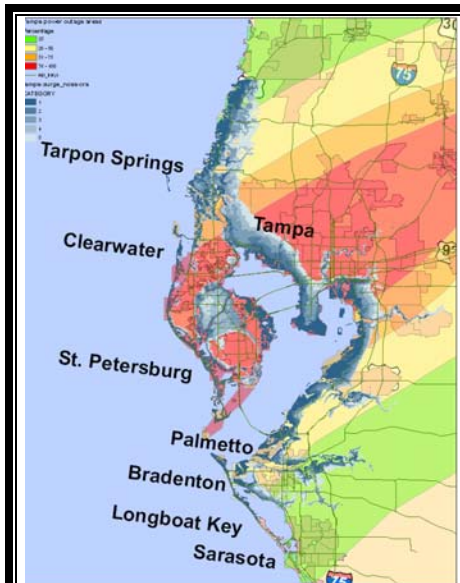




# Office of Infrastructure Protection Tampa Area Hurricane Analysis Summary



## Scenario Storm Characteristics

- Category 4 hurricane at landfall
- Maximum sustained winds > 150 mph
- Estimated storm surge of 22 feet
- Landfall in north of Tampa, FL
- Major cities most impacted: Tampa, St Petersburg, and Orlando FL

Population		
<b>Population within Potential Surge Zones</b> (population within each flood depth range)	16+ feet	2,400
	11-15 feet	22,500
	9-10 feet	27,100
	6-8 feet	98,700
	1-5 feet	602,800
<b>Population Impacted by Potential Power Outages</b> (widespread power outages expected around the Tampa Bay area, localized outages expected in the rest of central Florida) Times to restoration are after damage assessment	Affected	> 2,200,000
	7 days	75% restored
	10+ days	Fully restored
Estimated Economic Impacts		
Direct costs for business interruptions	\$1-2 billion	
Total costs for business interruptions	\$3-4 billion	
Facilities of Interest		
<b>Major Seaports</b>	<ul style="list-style-type: none"> <li>• Port of Tampa, FL</li> </ul>	
<b>Major Transportation Routes</b>	<ul style="list-style-type: none"> <li>• I-75</li> </ul>	
<b>Expected Major Airport Closures</b>	<ul style="list-style-type: none"> <li>• Orlando International</li> <li>• Tampa International</li> </ul>	
<b>Water Distribution Treatment Plants</b> (impacted by potential storm surge)	<ul style="list-style-type: none"> <li>• Tampa Bay Groundwater Treatment Plant</li> </ul>	
<b>Major Wastewater Treatment Facilities</b> (large plants impacted by storm surge)	<ul style="list-style-type: none"> <li>• Howard F. Currin Advanced Wastewater Treatment Plant</li> </ul>	

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## Impacts by Infrastructure Sector

Infrastructure	Level	Impacts	-Low	-Medium	-High
Agriculture		<ul style="list-style-type: none"> <li>• Could impact the citrus crop</li> <li>• Local damage will be severe but is unlikely to impact the broader market for agricultural commodities</li> </ul>			
Banks & Finance		<ul style="list-style-type: none"> <li>• No long-term impacts expected due to backup systems but electronic transfers could be affected due to loss of electric power and telecommunications services</li> </ul>			
Chemical: Plants		<ul style="list-style-type: none"> <li>• Primary Tampa-area chemical facilities process locally-mined ammonia phosphates for use in agriculture, and represent 64% of U.S. processing capacity</li> </ul>			
Commercial Facilities		<ul style="list-style-type: none"> <li>• Impacts not major; loss of business due to electric power outages</li> </ul>			
Dams		<ul style="list-style-type: none"> <li>• Not analyzed</li> </ul>			
Defense Industrial Base		<ul style="list-style-type: none"> <li>• Not analyzed</li> </ul>			
Emergency Services		<ul style="list-style-type: none"> <li>• Emergency response delays expected due to transportation, electrical power, and telecommunications disruptions</li> </ul>			
Energy: Electric Power		<ul style="list-style-type: none"> <li>• Widespread power outages expected around the Tampa Bay area</li> <li>• Localized outages expected in the rest of the study area</li> <li>• 75% restoration expected within 7 days following damage assessment</li> <li>• Full restoration may take over 10 days following damage assessment</li> </ul>			
Energy: Natural Gas		<ul style="list-style-type: none"> <li>• 4 compressor stations and no processing plants in affected area</li> </ul>			
Energy: Petroleum		<ul style="list-style-type: none"> <li>• No refineries in the area</li> <li>• Many refined products are imported through the Port of Tampa. If this port is damaged there could be fuel shortages in the area</li> </ul>			
Government Facilities		<ul style="list-style-type: none"> <li>• Impacts may be locally or regionally significant</li> </ul>			
Information Technology		<ul style="list-style-type: none"> <li>• Impacts may be locally or regionally significant</li> </ul>			
National Monuments		<ul style="list-style-type: none"> <li>• Impacts may be locally or regionally significant</li> </ul>			
Nuclear Facilities		<ul style="list-style-type: none"> <li>• No nuclear power plants in the study area</li> </ul>			
Postal & Shipping		<ul style="list-style-type: none"> <li>• Expect delays due to transportation impacts</li> </ul>			
Hospitals & Nursing Homes		<ul style="list-style-type: none"> <li>• Evacuations and potential closure of some facilities in impacted area will increase demand on neighboring regional facilities</li> </ul>			
Telecomm: Wireline		<ul style="list-style-type: none"> <li>• Expect damage to telecommunications infrastructure (poles and overhead lines) especially in the Tampa Bay area</li> <li>• Restoration of full service may take weeks</li> </ul>			
Telecomm: Wireless		<ul style="list-style-type: none"> <li>• Not analyzed</li> </ul>			
Transport: Road/Rail		<ul style="list-style-type: none"> <li>• Ground transportation impacts due to flooding and debris and I-75 could be impacted due to flooding and storm debris</li> </ul>			
Transport: Airports		<ul style="list-style-type: none"> <li>• Potential airport closures in Tampa and Orlando</li> </ul>			
Transport: Seaports		<ul style="list-style-type: none"> <li>• Port of Tampa expected to be impacted</li> <li>• Area relies on petroleum products shipped through this port</li> </ul>			
Water: Drinking Water		<ul style="list-style-type: none"> <li>• Two regional water treatment plants comprise the Tampa Bay water supply</li> <li>• Water distribution relies on pumps which are reliant on electric power to transport fluids</li> </ul>			
Water: Wastewater		<ul style="list-style-type: none"> <li>• Howard F. Currin Advanced Wastewater Treatment Plant treats all wastewater discharged to the City of Tampa system</li> <li>• St. Petersburg's wastewater treatment system consists of over 1,400 miles of collection mains</li> </ul>			

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