



**PLAINTIFF’S ORIGINAL COMPLAINT  
AND APPLICATION FOR INJUNCTIVE RELIEF**

COMES NOW Sierra Club, on behalf of itself and its members, and in particular those in the Houston Regional Group of the Lone Star Chapter of the Sierra Club (collectively “Sierra Club”), Plaintiff herein, and complains of the following Defendants, in three groups: (i) the U.S. Army Corps of Engineers; Col. Christopher W. Sallese, District Engineer of the Galveston District of the U.S. Army Corps of Engineers; Lieutenant General Robert L. Van Antwerp, Commander and Chief of Engineers, U.S. Army Corps of Engineers; and John M. McHugh, Secretary of the Army - collectively referred to as the “Corps”; (ii) the U.S. Federal Highway Administration; Victor M. Mendez, Administrator of U.S. Federal Highway Administration; Janice W. Brown, Division Administrator of U.S. Federal Highway Administration, Texas Division; U.S. Department of Transportation; and Raymond LaHood, Secretary of Transportation – collectively referred to as “FHWA”; and (iii) the Texas Transportation Commission; and Deirdre Delisi, Chair of Texas Transportation Commission – collectively referred to as “TxDOT”. The individual Defendants are sued in their official capacities.

**I. INTRODUCTION AND SUMMARY OF THE CASE**

1. This lawsuit involves the potential devastation of downtown Houston, the Memorial Villages and the Energy Corridor that could result from flooding after a “catastrophic failure” of Addicks Dam. This lawsuit also involves the proposed construction of Segment E of the Grand Parkway because, as the Corps recently found, Segment E and its induced development would increase the amount of water flowing into and pooling high behind Addicks Dam after severe storms, which must, necessarily, increase the risk of dam failure.

2. Even if Addicks Dam holds after severe storms, construction of Segment E increases the risk of significant flooding because the Corps recently adopted plans to radically increase discharges along Buffalo Bayou.

3. This new and significant information requires environmental impact analysis that never has been done, and that must be done before deciding whether Segment E can be built as planned.

4. Most significantly, the U.S. Army Corps of Engineers violated federal law by failing to correctly discharge their legal duties after discovering and making a written determination that Addicks Dam, and nearby Barker Dam, currently face significant risks of “catastrophic failure”.

5. The Corps stated this determination in an internal memorandum dated July 2010, but Sierra Club did not learn of this determination until March 2011 after making a Freedom of Information Act (“FOIA”) request concerning the Corps’ evaluation of Segment E.

6. According to the Corps, these dangers are “Urgent and Compelling,” which means they warrant the highest ranking in the Dam Safety Action Classification (“DSAC”) done by the Corps.

7. By giving these Dams a DSAC level I classification, the Corps has concluded:

“progression toward failure is confirmed to be taking place under normal operations and the dam is almost certain to fail under normal operations within a time frame from immediately to within a few years without intervention; or the combination of life or economic consequences with probability of failure is extremely high.”

Of some 300 dams given DSAC ranking by the Corps, only six (6) have been given this most serious “Urgent and Compelling” classification.

8. Thus Addicks and Barker, are two of the six extremely high risk Dams in the nation.

9. These two dams protect key areas of Harris County from the risks of catastrophic flooding from Buffalo Bayou, including Houston's Central Business District, the Memorial Drive area, the Memorial Villages, Tanglewood, River Oaks and portions of the Interstate 10 energy corridor.

10. The failure of Addicks or Barker Dam would cause extensive flooding along Buffalo Bayou from the Beltway 8 area eastward through the Memorial Villages to the Central Business District, threatening billions of dollars in flood damages and loss of life for many Houstonians.

11. The flood risks are very real. Congress authorized building these earthen Dams, both more than sixty years old, precisely because of significant flooding downstream from the Addicks and Barker Dams along Buffalo Bayou in 1929 and 1935.

12. The danger of dam failure, as well as additional risks of flooding actually found by the Corps, necessarily increase when urban development occurs in the Addicks and Barker Watersheds by generating additional runoff that will flow into the Reservoirs after severe storms.

13. The Corps recently recognized that construction of Segment E of the Grand Parkway will result in such increased runoff.

14. The Corps also recently recognized that Segment E of the Grand Parkway will induce more urban development, covering parts of the Katy Prairie with concrete for roads, businesses, and homes, that will create even more runoff.

15. Specifically, the Corps actually determined that construction of Segment E must, inevitably, increase the runoff to Addicks Dam and Reservoir, which must, inevitably, make the already extremely dangerous situation even worse.

16. Just over a year ago (July 2010), the Corps issued an internal memorandum containing its interim response concerning the “Urgent and Compelling” dangers at Addicks and Barker Dams, which includes changing the normal operations for these Dams so as to release more water from these Reservoirs down Buffalo Bayou.

17. The Corps actually knew about these dangers of dam failure at least as early as September 2009, but since then has only published an “Interim Plan” to try to reduce the danger, and that plan itself knowingly increases flooding risks along Buffalo Bayou.

18. Despite having had nearly two years to address this danger of dam failure, the Corps has yet to develop a more permanent solution to these critical problems.

19. Additionally, during this same time, the Corps never has completed the environmental review, with public notice and comment, for the changed operations, in violation of the National Environmental Policy Act (“NEPA”).

20. More recently, the Corps also violated Section 404 of the Clean Water Act by deciding to issue Permit SWG-1997-02901, the last pre-condition under Federal law for allowing the construction of Segment E.

21. The issuance of this 404 permit for Segment E is especially troubling, because the Corps’ Statement of Findings somehow concludes that there will be no impact on Addicks Dam and Reservoir from Segment E or its induced development, despite the acknowledgement that certain members of the Corps recognize that construction of Segment E will negatively impact Addicks Dam by necessarily increasing the volume of stormwater entering the Reservoir and thus increasing the risk of “catastrophic failure”.

22. The Statement of Findings never explains this irrational conclusion, nor addresses (1) what is the magnitude of the risks of Dam failure without Segment E, and (2) how much will building Segment E increase the magnitude of the risks of Dam failure.

23. Moreover, the Statement of Findings never addresses (1) how building Segment E will impact the changed operating plan for Addicks and Barker Dams and Reservoirs, (2) the frequency, duration, and magnitude of flood waters that the Corps will deliberately release from the Dams, (3) the additional flooding generated by such releases in the downstream portions of Buffalo Bayou, nor (4) how much the building of Segment E will increase this flooding risk.

24. Even worse, the Statement of Findings relies on an “Interim Plan” and a “Draft” hydrologic study of flood levels in these Reservoirs – neither of which have received the required environmental review with public input.

25. Such irrationality means that, in addition to violating NEPA and Section 404, the Corps has violated the Administrative Procedure Act.

26. The Corps’ recent significant findings about these dangers of Dam failure, and the impact that Segment E and urban development will have on increasing these dangers, constitute critical information that must be considered by the FHWA and TxDOT before deciding whether to permit building of Segment E, as required by NEPA. The Corps had participated in a NEPA required environmental review of Segment E, that was overseen by the FHWA and TxDOT, and as such, had the responsibility to disclose pertinent information about the potential impacts that could result from the construction of that road project.

27. That NEPA review concluded in June 2009, when the FHWA and TxDOT issued the final re-evaluation of their Final Environmental Impact Statement (“FEIS”) and revised Record of Decision (“ROD”).

28. The Corps made its determination that urban development has caused increased flood levels in the Reservoirs as part of its Draft hydrologic study in December 2008. This was never disclosed to the FHWA or TxDOT, and as such was never discussed in their FEIS or ROD. The Corps did not make its determination of the risks at Addicks and Barker Dams until September 2009, and did not publish its Interim Plan until July 2010 both after the FEIS and ROD had been issued. However, the Corps never informed the FHWA or TxDOT about this new information and changed circumstances at the Dams.

29. Nothing in the FEIS nor the ROD for Segment E, therefore, even mentions, much less assesses, the impacts of the increased dangers of flooding that the Corps now has determined will be caused by Segment E and its induced development.

30. Under these circumstances, NEPA requires that the FHWA and TxDOT must, at the very least, complete an assessment of the additional, significant dangers now known to be created by Segment E and its induced development on Addicks Dam and Reservoir.

31. This requires a Supplemental Environmental Impact Statement, because NEPA, like the Section 404 permit process, exists in significant part to protect public health and welfare, and nothing could be more worthy of a “hard look” than a known extremely high risk of “catastrophic” flooding if Addicks (or Barker) Dam fails during a major storm.

32. Sierra Club is therefore seeking injunctive relief from this Court to vacate the Corps’ Section 404 permit for Segment E of the Grand Parkway to require the appropriate analysis under the 404(b)(1) Guidelines and NEPA, to require full disclosure and evaluation of the changed operating plan for Addicks and Barker Reservoirs, and to require a proper SEIS by FHWA and TxDOT for Segment E and its impacts on Addicks Dam and Reservoir.

33. In addition, Sierra Club is seeking to enjoin TxDOT from proceeding with any construction of the Segment E project pending the requisite environmental review, and, absent an agreed stand-still, Sierra Club will seek a preliminary injunction.

## **II. JURISDICTION AND VENUE**

34. This Court has jurisdiction pursuant to 28 U.S.C. § 1346, U.S. Government as Defendant.

35. This action arises under the Administrative Procedure Act, 5 U.S.C. §§ 701-706 (“APA”), the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (“NEPA”), and its implementing regulations, and Section 404 of the federal Clean Water Act, 33 U.S.C. § 1251; 1344 (“Section 404” or “§ 404”), and its implementing regulations.

36. Venue is proper pursuant to 28 U.S.C. § 1391 (b) and (e) because the claim arose in this district, as Addicks Dam and Reservoir and Segment E of the Grand Parkway are located in western Harris County.

## **III. PARTIES**

37. The Plaintiff, Sierra Club, is a national nonprofit environmental organization with its national headquarters located at 85 Second Street, 2nd Floor, San Francisco, CA 94105, and is suing on behalf of itself and its members.

38. The United States Army Corps of Engineers is sued as an agency of the United States and is served through Lieutenant General Robert L. Van Antwerp, Chief of Engineers and Commanding General of the U.S. Army Corps of Engineers at 441 G Street, NW, Washington, D.C. 20314.

39. Col. Christopher W. Sallese is sued in his official capacity as District Engineer of the Galveston District of the U.S. Army Corps of Engineers and may be served at 2000 Fort Point Road, Galveston, Texas 77550 or at P.O. Box 1229, Galveston, Texas 77553-1229.

40. Lieutenant General Robert L. Van Antwerp is sued in his official capacity as Commander and Chief of Engineers of the U.S. Army Corps of Engineers and may be served at 441 G Street, NW, Washington, D.C. 20314.

41. John M. McHugh is sued in his official capacity as Secretary of the Army and may be served at 1400 Defense Pentagon, Washington, D.C. 20301-1400.

42. The United States Federal Highway Administration is sued as an agency of the United States with authority to develop the road transportation systems of the United States and may be served at 1200 New Jersey Ave., SE, Washington, D.C. 20590.

43. Victor M. Mendez is sued in his official capacity as Administrator of the U.S. Federal Highway Administration and may be served at 1200 New Jersey Ave., SE, HOA-1 E85119, Washington, D.C. 20590.

44. Janice W. Brown is sued in her official capacity as Division Administrator of the U.S. Federal Highway Administration, Texas Division and may be served at 300 East 8<sup>th</sup> Street, Room 826, Austin, Texas 78701.

45. The United States Department of Transportation is sued as an agency of the United States, the government department that oversees the national transportation system, which includes the Federal Highway Administration (“FHWA”), and may be served at 1200 New Jersey Ave., SE, Washington, DC 20590.

46. Raymond LaHood is sued in his official capacity as the Secretary of Transportation, the head of the United States Department of Transportation (“USDOT”), and may be served at 1200 New Jersey Ave, SE, Washington, D.C. 20590.

47. The Texas Transportation Commission is sued as a state agency that oversees the Texas Department of Transportation (“TxDOT”), and may be served at 125 East 11<sup>th</sup> Street, Austin, Texas 78701.

48. Deirdre Delisi is sued in her official capacity as Chair of the Texas Transportation Commission and may be served at 125 East 11<sup>th</sup> Street, Austin, Texas 78701.

#### **IV. STANDING**

49. The Sierra Club has among its corporate purposes, to practice and promote the responsible, safe use of the earth’s ecosystems and resources, to educate and enlist humanity to protect and restore the quality of the natural and human environment, and to use all lawful means to carry out these objectives.

50. The Sierra Club has established a National Clean Water Campaign to protect and restore the quality of our nation’s waters and wetlands.

51. The purposes of the Sierra Club’s wetland protection program include to protect habitats that retain and store floodwaters and filter pollutants, and to protect families and property from flooding.

52. In order to pursue these purposes of wetland protection, the Sierra Club relies upon the federal regulatory program under NEPA and under § 404 of the Clean Water Act.

53. The Sierra Club has made protection of the Katy Prairie, where Segment E of the Grand Parkway is proposed, one of its highest priorities for over 20 years.

54. Sierra Club members live and recreate near the proposed Segment E of the Grand Parkway.

55. In particular, members of the Sierra Club visit the Katy Prairie to bird watch, observe nature, photograph, hike, enjoy scenic beauty, experience solitude and quiet, enjoy natural sounds, recreate, and to conduct environmental education and nature study.

56. The Sierra Club leads outings to Katy Prairie to view Bald Eagles, geese, ducks, songbirds, herons, egrets, and other migratory waterfowl and to learn about the ecological value of this area including wetlands and streams like Cypress Creek. The Katy Prairie is a home for hundreds of thousands of geese, ducks, herons, egrets, songbirds, and other wildlife.

57. Sierra Club members benefit from protection of the Katy Prairie because it is a giant sponge that soaks up flood waters, and retains and keeps those waters from flowing down into Addicks Reservoir where they otherwise could cause floods and havoc within the reservoir and downstream including along Buffalo Bayou in Houston. In other words, the Katy Prairie is Houston's biggest retention basin provided by Nature.

58. As elaborated below, construction of the proposed Segment E of the Grand Parkway, and the development to be induced by such construction would significantly reduce the ability of the Katy Prairie to retain water during major storms, meaning that the proposed construction would significantly increase the amount and frequency of water flowing from the Prairie to Addicks Dam and Reservoir, and increase the risk of flooding, potentially catastrophic.

59. Sierra Club also has members who live near Buffalo Bayou downstream from Addicks Reservoir, and members who live in parts of Houston that would flood severely if Addicks Dam fails.

60. The security of flood control, as well as important parks and open space, wildlife habitat, and beautiful landscapes, are public safety as well as quality of life issues that Sierra Club and its members seek to protect, all of which the proposed Segment E of the Grand Parkway has the potential to destroy.

## V. FACTS

### A. **ADDICKS AND BARKER DAMS WERE BUILT TO PREVENT DISASTROUS FLOODS IN HOUSTON**

61. The City of Houston (the “City”), within Harris County, Texas (the “County”), was founded on the banks of Buffalo Bayou. Today, immense numbers of people live and work near or adjacent to Buffalo Bayou, in residential and commercial properties worth billions of dollars.

62. In the years before World War II, both the City and County experienced significant flood damages from Buffalo Bayou, culminating in the devastating floods of 1929 and 1935 that led Congress to authorize the construction of Addicks Dam and Reservoir as well as Barker Dam and Reservoir.

63. These Dams are located in the upper portions of the Buffalo Bayou watershed. The Reservoirs were originally designed to function as large detention basins in order to slow the flow of water that could enter Buffalo Bayou upstream of the City, thus with the hope of minimizing any future flood damages from Buffalo Bayou.

64. Both of these Dams and Reservoirs originally were authorized by the Rivers and Harbors Act of June 20, 1938, as modified by the Flood Control Acts of August 11, 1939; September 3, 1954; and October 27, 1965.

65. The U.S. Army Corps of Engineers, Galveston District, was given responsibility to construct these Dams and Reservoirs. Barker Dam and Reservoir was completed in February 1945, and Addicks Dam and Reservoir was completed in December 1948.

66. To this day, Addicks and Barker Dams and Reservoirs are operated and maintained by the U.S. Army Corps of Engineers, and as such are projects of the United States government. Their fundamental purpose remains to protect lives and property from flooding within portions of Houston and Harris County downstream of these dams.

**B. GEOGRAPHY CONFIRMS THE FLOOD RISKS IF EITHER DAM FAILS**

67. Addicks and Barker Dams were constructed on a relatively flat coastal prairie that is crossed by numerous streams that flow into the upper portion of Buffalo Bayou. Interstate Highway 10 crosses that part of the prairie and cuts in between these two Dams.

68. The large area of land that would be inundated by waters being stored behind each of these Dams encompasses what is referred to as the Reservoir.

69. Addicks Dam and Reservoir is located on the north side of Interstate Highway 10 about twenty miles west of downtown Houston. The area draining into Addicks Reservoir is called the Addicks Watershed and encompasses approximately 136 square miles.

70. Barker Dam and Reservoir is located on the south side of Interstate Highway 10 about twenty miles west of downtown Houston. The area draining into Barker Reservoir is called the Barker Watershed and encompasses approximately 130 square miles.

71. All stormwater runoff generated from rainfall events occurring over the Addicks Watershed will flow into Addicks Reservoir. Likewise all stormwater runoff from the Barker Watershed will flow into Barker Reservoir.

72. Additional runoff at times flows into Addicks Reservoir during large storm events from the Upper Cypress Creek Watershed, when floodwaters can overtop the divide between the Upper Cypress Creek and the Addicks Watersheds, adding to the amount of stormwater that must be handled by Addicks Reservoir.

73. If Addicks and/or Barker Dam fails, then any water stored behind the Dam, as well as any additional water entering the Reservoir from the immense watershed above it, would pour downstream, into and overflowing Buffalo Bayou.

74. Buffalo Bayou extends eastward from Addicks and Barker Dams, flowing through the Memorial Drive area, then River Oaks, and finally through downtown Houston, to the point where it is enlarged to form the Houston Ship Channel that provides deepwater access through Galveston Bay into the Gulf of Mexico.

**C. THE DAMS WERE ORIGINALLY PLANNED TO “DETAIN” WATER FOR FLOOD PROTECTION, BUT SINCE CONSTRUCTION THEY HAVE BEEN CALLED UPON TO ACTUALLY “RETAIN” ALL FLOOD WATERS**

75. Addicks and Barker Dams and Reservoirs were originally operated to function like large “detention” basins, which temporarily catch and hold some of the flood waters for a short period of time while releasing other water. Such detention basins reflect the concept that the flood level (or pool) within the reservoir rises to store some of the water during storms while also releasing the rest of the stormwater.

76. According to the original operating plan, the reservoir (or pool) was to then empty its stored water as soon as possible after the rain stopped.

77. Operational changes, however, occurred soon after these dams were constructed, and Addicks and Barker Dams and Reservoirs now function as large “retention” basins, meaning that unlike detention basins, flood waters are not released quickly. These Dams and Reservoirs

are now operated so that virtually all of the stormwater runoff entering the reservoir from a large storm is stored behind the dam, with the intent that these stored waters are released slowly, and only well after the rain has stopped so that the potential for downstream flooding has past.

78. These reservoirs originally were intended to have the capacity to hold what the Corps called the “standard project flood” – generated by a large storm which the Corps estimated would occur on average about once every 1,000 years – or a “1,000-year flood.”

79. This standard project flood, or 1,000-year flood, is supposed to be a flood of a size that occurs on average no more often than once every 1,000 years. Put another way, in any given year there should be no more than a 1/1,000 (0.1%) chance of occurrence of such a great flood.

80. Encompassed within this standard project flood are smaller floods associated with lesser storm events. That is, to the extent that a dam and reservoir holds and protects against a 1,000-year flood (the standard project flood), it also can hold and protect against lesser floods, such as so-called 500-year flood, 100-year flood, 50-year flood, 25-year flood and so on, that have a 0.2%, 1%, 2%, and 4% (respectively) chance of occurring in any given year.

**D. AFTER 60 PLUS YEARS OF OPERATIONS, RISKS HAVE INCREASED AT ADDICKS & BARKER DAMS, AND RISKS WILL CONTINUE TO INCREASE UNLESS SOMETHING IS DONE TO STOP THEM**

81. Addicks and Barker Dams, like all such earthen facilities, face deterioration over time that increases the risk of potential failure. In addition, over the past 60 plus years since they were constructed, specific changed circumstances have reduced their flood control capabilities and have added to risks of failure at Addicks and Barker.

82. When Addicks and Barker Dams were initially constructed, the watersheds draining to these Dams were undeveloped coastal prairie lands, containing numerous wetlands,

with the primary land use being agricultural. As such, only about half of the rainfall that fell over these watersheds became runoff and entered the reservoirs. The remaining rainwater was retained and stored within wetlands and undeveloped areas of the watersheds, all part of the Katy Prairie.

83. Over time, urban development has been allowed to occur within portions of these watersheds, eliminating some of the floodwater retention features and functions of this coastal prairie land such that the stormwater runoff entering both Addicks and Barker Reservoirs has increased significantly for rainfalls of the same size and duration.

84. In other words, the amount of runoff flowing into Addicks and Barker Reservoirs from six inches of rainfall across the watershed would be greater in the year 2010 than would have been the case back in 1960, due to the effects of urban development (covering the land with homes and roads and concrete) and due to the construction of modern drainage systems that are designed to efficiently capture rainwater falling on the land and direct that water to the Reservoirs.

85. New development covers over and thereby reduces the amount of the soil that is available to allow rainwater to infiltrate into the ground. Such development also fills in and eliminates the naturally occurring ponds and wetlands in the area that retain and store stormwater for days or even months.

86. As previously undeveloped and agricultural land is developed in the Addicks and Barker Watersheds of the Katy Prairie, additional volumes of stormwater are generated and flow into these Reservoirs. Even if some type of “detention” pond is utilized in conjunction with that development, the stormwater entering such a pond is only temporarily stored and is usually

emptied within a day or two, then allowed to flow to the Reservoir where it gets held for much longer periods of time.

87. Thus, any temporarily detained stormwater from new development will still enter into Addicks or Barker Reservoirs, and contribute to the water already being stored within these reservoirs, because that water is impounded and retained behind Addicks (and Barker) dams for days or weeks, if not months.

88. Since these subdivision-level “detention” ponds only hold stormwater for a short time period, much shorter than Addicks and Barker, and then release all of it, these “detention” ponds have virtually no effect on reducing the additional volume of stormwater created by development that ultimately enters Addicks and Barker Reservoirs.

89. In addition, the original design concept of Addicks and Barker Reservoirs was that they would themselves be “detention” reservoirs, allowing floodwaters to be released at a rate of as much as 15,000 cubic feet per second (“cfs”) down Buffalo Bayou during major storm events. However, due to urban development downstream of the dams along Buffalo Bayou, the non-damaging flow rate that can be released from these Reservoirs has been reduced to about 2,000 cfs since the late 1960s, that is, for over 40 years. (Most recently, as discussed below, since July 2010 the Corps has implemented its Interim Plan that allows discharges greater than 2,000 cfs, under normal circumstances, which is known to cause flooding downstream.)

90. Thus, with these Reservoirs being operated as retention basins, virtually all of the stormwater entering these Reservoirs during a large storm event (up to and including the standard project flood) must be stored behind the Dams until it is safe to release these stored floodwaters down Buffalo Bayou.

91. This additional stormwater, that must now be stored behind these Dams, results in higher water elevations behind the Dams and more land being inundated within the Reservoirs.

92. When the Corps originally constructed these dams, it only acquired a certain amount of land within the Reservoirs that it thought would be inundated during particularly large floods. These lands that had been acquired and now owned by the Corps within the Addicks and Barker Reservoirs, however, are no longer sufficient to contain all of the water that would need to be impounded behind these Dams during large storm events leading to the possibility of inundation of private property.

93. Due to the extensive development of valuable real estate downstream on Buffalo Bayou extending all the way to downtown Houston that has occurred since the construction of these Dams, significant consequences would follow not only from Dam failure, but also from large water releases from the Reservoirs that might be needed to prevent Dam failure.

**E. THE CORPS KNOWS ADDICKS & BARKER POSE “CATASTROPHIC” RISKS**

94. Within the past few years, the U.S Army Corps of Engineers determined that both Addicks and Barker Dams and Reservoirs pose “catastrophic” risks for the City of Houston and others downstream on Buffalo Bayou. Critical conclusions related thereto are set out in an internal memorandum, prepared by the Corps titled *Interim Reservoir Control Action Plan*, dated July 16, 2010 (the “Interim Plan”).

95. According to this Interim Plan, in or about September 2009 the Corps determined that each of Addicks and Barker Dams must receive the Dam Safety Action Classification (“DSAC”) level I, that is, “Urgent and Compelling”.

96. “Urgent and Compelling” is the highest (most dangerous) risk category for dams rated by the Corps of Engineers.

97. As stated in the Interim Plan, the “Urgent and Compelling” classification is for dams “where progression toward failure is confirmed to be taking place under normal operations and the dam is almost certain to fail under normal operations within a time frame from immediately to within a few years without intervention; or the combination of life or economic consequences with probability of failure is extremely high.” (Interim Plan at 2.0.)

98. The Corps does not make such a classification lightly: only six of the Corps’ approximately 300 dams nationwide have been given this most dangerous dam safety classification. That is, Addicks and Barker Dams are two of the six most potentially dangerous Corps’ dams in the entire United States of America.

99. Catastrophic failure of Addicks or Barker Dam would result in the release of potentially billions of gallons of stormwaters stored behind the Dam, as well as releasing any additional stormwaters entering the Reservoirs, which would all flow downstream, flooding subdivisions adjacent to Buffalo Bayou and potentially inundating portions of downtown Houston with devastating flood waters, risking numerous lives.

**F. THE CORPS KNEW IMMEDIATE ACTION WAS NEEDED TO REDUCE RISK**

100. As stated in the Interim Plan, the Corps found it necessary to “develop interim reservoir operations to reduce the risk of catastrophic failure by evacuating pools quicker and increasing embankment surveillance.” (Interim Plan at 1.0.)

101. This change in pool level operation and authorization to increase releases was done without public input or knowledge and without going through the environmental clearance as required by the National Environmental Policy Act.

**G. THE CORPS KNOWS ITS INTERIM PLAN CREATES SIGNIFICANT DANGER**

102. In the Interim Plan, the Corps recognizes that the risks of dam failure increase unacceptably if water levels in Addicks or Barker Reservoirs rise above specified levels.

103. For its Interim Plan purposes, the Corps determined not to allow the level of water at Addicks Dam to exceed 97.5 feet (NAVD 1988) and not to allow the water level at Barker Dam to exceed 93.6 feet (NAVD 1988). These are the respective maximum pool levels actually observed at Addicks and Barker in 1992, and are the equivalent of about a 25-year flood event, according to the Corps.

104. At both Dams, the newly set maximum target pool levels are significantly less than the levels that the Corps previously planned for the Reservoirs to reach. That is, the Corps determined that the Dams should not be allowed to hold all of the water from a “standard project flood”. Instead, during large storms the Corps contemplates that much of that water will be released downstream without being stored behind the Dam, flooding downstream properties while hopefully avoiding a catastrophic dam failure.

105. Indeed, the amount of water that the Corps now allows to be stored under the current Interim Plan equals or exceeds the amount of water generated (according to the Corps’ own data) during a 25-year flood event.

106. Thus, according to the Corps, there is *at least* a 4% chance every year that a storm will cause water levels in the Reservoirs to equal or exceed the target maximum levels the Corps has recently set.

107. Thus, under the Interim Plan, the Corps has created and accepts a downstream flood risk that is far greater than the risk that should be allowed under standards previously used. That is, instead of protecting downstream properties against a 1,000-year flood, the Interim Plan

only protects downstream residents' homes against a 25-year flood, a flood that has a 4% chance of being equaled or exceeded every year.

108. This change in level of protection has never been fully vetted within the Houston community and has never been subjected to the required analysis under the National Environmental Policy Act.

109. In addition, the Interim Plan provided for immediate (as of July, 2010) adjustments to normal operations, including doubling the allowed combined flow limit for reservoir releases downstream of the dams (as measured on Buffalo Bayou at Piney Point) from 2,000 cubic feet per second ("cfs") to 4,000 cfs.

110. At a combined flow rate of about 2,500 cfs being released from the Reservoirs, the Corps knows flooding of nonstructural private property begins to occur downstream.

111. The Interim Plan also creates a procedure whereby the flow rates released from Addicks and Barker Dams can be increased beyond 4,000 cfs to help reduce the risk of dam failure with the approval of the Southwest Division Engineer, which oversees the Galveston District in the hierarchy of the Corps of Engineers.

112. The Corps knows release rates greater than 4,100 cfs cause flooding of homes adjacent to Buffalo Bayou (i.e., flooding to structural elements of private property).

113. The Corps apparently recognizes the need for a much better long-term plan than the Interim Plan and apparently recognizes that developing an appropriate response to the current danger is far from simple. If it were simple, then the Corps already would have a final plan (instead of an Interim Plan) to deal with this pressing problem in far less than the nearly two years since the Corps found out that Addicks and Barker Dams present "Urgent and Compelling" needs for action to assure the public's safety.

114. Upon information and belief, the Corps is currently evaluating a long-term plan for addressing the “Urgent and Compelling” nature of these two dams, in a Dam Safety Modification Study that is under internal Corps review.

115. The Sierra Club has filed a request for these documents under the Federal Freedom of Information Act and has been denied access to any such documents currently under review within the Corps.

116. Therefore, to the extent that such a study exists, the public is unaware of the details of that study, or when it will be released for public review and comment.

**H. THE CORPS DID NOT PUBLICIZE OR SEEK INPUT ON ITS CHANGED OPERATING PLAN THAT HAS BEEN IN PLACE FOR MORE THAN A YEAR**

117. The Corps kept the public in the dark with respect to the changed operating plan contained in its Interim Plan dated July 2010, and its expected impacts, after the Corps’ determination (in 2009) that Addicks and Barker had “Urgent and Compelling” needs for action to assure public safety.

118. Sierra Club was unaware the Interim Plan existed until it obtained a copy of the Interim Plan in March 2011, when it requested information with respect to the then-pending application for the § 404 permit at issue in this case.

119. The Corps issued no public notice about this changed operating plan involving increased releases from the Dams and the expected impacts after it determined that Addicks and Barker had “Urgent and Compelling” needs for action to assure public safety. At no time since then has the Corps sought any public input on this changed operating plan, or started any public comment period regarding environmental impacts associated with this significant federal action.

**I. BEFORE THE CORPS ISSUED ITS INTERIM PLAN CONCERNING DANGER AT ADDICKS & BARKER, AGENCIES OTHER THAN THE CORPS GAVE INITIAL PERMISSION TO BUILD SEGMENT E OF THE GRAND PARKWAY**

120. Segment E of the Grand Parkway (a portion of the new toll road loop around Greater Houston, sometimes called Highway 99), is a massive road project proposed to be constructed to connect Interstate I-10 to Highway 290 in western Harris County.

121. As recently determined by the Corps, and discussed below, the proposed footprint of Segment E, as well as much (or all) of the development the Corps recognized Segment E would induce, fall within the Addicks Watershed, or the Upper Cypress Creek Watershed. Floodwaters from Upper Cypress Creek Watershed can overflow into Addicks Watershed during severe storms.

122. The federal government is involved with Segment E of the Grand Parkway under two different types of federal action.

123. First, the FHWA, in and through TxDOT, has issued an FEIS and ROD regarding this toll road project (which is currently under judicial review on appeal Case Number 10-20502, In the United States Court of Appeals, Fifth Circuit). The Corps acted as a “cooperating agency” in this action and adopted that FEIS as if it were its own during the Corps’ 404 permit review.

124. Second, construction of Segment E would necessitate the filling of wetlands regulated under Section 404 of the Clean Water Act by the Corps. The wetlands at issue are in the undeveloped portions of the Katy Prairie. In addition to jurisdictional wetlands, Segment E would impact many additional (but non-jurisdictional) wetlands that have ecologically important characteristics – including the ability to absorb and/or retain water during storms to reduce flooding downstream.

125. Due to the fact that federal action was required for Segment E to be authorized by the FHWA, a review under NEPA was required. A Draft Environmental Impact Statement (“DEIS”) was published in February of 2003, received public input, and then the Final Environmental Impact Statement was published on November 19, 2007.

126. The FHWA issued its Record of Decision on June 24, 2008, approving the construction of Segment E after finding that any resulting environmental impacts were acceptable based on information known at that time.

127. Sierra Club filed suit against the agencies in March 2009 in the Southern District of Texas, Civil Action No. H-09-0692 regarding that decision, bringing claims under NEPA and the APA.

128. In June 2009, the FHWA issued a Re-evaluation of its FEIS and on June 9, 2009, it issued a Revised ROD, still approving the construction of the project, again based on information known at that time.

129. In ruling on this prior legal challenge by the Sierra Club, the district court noted significant controversy surrounded the construction of Segment E, for reasons including environmental impacts and costs. The toll road and its induced development will destroy vast swaths of the Katy Prairie and Texas taxpayers must contribute some \$500 million towards construction of this massive road project.

130. The district court stated that the Sierra Club “complaint was valid factually in that it calls into question the wisdom of building an expensive and environmentally disruptive road for such modest traffic benefits.” *Sierra Club, et al. v Federal Highway Administration, et al.*, 715 F.Supp. 2d 721, 734 (S.D. Tex. 2010).

131. However, the court recognized that the federal law at issue in that case (NEPA) “merely prohibits uninformed – rather than unwise – agency action.” *Id.*

132. Therefore, the district court found the FEIS to be sufficient given what was then known, and the district court granted summary judgment for the Defendants.

133. That case is currently on appeal to the U.S. Court of Appeals for the Fifth Circuit. No. 10-20502, In the United States Court of Appeals, Fifth Circuit.

134. In any event, that case did not and could not have considered the determination that Addicks and Barker Dams had “Urgent and Compelling” needs for action to assure public safety, because the Corps did not make that decision until September 2009, well past the date that the Revised ROD was issued by the FHWA.

135. Moreover, the Corps did not state its decision to change its operating plan for these dams, thereby increasing flood risks downstream, until it issued the Interim Plan in July 2010 (although the Interim Plan did not become known to the Sierra Club until March 2011 via a FOIA request).

136. Thus, the FEIS and the ROD did not consider nor discuss the potential impacts of the Segment E project on the operation of Addicks Dam, and the potential flooding associated with it, since at that time there was no known concern about any catastrophic dam failure at Addicks.

137. Plainly, there has been a change in circumstances since the FEIS and ROD were finalized. Furthermore, the FEIS and ROD that were prepared by FHWA and TxDOT deferred to the Corps’ review of this road project under Section 404 for matters such as flooding dangers as well as developing a mitigation plan associated with the filling of wetlands that is part of the design of Segment E.

**J. AFTER THE CORPS ESTABLISHED ITS INTERIM PLAN CONCERNING EXTREME DANGER AT ADDICKS & BARKER, THE CORPS ISSUED A §404 PERMIT FOR SEGMENT E THAT NECESSARILY FURTHER INCREASED FLOOD RISKS**

138. The second of the above-noted federal actions involving Segment E (i.e. its impact on wetlands, including flood dangers) required the Corps to evaluate this road project in accordance with the Clean Water Act, § 404.

139. The Corps issued its 404 Permit SWG-1997-02901 for this Segment E project on June 27, 2011, authorizing the construction of this project and the filling of wetlands, and allowing for compensatory mitigation for the loss of wetland functions and values to be provided in the Greens Bayou Watershed located north and east of Houston. The addition of wetlands in the Greens Bayou Watershed does not at all help reduce the risk of Addicks Dam failure or other flooding along Buffalo Bayou.

140. The Corps issued an Environmental Assessment (“EA”) and a Statement of Findings that discusses the Corps’ evaluation of the environmental impacts associated with the Segment E road project. Inexplicably, the Corps made a Finding Of No Significant Impacts (“FONSI”).

141. In its Statement of Findings on this Section 404 Permit, the Corps found that, if constructed in accordance with its design, Segment E of the Grand Parkway will generate additional runoff into Addicks Reservoir.

142. In its Statement of Findings on this Section 404 Permit, the Corps also found that, if constructed, Segment E of the Grand Parkway will spawn additional development (also called induced development) that also will generate additional runoff into Addicks Reservoir.

143. However, the Corps made the conclusory statement that, despite this additional runoff entering Addicks, “no *unacceptable* impacts to Addicks ... are expected.” (Emphasis added.)

144. This conclusory statement by the Corps of “no unacceptable impacts” from additional runoff into Addicks Reservoir is not supported by any information presented in its Statement of Findings as to identifying what impacts are expected, the magnitude, extent and permanence of any detrimental impacts, and why they are considered acceptable to the Corps. Indeed, the Statement of Findings does not even quantify the size and frequency of existing flood-related dangers, dangers that already have led the Corps to find “Urgent and Compelling” needs to address risks at Addicks and Barker Dams and Reservoirs.

145. In its evaluation of Segment E, the Corps found that, just like any other new development, such actions will induce additional runoff volume from any given storm that will eventually end up downstream at Addicks Reservoir.

146. Such additional runoff from Segment E and its induced development must, necessarily, (1) increase the risk of Addicks Dam failure, (2) increase the frequency with which the Reservoir would reach its new maximum target pool level and trigger emergency action under the Interim Plan, (3) increase the likelihood that additional releases would be allowed downstream in an attempt to prevent the height of the Reservoir from exceeding the target pool level limits set by the Interim Plan (97.5 feet at Addicks,), and (4) increase the magnitude of the amount of water being released from the reservoir and flowing down Buffalo Bayou – whether through planned release, dam failure, or otherwise.

147. With Addicks (and Barker) already at the most dangerous “Urgent and Compelling” classification, all risks of Dam failure necessarily increase, due to any additional

runoff volume generated within their watersheds. As to Addicks Dam, this additional water generated by Segment E, as well as additional runoff volume generated by induced new development, increases the already “Urgent and Compelling” danger.

**K. IN GRANTING THE § 404 PERMIT FOR SEGMENT E, THE CORPS FAILED TO DETERMINE AND CONSIDER CRITICAL INFORMATION ON THE INCREASED MAGNITUDE AND FREQUENCY OF RISK OF FLOOD DAMAGES**

148. Sierra Club does not know what the magnitude and frequency of risk is of failure of Addicks (or Barker) Dam, or of the magnitude and frequency of risk of increased releases, because (despite Sierra Club’s FOIA requests) the Corps never has released any data or calculations on the extent of this danger, nor was it discussed in the EA or the Statement of Findings.

149. Moreover (despite Sierra Club’s FOIA requests), the Corps never has released any data or calculations on how much Segment E and its induced development (1) increases the stormwater runoff volume entering Addicks Reservoir, (2) increases the risk of flooding to residents living adjacent to Buffalo Bayou downstream from the Reservoir under the Interim Plan, and (3) increases the risk of catastrophic failure of the Dam, further increasing the flooding risk to residents downstream and the City of Houston. This information also was not discussed in the EA or the Statement of Findings.

150. Another consequence of this increased runoff volume flowing to Addicks is the possibility of “upstream” flooding, that is, the risk that the Dam will hold firm, but so much water flows into the reservoir that houses built behind the dam but within the Reservoir get flooded. Neither the EA nor the Statement of Findings discuss or address the magnitude of this risk, or its expected increase due to the construction of Segment E.

**L. THE CORPS' FONSI WAS UNSUPPORTED; THE CORPS RELIED IN PART ON THE FEIS PREPARED BY FHWA AND TxDOT, BUT THE FEIS DID NOT ADDRESS THE ADDICKS SITUATION**

151. In issuing its § 404 permit for Segment E, the Corps made a Finding Of No Significant Impact ("FONSI") related to the environmental effects identified in the EA for the §404 permit.

152. However, without making any assessments of the increased risks to Addicks and associated flooding upstream and downstream, due to the additional runoff from Segment E and the induced development, that finding cannot be supported.

153. In addition, no cumulative impact assessment on Addicks was done by the Corps in its EA on the § 404 permit. Instead, the Corps adopted the FEIS by the FHWA and TxDOT and referenced the cumulative impacts analysis contained in that document as providing the requisite analysis under NEPA.

154. However, in this case reliance on the FEIS cannot satisfy the Corps' requirement to consider and discuss the cumulative impacts that have occurred, as well as the impacts that are reasonably likely to occur in the future, including on the operation of Addicks Dam. As stated, the FEIS by FHWA and TxDOT never evaluated nor considered any potential impacts from this road project (Segment E) on the operation of Addicks Dam. In fact, the Area of Influence ("AOI") that had been established for defining the boundary within which potential impacts from the Segment E project would be assessed had Highway 6 as its eastern-most boundary in the vicinity of Addicks. Addicks Dam is east of Highway 6 and thus is outside the AOI that was used in the FEIS. Thus, neither the FEIS nor the Section 404 analysis considered Segment E impacts, as well as cumulative impacts, on the operation of Addicks Dam that would significantly increase risks of flooding within Addicks Reservoir and downstream.

155. At the time of the preparation of the FEIS, there was no concern about development within the Addicks watershed impacting the operations of Addicks Dam. First, the dam safety issues had not yet been determined by the Corps to be “Urgent and Compelling”. Second, the Corps had not changed its operating plan to address this dam safety issue, which exposed downstream residents to an increased risk of flooding.

**M. SIGNIFICANT IN-HOUSE ASSESSMENTS BY THE CORPS RECOGNIZED THAT CONSTRUCTION OF SEGMENT E WILL INCREASE DANGERS, BUT THE CORPS FAILED TO PROPERLY ADDRESS AND ASSESS THESE IDENTIFIED INCREASED DANGERS**

156. According to what little information the Corps did release (that is, in its Statement of Findings), several divisions within the Corps expressed significant concern about added dangers if Section E gets built.

157. The Statement of Findings confirms there was a significant internal concern within the Corps with regard to the potential for the proposed Segment E of the Grand Parkway to negatively affect the operations of Addicks Dam and Reservoir, given its existing dangerous condition.

158. The full extent of this concern was not clearly articulated in the Statement of Findings. Instead, the Corps provided limited information that merely summarized concerns expressed by the Operations Division and Natural Resource Division of the Corps about the increased dangers, but then relied on the conclusions reached by its hydrology branch that there would be no problem in issuing the 404 permit.

159. As confirmed by internal Corps e-mails regarding the § 404 Permit, the Corps’ Operations Division stated that Segment E “will have a negative impact on Addicks and Barker Dams and Reservoirs” and that “the protection of the Addicks and Barker watersheds from

excessive development when and where this is possible within the authority of the Corps should be considered in order to reduce the negative impacts on the dams and reservoirs.”

160. The Operations Division stressed two major areas of concern: (1) the integrity of the Dam in the event of a large pool (that is, the potential for dam failure and the consequences downstream); and (2) the potential for pools covering an area larger than the Corps owns for the storage of these pools (that is, the potential for upstream flooding of homes located within the reservoir).

161. As to the first area of concern, in internal emails, the Corps’ Operations Division stated that “Addicks and Barker Dams were not designed to impound large pools behind them for an extended period of time. These larger and longer lasting pools addressed above have resulted in the increased seepage of waters around the water control structures of these dams increasing the threat to both dams.”

162. As to the second area of concern, in internal emails, the Corps’ Operations Division stated that “both Addicks and Barker Dams can impound or store more water than the Corps owns real estate to store it on. The larger, longer lasting and more frequent pools addressed above increases the potential of this occurring. Should this occur, a large number of residents, business and infrastructure located within the maximum possible pools could be severely impacted for an extended period of time.”

163. In addition, the Natural Resources Manager of both Addicks and Barker Reservoirs submitted his comments on this Segment E project, stating in emails that “construction of new infrastructure within the watershed or that encourages additional development within the watershed that increases the amount of impervious surfaces (sic) within the watershed further compounds issues and problems that already exist with Addicks and

Barker Dams and Reservoirs. It goes without saying, additional impervious surfaces within the Addicks and Barker watershed will increase the volume of flows into the reservoirs, the rate at which flows get to the reservoirs, and the size of the pool generated within the reservoirs... negative impacts will occur to the reservoirs.”

164. Finally, it was concluded by the Natural Resource Manager that the integrity of the dams will be compromised if the proposed project is built, at least for the period of time before a permanent solution is implemented for relieving the dangerous conditions of these Dams .

165. In addition to the Operations Division and the Natural Resources Division, the Corps’ hydrology branch was also asked to consider whether “the potential proposed impacts from the Grand Parkway are acceptable on the Addicks and Barker Reservoirs.”

166. The hydrology branch ultimately, and baldly, concluded “no impacts to the Addicks and Barker Reservoirs are expected” from the Segment E road project itself (Statement of Findings at 18). However – even while it made this unexplained conclusion of “no impacts” – the hydrology branch did come to the same conclusion as the Operations Division and the Natural Resources Division on critical facts.

167. Like the Operations Division and the Natural Resources Division, as stated in the Corps’ Statement of Findings at 17, the Corps’ hydrology branch did confirm that the Grand Parkway Segment E “will induce runoff volume that the project is designed to temporarily control/restrict” and that “this runoff volume will eventually *end up downstream at Addicks Reservoir just like any other development.*” (Emphasis added.) Thus the Corps’ own hydrology branch recognized two critical facts: Segment E, and its induced development, will result in additional runoff volume; and that this will increase the water flowing into Addicks Reservoir.

168. This additional water entering the reservoir necessarily increases the risk of failure at the Addicks Dam, which is already what the Corps calls an “Urgent and Compelling” situation, but the Corps did not discuss any increased risk in its EA.

169. The hydrology branch gave no meaningful explanation for why it found “no impacts” – certainly no quantified explanation, nor an answer that was supported by any documented analysis or information.

170. The hydrology branch failed to address whether or how this known additional runoff volume will affect pool levels in Addicks (or Barker) for any flood less than the Standard Project Flood, whether or how it will affect the release rates of Addicks (or Barker), and whether or how it will affect flooding upstream and downstream of Addicks (or Barker).

171. This failure by the hydrology branch of the Corps to discuss and address these critical issues is troubling by itself, but even more so since other divisions within the Corps of Engineers expressly raised these areas of concern.

172. The Regulatory section of the Corps received these comments from the other divisions of the Corps, but stated that “these concerns were carefully considered and addressed” by the hydrology branch, which “found that it was acceptable to the District for this project to be constructed,” per the hydrology branch’s final e-mail to the Regulatory section.

173. Only the final e-mail from the hydrology branch was referenced, but not included, in the Statement of Findings published by the Corps. However, there were earlier e-mails from the hydrology branch (which provided some of the information included in the Statement of Findings about the additional runoff entering Addicks) that conflict with the hydrology branch’s conclusion of “no impacts to the Addicks and Barker Reservoirs are expected.”

174. In its Statement of Findings at 18, the Corps apparently followed the conclusion stated by its hydrology branch and came to its formal conclusion that “no *unacceptable* impacts to the Addicks and Barker Reservoirs are expected.” (Emphasis added). Not only is this conclusion different than the conclusion expressed by the hydrology branch, as discussed above, but also the Corps entirely fails to disclose what impacts to these Reservoirs it considered to be expected from Segment E and the induced development, and does not come close to explaining why such impacts were found to be “acceptable.”

**N. THE CORPS’ OWN DRAFT SARPE STUDY DEMONSTRATES THAT URBAN DEVELOPMENT INCREASES RISKS AT ADDICKS AND BARKER, BUT WAS NEVER DISCLOSED DURING THE PREPARATION OF THE FEIS**

175. In its Statement of Findings, the Corps also failed to mention the critical implications of its updated hydrologic study that was completed as a “draft” in December 2008. This study, known as the Statistical Analysis of Reservoir Pool Elevations (“SARPE”), was intended to update the Corps’ 1977 hydrology study for the Addicks and Barker Dams and Reservoirs. The study was to address the suspected impacts from the urban development that had been occurring in these watersheds over the past 30 years. The Corps had noticed an increase in the magnitude and frequency of stormwater runoff entering these reservoirs and the resultant increase in pool levels.

176. This Draft SARPE study revealed that in fact urban development had resulted in an increase in frequency of elevated pool levels at both Addicks and Barker Reservoirs. Yet this study was never released to the public, and was only discovered and obtained by the undersigned counsel after a number of FOIA requests to the Corps. This new information about the impact that urban development within the Addicks and Barker Watersheds has had on pool levels within

these Reservoirs was never disclosed during the preparation of the FEIS on this Segment E project.

177. The Corps was a cooperating agency on the FEIS and, as such, had a responsibility to provide such information during that NEPA process, so that the public could be informed about this potential impact and it could have been addressed at that time in that FEIS document.

178. The Draft SARPE study also identified that there are overflows from the upper portions of Cypress Creek that occur during certain large flood events. These overflows enter into the Addicks Watershed and this stormwater eventually ends up in Addicks Reservoir. This overflow from Upper Cypress Creek had not previously been recognized to occur for such flood events in the 1977 hydrology study by the Corps, or in any previous study.

179. The information that the Corps used and relied upon concerning these Cypress Creek overflows came from the Harris County Flood Control District (“HCFCD”) and its work during the Tropical Storm Allison Recovery Project (“TSARP”) in 2004.

180. For example, the Draft SARPE study relied heavily on a Harris County 2004 hydrologic model of the Addicks watershed that estimated the amount of stormwater runoff, including overflows from Upper Cypress Creek, that would enter the Addicks Reservoir. The overflows from Upper Cypress Creek have since been revised, and this updated information has been used to revise the floodplains along Upper Cypress Creek. But the Corps has failed to incorporate any of this revised or updated information about overflows from Cypress Creek in its Draft SARPE study, has failed to determine how it might affect the Addicks Reservoir and its changed Interim Plan, and has therefore failed to do a proper analysis of flood risk with respect to the Section 404 permit.

## VI. CAUSES OF ACTION

### **CAUSE OF ACTION NO. 1—ARMY CORPS VIOLATIONS OF APA:**

181. As set out in the factual recitation above, the Corps made the decision to issue the permit for Segment E of the Grand Parkway knowing that Addicks Reservoir was at risk of catastrophic failure, knowing that their own Interim Plan called for a pool elevation no greater than 97.5 feet (NAVD), and further knowing that the volume of runoff into Addicks Reservoir would be increased by both Segment E and its associated residential and commercial development.

182. As set out in the factual recitation above, if Addicks Reservoir were to experience failure, it would devastate much of western and downtown portions of the Houston metropolitan region.

183. As set out in the factual recitation above, the Corps of Engineers has prepared an “Interim” Plan based on a “Draft” SARPE report to address the potential catastrophic failure of Addicks Reservoir.

184. Nothing is more important to safety and public welfare of Houston than insuring that Addicks Dam is secure and does not experience “catastrophic failure.”

185. No compelling reason exists to issue the permit for Segment E in light of its potential impacts upon the operation of Addicks Reservoir until a full and proper investigation is completed.

186. The Administrative Procedure Act provides for judicial review of final agency action, and it requires the reviewing court to “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. §706.

187. Plaintiffs claim as its first cause of action that the Corps violated the APA by acting in an arbitrary and capricious manner when it determined to issue the Section 404 permit for Segment E (1) without setting forth quantitative analysis of baseline risks and how much the dangers necessarily increase due to Segment E, as well as (2) based upon the “Interim Plan” and the “Draft SARPE” documents, rather than waiting until a more refined and complete analysis was prepared and available to the decision-maker, particularly in light of the actual recognition of significant risks by the Corps’ own Operations Division and Natural Resources Division.

**CAUSE OF ACTION NO. 2—ARMY CORPS VIOLATIONS OF CLEAN WATER ACT:**

188. The Section 404 permit process is governed simultaneously by Corps regulations 33 C.F.R. Parts 320-329 and by EPA guidelines 40 C.F.R. Part 230.

189. The Guidelines developed pursuant to §404(b)(1) of the Clean Water Act are binding upon Corps of Engineers decisions regarding the issuance of permits under Section 404 of the Clean Water Act. 33 C.F.R. § 323.6(a); 40 C.F.R. § 230.2(a).

190. From a structural standpoint, the 404(b)(1) guidelines require that factual determinations be undertaken pursuant to 40 C.F.R. § 230.11 and fact findings be made under 40 C.F.R. § 230.12, in order to determine if the proposed discharge is prohibited under the substantive prohibitions on discharge found at 40 C.F.R. § 230.10.

191. In issuing the 404 permit for Segment E of the Grand Parkway, the Corps failed to undertake or complete the required analyses under the 404(b)(1) Guidelines, including specifically the fact findings that are required by 40 C.F.R. § 230.11.

192. In the instant case, the relationship between the permitting of Segment E of the Grand Parkway and its effects on the aquatic environment, including specifically Addicks Reservoir, is a major point of contention. In particular, 40 C.F.R. § 230.11(b) requires that

impacts on water circulation and downstream flows be determined individually and cumulatively, and 40 C.F.R. § 230.11(h) requires a determination of secondary effects on the aquatic ecosystem, including specifically changes in water levels in an impacted impoundment (e.g. Addicks Reservoir) and downstream impacts associated with operation of a dam (e.g., Buffalo Bayou impacts from releases from Addicks Dam and Reservoir).

193. In its “Evaluation of the Effects of a Discharge of Fill Material Into Waters of the U.S. Using Section 404(b)(1) Guidelines,” the Corps of Engineers failed to analyze the changes in water levels in Addicks Reservoir and downstream as required under 40 C.F.R. § 230.11(h). (Corps of Engineers 404(b)(1) Analysis, at 15).

194. In its “Evaluation of the Effects of a Discharge of Fill Material Into Waters of the U.S. Using Section 404(b)(1) Guidelines,” the Corps of Engineers failed to analyze changes in water levels downstream from the filling activity as required under 40 C.F.R. § 230.11(b).

195. The failure to complete these factual determinations rendered it impossible for the Corps of Engineers to make a procedurally or substantively correct determination of compliance with prohibitions on discharge, including specifically 40 C.F.R. § 230.10(c), which includes significantly adverse impacts to human health or welfare (e.g., potentially flooding thousands of Houstonians and billions of dollars of property).

196. The Administrative Procedure Act provides for judicial review of final agency action, and it requires the reviewing court to “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. §706.

197. The Corps of Engineers, by failing to comply with the 404(b)(1) Guidelines, violated its own regulations, the 404(b)(1) Guidelines themselves, and the Administrative Procedure Act.

**CAUSE OF ACTION NO. 3—ARMY CORPS VIOLATIONS OF NEPA (CHANGED OPERATIONS):**

198. The National Environmental Policy Act directs that all federal agencies must include in all “major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on ... the environmental impact of the proposed action.” 42 U.S.C. § 4332.

199. Under the Corps’ regulations governing procedures for implementing NEPA (33 C.F.R. § 230), actions normally requiring an Environmental Impact Statement (“EIS”) include proposed major changes in the operation of completed projects. 33 C.F.R. § 230.6(c)

200. However, certain actions may only require an Environmental Assessment and not necessarily an EIS (such as changes in pool level operations not considered in a previous EIS, 33 C.F.R. § 230.7(d)).

201. Whether an EA or EIS is prepared, NEPA specifies that the federal agency must take a “hard look” at relevant environmental considerations, including cumulative impacts and/or cumulative actions where otherwise separate decisions have consequences that must be assessed together.

202. The change in the operating plan for Addicks Reservoir (the so-called Interim Plan) represents federal action due to the fact the Corps owns and operates Addicks Dam and Reservoir and is responsible for its operation.

203. No environmental review occurred prior to the adoption of the Interim Plan that changed the operating plan for the Reservoir, and there has been no completed environmental

review in more than a year since adoption of the Interim Plan. The Corps should have completed an EA or EIS on this change in reservoir pool operations because that is the type of federal action which requires NEPA documentation.

204. The Corps also should have submitted these changes to the public for comment and analysis.

205. By failing to evaluate the environmental consequences of this changed operational plan, the Corps violated the National Environmental Policy Act.

206. It is also a violation of the Administrative Procedure Act for the Corps to fail to comply with the National Environmental Policy Act.

**CAUSE OF ACTION NO. 4—ARMY CORPS VIOLATIONS OF NEPA (§ 404 PERMIT):**

207. In addition to violating NEPA relative to the approval of the so-called Interim Plan, the Corps also violated NEPA in the approval of and issuance of its 404 Permit for Segment E.

208. The issuance by the Corps of the § 404 permit is a major federal action subject to the National Environmental Policy Act (NEPA).

209. The regulations of the Corps of Engineers at 33 C.F.R. § 325 Appendix B provides the procedures to be followed by the Regulatory Program of the Corps of Engineers (e.g., the § 404 permit program) in order to comply with the National Environmental Policy Act, including procedures for preparing either an EA or EIS.

210. For an EA, the NEPA analysis must analyze direct, indirect and cumulative impacts associated with the proposed project. 33 C.F.R. § 325 App. B (7)(b).

211. The Corps generally discusses potential impacts on the environment from Segment E in Section 8 of its EA.

212. This discussion of environmental impacts failed to discuss the impacts generated by the additional volume of stormwater runoff that will enter the storage area of Addicks Reservoir and that will have a direct and measureable impact on the operation of Addicks Reservoir, which is being operated under an “interim” plan to reduce the amount of water stored behind the dam.

213. In other words, in one decision document (the Interim Plan), the Corps is setting forth a plan for reducing the amount of water held in storage behind Addicks Reservoir in an attempt to reduce the danger of dam failure, while in another decision document (for the §404 permit for Segment E), the Corps is making a decision to increase the amount of stormwater coming into Addicks Reservoir that will necessarily increase the danger of dam failure.

214. If there were ever a fact situation demanding a rational analysis and evaluation of impacts, it is posed by this apparent contradictory decision-making process, yet the Corps in its environmental full disclosure document fails to address these overlapping, contradictory policies and impacts.

215. Under the regulations of the Council on Environmental Quality which are binding upon the Corps of Engineers, the Corps is obligated to fully evaluate and disclose environmental effects including cumulative impacts.

216. Effects are defined by regulation as including:

(a) Direct effects, which are caused by the action and occur at the same time and place.

(b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative.

40 C.F.R. § 1508.8.

217. Cumulative impacts are defined at 40 C.F.R. § 1508.7 as . . . “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

218. Although the Corps identified that additional volumes of runoff would be generated by Segment E and its associated (e.g. indirect) impacts due to induced land development, the Corps of Engineers failed to analyze the impacts of this additional runoff on the operation of Addicks Reservoir and on Buffalo Bayou downstream from the Addicks Dam.

219. Whether these impacts of Segment E and its development upon Addicks Reservoir are classified as direct or cumulative, the simple fact is that the impact of this increased runoff on the operation of and discharges from Addicks Reservoir were not disclosed or fully evaluated in the environmental assessment prepared for the §404 permit for Segment E.

220. Also, the Corps failed to identify the impacts of increased releases on residents living downstream on Buffalo Bayou and failed to identify the impacts associated with retaining additional water on residents living adjacent to and upstream of Addicks Reservoir.

221. Finally, the Corps claims to have considered the extent and permanence of detrimental effects in its EA under section 9(c). Yet, instead of identifying or analyzing such detrimental effects, or their extent and permanence, the Corps simply concludes that any significant detrimental effects will be off-set by the project’s proposal to mitigate lost wetland

functions and values (in a different watershed), to reduce overall impacts to the environment (without identifying any such impacts on Addicks), and to develop flood retention basins in the region (without identifying these retention basins). Also, no flood retention basins are known to be included in the Segment E proposed project design. Such conclusory statements fail to satisfy the “hard look” that the Corps is required to undertake under NEPA.

222. By these actions and failures to meet the requirements of their own regulations and the regulations of the Council on Environmental Policy, as well as by failing to provide full disclosure of all reasonably foreseeable impacts and actions, the Corps of Engineers failed to comply with the National Environmental Policy Act.

223. Failure to comply with the National Environmental Policy Act also violates the federal Administrative Procedure Act.

**CAUSE OF ACTION NO. 5—FHWA AND TXDOT SUPPLEMENTAL EIS (SEIS) REQUIRED UNDER NEPA:**

224. The Council of Environmental Quality (“CEQ”) regulations found in 40 C.F.R. Parts 1500 through 1508 are applicable to and binding on all Federal agencies for implementing the procedural provisions of NEPA. 40 C.F.R. § 1500.3.

225. These regulations state that such agencies “shall prepare supplements to either draft or final environmental impact statements if ... there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(c)(1)(ii).

226. The FHWA and TxDOT prepared and issued their re-evaluated FEIS in June 2009 on the Grand Parkway Segment E project.

227. Since then, there are significant new circumstances or information that have become known about the operation of Addicks Dam, which are relevant to environmental concerns and bearing on Segment E and its impacts on the operation of Addicks Dam.

228. For example, it is now known that Addicks Dam is classified as having an extremely high risk of dam failure.

229. Additionally, in response to this potential for catastrophic failure, the Corps has changed its operating plan for Addicks Dam, in a manner that provides for increased releases of water from the Dam and Reservoir that will cause flooding downstream.

230. Furthermore, the Corps' updated hydrology study (DRAFT SARPE) has revealed that development activities upstream of and in the watershed of Addicks has resulted in higher flood pools in the reservoir than previously observed.

231. Together, this information represents significant new circumstances or information as that phrase is used in 40 C.F.R. § 1502.9(c).

232. The FEIS previously prepared and issued by the FHWA and TxDOT did not address or consider this information and the potential impacts of Segment E on the operation of Addicks Dam and its potential for flooding as a result of this project.

233. For this reason, although FHWA and TxDOT were previously found to be in compliance with NEPA, the changed circumstances require further NEPA clearance pursuant to 40 C.F.R. § 1502.9(c) and a finding that these agencies are currently violating NEPA.

234. It is a violation of Administrative Procedure Act for an agency to violate NEPA.

## **VII. RELIEF REQUESTED**

235. Plaintiff requests that this Court set aside the Corps' decision to issue the Section E Permit No. SWG-1997-02901 as arbitrary and capricious, or not in accordance with the law, in violation of the APA, Section 404, and NEPA.

236. Plaintiff requests that this Court order the Corps to prepare requisite NEPA documentation of the 2010 Interim Plan and the Draft SARPE Study.

237. Plaintiff requests that this Court order the Army Corps of Engineers to re-evaluate compliance with the EPA 404(b)(1) Guidelines relative to the impact of the construction of Segment E on the aquatic environment and the impact upon the operation of Addicks Reservoir.

238. Plaintiff requests that this Court order the FHWA and TxDOT to restudy environmental impacts of Segment E in Supplemental EIS and cease construction of Segment E until such evaluation and analysis in light of this new information is completed.

## **VIII. INJUNCTIVE RELIEF**

239. Plaintiff seeks final injunctive relief as described above. As necessary, Plaintiff will seek a preliminary injunction and/or a TRO.

240. Plaintiff has made every effort to assert its rights, and Defendants have denied these rights.

241. The interest of Plaintiff Sierra Club along with the specific interest of its individual members will be irreparably harmed by Defendants as a result of the Corps' conduct. These interests are germane to the purpose of the Plaintiff and its members.

242. If Defendants proceed with issuance of the 404 permit without proper environmental review, Plaintiff will suffer significant irreparable harm that, if not already begun, is imminent.

243. Plaintiff has no adequate remedy at law.

244. The public interest will be greatly served by any injunction that secures protection of Addicks Dam and impacted property owners downstream of the dam.

245. All conditions precedent to Plaintiff's claims for relief have been performed or have occurred.

246. Plaintiff is entitled to attorney fees under the Equal Access to Justice Act, 24 U.S.C. § 2412.

247. The Plaintiff requests any other relief that will redress Plaintiff's harm.

#### **IX. PRAYER**

WHEREFORE, PREMISES CONSIDERED, Plaintiff requests a preliminary injunction and upon a final hearing hereof, that a permanent injunction be issued as requested above, and for other and further relief to which Plaintiff may show itself justly entitled, including attorneys fees.

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