UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF LOUISIANA

IN RE: KATRINA CANAL BREACHES * **CIVIL ACTION**

CONSOLIDATED LITIGATION *

NUMBER: 05-4182 "K"(2)

JUDGE DUVAL

PERTAINS TO: MRGO, Robinson

MAG. WILKINSON

(No. 06-2268)

PRE-TRIAL ORDER

NOW INTO COURT, through undersigned counsel, comes the Plaintiffs Norman Robinson, Monica Robinson, Kent Lattimore, Lattimore & Associates, Tanya Smith, Anthony Franz, Jr., and Lucielle Franz, in conjunction with the defendant The United States of America, who in accordance with the provisions of Federal Rules of Civil Procedure, Rule 16, and pursuant to Minute Entry dated March 15, 2007, submit their Pre-Trial Order.

- 1. A pre-trial conference is scheduled for March 31, 2009 at 2:30 p.m.
- **ATTORNEYS** 2.
- Attorneys for the Plaintiffs: a.
 - 1. John Andry;
 - 2. Joseph M. Bruno;
 - Frank Dudenhefer; 3.
 - 4. Elisa Gilbert;
 - 5. Scott Joanen;
 - Pierce O'Donnell; 6.
 - Michael Palmintier; 7.
 - James Roy; 8.
 - Elwood Stevens. 9.

b. Attorneys for Defendant United States of America:

- 1. Robin D. Smith
- 2. Richard Stone
- Rupert Mitsch 3.
- 4. Dan Baeza
- 5. Jeffrey P. Ehrlich
- Taheerah El-Amin 6.
- Michele Greif 7.
- 8. Conor Kells
- 9. Paul Levine
- 10. Jim McConnon
- Kara K. Miller 11.
- 12. Peter Myer
- 13. Sarah Soja
- 14. John A. Woodcock

DESCRIPTION OF THE PARTIES 3.

a. **Plaintiffs**

- Norman & Monica Robinson were residents of New Orleans East on 1. August 29, 2005 and will testify to events resultant from Katrina.
- 2. Kent Lattimore was a resident of St. Bernard Parish on August 29, 2005 and will testify to events resultant from Katrina.
- 3. Lattimore & Associates was a business of St. Bernard Parish on August 29, 2005, and Mr. Lattimore will testify to events resultant from Katrina.
- 4. Tanya Smith was a resident of St. Bernard Parish on August 29, 2005 and will testify to events resultant from Katrina.
- 5. Anthony Franz & Lucille Franz were residents the Lower Ninth Ward on August 29, 2005 and will testify to events resultant from Katrina.

b. Defendant

The United States of America.

Plaintiffs' Complaint also names the United States Army Corps of Engineers as a defendant; however, the United States Army Corps of Engineers cannot be sued eo nomine under the Federal Tort Claims Act. See Galvin v. Occupational Safety &

Filed 03/31/2009

Health Administration, 860 F.2d 181, 183 (5th Cir. 1988).

JURISDICTION

The Court's jurisdiction over this action is disputed.

Plaintiffs allege that the Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1331, 28 U.S.C. § 1346(b), 28 U.S.C. § 1671, et seq., and, alternatively, Maritime and Admiralty law. Complaint ¶ 7; First Amended Complaint ¶ 7.

Plaintiffs' First Amended Complaint (R.D. 13529) alleges three Counts against the United States. Count Three of Plaintiffs' First Amended Complaint has been dismissed. Sept. 29, 2008, Order and Reasons (R.D. 15515). Counts One and Two allege negligence claims against the United States. See R.D. 15515 (striking "strict liability" from Count Two). The United States contends that the Court lacks subject matter jurisdiction over Counts One and Two for the following reasons:

- **(1)** The United States is immune from suit for the alleged damages pursuant to the Flood Control Act of 1928, 33 U.S.C. § 702c.
- (2) The United States is immune from suit for the alleged damages because Plaintiffs' claims are barred by the discretionary function exception to the Federal Tort Claims Act, 28 U.S.C. § 2680(a).
- The United States is immune from suit for the alleged damages because Plaintiffs' (3) claims are barred by the due care exception to the Federal Tort Claims Act, 28 U.S.C. § 2680(a).
- The United States is immune from suit for the alleged damages because the United (4) States is not liable for acts or omissions of any contractor with the United States. 28 U.S.C. § 2671.
- (5) The Court lacks jurisdiction to award damages to any Plaintiff in excess of the amount of the administrative claim presented by the Plaintiff. 28 U.S.C. § 2675(b).
- (6) The United States is immune from suit for the alleged damages because the claims

- are barred to the extent that they are based on or arise out of misrepresentation or deceit. 28 U.S.C. § 2680(h).
- To the extent the claims are cognizable under the Suits in Admiralty Act, Public **(7)** Vessels Act, or Extension of Admiralty Jurisdiction Act, the claims are beyond the subject-matter jurisdiction conferred by the Federal Tort Claims Act. 28 U.S.C. §2680(d).

5. **MOTIONS**

Pending: a.

None presently.

- b. Contemplated:
- 1. *Plaintiffs*
 - A. Plaintiffs have reserved the right to maintain all evidentiary motions pursuant to Federal Rules of Evidence, Rules 403 and 702.
- 2. Defendant

The United States intends to file Motions in Limine on the following issues:

- (A) To exclude evidence related to the breaching of flood walls on the east side of the Inner Harbor Navigation Canal, in the Lower Ninth Ward. It is uncontroverted that the breaches would have occurred regardless of the Mississippi River-Gulf Outlet. Therefore, as a matter of law, the MRGO was not a substantial factor in causing Plaintiffs' alleged damage.
- To exclude evidence of negligence in the design or construction of the (B) MRGO. The Court has ruled that it lacks jurisdiction over claims pertaining to the initial design and construction of the MRGO. (Doc. 18212).
- (C) To exclude evidence concerning the failure to design and construct barriers on the MRGO to prevent transmission of surge and saltwater. The Court has ruled that it lacks jurisdiction over claims pertaining to the initial design and construction of the MRGO. (Doc. 18212).
- (D) To exclude expert opinion evidence pertaining to simulations of conditions and events that would have obtained during Hurricane Katrina if the MRGO had never been built. The Court has ruled that the United States is

- To exclude all evidence of "mental anguish and inconvenience" on the (E) grounds that such damages are not recoverable in the circumstances here presented.
- Special issues appropriate for determination in advance of trial on the merits: c.
 - 1. **Plaintiffs**

None presently.

2. Defendant

> Whether 33 U.S.C. § 702c bars Plaintiffs' claims if the evidence shows that the flooding of Plaintiffs' properties could not have been averted unless the LPV levees had been made stronger and more resilient.

6. PARTIES SUMMARY OF MATERIAL FACTS

Plaintiffs' Summary of Material Facts: a.

> "Closing the MR-GO should be evaluated in order to reduce the possibility of catastrophic damage to urban areas by a hurricane surge coming up this waterway."

-Lower Mississippi Valley Division, Corps of Engineers (1988)

The evidence at trial will demonstrate that the U.S. Army Corps of Engineers ("Corps" or "Army Corps") designed, constructed, operated, and maintained the Mississippi River-Gulf Outlet ("MR-GO") in a defective manner in violation of its legal duty to avoid harm to the ship channel's neighbors. Plaintiffs will prove that the MR-GO's defective conditions were a foreseeable and foreseen proximate cause—both legal cause and cause-in-fact—of the catastrophic flooding of New Orleans, the Lower 9th Ward, and St. Bernard Parish (including the six Plaintiffs' property).

Both before and after the MR-GO's construction, the Army Corps knew that its 76-mile inland waterway—cut through environmentally-sensitive, hurricane surge buffering wetlands—was defective and posed a serious risk of hurricane flooding. In particular, the Corps knew that:

- the geometry of the connecting Reach 1/GIWW and Reach 2 created a familiar (a) "funnel effect" that would increase surge and intensify waves in the Reach 1/GIWW and IHNC during hurricanes;
- the MR-GO would create a previously nonexistent conduit for hurricane surge to (b) reach the heart of Greater New Orleans from the Gulf of Mexico via Reach 2;²
- (c) the MR-GO would destroy vital natural surge/wave minimizing cypress trees and wetlands by intrusion of saltwater from the Gulf of Mexico via Reach 2, depositing channel spoil in the adjoining wetlands, and bank erosion;
- the MR-GO would induce massive erosion of the unarmored Reach 2 channel (d) banks from ship waves, thereby widening the channel and creating a vast expanse for intensified and accelerated hurricane-induced waves to attack the Reach 2 flood protection ("LPV") structures; and

¹ In their Proposed Findings of Fact and Conclusions of Law due April 3, 2009, Plaintiffs will set forth in detail the evidence —mostly from Army Corps documents, employees, and experts—documenting the Corps' liability for (and decisive role in causing) the catastrophic flooding. The citations to the record will be supplemented with any additional evidence adduced at trial, and a final version of Findings of Fact and Conclusions of Law will be filed at the trial's conclusion.

² The post-Betsy study by Bretchneider and Collins (commissioned by the Corps) concluded that, depending on a hurricane's speed, the MR-GO had a marked effect on surge in the area. Curiously, however, the authors, who were specialists in waves, did not explore the impact of waves from the MR-GO on the LPV structures. At the time the Corps understood the relationship between waves, surge, and resulting flooding, but did not commission the authors to study this critical issue.

the unchecked widening of the Reach 2 channel would materially accelerate and (e) increase subsidence of the crown elevations of the LPV structures by encroachment on the toe of the structures, providing a repository for and the flushing of soil "squeezed" from the interdistributory layer because of the weight of the levee, thereby destroying the LPV system along Reach 2 and rendering it more vulnerable to surge and wave attack and overtopping during hurricanes.

Over the MR-GO's 50-year life span, the Corps had available feasible mitigation measures to ameliorate each of these known defective conditions and still allow the ships to use the channel.

Hurricane Katrina—a weakening storm delivering category 2 storm conditions (per the Standard Project Hurricane criteria) in the MRGO area—hit Greater New Orleans with surge and waves that should not have caused anything but localized flooding. Instead, due to the surge and waves enhanced by the MR-GO's defects, there was widespread overtopping and erosion—and resulting failures—of LPV structures along Reach 1, Reach 2, and the IHNC. It is undisputed that this overtopping and breaching caused the catastrophic flooding of New Orleans East, St. Bernard Parish, and the Lower Ninth Ward where the Plaintiffs lived and worked. ³ The focus of the trial is therefore what caused the overtopping and breaching.

Under controlling Louisiana law, the MR-GO's defects—and the resulting increased surge, enhanced waves, and the destabilization of the lowered LPV structures—will be shown to be a substantial factor in causing the overtopping and failure of the LPV structures and the devastating flooding of Plaintiffs' property. See, e.g., In re Manguno, 961 F.2d 533, 535 (5th

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³ The parties agree that the rainfall during Katrina (about 12 inches) did not materially contribute to the catastrophic flooding.

Cir. 1992).⁴ Even if the "but for" test for causation were applicable, the MR-GO's defects would still be deemed a cause-in-fact of Plaintiffs' damages because the flooding would have been purely localized (and survivable), and catastrophic flooding not have occurred, without the destabilized and lowered LPV structures and the material increment of intensified, accelerated, and higher surge and waves caused by the MR-GO's defects. Once the MR-GO is found to be a cause-in-fact of Plaintiffs' harm, that is the end of the analysis, and the Government is 100% liable with no percentage allocation as to other potential causes.

Not surprisingly, the Government has a distinctly different view. Apparently not seriously disputing the morphing of the MR-GO into a palpable threat to life and property, Defendant stakes its defense on disproving causation by blaming all of the flooding on Katrina without any additive component from the MR-GO. As the evidence will show, however, this will be an ill-fated effort.

Plaintiffs have assembled a team of renowned experts to assist the Court on the issue of causation. Among others, they include:

Dr. Bob Bea, a University of California at Berkeley civil engineering professor and prominent member of the Independent Levee Investigation Team ("ILIT") who has spent more

⁴ In cases of concurrent causes, once a cause has been found to be a "substantial factor," all liability can be imposed on the source of that cause. In In re Manguno, supra, the plaintiffs contracted lung cancer and sued the manufacturer of the asbestos to which they were exposed. The plaintiffs all were smokers, but they did not sue the tobacco manufacturers. The expert testimony at trial indicated that asbestos was a "substantial contributing factor" to contracting cancer, although tobacco could not be ruled out as a cause. The theory of the case was that asbestos and cigarettes were concurrent causes of cancer. The question was whether the asbestos manufacturer could be

The trial court instructed the jury that asbestos had to be a "but-for" cause of the cancer and the jury found for the manufacturer. The Fifth Circuit reverses, finding the "but-for" instruction to be in error. The court noted that prior Louisiana precedent "made manifest that a "but-for" definition of causation is inappropriate for a concurrent cause Louisiana tort action" and that "there can be more than one cause in fact...." 961 F.2d at 535 (internal cites omitted). The Fifth Circuit concluded that the plaintiff did not have to prove "that the defendant alone would have

caused the harm." Id.

liable for the plaintiffs' damages.

time analyzing (and preparing reports about) the failure modes of the LPV structures during Katrina than any other expert;

Dr. G. Paul Kemp, a former LSU associate professor in the School of Coast and Environment (and currently Vice President, Gulf Coast Initiative, the National Audubon Society) who has the principal author of the Team Louisiana report and has devoted extensive time analyzing (and preparing reports about) the MR-GO's history, development, and defects and the catastrophic flooding during Katrina;

Johannes K. Vrijling, a professor of engineering at Delft University of Technology in the Netherlands who is a widely consulted expert in flood modeling and co-author of several reports on Katrina flooding;

Dr. Duncan M. Fitzgerald, a professor in the Department of Earth Sciences at Boston University who is a highly regarded coastal processes expert and author of a report on the MR-GO's negative impact on the environment, bank erosion, and channel widening; and Dr. John W. Day, Jr., an LSU professor of environmental sciences in the Department of Oceanography and Coastal Sciences who is a highly regarded expert in coastal management and restoration, has advised clients like Venice, Italy on wetlands rejuvenation, and authored (with Dr. Gary P. Shaffer) a study on the MR-GO's destruction of cypress-tupelo swamp and wetlands and reduction of their surge buffering capacity.⁵

Relying upon the Corps' documents, testimony of Corps employees, investigations by

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⁵ In addition, Plaintiffs will call Dr. Sherwood Gagliano, a renowned coastal scientist who has consulted extensively for four decades with the Army Corps and St. Bernard Parish, and authored dozens of scientific studies, about the MR-GO's adverse effects on the environment and resulting risk of catastrophic flooding caused by the ship channel's defects.

other organizations such as the Interagency Performance Evaluation Team, ILIT, Team Louisiana, and Congressional committees, and their own research and computer modeling, Plaintiffs' expert team has reached the incontrovertible conclusion that the MR-GO, in its defective condition, was a substantial factor in causing overtopping and breaches of LPV structures along Reach 1, Reach 2, and the IHNC which in turn caused the catastrophic flooding. Indeed, without the influence of the MR-GO's adverse effects, the following critical storm parameters would have been drastically ameliorated and catastrophe averted:

- (a) overtopping is reduced by 80% in the Lower 9th Ward, St. Bernard Parish, and New Orleans East;
- surge discharge into the IHNC via Reach 1/GIWW decreases by 274%; (b)
- (c) surge velocity diminishes by 246%;
- wave height is reduced by more than 50%; (d)
- wave period plummets about 60%; and (e)
- (f) wave energy eroding Reach 2 LPV structures dissipates by 300%.

At the time of Katrina, many of the LPV structures had crown elevations lower than the design elevation. The Corps maintains, and Plaintiffs accept as a fact, that the flood protection structures were competently designed, constructed, and maintained and that they performed as expected during the hurricane. Plaintiffs will show that if there had been no enhanced surge and waves and no enhanced subsidence caused by the MR-GO, there would have been no catastrophic flooding of New Orleans East, Lower 9th Ward, and Saint Bernard Parish (and Plaintiffs' property) even at the actual (below design grade) elevation of the LPV structures.

It is undisputed that the primary (and decisive) source of flooding of New Orleans East

was overtopping of the Reach 1/GIWW caused by the exacerbated and "funneled" surge. Similarly, experts for both sides agree that the overtopping and breaching along the Reach 2 LPV system was the predominant source of the destructive floodwaters inundating St. Bernard Parish and the Lower 9th Ward. Significantly, the experts agree that without this massive breaching and overtopping, the Central Wetlands Unit bowl (32,000 acres between the MR-GO and 40 Arpent Canal Levee) would have absorbed all overtopping flow and prevented disastrous flooding across the 40 Arpent Canal Levee into the St. Bernard/Lower 9th Ward polder.

Finally, the Court will learn at trial that Defendant's experts' causation conclusions—predictably, that the MR-GO was a benign, irrelevant factor during Katrina—are inherently unreliable for a variety of reasons. Discovery has shown that the Defendant's flood modeling is demonstrably untrustworthy because its underpinnings are inaccurate and internally inconsistent. As the Court will see, the Government's causation defense reduces to a house of cards which collapses around data generated by an unreliable modeling program whose input is demonstrably inaccurate.

h. Defendant's Summary of Material Facts:

This catastrophic flood would have occurred with or without the MRGO. Hurricane Katrina generated surge that far exceeded the surge that the Lake Pontchartrain and Vicinity Hurricane Protection Project levees and floodwalls were designed to withstand. The Corps correctly concluded, after thorough investigation, that the concerns expressed by local citizens who believed that the MRGO posed a threat of flooding were unfounded. The Corps did recognize, however, that the LPV flood protection structures would not be able to withstand surge generated by a powerful hurricane. The Corps therefore repeatedly advised Congress of the distinct possibility that the eastern areas of Greater New Orleans would be devastated by flooding in the event of a major hurricane striking the region. The Corps also informed Congress of the problem of wetlands loss in southeastern Louisiana and of the loss of wetlands resulting from the operation and maintenance of the MRGO. The Corps was unable to remedy the problem of MRGO-related erosion because no local entity was willing to shoulder a portion of the cost of studying feasible solutions. The failure to remedy that problem played no role in the flooding caused by Hurricane Katrina. Even if the wetlands had been in the very same condition as before the MRGO came into existence, the surge generated, driven, and sustained by Hurricane Katrina was so great that the destruction of the Reach 2 MRGO levee was inevitable.

In very earliest hours of August 29, 2005, storm surge driven by Hurricane Katrina began piling up along the LPV levee facing Lake Borgne. By 3:00 a.m. the water level exceeded 10 feet and small waves of about 8 inches were lapping at the levee. By 4:00 a.m. the water had risen more than a foot and the waves had doubled in size. An hour later, at 5 o'clock, the water level was nearly 13 feet, and two-foot waves were overtopping the levee in many places. Overtopping began when the surge was about two feet below the crest of the levee, as waves surged up and over the top. In places where the levee crest was less than 15 feet—and there were many such places—water accelerated by gravity was rushing down the backside of the levee by 5:00 a.m.

By 5:00 a.m. waves alone were carrying so much water over the top of the levee that the flow rates on the backside were sufficient to cause erosion. In places where the levee crest elevation was 15 feet or less, the flow rates on the back of the levee remained sufficiently high to cause erosion for at least six hours.

At the Reach 2 levee, the surge was rising rapidly, at a rate of nearly two feet per hour

between 4:00 a.m. and 7:00 a.m. Between 5:00 a.m. and 5:30 a.m. the surge elevation increased from about 13 feet to nearly 14 feet. By 6:00 a.m. the surge was at 15-and-a-half feet, and thirty minutes later it was more than a foot higher, 16.8 feet. The surge peaked at more than 17 feet elevation all along the MRGO Reach 2 levee, between 7:00 a.m. and 7:30 a.m. In many places between Bayou Bienvenue and Bayou Dupre, the surge exceeded 18 feet.

The levee was only designed to withstand a surge that was 13 feet or less above sea level, and the levee that stood beside the MRGO on August 29, 2005, was not even as tall or as strong as the design specified. The design specified a levee crest elevation of 17.5 feet, so that waves running up from a 13-foot surge would not overtop the levee. Because of budgetary restraints, the Corps of Engineers was prevented from enlarging and raising the Reach 2 levee before Katrina. When the storm struck, more than half of the Reach 2 levee was less than 17 feet in crest elevation. More than 20 percent of the levee crest was between 14 feet and 15.5 feet—more than two feet shy of the specified design elevation.

Because so much of the levee was not even as high as the surge and because the surge reached elevations equaling or exceeding the levee crest even where the levee met the design specification, the levee massively eroded between Bayou Bienvenue and Bayou Dupre. The overtopping flow rate was more than 10 times the threshold rate at which damage to high quality grass-covered clay levees can begin. According to published guidelines for use in designing levees, a flow rate of 0.011 cubic feet per second per foot (cfs/ft) is the threshold at which damage to clay levees with a reasonably good grass cover can occur. A rate of one cubic foot per second per foot (1 cfs/ft)—about 10 times the damage threshold—was met or exceeded at every point south of Bayou Bienvenue. Indeed, where the levee was lowest and overtopping was

therefore the greatest, overtopping rates were as much as 25 cfs/ft—250 times the rate at which erosion of the best grass-covered earthen levees can begin.

The duration of damaging overtopping flow on the backside of the Reach 2 levee ranged from more than six hours (at the lowest spots, where overtopping began earliest) to about three hours at levees that had a crest elevation of 19 feet. Even where the levee crest met or exceeded the 17.5-foot LPV design specification, overtopping waves and surge met or exceeded the 0.011 cfs/ft damage threshold for between three and four hours. Most of the Reach 2 levee experienced a backside flow rate that was double the threshold rate for more than three hours.

The massive breaching of the Reach 2 levee was not caused by he MRGO. Reducing the MRGO to its initial design dimensions would have made almost no difference in the surge. Studies performed by both Plaintiffs' experts and Defendant's experts demonstrate that every aspect of surge at the Reach 2 levee would have been unaffected by reducing the size of the channel. Onset, rate of rise, peak elevation, duration, and rate of fall would have been about the same.

The same lack of change was demonstrated through analysis of the effects of restoring wetlands near the MRGO to their pre-MRGO condition. No aspect of surge would have been much affected by reducing the size of the channel or restoring wetlands or doing both. Not even eliminating the MRGO in its entirety and eliminating all possible hydrologic effects of the channel would have prevented the massive overtopping that extensively breached the LPV levee between Bayou Bienvenue and Bayou Dupre.

As a result of the breaches that developed in the Reach 2 levee, water flowed into the wetlands to the south and west and then overtopped the 40 Arpent levee. Prolonged flow of surge over and through the MRGO levee eventually inundated the developed areas of St. Bernard

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and even the Lower Ninth Ward. Although surge also entered the Lower Ninth through breaches in the LPV floodwall on the east side of the IHNC, even in the Ninth Ward water from the Reach 2 levee breaches eventually equaled and exceeded the flood elevations produced by the IHNC breaches. Ultimately, the breaches in the IHNC floodwall had a beneficial effect, allowing floodwaters to drain out of the Lower Ninth and St. Bernard more rapidly than they otherwise would have.

The operation and maintenance of the MRGO had very little effect on storm surge levels in the IHNC. If the MRGO had been kept at its initial design dimensions and the wetlands had been wholly unaffected by the channel, surge in the IHNC would have been only about six inches lower. It was the design and construction that had a sizeable impact on surge levels in the IHNC. By enlarging the GIWW to the deeper and wider MRGO dimensions, the channel was enabled to carry much more surge into the IHNC. But not even the design and construction of the Reach 1 MRGO was a cause of the breaches that occurred in the IHNC. The floodwall in the Lower Ninth Ward failed because of an inadequate foundation and because of overtopping that would have occurred even if the GIWW had not been enlarged to accommodate the MRGO in Reach 1. Any additional overtopping that occurred as a result of the MRGO was superfluous, as the breaches occurred before the surge rose above pre-MRGO levels in the IHNC.

The only way in which the catastrophic flooding of the Lower Ninth Ward, St. Bernard, and New Orleans East could have been avoided would have been through the construction of a better hurricane protection system. The devastating water that rushed into New Orleans East came mainly through a huge breach in the New Orleans East Back Levee, east of Michoud. With or without the MRGO, the breaching of this levee would have occurred. The MRGO did not

cause the breaching of the New Orleans East Back Levee, and it did not cause the flooding of Plaintiffs' property in New Orleans East. This breach could have been prevented only by the construction and maintenance of a stronger, more resilient levee.

Bigger, stronger levees along the GIWW, the MRGO, and the IHNC could have prevented floodwaters from inundating Plaintiffs' properties. Better operation and maintenance of the MRGO could not have averted this tragedy and would not have prevented or lessened Plaintiffs' alleged damage.

The Corps of Engineers was warned many times prior to Hurricane Katrina that the MRGO posed a threat to Greater New Orleans because the channel could function as a conduit for hurricane-driven surge. The Corps investigated in response to these expressions of concern. Studies were commissioned by the Corps, and distinguished scientists reported that the channel would not substantially increase surge during a powerful hurricane. The Corps reasonably relied on the reports provided by these experts. The Corps also could reasonably have relied on the finding by this Court after Hurricane Betsy that the MRGO had not been negligently designed or constructed and had not caused the flooding experienced in St. Bernard Parish, the Lower Ninth Ward, New Orleans East, and elsewhere.

The Corps of Engineers did not know nor should it have known that the MRGO could have a substantial effect on hurricane-generated waves. The science that enables the experts in this case to opine about the MRGO's effect on waves was insufficiently developed prior to Hurricane Katrina to enable the Corps to determine whether the channel would substantially enlarge waves. By commissioning studies and relying on them in analyzing the hydrologic risks, if any, posed by the MRGO, the Corps exercised reasonable care.

ALL UNCONTESTED MATERIAL FACTS

The parties continue to work together to stipulate to as many facts as possible. The parties intend to submit to the Court a list of uncontested material facts on April 3, 2009.

ALL CONTESTED ISSUES OF FACT

Plaintiffs a.

The following contested facts are a general summary and compilation of the more comprehensive collection of the Plaintiffs' Proposed Findings of Fact that they will be filing on April 3, 2009.

- 1. The MR-GO was negligently designed and constructed by the Corps for numerous reasons, including but not limited to the creation of the "funnel effect" by joining the GIWW/Reach 1 and Reach 2 without a surge barrier between the GIWW and Reach 2, widening the GIWW from 150 to 650 feet, not armoring the Reach 1 and Reach 2 channel banks, not providing a surge barrier to prevent storm surge from the Gulf of Mexico entering upper Reach 2, not providing for a barrier to prevent saltwater intrusion to replace the severed natural ridge at Bayou LaLoutre, not providing for a barrier to prevent discharge soil from the interdistributory layer below the LPV, and the deposition of dredged spoil in the wetlands.
- 2. The Corps negligently operated and maintained the MR-GO (including dredging activities) for numerous reasons, including but not limited to dredging beyond the authorized depth, using the MRGO as building material for the LPV, failing to armor the two channel's banks as erosion increased over time, failing to require ship speed reduction, failing to install an IHNC/GIWW/Reach 1 surge barrier (as presently being built), depositing dredged spoil on the wetlands, failing to install a saltwater intrusion barrier on Reach 2, and failing to undertake wide

scale wetlands restoration.

- 3. Throughout the MR-GO's life, there were feasible mitigation measures (known to the Corps) to correct the foregoing defects and still allow the MR-GO to function as a deep draft ship channel.
- 4. Before and after the MR-GO's construction, the Corps knew about the foregoing defects but took no meaningful corrective action.
- 5. For decades, the Corps knew that the MR-GO's defects created a risk of catastrophic flooding of Greater New Orleans.
- 6. Notwithstanding this knowledge, the Corps never recommended to Congress a plan for remediating the MR-GO's defective conditions.
- 7. Only after the devastation wrought by the MR-GO during Katrina did the Army Corps recommend to Congress construction of an IHNC Surge Reduction Barrier and the de-authorization (closure) of the MR-GO.
- 8. Despite detailed knowledge that the MR-GO's operation and maintenance activities—and inaction in the face of a substantial widening of the Reach 1 and Reach 2 channels and loss of wetlands—was causing massive environmental damage and ratcheting up the risk of catastrophic flooding, the Corps did not prepare a full Environmental Impact Statement; but instead prepared only Environmental Assessments that failed in many respects to satisfy the requirements of full environmental disclosure of the Natural Environmental Policy Act and implementing regulations.
- 9. By the time of Katrina, the Reach 1 channel had widened from 650 to 1,000 feet, the Reach 2 channel had widened from 650 feet to 2,000 feet and in some places over 3,000 feet,

thereby creating a vast expanse for wave regeneration and intensification during hurricanes, destroying tens of thousands of acres of wetlands, and encroaching upon, destabilizing, and lowering the LPV structures by increasing and accelerating crown elevation subsidence for LPV structures and reducing the level of storm flooding protection.

- 10. By the time of Katrina, the MR-GO had caused the destruction of tens of thousands of acres of highly effective storm surge buffering wetlands that would have protected Greater New Orleans during Katrina.
- 11. At first landfall, hurricane Katrina was a weakening storm delivering category 2 storm conditions (per the Standard Project Hurricane criteria) in the MRGO area that should not have caused anything but localized flooding. Instead, due to the surge and waves enhanced by the MR-GO's defects, there was widespread overtopping and erosion—and resulting failures—of LPV structures along Reach 1, Reach 2, and the IHNC.
- 12. On August 29, 2005, Plaintiffs' property in New Orleans East, Lower 9th Ward, and St. Bernard Parish was catastrophically flooded (and rendered uninhabitable) by floodwaters emanating primarily from the Gulf of Mexico and Lake Borgne via Reach 1 and Reach 2.
- 13. During Katrina, the LPV structures along Reach 2 were overtopped, eroded before overtopping, and eroded after overtopping due to enhanced surge and intensified waves caused by the MR-GO's defects.
- 14. The waters overflowing the banks of Reach 2 filled the Central Wetlands Unit (a 32,000 acre land area of cypress swamp and marsh between Reach 2 and the 40 Arpent Canal Levee), then passed over the nonfederal 40 Arpent Canal Levee and inundated the St.

 Bernard/Lower 9th Ward polder, destroying the home of Plaintiffs Lucille and Anthony Franz in

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the Lower 9th Ward and the homes of Plaintiffs Tanya Smith and Kent Lattimore and the office of Lattimore & Associates in upper St. Bernard Parish.

- 15. The MR-GO's defects (a) increased storm surge by a decisive three feet in terms of overtopping of Reach 2 LPV structures and (b) significantly intensified wave energy regenerated across the Reach 2 channel in terms of wave attack on the unprotected side of Reach 2 LPV structures.
- 16. The home of Plaintiffs Norman and Monica Robinson in New Orleans East was catastrophically flooded (and rendered uninhabitable) by floodwaters emanating from the Reach 1/GIWW.
- 17. During Katrina, the LPV structures on the Reach 1/GIWW northern banks were overtopped due to enhanced surge caused by the "funnel effect" and widened channel.
- 18. The MR-GO, in its defective condition, was a substantial factor in adding three feet of surge and intensifying wave energy and causing overtopping and breaches of LPV structures along Reach 1, Reach 2, and the IHNC which in turn caused the catastrophic flooding. Indeed, without the influence of the MR-GO's adverse effects, the following critical storm parameters would have been drastically ameliorated and catastrophe averted:
 - (a) overtopping is reduced by 80% in the Lower 9th Ward, St. Bernard Parish, and New Orleans East;
 - surge discharge into the IHNC via Reach 1/GIWW decreases by 274%; (b)
 - (c) surge velocity diminishes by 246%;
 - (d) wave height is reduced by more than 50%;
 - (e) wave period plummets about 60%; and

- (f) wave energy eroding Reach 2 LPV structures dissipates by 300%.
- At the time of Katrina, many of the LPV structures had crown elevations lower 19. than the design elevation. The Corps maintains, and Plaintiffs accept as a fact, that the flood protection structures were competently designed, constructed, and maintained and that they performed as expected during the hurricane. Plaintiffs will show that if there had been no enhanced surge and waves caused by the MR-GO, there would have been no catastrophic flooding of New Orleans East, Lower 9th Ward, and Saint Bernard Parish (and Plaintiffs' property) even at the actual (below design grade) elevation of the LPV structures.
- 20. Even if the "but for" test for causation were applicable, the MR-GO's defects would be deemed a cause-in-fact because the epic flooding would have been purely localized (and survivable), and catastrophic flooding would not have occurred, without the destabilized and lowered LPV structures and the material increment of intensified, accelerated, and higher surge and waves caused by the MR-GO's defects.
- Defendant's experts' causation conclusion—predictably, that the MR-GO was a 21. benign, irrelevant factor during Katrina—is inherently unreliable. The defense flood modeling is demonstrably untrustworthy for a variety of reasons related to data generated by a manifestly unreliable modeling program whose input is demonstrably inaccurate.

b. Defendant

The parties continue to work together to stipulate to as many facts as possible. The parties intend to submit to the Court a list of uncontested material facts on April 3, 2009. Once that list is completed, the parties also will inform the Court of remaining contested issues of fact. The following issues of fact are known to be contested:

- (1) Whether the MRGO posed a danger to the Plaintiffs' lives or property prior to Hurricane Katrina.
- (2) Whether the Army Corps of Engineers knew or should have known that the MRGO posed a danger to the Plaintiffs' lives or property prior to Hurricane Katrina.
- (3) Whether the maintenance of the MRGO caused the breaches in the Lake Pontchartrain and Vicinity Hurricane Protection Project levees on the GIWW east of Michoud and along the MRGO south of the confluence of the GIWW and the MRGO, and in the floodwalls on the east side of the Inner Harbor Navigation Canal south of the confluence of the MRGO and the IHNC.
- (4) Whether Plaintiffs' alleged damage was in fact caused by an act of an employee of the United States.
- (5) Whether Plaintiffs' damage was caused by floods or floodwaters.
- (6) Whether Plaintiffs' damage was caused by floods or floodwaters that a flood control project failed to control.
- (7) Whether there was a nexus between the Lake Pontchartrain and Vicinity Hurricane Protection Project and the Mississippi River-Gulf Outlet Project prior to Hurricane Katrina.
- (8) The quantum of Plaintiffs' damage, if any, proximately caused by actionable conduct of an employee of the United States.
- (9) Whether any failure of the Army Corps of Engineers to comply with NEPA in fact caused Plaintiffs' alleged damage.

9. CONTESTED ISSUES OF LAW

- a. Plaintiffs
 - 1. Whether 702c immunity is applicable. (33 U.S.C. 702c);
 - 2. Whether the due care exception to the Federal Tort Claims Act is applicable. (28 U.S.C. § 2680, et. seq.);

- 3. Whether the discretionary function exception to the Federal Tort Claims Act is applicable. (28 U.S.C. § 1346, et. seq.);
- 4. Whether, where a sole defendant, through the commission of multiple independent acts, causes indivisible damages, that defendant is liable for the entirety of the damages.

b. Defendant

The following issues of law are contested:

- 1. Whether the Court has jurisdiction over the subject matter of this action.
- 2. Whether the United States owed a duty of care to the Plaintiffs in the circumstances here presented.
- 3. Whether the United States Army Corps of Engineers owed Plaintiffs a duty to warn Congress of any alleged danger posed by the MRGO.
- 4. Whether the United States exercised the degree of care ordinarily expected of a reasonably prudent person under similar circumstances with respect to the operation and maintenance of the MRGO.
- 5. Whether the damages alleged were proximately caused by any negligent or wrongful act or omission of any employee of the United States while acting within the scope of office or employment.
- 6. Whether Louisiana law permits Plaintiffs to recover damages for fright, fear, mental anguish, or inconvenience under the facts alleged.
- 7. Whether Louisiana law permits Plaintiffs to recover damages for personal injury under the facts alleged.
- 8. Whether Plaintiffs recovery for damages, if any, is limited to the amount claimed for property damage on their administrative claims.
- 9. Whether, to the extent Plaintiffs are entitled to recover damages, the United States is entitled to a credit or set-off for any past or future benefits paid to or on behalf of or received by the plaintiffs, to the extent allowed under federal and state common and statutory law.

LIST AND DESCRIPTION OF EXHIBITS INTENDED TO BE INTRODUCED 10.

Plaintiffs' List of Exhibits: a.

See attached Exhibit List.

Additionally, the parties continue working together in good faith to create a final version of the Joint Exhibit List. Because of the current size and scope of the Joint Exhibit List, the parties continue to carefully and methodically review, edit and comment on the various versions that are continuously being exchanged. As requested pursuant to their Joint Ex Parte Consent Motion (Doc. No. 18209), the parties will file their final Joint Exhibit List on April 3, 2009. The Joint Exhibit List will be created to assist the Court in referring to a particular document that both parties may refer to or seek to admit.

b. Defendant's List of Exhibits:

Please see the Joint Exhibit List, attached. The parties recognize that this list is not final and have agreed to allow this list to be amended by either party upon notice and production of additional exhibits not later than April 3, 2009.

11. DEPOSITION TESTIMONY TO BE OFFERED AT TRIAL

a. *Plaintiffs' list of deposition testimony:*

The parties continue working together in good faith to create their version of a witness call list via deposition at trial, being ever mindful of the time constraints currently contemplated by the Court. Because of the current size and scope of the list, the parties continue to carefully and methodically review, edit and comment on the various versions that are continuously being exchanged.

b. Defendant's list of deposition testimony:

The parties are in the process of determining this and will include specific deposition excerpts in the final exhibit list to be finalized not later than April 13, 2009.

12. LIST OF CHARTS, GRAPHS, MODEL, SCHEMATIC DIAGRAMS, ETC.

a. Plaintiffs' List of Demonstrative Exhibits:

The parties continue working together in good faith to create their version of a demonstartive exhibit list based upon the witness call list, being ever mindful of the time constraints currently contemplated by the Court. Because of the current size and scope of the list, the parties continue to carefully and methodically review, edit and comment on the various versions that are continuously being exchanged.

Additionally, the parties have agreed to exchange any demonstrative aids at least two days (48 hours) before the day the demonstrative aids are to be used.

b. Defendant's List of Demonstrative Exhibits:

The parties have agreed to allow the use of demonstrative exhibits upon 48 hours prior notice.

13. PARTIES LIST OF WITNESSES

a. Plaintiffs' List of Witnesses:

See attached Plaintiffs' List of Witnesses.

b. Defendant's List of Witnesses:

Please see the parties' respective Witness Lists, attached as Exhibit A (Plaintiffs' Witness List) and Exhibit B (United States' Witness List).

The United States' Witness List was filed in accordance with prior Court orders

Witness /Exhibit lists and expert reports have been previously exchanged.

- 14. This is a non-jury trial. Suggested findings of fact and conclusions of law and a separate trial memorandum have been submitted five full working days prior to trial.
- 15. The issue of liability will not be tried separately from that of quantum.
- 16. OTHER MATTERS that might expedite disposition:

None presently.

- 17. The trial shall commence on April 20, 2009 at 9:00 a.m. and is anticipated to last approximately 3 to 4 weeks.
- 18. This pre-trial order has been formulated after conference at which counsel for the respective parties have appeared in person. Reasonable opportunity has been afforded to all counsel for corrections, or additions, prior to signing. Hereafter this order will control the course of the trial and may not be amended except by consent of the parties and the Court, or by order of the Court to prevent manifest injustice.

19. Possibility of settlement of this case was considered.

by Plaintiffs

by Defendant

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New Orleans, Louisiana, this 31st day of March , 2009.

JUDGÉ STANWOOÓ R. DUVAL Eastern District of Louisiana

Subject to a Minute Entry of this same date.