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## A Blanket of Immunity Will Not Keep Florida Dry: Proposed Adjustments to Florida's Drainage Regulations and Sovereign Immunity Laws to Account for Climate Change Impacts

Theresa K. Bowley

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A BLANKET OF IMMUNITY WILL NOT  
KEEP FLORIDA DRY:  
PROPOSED ADJUSTMENTS TO  
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AND SOVEREIGN IMMUNITY LAWS TO  
ACCOUNT FOR CLIMATE CHANGE IMPACTS

*Theresa K. Bowley<sup>A</sup>*

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<sup>A</sup> J.D. Candidate, Florida A&M University College of Law, 2016. The author would like to thank Randall Abate, FAMU Law Professor and Project Director, Environment, Development & Justice Program for his invaluable advice and suggestions throughout the writing process; and Keith Rizzardi, St. Thomas Law Professor, for his mentoring and input. Special thanks to Professor Bob Minarcin for his guidance and wit, Professor Markita Cooper for her wisdom, and David Nelson for his love, patience, and support.

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## INTRODUCTION

The saying that “[w]ater is Florida’s lifeblood” is commonplace and management of water resources is a concern for all Floridians.<sup>1</sup> Since the Sunshine State receives 50 to 65 inches of rainfall from about 120 storms a year, the resulting runoff represents a key component of the state’s water resources, and proper stormwater management is vital to the quality of life in Florida.<sup>2</sup> Responsibility for stormwater management is a common theme, but when discussing climate change impact, the importance of stormwater management has been essentially silent.

Addressing stormwater drainage in Florida has been an ongoing challenge since the middle of the twentieth century when the State began to experience rapid growth. Initially, stormwater drainage was a challenge from a regulatory perspective because there were only four drainage basins in all of Florida; therefore, drainage systems extend over county and city boundaries.<sup>3</sup> The scale of these drainage basins dictated that the infrastructure, as well as the regulations addressing this infrastructure, was at a scale that only the Florida state government could manage.<sup>4</sup> Additionally, since stormwater drainage is based on topography of the entire state as opposed to the jurisdictionally established boundaries, the governance of stormwater drainage interconnected.<sup>5</sup> These interconnected systems have not been updated or expanded proportionately to adapt to the rapid urbanization of the state over the past fifty years. Stormwater storage capacity is decreasing due to increased storm activity caused by climate change; the

1. *Florida Water Story*, FLA. DEP’T OF ENVTL. PROTECTION, [http://www.protectingourwater.org/florida\\_water\\_story/](http://www.protectingourwater.org/florida_water_story/) (last visited Oct. 25, 2015).

2. ERIC H. LIVINGSTON & ELLEN McCARRON, FLA. DEP’T OF ENVTL. REG., *STORMWATER MANAGEMENT: A GUIDE FOR FLORIDIANS* 7, available at [http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/Stormwater\\_Guide.pdf](http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/Stormwater_Guide.pdf).

3. *Id.* at 7-15.

4. S. FLA. WATER MGMT. DIST., *WATER SUMMIT 2007* 1 (July 30, 2007), available at [http://www.sfwmd.gov/portal/page/portal/common/newsr/history\\_summit.pdf](http://www.sfwmd.gov/portal/page/portal/common/newsr/history_summit.pdf) [hereinafter *WATER SUMMIT 2007*].

5. *Florida Water Story*, *supra* note 1.

anticipated discharge from future development will only make the situation worse in coming years.

Drainage problems already occur in Florida during seasonal high tides, heavy rains, and in storm surge events, and the impacts projected by climate change will exacerbate flooding. Identification of deficiencies in Florida's existing drainage systems should include the responsibility and liability of drainage systems to be retrofitted to adapt to climate change.<sup>6</sup> Options that can be considered for adaptation to climate change include the redesign and improvement of existing storm drainage canals, flood control structures, and stormwater pumps.<sup>7</sup> Climate change adaptation efforts, specifically regulatory changes, are in the preliminary stages.<sup>8</sup> Florida has not yet considered assigning the responsibility to manage climate change impacts; as of 2015, Florida Statutes only reference that climate change impacts should be averted by global actions and, where needed, additional efforts should be expended to make Florida less vulnerable to the impacts.<sup>9</sup> The legal effects of climate change adaptation efforts have not yet been considered in either the legislative or the judicial platforms of Florida government.<sup>10</sup> In light of Florida's existing sovereign immunity laws, modifications to Florida's legal system to address climate change will be difficult to achieve. Courts have interpreted sovereign immunity laws to justify inaction by the government on stormwater drainage adaptation.<sup>11</sup> Specifically, due to the myriad of exceptions created by both case law and statute which result in no public duties or any liability for negligence, the citizens of Florida have

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6. JOHN ENGLANDER, *HIGH TIDE ON MAIN STREET: RISING SEA LEVEL AND THE COMING COASTAL CRISIS* 98, 107-19 (2d ed. 2013).

7. Press Release, The White House, Fact Sheet: What Climate Change Means for Florida and the Southeast and Caribbean (May 6, 2014), available at [http://www.whitehouse.gov/sites/default/files/docs/state-reports/FLORIDA\\_NCA\\_2014.pdf](http://www.whitehouse.gov/sites/default/files/docs/state-reports/FLORIDA_NCA_2014.pdf).

8. ENGLANDER, *supra* note 6, at 170 (noting that adaptation to climate change, including sea level rise, will require a shift in our perspectives and expectations).

9. FLA. STAT. § 377.601 (2015); see also J. Peter Byrne, *The Cathedral Engulfed: Sea-Level Rise, Property Rights, and Time*, 73 LA. L. REV. 69, 71 (2012).

10. J.B. Ruhl, *Climbing Mount Mitigation: A Proposal for Legislative Suspension of Climate Change "Mitigation Litigation"*, 1 WASH. & LEE J. ENERGY, CLIMATE, & ENV'T 71, 73-74 (2010).

11. Thomas Ruppert & Carly Grimm, *Drowning in Place: Local Government Costs and Liabilities for Flooding Due to Sea-Level Rise*, 87-NOV FLA. B.J. 29, 29, 30-31 (2013). The waiver of sovereign immunity is further limited by FLA. STAT. § 373.443, which provides complete immunity to the water management districts, the state, and their employees or agents against claims challenging the issuance of any permit, the issuance or enforcement of any order relative to maintenance or operation, measures taken to protect against failures during emergencies, and control or regulation of any relevant stormwater system. *Id.*

little to no assurance that the State will make any adjustments to modify stormwater drainage regulations in light of climate change.

Before Florida's drainage systems fail due to climate change, the Florida government should proactively plan and legislate for necessary improvements and be held accountable and liable for failure to operate, regulate, and warn about adverse drainage impacts related to climate change. Climate change is creating a new era for the management of our environment—one in which a comprehensive approach is feasible based on advances in technology. This new era should include changes in the law governing stormwater drainage. Currently, Florida law barely mentions climate change, nor instructs regarding a proactive approach to adapt to the foreseeable future.<sup>12</sup> If nothing is done to address the legal responsibilities, then, in addition to dealing with the physical impacts of climate change, Florida courts will likely also have to swim through a flood of litigation. Specifically, liability for negligence from a lack of governmental adaptation response to climate change may occur when harm such as flooding from failed stormwater drainage infrastructure occurs.<sup>13</sup> Therefore, amendments to existing Florida law should be made to address the adverse impacts of climate change, including flooding impacts. This paper spotlights how sovereign immunity in Florida is discouraging adaptation actions and clouding the duty of the government to prepare, protect, and warn its citizens about climate change.

Part I of this paper explains the connection between global climate change and its effects on stormwater drainage in Florida. The existing governmental entities for stormwater drainage in Florida are identified and the scope of their governance is explained in Part II. Part III summarizes the existing sovereign immunity laws in Florida, including an explanation of how the federal roots and key exceptions to sovereign immunity influence Florida law. Part IV discusses two views on proposed changes to Florida's sovereign immunity laws. Because the courts have not created a clear distinction between planning discretion immunity and public duty, there is no incentive to proactively address changes needed in stormwater drainage regulations and infrastructure based on climate change impacts. Impacts, especially flooding, are foreseeable and create a known danger for which the Florida government has a public duty to act. The alternative approach

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12. See generally FLA. STAT. § 377.601 (2015); NATIONAL AGRICULTURAL LAW CENTER, CLIMATE CHANGE STATUTORY CITATIONS: STATE OF FLORIDA, available at <http://nationalaglawcenter.org/state-compilations/>.

13. Maxine Burkett, *Duty and Breach in an Era of Uncertainty: Local Government Liability for Failure to Adapt to Climate Change*, 20 GEO. MASON L. REV. 775, 778 (2013).

proposes that, even if sovereign immunity applies, citizens should be afforded governmental accountability. Finally, even if Florida governments are not liable based on statutory immunity, the ethical and professional duty to react and adapt for climate change should prevail in order to protect Florida and its citizens.

#### I. FLORIDA'S ENHANCED VULNERABILITY TO INCREASED FLOODING FROM CLIMATE CHANGE

Due to the expansive shoreline, low elevation, and highly permeable aquifers, as well as the location of high population centers and economic investments close to the coastline, Florida is predisposed to the effects of climate change.<sup>14</sup> Florida is projected to experience warmer temperatures and more extreme weather, including prolonged droughts and intense storms.<sup>15</sup> Some of the direct effects of climate change include increased flooding, water pollution, and saltwater intrusion into the fresh water supply.<sup>16</sup> Stormwater drainage management is influenced by all of these factors.<sup>17</sup> Stormwater drainage management relies on absorption of rainwater into Florida's soil.<sup>18</sup> When the rainwater cannot be absorbed, the flow of drainage typically relies on gravity as opposed to pumps to move it.<sup>19</sup> If there is a change in weather patterns and Florida has a surge in rain events, the current capacity of Florida's drainage systems will not be able to accommodate the additional rain and flooding will result.<sup>20</sup>

##### A. Stormwater Drainage is Interconnected in Florida

The volume of stormwater runoff generated by a rainstorm depends on the total amount of rainfall, except that which is lost by

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14. MARGUERITE KOCH-ROSE ET AL., FLORIDA WATER MANAGEMENT AND ADAPTATION IN THE FACE OF CLIMATE CHANGE v (Nov. 2011), available at [http://floridaclimate.org/docs/water\\_management.pdf](http://floridaclimate.org/docs/water_management.pdf).

15. ENGLANDER, *supra* note 6, at 107.

16. *Id.*

17. KOCH-ROSE ET AL., *supra* note 14, at vi.

18. *Types of Stormwater Systems and How They Work*, ST. JOHNS RIVER WATER MGMT. DIST. (May 22, 2013), <http://floridaswater.com/stormwatersystems/>.

19. *Id.*

20. TAMPA BAY REG'L PLANNING COUNCIL, SEA LEVEL RISE IN THE TAMPA BAY REGION 55 (Aug. 14, 2006), available at [http://www.tbrpc.org/mapping/pdfs/sea\\_level\\_rise/Tampa%20Bay%20-%20Sea%20Level%20Rise%20Project%20Draft%20Report%20without%20maps.pdf](http://www.tbrpc.org/mapping/pdfs/sea_level_rise/Tampa%20Bay%20-%20Sea%20Level%20Rise%20Project%20Draft%20Report%20without%20maps.pdf) ("The relevance of planning for sea level rise can also be seen by the events of the hurricane season in 2004 and 2005."). The storm surges of the hurricanes during 2004 and 2005 did not reach the worst case scenario levels, but flooding due to sea level rise occurred. *Id.*

infiltration and evaporation, and the amount of surface storage.<sup>21</sup> The amount of this reduction is a function of climate, soils, geology, topography, vegetative cover, and, most importantly, land use.<sup>22</sup> Historically, the primary goal for stormwater management was to move runoff away from a developed area as quickly as possible after a storm for flood protection.<sup>23</sup> Florida rules on drainage systems maximize local convenience and protection to move stormwater as fast as possible, without considering other important factors such as damage from accelerated flow and increased water pollution.<sup>24</sup>

Florida is relatively flat; most of the state's stormwater is managed through gravity-driven canals.<sup>25</sup> South Florida, in particular, relies heavily on a gravity-driven canal system to prevent flooding.<sup>26</sup> In low-elevation areas of Florida where the flood control infrastructure was established several decades ago, climate change impacts have already adversely impacted systems.<sup>27</sup> Twice a year, the streets of Miami Beach flood due to an event known as the "king tide," when a gravitational alignment of the moon and sun produce the highest tides of the year and causes water to "spill[] over seawalls and gurgle[] up through storm drains."<sup>28</sup> Scientists deem these high tides to be a preview of what life would be like in Florida as the climate continues to warm.<sup>29</sup>

From an engineering perspective, sea-level rise will decrease the water elevation gradient along the canal system and, in so doing, will reduce the capacity for gravity-driven drainage throughout the entire system of networked canals and storage ponds.<sup>30</sup> This lack of capacity in the current flood control systems will continue to grow to the point of being overwhelmed, resulting in unacceptable drainage; more pumping of water will be required to provide flood protection.<sup>31</sup> Also, groundwater levels will increase, which decreases the storage ca-

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21. LIVINGSTON & McCARRON, *supra* note 2, at 15.

22. *Id.*

23. *Id.* at 16.

24. *Id.* at 15.

25. KOCH-ROSE ET AL., *supra* note 14, at ix.

26. *Id.*

27. Lilly Rockwell, *A Rising Concern: The Impact of Sea Level Rise on Florida*, FLA.TREND (July 8, 2013), <http://www.floridatrend.com/article/15814/a-rising-concern>.

28. Joby Warrick, *Florida Politicians Battle Rhetoric as Rising Seas Drive Worries over Climate Change*, WASH. POST (Oct. 17, 2014), [https://www.washingtonpost.com/national/health-science/florida-politicians-battle-rhetoric-as-rising-seas-drive-worries-over-climate-change/2014/10/17/e16fa3ce-548e-11e4-809b-8cc0a295c773\\_story.html](https://www.washingtonpost.com/national/health-science/florida-politicians-battle-rhetoric-as-rising-seas-drive-worries-over-climate-change/2014/10/17/e16fa3ce-548e-11e4-809b-8cc0a295c773_story.html).

29. *Id.*

30. KOCH-ROSE ET AL., *supra* note 14, at ix-x.

31. *Id.* at x.

capacity of the soil that helps hold stormwater runoff.<sup>32</sup> “Many Florida towns now experience flooding on sunny days, especially during king tides.”<sup>33</sup>

### B. *Flooding Vulnerability in Stormwater Drainage*

Anywhere it rains, it can flood. A flood is defined as a general and temporary condition when water inundates an area that is typically dry; as rain falls, water is retained in soil, evaporates, or travels over the land as surface runoff.<sup>34</sup> When a “one in one hundred year” rain occurs, large areas can experience flooding.<sup>35</sup> When a ten-year storm event occurs, localized flooding can occur.<sup>36</sup> There is a misconception that a “one in ten year” only occurs once every ten years; instead, the term “one in ten year” means there is a ten percent chance of a rain event of that intensity occurring in any given year.<sup>37</sup> In Florida, design regulations typically require that a stormwater management system be designed to accommodate a “one in twenty-five” year rain event based on rainfall intensity data for the particular area of Florida.<sup>38</sup>

Although required to be designed for a “one in twenty-five” year rain event, stormwater drainage design can vary widely and there are times when even the best system can be overwhelmed by extreme downpours.<sup>39</sup> Flooding can occur either when it rains for a long time or when there is an exceptionally intense rain event and stormwater facilities are overwhelmed.<sup>40</sup> Since regulations are established based on historic rainfall patterns, the design requirements do not address the future needs of drainage that will occur as the effects of climate change

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32. *Id.*

33. Warrick, *supra* note 28.

34. See Gary Knapp, Annotation, *National Flood Insurance Risks and Coverage*, 81 A.L.R. FED. 416.

35. *Id.*

36. *Floods: Recurrence Intervals and 100-Year Floods (USGS)*, THE USGS WATER SCI. SCH., <https://water.usgs.gov/edu/100yearflood.html> (last updated July 27, 2015).

37. *Id.*

38. CITY OF CLEARWATER ENG'G DEP'T, STORM DRAINAGE CRITERIA MANUAL 2 (July 1, 2015), available at <http://www.myclearwater.com/gov/depts/pwa/engin/publications/pdf/StormDrainageDesignCriteria.pdf>.

39. HARVEY H. HARPER & DAVID M. BAKER, FLA. DEP'T OF ENVTL. PROT., EVALUATION OF CURRENT STORMWATER DESIGN CRITERIA WITHIN THE STATE OF FLORIDA 2-13 (June 2007), available at [http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/SW\\_TreatmentReport\\_Final\\_71907.pdf](http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/SW_TreatmentReport_Final_71907.pdf).

40. *Id.*

impact Florida.<sup>41</sup> Additionally, there is a lack of retrofitting requirements which will also contribute to additional flooding when the effects of climate change increase over time.

Depending on the design and condition of the drainage network, flooding can occur when the system cannot absorb the rain; for example, when typically dry soils are already saturated, flooding will occur.<sup>42</sup> In urban areas, flooding can occur when man-made drainage systems, such as ponds or storm sewers, are overwhelmed.<sup>43</sup> Although sometimes triggered by events like flash flooding, urban flooding is defined as a recurring impact on systems which are not designed to accommodate a certain flow of water.<sup>44</sup> Flooding in urban areas is usually seen as a function of under-capacity design that can occur from either increased development overtime, in which the drainage systems accommodating the area are not expanding accordingly, or a change in the parameters of the drainage system.<sup>45</sup>

### C. Stormwater Drainage Capacity Decreased

As Florida developed, heavy rainfall always posed a threat to development, including water control and stormwater drainage facilities. Following widespread regional flooding in the 1940s, Floridians appealed to the federal government to develop a flood protection plan to help them cope with the impacts of the state's weather extremes.<sup>46</sup> In response, Congress authorized the Central and Southern Florida Project (C&SF Project), a massive flood control network designed to control water flow across a 16,000-square-mile area from Orlando to the Everglades.<sup>47</sup> As a result of this interconnected drainage system—which happens to be the largest drainage facility in the state—flood control is now, and continues to be, a shared responsibility between

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41. See HARPER & BAKER, *supra* note 39; see also KOCH-ROSE ET AL., *supra* note 14.

42. See University Corporation for Atmospheric Research, *Flash Flood Science*, in FLASH FLOOD EARLY WARNING SYSTEM REFERENCE GUIDE 2-3 (2010), available at [http://www.meted.ucar.edu/communities/hazwarnsys/ffewsrsg/FF\\_EWS.Chap.2.pdf](http://www.meted.ucar.edu/communities/hazwarnsys/ffewsrsg/FF_EWS.Chap.2.pdf).

43. See CTR. FOR NEIGHBORHOOD TECH., THE PREVALENCE AND COST OF URBAN FLOODING: A CASE STUDY OF COOK COUNTY, IL 2 (May 2014), available at <http://www.cnt.org/resources/the-prevalence-and-cost-of-urban-flooding/>.

44. See *generally Urban Flooding*, ABOUT EDUC., [http://weather.about.com/od/u/qt/urban\\_flooding.htm](http://weather.about.com/od/u/qt/urban_flooding.htm) (last visited Oct. 25, 2015).

45. See *generally id.*

46. News Release, Randy Smith, S. Fla. Water Mgmt. Dist., 1949-1960: The Early Years as a Flood Control District (Mar. 12, 2009), available at [http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd\\_repository\\_pdf/nr\\_2009\\_0312\\_60anniversary\\_1949.pdf](http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/nr_2009_0312_60anniversary_1949.pdf).

47. *Id.*

county and city governments, local drainage districts, and citizens.<sup>48</sup> Considerable portions of the current regional drainage network are over fifty years old and were designed and built according to the land uses and climate conditions of a time with no anticipation of climate change or sea level rise.<sup>49</sup> Initially designed to protect 2 million people, the drainage systems in central and south Florida now serve a population of more than 19.5 million.<sup>50</sup> Therefore, the drainage systems currently existing in Florida are strained and often overloaded due to the aging systems not being updated or retrofitted at the same pace as Florida's urbanization.

Another factor affecting stormwater drainage capacity is climate change. According to the United States Government's National Climate Assessment, Florida will be affected by climate change from decades of extreme weather—dry season droughts and increased rainy seasons.<sup>51</sup> “The rainy seasons will be stormier, with fiercer hurricanes and higher storm surges.”<sup>52</sup> By 2060, a two-foot rise of the ocean could occur, which would put many of the coastal lands underwater.<sup>53</sup> Additionally, Florida's prime drainage infrastructure, which includes 2,100 miles of canals and gates to keep out saltwater, will be impacted by sea level rise.<sup>54</sup> If the sea rises eight inches, approximately eighteen gates would have to be rebuilt with a new pumping system at an estimated cost of seventy million dollars per pumping station.<sup>55</sup> Two feet of sea level rise would result in approximately eighty percent of these gates failing.<sup>56</sup> If the state's drainage infrastructure cannot be modified to

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48. *Drought and Flood*, S. FLA. WATER MGMT. DIST., <http://www.sfwmd.gov/portal/page/portal/levelthree/Drought%20and%20Flood> (last visited Oct. 25, 2015).

49. S. FLA. WATER MGMT. DIST., CLIMATE CHANGE AND WATER MANAGEMENT IN SOUTH FLORIDA 2 (Nov. 12, 2009), available at [https://my.sfwmd.gov/portal/page/portal/xrepository/sfwmd\\_repository\\_pdf/climate\\_change\\_and\\_water\\_management\\_in\\_sflorida\\_12nov2009.pdf](https://my.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/climate_change_and_water_management_in_sflorida_12nov2009.pdf).

50. *Water's Role in South Florida History*, S. FLA. WATER MGMT. DIST., <http://www.sfwmd.gov/portal/page/portal/xweb%20about%20us/history1> (last visited Oct. 25, 2015); see RESCUING AN ENDANGERED ECOSYSTEM: THE PLAN TO RESTORE AMERICA'S EVERGLADES – THE CENTRAL AND SOUTHERN FLORIDA PROJECT COMPREHENSIVE REVIEW STUDY (THE RESTUDY) 7 (July 1999), available at <http://sofia.usgs.gov/sfrsf/entdisplays/restudy/summary2.pdf>.

51. Laura Parker, *Treading Water*, NAT'L GEOGRAPHIC (Feb. 2015), <http://ngm.nationalgeographic.com/2015/02/climate-change-economics/parker-text>.

52. *Id.*

53. Chris Mooney, *Forget “Bans” on Talking About Climate. These Florida Republicans Are Too Busy Protecting Their Coasts*, WASH. POST (Mar. 31, 2015), <http://www.washingtonpost.com/news/energy-environment/wp/2015/03/31/the-unlikely-group-of-republicans-who-are-preparing-florida-for-climate-change/>.

54. ENGLANDER, *supra* note 6, at 110.

55. *Id.*

56. *Id.*

address the increase of sea level rise, predictions reveal that there will be land use problems, including flooding at various nuclear power plants, sewage treatment facilities, and airports in Florida.<sup>57</sup>

## II. STORMWATER DRAINAGE REGULATION IN FLORIDA

Stormwater drainage regulation in Florida essentially began with the C&SF Project, which is a system of 2,100 miles of canals and gates originally built by the federal government more than fifty years ago.<sup>58</sup> The C&SF Project was managed by the Central and Southern Florida Flood Control District, which was created by the Florida Legislature.<sup>59</sup> The Central and Southern Florida (C&SF) Flood Control District was the first of its kind.<sup>60</sup> The success of the C&SF Flood Control District led to the creation of other water control districts.<sup>61</sup> Florida Statute Section 298.01 authorized formation of drainage or “water control” districts upon petition of landowners to the circuit court.<sup>62</sup> After 1980, new water control districts can only be formed by special legislation or by a county’s creation of a municipal service, benefit, or taxing unit.<sup>63</sup> Water control districts are authorized to employ an engineer to develop a water control plan, and thereafter to construct, operate, and control the works and improvements described in that plan.<sup>64</sup> Under Florida Statute Section 298.305, the board of supervisors may levy a non-ad valorem assessment both for the construction of the works and improvements, and for their maintenance.<sup>65</sup> These were very important governmental agencies from 1950-1970, because water control districts had the ability to change the drainage patterns of entire regions and tax the public for drainage systems.<sup>66</sup> However, because each water control district was established individually, there

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57. Parker, *supra* note 51.

58. See generally *Development of the Central & South Florida (C&SF) Project*, EVERGLADESRESTORATION.GOV, [http://141.232.10.32/about/restudy\\_csf\\_devel.aspx](http://141.232.10.32/about/restudy_csf_devel.aspx) (last visited Oct. 25, 2015).

59. WATER SUMMIT 2007, *supra* note 4.

60. *Id.*

61. *Id.*

62. C. ALLEN WATTS, FLA. STORMWATER ASS’N, LEGAL AUTHORITY TO ESTABLISH STORMWATER UTILITIES 2-5 (May 2003), available at <http://www.florida-stormwater.org/assets/MemberServices/Manual-for-Establishing-a-SWU/est-SWU-in-FL-Chapters/swumanual2.pdf>.

63. FLA. STAT. § 298.01 (2012).

64. *Id.*

65. FLA. STAT. § 298.305 (2012).

66. WATER SUMMIT 2007, *supra* note 4.

was inconsistency in the regulatory aspects of the management of the drainage systems.<sup>67</sup>

In 1972, recognizing the importance of water to the state, the legislature passed the Water Resources Act which, *inter alia*, ultimately created five water management districts.<sup>68</sup> The first district established under the new law was the South Florida Water Management District, which was the successor to the C&SF Flood Control District.<sup>69</sup> The South Florida Water Management District still operates and maintains the C&SF Project, as well as numerous other stormwater drainage facilities, and is therefore the largest operator of a stormwater drainage system in Florida.<sup>70</sup> The water management districts' functions include: (i) flood protection programs; (ii) technical investigations into water resources; (iii) water management plans for water shortages; and (iv) acquiring, establishing, and managing lands for water management purposes.<sup>71</sup>

In February 1982, the State Stormwater Rule was adopted and the framework for implementation by the Department of Environmental Regulation was set forth in the State Water Policy.<sup>72</sup> In 1989, updated stormwater legislation further refined the State Stormwater Rule and State Water Policy by establishing a statewide watershed management framework that relied on a cooperative effort between the Department of Environmental Regulation, water management districts, and local governments.<sup>73</sup>

The goals for stormwater management in the State of Florida are outlined in Chapters 62-40 of the Florida Administrative Code.<sup>74</sup>

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67. *Id.*

68. FLA. STAT. § 373.069 (2012) (noting that the statute originally created five permanent districts and a sixth temporary district). "In 1976, the sixth district was incorporated into the St. Johns River Water Management District. 1976, Fla. Laws ch. 76-243 (codified as amended at FLA. STAT. § 373.069 (1995))." Ronald A. Christaldi, *Sharing the Cup: A Proposal for the Allocation of Florida's Water Resources*, 23 FLA. ST. U. L. REV. 1063, 1073 n. 82 (1996). See also Richard Hamann & Jeff Wade, *Regulating Agricultural Surface Water Management in Florida: The Implementation of Chapter 373, Part IV*, in WATER RESOURCES LAW: PROCEEDINGS OF THE NATIONAL SYMPOSIUM ON WATER RESOURCES LAW 225, 228 (1986).

69. See *The C&SF Project and the SFWMD*, DUKE UNIV. WETLAND CTR., <https://nicholas.duke.edu/wetland/csf.htm> (last visited Oct. 25, 2015).

70. *Development of the Central & South Florida (C&SF) Project*, *supra* note 58. The South Florida Water Management District operates the remainder of the project in accordance with regulations prescribed by the Corps. The local sponsor has an essential role with the Corps in developing water management criteria for the C&SF Project. *Id.*

71. FLA. STAT. § 373.036(2) (2015).

72. FLA. ADMIN. CODE ANN. r. 62-40 (2015).

73. *Id.* (noting that the watersheds were defined with established water drainage basins in Florida).

74. *Id.*

This code of regulations also provides general guidelines related to water use and reuse, water transfer, water quality, surface water management, flood protection, and minimum flows and levels.<sup>75</sup> Implementation of Florida's stormwater regulations has focused more on water quality and pollution reduction than flood control because the Federal Clean Water Act requires specific performance levels of water quality to be achieved via state regulation.<sup>76</sup> In addition, stormwater design criteria for similar stormwater management systems vary widely throughout the state, meaning performance efficiency of stormwater management systems may differ between regions. Additionally, much of Florida was developed prior to stormwater regulations being in place, which resulted in varied and often haphazard networks of control measures.<sup>77</sup> Further, Florida's laws and regulations have no provision for retrofitting stormwater facilities that do not meet the current criteria regulations.<sup>78</sup>

### III. SOVEREIGN IMMUNITY IN FLORIDA: OPERATIONAL AND PLANNING DISTINCTIONS

If the government does not regulate stormwater drainage, the matter of draining or having water flow downstream could simply be reviewed under the common laws of nuisance, trespass, or negligence. If a stormwater drainage facility fails, as is the case here, the doctrine of *res ipsa loquitur* would likely apply.<sup>79</sup> "The use of *res ipsa loquitur* has been noted to be essentially the equivalent of strict liability."<sup>80</sup> However, Florida courts hold that the importance of providing a public service such as stormwater drainage systems warrants extension of sovereign immunity; thus strict liability, even *res ipsa loquitur*, is not applicable.<sup>81</sup> Because the regulation of stormwater drainage is a key public function in Florida,<sup>82</sup> the government regulation of stormwater

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75. FLA. ADMIN. CODE ANN. r. 62-40.110 (2015) ("The waters of the state are among its basic resources. Such waters should be managed to conserve and protect natural resources and scenic beauty and to realize the full beneficial use of the resource.").

76. HARPER & BAKER, *supra* note 39.

77. *The Laws of Water: A Primer on Florida Water Law*, FLA. DEP'T OF ENVTL. PROT., [http://www.protectingourwater.org/florida\\_water\\_story/waterlaw/](http://www.protectingourwater.org/florida_water_story/waterlaw/) (last visited Oct. 25, 2015).

78. *Id.*

79. EDWARD A. THOMAS, ASS'N OF STATE FLOODPLAIN MANAGERS, LIABILITY FOR WATER CONTROL STRUCTURE FAILURE DUE TO FLOODING 12 (Sept. 7, 2006), available at [http://www.floods.org/PDF/NAI\\_Liability\\_Failure\\_Facilities\\_0906.pdf](http://www.floods.org/PDF/NAI_Liability_Failure_Facilities_0906.pdf).

80. Robert A. Leflar, *Negligence in Name Only*, 27 N.Y.U. L. REV. 564, 582 (1952).

81. *Id.*

82. *Id.*

drainage is a “public duty,” meaning that the scope of the regulation is broad, complex, and carries a “great risk of harm” such that it should not be undertaken by private persons (e.g., providing fire protection or regulating drainage and floodwaters).<sup>83</sup>

Stormwater drainage systems, especially regulations mandating drainage systems, involve discretion (e.g., flood forecasting, planning for drainage policy) and courts generally do not hold governments liable for discretionary or planning acts because sovereign immunity is found to apply.<sup>84</sup> Conversely, a government acts as a landowner when it constructs and operates stormwater drainage facilities.<sup>85</sup> In these situations, courts consider governments to be acting in a proprietary or operating capacity and sovereign immunity does not apply.<sup>86</sup> Therefore, it is important to determine when the government of Florida is acting as a regulator under planning discretion or as an operator of a drainage facility.

#### A. Federal Roots and Key Exceptions

In 2005, when Hurricane Katrina ravaged the Gulf Coast of the United States, the storm caused an estimated \$110 billion in damages and ruined 275,000 homes.<sup>87</sup> Initially, the storm was deemed to be the sole source of responsibility for the damages, but upon further deliberation, the public considered the storm to be a manmade disaster created by a levee system that was improperly built and maintained by the United States Army Corps of Engineers.<sup>88</sup> Subsequently, citizens openly blamed the Corps for the damages and a grass roots campaign “Hold the Corps Accountable” for the breach of the levee system was ultimately unsuccessful in the courts.<sup>89</sup> The tort liability claim was based on a breach of a duty to the injured party on the premise that all parties have a general duty to refrain from causing harm to others.<sup>90</sup>

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83. Mary F. Wyant, *Discretionary Function Exception to Government Tort Liability*, 61 MARQ. L. REV. 164, 164 (1977), available at <http://scholarship.law.marquette.edu/cgi/viewcontent.cgi?article=2119&context=mulr>.

84. JON A. KUSLER, ASS'N OF STATE FLOODPLAIN MANAGERS FOUND., A COMPARATIVE LOOK AT PUBLIC LIABILITY FOR FLOOD HAZARD MITIGATION 11 (2009), available at [http://www.floods.org/PDF/Mitigation/ASFPM\\_Comparative\\_look\\_at\\_pub\\_liability\\_for\\_flood\\_haz\\_mitigation\\_09.pdf](http://www.floods.org/PDF/Mitigation/ASFPM_Comparative_look_at_pub_liability_for_flood_haz_mitigation_09.pdf).

85. *Id.*

86. *Id.*

87. Christopher R. Dyess, *Off with His Head: The King Can Do No Wrong, Hurricane Katrina, and the Mississippi River Gulf Outlet*, 9 NW. J. L. & SOC. POL'Y 302, 303-04 (2014).

88. *Id.*

89. *Id.*

90. *Slemp v. City of N. Miami*, 545 So. 2d 256, 259 (Fla. 1989).

The courts denied relief to the victims of Hurricane Katrina by concluding that the doctrine of sovereign immunity was applicable to the Corp's responsibility on the levee breach.<sup>91</sup>

The maxim "the King can do no wrong" is the foundation for the common law doctrine of sovereign immunity, which is the government's privilege not to be sued without consent.<sup>92</sup> The history of sovereign immunity includes pragmatic concerns of government efficiency and protecting government funds.<sup>93</sup> Prior to 1946, citizens could only seek relief from the government by petitioning Congress.<sup>94</sup> In 1946, Congress enacted the Federal Tort Claims Act (FTCA), which waived the federal government's sovereign immunity.<sup>95</sup> The FTCA authorizes private tort actions against the United States government "under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the laws of the place where the act or omission occurred."<sup>96</sup> The FTCA is a broad waiver of sovereign immunity, but includes exceptions such as the discretionary function exception and the public duty doctrine.<sup>97</sup>

The discretionary function exception involves decisions made on a planning level but not on an operational level.<sup>98</sup> Under the FTCA, claims are specifically excluded where the government agent or employee's actions involved policymaking, planning, or "discretionary" functions.<sup>99</sup> This discretionary function exemption serves as a caveat that allows for the government to retain immunity in areas where a government official had discretion on whether to act. Historically, the exception has been deemed a necessary rule to enable the government to make basic policy decisions without the threat of liability.<sup>100</sup> By bar-

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91. Dyess, *supra* note 87.

92. Katie Schaefer, *Reining in Sovereign Immunity to Compensate Hurricane Katrina Victims*, 40 *ECOLOGY L.Q.* 411, 413 (2013). *See also* St. Bernard Parish Gov't v. United States, No. 05-1119 L, 2015 WL 2060296, at \*6 (Fed. Cl. May 1, 2015) (finding government liability for takings through flooding has been based on deliberate government inaction, including responding to forty years of erosion that had the foreseeable effect of flooding the plaintiff's land).

93. *Id.*

94. Stephen L. Nelson, *The King's Wrongs and the Federal District Courts: Understanding the Discretionary Function Exception to the Federal Tort Claims Act*, 51 *S. TEX. L. REV.* 259, 265 (2009).

95. 28 U.S.C. § 1346 (2013).

96. *Id.*

97. DAN DOBBS ET AL., *TORTS AND COMPENSATION: PERSONAL ACCOUNTABILITY AND SOCIAL RESPONSIBILITY FOR INJURY* 464 (7th ed. 2013).

98. *Id.*

99. Nelson, *supra* note 94.

100. *Id.*

ring this exception, the courts would be congested with lawsuits further impeding government efficiency.<sup>101</sup>

In *United States v. Varig Airlines*, the Court explained that discretionary immunity “marks the boundary between Congress’ willingness to impose tort liability on the United States and its desire to protect certain governmental activities from exposure to suit by private individuals.”<sup>102</sup> Discretionary immunity is designed to “prevent judicial ‘second-guessing’ of legislative and administrative decisions . . . .”<sup>103</sup> Federal courts initially determined immunity according to whether government decisions were made at the “planning level,” in which case immunity applies, or at the “operational level,” where immunity is not a privilege.<sup>104</sup> The distinction between the operational and planning decisions changed when the Supreme Court held in *United States v. Gaubert* that “[i]t is the nature of the conduct rather than the status of the actor that governs whether the [discretionary function] exception applies [in a given matter].”<sup>105</sup>

The public duty doctrine also shields the government from tort liability.<sup>106</sup> Under the public duty doctrine, a governmental entity is not liable in tort for breaching a duty that the government owes to the public generally.<sup>107</sup> The public duty doctrine prevents suits by individuals who receive public services like other members of the general public.<sup>108</sup> Consequently, actions classified as a public duty may not be the subject of private suits under the view that the government has no duty to provide public services to any particular citizen.<sup>109</sup> Although these exceptions are not conjunctive, oftentimes they can both be applied to the same situation.<sup>110</sup>

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101. *Id.*

102. *United States v. Varig Airlines*, 467 U.S. 797 (1984). *See also* St. Bernard Parish Gov’t, 2015 WL 2060296, at \*6 (finding that, in 2004-2005 when the Corps had recognized that MRGO created a serious risk of flooding, it should have been addressed prior to Hurricane Katrina).

103. Nelson, *supra* note 94.

104. DOBBS ET AL., *supra* note 97, at 469.

105. *United States v. Gaubert*, 499 U.S. 315 (1991).

106. DOBBS ET AL., *supra* note 97, at 469.

107. *Id.*

108. William N. Drake, Jr., *The Rescue of an August Body of Law Florida’s Public Duty Doctrine*, 80-MAY FLA. B.J. 18, 20 (2006) [hereinafter Drake, Jr., *August Body of Law*].

109. *Id.*

110. Eleanor L. Grossman & Mary Ellen West, *Exceptions to Waiver*, 28 FLA. JUR. 2D GOV’T TORT LIAB. § 13 (2d ed. 2015); *see also* Jeffrey A. Burns, *Actions Against the Government and Its Employees*, in 2A MO. PRAC., METHODS OR PRAC.: LITIG. GUIDE § 29.15 (4th ed. 2013) (noting that if a special relationship exists between an individual and a governmental entity, there could be a duty of care owed to the individual, thereby creating an exception to

The Florida Legislature adopted and codified the doctrine of sovereign immunity,<sup>111</sup> meaning that the State of Florida, including all subsidiaries and subdivisions, such as the Florida Department of Environmental Protection (FDEP) or the South Florida Water Management District, may not be sued without permission from the State Legislature.<sup>112</sup> A state may waive immunity via a statute or constitutional amendment.<sup>113</sup> Article X, Section 13 of the Florida Constitution states: “Provision may be made by general law for bringing suit against the state as to all liabilities now existing or hereafter originating.”<sup>114</sup> The Florida Legislature exercised its exclusive power to waive sovereign immunity approximately forty years ago via the adoption of Florida Statute Section 768.28, which was entitled “Waiver of Sovereign Immunity in Tort Actions; Recovery Limits; Limitations on Attorney Fees; Statute of Limitations.”<sup>115</sup> Since its enactment, Florida’s waiver of sovereign immunity has been amended numerous times and judicial interpretation has been extremely varied.<sup>116</sup> “Florida courts have held that any waiver of sovereign immunity must be clear and unambiguous.”<sup>117</sup>

#### B. Planning Immunity Created by Florida Statute § 768.28

Similar to the scope of immunity contained in the FTCA, the Florida Supreme Court, in *Commercial Carrier v. Indian River County*, narrowed immunity on the state level.<sup>118</sup> Policy decisions remained protected, but not ministerial decisions. “For example, a city’s decision concerning where to place a bus stop shelter is immune from suit.”<sup>119</sup> If that shelter is not properly maintained and thereafter collapses and

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the governmental entity’s sovereign immunity, even for functions that are otherwise considered discretionary).

111. *City of Key West v. Fla. Keys Cmty. Coll.*, 81 So. 3d 494, 497 (Fla. Dist. Ct. App. 2012).

112. Gerald T. Wetherington & Donald I. Pollock, *Tort Suits Against Governmental Entities in Florida*, 44 FLA. L. REV. 1, 9 (1992).

113. William E. Thro, Commentary, *The Future of Sovereign Immunity*, 215 EDUC. L. REP. 1, 9 (2007).

114. FLA. CONST. art. X, § 13.

115. FLA. STAT. § 768.28 (2012); see also Larry A. Klein & Brad A. Chalker, *Developments in Florida’s Doctrine of Sovereign Immunity*, 35 U. MIAMI L. REV. 999, 1010 (1981).

116. William N. Drake, Jr., & Thomas A. Bustin, *Governmental Tort Liability in Florida: A Tangled Web*, 77-FEB FLA. B.J. 8, 8, 12 (2003).

117. Patrick John McGinley, *Sovereign Immunity and Florida Counties*, 24 FLA. PRAC., FLA. MUN. L. & PRAC. § 7:7 (2014).

118. Drake, Jr., *August Body of Law*, *supra* note 108.

119. DOBBS ET AL., *supra* note 97, at 469; see also Robert E. Heyman, *Waiver of Sovereign Immunity in Florida: When the “King” Can Be Sued*, HEYMAN LAW FIRM (Oct. 30, 2010),

causes injury, a claim is permitted.<sup>120</sup> The Florida courts have created an exception to the waiver of sovereign immunity contained in Florida Statute Section 768.28, which provides that immunity for discretionary government functions has not been waived.<sup>121</sup>

The development of the immunity standard has evolved from attempts to turn a precise, predictable definition into a flexible, if unpredictable, guideline. “Florida courts have struggled to find consistency in their application of the waiver, applying an implied exception for discretionary functions based on a nebulous four-part test, a ‘known dangerous condition’ factor, embracing the previously-rejected public duty doctrine before again rejecting it and employing a ‘foreseeable zone of risk’ factor.”<sup>122</sup> The variations in application of the immunity standard have been so significant that a Florida Supreme Court Justice noted that “the enigma is now shrouded in mystery.”<sup>123</sup>

### C. Operational Immunity Created by Florida Statute § 373.443

When flooding occurs from governmental actions, the liability for negligence from the government’s operations is also waived. Separated from the negligence section of the Florida Statutes,<sup>124</sup> there is a section of law focused on water resources, including water laws.<sup>125</sup> This section of law was enacted by the state in 1972.<sup>126</sup> In 1989, the law was modified to provide waiver of operational liability on stormwater systems.<sup>127</sup> Two key cases highlight how this change in the law extended the shroud of sovereign immunity: *Nanz* and *Barnes*.

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<http://www.heymanlawfirm.com/waiver-of-sovereign-immunity-in-florida-when-the-king-can-be-sued/>.

120. *Id.*

121. Drake, Jr., *August Body of Law*, *supra* note 108, at 24.

122. James Wilkins, *Is Sea Level Rise “Foreseeable?” Does It Matter?*, 26 J. LAND USE & ENVTL. L. 437, 450 (2011).

123. *Dep’t of Transp. v. Neilson*, 419 So. 2d 1071, 1079 (Fla. 1982) (Sundberg, J., dissenting) (“In a laudable effort to simplify the distinction between those acts of governmental agencies which still enjoy immunity and those which do not, it occurs to me that the majority has simply exchanged one set of result descriptive labels for another. Hence, the irreconcilable results among the several district courts of appeal are not harmonized, but rather the confusion is compounded. The enigma is now shrouded in mystery.”).

124. FLA. STAT. § 768 (2014).

125. FLA. STAT. § 373.443 (2014).

126. TATIANA BORISOVA & ROY R. CARRIKER, PUBLIC POLICY AND WATER IN FLORIDA 2 (2015), available at <http://edis.ifas.ufl.edu/pdffiles/FE/FE79900.pdf> (noting that, prior to 1972, Florida’s water law was based on common law doctrines that had evolved through custom and case law in the eastern United States beginning in colonial times).

127. *Barnes v. Dist. Bd. of Trustees of St. Johns River State Coll.*, 147 So. 3d 102, 105 (Fla. Dist. Ct. App. 2014).

In *Sw. Florida Water Mgmt. Dist. v. Nanz*, the plaintiff Nanz sued Southwest Florida Water Management District (the District) based on the District's alleged failure to manage stormwater drainage following rainfalls in the autumn of 1988.<sup>128</sup> In 1994, the *Nanz* court held that the District,

having assumed control of this drainage system and undertaken to operate and maintain [it], . . . had a duty and obligation to prudently operate, control, maintain, and manage [the] system so that it would work properly and drain off excess waters so as not to cause flooding in the area.<sup>129</sup>

“The Defendants’ duty of care was breached through the negligent . . . acts . . . of the Defendants including, but not limited to . . . [failing] to properly dredge, clean, and otherwise operate, control, and/or maintain the drainage system.”<sup>130</sup> During the same period that *Nanz* was decided, the Florida Supreme Court certified the following determination as part of the *Slemp* case: “[A] city [can] be held liable for flooding damages that result from the allegedly negligent maintenance of a storm sewer pump system it constructed.”<sup>131</sup> Government entities are not immune from liability for their torts arising from operational functions. Tort principles will apply if government entities are not entitled to immunity.<sup>132</sup>

In 1989, one year after the *Nanz* holding, Florida Statute Section 373.443 was broadened to include stormwater management systems within its scope.<sup>133</sup> When the statute was originally enacted in 1972, it applied only to dams, impoundment reservoirs, and appurtenant work or works.<sup>134</sup> In the amended version, the statute immunizes the state, the district, and their agents and employees from liability based on the partial or total failure of any stormwater management system by virtue of the performance of four designated activities, including the control or regulation of the system.<sup>135</sup>

This change in the law was not challenged until *Barnes v. District Board of Trustees of St. Johns River State College*. This case involved homeowners seeking recovery from the government for damages to their property from water that had overflowed from a retention

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128. *Sw. Fla. Water Mgmt. Dist. v. Nanz*, 642 So. 2d 1084, 1085 (Fla. 1994).

129. *Id.* at 1086.

130. *Nanz*, 642 So. 2d at 1086.

131. *Slemp*, 545 So. 2d at 257.

132. *Id.*

133. *Id.* at 258.

134. *Barnes*, 147 So. 3d at 105.

135. *Id.* at 107.

pond that was part of the District's stormwater management system.<sup>136</sup> The *Barnes* court held that Florida Statute Section 373.443 extended immunity to the operational level negligence claims that would otherwise be actionable under Florida Statute Section 768.28.<sup>137</sup> While the sovereign immunity statute in Section 768.28 did not immunize the District from the plaintiffs' claims of operational negligence,<sup>138</sup> the *Barnes* court concluded that Section 373.443 confers broader immunity than Section 768.28 and applies to operational negligence.<sup>139</sup> The court also held that liability could not be predicated on the failure to warn or protect the public from a known dangerous condition because the record did not contain any evidence that the District "knew prior to the extraordinary rain event . . . [that resulted in the damage to the plaintiffs' property] that its stormwater management system was other than one that was designed to handle all but the most extreme rainfalls."<sup>140</sup>

The Florida Supreme Court has not yet reviewed this interpretation of broader immunity by the district court.<sup>141</sup> Therefore, the relatively recent modification in the law has yet to be fully vetted by the courts. The question of operational immunity is likely to be further tested in the future, especially when impacts of climate change result in increased flooding due to the failure of stormwater management systems.

#### D. Impact of Public Duty on Sovereign Immunity

When evaluating the public duty doctrine, the Florida Supreme Court identified the following four categories of governmental functions to be considered: (1) legislative, permitting, licensing, and executive officer functions; (2) enforcement of laws and the protection of public safety; (3) capital improvements and property control operations; and (4) providing professional, educational, and general services for the health and welfare of the citizens.<sup>142</sup> The *Trianon* case in 1985 was a negligence action by a condominium association against a municipality for faulty building inspection.<sup>143</sup> The plaintiff contended that

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136. *Id.* at 103.

137. *Id.* at 105.

138. *Id.* at 109.

139. *Id.* at 107.

140. *Barnes*, 147 So. 3d at 109.

141. Wilkins, *supra* note 122, at 454.

142. *Trianon Park Condo. Ass'n v. City of Hialeah*, 468 So. 2d 912, 919 (Fla. 1985).

143. *Id.* at 914 (noting that owners of condominiums sustained damages caused by severe roof leakage and other building defects allegedly arising out of negligent actions of city

the government had a common law duty of care to enforce the building regulations when the city inspected the building.<sup>144</sup> In *Trianon*, the court stated that there is no common law duty for the functions in categories one and two; however, regarding categories three and four, there exists a common law duty of care.<sup>145</sup> Therefore, in order to evaluate if sovereign immunity applies, the latter functions are to be analyzed by the court to determine whether they are planning or operational functions.<sup>146</sup>

With respect to capital improvements and property control operations described in the third category, the court held that “once a governmental entity builds or takes control of property or an improvement, it has the same common law duty as a private person to properly maintain and operate the property,”<sup>147</sup> even though the “decision not to build or modernize a particular improvement [in the first instance] is a discretionary judgmental function with which [courts] . . . cannot interfere.”<sup>148</sup> The *Trianon* court also found a common law duty of care under the fourth category regarding the provision of professional, educational, and general services for the health and welfare of citizens.<sup>149</sup> Following the court’s application, an example of how the fourth category would apply to stormwater drainage is in the number of engineers hired in a stormwater drainage management department. This is a planning decision that is a discretionary choice by the government and is therefore immune from tort liability. However, if the engineer is incompetent in accordance with the State’s professional criteria and commits malpractice, then there is a common law duty and the government may be liable.<sup>150</sup>

The analysis of the public duty doctrine provided in *Trianon* significantly expands immunity established by *Commercial Carrier*, which held that the public duty doctrine was akin to the planning function of government.<sup>151</sup> The *Trianon* court did not unanimously embrace

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building inspectors in enforcing provisions of a building code enacted pursuant to city police powers).

144. *Id.* at 921.

145. *Id.* *But see* Carter v. City of Stuart, 468 So. 2d 955, 958 (Fla. 1985) (Shaw, J., dissenting) (stating that the court called *Trianon* into doubt noting the intent to clarify common law since *Trianon* should not establish a “bright line”).

146. James R. Wolf, *Local Government Responsibility for Misconduct of Third Persons: The Pendulum Continues to Swing*, 28 STETSON L. REV. 623, 626 (1999).

147. *Trianon*, 468 So. 2d at 921.

148. *Id.* at 920.

149. *Id.* at 921.

150. *Trianon*, 468 So. 2d at 921.

151. Wetherington & Pollock, *supra* note 112, at 37-38.

this expansion of immunity. For instance, one of the dissenting opinions criticized the *Trianon* majority's commingling of immunity and the public duty doctrine.<sup>152</sup> Under *Trianon*, the public duty doctrine was applied to operational functions as well as planning functions.<sup>153</sup> The court in *Trianon* held that it was a discretionary choice of the government to build, expand, modernize, or improve and upgrade capital improvements such as stormwater drainage systems and that the lack of said improvements did not impose tort liability.<sup>154</sup>

*E. The Duty to Warn or Avert Dangerous Conditions*

Although the *Trianon* decision substantially narrowed the scope of a local government's potential liability,<sup>155</sup> there is an exception regarding decisions not to build, expand, modernize or improve stormwater facilities.<sup>156</sup> "This exception provides that once a governmental entity creates a known dangerous condition that may not be readily apparent to those who could be injured by the condition, then the government must take steps to correct the dangerous condition or warn those who may be injured by it."<sup>157</sup> The known dangerous condition exception can be established on the following elements: "(1) the government created a dangerous condition, (2) the condition was not readily apparent to the injured party, (3) the government had knowledge of the dangerous condition, and (4) the government failed to take steps to warn the public of the danger or to avert the danger."<sup>158</sup> "In fixing the bounds of duty, not only logic and science but also policy plays an important role."<sup>159</sup> However, it is possible to create a duty that is not financially feasible.<sup>160</sup> "Thus, the courts have generally recognized that public policy and social considerations, *as well as*

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152. Drake, Jr., & Bustin, *supra* note 116, at 12.

153. *Id.*; see also *Slemp*, 545 So. 2d at 256 (holding that a city that undertook to install a storm drain and pump had a duty to maintain the system).

154. Thomas A. Sawaya, *Capital Improvements and Property Control Functions*, 6 FLA. PRAC., PERS. INJ. & WRONGFUL DEATH ACTIONS § 9:9 (2014) (citing *Trianon*, 468 So. 2d at 912).

155. Wolf, *supra* note 146, at 625.

156. Sawaya, *supra* note 154.

157. *Id.*

158. Henry P. Trawick, Jr., *Modification of Planning Versus Operational Approach*, 4 FLA. PL. & PR. FORMS § 37:3 (2015).

159. William N. Drake, Jr., *Foreseeable Zone of Risk: Confusing Foreseeability with Duty in Florida Negligence Law*, 78-APR FLA. B.J. 10, 10 (2004).

160. *Id.*

*foreseeability*, are important factors in determining whether a duty will be held to exist in a particular situation.”<sup>161</sup>

#### IV. PROPOSED CHANGES TO FLORIDA’S SOVEREIGN IMMUNITY LAWS RELATED TO STORMWATER DRAINAGE

Florida’s drainage regulations do not account for climate change impacts and the sovereign immunity laws discourage the proactive changes needed to Florida’s drainage systems. If these changes do not occur, then there will likely be increased flooding problems. The responsibility to proactively plan and implement better drainage regulations falls on the State of Florida; however, the sovereign immunity laws are so broad that inaction by the State is acceptable. Governmental immunity law in Florida has become so muddled that courts have difficulty in consistently applying immunity analyses and distinguishing the public duty doctrine.<sup>162</sup> While the impacts of climate change are being modeled far in advance, the courts do not have a clear path of legal precedent to assess the liability associated with the adverse impacts attributable to climate change. As a result, as climate change occurs over time, the actual harm caused could be attributed to the failed duty of Florida governmental entities. Therefore, amendments to the applicable law and rules should occur so that the current stormwater drainage regulations require climate change adaptation targeted changes such as upgrades, modifications and retrofitting to our drainage systems. These changes could be implemented incrementally so that both the public and private sectors can more readily absorb cost impacts for the changes.

##### A. *Planning Immunity Does Not Constitute a Waiver of the Public Duty to Plan*

The public duty doctrine is not a privilege of immunity or a waiver to take action.<sup>163</sup> It is an affirmative defense to a tort claim because a public duty is defined as the absence of a duty to a specific individual.<sup>164</sup> Therefore, a *prima facie* case for a negligence claim will fail for the lack of the element of duty.<sup>165</sup> The doctrine of a public duty

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161. *Id.*

162. Drake, Jr., & Bustin, *supra* note 116.

163. Thomas A. Bustin & William N. Drake, Jr., *Judicial Tort Reform: Transforming Florida’s Waiver of Sovereign Immunity Statute*, 32 STETSON L. REV. 469, 475 (2003).

164. Drake, Jr., *August Body of Law*, *supra* note 108, at 20.

165. *Id.*

is worthless if it is considered to be an extension of the sovereign immunity created by Florida Statute Section 768.28.<sup>166</sup> The *Trianon* court was divided. One of the dissenting opinions criticized the *Trianon* majority's commingling of discretionary-function immunity and the public duty doctrine.<sup>167</sup> Without clarification and direction from governmental leadership in Florida, the failure to plan for climate change could simply be dismissed since there is no potential liability for the failure to properly perform a public duty.

Inaction by Florida government to plan for climate change and take any type of responsibility for adaptation efforts has been repeatedly noted in the media. Recently, news reports detailed that the FDEP has been prohibited or discouraged from using the term "climate change."<sup>168</sup> Part of the agency's responsibility is to study climate change.<sup>169</sup> A former attorney with the FDEP said, "It's an indication that the political leadership in the state of Florida is not willing to address these issues and face the music when it comes to the challenges that climate change presents."<sup>170</sup>

Responding to the claims, Governor Scott said that he has not been convinced that climate change is occurring and needs better scientific evidence.<sup>171</sup> Additionally, Governor Scott was elected on a campaign pledge saying he wanted to run government like a business and believes that there is too much government regulation, and he expressed a desire to eliminate some of those regulations.<sup>172</sup> This is a significant change from the prior administration's leadership that had formed a commission on climate change. This climate change commission had been working for about one year when Governor Scott took office and disbanded the commission.<sup>173</sup> If officials cannot use the terms climate change or global warming, then it is impossible to plan for them. When asked, Lisa Kelly, Assistant Director of the Central

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166. Drake, Jr., & Bustin, *supra* note 116, at 12.

167. *Id.*

168. Daphne Zhang, *Jon Stewart Just Mocked Florida's Governor for Banning Climate Change*, BLUE NATION REV. (Mar. 26, 2015), <http://bluenationreview.com/daily-show-climate-change/>.

169. Tristram Korten, *In Florida, Officials Ban Term 'Climate Change'*, FLA. CTR. FOR INVESTIGATIVE REPORTING (Mar. 8, 2015), <http://fcir.org/2015/03/08/in-florida-officials-ban-term-climate-change/>.

170. Greg Allen, *Florida Gov. Scott Denies Banning Phrase 'Climate Change'*, NAT'L PUB. RADIO (Mar. 10, 2015), <http://www.npr.org/2015/03/10/392142452/florida-gov-scott-denies-banning-phrase-climate-change>.

171. Korten, *supra* note 169.

172. Allen, *supra* note 170.

173. *Id.*

District office of the FDEP, said that she has never needed to use the term because the topic simply never comes up in her job.<sup>174</sup>

1. Foreseeability of Drainage Failures Due to Climate Change Should Be Attributable to Governmental Negligence

Originally, downstream property owners and governments absorbed flooding damages.<sup>175</sup> However, the evolution of common law recognized that the responsibility and cost for correcting problems rests with the person who created the problem, or with the government that permitted the development without appropriate stormwater management.<sup>176</sup> “Since the implementation of Florida’s Stormwater Rule, many thousands of on-site stormwater management systems have been constructed to serve new development, redevelopment, or roadway projects.”<sup>177</sup> Through proper planning, it is much simpler and inexpensive to prevent stormwater problems, as opposed to spending time and money on restoration and building projects.<sup>178</sup>

In the liability case, where the Army Corps of Engineers faced suit for negligence based on their failure to armor the banks of the Mississippi River Gulf Outlet prior to Hurricane Katrina, part of the claim was that scientific data was available that the arming was needed.<sup>179</sup> As climate change forecasting continues to predict that the amount of rainfall will increase, it is reasonably foreseeable that there will be an increase in flooding. Advancements in our forecasting will continue to make the danger more foreseeable.<sup>180</sup> In *Stormwater Management: A Guide for Floridians*, the need for modification and adaptation was described as follows:

One of the major stormwater management problems facing Florida is how to modify old drainage systems that were built solely for flood protection. These systems had one purpose: to convey stormwater away from improved properties as quickly as possible. There was little regard for any environmental effects. It is extremely difficult, and expensive, to correct problems caused by old systems. The solution will take years. Innovative technology, and close coordination with planned infrastructure improvements and

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174. Interview with Lisa Kelly, Assistant Director of Central District Office FDEP, in Orlando, Fla. (Apr. 7, 2015).

175. LIVINGSTON & McCARRON, *supra* note 2, at 61.

176. *Id.*

177. EDWIN HERRICKS, STORMWATER RUNOFF AND RECEIVING SYSTEMS 342 (1995).

178. LIVINGSTON & McCARRON, *supra* note 2, at 5.

179. *In re Katrina Canal Breaches Litig.*, 696 F.3d 436, 452 (5th Cir. 2012).

180. Wilkins, *supra* note 122, at 497.

urban re-development will be required to solve our stormwater problems.<sup>181</sup>

In March of 2012, the lower court's decision in *In re Katrina Canal Breaches Litigation* gave hope to property owners to argue against sovereign immunity.<sup>182</sup> As part of the decision, the court found that the Corps was liable since there was data available to foresee the danger.<sup>183</sup> Unfortunately, a year later, the decision was overturned.<sup>184</sup> The law in Florida is similar. Courts' decisions over time have narrowly interpreted the waiver of immunity established in Florida Statute Section 768.28, and standards to determine exceptions are unclear and difficult to apply to new claims.<sup>185</sup> Revisions to the Florida laws on the waiver of sovereign immunity should be clarified so that liability can be assessed when the foreseeability of danger and the duty to act are clearly apparent. While it may be debated that this is a loose standard and that the current Governor does not recognize any type of climate change at this point in time, the courts will rely on more than just the Governor's opinion. The court will use the reasonable person standard for elevations of foreseeability of harm.

## 2. Duty to Warn or Protect Applies to Climate Change Adaptation Efforts

Despite the general applicability of sovereign immunity to planning-level decisions, liability of a governmental entity may arise from a planning-level decision when that decision creates a dangerous condition.<sup>186</sup> A government entity may be held liable if it fails to provide a warning pertaining to a known dangerous condition.<sup>187</sup> When such a condition is knowingly created by a governmental entity, it reasonably follows that the governmental entity has the responsibility to protect the public from that condition, and the failure to protect cannot be dismissed by the shield of sovereign immunity.<sup>188</sup> In *Escambia County v.*

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181. LIVINGSTON & McCARRON, *supra* note 2, at 21.

182. Willis Hon, *5th Circuit Reverses Itself on Hurricane Katrina Liability Lawsuit*, COLUM. J. ENVTL. L. (Apr. 22, 2013), <http://www.columbiaenvironmentallaw.org/articles/5th-circuit-reverses-itself-on-hurricane-katrina-liability-lawsuit>.

183. *Id.*

184. *Id.*

185. Sawaya, *supra* note 154.

186. *Payne v. Broward Cnty.*, 461 So. 2d 63 (Fla. 1984) (holding that: (1) county had no duty to warn of intersection upon opening road absent hidden danger or trap, and (2) county had no duty to warn of intersection until planned traffic control light was installed absent hidden danger or trap).

187. Drake, Jr., & Bustin, *supra* note 116, at 10.

188. Grossman, *supra* note 110.

*Stichweh*, for instance, the court held that the county had actual or constructive notice of the defective condition of a stop sign at an intersection.<sup>189</sup>

The duty to plan for climate change can be interpreted by the courts as a failure to warn of a known dangerous condition. Scientific projections, which have been disseminated to the Florida government, indicate that thirty percent of the state's coast, including Miami, the fourth largest urban region in the United States, is projected to be underwater by 2100 due to the impacts of climate change.<sup>190</sup> As scientific knowledge of global climate change increases and its impacts are experienced in Florida, there is a clear need for a broader approach to governmental adaptation efforts.

In *Collom*, the plaintiff sought to recover damages from the City of St. Petersburg for the death of his wife and daughter, who were swept into a storm sewer and drowned.<sup>191</sup> The city had designed, installed, and maintained the drainage system.<sup>192</sup> "When a governmental entity creates a *known* dangerous condition, which is not readily apparent to persons who could be injured by the condition, a duty at the operational-level arises to warn the public of, or protect the public from, the known danger."<sup>193</sup> The Florida Supreme Court in *Collom* held that "courts can require: (1) the necessary warning or correction of a known dangerous condition; (2) the necessary and proper maintenance of existing improvements, as explained and illustrated in *Commercial Carrier v. Indian River*, and (3) the proper construction or installation and design of the improvement plan . . . ."<sup>194</sup> The 1982 holding in *Collom* defining a duty to warn or protect the public was applied to the stormwater drainage failure in *Barnes*. In *Barnes*, the plaintiff claimed that the District's stormwater drainage system was deficiently designed to the point where it created dangerous conditions to which a duty was automatically imposed on the District to warn or protect the public.<sup>195</sup>

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189. *Escambia Cnty. v. Stichweh*, 536 So. 2d 1058 (Fla. Dist. Ct. App. 1988).

190. Lefty Coaster, *Letter from Climate Researchers Says Pace of Global Warming is Accelerating Published in Nature*, DAILY KOS (Mar. 15, 2015), <http://www.dailykos.com/story/2015/03/15/1371109/-Letter-from-climate-researchers-says-pace-of-Global-Warming-is-accelerating-published-in-Nature#>.

191. *City of St. Petersburg v. Collom*, 419 So. 2d 1082, 1084 (Fla. 1982).

192. *Id.*

193. *Id.*

194. Scott Sternberg, *Leonard, IV v. Wakulla County* 688 So. 2d 440 (Fla. 1st Dist. Ct. App. 1997), 27 STETSON L. REV. 1043 (1998) (citation omitted).

195. *Barnes*, 147 So. 3d at 109.

To date, the known dangerous condition standard has not been applied to any climate change related matters. A brief analysis of the elements required to determine whether Florida has created a known dangerous condition by not improving stormwater drainage infrastructure to adapt to climate change demonstrates that an argument can be made that Florida may be found liable. For the first element—the government has created a dangerous condition—the defense is that climate change is a global issue and not one created “locally” by Florida. However, the court could interpret Florida’s lack of response to climate change, in particular a lack of adaptation on stormwater infrastructure, as evidence of the government creating a dangerous condition. The second element—the dangerous condition is not readily apparent—is easily demonstrated since climate change impacts are not, at least at this point in time, readily observable. Readily observable has been the standard that courts have applied in interpreting this element to date.<sup>196</sup> The Florida government’s knowledge of the dangerous condition, which is the third element, can be established by the numerous reports by various governmental agencies.<sup>197</sup> Knowledge may also be demonstrated by the absurd stance of avoiding using the term “climate change” by Governor Scott’s administration.<sup>198</sup> In doing so, and by responding that he is not convinced that climate change has been scientifically proven, an individual can show that Governor Scott had actual and constructive notice of the dangerous condition. Lastly, the lack of action to make changes in either the existing infrastructure or by modifying current stormwater drainage regulations can easily satisfy the fourth element.

Concern regarding lack of funding for major modifications to the State’s drainage infrastructure is the explanation as to why the state has not responded to date.<sup>199</sup> If the sea rises eight inches, approximately eighteen flood control gates in the C&SF Project would have to be rebuilt with a new pumping system at a cost of an estimated seventy million dollars per pumping station.<sup>200</sup> The solution for the

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196. *Collom*, 419 So. 2d at 1083 (holding that when a governmental entity creates a known dangerous condition that is not readily observable to those who may be injured by such condition, a duty arises at the operational level to warn of or protect the public from the known danger and the failure to fulfill this duty will give rise to a cause of action).

197. For example, in *Escambia County v. Stichweh*, the court held that the county had actual or constructive notice of the defective condition of a stop sign at an intersection. 536 So. 2d 1058 (Fla. Dist. Ct. App. 1988).

198. *Id.*

199. ASS’N OF STATE FLOODPLAIN MANAGER, NATIONAL FLOOD PROGRAMS & POLICIES IN REVIEW (2015) 9 (2015), available at [http://www.floods.org/ace-files/documentlibrary/committees/NFPPR\\_20150128/NFPPR\\_2015.pdf](http://www.floods.org/ace-files/documentlibrary/committees/NFPPR_20150128/NFPPR_2015.pdf).

200. *Id.*

government of Florida to avoid liability associated with the dangerous condition doctrine could be simple. The state could take measures such as a modification of the current stormwater drainage regulations regarding the design parameters for drainage to include a warning or advisement regarding the likely increases in the amount of rainfall anticipated.

*B. Even If Sovereign Immunity Applies, Floridians Should Be Able to Rely on the State to Act*

The conviction that motivated both the state and federal governments in 1947 to build a drainage system to take care of the citizens of the State should be repeated now. The 1947 C&SF Project was, at the time, the largest civil works project in the nation.<sup>201</sup> During this time of need for government action, the decision to act and build the C&SF Project was not ignored because of planning authority discretion or dismissed by sovereign immunity. The State, assisted by the federal government, proactively planned, designed, and constructed the infrastructure improvements needed at the time to deal with drainage. In many respects, there is again a foreseeable need and duty for the government to act—this time to prepare for climate change as it relates to stormwater drainage.

In November 1947, Jeanne Bellamy, a writer for the Miami Herald, wrote a series of articles about water problems in Florida; the series included descriptions of the flood of 1947, the existing problems, and the solutions for drainage improvements.<sup>202</sup> The following passage reflects parallels to the challenges that climate change and stormwater drainage present today.<sup>203</sup>

The great flood of 1947 may become a turning point in the history of South Florida. Fixing blame for the flood is easy. . . . Experience of the past 50 years has proved that drainage alone does as much harm as good. Unchecked drainage has . . . [b]rought a summer of flood in the Everglades. Every winter may bring drought. Some years, or series of years, bring too much rain, others too little. So formula has been found for predicting when these long range floods or droughts will come.<sup>204</sup>

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201. WATER SUMMIT 2007, *supra* note 4.

202. TOM HUSER, INTO THE FIFTH DECADE: THE FIRST FORTY YEARS OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT 1949-1989 3 (Marsha Kirchhoff & Patti Nicholas eds., 1989), available at <http://sofia.usgs.gov/publications/historical/fcd5decades/fcd5decades.pdf>.

203. *Id.*

204. *Id.*

As stated by Bellamy, “[f]ixing blame for the flood is easy” and in response, the government acted as needed in 1947.<sup>205</sup> Given that the state has been the source for regulation of our stormwater drainage system in Florida for the past fifty years, the state should take responsibility for adjustments needed at this point in time to plan for climate change impacts. Even if sovereign immunity waives liability for the actions of the state, Floridians should be able to rely on the state to act.

*C. Operational Immunity Conflicts with the Ethical and Professional Duty to Respond*

In *Barnes*, there was a claim of operational negligence by the Southwest Florida Water Management District.<sup>206</sup> The operational aspect of the claim was not disputed by virtue of the District’s control and regulation of the system.<sup>207</sup> The court in *Barnes* noted, however, that Florida Statute Section 373.443 cannot be read “to grant absolute immunity from all forms of negligence.”<sup>208</sup> “[A] strong argument exists that § 373.443 ‘was enacted specifically to avoid the operational versus planning distinction’ under § 768.28 ‘otherwise there would be no reason to enact’ the former.”<sup>209</sup>

Stormwater drainage is an important social good with respect to flood protection and pollution control. By allowing immunity from liability claims against governments, a disincentive result could occur and governments could be less inclined to develop stormwater drainage.<sup>210</sup> As noted in *Barnes*, negligence occurs not only from initial flawed design and construction, but also from failing to adapt and “operate in a responsible way.”<sup>211</sup>

As noted in the NSPE Code of Ethics for Engineers, “Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare.”<sup>212</sup> Therefore, even though Florida has adopted a specific exception to the waiver of sovereign immunity for the operation of stormwater drainage facilities, there is an

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205. *Id.*

206. *Barnes*, 147 So. 3d at 104-05.

207. *Id.*

208. *Id.*

209. *Id.*

210. Schaefer, *supra* note 92, at 430.

211. *Barnes*, 147 So. 3d at 104.

212. *Code of Ethics for Engineers*, NAT’L SOC’Y OF PROF. ENGINEERS (July 2007), <http://www.nspe.org/resources/ethics/code-ethics>.

ethical and professional duty for engineers to ensure safety in the design of the facilities. This professional and ethical duty directly applies to stormwater drainage facilities since a licensed engineer must conduct stormwater drainage design in order to be permitted by the regulatory agencies of Florida.<sup>213</sup>

#### CONCLUSION

Change is inevitable and necessary, and often requires investment in improvements and modification of our laws. Change is the benchmark of evolution and lack of change can result in inertia. “[T]here are problems associated with inertia, which implies that the legal regime does not keep up with demands. A variety of factors, including new information, new technology, new circumstances, and new social mores may call for changes in regulation.”<sup>214</sup>

The important legislative changes and judicial interpretations of the last several years have significantly affected the doctrine of sovereign immunity in Florida.<sup>215</sup> Although Florida’s courts continue to explore new theories and establish new guidelines regarding the statutory waiver of immunity, the new challenges presented by climate change require legislative and judicial attention. To ensure that Florida can proactively protect and warn its citizens about the upcoming climate change impacts, further statutory amendments or further interpretation by the courts must occur in a timely manner.<sup>216</sup> Without governmental leadership in Florida addressing the legal responsibility for drainage systems improvements needed in light of climate change, the failure to plan for climate change could simply be dismissed as no potential liability for the failure to properly perform a public duty. Like the events demanding government action, both in the legislature and infrastructure, that occurred in the 1940s after wide-spread flooding, a similar situation is presented in which Floridians need governmental assistance to develop a flood protection plan to help them cope with the impacts of the state’s weather extremes. Not only do we need the scientific and engineering guidance of climate change adaptation options such as the redesign and improvement of existing storm drainage canals, flood control structures, and stormwater pumps, but we also need the legal responsibility for these changes to be addressed. Inertia regarding the public duty has set in and thwarts changes needed in

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213. LIVINGSTON & McCARRON, *supra* note 2, at 30.

214. Holly Doremus, *Takings and Transitions*, 19 J. LAND USE & ENVTL. L. 1, 18 (2003).

215. Klein, *supra* note 115.

216. *Id.*

stormwater drainage regulations and infrastructure based on climate change impacts. These impacts are recognized and known in the state and create a dangerous condition. Even if sovereign immunity is determined by the courts to exempt liability on a public duty, citizens should be afforded governmental accountability.

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