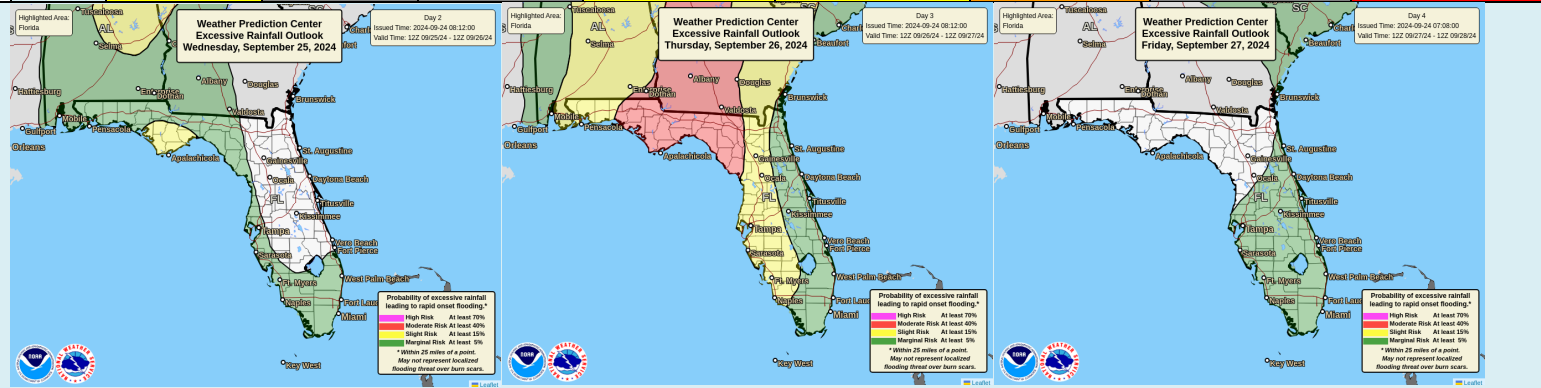
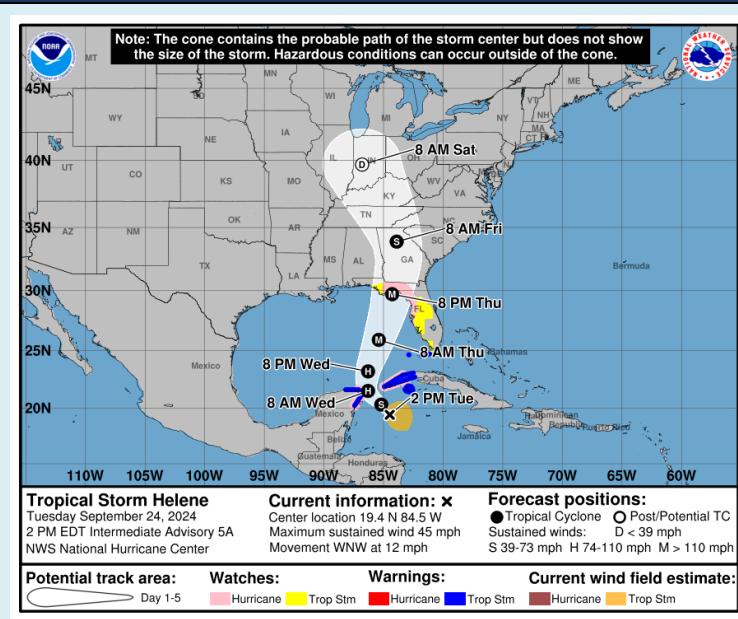


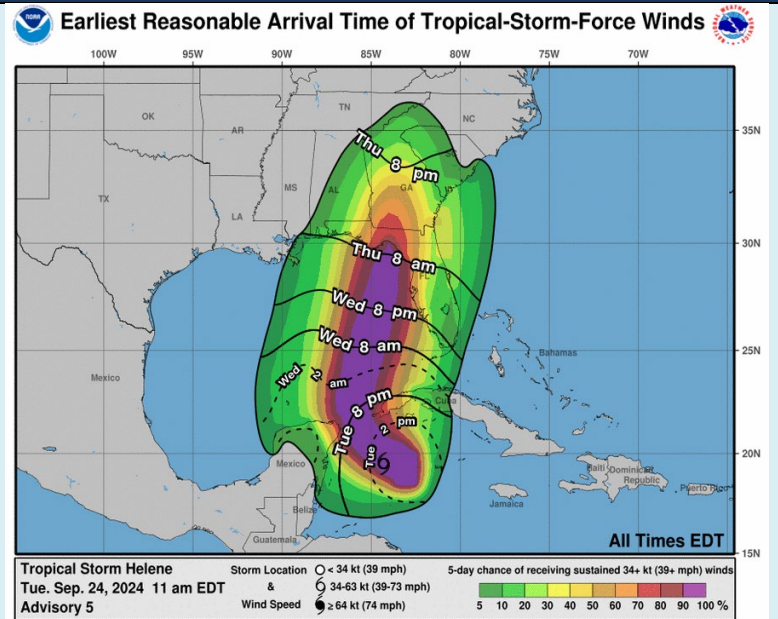
No Threat			Low Threat		Moderate Threat		High Threat	
Day	Lightning	Tornado	Damaging Wind/Hail	Flash Flooding	Riverine Flooding	Excessive Heat	Coastal Flooding	Rip Currents
Tue	Locally Central & S FL			Locally Iso. South FL	St. Johns at Astor Northeast FL	SW FL & Keys Central & S FL	Locally St. Johns River, S FL & Keys	SE Coast Statewide West Coast
Wed	Locally Statewide	Panhandle, Coastal Big Bend & Peninsula	South Florida & Keys Central FL (Overnight)	FL Panhandle, S FL, & Cntrl FL Coastlines	St. Johns at Astor NE & WC FL	S FL & Keys Central FL	Southwest Florida & Keys	Statewide
Thu	Locally Statewide	Big Bend, NE & Central FL South FL	Statewide	FL Panhandle & Suwannee Valley Statewide	Locally N & W FL	Peninsula Suwannee Valley	Big Bend & Gulf Coast	Statewide
Fri	Central & South FL NE FL			Locally Peninsula	Locally N & W FL	S & Cntrl FL N-Peninsula	Big Bend & Gulf Coast	Statewide
Sat	Peninsula			Locally Peninsula	Locally N & W FL	S & Cntrl FL N-Peninsula		Statewide Space Coast



WPC Excessive Rainfall Outlook: *Wednesday, Thursday, Friday*



Forecast Map: Tropical Storm Helene



Earliest Reasonable Arrival of Tropical Storm Force Winds



Tuesday – Saturday

High pressure over the U.S. Southeast will slide eastward, becoming centered over the western Atlantic by this evening, but continue to bring mostly sunny and dry conditions across North Florida and towards the I-4 corridor (near 0-20% chance of rain). A stray shower or two cannot be ruled out near the coast or the adjacent coastal waters this afternoon. Onshore winds along the eastern Peninsula and Southeast Florida will allow for isolated showers with possible thunderstorms to develop this afternoon and evening along the sea breeze (20-35% chance of rain). Returning moisture ahead of Potential Tropical Cyclone Nine (PTC 9) will allow for more scattered activity along coastal portions of South Florida and the Keys this afternoon (35-55% chance of rain). While upper-level conditions and drier air will limit thunderstorm development and activity, an isolated strong thunderstorm or two cannot be ruled out during the peak heating hours of the day along the sea breeze. High temperatures will reach the upper 80s to middle 90s across the state this afternoon. Heat indices in the middle to upper 90s and triple digits (100-105) throughout the state. Heat advisories are not anticipated this afternoon; however, portions of Southwest Florida and the Keys could briefly see heat index values near or at criteria this afternoon.

Conditions will continue to be monitored throughout the day with the timing and coverage of shower and thunderstorm activity. Showers and any thunderstorms that have developed during the daytime hours will weaken and dissipate throughout the evening and early overnight hours. An upper-level feature moving over the U.S. Plains will allow for moisture over the adjacent gulf waters to create isolated to scattered showers and embedded thunderstorms along the Panhandle overnight and into early Wednesday morning (25-50% chance of rain). The greatest chance for showers with potential embedded rumbles of thunder will be closer towards the coast. Shower and thunderstorm activity will continue to increase across the far Southern Peninsula and Keys overnight as PTC 9 moves further northward and pushes in more abundant moisture and onshore winds continue (45-70% chance of rain). Low temperatures will be in the low to middle 70s throughout North Florida, middle to upper 70s across Central and South Florida, and low to middle 80s along the Florida Keys overnight.



Key Messages for Tropical Storm Helene

Advisory 5: 11:00 AM EDT Tue Sep 24, 2024



1. Helene is forecast to intensify and be near hurricane strength when it reaches the far northwestern Caribbean Sea early Wednesday. Tropical storm conditions are expected over portions of western Cuba and the northeastern coast of the Yucatan Peninsula with hurricane conditions possible.

2. Helene is expected to rapidly intensify over the eastern Gulf of Mexico and be a major hurricane when it approaches the northeastern Gulf Coast on Thursday. The risk of impacts from life-threatening storm surge and damaging hurricane-force winds continues to increase along the coast of the Florida Panhandle and the Florida west coast. Hurricane and Storm Surge Watches are in effect for much of that area and residents in those areas should follow advice given by local officials.

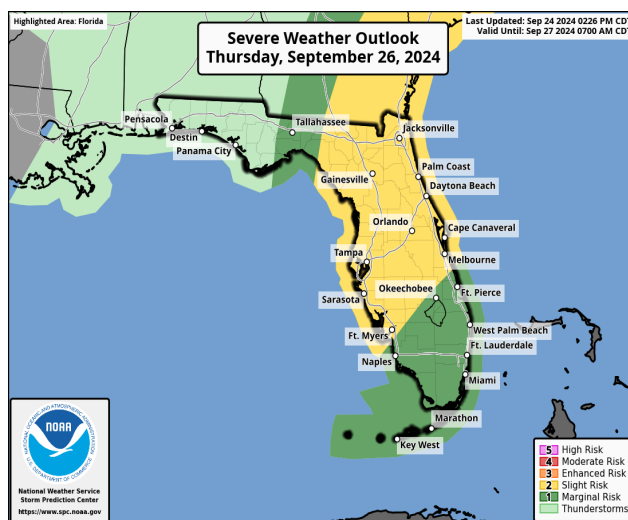
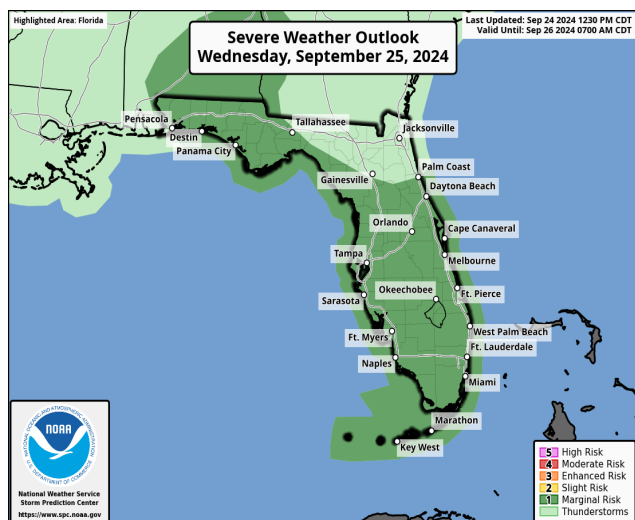
3. Helene will bring heavy rain to portions of the western Caribbean, which will cause considerable flooding and mudslides across western Cuba. Heavy rainfall will likely result in locally considerable flash and urban flooding across portions of Florida, with isolated flash and urban flooding possible across the Southeast, Southern Appalachians, and the Tennessee Valley Wednesday through Friday. Minor to isolated moderate river flooding will be possible.



For more information go to hurricanes.gov



Beginning Wednesday, our attention turns to Tropical Storm Helene – which could very easily be Hurricane Helene by Wednesday morning near the Yucatan Peninsula and entering the southern Gulf of Mexico. Forecast confidence is increasing for Helene to develop into significant and multi-hazardous system as it approaches the Florida Big Bend coastline. Helene is forecast to become a major hurricane (category 3 or greater) by Thursday morning over the eastern Gulf of Mexico creating life-threatening storm surge, damaging winds, flash flooding rainfall, and a few tropical tornadoes. Moisture will begin to return to Florida ahead of Helene, with conditions deteriorating along the Florida Keys and southern Florida Peninsula Wednesday evening and overnight as gusty outer rainbands



begin to move onshore. Locally damaging wind gusts (45-65 mph) cannot be ruled out within the more organized outer rainbands, with isolated tornadoes possible. The Storm Prediction Center (SPC) has now introduced a **Marginal Risk for Severe Weather (level 1 of 5)** for much of the Florida Peninsula as isolated tropical tornadoes may become embedded within these outer bands.

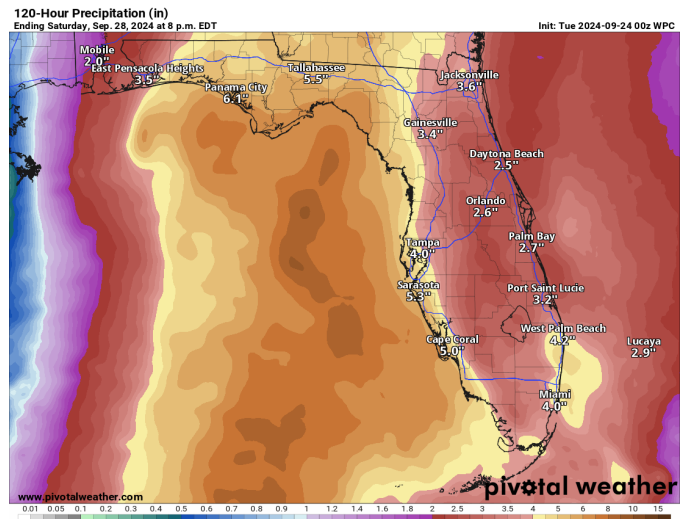
Given the large footprint of Helene, by overnight Wednesday into early Thursday, conditions could begin to deteriorate along the Florida Nature Coast as outer portions of the system begin to advance northward over the adjacent Gulf of Mexico waters, becoming more widespread Thursday morning into the afternoon hours. Impacts from this system will be felt well away from the center of Helene and the forecast cone. All portions of the Florida Gulf Coast, northern Gulf of Mexico, and West Coast of Florida are at risk for significant winds, storm surge inundation, and rainfall. Additionally, Helene is forecast to have a faster than usual storm motion as it accelerates north around landfall and moves inland. When combine with the storm's large size and fast forward motion, significant impacts can and will extend further inland than typical tropical systems. There is now a **Slight Risk (level 2 of 5)** for isolated tropical tornadoes Thursday across much of the Florida Peninsula, mainly along and north of the I-4 corridor (closely mirroring the track of Helene to the east). **Reminder:** every storm is unique in its own way with what it brings in regard to impacts and the geographical extent of those impacts. Tropical and Storm Surge Watches and Warnings will likely be extended and/or upgraded in the upcoming advisories, be sure to have multiple ways to receive warnings. Please refer to the Hazard Sections below for more information on storm-specific hazards.

Helene will be out of the North Florida region by the start of Friday afternoon and evening, with conditions returning to a more typical pattern for late September. High temperatures in the middle to upper 80s can be expected, with some locations eclipsing the 90-degree mark over the interior Florida Peninsula. Under the influence of northerly flow in the wake of Helene, temperatures across the Florida Panhandle and Florida Big Bend will be able to fall into the upper 60s to lower 70s.

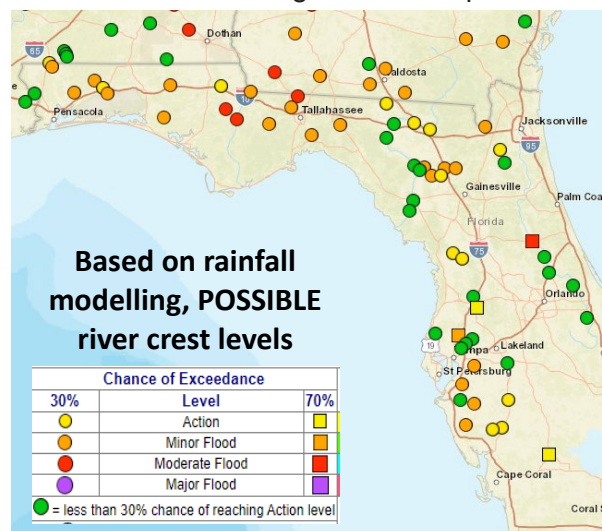


Hydrology & Flooding:

Drier air and high pressure building in will limit shower and thunderstorm activity over the next few days across much of the state today and through the middle portions of this week. Shower and thunderstorm activity will become much more isolated and concentrated along the sea breeze. There is no organized risk for flash flooding today; however, isolated instances of **flooding** and **ponding of water** cannot be ruled out at times along urban and low-lying/poor drainage areas or over saturated grounds. Increasing rain chances can be expected to increase from south to north along the western Peninsula, then extend into northeastern Gulf of Mexico through Wednesday and Thursday as Potential Tropical Cyclone Nine moves northward through the Gulf of Mexico. The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** across West and South Florida on Wednesday. By Thursday, the Weather Prediction Center (WPC) is outlooking a **Moderate Risk (level 3 of 4) for Flash Flooding** across the Eastern Panhandle, Big Bend, and Suwannee Valley with a **Marginal to Slight (level 1-2 of 4)** across the rest of the state. With computer model guidance hinting towards a quicker forward motion, hazards will likely extend well away from the center. Regardless, tropical downpours and multiple rounds of rainfall may be possible that lead to **instances of flash flooding** as the system moves into the southeastern Gulf of Mexico. There is a **Marginal Risk (level 1 of 4) for Flash Flooding** on Friday as well from the I-75 corridor and eastward and throughout the Peninsula as lingering bands of heavy rainfall will likely continue. *Rainfall totals will be heavily tied to the eventual track and forward speed of the system. With computer model guidance uncertainty regarding the exact track, there remains uncertainty as to where the heaviest rainfall can be expected.* Widespread rainfall totals of 3-6" can be expected across the state through the next 5 days, with locally higher totals upwards of 6-10" along the Panhandle and immediate Gulf Coast. **Locally higher totals in excess of 10-15"** cannot be ruled out along portions of northeast Gulf Coast and along the western Peninsula. Areas along the coast may see exacerbated flooding concerns due to increase surf and storm surge preventing rainfall from running off or discharging into nearby rivers, stream and waterways. A **Flood Watch** extends across North Florida, except the far western Panhandle counties and along the West Coast (Collier County) as heavy and intense rainfall associated with Tropical Storm Helene could bring widespread rainfall over already saturated grounds and soils, leading to **potential flooding concerns**. In the wake of Helene, a lingering frontal boundary will remain situated along the I-4 corridor allowing for additional showers and thunderstorms heading into the weekend. The Weather Prediction Center (WPC) is outlooking a **Marginal Risk (level 1 of 4) for Flash Flooding** across the central Peninsula through Lake Okeechobee as lingering tropical moisture may fuel heavy and intense downpours, which could prompt localized flooding concerns. Grounds and soils will already be saturated from tropical rainfall from Helene, and any additional heavy downpours could lead to an earlier onset of flooding concerns. For the latest Flash Flood Outlooks, please visit the [Weather Prediction Center](https://www.weather.gov/forecast/flash-flood-outlook).



A **River Flood Warning** remain in effect in the [St. Johns River at Astor](#) as water levels remain within **moderate flood stage** due to trapped tides within the river basin. Water levels are forecast to fall below flood stage by mid-to-late week. The [St. Johns River at Astor](#) remains within **moderate flood stage** due to trapped tides within the river basin. Additional forecast points along the St. Johns River are forecast to remain near or within Action Stage (bank-full) due to recent heavy rainfall over the area; however, river flooding is not anticipated at this time. Tidal portions of the lower St. Johns River could



fluctuate in between Action and **minor flood stage** due to tide fluctuations. Additional **River Flood Warnings** will likely be issued later this week and this weekend as heavy rainfall expected from Tropical Storm Helene is observed across the state. Rivers, creeks/streams, and waterways across North Florida are already running above normal for this time of year. Computer forecast models are indicating the potential for **minor to moderate flooding** along several mainstems and branches including the Apalachicola, Ochlockonee, Santa Fe, Myakka, Manatee, and Alafia by next week. Riverine flooding will be closely tied to which basin receives the greatest swath of rainfall. Trends will continue to be monitored. For more details, please visit the [River Forecast Center](#).

Lake Okeechobee's average elevation is 15.15 feet, which is within the operational band and 0.45 feet above normal.

Tropical Outlook:

Tropical Storm Helene: As of 2:00 PM EDT, Tropical Storm Helene was located about 175 miles east-southeast of Cozumel, Mexico and about 175 miles south of the western tip of Cuba and moving west-northwestward at 12 mph. A turn toward the northwest is expected later today. A northward to north-northeastward motion at a faster forward speed is expected on Wednesday and Thursday. On the forecast track, the center of Helene will move across the far northwestern Caribbean Sea to near the northeastern coast of the Yucatan Peninsula of Mexico through tonight, and then move across the eastern Gulf of Mexico Wednesday and Thursday, potentially reaching the Gulf coast of Florida late Thursday. Maximum sustained winds are near 45 mph with higher gusts. Strengthening is forecast, and Helene is expected to become a hurricane on Wednesday. Continued strengthening is anticipated after that time, and Helene could become a major hurricane on Thursday.

***A Tropical Storm Warning** is in effect for the Dry Tortugas and the Lower Florida Keys.

***Tropical Storm Watches** are in effect for far eastern Panhandle (Bay, Calhoun, Gulf) and throughout West-Central Florida and Southwest Florida through Mainland Monroe and the Middle Keys.

***Hurricane Watches** extend along Florida Big Bend and towards the I-75 corridor, then along the Nature Coast and coastal West-Central Florida.

Eastern and Central Tropical Atlantic: Satellite surface wind data from earlier today showed a broad open upper-level disturbance associated with a tropical wave near the Cabo Verde Islands. Environmental conditions appear favorable for gradual development of this system. A tropical depression is likely to form in a few days while to moves westward to west-northwestward across the eastern and central tropical Atlantic.

*Formation chance through 48 hours...**medium...40%.**

*Formation chance through 7 days...**high...80%.**

For more details, please visit the [National Hurricane Center](#).



Drought & Fire Weather:

Widespread heavy rainfall along the Florida Panhandle from the outer bands of Francine over the past week have led to some improvements in drought conditions on this week's [Drought Monitor](#) update (9/19).

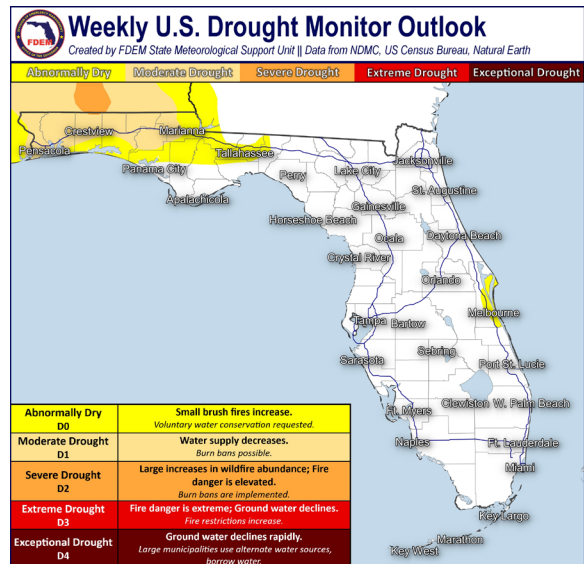
Severe Drought conditions have been removed from the Florida Panhandle; however, **Moderate Drought** conditions remain in place along and north of the I-10 corridor through the Panhandle with **Abnormally Dry** (*emerging drought*) conditions extending southward to the coast and along the I-10 corridor into the Big Bend. Localized areas along the Panhandle and into the Big Bend continue to see rainfall deficits upwards of 2-5" over the last 60-days. On the other hand, limited rainfall along the Florida East Coast has allowed **Abnormally Dry** conditions to remain in place along the I-95 corridor through Brevard County. 90-day rainfall deficits remain up to 4-8" along the Central-East Coastline. Near to above normal temperatures and above normal rainfall are expected over the next week.

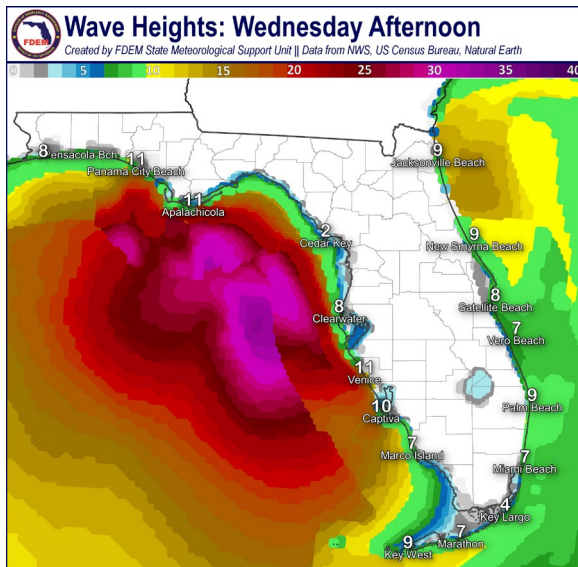
The [Keetch-Byram Drought Index](#) average for Florida is **170 (+17)** on a scale from 0 (very wet) to 800 (very dry). There are **no** Florida counties with an average KBDI over 500 (drought/increased fire danger).

The overall wildfire threat across the state remains low due to recent heavy rainfall. High pressure over the U.S. Southeast will continue to produce dry conditions throughout North Florida and into Central Florida. Relative humidity values will remain above critical thresholds throughout the state but fall into the **40-50%** range throughout the interior Florida Panhandle and Suwannee Valley into the Nature Coast this afternoon. **Locally sensitive wildfire conditions** cannot be ruled out for portions of the Panhandle due to **moderate drought** conditions. The overall wildfire threat across the state will remain minimal through the rest of the period. A wet and active weather pattern will return to the state through mid- to late week as Tropical Storm Helene moves northward through the Gulf of Mexico. Abundant tropical moisture streaming in across the state will keep relative humidity values well-above critical thresholds. According to the [Florida Forest Service](#), there is 8 active wildfires across the state burning approximately 8.10 acres (as of 1:38 PM EDT).

Rip Currents & Marine Hazards:

Onshore winds and lingering ocean swells along the Florida East Coast will create a **moderate risk for rip currents**. Several Panhandle beaches can also anticipate a **moderate risk for rip currents** through today. As this system enters the southern Gulf of Mexico and moves northward over the next couple of days, **an increased risk for life-threatening rip currents** can be expected for Panhandle and West Coast beaches. A **high risk for rip currents** can be expected statewide by midweek with a **moderate to high risk** likely continuing through much of the work week into the weekend. For the latest Rip Current Outlook, visit www.weather.gov/beach.

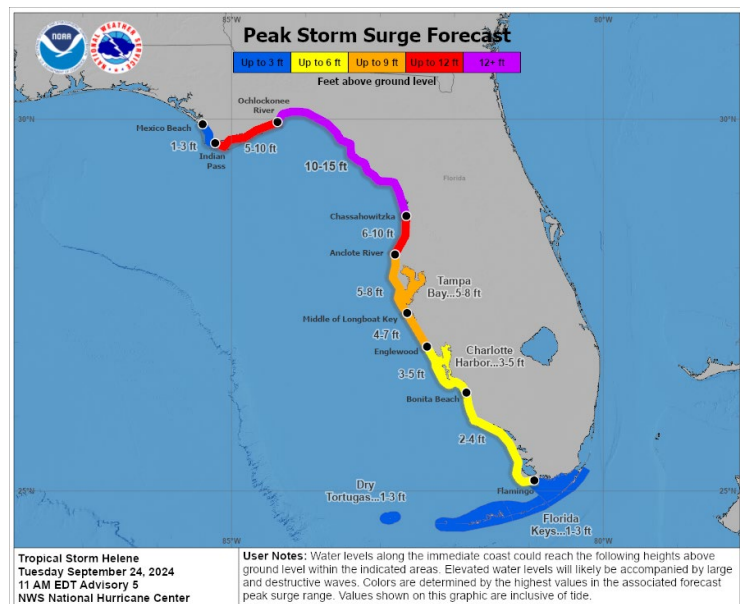




Wave heights to 5-7' along the coastline. Wave heights will quickly build statewide Wednesday afternoon as Tropical Storm Helene moves northward through the eastern Gulf of Mexico. **Significant and life-threatening surf** will likely develop along Florida Gulf Coast beaches, **reaching upwards of 10-15'** along portions of the West Coast, Nature and Forgotten Coasts, and westward along the Florida Panhandle. Just offshore, **dangerously large breaking waves upwards of 15-25 ft** may be possible. Dangerously large breaking waves upwards of 6-10' are anticipated along the Florida Atlantic Coast. As Tropical Storm Helene likely begins to move off to the north or northeast Thursday and winds begin to weaken, **wave heights** will return to **near 4-7'** statewide. Ocean swells will continue to gradually dissipate through the rest of the period, with **1-4' wave heights** anticipated statewide Friday and Saturday.

Due to compounding effects of lingering runoff from recent heavy rainfall, onshore flow, and high astronomical tides (King tides) courtesy of the recent Full Moon, **minor coastal flooding** can be expected along the St. Johns River through the middle of the week. A **Coastal Flood Advisory** remains in effect throughout the basin and along the Intracoastal Waterway and Atlantic Coast. **Coastal Flood Statements** extend across South Florida and the Middle and Lower Keys as **minor coastal flooding and saltwater flooding** is possible near and during times of high tide. **Minor beach erosion** cannot be ruled out at times near and during times of high tide along the East Coast, especially for vulnerable beaches. The combination of storm surge and tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. A **Coastal Flood Watch** will go into effect along the Florida Keys Wednesday evening through Thursday afternoon as **major saltwater flooding of 1-3'** above normally dry grounds due to strong southeast to south winds from Tropical Storm Helene. **Significant peak storm surge of 10-15'** is forecast along the central and eastern Big Bend from the Ochlockonee River to the Chassahowitzka, with **storm surge upwards of 5-10'** possible from Indian Pass to Ochlockonee and the Chassahowitzka. Along

Hazardous beach and boating conditions will begin to develop along coastlines statewide today and continue through mid to late this week. **High Surf Advisories and Warnings** will likely be necessary along much of Florida's coastlines. Ocean swells building in the Gulf of Mexico from Tropical Storm Helene will begin to arrive along portions of the Florida Gulf Coast today. **Large breaking waves near 5-9'** are anticipated along the Florida Keys and Southwest Florida beaches by this afternoon with **wave heights near 4-7'** spreading northward along the West Coast and **3-6'** extending along the Nature Coast and through the Florida Panhandle. **Wave heights** will continue to gradually build and spread further northward through the evening and overnight hours along these coastlines. Breezy easterly winds will continue to strengthen and build ocean swells along the Florida East Coast, raising **wave**



the West-Central Coast, including Tampa Bay, **storm surge of 4-8'** is possible while Southwest Florida could see **storm surge of 2-5'**. A **Storm Surge Watch** extends from Indian Pass southward to Flamingo, Tampa Bay and Charlotte Harbor (Franklin County to Mainland Monroe County).

Red Tide has been observed at background to low concentrations in **11** samples collected from Southwest Florida over the past week (as of 9/20). Background to low concentrations were found in **5** samples from Sarasota County with background to very low concentrations in **3** samples from Pinellas County with background concentrations in **2** samples from Charlotte County and 1 sample from Manatee County.

Blue-Green Algae was observed, although partially obscured by cloud cover, on satellite imagery from 9/19 at scattered low to **moderate bloom potential** concentrated mostly along the northern and western shores of Lake Okeechobee. Satellite imagery of the St. Johns River obtained on 9/18 and partially obscured by cloud cover showed **moderate bloom potential** on Lake George and on the mainstem of the St. Johns River downstream of Lake George to Welaka, with scattered low bloom potential on the rest of the river. Satellite imagery obtained on 9/14 and 9/19, respectively, and partially obscured by cloud cover showed no bloom potential in visible portions of the Caloosahatchee and St. Lucie Estuaries.

[NWS Mobile Daily Hazards](#)

[NWS Jacksonville Daily Hazards](#)

[NWS Tampa Daily Graphical Hazards](#)

[NWS Tallahassee Daily Graphical Hazards](#)

[NWS Melbourne Daily Graphical Hazards](#)

[NWS Miami Daily Graphical Hazards](#)

[NWS Key West Daily Hazards](#)

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[Click here for the latest watches, warnings, and advisories from The National Weather Service](#)

For coastal and offshore forecasts throughout Florida and Georgia, please click [here](#).

Have a wonderful and safe rest of the week!
Kennedy Tartt, Assistant State Meteorologist
Melissa James, Assistant State Meteorologist
Florida Division of Emergency Management
www.FloridaDisaster.org/Weather

