

# Stormwater Emergency Preparedness

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# STORM SURGE

**Wind circulation** around the eye of the hurricane blows down on the ocean surface.

HURRICANE

Water near the shore can no longer be pushed down and **surges inland.**



CBC NEWS

Source: NOAA

# Hurricane Facts

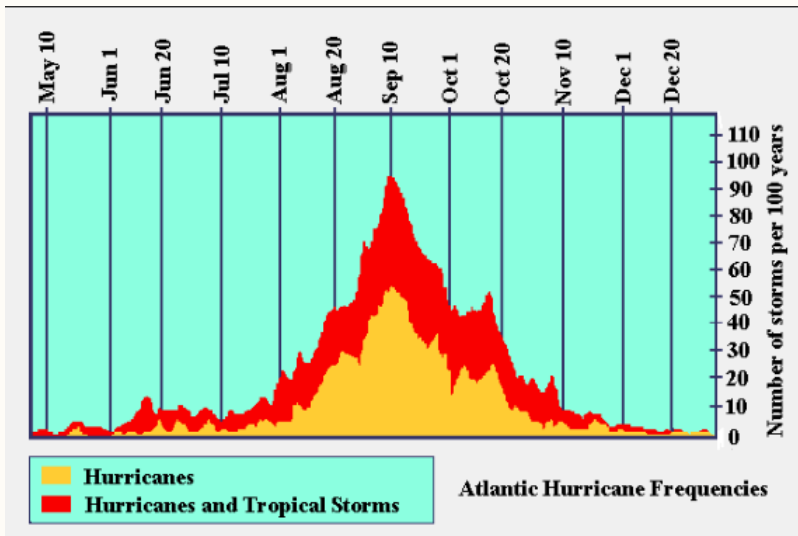
- Powerful tropical storm
- A tropical storm is considered a hurricane when its winds reach or exceed 74 mph
- Hurricanes are also known as cyclones or typhoons depending on the region they occur
- Hurricanes form over warm ocean waters near the equator. They need warm water to develop and use as fuel.
- Rapidly lose strength when they make landfall and move inland
- Produce violent winds, heavy rain, tornadoes, storm surges and flooding
- Storm surge and flooding are the main cause of fatalities
- Coastal regions are areas with the greatest risk of hurricane



# Hurricane Season

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- June 1<sup>st</sup> and runs through November 30
- Peak activity usually from late August through September
- Season peak occurs around September 10<sup>th</sup> each season
- On average, 10.1 named storms occur each season
  - 5.9 become hurricanes
  - 2.5 major hurricanes (category 3 or greater)
- Can bring winds, heavy downpours, power outages and flooding concerns

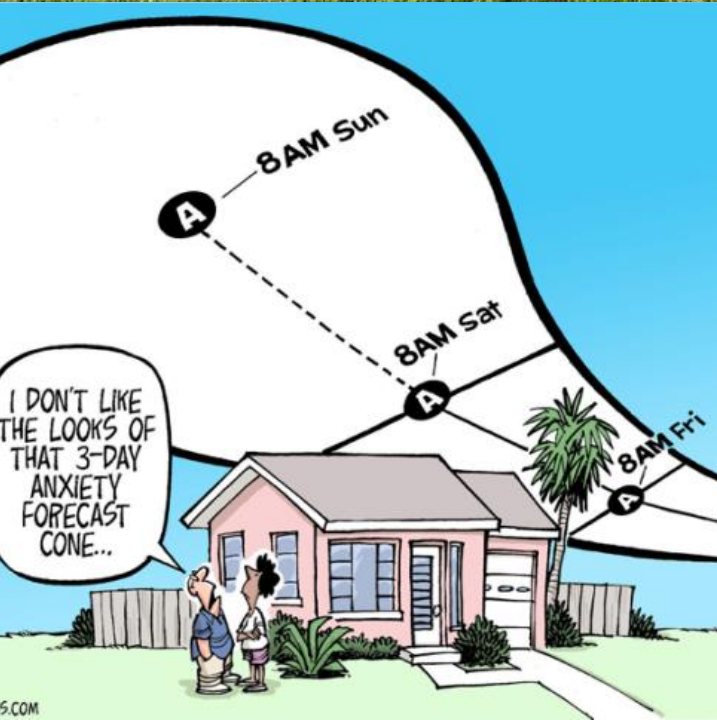






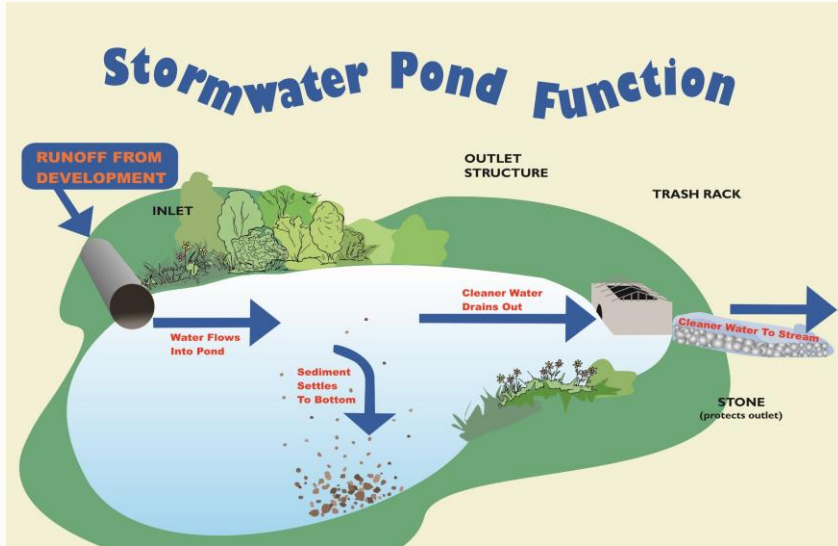
# How to Prepare - Community Wide

- Develop a plan of action for the community and share with homeowners
- Recommend Residential and Commercial developments have a stormwater maintenance contract
- Provide both routine and preventive maintenance throughout the year
- Monitor your pond function
  - Understand how your stormwater system works
    - *Type of stormwater facility (ex. wet pond, dry pond, infiltration)*
    - *Locate the outfall structure so that you know where the water elevation is supposed to be*
    - *Understand where it discharges*
  - If you are unclear as to how your stormwater system functions, please contact the Sussex Conservation District for technical assistance.



# How to Prepare - Community Wide

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- Watch your stormwater system before and after storm events to make sure it functions as designed
- Remember to turn pond fill wells off several days prior to the storm event to allow for additional storage volume
- In general, stormwater ponds should draw back down to their design permanent pool several hours after a storm event.
- If the pond does not regain storage volume, check the following:
  - *Look at the outlet structure to see if there is an obstruction*
  - *Look at the outlet discharge location to see if there is an obstruction in the ditch or waterway (ex. Tree or debris)*
- Depending on the storm event it may take several hours or days for the pond to regain its storage volume

# How to Prepare - Individually

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- Do your part to keep debris out of conveyance systems, stormwater ponds and outlet channels.
- Report clogged ditches and culverts to HOA and/or property management company
- Secure outdoor items *prior* to storm
- Clear blockages if accessible
- Be mindful of how your stormwater system works. Watch your pond before and after storm events to make sure it functions as designed.





# Stormwater Design

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- The 100-year design storm in Sussex County is:  
**9.2” in 24 hours**
- Depending on when the project was approved – ponds were either designed to convey or manage the 100-year storm
- During a 100-year storm event or greater, it is expected that there will be a temporary level of flooding
- Ponds and swales will come out of bank for a period of time and then recede.

















# 100-Year Storm Events or Greater

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Ponds are at  
Capacity







PLEASE BE SAFE!

THIS PRESENTATION PROVIDES A GENERAL OVERVIEW ON EMERGENCY PREPAREDNESS.

DO NOT ATTEMPT TO PERFORM ANY INSPECTION OR MAINTENANCE DURING A STORM EVENT



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