, unreasoned preference is, by definition, arbitrary.

¶39. The Sierra Club argues the following:

The Corps' Project Manager testified at the hearing that only 30% of the environmental mitigation required by MDEQ over the last ten years has actually been accomplished. Of the 38,595 acres of mitigation lands required to be purchased by the Corps as mitigation, only 11,515 acres have actually been purchased.

¶40. The Sierra Club has presented prima facie evidence that the Corps has a compliance record of less than one-third. There is nothing in the order of the Commission to rebut this contention. In its order, the Commission neglected to analyze the Corps's compliance history. This issue must therefore once again be placed before the Commission for factual findings of the Corps's compliance history and for analysis of whether this history weighs against certifying the Project.

**II. Whether the Commission certified a project that is violative of the anti-degradation policy without being assured that adequate measures will be taken to eliminate unreasonable degradation and irreparable harms to the waters of Mississippi.**

¶41. Here, the Sierra Club argues that the Commission erred in failing to determine whether the project will cause unreasonable degradation and irreparable harm to the waters of the State under each of the eight factual scenarios enumerated in WPC-1, Ch. III, § IV (B)(1)-(8). Part (B) of Section IV states in part that "it is the policy of the Department to deny certification when any of the following determinations are made unless the Department is assured that appropriate measures will be taken to eliminate unreasonable degradation and irreparable harm to waters of the State." WPC-1, Ch. III, § IV (B) (emphasis added). Once such a finding is made, the Commission must then be assured that adequate measures will be taken before it may certify a project.

¶42. The statute requires "appropriate" measures, not "any" measures, which indicates that the measures taken must be effective, and not merely pretextual. The Commission addressed this issue in its order as follows: "Staff considered the loss of fisheries habitat and mussel beds in light of the avoidance, minimization, and mitigation features of the project. Staff recommends and the Commission finds that these impacts have been adequately addressed." Again the Commission substitutes the analysis of the Staff of the Mississippi Department of Environmental Quality for its own. Based on the order, there is no indication that the Commission even considered the effectiveness of these mitigation efforts, other than the conclusory statement that "these impacts have been adequately addressed."

¶43. The Sierra Club further claims that the proposed activity adversely impacts a special or unique aquatic habitat. WPC-1, ch. III, § IV(B)(4). Specifically, it notes that Seyfarth stated on March 26, 1998, that "the mussel community is a special or unique habitat" due to dense colonies in the Project areas. In addition, a statement prepared by the U.S. Fish and Wildlife Service alleges that the mussel colonies in the project area comprise one of "the richest beds in the world in terms of density and biomass. One species, the pyramid pigtoe . . . is on the State of Mississippi's endangered species list."<sup>(3)</sup>

¶44. The Fish and Wildlife Service noted that the Big Sunflower River "has a standing crop of harvestable mussels estimated at three million pounds and a sustainable harvest of 300,000 to 1,000,000 pounds per year." The Corps estimated that the Project will destroy 43% of the dense beds and admitted that its mussel evaluation team does not know to what extent mitigation will be successful.

¶45. The Service acknowledged that a mitigation plan was developed, but expressed concern "that its success is very uncertain. Mitigation for this magnitude of mussel losses has never been attempted and the

Corps's proposal to avoid or minimize damages are inadequate to protect the resource." The statement further noted that its position is the same as the U.S. Department of the Interior.

¶46. As stated above, the order superficially addressed the mitigation of the mussel population and habitat with the following statement: "Staff considered the loss of fisheries habitat and mussel beds in light of the avoidance, minimization, and mitigation features of the project. Staff recommends and the Commission finds that these impacts have been adequately addressed." The order did not even specifically address the destruction of the mussel habitat, which is expected to be 43%, much less the adequacy of the measures to be taken to protect it. This issue should therefore be remanded to determine if the mitigation measures proposed are adequate.

¶47. Furthermore, the Commission was aware of the existence of the endangered Pyramid Pigtoe Mussel in the Project area. WPC-1, ch. III, § IV(B)(3) requires that, if the proposed activity adversely impacts waters containing State or federally recognized threatened or endangered species, then the Department **must** deny certification of the project unless it is assured that adequate measures will be taken to protect it.

¶48. The Commission failed to address this issue in its order. Evidence exists that mitigation of adverse impacts to mussels is speculative and not a proven technology. To certify the project, the Commission must find that adequate measures will be taken to protect the endangered species. Because the order of the Commission is silent on this issue, it must be returned to the Commission for further findings on the adequacy of mitigation plans to protect the Pyramid Pigtoe Mussel. *McGowan*, 604 So.2d at 324.

### **III. Whether the Project would violate the Water Quality Criteria**

¶49. The rivers and tributaries subject to the Project are listed as "impaired waters" due to pesticides, turbidity, suspended solids, and low dissolved oxygen. The Commission specifically addressed water quality in its order. The certification itself incorporated a provision that requires "turbidity outside the limits of a 750 foot mixing zone shall not exceed the ambient turbidity by more than 50 Nephelometric Turbidity Units." The Commission found no reason to doubt that the condition would not be met.

¶50. "MDEQ also reviewed the effects of resuspension of organic material by dredging on the water quality criteria of dissolved oxygen and temperature and found that such effects would be temporary and not unreasonably adverse in nature." The Commission found no indication that the Project would cause an increase in the number of violations of these standards.

¶51. Furthermore, the Commission reviewed MDEQ's investigation into the effect of dredging on the resuspension of bottom material containing metals and pesticides, in particular, DDT. Therefore, as a condition of certification, the Commission required the Corps to analyze elutriate samples and submit the results to MDEQ prior to beginning work on the Project. Elutriate samples are taken to determine if pollutants remain inert or are resolublized back into the water once disturbed.

¶52. The Corps is also required to submit a monitoring plan to MDEQ, including the taking of sediment core samples, which must be approved prior to dredging. The Corps must also submit monitoring results for each item of work that involves dredging before work on that particular part of the Project may begin. In the event that results from any of the sampling/monitoring indicate that the proposed dredging will significantly degrade water quality, the Commission may require additional sampling/monitoring and/or may modify, suspend, or revoke the certification of the Project. The Commission then found that these water

quality criteria would not be degraded beyond current water quality conditions.

¶53. The order of the Commission could have been more detailed in setting explicit standards for the results of the tests, and in the action to be taken in the event of non-compliance. However, we cannot say that its decision as to this issue is not based on substantial evidence or arbitrary or capricious.

### **CONCLUSION**

¶54. The order of the Commission failed to express findings and reasoning with respect to numerous issues for this Court's judicial review pursuant to *McGowan*. The judgment of the Hinds County Chancery Court and the Commission's order are vacated, and this case is remanded to the chancery court with instruction to forward it to the Commission pursuant to *Ladner* for reconsideration and further findings and analysis consistent with this opinion.

¶55. **VACATED AND REMANDED.**

**PITTMAN, C.J., WALLER, DIAZ, EASLEY, CARLSON AND GRAVES, JJ., CONCUR.  
COBB, J., CONCURS IN PART AND DISSENTS IN PART WITHOUT SEPARATE  
WRITTEN OPINION. SMITH, P.J., NOT PARTICIPATING.**

1. Appendix D, Final Supplement No. 2 to the Final Environmental Impact Statement, Draft SEIS Comments/Responses 3.
2. Considerations in the Pricing of Flowage Easements: A Case Study of Non-Structural Flood Control in the Big Sunflower Basin, at 2-13 (1997) (Prepared for the U.S. Fish and Wildlife Service by Industrial Economics, Inc.).
3. Prepared for Regional Director Clough, April 1, 1997.