

Flatrock River

Flood Impacts (see also Appendix E-8)

- River crossings at County Road 900 North, County Road 550 North, County Road 400 North, Indianapolis Road, and US 31 are closed due to flooding. The crossing at County Road 800 North is open.
- Flood waters overtop Flatrock Drive in the Noblitt Falls neighborhood (Area 18) resulting in severe flooding of numerous structures. Flatrock Drive overtopping begins with the Flatrock River gage at approximately 19 feet (per USGS preliminary inundation mapping).
- Washington Street neighborhoods (Area 17) experience severe flooding, possibly affecting up to 200 structures. Washington, Franklin, and other neighborhood streets are closed due to flooding.
- Indianapolis Road area (Area 16) experiences severe flooding, including loss of access to 20 structures and severe flooding of 25 structures. Flooding in this area could extend as far north as the Princeton Park neighborhood, which may experience some street flooding.
- Brown, Lindsey, and 11th Street area (Area 14) experiences street flooding. This flooding could affect structures in the area including Fire Station 1 and the Cummins Corporate Office Building (where flood water could infiltrate the loading dock area).
- Long Road area (Area 22) experiences severe street flooding and the flooding of some structures.
- Commerce Park area (Area 21) experiences street flooding and potentially the minor flooding of some structures.
- Flooding closes Riverside Drive south (Area 19) and north (Area 45) segments, with access potentially limited to some structures along the north segment.
- Mill Race park is flooded.

Response Considerations*

- Priority 1:** Noblitt Falls (Area 18) Lavon Avenue and other Washington Street neighborhoods (Area 17) Indianapolis Road (Area 16) Long Road (Area 22)
- Priority 2:** Brown, Lindsey, and 11th Street area (Area 14) Commerce Park (Area 21)
- Priority 3:** Riverside Drive neighborhoods (Areas 19 and 45)
- Travel:** Notify INDOT of US 31 closure.
- Consider prohibition of all non-emergency / non-essential travel. Vehicle crossing of the Flatrock River is not possible (with the limited exception of County Road 800 North, if access routes to this bridge are not also flooded by other streams).
- Prepare alternate routes to address closure of Washington and Franklin Streets north of downtown Columbus.
- Prepare alternate routes to address closure of Brown and Lindsey Streets in downtown Columbus.
- Other Notes:** The extent of the threat to human life at Noblitt Falls (Area 18) should be thoroughly assessed. Floodwater will quickly inundate at least the lower levels of all lagoon facing homes.

Driftwood River

Flood Impacts (see also Appendix E-5)

- I-65 / SR 46 interchange is closed, SR 46 closed between I-65 and Downtown Columbus, and Lowell Road bridge closed due to flooding. West side of Columbus (Tipton Lakes, Woodside, etc.) is likely effectively cut off from the rest of the City due to White River flooding of Jonesville Road and other southern access routes.
- Front Door East / Jonathan Moore Pike area (Area 10) is severely impacted by both street flooding and at least minor flooding of area businesses. Flooding may reach as far south as the Charwood Corporate Suites facility.
- Front Door West / Westhill area (Area 11) is severely impacted primarily by both street flooding and at least minor flooding of area businesses. Southwest Bartholomew Water Company offices on Carlos Folger Road may also experience flooding.
- Tellman Camp Road area (Area 15) is severely flooded.
- Mill Race Park is flooded.

Response Considerations*

- Priority 1:** Hotels and other businesses at I-65 / SR 46 interchange (Areas 10 & 11). Tellman Camp area (Area 15)
- Travel:** Notify INDOT of expected SR 46 flooding.
- Announce and prepare for heavy traffic on alternate cross-town travel routes: I-65 @ SR 58 to I-65 @ US 31, US 31 to National Road and CR 800 N to Marr Road. However, if 500-year flooding is also occurring on the Flatrock River alternate routes may also be unavailable. In the event of community-wide flooding consider prohibition of all non-emergency / non-essential travel.
- Other Notes:** Review western Columbus (Tipton Lakes area) accessibility and the availability of emergency medical resources, water rescue equipment, etc. to the area.

Haw Creek

Flood Impacts (see also Appendix E-9)

- Severe flooding occurs in the Iowa and Bernice Street neighborhood (Area 33). Severe street flooding and minor to severe flooding of approximately 170 homes is likely. The adjacent portion of Central Avenue is potentially closed due to flooding.
- Severe flooding occurs in the Cummins Tech Center / Pleasant Grove area (Area 32). Cummins Tech Center is floodwall-protected, but severe flooding is likely in the adjacent neighborhood. The Cummins Child Care Center building itself may experience minor flooding.
- Eastbrook Shopping Center (Area 38) is flooded, including the parking area and shopping center building.
- Everoad Park West (Area 38) is flooded, including severe street flooding and the potential for minor flooding of numerous neighborhood homes. US 31 is closed in this area by flooding. Access to Everoad Park West is obstructed by flooding.
- Everoad Park East (Area 37) experiences flooding, including minor flooding of 25 homes and severe flooding of an additional 35 homes. The businesses along 25th Street in this area are also flooded.
- Candlelight Village (Area 41) experiences extensive street flooding with minor flooding of 150 mobile homes and severe flooding of an additional 80 mobile homes.
- Northbrook (Area 41) experiences widespread street flooding and minor flooding of approximately 140 homes.
- Windsor Place and Hillcrest neighborhoods (Area 40) experience widespread street flooding, with 10 homes experiencing severe flooding and an additional 60 homes experiencing minor flooding. Access may only be available through the Greenbar neighborhood to the east.
- 17th and Keller Neighborhood (Area 34) experiences street flooding, severe flooding of 10 structures, and minor flooding of an additional 35 structures.
- Mariah Foods and the Reo Street area (Area 30) experiences flooding that affects both the Mariah facility and neighborhood homes (about 30 affected structures, total).
- Midway Street area (Area 36) experiences flooding of area streets. Severe flooding of 10 structures, and minor flooding of an additional 20 structures occurs. The nursing home and Montessori school in this area will likely experience flooding.
- Sycamore Bend and Arrowwood neighborhoods (Area 42) experience some street flooding, with minor flooding of approximately 20 structures also possible.
- Access to Griffin Industries is cut-off and severe flooding of the facility itself will occur.
- The Cedar Ridge neighborhood (Area 39) experiences flooding that affects streets and possibly some homes on the east side of the neighborhood. Trestle Drive will be closed due to flooding.
- The Cummins Engine Plant / 2nd Street area (Area 31) is flooded. The Cummins facility itself is to be protected by floodwalls, but the parking lot will flood. Central Avenue, 2nd Street, and 3rd Street are closed due to flooding. Businesses in the 2nd and 3rd Street area experience flooding.
- Stream crossings at State Street, 7th Street, 8th/10th Street, 25th Street, US 31, Rocky Ford Road, Marr Road, and County Road 450 North are closed due to flooding. Cross-town travel is only available via 17th Street.
- Columbus Regional Hospital (Area 35) is floodwall-protected, but parking areas outside of the floodwall may experience flooding and access to the facility may become an issue.

Response Considerations*

- Priority 1:** Cummins Child Care Center and Pleasant Grove area homes (Area 32) Iowa / Bernice Street neighborhood (Area 33) Griffin Industries Everoad Park West (Area 38) Everoad Park East (Area 37) Candlelight Village (Area 41) 17th & Keller (Area 34) Eastbrook Shopping Center (Area 38) Northbrook (Area 41) Windsor Place & Hillcrest (Area 40) Mariah Foods and Reo Street Neighborhood (Area 30) Midway Street area (Area 36) (specifically including the nursing home and Montessori school)
- Priority 2:** Businesses in the 2nd / 3rd Street area (Area 31)
- Priority 3:** Sycamore Bend & Arrowwood (Area 42) Cedar Ridge (Area 39) Columbus Regional Hospital (Area 35)
- Travel:** Haw Creek stream crossings will be limited to 17th Street - all other crossings will be closed due to flooding. This will result in significant travel and emergency response issues. Consider restricting travel to emergency personnel only.
- Travel and emergency response will be limited by street closures due to flooding along the Haw Creek corridor, including 2nd and 3rd Streets, Central Avenue, and Marr Road.
- Notify INDOT of US 31, and SR 46 (2nd and 3rd Street) closures.
- Other Notes:** Haw Creek is subject to flash flooding - conditions may vary and can change quickly. Careful monitoring of up-stream gages and local conditions is necessary to determine if further action is needed.

Sloan Branch

Flood Impacts (see also Appendix E-11)

- Eastridge Manor (Area 27) experiences severe flooding with 25 structures having minor flooding and 5 additional structures having severe flooding. Elizabeth Street is closed due to flooding.
- Madison and Grant Park neighborhoods and Flintwood Addition (Area 26) experience severe street flooding that may limit access to 250 structures. Approximately 65 structures experience minor flooding, with potentially severe flooding of 2 additional structures. Flooding may also affect nearby businesses along the north side of 25th Street.
- Talley Road is closed in several locations due to flooding. Flooding along Talley Road may also result in minor flooding of 5 structures and severe flooding of 2 additional structures.
- 25th Street may be affected by flooding both west of Talley Road and at the Sloan Branch bridge.

Response Considerations*

- Priority 1:** Affected areas of Eastridge Manor (Area 27) Talley Road homes.
- Priority 2:** Madison and Grant Park neighborhoods and Flintwood Addition area (Area 26)
- Travel:** Talley Road will be closed in several locations. Prairie Streams neighborhood may be isolated.
- 25th Street is likely closed. An alternate route from Talley Road to the area west of the flooding may be available through the McCulloughs Run neighborhood.

Clifty Creek

Flood Impacts (see also Appendix E-3)

- Gladstone Avenue is closed due to flooding.
- Welheimer Addition / Columbus East High School (Area 24) is severely impacted by flooding. Over 100 Welheimer Addition homes and nearby businesses are flooded. Flooding threatens and may impact the Columbus Township Fire Station and Red Cross offices on Repp Court. Flood protection at Columbus East High School may be overtopped.
- McKinley Avenue is flooded east of Marr Road limiting access to the apartment complexes on the north side of the street.
- Sandy Hook / Clifty Crossing area (Area 25) experiences significant street flooding and possible minor flooding of some structures. The Sandy Hook United Methodist Church child care facility may be affected. Access to Four Seasons retirement facility may be affected.
- Regency Drive area (Area 28) experiences some street flooding, with minor flooding of some homes also possible.
- Flooding is possible, including the potential flooding of structures on the south side of 25th Street, east of Bonnell Road.
- Clifty Park is flooded.

Response Considerations*

- Priority 1:** Welheimer Addition and Columbus East High School (Area 24) Sandy Hook United Methodist Church child care facility (Area 25)
- Priority 2:** Sandy Hook / Clifty Crossing area (Area 25)
- Priority 3:** Repp Court Area (Area 24) Regency Drive area (Area 28)
- Travel:** Gladstone Avenue closing may increase traffic on SR 11 (if not flooded), US 31, and SR 46.
- Alert INDOT of possible US 31 closure in the Clifty Crossing area. The US 31 bridge over Clifty Creek may remain open, but is only accessible from 10th Street.

East Fork White River

Flood Impacts (see also Appendix E-7)

- Jonesville Road (SR 11), Gladstone Avenue, Southern Crossing, and CR 800 S all closed due to flooding.
- Garden City area (Area 9) experiences severe flooding affecting over 100 structures and the access to additional structures.
- Potentially severe flooding in Bethel Village (Area 4) affecting approximately 90 structures resulting from White River flood waters backing up into Denios Creek (a backflow preventer prevents direct backup of White River into Bethel Village).
- State Road 11 South area (Area 5) is likely to experience flooding of structures on the east side of SR 11, south of Blessing Road. Dawson Street neighborhood may also experience severe flooding resulting from flood waters backing up Denios Creek.
- Huffman Drive area (Area 8), including the Columbus Waste Water Treatment Plant may experience access limitations and minor flooding of some structures.
- Homes at the intersection of County Road 450 South and SR 11 (Area 2) likely experience flooding.
- The Mariah Foods / Reo Street area (Area 30) may experience severe flooding of both the Mariah Foods facility and homes to the east.
- Griffin Industries experiences access restrictions and potentially damaging flooding (Water Street (Area 29) and Griffin access road closed due to flooding).

Response Considerations*

- Priority 1:** Griffin Industries Garden City (Area 9) SR 450 S / SR 11 neighborhood (Area 2) SR 11 South and Dawson Street neighborhoods (Area 5) Mariah Foods & Reo Street neighborhood (Area 30) Bethel Village (Area 4)
- Priority 2:** Huffman Drive neighborhood (Area 8)
- Priority 3:** Water Street (Area 29)
- Travel:** Notify INDOT of SR 11 flooding.
- Announce and prepare for heavy traffic on alternate cross-town travel routes: I-65 @ SR 58 to I-65 @ US 31, US 31 to National Road and CR 800 N to Marr Road. However, if 500-year flooding is also occurring on the Flatrock River alternate routes may also be unavailable. In the event of community-wide flooding consider prohibition of all non-emergency / non-essential travel.
- Other Notes:** Bethel Village's White River backflow preventer provides protection from White River unless Denios Creek and/or neighborhood drains are also flooding. Flooding conditions at the Columbus Waste Water Treatment Plant should be carefully assessed.

Denios Creek

Flood Impacts (see also Appendix E-4)

- Bethel Village (Area 4) experiences severe flooding including most neighborhoods streets and over 100 structures.
- The Dawson Street and SR 11 areas (Area 5) experience flooding that affects streets and structures in most of the Dawson Street neighborhood and structures fronting on SR 11 south of Blessing Road.
- Shadow Creek Farms (Area 6) experiences street flooding, with possible minor flooding of some homes.
- Access between the Tipton Lakes area and the I-65 / SR 58 interchange could be cut-off by flooding of County Road 400 West, County Road 225 West and Crossing Lane. In a community-wide flood event this could further isolate this portion of the City. Closure of Car Hill Road and Goeller Road west of Tipton Lakes is also possible.

Response Considerations*

- Priority 1:** Bethel Village (Area 4) Dawson Street and SR 11 affected areas (Area 5)
- Priority 3:** Shadow Creek Farms (Area 6)
- Travel:** Crossing Lane, County Road 400 West and County Road 225 West are likely closed due to flooding. If the I-65 / SR 48 interchange is flooded these roads provide the only access from the Tipton Lakes area to the I-65 / SR 58 interchange - the only other possible connection with the rest of the City.
- Other Notes:** Review northwestern Columbus (Tipton Lakes area) accessibility and the availability of emergency medical resources, water rescue equipment, etc. to the area. Community-wide flooding could result in the isolation of these neighborhoods.
- In the event of White River flooding a backflow preventer protecting Bethel Village from the White River can trap Denios Creek floodwaters and drainage flow in the neighborhood, exacerbating flooding conditions.

Potential Red Cross Shelter Site Status*

- Flood Safe**
 - Questionable**
 - Compromised**
- Note:** Mt. Healthy School is also a flood-safe shelter site (not on map).
- *The designated shelter sites for each specific flood should be determined by the Red Cross and may vary based on the needs created by that event.

500-year Flood Stream Gage Readings

- 22 feet East Fork White River @ Columbus 2nd Street Bridge
- 19.5 feet Driftwood River @ Edinburg
- 19.3 feet Flatrock River @ Columbus US 31 Bridge
- 16.5 feet Haw Creek @ Clifflord
- 23.1 feet Clifty Creek @ Columbus SR 46 Bridge

Likely Flood Response Priorities

- Priority 1 Areas:** Those that will likely be inundated by flood waters to the extent that structures will be flooded and human life and safety will be at risk. Based on flood-specific conditions FREP coordinators shall determine if the appropriate response is evacuation or shelter-in-place. During typical flood events evacuation is likely needed. Refer to the flood depth maps for more information.
- Priority 2 Areas:** Those that will likely be inundated by moderate or varying amounts of flood water. The extent of the flooding will range from minor street flooding to inundation of structures. Based on flood-specific conditions the FREP coordinators shall determine if the appropriate response is evacuation or shelter-in-place. If the flooding is expected to worsen, evacuation may be needed. Refer to the flood depth maps for more information.
- Priority 3 Areas:** Those that will likely be affected by some amount of flooding; potentially limited to street flooding with minimal travel to structures. Based on flood-specific conditions the FREP coordinators shall determine the appropriate response. These areas should be monitored and re-evaluated if flooding worsens. Refer to the flood depth maps for more information.

500-year Flood Impacts

Legend:

- Approximate Limits of 500-year Flood
- Areas where flooding can occur by either the East Fork White River or its tributaries (highest depth is shown)
- Major Transportation Routes (Open)
- Major Transportation Routes (Closed)
- Road Segments Inundated by 500-Year Flood
- Locations with Unknown Overtopping
- Neighborhoods with Frequent Flooding
- Neighborhood Reference Number

Critical Facilities: Airports, Ambulances, Assisted Living, Daycare, Fire, Government, Hazardous Material Handler, Jails, Medical Facility, Military Establishment, Mobile Home Parks, Police, Broadcast/Communications, Schools, Water Treatment Plant, Wastewater Treatment Plant

USGS Stream Gages: Used for Forecasting and Depth of Flooding Purposes, Used for Forecasting Purposes

Scale: 0 0.5 1 Scale in Miles

Analysis by: City of Columbus - Bartholomew County Planning Department

Project: City of Columbus Flood Response Evacuation Plan

Project No: 12-0028

Project Title: Areas Impacted by the 0.2% Annual Chance (500-Year) Flood

Project Date: 11/2012

Project Scale: As shown

Project Exhibit: 4

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*This map summarizes and analyzes likely flood events. Actual flood events and impacts will vary based on rainfall locations and amounts, ground saturation, etc. This map is to be used as a guide with specific responses to specific floods determined by the FREP coordinators on a case-by-case basis.