UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
NORTHERN DIVISION

LONE TREE COUNCIL, and
ENVIRONMENT MICHIGAN

Plaintiffs,

v.

Case Number 06-12042-BC
Honorable Thomas L. Ludington

UNITED STATES ARMY CORPS OF
ENGINEERS, and SAGINAW COUNTY,

Defendants.
_____ /

OPINION AND ORDER GRANTING DEFENDANTS' MOTIONS FOR SUMMARY JUDGMENT, DENYING PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT, AND DISMISSING CASE

The case arises out of the plans of the defendants, the Army Corps of Engineer (Corps) and Saginaw County, Michigan (County), to build a dredged material disposal facility (DMDF) for sediment dredged from the Upper Saginaw River. The Corps is responsible for constructing and maintaining the DMDF. The County, consistent with congressional requirements, procured the site and has shared the expenses of developing the facility. The plaintiffs, Lone Tree Council (LTC) and Environment Michigan, commenced this action on May 3, 2006 under the Administrative Procedure Act (APA), 5 U.S.C.A. § 706, and the National Environmental Protection Act (NEPA), 42 U.S.C. § 4321 *et seq*. The plaintiffs challenge the defendants' preparation of an Environmental Assessment (EA) for the DMDF in May 2004 and the Corps later issuance of a Finding of No Significant Impact (FONSI) on March 25, 2005.

The DMDF is located on 280 acres of farm land on the west side of the Upper Saginaw River. The plaintiffs initially moved for a preliminary injunction to require the preparation of an

environmental impact statement (EIS). That motion was denied by Judge Bernard Friedman on May 12, 2006 acting on behalf of this Court's predecessor.

Thereafter, the Court established a November 9, 2006 deadline for filing cross motions for summary judgment based on the administrative record. However, prior to that deadline, the plaintiffs filed a motion to supplement the administrative record. After hearing oral argument on the matter on January 12, 2007, the Court issued an order granting in part and denying in part the plaintiffs' motion. The defendant was instructed to compile the administrative record with the supplemental documents permitted by the Court.

The supplemental materials include a document directed by the Court to be included with the administrative record marked "DRAFT – DO NOTE CITE" and entitled "EPA Reassessment of Dioxins"; a report to Congress by the Corps on confined disposal facilities (CDF) in the Great Lakes region; a summary compiled by the plaintiffs of various containment facilities constructed and maintained by the Corps and whether an environmental assessment or an environmental impact statement was prepared for each; a summary of the same information compiled by the defendants; and documents relating to the Dow Chemical Company's potential use of the DMDH. The Court provisionally admitted the Dow documents. However, because the Court considers those materials below, they are admitted as part of administrative record. Other documents have since become part of the record by the parties' stipulation. Those materials include a document entitled "DM1145-1-1," along with two templates, which generally describe the process third parties would have to following in order to obtain a permit to place dredged materials in the DMDF.

Following compilation of the full record, the parties were directed to file cross motions for summary judgment. On February 16, 2007, the plaintiffs filed an amended motion for summary judgment. On March 5, 2007, the defendants filed separate motions for summary judgment. The parties filed responses in opposition, and the Court heard oral argument on April 26, 2007.

NEPA requires agencies to prepare an EIS for "major [f]ederal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(c). The crux of the instant dispute is the plaintiffs' assertion that the defendants acted arbitrarily and capriciously by determining that an EIS was not necessary and instead by issuing a FONSI as a result of conclusions reached in the EA.

The parties' materials present a number of issues for this Court's review, the most material of which include: (1) whether the Corps improperly segmented environmental review of the DMDF from its planned dredging activities assessed in a 1975 EIS; (2) whether construction and operation of the DMDF is a major federal action requiring an EIS under NEPA or the Corps' own regulations; (3) whether the Corps has properly evaluated the significant environmental impacts of the DMDF, and more particularly, the concentration of dioxin levels in sediments that will be accepted for disposal; and (4) whether the Corps should have assessed the environmental impacts resulting from potential use of the DMDF by third-party permittees, such as the Dow Chemical Company.

The Court has considered the parties' submissions and reviewed the administrative record. The Court concludes that defendants' decision that an environmental impact statement was not warranted was neither arbitrary nor capricious. The Court therefore will grant the

defendants' motions for summary judgment and deny the plaintiffs' motion for summary judgment.

I.

A.

According to the parties, the Saginaw River is a important Michigan commercial waterway. It is formed on the south side of the City of Saginaw by the confluence of the Tittabawassee and Shiawassee Rivers. The Saginaw River flows north through Bay City and ultimately empties into Lake Huron in the Saginaw Bay. Some thirty-one commercial docks line the river in order to support a wide range of trade in products such as coal, petroleum, chemicals, fertilizers, salt, grain, and stone. Approximately five million tons of products navigate the Saginaw River on an annual basis. Regular dredging of the river is mandated by Congress. *See* 33 U.S.C. § 401 *et seq*. The process of dredging, however, leads to the generation of spoils, which must be stored.

In 2004, the Corps proposed the construction of the DMDF to be located on the west side of the Upper Saginaw River on land most recently used for agriculture and located adjacent to the Frankenlust and Zilwaukee townships. The Corps plans to place dredged sediments from navigational dredging in the DMDF. The DMDF has or will have a 3.1 million cubic yard capacity. AR 3561. The plaintiffs characterize the DMDF as "a 281-acre, open, unlined slurry pit in a flood plain" in which to dispose, over the next twenty years, "3.1 million cubic yards of dioxin-contaminated sediments." Pl.s' Mot. Summ. J. at 8. The defendants characterize the DMDF as an environmentally sound facility essential to enabling commerce and necessary for safely removing and storing contaminated sediments from the river.

The Corps explains that the DMDF is located on the west side of the Saginaw River, on diked former farm land. The DMDF is constructed of compacted clay perimeter dikes to a height of approximately eleven feet, a cross dike to facilitate settling of dredged material, an intake pipe, and a weir, or a canal designed to divert water back into the river after sediment is permitted to settle in the DMDF. In preparation for construction, soil borings of the site were obtained. The results indicated the presence of a thin layer of top soil with native clay soils underneath. The soil borings reflect that the clay extends to depths of fifty feet or more beneath the site. The clay will also be used to construct the dikes, and the depth of the clay underneath the site, the Corps maintains, will prevent leaching in its subterranean aquifers. Further, the facility will contain an inspection trench, approximately five feet wide and six feet below the surface. The trench's function is to cut off any existing drain tiles or water crossings. Ultimately, the trench will be backfilled with compacted clay impeding shallow lateral migration of water.

Dredged material coming from the upper reach of the Saginaw River federal navigation project, from river mile 4.7 to 16.5 as designated by that project, with a possible limited amount of dredged materials from non-federal entities that obtain required permits and authorizations, will be placed in the DMDF. The Corps estimates that dredging activities would produce 150,000 cubic yards of matter per year. A pipeline will place hydraulically dredged material into the facility. According to the Corps, the large size of the disposal area and use of cross/spur dikes will permit effective management of the site to provide the greatest length of flow within the confinement area and subsequently the greatest amount of settling time, which will permit

dioxins in the water to naturally adhere to sediment. The result would be minimal discharge back into the river.

Further, a stop-log type weir is included in the site design at the south east end to divert water into the river if necessary. When the facility becomes filled, the material will be capped with clean material and then transferred for oversight to the County, the local sponsor. The Corps believes that the material in the facility will vegetate quickly. A permanent deed restriction requested by the Michigan Department of Environment Quality will restrict removal of material from the site.

The plaintiffs in this action, LTC and Environment Michigan, are non profit organizations who seek to protect the environment through research, advocacy, and education. They also include individuals who advocate, research, and educate in a specific effort to reduce dioxin contamination in the Saginaw River and adjacent areas. Both plaintiffs believe that the DMDF project requires the Corps to conduct an EIS under NEPA because the project will have a substantial impact on the quality of the human environment. The plaintiffs contend that the Corps and the County acted arbitrarily and capriciously by preparing a less rigorous environmental assessment (EA) that failed to consider crucial environmental factors and subsequently issuing a finding of no significant impact, a FONSI, on the human environment. Both defendants disagree with this conclusion.

B.

Dredging activities in the Saginaw River date back to 1910. In fact, the Saginaw River Navigation Channel is a federal navigation project authorized by the Rivers and Harbors Act, 33 U.S.C. § 401 *et seq.* (RHA), which mandates Congressional oversight over construction in

navigable waterways. The entire channel is approximately thirty-six miles long and runs generally from north to south. The channel includes the entire distance of the Saginaw River: upstream at the confluence of the Titabawassee and Shiawase Rivers to the twenty foot deep contour at the Saginaw Bay. For management purposes, the Saginaw River comprises two segments, the Lower Saginaw River, which the parties do not designate by river mile in their papers, and the Upper Saginaw River, river mile 4.7 to 16.5. The Corps is responsible for dredging the channel for maritime commerce.

Until 1969, the Corps disposed of dredged sediment into open water. In fact, prior to the development of the DMDF, there was no long-term dredge material disposal plan for the Upper Saginaw River. The Corps' past practice was to place dredged materials from the Upper and Lower Saginaw River in several locations whose viability waned after continued use. Questions regarding the long term vitality of the Corps' practices prompted Congress to pass 42 U.S.C. § 1962D-5B (1969), which required the Corps to utilize confined diposal facilities (CDF) for disposing of contaminated sediment from the Great Lakes Region. According to the plaintiffs, throughout the 1970s and 80s, the Corps built dozens of CDFs in the region. The plaintiffs claim that for each CDF, the Corps prepared an EIS.

In 1975, the Corps issued an EIS for its construction of the Saginaw Bay CDF, and a separate EIS for its dredging of the Saginaw River. According to the plaintiffs, this EIS addressed chemical oxygen demand (COD), a generic mixture of oxygenation, that does not separately assess dioxins and polychlorinated biphenyls (PCBs).

The Corps maintains that in preparing the EA it evaluated the environmental impact of dredging in the Saginaw River. In addition, the Corps maintains that it continuously performs

sediment testing and coordinates with state and federal agencies regarding the dredging of all federal navigation channels, including the Saginaw River.

In approximately 1985, the Corps stopped regular dredging of the Upper Saginaw River because the upriver disposal facilities were reaching capacity. The Corps has only conducted emergency dredging and has disposed of sediments solely in the Saginaw Bay CDF. In 1995, the Corps apparently stopped dredging the upper portion of the Saginaw River altogether because, according to the plaintiffs, the Saginaw Bay CDF was not cost effective.

Between 1979 and 1992, the Corps prepared two draft EISs and a supplemental EIS addressing three CDF sites for the placement of contaminated sediments for the Upper Saginaw River. Ultimately, the Corps rejected all three of the proposed plans because of the high cost associated with building and maintaining them, e.g., a cost of approximately nine to twelve million dollars and a host of unresolved environmental issues.

In 1999, the Corps communicated to the Michigan Department of Environmental Quality (DEQ) its belief that the levels of PCBs in Saginaw River sediments had declined to the point that "confinement was no longer necessary" and the Corps no longer had authority to build a CDF pursuant to congressional mandate. *See* 42 U.S.C. § 1962D-5B (1969). The Corps also stated that it was unable to pay the continued costs for full dredging of the Upper Saginaw River.

On June 21, 2000, the State of Michigan, Bay County, and Saginaw County requested that the Corps prepare a Dredged Material Management Plan (DMMP) to assist in determining the feasibility of constructing a CDF for maintenance of the Upper Saginaw River. Lower water levels in the Saginaw Bay and the Saginaw River had reduced the ability of freighters to deliver

products in the Upper Saginaw River area and were having a significant economic impact on Bay and Saginaw communities.

In July 2000, the Corps began the process of preparing a DMMP for the Upper Saginaw River and sought the DEQ's help in identifying suitable sites for a new disposal facility. The Corps explains that the purpose of the study was to determine if additional suitable dredged material sites or options existed within the Upper Saginaw River that would satisfy dredging requirements over approximately twenty years and conform to requirements for dredging and disposal set forth in the 1975 EIS. The Corps also notes that it coordinated with various agencies, including the EPA, United States Fish and Wildlife Service, and the DEQ, a requirement as the parties explained at oral argument.

According to the plaintiffs, the Corps stated that it would need to dispose of 2.7 million cubic yards of sediments from its own navigational dredging. It also sought to dispose of 400,000 cubic yards of sediments from third party dredging in the DMDF that would be regulated by permits and further environmental review, if necessary. The Corps also maintained that the facility should not be placed in a flood plain or wetland.

According to the Corps, the draft DMMP identified the location where dredged materials from the Upper and Lower Saginaw River had been stored in the past. That document also projected future conditions in the absence of any management plan; explained problems and opportunities; and identified and evaluated alternative plans. The Corps resolved, after consideration of a tradeoff analysis, to select the current DMDF location. The DMMP described the selected management plan, discussed environmental considerations, explained cost sharing

and financing, provided a conclusion and recommendation, and also provided for coordination with local, state, and federal agencies.

In May 2004, the Corps issued an EA, the subject of the instant dispute, along with the management plan. The documents identified the Zilwaukee-Frankenlust site and a preferred alternative. The plaintiffs point out, however, that this site is in the Saginaw Valley River flood plain and is a wetland, apparently in contravention of earlier statements by made by the Corps that such a facility would not be located in such areas. The plaintiffs also note that the proposed site completely flooded in 1986.

The DMDF is situated just west of a residential neighborhood on Melbourne Avenue. The nearest home is approximately 225 feet from the facility. The plaintiffs characterize the area as "very windy"; the "prevailing winds com[e] from the west and caus[e] substantial dust storms." Pl.s' Mot. Summ. J. at 10. Moreover, they contend, the DMDF is located proximately to the Crow Island State Game Reserve, which is managed by the Michigan Department of Natural Resources (DNR). Crow Island attracts wildlife and is within a mile of a bald eagle nesting site and protected under the Endangered Species Act, 16 U.S.C. § 1531 *et seq.*

Although soil borings indicate that the DMDF site is buttressed by clay extending in parts to fifty feet in depth, the plaintiffs allege that there are several breaks in the clay layer at the same location as ground water. The plaintiffs believe that the breaks were of little concern to the Corps because the site was adjacent to the Saginaw River, allowing effluent to easily return to the river, and appeared to be the least expensive alternative when compared to alternative sites and disposal methods.

The Corps maintained that it considered several alternatives to the present site in preparing the EA. In fact, the EA cited six alternatives for handling the future management of dredging in the Upper Saginaw River. Those alternatives included the no action alternative; a type III landfill operation, presently operated by General Motors – a landfill in which hazardous waste is stored; a beach nourishment alternative; recycling dredged material; and two up-land disposal locations. According to the Corps, the no action alternative was not feasible because failure to dredge would eventually inhibit navigation of the river entirely because of shoal build up. Further, the disposal of contaminated material into landfill, the Corps concluded, would be too costly, and at any rate, General Motors declined to let the site be used.

Beach nourishment and recycling material were determined to be too costly because of the size of grain of the material, the level of contamination, and higher costs. The Corps further maintains that it considered a site east of the Saginaw River. The DEQ, however, found that the site was located upon farmed wetland that required mitigation, ultimately leaving the site with only 131 acres available for the proposed DMDF. The reduced acreage apparently would not meet the twenty-year capacity requirement without constructing much larger perimeter dikes that would increase the facility's height, all with a significantly increased price.

The plaintiffs stress that the EA suffers from several analytic flaws. For example, they maintain, the Corps failed to address the environmental impacts of dredging more than 3 million cubic yards of dioxin-contaminated sediments from the Saginaw River, although the Environmental Protection Agency (EPA) had so requested. In addition, the EA does not convincingly assess the risks posed by storing dioxin-contaminated sediments at this site, or compare these risks to those of other alternatives. The plaintiffs concede that the Corps listed

alternatives of no action, use of an existing hazardous waste facility, and use of the Buena Vista site, an upland storage facility, "in detail," AR at 3560-3575, but contends that it did not analyze the relative environmental impacts of these other options.

Further, although the Corps states that the average level of dioxins in the material is not significantly above the levels acceptable for residential use direct contract criterion – referring to the DEQ's 90 parts per trillion toxicity equivalents (ppt TEQ) – the figure was based on an inadequate number of samples, and does not address the much higher concentrations found in samples taken after the EA was released, but before the Corps issued its FONSI. In fact, the plaintiffs claim, the Corps inadequately addresses dioxin toxicity and has specifically declined to address the new finding of EPA's "draft" comprehensive, peer-reviewed "dioxin reassessment."

The plaintiffs also complain that the Corps has not addressed managing the 600,000 cubic yards of water that it plans to pump into the DMDF on an annual basis should it not be permitted to discharge this water back into the river. The plaintiffs acknowledge that any discharge water back into the Saginaw River will be monitored for compliance with a water quality certificate issued by the DEQ, that requires, as a threshold, that water discharged does not cause a net increase of dioxins found in the river. It is the plaintiffs' view, however, that the Corps does not plan to treat the water for dioxins; it will simply allow the sediments to settle.

In addition, the plaintiffs maintain that the Corps failed to analyze the impacts of eliminating 281 acres of demonstrated flood plain storage or analyze where the diverted flood waters likely would go in the event of unusual, significant flooding. Moreover, the plaintiffs criticize the Corps' failure to evaluate the long term impact of operating the DMDF on the

wildlife on Crow Island; it simply noted that there would be limited impacts on wildlife and only during the construction of the facility.

In response to issuance of the EA, the Corps received numerous comments criticizing the agency for its brevity and lack of environmental review. The plaintiffs say that the EPA expressed serious concerns about the impacts of dredging and the risks associated with the DMDF. EPA urged the Corps not to issue a FONSI without fully investigating these concerns. The Unites State Fish and Wildlife Service asked the Corps to consider a site farther from the bald eagle nests, Crow Island, and the Saginaw River. The plaintiffs contend that the Corps has answered these letters, but has not actually resolved any of the issues presented by these agencies.

The EA was based on results from a limited 1999 sediment sampling of the navigation channel, which found an average dioxin contamination of 109 ppt TEQ (parts per trillion toxicity equivalents). However, after completing the EA, the Corps undertook additional sampling in 2004 that found an average of 321 ppt TEQ. The Corps reports that the increase was because of one highly contaminated shoal that it proposes to dredge first because of the high volume of maritime activity. Instead of proceeding to an EIS, the FONSI, which issued in May 2005, stated that "[i]n the future, if testing in the Federal channel indicates a much higher dioxin levels, disposal, burial, and handling would be considered and further environmental documentation may be required." In fact, the plaintiffs assert, the EPA has stated that the DMDF is not suitable for storing high levels of dioxins, yet the Corps has never established an upper limit on dioxin levels that appropriately could be treated at the DMDF.

The plaintiffs note that the Corps, as regulated by law, provides for capacity that may be used by third-party permittees. Indeed, the plaintiffs believe, it is foreseeable that the Dow Chemical Company will become a permittee of the DMDF and that it might seek to deposit sediment with higher levels of dioxin contamination. The Dow Chemical Company is slated to commence remediation of dioxins in the Tittabawassee Rivers under the Resource Conservation and Recovery Act. *See* 42 U.S.C. § 6901 *et seq*. Dioxins contained in the sediments in that waterway are likely to be higher. In fact, the Corps estimated that navigational sediments are 50 times less contaminated from those in the Tittabawasee River, where Dow will remediate. The EPA has found dioxin levels to contain a high of 24,000 ppt TEQ in the Tittabawasee River, and that future sampling would likely reveal "significantly higher concentrations."

The plaintiffs finally insist that the Corps has done little to mitigate the environmental impacts of the project, such as potentially severe flooding of the DMDF site, release of dioxins from the DMDF into the air, and the potential for dioxins to contaminate the ground water. With respect to flooding, the plaintiffs concede that the Corps has secured restrictions on 656 acres to address flood impacts from the DEQ, but does not appear to offer new flood storage in the form of evacuation at these sites. In terms of mitigating the effects of the airborne release of dioxins, the plaintiffs recite that the Corps is unwilling to use a hard cover over the DMDF. Instead, the Corps proposes to places less contaminated sediment on top of dredged materials. The Corps asserts that the unaided growth of vegetation will prevent more contaminated sediments from becoming airborne. Finally, the plaintiffs criticize the Corps' decision not to employ a liner under the site. They challenge the Corps' assertion that the clay foundation will be suitable to prevent dioxins from reaching the ground water.

For its part, the Corps emphasizes that it has more than adequately sampled and evaluated the material in Upper Saginaw River navigation channel for the past thirty years and will continue to do so. Studies by the Corps and the MDEQ have examined the physical characteristics of the sediments in the channel. Indeed in 1999, the Corps tested samples of sediment form the channel that were characteristic of the dredged material that would be stored in the DMDF. According to the Corps, the material sampled had only non-detectable levels of PCBs and low levels of metals. At the time, the average level of dioxins was 109 ppt TEQ.

The Corps concedes that sampling of river sediments between mile 4.7 to 16.5 in 2004 revealed an average of 332 ppt TEQ. The increased level, it explains, is the result of a single shoal with an elevated dioxin level. The Corps states that this shoal will be dredged first and dredged materials will be covered by the remaining dredged material, which has an average of only 166 ppt TEQ. It also asserts that if future sampling reveals higher dioxin levels, different disposal, burial, and handling would be implemented and further environmental documentation might be required. In fact, the area with the highest concentration of dioxins – mile 16.5 and 17.75 – will be reevaluated, once again, prior to removal. Once further testing was completed, a suitable disposal option is determined, and funding is available to dredge, only then would dredging begin.

The Corps also explains that the DMDP is expected to have limited impact on water quality because work activities will be confined within existing dikes. As noted, dredged material will be hydraulically pumped into the facility. At times the pumping of material and the associated water may require discharge of excess water back into the river. To that end, the Corps will employ a monitored weir structure. The Corps, however, envisions little need to

discharge water for some time because of the size of the disposal area and the utilization of cross/spur dikes to permit the greatest length of flow inside the facility allowing maximum settling time.

To ensure that any discharge from the DMDF does not significantly effect the water quality, the Corps obtained a Section 401 Clean Water Act Certification, *see* 33 U.S.C. § 1341, from the MDEQ following a public hearing. That certification permits not more than 1.29 million gallons per day of sediment water to be discharge to the Saginaw River. And discharging is limited by the permit to fourteen days: between April 1 and May 31, or November 1 and December 31, of any calendar year. Further, the Corps must receive authorization from the MDEQ before starting the discharge period, and at the end of each discharge period, the Corps must submit a summary report of the monitoring it conducted, the guidelines and parameters of which are set forth by the MDEQ.

The certification also prescribes how the Corps is to monitor and report discharged dioxins, mercury, acute toxicity and water. In addition, the certification required the Corps in conjunction with the MDEQ to prepare a DMDF management plan. The plan is designed to preserve the long-term integrity of the facility for sediment containment, including closure requirements to meet solid waste needs, water quality discharge requirements, specifying actions to address waterfowl botulism and bald eagle nesting issues and action to minimize exposure of wildlife to stored sediments. The Corps says that the DMDF is complementary to the Wetland Mitigation Area and State Game Area.

In fact, the Corps emphasizes, the United States Department of Agriculture, Natural Resource Conservation Service, evaluated the project and determined the facility is located on

"prior converted farm land" and therefore is not a designated "wetland." Pursuant to state regulations, however, the MDEQ determined that because the DMDF was "a change in the use of the site," wetland mitigation was required. The County, at the behest of the MDEQ, provided 336 acres of wetland mitigation – essentially adjacent farm land that will be converted to a wetland as part of the permit the County received.

The Corps maintains that it carefully considered the comments it received from public agencies and individuals on the management plan and EA. The Corps states that it responded to each of them, and in a number of instances, modified its approach to the project in response. It claims that overall agencies and local governments supported the project.

As an example of the Corps' responsiveness, the United States Fish and Wildlife Service expressed several concerns about the impacts on bald eagles during sensitive times of the year, and the Corps agreed to a "no work window" between January 15 and May 10 each year. The Corps claims that it further worked with the agency until all other concerns were satisfied.

Above all, the Corps emphasizes its close cooperation with the DEQ first in selecting the site and ensuring that there was adequate flood plain storage. Saginaw County was able to obtain restrictive deed covenants to preserve 658 acres of land adjacent to the DMDF, so the facility itself would comprise only thirty percent of the total flood plain area.

The DEQ also commented that sediments in the Saginaw River and at the DMDF are contaminated with PCBs and dioxins, among other chemical contaminants. The DEQ recommended additional characterization and delineation to ensure sound decision making with respect to site design, construction, operation, and management of the DMDF. The Corps claims it agreed that a baseline collection of samples of the site should be collected. In fact, in 2004, it

conducted additional sampling of the Upper Saginaw River, the proposed DMDF location, and adjacent wetland among others, for dioxin and PCBs.

The EPA also voiced concerns to the Corps. The EPA commented that the DMDF was not an appropriate location for the disposal of sediments with "heavy dioxin" contamination. The EPA urged that an upper level of dioxin contamination be set to restrict the level of contaminated sediments that would be disposed in the DMDF. Working with the MDEQ, the Corps explained that the nature of site, including the clay foundation, the dikes to isolate contaminants, the specific dioxin levels in the sediment, the plan for initial disposal of the sediment with higher dioxin levels, and the intention of further environmental monitoring resolved the EPA's concerns. The Corps concluded that setting an arbitrary upper level threshold for dioxin was unnecessary at this juncture based on its management plan.

Other EPA concerns included the plan for the discharge of effluents, the height of the dike with respect to potential flooding, and the integrity of the dike during flooding events. In responding to effluents, the Corps relied on its Section 401 Certification that includes stringent monitoring and discharge requirements. In terms of the height of the dikes, the Corps noted that they were .7 to .19 feet above the height required by FEMA. Further, the Corps provided copies of floodway data charts that contained the base flood elevation (100 year flood plain elevation) at the project site. Apparently, base flood elevations upstream of the project site to downstream vary between 587.3 feet with floodway to 586.1 with floodway. The top of the proposed levee is 591 feet, providing between 3.7 to 4.9 feet protection above the encroached floodway base flood elevation.

The Corps states that since the perimeter dikes for the DMDF are in a flood plain, it utilized levee guidance in addition to DMDF design guidance to fashion the dikes. The dikes were designed to provide protection from the base flood event to meet requirement of 44 C.F.R. § 65.10. Based on soil boring investigation data and guidance used to design levees and disposal areas, the Corps determined that the new dikes would be constructed from onsite clay material and be a minimum height of eleven feet including three feet of freeboard. Compaction and moisture content was to be monitored during construction to insure dike integrity and low permeability.

The Corps also performed a slope stability analysis to ascertain the proposed dikes integrity under differing hydraulic conditions. Data was obtained from soil borings within the placement area. The borings indicated that the site is covered by a thin layer of top soil with low permeability silty clay underneath. The clay is composed of amounts of silt, sand, and fine gravel and generally extends to the termination of the soil borings at a depth of 25 to 40 feet. Three conditions were tested during the slope stability analysis: end of construction condition; steady state seepage at flood level and sudden draw down after flood level. The Corps concluded that the designed levee dike cross section met all of the safety requirements for these three conditions.

In terms of individual commentary, the Corps received only sixteen letters. The Corps asserts that it considered each of these comments and provided thorough responses. The Corps' response touched on issues raised in the letters ranging from the need for an EIS, migration of contaminants, and potential effects to residences' wells to impacts the project might have on wildlife and wetlands.

Apparently in response to these concerns and to further demonstrate there will be minimal impact of the project on ground water, the Corps promised to undertake a hydrological study and monitoring plan in conjunction with the MDEQ. If the monitoring reveals adverse impact to ground water, the Corps will modify the design or operation of the DMDF.

The Corps concludes that based on the process described above including the environmental assessment and Section 404(b) evaluation, the proposed project did not significantly affect the quality of human environment and accordingly issued a FONSI.

II.

A.

Summary judgment under Federal Rule of Civil Procedure 56 is a particularly useful method of reviewing federal agency decisions because "the sole question at issue [is] a question of law," and the underlying material facts are contained in the administrative record. *Sierra Club v. U.S. Fish and Wildlife Service*, 189 F. Supp. 2d 684, 690 (W.D. Mich. 2002); *United States v. Donovan*, 348 F.3d 509, 511 (6th Cir. 2003); *see also Wachovia Bank v. Watters*, 431 F.3d 556, 559 (6th Cir. 2005); *Progressive Corp. & Subsidiaries v. United States*, 970 F.2d 188, 190-91 (6th Cir. 1992). The Court's role is to determine whether judgment as a matter of law is appropriate for either party, in light of the standard of review prescribed by the National Environmental Policy Act and interpretive case law of an agency's decision not to prepare an EIS.

B.

The National Environmental Policy Act requires agencies to prepare an Environmental Impact Statement (EIS) for "major Federal actions significantly affecting the quality of the

human environment." 42 U.S.C. § 4332(2)(c); *Kentucky v. Alexander*, 655 F.2d 714, 718 (6th Cir. 1981). To determine whether this threshold is met, agencies prepare an Environmental Assessment (EA). 40 C.F.R. § 1508.9(a) (providing an EA "(a) Means a concise public document for which a Federal agency is responsible that serves to: (1) Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact"); *Citizens Against Pellissippi Parkway Extension, Inc. v. Mineta*, 375 F.3d 412, 414 (6th Cir. 2004).

Based on the EA, the agency either issues a "finding of no significant impact" (FONSI) or orders the preparation of an EIS. 40 C.F.R. § 1508.13. *Mineta*, 375 F.3d at 414. A FONSI "briefly presents the reasons why an agency action will not create a significant environmental impact and why an EIS will not be issued. 40 C.F.R. § 1508.13." *Mineta*, 375 F.3d at 414. A FONSI constitutes the agency's decision that no EIS is required and is subject to judicial review as a final agency action. *Ibid.*

The Court reviews the adequacy of an EIS including an alleged failure to complete an EIS to determine whether the agency's actions were "arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 377 (1989). The thrust of the inquiry is "whether the agency has taken a 'hard look' at the consequences of its actions, 'based [its decision] on a consideration of the relevant factors,' and provided a 'convincing statement of reasons to explain why a project's impacts are insignificant.'" *Native Ecosystems Council v. U.S. Forest Service*, 428 F.3d 1233, 1239 (9th Cir. 2005). Stated otherwise, "[a]n agency's decision not to prepare an

EIS must be reasonable under the circumstances in the light of the mandatory requirements and standards set by [NEPA]." *Kelly v. Selin*, 42 F.3d 1501, 1519 (6th Cir. 1995).

The Ninth Circuit has described when an EIS generally is required:

> We have held that an EIS must be prepared if "substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor." *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir.1992) (citation omitted); *Sierra Club v. United States Forest Serv.*, 843 F.2d 1190, 1193 (9th Cir.1988). To trigger this requirement a "plaintiff need not show that significant effects will in fact occur," raising "substantial questions whether a project may have a significant effect" is sufficient. *Greenpeace*, 14 F.3d at 1332 (emphasis added).

Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1149-50 (9th Cir. 1998). NEPA's implementing regulations frame "significant effect" in terms of both intensity and context:

> "Significantly" as used in NEPA requires considerations of both context and intensity:
>
> (a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.
>
> (b) Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:
>
> (1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
>
> (2) The degree to which the proposed action affects public health or safety.
>
> (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
>
> (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

> (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
>
> (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
>
> (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
>
> (8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
>
> (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
>
> (10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

40 C.F.R. § 1508.27(a)-(b).

1.

The plaintiffs first argue that the Corps improperly segmented its environmental review of the DMDF from its prior assessment of dredging activities in its earlier EIS. That is, the plaintiffs believe, "that because the construction and operation of the DMDF and the dredging of the Saginaw River are connected actions with cumulative impacts, NEPA requires that they be assessed together." Pl.'s Mot. Summ. J. at 16. The Corps maintains that an EIS was prepared specifically for dredging, and the EA therefore properly focuses only on the construction and maintenance of the DMDF.

Courts have developed an impermissible segmentation rule in NEPA jurisprudence. That rule provides:

> Impermissible segmentation involves a "major federal action" where a small part of that action has been "segmented" in order to escape application of the NEPA

> process. The hallmark of improper segmentation is the existence of two proposed actions where the proposed component action has little or no independent utility and its completion may force the larger or related project to go forward notwithstanding the environmental consequences. *Maryland Conservation Council v. Gilchrist*, 808 F.2d 1039 (4th Cir. 1986); *Bragg v. Robertson*, 54 F. Supp.2 d 635, 649 (S.D.W.Va. 1999). Courts have also required that environmental effects of multiple projects be analyzed together when those projects will have a cumulative effect on a given region. *Kleppe*, 427 U.S. at 410; *Andrus*, 825 F. Supp. at 1501. Finally, multiple stages of a development must be analyzed together when "the dependency is such that it would be irrational, or at least unwise, to undertake the first phase if subsequent phases were not also undertaken." *Thomas v. Peterson*, 753 F.2d 754, 759 (9th Cir. 1985).

Hirt v. Richardson, 127 F. Supp. 2d 833, 841-42 (W.D. Mich. 1999).

The plaintiffs state that the Corps' insistence that construction of the DMDF and the placement of sediment therein is simply a continuation of the original 1975 EIS concerning dredging the Saginaw River defies logic. They point to the fact that there has been no regular dredging since 1984, and no dredging *at all* of the Upper Saginaw River has occurred since 1995. Consequently, the plaintiffs believe that plans to undertake at least twenty years of dredging under "changed conditions" cannot plausibly be considered independently from the construction and maintenance of the DMDF.

At a minimum, the plaintiffs insist that the Corps must complete a supplemental EIS. *See* 40 C.F.R. § 1502.9(c)(1) (requiring agencies to "prepare supplements to either draft or final environmental impact statements if: (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts"). Additional review beyond that undertaken in 1975 is required for three reasons, the plaintiffs say. First, they characterize the DMDF as a "massive alteration" to the scope of the project analyzed in 1975. Second, they argue that the earlier EIS did not consider

the impacts of dredging and disposing of sediment contaminated by dioxin, new environmental information. Third, the original EIS did not contemplate the Dow Chemical Company's planned use of the DMDF for remediation, which would result in substantially increased dioxin levels.

The Court remains unpersuaded. The plaintiffs have not furnished a sound rationale for reexamining dredging of the Saginaw River because of the location of an environmentally superior method for disposing of sediment in storage facilities. In 1930, Congress enacted the Rivers and Harbors Act, 33 U.S.C. § 401 *et seq.*, that, among other things, mandated dredging of thirty-six miles of the Saginaw River, its entire length. An EIS was prepared in 1975 specifically to address the environmental impacts associated with dredging the Saginaw River. Historically, dredged sediment was not stored at all, and as the need for storage arose, environmental impacts relating to the CDFs were reviewed separately. In fact, the record reflects that at the time the 1975 EIS was prepared, a *separate* EIS was prepared for the *disposal* of sediments in the Saginaw Bay CDF. Thus, it appears that dredging of the Saginaw River, as a "major federal project" has been treated as analytically independent from review of the environmental concerns relating to containment and storage of dredged materials. If a facility is unavailable, the Corps' obligation to dredge in accordance with the EIS still continues.

In the end, as the Corps notes, "[t]hese disposal areas are only an evolving feature of the authorized federal navigation. The purpose of the environmental assessment for this DMDF was to assess the environmental impacts of constructing and operating a new disposal area for a portion of the federal navigation channel, namely the Upper Saginaw River." Corps' Mot. Summ. J. at 28. Based on the historical practice of treating dredging of the entire Saginaw River distinct from the local disposal of sediment, the independent obligation under the Rivers and

Harbors Act, and the limited scope of the DMDF to approximately four miles of the Upper Saginaw River, the Court believes that the Corps has not made "substantial changes in the proposed action that are relevant to environmental concerns." 40 C.F.R. § 1502.9(c)(1)(I).

The plaintiffs additionally contend, however, that new environmental information has come to light that requires at a minimum a supplemental EIS – dioxin toxicity. At the time of the 1975 EIS was prepared, only conventional pollutants then of concern, were considered. In fact, the plaintiffs claim that the EA for the DMDF hardly mentions dioxin, although the dredging of sediment contaminated by dioxin is the sole purpose of the DMDF.

The plaintiffs requested and the Court approved supplementation of the administrative record with an EPA Information Sheet entitled "Dioxin: Summary of the Dioxin Reassessment Science" (Reassessment) dated October 15, 2004 and specifically limited by the EPA as a "DRAFT – DO NOT QUOTE OR CITE." The document explains that the term "dioxin" refers to a group of thirty compounds with similar biological characteristics including a "common mechanism of toxicity," the fact that dioxins enter the food chain from the atmosphere, are bioaccumulative, and are highly persistent. According to the Reassessment, "dioxin emissions in the United States decreased by about 75% between 1987 and 1995, primarily due to reductions in air emissions from municipal and medical waste incinerators." AR at S2. The draft report concludes that existing scientific studies do not establish a causal connection between dioxin and particular adverse health risks, although it is also true that existing science does not rule out that possibility. The draft report provides as follows:

> EPA estimates that the amount of dioxin found in the tissues of the general human population (which is known as the body burden) closely approaches (within a factor of 10) the levels at which adverse effects might be expected to occur, based on studies of animals and highly exposed human populations. Despite the

> potential risks, currently there is no clear indication of increased disease in the general population attributable to dioxin-like compounds. This may be due to limitations of current data and scientific tools rather than indicating that dioxin exposure is not causing adverse effects. For cancer, EPA estimates that the risks for the general population based on dioxin exposure may exceed 1 in 1,000 increased chance of experiencing cancer related to dioxin exposure. Actually risks are unlikely to exceed this value and may be substantially less. This range for cancer indicates about a 10-fold higher chance than estimated in EPA's earlier (1994) draft of this reassessment.

Ibid.

The plaintiffs' argument is flawed for a number of reasons. First, the plaintiffs do not explain how the presence of dioxins alters the analysis conducted in the EIS of ongoing dredging in the Saginaw River. The dredging operations have not changed since the EIS was issued. In fact, when the Corps dredges, it follows the same procedure with respect to width and depth as covered in the 1975 EIS. In addition, the Corps dredges the same class of contaminants as was covered in the 1975 EIS using the same hydraulic dredging methods as covered and analyzed in that document. In fact, dioxins were analyzed, albeit in a different way under the EIS. The Corps explains:

> At the time of the EIS, AR 30, dioxin was not a separately-identified contaminant. Rather, characterization of materials was determined through a combination of tests including a chemical oxygen demand (COD) test which determines the amount of organic compounds/matter in the sediment. AR 136-146. All organic compounds, including PCBs, dioxins, and pesticides, contribute to an increased COD. The COD test was used by EPA to determine that material in the Saginaw River and Bay cannot be disposed of in open water. The EIS was not specific as to what kind of organic compound was present in the material, just the fact that it was not suitable for open water disposal. AR 41. Thus, data used in the EIS was monitoring the same class of contaminants that are of concern today.

Corps' Resp. Br. at 4 n. 2.

The plaintiffs, however, suggest that a supplemental EIS is required in order to determine how to minimize resuspension of contaminated sediments. Again, the EIS assessed that

environmental concern. The EIS recognized the contaminated nature of the sediments, the possibility that dredging would cause resuspension, the impacts of resuspension of contaminated sediments should it occur, and circumstances under which hoppers could be filled without overflow to minimize the potential for resuspension. AR at 67, 73, 78. To be sure, the EIS clarified that the release of pollutants was "unavoidable," those releases "will be countered by the benefits derived from the removal of greater amounts from the aquatic system in the dredged materials." AR at 73. Indeed, this overarching point was conceded by the plaintiffs at oral argument when they agreed that the disposal of contaminated sediment in the DMDF is a superior choice to leaving it in the Upper Saginaw River, so long as it was accomplished, in their view, in an appropriate and safe manner.

Second, the plaintiffs' argument is based in part on the mere passage of time; that is, the fact that thirty some years that have elapsed since the preparation of the EIS. Passage of time, however, does not compel the preparation of a supplemental EIS. *See Sierra Club v. United States Army Corps of Engineers*, 701 F.2d 1011, 1036 (2d Cir. 1983) (noting that the "mere passage of time rarely warrants an order to update or supplement"); *Becker v. Federal RR Admin.*, 999 F. Supp 240, 249 (D. Conn. 1996) (reasoning that the "mere age of an EIS is not grounds for its invalidation") As noted, NEPA mandates supplementation only when there are "substantial changes in the proposed action" or where there "are significant new circumstances or information relevant to environmental concerns bearing on the proposed action and its impacts." 40 C.F.R. § 1502.9(c). The plaintiffs have not demonstrated that factors other than time require the Corps to supplement the 1975 EIS.

Moreover, the merits of supplementing the 1975 EIS notwithstanding, the notion that impermissible segmentation is at issue in this case likely fails as a matter of law. The proposed actions with "connected actions with cumulative impacts" apply only to proposed actions "pending concurrently" before an agency. *Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976). In this case, only the disposal of materials into the DMDF was pending at the time the EA was prepared. The activity of dredging the Saginaw River is the subject of a finished EIS that is no longer pending before the Corps. The plaintiffs' argument that the improper segmentation occurred likely fails for that reason alone.

Finally, the plaintiffs complain that construction and maintenance of the DMDF is improperly segmented for purposes of NEPA review because the EA fails to discuss potential use of the DMDF by the Dow Chemical Company (Dow). The company plans to remediate portions of the Titabawasse River, which may be fifty times more contaminated than the Upper Saginaw River. To be sure, the record contains a supplemental document entitled "Draft Framework Agreement" dated January 5, 2005 that the Court provisionally admitted. The agreement appears to be between Dow, DEQ, and EPA, and includes a proposal for Dow to meet its remediation obligations. It provides, in relevant part:

> C. Management and Disposal of Dredged Materials, The parties understand and agree that Dow may propose dredged material disposal options other than in a Type II landfill, such as an engineered disposal facility similar to confined disposal facilities used by the U.S. Army Corps of Engineers to contain dredged material.

AR at P38-51.

Citation to this document is unavailing. Dow appears only to express its intention to potentially use a facility similar to the DMDF. It does not state or reflect the possibility that it

will use the DMDF at issue here. Dow simply is explaining that it may seek to dispose of contaminated materials in multiple ways, and will not foreclose consideration of a CDF to that end. Which specific CDF will be used or whether disposal will be in one of its own construction or permitted by other statute is left unanswered. Speculation that Dow might use the DMDF provides no basis for heightening NEPA review, or support an argument of impermissible segmentation. *City of Riverview v. Surface Transp. Bd.*, 398 F.3d 434 (6th Cir. 2005) (reasoning that NEPA "speaks solely in terms of [p]roposed actions; it does not require an agency to consider the possible environmental impacts of less imminent actions").

Certain additional materials were admitted to the record, *see* AR at P29-37, that also suggest that Dow might seek to use the DMDF to store dioxin contaminated sediment. Some post-FONSI, internal EPA documents appear to reflect that the Corps addressed questions about storage of material with Dow representatives. However, as the Corps explained, upon learning of the contents of the internal documents, it issued a press release explaining that no negotiations had taken place. Further, the Corps' Chief of the Engineering Technical Service Office sent a letter the EPA to correct the erroneous information. The letter explained that the Corps had only answered general questions from Dow and others about potential use of the facility and was not, nor did it plan to, enter into negotiations with third parties in the near future.

At oral argument, the Corps explained that its regulations required it to provide some capacity for third parties subject to its regulations. However, it explained, that contingency was assessed in the EA. In fact, the plaintiffs do not suggest that the DMDF, as assessed in the EA, was *never* intended to have any third-party use. The plaintiffs' position rests on the unsupported assumption that the third-party use of DMDF was imminent.

Further, the Corps maintained that any consideration of third-party use of the DMDF necessarily would begin with an appropriate application under applicable Corps' regulations that would require its own environmental review. That review would involve environmental review of the proposal and an EIS if the circumstances so required, including the possibility that third-party permittees would deposit materials into the DMDF that exceed the minimal capacity allocated for that purpose as assessed by the EA and if significant environmental impacts to the human environment resulted. The Corps described the process as follows:

> If the Corps were to receive a request from a third party to use the DMDF, the District would review the request by following the procedures outlined in Detroit District regulation, DM 1145-1-1. Corps Headquarters and ASA(CW) would also review and approve or disapprove the request as explained above.
>
> An area that will limit Detroit's Technical Services Branch's (TSB) recommendation to allow a third party to use a Corps facility is whether that party's material will reduce the availability of the facility for project purposes. Although 33 U.S.C. 1341(c)12 and 33 U.S.C. § 2726(b)(1)(A)13 allow the Corps to permit third parties to use Corps facilities, such use is limited by the capacity available at the Corps facility. Thus, if the third party's request impacted the availability of the DMDF for placement of dredged material from Federal maintenance dredging of the Upper Saginaw River, TSB would recommend denying the request.
>
> Another limitation on the Corps ability to allow a third party to use a Corps facility is that the use must meet all environmental requirements. These include the third party obtaining a Section 10 Rivers & Harbor Act permit and its use of the facility to be consistent with the environmental impacts which were considered for the Corps facility. Although TSB would receive a request by a third party to use a Corps facility and provides an independent recommendation to Corps Headquarters and ASA(CW) regarding allowing such use, as explained above, the District's Regulatory Office (RO) would also independently review the proposed disposal area as part of the Section 10 permit application. See DM 1145-1-1. The RO would only grant a Section 10 permit to a third party, if the proposed work in navigable waters not be contrary to the public interest, complied with NEPA, as well as many other requirements specified in Corps regulations. See 33 CFR Part 320-330. Any permit application to dredge navigable waters must include a description of the type, composition and quantity

> of material to be dredged; method of dredging and site/plans for disposal of dredged material. 33 CFR 325.1(3)
> . . .
> Thus, any third party's use of the DMDF must be in accordance with the laws authorizing the Saginaw River as a Federal navigation project and regulations requiring NEPA compliance and Section 401 Certification.
>
> If the applicant plans to use a Corps facility to dispose its dredged material, the RO requests review from the District's EAB and TSB regarding the applicant's proposed dredging and use of a Corps disposal facility. The RO would include in the Section 10 permit the appropriate conditions authorizing and governing use of the disposal area provided by EAB and TSB and approved by ASA(CW). See DM 1145-1-1 paragraph 5.a.(2) and PGL No. 47. (Def's Supp Ex. 1).
>
> Specifically, the RO provides EAB a copy of the applicant's permit application/drawings, public notice and sediment sampling results. It requests EAB to review this information and determine (1) whether the material is suitable for disposal in a CDF; (2) impact of resuspension of sediments during the dredging operations on ambient water quality levels and on the biota; and (3) impact of exposure of the substrate lying beneath the proposed dredging area. If the applicant's sampling results are not adequate to make these determinations, EAB is to advise the RO and forward a Sediment Analysis Plan for the applicant to submit so that EAB can make the requested determinations. (See template memo. from RO to EAB, Def's Supp Ex. 1).
>
> EAB reviews the third party's proposed use of the DMDF and determines if it would result in environmental impacts that are consistent with the environmental impacts evaluated in the EA or EIS for the Corps facility. See 33 CFR 230.7(d) (EA normally required for changes in environmental impacts which were not considered in the project EIS or EA). See also 33 CFR 336.1(b)(6) (If a proposed maintenance activity will result in a deviation in the operation and maintenance plan as described in the EA or EIS, the District Engineer will determine the need to prepare a new EA, EIS, or supplement).

Corp's Mot. Summ. J. at 31-33.

Ultimately, a cursory review of the record materials does not support the plaintiffs' contention that there were imminent plans that Dow, or any third party, would disposed material contaminated with dioxin in the DMDF. Because of the speculative nature of the plaintiffs' allegations and the lack of support they find in the record, the Court concludes that the Corps

was under no obligation to consider the environmental impact arising from unspecified future third party use of the DMDF. The Corps therefore did not improperly segment review on this basis.

2.

The County maintains that NEPA does not compel the preparation of an EIS under the facts of this case. It contends that the "DMDF, along with the dredging of the upper Saginaw, was authorized by the Rivers and Harbors Acts and under the previously prepared EIS." County Mot. Summ. J. at 17. Indeed, "the original disposal area, Middle Ground Island, was considered in the original EIS for the Saginaw River dredging project but now is now no longer used." *Ibid.*

The County's argument is unavailing. It is premised upon the assumption that ministerial acts are exempt from NEPA review. However, the question of whether NEPA requires assessing the maintenance dredging at issue here as mandated by the RHA depends on whether the agency retains discretion to alter the action as a result of its environmental review. *Citizens Against Rails to Trials v. Surface Transp. Bd.*, 267 F.3d 1144, 1151 (D.C. Cir. 2001); *Macht v. Skinner*, 916 F.2d 13, 18 (D.C. Cir. 1990) (reasoning that "the touchstone of whether NEPA applies is discretion"). Indeed, NEPA itself directs federal agencies to comply with its procedures "to the fullest extent possible." 42 U.S.C. § 4432. Further, NEPA's implement regulations clarify that agencies must comply "unless existing law applicable to the agency's operations expressly prohibits or makes compliance impossible." 40 C.F.R. § 1500.6.

A review of the record establishes that the Corps possesses sufficient discretion over dredging operations in the Saginaw River such that it is not exempt from NEPA review. For example, the RHA does not employ mandatory language – words such as "shall" or "must" –

that typically prohibit the exercise of discretion. Section 301 of the RHA (1965) provides, in relevant part:

> The following works of improvement and harbors and other waterways for navigation . . . are hereby adopted and authorized to be prosecuted under the direction of the Secretary of the Army and supervision of the Chief of Engineers, in accordance with the plans and subject to the conditions recommended by the Chief of Engineers . . . . Saginaw River, Michigan: House Document Numbered 240, Eighty-ninth Congress, at an estimated cost of $437,000.

Thus, the Corps is given authority to direct navigational activities for the "improvement of harbors and other waterways" including the Saginaw River. Congress does not specify the manner in which the Corps must undertake the improvements. Rather, the Secretary of the Army is allowed to direct the manner in which the Corps approaches navigational activities subject only to the requirement that they do so "in accordance with the plans and subject to the conditions recommended by the Chief of Engineers." The Court, therefore, concludes that NEPA review is not precluded by virtue of a ministerial act. As a result, the Corps is required to comply "to the fullest extent possible" with NEPA, 42 U.S.C. § 4332.

Both the Corps and the County suggest that no EIS need be prepared because they have undertaken certain "betterments" since the issuance of the FONSI. However, the Court agrees with the plaintiffs that mitigation measures that were not evaluated prior to the issuance of the FONSI are not relevant at this stage of litigation. Indeed, the Court's review is limited to the record as it existed at the time the final agency action occurred, here the preparation of the FONSI. *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 420 (1971). The defendants therefore may not rely on mitigation measures discussed following issuance of the FONSI.

The plaintiffs, by contrast, assert that the Corps' own regulations categorically require it to prepare an EIS for the DMDF.

Generally, an agency must determine as a threshold whether the project normally requires an EIS or whether the project is categorically exempt from NEPA review. *See Dep't of Trans. v. Public Citizen*, 541 U.S. 752 (2004). This principle is codified in the Code of Federal Regulations:

> In determining whether to prepare an environmental impact statement the Federal agency shall:
>
> (a) Determine under its procedures supplementing these regulations (described in § 1507.3) whether the proposal is one which:
> (1) Normally requires an environmental impact statement, or
> (2) Normally does not require either an environmental impact statement or an environmental assessment (categorical exclusion).
>
> (b) If the proposed action is not covered by paragraph (a) of this section, prepare an environmental assessment (§ 1508.9). The agency shall involve environmental agencies, applicants, and the public, to the extent practicable, in preparing assessments required by § 1508.9(a)(1).
>
> (c) Based on the environmental assessment make its determination whether to prepare an environmental impact statement.
>
> (d) Commence the scoping process (§ 1501.7), if the agency will prepare an environmental impact statement.
>
> (e) Prepare a finding of no significant impact (§ 1508.13), if the agency determines on the basis of the environmental assessment not to prepare a statement

40 C.F.R § 1501.4(a)-(e).

The plaintiffs argue that the Corps ignored the first step – determining whether an EIS should be prepared under its own regulations. For example, 33 C.F.R. § 230.6, provides guidance to the Corps on when an EIS ought to be prepared:

> Actions normally requiring an EIS are: (a) Feasibility reports for authorization and construction of major projects; (b) Proposed changes in projects which increase size substantially or add additional purposes; and (c) Proposed major changes in the operation and/or maintenance of completed projects.
>
> District commanders may consider the use of an environmental assessment (EA) on these types of actions if early studies and coordination show that a particular action is not likely to have a significant impact on the quality of the human environment.

Section 230.6 plainly is inapplicable to the DMDF. The regulations relates to "[f]easability reports for authorization and construction of major projects." 33 C.F.R. § 230.6. Although the plaintiffs believe that the DMMP is a feasability report for authorization and construction, the DMMP is not such a report as contemplated by the regulation. As the defendants point out, such a feasibility report is required only for new *navigation* projects or modifications of an *existing* project as a mechanism for recommending projects to Congress and obtaining authorization for such projects. The DMDF simply is not a *navigation* project.

That fact is underscored by the preamble to the DMMP to which the plaintiffs cite. The purpose of the plan is discuss whether there are suitable sites for the disposal of dredged materials. Significantly, the DMMP's purpose is not to obtain congressional approval for the construction of the DMDF, but rather appraise potential sites that might meet the needs of the Upper Saginaw River for the next twenty years. To be sure, dredging might be considered a navigational project. However, the environmental impacts associated with dredging by itself was the subject of a previous EIS and properly addressed under NEPA as distinct from the disposal of dredged materials. Even assuming that the dredging activities associated with the DMDF could be considered a navigation project, the plaintiffs have cited no evidence that the

approximately 4.5 miles of dredging, the length of the Upper Saginaw River, is a "major project" under the regulations.

Ultimately, the Corps properly relied on its own regulation that requires a preparation of an EA under circumstances where a new disposal site is to be used. That regulation states, in relevant part:

> Actions normally requiring an EA, but not an EIS, are listed below:
>
> (d) Construction and Operations and Maintenance. Changes in environmental impact which were not considered in the project EIS or EA. Examples are changes in pool level operations, use of new disposal areas, location of bank protection works, etc.

33 C.F.R. § 230.7.

The plaintiffs maintain that the Corps' reliance on section 230.7 cannot be based on a fair reading of that regulation. The provision plainly applies to the "use" of a new disposal area. Here, the DMMP did not contemplate use of an already built, new facility. Instead the document sought to determine "the feasibility of citing and constructing a CDF for the Upper Saginaw River." Corps Mot. Summ. J. at 1-2; AR at 2455-56.

The Court disagrees. The EA in this case was prepared precisely to assess "changes in environmental impact" that were not previously "considered in the project EIS or EA." The DMDF is a "new facility" that the Corps will "use" for depositing sediment from the Upper Saginaw River. Thus, it is action "normally requiring an EA, but not an EIS." That the Corps is required to undertake an EA does not compel the outcome that no EIS ultimately should issue. Rather the purpose of an EA is to "[b]riefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact." In any event, the Court is required to defer the Corps' interpretations of its own

regulations. *See Auer v. Robbins*, 519 U.S. 452 457-58 (1998) (reasoning that agencies are entitled to deference in the interpretation of their own regulations).

Importantly, the Corps does not rely on the argument that the DMDF is "only a minor maintenance dredging using existing disposal site" that would exclude it from NEPA review. *See* 33 C.F.R. § 230.9. Instead, the Corps determined pursuant to its own regulation that it was required to prepare an EA and then determine based on the findings therein and consistent with NEPA whether an EIS was warranted.

Nor does the fact that some CDFs that the Corps constructed and continues to operate required preparation of an EIS compel the same result in this case. The point is arguably moot because of the conclusion that the Corps' properly relied on 33 C.F.R. § 230.9 that the DMDF normally requires and EA, but not an EIS. Nonetheless, each project is unique and must considered in light of the environmental impacts relative to it. Further, the plaintiffs overstate the number of EISs that have issued for CDFs in the Great Lakes region. Since 1985, the Corps has prepared nine NEPA documents for such facilities. For five CDFs an EA was prepared and for four CDFs an EIS issued:

Grand Haven S Verplank Site #2	EA 1998
Michigan City Harbor	EA 1997
Sebewaing Harbor – Marina Site	EA 1996
Holland Harbor Township Site	EA 1995
Cleveland Harbor – Dike 10B	EIS 1994
Inland Route	EIS 1990
Toledo Harbor S Site 3 Extension	EIS 1989
Keweenaw Waterway	EIS 1987
Green Bay Harbor S Bayport	EA 1985

Corps. Mot. Summ. J. at 28 (summarizing AR at S40-148)

The Court therefore concludes that neither the Corps' regulations nor past preparation of EISs for CDFs categorically require it to undertake an EIS and that it properly concluded that preparing an EA was the appropriate starting point for NEPA review under is regulations.

3.

a.

The plaintiffs contend that the DMDF will significantly affect water quality and therefore the human environment because water containing dioxin contaminated sediment ultimately will be returned to the Saginaw River. The plaintiffs contend that the EA does not adequately address how water in the DMDF will be managed and will simply rely on settling alone to remove dioxins.

The Corps maintains that any concern over water quality has been fully addressed by coordination, a public hearing, and issuance of Section 401 of the Clean Water Act, 33 U.S.C. § 1341, Water Quality Certification by Michigan State authorities. In fact, the certification requires the Corps to control effluent discharged from the DMDF and ensure it meets state water quality standards. The Corps must monitor discharges including measuring contaminant levels of materials stored at the site, the quality of standing water, and the quality of the water discharged from the weir. The Corps must adhere to the legal requirements of the certification, which prohibit discharges that exceed background concentrations. The certification also specifies appropriate chemical parameters. Finally, the MDEQ is charged with ensuring that discharges comply with the Clean Water Act and Michigan Water Quality Standards. The certification provides ample safeguards to ensure there will be no adverse affect on water quality.

The Corps emphasizes that the EA does address how the discharge of water will be managed. The process is straightforward: retention of water and sediments will cause the sediments to which dioxins attach to settle to the bottom of the DMDF. After settling occurs, water will be discharged, and in accordance with the certification, the water may not release additional dioxins into the river. The certification also calls for additional treatment prior to discharging if the settling process and retention time fall short of compliance requirements.

The County emphasizes that any effluent to be discharged must be tested and the results must be sent to local authorities ten business days prior to discharge. Further, the discharge will be periodically monitored as set forth in the certification. For example, testing for dioxins will be conducted twice each week during the discharge period to ensure that there "is no net increase," or that concentrations are equivalent or below those existing in the Upper Saginaw River. Finally, if the effluent falls outside water-quality standards, the Corps will not be permitted to discharge. The water will be held in the facility to facilitate additional settling until such time as it conforms with the limitations contained in the certification.

Based on the certification requirements for monitoring and its prohibition that additional dioxins not be released into the Upper Saginaw River along with additional safeguards that water be treated in the event the settling process is unsuccessful, the Court believes that the Corps took the requisite "hard look" and adequately assessed the potential impacts on water quality. Its conclusions therefore were soundly based on the record and therefore were not arbitrary and capricious.

b.

The plaintiffs complain that the Corps has not adequately assessed the potential impact that the DMDF could have on ground water. They believe that the clay underlying the DMDF will not provide sufficient protection from dioxins leaching into ground water that will eventually spread into neighboring residences and wildlife habitats. The potential for dioxins contaminating the ground water significantly affects the quality of the human environment, and the Corps ought, they argue, to complete an EIS to fully explore effects on ground water.

The Corps maintains that it reasonably evaluated potential effects on ground water. Geotechnical investigation revealed that the site has a minimum of forty to sixty feet of underlying low permeability clay. The clay will prevent leaching of retained waters to aquifers below. Logs identifying wells in the area depict the closest well at approximately 450 feet from the edge of the DMDF. Nearby wells draw water from an aquifer immediately above the bedrock, the Corps explains, which is some eighty to 100 feet below the ground. The soil between the DMDF and the aquifer is predominately low permeability silty clay, and water is estimated to move though the clay at the ration of .001 to 1 feet per year. Thus, the Corps concludes, even absent any mitigating factors, it would take four hundred and fifty years for water to reach a well. Further, the nature of dioxins make contamination unlikely. Dioxin attaches to sediment particles and likely would be quickly filtered out of any migrating water. Indeed, the Corps will monitor to ensure no leaching occurs.

The plaintiffs also contend that the DMDF will release dioxins into the ground water through breaks in the clay underneath the facility. The plaintiffs' argument again is unavailing. As the Corps notes, the plaintiffs rely on geotechnical data for a different site for the proposition

that there are breaks in the clay at the same level of ground water. That site was not chosen. Instead, the DMDF is located west of the Saginaw River. Further, the record supports the conclusion that dioxins would not move from the site because dioxins naturally tend to attach to sediment particles. Thus, dioxins in migrating water would be removed by their tendency to attach to particles at the DMDF. The argument that sand lenses would permit water to flow from the DMDF site is similarly unsupported by the record. Evidence suggest that the lenses do not appear to be continuous. Finally, there is forty to sixty feet of low permeability clay that will act as a natural barrier to impede leaching of dioxins into the ground water.

In light of the amount of clay underlying the DMDF, the natural tendency of dioxins in migrating water to attach to sediment particles on site, and the fact that it would take a minimum of 450 years for any water to reach a well, the Court is convinced that the Corps took a hard look at the DMDF's impact on ground water. The Corps' conclusion that the DMDF presents no significant threat to the ground water, therefore, was not arbitrary and capricious.

c.

The plaintiffs next assert that the EA did not adequately address the environmental effects of the DMDF's location in a flood plain. The DMDF is located in the flood plain on 281 acres, which means removal of thirty percent "of the flood carrying capacity from the flood-prone area." Pl.'s Mot. Summ. J. at 26. In fact, the plaintiffs argue in 1986, the entire DMDF site flooded by fifty-one inches of water and the "Corps has never explained where flood waters will go during the next major flood event now that this capacity has been removed (assuming the flood does not cause the Corps' dikes to fail, releasing highly contaminated waters and sediments from the facility).

The Corps contends that studies of the Saginaw River demonstrate that "filling" or removing thirty percent or less of a parcel situated in a flood plain will not adversely affect the viability of flood plain. In fact, the DEQ has expressly incorporated this finding into the standards it employs. In addition, the DMDF will actually impact less than thirty percent of the parcel because a restrictive covenant has been placed on an additional 658 acres, thereby expanding the flood path. With respect to the dikes, the Corps insists that their height exceeds the FEMA requirements. Moreover, the Corps performed several studies under various hydraulic conditions to assure the integrity of the dikes.

The plaintiffs argue, however, that the Corps' assertion that removal of the land will have no appreciable effect on flood plain storage rests on an outdated 1979 study that assessed a different landfill proposal. That study concluded that filling 30 percent of an area across the Saginaw River "would not increase downstream flood elevations greater than .10 feet." AR at 703. The plaintiffs believe there are several problems with reliance on the 1979 study.

First, the study addressed a different portion of the flood plain across the river and slightly downstream. There is no reason to believe, therefore, that the assumption that the DMDF will impact less than thirty percent of the site will hold. Second, the study addresses impacts on downstream elevations, and therefore not the homes that are located between the Saginaw River and the DMDF dikes. Third, history shows that flooding could bring as much as four or five feet of water to the area. With 281 acres devoted to the DMDF, water is likely to flood the adjacent residential neighborhood. Finally, they point out, the Corps has provided no plans for evacuation, explained how the deed restrictions would prevent residential flooding, and has failed to model the DMDF's likely flood impacts.

The Corps references a 1979 study addressing flooding and has adequately considered additional information that suggests that the DMDF presents minimal impact on the flood plain. In a letter to the EPA, the Corps referenced FEMA Flood Insurance Maps and Floodway Data Charts for the Saginaw River in Saginaw and Bay Counties. The maps indicated that the top of the dikes are 3.7 to 4.9 feed *above* the 100-year flood elevation and 2.2 to 3.4 feet above the 500-year flood elevation. *See* AR at 4495, 4512-18, 4527-28. Thus, the DMDF would be able to withstand even a 500 year flood, and the Court concludes that the Corps properly concluded that the DMDF will not adversely impact the flood plain of which the DMDF consumes thirty percent.

d.

The plaintiffs contend that the EA does not adequately address the environmental impact the DMDF will have on the wetlands on which it is situated.

The Corps clarifies that under federal law the project site is not actually a wetland. The Food Security Act, 16 U.S.C. § 3822, delegates to the Department of Agriculture the power to designate and delineate wetlands located on a farm. *See* also 7 C.F.R. §§ 2.61(a), 12.30. In this case, the Department of Agriculture inspected the DMDF and surrounding land and determined that water had been pumped from the property since the early 1950s. As a result, the Department classified the site as "prior converted crop land," not a wetland. *See* AR at 2924, 3380, 3388, 3570.

DEQ, in cooperating with the Corps, noted that ceasing pumping likely would cause the return of water above the surface and that state law would therefore treat the site as wetland. The County, however, agreed to mitigate for the loss of this state designated wetland by creating

an additional 336 acres of wetland. In fact, Michigan State authorities issued a section 303 Wetland Protection for the project. Because the DMDF is not situated on land designated by federal law as a wetland and the County has otherwise provided mitigation for the loss of wetland under state law, the Court cannot conclude that the Corps failed to adequately consider environmental impacts on alleged wetlands.

e.

The plaintiffs also allege that the EA did not fully consider, in their words, "the considerable toxicity of dioxins in the environment" and the substantial question posed by the disposal of dioxin contaminated sediment in the DMDF on public health and safety. Pl.'s Mot. Summ. J. at 20 The plaintiffs maintain that the Corps has treated dioxins as if they were not especially toxic. However, dioxins "are among the most toxic chemicals in our environment." *Id.* at 21. Supplemental materials admitted to the record confirm this conclusion, the plaintiffs say. The "draft" version of the EPA reassessment of dioxins, previously referred to, states:

- "Once they reach the environment, dioxins are highly persistent and can accumulate in the tissues of animals."
- "Dioxins are potent animal toxicants with potential to produce a broad spectrum of adverse effects in humans," including "adverse effects upon reproduction and development," suppression of the immune system, and cancer.
- One common route of human exposure to dioxins is through inhalation of air that contains dioxin-contaminated particles and vapors.
- The EPA estimates that "[t]he amount of dioxin found in the tissues of the general human population (which is known as the 'body burden') closely approaches (within a factor of 10) the levels at which adverse effects might be expected to occur."
- The EPA categorizes the mixture of dioxins to which people are exposed as "likely human carcinogens," and the most toxic form as a "human carcinogen." Based on extensive data, the EPA estimates that "the risks for the general population based on dioxin exposure may exceed 1 in 1,000 increased chance of experiencing cancer related to dioxin exposure." 16 This represents a ten-fold increase from prior estimates.

AR at S1-2.

The plaintiffs conclude that because dioxins are highly toxic and the "background level of dioxin exposure is already at a near critical point, any additional exposure, such as that which would come from the disposal of dioxin contaminated sediments in the DMDF, is particularly significant." As noted and previously discussed, the plaintiffs believe that the DMDF will release dioxins in a number of ways which will adversely impact the human environment.

First, they claim that strong westerly winds will blow generate airborne dust containing dioxin. Second, they feel that vegetation growth will not adequately prevent airborne particles from escaping from the DMDF. Third, the plaintiffs claim that despite the Corps' conclusion that dioxins adhere to solids, there is evidence that dioxins are regularly transported from soil and water to air, and it is unclear how vegetation would provide an adequate buffer. Fourth, the plaintiffs take issue with the layering of cleaner sediment on top of more contaminated sediment. Since the Corps will undertake no testing to confirm dioxin toxicity as it dredges, it is unclear that the layering will serve as an adequate measure of protection. Fifth, the plaintiffs feel that there is not adequate assurance that water pumped back into the Upper Saginaw River from the DMDF will not increase dioxin toxicity. Sixth, the plaintiffs assert that the DMDF will leach toxins into the ground water.

The Court has addressed these concerns in turn, and will not repeat the analysis here. The Corps has adequately considered the potential environmental impacts of each of the following and its conclusion that no EIS was necessary was not arbitrary and capricious. The real question appears to be the extent to which the Corps has assessed the level of toxicity of

dioxins that will be placed in the DMDF and whether the DMDF is able to appropriately handle the levels of toxicity.

The plaintiffs argue that the Corps ought to have established a maximum dioxin limit for the sediments it accepts at the DMDF or off alternative management options for more contaminated sediments. Without establishing a limit, the Corps will have no way of assessing whether the DMDF is reaching a critical toxicity level. Further, the plaintiffs contend that the Corps misrepresented the dioxin levels in the FONSI. That document cites an average of 166 ppt TEQ, which the plaintiffs state the Corps derives by excluding the highest concentration found in its 2004 sampling. The plaintiffs believe there is no rationale for excluding this sample. In fact, the Corps has done limited sampling of dioxin concentrations and there is no evidence that other areas in which the Corps will dredge will depart from the known sampling information.

Further, the plaintiffs contend that the Corps refused to acknowledge that its 2004 sediment sampling revealed an average of 808.9 ppt TEQ for the entire Saginaw River. The Corps, without explanation they contend, states that there is an average of 321 ppt TEQ up to river mile 16.5 including the most contaminated shoal. In the plaintiffs' view, it is impossible to determine from the record how the Corps derived the averages cited in the FONSI. In fact, an average of the fifty samples taken in 2004 and the eighteen samples taken in 1999, was 623.7 ppt TEQ.

In addition, the plaintiffs insist that the Corps misrepresents the baseline dioxin levels at the DMDF site. According to the plaintiffs, the Corps claims that the dredged material on the surface of the DMDF will, at worst, be similar to the dioxin levels already found at the Crow Island State Game Refuge and much of the surrounding flood plain and likely much better. The

plaintiffs believe that the assertion is contradicted by the record. In 2002, DEQ samples of Crow Island revealed dioxin level of 60.9 ppt TEQ, a level almost five times lower than the stated average of 321 ppt TEQ and ten times lower than the actual average of 623.7 ppt TEQ. The Corps actually conducted additional sampling. Although the Corps did not convert the levels into TEQs, its conclusion was that the raw concentration of dioxins in the river sediments were 16.7 times higher than the Crow Island soils. Thus, the plaintiffs conclude disposal of sediments at the DMDF will substantially increase the concentration of dioxins above those now found at Crow Island.

Finally, the plaintiffs assert that the Corps has exaggerated its commitment to addressing dioxins. The Corps claims that in the future if testing reveals higher dioxin levels, different disposal, burial, and handling will be implemented. However, the most the Corps has promised in the record, and not in its brief, is that alternative disposal alternatives will be *considered*. In addition, the Corps repeatedly states in its brief that it will cap the DMDF with clean material, but the record shows only that the Corps promises to use *cleaner* materials which optimistically will contain dioxin concentrations of 166 ppt TEQ. However, as noted, the average levels from sampling were 623.7 ppt TEQ. As the Corps admits, MDEQ considers material clean only when it has concentrations of less than 13 ppt TEQ.

Although the Corps promises in its brief that it has "monitoring programs and future sampling protocols" to address uncertainty about future impacts, the plaintiffs claim the record only suggests that the Corps will monitor surface water discharge in compliance with its Clean Water Act certificate and only *may* monitor groundwater. The plaintiffs concede that the record contains references that the Corps will periodically sample shoaled areas in the navigation

channel to assess the character of the material under existing conditions, the Corps actually told the EPA that it will not sample the sediments as it dredges and will only sample dioxin concentrations once ever five years. Thus, the plaintiffs conclude that the Corps will not know the actual dioxin levels of the materials it places in the DMDF.

The Court is unpersuaded that the Corps has not adequately assessed the dioxin concentrations of material to be dredged and placed in the DMDF. The contention that sampling was limited is misplaced. Sampling conducted in 1999 covered thirty five areas and generated results spanning 251 pages. Sampling in 2004 covered an additional forty five areas, the results of which are set forth in 386 pages. Further, the record contains a commitment by the Corps to continue to sample sediment, AR at 4005-4391, which it has done since the issuance of the FONSI.

The plaintiffs appear to overstate the dioxin concentration from 2004 sampling. Although the average found was 809 ppt TEQ for the entire Saginaw River, the average of the concentration of the portion of the river, river mile 4.7 to 16.5, is 321 ppt TEQ. Further, a single shoal artificially elevated the average, and according to the Corps' sampling, after dealing with the shoal as the first objective of dredging and disposal, the actual average of dioxin concentration is 166 ppt TEQ. Thus, the Corps reasonably has explained how it arrived at the dioxin concentrations that will be placed in the DMDF.

Dioxins are toxic to wildlife. However, toxicity alone does not require the Corps to complete an EIS. This point is underscored by the plaintiffs' belief, expressed during oral argument that disposal and containment of contaminated sediment in the Upper Saginaw River is indeed a better option than leaving the material in the river. The plaintiffs' argument is premised

on the belief that the storage of dioxin in the DMDF poses unacceptable risk to public health because concentrations of dioxins will range from 166 ppt TEQ to 321 ppt TEQ. However, there is little evidence that the unique design of the DMDF, its size and capacity, along with protective dikes that exceed FEMA requirements and some forty to fifty feet of low permeability clay that prevent sediment from leaching into the ground, cannot safely handle the proposed levels of toxicity.

The Corps has more than adequately addressed management of the DMDF to minimize environmental impacts. As explained, the Corps will cap sediment with the cleanest dredge material each year, as determined by annual testing. Logically, over the twenty years of disposal and dredging, sediment will become increasingly cleaner. Further, the Corps will conduct annual testing to monitor dioxin levels and before each dredging event. The Court is persuaded that the Corps has adequately assessed the potential environmental impacts of dioxin toxicity in the DMDF and that its conclusion that an EIS was not necessary on that basis was not arbitrary or capricious.

The Court is mindful that there is a lack of scientific unanimity. However, the lack of scientific unanimity in an area does not necessarily preclude an agency from issuing a FONSI. *See Greenpeace Action v. Franklin*, 14 F.3d 1324, 1336 (9th Cir. 1992) (reasoning that if a FONSI required scientific unanimity, "agencies could only act upon achieving a degree of certainty that is ultimately illusory"). The Corps has extensive expertise in dredging, constructing, and managing the disposal of sediments into DMDFs, and it is not inappropriate for this Court to give some deference to that technical expertise. *See, e.g., Citizens Against Rails to Trails v. Surface Transp. Bd.*, 267 F.3d 1144, 1150-51 (D.C. Cir. 2001).

The Court is also mindful that the EPA voiced concerns that the DMDF should not be used for sediments with high levels of dioxin. In fact, the EPA urged that an upper level of dioxin contamination be set to restrict the level of contaminated sediments that would be disposed in the DMDF. However, the EPA also strongly agreed that the Upper Saginaw River needed to be dredged. Further, the EPA insisted that "maintaining navigational depths on the river will help to mitigate the migration of contaminated sediments downstream and into Saginaw Bay and will remove a continuing source of dioxin in the watershed." Corps. Mot. Summ. J. at 11 (citing AR at 3999).

In response to the EPA concerns, the Corps explained how the DMDF would handle the levels of dioxin the DMDF would accept for disposal. In the end, working with the DEQ, the Corps responded that the nature of site, including the clay foundation, the dikes to isolate contaminants, the specific dioxin levels in the sediment, the plan for initial disposal of the sediment with higher dioxin levels, and the intention of further environmental monitoring made setting an upper level threshold for dioxin unnecessary. The administrative record reflects that the EPA's concerns were apparently resolved.

Based on the evidence in the record, the Court concludes that the Corps adequately analyzed the environmental impacts associated with dioxin toxicity, and appropriately determined that an EIS was unnecessary.

f.

The plaintiffs assert that the EA did not appropriately consider the environmental impacts of airborne dust they feel will emanate from the DMDF because the Corps has decided against

using a hard cover for the facility. The plaintiffs draw on the EPA dioxin reassessment report for the proposition that the DMDF will release dioxins through airborne dust.

The plaintiffs, however, misread the report. The statement in the report discusses atmospheric deposition of dioxins from the atmosphere, not the release of dioxins from the soil. As the Corps explains, chemical manufacturing and other industrial plants spread dioxins though the atmosphere. The concern at the DMDF, by contrast, is minimal because the volatilization of dioxins is low and they are "relatively immobile in soils and sediments." AR at S3-14. The atmosphere is not likely to be a pathway for the release of dioxins.

The plaintiffs' concerns appear to be based on the previous use of the site as farmland. However, a nearby property owner expressed in a letter to the Corps that dust dissipated ever year after cultivation of that land. Logically, farming activity will cease on the site, and the amount of dust will decrease accordingly. Further, as the Corps notes, dredge material is extremely wet when removed from the river and takes a substantial amount of time to fully dry out. The Corps states that in its experience from constructing numerous DMDFs, vegetation rapidly covers the sediment because the materials are rich with nutrients and wet. The vegetation will prevent the airborne dust and each new layer of deposited sediment will become progressively cleaner. Moreover, the area surrounding the DMDF will vegetate because the land no longer will be cultivated.

The plaintiffs have not raised a substantial question that the Corps' proposed method of dealing with the potential release of dioxin into the air will significantly affect the quality of the human environment. In light of the nature of dioxin in soil and the vegetation that will rapidly

cover any deposited sediment, the Court is satisfied that the Corps properly concluded that airborne dust at the DMDF presents minimal environmental concern.

g.

The plaintiffs also allege that the EA failed to fully consider environmental impacts on wildlife in the state game refuge adjacent to the DMDF.

The record does not bear out this contention. The Corps prepared a biological assessment as required by the Endangered Species Act for the DMDF and potential effects on the bald eagle. The only identifiable impact associated with the bald eagle was the period between January 5 to May 10, when the eagles nest. As a result, the Corps agreed to a "no work window" during that period. The plaintiffs further argue that the eagles will be exposed to dioxin by standing water at the DMDF. However, the nature of dioxins undermines that contention. Dioxins, as the Corps explains, are hydrophobic and adhere to solids. Thus, dioxins will be attached to solids that settle and not present in the water. The Court therefore agrees that in light of the no work window and the hydrophobic nature of dioxins, the Corps properly concluded that the DMDF would pose insignificant effects on neighboring wildlife.

h.

Finally, the plaintiffs claim that uncertainty about the level of dioxin contamination in the Upper Saginaw River and the disposal of contaminated sediment in the DMDF, controversy surrounding the DMDF, and the precedential effect of approving the DMDF will have on future actions in and of themselves require the Corps to prepare an EIS.

The Court disagrees. Generally, the term *controversy* under NEPA and its implementing regulations, "refers to cases where a substantial dispute exists as to the size, nature, or effect of

the major federal action as opposed to opposition to a use." *Wetlands Action Network v. United States Army Corps of Engineers*, 222 F.3d 1105, 1122 (9th Cir. 2000).

The plaintiffs argue that there is a "difference of opinion," "disagreement," and "clear controversy" with respect to the scope of the project, the need for a maximum dioxin threshold, the potential for flood impacts, and the location of the DMDF near bald eagle nests. As the Court has concluded, the Corps properly considered the DMDF as distinct from congressionally mandated dredging activities. The project's scope therefore is properly limited to DMDF and disposal of sediments into that facility. Further, the Corps has fully explained, as discussed earlier, that an upper level dioxin threshold for the DMDF is not needed because of how the DMDF will operate. In addition, the type of sediment and its corresponding dioxin concentration will be limited because the Corps is dredging and disposing sediment from a limited portion of the Saginaw River where it has conducted studies of dioxin concentrations. The Corps therefore has a clear idea of the concentrations of dioxins that will be deposited in the DMDF.

The concerns over flood impacts voiced in public comments were addressed by the Corps as were concerns over the DMDF's proximity to wildlife habitat. As previously discussed, the Corps had constructed dikes that will withstand a 500 year flood and the County has secured additional land for flood path. The DMDF will comprise only thirty percent of the total land dedicated to the project. Further, the Corps agreed with the United States Fish and Wildlife Service that it would not perform construction from January to May so as not to interrupt the nesting of the bald eagle. The plaintiffs' disagreements with Corps analyses simply do not

suffice to establish a "controversy" or substantial dispute such that the regulations would require the preparation of an EIS. *See* 40 C.F.R. 1508.27(b).

The plaintiffs also contend that the Corps has not addressed uncertainties surrounding the DMDF including that the facility could be used for sediment more contaminated that previously analyzed by the Corps because the navigation channel extends farther than the portion that the Corps sampled and because third parties might use the facility of disposal of contaminated sediment. These uncertainties, in the plaintiffs' view, require the preparation of an EIS. *See* 40 C.F.R. § 1508.27(b)(5) (directing the preparation of an EIS when "[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks").

The plaintiffs' contention is unavailing. The Corps has in place a monitoring program and future sampling protocols to determine the need for further environmental review. Courts have routinely approved such a monitoring as a way of dealing with future matters. *Friends of Payette v. Horshoe Bend & Hydroelectric Co.*, 988 F.2d 989, 993 (9th Cir. 1993); *NRDC v. Hodel*, 819 F.2d 927, 930 (9th Cir. 1987). Further, the EA and FONSI considered only a limited portion of the Saginaw River, river mile 4.7 to 16.5. Plainly, if the need arose to extend materially beyond those limits, the Corps would be required to undertake additional consideration to determine whether the change requires supplemental review under NEPA. Finally, as discussed earlier, it is speculative at best whether third parties will be allowed to use the DMDF and the Corps is not required to assess actions that are not immanent in its environmental review. The Court finds no basis to require the Corps to complete an EIS on the basis of minimal uncertainties.

The plaintiffs also argue that the Corps ought to prepare an EIS because of the precedential effect of this project on future decision making. *See* 40 C.F.R. § 1508.27(b)(6) (directing the preparation of an EIS when "[t]he degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration").

The record does not establish that the decision to construct and use the DMDF is of the type contemplated by the regulation. Several similar type projects have been undertaken by the Corps over the past thirty years, many of which required an EIS, others of which proceeded on the basis of and EA and FONSI. It appears then that an EA or an EIS for a given DMDF or CDF cannot be duplicated in place of a fact specific assessment unique to each site. The plaintiffs have not identified any evidence that would suggest the DMDF is going to shape future decision making of the Corps or other agencies, and the Court believes that an EIS need not be prepared on that basis.

Finally, the plaintiffs assert that operation of the DMDF will somehow result in the violation of state, federal, or local law, and that such violation requires the preparation of an EIS. *See* 40 C.F.R. § 1508.27(b)(9) (requiring consideration of "[w]hether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment").

The Court disagrees. The plaintiffs argue that the Corps will discharge dioxin contaminated water. However, the record does not indicate that the Corps will violate its Clear Water Act Certification. The use of river water to pump material into the site will be discharged, but nothing suggests that the water will be contaminated with dioxins other than the plaintiffs'

speculation. The plaintiffs further claim that the state certification itself violates the Clean Water Act. Yet, as the Corps emphasizes, that contention has not been established and is the subject of appeal in a separate state court action and not an issue before this Court. Finally, the plaintiffs argue that the DMDF violates local zoning ordinances, but that issue is the subject of a separate proceeding between the County and Township. Therefore, it has not been established that operation of the DMDF violates any law.

4.

Finally, the plaintiffs claim that the Corps failed to analyze the environmental impacts associated with contaminated sediments that third party might deposit into the DMDF. However, as previously noted, it is speculative at best whether third parties including the Dow Chemical Company will be able to obtain the necessary permits to use the DMDF in the future. The Court believes that the Corps did not act arbitrarily in declining to consider the environmental impact of speculative third-party permitees in the EA.

III.

After carefully reviewing the administrative record, considering the parties' submissions, and hearing oral argument on the matter, the Court determines the defendants conducted a "hard look" and the relevant environmental impacts posed by the DMDF and their actions in preparing an EA and issuing a FONSI cannot be said to be arbitrary and capricious.

Accordingly, it is **ORDERED** that the defendants' motions for summary judgment [dkt #s 67, 68] are **GRANTED** and the plaintiffs' amended motion for summary judgment [dkt # 65] is **DENIED**.

It is further **ORDERED** that defendant Army Corps of Engineer's original motion for summary judgment that did not comply with Court's requirements [dkt # 62] is **STRICKEN**. The Clerk is directed to remove the image from the electronic docket.

It is further **ORDERED** that the complaint is **DISMISSED WITH PREJUDICE.**

s/Thomas L. Ludington
THOMAS L. LUDINGTON
United States District Judge

Dated: May 24, 2007

PROOF OF SERVICE

The undersigned certifies that a copy of the foregoing order was served upon each attorney or party of record herein by electronic means or first class U.S. mail on May 24, 2007.

s/Tracy A. Jacobs
TRACY A. JACOBS