

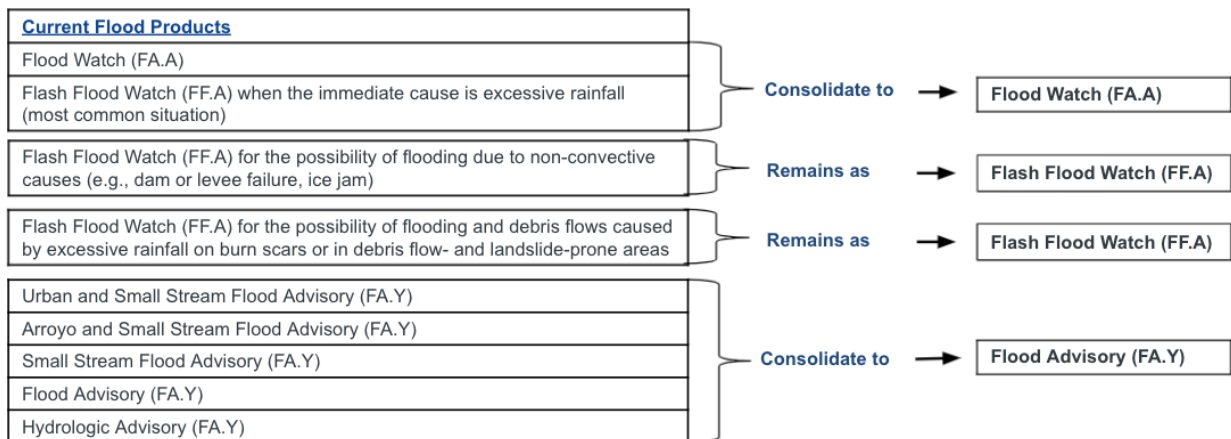
**Product/Service Description Document
Consolidation and/or Reformatting of Flooding Products
Updated May 2021**

Part I - Mission Connection

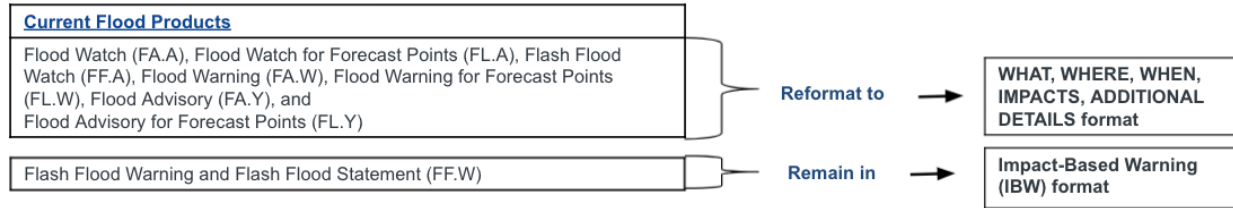
- a. Product/Service Description - The National Weather Service may begin to implement the consolidation (i.e. reduction in the number of) and/or reformatting (i.e. simplified product text) of Flood Watches, Warnings and Advisories (WWA) beginning on or after September 8, 2021.
- First, Flash Flood Watches and Flood Watches will be consolidated into one Flood Watch product when the immediate cause is excessive rainfall. Flash Flood Watches will be maintained for these specific situations only:
 - Possibility of flash flooding due to non-convective causes (e.g., dam or levee failure, ice jam)
 - Possibility of flash flooding and debris flows caused by excessive rainfall on burn scars or in debris flow- and landslide-prone areas.
 - Second, the five types of individual headlines associated with Flood Advisory products, including Urban and Small Stream Flood Advisories, Arroyo and Small Stream Flood Advisories, Small Stream Flood Advisories, Flood Advisories, and Hydrologic Advisories, will be consolidated to Flood Advisory.
 - Third, the Flood Watch, Flood Watch for Forecast Points, Flash Flood Watch, Flood Warning, Flood Warning for Forecast Points, Flood Advisory, and Flood Advisory for Forecast Points will be reformatted into "What", "Where", "When", "Impacts", "Additional Details" information ordering format. The Flash Flood Warning and Flash Flood Statement will remain in Impact-Based Warning (IBW) format as described in the Product Description Document (PDD) at the link below:
https://nws.weather.gov/products/PDD/IBWforFlashFloods_2019.pdf.

The changes are summarized via the graphics shown below.

Consolidation



Reformatting



b. Product Type - Operational

- c. Purpose - Social science research indicates users of NWS products can become confused by the number of hazard messages NWS issues before and during active weather. Especially while dangerous weather is unfolding, it is critical that NWS hazard messages are simple, short, and direct.

Social science engagements have also uncovered that the “Advisory” term is greatly misunderstood within the context of NWS’ Watch, Warning and Advisory (WWA) headline system. As a result, NWS has decided to replace Advisory headlines across all hazards with plain language headlines no earlier than 2024. However, NWS has also decided to consolidate and reformat these flood-based messages now. This is both to support the larger change and also to reap the benefits of improved message clarity immediately.

- d. Audience - The target audiences for these products are customers and partners such as emergency managers, state and local officials including School Superintendents, Departments of Transportation (DOTs), media and the general public. These proposed changes affect all Weather Forecast Offices.
- e. Presentation Format - These are text-based products which appear on the Watch, Warning, and Advisory page on weather.gov and all other standard dissemination methods. Some are sent via NOAA Weather Radio, Emergency Alert System, and Wireless Emergency Alert.
- f. Feedback Method - Customer comments or questions on the consolidation and reformatting of flood products may be addressed to:

Daniel Roman

Email: Daniel.Roman@noaa.gov

Part II - Technical Description

- a. Format and Science Basis - The format is described in Part I under “Presentation Format.” As for the scientific basis, forecasters will use available tools to determine the risk of these hazards occurring in their areas and issue according to criteria and expected impacts.
- b. Availability - These products will be available at all times and issued when criteria are met.

Flood Product Examples - Current versus Consolidated and/or Reformatted

- a. Flash Flood Watches (FF.A) and Flood Watches (FA.A) will be consolidated into one Flood Watch product (FA.A) when the immediate cause is excessive rainfall.**

Current

WGUS61 KLWX 240013
FFALWX

URGENT - IMMEDIATE BROADCAST REQUESTED
Flood Watch
National Weather Service Baltimore MD/Washington DC
813 PM EDT Thu Jul 23 2020

DCZ001-MDZ013-504-VAZ052>054-240600-
/O.NEW.KLWX.FF.A.0012.200724T0013Z-200724T0600Z/
/00000.0.ER.000000T0000Z.000000T0000Z.000000T0000Z.OO/
District of Columbia-Prince Georges-
Central and Southeast Montgomery-
Prince William/Manassas/Manassas Park-Fairfax-
Arlington/Falls Church/Alexandria-
Including the cities of Washington, Bowie, Suitland-Silver Hill,
Clinton, College Park, Greenbelt, Laurel, Camp Springs, Bethesda,
Rockville, Gaithersburg, Silver Spring, Dale City, Manassas,
Woodbridge, Lake Ridge, Montclair, Reston, Herndon, Annandale,
Centreville, Chantilly, McLean, Franconia, Arlington, Alexandria,
and Falls Church
813 PM EDT Thu Jul 23 2020

...FLASH FLOOD WATCH IN EFFECT UNTIL 2 AM EDT FRIDAY...

The National Weather Service in Sterling Virginia has issued a

- * Flash Flood Watch for portions of central Maryland, The District of Columbia, and northern Virginia, including the following areas, in central Maryland, Central and Southeast Montgomery and Prince Georges. The District of Columbia. In northern Virginia, Arlington/Falls Church/Alexandria, Fairfax, and Prince William.
- * Until 2 AM EDT Friday
- * Slow moving thunderstorms are developing across the Washington DC Metropolitan Area this evening. Localized rainfall amounts up to two inches in an hour are possible. These amounts could lead to flash flooding, especially along small streams and in poor drainage urban areas.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Flash Flood Watch means that conditions may develop that lead to flash flooding. Flash flooding is a very dangerous situation.

You should monitor later forecasts and be prepared to take action should Flash Flood Warnings be issued.

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Consolidated and Reformatted

WGUS61 KLWX 240013
FFALWX

URGENT - IMMEDIATE BROADCAST REQUESTED
Flood Watch
National Weather Service Baltimore MD/Washington DC
813 PM EDT Thu Jul 23 2020

DCZ001-MDZ013-504-VAZ052>054-240600-
/O.NEW.KLWX.FA.A.0012.200724T0013Z-200724T0600Z/
/00000.0.ER.000000T0000Z.000000T0000Z.000000T0000Z.OO/
District of Columbia-Prince Georges-
Central and Southeast Montgomery-
Prince William/Manassas/Manassas Park-Fairfax-
Arlington/Falls Church/Alexandria-
Including the cities of Washington, Bowie, Suitland-Silver Hill,
Clinton, College Park, Greenbelt, Laurel, Camp Springs, Bethesda,
Rockville, Gaithersburg, Silver Spring, Dale City, Manassas,
Woodbridge, Lake Ridge, Montclair, Reston, Herndon, Annandale,
Centreville, Chantilly, McLean, Franconia, Arlington, Alexandria,
and Falls Church
813 PM EDT Thu Jul 23 2020

...FLOOD WATCH IN EFFECT UNTIL 2 AM EDT FRIDAY...

- * WHAT...Flash flooding is possible due to heavy rain.
- * WHERE...Portions of central Maryland, The District of Columbia, and northern Virginia, including the following areas, in central Maryland, Central and Southeast Montgomery and Prince Georges. The District of Columbia. In northern Virginia, Arlington/Falls Church/Alexandria, Fairfax, and Prince William.
- * WHEN...Until 2 AM EDT Friday.
- * IMPACTS...Heavy rain could lead to flash flooding, especially along small streams and in poor drainage areas.
- * ADDITIONAL DETAILS...Slow moving thunderstorms are developing across the Washington DC Metropolitan Area this evening. Localized rainfall amounts up to two inches in an hour are possible.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

You should monitor later forecasts and be prepared to take action should Flash Flood Warnings be issued.

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b. Flash Flood Watches Flash Flood Watches will be maintained for the possibility of flash flooding due to non-convective causes (e.g., dam or levee failure, ice jam)

Current

WGUS66 KSTO 232002
FFASTO

URGENT - IMMEDIATE BROADCAST REQUESTED
Flood Watch
National Weather Service Sacramento CA
102 PM PDT Fri Mar 23 2018

CAZ067-252015-
/O.NEW.KSTO.FF.A.0003.180323T2002Z-180326T1900Z/
/00000.0.DM.000000T0000Z.000000T0000Z.000000T0000Z.OO/
Motherlode-
102 PM PDT Fri Mar 23 2018

...FLASH FLOOD WATCH IN EFFECT THROUGH MONDAY MORNING FOR
MOCCASIN DAM IN SOUTH CENTRAL TUOLUMNE COUNTY...

The National Weather Service in Sacramento has issued a

- * Flash Flash Flood Watch for Moccasin Dam and downstream areas in South Central Tuolumne County. This does NOT include the town of Moccasin.
- * Through Monday morning
- * Local authorities have reported that water levels have decreased at the Moccasin Dam and it is no longer in imminent danger of failing. However, a risk of potential failure still exists. The dam owner will continue to closely monitor the situation over the weekend. Portions of Highway 49 remain closed.
- * This flash flood watch replaces the previous flash flood warning.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

People downstream of the dam in the area of the flash flood watch should monitor NOAA Weather Radio and other news outlets for updated to this situation. A flash flood watch associated with a dam means there is an issue or significant problem at the dam that the dam owner is addressing. If conditions were to deteriorate into a failure it could lead to flash flooding downstream of the dam. If the dam were to fail, The National Weather Service would upgrade this watch to a flash flood warning.

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Reformatted

WGUS66 KSTO 232002
FFASTO

URGENT - IMMEDIATE BROADCAST REQUESTED
Flood Watch
National Weather Service Sacramento CA
102 PM PDT Fri Mar 23 2018

CAZ067-252015-
/O.NEW.KSTO.FF.A.0003.180323T2002Z-180326T1900Z/
/00000.0.DM.000000T0000Z.000000T0000Z.000000T0000Z.OO/
Motherlode-
102 PM PDT Fri Mar 23 2018

...FLASH FLOOD WATCH IN EFFECT THROUGH MONDAY MORNING FOR
MOCCASIN DAM IN SOUTH CENTRAL TUOLUMNE COUNTY...

- * WHAT...Flash flooding is possible due to the risk of potential dam failure.
- * WHERE...Moccasin Dam and downstream areas in South Central Tuolumne County. This does NOT include the town of Moccasin.
- * WHEN...Through Monday morning.
- * IMPACTS...Local authorities have reported that water levels have decreased at the Moccasin Dam and it is no longer in imminent danger of failing. However, a risk of potential failure still exists. Portions of Highway 49 remain closed.
- * ADDITIONAL DETAILS...The dam owner will continue to closely monitor the situation over the weekend. This flash flood watch replaces the previous flash flood warning.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

People downstream of the dam in the area of the flash flood watch should monitor NOAA Weather Radio and other news outlets for updated to this situation. A flash flood watch associated with a dam means there is an issue or significant problem at the dam that the dam owner is addressing. If conditions were to deteriorate into a failure it could lead to flash flooding downstream of the dam. If the dam were to fail, The National Weather Service would upgrade this watch to a flash flood warning.

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- c. Flash Flood Watches will be maintained for the possibility of flash flooding and debris flows caused by excessive rainfall on burn scars or in debris flow- and landslide-prone areas.**

Current

WGUS66 KLOX 040646
FFALOX

URGENT - IMMEDIATE BROADCAST REQUESTED
Flood Watch
National Weather Service Los Angeles/Oxnard CA
1046 PM PST Tue Dec 3 2019

CAZ039-040-044-045-052-041215-
/O.NEW.KLOX.FF.A.0013.191204T1200Z-191204T2000Z/
/00000.0.ER.000000T0000Z.000000T0000Z.000000T0000Z.OO/
Santa Barbara County South Coast-Ventura County Coast-
Ventura County Interior Valleys-Ventura County Coastal Valleys-
Santa Barbara County Mountains-
Including the cities of Santa Barbara, Montecito, Carpinteria,
Ventura, Oxnard, Camarillo, Santa Paula, Fillmore, Ojai, Piru,
Thousand Oaks, Simi Valley, Moorpark, Newbury Park,
San Marcos Pass, San Rafael Wilderness Area,
and Dick Smith Wilderness Area
1046 PM PST Tue Dec 3 2019

...FLASH FLOOD WATCH IN EFFECT FROM 4 AM TO NOON PST WEDNESDAY...

The National Weather Service in Los Angeles/Oxnard has issued a

- * Flash Flood Watch for mud and debris flows for the Cave burn area in Santa Barbara County and the Maria and Easy burn areas in Ventura County.
- * From 4 AM to Noon PST Wednesday.
- * Moderate to heavy rainfall is expected near recent burn areas from a cold and vigorous storm system. Rainfall rates between 0.50 inch per hour and 1.00 inch per hour are possible, especially near thunderstorms.
- * The recent burn areas in Santa Barbara and Ventura Counties will be especially at risk for flash flooding and mud and debris flows. Road closures and property damage may occur due to mud and debris flows.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Flash flooding and debris flows will be a particular threat in and below the recently burned areas.

A flash flood watch means that conditions may develop that lead to flash flooding. Flash flooding is a very dangerous situation.

Southern California residents in or below the recently burned areas are urged to take the steps necessary to protect their property. Persons in the watch area should remain alert and follow directions of emergency preparedness officials.

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Reformatted

WGUS66 KLOX 040646
FFALOX

URGENT - IMMEDIATE BROADCAST REQUESTED
Flood Watch
National Weather Service Los Angeles/Oxnard CA
1046 PM PST Tue Dec 3 2019

CAZ039-040-044-045-052-041215-
/O.NEW.KLOX.FF.A.0013.191204T1200Z-191204T2000Z/
/00000.0.ER.000000T0000Z.000000T0000Z.000000T0000Z.OO/
Santa Barbara County South Coast-Ventura County Coast-
Ventura County Interior Valleys-Ventura County Coastal Valleys-
Santa Barbara County Mountains-
Including the cities of Santa Barbara, Montecito, Carpinteria,
Ventura, Oxnard, Camarillo, Santa Paula, Fillmore, Ojai, Piru,
Thousand Oaks, Simi Valley, Moorpark, Newbury Park,
San Marcos Pass, San Rafael Wilderness Area,
and Dick Smith Wilderness Area
1046 PM PST Tue Dec 3 2019

...FLASH FLOOD WATCH IN EFFECT FROM 4 AM TO NOON PST WEDNESDAY...

- * WHAT...Flash flooding and mud and debris flows are possible due to heavy rain.
- * WHERE...The Cave burn area in Santa Barbara County and the Maria and Easy burn areas in Ventura County.
- * WHEN...From 4 AM to Noon PST Wednesday.
- * IMPACTS...Road closures and property damage may occur due to mud and debris flows.
- * ADDITIONAL DETAILS...Moderate to heavy rainfall is expected near recent burn areas from a cold and vigorous storm system. Rainfall rates between 0.50 inch per hour and 1.00 inch per hour are possible, especially near thunderstorms.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Flash flooding and debris flows will be a particular threat in and below the recently burned areas.

Southern California residents in or below the recently burned areas are urged to take the steps necessary to protect their property. Persons in the watch area should remain alert and follow directions of emergency preparedness officials.

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- d. Five types of individual headlines associated with Flood Advisory products (FA.Y), including Urban and Small Stream Flood Advisories, Arroyo and Small Stream Flood Advisories, Small Stream Flood Advisories,**

**Flood Advisories, and Hydrologic Advisories, will be consolidated to
Flood Advisory.**

Current

WGUS83 KLOT 310534
FLSLOT

Flood Advisory
National Weather Service Chicago/Romeoville
1234 AM CDT Fri May 31 2019

ILC075-091-INC073-111-310900-
/O.NEW.KLOT.FA.Y.0019.190531T0534Z-190531T0900Z/
/00000.N.ER.000000T0000Z.000000T0000Z.000000T0000Z.OO/
Kankakee IL-Iroquois IL-Newton IN-Jasper IN-
1234 AM CDT Fri May 31 2019

The National Weather Service in Chicago has issued a

- * Urban and Small Stream Flood Advisory for...
Eastern Kankakee County in northeastern Illinois...
Northeastern Iroquois County in east central Illinois...
Newton County in northwestern Indiana...
Jasper County in northwestern Indiana...
- * Until 400 AM CDT.
- * At 1232 AM CDT, Doppler radar indicated heavy rain due to slow moving thunderstorms. This will cause flooding in the advisory area. Up to nearly two inches of rain has already fallen north of Morocco Indiana.
- * Some locations that will experience flooding include...
Kankakee, Bourbonnais, Bradley, Manteno, Rensselaer, De Motte, Momence, Morocco, Percy Junction, Thayer, Roselawn, Gifford, Enos, Pembroke, Fair Oaks, Conrad, Sumava Resorts, Beaver City, Moody and Forest City.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Excessive runoff from heavy rainfall will cause flooding of small creeks and streams, urban areas, highways, streets and underpasses, country roads, farmland, as well as other drainage areas and low-lying spots.

Turn around, don't drown when encountering flooded roads. Most flood deaths occur in vehicles.

Be especially cautious at night when it is harder to recognize the dangers of flooding.

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LAT...LON 4096 8715 4081 8726 4080 8749 4084 8791
4101 8802 4130 8780 4130 8753 4117 8753
4117 8745 4116 8739 4119 8732 4122 8729

4123 8723 4127 8719 4129 8713 4127 8706
4122 8697 4123 8693 4096 8693

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Consolidated and Reformatted

WGUS83 KLOT 310534
FLSLOT

Flood Advisory
National Weather Service Chicago/Romeoville
1234 AM CDT Fri May 31 2019

ILC075-091-INC073-111-310900-
/O.NEW.KLOT.FA.Y.0019.190531T0534Z-190531T0900Z/
/00000.N.ER.000000T0000Z.000000T0000Z.000000T0000Z.OO/
Kankakee IL-Iroquois IL-Newton IN-Jasper IN-
1234 AM CDT Fri May 31 2019

...FLOOD ADVISORY IN EFFECT UNTIL 4 AM CDT...

- * WHAT...Urban and small stream flooding due to heavy rain.
- * WHERE...Eastern Kankakee County in northeastern Illinois, Northeastern Iroquois County in east central Illinois, Newton County in northwestern Indiana, Jasper County in northwestern Indiana.

Some locations that will experience flooding include...
Kankakee, Bourbonnais, Bradley, Manteno, Rensselaer, De Motte, Momence, Morocco, Percy Junction, Thayer, Roselawn, Gifford, Enos, Pembroke, Fair Oaks, Conrad, Sumava Resorts, Beaver City, Moody and Forest City.
- * WHEN...Until 400 AM CDT.
- * IMPACTS...Excessive runoff from heavy rainfall will cause flooding of small creeks and streams, urban areas, highways, streets and underpasses, country roads, farmland, as well as other drainage areas and low-lying spots.
- * ADDITIONAL DETAILS...At 1232 AM CDT, Doppler radar indicated heavy rain due to slow moving thunderstorms. This will cause flooding in the advisory area. Up to nearly two inches of rain has already fallen north of Morocco Indiana.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Turn around, don't drown when encountering flooded roads. Most flood deaths occur in vehicles.

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LAT...LON 4096 8715 4081 8726 4080 8749 4084 8791

4101 8802 4130 8780 4130 8753 4117 8753
4117 8745 4116 8739 4119 8732 4122 8729
4123 8723 4127 8719 4129 8713 4127 8706
4122 8697 4123 8693 4096 8693

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