United States Environmental Protection Agency | Office of Water (4203) | EPA 833-F-00-014 Revised March 2012 Fact Sheet 3.1[1]

# Stormwater Phase II Final Rule

## Construction Rainfall Erosivity Waiver



The 1972 amendments to the Federal Water Pollution Control Act, later referred to as the Clean Water Act (CWA), prohibit the discharge of any pollutant to navigable waters of the United States unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Because construction site stormwwater runoff can contribute significantly to water quality problems, the Phase I Stormwater Rule imposed a requirement that all construction sites with a planned land disturbance of 5 acres or more obtain an NPDES permit and implement stormwater runoff control plans. Phase II extends the requirements of the stormwater program to sites of between 1 and 5 acres. The Rainfall erosivity waiver allows permitting authorities to waive those sites that do not have adverse water quality impacts.

### What is Erosivity?

Erosivity is the term used to describe the potential for soil to wash off disturbed, devegetated earth during storms. The potential for erosion is in part determined by the soil type and geology of the site. For instance, dense, clay-like soils on a glacial plain will erode less readily when it rains than will sandy soils on the side of a hill. Another important factor is the amount and force of precipitation expected during the time the earth will be exposed. While it is impossible to predict the weather several months in advance of construction, for many areas of the country, there are definite optimal periods, such as a dry season when rain tends to fall less frequently and with less force. When feasible, this is the time to disturb the earth, so that the site can be stabilized by the time the seasonal wet weather returns. There are many other important factors to consider in determining erosivity, such as freeze/thaw cycles and snow pack.

### How Is Site Erosivity Determined?

The Universal Soil Loss Equation (USLE) was developed by the U.S. Department of Agriculture (USDA) in the 1950s to help farmers conserve their valuable topsoil. The methodology for determining if a site qualifies for the erosivity waiver provided in this guide is based on the *USDA Handbook 703 - Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)*, dated January 1997. (Note that a more updated version of USLE, the Revised USLE, Version 2 (RUSLE2), is available and can be used as an alternative method for determining if a site qualifies for the erosivity waiver. Information about the RUSLE2 computer program is provided later in this fact sheet.)

Using a computer model supported by decades' worth of soil and rainfall data, USDA established estimates of annual erosivity values (R factors) for sites throughout the country. These R factors are used as surrogate measures of the impact that rainfall had on erosion from a particular site. They have been mapped using isoerodent contours, as shown in Figures 2 through 5.

USDA developed the Erosivity Index Table (EI Table, provided here in Table 1), to show how the annual erosivity factor is distributed throughout the year in two-week increments. Table 1 is based on 120 rainfall distribution zones for the continental U.S. Detailed instructions for calculating a project R factor are provided later in this fact sheet.

[1] This revised fact sheet corrects errors identified in calculating the R factor from the 2001 version, and includes updated information about the USLE.

The Stormwater Phase II rule allows permitting authorities to waive NPDES requirements for small construction sites if the value of the rainfall erosivity factor is less than 5 during the period of construction activity (see § 122.26(b)(15)(i)(A)). Note that the permitting authority has the option to not allow waivers for small construction activity.

If the R factor for the period of construction calculates to less than 5, and the permitting authority allows the use of the waiver, the site owner may apply for a waiver under the low rainfall erosivity provision of the applicable EPA or State NPDES regulations. When applying, owners are encouraged to consider other site-specific factors, such as proximity to water resources and the sensitivity of receiving waters to sedimentation impacts. The small construction operator must certify to the permitting authority that the construction activity will take place during a period when the rainfall erosivity factor is less than 5.

The start and end dates used for the construction activity will be the initial date of disturbance and the anticipated date when the site will have achieved final stabilization as defined by the permit, respectively. If the construction continues beyond this period, the operator will need to recalculate the Erosivity Index for the site based on this new ending date (but keeping the old start date) and either resubmit the certification form or apply for NPDES permit coverage.

## What Other Factors Can Affect Waiver Availability and Eligibility?

EPA has established the R factor of less than 5 as the criteria for determining waiver eligibility. However, since the intent is to waive only those construction activities that will not adversely impact water quality, State and Tribal permitting authorities have considerable discretion in determining where, when, and how to offer it. They can establish an R factor threshold lower than 5, or they can suspend the waiver within an area where watersheds are known to be heavily impacted by, or sensitive to, sedimentation. They can also suspend the waiver during certain periods of the year. They may opt not to offer the waiver at all. NOTE: This waiver is not available to sites that will disturb more than 5 acres of land (large construction).

## What if My Site Is Not Eligible?

If your site is not eligible for a waiver, you must submit a Notice of Intent, or whichever type of application is required, to obtain coverage under the applicable NPDES construction stormwater permit, and comply with its requirements. For information about EPA's Construction General Permit (CGP), see http://www.epa.gov/npdes/stormwater/cgp. State program information is available at http://cfpub.epa.gov/npdes/contacts.cfm?program_id=6&type=STATE.

## Examples

### 1. Construction started and completed in one calendar year.

*Find the R factor value of a construction site in Denver, Colorado. Assume the site will be disturbed from March 10 to May 10 of the same year.*

The EI distribution zone is 84 (Figure 1). Referring to Table 1, the project period will span from March 1 (from Table 1, the closest date prior to the actual March 10 start date) to May 15 (from Table 1, the closest date after the actual May 10 end date). The difference in values between these two dates is 9.7% (9.9 - 0.2 = 9.7). Since the annual erosion index for this location is about 45 (interpolated from Figure 2), the R factor for the scheduled construction project is 9.7% of 45, or 4.4.

Because 4.4 is less than 5, the operator of this site would be able to seek a waiver under the low rainfall erosivity provision.

### 2. Construction spanning two calendar years.

*Find the R factor value for a construction site in Pittsburgh, Pennsylvania. Assume the site will be disturbed from August 1 to April 15.*

The EI distribution zone is 111 (Figure 1). Referring to Table 1, the project period will span from July 29 (from Table 1, the closest date prior to the actual August 1 start date) to April 15. The difference in values between July 29 and December 31 is 35% (100 - 65.0 = 35.0). The difference between January 1 and April 15 is 8%. The total percentage EI for this project is 43% (35 + 8 = 43). Since the annual erosion index for this location is 112 (interpolated from Figure 2), the R factor for the scheduled construction is 43% of 112, or 48.

Since 48 is greater than 5, the operator of this site would not be able to seek a waiver under the low rainfall erosivity provision.

## How Do I Compute the R factor for My Project?

1. Estimate the construction start date. This is the day you expect to begin disturbing soils, including grubbing, stockpiling, excavating, and grading activities.
2. Estimate the day you expect to achieve final stabilization, as defined by your permitting authority's regulations or NPDES construction stormwater permit, over all previous disturbed areas. This is your construction end date.
3. Refer to Figure 1 to find your Erosivity Index (EI) Zone based on your geographic location.

4. Refer to Table 1, the Erosivity Index (EI) Table. Find the number of your EI Zone in the left column. Locate the EI values for the dates that correspond to the project start and end dates you identified in Steps 1 and 2. If your specific date is not on the table, either interpolate between dates to obtain your %EI value, or use the closest date prior to your proposed start date and the closest date after your proposed end date. Subtract the start value from the end value to find the % EI for your site. The maximum annual EI value for a project is 100%. NOTE: If your project lasts for one year or more, your EI value is 100%.
5. Refer to the appropriate Isoerodent Map (Figures 2 through 5). Interpolate the annual isoerodent value for your area. This is the annual R factor for your site.
6. Multiply the percent value obtained in Step 4 by the annual isoerodent value obtained in Step 5. This is the R factor for your scheduled project.

## Can I Use a Personal Computer to Calculate the R factor?

The computer program used by USDA to evaluate erosion potential is called the Revised Universal Soil Loss Equation, or RUSLE. The current version of RUSLE (RUSLE2) is a Windows-based model that uses extensive databases that are geographically-linked. RUSLE2 can be used to calculate the R factor for a proposed construction site; however, RUSLE2 can require a large investment of time to set up. RUSLE2 can be downloaded free of charge from the Internet at http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm. Note that RUSLE2 is an upgrade of RUSLE, and contains more detailed data. Therefore, your calculated R factor may differ based on whether you calculate your R factor using the methods specified above, which utilizes data from *USDA Handbook 703 - Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)*, January 1997, or whether you calculate your R factor using the more updated RUSLE2. EPA notes that either method of calculation is acceptable for determining eligibility for the construction rainfall erosivity waiver.

## Where Can I Get Help?

- A copy of "Chapter 2, Rainfall-Runoff Erosivity Factor (R)" from the *USDA Handbook 703 - Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)*, January 1997, is available on EPA's web site at http://www.epa.gov/npdes/pubs/ruslech2.pdf.
- Information about RUSLE2, and a download of the program, is available at http://fargo.nserl.purdue.edu/rusle2_dataweb/.
- Your local USDA Service Center may be able to provide assistance with calculating R factors and other conservation-related issues. To find the office nearest you, go to http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/contact/local.

**For Additional Information**

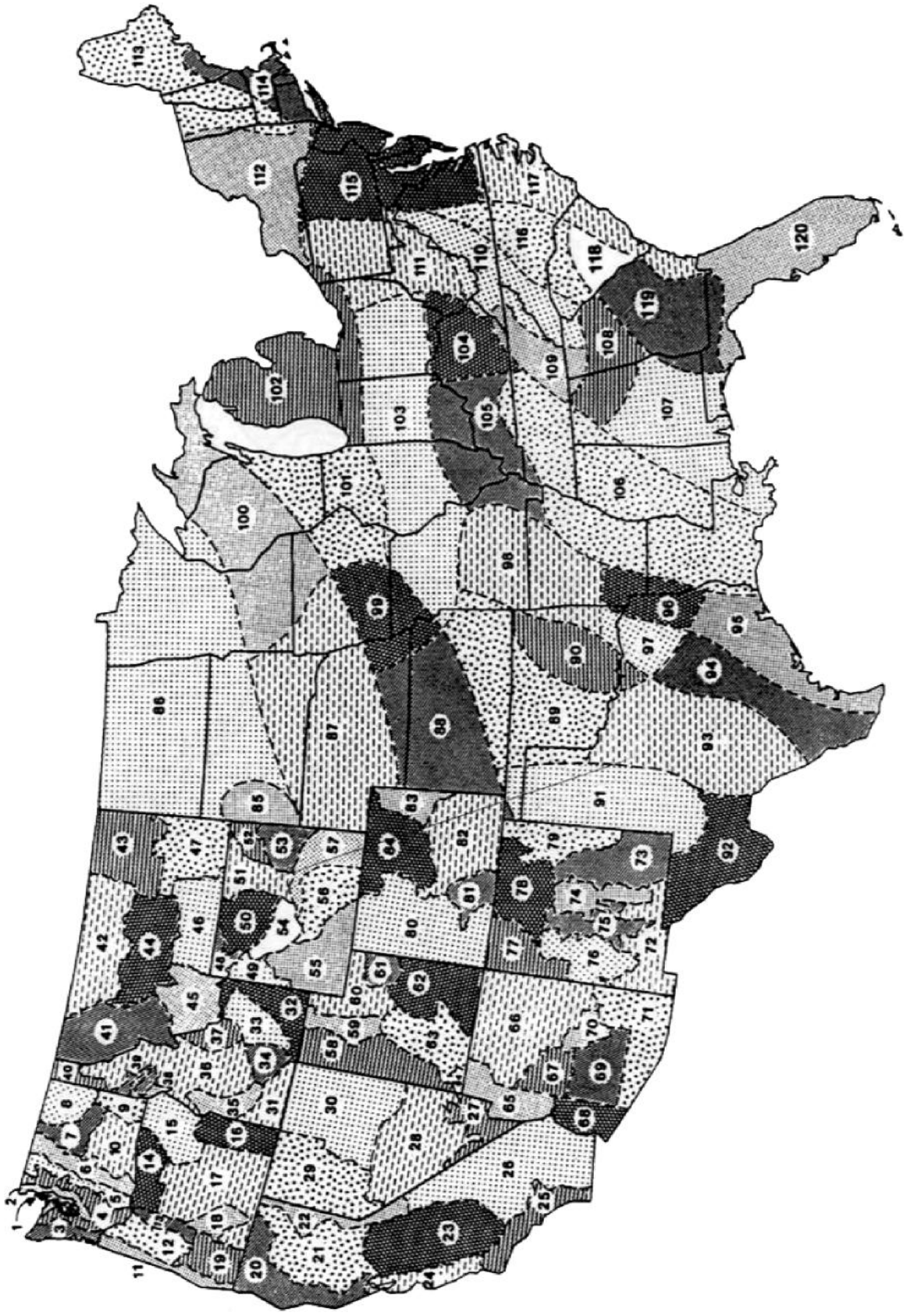
***Reference Documents***

Stormwater Phase II Final Rule Fact Sheet Series
- Internet: cfpub.epa.gov/npdes/stormwater/swfinal.cfm

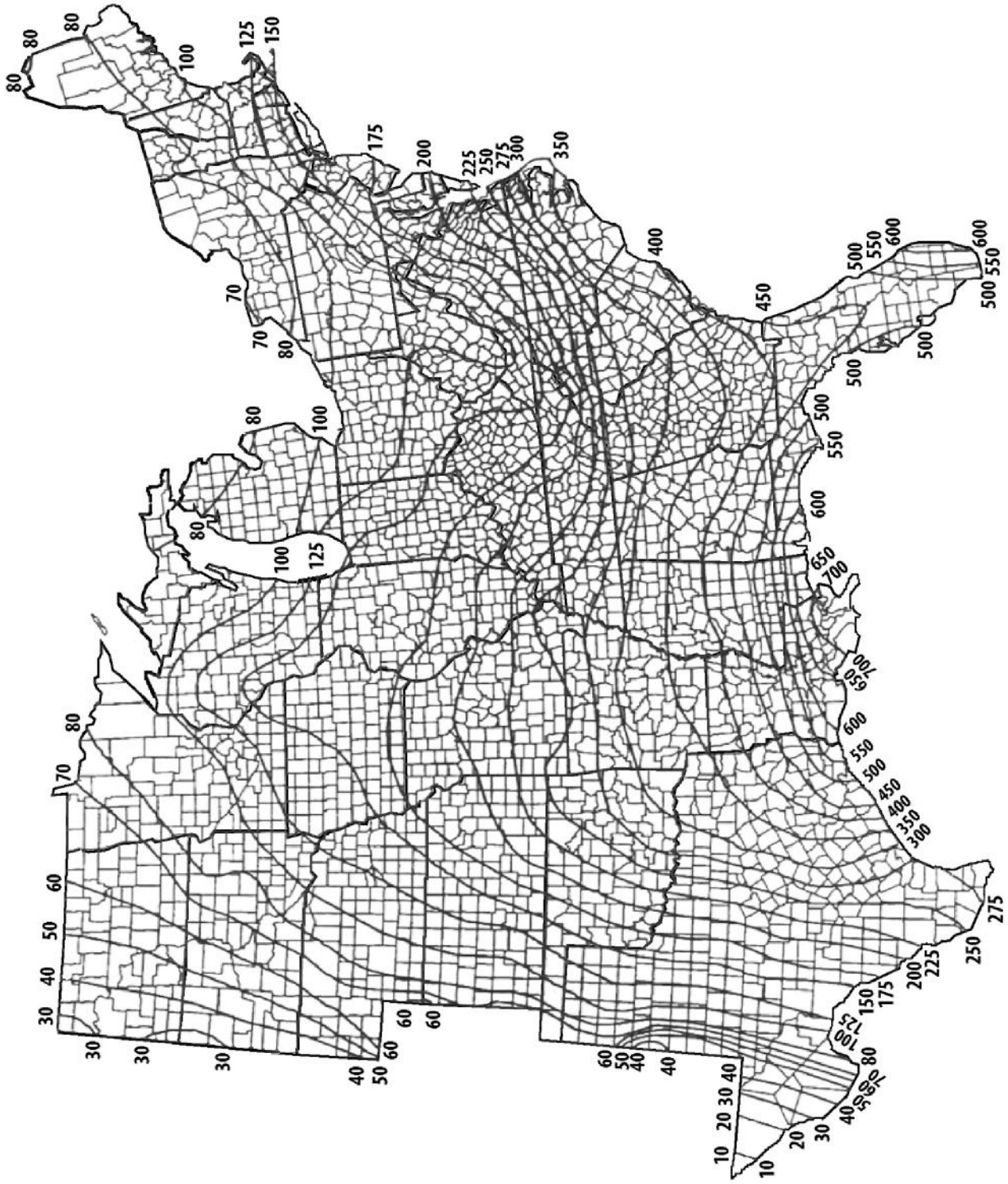
Stormwater Phase II Final Rule (64 *FR* 68722)
- Internet: www.epa.gov/npdes/regulations/phase2.pdf
- Contact the U.S. EPA Water Resource Center (Phone: (202) 564-9545)

*Agricultural Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)*, Chapter 2, pp. 21-64, January 1997.
- Internet: www.epa.gov/npdes/pubs/ruslech2.pdf

# Figure 1. Erosivity Index Zone Map



# Figure 2. Isoerodent Map of the Eastern U.S.

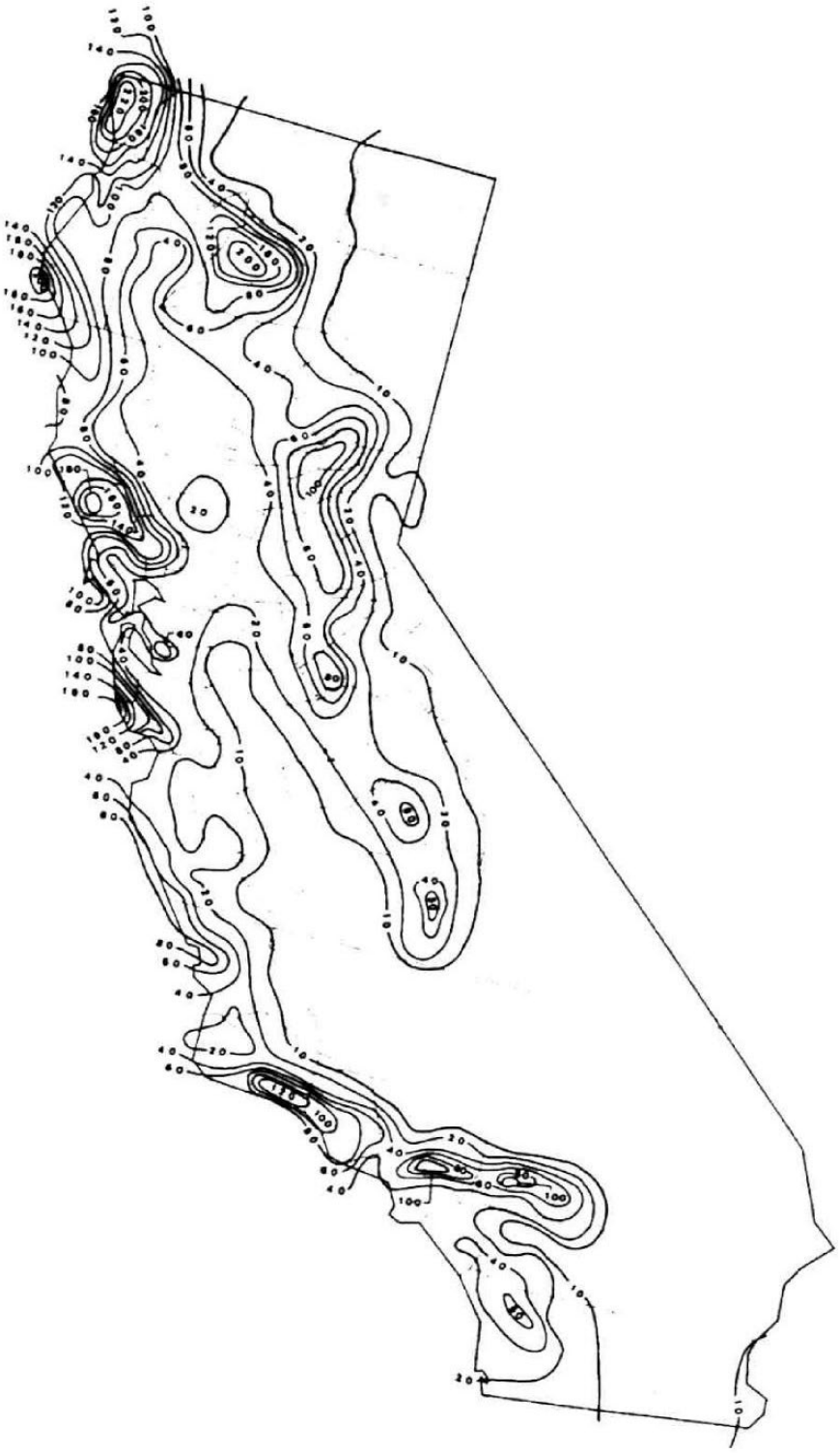


Note: Units for all maps on this page are hundreds ft•tonf•in(ac•h•yr)$^{-1}$

# Figure 3. Isoerodent Map of the Western U.S.

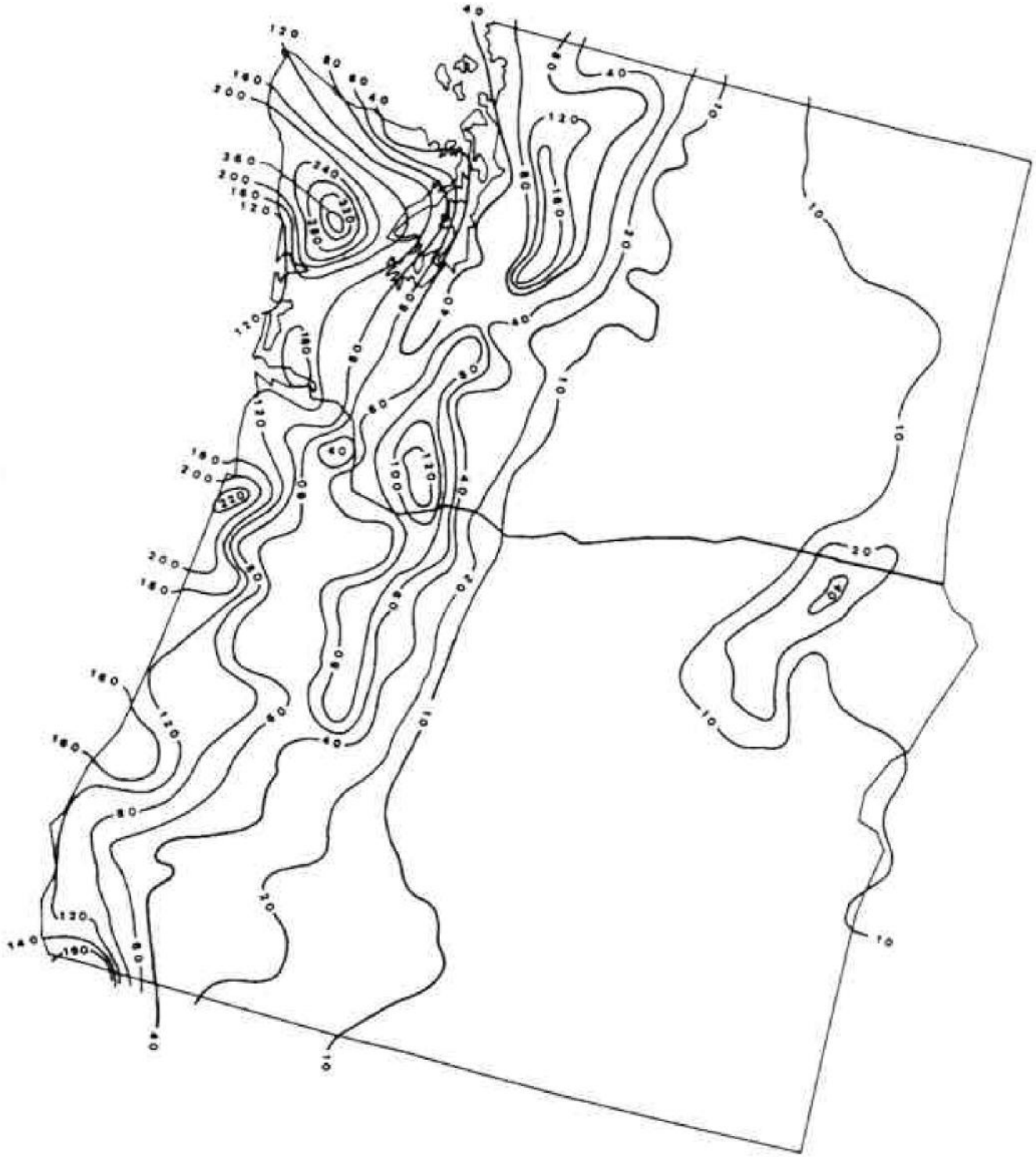
Note: Units for all maps on this page are hundreds ft•tonf•in(ac•h•yr)$^{-1}$

# Figure 4. Isoerodent Map of California



Note: Units for all maps on this page are hundreds ft•tonf•in(ac•h•yr)$^{-1}$

# Figure 5. Isoerodent Map of Oregon and Washington



Note: Units for all maps on this page are hundreds ft•tonf•in(ac•h•yr)$^{-1}$

# Table 1. Erosivity Index (%EI Values extracted from USDA Manual 703)

All values are at the end of the day listed below - Linear interpolation between dates is acceptable.
EI as a percentage of Average Annual R Value Computed for Geographic Areas Shown in Figure 1

| Month | Jan | Jan | Jan | Feb | Mar | Mar | Mar | Apr | Apr | May | May | Jun | Jun | Jul | Jul | Aug | Aug | Sept | Sept | Oct | Oct | Nov | Nov | Dec | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | 1 | 16 | 31 | 15 | 1 | 16 | 31 | 15 | 30 | 15 | 30 | 14 | 29 | 14 | 29 | 13 | 28 | 12 | 27 | 12 | 27 | 11 | 26 | 11 | 31 |
| EI Zone | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 4.3 | 8.3 | 12.8 | 17.3 | 21.6 | 25.1 | 28 | 30.9 | 34.9 | 39.1 | 42.6 | 45.4 | 48.2 | 50.8 | 53 | 56 | 60.8 | 66.8 | 71 | 75.7 | 82 | 89.1 | 95.2 | 100 |
| 2 | 0 | 4.3 | 8.3 | 12.8 | 17.3 | 21.6 | 25.1 | 28.0 | 30.9 | 34.9 | 39.1 | 42.6 | 45.4 | 48.2 | 50.8 | 53.0 | 56.0 | 60.8 | 66.8 | 71.0 | 75.7 | 82.0 | 89.1 | 95.2 | 100 |
| 3 | 0 | 7.4 | 13.8 | 20.9 | 26.5 | 31.8 | 35.3 | 38.5 | 40.2 | 41.6 | 42.5 | 43.6 | 44.5 | 45.1 | 45.7 | 46.4 | 47.7 | 49.4 | 52.8 | 57.0 | 64.5 | 73.1 | 83.3 | 92.3 | 100 |
| 4 | 0 | 3.9 | 7.9 | 12.6 | 17.4 | 21.6 | 25.2 | 28.7 | 31.9 | 35.1 | 38.2 | 42.0 | 44.9 | 46.7 | 48.2 | 50.1 | 53.1 | 56.6 | 62.2 | 67.9 | 75.2 | 83.5 | 90.5 | 96.0 | 100 |
| 5 | 0 | 2.3 | 3.6 | 4.7 | 6.0 | 7.7 | 10.7 | 13.9 | 17.8 | 21.2 | 24.5 | 28.1 | 31.1 | 33.1 | 35.3 | 38.2 | 43.2 | 48.7 | 57.3 | 67.8 | 77.9 | 86.0 | 91.3 | 96.9 | 100 |
| 6 | 0 | 0.0 | 0.0 | 0.5 | 2.0 | 4.1 | 8.1 | 12.6 | 17.6 | 21.6 | 25.5 | 29.6 | 34.5 | 40.0 | 45.7 | 50.7 | 55.6 | 60.2 | 66.5 | 75.5 | 85.6 | 95.9 | 99.5 | 99.9 | 100 |
| 7 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 4.9 | 8.5 | 13.9 | 19.0 | 26.0 | 35.4 | 43.9 | 48.8 | 53.9 | 64.5 | 73.4 | 77.5 | 80.4 | 84.8 | 89.9 | 96.6 | 99.2 | 99.7 | 100 |
| 8 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 3.6 | 7.8 | 15.0 | 20.2 | 27.4 | 38.1 | 49.8 | 57.9 | 65.0 | 75.6 | 82.7 | 86.8 | 89.4 | 93.4 | 96.3 | 99.1 | 100.0 | 100.0 | 100 |
| 9 | 0 | 0.8 | 3.1 | 4.7 | 7.4 | 11.7 | 17.8 | 22.5 | 27.0 | 31.4 | 36.0 | 41.6 | 46.4 | 50.1 | 53.4 | 57.4 | 61.7 | 64.9 | 69.7 | 79.0 | 89.6 | 97.4 | 100.0 | 100.0 | 100 |
| 10 | 0 | 0.3 | 0.5 | 0.9 | 2.0 | 4.3 | 9.2 | 13.1 | 18.0 | 22.7 | 29.2 | 39.5 | 46.3 | 48.8 | 51.1 | 57.2 | 64.4 | 67.7 | 71.1 | 77.2 | 85.1 | 92.5 | 96.5 | 99.0 | 100 |
| 11 | 0 | 5.4 | 11.3 | 18.8 | 26.3 | 33.2 | 37.4 | 40.7 | 42.5 | 44.3 | 45.4 | 46.5 | 47.1 | 47.4 | 47.8 | 48.3 | 49.4 | 50.7 | 53.6 | 57.5 | 65.5 | 76.2 | 87.4 | 94.8 | 100 |
| 12 | 0 | 3.5 | 7.8 | 14.0 | 21.1 | 27.4 | 31.5 | 35.0 | 37.3 | 39.8 | 41.9 | 44.3 | 45.6 | 46.3 | 46.8 | 47.9 | 50.0 | 52.9 | 57.9 | 62.3 | 69.3 | 81.3 | 91.5 | 96.7 | 100 |
| 13 | 0 | 0.0 | 0.0 | 1.8 | 7.2 | 11.9 | 16.7 | 19.7 | 24.0 | 31.2 | 42.4 | 55.0 | 60.0 | 60.8 | 61.2 | 62.6 | 65.3 | 67.6 | 71.6 | 76.1 | 83.1 | 93.3 | 98.2 | 99.6 | 100 |
| 14 | 0 | 0.7 | 1.8 | 3.3 | 6.9 | 16.5 | 26.6 | 29.9 | 32.0 | 35.4 | 40.2 | 45.1 | 51.9 | 61.1 | 67.5 | 70.7 | 72.8 | 75.4 | 78.6 | 81.9 | 86.4 | 93.6 | 97.7 | 99.3 | 100 |
| 15 | 0 | 0.0 | 0.0 | 0.5 | 2.0 | 4.4 | 8.7 | 12.0 | 16.6 | 21.4 | 29.7 | 44.5 | 56.0 | 60.8 | 63.9 | 69.1 | 74.5 | 79.1 | 83.1 | 87.0 | 90.9 | 96.6 | 99.1 | 99.8 | 100 |
| 16 | 0 | 0.0 | 0.0 | 0.5 | 2.0 | 5.5 | 12.3 | 16.2 | 20.9 | 26.4 | 35.2 | 48.1 | 58.1 | 63.1 | 66.5 | 71.9 | 77.0 | 81.6 | 85.1 | 88.4 | 91.5 | 96.3 | 98.7 | 99.6 | 100 |
| 17 | 0 | 0.0 | 0.0 | 0.7 | 2.8 | 6.1 | 10.7 | 12.9 | 16.1 | 21.9 | 32.8 | 45.9 | 55.5 | 60.3 | 64.0 | 71.2 | 77.2 | 80.3 | 83.1 | 87.7 | 92.6 | 97.2 | 99.1 | 99.8 | 100 |
| 18 | 0 | 0.0 | 0.0 | 0.6 | 2.5 | 6.2 | 12.4 | 16.4 | 20.2 | 23.9 | 29.3 | 37.7 | 45.6 | 49.8 | 53.3 | 58.4 | 64.3 | 69.0 | 75.0 | 86.6 | 93.9 | 96.6 | 98.0 | 100.0 | 100 |
| 19 | 0 | 1.0 | 2.6 | 7.4 | 16.4 | 23.5 | 28.0 | 31.0 | 33.5 | 37.0 | 41.7 | 48.1 | 51.1 | 52.0 | 52.5 | 53.6 | 55.7 | 57.6 | 61.1 | 65.8 | 74.7 | 88.0 | 95.8 | 98.7 | 100 |
| 20 | 0 | 9.8 | 18.5 | 25.4 | 30.2 | 35.6 | 38.9 | 41.5 | 42.9 | 44.0 | 45.2 | 48.2 | 50.8 | 51.7 | 52.5 | 54.6 | 57.4 | 58.5 | 60.1 | 63.2 | 69.6 | 76.7 | 85.4 | 92.4 | 100 |
| 21 | 0 | 7.5 | 13.6 | 18.1 | 21.1 | 24.4 | 27.0 | 29.4 | 31.7 | 34.6 | 37.3 | 39.6 | 41.6 | 43.4 | 45.4 | 48.1 | 51.3 | 53.3 | 56.6 | 62.4 | 72.4 | 81.3 | 88.9 | 94.7 | 100 |
| 22 | 0 | 1.2 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 2.2 | 3.9 | 4.6 | 6.4 | 14.2 | 32.8 | 47.2 | 58.8 | 69.1 | 76.0 | 82.0 | 87.1 | 96.7 | 99.9 | 99.9 | 99.9 | 99.9 | 100 |
| 23 | 0 | 7.9 | 15.0 | 20.9 | 25.7 | 31.1 | 35.7 | 40.2 | 43.2 | 46.2 | 47.7 | 48.8 | 49.4 | 49.9 | 50.7 | 51.8 | 54.1 | 57.7 | 62.8 | 65.9 | 70.1 | 77.3 | 86.8 | 93.5 | 100 |
| 24 | 0 | 12.2 | 23.6 | 33.0 | 39.7 | 47.1 | 51.7 | 55.9 | 57.7 | 58.6 | 58.9 | 59.1 | 59.1 | 59.2 | 59.2 | 59.3 | 59.5 | 60.0 | 61.4 | 63.0 | 66.5 | 71.8 | 81.3 | 89.6 | 100 |
| 25 | 0 | 9.8 | 20.8 | 30.2 | 37.6 | 45.8 | 50.6 | 54.4 | 56.0 | 56.8 | 57.1 | 57.1 | 57.2 | 57.6 | 58.5 | 59.8 | 62.2 | 65.3 | 67.5 | 68.2 | 69.4 | 74.8 | 86.6 | 93.0 | 100 |
| 26 | 0 | 2.0 | 5.4 | 9.8 | 15.6 | 21.5 | 24.7 | 26.6 | 27.4 | 28.0 | 28.7 | 29.8 | 32.5 | 36.6 | 44.9 | 55.4 | 65.7 | 72.6 | 77.8 | 84.4 | 89.5 | 93.9 | 96.5 | 98.4 | 100 |
| 27 | 0 | 0.0 | 0.0 | 1.0 | 4.0 | 5.9 | 8.0 | 11.1 | 13.0 | 14.0 | 14.6 | 15.3 | 17.0 | 23.2 | 39.1 | 60.0 | 76.3 | 86.1 | 89.7 | 90.4 | 90.9 | 93.1 | 96.6 | 99.1 | 100 |
| 28 | 0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.5 | 1.5 | 3.3 | 7.2 | 11.9 | 17.7 | 21.4 | 27.0 | 37.1 | 51.4 | 62.3 | 70.6 | 78.8 | 84.6 | 90.6 | 94.4 | 97.9 | 99.3 | 100.0 | 100 |
| 29 | 0 | 0.6 | 0.7 | 0.7 | 0.7 | 1.5 | 3.9 | 6.0 | 10.5 | 17.9 | 28.8 | 36.6 | 43.8 | 51.5 | 59.3 | 68.0 | 74.8 | 80.3 | 84.3 | 88.8 | 92.7 | 98.0 | 99.8 | 99.9 | 100 |
| 30 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.8 | 2.8 | 7.9 | 14.2 | 24.7 | 35.6 | 45.4 | 52.2 | 58.7 | 68.5 | 77.6 | 84.5 | 88.9 | 93.7 | 96.2 | 97.6 | 98.3 | 99.6 | 100 |
| 31 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 1.0 | 3.5 | 9.9 | 15.7 | 26.4 | 47.2 | 61.4 | 65.9 | 69.0 | 77.2 | 86.0 | 91.6 | 94.8 | 98.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 32 | 0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 | 2.2 | 4.3 | 9.0 | 14.2 | 23.3 | 34.6 | 46.3 | 54.2 | 61.7 | 72.9 | 82.5 | 89.6 | 93.7 | 98.2 | 99.7 | 99.9 | 99.9 | 99.9 | 100 |
| 33 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 2.3 | 4.2 | 8.8 | 16.1 | 30.0 | 46.9 | 57.9 | 62.8 | 66.2 | 72.1 | 79.1 | 85.9 | 91.1 | 97.0 | 98.9 | 98.9 | 98.9 | 98.9 | 100 |
| 34 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 7.3 | 10.7 | 15.5 | 22.0 | 29.9 | 35.9 | 42.0 | 48.5 | 56.9 | 67.0 | 76.9 | 85.8 | 91.2 | 95.7 | 97.8 | 99.6 | 100.0 | 100.0 | 100 |
| 35 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 10.2 | 15.9 | 22.2 | 27.9 | 34.7 | 43.9 | 51.9 | 56.9 | 61.3 | 67.3 | 73.9 | 80.1 | 85.1 | 89.6 | 93.2 | 98.2 | 99.8 | 99.8 | 100 |

| Month | Jan | Jan | Jan | Feb | Mar | Mar | Mar | Apr | Apr | May | May | Jun | Jun | Jul | Jul | Aug | Aug | Sept | Sept | Oct | Oct | Nov | Nov | Dec | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | 1 | 16 | 31 | 15 | 1 | 16 | 31 | 15 | 30 | 15 | 30 | 14 | 29 | 14 | 29 | 13 | 28 | 12 | 27 | 12 | 27 | 11 | 26 | 11 | 31 |
| El Zone | | | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 3.4 | 6.7 | 12.7 | 18.5 | 26.6 | 36.3 | 46.0 | 53.5 | 60.2 | 68.3 | 75.8 | 82.6 | 88.3 | 96.3 | 99.3 | 99.9 | 100.0 | 100.0 | 100 |
| 37 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 3.9 | 9.1 | 19.1 | 26.7 | 36.3 | 47.9 | 61.4 | 75.1 | 84.5 | 92.3 | 96.0 | 99.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 38 | 0 | 0.0 | 0.0 | 1.1 | 4.3 | 7.2 | 11.0 | 13.9 | 17.9 | 22.3 | 30.3 | 43.1 | 55.1 | 61.3 | 65.7 | 72.1 | 77.9 | 82.6 | 86.3 | 90.3 | 93.8 | 98.4 | 100.0 | 100.0 | 100 |
| 39 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 6.5 | 11.0 | 17.8 | 24.7 | 33.1 | 42.8 | 50.3 | 54.9 | 59.7 | 68.9 | 78.1 | 83.6 | 87.5 | 93.0 | 96.5 | 99.2 | 100.0 | 100.0 | 100 |
| 40 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 6.2 | 10.1 | 16.3 | 23.3 | 32.5 | 42.2 | 50.1 | 55.6 | 60.5 | 67.5 | 74.3 | 79.4 | 84.1 | 91.1 | 95.8 | 99.1 | 100.0 | 100.0 | 100 |
| 41 | 0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.4 | 1.1 | 6.8 | 22.9 | 40.1 | 54.9 | 63.8 | 70.7 | 81.5 | 89.8 | 96.3 | 98.7 | 99.2 | 99.3 | 99.4 | 99.4 | 99.7 | 100 |
| 42 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.9 | 5.2 | 17.3 | 33.8 | 53.2 | 66.5 | 75.9 | 87.6 | 93.7 | 97.5 | 99.0 | 99.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 43 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 2.7 | 9.5 | 21.9 | 42.7 | 58.6 | 71.1 | 84.6 | 91.9 | 97.1 | 99.0 | 99.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 44 | 0 | 1.7 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.7 | 3.5 | 7.6 | 18.5 | 34.3 | 52.5 | 64.0 | 72.3 | 83.3 | 90.0 | 95.1 | 97.3 | 98.5 | 98.9 | 98.9 | 98.9 | 99.2 | 100 |
| 45 | 0 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.6 | 0.8 | 1.4 | 3.7 | 10.2 | 22.6 | 41.8 | 54.0 | 64.5 | 78.7 | 88.4 | 96.0 | 98.7 | 99.4 | 99.7 | 99.7 | 99.8 | 99.9 | 100 |
| 46 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 2.6 | 7.5 | 19.6 | 32.9 | 48.9 | 63.0 | 73.5 | 83.3 | 89.5 | 95.6 | 98.3 | 99.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 47 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 1.6 | 5.8 | 17.0 | 33.0 | 52.5 | 66.4 | 75.7 | 85.5 | 91.3 | 96.5 | 98.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 48 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 8.1 | 15.4 | 27.8 | 40.7 | 52.6 | 61.1 | 69.3 | 82.6 | 92.0 | 98.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 49 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 2.7 | 8.3 | 20.0 | 27.5 | 35.6 | 44.6 | 46.0 | 70.2 | 81.3 | 89.2 | 93.6 | 98.5 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 50 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 2.4 | 8.2 | 13.7 | 23.8 | 38.8 | 55.1 | 66.1 | 73.6 | 81.8 | 87.7 | 93.8 | 97.0 | 99.4 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 51 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 1.0 | 3.1 | 8.7 | 18.8 | 35.8 | 49.6 | 60.4 | 70.2 | 77.0 | 84.0 | 88.8 | 93.8 | 96.6 | 99.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 52 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 2.5 | 6.8 | 17.5 | 29.8 | 46.1 | 60.5 | 72.7 | 86.0 | 92.8 | 96.8 | 98.4 | 99.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 53 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 3.0 | 9.5 | 24.2 | 35.3 | 48.0 | 63.1 | 76.1 | 87.7 | 93.5 | 97.2 | 98.6 | 99.5 | 99.8 | 99.9 | 100.0 | 100.0 | 100 |
| 54 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.7 | 2.4 | 7.2 | 14.7 | 27.2 | 37.2 | 47.3 | 58.8 | 67.6 | 74.0 | 79.2 | 86.7 | 92.6 | 97.9 | 99.8 | 99.9 | 100.0 | 100.0 | 100 |
| 55 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 5.4 | 13.3 | 25.5 | 31.6 | 38.8 | 52.5 | 66.8 | 75.5 | 81.2 | 87.9 | 92.8 | 98.3 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 56 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 5.1 | 11.4 | 22.3 | 29.5 | 38.5 | 51.1 | 65.2 | 77.8 | 85.6 | 91.7 | 95.0 | 98.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 57 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 1.0 | 3.5 | 9.2 | 21.5 | 31.0 | 43.5 | 60.4 | 75.1 | 86.1 | 91.6 | 96.2 | 98.1 | 99.4 | 99.9 | 99.9 | 100.0 | 100.0 | 100 |
| 58 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.9 | 2.9 | 8.0 | 13.2 | 21.0 | 29.1 | 38.0 | 45.9 | 54.5 | 65.4 | 74.8 | 82.1 | 87.5 | 95.4 | 98.8 | 99.7 | 100.0 | 100.0 | 100 |
| 59 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 8.9 | 15.6 | 24.2 | 31.1 | 38.3 | 46.0 | 54.9 | 64.2 | 73.2 | 81.9 | 88.5 | 95.7 | 98.6 | 99.4 | 99.7 | 99.7 | 100 |
| 60 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 1.5 | 4.0 | 9.5 | 13.3 | 20.5 | 33.6 | 52.8 | 66.5 | 76.7 | 88.1 | 94.2 | 98.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 61 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 5.0 | 8.5 | 15.5 | 29.8 | 41.8 | 46.0 | 49.2 | 56.0 | 65.1 | 71.6 | 78.6 | 91.1 | 97.3 | 99.3 | 100.0 | 100.0 | 100 |
| 62 | 0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.8 | 2.1 | 3.6 | 6.5 | 9.7 | 13.7 | 16.5 | 20.8 | 27.3 | 40.1 | 56.9 | 72.6 | 83.4 | 89.4 | 95.5 | 98.1 | 99.6 | 100.0 | 100.0 | 100 |
| 63 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 3.7 | 7.8 | 13.3 | 15.8 | 19.9 | 29.0 | 46.8 | 64.7 | 78.3 | 88.8 | 93.9 | 98.5 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 64 | 0 | 0.0 | 0.0 | 0.7 | 2.8 | 7.4 | 12.4 | 14.4 | 15.6 | 17.3 | 19.4 | 21.0 | 24.4 | 32.3 | 48.0 | 61.4 | 72.1 | 81.9 | 87.0 | 90.1 | 92.4 | 98.1 | 100.0 | 100.0 | 100 |
| 65 | 0 | 3.6 | 7.0 | 9.6 | 11.4 | 13.0 | 14.4 | 16.3 | 17.7 | 18.4 | 19.3 | 20.5 | 23.6 | 32.0 | 50.0 | 66.2 | 77.2 | 85.4 | 88.8 | 90.4 | 91.3 | 92.7 | 94.8 | 97.0 | 100 |
| 66 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.5 | 1.1 | 2.2 | 3.6 | 6.0 | 7.6 | 11.1 | 19.8 | 38.9 | 59.7 | 74.4 | 83.2 | 88.1 | 94.6 | 97.7 | 99.4 | 100.0 | 100.0 | 100 |
| 67 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 0.9 | 1.6 | 1.9 | 2.4 | 5.0 | 12.1 | 24.8 | 48.3 | 73.6 | 86.5 | 92.0 | 94.3 | 96.6 | 97.9 | 99.5 | 100.0 | 100.0 | 100 |
| 68 | 0 | 2.3 | 4.5 | 7.8 | 10.4 | 12.0 | 13.3 | 16.3 | 17.7 | 18.1 | 18.2 | 18.3 | 18.4 | 19.9 | 24.5 | 35.0 | 54.4 | 69.4 | 78.6 | 85.7 | 89.2 | 91.9 | 93.9 | 97.0 | 100 |
| 69 | 0 | 2.0 | 3.7 | 5.7 | 7.8 | 10.5 | 12.4 | 13.7 | 14.3 | 14.7 | 15.1 | 15.7 | 17.1 | 22.7 | 36.7 | 50.4 | 63.6 | 75.0 | 81.8 | 87.8 | 90.8 | 93.2 | 94.9 | 97.5 | 100 |
| 70 | 0 | 0.5 | 0.7 | 1.0 | 1.3 | 1.7 | 2.2 | 2.8 | 3.4 | 3.9 | 4.7 | 5.4 | 7.4 | 15.7 | 36.5 | 55.8 | 70.3 | 80.9 | 86.4 | 90.9 | 93.4 | 96.4 | 98.1 | 99.4 | 100 |
| 71 | 0 | 0.7 | 1.2 | 1.6 | 2.1 | 2.8 | 3.3 | 3.6 | 4.0 | 4.5 | 5.6 | 6.5 | 9.1 | 18.5 | 40.6 | 59.7 | 74.0 | 86.3 | 91.7 | 94.7 | 96.0 | 96.7 | 97.3 | 98.8 | 100 |
| 72 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.7 | 0.8 | 1.3 | 3.5 | 9.9 | 24.7 | 51.4 | 71.5 | 83.6 | 93.8 | 97.7 | 99.2 | 99.8 | 99.9 | 99.9 | 100.0 | 100 |
| 73 | 0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.6 | 1.3 | 4.1 | 11.5 | 18.1 | 28.3 | 40.2 | 54.1 | 67.0 | 77.2 | 87.7 | 93.3 | 97.5 | 99.1 | 99.6 | 99.8 | 100.0 | 100 |
| 74 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.5 | 1.2 | 2.7 | 6.4 | 10.2 | 18.4 | 31.0 | 50.7 | 68.7 | 81.2 | 91.6 | 96.1 | 98.4 | 99.2 | 99.8 | 100.0 | 100.0 | 100 |
| 75 | 0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.5 | 1.3 | 1.9 | 3.0 | 4.1 | 6.6 | 10.0 | 17.6 | 28.3 | 44.7 | 59.4 | 71.6 | 83.9 | 90.3 | 94.7 | 96.7 | 98.8 | 99.6 | 99.9 | 100 |

| Month | Jan | Jan | Jan | Feb | Mar | Mar | Mar | Apr | Apr | May | May | Jun | Jun | Jul | Jul | Aug | Aug | Sept | Sept | Oct | Oct | Nov | Nov | Dec | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | 1 | 16 | 31 | 15 | 1 | 16 | 31 | 15 | 30 | 15 | 30 | 14 | 29 | 14 | 29 | 13 | 28 | 12 | 27 | 12 | 27 | 11 | 26 | 11 | 31 |
| El Zone | | | | | | | | | | | | | | | | | | | | | | | | | |
| 76 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.6 | 1.3 | 2.0 | 3.5 | 4.9 | 8.4 | 17.4 | 37.3 | 57.5 | 72.9 | 83.7 | 89.5 | 95.8 | 98.4 | 99.6 | 100.0 | 100.0 | 100 |
| 77 | 0 | 0.2 | 0.3 | 0.3 | 0.4 | 0.8 | 1.5 | 2.0 | 2.8 | 3.9 | 5.9 | 7.2 | 10.3 | 21.5 | 46.5 | 66.3 | 78.3 | 86.5 | 90.8 | 96.0 | 98.2 | 99.1 | 99.5 | 99.8 | 100 |
| 78 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.5 | 1.6 | 3.8 | 8.9 | 13.2 | 21.8 | 35.8 | 56.6 | 75.4 | 86.0 | 92.9 | 95.9 | 98.2 | 99.2 | 99.8 | 100.0 | 100.0 | 100 |
| 79 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.7 | 1.3 | 2.7 | 5.8 | 12.7 | 18.8 | 28.8 | 41.6 | 58.4 | 75.7 | 86.5 | 94.2 | 97.3 | 98.9 | 99.5 | 99.9 | 100.0 | 100.0 | 100 |
| 80 | 0 | 0.6 | 1.2 | 1.6 | 2.1 | 2.5 | 3.3 | 4.5 | 6.9 | 10.1 | 15.5 | 19.7 | 26.6 | 36.4 | 51.7 | 67.5 | 79.4 | 88.8 | 93.2 | 96.1 | 97.3 | 98.2 | 98.7 | 99.3 | 100 |
| 81 | 0 | 0.1 | 0.1 | 0.2 | 0.4 | 0.5 | 0.8 | 0.9 | 1.5 | 3.9 | 9.9 | 12.8 | 18.2 | 30.7 | 54.1 | 77.1 | 89.0 | 94.9 | 97.2 | 98.7 | 99.3 | 99.6 | 99.7 | 99.9 | 100 |
| 82 | 0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.5 | 1.2 | 3.1 | 6.7 | 14.4 | 20.1 | 29.8 | 44.5 | 64.2 | 83.1 | 92.2 | 96.4 | 98.1 | 99.3 | 99.7 | 99.8 | 99.8 | 99.9 | 100 |
| 83 | 0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.3 | 0.9 | 1.6 | 3.5 | 8.3 | 19.4 | 30.0 | 44.0 | 59.2 | 72.4 | 84.6 | 91.2 | 96.5 | 98.6 | 99.5 | 99.8 | 99.9 | 100.0 | 100.0 | 100 |
| 84 | 0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.6 | 1.7 | 4.9 | 9.9 | 19.5 | 27.2 | 38.3 | 52.8 | 68.8 | 83.9 | 91.6 | 96.4 | 98.2 | 99.2 | 99.6 | 99.8 | 99.8 | 99.9 | 100 |
| 85 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 6.0 | 11.0 | 23.0 | 36.0 | 49.0 | 63.0 | 77.0 | 90.0 | 95.0 | 98.0 | 99.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 86 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 6.0 | 11.0 | 23.0 | 36.0 | 49.0 | 63.0 | 77.0 | 90.0 | 95.0 | 98.0 | 99.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100 |
| 87 | 0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 3.0 | 6.0 | 10.0 | 17.0 | 29.0 | 43.0 | 55.0 | 67.0 | 77.0 | 85.0 | 91.0 | 96.0 | 98.0 | 99.0 | 100.0 | 100.0 | 100.0 | 100 |
| 88 | 0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 3.0 | 6.0 | 13.0 | 23.0 | 37.0 | 51.0 | 61.0 | 69.0 | 78.0 | 85.0 | 91.0 | 94.0 | 96.0 | 98.0 | 99.0 | 99.0 | 100.0 | 100 |
| 89 | 0 | 1.0 | 1.0 | 2.0 | 3.0 | 4.0 | 7.0 | 12.0 | 18.0 | 27.0 | 38.0 | 48.0 | 55.0 | 62.0 | 69.0 | 76.0 | 83.0 | 90.0 | 94.0 | 97.0 | 98.0 | 99.0 | 100.0 | 100.0 | 100 |
| 90 | 0 | 1.0 | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 | 13.0 | 21.0 | 29.0 | 37.0 | 46.0 | 54.0 | 60.0 | 65.0 | 69.0 | 74.0 | 81.0 | 87.0 | 92.0 | 95.0 | 97.0 | 98.0 | 99.0 | 100 |
| 91 | 0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 2.0 | 6.0 | 16.0 | 29.0 | 39.0 | 46.0 | 53.0 | 60.0 | 67.0 | 74.0 | 81.0 | 88.0 | 95.0 | 99.0 | 99.0 | 100.0 | 100.0 | 100 |
| 92 | 0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 2.0 | 6.0 | 16.0 | 29.0 | 39.0 | 46.0 | 53.0 | 60.0 | 67.0 | 74.0 | 81.0 | 88.0 | 95.0 | 99.0 | 99.0 | 100.0 | 100.0 | 100 |
| 93 | 0 | 1.0 | 1.0 | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 | 13.0 | 25.0 | 40.0 | 49.0 | 56.0 | 62.0 | 67.0 | 72.0 | 76.0 | 80.0 | 85.0 | 91.0 | 97.0 | 98.0 | 99.0 | 99.0 | 100 |
| 94 | 0 | 1.0 | 2.0 | 4.0 | 6.0 | 8.0 | 10.0 | 15.0 | 21.0 | 29.0 | 38.0 | 47.0 | 53.0 | 57.0 | 61.0 | 65.0 | 70.0 | 76.0 | 83.0 | 88.0 | 91.0 | 94.0 | 96.0 | 98.0 | 100 |
| 95 | 0 | 1.0 | 3.0 | 5.0 | 7.0 | 9.0 | 11.0 | 14.0 | 18.0 | 27.0 | 35.0 | 41.0 | 46.0 | 51.0 | 57.0 | 62.0 | 68.0 | 73.0 | 79.0 | 84.0 | 89.0 | 93.0 | 96.0 | 98.0 | 100 |
| 96 | 0 | 2.0 | 4.0 | 6.0 | 9.0 | 12.0 | 17.0 | 23.0 | 30.0 | 37.0 | 43.0 | 49.0 | 54.0 | 58.0 | 62.0 | 66.0 | 70.0 | 74.0 | 78.0 | 82.0 | 86.0 | 90.0 | 94.0 | 97.0 | 100 |
| 97 | 0 | 1.0 | 3.0 | 5.0 | 7.0 | 10.0 | 14.0 | 20.0 | 28.0 | 37.0 | 48.0 | 56.0 | 61.0 | 64.0 | 68.0 | 72.0 | 77.0 | 81.0 | 86.0 | 89.0 | 92.0 | 95.0 | 98.0 | 99.0 | 100 |
| 98 | 0 | 1.0 | 2.0 | 4.0 | 6.0 | 8.0 | 10.0 | 13.0 | 19.0 | 26.0 | 34.0 | 42.0 | 50.0 | 58.0 | 63.0 | 68.0 | 74.0 | 79.0 | 84.0 | 89.0 | 93.0 | 95.0 | 97.0 | 99.0 | 100 |
| 99 | 0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 3.0 | 5.0 | 7.0 | 12.0 | 19.0 | 33.0 | 48.0 | 57.0 | 65.0 | 72.0 | 82.0 | 88.0 | 93.0 | 96.0 | 98.0 | 99.0 | 100.0 | 100.0 | 100 |
| 100 | 0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 3.0 | 5.0 | 9.0 | 15.0 | 27.0 | 38.0 | 50.0 | 62.0 | 74.0 | 84.0 | 91.0 | 95.0 | 97.0 | 98.0 | 99.0 | 99.0 | 100.0 | 100 |
| 101 | 0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 6.0 | 9.0 | 14.0 | 20.0 | 28.0 | 39.0 | 52.0 | 63.0 | 72.0 | 80.0 | 87.0 | 91.0 | 94.0 | 97.0 | 98.0 | 99.0 | 100.0 | 100 |
| 102 | 0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 | 11.0 | 15.0 | 22.0 | 31.0 | 40.0 | 49.0 | 59.0 | 69.0 | 78.0 | 85.0 | 91.0 | 94.0 | 96.0 | 98.0 | 99.0 | 100.0 | 100 |
| 103 | 0 | 1.0 | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 | 10.0 | 14.0 | 18.0 | 25.0 | 34.0 | 45.0 | 56.0 | 64.0 | 72.0 | 79.0 | 84.0 | 89.0 | 92.0 | 95.0 | 97.0 | 98.0 | 99.0 | 100 |
| 104 | 0 | 2.0 | 3.0 | 5.0 | 7.0 | 10.0 | 13.0 | 16.0 | 19.0 | 23.0 | 27.0 | 34.0 | 44.0 | 54.0 | 63.0 | 72.0 | 80.0 | 85.0 | 89.0 | 91.0 | 93.0 | 95.0 | 96.0 | 98.0 | 100 |
| 105 | 0 | 1.0 | 3.0 | 6.0 | 9.0 | 12.0 | 16.0 | 21.0 | 26.0 | 31.0 | 37.0 | 43.0 | 50.0 | 57.0 | 64.0 | 71.0 | 77.0 | 81.0 | 85.0 | 88.0 | 91.0 | 93.0 | 95.0 | 97.0 | 100 |
| 106 | 0 | 3.0 | 6.0 | 9.0 | 13.0 | 17.0 | 21.0 | 27.0 | 33.0 | 38.0 | 44.0 | 49.0 | 55.0 | 61.0 | 67.0 | 71.0 | 75.0 | 78.0 | 81.0 | 84.0 | 86.0 | 90.0 | 94.0 | 97.0 | 100 |
| 107 | 0 | 3.0 | 5.0 | 7.0 | 10.0 | 14.0 | 18.0 | 23.0 | 27.0 | 31.0 | 35.0 | 39.0 | 45.0 | 53.0 | 60.0 | 67.0 | 74.0 | 80.0 | 84.0 | 86.0 | 88.0 | 90.0 | 93.0 | 95.0 | 100 |
| 108 | 0 | 3.0 | 6.0 | 9.0 | 12.0 | 16.0 | 20.0 | 24.0 | 28.0 | 33.0 | 38.0 | 43.0 | 50.0 | 59.0 | 69.0 | 75.0 | 80.0 | 84.0 | 87.0 | 90.0 | 92.0 | 94.0 | 96.0 | 98.0 | 100 |
| 109 | 0 | 3.0 | 6.0 | 10.0 | 13.0 | 16.0 | 19.0 | 23.0 | 26.0 | 29.0 | 33.0 | 39.0 | 47.0 | 58.0 | 68.0 | 75.0 | 80.0 | 83.0 | 86.0 | 88.0 | 90.0 | 92.0 | 95.0 | 97.0 | 100 |
| 110 | 0 | 1.0 | 3.0 | 5.0 | 7.0 | 9.0 | 12.0 | 15.0 | 18.0 | 21.0 | 25.0 | 29.0 | 36.0 | 45.0 | 56.0 | 68.0 | 77.0 | 83.0 | 88.0 | 91.0 | 93.0 | 95.0 | 97.0 | 99.0 | 100 |
| 111 | 0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 11.0 | 15.0 | 20.0 | 28.0 | 41.0 | 54.0 | 65.0 | 74.0 | 82.0 | 87.0 | 92.0 | 94.0 | 96.0 | 97.0 | 98.0 | 99.0 | 100 |
| 112 | 0 | 0.0 | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 7.0 | 12.0 | 17.0 | 24.0 | 33.0 | 42.0 | 55.0 | 67.0 | 76.0 | 83.0 | 89.0 | 92.0 | 94.0 | 96.0 | 98.0 | 99.0 | 100 |
| 113 | 0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 13.0 | 17.0 | 22.0 | 31.0 | 42.0 | 52.0 | 60.0 | 68.0 | 75.0 | 80.0 | 85.0 | 89.0 | 92.0 | 96.0 | 98.0 | 100 |
| 114 | 0 | 1.0 | 2.0 | 4.0 | 6.0 | 8.0 | 11.0 | 13.0 | 15.0 | 18.0 | 21.0 | 26.0 | 32.0 | 38.0 | 46.0 | 55.0 | 64.0 | 71.0 | 77.0 | 81.0 | 85.0 | 89.0 | 93.0 | 97.0 | 100 |
| 115 | 0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 14.0 | 19.0 | 26.0 | 34.0 | 45.0 | 56.0 | 66.0 | 76.0 | 82.0 | 86.0 | 90.0 | 93.0 | 95.0 | 97.0 | 99.0 | 100 |

| Month | Jan | Jan | Jan | Feb | Mar | Mar | Mar | Apr | Apr | May | May | Jun | Jun | Jul | Jul | Aug | Aug | Sept | Sept | Oct | Oct | Nov | Nov | Dec | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | 1 | 16 | 31 | 15 | 1 | 16 | 31 | 15 | 30 | 15 | 30 | 14 | 29 | 14 | 29 | 13 | 28 | 12 | 27 | 12 | 27 | 11 | 26 | 11 | 31 |
| El Zone | | | | | | | | | | | | | | | | | | | | | | | | | |
| 116 | 0 | 1.0 | 3.0 | 5.0 | 7.0 | 9.0 | 12.0 | 15.0 | 18.0 | 21.0 | 25.0 | 29.0 | 36.0 | 45.0 | 56.0 | 68.0 | 77.0 | 83.0 | 88.0 | 91.0 | 93.0 | 95.0 | 97.0 | 99.0 | 100 |
| 117 | 0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 7.0 | 9.0 | 11.0 | 14.0 | 17.0 | 22.0 | 31.0 | 42.0 | 54.0 | 65.0 | 74.0 | 83.0 | 89.0 | 92.0 | 95.0 | 97.0 | 98.0 | 99.0 | 100 |
| 118 | 0 | 1.0 | 2.0 | 3.0 | 5.0 | 7.0 | 10.0 | 14.0 | 18.0 | 22.0 | 27.0 | 32.0 | 37.0 | 46.0 | 58.0 | 69.0 | 80.0 | 89.0 | 93.0 | 94.0 | 95.0 | 96.0 | 97.0 | 97.0 | 100 |
| 119 | 0 | 2.0 | 4.0 | 6.0 | 8.0 | 12.0 | 16.0 | 20.0 | 25.0 | 30.0 | 35.0 | 41.0 | 47.0 | 56.0 | 67.0 | 75.0 | 81.0 | 85.0 | 87.0 | 89.0 | 91.0 | 93.0 | 95.0 | 97.0 | 100 |
| 120 | 0 | 1.0 | 2.0 | 4.0 | 6.0 | 7.0 | 9.0 | 12.0 | 15.0 | 18.0 | 23.0 | 31.0 | 40.0 | 48.0 | 57.0 | 63.0 | 72.0 | 78.0 | 88.0 | 92.0 | 96.0 | 97.0 | 98.0 | 99.0 | 100 |
| 121 | 0 | 8.0 | 16.0 | 25.0 | 33.0 | 41.0 | 46.0 | 50.0 | 53.0 | 54.0 | 55.0 | 56.0 | 56.5 | 57.0 | 57.8 | 58.0 | 58.8 | 60.0 | 61.0 | 63.0 | 66.5 | 72.0 | 80.0 | 90.0 | 100 |
| 122 | 0 | 7.0 | 14.0 | 20.0 | 25.5 | 33.5 | 38.0 | 43.0 | 46.0 | 50.0 | 52.5 | 54.5 | 56.0 | 58.0 | 59.0 | 60.0 | 61.5 | 63.0 | 65.0 | 68.0 | 72.0 | 79.0 | 86.0 | 93.0 | 100 |
| 123 | 0 | 4.0 | 8.0 | 12.0 | 17.0 | 23.0 | 29.0 | 34.0 | 38.0 | 44.0 | 49.0 | 53.0 | 56.0 | 59.0 | 62.0 | 65.0 | 69.0 | 72.0 | 75.0 | 79.0 | 83.0 | 88.0 | 93.0 | 96.0 | 100 |
| 124 | 0 | 4.0 | 9.0 | 15.0 | 23.0 | 29.0 | 34.0 | 40.0 | 44.0 | 48.0 | 50.0 | 51.0 | 52.0 | 53.0 | 55.0 | 57.0 | 60.0 | 62.0 | 64.0 | 67.0 | 72.0 | 80.0 | 88.0 | 95.0 | 100 |
| 125 | 0 | 7.0 | 12.0 | 17.0 | 24.0 | 30.0 | 39.0 | 45.0 | 50.0 | 53.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 61.0 | 62.0 | 63.0 | 64.0 | 66.0 | 70.0 | 77.0 | 84.0 | 92.0 | 100 |
| 126 | 0 | 9.0 | 16.0 | 23.0 | 30.0 | 37.0 | 43.0 | 47.0 | 50.0 | 52.0 | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 62.0 | 64.0 | 67.0 | 71.0 | 77.0 | 86.0 | 93.0 | 100 |
| 127 | 0 | 8.0 | 15.0 | 22.0 | 28.0 | 33.0 | 38.0 | 42.0 | 46.0 | 50.0 | 52.0 | 53.0 | 53.0 | 53.0 | 53.0 | 54.0 | 55.0 | 57.0 | 59.0 | 63.0 | 68.0 | 75.0 | 83.0 | 92.0 | 100 |
| 128 | 0 | 8.0 | 15.0 | 22.0 | 29.0 | 34.0 | 40.0 | 45.0 | 48.0 | 51.0 | 54.0 | 57.0 | 59.0 | 62.0 | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 69.0 | 72.0 | 76.0 | 83.0 | 91.0 | 100 |
| 129 | 0 | 9.0 | 16.0 | 22.0 | 27.0 | 32.0 | 37.0 | 41.0 | 45.0 | 48.0 | 51.0 | 53.0 | 55.0 | 56.0 | 57.0 | 57.0 | 58.0 | 59.0 | 61.0 | 64.0 | 68.0 | 73.0 | 79.0 | 89.0 | 100 |
| 130 | 0 | 10.0 | 20.0 | 28.0 | 35.0 | 41.0 | 46.0 | 49.0 | 51.0 | 53.0 | 55.0 | 56.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 | 65.0 | 69.0 | 74.0 | 81.0 | 90.0 | 100 |
| 131 | 0 | 8.0 | 15.0 | 22.0 | 28.0 | 33.0 | 38.0 | 41.0 | 44.0 | 47.0 | 49.0 | 51.0 | 53.0 | 55.0 | 56.0 | 58.0 | 59.0 | 60.0 | 63.0 | 65.0 | 69.0 | 75.0 | 84.0 | 92.0 | 100 |
| 132 | 0 | 10.0 | 18.0 | 25.0 | 29.0 | 33.0 | 36.0 | 39.0 | 41.0 | 42.0 | 44.0 | 45.0 | 46.0 | 47.0 | 48.0 | 49.0 | 51.0 | 53.0 | 56.0 | 59.0 | 64.0 | 70.0 | 80.0 | 90.0 | 100 |
| 133 | 0 | 8.0 | 16.0 | 24.0 | 32.0 | 40.0 | 46.0 | 51.0 | 54.0 | 56.0 | 57.0 | 58.0 | 58.0 | 59.0 | 59.0 | 60.0 | 60.0 | 61.0 | 62.0 | 64.0 | 68.0 | 74.0 | 83.0 | 91.0 | 100 |
| 134 | 0 | 12.0 | 22.0 | 31.0 | 39.0 | 45.0 | 49.0 | 52.0 | 54.0 | 55.0 | 56.0 | 56.0 | 56.0 | 56.0 | 57.0 | 57.0 | 57.0 | 57.0 | 58.0 | 59.0 | 62.0 | 68.0 | 77.0 | 88.0 | 100 |
| 135 | 0 | 7.0 | 15.0 | 22.0 | 30.0 | 37.0 | 43.0 | 49.0 | 53.0 | 55.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 | 63.0 | 65.0 | 67.0 | 70.0 | 74.0 | 79.0 | 85.0 | 92.0 | 100 |
| 136 | 0 | 11.0 | 21.0 | 29.0 | 37.0 | 44.0 | 50.0 | 55.0 | 57.0 | 59.0 | 60.0 | 60.0 | 60.0 | 60.0 | 61.0 | 61.0 | 61.0 | 62.0 | 63.0 | 64.0 | 67.0 | 71.0 | 78.0 | 89.0 | 100 |
| 137 | 0 | 10.0 | 18.0 | 25.0 | 30.0 | 39.0 | 46.0 | 51.0 | 54.0 | 57.0 | 58.0 | 59.0 | 59.0 | 60.0 | 60.0 | 60.0 | 61.0 | 62.0 | 63.0 | 64.0 | 67.0 | 72.0 | 80.0 | 90.0 | 100 |
| 138 | 0 | 11.0 | 22.0 | 31.0 | 39.0 | 46.0 | 52.0 | 56.0 | 58.0 | 59.0 | 60.0 | 61.0 | 61.0 | 61.0 | 61.0 | 62.0 | 62.0 | 62.0 | 63.0 | 64.0 | 66.0 | 71.0 | 78.0 | 89.0 | 100 |
| 139 | 0 | 8.0 | 14.0 | 20.0 | 25.0 | 32.0 | 37.0 | 42.0 | 47.0 | 50.0 | 53.0 | 55.0 | 56.0 | 58.0 | 59.0 | 61.0 | 63.0 | 64.0 | 66.0 | 68.0 | 71.0 | 76.0 | 85.0 | 93.0 | 100 |
| 140 | 0 | 13.0 | 18.0 | 43.0 | 56.0 | 65.0 | 69.0 | 69.4 | 69.7 | 70.1 | 70.4 | 70.8 | 71.1 | 71.5 | 71.9 | 72.2 | 72.6 | 73.0 | 73.3 | 73.6 | 74.0 | 76.0 | 81.0 | 89.0 | 100 |