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United States Environmental Protection Agency

1200 Pennsylvania Avenue, NW

Washington D.C. 20460

Attention: **Docket I.D. No. EPA-HQ-OW-2006-0141**

Re: Proposed Rule Published: 71 Fed. Reg. 32887 (Wed. June 7, 2006)
EPA Docket I.D. No. EPA-HQ-OW-2006-0141

Dear Sir or Madam:

Please find enclosed comments submitted on behalf of Earthjustice (Florida) and the Florida Wildlife Federation regarding EPA's proposed rule on water transfers. Additionally, please note that a copy of these comments and four copies of the accompanying appendices have been hand delivered to the agency.

Thank you for your assistance. Please do not hesitate to contact me if you have any questions.

With Kind Regards,



Alisa A. Coe

**COMMENTS BY EARTHJUSTICE
ON BEHALF OF FLORIDA WILDLIFE FEDERATION
ON
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
PROPOSED RULE CONCERNING THE APPLICABILITY
OF NPDES PERMITS TO INTER-BASIN TRANSFERS OF POLLUTED WATER**

EPA Docket I.D. No. EPA-HQ-2006-0141

Proposed Rule Published: 71 Fed. Reg. 32887 (Wed. June 7, 2006)

Comments with Appendices Submitted August 7, 2006

INTRODUCTION

Earthjustice (Florida) submits these comments on behalf of Florida Wildlife Federation (“Federation”), a Florida statewide non-profit conservation and education organization with its main office in Tallahassee, Florida. It is a membership-based organization with approximately 12,500 members throughout Florida.¹ The organization’s mission includes the preservation, management, and improvement of Florida’s water resources and its fish and wildlife habitat.

The Federation and Earthjustice (Florida) have an extensive background on the issues in this rule having recently finished a five-week trial in the Southern District of Florida on the question of whether the South Florida Water Management District (“SFWMD”) is required to obtain NPDES permits for pumping stations that transfer water from Everglades Canals into Lake Okeechobee. That case is currently under advisement. *Friends of the Everglades and Florida Wildlife Federation v. South Florida Water Management District*, Case No. 02-80309-CIV-Altonaga/Turnoff (“*FWF* case”). The Miccosukee Tribe intervened in support of Plaintiffs; United States Sugar Corporation and the United States (representing the interests of the United States Environmental Protection Agency and the United States Army Corps of Engineers) intervened in support of Defendant. EPA’s “Agency Interpretation on Applicability of Section 402 of the Clean Water Act to Water Transfers” dated August 5, 2005, was attached to the United States Summary Judgment Motion filed on the same date. Summary judgment on the basis of the motion and stipulated facts was denied. SFWMD has informed the court in the *FWF* case that this rulemaking “is expressly designed for this litigation.”² Extensive comments discussing this case and related materials are being submitted by the Miccosukee Tribe. Earthjustice and Florida Wildlife Federation incorporate those comments and attached documents (including trial transcripts) into our comments by reference so as not to burden the record with duplicative filings.

Recommendation: We recommend that the EPA permanently withdraw the proposed rule. The rule is unlawful because it is contrary to the plain meaning of the Clean Water Act and advances an impermissible and unreasonable interpretation of the Clean Water Act which lacks any rational basis.

I. THE PROPOSED RULE IS UNLAWFUL BECAUSE EPA LACKS THE LEGAL AUTHORITY TO ADOPT RULES THAT CONTRAVENE THE PLAIN MEANING OF THE CLEAN WATER ACT

A. *The plain meaning of the Clean Water Act requires permits for all discharges that result in the addition of pollutants into the waters of the United States.*

The premise of the proposed rule exempting transfers of polluted water from NPDES permitting absent an intervening industrial, municipal or commercial use is that the Clean Water Act (“CWA”) is ambiguous as to whether section 402 NPDES point source permits are required for discharges from water transfer systems that add pollutants to a distinct receiving water body. Courts, however, are required to give effect to the statute, not the regulation, *Dobbs v. Costle*, 559 F.2d 946, 948 (11th Cir. 1977), and courts have consistently found that the plain language of the Clean Water Act expresses a clear intent that discharges of polluted water into a distinct receiving water body require NPDES permits. *See Catskill Mountains Ch. of Trout Unlimited. v. City of New York*, 451 F.3d 77 (2d Cir. 2006) (plain meaning of Clean Water Act requires NPDES permits for interbasin transfer of water from reservoir into river via tunnel); *Dubois v. U.S.D.A.* (pumping of water from polluted river up into pristine pond required NPDES permit), 102 F.3d 1273 (1st Cir. 1996); *Miccosukee Tribe of Indians v. South Florida Water Management District*, 280 F.3d 1364 (11th Cir. 2002) (plain meaning of Act required NPDES permits for discharges from pump station that pumped water from drainage canal up into remnant Everglades); *North Plains Res. Council v. Fidelity Exploration & Dev. Co.*, 325 F.3d 1155 (9th Cir. 2003) (pumping of unaltered groundwater into river required NPDES permit).

B. *EPA lacks the statutory authority to create a categorical exception to point source permitting requirements beyond those exceptions specifically enumerated by Congress.*

EPA contends that the Clean Water Act does not expressly require permits for point source discharges that involve transfers of polluted water. This interpretation overlooks the central provisions of the CWA which require a permit for "the discharge of any pollutant by any person." §§ 301, 402, and 502(12)(A). As the Supreme Court has explained, "[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).

Congress has created certain enumerated exceptions to this broad prohibition – irrigation return flows and certain discharges from oil and gas operations – but did not include the exception that the EPA seeks to add through the proposed rule. *See* § 402(1). In Section 510(6), Congress defines the term “pollutant” and then lists exceptions to this definition – for sewage discharges from vessels, for discharges from Armed Forces vessels, and for water pumped into wells incident to oil and gas extraction operations – but did not list the exception proposed in this rule. In Section 510(14), Congress defines the term “point source” and again lists enumerated exceptions – agricultural stormwater discharges and return flows from irrigated agriculture – but does not list the exemption proposed by the EPA in the proposed rule.

Where Congress has specifically listed exemptions to a general prohibition, additional exceptions are not to be implied. *United States v. Smith*, 499 U.S. 160, 167 (1991) (stating the rule). Congress has created no exemption for discharges of pollutants which originate in some other already polluted navigable water; therefore EPA lacks the authority to exempt that category of point source from the permit requirements of section 402. *NRDC v. Costle*, 568 F.2d 1369, 1377 (D.C. Cir. 1977) (EPA lacks authority to promulgate rule exempting categories of point sources EPA considered to be less significant sources of pollution from NPDES permitting requirements because of “plain Congressional intent to require permits in any situation of pollution from point sources”); *Northwest Environmental Advocates v. EPA*, 2005 WL 756614 (N.D. Cal.) (ordering EPA to repeal rule that exempted ballast water discharges from NPDES permitting because Congress had clearly spoken on issue of whether discharges of pollutants from ships required an NPDES permit and EPA lacked authority to create categorical exclusion).

C. *EPA lacks the statutory authority to exempt transfers of polluted water from NPDES permitting requirements because “addition” has a plain meaning and because EPA’s basis for its claim that the term “addition” is ambiguous is foreclosed by the Supreme Court’s ruling in the Miccosukee case.*

EPA argues that the term “addition” is not defined and that leaves it free to interpret “addition” as “not generally including the mere transfer of waters from one water of the U.S. to another.” The fact that “addition” is not defined does not make the statute ambiguous. 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). Under the Supreme Court’s decision in *Miccosukee*, 541 U.S. 95 (2004), discharges of polluted navigable waters result in the addition of a pollutant to another navigable water where it is shown that the two water bodies are “meaningfully distinct.” *Id.* at 1547. Water bodies are clearly “meaningfully distinct” when pollutants are added as a result of an interbasin transfer, *i.e.*, under circumstances where the pollutants are being added “from the outside world.” *Catskill*, 451 F.3d at 80-81.

In *Legal Environmental Assistance Foundation, Inc .v. USEPA*, 118 F.3d 1467 (11th Cir. 1997), the Eleventh Circuit was faced with a similar statutory interpretation argument by EPA. The *LEAF* case involved the Safe Drinking Water Act. That Act, like the Clean Water Act, requires regulation of all underground injection wells. Underground injection is defined as “well injection” but “well injection” (like the term “addition”) was not further defined by Congress. *Id.* at 1474. EPA argued that Congress’ failure to define the term “well injection” in the Safe Drinking Water Act gave EPA the discretion to define that term as it saw appropriate to accomplish the purposes of the Act. *Id.* EPA then exempted hydraulic fracturing (which involves injection of water and contaminates into wells) from regulation on the theory that the wells that were the subject of the fracturing were primarily used for gas extraction rather than underground injection. *Id.* at 1473-74. The Eleventh Circuit rejected EPA’s interpretation because the activity EPA was exempting from regulation was an activity which fell within the plain meaning of the term “well injection”:

Contrary to EPA, “[w]e do not start from the premise that [the statutory] language is imprecise. Instead, we assume that in drafting legislation, Congress said what it meant.” *United States v. LaBonte*, 520 U.S. 751, ----, 117 S.Ct. 1673, 1677, 137 L.Ed.2d 1001

(1997). It is only after we have determined that words used by Congress are ambiguous, or that Congress left a gap in the statutory language, that we turn to the agency's interpretation of these words to ascertain whether it deserves any deference. *See K Mart*, 486 U.S. at 291, 108 S.Ct. at 1817 (“The traditional deference courts pay to agency interpretation is not to be applied to alter the clearly expressed intent of Congress.”). “Giving the words used their ordinary meaning,” *LaBonte*, 520 U.S. at ----, 117 S.Ct. at 1677 (internal quotation marks omitted), we readily find that the word “injection” means the act of “forc[ing] (a fluid) into a passage, cavity, or tissue.” THE RANDOM HOUSE DICTIONARY OF THE ENGLISH LANGUAGE 983 (2d ed. unabridged 1987). Sensibly, therefore, “underground injection” means the subsurface emplacement of fluids by forcing them into cavities and passages in the ground through a well. The process of hydraulic fracturing obviously falls within this definition, as it involves the subsurface emplacement of fluids by forcing them into cracks in the ground through a well. Nothing in the statutory definition suggests that EPA has the authority to exclude from the reach of the regulations an activity (i.e., hydraulic fracturing) which unquestionably falls within the plain meaning of the definition, on the basis that the well that is used to achieve that activity is also used—even primarily used—for another activity (i.e., methane gas production) that does not constitute underground injection. EPA's argument that a methane gas production well is not an “injection well” because it is used primarily for gas extraction is spurious. Congress directed EPA to regulate “underground injection” activities, not “injection wells.” In view of clear statutory language requiring the regulation of all such activities, they must be regulated, regardless of the other uses of the well in which these activities occur.

Id. at 1474-75.

EPA's Clean Water Act interpretation is similarly (if not identically) flawed. Congress directed EPA to regulate conveyances of water which result in the discharge of a pollutant into waters of the United States; the fact that the entity who conveys the water is not the entity who generated the pollutants discharged with the water is irrelevant. *Miccosukee*, 541 U.S. at 1543 (rejecting District's “conveyance theory”, i.e., the argument that no “addition” occurred if the District was merely conveying water that contained pollutants added by someone else). Section 402 permits are required if the water being conveyed is discharged into a “meaningfully distinct” water body. *Id.* at 1547. EPA's claim that it is entitled to exempt water transfers from NPDES permitting because “the discharges are unlike the primary focus of Congressional attention in 1972” in that the “operators of the facilities are generally not responsible for the presence of pollutants in the waters they transport” rests upon an interpretation of “addition” that has already been rejected by the Supreme Court.

D. EPA's rule is unlawful because the “holistic approach” theory EPA uses to rationalize the rule contravenes the plain meaning of the Clean Water Act.

In the face of the statute's plain meaning that requires NPDES permits whenever a point source adds pollutants to water of the United States, the proposed rule attempts to cobble together disparate policy statements and provisions from outside the NPDES permitting mandate and clothes them with a claim that the Clean Water Act must be construed using a “holistic”

approach which should exempt water transfers from NPDES permitting. The Second Circuit summarized its holding on this exact “holistic approach” theory, finding that it contravenes the plain meaning of the Clean Water Act:

In the end, while the City contends that nothing in the text of the CWA supports a permit requirement for interbasin transfers of pollutants, these “holistic” arguments about the allocation of state and federal rights, said to be rooted in the structure of the statute, simply overlook its plain language. NPDES permits are required for “the discharge of any pollutant,” 33 U.S.C. § 1311(a), which is defined as “any addition of any pollutant to navigable waters from any point source,” *id.* § 1362(12). It is the meaning of the word “addition” upon which the outcome of *Catskills I* turned and which has not changed, despite the City's attempts to shift attention away from the text of the CWA to its context.

Catskill Mountains Ch. of Trout Unlimited. v. City of New York, 451 F.3d 77, 84 (2d Cir. 2006). In reaching this conclusion, the Second Circuit was explicitly rejecting the “holistic” arguments made in the Agency Interpretation Memo of August 5, 2005 – the memo upon which the proposed rule is based. *Catskill*, 451 F.3d at 82-88.

E. EPA’s argument that 304(f)(2)(f) creates the basis for an exemption to NPDES permitting requirements is directly contradicted by the plain language of the CWA and has been rejected by the courts and by EPA itself.

Section 304 is an information and guidelines section found in Subchapter III. § 304 (“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 section 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 EPA 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, section 304(f)(2) does not state that it applies only to nonpoint sources. Indeed, section 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 facilities. *See* § 304(f)(2). The activities listed in section 304(f)(2) are not limited to nonpoint sources. In fact, the list specifically includes recognized point sources, such as construction activities. *See* 40 C.F.R. § 122.26(a)(1)(ii); § 122.26(b)(14), (b)(14)(x) and (b)(15).

Courts that have examined this section in relation to section 402 have agreed that 304(f)(2)(F) was not intending to exempt point sources from NPDES permitting requirements. *South Florida Water Management District v. Miccosukee Tribe of Indians*, 541 U.S. 95, 106-07 (2004); *Catskill*, 451 F.3d at 84, *United States v. Earth Sciences*, 599 F.2d 368, 373 (10th Cir.

1979) (§ 304(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, EPA itself has not previously accepted the position that section 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 § 304(f)(2)(F) "does not preclude a finding that any particular pollution problem involves a point source of pollutants").

EPA also attempted to parley a Congressional listing of problems into an exemption in the *LEAF* case which involved EPA's claim that "hydraulic fracturing" activities were exempted from regulation under the Safe Drinking Water Act. In that case, EPA found Congressional intent to exempt hydraulic fracturing from regulation on the theory that: 1) Congress had identified specific underground injection problems it was intending to deal with in a House Report; 2) the problems all involved wells whose principle function was underground injection; 3) the well injection activity at issue (hydraulic fracturing) wasn't one of the problems listed; and 4) the principle function of the wells at issue was not underground injection but methane production. *LEAF*, 118 F.3d at 1475-77. The Eleventh Circuit rejected this argument. Hydraulic fracturing was clearly an underground injection activity that fell with the plain meaning of "well injection" and thus required regulation. The listing could not override this clear expression of Congressional intent to regulate because nothing in the listing clearly excluded the activity from regulation. *LEAF*, 118 F.3d at 1474-77.

Section 303(f) describes problems to be addressed; it is not a clear expression of legislative intent to exempt point sources from permitting and cannot be used to support EPA's categorical exemption of water transfers from section 402 point source permitting.

F. EPA's argument that the general policy statements in sections 101(b), 101(g) and 510(2) serve as the basis for an exemption to NPDES permitting requirements is directly contradicted by case law, by legislative history, and by former policies of EPA.

Another justification offered for the rule are the provisions of sections 101(b), 101(g) and 510(2), which preserve the rights of states to allocate water supplies and pre-existing rights of states not in conflict with the requirements of the Clean Water Act. The theory that water diversions relate to water allocation and are therefore exempt from permitting was squarely rejected by the Second Circuit in *Catskill*:

The power of the states to allocate quantities of water within their borders is not inconsistent with federal regulation of water quality. Section 510 provides for the preservation of the preexisting rights of states not in conflict with the other requirements of the CWA ("except as expressly provided in this chapter"). Indeed, the Supreme Court has held that "[s]ections 101(g) and 510(2) preserve the authority of each State to allocate water quantity as between users; they do not limit the scope of water pollution controls. . . ." *PUD No. 1 v. Wash. Dep't of Ecology*, 511 U.S. 700, 720 (1994). To be sure,

Miccosukee acknowledged the possibility that “construing the NPDES program to cover such transfers would . . . raise the costs of water distribution prohibitively, and violate” section 101(g). *Miccosukee*, 541 U.S. at 108. But in the next sentence, the Court recognized that, despite their potential cost, such permits nevertheless might be necessary to protect water quality.

Catskill, 451 F.3d at 84.

Section 101(b) does not exempt discharges of polluted navigable waters from the Act’s permit requirements. Instead, it sets forth a general policy statement recognizing the responsibilities and rights of the States to prevent, reduce and eliminate pollution. § 101(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. §§ 303, 402(b). Section 101(b) specifically mentions as a Congressional goal that “the states . . . implement the NPDES permit program.” Rather than providing an exemption to the CWA’s permit requirements, section 101(b) specifically announces as a policy and goal that the States implement the permit sections of the CWA, including the NPDES permit program. Section 101(b) does not provide any justification for an exemption from the NPDES permit requirement for water transfers.

Nor does section 101(g) exempt the discharge of polluted navigable waters from the NPDES permit requirement for water transfers. That provision expresses the policy of preserving the states’ authority to allocate quantities of waters within its jurisdiction and encourages federal, state, and local cooperation to reduce pollution. This is not a blanket exemption from NPDES permitting. As explained by the Supreme Court, section 101(g) “gives the States authority to allocate water rights” but does not exempt them from legitimate water pollution permitting requirements. *PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 511 U.S. 700, 721 (U.S. 1994).

Perhaps perceiving, as it did in the *LEAF* case, “that its statutory construction argument is weak,” *LEAF*, 118 F.3d at 1475, EPA relies heavily upon legislative history to defend its decision to exclude water transfers from the reach of section 402. The problem here, as in the *LEAF* case, is that where Congressional intent to regulate water transfers that add pollutants to distinct water bodies is clear, the only relevant evidence would be legislative history which “clearly express[es] legislative intent” to exclude water transfers from regulation. *Id.* at 1476 n.12. EPA admits that the legislative history clearly expresses nothing of that sort: “Congress recognized that the new section 402 permitting program was not the only viable approach for addressing water quality issues associated with State water resource management.” The fact that section 402 is not the only “viable approach” does not express a clear intent to completely exempt all water management activities from NPDES permitting.

The problem, as in the *LEAF* case, is that EPA’s interpretation of legislative history is simply incorrect and “far from evidencing a legislative intent contrary to the plain meaning of the statute, the legislative history supports it.” *Id.* at 1475.

In *PUD No. 1*, the Court there quoted the purpose of section 101(g) as expressed by its sponsor, Senator Wallop, who expressly indicated the section was not intended to preclude

legitimate water quality measures which may incidentally affect water allocation, but rather to ensure that the Act would not be used for other purposes. 123 Cong. Rec. 39,212 (1977). In a 1978 EPA interpretation of § 101(g) made contemporaneously with the Wallop Amendment, EPA confirmed that § 101(g) does not prohibit regulation under the Clean Water Act which might incidentally 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.³

G. *Because Congress has provided “clear Congressional intent” to the contrary, section 101(g) does not authorize a categorical exemption for transfers of polluted water.*

EPA and western water owners made their 101(g) argument to the Supreme Court in *Miccossukee* in the context of the heavily disparaged plain meaning “unitary waters theory” which EPA has now abandoned. Instead, EPA finds ambiguity in the same language it formerly found plain and relies upon section 101(g) to support a finding that:

While 101(g) does not prohibit EPA from taking actions under the CWA that it determines are needed to protect water quality [citing to *PUD No. 1*], it nonetheless establishes Congress’ general direction against unnecessary Federal interference with State allocations of water rights . . . [T]his section provides additional support for the Agency’s interpretation that absent a clear Congressional intent to the contrary, it is reasonable to read the statute as not requiring NPDES permits for water transfers.

In other words, EPA now admits *that section 101(g) does not clearly express legislative intent to exempt water transfers from regulation*. In the *Miccossukee* case, the Supreme Court clearly agreed with this interpretation of 101(g):

It may be that construing the NPDES program to cover such transfers would therefore raise the costs of water distribution prohibitively, and violate Congress’ specific instruction that “the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired” by the Act. § 1251(g). On the other hand, it may be that such permitting authority is necessary to protect water quality, and that the States or EPA could control regulatory costs by issuing general permits to point sources associated with water distribution programs. See 40 CFR § § 122.28, 123.25 (2003).

Miccossukee, 541 U.S. at 1545.

Since Congress *has* clearly expressed a legislative intent to require NPDES permits for water transfers that add pollutants to distinct receiving water bodies, *Catskill*, 451 F.3d at 84, and EPA admits that neither section 101(g) nor legislative history contain clear expressions of a legislative intent to create an exemption to that permitting requirement, EPA lacks the statutory

authority to create a categorical exemption that Congress did not create and neither the *PUD No. 1* case nor the *Miccosukee* case supports.

H. EPA lacks the legal authority to decide that water quality problems caused by water transfer discharges are more “appropriately” dealt with or more “sensibly” addressed by other provisions of the Clean Water Act or by state agencies under state law.

EPA argues that the Clean Water Act can reasonably be interpreted to exempt transfers of polluted water from NPDES permitting requirements because other provisions of federal and state law appear to EPA to be the more “sensible” means of regulating the pollutants discharged in transferred water. This argument was made to and summarily rejected by the Second Circuit in the *Catskill* case. There the City argued that the Safe Drinking Water Act (which limits contaminants in drinking water), section 303(d) of the CWA (the Total Maximum Daily Load Program which regulates pollution from both point and non-point sources), and provisions of state law regulating water quality entitled it to a reading of the Clean Water Act that exempted its discharges from NPDES permitting requirements. The court stated:

While these provisions no doubt contribute to the goals of pollution reduction and regulation, the City does not explain how their existence invalidates a separate, independent requirement imposed by the permitting scheme of the Clean Water Act.

Catskill, 451 F.3d at 85.

I. The failure Of EPA to require NPDES permits for transfers of polluted water unless under court order does not validate an agency interpretation that is contrary to the statute’s plain meaning.

EPA argues that its interpretation is reasonable because it is “consistent with the Agency’s longstanding practice of not requiring NPDES permits for water transfers” unless ordered to do so by a court. EPA made the identical argument in the context of the Safe Drinking Water Act in the *LEAF* case; it was summarily rejected:

[N]o deference is due to agency interpretations at odds with the plain language of the statute itself. Even contemporaneous and longstanding agency interpretations must fall to the extent they conflict with statutory language. *Public Employees Retirement Sys. v. Betts*, 492 U.S. 158, 171, 109 S.Ct. 2854, 2863, 106 L.Ed.2d 134 (1989).

LEAF, 118 F.3d at 1477-78.

J. EPA lacks the statutory authority to give states a discretionary “Designation Authority” over transfers of polluted water.

Although EPA did not propose the provision, it has asked for comments on whether it should allow states to designate particular water transfers as subject to the NPDES program on a

case-by-case basis. Designation authority would lie only if the transfer would “significantly impair” the receiving water body and only if no state authorities were being implemented to adequately address the problem. “Significant impairment” would occur when “as a result of the water transfer, the designated uses of the water could no longer be maintained.” Designation for permitting would be at the “sole discretion” of the state, *i.e.*, neither the EPA nor a citizen could bring a suit requiring designation.

Based upon documents obtained in Earthjustice’s FOIA request, EPA was apparently modeling this provision after a designation provision in its municipal and industrial stormwater rules.⁴ That provision authorizes EPA or the states to continue to exercise the authority given them by Congress under section 402(p)(2)(E) to require permits for municipal and industrial discharges not designated for regulation by Congress if EPA or the state determines that the stormwater discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States. That rule was upheld in *Environmental Defense Center, Inc. v. U.S. E.P.A.*, 344 F.3d 832, 873 (9th Cir. 2003). Transfers of polluted navigable water into another navigable water are not municipal or industrial stormwater discharges. Nothing in section 402(p)(2)(E) specifically authorizes EPA or the states to conduct rulemaking with regard to water transfers that pollute the receiving water body.

The designation provision also runs afoul of black letter law prohibiting EPA from creating categorical exemptions of point sources from § 301 pollution prohibition and NPDES permitting requirements. *NRDC v. Costle*, 568 F.2d 1369, 1377 (D.C. Cir. 1977). Under the considered but not proposed provision, two categorical exemptions would be created – both are illegal.

First EPA is categorically exempting from NPDES permitting all water transfers whose discharges do not “significantly impair” the receiving water body. The Clean Water Act requires NPDES permits for all point sources (unless specifically exempted by Congress), including all water transfers that add pollutants to a distinct receiving water body that is a water of the United States. *Catskill Mountains Ch. of Trout Unlimited. v. City of New York*, 451 F.3d 77 (2d Cir. 2006). EPA lacks the statutory authority to exempt a category of point sources that would be implicitly defined as “all water transfers that have not yet destroyed the designated uses of the receiving water body.”

Second, the provision represents an attempt by EPA to give delegated states the authority to categorically exempt all water transfers the states simply choose not to regulate under their NPDES permitting program – even those that *do* “significantly impair” the receiving water body. The question of whether EPA can authorize a state to effectively create an exception from the CWA for a discharge otherwise subject to NPDES permitting arose in the *Fidelity* case. *Northern Plains Resource Council v. Fidelity Exploration and Development Co.*, 325 F.3d 1155, 1164 (9th Cir. 2003). The primary issue in *Fidelity* was whether discharges of unaltered groundwater into a river required an NPDES permit. On this core issue the court held that the plain meaning of the CWA required permits for these discharges. *Id.* at 1160-63. *Fidelity* then argued that, even if permitting was required under the Clean Water Act, it was exempted from NPDES permitting by a Montana law that exempted its discharges from permitting. *Id.* at 1064. The court rejected this argument explaining:

Montana had no authority to create a permit exemption from the CWA for discharges that would otherwise be subject to the NPDES permitting process. *See* 33 U.S.C. § 1370 (states may not adopt or enforce standards that are less stringent than federal standards). Just as the EPA does not have the authority to create an exemption for unaltered groundwater, neither does the State of Montana, as the EPA cannot delegate to a state more authority than the EPA has under the CWA.

Id. EPA lacks the statutory authority to adopt the considered provision as a rule.

II. THE PROPOSED RULE IS INVALID BECAUSE IT RESTS UPON AN IMPERMISSIBLE AND UNREASONABLE INTERPRETATION OF THE CLEAN WATER ACT.

A. The proposed rule is invalid because it rests upon an impermissible and unreasonable interpretation of the term “addition.”

The question presented by the SFWMD in the *Miccosukee* case was:

Whether the pumping of water by a state water management agency that adds nothing to the water being pumped constitutes an 'addition' of a pollutant 'from' a point source triggering the need for a National Pollutant Discharge Elimination System permit under the Clean Water Act.

Miccosukee, 541 U.S. at 1543. This argument, that NPDES regulation of a discharge depends upon whether the discharger is the source of the pollutants, was summarily rejected by the Supreme Court:

This initial argument is untenable, and even the District appears to have abandoned it in its reply brief. Reply Brief for Petitioner 2. A point source is, by definition, a "discernible, confined, and discrete conveyance." § 1362(14) (emphasis added). That definition makes plain that a point source need not be the original source of the pollutant; it need only convey the pollutant to "navigable waters," which are, in turn, defined as "the waters of the United States." § 1362(7). Tellingly, the examples of "point sources" listed by the Act include pipes, ditches, tunnels, and conduits, objects that do not themselves generate pollutants but merely transport them. § 1362(14). In addition, one of the Act's primary goals was to impose NPDES permitting requirements on municipal wastewater treatment plants. *See, e.g.,* § 1311(b)(1)(B) (establishing a compliance schedule for publicly owned treatment works). 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. We therefore reject the District's proposed reading of the definition of " 'discharge of a pollutant' " contained in § 1362(12). That definition includes within its reach point sources that do not themselves generate pollutants.

Id.

Despite this absolutely clear and unanimous holding, EPA claims that it can reasonably interpret the term “addition” as “not generally including water transfers” because : 1) water managers are not generating pollutants but engaging in “the mere transfer of waters from one water of the U.S. to another,” 2) because “operators of water control facilities are generally not responsible for the presence of pollutants in the waters they transport”; 3) because “pollutants often enter the ‘waters of the United States’ through point and non-point sources located far from those facilities and beyond control of the project operators;” and 4) because the pollutants were generated as the result of an exempted activity such as irrigation. These arguments are nothing but semantic variations on the “conveyance theory” which was unanimously rejected as an “untenable” basis for an exemption from section 402 permitting requirements for an operator of a water control facility. They are equally untenable as the basis for an exemption here. EPA’s interpretation of “addition” is neither “reasonable” nor “permissible” because its argument relies upon a factor (the original source of the pollutants discharged) which the Supreme Court has deemed irrelevant to the question of whether a section 402 permit is needed.

B. The proposed rule is invalid because it relies upon a Congressional prohibition on NPDES permitting of all transfers of polluted water that simply does not exist.

EPA also argues that its interpretation is reasonable because the CWA must be construed in accordance with statutory provisions it interprets as requiring a balancing of the federal interest in ensuring clean water for all users and the states’ interest in allocating that water among users. The problem is that no balancing occurs; EPA simply exempts all water transfers from NPDES regulation. The basis for the exemption is a completely unsupported factual assumption that the existence of water transfers will “unnecessarily interfere” with state decisions on allocation without any consideration or discussion of the federal interest in regulating the substantial adverse water quality impacts that courts, based on sworn testimony, have found do occur with water transfers. Without facts to support its balancing, EPA’s exemption of all water transfers must necessarily rest upon an assertion that the Clean Water Act prohibits *any* point source permitting of *any* discharge of polluted water by *any* water manager regardless of whether or not an impact on state allocation decisions will occur.

While EPA has broad authority to balance competing policy objectives, it does not have authority to assert congressional prohibitions which do not exist in order to avoid responsibility for its own policy decision. *National Association of Regulatory Utility Commissioners v. Interstate Commerce Commission*, 41 F.3d 721, 728 (D.C. Cir. 1994) (agency charged with balancing policy objectives cannot rely upon nonexistent statutory prohibition to promulgate rule which implements one policy goal and ignores the other). The Supreme Court has ruled that the CWA contains no statutory prohibition on point source regulation of water transfers that discharge pollutants that water managers do not generate. In response to arguments from water managers and water owners in western states that 101(g) was an exemption for water transfers, the Supreme Court articulated an understanding of section 101(g) as a policy which could be invoked under certain circumstances to deal with the “practical consequences” created by NPDES permitting requirements. *Miccosukee*, 541 U.S. at 1545. EPA also ignores the finding in *Catskill* (which did involve facts) that it is unlikely that 101(g) would ever require an exemption because the flexibility of the CWA and the NPDES permitting scheme, “will allow

federal authority over quality regulation and state authority over quantity allocation to coexist without materially impairing either.” *Catskill*, 451 F.3d at 85.

EPA’s interpretation is “not so much a balance of conflicting policy goals as the acceptance of one without any real consideration of the other.” *National Association of Regulatory Utility Commissioner*, 41 F.3d at 728. That the rule is born out of EPA’s desire to support the interests of western water owners in overruling the Supreme Court’s holding in the *Miccossukee* case is evidenced by the process by which the rule was developed. (See Section VII, *infra*). That the rule fails to place in the balance the legitimate federal interest in ensuring clean water for all users is evidenced by the adverse impacts resulting from water transfers that EPA has chosen to ignore. (See Sections III-VI). EPA’s failure to conduct any balance on the basis of non-existent Congressional policy against regulation of water transfers renders the interpretation of the statute impermissible and unreasonable, and the rule arbitrary and capricious.

III. ENGINEERED TRANSFERS OF WATER FROM ONE DISTINCT WATER BODY TO ANOTHER ARE MAN-MADE CONVEYANCES THAT RESULT IN THE ADDITION OF POLLUTANTS INTO A WATER OF THE UNITED STATES

The NPDES permitting question, as set forth by the Supreme Court in *Miccossukee*, is whether the engineered transfer is adding pollutants to a meaningfully distinct waterbody. *Miccossukee*, 541 U.S. at 1547. Obviously, where the engineered transfer is moving polluted water from one stream basin into another stream basin where it would not otherwise normally go, a transfer to a meaningfully distinct water body has taken place and an NPDES permit is required for the transfer.⁵ *Catskill*, 451 F.3d at 80-82 (water transfer from reservoir to stream in different watershed via tunnel).

These “interbasin” transfers create the potential to shift a pollutant problem that had been confined in one watershed into a completely distinct watershed, with substantial adverse consequences for the receiving water body. Toxic chemicals from abandoned mines, metals, PCBs from landfills, perchlorates from abandoned military sites,⁶ pesticides, invasive aquatic species,⁷ pathogens, and bacteria formerly confined in one watershed can be introduced into a completely separate watershed as a result of an engineered transfer. For example, a water district in Southern California that imports water from the Sacramento-San Joaquin Delta via the State Water Project reports that the Delta water it receives is contaminated by TOC (total organic carbons), bromide, pathogens, nutrients, sediment, algae, pharmaceuticals, and personal care products (found in wastewater discharges in the Delta) and also contains high levels of total dissolved solids.⁸

Furthermore, because the two separate water bodies are likely to be chemically, biologically, and physically distinct, the temperature, turbidity, nutrient level, color, and pH of the water being discharged can also have profound effects on the designated uses of the receiving waterbody. In the *Catskill* case, the water quality issue was turbidity.⁹ New York’s water quality standards require that there be “[n]o increase that will cause a substantial visible contrast to natural conditions.” N.Y. Comp.Codes R. & Regs. tit. 6, § 703.2.¹⁰ Figure 1 below provides an

illustration of how the introduction of polluted water from an engineered transfer can cause pollution problems and violate turbidity and other standards.



Figure 1. Photograph of the Shandaken Tunnel discharge from NEW YORK TIMES ARTICLE: “New York’s Water Supply May Need Filtering” by Anthony DePalma, July 20, 2006.

The Clean Water Act also lists “biological materials” as pollutants. § 502(6). “Biological materials includes fish, aquatic nuisance species, invasive species, and other living materials found in water.” See, e.g., *Northwest Environmental Advocates v. USEPA*, 2005 WL 756614 (N.D. Cal. 2005) (ordering repeal of 30-year old EPA regulation that categorically exempted discharges of ballast water containing biological pollutants such as zebra mussels from NPDES permitting requirements). The Ninth Circuit has also ruled that transport and discharge of water containing naturally occurring materials that degrade the receiving water body subjects the discharge to NPDES permitting requirements:

It is the introduction of contaminants, not their transformation by humans, that renders them pollutants . . . Fidelity’s interpretation is not correct . . . for it would allow someone to pipe the Atlantic Ocean into the Great Lakes and then argue there is no liability under the Clean Water Act because the salt water from the Atlantic Ocean was not altered before being discharged into the fresh water of the Great Lakes. . . . Such an argument can not be credited.

Fidelity, 325 F.3d at 1163 (discharge of unaltered “salty” groundwater transported from deep aquifers of Powder Basin to surface water of Tongue River which impaired use of river water for irrigation purposes required NPDES permit).

IV. INTERBASIN TRANSFERS CAN ADD TOXIC BIOLOGICAL POLLUTANTS THAT CAN DEGRADE LARGE WATER BODIES AND DRINKING WATER RESERVOIRS AND POSE GRAVE PUBLIC HEALTH THREATS

A. Toxic cyanobacteria are the most likely biological pollutants to successfully invade a receiving water body as the result of an interbasin transfer.

Interbasin biota transfers occur when aquatic life forms such as fish, fish eggs, viruses, bacteria, vascular plants, and invertebrates are transferred from one watershed into another. Biota transfers are an inherent risk when water is transferred from one waterbody into another meaningfully distinct body of water. In a 2005 study of the risks of consequences of biota transfers potentially associated with surface water diversions between the Missouri River and Red River Basins, USGS and National Park Service scientists concluded:

Interbasin transfers of untreated waters implemented via an open conveyance (e.g., canals) have a very high likelihood of establishing pathways to potentially promote biota transfers and subsequent biological invasions. While most of these invasions will fail in the absence of sustainable populations, such precursors to invasions will occur with near certainty. . . . [I]f interbasin transfers water transfers occur via such a mechanism, species invasions will occur and some species will establish populations in the receiving system despite any implementation practice adopted by Bureau of Reclamation or other government or nongovernment organization.¹¹

Similar risks were presented by transferring water via pipeline.¹² The biota with the lowest risk of transfer was fish; that with the highest risk was toxin producing cyanobacteria (also known as blue-green algae), specifically *Anabaena flos-aquae*, *Microcystis aeruginosa*, and *Aphanizomenon flos-aquae*.¹³ The report concluded that the greatest reduction in risk was achieved when source waters were treated within the exporting basin then transferred via closed conveyance to the importing basin.¹⁴

Toxic algae are biological pollutants that pose a serious and growing public health threat. At the same time that the EPA Office of Water was writing the agency memorandum that would exempt transfers of toxic biological pollutants, the USEPA, Office of Research and Development, National Health and Environmental Effects Laboratory, Neurotoxicology Division, was identifying cyanobacteria as “an increasing risk to human health and ecosystem sustainability.” In September 2005, EPA was responsible for organizing an interagency, international symposium on Cyanobacterial Harmful Algal Blooms.¹⁵ That symposium was conducted in partial fulfillment of the mandates of the Harmful Algal Bloom and Hypoxia Research & Control Act which Congress amended in 2004 to require research into the causes, prevention, mitigation and treatment of cyanobacteria harmful algal blooms in freshwaters of the United States.¹⁶

In June of this year, the United States Geological Survey (the scientific research arm of the Department of the Interior), also became involved and issued a briefing sheet on cyanobacteria which announced that: “harmful algal blooms cause ecologic, economic, and public health concerns in both freshwater and marine ecosystems.” As the USGS explained:

Potential impairments include reduction in water quality, accumulation of malodorous scums in beach areas, production of toxins potent enough to cause illness or kill aquatic

and terrestrial organisms, including humans, and the production of taste-and-odor compounds that cause unpalatable drinking water and fish.¹⁷

B. Cyanobacteria And Their Toxins

Cyanobacteria, also known as blue-green algae although they are not a true algae, are primitive life forms that typically (although not always) contain a soluble pigment that gives them their blue-green coloration.¹⁸ In nutrient-enriched waterbodies, cyanobacteria can undergo periods of rapid and excessive growth called “algal blooms”¹⁹ that can take over a waterbody in just a few days, often producing a film on the water that looks like green paint.”²⁰ When these blooms begin to die and disintegrate, this pigment may color the water a distinctive blue color.²¹ See Figure 2.²²



Figure 2. Decaying Blue-Green Algae Bloom, St. Lucie River, Florida (August 13, 2005).

A “harmful algal bloom” (“HAB”) is a concentration of algae that has an adverse impact on plants, animals, or humans, often due to the production of deadly liver and nerve toxins.²³ Of the approximately 60 genera of cyanobacteria worldwide, one-third produce toxins that are “harmful, and even deadly, to fish, animals, and humans.”²⁴

The most common toxic cyanobacteria are *Microcystis aeruginosa*, *Anabaena flos-aquae*, and *Aphanizomenon flos-aquae*.²⁵ Cyanobacteria produce: 1) “dermatotoxins” that create severe dermatitis and are known tumor promoters; 2) “neurotoxins” which interfere with nerve cell function; and 3) “hepatotoxins” which attack the liver. Neurotoxins anatoxin-a and anatoxin-a(S) can cause spasms, convulsions, paralysis and death due to respiratory failure. Acute exposure to hepatotoxins, the most common of which are the toxins known as microcystins, can produce anorexia, vomiting, diarrhea, and death. Chronic exposure to microcystins is linked to gastrointestinal upset, vomiting, diarrhea, and liver cancer.

A fourth type of cyanobacteria, *Cylindrospermopsis* (“Cylindro”), produces the hepatotoxin known as Cylindrospermopsin which has been responsible for outbreaks of acute hepato-enteritis and renal damage.²⁶ A 1999 survey that identified Cylindrospermopsin in Florida waters was the first time the toxin had been identified in North America; all samples that contained the organism tested positive for the toxin.²⁷ Cylindro, a “formerly tropical species,” has now spread as far north as Wisconsin and Indiana.²⁸

Another commonly occurring form of cyanobacteria is *Lyngbya*, known for producing a potent dermatotoxin that can cause severe skin reactions along with gastrointestinal inflammation. See Figure 3.²⁹



Figure 3. Photographs of severe dermatitis caused by dermatoxins.

The same toxins that affect humans and animals also affect plant tissues.³⁰ In a study of the effect of commonly occurring algae in Colorado reservoirs and ponds on higher plants, *Lyngbya* and *Anabaena* were both found to inhibit growth and *Microcystis* when combined with *Aphanizomenon* produced an “extreme inhibition.”³¹ In a more recent study it was “clearly shown” that microcystins “are inhibitors of growth and development in potato shoots and mustard seedlings under laboratory conditions” and suggested that “exposure to microcystins in irrigation water contaminated with toxic cyanobacteria poses a threat to the quality and yield of crop plants.”³² The same study found that the plants accumulated the toxins in their plant tissue, and concluded that “[t]he exposure of crop plants to microcystins via irrigation techniques has far reaching consequences for both economic and health reasons.”³³ See Figure 4.³⁴

Mustard seedlings, one week old, MC-LR 0--20 µg/ml



Jussi Meriluoto

Figure 4. Effect of increasing levels of microcystin toxin on the growth of mustard seedlings.

Cyanotoxins are comparable to cobra toxin in their potency; they are ten times more potent than curare, four hundred times more potent than strychnine.³⁵ The same cyanobacteria species can produce multiple toxins even during the same bloom.³⁶ While blue-green algae have “significant taste and odor constituents” (often described as a “moldy smell”), the toxins themselves have no taste, odor, or color.³⁷ The risk of exposure to algal toxins can come from drinking water, recreational water, residue on produce irrigated with contaminated water, and consumption of plant and animal tissue.³⁸

C. Toxic algae blooms are a growing public health issue and demonstrate why EPA should not exempt water transfers from section 402 NPDES permitting requirements.

Recent awareness of public health issues related to cyanobacteria was triggered because “the number of toxic waterblooms, the economic losses from them, the health impacts and the number of toxins and toxic Cyanobacteria species have all increased dramatically in recent years in the United States.”³⁹

[T]hese harmful algal blooms appear to be occurring with greater frequency in the United States as concentrated agricultural practices and population increases alter ecological cycles. . . . Increasingly in the United States, groundwater supplies aren't meeting drinking water needs and a greater reliance on surface water sources is widely predicted. An estimated 48 percent of lakes in North America are eutrophic, meaning they are high in nutrients and low in oxygen. Eutrophic conditions often coincide with the presence of cyanobacterial blooms and are considered an emerging water quality problem in the United States.⁴⁰

For example, in Florida, although water treatment officials anticipate that groundwater demands will exceed supply by the year 2020,⁴¹ a 1999 study of Florida waters found that: “[o]f 167 samples taken . . . 88 samples representing 75 individual waterbodies contained significant levels of toxic cyanobacterial species . . . 78% of the samples with measurable levels of microcystins and cylindrospermopsin were lethal when injected into mice, and 80% of the samples showed potential tumor producing properties.”⁴²

As scientists have succinctly stated: “Cyanobacteria toxins have quickly risen in infamy as important water contaminants that threaten human health.”⁴³

D. Public Health Risks Associated with Cyanotoxins in Water Bodies Used as a Source of Drinking Water

The World Health Organization has set a drinking water guidance level for Microcystin-LR (the most common form of cyanotoxin) at 1 microgram per liter (1µg/L) which is equivalent to 1 part per billion (1 ppb).⁴⁴ Other countries' regulatory limits are shown in Figure 5.⁴⁵

Drinking Water Guidelines		
		<u>Microcystins</u>
• WHO	1998	1 µg / L (LR)
• Brazil	2000	1 µg / L (All, Reg)
• France	2001	1 µg / L (LR)
• Australia	2001	1.3 µg / L (LR Tox Eq)
• Canada	2002	1.5 µg / L (LR Tox Eq)
• New Zealand	2005	1 µg / L (LR Tox Eq)

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Figure 5. Microcystins Drinking Water Guidelines.

A study of finished water from 15 Florida water treatment plants found 3 plants producing drinking water that exceeded the WHO 1 ppb standard. One plant was producing water containing 8 times the recommended level of microcystin and another was producing water with 10 times the recommended level. See Figure 6.⁴⁶ The plants, however, could truthfully state that they meet all federal drinking water standards in the United States. Although USEPA officially recognized the public health risks associated with cyanotoxins in 1998 when it placed “Cyanobacteria (blue-green algae), other freshwater algae, and their toxins” on its Contaminant Candidate List (suspected drinking water contaminants that may be the subject of future regulation); no drinking water standards have ever been set.⁴⁷

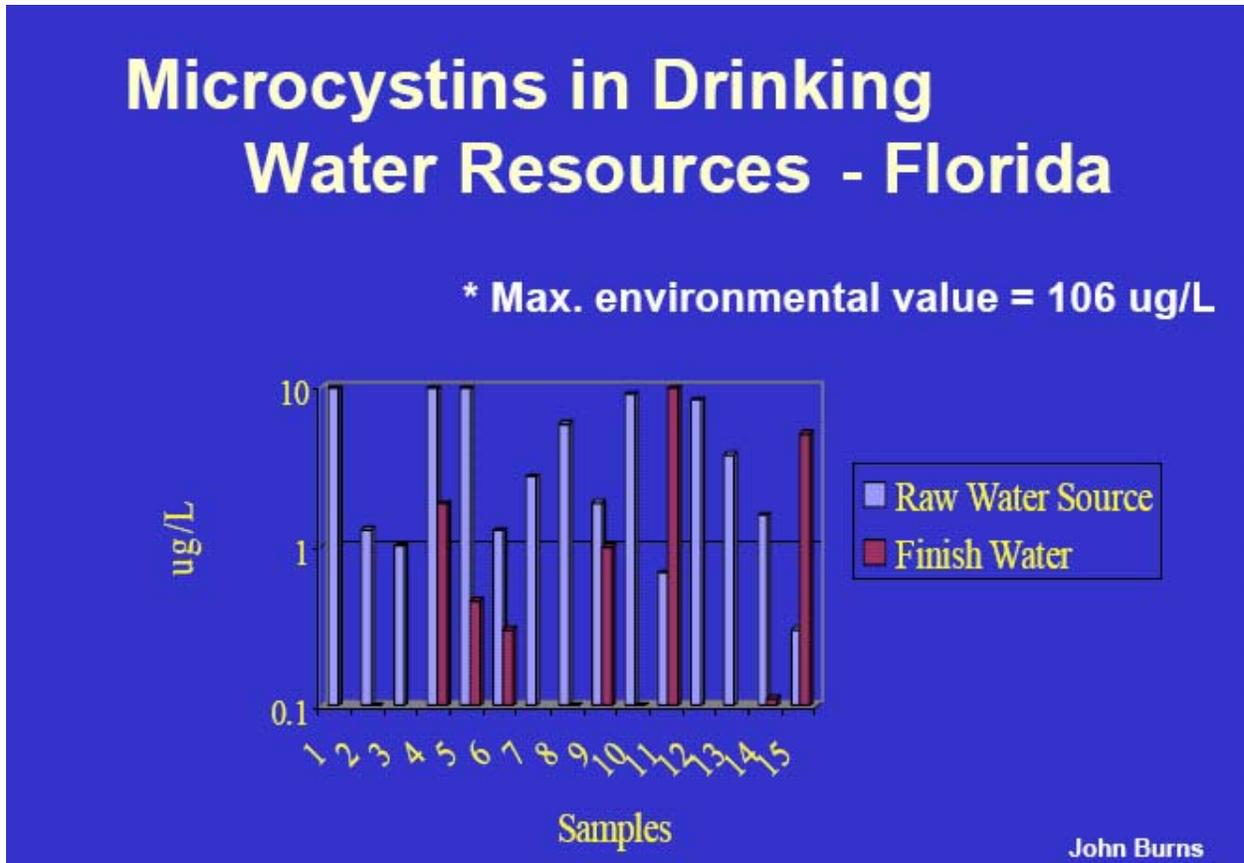


Figure 6. Microcystins in Drinking Water Resources – Florida (1 µ/L is the WHO guideline for microcystins in drinking water).

Admittedly part of the difficulty in setting a standard is identifying what needs to be done if the standard is exceeded. For example, microcystins are bound within the living cell; killing the cell simply releases the toxin into the environment. Therefore, killing the algae with disinfectants (such as chlorine) or common algacides (such as copper sulfate) “can actually worsen the contamination problem, elevating the public health risk of toxin exposure.”⁴⁸ That explains why, as shown in Figure 6, the Florida study found several plants with higher toxin levels in their finished water than in their raw water source. Higher levels of cylindrospermopsin (which were found at levels nearing 100 ppb) were also found in finished water. See Figure 7.⁴⁹

Cylindrospermopsin Concentrations in WTP Source & Finished Water

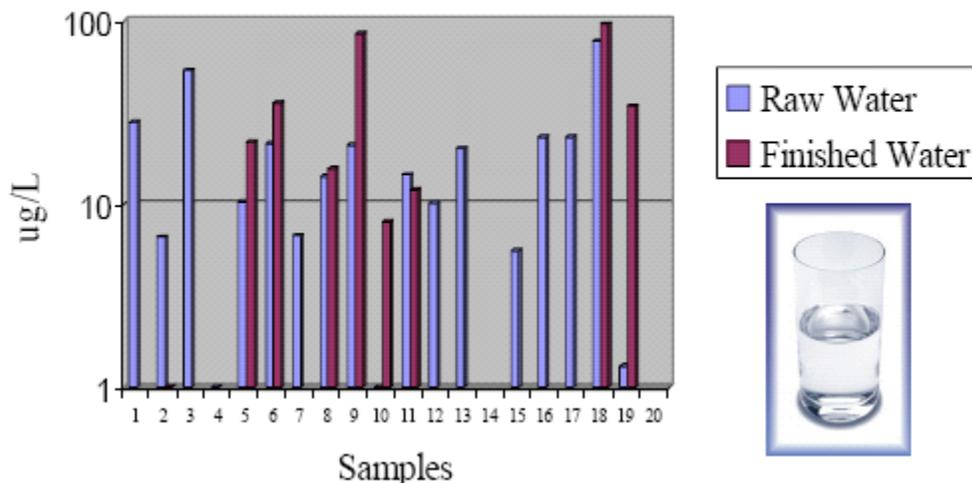


Figure 7. Results of Florida survey of drinking water. One recommended guideline value for cylindrospermopsin is 1 ppb.⁵⁰

Acute exposure to drinking water contaminated with cyanotoxins has resulted in numerous recorded instances of kidney, liver and intestinal damage and has led to severe, gastroenteritis epidemics involving numerous deaths.⁵¹ In 1988, drinking water from a reservoir contaminated with toxins produced by the *Anabaena* and *Microcystis* species of blue-green algae was responsible for a severe gastroenteritis epidemic in Brazil that caused 2000 cases of gastroenteritis and 88 deaths over a 42 day period.⁵² In Australia, a city that drew its water from a eutrophic reservoir treated the reservoir with copper sulfate after people complained of bad taste and odor in the water.⁵³ Despite the fact that the city treated the water with pre-chlorination, alum flocculation, sedimentation, rapid sand filtration, and post chlorination and fluoridation, an epidemiological study of the local population found evidence of substantial liver damage occurring simultaneously with the termination of the bloom (and the subsequent release of toxins into the water from the dead algae cells).⁵⁴ *Cylindrospermopsis raciborskii* was identified as the causative agent in a similar incident where 140 children and 10 adults were hospitalized with kidney, liver, and intestinal damage within a week after authorities used copper sulfate to kill an algae bloom (and thus release toxins) in a drinking water reservoir.⁵⁵

Low-level chronic exposure to microcystin is known to increase the risk of cancer in the liver.⁵⁶ A recent Florida study found increased risk of liver cancer associated with residence at the time of diagnosis in a surface treatment plant area of water distribution.⁵⁷

Removal of cyanobacteria and their accompanying cyanotoxins requires, at a minimum, a multi-barrier, multiple strategy approach with advanced treatment options and frequent monitoring of treatment performance – an element crucial to safety particularly with respect to cyanotoxin removal.⁵⁸ Unfortunately initially successful treatment strategies can rapidly be

compromised by source water with high loads of dissolved organic carbon (TOC) – a circumstance common in highly eutrophic, algae-filled waterbodies.⁵⁹

E. Public Health Risks Associated with Cyanotoxins in Water Bodies Used for Recreation.

**POINTS FROM HEALTH ADVISORY – LEMOLO LAKE, OREGON
JULY 12, 2006**

- The public will be advised when high algae levels no longer exist.
- Until then, swallowing or inhaling water droplets from Lemolo Lake should be avoided, as well as skin contact with water by humans or animals.
- Toxins cannot be removed by boiling, filtering, or treating water.
- The Department of Human Services recommends that fish from Lemolo Lake should be cleaned of all fat, skin, and organs before cooking, since toxins are more likely to collect in these tissues.
- Major symptoms of toxin poison include numbness, tingling, dizziness and paralysis, which can lead to difficulty breathing or heart problems that require immediate medical attention.
- Minor symptoms include skin irritation, weakness, diarrhea, nausea, cramps and fainting, which should also receive medical attention if they persist or worsen.
- Children and pets are particularly susceptible to toxic poison.

Figure 8. Health advisory warnings for Lemolo Lake, Oregon (July 12, 2006).⁶⁰

There have been “repeated descriptions of adverse health consequences for swimmers exposed to cyanobacterial blooms” and “even minor contact with cyanobacteria in bathing water can lead to skin irritation and an increased likelihood of gastrointestinal symptoms.”⁶¹ Because cyanobacteria “have features in common with general airborne allergens” inhalation can cause allergic reactions.⁶² In 1989, 20 British army recruits exhibited symptoms of “vomiting, diarrhea, central abdominal pain, blistering of the lips and sore throats” after swimming and canoeing training in water with a dense microcystis bloom.⁶³ “Two recruits developed severe pneumonia attributed to aspiration of a *Microcystin* toxin and needed hospitalization and intensive care.”⁶⁴

In 2004, a similar incident occurred in Nebraska’s Pawnee Lake. A complaint concerning algae triggered sampling in the lake, the lake was found to contain *Microcystis* and *Aphanizomenon*, toxin levels of greater than 15 ppb (or 15 µ/L) of microcystin were recorded and a health alert was issued.⁶⁵ Unfortunately, only the beach on the east side of the lake was posted, and during the weekend of July 17-18, 2004, “more than 50 people complained about symptoms such as skin rashes, lesions, blisters, vomiting, headaches, and diarrhea after swimming or skiing in Pawnee Lake.”⁶⁶

The World Health Organization and several countries (but not the United States) have recreational water guidelines. Figure 9.⁶⁷ Under the WHO guidelines, Level 1 (4 µ/L or 4 ppb) represents slight risk, Level 2 (20 µ/L or 20 ppb) represents moderate risk; and level 3 (visible surface scum) indicates that “immediate action to control scum contact should be taken.”

Recreational Water Guidelines		
<u>Cells</u>	<u>Microcystins or Tox Eq</u>	
• WHO Level 1	20,000 Cells/L	≈ 4 µg/L ≈ 1/5 TDI/100ml
	Level 2	100,000 Cells/L ≈ 20 µg/L ≈ TDI/100ml
	Level 3	Surface Scum ≈ >>>>>>>> TDI/100ml
'Immediate action to control scum contact' (Chorus & Bartram, 1999)		
• France	Same as WHO	<u>Biovolume</u>
• Australia Level 1	50,000 Cells/L	≈ 10 µg/L, >4 mm ³ /L
	Level 2	Biovolume > 10 mm ³ /L or Scum
• Netherlands 1 Level	20 µg MCY-LR/L	
• Germany Level 1	<10 µg/L	Level 2 >10-<100 µg/L
	Level 3	> 100 µg/L

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Figure 9. Recreational Water Guidelines for Microcystins.

“Numerous cases of animal poisonings (often lethal) substantiate the concern of health hazards for humans exposed to cyanobacteria.”⁶⁸ Often, due to lack of public monitoring, officials first become aware of toxic algae problems when they receive reports of dogs, cows, or wildlife dying within minutes to days after exposure to cyanotoxins.⁶⁹



Figure 10. Algal sample from a toxic HAB in Nebraska that killed pets and wildlife during Memorial Day weekend, 2006.⁷⁰

Microcystins have also been linked to a chronic fatigue type illness. Based on an examination of seven people complaining of multiple symptoms following exposures to a

Microcystis bloom in Florida’s Lake Griffin, researchers concluded that exposures to *Microcystis* blooms may cause a form of chronic, biotoxin-associated illness with symptoms similar to those experienced by people exposed to water damaged indoor environments.⁷¹

F. Public health risks associated with cyanotoxins in water bodies used for irrigation.

Other pathways for human exposure to cyanotoxins are created when cyanotoxin contaminated water is used for irrigation. An investigation into the toxicity of plant tissues following cultivation in cyanotoxin contaminated water found that “microcystin was detected in the tissues of exposed plants using a commercially available ELISA kit, suggesting that the uptake of these toxins by edible plants may have significant implications for human health.”⁷² Other studies have found that “colonies of *M. aeruginosa* and microcystins were retained on salad lettuce following spray irrigation with water that had experienced a cyanobacteria bloom.”⁷³

G. Environmental risks to fish and wildlife.

Cyanotoxins also take a toll on wildlife. In 1999, almost 400 alligator mortalities in Florida’s St. John’s Chain of Lakes were linked to levels of *Cylindrospermopsis* cells found in the water. See Figure 11.⁷⁴

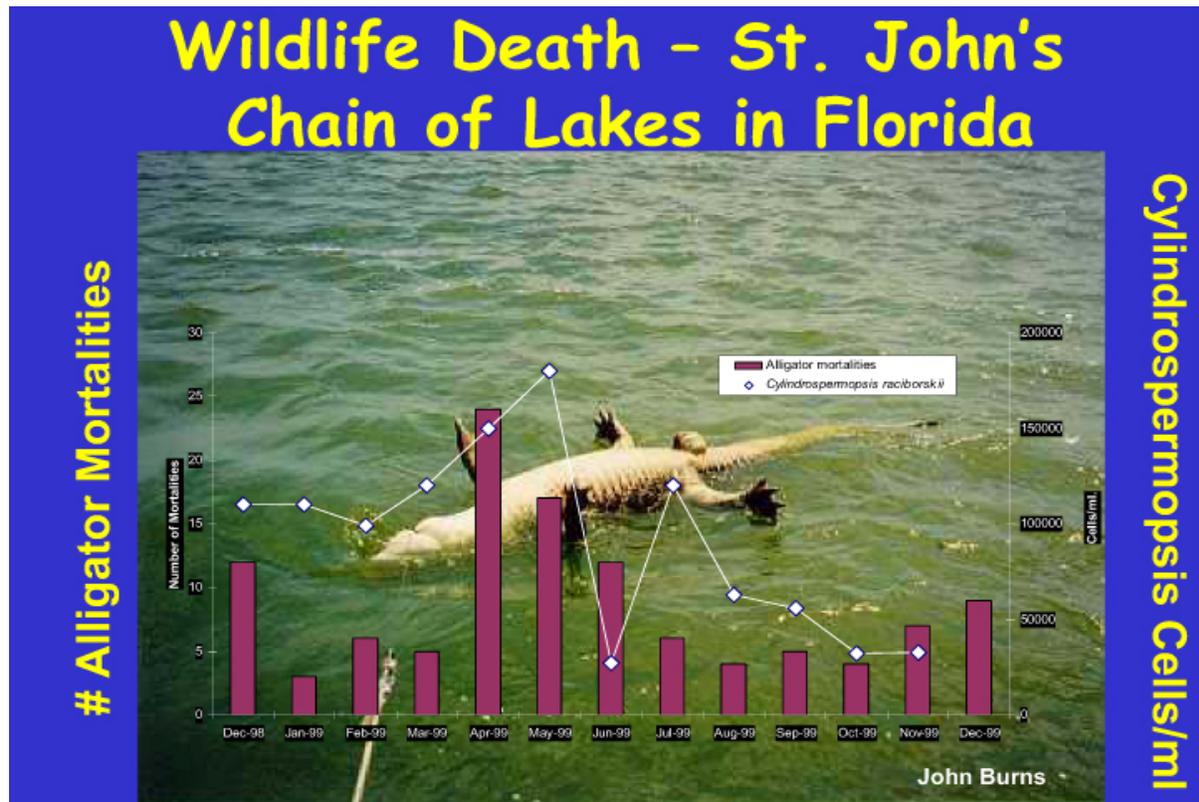


Figure 11. Graph showing relationship between *Cylindrospermopsis* and alligator mortalities.

In Texas, the problem is not a cyanobacteria but “golden algae,” a type of algae which produces a toxin that does not appear to affect humans but is lethal to any fish with which it comes in contact. As explained on Texas’ Harmful Algal Bloom website:

Fish kills from the golden alga, *Prymnesium parvum*, have been documented in inland waters in Texas since 1985. While originally noted in the Pecos River in the Rio Grande Basin, the alga has also caused fish kills in four other river basins (Brazos, Canadian, Colorado, and Red River Basins) in Texas. This algal species is found worldwide in estuarine waters (estuaries are mixing zones between freshwater from rivers and seawater) and in some freshwater bodies that have relatively high salt content. Texas biologists were the first to note the occurrence of this alga in freshwater bodies in the Western Hemisphere. Subsequently, other states have reported its occurrence or possible occurrence. Fish kills caused by the alga can be significant, resulting in ecological and economic harm to the affected waterbodies.⁷⁵

Figure 12 shows the occurrence of golden algae in Texas through 2001.⁷⁶

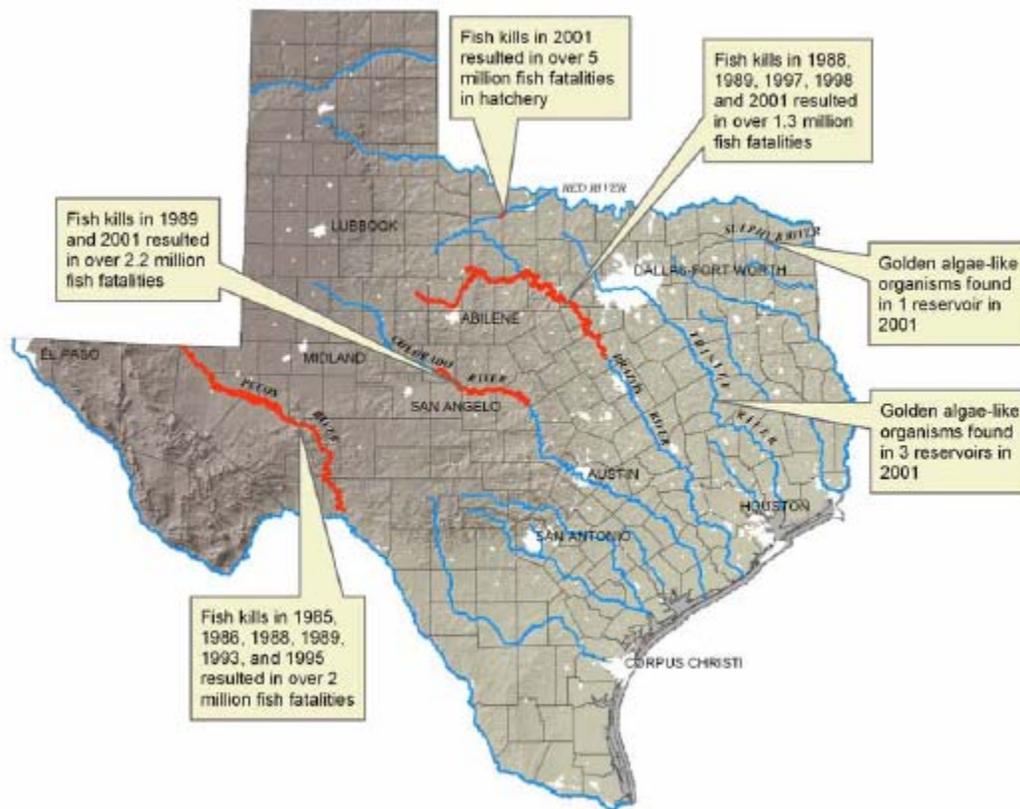


Figure 12. Golden Alga Occurrences Through 2001.

Through the mid-point of 2006 (five years later), the algae has appeared in most major river basins, it has caused more than 65 fish kills in more than 30 different locations, and has now killed more than 25 million fish worth more than \$10 million.⁷⁷ The algae was discovered in Arizona in 2004, and the first fish kills were reported in 2005.⁷⁸ Arizona officials have noted

that one of the means by which golden algae can be dispersed is by interbasin transfers of water.⁷⁹



Figure 13. Photograph of golden algae fish kill at Jackson Bend, Lake Granbury, Texas (the white objects are all dead fish).⁸⁰

H. Environmental Risks Associated With Bioaccumulation Of Cyanotoxins

Bioaccumulation is simply the accumulation of a substance, such as a toxic chemical, in the tissues and organs of a living organism in excess of what is normally expected. Biomagnification refers to an enhancement of toxicant concentrations in tissues and organs at each successive level in a food chain. Microcystins have been shown to bioaccumulate in aquatic plants and aquatic animals, including fish used for human consumption.⁸¹ They have also been shown to retard the growth of ecologically important submerged aquatic plants.⁸² Human and animal ingestion of toxins that have bioaccumulated in the food chain presents another risk of exposure to potentially toxic levels of cyanotoxins.

For example, research is currently underway to determine the cause of a newly identified bird disease, Avian Vacuolar Myelinopathy (“AVM”), responsible for the death of over a 100 eagles and thousands of American coots and other water birds in the Southern United States. The deaths are caused by an unidentified neurotoxin. Scientists have observed a “strong association” between the occurrence of AVM, hydrilla (an invasive aquatic weed), and a novel and previously unknown cyanobacteria that grows on the hydrilla. During 2001-2004, the cyanobacteria was present on hydrilla “at every site where AVM was diagnosed, but absent or scarcely found in areas where AVM was not observed.” The hypothesis is that the deaths are the result of a cyanotoxin that has bioaccumulated through the food chain as waterfowls ingested the cyanobacteria growing on the hydrilla.⁸³

This discovery of a “novel” cyanobacteria found in connection with an invasive species (hydrilla) raises the issue of synergies created when invasive species begin to interact with cyanobacteria. A notable example is the zebra mussel/*Microcystis* bloom connection. Zebra mussels first colonized the Great Lakes around 1986; by 1989, large populations were found in Lake Erie.⁸⁴ At that time, the Great Lakes had not experienced cyanobacteria blooms for over a decade. Then, beginning around 1990, huge blooms began to occur; in 1995 a bloom covered the entire western basin of Lake Erie.⁸⁵ In August 2003 another massive *Microcystis aeruginosa* bloom formed in Lake Erie which persisted for nearly a month and was described as follows:

Surface scums of *Microcystis* containing high concentrations of the toxin microcystin washed ashore in Michigan and Ohio, resulting in foul-smelling, rotting, algal mats. Beaches and recreational boating areas were rendered unusable and sport fishing was adversely affected.⁸⁶

While the *Microcystis* bloom of 2003 was perhaps the most severe in Lake Erie's recent history, “it was only the latest in a trend towards increasing frequency of *Microcystis* blooms in the last decade.”⁸⁷ Researchers have discovered that a synergy between zebra mussels and *Microcystis* has led to these blooms. Zebra mussels “selectively filter and reject phytoplankton so as to promote and maintain *Microcystis* blooms” as follows:

Mussels filter the water whether or not *Microcystis* is present, but they spit *Microcystis* back into the water, while at the same time they eat other algae. Thus the competitors of *Microcystis* are removed. . . . At the same time this selective feeding process is occurring, the mussels are excreting nutrients (phosphate and ammonia) derived from the phytoplankton they eat as part of digestion and metabolic processes. These nutrients, in turn, serve to fertilize growth of *Microcystis*.⁸⁸

As a result of this synergy between cyanobacteria and an invasive species, the entire ecology of the Great Lakes has undergone a rapid and profound change.⁸⁹ A “*Microcystis* Shake” of algae from the Great Lakes is shown in Figure 14.⁹⁰



Figure 14. “Shake” of *Microcystis aeruginosa* from Lake Erie.

I. The toxic algae problem is growing rapidly throughout the United States.

Within just the past three years, cyanotoxins have been found in lakes, streams, and reservoirs at levels warranting public health advisories in Southern California,⁹¹ Northern California,⁹² Florida,⁹³ Oregon,⁹⁴ Washington,⁹⁵ the Great Lakes,⁹⁶ New Hampshire,⁹⁷ Michigan,⁹⁸ Nebraska,⁹⁹ Utah,¹⁰⁰ New York,¹⁰¹ Minnesota,¹⁰² Wisconsin,¹⁰³ Indiana,¹⁰⁴ and Kansas.¹⁰⁵

In Kansas alone, harmful algal blooms have led to the shutdown of water treatment facilities and the trucking in of drinking water, expenditures of millions of dollars to update water treatment facilities plagued with problems caused by algae, and complete discontinuance of use of a drinking water reservoir after a USGS study determined that blue-green algae was the likely cause of taste and odor problems in a town's drinking water.¹⁰⁶

In the summer and fall of 2005, the Klamath River in Northern California was the location of a massive toxic algae bloom that was detected by monitoring by the Karuk Tribe.¹⁰⁷ Toxin levels measured at the shore line and in open water exceeded the WHO standard for recreational use by 468 and 89 times, respectively. Microcystin toxin produced by the blooms exceeded the WHO Tolerable Daily Intake level by 217 times and 60.3 times, respectively.¹⁰⁸ These levels were among the highest ever recorded in the United States.¹⁰⁹ On September 30, 2005, a joint warning was issued by the Karuk Tribe, the North Coast Regional Water Board, and the United States Environmental Protection Agency.¹¹⁰ A map of documented cyanobacteria harmful algal blooms is shown in Figure 15.¹¹¹

Documented CyanoHAB Events in North America



ISOC-HAB Occurrence Workgroup, Wayne Carmichael

Figure 15. Documented blooms in North America.

V. CASE STUDIES OF ENGINEERED WATER TRANSFERS FROM ONE DISTINCT WATER BODY INTO ANOTHER

A. *Case Study One: Toxic algae contamination of Lake Skinner due to water transfers from the Sacramento-San Joaquin Delta via the California State Aqueduct.*

1. Summary of water transfer and its consequences

SUMMARY: Water from the Sacramento-San Joaquin Delta in California is transferred over 400 miles through the California Aqueduct to Lake Skinner located south and west of Los Angeles. That lake serves a drinking water reservoir for San Diego which lies further to the south. Cyanobacteria from the Delta were transferred to Lake Skinner through the Aqueduct and produced a massive algae bloom which required the Lake Skinner reservoir to be taken out of service for repeated treatments to kill the algae. The species of cyanobacteria that was introduced not only produces substances that generate serious taste and odor problems; according to the World Health Organization it also has the potential to produce both nerve and liver toxins.¹¹² A \$241 million addition to the Lake Skinner water treatment plant is now underway to deal with the taste and odor problems caused by the algal blooms.

2. California's engineered water transfers and contamination of Sacramento – San Joaquin Delta source water with toxic algae

This water transfer is part of California's extensive federal, state, and local water transfer system that conveys water from distant water basins to the north and east of California (including from other states) in order to supply water to the agricultural area in the central portion of the state and the urban coastal areas to the west and south.¹¹³ The Sacramento-San Joaquin Delta ("Delta") is an inland delta at the convergence of the San Joaquin River (which flows north) and the Sacramento River (which flows south).¹¹⁴ Together, these rivers flow into a string of inland bays which form the San Francisco Estuary, one of the largest estuaries on the West coast of North America.¹¹⁵

Water from the Delta (a primary water source for California) is diverted into storage reservoirs for the California State Water Project and Federal Central Valley Project.¹¹⁶ These projects supply agricultural and drinking water to much of Southern California.¹¹⁷ All told, the Delta serves as a drinking water source for 23 million people.¹¹⁸ See Figures 16¹¹⁹ and 17.¹²⁰



Figure 16. Map of rivers and federal, state, and local projects in California: blue lines are rivers, yellow lines are federal projects, red lines are state projects, and green lines are local projects.

In 1999, *Microcystis aeruginosa* was discovered for the first time in the Delta.¹²¹ It was the first recorded toxic algae bloom in the northern estuary and researchers have theorized that it is an introduced species since it had never shown up in samples taken between 1975 and 1982.¹²² The bloom is continuing to expand; monitoring has shown more *Microcystis* in the Delta in 2005 than there was in 2004.¹²³ There is currently a \$500,000 study underway to study the severity of the algae invasion and how to deal with it.¹²⁴ According to Karen Schwinn, associate director of the USEPA's water division in San Francisco, neither state nor federal water officials have a full grasp of the threat the invasion poses: "You're raising a question that we at EPA don't know the answer to, and we should."¹²⁵

In a journal article describing their research efforts, the researchers found that microcystins had entered the base of the food web and were found in both total zooplankton and clam tissue.¹²⁶ They found that the bloom occurred throughout the freshwater and brackish water regions of the estuary, and contained hepatotoxins at all stations sampled.¹²⁷ They also noted that the bloom posed a potential threat to the beneficial use of the water in the Delta since "the diversion of water from the [Delta] reservoirs may provide the seed needed to spread *M. aeruginosa* blooms and associated taste and odor problems into drinking water supplies."¹²⁸ Economically important recreational uses were also impacted since the toxins produced symptoms upon direct contact and ingestion and high toxic levels had been found at a popular swimming beach.¹²⁹ They also pointed out that sportfishing could be impacted due to the health risks associated with ingesting toxins that had bioaccumulated in fish, and that high biomass of algae in the water enhanced trihalomethane production, a cancer causing substance associated with chlorination of drinking water containing organic matter "and an important concern in the [Delta]."¹³⁰ There were also concerns that the microcystins would have an adverse impact on phytoplankton in the system that formed the base of the system's food web.¹³¹

However, the cyanobacteria that made the news when it was found in a drinking water reservoir at the far southern end of the California State Aqueduct was not *Microcystis*, but a little known cyanobacteria called *Planktothrix perornata*. On September 1, 2005, the Metropolitan Water District of Southern California ("MWD") issued a press release announcing that certain customers would soon (or might already have) noticed an earthy musty smell in their drinking water.¹³² They explained that methylisoborneol ("MIB") and geomisin, substances that create an unpleasant taste and odor, were being produced by algae found in Lake Skinner.¹³³ Lake Skinner is a reservoir in Riverside County, California that receives water from both the Colorado River Aqueduct and from the California Aqueduct which transports water from the Northern California rivers and streams that supply the State Water Project.¹³⁴ Lake Skinner is to the south of the confluence of the two aqueducts and is the prime drinking water source for the San Diego region to the south.¹³⁵ Officials announced that the algae would be treated with copper sulfate "which is a safe and approved method to control algae growth."¹³⁶

On September 23, 2005, MWD issued another press release announcing progress in dealing with "an unrelenting new strain of algae in Lake Skinner."¹³⁷ The District was planning on applying a another treatment of copper sulfate, "the fourth application since August 8" – to address the growth of a "persistent new species," *Planktothrix perornata*, that had first been identified in the lake in August.¹³⁸ The lake had been taken out of service as a water supply

reservoir because the water's taste and odor problem could not be corrected by filtration and treatment processes.¹³⁹

The District officials speculated "that the new species might have been imported in supplies from Northern California following the June 2004 levee break in the Upper Jones Tract of the San Francisco Bay/Sacramento-San Joaquin Delta," and Dr. Stewart, the District's water quality manager "noted that recent reports suggest the new species has caused similar problems in the northern part of the State Water Project."¹⁴⁰

The District is now planning a \$241 million retrofit "meant to combat the fast-spreading algae."¹⁴¹ The reason for the repeated treatments was that after the first two treatments, totaling 11 tons of copper sulfate granules, the *Planktothrix* that survived "recovered in a few days and its population and MIB production then increased very rapidly . . . MIB was found to be as high as 1800 ng/l in mid-September . . . [C]onsumers can often detect a taste and odor problem at MIB levels as low as 5 ng/l."¹⁴² The water quality manager again theorized that the algae "made its way south through the State Water Project aqueduct system," and an official with the Contra Costa Water District agreed that the algae was present in Delta water sources but that "it hasn't developed into a problem."¹⁴³

3. The State of California has required no permits and has done little or nothing to prevent the adverse effects of water transfers on drinking water.

The Contra Costa Water District, which gets all of its water from the Delta, has substantial water quality problems stemming from the fact that, according to the assistant manager of the District, "today no regulations exist to keep the Delta safe for drinking water . . . [t]he only drinking water standard in the Delta is designed nominally to keep people from gagging."¹⁴⁴ A massive federal project, which had as one of its four goals the improvement of Delta water quality, has been a failure – drinking water is now worse than 10 years ago, and federal managers agree that the project is behind on water quality.¹⁴⁵ Public health threats associated with the poor water quality include toxic disinfection byproducts created by the interaction between the organics and nutrients in the source water with the chlorine used in the treatment process.¹⁴⁶ While improving water quality would be expensive, "so is dealing with poor quality."¹⁴⁷ The Contra Costa Water District has spent \$850 million over the past 10 years to deal with water pollution problems "and that doesn't count the continuing expense of treating the water."¹⁴⁸

As for state regulations, the state has recently proposed a limited listing of some drinking water reservoirs as impaired for some constituents under the state TMDL program.¹⁴⁹ Even that faint-hearted effort has met stiff resistance from the Association of California Water Agencies ("ACWA") (which includes the Metropolitan Water District that runs the Lake Skinner reservoir), which "supports revision of the state Listing Policy to exempt drinking water reservoirs with unavoidable impairments associated with imported drinking water quality."¹⁵⁰ Thus, at the same time that California water managers are arguing in favor of a rule exempting pollutants in water transfers from NPDES permitting requirements – on the theory that the problems can and should be handled through state regulation – they are also seeking an exemption from the very state water quality regulations that they contend are the better approach to solving the problem. The Association of California Water Agencies appeared as an amicus in

the *FWF* case in the Southern District of Florida to argue that state laws and regulations are the solution to all pollution problems caused by water transfers.¹⁵¹

Impairment of the designated uses of receiving waters is already happening as the result of engineered water transfers that moved water containing cyanobacteria from one distinct water body into another.

B. Case Study Two: Everglades canal water to Lake Okeechobee via South Florida Water Management District pumping stations S-2, S-3, and S-4

1. Summary of water transfer and its consequences

Lake Okeechobee, a 730 square mile lake, is a Class I waterbody with a designated use as a drinking water source. Water is pumped into the Lake from District drainage canals via massive pumping stations that can produce a flow comparable to a medium size river. When operating, the pumps create a plume of nutrient-enriched black or reddish water that can extend up to nine miles into the lake. The pollutants added by backpumping harm the designated uses of the Lake. The backpumped water contains high levels of dissolved organic compounds which form carcinogenic byproducts when mixed with the disinfectants used by nearby municipal drinking water plants on the south rim of the Lake. Excessive levels of these byproducts in the towns' drinking water have been linked to backpumping events. The backpumped water is high in nutrients which can trigger and/or contribute to toxic algal blooms in the Lake. When Lake water containing toxic algae is taken into the municipal water treatment plants, the "treatment" results in drinking water that has higher levels of toxins than are found in the Lake.¹⁵²

2. The water transfers effectuated by the District pumping stations add a "pollutant slug" of highly colored nutrient enriched water that harms Lake Okeechobee and creates public health risks¹⁵³

In their natural condition, Lake Okeechobee and the Everglades were two separate and distinct water bodies: one a lake, the other a vast freshwater marsh. Water naturally flowed south from the Lake into the Everglades through numerous distributary rivers that cut through the raised forested southern rim of the Lake. During high flood events, water would flow over low areas of the rim and sheet flow south or west. A century of state and finally federal flood control projects fundamentally altered this flow regime. Massive pump stations were constructed on the north end of Everglades canals on the dike in the 1950s. The pumping from these pumping stations, in which the flow in the canals is reversed from its natural southerly gradient of flow and pumped up into Lake Okeechobee, has long been described as "backpumping." 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.



Figure 18. Photograph from 1912 of southern shore of Lake Okeechobee taken from hotel situated where S-3 pumping station is now located.¹⁵⁴



Figure 19. Photograph from 1912 taken from hotel looking across Rita River/ Miami Canal toward pond apple forest on southern shore of Lake Okeechobee.¹⁵⁵



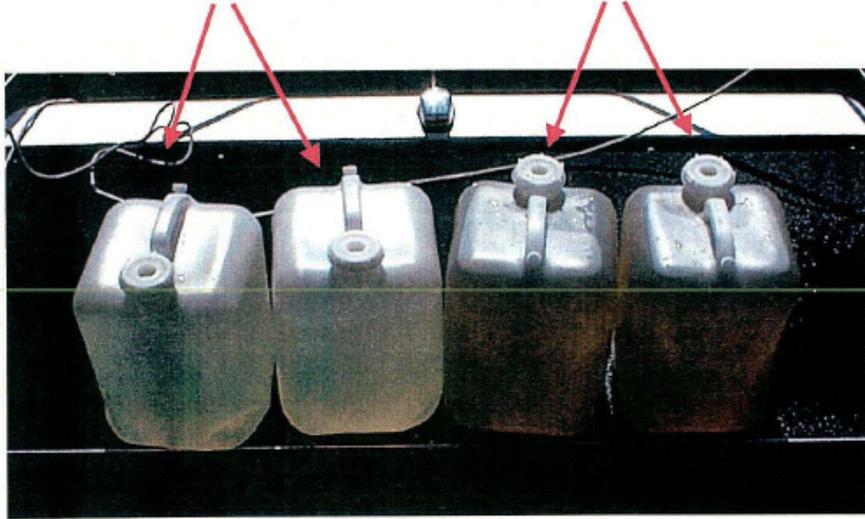
Figure 20. Photograph from 1912 of Bolles Hotel.¹⁵⁶

Backpumping discharges a highly visible plume of nutrient rich, highly colored reddish to blackish water that is completely different than the Lake water into which it is discharged. Figure 21. 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. The water backpumped into Lake Okeechobee contains color, nitrogen, phosphorus, total suspended solids and high biological demand, dissolved solids (included dissolved organics); low quantities of dissolved oxygen; and un-ionized ammonia.

June 3, 2001

Two carboys of water
from reference site
(Ref site 3 in SOP)

Two carboys of water
from impact site
(Cut 1 - Boy Scout Cut)



*shows typical highly colored nature of
water from SZ*

PHI & INT
EXH. 055A

Figure 21. Plaintiffs' Exhibit 65A showing typical highly colored nature of water pumped from canals into the lake.¹⁵⁷

The backpumped water contains dissolved organic compounds that form toxic "disinfection byproducts" when they react with disinfectant chemicals used in the water treatment plants. When the water taken in by the cities' intakes was treated with chlorine, the byproducts were a class of carcinogens called trihalomethanes. An association between high levels of trihalomethanes and backpumping has been documented in reports dating back to 1981. While the cities on the south shore recently switched from chlorine to chloramines (a compound made by combining chlorine and ammonia), the byproducts of chloramine treatment of organic-laden water can cause cancer and mutagenic maladies such as birth defects. The higher the level of organics, the more disinfectant is used, and the more disinfectant byproducts are created.

Pollution "slugs" from backpumping also stimulate the growth of cyanobacteria (commonly known as blue-green algae). Floating blue-green algae blooms can become both massive and toxic. The area directly affected by the backpumping includes the southern nearshore zone of the lake which is populated by colonies of submerged aquatic vegetation and the south pelagic zone (an open water portion of the Lake). 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.

Overall, algae blooms "pose a significant threat to many of the uses of the lake including drinking water, habitat, nesting, fishing, and swimming," and reduce Lake users' enjoyment of the resource.

3. The State of Florida has completely failed to effectively abate the harm to Lake Okeechobee and drinking water supplies caused by backpumping.

The matter of the state of Florida's failed efforts to abate pollution caused by backpumping into Lake Okeechobee was extensively litigated in the *FWF* case described above. The Lake's water quality problems were clearly recognized 30 years ago and the state of Florida's attempts to deal with Lake Okeechobee's worsening condition have been an outright failure. For example, section 303(d) of the Clean Water Act, which requires the listing of impaired waters, establishment of a priority ranking for those waters, and the establishment of Total Maximum Daily Loads for pollutants for which those waters are not in attainment of state water quality standards, might have worked as a partial solution had those provisions been implemented in 1972 as Congress required. However, the TMDL program was not implemented by the states or EPA until court intercession in the 1990s succeeded in enforcing Congress' intent. See Dianne K. Conway, *TMDL Litigation: So Now What?*, 17 VA. ENVTL. L.J. 83, 98 (1987).

In Florida, the TMDL process did not begin until a lawsuit brought by Earthjustice on behalf of Florida Wildlife Federation culminated in a Consent Decree issued in June 1999.¹⁵⁸ The Consent Decree made the establishment of a TMDL for Lake Okeechobee the first priority.¹⁵⁹ By the time the TMDL for total phosphorus (a nutrient) was eventually finalized in 2001,¹⁶⁰ the phosphorus level in the Lake had risen from 40 ppb in 1974 to 140 ppb.¹⁶¹ Although the TMDL is intended to limit the total inflow into the Lake to 105 metric tons of phosphorus per year; nine times that amount entered the Lake just last year, and the phosphorus level reached an all time high of 240 ppb.¹⁶² The chart below, an exhibit from the *FWF* trial, is a chart showing the rising phosphorus concentration in the Lake since the early 1970s. The chart itself was produced by SFWMD staff. Handwritten onto the chart are the names and dates of the various state water quality initiatives intended to improve water quality in Lake Okeechobee. Figure 22.¹⁶³ They include gubernatorial initiatives, state mandated planning requirements, state water quality permitting attempts, statutorily mandated limitations on phosphorus tonnage, and yet more legislative initiatives over the course of 30 years.¹⁶⁴ On the question of the efficacy of those efforts, the graph speaks for itself.

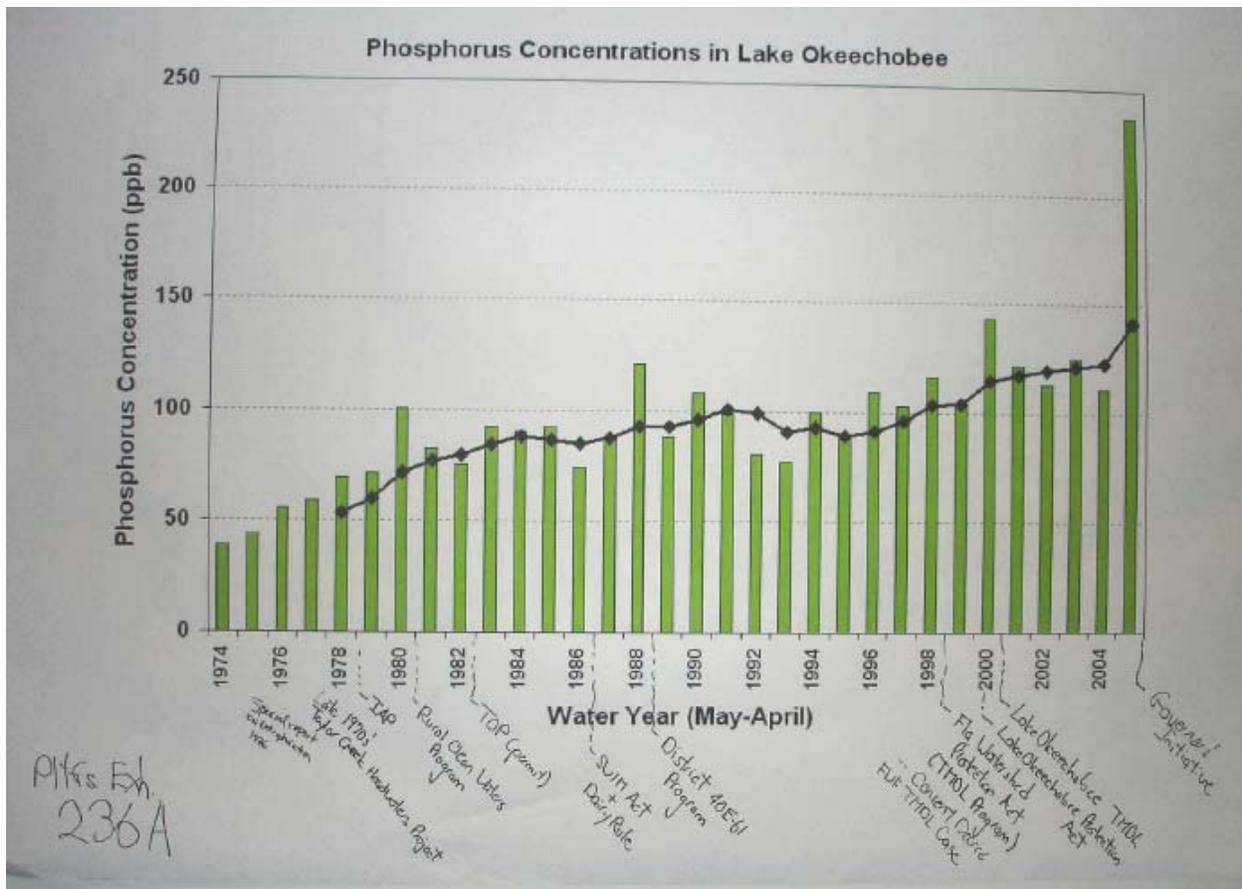


Figure 22. Graph of phosphorus concentrations in Lake Okeechobee showing state initiatives.

In fact, the Lake has deteriorated to such an extent the towns along the south shore of the Lake are considering abandoning the Lake as a drinking water source:

Public health and water availability concerns are the major reasons for proceeding with the Lake Region Water Treatment Plant. Belle Glade, Pahokee and South Bay all use Lake Okeechobee as a source of raw water for drinking water. Lake Okeechobee receives stormwater inflows from major agricultural areas including dairy farms, livestock pastures, sugar cane fields, small vegetable farms, and sod farms and is heavily nutrient enriched as well as highly colored. Organic material in the water gives rise to trihalomethanes (THM) in the water upon treatment with chlorine; THMs are cancer-causing chemicals according to the U.S. EPA. Blue-green algal blooms, potentially toxic, are becoming more frequent.¹⁶⁵

The towns would have to draw their water from the low quality groundwater aquifer and treat the water using an extremely expensive reverse osmosis process to remove the salts. The plant is estimated to cost approximately \$50 million.¹⁶⁶

3. Toxic algal blooms caused by backpumping and other sources move with Lake Okeechobee water whenever that water is moved out of the Lake into another water body.

The South Florida Water Management District transfers water from Lake Okeechobee into the St. Lucie River/Estuary via canal C-44. This engineered movement of water is an interbasin transfer – no connection between the Lake Okeechobee and the St. Lucie River existed naturally. Compare Figures 23¹⁶⁷ and 24.¹⁶⁸

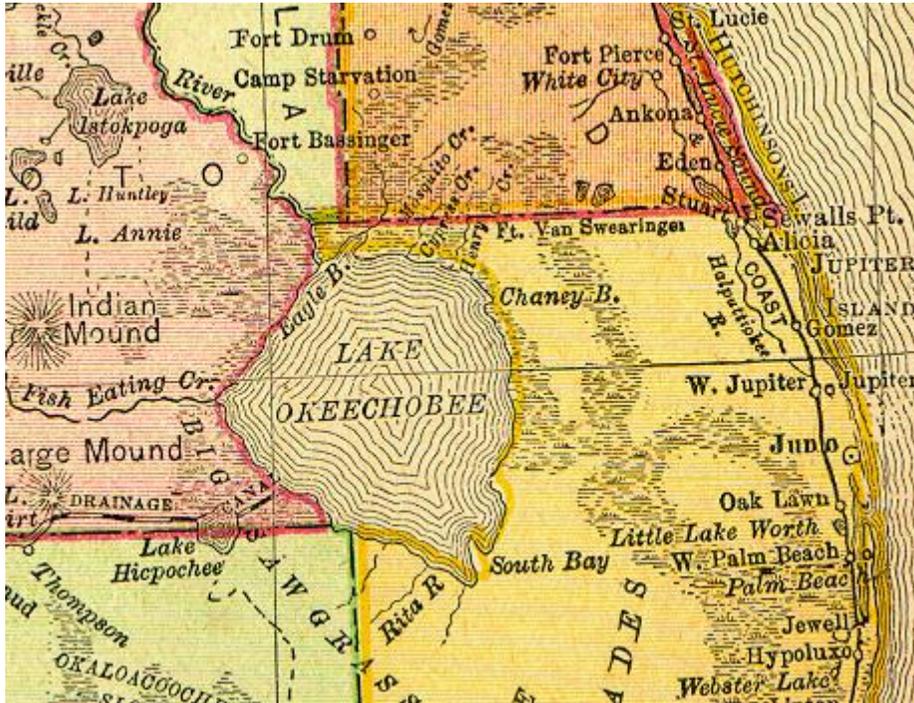


Figure 23. 1895 historic map of Lake Okeechobee.



Figure 24. Current map of Lake Okeechobee, Canal C-44, and the St. Lucie River and Estuary.

Often described as “the liquid heart of the Everglades,” the Lake is not only a direct drinking water source for towns located on the rim of the Lake,¹⁶⁹ but also serves as a secondary drinking water source for West Palm Beach and the entire Lower East Coast of Florida. Florida’s failure to control the rapid eutrophication of the Lake caused by excessive nutrient inputs has led to ever increasing phosphorus levels in the Lake, with the highest levels being recorded during the past year.¹⁷⁰

According to the SFWMD’s former Chief Scientist for Lake Okeechobee, the Lake’s response to high nutrient levels has been an ecological shift most notably evidenced by “massive algal blooms generally composed of the cyanobacteria *Anabaena* and *Microcystis*,” which at times have covered nearly 50% of the open water area of the Lake.¹⁷¹ On June 28, 2005, the SFWMD environmental advisory team reported that a widespread algal bloom was developing on Lake Okeechobee.¹⁷² Also on June 28, 2005, Mark Perry, a scientist with the Florida Oceanographic Institute, observed neon green algae in the nutrient enriched Lake Okeechobee water being discharged through the structure at the end of C-44 into the headwaters of the St. Lucie River.¹⁷³ A photograph of structure S-80 at the end of the C-44 canal is shown in Figure 25.



Figure 25. SFWMD structure S-80 discharging into the South Fork of the St. Lucie River.¹⁷⁴

On July 19, 2005, the SFWMD environmental advisory team determined that there was a *Microcystis aeruginosa* algae bloom in the estuary and that the algae “is coming from Lake Okeechobee.”¹⁷⁵ Although the District reported that *Microcystis aeruginosa* “was not typically toxic,”¹⁷⁶ the World Health Organization report on recreational standards for algae and cyanobacteria in fresh water states that populations of *Microcystis* “are almost always toxic.”¹⁷⁷ When finally tested for toxicity, microcystin levels as high as 65 ppb were found in the Lake and levels as high as 373 ppb were found in the river.¹⁷⁸ Martin County issued a health advisory for the St. Lucie River in August, 2005.¹⁷⁹ The bloom eventually covered approximately 75% of the river and estuary.¹⁸⁰ See Figure 26.¹⁸¹

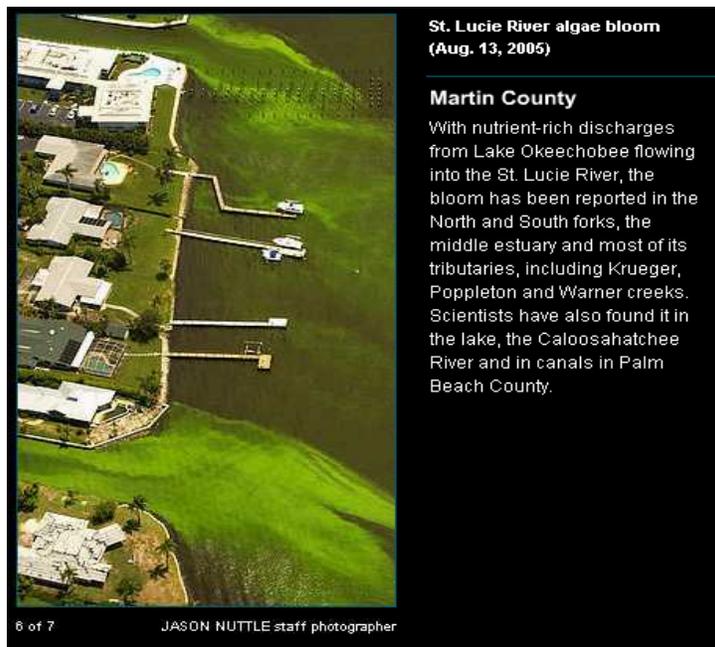


Figure 26. St. Lucie River algae bloom, August 13, 2005.

Water from Lake Okeechobee is also conveyed via the West Palm Beach Canal which is used to provide raw water for drinking water supplies for the City of West Palm Beach.¹⁸² The 2005 toxic algae bloom also moved into West Palm Beach where toxin levels 165 times the WHO drinking water standard of 1 ppb were recorded.¹⁸³ In the past, the City's water has been found to contain high levels of microcystins.¹⁸⁴

C. *Case Study Three: The Colorado-Big Thompson Project*

1. Overview of the Colorado-Big Thompson Project

Federal witnesses in the FWF case used the Colorado-Big Thompson Project as a representative example of a Western water transfer project.¹⁸⁵ Those federal witnesses explained that the Project collects and channels water from melting snow in streams on the western slope of the Rocky Mountains into Grand Lake where it is diverted through Adam's Tunnel under the continental divide into Mary's Lake. From there the water is directed through a series of small reservoirs and power plants into Carter Lake and Flatiron Reservoirs which serve as main distribution reservoirs. From Carter Lake, the water can be conveyed south to the St. Vrain River, or in the alternative, water from Carter Lake can be diverted to Little Thompson River, Left Hand Creek, Boulder Creek and the South Platte River where it is used for irrigation and municipal water supply. Water sent north is also ultimately diverted into the Big Thompson River and the Cache la Poudre River.¹⁸⁶ Graphic depictions of this system are shown in Figures 27 and 28.

THE COLORADO-BIG THOMPSON PROJECT

Source of Water

We live in a pretty dry region here in northeastern Colorado. The area receives approximately 14 inches of precipitation each year. This amount does not meet all our needs.

So what do we do? We bring water from the other side of the Continental Divide, where more than 80 percent of Colorado's rain and snow fall, through and around the beautiful Rocky Mountains

to supplement what Mother Nature provides naturally. If we didn't this region would look far different and many of us would not be living here.

The Colorado-Big Thompson Project, or C-BT, was built over 50 years ago to help us water the thirsty plains of northeastern Colorado. The C-BT collects water from melting snows on the west side of the mountains, then pumps it uphill and through the 13-mile long Adams Tunnel and under Rocky Mountain National Park.

Once the water reaches the east side it travels through a series of canals, pipelines, reservoirs and power plants on its way to our cities, businesses and farms.

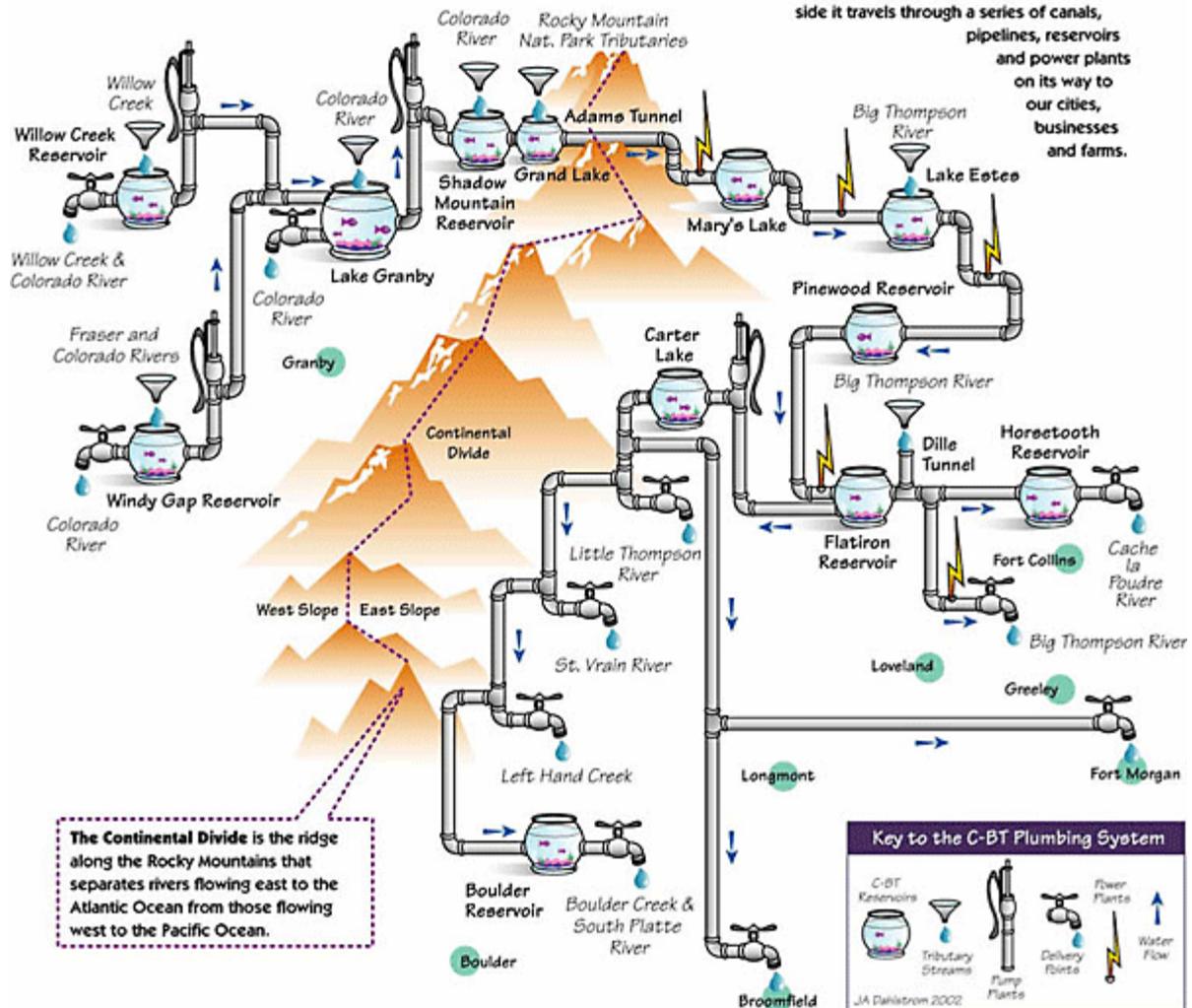


Figure 27. Depiction of the Colorado-Big Thompson Project.¹⁸⁷

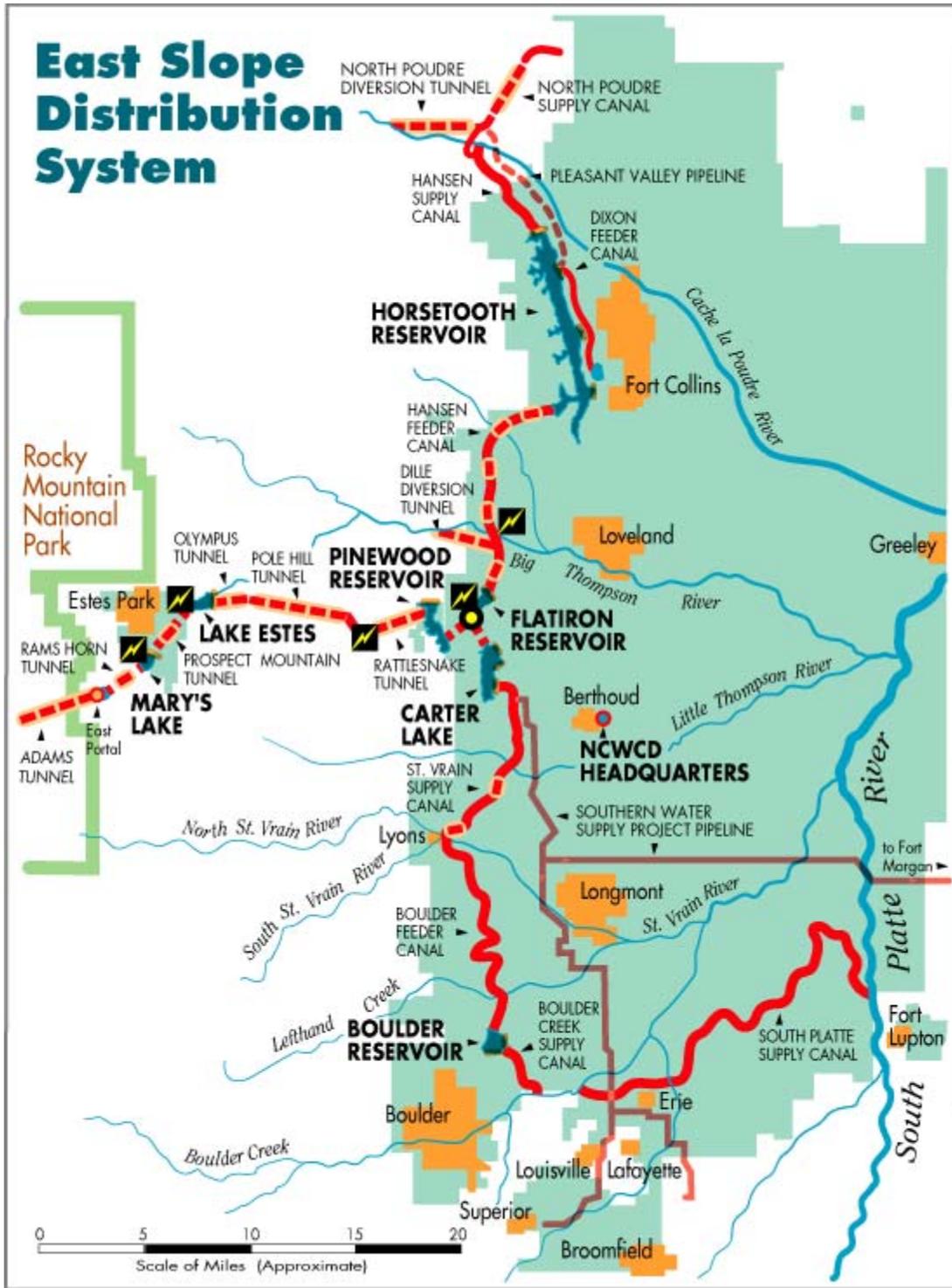


Figure 28. Map of the East Slope Distribution System of the Colorado-Big Thompson Project showing location of east slope rivers.¹⁸⁸

2. The Colorado-Big Thompson Project demonstrates the administrative flexibility in the NPDES permitting rules as they apply to western water transfer systems.

The testimony and the accompanying maps introduced as exhibits at the *FWF* trial identified twenty or more water diversions within the Colorado-Big Thompson system. However, deposition testimony and a stipulation at trial also disclosed an absence of any pollution problems resulting from the operation of the Colorado-Big Thompson system that caused a water quality violation in the receiving water.¹⁸⁹ The stipulation offered by the United States at trial – and agreed to by all parties except the South Florida Water Management District – was as follows:

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.¹⁹⁰

Given this testimony and this stipulation, EPA’s proposed rule wholly fails to take into account the administrative flexibility created by its own general permitting rules as was specifically noted by the Supreme Court in *Miccousukee*. 40 C.F.R. § 122.28.¹⁹¹ That rule allows for single system-wide permits for certain categories of point sources within a defined geographic area, such as the Colorado-Big Thompson or the Central Valley Project, 40 C.F.R. § 122.28(a)(1), while allowing for individual permits for an individual discharge of pollutants where that discharge is in need of pollution abatement measures. 40 C.F.R. § 122.28(b)(3). In fact, one of EPA’s expert witnesses who had experience with NPDES permitting testified at his deposition that getting NPDES permits would not be excessively burdensome.¹⁹²

Applying this permitting scheme to the Colorado-Big Thompson Project is a useful exercise. Based on the testimony of federal witnesses, this is the type of project where generally good water quality would allow for coverage by a general permit. However, research and events over just the past two years indicate that the Project is experiencing emerging water quality problems. Those problems include eutrophication (nutrient enrichment) of major reservoirs (there is currently an ongoing debate as to whether the Horsetooth Reservoir should be declared impaired for low dissolved oxygen) and reports of “a disturbing trend toward blue-green algae that could produce toxin levels that endanger drinking water.”¹⁹³ Public health risks and other issues related to water transfers that involve toxic algae are described in detail in Sections III and IV of these comments. The Northern Colorado Water Conservancy District, the state created entity that operates the project, has itself reported that users of the system have “voiced concerns” about “the effect of introducing C-BT water into east slope rivers and streams.”¹⁹⁴ These are exactly the water pollution issues that NPDES permitting is intended to address. If, in

fact, those transfers of polluted water are significant contributors of pollutants, then an individual permit should be issued to address those concerns before they develop into public health threats.

VI. THE ECONOMIC COSTS ASSOCIATED WITH UNPERMITTED TRANSFERS OF POLLUTED WATER COULD BE CATASTROPHIC

The record of the *FWF* case and of the western water coalition's advocacy before EPA and the Solicitor General provides the basis of the western water coalitions' doomsday argument which they claim entitles them to a complete permitting exemption from section 402. In short, the western water coalition asserts that: 1) they would be required to treat and remove all naturally occurring substances in rivers and streams regardless of their effect on the uses of the receiving water; and, 2) that all listed pollutants must be *eliminated* even if the discharge meets all water quality standards in the receiving water.¹⁹⁵ Based on this misapprehension, the Western water owners assert that the same water would have to be treated as many as seventeen times (treatment at each transfer point) at a cost of \$315 million per treatment.¹⁹⁶

In the Second Circuit, in the *Catskill* case, the western water owner's "doomsday argument," received short shrift:

The City's plea for reconsideration appears to rest on the assumption that regulating the discharge from the tunnel would effectively require that the flow be stopped altogether. This claim seems to be exaggerated. We think the flexibility built into the CWA and the NPDES permitting scheme . . . will allow federal authority over quality regulation and state authority over quantity allocation to coexist without materially impairing either.

Catskill, 451 F.3d at 85. As explained by the Second Circuit, several permitting flexibilities are allowed for in the Clean Water Act to prevent such a doomsday scenario, including providing a schedule of compliance, variances to water quality based effluent limitations when achievement is infeasible, seasonal modifications to restrictions, and exemptions for emergencies or threats to public health and safety. *Id.* at 85-87.

The Western water owners and the EPA contend that protecting and restoring the health of the nation's waters is not cost-effective in this circumstance. That policy decision was made by the Congress in section 101(a) of the Clean Water Act and it is not up to the EPA to overturn that decision. Certainly, the EPA does not adequately consider the costs of exempting water transfers from regulation or the destruction of the designated uses of the receiving waters. Just the examples used in these comments indicate that capital costs for new or upgraded drinking water treatment facilities to deal with reservoir pollution must be vast. The Contra Costa District expansion to deal with water quality problems has cost \$850 million.¹⁹⁷ The Lake Skinner reservoir drinking water treatment plant modifications to deal with toxic algae were over \$240 million.¹⁹⁸ The impending shift of three small cities from Lake Okeechobee water to brackish groundwater – a shift needed because of transfers of polluted canal water, toxic algae and other pollution – is currently budgeted at \$50 million.¹⁹⁹ Municipalities in other states have had to simply abandon reservoirs because of an inability to control persistent taste and odor problems caused by algae blooms.²⁰⁰ None of these figures include operation costs of water managers' attempts to deal with water contamination created by toxic algae.

The long term costs of creating permitting exemptions is illustrated by the plight of Lake Okeechobee. It is anticipated that Florida will run out of ground water in the next 14 years and be forced to rely on surface water.²⁰¹ Lake Okeechobee is the second largest lake entirely in the United States and is 730 miles in surface area. If the water in that lake becomes so degraded that it cannot be used for drinking water, the economic consequences for Florida will be catastrophic.

As shown earlier in these comments, the consumption of water containing toxins from cyanobacteria and other toxic algae transferred into drinking water sources imposes major public health costs. EPA cannot claim not to be aware that toxic algae blooms are a rapidly growing problem throughout the United States and that the toxins are a grave public health threat. Those facts alone render the proposed NPDES permitting exemption for water transfers arbitrary and capricious.

EPA must consider all economic costs associated with interbasin biota transfers, including the economic impacts of the biota on the receiving water body. It is obvious that introducing invasive or toxic biota to a receiving water body has the potential to cause economic losses as a result of harm to the water body's designated uses such as drinking water, fishing, recreational boating, swimming, and/or irrigation. Losses associated with destruction of the natural resource value of a water body are less tangible but no less important. Those losses, for example, would include the loss of a pristine water body resulting from introduction of pollutants from a more polluted waterbody, or the damage to the biodiversity and ecologic sustainability of a water body as the result of the introduction of invasive species or cyanobacteria.

The EPA has recognized that computation of these losses is extremely important if steps are to be taken to control invasive species. In fact, at the same time that Mr. Grumbles with EPA's Office of Water was writing the agency interpretative memo exempting water transfers (and the transfers of biological pollutants including invasive species) from NPDES permitting requirements, he was giving the opening address at an EPA workshop on the economic impact of aquatic invasive species in the United States.²⁰² The purpose of the workshop was to begin the development of national and regional estimates of market and non-market impacts of aquatic invasive species to be used by EPA.²⁰³

Although EPA has not yet developed its estimates, other relevant estimates and examples of existing economic impacts due to biota transfers are currently available. The associated damages and costs of controlling aquatic invaders in the United States have been estimated to be \$9 billion annually.²⁰⁴ In the past decade, economic losses due to harmful algal blooms are estimated to be over \$1 billion.²⁰⁵ Excessive algal growth impairs the use of water bodies as drinking water sources (thereby raising the cost of producing potable water) by creating taste and odor problems, causing daily fluctuations in pH which can reduce the effectiveness of coagulants and chemicals used in the treatment process, and result in shortened filter run times "which can substantially decrease plant production and create difficulties meeting customer demand."²⁰⁶

Economic impacts of toxic algae blooms on recreational waters were the subject of a report commissioned by Texas Parks and Wildlife in which researchers from Texas A&M

University examined the economic impacts of golden algae fish kills on recreational fishing at Possum Kingdom Lake.²⁰⁷ They estimated that the local three county area suffered an economic loss of \$2.8 million as a result of impacts to recreational fishing caused by one algae bloom in the one reservoir in 2001.²⁰⁸ Overall, the state has estimated that losses to local economies from the 2001 toxic algae fish kills exceeded \$18 million.²⁰⁹ As of 2006, 25 million fish worth \$10 million had been killed in over 30 locations.²¹⁰

VII. THE PROCESS LEADING UP TO THE PROPOSED RULE REVEALS THAT IT WAS INTENDED TO ADMINISTRATIVELY OVERRULE THE SUPREME COURT’S DECISION IN THE *MICCOSUKEE* CASE THAT CONVEYANCES THAT DO NOT THEMSELVES GENERATE POLLUTANTS REQUIRE NPDES PERMITS

The process by which the proposed rule was created reveals that the rule’s purpose and intent are to overrule S-9 and create a blanket exemption to the Clean Water Act. As detailed below, large western water users have made a concerted effort to secure such an exemption. In one document given by western interests to EPA, numerous different escape routes are outlined to avoid NPDES regulation, including a myriad of interpretations the agency could use to create a loophole for water transfers.²¹¹ All of these tactics—changing the definition of addition, changing the definition of discharge, creating an exemption in 40 CFR 122.3, etc.—are variations on the ‘convey’ theory made and lost in the *Miccosukee* case. Unfortunately, EPA has acquiesced in this attempt and adopted an interpretation advocated by these interests.

A. Backdrop

Dating back to 1975, the EPA interpreted section 402 as applying to discharges from one navigable water to another.²¹² Further, the agency concluded that section 101(g) did not bar NPDES regulation of water allocations.²¹³ Over and over again, the courts agreed with these conclusions and found that the Clean Water Act mandated regulation of interbasin water transfers.²¹⁴

1. EPA adjudicates the issue: The Clean Water Act requires an NPDES permit for navigable water to navigable water

On June 27, 1975 EPA issued an agency opinion concluding that irrigation ditches that discharge to navigable waters require NPDES permits even if the ditches themselves qualify as navigable waters. *In re: Riverside Irrigation Dist.*, 1975 WL 23864 (Off. Gen. Couns., June 27, 1975). The opinion states that its findings are based on the plain meaning and legislative intent of the Act. *Riverside Irrigation District* at * 1. This opinion was authored pursuant to the provisions of former 40 CFR 125.36, which contained rules governing evidentiary hearings for NPDES permits. *In the Matter of 446 Alaska Placer Mines More or Less, NPDES Appeal No. 84-13, November 6, 1985*, 1985 WL 287131 (E.P.A.). These rules expressly excluded issues of law from the adjudicatory proceeding by requiring the presiding officer to refer issues of law to the General Counsel for a decision. *In the Matter of 446 Alaska Placer Mines More or Less, NPDES Appeal No. 84-13, November 6, 1985*, 1985 WL 287131 (E.P.A.). 40 CFR 125.36(m)(1) specifically required referral of “questions relating to the interpretation of provisions of the Act,

and the legality and interpretation of regulations promulgated pursuant to the Act.” The purpose of this section was “to achieve Agency-wide consistency in the interpretation of the Act. . . .” *In the Matter of National Steel Corporation, NPDES Appeal No. 75-15, January 7, 1976, 1976 WL 38367 (E.P.A.)*. The decisions of the General Counsel were final and binding on the Regional Administrator (who made the initial decision), but could be reviewed by the Administrator in his discretion if the decision was appealed. *In the Matter of: National Pollutant Discharge Elimination System Permit For: Beker Phosphate Corporation Manatee County, Florida, NPDES Appeal No. 78-5, February 22, 1979, 1979 WL 22678 (E.P.A.)*. The opinion itself states that the parties had an opportunity to provide written briefs in support of their respective positions. *Riverside Irrigation District* at *1. Thus the opinion results from a formal adjudicatory proceeding and was written with the intent of creating a consistent Agency-wide interpretation on the issue of whether the discharge of pollutants from one navigable water to another required an NPDES permit.

2. EPA interprets the Act: § 101(g) does not trump NPDES regulation of water allocations

On November 7, 1978, EPA clarified its position as to the bearing of section 101(g) on NPDES regulation in a memorandum issued to all EPA Regional Administrators from Thomas C. Jorling, Assistant Administrator for Water, and Joan Z. Berrstein, General Counsel. EPA Memorandum, *State Authority to Allocate Water Quantities – Section 101(g) of the Clean Water Act*, available at <http://www.epa.gov/waterscience/library/wqstandards/waterquantities.pdf> (Nov. 7, 1978). EPA looked to the plain language and legislative history of these sections to determine that the requirements of NPDES permitting are not trumped by these provisions. EPA Memorandum at p. 3. The memorandum points out that NPDES regulation may incidentally affect water rights and uses without running afoul of § 101(g) and § 510(2), stating that “[m]any persons have interpreted §101(g) as prohibiting EPA from taking any action which might effect water usage. You should be aware that such an interpretation is incorrect.” EPA Memorandum at p. 1.

3. The courts weigh in

Like the EPA interpretations, the courts have consistently held that NPDES permits are required when interbasin transfers discharge pollutants into navigable waters and that section 101(g) is not a bar to regulation.²¹⁵ In 1994, the Supreme Court held that sections 101(g) and 510(2) preserve state authority to allocate water between users, but do not limit the scope of pollution controls that can be imposed on users who obtain state water allocations. *PUD No. 1 v. Washington Dept of Ecology*, 511 U.S. 700, 720 (1994).

On December 19, 1996, the First Circuit addressed the pumping of polluted water from the Pemigewasset River into pristine Loon Pond, a drinking water source located in the White Mountain National Forest in New Hampshire. *Dubois v. U.S. Dept. of Agriculture*, 102 F.3d 1273 (1st Cir. 1996). 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 v. U.S. Dept. of Agriculture*, 102 F.3d 1273, 1296 (1st Cir. 1996). The First Circuit noted that under the lower court’s analysis no permit

would be required “regardless of how polluted the Pemigewasset was or how pristine Loon Pond was. We do not believe Congress intended such an irrational result.” *Dubois v. U.S. Dept. of Agriculture*, 102 F.3d 1273, 1297 (1st Cir. 1996). Accordingly, the court held that the pond and river are two distinct waters and that the transfer from one to the other constitutes an addition requiring an NPDES permit. *Dubois v. U.S. Dept. of Agriculture*, 102 F.3d 1273, 1299 (1st Cir. 1996).

On October 23, 2001, the Second Circuit found that an NPDES permit was required when an interbasin transfer added pollutants to the receiving water body. *Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York*, 273 F.3d 481 (2nd Cir. 2001). In *Catskill*, the City of New York used a tunnel to transport water from a reservoir to a creek and argued that no NPDES permit was required because the city was not adding pollutants to the waters of the United States when viewed as a unitary whole. The court discarded this approach 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. Such an interpretation is inconsistent with the ordinary meaning of the word “addition.”

Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York, 273 F.3d 481, 493 (2nd Cir. 2001)

The Eleventh Circuit agreed on February 1, 2002 holding in *Miccosukee Tribe of Indians v. South Florida Water Management District*, 280 F.3d 1364 (11th Cir. 2002) *reversed and remanded on other grounds* 541 U.S. 95 (2004), that an NPDES permit was required where the transfer of one body of water to another added pollutants when the transfer is the cause in fact of the release of pollutants, *i.e.* the transfer from one body of water to the other would not occur naturally.

In 2003, the Ninth Circuit held that the discharge of unaltered groundwater into surface water required an NPDES permit. *Northern Plains Resource Council v. Fidelity Exploration and Development Co.*, 325 F.3d 1155 (9th Cir. 2003) *cert. denied* 540 U.S. 967 (2003). The court reasoned that because the groundwater altered the water quality of the receiving water, it was a pollutant. *Northern Plains Resource Council v. Fidelity Exploration and Development Co.*, 325 F.3d 1155, 1162 (9th Cir. 2003) *cert. denied* 540 U.S. 967 (2003). Although the court analyzed the issue by reference to the definition of “pollutant” in the Clean Water Act, it noted that the analysis would be largely the same under the term “addition.” *Northern Plains Resource Council v. Fidelity Exploration and Development Co.*, 325 F.3d 1155, 1163 (9th Cir. 2003) *cert. denied* 540 U.S. 967 (2003). Referring to the Eleventh Circuit’s decision in *Miccosukee* and the Second Circuit’s decision in *Catskill I*, the court wrote, “The cases apply insofar as they reject the argument that discharge of water cannot be a pollutant simply because the discharged water is unaltered and transported from one body of water to another.” *Northern Plains Resource Council v. Fidelity Exploration and Development Co.*, 325 F.3d 1155, 1163 (9th Cir. 2003) *cert. denied* 540 U.S. 967 (2003).

B. The Hijacking of EPA Policy

Despite the agreement between longstanding EPA interpretations and case law in numerous Circuits and the Supreme Court, EPA inexplicably changed its reading of sections 402 and 101(g) as not requiring regulation of interbasin water transfers in late 2003.²¹⁶ This change came after an intense lobbying effort by western water owners angling for an exemption from the Act.²¹⁷ To justify the policy change, the agency at first argued that the plain meaning of the Clean Water Act required the term “navigable waters” to be read as a singular unit, thereby precluding regulation of discharges from one navigable water to another.²¹⁸ When this unitary waters theory failed to impress the courts, the agency argued the Act was ambiguous and decided to opt for a “holistic” reading of the Act, creating an exemption for water transfers entirely out of thin air.²¹⁹ As the following sections demonstrate, the western water owners continual failure in the courts triggered a movement to overturn S-9 through administrative action. Unfortunately, EPA acquiesced in this scheme at the expense of water quality and the directives of the courts.

1. The Supreme Court speaks; The Solicitor General flip-flops

Following the Eleventh Circuit’s decision in *Miccosukee*, Defendant South Florida Water Management District petitioned the United States Supreme Court to grant a writ of certiorari. In May 2003 the Solicitor General filed a brief expressing the views of the United States in which the United States argued that certiorari should be denied given the lack of disagreement in the circuits and the limited national impact of the ruling.²²⁰ This position was supported by the Florida Department of Environmental Protection and by EPA Region 4 as being consistent with prior permitting policy of looking at water transfers on a case by case basis.²²¹ The Solicitor General took this position despite being extensively informed of the possible effect of the decision on water transfers in the West.²²² As the representative of the United States, the Solicitor General’s position was presumably influenced by the views of the EPA and other agencies.²²³

But, in an abrupt reversal of position, the Solicitor General, after certiorari was granted, filed a brief on the merits on September 10, 2003 arguing that the plain meaning of the Clean Water Act called for a reading of navigable waters as a singular entity.²²⁴ This plain meaning had apparently previously escaped the Solicitor General. The reversal in position came after a concentrated lobbying effort by the law firm Trout, Raley, Montano, Witwer & Freeman, P.C. which included a letter writing campaign, conference calls and meetings with EPA, DOI and the Justice Department.²²⁵ As noted in Board Minutes of the Municipal Subdistrict, Northern Colorado Water Conservancy District from September 12, 2003, the Trout firm “fostered western efforts to encourage the United States Solicitor General to strongly oppose the notion that a discharge permit is required for trans-basin diversions, which he did in his brief in support of the petitioner (after failing to do so in his brief on certiorari).”²²⁶ These efforts included sending Mark Pifher, Director of the Colorado Water Quality Control Division and a former attorney with the Trout firm, to brief EPA and the Department of Justice in Washington on the issue.²²⁷ Mr. Pifher’s trip was paid for by the National Water Resources Association (NWRA) which was reimbursed by the Northern Colorado Water Conservancy District, both clients of the Trout firm.²²⁸ Interestingly, Mr. Pifher, who was once considered for the job of Assistant

Administrator for Water at EPA, also worked with the Water Quality Subcommittee of the Western States Water Council (WSWC) in formulating a resolution opposing the Eleventh Circuit's decision in August of 2003 and suggested that the resolution be forwarded to EPA, DOI and the Solicitor General's Office.²²⁹

Clean Water Act and federalism issues, such as the authority of the states to allocate the right to the use of water under state law. Legal counsel and staff, in coordination with Mr. Allen Freemyer, the District's and Subdistrict's Washington, D.C., lobbyist, have been leading and coordinating western efforts to influence the government's position, including letters from western attorneys general to Secretary Norton and Solicitor General Olson, conference calls and meetings with the Interior Department and the Environmental Protection Agency (EPA), and an NWRA-generated letter from 12 western senators to the Solicitor General. Legal counsel also arranged for Mr. Mark Pifher, Director of the Colorado Water Quality Control Division, to brief the EPA and Justice Department attorneys in Washington, D.C. Apparently, the Interior Department sent a strongly-worded letter to the Justice Department stating that NPDES permits should not be required for western trans-basin diversions. Mr. Trout concluded by stating that the *Miccosukee* case could have a direct impact on

Figure 29. Excerpt from legal briefing by Bob Trout, of Trout, Raley, Montano, Witwer & Freeman, P.C., to the Municipal Subdistrict, Northern Colorado Water Conservancy District.²³⁰

In addition to its various lobbying efforts, the Trout Firm, with help from Mark Pifher²³¹, drafted an *amicus* brief on behalf of National Water Resources Association (NWRA) and other western organizations.²³² The Central Arizona Water Conservation District (CAWCD) joined with NWRA in this effort to overturn the Eleventh Circuit's ruling.²³³ Western interests had been recruited by the South Florida Water Management District and the City of New York to file *amicus* briefs, with the City to shoulder the majority of costs.²³⁴ The Trout Firm also sought to ensure *amicus* briefs were filed by western states.²³⁵ As seen in Figure 30, the firm was also responsible for drafting the *amicus* filings for the states of Colorado and New Mexico, which was joined by another eleven states.²³⁶

will be argued in January 2004. In coordination with Mr. Allen Freemyer, the Subdistrict's Washington, D.C., lobbyist, counsel is fostering western efforts encouraging the federal government to strongly oppose the notion that a discharge permit is required for trans-basin diversions, a position the Solicitor General failed to take in his brief on certiorari. Counsel will file an *amicus* brief for the National Water Resources Association (NWRA) and other western organizations, on behalf of western water users. Counsel will also be drafting an *amicus* brief for the western states, with the support of the Colorado Water Conservation Board (CWCB), to be filed under the auspices of the States of Colorado and New Mexico. Counsel is also monitoring *Catskill Mountains Chapter of*

Figure 30. Excerpt from legal briefing by Bob Trout, of Trout, Raley, Montano, Witwer & Freeman, P.C., to the Municipal Subdistrict, Northern Colorado Water Conservancy District.

At oral argument, Justice O'Connor characterized the unitary waters approach as "extreme" in an exchange with counsel for the South Florida Water Management District, as seen in Figure 31.

MR. BISHOP: We take the position, first of all, that all of the navigable waters of the United States are unitary for purposes of determining whether they are—

QUESTION: That's an extreme position, and you probably have a fall-back position.

MR. BISHOP: And the alternative—

(Laughter.)

Figure 31. Excerpt from Oral Argument in *Miccosukee* before the Supreme Court²³⁷

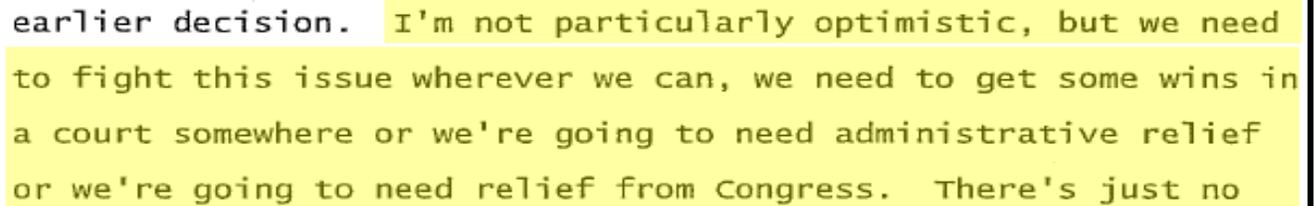
On March 23, 2004 the Supreme Court issued its decision in *Miccosukee. S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians of Fla.*, 541 U.S. 95 (2004). Justice O'Connor writing for a unanimous Court held that NPDES regulation was required regardless of whether the pollution was generated by the point source or merely conveyed by it. *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians of Fla.*, 541 U.S. 95, 105 (2004). This 'convey' argument made by the South Florida Water Management District was viewed as "untenable" by the Court and was the heart of the *Miccosukee* decision. *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians of Fla.*, 541 U.S. 95, 105 (2004) (noting that the 'convey' theory was the "precise question on which we granted certiorari"). While the Court noted that requiring NPDES permits for water transfers may raise the costs of water transfers prohibitively, the Court wrote, "it may be that such permitting authority is necessary to protect water quality, and that the States or EPA could control regulatory costs by issuing general permits to point sources associated with water distribution programs." *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians of Fla.*, 541 U.S. 95, 108 (2004).

Additionally, the Court strongly criticized the unitary waters theory, a variation of the 'convey' theory, as inconsistent with the Act's stated purpose of protecting individual water bodies. *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians of Fla.*, 541 U.S. 95, 107 (2004). Although the government argued that deference should be given to the longstanding view of the EPA that navigable waters into navigable waters did not constitute an addition under the Clean Water Act, the Court rejected this argument noting, "[T]he Government does not identify any administrative documents in which EPA has espoused that position. Indeed, an amicus brief filed by several former EPA officials argues that the agency once reached the opposite conclusion." *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians of Fla.*, 541 U.S. 95, 107 (2004) (referring to the 1975 EPA Agency Opinion, *In re: Riverside Irrigation Dist.*, 1975 WL 23864 (Off. Gen. Couns., June 27, 1975), submitted in an *amicus* brief filed by former EPA Administrator Carol Browner et al.).

2. The wagons are circled

The Trout firm and other western water owners were put on the defense by the Supreme Court's decision in *Miccosukee*.²³⁸ Trout had predicted a divided Court and wrote that it was "inconceivable" Justice O'Connor, an Arizona rancher, could rule against western interests and the administration.²³⁹ A meeting was convened in Denver by the Trout Firm in which various western interests were present including the National Water Resources Association and the

Central Arizona Water Conservation District (CAWCD).²⁴⁰ The idea was to launch a united effort to overturn *Miccosukee* and related cases.²⁴¹ This effort would include the filing of *amicus* briefs in related cases and lobbying efforts in the legislative and executive branches.²⁴² The western interests recognized that action would be needed outside the courts.²⁴³



earlier decision. I'm not particularly optimistic, but we need to fight this issue wherever we can, we need to get some wins in a court somewhere or we're going to need administrative relief or we're going to need relief from Congress. There's just no

Figure 32. Excerpt from Board of Directors Meeting, CACWD.²⁴⁴

The effort envisioned spending tens of thousands of dollars in 2004 and 2005 alone.²⁴⁵ Along with the law firm of Perkins Coie, LLP, the Trout Firm would take the lead.²⁴⁶

3. The *FWF* litigation and a new interpretation

Following the *Miccosukee* decision, the United States on behalf of the Army Corps of Engineers and the United States Environmental Protection Agency moved to intervene on March 11, 2005 in the *Florida Wildlife Federation v. South Florida Water Management District* litigation involving interbasin water transfers, then well under way.²⁴⁷

On August 3, 2005, EPA General Counsel Ann Klee contacted Peter Nichols, an attorney with Trout, Raley, Montano, Witwer & Freeman, P.C. to inform him that a brief would be filed in the *FWF* litigation based on a memo that would be signed as an agency interpretation intended to garner deference with the court.²⁴⁸ According to Klee the delay in producing the document occurred because “we have been through several different approaches.”²⁴⁹ As Figure 33 illustrates, Klee also thanked Nichols for all the help he provided. Perkins Coie, the other law firm working with the western interests, also provided materials to the agency.²⁵⁰ These documents outlined a slew of regulatory options and arguments the agency could take to exempt water transfers from NPDES permitting, all variations of the same theme—a recasting of the ‘convey’ theory made in *Miccosukee* and discarded by the Supreme Court.²⁵¹ They also noted that one of the downsides of EPA permitting was that EPA may develop more stringent permit terms than could be negotiated with state permitting authorities.²⁵²

P	TO: Peter Nichols	DATE: 8/3/05	TIME: 1:07 PM
H	FROM: Ann Klee	PHONE NUMBERS:	
O	OF: EPA		
N	M	Hi Peter, Ann Klee at EPA. I just wanted to follow up. I talked to Mark Limbaugh	
E	E	I guess the day before yesterday or yesterday and he mentioned that you two had	
	S	talked and I just wanted to circle back and tell you know that we are on track to file	
M	S	a brief on Friday in the Miccosukee litigation. It will be based on a memo that Ben	
E	A	Grumbles and I are going to be jointly signing as an agency interpretation on the	
M	G	question of whether or not water transfers require NPDES permits. He mentioned	
O	E	that you had expressed some concern about where we would be on unitary waters.	
We are not basing the interpretation or the memorandum on the unitary waters theory but			
instead are looking at a statutory construction based argument looking at 101g and 304f and			
the statute as a whole rather than simply trying to focus solely on the term addition and			
conclude, as you might expect, that the agency's view that the better interpretation of the entire			
statute is that Congress did not intend for water transfers to require NPDES permits. We do			
have some discussion of the case law, including the Miccosukee decision and the language of			
meaningful distinctness and what we think that might mean. And, the other thing that the			
statement does is that it indicates that the agency will initiate a rulemaking to address this			
issue. So, we are hoping that it will at least signal the court that if they don't give a Chevron			
deference which we would certainly like but recognize that this is more in the nature of an			
interpretive rule that it should proceed cautiously since the agency will be proceeding with a			
rulemaking. So, I would be happy to talk about it further but it probably won't be ready until			
Friday. We are still working on word smithing and we have been through several different			
approaches which is part of why it has taken so long. I appreciate all of the help you			
have given along the way. Hope this is helpful. I will be out in Texas but if you want to call			
Steve Nugeborn on Friday he can get you a PDF version of the memo once it is signed.			
Thanks.			

Figure 33. Transcription of Ann Klee's Phone Message For Peter Nichols of the Trout Firm.

On August 5, 2005, the day summary judgment motions were due, the United States filed the newly created Agency Interpretation with the court.²⁵³ In another change of position, the Interpretation argues that the Clean Water Act is ambiguous on the issue of NPDES permitting of water transfers and must be examined as a whole.²⁵⁴ Creating a blanket exemption for water transfers, the interpretation argued that it was more appropriate to regulate water quality problems caused by interbasin transfers at the source of the pollution.²⁵⁵ This new spin on the 'convey' argument foreclosed by *Miccosukee* was precisely the same as the argument made in

amicus briefs filed by the Trout Firm in *Miccossukee* and other cases.²⁵⁶ The interpretation made no mention of the 1978 Agency Memorandum regarding section 101(g); nor was this document produced by the United States at trial. The interpretation also doesn't discuss the Solicitor's previous argument that the Act contained a plain meaning. The interpretation did, however, indicate that EPA would be doing a rule-making, apparently to bolster judicial regard for the interpretation.²⁵⁷ Interestingly, the United States had previously raised a mootness defense in its answer in intervention.²⁵⁸

(CWA) that could affect the District's operations. Counsel led a coalition of western water users (NWRA, et al.) and the Colorado Water Quality Control Division in working with the Environmental Protection Agency (EPA) and the Department of Interior to foster a unified federal administrative response to the Supreme Court's decision in *Miccossukee*, 124 S. Ct. 1537 (2004),

Figure 34. Excerpt of Legal Briefing by Bob Trout to NCWCD²⁵⁹

On September 28, 2005 a coalition of western water groups including NWRA represented by Trout, Raley, Montano, Witwer & Freeman, P.C., moved to appear as *amicus curiae* and participate at the summary judgment hearing in the *FWF* litigation.²⁶⁰ At oral argument counsel for *amici* presented a doomsday scenario arguing that the court's ruling would affect countless western water transfers.²⁶¹ The *amici* argued that extremely large numbers of new NPDES permits might be needed, especially for western water transfer projects, and that requiring NPDES permits for such projects would impose prohibitive costs and administrative burdens on western water users.

This argument had been presented several times by the Trout Firm and is clearly laid out in a CLE presentation by Peter Nichols of the Trout Firm, as seen in Figure 35.²⁶² In the document, Mr. Nichols points to the Bureau of Reclamation's Colorado-Big Thompson project as illustrative of the possible impacts of NPDES permitting of water transfers. His choice is not surprising, given that the project is operated by the Northern Colorado Water Conservancy District, a client of the Trout Firm.²⁶³ Mr. Nichols has consistently argued a doomsday scenario in which: 1) every transfer would require enormous prohibitively expensive treatment facilities; or 2) treatment would be impossible; or 3) prohibitively expensive or impossible treatment would be required seventeen times for the same water.²⁶⁴

- The magnitude of the challenge is substantial.
 - The Colorado-Big Thompson Project (C-BT) delivers transbasin water at an average of 203 MGD (220,000 acre-feet per year), although peaking at 358 MGD, 167 percent of average.
 - The potential capital cost to treat this quantity of water once could exceed \$315 million, double the initial cost of the entire project. But without the ability to treat peaking flows, the Project could be forced to forgo the ability to fully exercise its water rights.
 - Furthermore, the Project diverts water in and then out of 17 different water bodies, which are integral to the engineered transfers.
 - The Project might have to treat essentially the same water 17 times – a every point where it discharges into a stream, lake, or reservoir.
 - Water users, however, would still receive untreated water.
 - Not being an engineer, I can't multiply 17 times \$315 million in my head, but I do know it would be prohibitively expensive.
- Treatment plants generally cannot handle large fluctuations in volume; they require gradual changes.
 - Therefore, most plants use a fore bay, or surge reservoir, to buffer variable flows.
 - In addition, the removal of any constituents by the treatment plant produces a "sludge," which requires disposal.
 - Finally, treatment facilities require access for people and equipment.
 - One plant to treat the C-BT Project I've been talking about would require over 240 acres.

Figure 35. Excerpt of CLE materials prepared by Peter Nichols of the Trout Firm.

According to Mr. Nichols, the end result is that water transfers would effectively be halted in the West.²⁶⁵ In a variation of this theme, the South Florida Water Management District produced experts on western water resources, who argued that NPDES permitting required the total elimination of all pollution from water bodies and would therefore shut down water transfers in the West.²⁶⁶ This argument too has appeared before in writings of the Trout firm.²⁶⁷

Despite these mischaracterizations of both the Clean Water Act and the requirements of NPDES permitting by the District and *amici*, neither the depositions of the South Florida Water Management District's experts (one of which was recommended by *amici*), nor the depositions of experts for the United States revealed any water quality problems in receiving waters caused by western water transfers.²⁶⁸ In fact at trial, the attorneys for the United States stipulated that none of the representative western water transfers they were presenting produced a single water quality problem in the receiving water which would violate water quality standards, as seen in Figure 36.²⁶⁹

11 MS. RUDOLPH: The United States and the plaintiffs,
 12 including the Tribe, agree that there are engineered water
 13 transfers in the western United States. These next two
 14 witnesses will discuss four of them. The United States and the
 15 plaintiffs --

16 THE COURT: Four of what?

17 MS. RUDOLPH: Four water transfer projects.

18 The United States and the plaintiffs, including the
 19 Tribe, agree that there is no record evidence that any of the
 20 four trans-basin water transfers cause or contribute to any
 21 exceedence of any water quality standard in the receiving water
 22 body.

23 With respect to any of the other water transfers
 24 discussed by these two witnesses regarding these four projects,
 25 no party to this stipulation contends that any such transfer

1 caused or contributed to a water quality standard exceedence in
 2 the receiving water body.

3 MR. ARANA: Your Honor, that's correct, we did enter
 4 into that stipulation, but we would like to make clear that we
 5 object to the testimony that they would like to put on because
 6 it is irrelevant. It has nothing to do with the pump stations
 7 at issue in this case.

8 THE COURT: Ms. Rudolph, what is the relevance of what
 9 you would like me to hear? None of these transfers contribute
 10 to water quality standard exceedence in the receiving water
 11 bodies.

Figure 36. Excerpt of United States Stipulation from *FWF* Trial Transcript.

The experts presented by the United States at trial indicated that these western projects move water which is pretty much pure snow melt.²⁷⁰ In fact at trial, the United States and the District failed to show any inordinate regulatory burden that would be caused by the NPDES permitting of interbasin water transfers. Of note is that the United States' did not offer a single witness from EPA to testify regarding permitting, western projects, or water quality issues related to water transfers.²⁷¹

4. A rule is born

In keeping with the promise made in the August 5, 2005 interpretation, EPA initiated rulemaking and on June 1, 2006, the United States filed a copy of the proposed rule with the *FWF* court.²⁷² Once again, the agency spent its time listening to the western interests who had mobilized to seek an exemption.²⁷³ As Figure 37 shows, EPA staff met with Peter Nichols of the

Trout Firm and Allen Freemyer, the Washington lobbyist for NCWCD, to discuss the rulemaking.²⁷⁴

*Trout, Raley, Montañó,
Witwer & Freeman, P.C.*

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April 6, 2006

Michael Cantanzaro, Chief of Staff of the Deputy Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW, Room 3402-ARN
Washington, D.C. 20460

Re: EPA Rulemaking on Water Transfers

Dear Mike:

A pleasure to meet you recently. Thanks for making time in your busy schedule for Allen Freemyer and me to talk to you and Ann about EPA's proposed rulemaking on water transfers.

As I mentioned, this is a critical issue to western states and water users. Please don't hesitate to contact Allen or me if you have any questions or desire additional information.

Sincerely,



Peter D. Nichols

for

Trout, Raley, Montañó,
Witwer & Freeman, P.C.

Figure 37. Letter to EPA from Peter Nichols of the Trout Firm

Interestingly, the proposed rule adopted one of the 'convey' strategies advocated by the Perkins Coie Firm, and invented an exemption for water transfers in 40 C.F.R. § 122.3.²⁷⁵ However, even Perkins Coie recognized the weakness of the strategy selected by EPA and deemed it "very vulnerable to attack" because without express statutory authority, a new exemption is vulnerable to attack under *Costle*.²⁷⁶ Despite this assessment, the proposed rule codified the position

advocated by the Trout, Raley, Montano, Witwer & Freeman Firm and designed to receive deference from the courts, as Nichols explains in the following CLE materials and email.²⁷⁷

- EPA's proposed rulemaking is exactly the position we asked them to take: no NPDES permits for water transfers, any regulation up to state water allocation agencies and non-NPDES authorities.
- Western water users must be prepared to support EPA's rulemaking, which is designed to, and should receive, Chevron deference from the courts.

Figure 38. Excerpt from CLE materials prepared by Peter Nichols of the Trout Firm

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----- Original Message -----
From: "Peter Nichols" <pnichols@troutlaw.com>
Date: 5/31/06 3:52 pm
To: "George, Russell" <Russell.George@state.co.us>
Subj: EPA Rulemaking on Water Transfers
Russ -

Having any deja vu with the Senate Energy Committee?

EPA is about to propose a rulemaking that would say that water transfers are not
discharges subject to permitting under the Clean Water Act. This is the position they
took at our urging in their Agency Interpretation last summer in the Lake Okeechobee case.
The rulemaking is to garner Chevron deference from the courts, and something the western
states and water users should strongly support to offset the environmentalists, who will
flood EPA with objections.

I am thinking that Colorado will once again have to take the lead in the west since the
other states with the most at risk - Az and Cal - are not internally unified (so far)
enough to speak out. Would you be willing to call a meeting, like you did on the Second
Circuit case in Catskill Mtns, to discuss how to proceed? Invitees would include Hal and
Rod, Steve Gunderson (WQCD), and Casey Sphall and Will Allison from the AG's office, and
someone from the Governor's Office (not sure who that would be, but you probably know). I
am trying to coordinate the western response so I would be available to attend and brief
the group on the status and issues.

I am thinking it will take some time to line up the western states (since this isn't
litigation, we are probably talking about going to your counterparts, perhaps thru WGA or
Western States Water Council, rather than the AGs, who more informally and quickly). That
will take some lead-time and spadework I expect. Therefore, we need to get started since
EPA is apparently poised to publish the proposal in the Fed Reg in June.

Give me a call to discuss when you get a chance. 303-886-4350 (cell, best bet) - Thanks
much - Peter

*****
Peter D. Nichols, Esq.
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Denver, Colorado 80203
303-861-1963
Direct: 303-339-5825
Assistant: Glenice Martinez, 303-339-5832
Fax: 303-832-4465
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Figure 39. Email from Peter Nichols of the Trout Firm to Russell George, Executive Director of the Colorado Department of Natural Resources.

Needless to say, as seen in Figure 40, Peter Nichols and the water rights owners were very pleased.²⁷⁸

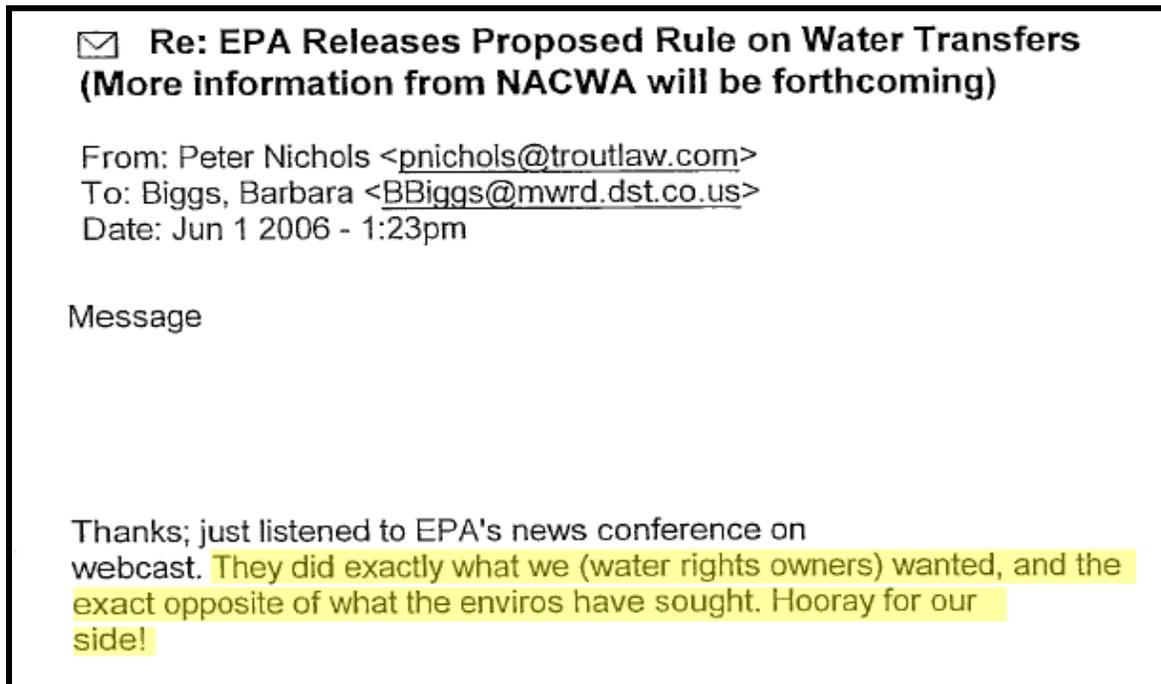


Figure 40. Email from Peter Nichols of the Trout Firm to Barbara Biggs, head of the Governmental Affairs and Water Quality Divisions of the Metro Wastewater Reclamation District in Denver.

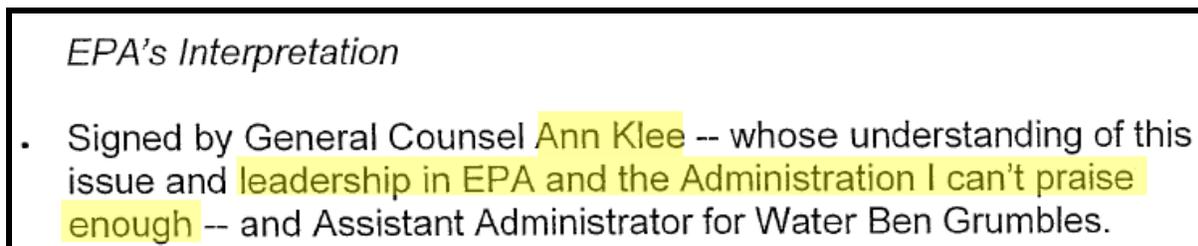


Figure 41. Excerpt from CLE Materials Prepared by Peter Nichols.²⁷⁹

5. The Second Circuit rejects the August 5, 2005 Interpretation

On June 13, 2006, the Second Circuit again examined the issue of NPDES permits for water transfers after the remanded *Catskill* case worked its way back up to the court. *Catskill Mountains Chapter of Trout Unltd. V. City of New York*, 451 F. 3d 77 (2nd Cir. 2006). The Second Circuit expressly stated that the August 5, 2005 agency interpretation—another variation on the ‘convey’ theory--went against the plain meaning of the Clean Water Act. *Catskill Mountains Chapter of Trout Unltd. V. City of New York*, 451 F. 3d 77, 84 (2nd Cir. 2006). It is noteworthy that a few days prior to the issuance of its opinion in *Catskill*, the proposed rule (largely based on the reasoning of the August 5, 2005 agency interpretation) was filed with that court along with a request by the City to stay the decision pending EPA rulemaking.²⁸⁰ In the

face of that request, the Court rejected the “holistic approach” advocated by the agency in the August 5 interpretation:

In the end, while the City contends that nothing in the text of the CWA supports a permit requirement for interbasin transfers of pollutants, these “holistic” arguments about the allocation of state and federal rights, said to be rooted in the structure of the statute, simply overlook its plain language. NPDES permits are required for “the discharge of any pollutant,” 33 U.S.C. § 1311(a), which is defined as “any addition of any pollutant to navigable waters from any point source,” *id* §1362(12). It is the meaning of the word “addition” upon which the outcome of *Catskills I* turned and which has not changed, despite the City’s attempts to shift attention away from the text of the CWA to its context.

Catskill Mountains Chapter of Trout Unlmted. v. City of New York, 451 F. 3d 77, 84 (2nd Cir. 2006).

Again, the Trout Firm prepared the separate *amicus* briefs for both the large western water owners and the western states themselves.²⁸¹ These briefs for both the water owners and the states were partially funded by the CAWCD.²⁸² As seen in the following excerpt from board minutes of the Central Arizona Water Conservation District, some western states remained internally divided on the issue of whether to join in the *amici* briefs.²⁸³

3 MR. MILLER: Well, they -- we had a very -- we had a
4 good meeting with the AG's Office. It included representatives
5 from their environmental division as well as their water
6 division and their lands division. The person who's in charge
7 of this is a woman named Mary O'Grady, she is the Arizona
8 Solicitor General, she works for Terry. She gave several
9 reasons why they're reluctant to join in. One is that it's not
10 a Ninth Circuit case, it's a Second Circuit case. Two is they
11 feel like they've not had adequate time to really evaluate it.
12 I think they've had enough time by now. The third reason is
13 that the Department of Environmental Quality is still resisting,
14 is still reluctant to see Arizona weigh in and say MPDS permits
15 should not be required for water transfers.
16 Now, as a practical matter, there are probably only
17 three water transfers in the state, so this is a solution in
18 search of a problem. The three water transfers are CAP, which
19 is enormous and by far the most important, and then there are
20 two others, one by ASARCO and one by Phelps Dodge. As far as we

20041823.txt

21 know, none of these transfers cause any water quality problems.

22 In fact, without them places like the Agua Fria River might be

23 dry and in many ways, Colorado River water improves the quality

24 of Agua Fria River water. So really it's a solution in search

25 of a problem, but I think that the DEQ would like to have the

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26

1 regulatory option to control water transfers through MPDS

2 permits if there were a highly polluted raw water body that was

3 being introduced into a relatively pristine one. And you can

4 understand that. And frankly, what we told them, as we begin,

Figure 42. Excerpt of Legal Briefing by Douglas Miller, General Counsel to the Central Arizona Water Conservation District.

Eventually, the Arizona Department of Water Resources joined the western states *amicus* brief, independently of the State of Arizona and the Arizona Department of Environmental Quality which abstained from the effort.²⁸⁴ Despite the extensive briefing by the western *amici*, the Second Circuit dismissed their arguments finding that: “The power of the states to allocate *quantities* of water within their borders is not inconsistent with federal regulation of water *quality*.” *Catskill Mountains Chapter of Trout Unlmted. v. City of New York*, 451 F. 3d 77, 84 (2nd Cir. 2006). These were the same arguments on which the August 5, 2005 interpretation was largely based.²⁸⁵

6. Epilogue

Despite the clear rejection of these issues in *Catskills II*, on June 26, 2006, the South Florida Water Management District represented to the *FWF* court that the Second Circuit was “pretending the language is ‘plain.’”²⁸⁶ Additionally, counsel wrote that this EPA rulemaking was “expressly designed” for cases such as the pending *FWF* litigation.²⁸⁷ Given the complete acquiescence of EPA in the subversion by western interests of the Supreme Court’s holding in *Miccossukee*, this statement unfortunately appears to be true.

Finally, please note that EPA has yet to provide all requested materials pursuant to a June FOIA request regarding the proposed rule and that such delay may necessitate a need to supplement these comments.²⁸⁸

An Index of Appendices 1- 138 (hand delivered to EPA) is attached as Exhibit 1.

-
- ¹ App. 95 (Affidavits of FWF members)
- ² App. 124 (SFWMD reply to FWF opposition to motion to stay in *FWF* case)
- ³ App. 98 (1978 EPA Guidance Memo)
- ⁴ App. 105A.
- ⁵ App. 199 (*Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York*, 451 F.3d 77 (2nd Cir. 2006)).
- ⁶ App. 15 (LA TIMES: Colorado River Taint Worries Some Officials); App. 16 (Reuters: Rocket Fuel Components in U.S. Lettuce)
- ⁷ App. 17 (USGS and NPS: Interbasin Biota Transfers); App. 131 (MONTANA OUTDOORS (MFWP): A State Under Siege)
- ⁸ App. 17 (Santa Clara Valley Water District Drinking Water Source Assessment)
- ⁹ App. 100 (*Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York*, 451 F.3d 77, *80 (2nd Cir. 2006)). “Because water in the Schoharie Reservoir contains suspended solids from both natural and man-made causes, discharges from the Tunnel into the Creek are more turbid than the waters of the Esopus. This turbidity impairs use of the Esopus for fly fishing and other recreational activities.”
- ¹⁰ App. 100 (*Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York*, 451 F.3d 77, 85 n.9 (2nd Cir. 2006)).
- ¹¹ App. 18 (USGS and NPS: Interbasin Biota Transfers at p. 6-1)
- ¹² App. 18 (USGS and NPS: Interbasin Biota Transfers at p. 6-2)
- ¹³ App. 18 (USGS and NPS: Interbasin Biota Transfers at pp. ES-3 – ES-5)
- ¹⁴ App. 18 (USGS and NPS: Interbasin Biota Transfers at p. ES-5)
- ¹⁵ App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint)
- ¹⁶ App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint)
- ¹⁷ App. 20 (USGS: HAB Briefing Sheet)
- ¹⁸ App. 21 (Crayton: Toxic Cyanobacteria Blooms Field/Laboratory Guide)
- ¹⁹ App. 22 (Reynolds: Cyanobacteria: Natural Organisms With Toxic Affects)
- ²⁰ App. 21 (Crayton: Toxic Cyanobacteria Blooms Field/Laboratory Guide)
- ²¹ App. 21 (Crayton: Toxic Cyanobacteria Blooms Field/Laboratory Guide)
- ²² App. 23 (Nuttle: Photographs of St. Lucie River Algae Bloom)
- ²³ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint); App. 25 (Burgess: Wave of Momentum for Toxic Algae Study)
- ²⁴ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint); App. 22 (Reynolds: Cyanobacteria: Natural Organisms With Toxic Affects at p. 78.)
- ²⁵ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint); App. 22 (Reynolds: Cyanobacteria: Natural Organisms With Toxic Affects at p. 78)
- ²⁶ App. 26 (Burns: Cyanobacteria and Their Toxins in Florida Surface Waters at pp. 16-21)
- ²⁷ App. 26 (Burns: Cyanobacteria and Their Toxins in Florida Surface Waters at pp. 16-21).
- ²⁸ App. 27 (ORLANDO SENTINEL: Health Menace Lurks in Lakes); App. 54 (Indiana University: Distribution and Abundance of *Cylindrospermopsis raciborskii* in Indiana Lakes and Reservoirs)
- ²⁹ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint) (slide on Cyanotoxin Types: Dermatotoxins)
- ³⁰ App. 28 (Kugrens: Effect of Algal Inhibitors on Higher Plant Tissues)
- ³¹ App. 28 (Kugrens: Effect of Algal Inhibitors on Higher Plant Tissues)

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- ³² App. 29 (McElhiney: Inhibitory Effects of Microcystins on Plant Growth and Toxicity of Plant Tissues Following Exposure)
- ³³ App. 29 (McElhiney: Inhibitory Effects of Microcystins on Plant Growth and Toxicity of Plant Tissues Following Exposure)
- ³⁴ App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint)
- ³⁵ App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint)
- ³⁶ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint)
- ³⁷ App. 22 (Reynolds: Cyanobacteria: Natural Organisms With Toxic Affects)
- ³⁸ App. 22 (Reynolds: Cyanobacteria: Natural Organisms With Toxic Affects)
- ³⁹ App. 30 (Carmichael: Testimony for a Hearing on the Scientific Issues Related to Harmful Algae Blooms and Hypoxia)
- ⁴⁰ App. 22 (Reynolds: Cyanobacteria: Natural Organisms With Toxic Affects)
- ⁴¹ App. 25 (Burgess: Wave of Momentum for Toxic Algae Study)
- ⁴² App. 25 (Burgess: Wave of Momentum for Toxic Algae Study); App. 24 (FL DOH: Aquatic Toxins Program PowerPoint)
- ⁴³ App. 57 (Svrek and Smith: Cyanobacteria Toxins and the Current State of Knowledge on Water Treatment Options: A Review)
- ⁴⁴ App. 58 (WHO: Chemical Fact Sheet for Microcystin LR)
- ⁴⁵ App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint)
- ⁴⁶ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint)
- ⁴⁷ App. 59 (USEPA: Drinking Water Contaminant Candidate List 2); App. 60 (USEPA: Creating a Cyanotoxin Target List for the Unregulated Contaminate Monitoring Rule)
- ⁴⁸ App. 22 (Reynolds: Cyanobacteria: Natural Organisms With Toxic Affects)
- ⁴⁹ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint)
- ⁵⁰ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint)
- ⁵¹ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint) (slide titled “Drinking Water Exposure Reports”).
- ⁵² App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁵³ App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁵⁴ App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁵⁵ App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁵⁶ App. 60 (USEPA: Creating a Cyanotoxin Target List for the Unregulated Contaminate Monitoring Rule)
- ⁵⁷ App. 62 (Fleming: Blue Green Algal Exposure, Drinking Water and Primary Liver Cancer)
- ⁵⁸ App. 57 (Svrek and Smith: Cyanobacteria Toxins and the Current State of Knowledge on Water Treatment Options: A Review); App. 22 (Reynolds: Cyanobacteria: Natural Organisms With Toxic Affects); App. 25 (Burgess: Wave of Momentum for Toxic Algae Study); App. 24 (FL DOH: Aquatic Toxins Program PowerPoint); App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁵⁹ App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)

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- ⁶⁰ App. 39 (THE NEWS-REVIEW (OR): High algae levels detected in Lemolo Lake)
- ⁶¹ App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT) (Chapter 4. Human Health Aspects)
- ⁶² App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁶³ App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁶⁴ App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁶⁵ App. 48: (NE DEQ: Nebraska Cyanobacteria Experience; App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint) (slides on Pawnee Lake)
- ⁶⁶ App. 48: (NE DEQ: Nebraska Cyanobacteria Experience; App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint) (slides on Pawnee Lake)
- ⁶⁷ App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint) (slide titled Recreational Water Guidelines)
- ⁶⁸ App. 61 (WHO: TOXIC CYANOBACTERIA IN WATER: A GUIDE TO THEIR PUBLIC HEALTH CONSEQUENCES, MONITORING, AND MANAGEMENT)
- ⁶⁹ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint) (slide on Animal Deaths); App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint) (slide titled “Bucaneer Bay, May 4, 2004); App. 20 (USGS: HAB Briefing Sheet); SUNY College of Environmental Science and Forestry, “New York’s Toxic Algae Blooms: ESF Leads New Study (August 13, 2005); App. 42 (PENINSULA DAILY NEWS (WA): Poisonous algae closes state park); App. 50 (UTAH AG NEWS: Blue-Green Algae Bloom Blamed for Cattle Deaths: Uintah County Health Advisory Issued); App. 48 (NE DEQ: Nebraska Cyanobacteria Experience; App. 38 (Hill: Dog Deaths in Humboldt and Mendocino County Water Bodies Possibly Related to Cyanobacterial Toxicity PowerPoint); App. 40 (Oregon DHS Powerpoints: Overview of Oregon Cyanobacteria Experience and Cyanobacteria & Public Health in Oregon)
- ⁷⁰ App. 20 (USGS: HAB Briefing Sheet)
- ⁷¹ App. 63 (Shoemaker: Characterization of Chronic Human Illness Associated With Exposure to Cyanobacterial Harmful Algal Blooms Predominated by *Microcystis*)
- ⁷² App. 29 (McElhiney: Inhibitory Effects of Microcystins on Plant Growth and Toxicity of Plant Tissues Following Exposure)
- ⁷³ App. 29 (McElhiney: Inhibitory Effects of Microcystins on Plant Growth and Toxicity of Plant Tissues Following Exposure)
- ⁷⁴ App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint) (slide labeled Wildlife Death – St. John’s Chain of Lakes in Florida)
- ⁷⁵ App. 64 (TPW: Golden Algae)
- ⁷⁶ App. 65 (Toxic Golden Algae in Texas)
- ⁷⁷ App. 66 (TPW: Golden Algae in Texas)
- ⁷⁸ App. 67 (AZ HAB Meeting: Responding to Harmful Algal Blooms)
- ⁷⁹ App. 67 (AZ HAB Meeting: Responding to Harmful Algal Blooms)
- ⁸⁰ App. 68 (Texas Parks and Recreation: Images of Golden Algae Fish Kills)
- ⁸¹ App. 69 (Mitrovic: Bioaccumulation and harmful effects of microcystin-LR in the aquatic plants *Lemna minor* and *Wolffia arrhiza* and the filamentous alga *Chladophora fracta*); App. 70 (Freitas de Magalhaes: Microcystin contamination in fish from the Jacarepagua Lagoon (Rio de

Janeiro, Brazil): ecological implications and human health risk); App. 71 (Yin: Microcystin-RR Uptake and Its Effects on the Growth of Submerged Macrophyte *Vallisneria natans* (lour.) Hara)

⁸² App. 69 (Mitrovic: Bioaccumulation and harmful effects of microcystin-LR in the aquatic plants *Lemna minor* and *Wolffia arrhiza* and the filamentous alga *Chladophora fracta*); App. 71 (Yin: Microcystin-RR Uptake and Its Effects on the Growth of Submerged Macrophyte *Vallisneria natans* (lour.) Hara)

⁸³ App. 72 (Williams: Investigation of a novel epiphytic cyanobacterium associated with reservoirs affected by avian vacular myelinopathy)

⁸⁴ App. 73 (Fahnenstiel: Phytoplankton Productivity in Saginaw Bay, Lake Huron: Effects of Zebra Mussel (*Dreissena polymorpha*) Colonization)

⁸⁵ App. 74 (Lake Erie Center: Water Quality Monitoring)

⁸⁶ App. 74 (Lake Erie Center: Water Quality Monitoring)

⁸⁷ App. 74 (Lake Erie Center: Water Quality Monitoring)

⁸⁸ App. 74 (Lake Erie Center: Water Quality Monitoring)

⁸⁹ App. 75 (NOAH: Zebra Mussels Changing Great Lakes Ecosystem)

⁹⁰ App. 74 (Lake Erie Center: Water Quality Monitoring)

⁹¹ App. 36 (Lehman: Distribution and Toxicity of a New Colonial *Microcystis Aeruginosa* Bloom in the San Francisco Bay Estuary)

⁹² App. 37 (USEPA: Federal, Tribal and State Authorities Advise Caution on Dangerous Klamath River Algae); App. 38 (Hill: Dog Deaths in Humboldt and Mendocino County Water Bodies Possibly Related to Cyanobacterial Toxicity PowerPoint)

⁹³ App. 84 (Martin County Health Department (FL): St. Lucie River Blue Green Algae Warning); App. 85 (Martin County Health Department (FL): Warning Sign)

⁹⁴ App. 39 (THE NEWS-REVIEW (OR): High algae levels detected in Lemolo Lake); App. 40 (Oregon DHS Powerpoints: Overview of Oregon Cyanobacteria Experience and Cyanobacteria & Public Health in Oregon); App. 41 (MAIL TRIBUNE (OR): Officials warn of toxic algae)

⁹⁵ App. 42 (PENINSULA DAILY NEWS (WA): Poisonous algae closes state park); App. 43 (Washington State Parks: Anderson Lake Park Closure)

⁹⁶ App. 44 (NOAA: The Zebra Mussel Connection: Nuisance Algal Blooms)

⁹⁷ App. 45 (UNION LEADER (NH): Toxic bacteria found in ponds); App. 45 (UNION LEADER (NH): Rains blamed for high water pollution)

⁹⁸ App. 47 (MUSKEGON CHRONICLE (MI): Toxic blooms likely a growing problem)

⁹⁹ App. 48: (NE DEQ: Nebraska Cyanobacteria Experience); App. 49 (University of Nebraska: Potential for Algae Blooms Unchanged from Last Year); App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint)

¹⁰⁰ App. 50 (UTAH AG NEWS: Blue-Green Algae Bloom Blamed for Cattle Deaths: Uintah County Health Advisory Issued)

¹⁰¹ App. 51 (SUNY: New York's Toxic Algae Blooms)

¹⁰² App. 52 (Minnesota Environmental Partnership: 3 Minnesota lakes have toxic algae)

¹⁰³ App. 53 (WI DNR: Public health advisory issued for Tainter Lake and areas downstream: Lake users can avoid risks from blue-green algae blooms)

¹⁰⁴ App. 54 (Indiana University: Distribution and Abundance of *Cylindrospermopsis raciborskii* in Indiana Lakes and Reservoirs)

¹⁰⁵ App. 55 (KS DHE: KDHE Issues Public Health Advisory for Parts of Eightmile Creek: Advisory also applies to livestock and pets)

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- ¹⁰⁶ App. 56 (USGS: Cyanobacterial (Blue-Green Algal) Blooms: Tastes, Odors, and Toxins)
- ¹⁰⁷ App. 126 (USEPA: Klamath River System Struggles with Toxic Algae, Water Diversions); App. 127 (Kann: Toxic Cyanobacterial Blooms in the Klamath River System)
- ¹⁰⁸ App. 37 (USEPA: Federal, Tribal and State Authorities Advise Caution on Dangerous Klamath River Algae)
- ¹⁰⁹ App. 37 (USEPA: Federal, Tribal and State Authorities Advise Caution on Dangerous Klamath River Algae)
- ¹¹⁰ App. 37 (USEPA: Federal, Tribal and State Authorities Advise Caution on Dangerous Klamath River Algae)
- ¹¹¹ App. 19 (USEPA: Hudnell Cyanobacteria PowerPoint)
- ¹¹² App. 137 (WHO Drinking Water Guidelines, section 11.5)
- ¹¹³ App. 86 (CA DWR: Description and Map of California State Water Project); App. 86 (CA DWR: Description and Map of California State Water Project); App. 87 (CA DWR: Maps of Major Rivers, Federal Water Projects, State Water Projects, and Local Water Projects)
- ¹¹⁴ App. 86 (CA DWR: Description and Map of California State Water Project)
- ¹¹⁵ App. 88 (CA DWR: Sacramento-San Joaquin Delta Atlas); App. 36 (Lehman: Distribution and Toxicity of a New Colonial Microcystis Aeruginosa Bloom in the San Francisco Bay Estuary)
- ¹¹⁶ App. 86 (CA DWR: Description and Map of California State Water Project); App. 87 (CA DWR: Maps of Major Rivers, Federal Water Projects, State Water Projects, and Local Water Projects); App. 36 (Lehman: Distribution and Toxicity of a New Colonial Microcystis Aeruginosa Bloom in the San Francisco Bay Estuary)
- ¹¹⁷ App. 86 (CA DWR: Description and Map of California State Water Project); App. 87 (CA DWR: Maps of Major Rivers, Federal Water Projects, State Water Projects, and Local Water Projects); App. 36 (Lehman: Distribution and Toxicity of a New Colonial Microcystis Aeruginosa Bloom in the San Francisco Bay Estuary)
- ¹¹⁸ App. 89 (CONTRA COSTA TIMES (CA): Effects of Toxic Algae in Delta Unknown)
- ¹¹⁹ App. 86 (CA DWR: Description and Map of California State Water Project); App. 87 (CA DWR: Maps of Major Rivers, Federal Water Projects, State Water Projects, and Local Water Projects)
- ¹²⁰ App. 86 (CA DWR: Description and Map of California State Water Project)
- ¹²¹ App. 36 (Lehman: Distribution and Toxicity of a New Colonial Microcystis Aeruginosa Bloom in the San Francisco Bay Estuary)
- ¹²² App. 36 (Lehman: Distribution and Toxicity of a New Colonial Microcystis Aeruginosa Bloom in the San Francisco Bay Estuary)
- ¹²³ App. 89 (CONTRA COSTA TIMES (CA): Effects of Toxic Algae in Delta Unknown)
- ¹²⁴ App. 89 (CONTRA COSTA TIMES (CA): Effects of Toxic Algae in Delta Unknown)
- ¹²⁵ App. 89 (CONTRA COSTA TIMES (CA): Effects of Toxic Algae in Delta Unknown)
- ¹²⁶ App. 36 (Lehman: Distribution and Toxicity of a New Colonial Microcystis Aeruginosa Bloom in the San Francisco Bay Estuary)
- ¹²⁷ App. 36 (Lehman: Distribution and Toxicity of a New Colonial Microcystis Aeruginosa Bloom in the San Francisco Bay Estuary)
- ¹²⁸ App. 36 (Lehman: Distribution and Toxicity of a New Colonial Microcystis Aeruginosa Bloom in the San Francisco Bay Estuary)

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- ¹²⁹ App. 36 (Lehman: Distribution and Toxicity of a New Colonial *Microcystis Aeruginosa* Bloom in the San Francisco Bay Estuary)
- ¹³⁰ App. 36 (Lehman: Distribution and Toxicity of a New Colonial *Microcystis Aeruginosa* Bloom in the San Francisco Bay Estuary)
- ¹³¹ App. 36 (Lehman: Distribution and Toxicity of a New Colonial *Microcystis Aeruginosa* Bloom in the San Francisco Bay Estuary)
- ¹³² App. 90 (MWD: No Health Hazard From Tap Water With Unpleasant Taste, Smell)
- ¹³³ App. 90 (MWD: No Health Hazard From Tap Water With Unpleasant Taste, Smell)
- ¹³⁴ App. 91 (MWD: Robert A. Skinner Treatment Plant); App. 86 (CA DWR: Description and Map of California State Water Project); App. 86 (CA DWR: Description and Map of California State Water Project); App. 87 (CA DWR: Maps of Major Rivers, Federal Water Projects, State Water Projects, and Local Water Projects)
- ¹³⁵ App. 91 (MWD: Robert A. Skinner Treatment Plant; App. 92 (MWD: Map of District)
- ¹³⁶ App. 90 (MWD: No Health Hazard From Tap Water With Unpleasant Taste, Smell)
- ¹³⁷ App. 93 (MWD: New Algae Species Complicates Efforts to Improve Taste, Smell of Drinking Water for San Diego, Southwest Riverside Counties: Earthy, musty taste and smell of water expected to improve soon)
- ¹³⁸ App. 93 (MWD: New Algae Species Complicates Efforts to Improve Taste, Smell of Drinking Water for San Diego, Southwest Riverside Counties: Earthy, musty taste and smell of water expected to improve soon)
- ¹³⁹ App. 93 (MWD: New Algae Species Complicates Efforts to Improve Taste, Smell of Drinking Water for San Diego, Southwest Riverside Counties: Earthy, musty taste and smell of water expected to improve soon)
- ¹⁴⁰ App. 93 (MWD: New Algae Species Complicates Efforts to Improve Taste, Smell of Drinking Water for San Diego, Southwest Riverside Counties: Earthy, musty taste and smell of water expected to improve soon)
- ¹⁴¹ App. 94 (ENGINEERING NEWS-RECORD: Final Bid Due for Water District Anti-Algae Contract)
- ¹⁴² App. 93 (MWD: New Algae Species Complicates Efforts to Improve Taste, Smell of Drinking Water for San Diego, Southwest Riverside Counties: Earthy, musty taste and smell of water expected to improve soon)
- ¹⁴³ App. 93 (MWD: New Algae Species Complicates Efforts to Improve Taste, Smell of Drinking Water for San Diego, Southwest Riverside Counties: Earthy, musty taste and smell of water expected to improve soon);
- ¹⁴⁴ App. 134 (CONTRA COSTA TIMES (CA): Water quality can be hard to swallow)
- ¹⁴⁵ App. 134 (CONTRA COSTA TIMES (CA): Water quality can be hard to swallow)
- ¹⁴⁶ App. 134 (CONTRA COSTA TIMES (CA): Water quality can be hard to swallow)
- ¹⁴⁷ App. 136 (CONTRA COSTA TIMES (CA): Water quality slighted)
- ¹⁴⁸ App. 136 (CONTRA COSTA TIMES (CA): Water quality slighted)
- ¹⁴⁹ App. 135 (ACWA: letter to State Water Resources Board re: TMDL listings)
- ¹⁵⁰ App. 135 (ACWA: letter to State Water Resources Board re: TMDL listings)
- ¹⁵¹ App. 114, Brief at p. 9.
- ¹⁵² App. 27 (ORLANDO SENTINEL: Health Menace Lurks in Lakes)
- ¹⁵³ Please reference App. 1 (Proposed Order in *FWF* case at pp. 1-21); App. 3 (exhibits cited in Proposed Order); and Trial Transcripts are attached to comments on proposed rule submitted by

the Miccosukee Tribe and are incorporated herein by reference). All facts in the this section are supported by the exhibits and testimony cited in the Proposed Order.

¹⁵⁴ App. 3 (Plaintiffs' Exh. 16e3)

¹⁵⁵ App. 3 (Plaintiffs' Exh. 16e2)

¹⁵⁶ App. 3 (Plaintiffs' Exh. 16e1)

¹⁵⁷ App. 3 (Plaintiffs' Exh. 65A from *FWF* case)

¹⁵⁸ App. 133 (Consent Decree from *Florida Wildlife Federation v. Carol M. Browner and USEPA*, Case No. 98CV356-WS, United States District Court for the Northern District of Florida)

¹⁵⁹ App. 133 (Consent Decree from *Florida Wildlife Federation v. Carol M. Browner and USEPA*, Case No. 98CV356-WS, United States District Court for the Northern District of Florida)

¹⁶⁰ App. 3 (*FWF* Case: Plaintiffs' Ex. 21)

¹⁶¹ App. 31 (SFWMD: Phosphorus Concentrations in Lake Okeechobee)

¹⁶² App. 31 (SFWMD: Phosphorus Concentrations in Lake Okeechobee)

¹⁶³ App. 132 (Plaintiffs' Exhibit 236A: Phosphorus Concentrations in Lake Okeechobee showing State Initiatives from *FWF* case)

¹⁶⁴ App. 1 (*FWF* proposed order: section titled "State Programs to Abate Pollution of the Lake Have Failed for 30 Years")

¹⁶⁵ App. 35 (Community Budget Issue Request #343: Lake Region Water Treatment Plant)

¹⁶⁶ App. 35 (Community Budget Issue Request #343: Lake Region Water Treatment Plant)

¹⁶⁷ App. 76 (Rand-McNally 1895 Map of Florida (1895).

¹⁶⁸ App. 2 (Plaintiffs' Exh. 240A from *FWF* case)

¹⁶⁹ App. 24 (FL DOH: Aquatic Toxins Program PowerPoint)

¹⁷⁰ App. 132 (Plaintiffs' Exhibit 236A: Phosphorus Concentrations in Lake Okeechobee showing State Initiatives from *FWF* case)

¹⁷¹ App. 32 (Havens: Rapid Ecological Changes)

¹⁷² App. 77 (SFWMD: Memo to Chip Merriam, June 28, 2005)

¹⁷³ App. 78 (trial transcript of testimony of Mark Perry in *FWF* case)

¹⁷⁴ App. 79 (SFWMD: Photograph of S-80 Structure)

¹⁷⁵ App. 80 (SFWMD: Memo to Chip Merriam, July 19, 2005).

¹⁷⁶ App. 81 (SFWMD: State of the Water Management System, September 14, 2005)

¹⁷⁷ App. 82 (WHO: Recreational Guidelines for Algae and Cyanobacteria in Fresh Water)

¹⁷⁸ App. 83 (PALM BEACH POST (FL): Algae found toxic, but risks aren't clear); App. 81 (SFWMD: State of the System, September 14, 2005)

¹⁷⁹ App. 84 (Martin County Health Department (FL): St. Lucie River Blue Green Algae Warning); App. 85 (Martin County Health Department (FL): Warning Sign)

¹⁸⁰ App. 78 (trial transcript of testimony of Mark Perry in *FWF* case)

¹⁸¹ App. 23 (Nuttall: Photographs of St. Lucie River Algae Bloom)

¹⁸² App. 27 (ORLANDO SENTINEL: Health Menace Lurks in Lakes); App. 138 (MIAMI HERALD: Algae toxins in drinking water); App. 83 (PALM BEACH POST (FL): Algae toxic)

¹⁸³ App. 83 (PALM BEACH POST: Algae toxic)

¹⁸⁴ App. 27 (ORLANDO SENTINEL: Health Menace Lurks in Lakes); App. 138 (Miami Herald: Algae toxins in drinking water)

¹⁸⁵ App. 1 (Proposed Order at pp. 39-41 and testimony and exhibits cited therein); App. 116 (Yanke deposition testimony); App. 118 (U.S. Stipulation); App. 119 (Yanke trial testimony).
¹⁸⁶ App. 119 at pp. 40-43 (Yanke trial testimony); Appendix 5.
¹⁸⁷ App. 5 (Diagram of Colorado-Big Thompson Project)
¹⁸⁸ App. 6 (Map of East Slope Distribution System of the Colorado-Big Thompson Project)
¹⁸⁹ App. 118 (U.S. Stipulation); App. 116 (Yanke deposition testimony).
¹⁹⁰ App. 118 (U.S. Stipulation).
¹⁹¹ App. 7 (40 CFR 122.28)
¹⁹² App. 116 (Yanke deposition testimony)
¹⁹³ App. 8 (Overview of the Colorado-Big Thompson System Nutrient Project); App. 9 (Gelder, Eutrophication of Reservoirs Article); App. 10 (Environmental Advisory Board Minutes 2004); App. 11 (Environmental Advisory Board Minutes 2005); App. 12 (NCWCD Board Meeting Minutes 2005); App. 13 (THE COLORADOAN: Panel wants Horsetooth to clean up)
¹⁹⁴ App. 8 (Overview of the Colorado-Big Thompson System Nutrient Project)
¹⁹⁵ See, Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 7 (May 11-12, 2006).
¹⁹⁶ App. 114, Brief at pp. 13-15.
¹⁹⁷ App. 136 (CONTRA COSTA TIMES (CA): Water quality slighted)
¹⁹⁸ App. 94 (ENGINEERING NEWS-RECORD: Final Bid Due for Water District Anti-Algae Contract)
¹⁹⁹ App. 35 (Community Budget Issue Request #343: Lake Region Water Treatment Plant)
²⁰⁰ App. 20 (USGS: HAB Briefing Sheet)
²⁰¹ App. 25 (Burgess: Wave of Momentum for Toxic Algae Study)
²⁰² App. 128 (USEPA: Agenda for EPA Workshop on the Economic Impacts of Aquatic Invasive Species)
²⁰³ App. 128 (USEPA: Agenda for EPA Workshop on the Economic Impacts of Aquatic Invasive Species)
²⁰⁴ App. 130 (Pimentel: Economic and Ecological Costs Associated With Aquatic Invasive Species)
²⁰⁵ App. 20 (USGS: HAB Briefing Sheet)
²⁰⁶ App. 17 (Santa Clara Valley Water District Drinking Water Source Assessment)
²⁰⁷ App. 129 (Oh and Ditton: Estimating the Economic Impacts of Golden Alga (*Prymnesium parvum*) on Recreational Fishing at Possum Kingdom Lake, Texas)
²⁰⁸ App. 129 (Oh and Ditton: Estimating the Economic Impacts of Golden Alga (*Prymnesium parvum*) on Recreational Fishing at Possum Kingdom Lake, Texas)
²⁰⁹ App. 65 (Toxic Golden Algae in Texas)
²¹⁰ App. 66 (TPW: Golden Algae in Texas)
²¹¹ See, Martin, Guy, "Water Diversions and Conveyances Under the Clean Water Act" (January 7, 2005) (App. 105KK at p. 001373).
²¹² App. 97 (1975 EPA Opinion).
²¹³ App. 98 (1978 EPA Memorandum).
²¹⁴ See, App. 99 (*Dubois*), 100 (*Catskill I*), 101 (11th Cir. *Miccosukee*), 102 (*Fidelity*), 108 (S. Ct. *Miccosukee*).
²¹⁵ See, App. 99 (*Dubois*), 100 (*Catskill I*), 101 (11th Cir. *Miccosukee*), 102 (*Fidelity*), 108; *PUD No. 1 v. Washington Dept of Ecology*, 511 U.S. 700, 720 (1994).

²¹⁶ See, App. 106 (U.S. Brief on Merits).

²¹⁷ See, App. 105 A-LL (Public Records Responses).

²¹⁸ See, App. 106 (U.S. Brief on Merits).

²¹⁹ See, App. 112, Exhibit 1 (August 5 Interpretation).

²²⁰ See, App. 103 (U.S. Brief on Certiorari).

²²¹ See, Email of Dec. 9, 2002 from James Nutt to Philip Mancusi-Ungaro, et al.; email of Jan. 27, 2003 from Jennifer Fitzwater to Winston Borkowski, et al.; and letter of Jan. 27, 2003 from Secretary David B. Struhs to Regional Administrator Jimmy Palmer (App. 104).

²²² See, App. 105 A-LL (Public Records Responses); Letter of February 21, 2003 from Senator Mike Crapo et al. to Solicitor General Olson (App. 105C at p. 000298); Letter of February 21, 2003 from Arizona Attorney General Terry Goddard to Solicitor General Olson (App. 105C at p. 000300); Letter of May 5, 2003 from Idaho Governor Dirk Kempthorne to Solicitor General Olson (App. 105C at p. 000303). ***Note that several states responses are continuing, including EPA's, which has failed to provide a privilege log with its response. Accordingly, these comments may need to be supplemented upon receipt of such documents.***

²²³ See also, Email of January 28, 2003 from Lee Miller to James Broderick et al. re: NWRA Issues Update (App. 105K at p. 000758) (indicating some individuals in the Department of Interior felt NPDES permits would be helpful in regulating Everglades issues); Email of January 29, 2003 from Lee Miller to James Broderick et al. re: NWRA Issue Alert (App. 105K at p. 000765) (suggesting the DOI and EPA would be making their decisions regarding Miccosukee within 24 hours); Email of February 14, 2003 from Lee Miller to James Broderick et al re: Senate Letter Issue Alert (App. 105K at p. 000761) (EPA and DOI believed not to support certiorari).

²²⁴ App. 106 (U.S. Brief on Merits).

²²⁵ Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, March 14, 2003, (App. 105K at p. 000538) p. 7-8 (describing lobbying efforts and expressing the belief that a strongly worded letter had been sent from DOI to the Justice Department arguing against NPDES permitting of western trans-basin projects); Email of January 28, 2003 from Lee Miller to James Broderick et al. re: NWRA Issues Update (App. 105K at p. 000758) (encouraging National Water Resources Association (NWRA) members to send letters to DOI); Email of January 29, 2003 from Lee Miller to James Broderick et al. re: NWRA Issue Alert (App. 105K at p. 000765) (encouraging NWRA members to send letters to DOI and EPA); Email of February 14, 2003 from Lee Miller to James Broderick et al re: Senate Letter Issue Alert (App. 105K at p. 000761) (urging NWRA members to contact their Senators regarding signing onto the letter to the Solicitor General).

²²⁶ Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, September 12, 2003, (App. 105K at p. 000531) p. 4.

²²⁷ Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, March 14, 2003, (App. 105K at p. 000538) p. 7-8.

²²⁸ Letter of February 18, 2003 from Eric W. Wilkinson (NCWCD) to Tom Donnelly (NWRA) (App. 105K at p. 000752).

²²⁹ See, Minutes of the 142nd Council Meeting of the Western States Water Council, July 30-August 1, 2003, (App. 105R at p. 000904) p. 13-16; Resolution of Western States Water Council

of August 1, 2003 (App. 105A at p.000128). *See also*, Association of Metropolitan Water Agencies (AMWA), Monday Morning Briefing, *available at* http://www.amwa.net/archives/mm_briefing2001/mmf_3_26_01.html (noting that Mark Pifher was one of several names being considered for the job of Assistant Administrator for Water at EPA).

²³⁰ Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, March 14, 2003, (App. 105K at p. 000538) p. 7-8.

²³¹ Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 3 (May 11-12, 2006).

²³² Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, August 8, 2003 (App. 105K at p. 000502) p. 4-5; *see also*, Email of December 23, 2003 from Garrett Wallace, SFWMD to Peter Nichols et al. (App. 105C at p. 000293) (thanking recipients for their help with editorial boards).

²³³ Central Arizona Project, Regular Meeting of the Board of Directors, August 7, 2003 (App. 105D at p. 000337) p.5.

²³⁴ Memorandum of October 16, 2002 from Mark Pifher to NWRA (App. 105K at p. 000732).

²³⁵ Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, July 11, 2003 (App. 105K at p. 000726) p. 4-5

²³⁶ Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, August 8, 2003 (App. 105K at p. 000502) p. 4..

²³⁷ Oral Argument, *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe*, 2004 WL 111643, at * 15.

²³⁸ *See*, Memorandum of March 23, 2004 from Peter Nichols to Amici (App. 105C at p. 000258) (discussing the Court's decision and arguing that Western groups must remain vigilant).

²³⁹ *See*, Memorandum of January 15, 2004 from Peter Nichols and Robert Trout to Amici (App. 105C at p. 000254)

²⁴⁰ *See*, Memorandum of May 20, 2004 from Peter Nichols to Denver meeting participants (App. 105C at p. 000289);

²⁴¹ *See*, Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, May 14, 2004 (App. 105K at p. 000718) p. 5 (“Counsel is organizing discussions among western water leaders to develop a strategic response (legal, political and administrative) to the Miccosukee decision, including a western states amicus brief in Catskills.”); Board Agenda Brief, Action Item, Central Arizona Project (CAP), June 7, 2004 (App. 105D at p. 000327) (recommending CAWCD support efforts to overturn *Catskills*); Memorandum of August 3, 2004 from Douglas Miller to Board of Directors, Central Arizona Project (App. 105D at p. 000352) (outlining action plan to form a coalition to respond to the threat of increased federal regulation).

²⁴² *See*, Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, May 14, 2004 (App. 105K at p. 000718) p. 5 (“Counsel is organizing discussions among western water leaders to develop a strategic response (legal, political and administrative) to the Miccosukee decision, including a western states amicus brief in Catskills.”); Memorandum of August 3, 2004 from Douglas Miller to

Board of Directors, Central Arizona Project (App. 105D at p. 000352) (outlining proposed action plan for a Western coalition).

²⁴³ Arizona Water Law Powerpoint, CACWD (August 12, 2004) (App. 105D at p. 000374).

²⁴⁴ Board of Directors of the Central Arizona Water Conservation District, June 17, 2004 (App. 105D at p. 000360) p. 22. *See*, Board of Directors of the Central Arizona Water Conservation District, August 5, 2004 (App. 105D at p. 000368) p. 39.

²⁴⁵ *See*, Memorandum of August 3, 2004 from Douglas Miller to Board of Directors, Central Arizona Project (App. 105D at p. 000352) p. 1, 4 (CAWCD to spend \$22,500 in 2004 and 2005; Coalition costs to run \$50,000 plus costs in 2004 and \$130,000 in 2005).

²⁴⁶ *See*, Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, May 14, 2004 (App. 105K at p. 000718) p. 5 (“Counsel is organizing discussions among western water leaders to develop a strategic response (legal, political and administrative) to the Miccosukee decision, including a western states amicus brief in Catskills.”); Memorandum of August 3, 2004 from Douglas Miller to Board of Directors, Central Arizona Project (App. 105D at p. 000352) (Perkins Coie to lead the effort).

²⁴⁷ *See*, App. 109 (Motion to Intervene).

²⁴⁸ Email of August 3, 2005 from Glenice Martinez to Peter Nichols with attached transcribed phone message from Ann Klee (App. 105K at p. 000529).

²⁴⁹ Email of August 3, 2005 from Glenice Martinez to Peter Nichols with attached transcribed phone message from Ann Klee (App. 105K at p. 000529); *see also*, Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 15 (May 11-12, 2006) (“Delay was a result of debate within EPA, particularly between Office of General Counsel and the Office of Water, which wanted a ‘designation option,’ which would have allow [sic] states to designate certain transfers for permitting.”).

²⁵⁰ *See*, Memo of April 10, 2005 Re: State Water Quality Authority over Water Transfers (App. 105KK at p. 001412) (document identified by EPA as prepared by Perkins Coie in App. 105KK at p. 001370); Martin, Guy, “Water Diversions and Conveyances Under the Clean Water Act” (January 7, 2005) (App. 105KK at p. 001373) (note that Mr. Martin is an attorney with Perkins Coie).

²⁵¹ *See*, Memo of April 10, 2005 Re: State Water Quality Authority over Water Transfers (App. 105KK at p. 001412) (document identified by EPA as prepared by Perkins Coie in App. 105KK at p. 001370); Martin, Guy, “Water Diversions and Conveyances Under the Clean Water Act” (January 7, 2005) (App. 105KK at p. 001373) (note that Mr. Martin is an attorney with Perkins Coie).

²⁵² *See*, Martin, Guy, “Water Diversions and Conveyances Under the Clean Water Act” (January 7, 2005) (App. 105KK at p. 001373) pp. 32-33.

²⁵³ *See*, App. 112, Exhibit 1 (August 5 Interpretation).

²⁵⁴ *See*, App. 112, Exhibit 1 (August 5 Interpretation). *See also*, App. 113,, pp. 73-76 (closing remarks of attorney David Guest pointing to the mercurial changes in EPA’s position).

²⁵⁵ *See*, App. 112, Exhibit 1 (August 5 Interpretation).

²⁵⁶ *See*, Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, December 9, 2005 (App. 105K at p.

000586) (explaining that EPA filed an interpretation “adopting arguments counsel made on behalf of western water users and western attorneys general in Miccosukee and Catskill . . .”).

²⁵⁷ See, App. 112, Exhibit 1, p. 19 (August 5 Interpretation); Nichols, Peter, “Update on Continuing Litigation Over Whether the Federal Clean Water Act Requires Permits for Water Transfers” (Jan. 26, 2006) (App. 105K at p. 000741) p. 4.

²⁵⁸ See, App. 109, Exhibit A, p. 12 (Motion to Intervene).

²⁵⁹ Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, October 14, 2005 (App. 105K at p. 000608) p. 23.

²⁶⁰ See, App. 114 (*amicus* motions); The group also includes the City of Aurora, where Mark Pifher now works.

²⁶¹ See, App. 115, pp. 80-92 (Presentation by Montano).

²⁶² See, Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 6-8 (May 11-12, 2006).

²⁶³ See, Letter from February 18, 2003 from Eric Wilkinson to Tom Donnelly (NWRA) (App. 105K at p. 000752) (NCWCD letterhead lists Trout firm as legal counsel);

http://www.ncwcd.org/ncwcd_about/about_main.asp (NCWCD established as local agency to contract with Federal government on Colorado-Big Thompson Project).

²⁶⁴ Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 8 (May 11-12, 2006).

²⁶⁵ Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 9 (May 11-12, 2006).

²⁶⁶ See, App. 110, pp. 80-81, 91-93 (Ploss Depo.); App. 111, p. 129 (Dickey Depo.).

²⁶⁷ Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 7 (May 11-12, 2006).

²⁶⁸ See, App. 110, p. 57 (Ploss Depo.); App. 116, pp. 10, 37, 100-1, 107-8, 110-11, 128-31, 138, 156, 167-170 (Yanke Depo.); App. 117, p. 36, 45-48, 54-56 (Eisel Depo.).

²⁶⁹ App. 118, pp. 9-22 (U.S. Stipulation).

²⁷⁰ See, App. 119, pp. 52-53, 35-50 (Yahnke Testimony) (describing the western projects); App. 120, pp. 22-34 (Albertsen Testimony) (January 20, 2006).

²⁷¹ See, App. 113, p. 69 (Closing Remarks of David Guest).

²⁷² App. 121 (Notice of Proposed Rule).

²⁷³ See, Letter of April 6, 2006 from Peter Nichols to Michael Cantanzaro, EPA (App. 105K at p. 000745); Memo of April 10, 2005 Re: State Water Quality Authority over Water Transfers (App. 105KK at p. 001412) (document identified by EPA as prepared by Perkins Coie in App. 105KK at p. 001370); Martin, Guy, “Water Diversions and Conveyances Under the Clean Water Act” (January 7, 2005) (App. 105KK at p. 001373) (note that Mr. Martin is an attorney with Perkins Coie).

²⁷⁴ Letter of April 6, 2006 from Peter Nichols to Michael Cantanzaro, EPA (App. 105K at p. 000745).

²⁷⁵ Martin, Guy, “Water Diversions and Conveyances Under the Clean Water Act” (January 7, 2005) pp. 25-26 (App. 105KK at p. 001373).

²⁷⁶ Martin, Guy, “Water Diversions and Conveyances Under the Clean Water Act” (January 7, 2005) p. 26 (App. 105KK at p. 001373).

²⁷⁷ Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 16 (May 11-12, 2006); Email of June 2, 2006 from Peter Nichols to Russell George, (App. 105J at 000491) (“EPA is about to propose a rulemaking. . . . This is the position they took at our urging in their Agency Interpretation last summer in the Lake Okeechobee case. . . . I am thinking that Colorado will once again have to take the lead in the west since the other states with the most at risk – Az and Cal – are not internally unified (so far) enough to speak out.”); *see also*, Email of June 1, 2006 from Peter Nichols to Steve Gunderson, et al. (App. 105J at p. 000493) (Trout, Raley, Montano, Witwer & Freeman, P.C. to organize comments from western States and water users).

²⁷⁸ Peter Nichols e-mail to Barbara Biggs, MWRD (Exhibit 105K at p. 000746) (June 21, 2006).

²⁷⁹ Nichols, Peter, *Miccosukee and Related Cases on Water Transfers Under the Clean Water Act*, ACWA/CLE International, (App. 105K at p. 000509) p. 15 (May 11-12, 2006).

²⁸⁰ *See*, App. 122 (Meltzer Letter).

²⁸¹ *See*, App. 123 (*Amici* briefs); Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, June 10, 2005 (App. 105K at p. 000675) pp. 6-7..

²⁸² Central Arizona Project, Regular Meeting of the Board of Directors, August 7, 2003 (App. 105D at p. 000337) p 5; Transcript of Board of Directors of the Central Arizona Water Conservation District, June 17, 2004 (App. 105D at p. 000360) p. 24.

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²⁸⁴ *See*, Letter of June 21, 2004 from Robert Lynch to the Second Circuit (App. 105C at p. 000281); Transcript of Board of Directors of the Central Arizona Water Conservation District, August 5, 2004, (App. 105D at p. 000368) p. 40.

²⁸⁵ *See*, Municipal Subdistrict, Northern Colorado Water Conservancy District, Minutes of Board Meeting Held At District Headquarters Board Room, December 9, 2005 (App. 105K at p. 000586) (explaining that EPA filed an interpretation “adopting arguments counsel made on behalf of western water users and western attorneys general in Miccosukee and Catskill”).

²⁸⁶ *See*, App. 124, p. 5 (SFWMD Reply).

²⁸⁷ *See*, App. 124, pp.7-8 (SFWMD Reply).

²⁸⁸ *See*, App. 105KK (Second Response of EPA); App. 125 (rejection of extension letters).

EXHIBIT 1

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