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## National Pollutant Discharge Elimination System (NPDES)

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# Rainfall Erosivity Factor Calculator for Small Construction

## Introduction

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

LEW certifications are submitted through the NPDES eReporting Tool or "CGP-NeT". Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- Submit your LEW through EPA's eReporting Tool <<https://www.epa.gov/npdes/submitted-notice-intent-noi-notice-termination-not-or-low-erosivity-waiver-lew-under>>

- List of states, Indian country, and territories where EPA is the permitting authority (pdf) <<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit-cover.pdf>>
- Construction Rainfall Erosivity Waiver Fact Sheet <<https://www.epa.gov/npdes/construction-rainfall-erosivity-waiver-fact-sheet>>
- Small Construction Waivers and Instructions (pdf) <<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-c-waivers.pdf>>

The R-factor calculation can also be integrated directly into custom applications using the R-Factor web service <<https://epa.gov/api-docs/>>.

## Steps to Calculate an R Factor for your Small Construction Project

- 1 Select the estimated start and end dates of construction by clicking the calendar icons below and using the dropdown calendar. The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:**

11/30/2024

**End Date:**

04/01/2025

- 2 Locate your small construction project by entering the address in the search box or by clicking on the map.

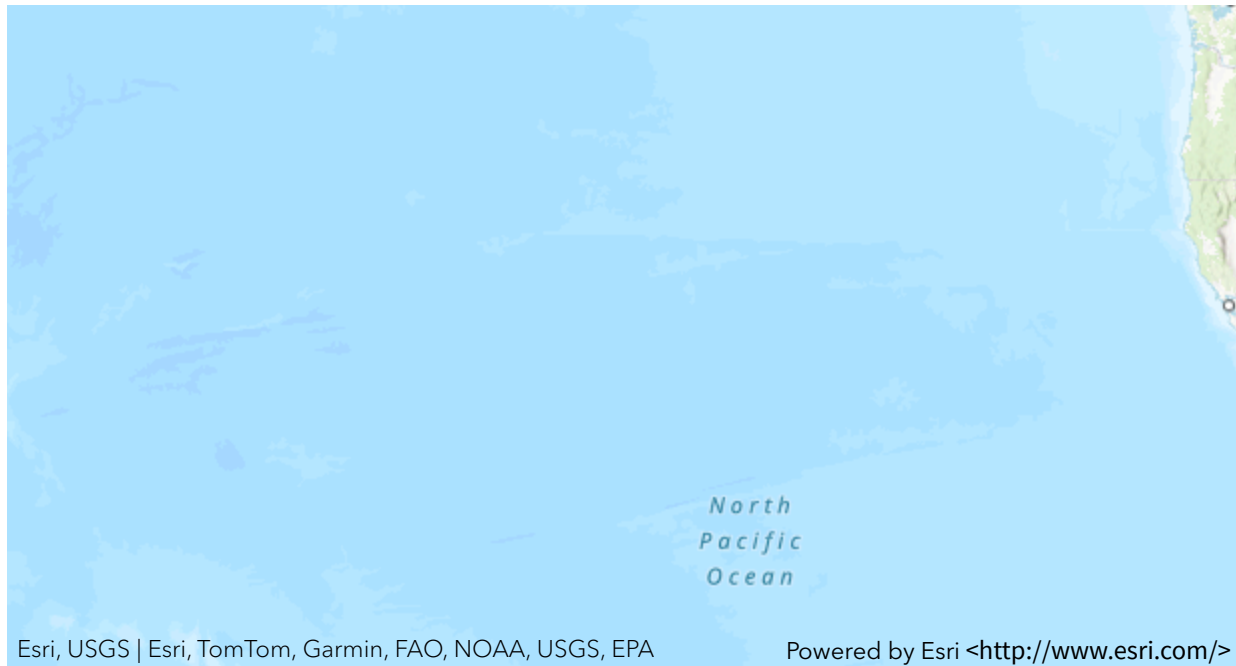
**Location:**

35.05966536537343, -106.633238240665

**Search**

+

—



3 Click the "Calculate R Factor" button below.

### Calculate R Factor

## Facility Information

<b>Start Date:</b> 11/30/2024	<b>Latitude:</b> 35.0597
<b>End Date:</b> 04/01/2025	<b>Longitude:</b> -106.6332

## Calculation Results

**Rainfall erosivity factor (R Factor) = 0.754**

A rainfall erosivity factor of less than 5.0 has been calculated for your site and period of construction. If you are located in an area where EPA is the permitting authority (pdf) <<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit-cover.pdf>>, you can submit a LEW through EPA's NPDES eReporting Tool (NeT) <<https://www.epa.gov/npdes/submitting-notice-intent-noi-notice-termination-not-or-low-erosivity-waiver-lew-under>>. Otherwise, contact your state permitting authority to

determine if you are eligible for a waiver from NPDES permitting requirements.

If you submitted a LEW through EPA's NeT and your construction activity ultimately extends past the project completion date you specified above, you must recalculate the R factor using the original start date and a new project completion date. If the recalculated R factor is still less than 5.0, you must submit a modification to your LEW through NeT before the end of the original construction period. If the new R factor is 5.0 or greater, you must submit a Notice of Intent (NOI) instead to be covered by the Construction General Permit (CGP) before the original project completion date.

For questions or comments, email EPA's CGP staff at [cgp@epa.gov](mailto:cgp@epa.gov).

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