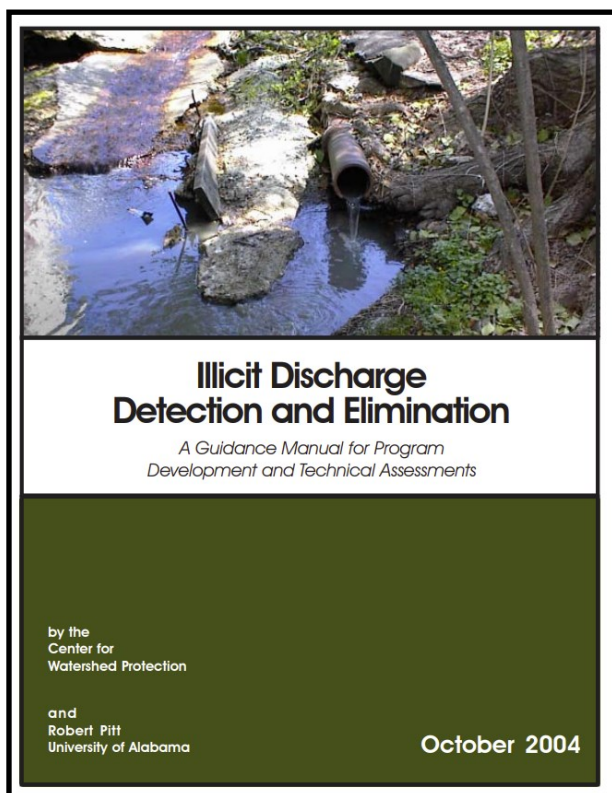


# MCM 3 ORI Guidance: Dry Weather Conditions & How To Find and Use Daily Weather Data

(Prepared by the Stormwater Coalition, November, 2021)

*Best Times to Start ORI Field Work...text from the "IDDE" Manual referenced in NYSDEC MS4 Permit*



## Best Times to Start

Timing is important when scheduling ORI field work. In most regions of the country, spring and fall are the best seasons to perform the ORI. Other seasons typically have challenges such as over-grown vegetation or high groundwater that mask illicit discharges, or make ORI data hard to interpret<sup>9</sup>.

Prolonged dry periods during the non-growing season with low groundwater levels are optimal conditions for performing an ORI. Table 31 summarizes some of the regional factors to consider when scheduling ORI surveys in your community. Daily weather patterns also determine whether ORI field work should proceed. In general, ORI field work should be conducted at least 48 hours after the last runoff-producing rain event.

### Chapter 11: The Outfall Reconnaissance Inventory

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This chapter describes a simple field assessment known as the Outfall Reconnaissance Inventory (ORI). The ORI is designed to fix the geospatial location and record basic characteristics of individual storm drain outfalls, evaluate suspect outfalls, and assess the severity of illicit discharge problems in a community. Field crews should walk all natural and man-made streams channels with perennial and intermittent flow, even if they do not appear on available maps (Figure 19). The goal is to complete the ORI on every stream mile in the MS4 within the first permit cycle, starting with priority subwatersheds identified during the desktop analysis. The results of the ORI are then used to help guide future outfall monitoring and discharge prevention efforts.

community should plan on surveying its entire drainage network at least once over the course of each five-year permit cycle. Experience suggests that it may take up to three stream walks to identify all outfalls.

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#### Field Maps

The field maps needed for the ORI are normally generated during the desktop assessment phase of the IDDE program described in Chapter 5. This section provides guidance on the basic requirements for good



Figure 19: Walk all streams and constructed open channels

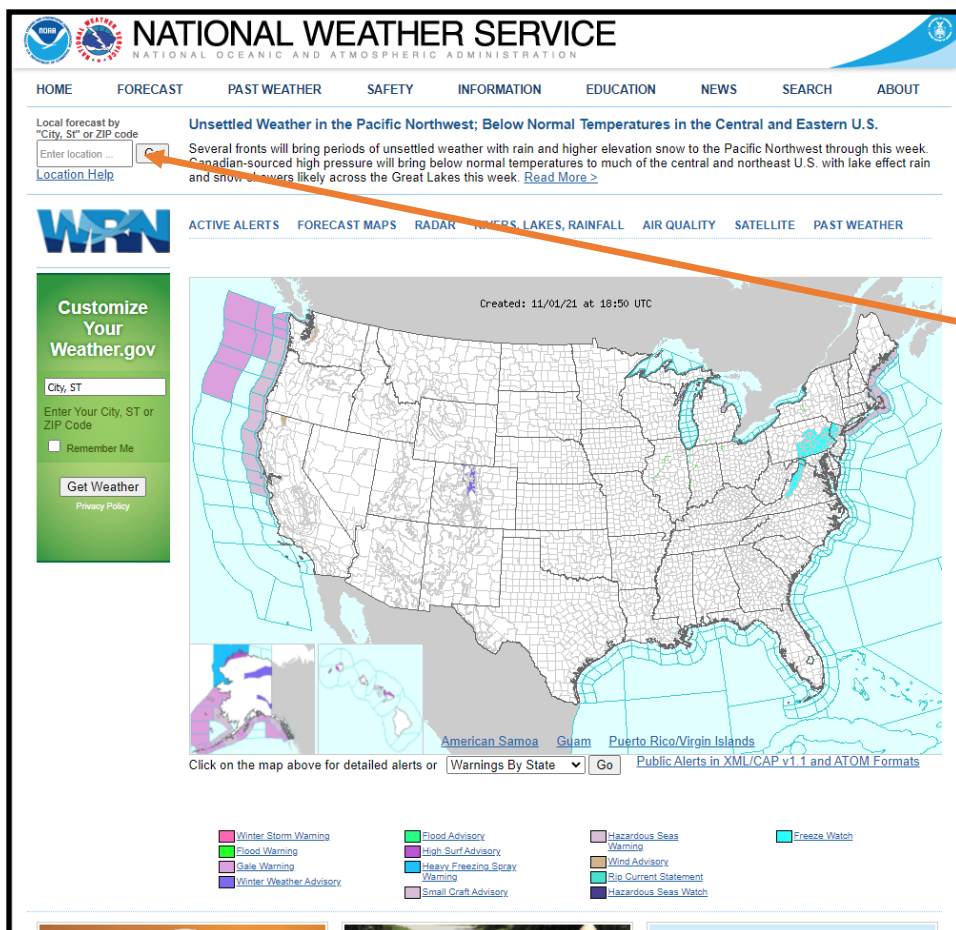
<sup>9</sup> Upon initial program start-up, the ORI should be conducted during periods of low groundwater to more easily identify likely illicit discharges. However, it should be noted that high water tables can increase sewage contamination in storm drain networks due to infiltration and inflow interactions. Therefore, in certain situations, seasonal ORI surveys may be useful at identifying these types of discharges. Diagnosis of this source of contamination, however, can be challenging.

## Guidance from Chiappetta (Coalition) & Kubek (Albany County DPW) ORI Training Handout—9/17/2017

### 3. Check the weather

- In order to complete an ORI accurately, there needs to be dry weather for at least the last 48 hours. Some believe that it is not considered a rain event until at least 0.25 inches of rain has fallen. However, even that small amount of rain could lead to flowing outfalls. In this way, an outfall that may not have any illicit discharge may be running even though it did not rain a lot. This will slow down the inventory and only create more paperwork later. Although it is up to the surveyors discretion on whether or not to conduct water tests, I usually at least use the test strips when an outfall is flowing.

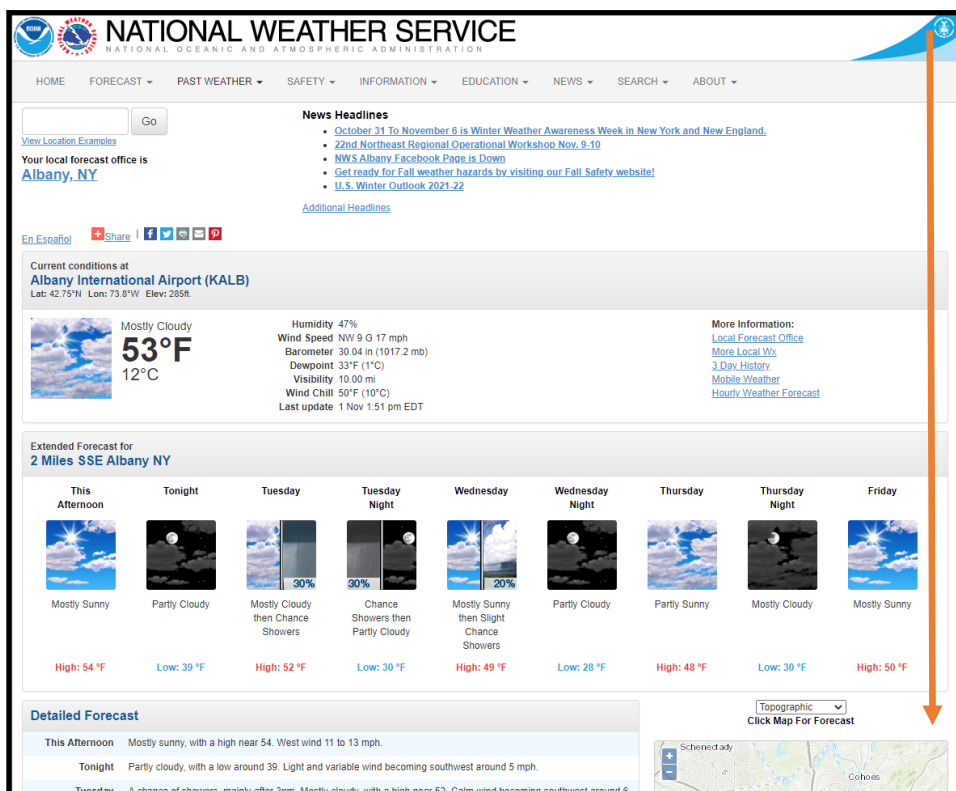
## How to find precipitation data for previous 24 or 48 hours



The screenshot shows the National Weather Service homepage. At the top, there is a navigation bar with links: HOME, FORECAST, PAST WEATHER, SAFETY, INFORMATION, EDUCATION, NEWS, SEARCH, and ABOUT. Below the navigation bar, there is a section for "Local forecast by City, ST or ZIP code" with a search bar and a "Go" button. To the right of the search bar, there is a headline: "Unsettled Weather in the Pacific Northwest; Below Normal Temperatures in the Central and Eastern U.S." with a brief description and a "Read More" link. Below the headline, there is a large map of the United States with various weather alerts overlaid. A legend at the bottom of the map lists various weather alerts: Winter Storm Warning, Flood Warning, High Surf Advisory, Heavy Freezing Spray Warning, Winter Weather Advisory, Small Craft Advisory, Flood Advisory, High Surf Advisory, Wind Advisory, Rip Current Statement, Hazardous Seas Warning, and Freeze Watch. An orange arrow points from the "Go" button to the "Step 1" text, and another orange arrow points from the map area to the "Step 2" text.

**Step 1:** Go to  
www.weather.gov

**Step 2:** Enter zip code



The screenshot shows the National Weather Service homepage for Albany International Airport (KALB). The page displays current conditions: Mostly Cloudy, 53°F, 12°C, Humidity 47%, Wind Speed NW 9 G 17 mph, Barometer 30.04 in (1017.2 mb), Dewpoint 33°F (1°C), Visibility 10.00 mi, Wind Chill 50°F (10°C), Last update 1 Nov 1:51 pm EDT. Below the current conditions, there is an "Extended Forecast for 2 Miles SSE Albany NY" showing a 9-day forecast. The forecast includes icons for weather conditions, high and low temperatures, and a "Detailed Forecast" section at the bottom. An orange arrow points from the "Detailed Forecast" section to the "Step 3" text.

**Step 3:** Scroll down to  
“Additional Forecasts and  
Information” (right under-  
neath the Detailed Forecast  
box)

**Additional Forecasts and Information**

ZONE AREA FORECAST FOR EASTERN ALBANY, NY

[Forecast Discussion](#)    [Hourly Weather Forecast](#)    [Air Quality Forecasts](#)  
[Printable Forecast](#)    [Tabular Forecast](#)    [International System of Units](#)  
[Text Only Forecast](#)    [Hazardous Weather](#)    [Past Weather Information](#)  
[Regional Weather Conditions](#)    [Interactive Forecast Map](#)

[Albany National Weather Service](#)

**Step 4:** Click “Past Weather Information”

**NOWData - NOAA Online Weather Data**

1. Location »    2. Product »    3. Options »    4. View »

[View map](#)

Albany Area  
 Glens Falls Area  
 Poughkeepsie Area  
 Alcove Dam, NY  
 Big Moose 3SE, NY  
 Cobleskill 2ESE, NY  
 Conklingville Dam, NY  
 Delanson 2NE, NY  
 East Jewett, NY  
 Gloversville 7NW, NY

☒ Daily data for a month  
☐ Daily almanac  
☐ Monthly summarized data  
☐ Calendar day summaries  
☐ Daily/monthly normals  
☐ Climatology for a day  
☐ First/last dates  
☐ Temperature graphs  
☐ Accumulation graphs

Date: 2021-11

[Go](#)

**Product Description:**

DAILY DATA FOR A MONTH - daily maximum, minimum and average temperature (degrees F), average temperature departure from normal (degrees F), heating and cooling degree days (base 65), precipitation, snowfall and snow depth (inches) for all days of the selected month. Basic monthly summary statistics are also provided.

- Common questions -  
 - Submit a question/comment -

Powered by **ACIS**  
 NOAA Regional Climate Centers

The [Applied Climate Information System \(ACIS\)](#) is a joint project of the [Regional Climate Centers](#), the [National Centers for Environmental Information \(NCEI\)](#) and the [National Weather Service](#). Official data and data for additional locations are available from the Regional Climate Centers and NCEI.

**Step 5:** Complete the following parameters-

- 1.) Location >>
- 2.) Product >> daily data for a month
- 3.) Options >> Date (the month that you wish to view)
- 4.) View >> (select go to generate report)

**NOWData - NOAA Online Weather Data**    [Enlarge results](#)    [Print](#)    [X](#)

**Climatological Data for Albany Area, NY (ThreadEx) - November 2021**  
 Click column heading to sort ascending, click again to sort descending.

Date	Temperature				HDD	CDD	Precipitation	New Snow	Snow Depth
	Maximum	Minimum	Average	Departure					
2021-11-01	57	37	47.0	1.4	18	0	0.00	0.0	0
2021-11-02	54	32	43.0	-2.2	22	0	0.00	0.0	0
2021-11-03	49	29	39.0	-5.9	26	0	0.00	0.0	0
2021-11-04	49	27	38.0	-6.5	27	0	0.00	0.0	0
2021-11-05	50	26	38.0	-6.2	27	0	0.00	0.0	0
2021-11-06	52	26	39.0	-4.8	26	0	0.00	0.0	0
2021-11-07	57	24	40.5	-3.0	24	0	0.00	0.0	0
2021-11-08	62	30	46.0	2.9	19	0	0.00	0.0	0
2021-11-09	63	34	48.5	5.7	16	0	0.00	0.0	0
2021-11-10	58	37	47.5	5.1	17	0	0.08	0.0	0
2021-11-11	55	29	42.0	-0.1	23	0	0.00	0.0	0
2021-11-12	59	36	47.5	5.8	17	0	1.17	0.0	0
2021-11-13	51	32	41.5	0.1	23	0	0.61	0.0	0
2021-11-14	49	31	40.0	-1.0	25	0	0.11	0.0	0
2021-11-15	M	M	M	M	M	M	M	M	M
2021-11-16	M	M	M	M	M	M	M	M	M
2021-11-17	M	M	M	M	M	M	M	M	M
2021-11-18	M	M	M	M	M	M	M	M	M
2021-11-19	M	M	M	M	M	M	M	M	M
2021-11-20	M	M	M	M	M	M	M	M	M
2021-11-21	M	M	M	M	M	M	M	M	M
2021-11-22	M	M	M	M	M	M	M	M	M
2021-11-23	M	M	M	M	M	M	M	M	M
2021-11-24	M	M	M	M	M	M	M	M	M

**Step 6:** This will generate a NOW-Data report. Precipitation is between the CDD and New Snow columns and is in inches.

The precipitation for the two days prior to the day that you are viewing the report will constitute the 24 and 48 hour rainfall.

**Example:** If you want to conduct ORI inspections on Monday, 2021-11-15, 48 hours prior, on Saturday, 2021-11-13 there was .61 inches of precipitation. 24 hours prior, on Sunday 2021-11-14, there was .11 inches. Combined precipitation is .72 inches. If using .25 inches of rain as a runoff-producing rain event, runoff is likely, dry weather conditions NOT met for Monday, 2021-11-15 outfall inspections.