

## **APPENDIX A**

### **HYDROLOGIC AND HYDRAULIC ANALYSIS**

#### **GENERAL**

The Hydrologic and Hydraulic information presented in this appendix is provided as a supplement to the Dallas Floodway Extension General Re-evaluation Report (DFEGRR) and integrated Environmental Impact Statement dated February 1999, but also is supplemental to the Programmatic Environmental Impact Statement (PEIS) for the Dallas Upper Trinity River Basin dated June 2000. The hydrologic and hydraulic information provided in Appendix A of the PEIS is referenced in full and this final Supplement to the Dallas Floodway Extension Environmental Impact Statement (SDFEIS) is presented in the same format as the PEIS and the methodology used to determine the effects of the various alternatives is also the same as described in the PEIS. The hydrologic and hydraulic effects are represented in the tables (at the end of this Appendix) indicating the actual computed elevations and flow velocities at selected locations along the Trinity River. The primary purpose of this supplemental information is to show the effects of the various alternative plans that have been preliminarily developed for the Dallas Floodway in combination with each of the final array of alternatives for the DFEGRR. The final array of alternatives for the DFEGRR are 1) No Action Plan, 2) National Economic Development (NED) Plan, 3) Combination Non-Structural / Structural Plan, 4) Tentative Federally Supportable Plan (FSP), and 5) the Locally Preferred Plan as listed on page 4-72 of the DFEGRR. Please refer to the DFEGRR for a detailed description of each of these alternatives. The Dallas Floodway Alternatives presented in the PEIS are 1) No Action Plan, 2) Stemmons Manana Levee Plan, 3) Flood Damage Reduction (FDR) Plan, 4) Environmental Quality (EQ) Plan, 5) Dallas Floodway with Lakes Only Plan, 6) Lakes with Split Parkway – Riverside Alternative, and 7) the Dallas Floodway with Parkway on 1 Levee Plan. Please refer to the PEIS pages A-9 through A-25 for detailed descriptions of each of the Dallas Floodway alternative plans. A brief description of each of the alternatives for both the Dallas Floodway Extension and the Dallas Floodway is provided herein.

#### **HYDROLOGIC AND HYDRAULIC MODELS**

The hydrologic and hydraulic models used for this SDFEIS follow the same development rationale as those used for the PEIS. The HEC-1 hydrologic models used for the SDFEIS are the same as the models used for both the DFEGRR and the PEIS. These models are described in detail in Appendix A of both the DFEGRR and the PEIS. The hydraulic model development and history are described in detail in Appendix A of the PEIS. The hydraulic models used to analyze the various combinations of alternatives presented herein were developed using as a base the same HEC-RAS Version 2.2 hydraulic models as those described under Corridor Development Certificate (CDC) Model on Pages A-7 and A-8 of the PEIS. For the purpose of analysis of the various additional alternatives for the DFEGRR, the basic input data for these alternatives were converted to the HEC-RAS format since these alternatives were originally developed in the HEC-2 format for the DFEGRR. The original HEC-2 models developed for the DFEGRR alternatives were converted to the HEC-RAS model format and combined with the Upper Trinity CDC HEC-RAS model in the same manner that the Recommended Plan for the DFE project was combined with the various alternatives for the Dallas Floodway as described on Page A-9 under Dallas Floodway alternatives in the PEIS. Additionally, the same “future conditions” year 2050 hydrologic land use conditions were used to compute the data herein to maintain consistency with the data presented in the PEIS.

## **DALLAS FLOODWAY EXTENSION ALTERNATIVES**

### **No Action Plan**

The No Action Plan for the Dallas Floodway Extension (DFE) area is described as the without-project condition for this area meaning that the DFE Recommended Plan has not been implemented. The HEC-RAS hydraulic model for this area was derived from the original HEC-2 models described under Baseline Conditions Models in both the DFEGRR and the PEIS. The description of the Baseline Conditions Models can be found on page A-15 of the DFEGRR and on pages A-6 and A-7 of the PEIS. Even though the same CDC HEC-RAS models used in the PEIS were used in this SDFEIS analysis, the input data for the CDC HEC-RAS model and the Baseline Conditions model in the DFE area are identical. The only changes made to the Baseline Conditions model to produce the CDC HEC-RAS model were on the West Fork Trinity River as described on Pages A-7 and A-8 of the PEIS and have no effect on the DFE area.

### **Locally Preferred Plan**

The Locally Preferred Plan for the DFEGRR is also referred to as the Recommended Plan and includes the upper and lower chain of wetlands, the Lamar Street Levee, the Cadillac Heights Levee at the SPF level, and the realignment of the river channel at I.H. 45. An important clarification in terminology is needed in order to properly reference the information presented in the PEIS. The PEIS had a primary focus on reasonably foreseeable future projects by the Corps of Engineers and others including the Recommended Plan for DFE. It was determined that a reasonable establishment of the No Action Plan for the purposes of the PEIS would include all the potential projects and alternatives that had reached a level of development for local and federal approval for implementation. Therefore, the No Action Plan for the PEIS was defined as the condition where “no action” or implementation of any floodplain alternatives except the DFE Recommended Plan was considered. For the purposes of this SDFEIS, the definition of the No Action Plan for the DFE area will be consistent with the DFEGRR and will be as described above under No Action Plan. The No Action Plan as described in the PEIS would more appropriately be called the Locally Preferred Plan in the context of the DFEGRR and this SDFEIS since it includes the effects of the Recommended Plan for DFE. Therefore, the primary advantage of referencing the information presented in the PEIS is that the information will serve to represent fully the analysis for the Locally Preferred Plan for DFE and will not be repeated in this SDFEIS.

### **National Economic Development Plan**

The National Economic Development (NED) Plan for the reduction of flood damages within the DFE study reach calls for excavation of overbank swales within two sections along the Trinity River. The lower swale is located on the left overbank looking downstream and extends from about 2,000 feet downstream of Loop 12 to the oxbow river bend near State Highway 310 (Central Expressway) and is 800 to 1200 feet in width. The upper swale is located on the right overbank and extends from the upstream side of the Central Mitigation Swale adjacent to the Central Wastewater Treatment Plant to the confluence with Cedar Creek and is 1000 to 1100 feet in width. The swale is designed to function as a grass-lined floodway to be maintained free of woody vegetation to provide an efficient means of conveying floodwater. A detailed description of the NED Plan is provided on pages A-16 through A-19 of the DFEGRR.

### **Combination Non-Structural / Structural Plan**

The Combination Non-Structural / Structural Plan includes the same structural flood damage reduction measures as the Locally Preferred Plan with the exception of the SPF Cadillac Heights Levee. In lieu of the Cadillac Heights Levee a non-structural alternative for the Cadillac Heights flood damage area would be combined with the remaining components of the Locally Preferred Plan. A non-structural alternative for the Cadillac Heights area would involve the

acquisition and removal of homes and businesses from the floodplain. For economic analysis purposes, this alternative was analyzed for removal of structures at various flood damage levels. For the hydrologic and hydraulic analysis purposes the Cadillac Heights area was modeled as existing conditions without the Cadillac Heights Levee combined with the remaining features of the Locally Preferred Plan. The primary net effect of this alternative compared with the Locally Preferred Plan is the water surface elevations are slightly lower upstream of the Cadillac Heights area.

### **Tentative Federally Supportable Plan**

The Tentative Federally Supportable Plan was so named because at the time of the DFEGRR, the final federal economic participation in this alternative had not been determined. For the purposes of this SDFEIS, this alternative will be referred to as the FSP. The FSP has the same structural flood damage reduction measures as the Locally Preferred Plan with the exception of the Cadillac Heights Levee. The Cadillac Heights Levee component of the FSP has been designed with a levee height at an approximate 100-year level instead of the SPF Cadillac Heights Levee in the Locally Preferred Plan. The FSP combines the 100-year Cadillac Heights Levee with the remaining features of the Locally Preferred Plan. The primary net effect of this alternative compared with the Locally Preferred Plan is the water surface elevations are slightly lower upstream of the Cadillac Heights area.

## **DALLAS FLOODWAY ALTERNATIVES**

### **General**

The purpose of the hydrologic and hydraulic analysis and the development of the alternatives in the PEIS were to provide planning information for the most reasonably foreseeable alternatives to the extent at which they are known. As previously mentioned, none of these Dallas Floodway alternatives have been developed sufficiently to be locally and federally approved for implementation.

### **No Action Plan**

The No Action Plan for the Dallas Floodway is for “no action” or implementation of any floodplain modifications, either federal or non-federal, within the Dallas Floodway and is represented by the CDC HEC-RAS hydraulic model described in the PEIS. The No Action Plan for the Dallas Floodway has been shown for comparison to each of the alternatives for the Dallas Floodway in the same manner as the PEIS. The No Action Plan for the Dallas Floodway is described herein as applying only to the Dallas Floodway for comparison with the various alternatives for the Dallas Floodway as combined with each of the final array of alternatives in the DFE area. Therefore, when the term “No Action Plan” is used it is used to describe basically current floodplain conditions for each of the Dallas Floodway reach and the Dallas Floodway Extension reach of the Trinity River separately. This is in contrast to the way the No Action Plan was presented in the PEIS which was in combination with the Recommended Plan for DFE.

### **Stemmons Manana Levee Plan**

The Stemmons Manana Levee Plan included in the PEIS has been subsequently determined to lack economic justification for federal participation. Therefore, this alternative has not been included in this SDFEIS.

### **Flood Damage Reduction Plan**

The Flood Damage Reduction (FDR) Plan was developed with the intent to determine on a preliminary basis the National Economic Development (NED) Plan for the Dallas Floodway and is a federal requirement for determination of cost apportionment. The NED Plan is that plan

which maximizes the net economic benefits for flood damage reduction. This plan appeared to be the NED Plan in the context of the PEIS but since it is preliminary in nature at this stage of development, it was referred to as the FDR Plan instead of the NED Plan. The FDR Plan consists of raising the Dallas Floodway Levees by means of additional earth fill up to a consistent height of 2 feet above the design SPF water surface profile. This design is based on the SPF design water surface profile for the PEIS with the Recommended Plan for the DFE in place. Although this is the same design approach that was used for the existing Dallas Floodway levees designed by the Corps in the 1950's, it is important to note that the levee crest height for this plan is determined at every point along the levee by the SPF design water surface profile and is not determined relative to the existing levee height since the existing levee crest profile was designed from a different design water surface profile. The design water surface profile for the levee system is determined according to the established criteria for determining the SPF discharge and selecting the appropriate design hydraulic conditions for the project reach. The design water surface profile in the Dallas Floodway is based on a specific water surface profile within the Dallas Floodway that is strongly influenced by downstream conditions. Since the DFE Recommended Plan is the only alternative that has reached the final approval stage for implementation, this plan was selected as appropriate for determining the design SPF water surface profile for design of the FDR Plan within the Dallas Floodway. From the hydrologic and hydraulic analysis perspective, the data presented herein combining the FDR Plan for the Dallas Floodway with the various alternatives within the DFE area, the same FDR levee raise plan for the Dallas Floodway has been used. The hydrologic and hydraulic data presented both in the PEIS and this SDEIS is only to show the comparative effects of this one specific plan and is not specifically recommended as a flood damage reduction plan. This is also true of each of the Dallas Floodway alternatives presented.

### **Environmental Quality Plan**

The Environmental Quality (EQ) Plan was developed as a stand-alone plan to restore environmental habitat and aesthetic features to the Dallas Floodway and the river channel. The EQ Plan for the Dallas Floodway consists of excavation of a new meandering low flow channel between the levees, the establishment of forested areas and additional wetlands, and raising the levees to provide a comparable flood damage risk as the No Action Plan condition. The meandering channel is designed to mimic the original natural Trinity River channel with respect to plan form, side slope, and capacity. The meandering channel alignment diverges from the existing channel alignment upstream of the Dallas Area Rapid Transit (DART) Bridge at the downstream end and diverges from the existing channel near the confluence of the Elm Fork and the West Fork at the upstream end. The plan includes features that provide for increased forest and wetland area within the floodway which increase flood levels within the floodway and upstream. The plan includes the raising of the existing Dallas Floodway Levees sufficiently to compensate for the increased flood damage risk due to the environmental features such that the flood overtopping risk is approximately the same as the No Action Plan. This plan was developed for the PEIS and with the DFE Recommended Plan in place. Therefore, the flood damage risk in the Dallas Floodway for this plan combined with other alternatives in the DFE area would not be the same as for this plan combined with the DFE Recommended Plan.

### **Lakes with Split Parkway – Riverside Alternative**

The plan consists of a series of lakes, split channels, floodwalls, wetlands, parkland, grasslands, and toll roads on the riverside slopes of the East and West Levees. As evaluated within the main text of the PEIS, this alternative is referred to as the “Lakes with Split Parkway - Riverside Alternative”.

### **Parkway on 1 Levee Plan**

The Parkway on 1 Levee Plan was developed with specific modifications to the Lakes with Split Parkway – Riverside Alternative. The plan was developed for the H&H analysis by assuming that the Parkway would be constructed only on the riverside of the East Levee rather

than on both levees. The Parkway on 1 Levee Plan has been modeled with an earthen embankment having a traffic lanes width of 150 feet for all of the traffic lanes in both directions on the riverside of the East Levee.

### **Lakes Only Plan**

The “Lakes Only” plan was adapted from the Lakes with Split Parkway - Riverside Alternative by the Corps of Engineers to determine the hydrologic and hydraulic effects of a plan that provides primarily recreational and aesthetic benefits but may provide modest flood damage reduction benefits when combined with other plans due to the localized reduction of hydraulic roughness within the Dallas Floodway. The plan was developed for the H&H analysis by assuming that the Parkway would not be constructed between the levees of the Dallas Floodway. Using the Lakes with Split Parkway - Riverside Alternative hydraulic model as a base, the hydraulic model for the Lakes Only Plan was developed by modeling the East and West Levee slopes in their existing configuration and using all other modeled features of the Lakes with Split Parkway - Riverside Alternative. This plan is conceptual and prepared for the purposes of determining the approximate H&H impacts only.

## **PRESENTATION OF DATA**

The presentation of the hydrologic and hydraulic effects follows the same format as those presented in the PEIS. Comparison tables are provided for water surface elevation and average flow velocity at selected points along the Trinity River. Comparison is made in each table for the No Action Plan for the Dallas Floodway versus the various Dallas Floodway Alternatives in combination with each of the remaining final array of alternatives for the DFE study area. The PEIS provides these comparison tables for the combination of the Dallas Floodway Alternatives with the Recommended Plan for the DFE study area.

## **CONCLUSIONS**

### **Flow Velocities**

The computed flow velocities provided in the tables are very similar to the results indicated in the PEIS. The conclusions described in the PEIS for average flow velocities are applicable to the additional data provided herein and no significant changes to flow velocity have been observed.

### **Cumulative Impacts**

The cumulative effects of the various Dallas Floodway alternatives combined with alternatives downstream in the DFE study area and the results of the hydrologic and hydraulic analysis are discussed in the PEIS. These results are presented in terms of the individual projects impacts to the water surface profiles and flow velocities both upstream and downstream. In general, the data presented indicates that a project which raises the water surface profile upstream of the project results in lowering the water surface profile downstream of the project and vice versa due to the valley storage losses or gains resulting from implementation of the project. These phenomena are also observable in the additional data presented herein and the reasons are essentially the same as those discussed in the PEIS and will not be repeated here. Please see the PEIS for discussion of the valley storage effects of the various Dallas Floodway alternatives. However, one important conclusion can be drawn from the additional data presented in the SDFEIS. The relative scale of the effects both upstream and downstream for each of the Dallas Floodway alternatives when compared to the No Action Plan for the Dallas Floodway and combined with the final array of alternatives for DFE is very similar to those observed in the PEIS. In fact, the results show that all of the alternatives of the Dallas Floodway cause relatively insignificant impacts downstream. For example, the 100-year water surface (WS) elevation difference for the Recommended Plan DFE/FDR Plan combination in the PEIS is -

0.16 ft. and the 100-year WS elevation difference for the No Action DFE/FDR Plan combination is -0.16 ft at the West Fork / Elm Fork confluence. The same comparison for the SPF WS elevation is 0.15 ft. for the Recommended Plan DFE/FDR Plan and is -0.05 ft. for the No Action DFE/FDR Plan. One should keep in mind that all of the data presented in the PEIS includes the Recommended Plan for DFE. Also the data indicates that the difference in the scale of the upstream water surface elevation impacts compared to the downstream impacts of the Dallas Floodway alternatives is quite high. This difference is observed in some cases higher than a 10:1 ratio upstream to downstream which means that an alternative that raises the water surface elevation upstream from the project of about 1.0 foot will generally result in lowering the water surface downstream of about 0.1 feet or less. This same hydrologic and hydraulic phenomenon is observed in the DFE alternatives and works to a distinct advantage for the DFE Recommended Plan which results in lowering the water surface elevation upstream in the Dallas Floodway reach significantly where extremely high flood damage values are located and raises flood levels downstream an insignificant amount where very low flood damage values exist.

The cumulative impacts can also be observed in the data when comparing the same plan for Dallas Floodway with various alternatives for DFE. For example, the SPF water surface (WS) elevation comparison upstream of the EQ Plan at the West Fork/Elm Fork Confluence for the EQ Plan/No Action DFE combination with the EQ Plan/Recommended Plan in DFE combination equals -0.57 (437.32 - 437.89) and the same comparison downstream at Loop 12 would equal 0.53 (411.63 - 412.16). This comparison yields the results of adding the Recommended Plan for DFE if the EQ Plan were implemented first. Almost identical results are obtained comparing the No Action in Dallas Floodway/No Action DFE combination and the No Action in Dallas Floodway/Recommended Plan for DFE combination.

Another way of using the data in a cumulative way would be to compare the implementation of two plans simultaneously in both the Dallas Floodway and the DFE area with the No Action Plan for both areas (Existing Conditions). Using the data in the previous example would yield an upstream elevation change for the SPF water surface at the West Fork/Elm Confluence of +1.18 (437.32 - 436.14) and a downstream change at Loop 12 of +0.38 (412.16-411.78). This example yields the impacts of implementation of the EQ Plan and the Recommended Plan for DFE compared with existing conditions.

### **Dallas Floodway Project Combinability**

Each Dallas Floodway alternative presented has been developed individually by focusing on specific benefits to the environment or the economy. For example, the FDR Plan would provide primarily flood damage reduction benefits for the levee protected areas and the EQ Plan would provide primarily terrestrial and aquatic habitat benefits. As mentioned previously, none of the Dallas Floodway alternatives presented have reached a level of development to be recommended for implementation but have been developed sufficiently to determine the plan's economic and environmental feasibility, the hydrologic and hydraulic effects and the potential for mitigating any negative effects. It can be seen from the detailed descriptions of each plan in the PEIS that some of the plans conflict with one another and even have features that if plans were combined would need to occupy the same space. Since it would be impossible to combine plan features occupying the same space or that otherwise may have conflicting purposes it is also not possible to view the hydrologic and hydraulic impacts of these preliminary individual plans developed for the Dallas Floodway as additive. For example, if it was found that one plan raised the water surface one foot at a point and another plan lowered the water surface at the same point the same amount then it might be construed that if the plans were combined the net effect would be approximately no change. This would be invalid because combining plans in most cases would require significant modification to either plan. However, the data provides indications to the overall effects of these types of projects and is valuable in the planning process for ultimately developing a recommended plan that may individually provide several types of benefits and provide the most efficient means of satisfying the needs of the region both economically and environmentally. It is therefore likely, based on the findings of this data that a combination of the various features of the preliminary alternatives could be developed to produce a plan which

results in very insignificant hydrologic hydraulic impacts both upstream and downstream while providing many of the desired benefits. Some specifics of this process would be that since levee raises impact the design of a riverside Parkway reliever route, the Parkway could be located farther toward the river to allow for riverside levee fill required to raise the levees. Also for example, floodplain recreational lakes that tend to lower water surface elevations could be used in some locations while forested areas as in the EQ Plan, that tend to raise water surface elevations could be used in other areas to compensate.

### **Flood Damage Reduction Plan For Dallas Floodway**

The FDR Plan for Dallas Floodway is a plan for raising the existing levees to a height based on the SPF design water surface profile. This plan as presented herein was developed with the SPF design water surface profile resulting from implementation of the DFE Recommended Plan. Under these design conditions, the plan has tentatively been determined to optimally provide significant additional flood damage reduction benefits to the Dallas Floodway protected areas of West Dallas and the Central Business District. These benefits are additional to those benefits gained from implementation of the Recommended Plan for DFE. The claim has been made that a plan for raising the Dallas Floodway Levees without the Recommended Plan for DFE would be more cost effective in terms of providing benefits to the Dallas Floodway area. This claim has been made by opponents of the Recommended Plan for DFE without the benefit of an economic analysis of such a plan and without due consideration of the significant additional design constraints. The claim might seem to be reasonable in terms of the goal of providing flood damage reduction benefits solely for the Dallas Floodway protected area but would be totally ignorant of the primary purpose of the Recommended Plan for DFE which is to provide substantial flood damage reduction benefits to the DFE area. A levee raise plan such as the FDR Plan or any levee raise plan implemented solely for the existing Dallas Floodway levees would provide absolutely no flood damage reduction benefits to the DFE area. So it obviously would be ludicrous to only consider plans to increase flood damage protection for an area that already has a high level of flood protection and ignore a significant development center such as the DFE area that has none. However, the questions of whether or not the DFE Recommended Plan would be economically justified or would be significantly altered if a levee raise plan for the Dallas Floodway levees were implemented prior to the DFE Recommended Plan are valid. An economic analysis for this scenario has been completed for a Dallas Floodway levee raise plan with the same crest height as the FDR Plan and costs reflecting the additional features required to function without the DFE Recommended Plan. It should be noted that this stand-alone levee raise plan without the DFE Recommended Plan would cost more and provide less flood damage reduction benefits for the Dallas Floodway area than the FDR Plan. This is due to the fact that without the DFE Recommended Plan the SPF design water surface profile is higher. Therefore, this levee plan would be at risk of overtopping more frequently than the FDR Plan. The plan costs substantially more because the East Levee extension to high ground at the DART bridge consisting partly of earth embankment and partly of concrete floodwall would also need to be raised and extended. This lateral extension portion of the East Levee is no longer needed if the DFE Recommended is implemented because the downstream end of the East Levee and the upstream end of the Lamar St. Levee as part of the DFE recommended Plan would form one continuous levee. The economic analysis indicates that the DFE Recommended Plan is economically feasible both as a first added and a last added plan when compared to this levee raise plan for Dallas Floodway. Also the implementation of the DFE Recommended Plan prior to a levee raise plan for the Dallas Floodway is advantageous both from the elimination of the need to reconstruct the lateral extension of the East Levee but also from the standpoint of providing a comparable level of protection for the Dallas Floodway as the DFE Recommended plan provides. In order for a levee raise plan for Dallas Floodway to provide the same benefits to the Dallas Floodway area without the DFE Recommended Plan as with the DFE Recommended Plan, it would need to be raised higher than the FDR Plan because of the difference in the SPF water surface profile. Raising the levees higher would likely cause additional impacts to highway bridges which mostly cross the levees at or near the current crest of the levees and will also result in extending the length of East Levee farther in order to tie to high ground. Therefore,

implementation of the DFE Recommended Plan prior to raising the Dallas Floodway levees makes good economic sense and is appropriate for providing the best overall flood damage reduction benefits for the Dallas Floodway protected areas and the DFE area.

## H&H DATA TABLES

### No Action in DFE 100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>EQ Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	424.12	425.30	1.18
Hampton Road	421.87	422.99	1.12
Commerce Street	419.40	420.42	1.02
DART Rail Line	417.61	417.59	-0.02
State Highway 310	410.80	410.74	-0.06
State Highway 12	403.14	403.07	-0.07

### No Action in DFE SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>EQ Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	436.14	437.89	1.75
Hampton Road	434.00	435.75	1.75
Commerce Street	430.72	432.39	1.67
DART Rail Line	427.55	427.41	-0.14
State Highway 310	421.98	421.85	-0.13
State Highway 12	411.78	411.63	-0.15

### No Action in DFE 100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>EQ Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.0	2.0	2.1	3.8	2.3	0.0	-1.2	0.3
Hampton Road	1.9	4.3	2.0	1.8	3.0	1.9	-0.1	-1.3	-0.1
Commerce Street	2.6	6.1	2.6	2.8	4.5	2.8	0.2	-1.6	0.2
DART Rail Line	1.7	4.9	1.7	1.7	4.9	1.7	0.0	0.0	0.0
State Highway 310	1.7	6.3	2.5	1.7	6.3	2.5	0.0	0.0	0.0
State Highway 12	2.2	8.1	2.2	2.2	8.1	2.2	0.0	0.0	0.0

### No Action in DFE SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>EQ Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.9	6.0	2.8	2.8	4.5	3.0	-0.1	-1.5	0.2
Hampton Road	2.8	5.5	2.9	2.7	3.8	2.7	-0.1	-1.7	-0.2
Commerce Street	4.2	8.5	4.0	4.3	6.1	4.2	0.1	-2.4	0.2
DART Rail Line	2.8	7.4	2.8	2.8	7.3	2.8	0.0	-0.1	0.0
State Highway 310	2.1	8.7	2.4	2.1	8.7	2.4	0.0	0.0	0.0
State Highway 12	2.1	11.8	2.3	2.1	11.8	2.2	0.0	0.0	-0.1

No Action in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>FDR Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	424.12	423.96	-0.16
Hampton Road	421.87	421.72	-0.15
Commerce Street	419.40	419.29	-0.11
DART Rail Line	417.61	417.56	-0.05
State Highway 310	410.80	410.80	0.00
State Highway 12	403.14	403.15	0.01

No Action in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>FDR Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	436.14	436.09	-0.05
Hampton Road	434.00	433.92	-0.08
Commerce Street	430.72	430.63	-0.09
DART Rail Line	427.55	427.14	-0.41
State Highway 310	421.98	421.95	-0.03
State Highway 12	411.78	411.75	-0.03

No Action in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>FDR Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.0	2.0	2.1	4.9	1.9	0.0	-0.1	-0.1
Hampton Road	1.9	4.3	2.0	2.0	4.4	2.1	0.1	-0.1	0.1
Commerce Street	2.6	6.1	2.6	2.7	6.2	2.7	0.1	0.1	0.1
DART Rail Line	1.7	4.9	1.7	1.5	4.2	1.4	-0.2	-0.7	-0.3
State Highway 310	1.7	6.3	2.5	1.7	6.3	2.5	0.0	0.0	0.0
State Highway 12	2.2	8.1	2.2	2.2	8.1	2.2	0.0	0.0	0.0

No Action in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>FDR Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.9	6.0	2.8	2.9	5.8	2.7	0.0	-0.2	-0.1
Hampton Road	2.8	5.5	2.9	2.8	5.6	2.9	0.0	0.1	0.0
Commerce Street	4.2	8.5	4.0	4.2	8.7	4.1	0.0	0.2	0.1
DART Rail Line	2.8	7.4	2.8	2.4	6.2	2.4	-0.4	-1.2	-0.4
State Highway 310	2.1	8.7	2.4	2.1	8.7	2.4	0.0	0.0	0.0
State Highway 12	2.1	11.8	2.3	2.1	11.8	2.2	0.0	0.0	-0.1

No Action in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Pkwy on 1 Levee</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	424.12	423.57	-0.55
Hampton Road	421.87	421.37	-0.50
Commerce Street	419.40	418.91	-0.49
DART Rail Line	417.61	417.49	-0.12
State Highway 310	410.80	410.83	0.03
State Highway 12	403.14	403.19	0.05

No Action in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Pkwy on 1 Levee</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	436.14	435.10	-1.04
Hampton Road	434.00	432.98	-1.02
Commerce Street	430.72	429.84	-0.88
DART Rail Line	427.55	427.27	-0.28
State Highway 310	421.98	422.09	0.11
State Highway 12	411.78	411.92	0.14

No Action in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Pkwy on 1 Levee</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.0	2.0	2.1	5.2	2.1	0.0	0.2	0.1
Hampton Road	1.9	4.3	2.0	1.2	2.9	2.3	-0.7	-1.4	0.3
Commerce Street	2.6	6.1	2.6	2.4	4.0	2.2	-0.2	-2.1	-0.4
DART Rail Line	1.7	4.9	1.7	1.6	4.7	1.7	0.0	-0.2	0.0
State Highway 310	1.7	6.3	2.5	1.7	6.3	2.5	0.0	0.0	0.0
State Highway 12	2.2	8.1	2.2	2.2	8.2	2.2	0.0	0.1	0.0

No Action in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Pkwy on 1 Levee</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.9	6.0	2.8	3.0	6.3	2.9	0.1	0.3	0.1
Hampton Road	2.8	5.5	2.9	2.2	3.8	3.3	-0.7	-1.7	0.4
Commerce Street	4.2	8.5	4.0	7.1	5.5	3.1	2.9	-3.0	-0.9
DART Rail Line	2.8	7.4	2.8	2.7	6.9	2.7	-0.1	-0.5	-0.1
State Highway 310	2.1	8.7	2.4	2.1	8.7	2.4	0.0	0.0	0.0
State Highway 12	2.1	11.8	2.3	2.1	11.8	2.3	0.0	0.0	0.0

No Action in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes/Split Pkwy</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	424.12	423.61	-0.51
Hampton Road	421.87	421.42	-0.45
Commerce Street	419.40	418.92	-0.48
DART Rail Line	417.61	417.49	-0.12
State Highway 310	410.80	410.83	0.03
State Highway 12	403.14	403.19	0.05

No Action in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes/Split Pkwy</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	436.14	435.11	-1.03
Hampton Road	434.00	432.98	-1.02
Commerce Street	430.72	429.82	-0.90
DART Rail Line	427.55	427.27	-0.28
State Highway 310	421.98	422.09	0.11
State Highway 12	411.78	411.92	0.14

No Action in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes/Split Pkwy</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.0	2.0	2.1	5.2	2.1	0.0	0.2	0.1
Hampton Road	1.9	4.3	2.0	1.2	2.8	2.3	-0.7	-1.5	0.3
Commerce Street	2.6	6.1	2.6	2.2	3.9	2.3	-0.4	-2.2	-0.3
DART Rail Line	1.7	4.9	1.7	1.6	4.7	1.7	-0.1	-0.2	0.0
State Highway 310	1.7	6.3	2.5	1.7	6.3	2.5	0.0	0.0	0.0
State Highway 12	2.2	8.1	2.2	2.2	8.2	2.2	0.0	0.0	0.0

No Action in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes/Split Pkwy</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.9	6.0	2.8	3.0	6.3	2.9	0.1	0.3	0.1
Hampton Road	2.8	5.5	2.9	1.9	3.8	3.4	-0.9	-1.7	0.5
Commerce Street	4.2	8.5	4.0	4.2	5.3	4.5	0.0	-3.2	0.5
DART Rail Line	2.8	7.4	2.8	2.7	6.9	2.7	-0.1	-0.5	-0.1
State Highway 310	2.1	8.7	2.4	2.1	8.7	2.4	0.0	0.0	0.0
State Highway 12	2.1	11.8	2.3	2.1	11.8	2.3	0.0	0.0	0.0

No Action in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes Only Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	424.12	423.49	-0.63
Hampton Road	421.87	421.24	-0.63
Commerce Street	419.40	418.94	-0.46
DART Rail Line	417.61	417.50	-0.11
State Highway 310	410.80	410.82	0.02
State Highway 12	403.14	403.17	0.03

No Action in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes Only Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	436.14	435.17	-0.97
Hampton Road	434.00	433.06	-0.94
Commerce Street	430.72	429.96	-0.76
DART Rail Line	427.55	427.26	-0.29
State Highway 310	421.98	422.09	0.11
State Highway 12	411.78	411.91	0.13

No Action in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes Only Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.0	2.0	2.1	5.3	2.1	0.0	0.3	0.1
Hampton Road	1.9	4.3	2.0	1.2	2.8	2.3	-0.7	-1.5	0.3
Commerce Street	2.6	6.1	2.6	2.0	3.8	2.1	-0.6	-2.3	-0.5
DART Rail Line	1.7	4.9	1.7	1.5	4.4	1.6	-0.2	-0.5	-0.1
State Highway 310	1.7	6.3	2.5	1.7	6.3	2.5	0.0	0.0	0.0
State Highway 12	2.2	8.1	2.2	2.2	8.2	2.2	0.0	0.0	0.0

No Action in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes Only Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.9	6.0	2.8	3.0	6.2	2.9	0.1	0.2	0.1
Hampton Road	2.8	5.5	2.9	1.8	3.9	3.4	-1.0	-1.6	0.5
Commerce Street	4.2	8.5	4.0	3.1	5.5	3.3	-1.1	-3.0	-0.7
DART Rail Line	2.8	7.4	2.8	2.5	6.7	2.6	-0.3	-0.7	-0.2
State Highway 310	2.1	8.7	2.4	2.1	8.7	2.4	0.0	0.0	0.0
State Highway 12	2.1	11.8	2.3	2.1	11.8	2.3	0.0	0.0	0.0

NED Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>FDR Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	422.87	422.62	-0.25
Hampton Road	419.74	419.46	-0.28
Commerce Street	415.80	415.57	-0.23
DART Rail Line	412.26	412.21	-0.05
State Highway 310	407.17	407.17	0.00
State Highway 12	403.36	403.36	0.00

NED Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>FDR Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.20	434.09	-0.11
Hampton Road	431.37	431.23	-0.14
Commerce Street	426.78	426.64	-0.14
DART Rail Line	421.83	421.69	-0.14
State Highway 310	417.24	417.21	-0.03
State Highway 12	412.24	412.21	-0.03

NED Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>FDR Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.2	5.5	2.1	2.2	5.4	2.1	0.0	-0.1	0.0
Hampton Road	2.2	4.9	2.3	2.2	5.1	2.3	0.0	0.2	0.0
Commerce Street	3.1	7.5	3.1	3.2	7.7	3.2	0.1	0.2	0.1
DART Rail Line	2.0	6.6	2.1	1.8	5.8	1.8	-0.2	-0.8	-0.3
State Highway 310	3.2	4.5	1.6	3.2	4.5	1.6	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.3	2.3	8.2	2.3	0.0	0.0	0.0

NED Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>FDR Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.1	6.5	3.0	3.1	6.4	2.9	0.0	-0.1	-0.1
Hampton Road	3.1	6.1	3.2	3.1	6.2	3.2	0.0	0.1	0.0
Commerce Street	4.7	9.9	4.6	4.8	10.2	4.7	0.1	0.3	0.1
DART Rail Line	3.4	9.3	3.4	2.9	7.8	2.8	-0.5	-1.5	-0.6
State Highway 310	4.3	6.1	2.1	4.3	6.1	2.1	0.0	0.0	0.0
State Highway 12	2.1	11.6	2.3	2.1	11.6	2.2	0.0	0.0	-0.1

NED Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>EQ Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	422.87	424.18	1.31
Hampton Road	419.74	421.16	1.42
Commerce Street	415.80	417.47	1.67
DART Rail Line	412.26	412.24	-0.02
State Highway 310	407.17	407.10	-0.07
State Highway 12	403.36	403.28	-0.08

NED Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>EQ Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.20	435.97	1.77
Hampton Road	431.37	433.20	1.83
Commerce Street	426.78	428.83	2.05
DART Rail Line	421.83	421.67	-0.16
State Highway 310	417.24	417.10	-0.14
State Highway 12	412.24	412.09	-0.15

NED Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>EQ Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.2	5.5	2.1	2.2	4.2	2.4	0.0	-1.3	0.3
Hampton Road	2.2	4.9	2.3	2.0	3.4	2.1	-0.2	-1.5	-0.2
Commerce Street	3.1	7.5	3.1	3.2	5.4	3.2	0.1	-2.1	0.1
DART Rail Line	2.0	6.6	2.1	2.0	6.6	2.1	0.0	0.0	0.0
State Highway 310	3.2	4.5	1.6	3.3	4.5	1.6	0.1	0.0	0.0
State Highway 12	2.2	8.2	2.3	2.2	8.2	2.2	0.0	0.0	-0.1

NED Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>EQ Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.1	6.5	3.0	3.0	4.8	3.2	-0.1	-1.7	0.2
Hampton Road	3.1	6.1	3.2	2.9	4.3	3.0	-0.2	-1.8	-0.2
Commerce Street	4.7	9.9	4.6	4.8	7.0	4.7	0.1	-2.9	0.1
DART Rail Line	3.4	9.3	3.4	3.3	9.3	3.4	-0.1	0.0	0.0
State Highway 310	4.3	6.1	2.1	4.3	6.1	2.1	0.0	0.0	0.0
State Highway 12	2.1	11.6	2.3	2.1	11.6	2.2	0.0	0.0	-0.1

NED Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Pkwy on 1 Levee</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	422.87	422.35	-0.52
Hampton Road	419.74	419.19	-0.55
Commerce Street	415.80	415.17	-0.63
DART Rail Line	412.26	412.16	-0.05
State Highway 310	407.17	407.19	0.02
State Highway 12	403.36	403.39	0.03

NED Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Pkwy on 1 Levee</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.20	433.07	-1.13
Hampton Road	431.37	430.21	-1.16
Commerce Street	426.78	425.58	-1.20
DART Rail Line	421.83	421.60	-0.23
State Highway 310	417.24	417.34	0.10
State Highway 12	412.24	412.34	0.10

NED Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Pkwy on 1 Levee</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.2	5.5	2.1	2.3	5.8	2.2	0.1	0.3	0.1
Hampton Road	2.2	4.9	2.3	2.3	3.3	2.6	0.1	-1.6	0.3
Commerce Street	3.1	7.5	3.1	2.8	5.0	2.5	-0.3	-2.5	-0.6
DART Rail Line	2.0	6.6	2.1	2.0	6.4	2.0	0.0	-0.2	-0.1
State Highway 310	3.2	4.5	1.6	3.2	4.5	1.6	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.3	2.3	8.2	2.3	0.0	0.0	0.0

NED Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Pkwy on 1 Levee</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.1	6.5	3.0	3.2	6.9	3.1	0.1	0.4	0.1
Hampton Road	3.1	6.1	3.2	2.3	4.3	3.7	-0.8	-1.8	0.5
Commerce Street	4.7	9.9	4.6	8.1	6.5	3.6	3.4	-3.4	-1.0
DART Rail Line	3.4	9.3	3.4	3.2	8.9	3.3	-0.2	-0.4	-0.1
State Highway 310	4.3	6.1	2.1	4.3	6.1	2.1	0.0	0.0	0.0
State Highway 12	2.1	11.6	2.3	2.1	11.7	2.3	0.0	0.1	0.0

NED Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes/Split Pkwy</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	422.87	422.37	-0.50
Hampton Road	419.74	419.25	-0.49
Commerce Street	415.80	415.17	-0.63
DART Rail Line	412.26	412.16	-0.10
State Highway 310	407.17	407.20	0.03
State Highway 12	403.36	403.39	0.03

NED Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes/Split Pkwy</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.20	433.12	-1.08
Hampton Road	431.37	430.27	-1.10
Commerce Street	426.78	425.58	-1.20
DART Rail Line	421.83	421.60	-0.23
State Highway 310	417.24	417.35	0.11
State Highway 12	412.24	412.34	0.10

NED Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes/Split Pkwy</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.2	5.5	2.1	2.2	5.8	2.2	0.0	0.3	0.1
Hampton Road	2.2	4.9	2.3	1.3	3.2	2.6	-0.9	-1.7	0.3
Commerce Street	3.1	7.5	3.1	2.5	4.8	2.6	-0.6	-2.7	-0.5
DART Rail Line	2.0	6.6	2.1	2.0	6.4	2.0	0.0	-0.2	-0.1
State Highway 310	3.2	4.5	1.6	3.2	4.5	1.6	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.3	2.3	8.2	2.3	0.0	0.0	0.0

NED Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes/Split Pkwy</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.1	6.5	3.0	3.2	6.9	3.1	0.1	0.4	0.1
Hampton Road	3.1	6.1	3.2	2.1	4.3	3.7	-1.0	-1.8	0.5
Commerce Street	4.7	9.9	4.6	4.7	6.3	5.0	0.0	-3.6	0.4
DART Rail Line	3.4	9.3	3.4	3.2	8.9	3.3	-0.2	-0.4	-0.1
State Highway 310	4.3	6.1	2.1	4.3	6.1	2.1	0.0	0.0	0.0
State Highway 12	2.1	11.6	2.3	2.1	11.7	2.3	0.0	0.1	0.0

NED Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes Only Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	422.87	422.23	-0.64
Hampton Road	419.74	418.95	-0.79
Commerce Street	415.80	415.10	-0.70
DART Rail Line	412.26	412.13	-0.13
State Highway 310	407.17	407.19	0.02
State Highway 12	403.36	403.38	0.02

NED Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes Only Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.20	433.09	-1.11
Hampton Road	431.37	430.22	-0.15
Commerce Street	426.78	425.72	-1.06
DART Rail Line	421.83	421.60	-0.23
State Highway 310	417.24	417.35	0.11
State Highway 12	412.24	412.34	0.10

NED Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes Only Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.2	5.5	2.1	2.3	5.8	2.2	0.1	0.3	0.1
Hampton Road	2.2	4.9	2.3	1.3	3.3	2.6	-0.9	-1.6	0.3
Commerce Street	3.1	7.5	3.1	2.4	4.7	2.5	-0.7	-2.8	-0.6
DART Rail Line	2.0	6.6	2.1	1.9	6.1	1.9	-0.1	-0.5	-0.2
State Highway 310	3.2	4.5	1.6	3.2	4.5	1.6	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.3	2.3	8.2	2.3	0.1	0.0	0.0

NED Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes Only Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.1	6.5	3.0	3.2	6.9	3.1	0.1	0.4	0.1
Hampton Road	3.1	6.1	3.2	2.0	4.4	3.8	-1.1	-1.7	0.6
Commerce Street	4.7	9.9	4.6	3.6	6.5	3.9	-1.1	-3.4	-0.7
DART Rail Line	3.4	9.3	3.4	3.1	8.5	3.2	-0.3	-0.8	-0.2
State Highway 310	4.3	6.1	2.1	4.3	6.1	2.1	0.0	0.0	0.0
State Highway 12	2.1	11.6	2.3	2.1	11.7	2.3	0.0	0.1	0.0

Federal Supportable Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>FDR Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.44	423.24	-0.20
Hampton Road	420.78	420.58	-0.20
Commerce Street	417.70	417.55	-0.15
DART Rail Line	415.32	415.27	-0.05
State Highway 310	407.61	407.62	0.01
State Highway 12	403.35	403.35	0.00

Federal Supportable Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>FDR Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	434.79	-0.14
Hampton Road	432.40	432.20	-0.20
Commerce Street	428.43	428.20	-0.23
DART Rail Line	424.47	424.18	-0.29
State Highway 310	418.05	418.02	-0.03
State Highway 12	412.30	412.27	-0.03

Federal Supportable Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>FDR Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.3	2.1	2.1	5.2	2.0	0.0	-0.1	-0.1
Hampton Road	2.0	4.6	2.1	2.1	4.7	2.2	0.1	0.1	0.1
Commerce Street	2.8	6.7	2.8	2.9	6.8	2.9	0.1	0.1	0.1
DART Rail Line	1.8	5.5	1.8	1.6	4.8	1.6	-0.2	-0.7	-0.2
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.2	8.2	2.3	0.0	0.0	0.1

Federal Supportable Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>FDR Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.0	6.2	2.8	0.0	-0.1	-0.1
Hampton Road	2.9	5.8	3.0	3.0	5.9	3.1	0.1	0.1	0.1
Commerce Street	4.4	9.2	4.3	4.5	9.4	4.4	0.1	0.2	0.1
DART Rail Line	3.0	8.2	3.1	2.6	6.8	2.6	-0.4	-1.4	-0.5
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.5	0.0	0.0	0.0
State Highway 12	2.1	11.7	2.3	2.1	11.6	2.3	0.0	-0.1	0.0

Federal Supportable Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>EQ Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.44	424.70	1.26
Hampton Road	420.78	422.05	1.27
Commerce Street	417.70	418.99	1.29
DART Rail Line	415.32	415.30	-0.02
State Highway 310	407.61	407.55	-0.06
State Highway 12	403.35	403.27	-0.08

Federal Supportable Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>EQ Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	436.64	1.71
Hampton Road	432.40	434.12	1.72
Commerce Street	428.43	430.20	1.77
DART Rail Line	424.47	424.32	-0.15
State Highway 310	418.05	417.91	-0.14
State Highway 12	412.30	412.16	-0.14

Federal Supportable Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>EQ Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.3	2.1	2.2	4.0	2.3	0.1	-1.3	0.1
Hampton Road	2.0	4.6	2.1	1.9	3.2	2.0	-0.1	-1.4	-0.1
Commerce Street	2.8	6.7	2.8	3.0	4.9	3.0	0.2	-1.8	0.2
DART Rail Line	1.8	5.5	1.8	1.8	5.5	1.8	0.0	0.0	0.0
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.2	8.2	2.2	0.0	0.0	0.0

Federal Supportable Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>EQ Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.0	4.7	3.1	0.0	-1.6	0.2
Hampton Road	2.9	5.8	3.0	2.8	4.1	2.9	-0.1	-1.7	-0.1
Commerce Street	4.4	9.2	4.3	4.6	6.6	4.4	0.2	-2.6	0.1
DART Rail Line	3.0	8.2	3.1	3.0	8.2	3.0	0.0	-1.4	-0.1
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.5	0.0	0.0	0.0
State Highway 12	2.1	11.7	2.3	2.1	11.6	2.2	0.0	-0.1	-0.1

Federal Supportable Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Pkwy on 1 Levee</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.44	422.92	-0.52
Hampton Road	420.78	420.28	-0.50
Commerce Street	417.70	417.21	-0.49
DART Rail Line	415.32	415.23	-0.09
State Highway 310	407.61	407.65	0.04
State Highway 12	403.35	403.39	0.04

Federal Supportable Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Pkwy on 1 Levee</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	433.79	-1.14
Hampton Road	432.40	431.23	-1.17
Commerce Street	428.43	427.31	-1.12
DART Rail Line	424.47	424.15	-0.32
State Highway 310	418.05	418.16	0.11
State Highway 12	412.30	412.40	0.10

Federal Supportable Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Pkwy on 1 Levee</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.3	2.1	2.2	5.5	2.1	0.1	0.2	0.0
Hampton Road	2.0	4.6	2.1	1.3	3.0	2.5	-0.7	-1.6	0.4
Commerce Street	2.8	6.7	2.8	2.6	4.4	2.3	-0.2	-2.3	-0.5
DART Rail Line	1.8	5.5	1.8	1.8	5.3	1.8	0.0	-0.2	0.0
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.3	8.2	2.3	0.1	0.0	0.1

Federal Supportable Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Pkwy on 1 Levee</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.1	6.6	3.0	0.0	0.3	0.1
Hampton Road	2.9	5.8	3.0	2.3	4.0	3.5	-0.6	-1.8	0.5
Commerce Street	4.4	9.2	4.3	7.6	6.0	3.4	3.2	-3.2	-0.9
DART Rail Line	3.0	8.2	3.1	3.0	7.7	3.0	0.0	-0.5	-0.1
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.5	0.0	0.0	0.0
State Highway 12	2.1	11.7	2.3	2.1	11.7	2.3	0.0	0.0	0.0

Federal Supportable Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes/Split Pkwy</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.44	422.94	-0.50
Hampton Road	420.78	420.33	-0.45
Commerce Street	417.70	417.21	-0.49
DART Rail Line	415.32	415.23	-0.09
State Highway 310	407.61	407.65	0.04
State Highway 12	403.35	403.39	0.04

Federal Supportable Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes/Split Pkwy</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	433.82	-1.11
Hampton Road	432.40	431.26	-1.14
Commerce Street	428.43	427.30	-1.13
DART Rail Line	424.47	424.15	-0.32
State Highway 310	418.05	418.17	0.12
State Highway 12	412.30	412.40	0.10

Federal Supportable Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes/Split Pkwy</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.3	2.1	2.2	5.5	2.1	0.1	0.2	0.0
Hampton Road	2.0	4.6	2.1	1.2	3.0	2.5	-0.8	-1.6	0.4
Commerce Street	2.8	6.7	2.8	2.4	4.3	2.4	-0.4	-2.4	-0.4
DART Rail Line	1.8	5.5	1.8	1.8	5.3	1.8	0.0	-0.2	0.0
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.3	8.2	2.3	0.0	0.0	0.1

Federal Supportable Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes/Split Pkwy</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.1	6.6	3.0	0.1	0.3	0.1
Hampton Road	2.9	5.8	3.0	2.0	4.0	3.5	-0.9	-1.8	0.5
Commerce Street	4.4	9.2	4.3	4.4	5.8	4.8	0.0	-3.4	0.5
DART Rail Line	3.0	8.2	3.1	3.0	7.7	3.0	0.0	-0.5	-0.1
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.5	0.0	0.0	0.0
State Highway 12	2.1	11.7	2.3	2.1	11.7	2.3	0.0	0.0	0.0

Federal Supportable Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes Only Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.44	422.80	-0.64
Hampton Road	420.78	420.08	-0.70
Commerce Street	417.70	417.16	-0.54
DART Rail Line	415.32	415.22	-0.10
State Highway 310	407.61	407.64	0.03
State Highway 12	403.35	403.38	0.03

Federal Supportable Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes Only Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	433.83	-1.10
Hampton Road	432.40	431.27	-1.13
Commerce Street	428.43	427.43	-1.00
DART Rail Line	424.47	424.15	-0.32
State Highway 310	418.05	418.16	0.11
State Highway 12	412.30	412.40	0.10

Federal Supportable Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes Only Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.3	2.1	2.2	5.6	2.2	0.1	0.3	0.1
Hampton Road	2.0	4.6	2.1	1.2	3.1	2.5	-0.8	-1.5	0.4
Commerce Street	2.8	6.7	2.8	2.2	4.1	2.3	-0.6	-2.6	-0.5
DART Rail Line	1.8	5.5	1.8	1.7	5.0	1.7	-0.1	-0.5	-0.1
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.3	8.2	2.3	0.1	0.0	0.1

Federal Supportable Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes Only Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.1	6.6	3.0	0.1	0.3	0.1
Hampton Road	2.9	5.8	3.0	1.9	4.1	3.6	-1.0	-1.7	0.6
Commerce Street	4.4	9.2	4.3	3.4	6.0	3.6	-1.0	-3.2	-0.7
DART Rail Line	3.0	8.2	3.1	2.8	7.5	2.9	-0.2	-0.7	-0.2
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.6	0.0	0.0	0.1
State Highway 12	2.1	11.7	2.3	2.1	11.7	2.3	0.0	0.0	0.0

Non-Structural / Structural Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>FDR Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.26	423.04	-0.22
Hampton Road	420.46	420.24	-0.22
Commerce Street	417.15	416.98	-0.17
DART Rail Line	414.51	414.45	-0.06
State Highway 310	407.61	407.62	0.01
State Highway 12	403.35	403.35	0.00

Non-Structural / Structural Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>FDR Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	434.79	-0.14
Hampton Road	432.40	432.20	-0.20
Commerce Street	428.43	428.20	-0.23
DART Rail Line	424.47	424.18	-0.29
State Highway 310	418.05	418.02	-0.03
State Highway 12	412.30	412.27	-0.03

Non-Structural / Structural Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>FDR Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.4	2.1	2.2	5.3	2.0	0.1	-0.1	-0.1
Hampton Road	2.1	4.7	2.2	2.1	4.8	2.2	0.0	0.1	0.0
Commerce Street	2.9	6.9	2.9	3.0	7.1	3.0	0.1	0.2	0.1
DART Rail Line	1.9	5.8	1.9	1.7	5.0	1.6	-0.2	-0.8	-0.3
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.1
State Highway 12	2.2	8.2	2.2	2.2	8.2	2.3	0.0	0.0	0.1

Non-Structural / Structural Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>FDR Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.0	6.2	2.8	0.0	-0.1	-0.1
Hampton Road	3.0	5.9	3.0	3.0	6.0	3.1	0.0	0.1	0.1
Commerce Street	4.5	9.3	4.3	4.5	9.5	4.4	0.0	0.2	0.1
DART Rail Line	3.1	8.3	3.1	2.6	6.9	2.6	-0.5	-1.4	-0.5
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.5	0.0	0.0	0.0
State Highway 12	2.1	11.7	2.3	2.1	11.6	2.3	0.0	-0.1	0.0

Non-Structural / Structural Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>EQ Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.26	424.54	1.28
Hampton Road	420.46	421.78	1.32
Commerce Street	417.15	418.54	1.39
DART Rail Line	414.51	414.49	-0.02
State Highway 310	407.61	407.55	-0.06
State Highway 12	403.35	403.27	-0.08

Non-Structural / Structural Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>EQ Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	436.64	1.71
Hampton Road	432.40	434.12	1.72
Commerce Street	428.43	430.20	1.77
DART Rail Line	424.47	424.32	-0.15
State Highway 310	418.05	417.91	-0.14
State Highway 12	412.30	412.16	-0.14

Non-Structural / Structural Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>EQ Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.4	2.1	2.2	4.1	2.3	0.1	-1.3	0.2
Hampton Road	2.1	4.7	2.2	2.0	3.3	2.0	-0.1	-1.4	-0.2
Commerce Street	2.9	6.9	2.9	3.1	5.0	3.1	0.2	-1.9	0.2
DART Rail Line	1.9	5.8	1.9	1.9	5.8	1.9	0.0	0.0	0.0
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.2	8.2	2.2	0.0	0.0	0.0

Non-Structural / Structural Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>EQ Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.0	4.7	3.1	0.0	-1.6	0.2
Hampton Road	3.0	5.9	3.0	2.8	4.1	2.9	-0.2	-1.8	-0.1
Commerce Street	4.5	9.3	4.3	4.6	6.7	4.5	0.1	-2.6	0.2
DART Rail Line	3.1	8.3	3.1	3.1	8.3	3.1	0.0	0.0	0.0
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.5	0.0	0.0	0.0
State Highway 12	2.1	11.7	2.3	2.1	11.6	2.2	0.0	-0.1	-0.1

Non-Structural / Structural Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Pkwy on 1 Levee</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.26	422.73	-0.53
Hampton Road	420.46	419.94	-0.52
Commerce Street	417.15	416.62	-0.53
DART Rail Line	414.51	414.42	-0.09
State Highway 310	407.61	407.65	0.04
State Highway 12	403.35	403.39	0.04

Non-Structural / Structural Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Pkwy on 1 Levee</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	433.79	-1.14
Hampton Road	432.40	431.23	-1.17
Commerce Street	428.43	427.31	-1.12
DART Rail Line	424.47	424.15	-0.32
State Highway 310	418.05	418.16	0.11
State Highway 12	412.30	412.40	0.10

Non-Structural / Structural Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Pkwy on 1 Levee</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.4	2.1	2.2	5.6	2.2	0.1	0.2	0.1
Hampton Road	2.1	4.7	2.2	1.3	3.1	2.5	-0.8	-1.6	0.3
Commerce Street	2.9	6.9	2.9	2.6	4.6	2.4	-0.3	-2.3	-0.5
DART Rail Line	1.9	5.8	1.9	1.8	5.5	1.9	-0.1	-0.3	0.0
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.3	8.2	2.3	0.1	0.0	0.1

Non-Structural / Structural Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Pkwy on 1 Levee</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.2	6.7	3.0	0.2	0.4	0.1
Hampton Road	3.0	5.9	3.0	2.3	4.1	3.5	-0.7	-1.8	0.5
Commerce Street	4.5	9.3	4.3	7.7	6.1	3.4	3.2	-3.2	-0.9
DART Rail Line	3.1	8.3	3.1	3.0	7.9	3.0	-0.1	-0.4	-0.1
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.5	0.0	0.0	0.0
State Highway 12	2.1	11.7	2.3	2.1	11.7	2.3	0.0	0.0	0.0

Non-Structural / Structural Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes/Split Pkwy</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.26	422.75	-0.51
Hampton Road	420.46	419.99	-0.47
Commerce Street	417.15	416.62	-0.53
DART Rail Line	414.51	414.42	-0.09
State Highway 310	407.61	407.65	0.04
State Highway 12	403.35	403.39	0.04

Non-Structural / Structural Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes/Split Pkwy</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	433.82	-1.11
Hampton Road	432.40	431.26	-1.14
Commerce Street	428.43	427.30	-1.13
DART Rail Line	424.47	424.15	-0.32
State Highway 310	418.05	418.17	0.12
State Highway 12	412.30	412.40	0.10

Non-Structural / Structural Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes/Split Pkwy</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.4	2.1	2.2	5.6	2.2	0.1	0.2	0.1
Hampton Road	2.1	4.7	2.2	1.2	3.1	2.5	-0.9	-1.6	0.3
Commerce Street	2.9	6.9	2.9	2.4	4.4	2.5	-0.5	-2.5	-0.4
DART Rail Line	1.9	5.8	1.9	1.8	5.5	1.9	-0.1	-0.3	0.0
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.3	8.2	2.3	0.1	0.0	0.1

Non-Structural / Structural Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes/Split Pkwy</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.2	6.7	3.0	0.2	0.4	0.1
Hampton Road	3.0	5.9	3.0	2.0	4.1	3.6	-1.0	-1.8	0.6
Commerce Street	4.5	9.3	4.3	4.5	5.9	4.8	0.0	-3.4	0.5
DART Rail Line	3.1	8.3	3.1	3.0	7.9	3.0	-0.1	-0.4	-0.1
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.5	0.0	0.0	0.0
State Highway 12	2.1	11.7	2.3	2.1	11.7	2.3	0.0	0.0	0.0

Non-Structural / Structural Plan in DFE  
100-year Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes Only Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	423.26	422.61	-0.65
Hampton Road	420.46	419.72	-0.74
Commerce Street	417.15	416.57	-0.58
DART Rail Line	414.51	414.40	-0.11
State Highway 310	407.61	407.64	0.03
State Highway 12	403.35	403.38	0.03

Non-Structural / Structural Plan in DFE  
SPF Water Surface Elevations (ft.)

<u>Location</u>	<u>No Action Plan</u>	<u>Lakes Only Plan</u>	<u>Difference</u>
West Fork/Elm Fork Confl.	434.93	433.83	-1.10
Hampton Road	432.40	431.27	-1.13
Commerce Street	428.43	427.43	-1.00
DART Rail Line	424.47	424.15	-0.32
State Highway 310	418.05	418.16	0.11
State Highway 12	412.30	412.40	0.10

Non-Structural / Structural Plan in DFE  
100-year Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes Only Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	2.1	5.4	2.1	2.2	5.6	2.2	0.1	0.2	0.1
Hampton Road	2.1	4.7	2.2	1.2	3.1	2.5	-0.9	-1.6	0.3
Commerce Street	2.9	6.9	2.9	2.3	4.3	2.4	-0.6	-2.6	-0.5
DART Rail Line	1.9	5.8	1.9	1.7	5.3	1.8	-0.2	-0.5	-0.1
State Highway 310	1.5	6.3	4.2	1.5	6.3	4.2	0.0	0.0	0.0
State Highway 12	2.2	8.2	2.2	2.3	8.2	2.3	0.1	0.0	0.1

Non-Structural / Structural Plan in DFE  
SPF Flow Velocities (feet per second)

<u>Location</u>	<u>No Action Plan</u>			<u>Lakes Only Plan</u>			<u>Difference</u>		
	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>	<u>Left</u>	<u>Chan</u>	<u>Right</u>
West Fork/Elm Fork Confl.	3.0	6.3	2.9	3.2	6.7	3.0	0.2	0.4	0.1
Hampton Road	3.0	5.9	3.0	1.9	4.2	3.6	-1.1	-1.7	0.6
Commerce Street	4.5	9.3	4.3	3.4	6.0	3.6	-1.1	-3.3	-0.7
DART Rail Line	3.1	8.3	3.1	2.8	7.6	2.9	-0.3	-0.7	-0.2
State Highway 310	2.3	7.5	5.5	2.3	7.5	5.6	0.0	0.0	0.1
State Highway 12	2.1	11.7	2.3	2.1	11.7	2.3	0.0	0.0	0.0