

Table of Contents

Table of Contents

Section A.	Executive Summary	A.1
Section B.	General	B.1.1
	Subsection 1 Introduction.....	B.1.1
	Project Objectives and Work Plan.....	B.1.2
	Report Format	B.1.4
	Subsection 2 Study Area.....	B.2.1
	Topography	B.2.1
	Floodplains	B.2.1
	Land Use	B.2.1
	Climatological	B.2.1
	Temperature	B.2.3
	Precipitation.....	B.2.3
	Geological Features	B.2.3
	Soils	B.2.3
	Groundwater Characteristics.....	B.2.3
	Subsection 3 Data Collection	B.3.1
	Existing Data Collection, Review, and Assessment.....	B.3.1
	Interview with Operation/Maintenance Staff and	
	Residents and Business Owners	B.3.5
	Flooding Hot Spots Map.....	B.3.5
	Field Data Collection	B.3.6
	Field Survey and Coordination	B.3.7
	Geographic Information Systems (GIS) Data	
	Acquisition and Analysis.....	B.3.8
	Delineation of Watershed and Sub Basin Boundaries	B.3.11
	Sub Basin Characterization.....	B.3.16
	Flood Stage Monitoring	B.3.19
	Structure Inventory in GIS	B.3.21
	Assessment of Wildlife Corridors	B.3.21
	Rights-of-Way and Easements	B.3.21
Section C.	Watersheds	C.1.1
	Subsection 1 Methodology	C.1.1
	Watershed Boundary Map.....	C.1.1
	Sensitive Lands	C.1.1
	Conveyance Elements	C.1.2
	Groundwater Table.....	C.1.2
	Water Quantity Model – Hydrology	C.1.2

	Water Quantity Model – Hydraulics.....	C.1.3
	Water Quantity Level of Service.....	C.1.4
	Water Quantity Model - Proposed Projects.....	C.1.4
	Water Budget Analysis	C.1.4
	Water Quality Model.....	C.1.4
	Water Quality – Proposed Projects	C.1.5
	Rights-of-Way.....	C.1.5
	Capital Improvement Budget Recommendations	C.1.5
	Other Projects	C.1.5
	Conclusions and Recommendations.....	C.1.5
	Study Uncertainties	C.1.5
Subsection 2	Yellow Fever Creek – East Branch (16E)	C.2.1
	Watershed Boundary.....	C.2.1
	Sensitive Lands	C.2.3
	Conveyance Elements	C.2.6
	Groundwater Table.....	C.2.9
	Water Quantity Model – Hydrology	C.2.11
	Water Quantity Model – Hydraulics.....	C.2.15
	Water Quantity Level of Service.....	C.2.18
	Water Quantity Model - Proposed Projects.....	C.2.28
	Water Budget Analysis	C.2.28
	Water Quality Model.....	C.2.31
	Water Quality – Proposed Projects	C.2.34
	Rights-of-Way.....	C.2.36
	Capital Improvement Budget Recommendations	C.2.36
	Other Projects	C.2.37
	Conclusions and Recommendations.....	C.2.38
Subsection 3	Powell Creek (17)	C.3.1
	Watershed Boundary.....	C.3.1
	Sensitive Lands	C.3.4
	Conveyance Elements	C.3.7
	Groundwater Table.....	C.3.14
	Water Quantity Model – Hydrology	C.3.16
	Water Quantity Model – Hydraulics.....	C.3.23
	Water Quantity Level of Service.....	C.3.30
	Water Quantity Model - Proposed Projects.....	C.3.40
	Water Budget Analysis	C.3.40
	Water Quality Model.....	C.3.44
	Water Quality – Proposed Projects	C.3.48
	Rights-of-Way.....	C.3.48
	Capital Improvement Budget Recommendations	C.3.49
	Other Projects	C.3.49
	Conclusions and Recommendations.....	C.3.50
Subsection 4	Marsh Point Creek (18)	C.4.1
	Watershed Boundary.....	C.4.1
	Sensitive Lands	C.4.3

	Conveyance Elements	C.4.6
	Groundwater Table.....	C.4.16
	Water Quantity Model – Hydrology	C.4.18
	Water Quantity Model – Hydraulics.....	C.4.23
	Water Quantity Level of Service.....	C.4.27
	Water Quantity Model - Proposed Projects.....	C.4.38
	Water Budget Analysis.....	C.4.45
	Water Quality Model.....	C.4.48
	Water Quality – Proposed Projects	C.4.51
	Rights-of-Way.....	C.4.53
	Capital Improvement Budget Recommendations	C.4.54
	Other Projects	C.4.55
	Conclusions and Recommendations.....	C.4.58
Subsection 5	Cohn Branch (19)	C.5.1
	Watershed Boundary.....	C.5.1
	Sensitive Lands	C.5.3
	Conveyance Elements	C.5.6
	Groundwater Table.....	C.5.13
	Water Quantity Model – Hydrology	C.5.15
	Water Quantity Model – Hydraulics.....	C.5.19
	Water Quantity Level of Service.....	C.5.24
	Water Quantity Model - Proposed Projects.....	C.5.34
	Water Budget Analysis.....	C.5.41
	Water Quality Model.....	C.5.44
	Water Quality – Proposed Projects	C.5.47
	Rights-of-Way.....	C.5.47
	Capital Improvement Budget Recommendations	C.5.48
	Other Projects	C.5.49
	Conclusions and Recommendations.....	C.5.50
Subsection 6	Daughtrey Creek – East Branch (20A).....	C.6.1
	Watershed Boundary.....	C.6.1
	Sensitive Lands	C.6.4
	Conveyance Elements	C.6.7
	Groundwater Table.....	C.6.18
	Water Quantity Model – Hydrology	C.6.20
	Water Quantity Model – Hydraulics.....	C.6.26
	Water Quantity Level of Service.....	C.6.33
	Water Quantity Model - Proposed Projects.....	C.6.43
	Water Budget Analysis.....	C.6.50
	Water Quality Model.....	C.6.53
	Water Quality – Proposed Projects	C.6.56
	Rights-of-Way.....	C.6.57
	Capital Improvement Budget Recommendations	C.6.57
	Other Projects	C.6.58
	Conclusions and Recommendations.....	C.6.59

Subsection 7	Daughtrey Creek (20)	C.7.1
	Watershed Boundary.....	C.7.1
	Sensitive Lands	C.7.4
	Conveyance Elements	C.7.7
	Groundwater Table.....	C.7.18
	Water Quantity Model – Hydrology	C.7.21
	Water Quantity Model – Hydraulics.....	C.7.27
	Water Quantity Level of Service.....	C.7.34
	Water Quantity Model - Proposed Projects.....	C.7.44
	Water Budget Analysis	C.7.48
	Water Quality Model.....	C.7.51
	Water Quality – Proposed Projects	C.7.55
	Rights-of-Way.....	C.7.55
	Capital Improvement Budget Recommendations	C.7.56
	Other Projects	C.7.56
	Conclusions and Recommendations.....	C.7.59
Subsection 8	Chapel Branch (21)	C.8.1
	Watershed Boundary.....	C.8.1
	Sensitive Lands	C.8.3
	Conveyance Elements	C.8.6
	Groundwater Table.....	C.8.16
	Water Quantity Model – Hydrology	C.8.18
	Water Quantity Model – Hydraulics.....	C.8.23
	Water Quantity Level of Service.....	C.8.28
	Water Quantity Model - Proposed Projects.....	C.8.38
	Water Budget Analysis	C.8.46
	Water Quality Model.....	C.8.49
	Water Quality – Proposed Projects	C.8.52
	Rights-of-Way.....	C.8.53
	Capital Improvement Budget Recommendations	C.8.53
	Other Projects	C.8.55
	Conclusions and Recommendations.....	C.8.59
Subsection 9	Bayshore Creek (22)	C.9.1
	Watershed Boundary.....	C.9.1
	Sensitive Lands	C.9.4
	Conveyance Elements	C.9.7
	Groundwater Table.....	C.9.16
	Water Quantity Model – Hydrology	C.9.18
	Water Quantity Model – Hydraulics.....	C.9.24
	Water Quantity Level of Service.....	C.9.31
	Water Quantity Model - Proposed Projects.....	C.9.44
	Water Budget Analysis	C.9.51
	Water Quality Model.....	C.9.54
	Water Quality – Proposed Projects	C.9.57
	Rights-of-Way.....	C.9.58
	Capital Improvement Budget Recommendations	C.9.58
	Other Projects	C.9.59

	Conclusions and Recommendations.....	C.9.64
Subsection 10	Popash Creek (23)	C.10.1
	Watershed Boundary.....	C.10.1
	Sensitive Lands	C.10.4
	Conveyance Elements	C.10.7
	Groundwater Table.....	C.10.15
	Water Quantity Model – Hydrology	C.10.17
	Water Quantity Model – Hydraulics.....	C.10.24
	Water Quantity Level of Service.....	C.10.32
	Water Quantity Model - Proposed Projects.....	C.10.43
	Water Budget Analysis	C.10.53
	Water Quality Model.....	C.10.56
	Water Quality – Proposed Projects	C.10.60
	Rights-of-Way.....	C.10.61
	Capital Improvement Budget Recommendations	C.10.61
	Other Projects	C.10.64
	Conclusions and Recommendations.....	C.10.68
Subsection 11	Stroud Creek (24)	C.11.1
	Watershed Boundary.....	C.11.1
	Sensitive Lands	C.11.4
	Conveyance Elements	C.11.7
	Groundwater Table.....	C.11.16
	Water Quantity Model – Hydrology	C.11.18
	Water Quantity Model – Hydraulics.....	C.11.24
	Water Quantity Level of Service.....	C.11.31
	Water Quantity Model - Proposed Projects.....	C.11.46
	Water Budget Analysis	C.11.55
	Water Quality Model.....	C.11.58
	Water Quality – Proposed Projects	C.11.62
	Rights-of-Way.....	C.11.63
	Capital Improvement Budget Recommendations	C.11.63
	Other Projects	C.11.65
	Conclusions and Recommendations.....	C.11.68
Subsection 12	Palm Creek (25)	C.12.1
	Watershed Boundary.....	C.12.1
	Sensitive Lands	C.12.4
	Conveyance Elements	C.12.7
	Groundwater Table.....	C.12.15
	Water Quantity Model – Hydrology	C.12.17
	Water Quantity Model – Hydraulics.....	C.12.23
	Water Quantity Level of Service.....	C.12.30
	Water Quantity Model - Proposed Projects.....	C.12.41
	Water Budget Analysis	C.12.48
	Water Quality Model.....	C.12.51
	Water Quality – Proposed Projects	C.12.54
	Rights-of-Way.....	C.12.55

	Capital Improvement Budget Recommendations	C.12.55
	Other Projects	C.12.56
	Conclusions and Recommendations.....	C.12.59
Subsection 13	Unnamed 1 Watershed	C.13.1
	Watershed Boundary.....	C.13.1
	Sensitive Lands	C.13.3
	Conveyance Elements	C.13.6
	Groundwater Table.....	C.13.11
	Water Quantity Model – Hydrology	C.13.13
	Water Quantity Model – Hydraulics.....	C.13.16
	Water Quantity Level of Service.....	C.13.21
	Water Quantity Model - Proposed Projects.....	C.13.31
	Water Budget Analysis	C.13.33
	Water Quality Model.....	C.13.36
	Water Quality – Proposed Projects	C.13.39
	Rights-of-Way.....	C.13.39
	Capital Improvement Budget Recommendations	C.13.40
	Other Projects	C.13.40
	Conclusions and Recommendations.....	C.13.43
Subsection 14	Kickapoo Creek (26).....	C.14.1
	Watershed Boundary.....	C.14.1
	Sensitive Lands	C.14.3
	Conveyance Elements	C.14.6
	Groundwater Table.....	C.14.13
	Water Quantity Model – Hydrology	C.14.15
	Water Quantity Model – Hydraulics.....	C.14.18
	Water Quantity Level of Service.....	C.14.23
	Water Quantity Model - Proposed Projects.....	C.14.32
	Water Budget Analysis	C.14.34
	Water Quality Model.....	C.14.37
	Water Quality – Proposed Projects	C.14.39
	Rights-of-Way.....	C.14.40
	Capital Improvement Budget Recommendations	C.14.41
	Other Projects	C.14.41
	Conclusions and Recommendations.....	C.14.42
Subsection 15	Owl Creek (27O).....	C.15.1
	Watershed Boundary.....	C.15.1
	Sensitive Lands	C.15.4
	Conveyance Elements	C.15.7
	Groundwater Table.....	C.15.13
	Water Quantity Model – Hydrology	C.15.15
	Water Quantity Model – Hydraulics.....	C.15.19
	Water Quantity Level of Service.....	C.15.26
	Water Quantity Model - Proposed Projects.....	C.15.36
	Water Budget Analysis	C.15.37
	Water Quality Model.....	C.15.40

	Water Quality – Proposed Projects	C.15.43
	Rights-of-Way.....	C.15.43
	Capital Improvement Budget Recommendations	C.15.44
	Other Projects	C.15.44
	Conclusions and Recommendations.....	C.15.46
Subsection 16	Unnamed 2 Watershed	C.16.1
	Watershed Boundary.....	C.16.1
	Sensitive Lands	C.16.3
	Conveyance Elements	C.16.6
	Groundwater Table.....	C.16.19
	Water Quantity Model – Hydrology	C.16.21
	Water Quantity Model – Hydraulics.....	C.16.24
	Water Quantity Level of Service.....	C.16.29
	Water Quantity Model - Proposed Projects.....	C.16.36
	Water Budget Analysis	C.16.46
	Water Quality Model.....	C.16.49
	Water Quality – Proposed Projects	C.16.52
	Rights-of-Way.....	C.16.53
	Capital Improvement Budget Recommendations	C.16.53
	Other Projects	C.16.54
	Conclusions and Recommendations.....	C.16.55
Section D.	Report Conclusions.....	D.1

List of Tables

Table A.1	Study Area Proposed Projects	A.3
Table B.3.1	List of Structures from Previous Studies	B.3.3
Table B.3.2	List of Structures from FEMA HEC-RAS Models	B.3.3
Table B.3.3	List of Structures from LDOT Construction Plans	B.3.4
Table B.3.4	Field Data Collection Schedule	B.3.7
Table C.2.1	YFCEB Wetland Types and Total Acreages	C.2.3
Table C.2.2	YFCEB Conveyance Elements.....	C.2.6
Table C.2.3	YFCEB Sub Basin Areas	C.2.11
Table C.2.4	YFCEB Existing Conditions Curve Numbers.....	C.2.13
Table C.2.5	YFCEB Future Conditions Curve Numbers.....	C.2.13
Table C.2.6	YFCEB Existing Conditions Time of Concentration	C.2.14
Table C.2.7	YFCEB Future Conditions Time of Concentration.....	C.2.14
Table C.2.8	YFCEB Interconnects	C.2.15
Table C.2.9	YFCEB Time-Stage Boundary Conditions	C.2.17
Table C.2.10	YFCEB Existing Conditions Level of Service (LOS) Comparisons	C.2.21
Table C.2.11	YFCEB Future Conditions Level of Service (LOS) Comparisons	C.2.25
Table C.2.12	YFCEB Water Budget for 5-year, 24-hour Storm Event.....	C.2.29
Table C.2.13	YFCEB Water Budget for 25-year, 3-day Storm Event	C.2.30
Table C.2.14	Total Annual Constituent Loading for YFCEB Based on Existing Conditions (kg/yr)	C.2.32
Table C.2.15	Total Annual Constituent Loading for YFCEB Based on Future Conditions (kg/yr).....	C.2.33
Table C.2.16	YFCEB Level of Service Analysis for Water Quality	C.2.34
Table C.2.17	Proposed BMP LOS Comparison for YFCEB	C.2.35
Table C.2.18	YFCEB BMP Engineer's Estimate of Probable Costs	C.2.37
Table C.3.1	Powell Wetland Types and Total Acreages.....	C.3.4
Table C.3.2	Powell Conveyance Elements	C.3.7
Table C.3.3	Powell Sub Basin Areas	C.3.17
Table C.3.4	Powell Existing Conditions Curve Numbers	C.3.21
Table C.3.5	Powell Future Conditions Curve Numbers	C.3.21
Table C.3.6	Powell Existing Conditions Time of Concentration.....	C.3.22
Table C.3.7	Powell Future Conditions Time of Concentration.....	C.3.22
Table C.3.8	Powell Interconnects	C.3.23
Table C.3.9	Powell Time-Stage Boundary Conditions	C.3.27
Table C.3.10	Powell Existing Conditions Level of Service (LOS) Comparisons.....	C.3.32
Table C.3.11	Powell Future Conditions Level of Service (LOS) Comparisons	C.3.37
Table C.3.12	Powell Water Budget for 5-year, 24-hour Storm Event	C.3.41
Table C.3.13	Powell Water Budget for 25-year, 3-day Storm Event.....	C.3.43
Table C.3.14	Total Annual Constituent Loading for Powell Creek Based on Existing Conditions (kg/yr)	C.3.45
Table C.3.15	Total Annual Constituent Loading for Powell Creek Based on Future Conditions (kg/yr).....	C.3.46
Table C.3.16	Powell Level of Service Analysis for Water Quality	C.3.48

Table C.4.1	Marsh Point Wetland Types and Total Acreages	C.4.3
Table C.4.2	Marsh Point Conveyance Elements	C.4.6
Table C.4.3	Marsh Point Sub Basin Areas.....	C.4.18
Table C.4.4	Marsh Point Existing Conditions Curve Numbers	C.4.20
Table C.4.5	Marsh Point Future Conditions Curve Numbers.....	C.4.21
Table C.4.6	Marsh Point Existing Conditions Time of Concentration	C.4.22
Table C.4.7	Marsh Point Future Conditions Time of Concentration	C.4.22
Table C.4.8	Marsh Point Interconnects.....	C.4.23
Table C.4.9	Marsh Point Time-Stage Boundary Conditions	C.4.26
Table C.4.10	Marsh Point Existing Conditions Level of Service (LOS) Comparisons	C.4.29
Table C.4.11	Marsh Point Future Conditions Level of Service (LOS) Comparisons	C.4.35
Table C.4.12	Project Marsh Point 1 Details	C.4.39
Table C.4.13	Marsh Point Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.4.41
Table C.4.14	Marsh Point Water Budget for 5-year, 24-hour Storm Event	C.4.46
Table C.4.15	Marsh Point Water Budget for 25-year, 3-day Storm Event.....	C.4.47
Table C.4.16	Total Annual Constituent Loading for Marsh Point Creek Based on Existing Conditions (kg/yr)	C.4.49
Table C.4.17	Total Annual Constituent Loading for Marsh Point Creek Based on Future Conditions (kg/yr).....	C.4.50
Table C.4.18	Marsh Point Level of Service Analysis for Water Quality	C.4.51
Table C.4.19	Marsh Point Proposed BMP LOS Comparison	C.4.53
Table C.4.20	Project MPC-1 Engineer's Preliminary Opinion of Probable Cost.....	C.4.54
Table C.4.21	Marsh Point BMP Engineer's Estimate of Probable Cost	C.4.55
Table C.5.1	Cohn Branch Wetland Types and Total Acreages	C.5.3
Table C.5.2	Cohn Branch Conveyance Elements	C.5.6
Table C.5.3	Cohn Branch Sub Basin Areas.....	C.5.15
Table C.5.4	Cohn Branch Existing Conditions Curve Numbers.....	C.5.17
Table C.5.5	Cohn Branch Future Conditions Curve Numbers.....	C.5.17
Table C.5.6	Cohn Branch Existing Conditions Time of Concentration	C.5.18
Table C.5.7	Cohn Branch Future Conditions Time of Concentration	C.5.18
Table C.5.8	Cohn Branch Interconnects	C.5.19
Table C.5.9	Cohn Branch Time-Stage Boundary Conditions	C.5.22
Table C.5.10	Cohn Branch Existing Conditions Level of Service (LOS) Comparisons	C.5.25
Table C.5.11	Cohn Branch Future Conditions Level of Service (LOS) Comparisons	C.5.31
Table C.5.12	Project Cohn Branch 1 Details	C.5.35
Table C.5.13	Cohn Branch Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.5.37
Table C.5.14	Cohn Branch Water Budget for 5-year, 24-hour Storm Event.....	C.5.42
Table C.5.15	Cohn Branch Water Budget for 25-year, 3-day Storm Event.....	C.5.43
Table C.5.16	Total Annual Constituent Loading for Cohn Branch Based on Existing Conditions (kg/yr)	C.5.45
Table C.5.17	Total Annual Constituent Loading for Cohn Branch Based on Future Conditions (kg/yr).....	C.5.46
Table C.5.18	Cohn Branch Level of Service Analysis for Water Quality	C.5.47
Table C.5.19	Project Cohn-1 Engineer's Preliminary Opinion of Probable Costs	C.5.48
Table C.6.1	DCEB Wetland Types and Total Acreages	C.6.4

Table C.6.2	DCEB Conveyance Elements.....	C.6.7
Table C.6.3	DCEB Sub Basin Areas	C.6.20
Table C.6.4	DCEB Existing Conditions Curve Numbers.....	C.6.23
Table C.6.5	DCEB Future Conditions Curve Numbers	C.6.24
Table C.6.6	DCEB Existing Conditions Time of Concentration	C.6.25
Table C.6.7	DCEB Future Conditions Time of Concentration.....	C.6.25
Table C.6.8	DCEB Interconnects	C.6.26
Table C.6.9	DCEB Time-Stage Boundary Conditions	C.6.30
Table C.6.10	DCEB Existing Conditions Level of Service (LOS) Comparisons	C.6.34
Table C.6.11	DCEB Future Conditions Level of Service (LOS) Comparisons	C.6.40
Table C.6.12	Project DCEB 1 Details	C.6.44
Table C.6.13	DCEB Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.6.46
Table C.6.14	DCEB Water Budget for 5-year, 24-hour Storm Event.....	C.6.51
Table C.6.15	DCEB Water Budget for 25-year, 3-day Storm Event	C.6.52
Table C.6.16	Total Annual Constituent Loading for DCEB Based on Existing Conditions (kg/yr)	C.6.54
Table C.6.17	Total Annual Constituent Loading for DCEB Based on Future Conditions (kg/yr).....	C.6.55
Table C.6.18	DCEB Level of Service Analysis for Water Quality	C.6.56
Table C.6.19	Project DCEB-1 Engineer's Preliminary Opinion of Probable Cost.....	C.6.58
Table C.7.1	Daughtrey Wetland Types and Total Acreages.....	C.7.4
Table C.7.2	Daughtrey Conveyance Elements.....	C.7.7
Table C.7.3	Daughtrey Sub Basin Areas	C.7.22
Table C.7.4	Daughtrey Existing Conditions Curve Numbers	C.7.22
Table C.7.5	Daughtrey Future Conditions Curve Numbers	C.7.22
Table C.7.6	Daughtrey Existing Conditions Time of Concentration.....	C.7.26
Table C.7.7	Daughtrey Future Conditions Time of Concentration	C.7.26
Table C.7.8	Daughtrey Interconnects	C.7.27
Table C.7.9	Daughtrey Time-Stage Boundary Conditions.....	C.7.31
Table C.7.10	Daughtrey Existing Conditions Level of Service (LOS) Comparisons.....	C.7.35
Table C.7.11	Daughtrey Future Conditions Level of Service (LOS) Comparisons.....	C.7.41
Table C.7.12	Daughtrey Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.7.45
Table C.7.13	Daughtrey Water Budget for 5-year, 24-hour Storm Event.....	C.7.49
Table C.7.14	Daughtrey Water Budget for 25-year, 3-day Storm Event	C.7.50
Table C.7.15	Total Annual Constituent Loading for Daughtrey Creek Based on Existing Conditions (kg/yr)	C.7.53
Table C.7.16	Total Annual Constituent Loading for Daughtrey Creek Based on Future Conditions (kg/yr).....	C.7.54
Table C.7.17	Daughtrey Level of Service Analysis for Water Quality.....	C.7.55
Table C.8.1	Chapel Branch Wetland Types and Total Acreages	C.8.3
Table C.8.2	Chapel Branch Conveyance Elements.....	C.8.6
Table C.8.3	Chapel Branch Sub Basin Areas	C.8.18
Table C.8.4	Chapel Branch Existing Conditions Curve Numbers	C.8.20
Table C.8.5	Chapel Branch Future Conditions Curve Numbers	C.8.21
Table C.8.6	Chapel Branch Existing Conditions Time of Concentration	C.8.22

Table C.8.7	Chapel Branch Future Conditions Time of Concentration.....	C.8.22
Table C.8.8	Chapel Branch Interconnects	C.8.23
Table C.8.9	Chapel Branch Time-Stage Boundary Conditions.....	C.8.26
Table C.8.10	Chapel Branch Existing Conditions Level of Service (LOS) Comparisons	C.8.29
Table C.8.11	Chapel Branch Future Conditions Level of Service (LOS) Comparisons.....	C.8.35
Table C.8.12	Project Chapel Branch 1 Details	C.8.39
Table C.8.13	Project Chapel Branch 2 Details	C.8.40
Table C.8.14	Chapel Branch Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.8.42
Table C.8.15	Chapel Branch Water Budget for 5-year, 24-hour Storm Event.....	C.8.47
Table C.8.16	Chapel Branch Water Budget for 25-year, 3-day Storm Event	C.8.48
Table C.8.17	Total Annual Constituent Loading for Chapel Branch Based on Existing Conditions (kg/yr)	C.8.50
Table C.8.18	Total Annual Constituent Loading for Chapel Branch Based on Future Conditions (kg/yr).....	C.8.51
Table C.8.19	Chapel Branch Level of Service Analysis for Water Quality	C.8.52
Table C.8.20	Project Chapel-1 Engineer's Preliminary Opinion of Probable Costs	C.8.54
Table C.8.21	Project Chapel-2 Engineer's Preliminary Opinion of Probable Costs	C.8.55
 Table C.9.1	 Bayshore Wetland Types and Total Acreages	 C.9.4
Table C.9.2	Bayshore Conveyance Elements	C.9.7
Table C.9.3	Bayshore Sub Basin Areas.....	C.9.18
Table C.9.4	Bayshore Existing Conditions Curve Numbers	C.9.21
Table C.9.5	Bayshore Future Conditions Curve Numbers.....	C.9.22
Table C.9.6	Bayshore Existing Conditions Time of Concentration	C.9.23
Table C.9.7	Bayshore Future Conditions Time of Concentration	C.9.23
Table C.9.8	Bayshore Interconnects.....	C.9.25
Table C.9.9	Bayshore Time-Stage Boundary Conditions	C.9.29
Table C.9.10	Bayshore Existing Conditions Level of Service (LOS) Comparisons	C.9.32
Table C.9.11	Bayshore Future Conditions Level of Service (LOS) Comparisons	C.9.41
Table C.9.12	Project Bayshore 1 Details	C.9.45
Table C.9.13	Bayshore Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.9.47
Table C.9.14	Bayshore Water Budget for 5-year, 24-hour Storm Event	C.9.52
Table C.9.15	Bayshore Water Budget for 25-year, 3-day Storm Event.....	C.9.53
Table C.9.16	Total Annual Constituent Loading for Bayshore Creek Based on Existing Conditions (kg/yr)	C.9.55
Table C.9.17	Total Annual Constituent Loading for Bayshore Creek Based on Future Conditions (kg/yr).....	C.9.56
Table C.9.18	Bayshore Level of Service Analysis for Water Quality	C.9.57
Table C.9.19	Project Bayshore-1, Bayshore-3, and Bayshore-4 Engineer's Preliminary Opinion of Probable Cost	C.9.59
Table C.9.20	County Project 1	C.9.61
Table C.9.21	County Project 2	C.9.61
 Table C.10.1	 Popash Wetland Types and Total Acreages	 C.10.4
Table C.10.2	Popash Conveyance Elements	C.10.7
Table C.10.3	Popash Sub Basin Areas.....	C.10.18
Table C.10.4	Popash Existing Conditions Curve Numbers	C.10.21

Table C.10.5	Popash Future Conditions Curve Numbers.....	C.10.21
Table C.10.6	Popash Existing Conditions Time of Concentration	C.10.23
Table C.10.7	Popash Future Conditions Time of Concentration	C.10.23
Table C.10.8	Popash Interconnects.....	C.10.25
Table C.10.9	Popash Time-Stage Boundary Conditions	C.10.29
Table C.10.10	Popash Existing Conditions Level of Service (LOS) Comparisons	C.10.33
Table C.10.11	Popash Future Conditions Level of Service (LOS) Comparisons	C.10.40
Table C.10.12	Project Popash 1 Details	C.10.44
Table C.10.13	Project Popash 2A Details.....	C.10.46
Table C.10.14	Project Popash 2B Details.....	C.10.46
Table C.10.15	Project Popash 2C Details.....	C.10.46
Table C.10.16	Project Popash 2D Details.....	C.10.47
Table C.10.17	Project Popash 2E Details.....	C.10.47
Table C.10.18	Project Popash 3 Details	C.10.47
Table C.10.19	Popash Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.10.49
Table C.10.20	Popash Water Budget for 5-year, 24-hour Storm Event	C.10.54
Table C.10.21	Popash Water Budget for 25-year, 3-day Storm Event.....	C.10.55
Table C.10.22	Total Annual Constituent Loading for Popash Creek Based on Existing Conditions (kg/yr)	C.10.58
Table C.10.23	Total Annual Constituent Loading for Popash Creek Based on Future Conditions (kg/yr).....	C.10.59
Table C.10.24	Popash Level of Service Analysis for Water Quality	C.10.60
Table C.10.25	Project Popash-1 Engineer's Preliminary Opinion of Probable Costs.....	C.10.62
Table C.10.26	Project Popash-2 Engineer's Preliminary Opinion of Probable Costs.....	C.10.63
Table C.10.27	Project Popash-3 Engineer's Preliminary Opinion of Probable Costs.....	C.10.64
Table C.11.1	Stroud Wetland Types and Total Acreages.....	C.11.4
Table C.11.2	Stroud Conveyance Elements	C.11.7
Table C.11.3	Stroud Sub Basin Areas	C.11.19
Table C.11.4	Stroud Existing Conditions Curve Numbers	C.11.19
Table C.11.5	Stroud Future Conditions Curve Numbers	C.11.19
Table C.11.6	Stroud Existing Conditions Time of Concentration.....	C.11.23
Table C.11.7	Stroud Future Conditions Time of Concentration	C.11.23
Table C.11.8	Stroud Interconnects	C.11.24
Table C.11.9	Stroud Time-Stage Boundary Conditions	C.11.28
Table C.11.10	Stroud Existing Conditions Level of Service (LOS) Comparisons.....	C.11.32
Table C.11.11	Stroud Future Conditions Level of Service (LOS) Comparisons	C.11.42
Table C.11.12	Project Stroud 1A Details	C.11.48
Table C.11.13	Project Stroud 1B Details	C.11.48
Table C.11.14	Stroud Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.11.50
Table C.11.15	Stroud Water Budget for 5-year, 24-hour Storm Event	C.11.56
Table C.11.16	Stroud Water Budget for 25-year, 3-day Storm Event	C.11.57
Table C.11.17	Total Annual Constituent Loading for Stroud Creek Based on Existing Conditions (kg/yr)	C.11.60
Table C.11.18	Total Annual Constituent Loading for Stroud Creek Based on Future Conditions (kg/yr).....	C.11.61
Table C.11.19	Stroud Level of Service Analysis for Water Quality.....	C.11.62

Table C.11.20	Project SC-1 Engineer's Preliminary Opinion of Probable Cost.....	C.11.64
Table C.12.1	Palm Wetland Types and Total Acreages	C.12.4
Table C.12.2	Palm Conveyance Elements	C.12.7
Table C.12.3	Palm Sub Basin Areas.....	C.12.17
Table C.12.4	Palm Existing Conditions Curve Numbers	C.12.20
Table C.12.5	Palm Future Conditions Curve Numbers.....	C.12.21
Table C.12.6	Palm Existing Conditions Time of Concentration	C.12.22
Table C.12.7	Palm Future Conditions Time of Concentration	C.12.22
Table C.12.8	Palm Interconnects.....	C.12.24
Table C.12.9	Palm Time-Stage Boundary Conditions	C.12.28
Table C.12.10	Palm Existing Conditions Level of Service (LOS) Comparisons	C.12.31
Table C.12.11	Palm Future Conditions Level of Service (LOS) Comparisons	C.12.38
Table C.12.12	Project Palm 1 Details	C.12.42
Table C.12.13	Palm Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.12.44
Table C.12.14	Palm Water Budget for 5-year, 24-hour Storm Event	C.12.49
Table C.12.15	Palm Water Budget for 25-year, 3-day Storm Event.....	C.12.50
Table C.12.16	Total Annual Constituent Loading for Palm Creek Based on Existing Conditions (kg/yr)	C.12.52
Table C.12.17	Total Annual Constituent Loading for Palm Creek Based on Future Conditions (kg/yr).....	C.12.53
Table C.12.18	Palm Level of Service Analysis for Water Quality	C.12.54
Table C.12.19	Project Palm-1 Engineer's Preliminary Opinion of Probable Cost	C.12.56
Table C.13.1	Unnamed 1 Wetland Types and Total Acreages.....	C.13.3
Table C.13.2	Unnamed 1 Conveyance Elements	C.13.6
Table C.13.3	Unnamed 1 Sub Basin Areas	C.13.13
Table C.13.4	Unnamed 1 Existing Conditions Curve Numbers	C.13.15
Table C.13.5	Unnamed 1 Future Conditions Curve Numbers	C.13.15
Table C.13.6	Unnamed 1 Existing Conditions Time of Concentration.....	C.13.16
Table C.13.7	Unnamed 1 Future Conditions Time of Concentration	C.13.16
Table C.13.8	Unnamed 1 Interconnects	C.13.17
Table C.13.9	Unnamed 1 Time-Stage Boundary Conditions.....	C.13.20
Table C.13.10	Unnamed 1 Existing Conditions Level of Service (LOS) Comparisons.....	C.13.22
Table C.13.11	Unnamed 1 Future Conditions Level of Service (LOS) Comparisons.....	C.13.28
Table C.13.12	Unnamed 1 Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.13.31
Table C.13.13	Unnamed 1 Water Budget for 5-year, 24-hour Storm Event	C.13.34
Table C.13.14	Unnamed 1 Water Budget for 25-year, 3-day Storm Event	C.13.35
Table C.13.15	Total Annual Constituent Loading for Unnamed 1 Creek Based on Existing Conditions (kg/yr)	C.13.37
Table C.13.16	Total Annual Constituent Loading for Unnamed 1 Creek Based on Future Conditions (kg/yr).....	C.13.37
Table C.13.17	Unnamed 1 Level of Service Analysis for Water Quality.....	C.13.39
Table C.14.1	Kickapoo Wetland Types and Total Acreages	C.14.3
Table C.14.2	Kickapoo Conveyance Elements.....	C.14.6
Table C.14.3	Kickapoo Sub Basin Areas	C.14.15

Table C.14.4	Kickapoo Existing Conditions Curve Numbers.....	C.14.17
Table C.14.5	Kickapoo Future Conditions Curve Numbers.....	C.14.17
Table C.14.6	Kickapoo Existing Conditions Time of Concentration	C.14.18
Table C.14.7	Kickapoo Future Conditions Time of Concentration.....	C.14.18
Table C.14.8	Kickapoo Interconnects	C.14.19
Table C.14.9	Kickapoo Time-Stage Boundary Conditions.....	C.14.22
Table C.14.10	Kickapoo Existing Conditions Level of Service (LOS) Comparisons	C.14.24
Table C.14.11	Kickapoo Future Conditions Level of Service (LOS) Comparisons.....	C.14.29
Table C.14.12	Kickapoo Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.14.32
Table C.14.13	Kickapoo Water Budget for 5-year, 24-hour Storm Event.....	C.14.35
Table C.14.14	Kickapoo Water Budget for 25-year, 3-day Storm Event	C.14.36
Table C.14.15	Total Annual Constituent Loading for Kickapoo Creek Based on Existing Conditions (kg/yr)	C.14.38
Table C.14.16	Total Annual Constituent Loading for Kickapoo Creek Based on Future Conditions (kg/yr).....	C.14.38
Table C.14.17	Kickapoo Level of Service Analysis for Water Quality	C.14.40
Table C.15.1	Owl Wetland Types and Total Acreages	C.15.4
Table C.15.2	Owl Conveyance Elements	C.15.7
Table C.15.3	Owl Sub Basin Areas.....	C.15.15
Table C.15.4	Owl Existing Conditions Curve Numbers	C.15.18
Table C.15.5	Owl Future Conditions Curve Numbers.....	C.15.18
Table C.15.6	Owl Existing Conditions Time of Concentration	C.15.19
Table C.15.7	Owl Future Conditions Time of Concentration	C.15.19
Table C.15.8	Owl Interconnects	C.15.22
Table C.15.9	Owl Time-Stage Boundary Conditions	C.15.23
Table C.15.10	Owl Existing Conditions Level of Service (LOS) Comparisons	C.15.27
Table C.15.11	Owl Future Conditions Level of Service (LOS) Comparisons	C.15.33
Table C.15.12	Owl Water Budget for 5-year, 24-hour Storm Event.....	C.15.38
Table C.15.13	Owl Water Budget for 25-year, 3-day Storm Event	C.15.39
Table C.15.14	Total Annual Constituent Loading for Owl Creek Based on Existing Conditions (kg/yr)	C.15.41
Table C.15.15	Total Annual Constituent Loading for Owl Creek Based on Future Conditions (kg/yr).....	C.15.42
Table C.15.16	Owl Water Level of Service Analysis for Water Quality	C.15.43
Table C.16.1	Unnamed 2 Wetland Types and Total Acreages	C.16.3
Table C.16.2	Unnamed 2 Conveyance Elements.....	C.16.6
Table C.16.3	Unnamed 2 Sub Basin Areas	C.16.21
Table C.16.4	Unnamed 2 Existing Conditions Curve Numbers	C.16.23
Table C.16.5	Unnamed 2 Future Conditions Curve Numbers	C.16.24
Table C.16.6	Unnamed 2 Existing Conditions Time of Concentration.....	C.16.24
Table C.16.7	Unnamed 2 Future Conditions Time of Concentration	C.16.24
Table C.16.8	Unnamed 2 Interconnects	C.16.25
Table C.16.9	Unnamed 2 Time-Stage Boundary Conditions.....	C.16.28
Table C.16.10	Unnamed 2 Existing Conditions Level of Service (LOS) Comparisons	C.16.30
Table C.16.11	Unnamed 2 Future Conditions Level of Service (LOS) Comparisons.....	C.16.35
Table C.16.12	Project Unnamed 2 Creek 1A Details.....	C.16.40

Table C.16.13	Project Unnamed 2 Creek 1B Details.....	C.16.40
Table C.16.14	Project Unnamed 2 Creek 1C Details	C.16.40
Table C.16.15	Unnamed 2 Proposed Conditions with Improvements Level of Service (LOS) Comparisons	C.16.42
Table C.16.16	Unnamed 2 Water Budget for 5-year, 24-hour Storm Event.....	C.16.47
Table C.16.17	Unnamed 2 Water Budget for 25-year, 3-day Storm Event	C.16.48
Table C.16.18	Total Annual Constituent Loading for Unnamed 2 Creek Based on Existing Conditions (kg/yr)	C.16.50
Table C.16.19	Total Annual Constituent Loading for Unnamed 2 Creek Based on Future Conditions (kg/yr).....	C.16.51
Table C.16.20	Unnamed 2 Level of Service Analysis for Water Quality.....	C.16.52
Table C.16.21	Project UC-1 Engineer's Preliminary Opinion of Probable Costs.....	C.16.54

List of Figures

Figure B.1.1	Focus Area Boundary.....	B.1.2
Figure B.2.1	Location Map	B.2.2
Figure B.3.1	Basin West – Watershed Delineation	B.3.12
Figure B.3.2	Basin Central – Watershed Delineation	B.3.13
Figure B.3.3	Basin East – Watershed Delineation.....	B.3.14
Figure B.3.4	Charlotte County – Watershed Delineation	B.3.15
Figure B.3.5	Stage Recorder Locations	B.3.20
Figure C.2.1	YFCEB Watershed Boundary in Lee County	C.2.2
Figure C.2.2	YFCEB NWI Wetland Map	C.2.4
Figure C.2.3	YFCEB 20/20 Conservation Map	C.2.5
Figure C.2.4	YFCEB Structure Map	C.2.8
Figure C.2.5	YFCEB Groundwater Contour Map	C.2.10
Figure C.2.6	YFCEB Sub Basin Map	C.2.12
Figure C.2.7	YFCEB Node-Link Map	C.2.16
Figure C.2.8	YFCEB Road Designation and Flooding Locations Map	C.2.20
Figure C.2.9	YFCEB 25-year, 3-day Existing Floodplain Map	C.2.23
Figure C.2.10	YFCEB 100-year, 3-day Existing Floodplain Map	C.2.24
Figure C.2.11	YFCEB 25-year, 3-day Future Floodplain Map	C.2.26
Figure C.2.12	YFCEB 100-year, 3-day Future Floodplain Map	C.2.27
Figure C.2.13	Outflow versus Infiltration and Storage for YFCEB for the 5-year, 24-hour Storm Event.....	C.2.29
Figure C.2.14	Outflow versus Infiltration and Storage for YFCEB for the 25-year, 3-day Storm Event	C.2.31
Figure C.3.1	Powell Watershed Boundary in Lee County.....	C.3.2
Figure C.3.2	Powell Watershed Area from Charlotte County.....	C.3.3
Figure C.3.3	Powell NWI Wetland Map	C.3.5
Figure C.3.4	Powell 20/20 Conservation Map.....	C.3.6
Figure C.3.5	Powell Structure Map	C.3.13
Figure C.3.6	Powell Groundwater Contour Map	C.3.15
Figure C.3.7	Powell Sub Basin Map in Lee County	C.3.18
Figure C.3.8	Powell Sub Basin Map in Charlotte County.....	C.3.19
Figure C.3.9	Powell Node-Link Map in Lee County	C.3.24
Figure C.3.10	Powell Node-Link Map in Charlotte County.....	C.3.25
Figure C.3.11	Powell Stage Recorder Location Map	C.3.29
Figure C.3.12	Powell Road Designation and Flooding Locations Map	C.3.31
Figure C.3.13	Powell 25-year, 3-day Existing Floodplain Map	C.3.35
Figure C.3.14	Powell 100-year, 3-day Existing Floodplain Map	C.3.36
Figure C.3.15	Powell 25-year, 3-day Future Floodplain Map.....	C.3.38
Figure C.3.16	Powell 100-year, 3-day Future Floodplain Map.....	C.3.39
Figure C.3.17	Outflow versus Infiltration and Storage for Powell for the 5-year, 24-hour Storm Event.....	C.3.42
Figure C.3.18	Outflow versus Infiltration and Storage for Powell for the 25-year, 3-day Storm Event	C.3.43

Figure C.4.1	Marsh Point Watershed Boundary	C.4.2
Figure C.4.2	Marsh Point NWI Wetland Map	C.4.4
Figure C.4.3	Marsh Point 20/20 Conservation Map	C.4.5
Figure C.4.4	Marsh Point Structure Map.....	C.4.15
Figure C.4.5	Marsh Point Groundwater Contour Map.....	C.4.17
Figure C.4.6	Marsh Point Sub Basin Map.....	C.4.19
Figure C.4.7	Marsh Point Node-Link Map.....	C.4.24
Figure C.4.8	Marsh Point Road Designation and Flooding Locations Map	C.4.30
Figure C.4.9	Marsh Point 25-year, 3-day Existing Floodplain Map.....	C.4.32
Figure C.4.10	Marsh Point 100-year, 3-day Existing Floodplain Map.....	C.4.33
Figure C.4.11	Marsh Point 25-year, 3-day Future Floodplain Map	C.4.36
Figure C.4.12	Marsh Point 100-year, 3-day Future Floodplain Map	C.4.37
Figure C.4.13	Marsh Point Proposed Project's Location Map	C.4.40
Figure C.4.14	Marsh Point 25-year, 3-day Proposed Floodplain Map with Improvements	C.4.43
Figure C.4.15	Marsh Point 100-year, 3-day Proposed Floodplain Map with Improvements	C.4.44
Figure C.4.16	Outflow versus Infiltration and Storage for Marsh Point for the 5-year, 24-hour Storm Event.....	C.4.46
Figure C.4.17	Outflow versus Infiltration and Storage for Marsh Point for the 25-year, 3-day Storm Event	C.4.48
Figure C.4.18	Marsh Point Other Project's Location Map.....	C.4.57
Figure C.5.1	Cohn Branch Watershed Boundary.....	C.5.2
Figure C.5.2	Cohn Branch NWI Wetland Map	C.5.4
Figure C.5.3	Cohn Branch 20/20 Conservation Map	C.5.5
Figure C.5.4	Cohn Branch Structure Map.....	C.5.12
Figure C.5.5	Cohn Branch Groundwater Contour Map.....	C.5.14
Figure C.5.6	Cohn Branch Sub Basin Map	C.5.16
Figure C.5.7	Cohn Branch Node-Link Map	C.5.20
Figure C.5.8	Cohn Branch Road Designation and Flooding Locations Map	C.5.26
Figure C.5.9	Cohn Branch 25-year, 3-day Existing Floodplain Map	C.5.29
Figure C.5.10	Cohn Branch 100-year, 3-day Existing Floodplain Map	C.5.30
Figure C.5.11	Cohn Branch 25-year, 3-day Future Floodplain Map	C.5.32
Figure C.5.12	Cohn Branch 100-year, 3-day Future Floodplain Map	C.5.33
Figure C.5.13	Cohn Branch Proposed Project's Location Map.....	C.5.36
Figure C.5.14	Cohn Branch 25-year, 3-day Proposed Floodplain Map with Improvements.....	C.5.39
Figure C.5.15	Cohn Branch 100-year, 3-day Proposed Floodplain Map with Improvements.....	C.5.40
Figure C.5.16	Outflow versus Infiltration and Storage for Cohn Branch for the 5-year, 24-hour Storm Event.....	C.5.42
Figure C.5.17	Outflow versus Infiltration and Storage for Cohn Branch for the 25-year, 3-day Storm Event	C.5.44
Figure C.6.1	DCEB Watershed Boundary in Lee County	C.6.2
Figure C.6.2	DCEB Watershed Area From Charlotte County	C.6.3
Figure C.6.3	DCEB NWI Wetland Map	C.6.5
Figure C.6.4	DCEB 20/20 Conservation Map	C.6.6
Figure C.6.5	DCEB Structure Map	C.6.17
Figure C.6.6	DCEB Groundwater Contour Map	C.6.19
Figure C.6.7	DCEB Sub Basin Map in Lee County.....	C.6.21

Figure C.6.8	DCEB Sub Basin Map in Charlotte County	C.6.22
Figure C.6.9	DCEB Node-Link Map in Lee County	C.6.27
Figure C.6.10	DCEB Node-Link Map in Charlotte County	C.6.28
Figure C.6.11	DCEB Stage Recorder Location Map.....	C.6.32
Figure C.6.12	DCEB Road Designation and Flooding Locations Map	C.6.35
Figure C.6.13	DCEB 25-year, 3-day Existing Floodplain Map	C.6.38
Figure C.6.14	DCEB 100-year, 3-day Existing Floodplain Map	C.6.39
Figure C.6.15	DCEB 25-year, 3-day Future Floodplain Map	C.6.41
Figure C.6.16	DCEB 100-year, 3-day Future Floodplain Map	C.6.42
Figure C.6.17	DCEB Proposed Project's Location Map.....	C.6.45
Figure C.6.18	DCEB 25-year, 3-day Proposed Floodplain Map with Improvements.....	C.6.48
Figure C.6.19	DCEB 100-year, 3-day Proposed Floodplain Map with Improvements.....	C.6.49
Figure C.6.20	Outflow versus Infiltration and Storage for DCEB for the 5-year, 24-hour Storm Event.....	C.6.51
Figure C.6.21	Outflow versus Infiltration and Storage for DCEB for the 25-year, 3-day Storm Event	C.6.53
Figure C.7.1	Daughtrey Creek Watershed Boundary in Lee County	C.7.2
Figure C.7.2	Daughtrey Creek Watershed Area from Charlotte County.....	C.7.3
Figure C.7.3	Daughtrey NWI Wetland Map.....	C.7.5
Figure C.7.4	Daughtrey 20/20 Conservation Map.....	C.7.6
Figure C.7.5	Daughtrey Structure Map	C.7.17
Figure C.7.6	Daughtrey Groundwater Contour Map	C.7.20
Figure C.7.7	Daughtrey Sub Basin Map.....	C.7.23
Figure C.7.8	Daughtrey Sub Basin Map in Charlotte County.....	C.7.24
Figure C.7.9	Daughtrey Node-Link Map.....	C.7.28
Figure C.7.10	Daughtrey Node-Link Map in Charlotte County.....	C.7.29
Figure C.7.11	Daughtrey Stage Recorder Location Map	C.7.33
Figure C.7.12	Daughtrey Road Designation and Flooding Locations Map	C.7.36
Figure C.7.13	Daughtrey 25-year, 3-day Existing Floodplain Map	C.7.39
Figure C.7.14	Daughtrey 100-year, 3-day Existing Floodplain Map	C.7.40
Figure C.7.15	Daughtrey 25-year, 3-day Future Floodplain Map.....	C.7.42
Figure C.7.16	Daughtrey 100-year, 3-day Future Floodplain Map	C.7.43
Figure C.7.17	Daughtrey 25-year, 3-day Proposed Floodplain Map with Improvements	C.7.46
Figure C.7.18	Daughtrey 100-year, 3-day Proposed Floodplain Map with Improvements	C.7.47
Figure C.7.19	Outflow versus Infiltration and Storage for Daughtrey for the 5-year, 24-hour Storm Event.....	C.7.49
Figure C.7.20	Outflow versus Infiltration and Storage for Daughtrey for the 25-year, 3-day Storm Event	C.7.51
Figure C.7.21	Daughtrey Other Project's Location Map	C.7.58
Figure C.8.1	Chapel Branch Watershed Boundary.....	C.8.2
Figure C.8.2	Chapel Branch NWI Wetland Map	C.8.4
Figure C.8.3	Chapel Branch 20/20 Conservation Map	C.8.5
Figure C.8.4	Chapel Branch Structure Map	C.8.15
Figure C.8.5	Chapel Branch Groundwater Contour Map	C.8.17
Figure C.8.6	Chapel Branch Sub Basin Map	C.8.19
Figure C.8.7	Chapel Branch Node-Link Map	C.8.24
Figure C.8.8	Chapel Branch Road Designation and Flooding Locations Map.....	C.8.30

Figure C.8.9	Chapel Branch 25-year, 3-day Existing Floodplain Map	C.8.33
Figure C.8.10	Chapel Branch 100-year, 3-day Existing Floodplain Map	C.8.34
Figure C.8.11	Chapel Branch 25-year, 3-day Future Floodplain Map	C.8.36
Figure C.8.12	Chapel Branch 100-year, 3-day Future Floodplain Map	C.8.37
Figure C.8.13	Chapel Branch Proposed Project's Location Map.....	C.8.41
Figure C.8.14	Chapel Branch 25-year, 3-day Proposed Floodplain Map with Improvements.....	C.8.44
Figure C.8.15	Chapel Branch 100-year, 3-day Proposed Floodplain Map with Improvements.....	C.8.45
Figure C.8.16	Outflow versus Infiltration and Storage for Chapel Branch for the 5-year, 24-hour Storm Event.....	C.8.47
Figure C.8.17	Outflow versus Infiltration and Storage for Chapel Branch for the 25-year, 3-day Storm Event	C.8.49
Figure C.8.18	Chapel Branch Other Project's Location Map	C.8.58
Figure C.9.1	Bayshore Watershed Boundary in Lee County	C.9.2
Figure C.9.2	Bayshore Watershed Area From Charlotte County.....	C.9.3
Figure C.9.3	Bayshore NWI Wetland Map	C.9.5
Figure C.9.4	Bayshore 20/20 Conservation Map	C.9.6
Figure C.9.5	Bayshore Structure Map	C.9.15
Figure C.9.6	Bayshore Groundwater Contour Map.....	C.9.17
Figure C.9.7	Bayshore Sub Basin Map in Lee County.....	C.9.19
Figure C.9.8	Bayshore Sub Basin Map in Charlotte County	C.9.20
Figure C.9.9	Bayshore Node-Link Map	C.9.26
Figure C.9.10	Bayshore Node-Link Map in Charlotte County	C.9.27
Figure C.9.11	Bayshore Stage Recorder Location Map	C.9.30
Figure C.9.12	Bayshore Road Designation and Flooding Locations Map	C.9.33
Figure C.9.13	Bayshore 25-year, 3-day Existing Floodplain Map.....	C.9.39
Figure C.9.14	Bayshore 100-year, 3-day Existing Floodplain Map.....	C.9.40
Figure C.9.15	Bayshore 25-year, 3-day Future Floodplain Map	C.9.42
Figure C.9.16	Bayshore 100-year, 3-day Future Floodplain Map	C.9.43
Figure C.9.17	Bayshore Proposed Project's Location Map	C.9.46
Figure C.9.18	Bayshore 25-year, 3-day Proposed Floodplain Map with Improvements.....	C.9.49
Figure C.9.19	Bayshore 100-year, 3-day Proposed Floodplain Map with Improvements	C.9.50
Figure C.9.20	Outflow versus Infiltration and Storage for Bayshore for the 5-year, 24-hour Storm Event.....	C.9.52
Figure C.9.21	Outflow versus Infiltration and Storage for Bayshore for the 25-year, 3-day Storm Event	C.9.54
Figure C.9.22	Bayshore Other Project's Location Map	C.9.63
Figure C.10.1	Popash Watershed Boundary in Lee County	C.10.2
Figure C.10.2	Popash Watershed Area from Charlotte County.....	C.10.3
Figure C.10.3	Popash NWI Wetland Map	C.10.5
Figure C.10.4	Popash 20/20 Conservation Map	C.10.6
Figure C.10.5	Popash Structure Map.....	C.10.14
Figure C.10.6	Popash Groundwater Contour Map.....	C.10.16
Figure C.10.7	Popash Sub Basin Map in Lee County	C.10.19
Figure C.10.8	Popash Sub Basin Map in Charlotte County	C.10.20
Figure C.10.9	Popash Node-Link Map in Lee County.....	C.10.26
Figure C.10.10	Popash Node-Link Map in Charlotte County	C.10.27
Figure C.10.11	Popash Stage Recorder Location Map	C.10.31

Figure C.10.12	Popash Road Designation and Flooding Locations Map	C.10.34
Figure C.10.13	Popash 25-year, 3-day Existing Floodplain Map.....	C.10.38
Figure C.10.14	Popash 100-year, 3-day Existing Floodplain Map.....	C.10.39
Figure C.10.15	Popash 25-year, 3-day Future Floodplain Map	C.10.41
Figure C.10.16	Popash 100-year, 3-day Future Floodplain Map	C.10.42
Figure C.10.17	Popash Proposed Project's Location Map	C.10.45
Figure C.10.18	Popash 25-year, 3-day Proposed Floodplain Map with Improvements	C.10.51
Figure C.10.19	Popash 100-year, 3-day Proposed Floodplain Map with Improvements.....	C.10.52
Figure C.10.20	Outflow versus Infiltration and Storage for Popash for the 5-year, 24-hour Storm Event.....	C.10.54
Figure C.10.21	Outflow versus Infiltration and Storage for Popash for the 25-year, 3-day Storm Event	C.10.56
Figure C.10.22	Popash Other Project's Location Map.....	C.10.67
Figure C.11.1	Stroud Watershed Boundary in Lee County	C.11.2
Figure C.11.2	Stroud Watershed Area from Charlotte County.....	C.11.3
Figure C.11.3	Stroud NWI Wetland Map.....	C.11.5
Figure C.11.4	Stroud 20/20 Conservation Map.....	C.11.6
Figure C.11.5	Stroud Structure Map	C.11.15
Figure C.11.6	Stroud Groundwater Contour Map	C.11.17
Figure C.11.7	Stroud Sub Basin Map in Lee County	C.11.20
Figure C.11.8	Stroud Sub Basin Map in Charlotte County.....	C.11.21
Figure C.11.9	Stroud Node-Link Map in Lee County	C.11.25
Figure C.11.10	Stroud Node-Link Map in Charlotte County.....	C.11.26
Figure C.11.11	Stroud Stage Recorder Location Map	C.11.30
Figure C.11.12	Stroud Road Designation and Flooding Locations Map	C.11.34
Figure C.11.13	Stroud 25-year, 3-day Existing Floodplain Map	C.11.40
Figure C.11.14	Stroud 100-year, 3-day Existing Floodplain Map	C.11.41
Figure C.11.15	Stroud 25-year, 3-day Future Floodplain Map.....	C.11.44
Figure C.11.16	Stroud 100-year, 3-day Future Floodplain Map.....	C.11.45
Figure C.11.17	Stroud Proposed Project's Location Map	C.11.49
Figure C.11.18	Stroud 25-year, 3-day Proposed Floodplain Map with Improvements	C.11.53
Figure C.11.19	Stroud 100-year, 3-day Proposed Floodplain Map with Improvements	C.11.54
Figure C.11.20	Outflow versus Infiltration and Storage for Stroud for the 5-year, 24-hour Storm Event.....	C.11.56
Figure C.11.21	Outflow versus Infiltration and Storage for Stroud for the 25-year, 3-day Storm Event	C.11.58
Figure C.11.22	Stroud Other Project's Location Map	C.11.67
Figure C.12.1	Palm Watershed Boundary in Lee County	C.12.2
Figure C.12.2	Palm Watershed Area From Charlotte County.....	C.12.3
Figure C.12.3	Palm NWI Wetland Map	C.12.5
Figure C.12.4	Palm 20/20 Conservation Map	C.12.6
Figure C.12.5	Palm Structure Map.....	C.12.14
Figure C.12.6	Palm Groundwater Contour Map.....	C.12.16
Figure C.12.7	Palm Sub Basin Map in Lee County.....	C.12.18
Figure C.12.8	Palm Sub Basin Map in Charlotte County	C.12.19
Figure C.12.9	Palm Node-Link Map in Lee County.....	C.12.25
Figure C.12.10	Palm Node-Link Map in Charlotte County	C.12.26

Figure C.12.11	Palm Stage Recorder Location Map	C.12.29
Figure C.12.12	Palm Road Designation and Flooding Locations Map	C.12.32
Figure C.12.13	Palm 25-year, 3-day Existing Floodplain Map.....	C.12.36
Figure C.12.14	Palm 100-year, 3-day Existing Floodplain Map.....	C.12.37
Figure C.12.15	Palm 25-year, 3-day Future Floodplain Map	C.12.39
Figure C.12.16	Palm 100-year, 3-day Future Floodplain Map	C.12.40
Figure C.12.17	Palm Proposed Project's Location Map	C.12.43
Figure C.12.18	Palm 25-year, 3-day Proposed Floodplain Map with Improvements.....	C.12.46
Figure C.12.19	Palm 100-year, 3-day Proposed Floodplain Map with Improvements.....	C.12.47
Figure C.12.20	Outflow versus Infiltration and Storage for Palm for the 5-year, 24-hour Storm Event.....	C.12.49
Figure C.12.21	Outflow versus Infiltration and Storage for Palm for the 25-year, 3-day Storm Event	C.12.51
Figure C.12.22	Palm Other Project's Location Map	C.12.58
Figure C.13.1	Unnamed 1 Watershed Boundary	C.13.2
Figure C.13.2	Unnamed 1 NWI Wetland Map.....	C.13.4
Figure C.13.3	Unnamed 1 20/20 Conservation Map.....	C.13.5
Figure C.13.4	Unnamed 1 Structure Map	C.13.10
Figure C.13.5	Unnamed 1 Groundwater Contour Map	C.13.12
Figure C.13.6	Unnamed 1 Sub Basin Map.....	C.13.14
Figure C.13.7	Unnamed 1 Node-Link Map.....	C.13.18
Figure C.13.8	Unnamed 1 Road Designation and Flooding Locations Map	C.13.23
Figure C.13.9	Unnamed 1 25-year, 3-day Existing Floodplain Map	C.13.26
Figure C.13.10	Unnamed 1 100-year, 3-day Existing Floodplain Map	C.13.27
Figure C.13.11	Unnamed 1 25-year, 3-day Future Floodplain Map	C.13.29
Figure C.13.12	Unnamed 1 100-year, 3-day Future Floodplain Map	C.13.30
Figure C.13.13	Outflow versus Infiltration and Storage for Unnamed 1 for the 5-year, 24-hour Storm Event.....	C.13.34
Figure C.13.14	Outflow versus Infiltration and Storage for Unnamed 1 for the 25-year, 3-day Storm Event	C.13.36
Figure C.13.15	Unnamed 1 Other Project's Location Map	C.13.42
Figure C.14.1	Kickapoo Watershed Boundary	C.14.2
Figure C.14.2	Kickapoo NWI Wetland Map.....	C.14.4
Figure C.14.3	Kickapoo 20/20 Conservation Map	C.14.5
Figure C.14.4	Kickapoo Structure Map	C.14.12
Figure C.14.5	Kickapoo Groundwater Contour Map	C.14.14
Figure C.14.6	Kickapoo Sub Basin Map	C.14.16
Figure C.14.7	Kickapoo Node-Link Map	C.14.20
Figure C.14.8	Kickapoo Road Designation and Flooding Locations Map	C.14.25
Figure C.14.9	Kickapoo 25-year, 3-day Existing Floodplain Map	C.14.27
Figure C.14.10	Kickapoo 100-year, 3-day Existing Floodplain Map	C.14.28
Figure C.14.11	Kickapoo 25-year, 3-day Future Floodplain Map	C.14.30
Figure C.14.12	Kickapoo 100-year, 3-day Future Floodplain Map	C.14.31
Figure C.14.13	Outflow versus Infiltration and Storage for Kickapoo for the 5-year, 24-hour Storm Event.....	C.14.35
Figure C.14.14	Outflow versus Infiltration and Storage for Kickapoo for the 25-year, 3-day Storm Event	C.14.37

Figure C.15.1	Owl Creek Watershed Boundary in Lee County.....	C.15.2
Figure C.15.2	Owl Creek Watershed Area from Charlotte County	C.15.3
Figure C.15.3	Owl NWI Wetland Map	C.15.5
Figure C.15.4	Owl 20/20 Conservation Map	C.15.6
Figure C.15.5	Owl Structure Map	C.15.12
Figure C.15.6	Owl Groundwater Contour Map.....	C.15.14
Figure C.15.7	Owl Sub Basin Map in Lee County.....	C.15.16
Figure C.15.8	Owl Sub Basin Map in Charlotte County	C.15.17
Figure C.15.9	Owl Node-Link Map in Lee County.....	C.15.20
Figure C.15.10	Owl Node-Link Map in Charlotte County	C.15.21
Figure C.15.11	Owl Stage Recorder Location Map	C.15.25
Figure C.15.12	Owl Road Designation and Flooding Locations Map	C.15.28
Figure C.15.13	Owl 25-year, 3-day Existing Floodplain Map.....	C.15.31
Figure C.15.14	Owl 100-year, 3-day Existing Floodplain Map.....	C.15.32
Figure C.15.15	Owl 25-year, 3-day Future Floodplain Map	C.15.34
Figure C.15.16	Owl 100-year, 3-day Future Floodplain Map	C.15.35
Figure C.15.17	Outflow versus Infiltration and Storage for Owl for the 5-year, 24-hour Storm Event.....	C.15.38
Figure C.15.18	Outflow versus Infiltration and Storage for Owl for the 25-year, 3-day Storm Event	C.15.40
Figure C.15.19	Owl Other Project's Location Map.....	C.15.45
Figure C.16.1	Unnamed 2 Watershed Boundary	C.16.2
Figure C.16.2	Unnamed 2 NWI Wetland Map	C.16.4
Figure C.16.3	Unnamed 2 20/20 Conservation Map.....	C.16.5
Figure C.16.4	Unnamed 2 Structure Map	C.16.18
Figure C.16.5	Unnamed 2 Groundwater Contour Map	C.16.20
Figure C.16.6	Unnamed 2 Sub Basin Map.....	C.16.22
Figure C.16.7	Unnamed 2 Node-Link Map.....	C.16.26
Figure C.16.8	Unnamed 2 Road Designation and Flooding Locations Map	C.16.31
Figure C.16.9	Unnamed 2 25-year, 3-day Existing Floodplain Map	C.16.33
Figure C.16.10	Unnamed 2 100-year, 3-day Existing Floodplain Map	C.16.34
Figure C.16.11	Unnamed 2 25-year, 3-day Future Floodplain Map	C.16.37
Figure C.16.12	Unnamed 2 100-year, 3-day Future Floodplain Map	C.16.38
Figure C.16.13	Unnamed 2 Proposed Project's Location Map	C.16.41
Figure C.16.14	Unnamed 2 25-year, 3-day Proposed Floodplain Map with Improvements	C.16.44
Figure C.16.15	Unnamed 2 100-year, 3-day Proposed Floodplain Map with Improvements	C.16.45
Figure C.16.16	Outflow versus Infiltration and Storage for Unnamed 2 for the 5-year, 24-hour Storm Event.....	C.16.47
Figure C.16.17	Outflow versus Infiltration and Storage for Unnamed 2 for the 25-year, 3-day Storm Event	C.16.49

Appendices

- Appendix A Lee County Department of Transportation (LDOT) Request for Action (RFA) Complaints Database
- Appendix B Public Information Meeting No. 1 November 8, 2006 Presentation
- Appendix C Completed Questionnaires from November 8, 2006 Meeting
- Appendix D Public Information Meeting No. 2 January 13, 2009 Fact Sheet
- Appendix E Flooding Hot Spots Map
- Appendix F Survey Data and Surveyed Structures Map
- Appendix G Existing Conditions Land Use Map
- Appendix H Future Conditions Land Use Map
- Appendix I Soils Map
- Appendix J Stage Recorder Data
- Appendix K NEXRAD Data
- Appendix L Structure Inventory
- Appendix M Wildlife Corridors and Endangered Species Map
- Appendix N Groundwater Data within the Study Area
- Appendix O Sub Basin Travel Time for Each Watershed
- Appendix P Stage-Area Determination for the Sub Basins in Each Watershed
- Appendix Q Existing Conditions Input and Output Model Information
- Appendix R Future Conditions Input and Output Model Information
- Appendix S Floodplain Mapping Tables for Existing and Future Conditions
- Appendix T Proposed Conditions Input and Output Model Information
- Appendix U Floodplain Mapping Tables for Proposed Condition
- Appendix V Water Quality Methodology
- Appendix W Water Quality Spreadsheet Model

- Appendix X Surface Water Quality Classifications published by FDEP, Rule 62-302.530
- Appendix Y Lee County Water Quality Monitoring Stations Information and Data
- Appendix Z Water Quality Proposed Improvements Spreadsheet
- Appendix AA SFWMD Technical Memorandum